## SPEC CPU®2017 Floating Point Rate Result

**Tyrone Systems**  
(Test Sponsor: Netweb Pte Ltd)  
**Tyrone Camarero TDI100C3R-212**  
(2.20 GHz, Intel Xeon Gold 5320)

**SPECrate®2017_fp_base = 360**  
**SPECrate®2017_fp_peak = 374**

### Hardware

<table>
<thead>
<tr>
<th>CPU Name</th>
<th>Intel Xeon Gold 5320</th>
</tr>
</thead>
<tbody>
<tr>
<td>Max MHz</td>
<td>3400</td>
</tr>
<tr>
<td>Nominal</td>
<td>2200</td>
</tr>
<tr>
<td>Enabled</td>
<td>52 cores, 2 chips, 2 threads/core</td>
</tr>
<tr>
<td>Orderable</td>
<td>1.2 Chips</td>
</tr>
<tr>
<td>Cache L1</td>
<td>32 KB I + 48 KB D on chip per core</td>
</tr>
<tr>
<td>L2</td>
<td>1.25 MB I+D on chip per core</td>
</tr>
<tr>
<td>L3</td>
<td>39 MB I+D on chip per core</td>
</tr>
<tr>
<td>Other</td>
<td>None</td>
</tr>
<tr>
<td>Memory</td>
<td>512 GB (16 x 32 GB 2Rx4 PC4-3200AA-R, running at 2933)</td>
</tr>
<tr>
<td>Storage</td>
<td>1 x 512 GB NVMe SSD</td>
</tr>
<tr>
<td>Other</td>
<td>None</td>
</tr>
</tbody>
</table>

### Software

**OS:** Red Hat Enterprise Linux release 8.5 (Ootpa)  
4.18.0-348.el8.x86_64

**Compiler:** C/C++: Version 2022.1 of Intel oneAPI DPC++/C++  
Compiler for Linux; Fortran: Version 2022.1 of Intel Fortran Compiler for Linux;

**Parallel:** No

**Firmware:** Version PEGC0011 released Aug-2022

**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.

---

### Performance Results

<table>
<thead>
<tr>
<th>Benchmark</th>
<th>SPECrate®2017_fp_base</th>
<th>SPECrate®2017_fp_peak</th>
</tr>
</thead>
<tbody>
<tr>
<td>503.bwaves_r</td>
<td>104</td>
<td>430</td>
</tr>
<tr>
<td>507.cactuBSSN_r</td>
<td>104</td>
<td>233</td>
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<tr>
<td>508.namd_r</td>
<td>104</td>
<td>166</td>
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<tr>
<td>510.parest_r</td>
<td>104</td>
<td>203</td>
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<tr>
<td>511.povray_r</td>
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<td>361</td>
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<td>519.lbm_r</td>
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<td>389</td>
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<tr>
<td>521.wrf_r</td>
<td>104</td>
<td>300</td>
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<tr>
<td>526.blender_r</td>
<td>104</td>
<td>342</td>
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<tr>
<td>527.cam4_r</td>
<td>104</td>
<td>345</td>
</tr>
<tr>
<td>538.imagick_r</td>
<td>104</td>
<td>983</td>
</tr>
<tr>
<td>544.nab_r</td>
<td>104</td>
<td>542</td>
</tr>
<tr>
<td>549.fotonik3d_r</td>
<td>104</td>
<td>313</td>
</tr>
<tr>
<td>554.roms_r</td>
<td>104</td>
<td>188</td>
</tr>
</tbody>
</table>
## Results Table

<table>
<thead>
<tr>
<th>Benchmark</th>
<th>Copies</th>
<th>Seconds</th>
<th>Ratio</th>
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<td>749</td>
<td>1390</td>
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<tr>
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<td>233</td>
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<tr>
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<td>167</td>
<td>493</td>
<td>168</td>
<td>492</td>
<td>168</td>
</tr>
</tbody>
</table>

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

## 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/intel64:/home/cpu2017/je5.0.1-64"

MALLOCONF = "retain:true"

## General Notes

Binaries compiled on a system with 2x Intel Xeon Platinum 8280M CPU + 384GB RAM memory using Red Hat Enterprise Linux 8.4

Transparent Huge Pages enabled by default

Prior to runcpu invocation

Filesystem page cache synced and cleared with:

(Continued on next page)
Sync; echo 3 > /proc/sys/vm/drop_caches
runcpu command invoked through numactl i.e.:
numactl --interleave=all runcpu <etc>
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.
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.
NA: The test sponsor attests, as of date of publication, that CVE-2017-5754 (Meltdown) is mitigated in the
system as tested and documented.
jemalloc, a general purpose malloc implementation
built with the RedHat Enterprise 7.5, and the system compiler gcc 4.8.5

Platform Notes

BIOS Settings:
Power Technology = Custom
ENERGY_PERF_BIAS_CFG mode = Extreme Performance
SNC (Sub NUMA) = Enable
KTI Prefetch = Enable
LLC Dead Line Alloc = Disable
Hyper-Threading = Enabled

Sysinfo program /home/cpu2017/bin/sysinfo
Rev: r6622 of 2021-04-07 982a61ec0915b55891ef0e16acaf64d
running on Tyronespec Sat Oct 1 02:50:42 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) Gold 5320 CPU @ 2.20GHz
  2 "physical id"s (chips)
104 "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 : 26
siblings : 52
physical 0: cores 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
physical 1: cores 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

From lscpu from util-linux 2.32.1:
Architecture: x86_64

(Continued on next page)
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SPECrate®2017_fp_base = 360
SPECrate®2017_fp_peak = 374

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

Test Date: Sep-2022
Hardware Availability: Apr-2021
Software Availability: May-2022

Platform Notes (Continued)

CPU op-mode(s): 32-bit, 64-bit
Byte Order: Little Endian
CPU(s): 104
On-line CPU(s) list: 0-103
Thread(s) per core: 2
Core(s) per socket: 26
Socket(s): 2
NUMA node(s): 2
Vendor ID: GenuineIntel
BIOS Vendor ID: Intel(R) Corporation
CPU family: 6
Model: 106
Model name: Intel(R) Xeon(R) Gold 5320 CPU @ 2.20GHz
BIOS Model name: Intel(R) Xeon(R) Gold 5320 CPU @ 2.20GHz
Stepping: 6
CPU MHz: 2200.000
CPU max MHz: 3400.0000
CPU min MHz: 800.0000
BogoMIPS: 4400.00
Virtualization: VT-x
L1d cache: 48K
L1i cache: 32K
L2 cache: 1280K
L3 cache: 39936K
NUMA node0 CPU(s): 0-25, 52-77
NUMA node1 CPU(s): 26-51, 78-103
Flags: fpu vme de pse tsc msr pae mce cmov pat pse36 clflush dtscachecl mmx fxsr sse sse2 ss ht tm pbe syscall nx pmdtpgbl dtes64monitor 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 cpuid_fault epb cat_l3 invpcid_single intelpm ssbd mbfa ibrs ibpb stibp ibrs_encoding tpr_shadow vnmi flexpriority ept vpid ept_ad fsgsbase tsc_adjust smx bmi1 hle avx2 smep bmi2 3dnow rdrand base instret ibpb intel_pt xsaveopt xsaves xsaveopt xgetvet xsavec qwpginvl tightening dnfsgsbase tsc_adjust smx bmi1 hle avx2 smep bmi2 3dnow rdrand base instret ibpb intel_pt xsaveopt xsaves xsaveopt xgetvet xsavec qwpginvl tightening dnfsgsbase tsc_adjust smx bmi1 hle avx2 smep bmi2 3dnow rdrand base instret ibpb intel_pt xsaveopt xsaves xsaveopt xgetvet xsavec qwpginvl tightening dnfsgsbase tsc_adjust smx bmi1 hle avx2 smep bmi2 3dnow rdrand base instret ibpb intel_pt xsaveopt xsaves xsaveopt xgetvet xsavec qwpginvl tightening dnfsgsbase tsc_adjust smx bmi1 hle avx2 smep bmi2 3dnow rdrand base instret ibpb intel_pt xsaveopt xsaves xsaveopt xgetvet xsavec qwpginvl tightening dnfsgsbase tsc_adjust smx bmi1 hle avx2 smep bmi2 3dnow rdrand base instret ibpb intel_pt xsaveopt xsaves xsaveopt xgetvet xsavec qwpginvl tightening dnfsgsbase tsc_adjust smx bmi1 hle avx2 smep bmi2 3dnow rdrand base instret ibpb intel_pt xsaveopt xsaves xsaveopt xgetvet xsavec qwpginvl tightening dnfsgsbase tsc_adjust smx bmi1 hle avx2 smep bmi2 3dnow rdrand base instret ibpb intel_pt xsaveopt xsaves xsaveopt xgetvet xsavec qwpginvl tightening dnfsgsbase tsc_adjust smx bmi1 hle avx2 smep bmi2 3dnow rdrand base instret ibpb intel_pt xsaveopt xsaves xsaveopt xgetvet xsavec qwpginvl tightening dnfsgsbase tsc_adjust smx bmi1 hle avx2 smep bmi2 3dnow rdrand base instret ibpb intel_pt xsaveopt xsaves xsaveopt xgetvet xsavec qwpginvl tightening dnfsgsbase tsc_adjust smx bmi1 hle avx2 smep bmi2 3dnow rdrand base instret ibpb intel_pt xsaveopt xsaves xsaveopt xgetvet xsavec qwpginvl tightening dnfsgsbase tsc_adjust smx bmi1 hle avx2 smep bmi2 3dnow rdrand base instret ibpb intel_pt xsaveopt xsaves xsaveopt xgetvet xsavec qwpginvl tightening dnfsgsbase tsc_adjust smx bmi1 hle avx2 smep bmi2 3dnow rdrand base instret ibpb intel_pt xsaveopt xsaves xsaveopt xgetvet xsavec qwpginvl tightening

/proc/cpuinfo cache data
cache size : 39936 KB

From numactl --hardware
WARNING: a numactl 'node' might or might not correspond to a physical chip.
available: 2 nodes (0-1)

(Continued on next page)
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CPU2017 License: 006042
Test Sponsor: Netweb Pte Ltd
Tested by: Tyrone Systems

Test Date: Sep-2022
Hardware Availability: Apr-2021
Software Availability: May-2022

Platform Notes (Continued)

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 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
node 0 size: 257628 MB
node 0 free: 233434 MB
node 1 cpus: 26 27 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
node 1 size: 257996 MB
node 1 free: 236184 MB
node distances:
node 0 1
0: 10 20
1: 20 10

From /proc/meminfo
MemTotal: 528000168 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

From /etc/*release* /etc/*version*
os-release:
NAME="Red Hat Enterprise Linux"
VERSION="8.5 (Ootpa)"
ID="rhel"
ID_LIKE="fedora"
VERSION_ID="8.5"
PLATFORM_ID="platform:el8"
PRETTY_NAME="Red Hat Enterprise Linux 8.5 (Ootpa)"
ANSI_COLOR="0;31"
redhat-release: Red Hat Enterprise Linux release 8.5 (Ootpa)
system-release: Red Hat Enterprise Linux release 8.5 (Ootpa)
system-release-cpe: cpe:/o:redhat:enterprise_linux:8::baseos

uname -a:
Linux Tyronespec 4.18.0-348.el8.x86_64 #1 SMP Mon Oct 4 12:17:22 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

(Continued on next page)
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SPEC CPU®2017 Floating Point Rate Result
Copyright 2017-2022 Standard Performance Evaluation Corporation

SPECrater®2017_fp_base = 360
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Platform Notes (Continued)

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/swapgs 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 Sep 30 17:06
SPEC is set to: /home/cpu2017

Filesystem        Type     Size  Used Avail Use% Mounted on
/dev/mapper/rhel-home xfs   402G  167G  235G  42% /home

From /sys/devices/virtual/dmi/id
Vendor:         Tyrone Systems
Product:        Tyrone Camarero TDI100C3R-212
Product Family: Family
Serial:         2X22002203

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 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 Samsung M393A4K40DB3-CWE 32 GB 2 rank 3200, configured at 2933
14x Samsung M393A4K40EB3-CWE 32 GB 2 rank 3200, configured at 2933

BIOS:
BIOS Vendor:       American Megatrends International, LLC.
BIOS Version:      PEGC0011
BIOS Date:         08/10/2022
BIOS Revision:     5.22

(End of data from sysinfo program)

Compiler Version Notes
==============================================================================
<table>
<thead>
<tr>
<th>C</th>
</tr>
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<tbody>
<tr>
<td>519.lbm_r(base, peak) 538.imagick_r(base, peak)</td>
</tr>
<tr>
<td>544.nab_r(base, peak)</td>
</tr>
</tbody>
</table>
==============================================================================

(Continued on next page)
Compiler Version Notes (Continued)

Intel (R) oneAPI DPC++/C++ Compiler for applications running on Intel (R) 64, Version 2022.1.0 Build 20220316
Copyright (C) 1985-2022 Intel Corporation. All rights reserved.

==============================================================================
C++ | 508.namd_r(base, peak) 510.parest_r(base, peak)
==============================================================================

Intel (R) oneAPI DPC++/C++ Compiler for applications running on Intel (R) 64, Version 2022.1.0 Build 20220316
Copyright (C) 1985-2022 Intel Corporation. All rights reserved.

==============================================================================
C++, C | 511.povray_r(base, peak) 526.blender_r(base, peak)
==============================================================================

Intel (R) oneAPI DPC++/C++ Compiler for applications running on Intel (R) 64, Version 2022.1.0 Build 20220316
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Intel (R) oneAPI DPC++/C++ Compiler for applications running on Intel (R) 64, Version 2022.1.0 Build 20220316
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Intel (R) Fortran Compiler for applications running on Intel (R) 64, Version 2022.1.0 Build 20220316
Copyright (C) 1985-2022 Intel Corporation. All rights reserved.

==============================================================================
Fortran | 503.bwaves_r(base, peak) 549.fotonik3d_r(base, peak)
| 554.roms_r(base, peak)
==============================================================================

Intel (R) Fortran Compiler for applications running on Intel (R) 64, Version 2022.1.0 Build 20220316
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------------------------------------------------------------------------------

Base Compiler Invocation

C benchmarks:
icx

C++ benchmarks:
icpx

Fortran benchmarks:
ifx

Benchmarks using both Fortran and C:
ifx icx

Benchmarks using both C and C++:
icpx icx

Benchmarks using Fortran, C, and C++:
icpx icx ifx

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

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

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**Tyrone Systems**  
(Test Sponsor: Netweb Pte Ltd)  
Tyrone Camarero TDI100C3R-212  
(2.20 GHz, Intel Xeon Gold 5320)  

| SPECrate®2017_fp_base = 360 |  
| SPECrate®2017_fp_peak = 374 |  

| CPU2017 License: 006042 | Test Date: Sep-2022 |  
| Test Sponsor: Netweb Pte Ltd | Hardware Availability: Apr-2021 |  
| Tested by: Tyrone Systems | Software Availability: May-2022 |  

**Base Portability Flags (Continued)**

544.nab_r: -DSPEC_LP64  
549.fotonik3d_r: -DSPEC_LP64  
554.roms_r: -DSPEC_LP64

**Base Optimization Flags**

**C benchmarks:**
- `-w`  
- `-std=c11`  
- `-m64`  
- `-Wl,-z,-mdefs`  
- `-xCORE-AVX2`  
- `-Ofast`  
- `-ffast-math`  
- `-flto`  
- `-mfpmath=sse`  
- `-funroll-loops`  
- `-qopt-mem-layout-trans=4`  
- `-ljemalloc`  
- `-L/usr/local/jemalloc64-5.0.1/lib`

**C++ benchmarks:**
- `-w`  
- `-m64`  
- `-Wl,-z,-mdefs`  
- `-xCORE-AVX2`  
- `-Ofast`  
- `-ffast-math`  
- `-flto`  
- `-mfpmath=sse`  
- `-funroll-loops`  
- `-qopt-mem-layout-trans=4`  
- `-ljemalloc`  
- `-L/usr/local/jemalloc64-5.0.1/lib`

**Fortran benchmarks:**
- `-w`  
- `-m64`  
- `-Wl,-z,-mdefs`  
- `-xCORE-AVX2`  
- `-Ofast`  
- `-ffast-math`  
- `-flto`  
- `-mfpmath=sse`  
- `-funroll-loops`  
- `-qopt-mem-layout-trans=4`  
- `-nostandard-realloc-lhs`  
- `-align array32byte`  
- `-auto`  
- `-ljemalloc`  
- `-L/usr/local/jemalloc64-5.0.1/lib`

**Benchmarks using both Fortran and C:**
- `-w`  
- `-m64`  
- `-std=c11`  
- `-Wl,-z,-mdefs`  
- `-xCORE-AVX2`  
- `-Ofast`  
- `-ffast-math`  
- `-flto`  
- `-mfpmath=sse`  
- `-funroll-loops`  
- `-qopt-mem-layout-trans=4`  
- `-nostandard-realloc-lhs`  
- `-align array32byte`  
- `-auto`  
- `-ljemalloc`  
- `-L/usr/local/jemalloc64-5.0.1/lib`

**Benchmarks using both C and C++:**
- `-w`  
- `-m64`  
- `-std=c11`  
- `-Wl,-z,-mdefs`  
- `-xCORE-AVX2`  
- `-Ofast`  
- `-ffast-math`  
- `-flto`  
- `-mfpmath=sse`  
- `-funroll-loops`  
- `-qopt-mem-layout-trans=4`  
- `-ljemalloc`  
- `-L/usr/local/jemalloc64-5.0.1/lib`

**Benchmarks using Fortran, C, and C++:**
- `-w`  
- `-m64`  
- `-std=c11`  
- `-Wl,-z,-mdefs`  
- `-xCORE-AVX2`  
- `-Ofast`  
- `-ffast-math`  
- `-flto`  
- `-mfpmath=sse`  
- `-funroll-loops`  
- `-qopt-mem-layout-trans=4`  
- `-nostandard-realloc-lhs`  
- `-align array32byte`  
- `-auto`  
- `-ljemalloc`  
- `-L/usr/local/jemalloc64-5.0.1/lib`
SPEC CPU®2017 Floating Point Rate Result

Tyrone Systems
(Test Sponsor: Netweb Pte Ltd)
Tyrone Camarero TDI100C3R-212
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CPU2017 License: 006042
Test Date: Sep-2022
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Hardware Availability: Apr-2021
Tested by: Tyrone Systems
Software Availability: May-2022

Peak Compiler Invocation

C benchmarks:
icx

C++ benchmarks:
icpx

Fortran benchmarks:
ifx

Benchmarks using both Fortran and C:
ifx icx

Benchmarks using both C and C++:
icpx icx

Benchmarks using Fortran, C, and C++:
icpx icx ifx

Peak Portability Flags

Same as Base Portability Flags

Peak Optimization Flags

C benchmarks:
519.lbm_r: basepeak = yes
538.imagick_r: basepeak = yes
544.nab_r: basepeak = yes

C++ benchmarks:
508.namd_r: basepeak = yes
510.parest_r: -w -m64 -Wl,-z,muldefs -xCORE-AVX2 -Ofast -ffast-math
-f1to -mfpmath=sse -funroll-loops
-qopt-mem-layout-trans=4 -ljemalloc
-L/usr/local/jemalloc64-5.0.1/lib

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

Fortran benchmarks:

503.bwaves_r: basepeak = yes

549.fotonik3d_r: basepeak = yes

554.roms_r: -w -m64 -Wl,-z,muldefs -xCORE-AVX2 -Ofast -ffast-math
-fito -mfpmath=sse -funroll-loops
-qopt-mem-layout-trans=4 -nostandard-realloc-lhs
-align array32byte -auto -ljemalloc
-L/usr/local/jemalloc64-5.0.1/lib

Benchmarks using both Fortran and C:

- w -m64 -std=c11 -Wl,-z,muldefs -xCORE-AVX2 -Ofast -ffast-math
- fito -mfpmath=sse -funroll-loops -qopt-mem-layout-trans=4
- nostandard-realloc-lhs -align array32byte -auto -ljemalloc
- L/usr/local/jemalloc64-5.0.1/lib

Benchmarks using both C and C++:

511.povray_r: -w -m64 -std=c11 -Wl,-z,muldefs
- fprofile-generate(pass 1)
- fprofile-use=default.profdata(pass 2) -xCORE-AVX2 -Ofast
- ffast-math -flto -mfpmath=sse -funroll-loops
- qopt-mem-layout-trans=4 -ljemalloc
- L/usr/local/jemalloc64-5.0.1/lib

526.blender_r: basepeak = yes

Benchmarks using Fortran, C, and C++:

- w -m64 -std=c11 -Wl,-z,muldefs -xCORE-AVX2 -Ofast -ffast-math
- fito -mfpmath=sse -funroll-loops -qopt-mem-layout-trans=4
- nostandard-realloc-lhs -align array32byte -auto -ljemalloc
- L/usr/local/jemalloc64-5.0.1/lib

The flags files that were used to format this result can be browsed at

You can also download the XML flags sources by saving the following links:
http://www.spec.org/cpu2017/flags/Tyrone-Platform-Settings-V1.2-ICX-revA.xml
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**Test Sponsor:** Netweb Pte Ltd  
**Tested by:** Tyrone Systems

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### TEST INFORMATION

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