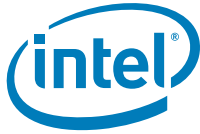


Intel® X18-M/X25-M SATA Solid State Drive - Enterprise Server/Storage Applications

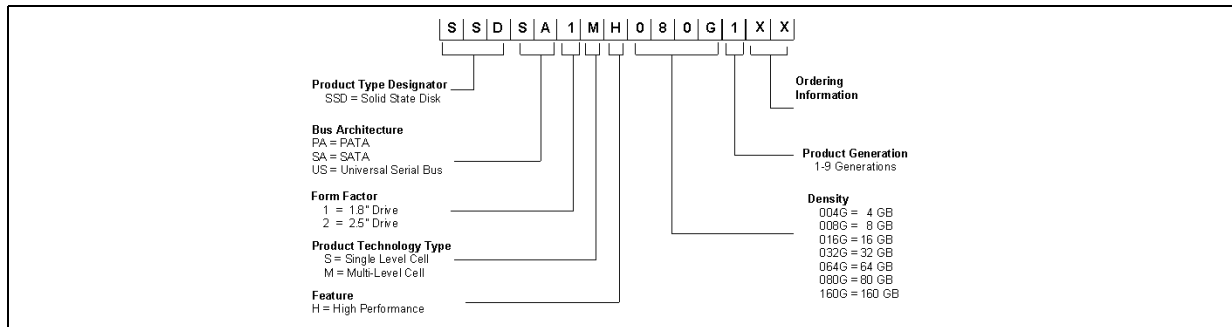
SSDSA1MH080G1, SSDSA2MH080G1, SSDSA1MH160G1, SSDSA2MH160G1

Product Manual Addendum



Ordering Information

Decoder



Intel High Performance Solid State Drive Ordering Information

Part Number	MM Numbers	Device Nomenclature	Order Quantity
SSDSA1MH080G1	894401	80 GB SATA 1.8" 5 mm Drive, MLC, Production Sample	1
	894400	80 GB SATA 1.8" 5 mm Drive, MLC, Production Sample	50
SSDSA2MH080G1	894103	80 GB SATA 2.5" 7 mm Drive, MLC, Production Sample	1
	894125	80 GB SATA 2.5" 7 mm Drive, MLC, Production Sample	50
	899854	80 GB SATA 2.5" 9.5 mm Drive, MLC, Production Sample	1
	901776	80 GB SATA 2.5" 9.5 mm Drive, MLC, Production Sample	50
SSDSA1MH160G1	898094	160 GB SATA 1.8" 8 mm Drive, MLC, Qualification Sample	1
SSDSA2MH160G1	900292	160 GB SATA 2.5" 7 mm Drive, MLC, Qualification Sample	1
	900291	160 GB SATA 2.5" 9.5 mm Drive, MLC, Qualification Sample	1

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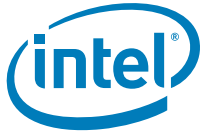
*Other names and brands may be claimed as the property of others.

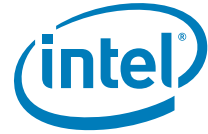
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1.0 Introduction

The Intel® X18-M/X25-M SATA Solid State Drive (SSD) delivers leading performance in industry standard 1.8" and 2.5" form factors while simultaneously improving system responsiveness for enterprise applications over standard rotating drive media or hard disk drives. By combining Intel's leading NAND flash memory technology with our innovative high performance controller, Intel delivers an SSD for Native Serial Advanced Technology Attachment (SATA) hard disk drive drop-in replacement with enhanced performance, reliability, ruggedness and power savings.

This document describes the random IOPS, typical power consumption and endurance specifications of the Intel X18-M/X25-M SATA SSD targeted for enterprise environment in server and storage applications. For complete specifications and description of the drive please refer to *Intel® X18-M/X25-M SATA Solid State Drive Product Manual*.

2.0 Product Specifications

2.1 Performance

Table 1. Random Read/Write Input/Output Operations Per Second

Access Type	IOPS (100 percent span)	IOPS (8GB span)
4K Read	35,000	35,000
4K Write	350	3,300

Notes:

1. Performance measured using IOmeter with queue depth set to 32.
2. Write Cache enabled.
3. Measurements are performed on 100 percent span of the drive (for enterprise usage) and 8GB span of the drive (for client usage).

2.2 Electrical Characteristics

2.2.1 Power Consumption

Table 2. Typical Power Consumption

Mode	Typ	Unit
Active	2.50	W
Idle	0.060	W

Note: Active power is measured during IOmeter* workload of 64KB sequential write with queue depth of 1.



2.3 Reliability

Table 3. Reliability Specifications

Parameter	Value
Minimum Useful Life	3 years

Table 4. Write Endurance Specifications

Drive Type	Value
80 GB	7.5 Tera-bytes
160 GB	15 Tera-bytes

Note: Write endurance was measured using 100% span of the drive with 100% random workload with 4KB transfer size.

3.0 Additional Product Information

For detailed information about the Intel X18-M/X25-M SATA SSD devices, please refer to the corresponding documentation.

Table 5. Related Documentation

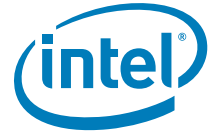
Order Number	Title	Type
319765-007US	Intel® X18-M/X25-M SATA Solid State Drive Product Manual	Production
32008-012US	Intel® X18-M/X25-M SATA Solid State Drive Sightings Report	
319766-006US	Intel® X18-M/X25-M SATA Solid State Drive Errata Report	

4.0 Terms and Acronyms

This document incorporates many industry- and device-specific words. Use the following list to define a variety of terms and acronyms.

Table 6. Glossary of Terms and Acronyms

Term	Definition
ATA	Advanced Technology Attachment
GB	Giga-bytes defined as 1×10^9 bytes
IOPS	Input output operations per second
MB	Mega-bytes defined as 1×10^6 bytes
MP	Multi-Processor
SATA	Serial ATA


Table 6. Glossary of Terms and Acronyms (Continued)

Term	Definition
SFF	Small Form Factor
SSD	Solid State Drive
TBD	To Be Determined
TB	Tera-bytes defined as 1×10^{12} bytes
Write Cache	A memory device within a hard drive, which is allocated for the temporary storage of data before that data is copied to its permanent storage location.

5.0 Revision History

Date	Revision	Description
April 2009	001	Initial Release

