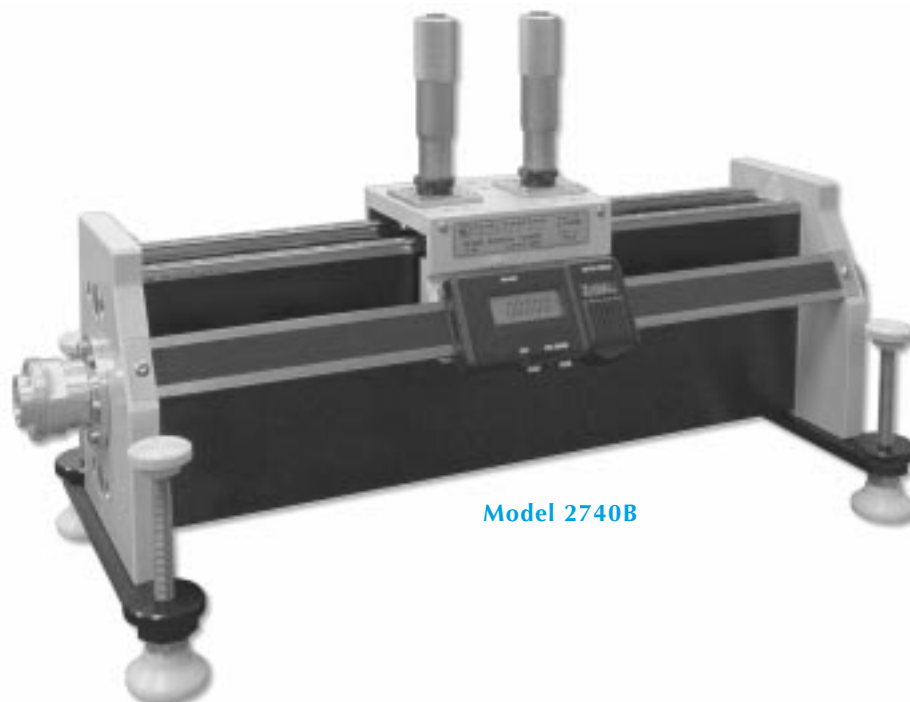


SLIDE SCREW TUNERS



Model 2740B

Features

- High Power
- Slab-line Transmission Structure
- Wide Frequency Range
- LCD Readout for Carriage Position

Description

Slide screw tuners are particularly suited for establishing impedances for device characterization or any other application requiring a precisely repeatable mismatch condition. The tuners listed in **Table 1** are high performance precision manual slide screw tuners that achieve low through line VSWR and excellent matching values. They are available with 14mm or 7-16 connectors and cover a wide

frequency range. They feature micrometers for controlling the magnitude of mismatch and a digital display for indicating carriage (phase) position. The tuners serve as a matching network for reducing reflections caused by mismatches present in a transmission line, or to introduce a controlled mismatch into an otherwise matched transmission line.

Tuner Model	Frequency Range	Connector Type	VSWR Matching Range	Maximum Loss (Probes Retracted)	Probe Crossover Frequency	Power Handling (Ave./Pk. Watts)	Dimension "A" inches	Dimension "B" inches
2440B	0.8 to 8.0 GHz	14mm	35:1	0.1 dB	2.8 GHz	100/1000	7.88	13.07
2740B	0.8 to 8.0 GHz	7-16	35:1	0.1 dB	2.8 GHz	100/1000	7.88	14.48

Table 1



Functional Description

Each tuner is a slide screw tuner which uses two probes to cover the frequency range. The low frequency probe covers the range from the lowest frequency to the crossover frequency listed in **Table 1**, and the high frequency probe covers the range from the crossover frequency to the tuner's maximum rated frequency. The optimum crossover frequency will vary from tuner to tuner. Each probe induces a mismatch in its frequency range as it is inserted into the tuner transmission line, the

magnitude of the impedance mismatch is determined by the probe position (depth) and the phase of the impedance mismatch is determined by the carriage position. The probes operate independently of each other with little or no interaction. Each probe will meet its specifications over its rated frequency range, and typically has considerably higher matching capability in the middle of its band. **Figure 1** shows an example of typical response of a low frequency and high frequency probe.

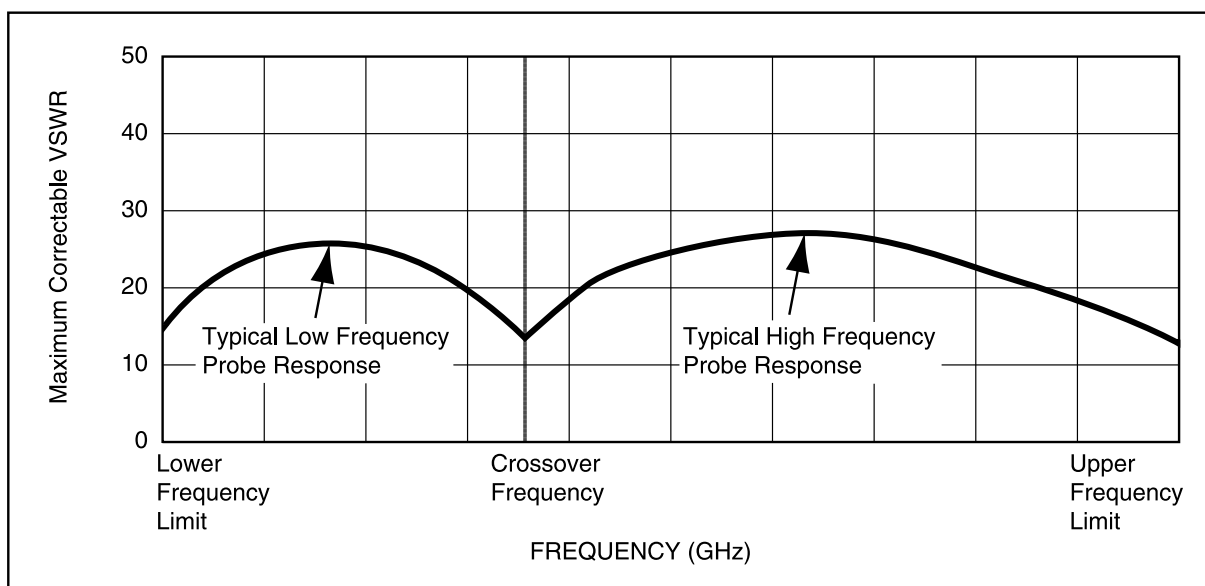


Figure 1. Typical Probe Response

Dimensions

