

1/f-noise prediction in millimeter wave detectors based on quasi vertical Schottky diodes

**Matthias Hoefle, Andreas Penirschke, Oleg Cojocari,
Andreas Amrhein, Thibaut Decoopman,
Petri Piironen, Rolf Jakoby**

<https://doi.org/10.1109/IRMMW-THz.2013.6665616>

Abstract

A modeling concept for accurate prediction of 1/f-noise in millimeter wave Schottky detectors is presented. The concept is based on DC bias current measurements with precise knowledge of the diode structure. Key aspect is the distinction between DC and RF current distribution at the Schottky contact, specifically investigated on a quasi vertical diode structure.