APCx-4

Intel® Core™2 Duo 19" rack mount Industrial PC

The APCx-4 is an Intel based 19", CE-Compliant, Industrial PC system that supports Intel Core 2 Duo, Pentium® 4 and Celeron® processor technologies.

The system is contained within a heavy-duty 19" enclosure (4U high by 480mm deep) with 1.2mm steel chassis.

A 12-slot passive backplane provides options for extra PCI slots, support for RAID cards and special add-on cards such as image processing boards.

Various standard configurations are available, offering Windows® XP Professional and Windows Vista® Ultimate (32-bit or 64-bit) systems.

Typical applications

The APCx-4 is manufactured by Eurotech Ltd to achieve the toughest standards for use in industries including:

- Telecoms
- Railway/signalling/information display
- Manufacturing machinery

Standard APCx-4 configurations

- Windows XP Professional system (APCx-4-P4-512-AC-XP): with Intel Pentium 4 650/3.4GHz processor (minimum).
- Windows Vista Ultimate 32-bit system (APCx-4-P4-512-AC-VISTA32) with Intel Pentium 4 650/3.4GHz processor (minimum).
- Windows Vista Ultimate 64-bit System (APCx-4-C2-512-AC-VISTA64) with Intel Core 2 Duo E4300/1.8GHz processor (minimum).

Reliability data

- Complete system MTBF: 246,000 hours (based on Eurotech Ltd field return data for all APC Pentium III and Pentium 4 systems from 2001 through 2004)
- PSU MTBF: 100,000 hours @ full load 25°C (quoted by manufacturer)
- Cooling fans life expectancy: 50,000 hours @ 45°C (quoted by manufacturer)

Features

- ROBO-8912VG2AR, a PICMG 1.3 Single Host Board (SHB)
- Pentium 4 650 3.4GHz (minimum) processor fitted as standard, support for Intel Core 2 Duo 1.8 - 2.67GHz, Intel Celeron D 356 3.33GHz
- SHB empowered by the Intel Q965 & ICH8DO chipset, providing support for DirectX 9.0, Shader model 2.0 and 256MB video memory
- 512MB (minimum) DDR2 SDRAM standard; up to 4.0GB supported
- 12-slot, PICMG 1.3 passive backplane with PCI (9), PCI Express x16 (1), PCI Express x4 (1). PCI Express x4 link configuration can support RAID card or special add-on cards such as an image processing board
- Easy access to backplane and boards via the removable top cover
- Ports:
  - Two serial (one RS232 and one RS232/422/485 selectable), audio, VGA, parallel
  - Two Gigabit Ethernet ports
  - Four USB ports (USB 1.1/2.0) standard. Enclosure provides support for up to eight USB ports in total
- Drives:
  - SATA II HDD 160GB (minimum), SATA DVD-RW drive, FDD (1.44MB minimum) fitted as standard
  - Second 5¼" drive bay available (blanking plate fitted as standard). Enclosure can accommodate FDD, DVD writer, two internal 3½" hard drives, and a 5¼" SATA RAID module
  - Drives fit in a shock-mounted, easily removable drive carrier and all drives can be accessed by a hinged and lockable door
- Advanced Management Technology (AMT) on the ROBO-8912VG2AR board provides remote access capability via the Intel Gigabit Ethernet controller.
- Cooling fans with dust filters, accessed via the front door.

Electrical

- PSU: IEC inlet and outlet. RoHS, CE, and UL compliant.
- Input: 115V AC to 230V AC (auto-ranging 90V ~ 264V AC).
- Frequency: 47 to 63Hz
- EMI/RFI: BS EN55022 Class B @ 230V
- Power consumption: maximum 480W
- Outputs: +5V @ 45A, +12V @ 20A, -12V @ 0.8A, -5V @ 0.5A, +5V @ 2A, +3.3V @ 35A
- 460W ATX PSU fitted as standard. Alternative power supply options can be fitted for 48V DC I/P (for telecoms applications) or 24V DC I/P or hot swap dual redundant applications.

Operating environment

- Temperature range - operating: +5°C (41°F) to +45°C (113°F) ambient, storage: -20°C (-4°F) to +60°C (140°F)
- Altitude - operating: -300m to 3,000m, non-operating: -300m to 9,000m.
- Relative humidity: 80% non-condensing

Shock, vibration and IP rating

- Shock: BS EN 60068-2-27
- Vibration: BRB/LUL/RIA No.20: 1995 2nd edition, cat. 1, class A
- Water / dust Ingress (IP rating): Front panel IP54

Mechanical

- Enclosure weight: 18kg (incl. backplane, PSU, drives, processor, board)
- Dimensions: 483mm (19") x 177mm (4U) x 480mm (18.9") (W x H x D)

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