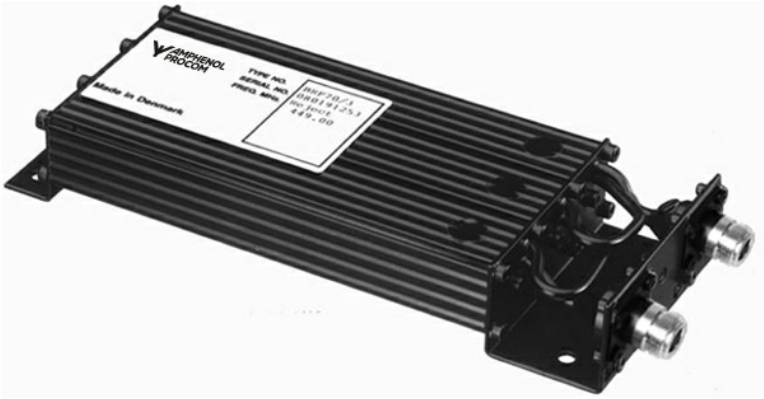
Band reject (notch) filter for the 450 MHz band



DESCRIPTION

- The BRF 70/3 is a 3-resonator notch-filter using full-length ¼ λ cavities.
- This filter rejects a narrow band of frequencies and passes all others. The filter can be applied both in connection with transmitters and receivers to attenuate interfering signals which cause cross modulation effects. The filter can be employed as a single component or it can act as an integrated part of a complete multi-coupling system.
- The BRF 70/3 can be tuned within the complete 400 - 470 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 brass, and teflon insulation has been applied in the coaxial cables and in the connectors.
- The filter is black vinyl coated to prevent corrosion.

SPECIFICATIONS

Electrical	
Model	BRF 70/3 N
Filter Type	Band-reject (notch) filter
Frequency	400 - 470 MHz
Max. Input Power	50 W
Insertion Loss	@ Fc ±5 MHz IL ≤ 0.5 dB 0 - 500 MHz IL ≤ 0.5 dB 500 - 1000 MHz IL ≤ 1.2 dB
1 dB Notch Bandwidth	At 400 MHz : < ±2.2 MHz At 435 MHz : < ±2.5 MHz At 470 MHz : < ±3.0 MHz
Impedance	50 Ω
Reject Attenuation	> 38 dB (See curve)
VSWR	1 - 500 MHz : < 1.5 500 - 550 MHz : < 2.0 550 - 730 MHz : < 3.0 730 - 1 GHz : < 2.0

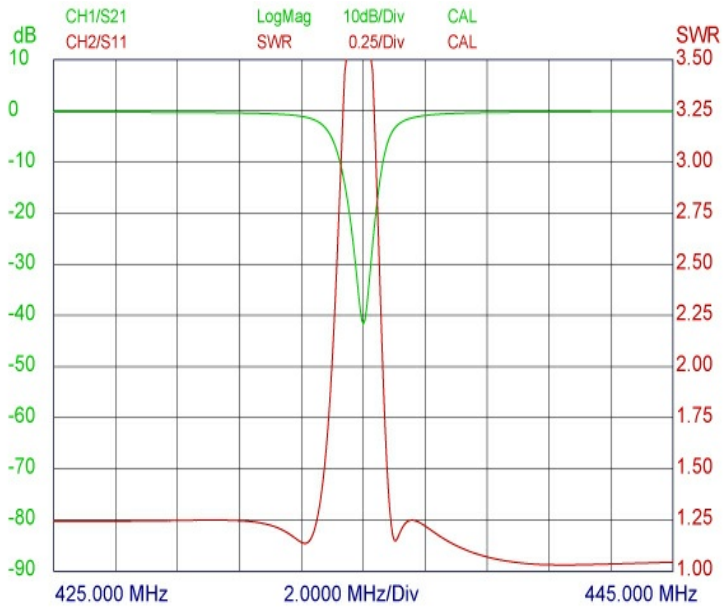
Mechanical	
Connection(s)	N(f) BNC(f), TNC(f), SMA(f) on request
Dimensions	208 x 77 x 33 mm / 8.18 x 3.03 x 1.29 in. (without connectors)
Weight	Approx. 0.55 kg / 1.21 lb.

Environmental	
Operating temperature range	-30 °C to +60 °C

ORDERING

Model	Product No.
BRF 70/3 N(f)	200001233

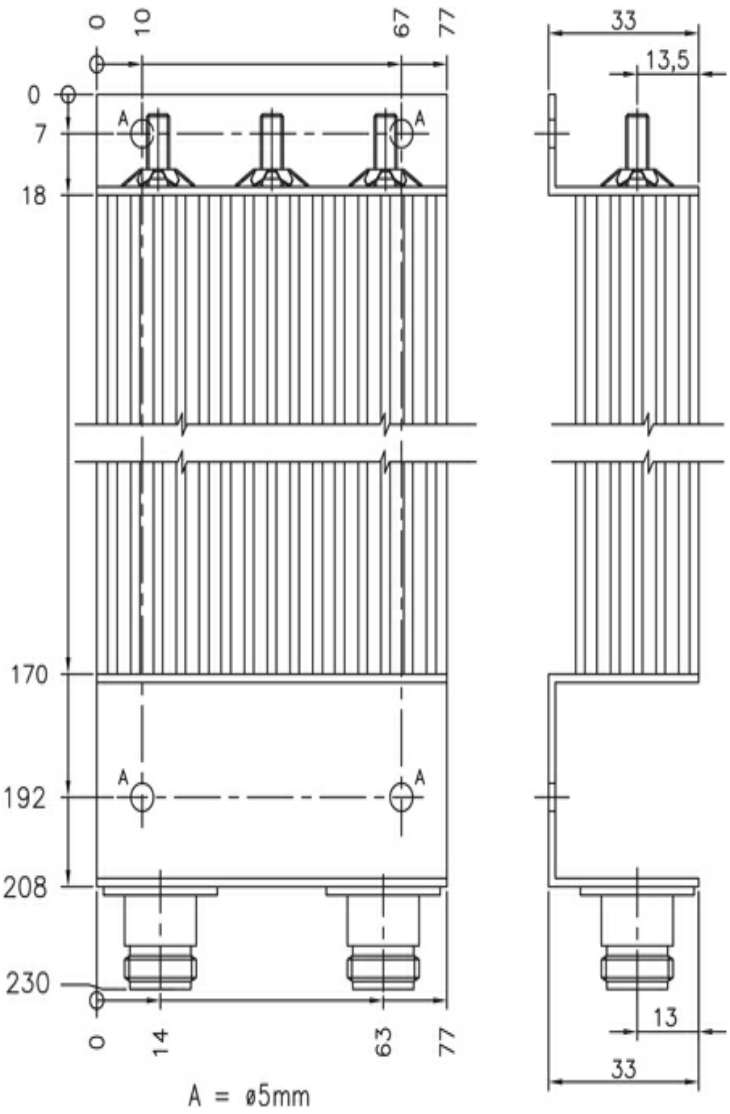
TYPICAL RESPONSE CURVE



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.

MOUNTING DETAILS



All dimensions are given in mm.