



# PFAP550MS

806MHz Sub-Band Extended Agile Signal Processor



- 132-Channel Input Range 5.75-806 MHz (CATV T7-T13 and 2-125, TV 2-69)
- 82 Channel Output Range 54-550MHz (CATV 2-78)
- Back-panel switch enables sub-band operation for reprocessing remote TV origination making it even more flexible for institutional cable systems
- Broadcast-quality specifications for unparalleled picture quality
- High 57dBmV output for optimum carrier-to-noise performance
- In-band carrier-to-noise ratio >60dB ensures superior picture quality
- Microprocessor control enables digital push-button input and output channel selection for ease of installation, configuration, and servicing
- Non-volatile memory for input and output channel recall in the event of power failure
- Front panel controls and test point enable easy setup and monitoring
- Double heterodyne conversion provides over 60dB spurious output and channel rejection for interference-free adjacent channel operation
- Auto-insertion of standby carrier with audio-mute generator in the event of input signal loss preserves system integrity
- Sync tip detection AGC circuitry provides wide dynamic range for robust system regulation
- BTSC stereo compatibility for pass-through of stereo signals
- Composite audio-video IF loop provides compatibility with encoders, ghost cancellers, and video override applications
- SAW filtered for superior adjacent channel performance enables drop-in channel expansion
- IRC and HRC input and output offset available for frequency settings in systems using offset channels

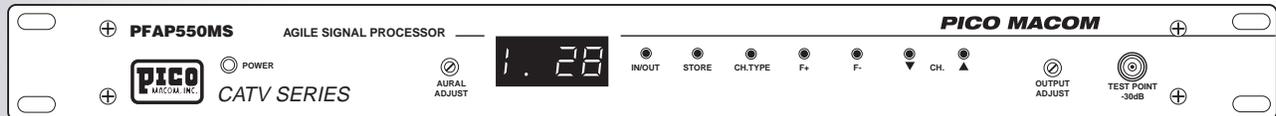
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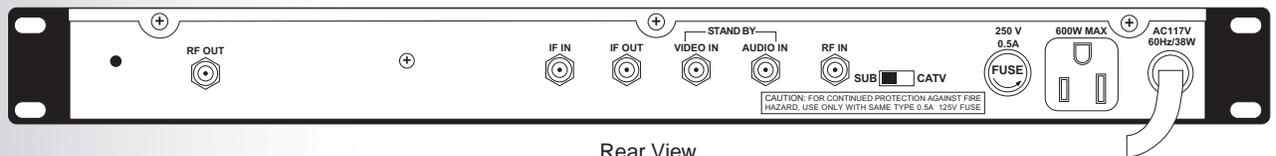
The Pico Macom PFAP550MS is a frequency agile, microprocessor-controlled, professional re-broadcast grade, double-heterodyne signal processor that converts one channel to another without the need to demodulate and remodulate the signal. Front panel push-button controls enable input and output channel selection. Sub-band capabilities allow the reprocessing of remote channel origination for distribution over the entire cable system making it the ideal signal processor in government and institutional environments. A rear-panel switch enables sub-band channel operation. The unit uses state-of-the-art low noise PLL, SAW filter, and AGC techniques to provide superior picture quality and reliability, thereby dramatically improving customer satisfaction. The PFAP550MS's unique sync tip detection AGC design delivers consistently high quality picture even at extremely low input levels. Its high-selectivity SAW filtering enables the unit to process any single cable channel, even in the most crowded systems. In the event of power failure, the microprocessor's non-volatile memory preserves input and output channel identification guaranteeing proper reset when power is restored. The PFAP550MS's high frequency and extremely high accuracy phase-locked-loop oscillators enable the unit to meet the frequency offset and stability requirements of FCC Docket 21006. Pico Macom backs up this product with its industry leading 5-year limited warranty.

# PFAP550MS

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Front View



Rear View

## RF

<b>Input Frequency:</b>		5.75-806 MHz
<b>Input Channels:</b>	CATV UHF	T7 to 125 (HRC, IRC) 14-69
<b>Output Frequency:</b>		54-550 MHz
<b>Output Channels:</b>	CATV	2 to 78 (HRC, IRC)
<b>Maximum Output:</b>		57 dBmV min.
<b>Input Level:</b>	Min.	0 dBmV (For 55 dB min C/N)
	Max.	25 dBmV
<b>Output Adjust Range:</b>		48-60 dBmV
<b>Gain:</b>		70 dB
<b>AGC Range:</b>		0 dBmV to +25 dBmV input
<b>AGC Type:</b>		Keyed sync tip
<b>AGC Stability:</b>		±0.5 dB
<b>Noise Figure:</b>		8 dB VHF, 10 dB UHF
<b>Differential Gain:</b>		<5% (10 to 90% APL)
<b>Differential Phase:</b>		<5° (10 to 90% APL)
<b>Visual C/N:</b>		55 dB @ 0 dB input
<b>Out-of-band C/N:</b>		-65 dB
<b>Frequency Response:</b>		±1.7 dB
<b>Selectivity:</b>		-60 dB (Adjacent Channel)
<b>Spurious Outputs:</b>	In-band	>-60 dB
	Out-band	>-60 dB
<b>Aural Carrier Adjust Range:</b>		12 dB
<b>Return Loss: Input/Output:</b>		12 dB typical
<b>IF Output:</b>		35 dBmV (45.75 MHz)
<b>Controls:</b>		Aural Carrier and Output Level

## General

<b>Power Input:</b>	105 to 130 VAC, 60 Hz, 15 W
<b>Operating Temperature:</b>	-10° C to 50° C
<b>Dimensions:</b>	19"(L) x 9"(D) x 1 <sup>3</sup> / <sub>4</sub> "(H)
<b>Weight:</b>	8.2 lbs.
<b>Test Point:</b>	-30 dB

**NOTE:** In stand-by mode, this unit is an agile 550 MHz modulator

## Ordering Information

**PFAP550MS**