

GALLEON G1 PRODUCT FAMILY

Removable Storage – High Performance

The Galleon G1 product family provides a wide range of capabilities packaged in extremely small enclosures. They have been designed to meet the most severe environmental conditions without compromising on functionality and performance. The Size, Weight and Power (SWaP) optimized design makes them ideal for use in small unmanned aerial and ground systems, as well as other space and power constrained applications.

The G1 microNAS is a versatile network attached storage solution capable of handling a high number of simultaneous connections without compromising system performance. Four channels of Gigabit Ethernet connections are available for multi-channel high bandwidth applications. An optional 10GBASE-T can also be added. The unit can be delivered with Windows Embedded Storage Server or Linux Enterprise Server preconfigured to suit your application needs.

The G1 microServer is a full featured server ideal for surveillance, reconnaissance, intelligence, and flight test applications where large amounts of data must be collected and stored during very long missions. The microServer can be configured with RedHat Enterprise Linux, or Windows 10 and Windows Server.

The G1 microRecorder is capable of capturing up to four Gigabit Ethernet ports at full line rate and remove at close to 120MB/s per Ethernet port. With the optional 10GbE port, recording rates increase to greater than 800MB/s. Fitted with up to 40TB of Industrial Grade MLC storage or up to 20TB Military Grade SLC storage, the removable data modules allow very short turnaround times between missions and easy transport of data between the vehicle or aircraft and the command station or lab where the data is analyzed or distributed.

Optional Hardware Full Disk Encryption (HWFDE) and Software Full Disk Encryption (SWFDE) can be added to any of the G1 systems to provide a dual layer protection based on the NSA's Commercial Solutions for Classified Program. These encryption capabilities are currently undergoing Common Criteria certification and certification is expected to be completed in Q2 2022. The dual layer approach provides critical data protection to the removable storage allowing for quick and easy deployment of these systems in the most sensitive of applications and environments.

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

G1 RUGGED COMPUTING SOLUTIONS



**G1
MICRONAS**



**G1
MICROSERVER**



**G1
MICRORECORDER**



KEY FEATURES

- Quad Gigabit Ethernet ports
- Single 10GbEthernet port
- Up to 40TB SSD
- 16V-50V DC power
- Intel® CPU
- Easy to use Recorder API
- 8GB SDRAM with ECC
- Optional AES-256 encryption
- MIL-STD-810, MIL-STD-461 and MIL-STD-704

APPLICATIONS

- UAS data recorder
- Multi-sensor recorder
- Flight test data recorder
- Surveillance, intelligence, reconnaissance

BENEFITS

- Rugged conduction cooled designs
- SWaP-C optimized
- Low power
- High bandwidth

TECHNICAL SPECIFICATIONS



Rear Panel Recording Interfaces

- 4x 1000BASE-T Gigabit Ethernet
- 1x 10GBase-T 10GbE (option)

Storage

- Up to 40TB removable MLC SSD
- Up to 20TB removable SLC SSD
- Non-removable storage for OS installation
- Up to 256GB SLC FLASH
- File system: EXT4

Processor

- Intel® C2758 Octal Core CPU @ 2.4GHz
- 8GB DDR3 SDRAM with ECC*

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)

I/O Expansion

- MiniPCI Express expansion site

Interfaces

- 4x Gigabit Ethernet
- 1x 10GbEthernet (option)
- 1x VGA
- 2x USB 2.0
- 2x RS232
- 1x Power
- 1x GPS antenna input (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

- Ultra-Small Form Factor: 3.2 x 2.5 x 7.2"
- Conduction cooled and natural convection cooled
- Weight: < 3.3 lb
- Power: 20W-35W (configuration dependent)

Power Supply

- 16-50V DC (nominal)
- Tested to MIL-STD-704

* Contact factory for other memory options (MOQ conditions apply)

** Contact factory for high altitude options

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

- CP50 Control Panel
- XSR Ethernet Recorders
- Offload Systems
- G1 Removable Data Module



SPECTRA AEROSPACE & DEFENSE

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