## SPEC CPU®2017 Floating Point Speed Result

**Tyrone Systems**  
(Test Sponsor: Netweb Pte Ltd)  
DIT400TR-48RL  
(2.70 GHz, Intel Xeon Platinum 8280L)

<table>
<thead>
<tr>
<th>Software</th>
<th>Hardware</th>
</tr>
</thead>
<tbody>
<tr>
<td>OS: CentOS Linux release 7.7.1908 (Core)</td>
<td>CPU Name: Intel Xeon Platinum 8280L</td>
</tr>
<tr>
<td>Compiler: C/C++: Version 19.0.4.243 of Intel C/C++ Compiler Build 20190416 for Linux; Fortran: Version 19.0.4.243 of Intel Fortran Compiler Build 20190416 for Linux</td>
<td>Max MHz: 4000</td>
</tr>
<tr>
<td>Parallel: Yes</td>
<td>Nominal: 2700</td>
</tr>
<tr>
<td>File System: xfs</td>
<td>Orderable: 1, 2 (chip)s</td>
</tr>
<tr>
<td>System State: Run level 3 (multi-user)</td>
<td>Cache L1: 32 KB I + 32 KB D on chip per core</td>
</tr>
<tr>
<td>Base Pointers: 64-bit</td>
<td>L2: 1 MB I+D on chip per core</td>
</tr>
<tr>
<td>Peak Pointers: 64-bit</td>
<td>L3: 38.5 MB I+D on chip per chip</td>
</tr>
<tr>
<td>Other: None</td>
<td>Other: None</td>
</tr>
</tbody>
</table>

### SPECspeed®2017_fp_base = 150  
SPECspeed®2017_fp_peak = 154

<table>
<thead>
<tr>
<th>Threads</th>
<th>SPECspeed®2017_fp_base (150)</th>
<th>SPECspeed®2017_fp_peak (154)</th>
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<tbody>
<tr>
<td>603.bwaves_s</td>
<td>56</td>
<td>184</td>
</tr>
<tr>
<td>607.cactuBSSN_s</td>
<td>56</td>
<td>998</td>
</tr>
<tr>
<td>619.lbm_s</td>
<td>56</td>
<td>129</td>
</tr>
<tr>
<td>621.wrf_s</td>
<td>56</td>
<td>122</td>
</tr>
<tr>
<td>627.cam4_s</td>
<td>112</td>
<td>628</td>
</tr>
<tr>
<td>628.pop2_s</td>
<td>112</td>
<td>167</td>
</tr>
<tr>
<td>638.imagick_s</td>
<td>56</td>
<td>186</td>
</tr>
<tr>
<td>644.nab_s</td>
<td>112</td>
<td>305</td>
</tr>
<tr>
<td>649.fotonik3d_s</td>
<td>56</td>
<td>848</td>
</tr>
<tr>
<td>654.roms_s</td>
<td>56</td>
<td>154</td>
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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>Seconds</th>
<th>Ratio</th>
<th>Peak</th>
<th>Threads</th>
<th>Seconds</th>
<th>Ratio</th>
<th>Seconds</th>
<th>Ratio</th>
<th>Seconds</th>
<th>Ratio</th>
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<tbody>
<tr>
<td>603.bwaves_s</td>
<td>56</td>
<td></td>
<td>123</td>
<td>481</td>
<td>123</td>
<td>481</td>
<td>123</td>
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<td></td>
<td>56</td>
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<td>479</td>
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<td>483</td>
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<td>482</td>
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<tr>
<td>607.cactuBSSN_s</td>
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<td></td>
<td>90.6</td>
<td>184</td>
<td>91.5</td>
<td>182</td>
<td>90.8</td>
<td>184</td>
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<td>56</td>
<td>91.3</td>
<td>183</td>
<td>91.0</td>
<td>183</td>
<td>91.0</td>
<td>183</td>
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<tr>
<td>619.lbm_s</td>
<td>56</td>
<td></td>
<td>52.8</td>
<td>99.2</td>
<td>52.5</td>
<td>99.8</td>
<td>52.1</td>
<td>101</td>
<td></td>
<td>56</td>
<td>52.2</td>
<td>100</td>
<td>52.5</td>
<td>99.8</td>
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<td>99.6</td>
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<tr>
<td>621.wrf_s</td>
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<td>129</td>
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<td>135</td>
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<td>134</td>
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<td>73.4</td>
<td>121</td>
<td>72.6</td>
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<tr>
<td>628.pop2_s</td>
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<td>189</td>
<td>62.8</td>
<td>190</td>
<td>62.4</td>
<td>186</td>
<td>63.7</td>
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<td>64.2</td>
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<td>65.1</td>
<td>183</td>
<td>64.9</td>
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<tr>
<td>638.imagick_s</td>
<td>56</td>
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<td>85.7</td>
<td>168</td>
<td>86.6</td>
<td>167</td>
<td>88.9</td>
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<td>89.6</td>
<td>161</td>
<td>86.7</td>
<td>166</td>
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<tr>
<td>644.nab_s</td>
<td>56</td>
<td></td>
<td>57.3</td>
<td>305</td>
<td>57.3</td>
<td>305</td>
<td>57.4</td>
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<td>112</td>
<td>53.6</td>
<td>326</td>
<td>52.7</td>
<td>331</td>
<td>53.6</td>
<td>326</td>
</tr>
<tr>
<td>649.fotonik3d_s</td>
<td>56</td>
<td></td>
<td>108</td>
<td>84.1</td>
<td>108</td>
<td>84.1</td>
<td>105</td>
<td>86.7</td>
<td></td>
<td>56</td>
<td>105</td>
<td>86.8</td>
<td>108</td>
<td>84.4</td>
<td>108</td>
<td>84.8</td>
</tr>
<tr>
<td>654.roms_s</td>
<td>56</td>
<td></td>
<td>102</td>
<td>155</td>
<td>103</td>
<td>153</td>
<td>102</td>
<td>154</td>
<td></td>
<td>56</td>
<td>102</td>
<td>154</td>
<td>103</td>
<td>154</td>
<td>104</td>
<td>151</td>
</tr>
</tbody>
</table>

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

Compiler Notes

SPEC has learned that this result, which used an evaluation compiler, was submitted contrary to the compiler license terms.
Intel has granted a one-time waiver for this result.

Operating System Notes

Stack size set to unlimited using "ulimit -s unlimited"

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/cpu2017/lib/ia32:/home/cpu2017/lib/intel64"
OMP_STACKSIZE = "192M"

General Notes

Binaries compiled on a system with 1x Intel Core i9–7900X 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
NA: The test sponsor attests, as of date of publication, that CVE-2017-5754 (Meltdown) is mitigated in the system as tested and documented.
General Notes (Continued)

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

The system was tested with a pre-production version of the Intel Xeon Platinum 8280L, which had a nominal MHz of 2.6 GHz. Production chips have a nominal MHz of 2.7 GHz and therefore performance may be slightly faster than what was tested.

Sysinfo program /home/cpu2017/bin/sysinfo
Rev: r6365 of 2019-08-21 295195f888a3d7ed6e6c646a485a001
running on NODE4 Thu Feb 6 03:57:42 2020

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) Platinum 8280L CPU @ 2.60GHz
  2 "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 : 28
siblings : 56
physical 0: cores 0 1 2 3 4 5 6 8 9 10 11 12 13 14 16 17 18 19 20 21 22 24 25 26 27 28 29 30
physical 1: cores 0 1 2 3 4 5 6 8 9 10 11 12 13 14 16 17 18 19 20 21 22 24 25 26 27 28 29 30

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: 28
Socket(s): 2
NUMA node(s): 2
Vendor ID: GenuineIntel
CPU family: 6
Model: 85
Model name: Intel(R) Xeon(R) Platinum 8280L CPU @ 2.60GHz

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

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Tyrone Systems
(Test Sponsor: Netweb Pte Ltd)
DIT400TR-48RL
(2.70 GHz, Intel Xeon Platinum 8280L)

SPECspeed®2017_fp_base = 150
SPECspeed®2017_fp_peak = 154

<table>
<thead>
<tr>
<th>Platform Notes (Continued)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stepping:</td>
</tr>
<tr>
<td>CPU MHz:</td>
</tr>
<tr>
<td>CPU max MHz:</td>
</tr>
<tr>
<td>CPU min MHz:</td>
</tr>
<tr>
<td>BogoMIPS:</td>
</tr>
<tr>
<td>Virtualization:</td>
</tr>
<tr>
<td>L1d cache:</td>
</tr>
<tr>
<td>L1i cache:</td>
</tr>
<tr>
<td>L2 cache:</td>
</tr>
<tr>
<td>L3 cache:</td>
</tr>
<tr>
<td>NUMA node0 CPU(s):</td>
</tr>
<tr>
<td>NUMA node1 CPU(s):</td>
</tr>
<tr>
<td>Flags:</td>
</tr>
</tbody>
</table>

/proc/cpuinfo cache data
  cache size : 39424 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 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83
  node 0 size: 195228 MB
  node 0 free: 154028 MB
  node 1 cpus: 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 107 108 109 110 111
  node 1 size: 196608 MB
  node 1 free: 153753 MB
  node distances:
  node 0 size: 195228 MB
  node 0 free: 154028 MB
  node 1 cpus: 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 107 108 109 110 111
  node 1 size: 196608 MB
  node 1 free: 153753 MB
  node distances:
  node 0 size: 195228 MB
  node 0 free: 154028 MB
  node 1 cpus: 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 107 108 109 110 111
  node 1 size: 196608 MB
  node 1 free: 153753 MB
  node distances:
  node 0 size: 195228 MB
  node 0 free: 154028 MB
  node 1 cpus: 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 107 108 109 110 111
  node 1 size: 196608 MB
  node 1 free: 153753 MB
  node distances:
  node 0 size: 195228 MB
  node 0 free: 154028 MB
  node 1 cpus: 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 107 108 109 110 111
  node 1 size: 196608 MB
  node 1 free: 153753 MB
  node distances:
  node 0 size: 195228 MB
  node 0 free: 154028 MB
  node 1 cpus: 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 107 108 109 110 111
  node 1 size: 196608 MB
  node 1 free: 153753 MB
  node distances:

MemTotal: 394852372 KB

(Continued on next page)
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SPECspeed®2017_fp_base = 150
SPECspeed®2017_fp_peak = 154

CPU2017 License: 006042
Test Sponsor: Netweb Pte Ltd
Tested by: Netweb

Platform Notes (Continued)

HugePages_Total: 0
Hugepagesize: 2048 kB

From /etc/*release* /etc/*version*
centos-release: CentOS Linux release 7.7.1908 (Core)
centos-release-upstream: Derived from Red Hat Enterprise Linux 7.7 (Source)
os-release:
  NAME="CentOS Linux"
  VERSION="7 (Core)"
  ID="centos"
  ID_LIKE="rhel fedora"
  VERSION_ID="7"
  PRETTY_NAME="CentOS Linux 7 (Core)"
  ANSI_COLOR="0;31"
  CPE_NAME="cpe:/o:centos:centos:7"
redhat-release: CentOS Linux release 7.7.1908 (Core)
system-release: CentOS Linux release 7.7.1908 (Core)
system-release-cpe: cpe:/o:centos:centos:7

uname -a:
  Linux NODE4 3.10.0-1062.el7.x86_64 #1 SMP Wed Aug 7 18:08:02 UTC 2019 x86_64 x86_64 GNU/Linux

Kernel self-reported vulnerability status:

CVE-2018-3620 (L1 Terminal Fault): Not affected
Microarchitectural Data Sampling: Vulnerable: Clear CPU buffers attempted, no microcode; SMT vulnerable
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: Load fences, __user pointer sanitation
CVE-2017-5715 (Spectre variant 2): Mitigation: Full retpoline, IBPB

run-level 3 Feb 4 06:00

SPEC is set to: /home/cpu2017
Filesystem Type Size Used Avail Use% Mounted on
/dev/mapper/centos-home xfs 392G 221G 171G 57% /home

From /sys/devices/virtual/dmi/id
BIOS: American Megatrends Inc. V8.101 08/02/2019
Vendor: Tyrone Systems
Product: TP12XH-L2I
Serial: empty

(Continued on next page)
Platform Notes (Continued)

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.

Memory:
12x Samsung M393A4K40CB2-CVF 32 GB 2 rank 2933

(End of data from sysinfo program)

Compiler Version Notes

C

| 619.lbm_s(base, peak) 638.imagick_s(base, peak) 644.nab_s(base, peak) |

Intel(R) C Intel(R) 64 Compiler for applications running on Intel(R) 64, Version 19.0.4.243 Build 20190416
Copyright (C) 1985-2019 Intel Corporation. All rights reserved.
icc: NOTE: The evaluation period for this product ends on 2-nov-2019 UTC.

C++, C, Fortran | 607.cactuBSSN_s(base, peak)

Intel(R) C++ Intel(R) 64 Compiler for applications running on Intel(R) 64, Version 19.0.4.243 Build 20190416
Copyright (C) 1985-2019 Intel Corporation. All rights reserved.
icpc: NOTE: The evaluation period for this product ends on 2-nov-2019 UTC.

Fortran

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

Intel(R) Fortran Intel(R) 64 Compiler for applications running on Intel(R) 64, Version 19.0.4.243 Build 20190416
Copyright (C) 1985-2019 Intel Corporation. All rights reserved.
ifort: NOTE: The evaluation period for this product ends on 2-nov-2019 UTC.

(Continued on next page)
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SPECspeed\textsuperscript{\textregistered}2017\_fp\_base = 150
SPECspeed\textsuperscript{\textregistered}2017\_fp\_peak = 154

CPU2017 License: 006042
Test Sponsor: Netweb Pte Ltd
Tested by: Netweb

Compiler Version Notes (Continued)

-----------------------------------------------
Fortran, C
| 621.wrf\_s(base, peak) 627.cam4\_s(base, peak)
| 628.pop2\_s(base, peak)

-----------------------------------------------
Intel(R) Fortran Intel(R) 64 Compiler for applications running on Intel(R)
64, Version 19.0.4.243 Build 20190416
Copyright (C) 1985-2019 Intel Corporation. All rights reserved.
ifort: NOTE: The evaluation period for this product ends on 2-nov-2019 UTC.
Intel(R) C Intel(R) 64 Compiler for applications running on Intel(R) 64,
Version 19.0.4.243 Build 20190416
Copyright (C) 1985-2019 Intel Corporation. All rights reserved.
icc: NOTE: The evaluation period for this product ends on 2-nov-2019 UTC.

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
Tyrone Systems  
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(2.70 GHz, Intel Xeon Platinum 8280L)

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<table>
<thead>
<tr>
<th>CPU2017 License: 006042</th>
<th>Test Date: Feb-2020</th>
</tr>
</thead>
<tbody>
<tr>
<td>Test Sponsor: Netweb Pte Ltd</td>
<td>Hardware Availability: Sep-2019</td>
</tr>
<tr>
<td>Tested by: Netweb</td>
<td>Software Availability: Aug-2019</td>
</tr>
</tbody>
</table>

**SPECspeed®2017_fp_base = 150**  
**SPECspeed®2017_fp_peak = 154**

---

### Base Optimization Flags

C benchmarks:
- -xCORE-AVX512
- -ipo
- -03
- -no-prec-div
- -qopt-prefetch
- -ffinite-math-only
- -qopt-mem-layout-trans=4
- -qopenmp
- -DSPEC_OPENMP

Fortran benchmarks:
- -DSPEC_OPENMP
- -xCORE-AVX512
- -ipo
- -03
- -no-prec-div
- -qopt-prefetch
- -ffinite-math-only
- -qopt-mem-layout-trans=4
- -qopenmp
- -nostandard-realloc-lhs

Benchmarks using both Fortran and C:
- -xCORE-AVX512
- -ipo
- -03
- -no-prec-div
- -qopt-prefetch
- -ffinite-math-only
- -qopt-mem-layout-trans=4
- -qopenmp
- -DSPEC_OPENMP
- -nostandard-realloc-lhs

Benchmarks using Fortran, C, and C++:
- -xCORE-AVX512
- -ipo
- -03
- -no-prec-div
- -qopt-prefetch
- -ffinite-math-only
- -qopt-mem-layout-trans=4
- -qopenmp
- -DSPEC_OPENMP
- -nostandard-realloc-lhs

---

### 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
SPEC CPU®2017 Floating Point Speed Result

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CPU2017 License: 006042
Test Sponsor: Netweb Pte Ltd
Tested by: Netweb

SPECspeed®2017 fp_base = 150
SPECspeed®2017 fp_peak = 154

Test Date: Feb-2020
Hardware Availability: Sep-2019
Software Availability: Aug-2019

Peak Optimization Flags

C benchmarks:
-xCORE-AVX512 -ipo -O3 -no-prec-div -qopt-prefetch
-ffinite-math-only -qopt-mem-layout-trans=4 -qopenmp -DSPEC_OPENMP

Fortran benchmarks:

603.bwaves_s: -prof-gen(pass 1) -prof-use(pass 2) -DSPEC_SUPPRESS_OPENMP
-xCORE-AVX512 -ipo -O3 -no-prec-div -qopt-prefetch -ffinite-math-only -qopt-mem-layout-trans=4
-qopenmp -nostandard-realloc-lhs

649.fotonik3d_s: Same as 603.bwaves_s

654.roms_s: -DSPEC_OPENMP -xCORE-AVX512 -ipo -O3 -no-prec-div
-qopt-prefetch -ffinite-math-only -qopt-mem-layout-trans=4
-qopenmp -nostandard-realloc-lhs

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=4 -DSPEC_SUPPRESS_OPENMP -qopenmp
-DSPEC_OPENMP -nostandard-realloc-lhs

627.cam4_s: -xCORE-AVX512 -ipo -O3 -no-prec-div -qopt-prefetch
-ffinite-math-only -qopt-mem-layout-trans=4 -qopenmp
-DSPEC_OPENMP -nostandard-realloc-lhs

628.pop2_s: Same as 621.wrf_s

Benchmarks using Fortran, C, and C++:
-xCORE-AVX512 -ipo -O3 -no-prec-div -qopt-prefetch
-ffinite-math-only -qopt-mem-layout-trans=4 -qopenmp -DSPEC_OPENMP
-nostandard-realloc-lhs

The flags files that were used to format this result can be browsed at
http://www.spec.org/cpu2017/flags/TyroneIT-Platform-Settings-V1-CLX-revA.html

You can also download the XML flags sources by saving the following links:
http://www.spec.org/cpu2017/flags/TyroneIT-Platform-Settings-V1-CLX-revA.xml
**SPEC CPU®2017 Floating Point Speed Result**

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<th>CPU2017 License: 006042</th>
<th>Test Date: Feb-2020</th>
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<td>Test Sponsor: Netweb Pte Ltd</td>
<td>Hardware Availability: Sep-2019</td>
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<tr>
<td>Tested by: Netweb</td>
<td>Software Availability: Aug-2019</td>
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**Tyrone Systems**  
(Test Sponsor: Netweb Pte Ltd)  
DIT400TR-48RL  
(2.70 GHz, Intel Xeon Platinum 8280L)  

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<th>SPECspeed®2017_fp_peak = 154</th>
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**Tested with SPEC CPU®2017 v1.1.0 on 2020-02-06 03:57:41-0500.**  
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