

SPEC ACCEL™ ACC Result

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AMD

(Test Sponsor: NVIDIA Corporation)

AMD EPYC 7352

Engineering Sample

SPECaccel_acc_peak = Not Run

SPECaccel_acc_base = 3.77

ACCEL license: 019

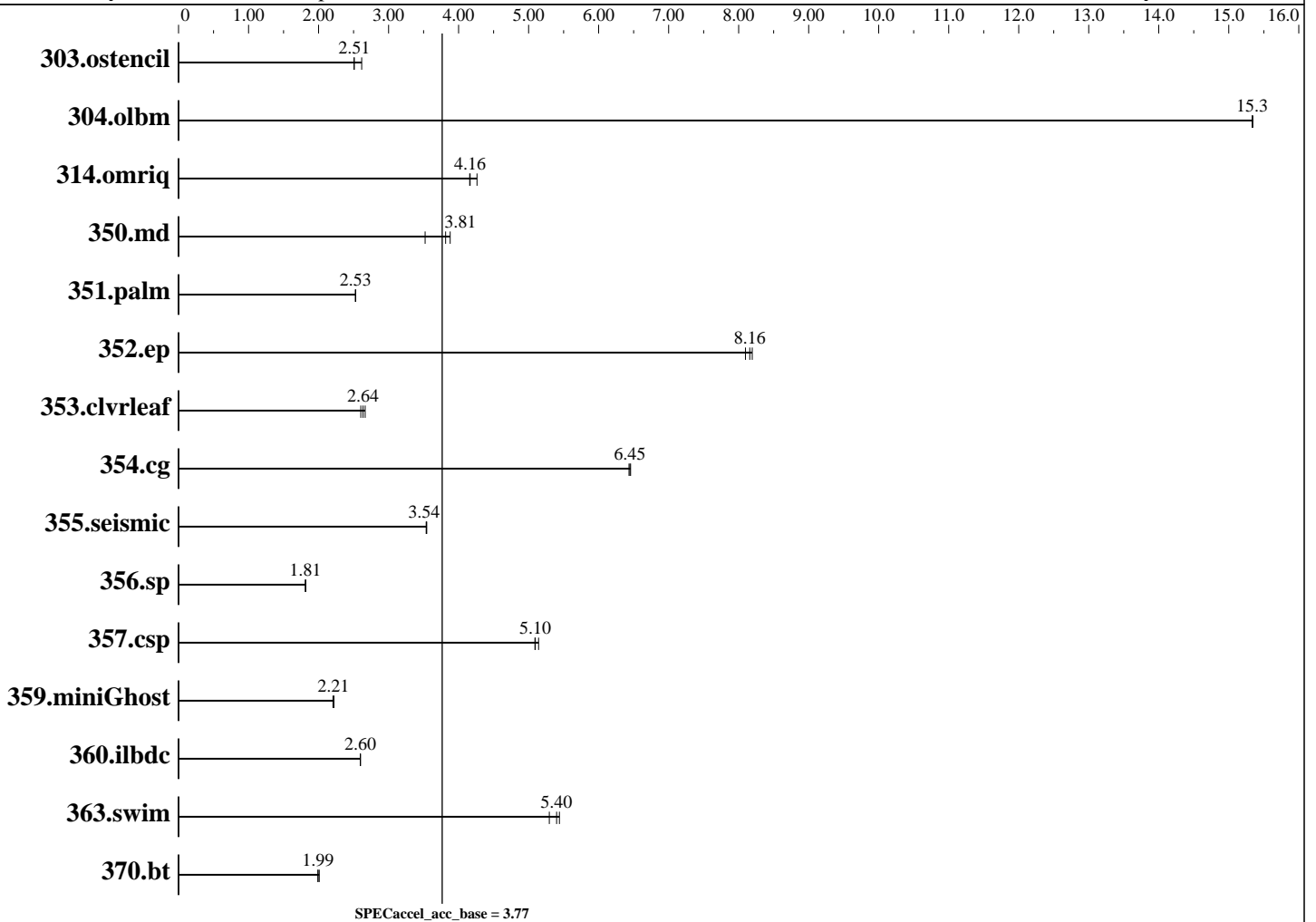
Test sponsor: NVIDIA Corporation

Tested by: NVIDIA Corporation

Test date: Nov-2019

Hardware Availability: Jul-2019

Software Availability: Nov-2019



Hardware

CPU Name: AMD EPYC 7352 24-Core
CPU Characteristics:
CPU MHz: 2300
CPU MHz Maximum: 3200
FPU: --
CPU(s) enabled: 48 cores, 2 chips, 24 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: 512 KB I+D on chip per core
L3 Cache: 128 MB I+D on chip per chip
Other Cache: None

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Accelerator

Accel Model Name: EPYC 7352
Accel Vendor: AMD
Accel Name: AMD EPYC 7352
Type of Accel: CPU
Accel Connection: Not applicable
Does Accel Use ECC: Yes
Accel Description: --
Accel Driver: --

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Hardware (Continued)

Memory: 256 GB
251.769 GB fixme: If using DDR3, format is:
'N GB (M x N GB nRxn PCn-nnnnnR-n, ECC)'
Disk Subsystem: 219 GB add more disk info here
Other Hardware: None

Software

Operating System: Ubuntu 18.04.3 LTS
Ubuntu 18.04.3 LTS
5.2.0-8-generic
Compiler: C/C++/Fortran : Version 19.10 of PGI Professional
Edition
File System: ext4
System State: Run level 5 (add definition here)
Other Software: None

Results Table

Benchmark	Base						Peak					
	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio
303.ostencil	55.4	2.62	57.8	2.51	57.8	2.51						
304.olbm	29.7	15.3	29.7	15.3	29.7	15.3						
314.omriq	224	4.26	230	4.16	230	4.16						
350.md	65.0	3.88	66.1	3.81	71.6	3.52						
351.palm	146	2.53	146	2.53	146	2.53						
352.ep	65.5	8.10	65.0	8.16	64.7	8.19						
353.clrleaf	171	2.60	169	2.64	167	2.67						
354.cg	63.3	6.45	63.4	6.43	63.2	6.46						
355.seismic	105	3.54	104	3.54	104	3.54						
356.sp	152	1.81	152	1.81	152	1.82						
357.csp	53.0	5.10	52.5	5.14	53.0	5.09						
359.miniGhost	167	2.21	166	2.22	167	2.21						
360.ilbdc	141	2.60	141	2.60	141	2.60						
363.swim	42.6	5.40	43.4	5.30	42.3	5.44						
370.bt	112	1.99	111	2.01	112	1.99						

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

Submit Notes

The config file option 'submit' was used.

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Platform Notes

Sysinfo program /local/home/cparrott/SPEC/ACCEL-1.3/Docs/sysinfo
\$Rev: 6965 \$ \$Date:: 2015-04-21 #\$ c05a7f14b1b1765e3feldf68447e8a35
running on romel Wed Nov 13 23:21:32 2019

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 : AMD EPYC 7352 24-Core Processor
 2 "physical id"s (chips)
 96 "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 : 24
  siblings  : 48
  physical 0: cores 0 1 2 4 5 6 8 9 10 12 13 14 16 17 18 20 21 22 24 25 26
 28 29 30
  physical 1: cores 0 1 2 4 5 6 8 9 10 12 13 14 16 17 18 20 21 22 24 25 26
 28 29 30
cache size : 512 KB
```

From /proc/meminfo

```
MemTotal:      263998740 kB
HugePages_Total:    0
Hugepagesize:    2048 kB
```

```
/usr/bin/lsb_release -d
Ubuntu 18.04.3 LTS
```

From /etc/*release* /etc/*version*

```
debian_version: buster/sid
dgx-release:
  DGX_NAME="DGX Server"
  DGX_PRETTY_NAME="NVIDIA DGX Server"
  DGX_SWBUILD_DATE="2019-09-25"
  DGX_SWBUILD_VERSION="4.99.1"
  DGX_COMMIT_ID="1519feb"
  DGX_PLATFORM="DGX Server for DAYTONA_X"
  DGX_SERIAL_NUMBER="To be filled by O.E.M."
```

os-release:

```
NAME="Ubuntu"
VERSION="18.04.3 LTS (Bionic Beaver)"
ID=ubuntu
ID_LIKE=debian
PRETTY_NAME="Ubuntu 18.04.3 LTS"
VERSION_ID="18.04"
```

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Platform Notes (Continued)

HOME_URL="https://www.ubuntu.com/"

SUPPORT_URL="https://help.ubuntu.com/"

uname -a:

```
Linux romel 5.2.0-8-generic #9-Ubuntu SMP Mon Jul 8 13:07:27 UTC 2019 x86_64
x86_64 x86_64 GNU/Linux
```

run-level 5 Oct 15 14:16

SPEC is set to: /local/home/cparrott/SPEC/ACCEL-1.3

```
Filesystem      Type      Size  Used Avail Use% Mounted on
/dev/sda2        ext4     219G   46G  162G  22% /
```

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.

(End of data from sysinfo program)

General Notes

Environment variables set by runspec before the start of the run:

ACC_NUM_CORES = "96"

OMP_PROC_BIND = "true"

Base Compiler Invocation

C benchmarks:

pgcc

Fortran benchmarks:

pgfortran

Benchmarks using both Fortran and C:

pgcc pgfortran

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Base Optimization Flags

C benchmarks:

-fast -ta=multicore -Mnouniform -acc -ta=multicore:nvomp

Fortran benchmarks:

-fast -ta=multicore -Mnouniform -acc -ta=multicore:nvomp

Benchmarks using both Fortran and C:

353.clvleaf: -fast -ta=multicore -Mnouniform -acc -ta=multicore:nvomp

359.miniGhost: -fast -ta=multicore -Mnouniform -acc -ta=multicore:nvomp
-Mnomain

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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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