

FQ20207-3

Cavity filter, Q circuit, high Q, two 7" cavity, 148-174 MHz

Also referred as: FQ20207*3

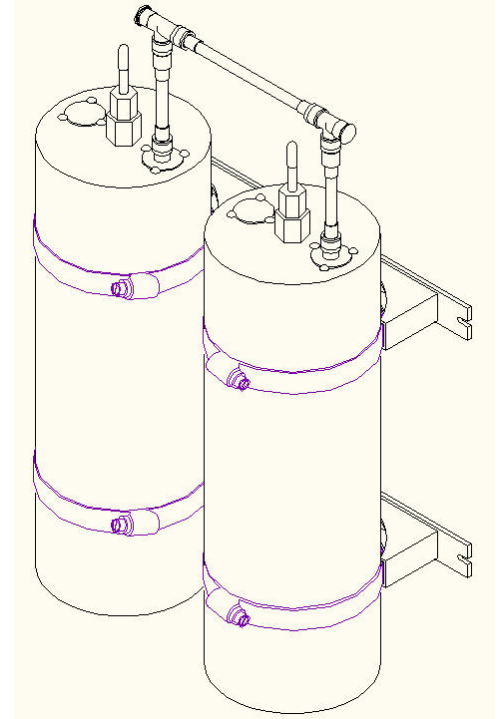
- 7 inch diameter aluminum cylinder with brass and copper coaxial inner conductor
- Silver plating and chromate conversion coating limit corrosion and enhance performance
- Temperature compensated for extremely low frequency drift

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. The insertion loss, pass-to-reject frequency spacing and notch depth are all field adjustable.

The FQ series Q-circuit filters are designed to:

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



Region	United States	Europe, Middle East, and Africa	Canada, Caribbean, and Latin America	Asia-Pacific
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Product Specification Sheet		FQ20207-3	Issue: 114	Dated: 24-08-23

Electrical Specifications

Frequency Range	MHz	148 to 174
Input Connectors		N-Female
Output Connectors		N-Female
VSWR (max)		1.5:1
Input VSWR (max)		1.5:1
Impedance	Ω	50
Average Input Power (max)	W	350

Mechanical Specifications

Width	in (mm)	19 (483)
Depth	in (mm)	7 (178)
Length/ Height	in (mm)	32.5 (826)
Finish		alodine
Weight	lbs (kg)	30 (13.62)
Mounting configurations		19 inch rack
Shipping dimensions	in (mm)	19.75x9.5x33 (502x241x838)

Environmental Specifications

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