PASCARI

ENTERPRISE X-SERIES

High-Endurance Gen5 Storage Built for Relentless Workloads

PASCARI X202Z

Sequential Read

Up to 14,800 MB/s

Sequential Write

Up to 10,000 MB/s

Random Read

Up to 3,000K IOPS

Random Write

Up to 850K IOPS

Interface

PCIe 5.0 2x2 (Dual port)

Capacity

Up to 6.4TB

Form Factor

U.2, E1.L

DWPD

60

Product Features

- NVMe 2.0
- 128 Namespaces
- Power Loss Protection (PLP)
- ISE 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

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Solution – X202Z

Form Factor U.2		
Capacity[1]	1.6TB	3.2TB
Interface	PCIe 5.0 2x2	PCIe 5.0 2x2
NVMe	2.0	2.0
NAND Flash	3D pSLC	3D pSLC
Performance[2,3,4]		
Sequential Read (MB/s)	14,800	14,800
Sequential Write (MB/s)	10,000	10,000
4K Random Read (IOPS)	2,900K	3,000K
4K Random Write (IOPS)	800K	850K
Random Read Latency (Typ., µs)	45	45
Random Write Latency (Typ., µs)	10	10
Power Consumption [5]		
Active (W)	19	20
Idle (W)	5	5
Endurance/Reliability		
DWPD[6]	60	60
UBER	< 1 sector per 10^{18} bits read	< 1 sector per 10^{18} bits read
MTBF (million hours)	2.5	2.5
Limited Warranty (years)	5	5
Temperature		
Operating Temp. (°C)	0 - 70	0 - 70
Non-Operating Temp. (°C)	-40 - 85	-40 - 85
Physical Dimension		
Length (mm)	100.10	100.10
Width (mm)	69.85	69.85
Height (mm)	15.00	15.00
Weight (g)	192	199
Part Number		
Dual Port ISE FW	XX208M011T60Z328T1900	XX208M013T20Z3216T300

(1) 1 TB = 10^{12} bytes.
(2) Sequential Performance is based on FIO on Linux, 512KB data size, with QD=32, 1 job.
(3) Random Performance is based on FIO on Linux, 4KB 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) and (3).
(6) The results of DWPD are obtained in compliance with JESD219A standards.

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Solution – X202Z

Form Factor E1.L			
Capacity[1]	1.6TB	3.2TB	6.4TB
Interface	PCIe 5.0 2x2	PCIe 5.0 2x2	PCIe 5.0 2x2
NVMe	2.0	2.0	2.0
NAND Flash	3D pSLC	3D pSLC	3D pSLC
Performance[2,3,4]			
Sequential Read (MB/s)	11,800	14,800	14,800
Sequential Write (MB/s)	10,000	10,000	10,000
4K Random Read (IOPS)	1,450K	3,000K	3,000K
4K Random Write (IOPS)	750K	850K	850K
Random Read Latency (Typ., µs)	45	45	45
Random Write Latency (Typ., µs)	10	10	10
Power Consumption [5]			
Active (W)	19	21	21
Idle (W)	5	5	5
Endurance/Reliability			
DWPD[6]	60	60	60
UBER	< 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
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)	318.75	318.75	318.75
Width (mm)	38.40	38.40	38.40
Height (mm)	9.50	9.50	9.50
Weight (g)	190	196	210
Part Number			
Dual Port ISE FW	XX20GM011T60Z328T1900	XX20GM013T20Z3216T300	XX20GM016T40Z3232T700

(1) 1 TB = 10^{12} bytes.
(2) Sequential Performance is based on FIO on Linux, 512KB data size, with QD=32, 1 job.
(3) Random Performance is based on FIO on Linux, 4KB 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) and (3).
(6) The results of DWPD are obtained in compliance with JESD219A standards.

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