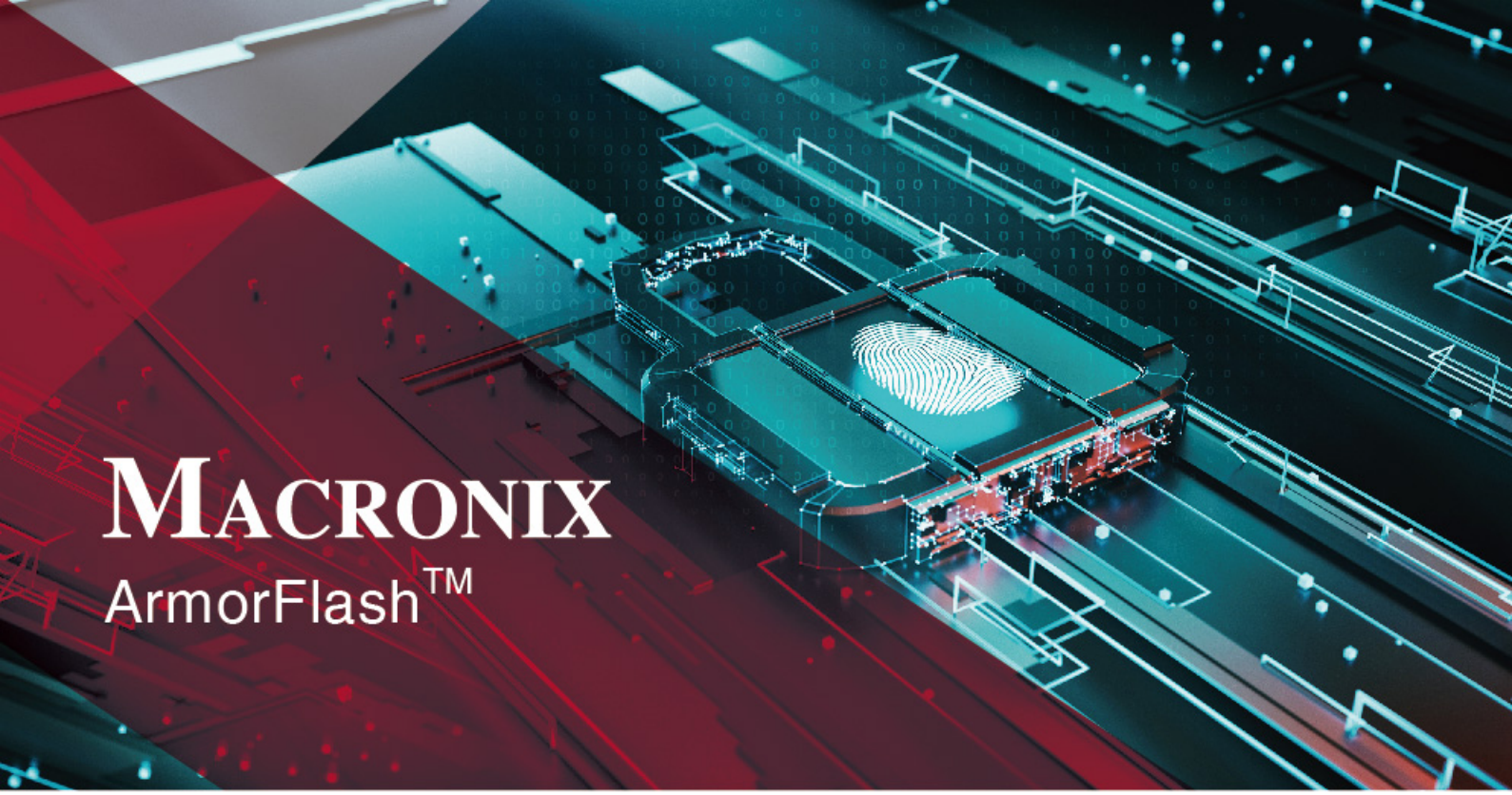


MACRONIX
ArmorFlash™

ArmorFlash™ Supports Standard SPI/QSPI/OctaBus Interface

As more devices connect to the Internet, these networks are becoming more sophisticated with valuable data to protect. There are increasing concerns regarding the vulnerability of these growing networks to outside influences and potential exposure to a myriad of data that needs to be secure.

ArmorFlash™ supports a standard SPI, QSPI, and OctaBus Interface which is based on highly configurable security technologies providing a secure ID, authentication, and an encrypted link for NOR, SLC NAND, or e.MMC™ Flash.

The data encrypted by ArmorFlash™ uses a security protocol that provides unique transfers even when repeatedly reading the same address of the ArmorFlash™ secure memory region. ArmorFlash™ offers high levels of data confidentiality, integrity and availability to prevent data from being compromised. This storage is also offered in a number of densities to meet your application's needs.

ArmorFlash™ offers secure technologies like a Physical Unclonable Function (PUF) that makes use of a semiconductor's biometrics, which are characteristics derived from fabrication that can be used for encoding or identification. This highly unique fingerprint cannot be predicted, duplicated, or cloned and so provides a reliable unique ID with very high levels of entropy.

ArmorFlash™ is an ideal security solution for a wide range of identification, authentication and encryption requirements for IoT, automotive, computing, industrial, healthcare, wearables, smart home, and smart cities.

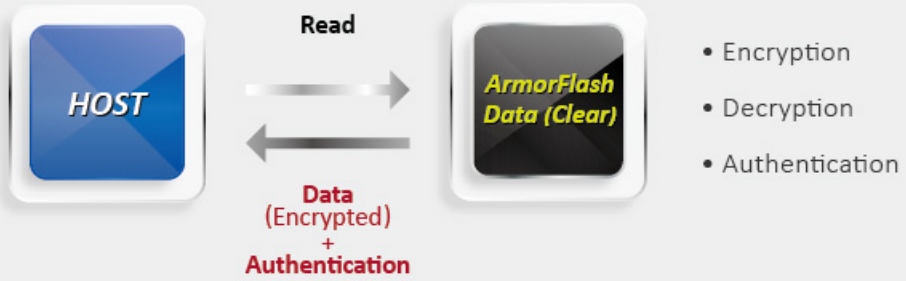
Note: e.MMC™ is the trademark of JEDEC/MMCA.

Automotive Grade
AEC-Q100 Grade-1/2/3 Compliant
ISO 26262 Certified

Security Certifications
ISO/SAE 21434 Certified
NIST FIPS 140-2 & FIPS 140-3 Certified
PSA Level 1 Certified

Key Features

- Standard SPI/QSPI/OctaBus Interface
- Non-volatile Monotonic Counters
- True Random Number Generator (TRNG)
- Physical Unclonable Functions (PUF) Support
- Hardware Crypto Engines
- Symmetric and Asymmetric Key Provision and Management
- Secure Areas for Authentication/Encryption/Decryption
- Standard Areas for Authentication
- Public Key Certification

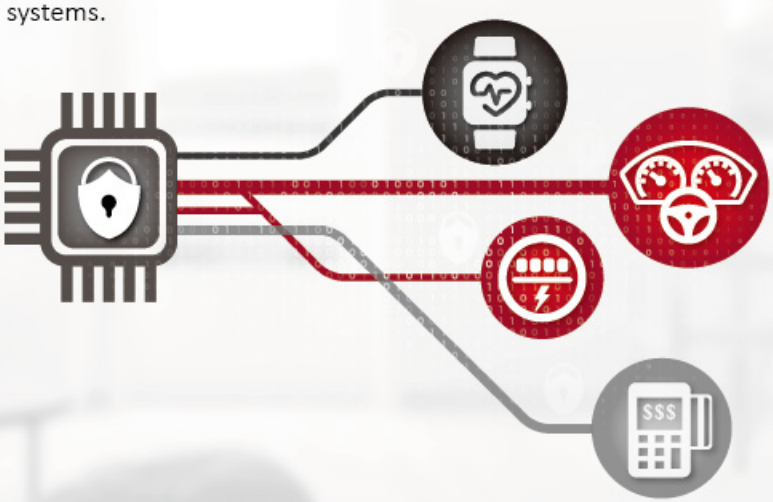


- Encryption
- Decryption
- Authentication

Product	Interface	Vcc	Density	PUF	TRNG	Monotonic Counter	Hardware Crypto Engines	Key Provision	Public Key Certification	Authentication /Encryption	AEC-Q100 Compliant	ISO/SAE 21434 Certified
MX75	SPI/QSPI	1.8V/3V	256Mb	✓	✓	✓	✓	Symmetric		✓	✓	
MX78_A	SPI/QSPI/ OctaBus	1.8V/ 3V	64Mb	✓	✓	✓	✓	Asymmetric		✓	✓	✓
MX78_B	SPI/QSPI/ OctaBus	1.8V/ 3V	64Mb/ 128Mb	✓	✓	✓	✓	Asymmetric	✓	✓	✓	✓

Software Development Support

- Software drivers are developed for various operation systems.
- Software drivers and application implementation reference for customers' platforms.
- Software drivers and application integration for specific environment.



MXIC Macronix International Co., Ltd.

www.macronix.com