



TRIPLEPLAY HD ENCODER

Low Latency HD-SDI Encoder, dual-input, 1080p, 100ms

Tripleplay's low latency HD Encoder is available in both two channel and four channel options, both delivered as 1U, 19" rack mount units. In the two channel solution the HD Encoder comes with a single HDMI and single HD-SDI input, whilst the four channel solution comes complete with two HDMI inputs and two HD-SDI inputs.

The Tripleplay HD Encoder has an overall latency of better than 100mSecs and can deliver glass-to-glass latency as low as 250mSecs*, and can be used as part of a wider Tripleplay IPTV, Digital Signage and Video Streaming solution.

With full 1080p resolution, the Tripleplay Low Latency HD encoder provides the smooth, high quality and professional picture quality you cannot get with 1080i delivery.

Our low latency encoder generates MPEG output streams that are compatible with all Tripleplay supported devices and products including Amino Set Top Boxes, Smart TVs, Samsung SSP, PC Players, recording solutions and our streaming interfaces, meaning no special decoder units are required to achieve low latency MPEG over IP.

The solution can be managed as a standalone unit, via SNMP and through a web browser.

**Glass-to-glass latency is affected not only by the encoder but by the configuration of network, network devices, cameras and decoders for example.*



Low Latency HD Encoder



TECHNICAL SPECIFICATIONS

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|---|--|
| SDI Input | SDI – SMPTE 259M 270Mbps HD_SDI – SMPTE 292M 1.485Gbps 3G HD SDI – SMPTE 424M 2.970 Gbps 75 ohm BNC IEC 169-8 |
| HDMI Input | Type A connector |
| HDMI Audio Input support | HDMI PCM stream stereo 44.1KHz, 48KHz |
| Video Input Formats | 1920 x 1080 x 60p/ 59.94p/ 50p 1920 x 1080 x 60i/ 59.94i/ 50i 1280 x 720 x 60p/ 59.94p/ 50p 720 x 480 x 60i/59.94i 720 x 576 x 50i |
| Output MPEG Bitrate | 1920 x 1080 x 60p/ 59.94p/ 50p, encoding video bit rate from 1Mbps to 20Mbps 1920 x 1080 x 60i/ 59.94i/ 50i, encoding video bit rate from 1Mbps to 20Mbps 1280 x 720 x 60p/ 59.94p/ 50p, encoding video bit rate from 1Mbps to 20Mbps 720 x 480 x 60i/59.94i, encoding video bit rate from 0.5Mbps to 10Mbps 720 x 576 x 50i, encoding video bit rate from 0.5Mbps to 10Mbps |
| Output MPEG Bitrate Type | VBR or CBR |
| Video MPEG Format | H.264 AVCHD L4.1 HP |
| Audio MPEG Format | AAC stereo, Low Complexity profile, 48KHz, VBR. AAC bitrates: 32,Kbps, 64Kbps, 96Kbps, 128Kbps |
| User Configurable encoding Parameters and streaming parameters | Input source select Minimum video bitrate Maximum video bitrate GOP size Audio bitrate Audio enable/disable PIDs – video PID, audio PID, PMT PID, PCR PID. Service name Service ID Output enable/disable |
| Network | Single RJ45 10/100/1000Mbps Ethernet |
| Configurable Network Settings | Dynamic (DHCP or static IP address) Output multicast address & port DSCP TTL |
| Standards | ISO/IEC 13818, IEC 60958 type II, CEA-770.3 - |
| Multicast | Transport Streams sent as UDP multicast streams. |
| Multicast Address | Default assigned to each stream, which can be overridden by the user. Default is: BBB.III.AAA.NNN where: BBB is a base address. By default this is 239. III is the last octet of the unit's IP address AAA is the encoder number in the physical unit NNN is 0. |
| TTL | Default is 1. This is configurable on a per encoder basis. |
| UDP Payload Size | 1316 bytes (7 TS packets) |
| Multicast Port | Default is 1234. Configurable on a per stream basis. |
| DSCP | Configurable on a per encoder basis. |

PHYSICAL SPECIFICATIONS

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|-------------------------------------|--|
| Form Factor | 1U Rack form factor. Aluminium chassis. Rear mounted fans. |
| Width | 434mm |
| Depth | 330mm |
| Height | 43mm |
| Weight (Approx.) | 2kg |
| Power Connector | IEC 60320 C13 power inlet. |
| Input Voltage (Low, US) | 100 Vac to 132 Vac. sine wave (47 to 63Hz). Input voltage and frequency is automatically selected |
| Input Voltage (High, Europe) | 180 Vac to 264 Vac sine wave (47 to 63Hz). Input voltage and frequency is automatically selected |
| Input Power | 40 VA |
| Heat Output | 120 Btu/hour |
| Air Temperature | 5°C to 40°C |
| Altitude | 0 to 2134m (7000ft) |
| Humidity | 10%-90% |