

**“A highly miniaturized 2.4 GHz Bluetooth™ radio utilizing an advanced system-in-package technology”, pp.63-66**

Pascal Philippe, Atila Oruk

**Abstract** –A miniature Bluetooth radio, fully integrated in a 5x5 mm<sup>2</sup> 32-pin plastic package, is presented. The radio utilizes the novel Philips RF silicon-based System in Package technology (sbSiP) that enables the integration of all the passive components external to the radio transceiver IC into a silicon substrate. In spite of this extreme integration level and miniaturization, the radio achieves state-of-the-art performance with –85 dBm sensitivity and 3 dBm output power for a power consumption of 100 mW under a 2.7 V supply.