

mSATA MO-300

2020 Model



128
GB

256
GB

512
GB

1
TB

INTRODUCTION

The Integral mSATA SSD delivers all of the advantages of flash memory technology with the Serial ATA III interface and conforms to the mSATA standard generated by JEDEC, known as MO-300.

mSATA is a small form factor SSD that is around 8 times smaller than the typical 2.5 inch SSD / HDD available. It is ideal for adding storage to small form factor and embedded systems.

The SATA III super-fast performance that is delivered by the Integral mSATA, together with its reliability and low power operation make it the ideal SSD drive for embedding into new systems.

- Fully compatible with devices and OS that support the SATA standard with mSATA interface
- Non-volatile Flash Memory for outstanding data retention – less likely to fail than HDD
- Ultra-efficient Block Management and Wear Levelling
- Error Correction Code
- Lower Power Consumption
- Shock resistance – No moving parts enable the product to be used in tougher conditions
- Silent operation - Noiseless and low heat dissipation
- Supports S.M.A.R.T. — Self-Monitoring, Analysis and Reporting Technology
- Supports TRIM
- RoHS compliant
- CE and FCC tested
- 3 Year Warranty

Product Overview

Choose the mSATA SSD from Integral for your embeded system storage, it will speed up your daily as boot times and increase the speed of your application, overall giving you the best experience of Solid State Computing.

FEATURES

- mSATA form factor with SATA III 6Gbps interface (backwards compatible with SATA 3Gbps and SATA 1.5Gbps)
- Performance: Faster boot than HDD, Faster access to applications, enhanced productivity and increased efficiency

FORM FACTOR & INTERFACE	
Form Factor	mSATA
Interface	SATA III 6GBPS. ALSO COMPATIBLE WITH SATA II 3GBPS. ALSO COMPATIBLE WITH SATA 1.5GBPS
Compliance	SATA Revision 3.2
NAND	TLC
Controller	Silicon Motion SM2258XT

PERFORMANCE		
Capacity	Sequential Speed*	
	Read	Write
128GB	480	400
256GB	500	400
512GB	520	450
1TB	520	450

SEQUENTIAL SPEED (UP TO) MBS

POWER CONSUMPTION	
Capacity	Power Management (Volt)
128GB	3.3
256GB	3.3
512GB	3.3
1TB	3.3

ENVIRONMENTAL	
Operating Temperature	0° to +70°C
Non-operating Temperature	-40° to +85°C
Humidity	RH 90% under 40°C (operational)

FEATURES	
Supports SMART Software	YES
Supports TRIM	Yes (OS support required)
ECC Scheme	Proprietary Solution
MTBF	>1.5 Million Hours
TBW	128GB = 50 256GB = 100 512GB = 200 1TB = 400
Compliancy	CE, FCC, RoHS

UNPACKAGED DIMENSION	
Length mm	50.8
Width mm	29.85
Height mm	3.45
Weight (g)	8

PACKAGED DIMENSION	
Length mm	134
Width mm	113
Height mm	14
Weight (g)	24

CAPACITY	PART CODE	BARCODE (EAN)
128GB	INSSD128GMSA	5055288444904
256GB	INSSD256GMSA	5055288444911
512GB	INSSD512GMSA	5055288444928
1TB	INSSD1TMSA	5055288444935

WARRANTY
3 years or TBW

Notes:

Actual performance may vary and depends on use conditions, host and environment. Based on internal testing.

Sequential R/W is measured using ATTO.

IOPS measured in Iometer.

Mean Time Between Failures is estimated based on JEDEC-218/219 standard methodology.

TBW is a measurement of SSDs expected lifespan, which represents the amount of data written to the device. This is only an estimate and can differ based on user usage behaviour, platform and estimates provided by the flash vendor.

Power Consumption may differ according to flash configuration and platform.

Humidity test was for 4 hours.

Unless otherwise agreed in writing, Integral does not recommend nor warrant products for use in life support, nuclear, medical, military, transportation, automotive, aviation, aerospace industry or other applications where in a failure or defect of the product may threaten life, injury, health, loss of a significant amount of money ("Critical Use"), and the customer and user hereby assumes all risk of any critical use of the product.

Mean Time Between Failures is estimated based on JEDEC-218/219 standard methodology.

For products with security software or hardware; the product cannot be guaranteed to be fully secure. No security system can be considered absolute. This device should not be used as your sole backup.

Product design and specification subject to change or modification without notice. E&OE.

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For warranty information please visit www.integralmemory.com/warranty

All Specifications are subject to change without notice 1GB = 1,000,000,000 Bytes, 1TB = 1,000,000,000,000 Bytes; 1 sector = 512 Bytes. The total usable capacity of the SSD may be less than the total physical capacity because a small portion of the capacity is used for NAND flash management and maintenance purposes.

