GIGABYTE MD70-HB0 Motherboard

FirePro s9150

SPECaccel_acc_base = 3.60

**Hardware**

- **CPU Name:** Intel Xeon E5-2637 v3
- **CPU Characteristics:** Intel Turbo Boost Technology up to 3.70 GHz
- **CPU MHz:** 3500
- **CPU MHz Maximum:** 3700
- **FPU:** Integrated
- **CPU(s) enabled:** 8 cores, 2 chips, 4 cores/chip, 2 threads/core
- **CPU(s) orderable:** 1,2 chip
- **Primary Cache:** 32 KB I + 32 KB D on chip per core
- **Secondary Cache:** 256 KB I+D on chip per core
- **L3 Cache:** 15 MB I+D on chip per chip
- **Other Cache:** None

**Accelerator**

- **Accel Model Name:** AMD FirePro s9150
- **Accel Vendor:** AMD
- **Accel Name:** FirePro s9150
- **Type of Accel:** GPU
- **Accel Connection:** PCIe 3.0 16x
- **Does Accel Use ECC:** No
- **Accel Description:** GPU set to high performance of sclk: 86100 mclk: 125000. See notes below.
- **Accel Driver:** AMD ATI Radeon Linux x86_64 Kernel Module 3.19.0+
FirePro s9150
GIGABYTE MD70-HB0 Motherboard

ACCEL license: 3842
Test sponsor: Cirrascale Corporation
Tested by: PathScale Inc.

Hardware (Continued)
Memory: 32 GB (4 x 8 GB 1Rx4 PC4-2133R-15, running at 2133 MHz)
Disk Subsystem: Western Digital Model: WD7500BPKT-00PK4T0 750Gb SATA 7200 rpm
Other Hardware: None

Software
Operating System: CentOS release 6.6 (Final)
Compiler: PathScale ENZO 2015 v6.0
File System: ext4
System State: Run level 3 (add definition here)
Other Software: None

Results Table

<table>
<thead>
<tr>
<th>Benchmark</th>
<th>Base Seconds</th>
<th>Ratio</th>
<th>Base Seconds</th>
<th>Ratio</th>
<th>Base Seconds</th>
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<th>Peak Seconds</th>
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</table>

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

Platform Notes
Sysinfo program /home/pathscale/ACCEL/Docs/sysinfo
$Rev: 6874 $ $Date:: 2013-11-20 $@ 0953404ef7e75a5f9bb534c6de3f831 running on Cirrascale Tue May 12 20:05:30 2015

This section contains SUT (System Under Test) info as seen by
Platform Notes (Continued)

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 E5-2637 v3 @ 3.50GHz
  2 "physical id"s (chips)
  16 "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 : 4
siblings : 8
physical 0: cores 0 1 4 5
physical 1: cores 0 1 4 5
cache size : 15360 KB

From /proc/meminfo
MemTotal:       32945984 kB
HugePages_Total:       0
Hugepagesize:       2048 kB
/usr/bin/lsb_release -d
CentOS release 6.6 (Final)

From /etc/*release* /etc/*version*
centos-release: CentOS release 6.6 (Final)
redhat-release: CentOS release 6.6 (Final)
system-release: CentOS release 6.6 (Final)

uname -a:
Linux Cirrascale 4.0.0-rc6PathScale+ #8 SMP Fri Apr 3 11:56:23 PDT 2015
x86_64 x86_64 x86_64 GNU/Linux

run-level 3 May 11 19:01

SPEC is set to: /home/pathscale/ACCEL
Filesystem     Type  Size  Used Avail Use% Mounted on
/dev/sda1      ext4  96G  82G  9.2G  90% /

Additional information from dmidecode:

Warning: Use caution when you interpret this section. The 'dmidecode' program
reads system data which is "intended to allow hardware to be accurately
determined", but the intent may not be met, as there are frequent changes to
hardware, firmware, and the "DMTF SMBIOS" standard.

BIOS GIGABYTE F15 11/28/2014
Memory:
4x Kinston 9995589-001.A00G 8 GB 1 rank 2133 MHz
Continued on next page
SPEC ACCEL ACC Result

GIGABYTE
(Test Sponsor: Cirrascale Corporation)

FirePro s9150
GIGABYTE MD70-HB0 Motherboard

SPECaccel_acc_peak = Not Run
SPECaccel_acc_base = 3.60

ACCEL license: 3842
Test sponsor: Cirrascale Corporation
Tested by: PathScale Inc.
Test date: May-2015
Hardware Availability: Sep-2014
Software Availability: Mar-2015

Platform Notes (Continued)

12x NO DIMM NO DIMM
(End of data from sysinfo program)

General Notes

ECC disabled by default
GPU Boost mode enabled by setting the device to the following below
high performance mode: "echo high > /sys/class/drm/card0/device/power_dpm_force_performance_level"
The details for high performance mode: cat /sys/kernel/debug/dri/64/radeon_pm_info
uvd disabled
vce disabled
power level avg sclk: 86100 mclk: 125000
The Intel documentation says the CPU can boost to 3700 Mhz, but dmidecode reports Max Speed: 3600 MHz
Kit built system using no case and just mounted on a test bench

Base Compiler Invocation

C benchmarks:
 pathcc

Fortran benchmarks:
 pathf90

Benchmarks using both Fortran and C:
 pathcc pathf90

Base Portability Flags

314.omriq: -std=gnu89

Base Optimization Flags

C benchmarks:
-03 -acc -device=hawaii

Fortran benchmarks:
-03 -acc -device=hawaii

Benchmarks using both Fortran and C:
-03 -acc -device=hawaii
GIGABYTE
(Test Sponsor: Cirrascale Corporation)

FirePro s9150

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

You can also download the XML flags source by saving the following link:
http://www.spec.org/accel/flags/pathscale2015_flags.20150318.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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