

# HALF19 2U RUGGED SERVER

## H19-245FH2-S7

expando



2U

Platform

1

CPU

2

I/O Board

3

Hot Swap SSD

19"/2

Rack Width

450 mm

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.

H19-245FH2-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 ExpressGen 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.

H19-245FH2-S7 have a 2U compact modular chassis with a depth of 450mm and are provided with front brackets suitable for half 19" rack space mounting. Two units can also be paired with a retention kit to be accommodated into a standard 19" rack.

H19-245FH2-S7 rugged servers have a layout with front I/O and rear power supply layout. The front panel includes up to two removable U.2 NVMe SSD or up to three removable 2.5" SAS/ SATA SSDs. Two low profile slots for PCIe cards are 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
- 2 x U.2 NVMe SSD or 3 x 2.5" SATA/SAS SSD
- 2 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

<b>CPU</b>	3rd Gen Intel® Xeon®, Scalable processors Single Socket LGA-4189 (Socket P+) max 205W TDP
<b>Memory</b>	Up to 2TB ECC RDIMM, DDR4-3200MHz; 8 DIMM slots
<b>Chipset</b>	Intel® C621A
<b>Graphics</b>	ASPEED AST2600 BMC
<b>Network Connectivity</b>	1x Dedicated IPMI LAN port, 2x 10 GbE ports
<b>Storage</b>	Internal: 1x M.2 NVMe M-Key 2280/22110; 2x Disk on Module; Externally Removable: Up to 2x U.2 NVMe or 3x 2.5" SATA / SAS SSD
<b>TPM</b>	1x TPM Header
<b>Motherboard</b>	I/O shield Available on the front: 1x COM; 1x IPMI LAN; 2x USB 2.0; 2x USB 3.2; 2x GbE; 1x VGA
<b>Expansion slots</b>	2x PCIe 4.0 x8 slot (Low profile)
<b>Operative Systems</b>	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
<b>IPMI</b>	IPMI2.0, SPM, Watchdog; SNMP and e-mail alarms and notifications

### POWER SUPPLY

<b>Power Supply</b>	AC Single Power Supply DC Single Power Supply
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### MECHANICAL

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

### ENVIRONMENTAL - (DESIGN TO MEET)

<b>Operating Temperature</b>	Standard: 0 C / +50 C Extended: -20 C / +60 C (depending on the configurations)
<b>Operating Humidity</b>	5% to 95% non-condensed (depending on the configurations)
<b>Storage Temperature</b>	-40C / +70 C (depending on the configurations)
<b>Vibrations</b>	MIL-STD-810G, Method 514.7, Cat 4 - Proc. I - 2.24 Grms, 5-500 Hz 60 min/axis for 3 axes
<b>Operating Shock</b>	MIL-STD-810G Proc. I Method 516.7 - 15g / 11ms – half sine
<b>Transport shock</b>	MIL-STD-810G Proc. II Method 516.7 - 30g / 9ms sawtooth
<b>Certifications</b>	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.