# SPEC CPU®2017 Integer Speed Result

## Dell Inc.

**PowerEdge R760 (Intel Xeon Gold 6454S)**

<table>
<thead>
<tr>
<th>Software</th>
<th>SPECspeed®2017_int_base = 10.9</th>
<th>SPECspeed®2017_int_peak = 11.1</th>
</tr>
</thead>
<tbody>
<tr>
<td>OS</td>
<td>SUSE Linux Enterprise Server 15 SP4 5.14.21-150400.22-default</td>
<td></td>
</tr>
<tr>
<td>Compiler</td>
<td>C/C++: Version 2022.1 of Intel oneAPI DPC++/C++ Compiler for Linux; Fortran: Version 2022.1 of Intel Fortran Compiler for Linux;</td>
<td></td>
</tr>
<tr>
<td>Parallel</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>Firmware</td>
<td>Version 0.3.2 released Nov-2022</td>
<td></td>
</tr>
<tr>
<td>File System</td>
<td>tmpfs</td>
<td></td>
</tr>
<tr>
<td>System State</td>
<td>Run level 3 (multi-user)</td>
<td></td>
</tr>
<tr>
<td>Base Pointers</td>
<td>64-bit</td>
<td></td>
</tr>
<tr>
<td>Peak Pointers</td>
<td>64-bit</td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td>jemalloc memory allocator V5.0.1</td>
<td></td>
</tr>
<tr>
<td>Power Management</td>
<td>BIOS and OS set to prefer performance at the cost of additional power usage.</td>
<td></td>
</tr>
</tbody>
</table>

## Hardware

<table>
<thead>
<tr>
<th>CPU Name</th>
<th>Intel Xeon Gold 6454S</th>
</tr>
</thead>
<tbody>
<tr>
<td>Max MHz</td>
<td>3400</td>
</tr>
<tr>
<td>Nominal</td>
<td>2200</td>
</tr>
<tr>
<td>Enabled</td>
<td>64 cores, 2 chips</td>
</tr>
<tr>
<td>Orderable</td>
<td>1.2 chips</td>
</tr>
<tr>
<td>Cache L1</td>
<td>32 KB I + 48 KB D on chip per core</td>
</tr>
<tr>
<td>Cache L2</td>
<td>2 MB I+D on chip per core</td>
</tr>
<tr>
<td>Cache L3</td>
<td>60 MB I+D on chip per chip</td>
</tr>
<tr>
<td>Other</td>
<td>None</td>
</tr>
<tr>
<td>Memory</td>
<td>512 GB (16 x 32 GB 2Rx8 PC5-4800B-R)</td>
</tr>
<tr>
<td>Storage</td>
<td>125 GB on tmpfs</td>
</tr>
<tr>
<td>Other</td>
<td>None</td>
</tr>
</tbody>
</table>

## Test Results

<table>
<thead>
<tr>
<th>Test</th>
<th>Threads</th>
<th>SPECspeed®2017_int_base</th>
<th>SPECspeed®2017_int_peak</th>
</tr>
</thead>
<tbody>
<tr>
<td>perlbench_s</td>
<td>64</td>
<td>7.55</td>
<td>8.77</td>
</tr>
<tr>
<td>gcc_s</td>
<td>64</td>
<td>9.17</td>
<td>10.9</td>
</tr>
<tr>
<td>mcf_s</td>
<td>64</td>
<td>9.65</td>
<td>11.1</td>
</tr>
<tr>
<td>omnetpp_s</td>
<td>64</td>
<td>8.66</td>
<td>9.91</td>
</tr>
<tr>
<td>xalancbmk_s</td>
<td>64</td>
<td>17.1</td>
<td>18.0</td>
</tr>
<tr>
<td>x264_s</td>
<td>64</td>
<td>20.4</td>
<td>21.0</td>
</tr>
<tr>
<td>deepsjeng_s</td>
<td>64</td>
<td>15.8</td>
<td>16.4</td>
</tr>
<tr>
<td>leela_s</td>
<td>64</td>
<td>16.3</td>
<td>17.0</td>
</tr>
<tr>
<td>exchange2_s</td>
<td>64</td>
<td>16.4</td>
<td>17.0</td>
</tr>
<tr>
<td>xz_s</td>
<td>64</td>
<td>18.0</td>
<td>18.6</td>
</tr>
</tbody>
</table>

## Summary

<table>
<thead>
<tr>
<th>Test Sponsor</th>
<th>Dell Inc.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hardware Availability</td>
<td>Feb-2023</td>
</tr>
<tr>
<td>Software Availability</td>
<td>Jun-2022</td>
</tr>
<tr>
<td>CPU2017 License</td>
<td>6573</td>
</tr>
<tr>
<td>Test Date</td>
<td>Dec-2022</td>
</tr>
<tr>
<td>Tested by</td>
<td>Dell Inc.</td>
</tr>
</tbody>
</table>

---

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Dell Inc.  
PowerEdge R760 (Intel Xeon Gold 6454S)

**SPEC CPU®2017 Integer Speed Result**

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**Dell Inc.**

PowerEdge R760 (Intel Xeon Gold 6454S)

**CPU2017 License:** 6573
**Test Sponsor:** Dell Inc.
**Tested by:** Dell Inc.

**Test Date:** Dec-2022
**Hardware Availability:** Feb-2023
**Software Availability:** Jun-2022

---

**Results Table**

<table>
<thead>
<tr>
<th>Benchmark</th>
<th>Threads</th>
<th>Seconds</th>
<th>Ratio</th>
<th>Base</th>
<th>Threads</th>
<th>Seconds</th>
<th>Ratio</th>
<th>Peak</th>
<th>Threads</th>
<th>Seconds</th>
<th>Ratio</th>
<th>Base</th>
<th>Threads</th>
<th>Seconds</th>
<th>Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>600.perlbmch_s</td>
<td>64</td>
<td>262</td>
<td>6.77</td>
<td>262</td>
<td>6.77</td>
<td>64</td>
<td>235</td>
<td>7.55</td>
<td>234</td>
<td>7.57</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>602.gcc_s</td>
<td>64</td>
<td>434</td>
<td>9.18</td>
<td>434</td>
<td>9.17</td>
<td>64</td>
<td>412</td>
<td>9.65</td>
<td>413</td>
<td>9.65</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>605.mcf_s</td>
<td>64</td>
<td>276</td>
<td>17.1</td>
<td>276</td>
<td>17.1</td>
<td>64</td>
<td>276</td>
<td>17.1</td>
<td>276</td>
<td>17.1</td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>620.omnetpp_s</td>
<td>64</td>
<td>188</td>
<td>8.67</td>
<td>188</td>
<td>8.66</td>
<td>64</td>
<td>188</td>
<td>8.67</td>
<td>188</td>
<td>8.66</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>623.xalancbmk_s</td>
<td>64</td>
<td>69.3</td>
<td>20.4</td>
<td>69.2</td>
<td>20.5</td>
<td>64</td>
<td>69.3</td>
<td>20.4</td>
<td>69.2</td>
<td>20.5</td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>625.x264_s</td>
<td>64</td>
<td>112</td>
<td>15.8</td>
<td>111</td>
<td>15.9</td>
<td>64</td>
<td>108</td>
<td>16.3</td>
<td>108</td>
<td>16.3</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>631.deepsjeng_s</td>
<td>64</td>
<td>267</td>
<td>5.36</td>
<td>267</td>
<td>5.36</td>
<td>64</td>
<td>267</td>
<td>5.36</td>
<td>267</td>
<td>5.36</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>641.leela_s</td>
<td>64</td>
<td>410</td>
<td>4.16</td>
<td>411</td>
<td>4.15</td>
<td>64</td>
<td>410</td>
<td>4.16</td>
<td>411</td>
<td>4.15</td>
<td></td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>648.exchange2_s</td>
<td>64</td>
<td>179</td>
<td>16.4</td>
<td>179</td>
<td>16.4</td>
<td>64</td>
<td>179</td>
<td>16.4</td>
<td>179</td>
<td>16.4</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>657.xz_s</td>
<td>64</td>
<td>293</td>
<td>21.1</td>
<td>293</td>
<td>21.1</td>
<td>64</td>
<td>293</td>
<td>21.1</td>
<td>293</td>
<td>21.1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**SPECspeed®2017_int_base = 10.9**

**SPECspeed®2017_int_peak = 11.1**

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

---

**Compiler Notes**

SPEC has ruled that the compiler used for this result was performing a compilation that specifically improves the performance of the 523.xalancbmk_r / 623.xalanchmk_s benchmarks using a priori knowledge of the SPEC code and dataset to perform a transformation that has narrow applicability.

In order to encourage optimizations that have wide applicability (see rule 1.4 https://www.spec.org/cpu2017/Docs/runrules.html#rule_1.4), SPEC will no longer publish results using this optimization.

This result is left in the SPEC results database for historical reference.

---

**Operating System Notes**

Stack size set to unlimited using "ulimit -s unlimited"

---

**Environment Variables Notes**

Environment variables set by runcpu before the start of the run:

- KMP_AFFINITY = "granularity=fine,scatter"
- LD_LIBRARY_PATH = "/mnt/ramdisk/cpu2017-1.1.8-ic2022.1/lib/intel64:/mnt/ramdisk/cpu2017-1.1.8-ic2022.1/je5.0.1-64"
- MALLOC_CONF = "retain:true"
- OMP_STACKSIZE = "192M"

---

**General Notes**

Binaries compiled on a system with 2x Intel Xeon Platinum 8280M CPU + 384GB RAM memory using Redhat Enterprise Linux 8.0

Transparent Huge Pages enabled by default

(Continued on next page)
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**PowerEdge R760 (Intel Xeon Gold 6454S)**

<table>
<thead>
<tr>
<th>SPECspeed®2017_int_base</th>
<th>SPECspeed®2017_int_peak</th>
</tr>
</thead>
<tbody>
<tr>
<td>10.9</td>
<td>11.1</td>
</tr>
</tbody>
</table>

**CPU2017 License:** 6573

**Test Sponsor:** Dell Inc.

**Tested by:** Dell Inc.

**Test Date:** Dec-2022

**Hardware Availability:** Feb-2023

**Software Availability:** Jun-2022

---

### General Notes (Continued)

Prior to runcpu invocation:

- Filesystem page cache synced and cleared with:
  ```
  sync; echo 3 > /proc/sys/vm/drop_caches
  ```
- jemalloc, a general purpose malloc implementation
- built with the RedHat Enterprise 7.5, and the system compiler gcc 4.8.5
- sources available from jemalloc.net or

NA: 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.

Benchmark run from a 125 GB ramdisk created with the cmd: "mount -t tmpfs -o size=125G tmpfs /mnt/ramdisk"

---

### Platform Notes

**BIOS settings:**

- ADDDC Setting : Disabled
- DIMM Self Healing on
- Uncorrectable Memory Error : Disabled
- Virtualization Technology : Disabled
- Logical Processor : Disabled
- Sub NUMA Cluster : 2-way Clustering
- DCU Streamer Prefetcher : Disabled
- LLC Prefetch : Disabled
- Dead Line LLC Alloc : Disabled
- Optimizer Mode : Enabled
- System Profile : Custom
- CPU Power Management : Maximum Performance
- CIE : Disabled
- C States : Autonomous
- Memory Patrol Scrub : Disabled
- Energy Efficiency Policy : Performance
- PCI ASPM L1 Link
- Power Management : Disabled

**Sysinfo program**

```
/sysinfo program /mnt/ramdisk/cpu2017-1.1.8-ic2022.1/bin/sysinfo
Rev: r6622 of 2021-04-07 982a61ec0915b55891ef0e16aca6c64d
running on localhost Wed Dec 14 06:57:10 2022
```

**SUT (System Under Test) info as seen by some common utilities.**

For more information on this section, see

https://www.spec.org/cpu2017/Docs/config.html#sysinfo

**From /proc/cpuinfo**

```ini
model name : Intel(R) Xeon(R) Gold 6454S
2 "physical id"s (chips)
64 "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 : 32
siblings : 32
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
physical 1: 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
```
Dell Inc.

PowerEdge R760 (Intel Xeon Gold 6454S)

SPEC CPU®2017 Integer Speed Result

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SPECsm®2017_int_base = 10.9
SPECsm®2017_int_peak = 11.1

CPU2017 License: 6573
Test Sponsor: Dell Inc.
Tested by: Dell Inc.
Test Date: Dec-2022
Hardware Availability: Feb-2023
Software Availability: Jun-2022

Platform Notes (Continued)

25 26 27 28 29 30 31

From lscpu from util-linux 2.37.2:

- Architecture: x86_64
- CPU op-mode(s): 32-bit, 64-bit
- Address sizes: 46 bits physical, 57 bits virtual
- Byte Order: Little Endian
- CPU(s): 64
- On-line CPU(s) list: 0-63
- Vendor ID: GenuineIntel
- Model name: Intel(R) Xeon(R) Gold 6454S
- CPU family: 6
- Model: 143
- Thread(s) per core: 1
- Core(s) per socket: 32
- Socket(s): 2
- Stepping: 8
- BogoMIPS: 4400.00
- Flags: fpu vme de pse tsc msr aes xsave avx f16c rdrand lahf_lm abm 3dnowprefetch cpuid_fault

From lscpu --cache:

<table>
<thead>
<tr>
<th>NAME ALL-SIZE</th>
<th>LEVEL</th>
<th>SETS</th>
<th>PHY-LINE</th>
<th>COHERENCY-SIZE</th>
</tr>
</thead>
<tbody>
<tr>
<td>L1d 48K 3M 12 Data</td>
<td>1</td>
<td>64</td>
<td>1</td>
<td>64</td>
</tr>
<tr>
<td>L1i 32K 2M 8 Instruction</td>
<td>1</td>
<td>64</td>
<td>1</td>
<td>64</td>
</tr>
<tr>
<td>L2 2M 128M 16 Unified</td>
<td>2 2048</td>
<td>1</td>
<td>64</td>
<td></td>
</tr>
</tbody>
</table>

(Continued on next page)
SPEC CPU®2017 Integer Speed Result

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PowerEdge R760 (Intel Xeon Gold 6454S)

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Test Sponsor: Dell Inc.
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SPECspeed®2017_int_base = 10.9
SPECspeed®2017_int_peak = 11.1

Test Date: Dec-2022
Hardware Availability: Feb-2023
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Platform Notes (Continued)

L3  60M  120M  15 Unified  3  65536  1  64

/platform/cpuinfo cache data
  cache size: 61440 KB

From numactl --hardware
WARNING: a numactl 'node' might or might not correspond to a physical chip.
  available: 4 nodes (0-3)
node 0 cpus: 0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15
  node 0 size: 128472 MB
node 0 free: 120071 MB
node 1 cpus: 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31
  node 1 size: 128985 MB
node 1 free: 128735 MB
node 2 cpus: 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47
  node 2 size: 129019 MB
node 2 free: 128799 MB
node 3 cpus: 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63
  node 3 size: 128991 MB
node 3 free: 128642 MB
node distances:
  node   0   1   2   3
  0:  10  12  21  21
  1:  12  10  21  21
  2:  21  21  10  12
  3:  21  21  12  10

From /proc/meminfo
  MemTotal: 527839816 KB
  HugePages_Total: 0
  Hugepagesize: 2048 KB

From /etc/*release*/etc/*version*
  os-release:
    NAME="SLES"
    VERSION="15-SP4"
    VERSION_ID="15.4"
    PRETTY_NAME="SUSE Linux Enterprise Server 15 SP4"
    ID="sles"
    ID_LIKE="suse"
    ANSI_COLOR="0;32"
    CPE_NAME="cpe:/o:suse:sles:15:sp4"

uname -a:
  Linux localhost 5.14.21-150400.22-default #1 SMP PREEMPT_DYNAMIC Wed May 11 06:57:18
  UTC 2022 (49db222) x86_64 x86_64 x86_64 GNU/Linux

Kernel self-reported vulnerability status:

CVE-2018-12207 (iTLB Multihit): Not affected
CVE-2018-3620 (L1 Terminal Fault): Not affected
Microarchitectural Data Sampling: Not affected
CVE-2017-5754 (Meltdown): Not affected
CVE-2018-3639 (Speculative Store Bypass):
  Mitigation: Speculative Store Bypass disabled via prctl and seccomp
CVE-2017-5753 (Spectre variant 1):
  Mitigation: usercopy/swapgs barriers and __user pointer sanitization
CVE-2017-5715 (Spectre variant 2):
  Mitigation: Enhanced IBRS, IBPB:

(Continued on next page)
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Platform Notes (Continued)
conditional, RSB filling
CVE-2020-0543 (Special Register Buffer Data Sampling): Not affected
CVE-2019-11135 (TSX Asynchronous Abort): Not affected

run-level 3 Dec 14 06:54

SPEC is set to: /mnt/ramdisk/cpu2017-1.1.8-ic2022.1

Filesystem Type Size Used Avail Use% Mounted on
tmpfs tmpfs 125G 3.6G 122G 3% /mnt/ramdisk

From /sys/devices/virtual/dmi/id
Vendor: Dell Inc.
Product: PowerEdge R760
Product Family: PowerEdge
Serial: SLR7601

Additional information from dmidecode 3.2 follows. 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 DMBIOS" standard.

Memory:
16x 00AD063200AD HMCG88MEBRA107N 32 GB 2 rank 4800

BIOS:
BIOS Vendor: Dell Inc.
BIOS Version: 0.3.2
BIOS Date: 11/30/2022
BIOS Revision: 0.3

(End of data from sysinfo program)

Compiler Version Notes

C
600.perlbench_s(base, peak) 602.gcc_s(base, peak) 605.mcf_s(base, peak) 625.x264_s(base, peak)

Intel(R) oneAPI DPC++/C++ Compiler for applications running on Intel(R) 64, Version 2022.1.0 Build 20220316
Copyright (C) 1985-2022 Intel Corporation. All rights reserved.

C++
620.omnetpp_s(base, peak) 623.xalancbmk_s(base, peak) 631.deepsjeng_s(base, peak)
641.leela_s(base, peak)

Intel(R) oneAPI DPC++/C++ Compiler for applications running on Intel(R) 64, Version 2022.1.0 Build 20220316
Copyright (C) 1985-2022 Intel Corporation. All rights reserved.

Fortran
648.exchange2_s(base, peak)

Intel(R) Fortran Compiler for applications running on Intel(R) 64, Version 2022.1.0 Build 20220316
Copyright (C) 1985-2022 Intel Corporation. All rights reserved.
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| Test Sponsor:          | Dell Inc.                |
| Tested by:             | Dell Inc.                |
| Test Date:             | Dec-2022                 |
| Hardware Availability: | Feb-2023                 |
| Software Availability: | Jun-2022                 |

### Base Compiler Invocation

**C benchmarks:**
- icx

**C++ benchmarks:**
- icpx

**Fortran benchmarks:**
- ifx

### Base Portability Flags

- 600.perlbench_s: -DSPEC_LP64 -DSPEC_LINUX_X64
- 602.gcc_s: -DSPEC_LP64
- 605.mcf_s: -DSPEC_LP64
- 620.omnetpp_s: -DSPEC_LP64
- 623.xalancbmk_s: -DSPEC_LP64 -DSPEC_LINUX
- 625.x264_s: -DSPEC_LP64
- 631.deepsjeng_s: -DSPEC_LP64
- 641.leela_s: -DSPEC_LP64
- 648.exchange2_s: -DSPEC_LP64
- 657.xz_s: -DSPEC_LP64

### Base Optimization Flags

**C benchmarks:**
- -m64 -std=c11 -Wl,-z,muldefs -xCORE-AVX512 -O3 -ffast-math -flto
- -mfpmath=sse -funroll-loops -qopt-mem-layout-trans=4 -fiopenmp
- -DSPEC_OPENMP -L/usr/local/jemalloc64-5.0.1/lib -ljemalloc

**C++ benchmarks:**
- -m64 -Wl,-z,muldefs -xCORE-AVX512 -O3 -ffast-math -flto
- -mfpmath=sse -funroll-loops -qopt-mem-layout-trans=4
- -L/usr/local/jemalloc64-5.0.1/lib -ljemalloc

**Fortran benchmarks:**
- -m64 -Wl,-z,muldefs -xCORE-AVX512 -O3 -ffast-math -flto
- -mfpmath=sse -funroll-loops -qopt-mem-layout-trans=4
- -nostandard-realloc-lhs -align array32byte
- -L/usr/local/jemalloc64-5.0.1/lib -ljemalloc
**SPEC CPU®2017 Integer Speed Result**

**Dell Inc.**

**PowerEdge R760 (Intel Xeon Gold 6454S)**

<table>
<thead>
<tr>
<th>SPECspeed®2017_int_base</th>
<th>SPECspeed®2017_int_peak</th>
</tr>
</thead>
<tbody>
<tr>
<td>10.9</td>
<td>11.1</td>
</tr>
</tbody>
</table>

**CPU2017 License:** 6573  
**Test Sponsor:** Dell Inc.  
**Tested by:** Dell Inc.

**Test Date:** Dec-2022  
**Hardware Availability:** Feb-2023  
**Software Availability:** Jun-2022

---

**Peak Compiler Invocation**

C benchmarks:
- icx

C++ benchmarks:
- icpx

Fortran benchmarks:
- ifx

---

**Peak Portability Flags**

Same as Base Portability Flags

---

**Peak Optimization Flags**

C benchmarks:
- 600.perlbench_s: -m64 -std=c11 -Wl,-z,muldefs -fprofile-generate(pass 1)  
  -fprofile-use=default.profdata(pass 2) -xCORE-AVX512 -O3  
  -ffast-math -flto -mfpmath=sse -funroll-loops  
  -qopt-mem-layout-trans=4 -fiopenmp -DSPEC_OPENMP  
  -fno-strict-overflow -L/usr/local/jemalloc64-5.0.1/lib  
  -ljemalloc

- 602gcc_s: -m64 -std=c11 -Wl,-z,muldefs -fprofile-generate(pass 1)  
  -fprofile-use=default.profdata(pass 2) -xCORE-AVX512 -O3  
  -ffast-math -flto -mfpmath=sse -funroll-loops  
  -qopt-mem-layout-trans=4 -fiopenmp -DSPEC_OPENMP  
  -L/usr/local/jemalloc64-5.0.1/lib -ljemalloc

- 605.mcf_s: basepeak = yes

- 625.x264_s: -m64 -std=c11 -Wl,-z,muldefs -xCORE-AVX512 -O3  
  -ffast-math -flto -mfpmath=sse -funroll-loops  
  -qopt-mem-layout-trans=4 -fiopenmp -DSPEC_OPENMP  
  -fno-alias -L/usr/local/jemalloc64-5.0.1/lib -ljemalloc

- 657.xz_s: basepeak = yes

C++ benchmarks:

(Continued on next page)
### SPEC CPU®2017 Integer Speed Result

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#### Peak Optimization Flags (Continued)

- 620.omnetpp_s: basepeak = yes
- 623.xalancbmk_s: basepeak = yes
- 631.deepsjeng_s: basepeak = yes
- 641.leela_s: basepeak = yes

**Fortran benchmarks:**

- 648.exchange2_s: basepeak = yes

---

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


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