# Abstracts

## A new antenna switching architecture for mobile handsets

*J. Kucera, U. Lott and W. Bachtold. "A new antenna switching architecture for mobile handsets." 2000 MTT-S International Microwave Symposium Digest 00.3 (2000 Vol. III [MWSYM]): 1281-1284.*

A new antenna switching principle reduces the insertion loss in the transmit path of mobile equipment while avoiding bulky external components such as pin diodes and capacitors. As a proof of concept, the new antenna switching circuit has been applied to a monolithic integrated transceiver for 1.9 GHz (DECT standard). This 3.2/spl times/1.7 mm/sup 2/ chip combines the antenna switch with a complete single-downconversion receiver and a direct modulation transmitter. In receive mode, a 50 /spl Omega/ noise figure of 4.2 dB with a conversion gain of 22 dB are achieved including all filters, at a power consumption of only 42 mW (100% duty cycle). The transmitter delivers 220 mW output power with >30% overall efficiency.

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