



SPEC ACCEL™ ACC Result

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Lenovo Global Technology
NVIDIA Tesla V100S-PCIE-32GB
ThinkSystem SR665

SPECaccel_acc_peak = Not Run

SPECaccel_acc_base = 14.4

ACCEL license: 28

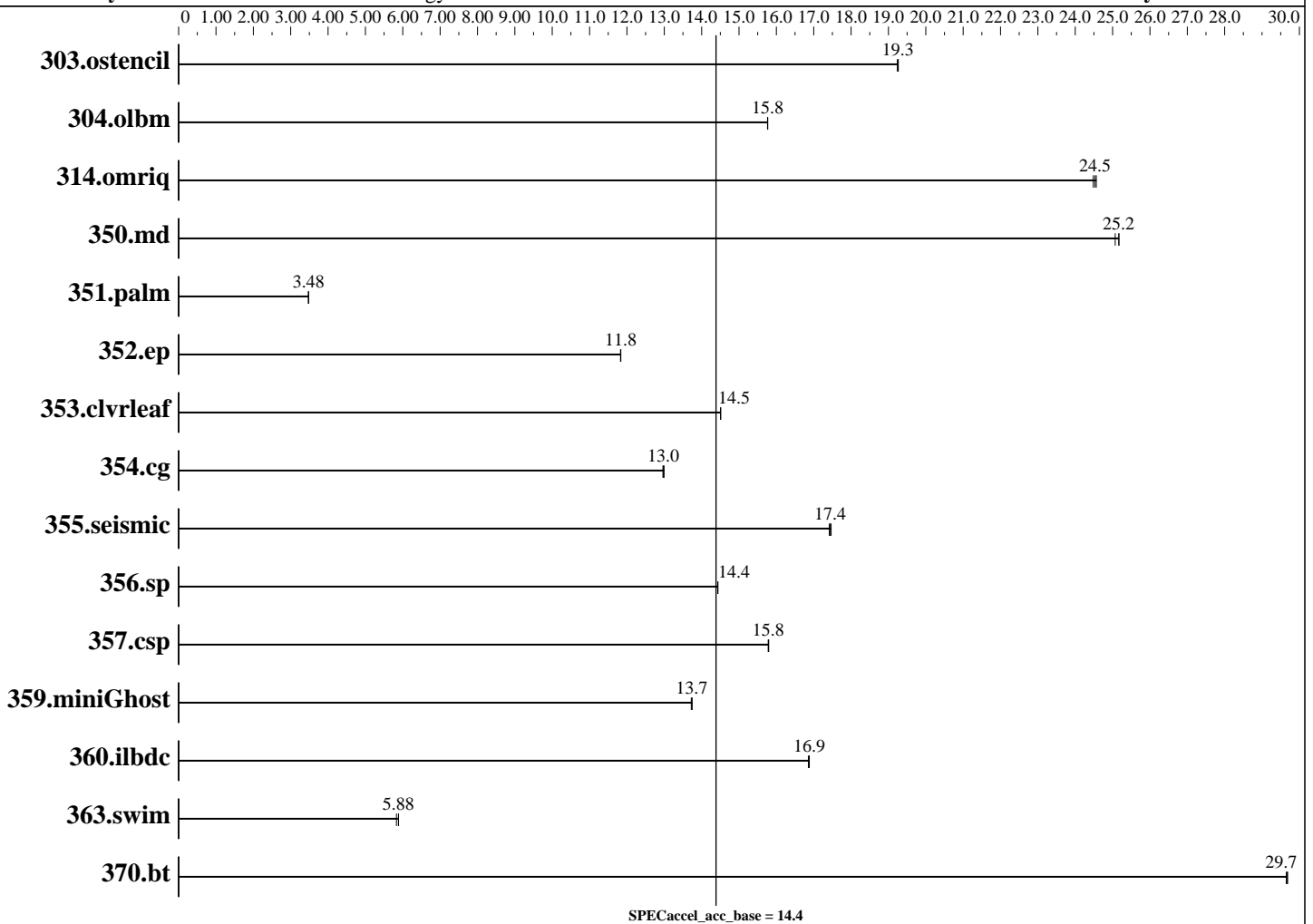
Test sponsor: Lenovo Global Technology

Tested by: Lenovo Global Technology

Test date: Mar-2020

Hardware Availability: Jun-2020

Software Availability: Jun-2020



Hardware

CPU Name: AMD EPYC 7H12
 CPU Characteristics: Turbo up to 3.3 GHz
 CPU MHz: 2600
 CPU MHz Maximum: 3300
 FPU: Integrated
 CPU(s) enabled: 64 cores, 1 chip, 64 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: 256 MB I+D on chip per chip
 Other Cache: None

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Accelerator

Accel Model Name: NVIDIA Tesla V100S
 Accel Vendor: NVIDIA Corporation
 Accel Name: NVIDIA Tesla V100S-PCIE-32GB
 Type of Accel: GPU
 Accel Connection: PCIe 3.0 16x
 Does Accel Use ECC: Yes
 Accel Description: NVIDIA Tesla V100S-PCIE-32GB
 Accel Driver: NVIDIA UNIX x86_64 Kernel Module 418.39



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Hardware (Continued)

Memory: 512 GB (8 x 64 GB 2Rx4 PC4-3200AA-R)
 Disk Subsystem: 1 x 480 GB 2.5" SSD
 Other Hardware: None

Software

Operating System: SUSE Linux Enterprise Server 15 SP1
 4.12.14-195-default
 Compiler: PGI Professional Edition, Release 19.9
 File System: btrfs
 System State: Run level 3
 Other Software: None

Results Table

Benchmark	Base						Peak					
	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio
303.ostencil	<u>7.53</u>	<u>19.3</u>	7.53	19.3	7.54	19.2						
304.olbm	28.9	15.8	<u>28.9</u>	<u>15.8</u>	28.9	15.8						
314.omriq	38.9	24.6	39.1	24.5	<u>39.0</u>	<u>24.5</u>						
350.md	10.1	25.1	10.0	25.2	<u>10.0</u>	<u>25.2</u>						
351.palm	106	3.47	106	3.48	<u>106</u>	<u>3.48</u>						
352.ep	<u>44.8</u>	<u>11.8</u>	44.8	11.8	44.8	11.8						
353.clvrlf	30.7	14.5	<u>30.7</u>	<u>14.5</u>	30.7	14.5						
354.cg	31.4	13.0	<u>31.4</u>	<u>13.0</u>	31.5	13.0						
355.seismic	21.2	17.4	21.2	17.5	<u>21.2</u>	<u>17.4</u>						
356.sp	19.1	14.4	19.1	14.4	<u>19.1</u>	<u>14.4</u>						
357.csp	17.1	15.8	<u>17.1</u>	<u>15.8</u>	17.1	15.8						
359.miniGhost	26.9	13.7	<u>26.9</u>	<u>13.7</u>	26.8	13.7						
360.ilbdc	21.7	16.9	21.8	16.9	<u>21.7</u>	<u>16.9</u>						
363.swim	39.4	5.83	39.1	5.88	<u>39.1</u>	<u>5.88</u>						
370.bt	7.51	29.7	7.52	29.6	<u>7.51</u>	<u>29.7</u>						

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

Platform Notes

```
Sysinfo program /home/ACCEL1.3/Docs/sysinfo
$Rev: 6965 $ $Date:: 2015-04-21 #$ c05a7f14b1b1765e3fe1df68447e8a35
running on linux-x8nq Fri Mar 27 16:54:35 2020
```

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>

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Platform Notes (Continued)

```
From /proc/cpuinfo
model name : AMD EPYC 7H12 64-Core Processor
 1 "physical id"s (chips)
 64 "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 : 64
  siblings  : 64
  physical 0: cores 0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21
 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46
 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63
  cache size : 512 KB
```

```
From /proc/meminfo
MemTotal:      263982732 kB
HugePages_Total:      0
Hugepagesize:    2048 kB
```

```
From /etc/*release* /etc/*version*
os-release:
NAME="SLES"
VERSION="15-SP1"
VERSION_ID="15.1"
PRETTY_NAME="SUSE Linux Enterprise Server 15 SP1"
ID="sles"
ID_LIKE="suse"
ANSI_COLOR="0;32"
CPE_NAME="cpe:/o:suse:sles:15:sp1"
```

```
uname -a:
Linux linux-x8nq 4.12.14-195-default #1 SMP Tue May 7 10:55:11 UTC 2019
(8fba516) x86_64 x86_64 x86_64 GNU/Linux
```

```
run-level 3 Mar 27 16:10
```

```
SPEC is set to: /home/ACCEL1.3
Filesystem      Type      Size  Used Avail Use% Mounted on
/dev/sda4       btrfs    444G  142G  302G  32% /home
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 Lenovo D8E105F-1.00 03/19/2020
Memory:

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Platform Notes (Continued)

8x Samsung M393A4G43AB3-CWE 32 kB 2 rank 3200 MT/s
8x Unknown Unknown

(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:cc70 -ta=tesla:cuda10.1

Fortran benchmarks:

-fast -Mfprelaxed -acc -ta=tesla:cc70 -ta=tesla:cuda10.1

Benchmarks using both Fortran and C:

353.clvleaf: -fast -Mfprelaxed -acc -ta=tesla:cc70 -ta=tesla:cuda10.1

359.miniGhost: -fast -Mfprelaxed -acc -ta=tesla:cc70 -ta=tesla:cuda10.1
-Mnomain

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

https://www.spec.org/accel/flags/pgi_flags.20200506.html

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

https://www.spec.org/accel/flags/pgi_flags.20200506.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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