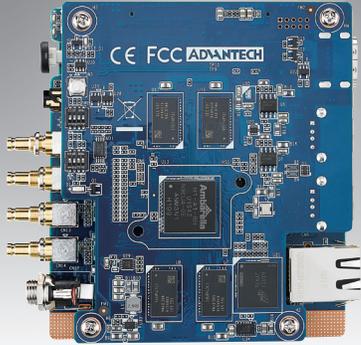


# VEGA-2001

## 4K UHD H.265/H.264 Real-Time Encoder and Streaming Module

### Preliminary



### Features

- 4Kp60 audio/video capture over built in 4 x 3G-SDI or 1 x 12G(3G)-SDI or HDMI 2.0 inputs
- Real-time 4Kp30 H.265 8-bit encode
- Real-time 4Kp60 H.264 8-bit encode
- Streaming output via Gigabit Ethernet or USB wireless dongle
- Video Record to USB Storage
- WIFI and LTE dongle support by USB
- Self View by HDMI 2.0 output
- Small form-factor (90x100 mm<sup>2</sup>) and low power consumption for easy adoption in portable applications
- Build-in Remote control UI and CGI command support for easy management and development

### 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 3G-SDI	VEGA-2001 12G-SDI/HDMI
Video Input Format	Channels/interface	4 x 3G-SDI, each up to 1080p60	1 x 12G-SDI or HDMI2.0, up to 4Kp60 8bit 4:2:2 HDMI 2.0 Interface
	Video formats	BNC (3GS-SDI) Interface 3840x2160: 60P/59.94p/30p/29.97p 1920x1080: 60p/59.94p/50p/30p/29.97p/25p 1920x1080: 60i/59.94i/50i 1280x720: 60p/59.94p/50p/30p/29.97p/25p (Note: 3840x2160 support by 4 x 3G-SDI Quad Link)	3840x2160: 60p/59.94p/50p/30p/29.97p/25p 1920x1080: 60p/59.94p/50p/30p/29.97p/25p/24p 1920x1080: 60i/59.94i/50i 1280x720: 60p/59.94p/50p BNC (12G-SDI) Interface 3840x2160: 60P/59.94p/30p/29.97p 1920x1080: 60p/59.94p/50p/30p/29.97p/25p 1920x1080: 60i/59.94i/50i 1280x720: 60p/59.94p/50p/30p/29.97p/25p
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	
	Bit Rate Control	CBR / VBR	

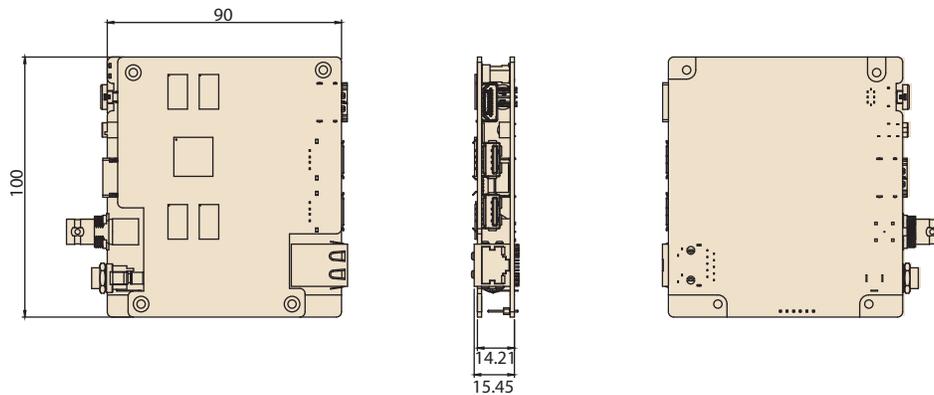
## Specifications (Cont.)

Audio Input & Compression	Channels	Line-In: up to 2 3G-SDI: up to 2	Line-In: up to 2 12G(3G)-SDI: up to 2 HDMI: up to 2
	Audio Compressing Format	AAC	
	Sampling Rates	48Khz/16bit	
Self View	Video Output Frame	NTSC/PAL	
Video Stream Features	Dynamic Video Stream Resolution Change	Yes	
	Streaming Protocol	RTSP/RTMP/HLS/TS over IP	
	GOP Definition	I, IP, IPB, IBBP	
	Ancillary Data Capture	Option	
Module Characteristic	Operation System	Embedded Linux	
	Management & Control Interface	Remote Web GUI interface	
	Power Consumption	Less than 12.5W(Base on 4Kp30 Video Encoding)	
	Power Input	DC12V	
	Module Dimension	(L) x (W) x (H): 90 x 100 x 16 mm	
Environmental	Operating Temperature	-10 to 50 degrees Celsius	
	Non-operating Temperature	-40 to 85 degrees Celsius	
	Operating Humidity	50 to 95% (non-condensing)	
	Non-operating Humidity	50 to 95% (non-condensing)	

## Dimensions

Unit: mm

### 12G-SDI/HDMI Type



### 3G-SDI Type

