



Highest level of security for confidential data and cryptographic keys

The SecurityServer from Utimaco with tamper responding technology secures cryptographic key material for servers and applications. In combination with the CSe Series can be used for application and market segments with high physical security requirements e.g. Government Authorities, Banking environment,... The SecurityServer CSe is available as PCIe embedded card or as network attached appliance.



Fully functional CryptoSever Simulator available for evaluation and application integration.

MAXIMUM SECURITY

- Highest performance at an attractive price
- Starter models for applications with lower performance requirements
- Extensive remote administration
- Efficient key management and firmware updates via remote access
- Automation of remote diagnosis through network management system using SNMP protocol

CONTACT

Utimaco IS GmbH
Germanusstraße 4
D-52080 Aachen
Germany

phone + 49 241 1696 200
email hsm@utimaco.com
web <http://hsm.utimaco.com>

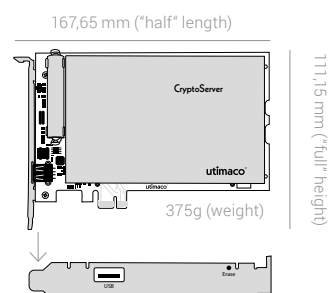


Capabilities

- Secure key storage and processing
- Cryptographic offloading/acceleration
- 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
- Separation of duties
- Remote Management
- Supported OS: Windows and Linux
- Multiple integrations with PKI applications, database encryption, etc.

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 specification PCIe card

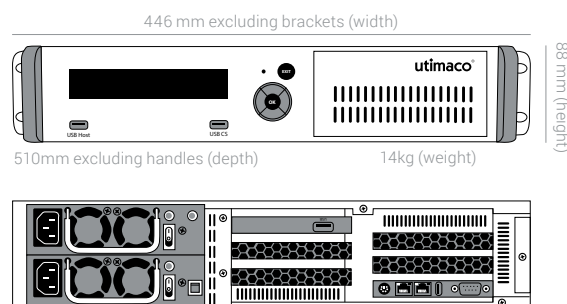
- Half length, full height PCI Express card
- PCI Express V1.1 x1 interface
- Operating voltage 3,3V
- Battery 3 V, Lithium, Ø 12 mm, length 600 mm, FDK CR 12600 SE or VARTA CR2NP
- 2 USB interfaces
- Operating temperature: +10°C to +35°C (+50°F to +95°F)
- Storage temperature: -10°C to +55°C (+14°F to +131°F)
- Relative humidity 10% to 95% non-condensing
- MTBF 360,000 hours at 25°C / 77°F

Cryptography

- RSA
- ECDSA, NIST and Brainpool curves
- DSA
- DH, ECDH
- AES
- DES, Triple DES
- SHA-1, SHA-2, RIPEMD
- MAC, CMAC, HMAC
- Hash-based Deterministic Random Number Generator (DRNG)
- True Random Number Generator (TRNG)

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)
- Utlimaco's high performance interface guarantees easy integration of cryptographic functionality into client applications



Physical specification network appliance

- 19" 2U form factor
- Redundant field-replaceable power supply 90~264 V, 47~63 Hertz AC, 2 x 420 W
- Power consumption typically 70 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

Available models and performance with unlimited client licenses

	CSe10		CSe100	
	PCIe	LAN	PCIe	LAN
RSA Signing Performance (tps: transaction per second)*				
Key length 2048 bit	13	13	90	90
Key length 4096 bit	2	2	14	14
Elliptic Curve signature generation (tps: transaction per second)*				
192 bit	150	140	1500	1150
256 bit	100	100	1000	850
Elliptic Curve key generation (kps: Keys per second)*				
192 bit	36	35	330	290
256 bit	21	21	210	190

+ CryptoServer is operated in Bulk signature mode * No ECC activation needed **In certification in accordance with FIPS 140-2-Level 4 for physical security