# **PENTIUM®** Single Board Computer



# PICMG PCI/ISA BUS



# LBC5026-

## **SPECIFICATIONS:**

PROCESSOR	:	Up to 233MHz PENTIUM <sup>®</sup> with MMX
MEMORY	:	Up to 512MB using 1M, 2M, 4M, 8M, 16M, or 32M x 72 -60ns DIMMs (+5v buffered)
ORGANIZATION	[:	Two 168 pin DIMMs
CACHE	:	16KB (32 w/ MMX) Internal Writeback Cache and 256KB/512KB pipelined Burst Writeback Secondary Cache
PCI BUS SPEED	:	25/30/33 MHz
BIOS	:	DTI Enhanced PHOENIX, Plug-n-Play compliant
PCI SUPER VGA	:	2MB EDO Video memory Resolution up to 800x600x 16M and 1600x1200x256
PCI IDE	:	EIDE support, PIO modes 0 to 4
PCI SCSI	:	40 MB/s Ultra SCSI 8-bit and 16-bit interfaces
PCI ETHERNET	:	10/100 BASE-T aůto-negotiating
PHYSICAL	:	4.8 x 13.3 Inches
POWER	:	166MHz Single
		4.00A @ +5 0A @ -5 0A @ +12 0A @ -12

# **FEATURES:**

### MEMORY

The LBC5026 supports up to 512MB of system memory. DIMMs must be +5v buffered and rated at 60ns to support fastest DRAM timing.

#### CACHE

In addition to the 16KB (32K with MMX) of internal PENTIUM cache, the LBC5026 is available with 256KB or 512KB of pipelined burst writeback secondary cache. This architecture allows, reads, and writes from the PENTIUM with 3-1-1-1 burst timing for enhanced performance.

#### PCI BUS

The LBC5026 supports PCI burst transfer speeds up to 132 megabytes per second. Support is provided for up to four PCI slots, all being capable of operating as a PCI master. The PCI system bus operates at 25/30/33MHz, depending on CPU speed.

#### SYSTEM MONITOR

The LBC5026 system monitor includes hardware for monitoring CPU as well as overall system temperatures. Rotational speed of one or more system fans may also be monitored if fans supporting this feature are used. The LBC5026 system monitor may also be set up to act as a watchdog timer in case of a software failure.





### 601-856-4121 www.dtims.com



#### Up to 233MHz including MMX PENTIUM<sup>®</sup> Processor

16KB (32 w/ MMX) Integrated PENTIUM Cache

256KB or 512KB Pipelined Burst Writeback Secondary Cache COASt Module

Up to 512MB of Standard or EDO DRAM

PCI Ultra-SCSI (SCSI3)

**PCI Enhanced IDE Controller** 

Floppy, Parallel, and Serial Ports

Supports Four PCI Slots

132MB/sec PCI Bus Transfer Rates

25/30/33 MHz PCI Bus Speed

Onboard Battery Backup for Real Time Clock and CMOS RAM

Keyboard Port for PS/2,/AT, and Auto-Switching Keyboards

DTI Enhanced Phoenix BIOS

**DTI System Monitor** 

PCI 10/100 Base-T Ethernet

**PCI Super VGA** 

**USB Interface** 

Made in the U.S.A. 3/98 Rev. 1.0







DTI's LBC5026 is a single board Pentium<sup>®</sup> computer which offers superior performance along with a high level of integration in a full-size /AT PICMG PCI/ISA form factor. The LBC5026 is based on Intel's 430HX chipset and supports Pentium processors running at 100, 120, 133, 150, 166, and, 200MHz, including 166, 200, and 233 MMX.

In addition to the Pentium's internal 16KB cache, a secondary cache of 256KB or 512KB is available. This secondary cache is implemented as a pipelined burst write-back COASt compliant module.

The LBC5026 supports from 8MB to 512MB of onboard memory. Both EDO and standard Fast Page Mode (FPM) DRAM DIMMs are supported. DIMM depths supported are 1MB, 2MB, 4MB, 8MB, 16MB, and 32MB in each of the 2-168 pin sockets. DIMMs must be rated at 60ns or faster to take advantage of the fastest DRAM timing options. Non-parity (x64) and parity (x72) DIMMs are both supported. Single-bit error correction (ECC) is available with standard parity DIMMs. DIMMs must be +5v buffered.

The LBC5026's 32-bit passive PCI 2.1 interface provides burst transfer speeds up to 132 MB/s, and a sustained rate of over 100

MB/s. It supports four PCI devices and operates at 25, 30, or 33 MHz.

The PCI based IDE controller gives excellent performance with today's high speed IDE drives. PIO modes through mode 4 are supported. Other features include 32-bit access, logical block addressing, and bus mastering.

The super VGA interface on the LBC5026 gives the user high resolution, high performance video. The LBC5026 provides 2MB of onboard EDO video memory, providing increased video performance and allowing resolutions up to 1600 x 1200 x 256 colors non-interlaced. True color mode (16MB colors) is supported at resolutions up to 800 x 600. All standard VGA modes are supported.

The PCI ethernet interface provides a fully auto-negotiating 10/100 BASE-T connection over standard UTP-5 data grade twisted pair cable up to 100 meters in length.

The onboard PCI based SCSI interface is provided by a standard 50-pin internal connection and a 68 pin wide connector. The interface is SCSI-3 compliant and provides optional 40 MB/s Ultra-SCSI support.

DTI's System Monitor is provided for the monitoring of system environmental conditions including system voltages, CPU and ambient temperatures, chassis fan status, and other userdefinable inputs.

Other features of the LBC5026 include a floppy port, a parallel port, two RS-232 serial ports, PS/2 mouse and keyboard ports, and a USB port. All of these interfaces are compatible with industry standards.

The LBC5026 has a DTI enhanced, Plug-n-Play Compatible, Phoenix Flash BIOS. A ROM based setup and configuration utility is included. Setup and Plug-n-Play configuration information is stored in a battery-backed RAM.

The LBC5026 is designed for operation in PICMG passive backplane systems. DTI currently offers several PICMG passive backplane solutions. Up to 20 ISA slots and 4 PCI slots are available. Designed to fit an EISA backplane footprint, DTI's PICMG backplanes can be installed in any of DTI's EISA-ready 14/16 slot chassis, including the CRM714, CRM716, and CRM816, as well as DTI's line of FTS fault tolerant chassis. The LBC5026 has special design considerations to assist the system designer in meeting FCC and UL requirements.

A comprehensive validation has been completed on this product. Call factory for details.

Diversified Technology offers a complete line of industrial rackmount enclosures, fault tolerant systems, industrial chassis and card cages, single board computers, peripheral interfaces, and more. Diversified Technology provides a one year limited warranty on all products sold.



601-856-4121 U.S.A. - (601) 856-4121 Fax (601) 856 - 2888 www.dtims.com

