

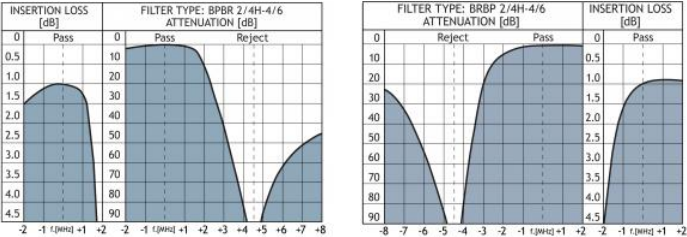
Band-Pass/Band-Reject Filters for the 2m Band

DESCRIPTION

- The BPBR 2/4... and the BRBP 2/4... are 4-cavity pass-reject filters, which pass one frequency or frequency band and reject another in immediate vicinity of the pass frequency.
- The filters are delivered in two basic models: The BPBR-types have the reject range on the high side of the pass frequency and the BRBP-types have 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. Pass-reject-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.
- These filters are primarily intended to pass and reject two single frequencies, but the filters can also be tuned to pass and reject several single frequencies or to having a certain pass and reject port bandwidth. In these cases, factory-tuning is recommended.
- Both the BPBR 2/4... and the BRBP 2/4... are delivered in a high-band and a low-band version tunable within 136 - 154 and 152 - 175 MHz, respectively. These models are again divided into submodels, each dedicated to work with a certain spacing between the pass frequency and the reject frequency. See "Ordering information" below.
- The filter has very small physical dimensions owing to the use of high-Q, temperature compensated helicalresonators.
- The housing is made of extruded aluminium, the chassis of passivated steel, and teflon insulation has been applied in the rigid coaxial cables and in the connectors.
- The filter is black vinyl coated to prevent corrosion.

DIAGRAM

TYPICAL RESPONSE CURVES @ 4.5 MHz TYPICAL RESPONSE CURVES @ 4.5 MHz
DUPLEX SPACING DUPLEX SPACING



TYPICAL RESPONSE CURVES @ 4.5 MHz DUPLEX SPACING



SPECIFICATIONS

Electrical	
Model	BPBR 2/4 / BRBP 2/4
Filter Type	Band-pass / band-reject filter
Frequency	136 - 175 MHz
Max. Input Power	50 W
Pass Band Insertion Loss	Single-channel tuned ≤ 1.0 dB Multi-channel tuned, 1.5 MHz BW ≤ 1.2 dB
Impedance	50 Ω
Pass-Reject Spacing	4 - 10 MHz (see table)
Reject Attenuation	Single channel tuned > 90 dB Multi channel tuned, 1.5 MHz BW > 60 dB
VSWR	$\leq 1.5:1$
Mechanical	
Connection(s)	BNC(f)
Dimensions	L:210 x W:104 x H:33 mm / L:8.26 x W:4.09 x H:1.29 in.
Weight	Approx. 0.6 kg / 1.32 lb
Environmental	
Operating Temperature Range	-30°C to +60°C
Frequency Stability	10 ppm/° C (approx.)

ORDERING

Model	Product No.	Description	Frequency
BPBR 2/4 L-4/6	200001349	SPACING: 4 - 6 MHz	136 - 154 MHz
BRBP 2/4 L-4/6	200001474	SPACING: 4 - 6 MHz	136 - 154 MHz
BPBR 2/4 L-6/8	200001350	SPACING: 6 - 8 MHz	136 - 154 MHz
BRBP 2/4 L-6/8	200001478	SPACING: 6 - 8 MHz	136 - 154 MHz
BPBR 2/4 L-8/10	200001351	SPACING: 8 - 10 MHz	136 - 154 MHz
BRBP 2/4 L-8/10	200001479	SPACING: 8 - 10 MHz	136 - 154 MHz
BPBR 2/4 H-4/6	200001345	SPACING: 4 - 6 MHz	152 - 175 MHz
BRBP 2/4 H-4/6	200001468	SPACING: 4 - 6 MHz	152 - 175 MHz
BPBR 2/4 H-6/8	200001328	SPACING: 6 - 8 MHz	152 - 175 MHz
BRBP 2/4 H-6/8	200001463	SPACING: 6 - 8 MHz	152 - 175 MHz
BPBR 2/4 H-8/10	200001337	SPACING: 8 - 10 MHz	152 - 175 MHz
BRBP 2/4 H-8/10	200001465	SPACING: 8 - 10 MHz	152 - 175 MHz

