



October 15, 1995

Subject: SLC Alternative

Dear Customer:

The TI486SXLC2-G66 and TI486SXLC2-G50 are ideal potential 16-bit upgrades for existing SLC sockets. The TI486SXLC products are footprint compatible with the SLC pin out and offers additional features to enhance performance. Texas Instruments also offers an affordable 32 bit solution with the TI486DX2-66 and 80 MHz products.

The TI486SXLC2-G66 and TI486SXLC2-G50 are clock doubled microprocessors (66 MHz core, 33 MHz bus for G66 and 50 MHz core, 25 MHz bus for G50), and feature 8K of internal cache, and a low voltage core (3.6V for G66 and 3.3V for G50) with 5V tolerant I/O pins. Both microprocessors come in a quad-flat pack (QFP) package and require a voltage regulator for board implementation.

As the following table indicates, performance improvements of up to 157% are possible when upgrading from the SLC-33 to the TI486SXLC2-G66. Not only does the performance dramatically increase when upgrading from the TX486SLC-33 to the TI486SXLC2-G66, but the TI486SXLC2-G66 consumes 31% less power than the TX486SLC-33.

Benchmark	TX486SLC-33	TI486SXLC2-G50	TI486SXLC2-G66	% Improvement of SXLC2-G66 over SLC-33
Landmark 2.0	108	157	211	96
Norton 8	54	72	98	80
PowerMeter 1.7	9	16	21	141
PowerMeter 1.8	6	12	15	157
PCBench 6	1194	1716	2301	93
PCBench 8	11	12	16	50

*system configuration - DAT305 MB, 4MB, 0K L2

TI also offers an additional alternative solution with the TI486DX2 in both 66 MHz and 80 MHz speeds. The TI486DX2 is a clock doubled 32 bit microprocessor with 8K of internal cache and 3.45V core with 5V tolerant I/O pins. The TI486DX2 product leads the industry in price and performance value. In addition to the performance and affordable price, the TI486DX2-80 typically consumes less than 1/3 of the power the Intel DX2-66. The TI486DX2 is available in both a 168 PGA and 208 QFP.

Benchmark	TI486DX2-80	AMD80-80	IDX4-75
PCBench9.0	75.94	73.44	51.46
Winstone 95	74	72.7	63.3
Bapco Sysmark 93	151.78	149.25	131.78

*system configuration - Bioteq MB, 16MB, 0K L2, VL

Please test the enclosed TI486SXLC2-G66 sample and discover the performance boost the TI486SXLC2-G66 can offer your application. Samples of the TI486DX2 or additional information (literature, technical support, ect.) can be obtained through your local TI sales offices. Texas Instruments is committed to offering superior solutions for your computing needs.

Sincerely,

Todd Andreini
x86 Strategic Marketing Manager
PC Systems Products Group



SXLC2-G66:

Feature Set

Features

- Clock Doubled TI486 Core
- 8K-byte cache
- 486 SLC footprint compatible
- Dynamic clock scaling
- SMM/SMI Power Mgmt.
- Interface to X87SLC

Benefits

- Maximum CPU Performance
- 486 SX performance, high cache hit rate
- Provide high performance upgrade in a small CPU footprint
- Power-on-demand capability enables low power consumption
- For prolonged battery life
- Low-cost FPU support

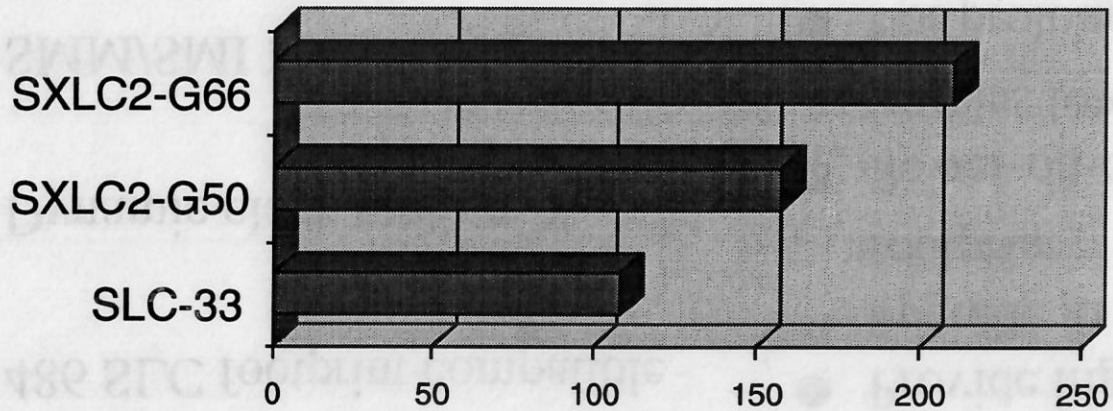
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SXLC2-G66:

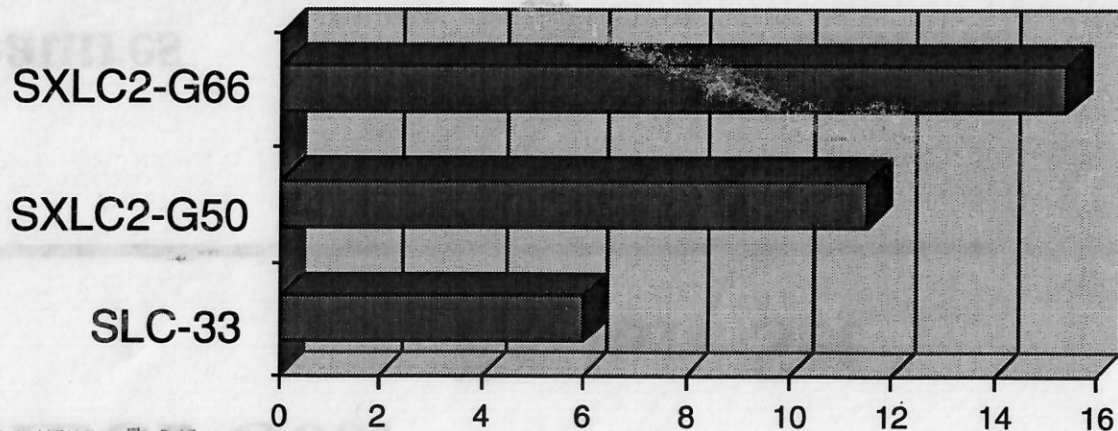
Performance Knock Out!!

Landmark 2.0



96% Performance increase over SLC

Power Meter 1.8



157% Performance increase over SLC

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SXLC2-G66:

Performance Knock Out!!

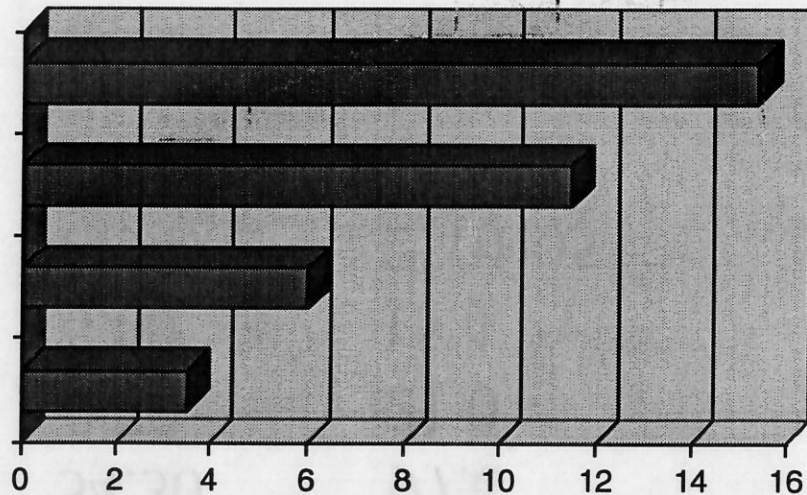
PowerMeter 1.8

TI486SXLC2-G66

TI486SXLC2-G50

TI486SLC-33

386SX-33



340% Performance increase over 386SX

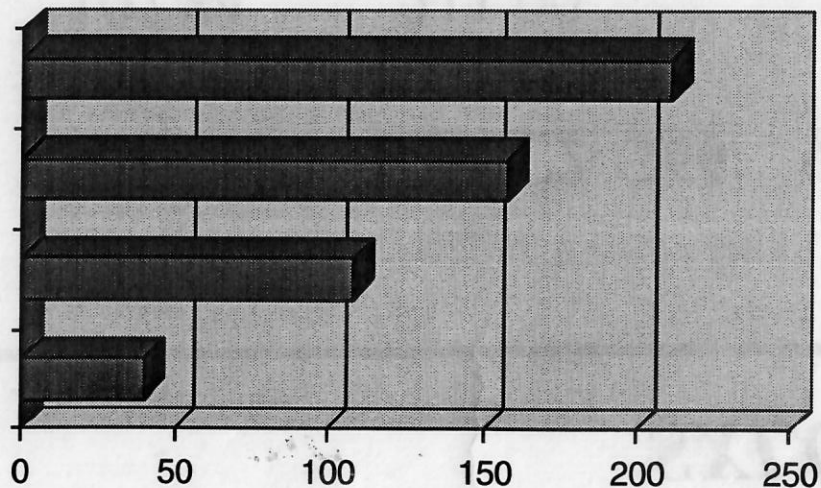
Landmark 2.0

TI486SXLC2-G66

TI486SXLC2-G50

TI486SLC-33

386SX-33



423% Performance increase over 386SX

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Capture the Performance . . .

SXLC2-G66

<u>Benchmark</u>	<u>SLC-33</u>	<u>SXLC2-G66</u>	<u>% Improvement</u>
Landmark2.0	107.84	211.00	95.66
Norton 8	54.30	97.6	79.74
PowerMeter 1.7	8.70	21.0	141.38
PowerMeter 1.8	6.00	15.4	156.67
PCBench 6	1194.02	2301.05	92.71
PCBench 8	10.55	15.9	50.07
PCBench 9	N/A	29.59	N/A



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Capture the Performance . . .

SXLC2-G66

<u>Benchmark</u>	<u>SXLC2-G50</u>	<u>SXLC2-G66</u>	<u>% Improvement</u>
Landmark2.0	157.24	211.00	34.19
Norton 8	74.4	97.6	34.81
PowerMeter 1.7	15.7	21.0	33.76
PowerMeter 1.8	11.5	15.4	33.91
PCBench 6	1715.91	2301.05	34.10
PCBench 8	11.74	15.9	35.43
PCBench 9	22.19	29.59	33.35



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SXLC2-G66:

Modifications Easy and Simple!!

TI486SXLC2-G50 to SXLC2-G66: **Three Easy Steps**

- 1) Change Crystal Oscillator from 50 MHz to 66 MHz or change jumper settings to 66 MHz
- 2) Make sure chipset can support 33 MHz bus
- 3) $V_{cc} = 3.6V$

TI486SLC-33 to SXLC2-G66: **Two Easy Steps**

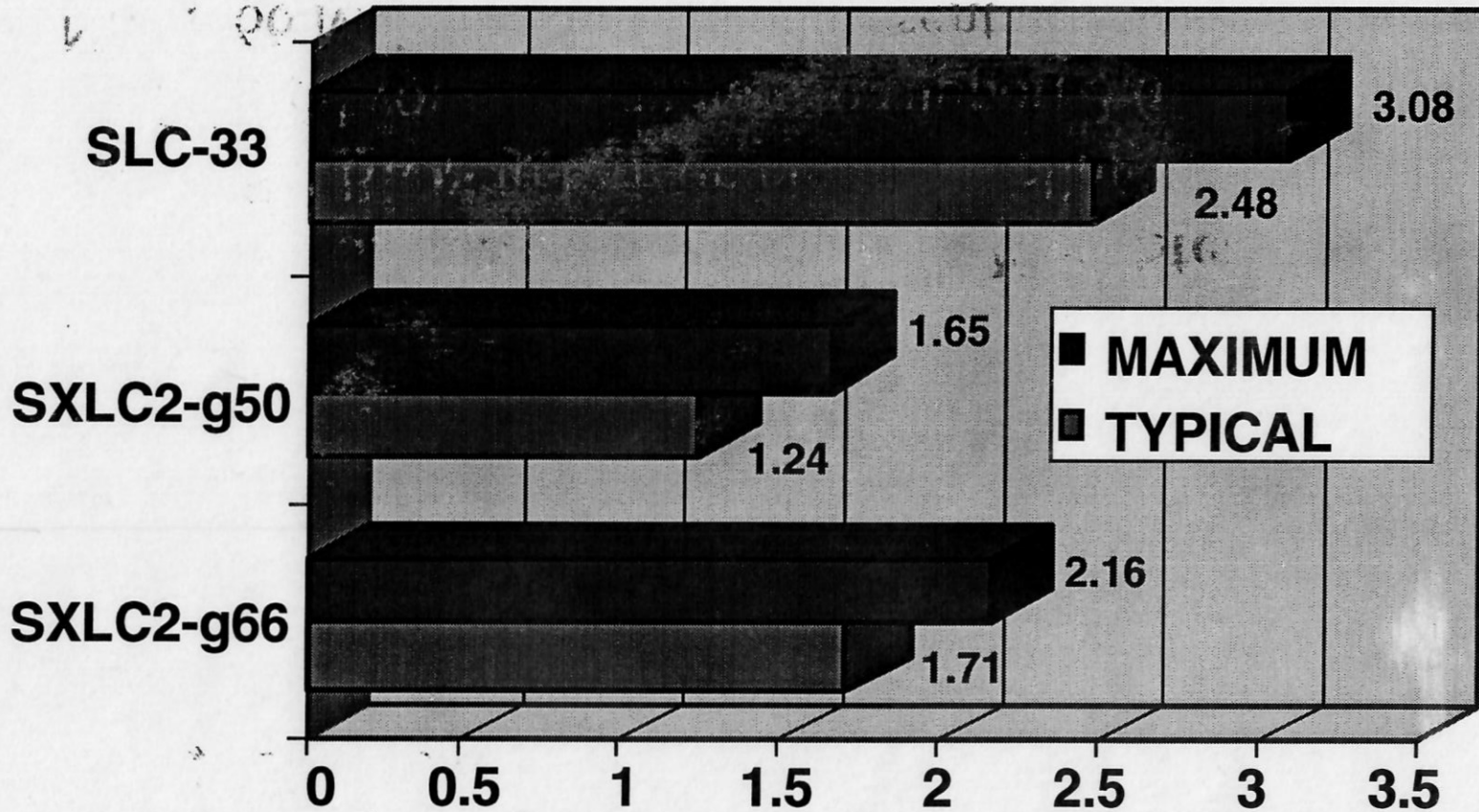
- 1) Set BIOS to turn on clock doubling
- 2) Add voltage regulator to support 3.6v V_{cc}

Note: 66 MHz clock already present

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SLC to SXLC2: Save Power!



Power in Watts

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