



# SPEC CPU®2017 Integer Speed Result

Copyright 2017-2024 Standard Performance Evaluation Corporation

## xFusion

SPECspeed®2017\_int\_base = 15.0

FusionServer 2288H V7 (Intel Xeon Platinum 8562Y+)

SPECspeed®2017\_int\_peak = 15.3

CPU2017 License: 6488

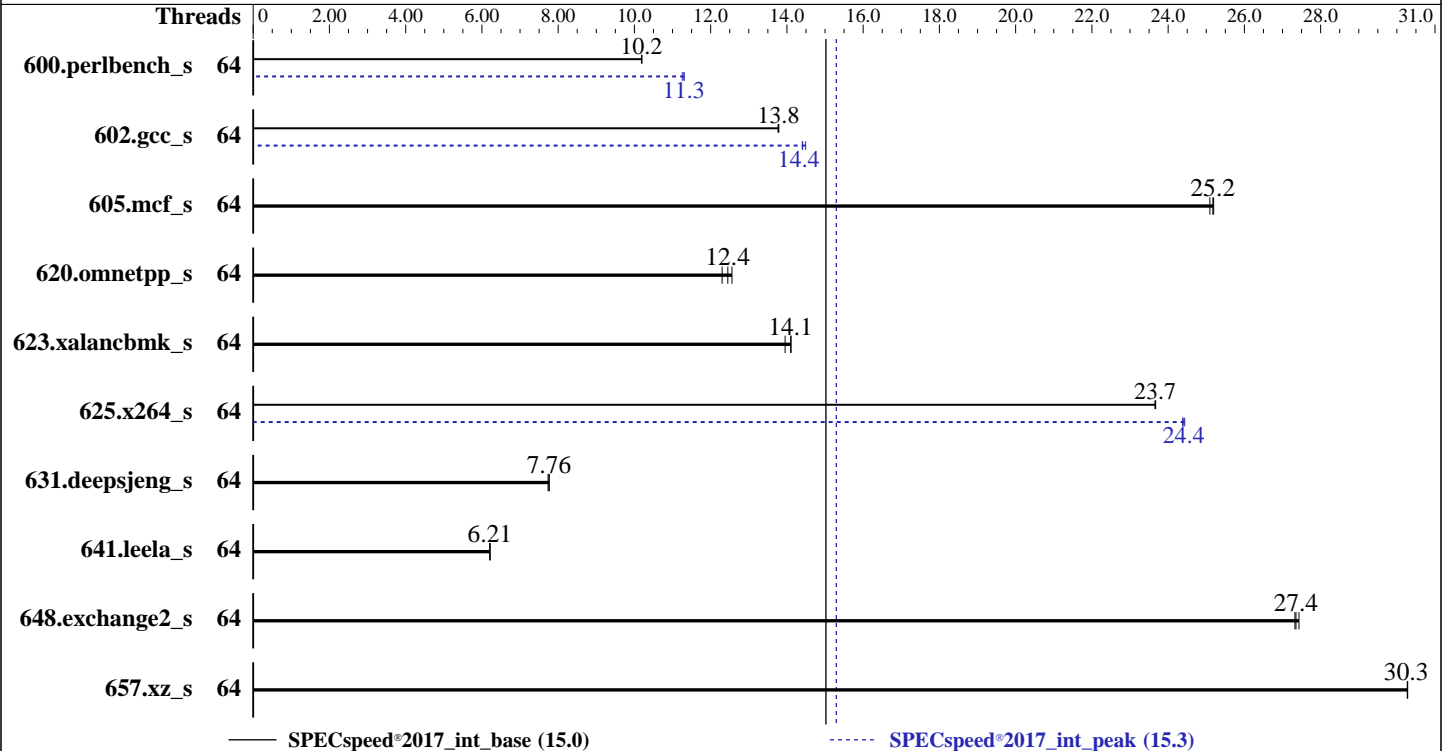
Test Sponsor: xFusion

Tested by: xFusion

Test Date: May-2024

Hardware Availability: Dec-2023

Software Availability: Dec-2023



### Hardware

CPU Name: Intel Xeon Platinum 8562Y+  
 Max MHz: 4100  
 Nominal: 2800  
 Enabled: 64 cores, 2 chips  
 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: 60 MB I+D on chip per chip  
 Other: None  
 Memory: 512 GB (16 x 32 GB 2Rx8 PC5-5600B-R)  
 Storage: 1 x 1.92 TB 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 2024.0.2 of Intel oneAPI DPC++/C++  
 Compiler for Linux;  
 Fortran: Version 2024.0.2 of Intel Fortran  
 Compiler for Linux;  
 Parallel: Yes  
 Firmware: Version 01.01.03.05 Released Apr-2024  
 File System: xfs  
 System State: Run level 3 (multi-user)  
 Base Pointers: 64-bit  
 Peak Pointers: 64-bit  
 Other: jemalloc memory allocator V5.0.1  
 Power Management: OS set to prefer performance at the cost of  
 additional power usage



# SPEC CPU®2017 Integer Speed Result

Copyright 2017-2024 Standard Performance Evaluation Corporation

## xFusion

SPECspeed®2017\_int\_base = 15.0

FusionServer 2288H V7 (Intel Xeon Platinum 8562Y+)

SPECspeed®2017\_int\_peak = 15.3

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

Test Date: May-2024  
Hardware Availability: Dec-2023  
Software Availability: Dec-2023

## Results Table

| Benchmark       | Base    |             |             |         |       |            |             | Peak    |             |             |            |             |            |             |
|-----------------|---------|-------------|-------------|---------|-------|------------|-------------|---------|-------------|-------------|------------|-------------|------------|-------------|
|                 | Threads | Seconds     | Ratio       | Seconds | Ratio | Seconds    | Ratio       | Threads | Seconds     | Ratio       | Seconds    | Ratio       | Seconds    | Ratio       |
| 600.perlbench_s | 64      | <b>174</b>  | <b>10.2</b> | 174     | 10.2  | 174        | 10.2        | 64      | 158         | 11.3        | <b>157</b> | <b>11.3</b> | 157        | 11.3        |
| 602.gcc_s       | 64      | <b>289</b>  | <b>13.8</b> | 289     | 13.8  | 289        | 13.8        | 64      | <b>276</b>  | <b>14.4</b> | 276        | 14.4        | 275        | 14.5        |
| 605.mcf_s       | 64      | 187         | 25.2        | 188     | 25.1  | <b>188</b> | <b>25.2</b> | 64      | 187         | 25.2        | 188        | 25.1        | <b>188</b> | <b>25.2</b> |
| 620.omnetpp_s   | 64      | 130         | 12.6        | 133     | 12.3  | <b>131</b> | <b>12.4</b> | 64      | 130         | 12.6        | 133        | 12.3        | <b>131</b> | <b>12.4</b> |
| 623.xalancbmk_s | 64      | <b>101</b>  | <b>14.1</b> | 102     | 14.0  | 100        | 14.1        | 64      | <b>101</b>  | <b>14.1</b> | 102        | 14.0        | 100        | 14.1        |
| 625.x264_s      | 64      | <b>74.5</b> | <b>23.7</b> | 74.6    | 23.7  | 74.5       | 23.7        | 64      | <b>72.3</b> | <b>24.4</b> | 72.2       | 24.4        | 72.4       | 24.4        |
| 631.deepsjeng_s | 64      | <b>185</b>  | <b>7.76</b> | 185     | 7.76  | 185        | 7.74        | 64      | <b>185</b>  | <b>7.76</b> | 185        | 7.76        | 185        | 7.74        |
| 641.leela_s     | 64      | 275         | 6.21        | 275     | 6.21  | <b>275</b> | <b>6.21</b> | 64      | 275         | 6.21        | 275        | 6.21        | <b>275</b> | <b>6.21</b> |
| 648.exchange2_s | 64      | <b>107</b>  | <b>27.4</b> | 108     | 27.3  | 107        | 27.4        | 64      | <b>107</b>  | <b>27.4</b> | 108        | 27.3        | 107        | 27.4        |
| 657.xz_s        | 64      | 204         | 30.3        | 204     | 30.3  | <b>204</b> | <b>30.3</b> | 64      | 204         | 30.3        | 204        | 30.3        | <b>204</b> | <b>30.3</b> |

SPECspeed®2017\_int\_base = **15.0**

SPECspeed®2017\_int\_peak = **15.3**

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

## Operating System Notes

Stack size set to unlimited using "ulimit -s unlimited"  
Kernel Boot Parameter set with : nohz\_full=1-63

## Environment Variables Notes

Environment variables set by runcpu before the start of the run:  
KMP\_AFFINITY = "granularity=fine,scatter"  
LD\_LIBRARY\_PATH = "/home/Uniautos/speccpu2017/lib/intel64:/home/Uniautos/speccpu2017/je5.0.1-64"  
MALLOC\_CONF = "retain:true"  
OMP\_STACKSIZE = "192M"

## General Notes

Binaries compiled on a system with 2x Intel Xeon Platinum 8280M CPU + 384GB RAM  
memory using Redhat Enterprise Linux 8.0  
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  
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  
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



# SPEC CPU®2017 Integer Speed Result

Copyright 2017-2024 Standard Performance Evaluation Corporation

## xFusion

SPECspeed®2017\_int\_base = 15.0

FusionServer 2288H V7 (Intel Xeon Platinum 8562Y+)

SPECspeed®2017\_int\_peak = 15.3

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

**Test Date:** May-2024  
**Hardware Availability:** Dec-2023  
**Software Availability:** Dec-2023

## Platform Notes

BIOS configuration:  
Performance Profile Set to Load Balance  
SNC Set to Enable SNC2 (2-clusters)  
Enable LP [Global] Set to Single LP

Sysinfo program /home/Uniautos/speccpu2017/bin/sysinfo  
Rev: r6732 of 2022-11-07 fe91c89b7ed5c36ae2c92cc097bec197  
running on localhost.localdomain Tue May 28 14:21:52 2024

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.e19\_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.e19_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
14:21:52 up 3:40, 1 user, load average: 0.01, 0.09, 0.77
USER TTY LOGIN@ IDLE JCPU PCPU WHAT
root pts/0 10:42 8.00s 0.75s 0.00s -bash
```

```
3. Username
From environment variable $USER: root
```

```
4. ulimit -a
real-time non-blocking time (microseconds, -R) unlimited
core file size (blocks, -c) 0
data seg size (kbytes, -d) unlimited
```

(Continued on next page)



# SPEC CPU®2017 Integer Speed Result

Copyright 2017-2024 Standard Performance Evaluation Corporation

## xFusion

SPECspeed®2017\_int\_base = 15.0

FusionServer 2288H V7 (Intel Xeon Platinum 8562Y+)

SPECspeed®2017\_int\_peak = 15.3

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

**Test Date:** May-2024  
**Hardware Availability:** Dec-2023  
**Software Availability:** Dec-2023

### Platform Notes (Continued)

```

scheduling priority      (-e) 0
file size                (blocks, -f) unlimited
pending signals         (-i) 2060209
max locked memory       (kbytes, -l) 8192
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) 2060209
virtual memory          (kbytes, -v) unlimited
file locks              (-x) unlimited

```

```

-----
5. sysinfo process ancestry
/usr/lib/systemd/systemd --switched-root --system --deserialize 31
sshd: /usr/sbin/sshd -D [listener] 0 of 10-100 startups
sshd: root [priv]
sshd: root@pts/0
-bash
-bash
runccpu --define default-platform-flags -c ic2024.0.2-lin-sapphirerapids-speed-20231213.cfg --define cores=64
--tune base,peak -o all --define intspeedaffinity --define drop_caches intspeed
runccpu --define default-platform-flags --configfile ic2024.0.2-lin-sapphirerapids-speed-20231213.cfg
--define cores=64 --tune base,peak --output_format all --define intspeedaffinity --define drop_caches
--nopower --runmode speed --tune base:peak --size refspeed intspeed --nopreenv --note-preenv --logfile
$SPEC/tmp/CPU2017.042/templogs/preenv.intspeed.042.0.log --lognum 042.0 --from_runccpu 2
specperl $SPEC/bin/sysinfo
$SPEC = /home/Uniautos/speccpu2017

```

```

-----
6. /proc/cpuinfo
model name      : INTEL(R) XEON(R) PLATINUM 8562Y+
vendor_id      : GenuineIntel
cpu family     : 6
model          : 207
stepping       : 2
microcode      : 0x21000200
bugs           : spectre_v1 spectre_v2 spec_store_bypass swapgs eibrs_pbrsb
cpu cores      : 32
siblings       : 32
2 physical ids (chips)
64 processors (hardware threads)
physical id 0: core ids 0-31
physical id 1: core ids 0-31
physical id 0: apicids
0,2,4,6,8,10,12,14,16,18,20,22,24,26,28,30,32,34,36,38,40,42,44,46,48,50,52,54,56,58,60,62
physical id 1: apicids
128,130,132,134,136,138,140,142,144,146,148,150,152,154,156,158,160,162,164,166,168,170,172,174,176,178,1
80,182,184,186,188,190
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 2.37.4:
Architecture:          x86_64

```

(Continued on next page)



# SPEC CPU®2017 Integer Speed Result

Copyright 2017-2024 Standard Performance Evaluation Corporation

## xFusion

SPECspeed®2017\_int\_base = 15.0

FusionServer 2288H V7 (Intel Xeon Platinum 8562Y+)

SPECspeed®2017\_int\_peak = 15.3

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

**Test Date:** May-2024  
**Hardware Availability:** Dec-2023  
**Software Availability:** Dec-2023

### Platform Notes (Continued)

```

CPU op-mode(s):          32-bit, 64-bit
Address sizes:          46 bits physical, 57 bits virtual
Byte Order:             Little Endian
CPU(s):                 64
On-line CPU(s) list:   0-63
Vendor ID:              GenuineIntel
BIOS Vendor ID:        Intel(R) Corporation
Model name:             INTEL(R) XEON(R) PLATINUM 8562Y+
BIOS Model name:       INTEL(R) XEON(R) PLATINUM 8562Y+
CPU family:             6
Model:                  207
Thread(s) per core:    1
Core(s) per socket:    32
Socket(s):              2
Stepping:               2
Frequency boost:        enabled
CPU max MHz:            2801.0000
CPU min MHz:            800.0000
BogoMIPS:               5600.00
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 aperfmperf tsc_known_freq pni pclmulqdq dtes64 monitor
                        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 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 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_lld arch_capabilities

Virtualization:         VT-x
L1d cache:              3 MiB (64 instances)
L1i cache:              2 MiB (64 instances)
L2 cache:               128 MiB (64 instances)
L3 cache:               120 MiB (2 instances)
NUMA node(s):          4
NUMA node0 CPU(s):     0-15
NUMA node1 CPU(s):     16-31
NUMA node2 CPU(s):     32-47
NUMA node3 CPU(s):     48-63
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 Speed Result

Copyright 2017-2024 Standard Performance Evaluation Corporation

## xFusion

SPECspeed®2017\_int\_base = 15.0

FusionServer 2288H V7 (Intel Xeon Platinum 8562Y+)

SPECspeed®2017\_int\_peak = 15.3

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

**Test Date:** May-2024  
**Hardware Availability:** Dec-2023  
**Software Availability:** Dec-2023

### Platform Notes (Continued)

| 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   | 2M       | 128M     | 16   | Unified     | 2     | 2048  | 1        | 64             |
| L3   | 60M      | 120M     | 15   | Unified     | 3     | 65536 | 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
node 0 size: 128038 MB
node 0 free: 120832 MB
node 1 cpus: 16-31
node 1 size: 129020 MB
node 1 free: 128681 MB
node 2 cpus: 32-47
node 2 size: 129020 MB
node 2 free: 128647 MB
node 3 cpus: 48-63
node 3 size: 129015 MB
node 3 free: 122031 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: 527457296 kB

10. who -r

run-level 3 May 28 10:41

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 crond
                dbus-broker getty@ insights-client-boot irqbalance kdump lvm2-monitor mdmonitor microcode
                nis-domainname rhsmcertd rsyslog selinux-autorelabel-mark sep5 sshd sssd
                systemd-boot-update systemd-network-generator tuned udisks2
enabled-runtime systemd-remount-fs
disabled       blk-availability console-getty cpupower debug-shell dnf-system-upgrade firewalld kvm_stat
                man-db-restart-cache-update nftables rdisc rhcd rhsm rhsm-facts rpmdb-rebuild
                selinux-check-proper-disable serial-getty@ sshd-keygen@ systemd-boot-check-no-failures
                systemd-pstore systemd-sysex
indirect       sssd-autofs sssd-kcm sssd-nss sssd-pac sssd-pam sssd-ssh sssd-sudo systemd-sysupdate

```

(Continued on next page)



# SPEC CPU®2017 Integer Speed Result

Copyright 2017-2024 Standard Performance Evaluation Corporation

## xFusion

SPECspeed®2017\_int\_base = 15.0

FusionServer 2288H V7 (Intel Xeon Platinum 8562Y+)

SPECspeed®2017\_int\_peak = 15.3

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

**Test Date:** May-2024  
**Hardware Availability:** Dec-2023  
**Software Availability:** Dec-2023

### Platform Notes (Continued)

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
nohz_full=1-63

```

```

-----
15. cpupower frequency-info
analyzing CPU 0:
  current policy: frequency should be within 800 MHz and 2.80 GHz.
                   The governor "performance" may decide which speed to use
                   within this range.

  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

```

(Continued on next page)



# SPEC CPU®2017 Integer Speed Result

Copyright 2017-2024 Standard Performance Evaluation Corporation

## xFusion

SPECspeed®2017\_int\_base = 15.0

FusionServer 2288H V7 (Intel Xeon Platinum 8562Y+)

SPECspeed®2017\_int\_peak = 15.3

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

**Test Date:** May-2024  
**Hardware Availability:** Dec-2023  
**Software Availability:** Dec-2023

### Platform Notes (Continued)

|                      |       |
|----------------------|-------|
| max_ptes_none        | 511   |
| 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/Uniautos/speccpu2017
Filesystem Type Size Used Avail Use% Mounted on
/dev/mapper/rhel-home xfs 1.7T 177G 1.5T 11% /home
```

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

```
Vendor: XFUSION
Product: 2288H V7
Product Family: Eagle Stream
Serial: 2106182101X3N8000001
```

-----  
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:
8x Hynix HMC88AGBRA190N 32 GB 2 rank 5600
8x Hynix HMC88AGBRA191N 32 GB 2 rank 5600
```

-----  
24. BIOS

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

```
BIOS Vendor: XFUSION
BIOS Version: 01.01.03.05
BIOS Date: 04/12/2024
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)
```

```
-----  
Intel(R) oneAPI DPC++/C++ Compiler for applications running on Intel(R) 64, Version 2024.0.2 Build 20231213  
Copyright (C) 1985-2023 Intel Corporation. All rights reserved.  
-----
```

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

(Continued on next page)





# SPEC CPU®2017 Integer Speed Result

Copyright 2017-2024 Standard Performance Evaluation Corporation

## xFusion

SPECspeed®2017\_int\_base = 15.0

FusionServer 2288H V7 (Intel Xeon Platinum 8562Y+)

SPECspeed®2017\_int\_peak = 15.3

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

**Test Date:** May-2024  
**Hardware Availability:** Dec-2023  
**Software Availability:** Dec-2023

### Compiler Version Notes (Continued)

Intel(R) oneAPI DPC++/C++ Compiler for applications running on Intel(R) 64, Version 2024.0.2 Build 20231213  
Copyright (C) 1985-2023 Intel Corporation. All rights reserved.

-----  
Fortran | 648.exchange2\_s(base, peak)  
-----

Intel(R) Fortran Compiler for applications running on Intel(R) 64, Version 2024.0.2 Build 20231213  
Copyright (C) 1985-2023 Intel Corporation. All rights reserved.  
-----

### Base Compiler Invocation

C benchmarks:  
icx

C++ benchmarks:  
icpx

Fortran benchmarks:  
ifx

### Base Portability Flags

600.perlbench\_s: -DSPEC\_LP64 -DSPEC\_LINUX\_X64  
602.gcc\_s: -DSPEC\_LP64  
605.mcf\_s: -DSPEC\_LP64  
620.omnetpp\_s: -DSPEC\_LP64  
623.xalancbmk\_s: -DSPEC\_LP64 -DSPEC\_LINUX  
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:  
-w -std=c11 -m64 -Wl,-z,muldefs -xsapphirerapids -O3 -ffast-math  
-flto -mfpmath=sse -funroll-loops -qopt-mem-layout-trans=4 -fiopenmp  
-DSPEC\_OPENMP -L/usr/local/jemalloc64-5.0.1/lib -ljemalloc

C++ benchmarks:  
-w -std=c++14 -m64 -Wl,-z,muldefs -xsapphirerapids -O3 -ffast-math

(Continued on next page)



# SPEC CPU®2017 Integer Speed Result

Copyright 2017-2024 Standard Performance Evaluation Corporation

## xFusion

SPECspeed®2017\_int\_base = 15.0

FusionServer 2288H V7 (Intel Xeon Platinum 8562Y+)

SPECspeed®2017\_int\_peak = 15.3

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

**Test Date:** May-2024  
**Hardware Availability:** Dec-2023  
**Software Availability:** Dec-2023

## Base Optimization Flags (Continued)

C++ benchmarks (continued):

```
-flto -mfpmath=sse -funroll-loops -qopt-mem-layout-trans=4  
-L/usr/local/jemalloc64-5.0.1/lib -ljemalloc
```

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  
-L/usr/local/jemalloc64-5.0.1/lib -ljemalloc
```

## Peak Compiler Invocation

C benchmarks:

```
icx
```

C++ benchmarks:

```
icpx
```

Fortran benchmarks:

```
ifx
```

## Peak Portability Flags

Same as Base Portability Flags

## Peak Optimization Flags

C benchmarks:

```
600.perlbench_s: -w -m64 -std=c11 -Wl,-z,muldefs  
-fprofile-generate(pass 1)  
-fprofile-use=default.profddata(pass 2) -xCORE-AVX2(pass 1)  
-flto -Ofast(pass 1) -xCORE-AVX512 -O3 -ffast-math  
-mfpmath=sse -funroll-loops -qopt-mem-layout-trans=4  
-fiopenmp -DSPEC_OPENMP -fno-strict-overflow  
-L/usr/local/jemalloc64-5.0.1/lib -ljemalloc
```

```
602.gcc_s: -w -m64 -std=c11 -Wl,-z,muldefs  
-fprofile-generate(pass 1)  
-fprofile-use=default.profddata(pass 2) -xCORE-AVX2(pass 1)
```

(Continued on next page)



# SPEC CPU®2017 Integer Speed Result

Copyright 2017-2024 Standard Performance Evaluation Corporation

## xFusion

SPECspeed®2017\_int\_base = 15.0

FusionServer 2288H V7 (Intel Xeon Platinum 8562Y+)

SPECspeed®2017\_int\_peak = 15.3

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

**Test Date:** May-2024  
**Hardware Availability:** Dec-2023  
**Software Availability:** Dec-2023

## Peak Optimization Flags (Continued)

602.gcc\_s (continued):

```
-flto -Ofast(pass 1) -xCORE-AVX512 -O3 -ffast-math
-mfpmath=sse -funroll-loops -qopt-mem-layout-trans=4
-fiopenmp -DSPEC_OPENMP -L/usr/local/jemalloc64-5.0.1/lib
-ljemalloc
```

605.mcf\_s: basepeak = yes

```
625.x264_s: -w -std=c11 -m64 -Wl,-z,muldefs -xsapphirerapids -O3
-ffast-math -flto -mfpmath=sse -funroll-loops
-qopt-mem-layout-trans=4 -fiopenmp -DSPEC_OPENMP
-fno-alias -L/usr/local/jemalloc64-5.0.1/lib -ljemalloc
```

657.xz\_s: basepeak = yes

C++ benchmarks:

620.omnetpp\_s: basepeak = yes

623.xalancbmk\_s: basepeak = yes

631.deepsjeng\_s: basepeak = yes

641.leela\_s: basepeak = yes

Fortran benchmarks:

648.exchange2\_s: 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-V1.0.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-V1.0.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](mailto:info@spec.org).

Tested with SPEC CPU®2017 v1.1.9 on 2024-05-28 02:21:52-0400.  
Report generated on 2024-06-24 10:36:53 by CPU2017 PDF formatter v6716.  
Originally published on 2024-06-18.