

◆ Features



- Enhanced MLC-NAND flash by sophisticated aSLC firmware
- 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 16GB up to 256GB

◆ 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** 490 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** 1,500 mW (Max.)
 - **Writing mode** 2,630 mW (Max.)
 - **Idle mode** 280 mW (Max.)
- **Reliability**
 - **Wear-leveling** Static and Dynamic wear-leveling algorithms
 - **TBW** Up to 1,510 TBW at 256GB Capacity (Client workload by JESD-219A)
 - **Erase counts** Up to 20,000 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 20,000 erasing counts

◆ Part Number List

Capacity	0°C~+70°C	Capacity	-40°C~+85°C
16GB	SR7SF016G-PKCTMAS-(T)	16GB	WR7SF016G-PKCTMAS-(T)C
32GB	SR7SF032G-PKCTMAS-(T)	32GB	WR7SF032G-PKCTMAS-(T)C
64GB	SR7SF064G-PKCTMAS-(T)	64GB	WR7SF064G-PKCTMAS-(T)C
128GB	SR7SF128G-PKCTMAS-(T)	128GB	WR7SF128G-PKCTMAS-(T)C
256GB	SR7SF256G-PKCTMAS-(T)	256GB	WR7SF256G-PKCTMAS-(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	2	5	6	G	—	P	K	C	T	M	A	S	—	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

016G : 16GB 128G : 128GB
032G : 32GB 256G : 256GB
064G : 64GB

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

M : MLC-NAND flash IC

X16 **X17** aSLC Technology

AS : aSLC Technology extends MLC products' lifespan

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