

ER3 Series

SATA 6 Gb/s SSD

The SSSTC ER3 solid state drive is designed with new BiCS5 TLC, coupled with the DRAM-equipped and reliable Marvell 88SS1074 (Dean 2.1) SSD controller. This SATA SSD is available in the M.2 2280 form factor for 240GB-480GB and the 2.5" 7mm form factor for 240GB-1920GB. This provides consistent performance in a variety of capacities. The ER3 is also equipped with power loss protection (PLP) via tantalum or aluminum capacitors for extra reliability. The drive is supported with online firmware updates and is capable of 1 drive write per day (DWPD).

Key Features

- Support immersion cooling
- E2E Data Protection
- AES256
- Temperature Sensor
- Power Loss Data Protection with Capacitor Self-Test.
- Sulfur Resistance
- DWPD \geq 1



	ER3-GD240	ER3-GD480	ER3-GD960	ER3-CD240	ER3-CD480	ER3-CD480A	ER3-CD960A	ER3-CD1920A
Configuration								
Capacity	240 GB	480 GB	960 GB	240 GB	480GB	480 GB	960 GB	1920 GB
Interface	SATA 6 GB/s							
Form Factor	M.2 2280			2.5-inch, 7mm				
Performance								
Sequential Read/Write ¹	520/280 MB/s	520/520 MB/s	520/520 MB/s	520/280 MB/s	520/520 MB/s	520/520 MB/s	520/520 MB/s	520/520 MB/s
4K Random Read/Write ¹	90K/10K IOPS	90K/15K IOPS	90K/15K IOPS	90K/10K IOPS	90K/15K IOPS	90K/45K IOPS	90K/30K IOPS	90K/30K IOPS
Latency Read/Write ¹	120us/90us	120us/70us	120us/70us	120us/90us	120us/70us	120us/40us	115us/40us	115us/40us
Reliability								
End-to-End Protection	Supported							
Power Loss Protection	Supported							
MTBF ³	3 million hours							
Endurance								
DWPD (for 5 years) ⁴	1			1	1	1.8	1.2	1.2
TBW	430	870	1,750	430	870	1,600	2,100	4,200
Power Consumption								
Idle	1.2 W							
Read/Write	3.5/3.8 W	3.5/3.8 W	3.5/3.8 W	3/3.5 W	3/3.5 W	3/3.5 W	3.5/4 W	4.5/5 W
Environment (Temperature)								
Operating / Non Operating	0 to 70°C / -40 to 85°C							

1. Definition of capacity: SSSTC Corporation defines a megabyte (MB) as 1,000,000 bytes, a gigabyte (GB) as 1,000,000,000 bytes and a terabyte (TB) as 1,000,000,000,000 bytes. A computer operating system, however, reports storage capacity using powers of 2 for the definition of 1GB = 2³⁰ bytes = 1,073,741,824 bytes and 1TB = 2⁴⁰ bytes = 1,099,511,627,776 bytes and therefore shows less storage capacity. Available storage capacity (including examples of various media files) will vary based on file size, formatting, settings, software and operating system, and/or pre-installed software applications, or media content. Actual formatted capacity may vary.

2. IOPS: Input Output Per Second (or the number of I/O operations per second).

3. PLP (Power Loss Protection): PLP allows to record data in buffer memory to flash memory, utilizing backup power of solid capacitor in case of sudden supply shut down.

4. DWPD: Drive Writes Per Day. One full drive write per day means the drive can be written and re-written to full capacity once a day every day for the specified lifetime. Actual results may vary due to system configuration, usage and other factors.



SOLID STATE STORAGE
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Solid State Storage Technology Corporation (SSSTC) is a global leader in the design, development, and manufacturing of Solid State Drives (SSDs). SSSTC offers customized solutions to PC Client, Industrial Solutions, Enterprise/Data Center, and Cloud and Edge Computing markets.
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