IBM @server xSeries Education

xSeries Withdrawn Products Reference (xREF)

including
IBM @server™
IntelliStation™ / xSeries™ / BladeCenter™
March 25, 2003



IIM IntelliStation® E Pro (6204) - withdrawn

IBM® Type-model Proce	essor GHz ¹	L2 cache	Memory	Disk and rpi	SCSI n adapter	CD-ROM	Graphics adapter and memory	Slots : bays	-	Available date
6204-10U Pentiu 6204-20U Pentiu 6204-30U Pentiu	ım 4 1.8GHz	256KB	128MB	40GB 720	0 None	CD-ROM	NVIDIA™ Quadro2 EX 32MB NVIDIA Quadro2 EX 32MB NVIDIA Quadro2 EX 32MB	4x3		Oct 2001 Oct 2001 Oct 2001

Positioning Processor L2 cache Implementation SMP support	Compelling combination of price, performance and design Intel® Pentium 4 at 1.6, 1.8, 2.0GHz with 400MHz frontside bus 256KB std and max / ECC / full speed Processor and L2 cache in FC-PGA2 in mPGA478 socket No SMP support	Desktop Small Form	disk				
Memory - std/max Memory - sockets Memory - type	128MB / 1GB max ¹³ Two 168-pin gold plated DIMM sockets / one socket used 133MHz SDRAM / Error Checking and Correcting (ECC) DIMMs and ECC memory controller / industry std / unbuffered / PC133-compliant / CAS Latency 2 (CL2)	Bay ② 5.25" Bay ③ 3.5", Slot 1: Low Slot 2: Low	HH 1.6", access, std CD-ROM SL 1", no access, std disk Profile, 32-bit AGP 4X (1.5v) - used Profile, 32-bit PCI 2.2 (5v) Profile, 32-bit PCI 2.2 (5v)				
Graphics controller	NVIDIA Quadro2 EX (entry 3D) / AGP 4X adapter / NV11GL GPU / 32MB std and max 166MHz SDRAM / 350MHz RAMDAC / one analog DB-15 connector	Slot 4: Low Profile, 32-bit PCI 2.2 (5v) Stealth black color 14.2" W X 16.2"D X 4.1"H 360mm W X 412mm D X 104mm H 20.0 to 22.0 lb (9.1 to 10.0 kg) Bays 1 and 2/3 flip up (latched and pivoting) Toolless rails for disk mounting Toolless cover removal Toolless AGP and PCI slots Support for 100 lb monitor on top					
SCSI disk controller Disk Disk controller Diskette drive CD-ROM DVD-ROM Cables	None ATA-100, 7200 rpm, 8.7 ms average read seek, S.M.A.R.T. ⁵ Enhanced IDE / ATA-100 / integrated in I/O Controller Hub (ICH2) 3.5" 1.44MB diskette drive Some models: 48X-20X ⁶ CD-ROM / bootable Option Two EIDE 80-conductor cables (one 1-drop cable to CD, one 1-drop cable to disk)						
Rack support Chipset	None Intel 845 chipset / 82845 Memory Controller Hub (MCH) / 82801BA I/O Controller Hub (ICH2) for PCI 2.2 bus, ATA-100 EIDI ethernet MAC, USB, Low Pin Count Interface / 82802 Firmware Hu National® 87360 Super I/O for diskette, parallel, serial, keyboard, mo	ub/	SECURITY Optional U-bolt support via knockout Cover key lock (on rear) Secure fixed DASD				
Ports	Front: None Back: two 9-pin serial, parallel, two USB (Ver 1.1), keyboard, mou ethernet, monitor	ıse,	Power-on password Administrator password Boot sequence control				
Audio connectors	Integrated digital audio / SoundMAX® 3.0 with SPX™ / software-ba (done by processor and ICH2) / AC '97 interface / ADI1887 codec (analog mixing, Analog-to-Digital and Digital-to-Analog conversion) Back: microphone jack, line-in, line-out		Boot without keyboard or mouse Diskette boot inhibit and write-protect Diskette, disk, serial port, parallel port I/O control Secure access openings				
Speakers Ethernet Security chip	One internal speaker for business audio 10/100 ethernet on planar / ICH2 (MAC layer) with Intel 82562ETPHY layer) / supports PXE and Wake on LAN® / Intel Pro/100VE Desktop None (so no cover tamper detect switch)	′ (physical Connection	Secure removable media VPD stored in EEPROM Write protection control for EEPROM Barcode labels on most components				
Keyboard / mouse Cooling fans Power supply	104-key (rubber dome) keyboard / IBM 3-button mouse Two or three variable speed fans (power supply, fansink, some have 160 watts with variable speed fan / universal / manual switch	e third fan)					
Lotus® SmartSuiLotus Notes® CliDisk-to-Disk Red	s® 2000 Professional 128MB SDRAM PC133 CL2 ECC UDIN 256MB SDRAM PC133 CL2 ECC UDIN	/M 10K0046	LIMITED WARRANTY³				

Power Interface (ACPI) 1.0b System Management BIOS

♦ Software Selections CD-ROM

80GB (1 disk x 80GB 7200 rpm)

pressing F1 at startup Universal Manageability Services

Maximum internal EIDE disk capacity13:

Configuration/Setup Utility invoked by

LANClient Control Manager™ enabled

Common Information Model (CIM) 2.2

PC 2001-compliant

DMI 2.0-compliant

Wired for Management 2.0-compliant

60GB IDE Disk ATA-100 (7200 rpm) 80GB IDE Disk ATA-100 (7200 rpm) 09N4207 09N4208 9044205
PCI Ultra160 SCSI Adapter 19K4646
IBM 16X Max⁶ DVD-ROM Drive (black) 22P6950
16X/10X/40X Max⁶ CD-RW internal (blk) 24P3626
8X/4X/32X/8X Max^{6,19} CD-RW/DVD-ROM

Combo drive (black)
IBM DVD-RAM/DVD-R Drive (black)
Zip Drive 250MB (white/black)
IBM P96 19" (17.9" v.i.s.) Monitor (black)
IBM P275 21" (19.8" v.i.s.) Monitor (blk) 10K3790 22P6959 00N8078 655163N 6652U3N IBM T540 15" Flat Panel Monitor (black) IBM T560 15" Flat Panel Monitor (black) 9511AG4 6656HG2 22P5170 IBM Wireless keyboard and mouse (blk) 33L3252 Spaceball 3D Input Device IBM 1394 Firewire Adapter 19K5790

- coverage excluding holidays, next business day response time
- 3 year on site warranty service upgrade options:7
 - 4 hour response, Mon-Fri 8-5 (ServicePac® part number 41L2735)
 - 4 hour response, 7 day x 24 hr (ServicePac part number 41L2741)
- Post warranty maintenance services available
- 24x7¹⁴ toll-free support for warranty issues during the warranty period3

III IntelliStation® E Pro (6204) - February 2002 - withdrawn

IBM®	L2	scsi	00 DOM 0			Slots x	Available				
Type-model Processor	or GHz¹ cache Memo 8 4 2.0GHz 512KB 256M	ry Disk and rpm adapte		araphics adapter : IVIDIA™ Quadro		bays Preload ¹⁷ 4x3 Windows® 2000	date) Mar2002				
6204-41U Pentium 6204-43U Pentium 6204-50U Pentium 6204-51U Pentium	 4 2.0GHz 512KB 256M 4 2.0GHz 512KB 256M 4 2.2GHz 512KB 256M 	B 40GB 7200 None B 18.2GB 10K 29160L B 40GB ² 7200 None	CD-ROM N P CD-ROM N CD-ROM N	Aillennium G450 Aillennium G450 IVIDIA Quadro4	DVI-I 32MB DVI-I 32MB 64MB	4x3 Windows 2000	Mar 2002 Mar 2002 Mar 2002 Mar 2002				
Positioning Processor L2 cache Implementation SMP support	Compelling combination of Intel® Pentium 4 at 2.0 o 512KB std and max / ECt Processor and L2 cache in No SMP support	r 2.2GHz with 400MHz f C / full speed	rontside bus	Desktop Small Form	disk						
Memory - std/max Memory - sockets Memory - type	256MB / 1GB max ¹³ Two 168-pin gold plated I 133MHz SDRAM / Error (and ECC memory control PC133-compliant / CAS L	Checking and Correcting ler / industry std / unbuffe	(ECC) DIMMs	Bay 3 3.5", Slot 1: Low I Slot 2: Low I	", HH 1.6", access, std CD-ROM						
Graphics controller (one of following)	dual RAMDAC [360/232 connector (ships with on NVIDIA Quadro4 200N NV17LT 250MHz GPU dual 350MHz RAMDAC	GPU / 32MB 150MHz DÓ PMHz] / dual head suppor e cable with two DB-15 a	Slot 4: Low F Stealth blace 14.2" W X 1 360mm W 3 20.0 to 22.0 Bays 1 and Toolless rai	Low Profile, 32-bit PCI 2.2 (5v) h black color N X 16.2"D X 4.1"H m W X 412mm D X 104mm H o 22.0 lb (9.1 to 10.0 kg) and 2/3 flip up (latched and pivoting) ss rails for disk mounting							
SCSI disk controller SCSI connectors Disk controller Cables Disk	**Toolless cover removal **Toolless Cover removal **Toolless Cover removal **Toolless AGP and PCI slots **Support for 100 lb monitor on top **Support for 100 lb monitor on to										
Diskette drive CD-ROM Rack support Chipset	3.5" 1.44MB diskette driv 48X-20X ⁶ CD-ROM / bo None Intel 845 chipset / 8284! 82801BA I/O Controller I ethernet MAC, USB, Low National® 87360 Super I/O	otable 5 Memory Controller Hub Hub (ICH2) for PCI 2.2 b 1 Pin Count Interface / 82	Hub/	SECURITY Optional U-bolt support via knockout Cover key lock (on rear) Secure fixed DASD Power-on password Administrator password Boot sequence control							
Audio Audio connectors Speakers Ethernet Security chip Keyboard / mouse Cooling fans Power supply	Front: two USB (Ver 1.1) Back: two 9-pin serial, py ethernet, monitor Integrated digital audio / (done by processor and I (analog mixing, Analog-te Back: microphone jack, li One internal speaker for 10/100 ethernet on planar layer) / supports PXE and None (so no cover tampe 104-key (rubber dome) ke Two or three variable spe 160 watts with variable sp	arallel, two USB (Ver 1.1 SoundMAX® 3.0 with SP CH2) / AC '97 interface objects and Digital-to-Anne-in, line-out ousiness audio / ICH2 (MAC layer) with I Wake on LAN® / Intel Progression of the control	ased audio c dy (physical p Connection	Boot sequence control Boot without keyboard or mouse Diskette boot inhibit and write-protec Diskette, disk, serial port, parallel por I/O control Secure access openings Secure removable media VPD stored in EEPROM Write protection control for EEPRON Barcode labels on most components Maximum internal EIDE disk capacity ¹³ : 80GB (1 disk x 80GB 7200 rpm) Maximum internal SCSI disk capacity ¹³ : 36.4GB (1 disk x 36.4GB 10000 rp							
- Lotus® SmartSui - Lotus Notes® Clii - Disk-to-Disk Rec - Device Drivers a - Software Selecti - Configuration/S - pressing F1 at s - Universal Managenabled - LANClient Contr - Common Inform - PC 2001-compli - Advanced Powe - Advanced Configure Power Interface - System Manage - DMI 2.0-complia	s® 2000 Professional te® Millennium license ent license covery (in Service Partition nd Diagnostics CD-ROM ons CD-ROM etup Utility invoked by tartup geability Services of Manager™ enabled ation Model (CIM) 2.2 ant ir Management 1.2 guration and (ACPI) 1.0b ment BIOS	Options 128MB SDRAM PC13 256MB SDRAM PC13 512MB SDRAM PC13 512MB SDRAM PC13 20GB IDE Disk ATA-1 40GB IDE Disk ATA-1 80GB IDE Disk ATA-1 PCI Ultra160 SCSI Ad: IBM 16X Max ⁶ DVD-I 16X/10X/40X Max ⁶ C 8X/4X/32X/8X Max ^{6,18} Combo drive (blac) IBM DVD-RAM/DVD-I Zip Drive 250MB (white IBM P96 19" (17.9" v.i IBM P275 21" (19.8" v IBM T540 15" Flat Pani IBM T560 15" Flat Pani IBM Wireless keyboard Spaceball 3D Input De Other options at ibm.c	IMM 10K0046 IMM 10K0048 19K4461 22P7157 09N4207 09N4208 19K4646 ICK) 22P6950 (blk) 24P3626 ROM 10K3790 22P6959 00N8078 ICK) 665163N IK) 665163N IK) 6656HG2 K) 22P5170 33L3252	Day 2 year part of the coverage of the covera	IMITED WARRANTY parts and labor tional Warranty Serv , 8 am - 5 pm, Mon - ge excluding holiday isiness day response on site warranty serv te options: ⁷ r response, Mon-Fri icePac® part number 4 ir response, 7 day x 2 icePac part number 41 arranty maintenance s available toll-free support for during the warranty	ice ³ Fri s, e time ice 8-5 1L2735) 24 hr L2741) warranty					

III IntelliStation® E Pro (6204) - June 2002 - withdrawn

IBM® Type-model Processo	or GHz ¹	L2 cache Memor	y Disk and rpi	SCSI n adapter	CD-ROM	Gra	phics adapter		Slots x bays	Preload ¹⁷	-	Available date
6204-45U Pentium® 6204-46U Pentium 6204-48U Pentium 6204-55U Pentium 6204-56U Pentium	4 2.0GHz { 4 2.0GHz { 4 2.2GHz {	512KB 256M		0 None	CD-ROM CD-ROM CD-ROM	Mill Mill NV	IDIA™ Quadro ennium G450 ennium G450 IDIA Quadro4 ennium G450	DVI-I 32MB DVI-I 32MB 64MB	4x3 4x3 4x3	Windows XP Windows XP	Pro Pro Pro	Jun 02 Jun 02 Jun 02 Jun 02 Jun 02
Positioning Processor L2 cache Implementation SMP support	Intel® Pentiu 512KB std a	um 4 at 2.0 o and max / ECo and L2 cache i	of price, perform 2.2GHz with 1.2 / full speed 1.5 FC-PGA2 in	400MHz fro	ontside bus		Desktop Small Form Bay ① 3.5",		diske	di	sk	
Memory - std/max Memory - sockets Memory - type	and ECC me	n gold plated [PRAM / Error (emory control	DIMM sockets / Checking and C er / industry sto atency 2 (CL2)	Correcting (E	ECC) DIMM:	S	Bay ② 5.25", Bay ③ 3.5", Slot 1: Low I Slot 2: Low I Slot 3: Low I	, HH 1.6", a SL 1", r Profile, 32-b Profile, 32-b	access no acce it AGP it PCI 2	std CD-F ess, std disk 4X (1.5v) - us 2.2 (5v) - SCS	ROM	ne)
Graphics controller (one of following)	adapter / N dual RAMI connector • NVIDIA Qu NV17LT 2! dual 350M	MGA G450F G DAC [360/232 (ships with or uadro4 200N 50MHz GPU IHz RAMDAC	I50 DVI-I (high FPU / 32MB 15 MHz] / dual he e cable with tw VS (high-perf 2 64MB 166MH s / dual head: 2 tor for std cable	Stealth blace	Slot 4: Low Profile, 32-bit PCI 2.2 (5v) Stealth black color 14.2" W X 16.2"D X 4.1"H 360mm W X 412mm D X 104mm H 20.0 to 22.0 lb (9.1 to 10.0 kg) Bays 1 and 2/3 flip up (latched and pivoting) Toolless rails for disk mounting Toolless cover removal							
SCSI disk controller SCSI connectors Disk controller Cables Disk	Ultra160 SC (in a 32-bit s SCSI model: Enhanced IE SCSI model: EIDE model: SCSI model	CSI (LVD 160I slot) / one char ls: One 68-pi DE / ATA-100 l: One 1-dro ls: Two EIDE l: 18.2GB U	29160LP/sin MB/sec) / 64-bin nel with up to n internal SCS / integrated in p 16-bit LVD S 80-conductor ltra160 SCSI / E / ATA-100 / 7	GP and PCI 100 lb moni ternal SCSI s on planar cted to CD-F op cable to d R.T. ⁵	slots tor on t connect							
Diskette drive CD-ROM Rack support Chipset	48X-20X ⁶ C None Intel 845 ch 82801BA I/O ethernet MA	O Controller H C, USB, Low			SECURITY Optional U-bolt support via knockout Cover key lock (on rear) Secure fixed DASD Power-on password Administrator password Boot sequence control							
Ports Audio Audio connectors Speakers Ethernet Security chip	Front: two U Back: two 9 ethen Integrated di (done by pro (analog mixing Back: microp One internal 10/100 ethel layer) / supp	JSB (Ver 1.1) J-pin serial, pa net, monitor igital audio / S ocessor and If ng, Analog-to phone jack, lir I speaker for b rrnet on planar oorts PXE and	rallel, two USB oundMAX® 3.0 CH2) / AC '97 ir Digital and Dig	(Ver 1.1), k with SPX TM nterface / Al ital-to-Anal ayer) with Ir J Intel Pro/	keyboard, model of the service of th	ouse pase ec on)	e, ed audio Y (physical	Boot sequence control Boot without keyboard or mouse Diskette boot inhibit and write-protect Diskette, disk, serial port, parallel port I/O control Secure access openings Secure removable media VPD stored in EEPROM Write protection control for EEPROM Barcode labels on most components Maximum internal EIDE disk				port OM
Keyboard / mouse Cooling fans Power supply	Two or three	e variable śpe	yboard / IBM 3 ed fans (power eed fan / unive	supply, fan	sink, some h	nave	third fan)	capacity 80GB (1 • Maximul capacity	disk x m inter	x 80GB 7200 nal SCSI dis x x 36.4GB 1	rpm) k	
Preload with Wind Microsoft® Windows - Lotus® SmartSuit - Lotus Notes® Clie - Disk-to-Disk Rec - Device Drivers at - Software Selection - Configuration/Software Selection - Universal Manage enabled - LANClient Control - Common Information - PC 2001-complia - Advanced Configuration - Advanced Configuration - System Manage - DMI 2.0-complian - Wired for Manage	s® XP Profess te® Millenniun ent license covery (in Ser nd Diagnostic ons CD-ROM etup Utility inv tartup geability Servi ol Manager™ ation Model ((ant r Managemer guration and (ACPI) 1.0b ment BIOS nt	sional n license vice Partition cs CD-ROM voked by ices enabled CIM) 2.2	40GB IDE Di 60GB IDE Di 80GB IDE Di PCI Ultra 160 IBM 16X Ma 24X/10X/40) 8X/4X/32X/8 Combo di IBM DVD-RA Zip Drive 25 IBM P96 19" IBM P275 21	AM PC133 AM PC133 AM PC133 SK ATA-100 SK ATA-100 SK ATA-100 SK ATA-100 SCSI Adag (Max ⁶ CD- X Max ^{6,19} (ive (black) M/DVD-R)MB (white/ (17.9" v.i.s " (19.8" v.i1" Flat Pane " keyboard) Input Devi	CL2 ECC U CL2 ECC U OL2 ECC U O (7200 rpm	DIM DIM)))) black (blk) black (blk) (blk)	IM 10K0046 IM 10K0048 19K4461 22P7157 09N4207 09N4208 19K4646 (2) 22P6950 Ik) 24P6965 OM 10K3790 22P6959 00N8078 (3) 655163N 6652U3N (4) 6656HG2 6656HG2 0 22P5170 33L3252	⇒ 3 year ⇒ Internal ⇒ On site coveral next bu ⇒ 3 year (upgrad • 4 hou (Serv) • 4 hou (Serv) ⇒ Post was service ⇒ 24 hou	parts a tional, , 8 am ge exc siness on site le opt ir resp icePac ir resp icePac arranty s avail r x 7 c	Warranty Se - 5 pm, Mor luding holida s day respon warranty se ions: part numbe onse, 7 day part number maintenance	rvice ³ 1 - Fri ays, 1 se tin rvice 1 ri 8-5 r 41L2 x 24 h 41L27 ce one,	ne 2735) ir 741)

III IntelliStation® E Pro (6214) - withdrawn

IBM® Type-model Process	L2 sor GHz ¹ cache Memo	ry Disk and rpm	SCSI adapter CD-F	Graphics a	•	47	Available date				
6214-10U Pentium 6214-20U Pentium 6214-23U Pentium 6214-30U Pentium	nº 4 1.6GHz 256KB 128M n4 1.8GHz 256KB 128M n4 1.8GHz 256KB 128M n4 2.0GHz 256KB 128M n4 2.0GHz 256KB 256M	B 40GB ² EIDE 720 B 40GB EIDE 720 B 18.2G SCSI 10K B 40GB EIDE 720	0 None CD-F 0 None CD-F 29160LP CD-F 0 None CD-F	ROM Millennium (ROM Millennium (ROM Quadro2 Pro ROM Millennium (G450 16MB 6x7 G450 16MB 6x7 G64MB 6x7 G450 16MB 6x7	7 Windows® 200 7 Windows 2000 7 Windows 2000	00 Oct 2001 Oct 2001 Oct 2001 Oct 2001				
Positioning Processor L2 cache Implementation SMP support	Compelling combination of Intel® Pentium 4 at 1.6, 1. 256KB std and max / ECC Processor and L2 cache in No SMP support	3, 2.0GHz with 400M / full speed	IHz frontside bus	• H 18.5" x W • H 470mm x • 35 to 43 pou	6.5" x D 20.0" W 165mm x D 5 inds (15.9 to 19.	08mm 5kg)	CD-ROM ② diskette ④				
Memory - std/max Memory - sockets Memory - type	128MB or 256MB / 1.5GE Three 168-pin gold plated 133MHz SDRAM / Error C and ECC memory controlle PC133-compliant / CAS La	DIMM sockets / one s necking and Correction or / industry std / unbu	out of chass Two front sta Handle grip Toolless cov	sis abilizing feet on top ver removal							
Graphics controller (one of following)	 Matrox® Millennium G4: adapter / MGA G450F Gi dual RAMDAC [360/232N] 70Hz and 1600x1200x16 NVIDIA™ Quadro2 Pro NV15GL 250MHz GPU / 350MHz RAMDAC / sing DB-15 and DVI-I connect 	PU / 16MB 150MHz (\$ /IHz] / dual head: 204! M at 85Hz / two DB-1! advanced 3D) / AGP 64MB 200MHz DDR: e head: 2048x1535x	SDRAM / 8x1536x16M at 5 connectors 24X adapter / -SDRAM / .16M at 75Hz /	Toolless AGP and PCI slots Removable left side panel Bay ① 5.25", HH1.6", access, CD-ROM Bay ② 5.25", HH1.6", access, open Bay ③ 3.5", SL 1", access, diskette Bay ④ 3.5", SL 1", access, open Bay ⑤ 3.5", SL 1", no access, open Bay ⑥ 3.5", SL 1", no access, open							
SCSI disk controller	SCSI models: Adaptec® 2 Ultra160 SCSI (LVD 160M (in a 32-bit slot) / one char	IB/sec) / 64-bit 33MF	Slot 2: fullsize	size, AGP 4X, 25 watt (3.3v) - used by gra size, 32-bit 33MHz, PCI 2.2 (5v)							
SCSI connectors	SCSI models: One 68-pir one 0.8mm VHDCI 68-pin	external SCSI conne	Slot 3: fullsize	ze, 32-bit 33MHz, PCl 2.2 (5v) ze, 32-bit 33MHz, PCl 2.2 (5v) - used by SCSI adapter (some models) ze, 32-bit 33MHz, PCl 2.2 (5v)** ze, 32-bit 33MHz, PCl 2.2 (5v)** t PCl extender board							
IDE disk controller Cables	Enhanced IDE / ATA-100 / SCSI models: One 5-drop EIDE cable EIDE models: Two EIDE	16-bit LVD SCSI ca (connected to CD-F	Slot 6: fullsize								
Disk - features	SCSI models: 18.2GB Uİt	cable to EIDE disk) ra160 SCSI / 10K rpi	eek / S.M.A.R.T. ⁵		SECURITY						
CD-ROM / diskette	EIDE models: 40GB EIDE 48X-20X ⁶ CD-ROM, boots				olt support via kr	ockout					
Rack support Chipset	4U ⁴ rack mount support v Intel 845 chipset / 82845 82801BA I/O Controller He ethernet MAC, USB, Low National® 87360 Super I/O	Memory Controller H lb (ICH2) for PCI 2.2 Pin Count Interface /	Cover key lock (on side) Secure fixed DASD Power-on password Administrator password Boot sequence control Boot without keyboard or mouse								
Ports	Front: None Back: two 9-pin serial, par ethernet, monitor	allel, two USB (Ver 1	I.1), keyboard, m	ouse,	Diskette boot inhibit and write-protect Diskette, disk, serial port, parallel port I/O control Secure access openings Secure removable media VPD stored in EEPROM Write protection control for EEPROM Barcode labels on most components						
Audio	Integrated digital audio / S (done by processor and IC	H2) / AC '97 interfac	SPX™ / software-bee / ADI1887 code	oased audio ec							
Audio connectors Speakers Ethernet	Back: microphone jack, lin One internal speaker for b 10/100 ethernet on planar / layer) / supports PXE and V	usiness audio ICH2 (MAC layer) wit /ake on LAN® / Intel F									
Security chip Keyboard / mouse Cooling fans Power supply	None (so no cover tamper 104-key (rubber dome) key Three variable speed cooli 340 watts with variable spe	board / IBM 3-button	y, processor fansi	nk, rear)							
- Lotus® SmartSu - Lotus Notes® CI - Disk-to-Disk Re	rs® 2000 Professional ite® Millennium license lent license lent license covery (in Service Partition; and Diagnostics CD-ROM ions CD-ROM	DIMM 10K0044 DIMM 10K0046 DIMM 10K0048 09N4208 19K4646 19K6658 00N8209 lack) 22P6950 Dlack) 10K3785 I (blk) 24P3626 D-ROM 10K3790 22P6959 00N8078 Dlack) 655163N blk) 6652U3N blk) 6656HG2 llk) 22P5170 3313252 09N4300	⇒ 3 year part ⇒ Internation ⇒ On site, 8 a coverage a next busin ⇒ 3 year on s upgrade a • 4 hour re (Servicef • 4 hour re (Servicef ⇒ Post warra services av ≥ 24x7¹⁴ toll	nal Warranty Ser am - 5 pm, Mon excluding holida ess day respon- ite warranty ser options: ⁷ esponse, Mon-Fi esponse, 7 day x eac part number 4 inty maintenance	rvice ³ - Fri yys, se time rvice ri 8-5 41L2735) (24 hr 11L2741) e						

IBM IntelliStation® E Pro (6214) - Fall 2001 - withdrawn

IBM®			L2				SCSI		Graphics adapter	Slots	(Available
Type-model	Processor	GHz ¹	cache	Memory	Disk and r	pm	adapter	CD-ROM	and memory	bays	Preload ¹⁷	date
									NVIDIA™ Vanta 16MB NVIDIA Vanta 16MB			

Positioning Processor L2 cache Implementation SMP support	Compelling combination of price, performance and design Intel® Pentium 4 at 1.6, 1.8GHz with 400MHz frontside bus 256KB std and max / ECC / full speed Processor and L2 cache in FC-PGA2 in mPGA478 socket No SMP support			CD-ROM ② diskette		
Memory - std/max Memory - sockets Memory - type	128MB / 1.5GB max ¹³ Three 168-pin gold plated DIMM sockets / one socket used 133MHz SDRAM / non-parity / industry std / unbuffered / PC133-compliant / CAS Latency 2 (CL2) / does support optional Error Checking and Correcting (ECC) DIMMs	Metal cage fout of chass Two front sta Handle grip Toolless cov Toolless AG	for disk bays 5,6,7 rotates is abilizing feet on top	(§) (6) (disk		
Graphics controller	NVIDIA Vanta (2D and 3D) / AGP 4X adapter / TNT2 Vanta GPU / 16MB std and max 125MHz SDRAM / 250MHz RAMDAC / one analog DB-15 connector	Bay ① 5.25", Bay ② 5.25", Bay ③ 3.5".	HH1.6", access, CD-ROM HH1.6", access, open SL 1". access. diskette			
SCSI disk controller SCSI connectors	r None None	Bay (4) 3.5", Bay (5) 3.5", Bay (6) 3.5",	SL 1", access, open SL 1", no access, open SL 1", no access, open			
IDE disk controller Cables Disk - features	Enhanced IDE / ATA-100 / integrated in I/O Controller Hub (ICH2) Two EIDE cables (one 2-drop cable to CD-ROM, one 2-drop cable to EIDE disk) 40GB EIDE / ATA-100 / 7200 rpm / 8.7 ms read seek / S.M.A.R.T. ⁵	Bay © 3.5", SL 1", no access, disk Slot 1: fullsize, AGP 4X, 25 watt (3.3v) - used by graphi Slot 2: fullsize, 32-bit 33MHz, PCI 2.2 (5v) Slot 3: fullsize, 32-bit 33MHz, PCI 2.2 (5v) Slot 4: fullsize, 32-bit 33MHz, PCI 2.2 (5v)				
CD-ROM / diskette	$48X-20X^6$ CD-ROM, bootable, IDE / 3.5" 1.44MB diskette drive	Slot 5: fullsize	e, 32-bit 33MHz, PCI 2.2 (5v)*	*		
Rack support Chipset	4U ⁴ rack mount support via tower-to-rack kit option Intel 845 chipset / 82845 Memory Controller Hub (MCH) / 82801BA I/O Controller Hub (ICH2) for PCI 2.2 bus,		e, 32-bit 33MHz, PCI 2.2 (5v)* PCI extender board	•		
	ATA-100 EIDE, ethernet MAC, USB, Low Pin Count Interface / 82802 Firmware Hub / National® 87360 Super I/O for diskette, parallel, serial, keyboard, mo	ouse	SECURITY • Optional U-bolt support via	knockout		
Ports	Front: None Back: two 9-pin serial, parallel, two USB (Ver 1.1), keyboard, mou ethernet, monitor	se,	Cover key lock (on side) Secure fixed DASD Power-on password			
Audio	Integrated digital audio / SoundMAX® 3.0 with SPX™ / software-ba					
Audio connectors Speakers	(done by processor and ICH2) / AC '97 interface / ADI1887 codec Back: microphone jack, line-in, line-out One internal speaker for business audio	Boot without keyboard or mouse Diskette boot inhibit and write-protection.				

Preload with Windows 200017

Ethernet

Security chip

Cooling fans

Power supply

Keyboard / mouse

Microsoft® Windows® 2000 Professional

- Lotus® SmartSuite® Millennium license
- Lotus Notes® Client license
- Disk-to-Disk Recovery (in Service Partition)
- Device Drivers and Diagnostics CD-ROM
- ♦ Software Selections CD-ROM
- Maximum internal EIDE disk capacity¹³: 240GB (3 disk x 80GB 7200 rpm)
- Maximum internal SCSI disk capacity¹³: 145.6GB (4 disks x 36.4GB)
- Configuration/Setup Utility invoked by
- pressing F1 at startup

 Universal Manageability Services enabled LANClient Control Manager™ enabled
- Common Information Model (CIM) 2.2
- PC2001-compliant
- Advanced Power Management 1.2
- Advanced Configuration and Power Interface (ACPI) 1.0b System Management BIOS
- DMI 2.0-compliant
- Wired for Management 2.0-compliant

Options

104-key (rubber dome) keyboard / IBM 3-button mouse

340 watts with variable speed fan / universal / auto-sensing

None (so no cover tamper detect switch)

10/100 ethernet on planar / ICH2 (MAC layer) with Intel 82562ETPHY (physical layer) / supports PXE and Wake on LAN® / Intel Pro/100VE Desktop Connection

Three variable speed cooling fans (power supply, processor fansink, rear)

64MB SDRAM 133MHz CL2 NP DIMM 10K0055 128MB SDRAM 133MHz CL2 NP DIMM 10K0057 256MB SDRAM 133MHz CL2 NP DIMM 10K0059 512MB SDRAM 133MHz CL2 NP DIMM 10K0061 128MB SDRAM PC133 CL2 ECC UDIMM 10K0044 256MB SDRAM PC133 CL2 ECC UDIMM 10K0046 512MB SDRAM PC133 CL2 ECC UDIMM 10K0048 60GB IDE Disk ATA-100 (7200 rpm) 09N4207 80GB IDE Disk ATA-100 (7200 rpm) 09N4208 PCI Ultra160 SCSI Adapter 19K4646 18.2GB 15K rpm Ultra160 SCSI disk 36.4GB 10K rpm Ultra160 SCSI disk IBM 16X Max⁶ DVD-ROM Drive (black) 19K0658 00N8209 22P6950

12X/8X/32X Max⁶ CD-RW internal (black) 10K3785 16X/10X/40X Max⁶ CD-RW internal (blk) 24P3626 8X/4X/32X/8X Max^{6,19} CD-RW/DVD-ROM

Combo drive (black)
IBM DVD-RAM/DVD-R Drive (black) 10K3790 22P6959 IBM P96 19 " (17.9" v.i.s.) Monitor (black)
IBM P975 21" (19.8" v.i.s.) Monitor (blk)
IBM T540 15" Flat Panel Monitor (black) 00N8078 655163N 6652U3N 9511AG4 IBM T560 15" Flat Panel Monitor (black) 6656HG2 IBM Wireless keyboard and mouse (blk) 22P5170 33L3252 Spaceball 3D Input Device IBM rack mount kit 09N4300

- · Diskette, disk, serial port, parallel port
- I/O control
- Secure access openings Secure removable media
- VPD stored in EEPROM
- Write protection control for EEPROM • Barcode labels on most components

LIMITED WARRANTY³

- 3 year parts and labor
- International Warranty Service³
- On site, 8 am 5 pm, Mon Fri coverage excluding holidays, next business day response time
- 3 year on site warranty service upgrade options:7
 - 4 hour response, Mon-Fri 8-5 (ServicePac® part number 41L2735)
 - 4 hour response, 7 day x 24 hr (ServicePac part number 41L2741)
- Post warranty maintenance services available
- 24x7¹⁴ toll-free support for warranty issues during the warranty period3

III IntelliStation® E Pro (6214) - February 2002 - withdrawn xREF by eServer Field Skills Enablement Team

		·				by eserver						
IBM® Type-model Process	or GHz ¹	L2 cache	Memory	Disk and rpn	SCSI n adapter	CD-ROM	Graphics a and mer		Slots : bays		Available date	
6214-40U Pentium 6214-41U Pentium 6214-43U Pentium 6214-91U Pentium 6214-50U Pentium 6214-51U Pentium 6214-53U Pentium	4 2.0GHz 4 2.0GHz 4 2.0GHz 4 2.2GHz 4 2.2GHz	512KB 2 512KB 2 512KB 5 512KB 2 512KB 2	256MB ECC 256MB ECC 128MB NP 256MB ECC 256MB ECC	40GB 720 18.2GB 10K 40GB 720 40GB 720 40GB 720	0 None 0 None 0 None	CD Mille CD ATI CD NVII CD NVII CD Mille	DIA™ Quadro ennium G450 I PFire GL8800 DIA Vanta 16N DIA Quadro4 ennium G450 I Fire GL8800 1	OVI-I 32MB M ₁₁ 128MB MB 64MB OVI-I 32MB	6x7 6x7 6x7 6x7 6x7	Windows 20 Windows 20 Windows 20 Windows 20 Windows 20 Windows 20 Windows 20	000 Mar 2002 000 Mar 2002 000 Mar 2002 000 Mar 2002	
Positioning Processor L2 cache Implementation SMP support	Intel® Penti 512KB std a Processor a No SMP sup	ium 4 at 2 and max a and L2 ca pport	tion of price, p 2.0 or 2.2GH; / ECC / full sp che in FC-PG	z with 400Ml beed GA2 in mPGA	łz frontsid	le bus	• Stealth blace • H 18.5" x V • H 470mm > • 35 to 43 po	/ 6.5" x D 20 x W 165mm unds (15.9 t	x D 50 o 19.5	kg)	CD-ROM ② diskette	
Memory - std/max Memory - sockets Memory - type	Three 168-p 133MHz SE and ECC m DIMMs] / ind	oin gold p DRAM / E emory co dustry sto	1.5GB max ¹³ lated DIMM s rror Checking introller [exce d / unbuffered AS Latency 2	sockets / one g and Correct pt 6214-91U l /	ing (ECC)	DIMMs	 Metal cage out of chas Two fronts Handle grip Toolless co Toolless A Removable 	sis tabilizing fee on top over removal GP and PCI	et I slots	rotates	disk 6 7	
Graphics controller (one of following)	TNT2 Var 250MHz F • Matrox® Madapter / I dual RAM connector • NVIDIA Q NV17LT 2 dual 350M monitor / L • ATI Fire 8800 GPU [400/165M	nta GPU / RAMDAC Willenniu MGA G45 DAC [360 (ships wi wadro4 2 250MHz 0 MHz RAM LFH60 co GL8800™ J / 128ME MHz] / dua	and 3D) / AG 116MB std an / one analog Im G450 DVI- 50F GPU / 32 0/232MHz] / o th one cable v 200NVS (high GPU / 64MB 1 DACs / dual h nnector for ste (advanced 3 8 300MHz DB al head supponips with one	nd max 125M DB-15 conné -10 (high-perf 2 MB 150MHz dual head sup with two DB-1 -166MHz SDF nead: 2048x1 d cable with to D) / AGP 4X ort / one DB-1	Hz SDRAN ector D) / AGP 4 D) / AGP 4 pport / one [5 analog c GP 4X ada AM / 536x16M e wo DB-15 a adapter / F dual RAMI 5 analog ar	AM/ DVI-I conns) pter/ each analog Radeon™ DAC	Bay ① 5.25" Bay ② 5.25" Bay ③ 3.5", Bay ④ 3.5", Bay ⑤ 3.5", Bay ⑥ 3.5", Bay ⑦ 3.5",	HH1.6", ac, HH1.6", ac, HH1.6", ac, HH1.6", ac, SL 1", ac, SL 1", nc, SL 1",	cess, cess, cess, acces acces acces 25 wa BMHz, BMHz, BMHz, BMHz,	PČI 2.2 (5v) PCI 2.2 (5v) PCI 2.2 (5v) PCI 2.2 (5v) PCI 2.2 (5v) PCI 2.2 (5v)	ed by graphics - SCSI (some)	
SCSI disk controller SCSI connectors Disk controller Cables Disk	(in a 32-bit SCSI mode Enhanced I SCSI mode EIDE mode	slot) / or els:One 6 DE / ATA el: One 5 els: Two E	ne channel w 68-pin interna -100 / integra -drop 16-bit l EIDE 80-cond	vith up to 15 al SCSI conr ated in I/O Co LVD SCSI ca uctor cables	device sunector / on ntroller Hub ble, one 2- (one 2-dro	pport le 0.8mm o (ICH2) / tv -drop EIDE p cable to 0	VHDCI 68-pir wo connectors cable (conne CD, one 2-dro eek / SMART	n external S on planar ected to CD- p cable to di	GCSI c ROM) sk)	onnector	PCI adapter	
CD-ROM / diskette Rack support Chipset	48X-20X ⁶ C 4U ⁴ rack m Intel 845 ch 82801BA I/	D-ROM, count sup hipset / 8 O Contro	EIDE / ATA-	100 / 7200 rp DE / 3.5" 1.4 er-to-rack kit ry Controller 12) for PCI 2.	m / 9.0 ms 4MB diske option Hub (MCH 2 bus, ATA	read seek ette drive)/ A-100 EIDE	/SMART	240GB (3 disk x 80GB 7200 rpm) • Maximum internal SCSI disk capacit 145.6GB (4 disks x 36.4GB) SECURITY • Optional U-bolt support via knockout				
Ports Audio Audio connectors Speakers Ethernet Security chip Keyboard / mouse Cooling fans	National® 8: Back: two 9 ethe Integrated c (done by pr Back: micro One interna 10/100 ethe layer) / supp None (so no	7360 Sup 9-pin seri- rnet, mor digital aud ocessor a phone ja al speake rnet on pl ports PXE o cover ta bber dom ble speed	per I/O for disk al, parallel, twaitor; Front: I dio / SoundM and ICH2) / A ick, line-in, lin r for business anar / ICH2 (If and Wake or imper detects ane) keyboard / d cooling fans	wette, parallel wo USB (Ver two USB (Ve AX® 3.0 with AC '97 interfa the-out s audio MAC layer) w the LAN® / Intel switch) / IBM 3-buttor ((power supp	, serial, key 1.1), keybo r 1.1) SPX™ / so ce / ADI18 th Intel 825 Pro/100VE	/board, moust oard, moust ftware-bas :87 codec :62ETPHY E Desktop (se, sed audio (physical Connection	Cover le Secure Power- Adminis Boot se Boot wi Diskette I/O con Secure Secure VPD ste Write pi	Optional U-bolt support via knockou Cover key lock (on side) Secure fixed DASD Power-on password Administrator password Boot sequence control Boot without keyboard or mouse Diskette boot inhibit and write-prote Diskette, disk, serial port, parallel p I/O control Secure access openings Secure removable media VPD stored in EEPROM Write protection control for EEPRO			
Preload with Wir Microsoft® Window - Lotus® SmartSu - Lotus Notes® Cl - Disk-to-Disk Re - Device Drivers a - Software Select • Configuration/S pressing F1 at sta • Universal Manag • LANClient Confirer Common Inform • PC 2001-complier Advanced Confirer Notes and Confirer Power Interface • System Manage • DMI 2.0-compliar • Wired for Manage	ndows 2000 ys® 2000 Pro- ite® Millenniu ient license covery (in Seand Diagnos ions CD-RO etup Utility in rtup geability Sen- ol Manager ation Model ant guration and (ACPI) 1.0b ment BIOS nt	fessional um licens ervice Pa tics CD-F M nvoked by vices ena enabled (CIM) 2.2	e 256M 512M 128M ROM 256M 512M 80GE 9 PCI L 36.46 IBM 1 12X/8 16X/- 8X/43 CG IBM I IBM I	DIS MB SDRAM 1 MB SDRAM 1 MB SDRAM F MB SDRAM F M	33MHz CL 33MHz CL 33MHz CL C133 CL2 C133 CL2 FA-100 (72 Il Adapter JItra160 S VD-ROM I CD-RW in x ⁴ 6CD-RW ax ^{6,19} CD-F black) VD-R Drive VD-R Drive TPanel Mo	2 NP DIM. 2 NP DIM. 2 NP DIM. 2 NP DIM. ECC UDII ECC UDII COO rpm) CSI disk Drive (black ternal (bla / internal (bla RW/DVD-F e (black) nitor (black)	M* 10K0059 M* 10K0061 10K0044 MM 10K0046 MM 10K0048 09N4208 19K4646 00N8209 ck) 22P6950 ck) 10K3785 (blk) 24P3626 ROM 10K3790 22P6959 k) 6656HG2 09N4300	 ⇒ 3 year ⇒ Intern ⇒ On sit cover next b ⇒ 3 year upgra • 4 ho (Ser • 4 ho (Ser ⇒ Postv servic ⇒ 24x712 	LIMIT parts ationate, 8 ar age expusine on situde oppur respective Paper vice Paper varrantes avarantes av	ponse, 7 da ac part numbe ty maintena ailable iree suppor	Service ³ on - Fri days, onse time service -Fri 8-5 per 41L2735) y x 24 hr er 41L2741)	

					The second second second	Market	40000						
IBM® Type-model Process	or GHz ¹	L2 cache	Memor	y Dis	k and rpm	SCSI adapter	CD-ROM	Graphics ada and memo		Slots : bays			vailable date
6214-45U Pentium 6214-46U Pentium 6214-48U Pentium 6214-96U Pentium 6214-55U Pentium 6214-58U Pentium 6214-58U Pentium	4 2.0GHz 4 2.0GHz 4 2.0GHz 4 2.2GHz 4 2.2GHz	512KB 512KB 512KB 512KB 512KB	256MB E 256MB E 128MB E 256MB E 256MB E	ECC 40G ECC 18.2 NP 40G ECC 40G ECC 40G	B 7200 2GB 10K B 7200 B 7200 B 7200	None 29160LF None None None	CD Mille CD ATI CD NVI CD NVI CD Mille	DIA Vanta 16 DIA Quadro4 ennium G450	DVI-I 32MB) ^{TM, 11} 128MB MB 64MB DVI-I 32MB	6x7 6x7 6x7 6x7 6x7	Windows® X Windows XF Windows XF Windows XF Windows XF Windows XF Windows XF	Pro Pro Pro Pro Pro	Jun 02 Jun 02 Jun 02 Jun 02 Jun 02 Jun 02 Jun 02
Positioning Processor L2 cache Implementation SMP support	Compelling Intel® Pen 512KB sto Processor No SMP si	tium 4 a t l and max and L2 c	t 2.0 or 2. x / ECC / t	2GHz wi t full speed	th 400MH	z frontšio	le bus	• H 470mm	ack color W 6.5" x D 2 x W 165mm ounds (15.9	x D 50		CD-R	ette
Memory - std/max Memory - sockets Memory - type	128MB or Three 168 133MHz S and ECC r DIMMs]/ii PC133-co	-pin gold DRAM / nemory o ndustry s	plated DI Error Che controller td / unbuf	MM sock ecking and [except 62 fered /	d Correcti 214-96U ι	out of cha Two front: Handle gri Toolless of	nt stabilizing feet						
Graphics controller (one of following)	• NVIDIA Vanta (2D and 3D) / AGP 4X adapter / TNT2 Vanta GPU / 16MB std and max 125MHz SDRAM / 250MHz RAMDAC / one analog DB-15 connector • Matrox® Millennium G450 DVI-I (high-perf 2D) / AGP 4X adapter / MGA G450F GPU / 32MB 150MHz DDR-SDRAM / dual RAMDAC [360/232MHz] / dual head support / one DVI-I connector (ships with one cable with two DB-15 analog conns) • NVIDIA Quadro4 200NVS (high-perf 2D) / AGP 4X adapter / NV17LT 250MHz GPU / 64MB 166MHz SDRAM / dual 350MHz RAMDACs / dual head: 2048x1536x16M each monitor / LFH60 connector for std cable with two DB-15 analog • Removab Bay ① 5.25 Bay ② 3.5 Bay ④ 3.5 Bay ⑥ 3.5									ccess, ccess, ccess, ccess, cacces acces acces , 25 wa 3MHz, 3MHz, 3MHz, 3MHz,	CD-ROM open diskette open ss, disk ss, open ss, open latt (3.3v) - use PCI 2.2 (5v) PCI 2.2 (5v) PCI 2.2 (5v)* PCI 2.2 (5v)* PCI 2.2 (5v)* PCI 2.2 (5v)* Indianal control open ss, open ss, open ss, open ss, open st, open ss, open	· SĆSĬ (·	
SCSI disk controller SCSI connectors Disk controller Cables Disk	ntroller SCSI model: Adaptec® 29160LP / single channel Wide Ultra160 SCSI (LVD160MB/sec) / 64-bit 33MHz PCI adapter (in a 32-bit slot) / one channel with up to 15 device support SCSI models: One 68-pin internal SCSI connector / one 0.8mm VHDCI 68-pin external SCSI connector											`	
CD-ROM / diskette Rack support Chipset		CD-ROM mount su chipset / l/O Contr IAC, USI	M, bootab ipport via 82845 M roller Hub B, Low Pi	ole, IDE / tower-to emory Co (ICH2) fo n Count I	3.5" 1.44 -rack kit ontroller F or PCI 2.2 nterface /	MB disked option Hub (MCH I bus, ATA 82802 Fi	ette drive)/ A-100 EID	E, ub/	• Maxim 145.60	240GB (3 disk x 80GB 7200 rpm) • Maximum internal SCSI disk capacit 145.6GB (4 disks x 36.4GB) SECURITY • Optional U-bolt support via knockout • Cover key lock (on side)			
Ports Audio Audio connectors Speakers Ethernet Security chip Keyboard / mouse Cooling fans Power supply	Back: two eth Integrated (done by p Back: micro One intern 10/100 eth	9-pin se ernet, mo digital a processo ophone i al speak ernet on ports PX no cover to ubber do able spee	rial, paral ponitor; Fr udio / Sou r and ICH jack, line- er for bus planar / IC E and Wa tamper de me) keybe ed cooling	llel, two Uont: two undMAX® 12) / AC '9 in, line-oriness auch2 (MAC ake on LA btect swittoard / IBM grans (po	SB (Ver- USB (Ver- 3.0 with \$ 7 interfact ut dio B layer) wit N® / Intel F ch) M 3-button wer suppl	I.1), keyb 1.1) SPX™ / so ce / ADI18 h Intel 825 Pro/100VE mouse y, process	oard, mou ftware-ba :87 codec :62ETPHY E Desktop :sor fansink	sed audio (physical Connection	Cover key lock (on side) Secure fixed DASD Power-on password Administrator password Boot sequence control Boot without keyboard or mouse Diskette boot inhibit and write-protect Diskette, disk, serial port, parallel po				oort
Microsoft® Windov - Lotus® SmartSu - Lotus Notes® CI - Disk-to-Disk Re - Device Drivers - Software Select - Configuration/S - pressing F1 at s - Universal Manag - LANClient Contr - Common Inform - PC 2001-compli - Advanced Confi - Power Interface - System Manage - DMI 2.0-complia	Preload with Windows XP Professional Microsoft® Windows® XP Professional Lotus® SmartSuite® Millennium license Lotus Notes® Client license Lotus Notes® Client license Disk-to-Disk Recovery (in Service Partition) Device Drivers and Diagnostics CD-ROM Software Selections CD-ROM Configuration/Setup Utility invoked by pressing F1 at startup Universal Manageability Services enabled LANClient Control Manager™ enabled Common Information Model (CIM) 2.2 PC 2001-compliant Advanced Configuration and Power Interface (ACPI) 1.0b System Management BIOS Wired for Management 2.0-compliant Options 128MB SDRAM 133MHz CL2 NP DIMM* 10K0057 10K0059 512MB SDRAM 133MHz CL2 NP DIMM* 10K0044 256MB SDRAM PC133 CL2 ECC UDIMM 10									r parts ationa te, 8 ar rage ex busine r on sit ade op bur res rvicePa bur res rvicePa warran ces ava bur x 7	red WARRA and labor al Warranty S m - 5 pm, Mc coluding holi ss day respo te warranty s otions: ponse, Mon- ac® part numbe to part numbe ty maintenal allable day and Internet	ervice ³ on - Fri days, onse tim ervice Fri 8-5 er 41L27 x 24 h er 41L27 nce none,	ne 2735) Ir 741)

運属 IntelliStation® E Pro (6836) - withdrawn

IBM® Type-model Processor	MHz ¹	Memory	Disk	SCSI adapter	CD-ROM ⁶	Graphics adapter and memo	Slots v bavs	x Ethernet	Preload ¹⁷	Available date
6836-10U Pentium® 6836-21U Pentium II 6836-22U Pentium II 6836-31U Pentium II 6836-35U Pentium II 6836-41U Pentium II 6836-41PU Pentium II 6836-2PU Pentium II	III 800 I 866 I 866 I 933 I 933 I 933 I 1.0GHz I 800	64MB 128MB 128MB 128MB 128MB 128MB 128MB	15GB EIDE 15GB EIDE 9.1GB SCSI 15GB EIDE 15GB EIDE 9.1GB SCSI 15GB EIDE None	None None 29160LP None None 29160LP None None None	48X-20X 48X-20X 48X-20X 48X-20X 48X-20X 48X-20X 48X-20X 48X-20X 48X-20X	Millennium G45016MB Millennium G45016MB Millennium G45016MB Millennium G45016MB NVIDIA GeForce2 MX 32N NVIDIA GeForce2 MX 32N	4x4 4x4 4x4 4x4 4x4 B 4x4	10/100 10/100 10/100 10/100 10/100 10/100 10/100 10/100 10/100	2000 or NT 2000 or NT	Oct 2000 Oct 2000 Oct 2000 Oct 2000 Oct 2000 Oct 2000 Oct 2000 Oct 2000 Oct 2000
Intel® processor L2 cache Implementation SMP support	256KB sto Processor	d and ma r and L2 o hree PCI	x'/ECC/atpro	ocessor spe hip Pin Gric	eed d Array (FC	3MHz Front Side Bus -PGA) / motherboard contain othernet	s one Ir	ntel PGA3	70 socket, thr	ee DIMM
Memory - std / max Memory - sockets Memory - features	3 sockets	/ 2 availa	std / 1.5GB m able / ECC (Err / three 168-pii	or Checkin	ng and Cor ed DIMM 3	recting) DIMMs and ECC me .3 v sockets / supports unbu	mory co	ontroller / DRAM EC	PC133-comp CC DIMMs	oliant /
Graphics controller (one of following)	max 166 • NVIDIA	MHz SD	RAM / two ĎB- ce2 MX (advar	15 connect	ors (dual n	GP 4X adapter / Matrox MG nonitor capable) apter / NV11 GPU / 32MB sto				
SCSI disk controller SCSI connectors IDE disk controller Cables	SCSI mod Enhanced SCSI mod	64- dels: On- didels: On- dels: Two dels: Two	bit 33MHz PCI e 68-pin intern smaster / ATA- e 3-drop 16-bit o EIDE cables	adapter (in al SCSI con 66 support LVD SCSI (one 2-dro	n a 32-bit s nnector / o (ATA-100 ⊦cable, one	Vide Ultra160 SCSI (LVD 16 lot) / one channel with up to ne 0.8mm VHDCI 68-pin ext on later models) / two conne e 2-drop EIDE cable (connec CD-ROM, one 1-drop	15 devicernal SC ctors or	cé suppor CSI conne planar D-ROM)		
Disk - features		dels: 150		100 / 7200		ns read seek / S.M.A.R.T. ⁵ s read seek / S.M.A.R.T.	Cover	key lock tamper d	(in rear) etect switch	
Rack support Architecture / chipsets	PCI 2.2 32	2-bit 33M	Hz controller, A	GP 4X) / VI	IA VT82C6	dge (memory controller, 86A or 686B South ar, serial, kybd, mouse)	PoweAdmirBoots	e fixed DA r-on passv nistrator pa sequence o vithout key	vord assword	use
100/10Mbps ethernet CD-ROM / diskette	32-bit 33N 48X-20X ⁶	/IHz PĊI CD-ROI		or Wake or PI) / boota	n LAN® ble / IDE'	3.5" 1.44MB diskette drive	Diske I/O co	tte, disk, s ntrol	nibit and write erial port, par	
External ports Systems mgmt	Serial: Two 9 pin; Parallel: Òne (EPP, ECP) / IEEE 1284; USB: Two (Ver 1.1); keyboard, mouse, audio line in, audio line out, microphone in, MIDI Monitoring and alerting of memory, thermal, fans, and voltage faults / support for Wake on LAN, Alert on LAN™ 2, PXE						SecurVPD sWrite		ole media EPROM control for El	
Keyboard / mouse Cooling fans	Two (800MHz models) or three (other models) cooling fans (power supply, front, rear) / not redundant or hot-swap / fans have two speeds Slot 1: fullsize, AGP 4X, 2 Slot 2: fullsize, 32-bit 33M						Barcode labels on most components IBM Security Solutions S watt (3.3v) - used by std graphics adptr MHz, PCI 2.2 (5v) - Alert on LAN 2 support MHz, PCI 2.2 (5v) - used by SCSI (some)			

Windows 2000 Professional Preload¹⁷

Microsoft® Windows® 2000 Professional

- Free license for Lotus® SmartSuite® Millennium
- Free license for Lotus Notes® Client
- Device Drivers and Diagnostics CD-ROM
 Software Selections CD-ROM
- ♦ Windows 2000 Product Recovery CD-ROM
- ♦ Windows NT 4.0 (SP6) Product Recovery CD
 ♦ Disk-to-Disk Recovery (Windows 2000 or NT
- 4.0 SP6 in hidden service partition)

64MB SDRAM ECC 133MHz unbuffered DIMM 33L3079 128MB SDRAM ECC 133MHz unbuffered DIMM 256MB SDRAM ECC 133MHz unbuffered DIMM 512MB SDRAM ECC 133MHz unbuffered DIMM 33L3081 33L3083 33L3085 IBM 20.4GB ATA-100 EIDE HDD 19K4461 IBM 30.4GB ATA-100 EIDE HDD IBM 30.GB ATA-100 EIDE HDD IBM 9.1GB 7200rpm Ultra160 SCSI HDD IBM 18.2GB 7200rpm Ultra160 SCSI HDD IBM 36.4GB 7200rpm Ultra160 SCSI HDD 00N8203 00N8204 00N8205 00N8206 IBM 9.1GB 10K Ultra160 SCSI HDD IBM 18.2GB 10K Ultra160 SCSI HDD 00N8207 00N8208 IBM 36.4GB 10K Ultra160 SCSI HDD 00N8209 IBM 9.4GB DVD-RAM (black)
IBM IDE 8X/4X/32X⁶ CD-Rewritable (black) 10K3561 331 5020 IBM 250MB Zip Drive (black) IBM P96 Color Monitor (black) 655163N 00N8078

- Maximum internal SCSI disk capacity¹³. 72.8GB (2 disks x 36.4GB)
- Removable top cover
 Configuration/Setup Utility (in flash) memory) invoked by pressing F1 at startup
- SCSISelect near startup by pressing CTRL+A
- Adv Config Power Interface (ACPI) 1.0
- ISO 9241-3 capable
- Universal Manageability Services enabled
- LANClient Control Manager™ enabled
- SMART Reaction™,5 II
- PC 99-compliant
- DMI 2.0-compliant
- Common Information Model (CIM) 2.2

- Slot 3: fullsize, 32-bit 33MHz, PCI 2.2 (5v) used by SCSI (some) Slot 4: fullsize, 32-bit 33MHz, PCI 2.2 (5v)
- Bay 1 5.25", HH 1.6", access, CD-ROM Bay @ 5.25", HH 1.6" access. open Bay ③ 3.5", SL Bay ④ 3.5", SL std diskette 1", 1". access. no access. std disk



- Stealth black color • Bay 1 and 2 in cage flips up
- Bay 3 and 4 in cage flips up
 H 5.52" x W 16.73" x D 16.73"
- ➡ H140mm x W425mm x D425mm
- 23 to 25 pounds (10.5 to 11.4kg)

LIMITED WARRANTY*,3

- 3 year parts and labor
- International Warranty Service³
- On site, 8 am through 5 pm, Mon through Fri excluding holidays, next business day response time
- 3 year on site warranty service upgrade options:7
 - 4 hour response, 7 day x 24 hr
- Post warranty maintenance services available
- 24 hour x 7 day14 telephone, electronic, and Internet support

^{*} For a copy of IBM's Statement of Limited Warranty, call 1-800-772-2227 US models announced October 10, 2000

III IntelliStation® E Pro (6846) - withdrawn

IBM® Type-model Processor	· MHz¹ Memory Disk	SCSI adapter CD-F	OM ⁶ Graphics adapter and me	Slots x Available mory bays Ethernet Preload ¹⁷ date			
6846-21U Pentium [®] 6846-22U Pentium II 6846-26U Pentium II 6846-31U Pentium II 6846-37U Pentium II 6846-37U Pentium II 6846-37U Pentium II 6846-3PU Pentium II	866	DE None 48X: CSI 29160LP 48X: CSI 29160LP 48X: DE None 48X: DE None 48X: CSI 29160LP 48X:	20X Millennium G450 16MB 20X Millennium G450 16MB 20X NVIDIA GeForce2 MX 3 20X Millennium G450 16MB 20X NVIDIA GeForce2 MX 3 20X NVIDIA GeForce2 MX 3 20X NVIDIA GeForce2 MX 3	6x7 10/100 2000 or NT Oct 2000 2MB 6x7 10/100 2000 or NT Oct 2000 2MB 6x7 10/100 2000 or NT Oct 2000			
Intel® processor L2 cache Implementation	Pentium® III 800EB, 866, 93: 256KB std and max / ECC / a Processor and L2 cache in Fl sockets, three PCI slots, cont	at processor speed lip-Chip Pin Grid Array		tains one Intel PGA370 socket, three DIMM			
SMP support	No SMP support			,			
Memory - std / max Memory - sockets Memory - features		C(Error Checking and		memory controller / PC133-compliant / buffered SDRAM ECC DIMMs			
Graphics controller (one of following)	max 166MHz SDRAM / two	DB-15 connectors (d	ual monitor capable)	IGA G450C GPU / 16MB std and std and max 166MHz SDRAM /			
SCSI disk controller			nel Wide Ultra160 SCSI (LVD				
SCSI connectors IDE disk controller Cables	SCSI models: One 68-pin in Enhanced IDE busmaster / A SCSI models: One 5-drop 1 EIDE models: Two EIDE ca	nternal SCSI connecto ATA-66 support (ATA 6-bit LVD SCSI cable bles (one 2-drop cable	-bit slot) / one channel with up or / one 0.8mm VHDCI 68-pin e -100 on later models) / two con r, one 2-drop EIDE cable (conr e to CD-ROM, one 2-drop	external SCSI connector nnectors on planar			
Disk - features	cable to EIDE EIDE models: 15GB EIDE / 1 SCSI models: 9.1GB Ultra16	ATA-100 / 7200 rpm / 3	Cover key lock (in rear)Cover tamper detect switch				
Rack support Architecture / chipsets	4U ⁴ rack mount support via VIA® Apollo Pro133A chip s PCI 2.2 32-bit 33MHz control Bridge (IDE ATA-66 [686B is	set / VT82C694X Nort ler, AGP 4X) / VIA VT8	Secure fixed DASD Power-on password Administrator password Boot sequence control Boot without keyboard or mouse				
100/10Mbps ethernet CD-ROM / diskette External ports Systems mgmt	Intel 82559 / on planar / 10B: 32-bit 33MHz PCI bus / supp 48X-20X° CD-ROM / CAV (Serial: Two 9 pin; Parallel: C keyboard, mouse, audio line Monitoring and alerting of me support for Wake on LAN, Al	Secure access openings Secure removable media VPD stored in EEPROM Write protection control for EEPROM					
Keyboard / mouse Cooling fans	IBM 104-key keyboard / IBM Three (800 and 866MHz mod models) cooling fans (power middle) / not redundant or ho	ScrollPoint® II mouse dels) or four (other supply, disks, rear,	Bay ① 5.25", HH1.6", acc Bay ② 5.25", HH1.6", acc	cess, open CD-ROM			
Power supply	two speeds 300 watts / universal / auto se	ensing	Bay (£) 3.5", SL 1", acc Bay (§) 3.5", SL 1", no	cess, diskette eess, open access, open diskette			
- Free license for Lo Device Drivers an Software Selection Windows 2000 Pro Windows NT 4.0 (Disk-to-Disk Reco 4.0 SP6 in hidden	2000 Professional tus® SmartSuite® Millennium tus Notes® Client d Diagnostics CD-ROM as CD-ROM oduct Recovery CD-ROM SP6) Prod Recovery CD-RON very (Windows 2000 or NT service partition)	Slot 2: fullsize, 32 Slot 3: fullsize, 32 Slot 5: fullsize, 32 Slot 6: fullsize, 32 Slot 6: fullsize, 32 Metal cap out of cap out of fon Handle o	Bay ⑦ 3.5", SL 1", no a P 4X, 25 watt (3.3v) - used by a -bit 33MHz, PCI 2.2 (5v) - slot h -bit 33MHz, PCI 2.2 (5v) - used -bit 33MHz, PCI 2.2 (5v) - on tw -bit 33MHz, PCI 2.2 (5v) - on tw -bit 33MHz, PCI 2.2 (5v) - on tw ge for disk bays 5,6,7 rotates assis stabilizing feet	has Alert on LAN 2 support by SCSI adapter (some) vo-slot PCI extender board Mini-tower			
128MB SDRAM ECC 256MB SDRAM ECC 512MB SDRAM ECC IBM 4Ux20D Tower- IBM 20.4GB ATA-100 IBM 9.1GB 7200rpm IBM 18.2GB 7200rpm IBM 9.1GB 10K Ultra IBM 18.2GB 10K Ultra IBM 36.4GB 10K Ultra IBM 9.4GB DVD-RA	133MHz unbuffered DIMM 3133MHz	33L3079 33L3081 33L3083 33L3085 99N4300 19K4461 00N8203 00N8204 00N8205 00N8206 00N8207 00N8208 00N8209 10K3561 33L5020	W 6.5" x D 20.0" n x W 165mm x D 508mm bounds (15.9 to 19.5kg) internal SCSI disk capacity: (4 disks x 36.4GB) le left side panel lition/Setup Utility (in flash invoked by pressing F1 at ect near startup by pressing g Power Interface (ACPI) 1.0 Manageability Services t Control Manager™ enabled	LIMITED WARRANTY*.3 ⇒ 3 year parts and labor International Warranty Service³ ⇒ On site, 8 am through 5 pm, Mon through Fri excluding holidays, next business day response time ⇒ 3 year on site warranty service upgrade option:7 • 4 hour response, 7 day x 24 hr ⇒ Post warranty maintenance services available ⇒ 24 hour x 7 day¹⁴ telephone, electronic, and Internet support			

^{*} For a copy of IBM's Statement of Limited Warranty, call 1-800-772-2227 US models announced October 10, 2000

運属 IntelliStation® E Pro (6867) - withdrawn

Type-model	Standard disk (rpm) ms seek ⁶ / disk interface CD-ROM / interface	Intel® Processor MHz¹		Rambus memory; std MB / type; devices / type	SVGA controller; AGP; memory (MB) std / max	Bus slots P=PCI ava A=AGP av	ail Total	Chip set Ethernet Ava Preload ¹⁷	ailable date
Desktop; 5 s	slot x 4 bay - US Models								
≈ 6867-12U	13.5GB ² std (7200) 9.0ms / EIDE / ATA-66 48X-20X ⁶ CD-ROM / EIDE	Pentium® III 600EB/133 MHz	256KB full spd	128MB/PC700 8D/RDRAM ECC	Millennium G400 AGP 4X adapter 16/16MB WRAM	PCI=3 AGP=0	3 used 1 empty	820 ethernet NT 4.0	Dec 1999
≈ 6867-13U	9.1GB std (7200) 7.5ms / Wide Ultra2 SCSI 48X-20X CD-ROM / EIDE	Pentium III 600EB/133 MHz	256KB full spd	128MB/PC700 8D/RDRAM ECC	Millennium G400 AGP 4X adapter 16/16MB WRAM	PCI=2 AGP=0	3 used 1 empty	820 ethernet, SCSI NT 4.0	Dec 1999
≈ 6867-15U	9.1GB std (7200) 7.5ms / Wide Ultra2 SCSI 48X-20X CD-ROM / EIDE	Pentium III 600EB/133 MHz	256KB full spd	128MB/PC700 8D/RDRAM ECC	IBM Fire GL1 ¹¹ AGP 2X adapter 32/32MB SGRAM	PCI=2 AGP=0	3 used 1 empty	820 ethernet, SCSI NT 4.0	Dec 1999
≈ 6867-17U	13.5GB std (7200) 9.0ms / EIDE / ATA-66 48X-20X CD-ROM / EIDE	Pentium III 600EB/133 MHz	256KB full spd	128MB/PC700 8D/RDRAM ECC	Appian Gemini AGP 2X adpr / 16MB dual display ports	PCI=3 AGP=0	3 used 1 empty	820 ethernet NT 4.0	Jan 2000
≈ 6867-30U	13.5GB std (7200) 9.0ms / EIDE / ATA-66 48X-20X CD-ROM / EIDE	Pentium III 667/133 MHz	256KB full spd	128MB/PC700 8D/RDRAM ECC	Millennium G400 AGP 4X adapter 16/16MB WRAM	PCI=3 AGP=0	3 used 1 empty	820 ethernet NT 4.0	Dec 1999
≈ 6867-32U	9.1GB std (7200) 7.5ms / Wide Ultra2 SCSI 48X-20X CD-ROM / EIDE	Pentium III 667/133 MHz	256KB full spd	128MB/PC700 8D/RDRAM ECC	Millennium G400 AGP 4X adapter 16/16MB WRAM	PCI=2 AGP=0	3 used 1 empty	820 ethernet, SCSI NT 4.0	Dec 1999
≈ 6867-34U	13.5GB std (7200) 9.0ms / EIDE / ATA-66 48X-20X CD-ROM / EIDE	Pentium III 667/133 MHz	256KB full spd	128MB/PC700 8D/RDRAM ECC	IBM Fire GL1 ¹¹ AGP 2X adapter 32/32MB SGRAM	PCI=3 AGP=0	3 used 1 empty	820 ethernet NT 4.0	Dec 1999
≈ 6867-35U	9.1GB std (7200) 7.5ms / Wide Ultra2 SCSI 48X-20X CD-ROM / EIDE	Pentium III 667/133 MHz	256KB full spd	128MB/PC700 8D/RDRAM ECC	IBM Fire GL1 ¹¹ AGP 2X adapter 32/32MB SGRAM	PCI=2 AGP=0	3 used 1 empty	820 ethernet, SCSI NT 4.0	Dec 1999
≈ 6867-37U	9.1GB std (7200) 7.5ms / Wide Ultra2 SCSI 48X-20X CD-ROM / EIDE	Pentium III 667/133 MHz	256KB full spd	128MB/PC700 8D/RDRAM ECC	Appian Gemini AGP 2X adpr / 16MB dual display ports	PCI=2 AGP=0	3 used 1 empty	820 ethernet, SCSI NT 4.0	Jan 2000
≈ 6867-40U	13.5GB std (7200) 9.0ms / EIDE / ATA-66 48X-20X CD-ROM / EIDE	Pentium III 733/133 MHz	256KB full spd	128MB/PC700 8D/RDRAM ECC	Millennium G400 AGP 4X adapter 16/16MB WRAM	PCI=3 AGP=0	3 used 1 empty	820 ethernet NT 4.0	Dec 1999
≈ 6867-41U	13.5GB std (7200) 9.0ms / EIDE / ATA-66 48X-20X CD-ROM / EIDE	Pentium III 733/133 MHz	256KB full spd	128MB/PC700 8D/RDRAM ECC	Millennium G400 AGP 4X adapter 16/16MB WRAM	PCI=3 AGP=0	3 used 1 empty	820 ethernet Windows 2000	Feb 2000
≈ 6867-45U	9.1GB std (7200) 7.5ms / Wide Ultra2 SCSI 48X-20X CD-ROM / EIDE	Pentium III 733/133 MHz	256KB full spd	128MB/PC700 8D/RDRAM ECC	IBM Fire GL1 ¹¹ AGP 2X adapter 32/32MB SGRAM	PCI=2 AGP=0	3 used 1 empty	820 ethernet, SCSI NT 4.0	Dec 1999
≈ 6867-19U for AAP	no disk 48X-20X CD-ROM/EIDE	Pentium III 600EB/133 MHz	256KB full spd	0MB RDRAM	None	PCI=3 AGP=1	1 used 3 empty	820 ethernet No OS	Dec 1999
≪ 6867-39U for AAP	no disk 48X-20X CD-ROM/EIDE	Pentium III 667/133 MHz	256KB full spd	OMB RDRAM	None	PCI=3 AGP=1	1 used 3 empty	820 ethernet No OS	Dec 1999
≈ 6867-49U for AAP	no disk 48X-20X CD-ROM/EIDE	Pentium III 733/133 MHz	256KB full spd	OMB RDRAM	None	PCI=3 AGP=1	1 used 3 empty	820 ethernet No OS	Dec 1999

Windows NT Preload17

Windows NT® Workstation 4.0 (SP5) ConfigSafe for Windows NT Norton AntiVirus for IBM (OEM Version) Other utilities, drivers, and applications

- Free license for Lotus® SmartSuite® Millennium
- Free license for Lotus Notes Client
 Software Selections CD-ROM
- ♦ Windows NT Product Recovery CD-ROM
- ♦ Device Drivers and Diagnostic CD-ROM
- C: is 2GB as FAT16
- Remainder of disk is unformatted

Windows 2000 Professional Preload¹⁷

Microsoft® Windows® 2000 Professional - Free license for Lotus® SmartSuite®

- Millennium ♦ Software Selections CD-ROM
- Windows 2000 Product Recovery CD-ROM (includes drivers and diagnostics)
- C: is FAT32 of entire disk

Options 64MB

128MB 700MHz ECC RDRAM (8 Dev)
256MB 700MHz ECC RDRAM (16 Dev)
64MB 800MHz ECC RDRAM (4 Dev)
128MB 800MHz ECC RDRAM (8 Dev)
256MB 800MHz ECC RDRAM (16 Dev)
18M 10.1GB 7,200 rpm EIDE disk
18M 13.5GB 7,200 rpm EIDE disk
18M 20.4GB 7,200 rpm EIDE disk
18M 9.1GB 7,200 rpm Wide Ultra2 SCSI disk
18M 18.2GB 7,200 rpm Wide Ultra2 SCSI disk
18M 9.1GB 10,000 rpm Wide Ultra2 SCSI disk
18M 9.1GB 10,000 rpm Wide Ultra2 SCSI disk
18M 18.2GB 10,000 rpm Wide Ultra2 SCSI disk
18M 18.2GB 10,000 rpm Wide Ultra2 SCSI disk

700MHz ECCRDRAM (4 Dev)

IBM IDE DVD-ROM (Black)
IBM IDE Rewrittable CD-ROM (Black)
Radip Access II Keyboard (Black)
Desktop Floor Stand

Visit www.ibm.com/options for a complete list of compatible options

Software Selections CD-ROM7

All models ship with a CD with various appls, utilities, and customization features

⇒ 13.5GB EIDE disk is ATA-66 (up to 66MB/sec) and SMART¹5 III

WARRANTY SERVICE SUPPORT³

⇒ 3 year parts and labor warranty

33L3105

33L3107

33L3109

20L0274

20L0275

20L0277

33L4958

33L5043

33L5044

201 0553

20L0554

201 0539

00N8071

00N8072

33L5003

33L5005

33L3174

33L5136

- □ International Warranty Service³
- On site, 8 am through 5 pm, Mon through Fri excluding holidays, next business day response time
- On site warranty upgrade option:
- 4 hour response¹⁴, 7 day x 24 hr
 ⇒ Post warranty on site options:
- Post warranty on site options:
- Next day response¹⁴, Mon-Fri 8-5
 4 hour response¹⁴, 7 day x 24 hr
- ✓ IBM SystemXtra®
- 24 hour x 7 day telephone, electronic, and Internet support

III IntelliStation® E Pro (6867) - withdrawn

IBM® IntelliStation®	E Pro		Desktop	
Type-model Processor(s) Implementation Processor upgrade Avail / withdrawn date L2 cache Memory - std / max Mem - architecture Mem - sockets used Mem - sockets used	system bus Processor and L2 cad Intel Slot 1 CPU conn Enabled for Slot 1 Intel Dec 1999 or Jan 2000 256KB std and max / integrated in SECC2 128MB std / 512MB Single RDRAM (Ram Two 184-pin gold-pla	che in Single Edge Cartridge (SECC2) in lector / motherboard has one Slot 1 lel upgrade processors or Feb 2000 / June 2000 and Nov 2000 full speed / ECC support / / 8-way set associative / write-back max ¹³ (memory controller max is 1GB) hbus) channel / 32 devices max / ECC ted RIMM sockets RIMM / one socket used by CRIMM	Bay ① 5.25", H Bay ② 3.5", SI Bay ③ 3.5", SI Bay ④ 3.5", SI Slot 1: fullsize, 3 Slot 2: fullsize, 3 Slot 3: halfsize, 5 Slot 4: halfsize, 5	CD-ROM disk H 1.6", access, open or CD-ROM L 1", access, open L 1", no acc, open or std disk, rails L 1", access, std diskette 12-bit PCI 2.2 (5v)* - ethernet adapter 132-bit PCI 2.2 (5v) - SCSI (some mdls) 132-bit PCI 2.2 (5v) 132-bit PCI 2.2 (5v) 132-bit AGP 4X - on planar, not riser
Mem - type (support) Memory - supported Graphics controller (Performance 2D)	Some Matrox® Mill models 16MB std /16 sideband add 256-bit Duall	iller is ECC) / non-parity not supported 0, PC800 RIMM (no PC600 support) lennium G400 / AGP 4X adapter / SMB max / 166MHz SGRAM / dressing / 250 MHz RAMDAC / Bus chip / max 2D resolution of 2048x1536 / 80x1024x16.7million at 100 Hz		ompatible Stand and Bottom Cover (33L5136) (Bay 1-3) in flip out cage
Graphics controller (Advanced 3D) Graphics controller (Dual displays)	models 32MB std / 32 250MHz RAI Some Appian Gem	I / AGP 2X adapter / PMB max / SGRAM / sideband-capable / MDAC / split transactions Ini / AGP 2X adapter / 16MB std / 16MB max rs with two DB-15 ports for multiple monitors	36.4GB wit SCSI disks All models: Ma	aximum internal SCSI disk capacity ¹³ : th two 18.1GB 10000 rpm Wide Ultra2 aximum internal EIDE disk capacity ¹³ : th two 20.4GB EIDE disks
	SCSI models only: Acadapter / PCI adapter Internal: 68 pin (attac SCSI models: 5-drop cable (CD-ROM) EIDE models: Two 2-IDE ATA-33 cable / n AAP models: One 1-d	hes 5-drop cable to SCSI disk); External: 68 pi 16-bit LVD cable on internal connector; one 1-dro drop IDE ATA-66 cable / CD-ROM uses secor	Ultra2 SCSI n SCSI port op IDE ATA-33 nd 1-drop	SECURITY Cover key lock Cover tamper detect switch Secure fixed DASD Serial EEPROM with write protect Power-on password Setup utility password (administrator password) Keyboard/mouse password
Motherboard Bus slots (see side) Architecture	NLX motherboard / riser contains rear I/O PCI 2.2 (33MHz), 4X Accelerated Hub Ar Intel 820 chip set / 82801 I/O Controller USB, Low Pin Count	slides out without removing cables /) ports and IDE and diskette connectors	device support	Wake on LAN password prompt Boot sequence control Boot without keyboard or mouse Diskette boot inhibit Disable mouse Disable external SCSI port Diskette Write-protect Diskette I/O control
Ports Diskette drive CD-ROM Audio Audio connectors Ethernet controller	Ser: Two 9 pin Par: 0 3.5" 1.44MB diskette Some models: 48X- SoundMAX™ integrate AC '97 interface / ADI Stereo line in / mic in Some models: IBM 1 10BaseT and 100Bas	One (EPP, ECP) / IEEE 1284 USB: Two 4-pin I drive 20X° CD-ROM / CAV / ATAPI / bootable ed digital audio / software-based (done by Pent 1881 codec (analog mixing, A-to-D and D-to-A / line out (all 3.5mm; all in back) / software vol 10/100 EtherJet PCI Adapter with Alert on L seTX / RJ45 connector / Wake on LAN® / part no	ium and ICH) / conversion) ume control AN 2 / 82559 / umber 34L1101	Serial port I/O control Parallel port I/O control Secure access openings (vents, louvers) Secure removable media Data storage for LCCM function U Bolt enabled Vital product data stored in on-board flash ROM Write protection control circuit for
Systems mgmt cntrl Security chip Keyboard / mouse Cooling fans Power supply	cover removal / Philip Integrated IBM Secur 104 key (rubber dome One fan in front	erature, fan speed, power supply/processor vo s® PCA9556 ity Chip / soldered on motherboard e) / keyboard extender / IBM ScrollPoint™ II n ⁷ manual switch / Wake on LAN support / interna	nouse • As	flash ROM SYSTEMS MANAGEMENT sset ID™ (RFID)¹6 lert on LAN™ 2
SECUF - Provides electronic and secure key sto - Can sign each e-m signature (1024-bit party can verify ser - Public Key Infrastru more secure e-mai and Internet transa: Secure Sockets La encryption/decrypti - Uses User Verficati software available for Serviceability feature - Metal top cover (su - Tool-less entry - Cover removed by - Pivoting disk cage	cidigital signature rage ail with a digital) so receiving nder ucture (PKI) for I, web access ctions, and eyer (SSL) for ion capabilities ion Manager from IBM web site es: upports a 100 pound metwo easy-lift tabs (des	Dual orientation with optional stand (desktop) Configuration/Setup Utility resides in flash memory; invoked by pressing F1 key at startu ESC for fast POST F12 for network boot at startup Plug-and-Play 1.0a Desktop: 17.60"W x 17.72"D x 5.28"H 22 to 25 lbs (10 to 11.4 kg) ISO 9241-3 capable 512KB IBM BIOS in flash memory EPA ENERGY STAR-compliant (some model: PC-Doctor diagnostic software Color-coded icons for rear connectors onitor) ktop) ays with release latch (desktop)	P UI UI EN	niversal Manageability Services and niversal Manageability (UM) Desktop ktensions enabled ANClient Control Manager™ enabled MART Reaction™.5 II C 99-compliant MI 2.0-compliant ommon Information Model (CIM) 2.2 seet Information Chip (EEPROM) fired for Management 1.1a CPI 1.04 dvanced Power Management 1.2 fake on LAN support ternate Boot Sequence PL, DHCP, and PXE support etup on LAN, Flash on LAN fake on Alarm system Management BIOS systems Migration Assistant support

III IntelliStation® E Pro (6867) - Spring 2000 - withdrawn

Standard disk (rpm) ms seek ⁶ / disk interface CD-ROM / interface	Processor	L2 cache	std MB / type;	Graphics controller; AGP; memory (MB) std / max	P=PCI ava	ail Total	Chip set Eth / SCSI Preload ¹⁷	Avail- able date
lot x 4 bay - US Models								
15.0GB ² std (7200) 9.0ms / EIDE / ATA-66 48X-20X ⁶ CD-ROM / EIDE		256KB full spd	128MB/PC700 8D/RDRAM ECC	Millennium G400 AGP 4X adapter 16/16MB WRAM	PCI=3 AGP=0	3 used 1 empty	820 ethernet NT 4.0	April 2000
9.1GB std (7200) 7.5ms / Wide Ultra2 SCSI 48X-20X CD-ROM / EIDE	Pentium III 800EB/133 MHz	256KB full spd	128MB/PC700 8D/RDRAM ECC	Millennium G400 AGP 4X adapter 16/16MB WRAM	PCI=2 AGP=0	3 used 1 empty	820 ethernet, SCSI NT 4.0	April 2000
9.1GB std (7200) 7.5ms / Wide Ultra2 SCSI 48X-20X CD-ROM / EIDE	Pentium III 800EB/133 MHz	256KB full spd	128MB/PC700 8D/RDRAM ECC	ELSA™ Gloria II AGP 4X adapter 64/64MB SDRAM	PCI=2 AGP=0	3 used 1 empty	820 ethernet, SCSI NT 4.0	April 2000
15.0GB ² std (7200) 9.0ms / EIDE / ATA-66 48X-20X ⁴ CD-ROM / EIDE	Pentium III 866/133 MHz	256KB full spd	128MB/PC700 8D/RDRAM ECC	Millennium G400 AGP 4X adapter 16/16MB WRAM	PCI=3 AGP=0	3 used 1 empty	820 ethernet NT 4.0	April 2000
9.1GB std (7200) 7.5ms / Wide Ultra2 SCSI 48X-20X CD-ROM / EIDE	Pentium III 866/133 MHz	256KB full spd	128MB/PC700 8D/RDRAM ECC	Millennium G400 AGP 4X adapter 16/16MB WRAM	PCI=2 AGP=0	3 used 1 empty	820 ethernet, SCSI NT 4.0	April 2000
9.1GB std (7200) 7.5ms / Wide Ultra2 SCSI 48X-20X CD-ROM / EIDE	Pentium III 866/133 MHz	256KB full spd	128MB/PC700 8D/RDRAM ECC	ELSA Gloria II AGP 4X adapter 64/64MB SDRAM	PCI=2 AGP=0	3 used 1 empty	820 ethernet, SCSI NT 4.0	April 2000
no disk 48X-20X CD-ROM/EIDE	Pentium III 800EB/133 MHz	256KB full spd	0MB RDRAM	None	PCI=3 AGP=1	1 used 3 empty	820 ethernet No OS	April 2000
no disk 48X-20X CD-ROM/EIDE	Pentium III 866/133 MHz	256KB full spd	0MB RDRAM	None	PCI=3 AGP=1	1 used 3 empty	820 ethernet No OS	April 2000
15.0GB ² std (7200) 9.0ms / EIDE / ATA-66 48X-20X ⁴ CD-ROM / EIDE	Pentium III 933/133 MHz	256KB full spd	128MB/PC700 8D/RDRAM ECC	Millennium G400 AGP 4X adapter 16/16MB WRAM	PCI=3 AGP=0	3 used 1 empty	820 ethernet NT 4.0	June 2000
15.0GB ² std (7200) 9.0ms / EIDE / ATA-66 48X-20X ⁴ CD-ROM / EIDE	Pentium III 933/133 MHz	256KB full spd	256MB / PC700 RDRAM ECC 2 x 128MB 8D	Millennium G400 AGP 4X adapter 16/16MB WRAM	PCI=3 AGP=0	3 used 1 empty	ethernet NT 4.0 and Ra Suite Enterpri Studio softw	se are
	ms seek ⁶ / disk interface CD-ROM / interface Iot x 4 bay - US Models 15.0GB ² std (7200) 9.0ms / EIDE / ATA-66 48X-20X ⁶ CD-ROM / EIDE 9.1GB std (7200) 7.5ms / Wide Ultra2 SCSI 48X-20X CD-ROM / EIDE 9.1GB std (7200) 7.5ms / Wide Ultra2 SCSI 48X-20X CD-ROM / EIDE 15.0GB ² std (7200) 9.0ms / EIDE / ATA-66 48X-20X CD-ROM / EIDE 9.1GB std (7200) 7.5ms / Wide Ultra2 SCSI 48X-20X CD-ROM / EIDE 9.1GB std (7200) 7.5ms / Wide Ultra2 SCSI 48X-20X CD-ROM / EIDE 9.1GB std (7200) 7.5ms / Wide Ultra2 SCSI 48X-20X CD-ROM / EIDE no disk 48X-20X CD-ROM / EIDE no disk 48X-20X CD-ROM / EIDE 15.0GB ² std (7200) 9.0ms / EIDE / ATA-66 48X-20X ⁴ CD-ROM / EIDE 15.0GB ² std (7200) 9.0ms / EIDE / ATA-66	ms seek ⁶ / disk interface CD-ROM / interface CD-R	Processor L2 cache Standard CD-ROM / Interface Processor L2 cache Standard CD-ROM / EIDE CD-ROM / EIDE Pentium III Spd MHz Spd Sp	This seek File From Fr	Standard disk (rpm) Intel® Processor MHz² Std MB / type; st	Intel® ms seek® / disk interface CD-ROM / interface Standard State / Interface State / Interface Standard State / Interface Standard State / Interface / Interface State / Interface / I	Standard disk (rpm) ms seek® (disk interface CD-ROM / interface C	Standard disk (rpm) reseeks of disk interface research of the processor research of disk interface research of the processor rese

Windows NT Preload17

Windows NT® Workstation 4.0 (SP5) ConfigSafe for Windows NT Norton AntiVirus for IBM (OEM Version) Other utilities, drivers, and applications

- Free license for Lotus® SmartSuite® Millennium
- Free license for Lotus Notes Client
- ♦ Software Selections CD-ROM♦ Windows NT Product Recovery CD-ROM
- ♦ Device Drivers and Diagnostic CD-ROM
- C: is 2GB as FAT16
- Remainder of disk is unformatted

Software Selections CD-ROM17

All models ship with a CD with various appls, utilities, and customization features

Options

64MB 700MHz ECCRDRAM (4 Dev) 128MB 700MHz ECCRDRAM (8 Dev) 700MHz ECCRDRAM (16 Dev) 800MHz ECCRDRAM (4 Dev) 256MB 64MB 128MB 800MHz ECCRDRAM (8 Dev) 256MB 800MHz ECCRDRAM (16 Dev) IBM 10.1GB 7,200 rpm EIDE disk IBM 13.5GB 7,200 rpm EIDE disk IBM 20.4GB 7,200 rpm EIDE disk IBM 9.1GB 7,200 rpm Wide Ultra2 SCSI disk IBM 18.2GB 7,200 rpm Wide Ultra2 SCSI disk IBM 9.1GB 10,000 rpm Wide Ultra2 SCSI disk IBM 9.1GB 10,000 rpm Wide Ultra2 SCSI disk IBM 18.2GB 10,000 rpm Wide Ultra2 SCSI disk IBM IDE DVD-ROM (Black) IBM IDE Rewrittable CD-ROM (Black) Rapid Access II Keyboard (Black) Desktop Floor Stand

Visit www.ibm.com/options for a complete list of compatible options

WARRANTY SERVICE SUPPORT³

- ⇒ 3 year parts and labor warranty
 ⇒ International Warranty Service³
- On site, 8 am through 5 pm, Mon through Fri excluding holidays, next business day response time
- Solution of the control of the c
- 4 hour response¹⁴, 7 day x 24 hr
- Post warranty on site options:
- Next day response¹⁴, Mon-Fri 8-5
- 4 hour response¹⁴, 7 day x 24 hr
- IBM SystemXtra®

33L3105

33L3107

33L3109

20L0274

20L0275

20L0277

33L4958

33L5043

33L5044

20L0553

20L0554

20L0539

00N8071

00N8072

33L5003

33L5005

33L3174

33L5136

24 hour x 7 day telephone, electronic, and Internet support

⇒ 15.0GB EIDE disk is ATA-66 (up to 66MB/sec) and SMART⁵ III

III IntelliStation® E Pro (6867) - Spring 2000 - withdrawn

IBM® IntelliStation® E	E Pro		Desktop
Type-model Processor(s) Implementation Processor upgrade Avail / withdrawn date	Processor and L2 ca Intel Slot 1 CPU con Enabled for Slot 1 Int	EB, 866, or 933MHz¹ with 133MHz system bus che in Single Edge Cartridge (SECC2) in nector / motherboard has one Slot 1 el upgrade processors r August 00 / November 00 or May 01	diskette CD-ROM disk Bay ① 5.25", HH 1.6", access, CD-ROM Bay ② 3.5", SL 1", access, open
L2 cache		full speed / ECC support / / 8-way set associative / write-back	Bay ② 3.5", SL 1", access, open Bay ③ 3.5", SL 1", no acc, open or std disk, rail Bay ④ 3.5", SL 1", access, std diskette
Memory - std / max Mem - architecture Mem - sockets used Mem - sockets used Mem - type (support) Memory - supported	Single RDRAM (Ran Two 184-pin gold-pla One socket used by (except model 78U c ECC (memory contro	max ¹³ (memory controller max is 1GB) nbus [®]) channel / 32 devices max / ECC ted RIMM sockets RIMM / one socket used by CRIMM ontains two 128MB RIMMs) oller is ECC) / non-parity not supported 0, PC800 RIMM (no PC600 support)	Slot 1: fullsize, 32-bit PCI 2.2 (5v)* - ethernet adapter Slot 2: fullsize, 32-bit PCI 2.2 (5v) Slot 3: halfsize, 32-bit PCI 2.2 (5v) - SCSI (some mdls Slot 4: halfsize, 32-bit PCI 2.2 (5v) Slot: fullsize, 32-bit AGP 4X - on planar, not riser * Slot 1 has Alert on LAN support with compatible
Graphics controller (Performance 2D)	models 16MB std /1 sideband ad 256-bit Dual	lennium G400 / AGP 4X adapter / 6MB max / 166MHz SGRAM / dressing / 250 MHz RAMDAC / Bus chip / max 2D resolution of 2048x1536 / 80x1024x16.7million at 100 Hz	LAN adapter - Optional Floor Stand and Bottom Cover (33L5136) - CD-ROM/disk (Bay 1-3) in flip out cage - All systems stealth black color
Graphics controller (Advanced 3D)	models 110MHz SDI 2048x1536 a 256-bit Quad	a II / AGP 4X adapter / 64MB 128-bit RAM std and max / 350MHz RAMDAC / tt 75Hz / NVIDIA™ Quadro controller / Pipe rendering engine	All models: Maximum internal SCSI disk capacity ¹⁵ 36.4GB with two 18.1GB 10000 rpm Wide Ultra2 SCSI disks All models: Maximum internal EIDE disk capacity ¹⁵ 40.8GB with two 20.4GB EIDE disks
	Wide Ultra2 SCSÍ ad Internal: 68 pin (attac SCSI models: 5-drop cable (CD-ROM) EIDE models: Two 2 IDE ATA-33 cable / r	hes 5-drop cable to SCSI disk); External: 68 pi 16-bit LVD cable on internal connector; one 1-dro drop IDE ATA-66 cable / CD-ROM uses secon to SCSI cable	n SCSI port p IDE ATA-33 nd 1-drop SECURITY Cover key lock Cover tamper detect switch Secure fixed DASD Serial EEPROM with write protect
Cables - AAP models EIDE disk controller	AAP models: One 1-0 Enhanced IDE in ICH	drop IDE ATA-33 cable / ATA-66 and PIO modes 0-4 with 2 channel, 4	device support • Power-on password • Setup utility password (administrator password)
Motherboard Bus slots (see side) Architecture	riser contains rear I/C PCI 2.2 (33MHz), 4X Accelerated Hub Ai Intel 820 chip set /8 82801 I/O Controller USB, Low Pin Count	slides out without removing cables / D ports and IDE and diskette connectors AGP (66MHz); chitecture / 266MB/sec I/O channel / 2810 Memory Controller Hub (MCH) / Hub (ICH) for PCI 2.2 bus, ATA-66 EIDE, Interface / 82802AC Firmware Hub / for diskette, parallel, serial, keyboard, mouse	Keyboard/mouse password Wake on LAN password prompt Boot sequence control Boot without keyboard or mouse Diskette boot inhibit Disable mouse Disable external SCSI port Diskette write-protect
Ports Diskette drive CD-ROM Audio	3.5" 1.44MB diskette All models: 48X-203 SoundMAX™ integra AC '97 interface / AD	One (EPP, ECP) / IEEE 1284 USB: Two 4-pin l drive (° CD-ROM / CAV / ATAPI / bootable ted digital audio / software-based (done by Pent 1881 codec (analog mixing, A-to-D and D-to-A / line out (all 3.5mm; all in back) / software vol	USB (Vers 1.1) • Diskette I/O control • Hard drive I/O control • Serial port I/O control • Parallel port I/O control • Parallel port I/O control • Secure access openings
Ethernet controller Systems mgmt cntrl Security chip	10BaseT and 100Ba Chip to monitor temp cover removal / Philip	100 EtherJet PCI Adapter with Alert on LAN seTX / RJ45 connector / Wake on LAN® / part no erature, fan speed, power supply/processor vo ps® PCA9556 rity Chip / soldered on motherboard	umber 34L1101 • Data storage for LCCM function
Keyboard / mouse Cooling fans Power supply	One fan in front	e) / keyboard extender / IBM ScrollPoint™ II n / manual switch / Wake on LAN support / interna	nouse flash ROM
- Provides electronic and secure key storuch and secure key storuch events for a signature (1024-bit) party can verify sen en Public Key Infrastrumore secure e-mail and Internet transac Secure Sockets Latencryption/decrypticular events user verificati software available for Serviceability feature Metal top cover (su Tool-less entry Cover removed by Pivoting disk cage for the signal service for the service for	rage ail with a digital so receiving der loture (PKI) for , web access ctions, and yer (SSL) for on capabilities on Manager rom IBM web site s: pports a 100 pound me two easy-lift tabs (des	ktop) ays with release latch (desktop)	Universal Manageability (UM) Desktop Extensions enabled • LANClient Control Manager™ enabled • SMART Reaction™.5 II • PC 99-compliant • DMI 2.0-compliant • Common Information Model (CIM) 2.2 • Asset Information Chip (EEPROM) • Wired for Management 1.1a • ACPI 1.04

IBM IntelliStation® E Pro models (6893) - withdrawn

Type-model	Standard disk (rpm) ms seek / disk interface CD-ROM ⁶ /interface	CPU MHz ¹ /	Upgrade	Write-back L2 cache std / max KB / KB	Memory in MB; std / max 100MHz	SVGA controller; memory std / max	Bus slots P=PCI avail PCI/ISA=avail A=AGP avail	Total bays	Chipset Ethernet Available Preload ¹⁷ date
5 slot x 4 bay	r; PCI/ISA/AGP; Stealth Gr	ray							
	6.4GB ² std (7200) 9.5ms / EIDE / ATA-33 32X-14X ⁶ CD-ROM / EIDE	Pentium [®] II 350/100 MHz	Pent II 400MHz, 450MHz	512/512 175MHz in SEC	64 / 768 SDRAM ECC	Millennium II AGP adapter 8 / 16 WRAM	PCI=2 PCI/ISA=1 ISA=1; AGP=0	4 bays 3 used 1 empty	440BX June Ethernet 1998 Windows NT 4.0
	4.5GB std (7200) 7.5ms / Wide Ultra SCSI 32X-14X CD-ROM / EIDE	Pentium II 350/100 MHz	Pent II 400MHz, 450MHz	512/512 200MHz in SEC	64/768 SDRAM ECC	Millennium II AGP Adapter 8 / 16 WRAM	PCI=1 PCI/ISA=1 ISA=1; AGP=0	4 bays 3 used 1 empty	440BX June Ethernet 1998 Windows NT 4.0
≈ 6893-12U	6.4GB std (7200) 9.5ms / EIDE / ATA-33 32X-14X CD-ROM / EIDE	Pentium II 400/100 MHz	Pent II 450MHz,	512/512 200MHz in SEC	64 / 768 SDRAM ECC	Millennium II AGP Adapter 8 / 16 WRAM	PCI=2 PCI/ISA=1 ISA=1; AGP=0	4 bays 3 used 1 empty	440BX June Ethernet 1998 Windows NT 4.0
≈ 6893-14U	4.5GB std (7200) 7.5ms / Wide Ultra SCSI 32X-14X CD-ROM / EIDE	Pentium II 400/100 MHz	Pent II 450MHz	512/512 200MHz in SEC	128/768 SDRAM ECC	Permedia 2A AGP Adapter 8/8M SGRAM	PCI=1 PCI/ISA=1 ISA=1; AGP=0	4 bays 3 used 1 empty	440BX June Ethernet 1998 Windows NT 4.0
	no disk 32X-14X CD-ROM / EIDE	Pentium II 400/100 MHz	Pent II 450MHz	512/512 200MHz in SEC	64 / 768 SDRAM ECC	None	PCI=2 PCI/ISA=1 ISA=1; AGP=1	4 bays 2 used 2 empty	440BX June Ethernet 1998 Open OS
≈ 6893-41U	6.4GB std (7200) 9.5ms / EIDE / ATA-33 32X-14X CD-ROM / EIDE	Pentium II 450/100 MHz	None	512/512 225MHz in SEC	64 / 768 SDRAM ECC	Millennm G200 AGP-2x Adapter 8/16M SGRAM	PCI=2 PCI/ISA=1 ISA=1; AGP=0	4 bays 3 used 1 empty	440BX Sept Ethernet 1998 Windows NT 4.0
≈ 6893-42U	4.5GB std (7200) 7.5ms / Wide Ultra SCSI 32X-14X CD-ROM / EIDE	Pentium II 450/100 MHz	None	512/512 225MHz in SEC	64 / 768 SDRAM ECC	Millennm G200 AGP-2x Adapter 8/16M SGRAM	PCI=1 PCI/ISA=1 ISA=1; AGP=0	4 bays 3 used 1 empty	440BX Sept Ethernet 1998 Windows NT 4.0
	10.1GB std (7200) 9.5ms / EIDE / ATA-33 32X-14X CD-ROM / EIDE	Pentium II 450/100 MHz	None	512/512 225MHz in SEC	128/768 SDRAM ECC	Millennm G200 AGP-2x Adapter 8/16M SGRAM	PCI=2 PCI/ISA=1 ISA=1; AGP=0	4 bays 3 used 1 empty	440BX Sept Ethernet 1998 Windows NT 4.0
≈ 6893-44U	9.1GB std (7200) 7.5ms / Wide Ultra SCSI 32X-14X CD-ROM / EIDE	Pentium II 450/100 MHz	None	512/512 225MHz in SEC	128/768 SDRAM ECC	Millennm G200 AGP-2x Adapter 8/16M SGRAM	PCI=1 PCI/ISA=1 ISA=1; AGP=0	4 bays 3 used 1 empty	440BX Sept Ethernet 1998 Windows NT 4.0
	no disk 32X-14X CD-ROM / EIDE	Pentium II 450/100 MHz	None	512/512 225MHz in SEC	64 / 768 SDRAM ECC	None	PCI=2 PCI/ISA=1 ISA=1; AGP=1	4 bays 2 used 2 empty	440BX Sept Ethernet 1998 Open OS
	no disk 32X-14X CD-ROM / EIDE	Pentium II 350/100 MHz	Pent II 400MHz, 450MHz	512/512 175MHz in SEC	64 / 768 SDRAM ECC	None	PCI=2 PCI/ISA=1 ISA=1; AGP=1	4 bays 2 used 2 empty	440BX Sept Ethernet 1998 Open OS
≈ 6893-60U	6.4GB ² std (7200) 9.5ms / EIDE / ATA-33 32X-14X ⁴ CD-ROM / EIDE	Pentium II 350/100 MHz	Pent II 400MHz, 450MHz	512/512 175MHz in SEC	64 / 768 SDRAM ECC	Millennm G200 AGP-2x Adapter 8/16M SGRAM	PCI=2 PCI/ISA=1 ISA=1: AGP=0	4 bays 3 used 1 empty	440BX Nov Ethernet 1998
≈ 6893-61U	4.5GB std (7200) 7.5ms / Wide Ultra SCSI 32X-14X CD-ROM / EIDE	Pentium II 350/100 MHz	Pent II 400MHz, 450MHz	512/512 175MHz in SEC	64 / 768 SDRAM ECC	Millennm G200 AGP-2x Adapter 8/16M SGRAM	PCI=1 PCI/ISA=1 ISA=1; AGP=0	4 bays 3 used 1 empty	440BX Nov Ethernet 1998 Windows NT 4.0
≪ 6893-62U	6.4GB std (7200) 9.5ms / EIDE / ATA-33 32X-14X CD-ROM / EIDE	Pentium II 400/100 MHz	Pent II 450MHz	512/512 200MHz in SEC	64 / 768 SDRAM ECC	MillennmG200 AGP-2x Adapter 8/16M SGRAM	PCI=2 PCI/ISA=1 ISA=1; AGP=0	4 bays 3 used 1 empty	440BX Nov Ethernet 1998 Windows NT 4.0

Windows NT Preload¹⁷

Windows NT® Workstation 4.0 (SP3) Internet Explorer 4.0 install icon IBM Welcome Center Device drivers for each subsystem Ready to install:

- ConfigSafe for Windows NT 4.0
- Norton AntiVirus for Windows NT
- DMI Service Provider
- DMI BIOS Instrumentation
- IBM PC System Monitor Instrumentation
- IBM AssetCare Serial Number Information IBM RTC CD-ROM Setup Utility
- IBM Utilities for Windows 95/NT 4.0

 Hummingbird "Try and Buy" Suite CD-ROM
- Ready to Configure CD-ROM
 Free license for Lotus SmartSuite 97 CD-ROM - IBM ViaVoice 98 Office Edition CD-ROM
- Windows NT Workstation 4.0 CD-ROM

- IBM Diagnostics CD-ROM Access to IBM HomePage Creator

C: is 2GB as FAT16 Remainder is unformatted

Supported Memory and Options

32MB SDRAM ECC DIMM 100MHz 64MB SDRAM ECC DIMM 100MHz 01K1133 01K1130 128MB SDRAM ECC DIMM 100MHz 01K1131 256 MB SDRAM ECC DIMM Registered 01K1132 IBM Netfinity 400MHz Pentium II/512KB 10L5884 IBM Netfinity 450MHz Pentium II/512KB 10L5900 Matrox Millennium G200 Graphics Adap 10L7127 Matrox Millennium II AGP Graphics Adap 02K3459 Permedia 2A Graphics Accelerator 10L7097 4.2GB EIDE Deskstar 5 (ATA-33) 6.4GB EIDE Deskstar 5 (ATA-33) 01K1276 01K1279 6.4GB 7200 rpm EIDE disk 01K1329 8.4GB Deskstar 01K1316 9.1GB 7200 rpm EIDE disk 01K1330 10.1GB 7200 rpm EIDE disk IBM Ultrastar 2ES 2.1GB WU SCSI IBM Ultrastar 2ES 4.3GB WU SCSI 20L0548 76H5813 76H5815 4.5GB Wide Ultra SCSI (7200 rpm) 9.1GB Wide Ultra SCSI (7200 rpm) 01K1327 01K1328 10/100 PCI EtherJet Adapter WOL 081 2565 Auto Wake Token-Ring ISA Adapter 55H6760

PCI Token Ring Adapter WOL

Ready to Configure CD-ROM

All models ship with a CD with drivers for Windows $^{\!6}$ 95, 98, and NT 3.51 and 4.0 and various utilities. Includes:

- Intel LANDesk® Client Manager
- ConfigSafe
- IBM Systems Management Tools

WARRANTY SERVICE SUPPORT³

- 3 year parts warranty
- 1 year labor warranty
- International Warranty Service³
- 1st year: on site, 8 am 5 pm, Mon - Fri coverage,
 - 2nd business day response time
- 2nd/3rd year: parts exchange only, call 1-800-772-2227
- On site warranty upgrade options:
 - Next day response⁷, Mon-Fri 8-5
 - 4 hour response⁷, 7 day x 24 hr
- Post warranty: on site options above
- IBM SystemXtra®

86H1880

24 hour / 7 day telephone, electronic, Internet (www.pc.ibm.com) support

Ethernet = Intel® 10/100 ethernet chip; 10BaseT and 100BaseTX; Alert on LAN™ RTC CD = ReadyTo Configure CD-ROM
Wide Ultra SCSI = Adaptec® AHA-2940UW PCI Adapter; single channel Wide Ultra SCSI = Models announced November 3, 1998

III IntelliStation® E Pro (6893) - withdrawn

IBM® IntelliStation®	E Pro			Desktop - Optional black	diskette CD-ROM		
Type-model Processor Implementation Processor upgrade Avail / withdr date	6893-xxx Intel® Pentium® II 350/100, 4 Processor and L2 cache in Si Intel Slot 1 CPU connector / n No SMP / Pentium II 400/100 Sept 1998 or Nov 1998 / Nov	ingle Edge C notherboard MHz or Pent 98, Mar 99,	cartridge (SEC) in has one Slot 1 ium II 450/100MHz or Jun 99	(02K2734) avail at 919-304-5000 - CD-ROM/disk in cage that flips out disk Bay ① 5.25", HH 1.6", access, CD-ROM Bay ② 5.25**SL 1", access, open Bay ③ 3.5", SL 1", no access, open or std disk Bay ④ 3.5", SL 1", access, std diskette			
L2 cache	512KB std / 512KB max / EC integrated in SEC / 4 way set			with part number	nvert to 3.5" available from AirSpeed er 01K5873 from 919-304-5000		
Memory - std / max Mem - total sockets Mem - sockets used Mem - type (support) Memory - supported	64 or 128MB / 768MB max ¹³ / 1 Three 168 pin gold-plated DII One DIMM used / PC100-com Non-parity or ECC (memory cc 32, 64, 128 or 256MB ECC SI are registered (buffered); can	MM sockets of pliant / hardwontroller is Erro DRAM DIMM	/ industry standard vare scrubbing ECC or Checking Correcting) Is / only 256MB DIMMs	Slot 5: fullsize, 32-bit AGP-2x - on motherboard, not rise			
Graphics controller	AAP models may include: Ma Intergraph Intense 3D Pro 3 3Dlabs [®] Permedia [®] 2A (value	400 (fast 3D)	, Intergraph Intense 3	BD Pro 3400 Geom	etry Accelerator (fastest 3D),		
Graphics - type Graphics - memory Graphics - features	Millennium II / AGP-1x 266N 8MB std / 16MB max / WRAN Baseline / no sideband or spl 250MHz 64-bit RAMDAC / 16 Max resolution of 1920 x 120	M it transatns 5.7M colors	Millennium G200 / AG 8MB std / 16MB max Sideband / split trans 250 MHz RAMDAC / Max 2D resolution of 1	128-bit SGRAM actions 16.7M colors	PERMEDIA 2A / AGP-1x 266MB/s adpt 8MB std/max / 90MHz SGRAM Sideband / split transactions 230MHz RAMDAC / 16.7 mil colors Max resolution of 1600x1200		
Disk Disk controller	Enhanced IDE busmaster on	ı planar (PII) A-2940UW U	(4E) / 32-bit PCI 2.1 /	Ultra DMA/33 and	II disks SMART⁵ and SMART Reaction™ PIO modes 3, 4 / 2 IDE conn on riser nel for 15 devices / 16-bit int, 8-bit int,		
Disk cable(s)	SCSI models: Three drop 16 All: One 2 drop IDE cable an	-bit SCSI cal		ole attaches to CD)	SECURITY		
Motherboard Bus slots Architecture	NLX motherboard / slides or riser contains rear I/O ports a PCI 2.1 (33MHz), AGP-2x (6I Intel 440BX AGPset / PIIX4I SMC FDC37C673 Super I/O	ind IDE and 6MHz), and E for EIDE, I		Chassis intrusion protection Cover key lock U-Bolt support Secure fixed disk Serial EEPROM with write protect Power-on password			
Serial/parallel ports Universal Serial Bus Diskette drive CD-ROM Audio Audio connectors	Ser: Two 9 pin / 115Kbps / 16 Two USB ports / 1.5MB/sec (3.5" 1.44MB diskette drive 32X-14X4 speed CD-ROM / C Crystal CS4235 chip on plans Stereo line in / mic in / line ou	12Mbps) ma CAV / ATAPI ar / stereo / I	s / int speaker	Admin password Keyboard/mouse password Wake on LAN password prompt Boot sequence control Boot without keyboard/mouse Diskette boot inhibit			
Ethernet controller LCCM Systems mgmt cntrl	Intel EtherExpress PRO/10 10BaseT and 100BaseTX / F LANClient Control Manager ^m Flash on LAN / Hybrid RPL / National Semiconductor [®] LM fan speed and optional disk fa	RJ45 UTP co denabled / Vertical of the companion of the	nnector / Wake on LAN Vake on LAN / Setup o TP / software image do le chip / monitors temp	Alert on LAN n LAN / ownload erature, front	Disable mouse Disable external SCSI port Diskette write protect Diskette and disk I/O control Serial/parallel I/O control Secure access openings (louvers) Secure removable media		
Keyboard / Mouse Cooling fans Power supply	104 key (rubber dome) keybo Two or three fans (pwr supply 145 watts / universal / manual	, processor,	a third may be installed		Data storage for LCCM function Vital Product Data stored in EEPROM Write protect control circuit for EEPROM		
18.2GB with two All models: Maxim	num internal SCSI disk capaci 9.1GB 7200 rpm Wide Ultra S num internal EIDE disk capaci 10.1GB EIDE disks	ĆSI disks			Barcode labels on most components Remotely readable DMI-compliant: System EEPROM on motherboard (info and serial no for CPU, system		
monitoring; immedia events such as chas start up errors, even Asset ID™ (RFID)¹¹² (RF) technology for security; includes EE accessed via DMI so external RF link such units; theft protection SMART Reaction™ PC 97 compliant DMI 2.0 compliant v includes MIF bro Layer 2.0, DMI E	deployment, inventory, and EPROM that can be offtware through network or an as hand-held RF read/write automatic backup of disk with DMI manageability chip; owser with DMI Service BIOS 2.1, and DMI software tent 1.1a wer Interface (ACPI) 1.0	The Setup L by pressi Plug-and-Pl Vital Product Desktop: Advanced P ISO 9241-3 Several hard 256KB IBM Power mana - Configura monitor in display off - Wake Up - Wake Up	450mm W x 450mm D x 128mm H; 22 to 25 lbs (10 to 11.4 kg) Advanced Power Mgmt 1.2 ISO 9241-3 capable Several hardcopy publications 256KB IBM BIOS in flash memory Power management features: - Configurable levels for system, CPU, disk, ar monitor including powering system and/or display off - Wake Up on Ring (via modem) from off state Wake Up on Alarm (scheduled time) from off state Wake on LAN (from LAN) from off state		unit, planar, power supply, empty fields); also can read/write with external RF unit EEPROMs on DIMMs (component info, serial no) Disk firmware (component info, serial no) Chassis enhancements: Cover removed by two easy-lift tabs Cover includes metal plate and connecting tabs for easier removal Pivoting disk cage to access three right bays Segmented cooling (power supply far cools power supply and DASD bays fan in front cools motherboard, processor, DIMMs, and adapters) Metal monitor support bar to support monitor without sagging		

IBM IntelliStation® E Pro - Spring 1999 (6893) - withdrawn

Type-model	Standard disk (rpm) ms seek / disk interface CD-ROM ⁶ /interface	CPU MHz ¹	Write-back L2 cache std / max KB / KB	Memory in MB; std/max ¹³ 100MHz	SVGA controller; memory std / max	Bus slots P=PCI avail PCI/ISA=avail A=AGP avail	Total bays	Chipset Ethernet Preload ¹⁷	Available date
5 slot x 4 ba	y; PCI/ISA/AGP; Stealth Gray	/							
⊁ 6893-71U	6.8GB ² std (7200) 9.0ms / EIDE / ATA-33 40X-17X ⁶ CD-ROM / EIDE	Pentium® III 500/100 MHz	512/512 half speed in SEC	64 / 768 SDRAM ECC	Millennium G200 AGP 2X adapter 8 /16MB SGRAM	PCI=2 PCI/ISA=1 ISA=1; AGP=0	4 bays 3 used 1 empty	440BX Ethernet NT 4.0	May 1999
	13.5GB std (7200) 9.0ms / EIDE / ATA-33 40X-17X CD-ROM / EIDE	Pentium III 550/100 MHz	512/512 half speed in SEC	128 / 768 SDRAM ECC	Millennium G200 AGP 2X adapter 8/16MB SGRAM	PCI=2 PCI/ISA=1 ISA=1; AGP=0	4 bays 3 used 1 empty	440BX Ethernet NT 4.0	May 1999
	13.5GB std (7200) 9.0ms / EIDE / ATA-33 40X-17X CD-ROM / EIDE	Pentium III 550/100 MHz	512/512 half speed in SEC	128 / 768 SDRAM ECC	IBM Fire GL1 ¹¹ AGP 2X Adapter 32/32MB SGRAM	PCI=2 PCI/ISA=1 ISA=1; AGP=0	4 bays 3 used 1 empty	440BX Ethernet NT 4.0	May 1999
≈ 6893-77U	9.1GB std (7200) 7.0ms / Wide Ultra SCSI 40X-17X CD-ROM / EIDE	Pentium III 550/100 MHz	512/512 half speed in SEC	128 / 768 SDRAM ECC	IBM Fire GL1 AGP 2X Adapter 32/32MB SGRAM	PCI=1 PCI/ISA=1 ISA=1; AGP=0	4 bays 3 used 1 empty	440BX Ethernet NT 4.0	May 1999
≈ 6893-78U for AAP	no disk 40X-17X CD-ROM / EIDE	Pentium III 550/100 MHz	512/512 half speed in SEC	64 / 768 SDRAM ECC	None	PCI=2 PCI/ISA=1 ISA=1; AGP=1	4 bays 2 used 2 empty	440BX Ethernet Open OS	May 1999
≈ 6893-80U	6.8GB std (7200) 9.0ms / EIDE / ATA-33 40X-17X CD-ROM / EIDE	Pentium® III 450/100 MHz	512/512 half speed in SEC	64 / 768 SDRAM ECC	Millennium G400 AGP 2X adapter 16/16MB SGRAM	PCI=2 PCI/ISA=1 ISA=1; AGP=0	4 bays 3 used 1 empty	440BX Ethernet NT 4.0	July 1999
≈ 6893-81U	6.8GB std (7200) 9.0ms / EIDE / ATA-33 40X-17X CD-ROM / EIDE	Pentium III 500/100 MHz	512/512 half speed in SEC	64 / 768 SDRAM ECC	Millennium G400 AGP 2X adapter 16/16MB SGRAM	PCI=2 PCI/ISA=1 ISA=1; AGP=0	4 bays 3 used 1 empty	440BX Ethernet NT 4.0	July 1999
≈ 6893-82U	13.5GB std (7200) 9.0ms / EIDE / ATA-33 40X-17X CD-ROM / EIDE	Pentium III 500/100 MHz	512/512 half speed in SEC	128 / 768 SDRAM ECC	Millennium G400 AGP 2X adapter 16/16MB SGRAM	PCI=2 PCI/ISA=1 ISA=1; AGP=0	4 bays 3 used 1 empty	440BX Ethernet NT 4.0	July 1999
⊱ 6893-84U	13.5GB std (7200) 9.0ms / EIDE / ATA-33 40X-17X CD-ROM / EIDE	Pentium III 550/100 MHz	512/512 half speed in SEC	128 / 768 SDRAM ECC	Millennium G400 AGP 2X adapter 16/16MB SGRAM	PCI=1 PCI/ISA=1 ISA=1; AGP=0	4 bays 3 used 1 empty	440BX Ethernet NT 4.0	July 1999
	9.1GB std (7200) 7.0ms / Wide Ultra SCSI 40X-17X CD-ROM / EIDE	Pentium III 550/100 MHz	512/512 half speed in SEC	128 / 768 SDRAM ECC	Millennium G400 AGP 2X adapter 16/16MB SGRAM	PCI=2 PCI/ISA=1 ISA=1; AGP=0	4 bays 3 used 1 empty	440BX Ethernet NT 4.0	July 1999
≈ 6893-86U	6.8GB std (7200) 9.0ms / EIDE / ATA-33 40X-17X CD-ROM / EIDE	Pentium III 500/100 MHz	512/512 half speed in SEC	128 / 768 SDRAM ECC	Appian J Pro PCI Adapter 16/16MB SGRAM	PCI=2 PCI/ISA=0 ISA=1; AGP=1	4 bays 3 used 1 empty	440BX Ethernet NT 4.0	July 1999
≈ 6893-87U	no disk	Pentium III	512/512	0 / 768	None	PCI=2	4 bays	440BX	July
for AAP	40X-17X CD-ROM / EIDE	450/100 MHz	half speed in SEC	SDRAM ECC		PCI/ISA=1 ISA=1; AGP=1	2 used 2 empty	Ethernet Open OS	1999
← 6893-88U for AAP	no disk 40X-17X CD-ROM / EIDE	Pentium III 500/100 MHz	512/512 half speed in SEC	0 / 768 SDRAM ECC	None	PCI=2 PCI/ISA=1 ISA=1; AGP=1	4 bays 2 used 2 empty	440BX Ethernet Open OS	July 1999
≈ 6893-89U	no disk	Pentium III	512/512	0 / 768	None	PCI=2	4 bays	440BX	July
for AAP	40X-17X CD-ROM / EIDE	550/100 MHz	half speed in SEC	SDRAM ECC		PCI/ISA=1 ISA=1; AGP=1	2 used 2 empty	Ethernet Open OS	1999

Windows NT Preload¹⁷

Windows NT® Workstation 4.0 (SP4) Internet Explorer 4.0 install icon IBM Welcome Center Device drivers for each subsystem Ready to install:

- ConfigSafe®
- Norton AntiVirus (OEM Version)
- DMI Service Provider
- DMI BIOS Instrumentation
- IBM PC System Monitor Instrumentation
- IBM AssetCare Serial Number Information
- IBM Universal Management Agent
 IBM RTC CD-ROM Setup Utility
 IBM Utilities for Windows 95/NT 4.0
 Hummingbird "Try and Buy" Suite CD-ROM
 Ready to Configure CD-ROM

- Free license for Lotus SmartSuite 97 CD-ROM
- IBM ViaVoice 98 Office Edition CD-ROM
- Windows NT Workstation 4.0 CD-ROM
- Service Pack 4 CD-ROM
- IBM Diagnostics CD-ROM
- Access to IBM HomePage Creator

Supported Memory and Options

32MB SDRAM ECC DIMM 100MHz 64MB SDRAM ECC DIMM 100MHz 128MB SDRAM ECC DIMM 100MHz 256MB SDRAM ECC RDIMM Registered Matrox Millennium G200 Graphics Adap IBM Fire GL1 Graphics Accelerator 6.8GB EIDE 7200 rpm 13.5GB EIDE 7200 rpm 20.4GB EIDE 7200 rpm 9.1GB Wide Ultra SCSI (7200 rpm) 18.2GB Wide Ultra SCSI (7200 rpm) 9.1GB 10000 rpm Wide Ultra2 SCSI SL 10/100 PCI EtherJet Adapter WOL Auto Wake Token-Ring ISA Adapter PCI Token Ring Adapter WOL 2X/4X/24X⁶ CD-RW Drive

C: is 2GB as FAT16 Remainder is unformatted

Ready to Configure CD-ROM

All models ship with a CD with drivers for Windows® 98 and Windows NT 4.0 and various utilities.

Includes:

01K1133

01K1130

01K1131

01K1132

10L7127

33L5032

33L5045

33L5043

33L5044

20L0553

20L0554

20L0539

34L0201

55H6760

34L0701

33L5005

- Intel LANDesk® Client Manager
- ConfigSafe IBM Universal Management Agent™

WARRANTY SERVICE SUPPORT³

- 3 year parts warranty
- 1 year labor warranty
- International Warranty Service³
- 1st year: on site, 8 am 5 pm, Mon - Fri coverage,

2nd business day response time

- 2nd/3rd year: parts exchange only, call 1-800-772-2227
- On site warranty upgrade options:
 - Next day response⁷, Mon-Fri 8-5
 - 4 hour response⁷, 7 day x 24 hr
- Post warranty: on site options above
- IBM SystemXtra®
- 24 hour / 7 day telephone, electronic, Internet (www.pc.ibm.com) support

Ethernet = Intel® 10/100 ethernet chip; 10BaseT and 100BaseTX; Alert on LAN™ RTC CD = ReadyTo Configure CD-ROM

Wide Ultra SCSI = Adaptec AHA-2940UW PCI Adapter; single channel Wide Ultra SCSI

= Models announced June 22, 1999

IBM IntelliStation® E Pro - Spring 1999 (6893) - withdrawn

IBM® IntelliStation®	E Pro				Desktop Ontional blook	diskette CD-ROM		
	6893-xxx Intel® Pentium® III 450, 500, Processor and L2 cache in S Intel Slot 1 CPU connector / INO SMP May 1999 or July 1999 / Sep	Single Edge Carti motherboard has ot 99, Nov 99, Fe	ridge (SEC) in s one Slot 1 b 00, or May 0		- CD-ROM/disk i Bay ① 5.25", HH Bay ② 5.25** SL Bay ③ 3.5", SL Bay ④ 3.5", SL	iil at 919-304-5000 disk in cage that flips out disk H 1.6", access, CD-ROM - 1", access, open - 1", no access, open or std disk - 1", access, std diskette		
L2 cache	512KB std / 512KB max / EC integrated in SEC / 4 way se					nvert to 3.5" available from AirSpeed er 01K5873 from 919-304-5000		
Memory - std / max Mem - total sockets Mem - sockets used Mem - type (support) Memory - supported	64 or 128MB / 768MB max ¹³ Three 168 pin gold-plated DIM One DIMM used / PC100-com Non-parity or ECC (memory or 32, 64, 128 or 256MB ECC SI are registered (buffered); can	/IM sockets / indu: npliant / hardware ontroller is Error Cl DRAM DIMMs / o	16-bit ISA 16-bit ISA or 32 bit PCI 2.1 (5v) - Appian 32-bit PCI 2.1 (5v) - SCSI adptr (some) 32-bit PCI 2.1 (5v) 32-bit AGP-2x - on motherboard, not riser aphics adapter (most models)					
Graphics controller	Matrox® Millennium G200-D or Appian Graphics® Jeroni			M Fire	GL1 ¹¹ (performar	nce 2D/3D),		
	Millennium G200-D / AGP 2: 8MB std / 16 MB max 128-bit 250MHz RAMDAC / 16.7 mill Millennium G400 / AGP 2X 16MB std / 16MB max / 166M 250MHz RAMDAC / 256-bit I max 2D resolution of 2048x1: supports 1280x1024x16.7 mi	SGRAM ion colors adapter / sidebai MHz SGRAM / DualBus chip / 536 /	·	32ME 2D ar Appia 16ME two comax r	3 std / 32MB max / nd OpenGL 3D en an Graphics Jero 3 std / 16MB max / ontrollers with two resolution of 1280	X adapter/sideband-capable / 256-bit 100MHz SGRAM ngine / 250MHz RAMDAC / DDC2B onimo Pro / 32-bit PCI adapter / / 125MHz SGRAM / 250MHz RAMDAC o ports for multiple monitor support / 0x1024 at 85Hz with 16.7 million colors 0x1200 at 85Hz with 65,536 colors		
Disk Disk controller	Vary: None (AAP), one EIDI	E disk (Ultra DM	A/33), or one V	Nide U	Jltra SCSI disk / al	Ill disks SMART ⁵ and SMART Reaction [†] PIO modes 3, 4 / two IDE conn on rise		
Disk cable(s)	scsi models: Adaptec® AH, channel for 15 devices / 1 scsi models: Three drop 16	A-2940UW Ultrat 6-bit int, 8-bit int, 5-bit SCSI cable	upports one ectors	SECURITY - Chassis intrusion protection - Cover key lock				
Motherboard Bus slots Architecture	NLX motherboard / slides or riser contains rear I/O ports a PCI 2.1 (33MHz), AGP 2X (6	All: One 2 drop IDE cable and one 1 drop IDE cable (1 drop cable attaches to CD) NLX motherboard / slides out w/o removing cables or adapters riser contains rear I/O ports and IDE and diskette connectors PCI 2.1 (33MHz), AGP 2X (66MHz), and ISA slots (see side) Intel 440BX AGPset / PIIX4E for EIDE, ISA Bridge, USB / AGP 2X						
Serial/parallel ports Universal Serial Bus Diskette drive CD-ROM Audio Audio connectors	Ser: Two 9 pin / 115Kbps / 1 Two USB ports / 1.5MB/sec 3.5" 1.44MB diskette drive 40X-17X ⁴ speed CD-ROM / 0 Crystal CS4235 chip on plan Stereo line in / mic in / line ou	6550A / non-DM. (12Mbps) max s CAV / ATAPI / bo aar / stereo / ISA	A / Par: One (E peed potable bus / FM Synt	PP, E0	/ int speaker	Keyboard/mouse password Wake on LAN password prompt Boot sequence control Boot without keyboard/mouse Diskette boot inhibit Disable mouse Disable external SCSI port		
Ethernet controller LCCM Systems mgmt cntrl	Intel EtherExpress PRO/10 10BaseT and 100BaseTX / F LANClient Control Manager ^T Flash on LAN / Hybrid RPL / National Semiconductor [®] LM fan speed and optional disk f	RJ45 UTP conne Menabled / Wak DHCP/BOOTP / I80-compatible c	ector / Wake on e on LAN / Set / software imag hip / monitors t	LAN® tup on ge dow temper	/ Alert on LAN LAN / vnload rature, front	 Diskette write protect Diskette and disk I/O control Serial/parallel I/O control Secure access openings (louver Secure removable media Data storage for LCCM function U-Bolt enabled 		
Keyboard / mouse Cooling fans Power supply	104 key (rubber dome) keybo Two or three fans (pwr supply 145 watts / universal / manua	y, processor, a th	ird may be inst	talled i		Vital Product Data stored in EEPROM Write protect control circuit		
18.2GB with two All models: Maxim	um internal SCSI disk capac 9.1GB 7200 rpm Wide Ultra S um internal EIDE disk capac 20.4GB EIDE disks	SĆSI disks	All systems s	stealth	gray color	for EEPROM - Barcode labels on most components Remotely readable DMI-compliants - System EEPROM on motherboard (info and serial no for CPU, system		
Alert on LAN™ - pro monitoring; immediate vents such as chasstart up errors, even Asset ID™ (RFID)¹⁶ (RF) technology for security; includes EE accessed via DMI so external RF link such units; theft protection SMART Reaction™ PC 98-compliant DMI 2.0-compliant bMI	Dual orientation with optional stand The Setup Utility resides in flash memory; in by pressing F1 key during memory POST Plug-and-Play 1.0a Vital Product Data support Desktop: 17.72"W x 17.72"D x 5.02" H; 450mm W x 450mm D x 128mi 22 to 25 lbs (10 to 11.4 kg) Advanced Power Mgmt 1.2 ISO 9241-3 capable Several hardcopy publications 256KB IBM BIOS in flash memory Power management features: - Configurable levels for system, CPU, dis monitor including powering system and/o display off - Wake Up on Ring (via modem) from off si - Wake Up on Alarm (scheduled time) from Wake on LAN (from LAN) from off state - PCI Wake Up (supported PCI devices)			y PÖST D2" H; 128mm H; kg) PU, disk, and n and/or m off state le) from off state state	unit, planar, power supply, empty fields); also can read/write with external RF unit EEPROMs on DIMMs (component info, serial no) Disk firmware (component info, serial no) Chassis enhancements: Cover removed by two easy-lift tabsectory concerting tabs for easier removal Pivoting disk cage to access three right bays Segmented cooling(power supply fan cools power supply and DASD bays; fan in front cools motherboard processor, DIMMs, and adapters) Metal monitor support bar to suppormonitor without sagging			

III IntelliStation® E Pro - Summer 1999 (6893) - withdrawn

Type-model	Standard disk (rpm) ms seek / disk interface CD-ROM ⁶ /interface	Intel® Processor MHz¹	Write-back L2 cache std / max KB / KB	Memory in MB; std/max ¹³ 100MHz	SVGA controller; memory std / max	Bus slots P=PCI avail PCI/ISA=avail A=AGP avail	Total bays	Chipset Ethernet Preload ¹⁷	Available date
5 slot x 4 ba	y; PCI/ISA/AGP; Stealth Blac	k							
	13.5GB ² std (7200) 9.0ms / EIDE / ATA-33 40X-17X CD-ROM / EIDE	Pentium® III 550/100 MHz	512/512 half speed in SEC	128 / 768 SDRAM ECC	Appian J Pro PCI Adapter 16/16MB SGRAM	PCI=1 PCI/ISA=1 ISA=1; AGP=1	4 bays 3 used 1 empty	440BX Ethernet NT 4.0	Aug 1999
< 6893-94U	13.5GB std (7200) 9.0ms / EIDE / ATA-33 40X-17X CD-ROM / EIDE	Pentium III 600/100 MHz	512/512 half speed in SEC	128 / 768 SDRAM ECC	Millennium G400 AGP 2X Adapter 16/16MB SGRAM	PCI=2 PCI/ISA=1 ISA=1; AGP=0	4 bays 3 used 1 empty	440BX Ethernet NT 4.0	Aug 1999
← 6893-95U	9.1GB std (7200) 7.0ms / Wide Ultra SCSI 40X-17X CD-ROM / EIDE	Pentium III 600/100 MHz	512/512 half speed in SEC	128 / 768 SDRAM ECC	Millennium G400 AGP 2X adapter 16/16MB SGRAM	PCI=1 PCI/ISA=1 ISA=1; AGP=0	4 bays 3 used 1 empty	440BX Ethernet NT 4.0	Aug 1999
	13.5GB std (7200) 9.0ms / EIDE / ATA-33 40X-17X CD-ROM / EIDE	Pentium III 600/100 MHz	512/512 half speed in SEC	128 / 768 SDRAM ECC	IBM Fire GL1 ¹¹ AGP 2X Adapter 32/32MB SGRAM	PCI=2 PCI/ISA=1 ISA=1; AGP=0	4 bays 3 used 1 empty	440BX Ethernet NT 4.0	Aug 1999
< 6893-97U	9.1GB std (7200) 7.0ms / Wide Ultra SCSI 40X-17X CD-ROM / EIDE	Pentium III 600/100 MHz	512/512 half speed in SEC	128 / 768 SDRAM ECC	IBM Fire GL1 AGP 2X adapter 32/32MB SGRAM	PCI=1 PCI/ISA=1 ISA=1; AGP=0	4 bays 3 used 1 empty	440BX Ethernet NT 4.0	Aug 1999
* 6893-98U for AAP	no disk 40X-17X CD-ROM / EIDE	Pentium III 600/100 MHz	512/512 half speed in SEC	0 / 768 SDRAM ECC	None	PCI=2 PCI/ISA=1 ISA=1; AGP=1	4 bays 2 used 2 empty	440BX Ethernet Open OS	Aug 1999 3

Windows NT Preload¹⁷

Windows NT® Workstation 4.0 (SP4) Internet Explorer 4.0 install icon IBM Welcome Center Device drivers for each subsystem Ready to install:

- ConfigSafe®
- Norton AntiVirus (OEM Version)
- DMI Service Provider
- DMI BIOS Instrumentation
- IBM PC System Monitor Instrumentation
- CoSession® Remote 32
- IBM Universal Management Agent IBM RTC CD-ROM Setup Utility IBM Utilities for Windows 95/NT 4.0
- Hummingbird "Try and Buy" Suite CD-ROM
- Ready to Configure CD-ROM
- Free license for Lotus SmartSuite 97 CD-ROM
- IBM ViaVoice 98 Office Edition CD-ROM
- LANDesk® Client Manager CD-ROM
- Windows NT Workstation 4.0 CD-ROM
- Service Pack 4 CD-ROM
- IBM Diagnostics CD-ROM
- Access to IBM HomePage Creator

Supported Memory and Options

32MB SDRAM ECC DIMM 100MHz
64MB SDRAM ECC DIMM 100MHz
128MB SDRAM ECC DIMM 100MHz
256MB SDRAM ECC DIMM 100MHz
256MB SDRAM ECC RDIMM Registered
6.8GB EIDE 7200 rpm
13.5GB EIDE 7200 rpm
20.4GB EIDE 7200 rpm
9.1GB Wide Ultra SCSI (7200 rpm)
9.1GB Wide Ultra SCSI (7200 rpm)
9.1GB 10000 rpm Wide Ultra 2 SCSI SL
10/100 PCI EtherJet Adapter WOL
Auto Wake Token-Ring ISA Adapter
PCI Token Ring Adapter WOL
2X/4X/24X⁶ CD-RW Drive

C: is 2GB as FAT16 Remainder is unformatted

Ready to Configure CD-ROM17

All models ship with a CD with drivers for Windows® 98 and Windows NT 4.0 and various utilities.

Includes:

01K1133

01K1130

01K1131

01K1132

33L5045

33L5043 33L5044

20L0553

20L0554

20L0539

341 0201

55H6760

34L0701

33L5005

- Intel LANDesk® Client Manager
- -ConfigSafe
- IBM Universal Management Agent™

WARRANTY SERVICE SUPPORT³

- 3 year parts warranty
- 1 year labor warranty
- International Warranty Service³
- 1st year: on site, 8 am 5 pm,
 Mon Fri coverage,

2nd business day response time

- ⇒ 2nd/3rd year: parts exchange only, call 1-800-772-2227
- On site warranty upgrade options:
 - Next day response⁷, Mon-Fri 8-5
 - 4 hour response⁷, 7 day x 24 hr
- Post warranty: on site options above
- ✓ IBM SystemXtra®
- 24 hour / 7 day telephone, electronic, Internet (www.pc.ibm.com) support

Ethernet = Intel® 10/100 ethernet chip; 10BaseT and 100BaseTX; Alert on LAN™ RTC CD = ReadyTo Configure CD-ROM Wide Ultra SCSI = Adaptec® AHA-2940UW PCI Adapter; single channel Wide Ultra SCSI ■ Godels announced August 3, 1999

III IntelliStation® E Pro - Summer 1999 (6893) - withdrawn

IBM® IntelliStation®	E Pro				Desktop	diskette CD-ROM				
	6893-xxx Intel® Pentium® III 550 or 60 Processor and L2 cache in S Intel Slot 1 CPU connector / n No SMP August 1999 / withdrawn Jun	ingle Edge Cart notherboard has e 2000	ridge (SEC) in s one Slot 1	Ē	ČD-ROM∕disk ii Bay ① 5.25", HH Bay ② 5.25** SL Bay ③ 3.5", SL Bay ④ 3.5", SL	il at 919-304-5000 in cage that flips out disk 11.6", access, CD-ROM . 1", access, open . 1", no access, open or std disk . 1", access, std diskette				
L2 cache	512KB std / 512KB max / EC integrated in SEC / 4 way se			*		kets to convert to 3.5" available from AirSpeed part number 01K5873 from 919-304-5000				
Memory - std / max Mem - total sockets Mem - sockets used Mem - type (support) Memory - supported	64 or 128MB / 768MB max ¹³ Three 168 pin gold-plated DIM One DIMM used / PC100-com Non-parity or ECC (memory or 32, 64, 128 or 256MB ECC SI are registered (buffered); can	IM sockets / indu apliant / hardware ontroller is Error Cl DRAM DIMMs / o	stry standard s scrubbing EC hecking Correct only 256MB DIN	С ting) S ИМs S	Slot 1: fullsize, 16-bit ISA Slot 2: fullsize, 16-bit ISA or 32 bit PCI 2.1 (5v) - Appiar Slot 3: halfsize, 32-bit PCI 2.1 (5v) - SCSI adptr (some) Slot 4: halfsize, 32-bit PCI 2.1 (5v) Slot 5: fullsize, 32-bit AGP-2x - on motherboard, not rise *used by AGP graphics adapter (most models)					
Graphics controller	Matrox® Millennium G400 (p or Appian Graphics® Jeroni			I ¹¹ (perf	ormance 2D/3D),					
	IBM Fire GL1 / AGP 2X adap 32MB std / 32MB max / 256-b 2D and OpenGL 3D engine / 2 Millennium G400 / AGP 2X 16MB std / 16MB max / 166M 250MHz RAMDAC / 256-bit I max 2D resolution of 2048x18 supports 1280x1024x16.7 mi	oit 100MHz SGR. 250MHz RAMDA adapter / sideba MHz SGRAM / DualBus chip / 536 /	AM AC / DDC2B	16MB two co max re	std / 16MB max / ontrollers with two esolution of 1280	pnimo Pro / 32-bit PCI adapter / / 125MHz SGRAM / 250MHz RAMDAC o ports for multiple monitor support / ix1024 at 85Hz with 16.7 million colors ix1200 at 85Hz with 65,536 colors				
Disk Disk controller	Vary: None (AAP), one EIDE	E disk (Ultra DM	A/33), or one \) / 32-bit PCI 2	Wide Ul 2.1 / Ul	tra SCSI disk / all tra DMA/33 and I	II disks SMART⁵ and SMART Reaction™ PIO modes 3, 4 / two IDE conn on rise				
Disk cable(s)	scsi models: Adaptec® AHA channel for 15 devices / 19 scsi models: Three drop 16	A-2940UW Ultra 6-bit int, 8-bit int, 6-bit SCSI cable	SCSI / PCI ada and 16-bit ext	apter su connec	pports one ctors	SECURITY - Chassis intrusion protection				
Motherboard	All: One 2 drop IDE cable an NLX motherboard / slides o		` '		ttaches to CD)	Cover key lock Secure fixed disk				
Bus slots Architecture	riser contains rear I/O ports a PCI 2.1 (33MHz), AGP 2X (6 Intel 440BX AGPset / PIIX4 SMC FDC37C673 Super I/O	and IDE and dišk 66MHz), and ISA E for EIDE, ISA	kette connecto k slots (see sid Bridge, USB /	ors le) ' AGP 2 :	x	Serial EEPROM with write protect Power-on password Setup utility password (admin password) Keyboard/mouse password				
Serial/parallel ports Universal Serial Bus Diskette drive CD-ROM Audio Audio connectors	Ser: Two 9 pin / 115Kbps / 1 Two USB ports / 1.5MB/sec 3.5" 1.44MB diskette drive 40X-17X4 speed CD-ROM / 0 Crystal CS4235 chip on plan Stereo line in / mic in / line ou	(12Mbps) max s CAV / ATAPI / bo ar / stereo / ISA	peed ootable bus / FM Synt	thesis /	int speaker	Wake on LAN password prompt Boot sequence control Boot without keyboard/mouse Diskette boot inhibit Disable mouse Disable external SCSI port				
Ethernet controller LCCM Systems mgmt cntrl	Intel EtherExpress PRO/10 10BaseT and 100BaseTX / F LANClient Control Manager ^T Flash on LAN / Hybrid RPL / National Semiconductor® LM fan speed and optional disk f	RJ45 UTP conne Menabled / Wak DHCP/BOOTP / 80-compatible c	ector / Wake on e on LAN / Set / software imag hip / monitors i	LAN® / tup on L ge dow tempera	Alert on LAN AN / nload ature, front	 Diskette write protect Diskette and disk I/O control Serial/parallel I/O control Secure access openings (louvers Secure removable media Data storage for LCCM function U-Bolt enabled 				
Keyboard / mouse Cooling fans Power supply	104 key (rubber dome) keybo Two or three fans (pwr supply 145 watts / universal / manua	/, processor, a th	nird may be ins	talled in		Vital Product Data stored in EEPROM Write protect control circuit				
18.2GB with two All models: Maxim	um internal SCSI disk capac 9.1GB 7200 rpm Wide Ultra S um internal EIDE disk capac 20.4GB EIDE disks	SĆSI disks	All systems :	stealth l	black color	for EEPROM - Barcode labels on most components Remotely readable DMI-compliant: - System EEPROM on motherboard (info and serial no for CPU, system				
Alert on LAN™ - pro monitoring; immediate vents such as chass start up errors, even Asset ID™ (RFID)¹6 (RF) technology for security; includes EE accessed via DMI so external RF link such units; theft protection SMART Reaction™ PC 98-compliant DMI 2.0-compliant of includes MIF bro Layer 2.0, DMI E Wired for Managem Adv Config and Po PC-Doctor diagnos Universal Managem UMA Plus-enabled	Dual orientation with optional stand The Setup Utility resides in flash mem by pressing F1 key during memory Plug-and-Play 1.0a Vital Product Data support Desktop: 17.72"W x 17.72"D x 5.0 450mm W x 450mm D x 22 to 25 lbs (10 to 11.4 k Advanced Power Mgmt 1.2 ISO 9241-3 capable Several hardcopy publications 256KB IBM BIOS in flash memory Power management features: - Configurable levels for system, CP monitor including powering system display off - Wake Up on Ring (via modem) fror - Wake Up on Alarm (scheduled time - Wake on LAN (from LAN) from off s - PCI Wake Up (supported PCI device			POST 12" H; 128mm H; 19) PU, disk, and and/or m off state e) from off state state	unit, planar, power supply, empty fields); also can read/write with external RF unit EEPROMs on DIMMs (component info, serial no) Disk firmware (component info, serial no) Chassis enhancements: Cover removed by two easy-lift tabs Cover includes metal plate and connecting tabs for easier removal Pivoting disk cage to access three right bays Segmented cooling(power supply fan cools power supply and DASD bays; fan in front cools motherboard, processor, DIMMs, and adapters) Metal monitor support bar to support monitor without sagging					

III IntelliStation® E Pro models - Winter 1999 (6893) - withdrawn

Type-model	Standard disk (rpm) ms seek / disk interface CD-ROM ⁶ /interface	CPU MHz ¹	Write-back L2 cache std / max KB / KB	Memory in MB; std/max ¹³ 100MHz	SVGA controller; memory std / max	Bus slots P=PCI avail PCI/ISA=avail A=AGP avail	Total bays	Chipset Ethernet Preload ¹⁷	Available date
5 slot x 4 bay	r; PCI/ISA/AGP; Stealth Gray	,							
≈ 6893-50U	13.5GB ² std (7200) 9.0ms / EIDE / ATA-33 40X-17X ⁶ CD-ROM / EIDE	Pentium [®] III 450/100 MHz	512/512 half speed in SEC	64 / 768 SDRAM ECC	Millennium G200 AGP-2x adapter 8 / 16 WRAM	PCI=2 PCI/ISA=1 ISA=1; AGP=0	4 bays 3 used 1 empty	440BX Ethernet NT 4.0	Mar 1999
≈ 6893-52U	13.5GB ² std (7200) 9.0ms / EIDE / ATA-33 40X-17X ⁴ CD-ROM / EIDE	Pentium III 500/100 MHz	512/512 half speed in SEC	128 / 768 SDRAM ECC	Millennium G200 AGP-2x adapter 8 / 16 WRAM	PCI=2 PCI/ISA=1 ISA=1; AGP=0	4 bays 3 used 1 empty	440BX Ethernet NT 4.0	Mar 1999
≈ 6893-53U	9.1GB std (7200) 7.0ms / Wide Ultra SCSI 40X-17X CD-ROM / EIDE	Pentium III 500/100 MHz	512/512 half speed in SEC	128 / 768 SDRAM ECC	IBM Fire GL1 ¹¹ AGP-2x Adapter 32/32MBSGRAM	PCI=1 PCI/ISA=1 ISA=1; AGP=0	4 bays 3 used 1 empty	440BX Ethernet NT 4.0	Mar 1999
≈ 6893-54U	4.5GB std (7200) 7.5ms / Wide Ultra SCSI 40X-17X CD-ROM / EIDE	Pentium III 450/100 MHz	512/512 half speed in SEC	64 / 768 SDRAM ECC	Millennium G200 AGP-2x Adapter 8 / 16 WRAM	PCI=1 PCI/ISA=1 ISA=1; AGP=0	4 bays 3 used 1 empty	440BX Ethernet	Mar 1999
≈ 6893-56U	9.1GB std (7200) 7.0ms / Wide Ultra SCSI 40X-17X CD-ROM / EIDE	Pentium III 500/100 MHz	512/512 half speed in SEC	128 / 768 SDRAM ECC	Millennium G200 AGP-2x Adapter 8 / 16 WRAM	PCI=1 PCI/ISA=1 ISA=1; AGP=0	4 bays 3 used 1 empty	440BX Ethernet NT 4.0	Mar 1999
≈ 6893-57U	13.5GB std (7200) 9.0ms / EIDE / ATA-33 40X-17X CD-ROM / EIDE	Pentium III 500/100 MHz	512/512 half speed in SEC	128 / 768 SDRAM ECC	IBM Fire GL1 AGP-2x Adapter 32/32MBSGRAM	PCI=2 PCI/ISA=1 ISA=1; AGP=0	4 bays 3 used 1 empty	440BX Ethernet NT 4.0	Mar 1999
≈ 6893-58U for AAP	no disk 40X-17X CD-ROM / EIDE	Pentium III 500/100 MHz	512/512 half speed in SEC	64 / 768 SDRAM ECC	None	PCI=2 PCI/ISA=1 ISA=1; AGP=1	4 bays 2 used 2 empty	440BX Ethernet Open OS	Mar 1999
≈ 6893-59U for AAP	no disk 40X-17X CD-ROM / EIDE	Pentium III 450/100 MHz	512/512 half speed in SEC	64 / 768 SDRAM ECC	None	PCI=2 PCI/ISA=1 ISA=1; AGP=1	4 bays 2 used 2 empty	440BX Ethernet Open OS	Mar 1999

Windows NT Preload¹⁷

Windows NT® Workstation 4.0 (SP4) Internet Explorer 4.0 install icon IBM Welcome Center Device drivers for each subsystem Ready to install:

- ConfigSafe®
- Norton AntiVirus (OEM Version)
- DMI Service Provider
- DMI BIOS Instrumentation
- IBM PC System Monitor Instrumentation
- IBM AssetCare Serial Number Information
- IBM Universal Management Agent IBM RTC CD-ROM Setup Utility IBM Utilities for Windows 95/NT 4.0
- Hummingbird "Try and Buy" Suite CD-ROM
 Ready to Configure CD-ROM
- Free license for Lotus SmartSuite 97 CD-ROM
- IBM ViaVoice 98 Office Edition CD-ROM
- Windows NT Workstation 4.0 CD-ROM
- Service Pack 4 CD-ROM
- IBM Diagnostics CD-ROM
- Access to IBM HomePage Creator

C: is 2GB as FAT16 Remainder is unformatted

Ethernet = Intel® 10/100 ethernet chip; 10BaseT and 100BaseTX; Alert on LAN™ RTC CD = ReadyTo Configure CD-RÓM Wide Ultra SCSI = Adaptec® AHA-2940UW PCI Adapter; single channel Wide Ultra SCSI

Supported Memory and Options

32MB SDRAM ECC DIMM 100MHz 64MB SDRAM ECC DIMM 100MHz 128MB SDRAM ECC DIMM 100MHz 256MB SDRAM ECC DIMM Registered Matrox Millennium G200 Graphics Adap IBM Fire GL1 Graphics Accelerator 13.5GB EIDE 7200 rpm 20.4GB EIDE 7200 rpm 9.1GB Wide Ultra SCSI (7200 rpm) 18.2GB Wide Ultra SCSI (7200 rpm) 9.1GB 10000 rpm Wide Ultra2 SCSÍ SL 10/100 PCI EtherJet Adapter WOL Auto Wake Token-Ring ISA Adapter PCI Token Ring Adapter WOL

Ready to Configure CD-ROM17

All models ship with a CD with drivers for Windows® 95, 98, and NT 3.51 and 4.0 and various utilities.

Includes

01K1133

01K1130

01K1131

01K1132

10L7127

33L5032

33L5043

33L5044

20L0553

20L0554

20L0539

34L0201

55H6760

34L0701

- Intel LANDesk® Client Manager
- ConfigSafe
- IBM Universal Management Agent

WARRANTY SERVICE SUPPORT³

- 3 year parts warranty
- 1 year labor warranty
- International Warranty Service³
- 1st year: on site, 8 am 5 pm, Mon - Fri coverage,
 - 2nd business day response time
- 2nd/3rd year: parts exchange only, call 1-800-772-2227
- On site warranty upgrade options:
 - Next day response⁷, Mon-Fri 8-5
 - 4 hour response⁷, 7 day x 24 hr
- Post warranty: on site options above
- IBM SystemXtra®
- 24 hour / 7 day telephone, electronic, Internet (www.pc.ibm.com) support

III IntelliStation® E Pro - Winter 1999 (6893) - withdrawn

IBM® IntelliStation®	E Pro		1	Desktop	diskette CD-ROM			
Type-model Processor Implementation Processor upgrade Avai / withdrawn date L2 cache	6893-xxx Intel® Pentium® III 450/100 o Processor and L2 cache in S Intel Slot 1 CPU connector / r No SMP March 1999 / withdrawn June 512KB etd / 512KB max / EC	ingle Edge Cartridge (motherboard has one S e or Sept or Nov 1999	Slot 1 or Jan 2000	· ČD-ROM/disk i Bay ① 5.25", HH Bay ② 5.25** SL Bay ③ 3.5", SL Bay ④ 3.5", SL	Floor Stand I at 919-304-5000 n cage that flips out I 1.6", access, CD-ROM 1", access, open 1", no access, open or std disk 1", access, std diskette			
L2 cacne	512KB std / 512KB max / EC integrated in SEC / 4 way se				onvert to 3.5" available from AirSpeed ber 01K5873 from 919-304-5000			
Memory - std / max Mem - total sockets Mem - sockets used Mem - type (support) Memory - supported	64 or 128MB / 768MB max ¹³ Three 168 pin gold-plated DIM One DIMM used / PC100-com Non-parity or ECC (memory of 32, 64, 128 or 256MB ECC SI are registered (buffered); can	IM sockets / industry sta pliant / hardware scrub ontroller is Error Checking DRAM DIMMs / only 25 not mix registered with r	andard bing ECC g Correcting) 6MB DIMMs non-register	Slot 2: fullsize, 19 Slot 3: halfsize, 3: Slot 4: halfsize, 3: Slot 5: fullsize, 3: Fused by AGP gra	6-bit ISA or 32 bit PCI 2.1 (5v) 2-bit PCI 2.1 (5v)- SCSI adptr (some) 2-bit PCI 2.1 (5v) 2-bit AGP-2x - on motherboard, not riser			
Graphics controller	Matrox® Millennium G200-D	(2D/value 3D) or IBM	Fire GL1 (adva	inced 3D)				
Graphics - type Graphics - memory Graphics - features	Millennium G200-D / AGP-2 8MB std / 16MB max 128-bit Sideband / split transactions 250 MHz RAMDAC / 16.7M Max 2D resolution of 1920x1	SGRAM colors	32MB std / 32 2D and Open Max resolution	MB max / 256-bit GL 3D engine / 25	er/sideband-capable/split transaction , 2-way interleaved, 100MHz SGRAM 50MHz RAMDAC/DDC2B t 85Hz or 1920x1200 at 75Hz nvironments			
Disk controller Disk cable(s)	Enhanced IDE busmaster or	n planar (PIIX4E) / 32- A-2940UW UltraSCSI / S	bit PCI 2.1 / Ul	tra DMA/33 and	Il disks SMART ⁵ and SMART Reaction [†] PIO modes 3, 4 / two IDE conn on rise nel for 15 devices / 16-bit int, 8-bit int,			
	All: One 2 drop IDE cable ar	nd one 1 drop IDE cable	•	ttaches to CD)	SECURITY - Chassis intrusion protection			
Motherboard Bus slots Architecture	riser contains rear I/O ports a PCI 2.1 (33MHz), AGP-2x (6 Intel 440BX AGPset / PIIX4	NLX motherboard / slides out w/o removing cables or adapters riser contains rear I/O ports and IDE and diskette connectors PCI 2.1 (33MHz), AGP-2x (66MHz), and ISA slots (see side) retel 440BX AGP-8t / PIIX4E for EIDE, ISA Bridge, USB / AGP-2x SMC FDC37C673 Super I/O for diskette, par, ser, kybd, mouse						
Serial/parallel ports Universal Serial Bus Diskette drive CD-ROM Audio Audio connectors	Ser: Two 9 pin / 115Kbps / 1 Two USB ports / 1.5MB/sec 3.5" 1.44MB diskette drive 40X-17X ⁶ speed CD-ROM / Crystal CS4235 chip on plan Stereo line in / mic in / line ou	(12Mbps) max speed CAV / ATAPI / bootal ar / stereo / ISA bus / I	ble FM Synthesis /	int speaker	Setup utility password (admin password) Keyboard/mouse password Wake on LAN password prompt Boot sequence control Boot without keyboard/mouse Diskette boot inhibit			
Ethernet controller LCCM Systems mgmt cntrl	Intel EtherExpress PRO/10 10BaseT and 100BaseTX / F LANClient Control Manager ^T Flash on LAN / Hybrid RPL / National Semiconductor [®] LM fan speed and optional disk f	RJ45 UTP connector / \ M enabled / Wake on L DHCP/BOOTP / softw 80-compatible chip / m	Wake on LAN® / .AN / Setup on L /are image dow nonitors temper:	Alert on LAN AN / nload ature, front	Disable mouse Disable external SCSI port Diskette write protect Diskette and disk I/O control Serial/parallel I/O control Secure access openings (louvers) Secure removable media			
Keyboard / Mouse Cooling fans Power supply	104 key (rubber dome) keybo Two or three fans (pwr supply 145 watts / universal / manua	/, processor, a third ma	ay be installed ir		Data storage for LCCM function U-Bolt enabled Vital Product Data stored in EEPROM			
18.2GB with two All models: Maxim	num internal SCSI disk capac 9.1GB 7200 rpm Wide Ultra S num internal EIDE disk capac 3.5GB EIDE disks	SĆSI disks ity ¹³ :	systems stealth (gray color	Write protect control circuit for EEPROM Barcode labels on most components Remotely readable DMI-compliant: System EEPROM on motherboard (info and serial no for CPU, system)			
monitoring; immedia events such as chas start up errors, even Asset ID™ (RFID)¹¹² (RF) technology for security; includes EE accessed via DMI so external RF link such units; theft protection SMART Reaction™ PC 97 compliant DMI 2.0 compliant v includes MIF bro Layer 2.0, DMI E	deployment, inventory, and EPROM that can be offware through network or an as hand-held RF read/write and an another through network or an as hand-held RF read/write and another through network of disk with DMI manageability chip; busser with DMI Service BIOS 2.1, and DMI software thent 1.1a wer Interface (ACPI) 1.0	. 450mm \	des in flash menty during memory poport x 17.72"D x 5.0 W x 450mm D x lbs (10 to 11.4 k mt 1.2 plications ash memory eatures: for system, CP owering system via modem) fror (scheduled time of LAN) from off:	PU, disk, and and/or m off state e) from off state state	unit, planar, power supply, empty fields); also can read/write with external RF unit EEPROMs on DIMMs (component info, serial no) Disk firmware (component info, serial no) Chassis enhancements: Cover removed by two easy-lift tabs Cover includes metal plate and connecting tabs for easier removal Pivoting disk cage to access three right bays Segmented cooling(power supply fan cools power supply and DASD bays; fan in front cools motherboard, processor, DIMMs, and adapters) Metal monitor support bar to support monitor without sagging			

IBM®	L2		SCSI		Slots x		Available
Type-model Processor 6229-10U Pentium® 4	-	Disk and rpm 40.0GB ² EIDE 7.2K		M Graphics adapter and Millennium G450 DVI	•	10/100 2000	Feb 2002
6229-12U Pentium 4 6229-13U Pentium 4 6229-15U Pentium 4 6229-16U Pentium 4 6229-20U Pentium 4 6229-22U Pentium 4 6229-23U Pentium 4 6229-25U Pentium 4 6229-26U Pentium 4	2.0 512KB 256MB 2.0 512KB 512MB 2.0 512KB 512MB 2.0 512KB 512MB 2.2 512KB 256MB 2.2 512KB 256MB 2.2 512KB 512MB 2.2 512KB 512MB 2.2 512KB 512MB 2.2 512KB 512MB	40.0GB EIDE 7.2K 18.2GB Ultra160 10H 18.2GB Ultra160 10H 18.2GB Ultra160 10H 40.0GB EIDE 7.2K 40.0GB EIDE 7.2K 18.2GB Ultra160 10H 18.2GB Ultra160 10H 18.2GB Ultra160 10H	None CD K 29160LP CD K 29160LP CD None CD None CD K 29160LP CD K 29160LP CD K 29160LP CD K 29160LP CD	NVIDIA™Quadro4 64I NVIDIA Quadro4 64M ATI® Fire GL8800™.11 Wildcat III 6110 208M Millennium G450 DVI NVIDIA Quadro2 Pro 6 NVIDIA Quadro4 64M ATI Fire GL8800 128M Wildcat III 6110 208M	MB 6x7 B 6x7 128MB 6x7 B 6x7 -132MB 6x7 -64MB 6x7 B 6x7 B 6x7	10/100 2000 10/100 2000 10/100 2000 10/100 2000 10/100 2000 10/100 2000 10/100 2000 10/100 2000 10/100 2000 10/100 2000	Feb 2002 Feb 2002 Feb 2002 Feb 2002 Feb 2002 Feb 2002 Feb 2002 Feb 2002 Feb 2002
Processor L2 cache Implementation SMP support		at processor speed the in Pin Grid Array (I	PGA) / motherbo	ard contains one Intel r one AGP slot, integrate			
Memory - std / max Memory - features	256 or 512MB std / 256MB models: Two ECC memory contro two RIMMs installed	4D 128MB PC800 RI blier and RIMMs / fou (one per channel) / C	MMs; <i>5`12MB m</i> ur 184-pin gold-p RIMMs in two so	s) channels / 32 devi odels: Two 8D 256MB lated RIMM sockets (tv ckets / supports PC60 ls / mixing speeds will h	PC800 RIMMs vo per channel) o or PC800 RIM	/) / IMs (not PC700) /	
	dual RAMDAC [360 • NVIDIA Quadro4 2 350MHz RAMDACs • ATI Fire GL8800™ RAMDAC [400/165] • 3DLabs Wildcat III 128MB texture buffe	/232MHz] / du'al head 00NVS (high-perf 2D) (dual head: 2048x15 (advanced 3D) / AGP MHz] / dual head supp 6110 (extreme 3D) er, 16MB direct burst)	support / one DV / AGP 4X adapte 536x16M each m 4X adapter / Rac oort / one DB-15 a / AGP 4X Pro 50 / dual RAMDAC	adapter / MGA G450F I-I connector (ships with er / NV17LT 250MHz G pnitor / LFH60 connector deon™ 8800 GPU / 130 inalog and one DVI-I co adapter / 208MB total I (320/300MHz] / dual he alog DB-15 cables for ar	n one cable with PU / 64MB 166 or for std cable w MB 300MHz DI nntr (ships with DDR-SDRAM (6 ad support (up t	two DB-15 analog MHz SDRAM / di vith two DB-15 and DR-SGRAM / dua one DVI-I to DB-1 S4MB frame buffe to two digital or an	g conns) ual alog Il 5 cable) r,
IDE disk controller SCSI disk controller SCSI connectors Cables Disk - features	SCSI models: One 5 SCSI models: One 5 EIDE models: Two E	ec® 29160LP / Ultra1 8-pin internal / one 0. -drop 16-bit LVD SCS IDE cables (one 2-dr B EIDE / ATA-100 / 7	60 SCSI (LVD †0 8mm VHDCI 68-p SI cable, one 2-d rop cable to CD-I 7200 rpm / 9 ms	60MB/sec) / 64-bit 33M bin external connector rop EIDE cable ROM, one 2-drop cabl read seek / S.M.A.R.	e to EIDE disk)	`)
10/100Mbps ethernet CD-ROM / diskette Audio Rear ports	4U ⁴ rack mount supp Intel 850 chipset / Miethernet MAC, USB, I Intel 82562EM / on pl LAN Connect Interface 48X-20X ⁶ CD-ROM, Soft audio AC '97 v2. Two 9-pin serial, four	oort via tower-to-rack CH (Memory Controlle Low Pin Count Interface anar / 10BaseT, 100F ce / controller in ICH2 CAV (ATAPI), boota 1 controller via ICH2 USB (Vers 1.1) [two	kit option er Hub) / I/O Con- ce / Firmware Hu BaseTX / full dup: and 82562EM / ble / 3.5" 1.44M (AD1885) / interr in front], parallel,	troller Hub (ICH2) for P b / SMC LPC47M142 S lex / RJ-45 port / support for Wake on L	Super I/O off LPO AN®, Alert on L dio line out requ	C interface AN™, PXE iires powered spe	
Keyboard / mouse Cooling fans Power supply	Monitoring and alerting IBM 104-key keyboar Three variable speed 340 watts / universal //	d / IBM three button m fans (pwr supp, rear, 'auto sensing	nouse	edund or hot-swap	Cover key locCover tampeSecure fixed	r detect switch DASD	
CD-ROM Bay @	3.5", SL 1", no ac	s, open s, diskette s, open cess, disk cess, open cess, open coss,	etal cage for disk tates out of chass we front stabilizin andle grip on top 18.5" x W 6.5" x 6 to 42 pounds (1 aximum internal CSI: 293GB (4 dispensable left side OSIS elect via CT oduct Recovery artup Iv Config Power I	bis g feet D 20.0" 6.4 to 19.1kg) disk capacity ¹³ : sks x 73.4GB) sks x 60GB) e panel F1 at startup RL+A at prompt	Diskette boot Disable mous Diskette, disk I/O control Secure acces VPD stored ii Write protect IBM Security LIMIT 3 year parts	r password puse password ce control keyboard or mou- inhibit and write- se k, serial port, para ss openings n EEPROM ion control for EE Solutions FED WARRANTY s and labor	protect illel port PROM
128 MB PC 800 ECC 256 MB PC 800 ECC 512 MB PC 800 ECC IBM 36.4GB 15K rpr IBM 73.4GB 10K UII IBM 60.0GB 7.2K rp IBM IDE 40X/12X/4 IBM CD-RW/DVD-F IBM 4Ux20D Tower- IBM P97 19" (18.0" v IBM P275 21" (19.8" IBM T860 18.1" Flat Other options at i	C RDRAM RIMM (4 DC) C RDRAM RIMM (8 DC) C RDRAM RIMM (16 IC) C RDRAM (16 IC) C RDRAM RIMM (16 IC) C RDRAM (16 IC) C RDRAM RIMM (16 IC) C RDRAM (16 IC)	ev) 33L3350 ev) 33L3352 Dev) 33L3254 06P5766 06P5752 D 09N4207 ack) 22P6976 k) 10K3790 09N4300 ck) 6651U3N ack) 6652U3N 9494HB0 sories	osoft® Windows® ree license for Lo ree license for Lo evice Drivers and oftware Selection rindows 2000 Pro	2000 Professional tus® SmartSuite® tus Notes® Client I Diagnostics CD s CD-ROM duct Recovery CD very (Windows 2000	 On site, 8 a Mon throug next busine 3 year on s upgrade o • 4 hour res (ServicePa • 4 hour res (ServicePa • Post warra 24x7¹⁴ tollissues dur 	al Warranty Serving through 5 pm gh Fri excluding ess day respons ite warranty serving sponse, Mon-Fri ac® part number 4 sponse, 7 day x ac part number 4 nty maint servic free support for ing the warrant	holidays, e time vice 9-5 1L2735) 24 hr 1L2741) es avail r warranty ty period³

	THE INTERIISTATION IN PTO (0223) - IVIAY 2002 XREP by eserver Field Skills Enablement Team							
IBM [®] Type-model Processor	L2 FSB GHz¹ cache MHz Memory Disk	SCSI and rpm adapter CD-ROM Grapt	Slots x Available hics adapter and memory bays Preload ¹⁷ date					
6229-33U Pentium 46229-35U Pentium 46229-36U Pentium 4	4 2.4 512KB 533 256MB 40.0GB² 2.4 512KB 533 256MB 40.0GB B 2.4 512KB 533 512MB 18.2GB L 2.4 512KB 533 512MB 18.2GB L 2.4 512KB 533 512MB 18.2GB L 2.4 512KB 533 512MB 18.2GB L	EIDE 7.2K None CD Quac Jltra160 10K 29160LP CD Quac Jltra160 10K 29160LP CD ATI® I Jltra160 10K 29160LP CD Wildo	nnium G450 DVI-I 32MB 6x7 XP Pro Jun 2002 dro4 200NVS 64MB 6x7 XP Pro Jun 2002 dro4 200NVS 64MB 6x7 XP Pro Jun 2002 Fire GL8800™ 128MB 6x7 XP Pro Jun 2002 cat III™ 6110 208MB 6x7 XP Pro Jun 2002 dro4 900XGL 128MB 6x7 XP Pro Jun 2002					
Processor L2 cache Implementation SMP support		peed Array (PGA) / motherboard contains on	ne Intel mPGA478B socket (with Pentium 4 integrated ethernet, and 850 chip with heat sink					
Memory - features	256MB models: Two 4D 128MB PC8 ECC memory controller and RIMM two RIMMs installed (one per chann		256MB PC800 RIMMs/					
(one of following)	dual RAMDAC [360/232MHz] / dua • NVIDIA™ Quadro4 200NVS (high- 350MHz RAMDACs / dual head: 20 • ATI Fire GL8800™ (advanced 3D) RAMDAC [400/165MHz] / dual hea • 3DLabs Wildcat III™ 6110 (extrem 128MB texture buffer, 16MB direct monitors) / two DVI-I connectors (sh • NVIDIA Quadro4 900XGL (extrem	I head support / one DVI-I connector (si perf 2D) / AGP 4X adapter / NV17LT 2 i48x1536x16M each monitor / LFH60 c / AGP 4X adapter / Radeon™ 8800 GF d support / one DB-15 analog and one e 3D) / AGP 4X Pro 50 adapter / 208M burst) / dual RAMDAC [320/300MHz] / ips with two DVI-I to analog DB-15 cabl ne 3D) / AGP 4X adapter / NV25GL 30	G450F GPU / 32MB 150MHz DDR-SDRAM / ships with one cable with two DB-15 analog conns) 250MHz GPU / 64MB 166MHz SDRAM / dual connector for std cable with two DB-15 analog PU / 128MB 300MHz DDR-SGRAM / dual DVI-I conntr (ships with one DVI-I to DB-15 cable) MB total DDR-SDRAM (64MB frame buffer, / dual head support (up to two digital or analog les for analog monitor attachment) 000MHz GPU / 128MB 325MHz DDR-SDRAM / wo DVI-I connectors (ships with two DVI-I to					
IDE disk controller SCSI disk controller SCSI connectors Cables Disk - features	SCSI models: One 68-pin internal / SCSI models: One 5-drop 16-bit LV EIDE models: Two EIDE cables (or EIDE models: 40.0GB EIDE / ATA-		e rop_cable to EIDE disk) B.M.A.R.T. ⁵					
Rack support Architecture / chipset		o-rack kit option ontroller Hub) / I/O Controller Hub (ICH nterface / Firmware Hub / SMC LPC47						
CD-ROM / diskette Audio	LAN Connect Interface / controller in 48X-20X ⁶ CD-ROM, CAV (ATAPI), Soft audio AC '97 v2.1 controller via) [two in front], parallel, keyboard, mou	ake on LAN®, Alert on LAN™, PXE					
Keyboard / mouse Cooling fans Power supply	IBM 104-key keyboard / IBM three bu Three variable speed fans (pwr supp 340 watts / universal / auto sensing	itton mouse , rear, processor) / not redund or hot-sv	SECURITY • Cover key lock • Cover tamper detect switch					
CD-ROM ② Bay ③ Bay ④ Bay ④ Bay ④ Bay ⑤ Bay ⑥ Bay ⑥ Bay ⑥ Bay ⑥ Bay ⑦	5.25", HH 1.6", access, open open open open open open open open	rotates out of chassis Two front stabilizing feet Handle grip on top H 18.5" x W 6.5" x D 20.0" 36 to 42 pounds (16.4 to 19.1kg) Maximum internal disk capacity:	Secure fixed DASD Power-on password Administrator password Keyboard/mouse password Boot sequence control Boot without keyboard or mouse Diskette boot inhibit and write-protect Disable mouse Diskette, disk, serial port, parallel port					
Total Slot 2 Slot 2 Slot 2 Slot 2 Slot 3 Slot 4 Slot 4 Slot 5 Slot 6 Slot 8 Sl	sed by std AGP graphics adapter: fullsize, 32-bit 33MHz, PCI 2.2 (5v) (A on models with 6110 graphics: fullsize, 32-bit 33MHz, PCI 2.2 (5v): fullsize, 32-bit 33MHz, PCI 2.2 (5v)	SCSI: 293GB (4 disks x 73.4GB) EIDE: 180GB (3 disks x 60GB) Removable left side panel BIOS Setup Utility - F1 at startup SCSISelect via CTRL+A at promp Product Recovery Program via F1 startup	I/O control Secure access openings VPD stored in EEPROM Write protection control for EEPROM IBM Security Solutions LIMITED WARRANTY					
128MB PC800 4D Ed 256MB PC800 8D Ed 512MB PC800 16D E IBM 36.4GB 15K rpm IBM 73.4GB 10K Ultr IBM 60.0GB 7.2K rpn IBM IDE 40X/12X/40 IBM CD-RW/DVD-R IBM 4Ux20D Tower- IBM 4Ux20D Tower- IBM P97 19" (18.0" v IBM T860 18.1" Flat I Spaceball 3D Input D IBM Radial Arm Flat I Other options at ik	m ATA-100 EIDE HDD 09N4207 DX Max ⁶ CD-RW (black) 22P6976 OM ^{6,19} Combo (black) 10K3790 to-Rack Kit 09N4300 iewable) Monitor (black) 6651U3N Panel Monitor (black) 9494HB0 levice 33L3252	Adv Config Power Interface (ACP PRELOAD ¹⁷ Microsoft® Windows® XP Profession Free license for Lotus® SmartSuite Free license for Lotus Notes® Clie Device Drivers and Diagnostics C Windows XP Pro Product Recove Disk-to-Disk Recovery (Windows Pro in hidden service partition)	International Warranty Service ³ International Warranty Service ³ On site, 8 am through 5 pm, Mon through Fri excluding holidays, next business day response time 3 year on site warranty service upgrade options: ⁷					

III IntelliStation® M Pro (6229) - September 2002 - withdrawn xREF by eServer Field Skills Enablement Team

IBM® Type-model Processor	L2 FS GHz¹ cache MH		and rpm	SCSI adapter Cl	D-ROM	Graphics ada	pter and memory	Slots x bays Preload	Available 7 date
6229-40U Pentium® 6229-42U Pentium 4 6229-45U Pentium 4 6229-47U Pentium 4 6229-53U Pentium 4 6229-56U Pentium 4 6229-57U Pentium 4	2.67 512KB 53 2.67 512KB 53 2.67 512KB 53 2.8 512KB 53 2.8 512KB 53	3 512MB 18.2GE 3 512MB 18.2GE 3 512MB 18.2GE	BEIDE 7.2K BUltra160 10K BUltra160 10K BUltra160 10K BUltra160 10K	29160LP 29160LP 29160LP	CD CD CD CD CD	Quadro4 200 ATI® Fire GL8	8800 ^{TM, 11} 128MB DXGL 128MB DNVS 64MB 6110 208MB	6x7 XP Pro 6x7 XP Pro 6x7 XP Pro	
Processor L2 cache Implementation SMP support	512KB std and m Processor and L2	l at 2.67 or 2.8GHz nax / at processor s cache in Pin Grid rat sink), four RIMM	speed Array (PGA) / n	notherboar	` rd conta	ins one Intel i			
Memory - std / max Memory - features	256MB models: T ECC memory co two RIMMs instal	td / 2GB max ¹³ / 0 Fwo 4D 128MB PC Introller and RIMI lled (one per chan Is must be installed	800 RIMMs; <i>5</i> /Is / four 184-pi nel) / CRIMMs i	12MB mód in gold-pla in two socl	<i>dels:</i> Tw .ted RIM kets / su	vo 8D 256MB 1M sockets (t upports PC60	PC800 RIMMs/ wo per channel)/ o or PC800 RIMM	/ //s (not PC700)	
Graphics controller (one of following)	dual RAMDAC [• NVIDIA™ Quad 350MHz RAMD • ATI Fire GL880 RAMDAC [400/ • 3DLabs Wildca 128MB texture t monitors) / two [• NVIDIA Quadro	nium G450 DVI-I ([360/232MHz] / dualino 4200NVS (high NaCs / dual head: 2 00™ (advanced 3D) 165MHz] / dual heat III™ 6110 (extren buffer, 16MB direct DVI-I connectors (sloo4 900XGL (extrent AMDACs / dual heat III he	al head support -perf 2D) / AGF 048x1536x16M / AGP 4X adar ad support / one ne 3D) / AGP 4X burst) / dual Ry nips with two D\ me 3D) / AGP 4	/ one DVI-I P 4X adapte I each mor oter / Rade e DB-15 an X Pro 50 ac AMDAC [32 /I-I to analo 4X adapter	I connector / NV1 hitor / LF hitor / LF hon™ 88 halog and dapter / 20/300N hog DB-1 r / NV25	ctor (ships with 7LT 250MHz 7H60 connector 00 GPU / 128 d one DVI-1 cc 208MB total I MHz] / dual he 5 cables for all 6GL 300MHz	h one cable with to CGPU / 64MB 166 or for std cable with BMB 300MHz DDI onntr (ships with o DDR-SDRAM (64 export (up to nalog monitor atta GPU / 128MB 32	wo DB-15 analog MHz SDRAM / th two DB-15 and R-SGRAM / dua ne DVI-I to DB-1 MB frame buffe two digital or and thehment)	g conns) dual alog al 5 cable) er, alog
IDE disk controller SCSI disk controller SCSI connectors Cables Disk - features	Enhanced IDE bu SCSI models: Ad SCSI models: O SCSI models: O EIDE models: Tv EIDE models: 40	usmaster / ATA-10 daptec® 29160LP / ne 68-pin internal / ne 5-drop 16-bit LV be EIDE cables (o 0.0GB EIDE / ATA 8.2GB Ultra160 SC	Ultra160 SCS one 0.8mm VH ID SCSI cable ne 2-drop cable 100 / 7200 rpr	I (LVD 160 IDCI 68-pir , one 2-dro e to CD-R0 n / 9 ms re	OMB/sector externation EIDE OM, one ead see	al connector Ecable e 2-drop cabl ek / S.M.A.R.	le to EIDE disk)	(in a 32-bit slot)
Rack support Architecture / chipset	Intel 850 chipset	support via tower- t / MCH (Memory C SB, Low Pin Count	ontroller Hub) /	I/O Contro					
10/100Mbps ethernet CD-ROM / diskette Audio Rear ports Systems mgmt	Intel 82562EM / c LAN Connect Inte 48X-20X ⁶ CD-RO Soft audio AC '97 Two 9-pin serial,		T, 100BaseTX n ICH2 and 829 bootable / 3.5 ICH2 (AD188 I) [two in front],	/ full duple 562EM / st 5" 1.44MB 5) / interna parallel, k	ex / RJ-4 upport f diskett al speak	45 port / or Wake on L te drive er (use of aud	AN®, Alert on LA dio line out requir	N™, PXE es powered sp	
CD-ROM Bay (Bay (Bay (Bay (Bay (Bay (Bay (Bay (Three variable sp 340 watts / univer 340 watts / univer 5.25", HH 1.6", ac 3.5.5", SL 1", ac 3.5.5",	ccess, open ccess, diskette ccess, open o access, open of the triangler of the triangler of the triangler open open open open open open open open	Metal cagrotates ou Two fronts Handle gri H 18.5" x 36 to 42 pc Maximum SCSI: 293 EIDE: 180 Removable BIOS Setue SCSISelee Product Restartup Adv Config Microsoft® W Free licen Free licen Pro in hidd	e for disk b t of chassis stabilizing t p on top W 6.5" x D ounds (16. internal di. GB (4 disk GB (3 disk GB (3 disk GB (3 disk GB (2 disk GB (3 disk GB (5 disk GB (5 disk GB (7 disk GB	pays 5,6 s feet 20.0" 4 to 19. sk capa s x 73.4 s x 60c panel 1 at sta L+A at p ogram terface DAD ¹⁷ (P Profese Small s Notes Diagnoss Diagnoss Diagnos Diagnos Pery (Wine	1kg) acity¹³: 4GB) artup brompt via F11 at (ACPI) 1.0 essional rtSuite® © Client tics CD ecovery CD dows XP	Cover key lock Cover tamper Secure fixed D Power-on pass Administrator p Keyboard/mou Boot sequence Boot without k Diskette boot ii Disable mouse Diskette, disk, I/O control Secure access VPD stored in Write protectic IBM Security S LIMITE 3 year parts International On site, 8 am Mon through next busines On site servi eligible locat 3 year lOR (ServicePac Other Servi ibm.com/se	detect switch DASD sword sword sword se password se password e control eyboard or mou nhibit and write- serial port, para sopenings EEPROM on control for EE Solutions ED WARRANT and labor Warranty Servi through 5 pm, Fri excluding h s day response ce upgrade opti tions): 9x5, 4 hour resp ervices/its/us/ products/its/us/ momxeu.pdf	PROM (3 ce3 colidays, time ons (in conse 1L2735)

III IntelliStation® M Pro (6849) - withdrawn

IBM® Type-model Processor	GHz¹ Memory Disk a	SC:		Graphics adapter and me	Slots x mory bays Ethernet F	Available Preload ¹⁷ date
6849-10U Pentium® 6849-11U Pentium4 6849-12U Pentium4 6849-13U Pentium4 6849-20U Pentium4 6849-21U Pentium4 6849-23U Pentium4 6849-19U Pentium4	4 1.4 256MB 20.4GB ² II 1.4 512MB 18.2GBU II 1.4 512MB 18.2GBU II 1.4 512MB 18.2GBU II 1.5 256MB 20.4GBE II 1.5 512MB 18.2GBU	EIDE 7.2K Non Itra160 10K 2916 Itra160 10K 2916 Itra160 10K 2916 IDE 7.2K Non Itra160 10K 2916 Itra160 10K 2916	48X-20X ⁶ 60LP 48X-20X	Millennium G450 16ME Millennium G450 16MB NVIDIA™ Quadro2 MXF IBM Fire GL2 64MB Millennium G450 16MB Millennium G450 16MB NVIDIA Quadro2 MXR 3 IBM Fire GL2 64MB Millennium G450 16MB Millennium G450 16MB Millennium G450 16MB	6x7 10/100 20 6x7 10/100 20	00 or NT Nov 2000 00 or NT Nov 2000 00 or NT Nov 2000
Intel® processor L2 cache Implementation SMP support	Pentium® 4 at 1.4 or 1.50 256KB std and max / at p Processor and L2 cache i sink), four RIMM sockets, No SMP support	rocessor speed n Pin Grid Array (F five PCI slots, on	PGA) / motherbo e AGP slot, integ	ard contains one Intel P rated ethernet, and 850	chip w/ heat sink	
Memory - std / max Memory - features	256 or 512MB std / 2Gl 256MB models: Two 8D ECC memory controller two RIMMs installed (one all installed RIMMs must be	128MB PC600 RII r and RIMMs / fou e per channel) / CI	MMs; <i>512MB m</i> ır 184-pin gold-p RIMMs in two so	odels: Two 16D 256MB lated RIMM sockets (twockets / supports PC600	PC600 RIMMs o per channel) / or PC800 RIMMs (not	PC700)/
Graphics controller (one of following)	Matrox® Millennium Gadual RAMDAC [360/232 NVIDIA Quadro2 MXR DB-15 and DVI-I connection of the GL2 (extreme (single head; same image)	MHz] / dual head: (advanced 3D) / Actors (dual monitor 3D) / AGP 4X ada	: 2048x1536x16N AGP 4X adapter r capable)	/l at 70Hz and 1600x120 / NV11GL GPU / 32MB	0x16M at 85Hz / two DE std and max 183MHz S	3-15 connectors SDRAM /
IDE disk controller SCSI disk controller SCSI connectors Cables	SCSI models: One 68-pi SCSI models: One 5-dro	29160LP / Ultra10 MHz PCI adapter (n internal / one 0.8 pp 16-bit LVD SCS	60 SCSI (LVD 1) (in a 32-bit slot) / 8mm VHDCI 68- _I SI cable, one 2-c	60MB/sec) / one channel 15 dev oin external connector rop EIDE cable	SECU Cover key lock Cover tamper detec Secure fixed DASD Power-on password	ct switch
Disk - features	EIDE models: Two EIDE cable to E EIDE models: 20.4GB E SCSI models: 18.2GB U	IDE disk) IDE / ATA-100 / 7	7200 rpm / 9 ms	read seek / S.M.A.R.T.	Administrator passy Keyboard/mouse pa Boot sequence confi	vord assword trol
Rack support Chipset	4U ⁴ rack mount support Intel 850 chip set / MCH for PCI 2.2 bus, ATA-100 Firmware Hub / SMC LPC	(Memory Controlle EIDE, ethernet Ma	er Hub) / I/O Cor AC, USB, Low P	in Count Interface /	Boot without keyboo Diskette boot inhibit Disable mouse Diskette, disk, seria	t and write-protect
CD-ROM / diskette Audio External ports	Intel 82562EM / on plana LAN Connect Interface / o support for Wake on LAN 48X-20X° CD-ROM / CA Soft audio AC '97 v2.1 co Serial: Two 9 pin; Paralle kybd, mouse, audio line in	r / 10BaseT, 100E controller in ICH2 ®, Alert on LAN™, V (ATAPI) / boot ntroller via ICH2 (vi: One (EPP, ECF n, audio line out, n	BaseTX / full dup and 82562EM / , Preboot eXecu table / 3.5" 1.44 (powered speak) / IEEE 1284; <i>U</i> nicrophone in	olex / RJ-45 port / tion Envir (PXE) MB diskette drive ers required)	Secure access oper VPD stored in EEPI Write protection cor Barcode labels on n IBM Security Solution	ROM ntrol for EEPROM nost components ons
Microsoft® Windows	Monitoring and alerting of IBM 104-key keyboard / IB Three variable speed fan processor) / not redundan 340 watts / universal / aut bws 2000 Professional 500 Professional 500 SmartSuite® Millenning 100	BM three button ms (power supply, ret or hot-swap o sensing	nouse rear,	Bay ② 5.25", HH1 Bay ③ 3.5", SL 1 Bay ④ 3.5", SL 1 Bay ⑤ 3.5", SL 1 Bay ⑥ 3.5", SL 1 Bay ⑦ 3.5", SL 1 D550 (1.5v) - used by std	", access, diskette ", access, open ", no access, open ", no access, open ", no access, disk	diskette ④
 ♦ Software Selectio ♦ Windows 2000 Pr ♦ Windows NT 4.0 (♦ Disk-to-Disk Reco 4.0 SP6 in hidden 	d Diagnostics CD-ROM ns CD-ROM oduct Recovery CD-ROM SP6) Product Recovery C overy (Windows 2000 or N	Slot 4: fulls Slot 5: fulls Slot 6: fulls T	size, 32-bit 33M size, 32-bit 33M size, 32-bit 33M size, 32-bit 33M Metal cage for dis otates out of cha Fwo front stabilizi	Hz, PCI 2.2 (5v) Hz, PCI 2.2 (5v) Hz, PCI 2.2 (5v) - used I k bays 5,6,7 ssis	by SCSI adapter (some	Mini-tower
128MB PC600 ECC 256MB PC600 ECC 64MB PC800 ECC 128MB PC800 ECC 256MB PC800 ECC IBM 4Ux20D Tower IBM 30GB ATA-100 IBM 18.2GB 7200rpr IBM 36.4GB 7200rpr IBM 36.4GB 10K Ultr IBM 18.2GB 15K Ultr IBM 9.4GB DVD-RA	EIDE HDD n Ultra160 SCSI HDD n Ultra160 SCSI HDD ra160 SCSI HDD ra160 SCSI HDD www. (black) (companies of the companies of th	33L3093	Handle grip on told 18.5" x W 6.5" H 470mm x W 16 66 to 42 pounds (Maximum interna 82GB (5 disks x demovable left sidlos Setup Utility CCSISelect via Croduct Recovery tartup dv Config Powe	x D 20.0" x D 20.0" x D 20.0" 5mm x D 508mm 16.4 to 19.1kg) I SCSI disk capacity ¹³ 36.4GB) de panel via F2 at startup TRL+A at startup r Pgm via F11 at Interface (ACPI) 1.0 Manager™enabled	LIMITED WAF 3 year parts and lal International Warra On site, 8 am throu Mon through Fri ex next business day 3 year on site warra upgrade options: • 4 hour response, Post warranty mair available 24 hour x 7 day¹⁴ electronic, and Inter	bor anty Service ³ ugh 5 pm, coluding holidays, response time anty service 7 day x 24 hr ntenance services telephone,

III IntelliStation® M Pro (6849) - Spring 2001 - withdrawn

IBM® Type-model Processor	GHz ¹ Memory Disk and	SCS rpm adapt		Graphics adapter and n	Slots x	net Preload ¹⁷	Available date
6849-30U Pentium® 6849-31U Pentium 4 6849-32U Pentium 4 6849-33U Pentium 4	41.7 256MB 40.0GB ² EID 1.7 512MB 18.2GB Ultra 1.7 512MB 18.2GB Ultra 1.7 512MB 18.2GB Ultra 1.7 512MB 18.2GB Ultra 1.7 512MB 18.2GB Ultra	DE 7.2K None a160 10K 29160 a160 10K 29160 a160 10K 29160	48X-20X ⁶ DLP 48X-20X DLP 48X-20X DLP 48X-20X	Millennium G450 Millennium G450 NVIDIA™ Quadro2 MXF ATI® Fire GL2¹¹	16MB 6x7 10/10 16MB 6x7 10/10	00 2000 or N7 00 2000 or N7 00 2000 or NT 00 2000 or N7	ГМау́ 2001 Мау 2001 ГМау 2001
Processor L2 cache Implementation SMP support	Intel® Pentium® 4 1.7GHz 256KB std and max/at p Processor and L2 cache in heat sink), four RIMM soc No SMP support	rocessor speed n Pin Grid Array ((PGA) / mothe	rboard contains one Intel			and
Memory - std / max Memory - features	256 or 512MB std / 2GB 256MB models: Two 8D 1 ECC memory controller two RIMMs installed (one all installed RIMMs must b	28MB PC800 R and RIMMs / fo per channel) / C	IMMs; <i>512Mb</i> ur 184-pin gol CRIMMs in two	3 <i>models:</i> Two 16D 256N d-plated RIMM sockets (o sockets / supports PC6	/IB PC800 RIMMs / two per channel) / 00 or PC800 RIMM	s (not PC700)	
Graphics controller (one of following)	NVIDIA Quadro2 MXR dual RAMDAC [350/150 ATI Fire GL2 ¹¹ (extrem 300MHz RAMDAC / sing ATI Fire GL4 (extreme 300MHz) Output MHz] / dual head (advanced 3D) / MHz] / dual head e 3D) / AGP 4X gle head: 1920x1 BD) / AGP 4X ada	d: 2048x1536x AGP 4X adap d: 2048x1536x (adapter / IBM I200x16M at 7 apter / IBM GT	:16M at 70Hz and 1600x1: ter / NV11GL GPU / 32M :16M at 75Hz and 1280x1 M GT1000-RT1000 GPU 6Hz / DB-15 and DVI-D c	200x16M at 85Hz / B 183MHz SDRAM 024x16M at 85Hz/ ls / 64MB 120MHz connectors (same in 28MB 120MHz DDF	two DB-15 con / DB-15 and DVI DDR-SGRAM nage if both use R-SGRAM / dua	nectors -I conn I / ed) al	
IDE disk controller SCSI disk controller SCSI connectors Cables Disk - features	Enhanced IDE busmaste SCSI models: Adaptec® SCSI models: One 68-pi SCSI models: Two EIDE EIDE models: 40.0GB EI SCSI models: 18.2GB UI	r/ATA-100 / two 29160LP / Ultra- n internal / one 0 p 16-bit LVD SC cables (one 2-d DE / ATA-100 /	o connectors of 160 SCSI (LVI .8mm VHDCI (SI cable, one lrop cable to C 7200 rpm / 9	n planar D 160MB/sec) / 64-bit 33 58-pin external connector 2-drop EIDE cable D-ROM, one 2-drop cal ms read seek / S.M.A.F	MHz PCI adapter (
Rack support Architecture / chipset	4U ⁴ rack mount support Intel 850 chip set / MCH ethernet MAC, USB, Low	(Memory Control	ller Hub) / I/O (
CD-ROM / diskette Audio External ports Systems mgmt Keyboard / mouse Cooling fans	t Intel 82562EM / on plana LAN Connect Interface / osupport for Wake on LAN 48X-20X° CD-ROM / CA Soft audio AC '97 v2.1 co Serial: Two 9 pin; Paralle Monitoring and alerting of IBM 104-key keyboard / IE Three variable speed fans	controller in ICH2 Alert on LAN V (ATAPI) / boc ntroller via ICH2 Cone (EPP, EC thermal, fans, a M three button r s (power supply,	2 and 82562El M. Preboot eXe Otable / 3.5" 1 I internal spec P) / IEEE 128- nd voltage fau mouse	M / ecution Envir (PXE) .44MB diskette drive aker (use of audio line ou 4; <i>USB:</i> Two; keyboard, l lts	mouse, audio line i		in
CD-ROM Bay Bay Bay Bay Bay Bay Bay Bay Bay Slot Slot Slot Slot Slot Stealth Slot Slot Slot Slot Slot Slot Slot Slot	340 watts / universal / auto 1 5.25", HH 1.6", access, 2 5.25", HH 1.6", access, 3 3.5", SL 1", access, 3 3.5", SL 1", no access, 1: fullsize, AGP 4X Pro50 (- used by std AGP graph 2: fullsize, 32-bit 33MHz, PO, 1: fullsize, 32-bi	CD-ROM open diskette open s, open s, disk 11.5v) lics adapter Cl 2.2 (5v) s with GL4 Cl 2.2 (5v) Cl 2.	otates out of chiwo front stabill landle grip on 1 I 18.5" x W 6.5 6 to 42 pounds laximum intern 32GB (5 disks emovable left IIOS Setup Util CSISelect via roduct Recoved v Config Pow	izing feet top "" x D 20.0" s (16.4 to 19.1kg) and SCSI disk capacity ¹³ : x 36.4GB)	Microsoft® Windo - Free license for - Free license for - Device Drivers - Software Select - Windows 2000	Lotus® Smarts Lotus Notes® and Diagnostic tions CD-ROM Product Recove covery (Windo	Suite® Client cs CD very CD ry CD ows 2000
128MB PC600 EC0 256MB PC600 EC0 64MB PC800 EC0 128MB PC800 EC0 256MB PC800 EC0 512MB PC800 EC0 IBM 18.2GB 7.2K rpi IBM 36.4GB 10K Ult IBM 18.2GB 15K Ult IBM 18.2GB 7.2K rpi IBM 9.4GB DVD-RA	ra160 SCSI HDD om ATA-100 EIDE HDD AM (black) K ^e CD-Rewritable (black) /e (black) -to-Rack Kit nitor (black)	33L3095 33L3097 20L0274 20L0275 20L0277 33L3254 00N8205 00N8206 00N8209 19K0658 22P7157 10K3561 33L5020 00N8078	over key lock over tamper decure fixed DA wer-on passw dministrator pa eyboard/moust oot without key skette boot inhable mouse skette, disk, so control ecure access of D stored in Erite protection M Security So	SD vord ssword epassword control board or mouse hibit and write-protect erial port, parallel port epenings EPROM control for EEPROM	⇒ 3 year parts a ⇒ International ⇒ On site, 8 am Mon through next busines ⇒ 3 year on site upgrade option • 4 hour resp (ServicePac • 4 hour resp (ServicePac ⇒ Post warrant available ⇒ 24 hour x 7 o	Warranty Serv through 5 pm Fri excluding s day respons warranty serv s:7 onse, Mon-Fri part number 4 onse, 7 day x 3 part number 41 y maintenance	vice ³ , holidays, e time vice 9-5 .1L2735) 24 hr L2741) e services ne,

IBM IntelliStation® M Pro (6849) - Summer 2001 - withdrawn

6849-42U Pentium 4 6849-44U Pentium 4 6849-50U Pentium 4 6849-51U Pentium 4 6849-52U Pentium 4 6849-54U Pentium 4 Processor L2 cache Implementation	4 1.8 256MB 40.0GB ² EIDE 7.2K 1 1.8 512MB 18.2GB Ultra160 10K 1 1.8 512MB 18.2GB Ultra160 10K 1 1.8 512MB 18.2GB Ultra160 10K 1 2.0 256MB 40.0GB EIDE 7.2K 2.0 512MB 18.2GB Ultra160 10K	29160LP CD NVIDIA™ Quadro2 Pro 64	6x7 10/100 2000 or NT Aug 2001 6x7 10/100 2000 or NT Aug 2001
6849-41U Pentium 4 6849-42U Pentium 4 6849-50U Pentium 4 6849-51U Pentium 4 6849-52U Pentium 4 6849-54U Pentium 4 Processor L2 cache Implementation	 1.8 512MB 18.2GB Ultra160 10K 1.8 512MB 18.2GB Ultra160 10K 1.8 512MB 18.2GB Ultra160 10K 1.2 256MB 40.0GB EIDE 7.2K 2.0 512MB 18.2GB Ultra160 10K 	29160LP CD Millennium G450 16MB 29160LP CD NVIDIA™ Quadro2 Pro 64	6x7 10/100 2000 or NT Aug 2001
L2 cache Implementation	1 2.0 512MB 18.2GB Ultra160 10K 1 2.0 512MB 18.2GB Ultra160 10K	None CD Millennium G450 16MB 29160LP CD Millennium G450 16MB 29160LP CD NVIDIA™ Quadro2 Pro 64	6 6x7 10/100 2000 or NT Aug 2001 6x7 10/100 2000 or NT Sep 2001 6x7 10/100 2000 or NT Sep 2001
SMP support	Intel® Pentium® 4 at 1.8 or 2.0GHz v 256KB std and max / at processor s Processor and L2 cache in Pin Grid A heat sink), four RIMM sockets, five P No SMP support		PGA423 socket (with Pentium 4 and and and socket sink
Memory - std / max Memory - features	256MB models: Two 8D 128MB PCt ECC memory controller and RIMN two RIMMs installed (one per chann	ual RDRAM (Rambus) channels / 32 devi 300 RIMMs; 512MB models: Two 16D 256Ml s / four 184-pin gold-plated RIMM sockets (to el) / CRIMMs in two sockets / supports PC60 in pairs across channels / mixing speeds will h	B PC800 RIMMs / wo per channel) / 0 or PC800 RIMMs (not PC700) /
Graphics controller (one of following)	 dual RAMDAC [360/232MHz] / dua NVIDIA Quadro2 Pro (advanced 3 350MHz RAMDAC / single head: 1 ATI Fire GL4 (extreme 3D) / AGP 4 	erformance 2D) / AGP 4X adapter / MGA G45 head: 2048x1536x16M at 70Hz and 1600x12 D) / AGP 4X adapter / NV15GL 250MHz GPU 600x1200x16M at 85Hz / DB-15 and DVI-I con X Pro 50 adapter / IBM GT1000-RT1000 GPU d: 1920x1200x16M at 76Hz and 1280x1024x1	00x16M at 85Hz / two DB-15 connectors J / 64MB 200MHz DDR-SDRAM / Inectors (same image if both used) Us / 128MB 150MHz DDR-SGRAM / dual
IDE disk controller SCSI disk controller SCSI connectors Cables Disk - features	SCSI models: One 68-pin internal / SCSI models: One 5-drop 16-bit LV EIDE models: Two EIDE cables (or EIDE models: 40.0GB EIDE / ATA-	/ two connectors on planar Ultra160 SCSI (LVD 160MB/sec) / 64-bit 33N one 0.8mm VHDCI 68-pin external connector D SCSI cable, one 2-drop EIDE cable e 2-drop cable to CD-ROM, one 2-drop cabl 100 / 7200 rpm / 9 ms read seek / S.M.A.R. EI / 10K rpm / 5.5 ms read seek / S.M.A.R.T.	le to EIDE disk)
Rack support Architecture / chipset	4U ⁴ rack mount support via tower-t Intel 850 chipset / MCH (Memory Co ethernet MAC, USB, Low Pin Count I	o-rack kit option ontroller Hub) / I/O Controller Hub (ICH2) for P onterface / Firmware Hub / SMC LPC47M102 S	CI 2.2 bus, ATA-100 EIDE, Super I/O off LPC interface
CD-ROM / diskette Audio Rear ports Systems mgmt Keyboard / mouse	LAN Connect Interface / controller in 48X-20X ⁶ CD-ROM, CAV (ATAPI), Soft audio AC '97 v2.1 controller via Two 9-pin serial; two USB (Vers 1.1' Monitoring and alerting of thermal, fa IBM 104-key keyboard / IBM three bu	tton mouse	requires powered speakers) ne in, audio line out, mic in
Cooling fans Power supply	340 watts / universal / auto sensing	oply, rear, processor) / not redundant or hot-sv	vap
CD-ROM Bay	① 5.25", HH 1.6", access, Open open open (3.5", SL 1", access, open (3.5", SL 1", access, open (3.5", SL 1", no access, open (3.5", SL 1", open open (3.5", SL 1", open open (3.5", SL 1"), open open (3.5", SL 1"), open open (3.5", SL 1"), open open (3.5"), open (3.5")	rotates out of chassis Two front stabilizing feet Handle grip on top H 18.5" x W 6.5" x D 20.0" 36 to 42 pounds (16.4 to 19.1kg) • Maximum internal SCSI disk capacity¹³:	PRELOAD ¹⁷ Microsoft® Windows® 2000 Professional - Free license for Lotus® SmartSuite® - Free license for Lotus Notes® Client Device Drivers and Diagnostics CD Software Selections CD-ROM Windows 2000 Product Recovery CD NT 4.0 (SP6) Product Recovery CD
⑤ Slot ⑥ disk Mini-tower Stealth Slot Slot Slot Slot	 - used by std AGP graphics adapte 2: fullsize, 32-bit 33MHz, PCI 2.2 (5v) - not available on models with GL4 3: fullsize, 32-bit 33MHz, PCI 2.2 (5v) 4: fullsize, 32-bit 33MHz, PCI 2.2 (5v) 5: fullsize, 32-bit 33MHz, PCI 2.2 (5v) 6: fullsize, 32-bit 33MHz, PCI 2.2 (5v) - used by SCSI adapter (some) 	182GB (5 disks x 36.4GB) • Removable left side panel • BIOS Setup Utility - F1 at startup • SCSISelect via CTRL+A at prompt • Product Recovery Pgm - F11 at startup • Adv Config Power Interface (ACPI) 1.0 • LANClient Control Manager™ enabled	 Disk-to-Disk Recovery (Windows 2000 or NT 4.0 SP6 in hidden service partition)
64 MB PC 800 EC	OPTIONS C RDRAM RIMM (4 Dev) 20L0274	SECURITY Cover key lock	LIMITED WARRANTY ³
128 MB PC 800 EC 256 MB PC 800 EC 64 MB PC 800 EC 128 MB PC 800 EC 256 MB PC 800 EC 512 MB PC 800 EC IBM 18.2GB 7.2K rp IBM 36.4GB 17.2K rp IBM 36.4GB 10K UII IBM 18.2GB 15K UII IBM 18.2GB 7.2K r IBM 18.2GB 15K UII	C RDRAM RIMM (8 Dev) 20L0275 C RDRAM RIMM (16 Dev) 20L0277 C RDRAM RIMM (2 Dev) 33L3348 C RDRAM RIMM (8 Dev) 33L3350 C RDRAM RIMM (8 Dev) 33L3352 C RDRAM RIMM (16 Dev) 33L3254 m Ultra160 SCSI HDD 00N8206 tra160 SCSI HDD 00N8209 tra160 SCSI HDD 19K0658 pm ATA-100 EIDE HDD 22X Max ⁶ CD-RW (black) 9CSI Tape Drive (black) 9ve (black) 17-to-Rack Kit 2000.000.000.000.000.000.000.000.000.00	Cover key lock Cover tamper detect switch Secure fixed DASD Power-on password Administrator password Keyboard/mouse password Boot sequence control Boot without keyboard or mouse Diskette boot inhibit and write-protect Disable mouse Diskette, disk, serial port, parallel port I/O control Secure access openings VPD stored in EEPROM Write protection control for EEPROM IBM Security Solutions	 ⇒ 3 year parts and labor ⇒ International Warranty Service³ ⇒ On site, 8 am through 5 pm, Mon through Fri excluding holidays, next business day response time ⇒ 3 year on site warranty service upgrade options:7 • 4 hour response, Mon-Fri 9-5 (ServicePac® part number 41L2735) • 4 hour response, 7 day x 24 hr (ServicePac part number 41L2741) ⇒ Post warranty maintenance services available ⇒ 24x7¹⁴ toll-free support for warranty

IBM IntelliStation® M Pro (6850) - withdrawn

IBM® Type-model QtyxPro	L2 ocessor cache	Memory D	isk and rpm		Disk controllers (D-ROM	Graphics ad	apter and memory	Slots x bays	Preload ¹⁷	Available date
6850-21U 1 x Xed	on 1.7 256KB on 1.7 256KB on 1.7 256KB	256MB 18.20	3 EIDE 7.2k GB Ultra 160 GB Ultra 160	(()10K ()10K (Jitra160, EIDE Jitra160, EIDE Jitra160, EIDE Jitra160, EIDE Jitra160, EIDE	CD CD CD	Millennium Millennium Millennium NVIDIA™Q ATI® Fire G	G45016MB	6x9 6x9 6x9 6x9 6x9	2000 2000 2000 2000 2000	Aug 2001 Aug 2001 Aug 2001 Aug 2001 Aug 2001
Positioning Processor L2 cache Implementation SMP support	Ultimate works 1 x Intel® Xeo 256KB L2 cach Processor and connector, five 2-way SMP via	on™ 1.5 or 1.7 ne / on die of X L2 cache in P PCI slots, one	GHz ¹ with eon / at prod in Grid Array AGP Pro slo	400MHz essor sp (PGA)	oeed / no L3 ca / motherboard	ache contain		ocket-603 sockets chipset	s, one r	nemory o	eard
Memory	channel / 8 slo (MRH-R) conv	ot memory card verts each cha controller and	d with four R annel into tv RIMMs / 184	DRAM o vo chan 4-pin go	channels and inels (2x2=4 d ld-plated RIMI	max of channe VI socke	8x512MB=4 ls total) /	mbus) channels / GB / each 82803 s PC800 RIMMs o	Memo		
Graphics controller (one of following)	phics controller one of following) Matrox® Millennium G450 (high-perf 2D) / AGP 4X adapter / Matrox MGA G450C GPU / 16MB 150MHz SDRAM / dual RAMDAC [360/232MHz] / dual head: 2048x1536x16M at 70Hz and 1600x1200x16M at 85Hz / two DB-15 connectors NVIDIA Quadro2 Pro (advanced 3D) / AGP 4X adapter / NV15GL 250MHz GPU / 64MB 200MHz DDR-SDRAM / 350MHz RAMDAC / single head: 1600x1200x16M at 85Hz / DB-15 and DVI-I connectors (same image if both used) ATI Fire GL4 (extreme 3D) / AGP 4X Pro 50 adapter / IBM GT1000-RT1000 GPUs / 128MB 150MHz DDR-SGRAM / dual RAMDAC [300/135MHz] / dual head: 1920x1200x16M at 76Hz and 1280x1024x16M at 75Hz / two DVI-I w/ DB-15 dongles										
SCSI controller SCSI connectors IDE cables EIDE controller Disk - features	Internal Port A External Port I EIDE and SCS Enhanced IDE SCSI models:	: 68 pin (attac 3: 68-pin SCS 1 models: one 2 / ATA-100 witl 18.2GB Ultra1	ches 6-drop I port on real 2-drop IDE A ⁻ n two channe 60 / 10K rpn	16-bit L' r (conne TA-33 ca el suppo n / 5.5 r	VD cable to SC cted by 1-drop able (for CD-RC rt / integrated i ns read seek;	CSI disk o 16-bit OM); <i>EII</i> n I/O C	a [cáble std o LVD cable t DE models: o ontroller Hub	ar / 64-bit PCI bus n SCSI models, n o conn on planar ne 2-drop ATA-66 (ICH2) 0 rpm / 8.7 ms re	ot EID cable o /100 ca	on all mo able (to di	dels]) sk)
Rack support Chipset		set / 82860 MC (ICH2) for PC	CH (Memory I 2.2 bus, AT	Controİl A-100 E	er Hub) / two 8 IDE, ethernet	MAC, L	JSB, Low Pir	epeater Hubs (MF Count Interface /			
10/100 Mbps ethernet CD-ROM / diskette Audio External rear ports Systems mgmt Keyboard / mouse Cooling fans Power supply (1) (2) (3) (6) (7) (8) (6) (7) (8) (6) (7) (8) (6) (8) (6) (7) (8) (6) (7) (8) (6) (7) (8) (6) (7) (8) (6) (7) (8) (6) (7) (8) (6) (7) (8) (6) (7) (8) (6) (7) (8) (6) (7) (8) (6) (7) (8) (6) (7) (8) (6) (7) (8) (7) (8) (8) (9) (1) (1) (2) (3) (4) (5) (6) (7) (8) (1) (1) (2) (3) (4) (5) (5) (6) (7) (8) (1) (1) (1) (2) (3) (4) (5) (6) (7) (8) (1) (1) (1) (2) (3) (4) (5) (5) (6) (7) (6) (7) (8) (1) (1) (1) (2) (2) (3) (4) (5) (4) (5) (6) (7) (8) (1) (1) (1) (2) (2) (3) (4) (5) (5) (6) (7) (6) (7) (8) (1) (1) (1) (2) (2) (3) (4) (5) (4) (5) (6) (7) (8) (1) (1) (1) (2) (2) (3) (4) (5) (4) (5) (6) (7) (8) (1) (1) (1) (2) (2) (3) (4) (5) (4) (5) (6) (7) (6) (7) (8) (1) (1) (1) (2) (2) (3) (4) (4) (5) (5) (6) (7) (6) (7) (8) (1) (1) (1) (2) (2) (3) (4) (4) (5) (4) (5) (5) (6) (7) (6) (7) (7) (8) (9) (9) (9) (9) (9) (9) (9	Intel 82550 / o LAN Connect support for Wa CD-ROM: 48) Soft audio AC internal mono Serial: two 9-p mouse, audio Monitoring and IBM 104-key k Five variable s one in power s 480 watts / uni Bay ① 5.25", h Bay ② 5.25", h Bay ② 3.5", S Bay ③ 3.5", S Bay ⑥ 3.5", S Bay ⑥ 3.5", S Bay ⑥ 3.5", S Slot 1: full, 32- Slot 2: full, 32- Slot 3: full, 32- Slot 5: full, 64- Slot 6: full, 64-	n planar / 10B. nterface / con tke on LAN®, A (-20X6 / CAV '97 v2.1 control speaker (use of in; Parallel: or ine in, audio li d alerting of the eyboard (black peed fans (two upply) / not rec versal / auto se HH 1.6", acce HH 1.6", acce HH 1.6", acce SL 1", no ac SL	aseT, 100Ba troller in ICH klert on LAN (ATAPI) / bc bller via ICH of audio line he (EPP, EC hermal, fans, v) / IBM three of for process hundant or he ensing ss, std C ss, diske ccess, open	aseTX / l2 and 8 l2 and 8 lootable; 2 / ADI out requence of the lootable; 2 / ADI out requence of the lootable; lootable; 2 / ADI out requence of the lootable; lootable of the lootable of t	full duplex / R. 2550 / oot e Xecution Diskette: 3.5 1885 codec / uires powered E 1284; USB: faults, and cha mouse (black) if for chassis, of Mini Stea Swir hly) hly) hly) hly) conly) AGP adapter	J-45 po Envir (" 1.44l speaketwo; ke ussis into the for For For For For For For For For For F	rt / PXE) MB drive ers) yboard, erusion PCI cards, ek color cor covers	Cover key loc Cover tamper Secure fixed Power-on pas Administrator Keyboard/mo Boot sequenc Boot without I Diskette boot write-protect Disable mous Disk, serial po Secure acces VPD stored ir Write protecti Optional U-bo	detections detections	ord ssword rol rd or mou and control ings rol rol rol rol rol control ings rol rol rol cont cont cont cont cont cont cont cont	essional ont cs CD I very CD ows
Xeon 1.5GHz/256l Xeon 1.7GHz/256l 64MB PC800 Et 128MB PC800 Et 256MB PC800 Et 512MB PC800 Et IBM 36.4GB 10K L IBM 73.4GB 10K L IBM 40.0GB 7.2K IBM 9.4GB DVD-1 IBM 12X/8X/14-3 IBM 4Ux20D Tow IBM P260 Color M IBM T540 15" TFT	KB Proc Upgrad CC RDRAM RII CC RDRAM RII CC RDRAM RII JItra160 SCSI H JItra160 SCSI H JItra160 SCSI H H rpm ATA-100 E RAM (black) 2x Max ⁶ CD-R' er-to-Rack Kit Ionitor (black)	e e MM (4 Dev) MM (8 Dev) MM (16 Dev) MM (16 Dev) DD DD DD DD EIDE HDD W IDE (black)	24P8401 24P8402 20L0274 20L0275 20L0277 33L3254 00N8209 06P5752 19K0658 22P7157 10K3561 10K3785 10L7006 655263N 9511AG4	SCS EIDE H 17 H 444 • 59 pc Rem • Conf SCS • Adv ((ACF • Wire (WfM • SMB	mum internal i: 218.4GB (6 i: 218.4GB (6 3" x W 8.6" x I 0mm" x W 217 ounds max (26 ovable left side iguration Mana ISelect via CT Config Power I Pl) 1.1-complia I) 2.0-complian IOS 2.3-comp PA-compliant	disks x isks x 4 D 23.7" mm x E .8kg) e panel ager at .RL+A a .nterfacont bility	36.4GB) 90GB) 9603mm startup at prompt	DIMITI 3 year parts Internationa On site, 8 ar Mon throug next busine 3 year on sit upgrade op 4 hour res (ServicePac 4 hour res (ServicePac 24x7¹⁴ toll-fri issues during	and la Marr n thro h Fri ex ss day te warr otionse, part no ponse, part nu ee sup	anty Servingh 5 pm celuding respons anty servingh Mon-Fri umber 41 7 day x mber 411 port for v	vice ³ 1, holidays, se time vice 9-5 IL2735) 24 hr _2741) warranty

III IntelliStation® M Pro (6850) - Fall 2001 - withdrawn

IBM® Type-model Qty x Pro	L2 ocessor cache Memory D	isk and rpm	Disk controllers Cl	D-POM Graphics a	dapter and memory	Slots x bays Preload ¹⁷	Available date	
6850-30U 1 x Xeo 6850-31U 1 x Xeo 6850-32U 1 x Xeo	•	3 ² EIDE 7.2K GB Ultra 160 10K GB Ultra 160 10K	Ultra160, EIDE Ultra160, EIDE Ultra160, EIDE	CD Millennium CD Millennium CD NVIDIA™	n G450 16MB n G450 16MB Quadro2 Pro 64MB GL4 ^{TM, 11} 128 MB	6x9 2000 6x9 2000	Oct 2001 Oct 2001 Oct 2001 Oct 2001	
Positioning Processor L2 cache Implementation	Ultimate workstation performs 1 x Intel® Xeon™ 2.0GHz¹ wit 256KB L2 cache / on die of X Processor and L2 cache in Pi connector, five PCI slots, one 2-way SMP via identical proc	th 400MHz Fron eon / at processo n Grid Array (PG AGP Pro slot, in cessor	or Side Bus or speed / no L3 cat A) / motherboard of tegrated ethernet a	contains two Intels and SCSI, and 860) chipset			
Memory	256 or 512MB std / 4GB m channel / 8 slot memory card (MRH-R) converts each char ECC memory controller and all installed RIMMs must be in	l with four RDRA nnel into two cha RIMMs / 184-pin	M channels and m Innels (2x2=4 chan I gold-plated RIMM	nax of 8x512MB=4 Inels total) / I sockets / suppor	4ĠB / each 82803 I	Memory Repeat		
Graphics controller (one of following)	Matrox® Millennium G450 dual RAMDAC [360/232MH NVIDIA Quadro2 Pro (adva 350MHz RAMDAC / single I ATI Fire GL4 (extreme 3D) RAMDAC [300/135MHz] / d	z] / dual head: 20 anced 3D) / AGP nead: 1600x1200 / AGP 4X Pro 50	048x1536x16M at 7 P 4X adapter / NV15 0x16M at 85Hz / DE 0 adapter / IBM GT1	OHz and 1600x12 GGL 250MHz GPL 3-15 and DVI-I cor 1000-RT1000 GP	00x16M at 85Hz / tv J / 64MB 200MHz [Inectors (same ima Us / 128MB 150MH	vo DB-15 conned DDR-SDRAM / ge if both used) Iz DDR-SGRAM	I / dual	
SCSI controller SCSI connectors IDE cables EIDE controller Disk - features	Adaptec® AIC-7899 / dual ch Internal Port A: 68 pin (attac External Port B: 68-pin SCSI EIDE and SCSI models: one 2 Enhanced IDE / ATA-100 with SCSI models: 18.2GB Ultra10	ches 6-drop 16-b l port on rear (co l-drop IDE ATA-3 n two channel sup	it LVD cable to SC: nnected by 1-drop 3 cable (for CD-RO) pport / integrated in	SI disk [cable std 16-bit LVD cable M); <i>EIDE models:</i> I/O Controller Hu	on SCSI models, n to conn on planar one 2-drop ATA-66 lb (ICH2)	ot EIDE models [cable on all mo /100 cable (to di	dels]) sk)	
Rack support Chipset	4U ⁴ rack mount support via Intel 860 chipset / 82860 MC Controller Hub (ICH2) for PCI controller (P64H) / 82802 Firm	CH (Memory Cont 2.2 bus, ATA-10	troİler Hub) / two 82 00 EIDE, ethernet N	/IAC, USB, Low P				
Ethernet CD-ROM / diskette Audio External rear ports Systems mgmt	10/100 ethernet on planar / I RJ-45 port / LAN Connect Int support for Wake on LAN®, A CD-ROM: 48X-20X6 / CAV (Soft audio AC '97 v2.1 contro internal mono speaker (use of Serial: two 9-pin; Parallel: on mouse, audio line in, audio lin Monitoring and alerting of the	erface / controlle lert on LAN™, P. (ATAPI) / bootat biller via ICH2 / A of audio line out r e (EPP, ECP) / I ne out, mic in ermal, fans, volta	er in ICH2 and 825 reboot eXecution Eble; Diskette: 3.5" DI 1885 codec / requires powered s EEE 1284; USB: toge faults, and chas	50 / Envir (PXE) ' 1.44MB drive peakers) wo; keyboard,	SECURITY Cover key lock Cover tamper detect switch Secure fixed DASD Power-on password Administrator password Keyboard/mouse password Boot sequence control Boot without keyboard or mouse			
Keyboard / mouse Cooling fans Power supply	IBM 104-key keyboard (black Five variable speed fans (two one in power supply) / not red 480 watts / universal / auto se Bay ① 5.25", HH 1.6", acces Bay ② 5.25", HH 1.6", acces	for processors, undant or hot-swensing ss, open ss, std CD-Re	one for chassis, ón vap Mini to OM Steal	ower th black color	write-protect Disable mous Disk, serial po Secure acces	 Diskette boot inhibit and write-protect Disable mouse Disk, serial port I/O control 		
① the state of the	Bay ⑤ 3.5", SL 1", no ac Bay ⑥ 3.5", SL 1", no ac Bay ⑦ 3.5", SL 1", no ac Bay ⑧ 3.5", SL 1", no ac	ccess, open (dislocess, open (dislocess, open (dislocess, open (dislocess, open (dislocess, open (dislocess, std disk (dislocess, std disk (dislocess, std disk (dislocess, open (dislocess, std disk (dislocess, open (dislocess, std disk (dislocess, open (disloce	k only) bays k only) k only) k only) k only) k only) disk only) by AGP adapter	ging door covers 1 to 3 4 model	Optional U-bo Microsoft® Wind License for Lo License for Lo Device Driver Software Sele Disk-to-Disk F	PRELOAD ¹⁷ lows® 2000 Profestus® SmartSuite otus® Oties s and Diagnostie ections CD-ROM	essional ont cs CD bows	
64MB PC800 EC 128MB PC800 EC 256MB PC800 EC 512MB PC800 EC 18M 36.4GB 10K LIBM 73.4GB 10K LIBM 18.2GB 15K LIBM 40.0GB 7.2K IBM 9.4GB DVD-FIBM 12X/8X/14-32 IBM 4Ux20D Tov IBM P275 (21.0" VIBM T540 15" TFT	OPTIONS KB Processor Upgrade CC RDRAM RIMM (4 Dev) CC RDRAM RIMM (8 Dev) CC RDRAM RIMM (16 Dev) CC RDRAM RIMM (16 Dev) Jltra160 SCSI HDD Jltra160 SCSI HDD Jltra160 SCSI HDD Jltra160 SCSI HDD RAM (black) 2x6 CD-Rewritable IDE (black)	24P8453 20L0274 20L0275 20L0277 33L3254 00N8209 06P5752 19K0658 22P7157 10K3561 10K3785 10L7006 6552U3N	Maximum internal SCSI: 440.4GB (6 EIDE: 120GB (3 of H 17.3" x W 8.6" x H 440mm" x W 217 59 pounds max (26 Removable left sid Configuration Man SCSISelect via CT Adv Config Power (ACPI) 1.1-compliar Wired for Managea (WfM) 2.0-compliar SMBIOS 2.3-comp PC99A-compliant	d disks x 73.4GB) lisks x 40GB) D 23.7" 7mm x D 603mm d bilde by a by a by a by a by a by a by a by	 ⇒ 3 year parts ⇒ Internationa ⇒ On site, 8 an Mon through next busines ⇒ 3 year on situpgrade op • 4 hour resp (ServicePac • 4 hour resp (ServicePac ⇒ 24 hour x 7 	I Warranty Serventhrough 5 pm in Fri excluding loss day response e warranty servetions?: bonse, Mon-Fri conse, T day x 2 conse, 7 day x 2 conse, 7 day x 2 conse, 7 day x 2	rice ³ , holidays, e time rice 9-5 1L2737) 24 hr DL9186) e,	

III IntelliStation® M Pro (6850) - February 2002 - withdrawn xREF by eServer Field Skills Enablement Team

IBM®	L2		Disk		Slots x Available
Type-model Qty x Pro	ocessor cache Memory	Disk and rpm	controllers CD-	ROM Graphics adapter and memo	
6850-42U 1 x Xec 6850-43U 1 x Xec 6850-45U 1 x Xec 6850-50U 1 x Xec 6850-52U 1 x Xec 6850-53U 1 x Xec 6850-53U 1 x Xec	on 2.0 512KB 512MB 40 on 2.0 512KB 512MB 40 on 2.0 512KB 512MB 18 on 2.0 512KB 512MB 18 on 2.0 512KB 512MB 18 on 2.2 512KB 512MB 40 on 2.2 512KB 512MB 40 on 2.2 512KB 512MB 40 on 2.2 512KB 512MB 40 on 2.2 512KB 512MB 18 on 2.2 512KB 512MB 18	OGB EIDE 7.2K 3.2GB Ultra 160 10K 3.2GB Ultra 160 10K 3.2GB Ultra 160 10K OGB EIDE 7.2K OGB EIDE 7.2K 3.2GB Ultra 160 10K 3.2GB Ultra 160 10K	Ultra160, EIDE CUltra160, EIDE	D NVIDIA Quadro4 64MB D ATI® Fire GL8800™.11 128N D Wildcat III™ 6110 208MB D Millennium G450 DVI-I 32M D NVIDIA Quadro4 64MB	6x9 2000 Feb 2002 6x9 2000 Feb 2002 1B 6x9 2000 Feb 2002 6x9 2000 Feb 2002
Processor L2 cache Implementation SMP support Memory	512KB / on die of Xeon / a Processor and L2 cache ir one memory card connect 2-way SMP via identical p 512MB std / 4GB max ¹³ /8 slot memory card with	t processor speed / In Pin Grid Array (PG/ or, five PCI slots, one processor PC800 ECC Ramb four RDRAM chann	no L3 cache A) / motherboard core e AGP Pro slot, integ Pous two or four RDI nels and max of 8x5	/ supports Hyper-Threading tect stains two Intel Socket-603 sock trated ethernet and SCSI, and 86 sitioning: Ultimate workstation p RAM (Rambus) channels / 32 d 512MB=4GB / each 82803 Mei els total) / ECC memory controll	ets, 60 chipset erformance and scalability evices max each channel / mory Repeater Hub
Graphics controller (one of following)	Matrox® Millennium G4 dual RAMDAC [360/232] NVIDIA Quadro4 200N 350MHz RAMDACs / du. ATI Fire GL8800™ (adva RAMDAC [400/165MHz] 3DLabs Wildcat III™ 61: 128MB texture buffer, 16:	1 sockets / supports 50 DVI-I (high-perf 2 MHz] / dual head sup /S (high-perf 2D) / A al head: 2048x1536; anced 3D) / AGP 4X // dual head support 10 (extreme 3D) / AG MB direct burst) / du	PC800 RIMMs only / 2D) / AGP 4X adapter port / one DVI-I conn GP 4X adapter / NV1 x16M each monitor / adapter / Radeon™ & / one DB-15 analog a GP 4X Pro 50 adapter lal RAMDAC [320/30	RIMMs must be installed in pair r/MGA G450F GPU/32MB 150 ector (ships with one cable with t 17LT 250MHz GPU/64MB 166MLFH60 connector for std cable with 3800 GPU/128MB 300MHz DD and one DVI-I conntr (ships with cr/208MB total DDR-SDRAM (640MHz]/dual head support (up to-15 cables for analog monitor attal	s across channels MHz DDR-SDRAM / wo DB-15 analog conns) //Hz SDRAM / dual th two DB-15 analog R-SGRAM / dual ne DVI-I to DB-15 cable) **MB frame buffer, b two digital or analog
SCSI controller SCSI connectors IDE cables EIDE controller Disk - features	Adaptec® AIC-7899 / dua Internal Port A: 68 pin (at External Port B: 68-pin SC EIDE and SCSI models: or Enhanced IDE / ATA-100 v	I channel Ultra160 S ttaches 6-drop 16-bi CSI port on rear (cor le 2-drop IDE ATA-33 with two channel sup	CSI controller (160M t LVD cable to SCSI nnected by 1-drop 16 cable (for CD-ROM) port / integrated in I/	MB/sec) / on planar / 64-bit PCI b disk [cable std on SCSI models 6-bit LVD cable to conn on plana ; <i>EIDE models:</i> one 2-drop ATA-t	not EIDE models]); r [cable on all models]) 66/100 cable (to disk)
Rack support Chipset	82801BA I/O Controller Hu	MCH (Memory Cont ub (ICH2) for PCI 2.2	roİler Hub) / two 8280 2 bus, ATA-100 EIDE	03AA Memory Repeater Hubs (N , ethernet MAC, USB, Low Pin C oond® Super I/O off LPC interface	Count Interface /
Audio	Intel 82550 / on planar / fucontroller in ICH2 and 825 CD-ROM: 48X-20X° / CA Soft audio AC '97 v2.1 coninternal mono speaker (us Serial: two 9-pin; Parallel: mouse, audio line in, audi Monitoring and alerting of	550 / support for Wal V (ATAPI) / bootab ntroller via ICH2 / AI se of audio line out re one (EPP, ECP) / IB o line out, mic in	ke on LAN®, Alert on ble; Diskette: 3.5" 1 DI 1885 codec / equires powered spe EEE 1284; USB: two	LAN™, PXE .44MB drive eakers) ; keyboard, • Cover key I • Cover tamp • Secure fixe • Power-on p • Administrat	er detect switch d DASD assword or password nouse password
Cooling fans Power supply	IBM 104-key keyboard (bla Five variable speed fans (i one in power supply) / not 480 watts / universal / au Bay ① 5.25", HH 1.6", ac Bay ② 5.25", HH 1.6", ac	two for processors, or redundant or hot-swa to sensing ccess, open	one for chassis, one f ap • Mini tow	or PCI cards, or PCI cards, or Disable mo Disk, serial Secure acc VPD stored	It keyboard or mouse ot inhibit and write-protect use port I/O control ess openings
CD-ROM (B) (CD-ROM)	Bay ③ 3.5", SL 1", ac Bay ⑥ 3.5", SL 1", nc Bay ⑨ 3.5", SL 1", nc Slot 1: full, 32-bit 33MHz F Slot 3: full, 32-bit 33MHz F	ccess, diskette access, open (disk access, open (disk access, open (disk access, open (disk access, open (disk access, open (disk access, std disk (d (universal) - used PCI 2.2 (5v) - not ava	conly) bays 1 t conly) conly) conly) conly) conly) lisk only) by AGP adapter	Microsoft® Wir - License for - License for - Device Driv + Software Sr + Disk-to-Dis	
Xeon 2.2GHz/512k 64MB PC800 EC 128MB PC800 EC 256MB PC800 EC 512MB PC800 EC IBM 73.4GB 10K U IBM 9.4GB DVD-F IBM IDE 40X/12X IBM 4Ux20D Towe IBM P275 (21.0" v IBM T750 17" TFT	RAM (black) /40X Max ⁶ CD-RW (black)	PCI 2.2 (3.3v) PCI 2.2 (3.3v) 25P2653 32P8586 20L0274 20L0275 20L0277 33L3254 06P5752 10K3561 22P6976 10L7006 ck) 6552U3N 6657HG2	Maximum internal dia SCSI: 440.4GB (6 di EIDE: 180GB (3 disl 117.3" x W 8.6" x D 1 440mm" x W 217m Spounds max (26.8) Removable left side p Configuration Manag SCSISelect via CTRI Adv Config Power Int ACPI) 1.1-compliant Wired for Manageabil WfM) 2.0-compliant SMBIOS 2.3-compliant	sks x 73.4GB) sks x 60GB) 23.7" m x D 603mm kg) annel er at startup+A at prompt erface ity 3 year par Internatio On site, 8 Mon through ext busin 3 year on upgrade • 4 hour re (Servicel • 4 hour re (Servicel • 4 hour re (Servicel • 24x7 ¹⁴ tol	nal Warranty Service ³ am through 5 pm, igh Fri excluding holidays, ness day response time site warranty service

	IOII IVI I	0 (0000)	May 2002	withdiawii		XNEF Dy	eserver Fleid	JKIIIS L	Lilableili	ent ream
IBM® Type-model Qty x Pr	L2 ocessor cache	Memory	Disk and rpm	Disk controllers C	D-RON		s adapter s	Slots x bays	Preload ¹⁷	Available date
6850-62U 1 x Xec	on 2.4 512KB on 2.4 512KB	512MB 40Gl 512MB 18.2 512MB 18.2 512MB 18.2	B EIDE 7.2K GB Ultra 160 10K GB Ultra 160 10K GB Ultra 160 10K	Ultra160, EIDE Ultra160, EIDE	CD (CD)	Quadro4 200N Quadro4 200N ATI® Fire GL88 Wildcat III™ 61	IVS 64MB 300 ^{TM, 11} 128MB 10 208MB	6x9 6x9 6x9 6x9	XP Pro XP Pro XP Pro XP Pro XP Pro XP Pro	Jun 2002 Jun 2002 Jun 2002 Jun 2002 Jun 2002 Jun 2002
Positioning Processor L2 cache Implementation SMP support Memory	1 x Intel® Xec 512KB / on die Processor and one memory c 2-way SMP vi 512MB std / 4 8 slot memory	on™ 2.4GHz¹ e of Xeon / at p d L2 cache in F ard connector ia identical pro 4GB max¹³ / F y card with fo	processor speed / Pin Grid Array (PG r, five PCI slots, or pocessor PC800 ECC Rami pur RDRAM chan	ontside bus / su no L3 cache 6A) / motherboard on ne AGP Pro slot, in bus / two or four founds and max of	contair tegrate RDRAI 8x512	ns two Intel So ed ethernet an M (Rambus) c MB=4GB / ea	ocket-603 socke d SCSI, and 860 hannels / 32 de	ts, 0 chipse vices m ory Rep	ax each peater H	
Graphics controller (one of following)	• Matrox® Mil dual RAMDA • NVIDIA™ Qu 350MHz RA • ATI Fire GL: RAMDAC [4 • 3DLabs Wil 128MB textu monitors) / tv • NVIDIA Qua	blated RIMMs lennium G45 AC [360/232M uadro4 200NV MDACs / dual 8800™ (advar 00/165MHz] / dcat III™ 6110 Ire buffer, 16M vo DVI-I conne adro4 900XG	sockets / supports DVI-I (high-perf Hz]/ dual head su VS (high-perf 2D), head: 2048x1536 head: 2048x1536 head suppor O (extreme 3D) / A B direct burst) / di ectors (ships with t L (extreme 3D) / A	unnels (2x2=4 chai PC800 RIMMs on 2D) / AGP 4X adap pport / one DVI-I co (AGP 4X adapter / (x16M each monito (adapter / Radeon t / one DB-15 analo GP 4X Pro 50 ada ual RAMDAC [320 wo DVI-I to analog AGP 4X adapter / I x1536x16M each	ly / RII oter / Nonnect / NV17 or / LFh or 880 og and oter / 2 /300M DB-15 NV250	MMs must be in MGA G450F Gor (ships with of LT 250MHz Genector 10 GPU / 128M one DVI-I control to the learn of the learn cables for ana GL 300MHz G	nstalled in pairs PU / 32MB 150M one cable with two in PU / 64MB 166 for std cable with B 300MHz DDF ontr (ships with or DR-SDRAM (64 d support (up to allog monitor atta PU / 128MB 325	across of MHz DDI MHz SDI MHz SDI I two DE R-SGRA I MB fram I two digit I two digit I two digit I two digit I two digit I two digit I two digit	channels R-SDRAI 5 analog o DRAM / di 3-15 analo M / dual to DB-15 ne buffer, tal or anal	M / conns) ual og cable) log
SCSI controller SCSI connectors IDE cables EIDE controller Disk - features	Adaptec® AIC Internal Port A External Port EIDE and SCS Enhanced IDE	C-7899 / dual of A: 68 pin (atta B: 68-pin SCS of models: one E / ATA-100 wi	aches 6-drop 16-b SI port on rear (co 2-drop IDE ATA-3 th two channel su	SCSI controller (16 it LVD cable to SC nnected by 1-drop 3 cable (for CD-RC pport / integrated ii .9 ms read seek;	SI disl 16-bit M); <i>EI</i> n I/O C	k [cáble std or t LVD cable to <i>IDE models:</i> or Controller Hub	n SCSI models, conn on planar ne 2-drop ATA-6 (ICH2)	not EIDI Cable of 6/100 ca	on all mo able (to di	dels]) sk)
Rack support Chipset	Intel 860 chip 82801BA I/O (set / 82860 M Controller Hub	(ICH2) for PCI 2.:	t option troller Hub) / two 8 2 bus, ATA-100 EI Firmware Hub / W	DE, et	hernet MÁC, l	JSB, Low Pin`Co			
10/100 ethernet CD-ROM / diskette Audio External rear ports	controller in IC CD-ROM: 483 Soft audio AC internal mono Serial: two 9-p mouse, audio	CH2 and 8255 X-20X ⁶ / CAV 5 '97 v2.1 cont speaker (use bin; <i>Parallel:</i> o line in, audio	O / support for Wa (ATAPI) / bootal roller via ICH2 / A of audio line out r ne (EPP, ECP) / I line out, mic in	DI 1885 codec/ requires powered s	on LA " 1.44 speake wo; ke	AN™, PXE MB drive ers) eyboard,	 Cover key lo Cover tampe Secure fixed Power-on pa Administrato Keyboard/m 	er detect I DASD Issword or passw ouse pa	t switch ord ssword	
Systems mgmt Keyboard / mouse Cooling fans Power supply	IBM 104-key k Five variable s one in power s 480 watts / uni Bay ① 5.25", l	keyboard (black speed fans (two supply) / not re iversal / auto s HH 1.6", acc	ck) / IBM three-but ro for processors, dundant or hot-sw sensing ess, open	ton mouse (black) one for chassis. or	ne for F		 Boot sequen Boot without Diskette boo Disable mou Disk, serial p Secure acce VPD stored 	keyboa t inhibit se oort I/O o ss open	or mou and write control nings	
① ### ### #### #######################	Bay ② 5.25", 1 Bay ③ 3.5", 1 Bay ④ 3.5", 1 Bay ⑤ 3.5", 1 Bay ⑥ 3.5", 1 Bay ⑥ 3.5", 1 Bay ⑥ 3.5", 1 Bay ⑨ 3.5", 1 Slot 1: full, 32	HH 1.6", according to the control of	ess, std CD-R ess, diskette access, open (dis access, open (dis access, open (dis access, open (dis access, open (dis access, std disk (i (universal) - used 21 2.2 (5v) - not av. 21 2.2 (5v)	Swin bays k only) k only) k only) k only) k only) k only)	ging d 1 to 3		VPD stored Write protec Optional U-b Microsoft® Win License for L License for L Device Drive Software Se Disk-to-Disk XP Pro in hice	PRELO dows® X otus® S otus No ers and I lections Recove	trol for Electric trol for Ele	esional e® ent ics CD M dows
Xeon 2.4GHz/512I 128MB PC800 EC 128MB PC800 EC 256MB PC800 EC 256MB PC800 EC 512MB PC800 EC IBM 73.4GB 10K L IBM 9.4GB DVD-F IBM IDE 40X/12X IBM 4Ux20D Tow IBM P275 (21.0" v IBM T750 17" TFT	Slot 5: full 64 Slot 6: full, 64 KB Proc Upgrad CC RDRAM RII CC RDRAM RII CC RDRAM RII CC RDRAM RII DC RDRAM RII JItra160 SCSI H RAM (black) /40X Max ⁶ CD- er-to-Rack Kit iewable) Color	-bit 66MHz PC -bit 66MHz PC e MM (8 Dev) MM (4 Dev) MM (16 Dev) MM (8 Dev) MM (16 Dev) -RW (black) Monitor (black)	24P7456 20L0275 33L3350 20L0277 33L3352 33L3254 06P5752 10K3561 22P6976 10L7006	Maximum internal SCSI: 440.4GB (I EIDE: 180GB (3) H 17.3" x W 8.6" x H 440mm" x W 21 59 pounds max (20 Removable left sic Configuration Mar SCSISelect via CT Adv Config Power (ACPI) 1.1-compli SMBIOS 2.3-comp PC99A-compliant	6 disks x D 23.7 7mm x 6.8kg) le panager a TRL+A Interfa	s x 73.4GB) c 60GB) 7" c D 603mm el at startup	LIMI 3 year part Internation On site, 8 a Mon throug next busine 3 year on s upgrade op 4 hour res (ServiceP 4 hour res (ServiceP 24x7¹⁴ toll-	s and la nal Warr om through Fri ex ess day ite warr otions ⁹ : sponse, ac® part sponse, ac part r	anty Serugh 5 pm xcluding respons ranty ser , Mon-Fri number , 7 day x number 4	vice ³ 1, 1 holidays, se time vice i 9-5 4112735) 24 hr

IBM IDE 40X/12X/40X Max: CD-Trvv (Diack)
IBM 4Ux20D Tower-to-Rack Kit
IBM P275 (21.0" viewable) Color Monitor (black)
IBM T750 17" TFT Flat Panel Monitor (black)

Other options at ibm.com/us/pc/accessories

issues during the warranty period³

	•	o) - Sept. 2002				Skills Eliablement Team
IBM [®] Type-model Qty x Pro	L2 ocessor cache Memory	Disk and rpm	Disk controllers CI		cs adapter memory	Slots x Available bays Preload ¹⁷ date
6850-72U 1 x Xeo 6850-73U 1 x Xeo 6850-75U 1 x Xeo 6850-76U 1 x Xeo	n 2.8 512KB 512MB 4 n 2.8 512KB 512MB 4 n 2.8 512KB 512MB 1 n 2.8 512KB 512MB 1 n 2.8 512KB 512MB 1 n 2.8 512KB 512MB 1	10GB EIDE 7.2K 18.2GB Ultra 160 10K 18.2GB Ultra 160 10K 18.2GB Ultra 160 10K	Ultra160, EIDE Ultra160, EIDE Ultra160, EIDE Ultra160, EIDE	CD Quadro4200	NVS 64MB NVS 64MB 8800™,11 128MB 110 208MB	6x9 XP Pro Sep 2002 6x9 XP Pro Sep 2002
Positioning Processor L2 cache Implementation	Ultimate workstation per 1 x Intel® Xeon™ 2.8G 512KB / on die of Xeon Processor and L2 cache one memory card conne	Hz¹ with 400MHz fro / at processor speed / e in Pin Grid Array (PG ector, five PCI slots, on	ontside bus / sup no L3 cache (A) / motherboard o	ontains two Intel S	ocket-603 socke	its,
SMP support Memory	2-way SMP via identica 512MB std / 4GB max 8 slot memory card wit (MRH-R) converts each 184-pin gold-plated RIM	³ / PC800 ECC Raml h four RDRAM chan channel into two cha	nels and max of 8 nnels (2x2=4 char	3x512MB=4GB / e inels total) / ECC n	ach 82803 Men nemory controlle	er and RİMMs/
Graphics controller (one of following)	 NVIDIA™ Quadro4 20 350MHz RAMDACs / 0 ATI Fire GL8800™ (ac 	32MHz] / du'al head su 10NVS (high-perf 2D)/ dual head: 2048x1536 dvanced 3D) / AGP 4X dz] / dual head support 1110 (extreme 3D) / A 16MB direct burst) / du bonnectors (ships with to XGL (extreme 3D) / A	pport/one DVI-I co / AGP 4X adapter / kx16M each monito (adapter / Radeon t / one DB-15 analo GP 4X Pro 50 adap ual RAMDAC [320/ Wo DVI-I to analog [AGP 4X adapter / N	nnector (ships with NV17LT 250MHz of V17LT 250MHz of V12RT 8800 GPU / 128T g and one DVI-I corter / 208MB total D 300MHz] / dual head DB-15 cables for an IV25GL 300MHz of V125GL one cable with to GPU / 64MB 166 r for std cable wit MB 300MHz DDF nntr (ships with on DR-SDRAM (64 ad support (up to alog monitor atta GPU / 128MB 32	vo DB-15 analog conns) MHz SDRAM / dual h two DB-15 analog R-SGRAM / dual ne DVI-I to DB-15 cable) MB frame buffer, two digital or analog chment) 5MHz DDR-SDRAM /	
SCSI controller SCSI connectors IDE cables EIDE controller Disk - features	Adaptec® AIC-7899 / di Internal Port A: 68 pin External Port B: 68-pin EIDE and SCSI models: Enhanced IDE / ATA-10 SCSI models: 18.2GB U	(attaches 6-drop 16-b SCSI port on rear (co one 2-drop IDE ATA-3 0 with two channel su	it LVD cable to SC nnected by 1-drop 3 cable (for CD-RO pport / integrated ir	SI disk [cáble std o 16-bit LVD cable t M); <i>EIDE models:</i> o I/O Controller Hub	n SCSI models, o conn on plana ne 2-drop ATA-6 o (ICH2)	not EIDE models]); r [cable on all models])
Rack support Chipset	4U ⁴ rack mount suppor Intel 860 chipset / 8286 82801BA I/O Controller 82806AA 64-bit PCI con	0 MCH (Memory Cont Hub (ICH2) for PCI 2.2	troİler Hub) / two 82 2 bus, ATA-100 EII	DE, ethernet MAC,	USB, Low Pin C	ount Interface /
Audio External rear ports Systems mgmt Keyboard / mouse	Intel 82550 / on planar / controller in ICH2 and 8 <i>CD-ROM</i> : 48X-20X ⁶ / 0 Soft audio AC '97 v2.1 c internal mono speaker (<i>Serial</i> : two 9-pin; <i>Parall</i> mouse, audio line in, au Monitoring and alerting IBM 104-key keyboard (2550 / support for Wa CAV (ATAPI) / bootal controller via ICH2 / wase of audio line out rale: el: one (EPP, ECP) / Idio line out, mic in of thermal, fans, volta black) / IBM three-butt	ake on LAN®, Alert ble; Diskette: 3.5' DI 1885 codec / requires powered s EEE 1284; USB: to ge faults, and chas ton mouse (black)	on LAN™, PXE 1.44MB drive peakers) wo; keyboard, ssis intrusion	Secure fixed Power-on pa Administrate Keyboard/m Boot sequer Boot withour	er detect switch I DASD assword or password nouse password nce control t keyboard or mouse
Cooling fans Power supply (CD-ROM)		ot redundant or hot-sw uto sensing access, open	Mini t Steal Swing		Disable mou Disk, serial Secure acce VPD stored	port I/O control ess openings in EEPROM etion control for EEPROM
(4) (5) (6) (7) (8) (disk	Bay ⑤ 3.5", SL 1", Bay ⑥ 3.5", SL 1", Bay ⑦ 3.5", SL 1", Bay ⑧ 3.5", SL 1",	no access, open (dist no access, open (dist no access, open (dist no access, std disk (dist no access, std disk (dist P (universal) - used z PCI 2.2 (5v) - not ava z PCI 2.2 (5v)	k only) k only) k only) k only) disk only) by AGP adapter		- License for I - License for I Device Drive Software Se Disk-to-Disk	PRELOAD ¹⁷ Idows® XP Professional Lotus® SmartSuite® Lotus Notes® Client ers and Diagnostics CD elections CD-ROM k Recovery (Windows dden service partition)
256MB PC800 8D 512MB PC800 16E IBM 80GB 7200 rp IBM 73.4GB 10K U IBM IDE 40X/12X/ IBM 4Ux20D Towe Gigabit Pro/1000 IBM P275 (21.0" vi IBM T750 17" TFT	Slot 5: full 64-bit 66MH Slot 6: full, 64-bit 66MH (B Proc Upgrade ECC RDRAM RIMM - 40 ECC RDRAM RIMM - 40 D ECC RDRAM RIMM - 4 m EIDE ATA-100 HDD (40X Max ⁶ CD-RW (blac	z PCI 2.2 (3.3v) z PCI 2.2 (3.3v) 24P7470 ns 31P8431 ns 31P8433 0ns 31P8435 09N4226 06P5752 k) 22P6976 10L7006' el 22P6501 olack) 6552U3N 6657HG2	Maximum internal SCSI: 440.4GB (6 EIDE: 180GB (3 c H 17.3" x W 8.6" x H 440mm" x W 217 59 pounds max (26 Removable left sid Configuration Man SCSI Select via CT Adv Config Power (ACPI) 1.1-complia SMBIOS 2.3-comp PC99A-compliant	i disks x 73.4GB) lisks x 60GB) D 23.7" 7mm x D 603mm s 8kg) e panel ager at startup RL+A at prompt Interface Interface		al Warranty Service ³ Im through 5 pm, gh Fri excluding holidays, ess day response time vice upgrade options (in

III IntelliStation® M Pro (6868) - withdrawn

Type-model	Pi Disk / rpm / interface 2-		; Write-bac L2 cache standard		SVGA controller; AGP Pro50 slot; memory std / max or positioning	Total bus slots available	Total bays	Ethernet / SCSI Chip set Av Preload ¹⁷	ailable date
Mini Tower;	6 slot x 7 bay; Stealth								
< 6868-10U	13.5GB ² 7200 EIDE	Pentium® III	256KB	128MB/PC600	Millennium G400	PCI=4	3 used	ethernet	Dec
	48X-20X ⁶ CD-ROM	600EB/133	full spd	Two 4D RIMMs	AGP 4X; 16 / 16 MB	AGP 50=0	4 empty	840 / NT 4.0	1999
≈ 6868-11U	9.1GB 7200 Ultra2	Pentium III	256KB	128MB / PC600	Appian Gemini	PCI=3	3 used	ethernet / SCSI	Jan
	48X-20X CD-ROM	600EB/133	full spd	Two 4D RIMMs	dual display ports	AGP 50=0	4 empty	840 / NT 4.0	2000
≈ 6868-12U	9.1GB 7200 Ultra2	Pentium III	256KB	128MB / PC600	Millennium G400	PCI=3	3 used	ethernet / SCSI	Dec
	48X-20X CD-ROM	600EB/133	full spd	Two 4D RIMMs	AGP 4X; 16 / 16MB	AGP 50=0	4 empty	840 / NT 4.0	1999
≈ 6868-13U	13.5GB 7200 EIDE	Pentium III	256KB	128MB / PC600	Appian Gemini	PCI=4	3 used	ethernet	Jan
	48X-20X CD-ROM	600EB/133	full spd	Two 4D RIMMs	dual display ports	AGP 50=0	4 empty	840 / NT 4.0	2000
≈ 6868-14U	13.5GB 7200 EIDE	Pentium III	256KB	128MB / PC600	IBM Fire GL1 ¹¹	PCI=4	3 used	ethernet	Dec
	48X-20X CD-ROM	600EB/133	full spd	Two 4D RIMMs	AGP 2X; 32 / 32 MB	AGP 50=0	4 empty	840 / NT 4.0	1999
≈ 6868-15U	9.1GB 10K Ultra2	Pentium III	256KB	256MB / PC600	IBM Fire GL1	PCI=3	3 used	ethernet / SCSI	Dec
	48X-20X CD-ROM	600EB/133	full spd	Two 8D RIMMs	AGP 2X; 32 / 32 MB	AGP 50=0	4 empty	840 / NT 4.0	1999
≈ 6868-20U	13.5GB 7200 EIDE	Pentium III	256KB	128MB / PC600	Millennium G400	PCI=4	3 used	ethernet	Dec
	48X-20X CD-ROM	667/133	full spd	Two 4D RIMMs	AGP 4X; 16 / 16MB	AGP 50=0	4 empty	840 / NT 4.0	1999
≈ 6868-21U	9.1GB 7200 Ultra2	Pentium III	256KB	128MB / PC600	Appian Gemini	PCI=3	3 used	ethernet / SCSI	Jan
	48X-20X CD-ROM	667/133	full spd	Two 4D RIMMs	dual display ports	AGP 50=0	4 empty	840 / NT 4.0	2000
≈ 6868-22U	9.1GB 7200 Ultra2	Pentium III	256KB	256MB / PC600	Millennium G400	PCI=3	3 used	ethernet / SCSI	Dec
	48X-20X CD-ROM	667/133	full spd	Two 8D RIMMs	AGP 4X; 16 / 16MB	AGP 50=0	4 empty	840 / NT 4.0	1999
≈ 6868-23U	13.5GB 7200 EIDE	Pentium III	256KB	128MB / PC600	Appian Gemini	PCI=4	3 used	ethernet	Dec
	48X-20X CD-ROM	667/133	full spd	Two 4D RIMMs	dual display ports	AGP 50=0	4 empty	840 / NT 4.0	1999
≈ 6868-25U	9.1GB 10K Ultra2	Pentium III	256KB	256MB / PC600	IBM Fire GL1	PCI=3	3 used	ethernet / SCSI	Dec
	48X-20X CD-ROM	667/133	full spd	Two 8D RIMMs	AGP 2X; 32 / 32 MB	AGP 50=0	4 empty	840 / NT 4.0	1999
≈ 6868-27U	9.1GB 10K Ultra2 48X-20X CD-ROM	Pentium III 667/133	256KB full spd	256MB / PC600 Two 8D RIMMs	Wildcat 4110 AGP 2X; 128/128MB	PCI=2 AGP 50=0	3 used	ethernet / SCSI 840 / NT 4.0	Jan 2000
≈ 6868-30U	13.5GB 7200 EIDE	Pentium III	256KB	128MB / PC600	Millennium G400	PCI=4	3 used	ethernet	Dec
	48X-20X CD-ROM	733/133	full spd	Two 4D RIMMs	AGP 4X; 16 / 16MB	AGP 50=0	4 empty	840 / NT 4.0	1999
≈ 6868-31U	9.1GB 7200 Ultra2	Pentium III	256KB	256MB / PC600	Millennium G400	PCI=3	3 used	ethernet / SCSI	Feb
	48X-20X CD-ROM	733/133	full spd	Two 8D RIMMs	AGP 4X; 16 / 16MB	AGP 50=0	4 empty	840 / W2000	2000
≈ 6868-32U	9.1GB 7200 Ultra2	Pentium III	256KB	256MB / PC600	Millennium G400	PCI=3	3 used	ethernet / SCSI	Dec
	48X-20X CD-ROM	733/133	full spd	Two 8D RIMMs	AGP 4X; 16 / 16MB	AGP 50=0	4 empty	840 / NT 4.0	1999
≈ 6868-35U	9.1GB 10K Ultra2	Pentium III	256KB	256MB / PC600	IBM Fire GL1	PCI=3	3 used	ethernet / SCSI	Dec
	48X-20X CD-ROM	733/133	full spd	Two 8D RIMMs	AGP 2X; 32 / 32 MB	AGP 50=0	4 empty	840 / NT 4.0	1999
≈ 6868-37U	9.1GB 10K Ultra2 48X-20X CD-ROM	Pentium III 733/133	256KB full spd	256MB / PC600 Two 8D RIMMs	Wildcat 4110 AGP 2X; 128/128MB	PCI=2 AGP 50=0	3 used	ethernet / SCSI 840 / NT 4.0	Jan 2000
≈ 6868-91U	9.1GB 7200 Ultra2 18.2GB 7200 Ultra2 48X-20X CD-ROM	Pentium III 600EB/133	256KB full spd	128MB / PC600 Two 4D RIMMs	Millenium G400 AGP 4X; 16 / 16MB liting software) and Car	PCI=3 AGP 50=0	4 used 3 empty	ethernet / SCSI 840 / NT 4.0	Feb 2000
≈ 6868-18U for AAP	no disk 48X-20X CD-ROM	Pentium III 600EB/133	256KB full spd	None	None	PCI=4 AGP 50=1	2 used 5 empty	ethernet 840 / No OS	Dec 1999
≈ 6868-28U for AAP	no disk 48X-20X CD-ROM	Pentium III 667/133	256KB full spd	None	None	PCI=4 AGP 50=1	2 used 5 empty	ethernet 840 / No OS	Dec 1999
≈ 6868-39U for AAP	no disk 48X-20X CD-ROM	Pentium III 733/133	256KB full spd	None	None	PCI=4 AGP 50=1	2 used 5 empty	ethernet 840 / No OS	Dec 1999

Windows NT Preload¹⁷

Windows NT® Workstation 4.0 (SP5) ConfigSafe for Windows NT Access IBM

Other utilities, drivers, and applications

- Free license for Lotus® Smart® Millennium
- Free license for Lotus Notes® Client
 Software Selections CD-ROM
- Norton AntiVirus™ (OEM edition)
- CoSession Remote 32
- IBM Update Connector™
- IBM Internet Connection
- IBM Universal Manageability Services
- IBM UM Desktop Extensions
- PC-Doctor
- ♦ Windows NT Product Recovery CD-ROM
- ♦ Device Drivers and Diagnostics CD-ROM
- C: is 2GB as FAT16
- Remainder of disk is unformatted
- ⇒13.5GB EIDE ATA-66 is 9.0ms, SMART⁵ III ⇒9.1GB Ultra2 SCSI 7200 rpm disk is 7.5ms
- ⇒9.1GB Ultra2 SCSI 10K rpm disk is 6.0ms
- ⇒ 18.2GB Ultra2 SCSI 7200 rpm is 7.5ms

Options

600EB Second Proc for M Pro 6868 33L5121 667MHz Second Proc for M Pro 6868 00N7951 733MHz Second Proc for M Pro 6868 00N7952 64MB 600MHz ECCRDRAM (4 Dev) 128MB 600MHz ECCRDRAM (8 Dev) 33L3093 33L3095 256MB 600MHz ECCRDRAM (16 Dev) 33L3097 800MHz ECCRDRAM (4 Dev) 20L0274 64MB 128MB 800MHz ECCRDRAM (8 Dev) 20L0275 256MB 800MHz ECCRDRAM (16 Dev) 20L0277 IBM IDE DVD-ROM (black)
IBM IDE ReWritable CD-RW (black) 33L5003 33L5005 20.4GB 7200 rpm EIDE disk 33L5044 18.2GB 7200 rpm Wide Ultra2 SCSI disk 20L0554 18.2GB 10000 rpm Wide Ultra2 SCSI T55D Stealth Black Color Monitor 00N8072 9513DG0 T85D Stealth Black Color Monitor 9519DG0 IBM 20/40GB 8mm SCSI tape drive (blk) 01K1325 IBM 10/20GB SCSI tape backup (black) 01K1319 IBM 12/24GB DDS3 SCSI tape (black) 01k1282 IBM 20/40GB DDS/4mm tape (SCSI, blk) 00N7991 Mounting Kit (vendor 972-595-1436) CIS-CAMZPR

Visit www.ibm.com/options for a complete list of compatible options

WARRANTY SERVICE SUPPORT³

- 3 year parts and labor warranty
 International Warranty Service³
- International Warranty Services
 On site, 8 am through 5 pm,
- Mon through Fri excluding holidays, next business day response time
- On site warranty upgrade option:
- 4 hour response¹⁴, 7 day x 24 hr
- Post warranty on site options:
 - Next day response¹⁴, Mon-Fri 8-5
 - 4 hour response¹⁴, 7 day x 24 hr
- → IBM SystemXtra®10
- 24 hour x 7 day telephone, electronic, and Internet support

Windows 2000 Professional Preload¹⁷

Microsoft® Windows® 2000 Professional - Free license for SmartSuite® Millennium

- ♦ Software Selections CD-ROM
- Windows 2000 Product Recovery CD (includes drivers and diagnostics)
 C: is FAT32 of entire disk

III IntelliStation® M Pro (6868) - withdrawn

IBM® IntelliStation®										
Type Processor(s) Implementation Processor upgrade L2 cache Avail / withdrawn date	Processor and L2 cache in 2-way SMP via identical pro 256KB std / 256KB max / E	III 600EB ²⁰ , 667, or 733MHz ¹ /133MHz Front Side B Single Edge Contact (SECC2) in protective metal case / ocessor / upgrade via second SECC2 into second mothe CC / at processor speed / 8-way set associative / write- 2000 or February 2000 / June 2000 or November 2000	SECC2 plugged into Intel® Slot 1 erboard Slot 1 connector / MPS 1.4							
Mem - std / max / type Memory - features	ECC memory controller and two RIMMs installed (one p	28 or 256MB std / 2GB max ¹³ / dual RDRAM (Rambus) channels / 32 devices max each channel / CC memory controller and RIMMs / four 184-pin gold-plated RIMM sockets (two per channel) / wo RIMMs installed (one per channel) / CRIMMs in two sockets / supports PC600 or PC800 RIMMs (not PC700) / Il installed RIMMs must be same speed (PC600 or PC800) and installed in pairs across channels								
Graphics controller		ntrox® Millennium G400 (performance 2D), IBM Fire GL1¹¹ (advanced 3D), pian® Gemini (2D multiple display), or Intense3D® Wildcat 4110 AGP Adapter (extreme 3D)								
	32MB std / 32MB max / 256	BM Fire GL1 / AGP 2X adapter / sideband-capable 32MB std / 32MB max / 256-bit 100MHz SGRAM 2D 110MHz SGRAM 270MHz RAMDAC / DDC2B 110MHz SGRAM 270MHz RAMDAC / DDC2B 120MHz RAMDA								
		GP Adapter / AGP 2X adapter / 64MB 128-bit 143MHz S ture memory) / 2D and 3D engine / DB-15 and DVI-I ports								
Architecture (chipset) Form factor / bus Rack mountable	82801AA I/O Controller Hu 82802AC Firmware Hub / S	rated Hub Architecture / 266MB/sec I/O channel / 82 b (ICH) for PCI 2.2 bus, ATA-66 EIDE, USB, Low Pin C MSC 47B272 SIO LPC Super I/O for diskette, parallel, sery / PCI 2.2 (33MHz), Accelerated Graphics Port 2.0	Count Interface / serial, keyboard, mouse							
Disk SCSI controller SCSI connectors Cables - SCSI mod Cables - IDE models Cables - AAP models EIDE disk controller	SCSI models only: Adapte Internal: 68 pin (attaches 5 SCSI models: 5 drop 16-bit EIDE models: Two 2 drop I AAP models: One 1 drop ID	d PIO modes 0-4 with 2 channel, 4 device support /	cable (CD-ROM)							
CD-ROM / diskette	48X-20X ⁶ CD-ROM, CAV (ATAPI), bootable / 3.5" 1.44MB diskette drive	- Secure fixed DASD							
Ethernet controller Systems mgmt cntrl	10BaseT and 100BaseTX / Temperature sensors, fan-	/100 / 82559 ethernet chip on planar / PCI bus / RJ45 UTP connector / Wake on LAN® / Alert on LAN 2 speed monitor, chassis-intrusion detector, power onitor, and power-switch bypassl / AD1025	- Serial EEPROM with write protect - Power-on password - Administrator password - Keyboard/mouse password - Wake Up on LAN password prompt							
Audio connectors Audio features Microphone Serial/parallel/USB Security chip	AC '97 interface / AD1881 c Line in with active pre-amp Internal speaker with auton None Ser: One 9 pin Par: One (E	tal audio / software-based (done by Pentium and ICH) / odec (analog mixing, A-to-D and D-to-A conversion) / mic in / line out (all 3.5mm; all in back) natic jack sense switching / software volume control EPP, ECP) / IEEE 1284 USB: Two ports (Vers 1.1) ip / soldered on motherboard	Boot sequence control Boot without keyboard or mouse Diskette boot inhibit Disable mouse Disable external SCSI port Diskette write-protect Diskette, disk, serial port, parallel port							
Keyboard / mouse Power supply	104 key keyboard / keyboa 330 watts / universal / auto	rd extender / IBM ScrollPoint™ II mouse -sensing / Wake on LAN	I/O control - Secure access openings - Secure removable media							
CD-ROM Bay © Bay © Bay © Bay © Bay © Bay © Bay © Bay © Bay © Slot 1:	3.5", HH 1.6", no access fullsize, 32-bit AGP Pro5 0	;, open (disk only) - used by 2nd disk in model 91x ;, std disk (disk only) (universal) - used by AGP graphics adapter	- VPD stored in EEPROM - Write protection control for EEPROM - Barcode labels on most components - IBM Security Solutions Maximum internal SCSI disk capacity ¹³ : 91GB (5 x 18.2GB (7200 or 10K rpm); Maximum internal EIDE disk capacity ¹³ : 61.2GB (3 x 20.4GB 7200 rpm)							
Mini tower; Slot 3: Slot 4: Stealth Slot 5:	fullsize, 32-bit PCI 2.2 (5v) fullsize, 32-bit PCI 2.2 (5v) fullsize, 32-bit PCI 2.2 (5v)	- occupied by Canopus DVRaptor in model 91x	SYSTEMS MANAGEMENT • Asset ID TM (RFID) ¹⁶ • Alert on LAN TM 2 • Universal Manageability Services and							
Provides electroni secure key storag Can sign each e-n signature (1024-b can verify sender Public Key Infrastr more secure e-ma Internet transaction Layer (SSL) for en capabilities	nail with a digital it) so receiving party ructure (PKI) for iil, web access and ins, and Secure Sockets cryption/decryption tion Manager software	OTHER STANDARD FEATURES The Setup Utility resides in flash memory; invoked by pressing F1 key during memory POST Plug-and-Play 1.0a ISO 9241-3 capable Vital Product Data support (type, model, serial, id) 7.9"W x 18.1"D x 19.4"H; 45 lbs max (shipped) 200 mm W x 460 mm D x 492 mm H; 17.3 kg Several hardcopy publications four stabilizing feet 512KB BIOS (Flash over LAN support) Supplier's Declaration available Three fans (one in front, one in rear, one in power supply)	Universal Manageability (UM) Desktop Extensions enabled • LANClient Control Manager™ enabled • SMART Reaction™.¹⁵II • PC 99-compliant • DMI 2.0-compliant • Common Information Model (CIM) 2.2 • Asset Information Chip (EEPROM) • Wired for Management 2.0 • ACPI 1.0 • Advanced Power Management 1.2 • Wake on LAN support • Alternate Boot Sequence • RPL, DHCP, and PXE 2.0support • Setup on LAN, Flash on LAN • Wake on Alarm • System Management BIOS Version 2.3 • Systems Migration Assistant support							

IIM IntelliStation® M Pro (6868) - Spring 2000 - withdrawn

Type-model	Disk / rpm / interface CD-ROM ⁶	Intel® Processor MHz¹; 2-way SMP support	L2 cache	k Rambus memory; std MB / type; devices / type	SVGA controller; AGP Pro50 slot; memory std / max or positioning	Total bus slots available	Total bays	Ethernet / SCSI Chip set Preload ¹⁷	Available date
Mini Tower; 6 slot x 7 bay; Stealth Black - US models									
≻6868-36U	9.1GB ² 7200 Ultra2 48X-20X ⁶ CD-ROM			256MB/PC600 Two 8D RIMMs	ELSA™ GLoria II AGP 4X; 64 / 64MB	PCI=4 AGP 50=0	3 used 4 empty	ethernet / SCSI 840 / NT 4.0	Apr 2000
≈6868-40U	15.0GB 7200 EIDE	Pentium III	256KB	256MB/PC600	Millennium G400	PCI=5	3 used	ethernet	Apr
	48X-20X CD-ROM	800EB/133	full spd	Two 8D RIMMs	AGP 4X; 16 / 16MB	AGP 50=0	4 empty	840 / NT 4.0	2000
≈ 6868-42U	9.1GB 7200 Ultra2	Pentium III	256KB	256MB/PC600	Millennium G400	PCI=4	3 used	ethernet / SCSI	Apr
	48X-20X CD-ROM	800EB/133	full spd	Two 8D RIMMs	AGP 4X; 16 / 16MB	AGP 50=0	4 empty	840 / NT 4.0	2000
≈6868-46U	9.1GB 10K Ultra2	Pentium III	256KB	256MB/PC600	ELSA GLoria II	PCI=4	3 used	ethernet / SCSI	Apr
	48X-20X CD-ROM	800EB/133	full spd	Two 8D RIMMs	AGP 4X; 64 / 64MB	AGP 50=0	4 empty	840 / NT 4.0	2000
≽6868-47U	9.1GB 10K Ultra2	Pentium III	256KB	512MB/PC600	Wildcat 4110	PCI=3	3 used	ethernet / SCSI	Apr
	48X-20X CD-ROM	800EB/133	full spd	Two 16D RIMMs	AGP 2X; 128/128MB	AGP 50=0	4 empty	840 / NT 4.0	2000
≈6868-92U	9.1GB 7200 Ultra2 18.2GB 7200 Ultra2 48X-20X CD-ROM	733/133	256KB full spd d [®] Xpres		Millenium G400 AGP 4X; 16 / 16MB editing software) and C	PCI=3 AGP 50=0 Canopus® DV	4 used 3 empty 'Raptor (F	ethernet / SCSI 840 / NT 4.0 PCI digital video a	Apr 2000 adaptr)
≈6868-52U	9.1GB 7200 Ultra2	Pentium III	256KB	256MB/PC600	Millennium G400	PCI=4	3 used	ethernet / SCSI	Apr
	48X-20X CD-ROM	866/133	full spd	Two 8D RIMMs	AGP 4X; 16 / 16MB	AGP 50=0	4 empty	840 / NT 4.0	2000
≈6868-56U	9.1GB 10K Ultra2	Pentium III	256KB	512MB/PC600	ELSA GLoria II	PCI=4	3 used	ethernet / SCSI	Apr
	48X-20X CD-ROM	866/133	full spd	Two 16D RIMMs	AGP 4X; 64 / 64MB	AGP 50=0	4 empty	840 / NT 4.0	2000
≈6868-57U	9.1GB 10K Ultra2	Pentium III	256KB	512MB/PC600	Wildcat 4110	PCI=3	3 used	ethernet / SCSI	Apr
	48X-20X CD-ROM	866/133	full spd	Two 16D RIMMs	AGP 2X; 128/128MB	AGP 50=0	4 empty	840 / NT 4.0	2000
≈6868-49U for AAP	no disk 48X-20X CD-ROM	Pentium III 800EB/133	256KB full spd	None	None	PCI=5 AGP 50=1	2 used 5 empty	ethernet 840 / No OS	Apr 2000
≈6868-59U for AAP	no disk 48X-20X CD-ROM	Pentium III 866/133	256KB full spd	None	None	PCI=5 AGP 50=1	2 used 5 empty	ethernet 840 / No OS	Apr 2000
≈6868-50U	15.0GB 7200 EIDE	Pentium III	256KB	256MB/PC600	Millennium G400	PCI=4	3 used	ethernet / SCSI	Jun
	48X-20X ⁴ CD-ROM	866/133	full spd	Two 8D RIMMs	AGP 4X; 16 / 16MB	AGP 50=0	4 empty	840 / NT 4.0	2000
≈6868-60U	15.0GB 7200 EIDE	Pentium III	256KB	256MB/PC600	Millennium G400	PCI=5	3 used	ethernet	Jun
	48X-20X CD-ROM	933/133	full spd	Two 8D RIMMs	AGP 4X; 16 / 16MB	AGP 50=0	4 empty	840 / NT 4.0	2000
≈6868-62U	9.1GB 7200 Ultra2	Pentium III	256KB	256MB/PC600	Millennium G400	PCI=4	3 used	ethernet / SCSI	Jun
	48X-20X CD-ROM	933/133	full spd	Two 8D RIMMs	AGP 4X; 16 / 16MB	AGP 50=0	4 empty	840 / NT 4.0	2000
≈6868-66U	9.1GB 10K Ultra2	Pentium III	256KB	512MB/PC600	ELSA GLoria II	PCI=4	3 used	ethernet / SCSI	Jun
	48X-20X CD-ROM	933/133	full spd	Two 16D RIMMs	AGP 4X; 64 / 64MB	AGP 50=0	4 empty	840 / NT 4.0	2000
≈6868-67U	9.1GB 10K Ultra2	Pentium III	256KB	512MB/PC600	Wildcat 4110	PCI=3	3 used	ethernet / SCSI	Jun
	48X-20X CD-ROM	933/133	full spd	Two 16D RIMMs	AGP 2X; 128/128MB	AGP 50=0	4 empty	840 / NT 4.0	2000
≈6868-93U	15.0GB 7200 EIDE 30.0GB 7200 EIDE 48X-20X CD-ROM	Pentium III 733/133 Includes Av		128MB / PC600 Two 4D RIMMs ss DV (digital vide	Millennium G400 AGP 4X; 16 / 16MB o editing software) and	PCI=4 AGP 50=0 Canopus®	4 used 3 empty DVRapto	ethernet 840 / NT 4.0 r (PCI digital vid	Aug 2000 deo adptr)
⊱6868-94U	9.1GB 7200 Ultra2 36.4GB 10K Ultra160 48X-20X CD-ROM	Pentium III 933/133 Includes Av		128MB / PC600 Two 4D RIMMs ss DV (digital vide	Millenium G400 AGP 4X; 16 / 16MB o editing software) and	PCI=3 AGP 50=0 d Canopus®	4 used 3 empty DVRapto	ethernet / SCSI 840 / NT 4.0 or (PCI digital vid	Aug 2000 deo adptr)

Windows NT Preload¹⁷

Windows NT® Workstation 4.0 (SP5) ConfigSafe for Windows NT Access IBM

Other utilities, drivers, and applications

- Free license for Lotus® Smart® Millennium
- Free license for Lotus Notes® Client
- ♦ Software Selections CD-ROM Norton AntiVirus™ (OEM edition)

 - CoSession Remote 32
- IBM Update Connector™ - IBM Internet Connection
- IBM Universal Manageability Services
- IBM UM Desktop Extensions
- PC-Doctor
- ♦ Windows NT Product Recovery CD-ROM
- Device Drivers and Diagnostics CD-ROM
- 15.0 and 30GB EIDE ATA-66 is 9.0ms, SMART⁵ III
- ⇒ 9.1GB Ultra2 SCSI 7200 rpm disk is 7.5ms ⇒9.1GB Ultra2 SCSI 10K rpm disk is 6.0ms
- 18.2GB Ultra2 SCSI 7200 rpm is 7.5ms ⇒36.4GB Ultra160 SCSI 10K rpm disk is

5.5ms

Options

733MHz Second Processor for M Pro 6868 800EB MHz Second Proc for M Pro 6868 866MHz Second Processor for M Pro6868 933MHz Second Processor for M Pro6868 600MHz ECCRDRAM (4 Dev) 64MB 128MB 600MHz ECCRDRAM (8 Dev) 256MB 600MHz ECCRDRAM (16 Dev) 64MB 800MHz ECCRDRAM (4 Dev) 128MB 800MHz ECCRDRAM (8 Dev) 256MB 800MHz ECCRDRAM (16 Dev) IBM IDE DVD-ROM (black) IBM IDE ReWritable CD-RW (black) 30GB 7200 rpm ATA-100 EIDE disk 18.2GB 7200 rpm Wide Ultra2 SCSI disk 18.2GB 10000 rpm Ultra160 SCS 36.4GB 10000 rpm Ultra160 SCSI T55A LCD TFT Stealth Blk Color Monitor T56A LCD TFT Stealth Blk Color Monitor T55D LCD TFT Stealth Blk Color Monitor T85A LCD TFT Stealth Blk Color Monitor T85D LCD TFT Stealth Blk Color Monitor IBM 20/40GB 8mm SCSI tape drive (blk) IBM 10/20GB SCSI tape backup (black) IBM 12/24GB DDS3 SCSI tape (black) IBM 20/40GB DDS/4mm tape (SCSI, blk) Mounting Kit (vendor at 972-647-1565)

10K3802 10K3813 10K3814 33L3093 33L3095 33L3097 20L0274 20L0275 20L0277 33L5003 33L5005 00N8203 20L0554 00N8208 00N8209 9513AW1 9493AG1 9513DG0 9519AG1 9519DG0 01K1325 09N4042 09N4041

00N7991 CIS-CAMZPR

00N7952

WARRANTY SERVICE SUPPORT*,3

- 3 year parts and labor warranty
- International Warranty Service³
- On site, 8 am through 5 pm, Mon through Fri excluding holidays, next business day response time
- On site warranty service upgrade options:
 - 4 hour response, 7 day x 24 hr¹⁴
- Post warranty maintenance services available
- 24 hour x 7 day telephone, electronic, and Internet support

Visit www.ibm.com/options for a complete list of compatible options

III IntelliStation® M Pro (6868) - Spring 2000 - withdrawn

Type	6868								
Processor(s) Implementation Processor upgrade L2 cache	One or two Intel® Pentiue Processor and L2 cache in	/ SECC2 plugged into Intel® Slot 1 erboard Slot 1 connector / MPS 1.4 integrated in SECC2</th							
Mem - std / max / type Memory - features	ECC memory controller an two RIMMs installed (one p	I / 2GB max ¹³ / dual RDRAM (Ra d RIMMs / four 184-pin gold-plated per channel) / CRIMMs in two socket same speed (PC600 or PC800) an	RIMM sockets (two ets / supports PC600	o per channel) / 00 or PC800 RIMMs (not PC700) /					
Graphics controller		[®] Millennium G400 (performance 2D), ELSA™ Gloria II (advanced 3D), or e3D® Wildcat 4110 AGP Adapter (extreme 3D)							
	Millennium G400 / AGP 4X adapter / sideband addressing / 16MB std / 16MB max / 166MHz SGRAM / 250MHz RAMDAC / 256-bit DualBus chip / max 2D resolution of 2048x1536/ supports 1280x1024x16.7 million at 100Hz BLSA GLoria II / AGP 4X adapter / 64MB 128-bit 110MHz SDRAM std and max / 350MHz RAMDAC / 2048x1536 at 75Hz / NVIDIA™ Quadro controller / 256-bit QuadPipe rendering engine								
		GP Adapter / AGP 2X adapter / 64N ture memory) / 2D and 3D engine / D							
Architecture (chipset) Form factor / bus Rack mountable	82801AA I/O Controller Hu 82802AC Firmware Hub / S	b (ICH) for PCI 2.2 bus, ATA-66 EI BMSC 47B272 SIO LPC Super I/O t ser) / PCI 2.2 (33MHz), Accelerate	DE, USB, Low Pin C or diskette, parallel						
Disk SCSI controller SCSI connectors Cables - SCSI mod Cables - IDE models	None (AAP models), one E SCSI models only: Adapte Internal: 68 pin (attaches 5 SCSI models: 5 drop 16-bit EIDE models: Two 2 drop I IDE ATA-33 cable / no SCS AAP models: One 1 drop ID Enhanced IDE / ATA-66 an	EIDE, or one or two Wide Ultra2 S c® AHA-2940U2B / single channel drop cable to SCSI disk); External: LVD cable on internal connector; one DE ATA-66 cable / CD-ROM uses SI cable JE ATA-33 cable d PIO modes 0-4 with 2 channel, 4 or	Wide Ultra2 SCSI ac 68 pin SCSI port 1 drop IDE ATA-33 o second 1 drop						
CD-ROM / diskette	integrated in I/O Controller 48X-20X ⁶ CD-ROM, CAV	(ATAPI), bootable / 3.5" 1.44MB d	iskette drive	- Serial EEPROM with write protect - Power-on password					
Ethernet controller Systems mgmt cntrl	10BaseT and 100BaseTX / Temperature sensors, fan-	//100 / 82559 ethernet chip on plan RJ45 UTP connector / Wake on LA speed monitor, chassis-intrusion de onitor, and power-switch bypass / A	- Administrator password - Keyboard/mouse password - Wake Up on LAN password prompt - Boot sequence control						
Audio Audio connectors Audio features Microphone Serial / parallel / USB Security chip	SoundMAX™ integrated dig AC '97 interface / AD1881 c Line in with active pre-amp Internal speaker with autor None Ser: One 9 pin Par: One (I	ital audio / software-based (done by Fodec (analog mixing, A-to-D and D- / mic in / line out (all 3.5mm; all in I natic jack sense switching / softwar EPP, ECP) / IEEE 1284 <i>USB:</i> Two ip / soldered on motherboard	- Boot without keyboard or mouse - Diskette boot inhibit - Disable mouse - Disable external SCSI port - Diskette write-protect - Diskette, disk, serial port, parallel po I/O control - Secure access openings						
Keyboard / mouse Power supply	104 key keyboard / keyboa 330 watts / universal / auto		d extender / IBM ScrollPoint™ II mouse						
CD-ROM Bay @	Julisize, 32-bit AGP Pro50 fullsize, 32-bit PCI 2.2 (5v fullsize, 32-bit P	s, open (disk only) - used by 2nd disk s, std disk (disk only) (universal) - used by AGP graphics) - not usable with AGP Pro50 adapt in models with Ir) - occupied by Canopus DVRaptor in r) - occupied by SCSI adapter in SCS	adapter er in AGP slot or itense3D Wildcat nodel 92/93/94x SI disk models	- IBM Security Solutions Maximum internal SCSI disk capacity ¹³ 91GB (5 x 18.2GB (7200 or 10K rpm); Maximum internal EIDE disk capacity ¹³ 61.2GB (3 x 20.4GB 7200 rpm) SYSTEMS MANAGEMENT • Asset ID™ (RFID) ¹⁶ • Alert on LAN™ 2 • Universal Manageability Services and Universal Manageability (UM) Desktop Extensions enabled • LANClient Control Manager™ enabled • SMART Reaction™.5 II • PC 99-compliant					
secure key storag - Can sign each e-n signature (1024-bi can verify sender - Public Key Infrasti more secure e-ma Internet transactio Layer (SSL) for en capabilities	e nail with a digital it) so receiving party ructure (PKI) for iil, web access and ns, and Secure Sockets cryption/decryption	The Setup Utility resides in flash r by pressing F1 key during mem Plug-and-Play 1.0a ISO 9241-3 capable Vital Product Data support (type, 17.9"W x 18.1"D x 19.4"H; 45 lbs n 200 mm W x 460 mm D x 492 mm Several hardcopy publications Four stabilizing feet 512KB BIOS (Flash over LAN su Supplier's Declaration available Three fans (one in front, one in resupply)	ory PÓŚT model, serial, id) nax (shipped) n H; 17.3 kg pport)	DMI 2.0-compliant Common Information Model (CIM) 2.2 Asset Information Chip (EEPROM) Wired for Management 2.0 ACPI 1.0 Advanced Power Management 1.2 Wake on LAN support Alternate Boot Sequence RPL, DHCP, and PXE 2.0support Setup on LAN, Flash on LAN Wake on Alarm System Management BIOS Version 2. Systems Migration Assistant support					

珥属 IntelliStation® M Pro (6868) - Fall 2000 - withdrawn

Type-model	Disk / rpm / interface CD-ROM ⁶	Intel® Processor MHz¹; 2-way SMP support	L2 cache	k Rambus memory std MB / type; devices / type	; SVGA controller; AGP Pro50 slot; memory std / max	Total bus slots available	Total bays	Ethernet / SCSI Chip set Preload ¹⁷	Avail- able date
Mini Tower;	6 slot x 7 bay; Stealth	Black - US m	odels						
6868-4AU	15.0GB ² 7200 EIDE 48X-20X ⁶ CD-ROM	Pentium® III 800EB/133	256KB full spd	256MB/PC600 Two 8D RIMMs	Millennium G450 AGP 4X; 16 / 16MB	PCI=5 AGP 50=0	3 used 4 empty	ethernet 840 / 2000 or NT	Oct 2000
6868-4BU	9.1GB 10K Ultra160	Pentium III	256KB	256MB/PC600	Millennium G450	PCI=4	3 used	ethernet / SCSI	Oct
	48X-20X CD-ROM	800EB/133	full spd	Two 8D RIMMs	AGP 4X; 16 / 16MB	AGP 50=0	4 empty	840 / 2000 or NT	2000
6868-4CU	9.1GB 10K Ultra160	Pentium III	256KB	256MB/PC600	NVIDIA Quadro2 MXR	PCI=4	3 used	ethernet / SCSI	Oct
	48X-20X CD-ROM	800EB/133	full spd	Two 8D RIMMs	AGP 4X; 32 / 32MB	AGP 50=0	4 empty	840 / 2000 or NT	2000
6868-4DU	9.1GB 10K Ultra160	Pentium III	256KB	512MB/PC600	Wildcat 4110	PCI=3	3 used	ethernet / SCSI	Oct
	48X-20X CD-ROM	800EB/133	full spd	Two 16D RIMMs	AGP 2X; 128/128MB	AGP 50=0	4 empty	840 / 2000 or NT	2000
6868-5AU	15.0GB 7200 EIDE	Pentium III	256KB	256MB/PC600	Millennium G450	PCI=5	3 used	ethernet	Oct
	48X-20X CD-ROM	866/133	full spd	Two 8D RIMMs	AGP 4X; 16 / 16MB	AGP 50=0	4 empty	840 / 2000 or NT	2000
6868-5BU	9.1GB 10K Ultra160	Pentium III	256KB	256MB/PC600	Millennium G450	PCI=4	3 used	ethernet / SCSI	Oct
	48X-20X CD-ROM	866/133	full spd	Two 8D RIMMs	AGP 4X; 16 / 16MB	AGP 50=0	4 empty	840 / 2000 or NT	2000
6868-5CU	9.1GB 10K Ultra160	Pentium III	256KB	512MB/PC600	NVIDIA Quadro2 MXR	PCI=4	3 used	ethernet / SCSI	Oct
	48X-20X CD-ROM	866/133	full spd	Two 16D RIMMs	AGP 4X; 32 / 32MB	AGP 50=0	4 empty	840 / 2000 or NT	2000
6868-5DU	9.1GB 10K Ultra160	Pentium III	256KB	512MB/PC600	Wildcat 4110	PCI=3	3 used	ethernet / SCSI	Oct
	48X-20X CD-ROM	866/133	full spd	Two 16D RIMMs	AGP 2X; 128/128MB	AGP 50=0	4 empty	840 / 2000 or NT	2000
6868-6AU	20.4GB 7200 EIDE	Pentium III	256KB	256MB/PC600	Millennium G450	PCI=5	3 used	ethernet	Oct
	48X-20X CD-ROM	933/133	full spd	Two 8D RIMMs	AGP 4X; 16 / 16MB	AGP 50=0	4 empty	840 / 2000 or NT	2000
6868-6BU	18.2GB 10K Ultra160	Pentium III	256KB	256MB/PC600	Millennium G450	PCI=4	3 used	ethernet / SCSI	Oct
	48X-20X CD-ROM	933/133	full spd	Two 8D RIMMs	AGP 4X; 16 / 16MB	AGP 50=0	4 empty	840 / 2000 or NT	2000
6868-6CU	18.2GB 10K Ultra160	Pentium III	256KB	512MB/PC600	NVIDIA Quadro2 MXR	PCI=4	3 used	ethernet / SCSI	Oct
	48X-20X CD-ROM	933/133	full spd	Two 16D RIMMs	AGP 4X; 32 / 32MB	AGP 50=0	4 empty	840 / 2000 or NT	2000
6868-6DU	18.2GB 10K Ultra160	Pentium III	256KB	512MB/PC600	Wildcat 4110	PCI=3	3 used	ethernet / SCSI	Oct
	48X-20X ⁴ CD-ROM	933/133	full spd	Two 16D RIMMs	AGP 2X; 128/128MB	AGP 50=0	4 empty	840 / 2000 or NT	2000
6868-70U	20.4GB 7200 EIDE	Pentium III	256KB	256MB/PC600	Millennium G450	PCI=5	3 used	ethernet	Oct
	48X-20X CD-ROM	1.0GHz/133	full spd	Two 8D RIMMs	AGP 4X; 16 / 16MB	AGP 50=0	4 empty	840 / 2000 or NT	2000
6868-72U	18.2GB 10K Ultra160	Pentium III	256KB	512MB/PC600	Millennium G450	PCI=4	3 used	ethernet / SCSI	Oct
	48X-20X CD-ROM	1.0GHz/133	full spd	Two 16D RIMMs	AGP 4X; 16 / 16MB	AGP 50=0	4 empty	840 / 2000 or NT	2000
6868-76U	18.2GB 10K Ultra160	Pentium III	256KB	512MB/PC600	NVIDIA Quadro2 MXR	PCI=4	3 used	ethernet / SCSI	Oct
	48X-20X CD-ROM	1.0GHz/133	full spd	Two 16D RIMMs	AGP 4X; 32 / 32MB	AGP 50=0	4 empty	840 / 2000 or NT	2000
6868-77U	18.2GB 10K Ultra160	Pentium III	256KB	512MB/PC600	Wildcat 4110	PCI=3	3 used	ethernet / SCSI	Oct
	48X-20X CD-ROM	1.0GHz/133	full spd	Two 16D RIMMs	AGP 2X; 128/128MB	AGP 50=0	4 empty	840 / 2000 or NT	2000
6868-78U	18.2GB 10K Ultra160	Pentium III	256KB	512MB/PC600	IBM Fire GL2	PCI=4	3 used	ethernet / SCSI	Oct
	48X-20X CD-ROM	1.0GHz/133	full spd	Two 16D RIMMs	AGP 4X; 64 / 64MB	AGP 50=0	4 empty	840 / 2000 or NT	2000
6868-5RU	no disk	Pentium III	256KB	256MB/PC600	Millennium G450	PCI=5	2 used	ethernet	Oct
	48X-20X CD-ROM	866/133	full spd	Two 8D RIMMs	AGP 4X; 16 / 16MB	AGP 50=0	5 empty	840 / no OS	2000
6868-6RU	no disk 48X-20X CD-ROM	Pentium III 933/133	256KB full spd	256MB/PC600 Two 8D RIMMs	Millennium G450 AGP 4X; 16 / 16MB	PCI=5 AGP 50=0	2 used	ethernet 840 / no OS	Oct 2000
6868-7PU	no disk 48X-20X CD-ROM	Pentium III 1.0GHz/133	256KB full spd	256MB/PC600 Two 8D RIMMs	Millennium G450 AGP 4X; 16 / 16MB	PCI=5 AGP 50=0	2 used	ethernet 840 / no OS	Oct 2000

Windows 2000 Professional Preload¹⁷

Windows 2000 Professional

- Free license for Lotus® SmartSuite® Millennium
- Free license for Lotus Notes® Client
- Device Drivers and Diagnostics CD-ROM
- ♦ Software Selections CD-ROM
- ♦ Windows 2000 Product Recovery CD-ROM
- ♦ Windows NT 4.0 (SP6) Product Řecovery CD-ROM
- 15.0 and 20.4GB EIDE disks are ATA-66, 9.0ms average read seek time, SMART⁵ III ≈9.1GB Ultra160 SCSI 10000 rpm disk is
- 6.0ms average read seek time, SMART5 ⇒ 18.2GB Ultra160 SCSI 10000 rpm is 5.5ms average read seek time, SMART5

compatible options

Options

800EB MHz Second Proc for M Pro 6868 866MHz Second Processor for M Pro6868 933MHz Second Processor for M Pro6868 1GHZ Second Processor for M Pro 6868 64MB 600MHz ECCRDRAM (4 Dev) 128MB 600MHz ECCRDRAM (8 Dev) 256MB 600MHz ECCRDRAM (16 Dev) 64MB 800MHz ECCRDRAM (4 Dev) 128MB 800MHz ECCRDRAM (8 Dev) 256MB 800MHz ECCRDRAM (16 Dev) IBM IDE 8X DVD-ROM (black) IBM DVD-RAM (black) IBM IDE ReWritable CD-RW (black) 20.4GB 7200 rpm ATA-100 EÌDE dísk 30GB 7200 rpm ATA-100 EIDE disk 36.4GB 7200 rpm Ultra160 SCSI 36.4GB 10000 rpm Ultra160 SCSI T54A LCD TFT Stealth Blk Color Monitor T55D LCD TFT Stealth Blk Color Monitor T56A LCD TFT Stealth Blk Color Monitor T85A LCD TFT Stealth Blk Color Monitor T86D LCD TFT Stealth Blk Color Monitor IBM 20/40GB 8mm SCSI tape drive (blk) IBM 10/20GB SCSI tape backup (black) IBM 12/24GB DDS3 SCSI tape (black) Visit www.ibm.com/options for a complete list of IBM 20/40GB DDS/4mm tape (SCSI, blk) Mounting Kit (vendor at 972-647-1565)

WARRANTY SERVICE SUPPORT*,3

3 year parts and labor warranty

10K3802

10K3813

10K3814

34L5271

33L3093

33L3095

33L3097

20L0274

20L0275

20L0277

33L5016

10K3561

33L5020

19K4461

00N8203

00N8206

00N8209

9511AG1

9513DG0

9493AG1

9519AG1

9497DG0

01K1325

09N4042

09N4041

00N7991 CIS-CAMZPR

- International Warranty Service³
- On site, 8 am through 5 pm, Mon through Fri excluding holidays, next business day response time
- On site warranty service upgrade option:
 - 4 hour response, 7 day x 24 hr14
- Post warranty maintenance services available
- 24 hour x 7 day telephone, electronic, and Internet support

^{*} For a copy of IBM's Statement of Limited Warranty, call 1-800-772-2227 US models announced October 10, 2000 US models withdrawn from marketing effective May 2001 or October 2001

III IntelliStation® M Pro (6868) - Fall 2000 - withdrawn

IBM® IntelliStation®									
Type Processor(s) Implementation Processor upgrade L2 cache Avail / withdrawn date	Processor and L2 cache in a 2-way SMP via identical pro	m® III 800EB, 866, 933MHz¹ or 1.0B GHz¹/ 133MHz Single Edge Contact (SECC2) in protective metal case a poessor / upgrade via second SECC2 into second mother at processor speed / 8-way set associative / write-back or October 2001	/ SECC2 plugged into Intel® Slot 1 erboard Slot 1 connector / MPS 1.4						
Mem - std / max / type Memory - features	ECC memory controller and two RIMMs installed (one p	56 or 512MB std / 2GB max ¹³ / dual RDRAM (Rambus) channels / 32 devices max each channel / CC memory controller and RIMMs / four 184-pin gold-plated RIMM sockets (two per channel) / vo RIMMs installed (one per channel) / CRIMMs in two sockets / supports PC600 or PC800 RIMMs (not PC700) / Il installed RIMMs must be same speed (PC600 or PC800) and installed in pairs across channels							
Graphics controller (one of following)	max166MHz SDRAM / tw • NVIDIA™ Quadro2 MXR DB-15 and DVI-I connectc • IBM Fire GL2 (extreme 3I (single head; same image if • Intense3D® Wildcat 4110	D) / AGP 4X adapter / 64MB std and max 120MHz DDR	IB std and max 183MHz SDRAM / R-SGRAM / DB-15 and DVI-I connectors 128-bit 143MHz SDRAM (frame buffer)						
Architecture (chipset) Form factor / bus Rack mountable	82801AA I/O Controller Hu 82802AC Firmware Hub / S	rated Hub Architecture / 266MB/sec I/O channel / 82 b (ICH) for PCI 2.2 bus, ATA-66 EIDE, USB, Low Pin CMSC 47B272 SIO LPC Super I/O for diskette, parallel ser) / PCI 2.2 (33MHz), Accelerated Graphics Port 2.0 al mounting kit	Count Interface / , serial, keyboard, mouse						
	SCSI models only: Adapte Internal: 68-pin (attaches 5 SCSI models: 5 drop 16-bit I EIDE models: Two 2-drop I IDE ATA-33 cable / no SCS AAP models: One 1 drop ID	E ATA-33 cable d PIO modes 0-4 with 2 channel, 4 device support /	,						
CD-ROM / diskette		ATAPI), bootable / 3.5" 1.44MB diskette drive	- Secure fixed DASD - Serial EEPROM with write protect						
Ethernet controller Systems mgmt cntrl	Intel EtherExpress™ PRC 10BaseT and 100BaseTX / Temperature sensors, fan-	//100 / 82559 ethernet chip on planar / PCI bus / RJ45 UTP connector / Wake on LAN® / Alert on LAN 2 speed monitor, chassis-intrusion detector, power onitor, and power-switch bypass / AD1025	- Power-on password - Administrator password - Keyboard/mouse password - Wake Up on LAN password prompt - Boot sequence control						
Audio connectors Audio features Microphone Serial/parallel/USB Security chip	AC '97 interface / AD1881 c Line in with active pre-amp Internal speaker with auton None Ser: One 9 pin Par: One (B	tal audio / software-based (done by Pentium and ICH) / odec (analog mixing, A-to-D and D-to-A conversion) / mic in / line out (all 3.5mm; all in back) natic jack sense switching / software volume control EPP, ECP) / IEEE 1284 USB: Two ports (Vers 1.1) ip / soldered on motherboard	- Boot without keyboard or mouse - Diskette boot inhibit - Disable mouse - Disable external SCSI port - Diskette write-protect - Diskette, disk, serial port, parallel por						
Keyboard / mouse Fans Power supply	104 key keyboard / keyboa Three (one in front, one in r 330 watts / universal / auto		- Secure access openings - Secure removable media - VPD stored in EEPROM - Write protection control for EEPROM						
CD-ROM Bay ① 5.25", HH 1.6", access, Bay ② 5.25", HH 1.6", access, Bay ③ 3.5", SL 1", access, Bay ③ 3.5", SL 1", access, Bay ⑤ 3.5", HH 1.6", no access Bay ⑥ 3.5", HH 1.6", no access Bay ⑥ 3.5", HH 1.6", no access Bay ⑥ 3.5", HH 1.6", no access Bay ⑦ 3.5", HH 1.6", no access Bay ⑦ 3.5", HH 1.6", no access Bay ⑦ 3.5", HH 1.6", pro access Bay ⑦ 3.5", HH 1.6", pro access Bay ⑦ 3.5", HH 1.6", pro access Bay ⑦ 3.5", HH 1.6", pro access Bay ⑦ 3.5", HH 1.6", pro access Bay ⑦ 3.5", HH 1.6", pro access Bay ⑥ 3.5"		i, open (disk only) i, std disk (disk only) (universal) - used by AGP graphics adapter - not usable with AGP Pro50 adapter in AGP slot or in models with Intense3D Wildcat	- Write protection control for EEPROM - Barcode labels on most components - IBM Security Solutions Maximum internal SCSI disk capacity 182GB (5 x 36.4GB (7200 or 10K rpm) Maximum internal EIDE disk capacity 90GB (3 x 30GB 7200 rpm) SYSTEMS MANAGEMENT • Asset ID™ (RFID)¹6 • Alert on LAN™ 2 • Universal Manageability Services enabled • LANClient Control Manager™ enabled • SMART Reaction™.⁵ II						
Provides electronisecure key storag Can sign each e-risignature (1024-bignature) Public Key Infrast more secure e-mainternet transactic Layer (SSL) for en capabilities	nail with a digital it) so receiving party ructure (PKI) for all, web access and ans, and Secure Sockets cryption/decryption ttion Manager software	OTHER STANDARD FEATURES The Setup Utility resides in flash memory; invoked by pressing F1 key during memory POST Plug-and-Play 1.0a ISO 9241-3 capable Vital Product Data support (type, model, serial, id) 7.9"W x 18.1"D x 19.4"H; 45 lbs max (shipped) 200 mm W x 460 mm D x 492 mm H; 17.3 kg Several hardcopy publications Four stabilizing feet 512KB BIOS (Flash over LAN support) Supplier's Declaration available Three fans (one in front, one in rear, one in power supply)	PC 99-compliant DMI 2.0-compliant Common Information Model (CIM) 2.2 Asset Information Chip (EEPROM) Wired for Management 2.0 ACPI 1.0 Advanced Power Management 1.2 Wake on LAN support Alternate Boot Sequence RPL, DHCP, and PXE 2.0support Setup on LAN, Flash on LAN Wake on Alarm System Management BIOS Version 2 Systems Migration Assistant support						

国派 IntelliStation® M Pro models (6888) - withdrawn

Type-model	Diskette drive Disk: std-max internal ms seek / disk interface CD-ROM ⁶ /interface	CPU MHz ¹ /	Upgrade	std / max	in MB; std / max	controller;	Five total bus slots; P=PCI avail I=ISA avail	Std features	Estimate Reseller Price*	d Available date
5 slot x 5 bay	r; PCI/ISA; Stealth Gray									
← 6888-28U for Auth Assembler Program	1.44 MB diskette no disk EIDE	Pentium [®] II 266/66 MHz	enabled for future upgrades	512/512 133 MHz in SEC Non-parity	32/512 EDO ECC	None	PCI=0 PCI/ISA=3 ISA=2	UU/I/L/A/I RTC CD	Eth \$263	9 May 1997
≈ 6888-22U	1.44 MB diskette 4.3 GB std - 27.2 GB max 10 ms / Wide Ultra SCSI 16 x CD-ROM / EIDE	Pentium II 266/66 MHz	enabled for future upgrades	512/512 133 MHz in SEC Non-parity	64 / 512 EDO ECC	Matrox® Millennium PCI Adapter 4 / 8 WRAM	PCI=0 PCI/ISA=1 ISA=2 Total=5	UU/I/L/A/I Windows RTC CD		1 ♣ May 1997
≪ 6888-26U	1.44 MB diskette 4.3 GB std - 27.2 GB max 10 ms / Wide Ultra SCSI 16 x CD-ROM / EIDE	Pentium II 266/66 MHz	enabled for future upgrades	512/512 133 MHz in SEC Non-parity	128/512 EDO ECC		PCI=0 PCI/ISA=1 ISA=2 Total=5	UU/I /L/A/ Windows RTC CD		0 May 1997
≈ 6888-36U	1.44 MB diskette 4.3 GB std - 27.2 GB max 10 ms / Wide Ultra SCSI 16 x CD-ROM / EIDE	Pentium II 300/66 MHz	enabled for future upgrades	512/512 133 MHz in SEC ECC	128/512 EDO	Intergraph Intense 3D 16 MB SDRAM 4 MB SGRAM	PCI/ISA=1 ISA=2	UU/I /L/A/ Windows RTC CD		2 July 1997

Windows NT Preload¹⁷

Windows® NT Workstation 4.0 ConfigSafe for Windows NT 4.0 DMI for Windows NT DMI for Windows NT BIOS Instrumentation IBM AntiVirus for Windows NT IBM PC System Monitor for Windows NT

IBM Product Registration IBM Utilities for NT 4.0

Online Books

Device Drivers for each subsystem
- Hummingbird "Try and Buy" Suite CD-ROM Exceed 5.1.3 Exceed 3D 5.1.3

NFS Maestro Solo 5.1.3

- Intel LANDesk 3.0 for Windows NT CD-ROM

Ready to Configure CD-ROM

- Free license for Lotus SmartSuite 97 CD-ROM

- Windows NT Workstation 4.0 CD-ROM

Access to IBM HomePage Creator

Supported Memory and Options

76H0278 76H0279 76H0280 76H0281 76H0269
76H6110
75H7987
76H3579
12J3614
6554-6E3
6555-7E3
6555-8E3
9516-A23

= CS4236 FM synthesis audio chip

W95 = Windows 95 OSR2.1 preinstalled

Eth = Intel 10/100 ethernet chip; 10BaseT and 100BaseTX

= Infrared port to 115 Kbps (requires Infrared cable 75H7987)

= LAN Client Control Manager (LCCM) enabled

NT4 = Windows NT Workstation 4.0 preinstalled

RTC CD = ReadyTo Configure CD-ROM

UU = Two Universal Serial Bus (USB) port

Wide Ultra SCSI = Adaptec AHA-2940UW UltraSCSI PCI Adapter

Ready to Configure CD-ROM

All models ship with a CD with drivers for OS/2, Windows 95, and Windows NT and various utilities.

ConfigSafe for Windows NT 4.0 (and Win 95) CoSession Remote 32 for Windows 95/NT 4.0 CoSession Remote Host for Win 95 CoSession Remote Viewer for Win 95 Crystal Audio for Windows NT (and Win 95, OS/2) DMI for Windows NT (and Win 95, OS/2)
DMI for Windows NT BIOS Instrumentation (and

Win 95. OS/2)

IBM AntiVirus for Windows NT (and Win 95, OS/2) CPU Thermal Monitor for Windows NT 4.0 IBM IDE Disk Monitor for Windows 95/NT (and OS/2)

IBM PC QAPlus/PRO Diagnostics
IBM PC QAPlus/WIN-WIN Diagnostics IBM PC Supplemental Diagnostics

IBM Product Registration IBM Utilities for Windows 95/NT 4.0

Intel Ethernet Driver

Intergraph 3D Graphics for Windows NT 3.51, 4.0

Matrox Millennium Graphics Drivers S3-V2 Graphics for Winows 95/NT/OS/2

Online Books

TME 10 NetFinity for Windows NT (and Win 95, OS/2) Bus Mastering IDE/SMART for Windows NT

IBM PC System Monitor for OS/2

Infrared for Win 95, OS/2

Infrared Mode Selection for Windows 95 Infrared PDA Connect for Windows 95 Busmastering IDE/SMART for OS/2

IBM Diskette Factory for RTC IBM RTC CD-ROM Setup Utility RTC CD Overview Help Files

Open Bay

Open bay model contains no hard disk. No preload or operating system license is included.

- Hummingbird "Try and Buy" Suite CD-ROM Exceed 5.1.3 Exceed 3D 5.1.3

NFS Maestro Solo 5.1.3

Intel LANDesk 3.0 for Windows NT CD-ROM

- Ready to Configure CD-ROM

Free license for Lotus SmartSuite 97 CD-ROM (via 800 number)

WARRANTY SERVICE SUPPORT

- 3 year parts warranty
- 1 year labor warranty
- International warranty
- 1st year: on site, 8 am 5 pm, Mon - Fri coverage.
- 2nd business day response time
- 2nd/3rd year: parts exchange only, call 1-800-772-2227
- On site warranty upgrade options:
 - ① Next day, on site, Mon-Fri 8-5 2 Same day, on site, 7 day x 24 hr
- Post warranty: on site options above
- 24 hour / 7 day telephone, bulletin board, fax, electronic, Internet (http://www.pc.ibm.com) support
- → 16 x CD-ROM can use PIO Mode 4 (16.6), Multi-Word DMA 1 (13.33), or Single-Word DMA 2 (8.33); PIO Mode 0 (3.3 MB/sec) used on preload; bootable; CAV; ATAPI
- Models announced July 15, 1997
- Price decrease effective January 21, 1998
- Withdrawn effective January 27, 1998 or August 21, 1998

All trademarks are the property of their respective owners

No warranties are expressed or implied in this summary

IIM IntelliStation M Pro (6888) - withdrawn

IBM [®] IntelliStation™							
Type (code name) Processor / MHz Implementation Processor upgrade(s) VRM Available date	Processor and L2 cache in Si	a SEC into motherboard Intel® Slot ilt into SEC (no socket)	ge in protective meta	+ 16 KB data L1 cache al case / SEC plugged into Intel Slot 1			
L2 cache - features	512 KB std / 512 KB max / ir pipelined burst synchronous /	ntegrated in SEC / 8.5 ns / write-th / 1/2 processor frequency bus / no	rough / direct mappe n-parity for 266 MHz	ed / 4 way set associative / ; ECC for 300 MHz			
Memory - std / max Mem - total sockets Mem - sockets used Mem - type (support) Memory - supported	Three 168 pin gold-plated DIN 32 or 64 MB models: 1 DIMN EDO non-parity or EDO ECC	l used; <i>128 MB model</i> : two 64 MB / 16, 32, 64, 128 MB EDO non-pa	DIMMs used / EDO rity DIMM or 16, 32,	,			
Graphics controller	Matrox® MGA Millennium,	Intergraph [®] Intense 3D Pro1000	/T, (or none on Model	28U for Authorized Assembler Program)			
Graphics - type Graphics - memory Graphics - features	Matrox / MGA Millennium / 3 4 MB std / 8 MB max (WRAM VESA DPMS, DDC1, DDC2B On the fly resolution and color Hardware zoom / virtual desk Hardware accelerated 3D gou	B, Auto Refresh Rate Utility r depth switching top / panlock / DirectDraw	16 MB SDRAM but VESA DPMS, DDC 810,000 3D triangle Color space conve	se 3D / 3D accelerator / PCI adapter ffer and 4 MB SGRAM texture memory C2B / onboard VGA / OpenGL / fogging es per second / 24 bit double buffering rsion / alpha blending / 32 bit textures r / optional hardware geometry accelertn			
Disk SCSI disk controller SCSI cable EIDE disk controller CD-ROM	Adaptec® ÁHA-2940UW Ultra 4 drop 16 bit 68 pin SCSI cat Enhanced IDE busmaster / P 16 x max CD-ROM CAV (AT	ble standard / one drop to std SCS IO modes 0 to 4 or DMA Modes 0 API) / bootable	annel and 15 devices/ SI disk to 2 / two connectors <i>Maximum internal S</i>	T ⁵ and PFA /16 bit int, 8 bit int, and 16 bit ext connectors s on planar / one 2 drop cable standard SCSI disk capacity ¹³ : pays 2 and 3 plus 4.51 GB in bays 4 and 9			
Bus slots Architecture		d with Intel Natoma 440FX PCIset	with Intel Natoma 440FX PCIset / PIIX3 for EIDE, ISA Bridge, USB 37307 Super I/O for diskette, parallel, serial, GPIO, keyboard, mouse, infrared				
Serial / parallel ports Universal Serial Bus Infrared	Two USB ports / 1.5 MB/sec	max speed / 16550A / non-DMA; (12 Mbps) max speed ing optional Infrared Dongle; part					
Diskette drive CD-ROM	Some models: 16 x max spe	(cable supports 3.5" 1.44 MB, 5.2 ed CD-ROM CAV (ATAPI) / boots					
Audio Ethernet controller Wake-on-LAN LCCM Systems mgmt cntrl Preloaded software	Intel 10/100 PCI 82557 ether Supported on all models; req LAN Client Control Manage National Semiconductor® L	ar / ISA bus / FM Synthesis / con rnet chip on planar / 10BaseT and uires compliant Ethernet or Toker er enabled / Wake-on-LAN / Set LM78 compatible / hardware chi	nectors for stereo lir I 100BaseTX / PCI b n-Ring LAN Adapter up-on-LAN / Flash- p to monitor tempe	ne out, mic in / no hardwáre volume cont ous / RJ45 UTP connector/Wake-on-LAN on-LAN / Hybrid RPL / DHCP/BOOTP rature, voltage, system cover remova			
Ethernet controller Wake-on-LAN LCCM Systems mgmt cntrl Preloaded software	Intel 10/100 PCI 82557 ethe Supported on all models; req LAN Client Control Manage National Semiconductor® L Models vary: ① Open Bay, ② All include Ready to Configur All include a free license for L	ar / ISA bus / FM Synthesis / con rnet chip on planar / 10BaseT and uires compliant Ethernet or Toker er enabled / Wake-on-LAN / Set .M78 compatible / hardware chi Windows NT Workstation 4.0 / Dis e CD-ROM (device drivers and util otus® SmartSuite 97 CD-ROM (via	nectors for stereo lir d 100BaseTX / PCI b n-Ring LAN Adapter up-on-LAN / Flash- p to monitor tempe sk-based models incl	ne out, mic in / no hardware volume cont ous / RJ45 UTP connector/Wake-on-LAN on-LAN / Hybrid RPL / DHCP/BOOTP rature, voltage, system cover remova ude Easy Tools (many utilities) preloaded			
Ethernet controller Wake-on-LAN LCCM Systems mgmt cntrl Preloaded software Keyboard / mouse	Infel 10/100 PCI 82557 ether Supported on all models; req LAN Client Control Manage National Semiconductor® L Models vary: ① Open Bay, ② All include Ready to Configural Include a free license for L 104 key (rubber dome) keybo 200 watts / universal / manua Bay ① 3.5", SL 1", according \$5.25", HH 1.6", according \$5.25", HH 1.6", according \$5.25", SL 1", no all ay ⑥ 3.5", SL 1", no all sold \$1.16\$ bit ISA (full) or 32 Slot 2: 16 bit ISA (full) or 32 Slot 3: 16 bit ISA (full) or 32	ar / ISA bus / FM Synthesis / con rnet chip on planar / 10BaseT and uires compliant Ethernet or Toker er enabled / Wake-on-LAN / Set	nectors for stereo lir d 100BaseTX / PCI b n-Ring LAN Adapter up-on-LAN / Flash- p to monitor tempe sk-based models inclidities) a 800 number) = PCMCIA front access; but not supported	ne out, mic in / no hardwáre volume cont ous / RJ45 UTP connector/Wake-on-LAN on-LAN / Hybrid RPL / DHCP/BOOTP rature, voltage, system cover remova			
Ethernet controller Wake-on-LAN LCCM Systems mgmt cntrl Preloaded software Keyboard / mouse Power supply ZZZ diskette disk	Infel 10/100 PCI 82557 ether Supported on all models; req LAN Client Control Manage National Semiconductor® L Models vary: ① Open Bay, ② All include Ready to Configur All include a free license for L 104 key (rubber dome) keybo 200 watts / universal / manua Bay ① 3.5", SL 1", accu Bay ② 5.25", HH 1.6", accu Bay ③ 5.25", HH 1.6", accu Bay ④ 3.5", SL 1", no a Bay ⑥ 3.5", SL 1", no a Bay ⑥ 3.5", SL 1", no a Slot 1: 16 bit ISA (full; half or Sid Sid 2: 16 bit ISA (full) or 32 Slot 4: halfsize, 16 bit ISA Slot 5: halfsize, 16 bit ISA	ar / ISA bus / FM Synthesis / con rnet chip on planar / 10BaseT and uires compliant Ethernet or Toker er enabled / Wake-on-LAN / Sett	nectors for stereo lir d 100BaseTX / PCI b d 100BaseTX / PCI b n-Ring LAN Adapter up-on-LAN / Flash- p to monitor tempe sk-based models inclidities) a 800 number) = PCMCIA front access; but not supported IltraSCSI Adapter 00) 2.1 (3.3v/5v) raphics Adapter	ne out, mic in / no hardware volume consus / RJ45 UTP connector / Wake-on-LAN on-LAN / Hybrid RPL / DHCP/BOOTP rature, voltage, system cover remova ude Easy Tools (many utilities) preloaded 1. Cover key lock, 2. U-Bolt support 3. Diskette write inhibit 4. Serial/parallel port inhibit 5. Power-on password 6. Administrator passwd 7. Boot sequence control 8. Boot w/o keyboard/mouse/diskette 9. Disk disable, 10. Diskette disable 11. Unattended start-up (network) 12. Sliding front door lock 13. Secure removable media 14. Mouse disable 15. Wake-up on LAN (Dual Mode) WARRANTY SERVICE SUPPORT ³			
Ethernet controller Wake-on-LAN LCCM Systems mgmt cntrl Preloaded software Geyboard / mouse Power supply V diskette disk	Infel 10/100 PCI 82557 ether Supported on all models; req LAN Client Control Manage National Semiconductor® Land Client Control Manage Models vary: ① Open Bay, ② All include Ready to Configurall include a free license for Land 104 key (rubber dome) keybo 200 watts / universal / manua Bay ① 3.5", SL 1", according 10 5.25", HH 1.6", according 3.5", SL 1", no a Bay ③ 3.5", SL 1", no a Bay ④ 3.5", SL 1", no a Slot 1: 16 bit ISA (full; half of Slot 3: 16 bit ISA (full) or 32 Slot 4: halfsize, 16 bit ISA Slot 5: halfsize, 16 bit ISA Slot 5: halfsize, 16 bit ISA NIUM GRAPHICS MODES Rate Hz terlaced)	ar / ISA bus / FM Synthesis / con rnet chip on planar / 10BaseT and uires compliant Ethernet or Toker er enabled / Wake-on-LAN / Set	nectors for stereo lir id 100BaseTX / PCI b id 100BaseTX / PCI b in-Ring LAN Adapter pup-on-LAN / Flash- p to monitor tempe sk-based models includities) a 800 number) = PCMCIA front access; but not supported	ne out, mic in / no hardware volume con us / RJ45 UTP connector / Wake-on-LAN on-LAN / Hybrid RPL / DHCP/BOOTP rature, voltage, system cover removal ude Easy Tools (many utilities) preloade ude Easy Tools (many utilities) preloade 1. Cover key lock, 2. U-Bolt support 3. Diskette write inhibit 4. Serial/parallel port inhibit 5. Power-on password 6. Administrator password 6. Administrator password 7. Boot sequence control 8. Boot w/o keyboard/mouse/diskette 9. Disk disable, 10. Diskette disable 11. Unattended start-up (network) 12. Sliding front door lock 13. Secure removable media 14. Mouse disable 15. Wake-up on LAN (Dual Mode) WARRANTY SERVICE SUPPORT 3 year parts warranty			
Ethernet controller Wake-on-LAN LCCM Systems mgmt cntrl Preloaded software Keyboard / mouse Power supply ZZZ diskette disk 2 CD 3 Stealth gray color Base Cover and Floor Stand standard MATROX MILLEN Resolution Frame (non-in 640 x 480 60 to 2	Infel 10/100 PCI 82557 ether Supported on all models; req LAN Client Control Manage National Semiconductor® L Models vary: ① Open Bay, ② All include Ready to Configur All include a free license for L 104 key (rubber dome) keybo 200 watts / universal / manua Bay ① 3.5", SL 1", acce Bay ② 5.25", HH 1.6", acce Bay ③ 5.5", HH 1.6", acce Bay ③ 3.5", SL 1", no a Bay ⑤ 3.5", SL 1", no a Bay ⑥ 3.5", SL 1", no a Slot 1: 16 bit ISA (full; half of Slot 3: 16 bit ISA (full) or 32 Slot 4: halfsize, 16 bit ISA Slot 5: halfsize, 16 bit ISA NIUM GRAPHICS MODES Rate Hz terlaced) Memory required 00 Hz 4 MB	ar / ISA bus / FM Synthesis / con rnet chip on planar / 10BaseT and uires compliant Ethernet or Toker er enabled / Wake-on-LAN / Setu-M78 compatible / hardware chip windows NT Workstation 4.0 / Dise CD-ROM (device drivers and util otus® SmartSuite 97 CD-ROM (visitard / IBM 3 button mouse I switch / Wake-on-LAN support less, std diskette ess, open or CD-ROM ess, open access, open or std disk access, open (disk only) 2 bit PCI (full) 2.1 (3.3v/5v) - PCI GOTHER STANDARD FOR Dual orientation with standard sta The Setup Utility resides in flash by pressing F1 key during men	nectors for stereo lir d 100BaseTX / PCI b h-Ring LAN Adapter up-on-LAN / Flash- p to monitor tempe sk-based models incli lities) a 800 number) = PCMCIA front access; but not supported	ne out, mic in / no hardware volume con us / RJ45 UTP connector / Wake-on-LAN on-LAN / Hybrid RPL / DHCP/BOOTP rature, voltage, system cover removal ude Easy Tools (many utilities) preloade ude Easy Tools (many utilities) preloade 1. Cover key lock, 2. U-Bolt support 3. Diskette write inhibit 4. Serial/parallel port inhibit 5. Power-on password 6. Administrator password 6. Administrator password 7. Boot sequence control 8. Boot w/o keyboard/mouse/diskette 9. Disk disable, 10. Diskette disable 11. Unattended start-up (network) 12. Sliding front door lock 13. Secure removable media 14. Mouse disable 15. Wake-up on LAN (Dual Mode) WARRANTY SERVICE SUPPORT ³			
Ethernet controller Wake-on-LAN LCCM Systems mgmt cntrl Preloaded software Keyboard / mouse Power supply Giskette Gisk GCD Stealth gray color Base Cover and Floor Stand standard MATROX MILLEN Prame (non-in 640 x 480 60 to 2 800 x 600 60 to 2	Infel 10/100 PCI 82557 ether Supported on all models; req LAN Client Control Manage National Semiconductor® L Models vary: ① Open Bay, ② All include Ready to Configur All include a free license for L 104 key (rubber dome) keybo 200 watts / universal / manua Bay ① 3.5", SL 1", acce Bay ② 5.25", HH 1.6", acce Bay ③ 5.25", HH 1.6", acce Bay ③ 3.5", SL 1", no a Bay ⑥ 3.5", SL 1", no a Slot 1: 16 bit ISA (full; half of Slot 3: 16 bit ISA (full) or 32 I Slot 4: halfsize, 16 bit ISA Slot 5: halfsize, 16 bit ISA NIUM GRAPHICS MODES Rate Hz Memory terlaced) 00 Hz 4 MB	ar / ISA bus / FM Synthesis / con rnet chip on planar / 10BaseT and uires compliant Ethernet or Toker er enabled / Wake-on-LAN / Sett. M78 compatible / hardware chi Windows NT Workstation 4.0 / Dise CD-ROM (device drivers and util otus® SmartSuite 97 CD-ROM (via lard / IBM 3 button mouse I switch / Wake-on-LAN support ess, std diskette ess, open or CD-ROM ess, open access, open (disk only) 2 bit PCI (full) 2.1 (3.3v/5v) - PCI Usen 300) or 32 bit PCI (full; half on 30 bit PCI (full) 2.1 (3.3v/5v) - PCI Grant Company of the Setup Utility resides in flash by pressing F1 key during men Plug-and-Play 1.0A; Vital Productives of the standard start purposes of the setup Utility resides in flash by pressing F1 key during men Plug-and-Play 1.0A; Vital Productives and start purposes of the setup Utility resides in flash by pressing F1 key during men Plug-and-Play 1.0A; Vital Productives and start purposes of the setup Utility resides in flash by pressing F1 key during men Plug-and-Play 1.0A; Vital Productives and start purposes of the setup Utility resides in flash by pressing F1 key during men Plug-and-Play 1.0A; Vital Productives and start purposes of the setup Utility resides in flash by pressing F1 key during men Plug-and-Play 1.0A; Vital Productives and start purposes of the setup Utility resides in flash by pressing F1 key during men Plug-and-Play 1.0A; Vital Productives and start purposes of the setup Utility resides in flash by pressing F1 key during men Plug-and-Play 1.0A; Vital Productives and start purposes of the setup Utility resides in flash by pressing F1 key during men Plug-and-Play 1.0A; Vital Productives and start purposes of the setup Utility resides in flash by pressing F1 key during men Plug-and-Play 1.0A; Vital Productives and start purposes of the setup Utility resides in flash by pressing F1 key during men Plug-and-Play 1.0A; Vital Productives and start purposes of the setup Utility resides in flash purposes of the setup Utility resides in flash purposes of the setup Utility resides in flash purp	nectors for stereo lir d 100BaseTX / PCI b d 100BaseTX / PCI b n-Ring LAN Adapter up-on-LAN / Flash- p to monitor tempe sk-based models inclidities) a 800 number) = PCMCIA front access; but not supported	ne out, mic in / no hardware volume con us / RJ45 UTP connector / Wake-on-LAN on-LAN / Hybrid RPL / DHCP/BOOTP rature, voltage, system cover removal ude Easy Tools (many utilities) preloade ude Easy Tools (many utilities) preloade 1. Cover key lock, 2. U-Bolt support 3. Diskette write inhibit 4. Serial/parallel port inhibit 5. Power-on password 6. Administrator password 7. Boot sequence control 8. Boot w/o keyboard/mouse/diskette 9. Disk disable, 10. Diskette disable 11. Unattended start-up (network) 12. Sliding front door lock 13. Secure removable media 14. Mouse disable 15. Wake-up on LAN (Dual Mode) WARRANTY SERVICE SUPPORT 3 year parts warranty 1 year labor warranty International warranty 1st year: on site, 8 am - 5 pm,			
Ethernet controller Wake-on-LAN LCCM Systems mgmt cntrl Preloaded software Keyboard / mouse Power supply ZZ diskette disk 2 CD 3 Stealth gray color Base Cover and Floor Stand standard MATROX MILLEN Resolution Frame (non-in 640 x 480 60 to 2	Infel 10/100 PCI 82557 ether Supported on all models; req LAN Client Control Manage National Semiconductor® L Models vary: ① Open Bay, ② All include Ready to Configur. All include a free license for L 104 key (rubber dome) keyboo 200 watts / universal / manua Bay ① 3.5", SL 1", acce Bay ② 5.25", HH 1.6", acce Bay ③ 5.25", HH 1.6", acce Bay ③ 5.25", HH 1.6", acce Bay ③ 3.5", SL 1", no a Bay ⑤ 3.5", SL 1", no a Slot 1: 16 bit ISA (full; half o Slot 3: 16 bit ISA (full; half o Slot 3: 16 bit ISA (full) or 32 Slot 4: halfsize, 16 bit ISA Slot 5: halfsize, 16 bit ISA NIUM GRAPHICS MODES Rate Hz Index Memory Ind	ar / ISA bus / FM Synthesis / con rnet chip on planar / 10BaseT and uires compliant Ethernet or Toker er enabled / Wake-on-LAN / Setu-M78 compatible / hardware chip windows NT Workstation 4.0 / Dise CD-ROM (device drivers and util otus® SmartSuite 97 CD-ROM (visitard / IBM 3 button mouse I switch / Wake-on-LAN support less, std diskette ess, open or CD-ROM ess, open access, open or std disk access, open (disk only) 2 bit PCI (full) 2.1 (3.3v/5v) - PCI GOTHER STANDARD FOR Dual orientation with standard sta The Setup Utility resides in flash by pressing F1 key during men	nectors for stereo lir id 100BaseTX / PCI b id 100BaseTX / PCI b in-Ring LAN Adapter pup-on-LAN / Flash- p to monitor tempe sk-based models inclidities) a 800 number) = PCMCIA front access; but not supported	ne out, mic in / no hardware volume consus / RJ45 UTP connector / Wake-on-LAN on-LAN / Hybrid RPL / DHCP/BOOTP rature, voltage, system cover remova ude Easy Tools (many utilities) preloade 1. Cover key lock, 2. U-Bolt support 3. Diskette write inhibit 4. Serial/parallel port inhibit 5. Power-on password 6. Administrator passwd 7. Boot sequence control 8. Boot w/o keyboard/mouse/diskette 9. Disk disable, 10. Diskette disable 11. Unattended start-up (network) 12. Sliding front door lock 13. Secure removable media 14. Mouse disable 15. Wake-up on LAN (Dual Mode) WARRANTY SERVICE SUPPORT 3 year parts warranty International warranty International warranty Ist year: on site, 8 am - 5 pm, Mon - Fri coverage, 2nd business day response time			
Ethernet controller Wake-on-LAN LCCM Systems mgmt cntrl Preloaded software Keyboard / mouse Power supply Giskette Gisk	Infel 10/100 PCI 82557 ethe Supported on all models; req LAN Client Control Manage National Semiconductor® L Models vary: ① Open Bay, ② All include Ready to Configur. All include a free license for L 104 key (rubber dome) keybo 200 watts / universal / manua Bay ① 3.5", SL 1", acci Bay ② 5.25", HH 1.6", acci Bay ② 5.25", HH 1.6", acci Bay ③ 3.5", SL 1", no a Bay ⑤ 3.5", SL 1", no a Slot 1: 16 bit ISA (half) or 32 Slot 2: 16 bit ISA (full; half or Slot 3: 16 bit ISA (full) or 32 Slot 3: 16 bit ISA (full) or 32 Slot 5: halfsize, 16 bit ISA Slot 5: halfsize, 16 bit ISA	ar / ISA bus / FM Synthesis / con ruet chip on planar / 10BaseT and uires compliant Ethernet or Toker er enabled / Wake-on-LAN / Sets. M78 compatible / hardware chip. Windows NT Workstation 4.0 / Dise CD-ROM (device drivers and util otus® SmartSuite 97 CD-ROM (vis. ard / IBM 3 button mouse I switch / Wake-on-LAN support less, std diskette ess, open or CD-ROM ess, open access, open (disk only). 2 bit PCI (full) 2.1 (3.3v/5v) - PCI Composite PCI (full) 2.1 (3.3v/5v) - PCI Gomes of the Setup Utility resides in flash by pressing F1 key during men Plug-and-Play 1.0A; Vital Product 16.5"W x 18.3"D x 6.3" H; 28 lbs Advanced Power Mgmt 1.2; ISO Several hardcopy publications 256 KB AMIă BIOS in flash memosite productions with stand memosite productions 256 KB AMIă BIOS in flash memosite productions 256 KB AMIă BIOS in flash memosite productions 256 KB AMIă BIOS in flash memosite productions 256 KB AMIă BIOS in flash memosite productions 256 KB AMIă BIOS in flash memosite productions 256 KB AMIă BIOS in flash memosite productions 256 KB AMIă BIOS in flash memosite productions 256 KB AMIă BIOS in flash memosite productions 256 KB AMIă BIOS in flash memosite productions 256 KB AMIĂ BIOS in flash memosite productions 256 KB AMIĂ BIOS in flash memosite productions 256 KB AMIĂ BIOS in flash memosite productions 256 KB AMIĂ BIOS in flash memosite productions 250 KB AMIĂ BIOS in flash memosite productions 250 KB AMIĂ BIOS in flash memosite productions 250 KB AMIĂ BIOS in flash memosite productions 250 KB AMIĂ BIOS in flash memosite productions 250 KB AMIĂ BIOS in flash memosite productions 250 KB AMIĂ BIOS in flash memosite productions 250 KB AMIĂ BIOS in flash memosite productions 250 KB AMIĂ BIOS in flash memosite productions 250 KB AMIĂ BIOS in flash memosite productions 250 KB AMIĂ BIOS in flash memosite productions 250 KB AMIĂ BIOS in flash memosite production production production production production production production production production production production production production production production producti	nectors for stereo lir d 100BaseTX / PCI b d 100BaseTX / PCI b n-Ring LAN Adapter up-on-LAN / Flash- p to monitor tempe sk-based models incli lities) a 800 number) I = PCMCIA front access; but not supported IlltraSCSI Adapter 100) 2.1 (3.3v/5v) raphics Adapter 100) 2.1 (3.3v/5v) raphics Adapter 101 access; but not supported FEATURES 101 and 102 access 103 access 104 access 105 access 106 access 107 access 108 ac	ne out, mic in / no hardware volume con us / RJ45 UTP connector / Wake-on-LAN on-LAN / Hybrid RPL / DHCP/BOOTP rature, voltage, system cover removatude Easy Tools (many utilities) preloade ude Easy Too			
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III IntelliStation® M Pro models - Spring 1998 (6889) - withdrawn

Type-model	Std disk (rpm) ms seek / disk interface CD-ROM / interface	CPU MHz ¹ /	Upgrade	std / max	Memory in MB; std / max 100MHz	SVGA controller; memory std / max	Bus slots P=PCI avai PCI/ISA=av A=AGP av	Total	Std features Preload	Avail date
6 slot x 6 bay	y; PCI/ISA/AGP; Stealth Gi	ay								
★ 6889-10U	6.4GB ² std (7200) 9.5ms / EIDE / ATA-33 32X-14X ⁶ CD-ROM / EIDE	1 x Pentium [®] II 350/100	SMP via 2nd Pent II	512/512 175MHz in SEC	64 / 1G SDRAM ECC	Millennium II AGP adapter 8 / 16 WRAM	PCI=4 PCI/ISA=1 AGP=0	3 uséd	440BX A/Eth yWindows NT 4.0	May 1998
≈ 6889-11U	9.1GB ⁸ std (7200) 9.5ms / EIDE / ATA-33 32X-14X CD-ROM / EIDE	1 x Pentium II 400/100	SMP via 2nd Pent II	512/512 200MHz in SEC	64 / 1G SDRAM ECC	Millennium II AGP Adapter 8 / 16 WRAM	PCI=4 PCI/ISA=1 AGP=0	3 used	440BX A/Eth / Windows NT 4.0	May 1998
≈ 6889-13U	9.1GB std (7200) 7.5ms / Wide Ultra SCSI 32X-14X CD-ROM / EIDE	1 x Pentium II 400/100	SMP via 2nd Pent II	512/512 200MHz in SEC	64 / 1G SDRAM ECC	Millennium II AGP Adapter 8 / 16 WRAM	PCI=4 PCI/ISA=1 AGP=0	3 used	440BX A/Eth / Windows NT 4.0	May 1998
6889-14U	9.1GB std (7200) 7.5ms / Wide Ultra SCSI 32X-14X CD-ROM / EIDE	1 x Pentium II 400/100	SMP via 2nd Pent II	512/512 200MHz in SEC	128/1G SDRAM ECC	Intense 3400 PCI Adapter 32/32 SDRAM	PCI=3 PCI/ISA=1 AGP=1	3 used	440BX A/Eth / Windows NT 4.0	May 1998
6889-15U	9.1GB std (7200) 9.5ms / EIDE / ATA-33 32X-14X CD-ROM / EIDE	1 x Pentium II 400/100	SMP via 2nd Pent II	512/512 200MHz in SEC	128/1G SDRAM ECC	PERMEDIA 2A AGP Adapter 8/8M SGRAM	PCI=4 PCI/ISA=1 AGP=0	3 uséd	440BX A/Eth / Windows NT 4.0	July 1998
★ 6889-16U	9.1GB std (7200) 7.5ms / Wide Ultra SCSI 32X-14X CD-ROM / EIDE	1 x Pentium II 400/100	SMP via 2nd Pent II	512/512 200MHz in SEC	128/1G SDRAM ECC	PERMEDIA 2A AGP Adapter 8/8M SGRAM	PCI=4 PCI/ISA=1 AGP=0	3 used	440BX A/Eth / Windows NT 4.0	July 1998
← 6889-18U for AAP	no disk 32X-14X CD-ROM / EIDE EIDE / 2 x Wide Ultra SCSI	1 x Pentium II 350/100	SMP via 2nd Pent II	512/512 175MHz ECC	64 / 1G SDRAM ECC	None	PCI=4 PCI/ISA=1 AGP=1			May 1998
← 6889-19U for AAP	no disk 32X-14X CD-ROM / EIDE EIDE / 2 x Wide Ultra SCSI	1 x Pentium II 400/100	SMP via 2nd Pent II	512/512 200MHz ECC	64 / 1G SDRAM ECC	None	PCI=4 PCI/ISA=1 AGP=1	6 bays 2 used 4 empty		May 1998
	no disk 32X-14X CD-ROM / EIDE EIDE / 2 x Wide Ultra SCSI	No CPU	SMP via 2nd Pent II	512/512 varies ECC	0 / 1G SDRAM ECC	None	PCI=4 PCI/ISA=1 AGP=1			Jun 1998
≈ 6889-24U	4.5GB std (7200) 9ms / Wide Ultra SCSI 32X-14X CD-ROM / EIDE	1 x Pentium II 400/100	SMP via 2nd Pent II	512/512 200MHz in SEC	128/1G SDRAM ECC	Millennium II AGP Adapter 8 / 16 WRAM	PCI=4 PCI/ISA=1 AGP=0	3 uséd	440BX A/Eth / Windows NT 4.0	July 1998
	4.5GB std (7200) 9ms / Wide Ultra SCSI 32X-14X CD-ROM / EIDE	SMP via 2 x Pentium II 400/100	None	512/512 200MHz in SEC	128/1G SDRAM ECC	Millennium II AGP Adapter 8 / 16 WRAM	PCI=4 PCI/ISA=1 AGP=0	3 used	440BX A/Eth / Windows NT 4.0	July 1998
≈ 6889-27U	9.1GB std (10K) 8.5ms / Wide Ultra SCSI 32X-14X CD-ROM / EIDE	1 x Pentium II 400/100	SMP via 2nd Pent II	512/512 200MHz in SEC	256/1G RDIMM ECC	Intense 3400 + Geo Acceler 32/32 SDRAM		3 used	440BX A/Eth / Windows NT 4.0	July 1998
	9.1GB std (7200) 7.5ms / Wide Ultra SCSI 32X-14X CD-ROM / EIDE	1 x Pentium II 400/100	SMP via 2nd Pent II	512/512 200MHz in SEC	256/1G RDIMM ECC	Millennium II AGP Adapter 8 / 16 WRAM	PCI=3 PCI/ISA=1 AGP=0	6 bays 3 used 3 empty		July 1998
	9.1GB std (7200) 7.5ms / Wide Ultra SCSI 32X-14X CD-ROM / EIDE	1 x Pentium II 400/100	SMP via 2nd Pent II	512/512 200MHz in SEC	256/1G RDIMM ECC	Intense 3400 PCI Adapter 32/32 SDRAM	PCI=4 PCI/ISA=1 AGP=1	6 bays 3 used 3 empty		July 1998
	9.1GB std (7200) 7.5ms / Wide Ultra SCSI 32X-14X CD-ROM / EIDE	1 x Pentium II 400/100	SMP via 2nd Pent II	512/512 200MHz in SEC	256/1G SDRAM ECC	Millennium II AGP Adapter 8 / 16 WRAM	PCI=4 PCI/ISA=1 AGP=0	3 used	440BX A/Eth Windows NT 4.0 Web Design Bundle	July 1998

Windows NT Preload¹⁷

Windows NT® Workstation 4.0 (SP3) Windows Internet Explorer 4.0 install icon Ready to install:

- ConfigSafe for Windows NT 4.0
- IBM AntiVirus for Windows NT
- DMI Service Provider
- DMI BIOS Instrumentation
- IBM PC System Monitor Instrumentation
- IBM PC System Monitor Instrumentation
 IBM AssetCare Serial Number Information
 IBM RTC CD-ROM Setup Utility
 IBM Utilities for Windows 95/NT 4.0
 Hummingbird "Try and Buy" Suite CD-ROM
 Intel LANDesk 3.0 for Windows NT CD-ROM

- Ready to Configure CD-ROM
- Free license for Lotus SmartSuite CD-ROM
- Windows NT Workstation 4.0 CD-ROM
- Access to IBM HomePage Creator

Supported Memory and Options

32MB SDRAM ECC DIMM 100MHz 01K1133 64MB SDRAM ECC DIMM 100MHz 128MB SDRAM ECC DIMM 100MHz 01K1130 01K1131 256MB SDRAM ECC DIMM (registered) 01K1132 Adaptec ARO-1130 CA-B PCI RAIDport Adap1681100 IBM Netfinity 350MHz Pentium II IBM Netfinity 400MHz Pentium II 10L5883 10L5884 Matrox Millennium II AGP Graphics Ad 02K3459 02K3460 Intergraph Intense 3D Pro 3400 Intergraph Intense 3D Pro 3400 GA 02K3461 Geometry Accelerator

WARRANTY SERVICE SUPPORT

- 3 year parts warranty³
- 1 year labor warranty
- International Warranty Service³
- 1st year: on site, 8 am 5 pm, Mon - Fri coverage,
 - 2nd business day response time
- 2nd/3rd year: parts exchange only, call 1-800-772-2227
- On site warranty upgrade options:
 - Next day response¹⁴, Mon-Fri 8-5
- 4 hour response¹⁴, 7 day x 24 hr Post warranty: on site options above
- □ IBM SystemXtra®
- 24 hour / 7 day telephone, electronic, Internet (www.pc.ibm.com) support

= CS4235 FM synthesis audio chip

Eth = Intel 10/100 ethernet chip; 10BaseT and 100BaseTX; Alert on LAN RDIMM = Registered DIMM

Wide Ultra SČSI = Adaptec AHA-7895; dual channel Wide Ultra SCSI Models announced April 15 or July 21, 1998

= Withdrawn from marketing

III IntelliStation® M Pro - Spring 1998 (6889) - withdrawn

IBM® IntelliStation® N	/I Pro									
Type Processor(s) Implementation Processor upgrade L2 cache Avail / withdrawn date	Processor and L2 cache in S SMP via second identical pro 512KB std / 512KB max / EC	889 One or two Intel® Pentium® II 350/100MHz or 400/100MHz¹ / MMX™ technology / 16KB ins + 16KB data L1 cache crocessor and L2 cache in Single Edge Contact (SEC) cartridge in protective metal case / SEC plugged into Intel Slot 1 iMP via second identical processor / upgrade via SEC into motherboard Intel® Slot 1 CPU connector / MPS 1.4 12KB std / 512KB max / ECC / 1/2 speed of processor / 4 way set associative / write-back / integrated in SEC day 1998 or July 1998 / withdrawn effective November 1998 or March 1999 or June 1999								
Mem - std / max / type Memory - sockets Memory - features Memory - support	4 sockets / 3 available (all ha SDRAM / 100MHz / four 168	MB (AAP), 64MB, 128MB, or 256MB std / 1GB max / Error Checking and Correction (ECC) sockets / 3 available (all have Error Checking and Correcting memory controller) / Model 90U uses two 128MB DIMMs EDRAM / 100MHz / four 168 pin gold-plated DIMM 3.3 volt sockets / PC100-compliant / hardware scrubbing of ECC errors Eupports SDRAM ECC DIMMs (32,64,128, 256MB) / only 256MB DIMMs are registered (buffered); can not mix reg/non-reg								
Graphics controller	Matrox® Millennium II (2D), or Intergraph Intense 3D Pr	atrox® Millennium II (2D), 3Dlabs® Permedia® 2A (entry 3D), Intergraph® Intense 3D Pro 3400 (advanced 3D, Intergraph Intense 3D Pro 3400/Geometry Accelerator (ultimate 3D))								
Graphics - type Graphics - memory Graphics - features	8MB std / 16MB max / WRAI Baseline / no sideband or spl	M lit transatns 6.7M colors	PERMEDIA 2A / AGP-1x 266MB/s adptr 8MB std/max / 90MHz SGRAM Sideband / split transactions 230MHz RAMDAC / 16.7 mil colors Max resolution of 1600x1200	Intense 3D Pro 3400 / PCI adapter 16MB frame buffer and 16M texture mem 32MB std / 32MB max / 170 MHz SDRAM Optional or std Geo Accelerator available Max resolution of 1280x1024 at 85Hz						
Architecture - chip set Bus slots	National Semiconductor PC	87307 Supe	Ultra DMA/33), ISA Bridge, USB / Adapte or I/O for diskette, parallel, serial, keyboard Port (66MHz; AGP-2x; 533MB/sec), and	d, mouse						
Disk SCSI controller SCSI connectors RAID option Cables - SCSI and IDE EIDE disk controller	Adaptec® AHA-7895 / dua Channel A: 68 pin (attaches 4 · Supports Adaptec ARO™-11 SCSI and AAP models: 4 di EIDE models: Two 2 drop II	I channel W drop cable to 30 PCI RAII rop 16-bit ca DE cables (c	MA/33), or one Wide Ultra SCSI / SMART /ide Ultra SCSI controller / on motherbo SCSI disk); Channel B: 50 pin and 68 pin /6 Dport™ adapter (RAID 0,1) / installs in PCI lble on Chan A; 16-bit cable to ext port one for disk; one for CD-ROM) and SCSI of the DMA/33 (ATA-33) support / two connections.	ard / PCI 2.1 8 pin cable std to external SCSI port (all mod) slot / uses 7895 controller and connectrs Chan B; one 2 drop IDE cable (CD-ROM cable to external SCSI port						
CD-ROM Diskette drive	32X-14X ⁴ CD-ROM / CAV (A 3.5" 1.44MB diskette drive /	TAPI) / boot	able	SECURITY - Chassis-intrusion detection - Cover key lock (in rear) - U-Bolt support - Power-on password - Admin passd (in security EEPROM) - Boot sequence control (in security EEPROM on motherboard) - Diskette boot inhibit - Boot without keyboard/mouse/diskette - Diskette write protect - Diskette and disk I/O control - Serial/parallel I/O control						
Ethernet controller LCCM support Systems mgmt cntrl	10BaseT and 100BaseTX / LANClient Control Manager Hybrid RPL / DHCP/BOOTF	RJ45 UTP o ™ enabled / P / software i LM81 comp	atible / hardware chip to monitor							
Audio Audio connectors Microphone Serial / parallel / USB	Stereo line in / mic in / line o Headset with microphone	ut (all in bac	/ ISA bus / FM Synthesis / int speaker k) / software volume control							
Preloaded software ⁷	N/A (if no disk AAP model), of All include Ready to Configurable include Windows NT Work	re CD-ROM	(device drivers and utilities)	Unattended start-up (network) Secure removable media Wake-up on LAN (Dual Mode) Mouse disable						
Keyboard / Mouse Power supply	104 key (rubber dome) keybo 330 watts / universal / auto-s		ard extender / IBM 3 button mouse ke on LAN	- Barcode labels on most components						
② E E E E E E E E E E E E E E E E E E E	Baý ® 3.5", SL 1", no acc Slot 1: fullsize, 32-bit AGP (3. Slot 2: fullsize, 32-bit PCI 2.1 v Slot 3: fullsize, 32-bit PCI 2.1	s, open s, open s, std dis ess, open (ess, std dis 3v) - used by (3.3v/5v) - u (3.3v/5v) - u (3.3v/5v)	kette disk only) or Half k (disk only) Height y AGP graphics adapter (some models) upports optional Adaptec RAIDport sed by PCI graphics adptr (some models) sed by Geometry Accelerator (some mdls)	Remotely readable DMI-compliant: - System EEPROM on motherboard (info and serial no for CPU, riser, system unit, CD-ROM, diskette, empty blank fields); also can read/write with external RF unit - EEPROMs on DIMMs (component info, serial no) - Disk firmware (component info, serial no)						
monitoring; immedia: events such as chas start up errors, even Asset ID (RFID) ⁵ - utechnology for deploy security; includes Esaccessed via DMI so external RF link such units; theft protection	se's radio frequency (RF) yment, inventory, and EPROM that can be oftware through network or an as hand-held RF read/write	The Setup by pressi Advanced of Support for with DM DMI soft Plug-and-F ISO 9241-3 Vital Produ	OTHER STANDARD FEATURES Utility resides in flash memory; invoked ng F1 key during memory POST Power Mgmt 1.2 DMI technology (includes MIF browser) I Service Layer 2.0, DMI BIOS 2.1, and tware; DMI 2.0 compliant Play 1.0a B capable ct Data support (type, model, serial, id) 7.52"D x 19.37"H; 38 lbs max (shipped)	Maximum internal SCSI disk capacity: 63.7GB (3 x 18.2GB (7200 rpm)) plus 1 x 9.1GB (7200 rpm)); if no CD-ROM Maximum internal EIDE disk capacity: 27.3GB (3 x 9.1GB) Power management features: - Configurable levels for system, CPU, and monitor including powering system and/or display off - Wake Up on Ring (via modem) from off state						

Vital Product Data support (type, model, serial, id) 7.87"W x 17.52"D x 19.37"H; 38 lbs max (shipped) 200 mm W x 445 mm D x 492 mm H; 17.3 kg

Several hardcopy publications; four stabilizing feet 512KB IBM BIOS (Flash over LAN support) Supplier's Declaration available

Four fans (three in system and one in power supply)

DMI 2.0 compliant with DMI manageability chip

Wired for Management 1.1a Adv Config and Power Interface (ACPI) 1.0

IBM Performance Enhancement Program -

initially distributed via Internet

Wake-on-LAN from off state PCI Wake Up from supported PCI

devices

from off state

Wake Up on Alarm (scheduled time)

III IntelliStation® M Pro models - Fall 1998 (6889) - withdrawn

Type-model	Std disk (rpm) ms seek / disk interface CD-ROM / interface	Intel® Processor MHz¹	[/] Upgrade	Write-back L2 cache std / max KB / KB	Memory in MB; std / max 100MHz	SVGA controller; memory std / max	Bus slots P=PCI avail PCI/ISA=av A=AGP av	Total bays	Chip set Ethernet Preload	Available date
6 slot x 6 bay	r; PCI/ISA/AGP; Stealth G	ray								
★ 6889-41U	10.1GB ² std (7200) 9.5ms / EIDE 32X-14X ⁶ CD-ROM / EIDE	1 x Pentium [®] II 450/100	SMP via 2nd Pent II	512/512 225MHz in SEC	128/1G SDRAM ECC	Millennm G200 AGP Adapter 8 / 16 SGRAM	PCI=4 PCI/ISA=1 AGP=0		440BX Ethernet Windows NT 4.0	Sept 1998
	4.5GB std (7200) 9ms / Wide Ultra SCSI 32X-14X CD-ROM / EIDE	1 x Pentium II 450/100	SMP via 2nd Pent II	512/512 225MHz in SEC	128/1G SDRAM ECC	Millennm G200 AGP Adapter 8 / 16 SGRAM	PCI=4 PCI/ISA=1 AGP=0	3 used	440BX Ethernet Windows NT 4.0	Sept 1998
	9.1GB std (7200) 7.5ms / Wide Ultra SCSI 32X-14X CD-ROM / EIDE	1 x Pentium II 450/100	SMP via 2nd Pent II	512/512 225MHz in SEC	128/1G SDRAM ECC	Millennm G200 AGP Adapter 32/32 SGRAM	PCI=4 PCI/ISA=1 AGP=0	3 used	440BX Ethernet Windows NT 4.0	Sept 1998
	9.1GB std (7200) 7.5ms / Wide Ultra SCSI 32X-14X CD-ROM / EIDE	1 x Pentium II 450/100	SMP via 2nd Pent II	512/512 225MHz in SEC	128/1G SDRAM ECC		PCI=3 PCI/ISA=1 AGP=1		440BX Ethernet Windows NT 4.0	Sept 1998
	9.1GB std (10000) 8.5ms / Wide Ultra SCSI 32X-14X CD-ROM / EIDE	SMP via 2 x Pentium II 450/100	None	512/512 225MHz in SEC	256/1G RDIMM ECC	Millennm G200 AGP Adapter 8 / 16 SGRAM	PCI=4 PCI/ISA=1 AGP=0		440BX Ethernet Windows NT 4.0	Sept 1998
	9.1GB std (10000) 8.5ms / Wide Ultra SCSI 32X-14X CD-ROM / EIDE	1 x Pentium II 450/100	SMP via 2nd Pent II	512/512 225MHz in SEC	256/1G RDIMM ECC	Intense 3400 + Geo Accel 32/32 SDRAM	PCI=2 PCI/ISA=1 AGP=1		440BX Ethernet Windows NT 4.0	Sept 1998
	no disk 32X-14X CD-ROM / EIDE EIDE / 2 x Wide Ultra SCSI	1 x Pentium II 450/100	via 2nd Pent II	512/512 225MHz in SEC	128 / 1G SDRAM ECC	None	PCI=4 PCI/ISA=1 AGP=1	2 used	440BX Ethernet Open OS	Sept 1998
★ 6889-60U	6.4GB std (7200) 9.5ms / EIDE / ATA-33 32X-14X CD-ROM / EIDE	1 x Pentium II 350/100	SMP via 2nd Pent II	512/512 175MHz in SEC	64 / 1G SDRAM ECC	Millennm G200 AGP adapter 8 / 16 SGRAM	PCI=4 PCI/ISA=1 AGP=0		440BX Ethernet Windows NT 4.0	Nov 1998
6889-61U	9.1GB std (7200) 9.5ms / EIDE / ATA-33 32X-14X CD-ROM / EIDE	1 x Pentium II 400/100	SMP via 2nd Pent II	512/512 200MHz in SEC	64 / 1G SDRAM ECC	Millennm G200 AGP Adapter 8 / 16 SGRAM	PCI=4 PCI/ISA=1 AGP=0		440BX Ethernet Windows NT 4.0	Nov 1998
≈ 6889-63U	9.1GB std (7200) 7.5ms / Wide Ultra SCSI 32X-14X CD-ROM / EIDE	1 x Pentium II 400/100	SMP via 2nd Pent II	512/512 200MHz in SEC	64 / 1G SDRAM ECC	Millennm G200 AGP Adapter 8 / 16 SGRAM	PCI=4 PCI/ISA=1 AGP=0		440BX Ethernet Windows NT 4.0	Nov 1998
	4.5GB std (7200) 7.5ms / Wide Ultra SCSI 32X-14X CD-ROM / EIDE	1 x Pentium II 400/100	SMP via 2nd Pent II	512/512 200MHz in SEC	128/1G SDRAM ECC	Millennm G200 AGP Adapter 8 / 16 SGRAM	PCI=4 PCI/ISA=1 AGP=0	3 used	440BX Ethernet Windows NT 4.0	Nov 1998
	4.5GB std (7200) 7.5ms / Wide Ultra SCSI 32X-14X CD-ROM / EIDE	SMP via 2 x Pentium II 400/100	None	512/512 200MHz in SEC	128/1G SDRAM ECC		PCI=4 PCI/ISA=1 AGP=0	6 bays 3 used	440BX Ethernet Windows NT 4.0	Nov 1998
≈ 6889-69U	9.1GB std (7200) 7.5ms / Wide Ultra SCSI 32X-14X CD-ROM / EIDE	1 x Pentium II 400/100	SMP via 2nd Pent II	512/512 200MHz in SEC	256/1G RDIMM ECC	Millennm G200 AGP Adapter 8 / 16 SGRAM	PCI=4 PCI/ISA=1 AGP=0	6 bays 3 used		Nov 1998
	1	1		1	1	1	1	1		

Windows NT Preload¹⁷

Windows NT® Workstation 4.0 (SP3) Internet Explorer 4.0 install icon IBM Welcome Center Device drivers for each subsystem Ready to install:

- ConfigSafe for Windows NT 4.0
- Norton AntiVirus for Windows NT
- DMI Service Provider
- DMI BIOS Instrumentation
- IBM PC System Monitor Instrumentation IBM AssetCare Serial Number Information IBM RTC CD-ROM Setup Utility
 IBM Utilities for Windows 95/NT 4.0
 - Hummingbird "Try and Buy" Suite CD-ROM
 - Ready to Configure CD-ROM
 - Ready to Configure CD-ROM

- Free license for Lotus SmartSuite 97 CD-ROM
 IBM ViaVoice 98 Office Edition CD-ROM
- Windows NT Workstation 4.0 CD-ROM
- IBM Diagnostics CD-ROM
- Access to IBM HomePage Creator

C: is 2GB as FAT16 Remainder is unformatted

Ready to Configure CD-ROM

All models ship with a CD with drivers for Windows $^{@}$ 95, 98, and NT 3.51 and 4.0 and various utilities. Includes:

- Intel LANDesk® Client Manager
- ConfigSafe IBM Systems Management Tools

Supported Memory and Options

32MB SDRAM ECC DIMM 100MHz 64MB SDRAM ECC DIMM 100MHz 128MB SDRAM ECC DIMM 100MHz 256 MB SDRAM ECC DIMM Registered Adaptec ARO TM -1130 CA-B PCI RAIDport IBM Netfinity 400MHz Pentium II/512KB IBM Netfinity 450MHz Pentium II/512KB	01K1133 01K1130 01K1131 01K1132 1681100 10L5884 10L5900
Matrox Millennium G200	10L7127
Intergraph Intense 3D Pro 3400	02K3460
Intergraph Intense 3D Pro 3400 GA	02K3461
Geometry Accelerator	
10/100 PCI EtherJet Adapter WOL	08L2565
Auto Wake Token-Ring ISA Adapter	55H6760
PCI Token Ring Adapter WOL	86H1880
10.1GB 10000 rpm EIDE disk	20L0548

Ethernet = Intel® 10/100 ethernet chip; 10BaseT and 100BaseTX; Alert on LAN NT4 = Windows NT Workstation 4.0 preinstalled RDIMM = Registered DIMM

Wide Ultra SCSI = Adaptec AHA-7895; dual channel Wide Ultra SCSI

= Withdrawn from marketing

Authorized Assember Program models

AAP models contain no hard disk or graphics

No preload or operating system license is included.

- Hummingbird "Try and Buy" Suite CD-ROM
- Ready to Configure CD-ROM
- Free license for Lotus SmartSuite CD-ROM (via 800 number)

WARRANTY SERVICE SUPPORT³

- 3 year parts warranty
- 1 year labor warranty
- International Warranty Service³
- 1st year: on site, 8 am 5 pm, Mon - Fri coverage, 2nd business day response time
- 2nd/3rd year: parts exchange only,
- call 1-800-772-2227
- On site warranty upgrade options:
 - Next day response¹⁴, Mon-Fri 8-5
 - 4 hour response¹⁴, 7 day x 24 hr
- Post warranty: on site options above
- 24 hour / 7 day telephone, electronic, Internet (www.pc.ibm.com) support

III IntelliStation® M Pro - Fall 1998 (6889) - withdrawn

IBM® IntelliStation®	M Pro							
Type Processor(s) Implementation Processor upgrade L2 cache Avail / withdrawn date	6889 One or two Intel® Pentium® II 450/100MHz¹ / MMX™ technology / 16KB ins + 16KB data L1 cache Processor and L2 cache in Single Edge Contact (SEC) cartridge in protective metal case / SEC plugged into Intel Slot 1 SMP via second identical processor / upgrade via SEC into motherboard Intel® Slot 1 CPU connector / MPS 1.4 512KB std / 512KB max / ECC / half speed of processor / 4 way set associative / write-back / integrated in SEC September 1998 or November 1998 / withdrawn March 1999 or June 1999							
Mem - std / max / type Memory - sockets Memory - features Memory - support	64MB, 128MB, or 256MB std / 1GB max ¹³ / Error Checking and Correction (ECC) 4 sockets / 3 available (all have Error Checking and Correcting memory controller) SDRAM / 100MHz / four 168 pin gold-plated DIMM 3.3 volt sockets / PC100-compliant / hardware scrubbing of ECC errors Supports SDRAM ECC DIMMs (32,64,128, 256MB) / only 256MB DIMMs are registered (buffered); can not mix reg/non-reg							
Graphics controller	Matrox® Millennium G200 (2D), Intergraph® Intense 3D Pro 3400 (advanced 3D), or Intergraph Intense 3D Pro 3400 and Geometry Accelerator (ultimate 3D)							
Graphics - type Graphics - memory Graphics - features	Matrox Millennium G200 / AGP-2x 533MB/sec adapter 8MB std / 16MB max / 142MHz, 128-bit SGRAM Sideband addressing / split transactions 250 MHz RAMDAC / MGA-G200 128-bit DualBus chip Max 2D resolution of 1920x1200 in 24-bit color at 80Hz							
Architecture - chip set Bus slots	National Semiconductor PC8	F for EIDE (Ultra DMA/33), IS/ 87307 Super I/O for diskette, p d Graphics Port (66MHz; AGF	aralleľ, serial, keyboard,					
Disk SCSI controller SCSI connectors RAID option Cables - SCSI and IDE EIDE disk controller	Adaptec® AHA-7895 / dual of Channel A: 68 pin (attaches 4 dr Supports Adaptec ARO™-1130 SCSI and AAP models: 4 dro EIDE models: Two 2 drop ID	0 CA-B PCI RAID <i>port</i> ™ adapter	troller / on motherboard 3: 50 pin and 68 pin / 68 pin (RAID 0,1) / installs in PCi of cable to ext port on Ch r CD-ROM) and SCSI ca	/ PCI 2.1 cable std to external SCSI port (all mod) I slot / uses 7895 controller and connectrs an B; one 2 drop IDE cable (CD-ROM) able to external SCSI port				
CD-ROM Diskette drive	32X-14X ⁶ CD-ROM / CAV (A 3.5" 1.44MB diskette drive / 1	SECURITY - Cover key lock (in rear)						
Ethernet controller LCCM support Systems mgmt cntrl	Intel EtherExpress PRO/10 10BaseT and 100BaseTX / I LANClient Control Manager ^T Hybrid RPL / DHCP/BOOTP National Semiconductor® LM temperature, fan speeds, w	n LÄN® / Alert on LAN etup over LAN / p to monitor	Cover tamper detect switch Secure fixed DASD Serial EEPROM with write protect Power-on password Administrator password Keyboard/mouse password					
Audio Audio connectors Microphone Serial/parallel/USB	Stereo line in / mic in / line ou Headset with microphone (ar / stereo / ISA bus / FM Syn ut (all in back) / software volun noise canceling for ViaVoice a Par: One (EPP, ECP) / IEEE 1	ne control application)	- Wake Up on LAN password prompt - Boot sequence control - Boot without keyboard or mouse - Diskette boot inhibit				
Keyboard / Mouse Power supply	104 key (rubber dome) keybo 330 watts / universal / auto-s	oard / keyboard extender / IBN ensing / Wake on LAN	13 button mouse	Disable mouse Disable external SCSI port Diskette write-protect Diskette, disk, serial port, parallel port I/O control Secure access openings				
 	Bay ① 5.25", HH 1.6", access Bay ② 5.25", HH 1.6", access Bay ③ 3.5", SL 1", access Bay ④ 3.5", SL 1", no access Bay ⑤ 3.5", SL 1", no access Bay ⑥ 3.5", No access Bay ⑥ 3.5", No access Bay ⑥ 3.5", No access Bay ⑥ 3.5", No access Bay ⑥ 3.5", No access Bay ⑥ 3.5", No access Bay ⑥ 3.5", No access Bay ⑥ 3.5", No access Bay ⑥ 3.5", No access Bay ⑥ 3.5", No access Ba	. open		Secure removable media VPD stored in EEPROM Write protection control for EEPROM Barcode labels on most components				
⑤ disk Mini tower; Stealth gray	Say § 3.5", SL 1", no account of the say § 3.5", SL 1", no account of the say § 3.5", SL 1", no account of the say § 3.5", SL 1", no account of the say § 3.5", SL 1", no account of the say § 3.5", SL 1", no account of the say § 3.5", SL 1", no account of the say § 3.5", no account of the say § 3.5", no account of the say § 3.5", account of the	Remotely readable DMI-compliant: - System EEPROM on motherboard (info and serial no for CPU, riser, system unit, CD-ROM, diskette, empty blank fields); also can read/ write with external RF unit - EEPROMs on DIMMs (component info, serial no) - Disk firmware (compnt info, serial no)						
monitoring; immediat events such as chass start up errors, even	uses radio frequency (RF) ment, inventory, and	OTHER STANDAI The Setup Utility resides in fl by pressing F1 key during Advanced Power Mgmt 1.2 Support for DMI technology (with DMI Service Layer 2. DMI software: DMI 2.0 coi	ash memory; invoked memory POST includes MIF browser) 0, DMI BIOS 2.1, and	Maximum internal SCSI disk capacity ¹⁸ 63.7GB (3 x 18.2GB (7200 rpm) plus 1 x 9.1GB (7200 rpm)); if no CD-ROM Maximum internal EIDE disk capacity: 30.3GB (3 x 10.1GB) Power management features: - Configurable levels for system.				

accessed via DMI software through network or an external RF link such as hand-held RF read/write units; theft protection

SMART Reaction™ - automatic backup of disk PC 98 compliant

DMI 2.0 compliant with DMI manageability chip

Wired for Management 1.1a

Adv Config and Power Interface (ACPI) 1.0

DMI software; DMI 2.0 compliant

Plug-and-Play 1.0a ISO 9241-3 capable

Vital Product Data support (type, model, serial, id) 7.87"W x 17.52"D x 19.37"H; 38 lbs max (shipped) 200 mm W x 445 mm D x 492 mm H; 17.3 kg Several hardcopy publications; four stabilizing feet 512KB IBM BIOS (Flash over LAN support) Supplier's Declaration available Four fans (three in system and one in power supply)

- Configurable levels for system, CPU, and monitor including powering system and/or display off
- Wake Up on Ring (via modem) from off state
- Wake Up on Alarm (scheduled time) from off state
- Wake-on-LAN from off state
- PCI Wake Up from supported PCI

IIM IntelliStation® M Pro (6889) - Spring 1999 - withdrawn

Type-model	Std disk (rpm) ms seek / disk interface CD-ROM / interface	Intel [®] Processor MHz ¹ /	Upgrade	Write-back L2 cache std / max KB / KB	Memory in MB; std / max 100MHz	SVGA controller; memory std / max	Bus slots P=PCI avail PCI/ISA=av A=AGP av	Total bays	Chip set Ethernet Av Preload ¹⁷	railable date
6 slot x 6 bay	r; PCI/ISA/AGP; Stealth Bl	ack								
≈ 6889-72U	13.5GB ² std (7200) 9.0ms / EIDE 40X-17X ⁶ CD-ROM / EIDE	1 x Pentium® III 550/100	SMP via 2nd Pent III	512/512 half speed in SEC	128/1G SDRAM ECC	Millennium G200 AGP 2X Adapter 8 / 16MB SGRAM	PCI=4 PCI/ISA=1 AGP=0	6 bays 3 used 3 empty	440BX Ethernet Windows NT 4.0	May 1999 0
≈ 6889-73U	9.1GB std (7200) 7.0ms / Wide Ultra SCSI 40X-17X CD-ROM / EIDE	1 x Pentium III 550/100	SMP via 2nd Pent III	512/512 half speed in SEC	128/1G SDRAM ECC	Millennium G200 AGP 2X Adapter 8 / 16MB SGRAM		6 bays 3 used 3 empty	440BX Ethernet Windows NT 4.0	May 1999
≈ 6889-75U	9.1GB std (7200) 7.0ms / Wide Ultra SCSI 40X-17X CD-ROM / EIDE	1 x Pentium III 550/100	SMP via 2nd Pent III	512/512 half speed in SEC	128/1G SDRAM ECC	IBM Fire GL1 ¹¹ AGP 2X Adapter 32/32MB SGRAM	PCI=4 PCI/ISA=1 AGP=0	6 bays 3 used 3 empty	440BX Ethernet Windows NT 4.0	May 1999
≈ 6889-76U	9.1GB std (10K) 5.4ms / Wide Ultra SCSI 40X-17X CD-ROM / EIDE	1 x Pentium III 550/100	SMP via 2nd Pent III	512/512 half speed in SEC	256/1G RDIMM ECC	IBM Fire GL1 AGP 2X Adapter 32/32MB SGRAM	PCI=4 PCI/ISA=1 AGP=0	6 bays 3 used 3 empty	440BX Ethernet Windows NT 4.0	May 1999
	no disk 40X-17X CD-ROM / EIDE	1 x Pentium III 550/100	SMP via 2nd Pent III	512/512 half speed in SEC	128/1G SDRAM ECC	None	PCI=4 PCI/ISA=1 AGP=1	6 bays 2 used 4 empty	440BX Ethernet Open OS	May 1999
≈ 6889-80U	13.5GB std (7200) 9.0ms / EIDE 40X-17X CD-ROM / EIDE	1 x Pentium III 500/100	SMP via 2nd Pent III	512/512 half speed in SEC	128/1G SDRAM ECC	Millennium G400 AGP 2X Adapter 16/16MB SGRAM	PCI=4 PCI/ISA=1 AGP=0	6 bays 3 used 3 empty	440BX Ethernet Windows NT 4.0	July 1999
≈ 6889-81U	9.1GB std (7200) 7.0ms / Wide Ultra SCSI 40X-17X CD-ROM / EIDE	1 x Pentium III 500/100	SMP via 2nd Pent III	512/512 half speed in SEC	128/1G SDRAM ECC	Millennium G400 AGP 2X Adapter 16/16MB SGRAM	PCI=4 PCI/ISA=1 AGP=0	6 bays 3 used 3 empty	440BX Ethernet Windows NT 4.0	July 1999
≈ 6889-82U	13.5GB std (7200) 9.0ms / EIDE 40X-17X CD-ROM / EIDE	1 x Pentium III 550/100	SMP via 2nd Pent III	512/512 half speed in SEC	128/1G SDRAM ECC	Millennium G400 AGP 2X Adapter 16/16MB SGRAM	PCI=4 PCI/ISA=1 AGP=0	6 bays 3 used 3 empty	440BX Ethernet Windows NT 4.0	Juiy 1999
← 6889-83U	9.1GB std (7200) 7.0ms / Wide Ultra SCSI 40X-17X CD-ROM / EIDE	1 x Pentium III 550/100	SMP via 2nd Pent III	512/512 half speed in SEC	128/1G SDRAM ECC	Millennium G400 AGP 2X Adapter 16/16MB SGRAM	PCI=4 PCI/ISA=1 AGP=0	6 bays 3 used 3 empty	440BX Ethernet Windows NT 4.0	July 1999
← 6889-84U	9.1GB std (10K) 5.4ms / Wide Ultra SCSI 40X-17X CD-ROM / EIDE	SMP via 2x Pentium III 550/100	None	512/512 half speed in SEC	256/1G RDIMM ECC	Millennium G400 AGP 2X Adapter 16/16MB SGRAM	PCI=4 PCI/ISA=1 AGP=0	6 bays 3 used 3 empty	440BX Ethernet Windows NT 4.0	July 1999
6889-85U	9.1GB std (7200) 7.0ms / Wide Ultra SCSI 40X-17X CD-ROM / EIDE	1 x Pentium III 550/100	SMP via 2nd Pent III	512/512 half speed in SEC	128/1G SDRAM ECC	Appian J Pro PCI Adapter 16/16MB SGRAM	PCI=3 PCI/ISA=1 AGP=1	6 bays 3 used 3 empty	440BX Ethernet Windows NT 4.0	July 1999
	13.5GB std (7200) 9.0ms / EIDE 40X-17X CD-ROM / EIDE	1 x Pentium III 500/100	SMP via 2nd Pent III	512/512 half speed in SEC	128/1G SDRAM ECC	Appian J Pro PCI Adapter 16/16MB SGRAM	PCI=3 PCI/ISA=1 AGP=1	6 bays 3 used 3 empty	440BX Ethernet Windows NT 4.0	July 1999
≈ 6889-87U	9.1GB std (10K) 5.4ms / Wide Ultra SCSI 40X-17X CD-ROM / EIDE	1 x Pentium III 550/100	SMP via 2nd Pent III	512/512 half speed in SEC	256/1G RDIMM ECC	Wildcat 4000 RA Wildcat 4000 GA 80/80MB SDRAM	PCI=3 PCI/ISA=1 AGP=0	6 bays 3 used 3 empty	440BX Ethernet Windows NT 4.0	July 1999
	no disk 40X-17X CD-ROM / EIDE	1 x Pentium III 450/100	SMP via 2nd Pent III	512/512 half speed in SEC	0 / 1G SDRAM ECC	None	PCI=4 PCI/ISA=1 AGP=1	6 bays 2 used 4 empty	440BX Ethernet Open OS	July 1999
	no disk 40X-17X CD-ROM / EIDE	1 x Pentium III 500/100	SMP via 2nd Pent III	512/512 half speed in SEC	0 / 1G SDRAM ECC	None	PCI=4 PCI/ISA=1 AGP=1	6 bays 2 used 4 empty	440BX Ethernet Open OS	July 1999
≈ 6889-8AU for AAP	no disk 40X-17X CD-ROM / EIDE	1 x Pentium III 550/100	SMP via 2nd Pent III	512/512 half speed in SEC	0 / 1G SDRAM ECC	None	PCI=4 PCI/ISA=1 AGP=1	6 bays 2 used 4 empty	440BX Ethernet Open OS	July 1999

Windows NT Preload¹⁷

Windows NT® Workstation 4.0 (SP4) Internet Explorer 4.0 install icon IBM Welcome Center Device drivers for each subsystem Ready to install:

- ConfigSafe®
- Norton AntiVirus™ (OEM version)
- DMI Service Provider
- DMI BIOS Instrumentation
- IBM PC System Monitor Instrumentation
- IBM AssetCare Serial Number Information CD-ROM discs:
- ♦ Hummingbird "Try and Buy" Suite CD-ROM Ready to Configure CD-ROM
- ♦ Free license for Lotus SmartSuite 97 CD-ROM
 ♦ IBM ViaVoice™ 98 Office Edition CD-ROM
 ♦ Windows NT Workstation 4.0 CD-ROM
- ♦IBM Diagnostics CD-ROM (PC-Doctor)
- ♦Access to IBM HomePage Creator

C: is 2GB as FAT16 Remainder is unformatted

Authorized Assember Program models

AAP models contain no disk or graphics adapter. No preload or operating system license is included.

- Hummingbird "Try and Buy" Suite CD-ROM
- Ready to Configure CD-ROM
- Free license for Lotus SmartSuite CD-ROM (via 800 number)

Supported Memory and Options

32MB SDRAM ECC DIMM 100MHz 64MB SDRAM ECC DIMM 100MHz 128MB SDRAM ECC DIMM 100MHz 256MB SDRAM ECC DIMM Registered Adaptec AROTM-1130 CA-B PCI RAIDport 100MB IDE Zip Drive IBM Fire GL1 (3D graphics accelerator) 2X/4X/24X° CD-RW IDE Drive 550MHz Pentium III Second Processor

RDIMM = Registered DIMM

= Announced June 22, 1999 = Withdrawn from marketing

WARRANTY SERVICE SUPPORT*,3

3 year parts warranty

01K1133

01K1130

01K1131

01K1132

1681100

201 0544

331 5032 33L5005

33L5112

- 1 year labor warranty
- International Warranty Service³
- 1st year: on site, 8 am 5 pm, Mon - Fri coverage,
- 2nd business day response time 2nd/3rd year: parts exchange only,
- call 1-800-772-2227 On site warranty service upgrade options:
 - Next day response, Mon-Fri 8-5¹⁴
 - 4 hour response, 7 day x 24 hr¹⁴
- Post warranty maintenance services available
- 24 hour / 7 day telephone, electronic, and Internet support

^{*} For a copy of IBM's Statement of Limited Warranty, call 1-800-772-2227

IIX IntelliStation® M Pro (6889) - Spring 1999 - withdrawn

IBM® IntelliStation® I	M Pro									
Type Processor(s) Implementation Processor upgrade L2 cache Avail / withdrawn date	Processor and L2 cache in Si SMP via second identical pro 512KB std / 512KB max / EC	Die Intel® Pentium® III 450, 500, or 550MHz¹/100MHz Front Side Bus Processor and L2 cache in Single Edge Contact (SEC) cartridge in protective metal case / SEC plugged into Intel Slot 1 SMP via second identical processor / upgrade via SEC into motherboard Intel® Slot 1 CPU connector / MPS 1.4 S12KB std / 512KB max / ECC / half speed of processor / 4 way set associative / write-back / integrated in SEC May 1999 or July 1999 / November 1999 or February 2000 or May 2000								
Mem - std / max / type Memory - sockets Memory - features Memory - support	128MB or 256MB std / 1GE 4 sockets / 3 available (all hav SDRAM / 100MHz / four 168	max ¹³ / Error Checking and Correction (ECC re Error Checking and Correcting memory controll oin gold-plated DIMM 3.3 volt sockets / PC100-cor ls (32,64,128, 256MB) / only 256MB DIMMs are re	er) mpliant / hardware scrubbing of ECC errors							
Graphics controller		or G400 (performance 2D), IBM Fire GL1 ¹¹ (perfose3D [®] Wildcat 4000 RA w/ Geo Acceleratr GA (
	IBM Fire GL1 / AGP 2X adap 32MB std / 32MB max / 256-b OpenGL 3D engine / 250MHz	oit 100MHz SGRAM 2D and 16MB std / 16MB n	Jeronimo Pro / 32-bit PCI adapter / nax / 125MHz SGRAM / 250MHz RAMDAC / n two ports for multiple monitor support							
	128-bit 143MHz SDRAM (text	/ 32-bit 33MHz PCI 2.1 adapter / 16MB 128-bit 14: ure memory) / 2D and 3D engine / Geometry Accelerator (GA) / AGP 2X adapter (rec	,							
Architecture - chip set Bus slots	Intel 440BX AGPset / PIIX4E National Semiconductor PCS	For EIDE (Ultra DMA/33), ISA Bridge, USB / Ad 17307 Super I/O for diskette, parallel, serial, keybod d Graphics Port (66MHz; AGP 2X; 533MB/sec), a	aptec® AHA-7895 / pard, mouse							
Disk SCSI controller SCSI connectors RAID option Cables - SCSI and IDE EIDE disk controller	Adaptec® AHA-7895 / dual of Channel A: 68 pin (attaches 4 dr Supports Adaptec ARO™-113 SCSI and AAP models: 4 dro EIDE models: Two 2 drop IDE Enhanced IDE busmaster (P	DE (Ultra DMA/33), or one Wide Ultra SCSI / SM channel Wide Ultra SCSI controller / on mother by op cable to SCSI disk); Channel B: 50 pin and 68 pin / 6 D CA-B PCI RAID port ^m adapter (RAID 0,1) / installs in p 16-bit cable on Chan A; 16-bit cable to ext port on 0 E cables (one for disk; one for CD-ROM) and SC IIX4E) / Ultra DMA/33 (ATA-33) support / two	oard / PCI 2.1 68 pin cable std to external SCSI port (all mod) PCI slot / uses 7895 controller and connectrs Chan B; one 2 drop IDE cable (CD-ROM)							
CD-ROM Diskette drive	connectors on planar 40X-17X ⁶ CD-ROM / CAV (A 3.5" 1.44MB diskette drive /		- Cover key lock (in rear) - Cover tamper detect switch							
Ethernet controller LCCM support Systems mgmt cntrl	Intel EtherExpress PRO/10 10BaseT and 100BaseTX / LANClient Control Manager ^T Hybrid RPL / DHCP/BOOTP National Semiconductor® LM	OB / PCI 82558 ethernet chip on planar / PCI bus RJ45 UTP connector / Wake on LAN® / Alert on LAI Menabled / Wake on LAN / Setup over LAN /	Power-on password Administrator password Keyboard/mouse password Wake Up on LAN password prompt Boot sequence control							
Audio Audio connectors Microphone Serial/parallel/USB	Stereo line in / mic in / line ou Headset with microphone (ar / stereo / ISA bus / FM Synthesis / int speaker It (all in back) / software volume control noise canceling for ViaVoice application) Par: One (EPP, ECP) / IEEE 1284 USB: Two po	- Disable mouse							
Keyboard / mouse Power supply	104 key (rubber dome) keybo 330 watts / universal / auto-s	oard / keyboard extender / IBM 3 button mouse ensing / Wake on LAN	Diskette, disk, serial port, parallel port I/O control Secure access openings							
2 Bay 3 Bay 4 Bay 5	5.25", HH 1.6", access, 6 3.5", SL 1", access, 6 3.5", SL 1", access, 6 3.5", SL 1", no access, 6	std CD-ROM open open std diskette open (disk only) or Half	Secure removable media VPD stored in EEPROM Write protection control for EEPROM Barcode labels on most components Remotely readable DMI-compliant:							
\$\(\) \\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	∋ 3.5", SL 1", no access, s halfsize, 32-bit AGP (3.3ν) - ι	std disk (disk only) Height used by AGP graphics adapter (most models) supports optional Adaptec RAIDport - used by Ap or Wildcat i some mode	- System EEPROM on motherboard (info and serial no for CPU, riser, system unit, CD-ROM, diskette, empty blank fields); also can read/							
events such as chass start up errors, even i	e notification of system sis intrusion, disconnect, f powered off uses radio frequency (RF) ment, inventory, and	OTHER STANDARD FEATURES The Setup Utility resides in flash memory; invoke by pressing F1 key during memory POST Advanced Power Mgmt 1.2 Support for DMI technology (includes MIF brows with DMI Service Layer 2.0, DMI BIOS 2.1, ar	Maximum internal EIDE disk capacity ¹ 61.2GB (3 x 20.4GB)							

security; includes EEPROM that can be accessed via DMI software through network or an external RF link such as hand-held RF read/write units; theft protection

SMART Reaction™ - automatic backup of disk PC 98-compliant

DMI 2.0-compliant with DMI manageability chip

Wired for Management 1.1a

Adv Config and Power Interface (ACPI) 1.0 Universal Management Agent (UMA) and UMA Plus-enabled

with DMI Service Layer 2.0, DMI BIOS 2.1, and DMI software; DMI 2.0 compliant

Plug-and-Play 1.0a ISO 9241-3 capable

Vital Product Data support (type, model, serial, id) 7.87"W x 17.52"D x 19.37"H; 38 lbs max (shipped) 200 mm W x 445 mm D x 492 mm H; 17.3 kg Several hardcopy publications; four stabilizing feet 512KB IBM BIOS (Flash over LAN support) Supplier's Declaration available Four fans (three in system and one in power supply)

- Configurable levels for system, CPU, and monitor including powering system and/or display off
- Wake Up on Ring (via modem) from off state
- Wake Up on Alarm (scheduled time) from off state
- Wake on LAN from off state
- PCI Wake Up from supported PCI

III IntelliStation® M Pro - Summer 1999 (6889) - withdrawn

Type-model	Std disk (rpm) ms seek / disk interface CD-ROM ⁶ /interface	Intel® Processor MHz¹	Upgrade	Write-back L2 cache std / max KB / KB	Memory in MB; std / max 100MHz	SVGA controller; memory std / max	Bus slots P=PCI avail PCI/ISA=av A=AGP av	Total bays	Chip set Ethernet Av	/ailable date
6 slot x 6 bay	r; PCI/ISA/AGP; Stealth BI	ack								
•	13.5GB ² std (7200) 9.0ms / EIDE / ATA-33 40X-17X CD-ROM / EIDE	1 x Pentium III 550/100	SMP via 2nd Pent III	512/512 half speed in SEC	128/1G SDRAM ECC	Appian J Pro PCI Adapter 16/16MB SGRAM	PCI=3 PCI/ISA=1 AGP=1	6 bays 3 used 3 empty	440BX Ethernet Windows NT 4.0	Aug 1999
← 6889-92U	13.5GB std (7200)	1 x	SMP	512/512	128/1G	Millennium G400	PCI=4	6 bays	440BX	Aug
	9.0ms / EIDE / ATA-33	Pentium III	via 2nd	half speed	SDRAM	AGP 2X Adapter	PCI/ISA=1	3 used	Ethernet	1999
	40X-17X CD-ROM / EIDE	600/100	Pent III	in SEC	ECC	16/16MB SGRAM	AGP=0	3 empty	Windows NT 4.0)
	9.1GB std (7200)	1 x	SMP	512/512	128/1G	Millennium G400	PCI=4	6 bays	440BX	Aug
	7.0ms / Wide Ultra SCSI	Pentium III	via 2nd	half speed	SDRAM	AGP 2X Adapter	PCI/ISA=1	3 used	Ethernet	1999
	40X-17X CD-ROM / EIDE	600/100	Pent III	in SEC	ECC	16/16MB SGRAM	AGP=0	3 empty	Windows NT 4.0)
≈ 6889-94U	9.1GB std (10K)	1 x	SMP	512/512	256/1G	Millennium G400	PCI=4	6 bays	440BX	Aug
	5.4ms / Wide Ultra SCSI	Pentium III	via 2nd	half speed	RDIMM	AGP 2X Adapter	PCI/ISA=1	3 used	Ethernet	1999
	40X-17X CD-ROM / EIDE	600/100	Pent III	in SEC	ECC	16/16MB SGRAM	AGP=0	3 empty	Windows NT 4.0)
	9.1GB std (7200)	1 x	SMP	512/512	256/1G	IBM Fire GL1 ¹¹	PCI=4	6 bays	440BX	Aug
	7.0ms / Wide Ultra SCSI	Pentium III	via 2nd	half speed	RDIMM	AGP 2X Adapter	PCI/ISA=1	3 used	Ethernet	1999
	40X-17X CD-ROM / EIDE	600/100	Pent III	in SEC	ECC	32/32MB SGRAM	AGP=0	3 empty	Windows NT 4.0)
≈ 6889-96U	13.5GB std (7200)	1 x	SMP	512/512	128/1G	IBM Fire GL1	PCI=4	6 bays	440BX	Aug
	9.0ms / EIDE / ATA-33	Pentium III	via 2nd	half speed	SDRAM	AGP 2X Adapter	PCI/ISA=1	3 used	Ethernet	1999
	40X-17X CD-ROM / EIDE	600/100	Pent III	in SEC	ECC	32/32MB SGRAM	AGP=0	3 empty	Windows NT 4.0)
≈ 6889-97U	9.1GB std (10K)	1 x	SMP	512/512	256/1G	Wildcat 4000 RA	PCI=3	6 bays	440BX	Aug
	5.4ms / Wide Ultra SCSI	Pentium III	via 2nd	half speed	RDIMM	Wildcat 4000 GA	PCI/ISA=1	3 used	Ethernet	1999
	40X-17X CD-ROM / EIDE	600/100	Pent III	in SEC	ECC	80/80MB SDRAM	AGP=0	3 empty	Windows NT 4.0)
← 6889-98U for AAP	no disk 40X-17X CD-ROM / EIDE	1 x Pentium III 600/100	SMP via 2nd Pent III	512/512 half speed in SEC	0 / 1G SDRAM ECC	None	PCI=4 PCI/ISA=1 AGP=1	6 bays 2 used 4 empty	440BX Ethernet Open OS	Aug 1999
≈ 6889-99U	9.1GB std (10K)	1 x	SMP	512/512	256/1G	IBM Fire GL1	PCI=4	6 bays	440BX	Oct
	5.4ms / Wide Ultra SCSI	Pentium III	via 2nd	half speed	RDIMM	AGP 2X Adapter	PCI/ISA=1	3 used	Ethernet	1999
	40X-17X CD-ROM / EIDE	600/100	Pent III	in SEC	ECC	32/32MB SGRAM	AGP=0	3 empty	Windows NT 4.0)
		SMP via 2x Pentium III 600/100		512/512 half speed in SEC	512/1G RDIMM ECC	Millennium G400 AGP 2X Adapter 16/16MB SGRAM	PCI=4 PCI/ISA=1	6 bays 3 used	440BX Ethernet Windows NT 4.0	Oct 1999

Windows NT Preload¹⁷

Windows NT® Workstation 4.0 (SP4) Internet Explorer 4.0 install icon IBM Welcome Center Device drivers for each subsystem

Ready to install: - ConfigSafe®

- Norton AntiVirus™ (OEM version)
- DMI Service Provider
- DMI BIOS Instrumentation
- IBM PC System Monitor Instrumentation
- CoSession Remote® 32

CD-ROM discs:

- ♦ Hummingbird "Try and Buy" Suite CD-ROM ♦ Ready to Configure CD-ROM
- ♦Free license for Lotus SmartSuite 97 CD-ROM ♦IBM ViaVoice™ 98 Office Edition CD-ROM
- ♦LANDesk® Client Manager CD-ROM
- ♦Windows NT Workstation 4.0 CD-ROM
- ♦IBM Diagnostics CD-ROM (PC-Doctor)
- ♦Access to IBM HomePage Creator

C: is 2GB as FAT16 Remainder is unformatted

Authorized Assember Program models

AAP models contain no disk or graphics adapter. No preload or operating system license is included.

- Hummingbird "Try and Buy" Suite CD-ROM
- Ready to Configure CD-ROM
- Free license for Lotus SmartSuite CD-ROM (via 800 number)

Supported Memory and Options

32MB SDRAM ECC DIMM 100MHz 01K1133 64MB SDRAM ECC DIMM 100MHz 128MB SDRAM ECC DIMM 100MHz 256MB SDRAM ECC DIMM Registered 01K1130 01K1131 01K1132 Adaptec AROTM-1130 CA-B PCI RAIDport 1681100 100MB IDE Zip Drive 2X/4X/24X CD-RW IDE Drive 20L0544 331 5005 550MHz Pentium III Second Processor 33L5112 600MHz Pentium III Second Processor 33L5106

RDIMM = Registered DIMM = Announced August 3, 1999 = Withdrawn from marketing

WARRANTY SERVICE SUPPORT³

- 3 year parts warranty
- 1 year labor warranty
- International Warranty Service³
- 1st year: on site, 8 am 5 pm, Mon - Fri coverage.
- 2nd business day response time 2nd/3rd year: parts exchange only,
- call 1-800-772-2227 On site warranty upgrade options:
- Next day response¹⁴, Mon-Fri 8-5
- 4 hour response¹⁴, 7 day x 24 hr
- Post warranty: on site options above
- □ IBM SystemXtra®
- 24 hour / 7 day telephone, electronic, Internet (www.pc.ibm.com) support

III IntelliStation® M Pro - Summer 1999 (6889) - withdrawn

IBM® IntelliStation® M Pro										
Type Processor(s) Implementation Processor upgrade L2 cache Avail / withdrawn date	One or two Intel® Pentium® III 550 or 600MHz¹/100MHz Front Side Bus Processor and L2 cache in Single Edge Contact (SEC) cartridge in protective metal case / SEC plugged into Intel Slot 1 SMP via second identical processor / upgrade via SEC into motherboard Intel® Slot 1 CPU connector / MPS 1.4 512KB std / 512KB max / ECC / half speed of processor / 4 way set associative / write-back / integrated in SEC August 1999 / Model 91U withdrawn May 2000; others in June 2000									
Mem - std / max / type Memory - sockets Memory - features Memory - support	4 sockets / 3 available (all has SDRAM / 100MHz / four 168	28MB or 256MB or 512MB std / 1GB max ¹³ / Error Checking and Correction (ECC) sockets / 3 available (all have Error Checking and Correcting memory controller) DRAM / 100MHz / four 168 pin gold-plated DIMM 3.3 volt sockets / PC100-compliant / hardware scrubbing of ECC errors upports SDRAM ECC DIMMs (32,64,128, 256MB) / only 256MB DIMMs are registered (buffered); can not mix reg/non-reg								
Graphics controller		atrox® Millennium G400 (performance 2D), IBM Fire GL1¹¹ (advanced 3D), Appian Graphics® J Pro D multiple display), or Intense3D® Wildcat 4000 RA w/ Geo Accelerator GA (precision 3D)								
	IBM Fire GL1 / AGP 2X adap 32MB std / 32MB max / 256-l OpenGL 3D engine / 250MH	oit 100MHz SGRAM 2D and 16MB std / 16MB n	Jeronimo Pro / 32-bit PCI adapter / nax / 125MHz SGRAM / 250MHz RAMDAC / n two ports for multiple monitor support							
	128-bit 143MHz SDRAM (text	/ 32-bit 33MHz PCI 2.1 adapter / 16MB 128-bit 14: ure memory) / 2D and 3D engine / Geometry Accelerator (GA) / AGP 2X adapter (re	,							
Architecture - chip set Bus slots	National Semiconductor PC8	E for EIDE (Ultra DMA/33), ISA Bridge, USB / Ad : 37307 Super I/O for diskette, parallel, serial, keyb 3rd Graphics Port (66MHz; AGP 2X; 533MB/sec),	oard, mouse							
Disk SCSI controller SCSI connectors RAID option Cables - SCSI and IDE	Adaptec® AHA-7895 / dual of Channel A: 68 pin (attaches 4 di Supports Adaptec ARO™-113 SCSI and AAP models: 4 dro EIDE models: Two 2 drop IE	Cl 2.1 (33MHz), Accelerated Graphics Port (66MHz; AGP 2X; 533MB/sec), and ISA slots (8.33MHz) / see below one (AAP models), one EIDE (Ultra DMA/33), or one Wide Ultra SCSI / SMART ⁵ laptec® AHA-7895 / dual channel Wide Ultra SCSI controller / on motherboard / PCI 2.1 nannel A: 68 pin (attaches 4 drop cable to SCSI disk); Channel B: 50 pin and 68 pin /68 pin cable std to external SCSI port (all mod) pports Adaptec ARO™-1130 CA-B PCI RAIDport™ adapter (RAID 0,1) / installs in PCI slot / uses 7895 controller and connectrs CSI and AAP models: 4 drop 16-bit cable on Chan A; 16-bit cable to ext port on Chan B; one 2 drop IDE cable (CD-ROM) DE models: Two 2 drop IDE cables (one for disk; one for CD-ROM) and SCSI cable to external SCSI port hanced IDE busmaster (PIIX4E) / Ultra DMA/33 (ATA-33) support / two								
CD-ROM Diskette drive	40X-17X° CD-ROM / CAV (A		- Cover key lock (in rear) - Cover tamper detect switch							
Ethernet controller LCCM support Systems mgmt cntrl	Intel EtherExpress PRO/10 10BaseT and 100BaseTX / LANClient Control Manager ¹ Hybrid RPL / DHCP/BOOTP National Semiconductor® LM	0B [.] PCI 82558 ethernet chip on planar / PCI bus RJ45 UTP connector / Wake on LAN® / Alert on LAI ™ enabled / Wake on LAN / Setup over LAN /	Power-on password Administrator password Keyboard/mouse password Wake Up on LAN password prompt Boot sequence control							
Audio Audio connectors Microphone Serial/parallel/USB	Stereo line in / mic in / line or Headset with microphone (ar / stereo / ISA bus / FM Synthesis / int speaker ut (all in back) / software volume control noise canceling for ViaVoice application) Par: One (EPP, ECP) / IEEE 1284 USB: Two p	- Disable nouse							
Keyboard / mouse Power supply	104 key (rubber dome) keybe 330 watts / universal / auto-s	oard / keyboard extender / IBM 3 button mouse ensing / Wake on LAN	- Diskette, disk, serial port, parallel port I/O control							
CD-ROM Bay ① 5.25", HH 1.6", access, std CD-ROM Bay ② 5.25", HH 1.6", access, open Bay ③ 3.5", SL 1", access, open Bay ④ 3.5", SL 1", access, open Bay ⑥ 3.5", SL 1", no access, open (disk only) Bay ⑥ 3.5", SL 1", no access, open (disk only) Bay ⑥ 3.5", SL 1", no access, open (disk only) Bay ⑥ 3.5", SL 1", no access, std disk (disk only) Bay ⑥ 3.5", SL 1", no access, open (disk only) Bay ⑥ 3.5", SL 1", no access, open (disk only) Bay ⑥ 3.5", SL 1", no access, open (disk only) Bay ⑥ 3.5", SL 1", no access, open (disk only) Bay ⑥ 3.5", SL 1", open access openin Secure access openin VPD stored in EEPRO Write protection control Barcode labels on mos System EEPROM on redistriction (info and serial no for of system unit, CD-ROM Slot 2: fullsize, 32-bit PCI 2.1 (5v) - supports optional Adaptec RAIDport - used by Appian or Wildcat in some models Slot 4: fullsize, 32-bit PCI 2.1 (5v) Write protection control Barcode labels on mos or Waldcat in system unit, CD-ROM system unit, CD-ROM empty blank fields); als write with external RF										
	fullsize, 32-bit PCI 2.1 (5v) fullsize, 16-bit ISA or 32-bit F	PCI 2.1 (5v)	 EEPROMs on DIMMs (component info, serial no) Disk firmware (compnt info, serial no) 							
events such as chass start up errors, even i	e notification of system sis intrusion, disconnect, f powered off uses radio frequency (RF) ment, inventory, and	Maximum internal SCSI disk capacity ¹³ . 72.8GB (4 x 18.2GB (7200 rpm); 91GB if remove CD-ROM Maximum internal EIDE disk capacity ¹³ . 61.2GB (3 x 20.4GB) Power management features:								

Asset ID (RFID)¹⁶ - uses radio frequency (RF) technology for deployment, inventory, and security; includes EEPROM that can be accessed via DMI software through network or an external RF link such as hand-held RF read/write units; theft protection

SMART Reaction™ - automatic backup of disk PC 98-compliant

DMI 2.0-compliant with DMI manageability chip

Wired for Management 1.1a

Adv Config and Power Interface (ACPI) 1.0 Universal Management Agent (UMA) and UMA Plus-enabled with DMI Service Layer 2.0, DMI BIOS 2.1, and DMI software; DMI 2.0 compliant

Plug-and-Play 1.0a ISO 9241-3 capable

Vital Product Data support (type, model, serial, id) 7.87"W x 17.52"D x 19.37"H; 38 lbs max (shipped) 200 mm W x 445 mm D x 492 mm H; 17.3 kg Several hardcopy publications; four stabilizing feet 512KB IBM BIOS (Flash over LAN support) Supplier's Declaration available

Four fans (three in system and one in power supply)

Power management features:

- Configurable levels for system, CPU, and monitor including powering system and/or display off
- Wake Up on Ring (via modem) from off state
- Wake Up on Alarm (scheduled time) from off state
- Wake on LAN from off state
- PCI Wake Up from supported PCI devices

III IntelliStation® M Pro models - Winter 1999 (6889) - withdrawn

Type-model	Std disk (rpm) ms seek / disk interface CD-ROM ⁶ /interface	Intel® Processor MHz¹	Upgrade	Write-back L2 cache std / max KB / KB	Memory in MB; std / max 100MHz	SVGA controller; memory std / max	Bus slots P=PCI avail PCI/ISA=av A=AGP av	Total bays	Chip set Ethernet Av Preload ¹⁷	ailable date
	r; PCI/ISA/AGP; Stealth Gi 13.5GB ² std (7200) 9.0ms / EIDE 40X-17X ⁶ CD-ROM / EIDE	1 x Pentium® III	SMP via 2nd Pent III	512/512 half speed in SEC	128/1G SDRAM ECC	Millennium G200 AGP-2x Adapter 8 / 16 SGRAM	PCI=4 PCI/ISA=1 AGP=0	6 bays 3 used 3 empty	440BX Ethernet Windows NT 4.0	Mar 1999
← 6889-52U	9.1GB std (7200) 7.0ms / Wide Ultra SCSI 40X-17X CD-ROM / EIDE	1 x Pentium III 500/100	SMP via 2nd Pent III	512/512 half speed in SEC	128/1G SDRAM ECC	Millennium G200 AGP-2x Adapter 8 / 16 SGRAM	PCI=4 PCI/ISA=1 AGP=0	6 bays 3 used 3 empty	440BX Ethernet Windows NT 4.0	Mar 1999
6889-53U	9.1GB std (7200) 7.0ms / Wide Ultra SCSI 40X-17X CD-ROM / EIDE	1 x Pentium III 500/100	SMP via 2nd Pent III	512/512 half speed in SEC		Millennium G200 AGP-2x Adapter 8 / 16 SGRAM	PCI=4 PCI/ISA=1 AGP=0	6 bays 3 used 3 empty	440BX Ethernet Windows NT 4.0	Mar 1999
	9.1GB std (7200) 7.0ms / Wide Ultra SCSI 40X-17X CD-ROM / EIDE	1 x Pentium III 500/100	SMP via 2nd Pent III	512/512 half speed in SEC		IBM Fire GL1 ¹¹ AGP-2x Adapter 32/32 SGRAM	PCI=4 PCI/ISA=1 AGP=0	6 bays 3 used 3 empty	440BX Ethernet Windows NT 4.0	Mar 1999
★ 6889-55U	9.1GB std (10000) 5.4ms / Wide Ultra SCSI 40X-17X CD-ROM / EIDE	SMP via 2 x Pentium III 500/100	None	512/512 half speed in SEC		Millennium G200 AGP-2x Adapter 8 / 16 SGRAM	PCI=4 PCI/ISA=1 AGP=0	6 bays 3 used 3 empty	440BX Ethernet Windows NT 4.0	Mar 1999
	9.1GB std (10000) 5.4ms / Wide Ultra SCSI 40X-17X CD-ROM / EIDE	1 x Pentium III 500/100	SMP via 2nd Pent III	512/512 half speed in SEC	256/1G RDIMM ECC	IBM Fire GL1 AGP-2x Adapter 32/32 SGRAM	PCI=4 PCI/ISA=1 AGP=0	6 bays 3 used 3 empty	440BX Ethernet Windows NT 4.0	Mar 1999
6889-57U	13.5GB std (7200) 9.0ms / EIDE 40X-17X CD-ROM / EIDE	1 x Pentium III 450/100	SMP via 2nd Pent III	512/512 half speed in SEC		Millennium G200 AGP-2x Adapter 8 / 16 SGRAM	PCI=4 PCI/ISA=1 AGP=0	6 bays 2 used 4 empty	440BX Ethernet Windows NT 4.0	Mar 1999
≈ 6889-5EU	9.1GB std (7200) 7.0ms / Wide Ultra SCSI 40X-17X CD-ROM / EIDE	1 x Pentium III 450/100	SMP via 2nd Pent III	512/512 half speed in SEC		Millennium G200 AGP-2x Adapter 8 / 16 SGRAM	PCI=4 PCI/ISA=1 AGP=0	6 bays 3 used 3 empty	440BX Ethernet Windows NT 4.0	Mar 1999
	no disk 40X-17X CD-ROM / EIDE	1 x Pentium III 500/100	SMP via 2nd Pent III	512/512 half speed in SEC	128/1G SDRAM ECC		PCI=4 PCI/ISA=1 AGP=1	6 bays 2 used 4 empty	440BX Ethernet Open OS	Mar 1999
≈ 6889-59U for AAP	no disk 40X-17X CD-ROM / EIDE	1 x Pentium III 450/100	SMP via 2nd Pent III	512/512 half speed in SEC	128/1G SDRAM ECC		PCI=4 PCI/ISA=1 AGP=1		440BX Ethernet Open OS	Mar 1999

Windows NT Preload¹⁷

Windows NT® Workstation 4.0 (SP3) Internet Explorer 4.0 install icon IBM Welcome Center Device drivers for each subsystem Ready to install:

- ConfigSafe®
- Norton AntiVirus™ (OEM version)
- DMI Service Provider
- DMI BIOS Instrumentation
- IBM PC System Monitor Instrumentation
- IBM AssetCare Serial Number Information IBM RTC CD-ROM Setup Utility IBM Utilities for Windows 95/NT 4.0

 - Hummingbird "Try and Buy" Suite CD-ROM
- Ready to Configure CD-ROM
- Free license for Lotus SmartSuite 97 CD-ROM
- IBM ViaVoice 98 Office Edition CD-ROM
- Windows NT Workstation 4.0 CD-ROM
- IBM Diagnostics CD-ROM
- Access to IBM HomePage Creator

C: is 2GB as FAT16 Remainder is unformatted

Ready to Configure CD-ROM

All models ship with a CD with drivers for Windows® 95, 98, and NT 3.51 and 4.0 and various utilities.

Includes:

- Intel LANDesk® Client Manager
- ConfigSafe IBM Universal Management Agent™

Supported Memory and Options

32MB SDRAM ECC DIMM 100MHz 01K1133 64MB SDRAM ECC DIMM 100MHz 01K1130 128MB SDRAM ECC DIMM 100MHz 01K1131 256MB SDRAM ECC DIMM Registered 01K1132 Adaptec ARO™-1130 CA-B PCI RAIDport 1681100 Matrox Millennium G200 10L7127 IBM Fire GL1 (3D graphics accelerator) 33L5032 10/100 PCI EtherJet Adapter WOL 08L2565 Auto Wake Token-Ring ISA Adapter 55H6760 PCI Token Ring Adapter WOL 86H1880 13.5GB 7200 rpm EIDE disk 33L5043 20.5GB 7200 rpm EIDE disk 33L5044 9.1GB Ultra Wide SCSI 7200 rpm 20L0553 18.2GB Ultra Wide SCSI 7200 rpm 20L0554 9.1GB Ultra2 Wide SCSI 10K rpm SL20L0539 500MHz Pentium III Second Processor 36L9673

Authorized Assember Program models

AAP models contain no hard disk or graphics adapter.

No preload or operating system license is included.

- Hummingbird "Try and Buy" Suite CD-ROM
 Ready to Configure CD-ROM
- Free license for Lotus SmartSuite CD-ROM (via 800 number)

WARRANTY SERVICE SUPPORT³

- 3 year parts warranty
- 1 year labor warranty
- International Warranty Service³
- 1st year: on site, 8 am 5 pm, Mon - Fri coverage, 2nd business day response time
- 2nd/3rd year: parts exchange only, call 1-800-772-2227
- On site warranty upgrade options:
 - Next day response¹⁴, Mon-Fri 8-5
 - 4 hour response¹⁴, 7 day x 24 hr
- Post warranty: on site options above
- □ IBM SystemXtra®
- 24 hour / 7 day telephone, electronic, Internet (www.pc.ibm.com) support

Ethernet = Intel 10/100 ethernet chip; 10BaseT and 100BaseTX; Alert on LAN NT4 = Windows NT Workstation 4.0 preinstalled RDIMM = Registered DIMM

Wide Ultra SČSI = Adaptec AHA-7895; dual channel Wide Ultra SCSI = Withdrawn from marketing (systems announced March 1, 1999)

III IntelliStation® M Pro - Winter 1999 (6889) - withdrawn

IBM® IntelliStation® I	M Pro									
Type Processor(s) Implementation Processor upgrade L2 cache Avail / withdrawn date	One or two Intel® Pentium® Processor and L2 cache in Si SMP via second identical pro- 512KB std / 512KB max / EC March 1999 / Models 58U and	ingle Edge Contact (SEC) cessor / upgrade via SEC ir C / half speed of processor	cartridge in protective meta nto motherboard Intel® Slot 1 / 4 way set associative / wri	te-back / integrated in SEC						
Mem - std / max / type Memory - sockets Memory - features Memory - support	4 sockets / 3 available (all hav SDRAM / 100MHz / four 168	128MB or 256MB std / 1GB max ¹³ / Error Checking and Correction (ECC) I sockets / 3 available (all have Error Checking and Correcting memory controller) SDRAM / 100MHz / four 168 pin gold-plated DIMM 3.3 volt sockets / PC100-compliant / hardware scrubbing of ECC errors Supports SDRAM ECC DIMMs (32,64,128, 256MB) / only 256MB DIMMs are registered (buffered); can not mix reg/non-reg								
Graphics controller	Matrox® Millennium G200-D	(2D/value 3D) or IBM Fire	GL1 (advanced 3D)							
Graphics - type Graphics - memory Graphics - features	Matrox Millennium G200-D, 8MB std / 16MB max / 142MH Sideband addressing / split tra 250 MHz RAMDAC / MGA-G; Max 2D resolution of 1920x12	Hz, 128-bit SGRAM ansactions 200 128-bit DualBus chip	32MB std / 32MB max / 250 2D and OpenGL 3D engine	ap / sideband-capable / split transactns 6-bit, 2-way interleaved, 100MHz SGRAN e / 250MHz RAMDAC / DDC2B 00 at 85Hz or 1920x1200 at 75Hz or environments						
Architecture - chip set Bus slots	Intel 440BX AGPset / PIIX4E National Semiconductor PC8 PCI 2.1 (33MHz), Accelerate	37307 Super I/O for diskett	e, paralleľ, serial, keyboard,							
Disk SCSI controller SCSI connectors RAID option Cables - SCSI and IDE EIDE disk controller EIDE disk controller None (AAP models), one EIDE (Ultra DMA/33), or one Wide Ultra SCSI / SMART ⁵ Adaptee® AHA-7895 / dual channel Wide Ultra SCSI controller / on motherboard / PCI 2.1 Channel A: 68 pin (attaches 4 drop cable to SCSI disk); Channel B: 50 pin and 68 pin / 68 pin cable std to external SCSI port (all mod) Supports Adaptec ARO™-1130 CA-B PCI RAIDport™ adapter (RAID 0,1) / installs in PCI slot / uses 7895 controller and connectrs SCSI and AAP models: SCSI and AAP models: Adaptee® AHA-7895 / dual channel Wide Ultra SCSI controller / on motherboard / PCI 2.1 Channel A: 68 pin (attaches 4 drop cable to SCSI disk); Channel B: 50 pin and 68 pin / 68 pin cable std to external SCSI port (all mod) SCSI and AAP models: SCSI and AAP models: Adaptee® AHA-7895 / dual channel Wide Ultra SCSI / controller / on motherboard / PCI 2.1 Channel A: 68 pin (attaches 4 drop cable to SCSI disk); Channel B: 50 pin and 68 pin / 68 pin cable std to external SCSI port (all mod) SUPPORTED HAM A ROMAN A R										
CD-ROM Diskette drive		10X-17X ⁶ CD-ROM / CAV (ATAPI) / bootable 8.5" 1.44MB diskette drive / 1 drop cable - Cover key lock (in rear)								
Ethernet controller LCCM support Systems mgmt cntrl	10BaseT and 100BaseTX / I LANClient Control Manager ^T Hybrid RPL / DHCP/BOOTP National Semiconductor® LM	ntel EtherExpress PRO/100B / PCI 82558 ethernet chip on planar / PCI bus IOBaseT and 100BaseTX / RJ45 UTP connector / Wake on LAN® / Alert on LAN _ANClient Control Manager™ enabled / Wake on LAN / Setup over LAN / Hybrid RPL / DHCP/BOOTP / software image download National Semiconductor® LM81 compatible / hardware chip to monitor emperature, fan speeds, voltage, system cover removal / I2C								
Audio Audio connectors Microphone Serial/parallel/USB	Crystal CS4235 chip on plan Stereo line in / mic in / line ou Headset with microphone (Ser: Two 9 pin / 115Kbps F	ut (all in back) / software vo noise canceling for ViaVoid	lume control e application)	Keyboard/mouse password Wake Up on LAN password prompt Boot sequence control Boot without keyboard or mouse Diskette boot inhibit						
Keyboard / Mouse Power supply	104 key (rubber dome) keybo 330 watts / universal / auto-s		BM 3 button mouse	Disable mouse Disable external SCSI port Diskette write-protect Diskette, disk, serial port, parallel port I/O control Secure access openings						
 	Bay ① 5.25", HH 1.6", access 3ay ② 5.25", HH 1.6", access 3ay ③ 3.5", SL 1", access 3ay ④ 3.5", SL 1", access 3ay ⑥ 3.5", SL 1", no access 3ay ⑥ 3.5", SL 1", no access 3ay ⑥ 3.5", SL 1",	. open		Secure removable media VPD stored in EEPROM Write protection control for EEPROM Barcode labels on most components						
\$ disk Mini tower; Stealth gray	Bay © 3.5", SL 1", no access, std disk (disk only) Height Slot 1: fullsize, 32-bit AGP (3.3v) - used by AGP graphics adapter Slot 2: fullsize, 32-bit PCI 2.1 (5v) - supports optional Adaptec RAIDport Slot 4: fullsize, 32-bit PCI 2.1 (5v) Slot 4: fullsize, 32-bit PCI 2.1 (5v) Slot 5: fullsize, 32-bit PCI 2.1 (5v) Slot 5: fullsize, 32-bit PCI 2.1 (5v) Slot 5: fullsize, 32-bit PCI 2.1 (5v) Slot 5: fullsize, 32-bit PCI 2.1 (5v) Slot 5: fullsize, 32-bit PCI 2.1 (5v) Slot 5: fullsize, 32-bit PCI 2.1 (5v) Slot 5: fullsize, 32-bit PCI 2.1 (5v) Slot 5: fullsize, 32-bit PCI 2.1 (5v) Slot 6: fullsize, 32-bit PCI 2.1 (5v) Slot 7: fullsize, 32-bit PCI 2.1 (5v) Slot 8: fullsize, 32-bit PCI 2.1 (5v) Slot 9: fullsize, 32-bit PCI 2.1 (5v) Slot 9: fullsize, 32-bit PCI 2.1 (5v) Slot 9: fullsize, 32-bit PCI 2.1 (5v) Slot 9: fullsize, 32-bit PCI 2.1 (5v) Slot 9: fullsize, 32-bit PCI 2.1 (5v) Slot 9: fullsize, 32-bit PCI 2.1 (5v) Slot 9: fullsize, 32-bit PCI 2.1 (5v) Slot 9: fullsize, 32-bit PCI 2.1 (5v) Slot 9: fullsize, 32-bit PCI 2.1 (5v) Slot 9: fullsize, 32-bit PCI 2.1 (5v) Slot 9: fullsize, 32-bit PCI 2.1 (5v) Slot 9: fullsize, 32-bit PCI 2.1 (5v) Slot 9: fullsize, 32-bit PCI 2.1 (5v) Slot 9: fullsize, 32-bit PCI 2.1 (5v) Slot 9: fullsize, 32-bit PCI 2.1 (5v) Slot 9: fullsize, 32-bit PCI 2.1 (5v) Slot 9: fullsize, 32-bit PCI 2.1 (5v) Slot 9: fullsize, 32-bit PCI 2.1 (5v)									
events such as chass start up errors, even i	e notification of system sis intrusion, disconnect, f powered off uses radio frequency (RF) ment, inventory, and	The Setup Utility resides i by pressing F1 key duri Advanced Power Mgmt 1 Support for DMI technolog	ng memory PÓŚT 2 gy (includes MIF browser) r 2.0, DMI BIOS 2.1, and	Maximum internal SCSI disk capacity ¹ 81.9GB (3 x 18.2GB (7200 rpm)) plus 1 x 9.1GB (7200 rpm)); if no CD-RON Maximum internal EIDE disk capacity ¹ 40.5GB (3 x 13.5GB) Power management features: - Configurable levels for system.						

accessed via DMI software through network or an external RF link such as hand-held RF read/write units; theft protection

SMART Reaction™ - automatic backup of disk PC 98 compliant

DMI 2.0 compliant with DMI manageability chip

Wired for Management 1.1a

Adv Config and Power Interface (ACPI) 1.0

DMI software; DMI 2.0 compliant

Plug-and-Play 1.0a ISO 9241-3 capable

Vital Product Data support (type, model, serial, id) 7.87"W x 17.52"D x 19.37"H; 38 lbs max (shipped) 200 mm W x 445 mm D x 492 mm H; 17.3 kg Several hardcopy publications; four stabilizing feet 512KB IBM BIOS (Flash over LAN support) Supplier's Declaration available Four fans (three in system and one in power supply)

- Configurable levels for system, CPU, and monitor including powering system and/or display off
- Wake Up on Ring (via modem) from off state
- Wake Up on Alarm (scheduled time) from off state
- Wake-on-LAN from off state
- PCI Wake Up from supported PCI

IBM IntelliStation® Z Pro models (6865) - withdrawn

Type-model	Standard disk (rpm) ms seek / disk interface CD-ROM	Intel® Processor MHz¹	Upgrade	std / max	in MB; std/max ¹³	controller;	Bus slots P=PCI avai PCI/ISA=av A=AGP av	Total	Chipset Av	/ailable date
7 slot x 7 bay	y; PCI/ISA/AGP; Stealth G	ray								
≈ 6865-20U	4.5GB ² (7200) 7.5ms / Ultra Wide SCSI 32X-14X ⁴ CD-ROM	1 x Xeon™ 450/100	SMP via 2nd Xeon	512/512 450MHz in SEC		Millennium G200 AGP adapter 8/16MB WRAM	PCI=4 PCI/ISA=1 AGP=0	3 used	440GX Ethernet Windows NT 4.0	Oct 1998
× 6865-21U	9.1GB (10K) 5.4ms / Wide Ultra2 SCSI 32X-14X CD-ROM	1 x Xeon 450/100	SMP via 2nd Xeon	512/512 450MHz in SEC	256/2G SDRAM ECC	Millennium G200 AGP adapter 8/16MB WRAM	PCI=4 PCI/ISA=1 AGP=0	3 uséd	440GX Ethernet Windows NT 4.0	Oct 1998
	9.1GB (10K) 5.4ms / Wide Ultra2 SCSI 32X-14X CD-ROM	SMP via 2 x Xeon 450/100	None	512/512 450MHz in SEC	256/2G SDRAM ECC	Millennium G200 AGP adapter 8/16MB WRAM	PCI=4 PCI/ISA=1 AGP=0	3 used	440GX Ethernet Windows NT 4.0	Oct 1998
	9.1GB (10K) 5.4ms / Wide Ultra2 SCSI 32X-14X CD-ROM	1 x Xeon 450/100	SMP via 2nd Xeon	512/512 450MHz in SEC	256/2G SDRAM ECC	3D Pro 3400 PCI adapter 32/32 MSGRAM	PCI=3 PCI/ISA=1 AGP=1	3 used	440GX Ethernet Windows NT 4.0	Oct 1998
★ 6865-26U	9.1GB (10K) 5.4ms / Wide Ultra2 SCSI 32X-14X CD-ROM	1 x Xeon 450/100	SMP via 2nd Xeon	512/512 450MHz in SEC	256/2G SDRAM ECC	3D Pro 3400 + Geo Acceler 32/32M SGRAM	PCI=2 PCI/ISA=1 AGP=1	3 used	440GX Ethernet Windows NT 4.0	Oct 1998
	9.1GB (10K) 5.4ms / Wide Ultra2 SCSI 32X-14X CD-ROM	SMP via 2 x Xeon 450/100	None	<i>512/512</i> 450MHz in SEC	256/2G SDRAM ECC	3D Pro 3400 + Geo Acceler 32/32M SGRAM	PCI=2 PCI/ISA=1 AGP=1	3 uséd	440GX Ethernet Windows NT 4.0	Oct 1998
≪ 6865-28U for AAP	no disk 32X-14X CD-ROM	1 x Xeon 450/100	SMP via 2nd Xeon	512/512 450MHz in SEC	256/ 2G SDRAM ECC	None	PCI=4 PCI/ISA=1 AGP=1	2 used	440GX Ethernet I No OS	Oct 1998
6.4GB Desk 6.4GB 7200 8.4GB Desk 9.1GB 7200 10.1GB 7200 9.1GB 7200 18.2GB 720 9.1GB 1000	Iz Xeon Processor Upgrade (star EIDE disk () rpm EIDE disk (star EIDE disk () rpm GXP EIDE disk () rpm Wide Ultra SCSI disk () rpm Wide Ultra SCSI disk () rpm Wide Ultra SCSI disk () rpm Wide Ultra2 SCSI disk () rpm Wide Ultra2 SCSI disk () rpm Wide Ultra2 SCSI disk () rpm Wide Ultra2 SCSI disk	0 0 0 0 2 1K1327 1K1328	0L0240 1K1279 1K1329 1K1316 1K1330 0L0548 1K1323 0L0539 0L0540		256MB 512MB Matrox Intergra Intergra All mo 81. For	100MHz ECC SD 100MHz ECC SD 100MHz ECC SD Millennium G200 Aph Intense 3D Pro aph Intense 3D 340 dels: Maximum i 9GB via the follow ur 18.2GB 10K rpm e 9.1GB 10K rpm	RAM DIMM RAM DIMM AGP Graph 3 3400 Grap 00 Geometr 	(registe (registe ics Adap hics Ada y Accele SI disk orations: a2 SCSI	red) 01K1132 red) 20L0257 ter 10L7127 apter 02K3460 rator 02K3461 capacity ¹³ :	

Windows NT Preload17

Windows NT® Workstation 4.0 (SP3) Internet Explorer 4.0 IBM Welcome Center

- IBM Utilities
- Online Books Ready to install:
- ConfigSafe for Windows NT 4.0
- IBM Universal Management Agent
- IBM Manageability Tools
- DMI Service Provider
- DMI BIOS Instrumentation
- IBM PC System Monitor Instrumentation
- IBM AssetCare Serial Number Information
- Norton AntiVirus™ for Windows NT
- Hummingbird "Try and Buy" Suite CD-ROM
 Ready to Configure CD-ROM
- Free license for Lotus SmartSuite8 CD-ROM
- Product Recovery CD-ROM (preloads only) IBM ViaVoice 98 Office CD-ROM
- IBM Diagnostics CD-ROM
- Access to IBM HomePage Creator

C: is 2GB as FAT16 Remainder is unformatted

Ready to Configure CD-ROM

All models ship with a CD with drivers for Windows® 95, Windows 98 and Windows NT and various utilities.

Includes:

- IBM Universal Management Agent
- IBM Global Network Dialer
- ConfigSafe for NT 4.0
- Client Services for Netfinity PC-Doctor for Windows NT 2.0.136
- Tivoli Lightweight Client Framework 1.2
- Diskette Factory
- Device drivers for each subsystem
- Utilities and applications on NT preload Intel LANDesk® Client Manager 3.0

Authorized Assembler Program models

AAP model(s) contain no hard disk.

No preload or operating system license is included.

- Hummingbird "Try and Buy" Suite CD-ROM

- Ready to Configure CD-ROM

- IBM ViaVoice 98 Office CD-ROM

- Free license for Latine Sport Suite CD-ROM

- Free license for Lotus SmartSuite CD-ROM
- (via 800 number)

IBM Enhanced Diagnostics CD-ROM

Eth = Intel 10/100 ethernet chip; 10BaseT and 100BaseTX; Alert on LAN

NT4 = Windows NT Workstation 4.0 preinstalled

All models have Wide Ultra2 SCSI Adaptec AHA-2940U2W PCI Adapter; single channel SpeedFlex™

Withdrawn from marketing

WARRANTY SERVICE SUPPORT3

- 3 year parts warranty
- 1 year labor warranty
- International Warranty Service³
- 1st year: on site, 8 am 5 pm, Mon - Fri coverage,
 - 2nd business day response time
- 2nd/3rd year: parts exchange only, call 1-800-772-2227
- On site warranty upgrade options:
 - Next day response Mon-Fri 8-5
 - 4 hour response⁷, 7 day x 24 hr
- Post warranty: on site options above
- IBM SystemXtra®
- 24 hour / 7 day telephone, electronic, Internet (www.pc.ibm.com) support

III IntelliStation® Z Pro (6865) - withdrawn

IBM [®] IntelliStation [®]	Z Pro									
Type Processor / MHz Implementation Processor upgrade L2 cache Avail / withdrawn date	Processor and L2 cache in S SMP via second identical pro 512 KB std / 512 KB max / E	865 One or two Intel® Pentium® II Xeon™ 450/100MHz¹/16 KB instruction + 16 KB data L1 cache rocessor and L2 cache in Single Edge Contact (SEC) cartridge in protective metal case / SEC plugged into Intel Slot 2 MP via second identical processor / upgrade via SEC into motherboard Intel Slot 2 CPU connector / MPS 1.4 12 KB std / 512 KB max / ECC / full speed of processor / 4 way set associative / write-back / integrated in SEC loctober 1998 / withdrawn March 1999 or June 1999								
Mem - std / max / type Memory - sockets Memory - features Memory - support	4 sockets / 3 available (all ha SDRAM / 100 MHz / four 168	28MB or 256MB std / 2GB max ¹³ / Error Checking and Correction (ECC) sockets / 3 available (all have Error Checking and Correcting memory controller) DRAM / 100 MHz / four 168 pin gold-plated DIMM 3.3 volt sockets / PC100-compliant / hardware scrubbing of ECC errors upports registered SDRAM ECC DIMMs only (128, 256, 512MB)								
Graphics controller		(2D and value 3D), Intergraph® 3400 with Geometry and Ligh								
Graphics - type Graphics - memory Graphics - features	Matrox Millennium G200 / A 8MB std / 16MB max / 142M Sideband addressing / split tr 250 MHz RAMDAC / MGA-G Max 2D resolution of 1920x1	Hz, 128-bit SGRAM ransactions G200 128-bit DualBus chip	16MB frame buffer (1 16MB texture memor Optional or std geome							
Architecture - chip set Bus slots	National Semiconductor® PC	C87307A Super I/O for diskette	, parallel, serial, keybo	GX PAC, 82371EB, 82093AA APIC) ard, mouse c), and ISA slots (8.33MHz) / see below						
Disk SCSI controller SCSI connectors Cables EIDE disk controller	Adaptec® AHA-2940U2W / isolated SCSI bus segments Internal: ① 68-pin High-Den High-Density Ultra; Extern SCSI: 5 drop Internal 16 bit	s; an Ultra2 80MB/sec and a UI nsity Ultra2 (used by 5 drop LV	SI / single channel with tra 40MB/sec segmen D cable to SCSI disk), a2 (on back of adapter ne 2 drop IDE cable (or							
CD-ROM Diskette drive	32X-14X ⁶ CD-ROM / CAV (A 3.5" 1.44 MB diskette drive /	TAPI) / bootable / 128KB buffer /	80ms average seek	SECURITY						
Ethernet controller LCCM support Systems mgmt cntrl	Intel EtherExpress PRO/10 10BaseT and 100BaseTX / I LANClient Control Manager Hybrid RPL / DHCP/BOOTF LM81 compatible (Analog D temperature, fan speeds, v	Cover key lock (in rear) Cover tamper detect switch Secure fixed disk Serial EEPROM with write protect Power-on password Adminstrator password Keyboard/mouse password								
Audio Audio connectors Microphone Serial / parallel / USB	Stereo line in / mic in / line or Headset with noise cancel	nar / stereo / ISA bus / FM Synt nut (all in back) / software volun ing microphone <i>Par</i> : One (EPP, ECP) / IEEE 120	ne control	Wake-Up on LAN password pron Boot sequence control Boot without keyboard or mouse Diskette boot inhibit Disable mouse						
Bay ©	330 watts / universal / autó-s 0 5.25", HH 1.6", access, 2 5.25", HH 1.6", access, 3 3.5". Sl. 1" access	oard / keyboard extender / IBM sensing / Wake on LAN std CD-ROM open open	3 button mouse	Disable external SCSI port Diskette write-protect Diskette I/O control Hard disk I/O control Serial/parallel port I/O control Secure access openings Secure removable media VPD stored in EEPROM Write protection for EEPROM						
3 Bay 6 Bay	Remotely readable DMI-compliant: - System EEPROM on motherboard (info and serial no for CPU, riser, system unit, CD-ROM, diskette, empty blank fields); also can read/write with external RF unit - EEPROMs on DIMMs (component info, serial no) - Disk firmware (component info, serial no)									
monitoring; immediate vents such as chass start up errors, even Asset IDTM.16 (RFID) (RF) technology for security; includes EE accessed via DMI so external RF link such units; supports theft p	- uses radio frequency deployment, inventory, and PROM that can be ftware through network or an as hand-held RF read/write	The Setup Utility resides in flat by pressing F1 key during m Advanced Power Mgmt 1.2 Support for DMI technology (ir with DMI Service Layer 2.0 DMI software; DMI 2.0 com Plug-and-Play 1.0a ISO 9241-3 capable Vital Product Data support (typ. 7.87"W x 18.10"D x 19.37"H; 200 mm W x 460 mm D x 492 Several hardcopy publications	nemory PÓST ncludes MIF browser) , DMI BIOS 2.1, and pliant be, model, serial, id) 45 lbs max (shipped) mm H; 20.4 kg	Power management features: - Configurable levels for system, CPU, and monitor including powering system and/or display off - Wake Up on Ring (via modem) from off state - Wake Up on Alarm (scheduled time) from off state - Wake-on-LAN from off state - PCI Wake Up from supported PCI devices						

200 mm W x 460 mm D x 492 mm H; 20.4 kg Several hardcopy publications; four stabilizing feet 512 KB SurePath BIOS (Flash over LAN support)

Boot support for LS120, ZIP, CD-ROM, or DVD

Supplier's Declaration available

SMART Reaction™ - automatic backup of disk PC 97 compliant

DMI 2.0 compliant with DMI manageability chip

Wired for Management 1.1a

Four variable speed fans (three in system (two in front; one in back) and one in power supply)

IBM IntelliStation® Z Pro - 1999 (6865) - withdrawn

Type-model	Standard disk (rpm) ms seek / disk interface CD-ROM	Intel® Processor MHz¹ / L	Jpgrade	L2 cache Per CPU std / max KB / KB	Memory in MB; std/max ¹ 100MHz	SVGA controller; ³ memory std / max (MB)	Bus slots P=PCI avai PCI/ISA=av A=AGP av	Total	Chipset Ethernet Av	vailable date
7 slot x 7 bay	y; PCI/ISA/AGP; Stealth B	Black								
	9.1GB ² (7200) 7.5ms / Wide Ultra2 SCSI 40X-17X ⁴ CD-ROM	1 x Pentium® III Xeon™ 500/100		512 / 512 full speed in SEC		Millennium G200 AGP 2X adapter 8/16MB WRAM	PCI=4 PCI/ISA=1 AGP=0	3 uséd	440GX Ethernet Windows NT 4.0	Mar 1999
		1 x Pentium III Xeon 500/100			256/2G SDRAM ECC	Wildcat 4000 RA Wildcat 4000 GA 88/88MB SDRAM	PCI=3 PCI/ISA=1 AGP=0	3 used	440GX Ethernet / Windows NT 4.0	Mar 1999
	no disk Wide Ultra2 SCSI 40X-17X CD-ROM	1 x Pentium III Xeon 500/100		512 / 512 full speed in SEC	256/2G SDRAM ECC	None	PCI=4 PCI/ISA=1 AGP=0	2 used	440GX Ethernet / Windows NT 4.0	Mar 1999
★ 6865-40U	9.1GB (7200) 7.5ms / Wide Ultra2 SCSI 40X-17X CD-ROM	1 x Pentium III Xeon 550/100		512 / 512 full speed in SEC		Millennium G200 AGP 2X adapter 8/16MB WRAM	PCI=4 PCI/ISA=1 AGP=0	3 uséd	440GX Ethernet / Windows NT 4.0	May 1999
← 6865-43U	13.5GB (7200) 9.0ms / EIDE / ATA-33 40X-17X CD-ROM	SMP via 2 x Pentium III Xeo 550/100	None on			Millennium G200 AGP 2X adapter 8/16MB WRAM	PCI=5 PCI/ISA=1 AGP=0	3 used	440GX Ethernet Windows NT 4.0	May 1999
★ 6865-45U	9.1GB (10K) 6.0ms / Wide Ultra2 SCSI 40X-17X CD-ROM	1 x Pentium III Xeon 550/100			256/2G SDRAM ECC	IBM Fire GL1 ¹¹ AGP 2X adapter 32/32MB SGRAM	PCI=4 PCI/ISA=1 AGP=0	3 uséd	440GX Ethernet Windows NT 4.0	May 1999
★ 6865-46U	9.1GB (10K) 6.0ms / Wide Ultra2 SCSI 40X-17X CD-ROM	1 x Pentium III Xeon 550/100		512 / 512 full speed in SEC	256/2G SDRAM ECC	Wildcat 4000 RA Wildcat 4000 GA 88/88MB SDRAM	PCI=3 PCI/ISA=1 AGP=0	3 uséd	440GX Ethernet Windows NT 4.0	May 1999
← 6865-48U ← for ← AAP	no disk Wide Ultra2 SCSI 40X-17X CD-ROM	1 x Pentium III Xeon 550/100		512 / 512 full speed in SEC	256/2G SDRAM ECC	None	PCI=4 PCI/ISA=1 AGP=0	2 used	440GX Ethernet Windows NT 4.0	May 1999
← 6865-41U	9.1GB (7200) 7.5ms / Wide Ultra2 SCSI 40X-17X CD-ROM	1 x Pentium III Xeon 550/100		512 / 512 full speed in SEC		Millennium G400 AGP 2X adapter 16/16MB WRAM	PCI=4 PCI/ISA=1 AGP=0	3 used	440GX Ethernet Windows NT 4.0	July 1999
★ 6865-42U	9.1GB (10K) 6.0ms / Wide Ultra2 SCSI 40X-17X CD-ROM	SMP via 2 x Pentium III Xeo 550/100	None on	512 / 512 full speed in SEC		Millennium G400 AGP 2X adapter 16/16MB WRAM	PCI=4 PCI/ISA=1 AGP=0	3 uséd	440GX Ethernet Windows NT 4.0	July 1999
	no disk Wide Ultra2 SCSI 40X-17X CD-ROM	1 x Pentium III Xeon 550/100		512/512 full speed in SEC	0/2GB SDRAM ECC	None	PCI=4 PCI/ISA=1 AGP=0	2 used	440GX Ethernet Windows NT 4.0	Oct 1999
IBM 500MHz/512KB L2 Pentium III Second Processor IBM 550MHz/512KB L2 Pentium III Second Processor 33L56 6.4GB 7200 rpm EIDE disk 01K1 9.1GB 7200 rpm EIDE disk 01K1 10.1GB 7200 rpm EIDE disk 33L44 13.5GB 7200 rpm EIDE disk 33L56 9.1GB 7200 rpm Wide Ultra2 SCSI disk 20L08 18.2GB 7200 rpm Wide Ultra2 SCSI disk 20L08 18.2GB 10000 rpm Wide Ultra2 SCSI disk 20L08 18.2GB 10000 rpm Wide Ultra2 SCSI disk 20L08 20L09 20L08 20L09 2			060 329 330 958 043 553 554 539	256ME 512ME Matrox IBM Fi All mo	B 100MHz ECC SD B 100MHz ECC SD B 100MHz ECC SD C Millennium G400 Are GL1 Graphics Are Dodels: Maximum i .0GB via the follow we 18.2GB 10K rpm	RAM DIMM RAM DIMM AGP Graph dapter nternal SC ing configui	l (registe l (registe ics Adap SI disk oration:	red) 01K1132 red) 20L0257 ster 33L5137 33L5032 capacity ¹³ :		

Windows NT Preload¹⁷

Windows NT® Workstation 4.0 (SP4) IBM Welcome Center

Ready to install:

- ConfigSafe® IBM Universal Management Agent™ IBM Manageability Tools
- DMI Service Provider
- **DMI BIOS Instrumentation**
- IBM PC System Monitor Instrumentation
- IBM AssetCare Serial Number Information Norton AntiVirus™ for Windows NT

- Hummingbird "Try and Buy" Suite CD-ROM Ready to Configure CD-ROM
- Free license for Lotus SmartSuite® CD-ROM - Product Recovery CD-ROM (preloads only)
- IBM ViaVoice 98 Office CD-ROM
- IBM Diagnostics CD-ROM
- Access to IBM HomePage Creator

C: is 2GB as FAT16 Remainder is unformatted

Ready to Configure CD-ROM

All models ship with a CD with drivers for Windows® 98 and Windows NT and various utilities. Includes:

- IBM Global Network Dialer ConfigSafe for NT 4.0

- Client Services for Netfinity PC-Doctor for Windows NT 2.0.136
- Tivoli Lightweight Client Framework 1.2 - Device drivers for each subsystem
- Utilities and applications on NT preload Intel LANDesk® Client Manager 3.0

Authorized Assembler Program models

AAP model(s) contain no hard disk.

- IBM ViaVoice 98 Office CD-ROM
- Free license for Lotus SmartSuite CD-ROM

- No preload or operating system license is included.

 Hummingbird "Try and Buy" Suite CD-ROM

 Ready to Configure CD-ROM
- IBM Enhanced Diagnostics CD-ROM

Ethernet = Intel 10/100 ethernet chip; 10BaseT and 100BaseTX; Alert on LAN All models (except 43U) have Wide Ultra2 SCSI Adaptec AHA-2940U2W PCI Adapter = Models announced September 14, 1999

WARRANTY SERVICE SUPPORT³

- 3 year parts warranty
- 1 year labor warranty
- ➢ International Warranty Service³
- 1st year: on site, 8 am 5 pm, Mon - Fri coverage,
 - 2nd business day response time
- 2nd/3rd year: parts exchange only, call 1-800-772-2227
- On site warranty upgrade options:
 - Next day response¹⁴ Mon-Fri 8-5
 - 4 hour response⁷, 7 day x 24 hr
- Post warranty: on site options above IBM SystemXtra®
- 24 hour / 7 day telephone, electronic, Internet (www.pc.ibm.com) support

運風 IntelliStation® Z Pro - 1999 (6865) - withdrawn

IBM® IntelliStation® Z Pro Type Processor / MHz One or two Intel® Pentium® III Xeon™ 500 or 550MHz¹ / 100MHz front side bus Implementation Processor and L2 cache in Single Edge Contact (SEC) cartridge in protective metal case / SEC plugged into Intel Slot 2 SMP via second identical processor / upgrade via SEC into motherboard Intel Slot 2 CPU connector / MPS 1.4 Processor upgrade 512KB std / 512KB max / ECC / full speed of processor / 4 way set associative / write-back / integrated in SEC L2 cache Avail / withdrawn date March 1999 or May 1999 or July or September 1999 / September 1999 or November 1999 or February 2000 or May 2000 128MB or 256MB std / 2GB max13 / Error Checking and Correction (ECC) Mem - std / max / type 4 sockets / 3 available (all have Error Checking and Correcting memory controller) SDRAM / 100MHz / four 168 pin gold-plated DIMM 3.3 volt sockets / PC100-compliant / hardware scrubbing of ECC errors Supports registered SDRAM ECC DIMMs only (128, 256, 512MB) Memory - sockets Memory - features Memory - support Graphics controller Millennium G200-D or G400 (performance 2D), IBM Fire GL1 (perform 2D/3D). Intergraph® 3D Wildcat 4000 RA / 32-bit 33MHz PCI 2.1 adapter or Intergraph 3D Wildcat 4000 RA w/ Geometry Accelerator GA (extreme 3D) 16MB 128-bit 143MHz SDRAM (frame Matrox® Millennium G200-D / AGP 2X adp IBM Fire GL1 / AGP 2X adapter / buffer) and 64MB 128-bit 143MHz SDRAM (texture memory) / 2D and 3D engine Intergraph 3D Wildcat 4000 GA / 8MB std / 16MB max / 142MHz SGRAM Sideband-capable/split transactions Sideband addressing / split transactions 32MB std / 32MB max / SGRAM 250MHz RAMDAC / 128-bit DualBus chip 250MHz RAMDAC AGP 2X Adapter / (requires 4000 RA) Max 2D resolution of 1920x1200 Max resolution of 1600x1200 at Max resolution of 1280x1024 at 85Hz in 24-bit color at 80Hz 85Hz or 1920x1200 at 75Hz Matrox Millennium G400 / AGP 2X adapter / 16MB std / 16MB max / 166MHz SGRAM / sideband addressing / 250MHz RAMDAC / 256-bit DualBus chip / max 2D resolution of 2048x1536 / supports 1280x1024x16.7 million at 100Hz Architecture - chip set Intel 440GX AGPset / PIIX4E for EIDE (Ultra DMA/33), ISA Bridge, USB (82443GX PAC, 82371EB, 82093AA APIC) National Semiconductor® PC87307A Super I/O for diskette, parallel, serial, keyboard, mouse Bus slots PCI 2.1 (33MHz, 32-bit), Accelerated Graphics Port (66MHz; AGP 2X; 533MB/sec), and ISA slots (8MHz) / see below None (AAP model), one EIDE, or one Ultra2 SCSI / SMART⁵ Some models: Adaptec® AHA-2940U2W / PCI adapter / Wide Ultra2 SCSI / single channel with SpeedFlex™ (allows two Disk SCSI controller isolated SCSI bus segments; an Ultra2 80MB/sec and a Ultra 40MB/sec segment) / supports 15 devices on all 4 connectors Internal: ① 68-pin High-Density Ultra2 (used by 5 drop LVD cable to SCSI disk), ② 68-pin High-Density Ultra, ③ 50-pin High-Density Ultra; External: ② 68-pin High-Density Ultra2 (on back of adapter) / only use Ultra devices on Port B SCSI connectors SCSI: 5 drop Internal 16-bit LVD cable on port A; IDE: one 2 drop IDE cable (one drop to CD-ROM) Enhanced IDE busmaster (PIIX4E) / Ultra DMA/33 (ATA-33) support / two connectors on planar Cables EIDE disk controller 40X-17X6 CD-ROM / CAV (ATAPI) / bootable / 128KB buffer / 90ms avg access CD-ROM **SECURITY** Diskette drive 3.5" 1.44MB diskette drive / 1 drop cable Cover key lock (in rear) Ethernet controller Intel EtherExpress PRO/100B / PCI 82558 ethernet chip on planar / PCI bus Cover tamper detect switch 10BaseT and 100BaseTX / RJ45 UTP connector / Wake on LAN® / Alert on LAN LANClient Control Managerä enabled / Wake on LAN / Setup over LAN / Hybrid RPL / DHCP/BOOTP / software image download LM81-compatible (Analog Devices ADM9240) / hardware chip to monitor Secure fixed disk Serial EEPROM with write protect LCCM support Power-on password Adminstrator password Systems mgmt cntrl Keyboard/mouse password temperature, fan speeds, voltage, system cover removal / I²C Wake-Up on LAN password prompt Audio Crystal CS4235 chip on planar / stereo / ISA bus / FM Synthesis / int speaker Boot sequence control Audio connectors Stéreo line in / mic in / line out (all in back) / software volume control Boot without keyboard or mouse Headset with noise canceling microphone Microphone Diskette boot inhibit Serial / parallel / USB Ser: Two 9 pin / 115 Kbps Par: One (EPP, ECP) / IEEE 1284 USB: Two ports Disable mouse Disable external SCSI port 104 key (rubber dome) keyboard / keyboard extender / IBM 3 button mouse Keyboard / mouse Cooling fans Four variable speed fans (two in front, one in back, one in power supply) Diskette write-protect Diskette I/O control Power supply 330 watts / universal / auto-sensing / Wake on LAN Hard disk I/O control Bay ① 5.25", HH 1.6", access, Bay ② 5.25", HH 1.6", access, Bay ③ 3.5", SL 1", access, Bay ④ 3.5", SL 1", access, Bay ⑤ 3.5", SL 1", no access Bay ⑥ 3.5", SL 1", no access Bay ⑦ 3.5", SL 1", no access Bay ⑦ 3.5", SL 1", no access Bay ⑦ 3.5", SL 1", no access Bay ⑦ 3.5", SL 1", no access std CD-ROM Serial/parallel port I/O control open Secure access openings CD-ROM open Secure removable media std diskette VPD stored in EEPROM any two no access, open (disk only) Write protection for EEPROM bays can be no access, open (disk only) diskette Remotely readable DMI-compliant: Half Height no access, std disk (disk only) System EEPROM on motherboard (5) Slot 1: fullsize, 32-bit AGP (3.3v) - used by AGP graphics adapter Slot 2: fullsize, 32-bit PCI 2.1 (5v) - used by Wildcat 4000 RA adapter (some models) Slot 3: fullsize, 32-bit PCI 2.1 (5v) - used by SCSI adapter (some models) Slot 4: fullsize, 32-bit PCI 2.1 (5v) Slot 5: fullsize, 32-bit PCI 2.1 (5v) Slot 6: fullsize, 32-bit PCI 2.1 (5v) (info and serial no for CPU, riser, 6 system unit, CD-ROM, diskette, disk empty blank fields); also can read/ Mini tower: write with external RF unit Stealth EEPROMs on DIMMs (component black color info, serial no) Slot 7: fullsize, 16-bit ISA or 32 bit PCI 2.1 (5v) Disk firmware (component info, Alert on LAN™ - provides local or remote The Setup Utility resides in flash memory; invoked serial no) monitoring; immediate notification of system by pressing F1 key during memory POST Power management features: events such as chassis intrusion, disconnect, Advanced Power Mgmt 1.2 Configurable levels for system, start up errors, even if powered off **Asset ID**^{TM,16} **(RFID)** - uses radio frequency (RF) technology for deployment, inventory, and Support for DMI technology (includes MIF browser) CPU, and monitor including powering with DMI Service Layer 2.0, DMI BIOS 2.1, and system and/or display off DMI software; DMI 2.0 compliant Wake Up on Ring (via modem) from Plug-and-Play 1.0a ISO 9241-3 capable security; includes EEPROM that can be off state accessed via DMI software through network or an Wake Up on Alarm (scheduled time) Vital Product Data support (type, model, serial, id) 7.87"W x 18.10"D x 19.37"H; 45 lbs max (shipped) external RF link such as hand-held RF read/write from off state units; supports theft protection Wake-on-LAN from off state SMART Reaction™ - automatic backup of disk 200 mm W x 460 mm D x 492 mm H; 20.4 kg PCI Wake Up from supported PCI PC 97 compliant Several hardcopy publications; four stabilizing feet DMI 2.0 compliant with DMI manageability chip 512KB SurePath BIOS (Flash over LAN support) Four variable speed fans (three in Wired for Management 1.1a Supplier's Declaration available

Boot support for LS120, ZIP, CD-ROM, or DVD

Adv Config and Power Interface (ACPI) 1.04

Universal Management Agent support

one in power supply)

system (two in front; one in back) and

運属 IntelliStation® Z Pro (6866) - withdrawn

Type-model	Standard disk (rpm) ms read seek / inter CD-ROM ⁶	Intel® Processor MHz¹; 2-way SMP supp	L	Vrite-bacl .2 cache standard	Rambus memory; k std MB / type; memory card; devices / RIMMs	Graphics controller in AGP Pro110 slot; adapter memory std / max ¹³	Total bus slots available	Total bays	Ethernet / SCSI Avail- Chip set able Preload ¹⁷ date
Mini Tower;	7 slot x 9 bay; Stealtl	h Black - US mo	dels						
≈ 6866-11U	9.1GB ² (10K) 5 ms / Ultra160 48X-20X ⁴ CD-ROM	1 x Pentium [®] III Xeon [™] 667/133		256KB full spd	256MB / PC600 4 slot mem card Two 8D RIMMs	Millennium G400 AGP 4X adapter 16/16MB SGRAM	PCI=6 AGP110=0	3 used 6 empty	eth / SCSI Feb 840 / 2000 NT 4.0
≈ 6866-14U	9.1GB (10K) 5 ms / Ultra160 48X-20X CD-ROM	1 x Pentium III Xeon 667/133	SMP via 2nd Proc	256KB full spd	256MB / PC600 8 slot mem card Two 8D RIMMs	ELSA™ Gloria II AGP 4X adapter 64/64MB SDRAM	PCI=6 AGP110=0	3 used 6 empty	eth / SCSI Feb 840 / 2000 NT 4.0
≈ 6866-15U	9.1GB (10K) 5 ms / Ultra160 48X-20X CD-ROM	1 x Pentium III Xeon 667/133	SMP via 2nd Proc	256KB full spd	256MB / PC600 4 slot mem card Two 8D RIMMs	IBM Fire GL1 ¹¹ AGP 2X adapter 32/32MB SGRAM	PCI=6 AGP110=0	3 used 6 empty	eth / SCSI Feb 840 / 2000 NT 4.0
≈ 6866-24U	9.1GB (10K) 5 ms / Ultra160 48X-20X CD-ROM	1 x Pentium III Xeon 733/133	SMP via 2nd Proc	256KB full spd	256MB / PC600 8 slot mem card Two 8D RIMMs	ELSA Gloria II AGP 4X adapter 64/64MB SDRAM	PCI=6 AGP110=0	3 used 6 empty	eth / SCSI Feb 840 / 2000 NT 4.0
≈ 6866-25U	9.1GB (10K) 5 ms / Ultra160 48X-20X CD-ROM	1 x Pentium III Xeon 733/133	SMP via 2nd Proc	256KB full spd	256MB / PC600 4 slot mem card Two 8D RIMMs	IBM Fire GL1 AGP 2X adapter 32/32MB SGRAM	PCI=6 AGP110=0	3 used 6 empty	eth / SCSI Feb 840 / 2000 NT 4.0
≪ 6866-16U ———————————————————————————————	18.2GB (10K) 5 ms / Ultra160 48X-20X CD-ROM	1 x Pentium III Xeon 667/133	SMP via 2nd Proc	256KB full spd	256MB / PC600 8 slot mem card Two 8D RIMMs	Wildcat 4110 AGP 2X adapter 128/128MB SDRAM	PCI=6 AGP110=0	3 used 6 empty	eth / SCSI Feb 840 / 2000 NT 4.0
≈ 6866-21U	9.1GB (10K) 5 ms / Ultra160 48X-20X CD-ROM	1 x Pentium III Xeon 733/133	SMP via 2nd Proc	256KB full spd	256MB / PC600 4 slot mem card Two 8D RIMMs	Millennium G400 AGP 4X adapter 16/16MB SGRAM	PCI=6 AGP110=0	3 used 6 empty	eth / SCSI Feb 840 / 2000 NT 4.0
<a>≪ 6866-26U	18.2GB (10K) 5 ms / Ultra160 48X-20X CD-ROM	1 x Pentium III Xeon 733/133	SMP via 2nd Proc	256KB full spd	512MB / PC600 8 slot mem card Two 16D RIMMs	Wildcat 4110 AGP 2X adapter 128/128MB SGRAM	PCI=6 AGP110=0	3 used 6 empty	eth / SCSI Feb 840 / 2000 NT 4.0
	18.2GB (10K) 5 ms / Ultra160 48X-20X CD-ROM	SMP via 2 x Pentium III Xeor 733/133	None n	256KB full spd	512MB / PC600 8 slot mem card Two 16D RIMMs	Wildcat 4110 AGP 2X adapter 128/128MB SGRAM	PCI=6 AGP110=0	3 used 6 empty	eth / SCSI Feb 840 / 2000 NT 4.0
≈ 6866-30U	9.1GB (10K) 5 ms / Ultra160 48X-20X CD-ROM	1 x Pentium III Xeon 800EB/133		256KB full spd	256MB / PC600 4 slot mem card Two 8D RIMMs	Millennium G400 AGP 4X adapter 16/16MB SGRAM	PCI=6 AGP110=0	3 used 6 empty	eth / SCSI Feb 840 / 2000 NT 4.0
≈ 6866-31U	18.2GB (10K) 5 ms / Ultra160 48X-20X CD-ROM	1 x Pentium III Xeon 800EB/133	SMP via 2nd Proc	256KB full spd	512MB / PC600 8 slot mem card Two 16D RIMMs	Wildcat 4110 AGP 2X adapter 128/128MB SGRAM	PCI=6 AGP110=0	3 used 6 empty	eth / SCSI Feb 840 / 2000 NT 4.0
 6866-19U for AAP <a href<="" td=""><td>no disk 48X-20X CD-ROM</td><td>1 x Pentium III Xeon 667/133</td><td>SMP via 2nd Proc</td><td>256KB full spd</td><td>None 4 slot mem card</td><td>None</td><td>PCI=6 AGP110=1</td><td>2 used 7 empty</td><td>eth / SCSI Feb 840 / 2000 No OS</td>	no disk 48X-20X CD-ROM	1 x Pentium III Xeon 667/133	SMP via 2nd Proc	256KB full spd	None 4 slot mem card	None	PCI=6 AGP110=1	2 used 7 empty	eth / SCSI Feb 840 / 2000 No OS
 6866-29U for AAP 	no disk 48X-20X CD-ROM	1 x Pentium III Xeon 733/133	SMP via 2nd Proc	256KB full spd	None 4 slot mem card	None	PCI=6 AGP110=1	2 used 7 empty	eth / SCSI Feb 840 / 2000 No OS
≈ 6866-38U for AAP	no disk 48X-20X CD-ROM	1 x Pentium III Xeon 800EB/133	SMP via 2nd Proc	256KB full spd	None 4 slot mem card	None	PCI=6 AGP110=1	2 used 7 empty	eth / SCSI Feb 840 / 2000 No OS
≈ 6866-40U	9.1GB (10K) 5 ms / Ultra160 48X-20X CD-ROM	1 x Pentium III Xeon 866/133	SMP via 2nd Proc	256KB full spd	256MB / PC600 4 slot mem card Two 8D RIMMs	Millennium G400 AGP 4X adapter 16/16MB SGRAM	PCI=6 AGP110=0	3 used 6 empty	eth / SCSI Apr 840 / 2000 NT 4.0
≈ 6866-41U	18.2GB (10K) 5 ms / Ultra160 48X-20X CD-ROM	1 x Pentium III Xeon 866/133	SMP via 2nd Proc	256KB full spd	512MB / PC600 8 slot mem card Two 16D RIMMs	Wildcat 4110 AGP 2X adapter 128/128MB SGRAM	PCI=6 AGP110=0	3 used 6 empty	eth / SCSI Apr 840 / 2000 NT 4.0
← 6866-48U for AAP	no disk 48X-20X CD-ROM	1 x Pentium III Xeon 866/133	SMP via 2nd Proc	256KB full spd	None 4 slot mem card	None	PCI=6 AGP110=1	2 used 7 empty	eth / SCSI Apr 840 / 2000 No OS

Windows NT Preload17 Windows NT® Workstation 4.0 (SP5)

ConfigSafe for Windows NT Access IBM Other utilities, drivers, and applications

- Free license for Lotus® SmartSuite® Millennium
- Free license for Lotus Notes® Client
- ♦ Software Selections CD-ROM
- Norton AntiVirus™ (OEM edition)
- CoSession Remote 32
- IBM Update Connector™
- IBM Internet Connection
- IBM Universal Manageability Services
- IBM UM Desktop Extensions
- PC-Doctor
- ♦ Windows NT Product Recovery CD-ROM
- ♦ Device Drivers and Diagnostics CD-ROM
- C: is 2GB as FAT16
- Remainder of disk is unformatted

Options

10K2339 Xeon Pentium III 667MHz Second Proc Xeon Pentium III 733MHz Second Proc 10K3800 Xeon Pentium III 800MHz Second Proc 10K3801 Xeon Pentium III 866MHz Second Proc 10K3811 33L3093 64MB 600MHz ECCRDRAM (4 Dev) 128MB 600MHz ECCRDRAM (8 Dev) 33L3095 256MB 600MHz ECCRDRAM (16 Dev) 33L3097 64MB 800MHz ECCRDRAM (4 Dev) 128MB 800MHz ECCRDRAM (8 Dev) 20L0274 20L0275 256MB 800MHz ECCRDRAM (16 Dev) 20L0277 IBM IDE 8X DVD-ROM (black) 33L5016 IBM IDE ReWritable CD-RW (black) 33L5005 00N8078

250MB Internal ZIP Drive (black) 18.2GB 7200 rpm Wide Ultra2 SCSI disk 18.2GB 10000 rpm Wide Ultra2 SCSI IBM Rack Mount Kit

Visit www.ibm.com/options for a complete list of compatible options

WARRANTY SERVICE SUPPORT³

- 3 year parts and labor warranty
- International Warranty Service³
- On site, 8 am through 5 pm, Mon through Fri excluding holidays, next business day response time
- On site warranty upgrade option:
- 4 hour response¹⁴, 7 day x 24 hr
- Post warranty on site options:
 - Next day response¹⁴, Mon-Fri 8-5
 - 4 hour response¹⁴, 7 day x 24 hr
- IBM SystemXtra®

20L0554

00N8072

10L7006

24 hour x 7 day telephone, electronic, and Internet support

III IntelliStation® Z Pro (6866) - withdrawn

IBM® IntelliStation® Z Pro											
Type Processor(s) Implementation Processor upgrade L2 cache Avail/withdrawn date	Processor and L2 cache in 2-way SMP via identical pro 256KB std and max / ECC	n® III Xeon™ 667, 733, or 800EB, or 866MHz¹/133MHz Single Edge Contact Cartridge (SECC) in protective met ocessor / upgrade via second SECC into second mother / at processor speed / 8-way set associative / write-back o/some withdrawn June 2000; others November 2000	tal case / plugged into Intel Slot 2 board Slot 2 connector / MPS 1.4								
Memory	Some: 4 slot memory card Some: 8 slot memory card Repeater Hub (MR C-RIMMs req in em ECC memory controller an	256 or 512MB std / two or four RDRAM (Rambus) channels / 32 devices max each channel / 840 supports 4GB max ¹³ Some: 4 slot memory card with two RDRAM channels and max of 4x256MB=1GB / C-RIMMs required in empty slots Some: 8 slot memory card with four RDRAM channels and max of 8x256MB=2GB) / 82803 Memory Repeater Hub (MRH-R) converts each channel into two channels (2x2=4 channels total) / C-RIMMs req in empty sockets; except channel 3 and 4 can be totally empty if channel 3 is not used ECC memory controller and RIMMs /184-pin gold-plated RIMM sockets / supports PC600 or PC800 RIMMs (not PC700) / all installed RIMMs must be same speed (PC600 or PC800) and installed in pairs across channels / 2.5v									
Graphics controller		Matrox® Millennium G400 (performance 2D), IBM Fire GL1¹¹ or ELSA™ Gloria II (advanced 3D), or ntense3D® Wildcat 4110 AGP Adapter (extreme 3D)									
	IBM Fire GL1 / AGP 2X add 32MB std / 32MB max / 256 and OpenGL 3D engine / 25	S-bit 100MHz SGRAM 2D std and max / 350MHz RA	adapter / 64MB 128-bit 110MHz SDRAM MDAC / 2048x1536 at 75Hz / er / 256-bit QuadPipe rendering engine								
		GP Adapter / AGP 2X adapter / 64MB 128-bit 143MHz Sture memory) / 2D and 3D engine / DB-15 and DVI-I ports									
Architecture (chipset) Form factor / bus Rack mountable	82803AA Memory Repeate 82801AA I/O Controller Hu 82802AC Firmware Hub / N	erated Hub Architecture / 266MB/sec I/O channel / 820 er Hub (MRH-R) / 82806 PCI Controller Hub (P64H) for b (ICH) for 32-bit PCI slots, ATA-66 EIDE, USB, Low P NS 87363 Super I/O for diskette, parallel, serial, keyboa anar (no riser) / PCI and AGP Pro 1.1a (AGP Pro 110; 6 al mounting kit	64-bit PCI slots and SCSI controller / in Count interface / ird, mouse off Low Pin Count interface								
Disk SCSI controller SCSI connectors	Adaptec® AIC-7899 / dual Internal Port A: 68 pin (atta on rear (connected by 1-dr	e Ultra160 SCSI / S.M.A.R.T. ⁵ channel Ultra160 SCSI controller (160MB/sec) / on plan ches 6-drop cable to SCSI disk); <i>External Port B:</i> 68 pir op 16-bit LVD cable to connector on planar)	n SCSI port								
IDE cables EIDE disk controller	One 2-drop IDE ATA-33 cab Enhanced IDE / ATA-66 an integrated in I/O Controller	d PIO modes 0-4 with 2 channel, 4 device support /	SECURITY - Cover key lock and U-bolt support - Cover tamper detect switch								
CD-ROM / diskette	48X-20X ⁶ CD-ROM, CAV	(ATAPI), bootable / 3.5" 1.44MB diskette drive	- Secure fixed DASD - Serial EEPROM with write protect								
Ethernet controller Systems mgmt cntrl	10BaseT and 100BaseTX / Temperature sensors, fan-	D/100 / 82559 ethernet chip on planar / PCI bus / RJ45 UTP connector / Wake on LAN® / Alert on LAN 2 speed monitor, chassis-intrusion detector, power onitor, and power-switch bypass / AD1025	- Power-on password - Administrator password - Keyboard/mouse password - Wake Up on LAN password prompt								
Audio connectors Audio connectors Audio features Microphone Ports Security chip	AC '97 interface / AD1881 of Line in with active pre-amp Internal speaker with autor None MIDI/Joystick: One Ser: T	ital audio / software-based (done by Pentium and ICH) / codec (analog mixing, A-to-D and D-to-A conversion) / mic in / line out (all 3.5mm; all in back) natic jack sense switching / software volume control wo 9-pin Par: One USB: Two ports (Vers 1.1) hip / soldered on motherboard	- Boot sequence control - Boot without keyboard or mouse - Diskette boot inhibit - Disable mouse - Disable external SCSI port - Diskette write-protect - Diskette, disk, serial port, parallel port								
Keyboard / mouse Power supply	104 key keyboard / keyboa 490 watts / universal / auto	rd extender / IBM ScrollPoint™ II mouse (3 button)	- Secure access openings - Secure removable media								
① Batter State Sta	ay ① 5.25", HH 1.6", acces ay ② 5.25", HH 1.6", acces ay ③ 3.5", SL 1", acces ay ④ 3.5", SL 1", no acc ay ⑥ 3.5", SL 1", no acc	s, open s, std CD-ROM	- VPD stored in EEPROM - Write protection control for EEPROM - Barcode labels on most components - IBM Security Solutions Maximum internal SCSI disk capacity ¹³ : 127.4GB (6 x 18.2GB 7200 or 10K rpm and 1 x 18.2GB 7200 rpm)								
Ba	$\mathbf{ay} \ \otimes \ 3.5$ ", SL 1", no acc $\mathbf{ay} \ \otimes \ 3.5$ ", SL 1", no acc	cess, open (disk only) two HH 1.6" disks] cess, std disk (disk only) 110 (universal) Slot 4: full, 32-bit 33MHz PCI 2.2 (5v)	SYSTEMS MANAGEMENT • Asset ID™ (RFID)¹6 • Alert on LAN™ 2								
	used by AGP graphics 4110 models can not use tot 2: full, 32-bit 33MHz PCI tot 3: full, 32-bit 33MHz PCI	use slot 2 Slot 6: full 64-bit 66MHz PCI 2.2 (3.3v) 2.2 (5v) Slot 7: full, 64-bit 66MHz PCI 2.2 (3.3v)	Universal Manageability Services and Universal Manageability (UM) Desktop Extensions enabled LANClient Control Manager™ enabled								
SECU	IRITY CHIP	OTHER STANDARD FEATURES	- SMART Reaction™.5 II • PC 99-compliant								
secure key storag - Can sign each e-r signature (1024-b can verify sender - Public Key Infrast more secure e-ma Internet transactic Layer (SSL) for er capabilities (128-b	nail with a digital it) so receiving party ructure (PKI) for ail, web access and ons, and Secure Sockets cryption/decryption it encryption)	The Setup Utility resides in flash memory; invoked by pressing F1 key during memory POST ESC for fast POST; F12 for network boot at startup Plug-and-Play 1.0a; ISO 9241-3 capable Vital Product Data support (type, model, serial, id) 8.5"W x 23.9"D x 17.3"H; 75 lbs maximum 216 mm W x 606 mm D x 440 mm H; 34 kg max Several hardcopy publications 512KB BIOS (Flash over LAN support) Supplier's Declaration available	DMI 2.0-compliant Common Information Model (CIM) 2.2 Asset Information Chip (EEPROM) Wired for Management 2.0 ACPI 1.0 Advanced Power Management 1.2 Wake on LAN support Alternate Boot Sequence RPL, DHCP, and PXE 2.0 support Setup on LAN, Flash on LAN Wake on Alarm								
- Uses User Vertica available from IBN	tion Manager software I web site	Four fans (one for adapters, two for processor/ memory/disk, one in power supply)	System Management BIOS Version 2.3 Systems Migration Assistant support								

III IntelliStation® Z Pro (6866) - Summer and Fall 2000 - withdrawn

Type-model	Disk rpm interface	Intel® Processor MHz1; 2-way SMP support	Rambus memory; std MB / type / memory card; qnty and devices on RIMMs	Graphics controller in AGP Pro110 slot adapter memory std		Total bays	SCSI / chip set Preload ¹⁷	Avail- able date
Mini Tower;	7 slot x 9 bay; Stealtl	h Black - US models						
6866-34U	9.1GB ² 10K Ultra160 48X-20X ⁴ CD-ROM	1 x Pentium® III Xeon™ 800/133	512MB / PC600 / 8 slot Two 16D RIMMs	ELSA™ Gloria II AGP 4X / 64MB	PCI=6 AGP110=0	3 used 6 empty	SCSI / 840 NT 4.0	Jun 2000
6866-44U	9.1GB 10K Ultra160	1 x Pentium III Xeon	512MB / PC600 / 8 slot	ELSA Gloria II	PCI=6	3 used	SCSI / 840	Jun
	48X-20X CD-ROM	866/133	Two 16D RIMMs	AGP 4X / 64MB	AGP110=0	6 empty	NT 4.0	2000
6866-50U	9.1GB 10K Ultra160	1 x Pentium III Xeon	256MB / PC600 / 4 slot	Millennium G400	PCI=6	3 used	SCSI / 840	Jun
	48X-20X CD-ROM	933/133	Two 8D RIMMs	AGP 4X / 16MB	AGP110=0	6 empty	NT 4.0	2000
6866-54U	9.1GB 10K Ultra160	1 x Pentium III Xeon	512MB / PC600 / 8 slot	ELSA Gloria II	PCI=6	3 used	SCSI / 840	Jun
	48X-20X CD-ROM	933/133	Two 16D RIMMs	AGP 4X / 64MB	AGP110=0	6 empty	NT 4.0	2000
6866-56U	18.2GB10K Ultra160	1 x Pentium III Xeon	512MB / PC600 / 8 slot	Wildcat 4110	PCI=5	3 used	SCSI / 840	Jun
	48X-20X CD-ROM	933/133	Two 16D RIMMs	AGP 2X / 128MB	AGP110=0	6 empty	NT 4.0	2000
6866-58U	18.2GB10K Ultra160	1 x Pentium III Xeon	512MB / PC600 / 8 slot	Wildcat 4210	PCI=4	3 used	SCSI / 840	Jun
	48X-20X CD-ROM	933/133	Two 16D RIMMs	AGP 2X / 256MB	AGP110=0	6 empty	NT 4.0	2000
6866-5AU	9.1GB 10K Ultra160	1 x Pentium III Xeon	256MB / PC600 / 4 slot	Millennium G450	PCI=6	3 used	SCSI / 840	Oct
	48X-20X CD-ROM	866/133	Two 8D RIMMs	AGP 4X / 16MB	AGP110=0	6 empty	2000 or NT	2000
6866-5BU	18.2GB10K Ultra160	1 x Pentium III Xeon	512MB / PC600 / 8 slot	Wildcat 4110	PCI=5	3 used	SCSI / 840	Oct
	48X-20X CD-ROM	866/133	Two 16D RIMMs	AGP 2X / 128MB	AGP110=0	6 empty	2000 or NT	2000
6866-5CU	9.1GB10K Ultra160	1 x Pentium III Xeon	512MB / PC600 / 8 slot	nVidia Quadro2	PCI=6	3 used	SCSI / 840	Oct
	48X-20X CD-ROM	866/133	Two 16D RIMMs	AGP 4X / 32MB	AGP110=0	6 empty	2000 or NT	2000
6866-6AU	18.2GB10K Ultra160	1 x Pentium III Xeon	256MB / PC600 / 4 slot	Millennium G450	PCI=6	3 used	SCSI / 840	Oct
	48X-20X CD-ROM	933/133	Two 8D RIMMs	AGP 4X / 16MB	AGP110=0	6 empty	2000 or NT	2000
6866-6BU	18.2GB10K Ultra160	1 x Pentium III Xeon	512MB / PC600 / 8 slot	nVidia Quadro2	PCI=6	3 used	SCSI / 840	Oct
	48X-20X CD-ROM	933/133	Two 16D RIMMs	AGP 2X / 32MB	AGP110=0	6 empty	2000 or NT	2000
6866-6CU	18.2GB10K Ultra160	1 x Pentium III Xeon	512MB / PC600 / 8 slot	Wildcat 4110	PCI=5	3 used	SCSI / 840	Oct
	48X-20X CD-ROM	933/133	Two 16D RIMMs	AGP 2X / 128MB	AGP110=0	6 empty	2000 or NT	2000
6866-6DU	18.2GB 10K Ultra160	1 x Pentium III Xeon	512MB / PC600 / 8 slot	Wildcat 4210	PCI=4	3 used	SCSI / 840	Oct
	48X-20X CD-ROM	933/133	Two 16D RIMMs	AGP 2X / 256MB	AGP110=0	6 empty	2000 or NT	2000
6866-60U	18.2GB10K Ultra160	1 x Pentium III Xeon	256MB / PC600 / 8 slot	Millennium G450	PCI=6	3 used	SCSI / 840	Oct
	48X-20X CD-ROM	1.0GHz ¹ /133	Two 8D RIMMs	AGP 4X / 16MB	AGP110=0	6 empty	2000 or NT	2000
6866-64U	18.2GB10K Ultra160	1 x Pentium III Xeon	512MB / PC600 / 8 slot	nVidia Quadro2	PCI=6	3 used	SCSI / 840	Oct
	48X-20X CD-ROM	1.0GHz/133	Two 16D RIMMs	AGP 4X / 32MB	AGP110=0	6 empty	2000 or NT	2000
6866-68U	36.4GB10K Ultra160	1 x Pentium III Xeon	512MB / PC600 / 8 slot	Wildcat 4210	PCI=4	3 used	SCSI / 840	Oct
	48X-20X CD-ROM	1.0GHz/133	Two 16D RIMMs	AGP 2X / 256MB	AGP110=0	6 empty	2000 or NT	2000
6866-69U	18.2GB10K Ultra160	1 x Pentium III Xeon	512MB / PC600 / 8 slot	IBM Fire GL2	PCI=6	3 used	SCSI / 840	Oct
	48X-20X CD-ROM	1.0GHz/133	Two 16D RIMMs	AGP 4X / 64MB	AGP110=0	6 empty	2000 or NT	2000
6866-4RU	no disk Ultra160	1 x Pentium III Xeon	256MB / PC600 / 8 slot	Millennium G450	PCI=6	2 used	SCSI / 840	Oct
	48X-20X CD-ROM	866/133	Two 8D RIMMs	AGP 4X / 16MB	AGP110=0	7 empty	DOS 2K	2000
6866-5RU	no disk Ultra160	1 x Pentium III Xeon	256MB / PC600 / 8 slot	Millennium G450	PCI=6	2 used	SCSI / 840	Oct
	48X-20X CD-ROM	933/133	Two 8D RIMMs	AGP 4X / 16MB	AGP110=0	7 empty	DOS 2K	2000
6866-6PU	no disk Ultra160	1 x Pentium III Xeon	256MB / PC600 / 8 slot	Millennium G450	PCI=6	2 used	SCSI / 840	Oct
	48X-20X CD-ROM	1.0GHz/133	Two 8D RIMMs	AGP 4X / 16MB	AGP110=0	7 empty	DOS 2K	2000

- ≈ 18.2GB Ultra160 SCSI 10000 rpm is 5ms average read seek time, SMART
- 18.2GB Ultra160 SCSI 10000 rpm is 5.5ms average read seek time, SMART

Windows NT Preload17

Windows NT® Workstation 4.0 (SP5) ConfigSafe for Windows NT Access IBM

Other utilities, drivers, and applications
- Free license for Lotus® SmartSuite®
Millennium

- Free license for Lotus Notes® Client
- → Software Selections CD-ROM
- ♦ Windows NT Product Recovery CD-ROM
- Device Drivers and Diagnostics CD-ROM

Windows 2000 Professional Preload¹⁷

Windows 2000 Professional

- Free license for Lotus® SmartSuite® Millennium
- Free license for Lotus Notes® Client
 Device Drivers and Diagnostics CD-ROM
- ♦ Software Selections CD-ROM
- ♦ Windows 2000 Product Recovery CD-ROM♦ Windows NT 4.0 (SP6) Product Recovery

Options

Xeon Pentium III 800MHz Second Proc 10K3801 Xeon Pentium III 866MHz Second Proc 10K3811 Xeon Pentium III 933MHz Second Proc 10K3812 Xeon Pentium III 1GHz Second Proc 34L5274 64MB 600MHz ECCRDRAM (4 Dev) 33L3093 128MB 600MHz ECCRDRAM (8 Dev) 33L3095 256MB 600MHz ECCRDRAM (16 Dev) 33L3097 64MB 800MHz ECCRDRAM (4 Dev) 20L0274 128MB 800MHz ECCRDRAM (8 Dev) 20L0275 256MB 800MHz ECCRDRAM (16 Dev) 20L0277 IBM IDE 9.4GB DVD-RAM (black) 10K3651 IBM IDE ReWritable CD-RW (black) 33L5005 250MB Internal ZIP Drive (black) 00N8078 18.2GB 7200 rpm Ultra160 SCSI disk 00N8205 18.2GB 10000 rpm Ultra160 SCSI 00N8208 36.4GB 7200 rpm Ultra160 SCSI 00N8206 36.4GB 10000 rpm Ultra160 SCSI 00N8209 IBM Rack Mount Kit 10L7006

Visit www.ibm.com/options for a complete list of compatible options

WARRANTY SERVICE SUPPORT*,3

- 3 year parts and labor warranty
- International Warranty Service³
- On site, 8 am through 5 pm,
 Mon through Fri excluding holidays,
 next business day response time
- On site warranty service upgrade options:
 - 4 hour response, 7 day x 24 hr7
- Post warranty maintenance services available
- 24 hour x 7 day telephone, electronic, and Internet support

^{*} For a copy of IBM's Statement of Limited Warranty, call 1-800-772-2227 US models announced June 6 or October 10, 2000

III IntelliStation® Z Pro (6866) - Summer and Fall 2000 - withdrawn

IBM® IntelliStation® 2	Z Pro										
Type Processor(s) Implementation Processor upgrade L2 cache Avail/withdrawn date	Processor and L2 cache in 2-way SMP via identical pro 256KB std and max / ECC	5866 One or two Intel® Pentium® III Xeon™ 800, 866, or 933MHz¹ or 1.0B GHz¹ / 133MHz Front Side Bus Processor and L2 cache in Single Edge Contact Cartridge (SECC) in protective metal case / plugged into Intel Slot 2 2-way SMP via identical processor / upgrade via second SECC into second motherboard Slot 2 connector / MPS 1.4 256KB std and max / ECC / at processor speed / 8-way set associative / write-back / integrated in SECC2 June 2000 or October 2000 / November 2000 or May 2001 or October 2001									
Memory	Some: 4 slot memory card Some: 8 slot memory card Repeater Hub (MR C-RIMMs req in em ECC memory controller an	56 or 512MB std / two or four RDRAM (Rambus) channels / 32 devices max each channel / 840 supports 4GB max ¹³ lome: 4 slot memory card with two RDRAM channels and max of 4x256MB=1GB / C-RIMMs required in empty slots lowe: 8 slot memory card with four RDRAM channels and max of 8x256MB=2GB) / 82803 Memory Repeater Hub (MRH-R) converts each channel into two channels (2x2=4 channels total) / C-RIMMs req in empty sockets; except channel 3 and 4 can be totally empty if channel 3 is not used CC memory controller and RIMMs /184-pin gold-plated RIMM sockets / supports PC600 or PC800 RIMMs (not PC700) / Il installed RIMMs must be same speed (PC600 or PC800) and installed in pairs across channels / 2.5v									
Graphics controller		or G450 (performance 2D), or AGP Adapter (extreme 3D), or		lia™ Quadro2 MXR (advanced 3D), or DAGP Adapter (extreme 3D)							
	Intense3D Wildcat 4110 AG 64MB 128-bit 143MHz SDRA 64-bit 143MHz SDRAM (textu engine / DB-15 and DVI-I port	P Adpter / AGP 2X adapter / M (frame buffer) and 64MB ure memory) / 2D and 3D	ELSA Gloria II / AGP 4X a std and max / 350MHz RA	adapter / 64MB 128-bit 110MHz SDRAM MDAC / 2048x1536 at 75Hz / er / 256-bit QuadPipe rendering engine /							
				SDRAM (frame buffer) and 128MB monitor for W2000; single for NT)							
Architecture (chipset) Form factor / bus Rack mountable	82803AA Memory Repeate 82801AA I/O Controller Hu 82802AC Firmware Hub / N	er Hub (MRH-R) / 82806 PCI C Ib (ICH) for 32-bit PCI slots, A' NS 87363 Super I/O for diskett anar (no riser) / PCI and AGP	Controller Hub (P64H) for TA-66 EIDE, USB, Low P te, parallel, serial, keyboa	840 Memory Controller Hub (MCH) / 64-bit PCI slots and SCSI controller / Pin Count interface / ard, mouse off Low Pin Count interface 66MHz; AGP 4X; 1GB/sec) / see below							
SCSI controller SCSI connectors	Adaptec® AIC-7899 / dual Internal Port A: 68 pin (atta	channel Ultra160 SCSI contro ches 6-drop cable to SCSI disl	k); <i>Èxternal Port B:</i> 68 piı								
IDE cables EIDE disk controller	on rear (connected by 1-dr One 2-drop IDE ATA-33 cab Enhanced IDE / ATA-66 an integrated in I/O Controller	SECURITY - Cover key lock and U-bolt support - Cover tamper detect switch									
CD-ROM / diskette	48X-20X6 CD-ROM, CAV	(ATAPI), bootable / 3.5" 1.44I	MB diskette drive	duly description of the second of the secon							
Ethernet controller Systems mgmt cntrl	10BaseT and 100BaseTX / Temperature sensors, fan-	0/100 / 82559 ethernet chip on RJ45 UTP connector / Wake of speed monitor, chassis-intrusionitor, and power-switch bypa	on LAN® / Alert on LAN 2 ion detector, power	Power-on password Administrator password Keyboard/mouse password Wake Up on LAN password prompt							
Audio connectors Audio features Microphone Ports Security chip	SoundMAX TM integrated dig AC '97 interface / AD1881 of Line in with active pre-amp Internal speaker with autor None MIDI/Joystick: One Ser: T	ital audio / software-based (don codec (analog mixing, A-to-D a d / mic in / line out (all 3.5mm; a natic jack sense switching / so wo 9-pin <i>Par:</i> One <i>USB:</i> Two hip / soldered on motherboard	e by Pentium and ICH) / nd D-to-A conversion) all in back) oftware volume control	- Boot sequence control - Boot without keyboard or mouse - Diskette boot inhibit - Disable mouse - Disable external SCSI port - Diskette write-protect - Diskette, disk, serial port, parallel port							
Keyboard / mouse Power supply		rd extender / IBM ScrollPoint	t™ II mouse (3 button)	- Secure access openings - Secure removable media							
① Ba Ba Ba Ba Ba Ba Ba Ba Ba Ba Ba Ba Ba	ay ① 5.25", HH 1.6", acces ay ② 5.25", HH 1.6", acces ay ③ 3.5", SL 1", acces ay ④ 3.5", SL 1", no acc ay ⑥ 3.5", SL 1", no acc ay ⑥ 3.5", SL 1", no acc	s, open s, std CD-ROM	two HH 1.6" disks]	- VPD stored in EEPROM - Write protection control for EEPROM - Barcode labels on most components - IBM Security Solutions Maximum internal SCSI disk capacity ¹³ : 254.8GB (6 x 36.4GB 7200 or 10K rpm and 1 x 36.4GB 7200 rpm)							
Ba Ba	ay ® 3.5", SL 1", no acc ay ® 3.5", SL 1", no acc	cess, open (disk only) cess, std disk (disk only)	two HH 1.6" disks]	SYSTEMS MANAGEMENT • Asset ID TM (RFID) ¹⁶							
Mini tower; Stealth black color	ot 1: full, 32-bit 4X AGP Pro- - used by AGP graphics - 4110 models can not u - 4210 models can not u ot 2: full, 32-bit 33MHz PCI 2	-bit 33MHz PCI 2.2 (5v) -bit 33MHz PCI 2.2 (5v) -bit 33MHz PCI 2.2 (5v) -bit 66MHz PCI 2.2 (3.3v) -bit 66MHz PCI 2.2 (3.3v)	Alert on LAN™ 2′ Universal Manageability Services and Universal Manageability (UM) Desktop Extensions enabled LANClient Control Manager™ enabled								
	IRITY CHIP	OTHER STANDA	ARD FEATURES	• SMART Reaction™.5 II • PC 99-compliant							
secure key storag Can sign each e-r signature (1024-b can verify sender Public Key Infrast more secure e-ma Internet transactic Layer (SSL) for en capabilities (128-b Uses User Verfica	nail with a digital it) so receiving party ructure (PKI) for ail, web access and ons, and Secure Sockets acryption/decryption oit encryption) tion Manager software	The Setup Utility resides in 1 by pressing F1 key during ESC for fast POST; F12 for Plug-and-Play 1.0a; ISO 92-Vital Product Data support (8.5"W x 23.9"D x 17.3"H; 75216 mm W x 606 mm D x 4-Several hardcopy publication 512KB BIOS (Flash over Lafour fans (one for adapters memory/disk, one in power parts of the product of the second secon	memory PÓST network boot at startup 41-3 capable type, model, serial, id) 5 lbs maximum 40 mm H; 34 kg max ns AN support) , two for processor/	DMI 2.0-compliant Common Information Model (CIM) 2.2 Asset Information Chip (EEPROM) Wired for Management 2.0 ACPI 1.0 Advanced Power Management 1.2 Wake on LAN support Alternate Boot Sequence RPL, DHCP, and PXE 2.0 support Setup on LAN, Flash on LAN Wake on Alarm System Management BIOS Version 2.3							
available from IBN	WOD SILO	I3D 4110 and 4210 model	s	Systems Migration Assistant support Systems Argument and the systems of the systems are expressed or implied in this systems.							

運属 IntelliStation® Z Pro (6894) - withdrawn

IBM® Type-model Qty x Prod	L3	Mem	Disk and rpm	SCSI adapter	CD-RW	Graphics adapter and memory	Slots		Available date
6894-10X 2 x Itaniun 6894-12X 2 x Itaniun 6894-14X 2 x Itaniun 6894-16X 2 x Itaniun	n 800 2MB 2 n 800 2MB 2 n 800 2MB 2	2GB 18.2 2GB 36.4 2GB 18.2	2GB ² Ultra160 10K 4GB Ultra160 10K 2GB Ultra160 10K	39160 39160 39160	CD-RW CD-RW CD-RW	Millennium G450 16MB NVIDIA™ Quadro2 Pro 64MB Millennium G450 16MB NVIDIA Quadro2 Pro 64MB	8x9 8x9 8x9	None None Windows® XP 64-bi Windows XP 64-bi	Jun 2001 Jun 2001 oit Oct 2001
Processor L1 and L2 cache L3 cache Implementation	32KB L1 cac 2MB L3 cacl One Process processor an Board slot, tv	he / 96KE he / inside sor Board ad caches vo Memo	B L2 cache / on die e Itanium cartridge I with two Socket M s / each Itanium pov	of Itaniu / at proc 418-pin vered by en PCI s	m / at pro essor spe LIF sock one Pow lots, one	eed ets / both sockets used by Itar ver Pod on Processor Board / AGP slot, one I/O Board slot,	íum PA systeml	board contains one	
Memory - std / max Memory - features	Two Memory Board for fou	/ Boards ır-way int	standard each with	n eight 1 stall fou	68-pin DI	by / Error Checking and Corr MM sockets / ships standard I DIMMs at a time / adding DI	with for	ur DIMMs on one M	emory
Graphics controller (one of following)	dual RAMDNVIDIA Qu	AC [300/ I adro2 P I	/136MHz] / dual hea ro (advanced 3D) /	ad: 1920 AGP 4X	x1440x1 adapter	oter / Matrox MGA G450C GP 6M at 75Hz and 1280x1024x1 / NV15GL 250MHz GPU / 64N Hz / DB-15 and DVI-I connecto	6M at 7: //B 200	5Hz/two DB-15 cor MHz DDR-SDRAM	nectors /
IDE disk controller SCSI disk controller SCSI connectors Cables Disk - features	Adaptec® AS Two 68-pin ii One 5-drop 1	SC-39160 nternal (C 16-bit LVI) / Ultra160 SCSI (l Channel A and B) / c	_VD 160 one 50-p 2-drop E	MB/sec) in interna EIDE cab	PFirmware Bridge) off the PX / two channel / 64-bit 66MHz al (Chan A) / two 0.8mm VHDO le (attached to CD-RW), and eek / S.M.A.R.T. ⁵	PCI ada SI 68-pii	apter n external (Chan A a	ınd B)
Rack support Architecture / chipset	(SDC), 82463 Bus (GXB), 8	3 Memory 32466GX	y Address Controlle Wide eXpansion B	er (MAC) us (WXE	, 82464G 3), 82467	m Address Controller (SAC), 8 X Memory Data Controller (M NX PCI eXpansion Bus (PXB) Interrupt Device (PID)	DC), 82	465GX Graphics e	Kpansion .
I/O Board and ports Rear external ports Front ports Ethernet CD-RW / diskette Audio Systems mgmt	(Version 1.1) Serial (9-pin) Two USB, au Intel 82559 1 12X/8X/32X ⁶ Soft audio A ⁶), two cha), keyboa udio line i 0/100 etl CD-RW C'97 v2.	annel IDE, chassis ard, mouse, two US in, audio line out hernet / support for // no diskette driv	intrusior B, ether Wake o e suppo Logic C	n, LPC47 net (RJ-4 on LAN®, ort S4281 P	or hardware monitor (ADM102 M142 Super I/O (serial, keybo 5), two disabled audio ports (Alert on LAN™ 2, Preboot eXo Cl audio-codec controller and	oard, m no para ecution	ouse, USB) allel port) Environment (PXE	()
Keyboard / mouse Cooling fans Power supply	Four cooling 92mm fan an	zones / 6 id one 60	mm fan / exhaust z	one with one with	one 80m	nm fans / memory zone with our fans / varialble speed fans / auto sensing / two internal 80r	not red	dundant or hot-swap	

CD-RW 00 **5** 6 7 8

Tower Stealth black

Dov.	a	E 0E"	$\Box\Box$	1 6"	000000	CD DW
					access,	CD-RW
Bay (2)	5.25",	HH,	1.6",	access,	open
Bay (3	5.25",	HH,	1.6",	access,	open
Bay (4)	3.5",	SL	1",	access,	open
Bay (5)	3.5",	SL	1",	no access	, open
Bay (6	3.5",	SL	1",	no access	, open
Bay (7	3.5",	SL	1",	no access	, open
Bay (8	3.5",	SL	1",	no access	, open
Bay (9	3.5",	SL	1",	no access	disk
(Ray	c F	s to a	200	ante t	hraa 1 6 H	H dieke)

(Bays 5 to 9 accepts three 1.6 HH disks)

Slot 1: fullsize, 64-bit 66MHz, PCI 2.2 (3.3v), Bus 1 via WXB

Slot 8: fullsize, 64-bit 33MHz, PCl 2.1 (5v), Bus 0 via PXB

SOFTWARE¹⁷

- 10X/12X: No operating system or preloaded software included
- 14X/16X: Preloaded with Microsoft® Windows® XP 64-bit Edition
- ♦ 14X/16X: Microsoft Windows XP 64-bit Edition Product Recovery CD
- ♦ All: Enhanced Diagnostics CD-ROM All: Compatible with Linux® OS and
- Microsoft® Windows® XP 64-bit Edition
- Slot 2: fullsize, 64-bit 66MHz, PCI 2.2 (3.3v), Bus 1 via WXB used by SCSI adapter Slot 3: fullsize, 64-bit 66MHz, PCI 2.2 (3.3v), Bus 1 via WXB Slot 4: fullsize, 64-bit 66MHz, PCI 2.2 (3.3v), Bus 2 via WXB
- Slot 5: fullsize, 64-bit 66MHz, PCI 2.2 (3.3v), Bus 2 via WXB Slot 6: fullsize, 64-bit 33MHz, PCI 2.1 (5v), Bus 0 via PXB
- Slot 7: fullsize, AGP 4X Pro110 (1.5v) via GXB used by std AGP graphics adapter

SECURITY

- Cover key lock
- Cover tamper detect switch
- Secure fixed DASD
- Power-on password
- Administrator password
- Keyboard/mouse password
- Boot sequence control
- Boot without keyboard or mouse
- · Diskette boot inhibit and writeprotect
- Disable mouse
- Disk, serial port I/O control
- Secure access openings
- VPD stored in EEPROM
- Write protection control for EEPROM

OPTIONS

1GB (4 x 256MB) PC100 ECC SDRAM RDIMM Kit 33L3258 2GB (4 x 512MB) PC100 ECC SDRAM RDIMM Kit 33L3260 4GB (4 x 1GB) PC100 ECC SDRAM RDIMM Kit 33L3262 IBM IDE 12X/8X/32X Max⁴ CD-RW (black) 10K3785 IBM 18.2GB 10K Ultra160 SCSI HDD 00N8200 00N8200 IBM 36.4GB 10K Ultra160 SCSI HDD 00N8209 IBM Netfinity Gigabit Ethernet Adapter 19K4401 PCI Ultra160 SCSI Adapter (Adaptec 39160) IBM G96 19" FST (17.9" viewable) Monitor (black) IBM P96 19" FD (17.9" viewable) Monitor (black) 19K4646 65494AN 655163N IBM P260 21" FD (19.8" viewablé)Monitor (black) 655263N IBM P76 17" FD (16" viewable) Monitor (black) 655063N IBM T85A 18.1" TFT Flat Panel Monitor (black) 9519AG1 19K4464

- Maximum internal SCSI disk capacity¹³: 182GB (5 disks x 36.4GB)

 • H 18" x W 10" x D 25.4"

 • 84 pounds (38.8kg)

- Removable right side panel
- Configuration Manager at startup
- EFI Shell Utility at startup
- SCSISelect via CTRL+A at prompt
- Adv Config Power Interface (ACPI) 1.0
- Wired for Manageability (WfM) 2.0-compliant
- SMBIOS 2.3-compliant PC99A-compliant

LIMITED WARRANTY³

- 3 year parts and labor
- International Warranty Service³
 - On site, 8 am through 5 pm, Mon through Fri excluding holidays, next business day response time
- 3 year on site warranty service upgrade options:
 - 4 hour response, Mon-Fri 9-5 (ServicePac® part number 41L2735)
 - 4 hour response, 7 day x 24 hr (ServicePac part number 41L2741)
- 24x7¹⁴ toll-free support for warranty issues during the warranty period1

III IntelliStation M Pro models - Fall 1997 (6898) - withdrawn

Type-model	Disk: std (rpm) - max interna ms seek / disk interface CD-ROM ⁶ interface Controllers	CPU /	Upgrade	std / max	Memory in MB; std/max ¹³ 66 MHz	controller;	Bus slots P=PCI avai I=ISA avail A=AGP av	Total	Std features	Estimated Reseller Price*	Avail date
6 slot x 6 bay	y; PCI/ISA/AGP; Stealth Gi	ay			1						
≈ 6898-10U	4.2GB ² std (5400) - 27.3G 10ms/EIDE/ATA-33 24 x CD-ROM/EIDE EIDE/2 x Wide Ultra SCSI	1 x Pentium [®] II 233/66 MHz	SMP via 2nd Pent II	512/512 117MHz in SEC Non-ECC	32/512 SDRAM ECC	3Dlabs [®] Permedia [®] 2 AGP adapter 8 / 8 SGRAM	PCI=3 PCI/ISA=1 ISA=1 AGP=0		440LX UU/L/A/Eth Windows N RTC CD		Nov 1997
	4.2GB std (5400) - 27.3G 10ms / EIDE / ATA-33 24 x CD-ROM / EIDE EIDE / 2 x Wide Ultra SCSI	1 x Pentium II 266/66 MHz	SMP via 2nd Pent II	512/512 133MHz in SEC Non-ECC	64/512 SDRAM ECC	3Dlabs PERMEDIA 2 AGP Adapter 8/8 SGRAM	PCI=3 PCI/ISA=1 ISA=1 AGP=0		440LX UU/L/A/Eth Windows N RTC CD		Nov 1997
	6.4GB std (5400) - 27.3G 9.5ms / EIDE / ATA-33 24 x CD-ROM / EIDE EIDE / 2 x Wide Ultra SCSI	1 x Pentium II 300/66 MHz	SMP via 2nd Pent II	512/512 150MHz in SEC ECC	64 / 512 SDRAM ECC	3Dlabs PERMEDIA 2 AGP Adapter 8 / 8 SGRAM	PCI=3 PCI/ISA=1 ISA=1 AGP=0		440LX UU/L/A/Eth Windows N RTC CD		Dec 1997
★ 6898-13U	4.5GB std (7200) - 22.7G 9ms / Wide Ultra SCSI 24 x CD-ROM / EIDE EIDE / 2 x Wide Ultra SCSI	1 x Pentium II 300/66 MHz	SMP via 2nd Pent II	512/512 150MHz in SEC Non-ECC	128/512 SDRAM ECC	3Dlabs PERMEDIA 2 AGP Adapter 8 / 8 SGRAM	PCI=3 PCI/ISA=1 ISA=1 AGP=0		440LX UU/L/A/Eth Windows N RTC CD		Jan 1998
	4.5GB std (7200) - 22.7G 9ms / Wide Ultra SCSI 24 x CD-ROM / EIDE EIDE / 2 x Wide Ultra SCSI	1 x Pentium II 300/66 MHz	SMP via 2nd Pent II	512/512 150MHz in SEC ECC	128/512 SDRAM ECC	Intergraph [®] Intense 3D/4T 16MB SDRAM 4MB SGRAM	PCI=2 PCI/ISA=1 ISA=1 AGP=1		440LX UU/L/A/Eth Windows N RTC CD		Nov 1997
	no disk 24 x CD-ROM / EIDE EIDE / 2 x Wide Ultra SCSI	1 x Pentium II 266/66	SMP via 2nd Pent II	512/512 133MHz Non-ECC	32/512 SDRAM ECC	None	PCI=3 PCI/ISA=1 ISA=1;A=1		UU/L/A/Eth	2740♣₄	Nov 1997
6898-19U for AAP	no disk 24 x CD-ROM / EIDE EIDE / 2 x Wide Ultra SCSI	1 x Pentium II 300/66	SMP via 2nd Pent II	512/512 150MHz ECC	32/512 SDRAM ECC	None	PCI=3 PCI/ISA=1 ISA=1;A=1		UU/L/A/Eth	2966♣₄	Nov 1997
← 6898-22U	6.4GB std (7200) - 27.3G 9.5ms / EIDE / ATA-33 24 x CD-ROM / EIDE EIDE / 2 x Wide Ultra SCSI	1 x Pentium II 333/66 MHz	SMP via 2nd Pent II	512/512 166MHz in SEC ECC	64/512 SDRAM ECC	3Dlabs PERMEDIA 2 AGP Adapter 8 / 8 SGRAM	PCI=3 PCI/ISA=1 ISA=1 AGP=0		440LX UU/L/A/Eth Windows N RTC CD	3418 ♣ T 4.0	Mar 1998
← 6898-24U	9.1GB ⁶ std (10,000) - 22.7G 8.2ms / Wide Ultra SCSI 24 x CD-ROM / EIDE EIDE / 2 x Wide Ultra SCSI	1 x Pentium II 333/66 MHz	SMP via 2nd Pent II	512/512 166MHz in SEC ECC	128/512 SDRAM ECC	Intergraph Intense 3D/4T 16MB SDRAM 4MB SGRAM	PCI=2 PCI/ISA=1 ISA=1 AGP=1	6 bays 3 used 3 empty	440LX UU/L/A/Eth Windows N RTC CD	5961 ♣ T 4.0	Mar 1998
	no disk 24 x CD-ROM / EIDE EIDE / 2 x Wide Ultra SCSI	1 x Pentium II 333/66	SMP via 2nd Pent II	512/512 166MHz ECC	64/512 SDRAM ECC		PCI=3 PCI/ISA=1 ISA=1;A=1		440LX UU/L/A/Eth RTC CD	3334♣₄	Mar 1998

Windows NT Preload17

Windows NT® Workstation 4.0 (SP3) Windows Internet Explorer 3.02 Microsoft NetMeeting ConfigSafe for Windows NT 4.0 IBM AntiVirus for Windows NT IBM ClientCare Setup

- DMI Service Provider
- DMI BIOS Instrumentation
- IBM PC System Monitor Instrumentation
- IBM AssetCare Serial Number Information IBM RTC CD-ROM Setup Utility

IBM Product Registration IBM Utilities for Windows 95/NT 4.0

Online Books

Device drivers for each subsystem

- Hummingbird "Try and Buy" Suite CD-ROM
- Exceed 5.1.3
- Exceed 3D 5.1.3
- NFS Maestro Solo 5.1.3 Intel LANDesk 3.0 for Windows NT CD-ROM
- Internet Explorer 4.0 CD-ROM
- Ready to Configure CD-ROM
- Free license for Lotus SmartSuite 97 CD-ROM
- Windows NT Workstation 4.0 CD-ROM
- Access to IBM HomePage Creator

Ready to Configure CD-ROM¹⁷

All models ship with a CD with drivers for OS/2. Windows® 95, and Windows NT and various utilities

Includes:

- ConfigSafe for NT 4.0
- Client Services for Netfinity 5.0
- IBM VoiceType Simply Speaking Gold 3.5 PC-Doctor for Windows NT 2.0.121
- Tivoli Lightweight Client Framework
- Diskette Factory
- Device drivers for each subsystem
- Utilities and applications on NT preload

Supported Memory and Options

Geometry Accelerator

32MB SDRAM ECC DIMM 64MB SDRAM ECC DIMM 04K0073 04K0074 128MB SDRAM ECC DIMM 04K0075 256MB EDO ECC DIMM 76H0269 Adaptec ARO-1130CA PCI RAIDport Adaptec 233MHz Pentium II Retail 266MHz Pentium II Retail Netfinity 300MHz Pentium II Netfinity 333MHz Pentium II 101 5886 01K8025 Intergraph Intense3D Pro2200/GA Retail

= CS4236 FM synthesis audio chip

Eth = Intel 10/100 ethernet chip; 10BaseT and 100BaseTX

= LAN Client Control Manager (LCCM) enabled

NT4 = Windows NT Workstation 4.0 preinstalled

RTC CD = ReadyTo Configure CD-ROM UU = Two Universal Serial Bus (USB) port

Wide Ultra SCSI = Adaptec AHA-7895; dual channel Wide Ultra SCSI

🔩 = Price decrease effective April 27, 1998

Open Bay

Open bay model contains no hard disk. No preload or operating system license is included

- Hummingbird "Try and Buy" Suite CD-ROM
 - Exceed 5.1.3
 - Exceed 3D 5.1.3
 - NFS Maestro Solo 5.1.3
- Intel LANDesk 3.0 for Windows NT CD-ROM
- Ready to Configure CD-ROM
- Free license for Lotus SmartSuite 97 CD-ROM (via 800 number)

WARRANTY SERVICE SUPPORT

- 3 year parts warranty³
- 1 year labor warranty
- International Warranty Service³
- 1st year: on site, 8 am 5 pm, Mon - Fri coverage,
 - 2nd business day response time
- 2nd/3rd year: parts exchange only, call 1-800-772-2227 On site warranty upgrade options¹⁴:
- ① Next day, on site, Mon-Fri 8-5 2 Same day, on site, 7 day x 24 hr
- Post warranty: on site options above
- → IBM SystemXtra™
- 24 hour / 7 day telephone, electronic, Internet (www.pc.ibm.com) support

All trademarks are the property of their respective owners

^{*} Prices are estimated reseller prices and subject to change without notice; actual prices may vary

	M Pro			
Type (code name) Processor(s) Implementation Processor upgrade L2 cache Avail / withdrawn date	Processor and L2 cache in S SMP via second identical pro 512KB std / 512KB max / no	ocessor / upgrade via SEC into moth	e in protective met erboard Intel® Slot 00, 333MHz / 1/2 s	al case / SEC plugged into Intel Slot 1
Mem - std / max / type Memory - sockets Memory - features Memory - support	4 sockets / 3 available (all ha SDRAM / 66MHz / four 168 p	d / 512MB max ¹³ / Error Checking ave Error Checking and Correcting m bin gold-plated DIMM 3.3 volt socket Ms (32,64,128MB) or EDO ECC DIM	nemory controller) is / DIMMs can hav	re a max height of 2.5"
Graphics controller	3Dlabs [®] Permedia [®] 2, Inte	ergraph [®] Intense 3D Pro2200/4T, (or Intergraph Inten	se 3D Pro2200/GA for AAP models)
Graphics - type Graphics - memory Graphics - features	8MB std/max SGRAM / 230M VESA DPMS, DDC1, DDC2	io MAX, QuickDraw 3D, DirectDraw scaling / chroma-keying	16MB SDRAM bu VESA DPMS, DE OpenGL, Direct3l Color space conv	200/4T / 2D/3D accelerator / PCI adapter uffer and 4MB SGRAM texture memory DC2B / onboard VGA / fogging D, QuickDraw 3D, DirectDraw uersion / alpha blending / 32-bit textures rated 3D gouraud shading and Z buffering
Bus slots Architecture - chip set	Intel 440LX AGPset / PIIX4	ed Graphics Port (66MHz; AGP-2x; for EIDE (Ultra DMA/33), ISA Brido 87307 Super I/O for diskette, paralli	ge, USB /	,
Disk SCSI controller SCSI connectors RAID option Cables - SCSI and IDE	Adaptec [®] AHA-7895 / dua Channel A: 68 pin (attaches 4 Supports Adaptec ARO™-11 SCSI model: 4 drop 16-bit of EIDE and AAP models: Twi	30ĊA PCI RAID <i>port™</i> adapter (RAID	ler / on planar / PC 50 pin and 68 pin / 6 0, 1) / installs in PC ext port on Channe ne for CD-ROM) a	CI 2.1 8 pin cable std to external SCSI port (all mod) I slot / uses 7895 controller and connectors el B; one 2 drop IDE cable (CD-ROM) and both SCSI cables
CD-ROM Diskette drive Ethernet controller	24X ⁶ max CD-ROM / CAV / 3.5" 1.44MB diskette drive /	(ATAPI) / bootable		SECURITY - Chassis-intrusion detection
Wake-on-LAN LCCM	10BaseT and 100BaseTX / Standard on all models with LAN Client Control Manage	PCI bus / RJ45 UTP connector / Wa integrated ethernet controller r enabled / Wake-on-LAN / Setup-or N / Hybrid RPL / DHCP/BOOTP	ake-on-LAN	Cover key lock (in rear) U-Bolt support Power-on password Admin passd (in security EEPROM)
Systems mgmt cntrl	National Semiconductor® temperature, front fan spe	LM78 compatible / hardware chip ed, voltage, system cover remov	al/ISA	Boot sequence control (in security EEPROM on motherboard) Diskette boot inhibit
Audio Audio connectors Serial / parallel / USB Infrared	Stereo line in / mic in / line o	anar / stereo / ISA bus / FM Synthe out (all in back) / software volume co Par: One (EPP, ECP) / IEEE 1284 L	ntrol .	Boot without keyboard/mouse/diskette Diskette write protect Diskette and disk I/O control Serial/parallel I/O control
Preloaded software ⁷	N/A (if no disk), or Windows All include Ready to Configu All include Windows NT Wor	re CD-ROM (device drivers and utilit	ies)	Unattended start-up (network) Secure removable media Wake-up on LAN (Dual Mode) Mouse disable
Keyboard / Mouse Power supply	104 key (rubber dome) keyb 330 watts / universal / manua	oard / keyboard extender / IBM 3 but al switch / Power Factor Corrected /	ton mouse Wake-on-LAN	Laser-etched 22 digit serial number on processor and memory (stored in EEPROMs)
(2) B	Bay ① 5.25", HH 1.6", access Bay ② 5.25", HH 1.6", access Bay ③ 3.5", SL 1", access Bay ④ 3.5", SL 1", access	s, open s, open		Barcode labels on most components (match laser-etched and EEPROM serial numbers)
B S	saý ⑤ 3.5", SL 1", no acc say ⑥ 3.5", SL 1", no acc	s, studissene cess, open (disk only) cess, std disk (disk only) 3v) - used by Permedia 2 adapter (s	omo modolo)	Remotely readable DMI-compliant: - System EEPROM on motherboard (info and serial no for CPU, riser,
disk S Mini tower S mechanical: S	Slot 2: fullsize, 32-bit PCI 2.1	(3.3v/5v) - supports optional Adapted (3.3v/5v) - used by Intergraph 3D (so (3.3v/5v)	: RAIDport 1130CA	system unit, CD-ROM, diskette, five blank fields) - EEPROMs on DIMMs (component info, serial no) - Disk firmware (component info, serial no)
3Dlabs PERMEDIA	GRAPHICS MODES (2D)	OTHER STANDARD FE	ATURES	Maximum internal SCSI disk capacity ¹³ :
Resolution Frame F (non-int) 640x480 60 to 10	erlaced) required colors	The Setup Utility resides in flash m by pressing F1 key during memo Plug-and-Play 1.0a		22.7GB (2 x 9.1GB plus 1 x 4.5GB) Maximum internal ESDI disk capacity ¹³ : 27.3GB (3 x 9.1GB)
800x600 60 to 10 1024x768 60 to 10 1152x870 60 to 10 1280x1024 60 to 10 1600x1200 60 to 75	00Hz N/A 16.7 mil 00Hz N/A 16.7 mil 00Hz N/A 16.7 mil	Vital Product Data support (type, m 7.87"W x 17.52"D x 19.37"H; 33 lb 200 mm W x 445 mm D x 492 mm Advanced Power Mgmt 1.2; ISO 9 Adv Config and Power Interface	s H; 15 kg 9241-3 capable	Power and System management features: - Three configurable levels for system, CPU, and monitor including powering system and/or display off
	RAPHICS MODES (2D)	Several hardcopy publications	` ,	- Wake Up on Ring (via modem) from
800x600 60 I, 60 1024x768 60 I, 60		256KB SurePath™ BIOS (Flash on Support for DMI technology (include with DMI Service Layer 2.0, DM DMI software; DMI 2.0 complia Supplier's Declaration available Wired for Management 1.0 complia	es MIF browser) I BIOS 2.0, and nt	off state - Wake Up on Alarm (scheduled time) from off state - Wake-on-LAN from off state - PCI Wake Up from supported PCI devices

国風 IntelliStation® Z Pro models (6899) - withdrawn

Type-model	Diskette drive Disk: std-max internal ms seek / disk interface CD-ROM ⁶ /interface	CPU MHz	/ Upgrade	Write-back L2 cache std / max KB / KB	in MB; ´		Total bus slots; 2 or 3 used	Total bays	Std features	Retail Ava	ilable date
7 slot x 6 ba	y; PCI/ISA; Gray										
≪ 6899-10U	1.44 MB diskette 2.1 GB std - 13.2 GB max 8.5 ms / Wide Ultra SCSI 16 x CD-ROM / EIDE	1 x Pentium Pro 200/66	SMP via 2nd PPro; OverDrive® in future	256/256 in PPro	32/1G EDO ECC	Matrox [®] Millennium PCI Adap 4 / 8 WRAM	PCI=4 PCI/ISA=1 ISA=2 Total=7	6 bays 3 used 3 empty	U/I/CD/L/Eth Windows NT RTC CD		Mar 1997
≈ 6899-12U	1.44 MB diskette 4.5 GB std - 13.2 GB max 8.0 ms / Wide Ultra SCSI 16 x CD-ROM / EIDE	1 x Pentium Pro 200/66	SMP via 2nd PPro; OverDrive® in future	256/256 in PPro	64 / 1G EDO ECC	Matrox Millennium PCI Adap 4 / 8 WRAM		6 bays 3 used 3 empty	U/I/CD/L/Eth Windows NT RTC CD		Mar 1997
← 6899-14U	1.44 MB diskette 4.5 GB std - 13.2 GB max 8.0 ms / Wide Ultra SCSI 16 x CD-ROM / EIDE	1 x Pentium Pro 200/66	SMP via 2nd PPro; OverDrive in future	256/256 in PPro	64 / 1G EDO ECC	Intergraph [®] Intense 3D 16 MB SDRAM 4 MB SGRAM	ISA=2	6 bays 3 used 3 empty	U/I /CD/L/Eth Windows NT RTC CD		Mar 1997
★ 6899-16U	1.44 MB diskette 4.5 GB std - 13.2 GB max 8.0 ms / Wide Ultra SCSI 16 x CD-ROM / EIDE	1 x Pentium Pro 200/66	SMP via 2nd PPro; OverDrive® in future	256/256 in PPro	128/1G EDO ECC	Intergraph Intense 3D 16 MB SDRAM 4 MB SGRAM	ISA=2	6 bays 3 used 3 empty	U/I/CD/L/Eth Windows NT RTC CD		Mar 1997
≈ 6899-17U	1.44 MB diskette 4.5 GB std - 13.2 GB max 8.0 ms / Wide Ultra SCSI 16 x CD-ROM / EIDE	1 x Pentium Pro 200/66	SMP via 2nd PPro; OverDrive in future	512/512 in PPro	128/1G EDO ECC	Intergraph Intense 3D 16 MB SDRAM 4 MB SGRAM	PCI/ISA=1 ISA=2	6 bays 3 used 3 empty	U/I/CD/L/Eth Windows NT RTC CD		Mar 1997
≈ 6899-26U	1.44 MB diskette 4.5 GB std - 13.2 GB max 8.0 ms / Wide Ultra SCSI 16 x CD-ROM / EIDE	2 x Pentium Pro 200/66	OverDrive in future	256/256 in PPro	128/1G EDO ECC	Intergraph Intense 3D 16 MB SDRAM 4 MB SGRAM		6 bays 3 used 3 empty	U/I/CD/L/Eth Windows NT RTC CD		Mar 1997
6899-18U for Auth Assmbler Program	1.44 MB diskette no disk Wide Ultra SCSI 16 x CD-ROM / EIDE	1 x Pentium Pro 200/66	SMP via 2nd PPro; OverDrive in future	256 / 256 in PPro	32 / 1G EDO ECC	None	PCI=4 PCI/ISA=1 ISA=2 Total=7	6 bays 2 used 4 empty	U/I/CD/L/Eth RTC CD	2147♣₄	Mar 1997

Windows NT Workstation Preload¹⁷

Windows® NT Workstation 4.0 ConfigSafe for Windows NT 4.0

DMI for Windows NT

DMI for Windows NT BIOS Instrumentation IBM AntiVirus for Windows NT

IBM IDE Disk Monitor for Windows 95/NT IBM PC System Monitor for Windows NT

IBM Product Registration IBM Welcome Center

IBM Utilities for Windows 95/NT 4.0

Online Books

Device Drivers for each subsystem

- Hummingbird "Try and Buy" Suite CD-ROM Exceed 5.1.3 Exceed 3D 5.1.3

NFS Maestro Solo 5.1.3 Intel LANDesk 3.0 for Windows NT

CD-ROM

Supported Memory and CPU Options

16 MB EDO ECC Au 60 ns 3.3v 32 MB EDO ECC Au 60 ns 3.3v 76H0278 76H0279 64 MB EDO ECC Au 60 ns 3.3v 76H0280 128 MB EDO ECC Au 60 ns 3.3v 76H0281 256 MB EDO ECC Au 60 ns 3.3v 76H0269 SMP 200 MHz / 256 KB Upgrade 94G6175 SMP 200 MHz / 512 KB Upgrade 94G6463

Ready to Configure CD-ROM

All models ship with a CD with drivers for OS/2, Windows 95, and Windows NT and various utilities.

ConfigSafe for Windows NT 4.0 (and Win 95) CoSession Remote 32 for Windows 95/NT 4.0 CoSession Remote Host for Win 95

CoSession Remote Viewer for Win 95 Crystal Audio for Windows NT (and Win 95, OS/2)

DMI for Windows NT (and Win 95, OS/2) DMI for Windows NT BIOS Instrumentation (and

Win 95, OS/2)

IBM AntiVirus for Windows NT (and Win 95, OS/2) CPU Thermal Monitor for Windows NT 4.0

IBM IDE Disk Monitor for Windows 95/NT (and OS/2) IBM PC QAPlus/PRO Diagnostics
IBM PC QAPlus/WIN-WIN Diagnostics

IBM PC Supplemental Diagnostics
IBM Product Registration
IBM Utilities for Windows 95/NT 4.0

 Ready to Configure CD-ROM
 Free license for Lotus® SmartSuite CD-ROM
 Windows NT Workstation 4.0 CD-ROM
 Intel Ethernet Flash Refresh Utility
 Intel Ethernet Flash Refresh Utility Intel Ethernet Flash Refresh Utility

Intergraph 3D Graphics for Windows NT 3.51, 4.0 Matrox Millennium Graphics Drivers

Multiprocessor Upgrade for Windows NT Online Books

TME 10 NetFinity for Windows NT (and Win 95, OS/2) Bus Mastering IDE/SMART for Windows NT

IBM PC System Monitor for OS/2 Infrared for Win 95, OS/2

Infrared Mode Selection for Windows 95 Infrared PDA Connect for Windows 95 Busmastering IDE/SMART for OS/2 IBM Diskette Factory for RTC IBM RTC CD-ROM Setup Utility RTC CD Overview Help Files

Open Bay (18U)

Open bay model contains no hard disk. No preload or operating system license is included.

- Hummingbird "Try and Buy" Suite CD-ROM Exceed 5.1.3

Exceed 3D 5.1.3 NFS Maestro Solo 5.1.3

Intel LANDesk 3.0 for Windows NT CD-ROM

- Ready to Configure CD-ROM

Free license for Lotus SmartSuite CD-ROM (via 800 number).

WARRANTY SERVICE SUPPORT³

- 3 year parts warranty
- 1 year labor warranty
- International warranty
- 1st year: on site, 8 am 5 pm, Mon - Fri coverage.
- 2nd business day response time 2nd/3rd year: parts exchange only,
- call 1-800-772-2227 On site warranty upgrade options¹⁴: ① Next day, on site, Mon-Fri 8-5
- Same day, on site, 7 day x 24 hr
- Post warranty: on site options above 24 hour / 7 day telephone, bulletin board, fax, electronic, Internet (http://www.pc.ibm.com) support

256 = (italic) write-back L2 cache

CD = 16 x maximum speed CD-ROM CAV (ATAPI); bootable

Eth = Intel EtherExpress Pro/100B PCI Adapter

= Infrared port to 1.2 Mbps (requires Infrared cable 75H7987)

= Lan Client Control Manager (LCCM) enabled NT4 = Windows NT Workstation 4.0 preinstalled

RTC CD = ReadyTo Configure CD-ROM = One Universal Serial Bus (USB) port

Wide Ultra SCSI = Adaptec AHA-2940ÚW UltraSCSI PCI Adapter

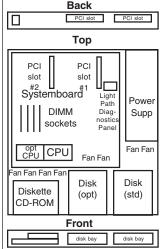
- → 16 x CD-ROM can use PIO Mode 4 (16.6), Multi-Word DMA 1 (13.33), or Single-Word DMA 2 (8.33); PIO Mode 0 (3.3 MB/sec) used on preload; bootable
- Stealth Gray displays are available to match the Stealth Gray of the IntelliStation Z Pro. Stealth Gray displays include the 9516 TFT LCD Color Monitor, P70 (6554-6E3), P200 (6555-7E3), and P201 (6555-8E3)
- Models announced March 18, 1997; withdrawn effective January 27, 1998
- Price decrease effective October 22, 1997

IBM IntelliStation Z Pro (6899) - withdrawn

 IBM [®] IntelliStation™ 2	Z Pro			
Type (code name) Processor / MHz L2 cache - std / max Processor upgrade OverDrive upgrade Avail / withdrawn date	256 KB std/max or 512 KI SMP via second Pentium R	IHz (P6S) or 2 x Pentium Pro 200/66 3 std/max integrated in Pentium Pro / Pro / add second same speed CPU to OverDrive [®] processor (P6T) 3	write-back / 4 way s	set associative
Mem - std / max / type Memory - sockets Memory - features Memory - support	4 sockets / 2 or 3 available EDO / 60 ns / four 168 pin	gold-plated DIMM 3.3 volt sockets / <code>E</code>	recting memory con DIMMs can have a m	troller)
Graphics controller	Matrox® MGA Millenniur	n, Intergraph [®] Intense 3D Pro1000/	T, (or none on Model	18U for Authorized Assembler Program)
Graphics - type Graph - memory Graph - features	4 MB std / 8 MB max (WR/VESA DPMS, DDC1, DDC On the fly resolution and co Hardware zoom / virtual de	n / SVGA 64 bit acceltr / PCI adapter AM 20 ns) / 220 MHz RAMDAC t2B, Auto Refresh Rate Utility blor depth switching ssktop / panlock / DirectDraw gouraud shading and Z buffering	16 MB SDRAM bu VESA DPMS, DD0 810,000 3D triangl Color space conve	se 3D / 3D accelerator / PCI adapter ffer and 4 MB SGRAM texture memory C2B / onboard VGA / OpenGL / fogging les per second / 24 bit double buffering ersion / alpha blending / 32 bit textures er / optional hardware geometry accelertn
Bus slots Architecture - chip set	IBM Pulsar planar with Int	slots (see below) / 3 PCI slots use E el Natoma (440FX) chipset / PIIX3 fo C87308 Super I/O for diskette, paral	or EIDE, ISA Bridge	, USB / °
Disk SCSI disk controller SCSI cable EIDE disk controller CD-ROM	Adaptec® AHA-2940UW U	ItraSCSI / PCI adapter supports one clandard / one drop to std SCSI disk / PIO modes 0 to 4 or DMA Modes 0	hannel and 15 devic to 2 / two connectors	(8.0 ms / 7200 rpm) / SMART ⁵ and PFA ses / 16 bit int, 8 bit int, and 16 bit ext conn. s on planar / one 2 drop cable standard
Diskette drive	3.5" 1.44 MB diskette drive	e / 1 drop cable	3.2 GB (4.51 GB in	CSI disk capacity ¹³ : bays 3 and 6 plus 2.1 GB in bays 4 and 5
LAN Adapter Wake-on-LAN LCCM Audio Audio connectors	Supported on all models w Lan Client Control Manage Sound Blaster™ Pro comp	0B Adapter with Wake-on-LAN / RJ- ith standard ethernet adapter er enabled / Wake-on-LAN / Setup-o atible / wavetable synthesis / Crysta e in / stereo line/headphone out (all ir	n-LAN / Flash-on-L I Semiconductors™	CS4236
Serial / parallel port Universal Serial Bus Infrared	Serial: two 9 pin / 115 Kbp One USB port / 12 Mbps /	s max speed / 16550A / non-DMA; // supports 127 devices	Parallel: one bidired	, ,
Preloaded software	N/A (if no disk), or Window	0 1		· · · · · · · · · · · · · · · · · · ·
Keyboard / Mouse Power supply	All include Ready to Confid All include a free license fo All include Windows NT W 104 key (rubber dome) key	gure CD-ROM (device drivers and util r Lotus SmartSuite CD-ROM (via 800	3. Diske 4. Seria 5. Powe 7. Boot 8. Boot	er key lock, 2. U-Bolt support ette write inhibit SECURITY al/parallel port inhibit er-on password; 6. Administrator passwd sequence control w/o keyboard/mouse/diskette disable.
diskette disk CD-ROM 3	/ Bay ② 5.25", HH 1.6", a Bay ③ 5.25", HH 1.6", a Bay ④ 3.5", HH 1.6", n Bay ⑤ 3.5", SL 1", n	ccess, open o access, open o access, open (disk only)	11. Unat 12. Secu 14. Wake	disable, 10. Diskette disable tended start-up (network) ire removable media; 13. Mouse disable e-up on LAN password prompt
Mini tower mechanica Stealth gray color	Slot 1: halfsize, 32 bit PC Slot 2: varies, 16 bit IS/ Slot 3: fullsize, 16 bit IS/ Slot 4: fullsize, 16 bit IS/ Slot 5: fullsize, 32 bit PC Slot 6: fullsize, 32 bit PC	Α	aptec SCSI adapter 3v/5v), primary - use ntergraph Intense 3	ed by Matrox Millennium (some models)
MATROX MILLENN	IIUM GRAPHICS MODES	OTHER STANDARD F		WARRANTY SERVICE SUPPORT ³
Frame F	Rate Hz Memory Max	The Setup Utility resides in flash n		
640 x 480 60 to 20	erlaced) required colors 00 Hz 4 MB 16.7 mil	pressing F1 key during memory	POST	⇒ 1 year labor warranty
		- I lug allu i lay i.oa, vitari roduci		□ International warranty □
		Advanced Power Mant 1 2: ISO		⇒ 1st year: on site, 8 am - 5 pm,
		Several hardcopy publications	·	Mon - Fri coverage, 2nd business day response time
1280 x 1024 60 to 11 1600 x 1200 60 to 85	5 Hz 4 MB 65,536	Support for DMI technology (inclu	des MIF browser)	⇒ 2nd/3rd year: parts exchange only, call 1-800-772-2227
1600 x 1200 60 to 85		DMI software		 On site warranty upgrade options:
	ISE 3D GRAPHICS MODE	S Thermal sensors under each proc	essor socket	① Next day, on site, Mon-Fri 8-5
640 x 480 60, 72,		IntelliStation Proven program		Same day, on site, 7 day x 24 h
800 x 600 60, 72,		Power and System management f	eatures:	Post warranty: on site options
1024 x 768 60, 70,		- Three configurable levels for sys		above ⇒ 24 hour / 7 day telephone,
1152 x 864 60, 70,	75, 85 N/A 16.7 mil	monitor including powering syste		electronic, Internet
1102 x 001 00, 70,				
1280 x 960 60, 75 1280 x 1024 60, 75	N/A 16.7 mil N/A 16.7 mil	 - Wake Up on Alarm (scheduled ti 		(http://www.pc.ibm.com) support

運滅 IntelliStation® R Pro (6851) - withdrawn

IBM® Type-model Qn	ty x Processor	Memory	Disk	Disk Controller	CD	Graphics		/ideo in standard	Ethernet	Mech	Slots x bays	OS ¹⁷	Available date
6851-11U 1 x Penti 6851-20U 1 x Penti	ium® III 1.13GHz/133 um III 1.13GHz/133 um III 1.26GHz/133 um III 1.26GHz/133	256MB 2	18.2GB 20.4GB	Ultra160 EIDE	CD CD	Matrox G200 Matrox G200 Matrox G200 Matrox G200	MMS I	NTSC NTSC	2 x 10/100 2 x 10/100	1U rack 1U rack	2x4 2x4	DOS DOS DOS DOS	July 2001 July 2001 Aug 2001 Aug 2001
Processor Upgrade SMP support Implementation L2 cache	Intel® Pentium® III 1.13GHz models can 2-way SMP via identi Processor and L2 cas 512KB std and max //	be upgrad cal proces che in Flip-	ed to 1.3 sor / bot Chip Pi	26GHz :h VRMs ir	ntegr	ated on planar		PGA370	sockets / te	erminato	r in emp	oty soci	ket
Memory - std / max Memory - features	256MB std / 4GB ma SDRAM / 133MHz / B											е	
Graphics controller	Matrox® G200 MM two std cables atta two DB-15 analog SGRAM / 250MHz Disabled by BIOS:	ch to each connectors RAMDAC	LFH-60 and a of integr) connecto composite ated TV to	or/ or vide uner	ne cable has tv eo-in RCA con ' (CATV tuner	wo DB- inector in) / sup	15 anal /32-bit pports N	og connect PCI adapte ITSC video	ors / and r / 32MB standar	other ca (8MB p d / max	ıble has ber mor	s nitor)
SCSI connectors IDE controller Cabling	All: Adaptec® AIC-7 All: Internal 68-pin of All: Enhanced IDE/ x0U: one 2-drop IDE x1U: one 2-drop 16-b All: one 1-drop IDE	connector / ATA-33 / t cable to tw it LVD cab cable to st	no extermo extermo disk before the from its andard	ernal SCSI nectors on pays (one u internal 68 CD-ROM	l con plar used -pin	nector nar) SCSI connect	or to SC	CSI disk	bays (one	used)			
Disk	x0U:20.4GB ATA-10	<u> </u>											M.A.R.T.
Architecture and chipsets Mechanical Control Panel	ServerWorks® Serv (1) PCI Bus 0, 32-bit SCSI controller, two Super I/O National So EIA 19" Rack (1U ⁴)/ Front indicators/swite	33MHz, Se 64-bit PCI emiconduc rack-mou	outh Bri slots) / ctor® PC nt only /	dge, Supe IB6566 OS 97317VU supporte	er I/C SB4 L (di d in), graphics, 2 : rev B2 South skette, paralle IBM NetBAY™	x etherr Bridge I, serial ' Rack p	net; (2) for IDE I, keybo product	PCI Bus 1, , USB, ISA ard, mouse s (rack requ	64-bit 33 bus for 8) uires ver	BMHz, Service	Proces	
Ethernet controllers CD-ROM / diskette Systems mgmt Diagnostics	2 x Intel 82559 ether capability and load be two RJ-45 connector 24X-10X ⁶ CD-ROM, <i>No support:</i> Advance Light Path Diagnos	alancing su s on rear / CAV (ATA ed System	upport ti suppor (PI), boo Mgmt P	hrough the ts PXE 2.0 otable, IDI Processor	e cor Bo E / 3 on	nnection of bot ot Agent / Wak 3.5" 1.44MB di planar / Powei	th ether ke on La skette rPC 400	rnet port AN® sup drive 3GA™ /	ts to the sar port monitors te	me LAN mp, fans	segme	nt/ oowers	upply
Audio Ports	16-bit audio / PCI ad Serial: One 9-pin (jur USB: Two ports (Ver	apter / mic nper selec	rophone table fo	e in / stere r COM1/N	o lin Igmt	e in / stereo lir Processor sh	ne out / ared, C	speake OM2, o	er out (2 wa r Mgmt Pro	tts) / joys	stick po	rt (no N	ЛIDI)
Console interconnect	Cable Chain Techno console cable (the vi connector, and DB-1	deo conne	ctor is o	ented / ou lisabled) /	tput KVN	port used for a Il console cabl	attachm e has F	nent of k PS/2 mo	eyboard ar use female	nd mouse connec	e via sta tor, key	andard board	KVM female
Security	Power-on password password, read-only								systems n	ngmt sed	curity (u	iser log	ı-in
Software Keyboard / mouse Cooling fans Power supply	DOS 2000 license in Application CD-ROM 104-key keyboard (b Eight fans (four for pi two for disk(s) and pl 200 watt / universal /	l and Matro lack) / 3-bu ocessor(s anar, two f	ox G200 utton mo) and pl for power	CD-ROM buse (blac anar, er supply)	l k)	oort F	Pentium 128MB : 256MB : 512MB : 1GB SD	n III 1.26 SDRAM SDRAM SDRAM)RAM E	GHz/133MI GHz/133MI I ECC DIMN I ECC DIMN I ECC DIMN CC DIMM 1	Hz/512KI /I 133MH /I 133MH /I 133MH /I 133MHz (B Proc l z (RDIN z (RDIN z (RDIN RDIMN	Jpg ИМ) ИМ) ИМ)	25P2835 25P2836 10K0018 10K0020 10K0022 33L3326
KVM extender ¹⁸	Monitor, keyboard, m 500 feet from system extender / contact AN Technologies® at ww	via a 3rd MuletHotke w.wey.ch,	party ra ey® at ar Parago	ck mounte nulet-hotk n® at para	ed K' ey.c gona	VM com, Wey	36.4GB 73.4GB 18.2GB	10K Ult 10K Ult 15K Ult	EIDE HDD ra160 SCSI ra160 SCSI ra160 SCSI " viewable)	HDD (M HDD (M HDD (M	lodél x1 lodel x1 lodel x1	U) U)	22P7157 00N8209 06P5752 19K0658 655263N



Bay ① 3.5", UltraSlim 0.8", access, std diskette Bay ② 5.25", UltraSlim 0.8", access, std CD-ROM Bay @ 3.5", SL 1", Bay @ 3.5", SL 1", access, std disk access, open

Slot 1: fullsize, 64-bit 33MHz PCI 2.2 (5v) - used by graphics adptr Slot 2: halfsize, 64-bit 33MHz PCI 2.2 (5v) - used by sound adapter

- Stealth black
- → H 1.72" (1U) x W 17.3" x D 25.7"
 ⇒ 26 to 28.4 lbs (minimum to maximum configuration)
- Setup Program is available by pressing F1 at startup
- PC-Doctor diagnostics is available by pressing F2 at startup

- SCSISelect near startup by pressing CTRL+A
 PXE Bullet Agent near startup by pressing CTRL+S
 DMI 2.1 and Wired for Management 1.1a-compliant
- Includes rack mounting kit
- Includes two line cords (9 ft 110v cable with NEMA plug and 9 ft universal interrack HV cable with IEC plug)
- Predictive Failure Analysis® on processor(s), voltage regulator modules, memory, fans, power supply, and disk options

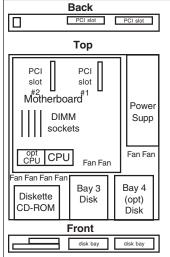
All models: Maximum internal disk capacity¹³ (model dependent): 146.8GB with two 73.4GB SL SCSI disks or 80GB with two 40GB EIDE disks / supports 15K rpm SCSI disks

LIMITED WARRANTY³

- 3 year parts and labor
- International Warranty Service³
- On site warranty all 3 years
- All cities in all states
- 8 am-5 pm, Mon-Fri coverage
- Next business day average response time
- 3 year on site warranty service upgrade options:7
 - Mon-Fri coverage, 4 hour average response time
 - 24 hr x 7 day coverage, 4 hour average response time
- 24x7¹⁴ toll-free support for warranty issues during the warranty period3

IntelliStation® R Pro - withdrawn

IBM® Type-model Qt	y x Processor	Memory	Disk	Disk Controller	CD	Graphics	Video in standard	Ethernet	Mech	Slots x bays	05 ¹⁷	Ava	ilable date
8654-55X 1 x Pent 8654-56X 1 x Pent						QuadPI/TVN QuadPI/TVN		2 x 10/100 2 x 10/100			DOS lics DOS lics		
Processor SMP support Implementation L2 cache	Intel® Pentium® 2-way SMP via i Processor and L 256KB std and r	dentical p 2 cache i	rocessor n Flip-Chi	/ both VRM p Pin Grid	ls inte	egrated on pla		GA370 socke	ts / term	inator ir	empty so	cket	
Memory - std / max Memory - sockets Memory - features	256MB std / 4G 4 sockets / 3 ava SDRAM / 133M	ailable		· ·		•	,		complia	nt			
Graphics controller	Matrox® G200 / two std cable DB-15 analog SGRAM / 250 max resolutior Disabled by B	es attach t connecto MHz RAM n of 1920 x	to each LI ors and a IDAC / 12 <1200	FH-60 con composite 8-bit Dualf	necto video Bus/	r/ one cable h b-in RCA conn CATV tuner in	as two DÈ lector / 32- n / support	8-15 analog o -bit PCI adap ts NTSC vide	connecto ter / 32M o standa	ors / and IB (8ME ard /	ther cable per monit	has t	
Architecture / chips	ets ServerWorks ® 0, 32-bit 33MHz controller, two 6 Super I/O Nation	, IB6566 \$ 4-bit PCI	South Bridslots) / IE	dge, two et 6566 Sout	herne h Bri	et controllers, dge for IDE, U	graphics o ISB, ISA b	controller); Pous for Service	Čl Bus 1 e Proce	, 64-bit	33MHz, S		CI Bus
Mechanical Control Panel	EIA 19" Rack (Front indicators	(1U 4) / ra /switches	ck-mount include F	only / supower, Res	oport et, C	ed in IBM Ne onsole Select	tBAY™ Ra (not imple	ack products emented), Po	rack rower LEI	equires D and F	vented fr ault/info Ll	ont d ED	loor)
Disk SCSI controller SCSI connectors Cables EIDE disk controlle	20GB EIDE ATA Adaptec® AIC-7 Internal: 68 pin; SCSI models: 2- EIDE models: 2- T Enhanced IDE /	982 / sing Externa drop 16-b drop IDE	gle chann al: None it LVD cal ATA-33	el Ultra160 ble from inte cable from	SCS ernal Pri II	I adapter (LVI conn to disk; 1 DE conn to dis	D 160MB/s -drop IDE / sk: 1-drop	sec) / on plar ATA-33 cable IDE ATA-33 c	er from Pri able fror	i IDE co n Sec II	nn to CD-R DE conn to	OM CD	2
CD-ROM / diskette	CD: 24X-10X ⁶ C												
Ethernet controllers Systems mgmt Diagnostics		ethernet of ead baland ectors on tem Mgm	controllers cing supp rear / sup t Proces	s / on plana ort through oports PXE sor / on pla	ar / 10 n the o 2.0 l anar /	BaseT, 100Ba connection of Boot Agent / n monitors tem	seTX / full both ether o Wake o perature,	l duplex / 32- rnet ports to t n LAN® supp fans, and po	bit PCI be he same ort wer sup	ous / rec e LAN se	lundant etl egment /	nerne	
Audio	16-bit audio / PC	CI adapte	r / microp	hone in / s	tereo	line in / stered	line out /	speaker out	(2 watts) / MIDI	/joystick p	ort	
Ports	Serial: One 9-pi USB: Two ports								t Proces	ssor); <i>I</i>	P <i>arallel:</i> no	ne;	
Console interconne	ct Cable Chain Tec console cable (t connector, and l	he video (connecto	r is disable									
Security	Power-on passy password, read-	vord / adn only or re	ninistrato ad/write	r password access, dia	l / una al bac	attended boot k) / unattende	/ selectab d start mo	le boot / syst ode	ems mg	mt secu	ırity (user l	og-in	l
Software Keyboard / mouse Cooling fans Power supply	DOS 2000 licen 104-key keyboa Eight fans (four 200 watt / unive	rd (black) for proces	/ 3-butto ssor(s) ar	n mouse (b nd planar, t	olack) wo fo	or disk(s) and				ROM			
KVM extender ¹⁸	Monitor, keyboa contact AMuleth	ird, mous Hotkey® at	e, and sp t amulet-h	eakers car otkey.com	be lo , We	ocated 250M f y Technologie	rom syste s® at www	m via a 3rd p /.wey.ch, Par	arty racl agon® a	k mount t www.p	ted KVM e paragonav	xtend .com	ler/



Bay ① 3.5", UltraSlim 0.8", access, std diskette
Bay ② 5.25", UltraSlim 0.8", access, std CD-ROM
Bay ③ 3.5", SL 1", access, disk
Bay ④ 3.5", SL 1", access, open

Slot 1: fullsize, 64-bit 33MHz PCI 2.1 (5v) - graphics adapter Slot 2: halfsize, 64-bit 33MHz PCI 2.1 (5v) - sound adapter

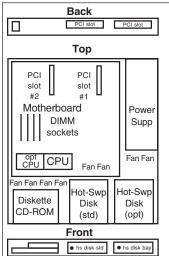
- Stealth black
- ⇒ H 1.72" (1U) x W 17.3" x D 25.7"
- ⇒ 22 to 28 lbs (minimum to maximum configuration)
- Setup Program is available by pressing F1 at startup
 PC-Doctor diagnostics is available by pressing F2 at startup
 SCSISelect near startup by pressing CTRL+A
- PXE Bullet Agent near startup by pressing CTRL+S
- DMI 2.1, Wired for Management 1.1a
- Includes rack mounting kit
- Includes two line cords (9 ft 110v cable with NEMA plug and 9 ft universal interrack HV cable with IEC plug)
- Predictive Failure Analysis® on processor(s), voltage regulator modules, memory, fans, power supply, and disk options

All models: Max int disk capacity¹³: 72.8GB with two 36.4GB SL SCSI disks

LIMITED WARRANTY*,3

- 3 year parts and labor warranty
- International Warranty Service³
- On site, 8 am through 5 pm, Mon through Fri excluding holidays, next business day response time9
- On site warranty service upgrade options:
 - 4 hour response, 9-5 M-F¹⁴ (ServicePac® part number 41L2736)
 - 4 hour response, 7 day x 24 hr14 (ServicePac part number 30L9185)
- Post warranty maintence services available
- 24 hour x 7 day telephone, electronic, and Internet support

IBM® <i>Appliance Server</i> Type-model Qty x P	rocessor	Memory	Disk	SCSI controller	Mechanical	Slots x bays	10/100 ethernet	Туре	Windows Powered OS	Available 6 date
8654-1YX 1 x Pentiu 8654-5DX 1 x Pentiu		256MB 256MB	9.1GB ² 10K 18.2GB 10K	Ultra160 Ultra160	1U rack 1U rack	2x4 2x4	2 x ethernet 2 x ethernet	Appliance Server Appliance Server		Nov 2000 Jun 2001
Positioning Processor SMP support Implementation L2 cache	Intel® Pent 2-way SMF Processor	ium [®] III 80 Via identionand L2 cac	OMHz ¹ or 1GH cal processor (Iz¹ with 133 1YX only up Pin Grid Aı	SMHz Front S ograde to sec	Side Bus ond 800	s MHz; 5DX only	with plug in convert upgrade to second ockets / terminator	d 1GHz)	cket
Memory								king and Correcting ockets / PC133-cor		emory
Disk SCSI disk controller SCSI connectors IDE controller	Adaptec® A Internal 68	AIC-7892 / ˈ -pin (attach	Wide Ultra160 nes 1-drop cab	SCSI (LVD) ble to SCSI b) 160MB/sec) packplane); n) / single 10 exterr	read seek time channel / 64-b nal SCSI conne CD-ROM / ATA		latency on motherb	ooard
Chipset Mechanical Control Panel	NB6635 No two etherne IB6566 Son (diskette, p EIA 19" Ra	orth Bridge et controlle uth Bridge arallel, ser ack (1U4)/	ers, graphics of for IDE, USB, ial, keyboard, rack-mount or	orth Bridge I ontroller); P ISA bus for mouse) nly / support	CI Bus 1, 64 Service Prod ted in IBM Ne	-bit 33M cessor a etBAY™	Hz, SCSI conti nd Super I/O N	32-bit 33MHz, IB6 roller, two 64-bit P0 lational Semicondu s (rack requires ver fault/info LED	CI slots) / uctor® PC97	7317VUL
Ethernet controllers CD-ROM / diskette Rear ports Ports and cable Console interconnect	capability a two RJ-45 24X-10X° C Serial: one Keyboard, which plugs 5DX only: s standard /	and load ba connectors CD-ROM, C 9-pin; Pa video (DB- s into the co supports da daisy chair	alancing suppossion rear / suppossion rear / suppossion rear / suppossion reallel: none; 15), and mousonsole-out portaisy chaining v	ort through to ports PXE 2 pootable, ID USB: two poet port on a state of the console is adjacent set.	he connection. Boot Ager E / 3.5" 1.44Norts (Version Standard breating and out poterver / supposerver n of both nt / no W //B diske 1.1); / akout cal rts / sys orts large	n ethernet ports /ake on LAN®s ste drive Adv Sys Mgmt: ble (2 meters le	/ 32-bit PCI bus / res to the same LAN support two RJ-45 ports ength on 1YX; 1 foor interconnect cable nents of daisy chair	segment / t length on t	5DX) 245mm) is	
Systems mgmt Diagnostics	allows diag	nostic, res	et, POST, and	l auto recov	ery functions	:/ monit	ors temperatur	es remote console a e, fans, and power agnostics (via PC-l	supply	IOS)
Graphics controller	SVGA / PC	l bus / S3®	Savage4Pro	(on planar)	/ 8MB SDRA	M std a	nd max / DDC2	2B		·
Security Software ⁹	mgmt secu Preloaded Informatio	rity (user lo and optim n Services	og-in password ally tuned with 5.0, Netfinity	d, read-only h Windows Web Serve i	or read/write Powered OS Accelerator	access and ap	s, dial back) / u ppliance softwa	boot / selectable b nattended start mo are stack, Microso nt only), Universal y	de ft Internet	ms
Keyboard / mouse Cooling fans Power supply Prerequisites	and planar 200 watt / u	(four for pro , two for po universal / a	ocessor(s) and ower supply) auto-sensing / t console (clier	auto-restar	t support	Per 128 256 512 1GE 9.10 18.2 36.4 Net Net	ntium III 1GHz/1 MB SDRAM EC MB SDRAM EC S SDRAM ECC GB 10K-4 Ultra 2GB 10K-4 Ultra 4GB 10K-4 Ultra 4GB 10K-4 Ultra finity® Gigabit Efinity Rack (with BAY 1 x 4 Cons		grade RDIMM RDIMM RDIMM DIMM DISL HDD AP SL HDD AP SL HDD	10K2338 10K0053 33L3142 33L3144 33L3152 37L7204 37L7206 34L0301 9306910 09N4290
Back		Bay ① 3	8.5", UltraSlim	0.8", acce	ss, std diske	ette	BAY 2 x 8 Cons	sole Switch LIMITED V	VARRANT	09N4291 Y ³



Bay ② 5.25", UltraSlim 0.8", access, std CD-ROM
Bay ③ 3.5", SL 1", access, std hot-swap of access, std hot-swap of access, open for hot-s access, std hot-swap disk open for hot-swap disk

Slot 1: fullsize, 64-bit 33MHz PCI 2.1 (5v) Slot 2: halfsize, 64-bit 33MHz PCI 2.1 (5v)

- Stealth black
- ⇒ H 1.72" (1U) x W 17.3" x D 25.7"
- ⇒ 44 to 62 lbs (minimum to maximum configuration)
- Setup Program is available by pressing F1 at startup
 PC-Doctor diagnostics is available by pressing F2 at startup
 SCSISelect near startup by pressing CTRL+A
- PXE Bullet Agent near startup by pressing CTRL+S
- DMI 2.1, Wired for Management 1.1a
- Includes rack mounting kit
- One line cord
- ⇒ Predictive Failure Analysis® on processor(s), voltage regulator modules, memory, fans, power supply, and disk options

All models: Max int disk capacity: 72.8GB with two 36.4GB SL SCSI disks

LIMITED WARRANTY

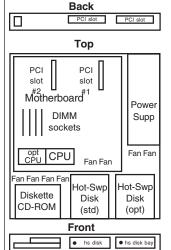
- 3 year parts and labor
- International Warranty Service³
- On site, 8 am 5 pm, Mon Fri coverage excluding holidays, next business day response time
- 3 year on site warranty service upgrade options: (in eligible locations):7
 - 9 hour coverage, Mon-Fri excluding holidays, next business day response time
 - 9 hour coverage, Mon-Fri excluding holidays, 4 hour response
 - 24 hr x 7 day coverage, 4 hour response time
- 24 hour x 7 day¹⁴ telephone, electronic, and Internet support

See footnotes for important warranty information

• = Hot-swap but no software support US models withdrawn effective December 2001 or May 2002

IBM® Appliance Server Type-model Prod	essor I	Memory	Disk	Disk controller	Mechanical	Slots x	Hot-swap disk bays		Туре	Windows® Powered OS	Available date
8672-25X Celeron™	800MHz ¹ 2	256MB	20.4GB ²	EIDE	1U rack	bays 2X4	None	2 x ethern	et Appliance Serve	r Preload	Jun 2001
Positioning Processor L2 cache SMP support Processor upgrade Implementation	Intel® Celer 128KB std a No SMP su None suppo Motherboar	ron 8001 and max ipport orted rd contai	MHz¹ with :/ECC / a ns one In	n 100MHz at processo tel PGA37	Front Side E or speed	3us O-pin Flip			e with plug in conven		
Memory - std / max Memory - sockets Memory - features Memory - support	256MB std 3 sockets / SDRAM / 1 Supports un	2 availa 33MHz	ble / ECC / three 16	8-pin gold	-plated DIMI	Correctir M 3.3 vol	g) DIMMs t sockets /	and ECC n PC133-cor	nemory controller npliant		
SCSI disk controller IDE disk controller Cables Disk - features	Two 2-drop	EIDE c	ables (on	e cable to	upport / two CD-ROM, o 7 ms average	ne 80-cc	nductor ca	ble to EIDE	E disk bays)		
Chipset Mechanical Control Panel	VT82C686E EIA 19" Ra	B South	Bridge (II) / rack-m	DE ATA-10 lount only	0, USB, disk	ette, šeri n IBM N	al, keyḃoar etBAY™ Ra	d, mouse, I ack produc	I 2.2 32-bit 33MHz c SA bus for flash BIO is (rack requires ven ED	S) ´	or)
Ethernet controllers CD-ROM / diskette Rear ports Console interconnects	two RJ-45 of 24X-10X6 C Serial: one	connecto D-ROM 9-pin; <i>F</i>	ors on rea , CAV (A ⁻ Parallel: n	ar / suppor FAPI), boo one; <i>USE</i>	ts PXE 2.0 E table, IDE / 3 3: two ports (\	Boot Age B.5" 1.44I Version	nt / Alert or MB diskette I.1); <i>Mgm</i> i	n LAN™ 2 s drive t: none; ke	< / 32-bit PCI bus / upport / Wake on LA yboard; mouse; DB on back)		6
Systems mgmt Diagnostics									in speed and failure, e can be created)	and voltage	s
Graphics controller Security Software ⁹	Power-on p unattended Preloaded	MM std and assword boot / s and opticed Appropriate or 2.2 will client f Server Active receiver a contract lessence of the contract of the con	nd max / Î d / admini electable imally tur r Web Hos bliance Co th UM Se celerator or alertin ppliance nformati extensior	DDC2B/a strator pas strator pas boot / una ned with M sting (Win onfiguration rvices, , g, Kit, on Service ns,	unalog 15-pir ssword / ttended star licrosoft® dows Power on Utility,	t mode	256M 512M 20.4G 40GB IBM N IBM C IBM C IBM C	B SDRAM B SDRAM B SDRAM B ATA-100 ATA-100 E letfinity® Ra letBAY42 E Console Sw foot K/M/V Console Cat wo-Button	ck (with perforated do interprise Rack itch (1 x 4 port) itch (2 x 8 port) Cable Die Set (12 foot) Mouse		33L3081 33L3083 33L3085 19K4461 22P7157 9306910 930842S 09N4290 09N4291 09N4293 94G7447 28L3673
Keyboard / mouse Cooling fans Power supply Prerequisites	left disk and all variable failure (othe 200 watt / u not hot-swa	vo for production of fullsized speed / er fans ir universal ap / Autoeyboard,	e PCI; two redundar ncrease s / auto-se matic Se mouse, ra	o for power nt cooling of peed) ensing / no rver Resta	nalfsize PCI; r supply) / on single fan t redundant / urt (ASR) sup erforated doo	/ pport	IBM F IBM E IBM S IBM S	Preferred Ke 51 (13.8" vi mart-UPS I mart-UPS I 54A 15" Fla	e Saver Cost Reduce eyboard (black) ewable) Color Monito Model 1400RMB Model 3000RMB at Panel Color Monito tt Panel Color Monito	or(black) r (black)	28L3644 28L3621 633347N 94G6674 94G6676 9511AG1 9511AG4
Back Top PCI PCI slot #1 Motherboard* DIMM sockets CPU Fan Fan Diskette CD-ROM (std) Front	Power Supp Fan Fan Disk (opt)	Bay ① 3.5", UltraSlim 0.8", access, std diskette Bay ② 5.25", UltraSlim 0.8", access, std CD-ROM Bay ③ 3.5", SL 1", access, std disk Bay ④ 3.5", SL 1", access, open for disk Slot 1: fullsize, 32-bit 33MHz PCI 2.1 (5v) Slot 2: halfsize, 32-bit 33MHz PCI 2.1 (5v) Stealth black □ H 1.72" (1U) x W 17.3" x D 25.7" □ 26 to 28.4 lbs (minimum to maximum configuration) □ Setup Utility is available by pressing F1 at startup □ PXE Boot Agent Utility near startup by pressing CTRL+S □ DMI 2.1, Wired for Management (WfM) 2.0-compliant LIMITED WARRANTY³ 3 year parts / 1 year labor □ International Warranty Service³ □ International Marranty Service³ □ International Marranty Service³ □ International Marranty Service³ □ International Marranty Service³ □ Steyer: on site, 8 am-5 pm, Mon excluding holidays, next business response time □ 2nd/3rd year: parts exchange only call 1-800-772-2227 □ 3 year on site warranty service up options (in eligible locations):² □ 9 hour coverage, Mon-Fri excluholidays, next business day response time								e ³ Mon-Fri ness day only, e upgrade 7 xcluding y xcluding our	

IBM® Appliance Server Type-model Qty x Pr		Disk	SCSI controller	Mechanical	Slots	bays	Туре	Preload	Available date
8654-1XX 1 x Pentiu 8654-5CX 1 x Pentiu		9.1GB ² 10K 18.2GB 10K	Ultra160 Ultra160	1U rack 1U rack			Appliance Server Appliance Server	TurboLinux Red Hat® Linux® 6.2	Nov 2000 Jun 2001
Positioning Processor SMP support Implementation L2 cache	Point solution applia Intel® Pentium® III 8 5CX only: 2-way SN Processor and L2 ca 256KB std and max	300MHz¹ or 1 MP via identic ache in Flip-C	GHz¹ with al process Chip Pin Gr	133MHz Fi or (1XX sup	ront Side	e Bus second p	rocessor but no Lii		socket
Memory	256MB std / 1XX: 10 controller / SDRAM	GB max ¹³ ; <i>50</i> / 133MHz / E	CX: 2GB ma CC DIMMs	ax ¹³ / 4 soc s / 168-pin (kets / 3 a gold-plat	available ed DIMN	/ Error Checking a M 3.3 volt sockets /	and Correcting (ECC) PC133-compliant	memory
Disk SCSI disk controller SCSI connectors IDE controller	9.1GB or 18.2GB UI Adaptec® AIC-7892 Internal 68-pin (attac Enhanced IDE / two	/ Wide Ultra1 ches 1-drop o	60 SCSI (L able to SC	_VD 160ME SI backpla	B/sec) / s ine); no e	ingle ch external	annel / 64-bit PCI / SCSI connector	ns average latency integrated on mothert	ooard
Architecture / chipsets Mechanical Control Panel	NB6635 North Bridg two ethernet control IB6566 South Bridge (diskette, parallel, se	ge 3.0LE (the llers, graphics e for IDE, US erial, keyboar ı / rack-mount	North Brid s controller B, ISA bus d, mouse) only / sup	·); PCI Bus for Service ported in IE	1, 64-bit Process BM NetB/	33MHz, sor and : AY™ Ra	SCSI controller, to Super I/O National ck products (rack r	Semiconductor® PC9 equires vented front d	7317VUL
Ethernet controllers CD-ROM / diskette Rear ports Ports and cable Console interconnect	capability and load by two RJ-45 connectors 24X-10X° CD-ROM; Serial: one 9-pin; Pakeyboard, video (DE which plugs into the 5CX only: supports	palancing sup ors on rear / si ; CAV (ATAP arallel: none; 3-15), and mo console-out p daisy chainin ain connection	oport througupports PX I); bootable USB: two pouse port or ort g via conse to adjace	gh the conr (E 2.0 Boot e; IDE / 3.5' ports (no su n a standard ole in and c nt server / s	nection of t Agent / " 1.44ME upport); A d breakou out ports a supports	f both et no Wake diskette A <i>dv Sys</i> ut cable / system	hernet ports to the e on LAN® support e drive Mgmt: two RJ-45 p (2 meters length on I-to-system interco	PCI bus / redundant e same LAN segment / orts (no support) 1XX; 1 foot length on nnect cable (10 inch, 2 daisy chained servers	5CX) 245mm) is
Systems mgmt Diagnostics	and mgmt / allows d	liagnostic, res	set, POST,	and auto re	écovery i	function	s / monitors temp,	planar / provides rem fans, and pwr supply cs (via PC-Doctor in B	
Graphics controller	SVGA / PCI bus / S3	3® Savage4P	ro (on plan	ar) / 8MB 9	SDRAM	std and	max / DDC2B		
Security Software ⁹	Power-on password mgmt security (user	d / administrat log-in passw d optimally t	tor passwo rord, read-c runed with	rd / system only or reac TurboLin	owner's d/write ac ux® 6.05	name / ccess, di , IBM H1	unattended boot / s al back) / unattend TP Server 1.3.12,	Appliance System	ms 10K0053
	5CX: Preloaded an Red Hat Linux 6.2, IBM Advanced Appl IBM Director 2.2, Mailing List Manag IBM HTTP Server, 6	d optimally to bliance Confi simple mail c gement, PHP	uned with iguration l lient for al Support,	Utility 2.0, lerting,	•	128MB 256MB 512MB 1GB SE 9.1GB		M 133MHż ŘDIMM M 133MHz RDIMM M 133MHz RDIMM	33L3142 33L3144 33L3146 33L3152 37L7204 37L7205
Keyboard / mouse Cooling fans Power supply Prerequisites	None standard Eight fans (four for p and planar, two for p 200 watt / universal Remote manageme cabinet	oower supply) / auto-sensin) g/auto-re:	start suppo	ort	36.4GB Netfinity Netfinity NetBay		SI Hot-Swap SL HDD Adapter or and side panels) ch	37L7206 34L0301 9306910 09N4290 09N4291



Bay ① 3.5", UltraSlim 0.8", access, std diskette
Bay ② 5.25", UltraSlim 0.8", access, std CD-ROM
Bay ③ 3.5", SL 1", access, std hot-swap
Bay ④ 3.5", SL 1", access, open for hot-s access, std hot-swap disk open for hot-swap disk

Slot 1: fullsize, 64-bit 33MHz PCI 2.1 (5v) Slot 2: halfsize, 64-bit 33MHz PCI 2.1 (5v)

- Stealth black

- Steam black
 H 1.72" (1U) x W 17.3" x D 25.7"

 44 to 62 lbs (minimum to maximum configuration)
 Setup Program is available by pressing F1 at startup
 PC-Doctor diagnostics is available by pressing F2 at startup
 SCSISelect near startup by pressing CTRL+A
- PXE Bullet Agent near startup by pressing CTRL+S
- DMI 2.1, Wired for Management 1.1a
- Includes rack mounting kit
- One line cord

All models: Max int disk capacity: 72.8GB with two 36.4GB SL SCSI disks

LIMITED WARRANTY³

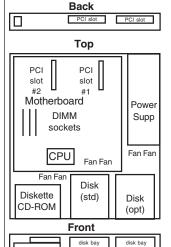
- 3 year parts and labor
- International Warranty Service³
- On site, 8 am 5 pm, Mon Fri coverage excluding holidays, next business day response time
- 3 year on site warranty service upgrade options: (in eligible locations):7
 - 9 hour coverage, Mon-Fri excluding holidays, next business day response time
 - 9 hour coverage, Mon-Fri excluding holidays, 4 hour response
- 24 hr x 7 day coverage, 4 hour response time
- 24 hour x 7 day¹⁴ telephone, electronic, and Internet support

See footnotes for important warranty information

• = Hot-swap but no software support

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IBM® Appliance Server Type-model Proce	ssor	Memory	Disk	Disk controller	Mechanical	Slots x bays	Hot-swap		Preload	Available date
8672-24X Celeron™	800MHz ¹	256MB	20.4GB ²	EIDE	1U rack	2x4	None	Appliance Server	Red Hat® Linux® 6.2	Jun 2001
Positioning Processor L2 cache SMP support Processor upgrade Implementation	Intel® C 128KB No SMF None su Motherk	eleron 80 std and m support ipported board conf	00MHz¹ wi ax / ECC / tains one I	th 100MHz at process ntel PGA3	z Front Side I sor speed	Bus 0-pin Flip-(th plug in convenie rid Array (FC-PGA	nce .)), one integrated VRM	,
Memory - std / max Memory - sockets Memory - features Memory - support	3 socke	1/133MH	lable / EC (z / three 1		l-plated DIMN			nd ECC memory co 1133-compliant	ontroller	
SCSI disk controller IDE disk controller Cables Disk - features	Two 2-c	Irop EIDE	cables (o	ne cable to	support / two o CD-ROM, o s.7 ms averag	ne 80-con	ductor cal	ole to EIDE disk ba	ays)	
Chipset Mechanical Control Panel	VT82C6 EIA 19"	86B Sout Rack (11	th Bridge (U ⁴) / rack-ı	IDE ATA-1 mount only	00, USB, disk //supported	ette, seria in IBM Ne	l, keyboard :BAY™ Ra	d, mouse, ISA bus	-bit 33MHz controller) / for flash BIOS) requires vented front d	oor)
Ethernet controllers CD-ROM / diskette Rear ports Console interconnects	two RJ- 24X-102 Serial: 0	45 conne Xº CD-RO one 9-pin;	ctors on re M, CAV (<i>P</i> <i>Parallel:</i>	ear / suppo ATAPI), boo none; <i>US</i>	orts PXE 2.0 E otable, IDE / 3 <i>B:</i> two ports (Boot Agen 3.5" 1.44M no suppor	t / Alert on B diskette t); <i>Mgmt:</i>	drive none; keyboard;	'Wake on LAN® suppor mouse; DB-15 graphic	
Systems mgmt Diagnostics								erature, fan speed D (diskette can be	d and failure, and voltage created)	jes
Graphics controller Security Software ⁹	8MB SE Power-cunatten Preload Red Ha IBM Ad IBM Dir simple Mailing PHP Su IBM HT	DRAM std on passwoded boot ded and o t Linux 6 vanced A ector 2.2 mail clier List Man pport, TP Serve	and max ord / admin / selectabl optimally f .2, Appliance in for aler agement	YDDC2B'/ nistrator pa e boot / un tuned with Configura ting,	attended star	t mode	256MB 512MB 20.4GE 40GB A IBM Ne IBM CO IBM CO IBM CO IBM CO	SDRAM ECC DIM SDRAM ECC DIM SDRAM ECC DIM 3 ATA-100 EIDE HI ATA-100 EIDE HDI	M 133MHz M 133MHz DD) perforated door/panels) Rack I port) B port)	33L3081 33L3083 33L3085 19K4461 22P7157 9306910 930842S 09N4290 09N4291 09N4293 09N4293 28L3673
Keyboard / mouse Cooling fans Power supply Prerequisites	left disk all varia failure (200 wat not hot- Monitor	s (two for pand fulls) ble speed other fans t / univers swap / Au	ze PCI; tw d / redunda s increase sal / auto-s itomatic S d, mouse,	vo for power ant cooling speed) sensing / ne erver Rest	halfsize PCI; er supply) / on single fan ot redundant art (ASR) sup perforated do	/ oport	IBM 84 IBM Pre IBM E5 IBM Sn IBM Sn IBM T5	-key Space Saver (eferred Keyboard (I 1 (13.8" viewable) nart-UPS Model 14 nart-UPS Model 30 4A 15" Flat Panel (Color Monitor (black) 00RMB	28L3644 28L3621 633347N 94G6674 94G6676 9511AG1



Bay ① 3.5", UltraSlim 0.8", access, std diskette
Bay ② 5.25", UltraSlim 0.8", access, std CD-ROM
Bay ③ 3.5", SL 1", access, std disk
Bay ④ 3.5", SL 1", access, open for disk

Slot 1: fullsize, 32-bit 33MHz PCI 2.1 (5v) Slot 2: halfsize, 32-bit 33MHz PCI 2.1 (5v)

- Stealth black
- ⇒ H 1.72" (1U) x W 17.3" x D 25.7" ⇒ 26 to 28.4 lbs (minimum to maximum configuration)

- Setup Utility is available by pressing F1 at startup

 PXE Boot Agent Utility near startup by pressing CTRL+S

 DMI 2.1, Wired for Management (WfM) 2.0-compliant
- Includes rack mounting kit
- Vital Product Data (VPD) info in nonvolatile memory
- ⇒ Predictive Failure Analysis® (PFA) on disks

All models: Max int disk capacity: 80GB with two 40GB EIDE disks

LIMITED WARRANTY3

- ⇒ 3 year parts / 1 year labor
 ⇒ International Warranty Service³
- □ 1st year: on site, 8 am-5 pm, Mon-Fri excluding holidays, next business day
- response time

 ≈ 2nd/3rd year: parts exchange only, call 1-800-772-2227
- 3 year on site warranty service upgrade options (in eligible locations):7
- 9 hour coverage, Mon-Fri excluding holidays, next business day response time
- 9 hour coverage, Mon-Fri excluding holidays, 4 hour response
- 24 hr x 7 day coverage, 4 hour response time
- 24 hour x 7 day¹⁴ telephone, electronic, and Internet support

One or two Pentium® III 800EB MH 256KB std and max / ECC / at proce Motherboard contains two Intel Slot one VRM socket (one VRM integrate 2-way SMP via second identical 800 256MB or 1GB std / 2GB max (Wind 4 sockets / 3 available / ECC (all hav SDRAM / 133MHz / four 168-pin gold 33Y: IBM ServeRAID-4L / Ultra160 pin internal connector, one 68-pin 16-bit 68-pin LVD cable from internal 3XY: IBM ServeRAID-4H / Ultra160 2 external only) / two 68-pin inter	iz¹ with 133MHz Front Side ssor speed / processor and 1 connectors for SECC2 cared), four DIMM sockets, PCI MHz processor / upgrade v dows Powered OS prevents e Error Checking and Corred-plated sockets / PC133-cc SCSI (LVD 160MB/sec) / 64 pin VHDCI external connector to backplane SCSI (LVD 160MB/sec) / 64 ernal connectors, four 68-pin SCSI (LVD 160MB/sec) / 64 ernal connectors, four 68-pin internal string of the connector on plate a 160 SCSI / 7.0 ms or less a ors / common tray with EXP3 with Yacks / kit available to coloit PCI (three PCI slots, SC: ip set / NB6635 North Bridg onal Semiconductor® PC973	5 slots x 10 bays 2 5 slots x 10 bays 4 Bus L2 cache in Single Ectridges (open Slot 1 us slots, and integrated in SECC2 into second as addressing more than secting (ECC) memory compliant / supports regarding to the support of the	seed by terminator), subsystems Slot 1 CPU connector n 2GB) controller) / non-interleaved gistered SDRAM ECC DIMMs only annel (external/internal) / one 68- 'RAID 0, 1, 1E, 5E, 00, 10,1E0,50 / annels (2 external/internal, ectors / 128MB ECC cache, internal connector to backplane able (CD-ROM) / 4.17 ms latency / one backplane All models: Max int disk capacity: 218.4GB² with six 36.4GB SL disks or rack to tower conversion) CI (two PCI slots,					
One or two Pentium® III 800EB MH 256KB std and max FCC / at proces Motherboard contains two Intel Slot 1 one VRM socket (one VRM integrate 2-way SMP via second identical 800 256MB or 1GB std / 2GB max (Wind 4 sockets / 3 available / ECC (all hav SDRAM / 133MHz / four 168-pin gold 33Y: IBM ServeRAID-4L / Ultra160 2 pin internal connector, one 68-pin internal connector, one 68-pin LVD cable from intern 3XY: IBM ServeRAID-4H / Ultra160 2 external only) / two 68-pin inte battery-backed /RAID 0, 1, 1E, All: Adaptec® AHA-7899 / Ultra160 2 channels (both internal, no e: Single Primary IDE (ROSB4) South B Three or six 36.4GB / 7200 rpm / Ultra Six hot-swap / 80-pin SCA-2 connector Tower or EIA 19" Rack (5U⁴) Rack systems supported in IBM Netfil PCI 2.1 (33MHz) / dual peer PCI / 64- graphics, ethernet, South Bridge) / no ServerWorks® ServerSet III™ LE ch Service Processor and Super I/O Natii (See diagram below): 10 bays / three	iz¹ with 133MHz Front Side ssor speed / processor and 1 connectors for SECC2 cared), four DIMM sockets, PCI MHz processor / upgrade v dows Powered OS prevents e Error Checking and Corred-plated sockets / PC133-cc SCSI (LVD 160MB/sec) / 64 pin VHDCI external connector to backplane SCSI (LVD 160MB/sec) / 64 ernal connectors, four 68-pin SCSI (LVD 160MB/sec) / 64 ernal connectors, four 68-pin internal string of the connector on plate a 160 SCSI / 7.0 ms or less a ors / common tray with EXP3 with Yacks / kit available to coloit PCI (three PCI slots, SC: ip set / NB6635 North Bridg onal Semiconductor® PC973	Bus L2 cache in Single Editridges (open Slot 1 us slots, and integrated in SECC2 into second as addressing more than ecting (ECC) memory compliant / supports registrologies. bit PCI adapter / 1 chance of the PCI adapter / 4 chance of the PCI adapter / 4 chance of the PCI adapter / 4 chance of the PCI on planar / 1 connectors on planar / 1 connectors on planar war / one 1-drop IDE converage read seek time 300 and later servers onvert tower to rack (n SI controller) / 32-bit PCI / 186566 Souttle / 186566 Souttl	Ige Cartridge (SECC2) sed by terminator), subsystems Slot 1 CPU connector n 2GB) controller) / non-interleaved gistered SDRAM ECC DIMMs only annel (external/internal) / one 68- 'RAID 0, 1, 1E, 5E, 00, 10,1E0,50 / annels (2 external/internal, ectors / 128MB ECC cache, internal connector to backplane able (CD-ROM) 1 / 4.17 ms latency / one backplane All models: Max int disk capacity: 218.4GB² with six 36.4GB SL disks o rack to tower conversion) CI (two PCI slots,					
256KB std and max / ECC / at proced Motherboard contains two Intel Slot 1 one VRM socket (one VRM integrate 2-way SMP via second identical 800 256MB or 1GB std / 2GB max (Wind 4 sockets / 3 available / ECC (all hav SDRAM / 133MHz / four 168-pin gold 33Y: IBM ServeRAID-4L / Ultra160 pin internal connector, one 68-pin internal connector, one 68-pin internal connector, one 68-pin internal connector, one 68-pin internal connector, one 68-pin internal connector, one 68-pin internal connector, one 68-pin internal connector, one 68-pin internal connector, one 68-pin internal connector, one 68-pin internal connector, one 68-pin internal connector, one 68-pin internal one 2 external only) / two 68-pin internal connector 2 channels (both internal, no exingle Primary IDE (ROSB4) South B Three or six 36.4GB / 7200 rpm / Ultra Six hot-swap / 80-pin SCA-2 connector Tower or ElA 19" Rack (5U4) Rack systems supported in IBM Netfin PCI 2.1 (33MHz) / dual peer PCI / 64-graphics, ethernet, South Bridge) / no ServerWorks® ServerSet III™ LE ch Service Processor and Super I/O Natic (See diagram below): 10 bays / three	assor speed / processor and 1 connectors for SECC2 car dol, four DIMM sockets, PCI MHZ processor / upgrade v dows Powered OS prevents re Error Checking and Corred-plated sockets / PC133-cc SCSI (LVD 160MB/sec) / 64 pin VHDCI external connector to backplane SCSI (LVD 160MB/sec) / 64 pin VHDCI external connector to backplane SCSI (LVD 160MB/sec) / 64 pin 4 pin	L2 cache in Single Editridges (open Slot 1 us slots, and integrated sia SECC2 into second as addressing more that ecting (ECC) memory compliant / supports regarded to the support of the	seed by terminator), subsystems Slot 1 CPU connector n 2GB) controller) / non-interleaved gistered SDRAM ECC DIMMs only annel (external/internal) / one 68- 'RAID 0, 1, 1E, 5E, 00, 10,1E0,50 / annels (2 external/internal, ectors / 128MB ECC cache, internal connector to backplane able (CD-ROM) / 4.17 ms latency / one backplane All models: Max int disk capacity: 218.4GB² with six 36.4GB SL disks or rack to tower conversion) CI (two PCI slots,					
4 sockets / 3 available / ECC (all hav SDRAM / 133MHz / four 168-pin gold 33Y: IBM ServeRAID-4L / Ultra160 pin internal connector, one 68-pin 16-bit 68-pin LVD cable from internal syr: IBM ServeRAID-4H / Ultra160 2 external only) / two 68-pin interbattery-backed /RAID 0, 1, 1E, All: Adaptec® AHA-7899 / Ultra160 2 channels (both internal, no e: Single Primary IDE (ROSB4) South B Three or six 36.4GB / 7200 rpm / Ultra Six hot-swap / 80-pin SCA-2 connectors to the swap / 80-pin SCA-2 connectors (33MHz) / dual peer PCI / 64-graphics, ethernet, South Bridge) / no ServerWorks® ServerSet III™ LE ch Service Processor and Super I/O Nati (See diagram below): 10 bays / three	re Error Checking and Corred-plated sockets / PC133-cd CSCSI (LVD 160MB/sec) / 64 pin VHDCI external connector to backplane SCSI (LVD 160MB/sec) / 64 ernal connectors, four 68-pin, 5E, 00, 10, 1E0, 50 / 16-bit 0 SCSI (LVD 160MB/sec) / 6 xternal) / two 68-pin internal bridge / one connector on plate 160 SCSI / 7.0 ms or less a ors / common tray with EXPS (inityRacks / kit available to cobit PCI (three PCI slots, SC) o hot-swap slots (ip set / NB6635 North Bridgional Semiconductor® PC973	ecting (ECC) memory of compliant / supports regional formula for the confidence of t	controller) / non-interleaved gistered SDRAM ECC DIMMs only annel (external/internal) / one 68-7 RAID 0, 1, 1E, 5E, 00, 10,1E0,50 / annels (2 external/internal, ectors / 128MB ECC cache, internal connector to backplane able (CD-ROM) 2 / 4.17 ms latency / one backplane All models: Max int disk capacity: 218.4GB² with six 36.4GB SL disks or ack to tower conversion) CI (two PCI slots,					
pin internal connector, one 68-pin 16-bit 68-pin LVD cable from intern 3XY: IBM ServeRAID-4H / Ultra160 2 external only) / two 68-pin internatery-backed / RAID 0, 1, 1E, All: Adaptec® AHA-7899 / Ultra160 2 channels (both internal, no exingle Primary IDE (ROSB4) South B Three or six 36.4GB / 7200 rpm / Ultra Six hot-swap / 80-pin SCA-2 connected Tower or EIA 19" Rack (5U4) Rack systems supported in IBM Netfin PCI 2.1 (33MHz) / dual peer PCI / 64-graphics, ethernet, South Bridge) / no ServerWorks® ServerSet III™ LE ch Service Processor and Super I/O Natio (See diagram below): 10 bays / three	pin VHDCI external connectional connector to backplane SCSI (LVD 160MB/sec) / 64 ernal connectors, four 68-pir, 5E, 00, 10, 1E0, 50 / 16-bit 0 SCSI (LVD 160MB/sec) / 6 xternal) / two 68-pin internal 3ridge / one connector on plast 160 SCSI / 7.0 ms or less a ors / common tray with EXP3 inityRacks / kit available to cobit PCI (three PCI slots, SCI o hot-swap slots ip set / NB6635 North Bridgional Semiconductor® PC973	or / 16MB ECC cache / I-bit PCI adapter / 4 chain VHDCI external conn 68-pin LVD cable from 64-bit PCI / on planar / I connectors on planar unar / one 1-drop IDE caverage read seek time 300 and later servers onvert tower to rack (n SI controller) / 32-bit Pure 3.0LE / IB6566 Soutt	All models: Max int disk capacity: 2 18.4 GB² with six 36.4 GB SL disks or ack to tower conversion) 2 2 18.4 GB² with six 36.4 GB SL disks or ack to tower conversion) 2 2 18.4 GB² with six 36.4 GB SL disks or ack to tower conversion) CI (two PCI slots,					
Tower or EIA 19" Rack (5U⁴) Rack systems supported in IBM Netfil PCI 2.1 (33MHz) / dual peer PCI / 64- graphics, ethernet, South Bridge) / no ServerWorks® ServerSet III™ LE ch Service Processor and Super I/O Nati- (See diagram below): 10 bays / three	inityRacks / kit available to co- bit PCI (three PCI slots, SCi b hot-swap slots ip set / NB6635 North Bridg onal Semiconductor® PC973	onvert tower to rack (n SI controller) / 32-bit P e 3.0LE / IB6566 Soutl	218.4GB² with six 36.4GB SL disks or ack to tower conversion) CI (two PCI slots,					
All: AMD® Am79C975 / on planar /			llel, serial, keyboard, mouse)					
33Y: 1 x Netfinity 10/100 Ethernet A 3XY: 3 x Netfinity 10/100 Ethernet A 40X-17X ⁶ CD-ROM / multisession / ID Serial: Three 9-pin (one for Mgmt Pro SVGA / PCI 2.1 bus / S3 [®] Savage4 (or	Adapter 2 / 32-bit PCI adapt Adapter 2 / 32-bit PCI adapt DE interface / 1.6" HH / boot ocessor) Parallel: One (EF	ter / full duplex / 82559 ter / full duplex / 82559 able; <i>Diskette:</i> 3.5" 1.4 PP, ECP) / IEEE 1284	chip set / in Slot 1 chip set / in Slot 1, 2, 4 4MB diskette drive / dust cover USB: Two ports (Version 1.1)					
Power-on password / administrator pa power button, and reset button (tower read-only or read/write access, dial ba	r only) / unattended boot / se	lectable boot / systems	ble front door to cover disk bays, s mgmt security (user log-in password,					
Integrated Advanced System Mgmt Processor / on planar / provides remote console and mgmt / allows diagnostic, reset, POST, and auto recovery functions / monitors temperature, fans, and power supplies Diagnostics LED Panel (under cover) / Light Path Diagnostics™ provides an LED map to failing component / system board error LEDs / diagnostics in ROM by pressing F2 at startup for PC-Doctor Preloaded and optimally tuned with Windows Powered OS and appliance software stack, Netfinity Director 2.12 (agent only), Universal Manageability (UM) Server Extensions, ServeRAID Manager, Advanced Appliance Configuration Utility, Columbia Data Products Open Transaction Manager, Microsoft Services for Unix 2.0								
None Sitd: two 250 watt hot-swap; Max: three 250 watt hot-swap / redundant with two power supplies / worldwide / voltage-sensing / auto-restart / fans in each power supply Two (fan in rear, blower in front) / not hot-swap / PFA / fan failure signals Diagnostic LED and Mgmt Processor / fan in each power supply Pentium III 800/133MHz/256KB Proc Upg 128MB SDRAM ECC DIMM 133MHz RDIMM 1512MB SDRAM ECC DIMM 133MHz RDIMM IN 168 SDRAM ECC								
it 33MHz PCI 2.1 (5v), Bus A* it 33MHz PCI 2.1 (5v), Bus B** it 33MHz PCI 2.1 (5v), Bus B* it 33MHz PCI 2.1 (5v), Bus B ① 3.5", SL 1", access, diskette ② 3.5", SL 1", access, hot swap* ③ 3.5", SL 1", access, hot swap*	Removable, easy release lesse Quick release adapter slots Rail system enables device diskette, tape drives) to snow without screws Configuration/Setup Utility pressing F1 at startup SCSISelect near startup b CTRL+AOperator Information Panes Predictive failure analysis	eft/top side panel s (no screws) es (CD-ROM, ap in and out invoked by y pressing el (in front) on disk options, ds, power supplies, th Netfinity	LIMITED WARRANTY 3 year parts and limited labor warranty³ International Warranty Service³ On site warranty all 3 years All cities in all states 8 am-5 pm, Mon-Fri coverage Next business day average response time On site warranty upgrade options (in eligible locations): 24 hr x 7 day coverage, 4 hour response ⁷ time 24 hr x 7 day coverage, 2 hour response ⁷ time IBM Server Start Up Support					
it 3 ① ② ③	3MHz PCI 2.1 (5v), Bus B 3.5", SL 1", access, diskette 3.5", SL 1", access, hot swap* 3.5", SL 1", access, hot swap* 3.5", SL 1", access, hot swap* 3.5", SL 1", access, hot swap* 3.5", SL 1", access, hot swap*	3MHz PCI 2.1 (5v), Bus B 3.5", SL 1", access, diskette access, hot swap* access, open	3MHz PCI 2.1 (5v), Bus B 3.5", SL 1", access, hot swap* 3.5", SL 1", access, hot swap* 3.5", SL 1", access, hot swap* 3.5", SL 1", access, hot swap* 3.5", SL 1", access, hot swap* 3.5", SL 1", access, hot swap* 3.5", SL 1", access, hot swap* 5.25", HH 1.6" access, open 5.25", HH 1.6" access, open 5.25", HH 1.6" access, Open					

IBM® Type-model Proce	ssor	L2 cache	Memory	Disk	Disk controller	Mechanical	Slots x bays	Hot-swap disk bays	Ethernet	Available date
8481-11X Celeron® 8 8481-21X Pentium® 8481-31X Celeron 1.		128KB 256KB 256KB	128MB 128MB 128MB	20.4GB ² 7200 rpm 20.4GB7200 rpm 20.4GB7200 rpm	EIDE EIDE EIDE	Mini Tower Mini Tower Mini Tower	5x7 5x7 5x7	None None None	10/100 ethernet 10/100 ethernet 10/100 ethernet	Sep 2001 Sep 2001 Sep 2002
Positioning Processor	Intel® Cele	eron 850N	/IHz or 1.2	sor, entry server des GHz with 100MHz to 133MHz frontside	irontside		ısiness n	eeds and bu	ıdgets	
L2 cache	Celeron 85	50MHz: 1 2GHz: 2	28KB std 256KB std	and max / ECC / at and max / ECC / at	processo processo	r speed				
Implementation	Pentium III: 256KB std and max / ECC / at processor speed Processor and L2 cache in Flip-Chip Pin Grid Array (FC-PGA or FC-PGA2) Motherboard contains one Intel PGA370 socket, one integrated VRM, three DIMM sockets, three PCI slots, connector for two-slot PCI extender board, one AGP slot, and integrated ethernet									
Processor upgrade SMP support	All models can be upgraded to Pentium III 1.0, 1.13, or 1.26GHz No SMP support									
Memory	128MB sta 3 sockets SDRAM /	/ 2 availal	ble / ECC	imum (Error Checking and ed DIMMs (UDIMM)	d Correcti / CAS La	ing) DIMMs a atency 3 (CL3	and ECC B) / three	memory co 168-pin gol	ntroller / PC133-cc d-plated DIMM 3.3	ompliant / v sockets
SCSI disk controller IDE disk controller Cables Disk - features	Two 2-dro	p EIDE ca	ables (one	TA-66/100 support / cable to CD-ROM 0 rpm / less than 9.0	, one cab	le to EIDE di	sk)	.M.A.R.T.		
Rack support Architecture / chipsets	VIA® Apol	llo Pro13	3T chip se	wer-to-rack kit option ht / VT82C694T Nort e (IDE ATA-100, USE	h Bridge	(memory con	troller, Po	CI 2.2 32-bit		AGP 4X) /
100/10Mbps ethernet CD-ROM / diskette Ports Audio Audio connectors Speaker Diagnostics Systems mgmt	et Intel 82550 / on planar / 10BaseT, 100BaseTX / full duplex / 32-bit 33MHz PCI bus / support for Wake on LAN® 48X-20X® CD-ROM, CAV (ATAPI), bootable, IDE / Diskette: 3.5" 1.44MB diskette drive Back: two 9-pin serial, two USB (Version 1.1), parallel, keyboard, mouse Integrated digital audio / AC97 interface / SoundBlaster Pro-compatible Back: microphone jack, line-in, line-out, MIDI/game port One internal speaker / requires externally powered speakers for stereo sound POST and server diagnostic programs stored on IBM Enhanced Diagnostics CD Monitoring and alerting of memory, thermal, or voltage faults / support for Wake on LAN, Alert on LAN™ 2, PXE									
Graphics controller		SVGA / ATI Rage XL / AGP 2X adapter / 8MB SGRAM std and max / 230MHz RAMDAC / DPMS and DDC2B-compliant / 60Hz to 85Hz vertical refresh / analog 15-pin D-Sub connector								
Security	Cover key lock / U-bolt support / power-on password / boot sequence control / operation without keybd and mouse / chassis intrusion protection									
Software	ServerGu utilities), It and other	3M Direct	or (systen	tallation and configun hardware mgmt sc	ration oftware),	Pentium III 1 Pentium III 1 Pentium III 1	.13GHz/5 .26GHz/5	512KB Proc 512KB Proc	Ùpg Upg	32P0650 32P0651 32P0652
Keyboard / mouse Cooling fans	Celeron: Pentium III All: not red variabl 330 watts	three fa I: four fan lundant o le-speed f / universa Server R	ns (power s (power s r hot-swap an in powe Il / auto sw estart (ASI	itch / R) / not redundant o	cept for	128MB SDRAM ECC 133MHz unbuffered DIMM 33L3 256MB SDRAM ECC 133MHz unbuffered DIMM 33L3 512MB SDRAM ECC 133MHz unbuffered DIMM 33L3 IBM 4Ux20D Tower-to-Rack Kit 09N4 IBM 40GB ATA-100 EIDE HDD 22P7 IBM 80GB ATA-100 EIDE HDD 09N4 IBM T540 15" Flat Panel Monitor (black) 9511 IBM 12X/8X/32X ⁶ CD-RW (black) 10K3				
Slot fullsize, AGP	·		•	ndard AGP graphics	adotr	American Po Other option		com/pc/us/	art-UPS 1000 accessories	94G3135

Slot fullsize, AGP 4X, 25 watt (3.3v) - used by standard AGP graphics adptr Slot 1: fullsize, 32-bit 33MHz, PCI 2.2 (5v)
Slot 2: fullsize, 32-bit 33MHz, PCI 2.2 (5v) - slot has Alert on LAN 2 support Slot 3: fullsize, 32-bit 33MHz, PCI 2.2 (5v)
Slot 4: fullsize, 32-bit 33MHz, PCI 2.2 (5v) - on two-slot PCI extender board

Slot 5: fullsize, 32-bit 33MHz, PCI 2.2 (5v) - on two-slot PCI extender board

CD-ROM (2) diskette 4 (5) disk Mini-tower

Bay ① 5.25", HH1.6", access, CD-ROM
Bay ② 5.25", HH1.6", access, open
Bay ③ 3.5", SL 1", access, diskette
Bay ④ 3.5", SL 1", access, open
Bay ⑤ 3.5", SL 1", access, open
Bay ⑥ 3.5", SL 1", access, open
Bay ⑥ 3.5", SL 1", access, open
Bay ⑦ 3.5", SL 1", access, disk (some access, disk (some)

Metal cage for disk bays 5,6,7 rotate out of chassis for easy access for cabling backplane or working with disks

- Two front stabilizing feet Stealth Handle grip on top black
 - ⇒ H 18.5" x W 6.5" x D 20.0" ⇒ H 470mm x W 165mm x D 508mm
 - 35 to 43 pounds (15.9 to 19.5kg)

Maximum internal IDE disk capacity: 240GB (3 disks x 80GB)

- Removable left side panel
- Configuration/Setup Utility (in flash memory) invoked by pressing F1 at startup
- SCSISelect near startup by pressing CTRL+A (SCSI models)
- Adv Config Power Interface (ACPI) 1.0
- ISO 9241-3 capable

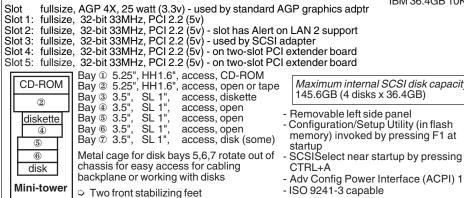
LIMITED WARRANTY

- 1 year parts and labor
- International Warranty Service³
- On site, 8 am-5 pm, Mon-Fri excluding holidays, next business day response time On site warranty service upgrade
- options (in eligible locations):7 1 year IOR 9x5, Next Business Day
- (ServicePac® part number 69P9382)
- 1 year IOR 9x5, 4 hr ave response (ServicePac part number 69P9383)
- 1 year IOR 24x7, 4 hr ave response (ServicePac part number 69P9384)
- year IOR 24x7, 2 hr ave response (ServicePac part number 69P9385)
- 3 year IOR 9x5, Next Business Day (ServicePac part number 69P9509)
- 3 year IOR 9x5, 4 hr ave response (ServicePac part number 69P9510) 3 year IOR 24x7, 4 hr ave response
- (ServicePac part number 69P9511) 3 year IOR 24x7, 2 hr ave response (ServicePac part number 69P9515)

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24x714 toll-free support for warranty issues during the warranty period

IBM® Type-model Process	sor Memory	Disk Tape	Disk controller	Mechanica	ıl Slots x bays	Hot-swap disk bays	ethernet	Available date
8478-10X Celeron™6 8478-11X Celeron 66 8478-12X Celeron 66 8478-40X Pentium® II 8478-41X Pentium III 8478-50X Pentium III 8478-51X Pentium III	7/66 64MB 7/66 64MB II 800/133 128MB 800/133 64MB 866/133 128MB	15GB None 15GB Tape None None 15GB None	Ultra160, EIDE EIDE EIDE Ultra160, EIDE EIDE Ultra160, EIDE EIDE	Mini Towe	r 5 slots x 7 bays r 5 slots x 7 bays r 5 slots x 7 bays r 5 slots x 7 bays r 5 slots x 7 bays r 5 slots x 7 bays	None None None None None	10/100 ethernet 10/100 ethernet 10/100 ethernet 10/100 ethernet 10/100 ethernet 10/100 ethernet 10/100 ethernet	
Intel® processor L2 cache	Celeron: 128KB	std and max / E		speed; Pe	II 800EB or 866MHz entium III: 256KB std			
Implementation		ains one Intel P	GA370 socket, on	e integraté	d VRM, three DIMM	sockets, thre	ee PCI slots, conne	ector for two
Memory - std / max Memory - sockets Memory - features Memory - support	64MB or 128MB s 3 sockets / 2 availa	able / ECC (Err : / three 168-pir	or Checking and C ngold-plated DIMN		DIMMs and ECC me ockets / PC133-comp		ller	
SCSI disk controller SCSI connectors RAID support IDE disk controller Cables Disk - features Tape drive	64-bit 33MHz PCI SCSI models: On Supports optional Enhanced IDE bus SCSI models: one EIDE models: two Some models: 150	adapter (in a 3 e 68-pin intern PCI RAID ada smaster / ATA- e 5-drop 16-bit o 2-drop EIDE (GB EIDE / ATA	32-bit slot) / one chal SCSI connector oters -66 support (ATA- LVD SCSI cable, cables (one cable	nannel with r / one 0.8m 100 on late one 2-drop to CD-RO 3.7 ms aver	tra160 SCSI (LVD 1 up to 15 device sup nm VHDCI 68-pin ex r models) / two conr EIDE cable (conne M, one cable to EID age read seek time	port ternal SCSI nectors on pl cted to CD-F E disk)	connector anar ROM)	
Rack support Architecture / chipsets	4U ⁴ rack mount su VIA® Apollo Pro13 AGP 4X) / VIA VT8 keyboard, mouse)	33A chip set /	VT82C694X North	n Bridge (me DE ATA-66	emory controller, PC i [686B is ATA-100],	I 2.2 32-bit 3 USB, diskett	3MHz controller, e, parallel, serial,	
100/10Mbps ethernet CD-ROM / diskette External ports Diagnostics Systems mgmt	48X-20X ⁶ CD-RO Serial: Two 9 pin; audio line in, audio POST and server of	M / CAV (ATAI Parallel: One (o line out, micro diagnostic prog erting of memo	PÍ) / bootable / IDI EPP, ECP) / IEEE ophone in Irams are stored o	E Dis. 1284; <i>USI</i> n the IBM E	32-bit 33MHz PCI bu kette: 3.5" 1.44MB o 3: Two (Ver 1.1); ke inhanced Diagnostic / support for Wake o	diskette drive yboard, DB- es CD	e 15 analog video, n	
Graphics controller	SVGA / S3 Savag 60Hz to 85Hz vert				and max / DPMS ar	nd DDC2B-c	ompliant /	
Security	Cover key lock / U chassis intrusion p		power-on passwo		equence control / op entium III 800MHz/25			se / 21P9539
Software	ServerGuide™ (C installation and co and APC PowerCl (system hardware	nfiguration tool hute Plus / incl	l), Norton AntiViru udes IBM Director	Pe s TM , 64 12 es 25	INITION IN INTERPRETATION INTERPRETATION IN INTERPRETATION IN INTERPRETATION IN INTERPRETATION IN INTERPRETATION IN INTERPRETATION IN INTERPRETATION IN INTERPRETATION IN INTERPRETATION IN INTERPRETATION IN INTERPRETATION IN INTERPRETATION IN INTERPRETATION IN INTERPRETATION IN INTERPRETATION IN INTERPRETATION IN INTERPRETATION IN INTERPRETATION INTERPRETATION INTERPRETATION IN INTERPRETATION IN INTERPRETATION INTE	6KB Proc Up 33MHz unbut 33MHz unbu 33MHz unbu	og ffered DIMM iffered DIMM iffered DIMM	10K3818 33L3079 33L3081 33L3083 33L3085
Keyboard / mouse Cooling fans Power supply	IBM 101-key keybo Three cooling fans not redundant or h 330 watts / univers Automatic Server I hot-swap / cooling	(power supply ot-swap / fans sal / auto switch Restart (ASR) / fan in power su	, front, rear) / have two speeds h / not redundant or upply	IB IB IB IB IB IB IB	M 4Ux20D Tower-to M 20.4GB ATA-100 M 30GB ATA-100 E M 9.1GB 7200rpm U M 18.2GB 7200rpm U M 36.4GB 7200rpm I M 9.1GB 10K Ultra1 M 18.2GB 10K Ultra1 M 36.4GB 10K Ultra1	P-Rack Kit EIDE HDD IDE HDD Itra160 SCSI JItra160 SCS JItra160 SCS 60 SCSI HDE	HDD SI HDD SI HDD)	09N4300 19K4461 00N8203 00N8204 00N8205 00N8206 00N8207 00N8208 00N8209



Maximum internal SCSI disk capacity: 145.6GB (4 disks x 36.4GB)

- Removable left side panel Configuration/Setup Utility (in flash memory) invoked by pressing F1 at
- CTRL+A
- Adv Config Power Interface (ACPI) 1.0
- ISO 9241-3 capable

LIMITED WARRANTY

- 3 year parts / 1 year labor limited warranty3
- International Warranty Service³
- 1st year: on site, 8 am-5 pm, Mon-Fri excluding holidays, next business day response time
- 2nd/3rd year: parts exchange only, call 1-800-772-2227
- On site warranty upgrade options (in eligible locations):
 - 24 hr x 7 day coverage, 4 hour response⁷ time (21P2021)
 - 9 hour coverage, Mon-Fri excluding holidays, next business day response⁷ time (21P2022)
- □ IBM Server Start Up Support
- 24 hour x 7 day telephone¹⁴, electronic, and Internet support

\$tealth black

→ Handle grip on top
 → H 18.5" x W 6.5" x D 20.0"
 → H 470mm x W 165mm x D 508mm

35 to 43 pounds (15.9 to 19.5kg)

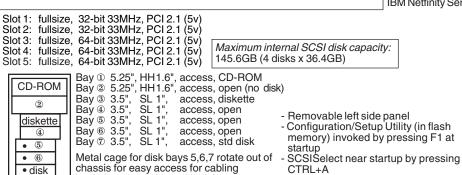
							The second secon	and the second
IBM® Type-model Proces	sor Memory	Disk Tap	Disk e controller	Mechanical	Slots x bays	Hot-swap disk bays	Ethernet	Available date
8478-20X Celeron TM 7 8478-21X Celeron 73 8478-22X Celeron 73 8478-30X Celeron TM 8 8478-31X Celeron 80 8478-61X Pentium III 8478-70X Pentium III 8478-71X Pentium III	3/66 64MB 3/66 64MB 300/100 128MB 00/100 64MB 11933/133 128MB 933/133 64MB 1GHz ¹ /133 128MB	20.4GB Non 15GB Tap None Non 20.4GB Non None Non None Non	e EIDE e EIDE e Ultra160, EIDE e EIDE e Ultra160, EIDE e Ultra160, EIDE	Mini Tower Mini Tower Mini Tower Mini Tower Mini Tower Mini Tower Mini Tower	5 slots x 7 bays	Mone Mone Mone Mone Mone Mone Mone Mone	10/100 ethernet 10/100 ethernet 10/100 ethernet 10/100 ethernet 10/100 ethernet 10/100 ethernet 10/100 ethernet 10/100 ethernet	May 2001 May 2001 Mar 2001 Mar 2001
Intel® processor L2 cache Implementation SMP support	Pentium III: 256KB All: Proces Motherboard contai slot PCI extender bo No SMP support	Iz¹ or 1GHz with std and max / E std and max / E sor and L2 cach ns one Intel PG, pard, one AGP s	h 133MHz Front Sic ECC / at processor s ECC / at processor s ne in Flip-Chip Pin G A370 socket, one int	de Bus speed speed rid Array (FC egrated VRN	C-PGA) / all upgra	ıdable via d	options below	ector for two-
Memory - std / max Memory - sockets Memory - features Memory - support SCSI disk controller SCSI connectors RAID support IDE disk controller Cables Disk - features Tape drive	64MB or 128MB sto 3 sockets / 2 availab SDRAM / 133MHz / Supports unbuffered 64-bit 33MHz PCI a SCSI models: One Supports optional P Enhanced IDE buss SCSI models: one EIDE models: two Some models: 15Gi Model 22X: 10/2	ole / ECC (Error three 168-pin g d SDRAM ECC) ptec® 29160LP (dapter (in a 32-68-pin internal CI RAID adapter aster / ATA-665-drop 16-bit L\2-drop EIDE ca B or 20.4GB EIE	old-plated DIMM 3.3 DIMMs / single channel W bit slot) / one chann SCSI connector / or ers 5 support (ATA-100 /D SCSI cable, one bles (one cable to C	Vide Ultra16 Intelligible With up to the 0.8mm VH Intelligible With Intelligible Wi	/ PC133-complia 0 SCSI (LVD 160 15 device support device support device) / two connected cable (connected cable to EIDE	nt OMB/sec) / ort rnal SCSI octors on placed to CD-R disk)	connector anar IOM)	
Rack support Architecture / chipsets 100/10Mbps ethernet CD-ROM / diskette External ports Diagnostics Systems mgmt	4U ⁴ rack mount sup VIA® Apollo Pro13: AGP 4X) / VIA VT82 Intel 82559 / on plau 48X-20X® CD-ROM Serial: Two 9 pin; Paudio line in; audio lone in; audio lone in; audio lone in; audio lone the victoria and aler Preboot eXecution	BA chip set / VT C686B South Enar / 10BaseT, / CAV (ATAPI) / Carallel: One (Efine out; microplagnostic prograting of memory,	'82C694X' North Bridge (IDE ATA-100 100BaseTX / full du / bootable / IDE PP, ECP) / IEEE 128 none in ms stored on IBM En thermal, or voltage	dge (memory , USB, disket plex / 32-bit: Diskette: 34; USB: Two nhanced Dia	controller, PCI 2 tte, parallel, seria 33MHz PCI bus, 3.5" 1.44MB dis 5 (Ver 1.1); keyb gnostics CD	2 32-bit 3: I, keyboard / support fokette drive oard, DB-1	d, mouse) or Wake on LAN® e 15 analog video; r	
Graphics controller	SVGA / S3 Savage 60Hz to 85Hz vertic	4 LT / AGP 4X a	adapter / 8MB SDR		nax / DPMS and	DDC2B-co	ompliant /	
Security	Cover key lock / U-I chassis intrusion pr	Bolt support / po		boot sequen	ice control / oper			se / 10K3819
Keyboard / mouse Cooling fans Power supply	ServerGuide™ (CE installation and con and APC PowerCh (system hardware r IBM 101-key keybox Three cooling fans (not redundant or ho 330 watts / universa hot-swap / cooling fa	D-based automa figuration tool), ute Plus / includ ngmt software) ard / IBM 2-butto power supply, fit-swap / fans ha I / auto switch /	Norton AntiVirus™, es IBM Director and many utilities on mouse ront, rear) / ve two speeds not redundant or	Pentium 64MB Si 128MB S 256MB S 512MB S IBM 4Ux IBM 20. IBM 30.0 IBM 9.10 IBM 18.2 IBM 36.4 IBM 9.10	III 1GHz/256KB DRAM ECC 133 SDRAM ECC 133 SDRAM ECC 133 SDRAM ECC 133 <20D Tower-to-F 4GB ATA-100 EID GB ATA-100 EID 2GB 7200rpm Ultra 2GB 7200rpm Ult 4GB 7200rpm Ult 4GB 7600rpm Ulta	Proc Upg MHz unbuf MHz unbuf MHz unbuf MHz unbuf MHz Unbuf E HDD E HDD E HDD E 160 SCSI Fra 160 SCS SCSI HDD	fered DIMM ffered DIMM ffered DIMM ffered DIMM HDD II HDD	10K0051 33L3079 33L3081 33L3083 33L3085 09N4300 19K4461 00N8203 00N8204 00N8205 00N8206 00N8207
Slot 1: fullsize, 32-bit Slot 2: fullsize, 32-bit Slot 3: fullsize, 32-bit Slot 4: fullsize, 32-bit Slot 5: fullsize, 32-	33MHz, PCI 2.2 (5v) 33MHz, PCI 2.2 (5v) 33MHz, PCI 2.2 (5v) 33MHz, PCI 2.2 (5v) 5.25", HH1.6", acce 5.25", HH1.6", acce 3.5", SL 1", acce 3.5", SL 1", acce 3.5", SL 1", acce	- slot has Alert - used by SCSI - on two-slot PC - on two-slot PC ss, CD-ROM ss, open or tape ss, diskette ss, open ss, open ss, open ss, open ss, disk (some) 6,7 rotate out of cabling disks D" D 508mm	adapter Cl extender board Cl extender board Cl extender board Cl extender board Assimum interring 145.6GB (4 disk - Removable left s - Configuration/Se memory) invoked startup	IBM 36.4 nal SCSI disk (s x 36.4GB) ide panel etup Utility (in d by pressing startup by p er Interface (ressing ACPI) 1.0	LIMI 3 year parts internation st year: or excluding the esponse ti end/3rd year all 1-800-7 3 year on s options (in 9 hour co holidays response (ServiceF 24 hr x 7 response (ServiceB BM Server	TED WARRANT s / 1 year labor al Warranty Servin n site, 8 am-5 pm, nolidays, next bus ime ar: parts exchange 72-2227 ite warranty servi eligible locations; overage, Mon-Fre c, next business de e time Pac® part number 2 day coverage, 4 e time Pac part number 21 Start Up Support day¹4 telephone,	Mon-Fri inness day e only, ce upgrade :? excluding ay 1P2021) hour

IBM® Type-model	Process	or	L2 cache	Memory	Disk	Disk controller	Mechanical	Slots x bays	Hot-swap disk bays	Ethernet	Available date	
8479-10X C			128KB	128MB	None	Ultra160, EIDE	Mini Tower	5x7	None	10/100 ethernet	Aug 2001	
	eleron 850 eleron 1G		128KB 128KB	128MB 128MB	20.4GB 20.4GB	EIDE EIDE	Mini Tower Mini Tower	5x7 5x7	None None	10/100 ethernet 10/100 ethernet	Aug 2001 Feb 2002	
8479-40X P	entium® 10	GHz/133	256KB	128MB	None	Ultra160, EIDE	Mini Tower	5x7	None	10/100 ethernet	Aug 2001	
	entium 1G		256KB	128MB	20.4GB	EIDE	Mini Tower	5x7	None	10/100 ethernet	Aug 2001	
	entium III [·] entium III [·]		512KB 512KB	128MB 128MB	None 20.4GB	Ultra160, EIDE EIDE	Mini Tower Mini Tower	5x7 5x7	None None	10/100 ethernet 10/100 ethernet	Aug 2001 Aug 2001	
8479-60X P	entium III	1.26/133	512KB	128MB	None	Ultra160, EIDE	Mini Tower	5x7	None	10/100 ethernet	Aug 2001	
	entium III		512KB	128MB	20.4GB	EIDE	Mini Tower	5x7	None	10/100 ethernet	Aug 2001	
Positioning Processor		Intél® Celer	on 850N	/IHz or 1G	Hž with 10	neet small busines DOMHz frontside t with 133MHz fron	ous or	oudgets				
L2 cache		Celeron:	128KB 256KB	std and m or 512KB	ax / ECC std and m	/ at processor spec nax / ECC / at proc	ed essor speed					
Implementatio			d contai	ns one Inte	PGA370	Flip-Chip Pin Grid socket, one integr d, one AGP slot, a	ated VRM, thr	ee DIMN	/I sockets, th	ree PCI slots,		
Processor upo SMP support	grade		an be u _l			II 1.0, 1.13, or 1.26						
Memory		128MB star 3 sockets / 2	2 availal	ble / ECC (Error Che	ecking and Correct	ing) DIMMs a	ind ECC	memory co	ntroller / PC133-cor	mpliant /	
SCSI disk con						gle channel Wide				d-plated DIMM 3.3 v	V SUCKEIS	
		64-bit 33MF	lz PCI a	dapter (in	a 32-bit sl	ot) / one channel v	with up to 15 d	device su	ıpport	•		
SCSI connect RAID support		<i>SCSI mode.</i> Supports op				I connector / one 0	.8mm VHDCI	l 68-pin e	external SCS	SI connector (not su	pported)	
IDE disk contr	roller	Enhanced İl	DE busr	master / Al	ΓA-66/100	support / two con	nectors on pla	anar				
Cables		SCSI models: one 5-drop 16-bit LVD SCSI cable, one 2-drop EIDE cable (connected to CD-ROM) EIDE models: two 2-drop EIDE cables (one cable to CD-ROM, one cable to EIDE disk)										
Disk - features						7200 rpm / 8.7 ms				R.T.		
Rack support Architecture /	chipsets	4U ⁴ rack mount support via tower-to-rack kit option in an industry standard 19-inch rack VIA® Apollo Pro133T chip set / VT82C694T North Bridge (memory controller, PCI 2.2 32-bit 33MHz controller, AGP 4X) VIA VT82C686B South Bridge (IDE ATA-100, USB, diskette, parallel, serial, keyboard, mouse)										
100/10Mbps e					,					l ^{®,} and Alert on LAN	2	
CD-ROM / dis	skette	48X-20X ⁶ C	D-ROM	, CAV (AT	API), boo	table, IDE / Disk	<i>ette:</i> 3.5" 1.44	MB disk			_	
Ports Audio						n 1.1), parallel, ke /SoundBlaster Pr						
Audio connec	tors	<i>Back:</i> micro	phone ja	ack, line-in	, line-out,	MIDI/game port	·					
Speaker Diagnostics						lly powered speak tored on IBM Enha						
Systems mgm									on LAN, Ale	ert on LAN™ 2, PXE		
Graphics cont						/ 8MB SGRAM sto 5-pin D-Sub conn		30MHz F	RAMDAC / D	PMS and DDC2B-co	ompliant/	
Security		Cover key lo			rt / power-	on password / boo	t sequence c		<u>. </u>	hout keybd and mo	32P0650	
Software		ServerGuio					Pentium III 1.	.13GHz-	S/512KB Pro	ic Upg	32P0651	
		installation a and APC Po				on AntiVirus™,	Pentium III 1.			oc Upg Ibuffered DIMM	32P0652 33L3081	
						many utilities	256MB SDR	AM ECC	133MHz un	buffered DIMM	33L3083	
Keyboard/mo	ouse	IBM 101-key					512MB SDR IBM 4Ux20D			buffered DIMM	33L3085 09N4300	
Coolingfans				ns (power:		ont, rear) at, rear, fansink)	IBM 60GB A				09N4207	
						l-speed except for	IBM 18.2GB				19K0658	
Power supply		variable-spe					IBM 36.4GB IBM 73.4GB				00N8209 06P5752	
Power supply		330 watts / ι Automatic S				lundant or	Other option					
Olat (" :		hot-swap/c	ooling fa	an in pòwe	r supply		J			MITED WARRAN rts / 1 year labor	TY ³	
Slot fullsiz					idard AGP	graphics adptr				nts / 1 year labor onal Warranty Servi	ce ³	
Slot 2: fullsiz	ze, 32-bit 3	33MHz, PCI	2.2 (5v)	- slot has					1st year:	on site, 8 am-5 pm,	Mon-Fri	
Slot 3: fullsiz						oter (some models)		response	g holidays, next bus time	siness day	
Slot 5: fullsiz									2nd/3rd y	ear: parts exchange	e only,	
CD-ROM		5.25", HH1.			DM [7	Maximum internal i	IDF diek cana	city:		-772-2227 site warranty servi	ce upgrade	
		5.25", HH1.6 3.5", SL 1"	, acce	ss, open ss, diskette	e 1	180GB (3 disks x 6	0GB) .	,	options (in eligible locations): ⁷	
2	∐ Baý ⊕	3.5", SL 1" 3.5", SL 1" 3.5", SL 1"	, acce	ss, open		<i>Maximum internal 3</i> 293.6GB (4 disks x		acity:		coverage, Mon-Fri ys, next business d		
diskette	Bay ®	ა.ი , SL 1" 3.5", SL 1"	, acce , acce	ss, open ss, open	L	,			respon	ise time (ServicePac		
	Bay ®	3.5", SL 1" 3.5", SL 1"	acce	ss, disk (s		emovable left side onfiguration/Setup		h		coverage, Mon-Fri ling holidays, 4 hou	r	
6		age for disk			out of m	emory) invoked by			respor	ise time (ServicePa	c 21P2023)	
disk		for easy ac ane or workir				artup CSISelect near sta	artun hv nress	ing		7 day coverage, 4		
Mini-tower	r 🗘 Two	front stabiliz	ing feet		C	TRL+A (SCSI mod	lels)			n se time (ServicePac a 7 day coverage, 2 l		
Stealth		dle grip on to		O"		dv Config Power Ir			respor	se time (ServicePad	21P2094)	
black		.5" x W 6.5" 0mm x W 16			- 18	O 9241-3 capable		'		II-free support for warranty		
		43 pounds										
Son footpotos									/\/00	OR) @ IRM Corp. Do	1 0000	

IBM @server xSeries 220 (Spring 2001) - withdrawn

IBM [®] Type-model	Qty x Processor	Memory	Disk	SCSI controller	Mechanical	Slots x bays	Hot-swap disk bays	Ethernet	Available date
8645-52X	1 x Pentium [®] III 1GHz ¹ /133 1 x Pentium III 1GHz/133 1 x Pentium III 1GHz/133	128MB	None 18.2GB None	Ultra160	Mini Tower	5 slots x 7 bays 5 slots x 7 bays 5 slots x 7 bays	None	10/100 ethernet 10/100 ethernet 10/100 ethernet	Mar 2001 Mar 2001 Mar 2001

Intel® processor(s) L2 cache Implementation SMP support	one empty), four DIMM sockets, five PCI slots, and integra-	I and one with terminator), two VRM sockets (one used and
Memory - std / max Memory - sockets Memory - features Memory - support	128MB std / 4GB max 4 sockets / 3 available / ECC (Error Checking and Correcti SDRAM / 133MHz / four 168-pin gold-plated DIMM 3.3 volt Supports registered SDRAM ECC DIMMs	ng) DIMMs and ECC memory controller
SCSI disk controller SCSI connectors RAID support IDE disk controller Cables	One 68-pin internal connector / no external SCSI connect Supports optional PCI RAID adapters Enhanced IDE busmaster / Ultra DMA/33 (ATA-33) support Non hot-swap models: 5-drop 16-bit LVD SCSI cable	ort / one connector on planar unar connector to SCSI backplane)
Rack support Bus slots (see below) Architecture / chipsets	4U ⁴ rack mount support via tower-to-rack kit option PCI 2.1 (33MHz) / dual peer PCI / 64-bit PCI (three PCI slo 32-bit PCI (two PCI slots, graphics, ethernet, South Bridge, ServerWorks® ServerSet III LE chip set / NB6635 North I ISA bus for Super I/O National Semiconductor® PC97317V	USB) Bridge 3.0LE / IB6566 South Bridge for IDE, USB,
100/10Mbps ethernet CD-ROM / diskette External ports Diagnostics Systems mgmt cntrl	Wake on LAN® / supports Wake on LAN via optional adap 48X-20X6 CD-ROM / CAV (ATAPI) / bootable / IDE	Diskette: 3.5" 1.44MB diskette drive USB: Two (Ver 1.1); keyboard, DB-15 analog video, mouse Voltage Regulator Module(s), and fan connectors an speeds, and voltage /
Graphics controller	SVGA / S3 Savage4 LT / on planar / 8MB SDRAM std and 60Hz to 160Hz vertical refresh; 16.7 million colors at 1600	
Security	Cover key lock / U-Bolt support / power-on password / boo	ot sequence control / operation without kybd and mouse
Software	ServerGuide™ (CD-based automated network OS installation and configuration tool), IBM Director (system hardware mgmt software) and many utilities, Norton AntiVirus™, APC PowerChute Plus	Pentium III 1GHz/256KB Proc Upg 10K005 128MB SDRAM ECC DIMM 133MHz RDIMM 33L314 256MB SDRAM ECC DIMM 133MHz RDIMM 33L314 512MB SDRAM ECC DIMM 133MHz RDIMM 33L314
BIOS Keyboard / mouse Cooling fans Power supply	2MB in Flash EEPROM IBM 101 key keyboard / IBM Enhanced mouse Three cooling fans (power supply, front, rear) / not redundant / variable speed front and rear fans 330 watts / universal / auto switch / Automatic Server Restart (ASR) /no redundancy / cooling fan in power supply	1GB SDRAM ECC DIMM 133MHz RDIMM 33L315 IBM 9.1GB 10K Ultra160 SCSI HDD (not hot-swap) 00N820 IBM 18.2GB 10K Ultra160 SCSI HDD (not hot-swap) 00N820 IBM 36.4GB 10K Ultra160 SCSI HDD (not hot-swap) 19K065 IBM 9.1GB 15K Ultra160 SCSI Hot-Swap HDD 19K065 IBM 18.2GB 15K Ultra160 SCSI Hot-Swap HDD 37L720 IBM 36.4GB 10K-4 Ultra160 SCSI Hot-Swap HDD 37L720 IBM Remote Supervisor Adapter (PCI adapter) 09N758 IBM 4Ux20D Tower-to-Rack Kit 09N430 IBM Netfinity ServeRAID-4L Ultra160 SCSI Controller 37L609



- memory) invoked by pressing F1 at
- CTRL+A
- Diagnostics (PC-Doctor) by pressing F2 at startup
- Alt+F1 at startup for optional system
- Adv Config Power Interface (ACPI) 1.0 ISO 9241-3 capable

LIMITED WARRANTY',3

- ⇒ 3 year parts / 1 year labor
 ⇒ International Warranty Service³
 ⇒ 1st year: on eith 2 cm 1st year: on site, 8 am-5 pm, Mon-Fri
- excluding holidays, next business day response time
- 2nd/3rd year: parts exchange only, call 1-800-772-2227
- 3 year on site warranty service upgrade options (in eligible locations):7
 - 24 hr x 7 day coverage, 4 hour average response time (ServicePac® part number 21P2022)
 - 9 hour coverage, Mon-Fri excluding holidays, next business day response time
- (ServicePac part number 21P2023)
- 24 hour x 7 day14 telephone, electronic, and Internet support

→ Handle grip on top
 → H 18.5" x W 6.5" x D 20.0"
 → H 470mm x W 165mm x D 508mm

backplane or working with disks

Four stabilizing feet

Mini-tower

\$tealth black

³⁵ to 43 pounds (15.9 to 19.5kg) * For a copy of IBM's Statement of Limited Warranty, call 1-800-772-2227

^{• =} Hot-swap bays in some models

JIII (C SCI VCI XC										
IBM® Type-model Qnty x	Processor	L2 cache	Memory	Disk	SCSI controller	Mechanical	Slots x bays	Hot-swap disk bays	Ethernet	Available date
** 8646-21X	m III 1GHz/133 m III 1.13/133 m III 1.13/133 m III 1.26/133 m III 1.26/133 m III 1.4/133	256KB 256KB 512KB 512KB 512KB 512KB 512KB 512KB	128MB 256MB 128MB 256MB 128MB 256MB 128MB 256MB	None None None None None None None	Ultra160 Ultra160 Ultra160 Ultra160 Ultra160 Ultra160 Ultra160 Ultra160	Mini Tower Mini Tower Mini Tower Mini Tower Mini Tower Mini Tower Mini Tower Mini Tower	5 slots x 7 bay 5 slots x 7 bay 5 slots x 7 bay 5 slots x 7 bay 5 slots x 7 bay 5 slots x 7 bay	ys 3 hot-swap ys None ys 3 hot-swap ys None ys 3 hot-swap ys None	10/100 10/100 10/100 10/100 10/100 10/100 10/100 10/100	Aug 2001 Aug 2001 Aug 2001 Aug 2001 Aug 2001 Aug 2001 Feb 2002 Feb 2002
Positioning Processor(s) L2 cache Implementation Processor upgrade SMP support	1 x Intel® Pentiu 256KB or 512Kl Motherboard co- one empty), four Processor upgra	im[®] III 1.0 B std and ntains two DIMM so ades to 1.), 1.13, 1.2 I max / EC o Intel PG ockets, five 13, 1.26, c	26, or 1.4 C / at pro A370 soc e PCI slo or 1.4GHz	GHz with 13 bcessor spec kets (one us ts, and integ z supported	33MHz front d / processo ed and one v rated subsys	r and L2 cache in with terminator), stems	s offer afforable po n Flip-Chip Pin Gri two VRM sockets	d Array (F0 (one used	land
Memory - std / max Memory - sockets Memory - features Memory - support	128MB or 256M 4 sockets / 3 ava SDRAM / 133Mi Supports registe	B std / 40 ailable / E Hz / four 1	GB max CC (Error 168-pin go	Checkin	g and Corre	cting) DIMMs	s and ECC mem	ory controller	•	,
SCSI disk controller SCSI connectors RAID support IDE disk controller Cables	Adaptec® AHA- One 68-pin inter Supports option Enhanced IDE to Non hot-swap m Hot-swap mode All: one 2-drop No disk standarc	rnal conn al PCI RA busmaste nodels: 5 ls: 2 IDE cable	ector / no AID adapte er / Ultra D -drop 16-b -drop 16-b e (one dro	external ers MA/33 (A bit LVD S bit LVD S p to CD-	SCSI conne ATA-33) sup SCSI cable SCSI cable (I ROM)	ctor port / one co	,		-bit 33MH:	z PCI 2.1
Disk - features Rack support Bus slots (see below)	4U ⁴ rack mount	support v	ria tower-to	o-rack kit	option	hernet, grap	hics, two PCI slo	ots) / 64-bit 33MHz	t (three PC	I slots,
Architecture / chipsets								ith Bridge for IDE, al, keyboard, mous		
10/100 ethernet CD-ROM / diskette Rear ports Diagnostics Systems mgmt cntrl	48X-20X ⁶ CD-R Two 9-pin serial Diagnostic LED Two ADM1024	OM / CA , two USI s / error L chips / mo	V (ATAPI) B (Version EDs for po onitors pro	/ bootab 1.1), pa rocessor ocessor t	ole / IDE rallel, keybo (s), DIMM(s emperature	Diskette: ard, mouse,), Voltage R, fan speeds	3.5" 1.44MB dis ethernet, DB-1 egulator Module , and voltage /		ectors	
Graphics controller	SVGA / S3 Sava and max / 32-bit	age4 LT /	on planar	r / 8MB S	DRAM std	Pentium Pentium	III 1.0GHz/133M III 1.13GHz-S/13	IHz/256KB Proc Up 33MHz/512KB Pro	og c Upg	32P0650 32P0651
Security	Cover key lock / boot sequence of					Pentium 128MB S	III 1.4GHz-S/133 SDRAM ECC DIN	33MHz/512KB Pro 3MHz/512KB Proc MM 133MHz RDIM	Upg M	32P0652 25P2090 10K0018
Software	ServerGuide™ installation and o (system hardwa Norton AntiVirus	configura re mgmt	tion tool), software)	IBM Dire	ctor	512MB S 1GB SDI IBM 36.4	DRAM ECC DIN RAM ECC DIMM GB 10K Ultra16	MM 133MHz RDIM MM 133MHz RDIM 1 133MHz RDIMM 0 SCSI HDD (not h 0 SCSI HDD (not h	M ot-swap)	10K0020 10K0022 33L3326 00N8209 06P5752
BIOS Keyboard / mouse Cooling fans Power supply	2MB in Flash EE IBM 101 key key Four cooling fan not redundant / v 330 watts / unive Automatic Serve cooling fan in po	vboard / II s (power variable s ersal / aut er Restart	supply, air peed front to switch / t (ASR) /nc	r baffle, re and rear	ear, fansink) fans	IBM 36.4 IBM 73.2 IBM Ren IBM 4Ux IBM Netfi	GB 10K-4 Ultra1 2GB 10K Ultra1 note Supervisor 20D Tower-to-F inity ServeRAID	160 SCSI Hot-Swa 60 SCSI Hot-Swa _l Adapter (PCI ada	p HDD ' ' p HDD pter) Controller	37L7206 06P5756 09N7585 09N4300
Slot 1: fullsize, 32-bit Slot 2: fullsize, 32-bit	33MHz, PCI 2.1	(5v)	лу			l	₽ ;	LIMITED W 3 year parts / 1 year		ГҮ ³
Slot 3: fullsize, 64-bi Slot 4: fullsize, 64-bi Slot 5: fullsize, 64-bi	t 33MHz, PCI 2.1 (t 33MHz, PCI 2.1 (t 33MHz, PCI 2.1 ((5v) (5v) <i>Ma</i> (5v) 29	3.6GB (4 d		SI disk capa 3.4GB)	acity:	₽ ₽	International Warr 1st year: on site, 8 excluding holiday day response time	anty Servi am-5 pm, s, next bus	Mon-Fri
CD-ROM Bay ② Bay ③ Bay ⑤ Bay ⑥ Bay ⑥ Bay ⑥ Bay ⑥ Bay ⑥ Bay ⑥ Bay ⑦ Bay ⑦ Bay ⑦ Bay ⑦ Bay ⑦ Bay ⑦ Bay ⑦) 3.5", SL 1", a) 3.5", SL 1", a	access, op access, di access, op access, op access, st access, st access for ca	oen (no dis skette oen oen oen d disk tate out	- Remo - Config memo startu - SCSI CTRL	ory) invoked p Select near .+A	de panel up Utility (in by pressing startup by pr Doctor) by p	flash F1 at	2nd/3rd year: parts call 1-800-772-222' 3 year on site warn options (in eligible 9 hour coverage holidays, next be response time (in the coverage excluding holid response time	s exchanger anty service locations e, Mon-Frices describes describes describes describes describes describes describes, 4 hou	ce upgrade): ⁷ excluding ay ; [®] 21P2021)

Mini-tower Stealth black

backplane or working with disks Four stabilizing feet

 → Handle grip on top
 → H 18.5" x W 6.5" x D 20.0"
 → H 470mm x W 165mm x D 508mm ⇒ 35 to 43 pounds (15.9 to 19.5kg)

CTRL+A - Diagnostics (PC-Doctor) by pressing F2 at startup

- Alt+F1 at startup for optional system partition

Adv Config Power Interface (ACPI) 1.0ISO 9241-3 capable

issues during the warranty period³ (X220R) © IBM Corp. March 2002

24 hr x 7 day coverage, 4 hour response time (ServicePac 21P2022)

24 hr x 7 day coverage, 2 hour response time (ServicePac 21P2094)
 24x7¹⁴ toll-free support for warranty

See footnotes for important warranty information

US models announced February 12, 2002 or August 28, 2001

Substitution of the US models withdrawn effective March 2002, July 2002, or January 2003

IBM [⊚] Type-model Qty	x Processor	Memory	Disk	SCSI controller	Mechanical	Slots x bays	· · · · · · · · · · · · · · · · ·							
8658-61Y 1 x Pention 8658-6RY 1 x Pention			None None	2 x Ultra160 2 x Ultra160		5 slots x 10 bays 5 slots x 10 bays			Oct 2000 Oct 2000					
Intel® processor(s) L2 cache Implementation SMP support Processor upgrades	Motherboard con one VRM socket 2-way SMP via so	ax / ECC tains two (one VRM econd ide	/ at prod Intel Slo I integra entical pr	cessor speed of 1 connector of ted), four DIN ocessor / upg	/ processor a rs for SECC2 MM sockets, I grade via SE	cartridges (open PCI slots, and int CC2 into second	Slot 1 used egrated sub	systems						
Memory - std / max Memory - sockets Memory - features		lable / EC						roller) / non-interleave red SDRAM ECC DIN						
SCSI disk controller SCSI channels IDE controller / cable Disk - capacity Disk - bays	64-bit PCI / support Two internal 16-bit SCSI Channel A:	orts IBM S it channe 16-bit 68 DE (ROSB able (CD- supports -pin SCA-	ServeRA Is / both 3-pin LVI 34) South ROM) 7200-10	ID adapters (internal (no e D cable from o h Bridge / one 2000 rpm disk ectors / comm	no hardware external) controller to be connector o	RAID standard) backplane <i>Chani</i> in planar /	nel B: 16-bit	Ultra 160/m / on plana 68-pin interface (not under the control of	used)					
Mechanical Rack support Bus slots (see below Chip set Bays / available	Tower or EIA 19 Rack systems su)PCI 2.1 (33MHz) graphics, etherne ServerWorks® S Service Processo	" Rack (5 pported ir / dual pee et, South E erverSet or and Sup	iU ⁴) o IBM Ne er PCI / (Bridge) / III™ LE per I/O N	etfinityRacks 64-bit PCI (th no hot-swap chip set / NB lational Semi	ree PCI slots slots 86635 North I conductor® P	s, SCSI controller Bridge 3.0LE / IBo C97317VUL (dis) / 32-bit PC 3566 South I kette, paralle	rack to tower convers I (two PCI slots, Bridge for IDE, USB, I el, serial, keyboard, m bay / six hot-swap bay	SA bus for ouse)					
10/100 ethernet CD-ROM / diskette Serial / parallel / USE Graphics controller	3 <i>Serial:</i> Three 9-p	M / multis oin (one fo	session , or Mgmt	/ IDE interfac Processor)	e / 1.6" HH / <i>Parallel:</i> On	bootable; <i>Disket</i> e (EPP, ECP) / II	<i>te:</i> 3.5" 1.44 EEE 1284	ront LEDs MB diskette drive / du <i>USB:</i> Two ports (Vers M colors at 100Hz / D	sion 1.1)					
Security		d reset bu	itton (tov	ver only) / una	attended boo	t / selectable boo		e front door to cover on ngmt security (user lo						
Systems mgmt Diagnostics Software	POST, and auto r cable (from option Diagnostics LEI system board erro	recovery f nal Sys M D Panel (u or LEDs / CD-ROM i	unctions gmt Pro under co diagnos	s / monitors te c Interconned ver) / Light Pa stics in ROM b	emperature, f ot Cable Kit) ath Diagnost oy pressing F	ans, and power s ics™ provides an F2 at startup for F es), AntiVirus sof	supplies / rea LED map to C-Doctor tware, APC	mgmt / allows diagno or knockout for planar failing component / PowerChute Plus, Iz/256KB Proc Upg						
Keyboard / mouse Power supply	Tower only: IBM Std: one 250 wat with optional Exp supplies / worldw each power supp	101-key ł t hot-swa Kit 37L68 ide / volta	p; <i>Max:</i> 1 381 / red	three 250 wat undant with t	tt hot-swap wo power	128MB SDR 256MB SDR 512MB SDR 1GB SDRAN Netfinity 5Ux	AM ECC DIN AM ECC DIN AM ECC DIN I ECC DIMM 24D Tower-	MM 133MHz RDİMM I MM 133MHz RDIMM I MM 133MHz RDIMM I I 133MHz RDIMM II to-Rack Kit	I 33L3123 I 33L3125 I 33L3127 33L3129 37L6858					
Fans Prerequisites	Two (fan in rear, fan failure signals fan in each powe Monitor, disk, net	Diagnos r supply	tic LED	and Mgmt Pro	ocessor/	Netfinity Med Hot-Swap Po 18.2GB 15K 36.4GB 10K	dia Bay Conv ower Supply rpm Ultra16 -4 Ultra160 S	o Redundant Pwr Sup version Kit Expansion Kit (3 conr 0 SCSI Hot-Swap HD SCSI Hot-Swap SL HI nect Cable Kit	10K2340 n) 37L6881 D 19K0656					
S.25" HH S.25" HH CD-ROM Sp Sp Sp Sp Sp Sp Sp Sp Sp Sp Sp Sp Sp	oit 33MHz PCI 2.1 (it 33MHz PCI 2.1 (it 33MHz PCI 2.1 (it 33MHz PCI 2.1 (it 33MHz PCI 2.1 (it 33MHz PCI 2.1 (it 3.5", SL 1", it is is is is is is is is is is is is is	(5v), Bus (5v), Bus (5v), Bus (5v), Bus (5v), Bus (5v), Bus (6v),	A B B B B B Iskette ot swap ot swap ot swap ot swap pen pen pen pen isks -2 rt 3.5" Kit	 Quick rele Rail syste diskette, without so Configura pressing F SCSISele CTRL+A Operator I Predictive memory, and fans in Director of an imm Tower: H Rack: H 8 55.7 to 82 Stealth bla All non-ho (no screw) 	ease adapters of menables de ape drives) to rews tion/Setup Utification Perfection and all the components of the compone	6" x D 26.0" " x D 24.8" s use rails	⇒ 3 ⇒ In ⇒ 0 co busin ⇒ 3 up locat s, otor	year parts and labor ternational Warranty S n site, 8 am - 5 pm, Moverage excluding holess day response time year on site warranty gograde options (in eligions): 24 hr x 7 day coverag response time 24 hr x 7 day coverag response time M Server Start Up Sula hour x 7 day 14 telephectronic, and Internet	Service ³ on - Fri idays, next ne ⁷ service gible e, 4 hour e, 2 hour oport one, support					

^{*} For a copy of IBM's Statement of Limited Warranty, call 1-800-772-2227
• = Hot-swap
US model withdrawn effective December 2001

IBM [®] Type-model Qt	y x Processor cache	Memory Disk	SCSI controller	Mechanical	Slots x bays (hot-swap)	Power supply	Ethernet	Available date
8668-11X 1 x Penti 8668-1RX 1 x Penti 8668-21X 1 x Penti 8668-22X 1 x Penti 8668-2RX 1 x Penti 8668-2SX 1 x Penti	um III 1.13GHz/133 512KB um III 1.13GHz/133 512KB um III 1.13GHz/133 512KB	256MB None 256MB None 256MB None	e 2 x Ultra160 e 2 x Ultra160 e 2 x Ultra160 e 2 x Ultra160	Tower 5U rack Tower Tower 5U rack 5U rack	5x10 (6 hot-sw 5x10 (6 hot-sw 5x10 (6 hot-sw 5x10 (6 hot-sw 5x10 (6 hot-sw 5x10 (6 hot-sw	ap) 1 pwr supp ap) 1 pwr supp ap) 2 hot-swap ap) 1 pwr supp	10/100 10/100 10/100 10/100 10/100 10/100	Jul 2001 Jul 2001 Jul 2001 Jun 2001 Jul 2001 Jun 2001
Positioning Processor(s) L2 cache Implementation SMP support	Universal server; right blend 1 x Intel® Pentium® III 1.0 o 256KB or 512KB std and m Motherboard contains two Ir 2-way SMP via second ider	r 1.13GHz with ax / ECC / at pro ntel PGA370 soo	133MHz frontši ocessor speed / okets, four DIMM	i de bus / up processor a I sockets, fiv	grade to 1.26G and L2 cache in e PCI slots, an	Hz supported Flip Chip Pin Grid d integrated subs	d Array (FC	
Memory	256MB std / 4GB max ¹³ / 4 ECC (all have Error Checkii SDRAM / 133MHz / four 16	ng and Correctii	ng (ECC) memo					
SCSI disk controller SCSI channels IDE controller / cable Disk - capacity Disk - bays	Adaptec® AHA-7899 / dual 64-bit PCI / supports IBM Sc Two internal 16-bit channels SCSI Channel A: 16-bit 68- Single Primary IDE South B None standard / supports 7 Six hot-swap / 80-pin SCA-2	erveRAID™ ada s / both internal (i pin LVD cable fr ridge / one conn '200-15000 rpm	pters (no hardwano external) om controller to ector on planar a disks / one back	are RAID sta backplane; one 1-drop plane	andard) <i>Channel B:</i> 16- IDE cable (CD	bit 68-pin interfac -ROM)		l)
Mechanical Rack support Bus slots Chip set	Tower or EIA 19" Rack (5L Rack systems supported in (See below) three peer PCI ServerWorks® HE-SL chip NB6555 Champion I/O Bridd ISA bus for Super I/O Nation (See diagram below): 10 ba	IBM NetBAY™ F buses / no hot-s set / NB6576 N ge (CIOB) for PO al Semiconducto	swap Active™ PC lorth Bridge for C CI Bus B (slots, ∈ or® PC97317VU	CI slots CIOB and Po ethernet) an L (diskette,	CI A (slot, graph d C (slots, SCS serial, keyboard	ics, south bridge I) / IB6566 South d, mouse)) / Bridge for I	
10/100 ethernet CD-ROM / diskette Rear ports Graphics controller	Intel 82550 / on planar / 10B 48X-20X° CD-ROM / multise Serial: three 9-pin (one disal SVGA / PCI 2.2 bus / S3° Sa	ession / IDE inte bled); <i>USB:</i> two	rface / 1.6" HH / ports (Ver 1.1);	bootable; <i>L</i> keyboard; r	D <i>iskette:</i> 3.5" 1. nouse; no paral	44MB diskette dr Iel port; <i>Adv Sys</i>	ive / dust co <i>Mgmt</i> : two l	over RJ-45
Security	Power-on password / admin button (tower only) / unatten			ockable fron	t door to cover	disk bays, power	button, and	reset
Systems mgmt Diagnostics	Integrated system managem and power supplies / suppo power (no external power re Diagnostics LED Panel (ur	rt for optional IB equired)	BM Remote Sup	ervisor Ada _l	pter with 20-pin	connector on pla	anar for con	
Software	system board error LEDs / di ServerGuide™ (CD-ROM in	agnostics in RÖ	M by pressing F	2 at startup f	for PC-Doctor		,	
Keyboard / mouse Power supply	Tower only: IBM 101-key ke Some: std: one 385 watt / n max: three 250 watt and requires three n Some: two 250 watt hot-swa All: redundant with two 2 voltage-sensing / au	ot hot-swap or re hot-swap with op ew 250 watt pow ap; supports thir 250 w power sup	edundant; ptional Kit 24P3! ver supplies d without Kit pplies / worldwid	Penti Penti 128M 256M e / 512M pply 1GB 9	um III 1.13GHz- um III 1.26GHz- IB SDRAM ECC IB SDRAM ECC IB SDRAM ECC SDRAM ECC D	BMHz/256KB Pro S/133MHz/512KE S/133MHz/512KE DIMM 133MHz F DIMM 133MHz F DIMM 133MHz F DIMM 133MHz RD	B Proc Upg B Proc Upg RDIMM RDIMM RDIMM	24P3511 24P3512 25P2600 33L3320 33L3322 33L3324 33L3326
Fans Prerequisites	Two fans (front and rear), m fan failure signals Diagnosti fan in each power supply / fa Monitor, disk, network opera All models: Max int disk ca	c LED and mgm an on each Pent ating system, key pacity:	t processor / ium III processo	Netfir Netfir r Hot-S () 3-Pad Remo	nitý Media Bay C Swap Power Cor ck Ultra160 Hot- ote Supervisor A	Swap Redundant Conversion Kit Inversion Kit (3 cor Swap Expansion dapter	nnectors) Kit	10K2340 24P3513 33L5050 09N7585
	660.6GB ² with nine 73.6GB 3-Pack Ultra160 Hot-Swap I					60 SCSI Hot-Swa nel Monitor (black		37L7206 9511AG4
Slot 2: fullsize, 64-t Slot 3: fullsize, 64-t Slot 4: fullsize, 64-t Slot 5: fullsize, 64-t Slot 5: fullsize, 64-t Slot 5: fullsize, 64-t Slot 5: fullsize, 64-t Slot 5: fullsize, 64-t Slot 5: fullsize, 64-t Slot 5: fullsize, 64-t Slot 5: fullsize, 64-t Slot 4: fullsize, 64-t	Dit 33MHz PCI 2.2 (5v), Bus A Dit 33MHz PCI 2.2 (5v), Bus E Dit 33MHz PCI 2.2 (5v), Bus E Dit 33MHz PCI 2.2 (5v), Bus E Dit 66MHz PCI 2.2 (3.3v), Bus E Dit 66	Rail s G C G C G C G C G C G C G C G C G C G C	ovable, easy relek release adapte system enables ofte, tape drives) but screws iguration/Setup Using F1 at startup ISelect near stall L+A rator Information ictive failure analory, processors ans in conjuncticalert the system imminent comper: H 16.8" x W 16 to 82.7 pounds lith black color on-hot-swaps bacrews) for device	or slots (no sidevices (CD to snap in all Jtility invoke or trup by president of the presid	crews) -ROM, nd out dby sing ont) k options, ver supplies, Director or 0" "	S year parts are international W On site, 8 am-coverage exclusioness day w S year on site way grade option locations): • 9 hr coverage holidays, 4 i • 24 hr x 7 day average resions average resions except the sissues during	Varranty Se 5 pm, Mon uding holid response ti warranty se ns (in eligik ge, Mon-Fri hr response y coverage ponse time y coverage ponse time e support fo	rvice ³ - Fri ays, next me ⁷ rvice ole excluding etime 4 hour 2 hour
See feetnetee for impe							@ IPM Corp	

										-	
IBM® Type-model Qty	x Processor	L2 cache	Memory	Disk	SCSI controller	Mechar		lots x bays hot-swap)	Power supply	Ethernet	Available date
		512KB 512KB 512KB 512KB	256MB 256MB		2 x Ultra160 2 x Ultra160 2 x Ultra160 2 x Ultra160	Towe 5U ra	er 5x10 ack 5x10	(6 hot-swap) (6 hot-swap) (6 hot-swap) (6 hot-swap)	1 pwr supp	10/100 10/100 10/100 10/100	Aug 2001 Aug 2001 Aug 2001 Aug 2001
Positioning Processor(s) L2 cache Implementation SMP support	Universal server; ric 1 x Intel® Pentium® 512KB std and max Motherboard contai 2-way SMP via sec	1.260 ECC ns two Ir	AHz-S wing at process tell PGA3	t h 133N ssor spe 370 socl	/IHz frontside eed / process kets, four DIM	e bus or and L IM sock	2 cache in	n Flip Chip Pi Cl slots, and	n Grid Array (integrated su	(FC-PGA2)	
Memory	256MB std / 4GB n ECC (all have Error SDRAM / 133MHz /	Checkin	g and Co	rrecting	g (ECC) mem						
SCSI disk controller	Adaptec® AHA-789								/ Ultra 160/m	/ on planaı	• /
SCSI channels IDE controller / cable Disk - capacity Disk - bays	Two internal 16-bit of SCSI Channel A: 1	channels 6-bit 68-p South Br Ipports 7	both int oin LVD o ridge / on 200-1500	ernal (n able fro e conne 00 rpm o	no extèrnal) om controller t ector on plana disks / one ba	o backp r / one ckplane	olane; <i>Cha</i> 1-drop IDE	annel B: 16-bi E cable (CD-F	ROM)	face (not us	sed)
Mechanical Rack support Bus slots Chip set	Tower or EIA 19" F Rack systems supp (See below) three p ServerWorks® HE- NB6555 Champion USB, ISA bus for St (See diagram below	orted in leer PCI SL chip I/O Bridguper I/O I	IBM NetE buses / n set / NB6 ge (CIOB National S	o hot-s\ 6576 No) for PC Semicor	wap Active™ I orth Bridge for I Bus B (slots nductor® PC9	PCI slot CIOB a , ethern 7317VL	s and PCI A let) and C JL (diskett	(slot, graphic (slots, SCSI) e, serial, keyl	s, south brid / IB6566 Sou board, mouse	ge) / ith Bridge f	or IDE,
10/100 ethernet CD-ROM / diskette Rear ports Graphics controller	Intel 82550 / on plan 48X-20X ⁶ CD-ROM <i>Serial:</i> three 9-pin (SVGA / PCI 2.2 bus	/ multise one disa	ession / II bled); <i>U</i>	DE inter SB: two	face / 1.6" HF ports (Ver 1.	l / boota 1); keyl	able; <i>Disk</i> board; mo	<i>ette:</i> 3.5" 1.44 use; no paral	4MB diskette lel port; <i>Adv</i> 3	drive / dus Sys Mgmt:	t cover two RJ-45
Security	Power-on password button (tower only)					lockab	le front do	or to cover di	sk bays, pow	er button, a	and reset
Systems mgmt Diagnostics Software	IBM integrated systemperature, fans, von planar for continu Diagnostics LED F system board error ServerGuide™ (CD	oltage, a uous pow Panel (un LEDs / d	and powe ver (no ex nder cove liagnostic	r suppli ternal p r) / Ligh s in RO	es / support fo bower require It Path Diagno IM by pressin	or option d) ostics™ g F2 at	nal IBM Re provides a startup for	emote Superv an LED map to PC-Doctor	risor Ädapter o failing comp	with 20-pin oonent /	
Keyboard / mouse Power supply	and requires Some: two 250 wat All: redundant w	watt / no 250 watt l s three no t hot-swa vith two 2	ot hot-swap hot-swap ew 250 w ap; suppo 250 w pov	ap or re with op att powerts third wer supr	dunḋant; tional Kit 24P er supplies	3513 2 3513 5 ide / 5 supply 1	128MB SD 256MB SD 512MB SD 1GB SDR 5Ux24D To Netfinity® 2	1.26GHz-S/1; RAM ECC DII RAM ECC DII RAM ECC DII M ECC DIMN ower-to-Rack I 50W Hot-Swa	MM 133MHz I MM 133MHz I MM 133MHz I I 133MHz RD Kit II p Redundant	RDIMM RDIMM RDIMM IMM	33L3320 33L3322 33L3324 33L3326 21P9593 33L3760
Fans Prerequisites	Two fans (front and fan failure signals D fan in each power s Monitor, disk, netwo All models: Max int 660.6GB² with nine 3-Pack Ultra160 Ho	iagnosticupply / fa ork opera disk cap 73.6GB \$	c LED and an on each of the control	d mgmt h Pentii em, key vith	processor/ um III process	sor F	Hot-Swap 3-Pack Ultr Remote Su 18.2GB 15 36.4GB 10	edia Bay Conver Power Conver a160 Hot-Swa pervisor Adap K rpm Ultra16 K-4 Ultra160 S 5" Flat Panel	rsion Kit (3 cor ap Expansion oter 0 SCSI Hot-S SCSI Hot-Swa	Kit wap HDD ap SL HDD	10K2340 24P3513 33L5050 09N7585 19K0656 37L7206 9511AG4
5.25" HH 5.25" HH CD-ROM	it 33MHz PCI 2.2 (5) it 33MHz PCI 2.2 (5) it 33MHz PCI 2.2 (5) it 66MHz PCI 2.2 (3. it 66MHz	n, Bus B n, Bus B sov), Bus B sov), Bus sov), Bus cess, discess, hot cess, hot cess, hot cess, hot cess, ope cess, ope cess, ope cess, ope cess, ope cess, CE 6 SL dis	c C C kette t-swap t-sw	Quick I Rail sy diskett withou Config pressir SCSIS CTRL-I Opera: Predic memo supplie Directc of an ir Tower Rack: 55.7 to Stealth All non	vable, easy rel release adaptivate enables e, tape drives) t screws uration/Setuping F1 at startuselect near startuselec	er slots devices to snap Utility in p In Panel alysis on s, VRMs a conjun e system conent fa 8.6" x I 5.8" x D ays use	(no screws (CD-ROM) in and our voked by pressing (in front) in disk option, power ction with a administ aillure D 26.0" 24.8"	3 yy upg loc loc loc loc loc loc loc loc loc loc	LIMITED V ear parts and ernational W site, 8 am - 5 verage excludiness day re ear on site w grade option ations): ⁷ b hr coverage holidays, 4 hr 24 hr x 7 day average respe toll-free s ues during th	I labor arranty Sei 5 pm, Mon- ling holiday sponse time arranty se s (in eligib e, Mon-Fri or response coverage, coverage, conse time upport for	rvice ³ Fri ys, next e ⁷ rvice le excluding time 4 hour 2 hour warranty

See footnotes for important warranty information

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M @server xSe	1162 232	(Decei	nber 2	001)	- withara	wn	xREF by e	Serve	r Field Skills	Enablem	ent Team
IBM® Type-model Qty	x Processor	L2 cache	Memory	Disk	SCSI controller	Mechanical	Slots x ba		Power supply	Ethernet	Available date
8668-24X 1 x Pentiu 8668-2TX 1 x Pentiu 8668-44X 1 x Pentiu 8668-4TX 1 x Pentiu	ım [®] III 1.13GHz ım III 1.13GHz ım III 1.26GHz ım III 1.26GHz ım III 1.4GHz	512KB 512KB 512KB 512KB 512KB 512KB 512KB	256MB 256MB 256MB 256MB 256MB 256MB	None None None None	2 x Ultra160 2 x Ultra160 2 x Ultra160 2 x Ultra160	Tower 5U rack Tower 5U rack Tower 5U rack	5x10 (6 hot- 5x10 (6 hot- 5x10 (6 hot- 5x10 (6 hot- 5x10 (6 hot-	swap) swap) swap) swap) swap)	2 hot-swap 2 hot-swap 2 hot-swap 2 hot-swap 2 hot-swap	10/100 10/100 10/100 10/100 10/100 10/100	Dec 2001 Dec 2001 Dec 2001 Dec 2001 Feb 2002 Feb 2002
Positioning Processor(s) L2 cache Implementation SMP support	Universal server 1 x Intel® Pention 512KB std and Motherboard co 2-way SMP via	u m® III 1.13 max / ECC ntains two	3, 1.26, or / at proce Intel PGA	1.4GHz ssor spe 370 socl	-S with 133M eed / processo kets, four DIM	Hz frontsio r and L2 ca M sockets,	de bus / pass ache in Flip C five PCI slots	sive he hip Pir s, and i	at sink n Grid Array (l ntegrated sul	FC-PGA2)	
Memory	256MB std / 4G ECC (all have E SDRAM / 133M	rror Check	ing and Co	orrecting	(ECC) memo						
SCSI disk controller SCSI channels IDE controller / cable Disk - capacity Disk - bays	Adaptec® AHA 64-bit PCI / supp Two internal 16- SCSI Channel A Single Primary I None standard Six hot-swap / 8	ports IBM S bit channe 4: 16-bit 68 DE South I / supports	ServeRAID Is / both in B-pin LVD o Bridge / or 7200-150	o™ adap ternal (n cable fro ne conne 00 rpm o	ters (no hardw no external) nm controller to ector on plana disks / one bac	rare RAID s backplane / one 1-dre kplane	standard) e; <i>Channel B</i> op IDE cable	8: 16-bit (CD-R	t 68-pin interfa OM)		sed)
Mechanical Rack support Bus slots Chip set	Tower or EIA 1 Rack systems s (See below) thre ServerWorks® NB6555 Champ USB, ISA bus fo (See diagram be	9" Rack (5 supported in see peer PC HE-SL chi pion I/O Brid or Super I/C	i U ⁴) n IBM Netl il buses / r p set / NB dge (CIOE) National	BAY™ R no hot-sv 6576 No B) for PC Semicor	acks / kit avail wap Active™ F orth Bridge for I Bus B (slots, nductor® PC97	able to con CI slots CIOB and ethernet) a '317VUL (c	PCI A (slot, g and C (slots, diskette, seria	rack (r graphics SCSI) / al, keyb	no rack to tow s, south bridg / IB6566 Sout loard, mouse	e) / th Bridge f	or IDE,
10/100 ethernet CD-ROM / diskette Rear ports Graphics controller	Intel 82550 / on 48X-20X ⁶ CD-R Serial: three 9-p SVGA / PCI 2.2	OM / multis in (one disa	ession / IE abled); <i>US</i>	DE interfa B: two p	ace / 1.6" HH / orts (Vers 1.1)	bootable; ; keyboard	<i>Diskette:</i> 3.5" ; mouse; no p	' 1.44M arallel	IB diskette dri port; <i>Adv Sys</i>	ve / dust co Mgmt: two	over RJ-45
Security	Power-on passy button (tower or					lockable fr	ont door to co	over dis	sk bays, powe	er button, a	and reset
Systems mgmt Diagnostics	IBM integrated temperature, far on planar for cor Diagnostics LE system board er F2 at startup for	ns, voltage ntinuous po ED Panel (u rror LEDs /	, and powe ower (no e under cove diagnostic	er suppli xternal p er) / Ligh	es / support fo ower required t Path Diagno	r optional II I) stics™ prov I Pentiun	BM Remote S vides an LED n III 1.13GHz	Supervi map to -S/133	isor Adapter v failing comp MHz/512KB F	vith 20-pin onent / Proc Upg	connector 22P1997
Software	ServerGuide™ utilities), AntiVir	(CD-ROM) us software	installatior e, IBM Dire	ector, oth	ners	Pentium 128MB	n III 1.4GHz-9 SDRAM ECC	S/133M C DIMM	MHz/512KB F 1Hz/512KB Pı 1 133MHz RD 1 133MHz RD	roc Upg IMM	22P1998 48P7467 33L3320 33L3322
Keyboard / mouse Power supply Fans	Tower only: IBM Std: two 250 wa worldwide / volta Four fans (two f redundant / PF mgmt processo	tt hot-swap age-sensin ront and tw A / fan failu	y / max: thing / auto-re yo rear), m re signals	ree / red start ultispee Diagnos	undant / d / hot-swap /	512MB 1GB SE 36.4GB 73.4GB Netfinity	SDRAM ECC DRAM ECC D 10K Ultra16 10K Ultra16 y Media Bay (DIMM DIMM 1: 0 SCSI 0 SCSI Conver	1 133MHz RD 33MHz RDIM Hot-Swap SI Hot-Swap SI	OIMM IM L HDD L HDD	33L3324 33L3326 06P5755 06P5756 10K2340 33L5050
Prerequisites	Monitor, disk, ne require keyboar All models: Ma. SL disks with 3-	d and mous x int disk ca	se apacity: 66	0.6GB² v	with nine 73.60	Netfinity Remote B 5Ux24D	y® 250W Hot- Supervisor A Tower-to-R	Swap I Adapte ack Kit	Reḋundant Pı r	wr Supply	33L3760 09N7585 21P9593
5.25" HH 5.25" HH CD-ROM	it 33MHz PCI 2.2 it 33MHz PCI 2.2 it 33MHz PCI 2.2 it 66MHz PCI 2.2	2 (5v), Bus a 2 (5v), Bus a 2 (5v), Bus a 2 (3.3v), Bus 2 (3.3v), Bus access, d access, h access, h access, h access, h access, h access, o ' access, o ' access, o	A B B S C S C S C S C S C S C S C S C S C	Remote Re	vable, easy rele release adapte stem enables e, tape drives) t screws uration/Setup I ng F1 at startup delect near sta	pase left/top r slots (no s devices (CD to snap in a Utility invoke tup by pres Panel (in fr llysis on dis VRMs, por conjunctior system ad onent failur 8.6" x D 27	o side panel screws) D-ROM, und out ed by ssing cont) sk options, wer n with IBM ministrator e e 7.6"		ear parts and ernational Wasite, 8 am - 5 erage exclucioness day resear on site was rade options ations): hour covera hour averag ServicePac pa 4 hr x 7 day chour averag 4 hr x 7 day chour averag 4 hr x 7 day chour averag 4 hr x 7 day chour averag 4 hr x 7 day chour averag	ARRANT labor arranty Sei pm, Mon ling holids sponse tir arranty sei s (in eligib ge, ding holid e respons eart num 21 coverage, e respons art number coverage,	rvice ³ - Fri ays, next ne ⁷ rvice le le lays, e P2083)

All non-hot-swaps bays use rails

(no screws) for devices

See footnotes for important warranty information

Rack or Tower (tower shown above)

• = Hot-swap

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(ServicePac part number 21P2085)

24x7¹⁴ toll-free support for warranty

issues during the warranty period3

US models announced on November 27, 2001, or February 12, 2002 US models withdrawn effective June 2002 or September 2002

**Bays 8 and 9 support three 3.5" disks via 3-Pack Kit 33L5050

IBM® Type-model Qty x	Processor	SCSI Hot -swap Available ssor Memory Disk controller Mechanical Slots x bays disk bays Ethernet date									
8664-81Y 1 x Pentiur 8664-8RY 1 x Pentiur		256MB 256MB	None None	2 x Wide Ultra 2 x Wide Ultra		5 slots x 10 bays 5 slots x 10 bays		10/100 ethernet 10/100 ethernet	Oct 2000 Oct 2000		
Intel® processor(s) L2 cache Implementation SMP support	256KB std and Processor Com two VRM socke	max / EC0 nplex conta ets (one us	C / at pr ains two ed), fou	Intel Slot 1 con ur DIMM sockets	processor a nectors for S , and Reliand	nd L2 cache in Sin ECC2 cartridges (ce CNB3.0LE Nort CC2 into second (open Slot 1 us h Bridge	sed by terminator),			
Memory - std / max Memory - sockets Memory - features Memory - support	SDRAM / 133N	/ailable / E /IHz / four	168-pin	gold-plated DII	MM 3.3 volt s	Correcting (ECC) ockets / PC133-cc 2MB, and 1GB)		roller) / non-interlea	ved		
SCSI disk controller SCSI channels Extra SCSI cable IDE controller / cable	64-bit PCI / two SCSI Channel I SCSI Channel I Includes a term Single Primary one 1 drop IDE	channels A: 16-bit 6 B: 16-bit 6 inated 2-d IDE (ROS cable (CD	(one int 8-pin L' 8-pin in rop 16- B4) Sou -ROM)	ternal/one extern VD cable from c Iterface (hardwin bit Ultra SCSI no uth Bridge / one	nal) / support ontroller to ba red) to extern on-LVD cable connector or	ackplane al SCSI port (.8mn for optional SCSI planar /	adapters (no l n VHDCI conr devices in op All I	nardware RAID stan nector)	k capacity:		
Disk - capacity Disk - bays	Six hot-swap / no trays included (disks ship w/ trays) / 80-pin SCA-2 connectors / common tray with 8500R and EXP300 Tower or EIA 19" Rack (5U ⁴)										
Mechanical Rack support Bus slots (see below) Chip set Bays / available	Rack systems s PCI 2.1 (33MHz 64-bit PCI (three ServerWorks® Service Process	supported` z) / dual pe e hot-swap ServerSe sor and Su	in IBM eer PCI p PCI sl t 3.0LE iper I/O	/ Active PCI™ v lots, SCSI contr E chip set / Nort National Semic	vith hot-swa oller) / 32-bit ∣ h Bridge (CN onductor® PC	p PCI slots (hot re PCI (two PCI slots B3.0LE) / South B 297317VUL (diske	eplace, hot up , graphics, eth ridge (ROSB4 tte, parallel, se	t to tower conversion grade, hot expansion nernet, South Bridge t) for IDE, USB, ISA erial, keyboard, mou / six hot-swap bays	n) / bus for ise)		
10/100 ethernet CD-ROM / diskette Serial / parallel / USB Graphics controller	40X-17X ⁶ CD-F Serial: Three 9	ROM / mult -pin (one f	isessio or Mgm	n / IDE interface nt Processor)	e / 1.6" HH / b <i>Parallel:</i> One	(EPP, ECP) / IEE	:3.5" 1.44MB E 1284 <i>USE</i>	diskette drive / dust			
Security	power button, a	ind reset b	utton (to		ttended boot	/ selectable boot /		ont door to cover dis nt security (user log-			
Systems mgmt Diagnostics Software	POST, and auto Daignostics Li error LEDs / dia	o recovery ED Panel (gnostics ir (CD-RON	/ function (under on ROM b	ons / monitors to cover) / Light Pa by pressing F2 a	emperature, f ith Diagnostic it startup for F	ans, and power su cs™ provides an LE C-Doctor ies), AntiVirus soft	upplies ED map to failir ware, APC Po	mt / allows diagnost ng component / syste owerChute Plus, 56KB Proc Upg			
Keyboard / mouse Power supply		att hot-swa 1 two pow	ıp; <i>Max.</i> er sup p		not-swap / ´e/	128MB SDRAI 256MB SDRAI 512MB SDRAI	M ECC DIMM M ECC DIMM M ECC DIMM ECC DIMM 13	133MHz (registered 133MHz (registered 133MHz (registered 3MHz (registered)) 33L3058) 33L3060		
Fans	Three redundar fan failure signa power supply fa	als Diagno		/ easy removal / D and Mgmt Pro		Netfinity 250W 36.4GB 10K-4 9.1GB 15K-rpr	'Hot-Swap Re Ultra160 SCS n Ultra160 SC	dundant Pwr Supply I Hot-swap SL HDD SI Hot-swap SL HDI ot-swap SL HDD	33L3760 37L7206		
5.25° HH 5.25° HH 5.25° HH CD-ROM	t PCI 2.1 (5v), Bit PCI 2.1 (5v), Hit PCI 2.1 (5v), Hit PCI 2.1 (5v), Hit PCI 2.1 (5v), High PCI 2.1 (5v), H	us A ot-swap, E ot-swap, E access, E access, I	Bus B Bus B diskette not swa not swa not swa not swa CD-RO open open disks	Quick releation New rail sy diskette, ta without scree Configurate pressing F SCSISeleater CTRL+A Operator I P Predictive memory, pand fans ir Manager cof an immi Tower: H Rack: H 8 S 55.7 to 82. Stealth bla All non-ho	ase adapter s rstem enables ape drives) to vs ion/Setup Util 1 at startup ct near startup information Pa failure analys processors, V in conjunction an alert the s ment compon 16.8" x W 8.6 6.6" x W 16.8" 7 pounds	sis on disk options RMs, power suppl with Netfinity ystem administratent failure "x D 26.0" x D 24.8"	M, Sayes Inter On scove busing a 3 year or library or Sayes or Say	IMITED WARRAN ar parts and labor rnational Warranty S site, 8 am - 5 pm, Mo erage excluding holi iness day response ar on site warranty s grade options (in el tions): hr x 7 day coverage sponse time hr x 7 day coverage sponse time Server Start Up Sup our x 7 day ¹⁴ teleph tronic, and Internet	Service ³ on - Fri idays, next time service ligible e, 4 hour e, 2 hour oport one,		

IBM® Type-model Qty x	c Processor	L2 cache Memory	ECC	Disk	SCSI controller	Mech	anical	Slots x bays	Ethernet	Available date
8665-61Y 1 x Pentium 8665-71Y 1 x Pentium	III Xeon 700/100 III Xeon 900/100 III Xeon 700/100 III Xeon 700/100	1MB 512MB 2MB 512MB 2MB 512MB 1MB 512MB	Chipkill™ Chipkill Chipkill Chipkill Chipkill	None None None	2 x Wide Ult 2 x Wide Ult 2 x Wide Ult 2 x Wide Ult 2 x Wide Ult 2 x Wide Ult 2 x Wide Ult	tra2 Tow tra2 Tow tra2 8U ⁴ tra2 8U	ver ver	6 x14 (10 hot-swap) 6 x14 (10 hot-swap) 6 x14 (10 hot-swap) 6 x14 (10 hot-swap) 6 x14 (10 hot-swap) 6 x14 (10 hot-swap) 6 x14 (10 hot-swap)	10/100 10/100 10/100 10/100	Mar 2001 Mar 2001 Apr 2001 Mar 2001 Mar 2001 Apr 2001
Processor(s) L2 cache Implementation Processor upgrade(s) Mechanical	1 x Intel® Pentium 1MB or 2MB / full s Each processor wi 4-way SMP / to four Each processor has four VRM slots (all	speed th ECC L2 cach ur identical Pent as one VRM / Pr	e integrated ium III Xeor ocessor Bo	d in Sin n Slot 2 ard ha:	gle Edge Co (SC330) pro s one Memor	ntact (SEC cessors / ry Board s	C) cartri	idge in Intel Slot 2 PCI slots, four Intel Sl	ot 2 slots	,
Mem - std / max / type Memory - sockets Memory - support	chip and detects 1- One Memory Boar	through 8-bit er d std and max / : / sixteen 168-p	rors contain 16 sockets in gold-plate	ed in tv / 12 av ed DIM	vo chips) / Ch ailable (four M 3.3 volt so	iipkill perfo 128MB DI ckets / PC	ormed b MMs st 100-co	olMMs (fixes 1 to 4-bit by memory controller a andard) / 4-way mem mpliant / requires 4 io	and firmw ory interle	are eave
SCSI controller SCSI channels Cache / bus Connectors and cabling Additional cables	No cache / PCI Bu Channel A: one 0 Channel B: 68-pir	CSI channels (I s C 32-bit 33MH .8mm VHDCI ex n internal conne n second backp ckplanes into a LVD SCSI cable	LVDS 80ME dz / controlle kternal SCS ctor on pow lane connec single chan included to	B/sec) / er on In El conne er back ctor left nel 10- o suppo	put/Output B ector oplane with 10 tunconnecte bay configura rt devices in	Soard 6-bit LVD d at other ation) / two left ba	cable to end (re	vices / backplane sup o one hot-swap backp quires Ultra160 SCSI	lane	
Mechanical Rack / conversion Architecture / chip set Active™ PCI slots Bays	ServerWorks® Se (Frontside Bus into three peer PCI 2.1 4 hot-swap PCI sl Active PCI via hot	ported in IBM NerverSet III HE / erface from PC/ buses (A: 64-b lots ¹⁰ with power treplace, hot up	CNB20HE bus to Nor oit 66MHz, Ear and attention of the grade, hot	North th Brid 3: 64-b tion ind expans	Bridge (PCI ge) / OSB4 S it 33MHz, C: licator lights (sion (see bel	2.2 and m South Brid 32-bit 33 (optical se ow for det	nemory Ige (EID MHz) / I Insors c ails)	ert rack to tower or to controller) / CIOB I/C DE, ISA Bridge, USB, 3 NS PC97317VUL Su control power to slot) / 3.5" SL bay (diskette) Bridge SMBus, IO per I/O	
Ethernet controller CD-ROM / diskette drv Rear ports Graphics controller	Serial: three 9-pin Adv Sys Mgmt: two	X ⁶ CD-ROM / IE I (one for Mgmt ID RJ-45	DE (ATAPI) Processor)	/ 1.6" H ; <i>Paral</i>	IH / bootable lel: one 25-p	; <i>Diskette</i> in; <i>USB:</i> to	<i>drive:</i> (wo Ver	nnector / 3 LEDs 3.5" 1.44 MB diskette 1.1; keyboard; mouse up to 1024x768 at 25) ;	
Security								ables keyboard and m	iouse)/s	ystems
Systems management Diagnostics	Advanced System on planar / provide power on/off syste power supply Light Path Diagno failing part (under t	es remote conso m / monitors ten costics™ Panel p top cover) / Infor	le and mgm nperature, c providing LE mation LEC	nt <i>†</i> disks, fa ED map D Panel	ans, o to in front	256MB SI 512MB SI 1GB SDR 2GB SDR Netfinity®	DRAM DRAM AM 100 AM 100 250W I	100MHz ECC DIMM 100MHz ECC DIMM 100MHz ECC DIMM 0MHz ECC DIMM (re 0MHz ECC Kit (4x51: Hot-Swap Redund Po	register) register) gister) 2MB) wer Sup	33L3115 33L3117 33L3119 33L3147 33L3760
Software	ServerGuide™ (Cl Norton AntiVirus, A includes IBM Direct	PC PowerChut	e Plus/	iguratio	,,	Pentium I Pentium I	II Xeon II Xeon	700MHz/1MB Proc L 700MHz/2MB Proc L 900MHz/2MB Proc L	lpa II	10K2331 10K2332 19K4635
Keyboard / mouse Power supply	Tower only: IBM 1 Std: two 250 watth three provide N+1 i universal (voltage Four logical fans / s disk area, 2 in slot PFA / fan failure sig	not-swáp; <i>Max:</i> redundancy for t sensing) / fans i seven hot-swa area, 2 in CPU	four 250 waypical config n each pow p redundar area) / varia	att hot-s g / tool- ver supp nt fans able sp	swap / free install / oly / PFA (3 in	Netfinity 8 IBM PCI F IBM Serve IBM Serve IBM EXP3	BUx24D Fast/Wi eRAID- eRAID- 300	PTower-to-Rack Kit Rack-to-Tower Kit de Ultra LVD Adapter 4M Ultra 160 SCSI Co 4H Ultra 160 SCSI Co epeater Card	ntroller	37L6859 37L6860 33L5000 37L6080 37L6889 35311RU 37L7086
⇒Towerdim: H 15.7" >	Processor / plus fa			4-bit 66	MHz 3.3v PC	CI, not hot,	Bus A	LIMITEDWA	ARRANT	'Y 3

Rack or •A1 •A2 **Tower** •A3 •A4 •A5 Diskette •B1 CD-ROM •B2 •B3 HH 5.25" •B4 HH 5.25" •B5

Optional NetBAY3 pedestal (supports 2 more NetBAY3's)

Black color ⇒ ACPI 1.0

Orange components and labels indicate hot-swap options

Suppliers Declaration Vital Product Data ⇒ Backup BIOS

Splitbackplane: 5 SL 3.5" bays in each backplane (HH bays not supported)

Disks not supported in 5.25" bays

□ Rack dim: H 13.8" x W 17.3" x D 27.6"; 88 to 123 lbs Slot 2: full,64-bit 66MHz 3.3v PCI, not hot, Bus A Slot 3: full, 64-bit 33MHz 5v PCI, hot-swap, Bus B Slot 4: full, 64-bit 33MHz 5v PCI, hot-swap, Bus B Slot 5: full, 64-bit 33MHz 5v PCI, hot-swap, Bus B

Slot 6: full,64-bit 33MHz 5v PCI, hot-swap, Bus B Setup Program is available by pressing F1 at

startup; Diagnostics (PC-Doctor) by pressing F2 at startup; CTRL+A for SCSISelect Utility

Removeable top cover

 Access adapters, memory, CPUs from top
 Predictive Failure Analysis[®]: alerts generated by Adv System Mgmt Processor for IBM Director for DIMM(s), processor(s), VRM(s), power supply(s), disk(s), and fans

Maximum internal disk capacity: 364GB² with ten 36.4GB SL hot-swap SCSI disks

LIMITEDWARRANTY

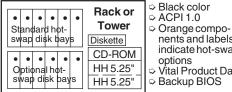
- 3 year parts and labor International Warranty Service³ On site, 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time
- 3 year on site warranty service upgrade options (in eligible locations):
 - 24 hr x 7 day coverage, 4 hour response time (ServicePac® part number 30L9187)
 - 24 hr x 7 day coverage, 2 hour response time (ServicePac part number 31L2723)
- 24x7¹⁴ toll-free support for warranty issues during the warranty period3

See footnotes for important warranty information

= Hot-swap

US models withdrawn effective January 13, 2003

IBM [®] Type-model Qty x F	rocessor	L3 cache I	Memory	ECC memory features	Disk	SCSI controller	Mech- anical	Slots x bays	Hot-swap di	sk x) Ethernet	Available date
8685-11X 1 x Xeon N 8685-1RX 1 x Xeon N 8685-21X 1 x Xeon N 8685-2RX 1 x Xeon N 8685-31X 1 x Xeon N 8685-3RX 1 x Xeon N	ИР 1.4GHz ИР 1.5GHz ИР 1.5GHz ИР 1.6GHz	512KB 512KB 512KB 1MB	512MB 1GB	Hot Spare/Chipkill TM Hot Spare/Chipkill Hot Spare/Chipkill Hot Spare/Chipkill Hot Spare/Chipkill Hot Spare/Chipkill	None None None	2 x Ultra16 2 x Ultra16 2 x Ultra16 2 x Ultra16	0 7U ⁴ rack 0 Tower 0 7U rack 0 Tower	7 x10 (16 b 7 x10 (16 b 7 x10 (16 b 7 x10 (16 b	ays max) 6/1 ays max) 6/1 ays max) 6/1 ays max) 6/1 ays max) 6/1 ays max) 6/1	2 Gigabit 2 Gigabit 2 Gigabit 2 Gigabit	Jun 2002 Jun 2002 Jun 2002 Jun 2002
Positioning Processors L2 cache L3 cache Processor upgrade Implementation	1 x Intel® Xe 256KB / on c 512KB or 1M 4-way SMP / Systemboard	on™ Pr lie of pro IB / on o up to fo d contair	ocessor ocessor die of pro our Xeor ns four I	stem loaded with X-A r MP 1.4, 1.5, or 1.6 / at processor speed ocessor / at process or Processors MP (sa tel 603-pin micro-P SCSI, ethernet, grap	GHz¹ w d or spee ime spe GA ZIF	rith 400MHz ed eed/cache si	frontside b ize)	ous / Hyper-1	hreading tec	nnológy	nology
Memory	PC1600 200 DIMMs must Hot Spare M Error Check	MHz reg be insta lemory ing and	gistered alled in n (activate d Correc	max / two slots us 184-pin ECC DDR-5 natched pairs or qua ed by failure of a pair sting (ECC) via 16-k s contained in two c	SDRAM ds [a b or qua oit Chec	l DIMMs / or ank] / 2- or ^z d of DIMMs	ne memory I-way mem [a bank]; re	ory interleav eqs additiona	re / al memory ma	tching faile	ed bank) /
SCSI disk controller SCSI connectors IDE controller / cabling Disk - capacity Disk - bays	Channel B: 6 Channel A: 6 gEnhanced ID None standa	88-pin co 88-pin co E ATA- rd / sup	onnector onnector 100 con ports up	Itra160 SCSI (LVD on planar to SCSI b on planar for option troller in CSB5 Sout to 15,000 rpm disks max: six additional b	ackpla al one- h Bridge / 80-pi	ne (one-dro drop 16-bit l e / one one- n SCA-2 coi	p 16-bit LV LVD cable drop IDE can nectors	D cable) / (32P8164) to able from IDI	rear 0.8mm ' E controller to	/HDCI con CD-ROM	nector
Mechanical Rack / conversion Architecture / chipset	Rack system ServerWork two CIOB-X ethernet and SMBus, IOA Six hot-swap	ns suppo (s Grai I/O Brid I one PO PIC, LP O PCI-X	orted in nd Char Iges (IM OI 2.2 bu PC bus to 1.0 slots	B bus to Host Bridg is for SCSI / CSB5 (Super I/O) / five pe	s / kit a MIC Ho e, one v South E eer PCI wer and	vailable to o st Bridge (N with two PC Bridge (Thin buses / NS d attention i	convert tow lemory Co I-X buses IMB to Ho PC87417 ndicator lig	ver to rack (untroller and C and D, oth st Bridge, or Super I/O (other)	ise NetBAY1 /O Bridge) ar er with one F re PCI 2.2 bu liskette, keyb sensors cont	nd five REM CI-X bus Es A, EIDE, oard, mou rol power to	MCs / B and USB, se)
Ethernet controller CD-ROM / diskette Rear ports Graphics controller	CD-ROM: 48 Four USB (V two RJ-45 (fo	3X-20X ⁶ ers 1.1) or integr	CD-RO , one ser ated sys	t / Broadcom® BCM M, IDE (ATAPI), 1.6 rial (9-pin), keyboard tem management p anar / 8MB SDRAM	" HH, b d (PS/2) rocesso	ootable / <i>Dis</i>), mouse (Ps or) / no paral	s <i>kette drive</i> S/2), etheri Iel port	e: 3.5" 1.44 N net (RJ-45), (IB diskette dr graphics (DB-	ive, dust c 15),	over
Security				istrator password / led boot / selectable		and lockabl	e front doc	or to cover di	sk bays, pow	er button, a	and reset
Systems managemen	H8S2148 / or monitoring s supports opti	n planar uch as t onal Re	r / provide temp, op emote Su	nagement process es system and envir tional disks, fans, po pervisor Adapter wi nuous power (no ex	onmen ower su th 20-pi	tal spplies /	512MB PC 1GB PC16 Xeon MP 1	1600 ECC DDI 00 ECC DDI .4GHz/512k	DR SDRAM DR SDRAM R SDRAM RI (B L3 Cache (B L3 Cache	RDIMM DIMM Proc Upg	33L3281 33L3283 33L3285 59P5111 59P5106
Diagnostics	Light Path D	iagnos	stics™ pa	anel providing LED r / Information LED P	nap to	front	Xeon MP 1 6-pack Ultr	.6GHz/1MB a320 Hot-Sv	L3 Cache Pr vap Expansio	oc Upg n Kit	59P5107 32P8163
Software		e™ (CD-	ROM ins	stallation and configi			BM 7U x 2	6D Tower-to	lundant Powers	rsion Kit II	31P6133 I 32P1474
Keyboard / mouse Power supply	Std: two 370 redundant wi) watt ho ith four p	ot-swap; oower su	yboard / IBM mouse <i>Max:</i> four 370 wath applies / tool-free instans in each power	hot-sw tall /	olack) [/ap / [Media Bay BM Serve BM 36.4G	Cable Kit (2 RAID™-4H U B 15K Ultra1	rface Kit (for -drop SCSI to Iltra160 SCS 60 SCSI Hot	HH bays) Adapter -Swap SL	
Fans	Nine hot-sw	ap redu	ındant f	ans / plus fan in eac lure signals diagnos	h powe	r supply/ i	BM Remo	te Superviso 5" Flat Pane	60 SCSI Hot r Adapter (PC Color Monito n/pc/us/acce	CI adápter) r (black)	



Bay ① 3.5", SL 1", access, diskette Bay ② 5.25", HH 1.6" access, CD-ROM Bay ③ 5.25", HH 1.6" access, open* Bay ④ 5.25", HH 1.6" access, open*

Bays 5 to 10 (six bays): standard 3.5" SL 1" hot-swap disk bays

Bays 11 to 16 (six bays): optional 3.5" SL 1" hot-swap disk bays

□ Tower dim: H15.5" x W17.6" x D29.8"; 104 to 150 lb Slot 1: 32-bit 33MHz 5v PCI, not hot-swap, Bus A;
□ Rack dim: H12.0" x W17.6" x D27.7"; 104 to 150 lb
primarily for for optional Remote Supervisor primarily for for optional Remote Supervisor Adp Slot 2: full, 64-bit 100MHz 3.3v PCI-X, hot-swap, Bus B Slot 3: full, 64-bit 100MHz 3.3v PCI-X, hot-swap, Bus B

Slot 4: full, 64-bit 100MHz 3.3v PCI-X, hot-swap, Bus C Slot 5: full, 64-bit 100MHz 3.3v PCI-X, hot-swap, Bus C Slot 6: full, 64-bit 100MHz 3.3v PCI-X, hot-swap, Bus D Slot 7: full, 64-bit 100MHz 3.3v PCI-X, hot-swap, Bus D

Setup Program is available by pressing F1 at startup; Diagnostics (PC-Doctor) by pressing F2 at startup; CTRL+A for SCSISelect Utility

Removeable top cover

 Access adapters, memory, CPUs from top
 Predictive Failure Analysis®: alerts generated by mgmt processor for IBM Director for DIMM(s), processor(s), VRM(s), power supply(s), disk(s), and fans

Maximum internal disk capacity: $880GB^2$ with twelve 73.4GB SL hot-swap SCSI disks

LIMITED WARRANTY³

3 year parts and labor

International Warranty Service³ On site, 8 am-5 pm, Mon-Fri coverage excluding holidays, next

business day response time 3 year on site warranty service

upgrade options:7 Mon-Fri coverage.

4 hour response time (ServicePac® part number 41L2738) 24 hr x 7 day coverage,

4 hour response time (ServicePac part number 30L9187)

 24 hr x 7 day coverage, 2 hour response time (ServicePac part number 31L2723)

24x714 toll-free support for warranty issues during the warranty period³

See footnotes for important warranty information

US models announced June 11, 2002; withdrawn effective February 28, 2003

nents and labels

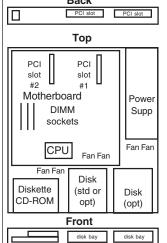
options

indicate hot-swap

Vital Product Data

(X255) © IBM Corp. August 2002

								The second secon	and the second		
IBM [®] Type-model	Processor	Memory	Disk	Disk controller	Mechanical	Slots x bays	Hot -swap disk bays	Ethernet	Available date		
8672-22X Cell 8672-51X Cell 8672-52X Cell 8672-81X Per	eron™ 800/100 eron 800/100 eron 950/100 eron 950/100 litium® III 1GHz/133 itium III 1GHz/133	128MB 128MB 128MB 256MB	None 20.4GB None	Ultra160 EIDE ATA-100 Ultra160 EIDE ATA-100 Ultra160 EIDE ATA-100	1U rack 1U rack 1U rack	2 slots x 4 bays 2 slots x 4 bays 2 slots x 4 bays 2 slots x 4 bays 2 slots x 4 bays 2 slots x 4 bays 2 slots x 4 bays	None None None None None	2 x 10/100 ethernet 2 x 10/100 ethernet 2 x 10/100 ethernet 2 x 10/100 ethernet 2 x 10/100 ethernet 2 x 10/100 ethernet	Jun 2001 Jun 2001 Feb 2002 Feb 2002 Jun 2001 Jun 2001		
Processor L2 cache SMP support Processor upgrad Implementation	Celeron: 1. Pentium III: 2 No SMP supporte Mone supporte Motherboard of	28KB std a 56KB std a ort ed contains one	nd max / nd max / e Intel PG	ECC / at proces	ssor speed ssor speed 370-pin Flip-(th 133MHz frontside)), one integrated VRM			
Memory - std / ma Memory - sockets Memory - features Memory - support	3 sockets / 2 a SDRAM / 133I	vailable / E VIHz / three	CC (Erro 168-pin (r Checking and gold-plated DIM	Correcting) IM 3.3 volt so	DIMMs and ECC ockets / PC133-cc	memory co ompliant	ntroller			
SCSI disk control SCSI connectors IDE disk controlle Cables Disk - features	SCSI models: r Enhanced IDE SCSI models: EIDE models:	Some models: Adaptec® 29160LP / single channel Wide Ultra160 SCSI (LVD 160MB/sec) / 64-bit 33MHz PCI adapter (in a 32-bit slot) / one channel with up to 15 device support SCSI models: One 68-pin internal SCSI connector / one 0.8mm VHDCI 68-pin external SCSI connector (not supported Enhanced IDE busmaster / ATA-100 support / two connectors on planar SCSI models: one 2-drop 16-bit LVD SCSI cable, one 1-drop 40-conductor EIDE cable (connected to CD-ROM) two 2-drop EIDE cables (one cable to CD-ROM, one 80-conductor cable to EIDE disk bays) EIDE: 20.4GB ATA-100, 7200 rpm, 8.7ms read, S.M.A.R.T. ⁵ VIA® Apollo Pro133A chip set / VT82C694X North Bridge (memory controller, PCI 2.2 32-bit 33MHz controller) /									
Architecture / chip Mechanical Control Panel	VT82C686B S EIA 19" Rack	outh Bridge (1 U 4) / racl	e (IDE AT k-mount	A-100, USB, dis	skette, serial d in IBM Net	, keyboard, mous	se, ISA bus f lucts (such a	bit 33MHz controller) for flash BIOS) s NetBAY42 SR, NetB			
Ethernet controlle CD-ROM / diskett Rear ports Console interconr	two RJ-45 cor te 24X-10X ⁶ CD-	nectors on ROM; CAV oin; <i>Paralle</i>	rear / su (ATAPI) el: none;	pports PXE 2.0; bootable; IDE USB: two ports	Boot Agent /3.5" 1.44M (Version 1.	B diskette drive 1); <i>Mgmt:</i> none;	2 support / keyboard;	Wake on LAN® support mouse; DB-15 graph			
Systems mgmt Diagnostics						ssor temperature gnostics CD (disk		l and failure, and volta created)	ges		
Graphics controlle Security Software ⁹	8MB SDRAM Power-on pas unattended bo ServerGuide installation an and APC Pow	SVGA / PCI bus / S3® Savage4Pro (on planar) / 8MB SDRAM std and max / DDC2B / analog 15-pin D-shell Power-on password / administrator password / unattended boot / selectable boot / unattended start mode ServerGuide™ (CD-based automated network OS installation and configuration tool), Norton AntiVirus™, and APC PowerChute Plus / includes IBM Director (cyclory bordware member software) and many utilities OPTIONS 128MB SDRAM ECC DIMM 133MHz 33L 256MB SDRAM ECC DIMM 133MHz 33L 40GB ATA-100 EIDE HDD 18.2GB 10K Ultra160 SCSI HDD 36.4GB 10K Ultra160 SCSI HDD 00N									
Keyboard / mouse Cooling fans Power supply Prerequisites	Six fans (two f left disk and fu all variable sp failure (other f 200 watt / univ not hot-swap /	or processor illsize PCI; eed / redun ans increas versal / auto Automatic pard, mous	two for p dant coo se speed) o-sensing Server F e, rack w	y / not redundar Restart (ASR) s ith perforated d	an nt / upport	ServeRAID-4L ServeRAID-4N Netfinity FASt IBM FAStT500 IBM Netfinity O IBM NetBAY4. IBM NetBAY4. IBM T540 15"	x Ultra160 s Mx Ultra160 T500 Host A Storage Se Bigabit Ethe 2 Standard 2 Enterprise Flat Panel C	SCSI Adapter SCSI Adapter dapter erver rnet Adapter Rack (SR)	19K0658 06P5740 06P5736 00N6881 35521RU 19K4401 9306420 930842S 9511AG4		
Bad	ck F	Bav ① 3.5".	UltraSli	m 0.8". access	. std disket	te		I IMITED WARRAN	TV3		



Bay ① 3.5", UltraSlim 0.8", access, std diskette
Bay ② 5.25", UltraSlim 0.8", access, std CD-ROM
Bay ③ 3.5", SL 1", access, open or std diskette
access, open or std diskette access, open or std disk

Slot 1: fullsize, 32-bit 33MHz PCI 2.1 (5v) Slot 2: halfsize, 32-bit 33MHz PCI 2.1 (5v) - SCSI adapter (some)

- Stealth black
- ⇒ H 1.72" (1U) x W 17.3" x D 25.7"
- 26 to 28.4 lbs (minimum to maximum configuration)
- Setup Utility is available by pressing F1 at startup
- SCSISelect near startup by pressing CTRL+A (SCSI models)
- PXE Boot Agent Utility near startup by pressing CTRL+S
- DMI 2.1, Wired for Management (WfM) 2.0-compliant
- Includes rack mounting kit
- ⇒ Vital Product Data (VPD) info in nonvolatile memory
- ServerGuide can create 50MB System Partition for utilities
- ⇒ Predictive Failure Analysis™ (PFA) on disks

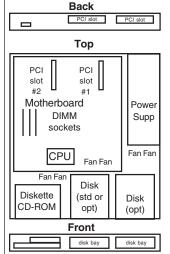
All models: Max int disk capacity: 72.8GB with two 36.4GB SL SCSI disks or 80GB with two 40GB EIDE disks

LIMITED WARRANTY³

- 3 year parts / 1 year labor
- International Warranty Service³
- 1st year: on site, 8 am-5 pm, Mon-Fri
- excluding holidays, next business day response time
- 2nd/3rd year: parts exchange only, call 1-800-772-2227
- 3 year on site warranty service upgrade options (in eligible locations):
 - 9 hour coverage, Mon-Fri excluding holidays, next business day response time (ServicePac® 21P2079)
 - 9 hour coverage, Mon-Fri excluding holidays, 4 hour response time (ServicePac 21P2080)
 - 24 hr x 7 day coverage, 4 hour response time (ServicePac 21P2081)
 - 24 hr x 7 day coverage, 2 hour response time (ServicePac 21P2082)
- 24x7¹⁴ toll-free support for warranty issues during the warranty period³

IBM @server™ xSeries™ 300 (DC power model) - withdrawn xREF by eServer Field Skills Enablement Team

IBM® Type-model Proce	essor Memory	Disk	Disk controller	Mechanical	Slots x bays	Hot-swap disk bays	Ethernet	Power supply	Available date
	800Mhz¹ 128MB r models are desig nt to support DC p		work infrastruc		2 slots x 4 bays ing network	s None	2 x 10/100	DC power	Sept 2001
Positioning Processor L2 cache SMP support Processor upgrade Implementation	A compact yet exp Intel® Celeron 800 128KB std and ma No SMP support None supported Motherboard conta three DIMM socke	OMHz with 1 ax / ECC / at ains one Inte	00MHz frontsid processor speed I PGA370 socke	e bus d t (370-pin Fli	p-Chip Pin Grid	Array (FC-	PGA)), one ii	ntegrated VRM	,
Memory - std / max Memory - sockets Memory - features Memory - support	128MB or 256MB 3 sockets / 2 availa SDRAM / 133MHz Supports unbuffer	able / ECC (E 2 / three 168-	Error Checking a pin gold-plated D						
SCSI disk controller IDE disk controller Cables Disk - features	None Enhanced IDE but Two 2-drop EIDE 20.4GB EIDE / AT.	cables (one	cable to CD-RO	M, one 80-c	onductor cable		sk bays)		
Architecture / chipsets Mechanical Control Panel	VIA® Apollo Pro1 VT82C686B South EIA 19" Rack (1U Front indicators/sv	n Bridge (IDE J⁴) / rack-mo	EATA-100, USB, unt only / suppo	diskette, se rted in IBM I	rial, keyboard, m NetBAY™ Rack∣	nouse, ISA products (i	bus for flash	BIOS)	
Ethernet controllers CD-ROM / diskette Rear ports Console interconnects	2 x Intel 82550 et two RJ-45 connec 24X-10X ⁶ CD-ROI Serial: one 9-pin; No system-to-syst	ctors on rear M; CAV (AT <i>F</i> <i>Parallel:</i> no	/ supports PXE API); bootable; II ne; <i>USB:</i> two po	2.0 Boot Ag DE / 3.5" 1.44 orts (Version	ent / Alert on LA 4MB diskette dri [,] 1.1); <i>Mgmt:</i> no	.N™ 2 supr ve ne; keybo	oort / Wake o ard; mouse;	n LAN®suppo	
Systems mgmt Diagnostics	WinBond® W8379 Diagnostics via P0								ges
Graphics controller Security Software ⁹	SVGA / PCI bus / 8MB SDRAM std : Power-on passwo unattended boot / ServerGuide™ (C installation and co and APC PowerC (system hardware	and max / DI ord / administ selectable b CD-based au nfiguration to hute Plus / ir	DC2B) analog 1 trator password oot / unattended tomated networl ool), Norton Anti ncludes IBM Dire	5-pin D-she start mode OS Virus™, ector	256MB SL 256MB SC 512MB SC 20.4GB ATA 40GB ATA IBM 16/4T	RAM ECC RAM ECC A-100 EID -100 EIDE oken-Ring	HDD	Hz Hz Hz ment Adapter	33L3081 33L3083 33L3085 19K4461 22P7157 34L5001 34L0701
Keyboard / mouse Cooling fans Power supply Prerequisites	None standard Six fans (two for p left disk and fullsiz all variable speed failure (other fans 200 watt (-48 to - supports dual inpu not redundant / no Appropriate dc po monitor, keyboard operating system	ze PCI; two f / redundant increase spe 60 V dc [dire ut sources (to t hot-swap / wer source a	or power supply cooling on single eed) ect current]) / a wo power source auto-restart sup and customer su) / e fan uto-sensing es) / port pplied wiring	IBM High-S IBM Netfin IBM 10/10 Netfinity R IBM NetBA / IBM Sleek IBM 84-ke IBM 851(c) IBM E51 (c) IBM T54A	Speed 100/ ity Gigabit I D EtherLink ack (with po XY42 Enter Two-Butto y Space Sa red Keyboo 13.8" viewa 15" Flat Pa	16/4 PCI Tok Ethernet Adap Server Adap erforated doo prise Rack n Mouse (bla aver Keyboar	en-Ring Adap oter oter by 3COM r and panels) ck) d (black) onitor (black) nitor (black)	34L5/201 34L5/201 19K4401 09N9901 9306910 930842S 28L3673 28L3644 28L3621 633347N 9511AG1 9511AG4



Bay ① 3.5", UltraSlim 0.8", access, std diskette
Bay ② 5.25", UltraSlim 0.8", access, std CD-ROM
Bay ③ 3.5", SL 1", access, open or std diskette
access, open or std diskette access, open or std disk

Slot 1: fullsize, 32-bit 33MHz PCI 2.1 (5v) Slot 2: halfsize, 32-bit 33MHz PCI 2.1 (5v)

- Stealth black
- ⇒ H 1.72" (1U) x W 17.3" x D 25.7"
- ⇒ 26 to 28.4 lbs (minimum to maximum configuration)
- Setup Utility is available by pressing F1 at startup
- SCSISelect near startup by pressing CTRL+A (SCSI models)
- PXE Boot Agent Utility near startup by pressing CTRL+S
- DMI 2.1, Wired for Management (WfM) 2.0-compliant
- Includes rack mounting kit
- ⇒ Vital Product Data (VPD) info in nonvolatile memory
- ServerGuide can create 50MB System Partition for utilities
- ⇒ Predictive Failure Analysis™ (PFA) on disks

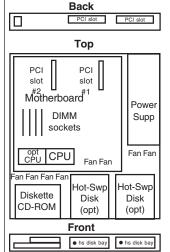
All models: Max int disk capacity: 80GB with two 40GB EIDE disks

LIMITED WARRANTY³

- 3 year parts / 1 year labor
- International Warranty Service³
- 1st year: on site, 8 am-5 pm, Mon-Fri excluding holidays, next business day response time
- 2nd/3rd year: parts exchange only, call 1-800-772-2227
- 3 year on site warranty service upgrade options (in eligible locations):
 - 9 hour coverage, Mon-Fri excluding holidays, next business day response time
 - 9 hour coverage, Mon-Fri excluding holidays, 4 hour response 24 hr x 7 day coverage, 4 hour
 - response time
 - 24 hr x 7 day coverage, 2 hour
- response time

 ⇒ 24x7¹⁴ toll-free support for warranty issues during the warranty period³

IBM® Type-model Qty x I	Processor	Memory	Disk	SCSI controller	Mechanical	Slots	x bays	Hot -swap disk bays	Ethernet	Available date
8654-31Y 1 x Pentiur 8654-41Y 1 x Pentiur	m [®] III 800/133 m III 866/133 m III 933/133 m III 1GHz/133	256MB 256MB 256MB 256MB	None None None	Ultra160 Ultra160 Ultra160 Ultra160	1U rack 1U rack 1U rack 1U rack	2 slots 2 slots	x 4 bays x 4 bays x 4 bays x 4 bays	2 hot-swap 2 hot-swap 2 hot-swap 2 hot-swap	2 x 10/100 ethernet 2 x 10/100 ethernet 2 x 10/100 ethernet 2 x 10/100 ethernet	Oct 2000 Oct 2000 Nov 2000 Nov 2000
Processor SMP support Implementation L2 cache	Intel® Pentium 2-way SMP via Processor and 256KB std and	identical L2 cache	processo in Flip-C	or / both VR <mark>i</mark> hip Pin Grid	Ms integrated	d on plai	nar		/ terminator in empty so	ocket
Memory - std / max Memory - sockets Memory - features	256MB std / 40 4 sockets / 3 av SDRAM / 133I	vailable		_			-		ompliant	
SCSI disk controller SCSI connectors RAID support IDE controller	Adaptec® AIC- Internal 68-pin No hardware F Enhanced IDE	(attaches RAID stan	1-drop ca dard / su	ble to SCSI oports optio	backplane); nal ServeR	no exterr AID PCI	nal SCSI coi adapter (s	nnector ee below)	/ integrated on mother	board
Architecture / chipsets Mechanical Control Panel	NB6635 North two ethernet of IB6566 South (diskette, para	Bridge 3. controllers Bridge for llel, serial (1U4) / rad	OLE (the s, graphic IDE, US , keyboar ck-mount	North Bridg s controller B, ISA bus d, mouse) only / supp); PCI Bus 1 for Service F orted in IBM	, 64-bit 3 Processo I Netfinit	33MHz, SC or and Sup by Rack pro	CSI controller, er I/O Nationa oducts (rack re	33MHz, IB6566 South two 64-bit PCI slots) / Il Semiconductor® PC9 equires vented front do fo LED	7317VUL
Ethernet controllers CD-ROM / diskette Rear ports Console interconnects	capability and two RJ-45 con 24X-10X ⁶ CD-I <i>Serial:</i> one 9-p System-to-sys large rack dep	load balar nectors o ROM; CA' bin; Para tem interd loyments	ncing sup n rear / si V (ATAPI <i>llel:</i> none connect c of daisy c	pport throug upports PXI); bootable; ; <i>USB:</i> two able (10 inc chained ser	h the connect 2.0 Boot A IDE / 3.5" 1. ports (Versch, 245mm) vers / chain	ction of I gent / n 44MB di sion 1.1) is stand function	ooth etherr o Wake on skette driv ; <i>Adv Sys</i> ard / daisy s with mult	net ports to the LAN® support e Mgmt: two Rachain connectiple server (no	J-45 ports	/ supports outage /
Systems mgmt Diagnostics	POST, and aut	to recovéi	y functio	ns / monitor	rs temperatu	ıre, fans	, and powe	er supply	d mgmt / allows diagno	
Graphics controller Security Software	phics controller SVGA / PCI bus / S3® Savage4Pro (on planar) / 8MB SDRAM std and max / DDC2B urity Power-on password / administrator password / unattended boot / selectable boot / systems mgmt security (user log-in password, read-only or read/write access, dial back) / unattended start mode Pentium III 800/133MHz/256KB Proc Upg 10K3810 Pentium III 933/133MHz/256KB Proc Upg 10K0052 Pentium III 1GHz/133MHz/256KB Proc Upg 10K0052 128MB SDRAM ECC DIMM 133MHz (RDIMM II) 33L3142 256MB SDRAM ECC DIMM 133MHz (RDIMM II) 33L3144									
Keyboard / mouse	utilities), AntiV IBM Director, o	irùs softw others				9	IGB SDRA 9.1GB 10K- I8.2GB 10H	M ECC DIMM -4 Ultra160 SC <-4 Ultra160 S	133MHz (RÒIMM II) SI Hot-Swap SL HDD CSI Hot-Swap SL HDD	33L3152 37L7204 37L7205
Cooling fans Power supply Prerequisites	Eight fans (fou and planar, two 200 watt / univ Monitor, keybo system, one C Kit per chain o	r for proce o for powe ersal / aut pard, mous able Chai	er supplý) to-sensin se, rack,	g / auto-res SCSI disk, (tart support	ble	ServeRAID ServeRAID Netfinity Ra Netfinity Ra Series Cal (contains)	-4L Ultra160 S -4M Ultra160 S .ck (with perfor .ck Front Door	SCSI Adapter ated door and side pand 9306910 Kit inology Cable Kit out cable and	37L7206 37L6091 37L6080 els) 06P6010



Bay ① 3.5", UltraSlim 0.8", access, std diskette
Bay ② 5.25", UltraSlim 0.8", access, std CD-ROM
Bay ③ 3.5", SL 1", access, open for hot-s
Bay ④ 3.5", SL 1", open for hot-s

access, open for hot-swap disk open for hot-swap disk

Slot 1: fullsize, 64-bit 33MHz PCI 2.1 (5v) Slot 2: halfsize, 64-bit 33MHz PCI 2.1 (5v)

- Stealth black
- ⇒ H 1.72" (1U) x W 17.3" x D 25.7"
- ⇒ 22 to 28 lbs (minimum to maximum configuration)
- Setup Program is available by pressing F1 at startup
 PC-Doctor diagnostics is available by pressing F2 at startup
 SCSISelect near startup by pressing CTRL+A
- PXE Bullet Agent near startup by pressing CTRL+S
- DMI 2.1, Wired for Management 1.1a
- Includes rack mounting kit
- ⇒ Includes two line cords (9 ft 110v cable with NEMA plug and 9 ft universal interrack HV cable with IEC plug)
- Predictive failure analysis on processor(s), voltage regulator modules, memory, fans, power supply, and disk options

All models: Max int disk capacity: 72.8GB with two 36.4GB SL SCSI disks

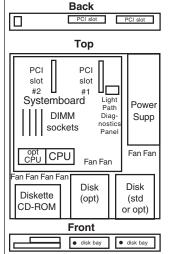
LIMITED WARRANTY',3

- 3 year parts and labor
- International Warranty Service³
- On site, 8 am 5 pm, Mon Fri coverage excluding holidays, next
- business day response time 3 year on site warranty service
- upgrade options (in eligible locations):7
 - 24 hr x 7 day coverage, 4 hour response time
 - 24 hr x 7 day coverage, 2 hour response time
- IBM Server Start Up Support
- ⇒ 24 hour x 7 day¹⁴ telephone, electronic, and Internet support

= Hot-swap

^{*} For a copy of IBM's Statement of Limited Warranty, call 1-800-772-2227

IBM® Type-model Qty	x Processor N	/lemory	Disk	Disk controller	Mechanica	I Slots x bays	Hot -swap or fixed disk bays	Ethernet	Available date
8674-12X 1 x Pentiur		256MB 20	one .4GB² EIDE .2GB Ultra160	Ultra160 EIDE Ultra160	1U rack 1U rack 1U rack	2 slots x 4 bays 2 slots x 4 bays 2 slots x 4 bays	2 hot-swap 2 fixed 2 fixed	2 x 10/100 2 x 10/100 2 x 10/100	Jul 2001 Jul 2001 Jul 2001
Positioning Processor SMP support Implementation L2 cache	Rack-optimized 1U s Intel® Pentium® III 1 2-way SMP via ident Processor and L2 ca 512KB std and max	I .13GHz-S tical proces ache in Flip	with 133MHz f ssor / both VRM -Chip Pin Grid	rontside b Is integrate	us / suppo d on plana	r		or in empty se	ocket
Memory	256MB std / 4GB ma SDRAM / 133MHz /								
SCSI disk controller SCSI connectors IDE controller Cabling	All: Internal 68-pir	n connecto E / ATA-33 / -bit LVD ca E cable to t -bit LVD ca E cable to s	r / no external S / two connector able from intern two disk bays (c able from interna standard CD-R	SCSI conners on planar lal 68-pin Sone used) al 68-pin SG al 68-pin SG	ector CSI conne	ctor to SCSI disk ba	GCSI backplane ays (one used)		
Architecture / chipsets Mechanical Control Panel	ServerWorks® Serv (1) PCI Bus 0, 32-bir SCSI controller, two and Super I/O Nation EIA 19" Rack (1U ⁴) Front indicators/swit	t 33MHz, S 64-bit PC nal Semico / rack-mou	South Bridge, S I slots) / IB6566 Inductor® PC97 unt only / suppo	Super I/O, g 6 OSB4 rev 7317VUL (o orted in IBN	raphics, 2 ⁄ B2 South diskette, pa ⁄l NetBAY™	x ethernet; (2) PC Bridge for IDE, Usarallel, serial, keyb Rack products (r	I Bus 1, 64-bit 3 SB, ISA bus for oard, mouse) ack requires ve	33MHz, Service Pro	cessor
Ethernet controllers CD-ROM / diskette Rear ports Console interconnects	2 x Intel 82559 ethe capability and load be two RJ-45 connecto 24X-10X° CD-ROM, Serial: one 9-pin; F System-to-system chain connection to multiple server (not with separate keybo	palancing some on rear, CAV (ATA Parallel: no onterconnect adjacent some ontiguous	support through / supports PXE API), bootable, I one; <i>USB</i> : two ct cable (10 incl server / support s in chain) outa	the conne 2.0 Boot A DE / 3.5" 1 ports (Vers n, 245mm) s large rac ge / one Ca	ction of bo Agent / Wa 44MB disk sion 1.1); is standard k deployme	th ethernet ports to ke on LAN® suppo tette drive Adv Sys Mgmt: tw d (Keyboard Video ents of daisy chair	o the same LAN rt o RJ-45 ports Mouse (KVM) led servers / ch	I segment / chaining cab ain functions	ele) / daisy s with
Systems mgmt Diagnostics	Advanced System diagnostic, reset, PO Remote Supervisor Light Path Diagnos	OST, and a Adapter wi	auto recovery fu ith 20-pin conn	unctions / n ector on pla	nonitors ter anar for co	mperature, fans, a ntinuous power (no	nd power suppl external power	y / support fo required)	or optional
Graphics controller Security Software	SVGA / PCI bus / SC 8MB SDRAM std an Power-on password unattended boot / se security (user log-in access, dial back) / ServerGuide™ (CD- AntiVirus software, I	nd max / DI I / administ electable be password, unattended ROM instal	DC2B` trator password oot / systems m , read-only or re d start mode llation and config	/ ngmt ead/write guration util	Pe 123 250 511 1G ities), 400 36.	ntium III 1.13GHz-5 ntium III 1.26GHz-5 BMB SDRAM ECC 6MB SDRAM ECC 2MB SDRAM ECC B SDRAM ECC DI GB ATA-100 EIDE 4GB 10K-4 Ultra16	S/133MHz/512k DIMM 133MHz DIMM 133MHz DIMM 133MHz MM 133MHz (R HDD* 50 SCSI Hot-Sw	(B Proc Upg (RDIMM) (RDIMM) (RDIMM) (RDIMM) DIMM)	25P2835 25P2836 10K0018 10K0020 10K0022 33L3326 22P7157 37L7206 00N8209
Keyboard / mouse Cooling fans Power supply Prerequisites	None standard Eight fans (four for p and planar, two for p 200 watt / universal Monitor, keyboard, r system, one Cable C Kit per chain of serv	oower supp / auto-sens mouse, rac Chain Tech	oly) sing / auto-rest k, disk, operati	art support ng	(s) Re Se IBM xS (contact the second	rveRAID-4Mx Ultra rveRAID-4Mx Ultra M T540 15" Flat Pau eries Cable Chain contains 2 meter br meter KVM chainir bisk not supported i	dapter 160 SCSI Adap nel Monitor (blac Fechnology Cab eakout cable an ng cable)	ck) le Kit d	09N7585 06P5736 9511AG4



Bay ① 3.5", UltraSlim 0.8", access, std diskette
Bay ② 5.25", UltraSlim 0.8", access, std CD-ROM Bay ③ 3.5", SL 1", Bay ④ 3.5", SL 1", access, open for fixed or hot-swap disk access, open for fixed or hot-swap disk

Slot 1: fullsize, 64-bit 33MHz PCI 2.2 (5v) Slot 2: halfsize, 64-bit 33MHz PCI 2.2 (5v)

- Stealth black
- → H 1.72" (1U) x W 17.3" x D 25.7"
 ⇒ 26 to 28.4 lbs (minimum to maximum configuration)
- Setup Program is available by pressing F1 at startup
- PC-Doctor diagnostics is available by pressing F2 at startup

- SCSISelect near startup by pressing CTRL+A
 PXE Bullet Agent near startup by pressing CTRL+S
 DMI 2.1 and Wired for Management 1.1a-compliant
- Includes rack mounting kit
- Includes two line cords (9 ft 110v cable with NEMA plug and 9 ft universal interrack HV cable with IEC plug)
- Predictive Failure Analysis® on processor(s), voltage regulator modules, memory, fans, power supply, and disk options

All models: Maximum internal disk capacity (model dependent): 146.8GB with two 73.4GB SL SCSI disks or 80GB with two 40GB EIDE disks / supports 15K rpm SCSI disks

LIMITED WARRANTY³

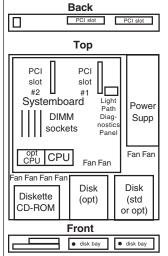
- 3 year parts and labor
- International Warranty Service³
- On site, 8 am 5 pm, Mon Fri coverage excluding holidays, next
- business day response time7 3 year on site warranty service upgrade options (in eligible locations):7
 - · Mon-Fri coverage, 4 hour response time
 - 24 hr x 7 day coverage, 4 hour response time
- 24x7¹⁴ toll-free support for warranty issues during the warranty period³

See footnotes for important warranty information

• = Hot-swap in some models US models withdrawn effective January 13, 2003

(X330R) © IBM Corp. August 2001

IBM [®] Type-model Qty	x Processor Mei	mory Disk	Disk controller	Mechanical	Slots x bays	Hot -swap or fixed disk bays	Ethernet	Available date				
8674-32X 1 x Pentiur	m III 1.26GHz/133 256	6MB None 6MB 20.4GB² EIDE 6MB 18.2GB Ultra160	Ultra160 EIDE Ultra160	1U rack 1U rack 1U rack	2x4 2x4 2x4	2 hot-swap 2 fixed 2 fixed	2 x 10/100 2 x 10/100 2 x 10/100	Aug 2001 Aug 2001 Aug 2001				
Positioning Processor SMP support Implementation L2 cache	Rack-optimized 1U sel Intel® Pentium® III 1.2 2-way SMP via identic Processor and L2 cach 512KB std and max / E	6GHz-S with 133MHz al processor / both VRI ne in Flip-Chip Pin Gric	frontside b Ms integrate	o us ed on planar	ntel PGA37	'0 sockets / termina	ator in empty s	socket				
Memory	256MB std / 4GB max SDRAM / 133MHz / E											
SCSI disk controller SCSI connectors IDE controller Cabling	SCSI connectors IDE controller All: Internal 68-pin connector / no external SCSI connector / All: Enhanced IDE / ATA-33 / two connectors on planar Cabling 31X: one 1-drop 16-bit LVD cable from internal 68-pin SCSI connector to hot-swap SCSI backplane 32X: one 2-drop IDE cable to two disk bays (one used) 33X: one 2-drop 16-bit LVD cable from internal 68-pin SCSI connector to SCSI disk bays (one used) All: one 2-drop 16-bit LVD cable from internal 68-pin SCSI connector to SCSI disk bays (one used) one 1-drop IDE cable to standard CD-ROM 32X: 20.4GB ATA-100, 8.7ms read, S.M.A.R.T.; 33X: 18.2GB Ultra160 SCSI, 10K rpm, 5.2ms read seek, S.M.A.R.T.											
Architecture / chipsets Mechanical Control Panel	cture / chipsets ServerWorks® ServerSet III LE chip set / NB6635 North Bridge 3.0LE (the North Bridge has two peer PCI buses: (1) PCI Bus 0, 32-bit 33MHz, South Bridge, Super I/O, graphics, 2 x ethernet; (2) PCI Bus 1, 64-bit 33MHz, SCSI controller, two 64-bit PCI slots) / IB6566 OSB4 rev B2 South Bridge for IDE, USB, ISA bus for Service Processor and Super I/O National Semiconductor® PC97317VUL (diskette, parallel, serial, keyboard, mouse) EIA 19" Rack (1U4) / rack-mount only / supported in IBM NetBAY™ Rack products (rack requires vented front door)											
Ethernet controllers CD-ROM / diskette Rear ports Console interconnects	2 x Intel 82559 ethern capability and load bal two RJ-45 connectors 24X-10X° CD-ROM, C Serial: one 9-pin; Pa C2T Interconnect™ ca connection to adjacen server (not contiguous separate keyboard, mo	lancing support throug on rear / supports PX AV (ATAPI), bootable, rallel: none; USB: two bible (10 inch, 245mm) t server / supports larg s in chain) outage / one	h the conne E 2.0 Boot A IDE / 3.5" 1 o ports (Vers is standard ge rack deple c Cable Cha	ection of both Agent / Wake .44MB diskett sion 1.1); Ac (Keyboard Vi oyments of d	ethernet po on LAN® su te drive dv Sys Mgn ideo Mouse aisy chaine	orts to the same LA upport nt: two RJ-45 ports e (KVM) chaining o ed servers / chain f	AN segment/ scable) / daisy cunctions with	chain multiple				
Systems mgmt Diagnostics	Advanced System M diagnostic, reset, POS Remote Supervisor Ad Light Path Diagnosti	ST, and auto recovery that and auto recovery the dapter with 20-pin coni	functions / n nector on pla	nonitors temp anar for conti	erature, fa nuous pow	ns, and power sup er (no external pow	pply / support f er required)	or optional				
Graphics controller Security Software	SVGA / PCI bus / S3® 8MB SDRAM std and Power-on password / a unattended boot / sele security (user log-in pa access, dial back) / un ServerGuide™ (CD-R utilities), AntiVirus soft	max / DDC2B administrator passwor ctable boot / systems assword, read-only or attended start mode OM installation and co	d / mgmt read/write nfiguration	128M 256M 512M 1GB 40GE 36.40 36.40	IB SDRAM IB SDRAM IB SDRAM SDRAM EC 3 ATA-100 E GB 10K-4 U GB 10K Ultra	ltra160 SCSI Hot-S a160 SCSI HDD*	Hz (RDIMM) Hz (RDIMM) Hz (RDIMM) (RDIMM)	10K0018 10K0020 10K0022 33L3326 22P7157 37L7206 00N8209				
Keyboard / mouse Cooling fans Power supply Prerequisites	None standard Eight fans (four for pro and planar, two for pov 200 watt / universal / a Monitor, keyboard, mo system, one Cable Ch Kit per chain of server	wer supply) auto-sensing / auto-res buse, rack, disk, opera ain Technology (C2T)	tart support	Serve Serve IBM T xSeri (cor 2 me	eRAID-4Mx r540 15" Fla es Cable Cl ntains 2 met eter KVM ch	sor Adapter x Ultra160 SCSI Ad Ultra160 SCSI Ad at Panel Monitor (bl nain Technology Ca er breakout cable a naining cable) rted in all x330 sys	apter ack) able Kit and	09N7585 06P5740 06P5736 9511AG4 06P4792				



Bay ① 3.5", UltraSlim 0.8", access, std diskette
Bay ② 5.25", UltraSlim 0.8", access, std CD-ROM
Bay ③ 3.5", SL 1", access, open for fixed
access, open for fixed access, open for fixed or hot-swap disk access, open for fixed or hot-swap disk

Slot 1: fullsize, 64-bit 33MHz PCI 2.2 (5v)

Slot 2: halfsize, 64-bit 33MHz PCI 2.2 (5v)

Stealth black

- → H 1.72" (1U) x W 17.3" x D 25.7"
 ⇒ 26 to 28.4 lbs (minimum to maximum configuration)
- Setup Program is available by pressing F1 at startup
- PC-Doctor diagnostics is available by pressing F2 at startup
- SCSISelect near startup by pressing CTRL+A
- PXE Bullet Agent near startup by pressing CTRL+S
- DMI 2.1 and Wired for Management 1.1a-compliant
- Includes rack mounting kit
- Includes two line cords (9 ft 110v cable with NEMA plug and 9 ft universal interrack HV cable with IEC plug)
- Predictive Failure Analysis® on processor(s), voltage regulator modules, memory, fans, power supply, and disk options

All models: Maximum internal disk capacity (model dependent): 146.8GB with two 73.4GB SL SCSI disks or 80GB with two 40GB EIDE disks / supports 15K rpm SCSI disks

LIMITED WARRANTY3

- 3 year parts and labor
- International Warranty Service³
- On site, 8 am 5 pm, Mon Fri coverage excluding holidays, next business day response time7
- 3 year on site warranty service upgrade options (in eligible locations):7
 - · Mon-Fri coverage, 4 hour response time
 - 24 hr x 7 day coverage, 4 hour response time
- 24x7¹⁴ toll-free support for warranty issues during the warranty period³

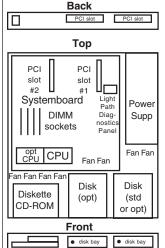
See footnotes for important warranty information

• = Hot-swap in some models

IBM @server™ xSeries™ 330 (February 2002) - withdrawn

xREF by eServer Field Skills Enablement Team

IBM [®] Type-model Qty										
8674-42X 1 x Pentiur	m [®] III 1.4GHz/133 m III 1.4GHz/133 m III 1.4GHz/133	256MB	None 40GB ² EIDE 18.2GB Ultra160	EIDE	1U rack 1U rack 1U rack	2x4 2x4 2x4	2 hot-swap 2 fixed 2 fixed	2 x 10/100 2 x 10/100 2 x 10/100	Feb 2002 Feb 2002 Feb 2002	
Positioning Processor SMP support Implementation L2 cache	Rack-optimized 10 Intel® Pentium® II 2-way SMP via ide Processor and L2 512KB std and ma	I 1.4GHzentical pro cache in	- S with 133MHz fr ocessor / both VRM Flip-Chip Pin Grid	ontside bu Is integrate	l s d on planar	ntel PGA37	70 sockets / termina	ator in empty s	socket	
Memory							/ 4 sockets / 3 avai sockets / PC133-c			
SCSI disk controller SCSI connectors IDE controller Cabling	All: Internal 68- All: Enhanced II 41X: one 1-drop 1 42X: one 2-drop I 43X: one 2-drop 1 All: one 1-drop I	oin conne DE / ATA- 16-bit LVI DE cable I6-bit LVI IDE cable	actor / no external 33 / two connector Coable from interrito two disk bays (of acable from internito standard CD-F	SCSI conners on planar nal 68-pin Sone used) al 68-pin SG al 68-pin SG	ector CSI connecto	or to hot-sv r to SCSI d	nel / 64-bit PCI / in vap SCSI backplar isk bays (one used rpm, 5.2ms read se	ne)		
Architecture / chipsets Mechanical Control Panel	s ServerWorks® ServerSet III LE chip set / NB6635 North Bridge 3.0LE (the North Bridge has two peer PCI buses: (1) PCI Bus 0, 32-bit 33MHz, South Bridge, Super I/O, graphics, 2 x ethernet; (2) PCI Bus 1, 64-bit 33MHz, SCSI controller, two 64-bit PCI slots) / IB6566 OSB4 rev B2 South Bridge for IDE, USB, ISA bus for Service Processor and Super I/O National Semiconductor® PC97317VUL (diskette, parallel, serial, keyboard, mouse) EIA 19" Rack (1U⁴) / rack-mount only / supported in IBM NetBAY™ Rack products (such as NetBAY42 SR, NetBAY42 ER) Front indicators/switches include Power, Reset, Console Select, Power LED and Fault/info LED									
Ethernet controllers CD-ROM / diskette Rear ports Console interconnects	capability and load two RJ-45 connect 24X-10X ⁶ CD-ROI Serial: one 9-pin; C2T Interconnect connection to adja	d balancing tors on restors on restors on restormed to the contract of the co	ng support through ear / supports PXE ATAPI), bootable, I r none; USB: two 10 inch, 245mm) i ver / supports large nain) outage / one	n the conne E 2.0 Boot A DE / 3.5" 1. ports (Vers s standard e rack deplo Cable Cha	ction of both Agent / Wake 44MB diskett sion 1.1); Ac (Keyboard Vioyments of d	ethernet po on LAN®s te drive dv Sys Mgr ideo Mouse aisy chaine	nt: two RJ-45 ports	AN segment/ seable) / daisy ounctions with	chain multiple	
Systems mgmt Diagnostics	diagnostic, reset, Remote Supervise	POST, ar or Adapte	nd auto recovery for er with 20-pin conn	unctions / m ector on pla	nonitors temp anar for conti	erature, fa nuous pow	remote console a ns, and power sup er (no external pow diagnostics (via P	ply / support f er required)	or optional	
Graphics controller Security Software	SVGA / PCI bus / 8MB SDRAM std Power-on passwo unattended boot / security (user log- access, dial back) ServerGuide™ (C utilities), IBM Dire	and max ord / admin selectable in password in / unatter CD-ROM i	/ DDC2B` nistrator password boot / systems n ord, read-only or re ded start mode nstallation and cor	/ ngmt ead/write	128M 256M 512M 1GB 40GE 73.40 73.40	IB SDRAM IB SDRAM IB SDRAM SDRAM EG 3 ATA-100 GB 10K-4 U GB 10K Ult	Hz-S/133MHz/512 ECC DIMM 133MH ECC DIMM 133MH ECC DIMM 133MHz CC DIMM 133MHz EIDE HDD** Itra160 SCSI Hot-S ra160 SCSI HDD**	Hz (RDIMM) Hz (RDIMM) Hz (RDIMM) (RDIMM) wap SL HDD*	06P5752	
Keyboard / mouse Cooling fans Power supply Prerequisites	None standard Eight fans (four fo and planar, two fo 200 watt / univers Monitor, keyboard system, one Cable Kit per chain of se	r power s al / auto-s I, mouse, e Chain T	upply) sensing / auto-rest rack, disk, operati	art support	(s) Serve Serve IBM 7 xSeri (cor 2 m	eRAID™-4leRAID-4Mx F540 15" Fl es Cable C ntains 2 me eter KVM c	isor Adapter Lx Ultra160 SCSI A c Ultra160 SCSI A c Ultra160 SCSI A c ter Panel Monitor (I chain Technology C cter breakout cable chaining cable) rted in all x330 syst	dapter black) Cable Kit and	09N7585 06P5740 06P5736 9511AG4 06P4792	



access, open for fixed or hot-swap disk access, open for fixed or hot-swap disk

Slot 1: fullsize, 64-bit 33MHz PCI 2.2 (5v) Slot 2: halfsize, 64-bit 33MHz PCI 2.2 (5v)

- Stealth black
 H 1.72" (1U) x W 17.3" x D 25.7"
 26 to 28.4 lbs (minimum to maximum configuration)
- Setup Program is available by pressing F1 at startup
- PC-Doctor diagnostics is available by pressing F2 at startup
- SCSISelect near startup by pressing CTRL+A
- PXE Bullet Agent near startup by pressing CTRL+S
- DMI 2.1 and Wired for Management 1.1a-compliant
- Includes rack mounting kit
- Includes two line cords (9 ft 110v cable with NEMA plug and 9 ft universal interrack HV cable with IEC plug)
- Predictive Failure Analysis® on processor(s), voltage regulator modules, memory, fans, power supply, and disk options

All models: Maximum internal disk capacity (model dependent): 146.8GB with two 73.4GB SL SCSI disks or 80GB with two 40GB EIDE disks / supports 15K rpm SCSI disks

(X330B) © IBM Corp. February 2002

LIMITED WARRANTY³

coverage excluding holidays, next

International Warranty Service³

On site, 8 am - 5 pm, Mon - Fri

business day response time

upgrade options (in eligible

9 hour coverage,

3 year on site warranty service

Mon-Friexcluding holidays,

(ServicePac® part num 21P2072)

(ServicePac part number 21P2073)

(ServicePac part number 21P2074)

4 hour average response

4 hour average response

24 hr x 7 day coverage,

warranty issues during the

24x7¹⁴ toll-free support for

warranty period3

2 hour average response

24 hr x 7 day coverage,

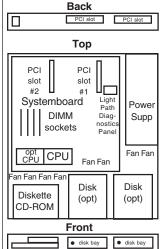
3 year parts and labor

locations):

See footnotes for important warranty information

• = Hot-swap in some models

IBM [®] Type-model Qty	x Processor	L3 cache	Memory	Memory technology	Disk	Disk controller	Mechan- ical		Hot-swap o			g Available date
8675-4MX 1 x Pentiu	m® III 1.4GHz	32MB	512MB	MXT/Chipkill	None	Ultra160	1U rack	2x4	2 hot-swap	2 x 10/10	00 None	Feb 2002
Positioning Processor SMP support Implementation L2 cache L3 cache	An ultradense, 1 x Intel® Pent 2-way SMP via Processor and 512KB std and 32MB std and	i um® III a identica L2 cach I max / E	1.4GHz - al proces e in Flip CC / full	S with 133Mi sor / both VR -Chip Pin Grid speed	Hz fror Ms inte I Array	ntside bus grated on (FC-PGA	s planar 2) / two In	tel PGA3	70 sockets	/ terminato		y socket
Memory - MXT Memory - errors	512MB std / 40 SDRAM / 133M Memory eXpa compression/d Error Checkin and detects 1-	MHz / EC nsion Te lecompre ig and C	C regist echnolo ession in orrectir	ered DIMMs / gy (MXT): ted hardware (no ig (ECC) via 1	168-pi chnolog ot softw 1 6-bit (n gold-pla gy can dou are) with t Checksun	ted DIMN ble amou he memo	l 3.3 volt s nt of usat ry control	sockėts / P0 ole memory ler	C133-comp via	liant	
SCSI disk controller SCSI connectors SCSI cabling IDE controller Disk	Adaptec® AIC- Internal 68-pin One 1-drop 16- Enhanced IDE None standard	7892 / W connect -bit LVD / ATA-3	ide Ultra or / no e: cable fro	a160 SCSI (L\ xternal SCSI o om internal 68	/D 160 connec -pin SC	MB/sec) / tor CSI conne	ctor to hot	-swap S0	CSI backpla	ne	rated on	planar
Architecture / chipsets	ServerWorks® Chipkill, and L3 two peer PCI 2 for Service Pro	3 cache o 2 buses	controlle (A: 64-l	r) / CIOB I/O I oit 66MHz, B:	Bridge 64-bit	(Frontside 33MHz) / I	Bus inter B6566 O	rfàce fron SB4 rev F	n North Bric PO5 South I	ge to PCI b Bridge for II	ouses) / DE, USB	, ISA bus
Mechanical Control Panel	EIA 19" Rack	(1U ⁴) / ra s/switche	ck-mou es includ	nt only / suppo le Power, Res	orted in et, Cor	IBM NetEnsole Sele	BAY™ Rad ct, Power	ck produc LED and	ts (rack red I Fault/info I	uires vente ED	ed front d	oor)
10/100 ethernet CD-ROM / diskette Serial / parallel / USB Console interconnects	2 x Intel 82559 capability and I two RJ-45 cont 24X-10X° CD-F Serial: one 9-p C2T Interconne supports large chain functions end of chain (a	load bala nectors of ROM, CA in; Para ect™ cab rack dep s with mu	ancing su on rear / allel: non ole (10 in oloymen altiple se	upport through supports PXE PI), bootable, I ie; USB: two ich, 245mm) i its of daisy cha rver (not conti	n the co E 2.0 Bo DE / 3. ports (' s stand ained s guous	onnection of Agent 5" 1.44ME Version 1. lard (C2T of ervers / twin chain) c	of both etl / Alert on diskette (1); Mgm chaining (10 C2T po butage / or	nernet po LAN™ 2 a drive ot: two RS cable) / da orts in rea ne Cable	rts to the sa and Wake of 485 ports fo aisy chain of r / Chain Tech	me LAN se n LAN® sup or systems onnection t	egment/ oport manager to adjace	ment nt server/
Systems mgmt Diagnostics	Advanced Systiagnostic, res Remote Super Light Path Dia	et, POS visor Ada	Γ, and aι apter wit	ıto recovery fı h 20-pin conn	unction ector o	s / monito n planar fo	rs temper or continu	ature, far ous powe	ns, and pow er (no extern	er supply / : al power red	support f quired)	or optional
Graphics controller Security Software	SVGA / PCI but 8MB SDRAM selection Power-on passe unattended bookserverGuide™ utilities), IBM D	std and n sword / a ot / selec // (CD-RC	nax / DD dministra table bo DM insta	C2B` ator password ot / unattende llation and cor	/ d start		256MB 512MB 1GB SE 36.4GB 73.4GB	SDRAM SDRAM DRAM EC 10K-4 Ultr 10K Ultr	Hz/133MHz ECC DIMM ECC DIMM CC DIMM 13 tra160 SCS a160 SCSI	133MHz (F 133MHz (F 3MHz (RD Hot-Swap Hot-Swap (RDIMM) RDIMM) IMM) SL HDD SL HDD	48P7466 33L3322 33L3324 33L3326 37L7206 06P5756
Keyboard / mouse Cooling fans Power supply Prerequisites	None standard Eight variable s two for disk(s) 200 watt / unive Monitor, keybo system, one Ca Kit per chain of	speed fa and plan ersal / au ard, mou able Cha	ar, two f ito-sens ise, rack in Techr	or power supping / auto-rest , disk, operati	oly) art sup ng	port	Remote ServeR ServeR IBM T5- xSeries (conta 2 mete	e Supervis AID™-4L AID-4Mx 40 15" Fla Cable Cl iins 2 met er KVM cl	a160 SCSI sor Adapter x Ultra160 S ultra160 S at Panel Mo hain Techno er breakou haining cab ibm.com/p	SCSI Adapte CSI Adapte nitor (black blogy Cable cable and e)06P4792	er er () e Kit	19K0656 09N7585 06P5740 06P5736 9511AG4
Dools				01: 0 01						BAITED NA		



Bay ① 3.5", UltraSlim 0.8", access, std diskette
Bay ② 5.25", UltraSlim 0.8", access, std CD-ROM
Bay ③ 3.5", SL 1", access, open for hot-swap disk
Bay ④ 3.5", SL 1", access, open for hot-swap disk

Slot 1: fullsize, 64-bit 66MHz PCI 2.2 (3.3v) Slot 2: halfsize, 64-bit 33MHz PCI 2.2 (5v)

- Stealth black front bezel
- → H 1.72" (1U) x W 17.3" x D 25.7"
 ⇒ 26 to 28.4 lbs (minimum to maximum configuration)
- Setup Program is available by pressing F1 at startup
- PC-Doctor diagnostics is available by pressing F2 at startup
- ⇒ SCSISelect near startup by pressing CTRL+A
 ⇒ PXE Bullet Agent near startup by pressing CTRL+S
- DMI 2.1 and Wired for Management 1.1a-compliant
- Includes rack mounting kit
- Includes two line cords (9 ft 110v cable with NEMA plug and 9 ft universal interrack HV cable with IEC plug)
- Predictive Failure Analysis® on processor(s), voltage regulator modules, memory, fans, power supply, and disk options

Maximum internal disk capacity (model dependent): 146.8GB with two 73.4GB SL SCSI disks / supports 15K rpm SCSI disks

LIMITED WARRANTY³

- 3 year parts and labor
- ➡ International Warranty Service³
- On site, 8 am 5 pm, Mon Fri coverage excluding holidays, next business day response time7
- 3 year on site warranty service upgrade options (in eligible locations):7
 - Mon-Fri coverage, 4 hour response time (ServicePac® part num 21P2072)
 - 24 hr x 7 day coverage. 4 hour response time (ServicePac part num 21P2073)
 - 24 hr x 7 day coverage, 2 hour response time (ServicePac part num 21P2074)
- ⇒ 24x7¹⁴ toll-free support for warranty issues during the warranty period3

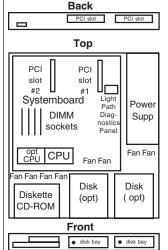
See footnotes for important warranty information

= Hot-swap bays

(X330MXT) © IBM Corp. February 2002

IBM @server™ xSeries™ 330 (DC power models) - withdrawn xREF by eServer Field Skills Enablement Team

IBM® Type-model Q	ty x Processor	Memory	Ultra160 SCSI disk	Disk controller	Mech- anical	Slots x bays	Hot-swap bays	Ethernet	Power supply	NEBS-3 compliant	Availabl dat
8674-3AX 1 x Pentiu 8674-N1X 2 x Pentiu		256MB 1GB	2 x 18.2GB	² Ultra160	1U rack	2x4 2	hot-swap	2 x 10/100 2 x 10/100	DC powe	r NEBS-3	
Positioning Processor SMP support Implementation L2 cache	Model N1X is Network 1 or 2 x Intel® Per 2-way SMP via ide Processor and L2 512KB std and ma	vork Equip ntium® III 1 entical proc cache in F	ment Buildir .26GHz-S w cessor / both lip-Chip Pin	ng System (i vith 133MH VRMs inte	NEBS) le z frontsi grated on	vel 3-co de bus planar	mpliant for	telecommun	ications ca	rrier enviro	nments
Memory	256MB or 1GB s 3AX with 256MB: SDRAM / 133MH:	3 sockets a	available; N	1X with 1ĞE	3:0 socke	ts avail	able (standa	arď with four	x 256MB [OIMMs)/	
SCSI disk controller SCSI connectors SCSI cabling IDE controller / cabling Disk	Adaptec® AIC-789 Internal 68-pin co One 1-drop 16-bit g Enhanced IDE / A 3AX: none; N1X:	nnector / n LVD cable TA-33 / two	o external S from intern o connectors	CŜI connec al 68-pin S s on planar	ctor CSI conn / one 1-d	ector to	hot-swap s	SCSI backplandard CD-F	ane ROM	·	
Architecture / chipsets Mechanical Control Panel	S ServerWorks® So (1) PCI Bus 0, 32- SCSI controller, to and Super I/O Nat EIA 19" Rack (1U Front indicators/s	bit 33MHz wo 64-bit F ional Semi J ⁴) / rack-m	:, South Brid PCI slots) / II iconductor® nount only / s	ge, Super I 36566 OSE PC97317V supported i	/O, graph 34 rev B2 'UL (diske n IBM Ne	nics, 2 x South E ette, par tBAY™	ethernet; (Bridge for II allel, serial Rack produ	2) PCI Bus 1 DE, USB, IS, , keyboard, r ucts (rack re	I, 64-biť 33 A bus for 5 nouse) quires ven	MHz, Service Pro	cessor
Ethernet controllers CD-ROM / diskette Rear ports Console interconnects	2 x Intel 82559 et capability and loa two RJ-45 connec 24X-10X° CD-ROI Serial: one 9-pin; s System-to-system chain connection multiple server (no with separate key	d balancing stors on rea M, CAV (A Parallel: In interconn to adjacen ot contiguo	g support the ar / supports TAPI), boota none; USB ect cable (1 t server / subus in chain)	rough the c s PXE 2.0 E able, IDE / 3 the two ports 0 inch, 245 pports large outage / ou	onnection Boot Ager .5" 1.44M (Version mm) is st e rack de ne Cable	n of both it / Wake IB diske 1.1); A andard ploymei	n ethernet pe on LAN®s tte drive l <i>dv Sys Mg</i> (Keyboard nts of daisy	orts to the s support <i>mt:</i> two RJ-2 Video Mous chained sei	ame LAN s 15 ports e (KVM) c vers / cha	segment/ naining cal n functions	ole) / dais s with
Systems mgmt Diagnostics	Advanced Syste diagnostic, reset, Remote Supervise Light Path Diagn	POST, and or Adapter	d auto recov with 20-pin	ery function connector	ns / monif on planar	ors tem for cont	perature, fa tinuous pov	ans, and pov ver (no exteri	ver supply nal power r	/ support for equired)	or optiona
Graphics controller Security OS support Software	SVGA / PCI bus / Power-on passwo unattended boot / Windows® NT 4.0 Server; Linux®: Re ServerGuide™ (C utilities), AntiVirus	ord / admin selectable Server, W ed Hat, Tur CD-ROM in	istrator pass boot / unatt indows 200 boLinux, Su stallation an	sword / ended star 0 Server ar SE, Caldera d configura	t mode nd Adv a eServer ation	Penti 128M 256M 512M 1GB	um III 1.260 IB SDRAM IB SDRAM IB SDRAM SDRAM EC	GHz-S/133MI ECC DIMM ECC DIMM ECC DIMM CC DIMM 133	133MHz (R 133MHz (R 133MHz (R BMHz (RDI	DIMM) DIMM) DIMM) MM)	25P2836 10K0018 10K0020 10K0022 33L3326 37L7206
Keyboard / mouse Cooling fans Power supply	None standard Eight fans (four fo and planar, two fo 200 watt (-48 to - supports dual inpu not redundant / no Appropriate dc po	r processo r power su 60 V dc [d ut sources tt hot-swap	or(s) and pla opply) irect currer (two power o / auto-resta	nar, two for nt]) / auto-s sources) / art support	r disk(s) sensing /	73.40 ** Mo Remo Serve *** xSeri	GB 10K Ultri only support odel N1X do ote Supervise eRAID-4Lx FNEBS-3 co es Cable CI	Itra160 SCSI a160 SCSI H ted in Model bes not suppl sor Adapter** Ultra160 SCS ompliance no nain Technol	lot-Swap S 3AX; ort any disk ** SI Adapter ot assured v ogy Cable	L HDD** ** vith these a Kit	06P5756 09N7585 06P5740
Pack	monitor, keyboard one Cable Chain Kit per chain of se	I, mouse, r Fechnolog ervers	ack, disk, op	perating sys	stem,	2 r	neter KVM	eter breakou chaining cab bm.com /pc/	le)		06P479



access, open for hot-swap disk access, open for hot-swap disk Slot 1: fullsize, 64-bit 33MHz PCI 2.2 (5v)

Slot 2: halfsize, 64-bit 33MHz PCI 2.2 (5v)

- Stealth black
- ⇒ H 1.72" (1U) x W 17.3" x D 25.7"
- 26 to 28.4 lbs (minimum to maximum configuration)
- Setup Program is available by pressing F1 at startup
- PC-Doctor diagnostics is available by pressing F2 at startup
- SCSISelect near startup by pressing CTRL+A
- PXE Bullet Agent near startup by pressing CTRL+S
- DMI 2.1 and Wired for Management 1.1a-compliant
- Includes rack mounting kit
- Predictive Failure Analysis® on processor(s), voltage regulator modules, memory, fans, power supply, and disk options

3AX only: Maximum internal disk capacity: 146.8GB with two 73.4GB SL SCSI disks / supports 15K rpm SCSI disks N1X only: Maximum internal disk capacity¹³: 36.4GB with two 18.2GB SL SCSI disks

LIMITED WARRANTY³

- 3 year parts and labor
- International Warranty Service³
- On site, 8 am 5 pm, Mon Fri coverage excluding holidays, next business day response time
- 3 year on site warranty service upgrade options
- (in eligible locations):7 9 hour coverage,
- Mon-Fri excluding holidays, 4 hour response time (ServicePac® part number 21P2072) 24 hr x 7 day coverage,
- 4 hour response time (ServicePac part number 21P2073) 24 hr x 7 day coverage, 2 hour response time
- (ServicePac part number 21P2074) 24x7¹⁴ toll-free support for warranty issues during the warranty period3

See footnotes for important warranty information

IBM[®]

Available

IBM® Type-model	Qty	Processor	Memory	Disk	SCSI controller	Mechanical	Slots x bays	Hot -swap disk bays	—	Available date
8656-6RY	1 x Pentiu	m® III 1GHz/133	128MB	None	2 x Ultra160	3U rack	5 slots x 7 bays	3 hot-swap	o 10/100 ethernet	Oct 2000
Intel® proces L2 cache Implementat SMP suppor	tion	Motherboard cone VRM sock	I max / E0 ontains to et (one V	CC / at p wo Intel S RM inte	rocessor spee Slot 1 connecto grated), four D	ed / processo ors for SECC IMM sockets	or and L2 cache in C2 cartridges (ope s, PCI slots, and in ECC2 into second	n Slot 1 used ntegrated sul	osystems	
Memory - st Memory - so Memory - fe Memory - su	ockets atures	SDRAM / 133N	vailable / /IHz / fou	r 168-pin	gold-plated D	IMM 3.3 volt	d Correcting (ECC t sockets / PC133- 512MB, and 1GB)	c) memory co -compliant	ontroller) / non-interle	aved
SCSI disk co SCSI chann IDE controllo Disk - capac Disk - bays	iels er/cable	64-bit PCI / no Two internal 16 SCSI Channel Single Primary None standar	hardware 3-bit chan A: 16-bit IDE / one d / suppo	e RAID s inels / bo : 68-pin L e connec rts 7200	tandard oth internal (no LVD cable from otor on planar -10000 rpm dis	external) n controller to / one 1 drop sks / 1 backp		nnel B: 16-b DM) D-compliant	/ Ultra 160/m / on planit 68-pin interface (no	
Mechanical Rack suppo Bus slots (se Chip set Bays / availa Status LEDs	ee below)	32-bit PCI (two ServerWorks® Service Proces (See diagram I	Supporte z) / dual PCI slots Servers ssor and soelow): 7	d in IBM peer PC s, graphi Set III LE Super I/C bays / tl	Netfinity Rack I / 64-bit PCI (t cs, ethernet, S chip set / NB D National Sen rree hot-swap	three PCI slo South Bridge 6635 North niconductor bays	Bridge 3.0LE / IB6	er) / 6566 South E iskette, para	All models: Max int dis 18.4GB ² with six 36.40 Bridge for IDE, USB, Is Ilel, serial, keyboard, I ystem error	GB SL disks SA bus for
10/100 ether CD-ROM / c Serial / para Graphics co	liskette Illel / USB	24X-10X ⁶ CD-l Serial: Three 9	ROM / mi 9-pin (one	ultisession of for Mgr	on / IDE interfa nt Processor)	ice / bootable <i>Parallel:</i> 0		.44MB diske IEEE 1284		
Security			n / unatte	ended bo	ot/selectable	e boot / syste			over disk bays, power password, read-only	
Diagnostics Software		reset, POST, a RJ-11 cable (fr Diagnostics L board error LE ServerGuide™	nd auto r om option ED Pane Ds / diago (CD-RC	ecovery nal Sys N I (under nostics in M instal	functions / mo Mgmt Proc Inte cover) / Light n ROM by pres lation and conf	onitors tempe erconnect Ca Path Diagno ssing F2 at s fig utilities), <i>i</i>	erature, fans, and able Kit) stics™ provides a tartup for PC-Doc	power suppl n LED map t tor e, APC Powe	nnd mgmt / allows diag ies / rear knockout for o failing component / rChute Plus, IBM Dire ded	planar to
Keyboard / r Power supp		None standard Std: one 270 v front access / voltage-sensin	vatt hot-s redunda	nt with tv	vo power supp	lies / worldw	128MB SDR ide / 256MB SDR 512MB SDR	AM ECC DIN AM ECC DIN AM ECC DIN	z/256KB Proc Upg MM 133MHz (RDIMM MM 133MHz (RDIMM MM 133MHz (RDIMM	II) 33L3125 II) 33L3127
Fans Prerequisite	s	Three (two in n (any single fan failure signals each power su Monitor, disk, r	can fail v Diagnost pply	vhile ma ic LED a	intaining coolir nd Mgmt Proc	ng)/PFA/fa essor/fani	Netfinity 270 Netfinity 3-P 18.2GB 15K 18.2GB 10K 36.4GB 10K	W Hot-Swap ack Ultra160 -rpm Ultra16 -4 Ultra160 \$ -4 Ultra160 \$	I 133MHz (RDIMM II) I Redundant Pwr Supl I Hot-Swap Exp Kit O SCSI Hot-Swap HD SCSI Hot-Swap SL HI SCSI Hot-Swap SL HI Iect Cable Kit	oly 37L6880 33L5050 D 19K0656 DD 37L7205
		t 33MHz PCI 2.1					evices (CD-ROM,		LIMITEDWARRAN	ITY *,3

SCSI

Slot 2: fullsize, 32-bit 33MHz PCI 2.1 (5v), Bus A Slot 3: fullsize, 64-bit 33MHz PCI 2.1 (5v), Bus B Slot 4: fullsize, 64-bit 33MHz PCI 2.1 (5v), Bus B Slot 5: fullsize, 64-bit 33MHz PCI 2.1 (5v), Bus B



Bay ① 3.5", US0.8", access, Bay ② 3.5", US0.8", access, Bay ③ 3.5", SL 1", access, Bay ④ 3.5", SL 1", access, Bay ⑤ 3.5", SL 1", access, Bay ⑥ 5.25", HH1.6", access* US 0.8", access, diskette US 0.8", access, CD-ROM access, hot swap access, hot swap access, hot swap

- Rail system enables devices (CD-ROM, diskette, tape drives) to snap in and out without screws
- Configuration/Setup Utility invoked by pressing F1 at startup
- SCSISelect near startup by pressing CTRL+A
- Several hardcopy publications
 Predictive failure analysis on disk options,
 memory, processors, VRMs, power supplies,
 and fans in conjunction with Netfinity
 Director can alert the system administrator of an imminent component failure

 ⇒ Rack: H 5.25" x W 16.3" x D 26.0"
- ⇒ 44 to 62 pounds
- Stealth black color
- ⇒ Two 5.25" bays use rails (no screws) for devices

Bays 6 through 7 support two HH devices or an optional Netfinity 3-Pack Ultra160 Hot-Swap Expansion Kit to convert these two bays into three hot-swap disk bays

LIMITED WARRANTY',3

- 3 year parts and labor
- □ International Warranty Service³
- On site, 8 am 5 pm, Mon Fri coverage excluding holidays, next business day response time⁷ 3 year on site warranty service
- upgrade options (in eligible locations):7
- 24 hr x 7 day coverage, 4 hour response time
 24 hr x 7 day coverage, 2 hour
- response time
- ⇒ IBM Server Start Up Support
 ⇒ 24 hour x 7 day¹⁴ telephone, electronic, and Internet support

- * For a copy of IBM's Statement of Limited Warranty, call 1-800-772-2227
- = Hot-swap

vi (e sei vei x se	1163 342 - 1	vittidi	awii				XHEF by es	erver Field Skill	s Enablen	ient ream
IBM® Type-model Qt	y x Processor	L2 cache	Memory	Disk	SCSI controller	Mechanical	Slots x bay (hot-swap)		Ethernet	Available date
8669-1RX 1 x Pentii 8669-2RX 1 x Pentii 8669-4RX 1 x Pentii 8669-5RX 1 x Pentii	um III 1.13GHz/133 um III 1.26GHz/133	512KB 512KB	256MB 256MB 256MB 256MB		2 x Ultra160 2 x Ultra160 2 x Ultra160 2 x Ultra160	3U rack		ap) 1 hot-swap ap) 1 hot-swap	10/100 10/100 10/100 10/100	Jun 2001 Jun 2001 Aug 2001 Mar 2002
Positioning Processor(s) L2 cache Implementation SMP support	Rack-optimized 3U 1 x Intel® Pentium® 256KB or 512KB st Motherboard contai 2-way SMP via sec	III 1.0, 1 d and ma ns two In	. 13, 1.26, ax / ECC / itel PGA3	1.4GHz at proce 70 sock	with 133MH: essor speed / ets, four DIMN	z frontśide processor a I sockets, fi	bus / úpgrade and L2 cache ir ve PCI slots, ar	from slower to fast n Flip Chip Pin Gri nd integrated subs	d Array (F0 systems	C-PGA2)
Memory	256MB std / 4GB ¹³ ECC (all have Error SDRAM / 133MHz	Checkir	ng and Co	rrecting	(ECC) memo					
SCSI disk controller SCSI channels IDE controller / cable Disk - capacity Disk - bays	Adaptec® AHA-789 64-bit PCI / supports Two internal 16-bit of SCSI Channel A: 11 Single Primary IDE None standard / su Three hot-swap / 80	s IBM Se channels 6-bit 68-p South Br pports 7	rveRAID ^T /both inte oin LVD ca ridge / one 200-1500	Madapte ernal (no able fron e connec 0 rpm di	ers (no hardwa external) n controller to ctor on planar isks / one back	are RAID sta backplane; / one 1-drop kplane	andard) <i>Channel B:</i> 16 DIDE cable (CD	-bit 68-pin interfac D-ROM)	·	d)
Mechanical Rack support Bus slots Chipset Bays Status LEDs	EIA 19" Rack (3U ⁴) Rack systems supp (See below) three p ServerWorks® HE- NB6555 Champion ISA bus for Super I/C (See diagram below Operator Informati	orted in I eer PCI / SL chips I/O Bridg D Nationa I): 7 bays	BM NetB. / no hot-sv set / NB69 ge (CIOB) al Semico s / two 5.2	wap Acti 576 Nort for PCI Inductor 5" HH b	ive™ PCI slots th Bridge for C Bus B (slots, o PC97317VL ays (Kit conve	i NOB and PO ethernet) an JL (diskette, erts to 3 HS)	CI A (slot, graph nd C (slots, SCS serial, keyboa) / one CD-ROI	nics, south bridge) SI) / IB6566 South rd, mouse) M bay / one disket	/ Bridge for	IDE, USB,
10/100 ethernet CD-ROM / diskette Rear ports Graphics controller	Intel 82550 / on plar 24X-10X ⁶ CD-ROM Serial: three 9-pin (SVGA / PCI 2.1 bus	/ multise one disa	ession / ID bled); <i>US</i>	E interfa BB: two	ace / bootable ports (Versior	; <i>Diskette:</i> 3 i 1.1); keybo	3.5" 1.44MB dis pard; mouse; n	skette drive / dust o parallel port; <i>Ad</i>	cover <i>/ Sys Mgm</i>	<i>t</i> : two RJ-45
Security	Power-on password	l / admini	strator pa	ssword	/ unattended b	oot/select	able boot			
Systems mgmt Diagnostics Software	IBM integrated sys fans, voltage, and p continuous power (in Diagnostics LED F error LEDs / diagnos ServerGuide™ (CD utilities), AntiVirus s	ower sup no exterr lanel (un stics in Ro -ROM in	pplies / sunal power der cover OM by prestallation	ipport for required by Light essing Fir and cor	or optional IBNd) d) t Path Diagno 2 at startup for ofiguration	A Remote S PSTICS™ prov PC-Doctor Pentiur Pentiur	upervisor Ada vides an LED m ™ m III 1GHz/133 n III 1.13GHz-8	oter with 20-pin co ap to failing compo MHz/256KB Proc 6/133MHz/512KB	onnector or onent / syst Upg Proc Upg	24P3511 24P3512
Keyboard/mouse Power supply	None (since rack-ba Std: one 270 watt ho front access / redur voltage-sensing / au	ot-swap; ndant witl	h two pow	er suppl	ies / worldwide	Pentiur 128MB 256MB	m III 1.4GHz-S/ S SDRAM ECC S SDRAM ECC	S/133MHz/512KB 133MHz/512KB F DIMM 133MHz RI DIMM 133MHz RI DIMM 133MHz RI	Proc Upg DIMM DIMM	25P2600 48P7467 33L3320 33L3322 33L3324
Fans Prerequisites	Three (two in middle redundant (any sing PFA / fan failure sig fan in each power si Monitor, disk, netwo mouse All models: Max in: 440.4GB ² with six 7	le fan ca nals Diag upply / fa ork opera t disk cap 3.6GB S	n fail while gnostic LE an on eac ting syste acity: L disks wi	e mainta ED and N h Pentiu m, rack, th	iining cooling) Mgmt Process im III processo	1GB SI Netfinit 3-Pack Remote IBM Se 18.2GE 36.4GE 73.4GE	DRAM ECC DI y® 270W Hot-S : Ultra160 Hot-S e Supervisor Ac erveRAID™-4M B 15K rpm Ultra B 10K-4 Ultra16 B 10K-4 Ultra16	MM 133MHz RDII wap Redundant F Swap Expansion K	MM Pwr Supp CI Adptr Pap HDD SL HDD SL HDD	33L3326 37L6880 33L5050 09N7585 06P5736 19K0656 37L7206 06P5756 9511AG4
Slot 2: fullsize, 64-b Slot 3: fullsize, 64-b Slot 4: fullsize, 64-b	oit 66MHz PCI 2.1 (3.	/), Bus A /), Bus B /), Bus B 3v), Bus	C C CC CC CC CC CC CC CC CC CC CC CC CC	nil syster skette, ta thout scr onfigurat essing F CSISelect FRL+A C-Doctor	n enables dev ape drives) to s ews ion/Setup Utili 1 at startup ot near startup r diagnostics b irdcopy public	ices (CD-RC nap in and c ty invoked by by pressing	DM, put y	COM/pc/us/àccess LIMITED 3 year parts an International W On site, 8 am coverage exclusioness day of 3 year on site to upgrade option locations):7	WARRAN ad labor /arranty Se 5 pm, Mor uding holic response to varranty se	ervice ³ n - Fri lays, next ime ⁷ ervice



Bay ① 3.5", US 0.8", access, diskette Bay ② 3.5", US 0.8", access, CD-ROM Bay ③ 3.5", SL 1", access, hot-swap Bay ④ 3.5", SL 1", access, hot-swap Bay ⑤ 3.5", SL 1", access, hot-swap Bay ⑥ 5.25", HH1.6", access* Bay ⑦ 5.25", HH1.6", access*

Predictive Failure Analysis® on disk options, memory, processors, VRMs, power supplies, and fans in conjunction with IBM Director can alert the system administrator of an imminent component failure

⇒ Rack: H 5.25" x W 16.3" x D 26.0"

Stealth black color

Two 5.25" bays use rails (no screws) for devices

Bays 6 through 7 support two HH devices or an optional 3-Pack Ultra160 Hot-Swap Expansion Kit 33L5050 to convert these two bays into three hot-swap disk bays

• 9 hr coverage, Mon-Fri excluding holidays, 4 hr response time (ServicePac® 21P2077)

· 24 hr x 7 day coverage, 4 hour average response time (ServicePac 21P2078)

 24 hr x 7 day coverage, 2 hour average response time (ServicePac 21P2093)

24x7¹⁴ toll-free support for warranty issues during the warranty period3

IBM [®] Type-model Qty	x Processor				Mech- anical					Complian			
		gned for net	work infrastructur			6x4	2 fixed	Yes	DC power	NEBS-3	Apr 2002		
Positioning Processor(s) L2 cache Implementation SMP support	2 x Intel® Pentiu 512KB std and n Motherboard cor 2-way SMP via s	m® III 1.260 nax / ECC / ntains two Ir second ider	System (NEBS) le GHz-S with 133MH at processor spee Itel PGA370 socke Itical processor is	Iz frontside bu d / processor a ts, six DIMM so standard	is nd L2 cac ockets, two	he in Fl o PCI ri	ip Chip P	in Grid	Array (FC-	PGA2)	ystems		
Memory	Error Checking	and Correct	ckets / 4 available cting (ECC) memo -pin gold-plated so	ry controller / n	natched pa	airs req	uired / tw oorts regi	o-way i	nterleaving SDRAM E	g/ CC DIMM	1s only		
SCSI disk controller SCSI channels SCSI disk SCSI disk bays IDE controller / cable	SCSI Channel A SCSI Channel B 1 x 36GB Ultra 10 Two fixed disk ba	: external 10 2: one intern 60 SCSI, 10 ays (not hot-	al channel Wide L 6-bit .8mm VHDCI al 16-bit 68-pin LV K rpm, 4.9ms read -swap) in disk drive outh Bridge / one o	68-pin externa D cable from co I seek, S.M.A.F e carrier that sli	l connecto ontroller to R.T. ⁵ des out fro	or (no ca two-ba om fron	ables) ay disk dr t	ive carr	ier	-bit PCI			
Mechanical Rack support PCI bus slots Chipset	EIA 19" Rack (2 Designed for ins (See below) thre PCI 2.2 / peer P(ServerWorks® I South Bridge) / N CSB5 South Brid Baseboard Mana	U ⁴) x 20-inc tallation on e full height CI buses / n· II HE-SL ch NB6555 Cha dge for EIDE agement Coi	ch deep t two-post, 19" rack full length 64-bit 3: o hot-swap Active ipset / CNB20HE- ampion I/O Bridge t, USB, LPC bus for htroller	a unit only (not and some solutions) and the solution of the	supported ree low-pro e for CIOE CI Bus B (ional Sem	in IBM ofile ha 3 and P slots, S iconduc	NetBAY If length 6 CI A 32-b CCSI) and ctor PC8	™ Racks 64-bit 66 bit 33MH d C (slot 741(disl	s) / ships w BMHz PCI Hz (graphic s) / kette, seria	slots / s, ethern	et,		
10/100 ethernet CD-ROM / diskette Rear ports	2 x Intel 82550 / 24X-10X ⁶ CD-RO Two USB ports (connector for fro Y-splitter cable)	GA / PCI bus / ATI® Rage XL (on planar) / 8MB SDRAM std/max / 1600x1280 at 16M colors at 85Hz / 15-pin D-shell											
Security													
Alarm panel Status LEDs Systems mgmt Diagnostics OS support Software ship group	four alarm panel Operator Inform Integrated servi processors, tem LED diagnostics Red Hat Linux® Resource CD (0	Power-on password / admin password / unattended boot / selectable boot / boot without keyboard / diskette write protect External alarm panel in front bezel provides 24x7 surveillance of critical, major and minor errors and power outages / our alarm panel LEDs: power alarm fault, critical alarm fault, major alarm fault, minor alarm fault Operator Information Panel (in front) / includes switches (NMI, power, reset) and status LEDs (NIC, disk, main power) integrated service processor (Baseboard Management Controller) / on planar / failures or thresholds in fans, memory, processors, temperature, voltage, and power supplies activate alarm panel LEDs / ED diagnostics and on-board diagnostics providing an LED map to a failing component Red Hat Linux®7.1 Resource CD (CD-ROM installation and configuration utilities, Intel Server Control server management software, Product Guide), PC-Doctor™ diagnostics diskette, and IBM Director (on separate CD)											
Keyboard / mouse Power supply	supports dual in	wo / accessi -60 V dc [c put sources	ible from rear / direct current]) / s (two power sourc o-restart support	es)/	1GB S 36.4G IBM E IBM S	SDRAM iB 10K 54 (13. leek Tv	l ECC DII Ultra160 8" viewal vo-Buttor	MM 133 SCSI S ble) FST n Mouse	Γ Monitor (e (black)	иМ black)	33L3324 33L3326 06P5751 633147N 28L3673		
Fans Prerequisites	fan failure signal fan in each powe Appropriate dc p	s front pane er supply / fa oower sourc	not-swap / not redulant LED / an on each Pentiur e and customer surack, operating sys	m III processor applied wiring,					bòard (bla us/access		28L3644		
Slot 2: fullsize, 64	l-bit 66MHz PCI 2 l-bit 66MHz PCI 2 disk bay access, std di access, std Ci no access, std Ci	.2 (5v), Bus .2 (5v), Bus .2 (3.3v), Bu .2 (3.3v), Bu .2 (3.3v), Bu .2 (3.3v), Bu .2 (Back 	B Configura pressing is C CTRL+A S C PC-Doctor Several h H 3.5" x V H 8.9 mm G 34 to 37 p IPMI 1.5 a	ack color (front tion/Setup Utili F2 at startup ect near startup or diagnostics ardcopy public V 17.5" x D 20. x W 445 mm younds (15.4 to and WfM 2.0-co	ty invoked by pressi on disket ations 0" D 508 mr 16.8 kg) ompiant	ng te n	4	2 1 year Interno On sit cover next be 1 year upgra location 9 h hool (No 24 4 h (No 24 2 h (r coverage idays, 4 hr ServicePa hr x 7 day our average ServicePa hr x 7 day our average GervicePa ServicePa 4 toll-free	labor arranty Se is pm, Mor- ding holid ay respon- arranty se is (in eligit response is part nur coverage response c part nur coverage re response c part nur coverage	ervice ³ 1 - Fri lays, 1 - Service lays, 1 - Service ervice evaluding e time mber) , se time hber) , se time		

8682-4RY 1 x Pentium 8682-5RY 1 x Pentium 8682-6RY 1 x Pentium Processor(s) L2 cache Implementation	m III Xeon 700MHz 2M 2M III Xeon 900MHz 2M 1 x Intel® Pentium® III X 1MB std and max / at prr Motherboard contains fo slot for Memory Board, a	B 512MB B 512MB eon™ 700 o		2 x Ultra160 2 x Ultra160	6x5 (3HS)	8 (6HS)	1 (3 max)	10/100	41.14 rook	M== 0001			
Processor(s) L2 cache Implementation	1 x Intel® Pentium® III X 1MB std and max / at pro Motherboard contains for slot for Memory Board, a	eon™ 700 o		2 x Ultra160	6x5 (3HS) 6x5 (3HS)	8 (6HS)	1 (3 max) 1 (3 max)	10/100		Mar 2001 Mar 2001 Apr 2001			
o oupport	4-way SMP via identica	ur Intel Slot : nd integrate	ed or 21 2 conne d subsy:	Hz with 100MH MB std and max ctors for SECC	z frontside k / at process cartridges (fo s integrated	or speed ourth Slot 2 in process	2 occupied ors						
Mem - std / max / type	512MB std / 16GB max	•						s 1 to 4-bi	t errors on s	same			
Memory - sockets Memory - support	chip and detects 1- through One Memory Board std a SDRAM / 100MHz / sixte Supports registered SD	gh 8-bit error and max / 16 een 168-pin (s contair sockets gold-pla	ned in two chips s / 12 available (ted DIMM 3.3 v) / Chipkill pe four 128MB olt sockets / F	rformed by DIMMs star PC100-cor	memory (andard) / 4	controller -wav mer	and firmwa norv interle	are ave			
SCSI disk controller	Adaptec® AHA-7899 / d 64-bit PCI / no hardware			Jitra160 SCSI o	ontroller (L	VD 160MB	s/sec) / Ultr	a 160/m/	on planar /	′			
SCSI channels	Two 16-bit channels / bo Channel A: 16-bit 68-pir or can attach standard b	th internal or LVD cable	r one inte from cor	troller to backp	lane <i>/ Chann</i>			connector	to use inte	rnally			
Extra SCSI cable IDE controller / cable Disk - bays	Single Primary IDE / one	ludes a 16-bit LVD SCSI cable for external SCSI devices via an external 0.8mm VHDCI connector gle Primary IDE / one connector on planar / one 1-drop IDE cable (CD-ROM) t-swap (HS) / 3 bays std / 6 max / 80-pin SCA-2 connectors / common tray with EXP300 and later systems											
Mechanical Rack support	EIA 19" Rack (4U ⁴) Supported in IBM NetBA	Y™ Racks											
Architecture Slots (Active™ PCI)	Three peer PCI 2.2 buse daughtercard) / Bus B: 6 (See below) 6 hot-swap	4-bit 66MHz PCI slots¹º a	: (3 PCI : vailable :	slots) / Bus C: 6 / hot replace, ho	4-bit 33MHz ot upgrade, h	(2 PCI slo ot expansi	ts, SCSÍ co on	ontroller)					
Chip set Bays / available Status LEDs	ServerWorks® ServerS two 16-bit links to 6536) Semiconductor® PC973 (See diagraphics Server Information Serv	/ IB6566 Sc 17VUL (disk bays / three	outh Brid ette, pa hot-swa	lge for IDE, US rallel, serial, ke p disk bays sta	B, ISA bus fo yboard, mou ndard (option	or Service se) ofor three a	Processor additional l	and Sup not-swap	er I/O Natio	us with onal			
10/100 ethernet CD-ROM / diskette Serial / parallel / USB Graphics controller	Operator Information F AMD® Am79C975 / on p 48X-20X6 CD-ROM / mu Serial: Three 9-pin (one SVGA / PCI 2.1 bus / S3	anar / 10Ba Itisession / I for Mgmt Pr	seT, 100 DE inter	DBaseTX / full d face / bootable;	uplex / RJ-45 <i>Diskette:</i> 3. e <i>USB:</i> Two	5 connecto 5" 1.44MB ports (Ver	r/2 front L diskette d sion 1.1)	.EDs rive / dus A <i>dv Sys I</i>	Mamt: Two	RJ-45 2B			
Security	Power-on password / ad selectable boot / system mode												
Systems management Diagnostics Software	Advanced System Mgn allows diagnostic, reset. Diagnostics LED Pane (under cover) / provides motherboard error LEDs at startup for PC-Doctor ServerGuide™ (installati	POST, and Light Path an LED map diagnostics on and confi	auto red Diagnos to failing in ROM guration	covery function etics™ g component / I by pressing F2 utilities), Anti-	Pentium Pentium Pentium Pentium 128MB	temp, fans III Xeon 70 III Xeon 70 III Xeon 90 I00MHz SI		er supplie z/1MB Pro z/2MB Pro z/2MB Pro C RDIMM	es oc Upg oc Upg oc Upg	00N7946 00N7944 19K4633 33L3113 33L3115			
Keyboard / mouse Power supply	Virus software, APC Pov None standard Std: one 270 watt hot-sw front access / redundanc cases; redundancy with t	ap; <i>Max:</i> thr	ee 270 w	vatt hot-swap / olies in most	1GB 100 2GB 100 9.1GB 1 18.2GB)MHz SDR)MHz SDR 0K-4 Ultra 10K-4 Ultra	DRAM ECC FAM ECC F FAM ECC F 160 SCSI F a160 SCSI a160 SCSI	RDIMM RDIMM K Hot-Swap Hot-Swa	it (4 x 512MB) SL p SL	33L3117 33L3119 33L3147 37L7204 37L7205 37L7206			
Fans Prerequisites	Six (four for disks, memory hot-swap / redundant (a maintaining cooling / PF, and Mgmt Processor / fa Monitor, disk, operating s	ny single far A / fan failure n in each po	n can fail e signals wer sup	l while Diagnostic LEI ply	Netfinity ServeRa Netfinity ServiceR	[®] 3-Pack U aid-4H Ultra 270W Hot Pac [®] IOR 2	lltra160 Ho a 160 SCS -Swap Rec 24x7x2 hou lx7x4 hour	t-Swap E Controlle undant P ur respon:	xp Kit er wr Supply se ⁷	33L5050 37L6889 37L6880 30L9186 31L2722			
Slot 2: fullsize, 64-bit Slot 3: fullsize, 64-bit Slot 4: fullsize, 64-bit Slot 5: fullsize, 64-bit Slot 6: fullsize, 64-bit Slot 6: fullsize, 64-bit Blot 6: fullsize, 64-bit Slot 6: fullsize, 64-	33MHz PCI (5v), hot-swa 66MHz PCI (3.3v), hot-swa 66MHz PCI (3.3v), hot-swa 66MHz PCI (3.3v), hot-swa 33MHz PCI (5v), hot-swa 33MHz PCI (5v), hot-swa 33MHz PCI (5v), hot-swa 32MHz PCI (5v), hot-swa	vap, Bus B vap, Bus B vap, Bus B up, Bus C up, Bus C	to sn. Conf SCS CTR Seve Pred men and f Direc admi failur Rack 62 to	ISelect near sta L+A eral hardcopy pu ictive Failure Ar jory, processors ans in conjunct ctor can alert the inistrator of an ir	thout screws Utility invoker essing F1 at rtup by press blications nalysis® on di n, power supp on with IBM e system nminent com 0.0" x D 28.0	d by startup sing isk options blies, ponent	⇒ 3 year ⇒ Intern ⇒ On sit cover: busine 3 year upg loca • 24 t resp ⇒ 24x7'' issu	r parts an ational Wate, 8 am - age exclusess day references on site variations): 7 ar x 7 day bonse time x 7 day bonse time 4 toll-free	Varranty Se 5 pm, Mon ding holida esponse tir varranty se ons (in elig coverage, le coverage, e	rvice ³ - Fri ays, next ne rvice jible 4 hour 2 hour			

IBM®	10	6061	Cloto v	Bovo	UC nower 19	/ A		Avoilable			
	Processor L2 cache Memo	SCSI ry Disk controller	Slots x bays	Bays max	HS power IX supplies sup		t Mechanica	Available I date			
8682-4AX 1 x Pentiu 8682-5AX 1 x Pentiu		B None 2 x Ultra160 B None 2 x Ultra160			1 (3 max) IX 1 (3 max) IX	KA 10/100 KA 10/100	4U⁴ rack 4U rack				
should on	ries 350 models support the ly be ordered when IXA appl Series platforms via a direct,	ications are required.	The IXA prov								
Processor(s) L2 cache Implementation SMP support	1 x Intel® Pentium® III Xeor 1MB std and max / at proce Motherboard contains four I slot for Memory Board, and 4-way SMP via identical pro	ssor speed or 2MB stontel Slot 2 connectors fintegrated subsystems	d and max / at or SECC cart / all VRMs in	processor s ridges (four tegrated in p	th Slot 2 occup processors		, .	slots, one			
Mem - std / max / type Memory - sockets Memory - support	512MB std / 16GB max ¹³ / chip and detects 1- through 8 One Memory Board std and SDRAM / 100MHz / sixteen Supports registered SDRA	B-bit errors contained in max / 16 sockets / 12 a 168-pin gold-plated DI	two chips) / C available (fou MM 3.3 volt s	hipkill perfor 128MB DIN ockets / PC	rmed by mem MMs standard 100-compliant	ory controller) / 4-way mer	and firmwa mory interlea	re ave			
SCSI disk controller SCSI channels Extra SCSI cable IDE controller / cable Disk - bays	Adaptec® AHA-7899 / dual Two 16-bit channels / both in Channel A: 16-bit 68-pin LV or can attach standard bulkh Includes a 16-bit LVD SCSI Single Primary IDE / one co Hot-swap (HS) / 3 bays std	nternal or one internal w /D cable from controllen nead LVD cable through cable for external SCS nnector on planar / one	vith one exter to backplane n punch out fo I devices via 1-drop IDE o	nal / e / Channel L or external co an external (able (CD-Ro	3: internal 16- onnector 0.8mm VHDC OM)	-bit connector	to use inter	nally			
Mechanical	EIA 19" Rack (4U4) / suppo	rted in IBM NetBAY™ F	Racks		<u>-</u>						
Architecture Architecture Three peer PCI 2.2 buses / Bus A: 32-bit 33MHz (1 PCI slot, ethernet, graphics, South Bridge, Mgmt Processor card) / Bus B: 64-bit 66MHz (3 PCI slots) / Bus C: 64-bit 33MHz (2 PCI slots, SCSI controller) (See below) 6 hot-swap PCI slots¹⁰ available / hot replace, hot upgrade, hot expansion Supports the Integrated xSeries Adapter for iSeries (IXA) option 1519-100 ServerWorks® ServerSet 2.0HE chip set / NB6536 North Bridge 2.0HE / NB6555IO Bridge 2.0 (Inter Module Bus with two 16-bit links to 6536) / IB6566 South Bridge for IDE, USB, ISA bus for Service Processor and Super I/O National Semiconductor® PC97317VUL (diskette, parallel, serial, keyboard, mouse) (See diagram below): 5 bays / three hot-swap disk bays standard (option for three additional hot-swap disk bays)											
10/100 ethernet CD-ROM / diskette Serial / parallel / USB Graphics controller	AMD® Am79C975 / on plana 48X-20X ⁶ CD-ROM / multise Serial: Three 9-pin (one for SVGA / PCI 2.1 bus / S3® S	ar / 10BaseT, 100Base ession / IDE interface / Mgmt Processor) Pa	TX / full duple bootable; Dis	ex / RJ-45 co skette: 3.5" ' SB: Two po	onnector / 2 fro 1.44MB disket rts (Version 1.	ont LEDs tte drive / dus .1) <i>Adv Sys i</i>	t cover Mgmt: Two I				
Security	Power-on password / admin selectable boot / unattended		ged bezel to c	over power	button and res	set button / ur	nattended b	oot/			
Systems management Diagnostics Software		OST, and auto recovery ght Path Diagnostics™ p to failing component agnostics in ROM by pro and configuration utilitie	y functions / r (under essing s), Anti-	Dus proprietary connector / provides remote console and mgmt / monitors temp, fans, and power supplies Pentium III Xeon 700/100MHz/1MB Proc Upg							
Keyboard / mouse Power supply	None standard Std: one 270 watt hot-swap; front access / redundant wit cases; redundancy with thre	Max: three 270 watt ho	ot-swap /								
Fans Prerequisites	Six (four for disks, memory, hot-swap / redundant (any maintaining cooling / PFA / f and Mgmt Processor / fan ir Monitor, disk, operating syst	single fan can fail while an failure signals Diagr I each power supply	nostic LED	ServeRaid- Netfinity 27 ServicePac	-Pack Ultra160 4H Ultra 160 S 0W Hot-Swap ® IOR 24x7x2 : IOR 24x7x4 h	SCSI Controlle Redundant F hour respons	er Wr Supply Se ⁷	33L5050 37L6889 37L6880 30L9186 31L2722			
Slot 2: fullsize, 64-bi Slot 3: fullsize, 64-bi Slot 4: fullsize, 64-bi Slot 5: fullsize, 64-bi Slot 6: fullsize, 64-bi Diskette CD-ROM Std pwr supply Bay ① 3.5", SL 1", Bay ② 3.5", SL 1", Bay ③ 3.5", SL 1", Bay ③ 3.5", SL 1", Bay ③ 3.5", SL 1", Bay ③ 3.5", SL 1", Bay ③ 3.5", SL 1", Bay ⑤ 3.5", SL 1", Bay ⑥ 3.5", SL 1", Bay ⑥ 7.⑥ Optional	access, diskette , access, CD-ROM access, hot swap access, hot swap access, hot swap access, hot swap	to snap in a configuration in a	1 at startup the near startup rdcopy public Failure Analy emory, proces nd fans in cor or can alert the tor of an immi .0" x W 19.0" sunds	at screws ty invoked by by pressing ations sis® on disk ssors, powe ijunction wit e system hent compor x D 28.0"	/ \$3 \$ \$\infty\$ \$\in	LIMITED year parts ar iternational W n site, 8 am - overage exclusiness day n year on site operade option cations): 24 hr x 7 day response tim 24 hr x 7 day response tim 4x714 toll-free sues during	Varranty Ser 5 pm, Mon uding holida response tir warranty ser ns (in eligib r coverage, ne r coverage, ne s support fo	rvice ³ - Fri ays, next ne rvice le 4 hour 2 hour r warranty			
	e not usable)	, = WI		~							

IBM® Type-model Qty x Pr	ocessor	L3 cache	Memory	Disks	SCSI controller	Mechan- ical		RXE Exp Ports	Hot-swap pwr supplies	Mgmt adapte	Available r date		
8686-1RX 1 x Xeon™ 8686-2RX 2 x Xeon № 8686-3RX 2 x Xeon №	MP 1.4GHz IP 1.5GHz	512KB			Ultra160 Ultra160			One One	One (not redun) Two redundant Two redundant	PCI PCI	Mar 2002		
Positioning Processors L2 cache L3 cache Processor upgrade Implementation	1 or 2 x Intel 256KB / on 6 512KB or 11 4-way SMP Systemboar	I® Xeon ™ die of pro MB / on d / up to for d contain	Processor MI cessor / at pro lie of processo ur Xeon Proce	P 1.4, 1.5, or 1.1 cessor speed r / at processor ssors MP (sam 3-pin micro-PG	6GHz with 4 r speed ne speed/ca	l00MHz f che size)	rontside b	ous / Hyp	eture™ technolog er-Threading tec t, six Active™ PC	hnolog			
Memory	one memory 128-bit simu Checking a	/ board st iltaneous nd Corre	andard with 8 transfer from tecting (ECC) v	DIMM gold-con wo DIMMs / Po	nnector slots C1600 2001 ksum Chip	s / DIMMs MHz regis	s must be stered 18	installed 4-pin DD	alled / 1.7-inch ta d in matched pai PR-SDRAM RDII -bit errors on sai	rs / MMs / E	Error and		
SCSI disk controller SCSI connectors SCSI cabling IDE controller / cabling Disk - capacity Disk - bays	Controller ha One standar SCSI RAID a Enhanced II 1RX: none;	ard-wired rd 16-bit L adapter 6 DE ATA-3 2RX/3R.	to SCSI backp. VD cable inclu 8-pin connecto 3 controller in X: two 36.4GB	plane (no cable uded for attachi or on systembo OSB4 South B) / no exterr ng an option ard for this ridge / one rpm disks /	nal ŠCSI on al Serve cable to gone-drop 4.9 ms av	connecto RAID ada get signal IDE cabl	r apter to t s to three e from IE	IHz PCI / integra he three-bay bac e-bay backplane DE controller to 0 / supports 15,00	ckplane DD-RO	э; М		
Mechanical	EIA 19" rac	k models	(3U 4) x 28" de	eep / supported	d in NetBAY	™ Racks	(such as	NetBAY	42 SR, NetBAY4	12 ER)			
Chipset Slots (Active™ PCI-X) RXE Expansion Port	Expansion F supports SC (IDE, USB, IS Six hot-swap hot replace	Port) / IBM SI, graph SA bus for PCI-X 1. , hot upg	l PCI-X Host B ics, ethernet, a r Super I/O Nat .0 slots ¹⁰ availa rade, hot exp	ridge provides t dapter slot with ional Semicond ble with power ansion / separ	three peer F Remote Suductor® PC9 and attentic ated by insu	PCI buses pervisor 7317VUL on indicate ulative pla	(two PCI Adapter, a [diskette or lights (dastic divid	I-X 1.0, o and Serv e, keyboa optical se lers	PCI-X Host Bridg ne PCI 2.2) / PC erWorks® OSB4 .rd, mouse]) ensors control po mote Expansio	South	us 0 Bridge slot) /		
CD-ROM / diskette Ethernet Graphics controller Ports	Intel 82559 SVGA / S3 [®] Rear: RXE-1	10/100 et Savage4 I00 Expar	LT / on systernsion Port (to c	ler / on systemb mboard / 8MB s onnect optional	SDRAM std RXE-100),	/max / up RXE Mar	to 1280x	k1024 at t Port (to	on LAN®/ Alert of 64K colors at 85 manage optiona orts / Front: one U	5Hz I RXE-1	100), two		
Security	Power-on ar	nd admini	strator passwo	ords / unattende	ed boot / sel	ectable b	oot						
Systems management Diagnostics Software	console and Light Path I IBM Real Tir available even	mgmt/po Diagnost me Diagn en while s	ower on/off sys ics™ / primary ostics (operate server running	tem / monitors	power statu formation p Director)	s, op sys anel with RXE-1 256ME	tem, temp LEDs ass 00 Remo 3 PC1600	perature, sociated ote Expar DECC DI	disks, fans, pow with failing com nsion Enclosure DR SDRAM RDI	er supponent	86841RX 33L3281		
Keyboard / mouse Power supplies	None standa Std: one or t redundant w worldwide / v fans in each	A Director ard (becar two 370 w with two po voltage-so power su	r, and others use rack-baser ratt hot-swap; ower supplies (ensing / auto-r upply / PFA	d) Max: three hot- some configura estart /	swap /	1GB P Xeon I Xeon I Xeon I 370 wa IBM Se	C1600 E MP 1.4GH MP 1.5GH MP 1.6GH att Hot-Sv erveRAID	CC DDR Hz/512Kl Hz/512Kl Hz/1MB I wap Red DTM-4Mx U	DR SDRAM RDI ISDRAM RDIMI BL3 Cache Prod BL3 Cache Prod L3 Cache Prod Uundant Power Si Ultra160 SCSI A	M Upg Upg Jpg upply dapter	33L3283 33L3285 19K4638 19K4639 19K4647 31P6108 06P5736		
Cooling fans	one addition fan failure si	nal fan in e gnals Dia	ant, multi-spee each power su gnostic LED a		essor	IBM N	etBAY42 etBAY42	Standar Enterpri	60 SCSI Hot-Sw d Rack (SR) se Rack (ER) Color Monitor (bl		06P5756 9306420 930842S 9511AG4		
Six available 3.3 volt A									n/pc/us/accessor				
Bus 2 (B) with two slots supports (slots 1, 2): one fullsize, 64-bit, 133MHz PCI-X, hot-swap or two fullsize, 64-bit, 66MHz PCI-X, hot-swap or two fullsize, 64-bit, 66MHz PCI, hot-swap or two fullsize, 64-bit, 66MHz PCI, hot-swap or two fullsize, 64-bit, 66MHz PCI, hot-swap or two fullsize, 64-bit, 66MHz PCI, hot-swap or two fullsize, 64-bit, 66MHz PCI, hot-swap or two fullsize, 64-bit, 66MHz PCI, hot-swap or two fullsize, 64-bit, 66MHz PCI, hot-swap or two fullsize, 64-bit, 66MHz PCI, hot-swap or two fullsize, 64-bit, 66MHz PCI, hot-swap or two fullsize, 64-bit, 33MHz PCI, hot-swap or or luftsize, 64-bit, 33MHz PCI, hot-swap or or luftsize, 64-bit, 33MHz PCI, hot-swap or or two fullsize, 64-bit, 33MHz PCI, hot-swap or or two fullsize, 64-bit, 33MHz PCI, hot-swap or or or luftsize, 64-bit, 33MHz PCI, hot-swap or or or or luftsize, 64-bit, 33MHz PCI, hot-swap or or two fullsize, 64-bit, 66MHz PCI, hot-swap or or two fullsize, 64-bit, 66MHz PCI, hot-swap or or two fullsize, 64-bit, 66MHz PCI, hot-swap or or two fullsize, 64-bit, 66MHz PCI, hot-swap or foor unumber of two fullsize, 64-bit, 66MHz PCI, hot-swap or or two fullsize, 64-bit, 66MHz PCI, hot-swap or or two fullsize, 64-bit, 66MHz PCI, hot-swap or foor unumber or or or or four fullsize, 64-bit, 66MHz PCI, hot-swap or two fullsize, 64-bit, 66MHz PCI, hot-swap or two fullsize, 64-bit, 66MHz PCI, hot-swap or from top or or two fullsize, 64-bit, 66MHz PCI, hot-swap or from top or foor from top or foor from top or foor from top or foor from top or from top								2.0mm x D701mm .8kg 3 year parts and labor International Warranty Servi On site, 8 am - 5 pm, Mon - I coverage excluding holidays next business day response 3 year on site warranty servi upgrade options (in eligible locations): Mon-Fri coverage, 4 hour response time (ServicePac® part number 21 24 hr x 7 day coverage, 4 hour response time (ServicePac part number 21 24 hr x 7 day coverage, 24 hr x 7 day coverage.					
Bay ② 3.5", 0.5", Bay ③ 3.5", SL 1", Bay ④ 3.5", SL 1", Bay ⑤ 3.5", SL 1",	access, CD- access, hot- access, hot- access, hot-	ROM swap swap	and All mo	er supplies, me fans with IBM D pdels: Maximu GB with three 7	Director m internal o	disk capa	city:	≈ 24	ServicePac part n x7 ¹⁴ toll-free sup sues during the	port fo warran	or warranty ty period³		

IBM [⊚] Type-model Qty x Pr	L3 ocessor cache	Memory	Disks	SCSI controller	Mechan- ical	Slots x bays E	RXE Exp Ports	Hot-swap pwr supplies	Mgmt adapter	Available date				
8686-2RY 2 x Xeon™ 8686-3RY 2 x Xeon №		2GB Chipkill™ 2GB Chipkill	None None	Ultra160 Ultra160	3U⁴ rack 3U rack	6x5 6x5		Two redundant Two redundant		Apr 2002 Apr 2002				
Positioning Processors L2 cache L3 cache Processor upgrade Implementation	Space efficient 4-wa 2 x Intel® Xeon™ Pro 256KB / on die of pro 512KB or 1MB / on d 4-way SMP / up to Systemboard contain and integrated SCSI.	cessor MP 1.5 o beessor / at procedie of processor / bur Xeon Process ns four Intel 603-p	r 1.6GHz wassor speed at processors MP (soin micro-l	with 400MHz ed sor speed ame speed/o	frontside l cache size	ous/supp	orts Hype	er-Threading te	chnolog	,				
Memory	2GB std / 8GB max / one memory board s 128-bit simultaneous Error Checking and and detects 2- throug	four 512MB DIM tandard with 8 DI transfer from two Correcting (EC	Ms installe MM gold-co DIMMs / C) via 16-	connector slo PC1600 20 bit Checksu	ots / DIMM 0MHz regi	ls must be istered 18	e installed 4-pin DD	R-SDRAM RD	IMMs/	ne chip				
SCSI disk controller SCSI connectors SCSI cabling IDE controller / cabling Disk - capacity Disk - bays	Adaptec® AIC-7892 / Controller hard-wired One standard 16-bit SCSI RAID adapter (Enhanced IDE ATA- None standard Three hot-swap bays	d to SCSI backpla LVD cable include 58-pin connector 33 controller in O	ne (no cal ed for atta on system SB4 South	ble) / no exté ching an opt board for thi n Bridge / on	rnal ŠCSI onal Serv s cable to e one-drop	connecto eRAID ad get signa	or lapter to t ls to three	he three-bay b e-bay backplar	ackplane ie	e;				
Mechanical	EIA 19" rack model	A 19" rack models (3U⁴) x 28" deep / supported in NetBAY™ Racks (such as NetBAY42 SR, NetBAY42 ER)												
Chipset Slots (Active™ PCI-X) RXE Expansion Port	IBM XA-32 TM chipse Expansion Port) / IBN supports SCSI, graph (IDE, USB, ISA bus fo Six hot-swap PCI-X 1 hot replace, hot up One port to suppor	M PCI-X Host Brid nics, ethernet, ada or Super I/O Natio .0 slots ¹⁰ availabl grade, hot expar	lge provide apter slot w nal Semico e with pow nsion /sep	es three peer vith Remote S onductor® PC ver and atten parated by in	PCI buse Supervisor 297317VU tion indica sulative pl	s (two PC Adapter, L [diskette tor lights (astic divid	I-X 1.0, o and Serv e, keyboa optical se ders	ne PCI 2.2) / PorerWorks® OSB ard, mouse]) ensors control p	ČI 2.2 Bu 4 South power to	us 0 Bridge slot) /				
CD-ROM / diskette Ethernet Graphics controller Ports	24X-10X ⁶ CD-ROM / Intel 82559 10/100 e SVGA / S3 [®] Savage <i>Rear:</i> RXE-100 Expa USB (Ver 1.1), keybo	thernet controller 4 LT / on systemb nsion Port (to con	/ on syste board / 8M nect option	emboard / ful IB SDRAM s nal RXE-100	td/max / u), RXE Ma	p to 1280: nagemen	x1024 at t Port (to	64K colors at 8 manage option	35Hz al RXE-1	100), two				
Security	Power-on and admin	istrator password	ds/unattei	nded boot / s	electable	boot								
Systems management Diagnostics Software	Remote Supervisor console and mgmt / p Light Path Diagnos IBM Real Time Diagn available even while ServerGuide™ (CD- utilities), AntiVirus so	ower on/off syste tics™ / primary in nostics (operated server running ROM installation	m / monito dicator on through IE and config	ors power sta information BM Director) guration	tus, op sys panel with RXE- 256M 512M	stem, temp LEDs as 100 Remo B PC1600 B PC1600	perature, sociated ote Expar 0 ECC DI 0 ECC DI	disks, fans, po with failing cor nsion Enclosur DR SDRAM RI DR SDRAM RI	86841RX 33L3281 33L3283					
Keyboard / mouse Power supplies Cooling fans	None standard (beca Std: two 370 watt hor redundant with two p worldwide / voltage-s fans in each power s Six hot-swap, redund one additional fan in fan failure signals Dia	use rack-based) t-swap; Max: thre ower supplies (sc sensing / auto-res upply / PFA dant, multi-speed each power supp	e hot-swa ome config start / fans / oly / PFA /	p / gurations) /	Xeon Xeon 370 w IBM S IBM 3 IBM 7	MP 1.5GI MP 1.6GI vatt Hot-Sv ServeRAIE 66.4GB 15 '3.4GB 10 VetBAY42	Hz/512KI Hz/1MB I wap Red o™-4Mx I oK Ultra10 oK Ultra10 Standar	R SDRAM RDIN B L3 Cache Proc L3 Cache Proc undant Power S Ultra160 SCSI 60 SCSI Hot-S 60 SCSI Hot-S d Rack (SR) se Rack (ER)	oc Upg Upg Supply Adapter wap SL	33L3285 19K4639 19K4647 31P6108 06P5736 06P5768 06P5756 9306420 930842S				
Six available 3.3 volt A					- IBM T	540 15" F	lat Panel	Color Monitor (I		9511AG4				
Bus 2 (B) with two slot one fullsize, 64-b or two fullsize, 64-b or two fullsize, 64-b or two fullsize, 64-b or two fullsize, 64-b or two fullsize, 64-b or two fullsize, 64-b or two fullsize, 64-b or two fullsize, 64-b Bus 0 with one slot suonly standard Remonhalfsize, 64-b S	ts supports (slots 1, 2' it, 133MHz PCI-X, hot- it, 100MHz PCI-X, hot- it, 66MHz PCI, hot- it, 66MHz PCI, hot- it, 33MHz PCI, hot- ots supports (slots 3, 4 it, 66MHz PCI-X, hot- it, 66MHz PCI, hot- it, 66MHz PCI, hot- it, 33MHz PCI, hot- it, 33MHz PCI, hot-	swap Dimen swap Dimen swap Stealth swap Stealth swap Acces swap Acces swap Diagno in SCSIS ot-swap Diagno proble Inform and co systen systen Setup Diagno Top co diagno proble Inform and co systen Systen Predic power and fa	asions: H1: t: 58.4 to 7 n black col- ree service ree service res adapters nboard from s power st Program b costics (PC- Gelect by p rover Light I rostic panel m without n well-bein rive Failur supplies, ns with IBI rels: Maxim	ability s, processors m top upplies and c py pressing F -Doctor) by p ressing Ctrl+ Path Diagnos) for outside or removing cor panel, diagn LEDs give vis g e Analysis® a memory, pro	"x D27.6" 442.0mm 31.8kg , memory, isks from t 1 at startu ressing F2 A at startu stics (level view of pot ver ostic LED sual indica allerts on di cessors, V	and front p 2 at startup 2 ential panel, tions of sks, 'RMs, acity:	m	LIMITED W rear parts and I ernational War a site, 8 am - 5 verage excludi xt business da rear on site was gear on site was geligible locatio Mon-Fri covera; I hour respons ServicePac® part 44 hr x 7 day cc I hour respons ServicePac part 44 hr x 7 day cc I hour respons ServicePac part 44 hr x 1 day cc I hour respons ServicePac part 45 hr x 7 day cc I hour respons ServicePac part x714 toll-free su sues during the	ARRAN abor ranty Se pm, Mor ng holid y respon rranty se ons): ge, e time t number vverage, e time number vverage, e time number sverage, e time number	ervice ³ n - Fri lays, nse time ⁷ ervice 21P2077) 21P2078) 21P2093) or warranty				

IBM® Type-model Qty x P	rocessor	L3 cache	Memory	Disks	SCSI controller	Mechan- ical		RXE xp Ports	Hot-swap pwr supplies	Mgmt adapte	Available r date	
8686-4RX 1 x Xeon™				None	Ultra160		-	-	One (not redun)	•	Aug 2002	
8686-5RX 2 x Xeon I	MP 1.5GHz	512KB 2	2GB Chipkill	None	Ultra160	3U rack	6x5	One	Two redundant ²	PCI	Aug 2002	
8686-6RX 2 x Xeon I	VIP 1.6GHz	1MB 2	2GB Chipkill	None	Ultra160	3U rack	6x5	One	Two redundant	PCI	Aug 2002	
Positioning Processors L2 cache L3 cache Processor upgrade Implementation	1 or 2 x Int 256KB / on 512KB or 1 4-way SMP Systemboa	tel® Xeon [™] die of proc MB / on die / up to fou rd contains	Processor M cessor / at proce e of processor / ir Xeon Process	P 1.4, 1.5, or essor speed at processor MP (san pin micro-PG	or 1.6GHz¹ v or speed ne speed/ca	vith 400M che size)	1Hz frontsi	ide bus	ture™ technolog / Hyper-Thread , six Active™ PC	ling tecl		
Memory	1GB or 2G	B std / 8G	B max ¹³ / two (1GB model)	or four (2G	B models	s) 512MB	DIMMs	installed / 1.7-	inch tal	1/	
	one memor 128-bit simu Error Chec	y board sta ultaneous t king and (andard with 8 Di ransfer from tw	IMM gold-cor o DIMMs / P (C) via 16-bi t	nnector slots C1600 200N t Checksum	s / DIMMs ⁄IHz regis	s must be i stered 184	nstalled -pin DD	I in matched pai R-SDRAM RDII 3, or 4-bit errors	rs / MMs /		
SCSI disk controller SCSI connectors SCSI cabling	Controller h One standa	ard-wired t rd 16-bit L\	to SCSI backpla VD cable includ	ane (no cable ed for attach	e) / no extérn ing an optior	ıal ŠCSI d nal Serve	connector RAID ada _l	pter to t	IHz PCI / integra he three-bay ba e-bay backplane	ckplane		
IDE controller / cabling Disk - capacity Disk - bays	Enhanced I None stand	DE ATA-33 ard / suppo		SB4 South E 0 rpm disks	Bridge / one	one-drop					M	
Mechanical				•			(such as N	NetBAY	42 SR, NetBAY	12 ER)		
Chipset	(one to IBM PCI-X 1.0, cand Server)	M chipset A PCI-X Hosene PCI 2.2 Works® OS	/ IBM Memory I/st Bridge; one to b) / PCI 2.2 Bus B4 South Bridge	O Controller RXE Expans Supports So e (IDE, USB,	(improved posion Port) / IE CSI, graphic ISA bus for S	erforman 3M PCI-X s, etherne Super I/O	ce from ea Host Brid et, adapter NS PC973	rlier mo ge prov slot witl 317VUL	dels) with two re ides three peer l h Remote Super [diskette, keybo	mote I/0 PCI bus visor Ac ard, mo	es (two dapter, ouse])	
Slots (Active™ PCI-X)	Six hot-swa	p PCI-X 1.(e , hot upg r	0 slots¹º availab ′ade, hot expa ı	le with power nsion /separ	r and attentic rated by insu	n indicato Ilative pla	or lights (o _l เstic divide	otical se ers	ensors control po	wer to s	slot) /	
RXE Expansion Port									mote Expansio	n Encl	osure	
CD-ROM / diskette Ethernet Graphics controller Ports	Intel 82559 SVGA / S3 [®] Rear: RXE-	10/100 eth Savage4 100 Expans	LT / on system sion Port (to cor	r / on system board / 8MB nnect optiona	SDRAM std. I RXE-100),	/max / up RXE Mar	to 1280x1 agement f	1024 at Port (to i	on LAN® / Alert of 64K colors at 85 manage optiona rts / <i>Front:</i> one U	5Hz I RXE-1	00), two	
Security	•	,. ,	strator password		•						,	
Systems management			<u> </u>					serial c	onnectors / prov	ides rer	note	
Diagnostics	console and Light Path	i mgmt / po Diagnosti	wer on/off syste	em / monitors ndicator on in	power statu formation pa	s, op syst anel with	tem, tempe LEDs asso	erature, ociated	disks, fans, pow with failing com	er supp	olies s /	
Software	available ev	ven while se de ™ (CD-R	erver running OM installation	_	,	RXE-100 Remote Expansion Enclosure 86841R) 256MB PC1600 ECC DDR SDRAM RDIMM 33L3281 512MB PC1600 ECC DDR SDRAM RDIMM 33L3283 1GB PC1600 ECC DDR SDRAM RDIMM 33L3285						
Keyboard / mouse Power supplies	Std: one or redundant v	two 370 wa vith two po voltage-se	se rack-based) att hot-swap; <i>M</i> wer supplies (se	ax: three hotome configur		Xeon M Xeon M Xeon M 370 wa	MP 1.4GHz MP 1.5GHz MP 1.6GHz att Hot-Swa	z/512KE z/512KE z/1MB L ap Redu	3 L3 Cache Proc 3 L3 Cache Proc .3 Cache Proc U Indant Power Su	Upg Upg pg pply	33L3285 19K4638 19K4639 19K4647 31P6108	
Coolingfans	Six hot-swa one addition	p, redunda nal fan in e	nt, multi-speed ach power supp gnostic LED and	oly / PFA /	essor	IBM 73 IBM No IBM In	8.4GB 10K etBAY42 S tegrated x	Ultra16 Standard Series A	Iltra160 SCSI Ac 10 SCSI Hot-Swa 1 Rack (SR) Idapter for iSeric Color Monitor (b	ap'SL es	06P5736 06P5756 9306420 1519100 9512AB1	
Six available 3.3 volt A									n/pc/us/accesso		· · · · · · ·	
- or two fullsize, 64-l - or two fullsize, 64-l - or two fullsize, 64-l - or two fullsize, 64-l • Bus 1 (A) with four sl - four fullsize, 64-l	oit, 133MHz Poit, 100MHz Poit, 66MHz Poit, 66MHz Poit, 33MHz Poit, 66MHz Poit, 66MHz Poit, 66MHz Poit, 66MHz P	PCI-X, hot-s PCI-X, hot-s PCI, hot-s PCI, hot-s PCI, hot-s (slots 3, 4, { PCI-X, hot-s	wap Dimer wap Weigh wap Stealt wap Tool-f 5, 6): Acces wap Syster	nsions: H5.25 nsions: H133 nt: 58.4 to 70ll h black color ree serviceab s adapters, p mboard from	3.4mm x W44 bs; 24.9 to 3 bility processors, r top	12.0mm x 1.8kg nemory, a	and	⇒ 3 y ⇒ Int ⇒ On co ne	LIMITED WA rear parts and la ernational Warr site, 8 am - 5 p verage excludir xt business day	abor anty Se om, Mor ng holid respor	ervice ³ n - Fri ays, nse time ⁷	
- or two fullsize, 64-l - or four fullsize, 64-l •Bus 0 with one slot s - only for standard Re halfsize, 64-l	oit, 33MHz F upports: emote Superv	PCI, hot-si isor Adapte	wap ⇒ <u>Setup</u> ⇒ <u>Diagn</u> er ⇒ SCSIS -swap ⇒ Top co		pressing F1 octor) by pre ssing Ctrl+A th Diagnosti	at startup ssing F2 at startup cs (level 2	at startup	up (in • N	rear on site war grade options eligible locatio Mon-Fri coverage hour response	ns): ⁷ e, time		
Std or opt Power Supply	Disk ③ Disk ④ Opt disk CCCSS, diske	diagnostic panel) for outside view of potential problem without removing cover Disk ③ Disk ④ Opt disk diagnostic panel) for outside view of potential problem without removing cover Information LED panel, diagnostic LED panel, and component LEDs give visual indications of system well-being Predictive Failure Analysis® alerts on disks,									21P2078)	
Bay @ 3.5", 0.5", a Bay @ 3.5", SL 1", a Bay @ 3.5", SL 1", a Bay ® 3.5", SL 1", a	access, CD-R access, hot-su access, hot-su	IOM wap wap	and fa	supplies, me ins with IBM I lels: Maximu with three 7	Director um internal c	lisk capa	city:	≈ 24	ServicePac part r x7 ¹⁴ toll-free su _l sues during the	port fo	r warranty	
	ortent were											

							The second secon	100	-				
IBM [®] Type-model Qty x	Processor	L2 cache Mem	ory Disk	SCSI controller	Mechanic	Slots x al bays	Hot-swap pwr supplies	Mgmt adapter	Available date				
8681-1RX 1 x Pentium 8681-2RX 1 x Pentium 8681-3RX 1 x Pentium	III Xeon 700/100	1MB 512 2MB 512 2MB 512	MB None	2 x Wide Ultra2 2 x Wide Ultra2 2 x Wide Ultra2	8U⁴ rac 8U rack 8U rack		ns) Three redundan	t PCI	Mar 2001 Mar 2001 Apr 2001				
Processor(s) L2 cache Processor upgrade(s) Features	Standard: one Proc Maximum: two Proc snoop bus traffic be	peed eight Pentiu essor Boar cessor Boar etween two p	m III Xeon p d with four Ir ds (second processor b	processors (same ntel Slot 2 sockets processor bus) / ro uses) / 'Mezzanine	speed/ca (one prod equires tw Exp Kit' l	che size) / two lessor bus) lo Cache Coh nas one Proc	o 64-bit 100MHz pro nerency Filter Cards essor Board that req (one for each Proces	(reduces uires	cache				
Memory - std / max Memory - std DIMMs Memory - type Memory - cards		d Correcting std (one me	ng (ECĊ) mo mory bus) /	emory and memor two cards max (se	y controlle econd me	er (Profusion mory bus) / e	ctors Memory Controller Neach card has 16 soc		DIB)				
SCSI disk controller SCSI channels SCSI implementation SCSI connectors SCSI cabling IDE controller / cabling Disk - capacity Disk - bays	Two Wide Ultra2 St 64-bit PCI / integrat One 68-pin connect One 16-bit LVD cab Enhanced IDE cont None / supports 10	ptec® AIC-7897 / no integrated RAID controller ob Wide Ultra2 SCSI channels (LVDS 80MB/sec) oit PCI / integrated on I/O Function Card e 68-pin connector internal and one .8mm VHDCI connector external / each channel supports up to 15 devices e 16-bit LVD cable to two bay backplane / one 16-bit LVD cable from controller to external 68-pin VHDCI connector lanced IDE controller in PIIX4E / one one-drop IDE cable from IDE controller to CD-ROM me / supports 10,000 rpm disks / converged tray is interchangeable with EXP200/300 and later Netfinity systems swap / no trays included (disks ship with trays) / 80-pin SCA-2 connectors											
Mechanical Rack / conversion		9" rack models (8U4) x 28" deep orted in NetBAY Enterprise Racks and current racks with extension options / kit available to convert rack to tower											
Architecture I/O Function Card Slots (Active™ PCI)	Intel Profusion® cl four PCI 2.2 buses 64-bit 33MHz PCI a PIIX4E (32-bit PCI 12 hot-swap PCI slo	tel Profusion® chip set / one midplane (interconnects major buses and components) / ur PCI 2.2 buses (four PB64) numbered 0, 4, 10, 13 to allow hot-swap of PCI-to-PCI bridge adapters t-bit 33MHz PCI adapter / includes controllers for SVGA (32-bit PCI), SCSI, and IX4E (32-bit PCI Intel 82371AB for EIDE, ISA Bridge, USB) / Super I/O (NS PC97317VUL on 16-bit ISA) off PIIX4E thot-swap PCI slots® available with power and attention indicator lights (optical sensors control power to slot) / bit replace, hot upgrade, hot expansion / separated by insulative plastic dividers / PCI Hot-Plug Specification 1.0											
LAN adapter CD-ROM / Diskette Ports Graphics controller	No standard NIC controller or adapter CD-ROM: 48X-20X ⁶ CD-ROM / IDE interface off PIIX4E / 1.6" HH / bootable; Diskette drive: 3.5" 1.44MB / dust cover [wo 9-pin serial / one 25-pin parallel / two USB / one keyboard / one mouse / one SVGA (all in rear) SVGA / S3 [®] Trio3D / integrated on I/O Function Card / 4MB SGRAM std/max / up to 1024x768 at 256 colors at 85Hz												
Security	Power-on and administrator passwords / mountable in an optional secure rack enclosure / selectable drive-startup / keyboard password / Advanced Remote Management security (user log-in password, read-only or read/write access, dial back)												
Diagnostics	serial connectors / r	orovides ren emperature stics™ / prir sociated wit anel / two 16 D-ROM insta nd APC Pov	note console, disks, fans mary indicat h failing con character l	e and mgmt / power, power supply / Nor on information opponents ines of status infoconfiguration	er on/off s S LM78 ha Netfir Netfir Netfir Netfir	ystem / monitardware mon hity 128MB S hity 256MB S hity 512MB S hity 1GB SDF	includes 10/100 ethe tors power status, itor (voltage, tempera DRAM DIMM (regist DRAM DIMM (regist RAM DIMM (register emory Card (16 socl	ered) II ered) II ered) II ered) II ed) II					
Keyboard / mouse Power supplies Fans	None standard (sin Hot-swap / redund or 550 watts at 110 each power supply Nine fans / six hot front for cpu area, t adapter area) / one fan failure signals D	ce for rack) lant / std and ly / universa / each has in -swap redu hree fans in fan in each	l (voltage sendividual po ndant (thre middle for r power supp	ensing) / fans in ower cord / PFA e fans in nemory and ly / PFA /	Penti Penti Penti Netfir NetB Netfir Netfir Netfir	um III Xeon 7 um III Xeon 7 um III Xeon 9 nity 8Ux28D F AY3E (3U pe nity Mezzanir nity 4X Accele ity ServeRAl	OOMHz/1MB Proc U OOMHz/2MB Proc U OOMHz/2MB Proc U Rack-to-Tower Cond destal on bottom) ne Expansion Kit erator Filter (two 1M ID™-4H Ultra160 SC terconnect Kit	pg pg pg pg ersn Kit B filters)	10K2330 10K2166 19K4637 28L4705 36L9701 10K2337				
Diskette Rack (can convert to To (in rear) Power Power Power (in rear) Power	and rear access in top cessors, and disks fees from rear essing F1 at startup stor) by pressing F2 a each) included (three ROM Two 1.6" I HH 3.5" b (both hot- Stealth bi- 4 removal (If conversupports) bree Net	at startup e 110v high ays swap) ack color ble handles t to tower) up to BAY3 units Mgmt 1.1a	Slot 2: full: Slot 3: full: Slot 4: full: Slot 5: full: Slot 7: full: Slot 8: full: Slot 9: full: Slot 10: full: Slot 11: full: Slot 12: full: Slot*: full: * used by Predict power s	size, 64-bit 33MHz size, 64-bit 33MHz size, 64-bit 33MHz size, 64-bit 33MHz size, 64-bit 66MHz size, 64-bit 66MHz size, 64-bit 66MHz size, 64-bit 33MHz size, 32-bit 33MHz size, 32-bit 33MHz size, 32-bit 33MHz l/O Function Card Advanced Remote	PCI, hot-single PCI, hot-sing	wap, Bus D wap, Bus D wap, Bus D wap, Bus C wap, Bus C wap, Bus C wap, Bus C wap, Bus B wap, Bus B wap, Bus A wap, Bus A ot-sw, Bus A CI Adapter	LIMITED W ⇒ 3 year parts and ⇒ International Wa ⇒ On site, 8 am - 5 coverage exclud business day res ⇒ 3 year on site wa upgrade options locations):7 • 24 hr x 7 day c response time (ServicePac® p. • 24 x7 14 toll-free s issues during th	labor rranty Se pm, Mor ing holid sponse ti rranty se (in eligil overage, art numbe overage, t number upport fo	ervice ³ n - Fri lays, next me ⁷ ervice ble 4 hour er 30L9187) 2 hour 31L2723) or warranty				

	100 000							ei i ieiu Skii	-	and the same of			
IBM® Type-model Qty x Proce		Memory SCSI disks	SCSI controller	Mechanical	bays			oplies Chipset		Available date			
8683-1RX 1 x Itanium 8683-2RX 1 x Itanium 8683-3RX 1 x Itanium 8683-4RX 1 x Itanium	800 4MB 733 2MB	1GB 2 x 36.4GB 1GB 2 x 36.4GB 1GB 2 x 36.4GB 1GB 2 x 36.4GB	2 x Ultra160 2 x Ultra160 2 x Ultra160 2 x Ultra160	7U rack 7U rack	8x4	8 hot-swap 8 hot-swap	4 redund 4 redund		None Adv Server				
Processor L1 and L2 cache L3 cache Processor upgrade Implementation	32KB L1 cac 2MB or 4MB 4-way SMP One Process cartridge) pro Processor Bo	nium™ 733 or 800Mi the / 96KB L2 cache / I L3 cache / inside Ita via identical processo sor Board with four So ocessor and caches / oard (4 sockets, SAC ne Sideplane (connec	on die of Itan anium cartridg ors ocket M 418-p each Itanium C, SDC), two N	ium / at proc e / at proces in LIF socke powered by lemory Boar	essors sorspe ts / one one Pe ds, one	speed eed e socket used ower Pod on I e I/O Baseboa	l by Itaniu Processo ard (slots	um PAC418 (or Board / sys s, graphics, et	tem contains hernet, SCS	one I, PXB,			
Memory - std / max Memory - features	Two Memory Board for fou	GB max ¹³ / registere y Boards standard ea ur-way interleaving / d to Card (C2C) inter	ach with 32 16 must install fo	88-pin DIMM	socke	ts / ships star	ndard wi	th four DIMM:	s on one Me	mory			
SCSI disk controller SCSI channels SCSI implementation IDE controller IDE cabling Disks - capacity Disk - bays	Two Ultra16 First channe second chan Enhanced ID One 1-drop I 2 x 36.4GB ²	12160A / no integrat 0 (Ultra3) SCSI char I to internal 2-port SC inel to one external .6 DE busmaster / ATA- IDE cable to LS-120 Ultra160 SCSI / 7200 0-pin SCA-2 connect	nnels (LVDS 1 CSI backpland Bmm VHDCI 6 33 / controlle / one 1-drop I D rpm / tray int	60MB/sec) / e for internal 8-pin connec r in IFB off th DE cable to	hot-sw ctor (16 ie PXB CD-R0	/ap disks (16- i-bit LVD cabl / two connec DM	bit LVD of e from I/O ctors on I	cable to SCSI O Baseboard	backplane) to ext conne				
Mechanical Rack / conversion		19" rack models (7U⁴) x 28" deep opported in IBM NetBAY™ Enterprise Racks or other NetBAY racks with extension options											
Chipsets Legacy I/O Board	Intel 460GX chipset / 82460GX includes 82461GX System Address Controller (SAC), 82462GX System Data Controller (SDC), 82463 Memory Address Controller (MAC), 82464GX Memory Data Controller (MDC), 3 x 82466GX Wide eXpansion Bus (WXB), 82467NX PCI eXpansion Bus (PXB), 82468GX I/O Firmware Bridge (IFB), 82802AC Firmware Hub (FWH), 82064AA Programmable Interrupt Device (PID) Legacy I/O Board in proprietary connector / contains controllers for hardware monitoring (BMC, ICMB), USB (Vers 1.1), two channel IDE, Firmware Hub (FWH), I/O Firmware Bridge (IFB), SMCS™ LPC47B27X Super I/O (two serial, parallel,												
Slots (Active™ PCI)	kybrd, mouse) Eight hot-swap PCI 2.2 slots ¹¹ available with power and attention indicator lights (magnetic sensors control power to slot) / hot replace, hot upgrade, hot expansion / separated by insulative plastic dividers / PCI Hot-Plug Specification 1.0												
10/100Mbps ethernet LS-120 / CD-ROM Ports Graphics controller													
Security	BIOS admini	istrator and BIOS us	er passwords	/ mountable	in an o	ptional secure	rack en	closure / selec	table drive-s	tartup			
Systems management Diagnostics Front panel Software and CDs	(3) Hot-Swap system, temp AMIDiagnos Switches, LE Diagnostic D	controllers: (1) Basebo controller (HSC) / p. p., disks, fans, power tic utility on standard EDs, LCD display wit biskette (LS-120), Ut Guide / some: Adv So	rovides remote supplies / soft I LS-120 diske th two lines of liity CD, Public	e console an ware utility (I ette status info cation CD,	d mgm ntel Se	it / power on/c	off syster for mgm IB) ECC IB) ECC	m/monitors p tt required and SDRAM RDI SDRAM RDI	ower status, d supported MM Kit MM Kit	oper by Intel 33L3258 33L3260			
Keyboard / mouse Power supplies	None standa Std and max hot-swap / N two individua Fourteen fa	urd (since for rack) c: four 800 watt at 22 N+1 redundant / unital 220v power cords ns / six hot-swap re) / two fans in each p	Ov or 700 wat versal (voltag to two connec edundant (fou	ts at 110v / e sensing) / ctors / PFA ur 172 mm ar	I I S and	tanium 733M tanium 800M System to PD (Series option Visit ibm.co Configure you	Hz/2MB Hz/4MB U Power ns: m /pc/us/	L3 Proc Upg L3 Proc Upg r Cable (220) /eserver/xser	//10A)	10K3815 10K0050 00N7701			
Operating system included on CD	1xx/2xx: No 6 3xx/4xx: Mic	operating system inc rosoft® Windows® Ad All: support for 64-b	luded; Ivanced Serve	er, Limited		Visit ibm.co			WARRAN	TY ³			
Pwr Sup- Sup- Sup- Sup- Sup- Sup- Sup- Sup-	5"x W17.5"x X 5"x W17.5"x X 5"x W17.5"x X 5"x W17.5"x X 5 m top (no too loies from from from from from from from from	D28.0"; 135-150lbs ols required) t (cust replaceable) t (BM service only) at startup LT+Q near startup wo 1.0" SL 3.5" sk bays (both ot-swap) tealth black color removable handles fired for Mgmt 2.0 MI 2.0 and ACPI compliant	Slot: used b Slot 1: fullsize Slot 2: fullsize Slot 3: fullsize Slot 4: fullsize Slot 5: fullsize Slot 6: fullsize Slot 8: fullsize Slot 9: fullsize Slot 10: fullsize Predictive power sup Pods, and Control (IS SMBIOS-2 sternal disk ca	y Legacy I/O , 64-bit 33MH , 64-bit 66MH , 63-bit 66MH , 64-bit 66MH , 64-bit 66MH , 64-bit 66MH , 64-bit 66MH , 64-bit 66MH , 64-bit 66MH , 64-bit 66MH , 64-bit 66MH , 64-bit 66MH , 64-bit 66MH , 64-bit 66MH	tz PCÍ, tz PCI, tz PCI, tz PCI, tz PCI, tz PCI, tz PCI, tz PCI, tz PCI, ysis® a ry, proced by Ir	no access, Bu no access, Bu hot-swap, Bus hot-swap, Bus hot-swap, Bus hot-swap, Bus hot-swap, Bus hot-swap, Bus hot-swap, Bus	SA SB SC SD SBD SEF SG S,	response t	I Warranty S n - 5 pm, Mo cluding holi y response t e warranty s ions (in eligi age, Mon-Fri hour avera in y ay coverage sponse time ee support f ues during Warranty ar e options at i	n - Fri days, next time tervice ble i excluding ge to, 4 hour for the ad ibm.com/			

IBM®		L3	L4			SCSI	Mech-	Slots	SMP/RXE	Hot-swap	Mgmt	t Available
	Processor	cache 512KB	cache 32MB 2	Memory	Disk	controller 2xUltra160		x bays	Exp Ports	pwr supplies	adapte	er date
8687-1RX 2 x Xeon 8687-2RX 2 x Xeon 8687-3RX 2 x Xeon	MP 1.5GHz		32MB 2	2GB Chipkill™ 2GB Chipkill 2GB Chipkill	None None	2xUltra160 2xUltra160 2xUltra160	4U rack	6x4	3/1	Two redundant Two redundant Two redundant	PCI	Apr 2002 Apr 2002 Apr 2002
Positioning Processors L2 cache L3 cache L4 cache Processor upgrade SMP Expansion Module Additional boards	2 x Intel® Xe 256KB each 512KB or 1M 32MB XceL4 32MB in each 4-way SMP (v One SMP Ex L4 cache, six Ports) / each One I/O Boar	on™ Pro processo IB each p ™ Serve n SMP Ex up to 8-w panion In teen DIM SMP Exp d (PCI-X	cessor Nor / on die or / on die orocessor r Acceler pansion I lay SMP v Module s M socket pansion N Host Bric	WP 1.4, 1.5, or of processor. of on die of processor. Module / ECC with optional S td / two max / ts, three SMP Module activate dge, SCSI, eth	or 1.6GH / at prococessor up to 64I 6 / 64-bit MP Expects co Expansi es one Facrnet, gi	Iz¹ with 400 essor speed at process MB with optide 400MHz but bansion Moor on Ports (see XXE Expans raphics, Soil	MHz fron d sor speed ional SMP s from Ca dule) Intel 603- econd mo sion Port (uth Bridge	Expanche and bin microdule coonly on speeds	us / supp sion Mod d Scalabil ro-PGA Z nnected v e RXE Ex r I/O, slot		eading eon M MP Ex upporte	P, 32MB spansion ed)
Memory	16 DIMM gold 3.3v registere Memory Pro	d-connec ed 168-pi teXion ™	tor slots / n SDRAM (1, 2, 3, c	/ must install fo // RDIMMs / 13	our inder 33MHz / on same	ntical DIMM Error Chec chip; up to	s at same king and two chips	time / 4 Correct at once	1-way inte cting (EC e; redund	DIMMs installer rleaving / PC13 C) and Chipki ant bit steering	33-com I I™ via	
SCSI disk controller SCSI disk controller SCSI implementation SCSI												
Mechanical	EIA 19" rack models (4U⁴) x 28" deep / supported in NetBAY™ Racks (such as NetBAY42 SR, NetBAY42 ER)											
Chipset IBM XA-32™ chipset / IBM Cache and Scalability Controller with L4 cache controller and three SMP Expansion Ports / IBM Memory I/O Controller with two remote I/O ports (each to a IBM PCI-X Host Bridge) / each IBM PCI-X Host Bridge provides three peer PCI buses / PCI 2.2 Bus E supports graphics, adapter slot with Remote Supervisor Adapter, VIA® 82C686B South Bridge (IDE ATA-100, USB, Super I/O PC97317VUL [keyboard, mouse]) / PCI 2.2 Bus F supports SCSI, ethernet / PCI-X Bus A, B, C, D support PCI-X slots / designed to the PCI-X 1.0 specification Slots (Active™ PCI-X) Six hot-swap PCI-X 1.0 slots¹⁰ available with power and attention indicator lights (optical sensors control power to slot) / hot replace, hot upgrade, hot expansion / separated by insulative plastic dividers RXE Expansion Port IBM XA-32™ chipset / IBM Cache and Scalability Controller with L4 cache controller and three SMP Expansion Ports / IBM PCI-X Host Bridge / PCI-X Host Bridge / PCI-X Host Bridge / PCI-X Slots / designed to the PCI-X 1.0 specification Slots (Active™ PCI-X) Six hot-swap PCI-X 1.0 slots¹⁰ available with power and attention indicator lights (optical sensors control power to slot) / hot replace, hot upgrade, hot expansion / separated by insulative plastic dividers One port to support up to 12 additional PCI-X slots via an optional IBM RXE-100 Remote Expansion Enclosure												
CD-ROM / diskette Ethernet Graphics controller Ports	ROM / diskette 24X-10X ⁶ CD-ROM / 3.5" 1.44MB diskette drive / both removable from Ultrabay™ 2000 bays / supports CD-RW, DVD met Broadcom® 5700 10/100/1000 ethernet controller / on I/O Board / full duplex / 64-bit 66MHz PCI bus / Wake on LAN® hics controller SVGA / S3® Savage4 Pro / on I/O Board / 8MB SDRAM 125MHz std/max / up to 1280x1024 at 64K colors at 85Hz											
Security	Power-on and	d adminis	trator pas	swords/unatt	ended b	oot / selecta	ble boot					
Systems mgmt Diagnostics	console and n	ngmt / po iagnosti ie Diagno	wer on/of cs ™ / prir ostics (ope	ff system / mor mary indicator erated througl	nitors por	wer status, on mation pane	op system	, tempe Os asso	erature, dis ociated wi	nectors / provid sks, fans, powe th failing compo dule	r suppli onents	ies
Software		™ (CD-R	OM insta	ıllation and cor	nfiguratio	1	IGB PC13	3 ECC	SDRAM F	M RDIMM RDIMM 3 Cache Proc U	3	33L3324 31P8300 32P8705
Keyboard / mouse Power supplies Cooling fans	watts at 110v front access / fans in each p Four hot-swa one additiona fan failure sig	c: two / ho / redund / worldwid bower su p, redund al fan in e nals Diag	ot-swap / ant at 220 de / voltao pply / PF/ dant, mult ach powe	1050 watts at 0v with two po ge-sensing / a A ti-speed fans / er supply / PFA ED and mgmt	wer sup uto-resta A / process	550) plies / art / 8	Xeon MP 1 Xeon MP 1 BM 73.4G BM Serve NetBAY11 3X/4X/24X BM T540 Other optic	I.5GHz I.6GHz iB 10K I RAID™ Standa (Max C 15" Flat	/512KB L3 /1MB L3 (Ultra160 S -4H Ultra ard Rack (D-RW Ult Panel Co	B Cache Proc U Cache Proc Upg BCSI Hot-Swap 160 SCSI Adapt	pg 3 3 (ck) 9	32P8706 32P8707 06P5756 37L6889 9306110 22P9101 9511AG4
	66MHz PCI-X 66MHz PCI-X 100MHz PCI-X 130MHz PCI-X 133MHz PCI-X 133MHz PCI-X te Supervisor A	d, hot-swa d, hot-swa d, hot-swa d, hot-swa d, hot-swa dp, 32-bit du Ra db, 32-bit du Ra db, 32-bit du Ra db, 32-bit	p Bus A p, Bus B p, Bus B p, Bus C p, Bus D 33MHz	Max weigh Stealth bla Tool-free s Access pro Setup Pro Diagnostic SCSISelec Information out Light P diagnostics Predictive L XccL4 Sen power sup JBM Direct All models	is: H178 it: 110 lbs ck color ck ck color ck color ck ck color ck ck color ck ck color ck ck ck color ck ck color ck ck color ck	mm x W483 s; 50kg illity , memory, a odule from to biles and dis pressing F1 octor) by pre ssing Ctrl+A inel and fron el (1st and 2e	dapters, a cop lks from from the startup sessing F2 at startup it-accessite at level over) erts on proche, memo sks with	and ont at startu ole pull- cessors ry, fans	Poses, was	LIMITED WA year parts and lernational War n site, 24 hr x 7 me day respon year on site war grade option (i cations):7 24 hr x 7 day co 2 hour respons No ServicePac a sit warranty ma rvices available x7 ¹⁴ toll-free su arranty period ³	abor ranty \$ day co se time rranty se time available intena	Service ³ overage, e ⁷ service ble e, e) nnce

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- MHz/GHz only measures microprocessor internal clock speed; many factors affect application perfomance.
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- ⁴ A single "U", or rack unit, is 1.75" or 44.45mm.
- 5 S.M.A.R.T. stands for Self-Monitoring, Analysis and Reporting Technology.
- ⁶ CD and DVD drives speeds are variable and are often less than the maximum.
- ⁷ These services are available for machines normally used for business, professional, or trade purposes, rather than personal. family or household purposes. Not all machine types and models are covered. Service period begins with the equipment date of purchase. Service must be purchased during the original limited product warranty period. Service levels are response time objectives and are not guarantees. A service technician is scheduled to arrive at your location within two or four business hours or the next business day (depending on service) after remote problem determination is completed. For the 9x5x4-hour service, calls dispatched after 1:00 p.m. local time, you can expect the service technician to arrive by the morning of the next business day. For non-critical service requests, a service technician will arrive by the end of the following business day. If the machine problem turns out to be a Customer Replaceable Unit (CRU), IBM will express ship the part to you for quick replacement. Onsite 24x7x2-hour service is not available in all locations. External peripherals, such as racks, tape drives, and channel controllers, require their own, separate service coverage, they are not covered under the attached

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- 8 Subject to conditions.
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