



# SPEC® CPU2017 Floating Point Speed Result

Copyright 2017-2018 Standard Performance Evaluation Corporation

## Lenovo Global Technology

ThinkSystem SR550  
(2.20 GHz, Intel Xeon Gold 5120)

SPECspeed2017\_fp\_base = 86.5

SPECspeed2017\_fp\_peak = 87.9

CPU2017 License: 9017

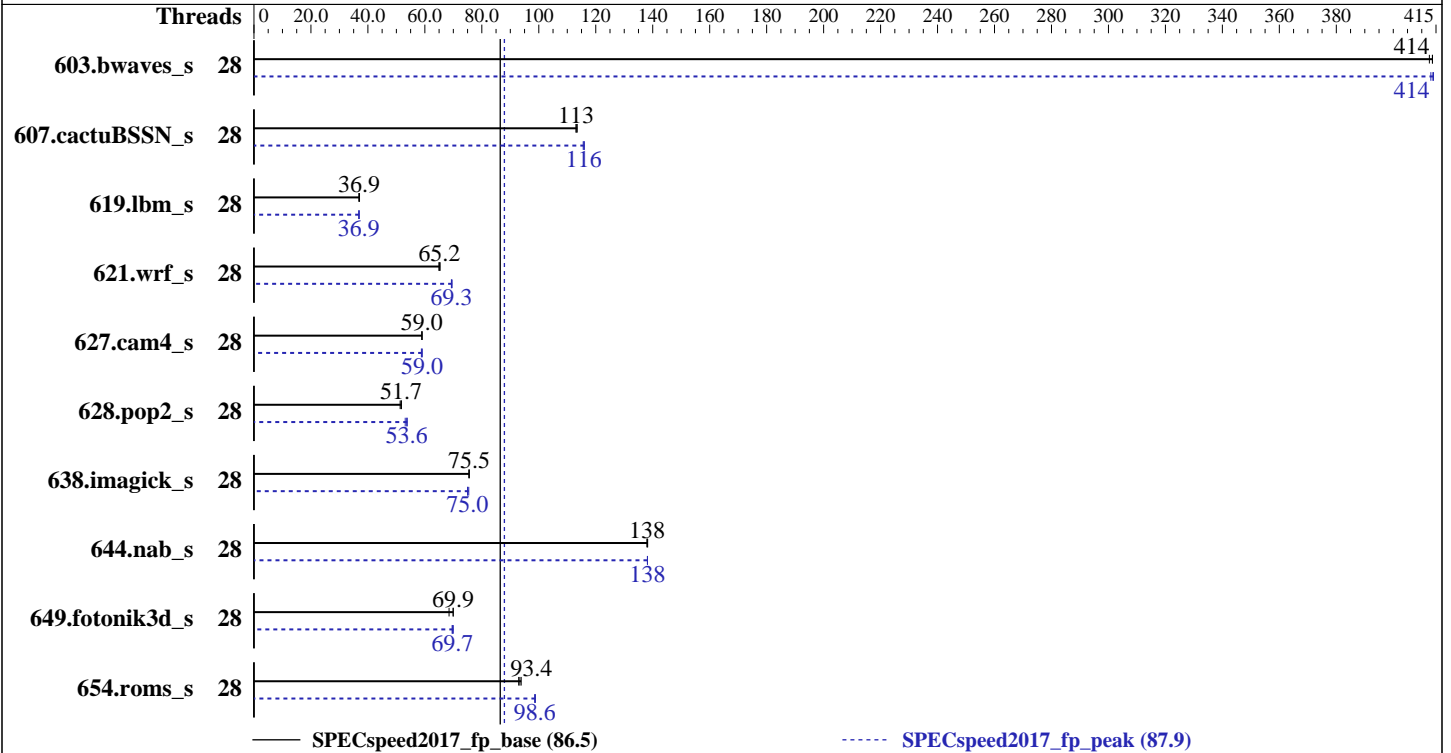
Test Sponsor: Lenovo Global Technology

Tested by: Lenovo Global Technology

Test Date: Nov-2017

Hardware Availability: Aug-2017

Software Availability: Sep-2017



### Hardware

CPU Name: Intel Xeon Gold 5120  
 Max MHz.: 3200  
 Nominal: 2200  
 Enabled: 28 cores, 2 chips  
 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: 19.25 MB I+D on chip per chip  
 Other: None  
 Memory: 384 GB (12 x 32 GB 2Rx4 PC4-2666V-R, running at 2400)  
 Storage: 1 x 800 GB SAS SSD  
 Other: None

### Software

OS: SUSE Linux Enterprise Server 12 SP2 (x86\_64)  
 Kernel 4.4.21-69-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: Yes  
 Firmware: Lenovo BIOS Version TEE119J 1.20 released Sep-2017  
 File System: btrfs  
 System State: Run level 3 (multi-user)  
 Base Pointers: 64-bit  
 Peak Pointers: 64-bit  
 Other: None



# SPEC CPU2017 Floating Point Speed Result

Copyright 2017-2018 Standard Performance Evaluation Corporation

## Lenovo Global Technology

ThinkSystem SR550  
(2.20 GHz, Intel Xeon Gold 5120)

SPECSpeed2017\_fp\_base = 86.5

SPECSpeed2017\_fp\_peak = 87.9

**CPU2017 License:** 9017  
**Test Sponsor:** Lenovo Global Technology  
**Tested by:** Lenovo Global Technology

**Test Date:** Nov-2017  
**Hardware Availability:** Aug-2017  
**Software Availability:** Sep-2017

## Results Table

Benchmark	Base							Peak						
	Threads	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Threads	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio
603.bwaves_s	28	143	414	<b>143</b>	<b>414</b>	143	413	28	<b>143</b>	<b>414</b>	143	413	142	414
607.cactuBSSN_s	28	147	113	<b>147</b>	<b>113</b>	147	113	28	144	116	<b>144</b>	<b>116</b>	144	116
619.lbm_s	28	141	37.1	142	36.9	<b>142</b>	<b>36.9</b>	28	<b>142</b>	<b>36.9</b>	142	36.8	142	36.9
621.wrf_s	28	204	64.9	202	65.3	<b>203</b>	<b>65.2</b>	28	191	69.3	<b>191</b>	<b>69.3</b>	190	69.6
627.cam4_s	28	150	58.9	<b>150</b>	<b>59.0</b>	150	59.0	28	<b>150</b>	<b>59.0</b>	151	58.8	150	59.0
628.pop2_s	28	229	51.8	<b>230</b>	<b>51.7</b>	231	51.3	28	221	53.8	<b>221</b>	<b>53.6</b>	224	53.1
638.imagick_s	28	<b>191</b>	<b>75.5</b>	191	75.5	191	75.6	28	<b>192</b>	<b>75.0</b>	192	75.0	191	75.4
644.nab_s	28	127	138	126	138	<b>127</b>	<b>138</b>	28	126	138	126	138	<b>126</b>	<b>138</b>
649.fotonik3d_s	28	133	68.5	<b>130</b>	<b>69.9</b>	130	70.0	28	<b>131</b>	<b>69.7</b>	131	69.6	130	70.0
654.roms_s	28	169	92.9	168	93.8	<b>169</b>	<b>93.4</b>	28	<b>160</b>	<b>98.6</b>	160	98.6	159	98.8

SPECSpeed2017\_fp\_base = **86.5**

SPECSpeed2017\_fp\_peak = **87.9**

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

## 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/cpu2017.1.0.2.ic18.0/lib/ia32:/home/cpu2017.1.0.2.ic18.0/lib/intel64"  
LD\_LIBRARY\_PATH = "\$LD\_LIBRARY\_PATH:/home/cpu2017.1.0.2.ic18.0/je5.0.1-32:/home/cpu2017.1.0.2.ic18.0/je5.0.1-64"  
OMP\_STACKSIZE = "192M"

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

No: The test sponsor attests, as of date of publication, that CVE-2017-5754 (Meltdown) is mitigated in the system as tested and documented.  
No: 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.  
No: 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.

This benchmark result is intended to provide perspective on past performance using the historical hardware and/or software described on this result page.

The system as described on this result page was formerly

(Continued on next page)



# SPEC CPU2017 Floating Point Speed Result

Copyright 2017-2018 Standard Performance Evaluation Corporation

## Lenovo Global Technology

ThinkSystem SR550  
(2.20 GHz, Intel Xeon Gold 5120)

SPECspeed2017\_fp\_base = 86.5

SPECspeed2017\_fp\_peak = 87.9

**CPU2017 License:** 9017  
**Test Sponsor:** Lenovo Global Technology  
**Tested by:** Lenovo Global Technology

**Test Date:** Nov-2017  
**Hardware Availability:** Aug-2017  
**Software Availability:** Sep-2017

### General Notes (Continued)

generally available. At the time of this publication, it may not be shipping, and/or may not be supported, and/or may fail to meet other tests of General Availability described in the SPEC OSG Policy document, <http://www.spec.org/osg/policy.html>

This measured result may not be representative of the result that would be measured were this benchmark run with hardware and software available as of the publication date.

### Platform Notes

BIOS configuration:

Choose Operating Mode set to Maximum Performance

Hyper-Threading set to Disable

MONITORMWAIT set to Enable

Adjacent Cache Prefetch set to Disable

LLC dead line alloc set to Disable

Sysinfo program /home/cpu2017.1.0.2.ic18.0/bin/sysinfo  
Rev: r5797 of 2017-06-14 96c45e4568ad54c135fd618bcc091c0f  
running on linux-yyyst Tue Nov 7 01:14:00 2017

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 5120 CPU @ 2.20GHz
 2 "physical id"s (chips)
 28 "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 : 14
siblings  : 14
physical 0: cores 0 1 2 3 4 5 6 8 9 10 11 12 13 14
physical 1: cores 0 1 2 3 4 5 6 8 9 10 11 12 13 14
```

From lscpu:

```
Architecture:          x86_64
CPU op-mode(s):        32-bit, 64-bit
Byte Order:             Little Endian
CPU(s):                 28
On-line CPU(s) list:   0-27
Thread(s) per core:    1
Core(s) per socket:    14
Socket(s):              2
NUMA node(s):          2
```

(Continued on next page)



# SPEC CPU2017 Floating Point Speed Result

Copyright 2017-2018 Standard Performance Evaluation Corporation

## Lenovo Global Technology

SPECspeed2017\_fp\_base = 86.5

ThinkSystem SR550  
(2.20 GHz, Intel Xeon Gold 5120)

SPECspeed2017\_fp\_peak = 87.9

**CPU2017 License:** 9017  
**Test Sponsor:** Lenovo Global Technology  
**Tested by:** Lenovo Global Technology

**Test Date:** Nov-2017  
**Hardware Availability:** Aug-2017  
**Software Availability:** Sep-2017

### Platform Notes (Continued)

```

Vendor ID:           GenuineIntel
CPU family:         6
Model:              85
Model name:         Intel(R) Xeon(R) Gold 5120 CPU @ 2.20GHz
Stepping:           4
CPU MHz:            2194.839
BogoMIPS:           4389.67
Virtualization:     VT-x
L1d cache:          32K
L1i cache:          32K
L2 cache:           1024K
L3 cache:           19712K
NUMA node0 CPU(s): 0-13
NUMA node1 CPU(s): 14-27
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
aperfmpperf eagerfpu pni pclmulqdq dtes64 monitor 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 pln pts dtherm intel_pt
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 : 19712 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 10 11 12 13
node 0 size: 193110 MB
node 0 free: 190646 MB
node 1 cpus: 14 15 16 17 18 19 20 21 22 23 24 25 26 27
node 1 size: 193504 MB
node 1 free: 192403 MB
node distances:
node  0  1
 0:  10  21
 1:  21  10

```

```

From /proc/meminfo
MemTotal:      395893764 kB
HugePages_Total:      0
Hugepagesize:    2048 kB

```

```

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

```

(Continued on next page)



# SPEC CPU2017 Floating Point Speed Result

Copyright 2017-2018 Standard Performance Evaluation Corporation

## Lenovo Global Technology

ThinkSystem SR550  
(2.20 GHz, Intel Xeon Gold 5120)

SPECspeed2017\_fp\_base = 86.5

SPECspeed2017\_fp\_peak = 87.9

**CPU2017 License:** 9017  
**Test Sponsor:** Lenovo Global Technology  
**Tested by:** Lenovo Global Technology

**Test Date:** Nov-2017  
**Hardware Availability:** Aug-2017  
**Software Availability:** Sep-2017

### Platform Notes (Continued)

```
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-yyst 4.4.21-69-default #1 SMP Tue Oct 25 10:58:20 UTC 2016 (9464f67)
x86_64 x86_64 x86_64 GNU/Linux
```

```
run-level 3 Nov 6 19:18
```

```
SPEC is set to: /home/cpu2017.1.0.2.ic18.0
Filesystem      Type  Size  Used Avail Use% Mounted on
/dev/sda2       btrfs 744G  275G  468G  38% /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 Lenovo -[TEE119J-1.20]- 09/06/2017
Memory:
  12x Hynix HMA84GR7AFR4N-VK 32 GB 2 rank 2666, configured at 2400
```

(End of data from sysinfo program)

### Compiler Version Notes

```
=====
CC 619.lbm_s(base) 638.imagick_s(base, peak) 644.nab_s(base, peak)
=====
```

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

```
CC 619.lbm_s(peak)
```

(Continued on next page)



# SPEC CPU2017 Floating Point Speed Result

Copyright 2017-2018 Standard Performance Evaluation Corporation

## Lenovo Global Technology

ThinkSystem SR550  
(2.20 GHz, Intel Xeon Gold 5120)

SPECspeed2017\_fp\_base = 86.5

SPECspeed2017\_fp\_peak = 87.9

**CPU2017 License:** 9017  
**Test Sponsor:** Lenovo Global Technology  
**Tested by:** Lenovo Global Technology

**Test Date:** Nov-2017  
**Hardware Availability:** Aug-2017  
**Software Availability:** Sep-2017

### Compiler Version Notes (Continued)

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

=====  
FC 607.cactuBSSN\_s(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 607.cactuBSSN\_s(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 603.bwaves\_s(base) 649.fotonik3d\_s(base) 654.roms\_s(base)  
-----

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

=====  
FC 603.bwaves\_s(peak) 649.fotonik3d\_s(peak) 654.roms\_s(peak)  
-----

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

=====  
CC 621.wrf\_s(base) 627.cam4\_s(base, peak) 628.pop2\_s(base)  
-----

ifort (IFORT) 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 Speed Result

Copyright 2017-2018 Standard Performance Evaluation Corporation

**Lenovo Global Technology**

SPECspeed2017\_fp\_base = 86.5

ThinkSystem SR550  
(2.20 GHz, Intel Xeon Gold 5120)

SPECspeed2017\_fp\_peak = 87.9

**CPU2017 License:** 9017  
**Test Sponsor:** Lenovo Global Technology  
**Tested by:** Lenovo Global Technology

**Test Date:** Nov-2017  
**Hardware Availability:** Aug-2017  
**Software Availability:** Sep-2017

## Compiler Version Notes (Continued)

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

=====  
CC 621.wrf\_s(peak) 628.pop2\_s(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

Fortran benchmarks:

ifort

Benchmarks using both Fortran and C:

ifort icc

Benchmarks using Fortran, C, and C++:

icpc icc ifort

## Base Portability Flags

603.bwaves\_s: -DSPEC\_LP64

607.cactuBSSN\_s: -DSPEC\_LP64

619.lbm\_s: -DSPEC\_LP64

621.wrf\_s: -DSPEC\_LP64 -DSPEC\_CASE\_FLAG -convert big\_endian

627.cam4\_s: -DSPEC\_LP64 -DSPEC\_CASE\_FLAG

628.pop2\_s: -DSPEC\_LP64 -DSPEC\_CASE\_FLAG -convert big\_endian

-assume byterecl

638.imagick\_s: -DSPEC\_LP64

644.nab\_s: -DSPEC\_LP64

649.fotonik3d\_s: -DSPEC\_LP64

654.roms\_s: -DSPEC\_LP64



# SPEC CPU2017 Floating Point Speed Result

Copyright 2017-2018 Standard Performance Evaluation Corporation

**Lenovo Global Technology**

ThinkSystem SR550  
(2.20 GHz, Intel Xeon Gold 5120)

SPECspeed2017\_fp\_base = 86.5

SPECspeed2017\_fp\_peak = 87.9

**CPU2017 License:** 9017

**Test Sponsor:** Lenovo Global Technology

**Tested by:** Lenovo Global Technology

**Test Date:** Nov-2017

**Hardware Availability:** Aug-2017

**Software Availability:** Sep-2017

## Base Optimization Flags

C benchmarks:

```
-xCORE-AVX2 -ipo -O3 -no-prec-div -qopt-prefetch -ffinite-math-only  
-qopt-mem-layout-trans=3 -qopenmp -DSPEC_OPENMP
```

Fortran benchmarks:

```
-DSPEC_OPENMP -xCORE-AVX2 -ipo -O3 -no-prec-div -qopt-prefetch  
-ffinite-math-only -qopt-mem-layout-trans=3 -qopenmp  
-nostandard-realloc-lhs -align array32byte
```

Benchmarks using both Fortran and C:

```
-xCORE-AVX2 -ipo -O3 -no-prec-div -qopt-prefetch -ffinite-math-only  
-qopt-mem-layout-trans=3 -qopenmp -DSPEC_OPENMP  
-nostandard-realloc-lhs -align array32byte
```

Benchmarks using Fortran, C, and C++:

```
-xCORE-AVX2 -ipo -O3 -no-prec-div -qopt-prefetch -ffinite-math-only  
-qopt-mem-layout-trans=3 -qopenmp -DSPEC_OPENMP  
-nostandard-realloc-lhs -align array32byte
```

## Base Other Flags

C benchmarks:

```
-m64 -std=c11
```

Fortran benchmarks:

```
-m64
```

Benchmarks using both Fortran and C:

```
-m64 -std=c11
```

Benchmarks using Fortran, C, and C++:

```
-m64 -std=c11
```

## Peak Compiler Invocation

C benchmarks:

```
icc
```

Fortran benchmarks:

```
ifort
```

(Continued on next page)





# SPEC CPU2017 Floating Point Speed Result

Copyright 2017-2018 Standard Performance Evaluation Corporation

Lenovo Global Technology

SPECspeed2017\_fp\_base = 86.5

ThinkSystem SR550  
(2.20 GHz, Intel Xeon Gold 5120)

SPECspeed2017\_fp\_peak = 87.9

CPU2017 License: 9017

Test Date: Nov-2017

Test Sponsor: Lenovo Global Technology

Hardware Availability: Aug-2017

Tested by: Lenovo Global Technology

Software Availability: Sep-2017

## Peak Compiler Invocation (Continued)

Benchmarks using both Fortran and C:

```
ifort icc
```

Benchmarks using Fortran, C, and C++:

```
icpc icc ifort
```

## Peak Portability Flags

Same as Base Portability Flags

## Peak Optimization Flags

C benchmarks:

```
619.lbm_s: -prof-gen(pass 1) -prof-use(pass 2) -O2 -xCORE-AVX2  
-qopt-prefetch -ipo -O3 -ffinite-math-only -no-prec-div  
-qopt-mem-layout-trans=3 -DSPEC_SUPPRESS_OPENMP -qopenmp  
-DSPEC_OPENMP
```

```
638.imagick_s: -xCORE-AVX2 -ipo -O3 -no-prec-div -qopt-prefetch  
-ffinite-math-only -qopt-mem-layout-trans=3 -qopenmp  
-DSPEC_OPENMP
```

644.nab\_s: Same as 638.imagick\_s

Fortran benchmarks:

```
-prof-gen(pass 1) -prof-use(pass 2) -DSPEC_SUPPRESS_OPENMP  
-DSPEC_OPENMP -O2 -xCORE-AVX2 -qopt-prefetch -ipo -O3  
-ffinite-math-only -no-prec-div -qopt-mem-layout-trans=3 -qopenmp  
-nonstandard-realloc-lhs -align array32byte
```

Benchmarks using both Fortran and C:

```
621.wrf_s: -prof-gen(pass 1) -prof-use(pass 2) -O2 -xCORE-AVX2  
-qopt-prefetch -ipo -O3 -ffinite-math-only -no-prec-div  
-qopt-mem-layout-trans=3 -DSPEC_SUPPRESS_OPENMP -qopenmp  
-DSPEC_OPENMP -nonstandard-realloc-lhs -align array32byte
```

```
627.cam4_s: -xCORE-AVX2 -ipo -O3 -no-prec-div -qopt-prefetch  
-ffinite-math-only -qopt-mem-layout-trans=3 -qopenmp  
-DSPEC_OPENMP -nonstandard-realloc-lhs -align array32byte
```

(Continued on next page)



# SPEC CPU2017 Floating Point Speed Result

Copyright 2017-2018 Standard Performance Evaluation Corporation

Lenovo Global Technology

ThinkSystem SR550  
(2.20 GHz, Intel Xeon Gold 5120)

SPECspeed2017\_fp\_base = 86.5

SPECspeed2017\_fp\_peak = 87.9

CPU2017 License: 9017

Test Sponsor: Lenovo Global Technology

Tested by: Lenovo Global Technology

Test Date: Nov-2017

Hardware Availability: Aug-2017

Software Availability: Sep-2017

## Peak Optimization Flags (Continued)

628.pop2\_s: Same as 621.wrf\_s

Benchmarks using Fortran, C, and C++:

```
-prof-gen(pass 1) -prof-use(pass 2) -O2 -xCORE-AVX2 -qopt-prefetch  
-ipo -O3 -ffinite-math-only -no-prec-div -qopt-mem-layout-trans=3  
-DSPEC_SUPPRESS_OPENMP -qopenmp -DSPEC_OPENMP -nostandard-realloc-lhs  
-align array32byte
```

## Peak Other Flags

C benchmarks:

```
-m64 -std=c11
```

Fortran benchmarks:

```
-m64
```

Benchmarks using both Fortran 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/Lenovo-Platform-SPECcpu2017-Flags-V1.2-SKL-A.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/Lenovo-Platform-SPECcpu2017-Flags-V1.2-SKL-A.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 v1.0.2 on 2017-11-06 12:13:59-0500.

Report generated on 2018-10-31 16:44:16 by CPU2017 PDF formatter v6067.

Originally published on 2018-03-06.