SLE 78CLX360P

16-bit Security Controller with “Integrity Guard”, optimized for Contactless and Dual-Interface Payment and Identification applications in 0.13 µm CMOS technology
36 kBytes E²PROM, 224 kBytes User ROM, 8 kBytes RAM
ISO/IEC 7816 and 14443 Type B & A Compliant Interfaces
Contactless interface acc. ISO/IEC 18092 passive mode
Crypto@2304T engine
with register lengths of up to 2304 bits, certified RSA and ECC libraries
Symmetric Crypto Processor (SCP)
Triple-key-triple-DES and AES acceleration

Short Product Overview

May 2010

Chip Card & Security

SLE 78CLX360P Short Product Overview	Ref.: Chip_Card_Product_Overview_11/09
Revision History: Current Version 05.10	
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Important:	Further information is confidential and on request. Please contact: Infineon Technologies AG in Munich, Germany, Chip Card & Security E-Mail: security.chipcard.ics@infineon.com

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Information

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Product name	SLE 78CLX360P
Product description	Dual-interface and contactless security cryptocontroller designed for high-security applications
RF Interface	ISO/IEC 14443 type B & A ISO/IEC 18092 passive mode Mifare™ compatible interface
Baudrate (kbit/s)	up to 848 kbit/s
User-ROM	224 kByte
EEPROM	36 kByte
RAM	8 kByte
CPU	Dual 16-bit
Crypto coprocessor symmetrical	3DES, AES up to 256 bit
Crypto coprocessor asymmetrical	RSA up to 4096 bit, ECC up to 521 bit
Clock (int.)	1 - 33 MHz
Clock (ext.)	1-10MHz
Operating voltage	1.62 V - 5.5 V
Max. sleep mode current (typ.)	100 µA
Ambient temperature	-25 to +85°
EEPROM Programming Time @ contactless operation	< 2.3 ms
EEPROM page programming	1 to 128 Byte
Security features	Integrity Guard Security System: Digital Full Error/Fault/ DFA Detection; Full CPU-, Memory-, Bus- and Cache-Encryption; Dual encrypted-calculation CPU; Active I2-Shield; MMU with Level Concept; DPA/SPA, DEMA/SEMA Countermeasures; Threshold Sensors: V, F, Light, Temperature; Intelligent Watchdog with Program Flow Check; Tamperproof Design; Chip ID; True RNG (AIS31, FIPS-140)
Peripherals	ICU/PEC, CRC, PLL, UART DF 8
Delivery forms	Module M8.4, contactless module MCC8, die, bumped wafer
Typical applications	Payment, EMV DDA, ePurse, Loyalty, Access Control, Digital Signature, ePassport, Open Platform, Transport, Dual SIM
Tools	EKP (Evaluation Kit Proximity) ROK (Reader Optimization Kit)
Certifications	CC EAL5+ high, EMVCo

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