



SPEC® CPU2017 Floating Point Rate Result

Copyright 2017-2018 Standard Performance Evaluation Corporation

Lenovo Global Technology

ThinkSystem SR950
(2.00 GHz, Intel Xeon Gold 5117)

SPECrate2017_fp_base = 254

SPECrate2017_fp_peak = 259

CPU2017 License: 9017

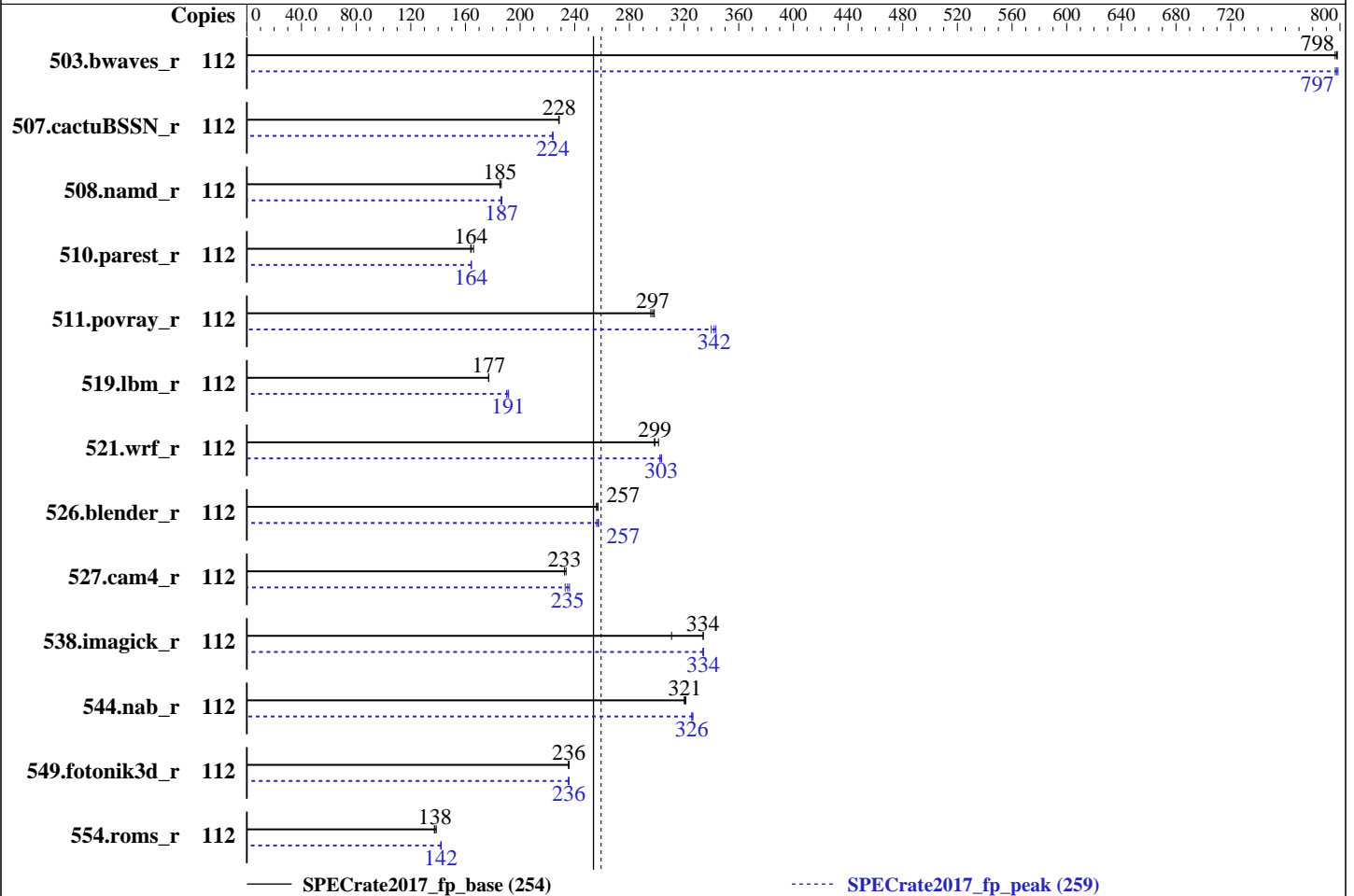
Test Sponsor: Lenovo Global Technology

Tested by: Lenovo Global Technology

Test Date: Jan-2018

Hardware Availability: Sep-2017

Software Availability: Sep-2017



Hardware

CPU Name: Intel Xeon Gold 5117
 Max MHz.: 2800
 Nominal: 2000
 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: 1536 GB (48 x 32 GB 2Rx4 PC4-2666V-R, running at 2400)
 Storage: 800 GB tmpfs
 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: No
 Firmware: Lenovo BIOS Version PSE109O 1.11 released Dec-2017
 File System: tmpfs
 System State: Run level 3 (multi-user)
 Base Pointers: 64-bit
 Peak Pointers: 64-bit
 Other: None



SPEC CPU2017 Floating Point Rate Result

Copyright 2017-2018 Standard Performance Evaluation Corporation

Lenovo Global Technology

ThinkSystem SR950
(2.00 GHz, Intel Xeon Gold 5117)

SPECrate2017_fp_base = 254

SPECrate2017_fp_peak = 259

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

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

Results Table

Benchmark	Base							Peak						
	Copies	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Copies	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio
503.bwaves_r	112	1407	798	1410	796	<u>1408</u>	<u>798</u>	112	1406	799	1410	797	<u>1408</u>	<u>797</u>
507.cactuBSSN_r	112	621	228	620	229	<u>621</u>	<u>228</u>	112	<u>633</u>	<u>224</u>	634	224	633	224
508.namd_r	112	575	185	571	186	<u>574</u>	<u>185</u>	112	572	186	<u>570</u>	<u>187</u>	570	187
510.parest_r	112	1766	166	<u>1785</u>	<u>164</u>	1788	164	112	1786	164	<u>1784</u>	<u>164</u>	1782	164
511.povray_r	112	877	298	884	296	<u>880</u>	<u>297</u>	112	769	340	<u>765</u>	<u>342</u>	762	343
519.lbm_r	112	667	177	667	177	<u>667</u>	<u>177</u>	112	616	192	<u>618</u>	<u>191</u>	621	190
521.wrf_r	112	833	301	<u>840</u>	<u>299</u>	841	298	112	830	302	827	303	<u>827</u>	<u>303</u>
526.blender_r	112	667	256	<u>664</u>	<u>257</u>	664	257	112	666	256	662	257	<u>664</u>	<u>257</u>
527.cam4_r	112	<u>843</u>	<u>233</u>	843	232	838	234	112	829	236	<u>834</u>	<u>235</u>	841	233
538.imagick_r	112	<u>834</u>	<u>334</u>	834	334	896	311	112	833	334	<u>834</u>	<u>334</u>	835	334
544.nab_r	112	587	321	589	320	<u>588</u>	<u>321</u>	112	579	326	577	326	<u>579</u>	<u>326</u>
549.fotonik3d_r	112	<u>1853</u>	<u>236</u>	1852	236	1853	236	112	1854	235	<u>1853</u>	<u>236</u>	1852	236
554.roms_r	112	<u>1293</u>	<u>138</u>	1297	137	1284	139	112	<u>1253</u>	<u>142</u>	1254	142	1251	142

SPECrate2017_fp_base = 254

SPECrate2017_fp_peak = 259

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"
Tmpfs filesystem can be set with:
mount -t tmpfs -o size=800g tmpfs /home
Process tuning setting:
echo 50000 > /proc/sys/kernel/sched_cfs_bandwidth_slice_us
echo 240000000 > /proc/sys/kernel/sched_latency_ns
echo 5000000 > /proc/sys/kernel/sched_migration_cost_ns
echo 100000000 > /proc/sys/kernel/sched_min_granularity_ns
echo 150000000 > /proc/sys/kernel/sched_wakeup_granularity_ns
echo 0 > /proc/sys/kernel/numa_balancing
```

General Notes

Environment variables set by runcpu before the start of the run:
LD_LIBRARY_PATH = "/home/cpu2017.1.0.2.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"

(Continued on next page)



SPEC CPU2017 Floating Point Rate Result

Copyright 2017-2018 Standard Performance Evaluation Corporation

Lenovo Global Technology

SPECrate2017_fp_base = 254

ThinkSystem SR950
(2.00 GHz, Intel Xeon Gold 5117)

SPECrate2017_fp_peak = 259

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

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

General Notes (Continued)

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>
```

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 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

SNC set to Enable

MONITORM/WAIT set to Enable

Execute Disable Bit set to Disable

Intel Virtualization Technology set to Disable

DCA set to Enable

XPT Prefetcher set to Enable

Sysinfo program /home/cpu2017.1.0.2.ic18.0/bin/sysinfo

Rev: r5797 of 2017-06-14 96c45e4568ad54c135fd618bcc091c0f

running on linux-ciok Thu Jan 11 16:59:34 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>

(Continued on next page)



SPEC CPU2017 Floating Point Rate Result

Copyright 2017-2018 Standard Performance Evaluation Corporation

Lenovo Global Technology

ThinkSystem SR950
(2.00 GHz, Intel Xeon Gold 5117)

SPECrate2017_fp_base = 254

SPECrate2017_fp_peak = 259

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

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

Platform Notes (Continued)

```

From /proc/cpuinfo
model name : Intel(R) Xeon(R) Gold 5117 CPU @ 2.00GHz
 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
NUMA node(s):          8
Vendor ID:              GenuineIntel
CPU family:             6
Model:                  85
Model name:             Intel(R) Xeon(R) Gold 5117 CPU @ 2.00GHz
Stepping:               4
CPU MHz:                1995.310
BogoMIPS:               3990.62
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

```

(Continued on next page)



SPEC CPU2017 Floating Point Rate Result

Copyright 2017-2018 Standard Performance Evaluation Corporation

Lenovo Global Technology

SPECrate2017_fp_base = 254

ThinkSystem SR950
(2.00 GHz, Intel Xeon Gold 5117)

SPECrate2017_fp_peak = 259

CPU2017 License: 9017

Test Date: Jan-2018

Test Sponsor: Lenovo Global Technology

Hardware Availability: Sep-2017

Tested by: Lenovo Global Technology

Software Availability: Sep-2017

Platform Notes (Continued)

```
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 bml1 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: 8 nodes (0-7)
node 0 cpus: 0 1 2 3 7 8 9 56 57 58 59 63 64 65
node 0 size: 192979 MB
node 0 free: 187430 MB
node 1 cpus: 4 5 6 10 11 12 13 60 61 62 66 67 68 69
node 1 size: 193521 MB
node 1 free: 192973 MB
node 2 cpus: 14 15 16 17 21 22 23 70 71 72 73 77 78 79
node 2 size: 193521 MB
node 2 free: 192975 MB
node 3 cpus: 18 19 20 24 25 26 27 74 75 76 80 81 82 83
node 3 size: 193521 MB
node 3 free: 193000 MB
node 4 cpus: 28 29 30 31 35 36 37 84 85 86 87 91 92 93
node 4 size: 193521 MB
node 4 free: 192635 MB
node 5 cpus: 32 33 34 38 39 40 41 88 89 90 94 95 96 97
node 5 size: 193521 MB
node 5 free: 184543 MB
node 6 cpus: 42 43 44 45 49 50 51 98 99 100 101 105 106 107
node 6 size: 193521 MB
node 6 free: 193022 MB
node 7 cpus: 46 47 48 52 53 54 55 102 103 104 108 109 110 111
node 7 size: 193516 MB
node 7 free: 193007 MB
```

```
node distances:
node  0  1  2  3  4  5  6  7
 0:  10 11 31 31 21 21 21 21
 1:  11 10 31 31 21 21 21 21
 2:  31 31 10 11 21 21 21 21
 3:  31 31 11 10 21 21 21 21
 4:  21 21 21 21 10 11 31 31
 5:  21 21 21 21 11 10 31 31
 6:  21 21 21 21 31 31 10 11
 7:  21 21 21 21 31 31 11 10
```

(Continued on next page)



SPEC CPU2017 Floating Point Rate Result

Copyright 2017-2018 Standard Performance Evaluation Corporation

Lenovo Global Technology

ThinkSystem SR950
(2.00 GHz, Intel Xeon Gold 5117)

SPECrate2017_fp_base = 254

SPECrate2017_fp_peak = 259

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

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

Platform Notes (Continued)

```

From /proc/meminfo
MemTotal:      1584766272 kB
HugePages_Total:      0
Hugepagesize:    2048 kB

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-ciok 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 Jan 11 16:56

SPEC is set to: /home/cpu2017.1.0.2.ic18.0
Filesystem      Type      Size  Used Avail Use% Mounted on
tmpfs           tmpfs    800G   11G  790G   2% /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  -[PSE1090-1.11]- 12/12/2017
Memory:
48x NO DIMM NO DIMM
48x Samsung M393A4K40BB2-CTD 32 GB 2 rank 2666, configured at 2400

(End of data from sysinfo program)

```



SPEC CPU2017 Floating Point Rate Result

Copyright 2017-2018 Standard Performance Evaluation Corporation

Lenovo Global Technology

ThinkSystem SR950
(2.00 GHz, Intel Xeon Gold 5117)

SPECrate2017_fp_base = 254

SPECrate2017_fp_peak = 259

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

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

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
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.

(Continued on next page)



SPEC CPU2017 Floating Point Rate Result

Copyright 2017-2018 Standard Performance Evaluation Corporation

Lenovo Global Technology

ThinkSystem SR950
(2.00 GHz, Intel Xeon Gold 5117)

SPECrate2017_fp_base = 254

SPECrate2017_fp_peak = 259

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

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

Compiler Version Notes (Continued)

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.

=====
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)

(Continued on next page)



SPEC CPU2017 Floating Point Rate Result

Copyright 2017-2018 Standard Performance Evaluation Corporation

Lenovo Global Technology

ThinkSystem SR950
(2.00 GHz, Intel Xeon Gold 5117)

SPECrate2017_fp_base = 254

SPECrate2017_fp_peak = 259

CPU2017 License: 9017

Test Sponsor: Lenovo Global Technology

Tested by: Lenovo Global Technology

Test Date: Jan-2018

Hardware Availability: Sep-2017

Software Availability: Sep-2017

Compiler Version Notes (Continued)

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

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



SPEC CPU2017 Floating Point Rate Result

Copyright 2017-2018 Standard Performance Evaluation Corporation

Lenovo Global Technology

ThinkSystem SR950
(2.00 GHz, Intel Xeon Gold 5117)

SPECrate2017_fp_base = 254

SPECrate2017_fp_peak = 259

CPU2017 License: 9017

Test Sponsor: Lenovo Global Technology

Tested by: Lenovo Global Technology

Test Date: Jan-2018

Hardware Availability: Sep-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

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

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



SPEC CPU2017 Floating Point Rate Result

Copyright 2017-2018 Standard Performance Evaluation Corporation

Lenovo Global Technology

ThinkSystem SR950
(2.00 GHz, Intel Xeon Gold 5117)

SPECrate2017_fp_base = 254

SPECrate2017_fp_peak = 259

CPU2017 License: 9017

Test Sponsor: Lenovo Global Technology

Tested by: Lenovo Global Technology

Test Date: Jan-2018

Hardware Availability: Sep-2017

Software Availability: Sep-2017

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

Lenovo Global Technology

SPECrate2017_fp_base = 254

ThinkSystem SR950
(2.00 GHz, Intel Xeon Gold 5117)

SPECrate2017_fp_peak = 259

CPU2017 License: 9017

Test Date: Jan-2018

Test Sponsor: Lenovo Global Technology

Hardware Availability: Sep-2017

Tested by: Lenovo Global Technology

Software Availability: Sep-2017

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++:

-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

(Continued on next page)



SPEC CPU2017 Floating Point Rate Result

Copyright 2017-2018 Standard Performance Evaluation Corporation

Lenovo Global Technology

ThinkSystem SR950
(2.00 GHz, Intel Xeon Gold 5117)

SPECrate2017_fp_base = 254

SPECrate2017_fp_peak = 259

CPU2017 License: 9017

Test Sponsor: Lenovo Global Technology

Tested by: Lenovo Global Technology

Test Date: Jan-2018

Hardware Availability: Sep-2017

Software Availability: Sep-2017

Peak Other Flags (Continued)

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.

Tested with SPEC CPU2017 v1.0.2 on 2018-01-11 03:59:33-0500.

Report generated on 2018-10-31 16:48:27 by CPU2017 PDF formatter v6067.

Originally published on 2018-03-06.