Abstracts

Line network network (LNN): an alternative in-fixture calibration procedure

H. Henermann and B. Schiek. "Line network network (LNN): an alternative in-fixture calibration procedure." 1997 Transactions on Microwave Theory and Techniques 45.3 (Mar. 1997 [T-MTT]): 408-413.

An alternative method for a network analyzer calibration is evaluated. This line network network (LNN) method avoids de-embedding of the device under test (DUT) and it allows the characterization of an unknown two-port inserted between an arbitrary number of cascaded unknown two-ports. An unknown obstacle must be moved on a transmission line into three positions. The LNN calibration technique delivers the electrical wavelength or the relative dielectric constant of the transmission line and the scattering parameters of the obstacle. Since the connectors do not have to be exchanged, nonreproducibilities of the connectors are only a minor problem. Additionally, a double-calibration technique is presented. The double-calibration technique is used to employ the LNN method on both sides of the two-port DUT in order to perform an error-corrected measurement. Experimental results compare the LNN method with the tru-reflect-line (TRL) method particularly for an in-fixture calibration.

❑ Return to main document.