



SPEC CPU®2017 Integer Speed Result

Copyright 2017-2025 Standard Performance Evaluation Corporation

xFusion

FusionServer 2258H V8
(AMD EPYC 9375F)

SPECspeed®2017_int_base = 20.8

SPECspeed®2017_int_peak = 21.1

CPU2017 License: 6488

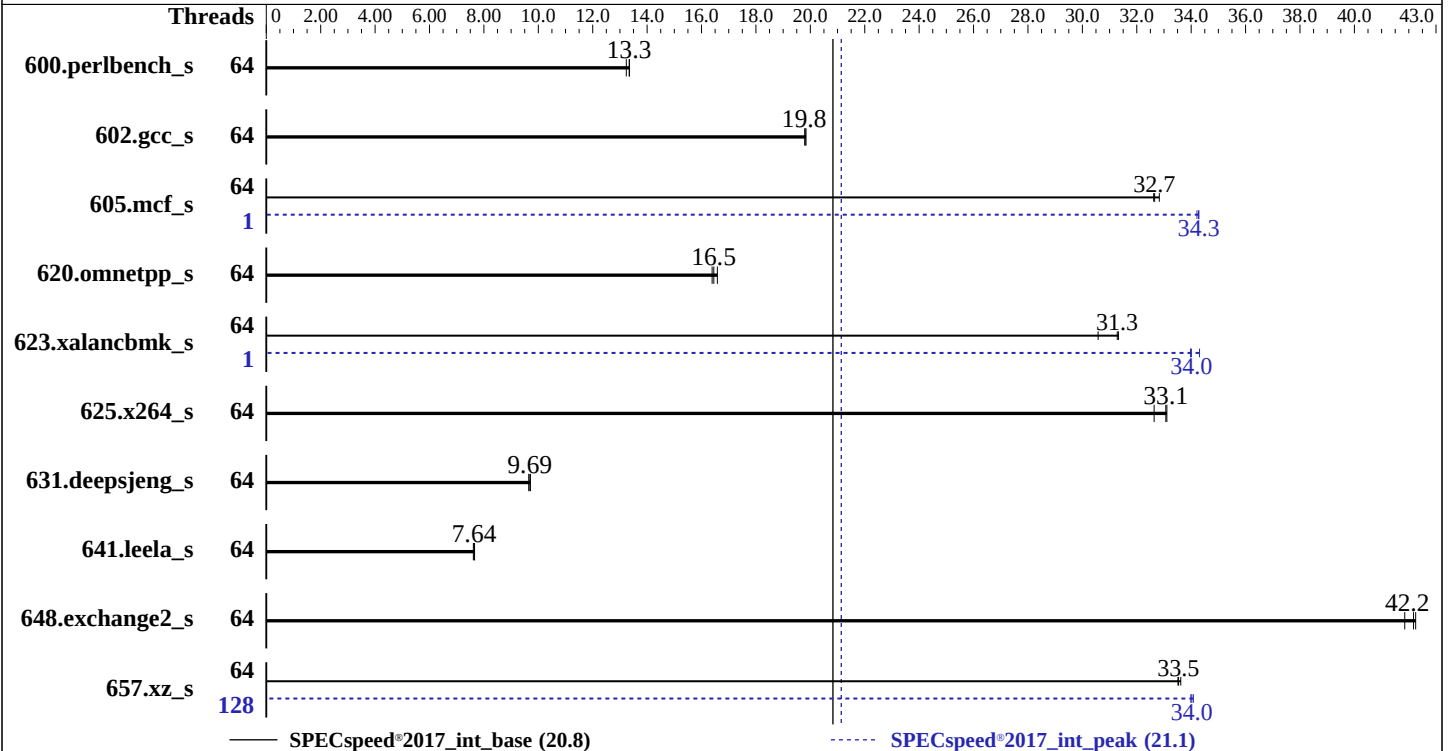
Test Sponsor: xFusion

Tested by: xFusion

Test Date: Sep-2025

Hardware Availability: Sep-2025

Software Availability: Oct-2024



Hardware

CPU Name: AMD EPYC 9375F
Max MHz: 4800
Nominal: 3800
Enabled: 64 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: 256 MB I+D on chip per chip, 32 MB shared / 4 cores
Other: None
Memory: 1536 GB (24 x 64 GB 2Rx4 PC5-6400B-R)
Storage: 1 x 1.6 TB PCIe NVMe SSD
Other: CPU Cooling: Air

Software

OS: SUSE Linux Enterprise Server 15 SP6 (x86_64)
Kernel 6.4.0-150600.21-default
Compiler: C/C++/Fortran: Version 5.0.0 of AOCC
Parallel: Yes
Firmware: Version 00.13.03.05 released Sep-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



SPEC CPU®2017 Integer Speed Result

Copyright 2017-2025 Standard Performance Evaluation Corporation

xFusion

FusionServer 2258H V8
(AMD EPYC 9375F)

SPECspeed®2017_int_base = 20.8

SPECspeed®2017_int_peak = 21.1

CPU2017 License: 6488
Test Sponsor: xFusion
Tested by: xFusion

Test Date: Sep-2025
Hardware Availability: Sep-2025
Software Availability: Oct-2024

Results Table

Benchmark	Base							Peak						
	Threads	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Threads	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio
600.perlbench_s	64	<u>133</u>	<u>13.3</u>	133	13.4	134	13.2	64	<u>133</u>	<u>13.3</u>	133	13.4	134	13.2
602.gcc_s	64	<u>201</u>	<u>19.8</u>	201	19.8	201	19.8	64	<u>201</u>	<u>19.8</u>	201	19.8	201	19.8
605.mcf_s	64	144	32.8	145	32.6	<u>145</u>	<u>32.7</u>	1	<u>138</u>	<u>34.3</u>	138	34.2	138	34.3
620.omnetpp_s	64	99.5	16.4	<u>99.1</u>	<u>16.5</u>	98.4	16.6	64	99.5	16.4	<u>99.1</u>	<u>16.5</u>	98.4	16.6
623.xalancbmk_s	64	<u>45.3</u>	<u>31.3</u>	46.3	30.6	45.2	31.3	1	41.7	34.0	41.3	34.3	<u>41.7</u>	<u>34.0</u>
625.x264_s	64	54.0	32.6	<u>53.3</u>	<u>33.1</u>	53.3	33.1	64	54.0	32.6	<u>53.3</u>	<u>33.1</u>	53.3	33.1
631.deepsjeng_s	64	148	9.71	149	9.65	<u>148</u>	<u>9.69</u>	64	148	9.71	149	9.65	<u>148</u>	<u>9.69</u>
641.leela_s	64	223	7.66	224	7.61	<u>223</u>	<u>7.64</u>	64	223	7.66	224	7.61	<u>223</u>	<u>7.64</u>
648.exchange2_s	64	<u>69.7</u>	<u>42.2</u>	69.6	42.3	70.2	41.9	64	<u>69.7</u>	<u>42.2</u>	69.6	42.3	70.2	41.9
657.xz_s	64	184	33.6	184	33.5	<u>184</u>	<u>33.5</u>	128	181	34.1	<u>182</u>	<u>34.0</u>	182	34.0

SPECspeed®2017_int_base = 20.8

SPECspeed®2017_int_peak = 21.1

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
The kernel stops sending timer ticks to CPUs by using "nohz_full=1-127"
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.



SPEC CPU®2017 Integer Speed Result

Copyright 2017-2025 Standard Performance Evaluation Corporation

xFusion

FusionServer 2258H V8
(AMD EPYC 9375F)

SPECspeed®2017_int_base = 20.8

SPECspeed®2017_int_peak = 21.1

CPU2017 License: 6488
Test Sponsor: xFusion
Tested by: xFusion

Test Date: Sep-2025
Hardware Availability: Sep-2025
Software Availability: Oct-2024

Environment Variables Notes

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

GOMP_CPU_AFFINITY = "0-127"

LD_LIBRARY_PATH =

"/home/Uniautos/cpu2017/amd_speed_aocc500_znver5_A_lib/lib:/home/Uniautos/cpu2017/amd_speed_aocc500_znver5_A_lib/lib32:"

LIBOMP_NUM_HIDDEN_HELPER_THREADS = "0"

MALLOC_CONF = "retain:true"

OMP_DYNAMIC = "false"

OMP_SCHEDULE = "static"

OMP_STACKSIZE = "128M"

OMP_THREAD_LIMIT = "128"

Environment variables set by runcpu during the 605.mcf_s peak run:

GOMP_CPU_AFFINITY = "0"

Environment variables set by runcpu during the 623.xalancbmk_s peak run:

GOMP_CPU_AFFINITY = "0"

Environment variables set by runcpu during the 657.xz_s peak run:

GOMP_CPU_AFFINITY = "0-127"

General Notes

Binaries were compiled on a system with 2x AMD EPYC 9D64 CPU + 500GiB Memory using Ubuntu 22.04

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 settings:

Determinism Control = Manual

Determinism Enable = Power

TDP Control = Manual

TDP = 400

PPT Control = Manual

PPT = 400

NUMA Nodes Per Socket = NPS2

Sysinfo program /home/Uniautos/cpu2017/bin/sysinfo

Rev: r6732 of 2022-11-07 fe91c89b7ed5c36ae2c92cc097bec197

running on xFusion Tue Sep 30 10:54:14 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

(Continued on next page)



SPEC CPU®2017 Integer Speed Result

Copyright 2017-2025 Standard Performance Evaluation Corporation

xFusion

FusionServer 2258H V8
(AMD EPYC 9375F)

SPECspeed®2017_int_base = 20.8

SPECspeed®2017_int_peak = 21.1

CPU2017 License: 6488
Test Sponsor: xFusion
Tested by: xFusion

Test Date: Sep-2025
Hardware Availability: Sep-2025
Software Availability: Oct-2024

Platform Notes (Continued)

```
5. sysinfo process ancestry
6. /proc/cpuinfo
7. lscpu
8. numactl --hardware
9. /proc/meminfo
10. who -r
11. Systemd service manager version: systemd 254 (254.10+suse.84.ge8d77af424)
12. Services, from systemctl list-unit-files
13. Linux kernel boot-time arguments, from /proc/cmdline
14. cpupower frequency-info
15. tuned-adm active
16. sysctl
17. /sys/kernel/mm/transparent_hugepage
18. /sys/kernel/mm/transparent_hugepage/khugepaged
19. OS release
20. Disk information
21. /sys/devices/virtual/dmi/id
22. dmidecode
23. BIOS
```

```
1. uname -a
Linux xFusion 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
10:54:14 up 1 day, 17:59, 3 users, load average: 0.08, 0.03, 0.00
USER      TTY      FROM            LOGIN@   IDLE   JCPU   PCPU WHAT
root      tty1      -               Sun17    41:52m 0.04s  0.04s -bash
root      pts/0    192.168.108.205 10:49    26.00s 0.78s  0.00s tail -100f nohup.out
```

```
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) 6190651
max locked memory       (kbytes, -l) 2097152
max memory size         (kbytes, -m) unlimited
open files              (-n) 65535
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) 6190651
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
```

(Continued on next page)



SPEC CPU®2017 Integer Speed Result

Copyright 2017-2025 Standard Performance Evaluation Corporation

xFusion

FusionServer 2258H V8
(AMD EPYC 9375F)

SPECspeed®2017_int_base = 20.8

SPECspeed®2017_int_peak = 21.1

CPU2017 License: 6488
Test Sponsor: xFusion
Tested by: xFusion

Test Date: Sep-2025
Hardware Availability: Sep-2025
Software Availability: Oct-2024

Platform Notes (Continued)

```
sshd: root [priv]
sshd: root@pts/0
-bash
python3 ./run_amd_speed_aocc500_znver5_A1.py
/bin/bash ./amd_speed_aocc500_znver5_A1.sh
runcpu --config amd_speed_aocc500_znver5_A1.cfg --tune all --reportable --iterations 3 intspeed
runcpu --configfile amd_speed_aocc500_znver5_A1.cfg --tune all --reportable --iterations 3 --nopower
--runmode speed --tune base:peak --size test:train:refspeed intspeed --nopreenv --note-preenv --logfile
$SPEC/tmp/CPU2017.041/temlogs/preenv.intspeed.041.0.log --lognum 041.0 --from_runcpu 2
specperl $SPEC/bin/sysinfo
$SPEC = /home/Uniautos/cpu2017
```

```
-----
6. /proc/cpuinfo
model name      : AMD EPYC 9375F 32-Core Processor
vendor_id      : AuthenticAMD
cpu family     : 26
model          : 2
stepping       : 1
microcode      : 0xb002151
bugs           : sysret_ss_attrs spectre_v1 spectre_v2 spec_store_bypass
TLB size       : 192 4K pages
cpu cores      : 32
siblings       : 64
2 physical ids (chips)
128 processors (hardware threads)
physical id 0: core ids 0-3,8-11,16-19,24-27,32-35,40-43,48-51,56-59
physical id 1: core ids 0-3,8-11,16-19,24-27,32-35,40-43,48-51,56-59
physical id 0: apicids 0-7,16-23,32-39,48-55,64-71,80-87,96-103,112-119
physical id 1: apicids 128-135,144-151,160-167,176-183,192-199,208-215,224-231,240-247
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):	128
On-line CPU(s) list:	0-127
Vendor ID:	AuthenticAMD
BIOS Vendor ID:	Advanced Micro Devices, Inc.
Model name:	AMD EPYC 9375F 32-Core Processor
BIOS Model name:	AMD EPYC 9375F 32-Core Processor Unknown CPU @ 3.8GHz
BIOS CPU family:	107
CPU family:	26
Model:	2
Thread(s) per core:	2
Core(s) per socket:	32
Socket(s):	2
Stepping:	1
Frequency boost:	enabled
CPU(s) scaling MHz:	79%
CPU max MHz:	4820.5068
CPU min MHz:	1500.0000
BogoMIPS:	7600.09
Flags:	fpu vme de pse tsc msr pae mce cx8 apic sep mtrr pge mca cmov pat

(Continued on next page)



SPEC CPU®2017 Integer Speed Result

Copyright 2017-2025 Standard Performance Evaluation Corporation

xFusion

FusionServer 2258H V8
(AMD EPYC 9375F)

SPECspeed®2017_int_base = 20.8

SPECspeed®2017_int_peak = 21.1

CPU2017 License: 6488
Test Sponsor: xFusion
Tested by: xFusion

Test Date: Sep-2025
Hardware Availability: Sep-2025
Software Availability: Oct-2024

Platform Notes (Continued)

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 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_lld debug_swap

Virtualization:

L1d cache:
L1i cache:
L2 cache:
L3 cache:
NUMA node(s):

NUMA node0 CPU(s): 0-15,64-79
NUMA node1 CPU(s): 16-31,80-95
NUMA node2 CPU(s): 32-47,96-111
NUMA node3 CPU(s): 48-63,112-127

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

Vulnerability Srbds: always-on; RSB filling; PBRBS-eIBRS Not affected; BHI 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	3M	12	Data	1	64	1	64
L1i	32K	2M	8	Instruction	1	64	1	64
L2	1M	64M	16	Unified	2	1024	1	64
L3	32M	512M	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: 0-15,64-79
node 0 size: 386636 MB
node 0 free: 385503 MB
node 1 cpus: 16-31,80-95

(Continued on next page)



SPEC CPU®2017 Integer Speed Result

Copyright 2017-2025 Standard Performance Evaluation Corporation

xFusion

FusionServer 2258H V8
(AMD EPYC 9375F)

SPECspeed®2017_int_base = 20.8

SPECspeed®2017_int_peak = 21.1

CPU2017 License: 6488
Test Sponsor: xFusion
Tested by: xFusion

Test Date: Sep-2025
Hardware Availability: Sep-2025
Software Availability: Oct-2024

Platform Notes (Continued)

```
node 1 size: 387063 MB
node 1 free: 385764 MB
node 2 cpus: 32-47,96-111
node 2 size: 387063 MB
node 2 free: 385782 MB
node 3 cpus: 48-63,112-127
node 3 size: 386925 MB
node 3 free: 385548 MB
node distances:
node  0  1  2  3
0:   10  12  32  32
1:   12  10  32  32
2:   32  32  10  12
3:   32  32  12  10
```

```
9. /proc/meminfo
MemTotal:      1584833688 kB
```

```
10. who -r
run-level 3 Sep 28 16:55
```

```
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 firewalld getty@
            irqbalance issue-generator kbdsettings klog lvm2-monitor nscd nvme-fc-boot-connections
            nvme-fc-autoconnect postfix purge-kernels rollback rsyslog smartd sshd systemd-pstore wicked
            wickedd-auto4 wickedd-dhcp4 wickedd-dhcp6 wickedd-nanny
enabled-runtime systemd-remount-fs
disabled   autofs autoyast-initscripts blk-availability boot-sysctl ca-certificates chrony-wait
            chronyd console-getty cups cups-browsed debug-shell ebttables exchange-bmc-os-info fsidd
            gpm grub2-once haveged ipmi ipmievd issue-add-ssh-keys kexec-load lunmask man-db-create
            multipathd nfs nfs-blkmap powertop rpcbind rpmconfigcheck rsyncd serial-getty@
            smartd_generate_opts snmpd snmptrapd systemd-boot-check-no-failures systemd-confext
            systemd-network-generator systemd-sysext systemd-time-wait-sync systemd-timesyncd tuned
            vncserver@
indirect   systemd-userdbd wickedd
```

```
13. Linux kernel boot-time arguments, from /proc/cmdline
BOOT_IMAGE=/boot/vmlinuz-6.4.0-150600.21-default
root=UUID=598ff54f-84bd-49cf-aeb1-10c5c5f6050f
nohz_full=1-127
splash=silent
quiet
mitigations=auto
security=apparmor
```

```
14. cpupower frequency-info
analyzing CPU 6:
current policy: frequency should be within 1.50 GHz and 3.80 GHz.
The governor "performance" may decide which speed to use
```

(Continued on next page)



SPEC CPU®2017 Integer Speed Result

Copyright 2017-2025 Standard Performance Evaluation Corporation

xFusion

FusionServer 2258H V8
(AMD EPYC 9375F)

SPECspeed®2017_int_base = 20.8

SPECspeed®2017_int_peak = 21.1

CPU2017 License: 6488
Test Sponsor: xFusion
Tested by: xFusion

Test Date: Sep-2025
Hardware Availability: Sep-2025
Software Availability: Oct-2024

Platform Notes (Continued)

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
vm.nr_hugepages 0
vm.nr_hugepages_mempolicy 0
vm.nr_overcommit_hugepages 0
vm.swappiness 1
vm.watermark_boost_factor 15000
vm.watermark_scale_factor 10
vm.zone_reclaim_mode 1

17. /sys/kernel/mm/transparent_hugepage
defrag [always] defer defer+madvise madvise never
enabled [always] madvise never
hpage_pmd_size 2097152
shmem_enabled always within_size advise [never] deny force

18. /sys/kernel/mm/transparent_hugepage/khugepaged
alloc_sleep_millisecs 60000
defrag 1
max_ptes_none 511
max_ptes_shared 256
max_ptes_swap 64
pages_to_scan 4096
scan_sleep_millisecs 10000

19. OS release
From /etc/*-release /etc/*-version
os-release SUSE Linux Enterprise Server 15 SP6

20. Disk information
SPEC is set to: /home/Uniautos/cpu2017
Filesystem Type Size Used Avail Use% Mounted on
/dev/nvme1n1p3 xfs 1.4T 41G 1.4T 3% /

(Continued on next page)



SPEC CPU®2017 Integer Speed Result

Copyright 2017-2025 Standard Performance Evaluation Corporation

xFusion

FusionServer 2258H V8
(AMD EPYC 9375F)

SPECspeed®2017_int_base = 20.8

SPECspeed®2017_int_peak = 21.1

CPU2017 License: 6488
Test Sponsor: xFusion
Tested by: xFusion

Test Date: Sep-2025
Hardware Availability: Sep-2025
Software Availability: Oct-2024

Platform Notes (Continued)

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

Vendor: XFUSION
Product: 2258H V8
Product Family: Turin

22. dmidecode

Additional information from dmidecode 3.4 follows. WARNING: Use caution when you interpret this section. The 'dmidecode' program reads system data which is "intended to allow hardware to be accurately determined", but the intent may not be met, as there are frequent changes to hardware, firmware, and the "DMTF SMBIOS" standard.

Memory:

12x SK Hynix HMC94AHBRA481N 64 GB 2 rank 6400
12x SK Hynix HMC94AHBRA487N 64 GB 2 rank 6400

23. BIOS

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

BIOS Vendor: XFUSION
BIOS Version: 00.13.03.05
BIOS Date: 09/08/2025
BIOS Revision: 3.5

Compiler Version Notes

C | 600.perlbench_s(base, peak) 602.gcc_s(base, peak) 605.mcf_s(base, peak) 625.x264_s(base, peak)
| 657.xz_s(base, peak)

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++ | 620.omnetpp_s(base, peak) 623.xalancbmk_s(base, peak) 631.deepsjeng_s(base, peak)
| 641.leela_s(base, peak)

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 | 648.exchange2_s(base, peak)

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



SPEC CPU®2017 Integer Speed Result

Copyright 2017-2025 Standard Performance Evaluation Corporation

xFusion

FusionServer 2258H V8
(AMD EPYC 9375F)

SPECspeed®2017_int_base = 20.8

SPECspeed®2017_int_peak = 21.1

CPU2017 License: 6488
Test Sponsor: xFusion
Tested by: xFusion

Test Date: Sep-2025
Hardware Availability: Sep-2025
Software Availability: Oct-2024

Base Compiler Invocation

C benchmarks:
clang

C++ benchmarks:
clang++

Fortran benchmarks:
flang

Base Portability Flags

600.perlbench_s: -DSPEC_LINUX_X64 -DSPEC_LP64
602.gcc_s: -DSPEC_LP64
605.mcf_s: -DSPEC_LP64
620.omnetpp_s: -DSPEC_LP64
623.xalancbmk_s: -DSPEC_LINUX -DSPEC_LP64
625.x264_s: -DSPEC_LP64
631.deepsjeng_s: -DSPEC_LP64
641.leela_s: -DSPEC_LP64
648.exchange2_s: -DSPEC_LP64
657.xz_s: -DSPEC_LP64

Base Optimization Flags

C benchmarks:
-m64 -Wl,-mllvm -Wl,-align-all-nofallthru-blocks=6
-Wl,-mllvm -Wl,-reduce-array-computations=3
-Wl,-allow-multiple-definition -Wl,-mllvm -Wl,-extra-inliner -O3
-march=znver5 -fveclib=AMDLIBM -ffast-math -fopenmp -DSPEC_OPENMP
-flto -fremap-arrays -fstrip-mining -fstruct-layout=7
-mllvm -inline-threshold=1000 -mllvm -reduce-array-computations=3
-mllvm -unroll-threshold=50 -zopt -fopenmp=libomp -lomp -lamdlibm
-lflang -lamdalloc

C++ benchmarks:
-m64 -std=c++14 -Wl,-mllvm -Wl,-align-all-nofallthru-blocks=6
-Wl,-mllvm -Wl,-reduce-array-computations=3 -O3 -march=znver5
-fveclib=AMDLIBM -ffast-math -fopenmp -DSPEC_OPENMP -flto
-mllvm -loop-unswitch-threshold=200000
-mllvm -reduce-array-computations=3 -mllvm -unroll-threshold=100 -zopt
-fvirtual-function-elimination -fvisibility=hidden -fopenmp=libomp
-lomp -lamdlibm -lflang -lamdalloc-ext

(Continued on next page)



SPEC CPU®2017 Integer Speed Result

Copyright 2017-2025 Standard Performance Evaluation Corporation

xFusion

FusionServer 2258H V8
(AMD EPYC 9375F)

SPECspeed®2017_int_base = 20.8

SPECspeed®2017_int_peak = 21.1

CPU2017 License: 6488
Test Sponsor: xFusion
Tested by: xFusion

Test Date: Sep-2025
Hardware Availability: Sep-2025
Software Availability: Oct-2024

Base Optimization Flags (Continued)

Fortran benchmarks:

-m64 -Wl, -mllvm -Wl, -align-all-nofallthru-blocks=6
-Wl, -mllvm -Wl, -reduce-array-computations=3
-Wl, -mllvm -Wl, -enable-iv-split -Wl, -mllvm -Wl, -inline-recursion=4
-Wl, -mllvm -Wl, -lsr-in-nested-loop -O3 -march=znver5 -fveclib=AMDLIBM
-ffast-math -fopenmp -flto -mllvm -optimize-strided-mem-cost
-mllvm -unroll-aggressive -mllvm -unroll-threshold=150 -fopenmp=libomp
-lomp -lamdlibm -lflang -lamdalloc

Base Other Flags

C benchmarks:

-Wno-return-type -Wno-unused-command-line-argument

C++ benchmarks:

-Wno-unused-command-line-argument

Fortran benchmarks:

-Wno-unused-command-line-argument

Peak Compiler Invocation

C benchmarks:

clang

C++ benchmarks:

clang++

Fortran benchmarks:

flang

Peak Portability Flags

Same as Base Portability Flags



SPEC CPU®2017 Integer Speed Result

Copyright 2017-2025 Standard Performance Evaluation Corporation

xFusion

FusionServer 2258H V8
(AMD EPYC 9375F)

SPECspeed®2017_int_base = 20.8

SPECspeed®2017_int_peak = 21.1

CPU2017 License: 6488
Test Sponsor: xFusion
Tested by: xFusion

Test Date: Sep-2025
Hardware Availability: Sep-2025
Software Availability: Oct-2024

Peak Optimization Flags

C benchmarks:

600.perlbench_s: basepeak = yes

602.gcc_s: basepeak = yes

605.mcf_s: -m64 -Wl,-mllvm -Wl,-align-all-nofallthru-blocks=6
-Wl,-mllvm -Wl,-reduce-array-computations=3
-Wl,-mllvm -Wl,-extra-inliner -Ofast -march=znver5
-fveclib=AMDLIBM -ffast-math -fopenmp -flto
-DSPEC_OPENMP -fremap-arrays -fstrip-mining
-fstruct-layout=9 -mllvm -inline-threshold=1000
-mllvm -reduce-array-computations=3
-mllvm -unroll-threshold=50 -zopt -fopenmp=libomp -lomp
-lamdlibm -lamdalloc -lflang

625.x264_s: basepeak = yes

657.xz_s: -m64 -Wl,-mllvm -Wl,-align-all-nofallthru-blocks=6
-Wl,-mllvm -Wl,-reduce-array-computations=3
-Wl,-allow-multiple-definition
-Wl,-mllvm -Wl,-extra-inliner -Ofast -march=znver5
-fveclib=AMDLIBM -ffast-math -fopenmp -flto
-DSPEC_OPENMP -fremap-arrays -fstrip-mining
-fstruct-layout=9 -mllvm -inline-threshold=1000
-mllvm -reduce-array-computations=3
-mllvm -unroll-threshold=50 -zopt -fopenmp=libomp -lomp
-lamdlibm -lamdalloc -lflang

C++ benchmarks:

620.omnetpp_s: basepeak = yes

623.xalancbmk_s: -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 -Ofast
-march=znver5 -fveclib=AMDLIBM -ffast-math -fopenmp
-flto -DSPEC_OPENMP -mllvm -reduce-array-computations=3
-mllvm -unroll-threshold=100 -zopt
-fvirtual-function-elimination -fvisibility=hidden
-mllvm -do-block-reorder=advanced -fopenmp=libomp -lomp
-lamdlibm -lamdalloc-ext -lflang

631.deepsjeng_s: basepeak = yes

(Continued on next page)



SPEC CPU®2017 Integer Speed Result

Copyright 2017-2025 Standard Performance Evaluation Corporation

xFusion

FusionServer 2258H V8
(AMD EPYC 9375F)

SPECspeed®2017_int_base = 20.8

SPECspeed®2017_int_peak = 21.1

CPU2017 License: 6488
Test Sponsor: xFusion
Tested by: xFusion

Test Date: Sep-2025
Hardware Availability: Sep-2025
Software Availability: Oct-2024

Peak Optimization Flags (Continued)

641.leela_s: basepeak = yes

Fortran benchmarks:

648.exchange2_s: basepeak = yes

Peak Other Flags

C benchmarks:

-Wno-return-type -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.html>

<http://www.spec.org/cpu2017/flags/xFusion-Platform-Settings-AMD-V2.1.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.xml>

<http://www.spec.org/cpu2017/flags/xFusion-Platform-Settings-AMD-V2.1.xml>

SPEC CPU and SPECspeed are registered trademarks of the Standard Performance Evaluation Corporation. All other brand and product names appearing in this result are trademarks or registered trademarks of their respective holders.

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

Tested with SPEC CPU®2017 v1.1.9 on 2025-09-29 22:54:14-0400.
Report generated on 2025-12-03 14:25:07 by CPU2017 PDF formatter v6716.
Originally published on 2025-12-02.