Table of Selection of X-Wall Hardware Real-time Cryptographic Processor

Available Product SKU / Categories	*X-Wall CO-128* *X-Wall CO-192*	*X-Wall MX-128* *X-Wall MX-192* *X-Wall MX-256* *X-Wall MX-128C* *X-Wall MX-192C* *X-Wall MX-256C*	*X-Wall FX-128* *X-Wall FX-192* *X-Wall FX-256* *X-Wall FX-128C* *X-Wall FX-192C* *X-Wall FX-256C*	*X-Wall DX-128* *X-Wall DX-128C* *X-Wall DX-256* *X-Wall DX-256C*
Year Introduced	**2006/7**	**2007/8**	**2008/9**	**2010/11**
Built-in Interface Controller	**ATA/ATA**	**SATA/SATA**	**USB2.0/SATA**	**USB2.0/USB2.0**
Production Units Availability	Yes	Yes	Yes	Yes
Product Warranty 3 Years	**Yes**		**Yes**	
Product Warranty 5 years		**Yes**		**Yes**
Operating Temperature	**-40C to +90C**	**-45 to +90C**	**Standard**	**Standard**
High Temperature Operating Life (HTOL)	1,000 hours @125C	1,000 hours @125C	Yes	Yes
NIST & CSE certified Cryptographic Engine	**TDES 128/192-bit**	**AES ECB/CBC up to 256-bit**	**AES ECB/CBC 256-bit**	**AES ECB/CBC up to 256-bit**
FIPS 140-2 Certified		**Yes**		**In Progressing**
Design Guide version	Version 1.0	Version 2.2	Version 1.0	Version 1.2
Reference Schematics & Layout (OrCAD)	Yes	Yes	Yes	Yes
Development Board Availability	Yes, on order	Yes, on order	Yes, on order	Yes, on order
Authentication is a matter of deciding when the secret key is released by: • Smartcard, Fingerprint, Password, or Key Token All the designers need to do is to decide when to release the secret key to enable the *X-Wall* crypto engine.	Single or Multi-Factor Authentication, which is design dependent.	**Pre-boot password authentication software as part of a BIOS or OS kernel code is available.**	Single or Multi-Factor Authentication, which is design dependent.	Single or Multi-Factor Authentication, which is design dependent.
Interface for secret key loading	● 2-wire SEEPROM; ● Built-in API	● Built-in API; ● Source codes for developers	• Built-in API; • Source codes for developers	• Built-in API • USB Vendor Specific Command
Upgradeable Firmware				YES
Volatile Type Key Registers	Yes. Loss secret key at power off.	Yes. Loss secret key at power off.	Yes. Loss secret key at power off.	Yes. Loss secret key at power off.
API software availability	Yes, Linux & x86	Yes, Linux & x86		Windows & MAC
Burst (Max.) Current Consumption		**~ 219mA @1.8V**	**~ 212mA @1.8V**	**~ 100mA @1.8V**
IC Package	**128-pin LQFP**	**80-pin TQFP**	**64-pin TQFP**	**48-pin TQFP**
Core Voltage	**3.3V**	1.8V	1.8V	1.8V
Hard Drive & SSD support	**> 137GB**	SATA > 2TB	Over 2TB	Over 2TB
Sustained Real-time Crypto Engine Throughput	**> 1.2 Mbit/sec**	> 120MB/sec	> 30MB/sec	> 30MB/sec
RoHS & Lead-free compliance	Yes	Yes	Yes	Yes
Pin Compatibility?	All CO & XO chips share the same pin definition	All MX series share the same pin definition	All FX series share the same pin definition.	All DX series share the same pin definition.