



# SPEC® ACCEL\_ACC Result

Copyright 2014-2015 Standard Performance Evaluation Corporation

## Bull

(Test Sponsor: RWTH Aachen University)

# NVIDIA Quadro 6000

## bullx R425-E2

SPECaccel\_acc\_peak = Not Run

SPECaccel\_acc\_base = 1.05

ACCEL license: 055A  
Test sponsor: RWTH Aachen University  
Tested by: RWTH Aachen University

Test date: Mar-2014  
Hardware Availability: Mar-2011  
Software Availability: Feb-2014



### Hardware

CPU Name: Intel Xeon X5650  
 CPU Characteristics:  
 CPU MHz: 2667  
 CPU MHz Maximum: 2667  
 FPU: Integrated  
 CPU(s) enabled: 12 cores, 2 chips, 6 cores/chip, 2 threads/core  
 CPU(s) orderable: 1,2 chips  
 Primary Cache: 32 KB I + 32 KB D on chip per core  
 Secondary Cache: 256 KB I+D on chip per core  
 L3 Cache: 12 MB I+D on chip per chip  
 Other Cache: None

Continued on next page

### Accelerator

Accel Model Name: Quadro 6000  
 Accel Vendor: NVIDIA  
 Accel Name: NVIDIA Quadro 6000  
 Type of Accel: GPU  
 Accel Connection: PCIe 2.0 16x  
 Does Accel Use ECC: Yes  
 Accel Description: NVIDIA Quadro 6000, 448 CUDA cores, 1150 MHz, 6 GB GDDR5 RAM (Fermi Generation)  
 Accel Driver: NVIDIA UNIX x86\_64 Kernel Module 331.49



# SPEC ACCEL\_ACC Result

Copyright 2014-2015 Standard Performance Evaluation Corporation

## Bull

(Test Sponsor: RWTH Aachen University)

# NVIDIA Quadro 6000

# bullx R425-E2

SPECaccel\_acc\_peak = Not Run

SPECaccel\_acc\_base = 1.05

**ACCEL license:** 055A  
**Test sponsor:** RWTH Aachen University  
**Tested by:** RWTH Aachen University

**Test date:** Mar-2014  
**Hardware Availability:** Mar-2011  
**Software Availability:** Feb-2014

**Memory:** 24 GB (6 x 4 GB 2Rx4 PC3-10600R-9, ECC)  
**Disk Subsystem:** 80 TB Netapp 6280 RAID 6 mixed 2 TB SATA disks  
**Other Hardware:** None

### Software

**Operating System:** Scientific Linux release 6.5 (Carbon)  
2.6.32-431.5.1.el6.x86\_64  
**Compiler:** PGI Accelerator Server Complete, Release 14.2  
**File System:** NFSv3 over Gb ethernet  
**System State:** Run level 5 (GPU driver loaded, no X11-Desktop running)  
**Other Software:** NVIDIA CUDA 5.5, driver 331.49



# SPEC ACCEL\_ACC Result

Copyright 2014-2015 Standard Performance Evaluation Corporation

## Bull

(Test Sponsor: RWTH Aachen University)

# NVIDIA Quadro 6000

## bullx R425-E2

SPECaccel\_acc\_peak = Not Run

SPECaccel\_acc\_base = 1.05

ACCEL license: 055A  
Test sponsor: RWTH Aachen University  
Tested by: RWTH Aachen University

Test date: Mar-2014  
Hardware Availability: Mar-2011  
Software Availability: Feb-2014

## Results Table

Benchmark	Base						Peak					
	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio
303.ostencil	143	1.01	143	1.01	<b>143</b>	<b>1.01</b>						
304.olbm	<b>404</b>	<b>1.13</b>	404	1.12	404	1.13						
314.omriq	<b>964</b>	<b>0.992</b>	966	0.990	963	0.992						
350.md	227	1.11	227	1.11	<b>227</b>	<b>1.11</b>						
351.palm	360	1.03	360	1.03	<b>360</b>	<b>1.03</b>						
352.ep	<b>528</b>	<b>1.00</b>	528	1.00	528	1.00						
353.clvrlf	<b>420</b>	<b>1.06</b>	420	1.06	420	1.06						
354.cg	<b>399</b>	<b>1.02</b>	399	1.02	399	1.02						
355.seismic	324	1.14	<b>324</b>	<b>1.14</b>	323	1.14						
356.sp	<b>263</b>	<b>1.05</b>	262	1.05	263	1.05						
357.csp	271	0.996	271	0.995	<b>271</b>	<b>0.995</b>						
359.miniGhost	<b>344</b>	<b>1.07</b>	345	1.07	344	1.07						
360.ilbdc	359	1.02	359	1.02	<b>359</b>	<b>1.02</b>						
363.swim	204	1.12	<b>202</b>	<b>1.14</b>	202	1.14						
370.bt	<b>215</b>	<b>1.04</b>	215	1.04	215	1.04						

Results appear in the order in which they were run. Bold underlined text indicates a median measurement.

## Platform Notes

```
sysinfo program /work/fr356676/ACCEL_39b/Docs/sysinfo
$Rev: 6874 $ $Date:: 2013-11-20 #$ 0953404ef7e75a5f9bbb534c6de3f831
running on linuxgpud4.rz.RWTH-Aachen.DE Wed Mar 5 16:06:32 2014
```

This section contains SUT (System Under Test) info as seen by some common utilities. To remove or add to this section, see: <http://www.spec.org/accel/Docs/config.html#sysinfo>

```
From /proc/cpuinfo
model name : Intel(R) Xeon(R) CPU X5650 @ 2.67GHz
 2 "physical id"s (chips)
24 "processors"
cores, siblings (Caution: counting these is hw and system dependent. The
following excerpts from /proc/cpuinfo might not be reliable. Use with
caution.)
cpu cores : 6
siblings : 12
physical 0: cores 0 1 2 8 9 10
physical 1: cores 0 1 2 8 9 10
cache size : 12288 KB
```

Continued on next page



# SPEC ACCEL\_ACC Result

Copyright 2014-2015 Standard Performance Evaluation Corporation

## Bull

(Test Sponsor: RWTH Aachen University)

# NVIDIA Quadro 6000

# bullx R425-E2

SPECaccel\_acc\_peak = Not Run

SPECaccel\_acc\_base = 1.05

ACCEL license: 055A  
Test sponsor: RWTH Aachen University  
Tested by: RWTH Aachen University

Test date: Mar-2014  
Hardware Availability: Mar-2011  
Software Availability: Feb-2014

## Platform Notes (Continued)

```

From /proc/meminfo
MemTotal:          24596548 kB
HugePages_Total:   0
Hugepagesize:      2048 kB

/usr/bin/lsb_release -d
    Scientific Linux release 6.5 (Carbon)

From /etc/*release* /etc/*version*
redhat-release:    Scientific Linux release 6.5 (Carbon)
system-release:   Scientific Linux release 6.5 (Carbon)
system-release-cpe: cpe:/o:redhat:enterprise_linux:6.5:ga

uname -a:
Linux linuxgpud4.rz.RWTH-Aachen.DE 2.6.32-431.5.1.el6.x86_64 #1 SMP Tue Feb
11 13:30:01 CST 2014 x86_64 x86_64 x86_64 GNU/Linux

run-level 3 Feb 20 11:30

SPEC is set to: /work/fr356676/ACCEL_39b
Filesystem                Type      Size  Used Avail Use% Mounted on
na6280-5.rz.RWTH-Aachen.DE:/vol/work3 nfs       500G  408G   93G  82% /rwthfs/rz/na6280-5/work3

Cannot run dmidecode; consider saying 'chmod +s /usr/sbin/dmidecode'

(End of data from sysinfo program)

```

## Base Compiler Invocation

C benchmarks:  
pgcc

Fortran benchmarks:  
pgfortran

Benchmarks using both Fortran and C:  
pgcc pgfortran

## Base Optimization Flags

C benchmarks:  
-fast -Mfprelaxed -acc -ta=tesla:cc20 -ta=tesla:cuda5.5

Continued on next page



# SPEC ACCEL\_ACC Result

Copyright 2014-2015 Standard Performance Evaluation Corporation

## Bull

(Test Sponsor: RWTH Aachen University)

# NVIDIA Quadro 6000

## bullx R425-E2

SPECaccel\_acc\_peak = Not Run

SPECaccel\_acc\_base = 1.05

ACCEL license: 055A  
Test sponsor: RWTH Aachen University  
Tested by: RWTH Aachen University

Test date: Mar-2014  
Hardware Availability: Mar-2011  
Software Availability: Feb-2014

## Base Optimization Flags (Continued)

Fortran benchmarks:

-fast -Mfprelaxed -acc -ta=tesla:cc20 -ta=tesla:cuda5.5

Benchmarks using both Fortran and C:

353.civrleaf: -fast -Mfprelaxed -acc -ta=tesla:cc20 -ta=tesla:cuda5.5

359.miniGhost: -fast -Mfprelaxed -acc -ta=tesla:cc20 -ta=tesla:cuda5.5  
-Mnomain

The flags file that was used to format this result can be browsed at

[http://www.spec.org/accel/flags/pgi2014\\_flags.20150303.html](http://www.spec.org/accel/flags/pgi2014_flags.20150303.html)

You can also download the XML flags source by saving the following link:

[http://www.spec.org/accel/flags/pgi2014\\_flags.20150303.xml](http://www.spec.org/accel/flags/pgi2014_flags.20150303.xml)

SPEC is a registered trademark of the Standard Performance Evaluation Corporation. All other brand and product names appearing in this result are trademarks or registered trademarks of their respective holders.

For questions about this result, please contact the tester.  
For other inquiries, please contact [webmaster@spec.org](mailto:webmaster@spec.org).

Tested with SPEC ACCEL v39.  
Report generated on Tue Mar 3 14:21:31 2015 by SPEC ACCEL PS/PDF formatter v1212.  
Originally published on 17 March 2014.