

PRODUCT BRIEF

PROVISION ProHSM™ M10K



Overview

ProHSM™ M10K is a hardware security module (HSM), designed for Taiwan and global payment ecosystem, supporting credit, debit, chip cards, and various payment applications. It offers secure PIN and card processing, message authentication, comprehensive key management, and general-purpose cryptographic processing.

Common use cases

- ✧ Taiwan FISC IBRS system, ATM system, eBill system, FXML system, FEDI system, FEOI system, IC card issuing/routing system
- ✧ Taiwan Clearing House (TCH) eACH system, eDDA system, eFCS system
- ✧ Taiwan Mobile Pay (TWMP) HCE system, TSM system
- ✧ Taiwan NCCC credit-card system
- ✧ Point to point encryption (P2PE)
- ✧ Card and mobile payment authorization
- ✧ POS, mPOS key management
- ✧ PIN and EMV cryptogram validation
- ✧ 3D Secure v1 and v2 cryptography

Cryptographic algorithms

- ✧ DES and Triple-DES key lengths 112 & 168 bit
- ✧ AES key length 128, 192 & 256 bit
- ✧ RSA (up to 4096 bit)
- ✧ HMAC, MD5, SHA-1, SHA-2

Financial services standards

- ✧ ISO: 9564, 10118, 11568, 13491, 16609
- ✧ ANSI: X3.92, X9.8, X9.9, X9.17, X9.19, X9.24, X9.52, X9.97
- ✧ ASC X9 TR-31

Physical security

- ✧ Tamper resistant and responsive design
- ✧ Sensitive data erased immediately in the event of any tamper attack
- ✧ Alarm triggers for voltage and temperature

Logical security

- ✧ Local Master Key (LMK) options – variant and key block
- ✧ Two-factor authentication (2FA) of security officers
- ✧ Dual control authorization – physical keys and smart cards
- ✧ Audit logs over the scope of events recorded

Product models and options

- ✧ Dual hot-swappable power supply units
- ✧ Performance model – 60, 300, 1000, 2500 calls per seconds (cps)
- ✧ Key management via ProHSM™ KMC
- ✧ Remote monitoring options via ProMonitor

Connectivity

- ✧ Gigabit Ethernet dual ports
- ✧ TCP/IP, TLS1.2

Security certifications

- ✧ FIPS 140-2 Level 3 (PCIe crypto card)

Physical characteristics

- ✧ Form factor: 1U 19" rack mount
- ✧ Dimensions: 482.6 x 550.5 x 44.5 mm
- ✧ Weight: 8.8 kg
- ✧ Electrical Supply: 100-240 VAC
- ✧ Power Consumption: 500W
- ✧ Operation Temperature: 10 deg C to 35 deg C
- ✧ Storage Temperature: -5 deg C to 55 deg C
- ✧ Humidity: 10% to 90% (non-condensing)