

BpBr Circuit® DUPLEXER

WP-642 144-174 MHz

WP-622 118-144 MHz

MIN. FREQ. SPACING: 270 KHz
POWER: TO 275 WATTS

MODEL WP-642 is a *b*-cavity BpBr Circuit® duplexer designed for use with duplex systems operating at 270 KHz or more frequency separation in the 144-174 MHz band. It consists of six 8" OD cavities interconnected with double shielded cable in a bandpass-reject configuration. To maintain maximum isolation, double shielded cable must be used to interconnect the duplexer to the transmitter and receiver. Numerous duplexer installation cable kits are available but must be ordered as an optional item. The Model IC-227418 cabinet is also available as an optional item.

Model WP-622 is identical to the above model but designed for use with duplex stations operating in the 118-144 MHz band when the Tx and Rx frequency separation is 270 KHz or more.

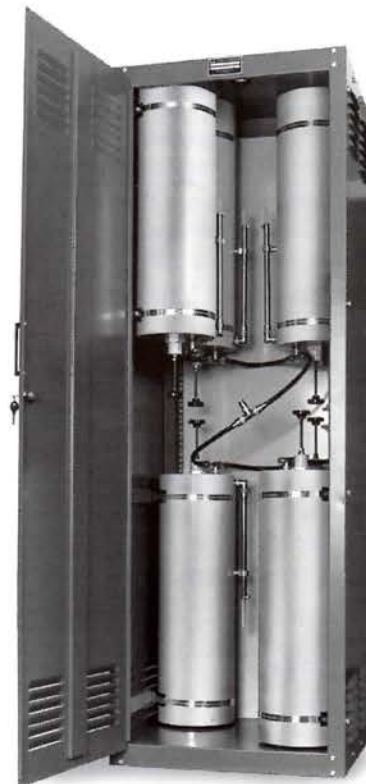
The BpBr Circuit®, which was developed and patented by Wacom, is a unique circuit for coupling energy into and out of a cavity filter. It provides a bandpass cavity response at the pass frequency and a deeper and wider notch at the reject frequency. BpBr Circuit® duplexers are equally suitable for use in systems with close or wide frequency separations.

WHEN ORDERING, specify model number and the exact transmit and receive frequencies to which the duplexer should be tuned. If the optional Type N connectors are preferred (same price), so indicate by adding "with Type N connectors" after the model number.

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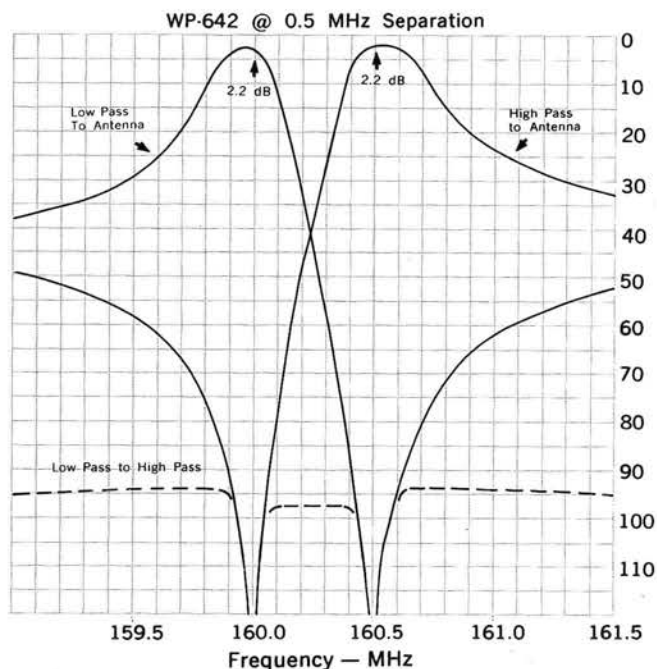
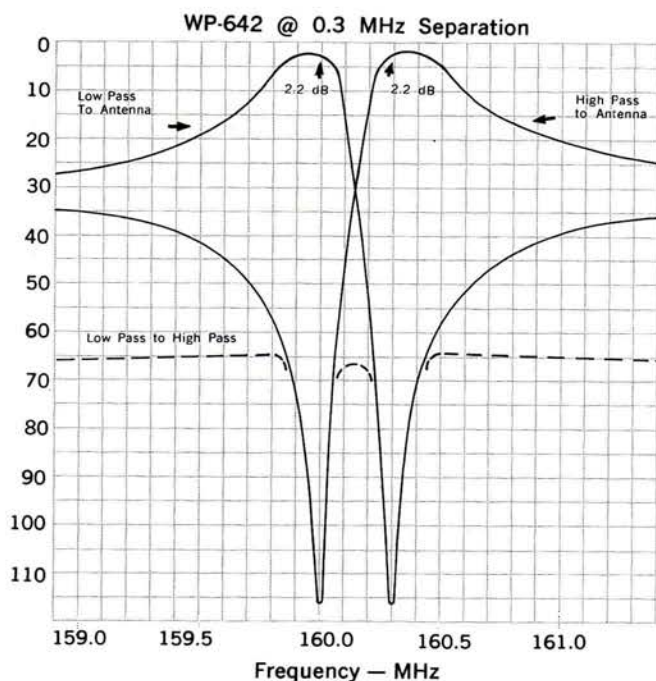


Model WP-642



Optional Model IC-227418
Indoor Cabinet

TYPICAL DUPLEX RESPONSE CURVES



ELECTRICAL DATA

	Model WP-622	Model WP-642
Tuning Range A Range	118-136 MHz	144-174 MHz
B Range	130-144 MHz	
Minimum Frequency Separation	0.27 MHz or more	0.27 MHz or more
Maximum Power Input (continuous duty)	275 watts	275 watts
Insertion Loss (Tx and Rx to antenna)		
with 0.27 MHz separation	2.2 dB	2.2 dB
with 0.5 MHz separation	2.2 dB	2.2 dB
Attenuation at Tx Freq. and Rx Freq.		
with 0.27 MHz separation	110 dB	110 dB
with 0.50 MHz or more separation	120 dB	120 dB
Isolation (midway between channels)		
with 0.27 MHz separation	55 dB	55 dB
with 0.50 MHz separation	90 dB	90 dB
Maximum VSWR (Ref. 50 ohms)	1.3 to 1	1.3 to 1
Temperature Range	-30° to + 60°C	-30° to + 60°C
Number of Cavity Filters	6	6

MECHANICAL DATA

Dimensions:		
Individual Cavity (not incl. tuning rods)	8" OD x 29"	8" OD x 25"
Duplexer (D x W x H) with tuning rods fully extended	17" x 27" x 36"	17" x 27" x 33"
Connector Terminations (Tx, Rx, Ant.)	UHF female (Type N optional)	UHF female (Type N optional)
Net Weight	68 lbs.	62 lbs.
Shipping Weight	82 lbs.	74 lbs.
Optional Cabinet	IC-227418	IC-227418
Dimensions, cabinet (D x W x H)	18 1/2" x 22 1/2" x 74"	18 1/2" x 22 1/2" x 74"
Shipping Weight (Cabinet and Duplexer)	248 lbs.	240 lbs.

