# Abstracts

## Fully Integrated Double Balanced MMIC Mixer Using a Star Arrangement of Diodes for Extended IF Performance

*J. Staudinger and M. Friesen. "Fully Integrated Double Balanced MMIC Mixer Using a Star Arrangement of Diodes for Extended IF Performance." 1992 MTT-S International Microwave Symposium Digest 92.3 (1992 Vol. III [MWSYM]): 1163-1166.*

A double balanced diode mixer with all circuitry contained on a single MMIC die has been designed and fabricated. The mixer consists offour diodes arranged in a star configuration connected to several balun type structures. The configuration allows extracting the IF signal at a node which is a virtual ground to both LO and RF signals. Thus, compared to conventional MMIC mixers, a significant improvement in extracting the IF signal to achieve broad bandwidth performance is possible. On chip matching circuitry is included between diodes and baluns to enhance performance across a 6 GHz IF bandwidth.

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