

### FEATURES

- Real-time decoding of up to four HD or SD video channels
- H.265 HEVC/H.264 AVC
- HD/SD-SDI or HDMI™ Configurations
- 1080p/1080i/720p/480i/p Compatible; 1-60fps
- MISB/STANAG-compliant MPEG-2 TS multiplexing
- Synchronous serial ( PCM ) or Ethernet TS Interfaces
- Fully configurable network interface
- Data Rates from 256Kbps to 20Mbps
- <50ms Decode Latency
- Stereo/dual-channel audio outputs
- MPEG-1 Layer II Audio Decompression
- Metadata Support in compliance with SMPTE and MISB/STANAG standards
- Serial or Web Control
- 1RU Rackmount Chassis



The Model 7850 is a companion decoder to Delta's Model 7840R 4-Channel H.265 Video Encoder. The 7850 provides flexibility in streaming and display of HD/SD video. The unit can decode up to four HEVC (H.265) and AVC (H.264) encoded video streams for real-time display.

The advanced H.265/HEVC compression algorithm provides high quality video encoding at half the bit rate of its predecessor, H.264/AVC. Combined with flexible, user-configurable interfaces and the ability to decode multiple channels simultaneously, the 7850 packs the power of four decoders in a single, 1U rackmount chassis. The unit is built around an advanced, high-speed multimedia SOC working in conjunction with a powerful FPGA to facilitate the data moving and processing required for H.265 HD video decompression.

Low-latency performance makes the 7850 ideal for real-time applications, especially intelligence, surveillance, and reconnaissance (ISR) and flight test. The 7850 accepts multiple-program streams via ethernet or synchronous serial (PCM) ports and is compliant with the MPEG-2 Transport layer (ISO-13818-1) as well as RTP/RTSP streaming. The unit provides a serial output port for asynchronous user data and has the added feature of restoring SDI-embedded metadata in accordance with SMPTE and MISB standards. The 7850 also features stereo audio decompression in accordance with MPEG-1/Layer II compression algorithm.

The 7850 is easily configured via an out-of-band management port.

**VIDEO OUTPUT**

|                  |              |
|------------------|--------------|
| <b>Ports</b>     | Up to Four   |
| <b>Format</b>    | HD-SDI/HDMI™ |
| <b>Connector</b> | HDBNC/HDMI™  |

**VIDEO DECOMPRESSION**

|                      |                                           |
|----------------------|-------------------------------------------|
| <b>Algorithm</b>     | H.265 HEVC/H.264 AVC                      |
| <b>Profiles</b>      | Main/Main10/Baseline/Main/High            |
| <b>Resolutions</b>   | 1080p/1080i/720p/480i/p                   |
| <b>Frame Rate</b>    | 1-60fps                                   |
| <b>GOP Structure</b> | Inter/Intra; Variable Size incl. Infinite |

**TRANSPORT STREAM**

|                      |                                  |
|----------------------|----------------------------------|
| <b>Ports</b>         | Two                              |
| <b>Format</b>        | 10/100/1000 Ethernet IP          |
| <b>Protocol</b>      | MPEG-2 Transport Stream/RTP/RTSP |
| <b>Data Rate</b>     | 256Kbps to 20Mbps                |
| <b>Configuration</b> | DHCP or Static Address           |
|                      | Selectable Ports                 |
|                      | Auto Sense Full/Half Duplex      |
|                      | Unicast/Multicast                |
| <b>Connector</b>     | RJ-45                            |
| <b>Format</b>        | Synchronous Serial (PCM)         |
| <b>Protocol</b>      | RS-422/TTL                       |
| <b>Data Rate</b>     | 256Kbps to 20Mbps                |
| <b>Configuration</b> | Clock/Data                       |
| <b>Connector</b>     | DB-25                            |

**USER DATA OUTPUT**

|                  |             |
|------------------|-------------|
| <b>Ports</b>     | Up to Four  |
| <b>Protocol</b>  | KLV/Clear   |
| <b>Format</b>    | SDI/Serial  |
| <b>Connector</b> | HDBNC/DB-9S |

**LATENCY**

|                |      |
|----------------|------|
| <b>Decoder</b> | 50ms |
|----------------|------|

**AUDIO OUTPUT**

|                  |                           |
|------------------|---------------------------|
| <b>Ports</b>     | Up to Two                 |
| <b>Channels</b>  | None, Left, Right, Stereo |
| <b>Format</b>    | Single-ended (Line Level) |
| <b>Levels</b>    | 2.8Vp-p (1Vrms)           |
| <b>Impedance</b> | 10K Ohms                  |
| <b>Connector</b> | 3.5MM Jack                |

**AUDIO DECOMPRESSION**

|                     |                             |
|---------------------|-----------------------------|
| <b>Algorithm</b>    | MPEG-1 Layer II             |
| <b>Sample Rates</b> | 8K/16Ksps                   |
| <b>Sync</b>         | Lip synchronized with video |

**CONTROL**

|                 |                                |
|-----------------|--------------------------------|
| <b>Ports</b>    | Two                            |
| <b>Format</b>   | RS-232/TCP/IP                  |
| <b>Protocol</b> | Delta 's 3-character mnemonics |

**ENVIRONMENTAL**

|                     |                    |
|---------------------|--------------------|
| <b>Op Temp:</b>     | 0°C to +55°C       |
| <b>Non-Op Temp:</b> | -55°C to +85°C     |
| <b>Humidity</b>     | 95% Non-condensing |

**POWER**

|                  |                  |
|------------------|------------------|
| <b>Input</b>     | 96-240VAC        |
| <b>Watts</b>     | 25W              |
| <b>Connector</b> | Standard IEC-320 |

**SIZE**

|                |                          |
|----------------|--------------------------|
| <b>Chassis</b> | 1RU 19 " x 12 " x 1.75 " |
| <b>Weight</b>  | 6 lbs.                   |

