

# HERMES-D Series

## Industrial mini SATA Module (MSM) supports Write Protect Function



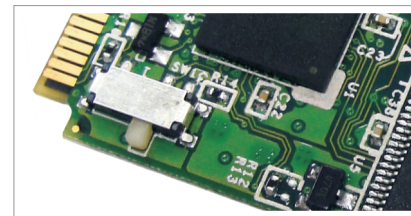
### Product features

- SLC - NAND type flash technology
- mSATA module compatible with JEDEC Standard : MO-300A specification
- Compliant with SATA 1.0a and SATA 2.6 specification
- Supports write protect function by switch
- S.M.A.R.T. (Self-Monitoring, Analysis and Reporting Technology) Function and monitor software supported.
- Bootable for O.S. Installation
- Maximum sequential read speed 132.5MB/sec
- Maximum sequential write speed 117.9MB/sec
- Capacity from 2GB up to 64GB

### Product specifications

<b>Compatibility</b>	SATA 1.0a and SATA 2.6 Specification compliance	<b>Write protect function</b>	Mechanism design	By switch
<b>Form-factor</b>	Standard mSATA form factor Compliant with JEDEC MO-300A	<b>Power consumption</b>	Power requirement	+3.3 V ± 5%
<b>Flash technology</b>	SLC-NAND type flash based	<b>Reading mode</b>	290mA (Max.)	
<b>Host Interface</b>	mini PCI-e connector with 52 pins SATA-II pin out	<b>Writing mode</b>	350mA (Max.)	
<b>Performance</b>		<b>Idle mode</b>	180mA (Max.)	
<b>Data transfer rate</b>	Serial ATA Gen-I and Gen-II	<b>Reliability</b>		
<b>Sequential read</b>	132.5 MB/sec (Max.)	<b>Wear-leveling</b>	Static wear-leveling algorithms	
<b>Sequential write</b>	117.9 MB/sec (Max.)	<b>MTBF</b>	> 4,000,000 hours	
<b>Random access time</b>	0.1ms (estimated)	<b>Endurance</b>	> 2,000,000 cycles	
<b>Environmental specification</b>		<b>ECC</b>	8 bits per 512 bytes block	
<b>Operating temp.</b>	STD. 0°C~70°C/ind. -40°C~+85°C	<b>Data retention</b>	10 Years	
<b>Non-operating temp.</b>	STD. -20°C~+80°C/ind. -50°C~+95°C	<b>Physical specification</b>		
<b>Humidity</b>	10% - 95% non-condensing	<b>Weight</b>	8.0 g ± 1 g / 0.3 oz.	
<b>Vibration</b>	15G compliance to MIL-STD-810F	<b>Dimension(W x L x H)</b>	50.80 x 29.8 x 3.20 (mm)	
<b>Shock</b>	1,500G compliance to MIL-STD-810F	<b>Conformal coating</b>	Option for special request	
<b>Altitude</b>	70,000 feet	<b>Warranty</b>		
		<b>Standard grade</b>	3 years	
		<b>Industrial grade</b>	5 years	

### Write-protection switch



Operating temperature supports Standard grade 0°C ~ 70°C and Industrial grade -40°C ~ +85°C

Part number list - Industrial mini SATA module supports write protection

Product Picture	Capacity	0°C ~ 70°C	-40°C ~ +85°C
	2GB	SBMSM002G-JDCSC(/C)	WBMSM002G-JDISI(/C)
	4GB	SBMSM004G-JDCSC(/C)	WBMSM004G-JDISI(/C)
	8GB	SBMSM008G-JDCSC(/C)	WBMSM008G-JDISI(/C)
	16GB	SBMSM016G-JDCMC(/C)	WBMSM016G-JDIMI(/C)
	32GB	SBMSM032G-JDCMC(/C)	WBMSM032G-JDIMI(/C)
	64GB	SBMSM064G-JDCTC(/C)	WBMSM064G-JDITI(/C)

### Part number decoder

X1 X2 X3 X4 X5 X6 X7 X8 X9 — X11 X12 X13 X14 X15 / C

#### Example

W B M S M 0 3 2 G — J D I M I / C

#### X1 Grade

S : Standard grade operating temp. 0°C~70°C

W : Industrial grade operating temp. -40°C ~ +85°C

#### X12 Controller version

A,B,C,....

#### X13 Controller grade

C : Commercial grade

I : Industrial grade

#### X2 The material of casing

B : Bare (without casing)

#### X3 X4 X5 Product category

MSM : mini SATA flash module

#### X14 Flash IC

S : Samsung SLC-NAND flash IC

M : Micron SLC-NAND flash IC

T : Toshiba SLC-NAND flash IC

#### X6 X7 X8 X9 Capacity

002G : 2GB      016G : 16GB

004G : 4GB      032G : 32GB

008G : 8GB      064G : 64GB

#### X11 Controller

J : JMicon (HERMES Series)

#### C Reserved for specific requirement

C : Conformal-coating