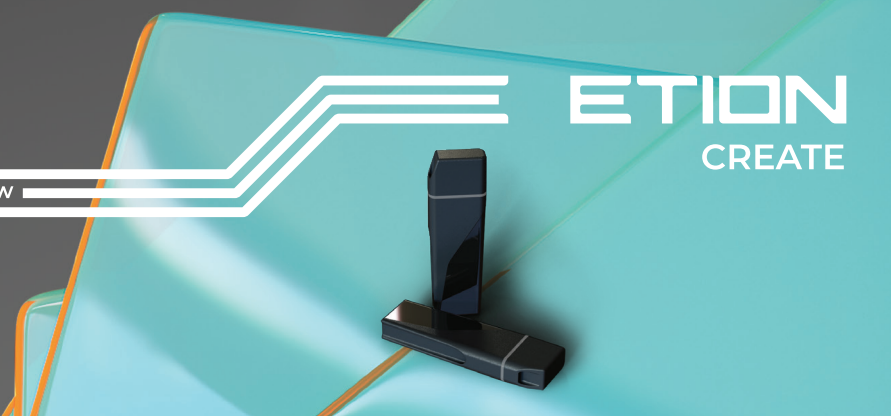



SOLIDid™
ID
CRYPTOGRAPHIC TOKEN



The **SOLIDid™** forms part of the **SOLIDguard** range of cyber security products. The **SOLIDid™** is a portable USB based PKI cryptographic token solution. The **SOLIDid™** provides industry leading features and functionality which cover a wide range of information and cyber security applications.

As a USB based extension of smart card technology, the **SOLIDid™** makes use of advanced cryptography to provide security for certificate based authentication, verification, signing and encryption. No other token solution currently on the market provides the wide range of cryptographic algorithms, curves and key sizes provided by the **SOLIDid™**.

Typical uses of the **SOLIDid™** includes secure remote access for VPN and Web clients; multi-factor authentication; encryption and digital signing of emails and documents; digital certificate, key and password storage; and on-board key generation. As a FIPS 140-2 Level 3 validated solution, the **SOLIDid™** provides additional cryptographic security by means of a hardware based true random number generator for improved security of on-board key generation.

Unlike other cryptographic tokens the **SOLIDid™** is fully upgradeable, giving users the flexibility to change in step with the ever changing demands of the modern information security world. The **SOLIDid™** provides the most flexible and extensible token solution in the market.

The **SOLIDid™** is designed for use with all Public Key Infrastructure (PKI) environments and as such supports a wide array of cryptographic algorithms and APIs along with a host of different operating systems.

Benefits of the **SOLIDid™**

Onboard Encrypted Storage

- Offers 1 GB of on-board encrypted storage for files and other data.

Upgradeable and Extensible

- Offer the ability to upgrade and extend the supported feature sets as required.
- Ensure that tokens can be upgraded to address any future security vulnerabilities or attacks.
- Provide the ability to add new algorithms and features as they become available.

Onboard Key Generation

- Offers the ability to perform on-board key generation, encryption and other cryptographic processing.
- Ensures that cryptographic keys and functions cannot be compromised or altered by malware or other attacks.

Ease of Deployment

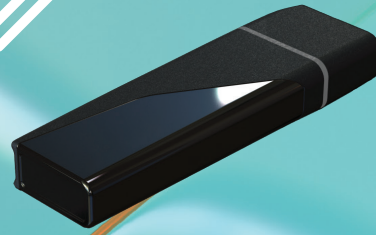
- USB based solution offering the security of a smart card without the need for costly smart card readers or other biometric devices.
- No maintenance required, as tokens have no batteries which need replacing.

Compact

- Small and rugged, with a tamper-resistant construction for extra security.

Customisable

- Customised branding – The **SOLIDid™** is fully customisable to fit client branding.
- Additional / Custom algorithm support available on request.
- Portable / Custom applications available on request.



Technical Specifications (SID5000)

Symmetric	AES	128, 192, 256 ECB, CBC, CFB, OFB, CTR, CCM, GCM, XTS
	TDES-EKE (Triple DES)	ECB, CBC, CFB, OFB
Asymmetric	RSA*	1024, 2048, 3072, 4096
	DSA	2048/224, 2048/256, 3072/256
	Diffie-Hellman	2048, 3072, 4096
	ECC, ECDSA, ECDH (Elliptic Curve Cryptography)	Primary: 224, 256, 384, 521 Kolbitz: 233, 283, 409, 571 Binary: 233, 283, 409, 571 Brainpool curves available as add-on
Hash Digest	SHA1*	Yes
	SHA2	256, 384, 512
	MD5*	Yes
Digital Signing	RSA (PKCS#1)	Yes, on-board
	DSS (FIPS-186)	Yes, on-board
Certificate and Key Storage		250
Onboard Encrypted Storage		1 GB
Random Number Generation (RNG)		Hardware True Random Number Generation (TRNG) On-board RNG based on RBGs specified in SP 800-90 (HASH, HMAC, CTR) and ANS X9.62-2005 (HMAC)
Upgrades and Extensions		Additional curves for the above

Other Features

Supported Cryptographic APIs

- PKCS#11
- PKCS#15
- Microsoft CSP (CAPI1) & KSP (CAPIv2)
- Microsoft PC/SC
- Apple Native PC/SC

Supported Operating Systems

- Microsoft Windows 7 & 10
- Microsoft Windows Server 2008 & 2012
- macOS High Sierra (10.13) & Mojave (10.14)
- Linux (future)

Cryptographic Functions

- Encrypt/decrypt
- Sign/verify
- Digest
- Key generation
- Wrap/unwrap
- Derive

Supported Applications (Tested)

- Windows Smart Card Logon
- Microsoft Office: Word, Outlook, PPT and Excel
- Microsoft Office and Outlook for Mac
- Adobe Acrobat Reader
- Mozilla Thunderbird, Firefox
- Apple Mail
- TrueCrypt / VeraCrypt

#Should support any application which supports the above listed Cryptographic APIs.

Certifications

- FIPS 140-2 Level 3 (HSID5000A)
- RoHS
- IPX7
- CE

* Some algorithms not available in FIPS mode.