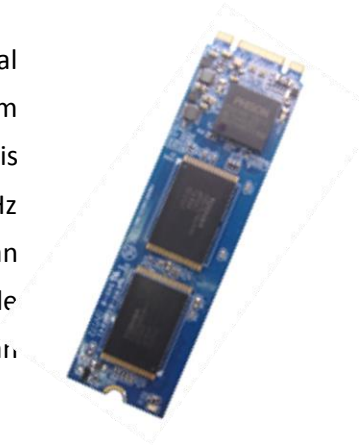


## Industrial M.2 SATA SSD 2280

Phison's M.2 2280 delivers all the advantages of Flash Disk technology with the Serial ATA I/II/III interface and is fully compliant with the standard Next Generation Form Factor (NGFF) called M.2 Card Format, which is generated by Intel. The M.2 2280 is designed to operate at a maximum operating frequency of 300MHz with 40MHz external crystal. Its capacity could provide a wide range up to 256GB. Moreover, it can reach up to 515MB/s read as well as 190MB/s write high performance based on Toggle 2.0 NAND flash. The power consumption of the M.2 2280 is much lower than traditional Hard Drives, making it the best embedded solution for new plate forms.



### Product Feature



#### Rugged

- ❑ Tough industrial PCB design for industrial application.
- ❑ Working on wide temperature for system operation everywhere.
- ❑ Seal around BGA chips to have stronger connection of signals.
- ❑ SMART monitor support



#### Durable

- ❑ High efficiency of flash wear leveling to get larger total write byte.
- ❑ Lower Write Amplification Factor (WAF) to get much more times of host data write.
- ❑ Quick and smart flash management to collect garbage data.



#### Reliable

- ❑ High ECC bits to correct bit errors from flash memory.
- ❑ Over 3,500 power cycling test for data integrity as power loss.
- ❑ Flush Mechanism
  - SmartCacheFlush
  - Guaranteed Flush
- ❑ Self-Burn-In to screen out early bad blocks before shipment.

Main use	Common interfaces
Storage, Recording, Back up, Boot device, Database	Server, NAS, SAN, Surveillance, Industrial PC/machines

### Specification

<b>Solution</b>	<b>PS3109-S9</b>
<b>Capacity</b>	1GB ~ 256GB
<b>Compliance</b>	SATA 3.0
<b>Flash Memory</b>	SLC/pSLC/MLC
<b>Performance*<sup>1</sup></b>	Read: up to 515MB/s Write: up to 190 MB/s
<b>Power Consumption*<sup>1</sup></b>	Active mode: < 2,000 mW
<b>Operating Voltage</b>	DC 3.3V
<b>Operating Temperature</b>	0°C ~ 70°C (Silver) -40°C ~ 85°C (Diamond)
<b>Reliability*<sup>2</sup></b>	IEC-60068, IEC-61000, MIL-STD-810, ISTA 2 Series
<b>MTBF</b>	More than 2,000,000 hours
<b>Quality</b>	Products are tested with both operational and non-operational status to ensure the highest qualities.

\*<sup>1</sup> Performance and Power Consumption may differ according to flash type, flash configuration, and platform.

\*<sup>2</sup> All reliability tests follow international standards

### Features Support

○: Optional    ⊙: Default

Solution	1	2	3	4	5	6	7	8
PS3109-S9	○	⊙	⊙	⊙	⊙	⊙	⊙	○

1 DEVSLP mode

2 Static/Dynamic Wear leveling

3 ECC (Error Correcting Code)

4 Power Loss Protection

5 SMART Function

6 TRIM

7 Over-Provision

8 pSLC