



**Table of Selection
of
X-Wall Real-time Cryptographic Gateway**

Product Name	X-Wall CO-128 X-Wall CO-192	X-Wall SE-128 X-Wall SE-192	X-Wall LX-64 X-Wall LX-128 X-Wall LX-192	X-Wall XO-64 X-Wall XO-128 X-Wall XO-192	X-Wall MX-128 X-Wall MX-192 X-Wall MX-256
Categories					
Interface	Parallel ATA	Parallel ATA	Parallel ATA	Parallel ATA	Serial ATA
RoHS & Lead-free compliance	Yes	Yes	Yes	Yes	Yes
Cryptographic Strength	TDES 128/192-bit	TDES 128/192-bit	DES 64-bit; TDES 128/192-bit	DES 64-bit; TDES 128/192-bit	<ul style="list-style-type: none"> • AES ECB 128/192/256-bit • CBC mode is optional
Design Guide version	X-Wall CO Design Guide 1.0	X-Wall SE Design Guide Version 0.5	X-Wall LX Design Guide Version 0.4	X-Wall XO Design Guide Version 0.4	X-Wall MX Design Guide 1.0
Hard disk support	> 137GB per drive	< 137GB per drive	> 137GB per drive	> 137GB per drive	All Serial ATA
48-bit Addressing	Yes	No	Yes	Yes	
Port Multiplier Support					Yes
Ultra DMA Protocol support	ATA 6, Mode 6 transfer	ATA 5, Mode 4 transfer	ATA 6, Mode 6 transfer	ATA 6, Mode 6 transfer	Yes
Multi-Word DMA support	No	No	No	No	
PIO support	Yes up to mode 4	Yes up to mode 4	Yes up to mode 4	Yes up to mode 4	Yes
Hard disk compliance	Ultra DMA 100, 133	Ultra DMA 33, 66, 100 & 133	Ultra DMA 66, 100 & 133	Ultra DMA 66, 100 & 133	All Serial ATA
Maximum Burst	133Mbytes/sec	66Mbytes/sec	133Mbytes/sec	133Mbytes/sec	1.5Gbit/Sec
Real-time Crypto Engine Throughput	1.2 Mbit/sec	1.1 Gbit/sec	1.6 Gbit/sec	1.1 Gbit/sec	1.5Gbit/Sec
IC Package	128-pin LQFP	128-pin LQFP	128-bit LQFP	128-bit TQFP	80-pin TQFP
Core Voltage	+3.3V	+5V	+3.3V	+3.3V	1.8V
Authentication <ul style="list-style-type: none"> • Smartcard • Fingerprint • TPM 1.2 • Password • Key Escrow • Key Token 	Accept Multi-Factor Authentication, which is design dependable.			Accept Multi-Factor Authentication, which is design dependable.	Accept Multi-Factor Authentication, which is design dependable.
Interface for key load	<ul style="list-style-type: none"> • 2-wire SEEPROM; • Built-in API 	93C46	93C46	<ul style="list-style-type: none"> • 2-wire SEEPROM • Built-in API 	<ul style="list-style-type: none"> • 2-wire SEEPROM • Built-in API
External OSC	No, Just Crystal	66MHz OSC required	No, Just Crystal	No, Just Crystal	Crystal
Static Current Consumption	70mA	130mA	130mA	70mA	



Pin Compatibility?	All CO & XO series share the same pin definition	All SE NB and SE A series share the same pin definition	All LX series share the same pin definition. However, the LX pin definition is different from that of the NB & A.	All XO series share the same pin definition. However, the XO pin definition is different from that of the LX.	All MX series share the same pin definition.
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Product Implementations					
External Storage Solutions					
Secure USB2.0 2.5" Storage Enclosure?	Yes, no constraints	Yes, but with the power consumption constraint consideration. Using external power supply can avoid this concern.	Yes, no constraints	Yes, no constraints	Yes, no constraints
Secure USB2.0 3.5" Storage Enclosure?	Yes, no constraints	Yes, as USB2.0 issues only Ultra DMA 66 strobe. But, the A version supports less than 137GB per drive.	Yes, no constraints	Yes, no constraints	Yes, no constraints
Secure 1394a,b to 3.5" Storage Enclosure?	Yes, no constraints	Ditto	Yes, no constraints	Yes, no constraints	Yes, no constraints
Secure 1" Storage Enclosure	Yes	No	No	Yes	NO
Secure Biometrics 2.5/3.5" Storage	Yes	No	Yes	Yes	Yes
Desktop Storage Solutions					Yes
Secure 5.25" Bay?	Yes, no constraints				
Secure 3.5" Bay?	Yes, no constraints	Ditto	Yes, no constraints	Yes, no constraints	Yes, no constraints
Secure PCI Adapter 3.5" disk drive?	Yes, no constraints	Ditto	Yes, no constraints	Yes, no constraints	Yes, no constraints
Secure IDE	Yes, no constraints	No	Yes, no constraints	Yes, no constraints	Yes, no constraints
Secure Motherboard?	Yes, no constraints	No	Yes	Yes	Yes, no constraints
Secure Mobile Rack 5.25" Enclosure?	Yes, no constraints	Ditto	Yes, no constraints	Yes, no constraints	Yes, no constraints
Server Storage Solutions					
Secure RAID Server?	Yes, recommend	No	Yes	Yes, recommended	YES. Highly Recommended



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Notebook Storage Solution					
Secure Notebook?	Yes, highly recommended	No	Yes	Yes, recommended	YES. Highly Recommended
DiskCrypt	Yes	No	Yes	Yes	Yes
Others					
Secure D.O.M. (Disk On Module), Flash IDE based, SATA based	Yes, highly recommended	Yes, recommended if bandwidth requirement is less than 66MB/sec	Yes	Yes	Yes