**SPEC ACCEL™ OCL Result**

### Bull

(Test Sponsor: Technische Universitaet Dresden)

**NVIDIA Tesla K80**

**Bull R400**

| Test Sponsor: Technische Universitaet Dresden | Test Date: Sep-2015 |
| Tested by: Technische Universitaet Dresden | Hardware Availability: Jan-2015 |
| ACCEL license: 37A | Software Availability: Mar-2015 |

### SPECaccel_ocl_result

- **SPECaccel_ocl_peak** = Not Run
- **SPECaccel_ocl_base** = 2.41

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### Benchmark Scores

<table>
<thead>
<tr>
<th>Benchmark</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>101.tpacf</td>
<td>2.91</td>
</tr>
<tr>
<td>103.stencil</td>
<td>2.16</td>
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SPEC ACCEL OCL Result

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**Hardware**

- **CPU Name:** Intel Xeon E5-2680 v3
- **CPU Characteristics:** Intel Turbo Boost Technology up tp 3.30 GHz
- **CPU MHz:** 2500
- **CPU MHz Maximum:** 3300
- **FPU:** Integrated
- **CPU(s) enabled:** 24 cores, 2 chips, 12 cores/chip
- **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:** 30 MB I+D on chip per chip
- **Other Cache:** None
- **Memory:** 64 GB (8 x 8 GB 2Rx8 PC4-2133R-10)
- **Disk Subsystem:** 62 GB SSD
- **Other Hardware:** --

**Accelerator**

- **Accel Model Name:** Tesla K80
- **Accel Vendor:** NVIDIA
- **Accel Name:** NVIDIA Tesla K80
- **Type of Accel:** GPU
- **Accel Connection:** PCIe 2.0 16x
- **Does Accel Use ECC:** yes
- **Accel Description:** NVIDIA Tesla K80, 2496 CUDA cores, 875 MHz 12 GB GDDR5 RAM (Kepler Generation)
- **Accel Driver:** NVIDIA UNIX x86_64 Kernel Module 346.46

**Software**

- **Operating System:** Red Hat Enterprise Linux Server release 6.4 (Santiago)
- **Compiler:** GNU Compiler C/C++ Version 5.2.0
- **File System:** ext4
- **System State:** Run level 3 (add definition here)
- **Other Software:** NVIDIA Cuda SDK 7.0, driver version 346.46
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NVIDIA Tesla K80

Bull R400

ACCEL license: 37A
Test sponsor: Technische Universitaet Dresden
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Results Table

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<td></td>
</tr>
</tbody>
</table>

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

Platform Notes

MultiThreading disabled in BIOS
Sysinfo program /tmp/spec-accel/1.1/Docs/sysinfo
$Rev: 6965 $ $Date:: 2015-04-21 #$ c05a7f14b1b1765e3fe1df68447e8a35
running on taurusi2073 Mon Sep 21 13:17:28 2015

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 E5-2680 v3 @ 2.50GHz
  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 Continued on next page
Bull
(Test Sponsor: Technische Universitaet Dresden)

NVIDIA Tesla K80
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Platform Notes (Continued)

caution.)
   cpu cores : 12
   siblings : 12
   physical 0: cores 0 1 2 3 4 5 8 9 10 11 12 13
   physical 1: cores 0 1 2 3 4 5 8 9 10 11 12 13
   cache size : 30720 KB

From /proc/meminfo
   MemTotal: 65868116 kB
   HugePages_Total: 0
   Hugepagesize: 2048 kB

/usr/bin/lsb_release -d
   Red Hat Enterprise Linux Server release 6.4 (Santiago)

From /etc/*release* /etc/*version*
   redhat-release: Red Hat Enterprise Linux Server release 6.4 (Santiago)
   system-release: Red Hat Enterprise Linux Server release 6.4 (Santiago)

uname -a:
   Linux taurusi2073 2.6.32-504.12.2.el6.x86_64 #1 SMP Sun Feb 1 12:14:02 EST 2015 x86_64 x86_64 x86_64 GNU/Linux

run-level 3 Jul 8 14:37

SPEC is set to: /tmp/spec-accel/1.1
   Filesystem Type Size Used Avail Use% Mounted on
   /dev/sda3 ext4 62G 4.2G 55G 8% /tmp

Cannot run dmidecode; consider saying 'chmod +s /usr/sbin/dmidecode'
(End of data from sysinfo program)

Base Runtime Environment

C benchmarks:
   OpenCL Platform: NVIDIA CUDA, OpenCL 1.1 CUDA 7.0.28
   OpenCL Device #0: Tesla K80, v 346.46

C++ benchmarks:
   OpenCL Platform: NVIDIA CUDA, OpenCL 1.1 CUDA 7.0.28
   OpenCL Device #0: Tesla K80, v 346.46
### SPEC ACCEL OCL Result

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#### Base Compiler Invocation

- **C benchmarks:**
  - gcc

- **C++ benchmarks:**
  - g++

---

#### Base Optimization Flags

- **C benchmarks:**
  - `-O2` `-march=core-avx2` `-I/sw/taurus/libraries/cuda/7.0.28/include`
  - `-L/sw/taurus/libraries/cuda/7.0.28/lib64` `-lOpenCL`

- **C++ benchmarks:**
  - `-O2` `-march=core-avx2` `-I/sw/taurus/libraries/cuda/7.0.28/include`
  - `-L/sw/taurus/libraries/cuda/7.0.28/lib64` `-lOpenCL`

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

http://www.spec.org/accel/flags/flags-advanced.20150930.html

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

http://www.spec.org/accel/flags/flags-advanced.20150930.xml

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For questions about this result, please contact the tester.
For other inquiries, please contact webmaster@spec.org.

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