

# HE Series

## Modular Headend System - AMCM-860



The AMCM-860 is a professional quality agile audio/video modulator with an output frequency range of 54-860 MHz. It joins Blonder Tongue's family of modular headend components and works in conjunction with the MIRC-12V rack chassis and MIPS-12C power supply.

The unit provides a modulated aural & visual carrier on any channel in the 54 to 860 MHz range. Frequency plans including Standard CATV, IRC, HRC and Broadcast are accommodated via front panel selection. Channel tuning is easily accomplished with the use of front panel switches following the entry instructions. All channels with appropriate FCC offsets are pre-programmed and tuned electronically via microprocessor.

The unit accepts any standard audio/video source such as satellite receivers, television camera, video tape recorders or demodulators. The advanced design ensures access for all level and over-modulation controls via the front panel with LED indicators for each. Internal selectable jumper settings allow for compatibility of features such as defeatable audio pre-emphasis for BTSC compatibility.

Special features have been built into the unit firmware to ensure the best possible user experience. This includes the ability to alert an operator to any inadvertent or designed change to the unit switches by flashing a red error indicator. The indicator will continue to flash until the condition is corrected or the unit is reset.

### ○ Features & Benefits

- Meets FCC Docket 21006 Aeronautical Frequency Offset Requirements
- Fully Compatible With BTSC Encoded Stereo Audio
- Three Year Warranty
- Front Panel Accessible Level Controls for Easy Set-Up and Adjustments
- Die-Cast Chassis Offers Superior Protection Against Ingress or Egress
- Supports All Broadcast and CATV Channels, Including HRC and IRC Assignments from 54 to 860 MHz

### ○ 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: +45 dBmV  
Output Level Adjust: 15 dB  
Aural/Visual Carrier Ratio: -10 to -17 dB  
Visual Carrier Frequency Tolerance  
Standard Channels:  $\pm 5$  kHz  
FCC Aeronautical Channels:  $\pm 3$  max kHz  
4.5 MHz Aural Inter Carrier Frequency:  $\pm 1$  Hz  
Channel Selectivity:  
Adjacent Aural and Below: -40 dB  
Adjacent Picture and Above: -50 dB  
Spurious Outputs: -60 dBc  
C/N Ratio In Channel: 65 dB  
Broadband Noise: -76 dBc  
Output Impedance: 75 ohm  
Output Return Loss: 12 dB

#### Video

Input Level: 1.0 V p-p  
Frequency Response  
 $f_v - 0.5$  MHz to  $f_v + 4.2$  MHz:  $\pm 1.0$  dB  
P-P Video to RMS Hum Ratio: 65 dB  
Video Signal-to-Noise Ratio,  
NTC-7 Weighted: 62 dB  
Differential Gain: 2.0 %  
Differential Phase: 1.0 °  
Over Modulation Indicator: 87.5,  $\pm 2.5$  %  
Input Impedance: 75 ohm  
Input Return Loss: 24 min, dB

#### Audio

Input Level: 140 mV RMS  
Ext. 4.5 MHz Input Level:  $40 \pm 1$  dBmV  
Frequency Range: 20 Hz to 20 kHz

Pre-Emphasis-Mono: 75  $\mu$ s  
Frequency Response:  $\pm 1.0$  dB  
IF Pre-Emphases defeated: +0.5 dB  
Audio Signal-to-Noise: 58 dB  
Total Harmonic Distortion: 0.6 %  
Over Modulation Indicator: 25,  $\pm 2$  kHz  
Input Impedance: Greater than 10k  $\Omega$ ,  
unbalanced

#### General

Power Requirements  
Voltage: +12, +5 VDC  
Power: 5 W  
Temperature Range: 0 to +50 °C  
Current: 235, 375 mA

#### Mechanical

Dimensions (WxHxD):  
1.15 x 3.5 x 7.5 in  
29 x 89 x 101 mm  
Weight: 0.8 lbs, .36 kg

#### Connectors (Rear Panel)

Video Input: "F" Type, Female  
Audio Input: RCA Phono  
RF Output: "F" Type Female

#### Controls (Front Panel)

Frequency Selection: Push-Button Switches

Video Level: Control  
A/V Ratio: Control  
Audio Level: Control  
RF Output Level: Control  
Channel Enter: Push Button

#### Indicators (Front Panel)

Power ON: 2 color LED, Red/Green  
Video Over Modulation: LED, Red  
Audio Over Modulation: LED, Red

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

### ○ Ordering Information

Model	Stock No.	Description
AMCM-860	7766A	Modular Agile Audio/Video Modulator (HE 12 Series) +45 dBmV, 54-860 MHz Agile

Available through

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