Abstracts

Measurements of Strip Dipole Antennas on Finite-Thickness Substrates at 230 GHz

M.A. Gouker and G.S. Smith. "Measurements of Strip Dipole Antennas on Finite-Thickness Substrates at 230 GHz." 1992 Microwave and Guided Wave Letters 2.2 (Feb. 1992 [MGWL]): 79-81.

Gain and field pattern measurements at 230 GHz are reported for strip dipole antennas on finite-thickness substrates without ground planes. Four substrate thicknesses are investigated ranging from 0.25 lambda to 1.53 lambda (lambda = wavelength in substrate material). Measured results are in good agreement with theoretical predictions. A unique detector/low-pass filter design, composed of a bolometer and an interdigitated capacitor, is used to eliminate the distortion of the measured field patterns caused by the reception of the leads connecting the antenna with the monitoring instrumentation.

❑ Return to main document.