DELTA
Digital Video

MODEL 5584E
4-CH H.265 VIDEO ENCODER

TECHNICAL SPECIFICATIONS

FEATURES

- Real-time digital transmission of HD/SD Full Motion Video (FMV)

- H.265 HEVC / H.264 AVC

- SD/HD/3G/12G-SDI or Composite Video Input Interface

- 2160p/1080p/1080i/720p/480i/576i

- TS/UDP and RTSP/RTP/UDP Protocols

- MPEG-2 compliant TS multiplexing

- 10/100/1000 network interfaces

- Data Rates from 64Kbps to 20Mbps

- <50ms Encode Latency

- Stereo/dual-channel audio inputs

- MPEG-1 Layer II Audio Compression

- Metadata Support
  - Synchronous VANC
  - Serial
  - Ethernet
  - KLV Encoding

- MISB/STANAG Compliant

- IRIG-B/1PPS Time Input

- Serial or Ethernet port configurable

- Rugged, Industrial Package w/ Extended Temperature Operation

The Model 5584E 4-Channel H.265 Video Encoder is an HD/SD video encoder that compresses video and audio signals, multiplexing them with metadata and other system information for real-time video transmission applications. The 5584E is capable of simultaneously encoding four channels of video with resolutions up to 1080p, or a single 2160p channel. Utilizing the H.265 (HEVC) video compression algorithm, the encoder provides high quality video transmission at various resolutions and a wide range of bandwidths. The H.265 compression algorithm utilizes highly bit-efficient coding to provide encoded streams at nearly half the bandwidth of its H.264 (AVC) predecessor. The unit is built on an advanced, low-power multimedia architecture that provides the horsepower for the computationally intensive H.265 algorithm, providing bandwidth efficiency for multi-channel applications. This increased efficiency allows for more channels to be transmitted over a given bandwidth, better quality video for constrained bandwidth applications, or lower bandwidth operation to extend the limits of ISR operation and reduce storage size requirements. The 5584E also provides an H.264 mode to support legacy infrastructures while providing a future growth path to H.265.

The 5584E is a compact, industrial package utilizing conduction cooling for operation in less than ideal environments and is compliant with the full motion video standards developed by the US Government's Motion Imagery Standards Board (MISB). This includes compliance with the video compression, KLV metadata, and transport stream profiles required to ensure interoperability in US and Allied processing, dissemination, and exploitation (PED) systems.

The 5584E is easily integrated into any video network, providing support for legacy composite and all SDI standards. The unit provides an in-band ethernet transport stream port and an out-of-band ethernet port for set-up and status. Multi-format metadata interfaces (VANC, serial, ethernet) ensure MISB-compliance.

VIDEO INPUT

Ports	4 independent inputs
Format	SD/HD/3G/12G-SDI (SMPTE) or Composite (2x) , Auto-detect format, resolution, frame rate
Levels	.3Vp-p; 75 Ohms/1Vp-p, 75 Ohms

VIDEO COMPRESSION

Algorithm	H.265 HEVC / H.264 AVC
Profile	CBP, MP, M10P / BP, MP, HP
Resolutions	1080p/1080i/720p/480i/576i
Frame Rate	1-60
GOP Structure	Inter/Intra; Variable Size

TRANSPORT STREAM

Format	Ethernet
Protocol	ISO/IEC 13818-1 MPEG-2 Transport Stream containing Video/Audio/Data Transport Stream over UDP, unicast or multicast RTSP/RTP over UDP
Data Rate	64Kbps - 20Mbps

ETHERNET INTERFACE

Ports	Two (Streaming & Management)
Format	10/100/1000 Base-T, Auto Sense Bitrate, Auto Detect Full Duplex
Configuration	DHCP or Static Address

METADATA INTERFACE

Format	Asynchronous serial (2), UDP, SDI-VANC (4)
Protocol	KLV or unformatted data

TIME INTERFACE

Ports	1PPS/IRIG-B, SDI-VANC
1PPS Levels	0-10Vp-p; 50 Ohms

CONTROL

Ports	Asynchronous Serial, Telnet/SSH, Web Browser (HTTP/HTTPS)
Serial Level	RS-232

AUDIO INPUT

Ports	Two independent stereo inputs
Format	Balanced (Line Level)
Levels	2.8Vp-p (1Vrms)
Impedance	10K Ohms

AUDIO COMPRESSION

Channels	None, Left, Right, Stereo
Algorithm	MPEG-1 Layer I/II
Sample Rates	48Ksps

LATENCY

Encoder	<50ms (per channel)

ENVIRONMENTAL

Op Temperature	-40°C - +71°C (Conduction Cooled)
Storage Temperature	-55°C - +85°C
Humidity	5-95% Non-condensing
Altitude	–2,000Ft to +50,000Ft

POWER

Volts	+9VDC to +36VDC
Watts	15W

SIZE / WEIGHT

Chassis	1.745"H x 5.49"W x 6.04"D / 3.75lbs 44.55mm x 139.45mm x 153.42mm/1.7Kg

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