Tyrone Systems
(Test Sponsor: Netweb Pte Ltd)
DIT400TR-55R/55RL
(2.50 GHz, Intel Xeon Gold 6248)

**SPEC CPU®2017 Floating Point Rate Result**

**SPECrate®2017_fp_base = 188**
**SPECrate®2017_fp_peak = 190**

<table>
<thead>
<tr>
<th>Specification</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>503.bwaves_r</td>
<td>166</td>
</tr>
<tr>
<td>507.cactuBSSN_r</td>
<td>168</td>
</tr>
<tr>
<td>508.namd_r</td>
<td>172</td>
</tr>
<tr>
<td>510.parest_r</td>
<td>106</td>
</tr>
<tr>
<td>511.povray_r</td>
<td>254</td>
</tr>
<tr>
<td>519.lbm_r</td>
<td>83.7</td>
</tr>
<tr>
<td>521.wrf_r</td>
<td>177</td>
</tr>
<tr>
<td>526.blender_r</td>
<td>185</td>
</tr>
<tr>
<td>527.cam4_r</td>
<td>235</td>
</tr>
<tr>
<td>538.imagick_r</td>
<td>534</td>
</tr>
<tr>
<td>544.nab_r</td>
<td>381</td>
</tr>
<tr>
<td>549.fotonik3d_r</td>
<td>100</td>
</tr>
<tr>
<td>554.roms_r</td>
<td>65.4</td>
</tr>
</tbody>
</table>

**Hardware**

- **CPU Name:** Intel Xeon Gold 6248
- **Max MHz:** 3900
- **Enabled:** 40 cores, 2 chips, 2 threads/core
- **Orderable:** 1, 2 (chip)s
- **Cache L1:** 32 KB I + 32 KB D on chip per core
- **Cache L2:** 1 MB I+D on chip per core
- **Cache L3:** 27.5 MB I+D on chip per chip
- **Memory:** 384 GB (12 x 32 GB 2Rx4 PC4-2933Y-R)
- **Storage:** 1 x 480 GB SSD
- **Other:** None

**Software**

- **OS:** CentOS Linux release 7.7.1908 (Core)
- **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
- **Parallel:** No
- **File System:** xfs
- **System State:** Run level 3 (multi-user)
- **Base Pointers:** 64-bit
- **Peak Pointers:** 64-bit
- **Other:** None
- **Power Management:** Default
Results Table

<table>
<thead>
<tr>
<th>Benchmark</th>
<th>Copies</th>
<th>Seconds</th>
<th>Ratio</th>
<th>Seconds</th>
<th>Ratio</th>
<th>Seconds</th>
<th>Ratio</th>
<th>Copies</th>
<th>Seconds</th>
<th>Ratio</th>
<th>Seconds</th>
<th>Ratio</th>
<th>Seconds</th>
<th>Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>503.bwaves_r</td>
<td>80</td>
<td>1998</td>
<td>402</td>
<td>2166</td>
<td>370</td>
<td>2157</td>
<td>372</td>
<td>80</td>
<td>2172</td>
<td>369</td>
<td>2008</td>
<td>399</td>
<td>2071</td>
<td>387</td>
</tr>
<tr>
<td>507.cactuBSSN_r</td>
<td>80</td>
<td>609</td>
<td>166</td>
<td>605</td>
<td>167</td>
<td>608</td>
<td>166</td>
<td>80</td>
<td>601</td>
<td>169</td>
<td>606</td>
<td>167</td>
<td>603</td>
<td>168</td>
</tr>
<tr>
<td>508.namd_r</td>
<td>80</td>
<td>441</td>
<td>172</td>
<td>443</td>
<td>172</td>
<td>441</td>
<td>172</td>
<td>80</td>
<td>439</td>
<td>173</td>
<td>440</td>
<td>173</td>
<td>440</td>
<td>173</td>
</tr>
<tr>
<td>511.povray_r</td>
<td>80</td>
<td>735</td>
<td>254</td>
<td>735</td>
<td>254</td>
<td>738</td>
<td>253</td>
<td>80</td>
<td>633</td>
<td>295</td>
<td>636</td>
<td>294</td>
<td>635</td>
<td>294</td>
</tr>
<tr>
<td>519.lbm_r</td>
<td>80</td>
<td>878</td>
<td>96.1</td>
<td>1101</td>
<td>76.6</td>
<td>1008</td>
<td>83.7</td>
<td>80</td>
<td>1023</td>
<td>82.4</td>
<td>1214</td>
<td>69.5</td>
<td>910</td>
<td>92.7</td>
</tr>
<tr>
<td>521.wrf_r</td>
<td>80</td>
<td>1012</td>
<td>177</td>
<td>894</td>
<td>200</td>
<td>1022</td>
<td>175</td>
<td>80</td>
<td>946</td>
<td>189</td>
<td>969</td>
<td>185</td>
<td>1057</td>
<td>170</td>
</tr>
<tr>
<td>526.blender_r</td>
<td>80</td>
<td>519</td>
<td>235</td>
<td>520</td>
<td>234</td>
<td>519</td>
<td>235</td>
<td>80</td>
<td>518</td>
<td>235</td>
<td>518</td>
<td>235</td>
<td>522</td>
<td>233</td>
</tr>
<tr>
<td>527.cam4_r</td>
<td>80</td>
<td>560</td>
<td>250</td>
<td>565</td>
<td>248</td>
<td>558</td>
<td>251</td>
<td>80</td>
<td>554</td>
<td>252</td>
<td>553</td>
<td>253</td>
<td>558</td>
<td>251</td>
</tr>
<tr>
<td>538.imagick_r</td>
<td>80</td>
<td>371</td>
<td>536</td>
<td>376</td>
<td>530</td>
<td>374</td>
<td>531</td>
<td>80</td>
<td>371</td>
<td>536</td>
<td>374</td>
<td>533</td>
<td>375</td>
<td>531</td>
</tr>
<tr>
<td>544.nab_r</td>
<td>80</td>
<td>353</td>
<td>381</td>
<td>352</td>
<td>382</td>
<td>353</td>
<td>381</td>
<td>80</td>
<td>357</td>
<td>377</td>
<td>353</td>
<td>381</td>
<td>354</td>
<td>380</td>
</tr>
<tr>
<td>549.fotonik3d_r</td>
<td>80</td>
<td>3329</td>
<td>93.7</td>
<td>3111</td>
<td>100</td>
<td>2863</td>
<td>109</td>
<td>80</td>
<td>3342</td>
<td>93.3</td>
<td>3153</td>
<td>98.9</td>
<td>2699</td>
<td>116</td>
</tr>
<tr>
<td>554.roms_r</td>
<td>80</td>
<td>1821</td>
<td>69.8</td>
<td>1731</td>
<td>73.4</td>
<td>1750</td>
<td>72.7</td>
<td>80</td>
<td>1735</td>
<td>73.3</td>
<td>1981</td>
<td>64.2</td>
<td>1943</td>
<td>65.4</td>
</tr>
</tbody>
</table>

Submit Notes

The numactl mechanism was used to bind copies to processors. The config file option 'submit' was used to generate numactl 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"

Environment Variables Notes

Environment variables set by runcpu before the start of the run:
LD_LIBRARY_PATH = "/home/cpu2017/lib/ia32:/home/cpu2017/lib/intel64"

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
runcpu command invoked through numactl i.e.:
**SPEC CPU®2017 Floating Point Rate Result**

**Tyrone Systems**
(Test Sponsor: Netweb Pte Ltd)
DIT400TR-55R/55RL
(2.50 GHz, Intel Xeon Gold 6248)

**SPECrate®2017_fp_peak = 190**
**SPECrate®2017_fp_base = 188**

**CPU2017 License:** 006042
**Test Sponsor:** Netweb Pte Ltd
**Tested by:** Netweb
**Test Date:** Feb-2020
**Hardware Availability:** Sep-2019
**Software Availability:** Aug-2019

---

**General Notes (Continued)**

numactl --interleave=all runcpu <etc>
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.

---

**Platform Notes**

Sysinfo program /home/cpu2017/bin/sysinfo
Rev: r6365 of 2019-08-21 295195f888a3d7edeb1e6e46a485a0011
running on NODE8 Fri Feb 14 05:34:12 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) Gold 6248 CPU @ 2.50GHz
      2 "physical id"s (chips)
      80 "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: 20
      siblings: 40
     physical 0: cores 0 1 2 3 4 8 9 10 11 12 16 17 18 19 20 24 25 26 27 28
     physical 1: cores 0 1 2 3 4 8 9 10 11 12 16 17 18 19 20 24 25 26 27 28

From lscpu:
   Architecture: x86_64
   CPU op-mode(s): 32-bit, 64-bit
   Byte Order: Little Endian
   CPU(s): 80
   On-line CPU(s) list: 0–79
   Thread(s) per core: 2
   Core(s) per socket: 20
   Socket(s): 2
   NUMA node(s): 2
   Vendor ID: GenuineIntel
   CPU family: 6
   Model: 85
   Model name: Intel(R) Xeon(R) Gold 6248 CPU @ 2.50GHz
   Stepping: 7
   CPU MHz: 1000.061

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

**Tyrone Systems**
(Test Sponsor: Netweb Pte Ltd)
**DIT400TR-55R/55RL**
(2.50 GHz, Intel Xeon Gold 6248)

**SPECrate®2017_fp_base = 188**
**SPECrate®2017_fp_peak = 190**

<table>
<thead>
<tr>
<th>CPU2017 License</th>
<th>Test Date:</th>
</tr>
</thead>
<tbody>
<tr>
<td>006042</td>
<td>Feb-2020</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Test Sponsor:</th>
<th>Hardware Availability:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Netweb</td>
<td>Sep-2019</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Tested by:</th>
<th>Software Availability:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Netweb</td>
<td>Aug-2019</td>
</tr>
</tbody>
</table>

### Platform Notes (Continued)

- **CPU max MHz:** 3900.0000
- **CPU min MHz:** 1000.0000
- **BogoMIPS:** 5000.00
- **Virtualization:** VT-x
- **L1d cache:** 32K
- **L1i cache:** 32K
- **L2 cache:** 1024K
- **L3 cache:** 28160K
- **NUMA node0 CPU(s):** 0-19,40-59
- **NUMA node1 CPU(s):** 20-39,60-79
- **Flags:** fpu vme de pse tsc msr pae mce cx8 apic sep mtrr pge mca cmov pat pse36 clflush d\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 aperfmpref 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 flc rdrand lahf_lm abm 3dnowprefetch epb cat_13 cdp_13 intel_pt ssbd mba ibrs ibpb stibp ibrs_enhanced tpr_shadow vni flexpriority ept vpid fsgsbase tsc_adjust bmi1 hle avx2 smep bmi2 erms invpcid rtm cqm mpx rdt_a avx512f avx512dq rdseed adx smap clflushopt clwb avx512bw avx512vl xsaveopt xsavec xgetbv1 cqm_llc cqm_occup_llc cqm_mbb_total cqm_mbb_local dtherm ida arat pln pts hwp act_window hwp epp hwp_pkg_req pku ospke avx512_vnni md_clear spec_ctrl intel_stibp flush_l1d arch_capabilities

From /proc/cpuinfo cache data
- **cache size:** 28160 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 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59
- **node 0 size:** 195228 MB
- **node 0 free:** 171558 MB
- **node 1 cpus:** 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79
- **node 1 size:** 196608 MB
- **node 1 free:** 174627 MB
- **node distances:**
  - **node 0 1**
  - **0:** 10 21
  - **1:** 21 10

From /proc/meminfo
- **MemTotal:** 394857620 kB
- **HugePages_Total:** 0
- **Hugepagesize:** 2048 kB

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

Tyrone Systems
(Test Sponsor: Netweb Pte Ltd)
DIT400TR-55R/55RL
(2.50 GHz,Intel Xeon Gold 6248)

SPECrater®2017_fp_base = 188
SPECrater®2017_fp_peak = 190

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

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 NODE8 3.10.0-1062.el7.x86_64 #1 SMP Wed Aug 7 18:08:02 UTC 2019 x86_64 x86_64
x86_64 GNU/Linux

Kernel self-reported vulnerability status:
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: Load fences, __user pointer sanitization
CVE-2017-5715 (Spectre variant 2): Mitigation: Full retpoline, IBPB

run-level 3 Feb 13 12:58
SPEC is set to: /home/cpu2017

Filesystem Type Size Used Avail Use% Mounted on
/dev/mapper/centos-home xfs 392G 122G 271G 32% /home

From /sys/devices/virtual/dmi/id
BIOS: American Megatrends Inc. V8.101 08/02/2019
Vendor: Tyrone Systems
Product: DIT400TR-55R
Serial: empty

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.

(Continued on next page)
Platform Notes (Continued)

(End of data from sysinfo program)

Compiler Version Notes

==============================================================================
C                   | 519.ibm_r(base, peak) 538.imagick_r(base, peak) 544.nab_r(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++                  | 508.namd_r(base, peak) 510.apest_r(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.
==============================================================================
C++, C                | 511.povray_r(base, peak) 526.blender_r(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       | 507.cactuBSSN_r(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.
(Continued on next page)
Tyrone Systems  
(Test Sponsor: Netweb Pte Ltd)  
DIT400TR-55R/55RL  
(2.50 GHz, Intel Xeon Gold 6248)  

SPECrates®2017_fp_base = 188  
SPECrates®2017_fp_peak = 190

Copyright 2017-2020 Standard Performance Evaluation Corporation

Compiler Version Notes (Continued)

Copyright (C) 1985-2019 Intel Corporation. All rights reserved.
icc: NOTE: The evaluation period for this product ends on 2-nov-2019 UTC.
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.
------------------------------------------------------------------------------
Fortran, C  |  503.bwaves_r(base, peak) 549.fotonik3d_r(base, peak)  
            |  554.roms_r(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.
------------------------------------------------------------------------------
Fortran, C  |  521.wrf_r(base, peak) 527.cam4_r(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  

C++ benchmarks:
icpc -m64  

Fortran benchmarks:
ifort -m64  

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

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

Tyrone Systems
(Test Sponsor: Netweb Pte Ltd)
DIT400TR-55R/55RL
(2.50 GHz, Intel Xeon Gold 6248)

SPECrates® 2017 fp_base = 188
SPECrates® 2017 fp_peak = 190

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

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

Base Compiler Invocation (Continued)

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

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-AVX512 -ipo -03 -no-prec-div -qopt-prefetch
-ffinite-math-only -qopt-mem-layout-trans=4

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

Fortran benchmarks:
-xCORE-AVX512 -ipo -03 -no-prec-div -qopt-prefetch
-ffinite-math-only -qopt-mem-layout-trans=4 -auto
-nostandard-realloc-lhs -align array32byte

Benchmarks using both Fortran and C:
-xCORE-AVX512 -ipo -03 -no-prec-div -qopt-prefetch
-ffinite-math-only -qopt-mem-layout-trans=4 -auto
-nostandard-realloc-lhs -align array32byte

(Continued on next page)
Base Optimization Flags (Continued)

Benchmarks using both C and C++:
-xCORE-AVX512 -ipo -O3 -no-prec-div -qopt-prefetch
-ffinite-math-only -qopt-mem-layout-trans=4

Benchmarks using Fortran, C, and C++:
-xCORE-AVX512 -ipo -O3 -no-prec-div -qopt-prefetch
-ffinite-math-only -qopt-mem-layout-trans=4 -auto
-nostandard-realloc-lhs -align array32byte

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-AVX512
-O3 -no-prec-div -qopt-prefetch -ffinite-math-only
-qopt-mem-layout-trans=4

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

Tyrone Systems
(Test Sponsor: Netweb Pte Ltd)
DIT400TR-55R/55RL
(2.50 GHz, Intel Xeon Gold 6248)

SPECrate®2017_fp_base = 188
SPECrate®2017_fp_peak = 190

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

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

Peak Optimization Flags (Continued)

538.imagick_r -xCORE-AVX512 -ipo -O3 -no-prec-div -qopt-prefetch
-ffinite-math-only -qopt-mem-layout-trans=4

544.nab_r Same as 538.imagick_r

C++ benchmarks:

508.namd_r -prof-gen(pass 1) -prof-use(pass 2) -ipo -xCORE-AVX512
-O3 -no-prec-div -qopt-prefetch -ffinite-math-only
-qopt-mem-layout-trans=4

510.parest_r -xCORE-AVX512 -ipo -O3 -no-prec-div -qopt-prefetch
-ffinite-math-only -qopt-mem-layout-trans=4

Fortran benchmarks:

503.bwaves_r -xCORE-AVX512 -ipo -O3 -no-prec-div -qopt-prefetch
-ffinite-math-only -qopt-mem-layout-trans=4 -auto
-nostandard-realloc-lhs -align array32byte

549.fotonik3d_r Same as 503.bwaves_r

554.roms_r -prof-gen(pass 1) -prof-use(pass 2) -ipo -xCORE-AVX512
-O3 -no-prec-div -qopt-prefetch -ffinite-math-only
-qopt-mem-layout-trans=4 -auto -nostandard-realloc-lhs
-align array32byte

Benchmarks using both Fortran and C:
-prof-gen(pass 1) -prof-use(pass 2) -ipo -xCORE-AVX512
-O3 -no-prec-div -qopt-prefetch -ffinite-math-only
-qopt-mem-layout-trans=4 -auto -nostandard-realloc-lhs
-align array32byte

Benchmarks using both C and C++:

511.povray_r -prof-gen(pass 1) -prof-use(pass 2) -ipo -xCORE-AVX512
-O3 -no-prec-div -qopt-prefetch -ffinite-math-only
-qopt-mem-layout-trans=4

526.blender_r -xCORE-AVX512 -ipo -O3 -no-prec-div -qopt-prefetch
-ffinite-math-only -qopt-mem-layout-trans=4

Benchmarks using Fortran, C, and C++:
-xCORE-AVX512 -ipo -O3 -no-prec-div -qopt-prefetch

(Continued on next page)
Tyrone Systems
(Test Sponsor: Netweb Pte Ltd)
DIT400TR-55R/55RL
(2.50 GHz, Intel Xeon Gold 6248)

SPECrate®2017_fp_base = 188
SPECrate®2017_fp_peak = 190

CPU2017 License: 006042
Test Date: Feb-2020
Test Sponsor: Netweb Pte Ltd
Hardware Availability: Sep-2019
Tested by: Netweb
Software Availability: Aug-2019

Peak Optimization Flags (Continued)

Benchmarks using Fortran, C, and C++ (continued):
-ffinite-math-only -qopt-mem-layout-trans=4 -auto
-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/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 and SPECrate 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 v1.1.0 on 2020-02-14 05:34:11-0500.
Report generated on 2020-03-17 16:15:14 by CPU2017 PDF formatter v6255.
Originally published on 2020-03-17.