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.

**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**

<table>
<thead>
<tr>
<th>Model</th>
<th>Stock #</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>AQP</td>
<td>6268</td>
<td>8VSB/QAM-to-QAM Processor with sub-band input</td>
</tr>
</tbody>
</table>
Specifications

**INPUT**

**Connector:** “F” Female

**Standards**

8VSB/16VSB: QAM:

- ATSC Digital Television A/53E
- ITU-T I.83 - Annex A & B (16, 32, 64, 128, and 256 QAM)

**8VSB/16VSB Modes**

<table>
<thead>
<tr>
<th>Mode</th>
<th>Tuning Range</th>
<th>Data Rate</th>
<th>Bandwidth</th>
<th>Power Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>VHF (NTSC Ch. 2-13), UHF (NTSC Ch. 14-69)</td>
<td>19.392 Mbps</td>
<td>6 MHz</td>
<td>-28 to 20 dBmV</td>
<td>75 Ω</td>
</tr>
<tr>
<td>CATV (NTSC Ch. 17-113; 2-135)</td>
<td>38.8 Mbps (QAM 256); 26.97 Mbps (QAM 64) — Auto Detect</td>
<td>6 MHz</td>
<td>-20 to +20 dBmV</td>
<td>75 Ω</td>
</tr>
</tbody>
</table>

**QAM Mode**

<table>
<thead>
<tr>
<th>NTSC:</th>
<th>PAL:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Per channel's number from 2 to 135</td>
<td>Per channel’s center-frequency (12.5 kHz increments)</td>
</tr>
</tbody>
</table>

**Connector:** “F” Female

**QAM Modulation Modes:** 16, 32, 64, 128, 256

**DVB Symbol Rate:** Variable; 1 to 7 MSymbols/sec (Mbaud)

**Frequency Range:** 54 to 864 MHz

**QAM Tuning**

- Coarse - 12.5 kHz increments
- Fine - 0.5 kHz increments

**RF Level:** +55 dBmV (115 dBμV)

**RF Level LCD Screen Error:** ± 2 dB

**RF Level Adjustment Range:** 45 to 55 dBmV

**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:** -75 dBc (@ +55 dBmV output level, 4 MHz bandwidth)

**Impedance:** 75 Ω

**Dimensions (WxDxH):** 19 x 18.125 x 1.75 inches (483 x 460 x 44m)

**Power:** 105 to 135 VAC; 60 Hz (Fuse: 1 A, 250 VDC, SloBlo)

**Weight:** 7 lbs (3.2 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-condensation

**Storage Humidity:** 0 to 95% RH @ 35 °C max, non-condensation

**OUTPUT**

**Related Products**

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

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