

# mSATA

## Solid-State Drive

### Modular Embedded Storage with Maximum Data Integrity

With its industry-standard SATA interface, small footprint and high performance, HGST's mSATA solid-state drive is an ideal storage solution for space-constrained, low power applications requiring high reliability.

Serial ATA (SATA) continues to replace parallel ATA (PATA) in embedded systems, where small-format SATA storage designs are increasingly important. With up to 80 percent lower power consumption, mSATA SSDs are a logical drop-in replacement for conventional HDD storage, and provide an excellent option for tiered storage in embedded systems.

### Low-Power, Small Footprint Embedded Storage

HGST's embedded SATA SSDs provide the advanced flash management technology and data integrity of HGST's industry-leading enterprise SSDs in small-form factors designed for space-constrained applications. They provide flexible, low- power, and small-capacity solutions that are ideal for embedded systems.

### Features and Benefits

Feature / Function	Benefits
High Performance	6Gbps SATA interface provides fast data throughput with zero latency
Rugged Design	Supports embedded applications in harsh environments: high shock, vibration and industrial temperature (-40° to 85° C)
Data Integrity	Advanced error-checking and correction (ECC) algorithms protect data against common bit errors
High Endurance	Total drive wear-leveling algorithm increases the useful life of flash up to 10x over the manufacturer's stated useful life
Simple Integration	Compliant to the JEDEC MO-300A/B specification supporting drop-in implementation
High Reliability	Integrated bad block management and error handling improves data integrity. PowerSafe technology protects against drive corruption as a result of unexpected power loss
Advanced Flash Controller Technology	Provides unmatched performance, reliability and data integrity in embedded applications



**Information and Technical Support**

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**Specifications**

Models	s260 mSATA (SLC)	s260 mSATA (eMLC)	s265 mSATA mini
<b>Interface</b>			
Capacity	16/32/64GB	50/100/200GB	8/16GB
Type	SATA (6Gbps)	SATA (6Gbps)	SATA (6Gbps)
Form Factor	mSATA (JEDEC MO-300A)	mSATA (JEDEC MO-300A)	mSATA (JEDEC MO-300B)
<b>Performance</b>			
Average Response Time	<12ms	<12ms	<12ms
Transfer Rate (Read)	Up to 500MB/s	Up to 500MB/s	Up to 300MB/s
Transfer Rate (Write)	Up to 250MB/s	Up to 150MB/s	Up to 150MB/s
Endurance	10X drive writes/day, 5-years	10X drive writes/day, 3-years	10X drive writes/day, 5-years
MTBF	4 million hours	4 million hours	4 million hours
<b>Physical</b>			
Dimensions (L x W x H)	50mm X 30mm X 4.8mm	50mm X 30mm X 4.8mm	26mm X 30mm X 3.8mm
Power	<1.5W @ 3.3V	<1.5W @ 3.3V	<1.5W @ 3.3V
<b>Environmental</b>			
Operational Temperature	-40°C to 85°C	0°C to 70°C	-40°C to 85°C
Humidity (non-condensing)	5% to 95%	5% to 95%	5% to 95%
Shock / Vibration	350G / 20G	350G / 20G	350G / 20G
Altitude	-1,000 to 80,000 ft	-1,000 to 80,000 ft	-1,000 to 80,000 ft
<b>Compliance</b>			
	RoHS-6, EU Directive	RoHS-6, EU Directive	RoHS-6, EU Directive

<sup>1</sup> One GB is equal to one billion bytes when referring to hard drive capacity. Accessible capacity will vary depending on the operating environment and formatting.

<sup>2</sup> Portion of buffer capacity used for drive firmware

<sup>3</sup> MB is equal to MillionBytes

<sup>4</sup> Excludes command overhead

<sup>5</sup> MTBF target is based on a sample population and is estimated by statistical measurements and acceleration algorithms under median operating conditions. MTBF ratings are not intended to predict an individual drive's reliability. MTBF does not constitute a warranty.

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One GB is equal to one billion bytes and one TB equals 1,000 GB (one trillion bytes) when referring to hard drive capacity. Accessible capacity will vary from the stated capacity due to formatting and partitioning of the hard drive, the computer's operating system, and other factors.

MTBF target is based on a sample population and is estimated by statistical measurements and acceleration algorithms under median operating conditions. MTBF ratings are not intended to predict an individual drive's reliability. MTBF does not constitute a warranty.