SPEC ACCEL™ OCL Result

Copyright 2015-2020 Standard Performance Evaluation Corporation

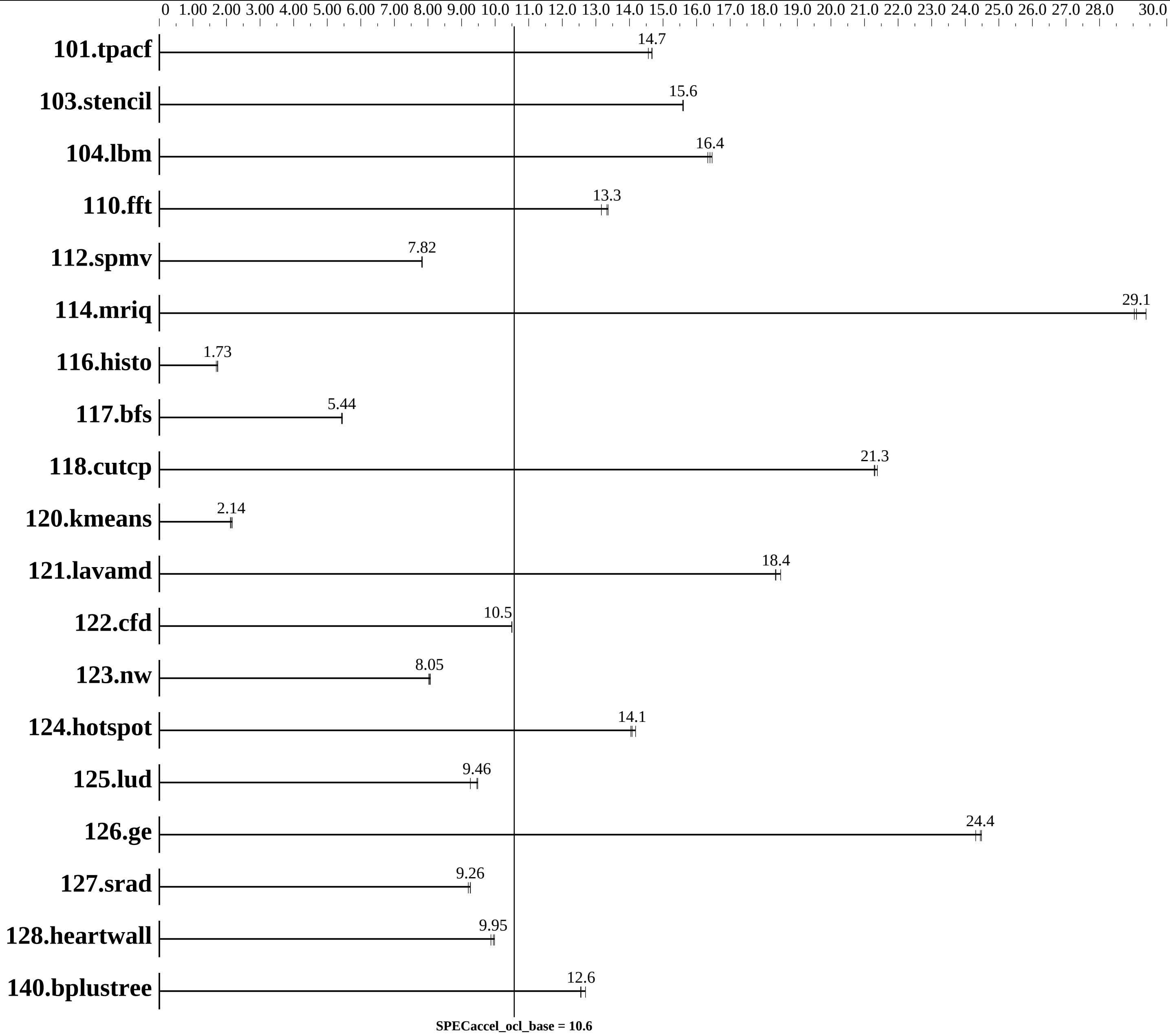
Myoungin Inno
(Test Sponsor: Telecommunications Technology Association)

NVIDIA Tesla V100-PCIE-16GB
GMR2208KS-D140

SPECaccel_ocl_peak = Not Run

SPECaccel_ocl_base = 10.6

ACCEL license:	HPG068A	**Test date:**	Oct-2020
Test sponsor:	Telecommunications Technology Association	**Hardware Availability:**	May 2018
Tested by:	Telecommunications Technology Association	**Software Availability:**	May 2018



SPEC ACCEL OCL Result

Copyright 2015-2020 Standard Performance Evaluation Corporation

Myoungin Inno
(Test Sponsor: Telecommunications Technology Association)

NVIDIA Tesla V100-PCIE-16GB
GMR2208KS-D140

SPECaccel_ocl_peak = Not Run

SPECaccel_ocl_base = 10.6

ACCEL license:	HPG068A	**Test date:**	Oct-2020
Test sponsor:	Telecommunications Technology Association	**Hardware Availability:**	May 2018
Tested by:	Telecommunications Technology Association	**Software Availability:**	May 2018

Hardware

CPU Name:	Intel Xeon Gold 6140
CPU Characteristics:	Hyper-threading off.
CPU MHz:	2300
CPU MHz Maximum:	3700
FPU:	--
CPU(s) enabled:	36 cores, 2 chips, 18 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:	1024 KB I+D on chip per core
L3 Cache:	24.75 MB I+D on chip per chip
Other Cache:	None
Memory:	384GB (12 x 32 GB 2Rx4 PC4-2666V-R)
Disk Subsystem:	2 300GB TOSHIBA AL14SEB030N SAS RAID1
Other Hardware:	--

Accelerator

Accel Model Name:	Tesla V100-PCIE-16GB
Accel Vendor:	NVIDIA Corporation
Accel Name:	NVIDIA Tesla V100-PCIE-16GB
Type of Accel:	GPU
Accel Connection:	PCIe 3.0 16x
Does Accel Use ECC:	Yes
Accel Description:	NVIDIA Tesla V100-PCIE-16GB, 5120 CUDA cores, 1245 MHz 16GB HBM2 RAM
Accel Driver:	NVIDIA Driver Version 450.51.05

Software

Operating System:	CentOS Linux release 7.6.1810 (Core) 3.10.0-957.el7.x86_64
Compiler:	GCC version 4.8.5 20150623
File System:	xfs
System State:	Multi-user, run level 3
Other Software:	NVIDIA CUDA 11.0

SPEC ACCEL OCL Result

Myoungin Inno
(Test Sponsor: Telecommunications Technology Association)

NVIDIA Tesla V100-PCIE-16GB
GMR2208KS-D140

SPECaccel_ocl_peak = Not Run

SPECaccel_ocl_base = 10.6

ACCEL license:	HPG068A	**Test date:**	Oct-2020
Test sponsor:	Telecommunications Technology Association	**Hardware Availability:**	May 2018
Tested by:	Telecommunications Technology Association	**Software Availability:**	May 2018

Results Table

	Base						Peak					
Benchmark	**Seconds**	**Ratio**	**Seconds**	**Ratio**	**Seconds**	**Ratio**	**Seconds**	**Ratio**	**Seconds**	**Ratio**	**Seconds**	**Ratio**
101.tpacf	**7.30**	**14.7**	7.35	14.6	7.29	14.7						
103.stencil	8.02	15.6	8.01	15.6	**8.01**	**15.6**						
104.lbm	6.86	16.3	6.80	16.5	**6.83**	**16.4**						
110.fft	8.30	13.4	**8.33**	**13.3**	8.43	13.2						
112.spmv	**18.8**	**7.82**	18.8	7.83	18.8	7.81						
114.mriq	3.75	29.0	3.71	29.4	**3.75**	**29.1**						
116.histo	67.3	1.69	**65.8**	**1.73**	65.4	1.74						
117.bfs	21.5	5.45	21.6	5.43	**21.5**	**5.44**						
118.cutcp	**4.65**	**21.3**	4.63	21.4	4.65	21.3						
120.kmeans	46.0	2.17	47.3	2.12	**46.7**	**2.14**						
121.lavamd	5.94	18.3	**5.94**	**18.4**	5.89	18.5						
122.cfd	12.0	10.5	12.0	10.5	**12.0**	**10.5**						
123.nw	14.3	8.02	**14.3**	**8.05**	14.2	8.07						
124.hotspot	**8.10**	**14.1**	8.12	14.0	8.04	14.2						
125.lud	12.8	9.26	**12.6**	**9.46**	12.5	9.48						
126.ge	**6.34**	**24.4**	6.33	24.5	6.38	24.3						
127.srad	12.3	9.27	12.4	9.20	**12.3**	**9.26**						
128.heartwall	10.6	9.98	**10.7**	**9.95**	10.7	9.87						
140.bplustree	8.51	12.7	**8.60**	**12.6**	8.61	12.5						

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

Platform Notes

```
Sysinfo program /usr/accel-1.3/Docs/sysinfo
$Rev: 6965 $ $Date:: 2015-04-21 #$ c05a7f14b1b1765e3fe1df68447e8a35
running on gmr2208ks-d140 Thu Oct 15 10:08:54 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

From /proc/cpuinfo
   model name : Intel(R) Xeon(R) Gold 6140 CPU @ 2.30GHz
      2 "physical id"s (chips)
      36 "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 : 18
         siblings  : 18
         physical 0: cores 0 1 2 3 4 8 9 10 11 16 17 18 19 20 24 25 26 27
         physical 1: cores 0 1 2 3 4 8 9 10 11 16 17 18 19 20 24 25 26 27
      cache size : 25344 KB

   From /proc/meminfo
      MemTotal:       394673500 kB
      HugePages_Total:       0
      Hugepagesize:       2048 kB

   From /etc/*release* /etc/*version*
      centos-release: CentOS Linux release 7.6.1810 (Core)
      centos-release-upstream: Derived from Red Hat Enterprise Linux 7.6 (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 7.6.1810 (Core)
      system-release: CentOS Linux release 7.6.1810 (Core)
      system-release-cpe: cpe:/o:centos:centos:7

   uname -a:
      Linux gmr2208ks-d140 3.10.0-957.el7.x86_64 #1 SMP Thu Nov 8 23:39:32 UTC 2018
      x86_64 x86_64 x86_64 GNU/Linux

   run-level 3 Oct 12 16:17

   SPEC is set to: /usr/accel-1.3
      Filesystem              Type  Size  Used Avail Use% Mounted on
      /dev/mapper/centos-root xfs    50G   25G   26G  49% /
   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 American Megatrends Inc. KM-H620-103B-SA2 02/21/2019
     Memory:
      12x NO DIMM NO DIMM
      12x Samsung M393A4K40CB2-CTD 32 GB 2 rank 2666 MT/s

   (End of data from sysinfo program)
```

Copyright 2015-2020 Standard Performance Evaluation Corporation

Myoungin Inno
(Test Sponsor: Telecommunications Technology Association)

NVIDIA Tesla V100-PCIE-16GB
GMR2208KS-D140

SPECaccel_ocl_peak = Not Run

SPECaccel_ocl_base = 10.6

ACCEL license:	HPG068A	**Test date:**	Oct-2020
Test sponsor:	Telecommunications Technology Association	**Hardware Availability:**	May 2018
Tested by:	Telecommunications Technology Association	**Software Availability:**	May 2018

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 11.0.197
OpenCL Device #0: Tesla V100-PCIE-16GB, v 450.51.05
```

C++ benchmarks:
```
OpenCL Platform: NVIDIA CUDA, OpenCL 1.2 CUDA 11.0.197
OpenCL Device #0: Tesla V100-PCIE-16GB, v 450.51.05
```

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
```

The flags file that was used to format this result can be browsed at
https://www.spec.org/accel/flags/gcc_flags.20190605.html

You can also download the XML flags source by saving the following link:
https://www.spec.org/accel/flags/gcc_flags.20190605.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 v1.3.
Report generated on Wed Nov 4 16:33:33 2020 by SPEC ACCEL PS/PDF formatter v1290.
Originally published on 4 November 2020.