



## HARSHPRO™ IP20S SERVER

Developed and manufactured in Singapore, the HarshPro IP20S Server is a powerful flash storage server with an Intel® Xeon®<sup>1</sup> 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 IP20S Server is equipped with a Trusted Platform Module further enabling security of the server and your data in the field.

HarshPro IP20S 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 IP20S Server*

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



## HARSHPRO IP20S SERVER SPECIFICATIONS<sup>2</sup>

### System Chipset

CPU:	Intel® Xeon® D-1571 Intel® Xeon® D-1539 (Optional)
Base Frequency:	1.3 GHz
Max Turbo Frequency:	2.1 GHz
L3 Cache:	12 MB
Cores:	16
Threads:	32
BIOS:	AMI® APTIO-V® UEFI version 2.4 UEFI Platform Initialization version 1.3

### Memory

Technology:	Dual channel 2400 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+

<sup>2</sup> Specifications listed here may be subject to change



### Expansion Slots

M.2 PCIe <sup>3</sup>	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)

### 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

### Environment

Motherboard Ambient Operating Temperature:	-20°C to 55°C <sup>4</sup>
Server Ambient Operating Temperature:	-20°C to 55°C
Humidity:	10-90% RH (operating and non-operating)
Vibration <sup>5</sup> :	5 Grms, 5-500 Hz, 3 Axes
Shock <sup>6</sup> :	50 Grms, half-sine 11 ms duration
IP rating:	IP20
Altitude:	Up to 15,000 ft above sea level

<sup>3</sup> Form factor supported: 2232/2240/2260/2280/22110

<sup>4</sup> Operating temperature band can increase with use of wideband operating temperature PSU & Fans

<sup>5</sup> Subject to change

<sup>6</sup> Subject to change



### Mechanical

Dimensions:	19" 2U form factor 580 mm (L) x 430 mm (W) x 88.5 mm (H)
Weight:	9.6 kg
Cooling:	Fan cooled (includes air filters)

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
Certifications <sup>7</sup> :	EMC, FCC, CE, WEEE, UL, RoHS3, REACH



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<sup>7</sup> Equipment pending certifications