



SPEC CPU®2026 Integer Rate Result

Copyright 2026 Standard Performance Evaluation Corporation

Lenovo Global Technology

SPECrate®2026_int_base = 507

ThinkSystem SR655 V3
(2.10 GHz, AMD EPYC 9845)

SPECrate®2026_int_peak = 507

CPU2026 License: 9017

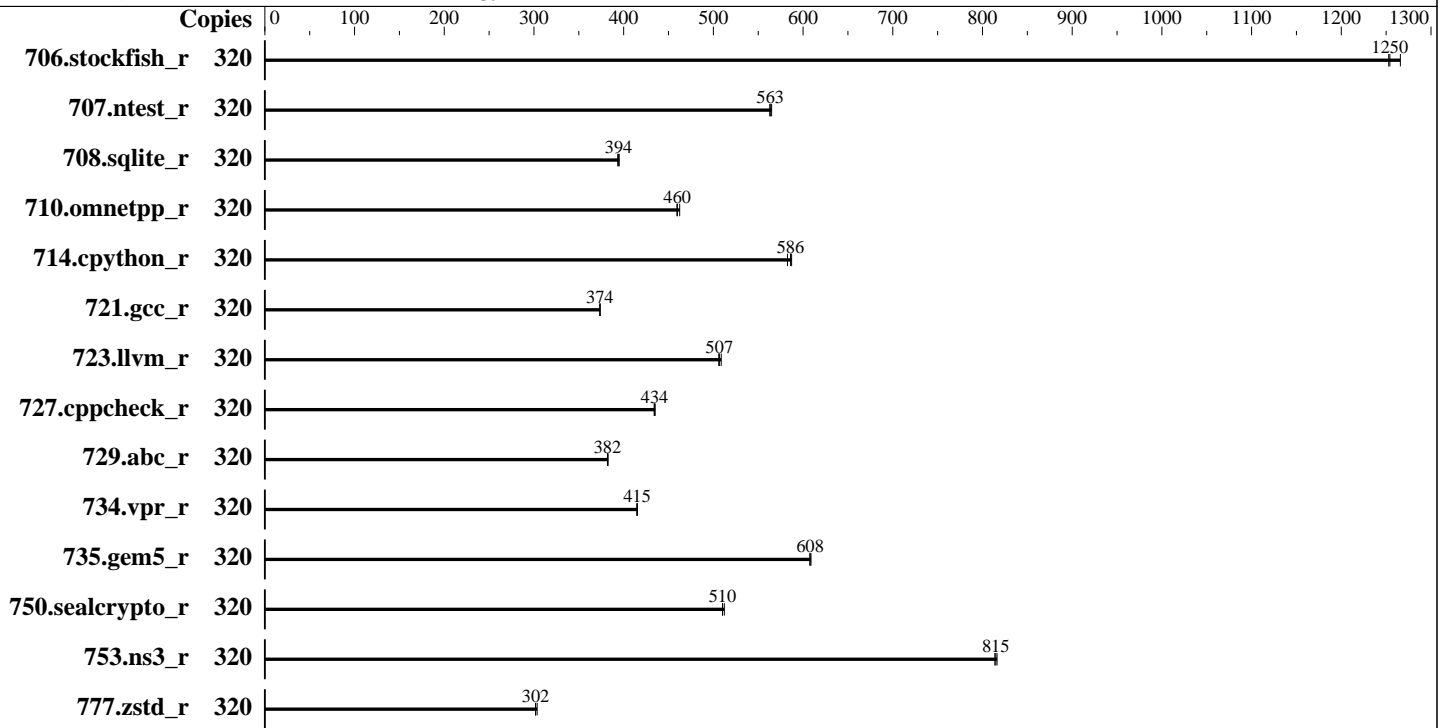
Test Date: Feb-2026

Test Sponsor: Lenovo Global Technology

Hardware Availability: Jul-2025

Tested by: Lenovo Global Technology

Software Availability: Jan-2026



Hardware

CPU Name: AMD EPYC 9845
 Max MHz: 3700
 Nominal: 2100
 Enabled: 160 cores, 1 chip, 2 threads/core
 Orderable: 1 chip
 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: 768 GB (12 x 64 GB 2Rx4 PC5-6400B-R)
 Storage: 1 x 480 GB SATA SSD
 Cooling: Air
 Other: None

Software

OS: SUSE Linux Enterprise Server 15 SP7
 Kernel 6.4.0-150700.51-default
 Compiler: C/C++/Fortran: Version 5.1.0 of AOCC
 Compiler Category: Vendor
 Firmware: Lenovo BIOS Version KAE141G 5.81 released Jan-2026
 File System: xfs
 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

| Benchmark | Base | | | | | | | Peak | | | | | | |
|------------------|--------|-------------------|-------------------|-------------------|--------------------|-------------------|-------------------|--------|-------------------|-------------------|-------------------|--------------------|-------------------|-------------------|
| | Copies | Seconds | Ratio | Seconds | Ratio | Seconds | Ratio | Copies | Seconds | Ratio | Seconds | Ratio | Seconds | Ratio |
| 706.stockfish_r | 320 | 319 | 1270 | <u>321</u> | <u>1250</u> | 322 | 1250 | 320 | 319 | 1270 | <u>321</u> | <u>1250</u> | 322 | 1250 |
| 707.ntest_r | 320 | 335 | 565 | 337 | 563 | <u>336</u> | <u>563</u> | 320 | 335 | 565 | 337 | 563 | <u>336</u> | <u>563</u> |
| 708.sqlite_r | 320 | <u>428</u> | <u>394</u> | 430 | 393 | 428 | 395 | 320 | <u>428</u> | <u>394</u> | 430 | 393 | 428 | 395 |
| 710.omnetpp_r | 320 | 339 | 459 | <u>338</u> | <u>460</u> | 336 | 462 | 320 | 339 | 459 | <u>338</u> | <u>460</u> | 336 | 462 |
| 714.cpython_r | 320 | 261 | 587 | 263 | 583 | <u>262</u> | <u>586</u> | 320 | 261 | 587 | 263 | 583 | <u>262</u> | <u>586</u> |
| 721.gcc_r | 320 | 587 | 374 | <u>588</u> | <u>374</u> | 588 | 373 | 320 | 587 | 374 | <u>588</u> | <u>374</u> | 588 | 373 |
| 723.llvm_r | 320 | 321 | 506 | 319 | 509 | <u>320</u> | <u>507</u> | 320 | 321 | 506 | 319 | 509 | <u>320</u> | <u>507</u> |
| 727.cppcheck_r | 320 | <u>264</u> | <u>434</u> | 265 | 434 | 264 | 435 | 320 | <u>264</u> | <u>434</u> | 265 | 434 | 264 | 435 |
| 729.abc_r | 320 | 385 | 382 | 384 | 383 | <u>384</u> | <u>382</u> | 320 | 385 | 382 | 384 | 383 | <u>384</u> | <u>382</u> |
| 734.vpr_r | 320 | 356 | 415 | 355 | 415 | <u>355</u> | <u>415</u> | 320 | 356 | 415 | 355 | 415 | <u>355</u> | <u>415</u> |
| 735.gem5_r | 320 | 257 | 608 | 256 | 609 | <u>256</u> | <u>608</u> | 320 | 257 | 608 | 256 | 609 | <u>256</u> | <u>608</u> |
| 750.sealcrypto_r | 320 | 336 | 510 | 335 | 512 | <u>336</u> | <u>510</u> | 320 | 336 | 510 | 335 | 512 | <u>336</u> | <u>510</u> |
| 753.ns3_r | 320 | 240 | 816 | 241 | 814 | <u>241</u> | <u>815</u> | 320 | 240 | 816 | 241 | 814 | <u>241</u> | <u>815</u> |
| 777.zstd_r | 320 | 679 | 304 | 683 | 302 | <u>683</u> | <u>302</u> | 320 | 679 | 304 | 683 | 302 | <u>683</u> | <u>302</u> |

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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 =
 "/home/cpu2026-0.902.0-amd_aocc510_znver5_A1/amd_rate_aocc510_znver5_A_1
 ib/lib:/home/cpu2026-0.902.0-amd_aocc510_znver5_A1/amd_rate_aocc510_znve
 r5_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 configuration:
 Choose Operating Mode set to Maximum Performance
 NUMA Nodes per Socket set to NPS2
 Ll Stream HW Prefetcher set to Disabled

Sysinfo program /home/cpu2026-0.902.0-amd_aocc510_znver5_A1/bin/sysinfo
 Rev: 069f95da7e7f5d81b2ce48a82150e54f
 running on localhost Fri Feb 6 23:53:52 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

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Platform Notes (Continued)

- 6. /proc/cpuinfo
- 7. lscpu
- 8. numactl --hardware
- 9. /proc/meminfo
- 10. who -r
- 11. Systemd service manager version: systemd 254 (254.24+suse.148.g83b9060b6e)
- 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 6.4.0-150700.51-default #1 SMP PREEMPT_DYNAMIC Wed Apr 30 21:35:43 UTC 2025 (6930611) x86_64
```

```
2. w
 23:53:53 up 3 min,  1 user,  load average: 0.09, 0.13, 0.07
USER      TTY      FROM          LOGIN@   IDLE   JCPU   PCPU WHAT
```

```
3. Username
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) 3093485
max locked memory       (kbytes, -l) 2097152
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
```

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Platform Notes (Continued)

```
max user processes          (-u) 3093485
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 ./02.remote_local_SPECcpu_1.02.sh
/bin/bash ./Run022-compliant-amd-rateint_base.sh
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/CPU2026.008/templogs/preenv.intrate.008.0.log --lognum 008.0 --from_runcpu 2
specperl $SPEC/bin/sysinfo
$SPEC = /home/cpu2026-0.902.0-amd_aocc510_znver5_A1
-----
```

```
6. /proc/cpuinfo
model name      : AMD EPYC 9845 160-Core Processor
vendor_id      : AuthenticAMD
cpu family      : 26
model           : 17
stepping        : 0
microcode       : 0xb10104f
bugs            : sysret_ss_attrs spectre_v1 spectre_v2 spec_store_bypass srso
TLB size       : 192 4K pages
cpu cores       : 160
siblings        : 320
1 physical ids (chips)
320 processors (hardware threads)
physical id 0: core ids 0-159
physical id 0: apicids 0-319
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
-----
```

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Platform Notes (Continued)

```

Byte Order:                Little Endian
CPU(s):                    320
On-line CPU(s) list:      0-319
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):                 1
Stepping:                  0
BogoMIPS:                  4193.61
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 bpxext
                             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
                             vnni 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_lld debug_swap hv_inuse_wr_allowed srso_user_kernel_no
                             amd_lbr_pmc_freeze
Virtualization:            AMD-V
L1d cache:                 7.5 MiB (160 instances)
L1i cache:                 5 MiB (160 instances)
L2 cache:                  160 MiB (160 instances)
L3 cache:                  320 MiB (10 instances)
NUMA node(s):              2
NUMA node0 CPU(s):        0-79,160-239
NUMA node1 CPU(s):        80-159,240-319
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

```

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Platform Notes (Continued)

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/swaps barriers and __user pointer sanitization
 Vulnerability Spectre v2: Mitigation; Enhanced / Automatic IBRS; IBPB conditional; STIBP
 always-on; RSB filling; PBRSE-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 | 7.5M | 12 | Data | 1 | 64 | 1 | 64 |
| L1i | 32K | 5M | 8 | Instruction | 1 | 64 | 1 | 64 |
| L2 | 1M | 160M | 16 | Unified | 2 | 1024 | 1 | 64 |
| L3 | 32M | 320M | 16 | Unified | 3 | 32768 | 1 | 64 |

8. numactl --hardware

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

```

available: 2 nodes (0-1)
node 0 cpus: 0-79,160-239
node 0 size: 386548 MB
node 0 free: 385426 MB
node 1 cpus: 80-159,240-319
node 1 size: 386850 MB
node 1 free: 385769 MB
node distances:
node  0  1
  0:  10  12
  1:  12  10

```

9. /proc/meminfo

MemTotal: 791959764 kB

10. who -r

run-level 3 Feb 6 23:50

11. Systemd service manager version: systemd 254 (254.24+suse.148.g83b9060b6e)

```

Default Target Status
multi-user      running

```

12. Services, from systemctl list-unit-files

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Platform Notes (Continued)

| STATE | UNIT FILES |
|-----------------|--|
| enabled | YaST2-Firstboot YaST2-Second-Stage apparmor auditd cron 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 |
| 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 ebttables 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 systemd-boot-check-no-failures systemd-confext systemd-network-generator systemd-sysextd systemd-time-wait-sync systemd-timesyncd |
| indirect | systemd-userdbd wickedd |

13. Linux kernel boot-time arguments, from /proc/cmdline

```
BOOT_IMAGE=/boot/vmlinuz-6.4.0-150700.51-default
root=UUID=4eac3dfd-882a-4c3f-9bbb-4a02550d73c3
splash=silent
mitigations=auto
quiet
security=apparmor
```

14. cpupower frequency-info

```
analyzing CPU 286:
Unable to determine current policy
boost state support:
Supported: yes
Active: yes
```

15. sysctl

| | |
|------------------------------|-------|
| kernel.numa_balancing | 1 |
| 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 |

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Platform Notes (Continued)

```

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
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/cpu2026-0.902.0-amd_aocc510_znver5_A1
Filesystem      Type  Size  Used Avail Use% Mounted on
/dev/sda3       xfs   446G  59G  387G  14% /

```

```

-----
20. /sys/devices/virtual/dmi/id
Vendor:          Lenovo
Product:         ThinkSystem SR655 V3
Product Family: ThinkSystem
Serial:          1234567890

```

```

-----
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.

```

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Platform Notes (Continued)

Memory:

- 3x Samsung M321R8GA0PB2-CCPEC 64 GB 2 rank 6400
- 3x Samsung M321R8GA0PB2-CCPKC 64 GB 2 rank 6400
- 2x Samsung M321R8GA0PB2-CCPPC 64 GB 2 rank 6400
- 4x Samsung M321R8GA0PB2-CCPWC 64 GB 2 rank 6400

22. BIOS

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

```

BIOS Vendor:      Lenovo
BIOS Version:    KAE141G-5.81
BIOS Date:       01/22/2026
BIOS Revision:   5.81
Firmware Revision: 56.20

```

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)
      | 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
=====

```



SPEC CPU®2026 Integer Rate Result

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SPECrate®2026_int_base = 507

ThinkSystem SR655 V3
(2.10 GHz, AMD EPYC 9845)

SPECrate®2026_int_peak = 507

CPU2026 License: 9017

Test Date: Feb-2026

Test Sponsor: Lenovo Global Technology

Hardware Availability: Jul-2025

Tested by: Lenovo Global Technology

Software Availability: Jan-2026

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
-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
-lamdallic
```

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
```

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Base Optimization Flags (Continued)

C++ benchmarks (continued):

```
-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

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

(Continued on next page)



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Hardware Availability: Jul-2025

Software Availability: Jan-2026

Peak Optimization Flags (Continued)

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/Lenovo-Platform-SPECcpu-Flags-V1.2-Turin-M.html>

<http://www.spec.org/cpu2026/results/flags/aocc-flags.2026-05-04.html>

You can also download the XML flags sources by saving the following links:

<http://www.spec.org/cpu2026/results/flags/Lenovo-Platform-SPECcpu-Flags-V1.2-Turin-M.xml>

<http://www.spec.org/cpu2026/results/flags/aocc-flags.2026-05-04.xml>

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