

PMC610

Quad/dual 10/100BaseTX Ethernet NIC PMC

The PCM610 family of Ethernet NICs provides two or four 10/100BaseTX engines on a PMC. Each engine is capable of full-duplex operation in both 10 and 100 Mbit modes. A PCI to PCI bridge couples the Ethernet interfaces to the host PCI bus, ensuring high performance with minimal PCI loading.

A full auto-negotiation facility allows automatic configuration to the highest possible operating mode. This includes the option of automatic determination of both bandwidth and full-duplex operation.

Low Cost, Effective Interconnect

Two PMC610 boards can be directly cabled with a simple "cross-over". This configuration creates a full-duplex 800 Mbit dedicated data path - delivering high bandwidth at very low cost. More complex, dedicated

interconnects can be created using a hub or switch. Both point-to-point and switched hubs, in full-duplex mode, remove many determinism concerns raised with traditional Ethernet solutions. This makes the PMC610 an excellent candidate for high performance interconnects that require real time determinism.

Software Support

Software drivers are available for most popular operating systems such as VxWorks®, Linux®, LynxOS®, Windows® NT and Solaris. These drivers have been carefully designed and implemented to fit within the LAN protocol stack of the host operating system. Thus all facilities available from the host OS can be used across the PMC610. These drivers allow user control over the PMC610 auto-negotiation capability.

FEATURES:

- PCI 66 MHz capable
- Front I/O
- Quad or dual 10/100BaseTX ports
- Full duplex operation in both 10 and 100 Mbit modes
- TCP/UDP checksum off loading
- Fully supports IP Security (IpSec)
- Versions supporting wide operating temperature range available
- RoHS versions available meet European Union (EU) Restriction of Hazardous Substance Directive (2002/95/EC) current revision



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Specifications

Components

Intel[®] 82551ER chipset

Power Requirements

3.3 V

Form Factor

PMC

PMC Expansion Site Connector

- 3.3 V and 5 V signaling
- Types 1 and 2, 32-bit PCI bus, 66 MHz maximum

Ethernet Characteristics

- Ports: two or four 10/100BaseTX
- Port routing: front

Mean Time Between Failures (MTBF)

281.000 hours

Standard Temperature

Operating: 0 to +55 °C -40 to +85 °C Storage:

Wide Temperature Range

-20 to +70 °C Operating: -40 to +85 °C Storage:

Humidity

- Operating: 5% to 95% non-condensing
- Storage: 5% to 95% non-condensing

Other Options

· Conformal coating: polyurethane or

Operating System Support

- Windows®
- Linux[®]
- VxWorks[®]
- LynxOS®

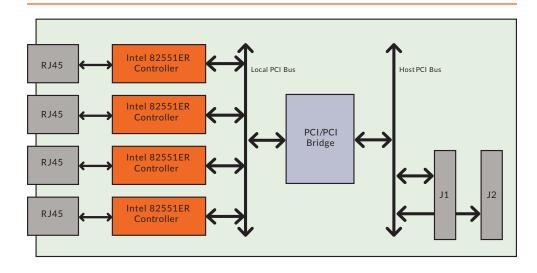
Regulatory Compliance

- European Union (CE Mark)
- EN55024
- EN55022 Radiated Emissions Class A
- EN61000-4-2 (ESD)
- EN61000-4-3 (Radiated Immunity)
- EN61000-4-4 (EFT)
- EN61000-4-5 (Surge)
- EN61000-4-6 (Conducted RF)
- EN61000-4-8 (Power Frequency Magnetic Fields)
- EN61000-4-11 (Voltage Dips)
- EN61000-3-2 (Harmonic Emissions) (PMC610RC only)
- EN61000-3-3 (Flicker) (PMC610RC only)
- United States FCC Part 15, Class A
- Canada ICES-003, Class A

Safety:

- UL60950-1
- CSA C22.2, No. 60950-1-03
- EN60950-1 (Low Voltage Directive)

Block diagram



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