

**Hamidian A., Malignaggi A., Shu R., Ali M.K., and Boeck G., "A Wideband Gilbert Cell Up-Converter in 90 nm CMOS for 60 GHz Application," Radio- Frequency Integration Technology (RFIT), 2012 IEEE International Symposium on, pp. 50-52, Nov. 2012.**

**Abstract:** This paper presents the design procedure of a fully integrated 60 GHz double balanced Gilbert cell up-conversion mixer, implemented in 90 nm LP CMOS technology. The mixer is designed for wideband performance to cover the four bands of the IEEE802.15.3c standard. The up-converter achieves a flat conversion gain of -2 dB and an output power of -9 dBm at 1 dB gain compression point for all the four channels with low DC power consumption (17 mW).