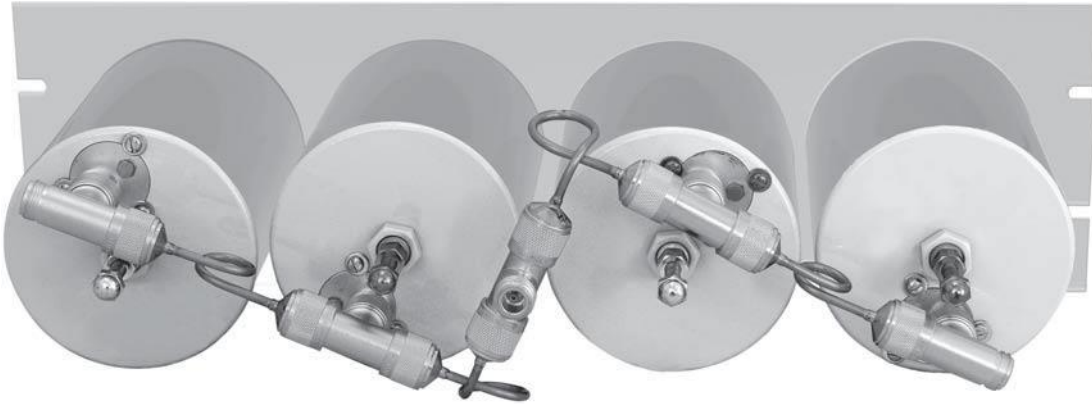


## TPRD-8644

### PASS/REJECT DUPLEXER



The Telewave.io TPRD-8644 Base Station Duplexer provides high performance and high reliability for the 760 or 860 MHz Public Safety and trunking bands. This duplexer can be easily reconfigured for transition from one band to the other. With two Pass/Reject cavities in each transmitter and receiver path, these duplexers provide maximum TX to RX protection in dense RF environments.

Mil-Spec semi-rigid cable is used for all interconnections to ensure long life, and lowest insertion loss with maximum power handling capability

Heavy-duty materials are used in construction of this duplexer, including silver-plated tuners and beryllium copper fingerstock contactors, assuring high "Q"

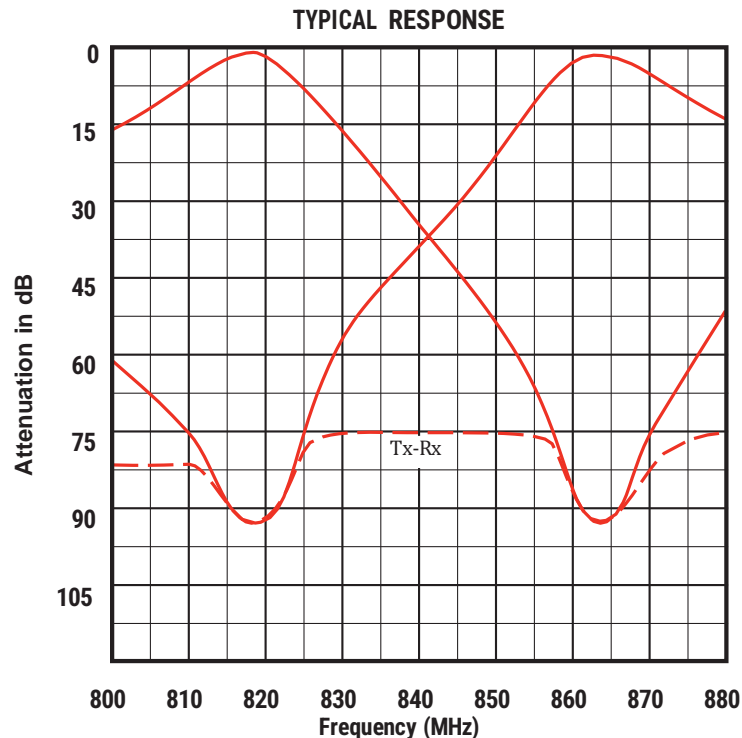
performance with no problems due to dissimilar metals. Heliarc welded top and bottom plates ensure reliable, noise-free operation. Tuning is simple and remains stable from -30° C to +70° C, thanks to the threaded Invar tuning rod.

Adjustable coupling optimizes the required attenuation for ideal RX performance. All cavity inputs are electrically shorted to ground for maximum static and noise protection.

All duplexers are tuned and tested with customer-specified frequencies prior to shipping. No further adjustments should be required. The positive locking mechanism allows for easy field tuning if frequency changes are implemented.

The TPRD-8644 mounts on a 19" standard rack, with panel height of 5.25". Power handling is 250 watts. Receiver desense protection is at least 80 dB, and TX sideband suppression is at least 80 dB.

With TX to RX spacing of 5 MHz or more, this duplexer can combine two transmitters into one antenna, or feed two receivers. For spacing less than 5 MHz, please contact Telewave for additional information.

**TPRD-8644**


ELECTRICAL SPECIFICATIONS	
Frequency range	763-869 MHz
Frequency separation (min)	30 MHz (764-806 MHz) / 45 MHz (806-869 MHz)
Maximum input power	250 watts
Insertion loss (TX/RX to ant., typ)	1.0 dB
TX noise suppression at RX (min)	80 dB
RX attenuation at TX (min)	80 dB
TX-RX isolation for 5 MHz separation (min)	70 dB
VSWR (max)	1.5:1
Impedance	50 ohms
Temperature range	-30°C to +70°C
Number of cavities	4
MECHANICAL SPECIFICATIONS	
Cavity diameter in. (cm)	4 (10)
Dimensions (HWD) in. (cm)	5.25 x 19 x 10.5 (13 x 48 x 26.67)
Mounting	19" Panel
Connectors	N Female
Finish	Acrylic enamel
Net weight lb. (kg)	21 (9.6)
Shipping weight lb. (kg)	26 (11.8)

Specify exact transmitter and receiver frequencies when ordering.