



## VMM600 VIDEO MODULATOR



The Drake VMM600 Video Modulator is a professional quality modular headend system designed to optimize rack space. The VMM600 is a high quality fixed channel heterodyne audio/video modulator. One to twelve modulators 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 VMM600 accepts video and audio baseband signals from a satellite receiver, TV camera, videotape recorder, TV demodulator, or similar signal sources.

- Low-cost NTSC 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
- Rack mount and power supply sold separately



### VMM600 Technical Specifications

| RF                   |   |
|----------------------|---|
| Frequency Range:     | 54 through 600 MHz.   |
| Frequency Selection: | Set at the factory to one of the following channels:<br>Cable Channels 1 through 86, 95 through 99,<br>or UHF TV Channels 14 through 35 |
| Output Level:        | +45dBmV minimum, typically adjustable from +30 to +45 dBmV  |

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|--|--|
| Output Impedance:                      | 75 Ohms, return loss of 12 dB  |
| A/V Ratio:                             | Audio Carrier -20 to -10 dB referenced to video carrier, adjustable  |
| Frequency Stability:                   | $\pm 5$ kHz (Visual Carrier)   |
| Inter-carrier Frequency:               | 4.5 MHz  |
| FCC Frequency Offsets:                 | All aeronautical channels are offset positive  |
| Spurious Outputs:                      | -65 dBc, measured at -15 dB A/V ratio and with modulator output level of +45 dBmV  |
| Broadband Noise:                       | -95 dBc (4MHz bandwidth, $\pm 12$ MHz offset)  |
| <b>Video</b>                           |  |
| Input Level for 87.5% modulation:      | 1 Vp-p $\pm 3$ dB, manual gain adjustable with front panel control   |
| Input Impedance:                       | 75 Ohms, return loss of 18 dB minimum  |
| Frequency Response:                    | 20 Hz to 4.2 MHz, $\pm 1$ dB   |
| Video S/N:                             | 60 dB luminance weighted   |
| Differential Gain:                     | $\pm 3\%$ (10 to 90% APL)  |
| Differential Phase:                    | $\pm 3$ degrees (10 to 90% APL)  |
| <b>Audio</b>                           |  |
| Input Level for 25 kHz Peak Deviation: | 140 mV minimum. Manual gain adjustment with front panel control  |
| Input Impedance:                       | 10K Ohms, unbalanced   |
| Pre-emphasis:                          | 75 $\mu$ Seconds (Defeatable via internal jumper for BTSC baseband compatibility)  |
| Frequency Response:                    | 20 Hz to 15 kHz, $\pm 1$ dB referenced to 75 $\mu$ Seconds pre-emphasis curve. (20 Hz to 100 kHz if pre-emphasis is defeated.) |
| Inter-carrier Stability:               | $\pm 5$ kHz, 0° to 50° Celsius (32° to 122° Fahrenheit)  |
| Total Harmonic Distortion:             | 1.0% maximum   |
| Hum and Noise:                         | -60 dB minimum, referenced to 25 kHz peak deviation  |
| <b>General</b>                         |  |
| DC Power Input:                        | +12 VDC @ 220 mA, +5 VDC @ 15 mA   |
| 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.

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