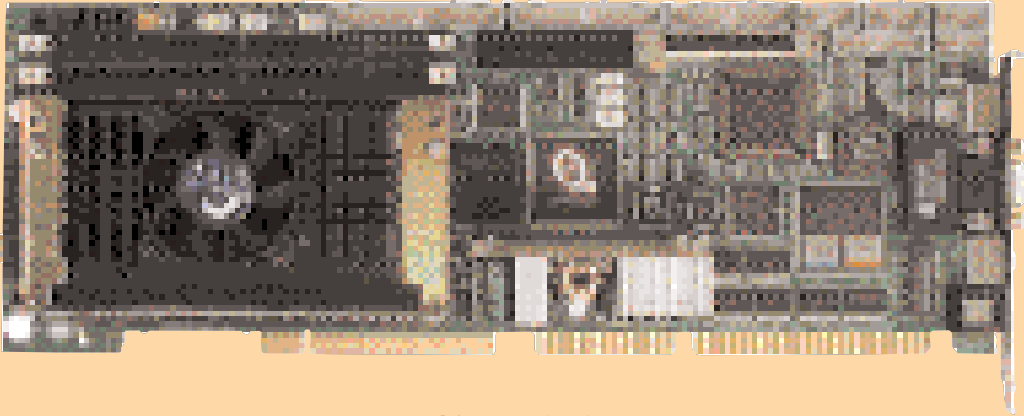


PENTIUM® III

Integrated Single Board Computer



LBC8716

SPECIFICATIONS:

PROCESSOR	: INTEL PENTIUM®III with 100 MHz front side bus. This allows the use of Slot 1 Pentium III processors with speeds up to 850MHz.
MEMORY	: Up to 1GB using 100MHz SDRAM
MEMORY ORGANIZATION	: 2 banks of 72 bit (168 pin) 3.3V DIMMS
PCI BUS SPEED	: 33MHz
BIOS	: DTI Enhanced PHOENIX Plug-n-Play Compliant
PCI IDE	: EIDE support, PIO modes 0 to 4, bootable CDROM
PCI SCSI	: Adaptec 7880 Ultra/Wide
PCI ETHERNET	: 10/100 BASE-T auto-negotiating
PCI VIDEO	: C&T 69000 with 2MB video memory and flat panel support
USB	: UHCI compatible host controller with one port
KEYBOARD	: /AT & PS/2 Compatible
MOUSE PORT	: PS/2 Compatible
REALTIME CLOCK	: Includes 114 bytes CMOS RAM with long life battery
PHYSICAL	: 4.2 x 13.3 inches. Parallel mounting method of Pentium II minimizes intrusion into PCI slot area. The fan on the heat sink extends 2.3" from the PCB centerline.
HUMIDITY	: 0%-95% Non-Condensing
POWER	: TBD

FEATURES:

MEMORY

The LBC8716 supports up to 1GB of system memory using two standard 168-pin 3.3V DIMMs. 100MHz SDRAM is supported.

PCI BUS

The LBC8716 provides direct support for up to 4 PCI slots. Each of these slots provide support for PCI mastering devices. The PCI system bus operates at 33MHz and supports PCI Burst transfer speeds up to 132MB/s.

ISA BUS

The LBC8716 also provides an interface to the ISA Bus with DTI's enhanced buffering to reduce loading issues that can occur with high slot count backplanes.

SYSTEM MONITOR

The LBC8716 includes DTI's standard system monitor which provides environmental monitoring of all system temperatures and voltages (CPU, System, Ambient, Remote). The System Monitor also features fan/switch monitoring through eight inputs, a built-in two stage watchdog timer, alarming mechanism for failure reporting, a dedicated serial port for remote communication through a modem or CPU-CPU connection, and a general scratch pad area.

PCI Video

The LBC8716 uses the C&T 69000 to provide enhanced 3D graphics performance and flat panel support. 2MB of synchronous graphics memory is built in to the 69000.

SCSI

The LBC8716 provides a high performance Ultra-Wide SCSI interface allowing data transfers to reach 40 MB/s using the Adaptec 7880 controller.

Ethernet

The LBC8716 supports a fully auto-negotiating 10/100 Base-T connection, and full duplex operation which allows data rates to reach 20Mbps and 200Mbps. This interface is based on the Intel 82558 Network Controller.

PICMG PCI/ISA BUS



- Intel Pentium®III Processor up to 850MHz
- 100 MHz Bus Speeds
- Up to 1GB of SDRAM
- PCI 10/100 Base-T Ethernet
- PCI Ultra-Wide SCSI
- PCI Enhanced IDE Controller
- PCI Video
- Flat Panel support
- Keyboard Port for PS/2, /AT keyboards
- Mouse port -PS/2 compatible
- Floppy, Parallel, And Serial Standard /AT interfaces
- Universal Serial Bus (USB)
- Onboard Battery backup for Real Time Clock and CMOS RAM
- Supports four PCI Slots
- 33MHz PCI Bus Speed
- DTI Enhanced Phoenix BIOS
- Fault Detection/Alarm Notification Enhanced System Monitor



www.dtims.com
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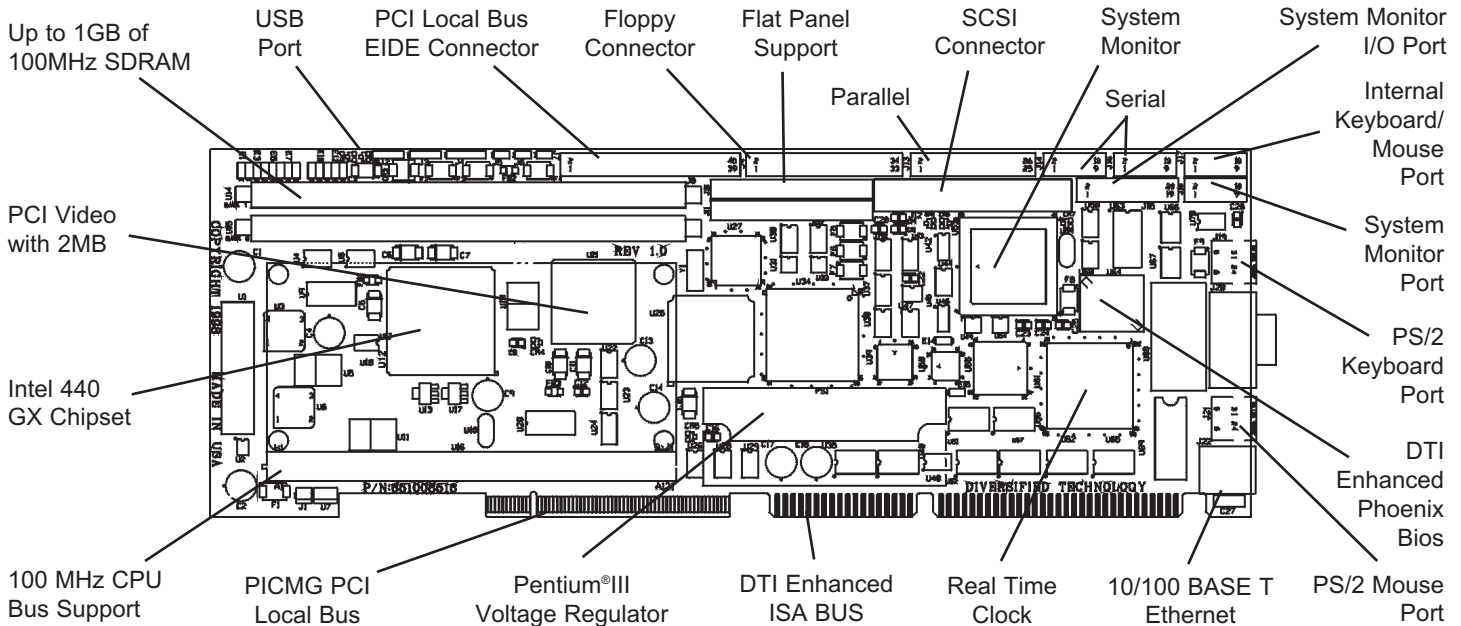


Made in the U.S.A.
3/99 Rev. 1.0

LBC8716

Product Specification

PENTIUM® III PCI/ISA CPU



The LBC8716 is a Pentium III single board computer which is offered in a full-size /AT PCI PICMG card form factor. The LBC8716 is based on Intel's 100 MHz front side bus Pentium III processor with the 440GX chipset. Two standard 168-pin DIMM sockets are provided for support of up to 1GB of memory. In addition to the 32KB primary cache, a secondary (L2) cache device is integrated in the Pentium II processor module.

The Pentium III processor is Intel's newest most advanced 80X86 compatible processor. Like the Pentium PRO processor, the PIII improves the performance from the previous generation of Intel processors through the innovative use of its unique "Dynamic Execution" micro-architecture. This micro-architecture is a unique combination of multiple branch prediction, data flow analysis, and speculative execution. The Pentium III provides enhanced streaming single instruction, multiple data instructions for greatly improved performance in 3D video or audio applications. The Pentium III includes advanced data integrity, reliability, and serviceability features for critical applications. All of these improvements, however, do not affect its compatibility with other Intel 80X86 family CPUs.

The LBC8716 provides enhanced 3D graphics performance by utilizing a C&T 69000 video controller. The video controller provides desktop graphics with full featured high end performance up to extended VGA mode. It also provides support for various flat panels such as VGA, XGA, SVGA, and SXGA active matrix TFT panel displays. Passive matrix flat panels like DSTN and SSTN are also supported. Some of its more notable features are its advanced frame rate control (FRC) for STN panels, auto-expansion and centering for text and graphics modes

on high resolution panels, and advanced power sequencing techniques for the panel power and control/data signals. The LBC8716 can support simultaneous display on a CRT and a flat panel.

The LBC8716 implements a 32-bit PCI interface which provides burst transfer speeds up to 133 megabytes per second. It is designed to support four PCI devices, of which all four may be PCI masters and operate at 33MHz. The LBC8716 also provides outstanding ISA support for non PCI adapter cards.

Integrated onboard is Intel's 82558 Ethernet controller. This PCI ethernet interface provides a fully auto-negotiating 10/100 Base-T connection over a standard UTP-5 data grade twisted-pair up to 100 meters in length. Support is provided for full duplex operation, allowing effective data rates to reach 20Mbps and 200Mbps, respectively. Support for Remote-Boot operation for diskless workstations can also be provided. Drivers are available for all of today's popular operating systems.

The LBC8716 provides a high performance Ultra-Wide SCSI interface. Both 8-bit (narrow) and 16-bit (wide) devices are supported. Double-speed Ultra operation is supported, allowing data rates to reach 40 MB/s. The SCSI interface is based on Adaptec's industry standard AIC 7880 controller.

A PCI based enhanced IDE interface on the LBC8716 provides excellent performance with all modern high speed IDE drives. It supports 32-bit access, LBA mode, and bootable CDROM. This interface supports enhanced speeds up to PIO mode 4. One or two devices can be supported through this interface. Also, fast DMA modes can be utilized with device drivers in advanced operating systems such as Windows 95 and Windows NT.

The LBC8716 also features DTI's standard System Monitor for monitoring of system critical variables like voltage, temperature, and fan operation. The system monitor provides eight inputs that can be configured as switch closure inputs or strobed inputs useful for monitoring the rotational speed of fans with strobe outputs. A two-stage programmable watchdog timer is built into the system monitor providing a timeout in the case of a software failure. A dedicated serial port is also included allowing the System Monitor to transfer data and diagnostic information through a modem or a CPU-CPU connection.

Standard ISA bus peripherals like PS/2 Keyboard/Mouse Controller, Real Time Clock, floppy controller, RS-232 serial ports, ECP/EPP parallel port, and field upgradeable flash BIOS are also integrated on to the LBC8716.

DTI's enhanced Phoenix BIOS, which includes ROM based SETUP and CONFIGURATION, is year 2000 (Y2K) compliant.

The LBC8716 is designed for operation in passive backplane systems. DTI offers a variety of PCI passive backplane versions, such as the PBP14, PBP16, and the PBP20. The PBP14 provides eight ISA slots, four PCI slots, and a single PCI/CPU slot. The PBP16 provides ten ISA slots, four PCI slots, and a single PCI/CPU slot. The PBP20 provides fourteen ISA slots, four PCI slots, and a single PCI/CPU slot. 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.