



**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
- Ultra-high random read/write speed
- Capacities from 8GB up to 256GB

**Specification**

- **Compatibility**
  - SATA Revision 3.1
  - ATA-8 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**
    - 530 MB/sec (Max.)
  - **Sequential write**
    - 210 MB/sec (Max.)
  - **4KB random read**
    - 32K IOPS (Max.)
  - **4KB random write**
    - 30K 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**
    - 93 mA (Max.)
  - **Writing mode**
    - 160 mA (Max.)
  - **Idle mode**
    - 90 mA (Max.)
- **Reliability**
  - **Wear-leveling**
    - Static wear-leveling algorithms
  - **TBW**
    - Up to 416 TBW at 256GB 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
8GB	SR7SF008G-VDCTM-(T)	8GB	WR7SF008G-VDCTM-(T)C
16GB	SR7SF016G-VDCTM-(T)	16GB	WR7SF016G-VDCTM-(T)C
32GB	SR7SF032G-VDCTM-(T)	32GB	WR7SF032G-VDCTM-(T)C
64GB	SR7SF064G-VDCTM-(T)	64GB	WR7SF064G-VDCTM-(T)C
128GB	SR7SF128G-VDCTM-(T)	128GB	WR7SF128G-VDCTM-(T)C
256GB	SR7SF256G-VDCTM-(T)	256GB	WR7SF256G-VDCTM-(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
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**Example**

W	R	7	S	F	2	5	6	G	—	V	D	C	T	M	—	T	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**

7SF : 2.5" 7 mm height SATA III SSD

**X6 X7 X8 X9 Capacity**

008G : 8GB      064G : 64GB  
 016G : 16GB    128G : 128GB  
 032G : 32GB    256G : 256GB

**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**

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

aSLC

MLC

3D-NAND

DRAM Module

Adapter

Card-drive