



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.

A "CALM" Solution: When equipped with option 8, the modulator is compatible with the requirements of the CALM Act (Commercial Advertising Loudness Mitigation). Option 8 utilizes an Audio AGC (Automatic Gain Control) solution that is designed to preclude the commercials from being broadcast at louder volumes than the program they accompany. It also reduces the loudness variations that are experienced when changing from one channel to another, or the loudness variations among different programs on the same channel.



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-05 Integrated BTSC Stereo Audio

AM-OPT-07 Video AGC

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

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 4 MHz 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 ± 2 kHz 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 Models: Greater than 10 kΩ, 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 10 kHz) Harmonic Distortion: Less than 1% (@ 1 kHz)	

GENERAL

Dimensions (W x D x H):	19.0 x 14.25 x 1.75 in. (483 x 362 x 44 mm)
Power:	117 VAC ±10%; 60 Hz (Fuse: 0.40 Amp) Also available in 220 VAC; 50Hz
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. 17 -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 Freq. Tolerance: ±150 Hz; 32 to 122 °F (0 to 50 °C) 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 Switch Isolation: Greater than 60 dB	

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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