SPEC® CPU2017 Floating Point Rate Result

Copyright 2017-2018 Standard Performance Evaluation Corporation

Huawei

Huawei 5288 V5 (Intel Xeon Gold 6126)

SPECrate2017_fp_base =   149

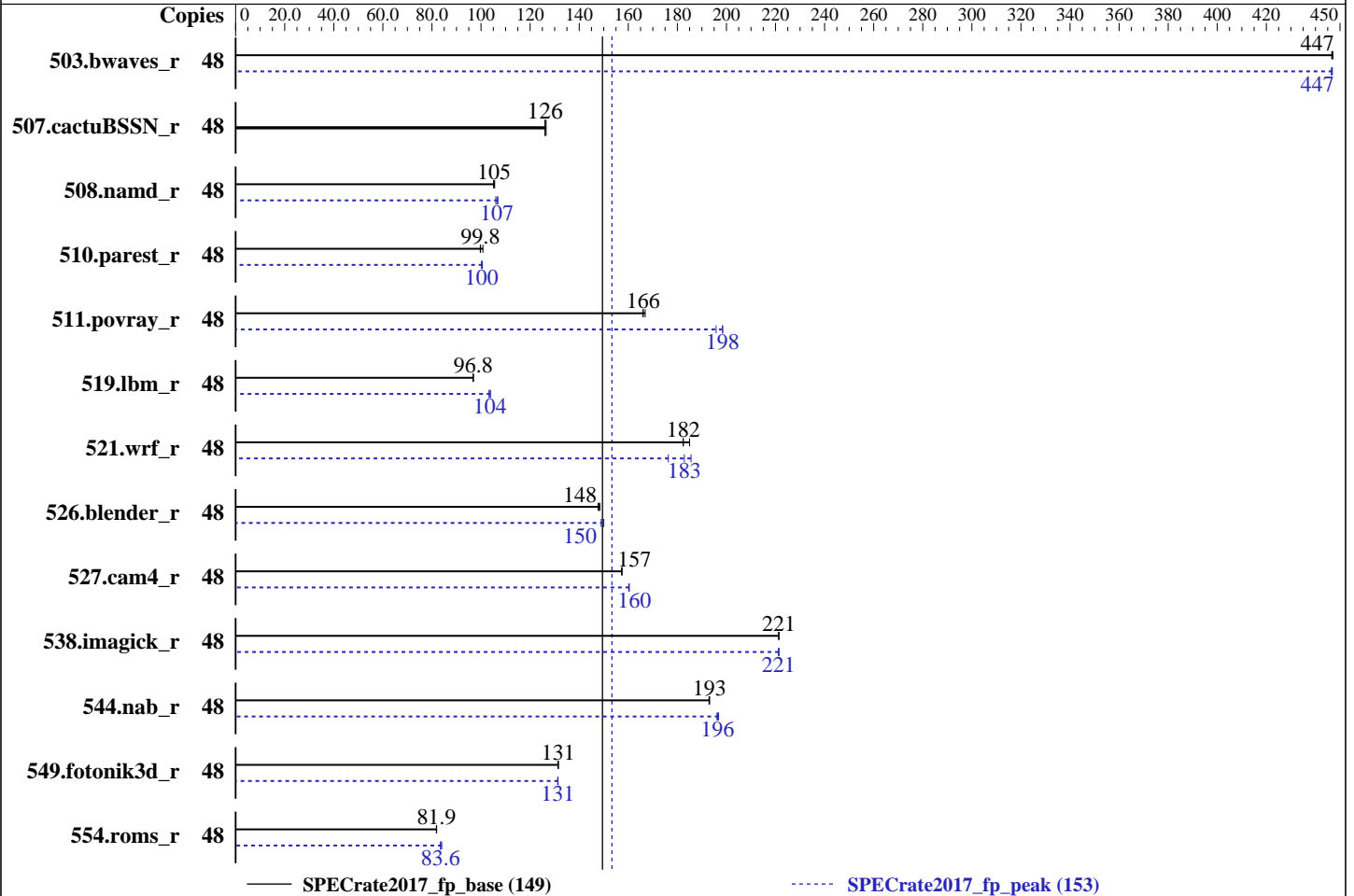SPECrate2017_fp_peak =   153

CPU2017 License: 3175

Test Sponsor: Huawei

Tested by: Huawei

Test Date: Jul-2018

Hardware Availability: Jul-2017

Software Availability: Jan-2018

Benchmark	Copies	base	peak
503.bwaves_r	48	447	447
507.cactuBSSN_r	48	126	
508.namd_r	48	105	107
510.parest_r	48	99.8	100
511.povray_r	48	166	198
519.lbm_r	48	96.8	104
521.wrf_r	48	182	183
526.blender_r	48	148	150
527.cam4_r	48	157	160
538.imagick_r	48	221	221
544.nab_r	48	193	196
549.fotonik3d_r	48	131	131
554.roms_r	48	81.9	83.6

SPECrate2017_fp_base (149)   SPECrate2017_fp_peak (153)

Hardware

CPU Name: Intel Xeon Gold 6126

 Max MHz.: 3700

 Nominal: 2600

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:   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 1200 GB SAS, 10000 RPM

Other: None

Software

OS: Red Hat Enterprise Linux Server release 7.4 (Maipo)

  3.10.0-693.11.6.el7.x86_64

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 0.81 Released Jul-2018

File System: xfs

System State: Run level 3 (multi-user)

Base Pointers: 64-bit

Peak Pointers: 64-bit

Other: None

Standard Performance Evaluation Corporation (info@spec.org)

https://www.spec.org/

SPEC CPU2017 Floating Point Rate Result

Copyright 2017-2018 Standard Performance Evaluation Corporation

Huawei

Huawei 5288 V5 (Intel Xeon Gold 6126)

SPECrate2017_fp_base =   149

SPECrate2017_fp_peak =   153

CPU2017 License: 3175
Test Sponsor: Huawei
Tested by: Huawei

Test Date: Jul-2018
Hardware Availability: Jul-2017
Software Availability: Jan-2018

Results Table

Benchmark	Base						Peak					
	Copies	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Copies	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio
503.bwaves_r	48	**1077**	**447**	1078	447	1077	447	48	1077	447	1078	447	**1078**	**447**
507.cactuBSSN_r	48	482	126	**482**	**126**	480	127	48	482	126	**482**	**126**	480	127
508.namd_r	48	**433**	**105**	434	105	432	106	48	**428**	**107**	430	106	427	107
510.parest_r	48	1260	99.7	**1258**	**99.8**	1246	101	48	1249	101	1253	100	**1252**	**100**
511.povray_r	48	**675**	**166**	675	166	672	167	48	572	196	565	198	**565**	**198**
519.lbm_r	48	523	96.7	522	96.9	**523**	**96.8**	48	487	104	490	103	**488**	**104**
521.wrf_r	48	**589**	**182**	581	185	590	182	48	**588**	**183**	610	176	579	186
526.blender_r	48	493	148	**494**	**148**	495	148	48	491	149	**487**	**150**	487	150
527.cam4_r	48	533	157	534	157	**533**	**157**	48	524	160	523	160	**524**	**160**
538.imagick_r	48	539	221	**539**	**221**	539	221	48	540	221	539	221	**539**	**221**
544.nab_r	48	**418**	**193**	418	193	419	193	48	**411**	**196**	412	196	410	197
549.fotonik3d_r	48	1423	131	1423	131	**1423**	**131**	48	1424	131	1425	131	**1425**	**131**
554.roms_r	48	931	81.9	**931**	**81.9**	932	81.8	48	913	83.5	908	84.0	**913**	**83.6**

SPECrate2017_fp_base =   149

SPECrate2017_fp_peak =   153

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 = "/spec2017/lib/ia32:/spec2017/lib/intel64:/spec2017/je5.0.1-32:/spec2017/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.

(Continued on next page)

Standard Performance Evaluation Corporation (info@spec.org) https://www.spec.org/

SPEC CPU2017 Floating Point Rate Result

Copyright 2017-2018 Standard Performance Evaluation Corporation

Huawei

Huawei 5288 V5 (Intel Xeon Gold 6126)

SPECrate2017_fp_base =   149

SPECrate2017_fp_peak =   153

CPU2017 License: 3175
Test Sponsor: Huawei
Tested by: Huawei

Test Date: Jul-2018
Hardware Availability: Jul-2017
Software Availability: Jan-2018

General Notes (Continued)

```
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:
Power Policy Set to Performance
SNC Set to Enabled
IMC Interleaving Set to 1-way Interleave
XPT Prefetch Set to Enabled
Sysinfo program /spec2017/bin/sysinfo
Rev: r5797 of 2017-06-14 96c45e4568ad54c135fd618bcc091c0f
running on localhost.localdomain Wed Jul 25 01:08:01 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 6126 CPU @ 2.60GHz
      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 3 5 6 8 9 10 11 12 13 14
      physical 1: cores 0 1 2 4 5 6 8 9 10 11 13 14

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
     CPU family:            6
     Model:                 85
     Model name:            Intel(R) Xeon(R) Gold 6126 CPU @ 2.60GHz
     Stepping:              4
```

(Continued on next page)

Huawei

Huawei 5288 V5 (Intel Xeon Gold 6126)

SPECrate2017_fp_base = 149

SPECrate2017_fp_peak = 153

CPU2017 License: 3175

Test Sponsor: Huawei

Tested by: Huawei

Test Date: Jul-2018

Hardware Availability: Jul-2017

Software Availability: Jan-2018

Platform Notes (Continued)

```
        CPU MHz:                2600.000
        BogoMIPS:               5200.00
        Virtualization:         VT-x
        L1d cache:              32K
        L1i cache:              32K
        L2 cache:               1024K
        L3 cache:               19712K
        NUMA node0 CPU(s):      0-2,5-7,24-26,29-31
        NUMA node1 CPU(s):      3,4,8-11,27,28,32-35
        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
    aperfmperf eagerfpu pni pclmulqdq dtes64 ds_cpl vmx smx est tm2 ssse3 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 epb cat_l3 cdp_l3 invpcid_single intel_pt
    spec_ctrl ibpb_support tpr_shadow vnmi flexpriority ept vpid fsgsbase tsc_adjust
    bmi1 hle avx2 smep bmi2 erms invpcid rtm cqm mpx rdt_a avx512f avx512dq rdseed adx
    smap clflushopt clwb avx512cd avx512bw avx512vl xsaveopt xsavec xgetbv1 cqm_llc
    cqm_occup_llc cqm_mbm_total cqm_mbm_local dtherm ida arat pln pts

 /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: 4 nodes (0-3)
    node 0 cpus: 0 1 2 5 6 7 24 25 26 29 30 31
    node 0 size: 194741 MB
    node 0 free: 182364 MB
    node 1 cpus: 3 4 8 9 10 11 27 28 32 33 34 35
    node 1 size: 196608 MB
    node 1 free: 186562 MB
    node 2 cpus: 12 13 14 18 19 20 36 37 38 42 43 44
    node 2 size: 196608 MB
    node 2 free: 186555 MB
    node 3 cpus: 15 16 17 21 22 23 39 40 41 45 46 47
    node 3 size: 196608 MB
    node 3 free: 186625 MB
    node distances:
    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
```

(Continued on next page)

SPEC CPU2017 Floating Point Rate Result

Copyright 2017-2018 Standard Performance Evaluation Corporation

Huawei

Huawei 5288 V5 (Intel Xeon Gold 6126)

SPECrate2017_fp_base = 149

SPECrate2017_fp_peak = 153

CPU2017 License: 3175
Test Sponsor: Huawei
Tested by: Huawei

Test Date: Jul-2018
Hardware Availability: Jul-2017
Software Availability: Jan-2018

Platform Notes (Continued)

```
From /proc/meminfo
   MemTotal:       790511748 kB
   HugePages_Total:        0
   Hugepagesize:        2048 kB

From /etc/*release* /etc/*version*
   os-release:
       NAME="Red Hat Enterprise Linux Server"
       VERSION="7.4 (Maipo)"
       ID="rhel"
       ID_LIKE="fedora"
       VARIANT="Server"
       VARIANT_ID="server"
       VERSION_ID="7.4"
       PRETTY_NAME="Red Hat Enterprise Linux Server 7.4 (Maipo)"
   redhat-release: Red Hat Enterprise Linux Server release 7.4 (Maipo)
   system-release: Red Hat Enterprise Linux Server release 7.4 (Maipo)
   system-release-cpe: cpe:/o:redhat:enterprise_linux:7.4:ga:server

uname -a:
   Linux localhost.localdomain 3.10.0-693.11.6.el7.x86_64 #1 SMP Thu Dec 28 14:23:39 EST
   2017 x86_64 x86_64 x86_64 GNU/Linux

run-level 3 Jul 24 16:28

SPEC is set to: /spec2017
   Filesystem       Type   Size   Used Avail Use% Mounted on
   /dev/sda2        xfs    781G    91G  690G  12% /

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. 0.81 07/02/2018
  Memory:
   24x Samsung M393A4K40BB2-CTD 32 GB 2 rank 2666

(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.
```

(Continued on next page)

SPEC CPU2017 Floating Point Rate Result

Huawei

Huawei 5288 V5 (Intel Xeon Gold 6126)

SPECrate2017_fp_base =   149

SPECrate2017_fp_peak =   153

CPU2017 License: 3175
Test Sponsor: Huawei
Tested by: Huawei

Test Date: Jul-2018
Hardware Availability: Jul-2017
Software Availability: Jan-2018

Compiler Version Notes (Continued)

```
--------------------------------------------------------------------------------

================================================================================
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
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
```

(Continued on next page)

Standard Performance Evaluation Corporation (info@spec.org)
https://www.spec.org/

SPEC CPU2017 Floating Point Rate Result

Huawei

Huawei 5288 V5 (Intel Xeon Gold 6126)

SPECrate2017_fp_base = 149

SPECrate2017_fp_peak = 153

CPU2017 License: 3175
Test Sponsor: Huawei
Tested by: Huawei

Test Date: Jul-2018
Hardware Availability: Jul-2017
Software Availability: Jan-2018

Compiler Version Notes (Continued)

```
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.
------------------------------------------------------------------------------


==============================================================================
 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.
------------------------------------------------------------------------------
```

SPEC CPU2017 Floating Point Rate Result

Copyright 2017-2018 Standard Performance Evaluation Corporation

Huawei

Huawei 5288 V5 (Intel Xeon Gold 6126)

SPECrate2017_fp_base = 149

SPECrate2017_fp_peak = 153

CPU2017 License: 3175
Test Sponsor: Huawei
Tested by: Huawei

Test Date: Jul-2018
Hardware Availability: Jul-2017
Software Availability: Jan-2018

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`
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`

(Continued on next page)

Standard Performance Evaluation Corporation (info@spec.org)
https://www.spec.org/

SPEC CPU2017 Floating Point Rate Result

Copyright 2017-2018 Standard Performance Evaluation Corporation

Huawei

Huawei 5288 V5 (Intel Xeon Gold 6126)

SPECrate2017_fp_base = 149

SPECrate2017_fp_peak = 153

CPU2017 License: 3175
Test Sponsor: Huawei
Tested by: Huawei

Test Date: Jul-2018
Hardware Availability: Jul-2017
Software Availability: Jan-2018

Base Optimization Flags (Continued)

C++ benchmarks (continued):
```
-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
```

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
```

Standard Performance Evaluation Corporation (info@spec.org)
https://www.spec.org/

SPEC CPU2017 Floating Point Rate Result

Copyright 2017-2018 Standard Performance Evaluation Corporation

Huawei

Huawei 5288 V5 (Intel Xeon Gold 6126)

SPECrate2017_fp_base = 149

SPECrate2017_fp_peak = 153

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: `-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:

(Continued on next page)

SPEC CPU2017 Floating Point Rate Result

Copyright 2017-2018 Standard Performance Evaluation Corporation

Huawei

Huawei 5288 V5 (Intel Xeon Gold 6126)

SPECrate2017_fp_base = 149

SPECrate2017_fp_peak = 153

CPU2017 License: 3175
Test Sponsor: Huawei
Tested by: Huawei

Test Date: Jul-2018
Hardware Availability: Jul-2017
Software Availability: Jan-2018

Peak Optimization Flags (Continued)

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`
`-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++:

507.cactuBSSN_r: `basepeak = yes`

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`

Standard Performance Evaluation Corporation (info@spec.org)

https://www.spec.org/

SPEC CPU2017 Floating Point Rate Result

Copyright 2017-2018 Standard Performance Evaluation Corporation

Huawei

Huawei 5288 V5 (Intel Xeon Gold 6126)

SPECrate2017_fp_base =   149

SPECrate2017_fp_peak =   153

CPU2017 License: 3175

Test Sponsor: Huawei

Tested by: Huawei

Test Date: Jul-2018

Hardware Availability: Jul-2017

Software Availability: Jan-2018

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-V1.9-revC.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/Huawei-Platform-Settings-SKL-V1.9-revC.xml

For questions about this result, please contact the tester. For other inquiries, please contact info@spec.org.

Tested with SPEC CPU2017 v1.0.2 on 2018-07-25 01:08:00-0400.
Report generated on 2018-10-31 18:50:10 by CPU2017 PDF formatter v6067.
Originally published on 2018-08-22.