APC-Industrial PC

Pentium® 4 19" rack mount industrial PC

The APC-Industrial PC system is a rugged 19" enclosure (4U high by 450mm deep) based on a Socket 478 industrial PC card with support for both Intel® Celeron® and Pentium® 4 processor technologies. It offers four PCI slots and ten legacy ISAbus slots as standard, plus a wide selection of backplane options for extra PCI or ISAbus slots. The APC has been independently CE and UL tested and approved.

Typical applications

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

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

Features

- Standard Socket 478 design
- Intel 845G chipset
- 2.8GHz Pentium 4 minimum fitted as standard (support for 1.3 to 3.06GHz Intel Pentium 4 or up to 2.0GHz Intel Celeron)
- 400/533MHz FSB
- Up to 2GB DDR SDRAM (256MB fitted as standard)
- Serial ports: RS232 and RS232/422/485
- Two USB 1.1/2.0 channels
- 10/100baseT Ethernet
- 80GB ATA100 HDD
- CDRW/DVD drive
- Drive options: 3.5" (x 1") Ultra ATA IDE HDD (80GB or larger), 3.5" (x 42mm) FDD (1.44MB min. size), additional CDRW/DVD drive.
- Ten ISAbus legacy slots + four PCI (rev, 2.2) slots, other options available
- 450W PFC PSU
- Hardware monitoring for system/CPU temperature
- Operating temperature range: 5°C to +45°C

Electrical

- PSU: Switchable IEC inlet and outlet
- Input: 95V AC to 250V AC
- Frequency: 50 to 60Hz
- EMI/RFI: BS EN55022 Class B
- Power consumption: maximum 480W
- Outputs: +5V @ 48A   +12V @ 28A   -12V @ 1A
            -5V @ 0.8A   +5V @ 2.5A   +3.3V @ 28A
- Alternative power supply options can be fitted for -48V DC, UPS or hot swap dual redundant applications.

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)

Mechanical

- Enclosure weight: 18kg (incl. backplane, PSU, drives, processor, board)
- Dimensions: 482.6mm (19") wide x 176.6mm (4U) high x 450mm deep

Specifications

VGA (integrated on CPU card)

- Integrated Intel 845G controller
- 2D/3D graphics engine (CRT and optional LVDS support)
- Resolution: Up to 2048 x 1536
- 8MB shared DRAM
- 15-pin D-type connector for VGA/CRT

Safety

- Designed to meet BS EN60950
- UL approved (E203067)
- CB approved to IEC 60950-1: 2001

EMC for all environments

Eurotech Ltd has designed and tested the APC Pentium 4 product to meet the worst case conditions for both emissions (EN55022 Class B) and immunity (EN61000-6-2:2001). The product has also been tested for emission and immunity compliance with European Railway Applications (EN50121-4:2000).

Shock, vibration and IP rating

TRL Compliance Ltd. certifies that the product was tested to the following standards:

- Shock: Operation in accordance with EN 60068-2-27. Three shocks of 25G, 6ms pulse duration in each of three mutually perpendicular planes
- Vibration: Random vibration in accordance with BRB/LU LTD/RIA specification no.20:1995 (2nd edition) category 1, class A
- Water / dust Ingress (IP rating): EN60529: 1001/A1:2000 approved to IP54 (defined for front panel only)

ETL-APC-001

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