SPEC® CPU2017 Floating Point Speed Result

ASUSTeK Computer Inc.

ASUS RS720Q-E9(Z11PH-D12) Server System
(2.60 GHz, Intel Xeon Gold 6126)

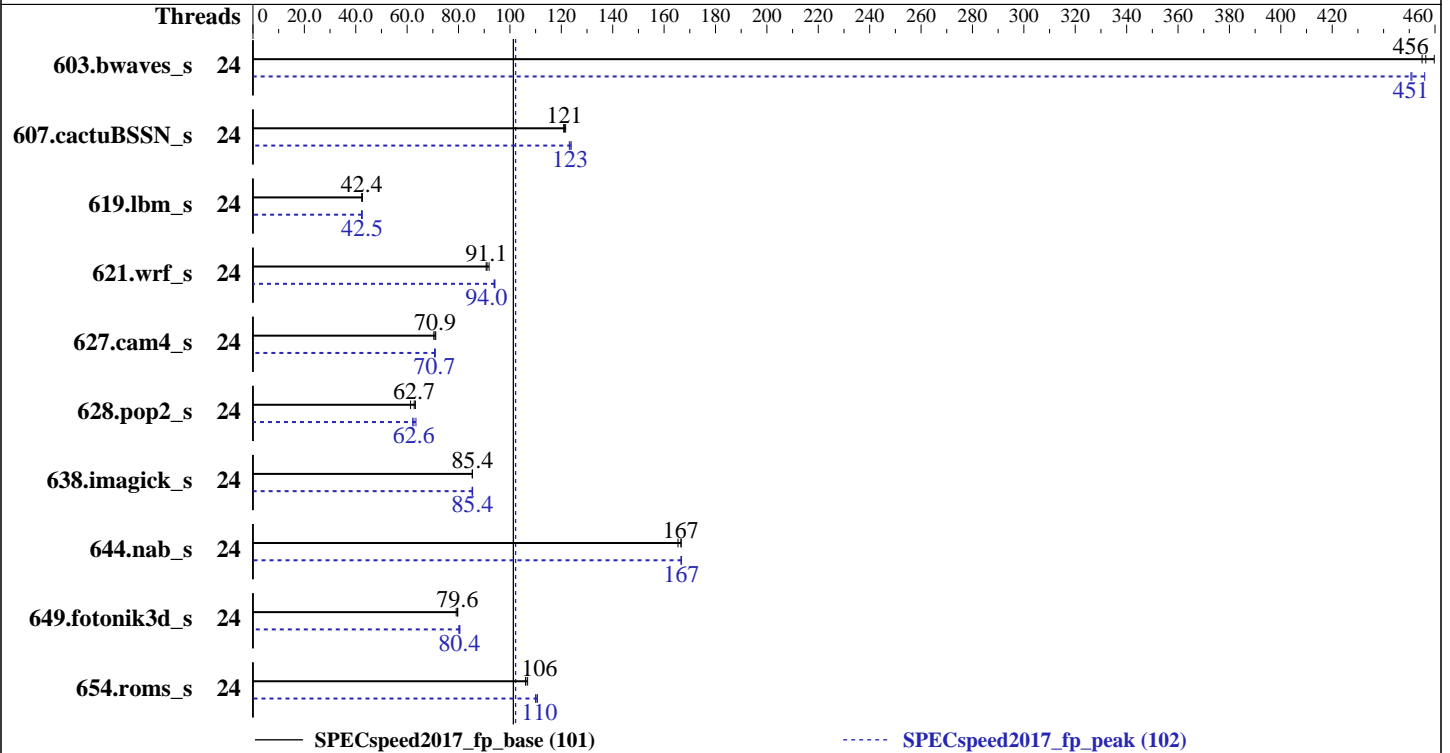$SPECspeed2017\_fp\_base = 101$

$SPECspeed2017\_fp\_peak = 102$

CPU2017 License: 9016	**Test Date:** Jul-2018
Test Sponsor: ASUSTeK Computer Inc.	**Hardware Availability:** Mar-2018
Tested by: ASUSTeK Computer Inc.	**Software Availability:** Mar-2018

Threads

Scale: 0 20.0 40.0 60.0 80.0 100 120 140 160 180 200 220 240 260 280 300 320 340 360 380 400 420 460

- **603.bwaves_s** 24 — 456 / 451
- **607.cactuBSSN_s** 24 — 121 / 123
- **619.lbm_s** 24 — 42.4 / 42.5
- **621.wrf_s** 24 — 91.1 / 94.0
- **627.cam4_s** 24 — 70.9 / 70.7
- **628.pop2_s** 24 — 62.7 / 62.6
- **638.imagick_s** 24 — 85.4 / 85.4
- **644.nab_s** 24 — 167 / 167
- **649.fotonik3d_s** 24 — 79.6 / 80.4
- **654.roms_s** 24 — 106 / 110

—— **SPECspeed2017_fp_base (101)**   ----- **SPECspeed2017_fp_peak (102)**

Hardware

CPU Name: Intel Xeon Gold 6126
 Max MHz.:   3700
 Nominal: 2600
Enabled: 24 cores, 2 chips
Orderable: 1, 2 chip(s)
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: 384 GB (12 x 32 GB 2Rx4 PC4-2666V-R)
Storage: 1 x 240 GB SATA SSD
Other: None

Software

OS: SUSE Linux Enterprise Server 12 (x86_64) SP3
    Kernel 4.4.120-94.17-default
Compiler: C/C++: Version 18.0.3.222 of Intel C/C++
    Compiler for Linux;
    Fortran: Version 18.0.3.222 of Intel Fortran
    Compiler for Linux
Parallel: Yes
Firmware: Version 0905 released Mar-2018
File System: btrfs
System State: Run level 3 (multi-user)
Base Pointers: 64-bit
Peak Pointers: 64-bit
Other: None

SPEC CPU2017 Floating Point Speed Result
Copyright 2017-2019 Standard Performance Evaluation Corporation

ASUSTeK Computer Inc.

ASUS RS720Q-E9(Z11PH-D12) Server System
(2.60 GHz, Intel Xeon Gold 6126)

SPECspeed2017_fp_base = 101

SPECspeed2017_fp_peak = 102

CPU2017 License: 9016	**Test Date:** Jul-2018
Test Sponsor: ASUSTeK Computer Inc.	**Hardware Availability:** Mar-2018
Tested by: ASUSTeK Computer Inc.	**Software Availability:** Mar-2018

Results Table

Benchmark	Base						Peak					
	Threads	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Threads	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio
603.bwaves_s	24	**129**	**456**	128	460	130	455	24	**131**	**451**	129	456	131	451
607.cactuBSSN_s	24	137	122	138	121	**138**	**121**	24	135	123	**135**	**123**	135	124
619.lbm_s	24	124	42.4	123	42.6	**124**	**42.4**	24	123	42.5	**123**	**42.5**	124	42.2
621.wrf_s	24	146	90.8	144	91.9	**145**	**91.1**	24	140	94.2	141	93.9	**141**	**94.0**
627.cam4_s	24	126	70.4	125	71.1	**125**	**70.9**	24	125	70.7	**125**	**70.7**	125	71.0
628.pop2_s	24	**189**	**62.7**	188	63.2	194	61.3	24	187	63.4	191	62.2	**190**	**62.6**
638.imagick_s	24	169	85.4	169	85.4	**169**	**85.4**	24	169	85.3	**169**	**85.4**	169	85.5
644.nab_s	24	106	165	105	167	**105**	**167**	24	105	167	105	167	**105**	**167**
649.fotonik3d_s	24	115	79.1	**114**	**79.6**	114	79.7	24	**113**	**80.4**	114	80.1	113	80.5
654.roms_s	24	147	107	148	106	**148**	**106**	24	142	111	143	110	**143**	**110**

SPECspeed2017_fp_base =	**101**
SPECspeed2017_fp_peak =	**102**

Results 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"
```

General Notes

```
Environment variables set by runcpu before the start of the run:
KMP_AFFINITY = "granularity=fine,compact"
LD_LIBRARY_PATH = "/spec2017/lib/ia32:/spec2017/lib/intel64:/spec2017/je5.0.1-32:/spec2017/je5.0.1-64"
OMP_STACKSIZE = "192M"

 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
```
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)
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:
SNC = Disabled
IMC interleaving = AUTO
```

(Continued on next page)

ASUSTeK Computer Inc.

ASUS RS720Q-E9(Z11PH-D12) Server System
(2.60 GHz, Intel Xeon Gold 6126)

SPECspeed2017_fp_base = 101

SPECspeed2017_fp_peak = 102

CPU2017 License:	9016	**Test Date:**	Jul-2018
Test Sponsor:	ASUSTeK Computer Inc.	**Hardware Availability:**	Mar-2018
Tested by:	ASUSTeK Computer Inc.	**Software Availability:**	Mar-2018

Platform Notes (Continued)

```
Patrol Scrub = Disabled
VT-d = Disabled
HyperThreading = Disabled
 Sysinfo program /spec2017/bin/sysinfo
 Rev: r5974 of 2018-05-19 9bcde8f2999c33d61f64985e45859ea9
 running on linux-pmm5 Fri Jul  6 09:56:48 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)
       24 "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  : 12
       physical 0: cores 0 1 3 5 6 8 9 10 11 12 13 14
       physical 1: cores 0 1 3 4 5 6 8 9 10 11 12 13

 From lscpu:
      Architecture:         x86_64
      CPU op-mode(s):       32-bit, 64-bit
      Byte Order:           Little Endian
      CPU(s):               24
      On-line CPU(s) list:  0-23
      Thread(s) per core:   1
      Core(s) per socket:   12
      Socket(s):            2
      NUMA node(s):         2
      Vendor ID:            GenuineIntel
      CPU family:           6
      Model:                85
      Model name:           Intel(R) Xeon(R) Gold 6126 CPU @ 2.60GHz
      Stepping:             4
      CPU MHz:              2601.000
      CPU max MHz:          2601.0000
      CPU min MHz:          1000.0000
      BogoMIPS:             5356.18
      Virtualization:       VT-x
      L1d cache:            32K
      L1i cache:            32K
      L2 cache:             1024K
      L3 cache:             19712K
      NUMA node0 CPU(s):    0-11
```

(Continued on next page)

ASUSTeK Computer Inc.

ASUS RS720Q-E9(Z11PH-D12) Server System
(2.60 GHz, Intel Xeon Gold 6126)

SPECspeed2017_fp_base = 101

SPECspeed2017_fp_peak = 102

CPU2017 License: 9016

Test Sponsor: ASUSTeK Computer Inc.

Tested by: ASUSTeK Computer Inc.

Test Date: Jul-2018

Hardware Availability: Mar-2018

Software Availability: Mar-2018

Platform Notes (Continued)

```
      NUMA node1 CPU(s):      12-23
      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 dca 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 intel_pt rsb_ctxsw spec_ctrl stibp retpoline kaiser tpr_shadow vnmi
   flexpriority ept vpid fsgsbase tsc_adjust bmi1 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 pku ospke

 /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: 2 nodes (0-1)
   node 0 cpus: 0 1 2 3 4 5 6 7 8 9 10 11
   node 0 size: 192067 MB
   node 0 free: 191713 MB
   node 1 cpus: 12 13 14 15 16 17 18 19 20 21 22 23
   node 1 size: 193517 MB
   node 1 free: 193116 MB
   node distances:
   node   0   1
     0:  10  21
     1:  21  10

 From /proc/meminfo
    MemTotal:       394838984 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"
```

(Continued on next page)

ASUSTeK Computer Inc.

ASUS RS720Q-E9(Z11PH-D12) Server System
(2.60 GHz, Intel Xeon Gold 6126)

SPECspeed2017_fp_base = 101

SPECspeed2017_fp_peak = 102

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

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

Platform Notes (Continued)

```
      ANSI_COLOR="0;32"
      CPE_NAME="cpe:/o:suse:sles:12:sp3"

uname -a:
   Linux linux-pmm5 4.4.120-94.17-default #1 SMP Wed Mar 14 17:23:00 UTC 2018 (cf3a7bb)
   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: __user pointer sanitization
CVE-2017-5715 (Spectre variant 2): Mitigation: IBRS+IBPB

run-level 3 Jul 6 09:47

SPEC is set to: /spec2017
   Filesystem      Type    Size  Used Avail Use% Mounted on
   /dev/sda2       btrfs   203G   90G  112G  45% /

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. 0905 03/19/2018
  Memory:
   12x Kingston D4-26662R4-32G 32 GB 2 rank 2666

(End of data from sysinfo program)
```

Compiler Version Notes

```
==============================================================================
  CC  619.lbm_s(base) 638.imagick_s(base, peak) 644.nab_s(base, peak)
------------------------------------------------------------------------------
icc (ICC) 18.0.3 20180410
Copyright (C) 1985-2018 Intel Corporation.  All rights reserved.
------------------------------------------------------------------------------


==============================================================================
  CC  619.lbm_s(peak)
------------------------------------------------------------------------------
icc (ICC) 18.0.3 20180410
Copyright (C) 1985-2018 Intel Corporation.  All rights reserved.
------------------------------------------------------------------------------


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

(Continued on next page)

ASUSTeK Computer Inc.

ASUS RS720Q-E9(Z11PH-D12) Server System
(2.60 GHz, Intel Xeon Gold 6126)

SPECspeed2017_fp_base = 101

SPECspeed2017_fp_peak = 102

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

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

Compiler Version Notes (Continued)

```
 FC  607.cactuBSSN_s(base)
-------------------------------------------------------------------------------
icpc (ICC) 18.0.3 20180410
Copyright (C) 1985-2018 Intel Corporation.  All rights reserved.
icc (ICC) 18.0.3 20180410
Copyright (C) 1985-2018 Intel Corporation.  All rights reserved.
ifort (IFORT) 18.0.3 20180410
Copyright (C) 1985-2018 Intel Corporation.  All rights reserved.
-------------------------------------------------------------------------------


===============================================================================
FC   607.cactuBSSN_s(peak)
-------------------------------------------------------------------------------
icpc (ICC) 18.0.3 20180410
Copyright (C) 1985-2018 Intel Corporation.  All rights reserved.
icc (ICC) 18.0.3 20180410
Copyright (C) 1985-2018 Intel Corporation.  All rights reserved.
ifort (IFORT) 18.0.3 20180410
Copyright (C) 1985-2018 Intel Corporation.  All rights reserved.
-------------------------------------------------------------------------------


===============================================================================
 FC  603.bwaves_s(base) 649.fotonik3d_s(base) 654.roms_s(base)
-------------------------------------------------------------------------------
ifort (IFORT) 18.0.3 20180410
Copyright (C) 1985-2018 Intel Corporation.  All rights reserved.
-------------------------------------------------------------------------------


===============================================================================
FC   603.bwaves_s(peak) 649.fotonik3d_s(peak) 654.roms_s(peak)
-------------------------------------------------------------------------------
ifort (IFORT) 18.0.3 20180410
Copyright (C) 1985-2018 Intel Corporation.  All rights reserved.
-------------------------------------------------------------------------------


===============================================================================
 CC  621.wrf_s(base) 627.cam4_s(base, peak) 628.pop2_s(base)
-------------------------------------------------------------------------------
ifort (IFORT) 18.0.3 20180410
Copyright (C) 1985-2018 Intel Corporation.  All rights reserved.
icc (ICC) 18.0.3 20180410
Copyright (C) 1985-2018 Intel Corporation.  All rights reserved.
-------------------------------------------------------------------------------


===============================================================================
CC   621.wrf_s(peak) 628.pop2_s(peak)
-------------------------------------------------------------------------------
```

(Continued on next page)

SPEC CPU2017 Floating Point Speed Result

ASUSTeK Computer Inc.

ASUS RS720Q-E9(Z11PH-D12) Server System
(2.60 GHz, Intel Xeon Gold 6126)

SPECspeed2017_fp_base = 101

SPECspeed2017_fp_peak = 102

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

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

Compiler Version Notes (Continued)

```
ifort (IFORT) 18.0.3 20180410
Copyright (C) 1985-2018 Intel Corporation.  All rights reserved.
icc (ICC) 18.0.3 20180410
Copyright (C) 1985-2018 Intel Corporation.  All rights reserved.
------------------------------------------------------------------------
```

Base Compiler Invocation

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

Fortran benchmarks:
`ifort -m64`

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

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

Base Portability Flags

603.bwaves_s: `-DSPEC_LP64`
607.cactuBSSN_s: `-DSPEC_LP64`
619.lbm_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:
`-xCORE-AVX512 -ipo -O3 -no-prec-div -qopt-prefetch -ffinite-math-only -qopt-mem-layout-trans=3 -qopenmp -DSPEC_OPENMP`

(Continued on next page)

SPEC CPU2017 Floating Point Speed Result

Copyright 2017-2019 Standard Performance Evaluation Corporation

ASUSTeK Computer Inc.

ASUS RS720Q-E9(Z11PH-D12) Server System
(2.60 GHz, Intel Xeon Gold 6126)

SPECspeed2017_fp_base = 101

SPECspeed2017_fp_peak = 102

CPU2017 License:	9016	**Test Date:**	Jul-2018
Test Sponsor:	ASUSTeK Computer Inc.	**Hardware Availability:**	Mar-2018
Tested by:	ASUSTeK Computer Inc.	**Software Availability:**	Mar-2018

Base Optimization Flags (Continued)

Fortran benchmarks:
```
-DSPEC_OPENMP -xCORE-AVX512 -ipo -O3 -no-prec-div -qopt-prefetch
-ffinite-math-only -qopt-mem-layout-trans=3 -qopenmp
-nostandard-realloc-lhs -align array32byte
```

Benchmarks using both Fortran and C:
```
-xCORE-AVX512 -ipo -O3 -no-prec-div -qopt-prefetch
-ffinite-math-only -qopt-mem-layout-trans=3 -qopenmp -DSPEC_OPENMP
-nostandard-realloc-lhs -align array32byte
```

Benchmarks using Fortran, C, and C++:
```
-xCORE-AVX512 -ipo -O3 -no-prec-div -qopt-prefetch
-ffinite-math-only -qopt-mem-layout-trans=3 -qopenmp -DSPEC_OPENMP
-nostandard-realloc-lhs -align array32byte
```

Peak Compiler Invocation

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

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

Benchmarks using both Fortran and C:
```
ifort -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:

```
619.lbm_s: -prof-gen(pass 1) -prof-use(pass 2) -O2 -xCORE-AVX512
-qopt-prefetch -ipo -O3 -ffinite-math-only -no-prec-div
-qopt-mem-layout-trans=3 -DSPEC_SUPPRESS_OPENMP -qopenmp
```

(Continued on next page)

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

SPEC CPU2017 Floating Point Speed Result

Copyright 2017-2019 Standard Performance Evaluation Corporation

ASUSTeK Computer Inc.

ASUS RS720Q-E9(Z11PH-D12) Server System
(2.60 GHz, Intel Xeon Gold 6126)

SPECspeed2017_fp_base = 101

SPECspeed2017_fp_peak = 102

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

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

Peak Optimization Flags (Continued)

619.lbm_s (continued):
`-DSPEC_OPENMP`

638.imagick_s: `-xCORE-AVX512 -ipo -O3 -no-prec-div -qopt-prefetch`
`-ffinite-math-only -qopt-mem-layout-trans=3 -qopenmp`
`-DSPEC_OPENMP`

644.nab_s: `Same as 638.imagick_s`

Fortran benchmarks:
`-prof-gen`(pass 1) `-prof-use`(pass 2) `-DSPEC_SUPPRESS_OPENMP`
`-DSPEC_OPENMP -O2 -xCORE-AVX512 -qopt-prefetch -ipo -O3`
`-ffinite-math-only -no-prec-div -qopt-mem-layout-trans=3 -qopenmp`
`-nostandard-realloc-lhs -align array32byte`

Benchmarks using both Fortran and C:

621.wrf_s: `-prof-gen`(pass 1) `-prof-use`(pass 2) `-O2 -xCORE-AVX512`
`-qopt-prefetch -ipo -O3 -ffinite-math-only -no-prec-div`
`-qopt-mem-layout-trans=3 -DSPEC_SUPPRESS_OPENMP -qopenmp`
`-DSPEC_OPENMP -nostandard-realloc-lhs -align array32byte`

627.cam4_s: `-xCORE-AVX512 -ipo -O3 -no-prec-div -qopt-prefetch`
`-ffinite-math-only -qopt-mem-layout-trans=3 -qopenmp`
`-DSPEC_OPENMP -nostandard-realloc-lhs -align array32byte`

628.pop2_s: `Same as 621.wrf_s`

Benchmarks using Fortran, C, and C++:
`-prof-gen`(pass 1) `-prof-use`(pass 2) `-O2 -xCORE-AVX512 -qopt-prefetch`
`-ipo -O3 -ffinite-math-only -no-prec-div -qopt-mem-layout-trans=3`
`-DSPEC_SUPPRESS_OPENMP -qopenmp -DSPEC_OPENMP -nostandard-realloc-lhs`
`-align array32byte`

The flags files that were used to format this result can be browsed at
http://www.spec.org/cpu2017/flags/ASUSTekPlatform-Settings-z11-V2.0-revD.html
http://www.spec.org/cpu2017/flags/Intel-ic18.0-official-linux64.2017-12-21.html

You can also download the XML flags sources by saving the following links:
http://www.spec.org/cpu2017/flags/ASUSTekPlatform-Settings-z11-V2.0-revD.xml
http://www.spec.org/cpu2017/flags/Intel-ic18.0-official-linux64.2017-12-21.xml

Standard Performance Evaluation Corporation (info@spec.org)

https://www.spec.org/

SPEC CPU2017 Floating Point Speed Result

Copyright 2017-2019 Standard Performance Evaluation Corporation

ASUSTeK Computer Inc.

ASUS RS720Q-E9(Z11PH-D12) Server System
(2.60 GHz, Intel Xeon Gold 6126)

SPECspeed2017_fp_base = 101

SPECspeed2017_fp_peak = 102

CPU2017 License: 9016

Test Sponsor: ASUSTeK Computer Inc.

Tested by: ASUSTeK Computer Inc.

Test Date: Jul-2018

Hardware Availability: Mar-2018

Software Availability: Mar-2018

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 v1.0.5 on 2018-07-05 21:56:48-0400.
Report generated on 2019-03-08 20:40:25 by CPU2017 PDF formatter v6067.
Originally published on 2018-08-21.