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# Thales Luna PCIe HSM

Secure sensitive data and critical applications by storing, protecting and managing cryptographic keys in Thales Luna PCIe HSMs– high-assurance, tamper-resistant PCIe cards. Provide applications with dedicated access to a purpose-built, high-performance cryptographic processor. Quickly embed this cost-efficient solution directly into servers and security appliances for FIPS 140-2 validated assurance.

Contact us to learn how Luna PCIe HSMs can help you ensure the integrity and protection of your encryption keys throughout their life cycle.

## What you need to know:

**Superior Performance & Usability**

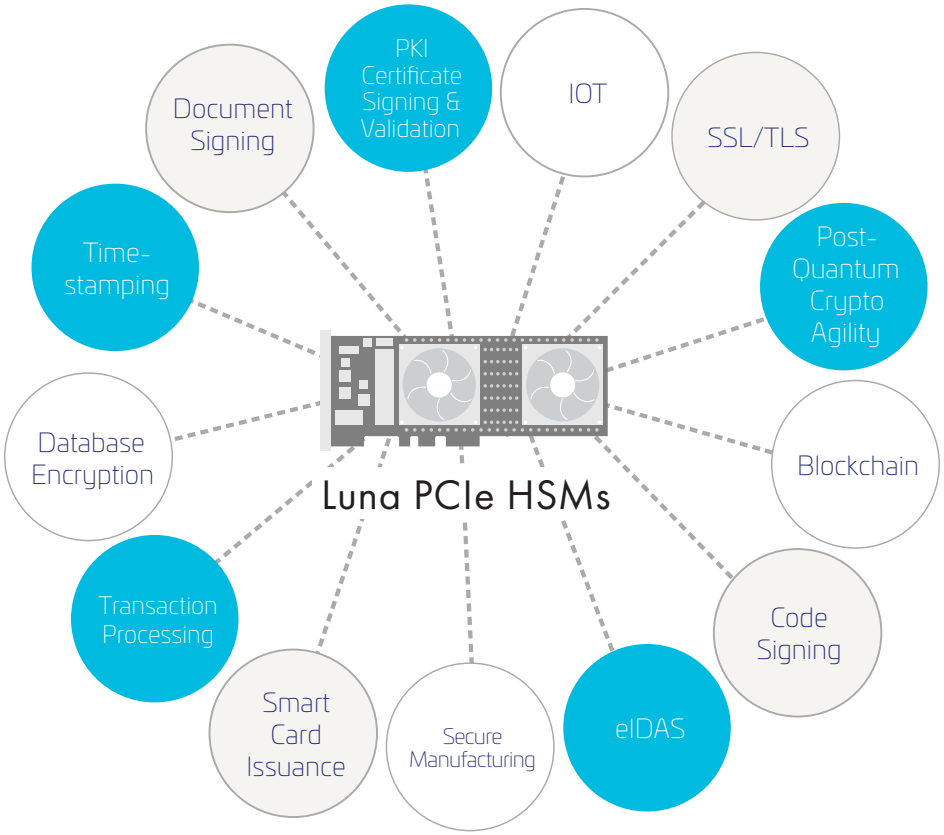
- Fastest HSM on the market with over 20,000 ECC and 10,000 RSA operations per second for high-performance use cases
- Lower latency for improved efficiency
- Dedicated access for applications
- Low profile PCIe card

**Functionality Modules**

- Extend native HSM functionality
- Develop and deploy custom code within the secure confines of the HSM

**Highest Security & Compliance**

- Keys always remain in FIPS-validated, tamper-evident hardware
- Meet compliance needs for GDPR, eIDAS, HIPAA, PCI-DSS, and more
- Multiple roles for strong separation of duties
- Multi-person MofN with multi-factor authentication for increased security
- Secure audit logging
- High-assurance delivery with secure transport mode




## Technical specifications

**Supported Operating Systems**

- Windows, Linux

**API Support**

- PKCS#11, Java (JCA/JCE), Microsoft CAPI and CNG, OpenSSL

**Cryptography**

- Full Suite B support
- Asymmetric: RSA, DSA, Diffie-Hellman, Elliptic Curve Cryptography (ECDSA, ECDH, Ed25519, ECIES) with named, user-defined and Brainpool curves, KCDSA, and more
- Symmetric: AES, AES-GCM, Triple DES, DES, ARIA, SEED, RCS, RC4, RC5, CAST, and more
- Hash/Message Digest/HMAC: SHA-1, SHA-2, SM3, and more
- Key Derivation: SP800-108 Counter Mode
- Key Wrapping: SP800-38F
- Random Number Generation: designed to comply with AIS 20/31 to DRG.4 using HW based true noise source alongside NIST 800-90A compliant CTR-DRBG
- Digital Wallet Encryption: BIP32

- **Security Certifications**
- FIPS 140-2 Level 3—Password and Multi-Factor (PED)
- eIDAS CC EAL4+ (AVA_VAN.5 and ALC_FLR.2) against the Protection Profile 419221-5 *

**Physical Characteristics**

- Low profile PCIe card
- Dimensions: 69.6mm x 167mm x 187.mm (2.74" x 6.57" x 0.74")
- Power Consumption: 18W maximum, 14W typical
- Heat Dissipation: 61.4 BTU/hr maximum, 47.8 BTU/hr typical
- Temperature: operating 0°C–50°C, storage -20°C–60°C
- Relative Humidity: 5% to 95% (38°C) non-condensing

**Safety & Environmental Compliance**

- UL, CSA, CE
- FCC, CE, VCCI, C-TICK, KC MARK
- RoHS2, WEEE
- TAA

**Host Interface**

- PCI-Express CEM 3.0, PCI, PCI Express Base 2.0

**Reliability**

- Backup/restore
- High Availability (HA)
- Mean Time Between Failure (MTBF) 997,508 hours

* under evaluation

## Available models

Choose from two series of Luna PCIe HSMs, each one with 3 different models to fit your requirements.

**Luna A Series: Password Authentication for easy management.**

| A700 | A750 | A790 |
|---|---|---|
| 2 MB Memory | 16 MB Memory | 32 MB Memory |
| **Standard Performance:** | **Enterprise Performance:** | **Maximum Performance:** |
| RSA-2048: 1,000 tps | RSA-2048: 5,000 tps | RSA-2048: 10,000 tps |
| ECC P256: 2,000 tps | ECC P256: 10,000 tps | ECC P256: 22,000 tps |
| AES-GCM: 2,000 tps | AES-GCM: 10,000 tps | AES-GCM: 17,000 tps |

**Luna S Series: Multi-factor (PED) Authentication for high assurance use cases.**

| S700 | S750 | S790 |
|---|---|---|
| 2 MB Memory | 16 MB Memory | 32 MB Memory |
| **Standard Performance:** | **Enterprise Performance:** | **Maximum Performance:** |
| RSA-2048: 1,000 tps | RSA-2048: 5,000 tps | RSA-2048: 10,000 tps |
| ECC P256: 2,000 tps | ECC P256: 10,000 tps | ECC P256: 22,000 tps |
| AES-GCM: 2,000 tps | AES-GCM: 10,000 tps | AES-GCM: 17,000 tps |

tsp = transactions per second

## About Thales

The people you rely on to protect your privacy rely on Thales to protect their data. When it comes to data security, organizations are faced with an increasing number of decisive moments. Whether the moment is building an encryption strategy, moving to the cloud, or meeting compliance mandates, you can rely on Thales to secure your digital transformation.

Decisive technology for decisive moments.



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