

MPX 70/6...

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 "mini-plexer" 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.
- ★ The filter is black vinyl coated to prevent corrosion.

SPECIFICATIONS:

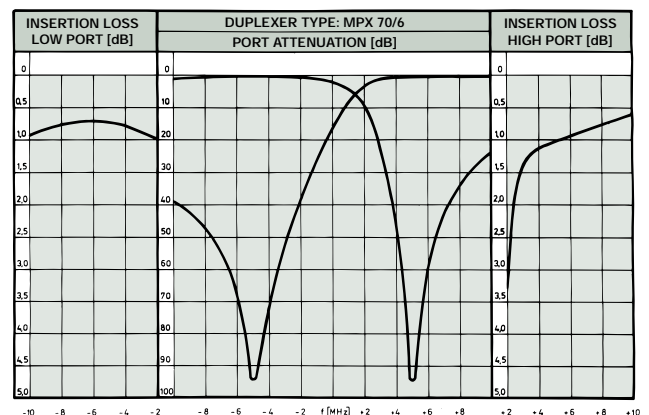
| ELECTRICAL | |
|---|--|
| TX/RX FREQUENCY | MPX 70/6 L : 406-440 MHz MPX 70/6 H : 430-470 MHz |
| MAX. INPUT POWER | 50 watt |
| INSERTION LOSS TX-ANT AND ANT-RX (at 10 MHz duplex spacing) | |
| Single-channel tuned | < 1.4 dB |
| Multi-channel tuned, 1.5 MHz BW | < 1.5 dB |
| TX NOISE SUPPRESSION ON RX-FREQUENCY | |
| Single-channel tuned | > 90 dB |
| Multi-channel tuned, 1.5 MHz BW | > 60 dB |
| RX ISOLATION ON TX-FREQUENCY | |
| Single-channel tuned | > 90 dB |
| Multi-channel tuned, 1.5 MHz BW | > 60 dB |
| DUPLEX SPACING | 5-13 MHz (see table) |
| IMPEDANCE | Nom. 50 Ω |
| SWR | ≤ 1.4 |
| MECHANICAL | |
| TEMP. RANGE | -30° C i +60° C |
| CONNECTORS | BNC-female |
| DIMENSIONS (L x W x H) | 110 x 154 x 33 mm |
| WEIGHT | Approx. 550 g |



MODEL SELECTION TABLE:

| TUNING RANGE (MHz) | DUPLEX SPACING (MHz) | ORDERING DESIGNATION |
|--------------------|----------------------|----------------------|
| 406-440 | 5-7 | MPX 70/6 L - 5/7 |
| | 7-9 | MPX 70/6 L - 7/9 |
| | 9-13 | MPX 70/6 L - 9/13 |
| | 13-16 | MPX 70/6 L - 13/16 |
| 430-470 | 5-7 | MPX 70/6 H - 5/7 |
| | 7-9 | MPX 70/6 H - 7/9 |
| | 9-13 | MPX 70/6 H - 9/13 |
| | 13-16 | MPX 70/6 H - 13/16 |

TYPICAL RESPONSE CURVES @ 10 MHz DUPLEX SPACING:



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.