advanced media technologies®

MODEL AQT8-QAM/IP

ATSC/QAM TRANSCODER

Blonder Tongue

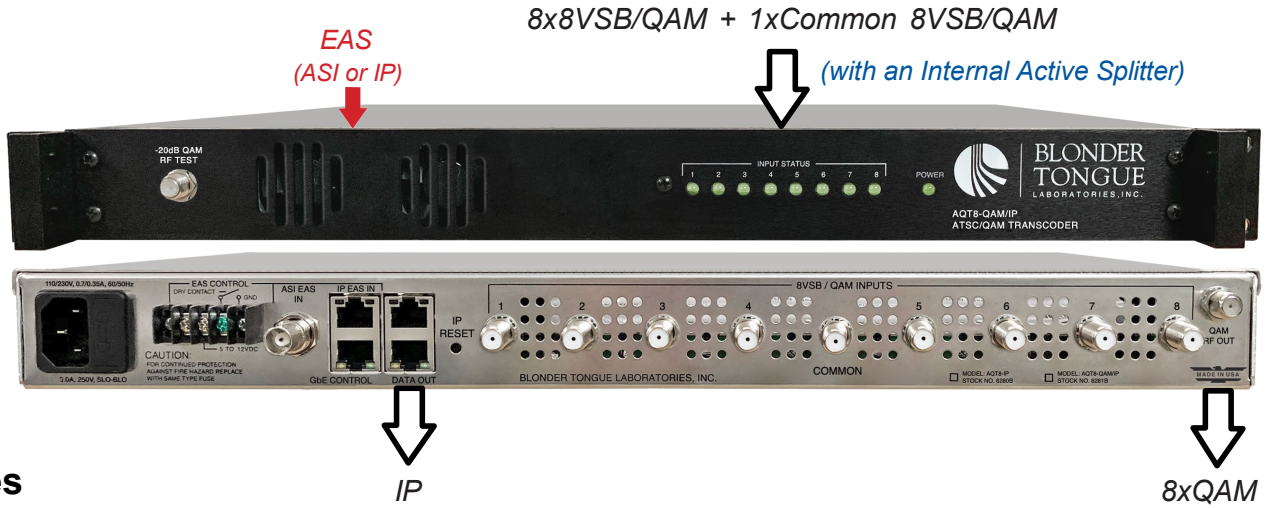
The AQT8-QAM/IP allows the user to create a custom IP and QAM output from off-air and/or QAM input sources. The unit accepts *eight* 8VSB off-air or QAM sources and simultaneously outputs these SPTS and/or MPTS programs in IP and/or QAM. At the same time, the AQT8-QAM/IP can be configured in Pass-through mode, which directly maps the demodulated RF port content in MPTS format to IP output.

For off-air applications, the AQT8-QAM/IP has a 2:1 Mux Mode feature, which allows you to multiplex *two* off-air sources to *one* MPTS for QAM distribution.

The AQT8-QAM/IP can accept encrypted QAM sources, and output the encrypted IP transport streams programs in MPTS or SPTS formats, while preserving the MPEG tables (PAT, PMT, PSIP, VCT, and MGT) from the source. The unit allows the user to change the PID, program number, short name, and major/minor channel (PSIP) information on any program.

The AQT8-QAM/IP supports up to *eight* QAM-256 outputs that are agile from 54 to 1002 MHz as long as all *eight* outputs are kept within a 768 MHz span.

The AQT8-QAM/IP features Emergency Alert System (EAS) program switching through either an ASI or IP format EAS input, and terminal block contacts for triggering EAS messages.



Features

- Encrypted QAM sources can be mapped to IP MPTS or SPTS formats in Pass Through mode for Remote PHY and Switch Digital applications
- Accepts up to *eight* RF inputs in 8VSB/QAM format
- Provides *one* common 8VSB/QAM input port with an internal active splitter
- 2:1 Multiplex Mode to configure *eight* ATSC 1.0 off-air channels to *four* MPTS for QAM
- PSIP manipulation
- Accepts EAS input in ASI or IP formats
- Supports EAS switching-based on contact closure trigger, or +5 to +12 VDC input
- Comprehensive GUI-based remote monitoring and control via any standard Web browser

Ordering Information

Model	Stock #	Description
AQT8-QAM/IP	6281B	ATSC/QAM Transcoder; 8VSB/QAM input; QAM + IP output with EAS

3150 SW 15th Street | Deerfield Beach, FL 33442 | 954.427.5711 | sales@amt.com | www.amt.com

Call Us: 954.427.5711
Toll Free: 888.293.5856

Specifications

Input

Connectors	
8VSB/QAM:	8x "F" Female 1x Common "F" Female with Internal Active Splitter
8VSB Mode	
Standard:	ATSC Digital Television A/53E
Tuning Range:	UHF (Ch. 14-69), VHF (Ch. 2-13)
Data Rate:	19.392 Mbps
Bandwidth:	6 MHz
Power Level:	-20 to +20 dBmV
Impedance:	75 Ω
QAM Mode	
Standard:	ITU-T J.83 - Annex A & B (64 & 256 QAM)
Tuning Range:	CATV Ch. 2-158 (STD, HRC, IRC)
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
Emergency Alert System	
ASI	
Connector:	1x BNC Female
Standard:	DVB-ASI; EN 50083-9 (SPTS)
IP	
Connector:	1x RJ45
Standard:	10/100Base-T
UDP/RTP:	Supported (user-selectable)
Video Bit Rate:	The EAS program bit rate must not exceed the lowest program video bit rate it will replace. *Example*: EAS at 2.5 Mbps will not work for a program at 2.0 Mbps.
Trigger Connectors:	Terminal Block
Trigger Mechanism:	5-12 VDC and Dry Contact Closure

Output

IP	
Connectors:	1x RJ45 (Rear-panel)
Standard:	1000Base-T Ethernet (GigE)
UDP:	Supported
Address Assignment:	64x IPv4 SPTS address & port numbers 8x IPv4 MPTS address & port numbers
QAM	
Output Modules:	8x Fully Agile QAM
Connectors:	1x "F" Female (rear-panel,combined output)
Modulation:	QAM 64 and 256
Standards:	ITU-T J.83; Annex B
DVB Symbol Rate:	5.360537 Msym/s (QAM 256) 5.056941 Msym/s (QAM 64)
Frequency Range:	54 to 1002 MHz
Tuning:	CATV Channel Selectable (CH. 2 to 158)
No. of Programs:	Variable (≤ 38.8 Mbps input source Pass-thru)
RF Level:	+40 dBmV, ± 1 dB increment
RF Level Range:	+30 to +45 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 lev., 5.5 MHz BW)
Impedance:	75 Ω
QAM Spectrum:	Inverted
Carrier Suppression:	45 dB
Return Loss:	14 dB typical
Signal-to-Noise Ratio (SNR):	42 dB typical
MER:	42 dB typical
I/Q Phase Error:	Less than 1 degree
I/Q Amplitude Imbalance:	Less than 1%

General

Dimensions (W x D x H):	19.0 x 16.0 x 1.75 inches (483 x 363 x 44 mm)
Power:	110/230 VAC, 0.7/0.35 A, 60/50 Hz
Power Consumption:	48 W
Weight:	12 lbs (5.5 kg)
Operating Temperature:	32 to 122 °F (0 to 50 °C)
Storage Temperature:	-13 to 158 °F (-25 to 70 °C)
Operating/Storage Humidity:	0 to 95% RH @35 °C max, non-condensation

Alarms/Monitoring/Control

Local Monitoring:	8x Channel LEDs 1x Power LED
Local Control:	1x IP Reset Button
Remote Monitoring/ Control:	GUI-based menu via standard Web browser (1xRJ45 on rear panel; 10/100Base-T)

Related Products

Model	Stock #	Description
AQT8-IP	6280B	ATSC/QAM Transcoder; 8VSB/QAM input; Customizable IP output with EAS