



SPEC CPU®2017 Integer Rate Result

Copyright 2017-2025 Standard Performance Evaluation Corporation

xFusion

SPECrate®2017_int_base = 176

FusionServer 1288H V7 (Intel Xeon Silver 4509Y)

SPECrate®2017_int_peak = 182

CPU2017 License: 6488

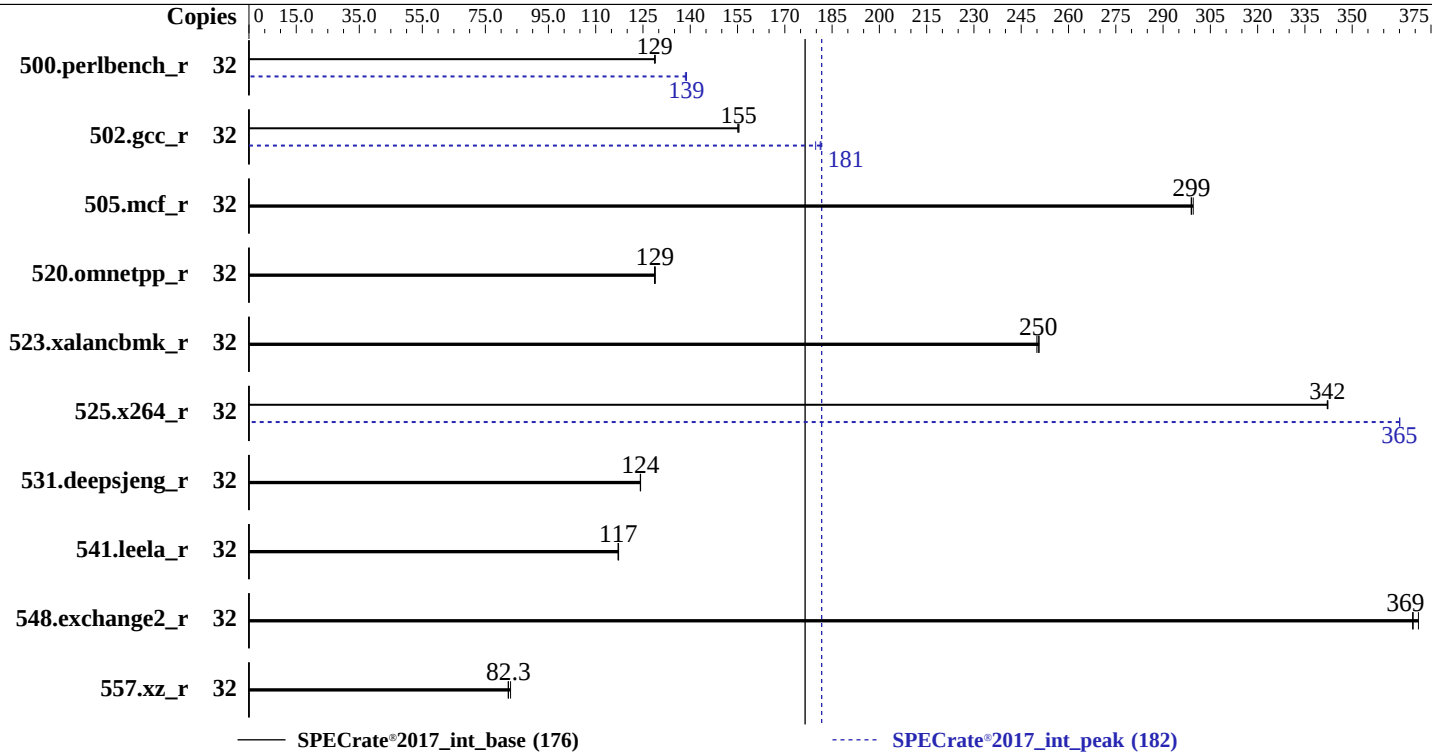
Test Sponsor: xFusion

Tested by: xFusion

Test Date: Jun-2025

Hardware Availability: Dec-2023

Software Availability: Mar-2024



Hardware

CPU Name: Intel Xeon Silver 4509Y
Max MHz: 4100
Nominal: 2600
Enabled: 16 cores, 2 chips, 2 threads/core
Orderable: 1,2 chips
Cache L1: 32 KB I + 48 KB D on chip per core
L2: 2 MB I+D on chip per core
L3: 22.5 MB I+D on chip per chip
Other: None
Memory: 512 GB (16 x 32 GB 2Rx8 PC5-4800B-R, running at 4400)
Storage: 1 x 960 GB SATA SSD
Other: CPU Cooling: Air

Software

OS: Red Hat Enterprise Linux 9.2 (Plow)
5.14.0-284.11.1.el9_2.x86_64
Compiler: C/C++: Version 2024.1 of Intel oneAPI DPC++/C++ Compiler for Linux;
Fortran: Version 2024.1 of Intel Fortran Compiler for Linux;
Parallel: No
Firmware: Version 01.01.06.16 Released May-2025
File System: xfs
System State: Run level 3 (multi-user)
Base Pointers: 64-bit
Peak Pointers: 32/64-bit
Other: jemalloc memory allocator V5.0.1
Power Management: BIOS and OS set to prefer performance at the cost of additional power usage.



SPEC CPU®2017 Integer Rate Result

Copyright 2017-2025 Standard Performance Evaluation Corporation

xFusion

SPECrate®2017_int_base = 176

FusionServer 1288H V7 (Intel Xeon Silver 4509Y)

SPECrate®2017_int_peak = 182

CPU2017 License: 6488

Test Sponsor: xFusion

Tested by: xFusion

Test Date: Jun-2025

Hardware Availability: Dec-2023

Software Availability: Mar-2024

Results Table

Benchmark	Base							Peak						
	Copies	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Copies	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio
500.perlbench_r	32	395	129	<u>396</u>	<u>129</u>	396	129	32	368	138	<u>367</u>	<u>139</u>	367	139
502.gcc_r	32	292	155	292	155	<u>292</u>	<u>155</u>	32	<u>250</u>	<u>181</u>	252	180	250	181
505.mcf_r	32	173	300	173	299	<u>173</u>	<u>299</u>	32	173	300	173	299	<u>173</u>	<u>299</u>
520.omnetpp_r	32	326	129	<u>326</u>	<u>129</u>	326	129	32	326	129	<u>326</u>	<u>129</u>	326	129
523.xalancbmk_r	32	135	251	<u>135</u>	<u>250</u>	135	250	32	135	251	<u>135</u>	<u>250</u>	135	250
525.x264_r	32	164	342	164	342	<u>164</u>	<u>342</u>	32	<u>153</u>	<u>365</u>	153	365	154	365
531.deepsjeng_r	32	<u>295</u>	<u>124</u>	295	124	295	124	32	<u>295</u>	<u>124</u>	295	124	295	124
541.leela_r	32	452	117	452	117	<u>452</u>	<u>117</u>	32	452	117	452	117	<u>452</u>	<u>117</u>
548.exchange2_r	32	<u>227</u>	<u>369</u>	226	371	227	369	32	<u>227</u>	<u>369</u>	226	371	227	369
557.xz_r	32	416	83.0	420	82.2	<u>420</u>	<u>82.3</u>	32	416	83.0	420	82.2	<u>420</u>	<u>82.3</u>

SPECrate®2017_int_base = 176

SPECrate®2017_int_peak = 182

Results appear in the order in which they were run. Bold underlined text indicates a median measurement.

Submit Notes

The numactl mechanism was used to bind copies to processors. The config file option 'submit' was used to generate numactl commands to bind each copy to a specific processor. For details, please see the config file.

Operating System Notes

Stack size set to unlimited using "ulimit -s unlimited"

Environment Variables Notes

Environment variables set by runcpu before the start of the run:
LD_LIBRARY_PATH = "/home/spec2017/lib/intel64:/home/spec2017/lib/ia32:/home/spec2017/je5.0.1-32"
MALLOC_CONF = "retain:true"

General Notes

Binaries compiled on a system with 2x Intel Xeon Platinum 8280M CPU + 384GB RAM
memory using Red Hat Enterprise Linux 8.4
Transparent Huge Pages enabled by default
Prior to runcpu invocation
Filesystem page cache synced and cleared with:
sync; echo 3> /proc/sys/vm/drop_caches
runcpu command invoked through numactl i.e.:
numactl --interleave=all runcpu <etc>

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.
jemalloc, a general purpose malloc implementation

(Continued on next page)



SPEC CPU®2017 Integer Rate Result

Copyright 2017-2025 Standard Performance Evaluation Corporation

xFusion

SPECrate®2017_int_base = 176

FusionServer 1288H V7 (Intel Xeon Silver 4509Y)

SPECrate®2017_int_peak = 182

CPU2017 License: 6488

Test Sponsor: xFusion

Tested by: xFusion

Test Date: Jun-2025

Hardware Availability: Dec-2023

Software Availability: Mar-2024

General Notes (Continued)

built with the RedHat Enterprise 7.5, and the system compiler gcc 4.8.5
sources available from jemalloc.net or <https://github.com/jemalloc/jemalloc/releases>

Platform Notes

BIOS configuration:

Performance Profile Set to Performance

SNC Set to Enable SNC2 (2-clusters)

Sysinfo program /home/spec2017/bin/sysinfo

Rev: r6732 of 2022-11-07 fe91c89b7ed5c36ae2c92cc097bec197

running on localhost.localdomain Wed Jun 25 00:24:13 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 252 (252-13.el9_2)
 12. Failed units, from systemctl list-units --state=failed
 13. Services, from systemctl list-unit-files
 14. Linux kernel boot-time arguments, from /proc/cmdline
 15. cpupower frequency-info
 16. tuned-adm active
 17. sysctl
 18. /sys/kernel/mm/transparent_hugepage
 19. /sys/kernel/mm/transparent_hugepage/khugepaged
 20. OS release
 21. Disk information
 22. /sys/devices/virtual/dmi/id
 23. dmidecode
 24. BIOS
-

1. uname -a
Linux localhost.localdomain 5.14.0-284.11.1.el9_2.x86_64 #1 SMP PREEMPT_DYNAMIC Wed Apr 12 10:45:03 EDT 2023 x86_64 x86_64 x86_64 GNU/Linux

2. w
00:24:13 up 6 min, 2 users, load average: 0.00, 0.03, 0.01
USER TTY LOGIN@ IDLE JCPU PCPU WHAT
root tty1 00:24 13.00s 1.09s 0.05s -bash
root pts/0 00:22 35.00s 0.04s 0.04s -bash

3. Username
From environment variable \$USER: root

(Continued on next page)



SPEC CPU®2017 Integer Rate Result

Copyright 2017-2025 Standard Performance Evaluation Corporation

xFusion

SPECrate®2017_int_base = 176

FusionServer 1288H V7 (Intel Xeon Silver 4509Y)

SPECrate®2017_int_peak = 182

CPU2017 License: 6488

Test Sponsor: xFusion

Tested by: xFusion

Test Date: Jun-2025

Hardware Availability: Dec-2023

Software Availability: Mar-2024

Platform Notes (Continued)

```
-----
4. ulimit -a
real-time non-blocking time (microseconds, -R) unlimited
core file size (blocks, -c) 0
data seg size (kbytes, -d) unlimited
scheduling priority (-e) 0
file size (blocks, -f) unlimited
pending signals (-i) 2060248
max locked memory (kbytes, -l) 64
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) 2060248
virtual memory (kbytes, -v) unlimited
file locks (-x) unlimited

-----
5. sysinfo process ancestry
/usr/lib/systemd/systemd --switched-root --system --deserialize 31
login -- root
-bash
-bash
runcpu --define default-platform-flags --copies 32 -c ic2024.1-lin-sapphirerapids-rate-20240308.cfg --define
smt-on --define cores=16 --define physicalfirst --define invoke_with_interleave --define drop_caches
--tune base,peak -o all intrate
runcpu --define default-platform-flags --copies 32 --configfile
ic2024.1-lin-sapphirerapids-rate-20240308.cfg --define smt-on --define cores=16 --define physicalfirst
--define invoke_with_interleave --define drop_caches --tune base,peak --output_format all --nopower
--runmode rate --tune base:peak --size refrate intrate --nopreenv --note-preenv --logfile
$SPEC/tmp/CPU2017.012/temlogs/preenv.intrate.012.0.log --lognum 012.0 --from_runcpu 2
specperl $SPEC/bin/sysinfo
$SPEC = /home/spec2017

-----
6. /proc/cpuinfo
model name      : INTEL(R) XEON(R) SILVER 4509Y
vendor_id       : GenuineIntel
cpu family      : 6
model           : 143
stepping        : 8
microcode       : 0x2b000603
bugs            : spectre_v1 spectre_v2 spec_store_bypass swapgs eibrs_pbrsb
cpu cores       : 8
siblings        : 16
2 physical ids (chips)
32 processors (hardware threads)
physical id 0: core ids 0-7
physical id 1: core ids 0-7
physical id 0: apicids 0-15
physical id 1: apicids 64-79
Caution: /proc/cpuinfo data regarding chips, cores, and threads is not necessarily reliable, especially for
virtualized systems. Use the above data carefully.

-----
7. lscpu
```

(Continued on next page)



SPEC CPU®2017 Integer Rate Result

Copyright 2017-2025 Standard Performance Evaluation Corporation

xFusion

SPECrate®2017_int_base = 176

FusionServer 1288H V7 (Intel Xeon Silver 4509Y)

SPECrate®2017_int_peak = 182

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

Test Date: Jun-2025
Hardware Availability: Dec-2023
Software Availability: Mar-2024

Platform Notes (Continued)

From lscpu from util-linux 2.37.4:

Architecture: x86_64
CPU op-mode(s): 32-bit, 64-bit
Address sizes: 46 bits physical, 57 bits virtual
Byte Order: Little Endian
CPU(s): 32
On-line CPU(s) list: 0-31
Vendor ID: GenuineIntel
BIOS Vendor ID: Intel(R) Corporation
Model name: INTEL(R) XEON(R) SILVER 4509Y
BIOS Model name: INTEL(R) XEON(R) SILVER 4509Y
CPU family: 6
Model: 143
Thread(s) per core: 2
Core(s) per socket: 8
Socket(s): 2
Stepping: 8
BogoMIPS: 5200.00
Flags: fpu vme de pse tsc msr pae mce cx8 apic sep mtrr pge mca cmov pat pse36 clflush dts acpi mmx fxsr sse sse2 ss ht tm pbe syscall nx pdpe1gb rdtscp lm constant_tsc art arch_perfmon pebs bts rep_good nopl xtopology nonstop_tsc cpuid aperfperf tsc_known_freq pni pclmulqdq dtes64 ds_cpl vmx smx est tm2 ssse3 sdbg fma cx16 xtpr pdcm pcid dca sse4_1 sse4_2 x2apic movbe popcnt tsc_deadline_timer aes xsave avx f16c rdrand lahf_lm abm 3dnowprefetch cpuid_fault epb cat_l3 cat_l2 cdp_l3 invpcid_single intel_ppin cdp_l2 ssbd mba ibrs ibpb stibp ibrs_enhanced tpr_shadow vnmi flexpriority ept vpid ept_ad fsgsbase tsc_adjust bmi1 avx2 smep bmi2 erms invpcid cqm rdt_a avx512f avx512dq rdseed adx smap avx512ifma clflushopt clwb intel_pt avx512cd sha_ni avx512bw avx512vl xsaveopt xsavec xgetbv1 xsaves cqm_llc cqm_occup_llc cqm_mbm_total cqm_mbm_local split_lock_detect avx_vnni avx512_bf16 wbnoinvd dtherm ida arat pln pts hfi avx512vbmi umip pku ospke waitpkg avx512_vbmi2 gfni vaes vpclmulqdq avx512_vnni avx512_bitalg tme avx512_vpopcntdq la57 rdpid bus_lock_detect cldemote movdiri movdir64b enqcmd fsrm md_clear serialize tsxldtrk pconfig arch_lbr ibt amx_bf16 avx512_fp16 amx_tile amx_int8 flush_l1d arch_capabilities

Virtualization: VT-x
L1d cache: 768 KiB (16 instances)
L1i cache: 512 KiB (16 instances)
L2 cache: 32 MiB (16 instances)
L3 cache: 45 MiB (2 instances)
NUMA node(s): 4
NUMA node0 CPU(s): 0-3,16-19
NUMA node1 CPU(s): 4-7,20-23
NUMA node2 CPU(s): 8-11,24-27
NUMA node3 CPU(s): 12-15,28-31
Vulnerability Itlb multihit: Not affected
Vulnerability L1tf: Not affected
Vulnerability Mds: Not affected
Vulnerability Meltdown: Not affected
Vulnerability Mmio stale data: Not affected
Vulnerability Retbleed: 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 IBRS, IBPB conditional, RSB filling, PBRSE-eIBRS SW sequence
Vulnerability Srbds: Not affected
Vulnerability Tsx async abort: Not affected

From lscpu --cache:

(Continued on next page)



SPEC CPU®2017 Integer Rate Result

Copyright 2017-2025 Standard Performance Evaluation Corporation

xFusion

SPECrate®2017_int_base = 176

FusionServer 1288H V7 (Intel Xeon Silver 4509Y)

SPECrate®2017_int_peak = 182

CPU2017 License: 6488

Test Sponsor: xFusion

Tested by: xFusion

Test Date: Jun-2025

Hardware Availability: Dec-2023

Software Availability: Mar-2024

Platform Notes (Continued)

NAME	ONE-SIZE	ALL-SIZE	WAYS	TYPE	LEVEL	SETS	PHY-LINE	COHERENCY-SIZE
L1d	48K	768K	12	Data	1	64	1	64
L1i	32K	512K	8	Instruction	1	64	1	64
L2	2M	32M	16	Unified	2	2048	1	64
L3	22.5M	45M	15	Unified	3	24576	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: 0-3,16-19
node 0 size: 128040 MB
node 0 free: 127502 MB
node 1 cpus: 4-7,20-23
node 1 size: 129022 MB
node 1 free: 128547 MB
node 2 cpus: 8-11,24-27
node 2 size: 129022 MB
node 2 free: 128541 MB
node 3 cpus: 12-15,28-31
node 3 size: 129017 MB
node 3 free: 128584 MB
node distances:
node    0    1    2    3
 0:   10   12   21   21
 1:   12   10   21   21
 2:   21   21   10   12
 3:   21   21   12   10
```

9. /proc/meminfo

MemTotal: 527464592 kB

10. who -r

run-level 3 Jun 25 00:17

11. Systemd service manager version: systemd 252 (252-13.el9_2)

Default Target	Status
multi-user	degraded

12. Failed units, from systemctl list-units --state=failed

UNIT	LOAD	ACTIVE	SUB	DESCRIPTION
* sep5.service	loaded	failed	failed	systemd script to load sep5 driver at boot time

13. Services, from systemctl list-unit-files

STATE	UNIT FILES
enabled	NetworkManager NetworkManager-dispatcher NetworkManager-wait-online auditd chronyd crond dbus-broker firewalld getty@ insights-client-boot irqbalance kdump low-memory-monitor lvm2-monitor mdmonitor microcode nis-domainname nvme-fc-boot-connections rhsmcertd rsyslog rtkit-daemon selinux-autorelabel-mark sep5 smartd sshd sssd sysstat systemd-boot-update systemd-network-generator tuned udisks2 upower
enabled-runtime	systemd-remount-fs
disabled	blk-availability canberra-system-bootup canberra-system-shutdown canberra-system-shutdown-reboot chrony-wait console-getty cpupower debug-shell dnf-system-upgrade kvm_stat man-db-restart-cache-update nftables nvme-fc-autoconnect pesign rdisc rhcd rhsm rhsm-facts rpmdm-rebuild selinux-check-proper-disable serial-getty@

(Continued on next page)



SPEC CPU®2017 Integer Rate Result

Copyright 2017-2025 Standard Performance Evaluation Corporation

xFusion

SPECrate®2017_int_base = 176

FusionServer 1288H V7 (Intel Xeon Silver 4509Y)

SPECrate®2017_int_peak = 182

CPU2017 License: 6488

Test Sponsor: xFusion

Tested by: xFusion

Test Date: Jun-2025

Hardware Availability: Dec-2023

Software Availability: Mar-2024

Platform Notes (Continued)

indirect

sshd-keygen@ systemd-boot-check-no-failures systemd-pstore systemd-sysext
sssd-autofs sssd-kcm sssd-nss sssd-pac sssd-pam sssd-ssh sssd-sudo systemd-sysupdate
systemd-sysupdate-reboot

14. Linux kernel boot-time arguments, from /proc/cmdline
BOOT_IMAGE=(hd0,gpt2)/vmlinuz-5.14.0-284.11.1.el9_2.x86_64
root=/dev/mapper/rhel-root
ro
crashkernel=1G-4G:192M,4G-64G:256M,64G-:512M
resume=/dev/mapper/rhel-swap
rd.lvm.lv=rhel/root
rd.lvm.lv=rhel/swap

15. cpupower frequency-info
analyzing CPU 0:
Unable to determine current policy
boost state support:
Supported: yes
Active: yes

16. tuned-adm active
Current active profile: throughput-performance

17. sysctl
kernel.numa_balancing 1
kernel.randomize_va_space 2
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 40
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 10
vm.watermark_boost_factor 15000
vm.watermark_scale_factor 10
vm.zone_reclaim_mode 0

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

19. /sys/kernel/mm/transparent_hugepage/khugepaged
alloc_sleep_millisecs 60000
defrag 1
max_ptes_none 511

(Continued on next page)



SPEC CPU®2017 Integer Rate Result

Copyright 2017-2025 Standard Performance Evaluation Corporation

xFusion

SPECrate®2017_int_base = 176

FusionServer 1288H V7 (Intel Xeon Silver 4509Y)

SPECrate®2017_int_peak = 182

CPU2017 License: 6488

Test Sponsor: xFusion

Tested by: xFusion

Test Date: Jun-2025

Hardware Availability: Dec-2023

Software Availability: Mar-2024

Platform Notes (Continued)

max_ptes_shared 256
max_ptes_swap 64
pages_to_scan 4096
scan_sleep_millisecs 10000

20. OS release

From /etc/*-release /etc/*-version
os-release Red Hat Enterprise Linux 9.2 (Plow)
redhat-release Red Hat Enterprise Linux release 9.2 (Plow)
system-release Red Hat Enterprise Linux release 9.2 (Plow)

21. Disk information

SPEC is set to: /home/spec2017
Filesystem Type Size Used Avail Use% Mounted on
/dev/mapper/rhel-home xfs 819G 53G 767G 7% /home

22. /sys/devices/virtual/dmi/id

Vendor: XFUSION
Product: 1288H V7
Product Family: Eagle Stream

23. dmidecode

Additional information from dmidecode 3.3 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:
14x Samsung M321R4GA3BB6-CQKDG 32 GB 2 rank 4800, configured at 4400
2x Samsung M321R4GA3BB6-CQKMG 32 GB 2 rank 4800, configured at 4400

24. BIOS

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

BIOS Vendor: XFUSION
BIOS Version: 01.01.06.16
BIOS Date: 05/08/2025
BIOS Revision: 6.16

Compiler Version Notes

C | 502.gcc_r(peak)

Intel(R) oneAPI DPC++/C++ Compiler for applications running on IA-32, Version 2024.1.0 Build 20240308
Copyright (C) 1985-2024 Intel Corporation. All rights reserved.

C | 500.perlbench_r(base, peak) 502.gcc_r(base) 505.mcf_r(base, peak) 525.x264_r(base, peak)
| 557.xz_r(base, peak)

Intel(R) oneAPI DPC++/C++ Compiler for applications running on Intel(R) 64, Version 2024.1.0 Build 20240308
Copyright (C) 1985-2024 Intel Corporation. All rights reserved.

(Continued on next page)



SPEC CPU®2017 Integer Rate Result

Copyright 2017-2025 Standard Performance Evaluation Corporation

xFusion

SPECrate®2017_int_base = 176

FusionServer 1288H V7 (Intel Xeon Silver 4509Y)

SPECrate®2017_int_peak = 182

CPU2017 License: 6488

Test Sponsor: xFusion

Tested by: xFusion

Test Date: Jun-2025

Hardware Availability: Dec-2023

Software Availability: Mar-2024

Compiler Version Notes (Continued)

=====
C | 502.gcc_r(peak)

Intel(R) oneAPI DPC++/C++ Compiler for applications running on IA-32, Version 2024.1.0 Build 20240308
Copyright (C) 1985-2024 Intel Corporation. All rights reserved.

=====
C | 500.perlbench_r(base, peak) 502.gcc_r(base) 505.mcf_r(base, peak) 525.x264_r(base, peak)
557.xz_r(base, peak)

Intel(R) oneAPI DPC++/C++ Compiler for applications running on Intel(R) 64, Version 2024.1.0 Build 20240308
Copyright (C) 1985-2024 Intel Corporation. All rights reserved.

=====
C++ | 520.omnetpp_r(base, peak) 523.xalancbmk_r(base, peak) 531.deepsjeng_r(base, peak)
541.leela_r(base, peak)

Intel(R) oneAPI DPC++/C++ Compiler for applications running on Intel(R) 64, Version 2024.1.0 Build 20240308
Copyright (C) 1985-2024 Intel Corporation. All rights reserved.

=====
Fortran | 548.exchange2_r(base, peak)

Intel(R) Fortran Compiler for applications running on Intel(R) 64, Version 2024.1.0 Build 20240308
Copyright (C) 1985-2024 Intel Corporation. All rights reserved.

Base Compiler Invocation

C benchmarks:

icx

C++ benchmarks:

icpx

Fortran benchmarks:

ifx

Base Portability Flags

500.perlbench_r: -DSPEC_LP64 -DSPEC_LINUX_X64

502.gcc_r: -DSPEC_LP64

505.mcf_r: -DSPEC_LP64

520.omnetpp_r: -DSPEC_LP64

523.xalancbmk_r: -DSPEC_LP64 -DSPEC_LINUX

(Continued on next page)



SPEC CPU®2017 Integer Rate Result

Copyright 2017-2025 Standard Performance Evaluation Corporation

xFusion

SPECrate®2017_int_base = 176

FusionServer 1288H V7 (Intel Xeon Silver 4509Y)

SPECrate®2017_int_peak = 182

CPU2017 License: 6488

Test Sponsor: xFusion

Tested by: xFusion

Test Date: Jun-2025

Hardware Availability: Dec-2023

Software Availability: Mar-2024

Base Portability Flags (Continued)

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:

-w -std=c11 -m64 -Wl,-z,muldefs -xsapphirerapids -O3 -ffast-math
-flto -mfpmath=sse -funroll-loops -qopt-mem-layout-trans=4
-L/opt/intel/oneapi/compiler/2024.1/lib -lqkmalloc

C++ benchmarks:

-w -std=c++14 -m64 -Wl,-z,muldefs -xsapphirerapids -O3 -ffast-math
-flto -mfpmath=sse -funroll-loops -qopt-mem-layout-trans=4
-L/opt/intel/oneapi/compiler/2024.1/lib -lqkmalloc

Fortran benchmarks:

-w -m64 -Wl,-z,muldefs -xsapphirerapids -O3 -ffast-math -flto
-mfpmath=sse -funroll-loops -qopt-mem-layout-trans=4
-nostandard-realloc-lhs -align array32byte -auto
-L/opt/intel/oneapi/compiler/2024.1/lib -lqkmalloc

Peak Compiler Invocation

C benchmarks:

icx

C++ benchmarks:

icpx

Fortran benchmarks:

ifx

Peak Portability Flags

500.perlbench_r: -DSPEC_LP64 -DSPEC_LINUX_X64
502.gcc_r: -D_FILE_OFFSET_BITS=64

(Continued on next page)



SPEC CPU®2017 Integer Rate Result

Copyright 2017-2025 Standard Performance Evaluation Corporation

xFusion

SPECrate®2017_int_base = 176

FusionServer 1288H V7 (Intel Xeon Silver 4509Y)

SPECrate®2017_int_peak = 182

CPU2017 License: 6488

Test Sponsor: xFusion

Tested by: xFusion

Test Date: Jun-2025

Hardware Availability: Dec-2023

Software Availability: Mar-2024

Peak Portability Flags (Continued)

505.mcf_r: -DSPEC_LP64
520.omnetpp_r: -DSPEC_LP64
523.xalancbmk_r: -DSPEC_LP64 -DSPEC_LINUX
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

Peak Optimization Flags

C benchmarks:

500.perlbench_r: -w -std=c11 -m64 -Wl,-z,muldefs
-fprofile-generate(pass 1)
-fprofile-use=default.profddata(pass 2) -xCORE-AVX2(pass 1)
-flto -Ofast -xCORE-AVX512 -ffast-math -mfpmath=sse
-funroll-loops -qopt-mem-layout-trans=4
-fno-strict-overflow
-L/opt/intel/oneapi/compiler/2024.1/lib -lqkmalloc

502.gcc_r: -m32 -L/opt/intel/oneapi/compiler/2024.1/lib32 -std=gnu89
-Wl,-z,muldefs -fprofile-generate(pass 1)
-fprofile-use=default.profddata(pass 2) -xCORE-AVX2(pass 1)
-flto -Ofast -xCORE-AVX512 -ffast-math -mfpmath=sse
-funroll-loops -qopt-mem-layout-trans=4
-L/usr/local/jemalloc32-5.0.1/lib -ljemalloc

505.mcf_r: basepeak = yes

525.x264_r: -w -std=c11 -m64 -Wl,-z,muldefs -xsapphirerapids -Ofast
-ffast-math -flto -mfpmath=sse -funroll-loops
-qopt-mem-layout-trans=4 -fno-alias
-L/opt/intel/oneapi/compiler/2024.1/lib -lqkmalloc

557.xz_r: basepeak = yes

C++ benchmarks:

520.omnetpp_r: basepeak = yes

523.xalancbmk_r: basepeak = yes

(Continued on next page)



SPEC CPU®2017 Integer Rate Result

Copyright 2017-2025 Standard Performance Evaluation Corporation

xFusion

SPECrate®2017_int_base = 176

FusionServer 1288H V7 (Intel Xeon Silver 4509Y)

SPECrate®2017_int_peak = 182

CPU2017 License: 6488

Test Sponsor: xFusion

Tested by: xFusion

Test Date: Jun-2025

Hardware Availability: Dec-2023

Software Availability: Mar-2024

Peak Optimization Flags (Continued)

531.deepsjeng_r: basepeak = yes

541.leela_r: basepeak = yes

Fortran benchmarks:

548.exchange2_r: basepeak = yes

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

<http://www.spec.org/cpu2017/flags/Intel-ic2024-official-linux64.html>

<http://www.spec.org/cpu2017/flags/xFusion-Platform-Settings-EMR-V1.1.html>

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

<http://www.spec.org/cpu2017/flags/Intel-ic2024-official-linux64.xml>

<http://www.spec.org/cpu2017/flags/xFusion-Platform-Settings-EMR-V1.1.xml>

SPEC CPU and SPECrate 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 2025-06-25 00:24:12-0400.

Report generated on 2025-07-16 11:04:25 by CPU2017 PDF formatter v6716.

Originally published on 2025-07-15.