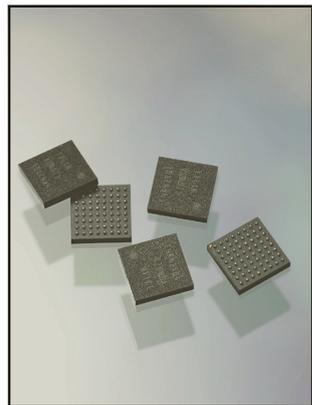


Mobile Payment NFC Chip

element stores information and security keys

Combining an NFC (near field communications) controller and a secure element to store personal information and security keys with advanced encryption technologies, the SENHRN1 is a Secu-NFC chip from Samsung. As NFC is increasingly used for mobile payment, ticketing, data sharing and electronic ID cards, consumers need a high data storage capacity with room to expand. The Secu-NFC chip, packaged as a SIP, has identical form factor measurements (4.3x4.3x1mm) as a standalone NFC chip, saving area on space-conscious mobile devices. The pin-to-pin compatibility



also allows mobile device designers to adopt the chip without additional cost, engineering and design efforts. The embedded secure element has a 760kbyte, high-density flash

memory providing sufficient capacity to store a choice of mobile services such as credit card codes, e-money, transportation transaction/payment services and coupon services. The NFC controller has an enhanced battery-off feature so it remains active for payment transactions even when the mobile device is discharged. An embedded single wire protocol interface, allows consumers to use services available by using U-SIM as well as the embedded secure element. The chip is sampling now.

SAMSUNG ELECTRONICS

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Trusted Platform Device

is able to support attack-resistant hardware

TPMs (Trusted Platform Modules) are part of a trusted computing ecosystem, where the secure processor is mounted on the computer motherboard to protect against software attacks, theft or tampering. It guards sensitive data such as keys, passwords and digital certificates. The industry alliance, Trusted Computing Group, says almost all enterprise PCs, servers and various embedded systems have a TPM



inside. The ST33TPM12LPC increases the strength of this hardware-based security as the

first TPM to feature a 32bit secure processor, surpassing existing standalone implementations, says STMicroelectronics. The device can handle advanced cryptography algorithms and be ready to support the next-generation TPM 2.0 standard. It complies with the TCG's TPM certification programme and achieves common criteria security certifications based on the TPM 1.2 Protection Profile at EAL4+ level. Versions with other communication interfaces, such as I²C and SPI will be announced to enable mobile phones, tablets, home gateways, smart meters, industrial controls and automotive electronics. The SoC incorporates an ARM SC300 32bit secure processor capable of supporting SHA1 and SHA2 hash algorithms; AES and which is ready for TPM 2.0. There is also an embedded 90nm, non-volatile memory and a low pin-count interface.

STMICROELECTRONICS

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TEMPEST Level EMI Filters

prevent covert access to conducted lines

Filters for TEMPEST, often referred to as Transient ElectroMagnetic Pulse Emanation Standard, prevent eavesdropping on data radiated as signals from computers and peripherals via conducting lines (such as power, telephone or control line cables). These signals may be intercepted by an enemy's intelligence services, or a business rival. MPE manufactures Extended Performance and Very High Current ranges of power line filters which support the highest level of TEMPEST hardening. According to the company, they provide exceptional insertion loss performance across a wide frequency spectrum, in standard or custom formats. The mains supply filters meet the industry standard for TEMPEST EMI filter performance (insertion loss) of 100dB in a frequency range from 10kHz to 10GHz. Secondary level of TEMPEST protection is 60dB from 100kHz to 1GHz on individual pieces of equipment. This may call for additional power, data, telephone and control line filters to cover all systems under threat. Housed in electroplated steel cases, the filters are compact for flexible, bulkhead or chassis mounting into rack systems and standalone computer equipment, especially where low earth leakage is critical. The filters are available in ratings from six to 2400A in both single- and three-phase versions and meet international TEMPEST standards for emanation security.

MPE

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