



ENTERPRISE X-SERIES

# Engineered for the World's Fastest Data

## PASCARI X201

### Sequential Read

Up to 14,500 MB/s

### Sequential Write

Up to 12,000 MB/s

### Random Read

Up to 3,300K IOPS

### Random Write

Up to 1,050K IOPS

### Interface

PCIe 5.0 1x4 (Single port), 2x2 (Dual port)

### Capacity

Up to 30.72 TB

### Form Factor

U.2, E3.S

### DWPD

1, 3



### Product Features

- NVMe 2.0d
- OCP Datacenter NVMe<sup>®</sup> SSD Specification V2.0
- OCP V2.6 Telemetry features
- 128 Namespaces
- Power Loss Protection (PLP)
- ISE, TCG Opal 2.02 support
- AES-XTS 256-bit Encryption
- Data Integrity and Protection
- End-to-End Data Path Protection
- SECDED
- Sanitize
- NVMe-MI (Management Interface) Rev 1.2
- SMBus

## Solution - X201E

| Form Factor U.2 15mm             |   |   |
|----------------------------------|---|---|
| Capacity <sup>(1)</sup>          | 12.8 TB                                   | 25.6 TB                                   |
| Interface                        | PCIe 5.0 1x4, 2x2                         | PCIe 5.0 1x4, 2x2                         |
| NVMe                             | 2.0d                                      | 2.0d                                      |
| NAND Flash                       | 3D TLC                                    | 3D TLC                                    |
| Performance <sup>(2,3)</sup>     |   |   |
| Sequential Read (MB/s)           | 14,500                                    | 14,500                                    |
| Sequential Write (MB/s)          | 12,000                                    | 10,500                                    |
| 4K Random Read (IOPS)            | 3,300K                                    | 2,800K                                    |
| 4K Random Write (IOPS)           | 1,050K                                    | 920K                                      |
| Power Consumption <sup>(4)</sup> |   |   |
| Active (W)                       | <25                                       | <25                                       |
| Idle (W)                         | <5  | <5  |
| Endurance/Reliability            |   |   |
| DWPD <sup>(5)</sup>              | 3   | 3   |
| UBER                             | < 1 sector per 10 <sup>18</sup> bits read | < 1 sector per 10 <sup>18</sup> 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)                       | <250                                      | <250                                      |
| Part Number                      |   |   |
| Single Port ISE FW               | XP208H0815T3P3216T310                     | XP208H0830T7P3232T710                     |
| Single Port SED FW               | XP208H0815T3P2216T310                     | XP208H0830T7P2232T710                     |
| Single Port Non-SED FW           | XP208H0815T3P0216T310                     | XP208H0830T7P0232T710                     |
| Dual Port ISE FW                 | XX208H0815T3P3216T310                     | XX208H0830T7P3232T710                     |
| Dual Port SED FW                 | XX208H0815T3P2216T310                     | XX208H0830T7P2232T710                     |
| Dual Port Non-SED FW             | XX208H0815T3P0216T310                     | XX208H0830T7P0232T710                     |

(1) 1 TB = 10<sup>12</sup> 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) 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).

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



## Solution - X201E

| Form Factor E3.S 1T              |   |   |
|----------------------------------|---|---|
| Capacity <sup>(1)</sup>          | 12.8 TB                                   | 25.6 TB                                   |
| Interface                        | PCIe 5.0 1x4, 2x2                         | PCIe 5.0 1x4, 2x2                         |
| NVMe                             | 2.0d                                      | 2.0d                                      |
| NAND Flash                       | 3D TLC                                    | 3D TLC                                    |
| Performance <sup>(2,3)</sup>     |   |   |
| Sequential Read (MB/s)           | 14,500                                    | 14,500                                    |
| Sequential Write (MB/s)          | 12,000                                    | 10,500                                    |
| 4K Random Read (IOPS)            | 3,300K                                    | 2,800K                                    |
| 4K Random Write (IOPS)           | 1,050K                                    | 920K                                      |
| Power Consumption <sup>(4)</sup> |   |   |
| Active (W)                       | <25                                       | <25                                       |
| Idle (W)                         | <5  | <5  |
| Endurance/Reliability            |   |   |
| DWPD <sup>(5)</sup>              | 3   | 3   |
| UBER                             | < 1 sector per 10 <sup>18</sup> bits read | < 1 sector per 10 <sup>18</sup> 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)                      | 112.75                                    | 112.75                                    |
| Width (mm)                       | 76.00                                     | 76.00                                     |
| Height (mm)                      | 7.50                                      | 7.50                                      |
| Weight (g)                       | <150                                      | <150                                      |
| Part Number                      |   |   |
| Single Port ISE FW               | XP20DH0812T8E3116T310                     | XP20DH0825T6E3132T710                     |
| Single Port SED FW               | XP20DH0812T8E2116T310                     | XP20DH0825T6E2132T710                     |
| Single Port Non-SED FW           | XP20DH0812T8E0116T310                     | XP20DH0825T6E0132T710                     |
| Dual Port ISE FW                 | XX20DH0812T8E3116T310                     | XX20DH0825T6E3132T710                     |
| Dual Port SED FW                 | XX20DH0812T8E2116T310                     | XX20DH0825T6E2132T710                     |
| Dual Port Non-SED FW             | XX20DH0812T8E0116T310                     | XX20DH0825T6E0132T710                     |

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## Solution - X201P

| Form Factor U.2 15mm             |   |   |
|----------------------------------|---|---|
| Capacity <sup>(1)</sup>          | 15.36 TB                                  | 30.72 TB                                  |
| Interface                        | PCIe 5.0 1x4, 2x2                         | PCIe 5.0 1x4, 2x2                         |
| NVMe                             | 2.0d                                      | 2.0d                                      |
| NAND Flash                       | 3D TLC                                    | 3D TLC                                    |
| Performance <sup>(2,3)</sup>     |   |   |
| Sequential Read (MB/s)           | 14,500                                    | 14,500                                    |
| Sequential Write (MB/s)          | 12,000                                    | 10,500                                    |
| 4K Random Read (IOPS)            | 3,300K                                    | 2,800K                                    |
| 4K Random Write (IOPS)           | 600K                                      | 480K                                      |
| Power Consumption <sup>(4)</sup> |   |   |
| Active (W)                       | <25                                       | <25                                       |
| Idle (W)                         | <5  | <5  |
| Endurance/Reliability            |   |   |
| DWPD <sup>(5)</sup>              | 1   | 1   |
| UBER                             | < 1 sector per 10 <sup>18</sup> bits read | < 1 sector per 10 <sup>18</sup> 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)                       | <250                                      | <250                                      |
| Part Number                      |   |   |
| Single Port ISE FW               | XP208H0815T3P3216T310                     | XP208H0830T7P3232T710                     |
| Single Port SED FW               | XP208H0815T3P2216T310                     | XP208H0830T7P2232T710                     |
| Single Port Non-SED FW           | XP208H0815T3P0216T310                     | XP208H0830T7P0232T710                     |
| Dual Port ISE FW                 | XX208H0815T3P3216T310                     | XX208H0830T7P3232T710                     |
| Dual Port SED FW                 | XX208H0815T3P2216T310                     | XX208H0830T7P2232T710                     |
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| Form Factor E3.S 1T              |   |   |
|----------------------------------|---|---|
| Capacity <sup>(1)</sup>          | 15.36 TB                                  | 30.72 TB                                  |
| Interface                        | PCIe 5.0 1x4, 2x2                         | PCIe 5.0 1x4, 2x2                         |
| NVMe                             | 2.0d                                      | 2.0d                                      |
| NAND Flash                       | 3D TLC                                    | 3D TLC                                    |
| Performance <sup>(2,3)</sup>     |   |   |
| Sequential Read (MB/s)           | 14,500                                    | 14,500                                    |
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| 4K Random Read (IOPS)            | 3,300K                                    | 2,800K                                    |
| 4K Random Write (IOPS)           | 600K                                      | 480K                                      |
| Power Consumption <sup>(4)</sup> |   |   |
| Active (W)                       | <25                                       | <25                                       |
| Idle (W)                         | <5  | <5  |
| Endurance/Reliability            |   |   |
| DWPD <sup>(5)</sup>              | 1   | 1   |
| UBER                             | < 1 sector per 10 <sup>18</sup> bits read | < 1 sector per 10 <sup>18</sup> 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                                  |
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| Length (mm)                      | 112.75                                    | 112.75                                    |
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| Dual Port ISE FW                 | XX20DH0815T3P3116T310                     | XX20DH0830T7P3132T710                     |
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