CORNET
SWITCHING SYSTEMS

Intelligent VDO® H264 HD (SDI)

Encoder/Decoder

The iVDO H264 HD (SDI) is a compact and lightweight H.264 Standard-Definition, High-Definition video, and AAC audio encoder or decoder.

The unit is specifically designed to allow networking of SDSDI and HD-SDI. The iVDO H264 HD (SDI) also excels in the surveillance arena where high definition megapixel SDI/HD-SDI cameras require encoding to H.264 for transporting video over IP networks.

The iVDO H264 HD (SDI) encoder has the ability to multiplex elementary stream video, KLV metadata, and voice into a single transport stream. The use of time-stamping ensures that the video, voice and KLV metadata are in sync.

Ease of Management
Management and configuration is available via Web browser and SNMP.

Key Features

• H.264 standard-definition, high-definition Video and AAC audio encoding
• Supports SD 480i, HD 720p, and 1080p30
• Interlaced or progressive encoding
• Synchronous and asynchronous metadata support
• Ethernet network port/uni- and multicasting and all common protocol support
• Management/configuration via built-in web server, SNMP, and CLI
• Easy integration within a subsystem -- mechanical, electrical, and software
• High MTBF, state-of-the art design, manufactured to highest standards
• Low profile packaging
• Lower power consumption and no fan cooling
• Built-in diagnostics and front panel LEDs for status

Specifications

Video

Format:	SD-SDI/HD-SDI 8 bits Y, CbCr; 4:2:0; Progressive and Interlaced
Encoding:	H.264 HD Compliant Main Profile; MPEG-4 Part 10 AVC, ISO/IEC 14496-10
Resolution: HD/SD SDI:	NTSC: 720 x 480 (480i) PAL: 720 (1440) x 576 (576i) 1280 x 720p (720p) 50/60 1920 x 1080i (1080i) 50/60 1920 x 1080p (1080p) 25/30
HD/SD DVI:	720 (1440) 50 720p x 576 50/60 1080i 50/60 1080p 30
Frame Rate:	1, 5, 10, 15, 20, 25, 30, and 60
GOP Structure:	I, IP
Encode Rate:	SD and HD: 1 Mbps to 20 Mbps (Settable in 1 Kbps steps)
Rate Control:	Constant

Audio

	AAC audio compression; Mono or Stereo audio input Bit rate 16-256 Kbps; 16-48 KHz sampling rate
Encoder:	SDI Audio Supported
Decoder:	SDI Audio Not Supported

KLV Metadata

Mux:	Ingestion of KLV metadata from external sources
	Synchronous and Asynchronous Metadata

Network

Protocols:	RTP, UDP, TCP/IP, HTTP, IGMP V1/V2, ICMP, ARP, TFTP
SNMP:	V1
IP Packets:	Unicast and Multicast (IGMP V2)
File transfer:	New firmware upgrade via TFTP.

Serial Port Specifications

- One RS-232 asynchronous port
- Multi function com port:
    1. Simple bi-directional pass through port
- Standard data rates from 300 bps to 115200 bps
- Stop bits: 1 and 2 bits; Data bits: 6, 7, 8; Parity: none, even, odd

Other Functions:

	Web-based management
LED:	Power, heartbeat, status, ComTX, ComRX, No video, Ethernet link & Activity
Reset:	Reset switch

Connectors:

Input Video:	75 ohms BNC for Composite/SDI video, DVI-D for DVI video
Input Audio:	3.5 mm jack for mono or stereo audio
Ethernet:	RJ-45, built-in Tx/Rx LEDs; 10/100BaseT, auto; half/full duplex
Serial:	DB-9 (f)

Mechanical

Enclosure:	Heat dissipates through the enclosure without fan
Dimension:	5.5" W x 1.25" H x 6.25" D (43 cubic inches)
Weight:	0.90 Kg / 2 lbs.

Electrical

Input Voltage:	6 - 28 V DC
Power:	15 W max approx.
	DC power cable terminated with 4-pin Phoenix connector
AC/DC Power Supply:	Optional

AC/DC Converter (Power Supply Unit):

Input voltage:	100 - 240 VAC 60/50 Hz
Output voltage:	12 VDC, 1.5 amps, max.

Environmental

Operating:	-20° C to +70° C (-4° F to +158°F)
Storage:	-30° C to +85° C (-22° F to +185° F)
Humidity:	10% - 95% non-condensing

Compliance

FCC Class A, CE Class A and MIL-STD-461E EMC Tested/Approved and UL/EN/IEC 60950-1 Product Safety Approved.

Part Numbers

iVDO H264 HD SDI, DVI Encoder CCHA43916-1

iVDO H264 HD SDI, DVI Decoder CCHA43916-2