



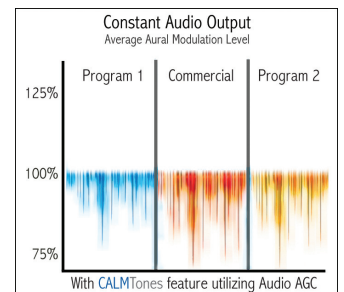
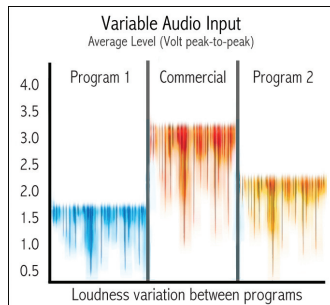
**BLONDER  
TONGUE**  
LABORATORIES, INC.

# AMCM-860

## AGILE MICRO CHANNEL MODULATOR

AMCM-860 is a frequency-agile analog audio/video modulator available in NTSC channels 2-135 (54-860 MHz). Models are available in both stereo and mono audio inputs.

This 4th generation of AMCM-860 is equipped with the [CALMTones](#) feature, utilizing Audio AGC (Automatic Gain Control) circuitry that eliminates variations in loudness level that may be present among various program sources.



## FEATURES

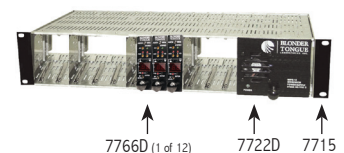
- Audio AGC feature prohibits commercials that accompany broadcast programs from:
  - (i) having modulation levels substantially higher than the broadcast program; and
  - (ii) having an average maximum loudness substantially higher than that of the broadcast program.
- Audio AGC feature provides consistent audio level among all broadcast programs on different channels and among different programs within the same channel
- Compact design allows for deployment of 12 channels in 2RU
- Utilizes SAW filters for improved performance
- Die-cast chassis for RFI immunity

## ORDERING INFORMATION

Model	Stock #	Description
AMCM-860D	7766D	Modular-Agile Audio/Video Modulator, +45 dBmV
AMCM-860DS	7766DS	Modular-Agile Audio/Video Modulator, Stereo, +45 dBmV
MIRC-12V	7715	Horizontal Rack Chassis (Holds up to 12 modulators)
MIPS-12D	7722D	Horizontal 100-240 VAC 50/60 Hz Power Supply (1 per chassis)
MIRC-4D	7711	Horizontal Rack Chassis equipped with Power Supply



MIRC-4D



7766D (1 of 12)

7722D

7715

# SPECIFICATIONS

## INPUT

<b>Video</b> <b>Connector:</b> <b>Impedance:</b> <b>Return Loss:</b> <b>Input Level:</b> <b>Frequency Response:</b> <b>Peak-to-Peak Video-to-RMS Hum Ratio:</b> <b>Signal-to-Noise Ratio:</b> <b>Differential Gain:</b> <b>Differential Phase:</b> <b>Chrominance/Luminance Delay:</b>	"F" Female 75 $\Omega$ 24 dB 1.0 volt peak-to-peak (87.5% depth of modulation) 1.0 dB peak-to-valley (fv to fv+4.2 MHz) 65 dB 62 dB (Weighted; 4 MHz bandwidth) 2.0% (87.5% depth of modulation) 1.0 degree (87.5% depth of modulation) Per FCC Requirements
<b>Mono Audio (standard)</b> <b>Connector:</b> <b>Input Impedance:</b> <b>Input Level: (for 25 KHz deviation)</b> <b>Frequency Range:</b> <b>Frequency Response:</b> <b>Total Harmonic Distortion:</b> <b>Signal-to-Noise Ratio:</b>	RCA Greater than 10 k $\Omega$ , unbalanced 0.5 - 4.0 volt peak-to-peak (constant AGC range) 50 Hz to 15 kHz $\pm$ 1 dB 1% @ 25 kHz deviation 66 dB
<b>Stereo Audio (optional)</b> <b>Connector:</b> <b>Input Impedance:</b> <b>Input Sensitivity: (for 55 kHz peak deviation)</b> <b>Frequency Response:</b> <b>Separation:</b>	RCA Greater than 10 k $\Omega$ , unbalanced 0.5 - 4.0 volt peak-to-peak (AGC range with pilot tone) $\pm$ 0.75 dB (50 Hz to 12 kHz) 20 dB @ 50 Hz to 10 kHz

## OUTPUT

<b>Connector:</b> <b>Impedance:</b> <b>Return Loss:</b> <b>Frequency Range:</b> <b>Power Level:</b> <b>Power Level Range:</b> <b>Carrier-to-Noise: (In Channel)</b> <b>Broadband Noise:</b> <b>Spurious Outputs:</b> <b>Aural/Visual Carrier Ratio:</b> <b>4.5 MHz Aural Inter-carrier Freq. Tolerance:</b> <b>Visual Carrier Frequency Tolerance</b> <b>Standard Channels:</b> <b>FCC Aeronautical Channels:</b>	"F" Female 75 $\Omega$ 12 dB 54 to 860 MHz (NTSC CATV Ch. 2 -135) +45 dBmV 10 dB continuously adjustable 63 dB -75 dBc (@ +45 dBmV output level, 4 MHz bandwidth) -60 dBc -11 to -19 dB continuously adjustable $\pm$ 150 Hz; 77 $^{\circ}$ F (25 $^{\circ}$ C) $\pm$ 10 kHz; 32 to 122 $^{\circ}$ F (0 to 50 $^{\circ}$ C) $\pm$ 5 kHz; 32 to 122 $^{\circ}$ F (0 to 50 $^{\circ}$ C)
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## GENERAL

<b>Dimensions (W x D x H)</b> <b>AMCM Modules:</b> <b>MIPS-12C Power Supply:</b> <b>MIRC-12V Chassis:</b> <b>MIRC-4D Chassis:</b>	1.0 x 7.78 x 3.5 inches (25 x 198 x 89 mm) 4.6 x 7.5 x 3.5 inches (106 x 191 x 89 mm) 19 x 12.0 x 5.25 inches (483 x 305 x 133 mm) 19 x 9.0 x 1.75 inches (483 x 229 x 44 mm)
<b>Power</b> <b>MIPS-12C Power Supply:</b> <b>MIRC-4D Power Supply:</b>	100-240 VAC; 50/60 Hz 100-240 VAC; 50/60 Hz
<b>Power Dissipation:</b>	$\sim$ 5 W (max. per AMCM Module)
<b>Weight</b> <b>AMCM Module:</b> <b>Fully Loaded Chassis:</b>	0.8 lbs (0.36 kg) 15.8 lbs (7.2 kg)
<b>Operating Temperature:</b>	32 to 122 $^{\circ}$ F (0 to 50 $^{\circ}$ C)
<b>Storage Temperature:</b>	-13 to 158 $^{\circ}$ F (-25 to 70 $^{\circ}$ C)
<b>Operating Humidity:</b>	0 to 95% RH @ 35 $^{\circ}$ C max, non-condensing
<b>Storage Humidity:</b>	0 to 95% RH @ 35 $^{\circ}$ C max, non-condensing

## ALARMS/MONITORING/CONTROL

<b>Front-Panel Indicator</b> <b>Channel No. &amp; Mode:</b> <b>+100 channel:</b> <b>Video Over-modulation:</b> <b>Audio Over-modulation</b> <b>Stereo:</b>	2-Digit Red LED Display Red LED Red LED Red LED Green LED
<b>Front-Panel Controls</b> <b>Output Level:</b> <b>Video Level:</b> <b>Audio Level:</b> <b>Aural Carrier Level:</b>	Potentiometer Potentiometer Potentiometer Potentiometer

# RELATED PRODUCTS

Model	Description
AM-60-860	Frequency-agile Audio/Video modulator, +60 dBmV, 54-860 MHz, 1RU
ACM	Frequency-agile Audio/Video modulator, +45 dBmV, 54-806 MHz, Twelve modulators in 2RU
MICM	Fixed-channel Audio/Video modulator, +45 dBmV, 54-860 MHz, Twelve modulators in 2RU