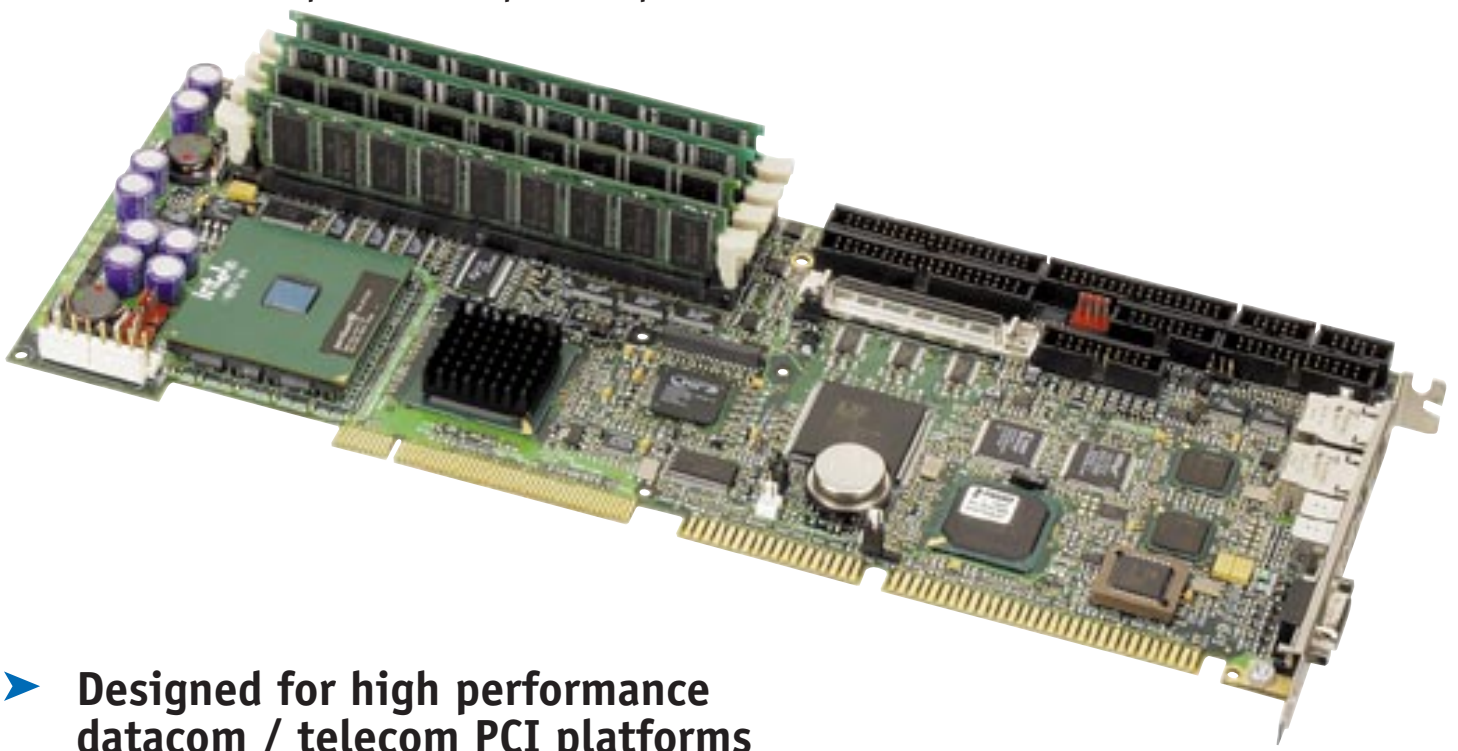


➤ PCI-949

➤ Superior processing engine for Internet infrastructure

1 GHz Pentium III processor and option for up to 2 GB of SDRAM



➤ Designed for high performance datacom / telecom PCI platforms

Kontron's PCI-949 PICMG-compliant single board computer is an ideal processing engine for any number of communications gateway and Internet infrastructure applications.

Designed with Intel Pentium III processing at 1 GHz and an option of up to 2 GB of SDRAM, the PCI-949 is a superior choice for PCI platforms required to process data traffic in any number of mission-critical applications deployed in Internet infrastructure networks.

Featuring dual 10Base-T/100Base-Tx Ethernet interfaces and an option for video support, the PCI-949 is available with the Intel 440BX AGPset which supports up to 1 GB of SDRAM, and is offered with an

optional Intel 440GX AGPset to support up to 2 GB of memory. For applications that require a more cost-effective processing solution, the PCI-949 is also available with an Intel Celeron processor with clock speeds of up to 733 MHz.

Additional features include Ultra-2 SCSI LVD/SE, two serial ports (one configurable as RS232/422/485), floppy disk controller; real time clock with battery backup, two USB ports, and support for the following operating systems: Windows 98, Windows NT 4.0, Windows 2000, Linux, QNX, FreeBSD.

- Kontron's PCI-949 meets all bandwidth demands for mission-critical applications in the Internet infrastructure market, featuring next-generation Pentium III processing, dual Ethernet, and an option of up to 2 GB of memory.

Features include:

- Intel Pentium III processor at 700, 850 MHz, 1GHz and Celeron processor at 566 and 733 MHz.
- Up to 1 GB of SDRAM on 4 DIMM sockets (2 GB SDRAM with optional Intel 440GX AGPset)
- 2 x 10/100Base-TX Ethernet support
- Ultra-2 SCSI LVD/SE (80 MB/s)
- Option for AGP video with 2 MB SDRAM 64-bit

▶ PCI-949 - Technical Specifications

CPU

- Pentium III processor - 700, 850 MHz and 1GHz
- Intel Celeron processor - 566, 733 MHz
- Intel 440BX AGPset (440GX is optional)

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 Advanced Transfer Cache (on-die, full speed L2 cache with ECC)

Memory

- Four 168-pin latching DIMM sockets, 64/72-bit
- Up to 1 GB of SDRAM (2 GB SDRAM optional with 440GX) with 2, 4, 8, 16 or 32 M x 64/72, 100 MHz Synchronous DRAM / Registered SDRAM non-ECC/ECC mode (single bit error correction, double bit detection via Intel 440BX AGPset); 1 GB 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

- 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 COM1-2 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: Ultra-2 SCSI LVD/SE (80 MB/s) (optional)

Ethernet: 2 x PCI 10Base-T/100Base-TX (Intel 82559ER)

Video (optional)

- 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

Clock / Calendar

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

Connectors

Faceplate: CRT (female DB-15 slim); 2 Ethernet (RJ-45 with link/activity indicators); 2 USB

Headers: Serial ports (two 10-pin shrouded); parallel port (26-pin shrouded); floppy (34-pin shrouded); EIDE (two 40-pin shrouded); PS/2 mouse (4-pin locking); CompactFlash™ Module header (40-pin); keyboard, speaker, and EIDE disk LED (16-pin shrouded); power-down connector (2-pin locking); SCSI: DSUB 68-PIN; Hardware monitor: 20-pin shrouded; CPU fan: two 3-pin locking; Battery: 4-pin non-locking; External battery: 2-pin locking; SCSI LED: 2-pin locking; External power connector: 8-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; 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

OS Compatibility

- Windows® 95; Windows® 98; Windows® NT 4.0; Windows® 2000; QNX™, FreeBSD and Linux

Mechanical

- 338 x 122 x 36 mm (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:		700	850	1000
ICC typ.	+5V	3.1	5.7A	6.6A
ICC max.*	+5V	3.8	7.5A	9.1A

* Using KPower and a board with video, SCSI and 128MB SDRAM

Environmental

	Operating	Storage and Transit
Temperature:	0° to 55°C/32° to 131°F (w/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

 **kontron**
www.kontron.com



Corporate Offices

US / Canada
6260 Sequence Drive
San Diego, CA 92121-4371
Tel. 1(888)294-4558
Fax 1(888)667-0898
sales@us.kontron.com

Europe, Middle East and Africa
Oskar-von-Miller-Straße 1
85386 Eching/Munich Germany
Tel. +49 81-65 77 0
Fax +49 81-65 77 219
sales@de.kontron.com

Asia Pacific
6F, No.9, Lane 235, Pao-Chiao Rd.,
Hsin-Tien, Taipei Hsien, 231 Taiwan
Tel. +886-2-2910 3532
Fax +886-2-2910 3482
sales@tw.kontron.com