

Comparison of Single Diode vs. Dual Diode Detectors for Microwave Power Detection

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In this article we review basic diode detection as it pertains to microwave power measurements. The detected voltage as a function of input voltage is derived for the single diode detector, and several of the limitations and drawbacks are explored. The concept of a balanced detector is then explored and its advantages examined. A family of curves is given showing the worst case errors due to harmonics for both the single diode and the balanced detector.

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