

## Integral M.2 SATA III 22x80

### 2020 Model



128  
GB

256  
GB

512  
GB

1TB  
1024GB

2TB  
2048GB

**The Integral M.2 next generation form factor SATA III SSD delivers all of the advantages of flash memory technology for SATA based computers.**

**M.2 SATA SSD storage solutions are designed for Notebooks, Desktops, Ultrabooks and tablets. They address the need for more low powered compact storage without compromising performance and reliability of solid state drives.**

#### FEATURES

- M.2 2280 form factor with SATA III 6Gbps interface (backwards compatible with SATA 3Gbps and SATA 1.5Gbps)
- Supports 'M' & 'B' Key sockets
- Performance: Faster boot than HDD, Faster access to applications, enhanced productivity and increased efficiency
- Fully compatible with devices and OS that support the SATA standard with M.2 M and B socket
- Non-volatile Flash Memory for outstanding data retention - Less likely to fail than HDD
- Ultra-efficient Block Management and Static and Dynamic Wear Leveling
- 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
- UKCA, CE and FCC tested
- 3 Year Warranty or TBW - whichever is earlier applies

FORM FACTOR & INTERFACE	
<b>Form Factor</b>	M.2 22 X 80
<b>Interface</b>	SATA III 6GBPS. ALSO COMPATIBLE WITH SATA II 3GBPS. ALSO COMPATIBLE WITH SATA 1.5GBPS
<b>Compliance</b>	SATA Revision 3.2
<b>NAND</b>	TLC
<b>Controller</b>	Silicon Motion SM2258XT

PERFORMANCE		
Capacity	Sequential Speed*	
	Read	Write
128GB	480	400
256GB	500	400
512GB	520	450
1TB - 1024GB	520	450
2TB - 2048GB	520	450

\*SEQUENTIAL SPEED (UP TO)\* MB/s

POWER CONSUMPTION	
Capacity	Power Management (V <sub>olt</sub> )
128GB	3.3
256GB	3.3
512GB	3.3
1TB - 1024GB	3.3
2TB - 2048GB	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 = 60 256GB = 120 512GB = 240 1TB - 1024GB = 480 2TB - 2048GB = 960
Compliance	CE, FCC, RoHS

UNPACKAGED DIMENSION	
Length mm	80
Width mm	22
Height mm	2.25
Weight (g)	6

PACKAGED DIMENSION	
Length mm	120
Width mm	64
Height mm	8
Weight (g)	15

CAPACITY	PART CODE	BARCODE (EAN)
128GB	INSSD128GM280	5055288444867
256GB	INSSD256GM280	5055288444874
512GB	INSSD512GM280	5055288444881
1TB - 1024GB	INSSD1TM280	5055288444898
2TB - 2048GB	INSSD2TM280	5055288439887

WARRANTY
3 years or TBW - whichever is earlier applies

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.

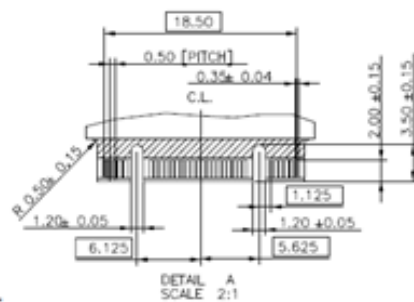
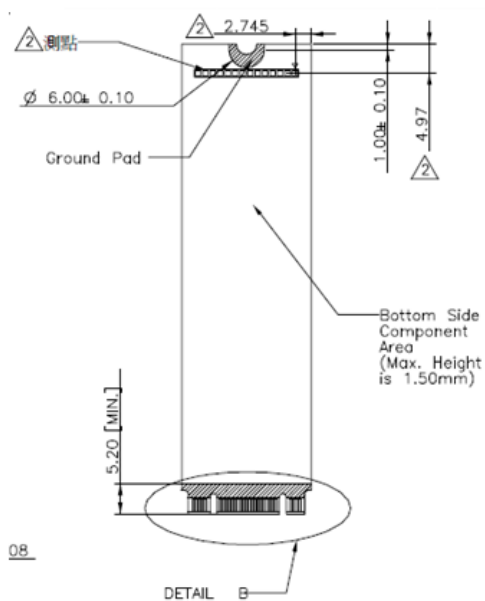
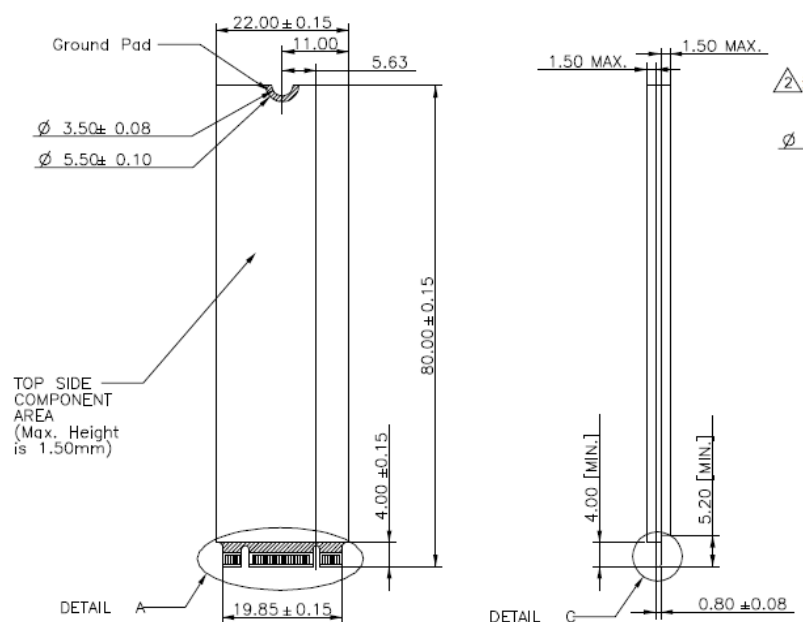
All trademarks acknowledged.

For warranty information please visit [www.integralmemory.com/warranty](http://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.

3 year warranty or TBW - whichever is earlier applies.

For warranty information please visit [www.integralmemory.com/warranty](http://www.integralmemory.com/warranty)



**Notes :**

1. = Max Component Height is
2. = No Component
3. = No Component / Signal Vias / Signal Copper/Print
4. General Tolerance : ±0.15mm