## SPEC® CPU2017 Integer Rate Result

### Inspur Corporation

**Inspur NS5162M5 (Intel Xeon Silver 4114)**

<table>
<thead>
<tr>
<th>SPECrate2017_int_base</th>
<th>SPECrate2017_int_peak</th>
</tr>
</thead>
<tbody>
<tr>
<td>91.3</td>
<td>96.3</td>
</tr>
</tbody>
</table>

**CPU2017 License:** 3358  
**Test Sponsor:** Inspur Corporation  
**Tested by:** Inspur Corporation  
**Test Date:** May-2019  
**Hardware Availability:** Aug-2018  
**Software Availability:** Mar-2018

### Hardware

<table>
<thead>
<tr>
<th>Copies</th>
<th>SPECrate2017_int_base (91.3)</th>
</tr>
</thead>
<tbody>
<tr>
<td>500.perlbench_r 40</td>
<td>69.9</td>
</tr>
<tr>
<td>502.gcc_r 40</td>
<td>86.4</td>
</tr>
<tr>
<td>505.mcf_r 40</td>
<td>79.8</td>
</tr>
<tr>
<td>520.omnetpp_r 40</td>
<td>58.2</td>
</tr>
<tr>
<td>523.xalancbmk_r 40</td>
<td>93.1</td>
</tr>
<tr>
<td>525.x264_r 40</td>
<td>79.2</td>
</tr>
<tr>
<td>531.deepsjeng_r 40</td>
<td>74.8</td>
</tr>
<tr>
<td>541.leela_r 40</td>
<td>73.2</td>
</tr>
<tr>
<td>548.exchange2_r 40</td>
<td>62.8</td>
</tr>
<tr>
<td>557.xz_r 40</td>
<td>62.5</td>
</tr>
</tbody>
</table>

### Software

- **OS:** SUSE Linux Enterprise Server 12 SP2 4.4.120-92.70-default
- **Compiler:** C/C++: Version 18.0.0.128 of Intel C/C++  
Compiler for Linux: Fortran: Version 18.0.0.128 of Intel Fortran  
Compiler for Linux
- **Parallel:** No
- **Firmware:** Version 4.0.1 released Aug-2018
- **File System:** xfs
- **System State:** Run level 3 (multi-user)
- **Base Pointers:** 64-bit
- **Peak Pointers:** 32/64-bit
- **Other:** jemalloc: jemalloc memory allocator library V5.0.1

### CPU Name: Intel Xeon Silver 4114

- **Max MHz.:** 3000
- **Nominal:** 2200
- **Enabled:** 20 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:** 13.75 MB I+D on chip per core
- **Other:** None
- **Memory:** 192 GB (12 x 16 GB 2Rx4 PC4-2666V-R, running at 2400)
- **Storage:** 1 x 480 GB SATA SSD
- **Other:** None
**Insper Corporation**

**Insper NS5162M5 (Intel Xeon Silver 4114)**

**SPECrate2017_int_base = 91.3**

**SPECrate2017_int_peak = 96.3**

**CPU2017 License:** 3358

**Test Sponsor:** Insper Corporation

**Tested by:** Insper Corporation

**Test Date:** May-2019

**Hardware Availability:** Aug-2018

**Software Availability:** Mar-2018

### 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>Seconds</th>
<th>Ratio</th>
<th>Seconds</th>
<th>Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>500.perlbench_r</td>
<td>40</td>
<td>911</td>
<td>69.9</td>
<td>931</td>
<td>70.1</td>
<td>909</td>
<td>70.1</td>
<td>40</td>
<td>727</td>
<td>87.6</td>
<td>739</td>
</tr>
<tr>
<td>502.gcc_r</td>
<td>40</td>
<td>720</td>
<td>78.7</td>
<td>707</td>
<td>80.1</td>
<td>709</td>
<td>79.8</td>
<td>40</td>
<td>596</td>
<td>95.0</td>
<td>595</td>
</tr>
<tr>
<td>505.mcf_r</td>
<td>40</td>
<td>563</td>
<td>115</td>
<td>573</td>
<td>113</td>
<td>577</td>
<td>112</td>
<td>40</td>
<td>583</td>
<td>111</td>
<td>590</td>
</tr>
<tr>
<td>520.omnetpp_r</td>
<td>40</td>
<td>904</td>
<td>58.1</td>
<td>892</td>
<td>58.9</td>
<td>902</td>
<td>58.2</td>
<td>40</td>
<td>962</td>
<td>54.6</td>
<td>964</td>
</tr>
<tr>
<td>523.xalancbmk_r</td>
<td>40</td>
<td>453</td>
<td>93.1</td>
<td>455</td>
<td>92.8</td>
<td>451</td>
<td>93.6</td>
<td>40</td>
<td>362</td>
<td>117</td>
<td>364</td>
</tr>
<tr>
<td>525.x264_r</td>
<td>40</td>
<td>388</td>
<td>180</td>
<td>389</td>
<td>180</td>
<td>391</td>
<td>179</td>
<td>40</td>
<td>378</td>
<td>185</td>
<td>378</td>
</tr>
<tr>
<td>531.deepsjeng_r</td>
<td>40</td>
<td>570</td>
<td>80.4</td>
<td>579</td>
<td>79.2</td>
<td>579</td>
<td>79.1</td>
<td>40</td>
<td>585</td>
<td>78.4</td>
<td>585</td>
</tr>
<tr>
<td>541.leela_r</td>
<td>40</td>
<td>891</td>
<td>74.4</td>
<td>870</td>
<td>76.1</td>
<td>886</td>
<td>74.8</td>
<td>40</td>
<td>881</td>
<td>75.2</td>
<td>882</td>
</tr>
<tr>
<td>548.exchange2_r</td>
<td>40</td>
<td>594</td>
<td>176</td>
<td>595</td>
<td>176</td>
<td>596</td>
<td>176</td>
<td>40</td>
<td>595</td>
<td>176</td>
<td>595</td>
</tr>
<tr>
<td>557.xz_r</td>
<td>40</td>
<td>683</td>
<td>63.3</td>
<td>688</td>
<td>62.8</td>
<td>688</td>
<td>62.8</td>
<td>40</td>
<td>692</td>
<td>62.4</td>
<td>690</td>
</tr>
</tbody>
</table>

**SPECrate2017_int_base = 91.3**

**SPECrate2017_int_peak = 96.3**

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

### 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 i7-4790 CPU + 32GB RAM memory using Redhat Enterprise Linux 7.4

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)
Inspur Corporation

Inspur NS5162M5 (Intel Xeon Silver 4114)  

SPECraton2017_int_base = 91.3 
SPECraton2017_int_peak = 96.3

CPU2017 License: 3358  
Test Sponsor: Inspur Corporation  
Tested by: Inspur Corporation

Test Date: May-2019  
Hardware Availability: Aug-2018  
Software Availability: Mar-2018

General Notes (Continued)

is mitigated in the system as tested and documented.

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;  

Platform Notes

BIOS and OS configuration:  
SCALING_GOVERNOR set to Performance  
Hardware Prefetch set to Disable  
VT Support set to Disable  
C1E Support set to Disable  
IMC (Integrated memory controller) Interleaving set to 1-way  
Sub NUMA Cluster (SNC) set to Enable  
Sysinfo program /home/CPU2017/bin/sysinfo  
Rev: r5974 of 2018-05-19 9bcde8f2999c33d61f64985e45859ea9  
runtime on linux-hma5 Wed Nov 16 08:16:28 2016

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) Silver 4114 CPU @ 2.20GHz  
2 "physical id"s (chips)  
40 "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 : 10  
siblings : 20  
physical 0: cores 0 1 2 3 4 8 9 10 11 12  
physical 1: cores 0 1 2 3 4 8 9 10 11 12

From lscpu:

Architecture: x86_64  
CPU op-mode(s): 32-bit, 64-bit  
Byte Order: Little Endian  
CPU(s): 40  
On-line CPU(s) list: 0-39  
Thread(s) per core: 2  
Core(s) per socket: 10

(Continued on next page)
Inspur Corporation

Inspur NS5162M5 (Intel Xeon Silver 4114)

SPECrate2017_int_base = 91.3
SPECrate2017_int_peak = 96.3

CPU2017 License: 3358
Test Sponsor: Inspur Corporation
Tested by: Inspur Corporation

Test Date: May-2019
Hardware Availability: Aug-2018
Software Availability: Mar-2018

Platform Notes (Continued)

Socket(s): 2
NUMA node(s): 2
Vendor ID: GenuineIntel
CPU family: 6
Model: 85
Model name: Intel(R) Xeon(R) Silver 4114 CPU @ 2.20GHz
Stepping: 4
CPU MHz: 2499.998
CPU max MHz: 3000.0000
CPU min MHz: 800.0000
BogoMIPS: 4389.65
Virtualization: VT-x
L1d cache: 32K
L1i cache: 32K
L2 cache: 1024K
L3 cache: 14080K
NUMA node0 CPU(s): 0-9,20-29
NUMA node1 CPU(s): 10-19,30-39
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 rdtsscp
lm constant_tsc art arch_perfmon pebs bts rep_good nopl xtopology nonstop_tsc
aperfmrperf eagerfpu pni pclmulqdq dtes64 ds_cpl vmx smx est tm2 ssse3 sdbg fma cx16
xptr pdcm pcid dca sse4_1 sse4_2 x2apic movbe popcnt tsc_deadline_timer aes xsave
avx f16c rdrand lahf_lm abm 3dnowprefetch ida arat epb invpcid_single pln pts dtherm
hwp hwp_act_window hwp_pkg_req intel_pt rsb_cxsw spec_ctrl stibp retpoline
kaiser tpr_shadow vmni flexpriority ept vpid fsgsbase tsc_adjust bmi1 hle avx2 smep
bmi2 eterms invpcid rtm cmq mpx avx512f avx512dq rdseed adx smap clflushopt clwb
avx512cd avx512bw avx512vl xsaveopt xsavec xgetbv1 cmq_llc cmq_occup_llc

From /proc/cpuinfo cache data
  cache size : 14080 KB

From numactl --hardware WARNING: a numactl 'node' might or might not correspond to a physical chip.
  available: 2 nodes (0-1)
    node 0 cpus: 0 1 2 3 4 5 6 7 8 9 20 21 22 23 24 25 26 27 28 29
    node 0 size: 96208 MB
    node 0 free: 95783 MB
    node 1 cpus: 10 11 12 13 14 15 16 17 18 19 30 31 32 33 34 35 36 37 38 39
    node 1 size: 96616 MB
    node 1 free: 96176 MB
    node distances:
      node   0   1
      0:  10  21
      1:  21  10

From /proc/meminfo

(Continued on next page)
SPEC CPU2017 Integer Rate Result

Inspur Corporation

Inspur NS5162M5 (Intel Xeon Silver 4114)

SPECrate2017_int_base = 91.3
SPECrate2017_int_peak = 96.3

CPU2017 License: 3358
Test Sponsor: Inspur Corporation
Tested by: Inspur Corporation

Test Date: May-2019
Hardware Availability: Aug-2018
Software Availability: Mar-2018

Platform Notes (Continued)

MemTotal: 197452928 kB
HugePages_Total: 0
Hugepagesize: 2048 kB

/usr/bin/lsb_release -d
SUSE Linux Enterprise Server 12 SP2

From /etc/*release* /etc/*version*
SuSE-release:
    SUSE Linux Enterprise Server 12 (x86_64)
    VERSION = 12
    PATCHLEVEL = 2
    # This file is deprecated and will be removed in a future service pack or release.
    # Please check /etc/os-release for details about this release.
os-release:
    NAME="SLES"
    VERSION="12-SP2"
    VERSION_ID="12.2"
    PRETTY_NAME="SUSE Linux Enterprise Server 12 SP2"
    ID="sles"
    ANSI_COLOR="0;32"
    CPE_NAME="cpe:/o:suse:sles:12:sp2"

uname -a:
    Linux linux-hma5 4.4.120-92.70-default #1 SMP Wed Mar 14 15:59:43 UTC 2018 (52a83de)
x86_64 x86_64 x86_64 GNU/Linux

Kernel self-reported vulnerability status:
CVE-2017-5754 (Meltdown): Mitigation: PTI
CVE-2017-5753 (Spectre variant 1): Mitigation: __user pointer sanitization
CVE-2017-5715 (Spectre variant 2): Mitigation: IBRS+IBPB

run-level 3 Nov 16 08:15 last=5

SPEC is set to: /home/CPU2017
Filesystem     Type Size Used Avail Use% Mounted on
/dev/sda5      xfs  404G  45G  359G  12% /home

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 Inspur 4.0.1 08/30/2018
Memory:
    4x NO DIMM NO DIMM
    12x Samsung M393A2K40CB2-CVF 16 GB 1 rank 2933, configured at 2400

(Continued on next page)
Insaur Corporation

Insaur NS5162M5 (Intel Xeon Silver 4114)

SPECrate2017_int_base = 91.3
SPECrate2017_int_peak = 96.3

CPU2017 License: 3358
Test Sponsor: Insaur Corporation
Tested by: Insaur Corporation

Test Date: May-2019
Hardware Availability: Aug-2018
Software Availability: Mar-2018

Platform Notes (Continued)

(End of data from sysinfo program)

Compiler Version Notes

==============================================================================
CC  500.perlbench_r(base) 502.gcc_r(base) 505.mcf_r(base, peak)
    525.x264_r(base, peak) 557.xz_r(base, peak)
------------------------------------------------------------------------------
icc (ICC) 18.0.0 20170811
Copyright (C) 1985-2017 Intel Corporation. All rights reserved.
------------------------------------------------------------------------------
==============================================================================
CC   500.perlbench_r(peak) 502.gcc_r(peak)
------------------------------------------------------------------------------
icc (ICC) 18.0.0 20170811
Copyright (C) 1985-2017 Intel Corporation. All rights reserved.
------------------------------------------------------------------------------
==============================================================================
CXXC 520.omnetpp_r(base) 523.xalancbmk_r(base) 531.deepsjeng_r(base)
    541.leela_r(base)
------------------------------------------------------------------------------
icpc (ICC) 18.0.0 20170811
Copyright (C) 1985-2017 Intel Corporation. All rights reserved.
------------------------------------------------------------------------------
==============================================================================
CXXC 520.omnetpp_r(peak) 523.xalancbmk_r(peak) 531.deepsjeng_r(peak)
    541.leela_r(peak)
------------------------------------------------------------------------------
icpc (ICC) 18.0.0 20170811
Copyright (C) 1985-2017 Intel Corporation. All rights reserved.
------------------------------------------------------------------------------
==============================================================================
FC  548.exchange2_r(base, peak)
------------------------------------------------------------------------------
ifort (IFORT) 18.0.0 20170811
Copyright (C) 1985-2017 Intel Corporation. All rights reserved.
------------------------------------------------------------------------------
SPEC CPU2017 Integer Rate Result

Inspur Corporation
Inspur NS5162M5 (Intel Xeon Silver 4114)

SPECrate2017_int_base = 91.3
SPECrate2017_int_peak = 96.3

CPU2017 License: 3358
Test Sponsor: Inspur Corporation
Tested by: Inspur Corporation

Test Date: May-2019
Hardware Availability: Aug-2018
Software Availability: Mar-2018

Base Compiler Invocation

C benchmarks:
icc

C++ benchmarks:
icpc

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

Base Optimization Flags

C benchmarks:
-W1,-z,muldefs -xCORE-AVX512 -ipo -O3 -no-prec-div
-qopt-mem-layout-trans=3 -L/usr/local/je5.0.1-64/lib -ljemalloc

C++ benchmarks:
-W1,-z,muldefs -xCORE-AVX512 -ipo -O3 -no-prec-div
-qopt-mem-layout-trans=3 -L/usr/local/je5.0.1-64/lib -ljemalloc

Fortran benchmarks:
-W1,-z,muldefs -xCORE-AVX512 -ipo -O3 -no-prec-div
-qopt-mem-layout-trans=3 -nostandard-realloc-lhs -align array32byte
-L/usr/local/je5.0.1-64/lib -ljemalloc
# SPEC CPU2017 Integer Rate Result

## Inspur Corporation

**Inspur NS5162M5 (Intel Xeon Silver 4114)**

### SPECrate2017_int_base = 91.3

### SPECrate2017_int_peak = 96.3

<table>
<thead>
<tr>
<th>CPU2017 License: 3358</th>
<th>Test Date: May-2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>Test Sponsor: Inspur Corporation</td>
<td>Hardware Availability: Aug-2018</td>
</tr>
<tr>
<td>Tested by: Inspur Corporation</td>
<td>Software Availability: Mar-2018</td>
</tr>
</tbody>
</table>

### Base Other Flags

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

- **C++ benchmarks:**
  - `-m64`

- **Fortran benchmarks:**
  - `-m64`

### Peak Compiler Invocation

- **C benchmarks:**
  - `icc`

- **C++ benchmarks:**
  - `icpc`

- **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: -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-AVX512 -O3 -no-prec-div -qopt-mem-layout-trans=3 -fno-strict-overflow -L/usr/local/je5.0.1-64/lib`

(Continued on next page)
**Inspur Corporation**

**Inspur NS5162M5 (Intel Xeon Silver 4114)**

<table>
<thead>
<tr>
<th>SPECrate2017_int_base</th>
<th>SPECrate2017_int_peak</th>
</tr>
</thead>
<tbody>
<tr>
<td>91.3</td>
<td>96.3</td>
</tr>
</tbody>
</table>

**CPU2017 License:** 3358  
**Test Sponsor:** Inspur Corporation  
**Tested by:** Inspur Corporation  
**Test Date:** May-2019  
**Hardware Availability:** Aug-2018  
**Software Availability:** Mar-2018  

---

**Peak Optimization Flags (Continued)**

500.perlbench_r (continued):
- ljemalloc

502.gcc_r: -L/opt/intel/compilers_and_libraries_2018/linux/lib/ia32  
- Wl,-z,muldefs -prof-gen(pass 1) -prof-use(pass 2) -ipo  
- xCORE-AVX512 -O3 -no-prec-div -qopt-mem-layout-trans=3  
- 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=3 -L/usr/local/je5.0.1-64/lib  
- ljemalloc

525.x264_r: -Wl,-z,muldefs -xCORE-AVX512 -ipo -O3 -no-prec-div  
- qopt-mem-layout-trans=3 -fno-alias  
- L/usr/local/je5.0.1-64/lib -ljemalloc

557.xz_r: Same as 505.mcf_r

**C++ benchmarks:**

520.omnetpp_r: -Wl,-z,muldefs -prof-gen(pass 1) -prof-use(pass 2) -ipo  
- xCORE-AVX512 -O3 -no-prec-div -qopt-mem-layout-trans=3  
- L/usr/local/je5.0.1-64/lib -ljemalloc

523.xalancbmk_r: -L/opt/intel/compilers_and_libraries_2018/linux/lib/ia32  
- Wl,-z,muldefs -prof-gen(pass 1) -prof-use(pass 2) -ipo  
- xCORE-AVX512 -O3 -no-prec-div -qopt-mem-layout-trans=3  
- L/usr/local/je5.0.1-32/lib -ljemalloc

531.deepsjeng_r: Same as 520.omnetpp_r

541.leela_r: Same as 520.omnetpp_r

**Fortran benchmarks:**

-Wl,-z,muldefs -xCORE-AVX512 -ipo -O3 -no-prec-div  
-qopt-mem-layout-trans=3 -nostandard-realloc-lhs -align array32byte  
-L/usr/local/je5.0.1-64/lib -ljemalloc

---

**Peak Other Flags**

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

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

#### Insipur Corporation

<table>
<thead>
<tr>
<th>SPECrate2017_int_base</th>
<th>SPECrate2017_int_peak</th>
</tr>
</thead>
<tbody>
<tr>
<td>91.3</td>
<td>96.3</td>
</tr>
</tbody>
</table>

**Inspur NS5162M5 (Intel Xeon Silver 4114)**

**CPU2017 License:** 3358  
**Test Sponsor:** Insipur Corporation  
**Tested by:** Insipur Corporation  
**Test Date:** May-2019  
**Hardware Availability:** Aug-2018  
**Software Availability:** Mar-2018

---

#### Peak Other Flags (Continued)

502.gcc_r: -m32 -std=c11

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

523.xalancbmk_r: -m32

Fortran benchmarks:
- -m64

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

- [http://www.spec.org/cpu2017/flags/Intel-ic18.0-official-linux64.html](http://www.spec.org/cpu2017/flags/Intel-ic18.0-official-linux64.html)

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

- [http://www.spec.org/cpu2017/flags/Intel-ic18.0-official-linux64.xml](http://www.spec.org/cpu2017/flags/Intel-ic18.0-official-linux64.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 2016-11-16 08:16:27-0500.  
Originally published on 2019-06-11.