

3-Channel Hybrid Combiner for 450 MHz Transmitters

DESCRIPTION

- Combining three transmitters or receivers on the same antenna.
- Better utilisation of good antenna position.
- Three antennas on the same transmitter or receiver.
- The only combining option with very small Tx-Tx frequency spacing.
- 30 W load supplied (other loads or no load as option).



SPECIFICATIONS

Electrical	
Filter Type	Hybrid Junction
Frequency	380 - 475 MHz (see ordering)
Max. Input Power	45 W per channel (max. 150 W with larger load)
Insertion Loss	< 5.3 dB ±0.3 dB @ 11 MHz BW < 5.5 dB ±0.3 dB @ 22 MHz BW
Impedance	50 Ω
Isolation Tx1 - Tx2	> 26 dB @ 11 MHz BW > 25 dB @ 22 MHz BW (* see note)
VSWR	< 1.5:1 with all other ports terminated with 50 Ω
Load	30 W load fitted (other ratings available) (** see note)
No. of channels	3

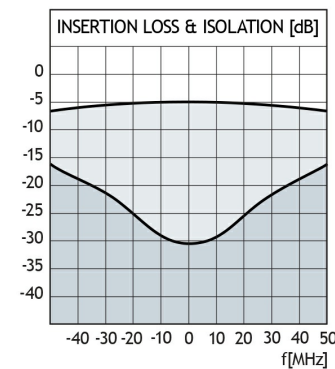
Mechanical	
Connection(s)	N(f) (other on request)
Dimensions	400 x 89 (incl. conn.) x 42 mm (excl. load) / 15.75 x 3.50 x 1.65 in.
Weight	Approx. 1.3 kg / 2.87 lb. (excl. load)

Environmental	
Operating temperature range	-30 °C to +60 °C

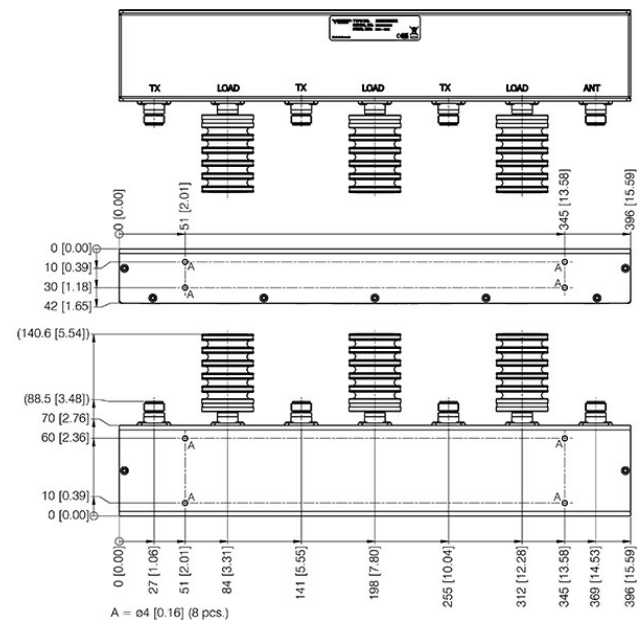
ORDERING

Model	Product No.	Frequency
PRO-PHY450-3-1	210000540	395 - 410 MHz
PRO-PHY450-3-2	210000595	405 - 420 MHz
PRO-PHY450-3-3	210000557	415 - 430 MHz
PRO-PHY450-3-4	210000654	425 - 440 MHz
PRO-PHY450-3-5	210000733	435 - 450 MHz
PRO-PHY450-3-6	210000621	445 - 460 MHz
PRO-PHY450-3-7	210000575	455 - 470 MHz
PRO-PHY450-3-8	210000576	465 - 480 MHz

TYPICAL RESPONSE CURVE



MOUNTING DETAILS



All dimensions are given in mm [in.]

NOTE

* The isolation between the Tx ports is directly dependent on the terminating VSWR on the antenna port. With an antenna load VSWR = 1.5, the isolation between the two Tx ports will be reduced to 20 dB @ 5 MHz bandwidth.

** The VSWR of the load's should be < 1.1! Each load should be able to dissipate 2/3 of the input power. E.g.: With 50 W input, each load should be able to dissipate 50 W x 2/3 = 33 W.

