Abstracts

An I-Q mixer at 76.5 GHz using flip-chip mounted silicon Schottky diodes

M.M. Kaleja, A.J. Herb, R.H. Rasshofer and E.M. Biebl. "An I-Q mixer at 76.5 GHz using flip-chip mounted silicon Schottky diodes." 2001 MTT-S International Microwave Symposium Digest 01.3 (2001 Vol. III [MWSYM]): 1653-1656 vol.3.

Silicon Schottky diodes show the advantages of low 1/f noise combined with low cost. We use these diodes in hybrid flip-chip configuration to build a novel I-Q mixer at 76.5 GHz for automotive applications. The realized mixer shows promising features such as 10 dB conversion loss @ 100 kHz IF, LO-to-RF isolation better than 25 dB, and average IF noise power of -80 dBm.

❑ Return to main document.