

## 6-Cavity Duplexer for the 160 MHz band for installation inside Motorola DR 3000 base station / repeater

### DESCRIPTION

- The DPF VHF/33-DR 3000 is a 6-cavity duplex filter designed to be built into the Motorola DR 3000 duplex base station / repeater.
- This duplexer is delivered in a low-band version, DPF VHF/33-DR 3000-L, tunable within 138 - 156 MHz, and a high band version, DPF VHF/33-DR 3000-H, tunable within 152 - 175 MHz. The duplexer can delivered with 4 - 10 MHz spacing.
- The DPF VHF/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 has very small physical dimensions due to the use of high-Q, temperature-compensated helical resonators 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.
- The filter is coated with black vinyl to prevent corrosion.



### SPECIFICATIONS

Electrical	
Model	DPF VHF/33-DR 3000-...
Frequency	L : 138 - 156 MHz H : 152 - 175 MHz
Max. Input Power	50 W
Special spec. info	Single-channel tuned : Multi-channel tuned, BW = 1.5 MHz :
Insertion Loss Tx-Ant and Ant-Rx	< 1.5 dB (typ. 1.3 dB)      < 1.6 dB (typ. 1.4 dB)
Tx Noise Suppression on Rx Frequency	> 80 dB      > 40 dB
Isolation Rx on Frequency Tx	> 80 dB      > 40 dB
Impedance	50 Ω
VSWR	< 1.5:1
Mechanical	
Connection(s)	RG 400 Length = 510 mm / 20.08 in. Connectors: Low and high port: BNC-male Ant. port: N(f), bulkhead
Dimensions	170 x 77 x 61.7 mm / 6.69 x 3.03 x 2.43 in
Weight	Approx. 0.86 kg / 1.90 lb.
Mounting	Supplied with three stays (length 63 mm / 2.48 in) for mounting with screws M4 x 12 mm / 0.47 in.
Environmental	
Operating temperature range	-30 °C to +60 °C
Frequency Stability	4.5 ppm/° C (approx.)

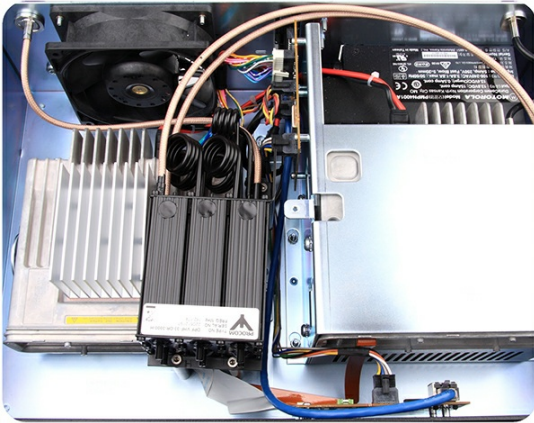
## ORDERING

Model	Product No.	Description	Frequency
DPF VHF/33-DR 3000-L-4/6	200002189	Spacing: 4 - 6 MHz	138 - 156 MHz
DPF VHF/33-DR 3000-L-6/8	200002430	Spacing: 6 - 8 MHz	138 - 156 MHz
DPF VHF/33-DR 3000-L-8/10	200002429	Spacing: 8 - 10 MHz	138 - 156 MHz
DPF VHF/33-DR 3000-H-4/6	200002202	Spacing: 4 - 6 MHz	152 - 175 MHz
DPF VHF/33-DR 3000-H-6/8	200002432	Spacing: 6 - 8 MHz	152 - 175 MHz
DPF VHF/33-DR 3000-H-8/10	200002431	Spacing: 8 - 10 MHz	152 - 175 MHz

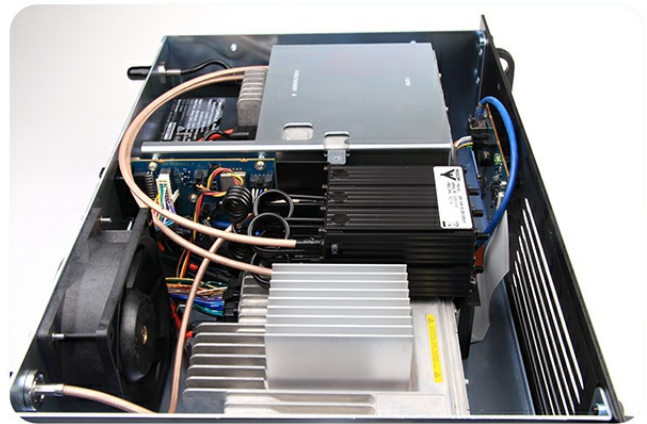
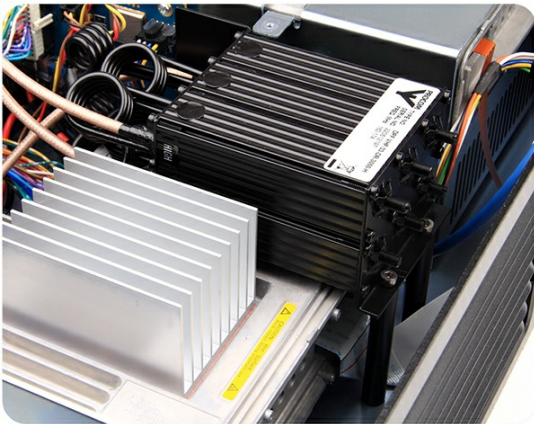
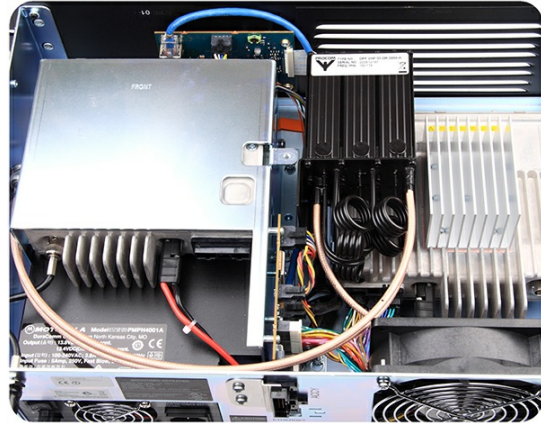
## ORDERING INFORMATION

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

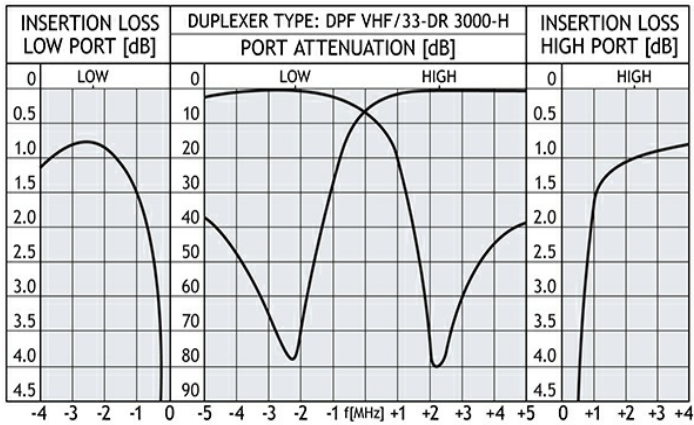
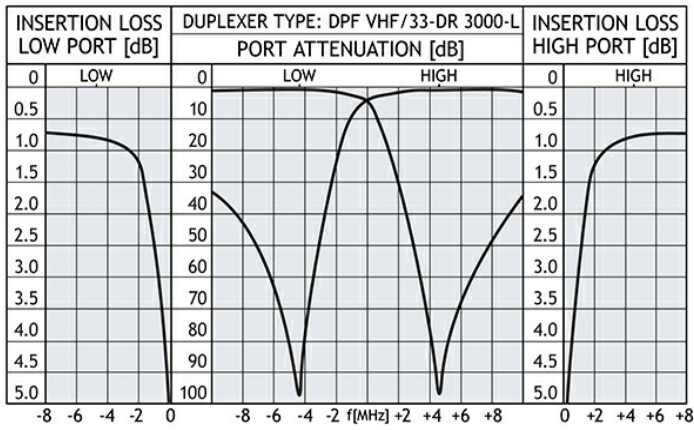
MOUNTING IN MOTOROLA DR 3000



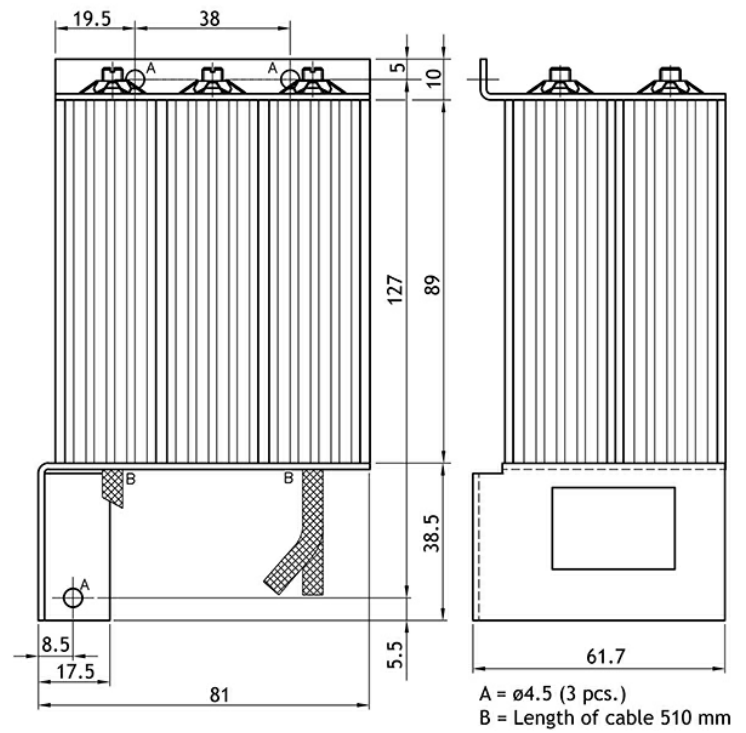
MOUNTING IN MOTOROLA DR 3000



TYPICAL RESPONSE CURVES



MOUNTING DETAILS



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 3 stays and screws for mounting.

