

SPEC® CPU2017 Floating Point Speed Result

Copyright 2017-2021 Standard Performance Evaluation Corporation

(Test Sponsor: Red Hat, Inc.)

SPECSPEED2017_fp_base = 11.8

SPECSPEED2017_fp_peak = 14.1

CPU2017 License: 0002991

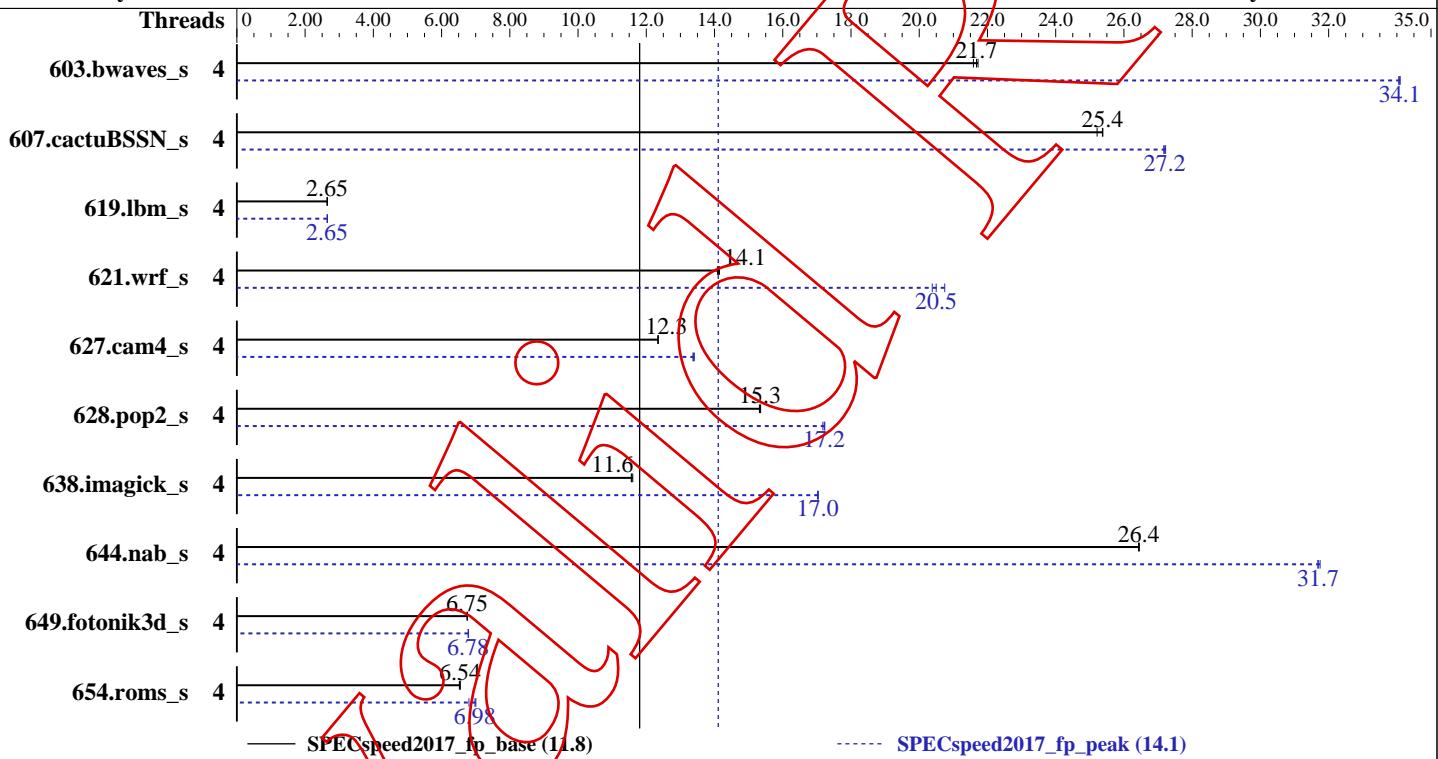
Test Sponsor: Red Hat, Inc.

Tested by: Vladimir Makarov

Test Date: Jul-2021

Hardware Availability: Now

Software Availability:



Hardware		Software	
CPU Name:	Intel(R) Core(TM) i7-8700K CPU @ 3.70GHz	OS:	Linux 4.17.3-200.fc28.x86_64 4.17.3-200.fc28.x86_64
Max MHz.:	3007.104	Compiler:	gcc version 12.0.0 20210709 (experimental) (GCC)
Nominal:	6 cores, 1 chip, threads/core	Parallel:	Yes
Enabled:		Firmware:	
Orderable:		File System:	ext4
Cache L1:		System State:	multiuser
L2:	12288 KB	Base Pointers:	64-bit
L3:		Peak Pointers:	64-bit
Other:		Other:	
Memory:	16300620 KB		
Storage:	'N GB (M x N GB nRxn PCn-nnnnnR-n, ECC)'		
Other:	192 GB add more disk info here		

Errors

'reportable' flag not set during run

627.cam4_s (peak) had invalid runs!

Run of 627.cam4_s (peak) was not valid; status is VE

Unknown flags were used! See

<https://www.spec.org/cpu2017/Docs/runcpu.html#flagsurl>

(Continued on next page)

SPEC CPU2017 Floating Point Speed Result

Copyright 2017-2021 Standard Performance Evaluation Corporation

(Test Sponsor: Red Hat, Inc.)

~~SPECSPEED2017_fp_base = 11.8~~

~~SPECSPEED2017_fp_peak = 14.1~~

CPU2017 License: 0002991

Test Sponsor: Red Hat, Inc.

Tested by: Vladimir Makarov

~~Test Date: Jul-2021~~

~~Hardware Availability: Now~~

~~Software Availability:~~

Errors (Continued)

for information about how to get rid of this error.

Results Table

Benchmark	Base								Peak							
	Threads	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Threads	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio
603.bwaves_s	4	2716	21.7	2733	21.6	<u>7722</u>	<u>21.7</u>	4	<u>1731</u>	<u>34.1</u>	1732	34.1	1730	34.1		
607.cactusSSN_s	4	<u>657</u>	<u>25.4</u>	<u>657</u>	25.4	661	25.2	4	614	27.2	612	27.2	<u>613</u>	<u>27.2</u>		
619.lbm_s	4	1978	2.65	<u>1978</u>	2.65	<u>1978</u>	<u>2.65</u>	4	1976	2.65	1977	2.65	<u>1976</u>	<u>2.65</u>		
621.wrf_s	4	<u>937</u>	<u>14.1</u>	935	14.1	939	14.1	4	637	20.7	649	20.4	<u>645</u>	<u>20.5</u>		
627.cam4_s	4	718	12.4	718	12.3	<u>718</u>	<u>12.3</u>	4	663	0.00	661	0.00	663	0.00		
628.pop2_s	4	<u>774</u>	<u>15.6</u>	773	15.4	775	15.3	4	691	17.2	689	17.2	<u>690</u>	<u>17.2</u>		
638.imagick_s	4	1243	11.6	1248	11.6	<u>1246</u>	<u>11.6</u>	4	<u>847</u>	<u>17.0</u>	847	17.0	847	17.0		
644.nab_s	4	<u>661</u>	<u>26.4</u>	661	26.5	661	26.4	4	551	31.7	<u>551</u>	<u>31.7</u>	550	31.7		
649.fotonik3d_s	4	1350	6.75	<u>1350</u>	<u>6.75</u>	1350	6.75	4	1343	6.79	<u>1344</u>	<u>6.78</u>	1344	6.78		
654.roms_s	4	<u>2407</u>	<u>6.54</u>	2414	6.52	2405	6.55	4	2248	7.00	<u>2256</u>	<u>6.98</u>	2314	6.80		
SPECSPEED2017_fp_base = <u>11.8</u>																
SPECSPEED2017_fp_peak = <u>14.1</u>																

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

General Notes

Environment variables set by runcpu before the start of the run:

```
LD_LIBRARY_PATH = "/notnfs/vmakarov/perf/sbox/gcc/local.spec2017.x86_64/inst.ton8/lib64:/notnfs/vmakarov/perf/sbox/gcc/local.spec2017.x86_64/inst.ton8/lib::/usr/lib64:/usr/lib::/lib64"  
OMP_STACKSIZE = "120M"
```

Platform Notes

```
Sysinfo program /notnfs/vmakarov/spec2017/bin/sysinfo  
Rev: r5797 of 2017-06-14 96c45e4568ad54c135fd618bcc091c0f  
running on ton8 Sat Jul 10 03:11:44 2021
```

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) Core(TM) i7-8700K CPU @ 3.70GHz  
 1 "physical id"s (chips)  
 6 "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 : 6
```

(Continued on next page)

SPEC CPU2017 Floating Point Speed Result

Copyright 2017-2021 Standard Performance Evaluation Corporation

(Test Sponsor: Red Hat, Inc.)

~~SPECSspeed2017_fp_base = 11.8~~

~~SPECSspeed2017_fp_peak = 14.1~~

CPU2017 License: 0002991

Test Sponsor: Red Hat, Inc.

Tested by: Vladimir Makarov

~~Test Date: Jul-2021~~

~~Hardware Availability: Now~~

~~Software Availability:~~

Platform Notes (Continued)

```
siblings : 6  
physical 0: cores 0 1 2 3 4 5
```

From lscpu:

```
Architecture:           x86_64  
CPU op-mode(s):        32-bit, 64-bit  
Byte Order:            Little Endian  
CPU(s):                6  
On-line CPU(s) list:  0-5  
Thread(s) per core:   1  
Core(s) per socket:   6  
Socket(s):             1  
NUMA node(s):          1  
Vendor ID:             GenuineIntel  
CPU family:            6  
Model:                 158  
Model name:            Intel(R) Core(TM) i7-8700K CPU @ 3.70GHz  
Stepping:               10  
CPU MHz:               4698.500  
CPU max MHz:          4700.0000  
CPU min MHz:          800.0000  
BogoMIPS:              7392.00  
Virtualization:        VT-x  
L1d cache:             32K  
L1i cache:             32K  
L2 cache:              256K  
L3 cache:              12288K  
NUMA node0 CPU(s):    0-5  
Flags:     fpu vme de pse tsc msr pae 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 xtstopology nonstop_tsc cpuid  
aperfmonperf tsc_known_freq pni pclmulqdq dtes64 monitor ds_cpl vmx smx est tm2 ssse3  
sdbg fma cx16 xtpr pdcm pcid sse4_1 sse4_2 x2apic movbe popcnt tsc_deadline_timer  
aes xsave avx f16c rdrand lahf_lm abm 3dnowprefetch cpuid_fault invpcid_single pt  
ibrs ibpb stibp tpr_shadow vnmi flexpriority ept vpid fsgsbase tsc_adjust bmi1 hle  
avx2 smep bmi2 erms invpcid rtm mpx rdseed adx smap clflushopt intel_pt xsaveopt  
xsavec xgetbv1 xsaves dtherm ida arat pln pts hwp hwp_notify hwp_act_window hwp_epp
```

```
/proc/cpuinfo cache data  
cache size : 12288 KB
```

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

```
From /proc/meminfo  
MemTotal:      16300620 kB  
HugePages_Total: 0
```

(Continued on next page)

SPEC CPU2017 Floating Point Speed Result

Copyright 2017-2021 Standard Performance Evaluation Corporation

(Test Sponsor: Red Hat, Inc.)

~~SPECSspeed2017_fp_base = 11.8~~

~~SPECSspeed2017_fp_peak = 14.1~~

CPU2017 License: 0002991

Test Sponsor: Red Hat, Inc.

Tested by: Vladimir Makarov

~~Test Date: Jul-2021~~

~~Hardware Availability: Now~~

~~Software Availability:~~

Platform Notes (Continued)

Hugepagesize: 2048 kB

```
From /etc/*release* /etc/*version*
fedora-release: Fedora release 28 (Twenty Eight)
os-release:
  NAME=Fedora
  VERSION="28 (Workstation Edition)"
  ID=fedora
  VERSION_ID=28
  PLATFORM_ID="platform:f28"
  PRETTY_NAME="Fedora 28 (Workstation Edition)"
  ANSI_COLOR="0;34"
  CPE_NAME="cpe:/o:fedoraproject:fedora:28"
redhat-release: Fedora release 28 (Twenty Eight)
system-release: Fedora release 28 (Twenty Eight)
system-release-cpe: cpe:/o:fedoraproject:fedora:28

uname -a:
Linux ton8 4.17.3-200.fc28.x86_64 #1 SMP Tue Jun 26 14:17:07 UTC 2018 x86_64 x86_64
x86_64 GNU/Linux
```

SPEC is set to: /notnfs/vmakarov/spec2017

Filesystem	Type	Size	Used	Avail	Use%	Mounted on
/dev/mapper/fedora-home	ext4	192G	51G	132G	28%	/notnfs

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.

(End of data from sysinfo program)

Compiler Version Notes

```
=====
FC 607.cactubSSN_s(base, peak)
-----
Using built-in specs.
COLLECT_GCC=/notnfs/vmakarov/perf/sbox/gcc/local.spec2017.x86_64/inst.ton8/bin/g++
COLLECT_LTO_WRAPPER=/notnfs/vmakarov/perf/sbox/gcc/local.spec2017.x86_64/inst.ton8/libexec/gcc/x86_64-pc-linux-gnu/12.0.0/lto-wrapper
Target: x86_64-pc-linux-gnu
Configured with:
 /notnfs/vmakarov/perf/sbox/gcc/local.spec2017.x86_64/src/configure
--prefix=/notnfs/vmakarov/perf/sbox/gcc/local.spec2017.x86_64/inst.ton8
--srcdir=/notnfs/vmakarov/perf/sbox/gcc/local.spec2017.x86_64/src
```

(Continued on next page)

SPEC CPU2017 Floating Point Speed Result

Copyright 2017-2021 Standard Performance Evaluation Corporation

(Test Sponsor: Red Hat, Inc.)

~~SPECSPEED2017_fp_base = 11.8~~

~~SPECSPEED2017_fp_peak = 14.1~~

CPU2017 License: 0002991

Test Sponsor: Red Hat, Inc.

Tested by: Vladimir Makarov

~~Test Date: Jul-2021~~

~~Hardware Availability: Now~~

~~Software Availability:~~

Compiler Version Notes (Continued)

```
--disable-bootstrap --disable-libcilkrt --enable-checking=release  
--enable-languages=c,c++,fortran  
Thread model: posix  
Supported LTO compression algorithms: zlib  
gcc version 12.0.0 20210709 (experimental) (GCC)  
Using built-in specs.  
COLLECT_GCC=/notnfs/vmakarov/perf/sbox/gcc/local.spec2017.x86_64/inst.ton8/bin/gcc  
COLLECT_LTO_WRAPPER=/notnfs/vmakarov/perf/sbox/gcc/local.spec2017.x86_64/inst.ton8/libexec/gcc/x86_64-pc-linux-gnu/12.0.0/lto-wrapper  
Target: x86_64-pc-linux-gnu  
Configured with:  
/notnfs/vmakarov/perf/sbox/gcc/local.spec2017.x86_64/src/configure  
--prefix=/notnfs/vmakarov/perf/sbox/gcc/local.spec2017.x86_64/inst.ton8  
--srcdir=/notnfs/vmakarov/perf/sbox/gcc/local.spec2017.x86_64/src  
--disable-bootstrap --disable-libcilkrt --enable-checking=release  
--enable-languages=c,c++,fortran  
Thread model: posix  
Supported LTO compression algorithms: zlib  
gcc version 12.0.0 20210709 (experimental) (GCC)  
-----  
CC 619.lbm_s(base, peak) 638.imagick_s(base, peak) 644.nab_s(base, peak)  
-----  
Using built-in specs.  
COLLECT_GCC=/notnfs/vmakarov/perf/sbox/gcc/local.spec2017.x86_64/inst.ton8/bin/gcc  
COLLECT_LTO_WRAPPER=/notnfs/vmakarov/perf/sbox/gcc/local.spec2017.x86_64/inst.ton8/libexec/gcc/x86_64-pc-linux-gnu/12.0.0/lto-wrapper  
Target: x86_64-pc-linux-gnu  
Configured with:  
/notnfs/vmakarov/perf/sbox/gcc/local.spec2017.x86_64/src/configure  
--prefix=/notnfs/vmakarov/perf/sbox/gcc/local.spec2017.x86_64/inst.ton8  
--srcdir=/notnfs/vmakarov/perf/sbox/gcc/local.spec2017.x86_64/src  
--disable-bootstrap --disable-libcilkrt --enable-checking=release  
--enable-languages=c,c++,fortran  
Thread model: posix
```

(Continued on next page)

SPEC CPU2017 Floating Point Speed Result

Copyright 2017-2021 Standard Performance Evaluation Corporation

(Test Sponsor: Red Hat, Inc.)

~~SPECspeed2017_fp_base = 11.8~~

~~SPECspeed2017_fp_peak = 14.1~~

CPU2017 License: 0002991

Test Sponsor: Red Hat, Inc.

Tested by: Vladimir Makarov

~~Test Date: Jul-2021~~

~~Hardware Availability: Now~~

~~Software Availability:~~

Compiler Version Notes (Continued)

Supported LTO compression algorithms: zlib
gcc version 12.0.0 20210709 (experimental) (GCC)

=====
FC 603.bwaves_s(base, peak) 649.fotonik3d_s(base, peak) 654.roms_s(base,
peak)
=====

Using built-in specs.

COLLECT_GCC=/notnfs/vmakarov/perf/sbox/gcc/local.spec2017.x86_64/inst.ton8/bin/gfortran

COLLECT_LTO_WRAPPER=/notnfs/vmakarov/perf/sbox/gcc/local.spec2017.x86_64/inst.ton8/libexec/gcc/x86_64-pc-linux-gnu/12.0.0/lto-wrapper

Target: x86_64-pc-linux-gnu

Configured with:

```
/notnfs/vmakarov/perf/sbox/gcc/local.spec2017.x86_64/src/configure  
--prefix=/notnfs/vmakarov/perf/sbox/gcc/local.spec2017.x86_64/inst.ton8  
--srcdir=/notnfs/vmakarov/perf/sbox/gcc/local.spec2017.x86_64/src  
--disable-bootstrap --disable-libcilkrts --enable-checking=release  
--enable-languages=c,c++,fortran
```

Thread model: posix

Supported LTO compression algorithms: zlib
gcc version 12.0.0 20210709 (experimental) (GCC)

=====
CC 621.wrf_s(base, peak) 627.cam4_s(base, peak) 628.pop2_s(base, peak)
=====

Using built-in specs.

COLLECT_GCC=/notnfs/vmakarov/perf/sbox/gcc/local.spec2017.x86_64/inst.ton8/bin/gfortran

COLLECT_LTO_WRAPPER=/notnfs/vmakarov/perf/sbox/gcc/local.spec2017.x86_64/inst.ton8/libexec/gcc/x86_64-pc-linux-gnu/12.0.0/lto-wrapper

Target: x86_64-pc-linux-gnu

Configured with:

```
/notnfs/vmakarov/perf/sbox/gcc/local.spec2017.x86_64/src/configure  
--prefix=/notnfs/vmakarov/perf/sbox/gcc/local.spec2017.x86_64/inst.ton8  
--srcdir=/notnfs/vmakarov/perf/sbox/gcc/local.spec2017.x86_64/src  
--disable-bootstrap --disable-libcilkrts --enable-checking=release  
--enable-languages=c,c++,fortran
```

Thread model: posix

Supported LTO compression algorithms: zlib
gcc version 12.0.0 20210709 (experimental) (GCC)

Using built-in specs.

COLLECT_GCC=/notnfs/vmakarov/perf/sbox/gcc/local.spec2017.x86_64/inst.ton8/bin/gcc

COLLECT_LTO_WRAPPER=/notnfs/vmakarov/perf/sbox/gcc/local.spec2017.x86_64/inst.ton8/libexec/gcc/x86_64-pc-linux-gnu/12.0.0/lto-wrapper

Target: x86_64-pc-linux-gnu

Configured with:

```
/notnfs/vmakarov/perf/sbox/gcc/local.spec2017.x86_64/src/configure  
--prefix=/notnfs/vmakarov/perf/sbox/gcc/local.spec2017.x86_64/inst.ton8  
--srcdir=/notnfs/vmakarov/perf/sbox/gcc/local.spec2017.x86_64/src
```

(Continued on next page)

SPEC CPU2017 Floating Point Speed Result

Copyright 2017-2021 Standard Performance Evaluation Corporation

(Test Sponsor: Red Hat, Inc.)

~~SPECspeed2017_fp_base = 11.8~~

~~SPECspeed2017_fp_peak = 14.1~~

CPU2017 License: 0002991

Test Sponsor: Red Hat, Inc.

Tested by: Vladimir Makarov

~~Test Date: Jul-2021~~

~~Hardware Availability: Now~~

~~Software Availability:~~

Compiler Version Notes (Continued)

```
--disable-bootstrap --disable-libcilkrts --enable-checking=release  
--enable-languages=c,c++,fortran  
Thread model: posix  
Supported LTO compression algorithms: zlib  
gcc version 12.0.0 20210709 (experimental) (GCC)
```

Base Unknown Flags

```
603.bwaves_s: "-fallow-argument-mismatchARRAY(0xa636268)  
"-fallow-argument-mismatchARRAY(0xa67c7f8)  
  
607.cactubSSN_s: "-fcommonARRAY(0xa64e900) "-fcommonARRAY(0xa684278)  
"-fallow-argument-mismatchARRAY(0xa684428)  
"-fcommonARRAY(0xa68d350)  
  
619.lbm_s: "-fcommonARRAY(0xa64aef0) "-fcommonARRAY(0xa67c7e0)  
  
621.wrf_s: "-fallow-argument-mismatchARRAY(0xa633b20)  
"-fcommonARRAY(0xa683f60)  
"-fallow-argument-mismatchARRAY(0xa693a48)  
  
627.cam4_s: "-fallow-argument-mismatchARRAY(0xa6841b8)  
"-fcommonARRAY(0xa7b7c00)  
"-fallow-argument-mismatchARRAY(0xa6972b8)  
  
628.pop2_s: "-fallow-argument-mismatchARRAY(0xa7b6d50)  
"-fcommonARRAY(0xa7b61c8)  
"-fallow-argument-mismatchARRAY(0xa7b6558)  
  
638.imagick_s: "-fcommonARRAY(0xa68b7b8) "-fcommonARRAY(0xa7b78d0)  
  
644.nab_s: "-fcommonARRAY(0xa7b8b58) "-fcommonARRAY(0xa745508)  
  
649.fotonik3d_s: "-fallow-argument-mismatchARRAY(0xa622b00)  
"-fallow-argument-mismatchARRAY(0xa69c400)  
  
654.roms_s: "-fallow-argument-mismatchARRAY(0xa7b8f18)  
"-fallow-argument-mismatchARRAY(0xa7cca08)
```

Peak Unknown Flags

```
603.bwaves_s: "-fallow-argument-mismatchARRAY(0xa636268)  
"-fallow-argument-mismatchARRAY(0xa67c7f8)
```

(Continued on next page)

SPEC CPU2017 Floating Point Speed Result

Copyright 2017-2021 Standard Performance Evaluation Corporation

(Test Sponsor: Red Hat, Inc.)

~~SPECSPEED2017_fp_base = 11.8~~

~~SPECSPEED2017_fp_peak = 14.1~~

CPU2017 License: 0002991

Test Sponsor: Red Hat, Inc.

Tested by: Vladimir Makarov

~~Test Date: Jul-2021~~

~~Hardware Availability: Now~~

~~Software Availability:~~

Peak Unknown Flags (Continued)

607.cactubSSN_s: "-fcommonARRAY(0xa64e900) "-fcommonARRAY(0xa684278)
"-fallow-argument-mismatchARRAY(0xa684428)
"-fcommonARRAY(0xa68d350)

619.lbm_s: "-fcommonARRAY(0xa64aef0) "-fcommonARRAY(0xa67c7e0)

621.wrf_s: "-fallow-argument-mismatchARRAY(0xa633b20)
"-fcommonARRAY(0xa683f60)
"-fallow-argument-mismatchARRAY(0xa693a48)

627.cam4_s: "-fallow-argument-mismatchARRAY(0xa6841b8)
"-fcommonARRAY(0xa7b7c00)
"-fallow-argument-mismatchARRAY(0xa6972b8)

628.pop2_s: "-fallow-argument-mismatchARRAY(0xa7b6d50)
"-fcommonARRAY(0xa7b61c8)
"-fallow-argument-mismatchARRAY(0xa7b6558)

638.imagick_s: "-fcommonARRAY(0xa68b7b8) "-fcommonARRAY(0xa7b78d0)

644.nab_s: "-fcommonARRAY(0xa7b8b58) "-fcommonARRAY(0xa745508)

649.fotonik3d_s: "-fallow-argument-mismatchARRAY(0xa622b00)
"-fallow-argument-mismatchARRAY(0xa69c400)

654.roms_s: "-fallow-argument-mismatchARRAY(0xa7b8f18)
"-fallow-argument-mismatchARRAY(0xa7cca08)

603.bwaves_s: "-fallow-argument-mismatchARRAY(0xa7b69f0)
"-fallow-argument-mismatchARRAY(0xa7cf838)
"-fltoARRAY(0xa81a338)

607.cactubSSN_s: "-fcommonARRAY(0xa743c18) "-fcommonARRAY(0xa806990)
"-fallow-argument-mismatchARRAY(0xa81af50)
"-fcommonARRAY(0xa817e40) "-fltoARRAY(0xa806c60)

619.lbm_s: "-fcommonARRAY(0xa7cfbb8) "-fcommonARRAY(0xa817fd8)
"-fltoARRAY(0xa818560)

621.wrf_s: "-fallow-argument-mismatchARRAY(0xa80c7f8)
"-fcommonARRAY(0xa810060)
"-fallow-argument-mismatchARRAY(0xa810000)
"-fltoARRAY(0xa818998)

(Continued on next page)

SPEC CPU2017 Floating Point Speed Result

Copyright 2017-2021 Standard Performance Evaluation Corporation

(Test Sponsor: Red Hat, Inc.)

~~SPECSPEED2017_fp_base = 11.8~~

~~SPECSPEED2017_fp_peak = 14.1~~

CPU2017 License: 0002991

Test Sponsor: Red Hat, Inc.

Tested by: Vladimir Makarov

~~Test Date: Jul-2021~~

~~Hardware Availability: Now~~

~~Software Availability:~~

Peak Unknown Flags (Continued)

627.cam4_s: "-fallow-argument-mismatchARRAY(0xa7ff258)
"-fcommonARRAY(0xa738348)
"-fallow-argument-mismatchARRAY(0xa818a40)
"-fltoARRAY(0xa819848)

628.pop2_s: "-fallow-argument-mismatchARRAY(0xa81a668)
"-fcommonARRAY(0xa818ab8)
"-fallow-argument-mismatchARRAY(0xa8198c0)
"-fltoARRAY(0xa824aa0)

638.imagick_s: "-fcommonARRAY(0xa817ff0) "-fcommonARRAY(0xa81a878)
"-fltoARRAY(0xa824f80)

644.nab_s: "-fcommonARRAY(0xa812c30) "-fcommonARRAY(0xa818b30)
"-fltotoARRAY(0xa826f08)

649.fotonik3d_s: "-fallow-argument-mismatchARRAY(0xa809cf8)
"-fallow-argument-mismatchARRAY(0xa824080)
"-fltoARRAY(0xa827a40)

654.roms_s: "-fallow-argument-mismatchARRAY(0xa818848)
"-fallow-argument-mismatchARRAY(0xa826218)
"-fltoARRAY(0xa828578)

Base Compiler Invocation

C benchmarks:
gcc

Fortran benchmarks:
gfortran

Benchmarks using both Fortran and C:
gfortran gcc

Benchmarks using Fortran, C, and C++:
g++ gcc gfortran

Base Portability Flags

603.bwaves_s: -DSPEC_LP64

(Continued on next page)

SPEC CPU2017 Floating Point Speed Result

Copyright 2017-2021 Standard Performance Evaluation Corporation

(Test Sponsor: Red Hat, Inc.)

~~SPECSPEED2017_fp_base = 11.8~~

~~SPECSPEED2017_fp_peak = 14.1~~

CPU2017 License: 0002991

Test Sponsor: Red Hat, Inc.

Tested by: Vladimir Makarov

~~Test Date:~~ Jul-2021

~~Hardware Availability:~~ Now

~~Software Availability:~~

Base Portability Flags (Continued)

607.cactusBSSN_s: -DSPEC_LP64

619.lbm_s: -DSPEC_LP64

621.wrf_s: -DSPEC_CASE_FLAG -fconvert=big-endian -DSPEC_LP64

627.cam4_s: -DSPEC_CASE_FLAG -DSPEC_LP64

628.pop2_s: -DSPEC_CASE_FLAG -fconvert=big-endian -DSPEC_LP64

638.imagick_s: -DSPEC_LP64

644.nab_s: -DSPEC_LP64

649.fotonik3d_s: -DSPEC_LP64

654.roms_s: -DSPEC_LP64

Base Optimization Flags

C benchmarks:

-O2 -mtune=generic -fopenmp -DSPEC_OPENMP

Fortran benchmarks:

-O2 -mtune=generic -DSPEC_OPENMP -fopenmp

Benchmarks using both Fortran and C:

-O2 -mtune=generic -DSPEC_OPENMP -fopenmp

Benchmarks using Fortran, C, and C++:

-O2 -mtune=generic -fopenmp -DSPEC_OPENMP

Peak Compiler Invocation

C benchmarks:

gcc

Fortran benchmarks:

gfortran

Benchmarks using both Fortran and C:

gfortran gcc

Benchmarks using Fortran, C, and C++:

g++ gcc gfortran

SPEC CPU2017 Floating Point Speed Result

Copyright 2017-2021 Standard Performance Evaluation Corporation

(Test Sponsor: Red Hat, Inc.)

~~SPECspeed2017_fp_base = 11.8~~

~~SPECspeed2017_fp_peak = 14.1~~

CPU2017 License: 0002991

Test Sponsor: Red Hat, Inc.

Tested by: Vladimir Makarov

~~Test Date: Jul-2021~~

~~Hardware Availability: Now~~

~~Software Availability:~~

Peak Portability Flags

Same as Base Portability Flags

Peak Optimization Flags

C benchmarks:

-Ofast -mtune=corei7 -march=core-avx2 -fopenmp -DSPEC_OPENMP

Fortran benchmarks:

603.bwaves_s: -Ofast -mtune=corei7 -march=core-avx2 -DSPEC_OPENMP
-fopenmp -fno-stack-arrays

649.fotonik3d_s: -Ofast -mtune=corei7 -march=core-avx2 -DSPEC_OPENMP
-fopenmp

654.roms_s: Same as 649.fotonik3d_s

Benchmarks using both Fortran and C:

-Ofast -mtune=corei7 -march=core-avx2 -DSPEC_OPENMP -fopenmp

Benchmarks using Fortran, C, and C++:

-Ofast -mtune=corei7 -march=core-avx2 -fopenmp -DSPEC_OPENMP

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 v1.0.1 on 2021-07-10 03:11:44-0400.

Report generated on 2021-07-10 23:52:25 by CPU2017 PDF formatter v5748.