

### FEATURES

- Real-time, high-quality, low-latency encoding of full motion video for real-time applications
- Standards-based, H.264 and H.265 algorithms
- Optional Ultra low-latency JPEG-XS
- Resolutions up to 4Kp
- Supports UHD/HD/SD-SDI and Composite (NTSC/PAL) Formats
- Transmit compressed video at rates from 64Kbps to 25Mbps/Channel
- RTSP/RTP/UDP, TS/UDP, SRT Protocols
- MISB/STANAG-Compliant
- Fully configurable network interface
- AES Encryption
- Stereo/dual-channel audio inputs
- MPEG-1 Layer II Audio Compression
- GPS/PTP/NTP Time Sync
- Metadata Support: VANC, Serial, and Ethernet
- Serial or Ethernet port configurable
- Compact, rugged MIL-packaging



Delta's Model 7825R H.265 Video Encoder provides for the transmission of two full-motion video signals for ISR applications. Designed for operation in harsh environments, the 7825R is a rugged, compact unit with all the features of Delta's MISB/JITC certified video encoder products. These include, standards-compliant video compression, KLV metadata processing, and transport stream multiplexing.

Utilizing H.265/HEVC encoding, the 7825R provides flexibility for optimizing video performance for any given bit rate. The H.265 algorithm is proven to provide 50% more bandwidth efficiency than H.264/AVC. User-configurable parameters permit the user to adjust the video/audio/data parameters in accordance with mission requirements. H.264 video compression is also supported to provide flexibility for integration with existing legacy infrastructures.

The 7825R is built around an advanced, high-speed, multi-media processor working with fully optimized codecs. Despite the high-performance, the encoder power comes in at just under 10 Watts. Delta's technology has been integrated, tested, and operated in numerous airborne, ground, and shipboard applications and is compatible with MISB and STANAG standards. The 7825R can be easily integrated with standards-compliant processing, dissemination, and exploitation (PED) systems.

The unit has a fully-configurable network interface for transport stream transmission making it a "drop-in" for digital datalink applications. In addition, the 7825R offers a PCM interface for systems requiring a synchronous serial interface and, is easily configured via Ethernet (web GUI or Telnet) or serial connection.

**VIDEO**

<b>Input</b>	SDI (2x)/Composite (1x)
<b>Format</b>	SMPTE/NTSC/PAL
<b>Resolutions</b>	2160p30/60; 1080p25/29/30/50/60; 720p50/59/60; 1080i59/60; 480i29/30; 576i25
<b>Connector</b>	HDBNC

**VIDEO COMPRESSION**

<b>Algorithm</b>	H.265 HEVC/H.264 AVC
<b>Format</b>	MP, M10P/MP, HP
<b>GOP Structure</b>	Inter/Intra; I/IP, Variable Size

**TRANSPORT STREAM**

<b>Ports</b>	Ethernet or RS-422
<b>TS Protocol</b>	ISO/IEC 13818-1 MPEG-2 Transport Stream containing Video/Audio/Data
<b>Data Rate</b>	128Kbps - 25Mbps
<b>Enet Protocol</b>	Transport Stream over UDP, RTSP/ RTP, SRT Unicast or Multicast
<b>PCM Protocol</b>	Transport Stream over synchronous serial interface (RS-422)
<b>Connector</b>	Circular Mil

**METADATA INTERFACE**

<b>Protocol</b>	SDI-VANC/KLV/Clear
<b>Format</b>	RS-232/Ethernet
<b>Connector</b>	Circular Mil

**CONTROL**

<b>Ports</b>	Two
<b>Format</b>	RS-232: Terminal Emulation
<b>Format</b>	TCP/IP: Web Browser/Telnet

**AUDIO**

<b>Ports</b>	Two
<b>Channels</b>	None, Left, Right, Stereo
<b>Format</b>	Differential Line Level
<b>Levels</b>	2.8Vp-p (1Vrms)
<b>Impedance</b>	10K Ohms
<b>Connector</b>	Circular MIL

**AUDIO COMPRESSION**

<b>Algorithm</b>	MPEG-1 Layer I/II
<b>Sample Rates</b>	48Ksps
<b>Bit Rate</b>	64K/96K/192Kbps
<b>Sync</b>	Lip synchronized with video

**ENVIRONMENTAL**

<b>Temperature</b>	-40°C to +71°C
<b>Altitude</b>	35,000 Feet MSL
<b>Humidity</b>	95% RH, non-condensing
<b>Vibration</b>	HALT Testing Profile
<b>Shock</b>	21.5g Peak, Half-sine, 8ms
<b>Salt Fog</b>	MIL-STD-810 Method 509.4

**Electromagnetic Environments**

<b>Radiated Emissions</b>	MIL-STD-461 RE102
<b>Conducted Emissions</b>	MIL-STD-461 CE101
<b>Conducted Power</b>	MIL-STD-461 CE102
<b>Leads</b>	

**POWER**

<b>Input</b>	18-36VDC
<b>Watts</b>	10W
<b>Connector</b>	Circular Mil

**MECHANICAL**

<b>Size</b>	3.84"D x 3.62"W x 1.18" (97.53mm x 92.0mm x 29.97mm)
<b>Weight</b>	8oz (.227kg)

