

TPCD-1553, 1554, 1556 VHF BANDPASS DUPLEXERS



TPCD-1553

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The Telewave TPCD-1553, TPCD-1554, and TPCD-1556 allow simultaneous operation of a transmitter and receiver into a common antenna. These bandpass duplexers are ideal in frequency congested areas where protection is needed from surrounding transmitters, and where maximum transmitter sideband filtering is necessary.

Because of their superior construction, these Telewave 5" cavity duplexers achieve greater rejection of transmitter noise and spurious radiation, providing excellent receiver protection. Telewave duplexers have 1/4" aluminum top plates which are fully welded to the aluminum outer conductor. Silver-plated tuners, beryllium copper finger stock

contactors and threaded Invar rods assure maximum temperature stability, higher "Q", and many years of trouble free operation.

Selectivity and insertion loss may be adjusted by rotating the calibrated connector loops. (See next page for typical response curves.)

The TPCD-1553 includes two bandpass cavities in the transmitter section. It is recommended when frequency spacing between transmitter and receiver is 5 MHz or more.

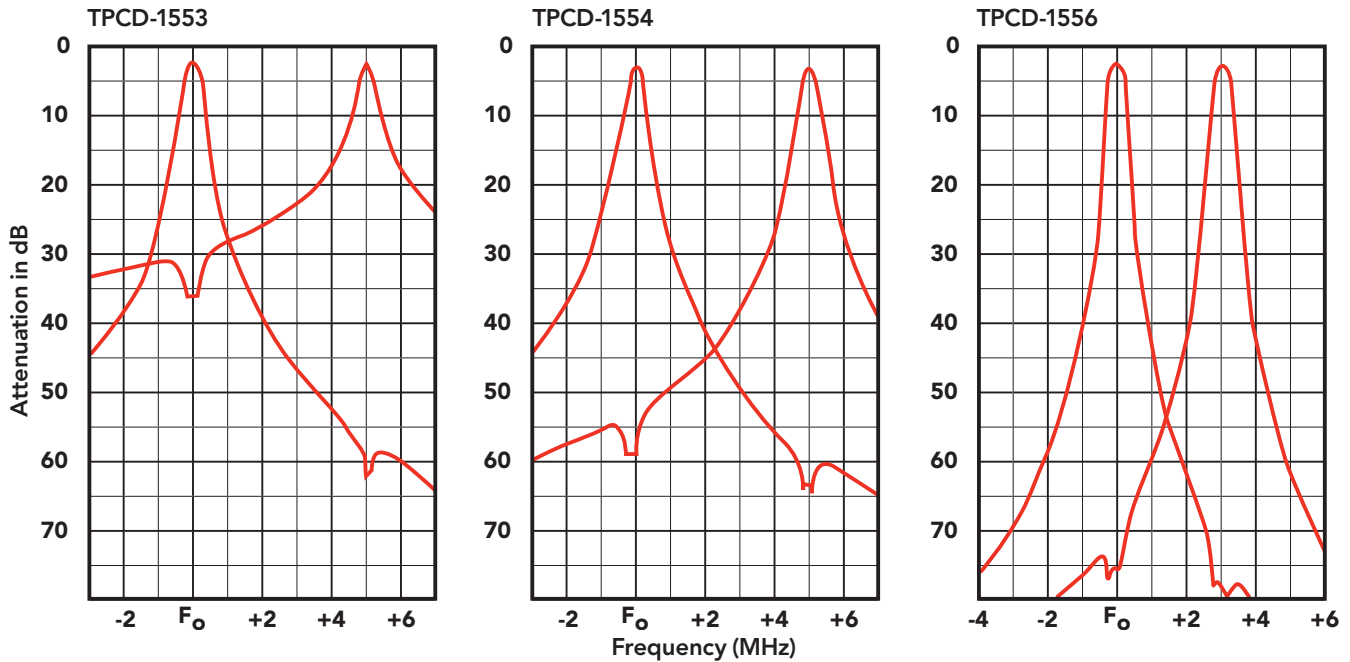
The TPCD-1554 has two bandpass cavities in both the transmitter and receiver sections. This duplexer is designed for transmitters and receivers with a spacing of 4 MHz or more.

The TPCD-1556 has three bandpass cavities in both the transmitter and receiver sections. This duplexer is designed for transmitters and receivers with spacing of 2 MHz or more.

All duplexers are tuned and tested with customer-specified frequencies prior to shipping. If frequency changes are required, the positive locking mechanism allows for easy field tuning by rotating the threaded Invar rod.

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TYPICAL DUPLEX RESPONSE



ELECTRICAL SPECIFICATIONS	TPCD-1553	TPCD-1554	TPCD-1556
Tuning range		148-174 MHz	
Cavities	(3) - 5"	(4) - 5"	(6) - 5"
Frequency separation (min)	5 MHz	4 MHz	2 MHz
Maximum input power		350 watts	
VSWR (max)		1.5:1	
Insertion loss TX / RX to ant.	1.0 dB	1.0 dB	1.5 dB
RX isolation at TX	35 dB at 5 MHz	55 dB at 4 MHz	63 dB at 2 MHz
		58 dB at 5 MHz	75 dB at 3 MHz
TX noise suppression at RX	62 dB at 5 MHz	58 dB at 4 MHz	66 dB at 2 MHz
		63 dB at 5 MHz	77 dB at 3 MHz
Temperature range		-30°C to +70°C	
MECHANICAL SPECIFICATIONS			
Dimensions (HWD) in.	28 x 19 x 6	28 x 19 x 11	28 x 19 x 11
(Tuners fully extended) (cm)	(71 x 48 x 15)	(71 x 48 x 28)	(71 x 48 x 28)
Connectors		N or UHF Female	
Finish		Gray acrylic enamel	
Net weight lb. (kg)	15 (7)	19 (8.6)	27 (12.3)

NOTES: Specify model number and exact transmitter and receiver frequencies when ordering.
All models are built on 19" rails for rack or wall mounting.