

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 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.



SPECIFICATIONS

| Electrical | | |
|--------------------------------------|--|--------------------------------------|
| Model | DPF UHF/33-DR 3000 | |
| Frequency | 406 - 470 MHz | |
| Max. Input Power | 50 W | |
| Special spec. info | Single-channel tuned : | Multi-channel tuned, BW = 2 MHz : |
| Insertion Loss Tx-Ant and Ant-Rx | ≤ 1.2 dB (typ. 1.0 dB) | ≤ 1.2 dB (typ. 1.0 dB) |
| Tx Noise Suppression on Rx Frequency | ≥ 85 dB | ≥ 65 dB |
| Isolation Rx on Frequency Tx | ≥ 85 dB | ≥ 65 dB |
| Impedance | 50 Ω | |
| VSWR | < 1.5:1 | |
| Mechanical | | |
| Connection(s) | RG 400 Length = 430 mm Connectors: Low and high prot: BNC(m) Ant. port: 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 °C to +60 °C | |
| Frequency Stability | 4.5 ppm/° C (approx.) | |

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 |

ORDERING INFORMATION

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

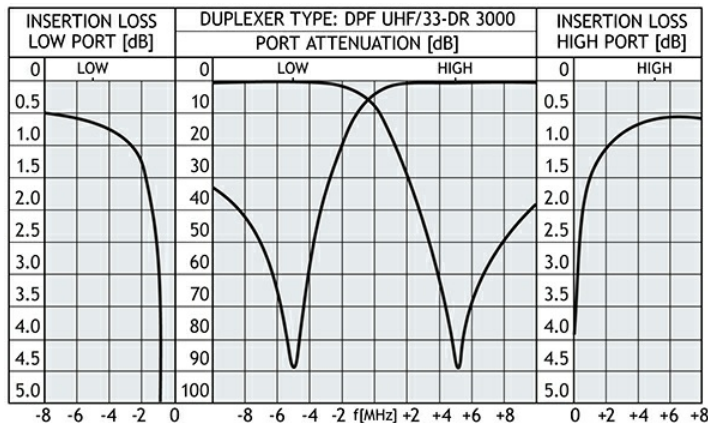
MOUNTING IN MOTOROLA DR 3000



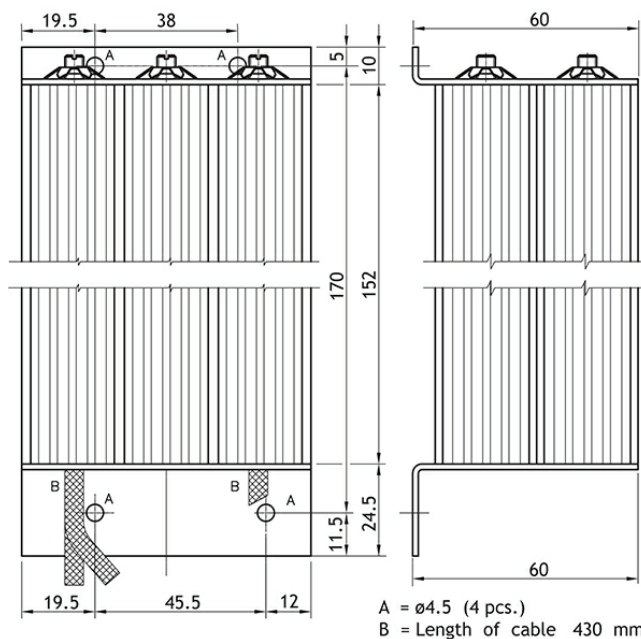
MOUNTING IN MOTOROLA DR 3000



TYPICAL RESPONSE CURVE @ 10 MHZ DUPLEX SPACING



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 4 stays and screws for mounting.