Telum™ GE-QLX/QSX
Gigabit Ethernet AdvancedMC™ with Two or Four Fiber Ports

Features

Performance
- Two or four Gigabit Ethernet ports accessible through the front panel
- 1000BaseLX or 1000BaseSX transceivers
- AMC.0 Module Management Controller (MMC)
- TCP CRC calculation and segmentation offloading
- 802.1Q VLANs supports up to 4096 VLANs
- Accommodates Ethernet Jumbo frames (16 Kbit)

Compliance
- AMC.0 R2.0 compliant (available with mid-size or full-size front panels)
- AMC.1 design using x4 PCI Express bus
- AMC.0 compliant module hot swap
- IPMI v 1.5 compliant MMC
- RoHS 2002/95/EC compliant

Software Support
- Support available for:
  - Carrier Grade Linux®

Applications
- Switches/Routers
- Server Platforms
- Storage I/O

Product Reliability
- Designed for high MTBF
- Technical support for OEM customers and resellers

The Telum GE-QLX and GE-QSX are Gigabit Ethernet Advanced Mezzanine Cards (AdvancedMCs) providing high bandwidth and high density. Two or four port versions are available. Telum GE-QLX has 1000BaseLX transceivers. Telum GE-QSX has 1000BaseSX transceivers. Both cards are ideal for AdvancedTCA™ and MicroTCA™ platforms requiring additional local Ethernet links and fiber optic media.

These single-width AMC.0 form factor modules offer greater design flexibility and maximize port density on the carrier board or MicroTCA backplane. The modules use an x4 PCI Express bus as the data bus. Both conform to the AMC.1 specification.

To reduce host CPU utilization, the Ethernet controller supports TCP CRC and segmentation offloading. To enhance security, IEEE 802.1Q VLANs are an integral function of the Telum GE-QLX/QSX. Up to 4096 VLANs are supported.

The Telum GE-QLX/QSX Ethernet network interface complies with IEEE 802.3 specification and supports either 1000BaseLX or 1000BaseSX. The modules also support Ethernet Jumbo frames (16 Kbit).

Intelligent Platform Management Interface (IPMI) and Hot Swap Compliance
An AMC.0 Module Management Controller (MMC) subsystem that is IPMI v1.5 compliant initializes board level parameters, monitors board voltage and temperature conditions, maintains system status, and manages hot swap operation. A microcontroller is used as the IPMI intelligence and connects to the AMC management bus. These modules are hot swap capable and field replaceable in accordance with AMC.0.

Software
To simplify system integration, the Telum GE-QLX/QSX employs a comprehensive set of software drivers that are compatible with Carrier Grade Linux operating systems. Driver support for other operating systems may be available upon request.

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Specifications

Bus Interface
- x4 PCI Express bus, lanes 4, 5, 6, 7 (AMC Fat Pipes Region)
- AMC.1 compliant

Form Factor
- AMC.0 R2.0
- Available with full- or mid-size faceplates

Function
- 2- or 4-port Gigabit Ethernet controller

Front Panel I/O
- 1000BaseLX or 1000BaseSX transceivers

Weight
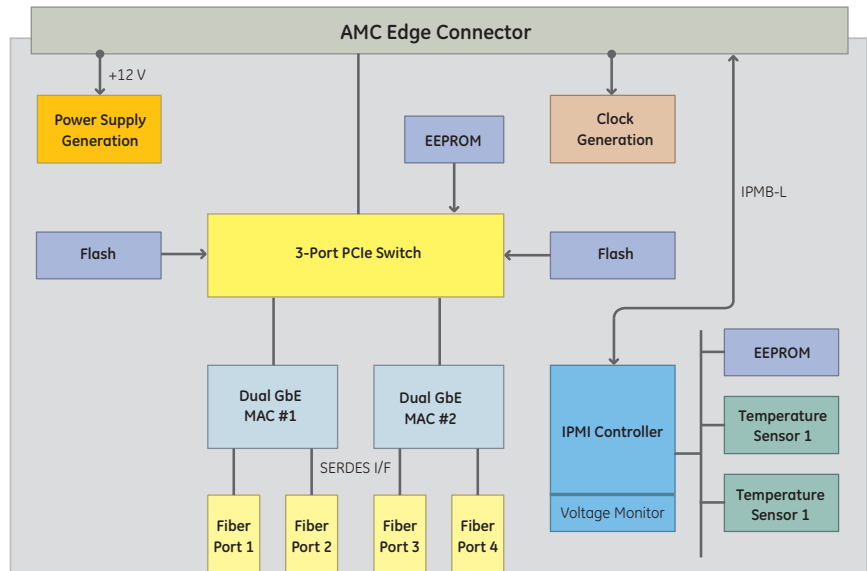- 0.128 Kg (0.28 lbs)

Power Requirements
- 11.6 W

Environmental
- Temperature
  - Operating: 0° to +55 °C
  - Storage   -40° to +85 °C
- Relative Humidity
  - 5% to 95%, noncondensing

Regulatory Compliance
- CE Mark
- Emissions
  - FCC 47CFR Part 15 Class A (USA)
  - EN55022: 1998/A1:2000/A2:2003 Class A ITE (EU)
  - VCCI Class A ITE (Canada)
  - AS/NZ CISPR 22:2002
  - AS/NZ CISPR 22:2002 Class A (Aus. New Zealand)
  - ICES-003 Issue 3 Class A (Canada)
  - VCCI Class A ITE
- Immunity
  - EN55024:1998/A1:2001/A2:2003 (EU)
- Safety
  - UL60950-1 (USA)
  - CSA 22.1 no. 60950-1-03 (Canada))
  - EN 60950-1 (EU)
- RoHS 2002/95/EC compliant

Block Diagram

Ordering Information

Telum GE-QLX-MS:	4 ports 1000BaseLX; mid-size faceplate
Telum GE-QLX-2-MS:	2 ports 1000BaseLX; mid-size faceplate
Telum GE-QLX-FS:	4 ports 1000BaseLX; full-size faceplate
Telum GE-QLX-2-FS:	2 ports 1000BaseLX; full-size faceplate
Telum GE-QSX-MS:	4 ports 1000BaseSX; mid-size faceplate
Telum GE-QSX-2-MS:	2 ports 1000BaseSX; mid-size faceplate
Telum GE-QSX-FS:	4 ports 1000BaseSX; full-size faceplate
Telum GE-QSX-2-FS:	2 ports 1000BaseSX; full-size faceplate
M-GBB-SEI-ARP	Linux media kit

About GE Fanuc Intelligent Platforms Embedded Systems

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:

www.gefanuc.com