



Features

- TOSHIBA BiCS Flash™ (3D-NAND) 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 128GB

Specification

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|---|---|---|
| <ul style="list-style-type: none"> ■ Compatibility ■ Declarations ■ Flash technology ■ Form-factor ■ Host Interface ■ Performance ➤ Data transfer rate ➤ Sequential read ➤ Sequential write ■ Environmental ➤ Operating temp. ➤ Non-operating temp. ➤ Humidity ➤ Vibration ➤ Shock ➤ Altitude | <p>SATA Revision 3.2
ATA-8 ACS4 command set
RoHS & REACH compliant
3D-NAND flash technology
mSATA mini form factor
Compliant with JEDEC MO-300B
mini PCI-e connector with 52 pins SATA pin out</p> <p>SATA 1.5Gb/s, 3.0Gb/s, 6.0Gb/s
550 MB/sec (Max.)
450 MB/sec (Max.)</p> <p>STD. 0°C~+70°C/W.T. -40°C~+85°C
STD. -20°C~+80°C/W.T. -50°C~+95°C
10% ~ 95% non-condensing
80 Hz to 2K Hz, 20G, 3axes
0.5ms, 1500 G, 3 axes
70,000 feet</p> | <ul style="list-style-type: none"> ■ Power consumption ➤ Power requirement ➤ Reading mode ➤ Writing mode ➤ Idle mode ■ Reliability ➤ Wear-leveling ➤ TBW ➤ Erase counts ➤ ECC ■ Physical specification ➤ Weight (Max.) ➤ Dimension (WxL) ■ Conformal coating ■ Warranty <p>+3.3 V ± 5%
1,200 mW (Max.)
1,330 mW (Max.)
300 mW (Max.)</p> <p>Static and Dynamic wear-leveling algorithms
Up to 75 TBW at 128GB Capacity
(Client workload by JESD-219A)</p> <p>Up to 3,000 times
LDPC (Low Density Parity Check)</p> <p>3.5g
29.85 x 26.80 (mm)
Optional
2 years or within 3,000 erasing counts</p> |
|---|---|---|

Part Number List

Capacity	0°C~+70°C	Capacity	-40°C~+85°C
32GB	SBMSH032G-PKCT3	32GB	WBMSH032G-PKCT3-C
64GB	SBMSH064G-PKCT3	64GB	WBMSH064G-PKCT3-C
128GB	SBMSH128G-PKCT3	128GB	WBMSH128G-PKCT3-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	B	M	S	H	1	2	8	G	—	P	K	C	T	3	—	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**
B : Bare (without casing)
- X3 X4 X5 Product category**
MSH : Mini SATA Module Half Size (mSATA mini)
- X6 X7 X8 X9 Capacity**
032G : 32GB
064G : 64GB
128G : 128GB
- 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**
3 : BiCS 3D-NAND Flash IC
- X17 X18 X19 X20 Reserved for specific requirements**
C : Conformal coating (optional)

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