

Abstracts

A Compact, Monolithic Radiofrequency Demodulator - Modulator for 64-QAM Digital Radio Links

I. Telliez, A.M. Couturier, C. Rumelhard, C. Versnaeyen, P. Champion and D. Fayol. "A Compact, Monolithic Radiofrequency Demodulator - Modulator for 64-QAM Digital Radio Links." 1991 Microwave and Millimeter-Wave Monolithic Circuits Symposium Digest 91.1 (1991 [MCS]): 19-22.

The design, fabrication and performance of a GaAs monolithic radiofrequency demodulator with phase and amplitude trimming in the quadrature coupler and balanced mixers, in the 5.9-8.5 GHz range is described. This circuit includes amplitude and phase trimming circuits, two single balanced mixers, couplers, and a quadrature phase comparator. The design is such that the same chip can be used either as a direct 64 QAM demodulator or a modulator. The small chip size is 2.7 mm x 3.65 mm.

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