Abstracts

Frequency-Swept Microwave Imaging of Dielectric Objects

T.-H. Chu and N.H. Farhat. "Frequency-Swept Microwave Imaging of Dielectric Objects." 1988 Transactions on Microwave Theory and Techniques 36.3 (Mar. 1988 [T-MTT]): 489-493.

In this paper, analytical and experimental studies of frequency-swept microwave imaging of a nondispersive dielectric object satisfying the Born approximation are presented. The retrieved images shown from experimental data measured in the frequency range 6-17 GHz are free of the speckle noise that plagues conventional coherent imaging system. The results demonstrate that the microwave imaging system described here has potential as a cost-effective tool in nondestructive evaluation of dielectric objects.

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