

# PCM55SAW

**550MHz Channelized-Agile PLL SAW-filtered A/V Modulator**



- ▶ **90-Channel Range 5.75-550 MHz (CATV T7-T13, 2-78, 95-99)**
- ▶ **Full 55dBmV output for optimum carrier-to-noise performance**
- ▶ **In-band carrier-to-noise ratio >62dB ensures superior picture quality**
- ▶ **BTSC Stereo Compatible pre-emphasis disable switch provides pass-through for stereo signals**
- ▶ **Highly accurate DIP switch controlled digital phase-locked loop (PLL) design guarantees precise frequency locking for solid drift-free operation**
- ▶ **SAW filtered IF for superior adjacent channel performance enables drop-in channel expansion**
- ▶ **Easy lab retuning of output filter for reduced inventory of spares and less down time**
- ▶ **Front panel controls and test point enable easy setup and monitoring**
- ▶ **IRC and HRC offset available for frequency settings in systems using offset channels**
- ▶ **Auxiliary AC outlet for convenience**
- ▶ **Optional PAL format channels available**

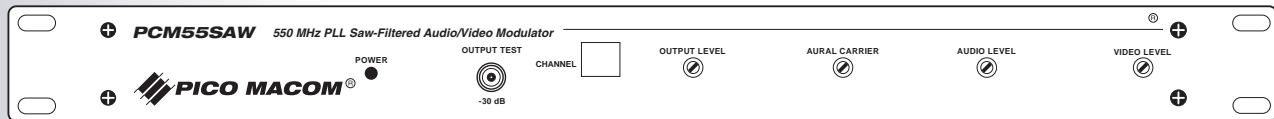
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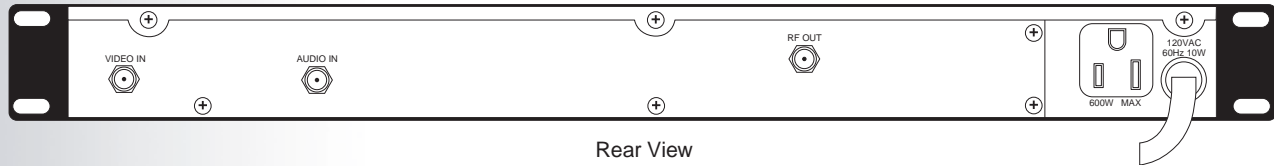
The **Pico Macom PCM55SAW** is a professional grade microprocessor controlled phase-locked loop synthesized channelized-agile audio-video modulator. The **PCM55SAW** provides a full 55dBmV minimum output from sub-band channels T7 through T13, and CATV channels 2 to 78 including channels 95 to 99 while accommodating HRC and IRC offset frequencies (5.75-550MHz). The unit is lab re-tunable within band via internal dip-switch channel selection and minimum output filter retuning. This modulator is used in more heavily channel-loaded systems and where cost effective expansion up to 550MHz is desired. Its phase-locked loop frequency control, and superior SAW filtering enhances stability, minimizes adjacent channel interference and assures accurate and spurious free output. The modulator is equipped with a pre-emphasis disable switch which enables pass-through of high-fidelity BTSC stereo signals where available. Superior out-of-band carrier-to-noise performance is achieved through band-pass filtering at the output amplifier. The modulator is shipped with all internal adjustments preset. FCC Docket 21006 offsets are standard. **Pico Macom** backs up this product with its industry leading 5-year limited warranty.

# PCM55SAW

550MHz Channelized-Agile PLL SAW-filtered A/V Modulator



Front View



Rear View

## RF

<b>Channels:</b>	90 Channels (CATV T7-T13, 2-78, 95-99)
<b>Frequency Range:</b>	5.75-550 MHz
<b>Output Level:</b>	55 dBV min., 58 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>	±10 KHz (±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>	>62 dB
<b>C/N (Out-of Band):</b>	>65 dB
<b>Rejection:</b>	Fv - 1.5 MHz >-60 dB Fv - 4.5 MHz >-63 dB Fa + 1.5 MHz >-63 dB Fa + 4.5 MHz >-63 dB

## Audio

<b>Frequency Response:</b>	±0.4 dB @ 50 Hz to 15 kHz
<b>Harmonic Distortion:</b>	0.5% @ 50 Hz to 15 kHz
<b>Preemphasis:</b>	75 microseconds
<b>Signal to Noise Ratio:</b>	60 dB
<b>Audio Baseband Impedance:</b>	600 Ohms
<b>Input Level:</b>	0.5V p-p for 25 KHz peak deviation

## Video

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

Meets FCC group delay predistortion correction requirement for color transmission.

## General

<b>Power Input:</b>	120 VAC 60 Hz 10W
<b>Operating Temperature:</b>	-10°C to 50°C
<b>Dimensions:</b>	19"(L) x 3"(D) x 1 3/4"(H)
<b>Weight:</b>	3.6 lbs.
<b>Connectors:</b>	"F" Type

## Ordering Information

PCM55SAW - Channel