



Features

- TOSHIBA BiCS Flash™ (3D-NAND) technology
- Power interrupt data protection via tantalum capacitors
- Support Trim command set
- Support Native Command Queuing (NCQ)
- Support LDPC (Low Density Parity Check) ECC algorithm
- Support S.M.A.R.T. command set and utility
- Ultra-high random read/write speed
- Capacities from 512GB up to 4TB

Specification

- **Compatibility**
 - SATA Revision 3.2
 - ATA-8 ACS4 command set
- **Declarations**
 - RoHS & REACH compliant
- **Flash technology**
 - 3D-NAND flash technology
- **Form-factor**
 - Rugged Metal 2.5" 7mm 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**
 - 550 MB/sec (Max.)
 - **Sequential write**
 - 520 MB/sec (Max.)
 - **4KB random read**
 - 77K IOPS (Max.)
 - **4KB random write**
 - 71K 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**
 - 80 Hz to 2K Hz, 20G, 3 axes
 - **Shock**
 - 0.5ms, 1500G, 3 axes
 - **Altitude**
 - 70,000 feet

- **Power consumption**
 - **Power requirement**
 - +5V ± 5%
 - **Reading mode**
 - 3,200 mW (Max.)
 - **Writing mode**
 - 4,000 mW (Max.)
 - **Idle mode**
 - 1,600 mW (Max.)
- **Reliability**
 - **Wear-leveling**
 - Static wear-leveling algorithms
 - Up to 7,353 TBW at 4TB Capacity (Client workload by JESD-219A)
 - **TBW**
 - Up to 3,000 times
 - **Erase counts**
 - Up to 3,000 times
 - **ECC**
 - LDPC (Low Density Parity Check)
- **Physical specification**
 - **Weight (Max.)**
 - 50g
 - **Dimension (WxLxH)**
 - 69.90 x 100.00 x 7.00 (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
512GB	SR7ST512G-PLCT3	512GB	WR7ST512G-PLCT3-C
1TB	SR7ST001T-PLCT3	1TB	WR7ST001T-PLCT3-C
2TB	SR7ST002T-PLCT3	2TB	WR7ST002T-PLCT3-C
4TB	SR7ST004T-PLCT3	4TB	WR7ST004T-PLCT3-C

Part Number Decoder

X1	X2	X3	X4	X5	X6	X7	X8	X9	X10	X11	X12	X13	X14	X15	X16	X17	X18	X19	X20
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Example

W	R	7	S	T	0	0	4	T	-	P	L	C	T	3	-	C			
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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

7ST : 2.5" 7mm height SATA III SSD with Tantalum Capacitors

X6 X7 X8 X9 Capacity (Notice)

512G : 480GB 002T : 1,920GB
 001T : 960GB 004T : 3,840GB

X11 Controller

P : PHANES 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

3 : BiCS 3D-NAND Flash IC

X17 X18 X19 X20 Reserved for specific requirements

C : Conformal coating (optional)

SLC

oSLC

MLC

3D-NAND

DRAM Module

Adapter

Card-drive