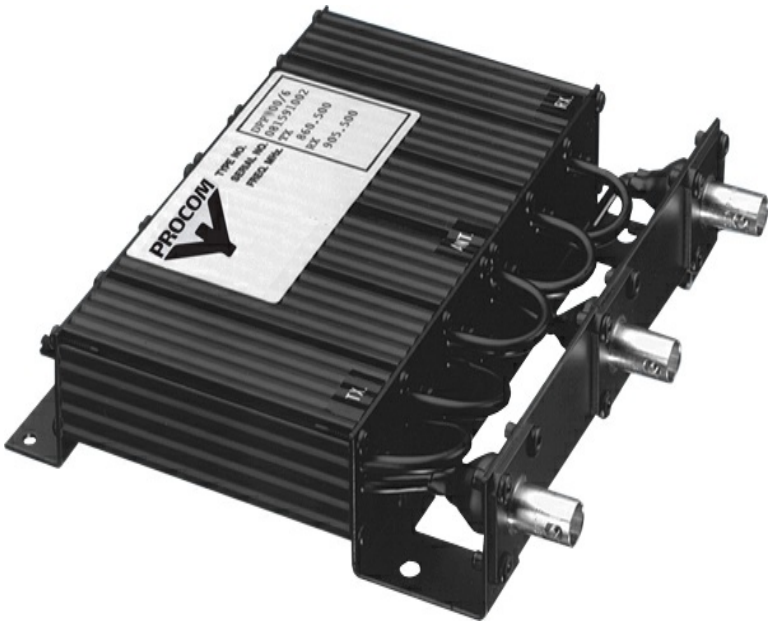
6-Cavity Duplexer for the 900 MHz Band

DESCRIPTION

- The DPF 900/6-... is a 6-cavity duplex filter for duplex radiotelephones operating in the 900 MHz band.
- The DPF 900/6-... can be tuned within the 780 - 960 MHz band with a nominal duplex separation of 45 MHz. The duplexer can, however, be especially delivered to work with duplex separations down to 10-15 MHz.
- The DPF 900/6-... is primarily intended for equipment which the TX and RX operate 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 last case, factory tuning is recommended.
- The filter uses full-length ¼ λ cavities in a compact, extruded aluminium housing. The chassis is made 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.



SPECIFICATIONS

Electrical	
Model	DPF 900/6-...
Frequency	780 - 960 MHz
Max. Input Power	50 W
Insertion Loss Tx-Ant and Ant-Rx	Single / multi-channel tuned, 10-15 MHz duplex spacing: ≤1.5dB Single / multi-channel tuned, 45 MHz duplex spacing: ≤1.0dB
Tx-Noise Suppression on Rx-Frequency	Single-channel tuned: > 85 dB Multi-channel tuned, 5 MHz BW: > 60 dB
Rx-Isolation on Tx-Frequency	Single-channel tuned: > 85 dB Multi-channel tuned, 5 MHz BW: > 60 dB
Impedance	50 Ω
Duplex Spacing	10 - 15 or 45 MHz (norm.)
VSWR	< 1.5:1

Mechanical	
Connection(s)	BNC(f)
Dimensions	158 x 154 x 33 mm / 6.2 x 6.1 x 1.3 in.
Weight	Approx. 0.85 kg / 1.87 lb.

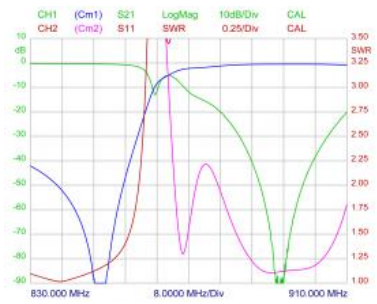
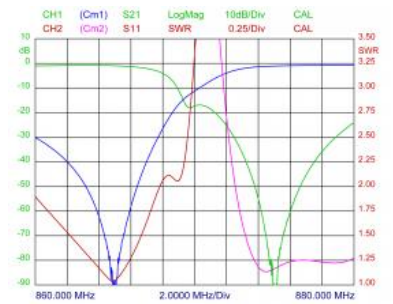
Environmental	
Operating Temperature Range	-30°C to +60°C
Frequency Stability	4.5 ppm/° C (approx.)

ORDERING

Model	Product No.	Frequency
DPF 900/6	200000460	45 MHz
DPF 900/6-10	200002256	10 - 15 MHz

DIAGRAM

TYPICAL RESPONSE CURVES FOR 45 MHz DUPLEX SPACING



TYPICAL RESPONSE CURVES FOR 10 MHz DUPLEX SPACING