


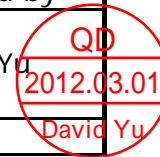




X2JC6000 2U12 Expander On Board

SSG JBOD Compatibility Test

Initiated by	Reviewed by	Reviewed by	Approved by
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Originate Date	Revision	Release Status	
2012/1/2	A0	Preliminary Formal Release	



Product Specification

Title	X2JC6000 Expander On Board
	X2JC6000 Expander On Board Entry-Level SAS/SATA 6G JBOD Series
Features	Enterprise JBOD
	High performance, redundancy & connectivity SAS interface supports
	High performance/availability SAS drives and high capacity/lower cost SATA drives in a single system, the flexibility to reduce total cost of ownership (true mix-and-match of drives in a single enclosure)
	Two 4-port connectors for host or expansion with automatic port speed detection and negotiation
	Scalable with expansion ports to couple with business growth
	Environment monitoring with SEP/SES support
	Power supply hot-swap drives and fans for high availability and easy maintenance
Specifications	
X2JC6000 Expander On Board Entry-Level SAS/SATA 6G JBOD Series	
GENERAL	
Host Interface	Single Mini SAS 4x connector
Expansion Interface	Single Mini SAS 4x connector
Expander Chip	LSISAS2x36
Transfer Speed	2,400MB/s per connector
DRIVES SUPPORTED	
Drive Interface	3.0/6.0 Gb dual ported SAS, 1.5/3.0/6.0 Gb single ported SATA
Drive RPM	Up to 15,000
Form Factor	3.5", 1" height
ADMINISTRATION / MANAGEMENT	
Admin/Firmware Upgrade	In-band & Out-of-band Serial port via Hyperterminal
LED Indicators, Audible Alarm	Yes
HOT-SWAP & REDUNDANCY	
Disk Drive	Hot-swap 12-bay
Cooling	2 x hot-swap fans
Power Supplies	500W 1+1 hot-swap redundant 80+ (Silver)
Power Entry	Dual AC Inlet

Cooling		
Universal A/C Input	100~240V AC full range	
Operating Environment	Temperature 0°C to 35°C Relative humidity 20% to 80%	
Non-operating Environment	Temperature -20°C to 60°C Relative humidity 10% to 90%	
PHYSICAL SPECIFICATION		
Gross Weight	w/ PSU; w/o Rail & Disks	23kgs / 50.6lbs
Packaging Dimension (W x D x H)	mm	600 x 730 x 288
Cubic Feet	6.5	
Reference Container Loading	20'	210
	40'	435
	40' H	520

Product image



1. Single Host



X2JC6000 Expander On Board

MotherBoard: AIC PSG-MB-DPSC01C Ver: D
 OS: Win2003 SP2
 CPU: Intel Xeon L5410 2.33GHz
 Memory: Kingston KVR667D2SSP5/512MB *4
 HDD: Seagate 320GB ST3320418AS

SAS HBA: LSI 9200-8e, FW: 10.00.02.00-IT, BIOS: 7.19.00.00,
 Driver: 2.0.42.0, MSM: 6.90-05

SAS HBA: LSI 3801E, FW: 01.32.00.00, BIOS: 06.34.00.00,
 Driver: 1.34.2.0, MSM: 2.92-02

SAS RAID CARD: Intel RS2PI008, FW: 2.130.03-1332, BIOS:
 3.22.00,

Driver: 4.17.2.32, MSM: 11.06.00.0300

SAS RAID CARD: ATTO R680, FW2.55, Driver: 2.11.2.0,
 Configurational Tool: 4.01

SAS RAID CARD: Adaptec 5085, FW: 5.2-0,
 BIOS: V5.2-0, Driver: 5.2.0,
 MSM: V7.00.00

SAS RAID CARD: Intel RS2MB044, FW: 2.70.13-0889, BIOS: 3.13.00,
 Driver: 5.1.112.32, MSM: 2.90

SAS RAID CARD: LSI 8888ELP, FW: 1.40.282-1279, BIOS: 2.07.00,
 Driver: 5.1.112.32, MSM: 11.06.00.0300



Summary

Item	Descriptions	Result
HBA Card compatibility test	LSI 9200-8e SAS HBA	PASS
	LSI 3801E SAS HBA	PASS
RAID Card compatibility test	Intel RS2PI008 SAS RAID CARD	PASS
	ATTO R680 SAS RAID CARD	PASS
	Adaptec ASR-5085 SAS RAID CARD	PASS
	Intel RS2MB044 SAS RAID CARD	PASS
	LSI 8888ELP SAS RAID CARD	PASS

** Notes: Test items and test contents depend on spec.



RAID Card compatibility test

Test Engineer	Stockton Lin
Model name	X2JC6000 Expander On Board
MFG	mfgImageEval.bin
Firmware	sas2xfw.fw
Enclosure Management	V1.09
Backplane	B40-2AMCTMXX00A000
HDD Type for 6G RAID Card	6G SAS HDDs: HITACHI HUS156060VLS600 600GB *6 Seagate ST3600057SS 600GB*6
HDD Type for 3G RAID Card	3G SAS HDDs: HITACHI HUS156060VLS600 600GB *6 Seagate ST3600057SS 600GB*6
Power Housing	ZIPPY MRW-5500V4V AC INPUT: 100-240V 47-63Hz 8-4A, DC OUTPUT: 500W
Power Module	ZIPPY MRW-3500V-R AC INPUT: 100-240V 47-63Hz 8-4A, DC OUTPUT: 500W
Other	

Test Configuration			
Item		Result	Note/Issue ID
RAID Function Test	Method		
Intel RS2PI008 RAID Function	Create/Remove a RAID 0 volume	PASS	
	Create/Rebuild/Remove a RAID 1 volume	PASS	
	Create/Rebuild/Remove a RAID 5 volume	PASS	
	Create/Rebuild/Remove a RAID 6 volume	PASS	
	Create/Rebuild/Remove a RAID 50 volume	PASS	
	Remove a crashed RAID 0 volume	PASS	
	Remove a crashed RAID 1 volume	PASS	
	Remove a crashed RAID 5 volume	PASS	
	Remove a crashed RAID 6 volume	PASS	
	Remove a crashed RAID 50 volume	PASS	
ATTO R680 RAID Function	Create/Remove a RAID 0 volume	PASS	
	Create/Rebuild/Remove a RAID 1 volume	PASS	
	Create/Rebuild/Remove a RAID 5 volume	PASS	
	Create/Rebuild/Remove a RAID 6 volume	PASS	
	Create/Rebuild/Remove a RAID 10 volume	PASS	
	Create/Rebuild/Remove a JBOD volume	PASS	
	Remove a crashed RAID 0 volume	PASS	
	Remove a crashed RAID 1 volume	PASS	
	Remove a crashed RAID 5 volume	PASS	
	Remove a crashed RAID 6 volume	PASS	
	Remove a crashed RAID 10 volume	PASS	

Adaptec ASR-5085 RAID Function	Create/Remove a RAID 0 volume	PASS	
	Create/Rebuild/Remove a RAID 1 volume	PASS	
	Create/Rebuild/Remove a RAID 5 volume	PASS	
	Create/Rebuild/Remove a RAID 6 volume	PASS	
	Create/Rebuild/Remove a RAID 50 volume	PASS	
	Remove a crashed RAID 0 volume	PASS	
	Remove a crashed RAID 1 volume	PASS	
	Remove a crashed RAID 5 volume	PASS	
	Remove a crashed RAID 6 volume	PASS	
	Remove a crashed RAID 50 volume	PASS	
Intel RS2MB044 RAID Function	Create/Remove a RAID 0 volume	PASS	
	Create/Rebuild/Remove a RAID 1 volume	PASS	
	Create/Rebuild/Remove a RAID 5 volume	PASS	
	Create/Rebuild/Remove a RAID 6 volume	PASS	
	Create/Rebuild/Remove a RAID 50 volume	PASS	
	Remove a crashed RAID 0 volume	PASS	
	Remove a crashed RAID 1 volume	PASS	
	Remove a crashed RAID 5 volume	PASS	
	Remove a crashed RAID 6 volume	PASS	
	Remove a crashed RAID 50 volume	PASS	
LSI MR SAS 8888ELP RAID Function	Create/Remove a RAID 0 volume	PASS	
	Create/Rebuild/Remove a RAID 1 volume	PASS	
	Create/Rebuild/Remove a RAID 5 volume	PASS	
	Create/Rebuild/Remove a RAID 6 volume	PASS	
	Create/Rebuild/Remove a RAID 50 volume	PASS	
	Remove a crashed RAID 0 volume	PASS	
	Remove a crashed RAID 1 volume	PASS	
	Remove a crashed RAID 5 volume	PASS	
	Remove a crashed RAID 6 volume	PASS	
	Remove a crashed RAID 50 volume	PASS	



HBA Card compatibility test

Test Engineer	Stockton Lin
Model name	X2JC6000 Expander On Board
MFG	mfgImageEval.bin
Firmware	sas2xfw.fw
Enclosure Management	V1.09
Backplane	B40-2AMCTMXX00A000
HDD Type for 6G HBA Card	6G SAS HDDs: HITACHI HUS156060VLS600 600GB *6 Seagate ST3600057SS 600GB*6
HDD Type for 3G HBA Card	3G SAS HDDs: HITACHI HUS156060VLS600 600GB *6 Seagate ST3600057SS 600GB*6
Power Housing	ZIPPY MRW-5500V4V AC INPUT: 100-240V 47-63Hz 8-4A, DC OUTPUT: 500W
Power Module	ZIPPY MRW-3500V-R AC INPUT: 100-240V 47-63Hz 8-4A, DC OUTPUT: 500W
Other	

Test Configuration			
Item		Result	Note/Issue ID
HBA Function			
LSI 9200-8e SAS HBA Card	While using LSI 9200-8e SAS HBA to connect with X2JC6000 SAS JBOD. Then check if all hard drives can be detect by LSI BIOS utility.	PASS	
	While using LSI 9200-8e SAS HBA to connect with X2JC6000 SAS JBOD. Then check if all hard drives can be detect by LSI MSM.	PASS	
	While using LSI 9200-8e SAS HBA to connect with X2JC6000 SAS JBOD. Then check if all hard drives can be detect by OS Disk management.	PASS	
LSI 3801E SAS HBA Card	While using LSI 3801E SAS HBA to connect with X2JC6000 SAS JBOD. Then check if all hard drives can be detect by LSI BIOS utility.	PASS	
	While using LSI 3801E SAS HBA to connect with X2JC6000 SAS JBOD. Then check if all hard drives can be detect by LSI MSM.	PASS	
	While using LSI 3801E SAS HBA to connect with X2JC6000 SAS JBOD. Then check if all hard drives can be detect by OS Disk management.	PASS	