



Adtec's EN-210 contribution class encoder supports the most demanding video applications offering CODEC flexibility, interoperability and feature richness.



The lightweight EN-210 offers flexibility and reliability 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/HD AVC encoding with legacy support for MPEG 2. The EN-210 boasts sixteen (16) channels of audio, robust VBI support and ease of use. In addition to encoding MPEG 1 audio, the EN-210 adds support for Dolby Digital AC3, Dolby Digital Plus, ACC-LC and AAC-HE (v1/v2) mixed mode audio encoding, supporting stereo (2.0) and multi-channel surround (5.1) modes.

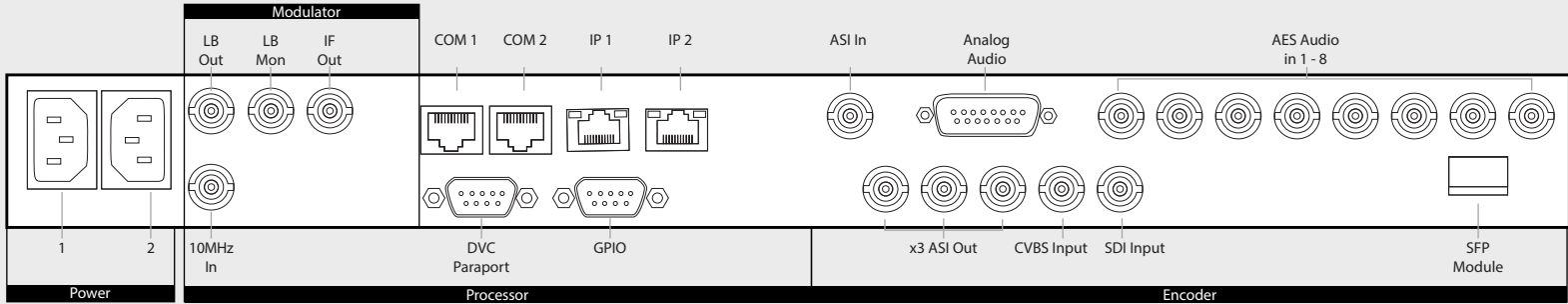
With the ability to encode and concurrently transport services via ASI, IP, and RF, the EN-210 offers flexibility and reliability. The DVBS/S2/S2X modulator supports IF and L-band with 10Mhz insertion and DVB-CID. Modes range from QPSK up to 256APSK. Additionally, the EN-210 offers multiple Mode IP transport options including; RTP, UDP, RTMP and Zixi.

Feature Highlights

- Provides high demand and flexible AVC 4:2:2 & 4:2:0 8-bit Video Encoding up to 1080i & MPEG-2 4:2:2 & 4:2:0 Video Encoding up to 1080i
- 3G-SDI via 3G Copper and Fiber SFP Video Interfaces
- Dense & Comprehensive Audio
- ASI input for external transport stream multiplexing
- Multiple Mode IP Transport including RTMP and Zixi.

Applications

- Tier One Dedicated ASI, IP or RF Contribution
- Digital Satellite News Gathering
- Diverse applications needing AVC and MPEG-2 flexibility



Video Encoder Profiles

MPEG 2 SD/HD Profiles: IS013818-2 MP@ML (1 – 15Mb/s), 422P@ML (1 – 80Mb/s)
IS014496-10 MP Level 3.2, High422P (Level 3.2)

MPEG 4 SD/HD Profiles: IS014496-10 MP Level 3.2, High422P (Level 3.2) HiP,
i422P, 10-bit Hi422P (Level 4.1) (7 – 59.5Mb/s)

Supported Resolutions: 480i59.94, 576i50, 720p50, 720p59.94, 1080i50, 1080i59.94

Video Input

Composite:
Interface: SD Composite Analog (CVBS)
Composite NTSC and PAL
Connector: 2x BNC (75 Ohm)

SDI:
SD-SDI (SMPTE 259M - 270 Mbits) with embedded audio per SMPTE 272M
HD-SDI (SMPTE 292M - 1.485 Gbits) with embedded audio per SMPTE 299M
3G-SDI

Interface: HD/SD-SDI Auto frame rate and resolution detection
Connector: 1x BNC (75 Ohm), 1x 3G BNC (75 Ohm)

Audio Processing Profiles

Supported Audio: Up to 8 pairs (16 channels) of audio MPEG 1 Layer 2, AAC-LC (2.0/5.1), AAC-HE v1/v2 and AAC-6.0 surround encode Dolby Digital AC-3 stereo (Up to 4 stereo pairs)

Audio Input:
Interface: SDI, AES, Analog
Connector: 8x BNC (75 Ohm) and 1x DB9

Conditional Access

BISS 0, BISS 1 and BISS E

Management

Front Panel Controls
Browser-Based Web Interface
SNMP

Modulator

Compliant standards supported: DVB-S (EN 300421), DVB-S2 (EN 302307) and DVB-S2X (DVB-S2 Extensions)

Modulation Scheme Support: QPSK / 8PSK / 16APSK / 32APSK / 256APSK
DVB-S QPSK FEC rates: 1/2, 2/3, 3/4, 5/6, 7/8
DVB-S2 QPSK FEC rates: 1/4, 1/3, 2/5, 1/2, 3/5, 2/3, 3/4, 4/5, 5/6, 8/9, 9/10
DVB-S2 8PSK FEC rates: 3/5, 2/3, 3/4, 5/6, 8/9, 9/10
DVB-S2 16APSK FEC rates: 2/3, 3/4, 4/5, 5/6, 8/9, 9/10
DVB-S2 32APSK FEC rates: 3/4, 4/5, 5/6, 8/9, 9/10
Interface Rate: 50 kbit/s- 150 Mb/s (modcod & interface dependent)
Baudrate range: 0.05 - 54 Mbaud. (modcod dependent)
Clean Channel Technology
RF Carrier ID compliant

IF Output
Level: -30 to +5dBm (+/- 2dB) / Frequency: 50 - 180MHz / Connector: BNC (50Ohm)

L-Band Output
Level: -35 to +5dBm (+/- 2dB) / Frequency: 950 - 2150MHz / Connector: BNC (50Ohm)

Reference Input
Level: -3 to +7 dBm / Frequency: 10 MHz / Connector: BNC (50Ohm)

VBI / VANC Processing

Waveform / Ancillary support for: AFD, Closed Captions, OP47 Teletext, VITC, and WSS
CEA 608 -> 708 Up-conversion

Physical

Operating Temperature: -20 to +50 0C
Power Supply (nominal): 70 - 240 VAC
Weight: 9 lbs, base version
Measurements: H X W X D) 1.75" X 19" X 18"

Output

ASI Output
Connector: 3x BNC (75 Ohm)
IS013818-1 MPEG 2 Transport Stream per EN 50083-9:1997 (188 byte only)

Transport Over IP (TSolP) Output
Connector: 1x RJ45 10/100/1000 GigE
IS013818-1 MPEG 2 TS per EN 50083-9:1997
UDP, RTP, TCP, and SMPTE 2022-2 (COP3 FEC), RTMP, Zixi
MPTS or SPTS user definable