SPEC CPU®2026 Integer Rate Result

Hewlett Packard Enterprise

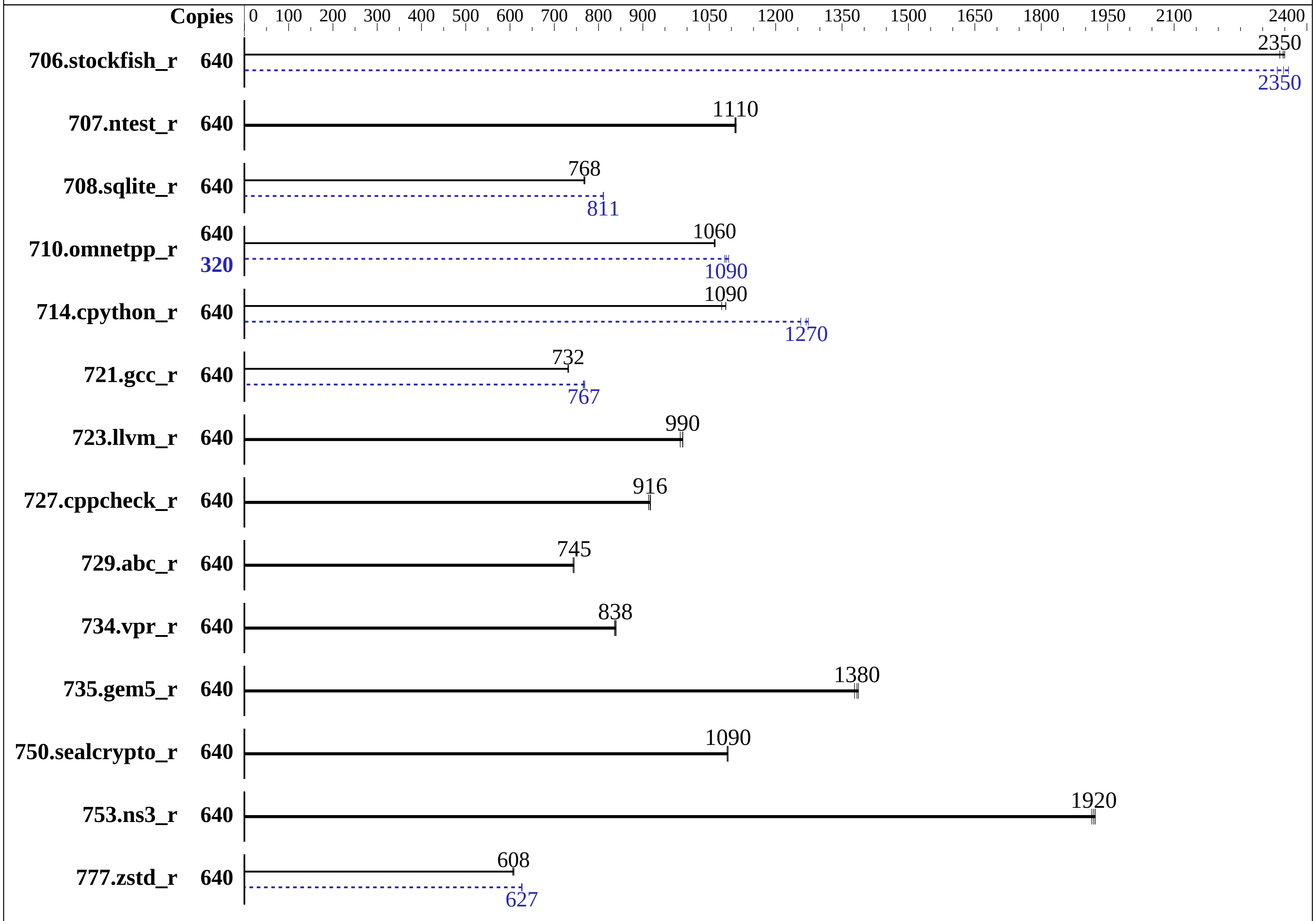
(Test Sponsor: HPE)

ProLiant DL365 Gen11
(2.10 GHz, AMD EPYC 9845)

SPECrate®2026_int_base = 1040

SPECrate®2026_int_peak = 1060

CPU2026 License:	3	**Test Date:**	Sep-2026
Test Sponsor:	HPE	**Hardware Availability:**	Oct-2024
Tested by:	HPE	**Software Availability:**	May-2026



Hardware

CPU Name:	AMD EPYC 9845
Max MHz:	3700
Nominal:	2100
Enabled:	320 cores, 2 chips, 2 threads/core
Orderable:	1,2 Chips
Cache L1:	32 KB I + 48 KB D on chip per core
L2:	1 MB I+D on chip per core
L3:	320 MB I+D on chip per chip, 32 MB shared / 16 cores
Other:	None
Memory:	1536 GB (24 x 64 GB 2Rx4 PC5-6400B-R)
Storage:	1 x 480 GB NVMe SSD
Cooling:	Air
Other:	None

Software

OS:	SUSE Linux Enterprise Server 15 SP7 Kernel 6.4.0-150700.53.6-default
Compiler:	C/C++/Fortran: Version 5.2.0 of AOCC
Compiler Category:	Vendor
Firmware:	HPE BIOS Version v3.22 08/20/2026 released Aug-2026
File System:	btrfs
System State:	Run level 3 (multi-user)
Base Pointers:	64-bit
Peak Pointers:	64-bit
Other:	None
Power Management:	BIOS and OS set to prefer performance at the cost of additional power usage

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Results Table

	Base							Peak						
Benchmark	**Copies**	**Seconds**	**Ratio**	**Seconds**	**Ratio**	**Seconds**	**Ratio**	**Copies**	**Seconds**	**Ratio**	**Seconds**	**Ratio**	**Seconds**	**Ratio**
706.stockfish_r	640	**344**	**2350**	343	2350	345	2340	640	**344**	**2350**	342	2360	346	2330
707.ntest_r	640	342	1110	**342**	**1110**	341	1110	640	342	1110	**342**	**1110**	341	1110
708.sqlite_r	640	439	769	**440**	**768**	441	767	640	417	810	416	811	**417**	**811**
710.omnetpp_r	640	292	1060	**293**	**1060**	293	1060	320	**143**	**1090**	142	1090	143	1080
714.cpython_r	640	284	1080	**282**	**1090**	282	1090	640	241	1270	244	1260	**242**	**1270**
721.gcc_r	640	601	731	600	732	**600**	**732**	640	**572**	**767**	571	769	574	765
723.llvm_r	640	328	990	**328**	**990**	330	984	640	328	990	**328**	**990**	330	984
727.cppcheck_r	640	252	913	250	917	**251**	**916**	640	252	913	250	917	**251**	**916**
729.abc_r	640	396	742	**394**	**745**	394	745	640	396	742	**394**	**745**	394	745
734.vpr_r	640	351	840	**352**	**838**	353	836	640	351	840	**352**	**838**	353	836
735.gem5_r	640	**225**	**1380**	225	1390	226	1380	640	**225**	**1380**	225	1390	226	1380
750.sealcrypto_r	640	314	1090	**314**	**1090**	315	1090	640	314	1090	**314**	**1090**	315	1090
753.ns3_r	640	**204**	**1920**	205	1910	204	1920	640	**204**	**1920**	205	1910	204	1920
777.zstd_r	640	**678**	**608**	680	606	677	609	640	658	626	657	627	**658**	**627**

SPECrate®2026_int_base = 1040

SPECrate®2026_int_peak = 1060

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

Compiler Notes

```
The AMD64 AOCC Compiler Suite is available at
http://developer.amd.com/amd-aocc/
```

Submit Notes

```
The config file option 'submit' was used.
'numactl' was used to bind copies to the cores.
See the configuration file for details.
```

Operating System Notes

```
'ulimit -s unlimited' was used to set environment stack size limit
'ulimit -l 2097152' was used to set environment locked pages in memory limit

runcpu command invoked through numactl i.e.:
numactl --interleave=all runcpu <etc>

To limit dirty cache to 8% of memory, 'sysctl -w vm.dirty_ratio=8' run as root.
To limit swap usage to minimum necessary, 'sysctl -w vm.swappiness=1' run as root.
```

(Continued on next page)

Operating System Notes (Continued)

```
To free node-local memory and avoid remote memory usage,
'sysctl -w vm.zone_reclaim_mode=1' run as root.
To clear filesystem caches, 'sync; sysctl -w vm.drop_caches=3' run as root.
To disable address space layout randomization (ASLR) to reduce run-to-run
variability, 'sysctl -w kernel.randomize_va_space=0' run as root.
To enable Transparent Hugepages (THP) for all allocations,
'echo always > /sys/kernel/mm/transparent_hugepage/enabled' and
'echo always > /sys/kernel/mm/transparent_hugepage/defrag' and
'echo always > /sys/kernel/mm/transparent_hugepage/shmem_enabled' run as root.
```

Environment Variables Notes

```
Environment variables set by runcpu before the start of the run:
LD_LIBRARY_PATH =
     "/home/cpu2026/amd_rate_aocc520_znver5_A_lib/lib:/home/cpu2026/amd_rate_
     aocc520_znver5_A_lib/lib32:"
MALLOC_CONF = "retain:true"
```

General Notes

```
Binaries were compiled on a system with 2x AMD EPYC Venice256 CPU + 2TiB
Memory using Ubuntu 24.04
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.
```

Platform Notes

```
BIOS Configurations : Parameters are selected in the order shown below
Workload Profile set to General Throughput Compute
Determinism Control set to Manual
Performance Determinism set to Power Deterministic
Memory Patrol Scrubbing set to Disabled
ACPI CST C2 Latency set to 18 microseconds
NUMA memory domains per socket set to Two memory domains per socket
Thermal Configuration set to Maximum Cooling
AMD Periodic Directory Rinse set to Periodic
Workload Profile set to Custom
 Power Regulator set to OS Control Mode
```

(Continued on next page)

Platform Notes (Continued)

```
Sysinfo program /home/cpu2026/bin/sysinfo
Rev: 779ab21020787073335a329f3a45e2cd
running on localhost Mon Sep 14 00:35:21 2026

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

------------------------------------------------------------
Table of contents
------------------------------------------------------------
 1. uname -srvm
 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 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. sysctl
16. /sys/kernel/mm/transparent_hugepage
17. /sys/kernel/mm/transparent_hugepage/khugepaged
18. OS release
19. Disk information
20. /sys/devices/virtual/dmi/id
21. dmidecode
22. BIOS
------------------------------------------------------------

------------------------------------------------------------
1. uname -srvm
   Linux 6.4.0-150700.53.6-default #1 SMP PREEMPT_DYNAMIC Tue Jul  1 14:54:47 UTC 2025 (8ab7501) x86_64

------------------------------------------------------------
2. w
   00:35:21 up 2 min,  4 users,  load average: 0.48, 0.29, 0.12
  USER     TTY      FROM             LOGIN@   IDLE   JCPU   PCPU WHAT

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

------------------------------------------------------------
```

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Platform Notes (Continued)

```
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) 6189219
  max locked memory       (kbytes, -l) 2048
  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) 6189219
  virtual memory          (kbytes, -v) unlimited
  file locks                      (-x) unlimited

------------------------------------------------------------
5. sysinfo process ancestry
 /usr/lib/systemd/systemd --switched-root --system --deserialize=42
 sshd: /usr/sbin/sshd -D [listener] 0 of 10-100 startups
 sshd: root [priv]
 sshd: root@notty
 /bin/bash $SPEC/run_intrate_sh.sh
 sudo ./run_intrate.py
 python3 ./run_intrate.py
 runcpu --config amd_rate_aocc520_znver5_A1.cfg --tune all --reportable --iterations 3 intrate
 runcpu --configfile amd_rate_aocc520_znver5_A1.cfg --tune all --reportable --iterations 3 --nopower
   --runmode rate --tune base:peak --size test:train:refrate intrate --nopreenv --note-preenv --logfile
   $SPEC/tmp/CPU2026.001/templogs/preenv.intrate.001.0.log --lognum 001.0 --from_runcpu 2
 specperl $SPEC/bin/sysinfo
$SPEC = /home/cpu2026

------------------------------------------------------------
6. /proc/cpuinfo
    model name      : AMD EPYC 9845 160-Core Processor
    vendor_id       : AuthenticAMD
    cpu family      : 26
    model           : 17
    stepping        : 0
    microcode       : 0xb101066
    bugs            : sysret_ss_attrs spectre_v1 spectre_v2 spec_store_bypass srso
    TLB size        : 192 4K pages
    cpu cores       : 160
    siblings        : 320
    2 physical ids (chips)
```

(Continued on next page)

Platform Notes (Continued)

```
    640 processors (hardware threads)
    physical id 0: core ids 0-159
    physical id 1: core ids 0-159
    physical id 0: apicids 0-319
    physical id 1: apicids 512-831
  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 2.40.4:
  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):                                  640
  On-line CPU(s) list:                     0-639
  Vendor ID:                               AuthenticAMD
  Model name:                              AMD EPYC 9845 160-Core Processor
  CPU family:                              26
  Model:                                   17
  Thread(s) per core:                      2
  Core(s) per socket:                      160
  Socket(s):                               2
  Stepping:                                0
  Frequency boost:                         enabled
  CPU(s) scaling MHz:                      100%
  CPU max MHz:                             2100.0000
  CPU min MHz:                             1500.0000
  BogoMIPS:                                4194.05
  Flags:                                   fpu vme de pse tsc msr pae mce cx8 apic sep mtrr pge mca cmov pat
                                           pse36 clflush mmx fxsr sse sse2 ht syscall nx mmxext fxsr_opt
                                           pdpe1gb rdtscp lm constant_tsc rep_good amd_lbr_v2 nopl
                                           nonstop_tsc cpuid extd_apicid aperfmperf rapl pni pclmulqdq
                                           monitor ssse3 fma cx16 pcid sse4_1 sse4_2 x2apic movbe popcnt aes
                                           xsave avx f16c rdrand lahf_lm cmp_legacy svm extapic cr8_legacy
                                           abm sse4a misalignsse 3dnowprefetch osvw ibs skinit wdt tce
                                           topoext perfctr_core perfctr_nb bpext perfctr_llc mwaitx cpb
                                           cat_l3 cdp_l3 hw_pstate ssbd mba perfmon_v2 ibrs ibpb stibp
                                           ibrs_enhanced vmmcall fsgsbase tsc_adjust bmi1 avx2 smep bmi2 erms
                                           invpcid cqm rdt_a avx512f avx512dq rdseed adx smap avx512ifma
                                           clflushopt clwb avx512cd sha_ni avx512bw avx512vl xsaveopt xsavec
                                           xgetbv1 xsaves cqm_llc cqm_occup_llc cqm_mbm_total cqm_mbm_local
                                           user_shstk avx_vnni avx512_bf16 clzero irperf xsaveerptr rdpru
                                           wbnoinvd amd_ppin cppc amd_ibpb_ret arat npt lbrv svm_lock
                                           nrip_save tsc_scale vmcb_clean flushbyasid decodeassists
```

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Platform Notes (Continued)

```
                                     pausefilter pfthreshold avic v_vmsave_vmload vgif x2avic
                                     v_spec_ctrl vnmi avx512vbmi umip pku ospke avx512_vbmi2 gfni vaes
                                     vpclmulqdq avx512_vnni avx512_bitalg avx512_vpopcntdq la57 rdpid
                                     bus_lock_detect movdiri movdir64b overflow_recov succor smca fsrm
                                     avx512_vp2intersect flush_l1d debug_swap hv_inuse_wr_allowed
                                     srso_user_kernel_no amd_lbr_pmc_freeze
  Virtualization:                        AMD-V
  L1d cache:                             15 MiB (320 instances)
  L1i cache:                             10 MiB (320 instances)
  L2 cache:                              320 MiB (320 instances)
  L3 cache:                              640 MiB (20 instances)
  NUMA node(s):                          4
  NUMA node0 CPU(s):                     0-79,320-399
  NUMA node1 CPU(s):                     80-159,400-479
  NUMA node2 CPU(s):                     160-239,480-559
  NUMA node3 CPU(s):                     240-319,560-639
  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:    Mitigation; IBPB on VMEXIT only
  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; STIBP
                                         always-on; PBRSB-eIBRS Not affected; BHI 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       48K      15M   12 Data            1    64        1             64
     L1i       32K      10M    8 Instruction     1    64        1             64
     L2         1M     320M   16 Unified         2  1024        1             64
     L3        32M     640M   16 Unified         3 32768        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: 0-79,320-399
  node 0 size: 386522 MB
```

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Platform Notes (Continued)

```
    node 0 free: 385328 MB
    node 1 cpus: 80-159,400-479
    node 1 size: 387029 MB
    node 1 free: 385976 MB
    node 2 cpus: 160-239,480-559
    node 2 size: 387029 MB
    node 2 free: 386082 MB
    node 3 cpus: 240-319,560-639
    node 3 size: 386752 MB
    node 3 free: 385795 MB
    node distances:
    node   0   1   2   3
      0:  10  12  32  32
      1:  12  10  32  32
      2:  32  32  10  12
      3:  32  32  12  10

  ------------------------------------------------------------
  9. /proc/meminfo
     MemTotal:       1584470164 kB

  ------------------------------------------------------------
  10. who -r
    run-level 3 Sep 14 00:33

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

  ------------------------------------------------------------
  12. Services, from systemctl list-unit-files
    STATE            UNIT FILES
    enabled          ModemManager YaST2-Firstboot YaST2-Second-Stage apparmor appstream-sync-cache auditd
                     bluetooth cron display-manager getty@ irqbalance issue-generator kbdsettings klog
                     lvm2-monitor nscd postfix purge-kernels rollback rsyslog smartd sshd systemd-pstore 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
                     autoyast-initscripts blk-availability bluetooth-mesh boot-sysctl ca-certificates
                     chrony-wait chronyd console-getty cups cups-browsed debug-shell dnsmasq ebtables
                     exchange-bmc-os-info firewalld fsidd gnome-remote-desktop gpm grub2-once haveged
                     hwloc-dump-hwdata ipmi ipmievd issue-add-ssh-keys kexec-load lunmask man-db-create
                     multipathd nfs nfs-blkmap nmb openvpn@ ostree-remount ostree-state-overlay@ rpcbind
                     rpmconfigcheck rsyncd rtkit-daemon samba-bgqd serial-getty@ smartd_generate_opts smb snmpd
                     snmptrapd speech-dispatcherd systemd-boot-check-no-failures systemd-confext
                     systemd-network-generator systemd-sysext systemd-time-wait-sync systemd-timesyncd tuned
```

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Platform Notes (Continued)

```
                 udisks2 update-system-flatpaks upower vncserver@ wpa_supplicant@
  indirect        pcscd saned@ systemd-userdbd wickedd

------------------------------------------------------------
13. Linux kernel boot-time arguments, from /proc/cmdline
  BOOT_IMAGE=/boot/vmlinuz-6.4.0-150700.53.6-default
  root=UUID=6864fa16-4e3a-4b5d-82dd-678b06e3a35e
  splash=silent
  mitigations=auto
  quiet
  security=apparmor

------------------------------------------------------------
14. cpupower frequency-info
  analyzing CPU 132:
    current policy: frequency should be within 1.50 GHz and 2.10 GHz.
                    The governor "performance" may decide which speed to use
                    within this range.
    boost state support:
      Supported: yes
      Active: yes

------------------------------------------------------------
15. sysctl
  kernel.numa_balancing               0
  kernel.randomize_va_space           0
  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                      8
  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

------------------------------------------------------------
16. /sys/kernel/mm/transparent_hugepage
  defrag          [always] defer defer+madvise madvise never
```

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Platform Notes (Continued)

```
  enabled         [always] madvise never
  hpage_pmd_size  2097152
  shmem_enabled   [always] within_size advise never deny force

------------------------------------------------------------
17. /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

------------------------------------------------------------
18. OS release
  From /etc/*-release /etc/*-version
  os-release SUSE Linux Enterprise Server 15 SP7

------------------------------------------------------------
19. Disk information
SPEC is set to: /home/cpu2026
  Filesystem     Type   Size  Used Avail Use% Mounted on
  /dev/sda2      btrfs  447G   36G  408G   9% /home

------------------------------------------------------------
20. /sys/devices/virtual/dmi/id
    Vendor:         HPE
    Product:        ProLiant DL365 Gen11
    Product Family: ProLiant
    Serial:         DL365G11-001

------------------------------------------------------------
21. 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:
    8x Hynix HMCG94AHBRA480N 64 GB 2 rank 6400
    1x Micron MTC40F2046S1RC64BD2 MWFF 64 GB 2 rank 6400
    15x Micron MTC40F2046S1RC64BD2 QSFF 64 GB 2 rank 6400


------------------------------------------------------------
22. BIOS
(This section combines info from /sys/devices and dmidecode.)
```

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Platform Notes (Continued)

```
    BIOS Vendor:       HPE
    BIOS Version:      3.22
    BIOS Date:         08/20/2026
    BIOS Revision:     3.22
    Firmware Revision: 1.79
```

Compiler Version Notes

```
==============================================================================
C      | 708.sqlite_r(base, peak) 714.cpython_r(base, peak) 777.zstd_r(base,
       | peak)
------------------------------------------------------------------------------
AMD clang version 17.0.6 (CLANG: AOCC_5.2.0-Build#2035 2026_04_10)
Target: x86_64-unknown-linux-gnu
Thread model: posix
InstalledDir: /opt/AMD/aocc/aocc-compiler-rel-5.2.0-4925-2035/bin
------------------------------------------------------------------------------

==============================================================================
C++    | 706.stockfish_r(base, peak) 707.ntest_r(base, peak)
       | 727.cppcheck_r(base, peak) 753.ns3_r(base, peak)
------------------------------------------------------------------------------
AMD clang version 17.0.6 (CLANG: AOCC_5.2.0-Build#2035 2026_04_10)
Target: x86_64-unknown-linux-gnu
Thread model: posix
InstalledDir: /opt/AMD/aocc/aocc-compiler-rel-5.2.0-4925-2035/bin
------------------------------------------------------------------------------

==============================================================================
C++, C | 710.omnetpp_r(base, peak) 721.gcc_r(base, peak) 723.llvm_r(base,
       | peak) 729.abc_r(base, peak) 734.vpr_r(base, peak) 735.gem5_r(base,
       | peak) 750.sealcrypto_r(base, peak)
------------------------------------------------------------------------------
AMD clang version 17.0.6 (CLANG: AOCC_5.2.0-Build#2035 2026_04_10)
Target: x86_64-unknown-linux-gnu
Thread model: posix
InstalledDir: /opt/AMD/aocc/aocc-compiler-rel-5.2.0-4925-2035/bin
------------------------------------------------------------------------------
```

Base Compiler Invocation

C benchmarks:
`clang`

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Base Compiler Invocation (Continued)

C++ benchmarks:
`clang++`

Benchmarks using both C and C++:
`clang++ clang`

Base Optimization Flags

C benchmarks:
`-std=c18 -no-pie -Wl,-mllvm -Wl,-inline-threshold=1500 -fstrip-mining -O3 -march=znver5 -fveclib=AMDLIBM -flto -fno-PIE -fno-plt -fremap-arrays -mllvm -inline-threshold=1500 -lamdalloc -lamdlibm`

C++ benchmarks:
`-std=c++17 -no-pie -Wl,-mllvm -Wl,-inline-threshold=1500 -O3 -march=znver5 -fveclib=AMDLIBM -flto -fno-PIE -fno-plt -fvirtual-function-elimination -fvisibility=hidden -mllvm -inline-threshold=1500 -stdlib=libc++ -lamdalloc -lamdlibm`

Benchmarks using both C and C++:
`-std=c++17 -std=c18 -no-pie -Wl,-mllvm -Wl,-inline-threshold=1500 -O3 -march=znver5 -fveclib=AMDLIBM -flto -fno-PIE -fno-plt -fremap-arrays -mllvm -inline-threshold=1500 -fvirtual-function-elimination -fvisibility=hidden -stdlib=libc++ -lamdalloc -lamdlibm`

Base Other Flags

C benchmarks:
`-L/work/cpu2026/v101/aocc52/rate/amd_rate_aocc520_znver5_A_lib/lib`

C++ benchmarks:
`-L/work/cpu2026/v101/aocc52/rate/amd_rate_aocc520_znver5_A_lib/lib`

Benchmarks using both C and C++:
`-L/work/cpu2026/v101/aocc52/rate/amd_rate_aocc520_znver5_A_lib/lib`

Peak Compiler Invocation

C benchmarks:
`clang`

C++ benchmarks:
`clang++`

Benchmarks using both C and C++:
`clang++ clang`

Peak Optimization Flags

C benchmarks:

708.sqlite_r: `-std=c18 -no-pie -Wl,-mllvm -Wl,-inline-threshold=1500 -fstrip-mining -fprofile-instr-generate`(pass 1) `-fprofile-instr-use`(pass 2) `-O3 -march=znver5 -fveclib=AMDLIBM -flto -fno-PIE -fno-plt -fremap-arrays -mllvm -inline-threshold=1500 -lamdalloc -lamdlibm`

714.cpython_r: `-std=c18 -no-pie -fprofile-instr-generate`(pass 1) `-fprofile-instr-use`(pass 2) `-O3 -march=znver5 -fveclib=AMDLIBM -flto -fno-PIE -fno-plt -fremap-arrays -mllvm -inline-threshold=1500 -mllvm -unroll-threshold=50 -lamdalloc -lamdlibm`

777.zstd_r: `-std=c18 -no-pie -Wl,-mllvm -Wl,-inline-threshold=1500 -fstrip-mining -O3 -march=znver5 -fveclib=AMDLIBM -flto -fno-PIE -fno-plt -fremap-arrays -mllvm -inline-threshold=1500 -mllvm -inline-threshold=3000 -lamdalloc -lamdlibm`

C++ benchmarks:

706.stockfish_r: `-std=c++17 -no-pie -Wl,-mllvm -Wl,-inline-threshold=1500 -O3 -march=znver5 -fveclib=AMDLIBM -flto -fno-PIE -fno-plt -fvirtual-function-elimination -fvisibility=hidden -mllvm -inline-threshold=1500 -stdlib=libc++ -lamdalloc -lamdlibm`

707.ntest_r: `basepeak = yes`

727.cppcheck_r: `basepeak = yes`

(Continued on next page)

Peak Optimization Flags (Continued)

753.ns3_r: `basepeak = yes`

Benchmarks using both C and C++:

710.omnetpp_r: `-std=c++17 -std=c18 -no-pie -Wl,-mllvm -Wl,-inline-threshold=1500 -O3 -march=znver5 -fveclib=AMDLIBM -flto -fno-PIE -fno-plt -fremap-arrays -mllvm -inline-threshold=1500 -fvirtual-function-elimination -fvisibility=hidden -stdlib=libc++ -lamdalloc -lamdlibm`

721.gcc_r: `-std=c++17 -std=c18 -no-pie -Wl,-mllvm -Wl,-inline-threshold=1500 -fprofile-instr-generate`(pass 1) `-fprofile-instr-use`(pass 2) `-O3 -march=znver5 -fveclib=AMDLIBM -flto -fno-PIE -fno-plt -fremap-arrays -mllvm -inline-threshold=1500 -fvirtual-function-elimination -fvisibility=hidden -stdlib=libc++ -lamdalloc -lamdlibm`

723.llvm_r: `basepeak = yes`

729.abc_r: `basepeak = yes`

734.vpr_r: `basepeak = yes`

735.gem5_r: `basepeak = yes`

750.sealcrypto_r: `basepeak = yes`

Peak Other Flags

C benchmarks:
`-L/work/cpu2026/v101/aocc52/rate/amd_rate_aocc520_znver5_A_lib/lib`

C++ benchmarks:
`-L/work/cpu2026/v101/aocc52/rate/amd_rate_aocc520_znver5_A_lib/lib`

Benchmarks using both C and C++:
`-L/work/cpu2026/v101/aocc52/rate/amd_rate_aocc520_znver5_A_lib/lib`

The flags files that were used to format this result can be browsed at
http://www.spec.org/cpu2026/results/flags/aocc-flags.2026-10-07.00.html
http://www.spec.org/cpu2026/results/flags/HPE-Platform-Flags-AMD-Turin-rev1.12.html

You can also download the XML flags sources by saving the following links:
http://www.spec.org/cpu2026/results/flags/aocc-flags.2026-10-07.00.xml
http://www.spec.org/cpu2026/results/flags/HPE-Platform-Flags-AMD-Turin-rev1.12.xml

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