

# Product Review

## *Digital Processor*

*Input: 1x 8VSB/QAM (with sub-band)*

*Output: 1x QAM*

MODEL  
AQP

STOCK  
6268

Rev: 100223-04

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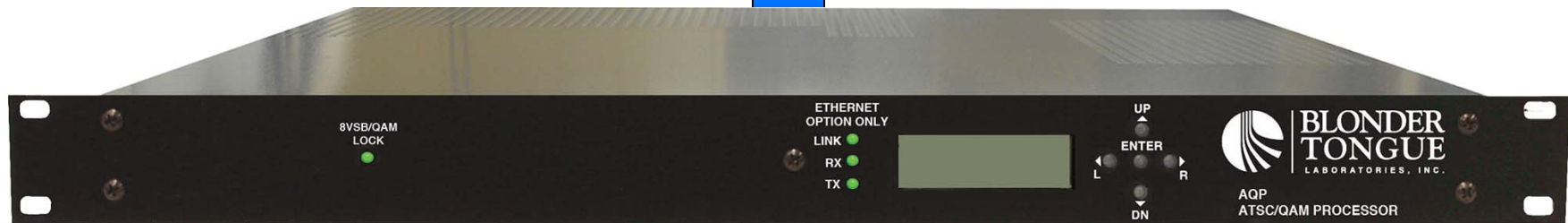
**BLONDER  
TONGUE**  
LABORATORIES, INC.  
One Jake Brown Road, P.O. Box 1000  
Old Bridge, NJ 08857-1000 USA



# AQP

The **AQP (ATSC/QAM Processor)** accepts one input in 8VSB (digital off-air) or QAM (Digital Cable) format, and delivers one output in QAM format.

**8VSB** (2-69 off-air)  
OR  
**QAM** (T7-T13 & 2-135 CATV)



**QAM**  
Agile 54-864 MHz (2-135 CATV)  
+55 dBmV (115 dB $\mu$ V)



# Front- & Rear-Panel



RF Input Status

Ethernet Status  
Future Development:  
Remote Monitoring/Control

LCD & Navigation Key-pad



Output  
QAM  
Agile 54-864  
+55 dBmV

Future Development:  
Remote  
Monitoring/Control  
Interface

Sub-band  
Input  
(T7-T13 CATV) QAM

Converted  
Sub-Band  
Output  
QAM (7-13 CATV)

Input  
(2-69 Off-Air) 8VSB  
or  
(2-135 CATV) QAM



# Typical Applications

**Allows TV sets to receive digital off-air programming on CATV channel assignments by transmodulating the 8VSB broadcast to QAM.**

**Most Digital TVs only lock to a QAM signal, and not the 8VSB, when operating in the CATV mode.**

**Cherry-picking channels from a “clear” QAM cable lineup.**

**Can be utilized in a remote hub location to “regenerate” a clean QAM channel from a degraded one.**

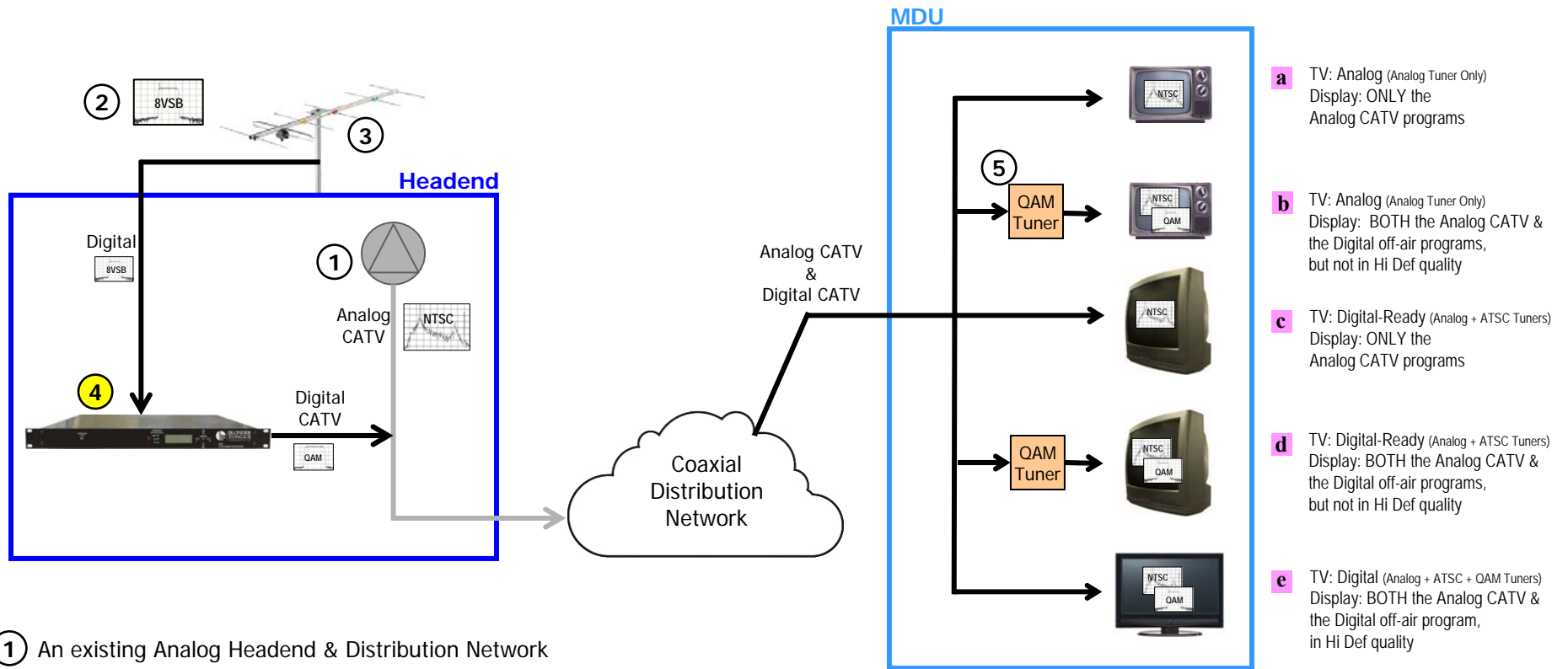
**To achieve best viewing results, the MER (Modulation Error Ratio) of a QAM input into a TV set should be greater than 38 dB.**

**Supports sub-band QAM input, allowing for remote digital origination applications.**

**Supports sub-band channels T7 to T13, but not T14.**



# Application (Receiving Digital Off-air; Converting to Digital CATV)



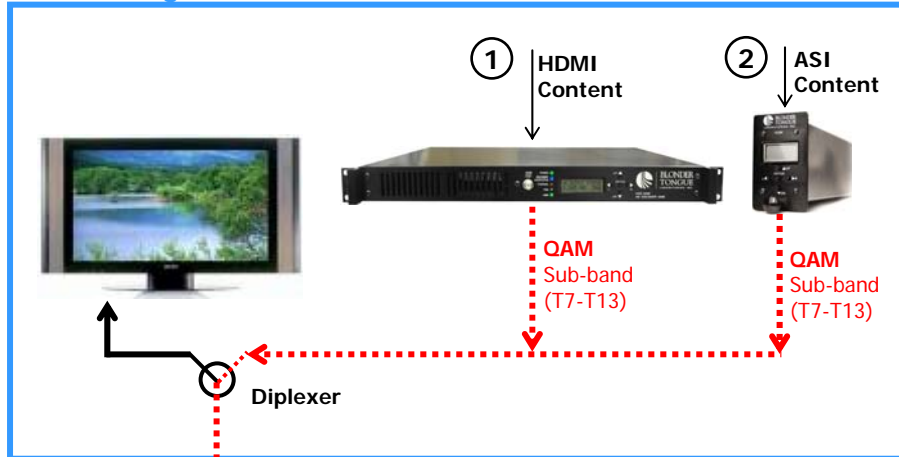
- ① An existing Analog Headend & Distribution Network
- ② Program broadcast in Digital (8VSB Standard)
- ③ Roof-top Antenna (**Blonder Tongue: BTY Series**)
- ④ 8VSB/QAM-to-QAM Processor (**Blonder Tongue: AQP; stock 6268**)
- ⑤ QAM-to-Analog tuner (SetTop Box) by others

- a** TV: Analog (Analog Tuner Only)  
Display: ONLY the Analog CATV programs
- b** TV: Analog (Analog Tuner Only)  
Display: BOTH the Analog CATV & the Digital off-air programs, but not in Hi Def quality
- c** TV: Digital-Ready (Analog + ATSC Tuners)  
Display: ONLY the Analog CATV programs
- d** TV: Digital-Ready (Analog + ATSC Tuners)  
Display: BOTH the Analog CATV & the Digital off-air program, but not in Hi Def quality
- e** TV: Digital (Analog + ATSC + QAM Tuners)  
Display: BOTH the Analog CATV & the Digital off-air program, in Hi Def quality

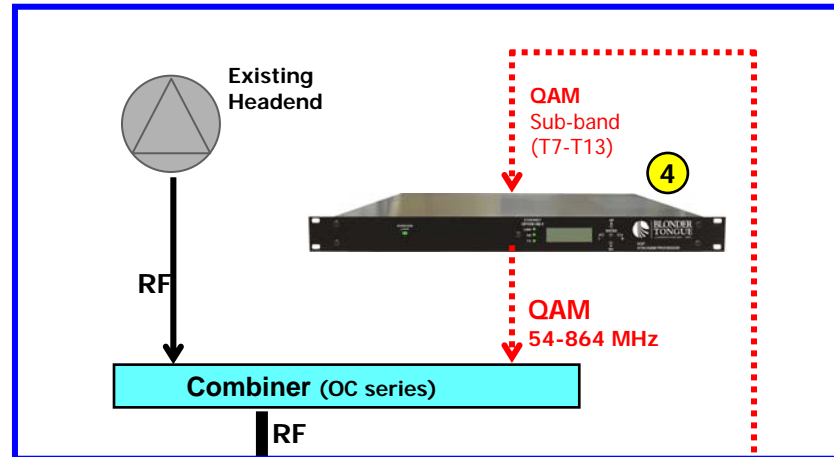


# Application (Digital Return Path)

## Remote Origination

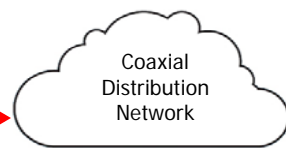


## Headend



3 To Headend via Return Path

From Remote Origination via Return Path



- 1 Content in ASI format is modulated into sub-band QAM (Blonder Tongue: AQM with Sub-band; stock 6271B)
- 2 Content in HDMI format is encoded and modulated into sub-band QAM (Blonder Tongue: HDE-QAM; stock 6310)
- 3 Content is sent to the head end over the coax via return path
- 4 8VSB/QAM-to-QAM Processor (Blonder Tongue: AQP; stock 6268)



# Configurable Parameters

The following parameters can be modified via the front-panel key-pad and LCD screen:

INPUT MODE	CATV & OFF-AIR
INPUT CHANNEL	CATV Mode: Sub-band T7-T13; Channels 2-135 OFF-AIR Mode: Channels 2-69
INPUT DEMOD	VSB- 8 & 16; Annex B QAM 64/256; Annex A QAM 16/32/64/128/256
OUTPUT CATV	Tuning range is CATV channels 2 to 135
OUTPUT QAM MODE	Pass-Thru (when input is QAM) or QAM 16/32/64/256 (when input is 8VSB)
OUTPUT LEVEL	+45 to +55 dBmV (+55 dBmV is recommended for optimal SNR)
OUTPUT RATE	Adjustable output QAM baud rate
ALPHA	12%, 15%, & 18%
INTERLEAVER	All values supported by Annex A/B QAM



# Ordering & Contact Information

Model	Stock	Description
AQP	6268	8VSB/QAM-to-QAM Processor with Sub-band Input

## Sales Representatives

### Vice President - North America Sales

Jeff Smith      jsmith@blondertongue.com      | 512-238-6973 ; 732-491-5657 (mobile)

### USA - Western Region

Eric Godleski      egodleski@blondertongue.com      | 800-523-6049 ext 4376

### USA - Eastern Region

Tom Lowden      tlowden@blondertongue.com      | 800-523-6049 ext 4375

**Customer Service**      btorder@blondertongue.com      | 800-523-6049 exts 4220 & 4320

**Outside the USA**      btglobalsales@blondertongue.com



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