

Experimental validation of thermal model of MM-Wave frequency multipliers

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Abstract

This paper presents a method for estimation of junction temperature of a Schottky diode used in a recently developed frequency doubler to 332 GHz. Our particular interest was the validation of the thermal model of the diode by comparison of the simulated junction temperature with the real junction temperature under operating conditions. RF operating condition is here artificially simulated by dissipating power from DC voltage and current to achieve similar heating effect in the diode.