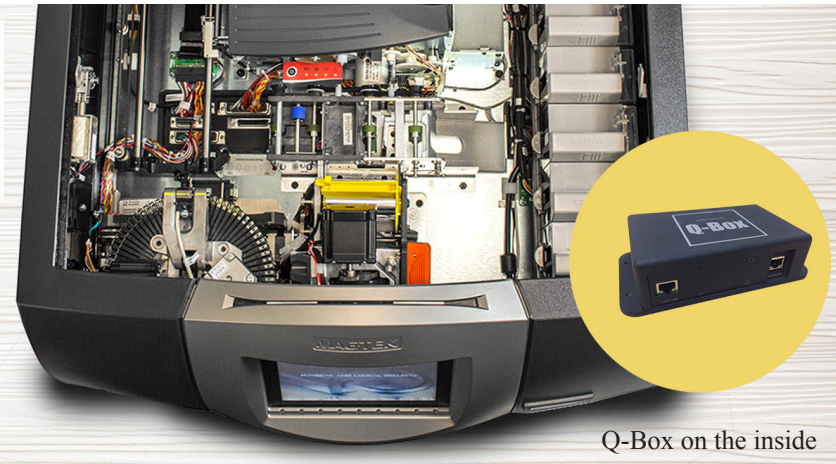
MAGTEK®
SECURITY FROM THE INSIDE



Q-Box on the inside

ExpressCard 2000 & Q-Box

Secure Issuance and Network Communications

MagTek and Q-Net have created a highly secure partnership. MagTek's ExpressCard 2000 when coupled with Q-Net's Q-Box (delivering strong, quantum-resistant encryption and true random number generated symmetric keys) creates an enterprise platform for instant card personalization with unparalleled security. Integration of the Q-Box is as simple as plugging it in. This delivers a secure, robust, and easy to implement security system designed to secure data and thwart a cyber-attack.

ExpressCard 2000
Card personalization device with 7 card hoppers.

ExpressCard 2000

Put cards in your customers hands

Offer permanent new cards or emergency replacement cards instantly at the branch, eliminating card mailers. Instant card issuance and card personalization provides a higher level of service that existing customers will appreciate, attracts potential customers, and creates a lasting return on investment.

Premier Production that Earns Top-of-Wallet

The ExpressCard 2000 gives your customers the freedom to express themselves, with dual-sided printing, multi-colored tipping and indent printing. The ExpressCard 2000 is a cost-effective solution that produces cards that are attractive, durable and wear-resistant with unique images.

Q-Box
Q-Box is a cybersecurity box that secures all data transmitted through the device (not to scale)

Strong Security for Authentic Transactions

ExpressCard 2000 exceeds the physical and logical security required to comply with the guidelines for instant issuance published by Visa and MasterCard. The MagneSafe Security Architecture provides a layered approach with dynamic data, encryption, tokenization and authentication, backed by MagnePrint® card authentication technology. ExpressCard 2000 offers unprecedented card security by transforming cards into unique verifiable tokens allowing for immediate detection of altered or counterfeit cards.

Call a representative to learn more: 562-546-6400.

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Q–Box

Simplify Security on Legacy Systems

ExpressCard 2000s and other networked computers with point-to-point communications can be Q-Net enabled simply by inserting a Q-Net device (Q-Box) between each endpoint (PC or ExpressCard 2000) and the network. The Q-Box operates independently of the endpoint and thus has no impact on existing configuration or performance.

Next Generation Encryption

Q-Net utilizes National Intelligence-grade encryption (AES-256 encryption), utilizing symmetric keys for which decryption is computationally intractable. In addition, Q-Net changes keys after every packet or transaction, further reducing the risk of exposure beyond that required for national security. The entropy needed for these many keys comes from a separate True Random Number Generator (TRNG) located in each endpoint.

Superior Information Authentication

Q-Net technology ensures that all packets forwarded to a Q-Net endpoint are generated by an authorized source and have not been covertly or accidentally altered. Q-Net uses Galois Counter Mode (GCM) technology to achieve non-repudiation and message authentication.

A Different Cybersecurity Approach

Contemporary cybersecurity methods are software based, such as monitoring the status of the network, monitoring the operating system, or implementing patches and updates. Q-Net's approach is focused below the operating system. Q-Net enforces cybersecurity at the hardware, or silicon, level.

Silicon-Based Approach to Cybersecurity

A benefit of hardware security (in silicon) is that it cannot be hacked. Silicon, by definition, is "immutable" and cannot be modified in any way by an attacker. In addition, since there are no changes that can occur to the security, there is no need to provide additional tools to observe suspicious network activity. The Q-Net Policy Manager (QPM) records statistics on unauthorized packets.

International Compliance

With Q-Net, regulatory compliance is a snap. Organizations facing Sarbanes-Oxley, HIPAA, GDPR-EU, and other governmental regulations need to demonstrate active implementation of industry best practices that comply with these rules to avoid breaches and potentially substantial fines. Card issuers and risk managers can be confident that this combined solution can easily and cost-effectively secure your enterprise card issuance platform by protecting the access to and integrity of sensitive information needed to issue payment cards and other access credentials.

Express Card Specifications

Capabilities	
Encode Magstripe	ANSI/ISO/AAMVA/CDL; HiCo/LoCo read/write per ISO 7810, 7811; Tracks 1, 2, and 3
Encode EMV Smartcard	ISO 7816-1, -2, and -3; EMV SmartCard contact module per ISO 7816, EMV L1
Print	Up to 16.7 million colors/256 shades pp; CR-80 edge-to-edge (3.37"x 2.11"/85.5mmx 53.5mm); CR-79 (3.303"x2.051"/83.9mmx52.1mm);
Fonts	TrueType fonts from on-board Windows drivers
Method	Dye-sublimation resin thermal transfer
Resolution	300 dpi - 600 dpi (dbl run)
Emboss/Tipping/ Indent	Foil-tipped embossing; Rear and / or front indent; Embossing per ISO/IEC pubs: 7810, 7811-1 -6
Security	LOGICAL: MagneSafe Security Architecture, MagnePrint reference capture module PHYSICAL: 3/8" chassis anchor hole for desktop / counter mounting ring-shaped security anchor
General	
Card Hopper	7 automatic card hoppers (100 cards per) (locked); 1 manual feed hopper; 1 output hopper (card complete or reject)
Platform	Windows™ 7, 32 & 64 bits
Card Stock	CR-80 ANSI/ISO/AAMVA/CDL tracks 1, 2, and 3; HiCo/LoCo read/write per ISO 7810, 7811; PRINT AREA: CR-80 edge-to-edge (3.37"x 2.11"/85.5mmx 53.5mm); CR-79 (3.303"x2.051"/83.9mmx52.1mm)
Interface	Ethernet 100 base-T (external); USB 2.0 (internal)
Recommended production	Recommended duty cycle for 50 cards per day/15,000 cards per year
Status indicators	LED status indicator, LCD touchscreen
Mechanical	
Dimensions	L: 24.7" x W: 26.8" x H: 15.1" L :627mm x W: 680mm x H: 384mm
Weight	88 lbs. (39.9 kg)
Recommended duty cycle	50 cards per day/15,000 cards per year.

Q-Box Specifications

Secure communication using the Internet
Hardware based approach to cybersecurity
Simplify security on legacy systems
Uses quantum resistant symmetric keys
AES encryption with changing keys per packet
Superior information authentication
Achieve and maintain international compliance

MAGTEK®
SECURITY FROM THE INSIDE

Founded in 1972, MagTek is a leading manufacturer of electronic systems for the reliable issuance, reading, transmission and security of cards, checks, PINs and identification documents. Leading with innovation and engineering excellence, MagTek is known for quality and dependability. Its products include secure card reader/authenticators, token generators, EMV contact, contactless and NFC reading devices, encrypting check scanners, PIN pads and distributed credential personalization systems for secure magstripe and EMV enabled cards. These products are used worldwide by financial institutions, retailers, and processors to provide secure and efficient payment and identification transactions. Today, MagTek continues to innovate. Its MagneSafe™ Security Architecture leverages strong encryption, secure tokenization, dynamic card authentication, and device/host validation enabling users to assess the trustworthiness of credentials and terminals used for online identification, payment processing, and high-value electronic transactions. MagTek is headquartered in Seal Beach, CA. For more information, please visit www.magtek.com.