



## Protect your organization and customers from financial fraud

Protect your business and its financial data with the Utimaco Atalla Hardware Security Module (HSM). This secure, tamper-resistant HSM for cryptographic processing solutions on automatic teller machine (ATM), electronic funds transfer (EFT), and point of sale (POS) networks delivers high-performing cryptography and key management capabilities for card payment authorization and real-time fraud prevention. And it meets critical financial services industry, PCI-DSS, and NIST standards for security and compliance.

Utimaco Atalla HSM provides unrivaled protection for Triple Data Encryption Standard (3DES) and other cryptographic keys when safeguarding value-based transactions. They are designed as the HSM complement to the Atalla Key Block, an industry-leading advanced key management solution. Institutions like yours can match HSMs to current throughput demands and expand capacity as needed.

### Key Features

- Industry-leading physical and logical security
- Atalla Key Block for advanced Triple DES key management
- Plug-and-play fast host connectivity
- Dual power supplies
- Dual NIC\*
- PIN and component printing option\*
- Cryptographically protected remote key loading
- Space-saving, state-of-the-art, rack-mountable platform
- Command-set compatibility with all Atalla network security processors
- Enhanced security and user-friendly firmware upgrades
- A fast and secure hardware-based cryptographic processing solution for ATM/EFT/POS networks.

\* optional

From a hardened, rack-mountable, 2U perimeter to a state-of-the-art tamper-resistant architecture, the Utimaco Atalla HSM Ax160 raises the bar for physical and logical security, flexibility, and ease of use. Atalla HSMs also interoperate transparently with non-Atalla HSMs. Atalla recommends customers to use Atalla Key Block that provides extra security when using two and three key length with Triple DES and can be utilized for other encryption methods.

The Utimaco Atalla HSM Ax160-3's is fully backward compatible with its previous generation models, incorporating more than three decades of expertise and the latest technologies from Hewlett Packard Enterprise – making it a safer and high-performance solution.

### Advanced key management solution using Atalla Key Block

Atalla Key Block is the advanced key management complement to the Atalla Ax160 HSMs and other Atalla HSM models. Leading financial industry independent software vendors (ISVs) have embraced Atalla Key Block. It has also been adopted as part of the industry-standard ANSI X9.24 Part 1-2009 Retail Financial Services Symmetric Key Management

**Part 1:** Using Symmetric Techniques and ANSI X9.24 Part 2-2006 Retail Financial Services Symmetric Key Management

**Part 2:** Using Asymmetric Techniques for Distribution of Symmetric Keys.

## Atalla Innovation in Payments

### Atalla Key Block and Atalla HSM Ax160-3 Benefits

- A single HSM solution with simultaneous support of single-length DES, two and three key Triple DES, and RSA public or private keys
- Support for future algorithms, key types, and key lengths
- Full support for mixed encryption environments with masking of vulnerable keys and strong control over the usage of shorter cryptographic keys



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## Product Highlights

### Physical Security

- FIPS 140–2 Level 3 certification for physical security
- Rack-mountable (2U), physically fortified form factor
- Double-locking bezel with Medeco locks
- Penetration detection (protective grid)
- Out-of-range temperature and voltage detection
- Low-battery voltage detection
- PIN security and key management implemented within a tamper-resistant, tamper-responsive hardware security module perimeter for protection against manipulation

### Logical Security

- Industry-standard Atalla Key Block key management technology
- Advanced security architecture that prevents retrieval of PINs, keys, and other sensitive data in cleartext form
- Automated and manual key management options
- Encrypted, convenient configuration, management, and key loading via Utimaco Atalla Secure Configuration Assistant (no cleartext passing of keys or key components)
- Remote ATM key initialization and rekeying via the optional Atalla Remote Key feature
- Payment Card Industry (PCI) Security Standards Council PIN Transaction Security (PTS) approved device

## Cryptographic Algorithms Supported

### Cryptographic support

- Cryptographic support Data encryption algorithm (DEA) standard (ANSI X3.92-1987, ISO 10126-2), DES, and two- and three-key Triple DES; Banking procedures for message encipherment, general principles (ISO 10126-2); PIN management and security, part 1 and 2 (ANSI X9.8, ISO 9564–1 and 2); Message authentication (ISO 9797-1, ANSI X9.9-1987, ISO 9807); MasterCard CVC, Visa CVV, and American Express CSC; MasterCard CVC3, Visa dCVV, and Discover dCVV; Unique key per transaction (ANSI X9.24-2004); EMV-based smart card support

### PIN block formats

- ISO 9564; PIN pad; IBM 3624 ATM PIN format; IBM 4731 PIN block; IBM Encrypting PIN pad; Unisys (Burroughs); Diebold; Docutel/Olivetti

### PIN verification methods

- IBM 3624; Visa PVV; Atalla Bi-Level DES; Diebold; NCR

### Key management standards

- ANSI X9.24 Parts 1 & 2; ANSI X9.52; Triple DES derived unique key per transaction

### Performance

- Rated at 1060, 280, and 80 Triple DES PIN translates per second using the Atalla Key Block
- Tailored to entry-level, mid-level, or high-volume environments to meet processing performance needs and demanding security requirements
- Linear performance scaling with additional hardware security module units

**Note:** Card validation code: (CVC), card verification value (CVV), card security code (CSC), card validation code 3 (CVC3), dynamic card verification value (dCVV), and PIN verification value (PVV)

### Fast host connectivity

- Auto-sensing 10/100/1000BASE-T Ethernet interface for point-to-point TCP/IP
- Integrated high-performance TCP/IP stack and communications processor
- Asynchronous connection for legacy applications

### Flexibility and extensibility

- Broad application support (ATM/EFT/POS, stored value, loyalty cards, and corporate funds transfer)
- Customer-defined security policies enforced
- Easy command set customization
- Seamless interoperability with non-Atalla environments
- Remote rekey support for NCR, Diebold, and other ATM vendor devices
- Command set compatibility with earlier models of Atalla HSMs

### Easy to use and manage

- Encrypted, convenient key loading via the Atalla Secure Configuration Assistant
- Simple-to-use GUI for key loading and configuration
- Fast, convenient software upgrades
- No need to replace components (for example, EPROM) when upgrading

## Global support

Utimaco provides worldwide support and services to help you maintain the security and availability of your business environment.

## Technical Specifications **Utimaco Atalla Ax160-3 HSMs**

### Physical Dimensions

- **Height**  
3.45 inches (8.76 cm)
- **Weight**  
19.00 inches (48.26 cm)
- **Depth**  
27 inches (68.58 cm)
- **Weight**  
33.7 pounds (15.3 kg)
- **Controls**  
Power on/off switch, unit ID switch

### Electrical

- **Rated input voltage**  
100 to 120 VAC, 200 to 240 VAC
- **Rated input current**  
6.2 A at 100 VAC  
3.7 A at 240 VAC
- **Rated input frequency**  
50 Hz to 60 Hz
- **Rated input power**  
616 W at 100 VAC  
873 W at 240 VAC
- **BTUs per hour**  
2099 at 100 VAC  
2975 at 240 VAC

- **Rated steady-state power**  
550 W at 100 VAC  
800 W at 240 VAC
- **Maximum peak power**  
550 W at 100 VAC  
800 W at 240 VAC

### Operating environment

- **Temperature**  
5° to 59°C (41°F to 122°F)
- **Relative humidity**  
5% to 59% Non-condensing

### Certification/compliance

- **Safety**  
ULC, CE, TUV approved
- **Emissions**  
FCC, C-Tick, GOST
- **Environmental**  
RoHS

### Connectivity

- **Communications**  
Ethernet running TCP/IP
- **Connection**  
10/100/1000BASE-T (RJ45) auto-sensing