



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)

### RELATED PRODUCTS

Model	Description
AMCM	Frequency-agile Audio/Video modulator, +45 dBmV, 54-860 MHz (NTSC & PAL), Twelve modulators in 2RU
ACM	Frequency-agile Audio/Video modulator, +45 dBmV, 54-806 MHz (NTSC only), Twelve modulators in 2RU
CAMS	Fixed-channel Audio/Video modulator, +60 dBmV, 54-860 MHz (NTSC only), 1RU
MAVM	Fixed-channel Audio/Video modulator, +60 dBmV, 54-860 MHz (NTSC only), 1RU
MICM	Fixed-channel Audio/Video modulator, +45 dBmV, 54-806 MHz (NTSC & PAL), Twelve modulators in 2RU

# SPECIFICATIONS

## Input

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

## General

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

## Output

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

## Alarms/Monitoring/Control

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