

Integrated Head End System

VTM-12

Patent Pending



VTM-12



FEATURES:

- 12 modulators with integrated combiner = one output
- 25dBmV chassis output level
- True plug & play: modulators plug into chassis backplane
- Fewer cables & connectors, greater reliability
- Low power consumption; 25W for 12 modulators
- Internal fan for reducing temperature
- Integrated combiner has 40dB isolation
- SAW filtering on IF for superior in band C/N
- Output filtering for excellent adjacent channel performance

DESCRIPTION AND APPLICATION:

The **VIEWTEQ VTM12** Integrated Head End System consists of a 12-slot mounting chassis, up to 12 high quality SAW filtered modulators, a plug and play backplane, an integrated 12 channel combiner and a universal 90-260V power supply. Install the modulators by sliding them into the chassis slots. This connects the power plug and also connects the modulator output directly to the integrated 12-way combiner, eliminating unnecessary cabling and potential connection problems. The **VTM12-CPC chassis** and **VTM12 modulators** (see Ordering Information for description of these model numbers) use only three rack units, making for easy installation and efficient use of rack space. All components come with a three year warranty.

Technical Specifications

VTM12 Modulator System

RF

Frequency range	54 - 870MHz
Broadcast	2-13
Cable	14-136
Output level individual modulator	45dBmV min
with integrated combiner	23/25dBmV
Output level range	20dB adjustable
Aural/visual carrier ratio	-10 to -20dB adjustable
Frequency stability	±5kHz (visual carrier)
Aural carrier	4.5MHz above visual
Output impedance	75Ohms
Spurious outputs	-65dBc @ 45dBmV output
C/N ratio in channel	65dB
Broadband noise	87dBc within ±12MHz offset
Combiner isolation	40dB min 45dB typ

VIDEO

Input level	1.0V p-p for 87.5% modulation
Frequency response	20Hz to 4.2MHz, ±1.0dB
Video C/N	60dB (4MHz BW)
Differential gain	±3% @ 87.5% modulation
Differential phase	±20% @ 87.5% modulation

AUDIO

Input level	-10 to 10dBm
Input impedance	10K Ohms unbalanced
Frequency response	±1dB referenced to standard
Harmonic distortion	0.5% max

Specifications subject to change without notice.

Mechanical Specifications

VTM12 Modulator System

Chassis

Dimensions, W.D,H	3RU in a 19"/482.6mm rack mount 19 x 7.5x5.25" 482.6x190.5x133.4mm
Finish	Heavy gauge steel with black powder coat finish
Weight with modulators	20lbs 9.07kg
without modulators	8 lbs 2oz 3.6kg 340.19gr

Modulator

Dimensions, W.D,H	1.0 x 6.1 x 3.7" 25.4x152.4x93.9mm
Material	Aluminum with black powder coat finish
Weight	15oz 425.24gr

Ordering Information

VTM12-CPC ¹	12 slot chassis, power supply and 12 way combiner
VTM12-X ²	Fixed channel SAW filtered modulator-select channel
VTM12-A	Agile modulator
VTM12-PS	90-260VAC power supply

¹ Combiner not sold separately. See VTPC-12GT, our 12-way combiner.

² Select channels at time of ordering. Channels available: 2-136

Specifications subject to change without notice.

Technical Specifications

VTM-12 Agile RF

Frequency range	54 - 870MHz
Channels	2 - 136
Output impedance	75 Ohm
Frequency stability	±5kHz
Aural carrier NTSC	4.5MHz
RF output level	
Individual modulator	45dBmV min
with integrated chassis	25dBmV min
RF output level adjustment	20dB min
Audio/Video ratio	-10 to -20dB min adjustable
Spurious output	-60dBc below video carrier with 45dBmV
	output and A/V ratio 15dB
In channel C/N ratio	65dBc
Broadband noise	-85dBc (4MHz bandwidth, ±12MHz offset)
Combiner isolation	35dB min

VIDEO

Input level	1.0 V p-p min for 87.5% modulation
Input impedance	75 Ohm
Video frequency response	±1dB, 30Hz to 4.2MHz
Differential gain	±4% @ 87.5% modulation
Differential phase	±2° @ 87.5% modulation

AUDIO

Input level	-10dBm to 10dBm
Input impedance	10k Ohm
Frequency response	±1dB
Distortions	1%
Hum and noise ratio	-60dBc

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