Band-Reject (Notch) Filters for the 160 MHz

DESCRIPTION

- The BRF 2/3 is a 3-cavity notchfilter using helical resonators.
- This filter rejects a narrow band of frequencies in the 2 m band and passes all others in the range 0 - 430 MHz. The filter can be applied both in connection with transmitters and receivers to attenuate interfering signals causing cross modulation effects. The filter can be employed as a single component or it can function as an integrated part of a complete multicoupling system.
- The BRF 2/3 can be tuned within the complete 144 - 175 MHz band. Careful design and choice of materials ensure reliable operation over a wide temperature range.
- The housing is made of extruded aluminium, the chassis of passivated steel, and teflon insulation has been applied in the coaxial cables and in the connectors.
- The filter is black-vinyl coated to prevent corrosion.

ORDERING

Model	Product No.
BRF 2/3	200001201
BRF 2/3 N	200001208
BRF 2/3 TNC	200001209

SPECIFICATIONS

Electrical	
Model	BRF 2/3
Filter Type	Band-reject (notch) filter
Frequency	144 - 175 MHz
Max. Input Power	50 W
Insertion Loss	0 - 200 MHz IL ≤ 0.8 dB 200 - 430 MHz IL ≤ 1.3 dB
1 dB Notch Bandwidth	At 144 MHz: Approx. +2.3/-2.2 MHz At 175 MHz: Approx. +2.6/-3.6 MHz
Impedance	50 Ω
Reject Attenuation	Single-channel tuned: ≥53 dB Multi-channel tuned, 1.0 MHz BW: ≥24 dB
VSWR	≤ 1.5:1 0 - 200 MHz ≤ 2.75:1 200 - 430 MHz

Mechanical	
Connection(s)	N(f), (BNC(f) or TNC(f) on request)
Dimensions	165 x 77 x 33 mm / 6.50 x 3.03 x 1.30 in.
Weight	Approx. 0.42 kg / 0.93 lb.

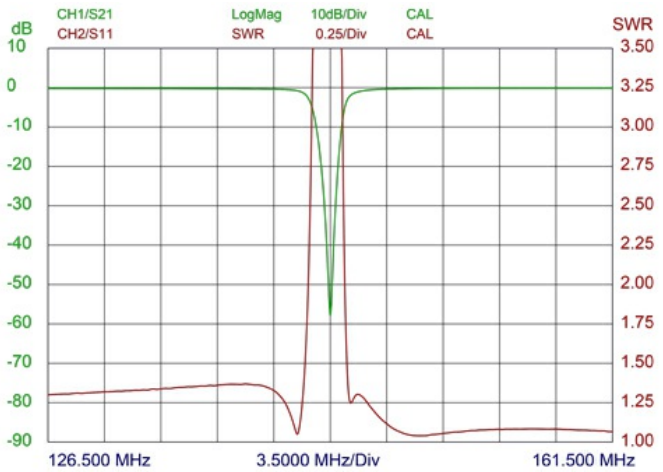
Environmental	
Operating Temperature Range	-30°C to +60°C
Frequency Stability	10 ppm/° C (approx.)

PLEASE NOTE

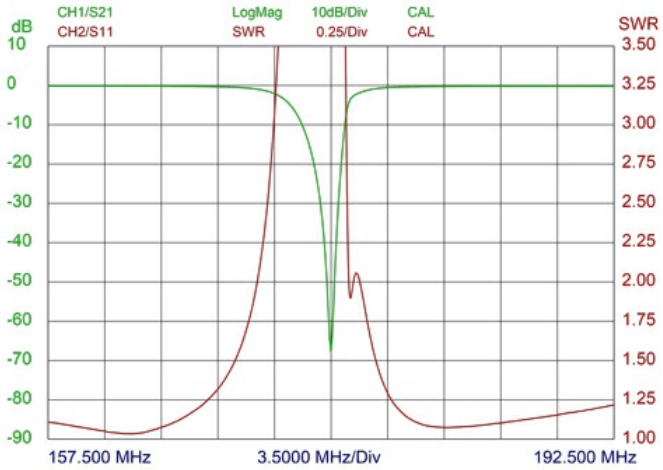
The notch filter resonators can also be separately tuned to three different frequencies in a "multiple notch" configuration, but the attenuation on each frequency is then only approximately one third of the normal attenuation when all notches work together.

TYPICAL RESPONSE CURVES

Fc 144 MHz



Fc 175 MHz



Out of reject area