



# SPEC® CPU2017 Floating Point Rate Result

Copyright 2017-2018 Standard Performance Evaluation Corporation

**Huawei**

**Huawei 2488 V5 (Intel Xeon Gold 6132)**

CPU2017 License: 3175

Test Sponsor: Huawei

Tested by: Huawei

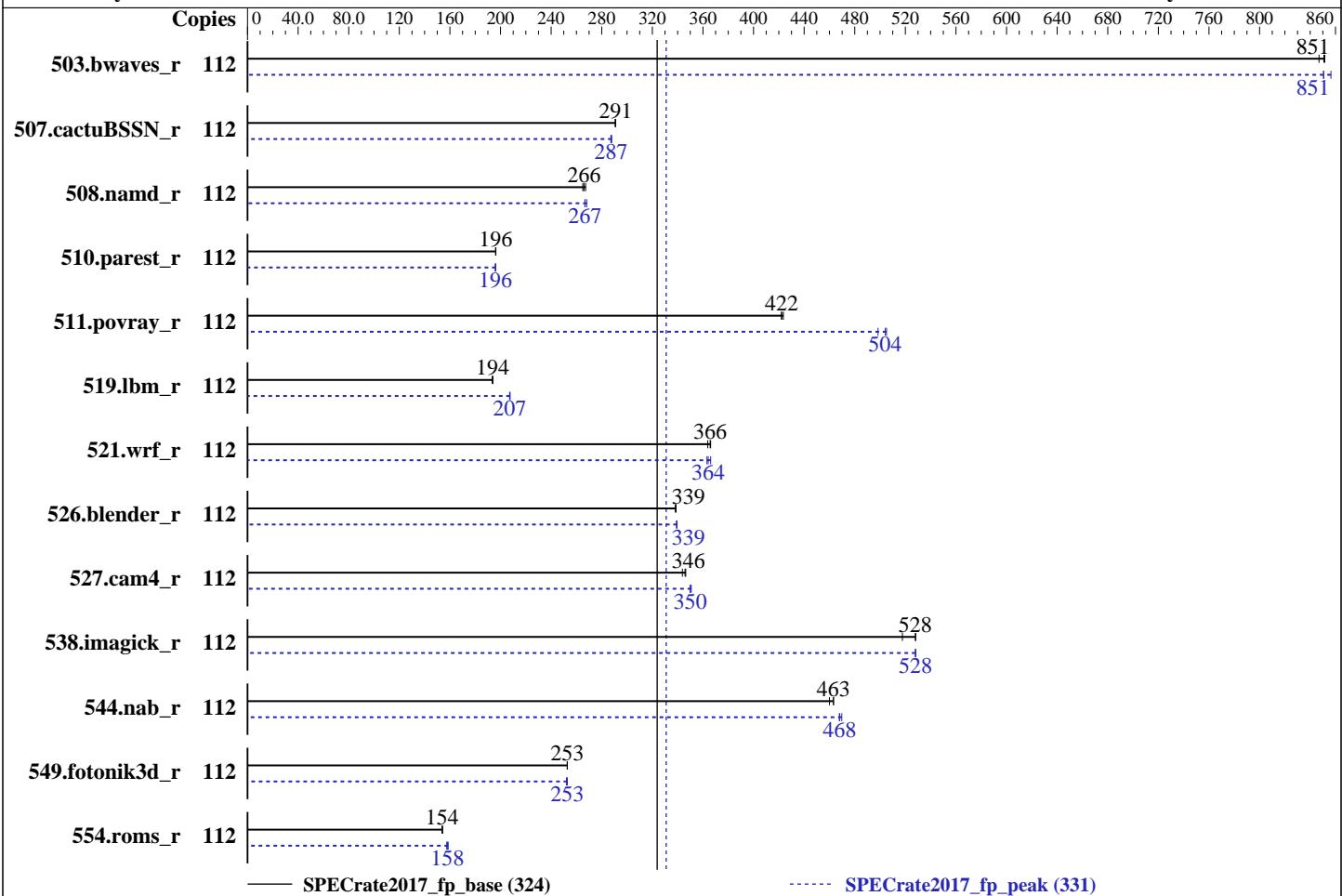
**SPECrate2017\_fp\_base = 324**

**SPECrate2017\_fp\_peak = 331**

**Test Date:** May-2018

**Hardware Availability:** May-2018

**Software Availability:** Mar-2018



— SPECrate2017\_fp\_base (324)

- - - - - SPECrate2017\_fp\_peak (331)

## Hardware

CPU Name: Intel Xeon Gold 6132  
 Max MHz.: 3700  
 Nominal: 2600  
 Enabled: 56 cores, 4 chips, 2 threads/core  
 Orderable: 2,4 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: 768 GB (24 x 32 GB 2Rx4 PC4-2666V-R)  
 Storage: 1 x 900 GB SAS HDD 10K RPM, RAID 0  
 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 0.80 released Feb-2018  
 File System: btrfs  
 System State: Run level 5 (multi-user)  
 Base Pointers: 64-bit  
 Peak Pointers: 64-bit  
 Other: None



# SPEC CPU2017 Floating Point Rate Result

Copyright 2017-2018 Standard Performance Evaluation Corporation

Huawei

**SPECrate2017\_fp\_base = 324**

Huawei 2488 V5 (Intel Xeon Gold 6132)

**SPECrate2017\_fp\_peak = 331**

CPU2017 License: 3175

Test Date: May-2018

Test Sponsor: Huawei

Hardware Availability: May-2018

Tested by: Huawei

Software Availability: Mar-2018

## Results Table

Benchmark	Base								Peak							
	Copies	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Copies	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio
503.bwaves_r	112	<b>1320</b>	<b>851</b>	1326	847	1319	852	112	1321	850	<b>1320</b>	<b>851</b>	1311	856		
507.cactusBSSN_r	112	488	291	<b>487</b>	<b>291</b>	487	291	112	<b>494</b>	<b>287</b>	494	287	492	288		
508.namd_r	112	<b>400</b>	<b>266</b>	398	267	401	265	112	397	268	399	267	<b>399</b>	<b>267</b>		
510.parest_r	112	<b>1494</b>	<b>196</b>	1492	196	1494	196	112	1493	196	1496	196	<b>1495</b>	<b>196</b>		
511.povray_r	112	620	422	<b>619</b>	<b>422</b>	617	424	112	<b>519</b>	<b>504</b>	525	498	518	505		
519.lbm_r	112	<b>609</b>	<b>194</b>	610	194	609	194	112	<b>570</b>	207	569	207	<b>569</b>	<b>207</b>		
521.wrf_r	112	<b>686</b>	<b>366</b>	685	366	690	364	112	<b>689</b>	<b>364</b>	691	363	685	366		
526.blender_r	112	<b>504</b>	<b>339</b>	504	339	504	338	112	<b>503</b>	<b>339</b>	503	339	502	340		
527.cam4_r	112	565	346	<b>566</b>	<b>346</b>	570	344	112	560	350	<b>560</b>	<b>350</b>	558	351		
538.imagick_r	112	538	518	527	528	<b>528</b>	<b>528</b>	112	<b>528</b>	<b>528</b>	527	528	528	528		
544.nab_r	112	<b>407</b>	<b>463</b>	410	460	407	463	112	401	470	403	468	<b>403</b>	<b>468</b>		
549.fotonik3d_r	112	1726	253	<b>1727</b>	<b>253</b>	1727	253	112	1731	252	1727	253	<b>1727</b>	<b>253</b>		
554.roms_r	112	<b>1156</b>	<b>154</b>	1158	154	1155	154	112	1130	157	<b>1125</b>	<b>158</b>	1122	159		
<b>SPECrate2017_fp_base = 324</b>																
<b>SPECrate2017_fp_peak = 331</b>																

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"  
Numa balancing was disabled using "echo 0 > /proc/sys/kernel/numa\_balancing"

## 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>

(Continued on next page)



# SPEC CPU2017 Floating Point Rate Result

Copyright 2017-2018 Standard Performance Evaluation Corporation

Huawei

SPECrate2017\_fp\_base = 324

Huawei 2488 V5 (Intel Xeon Gold 6132)

SPECrate2017\_fp\_peak = 331

CPU2017 License: 3175

Test Date: May-2018

Test Sponsor: Huawei

Hardware Availability: May-2018

Tested by: Huawei

Software Availability: Mar-2018

## General Notes (Continued)

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.

## Platform Notes

BIOS configuration:

Sub NUMA Cluster (SNC) set to enabled

IMC (Integrated memory controller) Interleaving set to 1 way interleave

Xtended Prediction Table (XPT) Prefetch set to Enable

Memory Patrol Scrub set to Disable

Last Level Cache (LLC) Prefetch set to Disable

Sysinfo program /home/speccpu2017/bin/sysinfo

Rev: r5797 of 2017-06-14 96c45e4568ad54c135fd618bcc091c0f  
running on guyuxin Wed Aug 8 18:19:02 2018

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 6132 CPU @ 2.60GHz
  4 "physical id"s (chips)
  112 "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 : 28
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
physical 2: cores 0 1 2 3 4 5 6 8 9 10 11 12 13 14
physical 3: 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):                112
On-line CPU(s) list:  0-111
Thread(s) per core:   2
Core(s) per socket:   14
Socket(s):             4
```

(Continued on next page)



# SPEC CPU2017 Floating Point Rate Result

Copyright 2017-2018 Standard Performance Evaluation Corporation

Huawei

**SPECrate2017\_fp\_base = 324**

Huawei 2488 V5 (Intel Xeon Gold 6132)

**SPECrate2017\_fp\_peak = 331**

CPU2017 License: 3175

Test Date: May-2018

Test Sponsor: Huawei

Hardware Availability: May-2018

Tested by: Huawei

Software Availability: Mar-2018

## Platform Notes (Continued)

```

NUMA node(s): 8
Vendor ID: GenuineIntel
CPU family: 6
Model: 85
Model name: Intel(R) Xeon(R) Gold 6132 CPU @ 2.60GHz
Stepping: 4
CPU MHz: 1000.000
CPU max MHz: 2601.0000
CPU min MHz: 1000.0000
BogoMIPS: 5200.05
Virtualization: VT-x
L1d cache: 32K
L1i cache: 32K
L2 cache: 1024K
L3 cache: 19712K
NUMA node0 CPU(s): 0-3,7-9,56-59,63-65
NUMA node1 CPU(s): 4-6,10-13,60-62,66-69
NUMA node2 CPU(s): 14-17,21-23,70-73,77-79
NUMA node3 CPU(s): 18-20,24-27,74-76,80-83
NUMA node4 CPU(s): 28-31,35-37,84-87,91-93
NUMA node5 CPU(s): 32-34,38-41,88-90,94-97
NUMA node6 CPU(s): 42-45,49-51,98-101,105-107
NUMA node7 CPU(s): 46-48,52-55,102-104,108-111
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
aperfmpfperf 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 invpcid_single pln pts
dtherm intel_pt rsb_ctxsw spec_ctrl stibp retrpoline 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 xsavedc 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: 8 nodes (0-7)
node 0 cpus: 0 1 2 3 7 8 9 56 57 58 59 63 64 65
node 0 size: 94798 MB
node 0 free: 87141 MB
node 1 cpus: 4 5 6 10 11 12 13 60 61 62 66 67 68 69
node 1 size: 96756 MB
node 1 free: 90366 MB
node 2 cpus: 14 15 16 17 21 22 23 70 71 72 73 77 78 79

```

(Continued on next page)



# SPEC CPU2017 Floating Point Rate Result

Copyright 2017-2018 Standard Performance Evaluation Corporation

Huawei

SPECrate2017\_fp\_base = 324

Huawei 2488 V5 (Intel Xeon Gold 6132)

SPECrate2017\_fp\_peak = 331

CPU2017 License: 3175

Test Date: May-2018

Test Sponsor: Huawei

Hardware Availability: May-2018

Tested by: Huawei

Software Availability: Mar-2018

## Platform Notes (Continued)

```
node 2 size: 96756 MB
node 2 free: 90836 MB
node 3 cpus: 18 19 20 24 25 26 27 74 75 76 80 81 82 83
node 3 size: 96756 MB
node 3 free: 90785 MB
node 4 cpus: 28 29 30 31 35 36 37 84 85 86 87 91 92 93
node 4 size: 96756 MB
node 4 free: 90715 MB
node 5 cpus: 32 33 34 38 39 40 41 88 89 90 94 95 96 97
node 5 size: 96756 MB
node 5 free: 90723 MB
node 6 cpus: 42 43 44 45 49 50 51 98 99 100 101 105 106 107
node 6 size: 96756 MB
node 6 free: 90903 MB
node 7 cpus: 46 47 48 52 53 54 55 102 103 104 108 109 110 111
node 7 size: 96598 MB
node 7 free: 90678 MB
node distances:
node   0   1   2   3   4   5   6   7
  0: 10  20  20  20  20  20  20  20
  1: 20  10  20  20  20  20  20  20
  2: 20  20  10  20  20  20  20  20
  3: 20  20  20  10  20  20  20  20
  4: 20  20  20  20  10  20  20  20
  5: 20  20  20  20  20  10  20  20
  6: 20  20  20  20  20  20  10  20
  7: 20  20  20  20  20  20  20  10
```

From /proc/meminfo

```
MemTotal:      790460632 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"
```

(Continued on next page)



# SPEC CPU2017 Floating Point Rate Result

Copyright 2017-2018 Standard Performance Evaluation Corporation

Huawei

SPECrate2017\_fp\_base = 324

Huawei 2488 V5 (Intel Xeon Gold 6132)

SPECrate2017\_fp\_peak = 331

CPU2017 License: 3175

Test Date: May-2018

Test Sponsor: Huawei

Hardware Availability: May-2018

Tested by: Huawei

Software Availability: Mar-2018

## Platform Notes (Continued)

```
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 guyuxin 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
```

run-level 5 Aug 8 09:03

```
SPEC is set to: /home/speccpu2017
Filesystem      Type   Size  Used Avail Use% Mounted on
/dev/sda4        btrfs  697G  137G  560G  20%  /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 INSYDE Corp. 0.80 02/24/2018

Memory:

```
24x Hynix HMA84GR7AFR4N-VK 32 GB 2 rank 2666
8x 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
-----
```

(Continued on next page)



# SPEC CPU2017 Floating Point Rate Result

Copyright 2017-2018 Standard Performance Evaluation Corporation

Huawei

SPECrate2017\_fp\_base = 324

Huawei 2488 V5 (Intel Xeon Gold 6132)

SPECrate2017\_fp\_peak = 331

CPU2017 License: 3175

Test Date: May-2018

Test Sponsor: Huawei

Hardware Availability: May-2018

Tested by: Huawei

Software Availability: Mar-2018

## Compiler Version Notes (Continued)

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

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

(Continued on next page)



# SPEC CPU2017 Floating Point Rate Result

Copyright 2017-2018 Standard Performance Evaluation Corporation

Huawei

SPECrate2017\_fp\_base = 324

Huawei 2488 V5 (Intel Xeon Gold 6132)

SPECrate2017\_fp\_peak = 331

CPU2017 License: 3175

Test Date: May-2018

Test Sponsor: Huawei

Hardware Availability: May-2018

Tested by: Huawei

Software Availability: Mar-2018

## Compiler Version Notes (Continued)

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.

=====

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:

fort

(Continued on next page)



# SPEC CPU2017 Floating Point Rate Result

Copyright 2017-2018 Standard Performance Evaluation Corporation

Huawei

SPECrate2017\_fp\_base = 324

Huawei 2488 V5 (Intel Xeon Gold 6132)

SPECrate2017\_fp\_peak = 331

CPU2017 License: 3175

Test Date: May-2018

Test Sponsor: Huawei

Hardware Availability: May-2018

Tested by: Huawei

Software Availability: Mar-2018

## Base Compiler Invocation (Continued)

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

C++ benchmarks:

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

Fortran benchmarks:

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

(Continued on next page)



# SPEC CPU2017 Floating Point Rate Result

Copyright 2017-2018 Standard Performance Evaluation Corporation

Huawei

Huawei 2488 V5 (Intel Xeon Gold 6132)

CPU2017 License: 3175

Test Sponsor: Huawei

Tested by: Huawei

SPECrate2017\_fp\_base = 324

SPECrate2017\_fp\_peak = 331

Test Date: May-2018

Hardware Availability: May-2018

Software Availability: Mar-2018

## Base Optimization Flags (Continued)

Benchmarks using both C and C++:

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

Benchmarks using Fortran, C, and C++:

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

## 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
```

(Continued on next page)



# SPEC CPU2017 Floating Point Rate Result

Copyright 2017-2018 Standard Performance Evaluation Corporation

Huawei

SPECrate2017\_fp\_base = 324

Huawei 2488 V5 (Intel Xeon Gold 6132)

SPECrate2017\_fp\_peak = 331

CPU2017 License: 3175

Test Date: May-2018

Test Sponsor: Huawei

Hardware Availability: May-2018

Tested by: Huawei

Software Availability: Mar-2018

## Peak Compiler Invocation (Continued)

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: -prof-gen(pass 1) -prof-use(pass 2) -ipo -xCORE-AVX2 -O3  
-no-prec-div -qopt-prefetch -ffinite-math-only  
-qopt-mem-layout-trans=3

538.imagick\_r: -xCORE-AVX2 -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-AVX2 -O3  
-no-prec-div -qopt-prefetch -ffinite-math-only  
-qopt-mem-layout-trans=3

Fortran benchmarks:

503.bwaves\_r: -xCORE-AVX2 -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-AVX2 -O3  
-no-prec-div -qopt-prefetch -ffinite-math-only  
-qopt-mem-layout-trans=3 -nostandard-realloc-lhs

(Continued on next page)



# SPEC CPU2017 Floating Point Rate Result

Copyright 2017-2018 Standard Performance Evaluation Corporation

Huawei

SPECrate2017\_fp\_base = 324

Huawei 2488 V5 (Intel Xeon Gold 6132)

SPECrate2017\_fp\_peak = 331

CPU2017 License: 3175

Test Date: May-2018

Test Sponsor: Huawei

Hardware Availability: May-2018

Tested by: Huawei

Software Availability: Mar-2018

## Peak Optimization Flags (Continued)

554.roms\_r (continued):

-align array32byte

Benchmarks using both Fortran and C:

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

## 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/Huawei-Platform-Settings-SKL-V1.7.html>



# SPEC CPU2017 Floating Point Rate Result

Copyright 2017-2018 Standard Performance Evaluation Corporation

Huawei

SPECrate2017\_fp\_base = 324

Huawei 2488 V5 (Intel Xeon Gold 6132)

SPECrate2017\_fp\_peak = 331

**CPU2017 License:** 3175

**Test Date:** May-2018

**Test Sponsor:** Huawei

**Hardware Availability:** May-2018

**Tested by:** Huawei

**Software Availability:** Mar-2018

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/Huawei-Platform-Settings-SKL-V1.7.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 2018-08-08 06:19:00-0400.

Report generated on 2018-10-31 18:15:23 by CPU2017 PDF formatter v6067.

Originally published on 2018-09-04.