# SPEC CPU®2017 Integer Rate Result

## Dell Inc.

### PowerEdge T350 (Intel Xeon E-2388G, 3.20 GHz)

<table>
<thead>
<tr>
<th>SPECrate®2017_int_base</th>
<th>68.1</th>
</tr>
</thead>
<tbody>
<tr>
<td>SPECrate®2017_int_peak</td>
<td>71.2</td>
</tr>
</tbody>
</table>

### CPU2017 License: 55

**Test Sponsor:** Dell Inc.

**Tested by:** Dell Inc.

**Test Date:** Sep-2021

**Hardware Availability:** Oct-2021

**Software Availability:** May-2021

### Hardware

- **CPU Name:** Intel Xeon E-2388G
- **Max MHz:** 5100
- **Nominal:** 3200
- **Enabled:** 8 cores, 1 chip, 2 threads/core
- **Orderable:** 1 chip
- **Cache L1:** 32 KB I + 48 KB D on chip per core
- **L2:** 512 KB I+D on chip per core
- **L3:** 16 MB I+D on chip per chip
- **Other:** None
- **Memory:** 64 GB (2 x 32 GB 2Rx8 PC4-3200AA-E)
- **Storage:** 70 GB on tmpfs
- **Other:** None

### Software

- **OS:** Red Hat Enterprise Linux 8.4 (Ootpa)
  - 4.18.0-305.el8.x86_64
- **Compiler:**
  - C/C++: Version 2021.1 of Intel oneAPI DPC++/C++ Compiler Build 20201113 for Linux;
  - Fortran: Version 2021.1 of Intel Fortran Compiler Classic Build 20201112 for Linux;
  - C/C++: Version 2021.1 of Intel C/C++ Compiler Classic Build 20201112 for Linux
- **Parallel:** No
- **Firmware:** Version 1.0.1 released Aug-2021
- **File System:** tmpfs
- **System State:** Run level 3 (multi-user)
- **Base Pointers:** 64-bit
- **Peak Pointers:** 32/64-bit
- **Other:** jemalloc memory allocator V5.0.1
- **Power Management:** BIOS and OS set to prefer performance at the cost of additional power usage.

### SPECrate®2017 Int Results

<table>
<thead>
<tr>
<th>Benchmark</th>
<th>SPECrate®2017_int_peak</th>
<th>SPECrate®2017_int_base</th>
</tr>
</thead>
<tbody>
<tr>
<td>perlbench_r</td>
<td>49.8</td>
<td>57.8</td>
</tr>
<tr>
<td>gcc_r</td>
<td>45.5</td>
<td>58.4</td>
</tr>
<tr>
<td>mcf_r</td>
<td>33.2</td>
<td>107</td>
</tr>
<tr>
<td>omnetpp_r</td>
<td></td>
<td></td>
</tr>
<tr>
<td>xalancbmk_r</td>
<td></td>
<td>89.2</td>
</tr>
<tr>
<td>x264_r</td>
<td></td>
<td>163</td>
</tr>
<tr>
<td>deepsjeng_r</td>
<td></td>
<td>57.5</td>
</tr>
<tr>
<td>leela_r</td>
<td></td>
<td>57.2</td>
</tr>
<tr>
<td>exchange2_r</td>
<td></td>
<td>154</td>
</tr>
<tr>
<td>xz_r</td>
<td></td>
<td>37.7</td>
</tr>
</tbody>
</table>

---

**Notes:**

- **Software Availability:** May-2021
- **Test Sponsor:** Dell Inc.
- **Test Date:** Sep-2021
- **Hardware Availability:** Oct-2021
- **Tested by:** Dell Inc.
Dell Inc.

PowerEdge T350 (Intel Xeon E-2388G, 3.20 GHz)

SPEC CPU®2017 Integer Rate Result

Copyright 2017-2021 Standard Performance Evaluation Corporation

SPECrate®2017_int_base = 68.1

SPECrate®2017_int_peak = 71.2

Results Table

<table>
<thead>
<tr>
<th>Benchmark</th>
<th>Copies</th>
<th>Seconds</th>
<th>Ratio</th>
<th>Copies</th>
<th>Seconds</th>
<th>Ratio</th>
<th>Seconds</th>
<th>Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>500.perlbench_r</td>
<td>16</td>
<td>511</td>
<td>49.9</td>
<td>511</td>
<td>49.8</td>
<td>16</td>
<td>441</td>
<td>57.8</td>
</tr>
<tr>
<td>502.gcc_r</td>
<td>16</td>
<td>498</td>
<td>45.5</td>
<td>496</td>
<td>45.7</td>
<td>16</td>
<td>388</td>
<td>58.5</td>
</tr>
<tr>
<td>505.mcf_r</td>
<td>16</td>
<td>243</td>
<td>107</td>
<td>242</td>
<td>107</td>
<td>16</td>
<td>243</td>
<td>107</td>
</tr>
<tr>
<td>520.omnetpp_r</td>
<td>16</td>
<td>631</td>
<td>33.2</td>
<td>630</td>
<td>33.3</td>
<td>16</td>
<td>631</td>
<td>33.2</td>
</tr>
<tr>
<td>523.xalancbmk_r</td>
<td>16</td>
<td>188</td>
<td>89.9</td>
<td>189</td>
<td>89.2</td>
<td>16</td>
<td>188</td>
<td>89.2</td>
</tr>
<tr>
<td>525.x264_r</td>
<td>16</td>
<td>180</td>
<td>156</td>
<td>180</td>
<td>155</td>
<td>16</td>
<td>172</td>
<td>163</td>
</tr>
<tr>
<td>531.deepsjeng_r</td>
<td>16</td>
<td>319</td>
<td>57.5</td>
<td>318</td>
<td>57.6</td>
<td>16</td>
<td>319</td>
<td>57.5</td>
</tr>
<tr>
<td>541.leela_r</td>
<td>16</td>
<td>463</td>
<td>57.2</td>
<td>463</td>
<td>57.2</td>
<td>16</td>
<td>463</td>
<td>57.2</td>
</tr>
<tr>
<td>548.exchange2_r</td>
<td>16</td>
<td>271</td>
<td>155</td>
<td>271</td>
<td>155</td>
<td>16</td>
<td>271</td>
<td>155</td>
</tr>
<tr>
<td>557.xz_r</td>
<td>16</td>
<td>458</td>
<td>37.7</td>
<td>458</td>
<td>37.8</td>
<td>16</td>
<td>458</td>
<td>37.8</td>
</tr>
</tbody>
</table>

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

Submit Notes

The taskset mechanism was used to bind copies to processors. The config file option 'submit' was used to generate taskset commands to bind each copy to a specific processor. For details, please see the config file.

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:

```
LD_LIBRARY_PATH = 
    "/mnt/ramdisk/cpu2017-1.1.8-ic2021.1/lib/intel64:/mnt/ramdisk/cpu2017-1.1.8-ic2021.1/lib/ia32:/mnt/ramdisk/cpu2017-1.1.8-ic2021.1/je5.0.1-32"
MALLOCONF = "retain:true"
```

General Notes

Binaries compiled on a system with 1x Intel Core i9-7980XE CPU + 64GB RAM memory using Red Hat Enterprise Linux 8.1

Transparent Huge Pages enabled by default

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

(Continued on next page)
Dell Inc.
PowerEdge T350 (Intel Xeon E-2388G, 3.20 GHz)

SPECrate\textsuperscript{\textregistered 2017\_int\_base} = 68.1
SPECrate\textsuperscript{\textregistered 2017\_int\_peak} = 71.2

<table>
<thead>
<tr>
<th>CPU2017 License: 55</th>
<th>Test Date:</th>
<th>Sep-2021</th>
</tr>
</thead>
<tbody>
<tr>
<td>Test Sponsor: Dell Inc.</td>
<td>Hardware Availability: Oct-2021</td>
<td></td>
</tr>
<tr>
<td>Tested by: Dell Inc.</td>
<td>Software Availability: May-2021</td>
<td></td>
</tr>
</tbody>
</table>

General Notes (Continued)

built with the RedHat Enterprise 7.5, and the system compiler gcc 4.8.5

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 70 GB ramdisk created with the cmd: "mount \textasciitilde t tmpfs \textasciitilde o size=70G tmpfs /mnt/ramdisk"

Platform Notes

BIOS settings:
Virtualization Technology : Disabled
System Profile : Custom
CPU Power Management : Maximum Performance
C1E : Disabled
C States : Autonomous
PCI ASPM L1 Link
Power Management : Disabled

Sysinfo program /mnt/ramdisk/cpu2017-1.1.8-ic2021.1/bin/sysinfo
Rev: r6622 of 2021-04-07 982a61ec0915b55891ef0e16aaca64d
running on localhost.localdomain Sat Sep  4 01:10:28 2021

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
model name : Intel\textcopyright(R) Xeon\textcopyright(R) E-2388G CPU @ 3.20GHz
  1 "physical id"s (chips)
  16 "processors"
cores, siblings (Caution: counting these is hw and system dependent. The following excerpts from /proc/cpuinfo might not be reliable. Use with caution.)
cpu cores : 8
siblings : 16
physical 0: cores 0 1 2 3 4 5 6 7

From lscpu from util-linux 2.32.1:
Architecture: x86_64
CPU op-mode(s): 32-bit, 64-bit

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

Dell Inc. PowerEdge T350 (Intel Xeon E-2388G, 3.20 GHz)  

SPECrate®2017_int_base = 68.1  
SPECrate®2017_int_peak = 71.2

CPU2017 License: 55  
Test Sponsor: Dell Inc.  
Test Date: Sep-2021

Tested by: Dell Inc.  
Hardware Availability: Oct-2021

Software Availability: May-2021

---

**Platform Notes (Continued)**

Byte Order: Little Endian
CPU(s): 16
On-line CPU(s) list: 0-15
Thread(s) per core: 2
Core(s) per socket: 8
Socket(s): 1
NUMA node(s): 1
Vendor ID: GenuineIntel
BIOS Vendor ID: Intel
CPU family: 6
Model: 167
Model name: Intel(R) Xeon(R) E-2388G CPU @ 3.20GHz
BIOS Model name: Intel(R) Xeon(R) E-2388G CPU @ 3.20GHz
Stepping: 1
CPU MHz: 4602.850
BogoMIPS: 6384.00
Virtualization: VT-x
L1d cache: 48K
L1i cache: 32K
L2 cache: 512K
L3 cache: 16384K
NUMA node0 CPU(s): 0-15

Flags: fpu vme de pse tsc msr pae mce cmov pat pse36 clflush dts acpi mmx fxsr sse sse2 ss ht tm pbe syscall nx pdpe1gb rtdynamic nesterov bit8 pse36 clflush dts acpi mmx fxsr sse sse2 ss ht tm pbe syscall nx pdpe1gb rtdynamic nesterov

**/proc/cpuinfo cache data**

```
 cache size : 16384 KB
```

From numactl --hardware
WARNING: a numactl 'node' might or might not correspond to a physical chip.
available: 1 nodes (0)
node 0 cpus: 0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15
node 0 size: 64284 MB
node 0 free: 54371 MB
node distances:
node 0
0: 10

---

(Continued on next page)
Dell Inc.  
PowerEdge T350 (Intel Xeon E-2388G, 3.20 GHz)

SPEC CPU®2017 Integer Rate Result

SPECrate®2017_int_base = 68.1  
SPECrate®2017_int_peak = 71.2

CPU2017 License: 55  
Test Sponsor: Dell Inc.  
Test Date: Sep-2021

Tested by: Dell Inc.  
Hardware Availability: Oct-2021

Software Availability: May-2021

Platform Notes (Continued)

From /proc/meminfo
    MemTotal: 65827724 kB
    HugePages_Total: 0
    Hugepagesize: 2048 kB

/sbin/tuned-adm active
    Current active profile: throughput-performance

From /etc/*release* /etc/*version*
    NAME="Red Hat Enterprise Linux"
    VERSION="8.4 (Ootpa)"
    ID="rhel"
    ID_LIKE="fedora"
    VERSION_ID="8.4"
    PLATFORM_ID="platform:el8"
    PRETTY_NAME="Red Hat Enterprise Linux 8.4 (Ootpa)"
    ANSI_COLOR="0;31"

redhat-release: Red Hat Enterprise Linux release 8.4 (Ootpa)
system-release: Red Hat Enterprise Linux release 8.4 (Ootpa)
system-release-cpe: cpe:/o:redhat:enterprise_linux:8.4:ga

uname -a:
    Linux localhost.localdomain 4.18.0-305.el8.x86_64 #1 SMP Thu Apr 29 08:54:30 EDT 2021
    x86_64 x86_64 x86_64 GNU/Linux

Kernel self-reported vulnerability status:

CVE-2018-12207 (iTLB Multi-hit): Not affected
CVE-2018-3620 (L1 Terminal Fault): Not affected
Microarchitectural Data Sampling: Not affected
CVE-2017-5754 (Meltdown): Mitigation: Speculative Store Bypass disabled via prctl and seccomp
CVE-2018-3639 (Speculative Store Bypass): Mitigation: Speculative Store Bypass disabled via prctl and seccomp
CVE-2017-5753 (Spectre variant 1): Mitigation: usercopy/swaps barriers and __user pointer sanitation
CVE-2017-5715 (Spectre variant 2): Mitigation: Enhanced IBRS, IBPB: conditional, RSB filling
CVE-2020-0543 (Special Register Buffer Data Sampling): Not affected
CVE-2019-11135 (TSX Asynchronous Abort): Not affected

run-level 3 Sep 4 01:08

SPEC is set to: /mnt/ramdisk/cpu2017-1.1.8-ic2021.1
Filesystem Type Size Used Avail Use% Mounted on

(Continued on next page)
### Platform Notes (Continued)

```
| tmpfs | tmpfs | 70G   | 4.4G  | 66G   | 7% /mnt/ramdisk |
```

From `/sys/devices/virtual/dmi/id`
- **Vendor:** Dell Inc.
- **Product:** PowerEdge T350
- **Product Family:** PowerEdge

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 SMBIOS" standard.

**Memory:**
- 2x 00AD00000C01 HMAA4GU7CJR8N-XN 32 GB 2 rank 3200

**BIOS:**
- **BIOS Vendor:** Dell Inc.
- **BIOS Version:** 1.0.1
- **BIOS Date:** 08/18/2021
- **BIOS Revision:** 1.0

(End of data from `sysinfo` program)

### Compiler Version Notes

```
C       | 500.perlbench_r(peak)
```

Intel(R) C Intel(R) 64 Compiler Classic for applications running on Intel(R) 64, Version 2021.1 Build 20201112_000000

Copyright (C) 1985-2020 Intel Corporation. All rights reserved.

```
C       | 502.gcc_r(peak)
```

Intel(R) oneAPI DPC++/C++ Compiler for applications running on IA-32, Version 2021.1 Build 20201113

Copyright (C) 1985-2020 Intel Corporation. All rights reserved.

```
C       | 500.perlbench_r(base) 502.gcc_r(base) 505.mcf_r(base, peak)
        | 525.x264_r(base, peak) 557.xz_r(base, peak)
```

Intel(R) oneAPI DPC++/C++ Compiler for applications running on Intel(R) 64, Version 2021.1 Build 20201113

(Continued on next page)
Dell Inc.  
PowerEdge T350 (Intel Xeon E-2388G, 3.20 GHz)

**SPEC CPU®2017 Integer Rate Result**

<table>
<thead>
<tr>
<th>SPECrate®2017_int_base = 68.1</th>
</tr>
</thead>
<tbody>
<tr>
<td>SPECrate®2017_int_peak = 71.2</td>
</tr>
</tbody>
</table>

**CPU2017 License:** 55  
**Test Date:** Sep-2021  
**Test Sponsor:** Dell Inc.  
**Tested by:** Dell Inc.  
**Hardware Availability:** Oct-2021  
**Software Availability:** May-2021

---

Compiler Version Notes (Continued)

Copyright (C) 1985-2020 Intel Corporation. All rights reserved.

---

C | 500.perlbench_r(peak)
---

Intel(R) C Intel(R) 64 Compiler Classic for applications running on Intel(R) 64, Version 2021.1 Build 20201112_000000  
Copyright (C) 1985-2020 Intel Corporation. All rights reserved.

---

C | 502.gcc_r(peak)
---

Intel(R) oneAPI DPC++/C++ Compiler for applications running on IA-32, Version 2021.1 Build 20201113  
Copyright (C) 1985-2020 Intel Corporation. All rights reserved.

---

C | 500.perlbench_r(base) 502.gcc_r(base) 505.mcf_r(base, peak)  
| 525.x264_r(base, peak) 557.xz_r(base, peak)
---

Intel(R) oneAPI DPC++/C++ Compiler for applications running on Intel(R) 64, Version 2021.1 Build 20201113  
Copyright (C) 1985-2020 Intel Corporation. All rights reserved.

---

C | 500.perlbench_r(peak)
---

Intel(R) C Intel(R) 64 Compiler Classic for applications running on Intel(R) 64, Version 2021.1 Build 20201112_000000  
Copyright (C) 1985-2020 Intel Corporation. All rights reserved.

---

C | 502.gcc_r(peak)
---

Intel(R) oneAPI DPC++/C++ Compiler for applications running on IA-32, Version 2021.1 Build 20201113  
Copyright (C) 1985-2020 Intel Corporation. All rights reserved.

---

C | 500.perlbench_r(base) 502.gcc_r(base) 505.mcf_r(base, peak)  
| 525.x264_r(base, peak) 557.xz_r(base, peak)

(Continued on next page)
Dell Inc.

PowerEdge T350 (Intel Xeon E-2388G, 3.20 GHz)

SPECrates®2017_int_base = 68.1
SPECrates®2017_int_peak = 71.2

CPU2017 License: 55
Test Sponsor: Dell Inc.
Tested by: Dell Inc.

Test Date: Sep-2021
Hardware Availability: Oct-2021
Software Availability: May-2021

Compiler Version Notes (Continued)

Intel(R) oneAPI DPC++/C++ Compiler for applications running on Intel(R) 64, Version 2021.1 Build 20201113
Copyright (C) 1985-2020 Intel Corporation. All rights reserved.

------------------------------------------------------------------------------
C++ | 520.omnetpp_r(base, peak) 523.xalancbmk_r(base, peak)
    | 531.deepsjeng_r(base, peak) 541.leela_r(base, peak)
------------------------------------------------------------------------------
Intel(R) oneAPI DPC++/C++ Compiler for applications running on Intel(R) 64, Version 2021.1 Build 20201113
Copyright (C) 1985-2020 Intel Corporation. All rights reserved.

------------------------------------------------------------------------------
Fortran | 548.exchange2_r(base, peak)
------------------------------------------------------------------------------
Intel(R) Fortran Intel(R) 64 Compiler Classic for applications running on Intel(R) 64, Version 2021.1 Build 20201112_000000
Copyright (C) 1985-2020 Intel Corporation. All rights reserved.

Base Compiler Invocation

C benchmarks:
icx

C++ benchmarks:
icpx

Fortran benchmarks:
ifort

Base Portability Flags

500.perlbench_r: -DSPEC_LP64 -DSPEC_LINUX_X64
502.gcc_r: -DSPEC_LP64
505.mcf_r: -DSPEC_LP64
520.omnetpp_r: -DSPEC_LP64
523.xalancbmk_r: -DSPEC_LP64 -DSPEC_LINUX
525.x264_r: -DSPEC_LP64
531.deepsjeng_r: -DSPEC_LP64

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

**Dell Inc.**

PowerEdge T350 (Intel Xeon E-2388G, 3.20 GHz)  

| SPECrate®2017_int_base = 68.1 |
| SPECrate®2017_int_peak = 71.2 |

**CPU2017 License:** 55  
**Test Sponsor:** Dell Inc.  
**Tested by:** Dell Inc.  
**Test Date:** Sep-2021  
**Hardware Availability:** Oct-2021  
**Software Availability:** May-2021

---

#### Base Portability Flags (Continued)

- 541.leela_r: -DSPEC_LP64  
- 548.exchange2_r: -DSPEC_LP64  
- 557.xz_r: -DSPEC_LP64

---

#### Base Optimization Flags

**C benchmarks:**

- `-w` `-std=c11` `-m64` `-Wl,-z,muldefs` `-xCORE-AVX512` `-O3` `-ffast-math`  
- `-flto` `-mfpmath=sse` `-funroll-loops` `-qopt-mem-layout-trans=4`  
- `-mbranches-within-32B-boundaries`  
- `-L/opt/intel/oneapi/compiler/2021.1.1/linux/compiler/lib/intel64_lin`  
- `-lqkmalloc`

**C++ benchmarks:**

- `-w` `-m64` `-Wl,-z,muldefs` `-xCORE-AVX512` `-O3` `-ffast-math` `-flto`  
- `-mfpmath=sse` `-funroll-loops` `-qopt-mem-layout-trans=4`  
- `-mbranches-within-32B-boundaries`  
- `-L/opt/intel/oneapi/compiler/2021.1.1/linux/compiler/lib/intel64_lin`  
- `-lqkmalloc`

**Fortran benchmarks:**

- `-w` `-m64` `-Wl,-z,muldefs` `-xCORE-AVX512` `-O3` `-ipo` `-no-prec-div`  
- `-qopt-mem-layout-trans=4` `-nostandard-realloc-lhs` `-align array32byte`  
- `-auto` `-mbranches-within-32B-boundaries`  
- `-L/opt/intel/oneapi/compiler/2021.1.1/linux/compiler/lib/intel64_lin`  
- `-lqkmalloc`

---

#### Peak Compiler Invocation

**C benchmarks (except as noted below):**

- `icx`
- `500.perlbench_r: icc`

**C++ benchmarks:**

- `icpx`

**Fortran benchmarks:**

- `ifort`
Peak Portability Flags

500.perlbench_r: -DSPEC_LP64 -DSPEC_LINUX_X64
502.gcc_r: -D_FILE_OFFSET_BITS=64
505.mcf_r: -DSPEC_LP64
520.omnetpp_r: -DSPEC_LP64
523.xalancbmk_r: -DSPEC_LP64 -DSPEC_LINUX
525.x264_r: -DSPEC_LP64
531.deepsjeng_r: -DSPEC_LP64
541.leela_r: -DSPEC_LP64
548.exchange2_r: -DSPEC_LP64
557.xz_r: -DSPEC_LP64

Peak Optimization Flags

C benchmarks:
500.perlbench_r: -Wl,-z,muldefs -prof-gen(pass 1) -prof-use(pass 2)
-xCORE-AVX512 -ipo -O3 -no-prec-div
-qopt-mem-layout-trans=4 -fno-strict-overflow
-mbranches-within-32B-boundaries
-L/opt/intel/oneapi/compiler/2021.1.1/linux/compiler/lib/intel64_lin
-lqkmalloc
502.gcc_r: -m32
-L/opt/intel/oneapi/compiler/2021.1.1/linux/compiler/lib/ia32_lin
-std=gnu89 -Wl,-z,muldefs -fprofile-generate(pass 1)
-fprofile-use=default.profdata(pass 2) -xCORE-AVX512 -flto
-Ofast(pass 1) -O3 -ffast-math -qopt-mem-layout-trans=4
-mbranches-within-32B-boundaries
-L/usr/local/jemalloc32-5.0.1/lib -ljemalloc
505.mcf_r: basepeak = yes
520.omnetpp_r -w -std=c11 -m64 -Wl,-z,muldefs -xCORE-AVX512 -flto
-O3 -ffast-math -qopt-mem-layout-trans=4 -fno-alias
-mbranches-within-32B-boundaries
-L/opt/intel/oneapi/compiler/2021.1.1/linux/compiler/lib/intel64_lin
-lqkmalloc
557.xz_r: basepeak = yes

C++ benchmarks:
520.omnetpp_r: basepeak = yes

(Continued on next page)
### Peak Optimization Flags (Continued)

<table>
<thead>
<tr>
<th>Benchmark</th>
<th>Optimization Flags</th>
</tr>
</thead>
<tbody>
<tr>
<td>523.xalancbmk_r</td>
<td>basepeak = yes</td>
</tr>
<tr>
<td>531.deepsjeng_r</td>
<td>basepeak = yes</td>
</tr>
<tr>
<td>541.leela_r</td>
<td>basepeak = yes</td>
</tr>
<tr>
<td>548.exchange2_r</td>
<td>basepeak = yes</td>
</tr>
</tbody>
</table>

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: