

Luna[®] PCI-E

Hardware Security Module (HSM)

Luna PCI-E is the fastest, most secure, cryptographic PCI accelerator card in the industry, and is widely used by major governments, financial institutions and large enterprises around the world. The PCI Express bus on Luna PCI-E easily plugs into the host computer and provides reliable protection for data, applications, and digital identities to reduce risk and ensure regulatory compliance.

Benefits

*Fastest Cryptographic
PCI Accelerator Card
on the Market*

*Secure Authentication
and Access Control*

PCI Express Compatible

*Full Cryptographic
API Support and Developer
Toolkits for Easy Integration*

Secure Hardware Key Management

For maximum security, Luna PCI-E offers dedicated hardware key management to protect sensitive cryptographic keys from attack. The high security design ensures the integrity and protection of encryption keys throughout their life cycle. Luna PCI HSMs provide hardware secure key generation, storage, secure key backup and accelerated encryption in a range of models and configurations, offering a wide selection of security, performance and operational capabilities. Luna PCI-E-7000 is securely packaged to meet the most stringent requirements for tamper and intrusion resistance.

High-Performance Cryptographic Processing

Luna PCI-E offers high-performance cryptographic processing at a rate of 7,000 asymmetric 1024-bit RSA operations per second—more than twice as fast as the nearest competitor—and it can be embedded directly in an application server for an easy-to-integrate and cost efficient security solution.

To prevent unauthorized access to sensitive cryptographic material, Luna PCI-E offers strong two-factor authentication and multiple administrator roles. Luna PCI-E also offers true Trusted Path Authentication using the Luna PED (PIN Entry Device) which is an integrated handheld authentication console that does not rely on commercial keyboards or displays for administrator PIN code entry.

Alternate Processing Rate

To facilitate unique customer requirements, the Luna PCI-E is also available in a crypto card that performs at a lower rate of 3000 asymmetric 1024-bit RSA operations per second.

This embedded PCI accelerator card, is the same card that powers the acclaimed Luna SA Network HSM, which is widely used by major governments, financial institutions and large enterprises around the world.



Integrated Physical Security

All models are securely packaged inside specially designed enclosures to meet stringent requirements for tamper and intrusion resistance.

Certified Hardware

- FIPS 140-2 Level 2 and Level 3 validation
- Designed to meet Common Criteria at EAL 4+
- RoHS compliant

Cryptographic Capabilities

Luna PCI-E supports a broad range of asymmetric key encryption and key exchange capabilities, as well as support for all standard symmetric encryption algorithms. It also supports all standard hashing algorithms and message authentication codes (MAC), as well as Random Number Generation based on Appendix A 2.4 of ANSI X9.31.

Regulatory Standards Certification

- UL 1950 (EN60950) & CSA C22.2 safety compliant FCC Part 15 -Class B
- RoHS compliant to meet the material component standards for electrical and electronic established for the European Union markets.
- BAC and EAC ePassport Certification



Enterprise Data Protection

SafeNet Luna PCI-E is a key component of SafeNet's comprehensive enterprise data protection solution to reduce the cost and complexity of regulatory compliance, data privacy, and information risk management. SafeNet Enterprise Data Protection (EDP) is the only solution that secures data across the connected enterprise, from core to edge, with 360-degree protection of data at rest, data in transit, and data in use. Unlike disparate, multi-vendor point solutions that can create limited "islands" of security, SafeNet EDP provides an integrated security platform with centralized policy management and reporting for seamless, cost-efficient management of encrypted data across databases, applications, networks, and endpoint devices. For more information, visit www.safenet-inc.com/EDP



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Technical Specifications

Client API Support

- PKCS#11 v2.20
- Microsoft CryptoAPI 2.0
- Java JCA/JCE
- OpenSSL

Operating System Support

- Windows 2003 (32 and 64-bit)
- Windows Server 2008 (64-bit)
- Solaris 9, 10 (32 & 64-bit)
- Linux E4, E5 K2.6 (32 and 64-bit)
- Debian 4.0 K2.6 (32 and 64-bit)

Cryptographic Processing

Asymmetric Key Encryption and Key Exchange

- RSA (512-4096 bit), PKCS #1 v1.5, OAEP PKCS#1 v2.0
- Diffie-Hellman (512-1024 bit)

Suite B Algorithm Support ECC Support

- ECDSA
- ECC Brainpool Curves (named and user-defined)

Digital Signing

- RSA (512-4096-bit), DSA (512-1024-bit), PKCS #1 v1.5

Symmetric Key Algorithms

- DES, TDES (double & triple key lengths), RC2, RC4, RC5, CAST-3, CAST-128, AES

Hash Digest Algorithms

- SHA-1, MD-2, MD-5, SHA256, SHA512

Message Authentication Codes

- HMAC-MD5, HMAC-SHA-1, SSL3-MD5-MAC, SSL3-SHA-1-MAC

Random Number Generation

- Luna PCI supports random number generation based on \ Appendix A 2.4 of ANSI X9.31 1280 Object Limit

Physical Characteristics

Card type

- PCI Express Card, Universal

Operating Temperature

- 0°C to 40°C

Storage Temperature

- -20°C to +65°C

Power Requirements

- +5V@3A Max; +12V@0.2A Max (FIPS Level 3 only)

Dimensions

- 4.1" by 7.63"
- PCI Express Bus
 - PCI Express Base Specification, Revision 1.1
 - PCI Express Card Electromechanical Specification, Revision 1.1 x4 link

*Battery is not user replaceable – if tampered, the HSM is inoperable until re-activated