

PMC610J4RC

Quad/dual 10/100BaseTX Ethernet NIC PMC

Features

- PCI 66MHz capable
- Rear 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)
- Indicators for link, activity and connection speed
- PIMs available to connect Ethernet channels to external RJ45 connectors
- Versions supporting wide operating temperature range available
- RoHS compliant

The PCM610J4RC 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.

The board features indicators on each RJ45 network connector for board status. There are three indicators that indicate if there is a link, if there is activity, and the speed of the connection.

PIM610J4RC and PIM610J4RC-WT (wide temperature range) boards are available to connect the Ethernet channels on the Ethernet board to external RJ45 connectors. The PIM fits on the PIM site of the transition card.

Low Cost, Effective Interconnect

Two PMC610J4RC 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 PMC610J4RC 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 PMC610J4RC. These drivers allow user control over the PMC610J4RC auto-negotiation capability.



PMC610J4RC 10/100BaseTX Ethernet NIC PMC

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: rear

Mean Time Between Failures (MTBF)

- 281,000 hours

Standard Temperature

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

Wide Temperature Range

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

Humidity

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

Other Options

- Conformal coating: polyurethane or acrylic

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

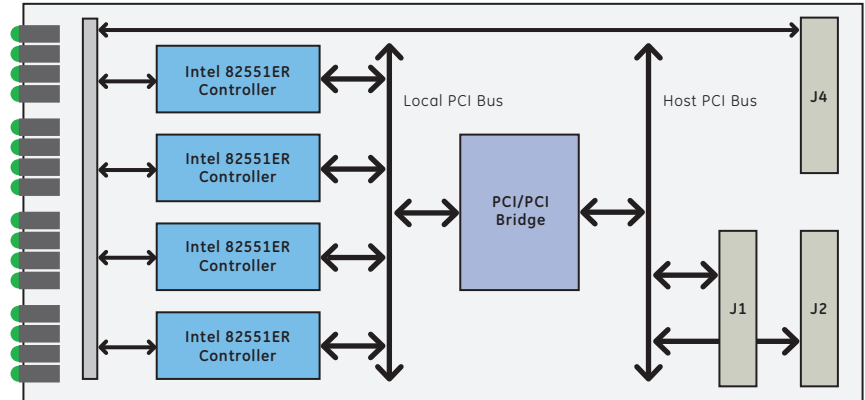
Safety

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

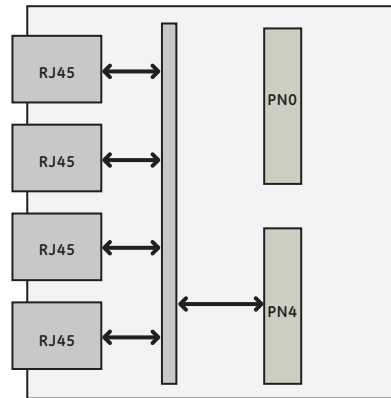
RoHS versions available

- Meet European Union (EU) Restriction of Hazardous Substance Directive (2002/95/EC) current revision

Block Diagram



PMC610J4RC/PMC610J4RC-2



PIM610J4RC

Ordering Information

PMC610J4RC	10/100BaseTX PMC; four ports; front I/O; standard operating temperature range; RoHS
PMC610J4RC-2	10/100BaseTX PMC; two ports; front I/O; standard operating temperature range; RoHS
PMC610J4RC-WT	10/100BaseTX PMC; four ports; front I/O; wide operating temperature range; RoHS
PMC610J4RC-2-WT	10/100BaseTX PMC; two ports; front I/O; wide operating temperature range; RoHS
PIM610J4RC	Rear transition card for PMC610J4RC products; RoHS
PIM610J4RC-WT	Rear transition card for PMC610J4RC-WT & PMC610J4RC-2-WT; RoHS -CC may be applied to any part to indicate polyurethane conformal coating -CCA may be applied to any part to indicate acrylic conformal coating

GE Intelligent Platforms Contact Information

Americas: 1 800 433 2682 or 1 434 978 5100

Global regional phone numbers are listed by location on our web site at www.ge-ip.com/contact

www.ge-ip.com

