

VEGA-6300

UHD/4K HEVC/H.264 Online Video and Live Streaming Platform

Preliminary



Features

- 4Kp60 audio/video capture (4 x SDI-3G or 1 x 12G inputs or HDMI 2.0 input)
- Real time 4K HEVC Main8 encode up to 30fps
- Real time 4K H.264 8 bit encode up to 60fps
- Streaming output via Gigabit Ethernet or USB
- HDMI 2.0 output for local console
- Light weight, small size & low power consumption
- Easy to use SDK and remote management interfaces

Introduction

The concept of local and personal broadcasting is proliferating, driven by web-accessible or OTT service providers such as Facebook, YouTube & Twitch. In addition to personal streaming from cellphones, many sports and music events and activities are being pushed to online media and this requires a more professional-grade solution, capable of handling industry standard SDI interfaces. Inevitably, the demand for 4K will invade this segment too, and providing a stable, high quality live video stream product becomes the key to this industry. This is where the VEGA-6300 can help.

Based on renowned Ambarella technology, the VEGA-6300 is a small, lightweight, low power video processing engine featuring a range of HEVC and H.264 encoding features. It allows users to capture live video up to 4K/UHD resolution from SDI feeds or from an HDMI 2.0 input, encode for efficient transmission using the latest hardware HEVC compression technology, and then transmit to end users or content delivery networks across an Ethernet or wireless network (using USB network access “dongles”). The unit can create multiple output streams from a single video input and encode each using different codecs with different parameters.

VEGA-6300 offers a friendly user interface across HTTP, and can be remotely controlled using a CGI-style API. The software package also implements the streaming protocols used by most of the CDNs, making it straightforward for a user to can upload the video stream to a network.

Application

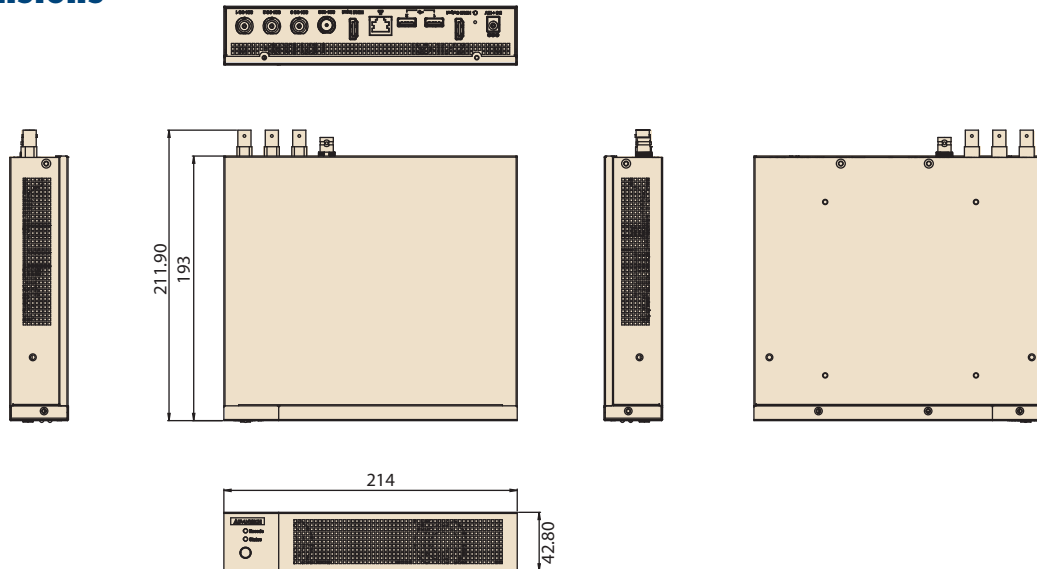
- Live event streaming
- Education & Healthcare
- Government & Corporate video
- Sports & Music concert
- Gaming live stream

Specification

VEGA-6300		
Video Input Format	Channels/interface	1x 12G-SDI or 1x HDMI2.0, up to 4Kp60 8bit 4:2:2 Or 4x 3G-SDI, each up to 1080p60 4:2:2
	Video formats	4K / 3840x2160: 60p / 59.94p / 50p / 30p / 29.97p / 25p / 24p 1920x1080: 60p / 59.94p / 50p / 30p / 29.97p / 25p / 24p 1280x720: 60p / 59.94p / 50p / 30p / 29.97p / 25p / 24p
	Compression	AVC (H.264) up to 4Kp60 HEVC (H.265) up to 4Kp30
Video Compression	AVC or HEVC profile	AVC BP/MP/HP Level 5.1 HEVC Main Level 5.1
	HEVC Tier	Main
	Bitrate in 4K format	512kbps~150Mbps
	Bit Depth	8 bits
	Chroma Sampling Format	4:2:0
	Bit Rate Control	CBR / VBR

Dimensions

Unit: mm



Specifications (Cont.)

Audio	Channels	2/4
	Format	AAC
	Operation mode	4ch Mono 2ch Stereo
	Sampling Frequency	48KHz
	Connectors	Embedded from HDMI or SDI
Other Features	Frame Rate & Resolution Control	Yes
	Encoding Control & Manipulation	Yes
	Streaming Protocol	RTSP/RTMP/HLS/TS over IP
	GOP Definition	I, IP, IPB, IBBP
	Ancillary Data & VBI	Yes
	Operation System	Standalone with Embedded Linux
	Management & Control Interface	Remote Web GUI interface
System Characteristic	Local Video Output	1x HDMI 2.0
	Network Interface	1x GigE port
	USB port	2x USB2.0 port
	Power & Reset Buttons	Yes (with power on indicator)
	LCM & LED Indicators	Configurable 2x LED
	Power Consumption	Less than 29W
	Power Input	DC12V
	System Dimension	(W) x (H) x (D): 214 x 42.8 x 211.9 mm

Ordering Information

Model	Description
VEGA-6300-A1E	VEGA-6300 encoder w/ Ambarella H1 Cortex-A9