BpBr Circuit® DUPLEXER

WP-652
WP-653

210-260 MHz

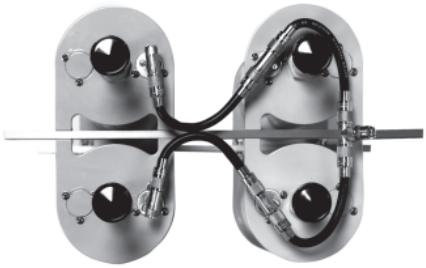
MIN. FREQ. SPACING: 1.0 MHz
POWER: TO 200 WATTS

MODEL WP-652 is a 4-cavity duplexer designed for use with duplex systems operating in the 210-260 MHz band when the separation between the transmit and receive frequencies is 1 MHz or more. It consists of four 5" OD cavities interconnected with double shielded cable in a bandpass-reject configuration. It is generally suitable for use with all types of repeater stations. 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-653 is a 6-cavity version of the above model. It consists of two bandpass-reject cavities and one bandpass cavity in each section of the duplexer. The bandpass cavity in each section provides an additional margin of protection to and from other nearby systems. This feature is especially important if the system is to be operated in a "hostile" site where numerous other transmitters and receivers are used.

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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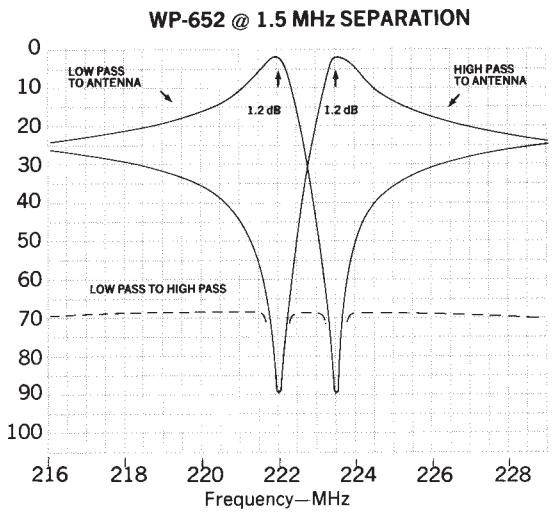
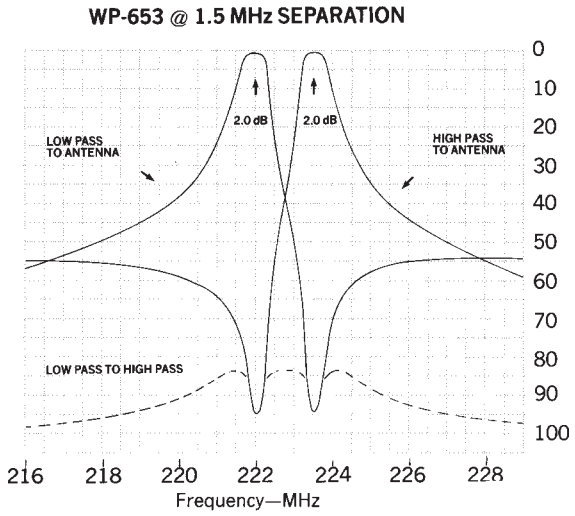
Printed in U.S.A.– 3-97

WACOM
PRODUCTS, INC.

DUPLEXERS

TYPICAL DUPLEX RESPONSE CURVES





ELECTRICAL DATA

	Model WP-652	Model WP-653
Frequency Range	210-260 MHz	210-260 MHz
Minimum Frequency Separation	1.0 MHz or more	1.0 MHz or more
Maximum Power input (continuous duty)	200 watts	200 watts
Insertion Loss (Tx and Rx to Antenna)		
at 1.0 MHz separation	1.5 dB	2.2 dB
at 1.5 MHz separation	1.2 dB	2.0 dB
at 5.0 MHz or more separation	1.2 dB	2.0 dB
Isolation at Tx Freq. and Rx Freq.		
at 1.0 MHz separation	85 dB	90 dB
at 1.5 MHz separation	90 dB	95 dB
at 5.0 MHz or more separation	95 dB	100 dB
Isolation (midway between channels)		
at 1.0 MHz separation	45 dB	60 dB
at 1.5 MHz separation	60 dB	80 dB
at 5.0 MHz or more separation	85 dB	100 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	6

MECHANICAL DATA

Dimensions:		
Individual Cavity (not incl. tuning rods)	5" OD x 17"	5" OD x 17"
Duplexer (D x W x H) with tuning rods fully extended	13" x 17" x 22"	13" x 17" x 22"
Connector Terminations (Tx, Rx, Ant.)	UHF female (Type N optional)	UHF female (Type N optional)
Finish	Black Enamel	Black Enamel
Net Weight	22 lbs.	30 lbs.
Shipping Weight	28 lbs.	39 lbs.