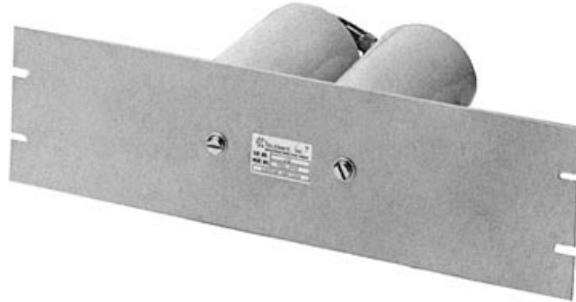


**TWPC-4504-1, 2
BANDPASS CAVITIES**



TWPC-4504-2

The Telewave Model **TWPC-4504** is a High-Q, four-inch diameter cavity filter for use in heavily saturated RF environments. This bandpass cavity is ideal for use at high-density urban sites, where maximum protection is needed from transmitter intermodulation interference, transmitter spurious radiation, and receiver desensitization. The TWPC-4504 is used extensively in Telewave expandable low loss combiners.

The Model TWPC-4504-2 dual-cavity provides additional protection required for more severe RF environments. (See reverse side for typical selectivity characteristics.) All dual-cavity combinations are supplied complete with interconnecting cables and mounting rails.

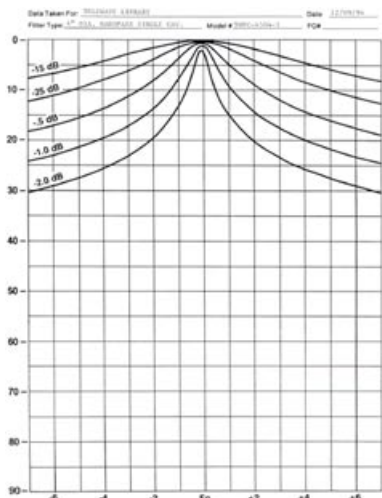
All cavities are factory tuned to customer frequencies prior to shipment, and no further adjustments should be required. If system retuning becomes necessary, the positive locking mechanism allows easy field tuning without special tools.

Frequency stability is critical in high-Q cavities, and the Telewave TWPC-4504 is engineered to close tolerances with a precision machined consator and threaded Invar rod. Frequency stability is maintained from -30° C to $+70^{\circ}$ C, with high power capability up to 350 watts.

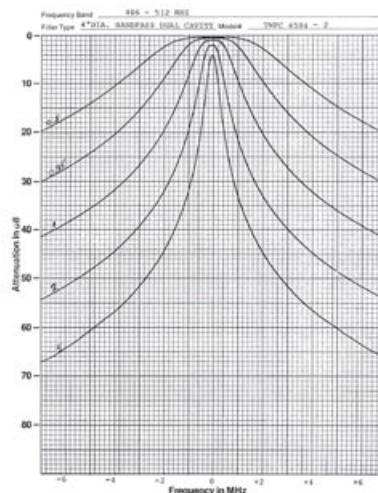
Heavy duty materials are used throughout the cavity to ensure top performance and long life. The TWPC-4504 top plates are machined from $\frac{1}{4}$ " aluminum, and Heliarc welded to the aluminum outer conductor at the high-current point for excellent conductivity and strength. Similar metals and alodined aluminum are used to prevent galvanic corrosion. Silver-plated tuners and beryllium-copper finger stock provide non-corrosive low loss contact.

TELEWAVE, INC. 660 Giguere Court San Jose, CA 95133
Toll Free: **1-800-331-3396** Direct: 408-929-4400 Fax: 408-929-4080
<http://www.telewave.com> Email: sales@telewave.com

TWPC-4504-1, 2



TWPC-4504-1 SINGLE CAVITY



TWPC-4504-2 DUAL CAVITY

ELECTRICAL DATA

	<u>TWPC-4504</u>	<u>TWPC-4504-2</u>
Tuning Range	400-512 MHz	400-512 MHz
Insertion Loss (Adjustable)	0.15 to 2.0 dB	0.5 to 4.0 dB
Attenuation	See above	See above
Nominal Impedance	50 Ohms	50 Ohms
VSWR at Resonance (max)	1.5:1	1.5:1
Input Power (max) with insertion loss:		
0.5 dB	350 Watts	350 Watts
1.0 dB	250 Watts	250 Watts
2.0 dB	150 Watts	150 Watts
Temperature Range	-30°C to +70°C	-30°C to +70°C
Cavity Electrical Length	1/4 wavelength	1/4 wavelength

MECHANICAL DATA

	<u>TWPC-4504</u>	<u>TWPC-4504-2</u>
Outer Conductor	6061-T6 Aluminum	6061-T6 Aluminum
Inner Conductor	Silver plated copper	Silver plated copper
Tuning Rod	Invar	Invar
Contactors, fingerstock	Beryllium copper	Beryllium copper
End Plates	6061-T6 Aluminum	6061-T6 Aluminum
Coupling Loops	Silver plated copper	Silver plated copper
Dimensions in. (cm)	4" dia. x 8 (10 x 20)	5.25 x 19 x 11 (13 x 48 x 28)
Connector Terminations	N-F (std) / UHF-F (opt)	N-F (std) / UHF-F (opt)
Finish	Acrylic Enamel	Acrylic Enamel
Net Weight lb (kg)	3.3 (1.5)	11.5 (5.25)
Shipping Weight lb (kg)	7 (3.2)	15 (6.8)

WHEN ORDERING BE SURE TO SPECIFY EXACT FREQUENCY AND MODEL NUMBER.
Contact the factory if additional information or assistance is required.

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