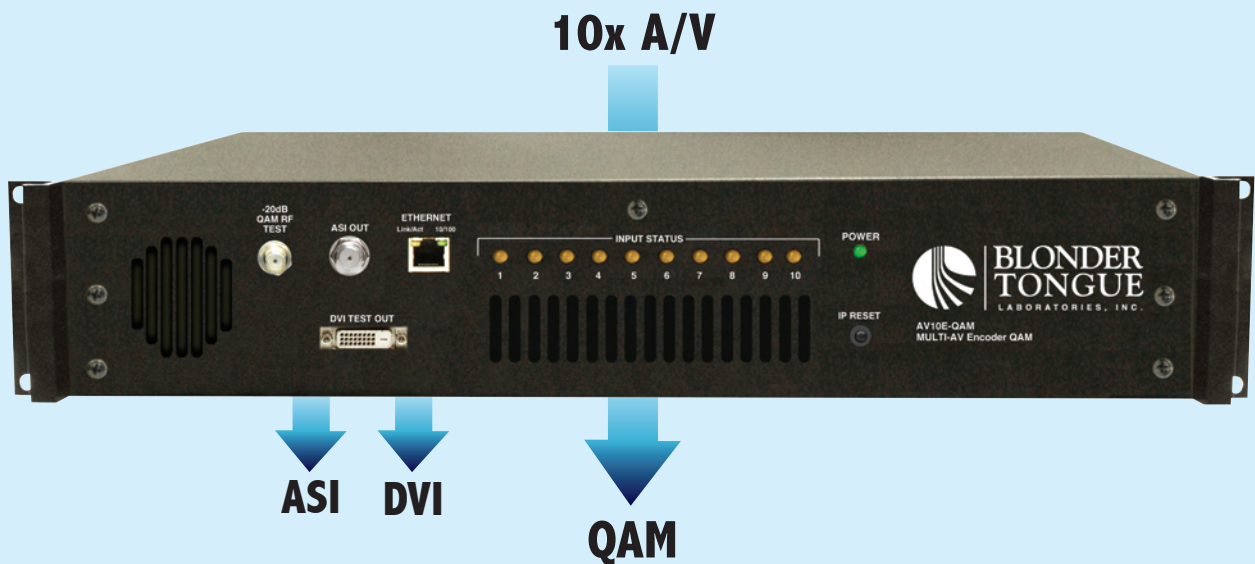




AV10E-QAM (AV Encoder - QAM) accepts & auto-detects up to ten (10) inputs in NTSC baseband Audio/Video format, digitizes and MPEG-2 encodes each into a standard-definition stream (SD-480i), and multiplexes the resulting ten (10) streams into one (1) output in QAM format in the 5.75-864 MHz range (CATV sub-band channels T7-T14 and standard channels 2-135). The encoder supports Dolby Digital AC-3 encoding, and Closed Captioning.

Additionally, two ancillary output interfaces are available: one (1) in ASI format, and one (1) in DVI format for real-time and simultaneous preview of all the ten (10) multiplexed streams. 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 front-panel 10/100BaseT Ethernet connection.



FEATURES

- Digitizes, encodes, and multiplexes up to ten (10) NTSC baseband Audio/Video inputs into one digital QAM output
- Compatible with NTSC analog format, and ITU Annex A and B digital QAM formats
- Comprehensive GUI-based monitoring and control menu via Web browser
- Provides sub-band QAM output channels T7-T14 (5.75-53.75 MHz)
- Allows preview of all 10 streams via a front-panel ancillary DVI output
- Real-time Dolby Digital (AC-3) audio encoding
- Provides a front-panel ancillary ASI output
- Supports PSIP configuration
- Supports Closed Captioning



ORDERING INFORMATION

Model	Stock #	Description
AV10E-QAM	6360	10x AV Encoder-QAM, +60 dBmV, 5.75-864 MHz

SPECIFICATIONS

INPUT

Video	Connector: 10x "F" Female & 10x RCA Input Level: 1.0 volt Peak-to-Peak Impedance: 75 Ω Return Loss: 18 dB
Audio	Connector: 20x RCA (10x Right & 10x Left) Input Level: 1.0 volt RMS Impedance: Greater than 10 k Ω , unbalanced

Encoding Profile	
Video	Output Format: MPEG-2 SD MP@ML; ISO 13818-2 Chroma: 4:2:0 Resolution: 720x480i Bit rate: Variable; up to 10 Mbps (user-selectable) Frame rate: 29.97 fps interlaced Aspect Ratio: 16:9, 4:3 GOP Structure: Fixed I & P frames (user-selectable) Closed Captioning: Supported
Audio	Output Format: Dolby Digital AC-3 Sampling rate: 48 KHz Bit rate: 128-320 Kbps

OUTPUT

QAM Connectors	Primary: "F" Female RF Test Port: "F" Female (@ 20 dB below Primary output) QAM Modulation Modes: 16, 32, 64, 128, 256, 512, & 1024 DVB Symbol Rate: Variable; 1 to 7 MSymbols/sec (MBaud) Frequency Range: 5.75 to 864 MHz, and sub-channel 5.75 to 53.75 MHz QAM Tuning: CATV channel numbers T7 to T14 & 2 to 135 RF Level: +60 dBmV (120 dB μ V) RF Level Error: \pm 2 dB RF Level Adjustment Range: 50 to 60 dBmV Frequency Tolerance: \pm 0.5 kHz @ 77 $^{\circ}$ F (25 $^{\circ}$ C) Frequency Stability: \pm 5 kHz over 32 to 122 $^{\circ}$ F (0 to 50 $^{\circ}$ C) Amplitude Flatness: \pm 0.25 dB (over 6 MHz channel) Phase Noise: -98 dBc (@ 10 kHz) Spurious: -60 dBc Broadband Noise: -75 dBc (@ +60 dBmV output level, 4 MHz bandwidth) Impedance: 75 Ω Return Loss: 12 dB Spectral Inversion: Auto Recognition Carrier Suppression: 55 dB SNR: Greater than 40 dB MER: Greater than 40 dB I/Q Phase Error: Less than 1 degree I/Q Amplitude Imbalance: Less than 1%
ASI	Connector: 1x BNC (Front-panel) 2x BNC (Rear-panel loop) Standard: DVB-ASI: EN 50083-9 Transport Rate: 270 Mbps
DVI	Connector: 1x DVI Female (Front-panel) Standard: WUXGA Transport Rate: 1920x1200 pixels (16:10 screen)

GENERAL

Dimensions (W x D x H):	19.0 x 19.5 x 3.5 inches (483 x 496 x 89 mm)
Power:	117 to 230 VAC/ 50 to 60 Hz (Fuse: 3.0 amp, 250 VDC, Slo Blo)
Power Dissipation:	105 W (max)
Weight:	17 lbs (7.7 kg)
Operating Temperature:	32 to 122 $^{\circ}$ F (0 to 50 $^{\circ}$ C)
Storage Temperature:	-13 to 158 $^{\circ}$ F (-25 to 70 $^{\circ}$ C)
Operating Humidity:	0 to 95% RH @ 35 $^{\circ}$ C max, non-condensing
Storage Humidity:	0 to 95% RH @ 35 $^{\circ}$ C max, non-condensing

ALARMS/MONITORING/CONTROL

Local Monitoring:	10x Input Status LEDs (Amber= Input detected; Red= Input failure) 1x Power Status LED (Green=On)
Local Control:	1x IP Reset button
Remote Monitoring/Control:	GUI-based menu via Web browser

RELATED PRODUCTS

Model	Description
HDE-QAM	HDMI-to-QAM Encoder; 1RU
HDE-ASI	HD/SD-to-ASI Encoder; Supports 1x HD(1080i), or 1x HD(720p) + 2x SD(480i), or 4x SD inputs; 2RU
SD4E-ASI	4x SD -to-ASI Encoder; 2RU
SD10E-QAM	10x SD/AV-to-QAM Encoder; 2RU