Lenovo Global Technology
Intel Xeon Platinum 8380H
ThinkSystem SR860 V2

SPECaccel_omp_peak = 11.4
SPECaccel_omp_base = 11.0

**SPEC ACCEL™ OMP Result**

Hardware

<table>
<thead>
<tr>
<th>CPU Name:</th>
<th>Intel Xeon Platinum 8380H</th>
</tr>
</thead>
<tbody>
<tr>
<td>CPU Characteristics:</td>
<td>Intel Turbo Boost Technology up to 4.3 GHz</td>
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<tr>
<td>CPU MHz:</td>
<td>2900</td>
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<tr>
<td>CPU MHz Maximum:</td>
<td>4300</td>
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<tr>
<td>FPU:</td>
<td>Integrated</td>
</tr>
<tr>
<td>CPU(s) enabled:</td>
<td>112 cores, 4 chips, 28 cores/chip, 2 threads/core</td>
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<tr>
<td>CPU(s) orderable:</td>
<td>2,4 Chips</td>
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<tr>
<td>Primary Cache:</td>
<td>32 KB I + 32 KB D on chip per core</td>
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<tr>
<td>Secondary Cache:</td>
<td>1 MB I+D on chip per core</td>
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<tr>
<td>L3 Cache:</td>
<td>39424 KB I+D on chip per chip</td>
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<tr>
<td>Other Cache:</td>
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</table>

Accelerator

| Accel Model Name: | Intel Xeon Platinum 8380H |
| Accel Vendor: | Intel |
| Accel Name: | Intel Xeon Platinum 8380H |
| Type of Accel: | CPU |
| Accel Connection: | Not applicable |
| Does Accel Use ECC: | yes |
| Accel Description: | 4 x Intel Xeon Platinum 8380H |
| Accel Driver: | None |

ACCEL license: 28
Test sponsor: Lenovo Global Technology
Tested by: Lenovo Global Technology
Test date: Oct-2020
Hardware Availability: Oct-2020
Software Availability: Oct-2020

Continued on next page
Lenovo Global Technology
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ACCEL license: 28
Test date: Oct-2020
Test sponsor: Lenovo Global Technology
Hardware Availability: Oct-2020
Tested by: Lenovo Global Technology
Software Availability: Oct-2020

Hardware (Continued)
Memory: 1536 GB (48 x 32 GB 2Rx8 PC4-3200AA-R)
Disk Subsystem: 1 x 1TB SATA 2.5" SSD
Other Hardware: None

Software
Operating System: Red Hat Enterprise Linux Server release 8.2, kernel 4.18.0-193.el8.x86_64
Compiler: Intel Parallel Studio 20 Update 1 for Linux Version 19.1.1.217 Build 20200306
File System: xfs
System State: Default
Other Software: FFTW 3.3.8

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<th>Seconds</th>
<th>Ratio</th>
<th>Seconds</th>
<th>Ratio</th>
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</tbody>
</table>

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.
Lenovo Global Technology
Intel Xeon Platinum 8380H
ThinkSystem SR860 V2

**SPECaccel_omp_peak** = 11.4

**SPECaccel_omp_base** = 11.0

平台注意事项

Sysinfo程序 /home/ACCEL1.3/Docs/sysinfo
$Rev: 6965 $ $Date:: 2015-04-21 #$ c05a7f14b1b1765e3fe1df68447e8a35
running on narvi1rh82 Thu Aug 13 02:57:42 2020

此部分包含SUT（被测试系统）信息，由一些常用工具查看。要移除或添加此部分，请参见:
http://www.spec.org/accel/Docs/config.html#sysinfo

从 /proc/cpuinfo

```
model name : Intel(R) Xeon(R) Platinum 8380H CPU @ 2.90GHz
4 "physical id"s (chips)
224 "processors"
core siblings (Caution: counting these is hw and system dependent. The
following excerpts from /proc/cpuinfo might not be reliable. Use with caution.)
cpu cores : 28
siblings : 56
physical 0: cores 0 1 2 3 4 5 6 8 9 10 11 12 13 14 16 17 18 19 20 21 22 24
25 26 27 28 29 30
physical 1: cores 0 1 2 3 4 5 6 8 9 10 11 12 13 14 16 17 18 19 20 21 22 24
25 26 27 28 29 30
physical 2: cores 0 1 2 3 4 5 6 8 9 10 11 12 13 14 16 17 18 19 20 21 22 24
25 26 27 28 29 30
physical 3: cores 0 1 2 3 4 5 6 8 9 10 11 12 13 14 16 17 18 19 20 21 22 24
25 26 27 28 29 30
```
cache size : 39424 KB

From /proc/meminfo

```
MemTotal:       1584725580 kB
HugePages_Total:       0
Hugepagesize:       2048 kB
```

从 /etc/*release* /etc/*version*

```
NAME="Red Hat Enterprise Linux Server"
VERSION="8.2 (Ootpa)"
ID="rhel"
ID_LIKE="fedora"
VARIANT="Server"
VARIANT_ID="server"
VERSION_ID="8.2"
PRETTY_NAME="Red Hat Enterprise Linux Server 8.2 (Ootpa)"
redhat-release: Red Hat Enterprise Linux Server release 8.2 (Ootpa)
```

```
uname -a:
Linux narvi1rh82 4.18.0-193.el8.x86_64 #1 SMP Tue Feb 18 16:39:12 EST 2020
x86_64 x86_64 x86_64 GNU/Linux
```

继续到下一页
Lenovo Global Technology
Intel Xeon Platinum 8380H
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**SPECaccel_omp_peak = 11.4**

**SPECaccel_omp_base = 11.0**

**ACCEL license:** 28
**Test date:** Oct-2020
**Test sponsor:** Lenovo Global Technology
**Hardware Availability:** Oct-2020
**Tested by:** Lenovo Global Technology
**Software Availability:** Oct-2020

**Platform Notes (Continued)**

```
run-level 3 Aug 12 04:25
SPEC is set to: /home/ACCEL1.3
Filesystem            Type Size  Used Avail Use% Mounted on
/dev/mapper/rhel-home xfs 390G 130G 261G 34% /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 M5E103H-1.00 06/24/2020
Memory:
  48x Samsung M393A4G43AB3-CWE 32 GB 2 rank 3200 MT/s
(End of data from sysinfo program)
```

**General Notes**

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 Compiler Invocation**

C benchmarks:
  icc

Fortran benchmarks:
  ifort

Benchmarks using both Fortran and C:
  icc ifort

**Base Portability Flags**

503.postencil: -DSPEC_USE_INNER_SIMD
504.polbm: -DSPEC_USE_INNER_SIMD
Lenovo Global Technology
Intel Xeon Platinum 8380H
ThinkSystem SR860 V2

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**SPECaccel_omp_base = 11.0**

**ACCEL license:** 28

**Test sponsor:** Lenovo Global Technology

**Test date:** Oct-2020

**Hardware Availability:** Oct-2020

**Tested by:** Lenovo Global Technology

**Software Availability:** Oct-2020

### Base Portability Flags (Continued)

- 514.pomriq: -DSPEC\_USE\_INNER\_SIMD
- 550.pmd: -DSPEC\_USE\_INNER\_SIMD -80
- 551.ppalm: -DSPEC\_USE\_INNER\_SIMD
- 552.pep: -DSPEC\_USE\_INNER\_SIMD
- 553.pclvrleaf: -DSPEC\_USE\_INNER\_SIMD
- 554.pcg: -DSPEC\_USE\_INNER\_SIMD
- 555.pseismic: -DSPEC\_USE\_INNER\_SIMD
- 556.psp: -DSPEC\_USE\_INNER\_SIMD
- 557.pcsps: -DSPEC\_USE\_INNER\_SIMD
- 559.pmniGhost: -DSPEC\_USE\_INNER\_SIMD -nofor-main
- 560.plibdc: -DSPEC\_USE\_INNER\_SIMD
- 563.pswim: -DSPEC\_USE\_INNER\_SIMD
- 570.pbt: -DSPEC\_USE\_INNER\_SIMD

### Base Optimization Flags

**C benchmarks:**

- -O3 -xCOMMON-AVX512 -qopenmp -qopenmp-offload=host

**Fortran benchmarks:**

- -O3 -xCOMMON-AVX512 -qopenmp -qopenmp-offload=host

**Benchmarks using both Fortran and C:**

- -O3 -xCOMMON-AVX512 -qopenmp -qopenmp-offload=host

### Peak Compiler Invocation

**C benchmarks:**

-icc

**Fortran benchmarks:**

-ifort

**Benchmarks using both Fortran and C:**

-icc ifort

### Peak Portability Flags

- 503.postencil: -DSPEC\_USE\_INNER\_SIMD
- 504.polbm: -DSPEC\_USE\_INNER\_SIMD
- 514.pomriq: -DSPEC\_USE\_INNER\_SIMD

Continued on next page
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SPECCaccel_omp_peak = 11.4
SPECCaccel_omp_base = 11.0

ACCEL license: 28
Test sponsor: Lenovo Global Technology
Tested by: Lenovo Global Technology

Peak Portability Flags (Continued)

550.pmd: -DSPEC_USE_INNER_SIMD -80
551.ppalm: -DSPEC_USE_INNER_SIMD -DSPEC_HOST_FFTW3
552.pep: -DSPEC_USE_INNER_SIMD
553.pclvleaf: -DSPEC_USE_INNER_SIMD
554.pcg: -DSPEC_USE_INNER_SIMD
555.pseismic: -DSPEC_USE_INNER_SIMD
556.psp: -DSPEC_USE_INNER_SIMD
557.pcs: -DSPEC_USE_INNER_SIMD
559.pmnGhost: -DSPEC_USE_INNER_SIMD -nofor-main
560.pilbdc: -DSPEC_USE_INNER_SIMD
563.pswim: -DSPEC_USE_INNER_SIMD
570.pbt: -DSPEC_USE_INNER_SIMD

Peak Optimization Flags

C benchmarks:

503.postencil: basepeak = yes
504.polbm: basepeak = yes
514.pomriq: -O3 -xCOMMON-AVX512 -qopenmp -qopenmp-offload=host
-ipo
552.pep: -O3 -xCOMMON-AVX512 -qopenmp -qopenmp-offload=host
-ipo
554.pcg: basepeak = yes
557.pcs: basepeak = yes
570.pbt: basepeak = yes

Fortran benchmarks:

550.pmd: -O3 -xCOMMON-AVX512 -qopenmp -qopenmp-offload=host
-fimf-precision=low
551.ppalm: -O3 -xCOMMON-AVX512 -qopenmp -qopenmp-offload=host
-I/usr/local/include -L/usr/local/lib
555.pseismic: basepeak = yes
556.psp: -O3 -xCOMMON-AVX512 -qopenmp -qopenmp-offload=host -ipo
Lenovo Global Technology
Intel Xeon Platinum 8380H
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<table>
<thead>
<tr>
<th>ACCEL license:</th>
<th>28</th>
<th>Test date:</th>
<th>Oct-2020</th>
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<td>Software Availability:</td>
<td>Oct-2020</td>
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</tbody>
</table>

### SPECaccel_omp_peak
11.4

### SPECaccel_omp_base
11.0

### Peak Optimization Flags (Continued)

- 560.pilbdc: basepeak = yes
- 563.pswim: basepeak = yes

Benchmarks using both Fortran and C:

- 553.pclvrleaf: -O3 -xCOMMON-AVX512 -qopenmp -qopenmp-offload=host -qopt-streaming-stores always
- 559.pmniGhost: basepeak = yes

### Peak Other Flags

For Fortran benchmarks:

- 551.ppalm: -lfftw3

The flags files that were used to format this result can be browsed at

- [https://www.spec.org/accel/flags/Intel-compiler-linux64.html](https://www.spec.org/accel/flags/Intel-compiler-linux64.html)
- [https://www.spec.org/accel/flags/Lenovo-SPECACCEL1.2_Platform_Flags.20190321.html](https://www.spec.org/accel/flags/Lenovo-SPECACCEL1.2_Platform_Flags.20190321.html)

You can also download the XML flags sources by saving the following links:

- [https://www.spec.org/accel/flags/Intel-compiler-linux64.xml](https://www.spec.org/accel/flags/Intel-compiler-linux64.xml)
- [https://www.spec.org/accel/flags/Lenovo-SPECACCEL1.2_Platform_Flags.20190321.xml](https://www.spec.org/accel/flags/Lenovo-SPECACCEL1.2_Platform_Flags.20190321.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.
Report generated on Tue Oct 13 17:09:57 2020 by SPEC ACCEL PS/PDF formatter v1290.
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