GE Fanuc
Embedded Systems

RM666FX

Dual Channel 100BaseFX Ethernet PCI Network Interface Card (NIC)

Features

- PCI 2.2 and PCI-X 1.0a compliant
- Two 100BaseFX channels
- Front I/O
- SC or ST connectors
- Operating system support for VxWorks®, Linux®, Windows®, LynxOS® and Solaris™

RM666FX is a PCI network interface card (NIC) with dual 100BaseFX channels, each capable of full duplex operation in 100 Mbit mode. Each of the Ethernet PCI interfaces includes a powerful DMA engine with dual 64 Kbyte configurable FIFO buffers. This assures continuous, full bandwidth operation with minimum PCI overhead. A state-of-the-art PCI to PCI bridge couples the Ethernet interfaces to the host PCI bus, assuring high performance with minimum PCI loading. The PCI bus can operate at 66MHz.

Two RM666FX boards can be directly cabled with a simple "cross-over". This configuration creates a full duplex 400 Mbit dedicated data path that delivers 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 RM666FX an excellent candidate for high performance interconnects that require real-time determinism.

Operating System and Software Support

Native drivers for many common operating systems such as Windows and Linux, support the RM666FX channels. GE Fanuc Embedded Systems has software drivers for additional operating systems such as VxWorks, LynxOS and Solaris. These drivers have been carefully designed and implemented to fit within the LAN protocol stack of the host operating system. All facilities available from the host operating system can be used across the RM666FX.

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Specifications

Ethernet Characteristics
- 100BaseFX ports
- Front I/O access
- SC or ST connectors

PCI Bus Characteristics
- 3.3V and 5V signaling
- PCI Specification 2.2 compliant
- 32/64 bits; 33/66MHz

Form Factor
- PCI

Power Specifications
- 7.5W @ 3.3V; 2.27A maximum

Environmental
- Temperature
  - Operating: 0° to +60 °C
  - Storage: -40° to +85 °C
- Relative Humidity
  - Operating: 5% to 95%, noncondensing
  - Storage: 5% to 95%, noncondensing

MTBF:
- 820,455 hours per FITS

Ordering Information

RM666FX
PCI edge card with dual 100FX Ethernet ports, SC connectors

RM666FX-S
PCI edge card with dual 100FX Ethernet ports, SC connectors, Solaris LAN boot

RM666FX/ST
PCI edge card with dual 100FX Ethernet ports, ST connectors

RM666FX/ST-S
PCI edge card with dual 100FX Ethernet ports, ST connectors, Solaris LAN boot

Note

Conformal coating available.

Note

Linux (2.4.x, 2.6.x), Windows (XP, NT, 2000) supported by drivers from Intel® (included in most distributions, available from the Intel web site). LynxOS 4.x is supported by a driver included in the distribution.

Media Kit Options

M-GBI-SEV-ARC
VxWorks on PowerPC®

M-GBI-SEV-ARP
VxWorks on x86

M-GBI-SES-ARS
Solaris on SPARC

M-GBI-SEL-ARC
Lynx for PPC hosts

M-GBI-SEL-ARP
Lynx for x86 hosts

About GE Fanuc Embedded Systems
GE Fanuc Embedded Systems 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 Embedded Systems has the breadth, experience and 24/7 support to deliver what you need. For more information, visit www.gefanucembedded.com.

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Additional Resources

For more information, please visit the GE Fanuc Embedded Systems web site at:

www.gefanucembedded.com