

A HIGH PRECISION SWEPT RF REFLECTOMETER SYSTEM IN COAXIAL LINE

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Abstract

A system is presented which provides a decade improvement in voltage reflection coefficient measurement accuracy over the range of 0 to 50 dB return loss. The technique separates the unknown from the error signals. Two methods using a combination of old and new techniques are presented Error Averaging and Magnified Swept Sensor. The basic ingredients are precision airline and directional bridge. A mathematical review of the old and the new reflectometer methods will be included.