



SPEC CPU®2026 Integer Rate Result

Copyright 2026 Standard Performance Evaluation Corporation

Maginfra Co., Ltd.

QR8218-D3 (AMD EPYC 9175F)

SPECrate®2026_int_base = 230

SPECrate®2026_int_peak = 230

CPU2026 License: 9087

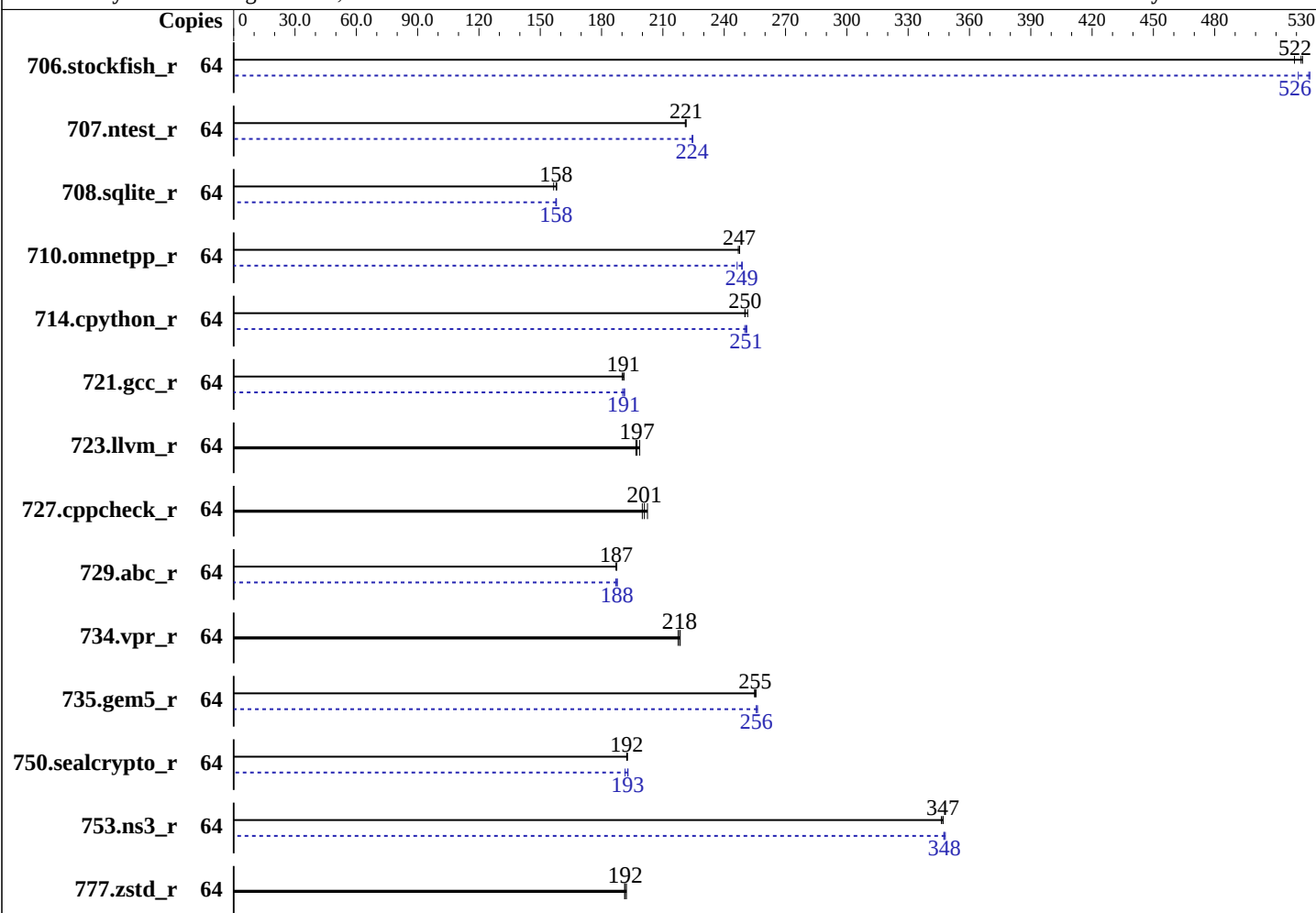
Test Sponsor: Maginfra Co., Ltd.

Tested by: Maginfra Co., Ltd.

Test Date: Jul-2026

Hardware Availability: Dec-2025

Software Availability: Jan-2026



Hardware

CPU Name: AMD EPYC 9175F
Max MHz: 5000
Nominal: 4200
Enabled: 32 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: 512 MB I+D on chip per chip, 32 MB shared / 1 cores
Other: None
Memory: 1536 GB (24 x 64 GB 2Rx4 PC5-6400B-R)
Storage: 1 x 4 TB NVME SSD
Cooling: Air
Other: None

Software

OS: SUSE Linux Enterprise Server 15 SP7 6.4.0-150700.51-default
Compiler: C/C++/Fortran: Version 5.1.0 of AOCC
Compiler Category: Vendor
Firmware: Version 01.14.00 released Dec-2025
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	64	155	519	154	523	154	522	64	153	527	155	521	153	526
707.ntest_r	64	171	221	171	221	171	221	64	169	224	169	224	169	225
708.sqlite_r	64	214	158	216	157	214	158	64	214	158	214	158	214	158
710.omnetpp_r	64	126	247	126	247	126	248	64	125	249	126	246	125	249
714.cpython_r	64	123	250	122	252	122	250	64	122	251	123	250	122	251
721.gcc_r	64	230	191	230	191	231	190	64	230	191	229	191	231	190
723.llvm_r	64	163	199	164	197	165	197	64	163	199	164	197	165	197
727.cppcheck_r	64	114	201	115	200	113	202	64	114	201	115	200	113	202
729.abc_r	64	157	187	157	187	157	187	64	157	187	157	188	157	188
734.vpr_r	64	135	218	136	217	135	218	64	135	218	136	217	135	218
735.gem5_r	64	122	255	122	256	122	255	64	122	256	122	256	122	256
750.sealcrypto_r	64	178	192	178	193	178	192	64	178	193	178	193	179	192
753.ns3_r	64	113	346	113	347	113	347	64	113	348	113	347	113	348
777.zstd_r	64	214	192	216	191	215	192	64	214	192	216	191	215	192

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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/amd_rate_aocc510_znver5_B_lib/lib:/home/CPU2026/amd_rate_
aocc510_znver5_B_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:
NUMA nodes per socket = NPS4
Determinism Slider = Power
cTDP Control = Manual
cTDP = 500
Package Power Limit Control = Manual
Package Power Limit = 500

Sysinfo program /home/CPU2026/bin/sysinfo
Rev: 779ab21020787073335a329f3a45e2cd
running on localhost Sun Jul 19 12:55:28 2026

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

Table of contents

1. uname -srvvm
2. w
3. Username

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Platform Notes (Continued)

```
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 (254.24+suse.148.g83b9060b6e)
12. Services, from systemctl list-unit-files
13. Linux kernel boot-time arguments, from /proc/cmdline
14. cpupower frequency-info
15. 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 -srv
Linux 6.4.0-150700.51-default #1 SMP PREEMPT_DYNAMIC Wed Apr 30 21:35:43 UTC 2025 (6930611) x86_64
```

```
-----
2. w
12:55:28 up 12 min,  2 users,  load average: 1.03, 9.45, 6.93
USER      TTY      FROM            LOGIN@   IDLE   JCPU   PCPU WHAT
root      tty1      -                12:43    16.00s  3.28s  2.39s python3 ./run_amd_rate_aocc510_znver5_B1.py
root      tty2      -                12:49    5:51   0.00s  0.00s -bash
```

```
-----
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) 6190513
max locked memory       (kbytes, -l) 2048
max memory size         (kbytes, -m) unlimited
open files              (-n) 1024
```

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Platform Notes (Continued)

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) 6190513
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
python3 ./run_amd_rate_aocc510_znver5_B1.py
runcpu --config amd_rate_aocc510_znver5_B1.cfg --tune all --reportable --iterations 3 intrate
runcpu --configfile amd_rate_aocc510_znver5_B1.cfg --tune all --reportable --iterations 3 --nopower
--runmode rate --tune base:peak --size test:train:refrate intrate --nopreenv --note-preenv --logfile
$SPEC/tmp/CPU2026.026/temlogs/preenv.intrate.026.0.log --lognum 026.0 --from_runcpu 2
specperl $SPEC/bin/sysinfo
$SPEC = /home/CPU2026
```

6. /proc/cpuinfo

```
model name      : AMD EPYC 9175F 16-Core Processor
vendor_id       : AuthenticAMD
cpu family      : 26
model           : 2
stepping        : 1
microcode       : 0xb00215a
bugs            : sysret_ss_attrs spectre_v1 spectre_v2 spec_store_bypass srs0
TLB size        : 192 4K pages
cpu cores       : 16
siblings        : 32
2 physical ids (chips)
64 processors (hardware threads)
physical id 0: core ids 0,8,16,24,32,40,48,56,64,72,80,88,96,104,112,120
physical id 1: core ids 0,8,16,24,32,40,48,56,64,72,80,88,96,104,112,120
physical id 0: apicids
0-1,16-17,32-33,48-49,64-65,80-81,96-97,112-113,128-129,144-145,160-161,176-177,192-193,208-209,224-225,2
40-241
physical id 1: apicids
256-257,272-273,288-289,304-305,320-321,336-337,352-353,368-369,384-385,400-401,416-417,432-433,448-449,4
64-465,480-481,496-497
```

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 2.40.4:

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):	64
On-line CPU(s) list:	0-63
Vendor ID:	AuthenticAMD
Model name:	AMD EPYC 9175F 16-Core Processor
CPU family:	26
Model:	2
Thread(s) per core:	2
Core(s) per socket:	16
Socket(s):	2
Stepping:	1
Frequency boost:	enabled
CPU(s) scaling MHz:	102%
CPU max MHz:	4200.0000
CPU min MHz:	1500.0000
BogoMIPS:	8387.85

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 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 nrrip_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 hv_inuse_wr_allowed srso_user_kernel_no
amd_lbr_pmc_freeze

Virtualization:

L1d cache: 1.5 MiB (32 instances)

L1i cache: 1 MiB (32 instances)

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Platform Notes (Continued)

L2 cache: 32 MiB (32 instances)
L3 cache: 1 GiB (32 instances)
NUMA node(s): 8
NUMA node0 CPU(s): 0-3, 32-35
NUMA node1 CPU(s): 4-7, 36-39
NUMA node2 CPU(s): 8-11, 40-43
NUMA node3 CPU(s): 12-15, 44-47
NUMA node4 CPU(s): 16-19, 48-51
NUMA node5 CPU(s): 20-23, 52-55
NUMA node6 CPU(s): 24-27, 56-59
NUMA node7 CPU(s): 28-31, 60-63
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: 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; 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	1.5M	12	Data	1	64	1	64
L1i	32K	1M	8	Instruction	1	64	1	64
L2	1M	32M	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: 0-3, 32-35
node 0 size: 193057 MB
node 0 free: 192302 MB
node 1 cpus: 4-7, 36-39
node 1 size: 193533 MB
node 1 free: 192764 MB
node 2 cpus: 8-11, 40-43
node 2 size: 193533 MB
node 2 free: 192683 MB

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Platform Notes (Continued)

```
node 3 cpus: 12-15,44-47
node 3 size: 193533 MB
node 3 free: 192934 MB
node 4 cpus: 16-19,48-51
node 4 size: 193495 MB
node 4 free: 192830 MB
node 5 cpus: 20-23,52-55
node 5 size: 193533 MB
node 5 free: 192798 MB
node 6 cpus: 24-27,56-59
node 6 size: 193533 MB
node 6 free: 192680 MB
node 7 cpus: 28-31,60-63
node 7 size: 193435 MB
node 7 free: 192717 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:      1584799120 kB
```

```
-----
10. who -r
    run-level 3 Jul 19 12:43
```

```
-----
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
    STATE          UNIT FILES
    enabled        YaST2-Firstboot YaST2-Second-Stage apparmor auditd cron display-manager getty@ irqbalance
                   issue-generator kbdsettings klog lvm2-monitor nscd nvme-fc-boot-connections
                   nvmmf-autoconnect postfix purge-kernels rollback rsyslog smartd systemd-pstore
    enabled-runtime systemd-remount-fs
    disabled        autofs autoyast-initscripts blk-availability boot-sysctl ca-certificates chrony-wait
```

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Platform Notes (Continued)

```
chronyd console-getty cups cups-browsed debug-shell ebttables exchange-bmc-os-info
firewalld fsidd gpm grub2-once haveged hwloc-dump-hwdata ipmi ipmievdt issue-add-ssh-keys
kexec-load lunmask man-db-create multipathd nfs nfs-blkmap rpcbind rpmconfigcheck rsyncd
serial-getty@ smartd_generate_opts snmpd snmptrapd sshd systemd-boot-check-no-failures
systemd-confext systemd-network-generator systemd-sysext systemd-time-wait-sync
systemd-timesyncd tuned udisks2 vncserver@ wicked wickedd-auto4 wickedd-dhcp4
wickedd-dhcp6 wickedd-nanny
systemd-userdbd wickedd
indirect
```

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

```
BOOT_IMAGE=/boot/vmlinuz-6.4.0-150700.51-default
root=UUID=b599d87c-474e-4c72-b781-36d0bcedf18d
splash=silent
mitigations=auto
quiet
security=apparmor
```

14. cpupower frequency-info

```
analyzing CPU 38:
  current policy: frequency should be within 1.50 GHz and 4.20 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: throughput-performance
```

16. 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
```

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Platform Notes (Continued)

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 SP7

20. Disk information

SPEC is set to: /home/CPU2026

Filesystem	Type	Size	Used	Avail	Use%	Mounted on
/dev/nvme0n1p2	xfs	929G	70G	860G	8%	/

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

Vendor:	Maginfra
Product:	QR8218-D3
Product Family:	Not specified
Serial:	00000000

22. dmidecode

Additional information from dmidecode 3.6 follows. WARNING: Use caution when you interpret this section.
The 'dmidecode' program reads system data which is "intended to allow hardware to be accurately

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Platform Notes (Continued)

determined", but the intent may not be met, as there are frequent changes to hardware, firmware, and the "DMTF SMBIOS" standard.

Memory:

12x Samsung M321R8GA0PB2-CCPEC 64 GB 2 rank 6400

11x Samsung M321R8GA0PB2-CCPPC 64 GB 2 rank 6400

1x Samsung M321R8GA0PB2-CCPWC 64 GB 2 rank 6400

23. BIOS

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

BIOS Vendor: American Megatrends International, LLC.

BIOS Version: 01.14.00

BIOS Date: 12/25/2025

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_5.1.0-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, peak) 707.ntest_r(base, peak)  
      | 727.cppcheck_r(base, peak) 753.ns3_r(base, peak)  
=====
```

AMD clang version 17.0.6 (CLANG: AOCC_5.1.0-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, 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_5.1.0-Build#1994 2025_12_23)

Target: x86_64-unknown-linux-gnu

Thread model: posix

InstalledDir: /opt/AMD/aocc/aocc-compiler-5.1.0/bin

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SPEC CPU®2026 Integer Rate Result

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Maginfra Co., Ltd.

SPECrate®2026_int_base = 230

QR8218-D3 (AMD EPYC 9175F)

SPECrate®2026_int_peak = 230

CPU2026 License: 9087

Test Sponsor: Maginfra Co., Ltd.

Tested by: Maginfra Co., Ltd.

Test Date: Jul-2026

Hardware Availability: Dec-2025

Software Availability: Jan-2026

Compiler Version Notes (Continued)

Base Compiler Invocation

C benchmarks:

clang

C++ benchmarks:

clang++

Benchmarks using both C and C++:

clang++ clang

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
-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



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Test Date: Jul-2026

Hardware Availability: Dec-2025

Software Availability: Jan-2026

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: -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 -lamdalloc -lflang
```

714.cpython_r: Same as 708.sqlite_r

777.zstd_r: basepeak = yes

C++ benchmarks:

```
706.stockfish_r: -m64 -std=c++17
-Wl, -mllvm -Wl, -align-all-nofallthru-blocks=6
-Wl, -mllvm -Wl, -reduce-array-computations=3 -Ofast
-march=znver5 -fveclib=AMDLIBM -flto
-mllvm -unroll-threshold=100
-mllvm -reduce-array-computations=3 -zopt -fno-PIE
-no-pie -fvirtual-function-elimination
-fvisibility=hidden -lamdlibm -lflang -lamdalloc
```

707.ntest_r: Same as 706.stockfish_r

727.cppcheck_r: basepeak = yes

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Peak Optimization Flags (Continued)

```
753.ns3_r: -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 -lamdalloc -lflang
```

Benchmarks using both C and C++:

```
710.omnetpp_r: -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 -lamdalloc -lflang
```

```
721.gcc_r: -m64 -std=c++17 -std=c18
-Wl,-mllvm -Wl,-align-all-nofallthru-blocks=6
-Wl,-mllvm -Wl,-reduce-array-computations=3 -Ofast
-march=znver5 -fveclib=AMDLIBM -flto -fstruct-layout=7
-mllvm -unroll-threshold=50 -fremap-arrays -fstrip-mining
-mllvm -inline-threshold=1000
-mllvm -reduce-array-computations=3 -zopt
-mllvm -unroll-threshold=100 -fno-PIE -no-pie
-fvirtual-function-elimination -fvisibility=hidden
-lamdlibm -lflang -lamdalloc
```

723.llvm_r: basepeak = yes

729.abc_r: Same as 721.gcc_r

734.vpr_r: basepeak = yes

735.gem5_r: Same as 710.omnetpp_r

750.sealcrypto_r: Same as 721.gcc_r



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The flags files that were used to format this result can be browsed at

<http://www.spec.org/cpu2026/results/flags/aocc-flags.2026-05-04.00.html>

<http://www.spec.org/cpu2026/results/flags/Maginfra-Platform-Settings-amd-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.2026-05-04.00.xml>

<http://www.spec.org/cpu2026/results/flags/Maginfra-Platform-Settings-amd-V1.1.xml>

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Tested with SPEC CPU®2026 v1.0.1 on 2026-07-19 12:55:28-0400.

Report generated on 2026-09-08 18:11:56 by CPU2026 PDF formatter (unknown).

Originally published on 2026-09-08.