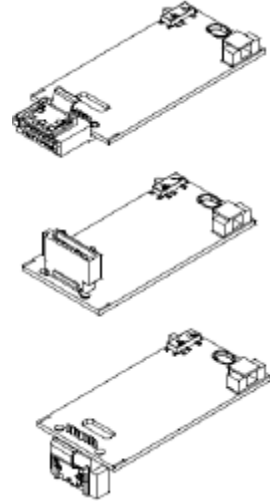


Industrial SATA Flash Module

Phison's SATA Flash Module-V2 delivers all the advantages of flash disk technology with the Serial ATA III interface. It is designed with the form factor of 7-Pin SATA signals and could be mounted with 3 types of structure for orientation directly to host without any effort. Phison's SATA Flash Module-V2 can operate at a maximum operating frequency of 300MHz with 40MHz external crystal. Its capacity could provide a wide range up to 128GB. Moreover, it can reach up to 530MB/s read as well as 200MB/s write high performance based on Toggle 2.0 NAND flash.



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.
- ❑ High temperature stress qualification.
- ❑ 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

Solution	PS3107-S7	PS3109-S9
Capacity	1GB ~ 64GB	1GB ~ 128GB
Compliance	SATA 2.0	SATA 3.0
Flash Memory	SLC/pSLC/MLC	SLC/pSLC/MLC
Performance* ¹	Read: up to 170 MB/s Write: up to 90 MB/s	Read: up to 530 MB/s Write: up to 200 MB/s
Power Consumption* ¹	Active mode: < 530 mW	Active mode: < 2,000 mW
Operating Voltage	DC 5.0V	
Operating Temperature	0°C ~ 70°C (Silver) -40°C ~ 85°C (Diamond)	
Reliability* ²	IEC-60068, IEC-61000, MIL-STD-810, ISTA 2 Series	
MTBF	More than 1,000,000 hours	More than 2000,000 hours
Quality	Products are tested with both operational and non-operational status to ensure the highest qualities.	

*¹ Performance and Power Consumption may differ according to flash type, flash configuration, and platform.

*² All reliability tests follow international standards

Features

○: Optional ⊙: Default

Solution	1	2	3	4	5	6	7	8
PS3107-S7		⊙	⊙	⊙	⊙	⊙	⊙	○
PS3109-S9	○	⊙	⊙	⊙	⊙	⊙	⊙	○

1 DEVSLP mode

2 Static/Dynamic Wear leveling

3 ECC (Error Correcting Code)

4 Power Lost Protection

5 SMART Function

6 TRIM

7 Over-Provision

8 pSLC