

STMicroelectronics Announces Cutting-Edge Silicon Solution for World's Most Advanced Contactless ePassport Programs

August 11 2004

[STMicroelectronics](#) (NYSE: STM), one of the world's leading suppliers of secure silicon-chip technology, today announced the development of one of the world's most advanced dual-interface (contact and contactless) secure ICs. The ST19WR66 offers 66-Kbytes of EEPROM, enabling the product to store biometric records and personal information, as required by today's International Civil Aviation Organization (ICAO) program.

The company's renowned non-volatile memory technology allows ST to supply highly reliable EEPROM that retains data for more than 10 years, which is perfect for passport-type application lifecycles. The 224-Kbytes of user ROM suit storing operating system and program code. The 6-Kbytes of user RAM, combined with the processing power of the advanced 8-bit secure MCU, allow the fast data processing that is essential for rapid passport/ID personalization during the manufacturing stage and fast verification in the field.

"This product meets the growing demand for secure dual-interface ICs, with high-speed interfaces and a large memory capacity for ePassport and ID/Government applications," said Reza Kazerounian, General Manager of ST's Smart Card ICs Division. "ST's proven silicon technology, its world-class manufacturing capabilities, and its experience as one of the long-term leaders in this market, make the company the ideal partner for important long-term government projects such as ID

and passports."

The chip also features a 1088-bit modular arithmetic processor (MAP) for public-key cryptography, an enhanced (eDES) hardware DES engine, and AES-128 (Advanced Encryption Services) software-library capability. These advanced cryptographic elements provide applications with rapid data encryption/decryption functions, essential for the storage of sensitive personal data records, for authentication and for providing digital signatures.

ST's long experience in supplying ISO14443-B RF interfaces allows the company to provide a high-speed 848-kbit/s interface for contactless operation. The high-speed contactless interface again reduces personalization and testing time and speeds up verification of electronic ID documents at border controls. ST's smart card IC solutions for governmental programs are a result of an exclusive combination of IC competence and smart card IC field experience, acquired worldwide. Today, ST is involved in some of the world's leading and most innovative government-sponsored programs, such as the pioneering Juki card program in Japan using the ST19XR34 dual-interface product, the Italian ID card, the Indian driving license, a French health card scheme, and the Brunei ID project.

The ST19WR66 product will be ready to ship for passport pilot programs in Q4 2004, qualified and certified to ISO15408 Common Criteria EAL4+ for volume production by Q1, 2005. The delivery will include not only the chip, but also contactless packaging to satisfy ICAO specifications. US pricing for the product is between \$2.5 and \$3.5 depending on quantity and final packaging.

Source: STMicroelectronics

Citation: STMicroelectronics Announces Cutting-Edge Silicon Solution for World's Most Advanced Contactless ePassport Programs (2004, August 11) retrieved 2 May 2024 from <https://phys.org/news/2004-08-stmicroelectronics-cutting-edge-silicon-solution-world.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.