

Quadrics Compliance & Performance test record

Test

Location	Quadrics, Bristol, UK	Date	12 th January 2005
Tested by	Daniel Blueman		

System under test

Vendor	Dell	System	SC1425
Processor	2.8Ghz Dual Xeon EM64T	Chipset	Intel 82801CA/DB/EB r c2
BIOS	A00	OS	SuSE Linux 9.1 (x86-64) linux-2.6.7-4.29qsnetrc2
Configuration as tested: 8GB DDR2-400 memory			

Quadrics equipment

Product	QsNetII QM500B	Part No.	3X-CM500-BA rev A01
Device driver	4.29rc2qsnet	Toolchain	gcc-3.2.2, binutils-2.12.90.0.15
qsnet2libs	1.8.10-0	qsnetmpi	1.24-41

Basic compliance

Mechanical fit	No issues
BAR settings	All PCI-X BAR regions setup correctly
MTRR settings	MTRRs setup incorrectly – both marked as uncachable
PCI-X bridge/tunnel settings	All parameters look correct
Device driver	No compatibility issues observed, except MTRR problem

Base PCI-X performance

Max DMA read b/w	905.16 MB/s
Max DMA write b/w	889.55 MB/s
Max PIO write b/w	191.82 MB/s
128 byte PIO write b/w	152.82 MB/s
round-trip base latency	0.99 us

Application performance

Test setup	128 way QsNetII switch to 8x SC1425 nodes, each with 10m cable into 1x QM511-C
MPI half round trip latency	2.30 us
Put half round trip latency	1.30 us
MPI peak unidirectional BW	874.86 MB/s @ 1 MB
Peak bi-directional BW	846.85 MB/s @ 1 MB

Reliability/Soak testing

Description	(not performed)
Data transferred	
Errors logged	

Comments

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