



# PFAM550

## 550MHz Agile A/V Modulator



- 82-Channel frequency range 54-550 MHz (CATV 2-78, 95-99)
- DIP switch controlled phase-locked loop for solid drift-free output on any channel
- SAW filtered for superior adjacent channel performance enables drop-in channel expansion
- 57dBmV output for optimum carrier-to-noise performance
- Carrier-to-noise ratio >60dB provides superior picture quality
- Front panel test point for easy RF level system monitoring
- Composite audio-video IF loop provides compatibility with encoders, ghost cancellers, and video-override applications
- IRC and HRC offset available for frequency settings in systems using offset channels
- Double heterodyne conversion provides superior spurious harmonic output suppression
- UL Approved

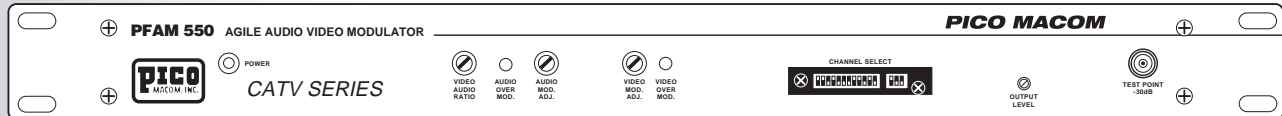
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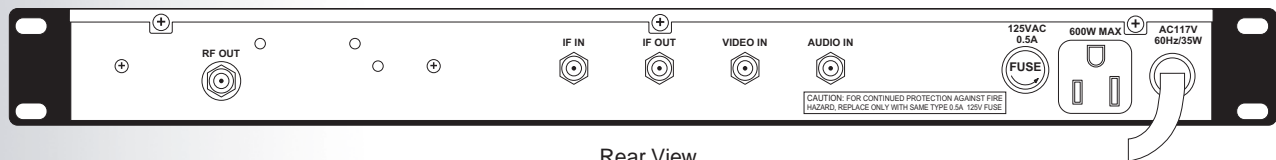
The **PFAM550** is a professional re-broadcast grade frequency agile double heterodyne conversion audio/video modulator. Its SAW filter provides superior sideband filtering, adjacent channel compatibility and spurious free output. The **PFAM550** provides  $57 \pm 2$  dBmV output over 82 channels from CATV channel 2 to 78 accommodating HRC and IRC offset frequencies. The unit features a composite audio-video IF loop, which provides compatibility with encoders, ghost cancellers, and video-override applications. Front panel DIP-switch controlled phase-locked-loop (PLL) allows easy channel selection and drift-free channel stability. High quality modulation and RF level control potentiometers assure years of reliable operation. The modulator is shipped with all internal adjustments pre set, and FCC Docket 21006 offsets are standard. **Pico Macom** backs up this product with its industry leading 5-year limited warranty.

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Front View



Rear View

## RF

<b>Video Channels:</b>	82 channels (2-78 & 95-99)
<b>Frequency Range:</b>	54-550 MHz
<b>Output Level:</b>	45 to 57 dBmV, $\pm 2$ dBmV (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 visual carrier
<b>Frequency Stability:</b>	$\pm 5$ kHz in aeronautical band Conforms to FCC Docket 21006
<b>Spurious Output:</b>	-60 dB below video carrier with A/V ratio @ -15 dB
<b>C/N (In-band):</b>	>57 dB
<b>C/N (Out-of-Band):</b>	>68 dB
<b>Fv+6 MHz (Upper Adj. Reject):</b>	>60 dBc
<b>Fv-1.5 MHz (Lower Adj. Reject):</b>	>60 dBc

## 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>	1.5 dB max. 50 Hz to 15 kHz

## Ordering Information

**PFAM550**

## Video

<b>Input Level:</b>	1.0 V p-p min for 87.5% mod.
<b>Input Type:</b>	Clamped video neg. sync
<b>Video S/N:</b>	-60 dB minimum (weighted)
<b>Input Level Range:</b>	0.5 V to 1.5 V p-p
<b>Frequency Response:</b>	$\pm 0.8$ 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 below
<b>Hum and Noise:</b>	-60 dB @ 87.5 modulation

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

## General

<b>Power Input:</b>	95 to 130 VAC, 60 Hz or 210-250 VAC, 50 Hz
<b>Operating Temperature:</b>	-10° C to + 50° C
<b>Dimensions:</b>	19"(L) x 9 3/8"(D) x 1 3/4"(H)
<b>Weight:</b>	3.8 lbs.
<b>Connectors:</b>	All "F" type