



**BLONDER
TONGUE**
LABORATORIES, INC.

HDE-CHV-QAM

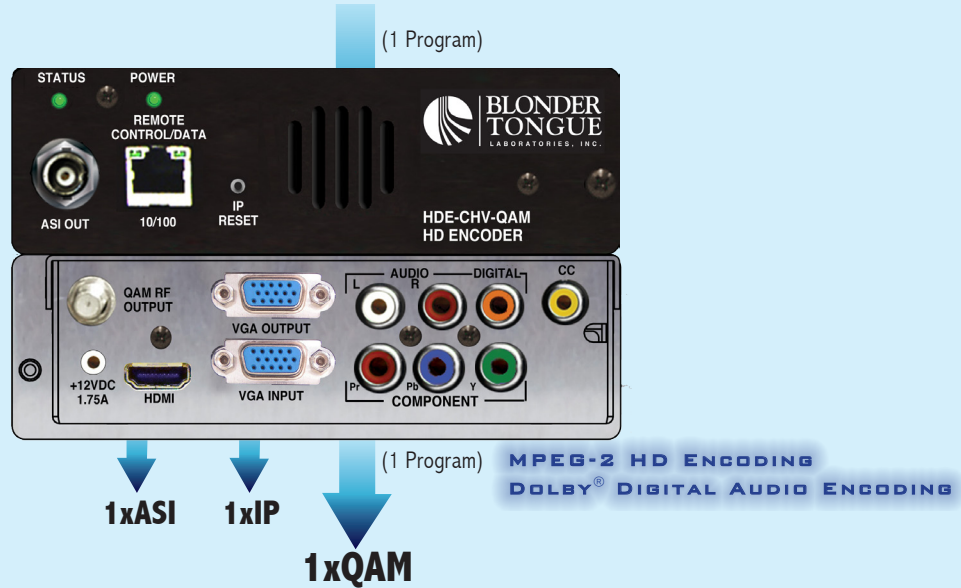
MPEG-2 HD ENCODER

1xCOMPONENT/HDMI/VGA/COMPOSITE ► 1xQAM

HDE-CHV-QAM (MPEG-2 HD Encoder – 1xComponent/HDMI/VGA/Composite – 1xQAM) accepts one (1) high-definition (HD) program from any of the following inputs: 1xComponent, 1xHDMI (unencrypted), 1xVGA, and 1xComposite. MPEG-2 encoded outputs are available in the following formats simultaneously: 1xQAM, 1xASI, and 1xIP (10/100Base-T Ethernet). The QAM RF output is frequency agile over the entire CATV frequency range of 54-1002 MHz (channels 2-158) with an output level of +40 dBmV.

The encoder supports Dolby® Digital audio encoding, and Closed Captioning (EIA-608). Comprehensive remote monitoring and control is accomplished using any standard Web browser via a front-panel 10/100Base-T Ethernet connection. A rear-panel VGA output port is available for loop-through applications.

1xComponent/HDMI/VGA/Composite

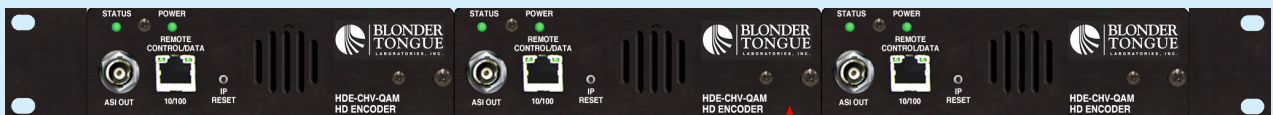


FEATURES

- Accepts one (1) program from any of the following inputs: 1xComponent, 1xHDMI (unencrypted), 1xVGA, and 1xComposite
- Simultaneously delivers the following outputs: 1xQAM, 1xASI, and 1xIP
- Provides +40 dBmV QAM RF output level
- Provides comprehensive GUI-based monitoring and control via standard Web browsers
- Compact design permits installation of up to 3 Encoder modules in 1RU
- Supports Real-time Dolby® Digital audio encoding
- Supports user-defined PSIP configuration
- Supports Closed Captioning EIA-608

ORDERING INFORMATION

Model	Stock #	Description
HDE-CHV-QAM	6384	MPEG-2 HD Encoder; 1xComponent/HDMI/VGA/Composite inputs; 1xQAM+1xASI+1xIP outputs
HDE-3MCH	6389	1RU Rack mount chassis; holds 3 HDE-CHV-QAM modules



6389

6384

Rev. No: 120723

SPECIFICATIONS

INPUT

Component Connectors: Video Resolution: Video Aspect Ratio:	3x RCA for Video (Y, Pb, Pr) 2x RCA for Analog Audio (L, R) 1x RCA for Digital Audio (PCM) 480i, 720p, & 1080i 4:3 & 16:9
HDMI Connector: 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) 1x RCA for Digital Audio (PCM)
Composite Connectors: Video Resolution: Audio:	1x RCA for Video (Y) 480i 2x RCA for Analog Audio (L, R) 1x RCA for Digital Audio (PCM)

Encoding Profile Video Output Format: Chroma: Resolution: Frame rate: Aspect Ratio: GOP Structure: Transport Rate: Video Bit Rate: Video Pre-filter: Intra DC Precision: Color Space:	MPEG-2 HD MP@ML; ISO 13818-2 4:2:0 720x480; 1280x720; 1920x1080 29.97 fps (480i); 29.97 fps (1080i); 59.97 fps (720p) 4:3 & 16:9 I & P frames (user-selectable) Variable (user-selectable) Variable (user-selectable) Variable (user-selectable) Variable; 8-11 bit (user-selectable) YCbCr and RGB
Audio Output Format: Sampling rate: Bit rate:	Dolby® Digital AC-3 48 kHz Variable; 96 - 448 Kbps (user-selectable)
Closed Captioning Component: HDMI: Composite:	EIA- 608; 1x RCA (CC) EIA- 608; 1x RCA (CC) EIA- 608

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 ±1 dB +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 (@ +35 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
IP Connector: Standard: UDP/RTP:	1x RJ45 (Front-panel) 10/100Base-T Ethernet Supported (user-selectable)

GENERAL

Dimensions (W x D x H):	5.65 x 12.5 x 1.75 inches (144 x 317.5 x 44.5 mm)
Power:	External Power Supply (Input 115-230VAC / Output 12VDC @ 3 Amp)
Power Dissipation:	18 W
Weight (one module):	1.5 lbs (0.7 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:	1x Status LED 1x Power LED
Local Control:	1x IP Reset button
Remote Monitoring/Control:	GUI-based menu via standard Web browsers (1x RJ45 front-panel connector; 10/100Base-T, also used for IP output)

RELATED PRODUCTS

Model	Description
HDE-CSV-QAM	MPEG-2 HD Encoder; 1xComponent/HD-SDI/HDMI/VGA/Composite inputs; 1xQAM+1xASI+1xIP outputs
HDE-2H/2S-QAM	MPEG-2 HD Encoder; 2xHDMI + 2xHD-SDI + 4xComponent inputs; 4xQAM + 4xGigE + 4xASI outputs; EAS compatible; 1RU
HDE-4S-QAM	MPEG-2 HD Encoder; 4xHD-SDI + 4xComponent inputs; 4xQAM + 4xGigE + 4xASI outputs; EAS compatible; 1RU
HD264-2S-IP	H.264 HD Encoder; 2xHD-SDI + 2xHDMI + 2xComponent inputs; 2xIP + 4xASI outputs; 1RU
HDE-ASI	HD/SD Encoder; 1xHD-SDI + 4xSD-SDI + 4xAV inputs; 1xASI output; 2RU
SD10E-QAM	SD Encoder; 10xSD-SDI + 10xAV inputs; 1xQAM output; EAS compatible; 2RU
AV10E-QAM	SD Encoder; 10xAV inputs; 1xQAM + 1xASI outputs; EAS compatible; 2RU