smartexperience

Vestigial Side Band twin TV Modulators

The twin ones integrate two modulators in one module

TV Systems: B/G

Adjacent channel operation

MCP-811 Modulator

Main features

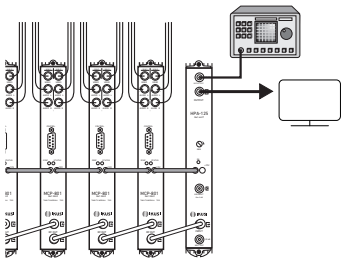
- Vestigial side band twin modulators.
- The twin ones integrate two modulators in one module.
- IF modulation and SAW filtering for maximum harmonic reduction and true VSB response. Adjacent channel operation.
- Frequency agility. Any selectable TV channel within the 45-862 MHz band. PLL frequency synthesized.
- Built-in test pattern generator.
- In twin modulators, the two generated TV channels are combined internally to make up one bi-channel output signal.

MODEL			MCP-801	MCP-811
REF.			3849	3851
TV system			B/G/D/K/I/L	B / G
Audio system			Mono	
Input			(2x) Video ,, (2x) Audio	
Selectable output channel located between:		MHz	TV Bi-channel each one of the two channels is selectable berween: 45 - 862	
Adjustable output level		dBµV	68 to 78	
Intercarrier frequency	Audio 1	MHz	5.5	
Adjustable carrier level ratio		dB	12 / 16	
Video input level		Vpp	0.7 ... 1.4	
Video input impedance		Ω	75	
Adjustable video modulation depth		%	80 to 90	
Audio input level		Vpp	0.5 ... 4.0	
Audio input impedance		Ω	> 600	
Adjustable audio peak deviation		kHz	±40 to ±50	

Audio pre-emphasis	µs	50	
Weighted SNR	dB	> 59	
Differential gain	%	< 3	
Differentian phase	°	< 3	
K-factor (2T pulse)	%	< 3	< 2.5
Spurious in band	dBc	< -57	
Broadband noise (ΔB=5 MHz)	dBc	< -73	
Output loop-through loss	dB	0.7 (typ) ,, 1.2 (max)	
Supply voltage	VDC	+12	
Consumption	mA	460	
Video connector type		(2x) female RCA	
Audio connector type		(4x) female RCA	
Output RF connector type		(2x) female F	
DC connector type		banana socket	
Programming interface		RS-232 / DB-9	
Dimensions	mm	230 x 195 x 32	

An MCP headend includes:
- Twin MCP-800 Modulators.
- One HPA amplifier that amplifies the sum of the combined output TV channels.
- One or more CFP-900 Power Supplies.
- One or more Rack-Frames or wall-fixing Base-Plates. The base-plates can be joined horizontally.
- Usually, housing units for the base-plates.
- For large headends, one or more AMX-400 combiners.

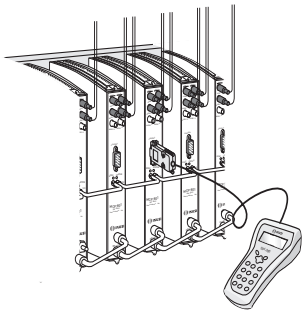
The MCP assembly provides a TV multichannel signal whose level is appropriate to feed the distribution network. An extension input at the HPA amplifier allows easy coupling of the wideband 47-862 MHz signal provided by an existing reception headend.



SIMPLE CABLING OF MCP HEADENDS

Video and audio input ports of the modulators are disposed at the top of the front panel. The RF output is presented at the bottom on two directionally coupled F ports, so a channel coupling line may be formed along the MCP assembly by using the supplied plug bridges. The sum of the combined channels is connected to the drive amplifier —the HPA module or an external wideband amplifier—. For power connection, each module has two DC banana sockets to perform a +12 Vdc cascade. Programming is carried out with the SPI-300 unit, which is connected to each module individually. The process involves the following selections and settings:

Video Carrier Frequency
TV System
Video Modulation Depth
Audio Modulation Deviation
Carrier Level Ratio
Audio Mode
RF Output Level
Generation of Video Test Signal



IKUSI velatia
Pº Miramón, 170
20014 San Sebastián - SPAIN
Tel.: +34 943 44 88 00 - Fax: +34 943 44 88 20
television@ikusi.com - www.ikusi.tv