

SPECIFICATIONS

INPUT

NTSC	Connectors: 4x RCA for Analog Video 4 sets each 2x RCA for Analog Audio (L, R) 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	Output Format: MPEG-2 SD MP@ML; ISO 13818-2 Chroma: 4:2:0 Resolution: 480i Frame rate: 29.97 fps (480i) Aspect Ratio: 4:3 GOP Structure: I & P frames (user-selectable) Transport Rate: Variable (user-selectable) Video Rate: Variable (user-selectable) Video Pre-filter: Variable (user-selectable) Color Space: YCbCr and RGB
Audio	Output Format: Dolby® Digital Sampling rate: 48 kHz Bit rate: Variable; 128-320 Kbps (user-selectable)
Closed Captioning	NTSC: EIA-608; Embedded in NTSC input

OPTIONAL INPUTS (REQUIRES SOFTWARE UPGRADE)

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

OUTPUT

QAM	Connector: 1x "F" Female (Rear-panel) Modulation: 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) Channels' Bandwidth: 6 MHz RF Level: +40 dBmV RF Level Adjustment: +32 to +42 dBmV, 1 dB increment 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: 40 dB typical I/Q Phase Error: Less than 1 degree I/Q Amplitude Imbalance: Less than 1%
ASI	Connectors: 1x BNC (Front-panel) Format: DVB-ASI Standard: ETSI EN 50083-9
GigE	Connector: 1x RJ45 (Rear-panel) Standard: 1000Base-T Ethernet UDP/RTP: Supported (user-selectable)

GENERAL

Dimensions (W x D x H):	19.0 x 18.125 x 1.75 inches (483 x 460 x 44 mm)
Power:	110-230 VAC, 50/60 Hz
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:	1x IP Reset button
Remote Monitoring/Control:	GUI-based menu via Web browser (1x RJ45 rear-panel connector; 10/100Base-T)

RELATED PRODUCTS

Model	Description
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
HD264-2S-IP	H.264 HD Encoder; 2xHD-SDI + 2xHDMI + 2xComponent inputs; 2xIP + 4xASI outputs; 1RU