



# SPEC® CPU2017 Floating Point Rate Result

Copyright 2017-2019 Standard Performance Evaluation Corporation

## Inspur Corporation

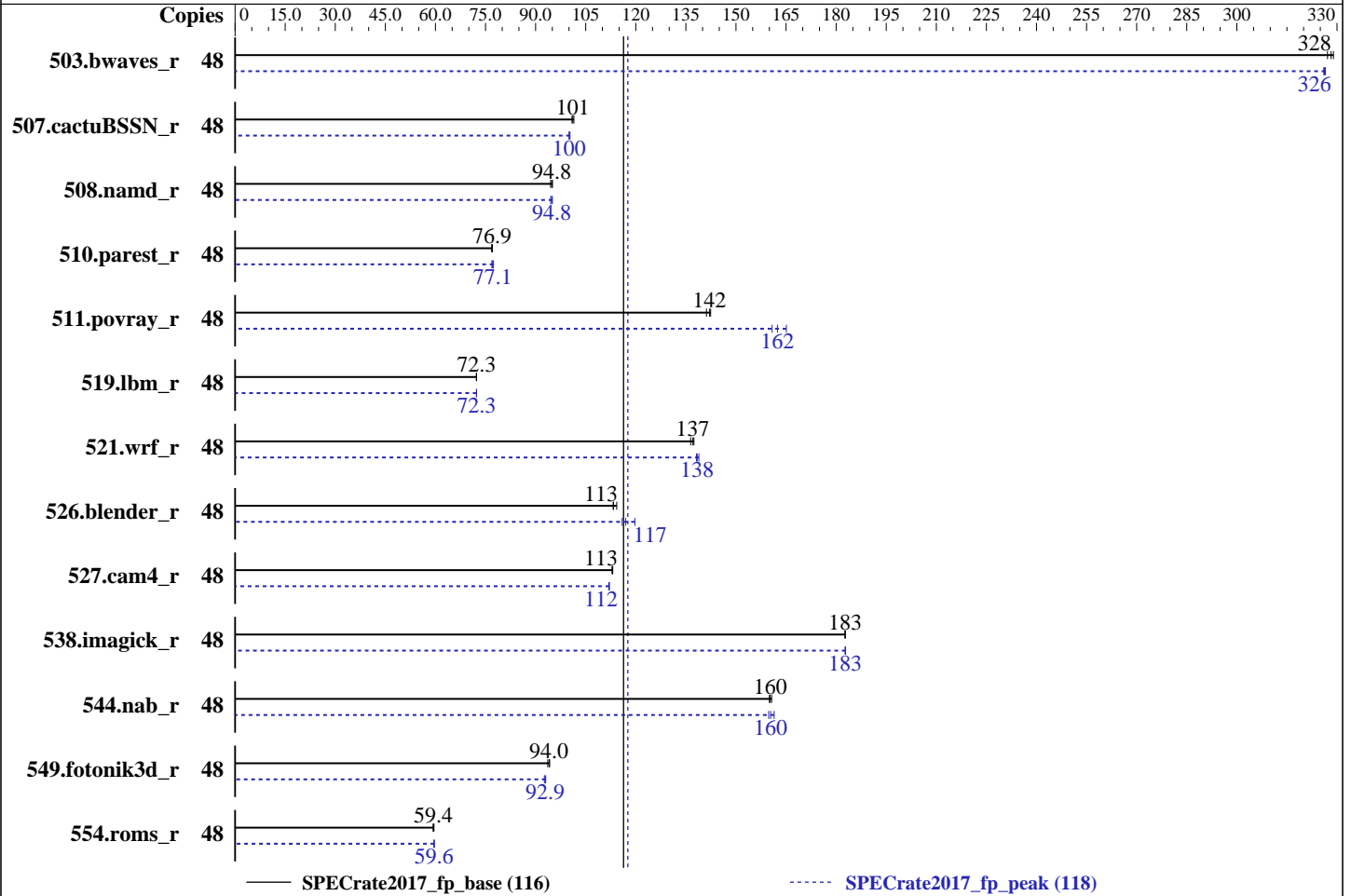
SPECrate2017\_fp\_base = 116

### Inspur NS5162M5 (Intel Xeon Gold 5118)

SPECrate2017\_fp\_peak = 118

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

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



### Hardware

CPU Name: Intel Xeon Gold 5118  
 Max MHz.: 3200  
 Nominal: 2300  
 Enabled: 24 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: 16.5 MB I+D on chip per chip  
 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

### 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: 64-bit  
 Other: None



# SPEC CPU2017 Floating Point Rate Result

Copyright 2017-2019 Standard Performance Evaluation Corporation

## Inspur Corporation

SPECrate2017\_fp\_base = 116

## Inspur NS5162M5 (Intel Xeon Gold 5118)

SPECrate2017\_fp\_peak = 118

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

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

### Results Table

Benchmark	Base							Peak						
	Copies	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Copies	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio
503.bwaves_r	48	1463	329	<b><u>1467</u></b>	<b><u>328</u></b>	1471	327	48	1474	327	<b><u>1475</u></b>	<b><u>326</u></b>	1476	326
507.cactuBSSN_r	48	599	101	<b><u>601</u></b>	<b><u>101</u></b>	602	101	48	606	100	<b><u>607</u></b>	<b><u>100</u></b>	607	100
508.namd_r	48	<b><u>481</u></b>	<b><u>94.8</u></b>	483	94.5	480	95.1	48	482	94.5	480	95.0	<b><u>481</u></b>	<b><u>94.8</u></b>
510.parest_r	48	<b><u>1632</u></b>	<b><u>76.9</u></b>	1630	77.0	1634	76.8	48	<b><u>1628</u></b>	<b><u>77.1</u></b>	1623	77.4	1633	76.9
511.povray_r	48	<b><u>789</u></b>	<b><u>142</u></b>	787	142	794	141	48	<b><u>690</u></b>	<b><u>162</u></b>	679	165	697	161
519.lbm_r	48	<b><u>700</u></b>	<b><u>72.3</u></b>	700	72.3	700	72.3	48	700	72.3	700	72.3	<b><u>700</u></b>	<b><u>72.3</u></b>
521.wrf_r	48	782	137	<b><u>784</u></b>	<b><u>137</u></b>	788	136	48	<b><u>777</u></b>	<b><u>138</u></b>	774	139	778	138
526.blender_r	48	646	113	<b><u>645</u></b>	<b><u>113</u></b>	640	114	48	631	116	<b><u>625</u></b>	<b><u>117</u></b>	611	120
527.cam4_r	48	744	113	<b><u>743</u></b>	<b><u>113</u></b>	742	113	48	750	112	749	112	<b><u>749</u></b>	<b><u>112</u></b>
538.imagick_r	48	653	183	<b><u>653</u></b>	<b><u>183</u></b>	653	183	48	<b><u>653</u></b>	<b><u>183</u></b>	653	183	653	183
544.nab_r	48	505	160	<b><u>504</u></b>	<b><u>160</u></b>	503	161	48	500	161	<b><u>504</u></b>	<b><u>160</u></b>	506	160
549.fotonik3d_r	48	<b><u>1989</u></b>	<b><u>94.0</u></b>	1986	94.2	1998	93.6	48	2011	93.0	<b><u>2014</u></b>	<b><u>92.9</u></b>	2020	92.6
554.roms_r	48	1281	59.6	1286	59.3	<b><u>1284</u></b>	<b><u>59.4</u></b>	48	1280	59.6	1279	59.6	<b><u>1280</u></b>	<b><u>59.6</u></b>

SPECrate2017\_fp\_base = 116

SPECrate2017\_fp\_peak = 118

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)

(Continued on next page)



# SPEC CPU2017 Floating Point Rate Result

Copyright 2017-2019 Standard Performance Evaluation Corporation

Inspur Corporation

SPECrate2017\_fp\_base = 116

Inspur NS5162M5 (Intel Xeon Gold 5118)

SPECrate2017\_fp\_peak = 118

**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.

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 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
running on linux-q537 Fri May 10 23:28:36 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 5118 CPU @ 2.30GHz
 2 "physical id"s (chips)
 48 "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 : 12
  siblings  : 24
  physical 0: cores 0 1 2 3 4 5 8 9 10 11 12 13
  physical 1: cores 0 1 2 3 4 5 8 9 10 11 12 13
```

```
From lscpu:
Architecture:          x86_64
CPU op-mode(s):        32-bit, 64-bit
Byte Order:             Little Endian
CPU(s):                 48
On-line CPU(s) list:   0-47
Thread(s) per core:    2
Core(s) per socket:    12
Socket(s):              2
NUMA node(s):          4
Vendor ID:              GenuineIntel
```

(Continued on next page)



# SPEC CPU2017 Floating Point Rate Result

Copyright 2017-2019 Standard Performance Evaluation Corporation

## Inspur Corporation

SPECrate2017\_fp\_base = 116

## Inspur NS5162M5 (Intel Xeon Gold 5118)

SPECrate2017\_fp\_peak = 118

**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)

```

CPU family:           6
Model:                85
Model name:           Intel(R) Xeon(R) Gold 5118 CPU @ 2.30GHz
Stepping:             4
CPU MHz:              2418.616
CPU max MHz:          3200.0000
CPU min MHz:          1000.0000
BogoMIPS:             4589.20
Virtualization:      VT-x
L1d cache:            32K
L1i cache:            32K
L2 cache:             1024K
L3 cache:             16896K
NUMA node0 CPU(s):   0-2,6-8,24-26,30-32
NUMA node1 CPU(s):   3-5,9-11,27-29,33-35
NUMA node2 CPU(s):   12-14,18-20,36-38,42-44
NUMA node3 CPU(s):   15-17,21-23,39-41,45-47

```

```

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
aperfperf eagerfpu 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 ida arat epb invpcid_single pln pts dtherm
hwp hwp_act_window hwp_epp hwp_pkg_req intel_pt rsb_ctxsw spec_ctrl stibp retpoline
kaiser tpr_shadow vnmi flexpriority ept vpid fsgsbase tsc_adjust bmi1 hle avx2 smep
bmi2 erms invpcid rtm cqm mpx avx512f avx512dq rdseed adx smap clflushopt clwb
avx512cd avx512bw avx512vl xsaveopt xsavec xgetbv1 cqm_llc cqm_occup_llc

```

```

/proc/cpuinfo cache data
cache size : 16896 KB

```

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

```

available: 4 nodes (0-3)
node 0 cpus: 0 1 2 6 7 8 24 25 26 30 31 32
node 0 size: 46887 MB
node 0 free: 39379 MB
node 1 cpus: 3 4 5 9 10 11 27 28 29 33 34 35
node 1 size: 48376 MB
node 1 free: 42551 MB
node 2 cpus: 12 13 14 18 19 20 36 37 38 42 43 44
node 2 size: 48376 MB
node 2 free: 42576 MB
node 3 cpus: 15 16 17 21 22 23 39 40 41 45 46 47
node 3 size: 48240 MB
node 3 free: 42470 MB
node distances:

```

(Continued on next page)



# SPEC CPU2017 Floating Point Rate Result

Copyright 2017-2019 Standard Performance Evaluation Corporation

## Inspur Corporation

SPECrate2017\_fp\_base = 116

## Inspur NS5162M5 (Intel Xeon Gold 5118)

SPECrate2017\_fp\_peak = 118

**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)

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: 196485680 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-q537 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 May 10 13:00 last=5

SPEC is set to: /home/CPU2017

Filesystem	Type	Size	Used	Avail	Use%	Mounted on
/dev/sdb3	xfs	407G	60G	348G	15%	/home

Additional information from dmidecode follows. WARNING: Use caution when you interpret

(Continued on next page)



# SPEC CPU2017 Floating Point Rate Result

Copyright 2017-2019 Standard Performance Evaluation Corporation

Inspur Corporation

SPECrate2017\_fp\_base = 116

Inspur NS5162M5 (Intel Xeon Gold 5118)

SPECrate2017\_fp\_peak = 118

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)

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:

12x Micron 18ASF2G72PZ-2G6D1 16 GB 1 rank 2666, configured at 2400

4x NO DIMM NO DIMM

(End of data from sysinfo program)

## Compiler Version Notes

=====  
CC 519.lbm\_r(base) 538.imagick\_r(base, peak) 544.nab\_r(base)  
-----

icc (ICC) 18.0.0 20170811

Copyright (C) 1985-2017 Intel Corporation. All rights reserved.  
-----

=====  
CC 519.lbm\_r(peak) 544.nab\_r(peak)  
-----

icc (ICC) 18.0.0 20170811

Copyright (C) 1985-2017 Intel Corporation. All rights reserved.  
-----

=====  
CXXC 508.namd\_r(base) 510.parest\_r(base)  
-----

icpc (ICC) 18.0.0 20170811

Copyright (C) 1985-2017 Intel Corporation. All rights reserved.  
-----

=====  
CXXC 508.namd\_r(peak) 510.parest\_r(peak)  
-----

icpc (ICC) 18.0.0 20170811

Copyright (C) 1985-2017 Intel Corporation. All rights reserved.  
-----

=====  
CC 511.povray\_r(base) 526.blender\_r(base)  
-----

icpc (ICC) 18.0.0 20170811

Copyright (C) 1985-2017 Intel Corporation. All rights reserved.

icc (ICC) 18.0.0 20170811

(Continued on next page)



# SPEC CPU2017 Floating Point Rate Result

Copyright 2017-2019 Standard Performance Evaluation Corporation

## Inspur Corporation

SPECrate2017\_fp\_base = 116

### Inspur NS5162M5 (Intel Xeon Gold 5118)

SPECrate2017\_fp\_peak = 118

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

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

### Compiler Version Notes (Continued)

Copyright (C) 1985-2017 Intel Corporation. All rights reserved.

=====  
CC 511.povray\_r(peak) 526.blender\_r(peak)  
-----

icpc (ICC) 18.0.0 20170811  
Copyright (C) 1985-2017 Intel Corporation. All rights reserved.  
icc (ICC) 18.0.0 20170811  
Copyright (C) 1985-2017 Intel Corporation. All rights reserved.  
-----

=====  
FC 507.cactuBSSN\_r(base)  
-----

icpc (ICC) 18.0.0 20170811  
Copyright (C) 1985-2017 Intel Corporation. All rights reserved.  
icc (ICC) 18.0.0 20170811  
Copyright (C) 1985-2017 Intel Corporation. All rights reserved.  
ifort (IFORT) 18.0.0 20170811  
Copyright (C) 1985-2017 Intel Corporation. All rights reserved.  
-----

=====  
FC 507.cactuBSSN\_r(peak)  
-----

icpc (ICC) 18.0.0 20170811  
Copyright (C) 1985-2017 Intel Corporation. All rights reserved.  
icc (ICC) 18.0.0 20170811  
Copyright (C) 1985-2017 Intel Corporation. All rights reserved.  
ifort (IFORT) 18.0.0 20170811  
Copyright (C) 1985-2017 Intel Corporation. All rights reserved.  
-----

=====  
FC 503.bwaves\_r(base, peak) 549.fotonik3d\_r(base, peak) 554.roms\_r(base)  
-----

ifort (IFORT) 18.0.0 20170811  
Copyright (C) 1985-2017 Intel Corporation. All rights reserved.  
-----

=====  
FC 554.roms\_r(peak)  
-----

ifort (IFORT) 18.0.0 20170811  
Copyright (C) 1985-2017 Intel Corporation. All rights reserved.  
-----

(Continued on next page)



# SPEC CPU2017 Floating Point Rate Result

Copyright 2017-2019 Standard Performance Evaluation Corporation

Inspur Corporation

SPECrate2017\_fp\_base = 116

Inspur NS5162M5 (Intel Xeon Gold 5118)

SPECrate2017\_fp\_peak = 118

CPU2017 License: 3358

Test Sponsor: Inspur Corporation

Tested by: Inspur Corporation

Test Date: May-2019

Hardware Availability: Aug-2018

Software Availability: Mar-2018

## Compiler Version Notes (Continued)

=====  
CC 521.wrf\_r(base) 527.cam4\_r(base)  
=====

ifort (IFORT) 18.0.0 20170811  
Copyright (C) 1985-2017 Intel Corporation. All rights reserved.  
icc (ICC) 18.0.0 20170811  
Copyright (C) 1985-2017 Intel Corporation. All rights reserved.  
=====

=====  
CC 521.wrf\_r(peak) 527.cam4\_r(peak)  
=====

ifort (IFORT) 18.0.0 20170811  
Copyright (C) 1985-2017 Intel Corporation. All rights reserved.  
icc (ICC) 18.0.0 20170811  
Copyright (C) 1985-2017 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

(Continued on next page)





# SPEC CPU2017 Floating Point Rate Result

Copyright 2017-2019 Standard Performance Evaluation Corporation

Inspur Corporation

SPECrate2017\_fp\_base = 116

Inspur NS5162M5 (Intel Xeon Gold 5118)

SPECrate2017\_fp\_peak = 118

CPU2017 License: 3358

Test Sponsor: Inspur Corporation

Tested by: Inspur Corporation

Test Date: May-2019

Hardware Availability: Aug-2018

Software Availability: Mar-2018

## Base Portability Flags (Continued)

```
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
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:

```
-xCORE-AVX512 -ipo -O3 -no-prec-div -qopt-prefetch
-ffinite-math-only -qopt-mem-layout-trans=3
```

### C++ benchmarks:

```
-xCORE-AVX512 -ipo -O3 -no-prec-div -qopt-prefetch
-ffinite-math-only -qopt-mem-layout-trans=3
```

### Fortran benchmarks:

```
-xCORE-AVX512 -ipo -O3 -no-prec-div -qopt-prefetch
-ffinite-math-only -qopt-mem-layout-trans=3 -nostandard-realloc-lhs
-align array32byte
```

### Benchmarks using both Fortran and C:

```
-xCORE-AVX512 -ipo -O3 -no-prec-div -qopt-prefetch
-ffinite-math-only -qopt-mem-layout-trans=3 -nostandard-realloc-lhs
-align array32byte
```

### Benchmarks using both C and C++:

```
-xCORE-AVX512 -ipo -O3 -no-prec-div -qopt-prefetch
-ffinite-math-only -qopt-mem-layout-trans=3
```

### Benchmarks using Fortran, C, and C++:

```
-xCORE-AVX512 -ipo -O3 -no-prec-div -qopt-prefetch
-ffinite-math-only -qopt-mem-layout-trans=3 -nostandard-realloc-lhs
-align array32byte
```



# SPEC CPU2017 Floating Point Rate Result

Copyright 2017-2019 Standard Performance Evaluation Corporation

Inspur Corporation

SPECrate2017\_fp\_base = 116

Inspur NS5162M5 (Intel Xeon Gold 5118)

SPECrate2017\_fp\_peak = 118

CPU2017 License: 3358

Test Sponsor: Inspur Corporation

Tested by: Inspur Corporation

Test Date: May-2019

Hardware Availability: Aug-2018

Software Availability: Mar-2018

## Base Other Flags

C benchmarks:

-m64 -std=c11

C++ benchmarks:

-m64

Fortran benchmarks:

-m64

Benchmarks using both Fortran and C:

-m64 -std=c11

Benchmarks using both C and C++:

-m64 -std=c11

Benchmarks using Fortran, C, and C++:

-m64 -std=c11

## 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



# SPEC CPU2017 Floating Point Rate Result

Copyright 2017-2019 Standard Performance Evaluation Corporation

Inspur Corporation

SPECrate2017\_fp\_base = 116

Inspur NS5162M5 (Intel Xeon Gold 5118)

SPECrate2017\_fp\_peak = 118

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

C benchmarks:

```
519.lbm_r: -prof-gen(pass 1) -prof-use(pass 2) -ipo -xCORE-AVX512
-O3 -no-prec-div -qopt-prefetch -ffinite-math-only
-qopt-mem-layout-trans=3
```

```
538.imagick_r: -xCORE-AVX512 -ipo -O3 -no-prec-div -qopt-prefetch
-ffinite-math-only -qopt-mem-layout-trans=3
```

544.nab\_r: Same as 519.lbm\_r

C++ benchmarks:

```
-prof-gen(pass 1) -prof-use(pass 2) -ipo -xCORE-AVX512 -O3
-no-prec-div -qopt-prefetch -ffinite-math-only
-qopt-mem-layout-trans=3
```

Fortran benchmarks:

```
503.bwaves_r: -xCORE-AVX512 -ipo -O3 -no-prec-div -qopt-prefetch
-ffinite-math-only -qopt-mem-layout-trans=3
-nostandard-realloc-lhs -align array32byte
```

549.fotonik3d\_r: Same as 503.bwaves\_r

```
554.roms_r: -prof-gen(pass 1) -prof-use(pass 2) -ipo -xCORE-AVX512
-O3 -no-prec-div -qopt-prefetch -ffinite-math-only
-qopt-mem-layout-trans=3 -nostandard-realloc-lhs
-align array32byte
```

Benchmarks using both Fortran and C:

```
-prof-gen(pass 1) -prof-use(pass 2) -ipo -xCORE-AVX512 -O3
-no-prec-div -qopt-prefetch -ffinite-math-only
-qopt-mem-layout-trans=3 -nostandard-realloc-lhs -align array32byte
```

Benchmarks using both C and C++:

```
-prof-gen(pass 1) -prof-use(pass 2) -ipo -xCORE-AVX512 -O3
-no-prec-div -qopt-prefetch -ffinite-math-only
-qopt-mem-layout-trans=3
```

Benchmarks using Fortran, C, and C++:

```
-prof-gen(pass 1) -prof-use(pass 2) -ipo -xCORE-AVX512 -O3
-no-prec-div -qopt-prefetch -ffinite-math-only
-qopt-mem-layout-trans=3 -nostandard-realloc-lhs -align array32byte
```



# SPEC CPU2017 Floating Point Rate Result

Copyright 2017-2019 Standard Performance Evaluation Corporation

Inspur Corporation

SPECrate2017\_fp\_base = 116

Inspur NS5162M5 (Intel Xeon Gold 5118)

SPECrate2017\_fp\_peak = 118

CPU2017 License: 3358

Test Sponsor: Inspur Corporation

Tested by: Inspur Corporation

Test Date: May-2019

Hardware Availability: Aug-2018

Software Availability: Mar-2018

## Peak Other Flags

C benchmarks:

-m64 -std=c11

C++ benchmarks:

-m64

Fortran benchmarks:

-m64

Benchmarks using both Fortran and C:

-m64 -std=c11

Benchmarks using both C and C++:

-m64 -std=c11

Benchmarks using Fortran, C, and C++:

-m64 -std=c11

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/Inspur-Platform-Settings-V1.1-SKL.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/Inspur-Platform-Settings-V1.1-SKL.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](mailto:info@spec.org).

Tested with SPEC CPU2017 v1.0.5 on 2019-05-10 23:28:35-0400.

Report generated on 2019-05-29 15:52:29 by CPU2017 PDF formatter v6067.

Originally published on 2019-05-29.