



The ADV-8510 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 modulator and a MPEG-4 (H.264/AVC) SD/HD Encoder with a choice of HD/SD-SDI or HDMI/CVBS/YPbPr or SDI/HDMI/CVBS/YPbPr and ASI inputs.

ADV-8510 outputs ASI and DVB-S/S2 RF (or IF) simultaneously.

The unit also include BISS scrambler, 10MHz reference clock 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
- Choice of models: HD/SD-SDI or HDMI/CVBS/YPbPr or SDI/HDMI/CVBS/YPbPr inputs
- Audio inputs: SDI embedded, HDMI embedded, Analog R/L
- Audio encoding: MPEG-1 Layer II, MPEG-2 AAC, MPEG-4 AAC, Dolby Digital AC-3
- 1*ASI input
- Supports DVB-S/S2 RF (IF Optional) output and ASI output
- LCN support (Logical Channel Number)
- Output Frequency: 950-2150MHz; IF: 50-200MHz
- 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-8510S 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-8510H 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-8510SH 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
	1920×1080i@60	1920×1080, 1440×1080, 1280×1080i, 960×1080i	HDMI SDI YPbPr
	1920×1080i@59.94		
	1920×1080i@50		
	1280×720p@60	1280×720, 960×720p, 640×720p	HDMI SDI YPbPr
	1280×720p@59.94		
	1280×720p@50		
	720×576i@50	720×576, 704×576, 640×576, 544×576, 528×576, 480×576, 352×576	SDI, CVBS

	720×480, 704×480, 640×480, 544×480, 528×480, 352×480	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	2×XLR, 4×AES, 1×HDMI, 1×SDI (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

HD/SD-SDI or HDMI/CVBS/YPbPr or SDI/ HDMI/CVBS/YPbPr

1×ASI input, BNC interface

Output interface

DVB-S/S2 RF output; ASI output, optional IF output

DVB-S/S2 Modulation

DVB-S QPSK: FEC 1/2,2/3,3/4,5/6,7/8

DVB-S2 QPSK: FEC 1/2,3/5,2/3,3/4,4/5,5/6,8/9,9/10

DVB-S2 8PSK FEC 3/5,2/3,3/4,5/6,8/9,9/10

RF output: 950.00-2150.00 MHz, 1Khz step

IF output: 50-200MHz

Symbol rate: 0.05-20.0MSPS

Roll Off: 0.35, 0.25, 0.2

RF Output level: -10dbm~-41.5dbm

System

Local Control LCD + control buttons

Remote Control Web based

Low Latency Mode Normal, Mode 1, Mode 2

BISS Scrambling BISS-1/E

RF 24V Power Out Supported

Physical Specification

Dimensions 410×460×44mm (W*L*H)

Temperature 0~45°C (operation), -20~80°C (storage)

Weight 4.5kgs

Power Supply AC 100-240V 50/60Hz

Ordering information

ADV-8510S - **DVB-S/S2 Encoder/Modulator with HD/SD-SDI input**

ADV-8510H - **DVB-S/S2 Encoder/Modulator with HDMI/YPbPr/CVBS Inputs**

ADV-8510SH - **DVB-S/S2 Encoder/Modulator with SDI/HDMI/YPbPr/CVBS Inputs**