



Features

- Enhanced MLC-NAND flash by sophisticated aSLC firmware
- Built with DRAM cache
- Support Trim command set
- Support Native Command Queuing (NCQ)
- Support S.M.A.R.T. command set and utility
- Support Power Loss Protection
- Capacities from 32GB up to 1TB

Specification

- **Compatibility**
 - SATA Revision 3.2
 - ATA-8 ACS2 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**
 - 564 MB/sec (Max.)
 - **Sequential write**
 - 540 MB/sec (Max.)
 - **4KB random read**
 - 95K IOPS (Max.)
 - **4KB random write**
 - 86K 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, 3axes
 - **Shock**
 - 0.5ms, 1500G, 3 axes
 - **Altitude**
 - 70,000 feet

- **Power consumption**
 - **Power requirement**
 - +5V ± 5%
 - **Reading mode**
 - 2,520 mW (Max.)
 - **Writing mode**
 - 3,240 mW (Max.)
 - **Idle mode**
 - 225 mW (Max.)
- **Reliability**
 - **Wear-leveling**
 - Static and Dynamic wear-leveling algorithms
 - **TBW**
 - Up to 20,547 TBW at 1TB Capacity (Sequential Write)
 - **Erase counts**
 - Up to 20,000 times
 - **ECC**
 - 120 bits per 2K bytes block
- **Physical specification**
 - **Weight (Max.)**
 - 65g
 - **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
32GB	SR7SR032G-PHCTMBAS	32GB	WR7SR032G-PHCTMBASC
64GB	SR7SR064G-PHCTMBAS	64GB	WR7SR064G-PHCTMBASC
128GB	SR7SR128G-PHCTMBAS	128GB	WR7SR128G-PHCTMBASC
256GB	SR7SR256G-PHCTMBAS	256GB	WR7SR256G-PHCTMBASC
512GB	SR7SR512G-PHCTMBAS	512GB	WR7SR512G-PHCTMBASC
1TB	SR7SR001T-PHCTMBAS	1TB	WR7SR001T-PHCTMBASC

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	7	S	R	0	0	1	T	—	P	H	C	T	M	B	A	S	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

7SR : 2.5" 7 mm height SATA III SSD with DRAM cache

X6 X7 X8 X9 Capacity

032G : 32GB 256G : 256GB
 064G : 64GB 512G : 512GB
 128G : 128GB 001T : 1TB

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 MLC Technology

B : Toshiba 15nm MLC

X17 X18 aSLC Technology

AS : aSLC Technology extends MLC products' lifespan

X19 X20 Reserved for specific requirements

C : Conformal coating (optional)

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