



Features

- MLC-NAND flash technology
- 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
- Support Power Loss Protection
- Capacities from 32GB up to 512GB

Specification

- **Compatibility** SATA Revision 3.2
ATA-8 ACS4 command set
- **Declarations** RoHS & REACH compliant
- **Flash technology** MLC-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** 465 MB/sec (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, 3axes
 - **Shock** 0.5ms, 1500G, 3 axes
 - **Altitude** 70,000 feet

- **Power consumption**
 - **Power requirement** +5V ± 5%
 - **Reading mode** 1,565 mW (Max.)
 - **Writing mode** 1,910 mW (Max.)
 - **Idle mode** 295 mW (Max.)
- **Reliability**
 - **Wear-leveling** Static and Dynamic wear-leveling algorithms
 - **TBW** Up to 540 TBW at 512GB Capacity (Client workload by JESD-219A)
- **Erase counts** Up to 3,000 times
- **ECC** LDPC (Low Density Parity Check)
- **Physical specification**
 - **Weight (Max.)** 50g
 - **Dimension (WxLxH)** 69.90 x 100.0 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
32GB	SR7SF032G-PKCTM-(T)	32GB	WR7SF032G-PKCTM-(T)C
64GB	SR7SF064G-PKCTM-(T)	64GB	WR7SF064G-PKCTM-(T)C
128GB	SR7SF128G-PKCTM-(T)	128GB	WR7SF128G-PKCTM-(T)C
256GB	SR7SF256G-PKCTM-(T)	256GB	WR7SF256G-PKCTM-(T)C
512GB	SR7SF512G-PKCTM-(T)	512GB	WR7SF512G-PKCTM-(T)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	F	5	1	2	G	-	P	K	C	T	M	-	T	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**
7SF : 2.5" 7 mm height SATA III SSD
- X6** **X7** **X8** **X9** **Capacity**
032G : 32GB 256G : 256GB
064G : 64GB 512G : 512GB
128G : 128GB
- X11** **Controller**
P : PHANES Solution

- 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
- X17** **X18** **X19** **X20** **Reserved for specific requirements**
Blank : Standard product w/o thermal sensor and conformal-coating
T : Thermal Sensor (optional)
C : Conformal coating (optional)

SLC
oSLC
MLC
3D-NAND
DRAM Module
Adapter
Card-drive