



HARSHPRO™ IP20-S SERVER

Developed and manufactured in Singapore, the HarshPro IP20-S Server is a powerful flash storage server with an Intel® Xeon®¹ processor and high bandwidth connectivity options, enabling rugged high-speed storage wherever you need it. The server has an IP20 rated rack enclosure designed for industrial environments. Having no moving parts, solid state disks offer enhanced resistance to vibration and shock and offer greater reliability when compared with traditional platter based hard disks. The HarshPro IP20-S Server is equipped with a Trusted Platform Module further enabling security of the server and your data in the field.

HarshPro IP20-S Server is designed to work standalone or clustered in remote locations. The server supports functionality commonly used in data centers including automated provisioning and remote management. The baseboard management controller (BMC) supports popular remote management technologies like IPMI, PXE, Redfish®, and KVM over IP which allows it to be fully administered remotely down to the BIOS level.



HARSHPRO IP20-S SERVER SPECIFICATIONS²

System Chipset

CPU:	Intel® Xeon® D-1539
Maximum Speed:	1.6 GHz
Max Turbo Frequency:	2.2 GHz
L3 Cache:	12 MB
Cores:	8

¹ Intel and Xeon are trademarks of Intel Corporation or its subsidiaries in the U.S. and/or other countries

² This is a draft datasheet, specifications listed here may be subject to change



Threads:	16
BIOS:	AMI APTIO-V UEFI version 2.4 UEFI Platform Initialization version 1.3

Memory

Technology:	Dual channel 2133 MHz ECC DDR4
Slot:	4 x RDIMM (up to 32 GB per slot) or UDIMM (up to 16 GB per slot), 288 pins
Maximum Capacity:	128 GB (RDIMM), 64 GB (UDIMM)

Trusted Platform Module (TPM) 2.0

TPM Module:	Infineon
Chipset:	OPTIGA™ TPM SLM 9670
Cryptography:	RSA-1024, RSA-2048, SHA-1, SHA-256, ECC NIST P256, ECC BN256
Certifications	CC EAL4+ (moderate) ; FIPS 140-2 level 2

Ethernet

Network Controllers:	1 GbE Intel® i210IT 10 GbE SFP+ Intel® SoC
Interfaces:	2 x PoE++ RJ45 (PoE 802.3bt Type 4) 2 x SFP+

Expansion Slots

M.2 PCIe ³	6 x M.2 M Key 1 x M.2(2232/2240) E Key (for WiFi)
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Storage

Technology:	M.2 or U.2 NVMe SSD
Maximum Capacity:	46 TB (6 x 7.68 TB)

³ Form Factor supported: 2232/2240/2260/2280/22110



Display

Interface:	KVM over IP
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LED and Switch

Button / LED:	Power switch & Power LED indicator
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Power

Power Supply:	110/220VAC input
Input Power:	50/60Hz
POE++ ⁴ :	2 x PD 71W

Environment

Operating Temperature:	-20°C to 50°C ⁵
Non-operating Temperature:	-40°C to 85°C
Humidity:	10-90% RH (operating and non-operating)
Vibration ⁶ :	5 Grms, 5-500 Hz, 3 Axes
Shock ⁷ :	50 Grms, half-sine 11 ms duration
IP rating:	IP20
Altitude:	Up to 15,000 ft above sea level

Mechanical

Dimensions:	19" 2U form factor 482mm (L) x 480mm (W) x 88mm (H)
Weight:	9.6Kg
Cooling:	Fan cooled 19" 2U (includes air filters)

⁴ OE++ IEEE802.3bt Type 4 Class 8

⁵ Operating temperature band can increase with use of wideband operating temperature PSU & Fans

⁶ Subject to change

⁷ Subject to change

**OS Support:**

CentOS v7.4
Red Hat® Enterprise Linux® (RHEL) v7.4/7.5/7.6
Red Hat® Enterprise Linux® (RHEL) Atomic v7.4
Ubuntu v18.04
Windows Server 2012 R2
Windows Server 2016
Windows 10 Pro

Certifications⁸:

EMC, FCC, CE, WEEE, UL, RoHS3, REACH



⁸ Equipment pending certifications