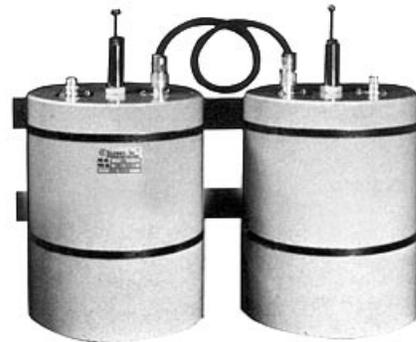


TWPC-7908
BANDPASS CAVITY**TWPC-7908-1****TWPC-7908-2**

The Telewave **TWPC-7908** is a high-Q, eight-inch diameter bandpass cavity filter with superior selectivity. Designed to reject all frequencies outside a narrow passband, this cavity filter is installed between a transmitter and an antenna to reduce sideband noise and intermodulation interference, or before a receiver to protect against desensitization. The TWPC-7908 is used extensively in Telewave expandable low loss combiners.

The TWPC-7908-1 is a $\frac{1}{4}$ wavelength cavity with calibrated adjustable coupling, allowing insertion loss to be easily set from less than 0.5dB to 3.0dB, with corresponding increases in selectivity. This allows optimum setting of insertion loss for close frequency rejection. For severe RF interference environments, the TWPC-7908-2 dual cavity, or TWPC-7908- $\frac{3}{4}$ wavelength cavity filters provide higher Q response for state of the art selectivity.

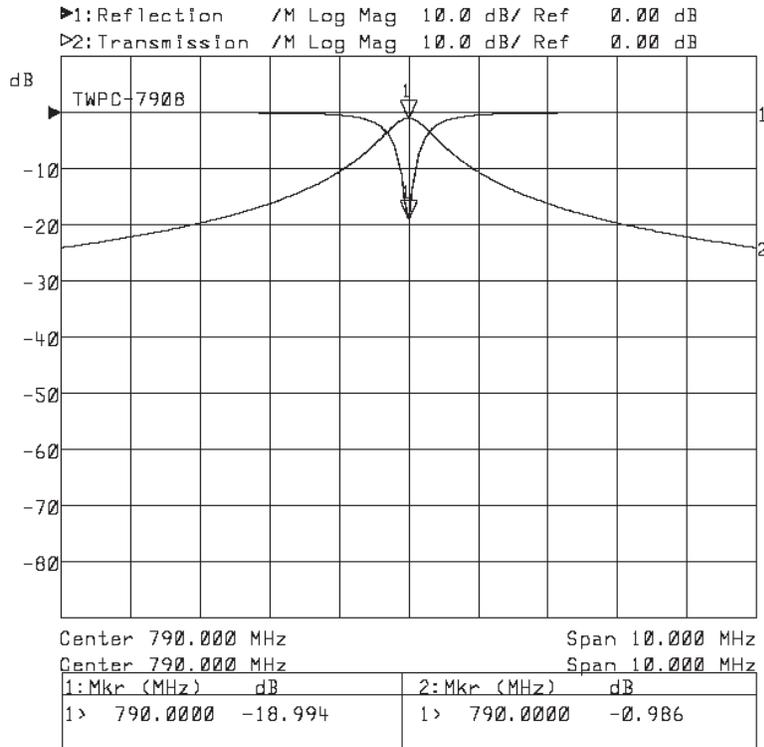
Frequency stability is critical in high-Q cavities, and the Telewave TWPC-7908 is engineered to close tolerances with a precision machined compensator and threaded Invar rod. Frequency stability is maintained from -30° C to $+70^{\circ}$ C, with high power capability up to 350 watts.

Heavy duty materials are used throughout the cavity to ensure top performance and long life. The TWPC-7908 top plates are machined from $\frac{1}{4}$ " aluminum, and Heliarc welded to the aluminum outer conductor at the high-current point for excellent conductivity and strength. Similar metals and alodined aluminum are used to prevent galvanic corrosion. Silver-plated tuners and beryllium-copper finger stock provide non-corrosive low loss contact.

All cavities are factory tuned to customer frequencies prior to shipment, and no further adjustments should be required. If system retuning becomes necessary, the positive locking mechanism allows easy field tuning without special tools.

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TWPC-7908-1



Insertion Loss and Selectivity are Adjustable.

ELECTRICAL SPECIFICATIONS

Frequency Range	776-825 MHz
Insertion Loss - Adjustable	0.5 to 3.0 dB
Attenuation	See Fig. 1
VSWR at Resonance (max)	1.5:1
Power Input (Continuous Duty - max)	
0.5 dB per Cavity	350 watts
1.0 dB per Cavity	250 watts
2.0 dB per Cavity	150 watts
Temperature Range	-30° C to +70° C

MECHANICAL SPECIFICATIONS

Dimensions	
Individual Cavity	8" dia. x 11.875 H"
Maximum, Outside	8" dia. x 15.375 H"
Materials	
Outer Conductor	6061-T6 Aluminum
Inner Conductor	Silver Plated Copper
Tuning Rods	Nickel Plated Invar
End Plates	6061-T6 Aluminum
Coupling Loops	Silver Plated Copper
Connectors	Type N or UHF Female
Finish	Acrylic enamel
Net Weight	7 lbs.
Shipping Weight	10 lbs.

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