## Inspur Corporation

**CPU Name:** Intel Xeon Gold 6209U  
**Max MHz:** 3900  
**Nominal:** 2100  
**Enabled:** 20 cores, 1 chip, 2 threads/core  
**Orderable:** 1 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 core  
**Other:** None

**Memory:** 384 GB (12 x 32 GB 2Rx4 PC4-2933Y-R)  
**Storage:** 1 x 600 GB SATA SSD  
**Other:** None

## Software

**OS:**  
Red Hat Enterprise Linux release 8.1 (Ootpa)  
4.18.0-147.el8.x86_64  
**Compiler:**  
C/C++: Version 19.1.1.217 of Intel C/C++  
Compiler Build 20200306 for Linux;  
Fortran: Version 19.1.1.217 of Intel Fortran  
Compiler Build 20200306 for Linux  
**Parallel:** No  
**Firmware:** Version 4.1.7 released Apr-2019  
**File System:** xfs  
**System State:** Run level 3 (multi-user)  
**Base Pointers:** 64-bit  
**Peak Pointers:** 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

---

### SPEC CPU®2017 Floating Point Rate Result

**Inspur Corporation**  
**Inspur NF5280M5 (Intel Xeon Gold 6209U)**

**SPECrate®2017_fp_base = 110**  
**SPECrate®2017_fp_peak = 115**

**Test Date:** Jun-2020  
**Hardware Availability:** Apr-2019  
**Software Availability:** Apr-2020

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<td>59.3</td>
</tr>
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**Hardware**

- **CPU Name:** Intel Xeon Gold 6209U  
- **Max MHz:** 3900  
- **Nominal:** 2100  
- **Enabled:** 20 cores, 1 chip, 2 threads/core  
- **Orderable:** 1 chips  
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- **Other:** None  
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- **Storage:** 1 x 600 GB SATA SSD  
- **Other:** None

---

**Software**

- **OS:** Red Hat Enterprise Linux release 8.1 (Ootpa)  
  4.18.0-147.el8.x86_64  
- **Compiler:** C/C++: Version 19.1.1.217 of Intel C/C++  
  Compiler Build 20200306 for Linux;  
  Fortran: Version 19.1.1.217 of Intel Fortran  
  Compiler Build 20200306 for Linux  
- **Parallel:** No  
- **Firmware:** Version 4.1.7 released Apr-2019  
- **File System:** xfs  
- **System State:** Run level 3 (multi-user)  
- **Base Pointers:** 64-bit  
- **Peak Pointers:** 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
## Results Table

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</table>

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

### Compiler Notes

The inconsistent Compiler version information under Compiler Version section is due to a discrepancy in Intel Compiler.

The correct version of C/C++ compiler is: Version 19.1.1.217 Build 20200306 Compiler for Linux

The correct version of Fortran compiler is: Version 19.1.1.217 Build 20200306 Compiler for Linux

### 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"

SCALING_GOVERNOR set to Performance

### Environment Variables Notes

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

LD_LIBRARY_PATH = "/home/CPU2017/lib/intel64:/home/CPU2017/je5.0.1-64"

MALLOC_CONF = "retain:true"
Insipur Corporation

Insipur NF5280M5 (Intel Xeon Gold 6209U)

SPECrate®2017_fp_base = 110
SPECrate®2017_fp_peak = 115

General Notes

Binaries compiled on a system with 1x Intel Core i9-7980XE CPU + 64GB RAM
memory using Redhat Enterprise Linux 8.0
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>

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.

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

Platform Notes

BIOS configuration:
ENERGY_PERF_BIAS_CFG mode 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: r6365 of 2019-08-21 295195f808a3d7edbe6a46a485a0011
running on localhost.localdomain Tue Jun 30 10:50:25 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) Gold 6209U CPU @ 2.10GHz
  1 "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.)

(Continued on next page)
Inspur Corporation

Inspur NF5280M5 (Intel Xeon Gold 6209U)

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

SPECrate®2017_fp_base = 110
SPECrate®2017_fp_peak = 115

Test Date: Jun-2020
Hardware Availability: Apr-2019
Software Availability: Apr-2020

Platform Notes (Continued)

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

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: 20
Socket(s): 1
NUMA node(s): 2
Vendor ID: GenuineIntel
CPU family: 6
Model: 85
Model name: Intel(R) Xeon(R) Gold 6209U CPU @ 2.10GHz
Stepping: 7
CPU MHz: 2799.988
CPU max MHz: 3900.0000
CPU min MHz: 800.0000
BogoMIPS: 4200.00
Virtualization: VT-x
L1d cache: 32K
L1i cache: 32K
L2 cache: 1024K
L3 cache: 28160K
NUMA node0 CPU(s): 0-2,5,6,10-12,15,16,20-22,25,26,30-32,35,36
NUMA node1 CPU(s): 3,4,7-9,13,14,17-19,23,24,27-29,33,34,37-39
Flags: fpu vme de pse mce pmx pae mtrr pge mca cmov pat pse36 clflush dts acpi mmx fxsr sse sse2 ss ht tm pbe syscall nx pdpe1gb rdtsc
lm constant_tsc arch_perfmon pebs bts rep_good nopl xtopology nonstop_tsc cpuid aperfmperf pni pclmulqdq dtes64 ds_cpl vmx smx est tm2 ssse3 sdbg fma cx16 xtpr pdcm
pcid dca sse4_1 sse4_2 x2apic movbe popcnt tsc_deadline_timer aes xsave avx f16c rdrand lahf_lm abm 3dnowprefetch cpuid_fault ebpx cld cld
mba ibs ibp stibp ibrs enhanced_tpr_shadow vnmi flexpriority ept vpid fsgsbas
tsc_adjust bmi1 hle avx2 smep bmi2 3dseed invpcid_single ssbd
From numactl --hardware WARNING: a numactl 'node' might or might not correspond to a

(Continued on next page)
Inspur Corporation
Inspur NF5280M5 (Intel Xeon Gold 6209U)

SPECRate®2017_fp_base = 110
SPECRate®2017_fp_peak = 115

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

Test Date: Jun-2020
Hardware Availability: Apr-2019
Software Availability: Apr-2020

Platform Notes (Continued)

physical chip.
available: 2 nodes (0-1)
node 0 cpus: 0 1 2 5 6 10 11 12 15 16 20 21 22 25 26 30 31 32 35 36
node 0 size: 192104 MB
node 0 free: 180272 MB
node 1 cpus: 3 4 7 8 9 13 14 17 18 19 23 24 27 28 29 33 34 37 38 39
node 1 size: 193505 MB
node 1 free: 183981 MB
node distances:
node 0 1
0: 10 11
1: 11 10

From /proc/meminfo
MemTotal: 394865140 kB
HugePages_Total: 0
Hugepagesize: 2048 kB

From /etc/*release* /etc/*version*
    os-release:
      NAME="Red Hat Enterprise Linux"
      VERSION="8.1 (Ootpa)"
      ID="rhel"
      ID_LIKE="fedora"
      VERSION_ID="8.1"
      PLATFORM_ID="platform:el8"
      PRETTY_NAME="Red Hat Enterprise Linux 8.1 (Ootpa)"
      ANSI_COLOR="0;31"
    redhat-release: Red Hat Enterprise Linux release 8.1 (Ootpa)
    system-release: Red Hat Enterprise Linux release 8.1 (Ootpa)
    system-release-cpe: cpe:/o:redhat:enterprise_linux:8.1:ga

    uname -a:
      Linux localhost.localdomain 4.18.0-147.el8.x86_64 #1 SMP Thu Sep 26 15:52:44 UTC 2019
      x86_64 x86_64 x86_64 GNU/Linux

    Kernel self-reported vulnerability status:
    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: conditional, RSB filling

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

**Inspur Corporation**

**Inspur NF5280M5 (Intel Xeon Gold 6209U)**

| SPECrate®2017_fp_base = 110 | SPECrate®2017_fp_peak = 115 |

**CPU2017 License:** 3358  
**Test Sponsor:** Inspur Corporation  
**Tested by:** Inspur Corporation  
**Test Date:** Jun-2020  
**Hardware Availability:** Apr-2019  
**Software Availability:** Apr-2020

---

**Platform Notes (Continued)**

run-level 3 Jun 30 02:05

SPEC is set to: /home/CPU2017  
Filesystem  
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<th>Type</th>
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<th>Avail</th>
<th>Use%</th>
<th>Mounted on</th>
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<td>504G</td>
<td>38G</td>
<td>466G</td>
<td>8%</td>
<td>/home</td>
</tr>
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</table>

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From /sys/devices/virtual/dmi/id  
BIOS: American Megatrends Inc. 4.1.7 04/19/2019  
Vendor: Inspur  
Product: NF5280M5  
Serial: 217453240

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:  
12x Hynix HMAA4GR7AJR8N-WM 32 GB 2 rank 2933  
12x NO DIMM NO DIMM

(End of data from sysinfo program)

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**Compiler Version Notes**

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<tr>
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<td>Copyright (C) 1985-2020 Intel Corporation. All rights reserved.</td>
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==============================================================================
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(Continued on next page)
Inspur Corporation
Inspur NF5280M5 (Intel Xeon Gold 6209U)

SPECrater®2017_fp_base = 110
SPECrater®2017_fp_peak = 115

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

Test Date: Jun-2020
Hardware Availability: Apr-2019
Software Availability: Apr-2020

Compiler Version Notes (Continued)

NextGen Build 20200304
Copyright (C) 1985-2020 Intel Corporation. All rights reserved.
Intel(R) C Compiler for applications running on Intel(R) 64, Version 2021.1
NextGen Build 20200304
Copyright (C) 1985-2020 Intel Corporation. All rights reserved.

==============================================================================
C++, C          | 511.povray_r(peak)
==============================================================================

Intel(R) C++ Compiler for applications running on Intel(R) 64,
Version 19.1.1.217 Build 20200306
Copyright (C) 1985-2020 Intel Corporation. All rights reserved.
Intel(R) C Compiler for applications running on Intel(R) 64,
Version 19.1.1.217 Build 20200306
Copyright (C) 1985-2020 Intel Corporation. All rights reserved.

==============================================================================
C++, C          | 511.povray_r(base) 526.blender_r(base, peak)
==============================================================================

Intel(R) C++ Compiler for applications running on Intel(R) 64, Version 2021.1
NextGen Build 20200304
Copyright (C) 1985-2020 Intel Corporation. All rights reserved.
Intel(R) C Compiler for applications running on Intel(R) 64, Version 2021.1
NextGen Build 20200304
Copyright (C) 1985-2020 Intel Corporation. All rights reserved.

==============================================================================
C++, C          | 511.povray_r(peak)
==============================================================================

Intel(R) C++ Compiler for applications running on Intel(R) 64,
Version 19.1.1.217 Build 20200306
Copyright (C) 1985-2020 Intel Corporation. All rights reserved.
Intel(R) C Compiler for applications running on Intel(R) 64,
Version 19.1.1.217 Build 20200306
Copyright (C) 1985-2020 Intel Corporation. All rights reserved.

==============================================================================
C++, C, Fortran | 507.cactuBSSN_r(base, peak)
==============================================================================

Intel(R) C++ Compiler for applications running on Intel(R) 64, Version 2021.1
NextGen Build 20200304
Copyright (C) 1985-2020 Intel Corporation. All rights reserved.
Intel(R) C Compiler for applications running on Intel(R) 64, Version 2021.1

(Continued on next page)
Inspur Corporation

Inspur NF5280M5 (Intel Xeon Gold 6209U)

**CPU2017 License:** 3358

**Test Sponsor:** Inspur Corporation

**Tested by:** Inspur Corporation

**Test Date:** Jun-2020

**Hardware Availability:** Apr-2019

**Software Availability:** Apr-2020

---

**Compiler Version Notes (Continued)**

NextGen Build 20200304

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

Intel(R) Fortran Intel(R) 64 Compiler for applications running on Intel(R)

64, Version 19.1.1.217 Build 20200306

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

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

Fortran | 503.bwaves_r(base, peak) 549.fotonik3d_r(base, peak)

554.roms_r(base, peak)

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

Intel(R) Fortran Intel(R) 64 Compiler for applications running on Intel(R)

64, Version 19.1.1.217 Build 20200306

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

Fortran, C | 521.wrf_r(base) 527.cam4_r(base, peak)

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

Intel(R) Fortran Intel(R) 64 Compiler for applications running on Intel(R)

64, Version 19.1.1.217 Build 20200306

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Intel(R) C Compiler for applications running on Intel(R) 64, Version 2021.1

NextGen Build 20200304

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

Fortran, C | 521.wrf_r(peak)

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

Intel(R) Fortran Intel(R) 64 Compiler for applications running on Intel(R)

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Intel(R) C Compiler for applications running on Intel(R) 64,

Version 19.1.1.217 Build 20200306

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

Fortran, C | 521.wrf_r(base) 527.cam4_r(base, peak)

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

Intel(R) Fortran Intel(R) 64 Compiler for applications running on Intel(R)

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Intel(R) C Compiler for applications running on Intel(R) 64, Version 2021.1

NextGen Build 20200304

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(Continued on next page)
Inspur Corporation

Inspur NF5280M5 (Intel Xeon Gold 6209U)

SPEC CPU®2017 Floating Point Rate Result

Copyright 2017-2020 Standard Performance Evaluation Corporation

SPECrate®2017_fp_base = 110
SPECrate®2017_fp_peak = 115

CPU2017 License: 3358
Test Sponsor: Inspur Corporation
Test Date: Jun-2020
Hardware Availability: Apr-2019
Tested by: Inspur Corporation
Software Availability: Apr-2020

Compiler Version Notes (Continued)

---------------------------------------------------------------------------------
Fortran, C      | 521.wrf_r(peak)
---------------------------------------------------------------------------------
Intel(R) Fortran Intel(R) 64 Compiler for applications running on Intel(R) 64, Version 19.1.1.217 Build 20200306
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Intel(R) C Intel(R) 64 Compiler for applications running on Intel(R) 64, Version 19.1.1.217 Build 20200306
Copyright (C) 1985-2020 Intel Corporation. All rights reserved.
---------------------------------------------------------------------------------

Base Compiler Invocation

C benchmarks:
icc

C++ benchmarks:
icpc

Fortran benchmarks:
ifort

Benchmarks using both Fortran and C:
ifort icc

Benchmarks using both C and C++:
icpc icc

Benchmarks using Fortran, C, and C++:
icpc icc ifort

Base Portability Flags

503.bwaves_r: -DSPEC_LP64
507.cactuBSSN_r: -DSPEC_LP64
508.namd_r: -DSPEC_LP64
510.parest_r: -DSPEC_LP64
511.povray_r: -DSPEC_LP64
519.lbm_r: -DSPEC_LP64
521.wrf_r: -DSPEC_LP64 -DSPEC_CASE_FLAG -convert big_endian
526.blender_r: -DSPEC_LP64 -DSPEC_LINUX -funsigned-char

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

**Inspur Corporation**

**Inspur NF5280M5 (Intel Xeon Gold 6209U)**

**SPECrate®2017_fp_base = 110**

**SPECrate®2017_fp_peak = 115**

**CPU2017 License:** 3358  
**Test Sponsor:** Inspur Corporation  
**Tested by:** Inspur Corporation  
**Test Date:** Jun-2020  
**Hardware Availability:** Apr-2019  
**Software Availability:** Apr-2020

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**Base Portability Flags (Continued)**

527.cam4_r: -DSPEC_LP64 -DSPEC_CASE_FLAG  
538.imagick_r: -DSPEC_LP64  
544.nab_r: -DSPEC_LP64  
549.fotonik3d_r: -DSPEC_LP64  
554.roms_r: -DSPEC_LP64

---

**Base Optimization Flags**

C benchmarks:

```
-m64 -qnextgen -std=c11  
-Wl,-plugin-opt=x86-branches-within-32B-boundaries -Wl,-z,muldefs  
-fuse-ld=gold -xCORE-AVX2 -Ofast -ffast-math -flto -mfpmath=sse  
-funroll-loops -qopt-mem-layout-trans=4  
-L/usr/local/jemalloc64-5.0.1/lib -ljemalloc
```

C++ benchmarks:

```
-m64 -qnextgen -Wl,-plugin-opt=x86-branches-within-32B-boundaries  
-Wl,-z,muldefs -fuse-ld=gold -xCORE-AVX2 -Ofast -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,-plugin-opt=x86-branches-within-32B-boundaries -Wl,-z,muldefs  
-fuse-ld=gold -xCORE-AVX2 -O3 -ipo -no-prec-div -qopt-prefetch  
-ffinite-math-only -qopt-multiple-gather-scatter-by-shuffles  
-qopt-mem-layout-trans=4 -nostandard-realloc-lhs -align array32byte  
-auto -mbranches-within-32B-boundaries  
-L/usr/local/jemalloc64-5.0.1/lib -ljemalloc
```

Benchmarks using both Fortran and C:

```
-m64 -qnextgen -std=c11  
-Wl,-plugin-opt=x86-branches-within-32B-boundaries -Wl,-z,muldefs  
-fuse-ld=gold -xCORE-AVX2 -Ofast -ffast-math -flto -mfpmath=sse  
-funroll-loops -qopt-mem-layout-trans=4 -O3 -ipo -no-prec-div  
-qopt-prefetch -ffinite-math-only  
-qopt-multiple-gather-scatter-by-shuffles -nostandard-realloc-lhs  
-align array32byte -auto -mbranches-within-32B-boundaries  
-L/usr/local/jemalloc64-5.0.1/lib -ljemalloc
```

Benchmarks using both C and C++:

```
-m64 -qnextgen -std=c11  
-Wl,-plugin-opt=x86-branches-within-32B-boundaries -Wl,-z,muldefs  
-fuse-ld=gold -xCORE-AVX2 -Ofast -ffast-math -flto -mfpmath=sse  
-funroll-loops -qopt-mem-layout-trans=4
```

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

Benchmarks using both C and C++ (continued):

- `L/usr/local/jemalloc64-5.0.1/lib -ljemalloc`

Benchmarks using Fortran, C, and C++:

- `-m64 -qnextgen -std=c11`
- `-Wl,-plugin-opt=-x86-branches-within-32B-boundaries -Wl,-z,muldefs`
- `-fuse-ld=gold -xCORE-AVX2 -Ofast -ffast-math -flto -mfpmath=sse`
- `-funroll-loops -qopt-mem-layout-trans=4 -O3 -ipo -no-prec-div`
- `-qopt-prefetch -ffinite-math-only`
- `-qopt-multiple-gather-scatter-by-shuffles - nostandard-realloc-lhs`
- `-align array32byte -auto -mbranches-within-32B-boundaries`
- `-L/usr/local/jemalloc64-5.0.1/lib -ljemalloc`

### Peak Compiler Invocation

**C benchmarks:**

- `icc`

**C++ benchmarks:**

- `icpc`

**Fortran benchmarks:**

- `ifort`

Benchmarks using both Fortran and C:

- `ifort icc`

Benchmarks using both C and C++:

- `icpc icc`

Benchmarks using Fortran, C, and C++:

- `icpc icc ifort`

### Peak Portability Flags

Same as Base Portability Flags
Peak Optimization Flags

C benchmarks:

519.lbm_r: basepeak = yes
538.imagick_r: basepeak = yes
544.nab_r: basepeak = yes

C++ benchmarks:

508.namd_r: basepeak = yes
510.parest_r: -m64 -qnextgen
-stdlib=libc++
-Wl,-plugin-opt=-x86-branches-within-32B-boundaries
-Wl,-z,muldefs -fuse-ld=gold -xCORE-AVX2 -Ofast
-ffast-math -flto
-ffinite-math-only
-mem-layout-trans=4 -L/usr/local/jemalloc64-5.0.1/lib
-ljemalloc

Fortran benchmarks:

503.bwaves_r: -m64 -Lw,-plugin-opt=-x86-branches-within-32B-boundaries
-Wl,-z,muldefs -fusion-ld=gold -xCORE-AVX2 -O3 -ipo
-no-prec-div -qopt-prefetch -ffinite-math-only
-qopt-multiple-gather-scatter-by-shuffles
-qopt-mem-layout-trans=4 -nostandard-realloc-lhs
-align array32byte -auto -mbranches-within-32B-boundaries
-L/usr/local/jemalloc64-5.0.1/lib -ljemalloc

549.fotonik3d_r: basepeak = yes
554.roms_r: Same as 503.bwaves_r

Benchmarks using both Fortran and C:

521.wrf_r: -prof-gen(pass1) -prof-use(pass2) -xCORE-AVX2 -O3 -ipo
-no-prec-div -qopt-prefetch -ffinite-math-only
-qopt-multiple-gather-scatter-by-shuffles
-qopt-mem-layout-trans=4 -mbranches-within-32B-boundaries
-nostandard-realloc-lhs -align array32byte -auto
-L/usr/local/jemalloc64-5.0.1/lib -ljemalloc

527.cam4_r: basepeak = yes

Benchmarks using both C and C++:

(Continued on next page)
Inspur Corporation
Inspur NF5280M5 (Intel Xeon Gold 6209U)

SPECrate®2017_fp_base = 110
SPECrate®2017_fp_peak = 115

Peak Optimization Flags (Continued)

511.povray_r: \-prof-gen(pass 1) \-prof-use(pass 2) \-xCORE-AVX2 \-O3 \-ipo
\-no-prec-div \-qopt-prefetch \-ffinite-math-only
\-qopt-multiple-gather-scatter-by-shuffles
\-qopt-mem-layout-trans=4 \-mbranches-within-32B-boundaries
\-L/usr/local/jemalloc64-5.0.1/lib \-ljemalloc

526.blender_r: basepeak = yes

Benchmarks using Fortran, C, and C++:
507.cactuBSSN_r: 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:
http://www.spec.org/cpu2017/flags/Intel-ic19.1u1-official-linux64_revA.xml
http://www.spec.org/cpu2017/flags/Inspur-Platform-Settings-V1.9.xml