



RFS bandpass filters are primarily used as part of multi-channel combiner facilities but can also be used to eliminate spurious emissions and increase isolation between co-sited services. The filters are designed with all bolted connections. Any sliding contacts are at low current density points to ensure maximum reliability and ideal power ratings for a given physical size. Each filter comprises 2 or 3 coaxial resonators which are aperture coupled. The fixed aperture coupling design is engineered for a constant passband wherever the pass band is tuned in the 87.5 - 108MHz band. This design ensures standard insertion loss and rejection for each filter model, although custom filter performance (modified aperture coupling) is available on request.

FEATURES / BENEFITS

- Natural convection cooling for all power levels
- Fixed aperture coupling for high reliability and easy re-tuning
- Vertical entry and exit
- Invar temperature compensation
- 2 and 3 pole versions standard



Typical FM bandpass filters

Technical features

GENERAL SPECIFICATIONS

Product Line		Filters
Product Type		Band II (VHF) FM Bandpass Filter
Filter type		3 Pole

ELECTRICAL SPECIFICATIONS

Frequency Range (tuneable)	MHz	87.5 - 108
Input Power (maximum), kW Average	kW	15
Insertion Loss at Channel Centre Frequency	dB	0.25
Input Return Loss	dB	> 26 to ± 200kHz
Input Group Delay Variation Over Channel Bandwidth	nsec	< 25 to ± 100kHz
Amplitude Variation	dB	< 0.2 to ± 200kHz
Filter Rejection	dB	20 at 0.8MHz 38 at 1.6MHz
Impedance	Ω	50

MECHANICAL SPECIFICATIONS

Weight, Kg (lb)	kg (lb)	125 (276)
Dimensions (Height or Length), cm	cm (in)	160.0 (63)
Dimensions (Width)	cm (in)	70.0 (27-1/2)
Dimensions (Depth)	cm (in)	190.0 (74-3/4)

[External Document Links](#)

Notes

- **Note 1** Alternative connectors available on request.