



# SPEC CPU®2017 Integer Speed Result

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New H3C Technologies Co., Ltd.

SPECspeed®2017\_int\_base = 10.3

H3C UniServer R4900 G7 (Intel Xeon 6710E)

SPECspeed®2017\_int\_peak = 10.5

CPU2017 License: 9066

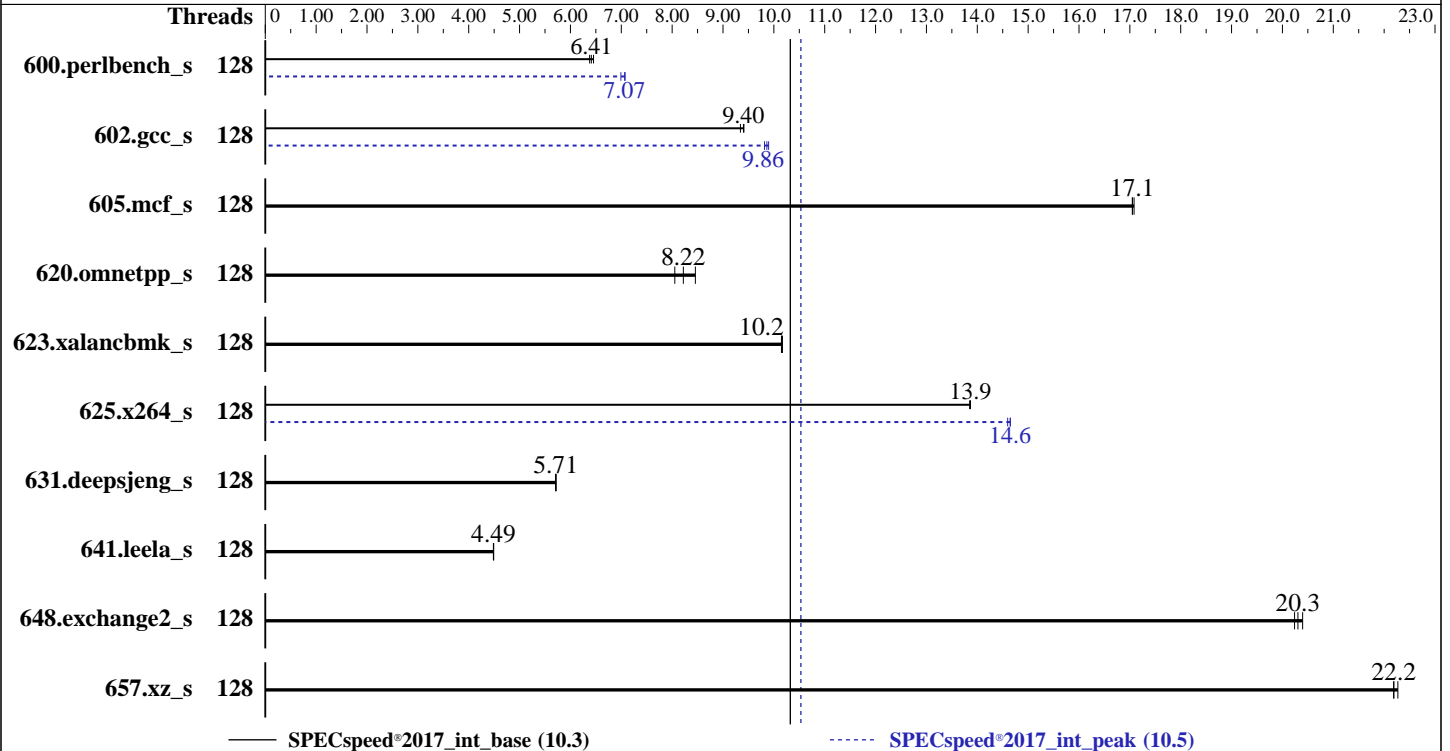
Test Date: Sep-2024

Test Sponsor: New H3C Technologies Co., Ltd.

Hardware Availability: Oct-2024

Tested by: New H3C Technologies Co., Ltd.

Software Availability: Apr-2024



## Hardware

CPU Name: Intel Xeon 6710E  
 Max MHz: 3200  
 Nominal: 2400  
 Enabled: 128 cores, 2 chips  
 Orderable: 1,2 chips  
 Cache L1: 64 KB I + 32 KB D on chip per core  
 L2: 4 MB I+D on chip per core  
 L3: 96 MB I+D on chip per chip  
 Other: None  
 Memory: 1 TB (16 x 64 GB 2Rx4 PC5-6400B-R, running at 5600)  
 Storage: 1 x 6.4 TB NVME SSD  
 Other: CPU Cooling: Air

## Software

OS: Red Hat Enterprise Linux 9.4 (Plow)  
 5.14.0-427.13.1.el9\_4.x86\_64  
 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: Yes  
 Firmware: Version 7.00.02 released Sep-2024 BIOS  
 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.



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## Results Table

Benchmark	Base						Peak							
	Threads	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Threads	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio
600.perlbench_s	128	278	6.38	275	6.45	<u>277</u>	<u>6.41</u>	128	251	7.07	<u>251</u>	<u>7.07</u>	254	6.99
602.gcc_s	128	426	9.34	423	9.41	<u>424</u>	<u>9.40</u>	128	<u>404</u>	<u>9.86</u>	406	9.82	402	9.90
605.mcf_s	128	276	17.1	277	17.0	<u>277</u>	<u>17.1</u>	128	276	17.1	277	17.0	<u>277</u>	<u>17.1</u>
620.omnetpp_s	128	<u>198</u>	<u>8.22</u>	203	8.05	193	8.46	128	<u>198</u>	<u>8.22</u>	203	8.05	193	8.46
623.xalancbmk_s	128	<u>140</u>	<u>10.2</u>	140	10.1	139	10.2	128	<u>140</u>	<u>10.2</u>	140	10.1	139	10.2
625.x264_s	128	127	13.9	<u>127</u>	<u>13.9</u>	127	13.9	128	<u>120</u>	<u>14.6</u>	121	14.6	120	14.7
631.deepsjeng_s	128	<u>251</u>	<u>5.71</u>	251	5.72	251	5.71	128	<u>251</u>	<u>5.71</u>	251	5.72	251	5.71
641.leela_s	128	380	4.49	<u>380</u>	<u>4.49</u>	380	4.49	128	380	4.49	<u>380</u>	<u>4.49</u>	380	4.49
648.exchange2_s	128	145	20.2	144	20.4	<u>145</u>	<u>20.3</u>	128	145	20.2	144	20.4	<u>145</u>	<u>20.3</u>
657.xz_s	128	278	22.3	279	22.2	<u>279</u>	<u>22.2</u>	128	278	22.3	279	22.2	<u>279</u>	<u>22.2</u>

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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:  
KMP\_AFFINITY = "granularity=fine,scatter"  
LD\_LIBRARY\_PATH = "/home/speccpu/lib/intel64:/home/speccpu/je5.0.1-64"  
MALLOCONF = "retain:true"  
OMP\_STACKSIZE = "192M"

## 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.

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## General Notes (Continued)

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  
sources available from jemalloc.net or <https://github.com/jemalloc/jemalloc/releases>

## Platform Notes

BIOS Settings:

LLC dead line alloc = Disabled  
Power Performance Tuning = BIOS Controls EPB  
ENERGY\_PERF\_BIAS\_CFG mode = Performance

Sysinfo program /home/speccpu/bin/sysinfo  
Rev: r6732 of 2022-11-07 fe91c89b7ed5c36ae2c92cc097bec197  
running on localhost.localdomain Mon Sep 23 22:14:24 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 252 (252-32.e19\_4)
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.localdomain 5.14.0-427.13.1.e19\_4.x86\_64 #1 SMP PREEMPT\_DYNAMIC Wed Apr 10 10:29:16 EDT 2024 x86\_64 x86\_64 x86\_64 GNU/Linux  
-----

-----  
2. w  
22:14:24 up 4:03, 2 users, load average: 0.05, 15.27, 52.53  
USER TTY LOGIN@ IDLE JCPU PCPU WHAT  
root tty1 18:50 3:23m 0.01s 0.01s -bash  
root pts/0 18:44 16.00s 1.16s 0.00s sh speed.sh  
-----

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## Platform Notes (Continued)

### 3. Username

From environment variable \$USER: root

### 4. ulimit -a

```

real-time non-blocking time (microseconds, -R) unlimited
core file size (blocks, -c) 0
data seg size (kbytes, -d) unlimited
scheduling priority (-e) 0
file size (blocks, -f) unlimited
pending signals (-i) 4124370
max locked memory (kbytes, -l) 8192
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) 4124370
virtual memory (kbytes, -v) unlimited
file locks (-x) unlimited

```

### 5. sysinfo process ancestry

```

/usr/lib/systemd/systemd rhgb --switched-root --system --deserialize 31
sshd: /usr/sbin/sshd -D [listener] 0 of 10-100 startups
sshd: root [priv]
sshd: root@pts/0
-bash
sh speed.sh
runcpu --nobuild --action validate --define default-platform-flags -c
  ic2024.1-lin-sierraforest-speed-20240308.cfg --define cores=128 --tune base,peak -o all --define
  intspeedaffinity --define smt-on --define drop_caches intspeed
runcpu --nobuild --action validate --define default-platform-flags --configfile
  ic2024.1-lin-sierraforest-speed-20240308.cfg --define cores=128 --tune base,peak --output_format all
  --define intspeedaffinity --define smt-on --define drop_caches --nopower --runmode speed --tune base:peak
  --size refspeed intspeed --nopreenv --note-preenv --logfile
  $$SPEC/tmp/CPU2017.007/templogs/preenv.intspeed.007.0.log --lognum 007.0 --from_runcpu 2
specperl $$SPEC/bin/sysinfo
$SPEC = /home/speccpu

```

### 6. /proc/cpuinfo

```

model name      : Intel(R) Xeon(R) 6710E
vendor_id      : GenuineIntel
cpu family      : 6
model           : 175
stepping        : 3
microcode       : 0x13000211
bugs            : spectre_v1 spectre_v2 spec_store_bypass swapgs
cpu cores       : 64
siblings        : 64
2 physical ids (chips)
128 processors (hardware threads)
physical id 0: core ids 0-63
physical id 1: core ids 0-63
physical id 0: apicids
0,2,4,6,8,10,12,14,16,18,20,22,24,26,28,30,32,34,36,38,40,42,44,46,48,50,52,54,56,58,60,62,64,66,68,70,72
,74,76,78,80,82,84,86,88,90,92,94,96,98,100,102,104,106,108,110,112,114,116,118,120,122,124,126

```

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## Platform Notes (Continued)

physical id 1: apicids

512,514,516,518,520,522,524,526,528,530,532,534,536,538,540,542,544,546,548,550,552,554,556,558,560,562,564,566,568,570,572,574,576,578,580,582,584,586,588,590,592,594,596,598,600,602,604,606,608,610,612,614,616,618,620,622,624,626,628,630,632,634,636,638

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, 48 bits virtual
Byte Order:            Little Endian
CPU(s):                128
On-line CPU(s) list:   0-127
Vendor ID:             GenuineIntel
BIOS Vendor ID:       Intel(R) Corporation
Model name:            Intel(R) Xeon(R) 6710E
BIOS Model name:      Intel(R) Xeon(R) 6710E
CPU family:            6
Model:                 175
Thread(s) per core:   1
Core(s) per socket:   64
Socket(s):             2
Stepping:              3
CPU(s) scaling MHz:   100%
CPU max MHz:           3200.0000
CPU min MHz:           800.0000
BogoMIPS:              4800.00
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
                        xtology 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 cdp_l2 ssbd mba ibrs ibpb stibp ibrs_enhanced tpr_shadow
                        flexpriority ept vpid ept_ad fsgsbase tsc_adjust bmi1 avx2 smep bmi2
                        erms invpcid cqm rdt_a rdseed adx smap clflushopt clwb intel_pt sha_ni
                        xsaveopt xsavec xgetbv1 xsaves cqm_llc cqm_occup_llc cqm_mbm_total
                        cqm_mbm_local split_lock_detect avx_vnni lam wbnoinvd dtherm ida arat
                        pln pts hwp hwp_act_window hwp_epp hwp_pkg_req vnmi umip pku ospke
                        waitpkg gfni vaes vpclmulqdq tme rdpid bus_lock_detect cldemote movdiri
                        movdir64b enqcmd fsrm md_clear serialize pconfig arch_lbr ibt flush_l1d
                        arch_capabilities

Virtualization:        VT-x
L1d cache:             4 MiB (128 instances)
L1i cache:             8 MiB (128 instances)
L2 cache:              128 MiB (32 instances)
L3 cache:              192 MiB (2 instances)
NUMA node(s):         2
NUMA node0 CPU(s):    0-63
NUMA node1 CPU(s):    64-127
Vulnerability Gather data sampling: Not affected
Vulnerability Itlb multihit:      Not affected
Vulnerability L1tf:               Not affected
Vulnerability Mds:                Not affected
Vulnerability Meltdown:           Not affected

```

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## Platform Notes (Continued)

Vulnerability Mmio stale data: Not affected  
 Vulnerability Retbleed: Not affected  
 Vulnerability Spec rstack overflow: Not affected  
 Vulnerability Spec store bypass: Mitigation; Speculative Store Bypass disabled via prctl  
 Vulnerability Spectre v1: Mitigation; usercopy/swaps barriers and \_\_user pointer sanitization  
 Vulnerability Spectre v2: Mitigation; Enhanced / Automatic IBRS, IBPB conditional, RSB filling, PBRSE-eIBRS Not affected  
 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	32K	4M	8	Data	1	64	1	64
L1i	64K	8M	8	Instruction	1	128	1	64
L2	4M	128M	16	Unified	2	4096	1	64
L3	96M	192M	12	Unified	3	131072	1	64

8. numactl --hardware

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

```
available: 2 nodes (0-1)
node 0 cpus: 0-63
node 0 size: 515121 MB
node 0 free: 508886 MB
node 1 cpus: 64-127
node 1 size: 516034 MB
node 1 free: 514689 MB
node distances:
node 0 1
0: 10 21
1: 21 10
```

9. /proc/meminfo

MemTotal: 1055902924 kB

10. who -r

run-level 3 Sep 23 18:11

11. Systemd service manager version: systemd 252 (252-32.el9\_4)

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

12. Services, from systemctl list-unit-files

```
STATE UNIT FILES
enabled ModemManager NetworkManager NetworkManager-dispatcher NetworkManager-wait-online
accounts-daemon atd auditd avahi-daemon bluetooth chronyd crond cups dbus-broker firewalld
gdm getty@ insights-client-boot irqbalance iscsi-onboot iscsi-starter kdump libstoragemgmt
low-memory-monitor lvm2-monitor mcelog mdmonitor microcode multipathd nis-domainname
nvme-fc-boot-connections ostree-remount power-profiles-daemon qemu-guest-agent rhsmcertd
rsyslog rtkit-daemon selinux-autorelabel-mark smartd sshd sssd switcheroo-control
systemd-boot-update systemd-network-generator tuned udisks2 upower vgauthd vmtoolsd
enabled-runtime systemd-remount-fs
disabled arp-ethers blk-availability brltty canberra-system-bootup canberra-system-shutdown
canberra-system-shutdown-reboot chrony-wait chronyd-restricted cni-dhcp console-getty
cpupower cups-browsed dbus-daemon debug-shell dnf-system-upgrade dnsmasq iprdump iprinit
iprupdate iscsi-init iscsid iscsiui kpatch kvm_stat ledmon man-db-restart-cache-update
```

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## Platform Notes (Continued)

```

netavark-dhcp-proxy netavark-firewalld-reload nftables nvme-autoconnect
ostree-readonly-sysroot-migration ostree-state-overlay@ podman podman-auto-update
podman-clean-transient podman-kube@ podman-restart psacct ras-mc-ctl rasdaemon rdisc rhcd
rhsm rhsm-facts rpmdm-rebuild selinux-check-proper-disable serial-getty@
speech-dispatcherd sshd-keygen@ systemd-boot-check-no-failures systemd-pstore
systemd-sysext wpa_supplicant
indirect iscsi spice-vdagentd sssd-autofs sssd-kcm sssd-nss sssd-pac sssd-pam sssd-ssh sssd-sudo
systemd-sysupdate systemd-sysupdate-reboot

```

```

-----
13. Linux kernel boot-time arguments, from /proc/cmdline
BOOT_IMAGE=(hd0,gpt2)/vmlinuz-5.14.0-427.13.1.el9_4.x86_64
root=/dev/mapper/rhel-root
ro
crashkernel=1G-4G:192M,4G-64G:256M,64G-:512M
resume=/dev/mapper/rhel-swap
rd.lvm.lv=rhel/root
rd.lvm.lv=rhel/swap
rhgb
quiet

```

```

-----
14. cpupower frequency-info
analyzing CPU 51:
  current policy: frequency should be within 800 MHz and 3.20 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: latency-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      3
vm.dirty_bytes                 0
vm.dirty_expire_centisecs     3000
vm.dirty_ratio                 10
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

```

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## Platform Notes (Continued)

```
enabled [always] madwise 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
From /etc/*-release /etc/*-version
os-release Red Hat Enterprise Linux 9.4 (Plow)
redhat-release Red Hat Enterprise Linux release 9.4 (Plow)
system-release Red Hat Enterprise Linux release 9.4 (Plow)
-----
```

```
-----
20. Disk information
SPEC is set to: /home/speccpu
Filesystem Type Size Used Avail Use% Mounted on
/dev/mapper/rhel-home xfs 5.8T 89G 5.7T 2% /home
-----
```

```
-----
21. /sys/devices/virtual/dmi/id
Vendor: New H3C Technologies Co., Ltd.
Product: H3C UniServer R4900 G7
Serial: 210235A51GH249000016
-----
```

```
-----
22. dmidecode
Additional information from dmidecode 3.5 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 5600
-----
```

```
-----
23. BIOS
(This section combines info from /sys/devices and dmidecode.)
BIOS Vendor: American Megatrends International, LLC.
BIOS Version: 7.00.02
BIOS Date: 09/14/2024
BIOS Revision: 5.35
Firmware Revision: 1.16
-----
```

## Compiler Version Notes

```
-----
C | 600.perlbench_s(base, peak) 602.gcc_s(base, peak) 605.mcf_s(base, peak) 625.x264_s(base, peak)
| 657.xz_s(base, peak)
-----
```

Intel(R) oneAPI DPC++/C++ Compiler for applications running on Intel(R) 64, Version 2024.1.0 Build 20240308

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Hardware Availability: Oct-2024

Software Availability: Apr-2024

## Compiler Version Notes (Continued)

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C++ | 620.omnetpp\_s(base, peak) 623.xalancbmk\_s(base, peak) 631.deepsjeng\_s(base, peak)  
| 641.leela\_s(base, peak)

Intel(R) oneAPI DPC++/C++ Compiler for applications running on Intel(R) 64, Version 2024.1.0 Build 20240308  
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Fortran | 648.exchange2\_s(base, peak)

Intel(R) Fortran Compiler for applications running on Intel(R) 64, Version 2024.1.0 Build 20240308  
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## Base Compiler Invocation

C benchmarks:  
icx

C++ benchmarks:  
icpx

Fortran benchmarks:  
ifx

## Base Portability Flags

600.perlbench\_s: -DSPEC\_LP64 -DSPEC\_LINUX\_X64  
602.gcc\_s: -DSPEC\_LP64  
605.mcf\_s: -DSPEC\_LP64  
620.omnetpp\_s: -DSPEC\_LP64  
623.xalancbmk\_s: -DSPEC\_LP64 -DSPEC\_LINUX  
625.x264\_s: -DSPEC\_LP64  
631.deepsjeng\_s: -DSPEC\_LP64  
641.leela\_s: -DSPEC\_LP64  
648.exchange2\_s: -DSPEC\_LP64  
657.xz\_s: -DSPEC\_LP64



# SPEC CPU®2017 Integer Speed Result

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New H3C Technologies Co., Ltd.

SPECspeed®2017\_int\_base = 10.3

H3C UniServer R4900 G7 (Intel Xeon 6710E)

SPECspeed®2017\_int\_peak = 10.5

CPU2017 License: 9066

Test Sponsor: New H3C Technologies Co., Ltd.

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## Base Optimization Flags

C benchmarks:

```
-w -std=c11 -m64 -Wl,-z,muldefs -xsierraforest -O3 -ffast-math
-flto -mfpmath=sse -funroll-loops -qopt-mem-layout-trans=4 -fiopenmp
-DSPEC_OPENMP -L/usr/local/jemalloc64-5.0.1/lib -ljemalloc
```

C++ benchmarks:

```
-w -std=c++14 -m64 -Wl,-z,muldefs -xsierraforest -O3 -ffast-math
-flto -mfpmath=sse -funroll-loops -qopt-mem-layout-trans=4
-L/usr/local/jemalloc64-5.0.1/lib -ljemalloc
```

Fortran benchmarks:

```
-w -m64 -Wl,-z,muldefs -xsierraforest -O3 -ffast-math -flto
-mfpmath=sse -funroll-loops -qopt-mem-layout-trans=4
-nostandard-realloc-lhs -align array32byte
-L/usr/local/jemalloc64-5.0.1/lib -ljemalloc
```

## Peak Compiler Invocation

C benchmarks:

icx

C++ benchmarks:

icpx

Fortran benchmarks:

ifx

## Peak Portability Flags

Same as Base Portability Flags

## Peak Optimization Flags

C benchmarks:

```
600.perlbenc_s: -w -m64 -std=c11 -Wl,-z,muldefs
-fprofile-generate(pass 1)
-fprofile-use=default.profddata(pass 2) -xCORE-AVX2 -flto
-Ofast(pass 1) -O3 -ffast-math -mfpmath=sse
-funroll-loops -qopt-mem-layout-trans=4 -fiopenmp
```

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# SPEC CPU®2017 Integer Speed Result

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## Peak Optimization Flags (Continued)

600.perlbench\_s (continued):

```
-DSPEC_OPENMP -fno-strict-overflow
-L/usr/local/jemalloc64-5.0.1/lib -ljemalloc
```

602.gcc\_s: -w -m64 -std=c11 -Wl,-z,muldefs

```
-fprofile-generate(pass 1)
-fprofile-use=default.profddata(pass 2) -xCORE-AVX2 -flto
-Ofast(pass 1) -O3 -ffast-math -mfpmath=sse
-funroll-loops -qopt-mem-layout-trans=4 -fiopenmp
-DSPEC_OPENMP -L/usr/local/jemalloc64-5.0.1/lib -ljemalloc
```

605.mcf\_s: basepeak = yes

625.x264\_s: -w -std=c11 -m64 -Wl,-z,muldefs -xsierraforest -O3

```
-ffast-math -flto -mfpmath=sse -funroll-loops
-qopt-mem-layout-trans=4 -fiopenmp -DSPEC_OPENMP
-fno-alias -L/usr/local/jemalloc64-5.0.1/lib -ljemalloc
```

657.xz\_s: basepeak = yes

C++ benchmarks:

620.omnetpp\_s: basepeak = yes

623.xalancbmk\_s: basepeak = yes

631.deepsjeng\_s: basepeak = yes

641.leela\_s: basepeak = yes

Fortran benchmarks:

648.exchange2\_s: basepeak = yes

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)



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**CPU2017 License:** 9066

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

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**Test Date:** Sep-2024

**Hardware Availability:** Oct-2024

**Software Availability:** Apr-2024

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