



## SOITEC'S RF SOI WAFERS NOW MAINSTREAM IN MASS PRODUCING SMARTPHONES' SWITCHES

*San Francisco, California, July 10, 2013* — Soitec, a world leader in generating and manufacturing revolutionary semiconductor materials for the electronics and energy industries, today announced at the Semicon West trade show that its silicon-on-insulator (SOI) technologies are now mainstream for manufacturing switches and antenna-tuners, key RF components used in all cell phones and tablet computers. According to the industry research firm *Yole Développement*, more than 65 percent of substrates used in fabricating switches for handsets are SOI based, showing the massive adoption of RF SOI for this booming electronic market experiencing double-digit growth. Now, chip manufacturers are relying on SOI technology to offer the best price/performance ratio and enable next-generation smartphones.

Soitec's engineered substrates are at the heart of RF integrated circuits, enabling chip manufacturers to integrate various functions on the same die, bringing down the overall system cost. An RF SOI substrate features an active layer on which CMOS transistors are built, isolated from a high-resistivity silicon base layer. This reduces noise and interference, helping the finished die reach its target performance in terms of signal integrity, handling RF power and integration density. SOI technologies enable devices to reach a figure of merit for on-series resistance and off-equivalent capacitance ( $R_{on}\text{-}C_{off}$ ) below 200 fs (femtoseconds) with potential for further reduction. This directly relates to improved device performance and smaller die size.

Another driver of SOI's growth is the evolution towards more performance required for overhauling wireless networks from 3G to 4G/LTE and further LTE Advanced using carrier aggregation. Indeed, SOI technologies exceed stringent linearity requirements such as intermodulation distortion (IMD) far beyond -110 dBm, helping to avoid interference with other networks.

*"RF SOI technologies enable the device integration, cost effectiveness and high performance needed for high-volume 3G and LTE applications,"* said Bernard Aspar, vice president, Communication & Power Business Unit at Soitec. *"RF, with over 100 percent revenue growth last year, remains a strategic market in which we have been continuously investing for more than a decade. Soitec is the leading supplier of engineered wafers and we are continuing to pioneer strong innovations with our partners to catch the next wave of growth in the RF market."*

On the strength of recent demonstrations, power amplifiers will likely be the next RF components based on SOI. The technology enables highly tunable amplifiers to address multi-region requirements on a single platform. In addition, Soitec's RF SOI substrates offer a path towards further integration, such as more mixed-signal and digital content.

Soitec's broad offerings allow RF device manufacturers to select an engineered substrate that aligns best with their market strategies - from low-cost GSM handsets to multi-band, multi-mode LTE smartphones and tablets.

**About Soitec:**

Soitec is an international manufacturing company, a world leader in generating and manufacturing revolutionary semiconductor materials at the frontier of the most exciting energy and electronic challenges. Soitec's products include substrates for microelectronics (most notably SOI: Silicon-on-Insulator) and concentrator photovoltaic systems (CPV). The company's core technologies are Smart Cut™, Smart Stacking™ and Concentrix™, as well as expertise in epitaxy. Applications include consumer and mobile electronics, microelectronics-driven IT, telecommunications, automotive electronics, lighting products and large-scale solar power plants. Soitec has manufacturing plants and R&D centers in France, Singapore, Germany and the United States. For more information, visit: [www.soitec.com](http://www.soitec.com).

**International Media Contacts**

(trade press)

Camille Darnaud-Dufour

+33 (0)6 79 49 51 43

[camille.darnaud-dufour@soitec.com](mailto:camille.darnaud-dufour@soitec.com)

(business press)

Marylen Schmidt

+33 (0) 4 76 92 87 83

[marylen.schmidt@soitec.com](mailto:marylen.schmidt@soitec.com)

# # #