Abstracts

A millimeter-wave six-port reflectometer based on the sampled-transmission line architecture

S. Ulker and R.M. Weikle, II. "A millimeter-wave six-port reflectometer based on the sampled-transmission line architecture." 2001 Microwave and Wireless Components Letters 11.8 (Aug. 2001 [MWCL]): 340-342.

This letter presents a proof-of-concept implementation of a millimeter-wave reflectometer for measuring complex reflection coefficients. The reflectometer is based on the six-port architecture and consists of a single section of WR-10 rectangular waveguide and a set of three Schottky power detectors. Design considerations as well as measurements in the 75 to 110 GHz range are described and discussed. Because of its simple architecture, the reflectometer is amenable to scaling for measurements well into the submillimeter-wave region of the spectrum.

❑ Return to main document.