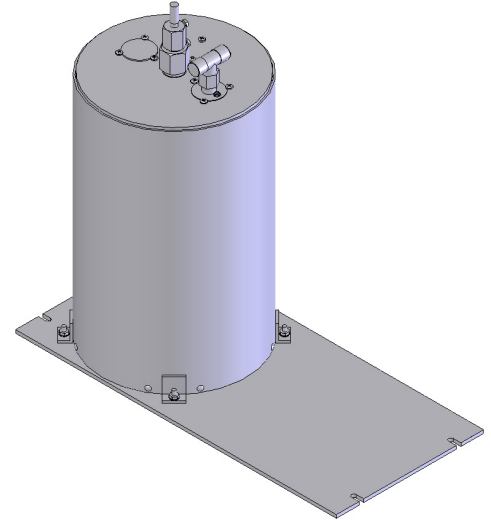


**FQ30109-3** Cavity filter, Q Circuit, high Q, 1/4 Wave, one 8.5" cavity, 406-512 MHz

- Suppress sideband noise of a single co-located Tx on a closely-spaced Rx
- Protect a closely-spaced Rx further from front-end overload by the carrier of co-located Tx
- Suppress IM generation in one Tx by protecting it from incoming carrier of a closely spaced Tx
- Generally, "Protect ONE from ONE" at close frequency spacings

These filters employ the Sinclair-developed Q-circuit design. The operation of the Q-circuit is such that it inverts the characteristics of a standard notch filter, and uses the narrow resonance notch to create the circuit passband while allowing the lower Q elements, such as the loop and its reactance adjustment, to produce the relatively broad isolation notch. In this manner, optimum use of the cavity components is realized, resulting in close pass/reject spacing, low insertion loss, and broad isolation notch. The filters can be tuned for either high or low pass condition, with minimum frequency separations. The Q-circuit filter combines the features of a bandpass and reject filter. This can be particularly useful when a close frequency might interfere with the desired frequency. For this reason, both the pass and reject frequencies and required insertion loss must be specified when ordering Q-circuit filters.



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Region	United States	Europe, Middle East and Africa	Caribbean and Latin America	Canada and rest of the world
<b>Telephone</b>	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
<b>E-mail</b>	salesusa@sinctech.com	salesuk@sinctech.com	salesla@sinctech.com	salescan@sinctech.com

### Electrical Specifications

Frequency Range	MHz	406 to 512
Input VSWR (max)		1.5:1
Insertion loss (typ)	dB	0.6
Impedance	Ω	50
Average Power Input (max)	W	350
Input Connectors		N-Female
Output Connectors		N-Female

### Notes

\*1 : 19 (in) with panel.

### Mechanical Specifications

Width	in (mm)	8.5 (216)	*1
Depth	in (mm)	13.5 (343)	
Length/ Height	in (mm)	8.75 (222)	
Weight	lbs (kg)	10 (4.54)	
Actual shipping weight	lbs (kg)	14 (6.36)	
Shipping dimensions	in (mm)	18x23x23 (457x584x584)	
Mounting configurations		19 inch rack	

### Environmental Specifications

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