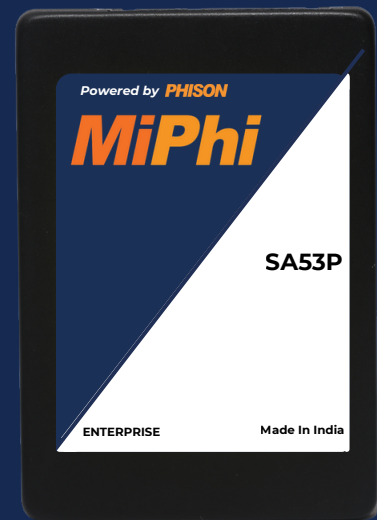


ENTERPRISE S-SERIES

EFFICIENT SATA STORAGE SOLUTION FOR DATA CENTER SA53P

The SA53P SSD is a SATA SSD solution that features next-generation NAND and a streamlined architecture for cost-effectiveness. It provides a wide variety of options for diverse workloads in today's advanced data centers.

KEY FEATURES	
Interface	SATA III
NAND Flash	3D TLC
DWPD	1
UBER	<1 sector per 10 bits
Operating Temperature	0°C - 70°C
Non-Operating Temperature	-40°C - 85°C
MTBF (million years)	2



- SATA III
- Capacity up to 7680GB
- Form Factor: 2.5"
- DWPD: 1
- Power Loss Protection (PLP)
- ISE, TCG Opal 2.0 Support
- AES-XTS 256-bit Encryption
- End-to-End Data Path Protection

Sequential Performance

Read up to 530 MB/s

Read up to 500 MB/s

Random Performance

Read up to 98K IOPS

Write up to 39K IOPS

SA53P Specifications

Form Factor 2.5"					
Capacity ⁽¹⁾	480GB	960GB	1920GB	3840GB	7680GB
Interface	SATA III	SATA III	SATA III	SATA III	SATA III
NAND Flash	3D TLC	3D TLC	3D TLC	3D TLC	3D TLC
Performance ^(2,3,4)					
Sequential Read (MB/s)	530	530	530	530	530
Sequential Write (MB/s)	500	500	500	500	500
4K Random Read (IOPS)	98K	98K	98K	98K	98K
4K Random Write (IOPS)	28K	32K	39K	35K	35K
Read Latency (Typ., μs)	100	110	110	100	100
Write Latency (Typ., μs)	40	40	30	30	30
Power Consumption ⁽⁵⁾					
Active (W)	2.9	2.8	3.3	2.9	2.9
Idle (W)	1.3	1.4	1.4	1.7	1.7
Endurance/Reliability					
DWPD ⁽⁶⁾	1	1	1	1	1
UBER	< 1 sector per 10 ¹⁷ bits read	< 1 sector per 10 ¹⁷ bits read	< 1 sector per 10 ¹⁷ bits read	< 1 sector per 10 ¹⁷ bits read	< 1 sector per 10 ¹⁷ bits read
MTBF (million hours)	2.0	2.0	2.0	2.0	2.0
Limited Warranty (years)	5	5	5	5	5
Temperature					
Operating Temp. (°C)	0 - 70	0 - 70	0 - 70	0 - 70	0 - 70
Non-Operating Temp. (°C)	-40 - 85	-40 - 85	-40 - 85	-40 - 85	-40 - 85
Physical Dimension					
Length (mm)	100.00	100.00	100.00	100.00	100.00
Width (mm)	69.85	69.85	69.85	69.85	69.85
Height (mm)	7.00	7.00	7.00	7.00	7.00
Weight (g)	57	59	60	62	62
Part Number					
SATA III	MPISA53P480G	MPISA53P960G	MPISA53P1920G	MPISA53P3840G	MPISA53P7680G

(1) 1 GB = 10⁹ bytes.
(2) Sequential Performance is based on FIO on Linux, 128KB data size, with QD=32, 1 job.
(3) Random Performance is based on FIO on Linux, 4KB data size, QD=32, 1 job.
(4) Latency is measured with random workloads based on FIO on Linux, 4KB data size, QD=1, 1 job.
(5) Power consumption (average RMS) is measured during the sequential read/write and random read/write operations performed by iometer.
(6)The results of DWPD are obtained in compliance with JESD219A standards.



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