

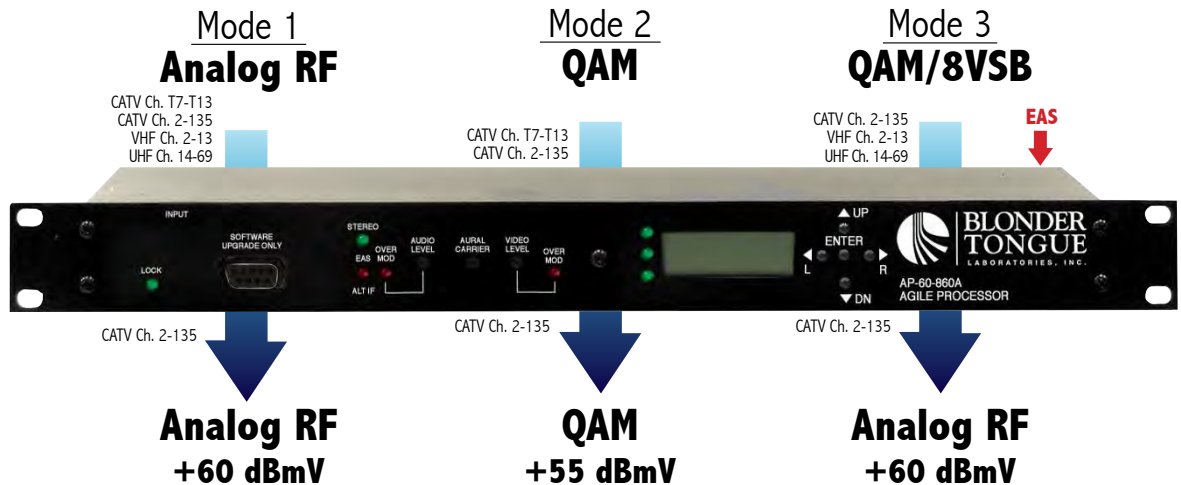


AP-60-860A (Agile Digital/Analog Processor) operates in one of the three following modes:

Mode 1: Analog Heterodyne Processor (Analog RF **IN** > Analog RF **OUT**)

Mode 2: Digital Heterodyne Processor (QAM **IN** > QAM **OUT**)

Mode 3: Digital-to-Analog Processor (8VSB or QAM **IN** > Analog RF **OUT**)



FEATURES

- As an agile analog heterodyne processor: accepts one Analog RF input (CATV sub-band channels T7-T13, CATV standard channels 2-135, VHF channels 2-13, and UHF channels 14-69) and delivers one Analog RF output (CATV standard channels 2-135)
- As an agile digital heterodyne processor: accepts one Digital Cable QAM input (CATV sub-band channels T7-T13, and CATV standard channels 2-135) and delivers one Digital Cable QAM output (CATV standard channels 2-135)
- As an agile digital-to-analog processor: accepts one Digital Off-air 8VSB or Digital Cable QAM input (CATV standard channels 2-135, VHF channels 2-13, and UHF channels 14-69) and delivers one Analog RF output (CATV standard channels 2-135)
- Equipped with EAS interface which can also be used as an IF (Intermediate Frequency) input
- Supports Closed Captioning (EIA-608)

ORDERING INFORMATION

Model	Stock #	Description
AP-60-860A	59819	Agile, Processor, +60 dBmV, 54-860 MHz output

RELATED PRODUCTS

Model	Description
DAP PLUS	Digital-to-Analog Processor; 1 RU
AP Series	Agile Heterodyne Processor; 1 RU

SPECIFICATIONS

INPUT

Connector:	"F" Female
Analog Mode (1) Standard: Tuning: Bandwidth: Power Level:	NTSC CATV 2-135, Broadcast 2-69, Sub T7-T13 6 MHz -20 to +30 dBmV
QAM Mode (2) Standard: Tuning Range: Data Rate: Bandwidth: Power Level:	ITU-T J.83 - Annex B (64 and 256 QAM) CATV Ch. 2-135 T7-T13 38.8 Mbps (QAM 256); 26.97 Mbps (QAM 64) 6 MHz -20 to +30 dBmV
QAM/8VSB Mode (3) Standard: Tuning Range: Data Rate: Bandwidth: Power Level:	8VSB ATSC Digital Television A/53E QAM ITU-T J.83 - Annex B (64 and 256 QAM) 8VSB VHF (NTSC Ch. 2-13), UHF (NTSC Ch. 14-69) QAM CATV Ch. 2-135 T7-T13 8VSB 19.392 Mbps QAM 38.8 Mbps (QAM 256); 26.97 Mbps (QAM 64) 6 MHz -20 to +30 dBmV

IF (INTERMEDIATE FREQUENCY)

Connector:	"F" Female Input / "F" Female Output
Impedance:	75 Ω Input / 75 Ω Output
Return Loss:	16 dB Input / 15 dB Output
EAS/ALT IF Input Level: Switch Isolation:	+38 dBmV @ 45.75 MHz Greater than 60 dB
Standby Carrier	+35 dBmV (RF Input <-25 dBmV)

Modes 1 & 3

Aural Frequency:	41.25 MHz
Visual Frequency:	45.75 MHz
Composite Loop Output Aural Carrier Level: Visual Carrier Level:	+20 dBmV +35 dBmV

Mode 2

Center Frequency:	44 MHz
Output Level:	+30 dBmV

GENERAL

Dimensions (W x D x H):	19.0 x 18.625 x 1.75 inches (483 x 473 x 44 mm)
Power:	110 VAC/60 Hz (Fuse: 1 amp, 250 VDC, SloBlo)
Power Dissipation:	36 W
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

Modes 1 & 2

Connector RF Output:	"F" Female
RF Output Frequency Range: Channels: Power Level: Power Level Range: Broadband Noise: Spurious: Impedance: Return Loss: Aural/Visual Carrier Ratio (Mode 1): Frequency Tolerance Adjacent Channel Rejection:	Analog RF or QAM 54 to 864 MHz UHF, VHF, CATV (Standard, HRC, & IRC) Mode 1 (Analog) +60 dBmV Mode 2 (QAM) +55 dBmV Mode 1 (Analog) +50 to +62 dBmV (in 0.2 dB increments) Mode 2 (QAM) +45 to +57 dBmV (in 0.2 dB increments) Mode 1 (Analog)-77 dBc (@ +60 dBmV output level, 4 MHz bandwidth) Mode 2 (QAM)-75 dBc (@ +55 dBmV output level, 6 MHz bandwidth) -63 dBc 75 Ω 15 dB -15 dB $\pm$ 2 $\pm$ 20 kHz; 32 to 122 °F (0 to 50 °C) 65 dB

Mode 3

Connector RF Output:	"F" Female
RF Output Frequency Range: Channels: Power Level: Power Level Range: Broadband Noise: Spurious: Impedance: Return Loss: Aural/Visual Carrier Ratio:	Analog RF 54 to 864 MHz UHF, VHF, CATV (Standard, HRC, & IRC) +60 dBmV +50 to +62 dBmV (in 0.2 dB increments) -77 dBc (@ +60 dBmV output level, 4 MHz bandwidth) -63 dBc 75 Ω 15 dB -15 dB $\pm$ 5
Visual Frequency Tolerance Standard Channels: FCC Aeronautical Channels: Video Frequency Response: Video-to-RMS Hum Ratio: Signal-to-Noise Ratio: Differential Gain: Differential Phase: Over-mod. Indicator: Chrom./Luminance Delay:	$\pm$ 20 kHz; 32 to 122 °F (0 to 50 °C) $\pm$ 5 kHz; 32 to 122 °F (0 to 50 °C) 1.5 dB Peak-to-Valley (fv-0.5 to fv+4.2 MHz) 65 dB 58 dB (Weighted) 2.0% @ 87.5% 1.0 degree 87.5% $\pm$ 2.5 Per FCC Requirements
Audio Frequency Response: Frequency Range: Signal-to-Noise Ratio: Total Harmonic Distortion: Over-mod. Indicator:	$\pm$ 1.0 dB 50 Hz to 15 kHz 59 dB 1.0% @ 55 kHz Deviation 55 kHz $\pm$ 2
4.5 MHz Audio Carrier Tolerance:	$\pm$ 150 Hz 32 to 122 °F (0 to 50 °C)

ALARMS/MONITORING/CONTROL

Indicators:	Lock (Green LED) Stereo Audio (Green LED) EAS or Alternate IF activated (Red LED) Audio Over-modulation (Red LED) Video Over-Modulation (Red LED)
Local Monitoring: Local Control:	Front-panel, 16-character, 2-line LCD screen Front-panel Navigational Key-pad Audio & Video Modulation Adjustment Aural Carrier Adjustment