

# Galleon Gigabit Ethernet Recorder

## Rugged - Ultra Small - High Performance



### KEY FEATURES

- Ultra small: 156 x 175 x 103 mm (Conduction Cooled)
- 5x Intel® Gigabit Ethernet Controllers for high speed data acquisition
- Up to 4TB (SLC) or 8TB (MLC) Removable Solid State Storage
- Optional AES256 Encryption
- GPS unit for date and time synchronization
- Timestamping of recorded data.
- XMC Site for flexible I/O Expansion (analog, sFPDP, 1553, HD video, custom, etc)
- Wide Input 12-48V DC Power
- Rugged Conduction Cooled or Air Cooled Designs
- MIL-STD-810G
- MIL-STD-461F

### APPLICATIONS

- UAVs, UGVs
- Surveillance
- HD Video Recording
- Sensor Development

### BENEFITS

- Optimized for Size, Weight, Power and Cost (SWaPC)
- High Bandwidth
- High Storage Density
- Flexible and Scalable
- Rugged design

## Gigabit Ethernet Recorder

The Galleon Rugged Gigabit Ethernet data recorder offers superior performance in an ultra small form factor, and is capable of capturing data from up to five separate Gigabit Ethernet interfaces. Each Gigabit Ethernet interface can be recorded at full speed storing UDP or TCP payload data.

The extremely rugged and SWaPC optimized design makes it ideal for deployed applications in unmanned aerial systems, test pods, ground vehicles, etc.

Rugged miniature 38999 connectors for all interfaces ensure reliable operation under all conditions.

Removable storage 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 data 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 Gigabit Ethernet connection. Optional AES 256-bit hardware encryption provides a high level of data security with flexible key loading options, including physical key tokens through front panel key loading port and remote loading over a secure network connection.



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### XSR-GE In a Nutshell

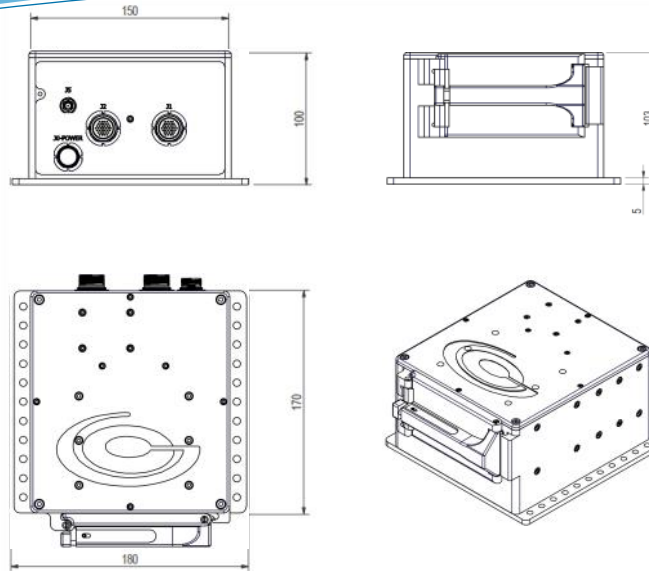
The Galleon Rugged Gigabit Ethernet data recorder is ideal for size and weight constrained applications where high performance data recording is needed.

The extremely flexible design makes it easy to combine Gigabit Ethernet data recording with other industry standard interfaces, such as Serial FPDP, 1553, ARINC 818, etc.

A simple C++ API is provided for recorder control over a dedicated Ethernet connection.

The removable data cartridges can hold up to 8TB when using industrial grade MLC solid state drives and 4TB when using MIL grade SLC SSDs. The data cartridges can be exchanged in seconds without tools, even when wearing gloves.

Intel architecture hardware and open Linux software makes the Galleon data recorder an ideal platform to build your custom applications. The flexible HW architecture allows for easy integration of custom or 3rd party I/O.



## Technical Specification

### Network

- 4x Intel® 82574 Gigabit Ethernet Controllers for high speed Ethernet Recording
- 1x dedicated Gigabit Ethernet Controller for Control Interface and high speed Ethernet recording.

### Processor & Memory

- Intel Core-i7 Gen3
- Up to 16GB DDR3 ECC SDRAM

### Storage

- Up to 4TB SLC Removable Solid State Disks
- Up to 8TB MLC Removable Solid State Disks
- Optional AES 256-bit Encryption

### Rear Panel Interfaces

- 5x Gigabit Ethernet
- 1x Power
- 1x GPS Antenna input

### Front Panel Interfaces

- Removable Storage Bay

### I/O Expansion

- One x8 PCI Express 2.0 XMC Site

### GPS

- Onboard GPS unit
- Time and date synchronization through GPS or NTP service

### Operating Temperature

- 0°C to +50°C Standard temperature
- -20°C to +65°C Extended temperature
- -40°C to +71/75°C Extended temperature (AC/CC) \*

### Shock & Vibration

- Tested to MIL-STD-810G

### Altitude

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

### EMI/RFI

- Tested to MIL-STD-461F

### Humidity

- Up to 100%, condensing

### Size, Weight & Power

- CC: 156 x 175 x 103mm (6.1 x 6.9 x 4.1") \*\*
- AC: 253 x 175 x 149mm (10 x 6.9 x 5.9") \*\*
- Weight: 4.0kg (Minimum configuration)
- Power (idle): 45W
- Power (max load): 65W

### Power Supply

- 12-48V DC Wide Input

\* Contact factory for high altitude options.

\*\* Without connectors and storage bay lid.

## Galleon Embedded Computing

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