

**Innovation in Every Wave**

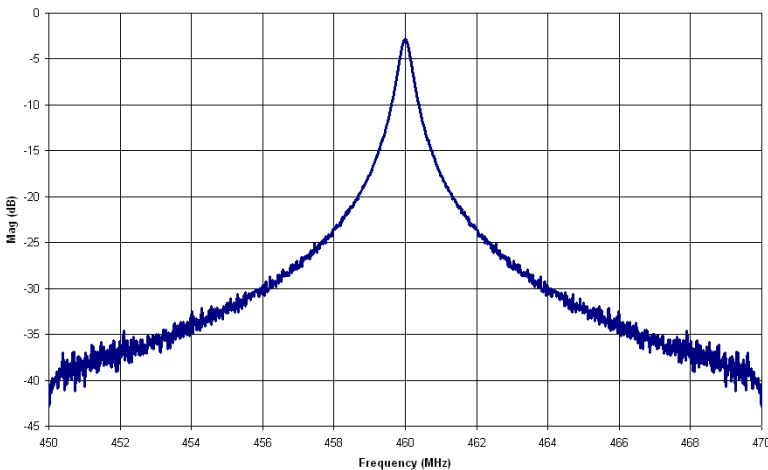
**601 Series** of single cavity resonators provide excellent performance for applications from 406MHz to 512MHz. These filters have minimal to no drift in performance over the entire temperature range from -30°C to 70°C. The cavities are manufactured with precision-machined high-grade aluminum with silver-plated brass inner structures. This results in an extremely High Q, which provides excellent stability and high receiver selectivity. They also provide much needed rejection from co-channel and other interferers that are closer to the receiver frequency. They are also used for filtering harmonics and spurious signals from the transmitter. The selectivity and hence the Insertion Loss of the resonators can be tuned in our factory or can be field adjusted. Our innovative design enables effortless adjustment on the run with threaded tuning rod, so that the height and hence the frequency can be tuned swiftly.

**FEATURES:**

- Precision machined aluminum cylinder
- Temperature compensated for almost zero drift over a wide temperature range
- Excellent selectivity with extremely High Q structure
- High power handling
- Easily Field tunable



Typical Response of a Single Cavity  
Tuned for Insertion Loss 2.5 dB


**ELECTRICAL SPECIFICATIONS:**

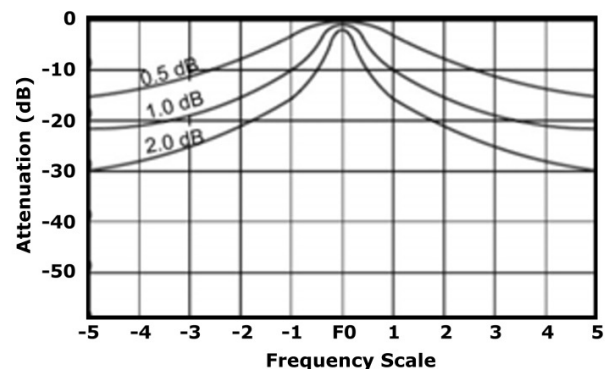
Frequency Range:	406 MHz – 512 MHz
Input Power:	0.5 dB @ 250 watts 3.0 dB @ 75 Watts
Impedance:	50 Ω
VSWR:	1.25:1 or Better
Electrical Length:	$\frac{1}{4} \lambda$
Temperature Range:	-30°C to +70°C

**MECHANICAL SPECIFICATIONS:**

No. of Cavities:	1
Dimension:	10.00" x 4.00"
Connectors:	SMA (Std), Type-N, $\frac{7}{16}$ DIN
Finish:	Aluminum – Chromate Conversion Painted according to Customer Spec

**APPLICATIONS:**

- UHF Receivers where high selectivity is required
- Protects the receiver from front-end overload by carriers of co-located transmitters
- Suppresses IM generation from carriers of near by transmitters
- Reduces the sideband noise of the transmitter on co-located receiver frequencies
- Can be used as a Transmit Filter to reduce the harmonics and to suppress spurious signals.



Better rejection of spurious and unwanted frequencies can be achieved by tactically combining two or more of these cavities together. InnovaveRF also manufactures double and triple cavity resonators. For more information about these models please refer to Model#: **621-406M-512M-S** (Double Cavity Resonators) or Model#: **641-406M-512M-S** (Triple Cavity Resonators).

InnovaveRF also offers cavity resonators in other frequency ranges as well. Please contact our sales department at 914-230-4060 or [sales@innovaverf.com](mailto:sales@innovaverf.com) for further information regarding our products and capabilities.