



SPEC CPU®2017 Integer Speed Result

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Hewlett Packard Enterprise

(Test Sponsor: HPE)

ProLiant Compute DL580 Gen12

(4.00 Ghz, Intel Xeon 6714P)

SPECspeed®2017_int_base = 14.5

SPECspeed®2017_int_peak = 14.8

CPU2017 License: 3

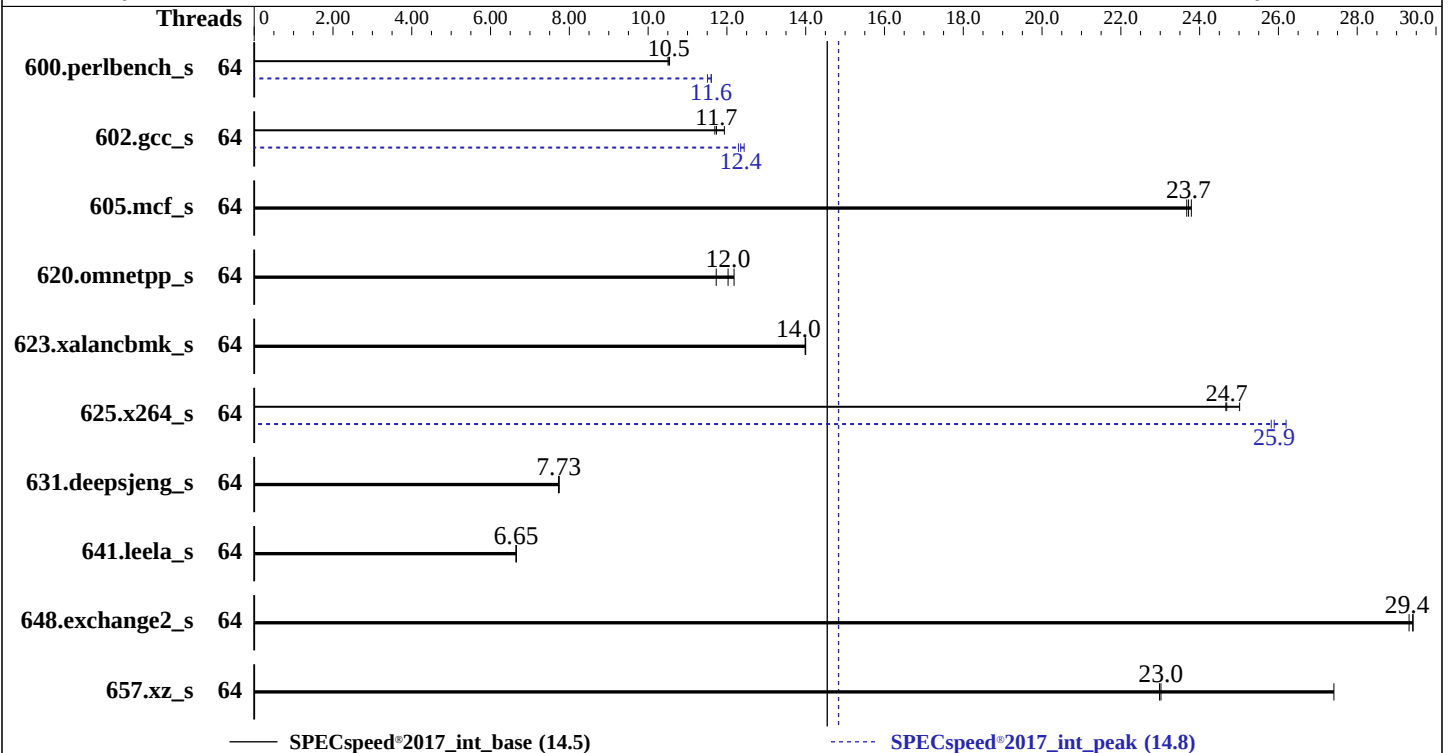
Test Sponsor: HPE

Tested by: HPE

Test Date: Sep-2025

Hardware Availability: Jul-2025

Software Availability: Jul-2025



Hardware

CPU Name: Intel Xeon 6714P
Max MHz: 4300
Nominal: 4000
Enabled: 32 cores, 4 chips, 2 threads/core
Orderable: 1,2,4 Chips
Cache L1: 64 KB I + 48 KB D on chip per core
L2: 2 MB I+D on chip per core
L3: 48 MB I+D on chip per chip
Other: None
Memory: 2 TB (32 x 64 GB 2Rx4 PC5-6400B-R)
Storage: 1 x 1.8 TB NVMe SSD
Other: CPU Cooling: Air

Software

OS: SUSE Linux Enterprise Server 15 SP6
Kernel 6.4.0-150600.23.60-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: Yes
Firmware: HPE BIOS Version v1.43 07/09/2025 released Jul-2025
File System: btrfs
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 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	64	169	10.5	169	10.5	168	10.5	64	153	11.6	154	11.5	153	11.6
602.gcc_s	64	334	11.9	339	11.7	341	11.7	64	322	12.4	320	12.4	324	12.3
605.mcf_s	64	199	23.7	198	23.8	199	23.7	64	199	23.7	198	23.8	199	23.7
620.omnetpp_s	64	134	12.2	139	11.7	136	12.0	64	134	12.2	139	11.7	136	12.0
623.xalanchmk_s	64	101	14.0	101	14.0	101	14.0	64	101	14.0	101	14.0	101	14.0
625.x264_s	64	70.5	25.0	71.5	24.7	71.5	24.7	64	68.1	25.9	68.3	25.8	67.3	26.2
631.deepsjeng_s	64	185	7.73	185	7.74	185	7.73	64	185	7.73	185	7.74	185	7.73
641.leela_s	64	256	6.65	257	6.65	256	6.65	64	256	6.65	257	6.65	256	6.65
648.exchange2_s	64	100	29.4	100	29.3	99.9	29.4	64	100	29.4	100	29.3	99.9	29.4
657.xz_s	64	269	23.0	269	23.0	226	27.4	64	269	23.0	269	23.0	226	27.4

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

Operating System Notes

Stack size set to unlimited using "ulimit -s unlimited"
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>
tuned-adm profile was stopped using "systemctl stop tuned"

Environment Variables Notes

Environment variables set by runcpu before the start of the run:
KMP_AFFINITY = "granularity=fine,scatter"
LD_LIBRARY_PATH = "/home/cpu2017/lib/intel64:/home/cpu2017/je5.0.1-64"
MALLOC_CONF = "retain:true"
OMP_STACKSIZE = "192M"

General Notes

Binaries compiled on a system with 2x Intel Xeon Platinum 8280M CPU + 384GB RAM
memory using Redhat Enterprise Linux 8.0
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
sources available from jemalloc.net or <https://github.com/jemalloc/jemalloc/releases>



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Platform Notes

BIOS Configurations : Parameters are selected in the order shown below

Workload Profile set to General Peak Frequency Compute

Enhanced Processor Performance Profile set to Aggressive

Thermal Configuration set to Maximum Cooling

Memory Patrol Scrubbing set to Disabled

Last Level Cache (LLC) Prefetch set to Enabled

XPT Prefetch set to Disabled

Intel UPI Prefetch set to Disabled

Workload Profile set to Custom

Collaborative Power Control set to Enabled

Sysinfo program /home/cpu2017/bin/sysinfo

Rev: r6732 of 2022-11-07 fe91c89b7ed5c36ae2c92cc097bec197

running on localhost Wed Sep 3 11:35:18 2025

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

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4. ulimit -a
5. sysinfo process ancestry
6. /proc/cpuinfo
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9. /proc/meminfo
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11. Systemd service manager version: systemd 254 (254.27+suse.167.g130293e510)
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 6.4.0-150600.23.60-default #1 SMP PREEMPT_DYNAMIC Tue Jul 1 14:43:49 UTC 2025 (6f98261)
x86_64 x86_64 x86_64 GNU/Linux
```

```
2. w
11:35:18 up 14 min, 2 users, load average: 0.22, 0.36, 0.17
USER  TTY      FROM             LOGIN@   IDLE   JCPU   PCPU   WHAT
benchmar pts/7    :pts/6:S.0       11:32    3:01   0.04s  0.00s  SCREEN -S spec
benchmar pts/8    :pts/6:S.0       11:32    6.00s  0.71s  0.00s  sudo su
```

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

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Platform Notes (Continued)

From the command 'logname': benchmark

```
-----
4. ulimit -a
core file size          (blocks, -c) 0
data seg size          (kbytes, -d) unlimited
scheduling priority     (-e) 0
file size              (blocks, -f) unlimited
pending signals        (-i) 8255477
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) 8255477
virtual memory         (kbytes, -v) unlimited
file locks             (-x) unlimited

-----
5. sysinfo process ancestry
/usr/lib/systemd/systemd --switched-root --system --deserialize=42
sh
/home/benchmark/.vscode-server/cli/servers/Stable-488a1f239235055e34e673291fb8d8c810886f81/server/bin/code
--server --connection-token=remotessh --accept-server-license-terms --start-server
--enable-remote-auto-shutdown --socket-path=/tmp/code-1f88b91b-2a27-44e1-8c82-fbfb59f076b1
/home/benchmark/.vscode-server/cli/servers/Stable-488a1f239235055e34e673291fb8d8c810886f81/server/node
/home/benchmark/.vscode-server/cli/servers/Stable-488a1f239235055e34e673291fb8d8c810886f81/server/out/serv
er-main.js --connection-token=remotessh --accept-server-license-terms --start-server
--enable-remote-auto-shutdown --socket-path=/tmp/code-1f88b91b-2a27-44e1-8c82-fbfb59f076b1
/home/benchmark/.vscode-server/cli/servers/Stable-488a1f239235055e34e673291fb8d8c810886f81/server/node
/home/benchmark/.vscode-server/cli/servers/Stable-488a1f239235055e34e673291fb8d8c810886f81/server/out/boot
strap-fork --type=ptyHost --logsPath /home/benchmark/.vscode-server/data/logs/20250903T113157
/bin/bash --init-file
/home/benchmark/.vscode-server/cli/servers/Stable-488a1f239235055e34e673291fb8d8c810886f81/server/out/vs/w
orkbench/contrib/terminal/common/scripts/shellIntegration-bash.sh
screen -S spec
SCREEN -S spec
/bin/bash
sudo su
sudo su
su
bash
bash
runcpu --nobuild --action validate --define default-platform-flags -c 6714P-avx512-speed-20240308.cfg
--define cores=32 --tune base,peak -o all --define intspeedaffinity --define smt-on --define drop_caches
intspeed
runcpu --nobuild --action validate --define default-platform-flags --configfile
6714P-avx512-speed-20240308.cfg --define cores=32 --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
$$SPEC/tmp/CPU2017.001/templots/preenv.intspeed.001.0.log --lognum 001.0 --from_runcpu 2
specperl $$SPEC/bin/sysinfo
$$SPEC = /home/cpu2017

-----
6. /proc/cpuinfo
model name      : Intel(R) Xeon(R) 6714P
```

(Continued on next page)



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Platform Notes (Continued)

```
vendor_id      : GenuineIntel
cpu family     : 6
model          : 173
stepping       : 1
microcode      : 0x10003c2
bugs           : spectre_v1 spectre_v2 spec_store_bypass swapgs bhi
cpu cores      : 8
siblings       : 16
4 physical ids (chips)
64 processors (hardware threads)
physical id 0: core ids 0-7
physical id 1: core ids 0-7
physical id 2: core ids 0-7
physical id 3: core ids 0-7
physical id 0: apicids 0-15
physical id 1: apicids 128-143
physical id 2: apicids 256-271
physical id 3: apicids 384-399
```

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 2.39.3:

```
Architecture:          x86_64
CPU op-mode(s):        32-bit, 64-bit
Address sizes:          46 bits physical, 57 bits virtual
Byte Order:             Little Endian
CPU(s):                 64
On-line CPU(s) list:    0-63
Vendor ID:              GenuineIntel
Model name:             Intel(R) Xeon(R) 6714P
CPU family:             6
Model:                 173
Thread(s) per core:     2
Core(s) per socket:     8
Socket(s):              4
Stepping:               1
BogoMIPS:               8000.00
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 intel_ppin
                        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 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 split_lock_detect user_shstk avx_vnni
                        avx512_bf16 wbnoinvd dtherm ida arat pln pts vnmi 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 ibt amx_bf16 avx512_fp16 amx_tile amx_int8
                        flush_l1d arch_capabilities
```

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Platform Notes (Continued)

Virtualization: VT-x
L1d cache: 1.5 MiB (32 instances)
L1i cache: 2 MiB (32 instances)
L2 cache: 64 MiB (32 instances)
L3 cache: 192 MiB (4 instances)
NUMA node(s): 4
NUMA node0 CPU(s): 0-7,32-39
NUMA node1 CPU(s): 8-15,40-47
NUMA node2 CPU(s): 16-23,48-55
NUMA node3 CPU(s): 24-31,56-63
Vulnerability Gather data sampling: Not affected
Vulnerability Indirect target selection: Not affected
Vulnerability Itlb multihit: Not affected
Vulnerability L1tf: Not affected
Vulnerability Mds: Not affected
Vulnerability Meltdown: Not affected
Vulnerability Mmio stale data: Not affected
Vulnerability Reg file data sampling: 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/swapgs barriers and __user pointer sanitization
Vulnerability Spectre v2: Mitigation; Enhanced / Automatic IBRS; IBPB conditional; PBRSE-eIBRS Not affected; BHI BHI_DIS_S
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	1.5M	12	Data	1	64	1	64
L1i	64K	2M	16	Instruction	1	64	1	64
L2	2M	64M	16	Unified	2	2048	1	64
L3	48M	192M	16	Unified	3	49152	1	64

8. numactl --hardware

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

available: 4 nodes (0-3)
node 0 cpus: 0-7,32-39
node 0 size: 515691 MB
node 0 free: 514421 MB
node 1 cpus: 8-15,40-47
node 1 size: 516091 MB
node 1 free: 514812 MB
node 2 cpus: 16-23,48-55
node 2 size: 516091 MB
node 2 free: 514036 MB
node 3 cpus: 24-31,56-63
node 3 size: 516028 MB
node 3 free: 513353 MB
node distances:
node 0 1 2 3
0: 10 21 21 21
1: 21 10 21 21
2: 21 21 10 21
3: 21 21 21 10

9. /proc/meminfo

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Platform Notes (Continued)

MemTotal: 2113435884 kB

10. who -r
run-level 3 Sep 3 11:32 last=5

11. Systemd service manager version: systemd 254 (254.27+suse.167.g130293e510)
Default Target Status
graphical running

12. Services, from systemctl list-unit-files
STATE UNIT FILES
enabled ModemManager YaST2-Firstboot YaST2-Second-Stage apparmor appstream-sync-cache auditd
bluetooth chronyd cron display-manager getty@ irqbalance iscsi issue-generator kbdsettings
klog lvm2-monitor nscd nvme-fc-boot-connections nvme-fc-autoconnect postfix purge-kernels
rollback rsyslog smartd sshd systemd-pstore virtqemu-wicked wickedd-auto4 wickedd-dhcp4
wickedd-dhcp6 wickedd-nanny wpa_supplicant
enabled-runtime systemd-remount-fs
disabled NetworkManager NetworkManager-dispatcher NetworkManager-wait-online accounts-daemon autofs
autovast-init scripts blk-availability bluetooth-mesh boot-sysctl ca-certificates
chrony-wait console-getty cups cups-browsed debug-shell dmraid-activation dnsmasq ebttables
exchange-bmc-os-info firewalld fsiddd gpm grub2-once haveged hwloc-dump-hwdata ipmi ipmievdev
iscsi-init iscsid issue-add-ssh-keys kexec-load ksm kvm_stat libvirt-guests lunmask
man-db-create multipathd nfs nfs-blkmap nfs-server nfs-server nmb openvpn@ ostree-remount
rpcbind rpmconfigcheck rsyncd rtkit-daemon serial-getty@ smartd-generate-opts smb snmpd
snmptrapd speech-dispatcher systemd-boot-check-no-failures systemd-confext
systemd-network-generator systemd-nspawn@ systemd-sysext systemd-time-wait-sync
systemd-timesyncd tcshd tuned udisks2 update-systemd-flatpaks upower virtiofsd
virtiofsd virtiofsd virtiofsd virtiofsd virtiofsd virtiofsd virtiofsd virtiofsd
vncserver@ wpa_supplicant@
indirect pcsd saned@ systemd-userdbd tftpd wickedd

13. Linux kernel boot-time arguments, from /proc/cmdline
BOOT_IMAGE=/boot/vmlinuz-6.4.0-150600.23.60-default
root=UUID=31ddc59e-f5ed-47da-8154-f16fa2fc98b8
splash=silent
mitigations=auto
quiet
security=apparmor

14. cpupower frequency-info
analyzing CPU 10:
Unable to determine current policy
boost state support:
Supported: yes
Active: yes

15. tuned-adm active
It seems that tuned daemon is not running, preset profile is not activated.
Preset profile: virtual-host

16. sysctl
kernel.numa_balancing 0
kernel.randomize_va_space 2

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Platform Notes (Continued)

```
vm.compaction_proactiveness      20
vm.dirty_background_bytes        0
vm.dirty_background_ratio        40
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                     1
vm.watermark_boost_factor       15000
vm.watermark_scale_factor        10
vm.zone_reclaim_mode            1
```

```
-----
17. /sys/kernel/mm/transparent_hugepage
   defrag          always defer+madvise [madvise] never
   enabled         [always] madvise 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 SUSE Linux Enterprise Server 15 SP6
```

```
-----
20. Disk information
   SPEC is set to: /home/cpu2017
   Filesystem      Type  Size  Used Avail Use% Mounted on
   /dev/nvme1n1p3 btrfs 1.8T  314G  1.5T  18% /home
```

```
-----
21. /sys/devices/virtual/dmi/id
   Vendor:      HPE
   Product:     HPE ProLiant Compute DL580 Gen12
   Product Family: ProLiant
   Serial:      SANJACSCM
```

```
-----
22. dmidecode
   Additional information from dmidecode 3.6 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:
```

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Platform Notes (Continued)

4x Hynix HMG94AHBRA480N 64 GB 2 rank 6400
5x Micron MTC40F2046S1RC64BD2 MWFF 64 GB 2 rank 6400
23x Micron MTC40F2046S1RC64BD2 QSFF 64 GB 2 rank 6400

23. BIOS

(This section combines info from /sys/devices and dmidecode.)

BIOS Vendor: HPE
BIOS Version: 1.43
BIOS Date: 07/09/2025
BIOS Revision: 1.43
Firmware Revision: 1.17

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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```
=====  
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



SPEC CPU®2017 Integer Speed Result

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Hewlett Packard Enterprise

(Test Sponsor: HPE)

ProLiant Compute DL580 Gen12

(4.00 Ghz, Intel Xeon 6714P)

SPECspeed®2017_int_base = 14.5

SPECspeed®2017_int_peak = 14.8

CPU2017 License: 3

Test Sponsor: HPE

Tested by: HPE

Test Date: Sep-2025

Hardware Availability: Jul-2025

Software Availability: Jul-2025

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

Base Optimization Flags

C benchmarks:

-w -std=c11 -m64 -Wl,-z,muldefs -xCORE-AVX512 -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 -xCORE-AVX512 -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 -xCORE-AVX512 -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



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ProLiant Compute DL580 Gen12

(4.00 Ghz, Intel Xeon 6714P)

SPECspeed®2017_int_base = 14.5

SPECspeed®2017_int_peak = 14.8

CPU2017 License: 3

Test Sponsor: HPE

Tested by: HPE

Test Date: Sep-2025

Hardware Availability: Jul-2025

Software Availability: Jul-2025

Peak Portability Flags

Same as Base Portability Flags

Peak Optimization Flags

C benchmarks:

```
600.perlbench_s: -w -m64 -std=c11 -Wl, -z,muldefs
-fprofile-generate(pass 1)
-fprofile-use=default.profdata(pass 2) -xCORE-AVX2(pass 1)
-flto -Ofast(pass 1) -xCORE-AVX512 -O3 -ffast-math
-mfpmath=sse -funroll-loops -qopt-mem-layout-trans=4
-fiopenmp -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.profdata(pass 2) -xCORE-AVX2(pass 1)
-flto -Ofast(pass 1) -xCORE-AVX512 -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 -xCORE-AVX512 -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:

(Continued on next page)



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SPECspeed®2017_int_base = 14.5

SPECspeed®2017_int_peak = 14.8

CPU2017 License: 3

Test Sponsor: HPE

Tested by: HPE

Test Date: Sep-2025

Hardware Availability: Jul-2025

Software Availability: Jul-2025

Peak Optimization Flags (Continued)

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/HPE-Platform-Flags-Intel-GNR-rev1.3.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/HPE-Platform-Flags-Intel-GNR-rev1.3.xml>

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