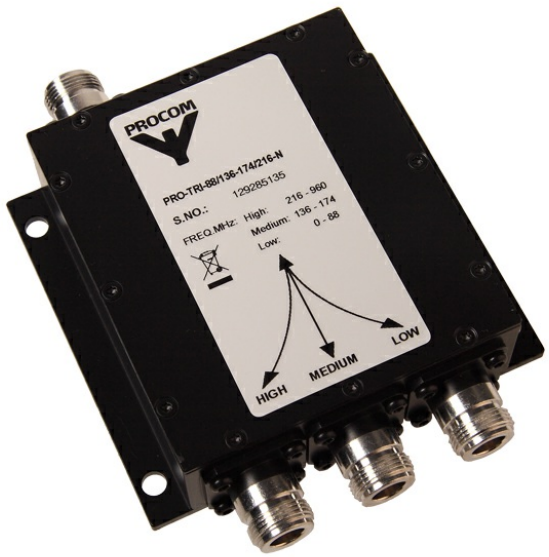
50 W Triplexer for the 0 - 88 MHz, 136 - 174 MHz and 216 - 960 MHz Tanges

DESCRIPTION

- Triplexer for combining or splitting the three ranges 0 – 88 MHz, 136 – 174 MHz and 216 – 960 MHz.
- Chebychev design ensures very high isolation across the whole pass ranges.
- High power handling capability.
- Low insertion loss.
- Low weight.
- Wide temperature range.
- Milled aluminium box ensures extraordinarily high mechanical strength.
- PRO-TRI 88/136-174/216-.. is coated with black vinyl to prevent corrosion.
- N-connectors on all ports (standard).
- Also available with SMA-, TNC- or BNC- connector types.



ORDERING

Model	Product No.
PRO-TRI 88/136-174/216-N	200002546
PRO-TRI 88/136-174/216-SMA	200002554
PRO-TRI 88/136-174/216-TNC	200002555
PRO-TRI 88/136-174/216-BNC	200002556

SPECIFICATIONS

Electrical	
Model	PRO-TRI 88/136-174/216-...
Frequency	COM-LOW port: 0 - 88 MHz COM-MEDIUM port: 136 - 174 MHz COM-HIGH port: 216 - 960 MHz
Max. Input Power	50W CW simultaneously on both HIGH, MEDIUM and LOW port
Insertion Loss	0 - 88 MHz: = 0.5 dB 136 - 174 MHz: = 0.8 dB 216 - 960 MHz: = 0.8 dB
Impedance	50 Ω
VSWR	< 1.5:1

Mechanical	
Connection(s)	INPUT: N-female OUTPUT: N-female (Other types available on request)
Dimensions	133 x 106 x 31 mm / 5.24 x 4.17 / 1.22" (incl. connectors and flanges)
Weight	0.475 kg / 1.05 lb
Mounting	4.3mm dia. (4 holes)

Environmental	
Operating Temperature Range	-40°C to +60°C
Ingress Protection	IP62

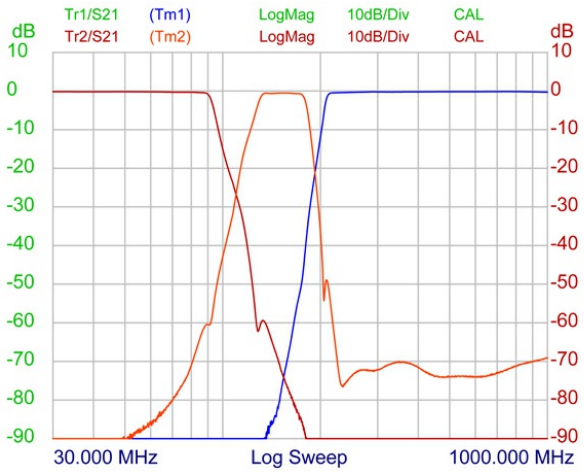
ADDITIONAL DATA

TYPICAL RESPONSE CURVES

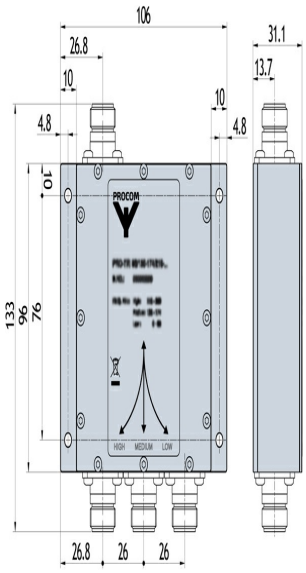
INSERTION LOSS [dB]

TYPICAL RESPONSE CURVES

PORT ATTENUATION [dB]



MOUNTING DETAILS

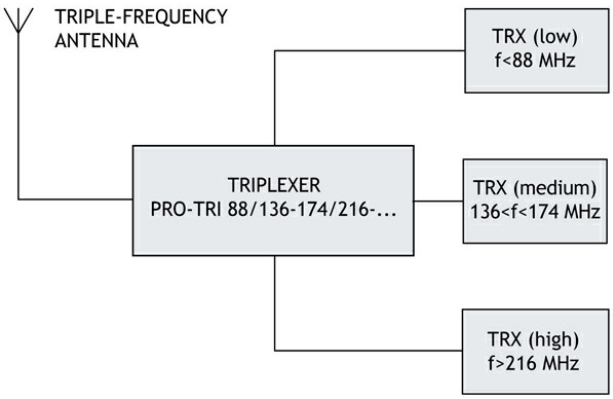


The PRO-TRI 88/136-174/216-... makes it possible to use only one antenna for the operation of three transceivers (one in each range). See the figure below. The antenna must be a triple-frequency antenna, i.e. it must be resonant on the actual frequencies in the three bands.

The transceivers may be used independently and will have no degrading influence on each other. Typically, the triplexer is installed next to the transceivers and only one cable is used between the triplexer and the antenna. The triplexer is suitable both for base station and mobile use.

The main tasks of the triplexer are to protect the individual receiver input from being destroyed by the transceiver in the contrary bands and to ensure a low-loss path between the transceiver and the antenna which is not loaded by the other branches.

The triplexer can be operated together with any set of transceivers operating within the 0 - 88 MHz, 136 - 174 MHz and 216 - 960 MHz frequency bands.


TRIPLE-FREQUENCY
ANTENNA
TRIPLEXER
PRO-TRI 88/136-174/216-...
TRX (low)
f<88 MHz
TRX (medium)
136<f<174 MHz
TRX (high)
f>216 MHz