

**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

PCle 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

7.0.0.0				
	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 (4)			
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		



<sup>(1) 1</sup> 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

7.2012		
	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)	3,300К	2,800K
4K Random Write (IOPS)	1,050K	920K
	Power Consumption (4)	
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



<sup>(1) 1</sup> 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 - 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 (4)	
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
Dual Port Non-SED FW	XX208H0815T3P0216T310	XX208H0830T7P0232T710
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<sup>(1) 1</sup> TB = 10<sup>12</sup> bytes.
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(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 - X201P

	Form Factor E3.S 1T			
Capacity <sup>(1)</sup>	15.36 TB	30.72 TB		
Interface	PCle 5.0 1x4, 2x2	PCle 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 Write (IOPS)	600K	480K		
Power Consumption (4)				
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)	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	XP20DH0815T3P3116T310	XP20DH0830T7P3132T710		
Single Port SED FW	XP20DH0815T3P2116T310	XP20DH0830T7P2132T710		
Single Port Non-SED FW	XP20DH0815T3P0116T310	XP20DH0830T7P0132T710		
Dual Port ISE FW	XX20DH0815T3P3116T310	XX20DH0830T7P3132T710		
Dual Port SED FW	XX20DH0815T3P2116T310	XX20DH0830T7P2132T710		
Dual Port Non-SED FW	XX20DH0815T3P0116T310	XX20DH0830T7P0132T710		



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