

Band-Pass/Band-Reject Filters for the 80 MHz Band

DESCRIPTION

- ▶ The BPBR 4/2 and the BRBP 4/2 are 2-cavity pass-reject filters, which pass one frequency or frequency band and reject another in immediate vicinity of the pass frequency.
- ▶ The BPBR 4/2 has the reject range on the high side of the pass frequency and the BRBP 4/2 has the reject range situated on the low side of the pass frequency.
- ▶ These filter types can be used to protect a receiver against interference from a nearby transmitter. The filters are tuned to reject the interfering signal. BPBR-type filters are applied when the spacing between the utility signal and the interfering signal is so small, that the slope steepness of normal band-pass filters or notch filters are not sufficient enough to provide adequate rejection.
- ▶ The standard BPBR-filters can be tuned within the complete 4 m-band with 1.5 to 16 MHz spacing between the operating frequencies. Insertion loss is below 1.0 dB at spacings between 2.5 and 16 MHz. At the narrowest spacing of 1.5 MHz, insertion loss is kept under 1.9 dB.
- ▶ The filters have very small dimensions owing to the use of high-Q helical resonators with discrete-component interconnections.
- ▶ The housing is made of extruded aluminium, the chassis of passivated steel, and the connectors are provided with teflon insulation. The filters are black vinyl coated to prevent corrosion.
- ▶ Careful design and choice of materials ensure reliable operation over a wide temperature range.



SPECIFICATIONS

Electrical	
Model	BPBR 4/2 / BRBP 4/2
Filter Type	Band-pass / band-reject filter
Frequency	66 - 88 MHz (Option: 88 - 104 MHz)
Max. Input Power	35 - 50 W
Insertion Loss	at 1.5 MHz spacing: < 1.9 dB at 2.5 MHz spacing: < 1.0 dB at 3.5 MHz spacing: < 0.5 dB at 16 MHz spacing: < 0.3 dB
Impedance	50 Ω
Pass-Reject Spacing	1.5 - 16 MHz
VSWR	< 1.5:1
Mechanical	
Connection(s)	N female, BNC female
Dimensions	150 x 52 x 33 mm
Weight	0.25 kg / 0.55 lb
Mounting	4.8 mm dia (2 pcs.)
Environmental	
Operating Temperature Range	-30°C to +60°C
Frequency Stability	10 ppm/° C (approx.)

ORDERING

Model	Product No.	Description	Frequency
BPBR 4/2 N	200001362	Pass Low	Reject High
BRBP 4/2 N	200001488	Pass High	Reject Low
BPBR 4/2 BNC	200001361	Pass Low	Reject High
BRBP 4/2 BNC	200001487	Pass High	Reject Low

DIAGRAM

TYPICAL RESPONSE CURVES

