

# **Broadband zero-bias Schottky detector for E-field measurements up to 100 GHz and beyond**

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## **Abstract**

A broadband detector for electrical field measurements is presented in this paper, deploying an attenuated dipole resonance. High sensitive zero-bias Schottky diodes with anode diameters of  $1.5\mu\text{m}$  allow electrical field characterization down to  $1.6\text{ V/m}$  at millimeter wave frequencies. The covered frequency range from 1 to 100 GHz shows a potential voltage response flatness of  $\pm 1\text{ dB}$ .