



XTREMIO X2 SPECIFICATIONS

Specifications below supported starting with version 6.3



System Specifications	1 Brick Cluster	2 Bricks Cluster	3 Bricks Cluster	4 Bricks Cluster
Active-Active Controllers	2	4	6	8
SSD enclosures	1	2	3	4
Number of SSDs (2TB Drives)	18-72 ¹	36-144	54-216	72-288
Number of SSDs ² (4TB Drives)	18-60	36-120	54-180	72-240
Cable mgmt. ducts ³	1	1	2	2
InfiniBand Switches	0	2	2	2
Power Socket Number/Type (internal to rack)	6 x IEC C14	16 x IEC C14	22 x IEC C14	28 x IEC C14
Weight ⁴ (including rack)	293Kg/646lb	400Kg/882lb	490Kg/1080lb	580Kg/1278lb
Weight ⁴ (excluding rack)	95Kg/209lb	202Kg/445lb	292Kg/644lb	382Kg/842lb
Rack Space (incl. CMD)	5U	11U	16U	20U

¹X2-T can support up to 36 SSDs

³ CMD - Cable Management Duct. optional.

² 4TB drives are supported in X2-R SSD enclosures, up to 60 X 4TB SSDs per enclosure

⁴ These are X2-R values. For X2-S multi-brick weight subtract 16Kg (single bricks weigh the same)

Performance (100% random IOs, no caching, on preconditioned & prefilled arrays)	1 Brick Cluster	2 Bricks Cluster	3 Bricks Cluster	4 Bricks Cluster
IOPS 100% read (8K blocks)	430,000	860,000	1,290,000	1,720,000
IOPS 70% read, 30% write (8K blocks)	220,000	440,000	660,000	880,000
Average Latency (ms)	0.5	0.5	0.5	0.5
Max. Bandwidth (GB/s)	6	12	18	24

Host Connectivity (Default/iSCSI only config ⁵)	1 Brick Cluster	2 Bricks Cluster	3 Bricks Cluster	4 Bricks Cluster
Fibre Channel Ports (16Gbps)	4	8	12	16
iSCSI Ethernet Ports (10Gbps)	4-8	8-16	12-24	16-32

Management	1 Brick Cluster	2 Bricks Cluster	3 Bricks Cluster	4 Bricks Cluster
Ethernet Ports (10Gbps)	2	2	2	2
Management IP Addresses Required	2+1 (XMS)	2+1 (XMS)	2+1 (XMS)	2+1 (XMS)
XMS Management Server	A single XMS (physical server or VM) manages multiple XtremIO arrays, requires IP address			

⁵ Cluster can be configured to have only iSCSI connections and no FC connections

2TB drives	X2-T	X2-R			
	X2-T Single Brick	1 Brick Cluster	2 Bricks Cluster	3 Bricks Cluster	4 Bricks Cluster
Raw Capacity	TB: 34.6 → 69.1 TiB: 31.4 → 62.9	TB: 34.6 → 138.2 TiB: 31.4 → 125.7	TB: 69.1 → 276.5 TiB: 62.9 → 251.5	TB: 103.7 → 414.7 TiB: 94.3 → 377.2	TB: 138.2 → 553.0 TiB: 125.7 → 502.9
Usable Capacity ⁶	TB: 27.9 → 61.5 TiB: 25.4 → 56.2	TB: 27.9 → 123.7 TiB: 25.4 → 112.5	TB: 55.8 → 247.4 TiB: 50.8 → 225	TB: 83.7 → 371.1 TiB: 76.2 → 337.5	TB: 111.6 → 494.8 TiB: 101.6 → 450
Effective Capacity ⁷ [TB]	369	738	1476	2214	2958
Power Consumption (steady state) [VA]	1400-1550	1400-1700	3000-3510	4420-5200	5850-6900
Cooling Requirements [BTU/Hr]	4,800-5,300	4,800-5,800	10,240-12,000	15,090-17,750	20,000-23,550
CPU	Haswell, dual socket (48 cores)	Haswell, dual socket (48 cores)	Haswell, dual socket (96 cores)	Haswell, dual socket (144 cores)	Haswell, dual socket (192 cores)
RAM	1.28TB or 2TB ⁸	2TB	4TB	6TB	8TB

4TB drives	X2-R			
	1 Brick Cluster	2 Bricks Cluster	3 Bricks Cluster	4 Bricks Cluster
Raw Capacity	TB:69.1 230 TiB:62.8 209.5	TB:138 460 TiB:125.8 419	TB:207.3 690 TiB:188.4 628.5	TB:276.4 920 TiB:251.2 838
Usable Capacity ⁶	TB:56.4 203.7 TiB:51.3 185.3	TB:112.8 407.4 TiB:102.6 370.6	TB:169.2 611.1 TiB:153.9 555.9	TB:225.6 841.8 TiB:205.2 741.2
Effective Capacity ⁷ [TB]	1220	2440	3661	4881
Power Consumption (steady state) [VA]	1400-1700	3000-3510	4420-5200	5850-6900
Cooling Requirements [BTU/Hr]	4,800-5,800	10,240-12,000	15,090-17,750	20,000-23,550
CPU	Haswell, dual socket (48 cores)	Haswell, dual socket (96 cores)	Haswell, dual socket (144 cores)	Haswell, dual socket (192 cores)
RAM	2TB	4TB	6TB	8TB

X2-S				
	1 Brick Cluster	2 Bricks Cluster	3 Bricks Cluster	4 Bricks Cluster
Raw Capacity	TB:7.2 28.8 TiB:6.55 26.2	TB:14.4 57.6 TiB:13.1 52.4	TB:21.6 86.4 TiB:19.7 78.6	TB:28.8 115.2 TiB:26.2 104.8
Usable Capacity ⁶	TB:5.4 24 TiB:4.9 22	TB:11 49 TiB:10 45	TB:16 74 TiB:15 67	TB:21 99 TiB:20 90
Effective Capacity ⁷ [TB]	132	271	406	543
Power Consumption (steady state) [VA]	1300-1580	2890-3410	4200-5000	5510-6550
Cooling Requirements [BTU/Hr]	4,440-5,400	9,870-11,640	14,340-17,070	18,810-22,360
CPU	Haswell, dual socket (48 cores)	Haswell, dual socket (96 cores)	Haswell, dual socket (144 cores)	Haswell, dual socket (192 cores)
RAM	768GB	1.54TB	2.30TB	3.07TB

In-Memory Space-Efficient Copies - Thousands of space-efficient, writeable copies are supported per cluster, allowing the effective utilization of the array to reach multiple Petabytes.

⁶ Usable capacity is the amount of unique, non-compressible data that can be written into the array.

⁷ Effective capacity includes the benefits of thin provisioning, inline global deduplication, inline compression, and space-efficient copies. Datasheet numbers are a representative example at 6:1 and will vary based on each customer's specific application environment and use of the XtremIO array.

⁸ Depends on ship date

X2 Brick Array Controller	
AC Input Voltage ⁹	90-264V, 47-63Hz single phase
Rack Space	1U
Dimensions (height x width x depth)	43.2mm x 438mm x 756mm (1.7" x 17.25" x 29.75")
Weight	16kg (35 lbs.)
Power Consumption (typical, @25C) [X2-S/X2-R]	450VA / 500VA
Power Socket Number/Type	2 x IEC C14
X2 Brick Disk Array Enclosure (DAE)	
AC Input Voltage ⁹	100-240V, 50-60Hz single phase
Rack Space	2U
Dimensions (height x width x depth)	88.9mm x 438mms x 927.1mm (3.5" x 17.25" x 36.5")
Weight	44kg (97 lbs.)
Power Consumption (typical, @25C ,18 to 72 SSDs)	270VA-550VA
Power Socket Number/Type	2 x IEC C14

X2-R InfiniBand Switch (Two Included with Multi X-Brick Systems)	
Ports	36
AC Input Voltage ⁹	100-240V, 50-60Hz
Rack Space	1U
Dimensions (height x width x depth)	43.7mm x 428mm x 686mm (1.72" x 16.84" x 27")
Weight	11.5kg (25 lbs.)
Power Consumption (typical, @25C)	106VA
Power Socket Number/Type	2 x IEC C14
X2-S InfiniBand Switch (Two Included with Multi X-Brick Systems)	
Ports	12
AC Input Voltage ⁹	100-240V, 50-60Hz
Rack Space	1U
Dimensions (height x width x depth)	43.7mm x 200mm x 399mm (1.72" x 7.9" x 15.7")
Weight	3.2kg (7.1 lbs.)
Power Consumption (typical, @25C)	100VA
Power Socket Number/Type	2 x IEC C14
Environmental	
Operating Temperature	5° to 40°C
Non-Operating Temperature	-20° to 50°C
Operating Relative Humidity	10% to 90% (non-condensing)
Non-Operating Relative Humidity	5% to 90% (non-condensing)
Regulatory and Compliance ¹⁰	ASHRAE A3 and See Note 10.
System AC Input Voltage ⁹ (single phase, 3-phase WYE, 3-phase Delta)	200-240V, 50-60Hz

⁹ Note that RPQ process is required in order to work under low line voltage input.

¹⁰ DELL EMC Information Technology Equipment is compliant with all currently applicable regulatory requirements for Electromagnetic Compatibility, Product Safety, and Environmental Regulations where placed on market. Detailed regulatory information and verification of compliance is available at the Dell Regulatory Compliance website.

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