



Blonder Tongue

HDE-8C-QAM w/Opt 2

MPEG-2 HD ENCODER

8xComponent/Composite to 4xQAM

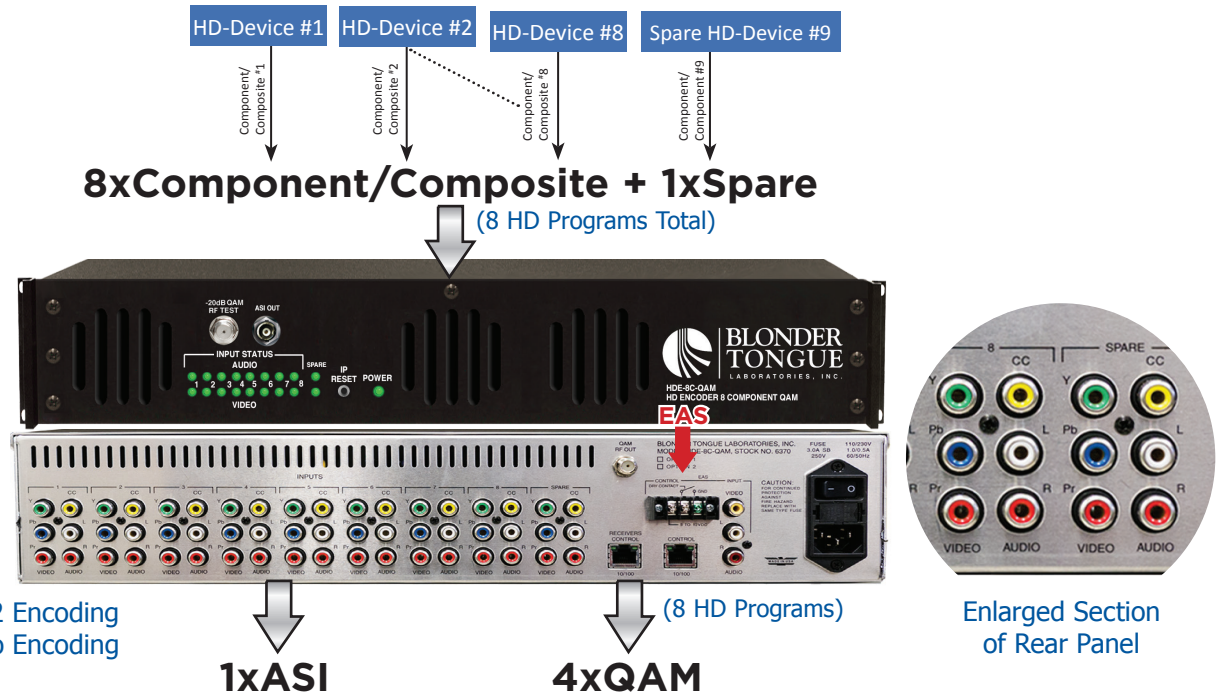
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HDE-8C-QAM w/Opt 2 (MPEG-2 HD Encoder: 8xComponent/Composite to 4xQAM) accepts up to eight analog programs from any of the following inputs: 8xComponent and 8xComposite. The encoder is equipped with a spare input (9th input) to replace any one of the primary eight inputs in the event of a failure.

The encoder digitizes, MPEG-2 encodes each input into a high-definition stream, multiplexes the resulting eight streams, and then modulates them onto four adjacent watermarked QAM channels in the 54-1002 MHz range (CATV 2-158). Any one of the four QAM outputs is also available in ASI format.

The encoder supports Dolby® Digital audio encoding, and Closed Captioning (EIA-608) for each of the eight encoded programs. It is also equipped with an Emergency Alert System (EAS) interface consisting of a composite video and L/R audio program input. EAS triggering is via a 5-12 VDC input or dry contact closure available from most EAS receivers. 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.

The encoder accepts eight analog programs from DIRECTV Network's H25-100 satellite receivers. In the event of a failure on any one of the primary eight receivers, the HDE-8C-QAM w/Opt 2 will automatically switch over to the spare receiver to maintain the program stream. Remote monitoring and control of up to nine DIRECTV Network's H25-100 satellite receivers is provided through UPnP protocol using a standard Web browser via a rear-panel 10/100Base-T Ethernet connection.



Features

- Accepts up to 8 programs from any of the following inputs: 8xComponent and 8xComposite
- Supports additional 1 spare input to replace the failed input
- Digitizes, MPEG-2 encodes, and multiplexes up to 8 inputs into 4 QAM output channels (2 programs per QAM channel)
- Provides any 1 of the 4 QAM output streams in ASI format
- Configurable to ITU-T J.83 Annex A and B digital QAM formats
- 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)
- Equipped with EAS interface (Analog Video + L/R Audio) and triggering compatible with all EAS receivers
- Supports Real-time Dolby® Digital audio encoding
- Supports Closed Captioning EIA-608 for each of the 8 encoded programs
- Supports user-defined PSIP configuration

Ordering Information

Model	Stock #	Description
HDE-8C-QAM w/Opt 2	6370 2	8xComponent + 8xComposite + 1xSpare inputs; 4xQAM + 1xASI outputs; EAS compatible For DIRECTV Network's H25-100 Satellite Receivers

Rev: 012115

Made in U.S.A.

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Specifications

Input

Component	Primary Connectors: 8 sets each 3x RCA for Video (Y, Pb, Pr) 8 sets each 2x RCA for Analog Audio (L, R) Spare Connectors: 3x RCA for Video (Y, Pb, Pr) 2x RCA for Analog Audio (L, R) Video Resolution: 480i, 720p Video Aspect Ratio: 4:3 & 16:9
Composite Video	Primary Connectors: 8 sets each 1x RCA for Video (Y) 8 sets each 2x RCA for Analog Audio (L,R) (shared with component connectors) Spare Connectors: 1x RCA for Video (Y) 2x RCA for Analog Audio (L,R) (shared with component connectors) Video Resolution: 480i
EAS (Emergency Alert System)	Connectors: 3x RCA (Video, Audio L & R) Trigger Mechanism: 5-12 VDC & Dry Contact Closure (Terminal Strip)
Encoding Profile	Video <ul style="list-style-type: none"> Output Format: MPEG-2 HD MP@ML; ISO 13818-2 Chroma: 4:2:0 Resolution: 480i, 720p Frame rate: 29.97 fps (480i); 59.97 fps (720p) Aspect Ratio: 4:3 & 16:9 GOP Structure: I & P frames (user-selectable) Transport Rate: Variable (user-selectable) Video Bit Rate: Variable (user-selectable) Video Pre-filter: Variable (user-selectable) Audio <ul style="list-style-type: none"> Output Format: Dolby® Digital Sampling rate: 48 kHz Bit rate: Variable; 128-320 Kbps (user-selectable)
Closed Captioning	Component: EIA-608; 1x RCA (CC) Composite: EIA-608

General

Dimensions (W x D x H):	19.0 x 19.5 x 3.5 inches (483 x 495 x 89 mm)
Power:	110 - 230 VAC, 50/60 Hz (Fuse: 4.0A, 250 VDC, Slo Blo)
Power Dissipation:	~60 W (max)
Weight:	~15 lbs (6.8 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

Related Products

Model	Description
HDE-4S-QAM	MPEG-2 HD Encoder; 4xHD-SDI + 4xComponent inputs; 4xQAM + 4xASI + 4xGigE outputs; EAS compatible; 1RU
HDE-CHV-QAM	MPEG-2 HD Encoder; 1xComponent/HDMI/VGA/Composite inputs; 1xQAM + 1xASI + 1xIP outputs
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 + 2xComponent/Composite inputs; 4xQAM + 4xIP + 4xASI outputs; EAS; 1RU

Output

QAM	Connector: 1x "F" Female (rear panel; up to 4x RF QAM ch. combined) Modulation: Watermarked QAM 16, 32, 64, 128, and 256 Standards: ITU-T J.83; Annex A and B DVB Symbol Rate: Variable; up to 7 MSymbol/sec (MBaud) Frequency Range: 54 to 1002 MHz Tuning: CATV Channel Selectable (CH. 2 to 158) Channel Bandwidth: 24 MHz (4x Adjacent 6 MHz) RF Level: +40 dBmV ± 1 dB (4 channels combined) RF Level Adjustment Range: +35 to +42 dBmV, 1 dB increments Frequency Tolerance: ± 0.5 kHz @ 77 °F (25 °C) Frequency Stability: ± 5 kHz over 32 to 122 °F (0 to 50 °C) Amplitude Flatness: ± 0.25 dB (over 6 MHz channel) Phase Noise: -98 dBc (@ 10 kHz) Spurious: -60 dBc Broadband Noise: -70 dBc (@ +40 dBmV output level, 5.5 MHz bandwidth) Impedance: 75 Ω Spectral Inversion: Auto Recognition Carrier Suppression: 45 dB Return Loss: 14 dB typical Signal-to-Noise Ratio (SNR): 40 dB typical MER: 39 dB typical I/Q Phase Error: Less than 1 degree I/Q Amplitude Imbalance: Less than 1%
ASI	Connector: 1x BNC (front-panel) Output Assignment: Any 1 of 4 QAM output streams Format: DVB-ASI Standard: ETSI EN 50083-9

Alarms/Monitoring/Control

Local Monitoring:	16x Input Status LEDs (Video 1-8; Audio 1-8) 2x Spare LEDs (Video & Audio) 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 connector; 10/100Base-T) UPNP control of STB receivers (1x RJ45 connector; 10/100Base-T)