

# 6-cavity Mobile or Base Station Duplexer for the 136 - 175 MHz Band

# DESCRIPTION

- The DPF 2/6-HX-150 is a six-cavity high-power mobile or base station duplexer for the 136 - 175 MHz band.
- This type of filter uses six large 40 x 40 mm cavities, all equipped with 3.5 mm silverplated helical resonators, diameter 19 mm.
- The use of large cavities and resonators means higher Q, resulting in smaller duplex spacing with lower loss.
- > The larger dimensions extend power rating to 100 W continuous.
- The DPF 2/6-HX-150 is designed for single-channel equipment, but can, with slightly reduced specification, be broadband-adjusted to allow multichannel equipment to be used.
- The cavities are made of extruded aluminium, the chassis of passivated steel. All coaxial cables are of the semi-rigid type, and teflon has been used in all connectors and cables.
- > The filter is black vinyl coated to prevent corrosion.
- Please specify the frequencies for TX and RX when ordering, as all filters are made individually.

## SPECIFICATIONS

Electrical	
Model	DPF 2/6-HX-150
Frequency	136 - 175 MHz
Max. Input Power	100 W @ 1 dB insertion loss
Min. Duplex Spacing	1.3 MHz
Insertion Loss	@ 1.3 MHz spacing: 1.5 dB @ 2.0 MHz spacing: 1.2 dB @ 3.0 MHz spacing: 1.0 dB
Impedance	50 Ω
Tx Noise Suppression on Rx-Freq. / Rx Isolation on Tx-Freq.	@ 1.3 MHz spacing: 60 dB @ 2.0 MHz spacing: 85 dB @ 3.0 MHz spacing: 100 dB
VSWR	< 1.5:1

Mechanical				
Connection(s)	N(f)			
Dimensions	185 x 250 x 50 mm / 7.30 x 9.84 x 1.97 in.			
Weight	Approx. 2.1 kg / 4.63 lb			
Environmental				
On eventing of Terrors of	ations Danasa	2000 to . 0000		

Frequency Stability	8 ppm/° C (approx.)
Operating Temperature Range	-30°C to +60°C

# ORDERING

Туре	Product No.
DPF 2/6-HX-150	200000220



## TYPICAL RESPONSE CURVES @ 1.3 MHz DUPLEX SPACING

	NSERTION LOSS DI		DUPLEXER TYPE: DPF 2/6-HX-150 PORT ATTENUATION [dB]		INSE HIGH	RTION LOSS ( PORT [dB]
0	LOW	0	LOW	HIGH	0	HIGH
0.5		10			0.5	
1.0		20			1.0	
1.5		30			1.5	/
z.0		40			2.0	/
2.5	N	50	M		2.5	
3.0		60	V	V	3.0	
3.5	1	70		, i	3.5	
4.0		80			4.0	
4.5		90			4.5	
5.0		100			5.0	

### TYPICAL RESPONSE CURVES @ 2 MHz DUPLEX SPACING

INSERTION LOW PORT [c		DUPLEXER TYPE: DPF 2/6-HX-150 PORT ATTENUATION [dB]		
0	0		0	
0.5	10		0.5	
1.0	20		1.0	
1.5	30		1.5	
2.0	40		2.0	
2.5	50		2.5	
3.0	60		3.0	
3.5	70	/ / / /	3.5	
4.0	80	VVV	4.0	
4.5	90	VV	4.5	
5.0	100		5.0	

#### TYPICAL RESPONSE CURVES 3 MHz DUPLEX SPACING

SERTION LOSS W PORT [db]	DUPLEXER TYPE: DPF 2/6-1 PORT ATTENUATION [d	
	0	0
	10	0.5
	20	1.0
	30	1.5
	40	2.0
	50	2.5
	60	3.0
	70	3.5
	80	4.0
	90	4.5
.0 -1.0	0 -2.0 -1.0 f. MHz +1	V 5.0 /