Abstracts

Excess Surface Resistance Due to Surface Roughness at 35 GHz

F.J. Tischer. "Excess Surface Resistance Due to Surface Roughness at 35 GHz." 1974 Transactions on Microwave Theory and Techniques 22.5 (May 1974 [T-MTT]): 566-569.

The increase of the surface resistance of plane copper surfaces caused by mechanically generated surface roughness has been determined at 35 GHz by measuring and evaluating the Q values of an H-guide cavity with removable sidewalls. The sidewalls were ground one-directionally by using abrasive papers of various grades to produce various degrees of roughness. The rms values of roughess were measured mechanically and optically after calibration by microphotography.

❑ Return to main document.