VEGA-7020

1U High Density Video Server for Accelerated Video Processing

Features

- Short depth 1RU x 19" server platform
- Intel Xeon Workstation-Class Processor with embedded graphics functionality and Intel Quick Sync Video support
- Four PCI Express card slots for I/O and accelerators
- Four Gigabit ethernet network ports
- Front panel LCD display, keypad, and confidence monitor
- Flexible storage options
- Redundant power supplies

Introduction

The VEGA-7020 is a highly configurable, 1U, short-depth video applications server based on the Intel Xeon W-12xx family of workstation processors (also known as Comet Lake). Supporting up to 8 CPU cores with on-board Intel UHD Graphics and Quick Sync Video functionality, the VEGA-7020 offers plenty of processing power for many software video workflows while its class-leading four PCI Express slots provide high flexibility to fit a wide range of video accelerators or video I/O cards such as the Advantech VEGA 4K and 8K encoding cards.

VEGA-7020 is ready for integration into streaming networks with four Gigabit Ethernet connections and can support latest generation protocols like SRT. It has the look and feel of an appliance with user-programmable front panel LCD and keypad and a small OLED confidence monitor for video display, but inside this is a reliable server architecture with dual redundant 550W power, dual NVME SSDs, and options for BMC-based remote management and secure TPM module.
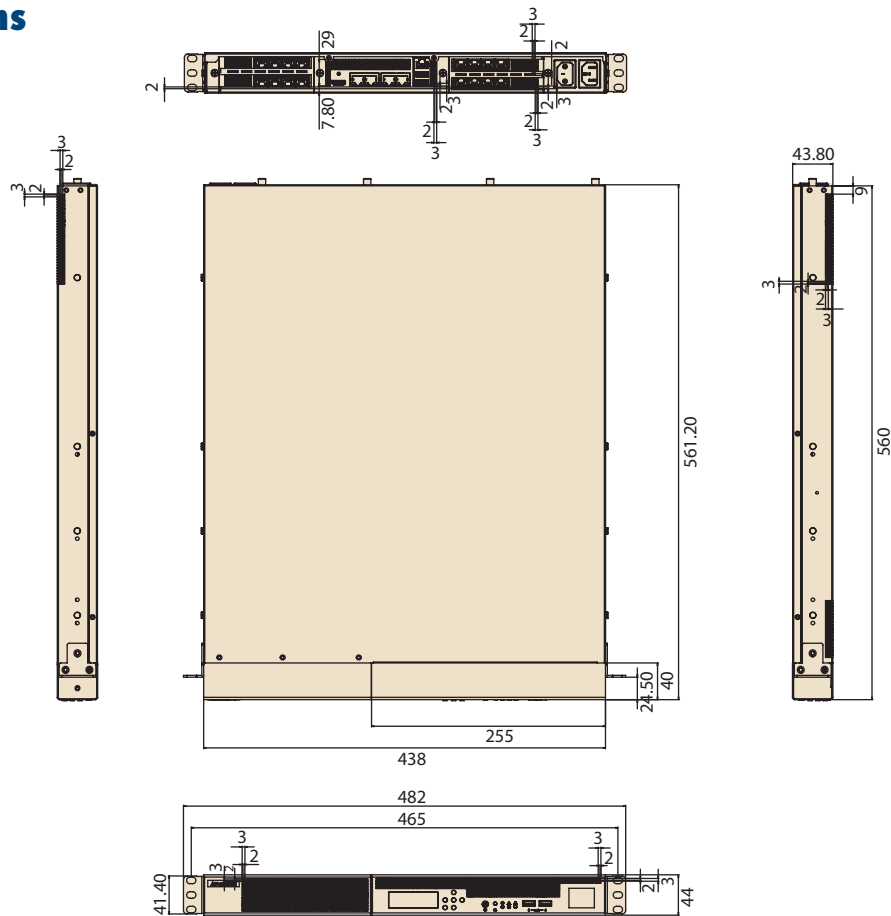
The short depth, high temperature operation makes VEGA-7020 especially suitable for video edge or field installations as well as equipment cabinets. VEGA-7020 can be supplied as an application ready platform with a range of accelerator options from 4K or 8K 4:2:2 HEVC capture and encode cards to high performance FPGA and multi-channel transcoders with Linux and Windows software packages that streamline product development and shortens time-to-market for the latest generation of OEM video requirements.
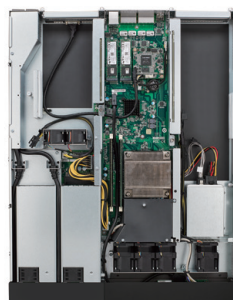
Specifications

System type		1U Server with appliance look and feel
	CPU Type	Intel® Xeon® W-1290E/W-1270E/W-1250E or 10th Generation Core™ i3/i5/i7 (TDP up to 93W)
Processor System	Socket Reference	LGA-1200 (Comet Lake)
	Intel PCH chipset	W480E
Graphics	Embedded Controller	Intel GPU 630 (NON BMC sku) Aspeed AST2500 (BMC sku)
Memory	Memory channels	2 channels DDR4 ECC/Non-ECC 2933/2666/2400 MHz UDIMM (288-pin)*
	Max. Capacity	64GB
Storage	M.2 NVME	2 x M.2 2280
	2.5 SATA	2 x 2.5" (optional)
Physical Characteristics	Rackmount/Tabletop/Others	1U rackmount
	Height x Width x Depth	44.4 x 438 x 560 mm
Power Supply	System PSU	Redundant AC/550W
PCIe Expansion Slots	PCIe slot q'ty for add-on card	2 x PCIe Gen 3 x8 FH/FL (x16 + x8 physical) or 1 x PCIe Gen 3 x16 FH/FL (optional) 2 x PCIe Gen 3 x4 FH/HL (x8 + x8 physical)
Networking	Interface	10/100/1000 Mbps
	Controller	GbE LAN1: Intel® I219; GbE LAN 2~4: Intel I210-AT
	Connector	RJ-45 x 4
Front I/O Interface	USB	2 x USB3.1 ports
	LCM	1
	OLED	1
	LED	3 x LEDs (Power, HW fault, Alarm)
Rear I/O Interface	1GbE RJ-45	4 x 1GbE ports
	HDMI port (NON BMC sku)	1 x HDMI 2.0 (Resolution up to 4096 x 2160 @ 60 Hz)
	Serial port	1 x RJ45
	USB	2 x USB 3.1 ports
	VGA port (BMC sku)	1 x VGA, external
Security	TPM	TPM2.0 (Optional)
System Management	BMC	Aspeed AST2500 BMC (Optional)
Environment	Humidity operational (non-condensing)	10 ~ 85% @ 40 °C non-condensing
	Storage	-20 to 70 °C
	Humidity Storage	5% to 95% RH
	RoHS6 Compliant	RoHS 5/6
	Operation Temperature	0 to 45 °C

All product specifications are subject to change without notice.

Last updated: 23-Feb-2022

Dimensions

Unit: mm [inch]

Note: For NON BMC sku, use on board HDMI port as local display.
     For BMC sku, use external VGA port as local display. (external VGA port uses 1 x PCie Gen 3 x 4)

Ordering Information

PN	Description
VEGA-7020-0A00E	VEGA-7020 Comet Lake-S 2-PSU STD BMC Server
VEGA-7020-0B00E	VEGA-7020 Comet Lake-S 2-PSU STD Server

Optional Accessories

PN	Description
VEGA7020-BMC00AE	VEGA-7020 BMC Module