

# utimaco



# Highest level of security for confidential data and cryptographic keys

The SecurityServer CSe from Utimaco implements tamper-responding technology for securing cryptographic key material for servers and applications. It is conceived for applications and market segments with high physical security requirements, e.g. Government Authorities, Banking environment, etc. The SecurityServer CSe is available as PCIe embedded card or as network attached appliance.

#### Maximum security

- Highest security at an attractive price
- Starter models for applications with low performance requirements
- Extensive remote administration
- Efficient key management and firmware updates via remote access
- Automation of remote diagnosis through a network management system using SNMP protocol
- Software simulator for evaluation and integration testing



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# Capabilities

- Secure key storage and processing
- Extensive key management
- Key storage inside HSM or as encrypted key files
- Multiple options for user authentication and access control
- Smartcard for strong authentication
- "n out of m" authentication
- Remote management
- Software simulator for evaluation and integration testing
- Supported OS: Windows and Linux
- Multiple integrations with PKI applications, database encryption, etc.
- All capabilities included in product price

### Security, safety, environmental compliance

- FIPS 140-2 Level 3, Physical Security Level 4
- PCI HSM (w/ 3rd party firmware application)
- DK (German banking association)
- CE, FCC Class B
- UL, IEC/EN 60950-1
- CB certificate
- RoHS II, WEEE

# Physical specifications PCIe card

- Half length, full height single lane PCI Express card
- Supports PCIe 1.1, PCIe 2.0 and PCIe 3.0 slots
- Operating voltage: 3.3V
- Battery 3 V, Lithium, Ø 12 mm, length 600 mm, FDK CR 12600 SE or VARTA CR2NP



- 2 USB interfaces
- Operating temperature: +10°C to +35°C (+50°F to +95°F)
- Storage temperature: -10°C to +55°C (+14°F to +131°F)
- Relative humidity: 10% to 95% non-condensing
- MTBF 360,000 hours at 25°C / 77°F

### Available models and performance

	CSe10		CSe100	
	PCle	LAN	PCIe	LAN
RSA signature generation (tps*)				
2048 Bit	17	17	90	90
4096 Bit	2	2	14	14
RSA bulk signature generation (tps*)				
2048 Bit	17	17	100	100
4096 Bit	2	2	14	14
Elliptic Curve signature generation (tps*)				
224 Bit	150	140	1200	950
384 Bit	50	50	470	400
Elliptic Curve bulk signature generation (tps*)				
224 Bit	160	160	1400	1300
384 Bit	50	50	500	500

# **Cryptographic Algorithms**

- RSA, DSA, ECDSA with NIST and Brainpool curves
- DH, ECDH with NIST and Brainpool curves
- AES, Triple-DES, DES
- MAC, CMAC, HMAC
- SHA-1, SHA2-Family, SHA3 (as from SecurityServer 4.10), RIPEMD
- Hash-based Deterministic Random Number Generator (DRNG)
- True Random Number Generator (TRNG acc. AIS31 class PTG.2)
- All algorithms included in product price

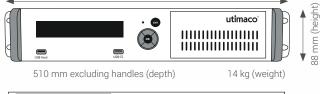
#### **Application Programming Interfaces (APIs)**

- PKCS#11
- Java Cryptography Extension (JCE)
- Microsoft Crypto API (CSP), Cryptography Next Generation (CNG) and SQL Extensible Key Management (SQLEKM)
- Cryptographic eXtended services Interface (CXI) Utimaco's high performance interface guarantees easy integration of cryptographic functionality into client applications

# Physical specifications network appliance

- 19" 2U form factor
- + Redundant field-replaceable power supply: 90~264 V, 47~63 Hertz AC, 2  $\times$  320 W
- Power consumption typically: 75 W / 85 VA, max. 90 W / 100 VA
- Heat dissipation: max. 307 BTU/h
- 2 RJ45 1 Gb/s network interfaces
- Operating temperature: +10°C to +40°C (+50°F to +104°F)
- Storage temperature: -10°C to +55°C (+14°F to +131°F)
- Relative humidity: 10% to 95% non-condensing
- MTBF 90,000 hours at 25°C / 77°F

446 mm excluding brackets (width)





\*Transactions per second