

TPCD-4554, 4556

UHF BANDPASS DUPLEXERS



The Telewave TPCD-4554 and TPCD-4556 duplexers allow simultaneous operation of a transmitter and receiver into a common antenna. These bandpass duplexers have low insertion loss, and 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.

The TPCD-4554 has two, and the TPCD-4556 has three, $\frac{3}{4}$ -wave bandpass cavities in the transmitter and receiver sections.

These duplexers are designed for transmitters and receivers with frequency spacing of 5 MHz or more.

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

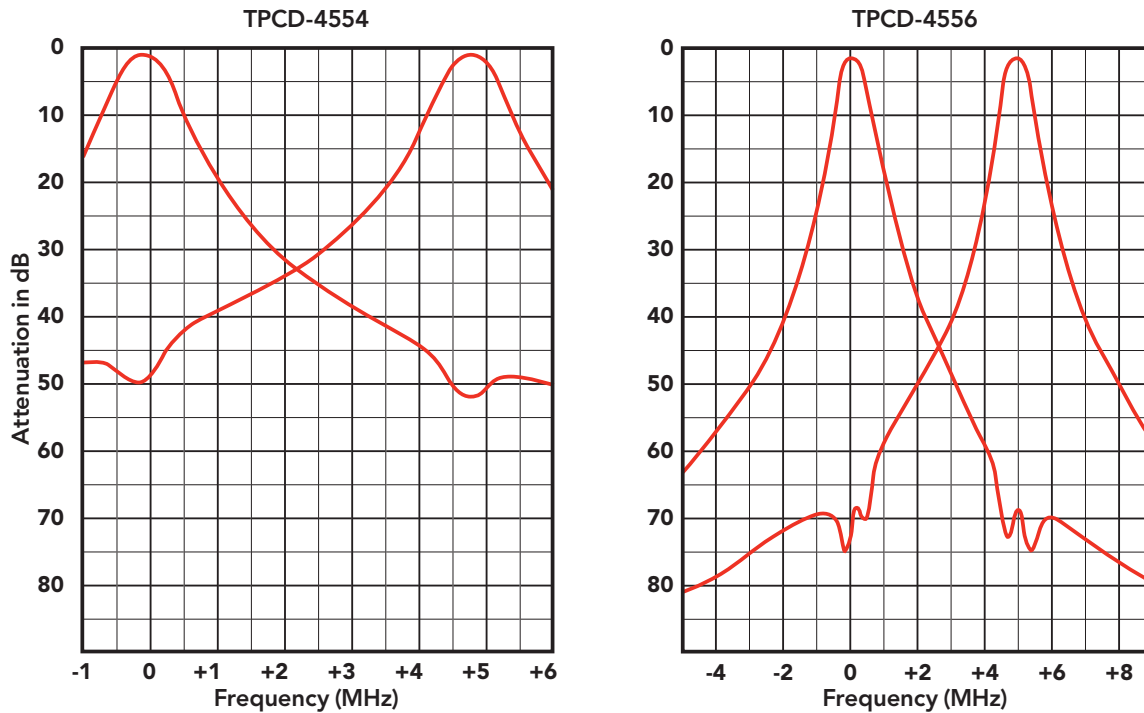
Telewave duplexers have $\frac{1}{4}$ -inch aluminum top plates which are fully welded to the aluminum outer conductor. Silver-plated tuners, beryllium copper finger stock contactors and threaded Invar rods assure maximum temperature stability, higher "Q", and many years of trouble free operation.

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-4554	TPCD-4556
Tuning range	400-512 MHz	
Number of cavities	(4) - 5"	(6) - 5"
Frequency separation (min)	5 MHz	
Maximum input power	350 watts	
VSWR (max)	1.5:1	
Insertion loss TX / RX to ant.	1.0 dB	1.5 dB
RX isolation at TX frequency	50 dB at 5 MHz	75 dB at 5 MHz
TX noise suppression at RX frequency	52 dB at 5 MHz	75 dB at 5 MHz
Temperature range	-30°C to +70°C	
MECHANICAL SPECIFICATIONS		
Dimensions (HWD) in. (cm) (Tuners fully extended)	28 x 19 x 11 (74 x 48 x 28)	
Connectors	N or UHF female	
Finish	Gray acrylic enamel	
Net weight lb. (kg)	19 (8.6)	27 (12.3)

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