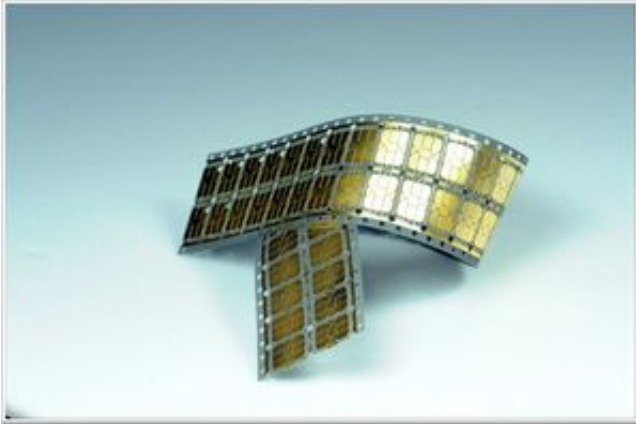


Samsung Introduces 90-Nanometer High Performance Smart Card IC

12 June 2008



Samsung Electronics Co., Ltd., a leader in advanced semiconductor technology, announced today its 90-nanometer smart card IC with high data storage capacity for subscriber identity module (SIM) cards and mobile TV applications.

The new 90nm smart card IC (S3CC9PF) utilizes a Samsung proprietary 16-bit CalmRISC processor with 16.5KB RAM, 384KB ROM, and a large capacity 288KB EEPROM.

The advanced 90nm process technology has been first applied to a 288-kilobyte (KB) electrically erasable and programmable read only memory (EEPROM) embedded smart card IC with plans by the year end to introduce a flash embedded version.

"The introduction of a high-performance line-up based on advanced process technology reinforces Samsung's technology leadership in the smart card IC industry," says Chilhee Chung, senior vice president, System LSI Division, Samsung Electronics. "Providing the industry with a variety of memory capacities and advanced security functions proactively responds to the industry's

demands."

The new smart card IC adopts an accelerator processor and on-chip support for symmetrical encryption/decryption standards (DES/ triple DES), an asymmetrical encryption standard (RSA) and an elliptic curve crypto (ECC) algorithm to provide users with the utmost security support, shortening user verification time by the tens and reinforcing protection against forgery or hacking. The high-level of security enforcement makes the new smart card suitable for mobile TV, mobile payment and mobile ID applications where secured user authentication and data transactions are critical.

Samsung also introduces two new lower-density versions; a 72KB- and a 144KB- embedded EEPROM SIM card IC in 90nm process technology.

Market research firm Frost & Sullivan expects the smart card market to reach US\$ 4.3 billion this year and grow to US\$ 7.6 billion by 2012 at an annual compound growth rate of 15 percent.

Samsung's new SIM card chips are currently sampling with mass production scheduled for the end of 2008.

Source: Samsung

APA citation: Samsung Introduces 90-Nanometer High Performance Smart Card IC (2008, June 12) retrieved 28 November 2022 from <https://phys.org/news/2008-06-samsung-nanometer-high-smart-card.html>

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.