

# ALLPRO HD-SDI+HDMI/8VSB™

**High Quality 1080p SD or HD 4:2:0 and 4:2:2 MPEG-2 and H.264 Broadcast Encoder and 8VSB Modulator with Magnum Semi Chip for Superb Quality at 150 ms Latency. Static PSIP Support. Amazing Quality at Near Half the Price of Major Brands. Component, Composite, HDMI, SD-SDI, and HD-SDI In and ASI, IP, and/or 8VSB Modulation Out. Full Control from Front Panel Buttons and Alpha LCD. Audio Support Includes AC-3 and MPEG-1 Layer II. Full Support for SNMP Management and 10/100 IP Output. Designed for Government Channel use in Isolated Communities.**



## Features

- Encodes Analog, HDMI, or HD/SD-SDI video to MPEG-2
- 8VSB modulation at 55 dBmV
- 55-870 MHz frequency range
- Low Phase Noise with less than 200ns jitter
- Inputs: Component, Composite, HDMI, HD/SD-SDI video
- Supports EIA-708 Closed Caption insertion via HD-SDI (SMPTE 334)
- Simultaneous Outputs: One DVB-ASI output, one IP output (UDP/IP or RTP/IP), one 8VSB output
- Ultra Low latency – as low as 150 milliseconds
- Full HD 1080p supported
- Supports 4:2:0 (8 bit) and 4:2:2 (10 bit)
- Digital, Analog and SDI embedded audio inputs
- 7.1 channel Dolby® Digital® (AC-3) encoding support
- 7.1 channel SPDIF audio optical input (pass through)
- Supports PAT, PMT, SDT, NIT, VCT (TVCT, CVCT)
- Additional ASI input for inserting externally generated PSIP into the transport stream
- Provides internally generated PSI and PSIP
- Magnum chip based – results in incredible quality
- Selectable MPEG-2 HD or MPEG-4 AVC HD real-time video encoding
- Audio encoding: Dolby® Digital® (AC-3), MPEG-1 Layer II
- CBR or VBR outputs
- User selectable resolution and bit rate
- Resolutions: 480i 29.97/30, 576i 25, 720p 50/59.94/60, 1080i 25/29.97/30, 1080p 25/29.97/30
- Chroma formats: 4:2:0 and 4:2:2
- PCR Jitter:  $\leq \pm 200$  ns
- Control and monitoring via web browser, front panel, or SNMP

## Applications

- Encoding analog, HDMI, or HD/SD-SDI video for transmission over 8VSB for broadcast
- Broadcasting in isolated communities
- GAP filler
- LP TV channel place holder
- Small town city broadcasting

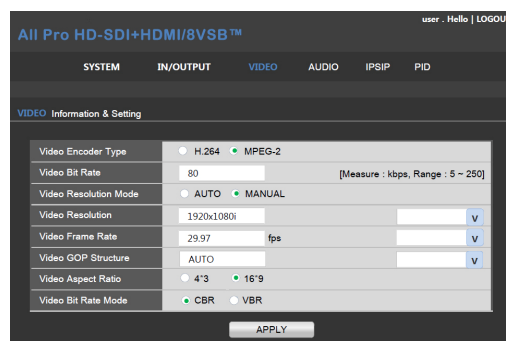
## Overview

The ALLPRO HD-SDI+HDMI/8VSB™ is a professional single channel MPEG-2 or H.264 video encoder with 8VSB modulator. It is designed to provide a cost effective way to bring television to "small" markets requiring only a single video source and a low power transmitter.

This combination of an encoder and professional low power modulator is typically fed into a 10 to 200 watt power amplifier that can service smaller, isolated, communities where content would arrive via satellite. Typically the content would be a government channel.

The ALLPRO is designed for the North American market and thus supports all the basic requirements for on air broadcasting, including closed captioning, AC-3 audio, and station PSIP table insertion including TSID. Naturally the unit supports all the resolution and compression modes required for SD, 720p, and HD (1080i) broadcast.

## Sample GUI



Encoder Settings

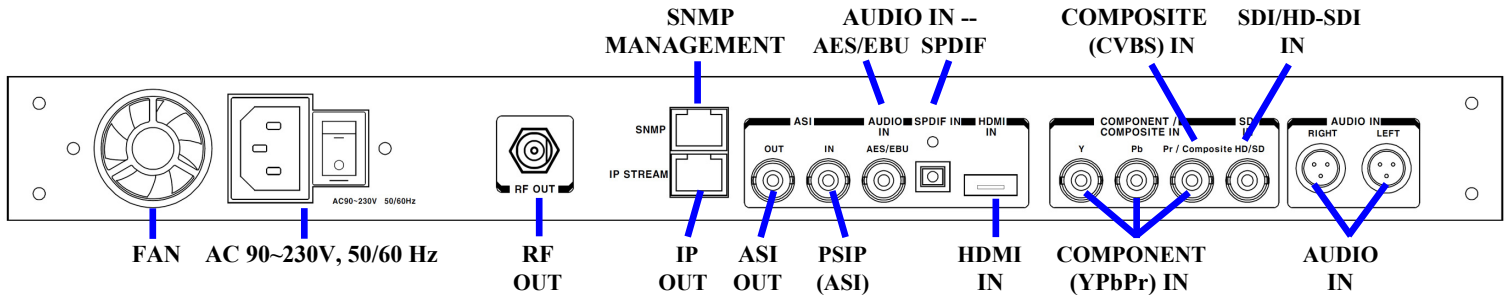


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## Rear View



## Specifications

### Video Input

Analog:	Component (YPbPr), Composite (CVBS)
Digital:	HDMI, SDI, HD-SDI
Resolutions:	480i 29.97/30, 576i 25, 720p 50/59.94/60, 1080i 25/29.97/30, 1080p 25/29.97/30
Aspect Ratios:	16:9 (Digital only), 4:3

### Audio Input

Analog:	Input: Two Stereo (Four channels) Frequency Range: 20 Hz ~20 KHz Impedance: 600 Ω/20 KΩ Connector: Mini XLR
Digital:	Input: AES-EBU, Embedded SDI/HDMI (2 stereo pairs, H.264 only) Sampling Rate: 32, 44.1, 48 KHz Connector: BNC (75Ω)/HDMI-19PIN
Optical Input:	SPDIF (7.1 Channel) (pass through)

### Video Encoding

Encoding:	MPEG-2: HP@HL, MP@HL, MP@ML MPEG-4: H.264 HP@L4, MP@L3
Encoding Rate:	MPEG-2: 0.6~55 Mbps; MPEG-4 H.264: 0.6~50 Mbps
Chroma Formats:	4:2:0 (8 bit), 4:2:2 (10 bit)
Bit Rate Modes:	CBR, VBR
Latency:	150 milliseconds
Closed Captioning:	EIA-708

### Audio Encoding

Sampling Rate:	32, 44.1, 48 KHz
Dolby® Digital® AC-3 (7.1 channel):	128, 192, 256, 384 Kbps
MPEG-1 Layer II:	192, 224, 256, 320, 384 Kbps
MPEG-4 AAC-LC:	32~384 Kbps
MPEG-4 HE-AAC v1:	32~192 Kbps
MPEG-4 HE-AAC v2:	32~96 Kbps

### Dynamic PSIP Input

Transport Stream:	One ASI port
Connector:	BNC (75Ω)
Packet Format:	188 Bytes
Input Level:	800mVp-p

### Regulatory Certificates



## Ordering Info

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### ASI Output

Transport Stream:	Two ASI ports
Connectors:	BNC (75Ω)
TS Bit Rate:	MPEG-2: 2.5~55 Mbps; MPEG-4 AVC: 2.5~55 Mbps
Packet Format:	188, 204 Bytes

### 8VSB Output

Frequency Range:	50~870 MHz
Impedance:	75 Ω
Output Level:	55 ± 5 dBmV
Level Control Range:	0 ~ -15 dB
MER After Equalizer:	42 dB
MER Before Equalizer:	37 dB
Phase Noise:	VHF -105 dB@20KHz; UHF -103 dB@20KHz
Adjacent Channel Carrier/ Attenuation Characteristic:	≤ -45 dB (Out of band)
Spurious:	≤ -63 dB
Return Loss:	≥ 17 dB
Frequency Response:	± 0.5 dB
Frequency Tolerance:	± 2 ppm
Group Delay:	± 20 ns
PCR Jitter:	≤ ± 200 ns

### IP Output

Output:	One port
Connector:	RJ-45
Ethernet Type:	100/100 Base-T
Format:	UDP/IP, RTP/IP
IP Address Format:	Multicast, Unicast
TS Bit Rate:	MPEG-2: 2.5~55 Mbps; MPEG-4 AVC: 2.5~55 Mbps

### Ethernet

Interface Type:	100/100 Base-T
Protocols:	SNMP

### Control and Monitoring

Local:	Front panel operation, LCD display
Remote:	SNMP, HTTP (Web Interface)

### Physical and Power

Power Supply:	AC 90~230V, 50/60 Hz
Power Consumption:	Max. 100W
Dimensions – WxHxD:	19 x 1.7 x 15 inches (482 x 44 x 383 mm)
Weight:	8.82 lbs (4 Kg)
Operating Temperature:	14 to 122 °F (-10~50°C)
Conformities:	FCC, CE, LVDS, RoHS