



This series of constant impedance UHF combiner modules is designed for multichannel digital and/or analog TV combining applications. These modules are designed in sizes including 50E, 100E, 150E and 200E. They are available with 3 pole, 5 pole, 6 pole cross-coupled, 7 pole and 8 pole filters making them suitable for all low to medium power applications.

These balanced UHF TV combiners are ideal when optimum performance specifications are required. They are extremely compact, as well as being temperature stable and suitable for a wide range of applications.

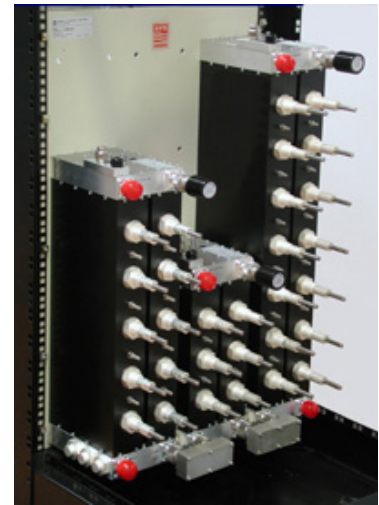
Each balanced combiner module consists of two 3dB couplers, separated by two coaxial or bandpass filters. The filters are designed according to channel spacing and power rating. The narrowband input corresponds to the bandpass resonant frequency, whereas the wideband input can be any other channels in the applicable TV band. Modules can be connected together to provide a multi-channel combiner with eight or more channels possible. Bandpass coaxial filters are designed as 3, 5, 6, 7 or 8 pole to suit the following channel separations:

- 3 pole: 3 channels or greater. For example channels 31 and 34
- 5 pole: 2 channels or greater. For example channels 31 and 33
- 6, 7 or 8 pole: adjacent channels. For example channels 31 and 32

FEATURES / BENEFITS

- Compact design
- Adjustable channel bandwidth
- Tunable across full band
- Inbuilt fine tuner to optimize wideband return loss on 50E models
- Expandable for future services
- Temperature stabilized
- Optional wall mount for 50E models

Directional probe for forward/reflected power monitoring on 50E models



Technical features

STRUCTURE

Product Line		Combiner TV
Product Type		Band IV/V (UHF) TV Balanced Combiner
Filter Type and Size		Coaxial

ELECTRICAL SPECIFICATIONS

Frequency Range	MHz	470 - 860
Minimum Channel Spacing		adjacent
Narrowband Input Power	kW	0.4
Maximum Output Power	kW	14
Impedance	Ω	50
Number of Poles		8
Narrowband Input 3 dB Channel Bandwidth	MHz	6 7 8
Narrowband Input Insertion Loss	dB	1.1 - 1.4
Return Loss	dB	>26
Narrowband Input Min. Group Delay , nsec	ns	550
Wideband Input Insertion Loss	dB	0.15
Wideband Input Return Loss	dB	26
Min Narrowband to Narrowband Isolation	dB	50



MECHANICAL SPECIFICATIONS

Narrowband Input Connector		7-16 DIN socket
Wideband Input Connector		7-16 DIN socket
Rack		No
Weight	kg (lb)	16 (35)
Dimensions (Height or Length)	cm (in)	77 (30-5/16)
Dimensions (Width)	cm (in)	13.1 (5-5/32)
Dimensions (Depth)	cm (in)	30 (11-13/16)

TEMPERATURE SPECIFICATIONS

Operating Temperature Range	°C(°F)	0 to 40 (32 to 104)
-----------------------------	--------	----------------------



Combiner Module Configuration

[BTV060P2.tif](#)

External Document Links

[Application Guide \(ETSI 6MHz\)](#)

[Application Guide \(ETSI-DVB-T and T2 8MHz\)](#)

Notes