

Abstracts

Novel GaAs FET Phase Detector Operable to Ka Band

T. Takano, Y. Tozawa, T. Shima, T. Katoh, H. Komizo and H. Yatsuka. "Novel GaAs FET Phase Detector Operable to Ka Band." 1984 MTT-S International Microwave Symposium Digest 84.1 (1984 [MWSYM]): 381-383.

A new type of sampling-phase detector using a GaAs FET was developed. This SPD has approximately a 30 mV/rad detection sensitivity at 26.4 GHz with a 19 dBm 100 MHz reference frequency. Detection sensitivity depends on the FET bias voltage in a very unusual way. This paper describes the configuration of the SPD and experimental results of a 50 GHz phase locked oscillator using an oscillator doubler VCO and the SPD .

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