GALLEON XSR 100GBE RECORDER
Rugged — Small Size — High Performance

The Galleon XSR 100GbE Data recorder offers superior performance in a small form factor, and it is capable of capturing UDP or TCP/IP data from multiple speed Ethernet interfaces simultaneously, including up to 5x Gigabit Ethernet, 2x 10Gb Ethernet interfaces, 1x 40 Gb Ethernet, and 1x 100Gb Ethernet interface at over 2GBytes/s recording speeds.

Intel Core i7 and Xeon processor options, including the latest 9th generation, are supported with up to 96GB SDRAM supporting ECC.

The design concept of XSR is based on the use of COTS Open Architecture modules. This enables the XSR to keep pace with increasing technology advancement and provides a key mitigation strategy for Obsolescence Management, which helps to protect the user's design for 10 years or more.

The XSR is optimized for deployed applications such as unmanned systems, pods and ground vehicles. Rugged miniature 38999 connectors for all interfaces ensure reliable operation in all conditions. The design is Size, Weight, Power and Cost (SWaP-C) optimized.

Removable Data Modules (XSR RDMs) enables short ground times for airborne applications and instant access to recorded data in the ground access system without the need to download the recorded data over a slow drain interface. Industry standard solid-state drives are used to benefit from the ever-increasing storage densities and cost reductions as the technology evolves.

The recorder has a simple C++ API for remote control over a separate Gigabit Ethernet connection. Optional FIPS 140-2 and AES-256 hardware encryption provides a high level of data security with flexible key management options, including physical key tokens through front panel key loading port and remote loading over a secure network connection.

The XSR 100GBE data recorder has been proven to meet the most severe environmental conditions without compromising on functionality and performance.

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

XSR 100GBE DATA RECORDER

FIPS 140-2 Inside

KEY FEATURES
- Up to 1 100GbE port (optical)
- Up to 1 40GbE port (optical)
- Up to 2 10GbE ports
- Up to 5 GbE ports
- Up to 80TB removable SSD
- NTP or GPS for time and date synchronization
- Optional FIPS 140-2 and AES-256 encryption
- MIL-STD-810, MIL-STD-461

APPLICATIONS
- UAS, UGV, UUV
- High speed sensor recording
- Sensor development
- Flight test

BENEFITS
- Rugged conduction- and air-cooled design
- SWaP-C
- High bandwidth
- High storage density
- Flexible and scalable
- Rugged design

Network
- Up to 1 Mellanox® 100GbE Controller
- Up to 1 Intel® 40GbE Controller
- Up to 2 Intel® 10GbE Controllers
- Up to 5 Intel® GbE Controllers
- Dedicated Intel® GbE Controller for control interface

Storage
- Up to 80TB removable MLC SSD
- Up to 40TB removable SLC SSD
- RAID 0, RAID 1, RAID 5 support
- Optional certified FIPS 140-2 hardware encryption (AES-256)
- Optional AES 256-bit encryption

Front Panel Interfaces
- Removable storage bay

GPS
- On-board GPS unit
- Time and date synchronization through GPS or NTP service

Rear Panel Interfaces
- Up to 1x 100GBASE-SR4
- Up to 1x 40GBASE-SR4
- Up to 2x 10GBASE-T
- Up to 5x 1000BASE-T
- Up to 3 USB
- 2x RS-232
- 4x GPIO
- VGA
- 1x GPS antenna input

Operating Temperature
- 0°C to +50°C standard temperature
- -40°C to +71/75°C extended temperature (AC/CC)

Shock and Vibration
- Tested to MIL-STD-810

Altitude
- -1500 to 40 000 ft (AC)*
- -1500 to 60 000 ft (CC)*

EMI/RFI
- Tested to MIL-STD-461

Humidity
- Up to 100%, condensing

Size, Weight & Power
- 157 x 201 x 103 mm**
- Rugged small form factor, available in conduction cooled, forced air cooled and fan-less natural convection cooled variants
- Weight: from 4.5 kg (min. configuration)
- Power, idle: 40-60W; max 50-90W (configuration dependent)

Power Supply
- 16-40V DC wide input

* Contact factory for high altitude options
** Conduction cooled, Small Form Factor (SFF)

RELATED PRODUCTS
- CP50 Control Panel
- Offload Systems
- XSR RDM
- Titan 40GbE XMC

Galleon Embedded Computing

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