

Reentrant resonators for microwave measurement units

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The method of the calculation of the reentrant resonator based on the rectangular waveguide with inductive diaphragms or posts is demonstrated. The possibility of applying such resonators as sensors for the uninterrupted technological processes is discussed in this paper. The sensors were designed and measured for two operating frequencies in L-band and X-band. The sensitivity of the sensors is sufficient to indicate the changing of the dielectric permeability and testing specimen diameter.

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