**Features**

- **Inputs:** Four SDI or HD-SDI inputs
- **Outputs:** Encodes two high quality 1 to 50 Mbps H.264 1080p or H.265 720p streams
- Supports H.264 High Profile @ Level 4.0 (HP@L4)
- Encoding latency: 150 milliseconds
- 8 or 10 bit encoding with 4:2:2 or 4:2:0 color sampling
- Supports logo insertion, text overlay, and SCTE 35 compliant cue tone insertion ("ad markers") on outputs (SCTE 104 to SCTE 35)
- Supports DTMF tones and DTMF to SCTE 35 conversion
- Now includes optional stream archiving via 1-4 TB SSDS.
- Able to upconvert incoming SD streams to HD, and scale down
- Web GUI is manageable from anywhere – includes some scheduling
- Supports NTSC or PAL
- Supports HEVC main profile
- Encoding bit rates: .1 to 50 Mbps
- Supports 1080i, 1080p, 720p, 576i, 480i, 480p, CIF, QCIF, qHD, H.264up and many others, and custom resolutions
- IP output protocols: UDP, RTP, and IGMP.
- Expects embedded SDI audio
- Audio Output: AAC, MPEG-1 Layer II, and/or optional AC-3
- Up to 4 audio pairs for support of different languages
- Tested to work with ATLAS™ and Wowza® other industry media servers
- SNMP, REST or SOAP remote management
- Redundant (dual) power supplies, dual 1 gig Ports.

**Applications**

- News, satellite, and sports contribution
- Special events needing 4:2:2 and Low Latency
- Military, Corporate Video, Religious Services,
- Origin Encoder for Grooming Servers

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**PREMIO™ H.264 HSDI IP: 4TS LL MULTICAST**

Real time, highly reliable, low latency single channel SD or HD (SDI), H.264 /AVC 8 or 10 bit 4:2:2 or 4:2:0 Mezzanine TS Low Latency Encoder with outstanding video quality and 150 ms Latency.

Delivered as a 1 RU, quick starting, standards complaint, embedded Linux® based encoder with 4 each IP Ports running on Intel Multi Core CPU with 1 HDSI input and 4 Low Latency (150ms) Multicast transport stream outputs. Manageable from anywhere via web GUI.

Supports closed captioning and teletext with overlay and SCTE 35 ad marker insertion. Supports most industry standard "protocols" like UDP or RTP and " Wrappers" such as HLS, RTMP, DASH, etc. Audio output is AAC, MPEG-1 Layer II, optional MP3, and/or optional "Surcode for Dolby Digital" AC-3.

Encodes a four high quality 1080p stream at .1 to 50 Mbps at popular GOP sizes, frame rates, refresh rates, or aspect ratios. Software is scanned for vulnerabilities and open ports.

Computer Modules, Inc.
11409 West Bernardo Court
San Diego, CA 92127
Tel: 858-613-1818   Fax: 858-613-1815
www.dveo.com
Application Example

Overview

The PREMIO H.264 HDSI IP is a premium quality low latency H.264 and H.265 encoder, able to encode video to mezzanine quality. It is designed for critical contribution applications and has many redundancy features.

The system can overlay logos, text, and closed captioning. It supports SCTE 35 triggers for ad insertion. A recently added feature is stream archiving.

Ordering options include DVEO's patented DOZER™ UDP packet recovery technology, for reliable video quality over the public internet and across long distances.

This unit is designed to be affordable, scalable, and reliable. Modifications to video formats are easily created. Remote management and multi level security is built in.

Inputs and Outputs

Sample of GUIs

Network Setup

Scheduled SDI Input Setup

HLS Output Setup

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**Ports Utilized**

<table>
<thead>
<tr>
<th>Protocol</th>
<th>TCP Ports</th>
<th>UDP Ports</th>
</tr>
</thead>
<tbody>
<tr>
<td>HTTP</td>
<td>80, 8000, 8001, 8080, 1-65535 (out)</td>
<td></td>
</tr>
<tr>
<td>HTTPS</td>
<td>443</td>
<td></td>
</tr>
<tr>
<td>RTMP</td>
<td>1935</td>
<td></td>
</tr>
<tr>
<td>RTP</td>
<td>6970-6999, 16384-32767</td>
<td></td>
</tr>
</tbody>
</table>

**Supported Resolutions**

**Supported Resolutions – Input and Output**

<table>
<thead>
<tr>
<th>Resolution</th>
<th>SDI</th>
<th>HS</th>
<th>H.264up</th>
</tr>
</thead>
<tbody>
<tr>
<td>1920 x 1080</td>
<td>720 x 480</td>
<td>480 x 480</td>
<td>480 x 320</td>
</tr>
<tr>
<td>1280 x 720</td>
<td>704 x 480</td>
<td>480 x 320</td>
<td>320 x 240</td>
</tr>
<tr>
<td>720 x 576</td>
<td>640 x 480</td>
<td>480 x 320</td>
<td></td>
</tr>
</tbody>
</table>

Also supports any custom resolution not listed here. Note: Does not support 608 closed captioning for SDI input. Only 708 is supported.

Note: Supports PAL TO NTSC conversion but not NTSC to PAL.

**Options**

- Optional DOZER™ Automated UDP Packet Recovery protocol, enabling error-free video delivery over UDP. DOZER ensures smooth MPEG-2, H.264, and H.265 delivery through DVEO patented algorithms for automated packet recovery and re-ordering of out-of-sequence packets.

**Ordering Information**

PREMIO H.264 HDSI IP: 4TS LL MULTICAST
HD-SDI In, 1 RU system