



EN91

MPEG 4 High Definition Ultra Low Delay Encoder

Applications

- DSNG (ultra-low, low and normal delay)
- Tier One Contribution
- 3D Discrete Contribution
- High Efficiency Trunking (JPEG replacement)
- Distribution

Features

- Automatic SD and HD detection
- AVC 422 Video encoding
- Sixteen (16) channels of phase aligned audio encoding
- Time Code, Captions, Teletext and other VBI support
- Redundant Power Supplies
- Front Panel, Web UI, SNMP control and monitoring
- DVBS/S2 modulation with IF or L-Band
- Modulation modes from QPSK to 32APSK
- ASI and IP Transport (IP supports SMPTE 2022 FEC)

The EN91 is a ultra-low delay MPEG 4 AVC/H.264 high definition encoder. The ultra-low delay mode requires the use of Adtec's RD60 IRD and delivers picture-to-picture services in 100 milliseconds; The EN91 standard delay mode is fully interoperable with other IRDs making it ideal for mission critical trunking and ad-hock applications. MPEG 4 AVC/H.264 is significantly more efficient than JPEG making it the CODEC of choice for multiplexed and bandwidth sensitive applications; AVCs inherent interoperability significantly adds to the value of solutions based on this industry standard.

The lightweight, 10 pound or 4.5 Kilo EN91 offers amazing features and specifications in its 1 RU chassis, including redundant AC power supplies, enhanced control and monitoring via its front-panel, a browser and SNMP; video support includes SD, 2D-HD and 3D AVC 422, sixteen channels of phase aligned audio, robust VBI support, reliability and easy of use all for an extraordinary value. In addition to encoding phase aligned audio, the EN91 pass-through support includes PCM, DolbyE (16 and 20 Bit) and Dolby AC3 (2.0 and 5.1).

The EN91 encodes and concurrently transports services via ASI, IP and DVBS/S2. The DVBS/S2 modulator is available in IF or L-band with modulation modes ranging from QPSK up to 32APSK based on software licenses.

Power

Power 1 & 2 Redundant AC Power, Standard 3 pin computer power plug (Auto range 70-240 VAC Input)

Modulator (optional)*

Main **RF output, 50 Ohm BNC**
L-Band Model: Frequency range 950 MHz to 1.750 GHz, Power Level -50 to -7 dBm
IF Model: Frequency range 50 MHz to 180 MHz, Power Level -30 to +5 dBm

Monitor **RF output, 50 Ohm BNC**
L-Band Model: Fixed power level at -45 dBm
IF Model: Fixed power level at -45 dBm, fixed frequency at 1.08 GHz

10MHz Clock BNC 50 Ohm connector for external 10MHz reference input

Processor

GigE MPEG2 or RTP multicast transport egress port (SMPTE 2022)

COM2 API Serial Communication Interface

COM1 Serial Port Used for Troubleshooting (Terminal)

Ethernet 10/100 base T ethernet interface (Monitoring/Management)

DVC Parport 9-pin parallel I/O interface for control systems

RS422 Not Currently Supported

GPIO Tally and Control Port

Encoder

ASI OUT 75 Ohm source ASI x3 per EN5000839. Up to 100 Mbps.

CVBS In 75 Ohm terminated Standard Definition Composite Video Input

SDI In 75 Ohm terminated Input, Video & Audio (SMPTE 259M for SD & SMPTE 292M for HD) BNC

AES Audio In 1-4 75 Ohm AES-3 per AES3-2003

Analog Audio In Stereo Pairs 1 and 2 (600 Ohm Balanced)

