

With its 11-inch all-copper cavity, DB4002 has a very high Q factor and provides greater selectivity than smaller or aluminum-made cavities. Four models are available and, for greater selectivity, two or more cavities can be used in a series.

- **Field Tunable** – The cavity must be field tuned, by turning the threaded nut, to any frequency in its range. Cavity is tested at specified frequency, however, **field tuning is required because the rod is turned completely down for shipment.**
- **Adjustable Selectivity** – Rotatable coupling loops can be set at 0.5, 1.0 or 3.0 dB to obtain corresponding total attenuations, with minimum attenuation of the desired signal.
- **Frequency Stable** – An Invar rod, with nearly zero expansion, assures frequency stability over a wide temperature range.
- **Positive Contact** – Beryllium copper fingerstock with spring compression is used to maintain positive contact between fixed and moving parts of the center conductor.
- **Very High Q** – All current carrying surfaces are made of copper or silver-plated brass to enhance the high Q factor, which is especially important when the attenuated frequency is close to the passed frequency.
- **Mounting** – Designed to mount vertically on a flat surface not exposed to the elements.

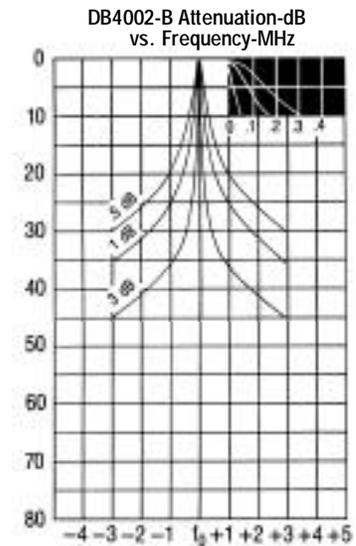


DB4002

Ordering Information		
One Cavity	Two Cavity	Freq.– MHz
DB4002-A	DB4002-2A	118-148
DB4002-B	DB4002-2B	148-174
	DB4002N-2A	118-148
DB4002N-B	DB4002N-2B	148-174

Mechanical Data	
All models	
Outer conductor	Copper
Inner conductor	Copper & brass
End plates	Copper & brass
Coupling loops	Copper
Tuning rod	Invar
Dimensions – in. (mm)	
Individual cavity	11 (279.4) dia. x 31 (787.4)
Maximum, outside (with tuning rod extended)	12 (304.8) x 12 (304.8) x 35 (889)
Connector terminations	
118-174 MHz	UHF-Female
Finish	Decibel Tek Black™
Net weight – lbs. (kg)	39 (17.69)
Shipping weight – lbs. (kg)	48 (21.77)

Electrical Data	
Frequency Ranges – MHz	118-148, 148-174
Insertion loss (desired frequency) loops supplied – dB	.5, 1.0 & 3.0
Attenuation (undesired frequency) – dB	See curves
Nominal impedance – ohms	50
Maximum power input (continuous) with insertion loss per cavity – watts	
At 0.5 dB	250
At 1.0 dB	150
At 3.0 dB	75
Temperature range (for negligible frequency shift) – C°	
Cavity electrical length – wavelength	-30 to +60 0.25 @ 118-174 MHz



The three curves correspond to the adjustable loops supplied with the cavity (0.5, 1.0 and 3.0 dB). The black inset expands the frequency scale in the region of 0 to 0.5 MHz.