

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
- Rack Mountable - 1 EIA (1.75") Rack Space
- UL Listed with Three Year Product Warranty

The AM Series are professional quality, agile audio/video modulators. They are equipped with the Emergency Alert System (EAS) feature, which can also be used as an alternate IF input. These units provide audio and video modulated RF carrier on any channel in 54 to 550/750 MHz frequency range. The AM Series is ideal placing audio and video onto any unused channel (broadcast CATV, including HRC and IRC assignments). Any standard audio/video source can be used, such as satellite receivers, television cameras, video tape recorders, or television demodulators.

Agile channel selection permits on-the-fly channel changes and reduces the need for large inventories of channelized products. Channel selection is accomplished with the use of simple to use front panel accessible dip switches.

These modulators have a wide range of standard and optional features that make them very suitable for advanced CATV systems. Four models are available with different output levels, frequency ranges and a variety of options.

All models feature rock solid, synthesized frequency control, with a tuning increment of 250 kHz. A custom SAW filter is employed to provide true vestigial sideband selectivity with built-in FCC group delay pre-distortion. These modulators have an external IF loop, which allows interfacing with video all-call and signal scrambling systems. The EAS Alternate IF feature allows the choice between manual and automatic selection of EAS/ALT IF input signal. This is done through a 3 position terminal strip on the rear of the unit.

The AM Series meets FCC Docket 21006 aeronautical frequency offset requirements (± 5 kHz video carrier accuracy). These modulators provide extremely clean output signals with distortion products (-60 dB or better). An exceptionally low broadband noise floor (-76 dBc or better) makes the AM Series ideal for large, multiple channel headends without the need for additional filtering.

Order From:



Toll Free: 800-423-2594
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AM Series

Agile Audio/Video Modulators

○ 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: ±150 Hz
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 Ω Audio Input:
Barrier Strip
Composite Video/Audio Input Option 10:
"F" Type, Female
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-40-550B	59402	Agile Audio/Video Modulator +40 dBmV, 54-550 MHz with EAS Feature
AM-40-750B	59403	Agile Audio/Video Modulator +40 dBmV, 54-750 MHz with EAS Feature
AM-60-550B	59417	Agile Audio/Video Modulator +60 dBmV, 54-550 MHz with EAS Feature
AM-60-750B	59418	Agile Audio/Video Modulator +60 dBmV, 54-750 MHz with EAS Feature

Options

Model	Stock No.	Description
AM-OPT 01	5901	AM Series Option: 4.5 MHz Audio Input
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 09	5909	AM Series Option: Balanced Audio Input, 600 Ohm, Stocking Option
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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