

Microelectronics Announces Complete Fully Integrated NFC (Near Field Communication) System-on-Chip

New flexible secure IC from ST offers fast and easy NFC technology implementation in mobile phones and consumer products, enabling short-range wireless services such as payment and transport applications



Geneva, February 13, 2008 - STMicroelectronics (NYSE: STM) today announced a new fully integrated secure System-on-Chip (SoC) solution implemented in advanced silicon technology for the fast emerging NFC (Near Field Communication) market. NFC

technology provides advanced wireless or 'contactless' services for users, such as electronic payment via mobile phone. Implemented in the company's leading-edge 0.13-micron embedded non-volatile memory EEPROM technology, the new device, called the [ST21NFCA](#), integrates all the necessary hardware and software for a complete NFC system, including support for all the NFC proximity and vicinity standards.

NFC is a fast emerging short-range wireless connectivity standard that significantly simplifies the interaction of consumer devices in a range of applications. The technology can be implemented in various devices, such as in a mobile phone, to enable secure electronic payments. While use in mobile phones is expected to be the primary driver for the deployment of the technology, other uses can include 'contactless' banking, transport ticketing and 'smart poster' applications.

Developed to be used in mobile devices, or within the PC environment, the ST21NFCA is a flexible fully integrated system-on-chip IC that offers a complete hardware capability for contactless communication at 13.56MHz, and is suitable to be designed into RF reader systems, as well as RF Tag or contactless smart cards. The device also integrates the necessary Host Controller Interface (HCI) functions, in addition to interfaces for both the I2Cbus and SPIbus, and is compliant with the ETSI specification for Single Wire Protocol (SWP), which describes the connection between a mobile phone's UICC (Universal Integrated Circuit Card) and the NFC controller.

Based on the technology and the architectures already implemented in ST's advanced SIM card range, the ST21NFCA includes the company's advanced ST21 smart card microcontroller along with 36 Kbytes of EEPROM, 112 Kbytes of User ROM and 4 Kbytes of RAM. In addition, the chip includes an integrated RF analog front end (AFE) and

embedded firmware that supports the existing contactless standards for proximity and vicinity. Additionally, the chip's fully integrated firmware provides fast and easy design and implementation for leading mobile phone and portable consumer equipment manufacturers.

“NFC technology has already proven that it has huge potential for a range of applications, such as secure payment via a mobile phone or electronic ticketing for travel,” said Marie-France Florentin, ST's Smartcard ICs Business director. “And, now, with more than 20 years experience in smart cards and secure MCUs, together with its leading-edge silicon technology and key know-how in wireless markets, ST is delivering a fully integrated and flexible System-on-Chip that will enable the world's leading mobile phone makers to integrate NFC technology into their products with an extremely fast time to market.”

Available in QFN32 packages, engineering samples will be available in Q2 2008 to lead customers and volume ramp-up is planned for Q4 2008. Pricing for the ST21NFCA is \$3 per package in quantities of 1000.

About STMicroelectronics

STMicroelectronics is a global leader in developing and delivering semiconductor solutions across the spectrum of microelectronics applications. An unrivalled combination of silicon and system expertise, manufacturing strength, Intellectual Property (IP) portfolio and strategic partners positions the Company at the forefront of System-on-Chip (SoC) technology and its products play a key role in enabling today's convergence markets. The Company's shares are traded on the New York Stock Exchange, on Euronext Paris and on the Milan Stock Exchange. In 2007, the Company's net revenues were \$10.0 billion.