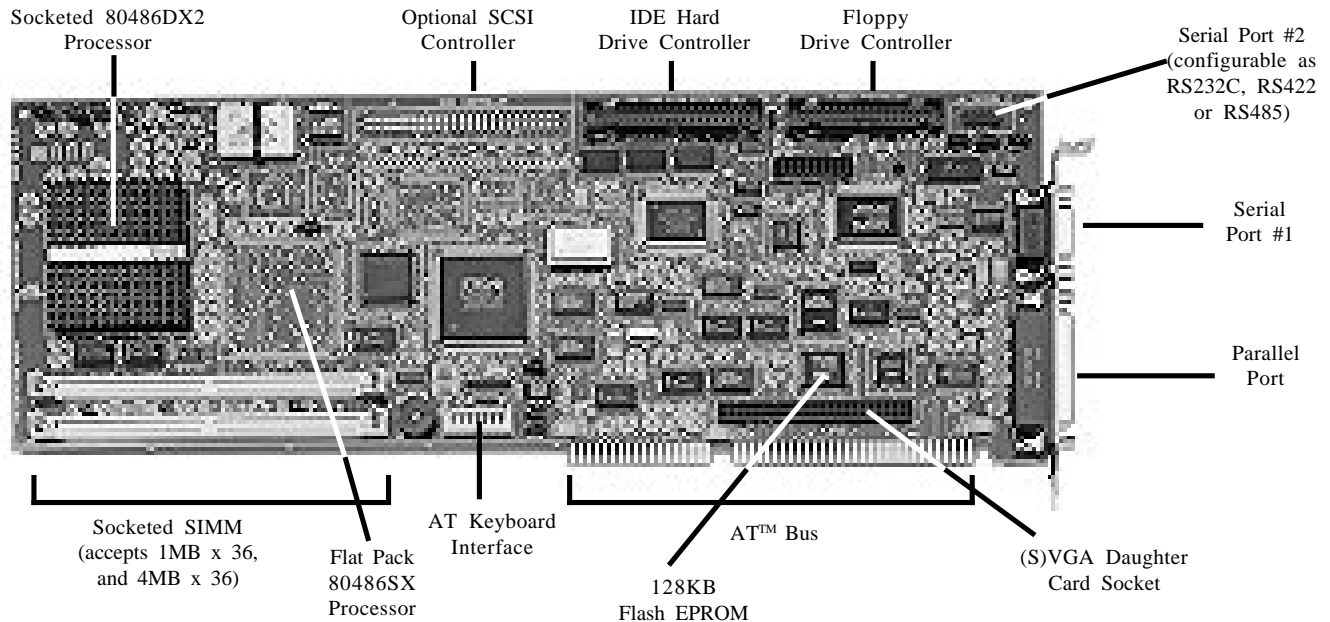




MODEL L486, LS486 SINGLE-BOARD COMPUTERS FOR ISA PASSIVE BACKPLANE SYSTEMS

DOC# 1875



FULL SIZE 80486 EMBEDDED SBC

Texas Micro's Models L486 and LS486 are single-board IBM AT® compatible computers designed and built for reliable, low cost operation in industrial, medical and embedded control applications. Highly integrated, the single-slot design of the L(S)486, either 66MHz 486DX2™ or 33MHz 486SX™, features multifunction I/O control including flex/floppy diskette and IDE hard disk control, one RS-232 serial port, one RS-232/422/485 configurable serial port, a bi-directional parallel port, and up to 32MB of DRAM. It is socketed to support an optional field upgradeable extended VGA (SVGA) video graphics daughter card. The LS486 includes an integrated 8-bit "fast" SCSI controller as well as IDE.

To enable future performance upgrades, the L(S) 486/33 provides a PGA socket supporting available Intel™ 486DX33 or DX2 CPUs, standard or "OverDrive."

With 1Mb of Flash memory, speaker and keyboard ports, and 8KB internal cache, the Models L486/LS486 make excellent economic sense in CPU price/performance/function as an embedded CPU in a wide variety of card cage or full chassis applications.

KEY FEATURES

- 66MHz 486DX2 processor or 33MHz 486SX processor
- Up to 32MB of on-board DRAM
- Internal 8KB cache
- Asynchronous bus clock of 8, 10, 12MHz
- 128KB of Flash memory for BIOS and user application field upgrades
- Auxiliary boot ROM for instances of Flash programming error or failure
- Hardware programmable (via jumpers) Watchdog Timer; three time-out periods: 150 ms, 600 ms, or 1.2 sec
- Texas Micro extended Phoenix™ BIOS with SETUP program stored in BIOS ROM
- IDE and SCSI (Adaptec 6360) hard drive interfaces (BIOS support for large capacity IDE)
- 3.5" and 5.25" floppy disk controller (360K, 720K, 1.2MB and 1.44MB)
- One RS-232 serial port and one RS-232/422/485 configurable serial port
- One software configurable parallel port (uni-directional and bi-directional)
- Optional extended VGA video controller with support for 800 x 600 resolution and 16 of 256 colors; 256KB non-upgradeable video memory
- Video is register and BIOS-level compatible with the IBM VGA™ adapter, and maintains downward register-level compatibility with existing EGA/CGA/MDA graphics standards
- Meets FCC Class A and CISPR 22 Class B specifications
- Two year limited warranty

Texas Microsystems, an ISO 9001 certified manufacturer, has been designing and manufacturing industrial computers and components since 1975. A founding member of PICMG, they developed the industry's first PC compatible computers using passive backplanes. The company offers a full line of rugged rackmount, benchtop, and mobile computer systems, CPU cards and add-on peripherals; and SPARC telecommunications/internetworking servers. Texas Microsystems' products are manufactured in the USA specifically for industrial automation, computer telephony integration, and other mission critical, high reliability applications.

MODEL L(S)486 CPU FAMILY OF SINGLE-BOARD AT COMPATIBLE COMPUTERS

SPECIFICATIONS

- **CPU:** 66MHz 80486DX2 socketed
33MHz 80486SX flat pack
- **Co-processor:** Not supported
- **Upgrade PGA socket:** Supports 33MHz 80486DX
and 33/66MHz 80486DX2 processors
- **Form Factor:** 13.25" (33.66 cm) x 4.75" (12.45 cm)
- **Memory Architecture:**
From 4MB to 32MB on board
2 banks of 1 SIMM socket each using any mix of 1M
or 4M x 36-bit SIMM DRAM
Near zero wait states using 70ns SIMMs @ 33MHz
Fast page mode DRAM
Supports LIM EMS 4.0 memory drivers
- **Bus Interface:** AT bus (98 pin) fully buffered
20 bus slot drive
- **Addressing:** Real and protected mode supported
Real address mode - 20-bit
Protected address mode - 16-bit on bus
access
- **Data Path:** 32-bit internal; 16-bit on bus access
- **Interrupts:** 15 level available
- **DMA Channels:** Four 8-bit, three 16-bit
- **Cache:** 8KB internal
- **Flash Memory:** 1Mb (128KB)
- **Power Requirements:**

Input power	16.5W
+5V	1.6 - 2.8A
+12V	0.1A
-12V	0.1A
- **BIOS Features:** Built-in extended set-up
Programmable bus and I/O speeds
Programmable CPU and memory wait states
AT compatible Phoenix™ BIOS with
extensions for diskless, keyboardless and
videoless operation
System and video BIOS shadowing
- **Clock/Calendar:** Real-time clock backed by an on-board
lithium battery
- **External Connection:**

IDE and flex/floppy	(shrouded headers)
SCSI	(shrouded header)
Serial port 1	(DB9 on slot bracket)
Configurable Serial port 2	(header)
Bi-directional parallel port	(DB25 on slot bracket)
AT keyboard	(locking header)
Speaker	(locking header)
Reset	(locking header)
Optional keyboard	(header)
- **Optional VGA daughter card with support for 800 x 600
resolution (selected drivers available).**
- **Operating systems compatibility:**
LS486 & L486: PC and MS-DOS™, OS/2™, Windows™
and Windows NT™, SCO XENIX™,
UNIX™, QNX™, PICK™; Novell™
Netware and other NOS environments
L486 Only: iRMX™ for PCs, iRMX™ for Windows

ENVIRONMENTAL

OPERATING

NON-OPERATING

Temperature	0° to 60°C (32° to 140°F)	-40° to 70°C (-40° to 158°F)
Humidity	0% to 95%, non-condensing	0% to 95%, non-condensing

ORDERING GUIDE

66MHz 486DX2 Single-board computer with 8KB cache
 66MHz 486DX2 Single-board computer with 8KB cache and SCSI controller
 33MHz 486SX Single-board computer with 8KB cache
 33MHz 486SX Single-board computer with 8KB cache and SCSI controller
 1MBx36x70ns DRAM SIMM
 4MBx36x70ns DRAM SIMM
 VGA daughter card for L486/33 & LS486/33 CPUs
 12-inch serial cable for configurable port for CPU
 6-inch video cable for video card (15 pin in D sub 9 pkg. on slot bracket)
 12-inch video cable for video card (15 pin in D sub 9 pkg. on slot bracket)
 Dual, 12-inch combo serial video cable (DB 9 and 15 pin in D sub 9 pkg. on slot bracket)

MODEL NUMBER

L486DX2/66
 LS486DX2/66
 L486/33
 LS486/33
 TMM-10036/70
 TMM-40036/70
 L386VGA
 SCF1
 VCF1
 VCF2
 SVCF1

