

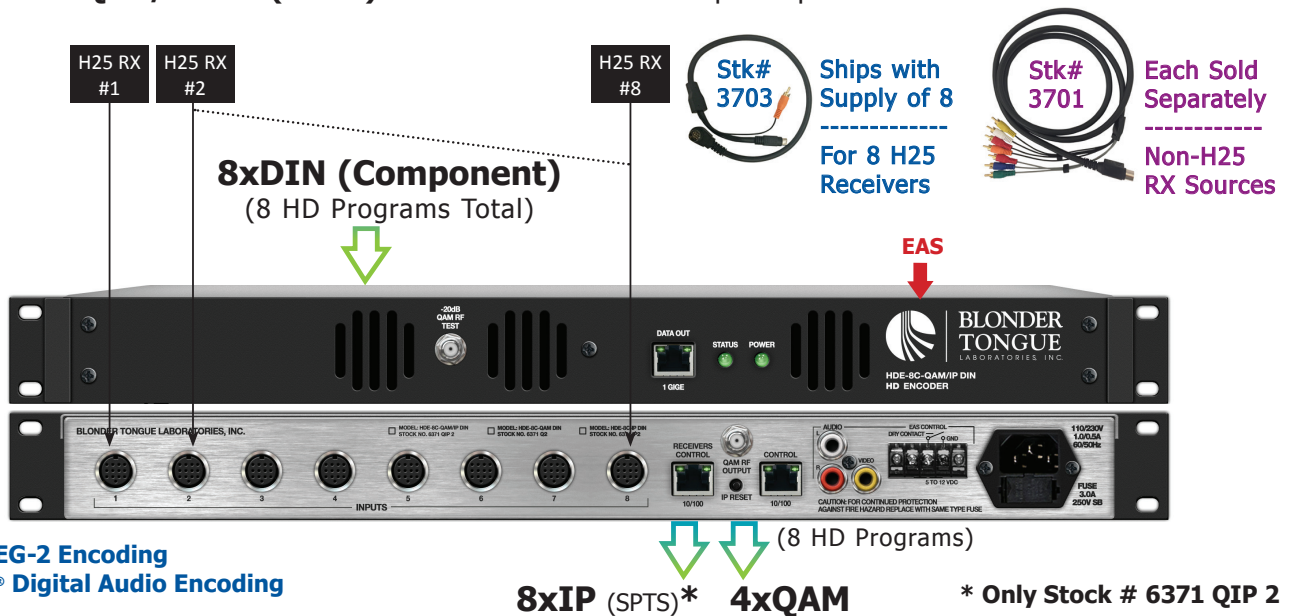


# HDE-8C DIN (Opt 2) MPEG-2 HD Encoder for DIRECTV

The **HDE-8C DIN (OPT 2)** encoders are designed to be used with eight (8) DIRECTV H25 satellite receivers, or any non-H25 receiver source providing component/composite video outputs.

The **HDE-8C-QAM DIN (OPT 2)** encoder digitizes and MPEG-2 encodes each input into a high-definition stream. The eight (8) program streams are multiplexed and then modulated onto four adjacent QAM channels in the 54-1002 MHz range (CATV 2-158).

The **HDE-8C-QAM/IP DIN (OPT 2)** encoder includes an IP output to provide 8xSPTS.



**HD MPEG-2 Encoding**  
**DOLBY® Digital Audio Encoding**

**8xIP (SPTS)\* 4xQAM** \* Only Stock # 6371 QIP 2

## Features

- Accepts 8 HD programs from DIN inputs
- Digitizes, MPEG-2 encodes, and modulates up to 8 inputs into 4xQAM output channels (2 Prog. per QAM Ch.)
- Configurable to ITU-T J.83 Annex A and B digital QAM formats
- Provides a front-panel -20 dB RF test point
- Provides 8xSPTS outputs on QAM/IP model
- Supports user-defined PSIP configuration
- Supports custom video and transport stream bit rate settings
- Supports Real-time Dolby® Digital audio encoding
- Supports Closed Captioning EIA-608 for each of the 8 encoded programs
- Equipped w/ EAS interface (Analog Video + L/R Audio) and triggering, compatible with all EAS receivers
- Provides comprehensive GUI-based monitoring and control via standard Web browsers

## Ordering Information

Model	Stock #	Description
HDE-8C-QAM DIN (OPT 2)	6371 Q 2	HD Encoder for DIRECTV H25 RX Control; 4xQAM outputs
HDE-8C-QAM/IP DIN (OPT 2)	6371 QIP 2	HD Encoder for DIRECTV H25 RX Control; 4xQAM + 8xIP outputs
H258C DIN to RCA Cable	3701	13 Pin DIN to 7xRCA Cable; 72 inches
H258C DIN Cable	3703	10 Pin DIN + 1xRCA to 13 Pin DIN Cable; 24 inches

# HDE-8C DIN (Opt 2)

## MPEG-2 HD Encoder for DIRECTV

### Specifications

#### Input

<b>Component</b>	<b>Connectors:</b> 8xDIN (13 pin); each DIN socket provides connections for component video, L/R audio, digital audio (PCM and Dolby® Digital pass-through only) and Closed Captioning
<b>Video Resolution:</b> <b>Video Aspect Ratio:</b>	480i, 720p, & 1080i 4:3 & 16:9
<b>EAS (Emergency Alert System)</b>	
<b>Connectors:</b> <b>Trigger Mechanism:</b>	3x RCA (Video, Audio L & R) 5-12 VDC & Dry Contact Closure (Terminal Strip)

<b>Encoding Profile</b>	
<b>Video</b>	<b>Output Format:</b> MPEG-2 HD MP@ML; ISO 13818-2 <b>Chroma:</b> 4:2:0 <b>Resolution:</b> 480i, 720p, & 1080i <b>Frame rate:</b> 29.97 fps (480i); 59.97 fps (720p); 29.97 fps (1080i) <b>Aspect Ratio:</b> 4:3 & 16:9 <b>GOP Structure:</b> I & P frames (user-selectable) <b>Video Bit Rate:</b> Variable (user-selectable) <b>Video Pre-filter:</b> Variable (user-selectable)
<b>Audio</b>	<b>Output Format:</b> Dolby® Digital <b>Sampling rate:</b> 48 kHz <b>Bit rate:</b> Variable; 96-448 Kbps (user-selectable)
<b>Closed Captioning</b>	<b>Connector:</b> via DIN <b>Component:</b> EIA- 608

#### Output

<b>QAM</b>	<b>Connector:</b> 1x "F" Female (rear panel; up to 4x RF QAM ch. combined) <b>Modulation:</b> QAM 16, 32, 64, 128, and 256 <b>Standards:</b> ITU-T J.83; Annex A and B <b>DVB Symbol Rate:</b> Variable; up to 7 MSymbol/sec (MBAud) <b>Frequency Range:</b> 54 to 1002 MHz <b>Tuning:</b> CATV Channel Selectable (CH. 2 to 158) <b>Channel Bandwidth:</b> 24 MHz (4x Adjacent 6 MHz) <b>RF Level:</b> +40 dBmV ± 1 dB (4 channels combined) <b>RF Level Adjustment Range:</b> +35 to +42 dBmV, 1 dB increments <b>Frequency Tolerance:</b> ± 0.5 kHz @ 77 °F (25 °C) <b>Frequency Stability:</b> ± 5 kHz over 32 to 122 °F (0 to 50 °C) <b>Amplitude Flatness:</b> ± 0.25 dB (over 6 MHz channel) <b>Phase Noise:</b> -98 dBc (@ 10 kHz) <b>Spurious:</b> -60 dBc <b>Broadband Noise:</b> -70 dBc (@ +40 dBmV output level, 5.5 MHz bandwidth) <b>Impedance:</b> 75 Ω <b>Spectral Inversion:</b> Auto Recognition <b>Carrier Suppression:</b> 45 dB <b>Return Loss:</b> 14 dB typical <b>Signal-to-Noise Ratio (SNR):</b> 40 dB typical <b>MER:</b> 39 dB typical <b>I/Q Phase Error:</b> Less than 1 degree <b>I/Q Amplitude Imbalance:</b> Less than 1%
<b>GigE *</b>	<b>Connector:</b> 1xRJ45 (front panel) <b>Standard:</b> 1000Base-T Ethernet <b>TS Bit Rate:</b> Variable (user-selectable) <b>UDP/RTP:</b> Supported (user-selectable) <b>Address Assignment:</b> 8xIPv4 Address and port numbers (user-selectable)

\* Stock # 6371 QIP 2 Only

#### Alarms/Monitoring/Control

<b>Local Monitoring:</b>	1x Status LED 1x Power LED
<b>Local Control:</b>	1x "F" Female RF Test Port (QAM Models Only) 1x IP Reset button
<b>Remote Monitoring/Control:</b>	GUI-based menu via Web browser (1x RJ45 connector; 10/100Base-T)

#### General

<b>Dimensions (W x D x H):</b>	19.0 x 16.0 x 1.75 inches (483 x 406 x 45 mm)
<b>Power:</b>	110 - 230 VAC, 50/60 Hz (Fuse: 4.0A, 250 VDC, Slo Blo)
<b>Power Dissipation:</b>	~60 W
<b>Weight:</b>	~7.2 lbs (3.27 kg)
<b>Operating Temperature:</b>	32 to 122 °F (0 to 50 °C)
<b>Storage Temperature:</b>	-13 to 158 °F (-25 to 70 °C)
<b>Operating Humidity:</b>	0 to 95% RH @ 35 °C max, non-condensing
<b>Storage Humidity:</b>	0 to 95% RH @ 35 °C max, non-condensing