PASCARI

High-Quality SATA Boot Drive for Legacy Systems

PASCARI BA50P

Sequential Read

Up to 530 MB/s

Sequential Write

Up to 500 MB/s

Random Read

Up to 98K IOPS

Random Write

Up to 30K IOPS

Interface

SATA III

Capacity

Up to 960GB

Form Factor

2.5", M.2 2280

DWPD

1

Product Features

- Power Loss Protection (PLP)
- TCG Opal 2.0 Support
- AES-XTS 256-bit Encryption
- End-to-End Data Path Protection

PHISON

Solutions - BA50P

Form Factor M.2 2280			
Capacity[1]	240GB	480GB	960GB
Interface	SATA III	SATA III	SATA III
NAND Flash	3D TLC	3D TLC	3D TLC
Performance[2,3,4]			
Sequential Read (MB/s)	530	530	530
Sequential Write (MB/s)	290	480	500
4K Random Read (IOPS)	60K	90K	98K
4K Random Write (IOPS)	10K	15K	30K
Read Latency (Typ., μs)	120	120	120
Write Latency (Typ., μs)	80	50	30
Power Consumption [5]			
Active (W)	2.2	2.7	2.7
Idle (W)	1.1	1.1	1.2
Endurance/Reliability			
DWPD[6]	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
MTBF (million hours)	2.0	2.0	2.0
Limited Warranty (years)	5	5	5
Temperature			
Operating Temp. (°C)	0 - 70	0 - 70	0 - 70
Non-Operating Temp. (°C)	-40 - 85	-40 - 85	-40 - 85
Physical Dimension			
Length (mm)	80.00	80.00	80.00
Width (mm)	22.00	22.00	22.00
Height (mm)	3.50	3.50	3.50
Weight (g)	8	9	9
Part Number			
Non-SED FW	B1200K01240GP01256G00	B1200K01480GP01512G00	B1200K01960GP011T0200
SED FW	B1200K01240GP21256G00	B1200K01480GP21512G00	B1200K01960GP211T0200

(1) 1 TB = 10^{12} bytes.
(2) Sequential Performance is based on FIO on Linux, 128K, with QD=32, 1 job.
(3) Random Performance is based on FIO on Linux, 4K 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 (Typical) is measured during the sequential read/write and random read/write operations performed by iometer with the conditions described in (2)(3).
(6) The results of DWPD are obtained in compliance with JESD219A Standards.

Solutions - BA50P

Form Factor 2.5"			
Capacity[1]	240GB	480GB	960GB
Interface	SATA III	SATA III	SATA III
NAND Flash	3D TLC	3D TLC	3D TLC
Performance[2,3,4]			
Sequential Read (MB/s)	530	530	530
Sequential Write (MB/s)	290	480	500
4K Random Read (IOPS)	60K	90K	98K
4K Random Write (IOPS)	10K	15K	30K
Read Latency (Typ., μs)	120	120	120
Write Latency (Typ., μs)	80	50	30
Power Consumption [5]			
Active (W)	2.3	2.8	2.8
Idle (W)	1.2	1.3	1.3
Endurance/Reliability			
DWPD[6]	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
MTBF (million hours)	2.0	2.0	2.0
Limited Warranty (years)	5	5	5
Temperature			
Operating Temp. (°C)	0 - 70	0 - 70	0 - 70
Non-Operating Temp. (°C)	-40 - 85	-40 - 85	-40 - 85
Physical Dimension			
Length (mm)	100.00	100.00	100.00
Width (mm)	69.85	69.85	69.85
Height (mm)	7.00	7.00	7.00
Weight (g)	24	25	25
Part Number			
Non-SED FW	B1201K01240GP02256G00	B1201K01480GP02512G00	B1201K01960GP021T0200
SED FW	B1201K01240GP22256G00	B1201K01480GP22512G00	B1201K01960GP221T0200

(1) 1 TB = 10^{12} bytes.
(2) Sequential Performance is based on FIO on Linux, 128K, with QD=32, 1 job.
(3) Random Performance is based on FIO on Linux, 4K 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 (Typical) is measured during the sequential read/write and random read/write operations performed by iometer with the conditions described in (2)(3).
(6) The results of DWPD are obtained in compliance with JESD219A Standards.