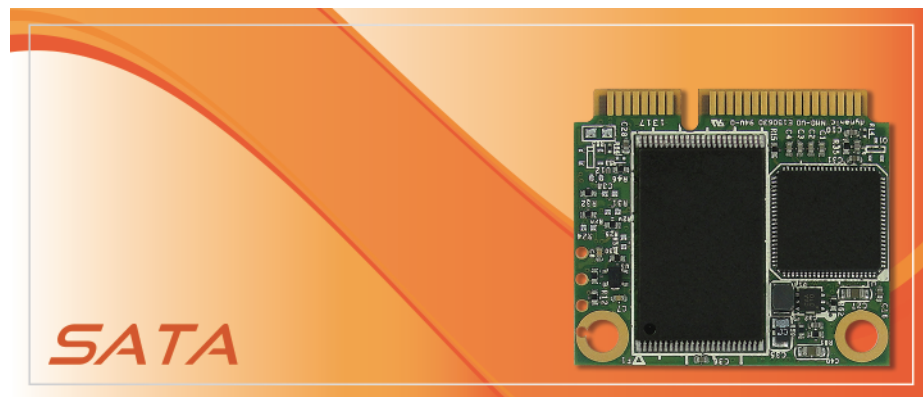


# HERMES-J Series

Industrial SLC mini SATA III Module Half Size



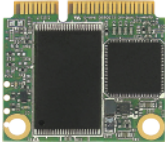
## Product Feature

- SLC-NAND type flash technology
- Bootable for O.S. Installation
- S.M.A.R.T. supported
- RoHS & REACH compliant
- Capacity from 4GB up to 32GB

## Product Specification

|                                    |                                                                                                                    |                               |                                                                                             |
|------------------------------------|--------------------------------------------------------------------------------------------------------------------|-------------------------------|---------------------------------------------------------------------------------------------|
| <b>Compatibility</b>               | <ul style="list-style-type: none"> <li>▶ SATA 1.0a, SATA 2.6 and SATA 3.0 Specification compliance</li> </ul>      | <b>Power consumption</b>      |                                                                                             |
| <b>Flash technology</b>            | <ul style="list-style-type: none"> <li>▶ SLC-NAND type flash memory</li> </ul>                                     | <b>Power requirement</b>      | <ul style="list-style-type: none"> <li>▶ +3.3 V <math>\pm</math> 5%</li> </ul>              |
| <b>Form-factor</b>                 | <ul style="list-style-type: none"> <li>▶ mSATA mini form factor</li> <li>▶ Compliant with JEDEC MO-300B</li> </ul> | <b>Reading mode</b>           | <ul style="list-style-type: none"> <li>▶ 240mA (Max.)</li> </ul>                            |
| <b>Host Interface</b>              | <ul style="list-style-type: none"> <li>▶ mini PCIe connector with 52 pins</li> <li>▶ SATA pin out</li> </ul>       | <b>Writing mode</b>           | <ul style="list-style-type: none"> <li>▶ 240mA (Max.)</li> </ul>                            |
| <b>Performance</b>                 |                                                                                                                    | <b>Idle mode</b>              | <ul style="list-style-type: none"> <li>▶ 130mA (Max.)</li> </ul>                            |
| <b>Data transfer rate</b>          | <ul style="list-style-type: none"> <li>▶ SATA 1.5Gb/s, 3.0Gb/s, 6.0Gb/s</li> </ul>                                 | <b>Reliability</b>            |                                                                                             |
| <b>Sequential read</b>             | <ul style="list-style-type: none"> <li>▶ 220.0 MB/sec (Max.)</li> </ul>                                            | <b>Wear-leveling</b>          | <ul style="list-style-type: none"> <li>▶ Static wearLeveling algorithms</li> </ul>          |
| <b>Sequential write</b>            | <ul style="list-style-type: none"> <li>▶ 120.0 MB/sec (Max.)</li> </ul>                                            | <b>MTBF</b>                   | <ul style="list-style-type: none"> <li>▶ &gt; 4,000,000 hours</li> </ul>                    |
| <b>Environmental specification</b> |                                                                                                                    | <b>Erase counts</b>           | <ul style="list-style-type: none"> <li>▶ Up to 60,000 times</li> </ul>                      |
| <b>Operating temp.</b>             | <ul style="list-style-type: none"> <li>▶ STD. 0°C~70°C/IND. -40°C~+85°C</li> </ul>                                 | <b>ECC</b>                    | <ul style="list-style-type: none"> <li>▶ 40 bits per 1024 bytes block</li> </ul>            |
| <b>Non-operating temp.</b>         | <ul style="list-style-type: none"> <li>▶ STD. -20°C~+80°C/IND. -50°C~+95°C</li> </ul>                              | <b>Physical specification</b> |                                                                                             |
| <b>Humidity</b>                    | <ul style="list-style-type: none"> <li>▶ 10% ~ 95% non-condensing</li> </ul>                                       | <b>Weight</b>                 | <ul style="list-style-type: none"> <li>▶ 4.0 g <math>\pm</math> 0.5 g / 0.14 oz.</li> </ul> |
| <b>Vibration</b>                   | <ul style="list-style-type: none"> <li>▶ 7 Hz to 2K Hz, 20G, 3 axes</li> </ul>                                     | <b>Dimension(W x L x H)</b>   | <ul style="list-style-type: none"> <li>▶ 29.80 x 26.80 x 3.20 (mm)</li> </ul>               |
| <b>Shock</b>                       | <ul style="list-style-type: none"> <li>▶ 0.5ms, 1500 G, 3 axes</li> </ul>                                          | <b>Conformal coating</b>      | <ul style="list-style-type: none"> <li>▶ Optional</li> </ul>                                |
| <b>Altitude</b>                    | <ul style="list-style-type: none"> <li>▶ 70,000 feet</li> </ul>                                                    | <b>Warranty</b>               |                                                                                             |
|                                    |                                                                                                                    | <b>STD Grade SLC</b>          | <ul style="list-style-type: none"> <li>▶ 3 years or within 60K Erasing counts</li> </ul>    |
|                                    |                                                                                                                    | <b>IND Grade SLC</b>          | <ul style="list-style-type: none"> <li>▶ 5 years or within 60K Erasing counts</li> </ul>    |

## Part Number List

| Product Picture                                                                   | Capacity    | 0°C ~ 70°C          | - 40°C ~ + 85°C      |
|-----------------------------------------------------------------------------------|-------------|---------------------|----------------------|
|  | <b>4GB</b>  | SBMSH004G-JJCTC-(T) | WBMSH004G-JJITI-(T)C |
|                                                                                   | <b>8GB</b>  | SBMSH008G-JJCTC-(T) | WBMSH008G-JJITI-(T)C |
|                                                                                   | <b>16GB</b> | SBMSH016G-JJCTC-(T) | WBMSH016G-JJITI-(T)C |
|                                                                                   | <b>32GB</b> | SBMSH032G-JJCTC-(T) | WBMSH032G-JJITI-(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 H 0 3 2 G — J J 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

**MSH** : mSATA half size (mSATA mini)

## X6 X7 X8 X9 Capacity

**004G** : 4GB    **016G** : 16GB

**008G** : 8GB    **032G** : 32GB

## 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)