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Find the *Abaco Systems / VMIC PCI-5565-110 / VMIPCI-5565-110* at our website: *Click HERE*

GE
Intelligent Platforms



5565 Reflective Memory Family

Ultra High-speed, Fiber Optic Network for Distributed Processing Using Reflective Memory

Features

- 2.12 Gbaud serial connection speed
- Supports dynamic packet sizes ranging from 4 to 64 bytes
- Up to 170 Mbyte/s sustained data rate
- Deterministic transfer rate with only 450 to 500 nanoseconds of latency between nodes
- Error management and detection protects against lost data
- Interrupt transfers support for any node
- 128 or 256 Mbytes of onboard SDRAM
- Multimode fiber support up to 300 m, single mode fiber support up to 10 km
- PCI Express, PMC, PCI and VME form factors available
- PCIE-5565RC, PMC-5565PIORC and PCI-5565PIORC are designed to meet the European Union (EU) Restriction of Hazardous Substance (RoHS) Directive (2002/95/EC) current revision
- Star configuration available by using the ACC-5595 managed hub

Benefits

- Highly scalable technology supports up to 256 nodes
- Bus independent design protects investments in your current network infrastructure
- Low latency, deterministic data transfer rate allows for predictable, high-performance application deployment
- Seamless integration with GE Intelligent Platforms' SBC solutions and most industry-standard offerings
- PIO versions offer improved PIO read performance and field upgradeable firmware

Reflective Memory is an optical ring-based, ultra high-speed shared memory network solution. It allows a distributed network to share real-time data at a deterministic rate, regardless of bus structures and operating systems. With more than 15 years of experience in this field, GE Intelligent Platforms is an original pioneer of this technology and our 5565 Reflective Memory family extends our market leadership position. How do we do it? We keep it simple. Our Reflective Memory technology is centered around an innovative and efficiently designed hardware platform that is easy to use, provides for greater distance between nodes, high noise immunity, optional node bypass, and no software overhead. Just read and write to the onboard memory and the Reflective Memory node controller does the rest.

The 5565 Reflective Memory family is available in multiple form factors, including PCI Express (PCIE-5565RC), PMC (PMC-5565PIORC and PMC-5565), PCI (PCI-5565PIORC and PCI-5565), and VME (VME-5565). The family allows computers, workstations, PLCs, and other embedded controllers to all share data in real-time. The transfer of data between nodes is software transparent so no processor overhead is required. Data written into the Reflective Memory is broadcast to all nodes on the network without further involvement of the sending or receiving nodes. GE Intelligent Platforms' Reflective Memory products are proven, highly reliable, and have been implemented worldwide in applications such as data acquisition, simulation and training, industrial automation, and telecommunications.

Best of all, it comes with the global support and services from a company with the experience, stability, innovation, and commitment you can rely on - GE.

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5565 Reflective Memory Family

Specifications

SDRAM
- 128 or 256 Mbyte

Transfer Specifications
- 43 Mbyte/s (single longword accesses) to 170 Mbyte/s (64 byte bursts) non-redundant transfer rate
- 20 Mbyte/s (single longword accesses) to 87 Mbyte/s (64 byte bursts) redundant transfer rate

PCI Transfer Rate
- 132 Mbyte/s (33 MHz/32-bit bus), 264 Mbyte/s (33 MHz/64-bit bus or 66 MHz/32-bit bus) or 528 Mbyte/s (66 MHz/64-bit bus) and throttles back to available link data rate as FIFOs begin to fill
- PCI Express transfer rate: 4 lanes at 2.5 Gbit/s

Environmental Specifications
- Operating: 0 °C to +65 °C, with forced air cooling
- Storage: -40 °C to +85 °C
- Relative humidity: 20% to 80%, noncondensing

Power Requirements
- PMC: 1.5A max at +3.3 VDC (±5 percent)
- PCI: 1.5A max at +5 VDC (±5 percent)
- VME: 5.0A max at +5 VDC
- PCIE: 0.6A max at +12 VDC (± 5 percent) and 1.6A Max at +3.3 VDC

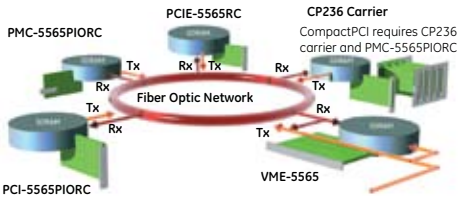
MTBF (Bellcore)
- PMC: 417,634 hours
- PMC PIO: 1,307,078 hours
- PCI: 426,604 hours
- VME: 163,995 hours
- PCI PIO: 1,225,247 hours
- PCIE: 607,680 hours

Cables
- Multimode: small form factor (SFF) 850 nm, 300 m max
- Single mode: small form factor (SFF) 1,310 nm, 10 km max

Operating Systems Support
- Windows XP (PMC, PCI, PCIE), NT, 2000 (VME only)
- Linux (PMC, PCI, VME, PCIE)
- VxWorks (PMC, PCI, VME, PCIE)
- Solaris (PMC, PCI, VME)
- Irix (VME only)
- Compaq Tru64 (VME only)

Application Diagram

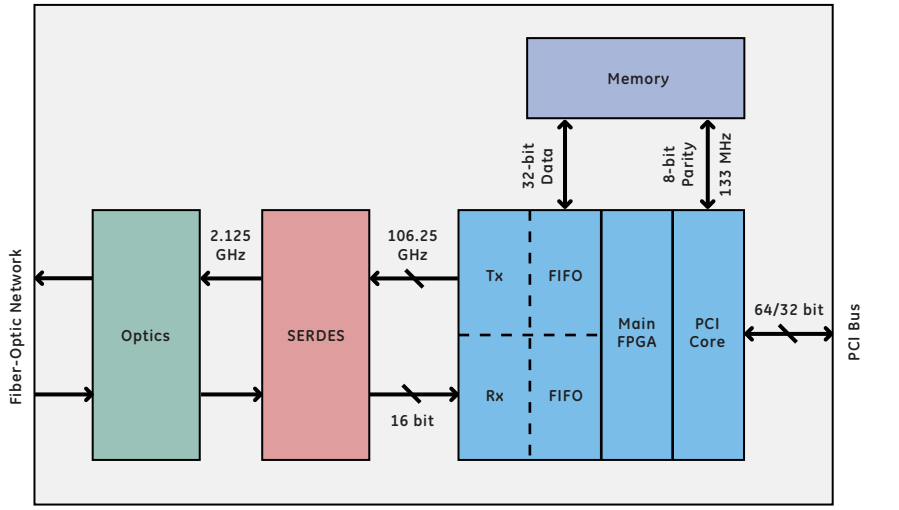
Ring Topology



Star Topology



Block Diagram



Ordering Information

PMC-5565PIORC - A B C D E F

A = Memory Options
- 0 = Reserved
- 1 = 128 Mbyte
- 2 = 256 Mbyte

B = 1 (4k FIFO)

C = Transmission Mode
- 0 = Multimode
- 1 = Single Mode

DEF = 000 (reserved for future use)

PMC-5565 - A B C D E F

A = Memory Options
- 0 = Reserved
- 1 = 128 Mbyte

B = 1 (4k FIFO)

C = Transmission Mode
- 0 = Multimode
- 1 = Single Mode

DEF = 000 (reserved for future use)

PCI-5565PIORC - A B C D E F

A = Memory Options
- 0 = Reserved
- 1 = 128 Mbyte
- 2 = 256 Mbyte

B = 1 (4k FIFO)

C = Transmission Mode
- 0 = Multimode
- 1 = Single Mode

DEF = 000 (reserved for future use)

PCIE-5565RC - A B C D E F

A = Memory Options
- 0 = Reserved
- 1 = 128 Mbyte
- 2 = 256 Mbyte

B = 0 (reserved for future use)

C = Transmission Mode
- 0 = Multimode
- 1 = Single ode

DEF = 000 (reserved for future use)

PCI-5565 - A B C D E F

A = Memory Options
- 0 = Reserved
- 1 = 128 Mbyte

B = 1 (4k FIFO)

C = Transmission Mode
- 0 = Multimode
- 1 = Single Mode

DEF = 000 (reserved for future use)

VME-5565 - A B C D E F

A = Memory Options
- 0 = Reserved
- 1 = 128 Mbyte

B = 1 (4k FIFO)

C = Transmission Mode
- 0 = Multimode
- 1 = Single Mode

DEF = 000 (reserved for future use)

About GE Intelligent Platforms

GE Intelligent Platforms, a General Electric Company (NYSE: GE), is an experienced high-performance technology company and a global provider of hardware, software, services, and expertise in automation and embedded computing. We offer a unique foundation of agile, advanced and ultra-reliable technology that provides customers a sustainable advantage in the industries they serve, including energy, water, consumer packaged goods, government and defense, and telecommunications. GE Intelligent Platforms is a worldwide company headquartered in Charlottesville, VA and is part of GE Home and Business Solutions. For more information, visit www.ge-ip.com.

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