SPEC ACCEL™ OCL Result

Copyright 2015-2022 Standard Performance Evaluation Corporation

Wizbrain Inc.
(Test Sponsor: Telecommunications Technology Association)

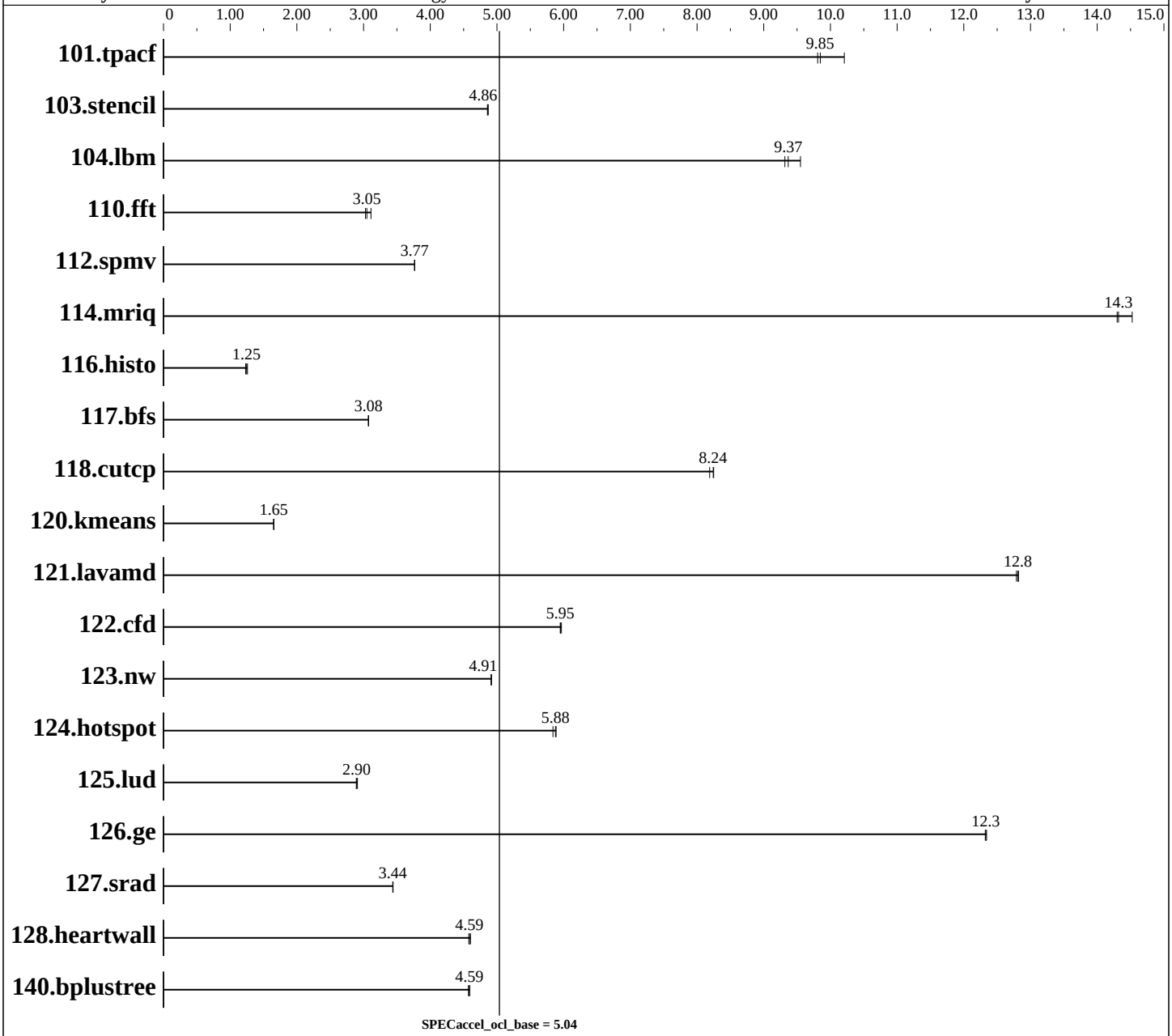
NVIDIA Tesla T4-PCIE-16GB
AirHub AHE-2.0K

SPECaccel_ocl_peak = Not Run

SPECaccel_ocl_base = 5.04

ACCEL license: 068
Test sponsor: Telecommunications Technology Association
Tested by: Telecommunications Technology Association

Test date: Nov-2022
Hardware Availability: Sep-2018
Software Availability: Oct-2021



SPEC ACCEL OCL Result

Copyright 2015-2022 Standard Performance Evaluation Corporation

Wizbrain Inc.
(Test Sponsor: Telecommunications Technology Association)

NVIDIA Tesla T4-PCIE-16GB
AirHub AHE-2.0K

SPECaccel_ocl_peak = Not Run

SPECaccel_ocl_base = 5.04

ACCEL license: 068
Test sponsor: Telecommunications Technology Association
Tested by: Telecommunications Technology Association

Test date: Nov-2022
Hardware Availability: Sep-2018
Software Availability: Oct-2021

Hardware

CPU Name:	Intel Xeon Silver 4216
CPU Characteristics:	Intel Turbo Boost Technology up to 3.20 GHz
CPU MHz:	2100
CPU MHz Maximum:	3200
FPU:	Integrated
CPU(s) enabled:	32 cores, 2 chips, 16 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:	1 MB I+D on chip per core
L3 Cache:	22 MB I+D on chip per chip
Other Cache:	None
Memory:	64 GB (8 x 8 GB 1Rx8 PC4-3200AA-R)
Disk Subsystem:	1 x 480 GB SAMSUNG MZ7WD480
Other Hardware:	--

Accelerator

Accel Model Name:	Tesla T4-PCIE-16GB
Accel Vendor:	NVIDIA
Accel Name:	NVIDIA Tesla T4-PCIE-16GB
Type of Accel:	GPU
Accel Connection:	PCIe 3.0 16x
Does Accel Use ECC:	Yes
Accel Description:	NVIDIA Tesla T4-PCIE-16GB
Accel Driver:	NVIDIA Driver Version 460.106.00

Software

Operating System:	CentOS Linux release 7.9.2009 (Core) 3.10.0-1160.76.1.el7.x86_64
Compiler:	GCC 8.3.1 20190311
File System:	xfs
System State:	Multi-user, run level 3
Other Software:	NVIDIA CUDA 11.2

SPEC ACCEL OCL Result

Copyright 2015-2022 Standard Performance Evaluation Corporation

Wizbrain Inc.
(Test Sponsor: Telecommunications Technology Association)

NVIDIA Tesla T4-PCIE-16GB
AirHub AHE-2.0K

SPECaccel_ocl_peak = Not Run

SPECaccel_ocl_base = 5.04

ACCEL license: 068
Test sponsor: Telecommunications Technology Association
Tested by: Telecommunications Technology Association

Test date: Nov-2022
Hardware Availability: Sep-2018
Software Availability: Oct-2021

Results Table

Benchmark	Base						Peak					
	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio
101.tpacf	10.5	10.2	**10.9**	**9.85**	10.9	9.81						
103.stencil	25.7	4.86	25.7	4.87	**25.7**	**4.86**						
104.lbm	11.7	9.55	**12.0**	**9.37**	12.0	9.32						
110.fft	35.7	3.11	**36.4**	**3.05**	36.7	3.03						
112.spmv	39.0	3.77	39.0	3.77	**39.0**	**3.77**						
114.mriq	7.50	14.5	**7.61**	**14.3**	7.62	14.3						
116.histo	90.5	1.26	**91.4**	**1.25**	92.6	1.23						
117.bfs	38.0	3.08	**38.0**	**3.08**	38.1	3.07						
118.cutcp	12.0	8.25	**12.0**	**8.24**	12.1	8.19						
120.kmeans	60.4	1.66	**60.5**	**1.65**	60.6	1.65						
121.lavamd	8.50	12.8	**8.51**	**12.8**	8.52	12.8						
122.cfd	21.1	5.97	21.2	5.95	**21.2**	**5.95**						
123.nw	23.4	4.92	23.4	4.91	**23.4**	**4.91**						
124.hotspot	**19.4**	**5.88**	19.5	5.84	19.4	5.89						
125.lud	**41.1**	**2.90**	41.2	2.89	40.9	2.91						
126.ge	**12.6**	**12.3**	12.6	12.3	12.6	12.3						
127.srad	33.2	3.44	33.1	3.44	**33.1**	**3.44**						
128.heartwall	23.0	4.60	**23.1**	**4.59**	23.2	4.58						
140.bplustree	**23.5**	**4.59**	23.5	4.59	23.6	4.57						

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

Platform Notes

```
Sysinfo program /home/tta0903/accel-1.4/Docs/sysinfo
$Rev: 6965 $ $Date:: 2015-04-21 #$ c05a7f14b1b1765e3fe1df68447e8a35
running on tyan Mon Nov 14 04:26:15 2022

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) Silver 4216 CPU @ 2.10GHz
      2 "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.)
```

Continued on next page

Platform Notes (Continued)

```
      cpu cores : 16
      siblings  : 32
      physical 0: cores 0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15
      physical 1: cores 0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15
   cache size : 22528 KB

From /proc/meminfo
   MemTotal:       65589600 kB
   HugePages_Total:       0
   Hugepagesize:       2048 kB

From /etc/*release* /etc/*version*
   centos-release: CentOS Linux release 7.9.2009 (Core)
   centos-release-upstream: Derived from Red Hat Enterprise Linux 7.9 (Source)
   os-release:
      NAME="CentOS Linux"
      VERSION="7 (Core)"
      ID="centos"
      ID_LIKE="rhel fedora"
      VERSION_ID="7"
      PRETTY_NAME="CentOS Linux 7 (Core)"
      ANSI_COLOR="0;31"
      CPE_NAME="cpe:/o:centos:centos:7"
   redhat-release: CentOS Linux release 7.9.2009 (Core)
   system-release: CentOS Linux release 7.9.2009 (Core)
   system-release-cpe: cpe:/o:centos:centos:7

uname -a:
   Linux tyan 3.10.0-1160.76.1.el7.x86_64 #1 SMP Wed Aug 10 16:21:17 UTC 2022
   x86_64 x86_64 x86_64 GNU/Linux

run-level 3 Nov 11 02:36

SPEC is set to: /home/tta0903/accel-1.4
   Filesystem              Type  Size  Used Avail Use% Mounted on
   /dev/mapper/centos-home xfs   291G   63G  228G  22% /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.


(End of data from sysinfo program)
```

Copyright 2015-2022 Standard Performance Evaluation Corporation

General Notes

```
================================================================================================
Spectre and Meltdown
Yes: The test sponsor attests, as of date of publication, that CVE-2017-5754 (Meltdown)
is mitigated in the system as tested and documented.
Yes: The test sponsor attests, as of date of publication, that CVE-2017-5753 (Spectre variant 1)
is mitigated in the system as tested and documented.
Yes: The test sponsor attests, as of date of publication, that CVE-2017-5715 (Spectre variant 2)
is mitigated in the system as tested and documented.
```

Base Runtime Environment

C benchmarks:

```
OpenCL Platform: NVIDIA CUDA, OpenCL 1.2 CUDA 11.2.162
OpenCL Device #0: Tesla T4, v 460.106.00
```

C++ benchmarks:

```
OpenCL Platform: NVIDIA CUDA, OpenCL 1.2 CUDA 11.2.162
OpenCL Device #0: Tesla T4, v 460.106.00
```

Base Compiler Invocation

C benchmarks:

```
gcc
```

C++ benchmarks:

```
g++
```

Base Portability Flags

116.histo: `-DSPEC_LOCAL_MEMORY_HEADROOM=2`

Base Optimization Flags

C benchmarks:

```
-O2 -I/usr/local/cuda/include -L/usr/local/cuda/lib64 -lOpenCL
```

C++ benchmarks:

```
-O2 -I/usr/local/cuda/include -L/usr/local/cuda/lib64 -lOpenCL
```

Copyright 2015-2022 Standard Performance Evaluation Corporation

Wizbrain Inc.
(Test Sponsor: Telecommunications Technology Association)

NVIDIA Tesla T4-PCIE-16GB
AirHub AHE-2.0K

SPECaccel_ocl_peak = Not Run

SPECaccel_ocl_base = 5.04

ACCEL license:	068	**Test date:**	Nov-2022
Test sponsor:	Telecommunications Technology Association	**Hardware Availability:**	Sep-2018
Tested by:	Telecommunications Technology Association	**Software Availability:**	Oct-2021

The flags file that was used to format this result can be browsed at
`https://www.spec.org/accel/flags/gcc_flags.20221205.html`

You can also download the XML flags source by saving the following link:
`https://www.spec.org/accel/flags/gcc_flags.20221205.xml`

SPEC ACCEL is a 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.

Tested with SPEC ACCEL v1.4.
Report generated on Mon Dec 5 10:45:21 2022 by SPEC ACCEL PS/PDF formatter v1290.
Originally published on 1 December 2022.