

Abstracts

Field Measurements Using Active Scatterers (Correspondence)

R.F. Harrington. "Field Measurements Using Active Scatterers (Correspondence)." 1963 Transactions on Microwave Theory and Techniques 11.5 (Sep. 1963 [T-MTT]): 454-455.

A general theory for analyzing scattering from loaded scatterers is available, and has been applied to small scatterers suitable for electromagnetic field measurements. The theory is valid for both passive and active loads, as long as the load is linear. Ryerson has proposed the use of tunnel diodes to provide a negative resistance load, thereby enhancing the scattered signal. His predictions have been verified experimentally by measurements on dipoles and tunnel diodes at S band. The use of scatterers and tunnel diodes for field measurements is discussed in this communication.

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