

GALLEON QUAD XEON RUGGED SERVER

ATR – High Performance

The Galleon Quad Xeon Server is designed to meet the most demanding processing requirements in today's C4ISR applications. Its high performance allows server virtualization and distributed processing of radar, SIGINT and video data.

The Galleon Quad Xeon is a high-performance server for deployed applications, utilizing up to 16 XEON E3 processing cores.

The Quad Xeon server uses a common architecture philosophy to other Galleon products. COTS Open Architecture modules are used to provide multiple processor nodes and up to 80TB Removable Memory in an industry standard ATR enclosure. Each processor node provides an Intel Embedded processor and its accompanying SDRAM resource. The processor nodes are interlinked to allow for data to be transferred between each other quickly and efficiently. A standard I/O configuration including Ethernet, Serial, GPIO,

Graphics & USB is available which can be further enhanced using multiple mezzanine expansion sites. These can be used to add specific I/O for each application, such as MIL-STD-1553B, ARINC429, CanBus, Video, FPGA processing and more.

The server offers optional certified FIPS 140-2 256-bit hardware encryption (AES-256). A flexible key management system allows for key distribution over secure Ethernet links or direct-attached tokens. The entire device can run in encrypted mode, including the system boot media and removable storage unit. Further security enhancements such as quick erase and military erase are supported.

Galleon Embedded Computing's quality management system is certified to Aerospace Standard AS/EN 9100 and ISO 9001.

POWERFUL COMPUTING AND STORAGE



FIPS 140-2 Inside

KEY FEATURES

- Quad Xeon processing nodes
- 4x 32GB DDR4 ECC SDRAM
- Internal 8-port Gigabit Ethernet switch
- Up to 16x GbE ports
- Up to 8x 10 GbE ports
- Up to 4x 25GbE ports
- Up to 2x 40GbE ports
- 8x sFPDP channels
- Up to 80TB removable SSD
- On-board GPS for high-resolution time server
- MIL-STD-810, MIL-STD-461, MIL-STD-704

APPLICATIONS

- Mission data server
- Application server
- Data recorder
- NAS

BENEFITS

- SWaP optimized
- High performance
- High bandwidth
- Flexible and scalable

TECHNICAL SPECIFICATION



Processor

- 4x Intel® XEON E3 or Core™-i7 Quad Core
- 4x 32GB DDR4 SDRAM with ECC

Network

- Up to 16x Gigabit Ethernet
- Built in 8-port Gigabit Ethernet switch
- Up to 8x 10 Gigabit Ethernet (optional)
- Up to 4x 25Gigabit Ethernet (optional)
- Up to 2x 40Gigabit Ethernet (optional)

Other Rear Panel Interfaces

- 4x VGA
- 8x USB 2.0
- 1x Power
- 1x GPS antenna (optional)

Storage

- 4x SLC FLASH system disk (up to 256GB)
- Up to 40TB removable SLC FLASH
- Up to 80TB removable MLC FLASH

I/O Expansion

- Dual XMC with x8/x4 PCIe interface

Data Security

- HWFDE using XTS-AES 256bit (option)
- Certified FIPS 140-2 encryption inside (AES-256)
- SWFDE using XTS-AES 256bit (option)
- Write protected memory (option)

Operating Temperature

- 0°C to +50°C standard temperature
- -40°C to +75°C extended temperature

Shock and Vibration

- Tested to MIL-STD-810

Altitude

- -1500 to 60 000 ft*

EMI/RFI

- Tested to MIL-STD-461

Humidity

- Up to 100%, condensing

Size, Weight & Power

- 254.5 x 350 x 203.5 mm**
- Weight: 9 kg (configuration dependent)
- Power (idle): 50-100W (depending on CPU option)
- Power (max load): 250W

Power Supply

- 16-40V DC wide input
- Tested to MIL-STD-704

* Contact factory for high altitude options

** Without connectors and storage bay door

ABOUT GALLEON

Galleon Embedded Computing is an innovative leader in development of high-performance, high-quality storage solutions and small rugged data recorder systems, servers and NAS devices.

Galleon's offerings span from commercial grade products for benign environments to ruggedized conduction-cooled products for deployed systems in severe environments.

RELATED PRODUCTS

- Offload Systems
- XSR RDM
- Titan 40Gb Ethernet XMC
- Titan 25Gb Ethernet XMC
- Titan 10Gb Ethernet XMC
- Titan 1Gb Ethernet XMC



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