



AIRCASTER® AQT8-QAM/IP

ATSC/QAM TRANSMODULATOR

KEY 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
- » 2:1 Multiplex Mode to configure eight ATSC 1.0 off-air channels to four MPTS for QAM
- » **NEW** - Supports **SRT Error Correction** for Remote IP Applications
- » PSIP manipulation (PID, program number, short name, and major/minor channel)
- » Accepts EAS input in ASI or IP formats and
- » Supports EAS switching-based on contact closure trigger, or +5 to +12 VDC input



PRODUCT OVERVIEW

The **Aircaster AQT8-QAM/IP** is a transmodulator that 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 transmodulator 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. In addition, the unit features Emergency Alert System (EAS) program switching through either an ASI or IP format EAS input, and terminal block contacts for triggering EAS messages.

ORDERING INFORMATION



MODEL	STOCK#	DESCRIPTION
Aircaster AQT8-QAM/IP	6281B	ATSC/QAM Transmodulator; 8VSB/QAM input; QAM + IP output with EAS

INPUT	
CONNECTORS	
8VSB/QAM	8x "F" Female 1x Common "F" Female (with Internal Active Splitter)
8VSB MODE	
Standard	ATSC 1.0 Digital Television A/53E
Tuning Range	UHF (Ch. 14-83), 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 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 (EAS)	
ASI	
Connector	1x BNC Female
Standard	DVB-ASI; EN 50083-9 (SPTS)
IP	
Connector	1x RJ45
Standard	1000Base-T (GigE)
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
Mechanism	5-12 VDC and Dry Contact Closure

OUTPUT	
IP	
Connector	1x RJ45 (Rear Panel)
Standard	1000Base-T Ethernet (GbE)
UDP	Supported
Address Assignment	64x IPv4 SPTS address & port numbers 8x IPv4 MPTS address & port numbers
SRT STREAM PROTOCOLS	
Specifications	www.SRTalliance.org
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%

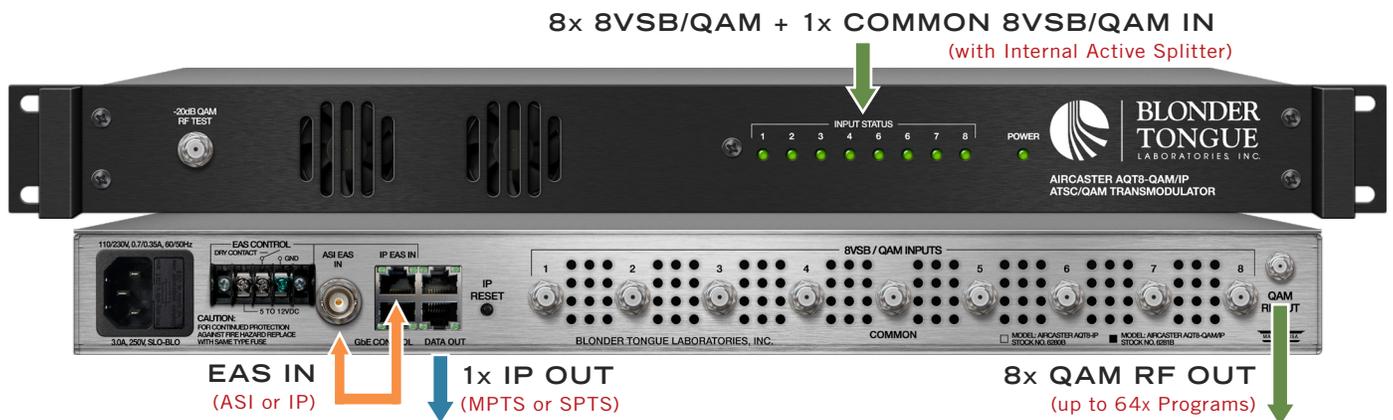
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SPECIFICATIONS

GENERAL		ALARMS & MONITORING	
Dimensions (W x H x D)	19.0 x 1.75 x 16.0 in (483 x 45 x 363 mm)	Local Monitoring	8x Channel Status LED (Bicolor) 1x Power LED (Bicolor)
Weight	7.4 lbs (3.35 kg)	Local Control	1x IP Reset Button
Power	110/230 VAC, 0.7/0.35 A, 60/50 Hz	Remote Device Control	1x RJ45 (1000Base-T GbE) GUI-based menu via standard web browser
Power Consumption	48 W		
Operating Temp.	32 to 122 °F (0 to 50 °C)		
Storage Temp.	-13 to 158 °F (-25 to 70 °C)		
Operating/Storage Humidity	0 to 95% RH @ 35 °C max, non-condensing		

I/O OVERVIEW



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MADE IN USA

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CONNECT WITH US

