



SecurityServer Se

utimaco®

The Industry Standard Hardware Security Module

SecurityServer from Utimaco secures cryptographic key material for servers and applications. It includes integration software that supports the industry standards (e.g. PKCS#11, Microsoft CSP/CNG, JCE...) which are used in most application scenarios e.g. Enterprise PKI application, database encryption,... . The SecurityServer Se is available as PCIe embedded card or as network attached appliance.



Fully functional CryptoSever Simulator available for evaluation and application integration.

LOW OPERATIONAL COSTS

- Highest performance at an attractive price
- Inexpensive 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

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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

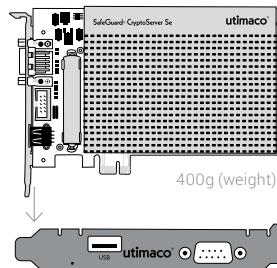
· CE, FCC Class B

· UL, IEC/EN 60950-1

· CB certificate

· RoHS II, WEEE

167,65 mm ("half" length)



151,11 mm (full height)

400g (weight)

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 serial V.24 interfaces
- 2 USB interfaces
- Operating temperature: +10°C to +45°C (+50°F to +113°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

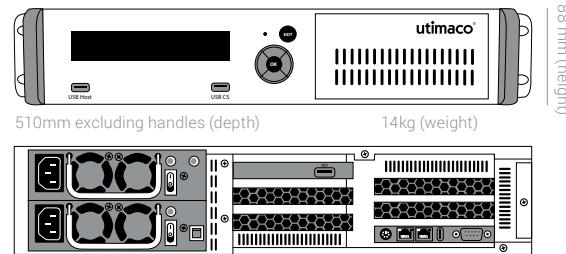
Cryptography

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

446 mm excluding brackets (width)



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 +50°C (+50°F to +122°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

	Se10	Se50	Se400	Se1000				
	PCIe	LAN	PCIe	LAN	PCIe	LAN	PCIe	LAN
<i>RSA Signing Performance (tps: transaction per second)*</i>								
Key length 2048 bit	16	16	80	80	1500	1500	2800	2800
Key length 4096 bit	2	2	10	10	290	290	570	570
<i>Elliptic Curve signature generation (tps: transaction per second)*</i>								
192 bit	180	170	1300	870	1300	870	1300	870
256 bit	120	120	950	680	950	680	950	680
<i>Elliptic Curve key generation (kps: Keys per second)*</i>								
192 bit	40	40	280	250	280	250	280	250
256 bit	20	20	190	180	190	180	190	180

+ CryptoServer is operated in Bulk signature mode * No ECC activation needed