



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 128GB up to 2TB

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**
 - 475 MB/sec (Max.)
 - **4KB random read**
 - 87K IOPS (Max.)
 - **4KB random write**
 - 66K 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, 20G, 3 axes
 - **Shock**
 - 0.5ms, 1500G, 3 axes
 - **Altitude**
 - 70,000 feet

- **Power consumption**
 - **Power requirement**
 - +5V ± 5%
 - **Reading mode**
 - 480 mA (Max.)
 - **Writing mode**
 - 620 mA (Max.)
 - **Idle mode**
 - 190 mA (Max.)
- **Reliability**
 - **Wear-leveling**
 - Static wear-leveling algorithms
 - **TBW**
 - Up to 2,344 TBW at 2TB Capacity (Client workload by JESD-219A)
 - **Erase counts**
 - Up to 3,000 times
 - **ECC**
 - LDPC (Low Density Parity Check)
- **Physical specification**
 - **Weight (Max.)**
 - 65g
 - **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
128GB	SR7ST128G-VECT3	128GB	WR7ST128G-VECT3-C
256GB	SR7ST256G-VECT3	256GB	WR7ST256G-VECT3-C
512GB	SR7ST512G-VECT3	512GB	WR7ST512G-VECT3-C
1TB	SR7ST001T-VECT3	1TB	WR7ST001T-VECT3-C
2TB	SR7ST002T-VECT3	2TB	WR7ST002T-VECT3-C

Part Number Decoder

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

Example: W R 7 S T 0 0 2 T - V E C T 3 - 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**
 - 7ST : 2.5" 7mm height SATA III SSD with Tantalum Capacitors
- X6 X7 X8 X9 Capacity**
 - 128G : 128GB 001T : 1TB
 - 256G : 256GB 002T : 2TB
 - 512G : 512GB
- X11 Controller**
 - V : MUSE 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)

SIC
aSLC
MLC
3D-NAND
DRAM Module
Adapter
Card-drive