6-Cavity Duplexer for the 160 MHz Band

DESCRIPTION

- The DPF 2/6… is a 6-cavity duplex filter for duplex radiotelephones.
- This duplexer is delivered in a low band version type DPF 2/6 L, tunable within 138 - 156 MHz and a high band version type DPF 2/6 H, tunable within 152 - 175 MHz. These models are again delivered in 3 submodels, each dedicated to work with a certain duplex spacing. See “Ordering information” below.
- The DPF 2/6… 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 filter has very small physical dimensions owing to the use of high-Q, temperature compensated helical resonators.
- The housing is made of extruded aluminium, the chassis of passivated steel, and teflon insulation has been applied in the rigid coaxial cables and in the connectors.
- The filter is coated with black vinyl to prevent corrosion.



SPECIFICATIONS

Electrical	
Model	DPF 2/6...
Frequency	DPF 2/6 L : 138 - 156 MHz DPF 2/6 H : 152 - 175 MHz
Insertion Loss Tx-Ant and Ant-Rx	Single-channel tuned < 1.2 dB (typ. 1.0 dB) Multi-channel tuned, 2 MHz BW < 1.2 dB (typ. 1.0 dB)
Tx-Noise Suppression on Rx-Frequency	Single-channel tuned > 80 dB Multi-channel tuned, 1.5 MHz BW > 60 dB
Impedance	50 Ω
Duplex Spacing	4 - 10 MHz (adjustable)
VSWR	< 1.5:1
Maximum Input Power	50 W
Rx-Isolation on Tx-Frequency	Single-channel tuned > 80 dB Multi-channel tuned, 1.5 MHz BW > 60 dB
Frequency Stability	5 ppm/° C (approx.)

Mechanical	
Connection(s)	N female, BNC(f), TNC(f), UHF(f), SMA(f) on request
Dimensions	211 x 154 x 33 mm
Weight	0.94 kg / 2.07 lb

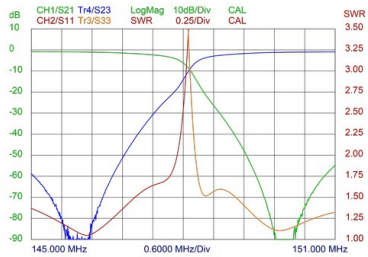
Environmental	
Operating Temperature Range	-30°C to +60°C

ORDERING

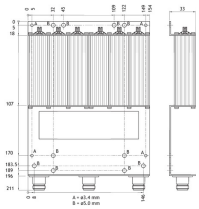
Type	Product No.	Description	Frequency
DPF 2/6 L-4/6-N	200000130	SPACING: 4 - 6 MHz	138 - 156 MHz
DPF 2/6 L-6/8-N	200000136	SPACING: 6 - 8 MHz	138 - 156 MHz
DPF 2/6 L-8/10-N	200000141	SPACING: 8 - 10 MHz	138 - 156 MHz
DPF 2/6 H-4/6-N	200000100	SPACING: 4 - 6 MHz	152 - 175 MHz
DPF 2/6 H-6/8-N	200000108	SPACING: 6 - 8 MHz	152 - 175 MHz
DPF 2/6 H-8/10-N	200000113	SPACING: 8 - 10 MHz	152 - 175 MHz
DPF 2/6 H-13/20-N	200000123	SPACING: 13 - 20 MHz	152 - 175 MHz
19" DPF Mounting kit	210002327		

DIAGRAM

TYPICAL RESPONSE CURVES @ 4 MHz DUPLEX SPACING



MOUNTING



TYPICAL RESPONSE CURVES @ 8 MHz DUPLEX SPACING



Last edited: 2018/11/25

ADDITIONAL DATA

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.

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 for soldering-connection.