# Abstracts

## Six-port direct digital receiver (SPDR) and standard direct receiver (SDR) results for QPSK modulation at high speeds

*J.-C. Schiel, S.O. Tatu, Ke Wu and G. Bosisio. "Six-port direct digital receiver (SPDR) and standard direct receiver (SDR) results for QPSK modulation at high speeds." 2002 MTT-S International Microwave Symposium Digest 02.2 (2002 Vol. II [MWSYM]): 931-934 vol.2.*

Comparative measurements on two direct down-conversion receivers are presented to investigate the performance of a six-port digital receiver (SPDR) with a standard direct receiver (SDR) using quadrature zero-IF mixers. The six-port prototype is fabricated in MHMIC format for a carrier frequency of 2.45GHz with QPSK digital modulation suitable for wireless local loop such as WLAN or MMDS systems. BER measurements on both receivers are presented in the presence of noise, adjacent channel and cochannel interference, local oscillator phase shift and sensitivity for 40 Mb/s data rate. MMIC design scheme of the six-port digital receiver can provide a robust, simple, low-cost design platform for use in mass-market communication systems for present and future multimedia broadband applications.

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