

World's Highest-capacity Smart Card IC

September 2 2004



[Samsung Electronics Co., Ltd.](#), a leader in advanced semiconductor technology, completes a full line up of high performance, high-capacity [smart card](#) technology with the introduction of the world's first 256-kilobyte (KB) EEPROM (Electrically Erasable and Programmable ROM) embedded smart card. The new smart card IC (part number: S3CC9EF) has a broad range of applications that include the User Identity Module (UIM) and Universal Subscriber Identity Module (USIM) for [GSM/GPRS](#) and IMT 2000 handsets, Java cards, multimedia products, and electronic passports, demand for which has surged to ensure security measures in individual identification systems.

The S3CC9EF features a 256KB EEPROM, 384KB ROM and 8KB static RAM to satisfy completely the specifications required by makers of high-performance smart cards and Subscriber Identity Module cards.

The SIM cards need a high-capacity EEPROM to not only store individual subscriber data but also retain various data needed for a mobile phone to run games, access Internet services, provide a telephone directory and take advantage of text data services.

On the hardware side, Samsung's S3CC9EF comes with a 16-bit CalmRISC CPU developed in-house and triple DES, the standard symmetrical key encryption.

The smart card IC is fast and highly reliable in protecting the user ID. An attack prevention design technology has been applied to prevent hackers from accessing personal data.

“Samsung Electronics has developed and supplied smart card ICs equipped with the highest-capacity, 256KB EEPROMs following 128KB EEPROM product last year.

As such, we have been leading the technology for high-performance, high-capacity smart cards.

Our devices support diverse application programs that require large amounts of data such as games and internet access,” said Chilhee Chung, Vice President of Samsung Electronics' System LSI business. “In the process, we have contributed to the increase of performance level for the smart cards and multimedia services and look forward to positioning the Samsung's advanced smart card technology in future 3G SIM card markets with the availability of the new high density memory built-in smart card.”

The S3CC9EF has been shipped to major European card maker for high density memory embedded SIM card and is currently available for sales worldwide.

Samsung now has a full lineup of EEPROM embedded smart card ICs from 8 KB to 256KB. As a result, the company can further support customers with its wide range of advanced card solutions fulfilling

customer demands and enforcing its market competitiveness.

Importantly, Samsung Electronics has received international certifications such as EAL4+ and VISA Hardware Architecture Level 3 for six of its smart card ICs, including the recently completed device with 64KB EEPROM.

Gartner Dataquest, the market analysis firm, predicts the global smart card market will reach 1.16 billion units in 2004 and average 17% annual growth to some 1.87 billion units by 2007.

Citation: World's Highest-capacity Smart Card IC (2004, September 2) retrieved 25 April 2024 from <https://phys.org/news/2004-09-world-highest-capacity-smart-card-ic.html>

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