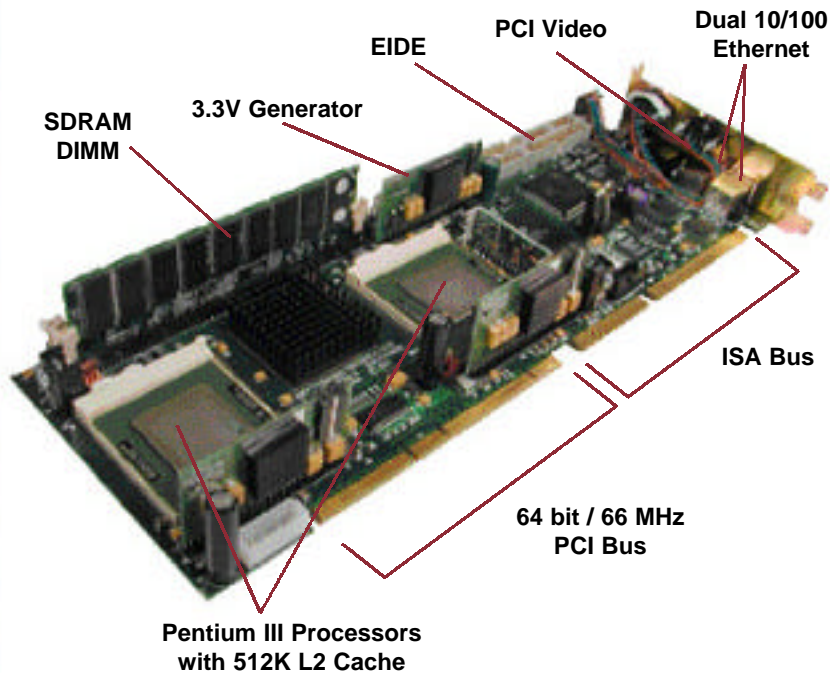


PCI/ISA Single Board Computer

LBC8927



- Single/Dual Intel Pentium®III Processor with 512 KB L2 Cache at 1.26 GHz
- ServerWorks ServerSet™III LE Chipset with 133MHz FSB
- Up to 2 GB SDRAM w/ ECC
- PCI Video with 2 MB SDRAM Memory
- Dual 10/100 Base-TX Ethernet
- Dual Channel Ultra DMA/33 IDE
- USB, Serial, and Parallel Ports

Diversified Technology's LBC8927 PICMG passive backplane compliant SBC with single/dual Pentium III with 512KB L2 cache processors and dual NICs addresses intense SMP computational network applications.

The extraordinary **LBC8927** industrial single board computer features one or two .13 micron Pentium III with 512KB L2 cache FC-PGA2 processors, Symmetric Multi-Processing 1.4 compliant, and up to 2GB PC133 SDRAM DIMMs, with full ECC support, on two sockets. Onboard are two 10 Base-T / 100 Base-TX Ethernet auto-negotiating controllers, dual channel PCI UDNA/33 IDE support, as well as Universal Serial Bus (USB) ports, serial/parallel ports, floppy interface and a PCI SVGA CRT controller with 2 MB of SDRAM memory.

The **LBC8927** uses the ServerWorks ServerSet III LE chipset providing a 133 MHz system bus, a 32-bit/33MHz onboard PCI Bus Interface and a 64-bit/33-66MHz off-board PCI Bus Interface. The EIDE and Ethernet controllers are on the onboard PCI Bus; the other PCI bus is routed to the backplane and supports up to two 64-bit / 66MHz or four 32/64-bit / 33MHz PCI I/O expansion slots. The OSB4 PCI-ISA bridge supports USB and legacy PC-AT I/O. An ISA buffering FPGA provides 20-slot drive capability.

The Phoenix BIOS, in field upgradeable Flash, supports software Ethernet enable/disable, video override, serial/parallel port re-mapping/disable, keyboard disable, console redirection, and PnP. Other features include a hardware monitor (board and system voltages, temperature, and fan speed), programmable three-stage watchdog timer, power fail circuit, and a 2 year limited warranty.

Dual 1.26 GHz processors with 512KB L2 full core speed cache. Dual Fast Ethernet. 64-bit / 33-66MHz PCI bus & 133 MHz FSB. Powerful. Diversified Technology's LBC8927 PCI/ISA industrial SBC is the ultimate choice for application developers addressing high performance Datacom/Data Casting, Telecom, CTI, Industrial Automation, Medical, and Military Intelligence Markets.



 **Diversified
Technology**
An Ergon Co.

www.dtims.com

1.800.443.2667

SPECIFICATIONS

CPU / Cache

- One or two Intel .13 micron Pentium III Processors with 512KB ECC L2 cache, 1.26 GHz +, FC-PGA2
- ServerWorks ServerSet III LE / OSB4

Bus Interface

- 133MHz Front Side Bus; 33/66 MHz PCI Busses; 8.33MHz ISA Bus
- Supports two 64-bit/66MHz or four 64-bit / 33MHz slots
- High drive ISA buffers, up to 20 slots

Memory

- Two banks of one 168-pin latching DIMM socket
- Up to 2GB using 64/128/256/512 x 72 PC133 Registered SDRAM

Data Path

- 64-bit / 133MHz on CPU and memory bus
- 64-bit / 66MHz on off-board PCI bus;
- 32-bit / 33MHz on onboard PCI bus
- 16-bit on ISA bus

Flash Memory

- 2 Mb (256 KB) sectored Flash for BIOS field upgrade
- 4 KB serial EEPROM for user configuration

I/O

- USB Ports: two (one 4-pin header, one Type A on face plate)
- 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 DMA/33, support for four drives (master/slave configuration); PIO Mode 4, Bus Master IDE or DMA mode transfers up to 16.6 MB/s, (chipset limited) (two male 40-pin shrouded headers)
- Ethernet: Dual PCI 10 Base-T / 100 Base-TX (Intel 82559), (two shielded RJ-45 on face plate w/ link and activity LEDs)

Video

- PCI SVGA CRT controller with 2 MB SDRAM memory (C&T 69000), (female DB-15 on face plate)
- Supports CRTs with resolution up to 800 x 600, 16.8M colors; 1024 x 768, 64K colors; or 1280 x 1024, 256 colors, non-interlaced

Clock / Calendar

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

Misc.

- PS/2 mouse and keyboard (two 6-pin mini-DIN on faceplate from 10-pin header)
- Speaker, reset, EIDE activity LED (four 2-pin jumpers)
- Strobed CPU fans (two 3 pin headers)
- Power (4-pin Molex)
- Hardware Monitor - CPU and chassis fans, GPIO, LEDs, SMBus; (20-pin header to chassis monitor)

BIOS

- PCI 2.1 compliant field upgradeable Phoenix BIOS, boot from LAN (PXE 2.0)
- Support for memory hole at 15-16 MB; PnP V1.0a compatible
- Setup console redirection to serial port (VT100 or ANSI mode) with CMOS setup access
- Software enable/disable onboard Ethernet
- Diskless, keyboardless, and videless operation extensions; system, video, and third party option card ROM shadowing
- Advanced security features for floppy and HDD; SymBIOS V2.3 and HDD S.M.A.R.T. support
- Advanced thermal management (overheat alarm and auto slow down)
- Multiport support, custom BIOS graphical 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, and board temperature, fan speed)
 - Power failure and two end-user defined open-drain general purpose I/Os.
- ### OS Compatibility
- Standard: PC and MS-DOS™; Windows®3.X; Windows 95®; Windows 98®; Windows®NT 4.0/5.0; 95 OSR2; QNX™; Red Hat Linux
 - Optional: UnixWare™; LynxOS; SCO Openserver™; Novell™Network; VxWorks; OS/2®Warp; Solaris

Mechanical

- 13.30 in. x 4.80 in. x 1.78 in. at CPU / fan (338 mm x 122 mm x 70 mm at CPU / fan)
- Double wide face plate
- Conforms to IEEE P996 PC/AT bus, PCI Rev. 2.1, & PICMG Rev. 2.0 standards

Power Requirements

| | | |
|-------------|------|-----|
| Input power | TBD | |
| ICC typ. * | +5V | TBD |
| | +12V | TBD |
| | -12V | TBD |

One or two VRM 8.5 modules for processor Vcore. Onboard 3.3V generator to minimize backplane power requirements.

* TBD

Environmental

OPERATING

- **Temperature:** 0° to 50°C / 32° to 122°F
- **Humidity (RNC):** 5 to 95% @ 40°C / 104°F
- **Altitude:** 4,572 m / 15,000 feet
- **Shock:** TBD
- **Vibration:** TBD

STORAGE AND TRANSIT

- **Temperature:** -40° to +70°C / -40° to 158°F
- **Humidity (RNC):** 0 to 95% @ 40°C / 104°F
- **Altitude:** 15,240 m / 50,000 feet
- **Shock:** TBD
- **Vibration:** TBD

Reliability

- MTBF: >TBD hours @ 20°C / 68°F (Telecordia)
- 1 year limited warranty
- SCSI termination, USB and mouse/keyboard voltage protected by self-resetting fuses
- **Designed to meet or exceed:**
 - **Safety:** UL/cUL to 1950; CSA C22.2 No 950-93; EN 60950; EN50081-1
 - **EMI/EMC:** FCC 47 CFR Part 15 Class A; EN55022 Class A; EN50082

Ordering Information

LBC8927-1260

PCI/ISA SBC with single 1.26GHz Pentium III 512KB processor

LBC8927-D1260

PCI/ISA SBC with dual 1.26GHz Pentium III 512KB processors

OPTIONS

PC133 SDRAM
Cables



All products are shipped FOB factory (MS). Specifications subject to change without notice. Trademarks are the property of their respective owners.
Copyright 2001 by Diversified Technology.
All rights reserved.

For more information or to order, please contact us.