

Triple Channel Frequency Agile Audio/Video Modulators

FAXM Series



○ Features & Benefits

- Rack Mountable - 1 EIA (1.75") Rack Space
- Supports All Broadcast and CATV Channels, Including HRC and IRC Assignments from 54 to 860 MHz
- Front Panel Accessible Level Controls for Easy Set-Up and Adjustments
- Fully Compatible With BTSC Encoded Stereo Audio

The FAXM Series is a professional quality, multiple channel agile audio/video modulator. This unit provides audio and video modulated RF carriers on any channel in the 54 to 860 MHz frequency range, using only one rack space. 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.

○ 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 - Combined Min: +50 dBmV
Output Level Adjust: 15 dB (k)
Aural/Visual Carrier Ratio: -10 to -17 dB (a)
Visual Carrier Frequency Tolerance
Standard Channels: ± 5 kHz
FCC Aeronautical Channels: ± 3 max kHz
4.5 MHz Aural Inter Carrier Frequency:
 ± 1 kHz (i)
Channel Selectivity:
Adjacent Aural and Below: -40 dB
Adjacent Picture and Above: -50 dB

Spurious Outputs: -60 dBc
C/N Ratio In Channel: 63 dB (b)
Broadband Noise: -70 dBc (b)
Output Impedance: 75 Ω
Output Return Loss: 12 dB

Video

Input Level: 1.0 V p-p (d)
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, NTC-7 Weighted:
62 dB

Differential Gain: 2.0 % (d)
Differential Phase: 1.0 ° (d)
C/L Delay Inequality: see note(c)
Over Modulation Indicator: 87.5, ± 2.5 %
Input Impedance: 75 Ω

Input Return Loss: 24 dB, min

Audio

Input Level: 140 mV RMS (e)
Frequency Range: 20 Hz to 20 kHz
Pre-Emphasis-Mono: 75 μ s

Frequency Response: ± 1.0 dB (g)
If Pre-Emphasis Defeated: +0.5 dB
Audio Signal-to-Noise: 58 dB (e)
Total Harmonic Distortion: 0.6% (h)
Over Modulation Indicator : 25, ± 2 kHz
Input Impedance:
Greater than 10 K Ω , unbalanced

General

Power Requirements: 110 VAC to 260 VAC
Frequency: 47 to 63 Hz
Temperature Range: 0° to +50° C
AC Current (I): 0.32 Amp for 115 VAC
Output Voltage: +12 Vdc, + 5 Vdc
Max Current Output / Voltage: 0.7 Amp

Mechanical

Dimensions (W x H x D):
19 x 1.75 x 14.25 in.
228.6 x 44.45 x 361.95 mm
Weight: 7 lbs., 3.17 kg

Connectors

Video Input: "F" Female
Audio Input: RCA Female
RF Output: "F" Female

Controls

Channel Selection: Up/Down Push-Buttons
Video Level: Control
A/V Ratio: Control
Audio Level: Control
RF Output Level: Control
Channel Enter: Push-Button

Indicators

2 Digital LED Channel Display
+100 Indicator: LED, Red
Video Over Modulation: LED, Red
Audio Over Modulation: LED, Red
Stereo Indicator: LED, Green - Not Used

NOTES

- continuously adjustable
- 4 MHz bandwidth, +50 dBmV output, 3 channels combined
- meets FCC CATV group delay pre-distortion requirements for color transmission
- 87.5% depth of modulation
- for 25 kHz peak deviation
- available via internal jumper setting
- referenced to standard 75 μ s pre-emphasis
- 30 Hz to 15 kHz, 25 kHz deviation
- 0 °C to +50 °C
- continuously adjustable, optimum performance at +40 to +50 dBmV
- AC current with 3 modules installed

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

○ Ordering Information

Model	Stock No.	Description
FA3M-50-860	59713B	Frequency Agile Modulator, Triple Channel Unit Agile Output 54-860 MHz, STD CATV, HRC, IRC, +50 dBmV
FA2M-50-860	59712B	Frequency Agile Modulator, Double Channel Unit Agile Output 54-860 MHz, STD CATV, HRC, IRC, +50 dBmV
FA1M-50-860	59711B	Frequency Agile Modulator, Single Channel Unit Agile Output 54-860 MHz, STD CATV, HRC, IRC, +50 dBmV