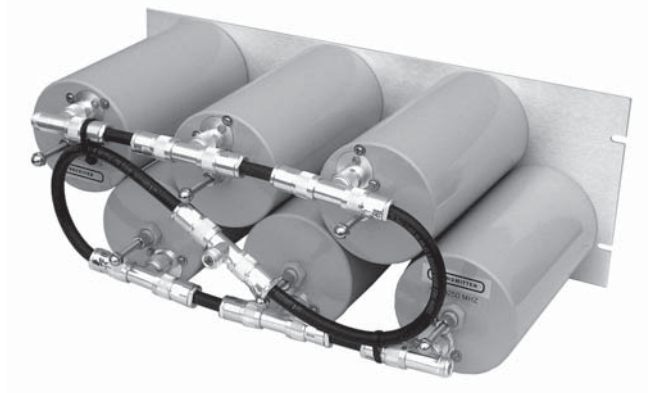
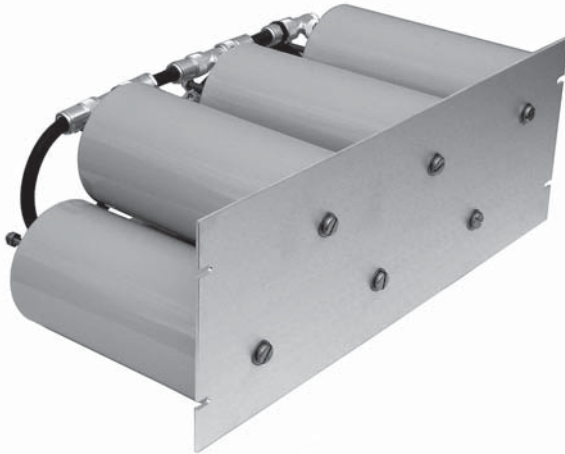


## **TPRD-4546**

### **UHF BANDPASS / BANDREJECT DUPLEXER**



The Telewave TPRD-4546 UHF Duplexer allows simultaneous operation of a transmitter or combiner and receiver into a common antenna. This band-pass/ band-reject duplexer provides maximum TX-to-RX isolation with minimum insertion loss. Six 4" high "Q" cavities in a pass/reject configuration provide better isolation with close frequency spacing than an equivalent bandpass-only duplexer.

The TPRD-4546 can also be configured for at least 1.2 MHz pass and reject bandwidth with rated attenuation.

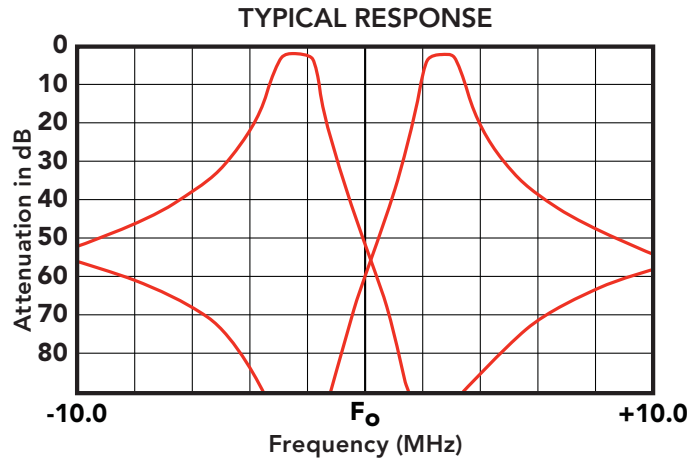
The superior construction of Telewave duplexers allows the highest possible rejection of transmitter spurious radiation and noise, providing maximum protection for the receiver system.

Heavy-duty materials are used throughout to insure top performance and long service. Each cavity is constructed with a 1/4" aluminum top plate which is fully welded to the cavity body.

RG-214 Mil-Spec cable is used for the interconnect, and temperature stability is maintained by the use of a threaded Invar tuning rod. Tuners are all silver-plated, and sliding contacts are manufactured from beryllium copper fingerstock.

The TPRD-4546 is rack mounted on a 7" x 19" panel. Selectivity and insertion loss are adjustable as required. All duplexers are tuned and tested with customer specified frequencies prior to shipping, and no further adjustment should be required before installation.

# TPRD-4546



| ELECTRICAL SPECIFICATIONS               |                                |
|---|--------------------------------|
| Frequency range                         | 400-512 MHz                    |
| Frequency separation (min)              | 3 MHz                          |
| Pass / reject bandwidth (typ)           | 1.2 MHz                        |
| Maximum input power                     | 250 watts                      |
| Insertion loss at pass band (TX and RX) | 1.75 dB typ. / 2.0 dB max      |
| TX attenuation at RX band (typ)         | 95 dB                          |
| RX attenuation at TX Band (typ)         | 95 dB                          |
| TX to RX Attenuation at 3 MHz (min)     | 85 dB                          |
| TX to RX Attenuation at 5 MHz (min)     | 90 dB                          |
| Impedance / VSWR (max)                  | 50 ohms / 1.5:1                |
| Temperature range                       | -30°C to +70°C                 |
| MECHANICAL SPECIFICATIONS               |                                |
| Number of cavities                      | (6) - 4" Dia. x 8" L           |
| Dimensions (HWD) in. (cm)               | 7 x 19 x 11 (17.8 x 48.3 x 28) |
| Mounting                                | 19" Panel                      |
| Connectors                              | N Female                       |
| Panel finish                            | Clear alodine                  |
| Cavity finish                           | Gray enamel                    |
| Net weight lb. (kg)                     | 16 (7.3)                       |
| Shipping weight lb. (kg)                | 19.5 (8.9)                     |

**NOTE:** Exact transmitter and receiver frequencies must be specified when ordering.