## SPEC® CPU2017 Integer Rate Result

**Supermicro**

SuperServer SYS-7049P-TRT  
(X11DPi-NT, Intel Xeon Gold 6230)

**SPECrate2017_int_base = 211**

**SPECrate2017_int_peak = 220**

<table>
<thead>
<tr>
<th>Test Sponsor: Supermicro</th>
<th>Hardware Availability: Jul-2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tested by: Supermicro</td>
<td>Software Availability: Nov-2018</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>CPU2017 License: 001176</th>
<th>Test Date: Mar-2019</th>
</tr>
</thead>
</table>

### Hardware

- **CPU Name:** Intel Xeon Gold 6230  
- **Max MHz.:** 3900  
- **Nominal:** 2100  
- **Enabled:** 40 cores, 2 chips, 2 threads/core  
- **Orderable:** 1.2 chips  
- **Cache L1:** 32 KB I + 32 KB D on chip per core  
- **L2:** 1 MB I+D on chip per core  
- **L3:** 27.5 MB I+D on chip per chip  
- **Other:** None  
- **Memory:** 384 GB (12 x 32 GB 2Rx4 PC4-2933Y-R)  
- **Storage:** 480 GB SATA 3 SSD  
- **Other:** None

### Software

- **OS:** Red Hat Enterprise Linux Server release 7.6 (Maipo)  
  - 3.10.0-957.el7.x86_64  
- **Compiler:** C/C++: Version 19.0.1.144 of Intel C/C++ Compiler Build 20181018 for Linux; Fortran: Version 19.0.1.144 of Intel Fortran Compiler Build 20181018 for Linux  
- **Parallel:** No  
- **Firmware:** version 3.0a released Jan-2019  
- **File System:** xfs  
- **System State:** Run level 3 (Multi-user mode with networking)  
- **Base Pointers:** 64-bit  
- **Peak Pointers:** 32/64-bit  
- **Other:** jemalloc memory allocator V5.0.1

### Table of Benchmark Results

<table>
<thead>
<tr>
<th>Benchmark</th>
<th>SPECrate2017_int_base</th>
<th>SPECrate2017_int_peak</th>
</tr>
</thead>
<tbody>
<tr>
<td>500.perlbench_r</td>
<td>186</td>
<td>162</td>
</tr>
<tr>
<td>502.gcc_r</td>
<td>173</td>
<td>200</td>
</tr>
<tr>
<td>505.mcf_r</td>
<td>141</td>
<td>141</td>
</tr>
<tr>
<td>520.omnetpp_r</td>
<td>235</td>
<td>237</td>
</tr>
<tr>
<td>523.xalancbmk_r</td>
<td>426</td>
<td>446</td>
</tr>
<tr>
<td>525.x264_r</td>
<td>177</td>
<td>178</td>
</tr>
<tr>
<td>531.deepsjeng_r</td>
<td>168</td>
<td>168</td>
</tr>
<tr>
<td>541.leela_r</td>
<td>377</td>
<td></td>
</tr>
<tr>
<td>548.exchange2_r</td>
<td>378</td>
<td></td>
</tr>
<tr>
<td>557.xz_r</td>
<td>143</td>
<td>143</td>
</tr>
</tbody>
</table>
# SPEC CPU2017 Integer Rate Result

## Supermicro

**SuperServer SYS-7049P-TRT**  
(X11DPi-NT, Intel Xeon Gold 6230)

| SPECrate2017_int_base = 211 | SPECrate2017_int_peak = 220 |

### 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>80</td>
<td>792</td>
<td>161</td>
<td>784</td>
<td>162</td>
<td>782</td>
<td>163</td>
<td>80</td>
<td>683</td>
<td>186</td>
<td>685</td>
<td>186</td>
<td>686</td>
<td>186</td>
</tr>
<tr>
<td>502.gcc_r</td>
<td>80</td>
<td>650</td>
<td>174</td>
<td>658</td>
<td>172</td>
<td>653</td>
<td>173</td>
<td>80</td>
<td>568</td>
<td>200</td>
<td>566</td>
<td>200</td>
<td>564</td>
<td>201</td>
</tr>
<tr>
<td>505.mcf_r</td>
<td>80</td>
<td>466</td>
<td>277</td>
<td>465</td>
<td>278</td>
<td>466</td>
<td>277</td>
<td>80</td>
<td>465</td>
<td>278</td>
<td>465</td>
<td>278</td>
<td>468</td>
<td>276</td>
</tr>
<tr>
<td>520.omnetpp_r</td>
<td>80</td>
<td>744</td>
<td>141</td>
<td>745</td>
<td>141</td>
<td>743</td>
<td>141</td>
<td>80</td>
<td>745</td>
<td>141</td>
<td>747</td>
<td>141</td>
<td>744</td>
<td>141</td>
</tr>
<tr>
<td>523.xalancbmk_r</td>
<td>80</td>
<td>360</td>
<td>234</td>
<td>360</td>
<td>235</td>
<td>358</td>
<td>236</td>
<td>80</td>
<td>329</td>
<td>257</td>
<td>329</td>
<td>257</td>
<td>329</td>
<td>257</td>
</tr>
<tr>
<td>525.x264_r</td>
<td>80</td>
<td>332</td>
<td>422</td>
<td>329</td>
<td>426</td>
<td>328</td>
<td>427</td>
<td>80</td>
<td>315</td>
<td>445</td>
<td>314</td>
<td>446</td>
<td>314</td>
<td>447</td>
</tr>
<tr>
<td>531.deepsjeng_r</td>
<td>80</td>
<td>518</td>
<td>177</td>
<td>515</td>
<td>178</td>
<td>518</td>
<td>177</td>
<td>80</td>
<td>515</td>
<td>178</td>
<td>518</td>
<td>177</td>
<td>515</td>
<td>178</td>
</tr>
<tr>
<td>541.leela_r</td>
<td>80</td>
<td>782</td>
<td>169</td>
<td>791</td>
<td>168</td>
<td>788</td>
<td>168</td>
<td>80</td>
<td>788</td>
<td>168</td>
<td>792</td>
<td>167</td>
<td>789</td>
<td>168</td>
</tr>
<tr>
<td>548.exchange2_r</td>
<td>80</td>
<td>556</td>
<td>377</td>
<td>554</td>
<td>379</td>
<td>556</td>
<td>377</td>
<td>80</td>
<td>557</td>
<td>376</td>
<td>554</td>
<td>378</td>
<td>555</td>
<td>378</td>
</tr>
<tr>
<td>557.xz_r</td>
<td>80</td>
<td>606</td>
<td>143</td>
<td>605</td>
<td>143</td>
<td>606</td>
<td>143</td>
<td>80</td>
<td>606</td>
<td>142</td>
<td>605</td>
<td>143</td>
<td>604</td>
<td>143</td>
</tr>
</tbody>
</table>

### Submit Notes

The numactl mechanism was used to bind copies to processors. The config file option 'submit' was used to generate numactl 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"

### General Notes

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

```
LD_LIBRARY_PATH = "/home/cpu2017/lib/ia32:/home/cpu2017/lib/intel64:/home/cpu2017/je5.0.1-32:/home/cpu2017/je5.0.1-64"
```

Binaries compiled on a system with 1x Intel Core i9-7900X CPU + 32GB RAM memory using Redhat Enterprise Linux 7.5

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
```

runcpu command invoked through numactl i.e.:

```
numactl --interleave=all runcpu <etc>
```

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.

(Continued on next page)
General Notes (Continued)

is mitigated in the system as tested and documented.
Yes: The test sponsor attests, as of date of publication, that CVE-2018-3640 (Spectre variant 3a) is mitigated in the system as tested and documented.
Yes: The test sponsor attests, as of date of publication, that CVE-2018-3639 (Spectre variant 4) is mitigated in the system as tested and documented.


Submitted by: Kelvin Li <kelvinli@supermicro.com>
Submitted: Mon Mar 18 21:46:22 EDT 2019
Submission: cpu2017-20190318-11227.sub

Platform Notes

BIOS Settings:
Monitor/Mwait = Disabled
ENERGY_PERF_BIAS_CFG mode = Extreme Performance
Hardware Pstate = Out of band mode
SNC = Enabled
Stale Atos = Disabled
MC Interleaving = 1-way Interleave
Patrol Scrub = Disabled
Sysinfo program /home/cpu2017/bin/sysinfo
Rev: r5974 of 2018-05-19 9bcde8f2999c33d61f64985e45859ea9
running on localhost.localdomain Thu Mar 14 19:14:48 2019

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) Gold 6230 CPU @ 2.10GHz
  2 "physical id"s (chips)
  80 "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 : 20
siblings : 40
physical 0: cores 0 1 2 3 4 8 9 10 11 12 16 17 18 19 20 24 25 26 27 28
physical 1: cores 0 1 2 3 4 8 9 10 11 12 16 17 18 19 20 24 25 26 27 28

From lscpu:
Architecture: x86_64
CPU op-mode(s): 32-bit, 64-bit
Byte Order: Little Endian

(Continued on next page)
Supermicro
SuperServer SYS-7049P-TRT
(X11DPi-NT, Intel Xeon Gold 6230)

SPECrate2017_int_base = 211
SPECrate2017_int_peak = 220

CPU2017 License: 001176
Test Date: Mar-2019
Test Sponsor: Supermicro
Hardware Availability: Jul-2017
Tested by: Supermicro
Software Availability: Nov-2018

Platform Notes (Continued)

CPU(s): 80
On-line CPU(s) list: 0-79
Thread(s) per core: 2
Core(s) per socket: 20
Socket(s): 2
NUMA node(s): 4
Vendor ID: GenuineIntel
CPU family: 6
Model: 85
Model name: Intel(R) Xeon(R) Gold 6230 CPU @ 2.10GHz
Stepping: 6
CPU MHz: 2100.000
BogoMIPS: 4200.00
Virtualization: VT-x
L1d cache: 32K
L1i cache: 32K
L2 cache: 1024K
L3 cache: 28160K
NUMA node0 CPU(s): 0-2,5,6,10-12,15,16,40-42,45,46,50-52,55,56
NUMA node1 CPU(s): 3,4,7-9,13,14,17-19,43,44,47-49,53,54,57-59
NUMA node2 CPU(s): 20-22,25,26,30-32,35,36,60-62,65,66,70-72,75,76
NUMA node3 CPU(s): 23,24,27-29,33,34,37-39,63,64,67-69,73,74,77-79
Flags: fpu vme de pse tsc msr pae mce cx8 apic sep mtrr pge mca cmov
pat pse36 clflush dts acpi mmx fxsr sse sse2 ss ht tm pbe syscall nx pdpe1gb rdtscp
lm constant_tsc art arch_perfmon pebs bts rep_good nopl xtopology nonstop_tsc
aperfmpref eagerfpu pni pclmulqdq dtes64 ds_cpl vmx smx est tm2 ssse3 sdbg fma cx16
xtrm pdcid pcd dca sse4_1 sse4_2 x2apic movbe popcnt tsc_deadline_timer aes xsave
avx f16c rdrand lahf_lm abm 3dnowprefetch epb cat_l3 cdp_13 intel_pt ssbd mba ibrs
ibpb stibp ibrs_enhanced tpr_shadow vnmi flexpriority ept vpid fsgsbase tsc_adjust
bm1 hle avx2 smep bmi2 erms invpcid rdtscp cqm mpx rdt_a avx512fd avx512dq rdseed adx
smap clflushopt clwb avx512cd avx512bw avx512vl xsavesopt xsaveopt xsavevc qemm llc
qm_occup_l1c qem_mbb_total qem_mbb_local dtherm ida arat pln pts hwp_epp kpu ospke
avx512_vnni spec_ctrl intel_stibp flush_l1d arch_capabilities

From numactl --hardware WARNING: a numactl 'node' might or may not correspond to a
physical chip.

available: 4 nodes (0-3)
node 0 cpus: 0 1 2 3 4 5 6 10 11 12 15 16 40 41 42 45 46 50 51 52 55 56
node 0 size: 96941 MB
node 0 free: 94431 MB
node 1 cpus: 3 4 7 8 9 13 14 17 18 19 43 44 47 48 49 53 54 57 58 59
node 1 size: 98304 MB
node 1 free: 95433 MB
node 2 cpus: 20 21 22 25 26 30 31 32 35 36 60 61 62 65 66 70 71 72 75 76

(Continued on next page)
SPEC CPU2017 Integer Rate Result

Supermicro
SuperServer SYS-7049P-TRT
(X11DPi-NT, Intel Xeon Gold 6230)

SPECrate2017_int_base = 211
SPECrate2017_int_peak = 220

CPU2017 License: 001176
Test Sponsor: Supermicro
Tested by: Supermicro

Test Date: Mar-2019
Hardware Availability: Jul-2017
Software Availability: Nov-2018

Platform Notes (Continued)

node 2 size: 98304 MB
node 2 free: 95867 MB
node 3 cpus: 23 24 27 28 29 33 34 37 38 39 63 64 67 68 69 73 74 77 78 79
node 3 size: 98304 MB
node 3 free: 95853 MB
node distances:
node 0 1 2 3
0: 10 11 21 21
1: 11 10 21 21
2: 21 21 10 11
3: 21 21 11 10

From /proc/meminfo
MemTotal: 394869980 kB
HugePages_Total: 0
Hugepagesize: 2048 kB

From /etc/*release*/etc/*version*
NAME="Red Hat Enterprise Linux Server"
VERSION="7.6 (Maipo)"
ID="rhel"
ID_LIKE="fedora"
VARIANT="Server"
VARIANT_ID="server"
VERSION_ID="7.6"
PRETTY_NAME="Red Hat Enterprise Linux Server 7.6 (Maipo)"
redhat-release: Red Hat Enterprise Linux Server release 7.6 (Maipo)
system-release: Red Hat Enterprise Linux Server release 7.6 (Maipo)

uname -a:
Linux localhost.localdomain 3.10.0-957.el7.x86_64 #1 SMP Thu Oct 4 20:48:51 UTC 2018
x86_64 x86_64 x86_64 GNU/Linux

Kernel self-reported vulnerability status:
CVE-2017-5754 (Meltdown): Not affected
CVE-2017-5753 (Spectre variant 1): Mitigation: Load fences, __user pointer sanitization
CVE-2017-5715 (Spectre variant 2): Mitigation: Enhanced IBRS

run-level 3 Mar 14 19:12 last=5

SPEC is set to: /home/cpu2017
Filesystem Type Size Used Avail Use% Mounted on
/dev/sda5 xfs 392G 17G 376G 5% /home

(Continued on next page)
SPEC CPU2017 Integer Rate Result

Supermicro
SuperServer SYS-7049P-TRT
(X11DPI-NT, Intel Xeon Gold 6230

SPECrate2017_int_base = 211
SPECrate2017_int_peak = 220

CPU2017 License: 001176
Test Sponsor: Supermicro
Test Date: Mar-2019
Tested by: Supermicro
Hardware Availability: Jul-2017
Software Availability: Nov-2018

Platform Notes (Continued)
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.
BIOS American Megatrends Inc. 3.0a 01/11/2019
Memory:
12x Micron 36ASF4G72PZ-2G9E2 32 GB 2 rank 2933, configured at 2934
4x NO DIMM NO DIMM

(End of data from sysinfo program)

Compiler Version Notes

==============================================================================
CC  502.gcc_r(peak)
Intel(R) C Intel(R) 64 Compiler for applications running on IA-32, Version 19.0.1.144 Build 20181018
Copyright (C) 1985-2018 Intel Corporation. All rights reserved.
==============================================================================

==============================================================================
CC  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) C Intel(R) 64 Compiler for applications running on Intel(R) 64, Version 19.0.1.144 Build 20181018
Copyright (C) 1985-2018 Intel Corporation. All rights reserved.
==============================================================================

==============================================================================
CC  500.perlbench_r(peak)
Intel(R) C Intel(R) 64 Compiler for applications running on Intel(R) 64, Version 19.0.1.144 Build 20181018
Copyright (C) 1985-2018 Intel Corporation. All rights reserved.
==============================================================================

==============================================================================
CXXC 523.xalancbmk_r(peak)
Intel(R) C++ Intel(R) 64 Compiler for applications running on IA-32, Version 19.0.1.144 Build 20181018
Copyright (C) 1985-2018 Intel Corporation. All rights reserved.
==============================================================================

(Continued on next page)
Supermicro
SuperServer SYS-7049P-TRT
(X11DPi-NT, Intel Xeon Gold 6230)

SPECrate2017_int_base = 211
SPECrate2017_int_peak = 220

CPU2017 License: 001176
Test Sponsor: Supermicro
Tested by: Supermicro

Test Date: Mar-2019
Hardware Availability: Jul-2017
Software Availability: Nov-2018

Compiler Version Notes (Continued)

CXXC 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 19.0.1.144 Build 20181018
Copyright (C) 1985-2018 Intel Corporation. All rights reserved.

FC 548.exchange2_r(base, peak)

Intel(R) Fortran Intel(R) 64 Compiler for applications running on Intel(R) 64,
Version 19.0.1.144 Build 20181018
Copyright (C) 1985-2018 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
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
Supermicro
SuperServer SYS-7049P-TRT
(X11DPI-NT, Intel Xeon Gold 6230)

SPECrate2017_int_base = 211
SPECrate2017_int_peak = 220

Base Optimization Flags

C benchmarks:
-Wl,-z,muldefs -xCORE-AVX512 -ipo -O3 -no-prec-div
-qopt-mem-layout-trans=4
-L/usr/local/IntelCompiler19/compilers_and_libraries_2019.1.144/linux/compiler/lib/intel64
-lqkmalloc

C++ benchmarks:
-Wl,-z,muldefs -xCORE-AVX512 -ipo -O3 -no-prec-div
-qopt-mem-layout-trans=4
-L/usr/local/IntelCompiler19/compilers_and_libraries_2019.1.144/linux/compiler/lib/intel64
-lqkmalloc

Fortran benchmarks:
-Wl,-z,muldefs -xCORE-AVX512 -ipo -O3 -no-prec-div
-qopt-mem-layout-trans=4 -nostandard-realloc-lhs -align array32byte
-L/usr/local/IntelCompiler19/compilers_and_libraries_2019.1.144/linux/compiler/lib/intel64
-lqkmalloc

Peak Compiler Invocation

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

502.gcc_r.icc -m32 -std=c11 -L/usr/local/IntelCompiler19/compilers_and_libraries_2019.1.144/linux/compiler/lib/ia32_lin

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

523.xalancbmk_r.icpc -m32 -L/usr/local/IntelCompiler19/compilers_and_libraries_2019.1.144/linux/compiler/lib/ia32_lin

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

(Continued on next page)
### SPEC CPU2017 Integer Rate Result

**Supermicro**

SuperServer SYS-7049P-TRT  
(X11DPI-NT, Intel Xeon Gold 6230)

<table>
<thead>
<tr>
<th>SPECrate2017_int_base</th>
<th>SPECrate2017_int_peak</th>
</tr>
</thead>
<tbody>
<tr>
<td>211</td>
<td>220</td>
</tr>
</tbody>
</table>

**CPU2017 License:** 001176  
**Test Sponsor:** Supermicro  
**Hardware Availability:** Jul-2017  
**Test Date:** Mar-2019  
**Tested by:** Supermicro  
**Software Availability:** Nov-2018

#### Peak Portability Flags (Continued)

- 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-AVX512 -O3 -no-prec-div -qopt-mem-layout-trans=4  
  -fno-strict-overflow  
  -L/usr/local/IntelCompiler19/compilers_and_libraries_2019.1.144/linux/compiler/lib/intel64  
  -lqkmalloc

- 502.gcc_r: -Wl,-z,muldefs -prof-gen(pass 1) -prof-use(pass 2) -ipo  
  -xCORE-AVX512 -O3 -no-prec-div -qopt-mem-layout-trans=4  
  -L/usr/local/je5.0.1-32/lib -ljemalloc

- 505.mcf_r: -Wl,-z,muldefs -xCORE-AVX512 -ipo -O3 -no-prec-div -qopt-mem-layout-trans=4  
  -L/usr/local/IntelCompiler19/compilers_and_libraries_2019.1.144/linux/compiler/lib/intel64  
  -lqkmalloc

- 525.x264_r: -Wl,-z,muldefs -xCORE-AVX512 -ipo -O3 -no-prec-div -qopt-mem-layout-trans=4  
  -fno-alias  
  -L/usr/local/IntelCompiler19/compilers_and_libraries_2019.1.144/linux/compiler/lib/intel64  
  -lqkmalloc

- 557.xz_r: Same as 505.mcf_r

**C++ benchmarks:**

- 520.omnetpp_r: -Wl,-z,muldefs -xCORE-AVX512 -ipo -O3 -no-prec-div -qopt-mem-layout-trans=4  
  -L/usr/local/IntelCompiler19/compilers_and_libraries_2019.1.144/linux/compiler/lib/intel64  
  -lqkmalloc

- 523.xalancbmk_r: -Wl,-z,muldefs -prof-gen(pass 1) -prof-use(pass 2) -ipo  
  -xCORE-AVX512 -O3 -no-prec-div -qopt-mem-layout-trans=4  
  -L/usr/local/je5.0.1-32/lib -ljemalloc

- 531.deepsjeng_r: Same as 520.omnetpp_r

(Continued on next page)
<table>
<thead>
<tr>
<th>SPEC CPU2017 Integer Rate Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>SPECrate2017_int_base = 211</td>
</tr>
<tr>
<td>SPECrate2017_int_peak = 220</td>
</tr>
</tbody>
</table>

**Supermicro**
SuperServer SYS-7049P-TRT
(X11DPi-NT, Intel Xeon Gold 6230)

---

**CPU2017 License:** 001176  
**Test Sponsor:** Supermicro  
**Tested by:** Supermicro  
**Test Date:** Mar-2019  
**Hardware Availability:** Jul-2017  
**Software Availability:** Nov-2018

---

**Peak Optimization Flags (Continued)**

541.leela_r: Same as 520.omnetpp_r

Fortran benchmarks:
- Wl,-z,muldefs -xCORE-AVX512 -ipo -O3 -no-prec-div  
- qopt-mem-layout-trans=4 -nostandard-realloc-lhs -align array32byte  
- L/usr/local/IntelCompiler19/compilers_and_libraries_2019.1.144/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/Supermicro-Platform-Settings-V1.2-CLX-revB.html

You can also download the XML flags sources by saving the following links:
http://www.spec.org/cpu2017/flags/Supermicro-Platform-Settings-V1.2-CLX-revB.xml

---

SPEC is a registered trademark of the Standard Performance Evaluation Corporation. All other brand and product names appearing in this result are trademarks or registered trademarks of their respective holders.

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

Tested with SPEC CPU2017 v1.0.5 on 2019-03-14 22:14:47-0400.  
Originally published on 2019-04-04.