## SPEC CPU®2017 Floating Point Speed Result

### New H3C Technologies Co., Ltd.

H3C UniServer B5700 G5 (Intel Xeon Gold 6330)

**SPECspeed®2017_fp_base = 177**

**SPECspeed®2017_fp_peak = 180**

<table>
<thead>
<tr>
<th>CPU2017 License</th>
<th>9066</th>
</tr>
</thead>
<tbody>
<tr>
<td>Test Sponsor</td>
<td>New H3C Technologies Co., Ltd.</td>
</tr>
<tr>
<td>Tested by</td>
<td>New H3C Technologies Co., Ltd.</td>
</tr>
<tr>
<td>Test Date</td>
<td>Jun-2021</td>
</tr>
<tr>
<td>Hardware Availability</td>
<td>Apr-2021</td>
</tr>
<tr>
<td>Software Availability</td>
<td>Dec-2020</td>
</tr>
</tbody>
</table>

### Threads

<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>56</td>
<td>234</td>
<td>260</td>
</tr>
<tr>
<td>607.cactuBSSN_s</td>
<td>56</td>
<td>128</td>
<td>139</td>
</tr>
<tr>
<td>619.lbm_s</td>
<td>56</td>
<td>129</td>
<td>148</td>
</tr>
<tr>
<td>621.wrf_s</td>
<td>56</td>
<td>73.7</td>
<td>164</td>
</tr>
<tr>
<td>627.cam4_s</td>
<td>56</td>
<td></td>
<td></td>
</tr>
<tr>
<td>628.pop2_s</td>
<td>56</td>
<td></td>
<td></td>
</tr>
<tr>
<td>638.imagick_s</td>
<td>56</td>
<td></td>
<td></td>
</tr>
<tr>
<td>644.nab_s</td>
<td>56</td>
<td></td>
<td></td>
</tr>
<tr>
<td>649.fotonik3d_s</td>
<td>56</td>
<td>107</td>
<td>164</td>
</tr>
<tr>
<td>654.roms_s</td>
<td>56</td>
<td>213</td>
<td></td>
</tr>
</tbody>
</table>

### Hardware

- **CPU Name:** Intel Xeon Gold 6330
- **Max MHz:** 3100
- **Nominal:** 2000
- **Enabled:** 56 cores, 2 chips
- **Orderable:** 1.2 Chips
- **Cache L1:** 32 KB I + 48 KB D on chip per core
- **L2:** 1.25 MB I+D on chip per core
- **L3:** 42 MB I+D on chip per chip
- **Memory:** 512 GB (16 x 32 GB 2Rx4 PC4-3200V-R, running at 2933)
- **Storage:** 1 x 1.92 TB SATA SSD
- **Other:** None

### Software

- **OS:** Red Hat Enterprise Linux release 8.3 (Ootpa)
  4.18.0-240.el8.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 5.23 released Apr-2021BIOS
- **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 set to prefer performance at the cost of additional power usage
Results Table

<table>
<thead>
<tr>
<th>Benchmark</th>
<th>Threads</th>
<th>Seconds</th>
<th>Ratio</th>
<th>Seconds</th>
<th>Ratio</th>
<th>Seconds</th>
<th>Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>603.bwaves_s</td>
<td>56</td>
<td>95.0</td>
<td>621</td>
<td>95.0</td>
<td>621</td>
<td>94.3</td>
<td>625</td>
</tr>
<tr>
<td>607.cactuBSSN_s</td>
<td>56</td>
<td>71.1</td>
<td>234</td>
<td>70.5</td>
<td>236</td>
<td>71.7</td>
<td>232</td>
</tr>
<tr>
<td>619.lbm_s</td>
<td>56</td>
<td>40.8</td>
<td>128</td>
<td>39.5</td>
<td>133</td>
<td>42.8</td>
<td>122</td>
</tr>
<tr>
<td>621.wrf_s</td>
<td>56</td>
<td>95.0</td>
<td>139</td>
<td>95.7</td>
<td>138</td>
<td>94.2</td>
<td>140</td>
</tr>
<tr>
<td>627.cam4_s</td>
<td>56</td>
<td>67.4</td>
<td>132</td>
<td>68.5</td>
<td>129</td>
<td>69.0</td>
<td>128</td>
</tr>
<tr>
<td>628.pop2_s</td>
<td>56</td>
<td>161</td>
<td>73.7</td>
<td>161</td>
<td>73.7</td>
<td>160</td>
<td>74.0</td>
</tr>
<tr>
<td>638.imagick_s</td>
<td>56</td>
<td>87.7</td>
<td>164</td>
<td>87.8</td>
<td>164</td>
<td>87.8</td>
<td>164</td>
</tr>
<tr>
<td>644.nab_s</td>
<td>56</td>
<td>54.5</td>
<td>321</td>
<td>54.4</td>
<td>321</td>
<td>54.6</td>
<td>320</td>
</tr>
<tr>
<td>649.fotonik3d_s</td>
<td>56</td>
<td>85.1</td>
<td>107</td>
<td>85.8</td>
<td>106</td>
<td>84.0</td>
<td>108</td>
</tr>
<tr>
<td>654.roms_s</td>
<td>56</td>
<td>73.6</td>
<td>214</td>
<td>74.3</td>
<td>212</td>
<td>73.8</td>
<td>213</td>
</tr>
</tbody>
</table>

SPECspeed®2017_fp_base = 177
SPECspeed®2017_fp_peak = 180

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"
LD_LIBRARY_PATH = "/home/speccpu/lib/intel64:/home/speccpu/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.
jemalloc, a general purpose malloc implementation built with the RedHat Enterprise 7.5, and the system compiler gcc 4.8.5

(Continued on next page)
New H3C Technologies Co., Ltd.  
H3C UniServer B5700 G5 (Intel Xeon Gold 6330)  

SPECspeed®2017_fp_base = 177  
SPECspeed®2017_fp_peak = 180  

CPU2017 License: 9066  
Test Date: Jun-2021  
Test Sponsor: New H3C Technologies Co., Ltd.  
Hardware Availability: Apr-2021  
Tested by: New H3C Technologies Co., Ltd.  
Software Availability: Dec-2020

General Notes (Continued)  

Platform Notes

BIOS Settings:  
Set Hyper-Threading to disabled  
Set Patrol Scrub to disabled

Sysinfo program /home/speccpu/bin/sysinfo  
Rev: r6622 of 2021-04-07 982a61ec0915b55891ef0e16acaf64d  
running on localhost.localdomain Fri Jun 25 22:07:18 2021

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 6330 CPU @ 2.00GHz  
  2 "physical id"s (chips)  
  56 "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 : 28
  
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 26 27
  
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 26 27

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): 56  
On-line CPU(s) list: 0-55  
Thread(s) per core: 1  
Core(s) per socket: 28  
Socket(s): 2  
NUMA node(s): 2  
Vendor ID: GenuineIntel  
CPU family: 6  
Model: 106  
Model name: Intel(R) Xeon(R) Gold 6330 CPU @ 2.00GHz  
Stepping: 6  
CPU MHz: 913.490  
CPU max MHz: 3100.0000

(Continued on next page)
New H3C Technologies Co., Ltd.

H3C UniServer B5700 G5 (Intel Xeon Gold 6330)

CPU2017 License: 9066
Test Sponsor: New H3C Technologies Co., Ltd.
Tested by: New H3C Technologies Co., Ltd.
Test Date: Jun-2021
Hardware Availability: Apr-2021
Software Availability: Dec-2020

SPECspeed®2017_fp_base = 177
SPECspeed®2017_fp_peak = 180

Platform Notes (Continued)

CPU min MHz: 800.0000
BogoMIPS: 4000.00
Virtualization: VT-x
L1d cache: 48K
L1i cache: 32K
L2 cache: 1280K
L3 cache: 43008K
NUMA node0 CPU(s): 0-27
NUMA node1 CPU(s): 28-55
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 pdelpbg rdtscp lm constant_tsc art arch_perfmon pebs bts rep_good nopl xtopology nonstop_tsc cpuid aperfmprefp pci pcimulgdp 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 cpuid_fault epb cat_l3 invpcid_single intel_ppln ssbd mba ibrs ibpb stibp ibrs_enhanced tpr_shadow vnmi flexpriority ept vpid ept_ad fsxgsbase tsc_adjust bmi1 hle avx2 smep bmi2 erms invpcid cqm rdt_a avx512f avx512dq rdseed adx smap avx512ifma clflushopt clwb intel_pt avx512cd sha ni avx512bw avx512vl xsavingt xgetbvl sxaves cqm_llc cqm_occup_llc cqm_mbb_total cqm_mbb_local split_lock detect wnoinvd dtherm ida arat pln pts hvwp act_window hvwp epp hvwp_pkg_req avx512vmbi umip pku ospke avx512_vmbi2 gfin vaes vpclmulqdq avx512_vnni avx512_bitalg tme avx512_vpopcntdq la57 rdpid md_clear pconfig flush_l1d arch_capabilities

/proc/cpuinfo cache data
  cache size: 43008 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
  node 0 size: 245934 MB
  node 0 free: 255459 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
  node 1 size: 246323 MB
  node 1 free: 251629 MB
  node distances:
    node 0 1
    0: 10 20
    1: 20 10

From /proc/meminfo
  MemTotal: 527746964 kB
  HugePages_Total: 0
  Hugepagesize: 2048 kB

(Continued on next page)
New H3C Technologies Co., Ltd.

H3C UniServer B5700 G5 (Intel Xeon Gold 6330)

SPECspeed\textsuperscript{\textregistered}2017\_fp\_base = 177

SPECspeed\textsuperscript{\textregistered}2017\_fp\_peak = 180

CPU2017 License: 9066
Test Sponsor: New H3C Technologies Co., Ltd.
Tested by: New H3C Technologies Co., Ltd.

Test Date: Jun-2021
Hardware Availability: Apr-2021
Software Availability: Dec-2020

Platform Notes (Continued)

```
/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="8.3 (Ootpa)"
ID="rhel"
ID\_LIKE="fedora"
VERSION\_ID="8.3"
PLATFORM\_ID="platform:el8"
PRETTY\_NAME="Red Hat Enterprise Linux 8.3 (Ootpa)"
ANSI\_COLOR="0;31"

redhat\_release: Red Hat Enterprise Linux release 8.3 (Ootpa)
system\_release: Red Hat Enterprise Linux release 8.3 (Ootpa)
system\_release\_cpe: cpe:/o:redhat:enterprise\_linux:8.3:ga

uname -a:
Linux localhost.localdomain 4.18.0-240.el8.x86_64 #1 SMP Wed Sep 23 05:13:10 EDT 2020
x86_64 x86_64 x86_64 GNU/Linux

Kernel self-reported vulnerability status:

CVE-2018-12207 (iTLB Multihit):
CVE-2018-3620 (L1 Terminal Fault):
Microarchitectural Data Sampling:
CVE-2017-5754 (Meltdown):
CVE-2018-3639 (Speculative Store Bypass):
CVE-2017-5753 (Spectre variant 1):
CVE-2017-5715 (Spectre variant 2):
CVE-2020-0543 (Special Register Buffer Data Sampling):
CVE-2019-11135 (TSX Asynchronous Abort):

run-level 3 Jun 25 17:46

SPEC is set to: /home/speccpu

Filesystem Type Size Used Avail Use% Mounted on
/dev/mapper/rhel-home xfs 1.7T 92G 1.6T 6% /home
```

(Continued on next page)
New H3C Technologies Co., Ltd. | SPECspeed\textsuperscript{®}2017\_fp\_base = 177

H3C UniServer B5700 G5 (Intel Xeon Gold 6330) | SPECspeed\textsuperscript{®}2017\_fp\_peak = 180

**Platform Notes (Continued)**

From /sys/devices/virtual/dmi/id

Vendor:         New H3C Technologies Co., Ltd.
Product:        B5700 G5
Product Family: Rack
Serial:         210235A3W9H212000011

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:
16x Hynix HMA84GR7DJR4N-XN 32 GB 2 rank 3200, configured at 2933
16x NO DIMM NO DIMM

BIOS:
BIOS Vendor:     American Megatrends International, LLC.
BIOS Version:    5.23
BIOS Date:       04/23/2021
BIOS Revision:   5.21

(End of data from sysinfo program)

**Compiler Version Notes**

```
<table>
<thead>
<tr>
<th></th>
<th>619.lbm_s(base, peak) 638.imagick_s(base, peak)</th>
</tr>
</thead>
<tbody>
<tr>
<td>C</td>
<td>644.nab_s(base)</td>
</tr>
</tbody>
</table>

Intel\textsuperscript{(R)} C Intel\textsuperscript{(R)} 64 Compiler Classic for applications running on Intel\textsuperscript{(R)} 64, Version 2021.1 Build 20201112_000000
Copyright (C) 1985-2020 Intel Corporation. All rights reserved.

|                      | 644.nab_s(peak)                                      |

Intel\textsuperscript{(R)} oneAPI DPC+/C++ Compiler for applications running on Intel\textsuperscript{(R)} 64, Version 2021.1 Build 20201113
Copyright (C) 1985-2020 Intel Corporation. All rights reserved.

<table>
<thead>
<tr>
<th></th>
<th>619.lbm_s(base, peak) 638.imagick_s(base, peak)</th>
</tr>
</thead>
<tbody>
<tr>
<td>C</td>
<td>644.nab_s(base)</td>
</tr>
</tbody>
</table>

Intel\textsuperscript{(R)} C Intel\textsuperscript{(R)} 64 Compiler Classic for applications running on Intel\textsuperscript{(R)}
```

(Continued on next page)
New H3C Technologies Co., Ltd.
H3C UniServer B5700 G5 (Intel Xeon Gold 6330)

SPEC®2017_fp_base = 177
SPEC®2017_fp_peak = 180

CPU2017 License: 9066
Test Sponsor: New H3C Technologies Co., Ltd.
Test Date: Jun-2021

Tested by: New H3C Technologies Co., Ltd.
Hardware Availability: Apr-2021
Software Availability: Dec-2020

Compiler Version Notes (Continued)

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

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)

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)

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.
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.

-----------------------------------------------
SPEC CPU®2017 Floating Point Speed Result

New H3C Technologies Co., Ltd.
H3C UniServer B5700 G5 (Intel Xeon Gold 6330)

SPECspeed®2017_fp_base = 177
SPECspeed®2017_fp_peak = 180

CPU2017 License: 9066
Test Sponsor: New H3C Technologies Co., Ltd.
Tested by: New H3C Technologies Co., Ltd.

Base Compiler Invocation

C benchmarks:
icc

Fortran benchmarks:
ifort

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.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:
-m64 -std=c11 -xCORE-AVX512 -ipo -O3 -no-prec-div -qopt-prefetch
-ffinite-math-only -qopt-mem-layout-trans=4 -qopenmp -DSPEC_OPENMP
-mbranches-within-32B-boundaries

Fortran benchmarks:
-m64 -Wl,-z,muldefs -DSPEC_OPENMP -xCORE-AVX512 -ipo -O3
-no-prec-div -qopt-prefetch -ffinite-math-only
-qopt-mem-layout-trans=4 -qopenmp -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-AVX512 -ipo -O3 -no-prec-div

(Continued on next page)
New H3C Technologies Co., Ltd.  
H3C UniServer B5700 G5 (Intel Xeon Gold 6330)

CPU2017 License: 9066  
Test Sponsor: New H3C Technologies Co., Ltd.  
Tested by: New H3C Technologies Co., Ltd.

SPECspeed\textsuperscript{®}2017\_fp\_base = 177  
SPECspeed\textsuperscript{®}2017\_fp\_peak = 180

| Test Date: | Jun-2021  |
| Hardware Availability: | Apr-2021  |
| Software Availability: | Dec-2020  |

### Base Optimization Flags (Continued)

Benchmarks using both Fortran and C (continued):
- `qopt-prefetch` -ffinite-math-only -qopt-mem-layout-trans=4 -qopenmp
- 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-AVX512 -ipo -O3 -no-prec-div
- qopt-prefetch -ffinite-math-only -qopt-mem-layout-trans=4 -qopenmp
- 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

(Continued on next page)
New H3C Technologies Co., Ltd.
H3C UniServer B5700 G5 (Intel Xeon Gold 6330)

CPU2017 License: 9066
Test Sponsor: New H3C Technologies Co., Ltd.
Tested by: New H3C Technologies Co., Ltd.

CPU2017 License: 9066
Test Date: Jun-2021
Hardware Availability: Apr-2021
Software Availability: Dec-2020

Peak Optimization Flags (Continued)

644.nab_s: -m64 -Wl,-z,muldefs -xCORE-AVX512 -Ofast -ffast-math
-ffltolong=ssse -funroll-loops -ffopenmp
-DSPEC_OPENMP -qopt-mem-layout-trans=4
-fimf-accuracy-bits=14:sqrt
-mbranches-within-32B-boundaries
-L/usr/local/jemalloc64-5.0.1/lib -ljemalloc

Fortran benchmarks:

603.bwaves_s: -m64 -Wl,-z,muldefs -prof-gen(pass 1) -prof-use(pass 2)
-DSPEC_SUPPRESS_OPENMP -DSPEC_OPENMP -ipo -xCORE-AVX512
-O3 -no-prec-div -qopt-prefetch -ffinite-math-only
-qopt-mem-layout-trans=4 -qopenmp -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-AVX512 -O3 -no-prec-div
-qopt-prefetch -ffinite-math-only -qopt-mem-layout-trans=4
-DSPEC_SUPPRESS_OPENMP -qopenmp -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

You can also download the XML flags sources by saving the following links:
http://www.spec.org/cpu2017/flags/Intel-ic2021-official-linux64_revA.xml
http://www.spec.org/cpu2017/flags/New_H3C-Platform-Settings-V1.0-CPX-RevC.xml
<table>
<thead>
<tr>
<th>SPEC CPU®2017 Floating Point Speed Result</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>New H3C Technologies Co., Ltd.</strong></td>
</tr>
<tr>
<td>H3C UniServer B5700 G5 (Intel Xeon Gold 6330)</td>
</tr>
<tr>
<td>SPECspeed®2017_fp_base = 177</td>
</tr>
<tr>
<td>SPECspeed®2017_fp_peak = 180</td>
</tr>
<tr>
<td>CPU2017 License: 9066</td>
</tr>
<tr>
<td>Test Sponsor:  New H3C Technologies Co., Ltd.</td>
</tr>
<tr>
<td>Tested by: New H3C Technologies Co., Ltd.</td>
</tr>
<tr>
<td>Test Date: Jun-2021</td>
</tr>
<tr>
<td>Hardware Availability: Apr-2021</td>
</tr>
<tr>
<td>Software Availability: Dec-2020</td>
</tr>
</tbody>
</table>

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 2021-06-25 22:07:17-0400.
Report generated on 2021-07-21 15:35:49 by CPU2017 PDF formatter v6442.
Originally published on 2021-07-20.