SLE 78CX360P

16-bit Security Controller with "Integrity Guard",
optimized for Payment and Identification
applications in 0.13 µm CMOS technology
36 kBytes E²PROM, 224 kBytes User ROM, 8 kBytes RAM

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

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Chip Card & Security

SLE 78CX360P Short Product Overview	Ref.: Chip_Card_Product_Overview_11/09
Revision History: Current Version 05.10	
Previous Releases:	
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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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Product name	SLE 78CX360P Secure µSlim EEPROM	Integrity Guard
Product description	Security cryptocontroller designed for high-security applications	
User-ROM	224 kByte	
EEPROM	36 kByte	
RAM	8 kByte	
CPU	Dual 16-bit	
Crypto coprocessors		
Symmetrical Cryptography	3DES, AES up to 256 bit	
Asymmetrical Cryptography	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. supply current (at 5 MHz, 5 V)	10 mA	
Max. sleep mode current (typical)	100 µA	
Ambient temperature	-25 to +85°	
Write / erase time	< 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 M5.1, MFC5.x, DSO-8, VQFN-8, die	
Typical applications	Payment, EMV DDA, ePurse, Loyalty, Access Contol, Health / Social Security, Digital Signature, ID-Card	
Certifications	CC EAL5+ high, EMVCo	

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