



# SPEC CPU®2017 Integer Rate Result

Copyright 2017-2024 Standard Performance Evaluation Corporation

New H3C Technologies Co., Ltd.

H3C UniServer R4900 G6 Ultra (Intel Xeon Gold 6542Y)

SPECrate®2017\_int\_base = 526

SPECrate®2017\_int\_peak = Not Run

CPU2017 License: 9066

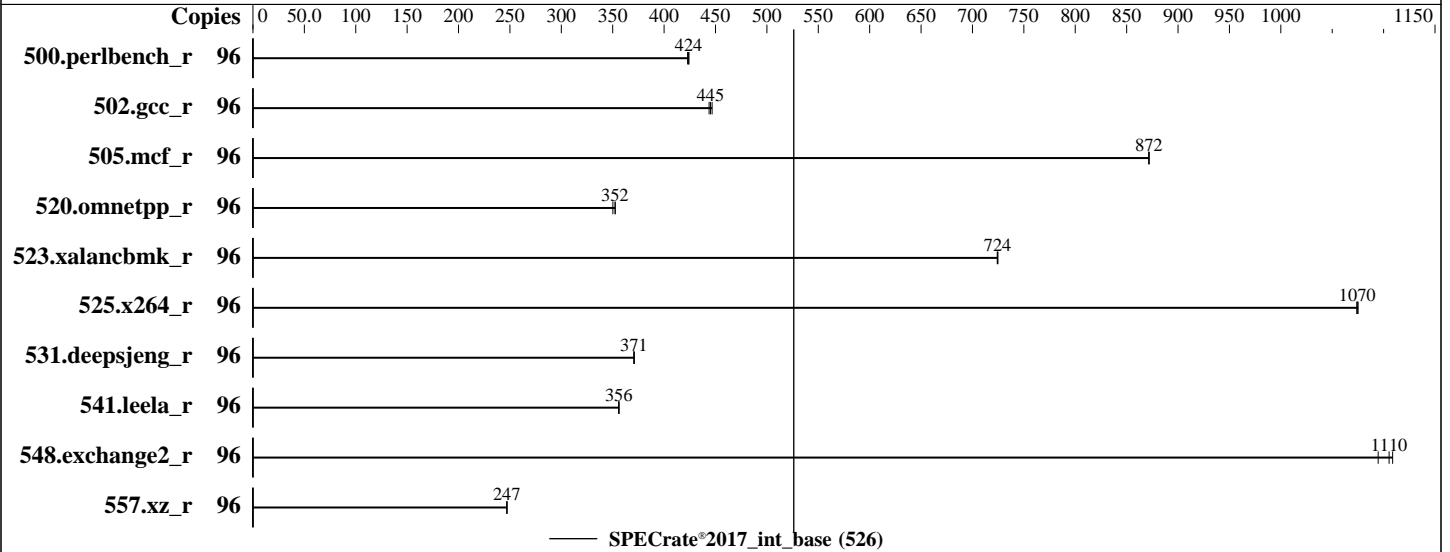
Test Sponsor: New H3C Technologies Co., Ltd.

Tested by: New H3C Technologies Co., Ltd.

Test Date: Aug-2024

Hardware Availability: Oct-2023

Software Availability: Mar-2024



## Hardware

CPU Name: Intel Xeon Gold 6542Y  
 Max MHz: 4100  
 Nominal: 2900  
 Enabled: 48 cores, 2 chips, 2 threads/core  
 Orderable: 1,2 chips  
 Cache L1: 32 KB I + 48 KB D on chip per core  
 L2: 2 MB I+D on chip per core  
 L3: 60 MB I+D on chip per chip  
 Other: None  
 Memory: 1 TB (16 x 64 GB 2Rx4 PC5-6400B-R, running at 5200)  
 Storage: 1 x 3.2 TB NVME SSD  
 Other: CPU Cooling: Air

## Software

OS: SUSE Linux Enterprise Server 15 SP5  
 5.14.21-150500.53-default  
 Compiler: C/C++: Version 2024.1 of Intel oneAPI DPC++/C++ Compiler for Linux;  
 Fortran: Version 2024.1 of Intel Fortran Compiler for Linux;  
 Parallel: No  
 Firmware: Version 6.10.43 released Jul-2024 BIOS  
 File System: xfs  
 System State: Run level 3 (multi-user)  
 Base Pointers: 64-bit  
 Peak Pointers: Not Applicable  
 Other: None  
 Power Management: BIOS and OS set to prefer performance at the cost of additional power usage.



# SPEC CPU®2017 Integer Rate Result

Copyright 2017-2024 Standard Performance Evaluation Corporation

New H3C Technologies Co., Ltd.  
H3C UniServer R4900 G6 Ultra (Intel Xeon Gold 6542Y)

SPECrate®2017\_int\_base = 526

SPECrate®2017\_int\_peak = Not Run

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

Test Date: Aug-2024  
Hardware Availability: Oct-2023  
Software Availability: Mar-2024

## Results Table

Benchmark	Base							Peak						
	Copies	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Copies	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio
500.perlbench_r	96	<b>361</b>	<b>424</b>	360	424	361	423							
502.gcc_r	96	<b>305</b>	<b>445</b>	306	444	304	447							
505.mcf_r	96	178	872	178	872	<b>178</b>	<b>872</b>							
520.omnetpp_r	96	360	350	<b>358</b>	<b>352</b>	357	352							
523.xalancbmk_r	96	<b>140</b>	<b>724</b>	140	725	140	724							
525.x264_r	96	<b>156</b>	<b>1070</b>	157	1070	156	1080							
531.deepsjeng_r	96	297	371	<b>297</b>	<b>371</b>	297	371							
541.leela_r	96	447	356	446	356	<b>447</b>	<b>356</b>							
548.exchange2_r	96	227	1110	230	1090	<b>228</b>	<b>1110</b>							
557.xz_r	96	420	247	<b>420</b>	<b>247</b>	420	247							

SPECrate®2017\_int\_base = 526

SPECrate®2017\_int\_peak = Not Run

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/specpunew/lib/intel64:/home/specpunew/lib/ia32:/home/specpunew/je5.0.1-32"  
MALLOC\_CONF = "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:  
sync; echo 3> /proc/sys/vm/drop\_caches  
runcpu command invoked through numactl i.e.:  
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.



# SPEC CPU®2017 Integer Rate Result

Copyright 2017-2024 Standard Performance Evaluation Corporation

New H3C Technologies Co., Ltd.  
H3C UniServer R4900 G6 Ultra (Intel Xeon Gold 6542Y)

SPECrate®2017\_int\_base = 526

SPECrate®2017\_int\_peak = Not Run

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

**Test Date:** Aug-2024  
**Hardware Availability:** Oct-2023  
**Software Availability:** Mar-2024

## Platform Notes

### BIOS Settings:

SNC = Enable SNC2 (2-clusters)  
Power Performance Tuning = BIOS Controls EPB  
ENERGY\_PERF\_BIAS\_CFG mode = Performance

Sysinfo program /home/specpunew/bin/sysinfo  
Rev: r6732 of 2022-11-07 fe91c89b7ed5c36ae2c92cc097bec197  
running on localhost Thu Aug 15 19:46:41 2024

SUT (System Under Test) info as seen by some common utilities.

### Table of contents

1. uname -a
2. w
3. Username
4. ulimit -a
5. sysinfo process ancestry
6. /proc/cpuinfo
7. lscpu
8. numactl --hardware
9. /proc/meminfo
10. who -r
11. Systemd service manager version: systemd 249 (249.16+suse.171.gdad0071f15)
12. Services, from systemctl list-unit-files
13. Linux kernel boot-time arguments, from /proc/cmdline
14. cpupower frequency-info
15. tuned-adm active
16. sysctl
17. /sys/kernel/mm/transparent\_hugepage
18. /sys/kernel/mm/transparent\_hugepage/khugepaged
19. OS release
20. Disk information
21. /sys/devices/virtual/dmi/id
22. dmidecode
23. BIOS

```
1. uname -a
Linux localhost 5.14.21-150500.53-default #1 SMP PREEMPT_DYNAMIC Wed May 10 07:56:26 UTC 2023 (b630043)
x86_64 x86_64 x86_64 GNU/Linux
```

```
2. w
19:46:41 up 1:45, 2 users, load average: 0.05, 4.38, 35.26
USER      TTY      FROM          LOGIN@      IDLE        JCPU      PCPU WHAT
root      tty1    -             18:04       8.00s      1.11s    0.01s sh intrate.sh
root      pts/0   172.16.27.225 18:05      49.00s     0.21s    0.00s sh 6542Y.sh
```

```
3. Username
From environment variable $USER: root
```

```
4. ulimit -a
core file size          (blocks, -c) unlimited
data seg size           (kbytes, -d) unlimited
scheduling priority     (-e) 0
```

(Continued on next page)



# SPEC CPU®2017 Integer Rate Result

Copyright 2017-2024 Standard Performance Evaluation Corporation

New H3C Technologies Co., Ltd.  
H3C UniServer R4900 G6 Ultra (Intel Xeon Gold 6542Y)

SPECrate®2017\_int\_base = 526

SPECrate®2017\_int\_peak = Not Run

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

**Test Date:** Aug-2024  
**Hardware Availability:** Oct-2023  
**Software Availability:** Mar-2024

## Platform Notes (Continued)

```

file size                (blocks, -f) unlimited
pending signals          (-i) 4124954
max locked memory       (kbytes, -l) 64
max memory size         (kbytes, -m) unlimited
open files              (-n) 1024
pipe size               (512 bytes, -p) 8
POSIX message queues    (bytes, -q) 819200
real-time priority      (-r) 0
stack size              (kbytes, -s) unlimited
cpu time                (seconds, -t) unlimited
max user processes     (-u) 4124954
virtual memory          (kbytes, -v) unlimited
file locks              (-x) unlimited

```

```

-----
5. sysinfo process ancestry
/usr/lib/systemd/systemd --switched-root --system --deserialize 30
login -- root
-bash
sh intrate.sh
runcpu --nobuild --action validate --define default-platform-flags --define numcopies=96 -c
  ic2024.1-lin-sapphirerapids-rate-20231213.cfg --define smt-on --define cores=48 --define physicalfirst
  --define invoke_with_interleave --define drop_caches --tune base -o all intrate
runcpu --nobuild --action validate --define default-platform-flags --define numcopies=96 --configfile
  ic2024.1-lin-sapphirerapids-rate-20231213.cfg --define smt-on --define cores=48 --define physicalfirst
  --define invoke_with_interleave --define drop_caches --tune base --output_format all --nopower --runmode
  rate --tune base --size refrate intrate --nopreenv --note-preenv --logfile
  $SPEC/tmp/CPU2017.001/templogs/preenv.intrate.001.0.log --lognum 001.0 --from_runcpu 2
specperl $SPEC/bin/sysinfo
$SPEC = /home/specpunew

```

```

-----
6. /proc/cpuinfo
model name      : INTEL(R) XEON(R) GOLD 6542Y
vendor_id      : GenuineIntel
cpu family     : 6
model          : 207
stepping       : 2
microcode      : 0x21000200
bugs           : spectre_v1 spectre_v2 spec_store_bypass swapgs eibrs_pbrsb
cpu cores      : 24
siblings       : 48
2 physical ids (chips)
96 processors (hardware threads)
physical id 0: core ids 0-23
physical id 1: core ids 0-23
physical id 0: apicids 0-47
physical id 1: apicids 128-175
Caution: /proc/cpuinfo data regarding chips, cores, and threads is not necessarily reliable, especially for
virtualized systems. Use the above data carefully.

```

```

-----
7. lscpu

From lscpu from util-linux 2.37.4:
Architecture:      x86_64
CPU op-mode(s):    32-bit, 64-bit
Address sizes:     52 bits physical, 57 bits virtual
Byte Order:        Little Endian
CPU(s):            96

```

(Continued on next page)



# SPEC CPU®2017 Integer Rate Result

Copyright 2017-2024 Standard Performance Evaluation Corporation

New H3C Technologies Co., Ltd.  
H3C UniServer R4900 G6 Ultra (Intel Xeon Gold 6542Y)

SPECrate®2017\_int\_base = 526

SPECrate®2017\_int\_peak = Not Run

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

**Test Date:** Aug-2024  
**Hardware Availability:** Oct-2023  
**Software Availability:** Mar-2024

## Platform Notes (Continued)

```

On-line CPU(s) list:      0-95
Vendor ID:                GenuineIntel
Model name:              INTEL(R) XEON(R) GOLD 6542Y
CPU family:              6
Model:                   207
Thread(s) per core:     2
Core(s) per socket:     24
Socket(s):               2
Stepping:                2
CPU max MHz:             4100.0000
CPU min MHz:             800.0000
BogoMIPS:                5800.00
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 aperfmperf tsc_known_freq 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 f16c rdrand
                        lahf_lm abm 3dnowprefetch cpuid_fault epb cat_l3 cat_l2 cdp_l3
                        invpcid_single cdp_l2 ssbd mba ibrs ibpb stibp ibrs_enhanced tpr_shadow
                        vnmi flexpriority ept vpid ept_ad fsgsbase tsc_adjust bmi1 hle avx2 smep
                        bmi2 erms invpcid rtm cqm rdt_a avx512f avx512dq rdseed adx smap
                        avx512ifma clflushopt clwb intel_pt avx512cd sha_ni avx512bw avx512vl
                        xsaveopt xsavec xgetbv1 xsaves cqm_llc cqm_occup_llc cqm_mbm_total
                        cqm_mbm_local avx_vnni avx512_bf16 wbnoinvd dtherm ida arat pln pts hwp
                        hwp_act_window hwp_epp hwp_pkg_req hfi avx512vbmi umip pku ospke waitpkg
                        avx512_vbmi2 gfni vaes vpclmulqdq avx512_vnni avx512_bitalg tme
                        avx512_vpopcntdq la57 rdpid bus_lock_detect cldemote movdiri movdir64b
                        enqcmd fsrm md_clear serialize tsxldtrk pconfig arch_lbr avx512_fp16
                        amx_tile flush_lld arch_capabilities

Virtualization:          VT-x
L1d cache:              2.3 MiB (48 instances)
L1i cache:              1.5 MiB (48 instances)
L2 cache:                96 MiB (48 instances)
L3 cache:                120 MiB (2 instances)
NUMA node(s):           4
NUMA node0 CPU(s):     0-11,48-59
NUMA node1 CPU(s):     12-23,60-71
NUMA node2 CPU(s):     24-35,72-83
NUMA node3 CPU(s):     36-47,84-95
Vulnerability Itlb multihit: Not affected
Vulnerability L1tf:      Not affected
Vulnerability Mds:       Not affected
Vulnerability Meltdown:  Not affected
Vulnerability Mmio stale data: Not affected
Vulnerability Retbleed:  Not affected
Vulnerability Spec store bypass: Mitigation; Speculative Store Bypass disabled via prctl and seccomp
Vulnerability Spectre v1: Mitigation; usercopy/swaps barriers and __user pointer sanitization
Vulnerability Spectre v2: Mitigation; Enhanced IBRS, IBPB conditional, RSB filling, PBR SB-eIBRS SW
                        sequence
Vulnerability Srbds:     Not affected
Vulnerability Tsx async abort: Not affected

```

```

From lscpu --cache:
NAME ONE-SIZE ALL-SIZE WAYS TYPE          LEVEL SETS PHY-LINE COHERENCY-SIZE
L1d   48K    2.3M   12 Data          1    64     1           64
L1i   32K    1.5M    8 Instruction    1    64     1           64
L2    2M     96M    16 Unified       2  2048    1           64
L3   60M   120M   15 Unified       3 65536    1           64

```

(Continued on next page)



# SPEC CPU®2017 Integer Rate Result

Copyright 2017-2024 Standard Performance Evaluation Corporation

New H3C Technologies Co., Ltd.

H3C UniServer R4900 G6 Ultra (Intel Xeon Gold 6542Y)

SPECrate®2017\_int\_base = 526

SPECrate®2017\_int\_peak = Not Run

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

**Test Date:** Aug-2024  
**Hardware Availability:** Oct-2023  
**Software Availability:** Mar-2024

## Platform Notes (Continued)

8. numactl --hardware

NOTE: a numactl 'node' might or might not correspond to a physical chip.

```
available: 4 nodes (0-3)
node 0 cpus: 0-11,48-59
node 0 size: 257601 MB
node 0 free: 254559 MB
node 1 cpus: 12-23,60-71
node 1 size: 258041 MB
node 1 free: 254816 MB
node 2 cpus: 24-35,72-83
node 2 size: 258041 MB
node 2 free: 255363 MB
node 3 cpus: 36-47,84-95
node 3 size: 257583 MB
node 3 free: 254838 MB
node distances:
node  0  1  2  3
  0:  10  12  21  21
  1:  12  10  21  21
  2:  21  21  10  12
  3:  21  21  12  10
```

9. /proc/meminfo

MemTotal: 1056018768 kB

10. who -r

run-level 3 Aug 15 18:01

11. Systemd service manager version: systemd 249 (249.16+suse.171.gdad0071f15)

```
Default Target Status
multi-user      running
```

12. Services, from systemctl list-unit-files

```
STATE UNIT FILES
enabled YaST2-Firstboot YaST2-Second-Stage apparmor cron display-manager getty@ issue-generator
kbdsettings klog lvm2-monitor nscd nvme-fc-boot-connections purge-kernels rollback rsyslog
smartd sshd systemd-pstore wicked wickedd-auto4 wickedd-dhcp4 wickedd-dhcp6 wickedd-nanny
enabled-runtime systemd-remount-fs
disabled auditd autofs autoyast-initscripts blk-availability boot-sysctl ca-certificates
chrony-wait chronyd console-getty cups cups-browsed debug-shell ebttables
exchange-bmc-os-info fancontrol firewalld gpm grub2-once haveged haveged-switch-root ipmi
ipmievd irqbalance issue-add-ssh-keys kdump kdump-early kexec-load lm_sensors lunmask
man-db-create multipathd nfs nfs-blkmap nmb nvme-autoconnect postfix rpcbind
rpmconfigcheck rsyncd serial-getty@ smartd_generate_opts smb snmpd snmptrapd sysstat
systemd-boot-check-no-failures systemd-network-generator systemd-sysext
systemd-time-wait-sync systemd-timesyncd tuned vncserver@
indirect pcsd wickedd
```

13. Linux kernel boot-time arguments, from /proc/cmdline

```
BOOT_IMAGE=/boot/vmlinuz-5.14.21-150500.53-default
root=UUID=befabla9-6492-412a-9d0b-079466ad03eb
splash=silent
resume=/dev/disk/by-uuid/64b85326-8619-4fcb-8127-1e8683bd7471
mitigations=auto
```

(Continued on next page)



# SPEC CPU®2017 Integer Rate Result

Copyright 2017-2024 Standard Performance Evaluation Corporation

New H3C Technologies Co., Ltd.  
H3C UniServer R4900 G6 Ultra (Intel Xeon Gold 6542Y)

SPECrate®2017\_int\_base = 526

SPECrate®2017\_int\_peak = Not Run

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

**Test Date:** Aug-2024  
**Hardware Availability:** Oct-2023  
**Software Availability:** Mar-2024

## Platform Notes (Continued)

```
quiet
security=apparmor
crashkernel=403M,high
crashkernel=72M,low
```

```
-----
14. cpupower frequency-info
analyzing CPU 0:
  current policy: frequency should be within 800 MHz and 4.10 GHz.
                  The governor "performance" may decide which speed to use
                  within this range.

  boost state support:
    Supported: yes
    Active: yes
```

```
-----
15. tuned-adm active
Current active profile: throughput-performance
```

```
-----
16. sysctl
kernel.numa_balancing          1
kernel.randomize_va_space      2
vm.compaction_proactiveness    20
vm.dirty_background_bytes      0
vm.dirty_background_ratio      10
vm.dirty_bytes                 0
vm.dirty_expire_centisecs      3000
vm.dirty_ratio                 20
vm.dirty_writeback_centisecs   500
vm.dirtytime_expire_seconds    43200
vm.extfrag_threshold           500
vm.min_unmapped_ratio          1
vm.nr_hugepages                0
vm.nr_hugepages_mempolicy      0
vm.nr_overcommit_hugepages    0
vm.swappiness                  10
vm.watermark_boost_factor      15000
vm.watermark_scale_factor      10
vm.zone_reclaim_mode           0
```

```
-----
17. /sys/kernel/mm/transparent_hugepage
defrag          always defer defer+madvice [madvice] never
enabled         [always] madvice never
hpage_pmd_size 2097152
shmem_enabled   always within_size advise [never] deny force
```

```
-----
18. /sys/kernel/mm/transparent_hugepage/khugepaged
alloc_sleep_millisecs 60000
defrag                 1
max_ptes_none         511
max_ptes_shared       256
max_ptes_swap         64
pages_to_scan         4096
scan_sleep_millisecs  10000
```

```
-----
19. OS release
```

(Continued on next page)



# SPEC CPU®2017 Integer Rate Result

Copyright 2017-2024 Standard Performance Evaluation Corporation

New H3C Technologies Co., Ltd.  
H3C UniServer R4900 G6 Ultra (Intel Xeon Gold 6542Y)

SPECrate®2017\_int\_base = 526

SPECrate®2017\_int\_peak = Not Run

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

**Test Date:** Aug-2024  
**Hardware Availability:** Oct-2023  
**Software Availability:** Mar-2024

## Platform Notes (Continued)

From /etc/\*-release /etc/\*-version  
os-release SUSE Linux Enterprise Server 15 SP5

-----  
20. Disk information  
SPEC is set to: /home/speccpunew  
Filesystem Type Size Used Avail Use% Mounted on  
/dev/nvme0n1p5 xfs 522G 434G 89G 84% /home  
-----

21. /sys/devices/virtual/dmi/id  
Vendor: New H3C Technologies Co., Ltd.  
Product: H3C UniServer R4900 G6 Ultra  
Product Family: Rack  
Serial: 210235A4CHH244000018  
-----

22. dmidecode  
Additional information from dmidecode 3.4 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 HMC94AHBRA480N 64 GB 2 rank 6400, configured at 5200  
-----

23. BIOS  
(This section combines info from /sys/devices and dmidecode.)  
BIOS Vendor: American Megatrends International, LLC.  
BIOS Version: 6.10.43  
BIOS Date: 07/27/2024  
BIOS Revision: 5.32  
-----

## Compiler Version Notes

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

Intel(R) oneAPI DPC++/C++ Compiler for applications running on Intel(R) 64, Version 2024.1.0 Build 20240308  
Copyright (C) 1985-2024 Intel Corporation. All rights reserved.  
-----

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

Intel(R) oneAPI DPC++/C++ Compiler for applications running on Intel(R) 64, Version 2024.1.0 Build 20240308  
Copyright (C) 1985-2024 Intel Corporation. All rights reserved.  
-----

-----  
Fortran | 548.exchange2\_r(base)  
-----

Intel(R) Fortran Compiler for applications running on Intel(R) 64, Version 2024.1.0 Build 20240308  
Copyright (C) 1985-2024 Intel Corporation. All rights reserved.  
-----





# SPEC CPU®2017 Integer Rate Result

Copyright 2017-2024 Standard Performance Evaluation Corporation

New H3C Technologies Co., Ltd.  
H3C UniServer R4900 G6 Ultra (Intel Xeon Gold 6542Y)

SPECrate®2017\_int\_base = 526

SPECrate®2017\_int\_peak = Not Run

CPU2017 License: 9066

Test Sponsor: New H3C Technologies Co., Ltd.

Tested by: New H3C Technologies Co., Ltd.

Test Date: Aug-2024

Hardware Availability: Oct-2023

Software Availability: Mar-2024

## Base Compiler Invocation

C benchmarks:

icx

C++ benchmarks:

icpx

Fortran benchmarks:

ifx

## 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:

```
-w -std=c11 -m64 -Wl,-z,muldefs -xsapphirerapids -O3 -ffast-math
-flto -mfpmath=sse -funroll-loops -qopt-mem-layout-trans=4
-L/opt/intel/oneapi/compiler/2024.1/lib -lqkmalloc
```

C++ benchmarks:

```
-w -std=c++14 -m64 -Wl,-z,muldefs -xsapphirerapids -O3 -ffast-math
-flto -mfpmath=sse -funroll-loops -qopt-mem-layout-trans=4
-L/opt/intel/oneapi/compiler/2024.1/lib -lqkmalloc
```

Fortran benchmarks:

```
-w -m64 -Wl,-z,muldefs -xsapphirerapids -O3 -ffast-math -flto
-mfpmath=sse -funroll-loops -qopt-mem-layout-trans=4
-nostandard-realloc-lhs -align array32byte -auto
-L/opt/intel/oneapi/compiler/2024.1/lib -lqkmalloc
```



# SPEC CPU®2017 Integer Rate Result

Copyright 2017-2024 Standard Performance Evaluation Corporation

**New H3C Technologies Co., Ltd.**  
H3C UniServer R4900 G6 Ultra (Intel Xeon Gold 6542Y)

SPECrate®2017\_int\_base = 526

SPECrate®2017\_int\_peak = Not Run

**CPU2017 License:** 9066

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

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

**Test Date:** Aug-2024

**Hardware Availability:** Oct-2023

**Software Availability:** Mar-2024

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

<http://www.spec.org/cpu2017/flags/Intel-ic2024-official-linux64.html>

[http://www.spec.org/cpu2017/flags/New\\_H3C-Platform-Settings-V1.0-SPR-RevE.html](http://www.spec.org/cpu2017/flags/New_H3C-Platform-Settings-V1.0-SPR-RevE.html)

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

<http://www.spec.org/cpu2017/flags/Intel-ic2024-official-linux64.xml>

[http://www.spec.org/cpu2017/flags/New\\_H3C-Platform-Settings-V1.0-SPR-RevE.xml](http://www.spec.org/cpu2017/flags/New_H3C-Platform-Settings-V1.0-SPR-RevE.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 v1.1.9 on 2024-08-15 07:46:40-0400.

Report generated on 2024-09-11 09:37:40 by CPU2017 PDF formatter v6716.

Originally published on 2024-09-10.