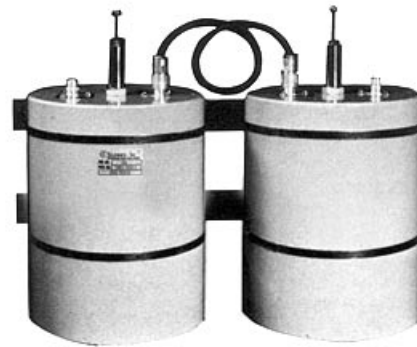


**TWPC-8608-1,-2
BANDPASS CAVITIES****TWPC-8608-1****TWPC-8608-2**

The Telewave **TWPC-8608** 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-8608 is used extensively in Telewave expandable low loss combiners.

The TWPC-8608-1 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-8608-2 dual cavity, or TWPC-8608- $\frac{3}{4}$ 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-8608 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-8608 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.

TELEWAVE, INC. 660 Giguere Court San Jose, CA 95133
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TWPC-8608-1, -2

TYPICAL BANDPASS CAVITY RESPONSE CURVES

Figure 1. TWPC-8608-1 at 860 MHz

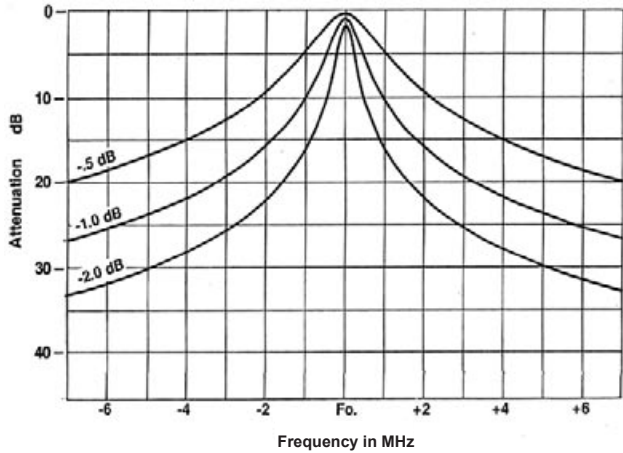
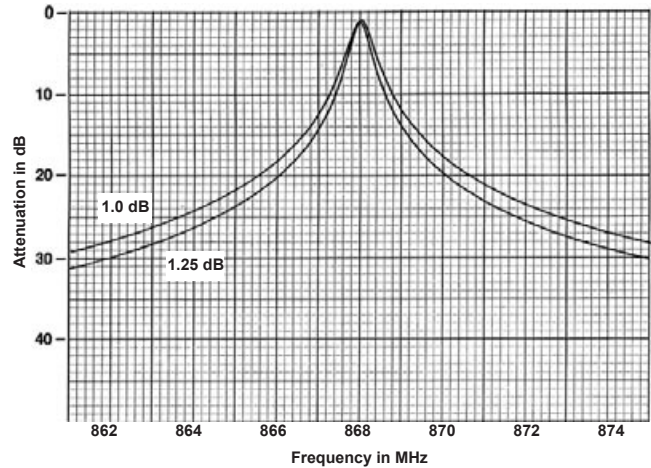


Figure 2. TWPC-8608-1-3/4 WAVE at 860 MHz



Insertion Loss and Selectivity are Adjustable.

ELECTRICAL SPECIFICATIONS

	TWPC-8608-1	TWPC-8608-1-3/4
Frequency Range	800-970 MHz	800-970 MHz
Insertion Loss - Adjustable	0.5 to 3.0 dB	0.5 to 3.0 dB
Attenuation	See Fig. 1	See Fig. 2
VSWR at Resonance (max)	1.5:1	1.5:1
Power Input (Continuous Duty - max)		
0.5 dB per Cavity	350 watts	350 watts
1.0 dB per Cavity	250 watts	250 watts
2.0 dB per Cavity	150 watts	150 watts
Temperature Range	-30° C to +70° C	-30° C to +70° C

MECHANICAL SPECIFICATIONS

	TWPC-8608-1	TWPC-8608-1-3/4
Dimensions		
Individual Cavity	8" diam. x 11.875"	8" Diam. x 15.5"
Maximum, Outside	8" diam. x 15.375"	8" diam. x 18.5"
Materials		
Outer Conductor	6061-T6 Aluminum	6061-T6 Aluminum
Inner Conductor	Silver Plated Copper	Silver Plated Copper
Tuning Rods	Nickel Plated Invar	Nickel Plated Invar
End Plates	6061-T6 Aluminum	6061-T6 Aluminum
Coupling Loops	Silver Plated Copper	Silver Plated Copper
Connectors	Type N or UHF Female	Type N or UHF Female
Finish	Acrylic enamel	Acrylic enamel
Net Weight	7 lbs.	17 lbs.
Shipping Weight	10 lbs.	22 lbs.

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