



# PFAM-MT

Series

## CATV Microprocessor-Control Agile A/V Modulators



- ▶ 135 Channel Range (PFAM860MT) 54-860MHz (CATV 2-135)
- ▶ 82-Channel Range (PFAM550MT) 54-550 MHz (CATV 2-78, 95-99)
- ▶ Re-broadcast quality specifications exceed those of fixed channel modulators
- ▶ 60 dBmV minimum output for optimum carrier-to-noise performance
- ▶ Composite and separate audio and video IF loops allow compatibility with encoders, ghost cancellers, and video override applications
- ▶ Microprocessor control enables digital push-button channel selection for ease of installation, configuration, and servicing
- ▶ State-of-the-art digital phase-locked loop (PLL) design guarantees precise frequency locking for solid drift-free operation
- ▶ Digital display provides quick channel identification
- ▶ Front panel controls and test point enable easy setup and monitoring
- ▶ SAW filtered for superior adjacent channel performance enables drop-in channel expansion
- ▶ In-band carrier-to-noise ratio >65dB ensures superior picture quality
- ▶ Tracking filter technology improves overall system carrier-to-noise performance
- ▶ Superior design including automatic band splitting filters for superior carrier-to-noise ratio

# PFAM-MT

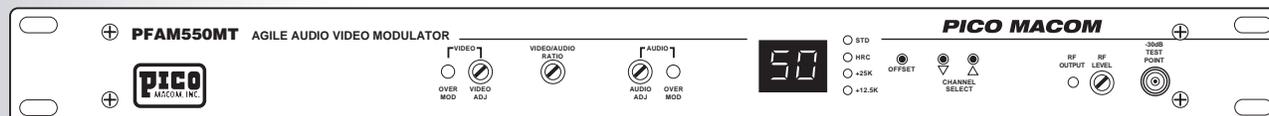
Series

## CATV Microprocessor-Control Agile A/V Modulators

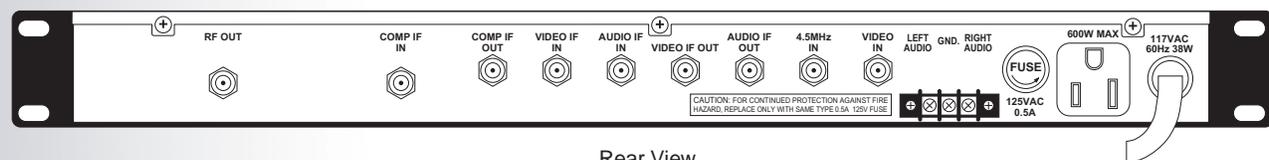
Pico Macom's PFAM-MT series are frequency agile professional re-broadcast grade, microprocessor controlled CATV modulators. The PFAM-MT series features a composite audio-video IF loop, which provides compatibility with encoders, ghost cancellers, and video-override applications. The phase-locked loop frequency control, double heterodyne conversion, and superior SAW filtering minimize adjacent channel interference and assure accurate and spurious free output. The PFAM550MT provides over 62dBmV output from CATV channels 2 to 78 including channels 95 to 99 (54-550 MHz) while accommodating HRC and IRC offset frequencies. The PFAM860MT expands this frequency range to 860MHz, covering CATV channels 2-135. Channel selection is accomplished via channel up/down buttons located on the front panel while built-in RF muting circuitry prevents interference during online channel reassignment. Rear-panel connectors accommodate both BTSC composite (MPX) and 4.5MHz stereo insertion. The modulator is shipped with all internal adjustments preset. The unit conforms to FCC Docket 21006 for frequency accuracy. Pico Macom backs up this product with its industry leading 5-year limited warranty.

# PFAM-MT Series

CATV Microprocessor-Control Agile A/V Modulators



Front View



Rear View

## RF

<b>Channels:</b>	<b>PFAM550MT</b>	82 channels (2-78 & 95-99)
	<b>PFAM860MT</b>	135 channels (2-135)
<b>Frequency Range:</b>		54-550 MHz & 54-860MHz
<b>Output Level:</b>		60 dBmV min., 62 dBmV typ., adjustable from front panel
<b>Output Impedance:</b>		75 ohms
<b>Output Return Loss:</b>		15 dB
<b>Audio/Video Ratio:</b>		Adjustable -7 to -22 dB below video carrier
<b>Frequency Stability:</b>		±5 kHz in aeronautical band
<b>Spurious Output:</b>		-60 dB below video carrier with A/V ratio @ -15 dB
<b>C/N (In-Band):</b>		>65 dB
<b>C/N (Out-of-Band):</b>		>70 dB
<b>Fv+6 MHz (Upper Adj. Reject):</b>		>60 dBc
<b>Fv-1.5 MHz (Lower Adj. Reject):</b>		>60 dBc
<b>I.F Frequency:</b>	<b>Video</b>	45.75 MHz
	<b>Audio</b>	41.25 MHz

## Audio

<b>Baseband Input Impedance:</b>	600 Ohms unbalanced
<b>Baseband Input Level:</b>	0.5 V p-p for 25 kHz peak dev
<b>Pre-emphasis:</b>	75 microseconds
<b>Flatness:</b>	<b>Left Audio</b> 1.5 dB max. 50 Hz to 15 kHz
	<b>Right Audio</b> 1.5 dB max. 50 Hz to 15 kHz

## Ordering Information

**PFAM550MT**

**PFAM860MT**

Specifications Subject to Change

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## Video

<b>Input Level:</b>	1.0 Vp-p min for 87.5% mod.
<b>Input Type:</b>	Clamped video neg. sync
<b>Frequency Response:</b>	±0.8 dB, 30 Hz to 4.2 MHz
<b>Differential Gain:</b>	<5% (10 to 90% APL)
<b>Differential Phase:</b>	<5° (10 to 90% APL)
<b>Chrominance luminance delay:</b>	*See note
<b>Hum and Noise:</b>	-60 dB @ 87.5% modulation
<b>Video Signal to Noise:</b>	-60 dB minimum (weighted)
<b>Input Level Range:</b>	0.5 V p-p to 1.5 V p-p

\*NOTE: Meets FCC group delay predistortion requirements for color transmission.

## General

<b>Power Input:</b>	120 VAC, 60 Hz, 28 W
<b>Operating Temperature:</b>	-10° C to + 50° C
<b>Dimensions:</b>	19"(L) x 9"(D) x 1 3/4"(H)
<b>Weight:</b>	8.2 lbs.
<b>Connectors:</b>	<b>RF &amp; Video</b> "F" type
	<b>Audio</b> Terminal strip