

#### FP20107-1

Cavity filter, bandpass, high Q, one 7" cavity, 108-138 MHz

Also referred as: FP20107\*1

- Aluminum cylinder with brass and copper coaxial inner conductor
- Silver plating and chromate conversion coating limit corrosion and enhance performance
- Optional Shadow Bronze finish available
- Temperature compensated for extremely low frequency drift

Sinclair's FP20107-1 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. Consequently, Sinclair engineers have carefully adapted the FP20107-1 filter for the VHF frequency.

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."



Filter may not appear exactly as picture.

www.sinctech.com

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	108 to 138	
Input VSWR (max)		1.5:1	
Insertion loss (min)	dB	0.5	
Impedance	Ω	50	
Average Power Input (max)	W	90 to 400	*1
Input Connectors		N-Female	
Output Connectors		N-Female	
Insertion Loss (max) Tx to Ant	dB	3	

### Notes

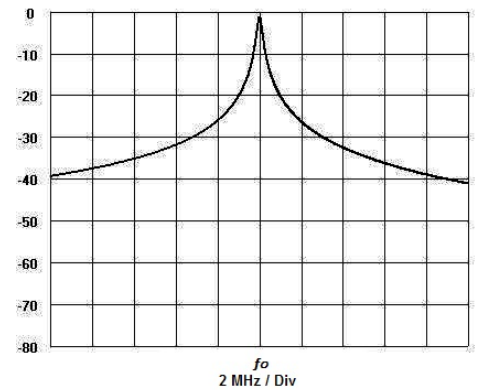
\*1 : 400W @ 0.5dB; 210W @ 1.0 dB; 90W @ 3dB

### Mechanical Specifications

Width	in (mm)	7 (178)
Depth	in (mm)	7 (178)
Length/ Height	in (mm)	43.75 (1111)
Finish		chemical conversion
Weight	lbs (kg)	15 (6.81)
Actual shipping weight	lbs (kg)	15 (6.81)
Shipping dimensions	in (mm)	9x9x45 (229x229x1143)

### Environmental Specifications

Temperature range	°F (°C)	-40 to +140 (-40 to +60)
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