A108G2

 SPECaccel_ocl_base = 13.2

101.tpacf | 15.4 |
103.stencil | 24.3 |
104.lbm | 23.8 |
110.fft | 22.1 |
112.spmv | 10.2 |
114.mriq | 35.9 |
116.histo | 1.79 |
117.bfs | 12.2 |
118.cutcp | 27.2 |
120.kmeans | 2.03 |
121.lavamd | 18.6 |
122.cfd | 13.7 |
123.nw | 7.94 |
124.hotspot | 16.0 |
125.lud | 11.5 |
126.ge | 24.0 |
127.srad | 13.0 |
128.heartwall | 11.9 |
140.bplustree | 15.9 |

SPECaccel_ocl_base = 13.2
# SPEC ACCEL OCL Result

**ATEC**
(Test Sponsor: Telecommunications Technology Association)

## NVIDIA Tesla A100-PCIE-40GB A208G2

**SPECaccel_ocl_peak = Not Run**

**SPECaccel_ocl_base = 13.2**

<table>
<thead>
<tr>
<th></th>
<th>Value</th>
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<tbody>
<tr>
<td>ACCEL license</td>
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<tr>
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<td>Sep-2020</td>
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</table>

### Hardware

- **CPU Name:** Intel Xeon Gold 6140
- **CPU Characteristics:** Intel Turbo Boost Technology up to 3.70 GHz
- **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:** 256GB (8 x 32 GB 2Rx4 PC4-2400V-R)
- **Disk Subsystem:** 2x 300GB TOSHIBA AL14SEB030N SAS RAID1
- **Other Hardware:** LSI MegaRAID SAS 9361-8i

### Accelerator

- **Accel Model Name:** Tesla A100-PCIE-40GB
- **Accel Vendor:** NVIDIA
- **Accel Name:** NVIDIA Tesla A100-PCIE-40GB
- **Type of Accel:** GPU
- **Accel Connection:** PCIe 3.0 16x
- **Does Accel Use ECC:** Yes
- **Accel Description:** NVIDIA Tesla A100-PCIE-40GB
- **Accel Driver:** NVIDIA Driver Version 460.73.01

### Software

- **Operating System:** CentOS Linux release 7.9.2009 (Core)
- **Compiler:** GCC version 4.8.5 20150623
- **File System:** xfs
- **System State:** Multi-user, run level 3
- **Other Software:** NVIDIA CUDA 11.2
**SPEC ACCEL OCL Result**

ATEC  
(Test Sponsor: Telecommunications Technology Association)  
**NVIDIA Tesla A100-PCIE-40GB**  
**A208G2**

*SPECaccel_ocl_peak = Not Run*

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---

### Results Table

<table>
<thead>
<tr>
<th>Benchmark</th>
<th>Base</th>
<th>Peak</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Seconds</td>
<td>Ratio</td>
</tr>
<tr>
<td>101.tpfaf</td>
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<tr>
<td>103.stencil</td>
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<td>114.mriq</td>
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<td><strong>63.5</strong></td>
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<td>2.06</td>
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<td>121.lavamd</td>
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<td><strong>6.78</strong></td>
<td><strong>15.9</strong></td>
</tr>
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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/tta401/accel-1.3/Docs/sysinfo  
$Rev: 6965 $ $Date:: 2015-04-21 #$ c05a7f14b1b1765e3fe1df68447e8a35  
running on ktnfa100 Fri Oct 29 14:10:02 2021

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)  
- 72 "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
SPEC ACCEL OCL Result

ATEC
(Test Sponsor: Telecommunications Technology Association)

NVIDIA Tesla A100-PCIE-40GB
A208G2

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Platform Notes (Continued)

```plaintext
cpu cores : 18
siblings : 36
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: 263605896 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 ktnfa100 3.10.0-1160.45.1.el7.x86_64 #1 SMP Wed Oct 13 17:20:51 UTC 2021 x86_64 x86_64 x86_64 GNU/Linux
```
```
run-level 3 Oct 27 15:52
```
```
SPEC is set to: /home/tta401/accel-1.3
```
```
Filesystem Type Size Used Avail Use% Mounted on
/dev/mapper/centos-home xfs 200G 11G 190G 6% /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)
```
## SPEC ACCEL OCL Result

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### 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: A100-PCIE-40GB, v 460.73.01

**C++ benchmarks:**
- OpenCL Platform: NVIDIA CUDA, OpenCL 1.2 CUDA 11.2.162
- OpenCL Device #0: A100-PCIE-40GB, v 460.73.01

### 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
SPEC ACCEL OCL Result

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(Test Sponsor: Telecommunications Technology Association)

NVIDIA Tesla A100-PCIE-40GB A208G2

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The flags file that was used to format this result can be browsed at
https://www.spec.org/accel/flags/gcc_flags.20211118.html

You can also download the XML flags source by saving the following link:
https://www.spec.org/accel/flags/gcc_flags.20211118.xml

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For questions about this result, please contact the tester.
For other inquiries, please contact webmaster@spec.org.

Tested with SPEC ACCEL v1.3.
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