GE Fanuc Intelligent Platforms

RM610 PCI Edge Connector 2 or 4 Port 10/100BaseTX Ethernet NIC

Features

- PCI 66 MHz capable
- Front I/O
- Two or four independent 10/100BaseTX Ethernet ports
- Full duplex operation in both 10 and 100 Mbit modes
- Auto-negotiation allows automatic configuration to highest possible operating mode
- Software support available for VxWorks®, Linux®, LynxOS®, Windows®, Solaris

With two or four 100/10Mbit Ethernet interfaces, the RM610 PCI Network Interface Card (NIC) delivers high networking performance. The 10/100BaseTX Ethernet Controllers are each capable of full duplex operation in both 10 and 100Mbit modes. Each of the Ethernet/PCI interfaces includes a powerful DMA engine with FIFO buffers. This assures continuous, full bandwidth operation with minimum PCI overhead. A PCI/PCI bridge couples the Ethernet interfaces to the host PCI bus, assuring high performance with minimum PCI loading. The PCI bus can run at 64bit/66MHz as well as 32-bit/32MHz.

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 RM610 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 RM610 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 RM610.



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Specifications

Power Requirements

- 3 watts
- 0.6 amps @ 5.0 V

Form Factor

PCI

MTBF

• MIL 217-F Nav Shel 25° C: 281000 hours

Ethernet Characteristics

- Ports: two or four 10/100BaseTX
- Port routing: front
- RJ-45 connectors

Environmental

• Operating temperature: 0 to +60 °C

- Storage temperature: -40 to +85 °C
- Humidity: 5% to 95% non-condensing

Other Options

Conformal coating: polyurethane or acrylic

Operating System Support

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

Ordering Information

RM610/2	10/100BaseTX PCI; two ports; front I/O
RM610/4	10/100BaseTX PCI; four ports; front I/O

-CC may be applied to any part to indicate polyurethane conformal coating -CCA may be applied to any part to indicate acrylic conformal coating

About GE Fanuc Intelligent Platforms

GE Fanuc Intelligent Platforms is a leading global provider of embedded computing solutions for a wide range of industries and applications. Our comprehensive product offering includes many types of I/O, single board computers, high performance signal processors, fully integrated, rugged systems including flat panel displays, plus high speed networking and communications products. The company is headquartered in the U.S. and has design, manufacturing and support offices throughout the world. Whether you're looking for one of our standard products or a fully custom solution, GE Fanuc Intelligent Platforms has the breadth, experience and 24/7 support to deliver what you need. For more information, visit www.gefanuc.com.

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Additional Resources

For more information, please visit the GE Fanuc Intelligent Platforms web site at:

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