



# SPEC CPU®2017 Integer Rate Result

Copyright 2017-2025 Standard Performance Evaluation Corporation

## Fujitsu

PRIMERGY RX1440 M2,  
AMD EPYC 9275F, 4.10 GHz

SPECrate®2017\_int\_base = 396

SPECrate®2017\_int\_peak = Not Run

CPU2017 License: 19

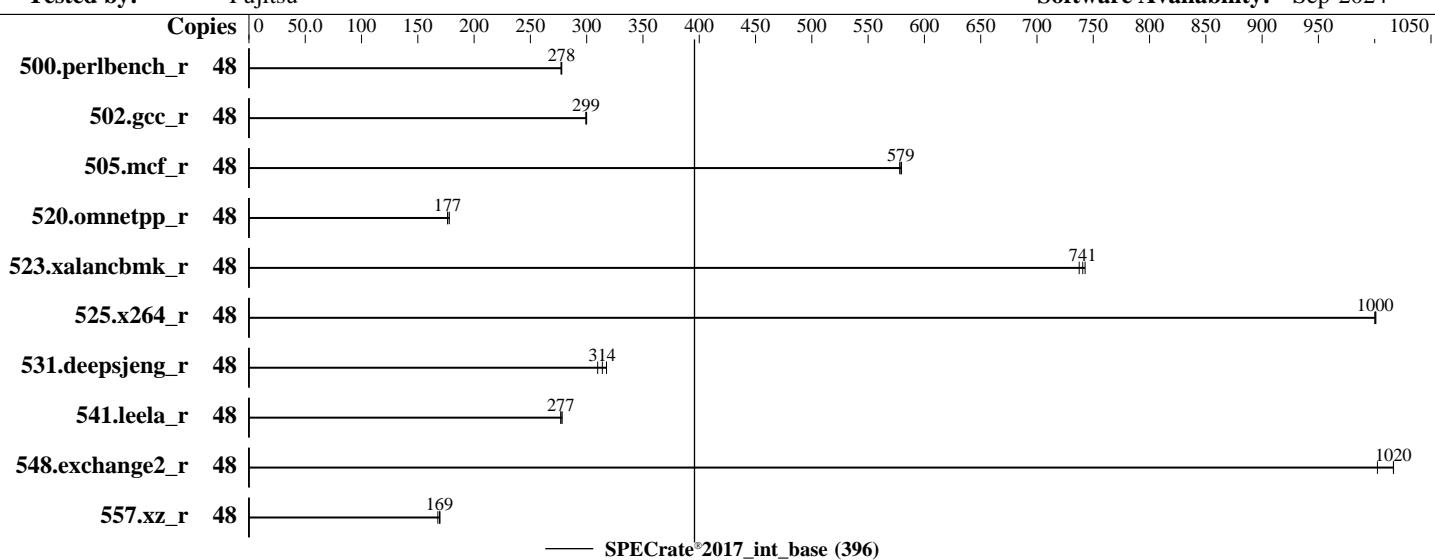
Test Sponsor: Fujitsu

Tested by: Fujitsu

Test Date: Jan-2025

Hardware Availability: Apr-2025

Software Availability: Sep-2024



### Hardware

CPU Name: AMD EPYC 9275F  
Max MHz: 4800  
Nominal: 4100  
Enabled: 24 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: 256 MB I+D on chip per chip, 32 MB shared / 3 cores  
Other: None  
Memory: 384 GB (12 x 32 GB 2Rx8 PC5-5600B-R, running at 4800)  
Storage: 1 x SATA SSD, 960 GB  
Other: CPU Cooling: Air

### Software

OS: SUSE Linux Enterprise Server 15 SP6 kernel version 6.4.0-150600.21-default  
Compiler: C/C++/Fortran: Version 5.0.0 of AOCC  
Parallel: No  
Firmware: Fujitsu BIOS Version V5.0.0.35 R2.4.0 for D4130-A1x. Released Feb-2025 tested as V5.0.0.35 R2.3.0\_PI-1003 for D4130-A1x Dec-2024  
File System: xfs  
System State: Run level 3 (multi-user)  
Base Pointers: 64-bit  
Peak Pointers: Not Applicable  
Other: None  
Power Management: BIOS 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
500.perlbench_r	48	<b>275</b>	<b>278</b>	275	278	276	277							
502.gcc_r	48	<b>227</b>	<b>299</b>	227	300	227	299							
505.mcf_r	48	134	578	<b>134</b>	<b>579</b>	134	580							
520.omnetpp_r	48	354	178	357	177	<b>357</b>	<b>177</b>							
523.xalancbmk_r	48	68.7	738	68.2	743	<b>68.4</b>	<b>741</b>							
525.x264_r	48	84.0	1000	<b>84.0</b>	<b>1000</b>	84.0	1000							
531.deepsjeng_r	48	173	318	178	310	<b>175</b>	<b>314</b>							
541.leela_r	48	286	278	287	277	<b>287</b>	<b>277</b>							
548.exchange2_r	48	125	1000	<b>124</b>	<b>1020</b>	124	1020							
557.xz_r	48	<b>306</b>	<b>169</b>	309	168	305	170							

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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.  
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.



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## Environment Variables Notes

Environment variables set by runcpu before the start of the run:

```
LD_LIBRARY_PATH =
    "/home/Benchmark/speccpu2017r-Turin/amd_rate_aocc500_znver5_A_lib/lib:/home/Benchmark/speccpu2017r-Tur
    in/amd_rate_aocc500_znver5_A_lib/lib32:"
MALLOC_CONF = "retain:true"
```

## General Notes

Binaries were compiled on a system with 2x AMD EPYC 9174F CPU + 1.5TiB Memory using RHEL 8.6

NA: The test sponsor attests, as of date of publication, that CVE-2017-5754 (Meltdown) is mitigated in the system as tested and documented.

Yes: The test sponsor attests, as of date of publication, that CVE-2017-5753 (Spectre variant 1) is mitigated in the system as tested and documented.

Yes: The test sponsor attests, as of date of publication, that CVE-2017-5715 (Spectre variant 2) is mitigated in the system as tested and documented.

## Platform Notes

BIOS configuration:

Determinism Slider = Power

TDP Control = Manual

TDP Limit = 400

Package Power Limit Control = Manual

Package Power Limit = 400

Power Profile Selection = High Performance

NUMA nodes per socket = NPS4

Probe Filter Organization = Shared

Interleaving Region Size = 2K Region Size

FAN Control = Full

```
Sysinfo program /home/Benchmark/speccpu2017r-Turin/bin/sysinfo
Rev: r6732 of 2022-11-07 fe91c89b7ed5c36ae2c92cc097bec197
running on localhost Fri Jan 24 18:24:55 2025
```

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

-----  
Table of contents  
-----

1. uname -a
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. sysctl

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## Platform Notes (Continued)

```
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 -a  
Linux localhost 6.4.0-150600.21-default #1 SMP PREEMPT_DYNAMIC Thu May 16 11:09:22 UTC 2024 (36c1e09)  
x86_64 x86_64 x86_64 GNU/Linux
```

---

```
2. w  
18:24:55 up 8 min, 2 users, load average: 0.00, 0.11, 0.10  
USER TTY FROM LOGIN@ IDLE JCPU PCPU WHAT  
root tty1 - 18:17 12.00s 0.91s 0.06s /bin/bash ./amd_rate_aocc500_znver5_A1.sh  
root pts/0 192.168.10.106 18:22 31.00s 0.05s 0.05s -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) 1542940  
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  
max user processes       (-u) 1542940  
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_intrate_aocc500_znver5_A1_31.py  
/bin/bash ./amd_rate_aocc500_znver5_A1.sh  
runcpu --config amd_rate_aocc500_znver5_A1.cfg --tune base --reportable --iterations 3 intrate  
runcpu --configfile amd_rate_aocc500_znver5_A1.cfg --tune base --reportable --iterations 3 --nopower  
--runmode rate --tune base --size test:train:refrate intrate --nopreenv --note-preenv --logfile  
$SPEC/tmp/CPU2017.001/templogs/preenv.intrate.001.0.log --lognum 001.0 --from_runcpu 2  
specperl $SPEC/bin/sysinfo  
$SPEC = /home/Benchmark/speccpu2017r-Turin
```

---

```
6. /proc/cpuinfo
```

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## Platform Notes (Continued)

```
model name      : AMD EPYC 9275F 24-Core Processor
vendor_id       : AuthenticAMD
cpu family     : 26
model          : 2
stepping        : 1
microcode       : 0xb00211e
bugs            : sysret_ss_attrs spectre_v1 spectre_v2 spec_store_bypass
TLB size        : 192 4K pages
cpu cores       : 24
siblings        : 48
1 physical ids (chips)
48 processors (hardware threads)
physical id 0: core ids 0-2,8-10,16-18,24-26,32-34,40-42,48-50,56-58
physical id 0: apicids 0-5,16-21,32-37,48-53,64-69,80-85,96-101,112-117
```

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):                 48
On-line CPU(s) list:    0-47
Vendor ID:               AuthenticAMD
BIOS Vendor ID:         Advanced Micro Devices, Inc.
Model name:              AMD EPYC 9275F 24-Core Processor
BIOS Model name:         AMD EPYC 9275F 24-Core Processor
BIOS CPU family:        Unknown CPU @ 4.1GHz
CPU family:              26
Model:                  2
Thread(s) per core:     2
Core(s) per socket:     24
Socket(s):              1
Stepping:                1
Frequency boost:        enabled
CPU(s) scaling MHz:    39%
CPU max MHz:            4816.6992
CPU min MHz:            1500.0000
BogoMIPS:                8187.64
Flags:
fpu vme de pse tsc msr pae mce cx8 apic sep mttr 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 aperfmpfperf 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 3dnoprefetch
osw ibs skinit wdt tce topoext perfctr_core perfctr_nb bpext
perfctr_llc mwaitx cpb cat_13 cdp_13 hw_pstate ssbd mba perfmon_v2
ibrs ibpb stibp ibrs_enhanced vmmcall fsgsbase tsc_adjust bml1 avx2
smep bmi2 erms invpcid cqmq rdta avx512f avx512dq rdseed adx smap
avx512ifma clflushopt clwb avx512cd sha_ni avx512bw avx512vl xsaveopt
xsavec xgetbv1 xsaves cqmq_llc cqmq_occup_llc cqmq_mbm_total
cqmq_mbm_local user_shstk avx_vnni avx512_bf16 clzero iperf
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
```

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## Platform Notes (Continued)

avx512\_vnni avx512\_bitalg avx512\_vpopcntdq la57 rdpid bus\_lock\_detect  
movdiri movdir64b overflow\_recov succor smca fsrm avx512\_vp2intersect  
flush\_lld debug\_swap  
AMD-V

Virtualization:	
L1d cache:	1.1 MiB (24 instances)
L1i cache:	768 KiB (24 instances)
L2 cache:	24 MiB (24 instances)
L3 cache:	256 MiB (8 instances)
NUMA node(s):	4
NUMA node0 CPU(s):	0-5,24-29
NUMA node1 CPU(s):	6-11,30-35
NUMA node2 CPU(s):	12-17,36-41
NUMA node3 CPU(s):	18-23,42-47
Vulnerability Gather data sampling:	Not affected
Vulnerability Itlb multihit:	Not affected
Vulnerability Llft:	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	1.1M	12	Data	1	64	1	64
L1i	32K	768K	8	Instruction	1	64	1	64
L2	1M	24M	16	Unified	2	1024	1	64
L3	32M	256M	16	Unified	3	32768	1	64

-----  
8. numactl --hardware

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

available: 4 nodes (0-3)  
node 0 cpus: 0-5,24-29  
node 0 size: 95898 MB  
node 0 free: 95407 MB  
node 1 cpus: 6-11,30-35  
node 1 size: 96764 MB  
node 1 free: 96410 MB  
node 2 cpus: 12-17,36-41  
node 2 size: 96764 MB  
node 2 free: 96032 MB  
node 3 cpus: 18-23,42-47  
node 3 size: 96333 MB  
node 3 free: 95951 MB  
node distances:  
node 0 1 2 3  
0: 10 12 12 12  
1: 12 10 12 12  
2: 12 12 10 12  
3: 12 12 12 10

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## Platform Notes (Continued)

9. /proc/meminfo  
MemTotal: 395019492 kB

10. who -r  
run-level 3 Jan 24 18:16

11. Systemd service manager version: systemd 254 (254.10+suse.84.ge8d77af424)  
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  
iscsi issue-generator kbdsettings kdump kdump-early kdump-notify klog lvm2-monitor nsqd  
postfix purge-kernels rollback rsyslog smartd sshd systemd-pstore virtqemud 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 dnsmasq ebttables exchange-bmc-os-info  
firewalld fsidd gpm grub2-once haveged hwloc-dump-hwdata ipmi ipmievd iscsi-init iscsid  
issue-add-ssh-keys kexec-load ksm kvm\_stat libvirt-guests lunmask man-db-create multipathd  
nfs nfs-blkmap nfs-server nfsserver rpcbind rpmconfigcheck rsyncd serial-getty@  
smartd\_generate\_opts snmpd snmptrapd strongswan strongswan-starter svnservice  
systemd-boot-check-no-failures systemd-confext systemd-network-generator systemd-nspawn@  
systemd-sysext systemd-time-wait-sync systemd-timesyncd tcsd udisks2 virtinterfaced  
virtlockd virtlogd virtnetworkd virtnodeudev virtnwfilterd virtsecretd virtstoraged  
vncserver@  
indirect pcsd systemd-userdb tftp wickedd

13. Linux kernel boot-time arguments, from /proc/cmdline  
BOOT\_IMAGE=/boot/vmlinuz-6.4.0-150600.21-default  
root=UUID=803d1916-887f-4ele-bc36-alab2542d352  
splash=silent  
resume=/dev/disk/by-uuid/ff08e126-00b4-4583-943a-09584dbe7c67  
mitigations=auto  
quiet  
security=apparmor  
crashkernel=369M,high  
crashkernel=72M,low

14. cpupower frequency-info  
analyzing CPU 28:  
current policy: frequency should be within 1.50 GHz and 4.10 GHz.  
The governor "ondemand" may decide which speed to use  
within this range.  
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

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## Platform Notes (Continued)

```
vm.dirty_background_ratio      10
vm.dirty_bytes                0
vm.dirty_expire_centisecs    3000
vm.dirty_ratio                8
vm.dirty_writeback_centisecs  500
vm.dirtytime_expire_seconds   43200
vm.extfrag_threshold          500
vm.min_unmapped_ratio         1
vm.nr_hugepages               0
vm.nr_hugepages_mempolicy     0
vm.nr_overcommit_hugepages    0
vm.swappiness                 1
vm.watermark_boost_factor     15000
vm.watermark_scale_factor     10
vm.zone_reclaim_mode          1
```

---

```
16. /sys/kernel/mm/transparent_hugepage
    defrag      [always] defer defer+madvise madvise never
    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 SP6
```

---

```
19. Disk information
SPEC is set to: /home/Benchmark/speccpu2017r-Turin
Filesystem      Type  Size  Used Avail Use% Mounted on
/dev/sdb3        xfs   476G  33G  444G  7%  /home
```

---

```
20. /sys/devices/virtual/dmi/id
  Vendor:      FUJITSU
  Product:     PRIMERGY RX1440 M2
  Product Family: SERVER
  Serial:      XXXXXXXXXXXX
```

---

```
21. 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:
  12x Samsung M321R4GA3PB0-CWMKH 32 GB 2 rank 5600, configured at 4800
```

(Continued on next page)



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## Platform Notes (Continued)

22. BIOS  
(This section combines info from /sys/devices and dmidecode.)  
BIOS Vendor: FUJITSU // American Megatrends Inc.  
BIOS Version: V5.0.0.35 R2.3.0\_PI-1003 for D4130-Alx  
BIOS Date: 12/24/2024  
BIOS Revision: 2.3  
Firmware Revision: 2.47

## Compiler Version Notes

=====

C | 500.perlbench\_r(base) 502.gcc\_r(base) 505.mcf\_r(base) 525.x264\_r(base) 557.xz\_r(base)

=====

AMD clang version 17.0.6 (CLANG: AOCC\_5.0.0-Build#1316 2024\_09\_09)  
Target: x86\_64-unknown-linux-gnu  
Thread model: posix  
InstalledDir: /opt/AMD/aocc/aocc-compiler-rel-5.0.0-4925-1316/bin

=====

C++ | 520.omnetpp\_r(base) 523.xalancbmk\_r(base) 531.deepsjeng\_r(base) 541.leela\_r(base)

=====

AMD clang version 17.0.6 (CLANG: AOCC\_5.0.0-Build#1316 2024\_09\_09)  
Target: x86\_64-unknown-linux-gnu  
Thread model: posix  
InstalledDir: /opt/AMD/aocc/aocc-compiler-rel-5.0.0-4925-1316/bin

=====

Fortran | 548.exchange2\_r(base)

=====

AMD clang version 17.0.6 (CLANG: AOCC\_5.0.0-Build#1316 2024\_09\_09)  
Target: x86\_64-unknown-linux-gnu  
Thread model: posix  
InstalledDir: /opt/AMD/aocc/aocc-compiler-rel-5.0.0-4925-1316/bin

=====

## Base Compiler Invocation

C benchmarks:

clang

C++ benchmarks:

clang++

Fortran benchmarks:

flang



# SPEC CPU®2017 Integer Rate Result

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Fujitsu

PRIMERGY RX1440 M2,  
AMD EPYC 9275F, 4.10 GHz

SPECrate®2017\_int\_base = 396

SPECrate®2017\_int\_peak = Not Run

CPU2017 License: 19

Test Sponsor: Fujitsu

Tested by: Fujitsu

Test Date: Jan-2025

Hardware Availability: Apr-2025

Software Availability: Sep-2024

## Base Portability Flags

```
500.perlbench_r: -DSPEC_LINUX_X64 -DSPEC_LP64
502.gcc_r: -DSPEC_LP64
505.mcf_r: -DSPEC_LP64
520.omnetpp_r: -DSPEC_LP64
523.xalancbmk_r: -DSPEC_LINUX -DSPEC_LP64
525.x264_r: -DSPEC_LP64
531.deepsjeng_r: -DSPEC_LP64
541.leela_r: -DSPEC_LP64
548.exchange2_r: -DSPEC_LP64
557.xz_r: -DSPEC_LP64
```

## Base Optimization Flags

C benchmarks:

```
-m64 -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 -z muldefs -O3 -march=znver5
-fveclib=AMDLIBM -ffast-math -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
-lamdaloc-ext -ldl
```

C++ benchmarks:

```
-m64 -std=c++14 -Wl,-mllvm -Wl,-align-all-nofallthru-blocks=6
-Wl,-mllvm -Wl,-reduce-array-computations=3
-Wl,-mllvm -Wl,-do-block-reorder=advanced -z muldefs -O3 -march=znver5
-fveclib=AMDLIBM -ffast-math -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
-mllvm -do-block-reorder=advanced -lamdlibm -lflang -lamdaloc-ext
-ldl
```

Fortran benchmarks:

```
-m64 -Wl,-mllvm -Wl,-align-all-nofallthru-blocks=6
-Wl,-mllvm -Wl,-reduce-array-computations=3
-Wl,-mllvm -Wl,-inline-recursion=4 -Wl,-mllvm -Wl,-lsr-in-nested-loop
-Wl,-mllvm -Wl,-enable-iv-split -z muldefs -O3 -march=znver5
-fveclib=AMDLIBM -ffast-math -flto
-fepilog-vectorization-of-inductions -mllvm -optimize-strided-mem-cost
-floop-transform -mllvm -unroll-aggressive -mllvm -unroll-threshold=500
-lamdlibm -lflang -lamdaloc -ldl
```



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## Base Other Flags

C benchmarks:

-Wno-unused-command-line-argument

C++ benchmarks:

-Wno-unused-command-line-argument

Fortran benchmarks:

-Wno-unused-command-line-argument

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

<http://www.spec.org/cpu2017/flags/aocc500-flags.2024-10-10.00.html>

<http://www.spec.org/cpu2017/flags/Fujitsu-Platform-Settings-V1.0-Turin-RevB.html>

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

<http://www.spec.org/cpu2017/flags/aocc500-flags.2024-10-10.00.xml>

<http://www.spec.org/cpu2017/flags/Fujitsu-Platform-Settings-V1.0-Turin-RevB.xml>

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Tested with SPEC CPU®2017 v1.1.9 on 2025-01-24 04:24:54-0500.

Report generated on 2025-04-09 14:58:43 by CPU2017 PDF formatter v6716.

Originally published on 2025-04-09.