

SLC

aSLC

MLC

3D-NAND

DRAM Module

Adapter

Card-drive



Features

- MLC-NAND flash technology
- Built with DRAM cache
- Support Trim command set
- Support Native Command Queuing (NCQ)
- S.M.A.R.T. command set
- Power interrupt data protection via tantalum capacitors
- Capacities from 32GB up to 1TB

Specification

- **Compatibility** SATA Revision 3.1
ATA-8 ACS2 command set
- **Declarations** RoHS & REACH compliant
- **Flash technology** MLC-NAND flash technology
- **Form-factor** Rugged Metal 2.5" 9mm height SATA SSD
- **Host interface** SATA 7-pin (data) + 15-pin (power)
- **Performance**
 - **Data transfer rate** SATA 1.5Gb/s, 3.0Gb/s, 6.0Gb/s
 - **Sequential read** 561.5 MB/sec (Max.)
 - **Sequential write** 444.1 MB/sec (Max.)
 - **4KB random read** 71K IOPS (Max.)
 - **4KB random write** 73K IOPS (Max.)
- **Environmental**
 - **Operating temp.** STD. 0°C~+70°C/W.T. -40°C~+85°C
 - **Non-operating temp.** STD. -20°C~+80°C/W.T. -50°C~+95°C
 - **Humidity** 10% ~ 95% non-condensing
 - **Vibration** 70 Hz to 2K Hz, 15G, 3 axes
 - **Shock** 0.5ms, 1500G, 3 axes
 - **Altitude** 70,000 feet

- **Power consumption**
 - **Power requirement** +5V ± 5%
 - **Reading mode** 320 mA (Max.)
 - **Writing mode** 820 mA (Max.)
 - **Idle mode** 130 mA (Max.)
- **Reliability**
 - **Wear-leveling** Global wear-leveling algorithms
Up to 1,800 TBW at 1TB Capacity
(Client workload by JESD-219A)
 - **TBW**
- **Erase counts** Up to 3,000 times
- **ECC** 66 bits per 1024 bytes block
- **Physical specification**
 - **Weight (Max.)** 75g
 - **Dimension (WxLxH)** 70.00 x 100.00 x 8.80 (mm)
- **Conformal coating** Optional
- **Warranty** 2 years or within 3,000 erasing counts

Part Number List

Capacity	0°C~+70°C	Capacity	-40°C~+85°C
32GB	SR2ST032G-MTCTMB	32GB	WR2ST032G-MTCTMB-C
64GB	SR2ST064G-MTCTMB	64GB	WR2ST064G-MTCTMB-C
128GB	SR2ST128G-MTCTMB	128GB	WR2ST128G-MTCTMB-C
256GB	SR2ST256G-MTCTMB	256GB	WR2ST256G-MTCTMB-C
512GB	SR2ST512G-MTCTMB	512GB	WR2ST512G-MTCTMB-C
1TB	SR2ST001T-MTCTMB	1TB	WR2ST001T-MTCTMB-C

Part Number Decoder

X1	X2	X3	X4	X5	X6	X7	X8	X9	X10	X11	X12	X13	X14	X15	X16	X17	X18	X19	X20
W	R	2	S	T	0	0	1	T	-	M	T	C	T	M	B	-	C		

- **X1 Grade**
S : Standard grade operating temp. 0°C~+70°C
W : Wide temp. grade operating temp. -40°C~+85°C
- **X2 The material of casing**
R : Rugged metal casing
- **X3 X4 X5 Product category**
2ST : 2.5" 9mm height SATA III SSD with tantalum capacitors
- **X6 X7 X8 X9 Capacity**
032G : 32GB 256G : 256GB
064G : 64GB 512G : 512GB
128G : 128GB 001T : 1TB
- **X11 Controller**
M : HERCULES Series

- **X12 Controller version**
A, B, C, D.....
- **X13 Controller grade**
C : Commercial grade
- **X14 Flash IC brand**
T : Toshiba NAND flash IC
- **X15 Flash IC type**
M : MLC-NAND flash IC
- **X16 MLC Technology**
B : Toshiba 15nm MLC
- **X18 X19 X20 Reserved for specific requirements**
C : Conformal coating (optional)