



**BLONDER
TONGUE**
LABORATORIES, INC.

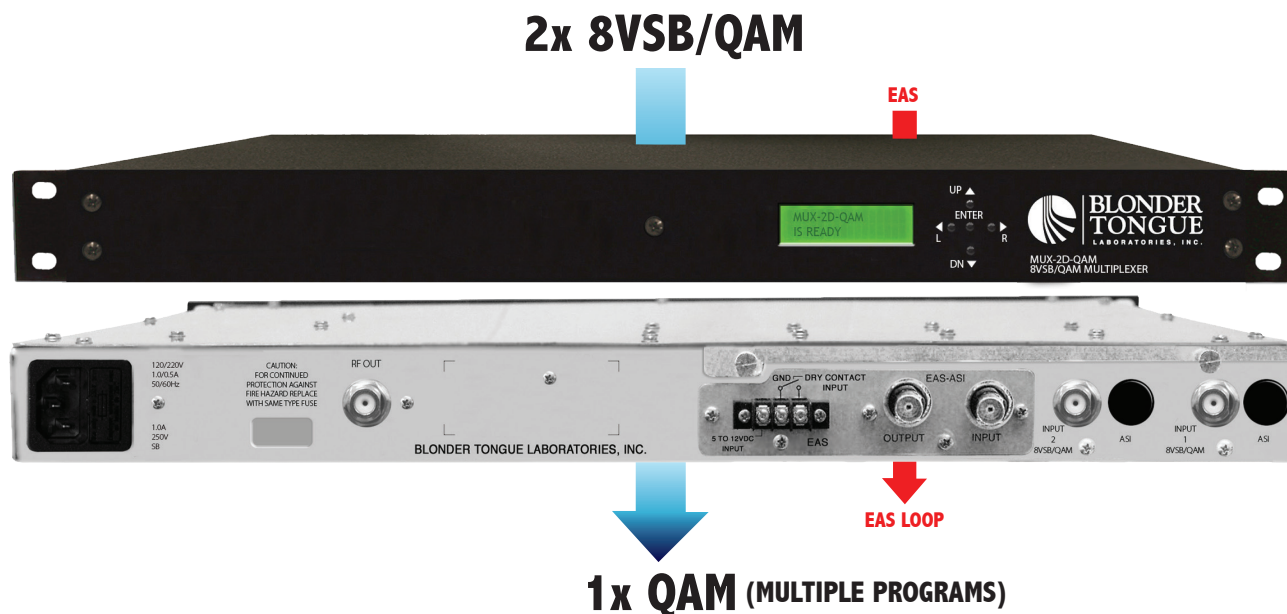
MUX-2D-QAM

8VSB/QAM MULTIPLEXER
2x 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.



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

SPECIFICATIONS

INPUT

Connectors 8VSB/QAM module: Emergency Alert System (EAS):	1x "F" Female 1x BNC Female
Standards 8VSB: QAM: ASI (EAS Input):	ATSC Digital Television A/53E ITU-T J.83 - Annex A & B (64 and 256 QAM) 1x DVB-ASI; EN 50083-9 SD single program broadcast MPEG2 or 4 video and AC-3 Dolby® Audio
8VSB Mode Tuning Range: Data Rate: Bandwidth: Power Level:	UHF (NTSC Ch. 14-69), VHF (NTSC Ch. 2-13) 19.392 Mbps 6 MHz -20 to +20 dBmV
QAM Mode Tuning Range: Data Rate: Bandwidth: Power Level:	CATV (NTSC Ch. 2-135) 38.8 Mbps (QAM 256); 26.97 Mbps (QAM 64) – Auto Detect 6 MHz -15 to 20 dBmV (@ QAM 256) -20 to 20 dBmV (@ QAM 64)
Impedance:	75 Ω

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-condensing

RELATED PRODUCTS

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

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 Video: Audio:	MPEG 2 HD; ISO 13818-2; 1080i MPEG 2 SD; ISO 13818-2; 480i Pass through compress audio Does Not Support Closed Captioning
EAS Looped Output Connector: Standard: Trigger Mechanism:	1x BNC Female ASI 5-12 VDC & Dry Contact Closure

ALARMS/MONITORING/CONTROL

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