

AM Series

Agile Audio/Video Modulators



○ Features & Benefits

- Supports All Broadcast and CATV Channels, Including All HRC and IRC Assignments
- EAS/ALT IF Ready Via Manual or Automatic Mode
- Superior Broadband Noise Performance (-76 dB)
- Fully Compatible With BTSC Encoded Stereo Audio
- All Level Controls are Conveniently Located on Front Panel For Easy Set Up and Adjustment
- Rack Mountable - 1 EIA (1.75") Rack Space
- UL Listed with Three Year Product Warranty

The AM-60-860 is a professional quality agile audio/video modulator. It is equipped with the Emergency Alert System (EAS) feature, which can also be used as an alternate IF input. The unit provides an audio and video modulated RF carrier on any channel from 54 to 860 MHz. Any standard audio/video source can be used, such as satellite receivers, television cameras, video tape recorders, or television demodulators.

Channel tuning is easily accomplished with the use of front panel push button switches. Frequency plans including CATV Standard EIA, IRC, HRC & Broadcast are available in the 54-860 MHz frequency range. All channel frequency information with appropriate FCC offsets is pre-programmed and tuned electronically via microprocessor.

The unit has a wide range of standard and optional features that make it ideal for advanced CATV systems. 4.5 MHz aural input, and 60 Ohm balanced audio have been incorporated as standard equipment on the AM-60-860. A stereo audio option, Option 05, allows the integration of a BTSC stereo encoder module. This optional stereo encoder converts stereo left and right audio into a composite BTSC stereo audio signal. The factory installed option provides 20 dB of stereo separation, less than 1.0% total harmonic distortion and 60 dB signal to noise ratio.

The AM-60-860 meets FCC Docket 21006 aeronautical frequency offset requirements (± 5 kHz video carrier accuracy). Outstanding in channel carrier to noise performance of 67 dB typical is achieved by the unit. A custom SAW IF filter is employed to provide true vestigial sideband selectivity with built-in FCC group delay equalization. A state of the art converter design with preprogrammed microprocessor controlled channel tuning @ 60 dBmV output ensures the Blonder Tongue AM-60-860 is the ideal agile modulator for any demanding CATV headend need.

Available through **Multicom, Inc.**

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○ Specifications

RF

Frequency Range: 54-860 MHz
Channels: CATV, VHF, UHF (STD,HRC,IRC)
FCC Offset (pre-programmed):
0, +12.5, or 25 kHz
Output Level - Min: +60 dBmV
Output Level Adjust: 10 dB
Aural/Visual Carrier Ratio: -15 ±5 dB
Visual Carrier Frequency Tolerance
Standard Channels: ±10 kHz
FCC Aeronautical Channels: ±5 max kHz
4.5 MHz Aural Inter Carrier Frequency: ±150Hz
Channel Selectivity:
Adjacent Aural and Below: -40 dB
Adjacent Picture and Above: -50 dB
Spurious Outputs: -60 dBc
C/N Ratio In Channel: 67 dB
Broadband Noise: -80 dBc
Output Impedance: 75 Ohm
Output Return Loss: 14 dB

IF

Aural Frequency Standard: 41.25 MHz
Visual Frequency Standard: 45.75 MHz
Composite IF Loop Output
Aural Carrier Level: +20 dBmV
Visual Carrier Level: +35 dBmV
Output/Input Impedance: 75 Ohm
Output Return Loss: 16 dB
Input Return Loss: 20 dB
EAS/ALT IF Input Level: 36 dBmV @ 45.75 MHz
EAS/ALT IF Switch Isolation: >60 dB

Video

Input Level: 1.0 V p-p
Frequency Response
fv-0.5 MHz to fv+4.2 MHz: ±1.0 dB
P-P Video to RMS Hum Ratio: 65 dB
Video Signal-to-Noise Ratio, Weighted: 64 dB
Differential Gain: 2.0 %
Differential Phase: 1.0 °
Over Modulation Indicator: 87.5, ±2.5 %
Input Impedance: 75 Ohm
Input Return Loss: 18 dB

Audio

Input Level: 140 mV RMS
Ext. 4.5 MHz Input Level: +35 to +45 dBmV
Frequency Range: 20 Hz to 20 kHz
Frequency Response: ±1.0 dB
Pre-Emphasis-Mono: 75 µs
Audio Signal-to-Noise: 60 dB
Total Harmonic Distortion: 0.6 %
Over Modulation Indicator : 25, ±2 kHz
Input Impedance: 600, balanced Ohm

General

Power Requirements
Voltage: 117, ±10% VAC
Frequency: 60 Hz
Power: 25 W
Fuse: 0.40 A
Temperature Range: 0 to +50 °C

Mechanical

Dimensions (WxHxD):
19.0 x 1.75 x 14.5 in
483 x 44 x 368 mm
Weight: 7 lbs. (3.18 kg)

Connectors (Rear Panel)

Video Input Standard: "F" type, female
Option 02: BNC Video Input: BNC type, female
Option 10: Composite A/V: "F" type, female
Audio Input Standard 600 Ohm Audio Input:
Barrier Strip
Composite Video/Audio Input Option 10:
Composite A/V: "F" type, female
IF Output: "F" type, female
IF Input: "F" type, female
RF Output: "F" type, female
EAS/ALT IF: "F" type, female

Controls (Front Panel)

Frequency Selection: Push-Button Switches
Video Level: Control
Aural Carrier Level: Control
Audio Level: Control
RF Output Level: Control

Indicators (Front Panel)

Power ON: LED, green
Video Over Modulation: LED, red
Audio Over Modulation: LED, red
EAS/ALT IF: LED, green

Refer to product instruction manual for additional specification measurements and notes.

○ Ordering Information

Model	Stock No.	Description
AM-60-860	59415	Agile Audio/Video Modulator +60 dBmV, 54-860 MHz with EAS Feature

Options

Model	Stock No.	Description
AM-OPT 02	5902	AM Series Option: Video Input, BNC Connector
AM-OPT 04	5904	AM Series Option: Sub-Band Output
AM-OPT 05	5905	AM Series Option: Integrated BTSC Stereo Audio
AM-OPT 07	5907	AM Series Option: Video AGC
AM-OPT 10	5910	AM Series Option: Composite Video & 4.5 MHz Audio Input
AM-OPT 20	5920	AM Series Option: Digital Control, Serial RS-232
AM-OPT H	5947	AM Series Option: Option 2 & 9 Video Input BNC Connector & Balanced Audio, 600 Ohm

(Not all options/combinations are available)

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