ePCI-102



ePCI half-size SBC

- VIA Eden™ 733MHz
- VIA Eden™ 1GHz
- Fanless operation
- S3 Pro Savage 4 video controller up to 32MB
- Up to 512 MByte SDRAM on 1 DIMM memory module
- 10/100 BaseT-TX Ethernet
- PICMG 1.2 half-size

Product Overview

Based on the VIA CPU and chipset, the ePCI-102 supports the VIA Eden™ 733 MHz and the VIA Eden™ 1.0 GHz processors. The ePCI-102 can support up to 512 MByte of PC133 SDRAM and features a 10/100 BaseT-Tx ethernet interface. VGA performance is provided by the integrated Pro Savage4 with CRT and flat panel support. The ePCI-102 also supports a CompactFlash disk. Other I/Os include four USB ports, PS/2 mouse/keyboard, floppy, Ultra DMA/100, parallel and serial ports. Designed to support embedded applications such as point of sales terminals, small network security appliances, test & measurement and industrial automation applications, the ePCI-102 will offer a natural evolution for current **VIPer (ISA half-size board)** users and will allow them to scale up with higher performance ePCI products - such as the ePCI-200 or others now in development - as their requirements evolve.

Technical Information

Processor
- Supports EBGA368 VIA Eden™ 733 MHz and 1,0 GHz
- Total of 192 KByte Cache

Memory
- Up to 512 MByte on 1x 168-pin latching DIMM sockets of PC133 unbuffered SDR-SDRAM

BUS interface
- CPU FSB at 133 MHz
- Bus: 32-bit PCI at 33 MHz, universal keying

Data Path
- 64-bit on CPU; 32-bit on PCI-busses; 64-bit on memory

Flash Memory
- 512 KByte for BIOS field upgrade

I/O

I/O controller:	integrated in South Bridge
USB ports:	4x USB 1.1 compliant
Serial ports:	one configurable as RS-232/RS-422/485
Parallel port:	one bi-directional with all IEEE 1284 protocols supported with BIOS selectable IRQs and addressing
ATA/IDE:	Primary: Ultra DMA/100 Secondary: Ultra DMA/33 IDE or synchronous DMA mode transfer
Floppy Disk:	support for two drives
Ethernet:	one 10/100 BaseT integrated in South Bridge
Compact Flash:	supports CampactFlash disk module (on secondary channel)

Video

Pro Savage4 integrated in North Bridge
- 2D/3D graphics acceleration, up to 32 MB
- Supports CRT display with resolution up to 1600x1200,
- Support flat panel through JILI interface

Connectors

Faceplate: CRT (female DB-15), ethernet (1 RS-45 with link/activity indicators), keyboard/mouse (6-pin female minidin), 2x USB

Headers:

3-pin locking: CPU fans (1)	2-pin: Power On (1)
10-pin shrouded: serial ports (1)	10-pin: dual USB (1)
16-pin shrouded: multifunction (1)	20-pin: ATX power supply (1)
26-pin shrouded: parallel port (1)	34-pin shrouded: Floppy (1)
40-pin T069: CF module (1)	40-pin shrouded: ATA/IDE (2)
40-pin: JILI flat panel connector (1)	

each axis

BIOS
- Phoenix BIOS in boot block Flash with recovery code; save CMOS in Flash and boot from LAN capability;
- Setup console redirection to serial port (VT100 mode) with CMOS setup access
- Onboard peripherals can be enabled or disabled by software
- Diskless, keyboardless and videoless operation extensions. Keyboardless ans videoless operation need console redirection.
- System, video and LAN BIOS shadowing
- HDD S.M.A.R.T. support
- Advanced Configuration and Power Interface (ACPI 1.0)
- ATX support with SOFTOFF

Supervisory
- Single stage software programmable watchdog timer, time out from 0.4 sec to 10 min
- Hardware system monitor (voltages, monitoring fan), CPU temperature monitor; SMBus on ePCI connector

OS compatibility
- Windows 2000, Windows XP, Linux

Dimensions
- 122 x 185 x 28* mm at CPU/fan (4.8“ x 7.3“ x 1.1“* at CPU/fan)

* Worst case

Power Requirements
- Supply Voltage VCC = +3.3V ±5%, +5V ±5%, +12V ±5%
- ICC typ.* +5V: 1.9A
- ICC typ.* +3.3V: 2.8A
- ICC typ.* +12V: < 1 mA

* Measured with the Eden™ 1.0 GHz CPU and 512 MB SDRAM

Environmental

	Operating	Storage and Transit
Temperature:	0 to 60°C / 32 to 140°F**	-40 to +70°C / -10 to 158°F*
Humidity*:	5% to 90% @ 40°C /104°F non-condensing	5% to 95% @ 40°C /104°F non-condensing
Altitude*:	4,000m / 13,123 ft	15,000m / 49,212 ft
Shock:	5G each axis*	Belcore GR-63-CORE Section 4.3
Vibration*:	5-500Hz, 1G, each axis	5-50Hz, 2G; 50-500Hz, 3G each axis

* Designed to meet or exceed.
** 150 LFM is needed when use in fanless operation.

Reliability
- MTBF: > 290 000 hours at 30°C / 86°F (Telcordia SR-232, Issue 1);
- USB protected by active breaker
- Mouse/Keyboard voltage protected by self-resetting fuses
- 2- year limited warranty

Designed to meet or exceed:
- Safety: UL 60950; CSA C22.2 No 60950-00; EN 60950; IEC 60950
- EMI / EMC: FCC 47 CFR Part 15/CISPR22, Class B; EN55022/EN55024

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