SPEC CPU®2026 Integer Rate Result

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ASUSTeK Computer Inc.

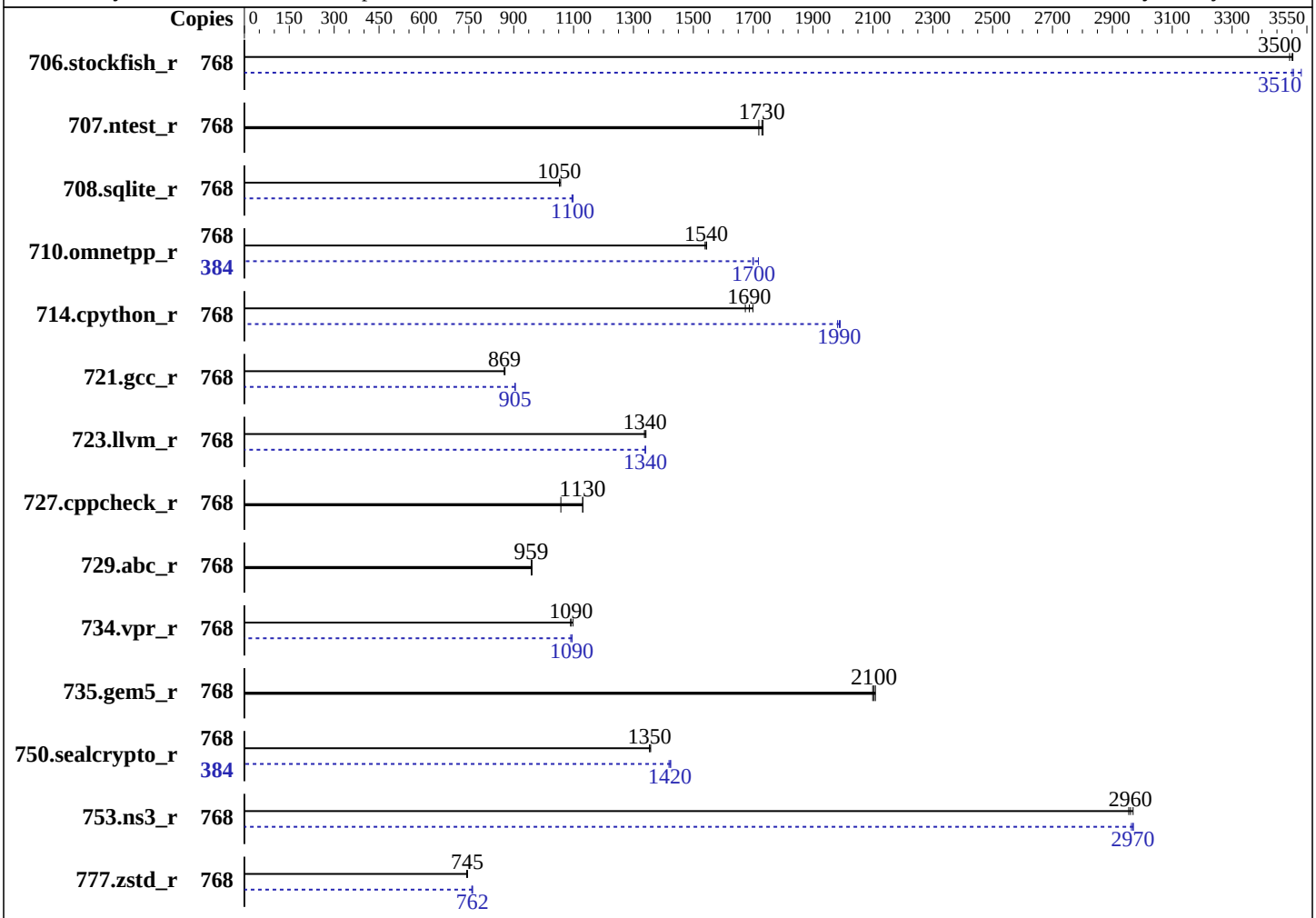
ASUS RS720A-E13-RS8U
(2.25 GHz, AMD EPYC 9965)

SPECrate®2026_int_base = 1430

SPECrate®2026_int_peak = 1470

CPU2026 License: 9016
Test Sponsor: ASUSTeK Computer Inc.
Tested by: ASUSTeK Computer Inc.

Test Date: May-2026
Hardware Availability: Mar-2025
Software Availability: May-2026



Hardware

CPU Name:	AMD EPYC 9965
Max MHz:	3700
Nominal:	2250
Enabled:	384 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:	384 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 3.2 TB PCIe NVMe SSD
Cooling:	Air
Other:	None

Software

OS:	SUSE Linux Enterprise Server 15 SP6 (x86_64) Kernel 6.4.0-150600.21-default
Compiler:	C/C++/Fortran: Version 5.2.0 of AOCC
Compiler Category:	Vendor
Firmware:	Version 1002 released Oct-2025
File System:	xfs
System State:	Run level 3 (multi-user)
Base Pointers:	64-bit
Peak Pointers:	64-bit
Other:	jemalloc: jemalloc memory allocator library v5.3.1
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						
	Copies	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Copies	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio
706.stockfish_r	768	277	3490	**276**	**3500**	276	3500	768	276	3500	274	3530	**276**	**3510**
707.ntest_r	768	262	1730	265	1720	**263**	**1730**	768	262	1730	265	1720	**263**	**1730**
708.sqlite_r	768	384	1060	385	1050	**385**	**1050**	768	370	1090	369	1100	**370**	**1100**
710.omnetpp_r	768	242	1540	**242**	**1540**	242	1540	384	**110**	**1700**	110	1700	109	1720
714.cpython_r	768	216	1700	**218**	**1690**	220	1670	768	**185**	**1990**	185	1990	186	1980
721.gcc_r	768	605	871	606	869	**606**	**869**	768	583	904	582	905	**582**	**905**
723.llvm_r	768	290	1340	**291**	**1340**	291	1340	768	290	1340	**291**	**1340**	291	1340
727.cppcheck_r	768	244	1130	261	1060	**244**	**1130**	768	244	1130	261	1060	**244**	**1130**
729.abc_r	768	367	961	368	959	**368**	**959**	768	367	961	368	959	**368**	**959**
734.vpr_r	768	**324**	**1090**	325	1090	323	1100	768	**323**	**1090**	323	1090	325	1090
735.gem5_r	768	177	2110	**178**	**2100**	178	2100	768	177	2110	**178**	**2100**	178	2100
750.sealcrypto_r	768	303	1360	304	1350	**304**	**1350**	384	145	1420	**145**	**1420**	144	1420
753.ns3_r	768	159	2970	**159**	**2960**	159	2950	768	159	2960	**159**	**2970**	158	2970
777.zstd_r	768	**664**	**745**	666	743	664	745	768	651	760	**649**	**762**	649	762

SPECrate®2026_int_base = **1430**

SPECrate®2026_int_peak = **1470**

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
OS set to performance mode via cpupower frequency-set -g performance

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.
```

(Continued on next page)

Operating System Notes (Continued)

```
To limit swap usage to minimum necessary, 'sysctl -w vm.swappiness=1' run as root.
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' run as root.
```

Environment Variables Notes

```
Environment variables set by runcpu before the start of the run:
LD_LIBRARY_PATH =
     "/aocc520/amd_rate_aocc520_znver5_A_lib/lib:/aocc520/amd_rate_aocc520_zn
     ver5_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
jemalloc: configured and built with GCC v15.2.0 in Ubuntu 24.04 (No options specified)
jemalloc 5.3.1 is available here:
https://github.com/jemalloc/jemalloc/releases/tag/5.3.1
```

Platform Notes

```
BIOS Configuration:
SR-IOV Support = Disabled
SVM Mode = Disabled
NUMA nodes per socket = NPS4
Determinism Control = Manual
DRAM Scrub time = Disabled
Engine Boost = Aggressive
TDP Control = Manual
TDP = 500
PPT Control = Manual
PPT = 500
L1 Stream HW Prefetcher = Disabled
L2 Stream HW Prefetcher = Disabled
BMC Configuration:
Fan mode = Full speed mode
```

(Continued on next page)

Platform Notes (Continued)

```
Sysinfo program /aocc520/bin/sysinfo
Rev: 779ab21020787073335a329f3a45e2cd
running on localhost Fri May 29 14:24:23 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 (254.10+suse.84.ge8d77af424)
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 -srvm
  Linux 6.4.0-150600.21-default #1 SMP PREEMPT_DYNAMIC Thu May 16 11:09:22 UTC 2024 (36c1e09) x86_64

------------------------------------------------------------
2. w
   14:24:23 up 1 min,  1 user,  load average: 2.12, 1.36, 0.55
  USER     TTY      FROM             LOGIN@   IDLE   JCPU   PCPU WHAT
  root     tty1     -                14:23   39.00s  1.56s  0.00s /bin/bash ./rate.sh

------------------------------------------------------------
3. Username
```

(Continued on next page)

Platform Notes (Continued)

```
  From environment variable $USER:  root

------------------------------------------------------------
4. ulimit -a
  core file size          (blocks, -c) unlimited
  data seg size           (kbytes, -d) unlimited
  scheduling priority             (-e) 0
  file size               (blocks, -f) unlimited
  pending signals                 (-i) 6187563
  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) 6187563
  virtual memory          (kbytes, -v) unlimited
  file locks                      (-x) unlimited

------------------------------------------------------------
5. sysinfo process ancestry
 /usr/lib/systemd/systemd --switched-root --system --deserialize=42
 login -- root
 -bash
 /bin/bash ./rate.sh
 python3 ./run_amd_rate_aocc520_znver5_A1.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/CPU2026.002/templogs/preenv.intrate.002.0.log --lognum 002.0 --from_runcpu 2
 specperl $SPEC/bin/sysinfo
$SPEC = /aocc520

------------------------------------------------------------
6. /proc/cpuinfo
    model name      : AMD EPYC 9965 192-Core Processor
    vendor_id       : AuthenticAMD
    cpu family      : 26
    model           : 17
    stepping        : 0
    microcode       : 0xb10104e
    bugs            : sysret_ss_attrs spectre_v1 spectre_v2 spec_store_bypass
    TLB size        : 192 4K pages
    cpu cores       : 192
    siblings        : 384
```

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Platform Notes (Continued)

```
     2 physical ids (chips)
     768 processors (hardware threads)
     physical id 0: core ids 0-191
     physical id 1: core ids 0-191
     physical id 0: apicids 0-383
     physical id 1: apicids 512-895
   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:                        52 bits physical, 57 bits virtual
   Byte Order:                           Little Endian
   CPU(s):                               768
   On-line CPU(s) list:                  0-767
   Vendor ID:                            AuthenticAMD
   BIOS Vendor ID:                       Advanced Micro Devices, Inc.
   Model name:                           AMD EPYC 9965 192-Core Processor
   BIOS Model name:                      AMD EPYC 9965 192-Core Processor             Unknown CPU @ 2.2GHz
   BIOS CPU family:                      107
   CPU family:                           26
   Model:                                17
   Thread(s) per core:                   2
   Core(s) per socket:                   192
   Socket(s):                            2
   Stepping:                             0
   Frequency boost:                      enabled
   CPU(s) scaling MHz:                   61%
   CPU max MHz:                          3700.1951
   CPU min MHz:                          1500.0000
   BogoMIPS:                             4492.96
   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 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
```


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Platform Notes (Continued)

```
                                cqm_mbm_local user_shstk avx_vnni avx512_bf16 clzero irperf
                              xsaveerptr rdpru wbnoinvd amd_ppin cppc arat npt lbrv svm_lock
                            nrip_save tsc_scale vmcb_clean flushbyasid decodeassists 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
  L1d cache:                            18 MiB (384 instances)
  L1i cache:                            12 MiB (384 instances)
  L2 cache:                             384 MiB (384 instances)
  L3 cache:                             768 MiB (24 instances)
  NUMA node(s):                         8
  NUMA node0 CPU(s):                    0-47,384-431
  NUMA node1 CPU(s):                    48-95,432-479
  NUMA node2 CPU(s):                    96-143,480-527
  NUMA node3 CPU(s):                    144-191,528-575
  NUMA node4 CPU(s):                    192-239,576-623
  NUMA node5 CPU(s):                    240-287,624-671
  NUMA node6 CPU(s):                    288-335,672-719
  NUMA node7 CPU(s):                    336-383,720-767
  Vulnerability Gather data sampling:   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; STIBP
                                        always-on; RSB filling; 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      18M   12 Data            1    64        1             64
     L1i       32K      12M    8 Instruction     1    64        1             64
     L2         1M     384M   16 Unified         2  1024        1             64
     L3        32M     768M   16 Unified         3 32768        1             64

------------------------------------------------------------
8. numactl --hardware
NOTE: a numactl 'node' might or might not correspond to a physical chip.
```

(Continued on next page)

Platform Notes (Continued)

```
   available: 8 nodes (0-7)
   node 0 cpus: 0-47,384-431
   node 0 size: 192625 MB
   node 0 free: 191976 MB
   node 1 cpus: 48-95,432-479
   node 1 size: 193510 MB
   node 1 free: 193013 MB
   node 2 cpus: 96-143,480-527
   node 2 size: 193510 MB
   node 2 free: 192954 MB
   node 3 cpus: 144-191,528-575
   node 3 size: 193510 MB
   node 3 free: 192944 MB
   node 4 cpus: 192-239,576-623
   node 4 size: 193510 MB
   node 4 free: 193190 MB
   node 5 cpus: 240-287,624-671
   node 5 size: 193472 MB
   node 5 free: 193154 MB
   node 6 cpus: 288-335,672-719
   node 6 size: 193510 MB
   node 6 free: 193181 MB
   node 7 cpus: 336-383,720-767
   node 7 size: 193263 MB
   node 7 free: 192923 MB
   node distances:
   node   0   1   2   3   4   5   6   7
     0:  10  12  12  12  32  32  32  32
     1:  12  10  12  12  32  32  32  32
     2:  12  12  10  12  32  32  32  32
     3:  12  12  12  10  32  32  32  32
     4:  32  32  32  32  10  12  12  12
     5:  32  32  32  32  12  10  12  12
     6:  32  32  32  32  12  12  10  12
     7:  32  32  32  32  12  12  12  10

------------------------------------------------------------
9. /proc/meminfo
   MemTotal:       1584042956 kB

------------------------------------------------------------
10. who -r
  run-level 3 May 29 14:23

------------------------------------------------------------
11. Systemd service manager version: systemd 254 (254.10+suse.84.ge8d77af424)
  Default Target  Status
```

(Continued on next page)

Platform Notes (Continued)

```
   multi-user      running

------------------------------------------------------------
12. Services, from systemctl list-unit-files
  STATE             UNIT FILES
  enabled         YaST2-Firstboot YaST2-Second-Stage apparmor auditd cron getty@ irqbalance issue-generator
                  kbdsettings klog lvm2-monitor nscd nvmefc-boot-connections nvmf-autoconnect postfix
                  purge-kernels rollback rsyslog smartd sshd systemd-pstore wicked wickedd-auto4
                  wickedd-dhcp4 wickedd-dhcp6 wickedd-nanny
  enabled-runtime systemd-remount-fs
  disabled        autofs autoyast-initscripts blk-availability boot-sysctl ca-certificates chrony-wait
                  chronyd console-getty cups cups-browsed debug-shell ebtables exchange-bmc-os-info
                  firewalld fsidd gpm grub2-once haveged hwloc-dump-hwdata ipmi ipmievd issue-add-ssh-keys
                  kexec-load lunmask man-db-create multipathd nfs nfs-blkmap rpcbind rpmconfigcheck rsyncd
                  serial-getty@ smartd_generate_opts snmpd snmptrapd svnserve systemd-boot-check-no-failures
                  systemd-confext systemd-network-generator systemd-sysext systemd-time-wait-sync
                  systemd-timesyncd tuned udisks2
  indirect        systemd-userdbd wickedd

------------------------------------------------------------
13. Linux kernel boot-time arguments, from /proc/cmdline
  BOOT_IMAGE=/boot/vmlinuz-6.4.0-150600.21-default
  root=UUID=8bcfdda5-8f30-49cc-9aa9-2e306fa29252
  splash=silent
  mitigations=auto
  quiet
  security=apparmor
  video=1024x768

------------------------------------------------------------
14. cpupower frequency-info
  analyzing CPU 118:
    current policy: frequency should be within 1.50 GHz and 2.25 GHz.
                    The governor "performance" may decide which speed to use
                    within this range.
    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: latency-performance

------------------------------------------------------------
16. sysctl
  kernel.numa_balancing               1
```

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Platform Notes (Continued)

```
  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

------------------------------------------------------------
17. /sys/kernel/mm/transparent_hugepage
  defrag          [always] defer 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: /aocc520
  Filesystem     Type  Size  Used Avail Use% Mounted on
  /dev/nvme0n1p4 xfs   2.8T  273G  2.6T  10% /
```

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Platform Notes (Continued)

```
------------------------------------------------------------
21. /sys/devices/virtual/dmi/id
    Vendor:         ASUSTeK COMPUTER INC.
    Product:        RS720A-E13-RS8U
    Product Family: Server
    Serial:         123456789012

------------------------------------------------------------
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:
     23x Samsung M321R8GA0EB2-CCPPC 64 GB 2 rank 6400
     1x Samsung M321R8GA0EB2-CCPWC 64 GB 2 rank 6400


------------------------------------------------------------
23. BIOS
(This section combines info from /sys/devices and dmidecode.)
   BIOS Vendor:       American Megatrends Inc.
   BIOS Version:      1002
   BIOS Date:         10/14/2025
   BIOS Revision:     10.2
```

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
```

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Compiler Version Notes (Continued)

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

==============================================================================
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

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 -ljemalloc -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++ -ljemalloc -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++
-ljemalloc -lamdlibm

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 -ljemalloc -lamdlibm

714.cpython_r: Same as 708.sqlite_r

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 -ljemalloc -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++ -ljemalloc -lamdlibm

707.ntest_r: basepeak = yes

727.cppcheck_r: basepeak = yes

753.ns3_r: Same as 706.stockfish_r

Benchmarks using both C and C++:

(Continued on next page)

Peak Optimization Flags (Continued)

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++ -ljemalloc -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++ -ljemalloc -lamdlibm

723.llvm_r: Same as 710.omnetpp_r

729.abc_r: basepeak = yes

734.vpr_r: Same as 710.omnetpp_r

735.gem5_r: basepeak = yes

750.sealcrypto_r: Same as 710.omnetpp_r

The flags files that were used to format this result can be browsed at
http://www.spec.org/cpu2026/results/flags/aocc-flags.2026-06-16.html
http://www.spec.org/cpu2026/results/flags/ASUSTekPlatform-Settings-AMD-K15-V1.1.html

You can also download the XML flags sources by saving the following links:
http://www.spec.org/cpu2026/results/flags/aocc-flags.2026-06-16.xml
http://www.spec.org/cpu2026/results/flags/ASUSTekPlatform-Settings-AMD-K15-V1.1.xml

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For questions about this result, please contact the tester. For other inquiries, please contact info@spec.org.

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