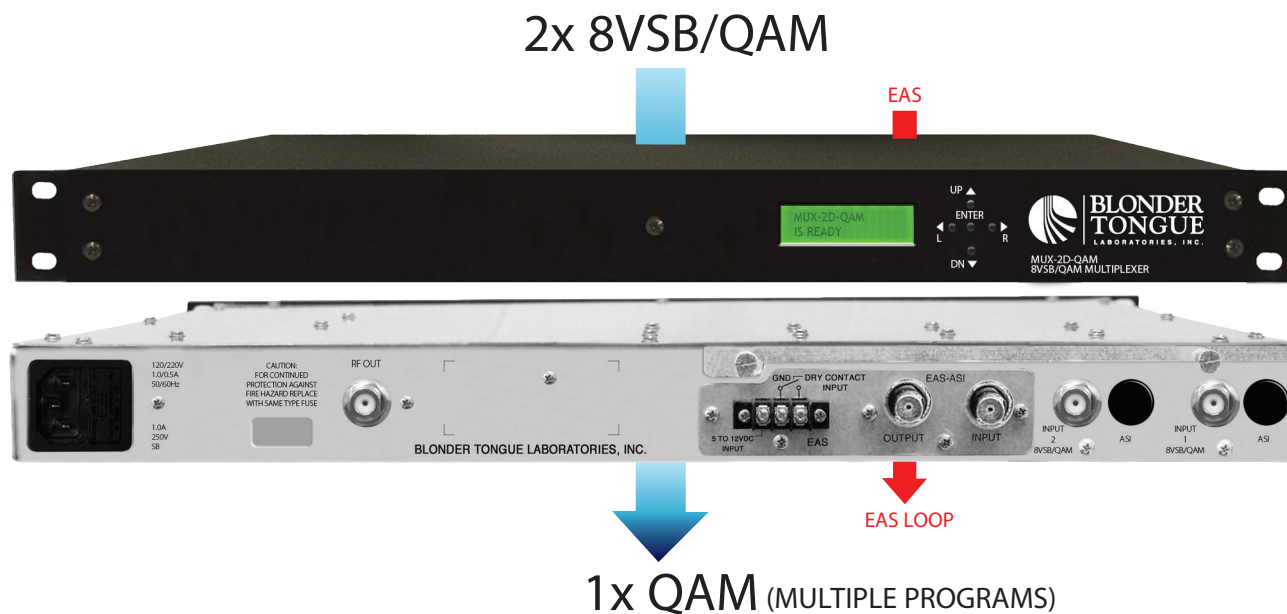# MUX-2D-QAM
8VSB/QAM Multiplexer
2 x 8VSB/QAM ➤ QAM

The MUX-2D-QAM is designed to allow CATV operators to multiplex two digital channels received in either 8VSB or QAM format to a single QAM output channel for delivery over a standard coaxial distribution network.

It accepts up to two (2) 8VSB or clear QAM channels and aggregates them onto one QAM RF output in the 54-864 MHz range. The MUX-2D-QAM provides the capability to filter program streams and to assign major/minor or a single 4-digit channel number to each.

The MUX-2D-QAM also provides Emergency Alert System (EAS) program switching through ASI input and terminal block contacts. The EAS input source, which must be in ASI format, can be shared among multiple MUX-2D-QAM units by looping it from one to another unit without the need for external splitting and amplification.

2x 8VSB/QAM

EAS

EAS LOOP

1x QAM (MULTIPLE PROGRAMS)

Features

- Supports MPEG-2 Transport Stream Tables: PAT, PMT, MGT, RRT, STT, & VCT
- Re-maps duplicate PIDs, Program Numbers, and Minor Channel Numbers
- Allows sharing of the EAS input source among multiple units
- User-defined major/minor or 4-digit CATV virtual channels
- EAS input replaces up to 12 program streams
- Supports PID filtering & PSIP re-assignment
- Provides QAM 256 Output at 38.8 Mbps
- Accepts ASI input as EAS input source
- User-defined QAM Output Parameters
- Maintains MPEG-2 mapping

Ordering Information

Model	Stock #	Description
MUX-2D-QAM	6504	Multiplexer, 2x 8VSB/QAM Inputs, Agile 54-860 MHz QAM output, EAS equipped

Order From: MULTICOM

800-423-2594
www.multicominc.com
multicom@multicominc.com

Rev. No. 110323

SPECIFICATIONS

INPUT

Connectors	
8VSB/QAM module:	1x "F" Female
Emergency Alert System (EAS):	1x BNC Female per module

Standards	
8VSB:	ATSC Digital Television A/53E
QAM:	ITU-T J.83 - Annex A & B (64 and 256 QAM)
ASI (EAS Input)	1x DVB-ASI; EN 50083-9
	SD single program broadcast
	MPEG2 or 4 video and AC-3˙Dolby Audio

8VSB Mode	
Tuning Range:	UHF (NTSC Ch. 14-69), VHF (NTSC Ch. 2-13)
Data Rate:	19.392 Mbps
Bandwidth:	6 MHz
Power Level:	-20 to +20 dBmV

QAM Mode	
Tuning Range:	CATV (NTSC Ch. 2-135)
Data Rate:	38.8 Mbps (QAM 256); 26.97 Mbps (QAM 64)– Auto Detect
Bandwidth:	6 MHz
Power Level:	-15 to 20 dBmV (@ QAM 256)
	-20 to 20 dBmV (@ QAM 64)
Impedance:	75 Ω

OUTPUT

Connector:	1x "F" Female
QAM Modulation Modes:	16, 32, 64, 128, 256, 512, and 1024
DVB Symbol Rate:	Variable; 1 to 7 MSymbols/sec (MBaud)
Frequency Range:	54 to 864 MHz
QAM Tuning	Per channel's number from 2 to 135
RF Level:	+45 dBmV
RF Level LCD Screen Error:	± 2 dB
RF Level Adjustment Range:	35 to 45 dBmV
Frequency Stability:	± 10 kHz over 32 to 122 °F (0 to 50 °C)
Frequency Tolerance:	± 0.5 kHz @ 77 °F (25 °C)
Amplitude Flatness:	± 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%
Encoding Profile	MPEG 2 HD; ISO 13818-2; 1080i
Video:	MPEG 2 SD; ISO 13818-2; 480i
Audio:	Pass through compress audio
	Does Not Support Closed Captioning
EAS Looped Output	
Connector:	1x BNC Female
Standard:	ASI
Trigger Mechanism:	5-12 VDC & Dry Contact Closure

GENERAL

Dimensions (W x D x H):	19.0 x 14.3 x 1.75 inches (483 x 363 x 44 mm)
Power:	100 to 265 VAC/50 to 60 Hz (Fuse: 1 amp, 250 VDC, SloBlo)
Power Dissipation:	36 W
Weight:	5.1 lbs (2.31 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-condensibg

ALARMS/MONITORING/CONTROL

Local Monitoring:	Front-panel 16-character, 2-line LCD screen
Local Control:	Front-panel Navigational Key-pad
Remote Monitoring/Control:	Not available

RELATED PRODUCTS

Model	Description
DQMx	4:1 Multiplexer; 4x8VSB/QAM/ASI-to-QAM multiplexer, 1RU