

# DPF 2/6...

## 6-Cavity Duplexer for the 160 MHz Band

- 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.

## DESCRIPTION

- 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.

## ORDERING DESIGNATIONS

ТҮРЕ	TUNING RANGE (MHz)	DUPLEX SPACING (MHz)	PRODUCT NO.
DPF 2/6 L-4/6-N	138 - 156	4 - 6	200000130
DPF 2/6 L-6/8-N	138 - 156	6 - 8	200000136
DPF 2/6 L-8/10-N	138 - 156	8 - 10	200000141
DPF 2/6 H-4/6-N	152 - 175	4 - 6	200000100
DPF 2/6 H-6/8-N	152 - 175	6 - 8	200000108
DPF 2/6 H-8/10-N	152 - 175	8 - 10	200000113

<u>19" DPF Mounting kit</u>	210002327



## SPECIFICATIONS

ELECTRICAL	
MODEL	DPF 2/6
TX/RX FREQUENCY	DPF 2/6 L : 138 - 156 MHz DPF 2/6 H : 152 - 175 MHz
MAX. INPUT POWER	50 W
INSERTION LOSS TX-ANT AND ANT-RX (at 4.5 MHz duplex spacing) Single-channel tuned Multi-channel tuned, 1.5 MHz BW	≤ 1.2 dB (typ. 1.0 dB) ≤ 1.4 dB (typ. 1.2 dB)
TX NOISE SUPPRESSION ON RX- FREQUENCY Single-channel tuned Multi-channel tuned, 1.5 MHz BW	> 80 dB > 60 dB
RX ISOLATION ON TX-FREQUENCY Single-channel tuned Multi-channel tuned, 1.5 MHz BW	> 80 dB > 60 dB
DUPLEX SPACING	4 - 10 MHz (adjustable)
IMPEDANCE	Nom. 50 Ω
SWR	≤ 1.5

MECHANICAL	
TEMP. RANGE	$-30^{\circ} \text{ C} \rightarrow +60^{\circ} \text{ C}$
FREQ. STABILITY	Approx. 5 ppm/° C
CONNECTORS	N-female BNC(f), TNC(f), UHF(f), SMA(f) on request
DIMENSIONS (L x W x H)	211 x 154 x 33 mm
WEIGHT	Approx. 940 g



#### 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.

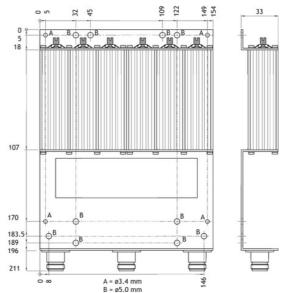
#### TYPICAL RESPONSE CURVES @ 4.5 MHZ DUPLEX SPACING

INSERTION LOSS LOW PORT [dB]		DUPLEXER TYPE: DPF 2/6 H-4/6 PORT ATTENUATION [dB]				INSERTION LOSS HIGH PORT [dB]	
0 10	DW .	0	LOW	нідн	0	HIGH	
15		10		X	0.5		
1.0		20	/		1.0	-	
1.5		30			1.5	1	
2.0		40			2.0		
15	1	50		1/	2.5	1	
3.0	1	60	$\backslash /$	1/	3.0		
1.5		70			3.5		
10		80	V	V	4.0		
15		90			4.5		

#### TYPICAL RESPONSE CURVES @ 9 MHZ DUPLEX SPACING

INSERTION LOSS LOW PORT [dB]			DUPLEXER TYPE: DPF 2/6 L-8/10 PORT ATTENUATION [dB]			INSERTION LOSS HIGH PORT [dB]	
0	LOW	0	LOW	HIGH	0	HIGH	
0.5		10		X	0.5		
1.0	-	20			1.0	-	
1.5	1	30			1.5		
2,0		40			12.0		
2.5		50			2.5		
3.0		60	V/		3.0		
3.5		70	N/	1/	3.5		
4.0		80	M		4.0		
4.5		90	V	V	4.5		
5.0		100	V	V	5.0		

#### MOUNTING



X