HARSHPRO™ IP20A SERVER

Developed and manufactured in Singapore, the HarshPro IP20A 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 IP20A Server is equipped with a GPU card and a display card that can support widescreen (21:9) formats. The HarshPro IP20A Server is equipped with a Trusted Platform Module 2.0 (TPM) enabling an increased level of system security.

HarshPro IP20A 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 configured to support up to two 2.7 slot width PCIe GPU cards, enabling machine learning and a variety of other 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.

Render of HarshPro IP20A Server

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

HARSHPRO IP20A SERVER SPECIFICATIONS[2]

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:	24 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)

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

Input/Output Interfaces

Interfaces:	2 x USB2 4 x USB3.2 Gen 1

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

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+

GPU and Display Card

GPU:	NVIDIA RTX™ 3080 (sample)
Interfaces:	Up to x16 PCIe Gen 3 (x4 lanes per slot)
Max No. of GPU Cards Supported:	2
GPU Card Form Factor:	Full height Full length Max slot width 2.7

Expansion Slots

M.2:	6 x M.2 M Key (6 x 22110 max) 1 x M.2 E Key (2242) (for WiFi)

Storage

Technology:	M.2 NVMe
Maximum Capacity:	Up to 10TB (5 x 2 TB SSD)

LED and Switch

Button / LED:	Combined LED status & pushbutton

Power

Input Voltage:	90 – 264 VAC
Input Power:	50/60 Hz
Estimated Motherboard Power Consumption:	120 W
System Power Consumption:	Up to 700 W

Environment

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

Mechanical

Dimensions:	19" rack 3U form factor 580 mm (L) x 440 mm (W) x 130 mm (H)
Weight:	15.6 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[4]:	EMC, FCC, CE, WEEE, UL, RoHS3, REACH

[3] *Operating temperature band can increase with use of wideband operating temperature PSU & Fans*
[4] *Equipment pending certifications*