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**: ISO/IEC 13818-1 MP@ML (1 – 15 Mb/s), 422P@ML (1 – 80 Mb/s)  
  ISO/IEC 14496-10 MP Level 3.2, High 4:2:2P  
  IP 1, 2, ASI In, AES Audio in 1-8  

- **Supported Resolutions**: 480i, 59.94, 576i, 50, 720p, 50, 720p, 59.94, 1080i, 50, 1080i, 59.94

**Video Input**

- **Composite**:  
  - Interface: SD Composite Analog (CVBS)  
  - Connector: 2x BNC (75 Ohm)

- **SDI**:  
  - Interface: SD-SDI (SMPTE 259M - 270 Mb/s) with embedded audio per SMPTE 272M  
  - HD-SDI (SMPTE 292M - 1.485 Gbps) 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/x2 and AAC-6.0 surround encode Dolby Digital AC-3 stereo  
  - Up to 4 stereo pairs

- **Audio Input**: 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**

**Output**

- **ASI Output**:  
  - Connector: 3x BNC (75 Ohm)  
  - ISO/IEC 13818-1 MPEG 2 Transport Stream per EN 50083-9:1997 (188 byte only)

- **Transport Over IP (TSoIP) Output**:  
  - Connector: 1x RJ45 10/100/1000 GigE  
  - UDP, RTP, TCP, and SMPTE 2022-2 (COP3 FEC), RTMP, Zixi  
  - MPTS or SPTS user definable

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**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, 3/4, 4/5, 5/6, 8/9, 9/10  
  - DVB-S2 8PSK FEC rates: 3/5, 3/4, 4/5, 5/6, 8/9, 9/10  
  - DVB-S2 16APSK FEC rates: 2/3, 3/4, 4/5, 5/6, 8/9, 9/10  
  - Interface Rate: 30 to +5dBM (+/- 2dB) / Frequency: 50 - 180 MHz / Connector: BNC (50Ohm)

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

- **RF Carrier ID compliant**

- **Clean Channel Technology**: Roll-off factors: 5%, 10%, 15%, 20%, 25%, 35%

- **IF Output**: Level: -3 to +5dBM (+/- 2dB) / Frequency: 50 - 180 MHz / Connector: BNC (50Ohm)

- **L-Band Output**: Level: -35 to +5dBM (+/- 2dB) / Frequency: 950 - 2150 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°C  
- **Power Supply (nominal)**: 70 - 240 VAC  
- **Weight**: 9 lbs, base version  
- **Measurements**: H X W X D: 1.75” X 19” X 18”

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