



ENTERPRISE X-SERIES

Unrivaled Performance & Low Power Consumption Gen4 SSD

PASCARI X100

Sequential Read

Up to 7,400 MB/s

Sequential Write

Up to 7,000 MB/s

Random Read

Up to 1,750K IOPS

Random Write

Up to 490K IOPS

Interface

PCIe 4.0 1x4 (Single port), 2x2 (Dual port)

Capacity

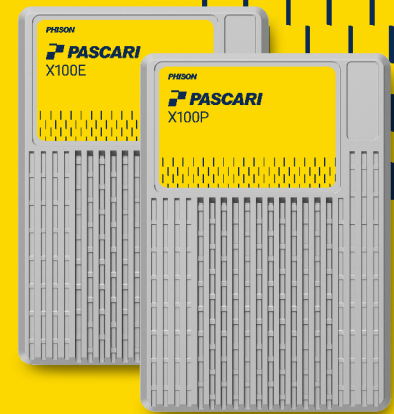
Up to 30.72TB

Form Factor

U.2/U.3

DWPD

1, 3



Product Features

- NVMe 1.4
- 64 Namespaces
- Power Loss Protection (PLP)
- TCG Opal 2.0 support
- AES-XTS 256-bit Encryption
- Data Integrity and Protection
- End-to-End Data Path Protection
- Metadata Protection
- SECDED
- Sanitize
- NVMe-MI (Management Interface)
- SMBus

PHISON

Solution - X100E

Form Factor U.3/U.2					
Capacity ⁽¹⁾	1.6TB	3.2TB	6.4TB	12.8TB	25.6TB
Interface	PCIe 4.0 1x4, 2x2	PCIe 4.0 1x4, 2x2	PCIe 4.0 1x4, 2x2	PCIe 4.0 1x4, 2x2	PCIe 4.0 1x4, 2x2
NVMe	1.4	1.4	1.4	1.4	1.4
NAND Flash	3D TLC	3D TLC	3D TLC	3D TLC	3D TLC
Performance ^(2,3,4)					
Sequential Read (MB/s)	7,400	7,400	7,400	7,400	7,400
Sequential Write (MB/s)	3,600	6,900	7,000	7,000	6,000
4K Random Read (IOPS)	1,750K	1,750K	1,750K	1,750K	1,750K
4K Random Write (IOPS)	300K	460K	460K	490K	470K
Read Latency (Typ., µs)	70	70	70	70	70
Write Latency (Typ., µs)	7	7	7	7	7
Power Consumption ⁽⁵⁾					
Active (W)	13	18	19	21	20
Idle (W)	5.5	5.8	5.9	7.4	8.0
Endurance/Reliability					
DWPD ⁽⁶⁾	3	3	3	3	3
UBER	< 1 sector per 10 ¹⁸ bits read	< 1 sector per 10 ¹⁸ bits read	< 1 sector per 10 ¹⁸ bits read	< 1 sector per 10 ¹⁸ bits read	< 1 sector per 10 ¹⁸ bits read
MTBF (million hours)	2.5	2.5	2.5	2.5	2.5
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)	100.10	100.10	100.10	100.10	100.10
Width (mm)	69.85	69.85	69.85	69.85	69.85
Height (mm)	15.00	15.00	15.00	15.00	15.00
Weight (g)	198	200	203	205	208
Part Number					
Single Port ISE FW	XP106H011T60E0 22T0400	XP106H013T20E0 24T0900	XP106H016T40E0 28T1900	XP106H0112T8E0 116T300	XP106H0125T6E0 132T700
Single Port SED FW	XP106H011T60E2 22T0400	XP106H013T20E2 24T0900	XP106H016T40E2 28T1900	XP106H0112T8E2 116T300	XP106H0125T6E2 132T700
Dual Port ISE FW	XX106H011T60E0 22T0400	XX106H013T20E0 24T0900	XX106H016T40E0 28T1900	XX106H0112T8E0 116T300	XX106H0125T6E0 132T700
Dual Port SED FW	XX106H011T60E2 22T0400	XX106H013T20E2 24T0900	XX106H016T40E2 28T1900	XX106H0112T8E2 116T300	XX106H0125T6E2 132T700

(1) 1 TB = 10¹² bytes.

(2) Sequential Performance is based on FIO on Linux, 512K, with QD=32, 1 job.

(3) Random Performance is based on FIO on Linux, 4K data size, QD=128, 8 jobs.

(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 with the conditions described in (2)(3).

(6) The results of DWPD are obtained in compliance with JESD219A Standards.



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Solution - X100P

Form Factor U.3/U.2					
Capacity ⁽¹⁾	1.92TB	3.84TB	7.68TB	15.36TB	30.72TB
Interface	PCIe 4.0 1x4, 2x2	PCIe 4.0 1x4, 2x2	PCIe 4.0 1x4, 2x2	PCIe 4.0 1x4, 2x2	PCIe 4.0 1x4, 2x2
NVMe	1.4	1.4	1.4	1.4	1.4
NAND Flash	3D TLC	3D TLC	3D TLC	3D TLC	3D TLC
Performance ^(2,3,4)					
Sequential Read (MB/s)	7,400	7,400	7,400	7,400	7,400
Sequential Write (MB/s)	3,600	6,900	7,000	7,000	6,000
4K Random Read (IOPS)	1,750K	1,750K	1,750K	1,750K	1,750K
4K Random Write (IOPS)	126K	195K	190K	210K	210K
Read Latency (Typ., µs)	70	70	70	70	70
Write Latency (Typ., µs)	7	7	7	7	7
Power Consumption ⁽⁵⁾					
Active (W)	13	18	19	20	21
Idle (W)	5.4	5.6	5.8	7.3	8.6
Endurance/Reliability					
DWPD ⁽⁶⁾	1	1	1	1	1
UBER	< 1 sector per 10 ¹⁸ bits read	< 1 sector per 10 ¹⁸ bits read	< 1 sector per 10 ¹⁸ bits read	< 1 sector per 10 ¹⁸ bits read	< 1 sector per 10 ¹⁸ bits read
MTBF (million hours)	2.5	2.5	2.5	2.5	2.5
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)	100.10	100.10	100.10	100.10	100.10
Width (mm)	69.85	69.85	69.85	69.85	69.85
Height (mm)	15.00	15.00	15.00	15.00	15.00
Weight (g)	198	200	203	205	208
Part Number					
Single Port ISE FW	XP106H011T92P0 22T0400	XP106H013T84P0 24T0900	XP106H017T68P0 28T1900	XP106H0115T3P0 116T300	XP106H0130T7P0 132T700
Single Port SED FW	XP106H011T92P2 22T0400	XP106H013T84P2 24T0900	XP106H017T68P2 28T1900	XP106H0115T3P2 116T300	XP106H0130T7P2 132T700
Dual Port ISE FW	XX106H011T92P0 22T0400	XX106H013T84P0 24T0900	XX106H017T68P0 28T1900	XX106H0115T3P0 116T300	XX106H0130T7P0 132T700
Dual Port SED FW	XX106H011T92P2 22T0400	XX106H013T84P2 24T0900	XX106H017T68P2 28T1900	XX106H0115T3P2 116T300	XX106H0130T7P2 132T700

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(3) Random Performance is based on FIO on Linux, 4K data size, QD=128, 8 jobs.

(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 with the conditions described in (2)(3).

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