

HERMES-I Series

Industrial SLC mini SATA III Module

SATA



Product Feature

- SLC - NAND type flash technology
- Bootable for O.S. installation
- S.M.A.R.T. supported
- RoHS & REACH compliant
- Capacity from 4GB up to 128GB

Product Specification

Compatibility	■ SATA 1.0a, SATA 2.6 and SATA 3.1 Specification compliance ■ Compliant with ATA/ATAPI-8 ACS2	Power consumption	
Flash technology	■ SLC-NAND type flash memory	Power requirement	▶ +3.3 V $\pm$ 5%
Form-factor	■ Standard mSATA form factor ■ Compliant with JEDEC MO-300A	Reading mode	▶ 174mA (Max.)
Host Interface	■ mini PCIe connector with 52 pins ■ SATA pin out	Writing mode	▶ 180mA (Max.)
Performance		Idle mode	▶ 134mA (Max.)
Data transfer rate	▶ SATA 1.5Gb/s, 3.0Gb/s, 6.0Gb/s	Reliability	
Sequential read	▶ 385.0 MB/sec (max.)	Wear-leveling	▶ Static wearLeveling algorithms
Sequential write	▶ 225.0 MB/sec (max.)	MTBF	▶ > 3,000,000 hours
Environmental specification		Erase counts	▶ Up to 60,000 times
Operating temp.	▶ STD. 0°C~70°C/IND. -40°C~+85°C	ECC	▶ 40 bits per 1024 bytes block
Non-operating temp.	▶ STD. -20°C~+80°C/IND. -50°C~+95°C	Physical specification	
Humidity	▶ 10% ~ 95% non-condensing	Weight	▶ 8.0 g $\pm$ 1 g / 0.28 oz.
Vibration	▶ 7 Hz to 2K Hz, 20G, 3 axes	Dimension(W x L x H)	▶ 50.80 x 29.85 x 3.70 (mm)
Shock	▶ 0.5ms, 1500 G, 3 axes	Conformal coating	▶ Optional
Altitude	▶ 70,000 feet	Warranty	
		STD Grade SLC	▶ 3 years or within 60K Erasing counts
		IND Grade SLC	▶ 5 years or within 60K Erasing counts

Part Number List

Product Picture	Capacity	0°C ~ 70°C	- 40°C ~ + 85°C
	4GB	SBMSM004G-JICTC-(T)	WBMSM004G-JIITH-(T)C
	8GB	SBMSM008G-JICTC-(T)	WBMSM008G-JIITH-(T)C
	16GB	SBMSM016G-JICTC-(T)	WBMSM016G-JIITH-(T)C
	32GB	SBMSM032G-JICTC-(T)	WBMSM032G-JIITH-(T)C
	64GB	SBMSM064G-JICTC-(T)	WBMSM064G-JIITH-(T)C
	128GB	SBMSM128G-JICTC-(T)	WBMSM128G-JIITH-(T)C

Part Number Decoder

X1 X2 X3 X4 X5 X6 X7 X8 X9 — X11 X12 X13 X14 X15 — X17 X18 X19 X20

Example ▶

W B M S M 1 2 8 G — J I 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

MSM : mSATA module

X6 X7 X8 X9 Capacity

004G : 4GB **032G** : 32GB

008G : 8GB **064G** : 64GB

016G : 16GB **128G** : 128GB

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 requirement

Blank : Standard product w/o thermal sensor and conformal-coating

T : Thermal Sensor.

C : Conformal coating (optional)