Abstracts

On the Imaging of Hot Spots Using Correlation Radiometers and a Circular Aperture

G. Schaller. "On the Imaging of Hot Spots Using Correlation Radiometers and a Circular Aperture." 1989 Transactions on Microwave Theory and Techniques 37.8 (Aug. 1989 [T-MTT]): 1210-1216.

A microwave correlation radiometer system with a circular synthetic aperture for the imaging of hot spots in homogeneous lossy tissue is investigated. Together with a proper reconstruction algorithm, the system has the ability to reconstruct correctly the position and the power density ratios of point-shaped noise sources. Results from computer simulations for various system parameters are presented in a graphical manner. Furthermore, it is shown that inexactly known attenuation and phase constants of the tissue vary the reconstructions only slightly.

❑ Return to main document.