

AQP (ATSC/QAM Processor) accepts one input in 8VSB (digital off-air) or QAM (digital cable) format, including the sub-band QAM input channels T7 to T13, and delivers one output in QAM format in the 54-864 MHz range.

AQP can be utilized in a remote headend to “regenerate” a clean QAM channel from a degraded one. It also allows TV sets to receive digital off-air programming on CATV channel assignments by transmodulating the 8VSB broadcast to QAM.

It can also be utilized in remote digital origination applications, where the QAM channel needs to be delivered to the headend via the sub-band frequencies.



**8VSB** (2-13 VHF; 14-69 UHF)

OR

**QAM** (T7-T13; 2-135 NTSC)



**QAM**

Agile 54-864 MHz (2-135 MHz)

+55 dBmV (115 dBmV)

## FEATURES

- Supports sub-band QAM input channels T7 to T13 for remote digital origination applications
- Input standards supported are digital off-air (8VSB & 16VSB) and digital cable (QAM 16/32/64/128/206)
- Agile QAM output at +55 dBmV and in the frequency range of 54-864 MHz range

## ORDERING INFORMATION

Model	Stock #	Description
AQP	6268	8VSB/QAM-to-QAM Processor with sub-band input

# SPECIFICATIONS

## INPUT

<b>Connector:</b>	"F" Female
<b>Standards</b> <b>8VSB/16VSB:</b> <b>QAM:</b>	ATSC Digital Television A/53E ITU-T J.83 - Annex A & B (16, 32, 64, 128, and 256 QAM)
<b>8VSB/16VSB Modes</b> <b>Tuning Range:</b> <b>Data Rate:</b> <b>Bandwidth:</b> <b>8VSB Power Level:</b> <b>16VSB Power Level:</b>	VHF (NTSC Ch. 2-13), UHF (NTSC Ch. 14-69) 19.392 Mbps 6 MHz -28 to 20 dBmV -25 to 20 dBmV
<b>QAM Mode</b> <b>Tuning Range:</b> <b>Data Rate:</b> <b>Bandwidth:</b> <b>Power Level:</b>	CATV (NTSC Ch. T7-T13; 2-135) 38.8 Mbps (QAM 256); 26.97 Mbps (QAM 64) – Auto Detect 6 MHz -20 to +20 dBmV
<b>Impedance:</b>	75 $\Omega$

## OUTPUT

<b>Connector:</b>	"F" Female
<b>QAM Modulation Modes:</b>	16, 32, 64, 128, & 256
<b>DVB Symbol Rate:</b>	Variable; 1 to 7 MSymbols/sec (Mbaud)
<b>Frequency Range:</b>	54 to 864 MHz
<b>QAM Tuning</b> <b>NTSC:</b> <b>PAL:</b>	Per channel's number from 2 to 135 Per channel's center-frequency (12.5 kHz increments)
<b>RF Level:</b>	+55 dBmV (115 dB $\mu$ V)
<b>RF Level LCD Screen Error:</b>	$\pm$ 2 dB
<b>RF Level Adjustment Range:</b>	45 to 55 dBmV
<b>Frequency Tolerance:</b>	$\pm$ 0.5 kHz @ 77 °F (25 °C)
<b>Frequency Stability:</b>	$\pm$ 5 kHz over 32 to 122 °F (0 to 50 °C)
<b>Amplitude Flatness:</b>	$\pm$ 0.25 dB (over 6 MHz channel)
<b>Phase Noise:</b>	-98 dBc (@ 10 kHz)
<b>Spurious:</b>	-60 dBc
<b>Broadband Noise:</b>	-75 dBc (@ +55 dBmV output level, 4 MHz bandwidth)
<b>Impedance:</b>	75 $\Omega$
<b>Return Loss:</b>	12 dB
<b>Spectral Inversion:</b>	Auto Recognition
<b>Carrier Suppression:</b>	55 dB
<b>SNR:</b>	Greater than 40 dB
<b>MER:</b>	Greater than 40 dB
<b>I/Q Phase Error:</b>	Less than 1 degree
<b>I/Q Amplitude Imbalance:</b>	Less than 1%

## GENERAL

<b>Dimensions (WxDxH):</b>	19 x 18.125 x 1.75 inches (483 x 460 x 44mm)
<b>Power:</b>	105 to 135 VAC; 60 Hz (Fuse:1 A, 250 VDC, SloBlo)
<b>Power Dissipation:</b>	23 W
<b>Weight:</b>	7 lbs (3.2 kg)
<b>Operating Temperature:</b>	32 to 122 °F (0 to 50 °C)
<b>Storage Temperature:</b>	-13 to 158 °F (-25 to 70 °C)
<b>Operating Humidity:</b>	0 to 95% RH @ 35 °C max, non-condensation
<b>Storage Humidity:</b>	0 to 95% RH @ 35 °C max, non-condensation

## ALARMS/MONITORING/CONTROL

<b>Indicators</b> <b>8VSB/QAM:</b>	Lock Status (Green LED)
<b>Local Monitoring:</b> <b>Local Control:</b>	Front-panel 16-character, 2-line LCD screen Front-panel Navigational Key-pad Sub-band input on/off switch
<b>Remote Monitoring/Control:</b>	Not Available

## RELATED PRODUCTS

Model	Description
HDE-QAM	HDMI-to-QAM Encoder; 1RU
DQMx	4x1 ASI/8VSB/QAM-to-QAM Multiplexer; 1RU
AQT	8VSB/QAM-to-QAM Transcoder; Eight modules in 3RU
AQM	ASI-to-QAM Modulator with sub-band input; Six modulators in 2RU
DHDP	8VSB-to-IF-to-8VSB Processor; 12 modules in 2RU

©2008 Blonder Tongue Laboratories, Inc. All Rights Reserved. Specifications subject to change without notice. All trademarks are property of their respective owners.