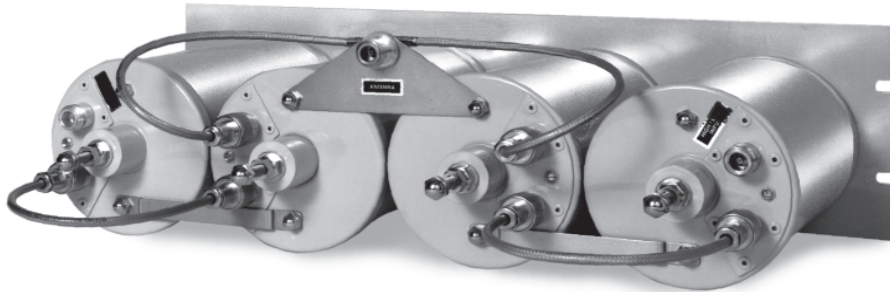


BpBr Circuit® DUPLEXER

WP-678 440-512 MHz

WP-665 400-440 MHz

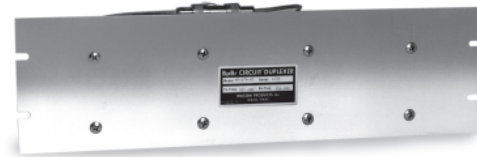
MIN. FREQ. SPACING: 3.0 MHz
POWER: TO 200 WATTS



Model WP-678

MODEL WP-678 is a 4-cavity BpBr Circuit® duplexer designed for use with duplex systems operating at 3 MHz or more separation in the 440-512 MHz band. It consists of four 4" OD copper cavities interconnected with double shielded cable in a bandpass-reject configuration. Three models, each with a tuning range of approximately 25 MHz are available to cover the 440-512 MHz range. 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.

MODEL WP-665 is almost identical to the above model but designed for use with duplex stations operating in the 400-440 MHz band when the Tx and Rx frequency separation is 3.0 MHz or more.

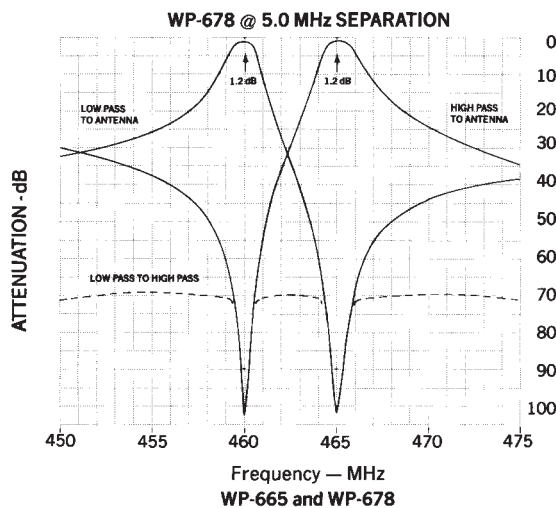
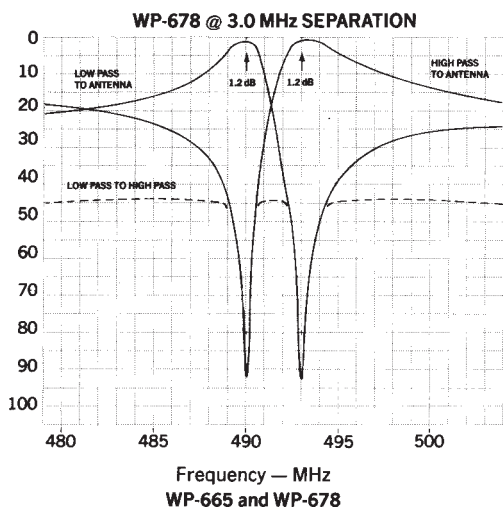


The BpBr Circuit®, which was developed and patented by Wacom, is a unique circuit for coupling energy into and out of a cavity filter. It provides a bandpass cavity response at the pass frequency and a deeper and wider notch at the reject frequency. BpBr Circuit® duplexers are equally suitable for use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

BpBr Circuit® is a Registered Trademark of Wacom Products, Inc.

TYPICAL DUPLEX RESPONSE CURVES



ELECTRICAL DATA

	Model WP-665	Model WP-678
Tuning Range		
A Range	400-420 MHz	440-470 MHz
B Range	420-440 MHz	470-494 MHz
C Range		488-512 MHz
Minimum Frequency Separation	3.0 MHz or more	3.0 MHz or more
Maximum Power input (continuous duty)	200 watts	200 watts
Insertion Loss (Tx and Rx to Antenna)		
at 3.0 MHz separation	1.2 dB	1.2 dB
at 5.0 MHz separation	1.2 dB	1.2 dB
Attenuation at Tx Freq. and Rx Freq.		
at 3.0 MHz separation	90 dB	90 dB
at 5.0 MHz or more separation	95 dB	95 dB
Isolation (midway between channels)		
at 3.0 MHz separation	45 dB	45 dB
at 5.0 MHz or more separation	60 dB	60 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	4	4

MECHANICAL DATA

Materials:		
Cavity Outer Conductor	Copper	Copper
Cavity Inner Conductor	Copper	Copper
Cavity End Plates	Copper/Brass	Copper/Brass
Cavity Tuning Rod	Invar	Invar
Dimensions:		
Individual Cavity (not incl. tuning rod)	4" dia. x 8 1/2"	4" dia. x 8"
Duplexer (D x W x H) with tuning rods fully extended	5 1/2" x 11" x 19"	5 1/2" x 11" x 19"
Connector Terminations	Type N Female	Type N Female
Finish	Black Enamel	Black Enamel
Net Weight	19 lbs.	18 lbs.
Shipping Weight	26 lbs.	25 lbs.