

Abstracts

A Single Chip Monolithic Integrated S-Band Frequency Discriminator

K.-E. Schmegner. "A Single Chip Monolithic Integrated S-Band Frequency Discriminator." 1995 MTT-S International Microwave Symposium Digest 95.3 (1995 Vol. III [MWSYM]): 1333-1336.

This paper describes a highly integrated MMIC frequency discriminator (3.3 mm x 5.5 mm) for S-band. The discriminator consists of two balanced mixers, three wilkinson power dividers (one of them has integrated a 90° phase shifting network) and one amplifier. To ensure a certain frequency resolution, several discriminators with different delay lines have to be connected into a parallel configuration. An into the discriminator integrated amplifier enables distributed amplification and reduces the specifications for the driving limiting amplifier. The high performance achieved and the small die size makes this discriminator suitable for integration into IFM systems.

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