

2-Channel Hybrid Ring Combiner for 450 MHz Transmitters

DESCRIPTION

- > Combining two transmitters or receivers on the same antenna.
- > Better utilization of good antenna position.
- > Two antennas on the same transmitter or receiver.
- > Combining two signal generators.
- > 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 | 30 W per channel (max. 100 W with larger load) |
| Insertion Loss | < 3.4 dB @ 10 MHz BW < 3.7 dB @ 20 MHz BW |
| Impedance | 50 Ω |
| Isolation Tx1 - Tx2 | > 35 dB @ 10 MHz BW > 30 dB @ 20 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 | 2 - 2 |

| Mechanical | |
|---------------|---|
| Connection(s) | N female (other on request) |
| Dimensions | 210 x 85 (incl. conn.) x 42 mm (excl. load) |
| Weight | Approx. 0.7 kg / 1.54 lb (excl. load) |

| Environmental | |
|-----------------------------|----------------|
| Operating Temperature Range | -30°C to +60°C |

ORDERING

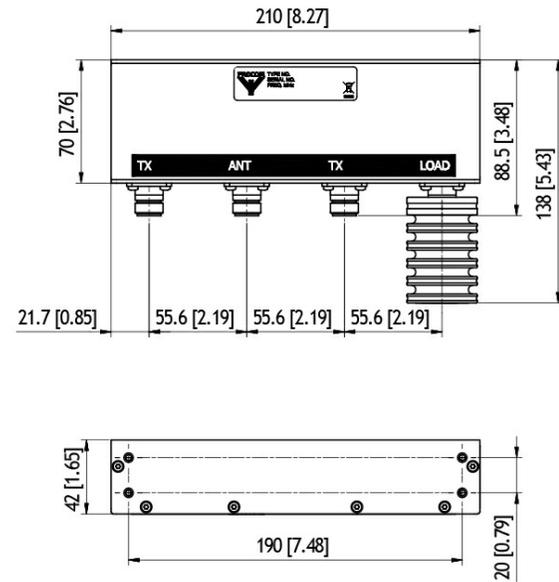
| Model | Product No. | Frequency |
|--------------------|-------------|---------------|
| PRO-PHY450-2-TETRA | 210001126 | 380 - 400 MHz |
| PRO-PHY450-2-1 | 210000580 | 400 - 420 MHz |
| PRO-PHY450-2-2 | 210000546 | 415 - 435 MHz |
| PRO-PHY450-2-3 | 210000579 | 430 - 450 MHz |
| PRO-PHY450-2-4 | 210000542 | 445 - 465 MHz |
| PRO-PHY450-2-5 | 210000570 | 460 - 480 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 loads should be < 1.1! The load should be able to dissipate 1/2 of the total input power. E.g.: With 50 W input in total for the two channels, the load should be able to dissipate 50 W x 1/2 = 25 W.

MOUNTING DETAILS



All dimensions are given in mm [in.]

TYPICAL RESPONSE CURVES

