BPBR 2/4 / BRBP 2/4

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



ORDERING DESIGNATIONS

TYPE	PRODUCT NO.	TUNING RANGE (MHZ)	PASS/REJECT SPACING (MHZ)
BPBR 2/4 L-4/6 BRBP 2/4 L-4/6	200001349 200001474	136 - 154	4 - 6
BPBR 2/4 L-6/8 BRBP 2/4 L-6/8	200001350 200001478	136 - 154	6 - 8
BPBR 2/4 L-8/10 BRBP 2/4 L-8/10	200001351 200001479	136 - 154	8 - 10
BPBR 2/4 H-4/6 BRBP 2/4 H-4/6	200001345 200001468	152 -175	4 - 6
BPBR 2/4 H-6/8 BRBP 2/4 H-6/8	200001328 200001463	152 -175	6 - 8
BPBR 2/4 H-8/10 BRBP 2/4 H-8/10	200001337 200001465	152 -175	8 - 10

SPECIFICATIONS

FLECTRICAL							
ELECTRICAL							
MODEL	BPBR 2/4 / BRBP 2/4						
FILTER TYPE	Band-pass / band-reject filters						
FREQUENCY	136 - 175 MHz						
MAX. INPUT POWER	50 W						
INSERTION LOSS (PASS BAND) (at 4.5 MHz spacing)	Single-channel tuned $\leq 1.0~\text{dB}$ Multi-channel tuned, 1.5 MHz BW $\leq 1.2~\text{dB}$						
REJECT ATTENUATION	Single channel tuned > 90 dB Multi channel tuned, 1.5 MHz BW > 60 dB						
PASS/REJECT SPACING	4 - 10 MHz (see table)						
IMPEDANCE	Nom. 50 Ω						
SWR	≤ 1.5						
MECHANICAL							
TEMP. RANGE	-30° C → +60° C						
FREQ. STABILITY	Approx. 10 ppm/° C						
CONNECTORS	BNC-female						
DIMENSIONS (L x W x H)	210 x 104 x 33 mm						
WEIGHT	Approx. 600 g						

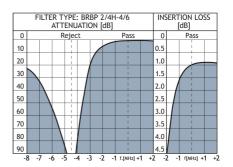
ORDERING INFORMATION

If pass and reject frequencies are stated when ordering, the filters are delivered factory-adjusted. Ordering example:BRBP 2/4..., LOW: 149.5 MHz, HIGH: 154.0 MHz. In this case, further information is not required.

When ordering untuned filters please use the model selection table above to select the appropriate ordering designation for the desired filter type.

TYPICAL RESPONSE CURVES @ 4.5 MHz DUPLEX SPACING

INSERTION LOSS [dB]				FILTER TYPE: BPBR 2/4H-4/6 ATTENUATION [dB]											
0		Pass				0	Pass Reject								
0.5		į.				10						i			
1.0		i				20		i		1		i			
1.5	\backslash			\		30		1				1			
2.0		į.				40						1			
2.5		i				50						i			
3.0		- 1			П	60		1				1			
3.5		- 1			П	70						1	1		
4.0						80						i			
4.5		- 1			I	90		1				i.			





PROCOM A/S behält sich das Recht vor, Änderungen ohne vorherige Ankündigung vorzunehmen. 23/02/11

