



# SPEC CPU®2017 Integer Rate Result

Copyright 2017-2020 Standard Performance Evaluation Corporation

## New H3C Technologies Co., Ltd.

## SPECrate®2017\_int\_base = 216

## H3C UniServer R4900 G3 (Intel Xeon Gold 5218R)

## SPECrate®2017\_int\_peak = 226

CPU2017 License: 9066

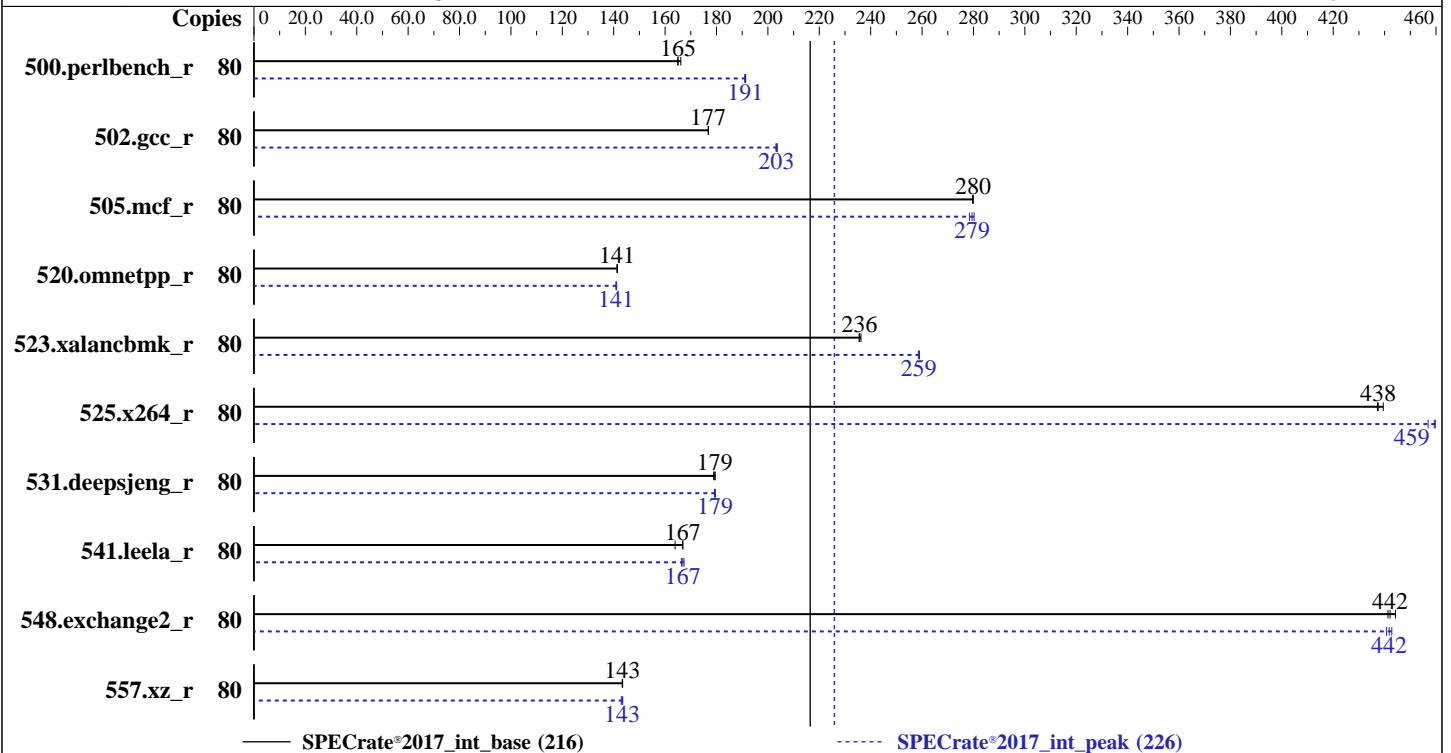
Test Sponsor: New H3C Technologies Co., Ltd.

Tested by: New H3C Technologies Co., Ltd.

Test Date: Aug-2020

Hardware Availability: Feb-2020

Software Availability: May-2019



### Hardware

CPU Name: Intel Xeon Gold 5218R  
 Max MHz: 4000  
 Nominal: 2100  
 Enabled: 40 cores, 2 chips, 2 threads/core  
 Orderable: 1,2 chips  
 Cache L1: 32 KB I + 32 KB D on chip per core  
 L2: 1 MB I+D on chip per core  
 L3: 27.5 MB I+D on chip per chip  
 Other: None  
 Memory: 384 GB (12 x 32 GB 2Rx4 PC4-2933V-R, running at 2666)  
 Storage: 2 x 480 GB SATA SSD  
 Other: None

### Software

OS: SUSE Linux Enterprise Server 12 SP4  
 4.12.14-94.41-default  
 Compiler: C/C++: Version 19.0.4.227 of Intel C/C++  
 Compiler Build 20190416 for Linux;  
 Fortran: Version 19.0.4.227 of Intel Fortran  
 Compiler Build 20190416 for Linux  
 Parallel: No  
 Firmware: Version 2.00.33 released Aug-2019 BIOS  
 File System: btrfs  
 System State: Run level 3 (multi-user)  
 Base Pointers: 64-bit  
 Peak Pointers: 32/64-bit  
 Other: jemalloc memory allocator V5.0.1  
 Power Management: BIOS set to prefer performance at the cost of additional power usage



# SPEC CPU®2017 Integer Rate Result

Copyright 2017-2020 Standard Performance Evaluation Corporation

New H3C Technologies Co., Ltd.

SPECrate®2017\_int\_base = 216

H3C UniServer R4900 G3 (Intel Xeon Gold 5218R)

SPECrate®2017\_int\_peak = 226

CPU2017 License: 9066

Test Sponsor: New H3C Technologies Co., Ltd.

Tested by: New H3C Technologies Co., Ltd.

Test Date: Aug-2020

Hardware Availability: Feb-2020

Software Availability: May-2019

## Results Table

Benchmark	Base							Peak						
	Copies	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Copies	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio
500.perlbench_r	80	772	165	767	166	<b>772</b>	<b>165</b>	80	665	191	<b>666</b>	<b>191</b>	667	191
502.gcc_r	80	641	177	640	177	<b>641</b>	<b>177</b>	80	558	203	556	204	<b>557</b>	<b>203</b>
505.mcf_r	80	<b>462</b>	<b>280</b>	462	280	462	280	80	464	278	461	280	<b>463</b>	<b>279</b>
520.omnetpp_r	80	<b>743</b>	<b>141</b>	743	141	742	141	80	745	141	744	141	<b>745</b>	<b>141</b>
523.xalancbmk_r	80	358	236	<b>358</b>	<b>236</b>	359	236	80	<b>326</b>	<b>259</b>	327	259	326	259
525.x264_r	80	<b>320</b>	<b>438</b>	320	437	319	439	80	307	457	<b>305</b>	<b>459</b>	305	460
531.deepsjeng_r	80	511	179	<b>511</b>	<b>179</b>	512	179	80	512	179	<b>511</b>	<b>179</b>	511	180
541.leela_r	80	808	164	<b>794</b>	<b>167</b>	794	167	80	792	167	796	166	<b>794</b>	<b>167</b>
548.exchange2_r	80	472	444	<b>474</b>	<b>442</b>	475	441	80	473	443	476	441	<b>474</b>	<b>442</b>
557.xz_r	80	602	143	<b>602</b>	<b>143</b>	603	143	80	604	143	<b>603</b>	<b>143</b>	602	144

SPECrate®2017\_int\_base = 216

SPECrate®2017\_int\_peak = 226

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/speccpu/lib/intel64:/home/speccpu/lib/ia32:/home/speccpu/je5.0.1-32"
```

## General Notes

Binaries compiled on a system with 1x Intel Core i9-7900X CPU + 32GB RAM memory using Redhat Enterprise Linux 7.5

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)

(Continued on next page)



# SPEC CPU®2017 Integer Rate Result

Copyright 2017-2020 Standard Performance Evaluation Corporation

New H3C Technologies Co., Ltd.

SPECrate®2017\_int\_base = 216

H3C UniServer R4900 G3 (Intel Xeon Gold 5218R)

SPECrate®2017\_int\_peak = 226

**CPU2017 License:** 9066

**Test Sponsor:** New H3C Technologies Co., Ltd.

**Tested by:** New H3C Technologies Co., Ltd.

**Test Date:** Aug-2020

**Hardware Availability:** Feb-2020

**Software Availability:** May-2019

## General Notes (Continued)

is mitigated in the system as tested and documented.  
 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
```

 jemalloc, a general purpose malloc implementation  
 built with the RedHat Enterprise 7.5, and the system compiler gcc 4.8.5  
 sources available from jemalloc.net or <https://github.com/jemalloc/jemalloc/releases>

## Platform Notes

BIOS Settings:

Set SNC to Enabled  
 Set IMC Interleaving to 1-way Interleave  
 Set XPT Prefetcher to Enabled

Sysinfo program /home/speccpu/bin/sysinfo  
 Rev: r6365 of 2019-08-21 295195f888a3d7edble6e46a485a0011  
 running on linux-wax3 Thu Aug 6 11:36:35 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 5218R CPU @ 2.10GHz
 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): 4
Vendor ID: GenuineIntel
```

(Continued on next page)



# SPEC CPU®2017 Integer Rate Result

Copyright 2017-2020 Standard Performance Evaluation Corporation

New H3C Technologies Co., Ltd.

SPECrate®2017\_int\_base = 216

H3C UniServer R4900 G3 (Intel Xeon Gold 5218R)

SPECrate®2017\_int\_peak = 226

CPU2017 License: 9066

Test Date: Aug-2020

Test Sponsor: New H3C Technologies Co., Ltd.

Hardware Availability: Feb-2020

Tested by: New H3C Technologies Co., Ltd.

Software Availability: May-2019

## Platform Notes (Continued)

```

CPU family:           6
Model:               85
Model name:          Intel(R) Xeon(R) Gold 5218R CPU @ 2.10GHz
Stepping:            7
CPU MHz:             2100.000
CPU max MHz:         4000.0000
CPU min MHz:         800.0000
BogoMIPS:            4200.00
Virtualization:      VT-x
L1d cache:           32K
L1i cache:           32K
L2 cache:            1024K
L3 cache:            28160K
NUMA node0 CPU(s):  0-2,5,6,10-12,15,16,40-42,45,46,50-52,55,56
NUMA node1 CPU(s):  3,4,7-9,13,14,17-19,43,44,47-49,53,54,57-59
NUMA node2 CPU(s):  20-22,25,26,30-32,35,36,60-62,65,66,70-72,75,76
NUMA node3 CPU(s):  23,24,27-29,33,34,37-39,63,64,67-69,73,74,77-79
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 cpuid
aperfperf 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 fl6c rdrand lahf_lm abm 3dnowprefetch cpuid_fault epb cat_l3 cdp_l3
invpcid_single intel_ppin ssbd mba ibrs ibpb stibp tpr_shadow vnmi 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 intel_pt avx512cd avx512bw avx512vl
xsaveopt xsavec xgetbv1 xsaves cqm_llc cqm_occup_llc cqm_mbm_total cqm_mbm_local
dtherm ida arat pln pts hwp hwp_act_window hwp_epp hwp_pkg_req pku ospke avx512_vnni
flush_lld arch_capabilities

```

```

/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: 4 nodes (0-3)
node 0 cpus: 0 1 2 5 6 10 11 12 15 16 40 41 42 45 46 50 51 52 55 56
node 0 size: 95249 MB
node 0 free: 81281 MB
node 1 cpus: 3 4 7 8 9 13 14 17 18 19 43 44 47 48 49 53 54 57 58 59
node 1 size: 96753 MB
node 1 free: 85531 MB
node 2 cpus: 20 21 22 25 26 30 31 32 35 36 60 61 62 65 66 70 71 72 75 76
node 2 size: 96724 MB
node 2 free: 85274 MB
node 3 cpus: 23 24 27 28 29 33 34 37 38 39 63 64 67 68 69 73 74 77 78 79
node 3 size: 96549 MB

```

(Continued on next page)



# SPEC CPU®2017 Integer Rate Result

Copyright 2017-2020 Standard Performance Evaluation Corporation

New H3C Technologies Co., Ltd.

SPECrate®2017\_int\_base = 216

H3C UniServer R4900 G3 (Intel Xeon Gold 5218R)

SPECrate®2017\_int\_peak = 226

CPU2017 License: 9066

Test Sponsor: New H3C Technologies Co., Ltd.

Tested by: New H3C Technologies Co., Ltd.

Test Date: Aug-2020

Hardware Availability: Feb-2020

Software Availability: May-2019

## Platform Notes (Continued)

node 3 free: 85465 MB

node distances:

```

node  0  1  2  3
  0:  10  11  21  21
  1:  11  10  21  21
  2:  21  21  10  11
  3:  21  21  11  10

```

From /proc/meminfo

```

MemTotal:      394524524 kB
HugePages_Total:      0
Hugepagesize:    2048 kB

```

/usr/bin/lsb\_release -d

SUSE Linux Enterprise Server 12 SP4

From /etc/\*release\* /etc/\*version\*

SuSE-release:

```

SUSE Linux Enterprise Server 12 (x86_64)
VERSION = 12
PATCHLEVEL = 4

```

```

# 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-SP4"
VERSION_ID="12.4"
PRETTY_NAME="SUSE Linux Enterprise Server 12 SP4"
ID="sles"
ANSI_COLOR="0;32"
CPE_NAME="cpe:/o:suse:sles:12:sp4"

```

uname -a:

```

Linux linux-wax3 4.12.14-94.41-default #1 SMP Wed Oct 31 12:25:04 UTC 2018 (3090901)
x86_64 x86_64 x86_64 GNU/Linux

```

Kernel self-reported vulnerability status:

```

CVE-2018-3620 (L1 Terminal Fault):      Not affected
Microarchitectural Data Sampling:      No status reported
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: __user pointer sanitization
CVE-2017-5715 (Spectre variant 2):      Mitigation: Indirect Branch Restricted Speculation, IBPB, IBRS_FW

```

(Continued on next page)



# SPEC CPU®2017 Integer Rate Result

Copyright 2017-2020 Standard Performance Evaluation Corporation

New H3C Technologies Co., Ltd.

SPECrate®2017\_int\_base = 216

H3C UniServer R4900 G3 (Intel Xeon Gold 5218R)

SPECrate®2017\_int\_peak = 226

CPU2017 License: 9066

Test Sponsor: New H3C Technologies Co., Ltd.

Tested by: New H3C Technologies Co., Ltd.

Test Date: Aug-2020

Hardware Availability: Feb-2020

Software Availability: May-2019

## Platform Notes (Continued)

run-level 3 Aug 5 20:50

SPEC is set to: /home/speccpu

Filesystem	Type	Size	Used	Avail	Use%	Mounted on
/dev/md126p1	btrfs	401G	67G	334G	17%	/home

From /sys/devices/virtual/dmi/id

BIOS: American Megatrends Inc. 2.00.33 08/22/2019

Vendor: New H3C Technologies Co., Ltd.

Product: UniServer R4900 G3

Product Family: Rack

Serial: 210231A6T3H19B000065

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 Micron 36ASF4G72PZ-2G9E2 32 GB 2 rank 2933, configured at 2666

12x NO DIMM NO DIMM

(End of data from sysinfo program)

## Compiler Version Notes

C | 502.gcc\_r(peak)

Intel(R) C Intel(R) 64 Compiler for applications running on IA-32, Version 19.0.4.227 Build 20190416

Copyright (C) 1985-2019 Intel Corporation. All rights reserved.

C | 500.perlbench\_r(base, peak) 502.gcc\_r(base) 505.mcf\_r(base, peak) 525.x264\_r(base, peak) 557.xz\_r(base, peak)

Intel(R) C Intel(R) 64 Compiler for applications running on Intel(R) 64, Version 19.0.4.227 Build 20190416

Copyright (C) 1985-2019 Intel Corporation. All rights reserved.

C | 502.gcc\_r(peak)

Intel(R) C Intel(R) 64 Compiler for applications running on IA-32, Version

(Continued on next page)



# SPEC CPU®2017 Integer Rate Result

Copyright 2017-2020 Standard Performance Evaluation Corporation

New H3C Technologies Co., Ltd.

SPECrate®2017\_int\_base = 216

H3C UniServer R4900 G3 (Intel Xeon Gold 5218R)

SPECrate®2017\_int\_peak = 226

CPU2017 License: 9066

Test Sponsor: New H3C Technologies Co., Ltd.

Tested by: New H3C Technologies Co., Ltd.

Test Date: Aug-2020

Hardware Availability: Feb-2020

Software Availability: May-2019

## Compiler Version Notes (Continued)

19.0.4.227 Build 20190416  
Copyright (C) 1985-2019 Intel Corporation. All rights reserved.

=====  
C | 500.perlbench\_r(base, peak) 502.gcc\_r(base) 505.mcf\_r(base, peak)  
| 525.x264\_r(base, peak) 557.xz\_r(base, peak)  
=====

Intel(R) C Intel(R) 64 Compiler for applications running on Intel(R) 64,  
Version 19.0.4.227 Build 20190416  
Copyright (C) 1985-2019 Intel Corporation. All rights reserved.

=====  
C++ | 523.xalancbmk\_r(peak)  
=====

Intel(R) C++ Intel(R) 64 Compiler for applications running on IA-32, Version  
19.0.4.227 Build 20190416  
Copyright (C) 1985-2019 Intel Corporation. All rights reserved.

=====  
C++ | 520.omnetpp\_r(base, peak) 523.xalancbmk\_r(base)  
| 531.deepsjeng\_r(base, peak) 541.leela\_r(base, peak)  
=====

Intel(R) C++ Intel(R) 64 Compiler for applications running on Intel(R) 64,  
Version 19.0.4.227 Build 20190416  
Copyright (C) 1985-2019 Intel Corporation. All rights reserved.

=====  
C++ | 523.xalancbmk\_r(peak)  
=====

Intel(R) C++ Intel(R) 64 Compiler for applications running on IA-32, Version  
19.0.4.227 Build 20190416  
Copyright (C) 1985-2019 Intel Corporation. All rights reserved.

=====  
C++ | 520.omnetpp\_r(base, peak) 523.xalancbmk\_r(base)  
| 531.deepsjeng\_r(base, peak) 541.leela\_r(base, peak)  
=====

Intel(R) C++ Intel(R) 64 Compiler for applications running on Intel(R) 64,  
Version 19.0.4.227 Build 20190416  
Copyright (C) 1985-2019 Intel Corporation. All rights reserved.

(Continued on next page)



# SPEC CPU®2017 Integer Rate Result

Copyright 2017-2020 Standard Performance Evaluation Corporation

New H3C Technologies Co., Ltd.

SPECrate®2017\_int\_base = 216

H3C UniServer R4900 G3 (Intel Xeon Gold 5218R)

SPECrate®2017\_int\_peak = 226

CPU2017 License: 9066

Test Sponsor: New H3C Technologies Co., Ltd.

Tested by: New H3C Technologies Co., Ltd.

Test Date: Aug-2020

Hardware Availability: Feb-2020

Software Availability: May-2019

## Compiler Version Notes (Continued)

=====  
Fortran | 548.exchange2\_r(base, peak)  
=====

Intel(R) Fortran Intel(R) 64 Compiler for applications running on Intel(R)  
64, Version 19.0.4.227 Build 20190416  
Copyright (C) 1985-2019 Intel Corporation. All rights reserved.  
=====

## Base Compiler Invocation

C benchmarks:

icc -m64 -std=c11

C++ benchmarks:

icpc -m64

Fortran benchmarks:

ifort -m64

## Base Portability Flags

500.perlbench\_r: -DSPEC\_LP64 -DSPEC\_LINUX\_X64  
502.gcc\_r: -DSPEC\_LP64  
505.mcf\_r: -DSPEC\_LP64  
520.omnetpp\_r: -DSPEC\_LP64  
523.xalancbmk\_r: -DSPEC\_LP64 -DSPEC\_LINUX  
525.x264\_r: -DSPEC\_LP64  
531.deepsjeng\_r: -DSPEC\_LP64  
541.leela\_r: -DSPEC\_LP64  
548.exchange2\_r: -DSPEC\_LP64  
557.xz\_r: -DSPEC\_LP64

## Base Optimization Flags

C benchmarks:

-Wl,-z,muldefs -xCORE-AVX512 -ipo -O3 -no-prec-div  
-qopt-mem-layout-trans=4  
-L/usr/local/IntelCompiler19/compilers\_and\_libraries\_2019.4.227/linux/compiler/lib/intel64  
-lqkmalloc

(Continued on next page)





# SPEC CPU®2017 Integer Rate Result

Copyright 2017-2020 Standard Performance Evaluation Corporation

New H3C Technologies Co., Ltd.

SPECrate®2017\_int\_base = 216

H3C UniServer R4900 G3 (Intel Xeon Gold 5218R)

SPECrate®2017\_int\_peak = 226

**CPU2017 License:** 9066

**Test Sponsor:** New H3C Technologies Co., Ltd.

**Tested by:** New H3C Technologies Co., Ltd.

**Test Date:** Aug-2020

**Hardware Availability:** Feb-2020

**Software Availability:** May-2019

## Base Optimization Flags (Continued)

C++ benchmarks:

```
-Wl,-z,muldefs -xCORE-AVX512 -ipo -O3 -no-prec-div  
-qopt-mem-layout-trans=4  
-L/usr/local/IntelCompiler19/compilers_and_libraries_2019.4.227/linux/compiler/lib/intel64  
-lqkmalloc
```

Fortran benchmarks:

```
-Wl,-z,muldefs -xCORE-AVX512 -ipo -O3 -no-prec-div  
-qopt-mem-layout-trans=4 -nostandard-realloc-lhs -align array32byte  
-L/usr/local/IntelCompiler19/compilers_and_libraries_2019.4.227/linux/compiler/lib/intel64  
-lqkmalloc
```

## Peak Compiler Invocation

C benchmarks (except as noted below):

```
icc -m64 -std=c11
```

```
502.gcc_r: icc -m32 -std=c11 -L/usr/local/IntelCompiler19/compilers_and_libraries_2019.4.227/linux/compiler/lib/ia32_lin
```

C++ benchmarks (except as noted below):

```
icpc -m64
```

```
523.xalancbmk_r: icpc -m32 -L/usr/local/IntelCompiler19/compilers_and_libraries_2019.4.227/linux/compiler/lib/ia32_lin
```

Fortran benchmarks:

```
ifort -m64
```

## Peak Portability Flags

```
500.perlbench_r: -DSPEC_LP64 -DSPEC_LINUX_X64  
502.gcc_r: -D_FILE_OFFSET_BITS=64  
505.mcf_r: -DSPEC_LP64  
520.omnetpp_r: -DSPEC_LP64  
523.xalancbmk_r: -D_FILE_OFFSET_BITS=64 -DSPEC_LINUX  
525.x264_r: -DSPEC_LP64  
531.deepsjeng_r: -DSPEC_LP64  
541.leela_r: -DSPEC_LP64  
548.exchange2_r: -DSPEC_LP64  
557.xz_r: -DSPEC_LP64
```



# SPEC CPU®2017 Integer Rate Result

Copyright 2017-2020 Standard Performance Evaluation Corporation

New H3C Technologies Co., Ltd.

SPECrate®2017\_int\_base = 216

H3C UniServer R4900 G3 (Intel Xeon Gold 5218R)

SPECrate®2017\_int\_peak = 226

**CPU2017 License:** 9066

**Test Sponsor:** New H3C Technologies Co., Ltd.

**Tested by:** New H3C Technologies Co., Ltd.

**Test Date:** Aug-2020

**Hardware Availability:** Feb-2020

**Software Availability:** May-2019

## Peak Optimization Flags

C benchmarks:

```
500.perlbench_r: -Wl,-z,muldefs -prof-gen(pass 1) -prof-use(pass 2) -ipo
-xCORE-AVX512 -O3 -no-prec-div -qopt-mem-layout-trans=4
-fno-strict-overflow
-L/usr/local/IntelCompiler19/compilers_and_libraries_2019.4.227/linux/compiler/lib/intel64
-lqkmallocc
```

```
502.gcc_r: -Wl,-z,muldefs -prof-gen(pass 1) -prof-use(pass 2) -ipo
-xCORE-AVX512 -O3 -no-prec-div -qopt-mem-layout-trans=4
-L/usr/local/je5.0.1-32/lib -ljemallocc
```

```
505.mcf_r: -Wl,-z,muldefs -xCORE-AVX512 -ipo -O3 -no-prec-div
-qopt-mem-layout-trans=4
-L/usr/local/IntelCompiler19/compilers_and_libraries_2019.4.227/linux/compiler/lib/intel64
-lqkmallocc
```

```
525.x264_r: -Wl,-z,muldefs -xCORE-AVX512 -ipo -O3 -no-prec-div
-qopt-mem-layout-trans=4 -fno-alias
-L/usr/local/IntelCompiler19/compilers_and_libraries_2019.4.227/linux/compiler/lib/intel64
-lqkmallocc
```

557.xz\_r: Same as 505.mcf\_r

C++ benchmarks:

```
520.omnetpp_r: -Wl,-z,muldefs -xCORE-AVX512 -ipo -O3 -no-prec-div
-qopt-mem-layout-trans=4
-L/usr/local/IntelCompiler19/compilers_and_libraries_2019.4.227/linux/compiler/lib/intel64
-lqkmallocc
```

```
523.xalancbmk_r: -Wl,-z,muldefs -prof-gen(pass 1) -prof-use(pass 2) -ipo
-xCORE-AVX512 -O3 -no-prec-div -qopt-mem-layout-trans=4
-L/usr/local/je5.0.1-32/lib -ljemallocc
```

531.deepsjeng\_r: Same as 520.omnetpp\_r

541.leela\_r: Same as 520.omnetpp\_r

Fortran benchmarks:

```
-Wl,-z,muldefs -xCORE-AVX512 -ipo -O3 -no-prec-div
-qopt-mem-layout-trans=4 -nostandard-realloc-lhs -align array32byte
-L/usr/local/IntelCompiler19/compilers_and_libraries_2019.4.227/linux/compiler/lib/intel64
-lqkmallocc
```



# SPEC CPU®2017 Integer Rate Result

Copyright 2017-2020 Standard Performance Evaluation Corporation

New H3C Technologies Co., Ltd.

SPECrate®2017\_int\_base = 216

H3C UniServer R4900 G3 (Intel Xeon Gold 5218R)

SPECrate®2017\_int\_peak = 226

**CPU2017 License:** 9066

**Test Date:** Aug-2020

**Test Sponsor:** New H3C Technologies Co., Ltd.

**Hardware Availability:** Feb-2020

**Tested by:** New H3C Technologies Co., Ltd.

**Software Availability:** May-2019

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

<http://www.spec.org/cpu2017/flags/Intel-ic19.0u1-official-linux64.2019-07-09.html>

[http://www.spec.org/cpu2017/flags/New\\_H3C-Platform-Settings-V1.4-CLX-RevB.html](http://www.spec.org/cpu2017/flags/New_H3C-Platform-Settings-V1.4-CLX-RevB.html)

You can also download the XML flags sources by saving the following links:

<http://www.spec.org/cpu2017/flags/Intel-ic19.0u1-official-linux64.2019-07-09.xml>

[http://www.spec.org/cpu2017/flags/New\\_H3C-Platform-Settings-V1.4-CLX-RevB.xml](http://www.spec.org/cpu2017/flags/New_H3C-Platform-Settings-V1.4-CLX-RevB.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](mailto:info@spec.org).

Tested with SPEC CPU®2017 v1.1.0 on 2020-08-05 23:36:35-0400.

Report generated on 2020-09-01 19:12:33 by CPU2017 PDF formatter v6255.

Originally published on 2020-09-01.