

Agile Mini Modulator, PAL Format

Agile Mini Modulator for PAL-I & PAL-BG Systems

Features

- 47-862 MHz Bandwidth
- 105 dBuV Output Level
- Compatible with most mini-mod chassis
- Digital PLL Design for Stability
- Microprocessor Controlled Synthesized Tuning
- SAW (Surface Acoustic Wave) Filter for Superior Adjacent Channel Operation
- Front Panel Controls with Lock Function to Prevent Accidental Changes
- Both Off Air Broadcast Channels and Cable Channels
- 3 Digit LCD Digital Channel Display



The Toner TAMM is a professional video modulator designed to fit most of the industries popular 2RU chassis that hold up to 12 modules such as modulators, demodulators, and agile modulators. Some of the chassis that are compatible are: Blonder Tongue MIRC, Drake RMM12, and Pico MPC-12, all available from Toner.

The TAMM is a high quality vestigial sideband frequency agile audio/video modulator for PAL television systems. The unit allows front panel channel selection of standard off air broadcast and cable television channels up to 862 MHz by use of push button synthesized tuning.

The heterodyne conversion system, in conjunction with a SAW filter, ensures optimum vestigial selectivity for adjacent channel operation.

The modulator is designed to accept any standard negative sync video at 1.0 Vp-p level. All controls are located on the front panel for ease of operation. The modulator has a 3 digit LCD channel display with a lock - unlock function to prevent unintentional channel changes. RF output level is 105 dBuV and adjustable over a 15 dB range.

The Cable Television / Off-Air Band is selected with a front panel Cable / Antenna switch, which can only be used when the unit is unlocked.

The modulator also features internal switches for audio pre-emphasis and baseband audio or aural modulated carrier.

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Specifications

RF

Frequency Range	.47-862 MHz
Cable Channels	.1-100
Broadcast Channels	.2-99
Output Level	.105 dBuV (45 dBmV) minimum
Output Level Adjustment	.15 dB
Impedance	.75 Ω
A/V Ratio	.11-18 dB
Frequency Stability	± 5 KHz typ, ± 10 KHz max
Spurious Outputs @ 105 dBuV (A/V Carrier - 15 dB)	-.65 dB typ, -60 dB min
In Channel C/N @ 5 MHz BW	.62 dB typ, 60 dB min
Return Loss	.12 dB typ, 9 dB min

VIDEO

Input Level for 87.5% Modulation	.1 Vp-p
Input Impedance	.75 Ω
Frequency Response	.30 Hz to 5.5 MHz ± 1.2 dB
Differential Gain	.5%
Differential Phase	.5°

AUDIO

Input Level @ 50 KHz Deviation	.0.5 Vp-p
Input Impedance	>10K Ω , unbalanced
Subcarrier Frequency	.6.0 MHz ± 1 KHz (5.5 MHz PAL-BG)
Audio Response 40 Hz to 15 KHz (50 μ s pre-emphasis)	± 1.5 dB
External Subcarrier Input Level	.97 dBuV (37 dBmV)

GENERAL

Operating Temperature	.0 to 50° C
DC Power 12 V	.240 mA
5 V	.230 mA
Weight	368 G (13 oz)
Size	.26W x 88H x 195L mm (1.0 x 3.5 x 7.6 inches)

MODELS

TAMM-I

PAL I Video Format Agile Modulator

TAMM-BG

PAL BG Video Format Agile Modulator