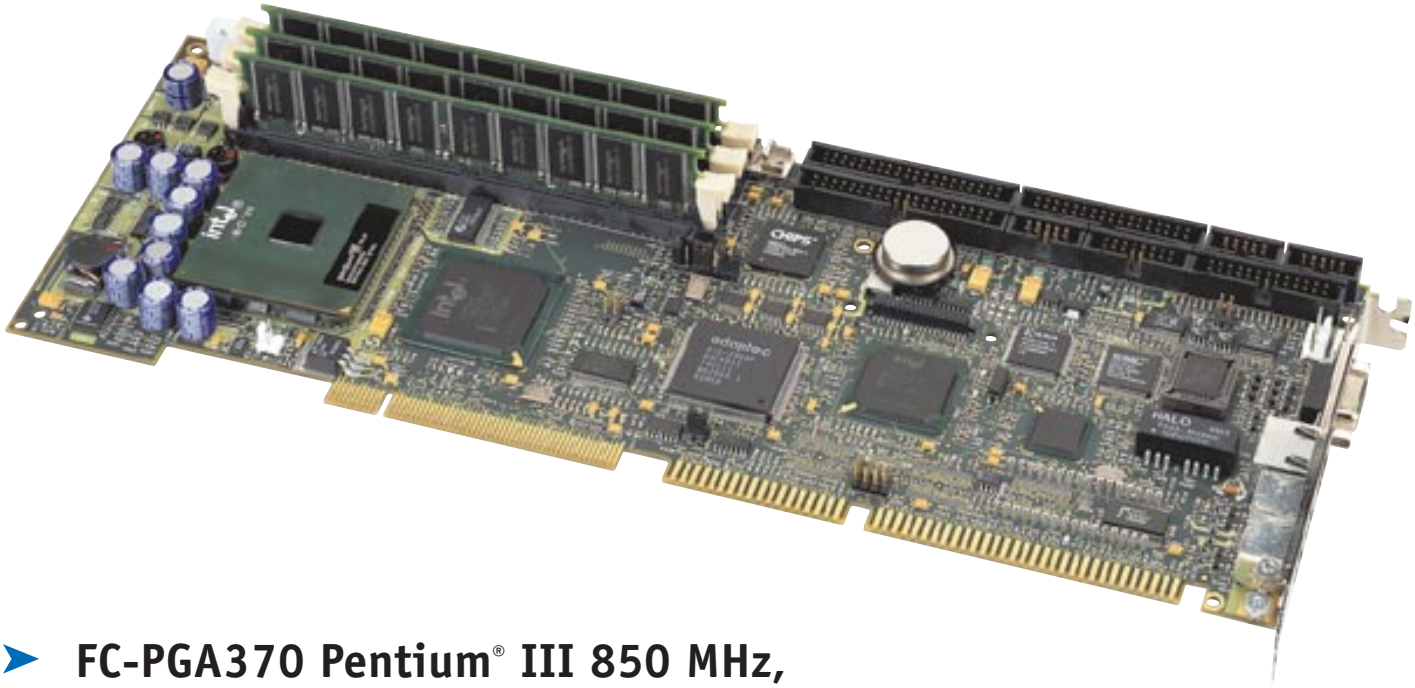
PCI-P3S440BX

Superior PIII performance, practical slot optimization

The PCI-P3S440BX is a slot-saving, PICMG-compliant single board computer that delivers advanced Pentium III performance for mission-critical applications in the CTI and telecommunications markets.



FC-PGA370 Pentium® III 850 MHz, high throughput performance

Kontron complements its value/performance line of PICMG-compliant single board computers with the PCI-P3S440BX, an advanced SBC designed with Ethernet support and the latest Pentium III processor in a FC-PGA package. Powered by clock speeds of up to 850 MHz, the PCI-P3S440BX provides excellent performance for (near) real time, mission-critical voice messaging, call processing, CTI and Internet/Intranet server applications.

Designed for maximum system performance, the PCI-P3S440BX provides convenient slot optimization and a full feature set. It capably manages the highest throughput needs by offering up to 768 MB of SDRAM, a high performance PCI Ultra DMA/33 IDE and CompactFlash™ disk support.

Other features include a 64-bit AGP SVGA CRT controller with 2 MB of SDRAM memory, Universal Serial Bus (USB) ports, serial/parallel ports, and a floppy interface. Ultra Fast/Wide SCSI-3 and 10Base-T/100Base-TX Ethernet controllers are optional.

Features include:

- **Intel PIII 850 MHz Processor in FC-PGA package with 256 KB of EEC L2 cache**
- **Up to 768 MB of SDRAM on 3 DIMM sockets**
- **One 10/100Base-TX Ethernet port**
- **Ultra DMA/33 IDE (Dual), Ultra Fast/Wide SCSI-3, CompactFlash™ Disk**
- **USB, Serial and Parallel Ports**
- **AGP video with 2 MB SDRAM 64-bit**

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PCI-P3S440BX - Technical Specifications

CPU
- Intel Pentium III processor in FC-PGA package; 700, 850 MHz
- Intel 440BX AGPset

Bus Interface
- Front Side Bus (66/100 MHz)
- AGP Bus (66 MHz)
- PCI Bus (33 MHz)
- ISA Bus (8.33 MHz)

Cache
- 16/16 KB Instruction / Data Level 1
- 256 KB internal 256-bit wide ATC (Advanced Transfer Cache) with ECC Level 2 running at full CPU core speed

Memory
- Three 168-pin latching DIMM sockets, 64/72-bit
- Up to 768 MB of SDRAM with 2, 4, 8, 16 or 32 M x 64/72, 66/100 MHz Synchronous DRAM / Registered SDRAM non-ECC/ECC mode (single bit error correction, double bit detection via Intel 440BX AGPset); all 768 MB cacheable

Data Path
- 64-bit CPU bus; 32-bit AGP bus; 32-bit on PCI bus; 16-bit on ISA bus

Interrupts
- 11 edge sensitive and configurable
- 4 PCI level sensitive, configurable to any interrupt vector for PnP compatibility
- All ISA onboard interrupts are PnP compliant

DMA Channels (ISA)
- Four 8-bit, three 16-bit
- Supports scatter / gather, Fast Type-F DMA

Flash Memory
- 2 Mb (256 KB) Boot Block for BIOS field upgrade
- 4 KB Serial EEPROM for user configuration; silicon serial ID TAG for unique board identification accessible via software

I/O
I/O: SMC FDC37C672 Super I/O
USB Ports: Two
Serial Ports: Two RS-232 (16C550) with 16 byte FIFO as COM1-4 with BIOS selectable IRQs and addressing, serial port 2 BIOS configurable RS-422/485
Parallel Port: One bi-directional with all IEEE 1284 protocols supported and BIOS selectable IRQs and addressing
Floppy Disk: Support for two drives (360 KB to 1.44 MB)
EIDE: Four EIDE drives; PIO Mode 4, Bus Master IDE or Ultra DMA/33
CompactFlash™ Module: Optional bootable CompactFlash™ module interfaces to secondary IDE channel, user upgradeable, master/slave
SCSI: PCI Ultra Fast/Wide SCSI-3 with operation up to 40 MB/s and data bursts to the host at full PCI speeds; also Fast and Ultra SCSI-2 (Adaptec AIC 7880)
Ethernet: PCI 10Base-T/100Base-TX (Intel 82559)

Video
- Integrated Frame Accelerated Graphics Port (AGP) 64-bit CRT controller with 2 MB 83 MHz SDRAM memory (C&T 69000)
- Supports CRT with resolution up to 800 x 600, 16.8 M colors; 1024 x 768, 64K colors; or 1280 x 1024, 256 colors, non-interlaced
- Compatible with CGA, EGA, Hercules, MDA, VGA, SVGA, XGA, and SXGA

Clock / Calendar
- Real-time clock with 256 byte battery backup CMOS RAM

Connectors
Faceplate: CRT (female DB-15); Ethernet (RJ-45 with link/activity indicators); PS/2 mouse and keyboard (two 6-pin mini-DIN)

Headers: USB (10-pin shrouded); serial ports (two 10-pin shrouded); parallel port (26-pin shrouded); floppy (34-pin shrouded); EIDE (two 40-pin shrouded); SCSI-3 (68-pin subminiature D-receptacle); SCSI-2 (50-pin shrouded); PS/2mouse (4-pin locking); CompactFlash™ Module header (40-pin); keyboard, speaker, and EIDE disk LED (16-pin shrouded); power-down connector (2-pin locking); power supply 4-pin locking; cpu fan 4-pin locking; EIDE activity LED 2-pin locking; battery 2-pin locking

BIOS
- Award Elite BIOS in Boot Block Flash with recovery code; save CMOS in Flash option, and boot from LAN capability
- Auto configuration, extended setup
- CC00-E000 address blocking; PnP tables
- Setup console redirection to serial port (VT100 mode) with CMOS setup access
- Software enable/disable of onboard Ethernet and SCSI; hardware enable/disable of onboard video
- Diskless, keyboardless, and videoless operation extensions
- System, video, LAN, and SCSI BIOS shadowing
- Programmable memory wait states
- Advanced security feature for floppy and HDD; DMI & HDD S.M.A.R.T. support
- Advanced Configuration and Power Interface (ACPI 1.0), Advanced Power Management (APM 1.2), advanced thermal management (resume, overheat alarm and auto slow down), and Green support

Supervisory
- Two-stage software programmable watchdog timer drives NMI on 1st stage, system reset on 2nd stage
- Time out from 16 msec to 4.25 min
- CPU temperature monitor/alarm; board temperature sensor; power failure/low battery detector, and two end-user defined open-drain general purpose I/Os; SMBus, I2C Bus, CPU fan failure detection

OS Compatibility
- PC and MS-DOS™; Windows® 3.X; Windows® 95; Windows® 98; Windows® NT 4.0, Windows® 2000; Novell Netware 5; FreeBSD; QNX™; and Linux

Mechanical
- 338 x 122 x 36 mm at CPU / fan (13.32 x 4.80 x 1.40 in. at CPU / fan)
- Conforms to IEEE P996 PC/AT bus, PCI Rev. 2.1, & PICMG Rev. 2.0 standards

Power Requirements

Supply Voltage	Vcc :	+5V ± 5% / +12V ± 5%		
Pentium III:		**600**	**700**	**850**
ICC typ.*	+5V	3.7 A	4.1 A	TBA
ICC susp.	+5V	1.6 A	1.7 A	TBA
	+12V	0.2 A	0.2 A	TBA

** Measured with video, ethernet, SCSI, 128 MB SDRAM, keyboard*

Environmental

	Operating	**Storage and Transit**
Temperature:	0° to 55°C/32° to 131°F (w/100 LFM airflow)	-40° to +70°C/-40° to +158°F
Humidity:	5% to 95% @ 40°C/104°F non-condensing	0% to 95% @ +40°C/+104°F non-condensing
Altitude:	4,572 m / 15,000 ft	15,240 m / 50,000 ft
Shock:	5 G, each axis	
Vibration:	1.5 G, each axis	

Reliability
- MTBF: TBD
- SCSI termination, USB and mouse / keyboard voltage protected by self-resetting fuses
- Unique silicon serial number accessible via software
- 2 year limited warranty

Designed to meet or exceed:
Safety: UL 1950; CSA C22.2 No 950; EN 60950; IEC950
EMI/EMC: FCC 47 CFR Part 15/CISPR22; CE Mark to EN55022/EN50082

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