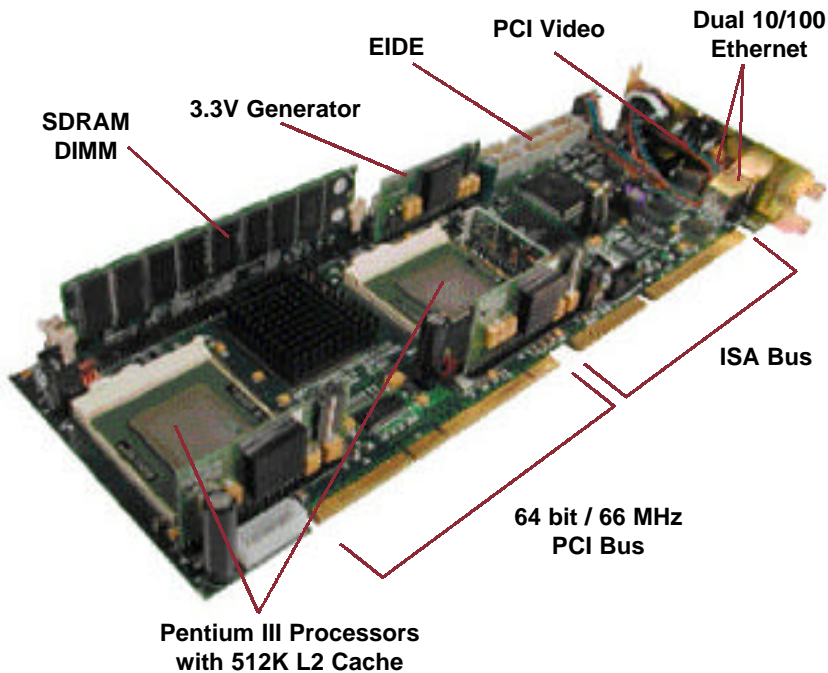


PCI/ISA Single Board Computer

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

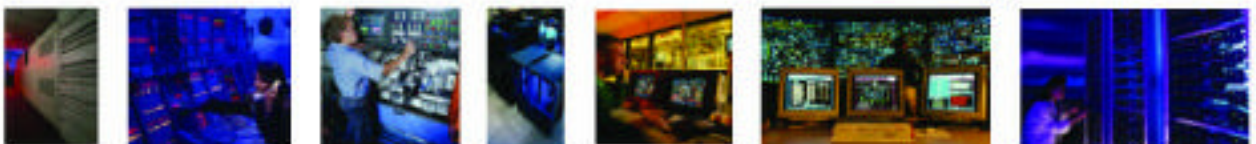
Diversified Technology's LBC8927 PICMG passive backplane compliant SBC with single/dual Pentium III with 512KB L2 cache processors and dual NICs addresses intense SMP computational network applications.

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.

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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™Netware; 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



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For more information or to order, please contact us.