VEGA-6321

1U Standard Half-Rack 8K UHD Live Player/Streamer

Features

- Real-time video processing offering by Intel 13th RPL-P processer
- The latest UHD display support with HDMI2.1 output
- Advanced Video processing & low power consumption with DDR5 5200MT/s
- High bandwitdh PCIe (gen4) support a professional video accelerator card (Gen4 x8) &NVME Storage(Gen4 x4)
- True color preview supported by 2" confidence monitor with 6 keypads (optional,TBD)

Introduction

Empowered by Intel 13th platform RPL-P ,the VEGA-6321 is a configured 8K decoder / 4K encoder in-build with supporting low-latency transmission.

Featuring real time video processing by Iris Xe and latest UHD display support with HDMI2.1. As well as the high speed video processing/ low power consumption by DDR5 5200MT/s. Besides, the high bandwidth PCIe (gen4) support your professional video accelerator card & NVME storage. Moreover, the ture color preview support by 2" confidence monitor & 6 keypads on front side panel(optional, TBD)

For rear I/O, VEGA-6321 has 1x HDMI2.1 output to support UHD video display; 2x USB3.2 Gen2 to provide your diversity of application; 3x ethernet LAN2.5G for IP transport; For front side, you can choose the optional TFT LCM with 6 keypads on it, to let your end user preview immediately at field site.

With Intel 13th GPU Irix Xe, VEGA-6321 be empowered to process the video with below capability:
As decorder, with codec AVC/HEVC/VP9/AV1, support the video output up to 8Kp60p (HDMI2.1) ; If you add your video capturing PCIe card, you can utilize the VEGA-6321 in-build encoder, with codec AVC/HEVC/VP9, support the video input up to 4Kp60.
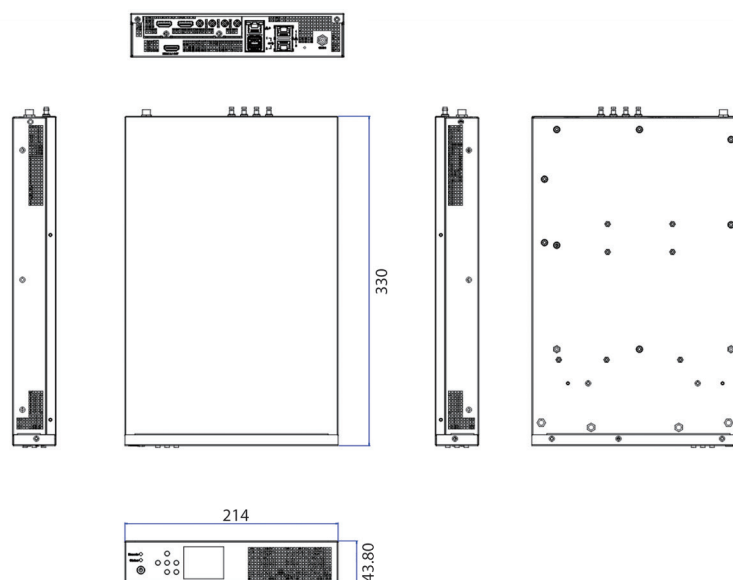
Specifications

Video Input (with video capturing card)	Channels/Interfaces	1 x HDMI2.0		
	Video formats	HDMI2.0 4K/3840x2160 :60p/59.94p/50p/30p/29.97p/25p/24p/23.98p 1920x1080:60p/59.94p/50p/30p/29.97p/25p/24p/23.98p 1280x720:60p/59.94p/50p/30p/29.97p/25p		
Hardware Video Compression	Codec	AVC(H.264), HEVC(H.265), VP9		
	Bit Depth	8-bit		
	Chroma Sampling Format	HDMI2.0: RGB 4:4:4 & YCbCr4:4:4 / 4:2:2		
Video Output	Channels/Interfaces	1 x HDMI2.1		
	Video formats	HDMI2.1 8K/7680x 4320(HDMI2.1):60p/59.94p/50p/30p/29.97p/25p/24p/23.98p 4K/3840x2160 :60p/59.94p(only 8bits)/50p/30p/29.97p/25p/24p/23.98p 1920x1080:60p/59.94p/50p/30p/29.97p/24p/23.98p 1280x720:60p/59.94p/50p		
Hardware Video De-compression	Codec	AVC(H.264), HEVC(H.265), VP9, AV1		
	Bit Depth	HDMI2.1: 8-/10-bit		
	Chroma Sampling Format	HDMI2.1: YCbCr 4:2:0		
HDMI	Channels	2		
	Format	PCM		
	Operation mode	Stereo		
	Sampling Frequency	48 KHz		
	Sampling Bit Depth	16-bit		
Software	Operating system	Windows 10 (64-bit), Windows 11 (64-bit), Linux (64-bit) *Standard product is without OS, if you want the OS install please contact us for this request.		
13th Generation Processors	CPU	i7-13800HE	i5-13600HE	i3-13300HE
	P-core Base Frequency (Up to)	2.8GHz	2.9GHz	2.6Ghz
	L3 Cache	24	18	12
	Cores	14	12	8
	System Base Power	45W		
Expansion Slot	PCIe x8 (Gen4)	1		
Memory	Technologh	Dual Channel DDR5 5200MT/s Non-ECC SODIMM		
	Max Capacity	96GB		
	Sockets	2 x 262-pin SODIMM		
Ethernet	Interface	10/100/1000/2500 Mbps		
	Controller	Intel I226-LM		
	Connector	3 x RJ-45		
SSD	Signal	PCIe x4 (Gen4)		
	Max Capacity	4TB		
	Interface	2 x M.2 2280 M Key		

Specifications (Cont.)

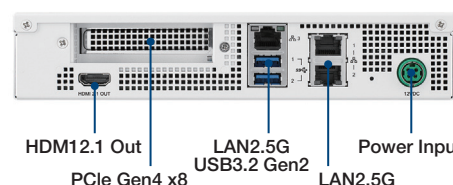|		
Rear I/O	Video Output Interfaces	1 x HDMI2.1 output
	USB	2 x USB 3.2 Gen2
	Ethernet	3
Front I/O	Confidence Monitor	1 x 2" TFT LCD panel with 6 keypads (Optional, TBD)
	LED	Alert :green; Live: Red / Green
	Power button	1
Internal	TPM	1 x TPM 2.0 on board
	M.2 E key	1 x M.2 2230 E key (PCIex1 Gen3 + USB2.0 , Reserved for wireless module)
	USB 3.2	1 x USB 3.2 Gen2
	USB 2.0	1 x USB2.0 (Reserved for security USB dongle)
Power requirement	Power consumption	Max power 176W; Typical 46W, DC12V
	Power Adapter Input	AC Input: 100-240V~,3.5A 50-60Hz ; DC Output: +12V/20.0A
Environment	Operating Temperature	0 to 45 °C
	Storage Temperature	-40 to 70 °C
	Operating Humidity	95% RH @40 °C, non-condensing
	Storage Humidity	95% RH @60 °C, non-condensing
Physical Characteristics	Dimensions	330mm(L) x 214mm(W) x 43.80mm(H) 12.99in(L) x 8.43in(W) x 1.72in(H)

Dimensions

Unit: mm [inch]

330

214

43.80

Front I/O

LED & Power Button

Rear I/O

HDM12.1 Out

PCIe Gen4 x8

LAN2.5G
USB3.2 Gen2

LAN2.5G

Power Input

Ordering Information

Part Number	Description
VEGA-6321R7-1UH (TBD)	VEGA-6321 1U Version with RPL-P i7-13800HE 45W, AC/DC power adaptor, support Half-Rack PCIe card
VEGA-6321R5-1UH (TBD)	VEGA-6321 1U Version with RPL-P i5-13600HE 45W, AC/DC power adaptor, support Half-Rack PCIe card
VEGA-6321R3-1UH (TBD)	VEGA-6321 1U Version with RPL-P i3-13300HE 45W, AC/DC power adaptor, support Half-Rack PCIe card

Optional Accessories

Part Number	Description
TBD	TBD