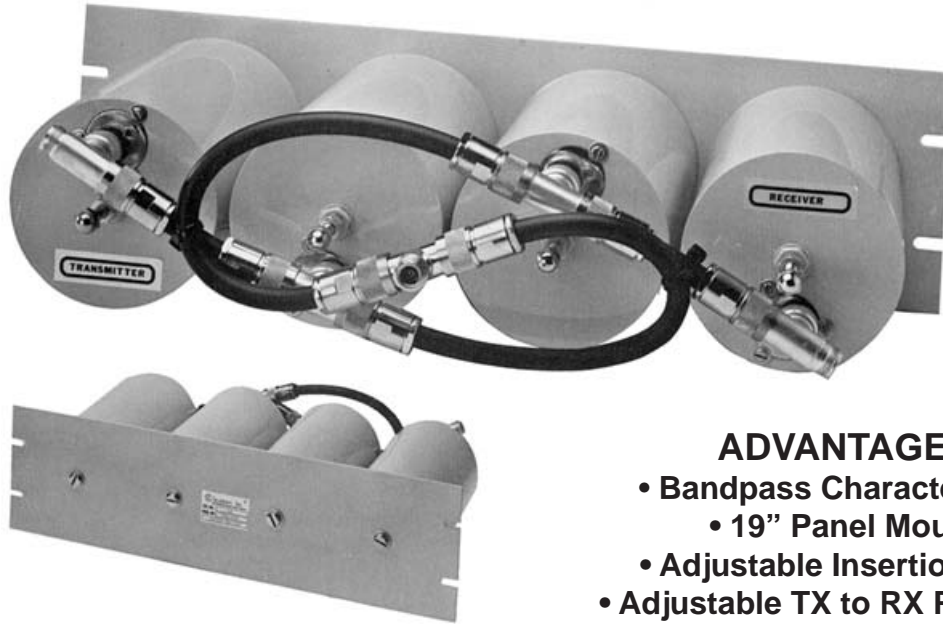




TPRD-4544, 4744 PASS-REJECT DUPLEXER



ADVANTAGES

- Bandpass Characteristics
- 19" Panel Mount
- Adjustable Insertion Loss
- Adjustable TX to RX Protection

The TELEWAVE TPRD-4544/4744 Base Station Duplexers set an all-time standard for the LMR industry. By using two TPRC-4504 or 4704 Bandpass/Band-Reject cavities in each transmitter and receiver path, these duplexers provide maximum TX to RX protection in the most severe RF environments.

The unique design of the Bandpass/Band-Reject duplexer provides a bandpass characteristic with minimum insertion loss, while also providing maximum TX to RX protection.

Other advantages include:

- Adjustable coupling to match the required attenuation for ideal RX performance.
- All cavity inputs are electrically shorted to ground for maximum static and noise protection.
- RG-214 Mil-Spec 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. Tuning is simple and remains stable from -30C to +70C, thanks to the threaded Invar rod.

With specified frequencies, all duplexers are pre-tuned and tested prior to shipping from the factory. No further adjustments should be required. The positive locking mechanism allows for easy field tuning if frequency changes are implemented.

The TPRD-4544/4744 duplexers mount on a 19" standard rack, with panel height of 5.25". Power handling is 250 watts. Receiver desense protection is at least 90 dB, and TX sideband suppression is at least 75dB, making these duplexers ideal for all base stations.

With TX to RX spacing of 3 MHz or more, this duplexer can combine two transmitters into one antenna, or feed two receivers. For spacing less than 3 MHz, please contact Telewave for additional information.

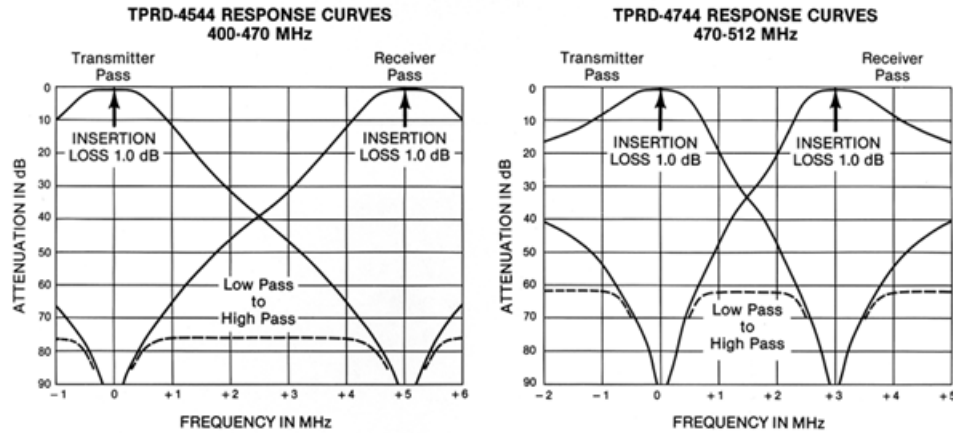
TELEWAVE, INC.

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www.SolidSignal.com 877.312.4547

TPRD-4544, 4744

TYPICAL DUPLEXER RESPONSE CURVES



Insertion Loss and Isolation are Adjustable.

MODEL

Frequency Range	TPRD-4544 400-470 MHz	TPRD-4744 470-512 MHz
Frequency Separation (min)	5 MHz or more	3 MHz or more

COMMON SPECIFICATIONS

ELECTRICAL

Maximum Power Input (Continuous)	250 Watts
Insertion Loss (TX & RX to Antenna)	1.0 dB
TX noise suppression at RX freq.	90 dB
RX attenuation at TX freq.	90 dB
Isolation (Minimum) TX to RX	
5 MHz Separation	75 dB
3 MHz Separation	60 dB
Maximum VSWR	1.2 to 1
Temperature Range	-30 C to +70 C

MECHANICAL

Number of cavities	4
Cavity diameter in.	4
Dimensions in (cm) (HWD)	5.25 x 19 x 10.5 (13.3 x 48 x 26.7)
Mounting	9" panel
Connector Termination	Type N Female
Finish	Acrylic Enamel
Net Weight lb (kg)	21 (9.5)
Shipping Weight lb (kg)	26 (11.8)

ORDERING INFORMATION:

Exact transmitter and receiver frequencies must be specified.

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