

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



Features

- SLC-NAND flash technology
- Built with DRAM cache
- Support Trim command set
- Support Native Command Queuing (NCQ)
- Support S.M.A.R.T. command set and utility
- Capacities from 4GB up to 64GB

Specification

- **Compatibility**
SATA Revision 3.1
ATA-8 command set
- **Declarations**
RoHS & REACH compliant
- **Flash technology**
SLC-NAND flash technology
- **Form-factor**
Standard mSATA form factor
- **Host Interface**
Compliant with JEDEC MO-300A
mini PCI-e connector with 52 pins
SATA pin out
- **Performance**
 - **Data transfer rate**
SATA 1.5Gb/s, 3.0Gb/s, 6.0Gb/s
 - **Sequential read**
460 MB/sec (Max.)
 - **Sequential write**
230 MB/sec (Max.)
- **Environmental**
 - **Operating temp.**
STD. 0°C~+70°C/IND. -40°C~+85°C
 - **Non-operating temp.**
STD. -20°C~+80°C/IND. -50°C~+95°C
 - **Humidity**
10% ~ 95% non-condensing
 - **Vibration**
70 Hz to 2K Hz, 20G, 3 axes
 - **Shock**
0.5ms, 1500 G, 3 axes
 - **Altitude**
70,000 feet

- **Power consumption**
 - **Power requirement**
+3.3 V ± 5%
 - **Reading mode**
320mA (Max.)
 - **Writing mode**
390mA (Max.)
 - **Idle mode**
95 mA (Max.)
- **Reliability**
 - **Wear-leveling**
Static wear-leveling algorithms
 - **TBW**
Up to 3,456 TBW at 64GB Capacity (Sequential Write)
 - **MTBF**
> 3,000,000 hours
 - **Erase counts**
Up to 60,000 times
 - **ECC**
40 bits per 1024 bytes block
- **Physical specification**
 - **Weight (Max.)**
8g
 - **Dimension (WxL)**
29.85 x 50.80 (mm)
- **Conformal coating**
Optional
- **Warranty**
 - **SLC STD. grade**
3 years or within 60,000 erasing counts
 - **SLC IND. grade**
5 years or within 60,000 erasing counts

Part Number List

Capacity	0°C~+70°C	Capacity	-40°C~+85°C
4GB	SBMSR004G-JHCTC	4GB	WBMSR004G-JHITI
8GB	SBMSR008G-JHCTC	8GB	WBMSR008G-JHITI
16GB	SBMSR016G-JHCTC	16GB	WBMSR016G-JHITI
32GB	SBMSR032G-JHCTC	32GB	WBMSR032G-JHITI
64GB	SBMSR064G-JHCTC	64GB	WBMSR064G-JHITI

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 B M S R 0 6 4 G - J H I T I - C

X1 Grade

S : Standard grade operating temp. 0°C~+70°C
W: Industrial grade operating temp. -40°C~+85°C

X2 The material of casing

B : Bare (without casing)

X3 X4 X5 Product category

MSR : Mini SATA Module (mSATA) w/ DRAM cache

X6 X7 X8 X9 Capacity

004G : 4GB 032G : 32GB
008G : 8GB 064G : 64GB
016G : 16GB

X11 Controller

J : HERMES Series

X12 Controller version

A, B, C, D....

X13 Controller grade

C : Commercial grade
I : Industrial grade

X14 Flash IC brand

T : Toshiba SLC-NAND flash IC

X15 Flash IC grade

C : Commercial grade
I : Industrial grade

X17 X18 X19 X20 Reserved for specific requirements

C : Conformal coating (optional)