

Quadrics Compliance & Performance Test Record

Sun V40z

Test

Location	Quadrics Bristol	Date	19 th Sept 2005
Tested by	Duncan Roweth		

System under test

Vendor	Sun	System	Sun V40z
Processor	4x AMD Opteron 850 (2.4GHz)	Chipset	AMD-8132 (rev none)
BIOS		OS	2.6.9-5.EL.qp2.2smp
Configuration as tested: 4CPU per node, 16GB memory			

Quadrics equipment

Product	QM500-B	Part No.	3X-CM500-BA rev A01
Device driver	5.9.12qsnet	Toolchain	gcc-3.4.3-9.EL4, binutils-2.15.92.0.2-10.EL4
qsnet2libs	qsnet2libs-2.2.0-12	qsnetmpi	qsnetmpi-1.24-45.intel81

Basic compliance

Mechanical fit	No issues
BAR settings	Good
MTRR settings	No MTRR, PAT enabled by device driver
PCI-X bridge/tunnel settings	12 Max Outstanding Split Transactions
Device driver	patched

Base PCI-X performance

Max DMA read b/w	865.82 MB/s
Max DMA write b/w	933.15 MB/s
Max PIO write b/w	474.98 MB/s
128 byte PIO write b/w	478.85 MB/s
round-trip base latency	1.04 us

Application performance

Test setup	QM-32A connected with 3m cables on 1 elite
MPI half round trip latency	1.66 us
Put half round trip latency	1.15 us
MPI peak unidirectional BW	865.33 MB/s @ 8 MB
Peak bi-directional BW	836.89 MB/s @ 256 KB

Comments

System tested at BioInformatics Institute, Singapore. 32-way QsNetII system. 16 Sun v40z nodes. Thanks to Dr Gunaretnam Rajagopal for access. Sun V40z servers are able to support 2 Elans.

Reliability/Soak testing

Description	Not run, system stable, in production use
Data transferred	
Errors logged	None