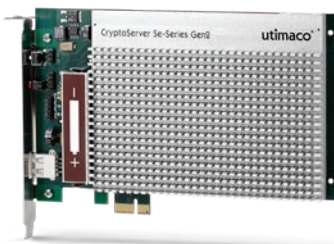




Meet your strict compliance requirements with the PCI HSM and FIPS 140-2 accredited Utimaco PaymentServer.

Payment Hardware Security Module

Utimaco PaymentServer is a Payment Card Industry (PCI) PIN Transaction Security (PTS) HSM for the card schemes programs like Visa, MasterCard, Amex, UnionPay, including card personalization. The Utimaco Software Development Kit (SDK) allows for self-customization of the PaymentServer by your team to handle proprietary and secret algorithms.





Product Highlights

Certified customized functionality

- Our powerful SDK for your own developments involving sensitive code, IP or algorithms or
- Professional Services for integrating additional functions and modifications
- Certification Services to get the required certification/compliance for additional functions



Key Features

- Use Payment APIs and General Purpose APIs like PKCS#11 on the same HSM
- Support both secure key storage inside HSM and external encrypted key storage
- 2FA and "M of N" strong authentication with smartcards
- Configurable role-based access control and separation of duties
- Remote management
- Software simulator for development, evaluation and integration testing
- All features included in product price (transparent pricing)



HSM Functionalities

Features

- DUKPT
- EMV, Visa, MasterCard
- Transaction processing
- PIN Translation
- Full TR-31 support
- ISO Pin Block Formats 1, 2, 3, 4 (AES PIN Block)
- Card personalization and issuance
- Support for ARPC, ARQC and ARC
- On behalf key management
- 25 key derivations supported
- Customizable architecture to easily add new key derivation methods

Cryptographic algorithms

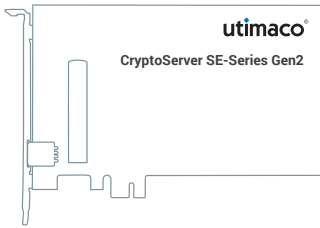
- Triple-DES, DES, AES
- RSA
- MAC, CMAC, HMAC
- SHA-1, SHA2-Family, SHA3, RIPEMD
- Hash-based deterministic random number generator (DRG.4 acc. AIS 31)
- True random number generator (PTG.2 acc. AIS 31)
- DSA, ECDSA with NIST and Brainpool curves
- DH, ECDH with NIST and Brainpool curves
- Up to 2,600 PIN translations per second

Application programming interfaces (APIs)

- **Payment Specific API:**
ByteBuffer Interface allows Operating System independent build for the communication library and scripting C-API libraries for Windows and Linux, C-API as source code available for rapid integration on other OS
- **General Purpose API (add-on license):**
PKCS#11, JCE, CSP, CNG, SQLEKM and Cryptographic eXtended services Interface (CXI)



Technical specifications PCIe card



Physical Dimensions

- **Form factor:** Half-length, full-height single lane PCI Express card
- **Compatibility:** PCIe 1.1, PCIe 2.0 and PCIe 3.0 slots
- **Height:** 111.15 mm ("full" height)
- **Weight:** 400 g



Connectivity

- **Interface:** USB



Electrical

- **Power Supply:** 3 V lithium battery, Ø 12 mm, length 600 mm, FDK CR 12600 SE or VARTA CR2NP
- **Operating voltage:** 3.3 V



Operating Environment

- **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



Certification/Compliance

- **Safety:** PCI PTS HSM V3, FIPS 140-2 Level 3 approved hardware and base firmware, DK (German Banking Industry Committee)
- **Emissions:** CE, FCC Class B
- **Environmental:** RoHS II, WEEE



Technical specifications Network appliance



Physical Dimensions

- **Form factor:** 19" 1U
- **Width:** 446 mm excluding brackets
- **Depth:** 533.4 mm excluding handles
- **Height:** 44 mm
- **Weight:** 10 kg



Connectivity

- **Interfaces:** 2 RJ45, 1 Gb/s



Electrical

- **Power Supply:** Redundant field-replaceable power supply: 2 x 100 ~ 240 V AC, 50 ~ 60 Hertz, 300 W
- **Power consumption:** typically 45 W / 66 VA, max. 50 W / 70 VA
- **Heat dissipation:** max. 171 BTU/h



Operating Environment

- **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:** 100,000 hours at 25°C / 77°F, environment GB, GC – Ground Benign, Controlled



Certification/Compliance


- **Safety:** PCI PTS HSM V3, FIPS 140-2 Level 3 approved hardware and base firmware, DK (German Banking Industry Committee)
- **Emissions:** CE, FCC Class B
- **Environmental:** RoHS II, WEEE





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