

Abstracts

Improved X-Band FM Discriminator (Short Papers)

T.P. Chattopadhyay and B.N. Biswas. "Improved X-Band FM Discriminator (Short Papers)." 1986 Transactions on Microwave Theory and Techniques 34.4 (Apr. 1986 [T-MTT]): 442-446.

The technique of coherent carrier-addition, using injection synchronization of a narrow-band Gunn oscillator, for improving the performance of an X-band frequency discriminator has been examined in detail. The discriminator is implemented from a single magic tee, two adjustable AM detectors, two sliding shorts, a circulator, an isolator, and a difference amplifier of gain unity. Experimental results are presented in partial support of the conclusions of the analysis. Normal operation of the discriminator in absence of the coherent carrier is also described as a special case of the above analysis.

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