

ENTERPRISE X-SERIES

Feature-Rich PCIe Gen5 Enterprise SSD

PASCARI X200P

Sequential Read**Up to 14,800MB/s****Sequential Write****Up to 8,700MB/s****Random Read****Up to 3,300K IOPS****Random Write****Up to 900K IOPS****Interface****PCIe Gen5 x4****Capacity****Up to 30720GB****Form Factor****E3.S, U.2****DWPD****1****Product Features**

- Power Loss Protection (PLP)
- AES-XTS 256-bit Encryption
- End-to-End Data Path Protection
- Multiple Namespaces

Solutions – X200P (E3.S)

Form Factor E3.S				
Capacity ¹	1920GB	3840GB	7680GB	15360GB
Interface	PCIe Gen5 x4	PCIe Gen5 x4	PCIe Gen5 x4	PCIe Gen5 x4
NAND Flash	3D TLC	3D TLC	3D TLC	3D TLC
Performance ²³⁴				
Sequential Read (MB/s)	14800	14800	14800	14800
Sequential Write (MB/s)	4300	8600	8700	8500
4K Random Read (IOPS)	2400K	3300K	3200K	2600K
4K Random Write (IOPS)	140K	320K	460K	420K
Read Latency (Typ., µs)	70	70	70	70
Write Latency (Typ., µs)	250	110	90	100
Power Consumption ⁵				
Active (W)	25	25	25	25
Idle (W)	5	5	5	5
Endurance/Reliability				
DWPD ⁶	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
MTBF (million hours)	2.5	2.5	2.5	2.5
Limited Warranty (years)	5	5	5	5
Temperature				
Operating Temp. (°C)	0 - 70	0 - 70	0 - 70	0 - 70
Non-Operating Temp. (°C)	-40 - 85	-40 - 85	-40 - 85	-40 - 85
Physical Dimension				
Length (mm)	112.75	112.75	112.75	112.75
Width (mm)	0.2	0.2	0.2	0.2
Height (mm)	7.45	7.45	7.45	7.45
Weight (g)	106	114	117	119
Part Number				
Single Port Non-SED FW	XP20DH031T92P012T0410	XP20DH033T84P014T0910	XP20DH037T68P018T1910	XP20DH0315T3P0116T310
Single Port SED FW	XP20DH031T92P212T0410	XP20DH033T84P214T0910	XP20DH037T68P218T1910	XP20DH0315T3P2116T310
Single Port ISE	XP20DH031T92P312T0410	XP20DH033T84P314T0910	XP20DH037T68P318T1910	XP20DH0315T3P3116T310
Dual Port Non-SED FW	XX20DH031T60E012T0410	XX20DH033T20E014T0910	XX20DH036T40E018T1910	XX20DH0312T8E0116T310
Dual Port SED FW	XX20DH031T60E212T0410	XX20DH033T20E214T0910	XX20DH036T40E218T1910	XX20DH0312T8E2116T310
Dual Port ISE	XX20DH031T60E312T0410	XX20DH033T20E314T0910	XX20DH036T40E318T1910	XX20DH0312T8E3116T310

(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.

(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 sequential and random read/write operations.

(6) The results of DWPD are obtained in compliance with JEDEC219A standards.



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Solutions – X200P (U.2)

Form Factor U.2					
Capacity ¹	1920GB	3840GB	7680GB	15360GB	30720GB
Interface	PCIe Gen5 x4	PCIe Gen5 x4	PCIe Gen5 x4	PCIe Gen5 x4	PCIe Gen5 x4
NAND Flash	3D TLC	3D TLC	3D TLC	3D TLC	3D TLC
Performance ²³⁴					
Sequential Read (MB/s)	14800	14800	14800	14800	14000
Sequential Write (MB/s)	4300	8600	8700	8500	7400
4K Random Read (IOPS)	2400K	3300K	3200K	2800K	2300K
4K Random Write (IOPS)	140K	320K	390K	420K	265K
Read Latency (Typ., µs)	70	70	70	70	70
Write Latency (Typ., µs)	250	110	100	100	130
Power Consumption ⁵					
Active (W)	25	25	25	25	25
Idle (W)	5	5	5	5	5
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)	14.70	14.70	14.70	14.70	14.70
Weight (g)	188	199	201	168	169
Part Number					
Single Port Non-SED FW	XP208H031T92P022T04 10	XP208H033T84P024T09 10	XP208H037T68P028T19 10	XP208H0315T3P0116T3 10	XP208H0330T7P0132T7 10
Single Port SED FW	XP208H031T92P222T04 10	XP208H033T84P224T09 10	XP208H037T68P228T19 10	XP208H0315T3P2116T3 10	XP208H0330T7P2132T7 10
Single Port ISE FW	XP208H031T92P322T04 10	XP208H033T84P324T09 10	XP208H037T68P328T19 10	XP208H0315T3P3116T3 10	XP208H0330T7P3132T7 10
Dual Port Non-SED FW	XX208H031T92P022T04 10	XX208H033T84P024T09 10	XX208H037T68P028T19 10	XX208H0315T3P0116T3 10	XX208H0330T7P0132T7 10
Dual Port SED FW	XX208H031T92P222T04 10	XX208H033T84P224T09 10	XX208H037T68P228T19 10	XX208H0315T3P2116T3 10	XX208H0330T7P2132T7 10
Dual Port ISE FW	XX208H031T92P322T04 10	XX208H033T84P324T09 10	XX208H037T68P328T19 10	XX208H0315T3P3116T3 10	XX208H0330T7P3132T7 10

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(3) Random Performance is based on FIO on Linux, 4KB data size, QD=32.

(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 sequential and random read/write operations.

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



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Feature-Rich PCIe Gen5 Enterprise SSD

PASCARI X200E

Sequential Read**Up to 14,800MB/s****Sequential Write****Up to 8,700MB/s****Random Read****Up to 3,300K IOPS****Random Write****Up to 900K IOPS****Interface****PCIe Gen5 x4****Capacity****Up to 25600GB****Form Factor****E3.S, U.2****DWPD****3****Product Features**

- Power Loss Protection (PLP)
- AES-XTS 256-bit Encryption
- End-to-End Data Path Protection
- Multiple Namespaces

Solutions – X200E (E3.S)

Form Factor E3.S				
Capacity ¹	1600GB	3200GB	6400GB	12800GB
Interface	PCIe Gen5 x4	PCIe Gen5 x4	PCIe Gen5 x4	PCIe Gen5 x4
NAND Flash	3D TLC	3D TLC	3D TLC	3D TLC
Performance ²³⁴				
Sequential Read (MB/s)	14800	14800	14800	14800
Sequential Write (MB/s)	4300	8600	8700	8500
4K Random Read (IOPS)	2400K	3300K	3200K	2600K
4K Random Write (IOPS)	390K	790K	900K	900K
Read Latency (Typ., µs)	70	70	70	70
Write Latency (Typ., µs)	100	50	50	50
Power Consumption ⁵				
Active (W)	25	25	25	25
Idle (W)	5	5	5	5
Endurance/Reliability				
DWPD ⁶	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
MTBF (million hours)	2.5	2.5	2.5	2.5
Limited Warranty (years)	5	5	5	5
Temperature				
Operating Temp. (°C)	0 - 70	0 - 70	0 - 70	0 - 70
Non-Operating Temp. (°C)	-40 - 85	-40 - 85	-40 - 85	-40 - 85
Physical Dimension				
Length (mm)	112.75	112.75	112.75	112.75
Width (mm)	0.2	0.2	0.2	0.2
Height (mm)	7.45	7.45	7.45	7.45
Weight (g)	106	114	117	119
Part Number				
Single Port Non-SED FW	XP20DH031T60E012T0410	XP20DH033T20E014T0910	XP20DH036T40E018T1910	XP20DH0312T8E0116T310
Single Port SED FW	XP20DH031T60E212T0410	XP20DH033T20E214T0910	XP20DH036T40E218T1910	XP20DH0312T8E2116T310
Single Port ISE	XP20DH031T60E312T0410	XP20DH033T20E314T0910	XP20DH036T40E318T1910	XP20DH0312T8E3116T310
Dual Port Non-SED FW	XX20DH031T60E012T0410	XX20DH033T20E014T0910	XX20DH036T40E018T1910	XX20DH0312T8E0116T310
Dual Port SED FW	XX20DH031T60E212T0410	XX20DH033T20E214T0910	XX20DH036T40E218T1910	XX20DH0312T8E2116T310
Dual Port ISE	XX20DH031T60E312T0410	XX20DH033T20E314T0910	XX20DH036T40E318T1910	XX20DH0312T8E3116T310

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(3) Random Performance is based on FIO on Linux, 4KB data size, QD=32.

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(5) Power consumption (average RMS) is measured during sequential and random read/write operations.

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Solutions – X200E (U.2)

Form Factor U.2					
Capacity ¹	1600GB	3200GB	6400GB	12800GB	25600GB
Interface	PCIe Gen5 x4	PCIe Gen5 x4	PCIe Gen5 x4	PCIe Gen5 x4	PCIe Gen5 x4
NAND Flash	3D TLC	3D TLC	3D TLC	3D TLC	3D TLC
Performance ²³⁴					
Sequential Read (MB/s)	14800	14800	14800	14800	14000
Sequential Write (MB/s)	4300	8600	8700	8500	7400
4K Random Read (IOPS)	2400K	3300K	3200K	2800K	2300K
4K Random Write (IOPS)	390K	790K	880K	900K	615K
Read Latency (Typ., µs)	70	70	70	70	70
Write Latency (Typ., µs)	100	50	50	50	60
Power Consumption ⁵					
Active (W)	25	25	25	25	25
Idle (W)	5	5	5	5	5
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)	14.70	14.70	14.70	14.70	14.70
Weight (g)	188	199	201	168	169
Part Number					
Single Port Non-SED FW	XP208H031T60E022T0410	XP208H033T20E024T0910	XP208H036T40E028T1910	XP208H0312T8E0116T310	XP208H0325T6E0132T710
Single Port SED FW	XP208H031T60E222T0410	XP208H033T20E224T0910	XP208H036T40E228T1910	XP208H0312T8E2116T310	XP208H0325T6E2132T710
Single Port ISE	XP208H031T60E322T0410	XP208H033T20E324T0910	XP208H036T40E328T1910	XP208H0312T8E3116T310	XP208H0325T6E3132T710
Dual Port Non-SED FW	XX208H031T60E022T0410	XX208H033T20E024T0910	XX208H036T40E028T1910	XX208H0312T8E0116T310	XX208H0325T6E0132T710
Dual Port SED FW	XX208H031T60E222T0410	XX208H033T20E224T0910	XX208H036T40E228T1910	XX208H0312T8E2116T310	XX208H0325T6E2132T710
Dual Port ISE	XX208H031T60E322T0410	XX208H033T20E324T0910	XX208H036T40E328T1910	XX208H0312T8E3116T310	XX208H0325T6E3132T710

(1) 1 GB = 10⁹ bytes.

(2) Sequential Performance is based on FIO on Linux, 128KB data size, with QD=32, 1 job.

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