# SPEC® CPU2017 Floating Point Rate Result

Copyright 2017-2018 Standard Performance Evaluation Corporation

## Supermicro
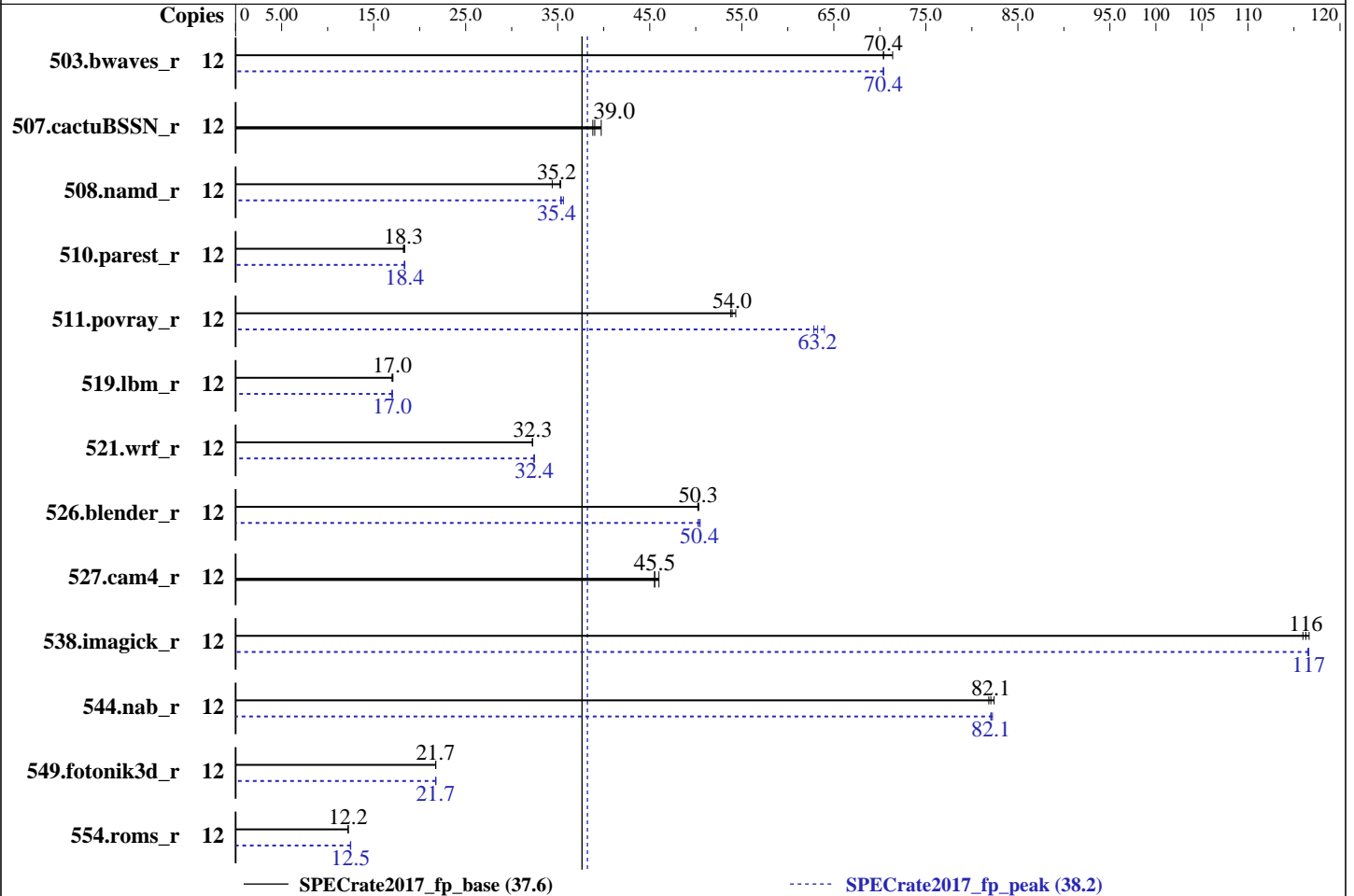
SuperWorkstation 5039C-T (X11SCA , Intel Xeon E-2136)

$SPECrate2017\_fp\_base = 37.6$

$SPECrate2017\_fp\_peak = 38.2$

**CPU2017 License:** 001176

**Test Sponsor:** Supermicro

**Tested by:** Supermicro

**Test Date:** Oct-2018

**Hardware Availability:** Jul-2018

**Software Availability:** Mar-2018

| Copies | |
|---|---|
| 503.bwaves_r | 12 |
| 507.cactuBSSN_r | 12 |
| 508.namd_r | 12 |
| 510.parest_r | 12 |
| 511.povray_r | 12 |
| 519.lbm_r | 12 |
| 521.wrf_r | 12 |
| 526.blender_r | 12 |
| 527.cam4_r | 12 |
| 538.imagick_r | 12 |
| 544.nab_r | 12 |
| 549.fotonik3d_r | 12 |
| 554.roms_r | 12 |

503.bwaves_r: 70.4 / 70.4
507.cactuBSSN_r: 39.0
508.namd_r: 35.2 / 35.4
510.parest_r: 18.3 / 18.4
511.povray_r: 54.0 / 63.2
519.lbm_r: 17.0 / 17.0
521.wrf_r: 32.3 / 32.4
526.blender_r: 50.3 / 50.4
527.cam4_r: 45.5
538.imagick_r: 116 / 117
544.nab_r: 82.1 / 82.1
549.fotonik3d_r: 21.7 / 21.7
554.roms_r: 12.2 / 12.5

—— SPECrate2017_fp_base (37.6)       ------ SPECrate2017_fp_peak (38.2)

## Hardware

CPU Name: Intel Xeon E-2136
 Max MHz.: 4500
 Nominal: 3300
Enabled: 6 cores, 1 chip, 2 threads/core
Orderable: 1 chip
Cache L1: 32 KB I + 32 KB D on chip per core
 L2: 256 KB I+D on chip per core
 L3: 12 MB I+D on chip per chip
 Other: None
Memory: 64 GB (4 x 16 GB 2Rx8 PC4-2666V-E)
Storage: 1 x 200 GB SATA III SSD
Other: None

## Software

OS: SUSE Linux Enterprise Server 12 SP3 (x86_64)
 Kernel 4.4.114-94.11-default
Compiler: C/C++: Version 18.0.2.199 of Intel C/C++
 Compiler for Linux;
 Fortran: Version 18.0.2.199 of Intel Fortran
 Compiler for Linux
Parallel: No
Firmware: Supermicro BIOS version 1.0a released Sep-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

## Supermicro

SuperWorkstation 5039C-T (X11SCA , Intel Xeon E-2136)

SPECrate2017_fp_base = 37.6

SPECrate2017_fp_peak = 38.2

**CPU2017 License:** 001176
**Test Sponsor:** Supermicro
**Tested by:** Supermicro

**Test Date:** Oct-2018
**Hardware Availability:** Jul-2018
**Software Availability:** Mar-2018

## Results Table

| Benchmark | Base | | | | | | Peak | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Copies | Seconds | Ratio | Seconds | Ratio | Seconds | Ratio | Copies | Seconds | Ratio | Seconds | Ratio | Seconds | Ratio |
| 503.bwaves_r | 12 | 1686 | 71.4 | **1709** | **70.4** | 1710 | 70.4 | 12 | **1710** | **70.4** | 1709 | 70.4 | 1710 | 70.4 |
| 507.cactuBSSN_r | 12 | 382 | 39.7 | 391 | 38.8 | **389** | **39.0** | 12 | 382 | 39.7 | 391 | 38.8 | **389** | **39.0** |
| 508.namd_r | 12 | 331 | 34.4 | 323 | 35.3 | **323** | **35.2** | 12 | **322** | **35.4** | 323 | 35.3 | 320 | 35.6 |
| 510.parest_r | 12 | 1708 | 18.4 | **1719** | **18.3** | 1720 | 18.2 | 12 | 1707 | 18.4 | **1708** | **18.4** | 1714 | 18.3 |
| 511.povray_r | 12 | 516 | 54.3 | 521 | 53.8 | **519** | **54.0** | 12 | 438 | 64.0 | **443** | **63.2** | 446 | 62.8 |
| 519.lbm_r | 12 | 740 | 17.1 | **743** | **17.0** | 743 | 17.0 | 12 | **743** | **17.0** | 742 | 17.0 | 745 | 17.0 |
| 521.wrf_r | 12 | 833 | 32.3 | 834 | 32.2 | **833** | **32.3** | 12 | **829** | **32.4** | 828 | 32.5 | 829 | 32.4 |
| 526.blender_r | 12 | **363** | **50.3** | 364 | 50.2 | 363 | 50.3 | 12 | 364 | 50.3 | **363** | **50.4** | 362 | 50.5 |
| 527.cam4_r | 12 | 461 | 45.5 | 456 | 46.0 | **461** | **45.5** | 12 | 461 | 45.5 | 456 | 46.0 | **461** | **45.5** |
| 538.imagick_r | 12 | **257** | **116** | 257 | 116 | 256 | 117 | 12 | 256 | 117 | 256 | 117 | **256** | **117** |
| 544.nab_r | 12 | 247 | 81.8 | **246** | **82.1** | 245 | 82.4 | 12 | 246 | 82.1 | 246 | 82.2 | **246** | **82.1** |
| 549.fotonik3d_r | 12 | 2151 | 21.7 | **2151** | **21.7** | 2151 | 21.7 | 12 | **2151** | **21.7** | 2151 | 21.7 | 2149 | 21.8 |
| 554.roms_r | 12 | 1559 | 12.2 | 1560 | 12.2 | **1560** | **12.2** | 12 | 1524 | 12.5 | 1528 | 12.5 | **1526** | **12.5** |
| **SPECrate2017_fp_base =** | | **37.6** | | | | | | | | | | | |
| **SPECrate2017_fp_peak =** | | **38.2** | | | | | | | | | | | |

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

## Submit Notes

```
The taskset mechanism was used to bind copies to processors. The config file option 'submit'
was used to generate taskset 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 = "/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 i7-6700K CPU + 32GB RAM
 memory using Redhat Enterprise Linux 7.5
 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

 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)
```

**(Continued on next page)**

# SPEC CPU2017 Floating Point Rate Result

Copyright 2017-2018 Standard Performance Evaluation Corporation

## Supermicro

SuperWorkstation 5039C-T (X11SCA , Intel Xeon E-2136)

SPECrate2017_fp_base =  37.6

SPECrate2017_fp_peak =  38.2

## General Notes (Continued)

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

```
Sysinfo program /home/cpu2017/bin/sysinfo
Rev: r5974 of 2018-05-19 9bcde8f2999c33d61f64985e45859ea9
running on linux-65nv Tue Oct 30 22:19:31 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) E-2136 CPU @ 3.30GHz
      1  "physical id"s (chips)
      12 "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
      siblings  : 12
      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):                12
    On-line CPU(s) list:   0-11
    Thread(s) per core:    2
    Core(s) per socket:    6
    Socket(s):             1
    NUMA node(s):          1
    Vendor ID:             GenuineIntel
    CPU family:            6
    Model:                 158
    Model name:            Intel(R) Xeon(R) E-2136 CPU @ 3.30GHz
    Stepping:              10
    CPU MHz:               4388.468
    CPU max MHz:           4500.0000
    CPU min MHz:           800.0000
    BogoMIPS:              6623.98
    Virtualization:        VT-x
    L1d cache:             32K
    L1i cache:             32K
```

**(Continued on next page)**

## Supermicro

SuperWorkstation 5039C-T (X11SCA , Intel Xeon E-2136)

SPECrate2017_fp_base =  37.6

SPECrate2017_fp_peak =  38.2

**CPU2017 License:** 001176
**Test Sponsor:** Supermicro
**Tested by:** Supermicro

**Test Date:** Oct-2018
**Hardware Availability:** Jul-2018
**Software Availability:** Mar-2018

## Platform Notes (Continued)

```
     L2 cache:             256K
     L3 cache:             12288K
     NUMA node0 CPU(s):    0-11
     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 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 ida arat epb invpcid_single pln pts
   dtherm hwp hwp_notify hwp_act_window hwp_epp intel_pt rsb_ctxsw spec_ctrl retpoline
   kaiser tpr_shadow vnmi flexpriority ept vpid fsgsbase tsc_adjust bmi1 hle avx2 smep
   bmi2 erms invpcid rtm mpx rdseed adx smap clflushopt xsaveopt xsavec xgetbv1

 /proc/cpuinfo cache data
    cache size : 12288 KB

 From numactl --hardware  WARNING: a numactl 'node' might or might not correspond to a
 physical chip.
   available: 1 nodes (0)
   node 0 cpus: 0 1 2 3 4 5 6 7 8 9 10 11
   node 0 size: 64282 MB
   node 0 free: 52882 MB
   node distances:
   node   0
     0:  10

 From /proc/meminfo
    MemTotal:       65825168 kB
    HugePages_Total:        0
    Hugepagesize:       2048 kB

 From /etc/*release* /etc/*version*
    SuSE-release:
       SUSE Linux Enterprise Server 12 (x86_64)
       VERSION = 12
       PATCHLEVEL = 3
       # 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-SP3"
       VERSION_ID="12.3"
       PRETTY_NAME="SUSE Linux Enterprise Server 12 SP3"
       ID="sles"
       ANSI_COLOR="0;32"
       CPE_NAME="cpe:/o:suse:sles:12:sp3"
```

**(Continued on next page)**

## Supermicro

SuperWorkstation 5039C-T (X11SCA , Intel Xeon E-2136)

SPECrate2017_fp_base =  37.6

SPECrate2017_fp_peak =  38.2

**CPU2017 License:** 001176
**Test Sponsor:** Supermicro
**Tested by:** Supermicro

**Test Date:** Oct-2018
**Hardware Availability:** Jul-2018
**Software Availability:** Mar-2018

## Platform Notes (Continued)

```
   uname -a:
      Linux linux-65nv 4.4.114-94.11-default #1 SMP Thu Feb 1 19:28:26 UTC 2018 (4309ff9)
      x86_64 x86_64 x86_64 GNU/Linux

   Kernel self-reported vulnerability status:

   CVE-2017-5754 (Meltdown):          Mitigation: PTI
   CVE-2017-5753 (Spectre variant 1): Mitigation: Barriers
   CVE-2017-5715 (Spectre variant 2): Mitigation: IBRS+IBPB

   run-level 3 Oct 30 14:26

   SPEC is set to: /home/cpu2017
      Filesystem      Type  Size  Used Avail Use% Mounted on
      /dev/sda3       xfs   145G   32G  113G  22% /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 American Megatrends Inc. 1.0a 09/27/2018
     Memory:
      4x Micron 18ADF2G72AZ-2G6H1R 16 GB 2 rank 2667

   (End of data from sysinfo program)
```

## Compiler Version Notes

```
==============================================================================
  CC   519.lbm_r(base) 538.imagick_r(base, peak) 544.nab_r(base, peak)
------------------------------------------------------------------------------
icc (ICC) 18.0.2 20180210
Copyright (C) 1985-2018 Intel Corporation.  All rights reserved.
------------------------------------------------------------------------------


==============================================================================
  CC   519.lbm_r(peak)
------------------------------------------------------------------------------
icc (ICC) 18.0.2 20180210
Copyright (C) 1985-2018 Intel Corporation.  All rights reserved.
------------------------------------------------------------------------------


==============================================================================
  CXXC 508.namd_r(base) 510.parest_r(base, peak)
------------------------------------------------------------------------------
icpc (ICC) 18.0.2 20180210
```

**(Continued on next page)**

## Supermicro

SuperWorkstation 5039C-T (X11SCA , Intel Xeon E-2136)

SPECrate2017_fp_base =  37.6

SPECrate2017_fp_peak =  38.2

**CPU2017 License:** 001176
**Test Sponsor:** Supermicro
**Tested by:** Supermicro

**Test Date:** Oct-2018
**Hardware Availability:** Jul-2018
**Software Availability:** Mar-2018

## Compiler Version Notes (Continued)

```
Copyright (C) 1985-2018 Intel Corporation.  All rights reserved.
------------------------------------------------------------------------


==============================================================================
CXXC 508.namd_r(peak)
------------------------------------------------------------------------
icpc (ICC) 18.0.2 20180210
Copyright (C) 1985-2018 Intel Corporation.  All rights reserved.
------------------------------------------------------------------------


==============================================================================
 CC  511.povray_r(base) 526.blender_r(base, peak)
------------------------------------------------------------------------
icpc (ICC) 18.0.2 20180210
Copyright (C) 1985-2018 Intel Corporation.  All rights reserved.
icc (ICC) 18.0.2 20180210
Copyright (C) 1985-2018 Intel Corporation.  All rights reserved.
------------------------------------------------------------------------


==============================================================================
CC   511.povray_r(peak)
------------------------------------------------------------------------
icpc (ICC) 18.0.2 20180210
Copyright (C) 1985-2018 Intel Corporation.  All rights reserved.
icc (ICC) 18.0.2 20180210
Copyright (C) 1985-2018 Intel Corporation.  All rights reserved.
------------------------------------------------------------------------


==============================================================================
 FC  507.cactuBSSN_r(base, peak)
------------------------------------------------------------------------
icpc (ICC) 18.0.2 20180210
Copyright (C) 1985-2018 Intel Corporation.  All rights reserved.
icc (ICC) 18.0.2 20180210
Copyright (C) 1985-2018 Intel Corporation.  All rights reserved.
ifort (IFORT) 18.0.2 20180210
Copyright (C) 1985-2018 Intel Corporation.  All rights reserved.
------------------------------------------------------------------------


==============================================================================
 FC  503.bwaves_r(base, peak) 549.fotonik3d_r(base, peak) 554.roms_r(base)
------------------------------------------------------------------------
ifort (IFORT) 18.0.2 20180210
Copyright (C) 1985-2018 Intel Corporation.  All rights reserved.
------------------------------------------------------------------------


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

**(Continued on next page)**

## Supermicro

SuperWorkstation 5039C-T (X11SCA , Intel Xeon E-2136)

SPECrate2017_fp_base =  37.6

SPECrate2017_fp_peak =  38.2

**CPU2017 License:** 001176

**Test Sponsor:** Supermicro

**Tested by:** Supermicro

**Test Date:** Oct-2018

**Hardware Availability:** Jul-2018

**Software Availability:** Mar-2018

## Compiler Version Notes (Continued)

```
FC   554.roms_r(peak)
-------------------------------------------------------------------------
ifort (IFORT) 18.0.2 20180210
Copyright (C) 1985-2018 Intel Corporation.  All rights reserved.
-------------------------------------------------------------------------


==========================================================================
 CC  521.wrf_r(base) 527.cam4_r(base)
-------------------------------------------------------------------------
ifort (IFORT) 18.0.2 20180210
Copyright (C) 1985-2018 Intel Corporation.  All rights reserved.
icc (ICC) 18.0.2 20180210
Copyright (C) 1985-2018 Intel Corporation.  All rights reserved.
-------------------------------------------------------------------------


==========================================================================
CC   521.wrf_r(peak) 527.cam4_r(peak)
-------------------------------------------------------------------------
ifort (IFORT) 18.0.2 20180210
Copyright (C) 1985-2018 Intel Corporation.  All rights reserved.
icc (ICC) 18.0.2 20180210
Copyright (C) 1985-2018 Intel Corporation.  All rights reserved.
-------------------------------------------------------------------------
```

## Base Compiler Invocation

C benchmarks:
`icc -m64 -std=c11`

C++ benchmarks:
`icpc -m64`

Fortran benchmarks:
`ifort -m64`

Benchmarks using both Fortran and C:
`ifort -m64 icc -m64 -std=c11`

Benchmarks using both C and C++:
`icpc -m64 icc -m64 -std=c11`

Benchmarks using Fortran, C, and C++:
`icpc -m64 icc -m64 -std=c11 ifort -m64`

# SPEC CPU2017 Floating Point Rate Result

Copyright 2017-2018 Standard Performance Evaluation Corporation

## Supermicro

SuperWorkstation 5039C-T (X11SCA , Intel Xeon E-2136)

SPECrate2017_fp_base =   37.6

SPECrate2017_fp_peak =   38.2

**CPU2017 License:** 001176
**Test Sponsor:**     Supermicro
**Tested by:**        Supermicro

**Test Date:**             Oct-2018
**Hardware Availability:** Jul-2018
**Software Availability:** Mar-2018

# 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 -auto -nostandard-realloc-lhs`

Benchmarks using both Fortran and C:
`-xCORE-AVX2 -ipo -O3 -no-prec-div -qopt-prefetch -ffinite-math-only`
`-qopt-mem-layout-trans=3 -auto -nostandard-realloc-lhs`

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 -auto -nostandard-realloc-lhs`

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

# SPEC CPU2017 Floating Point Rate Result

Copyright 2017-2018 Standard Performance Evaluation Corporation

## Supermicro

SuperWorkstation 5039C-T (X11SCA , Intel Xeon E-2136)

SPECrate2017_fp_base =   37.6

SPECrate2017_fp_peak =   38.2

**CPU2017 License:** 001176

**Test Sponsor:** Supermicro

**Tested by:** Supermicro

**Test Date:** Oct-2018

**Hardware Availability:** Jul-2018

**Software Availability:** Mar-2018

# Peak Compiler Invocation

C benchmarks:
```
icc -m64 -std=c11
```

C++ benchmarks:
```
icpc -m64
```

Fortran benchmarks:
```
ifort -m64
```

Benchmarks using both Fortran and C:
```
ifort -m64 icc -m64 -std=c11
```

Benchmarks using both C and C++:
```
icpc -m64 icc -m64 -std=c11
```

Benchmarks using Fortran, C, and C++:
```
icpc -m64 icc -m64 -std=c11 ifort -m64
```

# 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 538.imagick_r`

C++ benchmarks:

508.namd_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`

(Continued on next page)

# SPEC CPU2017 Floating Point Rate Result

Copyright 2017-2018 Standard Performance Evaluation Corporation

## Supermicro

SuperWorkstation 5039C-T (X11SCA , Intel Xeon E-2136)

SPECrate2017_fp_base =  37.6

SPECrate2017_fp_peak =  38.2

**CPU2017 License:** 001176

**Test Sponsor:**   Supermicro

**Tested by:**    Supermicro

**Test Date:**      Oct-2018

**Hardware Availability:** Jul-2018

**Software Availability:**  Mar-2018

# Peak Optimization Flags (Continued)

510.parest_r: `-xCORE-AVX2 -ipo -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 -auto -nostandard-realloc-lhs`

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 -auto -nostandard-realloc-lhs`

Benchmarks using both Fortran and C:

521.wrf_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 -auto -nostandard-realloc-lhs`

527.cam4_r: `basepeak = yes`

Benchmarks using both C and C++:

511.povray_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`

526.blender_r: `-xCORE-AVX2 -ipo -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`

The flags files that were used to format this result can be browsed at
  http://www.spec.org/cpu2017/flags/Intel-ic18.0-official-linux64.2017-12-21.html
  http://www.spec.org/cpu2017/flags/Supermicro-Platform-Settings-V1.2-SKL-revD.html

You can also download the XML flags sources by saving the following links:
  http://www.spec.org/cpu2017/flags/Intel-ic18.0-official-linux64.2017-12-21.xml
  http://www.spec.org/cpu2017/flags/Supermicro-Platform-Settings-V1.2-SKL-revD.xml

# SPEC CPU2017 Floating Point Rate Result

## Supermicro

SuperWorkstation 5039C-T (X11SCA , Intel Xeon E-2136)

**SPECrate2017_fp_base =** 37.6

**SPECrate2017_fp_peak =** 38.2

| | | | |
|---|---|---|---|
| **CPU2017 License:** 001176 | | **Test Date:** | Oct-2018 |
| **Test Sponsor:** | Supermicro | **Hardware Availability:** | Jul-2018 |
| **Tested by:** | Supermicro | **Software Availability:** | Mar-2018 |

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

Tested with SPEC CPU2017 v1.0.5 on 2018-10-30 10:19:30-0400.
Report generated on 2018-11-27 13:35:26 by CPU2017 PDF formatter v6067.
Originally published on 2018-11-27.