

## 6-Cavity Duplexer for the 450 MHz Band Base Station / Repeater

### DESCRIPTION

- The DPF UHF/33-DR 3000 is a 6-cavity duplex filter designed to be built into the Motorola DR 3000 duplex base station/repeater.
- The DPF UHF/33-DR 3000 can be adjusted within the complete 406 - 470 MHz band. The duplexer can be delivered with a 5 - 16 MHz spacing.
- The DPF UHF/33-DR 3000 is primarily intended for TX and RX operation on single frequencies, but it 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 latter case, factory tuning is recommended.
- The filter uses full-length  $\frac{1}{4} \lambda$  cavities in a compact, extruded aluminium housing. The chassis is made of passivated steel, and teflon insulation has been applied in the coaxial cables and in the connectors.
- DPF UHF/33-DR-3000 is coated with black vinyl to prevent corrosion.



### ORDERING

Model	Product No.	Description
DPF UHF/33-DR 3000-5/7	200002426	SPACING: 5 - 7 MHz
DPF UHF/33-DR 3000-7/9	200002427	SPACING: 7 - 9 MHz
DPF UHF/33-DR 3000-9/13	200002067	SPACING: 9 - 13 MHz
DPF UHF/33-DR 3000-13/16	200002428	SPACING: 13 - 16 MHz

### SPECIFICATIONS

Electrical		
Model	DPF UHF/33-DR 3000	
Frequency	406 - 470 MHz	
Max. Input Power	50 W	
Insertion Loss Tx-Ant and Ant-Rx	Single-channel tuned $\leq 1.2$ dB (typ. 1.0 dB) Multi-channel tuned, 2 MHz BW $\leq 1.2$ dB (typ. 1.0 dB)	
Tx-Noise Suppression on Rx-Frequency	Single-channel tuned $\geq 85$ dB Multi-channel tuned, 2 MHz BW $\geq 65$ dB	
Rx-Isolation on Tx-Frequency	Single-channel tuned $\geq 85$ dB Multi-channel tuned, 2 MHz BW $\geq 65$ dB	
Impedance	50 $\Omega$	
VSWR	$< 1.5:1$	
Mechanical		
Connection(s)	RG 400 Length = 430 mm	BNC(m) N(f) bulkhead
Dimensions	186.5 x 77 x 60 mm / 7.34 x 3.03 x 2.36 in.	
Weight	Approx. 0.93 kg / 2.05 lb.	
Mounting	Supplied with 4 stays (length 63 mm) for mounting with screws M4 x 12 mm	
Environmental		
Operating Temperature Range	$-30^{\circ}\text{C}$ to $+60^{\circ}\text{C}$	
Frequency Stability	4.5 ppm/ $^{\circ}\text{C}$ (approx.)	

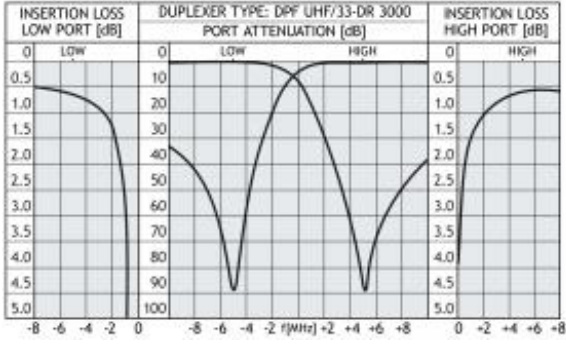
ADDITIONAL DATA

PLEASE NOTE

Special configurations of this filter type may be quoted on request. The filter is supplied with flying leads (RG 400 coaxial cable) terminated with connectors.

The filter is delivered with 4 stays and screws for mounting.

TYPICAL RESPONSE CURVES @ 10 MHZ SPACING

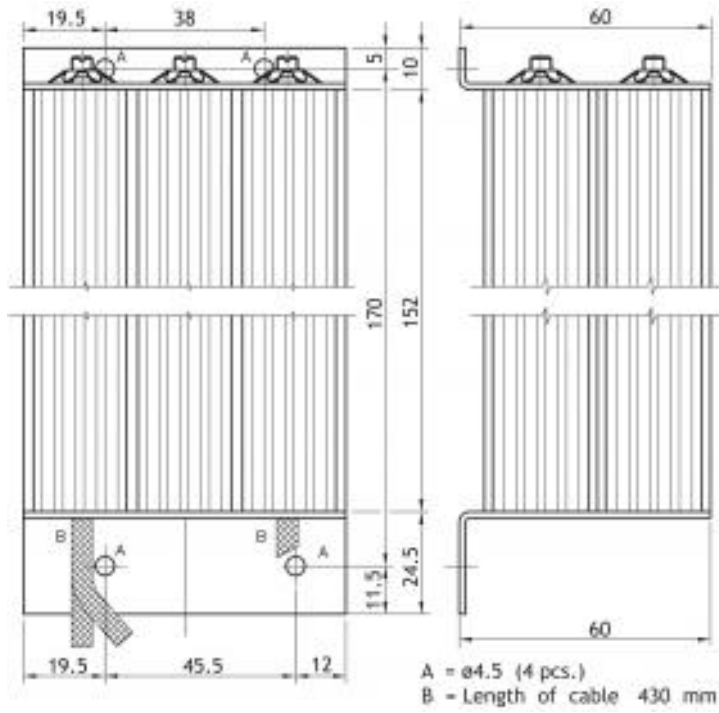


MOUNTING IN MOTOROLA DR 3000

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MOUNTING DETAILS



#### ORDERING INFORMATION

When ordering, please state TX and RX frequencies. If TX and RX frequencies are not stated, the filters are delivered non-adjusted.

