ASUSTeK Computer Inc.
ASUS RS300-E11(P12R-M) Server System (3.70 GHz, Intel Xeon E-2374G)

| SPECspeed®2017_fp_base = 36.2 |
| SPECspeed®2017_fp_peak = 36.8 |

CPU2017 License: 9016  Test Date: Jan-2022
Test Sponsor: ASUSTeK Computer Inc.  Hardware Availability: Oct-2021
Tested by: ASUSTeK Computer Inc.  Software Availability: Sep-2021

### Software
- **OS:** Red Hat Enterprise Linux release 8.4 (Ootpa) 4.18.0-305.19.1.el8_4.x86_64
- **Compiler:** C/C++: Version 2021.1 of Intel oneAPI DPC++/C++ Compiler Build 20201113 for Linux;
  Fortran: Version 2021.1 of Intel Fortran Compiler Classic Build 20201112 for Linux;
  C/C++: Version 2021.1 of Intel C/C++ Compiler Classic Build 20201112 for Linux
- **Parallel:** Yes
- **Firmware:** Version 0401 released Oct-2021
- **File System:** xfs
- **System State:** Run level 3 (multi-user)
- **Base Pointers:** 64-bit
- **Peak Pointers:** 64-bit
- **Other:** jemalloc memory allocator V5.0.1
- **Power Management:** BIOS and OS set to prefer performance at the cost of additional power usage.

### Hardware
- **CPU Name:** Intel Xeon E-2374G
- **Max MHz:** 5000
- **Nominal:** 3700
- **Enabled:** 4 cores, 1 chip, 2 threads/core
- **Orderable:** 1 chip
- **Cache L1:** 32 KB I + 48 KB D on chip per core
- **L2:** 512 KB I+D on chip per core
- **L3:** 8 MB I+D on chip per chip
- **Other:** None
- **Memory:** 64 GB (2 x 32 GB 2Rx8 PC4-3200AA-E)
- **Storage:** 1 x 960 GB SATA SSD
- **Other:** None

### Benchmark Results

<table>
<thead>
<tr>
<th>Benchmark</th>
<th>Threads</th>
<th>SPECspeed®2017_fp_base</th>
<th>SPECspeed®2017_fp_peak</th>
</tr>
</thead>
<tbody>
<tr>
<td>603.bwaves_s</td>
<td>4</td>
<td>59.2</td>
<td>36.8</td>
</tr>
<tr>
<td>607.cactuBSSN_s</td>
<td>4</td>
<td>20.4</td>
<td>40.7</td>
</tr>
<tr>
<td>619.lbm_s</td>
<td>4</td>
<td>24.1</td>
<td>38.5</td>
</tr>
<tr>
<td>621.wrf_s</td>
<td>4</td>
<td>33.4</td>
<td>55.3</td>
</tr>
<tr>
<td>627.cam4_s</td>
<td>4</td>
<td>22.1</td>
<td>60.8</td>
</tr>
<tr>
<td>628.pop2_s</td>
<td>4</td>
<td>55.3</td>
<td></td>
</tr>
<tr>
<td>638.imagick_s</td>
<td>4</td>
<td>22.1</td>
<td></td>
</tr>
<tr>
<td>644.nab_s</td>
<td>8</td>
<td>20.6</td>
<td></td>
</tr>
<tr>
<td>649.fotonik3d_s</td>
<td>4</td>
<td>33.4</td>
<td></td>
</tr>
<tr>
<td>654.roms_s</td>
<td>4</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

- **Threads:**
- **5.00**
- **10.0**
- **15.0**
- **20.0**
- **25.0**
- **30.0**
- **35.0**
- **40.0**
- **45.0**
- **50.0**
- **55.0**
- **60.0**
- **65.0**
- **70.0**
- **75.0**
- **80.0**
- **85.0**
- **90.0**
- **95.0**
- **100.0**
- **105.0**
ASUSTeK Computer Inc.  
ASUS RS300-E11(P12R-M) Server System  
(3.70 GHz, Intel Xeon E-2374G)  

CPU2017 License: 9016  
Test Sponsor: ASUSTeK Computer Inc.  
Tested by: ASUSTeK Computer Inc.  

Results Table

<table>
<thead>
<tr>
<th>Benchmark</th>
<th>Threads</th>
<th>Base</th>
<th>Seconds</th>
<th>Ratio</th>
<th>Seconds</th>
<th>Ratio</th>
<th>Peak</th>
<th>Seconds</th>
<th>Ratio</th>
<th>Seconds</th>
<th>Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>603.bwaves_s</td>
<td>4</td>
<td>575</td>
<td>103</td>
<td></td>
<td>575</td>
<td>103</td>
<td>4</td>
<td>575</td>
<td>103</td>
<td>575</td>
<td>103</td>
</tr>
<tr>
<td>607.cactuBSSN_s</td>
<td>4</td>
<td>284</td>
<td>58.7</td>
<td></td>
<td>282</td>
<td>59.2</td>
<td>4</td>
<td>284</td>
<td>58.7</td>
<td>280</td>
<td>59.5</td>
</tr>
<tr>
<td>619.ibm_s</td>
<td>4</td>
<td>256</td>
<td>20.4</td>
<td></td>
<td>257</td>
<td>20.4</td>
<td>4</td>
<td>256</td>
<td>20.4</td>
<td>257</td>
<td>20.4</td>
</tr>
<tr>
<td>621.wrf_s</td>
<td>4</td>
<td>325</td>
<td>40.7</td>
<td></td>
<td>326</td>
<td>40.6</td>
<td>4</td>
<td>307</td>
<td>43.1</td>
<td>305</td>
<td>43.4</td>
</tr>
<tr>
<td>627.cam4_s</td>
<td>4</td>
<td>370</td>
<td>24.0</td>
<td></td>
<td>368</td>
<td>24.1</td>
<td>4</td>
<td>370</td>
<td>24.0</td>
<td>368</td>
<td>24.1</td>
</tr>
<tr>
<td>628.pop2_s</td>
<td>4</td>
<td>310</td>
<td>38.3</td>
<td></td>
<td>308</td>
<td>38.5</td>
<td>4</td>
<td>310</td>
<td>38.3</td>
<td>308</td>
<td>38.5</td>
</tr>
<tr>
<td>638.imagick_s</td>
<td>4</td>
<td>434</td>
<td>33.3</td>
<td></td>
<td>432</td>
<td>33.4</td>
<td>4</td>
<td>434</td>
<td>33.3</td>
<td>432</td>
<td>33.4</td>
</tr>
<tr>
<td>644.nab_s</td>
<td>4</td>
<td>321</td>
<td>54.4</td>
<td></td>
<td>316</td>
<td>55.3</td>
<td>8</td>
<td>287</td>
<td>60.8</td>
<td>288</td>
<td>60.6</td>
</tr>
<tr>
<td>649.fotonik3d_s</td>
<td>4</td>
<td>413</td>
<td>22.1</td>
<td></td>
<td>413</td>
<td>22.1</td>
<td>4</td>
<td>413</td>
<td>22.1</td>
<td>413</td>
<td>22.1</td>
</tr>
<tr>
<td>654.roms_s</td>
<td>4</td>
<td>768</td>
<td>20.5</td>
<td></td>
<td>765</td>
<td>20.6</td>
<td>4</td>
<td>768</td>
<td>20.5</td>
<td>765</td>
<td>20.6</td>
</tr>
</tbody>
</table>

SPECspeed®2017_fp_base = 36.2  
SPECspeed®2017_fp_peak = 36.8  

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

Operating System Notes

Stack size set to unlimited using "ulimit -s unlimited"  
OS set to performance mode via cpupower frequency-set -g performance

Environment Variables Notes

Environment variables set by runcpu before the start of the run:  
KMP_AFFINITY = "granularity=fine,compact,1,0"  
LD_LIBRARY_PATH = "/home/cpu118/lib/intel64:/home/cpu118/je5.0.1-64"  
MALLOC_CONF = "retain:true"  
OMP_STACKSIZE = "192M"

General Notes

Binaries compiled on a system with 1x Intel Core i9-7980XE CPU + 64GB RAM  
memory using Redhat Enterprise Linux 8.0  
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

NA: 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.  

(Continued on next page)
**SPEC CPU®2017 Floating Point Speed Result**

**ASUSTeK Computer Inc.**

ASUS RS300-E11(P12R-M) Server System
(3.70 GHz, Intel Xeon E-2374G)

<table>
<thead>
<tr>
<th>SPECspeed®2017_fp_base</th>
<th>SPECspeed®2017_fp_peak</th>
</tr>
</thead>
<tbody>
<tr>
<td>36.2</td>
<td>36.8</td>
</tr>
</tbody>
</table>

CPU2017 License: 9016
Test Sponsor: ASUSTeK Computer Inc.
Test Date: Jan-2022
Hardware Availability: Oct-2021
Tested by: ASUSTeK Computer Inc.
Software Availability: Sep-2021

**General Notes (Continued)**

jemalloc, a general purpose malloc implementation
built with the RedHat Enterprise 7.5, and the system compiler gcc 4.8.5

**Platform Notes**

BIOS Configuration:
VT-d = Disabled
AES = Disabled
Intel Speed Shift Technology = Native Mode
Engine Boost = Level3(Max)

Sysinfo program /home/cpu118/bin/sysinfo
Rev: r6622 of 2021-04-07 982a61ec0915b55891ef0e16a16e36d64d
running on localhost.localdomain Sat Jan 8 01:05:40 2022

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-2374G CPU @ 3.70GHz
  1 "physical id"s (chips)
  8 "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 : 4
  siblings : 8
physical 0: cores 0 1 2 3

From lscpu from util-linux 2.32.1:
Architecture: x86_64
CPU op-mode(s): 32-bit, 64-bit
Byte Order: Little Endian
CPU(s): 8
On-line CPU(s) list: 0-7
Thread(s) per core: 2
Core(s) per socket: 4
Socket(s): 1
NUMA node(s): 1
Vendor ID: GenuineIntel
BIOS Vendor ID: Intel(R) Corporation
CPU family: 6
Model: 167
Model name: Intel(R) Xeon(R) E-2374G CPU @ 3.70GHz
BIOS Model name: Intel(R) Xeon(R) E-2374G CPU @ 3.70GHz

(Continued on next page)
ASUSTeK Computer Inc.
ASUS RS300-E11(P12R-M) Server System
(3.70 GHz, Intel Xeon E-2374G)

SPECspeed®2017_fp_base = 36.2
SPECspeed®2017_fp_peak = 36.8

CPU2017 License: 9016
Test Sponsor: ASUSTeK Computer Inc.
Tested by: ASUSTeK Computer Inc.

Platform Notes (Continued)

Stepping: 1
CPU MHz: 3072.377
CPU max MHz: 5000.0000
CPU min MHz: 800.0000
BogoMIPS: 7392.00
Virtualization: VT-x
L1d cache: 48K
L1i cache: 32K
L2 cache: 512K
L3 cache: 8192K
NUMA node0 CPU(s): 0-7
Flags: fpu vme de pse tsc msr pae mce 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 cpuid aperfmperf tsc_known_freq pni pclmulqdq dtes64 monitor ds_cpl vmx smx est tm2 ssse3 sdbg fma cx16 xtpr pdcm pcid sse4_1_1 sse4_2 x2apic movbe popcnt tsc_deadline_timer xsave avx f16c rdrand lahf_lm abm 3dnowprefetch cpuid_fault ebpxpcid_single ssbd ibrs ibpb stibp ibrs_enhanced tpr_shadow vnmi flexpriority ept vpid ept_ad fsgsbase tsc_adjust bmi1 avx2 smep bmi2 erms invpcid mxs avx512f avx512dq rdseed adx smap avx512ifma clflushopt intel_pt xsaveopt xsavec xsavec xgetbv1 xsavec xsaveopt xsavec xsaveopt xsaveopt xsaveopt xsaveopt xsaveopt

From /proc/cpuinfo cache data
  cache size : 8192 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
  node 0 size: 64199 MB
  node 0 free: 62094 MB
  node distances:
    node 0
      0: 10

From /proc/meminfo
  MemTotal: 65740204 kB
  HugePages_Total: 0
  Hugepagesize: 2048 kB

/sbin/tuned-adm active
  Current active profile: throughput-performance

/sys/devices/system/cpu/cpu*/cpufreq/scaling_governor has performance

(Continued on next page)
ASUSTeK Computer Inc.  
ASUS RS300-E11(P12R-M) Server System  
(3.70 GHz, Intel Xeon E-2374G)

SPECspeed®2017_fp_base = 36.2
SPECspeed®2017_fp_peak = 36.8

CPU2017 License: 9016  
Test Sponsor: ASUSTeK Computer Inc.  
Test Date: Jan-2022  
Hardware Availability: Oct-2021  
Tested by: ASUSTeK Computer Inc.  
Software Availability: Sep-2021

Platform Notes (Continued)

From /etc/*release* /etc/*version*
  os-release:
    NAME="Red Hat Enterprise Linux"
    VERSION="8.4 (Ootpa)"
    ID="rhel"
    ID_LIKE="fedora"
    VERSION_ID="8.4"
    PLATFORM_ID="platform:el8"
    PRETTY_NAME="Red Hat Enterprise Linux 8.4 (Ootpa)"
    ANSI_COLOR="0;31"
  redhat-release: Red Hat Enterprise Linux release 8.4 (Ootpa)
  system-release: Red Hat Enterprise Linux release 8.4 (Ootpa)
  system-release-cpe: cpe:/o:redhat:enterprise_linux:8.4:ga

uname -a:
  Linux localhost.localdomain 4.18.0-305.19.1.el8_4.x86_64 #1 SMP Tue Sep 7 07:07:31 EDT 2021 x86_64 x86_64 x86_64 GNU/Linux

Kernel self-reported vulnerability status:

CVE-2018-12207 (iTLB Multihit): Not affected  
CVE-2018-3620 (L1 Terminal Fault): Not affected  
Microarchitectural Data Sampling: Not affected  
CVE-2017-5754 (Meltdown): Not affected  
CVE-2018-3639 (Speculative Store Bypass): Mitigation: Speculative Store Bypass disabled via prctl and seccomp
CVE-2017-5753 (Spectre variant 1): Mitigation: usercopy/swaps barriers and __user pointer sanitization
CVE-2017-5715 (Spectre variant 2): Mitigation: Enhanced IBRS, IBPB: conditional, RSB filling
CVE-2020-0543 (Special Register Buffer Data Sampling): Not affected  
CVE-2019-11135 (TSX Asynchronous Abort): Not affected

run-level 3 Jan 7 04:34

SPEC is set to: /home/cpu118  
Filesystem Type Size Used Avail Use% Mounted on
/dev/mapper/rhel-home xfs 807G 11G 797G 2% /home

From /sys/devices/virtual/dmi/id
  Product Family: Server

Additional information from dmidecode 3.2 follows. WARNING: Use caution when you interpret this section. The 'dmidecode' program reads system data which is "intended to

(Continued on next page)
Platform Notes (Continued)

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.

Memory:
2x Apacer Technology D33.27306S.003 32 GB 2 rank 3200

BIOS:
BIOS Vendor: American Megatrends Inc.
BIOS Version: 0401
BIOS Date: 10/26/2021
BIOS Revision: 4.1

(End of data from sysinfo program)

Compiler Version Notes

------------------------------------------------------------------------------------------------------------------------
| C     | 619.lbm_s(base, peak) 638.imagick_s(base, peak) 644.nab_s(base) |
------------------------------------------------------------------------------------------------------------------------
| Intel(R) C Intel(R) 64 Compiler Classic for applications running on Intel(R) 64, Version 2021.1 Build 20201112_000000 |
| Copyright (C) 1985-2020 Intel Corporation. All rights reserved. |
------------------------------------------------------------------------------------------------------------------------

------------------------------------------------------------------------------------------------------------------------
| C     | 644.nab_s(peak) |
------------------------------------------------------------------------------------------------------------------------
| Intel(R) oneAPI DPC++/C++ Compiler for applications running on Intel(R) 64, Version 2021.1 Build 20201113 |
| Copyright (C) 1985-2020 Intel Corporation. All rights reserved. |
------------------------------------------------------------------------------------------------------------------------

------------------------------------------------------------------------------------------------------------------------
| C     | 619.lbm_s(base, peak) 638.imagick_s(base, peak) 644.nab_s(base) |
------------------------------------------------------------------------------------------------------------------------
| Intel(R) C Intel(R) 64 Compiler Classic for applications running on Intel(R) 64, Version 2021.1 Build 20201112_000000 |
| Copyright (C) 1985-2020 Intel Corporation. All rights reserved. |
------------------------------------------------------------------------------------------------------------------------

------------------------------------------------------------------------------------------------------------------------
| C     | 644.nab_s(peak) |
------------------------------------------------------------------------------------------------------------------------
| Intel(R) oneAPI DPC++/C++ Compiler for applications running on Intel(R) 64, Version 2021.1 Build 20201113 |
------------------------------------------------------------------------------------------------------------------------
(Continued on next page)
ASUSTeK Computer Inc.
ASUS RS300-E11(P12R-M) Server System
(3.70 GHz, Intel Xeon E-2374G)

SPECspeed®2017_fp_base = 36.2
SPECspeed®2017_fp_peak = 36.8

Compiler Version Notes (Continued)

Copyright (C) 1985-2020 Intel Corporation. All rights reserved.

==============================================================================
C++, C, Fortran | 607.cactuBSSN_s(base, peak)
Copyright (C) 1985-2020 Intel Corporation. All rights reserved.
Intel(R) C++ Intel(R) 64 Compiler Classic for applications running on
Intel(R) 64, Version 2021.1 Build 20201112_000000
Copyright (C) 1985-2020 Intel Corporation. All rights reserved.
Intel(R) C Intel(R) 64 Compiler Classic for applications running on Intel(R)
64, Version 2021.1 Build 20201112_000000
Copyright (C) 1985-2020 Intel Corporation. All rights reserved.
Intel(R) Fortran Intel(R) 64 Compiler Classic for applications running on
Intel(R) 64, Version 2021.1 Build 20201112_000000
Copyright (C) 1985-2020 Intel Corporation. All rights reserved.

==============================================================================
Fortran | 603.bwaves_s(base, peak) 649.fotonik3d_s(base, peak)
654.roms_s(base, peak)
Copyright (C) 1985-2020 Intel Corporation. All rights reserved.
Intel(R) Fortran Intel(R) 64 Compiler Classic for applications running on
Intel(R) 64, Version 2021.1 Build 20201112_000000
Copyright (C) 1985-2020 Intel Corporation. All rights reserved.

==============================================================================
Fortran, C | 621.wrf_s(base, peak) 627.cam4_s(base, peak)
628.pop2_s(base, peak)
Copyright (C) 1985-2020 Intel Corporation. All rights reserved.
Intel(R) Fortran Intel(R) 64 Compiler Classic for applications running on
Intel(R) 64, Version 2021.1 Build 20201112_000000
Copyright (C) 1985-2020 Intel Corporation. All rights reserved.

Base Compiler Invocation

C benchmarks:
icc

Fortran benchmarks:
ifort

(Continued on next page)
ASUSTeK Computer Inc.
ASUS RS300-E11(P12R-M) Server System
(3.70 GHz, Intel Xeon E-2374G)

spec

SPECspeed®2017_fp_base = 36.2  
SPECspeed®2017_fp_peak = 36.8

CPU2017 License: 9016  
Test Sponsor: ASUSTeK Computer Inc.  
Test Date: Jan-2022  
Tested by: ASUSTeK Computer Inc.  
Hardware Availability: Oct-2021  
Software Availability: Sep-2021

Base Compiler Invocation (Continued)

Benchmarks using both Fortran and C:
ifort icc

Benchmarks using Fortran, C, and C++:
icpc icc ifort

Base Portability Flags

603.bwaves_s: -DSPEC_LP64
607.cactuBSSN_s: -DSPEC_LP64
619.llvm_s: -DSPEC_LP64
621.wrf_s: -DSPEC_LP64 -DSPEC_CASE_FLAG -convert big_endian
627.cam4_s: -DSPEC_LP64 -DSPEC_CASE_FLAG
628.pop2_s: -DSPEC_LP64 -DSPEC_CASE_FLAG -convert big_endian
-assume byterecl
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:
-m64 -std=c11 -xCORE-AVX2 -ipo -O3 -no-prec-div -qopt-prefetch
-ffinite-math-only -qopt-mem-layout-trans=4 -gopenmp -DSPEC_OPENMP
-mbranches-within-32B-boundaries

Fortran benchmarks:
-m64 -Wl,-z,muldefs -DSPEC_OPENMP -xCORE-AVX2 -ipo -O3 -no-prec-div
-qopt-prefetch -ffinite-math-only -qopt-mem-layout-trans=4 -gopenmp
-nostandard-realloc-lhs -mbranches-within-32B-boundaries
-L/usr/local/jemalloc64-5.0.1/lib -ljemalloc

Benchmarks using both Fortran and C:
-m64 -std=c11 -Wl,-z,muldefs -xCORE-AVX2 -ipo -O3 -no-prec-div
-qopt-prefetch -ffinite-math-only -qopt-mem-layout-trans=4 -gopenmp
-DSPEC_OPENMP -mbranches-within-32B-boundaries -nostandard-realloc-lhs
-L/usr/local/jemalloc64-5.0.1/lib -ljemalloc

Benchmarks using Fortran, C, and C++:
-m64 -std=c11 -Wl,-z,muldefs -xCORE-AVX2 -ipo -O3 -no-prec-div
-qopt-prefetch -ffinite-math-only -qopt-mem-layout-trans=4 -gopenmp

(Continued on next page)
ASUSTeK Computer Inc.
ASUS RS300-E11(P12R-M) Server System
(3.70 GHz, Intel Xeon E-2374G)

SPECspeed®2017_fp_base = 36.2
SPECspeed®2017_fp_peak = 36.8

Base Optimization Flags (Continued)

Benchmarks using Fortran, C, and C++ (continued):
-DSPEC_OPENMP -mbranches-within-32B-boundaries -nostandard-realloc-lhs
-L/usr/local/jemalloc64-5.0.1/lib -ljemalloc

Peak Compiler Invocation

C benchmarks (except as noted below):
   icc
   644.nab_s: icx

Fortran benchmarks:
   ifort

Benchmarks using both Fortran and C:
   ifort icc

Benchmarks using Fortran, C, and C++:
   icpc icc ifort

Peak Portability Flags

Same as Base Portability Flags

Peak Optimization Flags

C benchmarks:
   619.lbm_s: basepeak = yes
   638.imagick_s: basepeak = yes

644.nab_s: -m64 -Wl,-z,muldefs -xCORE-AVX2 -Ofast -ffast-math
-flto -mfpmath-sse -funroll-loops -fiopenmp
-DSPEC_OPENMP -qopt-mem-layout-trans=4
-ffast-math -fiopenmp
-mbranches-within-32B-boundaries
-L/usr/local/jemalloc64-5.0.1/lib -ljemalloc

(Continued on next page)
ASUSTeK Computer Inc.

ASUS RS300-E11(P12R-M) Server System
(3.70 GHz, Intel Xeon E-2374G)

SPECspeed®2017_fp_base = 36.2
SPECspeed®2017_fp_peak = 36.8

CPU2017 License: 9016
Test Sponsor: ASUSTeK Computer Inc.
Test Date: Jan-2022
Tested by: ASUSTeK Computer Inc.
Hardware Availability: Oct-2021
Software Availability: Sep-2021

Peak Optimization Flags (Continued)

Fortran benchmarks:

603.bwaves_s: -m64 -Wl,-z,muldefs -prof-gen(pass 1) -prof-use(pass 2)
-DSPEC_SUPPRESS_OPENMP -DSPEC_OPENMP -ipo -xCORE-AVX2
-03 -no-prec-div -qopt-prefetch -ffinite-math-only
-qopt-mem-layout-trans=4 -gopenmp -nostandard-realloc-lhs
-mbranches-within-32B-boundaries
-L/usr/local/jemalloc64-5.0.1/lib -ljemalloc

649.fotonik3d_s: Same as 603.bwaves_s

654.roms_s: basepeak = yes

Benchmarks using both Fortran and C:

621.wrf_s: -m64 -std=c11 -Wl,-z,muldefs -prof-gen(pass 1)
-prof-use(pass 2) -ipo -xCORE-AVX2 -03 -no-prec-div
-qopt-prefetch -ffinite-math-only -qopt-mem-layout-trans=4
-DSPEC_SUPPRESS_OPENMP -gopenmp -DSPEC_OPENMP
-mbranches-within-32B-boundaries -nostandard-realloc-lhs
-L/usr/local/jemalloc64-5.0.1/lib -ljemalloc

627.cam4_s: basepeak = yes

628.pop2_s: basepeak = yes

Benchmarks using Fortran, C, and C++:

607.cactuBSSN_s: basepeak = yes

The flags files that were used to format this result can be browsed at
http://www.spec.org/cpu2017/flags/ASUSTekPlatform-Settings-p12-V1.2.html

You can also download the XML flags sources by saving the following links:
http://www.spec.org/cpu2017/flags/ASUSTekPlatform-Settings-p12-V1.2.xml
http://www.spec.org/cpu2017/flags/Intel-ic2021-official-linux64_revA.xml

SPEC CPU and SPECspeed are registered trademarks 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 CPU®2017 v1.1.8 on 2022-01-08 01:05:39-0500.
Originally published on 2022-02-02.