

# Crypto M.2 SATA 6Gbps NGFF 22x80

**Full Disk Encryption  
AES 256-bit**



128  
GB

256  
GB

512  
GB

## INTRODUCTION

The most secure next generation form factor encrypted SSD available.

If an ultrabook or laptop with an Integral Crypto M.2 SSD installed is lost or stolen, sensitive data is secure and cannot be accessed without the high-strength password. When the system is shut down, 256-bit full disk encryption is instigated.

Crypto M.2 SSD is the no-fuss and highly-secure solid state encryption solution for many industries including; finance, legal, health, education and government.

M.2 SATA SSD storage solutions are designed for Notebooks, Desktops, Ultrabooks and tablets. They address the need for more low powered compact storage without compromising performance and reliability of solid state drives.

## FEATURES

- **Military level security with AES 256-bit hardware encryption** - More secure than a software-only solution.
- **FIPS 140-2 Validated** - Certificate No. 2126
- M.2 2280 form factor with SATA III 6Gbps interface (backwards compatible with SATA 3Gbps and SATA 1.5Gbps)
- Supports 'M' & 'B' Key sockets
- Performance: Faster boot than HDD, Faster access to applications, enhanced productivity and increased efficiency
- Fully compatible with devices and OS that support the SATA standard with M.2 M and B connectors
- **Multi-lingual interface** – in 14 languages\*

## Security Features

- **Total Drive Encryption** - All data stored on the Crypto M.2 SSD is encrypted (including the Operating System).
- **Dual Password** - As an option an Administrator can setup a user password and a master override password. If the user forgets their password, the Crypto M.2 SSD can be unlocked by the Administrator and the user password reset.
- **Secure Entry** - Encrypted data cannot be accessed without the correct high-strength 8-16 character alphanumeric password. An optional password hint can be set-up which cannot be the same as the password. Before use a high-strength password must be set.
- **Brute-Force Password Attack Protection** - Encrypted data is automatically erased after the default 6 failed password attempts (password attempts configurable to a maximum of 20). The data and encryption key are securely destroyed and the Crypto M.2 SSD is reset and can then be reused.
- **Anti-Clone** - Crypto M.2 SSD cannot be cloned once encryption is set.
- **Tamper-Proof Design** - The electronics are sealed in tamper-proof epoxy resin.
- **High-speed Read/Write** – The Crypto M.2 SSD has both high encryption and the main benefit of a performance SSD; a high-speed sustained data transfer rate.
- **Quick Boot** - Using a Crypto M.2 SSD in place of a traditional HDD can cut your ultrabook or laptop's boot time in half.
- **No moving parts** - greater resistance to shock and vibration
- **Noise free** - no spin or seek time
- **Endpoint security software compatible** – The Integral Crypto M.2 SSD operates comfortably with endpoint security solutions by using the configurable unique ID feature, which is part of the setup program
- **Warranty** – 3 Years

## Technical Features

- MLC-NAND Flash Technology
- Compatible with Windows XP, Vista, 7, 8.1 and 10

PERFORMANCE		
128GB	Read	420MB/s (up to)*
	Write	315MB/s (up to)*
256GB, 512GB	Read	450MB/s (up to)*
	Write	330MB/s (up to)*
INTERFACE		
Interface	SATA III 6Gbps Also Compatible with SATA II 3Gbps and SATA 1.5Gbps	
NAND	MLC	
Form Factor	M.2 22x80 'M' & 'B' Key connector	
Standard	M.2 (previously known as Next Generation Form Factor (NGFF))	
*Based on internal testing		
RELIABILITY		
ECC algorithm	BCH - Can Correct up to 72 bits error in 1K Byte data	
MTBF	>1 Million Hours	
POWER CONSUMPTION		
Supply Voltage	3.3V	
Power Consumption (mW)	Read : 128G = 2530 256G = 2610    512G = 2661	
	Write : 128G = 3547 256G = 3647    512G = 3790	
	Idle : 128G = 298 256G = 312    512G = 310	
Supports SMART Software	Yes	
Supports TRIM	Yes (OS support required)	
Compliance	CE, FCC, RoHS	
ENVIRONMENTAL		
Operating Temp	0° - +70°C	
Non - Operating Temp	-40° - +85°C	
Humidity	RH 90% under 40C in operation	
Vibration	80Hz~2000Hz / 20G	
DIMENSIONS		
Length	80mm	
Width	22mm	
Height	3.73mm	
Weight	9g	
Length (Packed)	195mm	
Width (Packed)	125mm	
Height (Packed)	16mm	
Weight (Packed)	69g	
WARRANTY		
3 years		

APPROVED SECURITY FUNCTION	CERTIFICATE
<b>AES (H/W implementation)</b> • CBC (enc/dec; 256)	2175
<b>XTS 128, XTS 256</b>	2175
<b>HMAC 512 HMAC 256</b>	1335
<b>DRBG</b>	254
<b>SHA 512 SHA 256</b>	1887

### \*14 languages supported by the software GUI -

- Arabic
- Chinese
- Dutch
- English
- French
- German
- Hindi
- Italian
- Norwegian
- Polish
- Portuguese
- Russian
- Spanish
- Swedish

CAPACITY	PART CODE	BARCODE (EAN)
128GB	INSSD128GM2M2280C140	5055288428225
256GB	INSSD256GM2M2280C140	5055288428232
512GB	INSSD512GM2M2280C140	5055288431348

1GB = 1,000,000,000 bytes. Formatted capacity is less.

Please Note: No security software can be guaranteed 100% secure.

This device should not be used as your sole backup.

Product design and specification subject to change or modification without notice. E&OE.

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For products with security software or hardware; the product cannot be guaranteed to be fully secure. No security system can be considered absolute.

For warranty information please visit [www.integralmemory.com/warranty](http://www.integralmemory.com/warranty)