

## 6-Resonator Mini-Duplexer for the 450 MHz band

### DESCRIPTION

- The MPX 70/6... is a 6-resonator miniaturized duplex filter for duplex radiotelephones. This compact "miniplexer" meets the demand for a modern, space saving, high performance filter type.
- The duplexer is delivered in a low band version: MPX 70/6 L, tunable within the 406 - 440 MHz range, and a high band version: MPX 70/6 H, which is tunable within the 430 - 470 MHz range. These models are again delivered in 4 different versions according to required duplex spacing. See also "Ordering information" below.
- The MPX 70/6... models are primarily intended for equipment, where the Tx and Rx operate on single frequencies, but they can also, however with slightly reduced data, be used where the Tx and Rx operate on several channels, i.e. within a certain port bandwidth. In the last case, factory tuning is recommended.
- The miniaturization of the filter has been realized by using special high-Q, temperature compensated helical resonators.
- The housing is made of extruded aluminium, the chassis of steel, and teflon insulation has been applied in the rigid coaxial cables and in the connectors.
- MPX 70/6... is coated with black vinyl to prevent corrosion.



### SPECIFICATIONS

Electrical		
Model	MPX 70/6...	
Frequency	MPX 70/6 L : 406 - 440 MHz MPX 70/6 H : 430 - 470 MHz	
Max. Input Power	25 W	
Special spec. info	Single-channel tuned :	Multi-channel tuned, BW = 1.5 MHz :
Spacing Tx-Rx	5 - 13 MHz (see tabel)	
Insertion Loss	< 1.4 dB	< 1.5 dB
Impedance	50 Ω	
Tx Noise Suppression on Rx-Freq. / Rx Isolation on Tx-Freq.	> 90 dB / > 80 dB @ 5 - 7 MHz spacing	> 60 dB
VSWR	< 1.4:1	
Mechanical		
Connection(s)	N(f) (BNC(f), TNC(f), UHF(f), SMA(f) on request)	
Dimensions	92 (excl. conn.) x 154 x 33 mm / 3.62 (excl. conn.) x 6.06 x 1.30 in.	
Weight	Approx. 0.55 kg / 1.21 lb.	
Mounting Hole	A = ø3.4 / 0.13 in. ( 2 pcs.) B = ø5.0 / 0.20 in. (6 pcs.)	
Environmental		
Operating temperature range	-30 °C to +60 °C	

ORDERING

Model	Product No.	Description	Frequency
MPX 70/6L-5/7-N(f)	200000581	SPACING: 5 - 7 MHz	406 - 440 MHz
MPX 70/6L-7/9-N(f)	200000586	SPACING: 7 - 9 MHz	406 - 440 MHz
MPX 70/6L-9/13-N(f)	200000593	SPACING: 9 - 13 MHz	406 - 440 MHz
MPX 70/6L-13/16-N(f)	200000578	SPACING: 13 - 16 MHz	406 - 440 MHz
MPX 70/6H-5/7-N(f)	200000558	SPACING: 5 - 7 MHz	430 - 470 MHz
MPX 70/6H-7/9-N(f)	200000563	SPACING: 7 - 9 MHz	430 - 470 MHz
MPX 70/6H-9/13-N(f)	200000569	SPACING: 9 - 13 MHz	430 - 470 MHz
MPX 70/6H-13/16-N(f)	200000553	SPACING: 13 - 16 MHz	430 - 470 MHz
Accessories			
Mounting Kit for HYTERA RD 625	200002515		
19" MPX Mounting kit	210002291		
Mounting Kit for SLR 1000, for MOTOROLA Repeater	200002725		

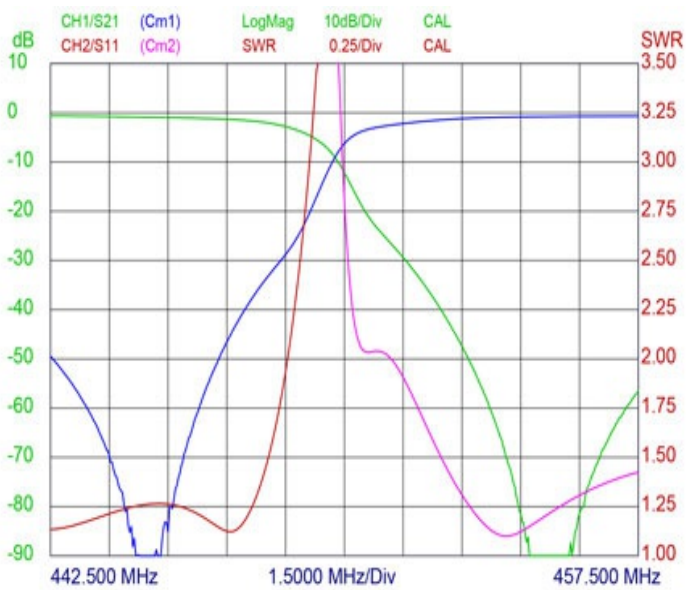
ORDERING INFORMATION

When ordering, please use the table above to select the appropriate ordering designation for the desired filter type. If duplex Tx and Rx frequencies are stated when ordering, the duplexers are delivered factory adjusted. If Tx and Rx frequencies are not stated, the filters are delivered non-adjusted.

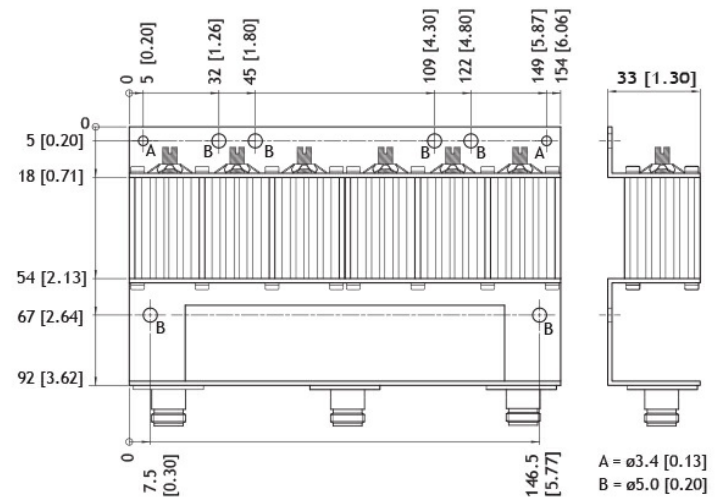
PLEASE NOTE

Special configurations of this filter type may be quoted on request. For instance, the filter can be delivered with other connector types or with flying leads (RG 316 coaxial cable) terminated with connectors or prepared for direct soldering into PCB.

TYPICAL RESPONSE CURVE



MOUNTING DETAILS



All dimensions are given in mm [in.]