

FP30107-3

Cavity filter, bandpass, high Q, one 7" cavity, 400-512 MHz

Also referred as: FP30107*3

- Aluminum cylinder with brass and copper 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 further from front-end overload by carriers of co-located transmitters.
- Suppress IM generation in one transmitter by protecting it further 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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Electrical Specifications

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

Notes

*1 : 2.0:1, if I.L.=2dB

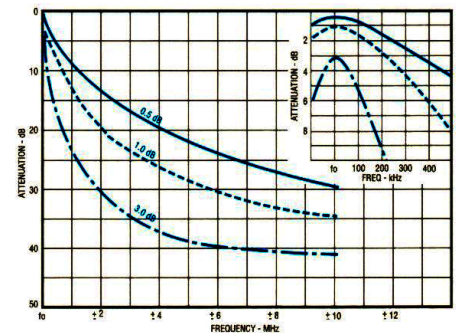
*2 : 350W @ 0.5dB; 185W @ 1dB; 80W @3dB

Mechanical Specifications

Width	in (mm)	7 (178)
Depth	in (mm)	7 (178)
Length/ Height	in (mm)	18 (457)
Finish		chromate conversion
Weight	lbs (kg)	6 (2.72)
Actual shipping weight	lbs (kg)	8 (3.63)
Shipping dimensions	in (mm)	9x9x22 (229x229x559)

Environmental Specifications

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