



The ADV-8511 is a high quality professional, cost-effective solution for digital satellite uplinks and terrestrial microwave links.

The unit consists of a high performance DVB-S/DSNG/S2/S2X modulator and a HEVC/H.265, MPEG-4 AVC/H.264, MPEG-2 SD/HD Encoder with HD/SD-SDI, HDMI, CVBS, YPbPr and ASI inputs.

ADV-8511 outputs ASI and DVB-S/S2/S2X RF simultaneously.

The unit also include BISS scrambler, 10MHz reference clock output and the power supply for the BUC (Block Up Converter).

Applications

- Digital satellite Uplinks for Distribution, Contribution, DSNG /ENG Mobile news gathering
- Digital Microwave Links (Mobile and STL)

Key Features

- HEVC/H.265, MPEG-4 AVC/H.264 and MPEG2 SD/HD Encoding
- MPEG-2: up to 1080i; H.265/H.264: up to 1080p
- Video inputs: HD/SD-SDI, HDMI, CVBS, YPbPr
- Audio inputs: 2xXLR, 4xAES, HDMI embedded, SDI embedded (4 stereo pairs).
- Audio encoding: MPEG-1 Layer II, HE-AAC, LC-AAC, Dolby Digital AC-3
- 1*ASI input
- Supports DVB-S/S2/S2X RF output and ASI output
- Output Frequency: 950-2150MHz
- QPSK, 8PSK, 16APSK, 32APSK Constellations
- RF CID setting
- Low latency
- Supports BISS scrambling
- Built-in 24V BUC power supply
- Supports 10MHz reference clock output
- Supports Web and front panel LCD control

Technical Specifications



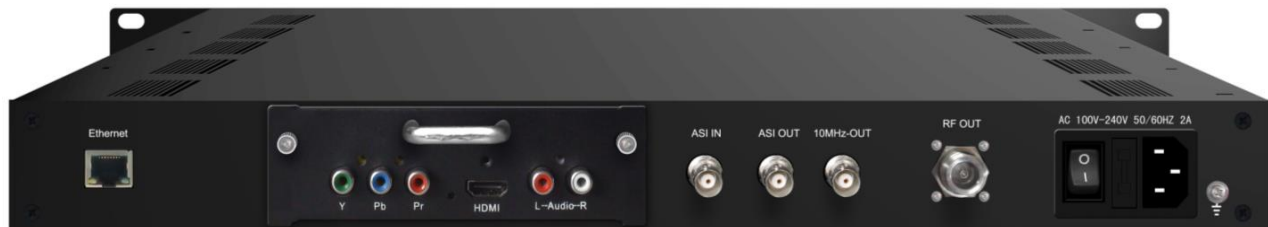
ADV-8511S HD/SD-SDI Encoding Inputs

Video

| | |
|------------|---|
| Encoding | MPEG2; MPEG4 AVC/H.264 |
| Input | SDI*1 |
| Resolution | 1920*1080_60P, 1920*1080_50P, (for MPEG4 AVC/H.264 only) 1920*1080_60i, 1920*1080_50i, 1280*720_60p, 1280*720_50P 720*480_60i, 720*576_50i |
| Bitrate | 1.000~19.500 Mbps |

Audio

| | |
|-------------|---|
| Encoding | MPEG1 Layer II, MPEG2-AAC, MPEG4-AAC, Dolby Digital AC3 |
| Sample rate | 48KHz |
| Bitrate | 64kbps, 96kbps, 128kbps, 192kbps, 256kbps, 320kbps |



ADV-8511H HDMI/YPbPr/CVBS Encoding Inputs

Video (HDMI)

| | |
|------------|---|
| Encoding | MPEG2; MPEG4 AVC/H.264 |
| Interface | HDMI*1 |
| Resolution | 1920*1080_60P, 1920*1080_50P, (for MPEG4 AVC/H.264 only) 1920*1080_60i, 1920*1080_50i, 1280*720_60p, 1280*720_50P |
| Bitrate | 1.000~19.500 Mbps |

Audio (HDMI)

| | |
|-------------|--|
| Encoding | MPEG1 Layer II; MPEG2-AAC; MPEG4-AAC, Dolby Digital AC-3 |
| Interface | HDMI*1 |
| Sample rate | 48KHz |
| Bitrate | 64/96/128/ 192/256/320kbps |

Video (YPbPr/CVBS)

| | |
|------------|--|
| Encoding | MPEG2; MPEG4 AVC/H.264 |
| Interface | YpbPr*1/CVBS *1 |
| Resolution | CVBS: 720x576_50i (PAL); 720x480_60i (NTSC) YpbPr: 1920*1080_60i, 1920*1080_50i; 1280*720_60p, 1280*720_50P |

Audio (L/R)

| | |
|-------------|---------------------------------------|
| Encoding | MPEG1 Layer II; MPEG2-AAC; MPEG4-AAC; |
| Interface | 1*Stereo/2*mono |
| Sample rate | 48KHz |
| Bitrate | 64/96/128/ 192/256/320kbps |



ADV-8511SH SDI/HDMI/YPbPr Encoding Inputs

Video

| | | | |
|------------|---|---|----------------------|
| Encoding | HEVC/H.265; MPEG-4 AVC/H.264 | | |
| Input | HDMI/SDI/YPbPr | | |
| Resolution | Input | Output | Interface Applicable |
| | 1920×1080_60P, 1920×1080_60i, 1920×1080_59.94P, 1920×1080_59.94i | 1920×1080_60P | HDMI SDI |
| | 1920×1080_50P, 1920×1080_50i | 1920×1080_50P | |
| | 1280×720_60P, 1280×720_59.94P, | 1280×720_60P | |
| | 1280×720_50P | 1280×720_50P | YPbPr |
| | 1920×1080_60i, 1920×1080_50i, 1280×720_60P, 1280×720_50P | 1920×1080_60i, 1920×1080_50i, 1280×720_60P, 1280×720_50P | |
| Bit rate | 4Mbps~20Mbps (for MPEG-4 AVC/H.264) 0.5Mbps~20Mbps (HEVC/H.265) | | |

| | |
|-----------------------|---|
| Chroma | 4:2:0 |
| Rate Control | CBR/VBR |
| GOP Structure | IBBP, IPPP |
| Advanced Pretreatment | De-interlacing, Noise Reduction, Sharpening |

Audio

| | |
|-------------|--|
| encoding | MPEG-1 Layer 2, LC-AAC, HE-AAC, HE-AAC V2, AC3 Passthrough |
| Input | Digital: HDMI/SDI/AES; Analog: XLR |
| Channel | AES/SDI: Up to 4 stereos HDMI: 1 stereo XLR: Up to 2 stereos |
| Sample rate | 48KHz |
| Bit rate | 48Kbps~384Kbps (MPEG-1 Layer 2 & LC-AAC) 24 Kbps~128 Kbps (HE-AAC) 18 Kbps~56 Kbps (HE-AAC V2) |
| Audio Gain | 0-255 |

General

| | | | | |
|---------------------------|---|--|--|--|
| Input Interface | 1*SDI /1*(HDMI+YPbPr+CVBS)/1*(SDI+HDMI+YPbPr) | | | |
| Output | DVB-S/S2/S2X RF output; ASI output | | | |
| Modulation Section | Standard | DVB-S | DVB-S2 | DVB-S2X |
| | Outer coding | RS Coding | BCH Coding | BCH Coding |
| | Inner coding | Convolution | LDPC Coding | LDPC Coding |
| | Constellation | QPSK | QPSK,8PSK, 16APSK,32APSK | QPSK,8PSK, 8APSK, 16APSK,32APSK |
| | FEC/ Convolution Rate | 1/2, 2/3, 3/4, 5/6, 7/8 | QPSK: 1/4, 1/3, 2/5, 1/2, 3/5, 2/3, 3/4, 4/5, 5/6, 8/9, 9/10 8PSK: 3/5, 2/3, 3/4, 5/6, 8/9, 9/10 16APSK: 2/3, 3/4, 4/5, 5/6, 8/9, 9/10 32APSK: 3/4, 4/5, 5/6, 8/9, 9/10 | QPSK: 1/2, 3/5, 2/3, 3/4, 4/5, 5/6, 8/9, 9/10, 13/45, 9/20, 11/20 8PSK: 3/5, 2/3, 3/4, 5/6, 8/9, 9/10, 23/36, 25/36, 13/18 8APSK: 5/9-L, 26/45-L 16APSK: 2/3, 3/4, 4/5, 5/6, 8/9, 9/10, 1/2-L, 8/15-L, 5/9-L, 26/45, 3/5, 3/5-L, 28/45, 23/36, 2/3-L, 25/36, 13/18, 7/9, 77/90 32APSK: 3/4, 4/5, 5/6, 8/9, 9/10, 2/3-L, 32/45, 11/15, 7/9 |
| | Roll-off Factor | 0.2,0.25,0.35 | 0.2, 0.25, 0.35 | 0.05, 0.10, 0.15, 0.2, 0.25, 0.35 |
| | Symbol Rate | 0.5~45Msps | 0.5~40Msps (32APSK); 0.5~45Msps (16APSK/8PSK/QPSK) | 0.5~40 Msps (32APSK); 0.5~45 Msps (QPSK/8PSK /8APSK/16APSK) |
| | BISS Scramble | Mode 0, mode 1, mode E | | |
| | RF range | 950-2150MHz | | |
| | Output level | +3db~-28.5db | | |
| System | Local/Remote Control | LCD + control buttons / Web NMS | | |
| | Low Latency Mode | Normal, Mode 1, Mode 2 | | |
| Physical Spec | Dimensions / Weight | 410x460x44mm (W*L*H) / 4.5 kg | | |
| | Temperature | 0~45°C (operation), -20~80°C (storage) | | |
| | Power Supply | AC 100-240V 50/60Hz 2A | | |

Ordering information

- ADV-8511S** - **DVB-S/S2 Encoder/Modulator with HD/SD-SDI input**
- ADV-8511H** - **DVB-S/S2 Encoder/Modulator with HDMI/YPbPr/CVBS Inputs**
- ADV-8511SH** - **DVB-S/S2 Encoder/Modulator with HD/SD-SDI/HDMI/YPbPr Inputs**