

# VEGA-2001

## 4K HEVC/AVC Real-Time Encoder and Streaming Module

### Preliminary



### Features

- 4Kp60 audio/video capture over built in 4 x SDI-3G or 1 x 12G inputs or HDMI 2.0 input
- Real-time 4Kp30 HEVC 8-bit encode
- Real-time 4Kp60 H.264 8-bit encode
- Streaming output via Gigabit Ethernet or USB
- WiFi and LTE dongle support
- HDMI 2.0 output for local console
- Small size and low power consumption for easy adoption in portable video applications
- Easy to use SDK and remote management interfaces

## Introduction

With more and more viewers turning to online video, new concepts such as social media and anywhere broadcasting are gaining popularity among video professionals. The VEGA-2001 helps leveraging the ubiquity of mobile networks and the flexibility of over-the-top delivery without jeopardizing video quality by providing a professional-grade 4K HEVC engine that can be easily integrated into portable broadcasting solutions. The VEGA-2001 is a powerful tool that opens new online media opportunities enabling live event streaming even in the most challenging scenarios where a traditional outside broadcasting setup is not feasible.

The VEGA-2001 is a small, low power, real-time encoding module based on Ambarella's video compression technology which supports UHD resolution and HEVC and AVC codecs. It features 4K video acquisition through built-in SDI or HDMI inputs and encoded video can be streamed to mobile or Wi-Fi networks by connecting an USB wireless adapter. The VEGA-2001 can create multiple output streams from a single video input and encode each one using different codecs with different parameters.

The VEGA-2001 offers a user-friendly HTTP interface and can be remotely controlled using a web-based CGI interface. It supports streaming protocols commonly used by CDNs, making it easier for users to deliver video over-the-top.

## Specification



		VEGA-2001
Video Input Format	Channels/interface	4x 3G-SDI, each up to 1080p60 1x 12G-SDI or 1x HDMI2.0, up to 4Kp60 8bit 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
Video Compression	Compression	AVC (H.264) up to 4Kp60 HEVC (H.265) up to 4Kp30
	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
Audio	Bit Rate Control	CBR / VBR
	Format	AAC
	Operation mode	2ch Stereo
	Sampling Frequency	48KHz
Connectors	Audio Jack	

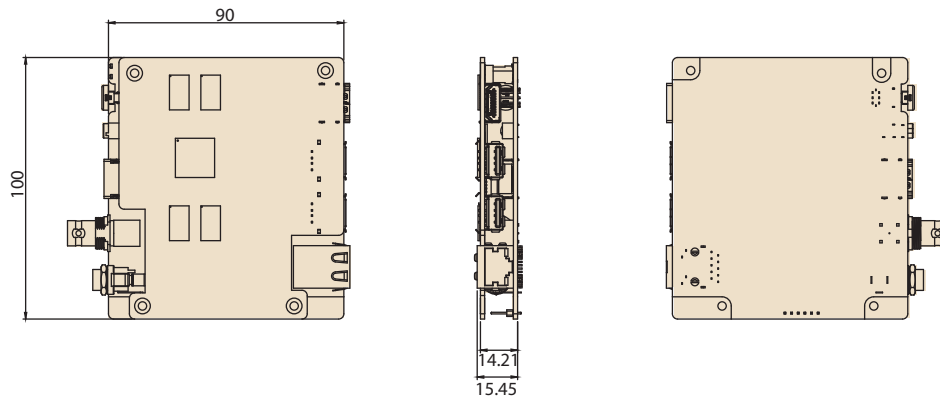
## Specifications (Cont.)

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
Module Characteristic	Local Video Output	1x HDMI 2.0
	Network Interface	1x GigE port
	USB port	2x USB2.0 port
	Power	Yes
	Power Consumption	Less than 15W
	Power Input	DC12V
Module Dimension	(L) x (W) x (H): 90 x 100 x 16 mm	

## Dimensions

Unit: mm

**Type 1**



**Type 2**

