



# PFAM550SUB

**550MHz Sub-Band Extended Agile A/V Modulator**



- **89-Channel Range 5.75-550 MHz (CATV T7-T13, 2-78, 95-99)**
- **Sub-band operation enables remote TV origination making it ideal for institutional cable systems**
- **DIP switch controlled digital 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 allows for easy frequency settings in systems using offset channels**
- **Double heterodyne conversion provides superior spurious harmonic output suppression**

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The **PFAM550SUB** is a professional re-broadcast grade frequency agile double heterodyne conversion audio/video modulator that allows RF return of audio-video signal from a remote location on bi-directional cable systems. It is ideal for use in institutional applications requiring remote TV origination. The **PFAM550SUB** features a composite audio-video IF loop, which provides compatibility with encoders, ghost cancellers, and video-override applications. Its SAW filter provides superior sideband filtering, adjacent channel compatibility, and spurious free output. The **PFAM550SUB** provides  $56 \pm 1$  dBmV output from sub-band channels T7 through T13, CATV channels 2 to 78 including channels 95 to 99 while accommodating HRC and IRC offset frequencies (5.75-550MHz). 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. FCC Docket 21006 offsets are standard. **Pico Macom** backs up this product with its industry leading 5-year limited warranty.

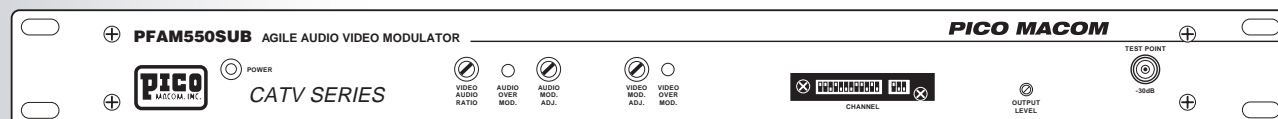
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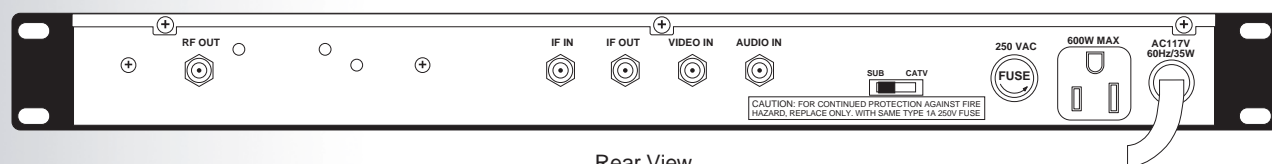
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# PFAM550SUB

**550MHz Sub-Band Extended Agile A/V Modulator**



Front View



Rear View

## RF

<b>Video Channels:</b>	89 channels (T7-T13, 2-78 & 95-99)
<b>Frequency Range:</b>	5.75 MHz - 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 2100
<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>Base-band Input Impedance:</b>	600 Ohms unbalanced
<b>Base-band 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

**PFAM550SUB**

## 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:** Meet FCC group delay predistortion correction 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 12"(D) x 1 <sup>3</sup> / <sub>4</sub> "(H)
<b>Weight:</b>	4.2 lbs.
<b>Connectors:</b>	All "F" type

Order From:



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