HARSHPRO™ IP20-A SERVER

Developed and manufactured in Singapore, the HarshPro IP20-A Server is a powerful rugged server built for performance with an Intel® Xeon®[1] processor, multiple memory configurations, and high-capacity, high speed NVMe SSDs, enabling distributed cloud functionality and application containerization wherever you need it. Designed for image processing, the HarshPro IP20-A Server is equipped with a GPU card and a display card that can support widescreen (21:9) formats. The HarshPro IP20-A Server is equipped with a Trusted Platform Module 2.0 (TPM) enabling an increased level of system security.

HarshPro IP20-A Server has an 19" rack enclosure designed for use in industrial environments and can work standalone or clustered in remote locations. The server supports functionality commonly used in data centers including automated provisioning and remote management. The server can be expanded with multiple PCIe GPUs allowing for use in machine learning applications. The baseboard management controller (BMC) supports popular remote management technologies like IPMI, Redfish®, and KVM over IP which allows it to be fully administered remotely down to the UEFI/BIOS level.

Photo for illustration purposes only

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

HARSHPRO IP20-A SERVER SPECIFICATIONS[2]

System Chipset

CPU:	Intel® Xeon® D-1539
Maximum Speed:	1.6 GHz
Max Turbo Frequency:	2.2 GHz
L3 Cache:	12 MB
Cores:	8
Threads:	16
BIOS:	AMI® APTIO-V® UEFI version 2.4 UEFI Platform Initialization version 1.3

Memory

Technology:	Dual channel 2133 MHz ECC 288 pin DDR4
Slots:	4 x DIMM Slots RDIMM (up to 32 GB per slot) UDIMM (up to 16 GB per slot)
Maximum Capacity:	128 GB (RDIMM)
ECC Support:	Yes

Baseboard Management Controller (BMC)

Chipset:	ASPEED AST2500
Firmware:	AMI® MegaRAC® SP-X
Protocols:	Redfish® 1.5, KVM over IP, IPMI 2.0

Trusted Platform Module (TPM) 2.0

TPM Module:	Infineon
Chipset:	OPTIGA™ TPM SLM 9670

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[2] *Specifications listed here may be subject to change*

Input/Output Interfaces

Ethernet Network Controllers:	1 GbE Intel® i210IT 10 GbE SFP+ Intel® SoC
Interfaces:	2 x RJ45 GbE (BMC access through one port) 2 x SFP+ (BMC access through on SFP+ module) 2 x USB2 2 x USB3.1 (via 1 x M.2 card)

GPU and Display Card

GPU:	NVIDIA RTX™ 3080 (sample)
Display Card:	NVIDIA RTX™ 3070 (sample)
Interfaces:	2 x ADT Link M.2 to PCIe adapter

Expansion Slots

M.2:	6 x M.2 M Key (2232/2240/2260/2280/22110) 1 x M.2 E Key (2232/2240) (for WiFi)

Storage

Technology:	M.2 NVMe
Maximum Capacity:	Up to 6TB (3 x 2TB SSD)

LED and Switch

Button / LED:	Combined LED status & pushbutton

Power

Input Voltage:	100 – 240 VAC
Power Supply:	ATX 850 watts
Power Consumption:	530 watts (typical)

Environment[3]

Operating Temperature:	0°C to 40°C[4]
Humidity:	10-90% RH (operating and non-operating)
Vibration:	5 Grms, 5-500 Hz, 3 Axes
Shock:	50 Grms, half-sine 11 ms duration

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[3] *Subject to change*

[4] *IP20-A operating temperature range is restricted by NVIDIA cards' operating temperature range*

IP rating:	IP20
Altitude:	Up to 15,000 ft above sea level

Mechanical[5]

Dimensions:	19'' rack , 3U or 4U - TBC
Weight:	TBC
Installation:	TBC

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[6]:	EMC, FCC, CE, WEEE, UL, RoHS3, REACH

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[5] *Subject to change*
[6] *Subject to change*