


## mSATA

### SME1B



#### GENERAL INFORMATION

|                            |  |  |
|----------------------------|--|--|
| TYPE                       | mSATA  |  |
| INTERFACE                  | Serial ATA Revision 3.1  |  |
| DATA TRANSFER MODE         | SATA 1.5Gbps, 3.0Gbps, 6.0Gbps   |  |
| CONNECTOR                  | 52 pin. Edge   |  |
| OUTLINE DIMENSIONS         | 50.8 x 29.85 mm  |  |
| SERIES                     | SME1B  |  |
| CONTROLLER TYPE            |  TDK GBDriver GS1 |  |
| FLASH TYPE                 | SLC  | pSLC/MLC   |
| DENSITY RANGE              | 16 GB - 64 GB  | pSLC:16 GB - 128 GB<br>MLC:32 GB - 256 GB                            |
| DATA RETENTION             | 10 years @ life begin-10%<br>1 year @ life end   |  |
| ENDURANCE<br>ENTERPRISE WL | 100,000 P/E Cycles<br>*Flash Block Level   | pSLC:20,000 P/E Cycles<br>MLC:3,000 P/E Cycles<br>*Flash Block Level |

#### TEMPERATURE

|                       |  |
|-----------------------|--|
| OPERATING TEMPERATURE | Commercial:0°C to +70°C<br>Industrial:-40°C to +85°C   |
| STORAGE TEMPERATURE   | Commercial:-25°C to +85°C<br>Industrial:-40°C to +85°C |

#### PERFORMANCE

|              |               |   |
|--------------|---------------|---|
| Read (max.)  | 340 MByte/sec | pSLC:345 MByte/sec<br>MLC:295 MByte/sec |
| Write (max.) | 105 MByte/sec | pSLC:145 MByte/sec<br>MLC:75 MByte/sec  |

#### ROBUSTNESS

|           |                                |
|-----------|--------------------------------|
| MTBF      | ≥ 2,000,000 hours              |
| SHOCK     | 1500G,0.5ms                    |
| VIBRATION | 20G,10-2000Hz                  |
| HUMIDITY  | 0 to 90 % RH (No condensation) |

#### ELECTRICAL DATA

|                   |  |
|-------------------|--|
| VOLTAGE           | 3.3 V ± 5 %  |
| POWER CONSUMPTION | <ul style="list-style-type: none"> <li>- Read:385mA max.</li> <li>- Write:370mA max.</li> <li>- Slumber:less than 100mA</li> </ul> |

#### FEATURE LIST

|                  |   |                      |
|------------------|---|----------------------|
| FEATURES & TOOLS | <ul style="list-style-type: none"> <li>- In-House Designed Controller (HW/FW)</li> <li>- Power Fail Data Safety</li> <li>- Power Back-up Circuit</li> <li>- Global static wear leveling</li> <li>- SMART</li> <li>- NCQ, TRIM</li> <li>- AES 128/256bit encryption</li> </ul> |                      |
| PART NUMBER      | SME1BxxxxTXDxB00SAA0  | SME1BxxxxTxDxB00SAA0 |