

FP20207-5 Cavity filter, bandpass, high Q, two 7" cavities, 174-230 MHz

- Aluminum cylinder with brass and copper coaxial inner conductor
- Silver plating and chromate conversion coating limit corrosion and enhance performance
- Two temperature compensated bandpass cavities with extremely low frequency drift

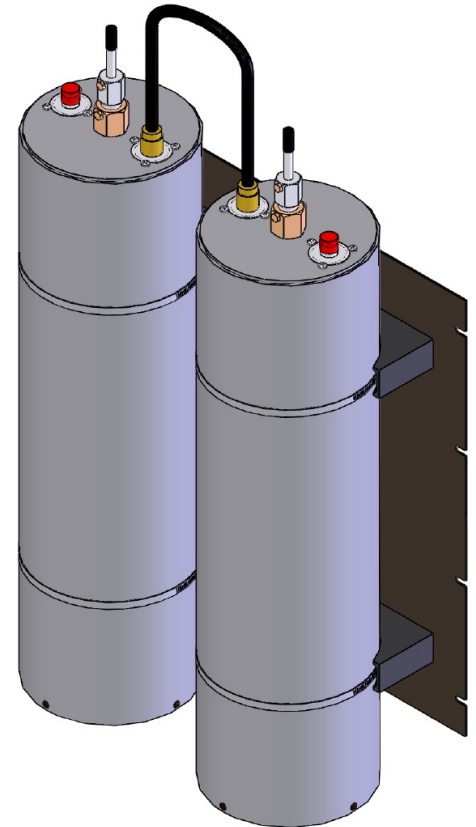
Sinclair's FP series cavity filters are the building blocks of the finest antenna systems. These filters pass a band of frequencies while attenuating frequencies on either side of the desired frequency band. The insertion loss of the passband may be preset at the factory or adjusted in the field. The 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. Consequently, Sinclair engineers have carefully adapted the FP series filters for a variety of applications in the low band, VHF, UHF and 806-960 frequency ranges.

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."

Cavity 1 I.L.	Cavity 2 I.L.	Attenuation at Fo+/-1 MHz	Input Power
0.5 dB	0.5 dB	28 dB (typ)	350 W (max)
1.0 dB	0.5 dB	35 dB (typ)	185 W (max)
1.0 dB	1.0 dB	41 dB (typ)	185 W (max)
1.5 dB	1.0 dB	45 dB (typ)	150 W (max)
1.5 dB	1.5 dB	48 dB (typ)	150 W (max)

Cable losses add 0.2 dB to the overall loss.



www.sinctech.com

Region	United States	Europe, Middle East and Africa	Caribbean and Latin America	Canada and rest of the world
Telephone	USA: 1 800 263 3275	International: +44 (0) 1487 84 28 19	International: +1 905 726 7676	Canada: 1 800 263 3275 International: +1 905 727 0165
E-mail	salesusa@sinctech.com	salesuk@sinctech.com	salesla@sinctech.com	salescan@sinctech.com

Electrical Specifications

Frequency Range	MHz	174 to 230
Input VSWR (max)		1.5:1
Impedance	Ω	50
Number of Cavities		2
Average Power Input (max)	W	350W @ 1.2db, 185W @ 2.2db
Input Connectors		N-Female
Output Connectors		N-Female
Insertion loss (adjustable)	dB	1 to 3

Mechanical Specifications

Depth	in (mm)	7 (178)
Length/ Height	in (mm)	32.5 (826)
Width	in (mm)	19 (483)
Weight	lbs (kg)	27 (12.26)
Finish		chemical conversion
Actual Shipping weight	lbs (kg)	35 (15.89)
Shipping dimensions	in (mm)	20x10x33 (508x254x838)
Mounting configurations		19 inch rack

Environmental Specifications

Temperature range	°F (°C)	-22 to +140 (-30 to +60)
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E-mail	salesusa@sinctech.com	salesuk@sinctech.com	salesla@sinctech.com	salescan@sinctech.com