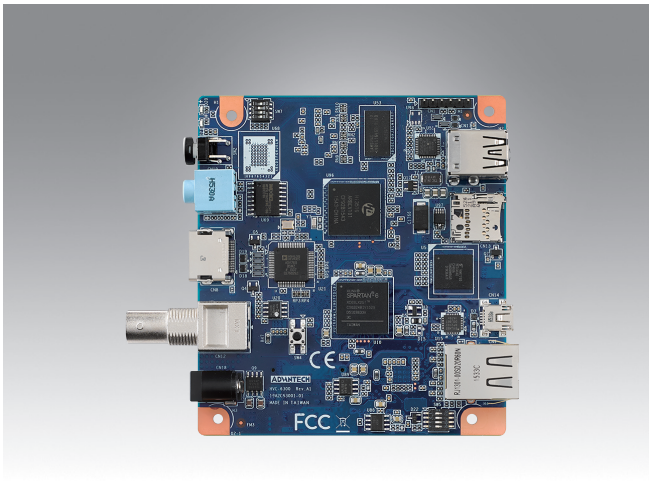
VEGA-2000

HD H.265/H.264 Video Capture & Encode Module



Features

- 1080p60 audio/video capture over built in 3G-SDI or HDMI 1.4 video input
- Real-time 1080p60 HEVC or AVC 8-bit encode
- Streaming output via Gigabit Ethernet or USB wireless dongle
- Video Record to USB or Micro SD Storage
- Optional audio capture by phone jack input
- WIFI and LTE dongle support by USB
- Small form-factor (90 x 100mm²) and low power consumption(<5W) for portable video device
- Build-in Remote control UI and CGI command support for easy management and development

Introduction

VEGA-2000 is a small form-factor module designed for encoding live video using either advanced HEVC (High Efficiency Video Coding) Main Profile or H.264 BP/MP/HP video compression up to 1080p resolution at 60 frames per second, with CBR (Constant Bit Rate) & VBR (Variable Bit Rate) support from 64kbps ~ 32Mbps. The single SDI-3G or HDMI video inputs provide video capture capability in convenient formats for professional video feeds while the onboard USB 2.0 and gigabit Ethernet ports offer great flexibility in transporting the compressed video stream through wireless (such as WiFi, LTE, etc.) and wireline interconnections to remote and cloud side for archiving or further processing. The micro SD memory card interface can also be used for local storage. The module also features audio encoding from either embedded SDI/HDMI audio channels or a separate 3.5mm audio jack socket.

The module is supplied with a bundled software package that demonstrates a streamlined workflow from video acquisition, encoding, streaming to archiving in a hassle-free approach for simplifying system adoption and integration effort. The well-defined web-based software APIs open the possibilities for customization based on the final usage cases.

With a small physical dimension and low power dissipation characteristics, VEGA-2000 can be easily applied to portable and mobile broadcasting, medical imaging, UAV (Unmanned Aerial Vehicle) applications, etc. where real-time and high-quality video content needs to be captured and transported in an efficient way using the latest HEVC compression standard.

Specification

Video Input Format	Channels	1 (up to 1080p60, 8bit, YUV by 3G-SDI or HDMI 1.4)
	Video Formats	HD, SD
	Frame Rates	HDMI 1.4 Interface 1920x1080: 60p / 59.94p / 50p / 30p / 29.97p / 25p / 24p / 60i / 50i 1280x720: 60p / 59.94p / 50p / 30p / 29.97p / 25p / 24p / 60i / 50i BNC (3G-SDI) Interface 1920x1080: 60p / 59.94p / 50p / 30p / 29.97p / 25p / 24p / 60i / 50i 1280x720: 60p / 59.94p / 50p / 30p / 29.97p / 25p / 24p / 60i / 50i
	Chroma Sampling Format	4:2:2 / 4:2:0
	Interfaces	HDMI 1.4 3G-SDI BNC (SMPTE424M Level A)
Video Compression	Compression	H.265/H.264
	HEVC Profile	Main
	HEVC Tier	Main
	HEVC Level	1.0 / 2.0 / 2.1 /3.0 / 3.1 / 4.0 / 4.1
	Bitrate 1080P Format	64Kbps - 32Mbps
	Bit Depth / Chroma Subsampling	8 bit / 4:2:0
	Bit Rate Control	CBR/VBR
	Output Format	RTSP/MP4
Audio Input & Compression	Channels	Up to 2
	Audio Compressing Format	AAC encoding
	Sampling Rates	48Khz/16bit
	Input channel	HDMI 1.4 / SDI-3G / Line-In
Management	PC/Mobile Phone	IE/Chrome/FireFox
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)

Ordering Information

Part Number	Description
VEGA-2000-00ME	FHD HEVC/H.264 Video Capture & Encoder Module
VEGA-2000-00SE	FHD HEVC/H.264 Video Capture & Encode Module with chassis