

Analog Modulation



BTSC/SAP

TVM Series Frequency Agile CATV Modulator

- Covers today's spectrum needs from 54-860MHz
- A & B Channel video and audio inputs switched automatically on video sync loss or user/remote selection
- Multiple IF loops are standard to support all scramblers
- Contact closure for EAS IF switching
- External 12MHz reference input/loop to lock carrier to reduce ingress beats
- Remote monitoring and configuration by networked ethernet SNMP or RS232
- Integrated DSP-based BTSC stereo encoder and SAP included (TVM860S)

Specifications

RF		AUDIO	
Frequency Range	47 to 860 MHz, 6MHz steps	Frequency Response	± 0.5 dB
Output Level	≤ 50 to ≥ 61 dBmV	Input Impedance all Channels	600 or 10k½
Output Impedance	75 ½	Freq. Response (50Hz~15kHz)	± 0.5 dB
Output Return Loss	≥ 14 dB	Freq. Response Wide BW (50Hz~90kHz)	± 0.5 dB
C/N Inband (47-860MHz)	≥ 68 dBc	Signal to Noise Ratio	≥ 60 dB
C/N Nearband (Video + 25 MHz)	≥ 71.5 dBc	Channel Separation (TVM860S)	≥ 34 dB
Aggregate Noise Level (137Ch)	≥ 60 dBc	Harmonic Distortion	0.5%
Spurious Output, 47-860 MHz	≤ -60 dBc, -70 dBc typ.	External 4.5MHz Input Level Range	30 to 60 dBmV
Flatness within a Channel	≤ ± 1.0 dBp-p	Composite 4.5MHz Input Level	20 to 46 dBmV
RF Frequency Accuracy	≤ ± 2.5 kHz	GENERAL	
Reference Input	8.000 MHz, ≥ -10 dBm	AC Power Input Voltage	115 VAC, 90 to 130 VAC
VIDEO		DC Power Input Voltages	(A or B, ref. to GND)
Video Input Level Range (for 87.5% Mod)	0.5 to 1.5 Vp-p	(A or B, ref. to GND)	-48VDC, -40 to -65 VDC
Video Input Impedance	75 ½	Size	19" (W) x 13" (D) x 1.75" (H)
Freq. Response (sinx/x)	± 1.0 dB	Ordering Information	
S/N (Lum Weighted)	≥ 63 dB	TVM860S	Frequency Agile CATV Modulator, Stereo/SAP
Short Time Distortion	≤ 4.0%	TVM860	Frequency Agile CATV Modulator, Mono
Differential Gain	≤ 3.0%		
Differential Phase	≤ 2.0 deg		
CPM	≤ 3.0 deg		

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