



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 MPEG-2/ MPEG-4 (H.264/AVC) SD/HD Encoder with HD/SD-SDI, HDMI, CVBS, YPbPr and ASI inputs.

ADV-8511 outputs ASI and DVB-S/S2/S2X RF (or IF) 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

- MPEG2 SD/HD and MPEG4 (H.264) SD/HD Encoding
- MPEG-2: up to 1080i; 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 (2.0, 5.1)
- 1*ASI input
- Supports DVB-S/S2/S2X RF (IF Optional) output and ASI output
- LCN support (Logical Channel Number)
- Output Frequency: 950-2150MHz; IF: 50-200MHz
- QPSK, 8PSK, 16APSK, 32APSK, 8PSK-L, 16APSK-L, 32APSK-L 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; Dolby Digital AC-3
Interface	1*Stereo/2*mono
Sample rate	48KHz
Bitrate	64/96/128/ 192/256/320kbps



ADV-8511SH SDI/HDMI/YPbPr/CVBS/XLR/AES Encoding Inputs

VIDEO

Encoding	MPEG-2 HD/SD or MPEG-4 AVC/H.264 HD/SD		
Inputs	HDMI/SDI//YPbPr/CVBS/		
Resolution	Input	Output	Interface Applicable
	1920x1080i@60	1920x1080,	HDMI SDI YPbPr
	1920x1080i@59.94	1440x1080, 1280x1080i,	
	1920x1080i@50	960x1080i	
	1280x720p@60	1280x720, 960x720p, 640x720p	HDMI SDI YPbPr
	1280x720p@59.94		
	1280x720p@50		
	720x576i@50	720x576, 704x576, 640x576, 544x576, 528x576, 480x576, 352x576	SDI, CVBS

	720x480i@59.94	720x480, 704x480, 640x480, 544x480, 528x480, 352x480	SDI CVBS
Bit rate	0.52 – 60.00 Mbps		
Rate Control	CBR		
GOP Structure	Auto, IP, IPB, IPBB, IPBBB		
Aspect Ratio	4:3, 14:9 (for SD), 16:9 (for HD)		
Chroma	4:2:0, 4:2:2		
Advanced Pretreatment	De-interlacing, noise reduction, sharpening		

AUDIO

Encoding	MPEG-1 Layer II, HE-AAC (v1&v2), LC-AAC, DD AC3 (2.0, 5.1 available); DD AC3 passthrough (for SDI in)		
Input	2xXLR, 4xAES, 1xHDMI, 1xSDI (supports maximum 4 stereos synchronous processing or one DD 5.1 CH processing)		
Sample rate	48KHz		
Bit rate	32Kbps~384Kbps		
Low delay, selectable	150ms, 200ms, 350ms, 650ms		



General

Input Interface	1*SDI /1*(HDMI+YPbPr+CVBS)/1*(SDI+HDMI+YPbPr+CVBS)/			
Output	DVB-S/S2/S2X RF output; (IF Optional) 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, 16APSK,32APSK 8PSK-L,16APSK-L,32APSK-L
	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: 13/45, 9/20, 11/20 8PSK: 23/36, 25/36, 13/18 16APSK: 26/45, 3/5, 28/45, 23/36, 25/36, 13/18, 7/9, 77/90 32APSK: 32/45, 11/15, 7/9 8PSK-L: 5/9, 26/45 16APSK-L: 5/9, 8/15, 1/2, 3/5, 2/3 32APSK-L: 2/3
	Roll-off Factor	0.2,0.25,0.35	0.2, 0.25, 0.35	0.05, 0.10, 0.15
	Symbol Rate	0.5~45Msps	0.5~40Msps (32APSK); 0.5~45Msps (16APSK/8PSK/QPSK)	0.5~40Msps(32APSK,32APSK-L); 0.5~45 Msps (16APSK/8PSK/QPSK/16APSK-L/8PSK-L)
	BISS Scramble	Mode 0, mode 1, mode E		
	Output level	+3db~-28.5db		
	System	Local Control	LCD + control buttons	
Remote Control		Web NMS		
Low Latency Mode		Normal, Mode 1, Mode 2		
Physical Spec	Demission	410x460x44mm (W*L*H)		
	Temperature	0~45°C (operation), -20~80°C (storage)		
	Weight	4.5kgs		
	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/CVBS Inputs**