



PM45

806MHz Channelized-Agile PLL SAW-Filtered A/V Modulator



- ▶ 125-Channel Range
54-806 MHz (CATV 2-125)
- ▶ 45dBmV adjustable output for optimum carrier-to-noise performance
- ▶ Composite audio-video IF loop provides compatibility with encoders, ghost cancellers, and video override applications
- ▶ BTSC stereo compatible pre-emphasis disable switch provides pass-through for stereo signals
- ▶ SAW filtered for superior adjacent channel performance enables drop-in channel expansion
- ▶ Digital phase-locked loop (PLL) design guarantees precise frequency locking for solid drift-free operation
- ▶ Front panel controls and test point enables easy setup and monitoring
- ▶ Audio and video over-modulation indicators for quick performance reference
- ▶ In-band carrier-to-noise ratio >60dB ensures superior picture quality
- ▶ IRC and HRC offset available for frequency settings in systems using offset channels
- ▶ Auxiliary AC outlet for convenience

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The Pico Macom PM45 is a professional grade phase-locked loop synthesized channelized-agile audio-video modulator. This modulator provides 45dBmV minimum output on CATV channels 2 to 125 (54-806 MHz) while accommodating HRC and IRC offset frequencies. The **PM45** features a composite audio-video IF loop, which provides compatibility with encoders, ghost cancellers, and video-override applications. The unit can be reconfigured to any output channel by qualified service centers. This cost effective modulator can be used to expand systems using **PCM55**, **PCM555AW** and **PLM55** modulators beyond 300MHz, where the expansion does not require modulators with higher output levels. The **PM45** provides the greater frequency stability and higher adjacent channel performance required in such expansions. The modulator is equipped with a pre-emphasis disable switch which enables pass-through of high-fidelity BTSC stereo signals where available. Its phase-locked loop frequency control, and superior SAW filtering enhances stability, minimizes adjacent channel interference and assures accurate and spurious free output. Superior out-of-band carrier-to-noise performance is achieved through band-pass filtering at the output amplifier. The **PM45** 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 warranty.

Order From:



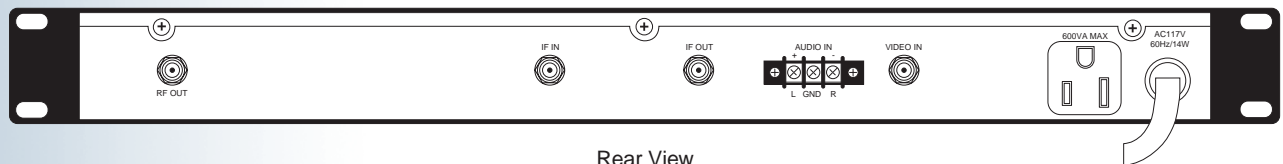
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Front View



Rear View

RF

Channels:	125 Channels (CATV 2-125)
Frequency Range:	54-806 MHz IRC and HRC off-sets
Output Levels:	45 dBmV minimum
Output Adjustment Range:	-15 dB
Spurious Output:	-60 dB below video carrier (@ A/V carrier ratio -15 dB)
Frequency Stability:	±5 kHz
Output Return Loss:	-15 dB
Audio/Video Ratio:	-7 dB to -25 dB
IF Output, Video:	+ 35 dBmV nominal
IF Output, Sound:	+ 20 dBmV nominal

Audio

Input Impedance:	10k ohms unbalanced
Input Level:	0.5 V p-p for 25 kHz peak deviation
Pre-emphasis:	75 microsecond switchable for BTSC stereo
Flatness:	±1.5 dB 50 Hz to 15 kHz
Composite BTSC Input Level:	500 mV to 1 Volt

Video

Frequency Response:	30 Hz to 4.2 MHz ±1 dB
Input Level:	1.0 V p-p min for 87.5% mod.
Input Type:	Clamped Video neg. sync.
Visual C/N:	68 dB @ 4 MHz BW
Hum and Noise:	-60 dB @ 87.5% modulation
Differential Gain:	2% (10 to 90% APL)
Differential Phase:	2 Deg (10 to 90% APL)
Frequency Response:	±0.5 dB 30 Hz to 4 MHz
Group Delay:	*See note

***NOTE:** Meets FCC group delay predistortion correction requirement for color transmission.

General

Power Input:	108 to 125 VAC 60 Hz 14W
Operating Temperature:	-10° to 50° C
Dimensions:	19"(L) x 5"(D) x 1 ³ / ₄ "(H)
Weight:	5.3 lbs.
Fuse:	0.25 Amp.

Ordering Information

PM45 – Specify CATV or UHF