

**Shu R., Subramanian V., Hamidian A., Malignaggi A., Ali M.K., and Boeck G., "A 36-49 GHz Injection-Locked Frequency Divider with Transformer- Based Dual-Path Injection," Silicon Monolithic Integrated Circuits in RF Systems (SiRF), 2013 IEEE 13<sup>th</sup> Topical Meeting on, pp. 114-116, Jan. 2013.**

**Abstract:** In this work, a Q-band injection-locked frequency divider (ILFD) has been implemented in 90 nm CMOS technology. An ILFD topology of transformer-based dual-path injection was proposed to maximize the power gain of the injection path and improve the locking range of the ILFD. On-wafer measurements showed that with 0 dBm input power, the proposed ILFD achieves a 30.5 % locking range from 36 GHz to 49 GHz and consumes only 2.64 mW with a 1.2 V power supply.