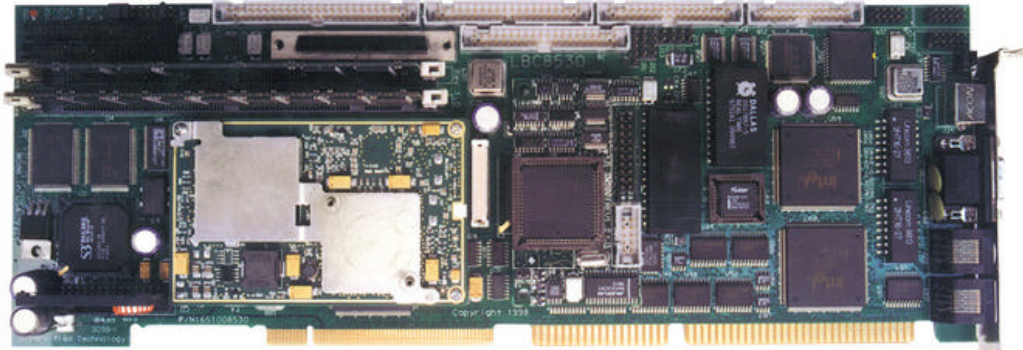


PENTIUM® II

Integrated Single Board Computer



LBC8530

SPECIFICATIONS:

PROCESSOR	: Up to 400MHz Mobile Pentium II MMC-2
MEMORY ORGANIZATION	: 2 banks(168 pin) DIMMS
PCI BUS SPEED	: 33MHz
BIOS	: DTI Enhanced PHOENIX BIOS
PCI IDE	: 4 Drive EIDE, PIO modes 0 to 4, bootable CDROM,
PCI SCSI	: Ultra Wide interface, up to 40MB/s
PCI ETHERNET	: 2 Independent 10/100 BASE-T auto-negotiating ports
PROM DISK	: ISA Solid State Hard Drive up to 72MB
USB	: UHCI compatible host controller w/ 1 port
REALTIME CLOCK	: Includes 114 bytes CMOS RAM with long life battery
PHYSICAL	: 4.2x13.3
HUMIDITY	: 0%-95% NON-CONDENSING
POWER	: TBD

FEATURES:

MEMORY

The LBC8530 supports up to 512MB of system memory using two standard 168-pin DIMMs. Both EDO and SDRAM memories are supported. BIOS auto-sized and configured for optimal performance.

PCI BUS

Integrated onboard the LBC8530 is a PCI-PCI bridge. This allows the LBC8530 to support mastering on all backplane slots without having to disable on-board peripherals.

SYSTEM MONITOR

The LBC8530 includes DTI's standard System Monitor. This System Monitor watches over all CPU temperatures and chassis fan speeds. User software can also be controlled through the use of the System Monitor's watchdog timer. The system monitor also features external fan/switch monitoring, alarm reporting, two stage watchdog timer, and a dedicated serial port for remote communication through a modem or CPU-CPU connection

AGP Video

For maximum video performance, the LBC8530 includes an AGP video controller integrated on-board. S3's Virge MX is provided with 2MB of SGRAM and Flat Panel connectors that allow the LBC8530 to be used with today's latest flat panel displays.

SCSI

The LBC8530 provides a high performance Ultra-Wide SCSI interface allowing data transfers to reach 40MB/s using the Adaptec 7880 controller.

DUAL Ethernet

For highly fault tolerant applications, the LBC8530 is integrated with two internally separate ethernet ports. Each port uses an Intel 82558 ethernet controller which supports auto-negotiating 10/100 Base-T connections.

PICMG PCI/ISA BUS



- Up to 400MHz Mobile Pentium II MMC-2
- 512MB EDO DRAM or 66MHz SDRAM
- AGP Video with 2MB SGRAM
- Flat Panel Connection
- DUAL PCI 10/100 Base-T Ethernet Ports
- PCI Ultra Wide SCSI
- PCI Enhanced IDE Controller
- Floppy, Parallel, And Serial Ports
- USB port
- Full Mastering Support at Backplane
- 132 MB/SEC PCI bus Transfer rates
- 33MHz PCI Bus Speed
- Real Time Clock
- Plug-n-Play compatible
- Keyboard/Mouse Combined Port
- Flash BIOS Update Support
- DTI Enhanced Phoenix BIOS
- DTI System Monitor



601-856-4121
www.dtims.com



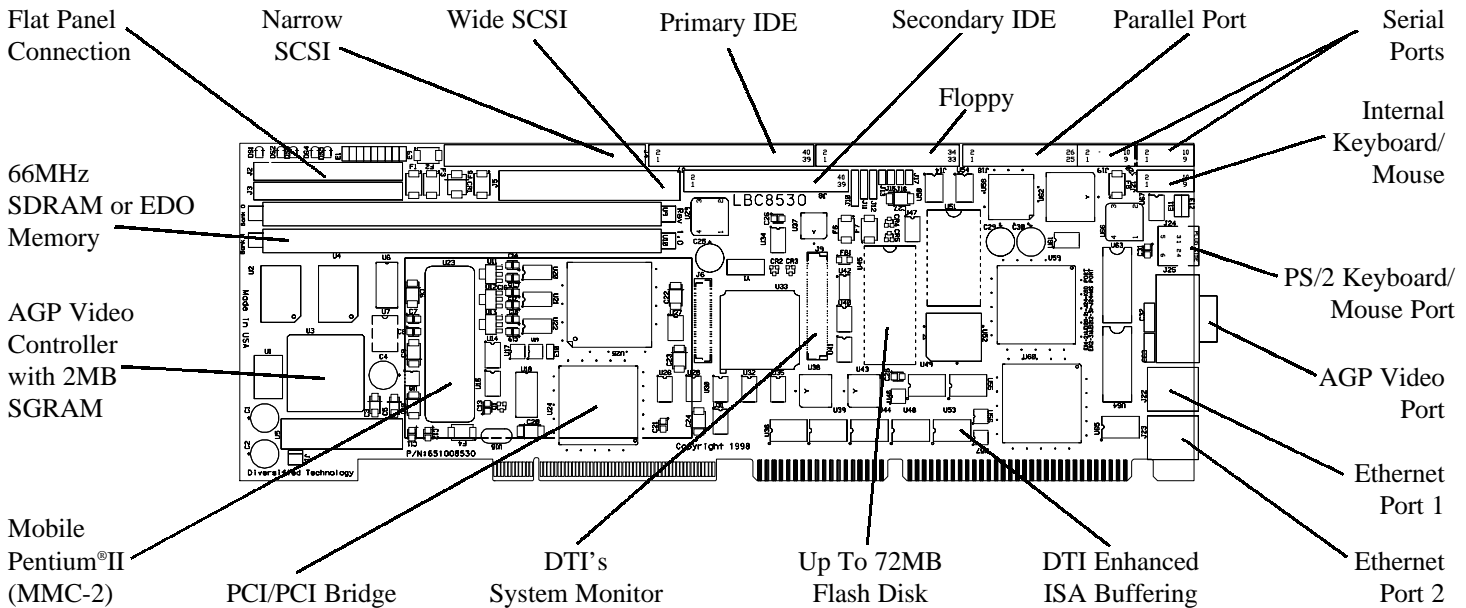
Made in the U.S.A.
8/98 Rev. 1.0

LBC8530

Product Specification

PENTIUM® II

PCI/ISA CPU



The LBC8530 is a Mobile Pentium II MMC-2 single board computer which is offered in a full-size /AT PCI PICMG card form factor. The LBC8530 uses Intels MMC-2 Pentium Mobile Module which integrates a Pentium II processor and an Intel 440BX chipset into one package. Intended for laptops, the mobile module package allows industrial users to get the superior Pentium/440BX performance without the physical cost associated with the desktop SLOT 1 Pentium II package. Currently the maximum Pentium II speed is 400MHz, consult DTI sales for higher options. Two standard 168-pin DIMM sockets are provided for support of up to 512MB of EDO DRAM memory or 66MHz SDRAM. In addition to the primary cache, a secondary (L2) cache device is integrated in the Pentium II processor module. The Pentium II processor is Intel's newest most advanced 80X86 compatible processor. Like the Pentium PRO processor, the PII 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 II includes advanced data integrity, reliability, and serviceability features for critical applications. All these improvements, however, does not affect its compatibility with other Intel 80X86 family CPUs. In the case of the secondary (L2) cache, the Pentium II is different from the Pentium PRO processor where the TagRAM and BSRAM are individual separate components in the processor module.

The LBC8530 provides enhanced 3D graphics performance by utilizing S3's ViRGE/MX with 2MB of SGRAM which provides entry level support for the Accelerated Graphics Port (AGP). The AGP interface provides a high bandwidth, low latency connection to system resources, which improves the performance of 2D and 3D graphics applications. The ViRGE/MX uses a 64-bit 2D/3D graphic engine and is a descendant of the S3 ViRGE family of desktop graphics controllers which provide full-featured high end performance. The LBC8530 provides base line 66MHz AGP support. It also provides support for various flat pan-

els 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 LBC8530 video control provides flat and Gouraud shading for 3D applications, high quality 3D texture mapping, MIP-mapping, depth cueing, fogging, and alpha blending. The LBC8530 contains the industry leading DuoView™ which can simultaneously display two independent images on a CRT or flat panel.

The LBC8530 implements a 32-bit PCI interface which provides burst transfer speeds up to 133 megabytes per second. A PCI-PCI bridge is integrated on board the LBC8530 which allows all slots in the backplane to support mastering. It is designed to support four PCI devices which operate at 33MHz. The LBC8530 also provides outstanding ISA support for non-PCI adapter cards.

Integrated onboard are two Intel's 82558 Ethernet controller. This allows the LBC8530 to be used on two separate network connections for fault tolerant applications. Both PCI ethernet interfaces provide fully auto-negotiating 10/100 Base-T connection over a standard UTP-5 data grade twisted-pair for up to 100 meters in length. Support is provided for full duplex operation, allowing effective data rates to reach 20 Mbps and 200 Mbps, respectively. Support for Remote-Boot operation for diskless workstations can also be provided. Drivers are available for many of today's popular operating systems.

The LBC8530 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 LBC8530 provides excellent performance with all modern high speed IDE drives. It supports 32-bit access, LBA mode support,

and bootable CDROM. This interface supports enhanced speeds up to PIO mode 4. One to four 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.

An onboard flash disk is also provided. Once enabled this device acts like a hard drive and uses standard OS partitioning, formatting and coping utilities, without cables and external devices. This allows an LBC8530 to boot to the OS without any floppy or hard drive connected to the system. The embedded flash disk comes in a variety of sizes, currently the maximum available is 72MB. Contact DTI sales to discuss the possibility of size changes to the flash disk.

The LBC8530 also features DTI's standard System Monitor for monitoring of system critical variables like voltage, temperature, fan operation and a watchdog timer. 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 LBC8530. DTI's enhanced Phoenix BIOS, which includes ROM based SETUP and CONFIGURATION, is year 2000 (Y2K) compliant.

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.

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