SPEC CPU®2026 Integer Rate Result

Supermicro

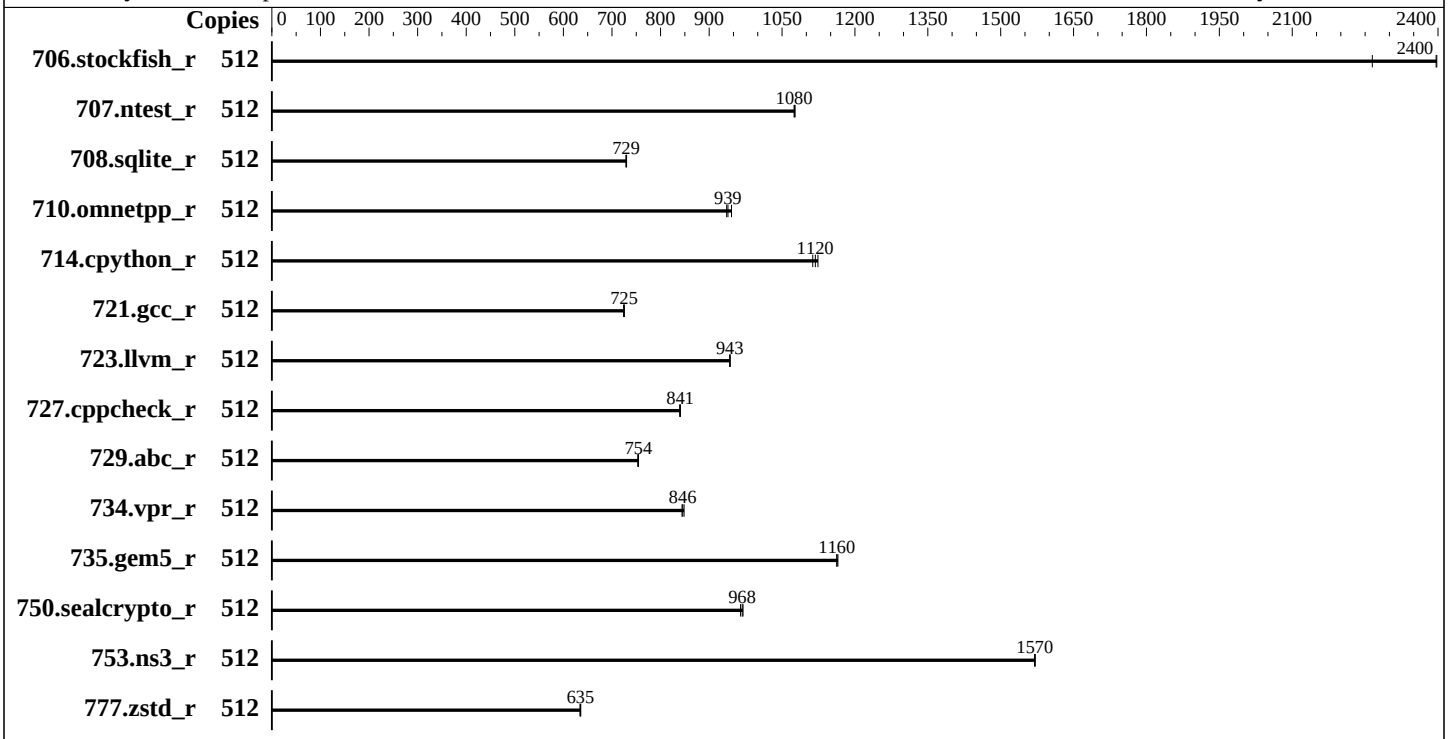
Hyper A+ Server AS -2126HS-TN
(H14DSH , AMD EPYC 9755)

SPECrate®2026_int_base = 985

SPECrate®2026_int_peak = 985

CPU2026 License: 001176
Test Sponsor: Supermicro
Tested by: Supermicro

Test Date: Jan-2026
Hardware Availability: Oct-2024
Software Availability: Jan-2026



Hardware

CPU Name:	AMD EPYC 9755
Max MHz:	4100
Nominal:	2700
Enabled:	256 cores, 2 chips, 2 threads/core
Orderable:	2 chips
Cache L1:	32 KB I + 48 KB D on chip per core
L2:	1 MB I+D on chip per core
L3:	512 MB I+D on chip per chip, 32 MB shared / 8 cores
Other:	None
Memory:	2304 GB (24 x 96 GB 2Rx4 PC5-6400B-R)
Storage:	1 x 3.84 TB NVMe SSD
Cooling:	Air
Other:	None

Software

OS:	Ubuntu 24.04.3 LTS 6.8.0-90-generic
Compiler:	C/C++/Fortran: Version 5.1.0 of AOCC
Compiler Category:	Vendor
Firmware:	Version 1.5 released May-2025
File System:	ext4
System State:	Run level 5 (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

Benchmark	Base							Peak						
	Copies	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Copies	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio
706.stockfish_r	512	285	2260	**269**	**2400**	269	2400	512	285	2260	**269**	**2400**	269	2400
707.ntest_r	512	281	1080	282	1080	**282**	**1080**	512	281	1080	282	1080	**282**	**1080**
708.sqlite_r	512	**371**	**729**	371	729	370	730	512	**371**	**729**	371	729	370	730
710.omnetpp_r	512	263	946	**265**	**939**	266	936	512	263	946	**265**	**939**	266	936
714.cpython_r	512	220	1110	**219**	**1120**	218	1120	512	220	1110	**219**	**1120**	218	1120
721.gcc_r	512	484	725	**484**	**725**	485	724	512	484	725	**484**	**725**	485	724
723.llvm_r	512	276	942	275	943	**275**	**943**	512	276	942	275	943	**275**	**943**
727.cppcheck_r	512	**219**	**841**	219	841	219	839	512	**219**	**841**	219	841	219	839
729.abc_r	512	**311**	**754**	312	753	311	755	512	**311**	**754**	312	753	311	755
734.vpr_r	512	280	844	278	848	**279**	**846**	512	280	844	278	848	**279**	**846**
735.gem5_r	512	214	1160	214	1160	**214**	**1160**	512	214	1160	214	1160	**214**	**1160**
750.sealcrypto_r	512	285	965	283	970	**284**	**968**	512	285	965	283	970	**284**	**968**
753.ns3_r	512	200	1570	200	1570	**200**	**1570**	512	200	1570	200	1570	**200**	**1570**
777.zstd_r	512	519	636	520	634	**519**	**635**	512	519	636	520	634	**519**	**635**

SPECrate®2026_int_base = 985

SPECrate®2026_int_peak = 985

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.
```

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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' run as root.
```

Environment Variables Notes

```
Environment variables set by runcpu before the start of the run:
LD_LIBRARY_PATH =
     "/spec/speccpu2026rc2bsub/amd_rate_aocc510_znver5_A_lib/lib:/spec/speccp
     u2026rc2bsub/amd_rate_aocc510_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
```

Platform Notes

```
 BIOS settings:
 SEV Control = Disabled
 SMEE = Disabled
 Memory Target Speed = DDR6400
 Determinism Control = Manual
 Determinism Enable = Power
 TDP control = Manual
 TDP = 500
 Package Power Limit Control = Manual
 Package Power Limit = 500
 TSME = Disabled
 NUMA nodes per socket = NPS4

 Sysinfo program /spec/speccpu2026rc2bsub/bin/sysinfo
 Rev: 069f95da7e7f5d81b2ce48a82150e54f
 running on smc9694turin-u24-os Thu Jan 29 17:21:50 2026

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

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

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Platform Notes (Continued)

```
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------------------------------------------------------------
 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 255 (255.4-1ubuntu8.10)
12. Failed units, from systemctl list-units --state=failed
13. Services, from systemctl list-unit-files
14. Linux kernel boot-time arguments, from /proc/cmdline
15. cpupower frequency-info
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 6.8.0-90-generic #91-Ubuntu SMP PREEMPT_DYNAMIC Tue Nov 18 14:14:30 UTC 2025 x86_64

------------------------------------------------------------
2. w
   17:21:50 up  1:38,  3 users,  load average: 0.14, 0.03, 0.01
  USER     TTY      FROM             LOGIN@   IDLE   JCPU   PCPU  WHAT
  root             10.23.196.148    16:20    1:38m  0.00s  0.07s sshd: root@notty
  root             10.23.196.148    16:20    1:38m  0.00s  0.22s sshd: root@pts/0
  root     tty1     -               16:19   57:07   0.09s   ?    -bash

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

------------------------------------------------------------
4. ulimit -a
  time(seconds)        unlimited
  file(blocks)         unlimited
```

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Platform Notes (Continued)

```
  data(kbytes)         unlimited
  stack(kbytes)        unlimited
  coredump(blocks)     0
  memory(kbytes)       unlimited
  locked memory(kbytes) 2097152
  process              9286107
  nofiles              1024
  vmemory(kbytes)      unlimited
  locks                unlimited
  rtprio               0

------------------------------------------------------------
5. sysinfo process ancestry
 /sbin/init
 SCREEN -S cpu
 /bin/bash
 python3 ./run_amd_rate_aocc510_znver5_A1.py
 /bin/bash ./amd_rate_aocc510_znver5_A1.sh
 runcpu --config amd_rate_aocc510_znver5_A1.cfg --tune base --reportable --iterations 3 intrate
 runcpu --configfile amd_rate_aocc510_znver5_A1.cfg --tune base --reportable --iterations 3 --nopower
   --runmode rate --tune base --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 = /spec/speccpu2026rc2bsub

------------------------------------------------------------
6. /proc/cpuinfo
    model name      : AMD EPYC 9755 128-Core Processor
    vendor_id       : AuthenticAMD
    cpu family      : 26
    model           : 2
    stepping        : 1
    microcode       : 0xb002147
    bugs            : sysret_ss_attrs spectre_v1 spectre_v2 spec_store_bypass
    TLB size        : 192 4K pages
    cpu cores       : 128
    siblings        : 256
    2 physical ids (chips)
    512 processors (hardware threads)
    physical id 0: core ids 0-127
    physical id 1: core ids 0-127
    physical id 0: apicids 0-255
    physical id 1: apicids 256-511
  Caution: /proc/cpuinfo data regarding chips, cores, and threads is not necessarily reliable, especially for
   virtualized systems.  Use the above data carefully.

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

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Platform Notes (Continued)

```
 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):                                  512
   On-line CPU(s) list:                     0-511
   Vendor ID:                               AuthenticAMD
   BIOS Vendor ID:                          Advanced Micro Devices, Inc.
   Model name:                              AMD EPYC 9755 128-Core Processor
   BIOS Model name:                         AMD EPYC 9755 128-Core Processor             Unknown CPU @ 2.7GHz
   BIOS CPU family:                         107
   CPU family:                              26
   Model:                                   2
   Thread(s) per core:                      2
   Core(s) per socket:                      128
   Socket(s):                               2
   Stepping:                                1
   Frequency boost:                         enabled
   CPU(s) scaling MHz:                      100%
   CPU max MHz:                             2700.0000
   CPU min MHz:                             1500.0000
   BogoMIPS:                                5399.85
   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
                                             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
                                          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:                               12 MiB (256 instances)
   L1i cache:                               8 MiB (256 instances)
```

(Continued on next page)

Platform Notes (Continued)

```
  L2 cache:                             256 MiB (256 instances)
  L3 cache:                             1 GiB (32 instances)
  NUMA node(s):                         8
  NUMA node0 CPU(s):                    0-31,256-287
  NUMA node1 CPU(s):                    32-63,288-319
  NUMA node2 CPU(s):                    64-95,320-351
  NUMA node3 CPU(s):                    96-127,352-383
  NUMA node4 CPU(s):                    128-159,384-415
  NUMA node5 CPU(s):                    160-191,416-447
  NUMA node6 CPU(s):                    192-223,448-479
  NUMA node7 CPU(s):                    224-255,480-511
  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
  Vulnerability Vmscape:                Not affected

From lscpu --cache:
     NAME ONE-SIZE ALL-SIZE WAYS TYPE        LEVEL  SETS PHY-LINE COHERENCY-SIZE
     L1d       48K      12M   12 Data            1    64        1             64
     L1i       32K       8M    8 Instruction     1    64        1             64
     L2         1M     256M   16 Unified         2  1024        1             64
     L3        32M       1G   16 Unified         3 32768        1             64

------------------------------------------------------------
8. numactl --hardware
NOTE: a numactl 'node' might or might not correspond to a physical chip.
  available: 8 nodes (0-7)
  node 0 cpus: 0-31,256-287
  node 0 size: 289772 MB
  node 0 free: 288011 MB
  node 1 cpus: 32-63,288-319
  node 1 size: 290282 MB
  node 1 free: 289522 MB
  node 2 cpus: 64-95,320-351
  node 2 size: 290238 MB
```

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Platform Notes (Continued)

```
  node 2 free: 289478 MB
  node 3 cpus: 96-127,352-383
  node 3 size: 290282 MB
  node 3 free: 289486 MB
  node 4 cpus: 128-159,384-415
  node 4 size: 290282 MB
  node 4 free: 289637 MB
  node 5 cpus: 160-191,416-447
  node 5 size: 290282 MB
  node 5 free: 289634 MB
  node 6 cpus: 192-223,448-479
  node 6 size: 290282 MB
  node 6 free: 289525 MB
  node 7 cpus: 224-255,480-511
  node 7 size: 290183 MB
  node 7 free: 288978 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:       2377323252 kB

------------------------------------------------------------
10. who -r
  run-level 5 Jan 29 15:43

------------------------------------------------------------
11. Systemd service manager version: systemd 255 (255.4-1ubuntu8.10)
  Default Target  Status
  graphical       degraded

------------------------------------------------------------
12. Failed units, from systemctl list-units --state=failed
    UNIT                    LOAD   ACTIVE SUB    DESCRIPTION
  * fwupd-refresh.service loaded failed failed Refresh fwupd metadata and update motd
  * fwupd.service         loaded failed failed Firmware update daemon
  Legend: LOAD   -> Reflects whether the unit definition was properly loaded.
          ACTIVE -> The high-level unit activation state, i.e. generalization of SUB.
```

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Platform Notes (Continued)

```
          SUB    -> The low-level unit activation state, values depend on unit type.
  2 loaded units listed.

------------------------------------------------------------
13. Services, from systemctl list-unit-files
  STATE             UNIT FILES
  enabled          ModemManager apparmor apport blk-availability cloud-config cloud-final cloud-init
                   cloud-init-local console-setup cron dmesg e2scrub_reap finalrd getty@ gpu-manager
                     grub-common grub-initrd-fallback keyboard-setup lvm2-monitor multipathd
                   networkd-dispatcher open-iscsi open-vm-tools pollinate rsyslog secureboot-db setvtrgb
                     snapd sysstat systemd-networkd systemd-networkd-wait-online systemd-pstore
                   systemd-resolved systemd-timesyncd thermald ua-reboot-cmds ubuntu-advantage udisks2 ufw
                     unattended-upgrades vgauth
  enabled-runtime    netplan-ovs-cleanup systemd-fsck-root systemd-remount-fs
  disabled           console-getty debug-shell iscsid nftables rsync serial-getty@ ssh
                    systemd-boot-check-no-failures systemd-confext systemd-network-generator
                   systemd-networkd-wait-online@ systemd-pcrlock-file-system systemd-pcrlock-firmware-code
                   systemd-pcrlock-firmware-config systemd-pcrlock-machine-id systemd-pcrlock-make-policy
                   systemd-pcrlock-secureboot-authority systemd-pcrlock-secureboot-policy systemd-sysext
                     systemd-time-wait-sync upower
  indirect           systemd-sysupdate systemd-sysupdate-reboot uuidd
  masked           cryptdisks cryptdisks-early hwclock multipath-tools-boot screen-cleanup sudo x11-common

------------------------------------------------------------
14. Linux kernel boot-time arguments, from /proc/cmdline
  BOOT_IMAGE=/boot/vmlinuz-6.8.0-90-generic
  root=UUID=365b48f2-b036-433d-970b-b75b18c86cd8
  ro

------------------------------------------------------------
15. cpupower frequency-info
  analyzing CPU 234:
    current policy: frequency should be within 1.50 GHz and 2.70 GHz.
                    The governor "performance" may decide which speed to use
                    within this range.
    boost state support:
      Supported: yes
      Active: yes
      Boost States: 0
      Total States: 3
      Pstate-P0:  2700MHz

------------------------------------------------------------
16. sysctl
  kernel.numa_balancing               1
  kernel.randomize_va_space           0
  vm.compaction_proactiveness        20
```

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Platform Notes (Continued)

```
  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 Ubuntu 24.04.3 LTS

------------------------------------------------------------
20. Disk information
SPEC is set to: /spec/speccpu2026rc2bsub
  Filesystem     Type  Size  Used Avail Use% Mounted on
  /dev/nvme6n1p1 ext4  3.5T   14G  3.5T   1% /spec

------------------------------------------------------------
21. /sys/devices/virtual/dmi/id
```

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Platform Notes (Continued)

```
     Vendor:          Supermicro
     Product:         AS -2126HS-TN
     Product Family: SMC H14
     Serial:          S920464X4819694

 ------------------------------------------------------------
 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:
      24x Samsung M321RYGA0PB2-CCPWC 96 GB 2 rank 6400


 ------------------------------------------------------------
 23. BIOS
 (This section combines info from /sys/devices and dmidecode.)
    BIOS Vendor:       American Megatrends International, LLC.
    BIOS Version:      1.5
    BIOS Date:         05/12/2025
    BIOS Revision:     5.35
```

Compiler Version Notes

```
==============================================================================
C      | 708.sqlite_r(base) 714.cpython_r(base) 777.zstd_r(base)
------------------------------------------------------------------------------
AMD clang version 17.0.6 (CLANG: AOCC_5.1.0-Build#1994 2025_12_23)
Target: x86_64-unknown-linux-gnu
Thread model: posix
InstalledDir: /opt/AMD/aocc/aocc-compiler-5.1.0/bin
------------------------------------------------------------------------------

==============================================================================
C++    | 706.stockfish_r(base) 707.ntest_r(base) 727.cppcheck_r(base)
       | 753.ns3_r(base)
------------------------------------------------------------------------------
AMD clang version 17.0.6 (CLANG: AOCC_5.1.0-Build#1994 2025_12_23)
Target: x86_64-unknown-linux-gnu
Thread model: posix
InstalledDir: /opt/AMD/aocc/aocc-compiler-5.1.0/bin
------------------------------------------------------------------------------

==============================================================================
C++, C | 710.omnetpp_r(base) 721.gcc_r(base) 723.llvm_r(base) 729.abc_r(base)
```


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Compiler Version Notes (Continued)

```
      | 734.vpr_r(base) 735.gem5_r(base) 750.sealcrypto_r(base)
------------------------------------------------------------------------------
AMD clang version 17.0.6 (CLANG: AOCC_5.1.0-Build#1994 2025_12_23)
Target: x86_64-unknown-linux-gnu
Thread model: posix
InstalledDir: /opt/AMD/aocc/aocc-compiler-5.1.0/bin
------------------------------------------------------------------------------
```

Base Compiler Invocation

C benchmarks:
clang

C++ benchmarks:
clang++

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

Base Portability Flags

706.stockfish_r: -DSPEC_LP64
707.ntest_r: -DSPEC_LP64
708.sqlite_r: -DSPEC_LP64
710.omnetpp_r: -DSPEC_LP64
714.cpython_r: -DSPEC_LP64
721.gcc_r: -DSPEC_LP64
723.llvm_r: -DSPEC_LP64
727.cppcheck_r: -DSPEC_LP64
729.abc_r: -DSPEC_LP64
734.vpr_r: -DSPEC_LP64
735.gem5_r: -DSPEC_LP64
750.sealcrypto_r: -DSPEC_LP64
753.ns3_r: -DSPEC_LP64
777.zstd_r: -DSPEC_LP64

Base Optimization Flags

C benchmarks:
-m64 -std=c18 -Wl,-mllvm -Wl,-align-all-nofallthru-blocks=6
-Wl,-mllvm -Wl,-reduce-array-computations=3

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Base Optimization Flags (Continued)

C benchmarks (continued):
-Wl,-mllvm -Wl,-ldist-scalar-expand -fenable-aggressive-gather
-Wl,-mllvm -Wl,-extra-inliner -O3 -march=znver5 -fveclib=AMDLIBM
-fno-PIE -no-pie -flto -fstruct-layout=7 -mllvm -unroll-threshold=50
-mllvm -inline-threshold=1000 -fremap-arrays -fstrip-mining
-mllvm -reduce-array-computations=3 -zopt -lamdlibm -lflang
-lamdalloc

C++ benchmarks:
-m64 -std=c++17 -Wl,-mllvm -Wl,-align-all-nofallthru-blocks=6
-Wl,-mllvm -Wl,-reduce-array-computations=3 -O3 -march=znver5
-fveclib=AMDLIBM -flto -mllvm -unroll-threshold=100
-mllvm -loop-unswitch-threshold=200000
-mllvm -reduce-array-computations=3 -zopt -fno-PIE -no-pie
-fvirtual-function-elimination -fvisibility=hidden -lamdlibm -lflang
-lamdalloc

Benchmarks using both C and C++:
-m64 -std=c++17 -std=c18 -Wl,-mllvm -Wl,-align-all-nofallthru-blocks=6
-Wl,-mllvm -Wl,-reduce-array-computations=3 -O3 -march=znver5
-fveclib=AMDLIBM -fno-PIE -no-pie -flto -fstruct-layout=7
-mllvm -unroll-threshold=50 -mllvm -inline-threshold=1000
-fremap-arrays -fstrip-mining -mllvm -reduce-array-computations=3
-zopt -mllvm -unroll-threshold=100
-mllvm -loop-unswitch-threshold=200000 -fvirtual-function-elimination
-fvisibility=hidden -lamdlibm -lflang -lamdalloc

Peak Optimization Flags

C benchmarks:

708.sqlite_r: basepeak = yes

714.cpython_r: basepeak = yes

777.zstd_r: basepeak = yes

C++ benchmarks:

706.stockfish_r: basepeak = yes

707.ntest_r: basepeak = yes

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Peak Optimization Flags (Continued)

727.cppcheck_r: `basepeak = yes`

753.ns3_r: `basepeak = yes`

Benchmarks using both C and C++:

710.omnetpp_r: `basepeak = yes`

721.gcc_r: `basepeak = yes`

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`

The flags files that were used to format this result can be browsed at
`http://www.spec.org/cpu2026/results/flags/aocc-flags.2026-05-04.html`
`http://www.spec.org/cpu2026/results/flags/Supermicro-Platform-Settings-V1.2-Turin-revG.html`

You can also download the XML flags sources by saving the following links:
`http://www.spec.org/cpu2026/results/flags/aocc-flags.2026-05-04.xml`
`http://www.spec.org/cpu2026/results/flags/Supermicro-Platform-Settings-V1.2-Turin-revG.xml`

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

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