

Cavity Filters **UHF and Tetra Q-Circuit Cavities** FQ30107 Series

A Norsat Company in Norsat



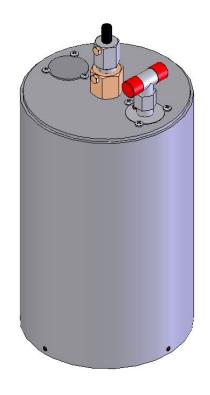
FQ30107-3

Cavity filter, Q circuit, high Q, one 7" cavity, 406-512 MHz

Also referred as: FQ30107\*3

- · 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 Qcircuit 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 braod isolation notch. The filters can be tuned for either high or low pass condition, with miniumum 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-ciruit filters.



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
Product Specificatio	n Sheet	FQ30107-3	Issue: 4	Dated: 07-06-17

**Product Specification Sheet** EPR 018954 Customer Tech Manual 005064

FQ30107-3 Sinclair's commitment to product leadership may result in improvement or change to this product

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Notes

\*1 : Panel Not included.

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**Environmental Specifications** 

Temperature range

Electrical Specifications			
Frequency Range	MHz	406 to 512	
Input Connectors		N-Female	
Output Connectors		N-Female	
Input VSWR (max)		1.5:1	
Insertion loss (min)	dB	0.3	
Insertion Loss (max) Tx to Ant	dB	0.6	
Impedance	Ω	50	
Average Power Input (max)	W 350		
Mechanical Specifications Width	in (mm)	7 (178)	
Depth	in (mm)	7 (178)	
Length/ Height	in (mm)	16.6 (422)	
Finish	iii (iiiiii)	chromate conversion	
Weight	lbs (kg)	6 (2.72)	
Mounting configurations		40.	
		19 inch rack	*1
Actual shipping weight	lbs (kg)	19 inch rack 10 (4.54)	*1

°F (°C)

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E-mail	salesusa@sinctech.com	salesuk@sinctech.com	salesla@sinctech.com	salescan@sinctech.com	
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-22 to +140 (-30 to +60)