



**BLONDER
TONGUE**

AM Series

Agile Modulator

toner
cable equipment, inc.
www.tonercable.com

AM series is a family of frequency-agile analog audio/video modulators. AM-60-860, the flag-ship model, is available in NTSC channels 2-135 (54-860 MHz), and the PAL B, G, and I channels in the same frequency range.

More economical models are available in NTSC for the frequency ranges 54-550 MHz, or 54-806 MHz. EAS (Emergency Alert System) is standard on all models. Stereo Audio, SAP (Secondary Audio Programming), and several other optional features are also available.

Baseband Audio/Video



Modulated ANALOG RF

Ordering Information

Model	Stock #	Description
AM-60-860	59415A	Frequency-agile Audio/Video Modulator, +60 dBmV, 54-860 MHz (NTSC)
AM-60-860-BG	B59415A	Frequency-agile Audio/Video Modulator, +120 dBμV, 47-860 MHz (PAL)
AM-60-806	59419	Frequency-agile Audio/Video Modulator, +60 dBmV, 54-806 MHz (NTSC)
AM-60-550	59416	Frequency-agile Audio/Video Modulator, +60 dBmV, 54-550 MHz (NTSC)
AM-45-550	59404	Frequency-agile Audio/Video Modulator, +45 dBmV, 54-550 MHz (NTSC)

Options

AM-OPT-02	BNC Video Input Connector
AM-OPT-04	Sub-Band Output (Available with AM-60-550 only)
AM-OPT-05	Integrated BTSC Stereo Audio
AM-OPT-06	SAP Audio/ BTSC Stereo (Available with AM-60-860 only)
AM-OPT-07	Video AGC
AM-OPT-08	Audio AGC
AM-OPT-09	Balanced Audio Input, 600 Ohm (Standard on AM-60-860)

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Specifications

INPUT

Connector Standard: "F" Female Option 2: BNC Female Impedance: 75 Ω Return Loss: 18 dB Video Input Level Standard: 0.7 volt Peak-to-Peak (87.5% depth of modulation) Option 7 (Video AGC): 0.4 to 2.5 volts Peak-to-Peak (87.5% ±2.5% depth of modulation) Video-to-RMS Hum Ratio: 65 dB Peak-to-Peak Signal-to-Noise Ratio: 58 dB (Weighted; at 4MHz bandwidth) Differential Gain: 2.0% Differential Phase: 1.0 degree Over-modulation Indicator: 87 to 92% Chrominance/Luminance Delay: Per FCC Requirements	Mono Audio (Standard) Connector AM-60-860 Model: Terminal Strip All Other Models: RCA Option 9 (Balanced Audio Input): Terminal Strip Input Impedance AM-60-860 Model: 600 Ω, balanced All Other Models: Greater than 10 kΩ, unbalanced Option 9 (Balanced Audio Input): 600 Ω, balanced Input Level Standard: 0.5 to 4.0 volt Peak-to-Peak Option 8 (Audio AGC): 0.5 to 4.0 volt Peak-to-Peak (constant 25 kHz deviation) Frequency Range: 50 Hz to 15 kHz Frequency Response: ±0.5 dB Total Harmonic Distortion: 1% @ 25 kHz deviation Signal-to-Noise Ratio: 59 dB Over-Modulation Threshold: 25 ±2kHz peak deviation
Stereo Audio (Option 5) Connector AM-60-860 Model: Terminal Strip All Other Models: RCA Input Impedance AM-60-860 Model: 600 Ω, balanced All Other Model: Greater than 10kΩ, unbalanced Input Sensitivity Standard: 1.0 volt Peak-to-Peak (55 kHz peak deviation with pilot tone) Option 8 (Audio AGC): 0.5 to 4.0 volt Peak-to-Peak (constant 55 kHz deviation with pilot tone) Frequency Response: ±0.75 dB (50 Hz to 14 kHz) Separation: 20 dB (50 Hz to 14 kHz) Harmonic Distortion: Less than 1% (@ 1 kHz)	SAP Audio (Option 6) Connector: RCA Input Impedance: Greater than 10 kΩ, unbalanced Input Level: 0.5 to 4.0 volt Peak-to-Peak Frequency Range: 50 Hz to 10 kHz Frequency Response: ±2 dB Total Harmonic Distortion: 1% Signal-to-Noise Ratio: 80 dB Over-Modulation Threshold: 25 ±1 kHz peak deviation

GENERAL

Dimensions (W x D x H) :	19.0 x 14.25 x 1.75 inches (483 x 362 x 44 mm)
Power:	117 VAC ±10%; 60 Hz (Fuse: 0.40 Amp) Also available in 220 VAC; 50 Hz
Power Dissipation:	28 W (max)
Weight:	7 lbs (3.18 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-condensing
Storage Humidity:	0 to 95% RH @ 35 °C max, non-condensing

OUTPUT

Connector: "F" Female Impedance: 75 Ω Return Loss: 12 dB Frequency Range AM-60-860 Model: 54 to 860 MHz (NTSC CATV Ch. 2 -135) AM-60-806 Model: 54 to 806 MHz (NTSC CATV Ch. 2 -125) AM-60-550 / AM-45-550 Models: 54 to 550 MHz (NTSC CATV Ch. 2 -78 & 95-99) Option 4 (Sub-band): 7 to 550 MHz (NTSC CATV Ch. T7 -78 & 95-99) NTSC Channel Modes: UHF, VHF, CATV (Standard, HRC, IRC) Power Level AM-45-550 Model: +45 dBmV All other Models: +60 dBmV Power Level Range AM-45-550 Model: +35 to +45 dBmV (in 0.2 dB increments) All other Models: +50 to +60 dBmV (in 0.2 dB increments) Video Flatness: fv-0.5 to fv+4.2 MHz (1.0 dB Peak-to-Valley) Carrier-to-Noise: (In Channel) 63 dB Broadband Noise: (4 MHz bandwidth) -77 dBc (@ +45/60 dBmV output level) Spurious Outputs: -63 dBc Aural/Visual Carrier Ratio: -15 ±5 dB 4.5 MHz Aural Inter-Carrier ±150 Hz; 32 to 122 °F (0 to 50 °C) Freq. Tolerance: Channel Selectivity Adjacent Aural & Below: -40 dB Adjacent Picture & Above: -40 ±5 dB Visual Carrier Frequency Tolerance Standard Channels: ±5.0 kHz; 32 to 122 °F (0 to 50 °C) FCC Aeronautical Channels: ±2.5 kHz; 32 to 122 °F (0 to 50 °C)	IF (Intermediate Frequency) Input/Output Connector: "F" Female / "F" Female Aural Frequency: 41.25 MHz Visual Frequency: 45.75 MHz Composite IF Output Aural Carrier Level: +20 dBmV Visual Carrier Level: +35 dBmV Input/Output Impedance: 75 Ω Input/Output Return Loss: 16/15 dB EAS/Alternative IF Connector: "F" Female Input Level: +38 dBmV @ 45.75 MHz Greater than 60 dB Switch Isolation:
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ALARMS / MONITORING / CONTROL

Front-Panel Indicators Channel / Mode / RF Output: 3-Digit LED Display Video Over-Modulation: Red LED Audio Over-Modulation: Red LED SAP Audio Over-Modulation: Red LED EAS / Alternative IF: Red LED Stereo: Green LED Front-Panel Controls Channel / Mode / RF Output: Navigation Key-pad Video Level: Potentiometer Audio Level: Potentiometer Aural Carrier Level: Potentiometer SAP Audio Level: Potentiometer	
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