



CS410 | SATA | M.2 2242 & M.2 2280 SSDs

SMART's CS410 SATA M.2 solid state drives are designed to meet the demand for a cost-effective solution in general-purpose industrial applications, such as POS/Kiosk, embedded automation and lite-IPC, with advanced features that ensure the high level of operational stability and reliability over the lifetime of the SSDs.

Incorporating the 3D NAND technology, the CS410 SATA SSDs utilize an advanced DRAM-less controller design for the best balance in performance and power consumption. Advanced error detection and correction and thermal management ensure exceptional data integrity and reliability under variable operating environments.



M.2 2280



M.2 2242

Features & Benefits

- DRAM-less Controller Design
- 3D NAND Technology with High Endurance
- Thermal Throttling Management
- LDPC Error Detection / Correction Circuitry for Superior Data Reliability
- Self-Monitoring Analysis and Reporting Technology (S.M.A.R.T.) Support

Applications

- Edge Computing
- Industrial Automation Control
- POS Systems
- Networking Routers and Switches
- Single-Board Computers for Gaming

Product Family Overview

Form Factor	Capacity	Sequential Performance
2.5" SSD	128GB to 1TB	R 550MB/s, W 450MB/s
M.2 2242 SSD	128GB to 512GB	R 550MB/s, W 500MB/s
M.2 2280 SSD	128GB to 1TB	R 550MB/s, W 450MB/s
mSATA SSD	128GB to 1TB	R 550MB/s, W 450MB/s

Specifications

	M.2 2242 SSD	M.2 2280 SSD
NAND Type	TLC	
Performance		
Host Interface Rate (maximum)	SATA 3.0 6Gb/s	
Capacities	128GB to 512GB	128GB to 1TB
Sequential Read (maximum)	Up to 550 MB/s	
Sequential Write (maximum)	Up to 500 MB/s	Up to 450 MB/s
Random Read (maximum)	Up to 76K IOPS	Up to 89K IOPS
Random Write (maximum)	Up to 71K IOPS	Up to 64K IOPS
Reliability		
MTBF	> 1,500,000 hours	
Endurance (JEDEC Client Workload) ¹	512GB: 500 TBW 256GB: 250 TBW 128GB: 125 TBW	1TB: 1440 TBW 512GB: 720 TBW 256GB: 360 TBW 128GB: 180 TBW
Error Correction	LDPC	
Power		
Input Voltage	VCC: 3.3 V ± 5%	
Environmental		
Shock	1500 g half-sine, 0.5 msec, 1 shock along each axis, X, Y, Z in each direction	
Vibration	20G rms 80-2000Hz, 1.52mm 20-80Hz, 3 axis	
Operating Temperature	Commercial: 0°C to +70°C	
Storage Temperature	-40°C to +85°C	
Humidity	40°C, Operation: 90% RH, Storage: 93% RH	
Physical		
Length	42mm	80mm
Width	22mm	22mm
Height	3.5mm	2.05mm

¹Endurance is directly related to the User Specific Workload.

Ordering Information

Part Number	Density
CS410 SATA M.2 2242 SSD	
Commercial Operating Temperature (0°C to +70°C)	
FDM24512GTCYC282	512GB
FDM24256GTCYC282	256GB
FDM24128GTCYC282	128GB
CS410 SATA M.2 2280 SSD	
Commercial Operating Temperature (0°C to +70°C)	
FDM281024TCYC282	1TB
FDM28512GTCYC282	512GB
FDM28256GTCYC282	256GB
FDM28128GTCYC282	128GB



For more information, please visit: www.smartm.com

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