

# Telum™ GE-QT

## 4-Port Gigabit Ethernet AdvancedMC™

### Features

#### Performance

- 4 Gigabit Ethernet ports accessible through the front panel
- AMC.0 compliant
- TCP CRC calculation and segmentation offloading
- 802.1Q VLANs, with up to 4096 VLANs
- Accommodates Ethernet Jumbo frames (16 Kb)

#### AMC Compliance

- AMC.0 R2.0 compliant
- AMC.1 design using x4 PCI Express bus
- Module Hot Swap; AMC.0 compliant

#### Software Support

- Support available for:
  - Carrier Grade Linux®
  - Driver support for other operating systems upon request

#### Applications

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

#### Product Reliability

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

The Telum™ GE-QT is a 4-port Gigabit Ethernet Advanced Mezzanine Card (AdvancedMC™) providing high bandwidth and high port density. It is ideal for telecommunication platforms requiring additional local Ethernet links. This AMC.0 R2.0 AdvancedMC form factor card offers greater design flexibility and maximizes port density on the carrier card or host board. The card uses a x4 PCI Express bus as the data bus and conforms to the AMC.1 specification.

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

The Telum GE-QT Ethernet network interface complies with IEEE 802.3 specification and supports 10BaseT, 100BaseTX and 1000BaseT modes over CAT-5 or better twisted pair cable. Each port features auto-negotiation and automatic MDI/MDIX switchover enabling greater compatibility with existing devices and infrastructure. Both full and half-duplex modes are supported in 10BaseT and 100BaseTX modes. 1000BaseT supports only full duplex operation. The Telum GE-QT also supports Ethernet Jumbo frames (16 Kb).

### Intelligent Platform Management Interface (IPMI) & 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. This module is hot swap capable and is field replaceable in accordance with AMC.0.

### Software

To simplify system integration, the Telum GE-QT employs a comprehensive set of software drivers that are compatible with Carrier Grade Linux operating systems.

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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 Full- or mid-size front panels

### Function

- 4-port Gigabit Ethernet controller

### Front Panel I/O

- 4-port RJ-45

### Weight

- 0.128 Kg (0.28 lbs)

### Power Requirements

- 11.6 watts

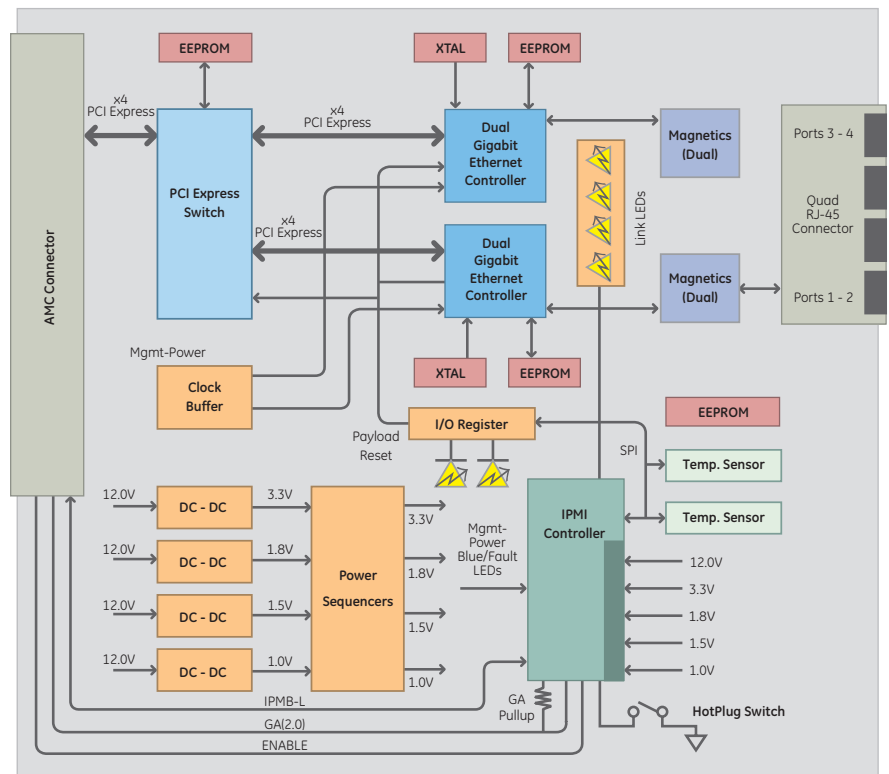
### Environmental

- Operating temperature: 0°C to +55°C
- Storage temperature: -40°C to +85°C
- Humidity: 5% to 95% non-condensing

### Regulatory Compliance

- Emissions
  - FCC 47 CFR Part 15 Class A (USA)
  - EN 55022:1998, A1:2000, A2:2003 Class A ITE(EU)
  - ICES -003 Issue 3 Class A (Canada)
  - AS/NZ CISPR 22:2002
  - VCCI Class A ITE
  - Class A (Aus. New Zealand)
  - CE Mark
- Immunity
  - EN 55024:1998/A1:2001/A2:2003 (EU)
- Safety
  - UL60950-1 (USA)
  - CSA 22.1 No. 60950-1-03 (Canada)
  - EN 60950-1 (EU)
  - CE MARK
- RoHS compliant

## Block Diagram



## Ordering Information

- 64010-306** Telum GE-QT 4-port 10/100/1000BaseT Ethernet Cat-5TP with full-size front panel and blue LED relocation; AMC.0 R2.0 compliant; RoHS
- 64010-305** Telum GE-QT 4-port 10/100/1000BaseT Ethernet Cat-5TP with mid-size front panel and blue LED relocation; AMC.0 R2.0 compliant; RoHS
- M-GBI-SEI-ARP** Linux media kit

## 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](http://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](http://www.gefanuc.com)

