

Galleon Serial FPDP Recorder

Quad Channel, Extremely Rugged

KEY FEATURES

- Ultra small:
156 x 175 x 103 mm
(Conduction Cooled)
- 4 Channel Serial FPDP
- VITA 17.1-2003
(R2009) Compliant
- 1.0625, 2.125, 2.5,
3.125 and 4.25 Gbaud
supported
- Optical Duplex LC or
rugged MIL-DTL-38999
or MINI-2 Expanded
Beam Connectors
- Up to 4TB SLC or 8TB
MLC Removable Solid
State Storage
- Optional AES256 En-
cryption
- GPS unit for date and
time synchronization
- Timestamping of rec-
orded data.
- Wide Input 12 to 48V
DC Power
- Rugged Conduction
Cooled or Air Cooled
Designs

APPLICATIONS

- Missile Testing
- Radar Data Recording
- High Speed Sensor
Data Capture
- Geological Survey and
Seismic
- Physics Research

BENEFITS

- SWaP Optimized
- High Performance
- Flexible and Scalable
- Rugged design



Serial FPDP Recorder

The Galleon Rugged Serial FPDP recorder offers superior performance in an ultra small form factor, and is capable of capturing up to four Serial FPDP channels at link speeds up to 4.25Gbaud.

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

A choice of rugged MIL-DTL-38999 or MINI-2 optical connections ensure reliable operation for deployed applications, while Duplex LC provides backwards compatibility with existing installations.

Removable storage ensures 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 dedicated 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 through a dedicated key management Ethernet port.



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Galleon XSR Serial FPDP Recorder Highlights

The Galleon Rugged Serial FPDP 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 Serial FPDP recording with other industry standard interfaces, such as Gigabit Ethernet, MIL-STD-1553, ARINC 429, 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 recorders 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

Serial FPDP

- 4x Channels
- 1.0625, 2.125, 2.5, 3.125 and 4.25 Gbaud link speed supported
- VITA 17.1-2003 (R2009) Compliant
- Optical MIL-38999 expanded beam, MINI-2 or Duplex LC Optical Connectors

Processor & Memory

- Intel Core-i7 Dual and Quad Core Options
- Up to 16GB DDR3 SDRAM

Storage

- Up to 4TB SLC Removable Solid State Disks
- Up to 8TB MLC Removable Solid State Disks
- Optional AES256 Encryption

Rear Panel Interfaces

- 4x Optical LC or MIL-DTL-38999 expanded beam
- 1x Gigabit Ethernet (control)
- 1x VGA
- 2x USB
- 1x Power (12-48V DC)
- 1x GPS Antenna Input

Front Panel Interfaces

- Removable Storage Bay

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-810

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: 5-8kg (Configuration dependent)
- Power, idle: 55W
- Power, recording 2Ch sFPDP: 70W
- Power, max load: 85W

Power Supply

- 12-48V DC Wide Input

* Contact factory for high altitude options.

** Without connectors and storage bay lid.

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