

FP30109-3 High-Q Bandpass 1/4 Wave Cavity Filter, Single 8.5" Cavity, 406-512 MHz

- Aluminum cylinder silver plated brass coaxial inner conductor
- Silver plating and chromate conversion coating limit corrosion and enhance performance
- Temperature compensated for extremely low frequency drift

Sinclair's FP series cavity filters are the building blocks of the finest antenna systems. These filters pass a band of frequencies while attenuating frequencies on either side of the desired frequency band. The insertion loss of the passband may be preset at the factory or adjusted in the field. The amount of attenuation (selectivity) can be increased by increasing the insertion loss or using multiple cavities in series. Filter design must recognize the extremely close tolerances required to assure flawless performance over temperature when small variations in electrical wavelength mean significant changes in frequency response curves.

The FP series band pass filters are designed to:

- Protect one receiver from front-end overload by carriers of co-located transmitters.
- Suppress IM generation in one transmitter by protecting it from incoming carriers of co-located transmitters (usually in conjunction with a ferrite isolator).
- Suppress sideband noise of a single transmitter on co-located receiver frequencies.
- Generally, "Protect One from Many".



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Region	United States	Europe, Middle East and Africa	Caribbean and Latin America	Canada and rest of the world
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Electrical Specifications

Frequency Range	MHz	406 to 512	
Input VSWR (max)		1.5:1	*1
Impedance	Ω	50	
Average Power Input (max)	W	80-350	*2
Input Connectors		N-Female	
Output Connectors		N-Female	
Insertion loss (min)	dB	0.5	
Insertion Loss (max) Tx to Ant	dB	3	

Notes

- *1 : 2.0:1, if I.L.=2dB
- *2 : 350W @ 0.5dB; 185W @ 1 dB; 80W @ 3 dB
- *3 : 19(in) with pannel

Mechanical Specifications

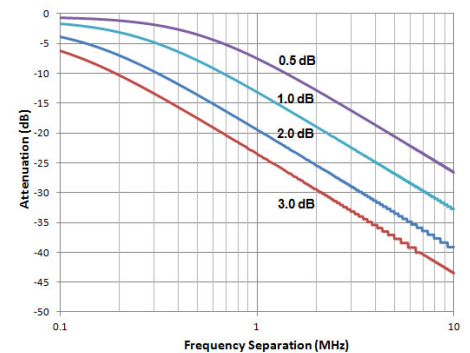
Width	in (mm)	8.5 (216)	*3
Depth	in (mm)	8.5 (216)	
Length/ Height	in (mm)	13.5 (343)	
Finish		shadow bronze	
Weight	lbs (kg)	9 (4.09)	
Actual Shipping weight	lbs (kg)	11 (4.99)	
Shipping dimensions	in (mm)	10x10x16 (254x254x406)	
Mounting configurations		19 inch rack	

Ordering Information

Standard model painted black

Environmental Specifications

Temperature range	°F (°C)	-22 to +140 (-30 to +60)
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