



Blonder Tongue

HDE-HVC-PRO

Professional MPEG-2 HD/SD Encoder

1xHDMI/VGA/Component to 1xQAM/ASI/IP

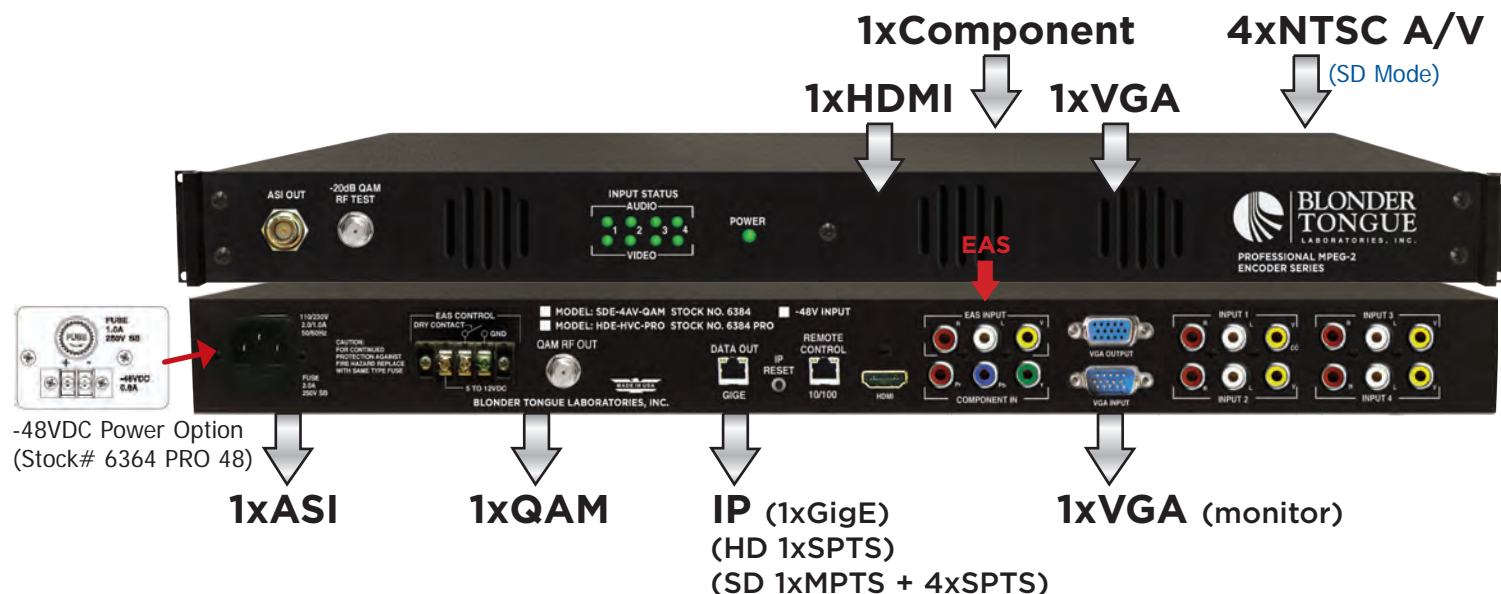
SOLUTIONS FOR ALL YOUR APPLICATIONS

HDE-HVC-PRO (Professional Series MPEG-2 HD/SD Encoder) is especially designed to deliver superior motion optimization for programming such as fast-paced live sporting events and is configurable in either HD or SD mode via its web interface.

When operating in HD Mode, the encoder accepts one (1) program from any one of the following inputs: 1xHDMI (unencrypted), 1xVGA or 1xComponent. In SD Mode the encoder accepts up to four (4) standard-definition (SD) input programs in NTSC baseband Audio/Video format. Each input program is digitized and MPEG-2 encoded, and the outputs (in either HD or SD Mode) are available in the following formats simultaneously: 1xQAM, 1xASI, and IP (GigE; HD 1xSPTS; SD 1xMPTS + 4xSPTS).

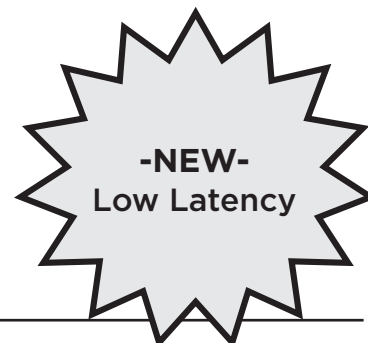
The encoder supports Dolby® Digital audio encoding, and Closed Captioning (EIA-608). It is also equipped with an Emergency Alert System (EAS) interface, accepting NTSC video and baseband L/R audio for EAS signal inputs. A front-panel RF test point allows for monitoring/testing of the QAM output without service interruption.

Comprehensive remote monitoring and control is accomplished using any standard Web browser via a rear-panel 10/100Base-T Ethernet connection.



Features

- HD Mode:** Accepts one (1) program from any of the following inputs: 1xHDMI (unencrypted), 1xVGA, 1xComponent, and 1xComposite
- SD Mode:** Accepts up to four (4) programs in NTSC baseband A/V format
- Simultaneously delivers the following outputs: 1xQAM, 1xASI, and IP (GigE; HD 1xSPTS; SD 1xMPTS + 4xSPTS)
- Provides comprehensive GUI-based monitoring and control via standard Web browsers
- Provides a front-panel RF test point (at 20 dB below primary QAM output)
- Configurable to ITU-T J.83 Annex A and B digital QAM formats
- Equipped with EAS interface (Analog Video + L/R Audio)
- Supports Real-time Dolby® Digital audio encoding
- Supports Closed Captioning EIA-608
- Supports user-defined PSIP configuration



Ordering Information

Model	Stock #	Description
HDE-HVC-PRO	6364 PRO	Professional Series MPEG-2 HD Encoder; 1xHDMI/VGA/Component/Composite inputs; 1xQAM + 1xASI + IP outputs
	6364 PRO 48	Professional Series MPEG-2 HD Encoder; -48 VDC Power

Specifications

Input

HD Mode:

HDMI	Connectors: Video Resolution: HDCP Encryption: Audio:	1x HDMI 480i, 720p, & 1080i Not supported Embedded PCM & pass-through Dolby® Digital only
VGA	Connectors: Video Resolution: Audio:	2x Female VGA (Input + Loop-through Output) 640x480 @ 60 fps 800x600 @ 60 fps 1024x768 @ 60 fps 2x RCA for Analog Audio (L, R)
Component	Connectors: Video Resolution: Video Aspect Ratio:	3x RCA for Video (Y, Pb, Pr) 2x RCA for Analog Audio (L, R) 480i, 720p, & 1080i 4:3 & 16:9

SD Mode:

NTSC	Connectors: Video Resolution:	4x RCA for Analog Video 4 sets each 2x RCA for Analog Audio (L, R) 480i
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HD/SD Mode:

EAS (Emergency Alert System) Connectors: Trigger Mechanism:	3x RCA (Video, Audio L & R) 5-12 VDC & Dry Contact Closure (Terminal Strip)
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Video Encoding Profile			ISO/IEC 13818-2 MPEG-2 (MP@ML, MP@HL) 4:2:0 4:3; 16x9 (with HD-PRO software upgrade) I & P frames (user-selectable) Variable (user-selectable) Variable (user-selectable) YCbCr and RGB		
Output Format:					
Chroma:					
Aspect Ratio:					
GOP Structure:					
Transport Rate:					
Video Pre-filter:					
Color Space:					
<i>Supporting These Formats:</i>					
Mode	Resolution	H x V	Scan	Frames Per Sec.	Recommended Video Bit Rate* (user selectable)
HD	1080i	1920 x 1080	Interlaced	29.97	10-30 Mbps
HD	720p60	1280 x 720	Progressive	59.94	10-30 Mbps
SD	480i	704 x 480	Interlaced	29.97	3-15 Mbps
<i>*The format (HD or SD), desired quality level, and most importantly the actual content (talking head, text scroll, full action sports, etc), will determine what bit rate is selected.</i>					
Audio Encoding Profile			Dolby® Digital 48 kHz Variable; 128-320 Kbps (user-selectable)		
Output Format:					
Sampling rate:					
Bit rate:					
Closed Captioning			EIA-608; Embedded in NTSC input		
NTSC:					

Output

QAM	Connector: Modulation: Standards: DVB Symbol Rate: Frequency Range: Tuning: Channels' Bandwidth: RF Level: RF Level Adjustment: Frequency Tolerance: Frequency Stability: Amplitude Flatness: Phase Noise: Spurious: Broadband Noise: Impedance: Spectral Inversion: Carrier Suppression: Return Loss: Signal-to-Noise Ratio (SNR): MER: I/Q Phase Error: I/Q Amplitude Imbalance:	1x "F" Female (Rear-panel) QAM 16, 32, 64, 128, and 256 ITU-T J.83; Annex A and B Variable; up to 7 MSymbol/sec (MBAud) 54 to 1002 MHz CATV Channel Selectable (Ch. 2 to 158) 6 MHz +40 dBmV +32 to +42 dBmV, 1 dB increment ± 0.5 kHz @ 77 °F (25 °C) ± 5 kHz over 32 to 122 °F (0 to 50 °C) ± 0.25 dB (over 6 MHz channel) -98 dBc (@ 10 kHz) -60 dBc -70 dBc (@ +40 dBmV output level, 5.5 MHz bandwidth) 75 Ω Auto Recognition 45 dB 14 dB typical 40 dB typical 40 dB typical Less than 1 degree Less than 1%
ASI	Connectors: Format: Standard:	1x BNC (Front-panel) DVB-ASI ETSI EN 50083-9
GigE	Connector: Standard: UDP/RTP:	1x RJ45 (Rear-panel) 1000Base-T Ethernet Supported (user-selectable)
Encoder Latency:		250 msec

General

Dimensions (W x D x H):	19.0 x 18.125 x 1.75 inches (483 x 460 x 44 mm)
Power: Stock # 6364 PRO: Stock # 6364 PRO 48:	110-230VAC, 60/50 Hz (fuse 2.0A, 250V, SloBlo) -48 VDC (Fuse: 1.0A, 250V, SloBlo)
Power Dissipation:	~40 W (max)
Weight:	~10 lbs (4.5 kg)
Operating Temperature:	32 to 122 °F (0 to 50 °C)
Storage Temperature:	-13 to 158 °F (-25 to 70 °C)
Operating Humidity:	0 to 95% RH @ 35 °C max, non-condensing
Storage Humidity:	0 to 95% RH @ 35 °C max, non-condensing

Alarms/Monitoring/Control

Local Monitoring:	8x Input Status LEDs (Video 1-4; Audio 1-4) 1x Power LED 1x "F" Female RF Test Port 1x IP Reset button
Local Control:	
Remote Monitoring/Control:	GUI-based menu via Web browser (1x RJ45 rear-panel connector; 10/100Base-T)

Related Products

Model	Description
SDE-4AV-QAM	MPEG-2 SD Encoder; 4AV inputs; 1xQAM + 1xASI + IP outputs; EAS compatible
SDE-4AV-HD-LIC	HD-PRO Software upgrade for SDE-4AV-QAM
HDE-CSV-QAM	MPEG-2 HD Encoder; 1xComponent/HD-SDI/HDMI/VGA/Composite inputs; 1xQAM+1xASI+1xIP outputs
HDE-CHV-QAM	MPEG-2 HD Encoder; 1xComponent/HDMI/VGA/Composite inputs; 1xQAM+1xASI+1xIP outputs
HDE-4S-QAM	HD Encoder; 4xHD-SDI + 4xComponent inputs; 4xQAM + 4xASI + 4xGigE outputs; EAS compatible; 1RU
HDE-2H/2S-QAM	HD Encoder; 2xHDMI + 2xHD-SDI + 4xComponent inputs; 4xQAM + 4xASI + 4xGigE outputs; EAS compatible; 1RU