

4-Channel Hybrid Combiner for 450 MHz Transmitters

DESCRIPTION

- Combining four transmitters or receivers on the same antenna.
- Better utilisation of good antenna position.
- Four 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	
Model	PRO-PHY450-4
Filter Type	Hybrid Junction
Frequency	380 - 475 MHz
Max. Input Power	40 W per channel (max. 130 W with larger load)
Insertion Loss	< 6.3 dB ± 0.3 dB @ 11 MHz BW < 6.6 dB ± 0.3 dB @ 22 MHz BW
Impedance	50 Ω
Isolation Tx1 - Tx2	> 32 dB @ 11 MHz BW > 28 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)
Mechanical	
Connection(s)	N(f) (other on request)
Dimensions	420 x 89 (incl. conn.) x 42 mm / 16.53 x 3.50 (incl. conn.) x 1.65 in.
Weight	Approx. 1.33 kg / 2.93 lb.
Environmental	
Operating temperature range	-30 °C to +60 °C

ORDERING

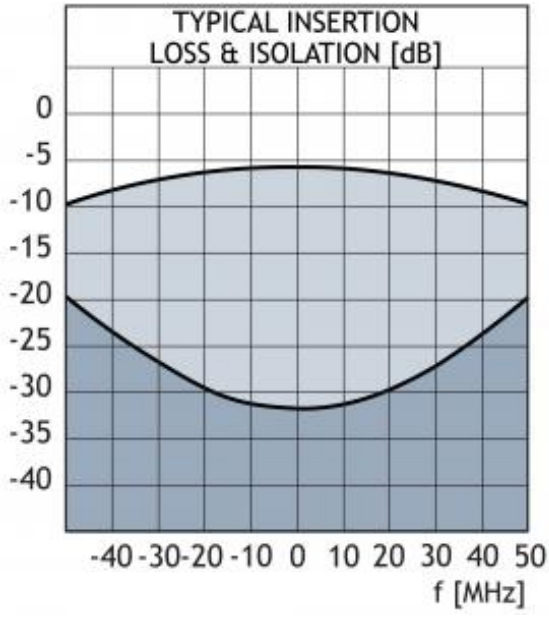
Model	Product No.	Frequency
PRO-PHY450-4-TETRA	210001667	380 - 400 MHz
PRO-PHY450-4-1	210000880	400 - 405 MHz
PRO-PHY450-4-2	210000712	404 - 409 MHz
PRO-PHY450-4-3	210000698	408 - 413 MHz
PRO-PHY450-4-4	210000735	412 - 417 MHz
PRO-PHY450-4-5	210000577	416 - 421 MHz
PRO-PHY450-4-6	210000582	420 - 425 MHz
PRO-PHY450-4-7	210000644	424 - 429 MHz
PRO-PHY450-4-8	210000586	428 - 433 MHz
PRO-PHY450-4-9	210000809	432 - 437 MHz
PRO-PHY450-4-10	210000715	436 - 441 MHz
PRO-PHY450-4-11	210000834	440 - 445 MHz
PRO-PHY450-4-12	210000833	444 - 449 MHz
PRO-PHY450-4-13	210000713	448 - 453 MHz
PRO-PHY450-4-14	210000581	452 - 457 MHz
PRO-PHY450-4-15	210000665	456 - 461 MHz
PRO-PHY450-4-16	210000610	458 - 463 MHz
PRO-PHY450-4-17	210000584	462 - 467 MHz
PRO-PHY450-4-18	210000643	466 - 471 MHz
PRO-PHY450-4-19	210000891	470 - 475 MHz

NOTE

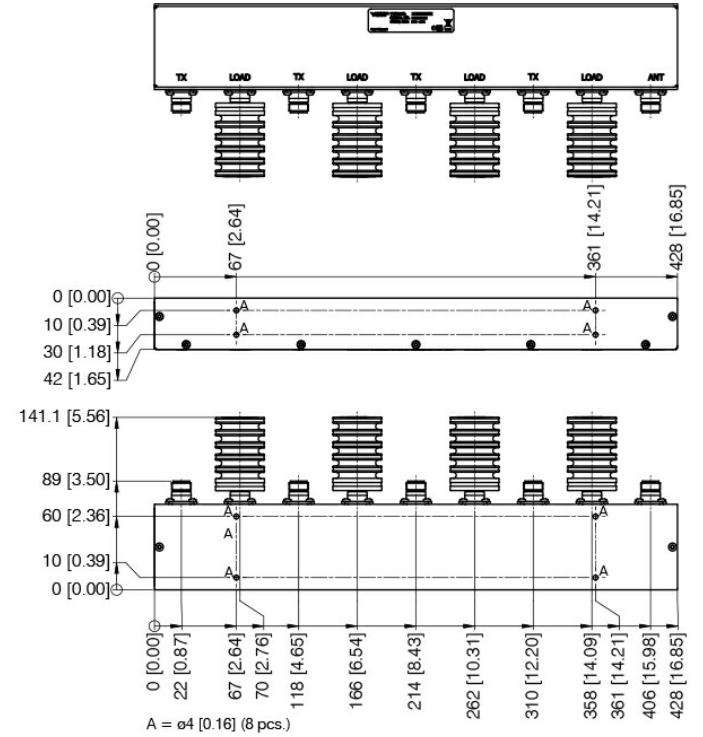
* The isolation between the Tx ports is directly dependent on the terminating VSWR on the antenna port. With an antenna load VSWR = 1.5, the isolation between the two Tx ports will be reduced to 20 dB @ 5 MHz bandwidth.

** The VSWR of the load's should be < 1.1! Each load should be able to dissipate 3/4 of the input power. E.g.: With 50 W input, each load should be able to dissipate 50 W x 3/4 = 37 W.

TYPICAL RESPONSE CURVE



MOUNTING DETAILS



All dimensions are given in mm [in.]

