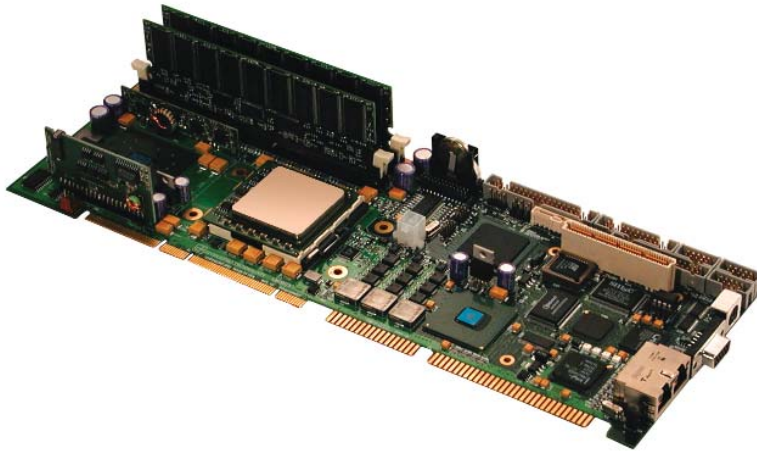


PCI/ISA Single Board Computer

LBC-9017



- Intel® LV Xeon™ / Xeon™ Processor to 3.06GHz with 512KB L2 Cache
- Intel® E7501 Chipset with 400/533MHz FSB
- Up to 4GB DDR200/266 SDRAM
- Video with 8MB for CRT and LVDS Flat Panel
- Dual Gigabit Ethernet
- Ultra ATA/100 EIDE and FDD
- Optional Ultra320 SCSI
- USB, Serial, and Parallel Ports
- ISA/PCI/PCI-X Bus Support

Diversified Technology's LBC-9017 Intel Xeon processor-based PICMG® compliant passive backplane SBC has 4GB DDR memory, dual Gigabit Ethernet ports, optional Ultra320 SCSI and supports ISA/PCI/PCI-X busses.

The LBC-9017 features an Intel Xeon or Low Voltage Xeon processor with high performance NetBurst™ Micro-Architecture and Hyper-Threading technology, 512KB 8-way set associative L2 cache running at full processor core speed, Intel E7501 chipset with 400/533MHz high throughput front side (system) bus, and up to 4GB Double Data Rate (DDR200/266) DIMMs on two sockets. Onboard are a high performance graphics controller with concurrent, independent CRT and LVDS display, dual 10/100/1000Base-TX Ethernet auto-negotiating controllers, PCI Ultra ATA/100 IDE interface, as well as Universal Serial Bus (USB 1.1) ports, serial/parallel ports, and floppy drive interface. An Ultra320 SCSI LVD/SE daughter card on a Hub Link 2.0 1GB/s bus is optional. A 12V power connector is provided; 3.3V from the backplane is not required.

The LBC-9017 supports onboard PCI and PCI-X (used by GbE) busses as well as an off-board 32-bit/33MHz or 64-bit/66MHz PCI buss. A PCI to ISA bridge supports ISA bus mastering with up to 20-slot drive capability.

The AMI BIOS, in field upgradeable Flash ROM, supports peripheral enable/disable, serial/parallel port re-mapping/disable, and is PnP compliant. Other features include a hardware monitor (voltages, temperature, and fan), three-stage programmable watchdog timer, diagnostic LEDs, and a 2 year limited warranty.

3GHz Xeon Hyper-Threading compute performance, server class chipset and large DDR226 memory size make Diversified Technology's LBC-9017 industrial PC the perfect choice for application developers addressing data intensive broadcast/media, wireline and wireless datacom/telecom, messaging/IVR/CTI, industrial control & automation, medical/imaging, and COTS defense/aerospace markets.



 **Diversified
Technology®**
An Ergon Co.

www.dtims.com

1.800.443.2667

Rev. 1.3
August 18, 2004

SPECIFICATIONS

CPU / Cache

- Intel Xeon processor at 2.4 to 3.06GHz with 512KB L2 8-way set associative cache
- Intel Low Voltage Xeon processor at 2.0GHz with 512KB L2 8-way set associative cache
- 12KB level one Execution Trace Cache and 8KB L1 data cache
- Intel E7501 chipset

Bus Interface

- 400/533MHz Front Side Bus
- 32-bit/33MHz or 64-bit/66MHz PCI and 64-bit/66 to 133MHz PCI-X Busses;
- 16-bit/8.33MHz ISA Bus
- High drive ISA buffers, up to 20 slots

Memory

- Two 184-pin latching DIMM sockets
- Up to 4GB using 64/128/256/512 x 72 with ECC DDR266 (2.5V)

Data Path

- 64-bit / 400/533MHz on CPU and memory bus
- 32-bit/33MHz on onboard PCI bus
- 64-bit/66,100,133MHz onboard PCI-X bus
- 32-bit/33MHz or 64-bit/66MHz off-board PCI bus
- 16-bit on off-board ISA bus
- 1GB/s Hub Link 2.0

Flash Memory

- 8Mb (1MB) Flash ROM for BIOS field upgrade

I/O

- USB Ports: two, 1.1 compliant (via 4-pin headers)
- PS/2 mouse and keyboard (10-pin shrouded IDC header and 6-pin on faceplate)
- Serial Ports: two RS-232 (16C550) with 16 byte FIFO as COM1-2 with BIOS selectable IRQs and addressing, (two male 10-pin shrouded headers)
- Parallel Port: one bi-directional with all IEEE 1284 protocols supported and BIOS selectable IRQs and addressing, (male 26-pin shrouded header)
- Floppy Disk: support for two drives (360 KB to 2.88 MB), (male 34-pin shrouded header)
- EIDE: PCI Ultra ATA/100, support for two drives (master/slave configuration); PIO Mode 4, Bus Master IDE or DMA mode transfers up to 100MB/s, (male 40-pin shrouded headers)
- Gigabit Ethernet: 10/100/1000Base-TX (Intel 82546EB), (shielded RJ-45 on face plate w/ link, speed and activity LEDs)
- Hub Link Expansion (80-pin socket): opt. Ultra320 SCSI LVD/SE card

Video

- PCI SVGA concurrent, independent CRT and LVDS flat panel controller with 8MB SDRAM memory (SM Lynx3DM+) (female DB-15 on face plate, 20-pin shrouded header)

Video (cont'd)

- Supports displays with resolution up to 800 x 600, 16.8M colors; 1024 x 768, 64K colors; or ECC 1280 x 1024, 256 colors, non-interlaced

Clock / Calendar

- Real-time clock with 256 byte battery backup CMOS RAM

Misc.

- Speaker (4-pin), reset (2-pin), HD activity LED (2-pin)
- Onboard Wake-on-LAN (S1)
- 12V CPU power (4-pin); CPU fan power (3-pin)
- Intruder alert (2-pin)

BIOS

- PCI 2.2 compliant field upgradeable AMI BIOS
- Boot from LAN (PXE 2.0)
- Supports memory hole at 15-16MB; PnP V1.0a compatible
- Setup console redirection to serial port (VT100 or ANSI mode) with CMOS setup access
- Onboard video, Ethernet enable/disable
- Diskless, keyboardless, and videoless operation extensions; system, video and third party option card ROM shadowing
- Advanced security features for floppy and HDD; S.M.A.R.T.; SMBIOS V2.3.1
- Processor thermal management, ACPI Rev 1.0b & 2.0 compliant
- Custom graphical boot, multi boot

Supervisory

- Three-stage programmable watchdog timer drives interrupt on 1st stage, NMI on 2nd stage, system reset on 3rd stage
- Hardware system monitor (voltages, CPU temperature, fan speed)

OS/Driver Compatibility

- Windows®98/ME/2000/XP/NT; Monta Vista Hard Hat and Red Hat Linux®

Mechanical

- 13.30 in. x 4.80 in. x 2.42 in. at CPU / fan (338 mm x 122 mm x 61 mm)
- Conforms to IEEE P996 PC/AT bus, PCI Rev. 2.2, PICMG 1.0 Rev. 2.0, & PCI-SIG PCI-X Addendum to the PCI Local Bus Specification, Rev. 1.0b standards

Power Requirements

Max Power Dissipation	124W
ICC typ.*	+5V 8A
	+12V 7A
	-5V 0mA
	-12V 0mA

*Measured with 2.8GHz CPU, 4GB DDR & HDD

Environmental

Operating

- Min Temperature: 0°C / 32°F
- Max Temperature:
 - 3.06, 2.8, 2.4GHz : 40°C / 104°F
 - 2.0GHz : 50°C / 122°F

Environmental (cont'd)

- Humidity (RNC): 5 to 95% @ 40°C / 104°F
- Altitude: 3048m / 10,000ft @ 28°C / 82°F
- Vibration: 1G 5-500Hz

Storage and Transit (in approved packaging)

- Temperature: -40° to 70°C / -40° to 158°F
- Humidity (RNC): 0 to 95% @ 40°C / 104°F
- Altitude: 15,240m / 50,000ft
- Shock: 30" free fall
- Vibration: 0.5G 5-50Hz, 3G 50-500Hz

Reliability

- MTBF: >170,000 hours @ 20°C / 68°F (Telecordia)
- 2 year limited warranty
- USB and keyboard/mouse voltage protected by self-resetting fuses

Regulatory Compliance

- Safety: UL/cUL 60950-1:2003; EN/IEC 60950-1:2001
- EMC Class A: FCC 47 CFR part 15-B, CISPR22:1997/EN55022:1998, EN55024:1998

Ordering Information

LBC-9017/3060

PCI/ISA SBC with 3.06GHz/533MHz Xeon processor with 512KB L2 cache

LBC-9017/2800

PCI/ISA SBC with 2.8GHz/533MHz Xeon processor with 512KB L2 cache

LBC-9017/2400

PCI/ISA SBC with 2.4GHz/533MHz Xeon processor with 512KB L2 cache

LBC-9017/2000

PCI/ISA SBC with 2.0GHz/400MHz Low Voltage Xeon processor with 512KB L2 cache

Options

- DDR266 DIMMs
- SDC-320 SCSI daughter card
- Cables



All products are shipped FOB factory (MS). Specifications subject to change without notice. Trademarks are the property of their respective owners.

(C) Copyright 2004 by Diversified Technology, Inc. All rights reserved.