

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

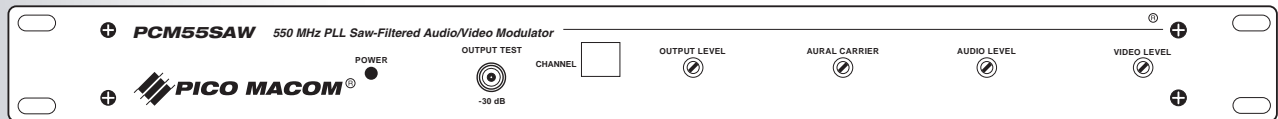
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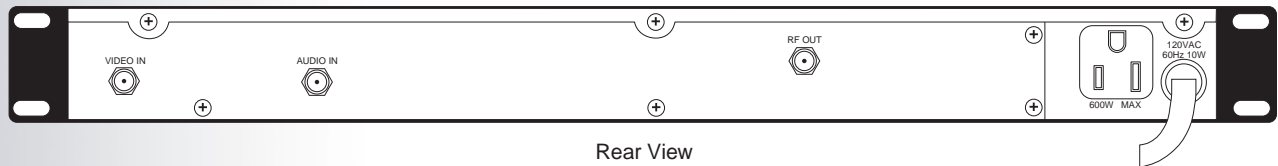
The Pico Macom PCM55SAW is a professional grade microprocessor controlled phase-locked loop synthesized channelized-agile audio-video modulator. The PCM55SAW provides a full 55dBmV minimum output from sub-band channels T7 through T13, and CATV channels 2 to 78 including channels 95 to 99 while accommodating 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.

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Front View



Rear View

RF

Channels:	90 Channels (CATV T7-T13, 2-78, 95-99)
Frequency Range:	5.75-550 MHz
Output Level:	55 dBV min., 58 dBmV typ. adjustable from front panel
Output Impedance:	75 Ohms
Output Return Loss:	-15 dB
Audio/Video Ratio:	Adjustable -7 to -22 dB below video carrier
Frequency Stability:	±10 KHz (±5 kHz in aeronautical band)
Spurious Output:	-60 dB below video carrier with A/V ratio @ -15 dB
C/N (In-Band):	>62 dB
C/N (Out-of Band):	>65 dB
Rejection:	Fv - 1.5 MHz >-60 dB Fv - 4.5 MHz >-63 dB Fa + 1.5 MHz >-63 dB Fa + 4.5 MHz >-63 dB

Video

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

Meets FCC group delay predistortion correction requirement for color transmission.

General

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

Audio

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

Ordering Information

PCM55SAW - Channel

Specifications Subject to Change

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