

VEGA-3000

SMPTE 2022-5,6 Video-over-IP PCIe Card

NEW



Features

- SMPTE 2022-6 Video over IP bridge that converts 3G-SDI x3 to 10G Ethernet
- Forward Error Correction (FEC) supported according to SMPTE 2022-5
- Send or receive raw video through PCIe interface to host computer
- Single configurable module allows operating as a transmitter or receiver
- Single slot, half length PCIe x8 card (only x4 used in logical)

Introduction

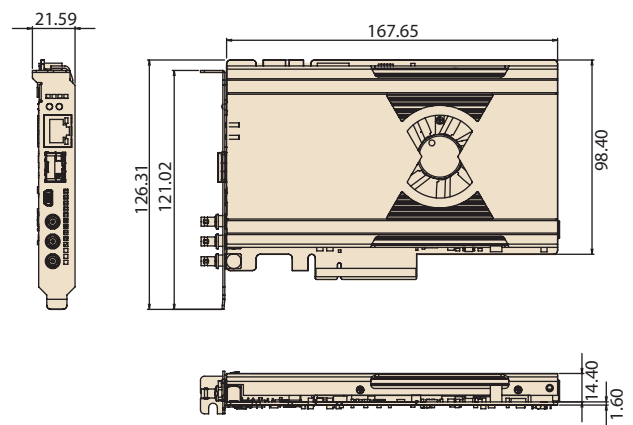
VEGA-3000 is a single slot, Half-Length PCIe add-on card in terms of performing encapsulation/decapsulation multiple High-Definition 1080p60 video streams over a 10 gigabit Ethernet network in uncompressed format. VEGA-3000 supports the approved SMPTE 2022-6 (High Bit Rate Media Transport over IP Networks) standard for transmitting and receiving video raw data through IP networks via RTP protocol. The SMPTE 2022-5 (Forward Error Correction for High Bit Rate Real-Time Video/Audio Transport over IP) feature is also supported by VEGA-3000 to improve resilience of bit errors and packet loss during video data transmission. VEGA-3000 can be operated either as a transmitter or receiver function, by configuring the selection jumper onboard. The transmitter mode will take the video raw data from multiple SDI inputs or PCI Express interface and converts the video content into the packet format defined by SMPTE 2022 before transmitting out through 10 gigabit Ethernet port. The receiver mode will perform very similar process like transmitter mode but in reversed way of datapath. It is also doable in using VEGA-3000 as the standalone board without the need for plugging into a host system for operation. With the easy-to-use software development kit (SDK), VEGA-3000 is an ideal solution for broadcasters or system integrators who need to carry the uncompromised video data through the existing IP infrastructure. The wide range of target applications that VEGA-3000 can serve includes cloud video acquisition, video over IP bridge, real-time video transfer and networked broadcast studio installations.

Specification

Video Input (Tx Mode) Video Output (Rx Mode)	Channels	3
	SDI Interfaces	SD-SDI SMPTE 259-C HD-SDI SMPTE 292 3G-SDI Level A SMPTE 425-A
	Video Standards	PAL/NTSC/SMPTE 274/SMPTE 296/ SMPTE 260/SMPTE 2048-2/ SMPTE 428-9/SMPTE 428-19/ SMPTE 372
	Resolution	Up to 1920 x 1080p (Full HD 1080p)
	Max. Frame Rate	Up to 60 fps per channel
	Connectors	SMA
File-based I/O	PCIe Gen2 x4 (Physical link is PCIe Gen2 x8, reserved for future upgrade)	
10G Ethernet Interfaces	Function Standards	SMPTE 2022-5/6
	Forward Error Correction	Level A and Level B FEC (steam basis)
	Connectors	SFP+ Module
Giga Ethernet Interfaces	10/100/1000 Mbps LAN port; RJ-45 connector (This interface is reserved for future upgrade)	
Latency	60 ms (3G-SDI, 1080/60p)	
Internet Protocol	Support IPV4 static IP setting	

Dimension

Unit: mm



Ordering Information

Part Number	Description
VEGA-3000-S000E	SMPTE-2022 Encapsulation PCIe Card