### Fujitsu

PRIMERGY TX1330 M4, Intel Xeon E-2226G, 3.40 GHz

| SPECrate®2017_int_base = 40.9 | SPECrate®2017_int_peak = 42.4 |

| CPU2017 License: | 19 |
| Test Sponsor: | Fujitsu |
| Tested by: | Fujitsu |
| Test Date: | Jan-2020 |
| Hardware Availability: | Oct-2019 |
| Software Availability: | May-2019 |

| Copies | 0 | 6.00 | 12.0 | 18.0 | 24.0 | 30.0 | 36.0 | 42.0 | 48.0 | 54.0 | 60.0 | 66.0 | 72.0 | 78.0 | 84.0 | 90.0 | 96.0 |
| 500.perlbench_r | 6 | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | |
| 502.gcc_r | 6 | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | |
| 505.mcf_r | 6 | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | |
| 520.omnetpp_r | 6 | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | |
| 523.xalancbmk_r | 6 | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | |
| 525.x264_r | 6 | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | |
| 531.deepsjeng_r | 6 | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | |
| 541.leela_r | 6 | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | |
| 548.exchange2_r | 6 | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | |
| 557.xz_r | 6 | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | |

<table>
<thead>
<tr>
<th>Hardware</th>
<th>Software</th>
</tr>
</thead>
<tbody>
<tr>
<td>CPU Name: Intel Xeon E-2226G</td>
<td>OS: SUSE Linux Enterprise Server 15</td>
</tr>
<tr>
<td>Max MHz: 4700</td>
<td>4.12.14-25.28-default</td>
</tr>
<tr>
<td>Nominal: 3400</td>
<td>Compiler: Intel C/C++ Compiler for Linux; Fortran: Version 19.0.4.227 of</td>
</tr>
<tr>
<td>Enabled: 6 cores, 1 chip</td>
<td>Intel Fortran Compiler for Linux</td>
</tr>
<tr>
<td>Orderable: 1 chip</td>
<td></td>
</tr>
<tr>
<td>Cache L1: 32 KB I + 32 KB D on chip per core</td>
<td>Parallel: No</td>
</tr>
<tr>
<td>L2: 256 KB I+D on chip per core</td>
<td>Firmware: Fujitsu BIOS Version V5.0.0.13 R1.12.0 for D3673-A1x. Released Sep-2019</td>
</tr>
<tr>
<td>L3: 12 MB I+D on chip per chip</td>
<td></td>
</tr>
<tr>
<td>Other: None</td>
<td>File System: xfs</td>
</tr>
<tr>
<td>Memory: 64 GB (4 x 16 GB 2Rx8 PC4-2666V-E)</td>
<td>System State: Run level 3 (multi-user)</td>
</tr>
<tr>
<td>Storage: 1 x SATA M.2 SSD, 480 GB</td>
<td>Base Pointers: 64-bit</td>
</tr>
<tr>
<td>Other: None</td>
<td>Peak Pointers: 32/64-bit</td>
</tr>
<tr>
<td></td>
<td>Other: jemalloc memory allocator V5.0.1</td>
</tr>
<tr>
<td></td>
<td>Power Management: BIOS set to prefer performance at the cost of additional power usage</td>
</tr>
</tbody>
</table>
SPEC CPU®2017 Integer Rate Result
Copyright 2017-2020 Standard Performance Evaluation Corporation

Fujitsu
PRIMERGY TX1330 M4, Intel Xeon E-2226G, 3.40 GHz

CPU2017 License: 19
Test Sponsor: Fujitsu
Test Date: Jan-2020
Hardware Availability: Oct-2019
Tested by: Fujitsu
Software Availability: May-2019

Results Table

<table>
<thead>
<tr>
<th>Benchmark</th>
<th>Copies</th>
<th>Seconds</th>
<th>Ratio</th>
<th>Seconds</th>
<th>Ratio</th>
<th>Seconds</th>
<th>Ratio</th>
<th>Copies</th>
<th>Seconds</th>
<th>Ratio</th>
<th>Seconds</th>
<th>Ratio</th>
<th>Seconds</th>
<th>Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>500.perlbench_r</td>
<td>6</td>
<td>271</td>
<td>35.3</td>
<td>272</td>
<td>35.1</td>
<td>272</td>
<td>35.1</td>
<td>6</td>
<td>235</td>
<td>40.7</td>
<td>234</td>
<td>40.7</td>
<td>235</td>
<td>40.7</td>
</tr>
<tr>
<td>502.gcc_r</td>
<td>6</td>
<td>234</td>
<td>36.4</td>
<td>234</td>
<td>36.4</td>
<td>233</td>
<td>36.5</td>
<td>6</td>
<td>198</td>
<td>42.9</td>
<td>199</td>
<td>42.8</td>
<td>199</td>
<td>42.8</td>
</tr>
<tr>
<td>505.mcf_r</td>
<td>6</td>
<td>197</td>
<td>49.3</td>
<td>196</td>
<td>49.4</td>
<td>196</td>
<td>49.4</td>
<td>6</td>
<td>197</td>
<td>49.3</td>
<td>196</td>
<td>49.4</td>
<td>196</td>
<td>49.4</td>
</tr>
<tr>
<td>520.omnetpp_r</td>
<td>6</td>
<td>370</td>
<td>21.3</td>
<td>370</td>
<td>21.3</td>
<td>370</td>
<td>21.3</td>
<td>6</td>
<td>370</td>
<td>21.3</td>
<td>370</td>
<td>21.3</td>
<td>370</td>
<td>21.3</td>
</tr>
<tr>
<td>523.xalanbmk_r</td>
<td>6</td>
<td>131</td>
<td>48.5</td>
<td>130</td>
<td>48.6</td>
<td>131</td>
<td>48.4</td>
<td>6</td>
<td>129</td>
<td>49.2</td>
<td>130</td>
<td>48.9</td>
<td>130</td>
<td>48.8</td>
</tr>
<tr>
<td>525.x264_r</td>
<td>6</td>
<td>112</td>
<td>93.8</td>
<td>112</td>
<td>93.8</td>
<td>112</td>
<td>93.8</td>
<td>6</td>
<td>108</td>
<td>97.0</td>
<td>108</td>
<td>97.1</td>
<td>108</td>
<td>97.1</td>
</tr>
<tr>
<td>531.deepsjeng_r</td>
<td>6</td>
<td>201</td>
<td>34.2</td>
<td>201</td>
<td>34.2</td>
<td>201</td>
<td>34.3</td>
<td>6</td>
<td>201</td>
<td>34.2</td>
<td>201</td>
<td>34.2</td>
<td>201</td>
<td>34.3</td>
</tr>
<tr>
<td>541.leela_r</td>
<td>6</td>
<td>332</td>
<td>29.9</td>
<td>332</td>
<td>29.9</td>
<td>331</td>
<td>30.0</td>
<td>6</td>
<td>332</td>
<td>29.9</td>
<td>332</td>
<td>30.9</td>
<td>331</td>
<td>30.9</td>
</tr>
<tr>
<td>548.exchange2_r</td>
<td>6</td>
<td>161</td>
<td>97.9</td>
<td>161</td>
<td>97.9</td>
<td>159</td>
<td>98.7</td>
<td>6</td>
<td>160</td>
<td>98.2</td>
<td>159</td>
<td>98.7</td>
<td>161</td>
<td>97.8</td>
</tr>
<tr>
<td>557.xz_r</td>
<td>6</td>
<td>303</td>
<td>21.4</td>
<td>303</td>
<td>21.4</td>
<td>303</td>
<td>21.4</td>
<td>6</td>
<td>302</td>
<td>21.4</td>
<td>302</td>
<td>21.4</td>
<td>302</td>
<td>21.4</td>
</tr>
</tbody>
</table>

SPECrate®2017_int_base = 40.9
SPECrate®2017_int_peak = 42.4

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"
Kernel Boot Parameter set with: nohz_full=1-15

Environment Variables Notes

Environment variables set by runcpu before the start of the run:
LD_LIBRARY_PATH = 
"/home/Benchmark/speccpu2017-1.1.0/lib/intel64:/home/Benchmark/speccpu2017-1.1.0/lib/ia32:/home/Benchmark/speccpu2017-1.1.0/je5.0.1-32"

General Notes

Environment variables set by runcpu before the start of the run:
LD_LIBRARY_PATH = "/home/Benchmark/speccpu2017-1.1.0/lib/intel64"
Binaries compiled on a system with 1x Intel Core i9-7900X CPU + 32 GB RAM
memory using Redhat Enterprise Linux 7.5
Transparent Huge Pages enabled by default
Prior to runcpu invocation

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

**Fujitsu**

PRIMERGY TX1330 M4, Intel Xeon E-2226G, 3.40 GHz

<table>
<thead>
<tr>
<th>SPECrate®2017_int_base</th>
<th>SPECrate®2017_int_peak</th>
</tr>
</thead>
<tbody>
<tr>
<td>40.9</td>
<td>42.4</td>
</tr>
</tbody>
</table>

**CPU2017 License**: 19  
**Test Sponsor**: Fujitsu  
**Test Date**: Jan-2020  
**Hardware Availability**: Oct-2019  
**Tested by**: Fujitsu  
**Software Availability**: May-2019

---

### General Notes (Continued)

Filesystem page cache synced and cleared with:
```
sync; echo 3> /proc/sys/vm/drop_caches
```

jemalloc: configured and built at default for 32bit (i686) and 64bit (x86_64) targets
jemalloc: built with the RedHat Enterprise 7.4, and the system compiler gcc 4.8.5
jemalloc: sources available via jemalloc.net

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.

---

### Platform Notes

**BIOS configuration**:
- C-States = Disabled
- Fan Control = Full
- Intel Virtualization Technology = Disabled
- Intel(R) Speed Shift Technology = Disabled

Sysinfo program /home/Benchmark/speccpu2017-1.1.0/bin/sysinfo
Rev: r6365 of 2019-08-21 295195f888a3d7ebdb1e6e46a485a0011
running on SLES15-BMT Sat Jan 11 11:29:13 2020

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(R) Xeon(R) E-2226G CPU @ 3.40GHz
- 1 "physical id"s (chips)
- 6 "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: 6
- siblings: 6
- physical 0: cores 0 1 2 3 4 5

From lscpu:
- Architecture: x86_64
- CPU op-mode(s): 32-bit, 64-bit
- Byte Order: Little Endian
- CPU(s): 6
- On-line CPU(s) list: 0-5
- Thread(s) per core: 1
- Core(s) per socket: 6

(Continued on next page)
SPEC CPU®2017 Integer Rate Result
Copyright 2017-2020 Standard Performance Evaluation Corporation

Fujitsu
PRIMERGY TX1330 M4, Intel Xeon E-2226G, 3.40 GHz

SPECreate®2017_int_base = 40.9
SPECreate®2017_int_peak = 42.4

CPU2017 License: 19
Test Sponsor: Fujitsu
Tested by: Fujitsu

Test Date: Jan-2020
Hardware Availability: Oct-2019
Software Availability: May-2019

Platform Notes (Continued)

Socket(s): 1
NUMA node(s): 1
Vendor ID: GenuineIntel
CPU family: 6
Model: 158
Model name: Intel(R) Xeon(R) E-2226G CPU @ 3.40GHz
Stepping: 10
CPU MHz: 3400.000
CPU max MHz: 4700.0000
CPU min MHz: 800.0000
BogoMIPS: 6816.00
Virtualization: VT-x
L1d cache: 32K
L1i cache: 32K
L2 cache: 256K
L3 cache: 12288K
NUMA node0 CPU(s): 0-5

Flags: fpu vme de pse tsc msr pae mca cmov pat pse36 clflush dts acpi mmx fxsr sse sse2 ss ht tm pbe syscall nx pdpe1gb rdtscp lm constant_tsc arch_perfmon pebs bts rep_good nopl xtopology nonstop_tsc cpuid

/proc/cpuinfo cache data
  cache size : 12288 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
  node 0 size: 63768 MB
  node 0 free: 63294 MB
  node distances:
    node 0
  0: 10

From /proc/meminfo
  MemTotal: 65299116 kB
  HugePages_Total: 0
  Hugepagesize: 2048 kB

From /etc/*release* /etc/*version*

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

**Fujitsu**

PRIMERGY TX1330 M4, Intel Xeon E-2226G, 3.40 GHz

<table>
<thead>
<tr>
<th>CPU2017 License:</th>
<th>19</th>
</tr>
</thead>
<tbody>
<tr>
<td>Test Sponsor:</td>
<td>Fujitsu</td>
</tr>
<tr>
<td>Tested by:</td>
<td>Fujitsu</td>
</tr>
</tbody>
</table>

**SPECrate®2017_int_base = 40.9**

**SPECrate®2017_int_peak = 42.4**

---

### Platform Notes (Continued)

```plaintext
os-release:
NAME="SLES"
VERSION="15"
VERSION_ID="15"
PRETTY_NAME="SUSE Linux Enterprise Server 15"
ID="sles"
ID_LIKE="suse"
ANSI_COLOR="0;32"
CPE_NAME="cpe:/o:suse:sles:15"

uname -a:
Linux SLES15-BMT 4.12.14-25.28-default #1 SMP Wed Jan 16 20:00:47 UTC 2019 (dd6077c)
x86_64 x86_64 x86_64 GNU/Linux

Kernel self-reported vulnerability status:

CVE-2018-3620 (L1 Terminal Fault): Mitigation: PTE Inversion
Microarchitectural Data Sampling: No status reported
CVE-2017-5754 (Meltdown): Mitigation: PTI
CVE-2018-3639 (Speculative Store Bypass): Vulnerable
CVE-2017-5753 (Spectre variant 1): Mitigation: __user pointer sanitization
CVE-2017-5715 (Spectre variant 2): Mitigation: Indirect Branch Restricted Speculation, IBM: conditional, IBRS_FW, STIBP: disabled, RSB filling

run-level 3 Jan 11 11:24

SPEC is set to: /home/Benchmark/speccpu2017-1.1.0

<table>
<thead>
<tr>
<th>Filesystem</th>
<th>Type</th>
<th>Size</th>
<th>Used</th>
<th>Avail</th>
<th>Use%</th>
<th>Mounted on</th>
</tr>
</thead>
<tbody>
<tr>
<td>/dev/sda5</td>
<td>xfs</td>
<td>343G</td>
<td>66G</td>
<td>278G</td>
<td>20%</td>
<td>/home</td>
</tr>
</tbody>
</table>

From /sys/devices/virtual/dmi/id

BIOS: FUJITSU // American Megatrends Inc. V5.0.0.13 R1.12.0 for D3673-A1x
Vendor: FUJITSU
Product: PRIMERGY TX1330 M4
Product Family: SERVER
Serial: YMJLXXXXXX

Additional information from dmidecode 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:
4x SK Hynix HMA82GU7CJR8N-VK 16 GB 2 rank 2667

(End of data from sysinfo program)
SPEC CPU®2017 Integer Rate Result

Fujitsu

PRIMERGY TX1330 M4, Intel Xeon E-2226G, 3.40 GHz

SPECrate®2017_int_base = 40.9
SPECrate®2017_int_peak = 42.4

CPU2017 License: 19
Test Sponsor: Fujitsu
Test Date: Jan-2020
Tested by: Fujitsu
Hardware Availability: Oct-2019
Software Availability: May-2019

Compiler Version Notes

==============================================================================
C       | 502.gcc_r(peak)
------------------------------------------------------------------------------
Intel(R) C Intel(R) 64 Compiler for applications running on IA-32, Version 19.0.4.227 Build 20190416
Copyright (C) 1985-2019 Intel Corporation. All rights reserved.
------------------------------------------------------------------------------

------------------------------------------------------------------------------
C       | 500.perlbench_r(base, peak) 502.gcc_r(base) 505.mcf_r(base, peak)
 | 525.x264_r(base, peak) 557.xz_r(base, peak)
------------------------------------------------------------------------------
Intel(R) C Intel(R) 64 Compiler for applications running on Intel(R) 64, Version 19.0.4.227 Build 20190416
Copyright (C) 1985-2019 Intel Corporation. All rights reserved.
------------------------------------------------------------------------------

------------------------------------------------------------------------------
C       | 502.gcc_r(peak)
------------------------------------------------------------------------------
Intel(R) C Intel(R) 64 Compiler for applications running on IA-32, Version 19.0.4.227 Build 20190416
Copyright (C) 1985-2019 Intel Corporation. All rights reserved.
------------------------------------------------------------------------------

------------------------------------------------------------------------------
C       | 500.perlbench_r(base, peak) 502.gcc_r(base) 505.mcf_r(base, peak)
 | 525.x264_r(base, peak) 557.xz_r(base, peak)
------------------------------------------------------------------------------
Intel(R) C Intel(R) 64 Compiler for applications running on Intel(R) 64, Version 19.0.4.227 Build 20190416
Copyright (C) 1985-2019 Intel Corporation. All rights reserved.
------------------------------------------------------------------------------

------------------------------------------------------------------------------
C++     | 523.xalancbmk_r(peak)
------------------------------------------------------------------------------
Intel(R) C++ Intel(R) 64 Compiler for applications running on IA-32, Version 19.0.4.227 Build 20190416
Copyright (C) 1985-2019 Intel Corporation. All rights reserved.
------------------------------------------------------------------------------

------------------------------------------------------------------------------
C++     | 520.omnetpp_r(base, peak) 523.xalancbmk_r(base)
 | 531.deepsjeng_r(base, peak) 541.leela_r(base, peak)
------------------------------------------------------------------------------
Intel(R) C++ Intel(R) 64 Compiler for applications running on Intel(R) 64,
(Continued on next page)
**SPEC CPU®2017 Integer Rate Result**

**Fujitsu**

PRIMERGY TX1330 M4, Intel Xeon E-2226G, 3.40 GHz

**SPECrate®2017_int_base = 40.9**

**SPECrate®2017_int_peak = 42.4**

<table>
<thead>
<tr>
<th>CPU2017 License: 19</th>
<th>Test Date: Jan-2020</th>
</tr>
</thead>
<tbody>
<tr>
<td>Test Sponsor: Fujitsu</td>
<td>Hardware Availability: Oct-2019</td>
</tr>
<tr>
<td>Tested by: Fujitsu</td>
<td>Software Availability: May-2019</td>
</tr>
</tbody>
</table>

**Compiler Version Notes (Continued)**

Version 19.0.4.227 Build 20190416
Copyright (C) 1985-2019 Intel Corporation. All rights reserved.

==============================================================================

C++ | 523.xalancbmk_r(peak)

Intel(R) C++ Intel(R) 64 Compiler for applications running on IA-32, Version 19.0.4.227 Build 20190416
Copyright (C) 1985-2019 Intel Corporation. All rights reserved.

==============================================================================

C++ | 520.omnetpp_r(base, peak) 523.xalancbmk_r(base) 531.deepsjeng_r(base, peak) 541.leela_r(base, peak)

Intel(R) C++ Intel(R) 64 Compiler for applications running on Intel(R) 64, Version 19.0.4.227 Build 20190416
Copyright (C) 1985-2019 Intel Corporation. All rights reserved.

==============================================================================

Fortran | 548.exchange2_r(base, peak)

Intel(R) Fortran Intel(R) 64 Compiler for applications running on Intel(R) 64, Version 19.0.4.227 Build 20190416
Copyright (C) 1985-2019 Intel Corporation. All rights reserved.

```
Base Compiler Invocation
```

C benchmarks:
```
icc -m64 -std=c11
```

C++ benchmarks:
```
icpc -m64
```

Fortran benchmarks:
```
ifort -m64
```

```
Base Portability Flags
```

500.perlbench_r: -DSPEC_LP64 -DSPEC_LINUX_X64

(Continued on next page)
Fujitsu
PRIMERGY TX1330 M4, Intel Xeon E-2226G, 3.40 GHz

SPECrate®2017_int_base = 40.9
SPECrate®2017_int_peak = 42.4

CPU2017 License: 19
Test Sponsor: Fujitsu
Tested by: Fujitsu

Test Date: Jan-2020
Hardware Availability: Oct-2019
Software Availability: May-2019

Base Portability Flags (Continued)

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

Base Optimization Flags

C benchmarks:
-Wl,-z,muldefs -xCORE-AVX2 -ipo -O3 -no-prec-div
-qopt-mem-layout-trans=4
-L/usr/local/IntelCompiler19/compilers_and_libraries_2019.4.227/linux/compiler/lib/intel64
-lqkmalloc

C++ benchmarks:
-Wl,-z,muldefs -xCORE-AVX2 -ipo -O3 -no-prec-div
-qopt-mem-layout-trans=4
-L/usr/local/IntelCompiler19/compilers_and_libraries_2019.4.227/linux/compiler/lib/intel64
-lqkmalloc

Fortran benchmarks:
-Wl,-z,muldefs -xCORE-AVX2 -ipo -O3 -no-prec-div
-qopt-mem-layout-trans=4 -nostandard-realloc-lhs -align array32byte
-L/usr/local/IntelCompiler19/compilers_and_libraries_2019.4.227/linux/compiler/lib/intel64
-lqkmalloc

Peak Compiler Invocation

C benchmarks (except as noted below):
icc -m64 -std=c11


C++ benchmarks (except as noted below):
icpc -m64

523.xalancbmk_r: icpc -m32 -L/usr/local/IntelCompiler19/compilers_and_libraries_2019.4.227/linux/compiler/lib/ia32_lin

(Continued on next page)
SPEC CPU®2017 Integer Rate Result
Copyright 2017-2020 Standard Performance Evaluation Corporation

Fujitsu
PRIMERGY TX1330 M4, Intel Xeon E-2226G, 3.40 GHz
SPECrade®2017_int_base = 40.9
SPECrade®2017_int_peak = 42.4

CPU2017 License: 19
Test Sponsor: Fujitsu
Test Date: Jan-2020
Tested by: Fujitsu
Hardware Availability: Oct-2019
Software Availability: May-2019

Peak Compiler Invocation (Continued)

Fortran benchmarks:
ifort -m64

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: -D_FILE_OFFSET_BITS=64 -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) -ipo
-xCORE-AVX2 -O3 -no-prec-div -qopt-mem-layout-trans=4 -fno-strict-overflow
-L/usr/local/IntelCompiler19/compilers_and_libraries_2019.4.227/linux/compiler/lib/intel64
-lqkmalloc

502.gcc_r: -Wl, -z, muldefs -prof-gen(pass 1) -prof-use(pass 2) -ipo
-xCORE-AVX2 -O3 -no-prec-div -qopt-mem-layout-trans=4 -qopt-mem-layout-trans=4 -fno-alias
-L/usr/local/IntelCompiler19/compilers_and_libraries_2019.4.227/linux/compiler/lib/intel64
-lqkmalloc

505.mcf_r: basepeak = yes

525.x264_r: -Wl, -z, muldefs -xCORE-AVX2 -ipo -O3 -no-prec-div
-qopt-mem-layout-trans=4 -fno-alias
-L/usr/local/IntelCompiler19/compilers_and_libraries_2019.4.227/linux/compiler/lib/intel64
-lqkmalloc

557.xz_r: -Wl, -z, muldefs -xCORE-AVX2 -ipo -O3 -no-prec-div
-qopt-mem-layout-trans=4
-L/usr/local/IntelCompiler19/compilers_and_libraries_2019.4.227/linux/compiler/lib/intel64
-lqkmalloc

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

C++ benchmarks:

520.omnetpp_r: basepeak = yes

523.xalancbmk_r: -Wl,-z,muldefs -prof-gen(pass 1) -prof-use(pass 2) -ipo
-xCORE-AVX2 -O3 -no-prec-div -qopt-mem-layout-trans=4
-L/usr/local/je5.0.1-32/lib -ljemalloc

531.deepsjeng_r: basepeak = yes

541.leela_r: basepeak = yes

Fortran benchmarks:
-Wl,-z,muldefs -xCORE-AVX2 -ipo -O3 -no-prec-div
-qopt-mem-layout-trans=4 -nostandard-realloc-lhs -align array32byte
-L/usr/local/IntelCompiler19/compilers_and_libraries_2019.4.227/linux/compiler/lib/intel64
-lqkmalloc

The flags files that were used to format this result can be browsed at
http://www.spec.org/cpu2017/flags/Fujitsu-Platform-Settings-V1.0.2-CFL-RevD.html

You can also download the XML flags sources by saving the following links:
http://www.spec.org/cpu2017/flags/Fujitsu-Platform-Settings-V1.0.2-CFL-RevD.xml