HALF19 2U RUGGED SERVER
H19-245FH1-S7

expando

2U	**1**	**1**
Platform	CPU	I/O Board

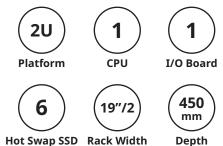| **6**	**19"/2**	**450 mm**
Hot Swap SSD	Rack Width	Depth

HALF19 is a family of rugged servers and workstations with an aluminum construction, designed for applications that require robust and qualified MIL-GRADE equipment, suitable for operations in critical environments.

H19-245FH1-S7 rugged server feature single socket 3rd Gen Intel© Xeon© Scalable Processors (Ice Lake), a balanced architecture that delivers built-in AI acceleration and advanced security capabilities and up to 64 lanes PCI Express Gen 4 per socket to enable higher I/O bandwidth per core. The integrated IPMI services support monitoring, control, and management functions sending alarm notifications in case of critical events.

H19-245FH1-S7 have a 2U compact modular chassis with a depth of 450mm and are provided with front brackets that make them suitable for a rack space mounting half the size of a regular 19". Two units can also be paired with a retention kit to be accomodated into a standard 19" rack.

H19-245FH1-S7 rugged servers have a layout with front I/O and rear power supply layout. The front panel includes up to four removable U.2 NVMe SSD or up to six removable 2.5" SAS/ SATA SSDs. One slot for a Low profile PCIe card is also available.

H19 servers are designed to meet MIL-STD-810G for temperature and shocks, MIL-STD-167-1A for vibrations. Optionally, they can conform to MIL-STD-461 for EMI /EMC.

The I/O connectors and the power supply input can be provided with MIL-GRADE connectors upon request.

All units are delivered with their inventory list to ensure configuration control and reproducibility over time. Upon request, all server configurations can run specific thermal or mechanical environmental stress test.

FEATURES

- **3rd Gen Intel© Xeon© Scalable Processors**
- **2U Half Rugged Server - 450 mm depth**
- **Single Socket Motherboard**
- **4 x U.2 NVMe SSD or 6 x 2.5" SATA/SAS SSD**
- **1 x LP PCIe board**
- **Front I/O connectors and rear Power Input**
- **Single AC or DC Power Supply**
- **Removable fan**
- **Optional Conformal Coating**
- **MIL-STD-810G**
- **Optional MIL-STD-461**
- **5 year Warranty**
- **VMware Compliance**

SYSTEM

CPU	3rd Gen Intel© Xeon©, Scalable processors Single Socket LGA-4189 (Socket P+) max 205W TDP
Memory	Up to 2TB ECC RDIMM, DDR4-3200MHz; 8 DIMM slots
Chipset	Intel© C621A
Graphics	ASPEED AST2600 BMC
Network Connectivity	1x Dedicated IPMI LAN port, 2x 10 GbE ports
Storage	Internal: 1x M.2 NVMe M-Key 2280/22110, 2x Disk on Module, Externally Removable: Up to 4x U.2 NVMe or 6x 2.5" SATA / SAS SSD
TPM	1x TPM Header
Motherboard	I/O shield Available on the front: 1x COM; 1x IPMI LAN; 2x USB 2.0; 2x USB 3.2; 2x GbE; 1x VGA
Expansion slots	1x PCIe 4.0 x16 slot (Low profile)
Operative Systems	Windows© 10 IoT Enterprise 64bit, Windows© Server 2016 64bit; Windows© Server 2019 64bit; RHEL 8.4 64bit; Ubuntu, 20.04.2 LTS SVR 64bit; CentOS 7.9 64bit
IPMI	IPMI2.0, SPM, Watchdog; SNMP and e-mail alarms and notifications

POWER SUPPLY

Power Supply	AC Single Power Supply DC Single Power Supply

MECHANICAL

Dimensions	249 (213mm body) x 88 x 450 mm (W x H x D)
Material	Aluminum with surface passivation treatment
Colour	NATO Green / RAL 6031 - Powder Coating
Mounting	2U Half of a 19" rackmount chassis; Optional Telescopic slides; Retention kit to pair two units in a 19" rackmount space included
Configuration	Front I/O - Rear Power Supply
Front Panel Leds / Buttons	Power On/Off button with LED
Drive Bays	2x 3.5"
Fans	1x removable PWM fans

ENVIRONMENTAL - (DESIGN TO MEET)

Operating Temperature	Standard: 0 C / +50 C Extended: -20 C / +60 C (depending on the configurations)
Operating Humidity	5% to 95% non-condensed (depending on the configurations)
Storage Temperature	-40C / +70 C (depending on the configurations)
Vibrations	MIL-STD-810G, Method 514.7, Cat 4 - Proc. I - 2.24 Grms, 5-500 Hz 60 min/axis for 3 axes
Operating Shock	MIL-STD-810G Proc. I Method 516.7 - 15g / 11ms – half sine
Transport shock	MIL-STD-810G Proc. II Method 516.7 - 30g / 9ms sawtooth
Certifications	Directive 2014/35/UE-LVD / Directive 2014/30/UE-EMC Directive 2011/65/UE - RoHS / Regulation (EC) No 1907/2006 - REACH

HALF19 servers and workstations are designed in accordance with the environmental specifications indicated.
Some parameters depend on the configuration. Equipment may be subjected to dedicated test profiles.