

DRAKE

VMM860AP AGILE VIDEO MODULATOR



The VMM860AP is an agile, premium, vestigial sideband, heterodyne audio/video modulator with synthesized visual and aural carriers. One to twelve modulators or other accessories can be mounted in the same amount of rack space typically required for two standard size units. Ideally suited for private cable, hotels and motels, institutional, and SMATV applications, the VMM860AP accepts video and audio baseband signals from a satellite receiver, TV camera, videotape recorder, TV demodulator, or similar signal sources.

- Convenient Pushwheel Switches for Channel Selection.
- LED overmodulation indicators assist in setting proper modulation.
- CATV channels 2 - 135 or Broadcast channels 2 - 69 selectable from front panel.
- Stereo ready utilizing BTSC stereo baseband or 4.5 MHz aural IF input.
- Agility allows for "hot standby" solutions in headends.
- Agility allows for minimal service stock.
- A versatile, professional NTSC vestigial sideband modulator.
- +45 dBmV output. Adjustable from +30 to +45 dBmV.
- SAW filtering for superior adjacent channel performance.
- Front panel control of RF output level, A/V ratio, and video/audio modulation.
- Complies with FCC Rules Part 76.
- Use up to 12 VMM860AP modulators in a two rack height space powered by a single PSM121 Power Supply.
- One VMM860AP may be substituted for a fixed channel modulator in 12 channel racks utilizing older Drake PSM120 or similar power supplies. (Two or more VMM860AP modulators utilized with fixed channel modulators in a 12 channel rack will require a PSM121 power supply if not already in place.)
- Rack mount and high capacity PSM121 Power Supply sold separately.



VMM860AP Technical Specifications

RF	
Frequency Range:	Agile, 54 through 860 MHz.
Frequency Selection:	Standard CATV Channels 2 through 135 Broadcast TV Channels 2 through 69
Output Level:	+45dBmV minimum, typically adjustable from +30 to +45 dBmV
Output Impedance:	75 Ohms, return loss of 10 dB
A/V Ratio:	Audio Carrier -18 to -11 dB, ± 2 dB referenced to video carrier, adjustable
Frequency Stability:	± 5 ppm.
Inter-carrier Frequency:	4.5 MHz \pm 50 Hz.
FCC Frequency Offsets:	Automatic (+12.5 KHz, +25 KHz, or none as required for each channel)
Spurious Outputs (5-900 MHz):	-60 dBc typical, measured at -15 dB A/V ratio and with modulator output level of +45 dBmV
In Channel C/N:	60 dB typical, 4MHz bandwidth
Broadband Noise:	-78 dBc typical, 4 MHz bandwidth @ 45 dBmV output
Video	
Input Level for 87.5% modulation:	0.6 Vp-p to 1.5 Vp-p, manual gain adjustable with front panel control
Overmodulation Indicator:	Trips at 87.5% modulation depth.
Input Impedance:	75 Ohms, return loss of 20 dB minimum
Frequency Response:	20 Hz to 4.2 MHz, ± 1 dB
C/L Delay:	within 50 nSec. of 0 nSec. (standard) F.C.C. predistortion available by special order.
Differential Gain:	$\pm 3\%$ (10 to 90% APL)
Differential Phase:	± 3 degrees (10 to 90% APL)
Audio	
Input Level for 25 kHz Peak Deviation:	100 mVrms to 3Vrms. Manual gain adjustment with front panel control
Overmodulation Indicator:	Trips at ± 25 kHz deviation. (This indicator is only functional on monaural input signals. It is not usable for composite BTSC stereo inputs.)
Input Impedance:	>10K Ohms, unbalanced
Pre-emphasis:	75 m Seconds (Defeatable via internal jumper for BTSC baseband stereo compatibility)
Frequency Response:	40 Hz to 15 kHz, ± 1.5 dB referenced to 75 m second pre-emphasis curve. 40 Hz to 100 kHz, ± 0.5 dB if pre-emphasis is defeated.
Signal to Noise Ratio:	55 dB
Total Harmonic Distortion:	< 1.0%
4.5 MHz Input	
4.5 MHz Input:	Internal jumpers select this mode instead of normal audio input.
Input Impedance:	75 Ohms

Input Level:	+40 dBmV \pm 2 dB for -15 dB A/V Ratio
General	
DC Power Input:	+12 VDC @ 180 mA, +5 VDC @ 360 mA (typical)
Operating Temperature:	0° to 50° Celsius (32° to 122° Fahrenheit), ambient.
Dimensions:	3.5 inches (89 mm) Height x 1 inch (25 mm) Width x 7.5 inches (191 mm) Depth
Weight:	10.7 ounces (0.30 kg.)

Specifications, price, and availability are subject to change without notice or obligation.

Available through **Multicom, Inc.**
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