



# SPEC CPU®2017 Floating Point Speed Result

Copyright 2017-2025 Standard Performance Evaluation Corporation

## Lenovo Global Technology

ThinkSystem SR250 V3  
(3.60 GHz, Intel Xeon 6349P)

SPECspeed®2017\_fp\_base = 78.0

SPECspeed®2017\_fp\_peak = 78.0

CPU2017 License: 9017

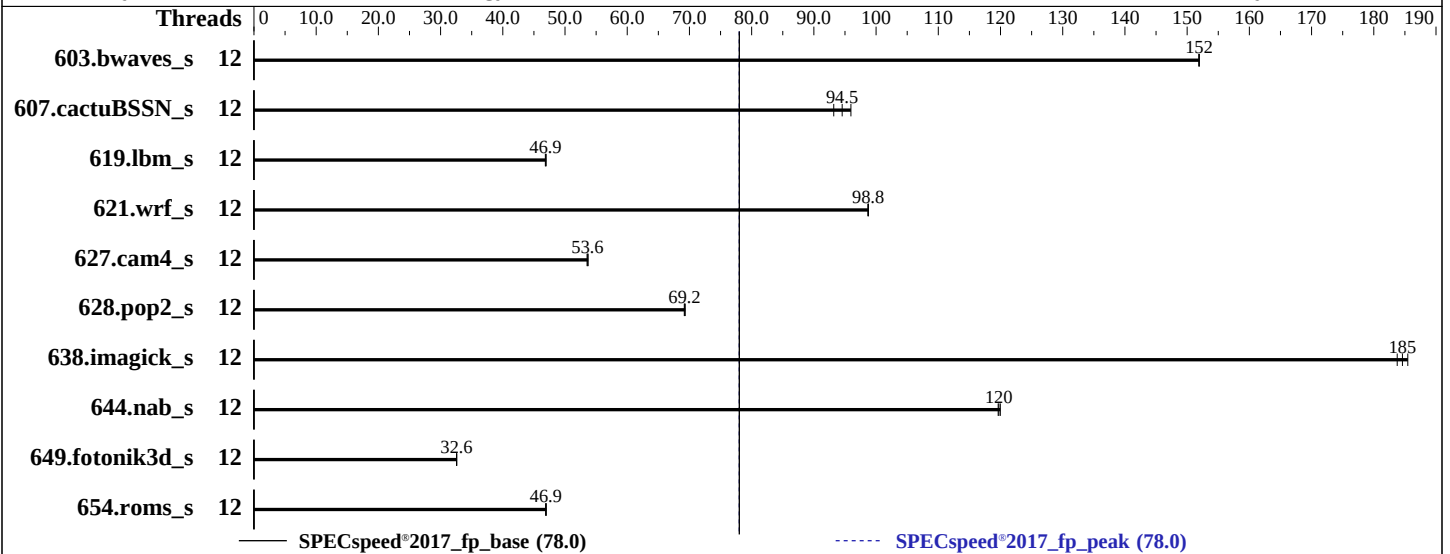
Test Sponsor: Lenovo Global Technology

Tested by: Lenovo Global Technology

Test Date: May-2025

Hardware Availability: Apr-2025

Software Availability: Nov-2024



### Hardware

CPU Name: Intel Xeon 6349P  
Max MHz: 5700  
Nominal: 3600  
Enabled: 6 cores, 1 chip, 2 threads/core  
Orderable: 1 chip  
Cache L1: 32 KB I + 48 KB D on chip per core  
L2: 2 MB I+D on chip per core  
L3: 18 MB I+D on chip per chip  
Other: None  
Memory: 64 GB (2 x 32 GB 2Rx8 PC5-5600B-E, running at 4400)  
Storage: 1 x 480 GB SATA SSD  
Other: CPU Cooling: Air

### Software

OS: Red Hat Enterprise Linux 9.5 (Plow)  
Kernel 5.14.0-503.11.1.el9\_5.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: Yes  
Firmware: Lenovo BIOS Version CTE119B 7.10 released Feb-2025  
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: BIOS set to prefer performance at the cost of additional power usage



# SPEC CPU®2017 Floating Point Speed Result

Copyright 2017-2025 Standard Performance Evaluation Corporation

Lenovo Global Technology

ThinkSystem SR250 V3  
(3.60 GHz, Intel Xeon 6349P)

SPECspeed®2017\_fp\_base = 78.0

SPECspeed®2017\_fp\_peak = 78.0

CPU2017 License: 9017

Test Sponsor: Lenovo Global Technology

Tested by: Lenovo Global Technology

Test Date: May-2025

Hardware Availability: Apr-2025

Software Availability: Nov-2024

## Results Table

| Benchmark       | Base    |             |             |            |             |            |            | Peak    |             |             |            |             |            |            |
|-----------------|---------|-------------|-------------|------------|-------------|------------|------------|---------|-------------|-------------|------------|-------------|------------|------------|
|                 | Threads | Seconds     | Ratio       | Seconds    | Ratio       | Seconds    | Ratio      | Threads | Seconds     | Ratio       | Seconds    | Ratio       | Seconds    | Ratio      |
| 603.bwaves_s    | 12      | 388         | 152         | 388        | 152         | <b>388</b> | <b>152</b> | 12      | 388         | 152         | 388        | 152         | <b>388</b> | <b>152</b> |
| 607.cactuBSSN_s | 12      | <b>176</b>  | <b>94.5</b> | 174        | 96.0        | 179        | 93.2       | 12      | <b>176</b>  | <b>94.5</b> | 174        | 96.0        | 179        | 93.2       |
| 619.lbm_s       | 12      | 112         | 47.0        | <b>112</b> | <b>46.9</b> | 112        | 46.8       | 12      | 112         | 47.0        | <b>112</b> | <b>46.9</b> | 112        | 46.8       |
| 621.wrf_s       | 12      | <b>134</b>  | <b>98.8</b> | 134        | 98.8        | 134        | 98.7       | 12      | <b>134</b>  | <b>98.8</b> | 134        | 98.8        | 134        | 98.7       |
| 627.cam4_s      | 12      | 166         | 53.5        | <b>165</b> | <b>53.6</b> | 165        | 53.7       | 12      | 166         | 53.5        | <b>165</b> | <b>53.6</b> | 165        | 53.7       |
| 628.pop2_s      | 12      | <b>171</b>  | <b>69.2</b> | 172        | 69.2        | 171        | 69.3       | 12      | <b>171</b>  | <b>69.2</b> | 172        | 69.2        | 171        | 69.3       |
| 638.imagick_s   | 12      | <b>78.1</b> | <b>185</b>  | 77.8       | 185         | 78.5       | 184        | 12      | <b>78.1</b> | <b>185</b>  | 77.8       | 185         | 78.5       | 184        |
| 644.nab_s       | 12      | <b>146</b>  | <b>120</b>  | 146        | 120         | 146        | 120        | 12      | <b>146</b>  | <b>120</b>  | 146        | 120         | 146        | 120        |
| 649.fotonik3d_s | 12      | <b>280</b>  | <b>32.6</b> | 280        | 32.6        | 280        | 32.6       | 12      | <b>280</b>  | <b>32.6</b> | 280        | 32.6        | 280        | 32.6       |
| 654.roms_s      | 12      | <b>335</b>  | <b>46.9</b> | 336        | 46.9        | 335        | 47.0       | 12      | <b>335</b>  | <b>46.9</b> | 336        | 46.9        | 335        | 47.0       |

SPECspeed®2017\_fp\_base = 78.0

SPECspeed®2017\_fp\_peak = 78.0

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"

## Environment Variables Notes

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

KMP\_AFFINITY = "granularity=fine,compact,1,0"

LD\_LIBRARY\_PATH = "/home/cpu2017-1.1.9-ic2024.1/lib/intel64:/home/cpu2017-1.1.9-ic2024.1/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 Floating Point Speed Result

Copyright 2017-2025 Standard Performance Evaluation Corporation

## Lenovo Global Technology

ThinkSystem SR250 V3  
(3.60 GHz, Intel Xeon 6349P)

SPECspeed®2017\_fp\_base = 78.0

SPECspeed®2017\_fp\_peak = 78.0

**CPU2017 License:** 9017

**Test Sponsor:** Lenovo Global Technology

**Tested by:** Lenovo Global Technology

**Test Date:** May-2025

**Hardware Availability:** Apr-2025

**Software Availability:** Nov-2024

## Platform Notes

BIOS configuration:

Choose Operating Mode set to Maximum Performance

Turbo Limit for 95W CPU set to Disabled

Sysinfo program /home/cpu2017-1.1.9-ic2024.1/bin/sysinfo  
Rev: r6732 of 2022-11-07 fe91c89b7ed5c36ae2c92cc097bec197  
running on localhost.localdomain Fri May 23 00:26:52 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 (252-46.el9\_5.2)
12. Services, from systemctl list-unit-files
13. Linux kernel boot-time arguments, from /proc/cmdline
14. cpupower frequency-info
15. sysctl
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.localdomain 5.14.0-503.11.1.el9\_5.x86\_64 #1 SMP PREEMPT\_DYNAMIC Mon Sep 30 11:54:45 EDT 2024 x86\_64 x86\_64 x86\_64 GNU/Linux

2. w  
00:26:52 up 3 min, 0 users, load average: 0.00, 0.00, 0.00  
USER TTY LOGIN@ IDLE JCPU PCPU WHAT

3. Username  
From environment variable \$USER: root

4. ulimit -a  
real-time non-blocking time (microseconds, -R) unlimited  
core file size (blocks, -c) unlimited  
data seg size (kbytes, -d) unlimited  
scheduling priority (-e) 0  
file size (blocks, -f) unlimited  
pending signals (-i) 256698  
max locked memory (kbytes, -l) 8192

(Continued on next page)



# SPEC CPU®2017 Floating Point Speed Result

Copyright 2017-2025 Standard Performance Evaluation Corporation

Lenovo Global Technology

ThinkSystem SR250 V3  
(3.60 GHz, Intel Xeon 6349P)

SPECspeed®2017\_fp\_base = 78.0

SPECspeed®2017\_fp\_peak = 78.0

CPU2017 License: 9017

Test Sponsor: Lenovo Global Technology

Tested by: Lenovo Global Technology

Test Date: May-2025

Hardware Availability: Apr-2025

Software Availability: Nov-2024

## Platform Notes (Continued)

|                      |                 |           |
|----------------------|-----------------|-----------|
| 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)            | 256698    |
| 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@notty
/bin/bash ./02.remote_local_SPECCpu_1.01.sh
sh Run746-compliant-ic2024.1-lin-sierraforest-speedfp-20240308.sh
runcpu --nobuild --action validate --define default-platform-flags -c
  ic2024.1-lin-sierraforest-speed-20240308.cfg --define cores=12 --tune base,peak -o all --define smt-on
  --define drop_caches fpspeed
runcpu --nobuild --action validate --define default-platform-flags --configfile
  ic2024.1-lin-sierraforest-speed-20240308.cfg --define cores=12 --tune base,peak --output_format all
  --define smt-on --define drop_caches --nopower --runmode speed --tune base:peak --size refspeed fpspeed
  --nopreenv --note-preenv --logfile $SPEC/tmp/CPU2017.862/temlogs/preenv.fpspeed.862.0.log --lognum 862.0
  --from_runcpu 2
specperl $SPEC/bin/sysinfo
$SPEC = /home/cpu2017-1.1.9-ic2024.1
-----
```

```
-----
6. /proc/cpuinfo
model name      : Intel(R) Xeon(R) 6349P
vendor_id       : GenuineIntel
cpu family      : 6
model           : 183
stepping        : 1
microcode       : 0x12c
bugs            : spectre_v1 spectre_v2 spec_store_bypass swapgs eibrs_pbrsb bhi
cpu cores       : 6
siblings        : 12
1 physical ids (chips)
12 processors (hardware threads)
physical id 0:  core ids 0-5
physical id 0:  apicids 0-11
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                            |
| CPU op-mode(s):      | 32-bit, 64-bit                    |
| Address sizes:       | 42 bits physical, 48 bits virtual |
| Byte Order:          | Little Endian                     |
| CPU(s):              | 12                                |
| On-line CPU(s) list: | 0-11                              |
| Vendor ID:           | GenuineIntel                      |
| BIOS Vendor ID:      | Intel(R) Corporation              |

(Continued on next page)



# SPEC CPU®2017 Floating Point Speed Result

Copyright 2017-2025 Standard Performance Evaluation Corporation

## Lenovo Global Technology

ThinkSystem SR250 V3  
(3.60 GHz, Intel Xeon 6349P)

SPECspeed®2017\_fp\_base = 78.0

SPECspeed®2017\_fp\_peak = 78.0

CPU2017 License: 9017

Test Sponsor: Lenovo Global Technology

Tested by: Lenovo Global Technology

Test Date: May-2025

Hardware Availability: Apr-2025

Software Availability: Nov-2024

### Platform Notes (Continued)

Model name: Intel(R) Xeon(R) 6349P  
BIOS Model name: Intel(R) Xeon(R) 6349P  
CPU family: 6  
Model: 183  
Thread(s) per core: 2  
Core(s) per socket: 6  
Socket(s): 1  
Stepping: 1  
BogoMIPS: 7219.20  
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 sse4\_1 sse4\_2 x2apic movbe popcnt tsc\_deadline\_timer aes xsave avx f16c rdrand lahf\_lm abm 3dnowprefetch cpuid\_fault epb ssbd ibrs ibpb stibp ibrs\_enhanced tpr\_shadow flexpriority ept vpid ept\_ad fsgsbase tsc\_adjust bmi1 avx2 smep bmi2 erms invpcid rdseed adx smap clflushopt clwb intel\_pt sha\_ni xsaveopt xsavec xgetbv1 xsaves split\_lock\_detect avx\_vnni dtherm ida arat pln pts hfi vnmi umip pku ospke waitpkg gfni vaes vpclmulqdq tme rdpid movdiri movdir64b fsrm md\_clear serialize pconfig arch\_lbr ibt flush\_l1d arch\_capabilities VT-x

Virtualization: VT-x  
L1d cache: 288 KiB (6 instances)  
L1i cache: 192 KiB (6 instances)  
L2 cache: 12 MiB (6 instances)  
L3 cache: 18 MiB (1 instance)  
NUMA node(s): 1  
NUMA node0 CPU(s): 0-11  
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; RSB filling; PBRSE-eIBRS SW sequence; BHI BHI\_DIS\_S  
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      | 288K     | 12   | Data        | 1     | 64    | 1        | 64             |
| L1i  | 32K      | 192K     | 8    | Instruction | 1     | 64    | 1        | 64             |
| L2   | 2M       | 12M      | 16   | Unified     | 2     | 2048  | 1        | 64             |
| L3   | 18M      | 18M      | 9    | Unified     | 3     | 32768 | 1        | 64             |

8. numactl --hardware

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

available: 1 nodes (0)  
node 0 cpus: 0-11  
node 0 size: 64215 MB  
node 0 free: 63627 MB  
node distances:

(Continued on next page)



# SPEC CPU®2017 Floating Point Speed Result

Copyright 2017-2025 Standard Performance Evaluation Corporation

Lenovo Global Technology

ThinkSystem SR250 V3  
(3.60 GHz, Intel Xeon 6349P)

SPECspeed®2017\_fp\_base = 78.0

SPECspeed®2017\_fp\_peak = 78.0

CPU2017 License: 9017

Test Sponsor: Lenovo Global Technology

Tested by: Lenovo Global Technology

Test Date: May-2025

Hardware Availability: Apr-2025

Software Availability: Nov-2024

## Platform Notes (Continued)

node 0  
0: 10

9. /proc/meminfo  
MemTotal: 65756224 kB

10. who -r  
run-level 3 May 23 00:23

11. Systemd service manager version: systemd 252 (252-46.el9\_5.2)  
Default Target Status  
multi-user running

12. Services, from systemctl list-unit-files

| STATE           | UNIT FILES                                                                                                                                                                                                                                                                                                                                                                                         |
|-----------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| enabled         | NetworkManager NetworkManager-dispatcher NetworkManager-wait-online auditd chronyd crond<br>dbus-broker firewalld getty@ insights-client-boot irqbalance kdump low-memory-monitor<br>mdmonitor microcode nis-domainname rhsmcertd rsyslog rtkit-daemon selinux-autorelabel-mark<br>sshd sssd systemd-boot-update systemd-network-generator udisks2 upower                                          |
| enabled-runtime | systemd-remount-fs                                                                                                                                                                                                                                                                                                                                                                                 |
| disabled        | canberra-system-bootup canberra-system-shutdown canberra-system-shutdown-reboot<br>chrony-wait chronyd-restricted console-getty cpupower debug-shell dnf-system-upgrade<br>kvm_stat man-db-restart-cache-update nftables pesign rdisc rhcd rhsm rhsm-facts<br>rpmdb-rebuild selinux-check-proper-disable serial-getty@ sshd-keygen@<br>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<br>systemd-sysupdate-reboot                                                                                                                                                                                                                                                                                   |

13. Linux kernel boot-time arguments, from /proc/cmdline  
BOOT\_IMAGE=(hd4,gpt2)/boot/vmlinuz-5.14.0-503.11.1.el9\_5.x86\_64  
root=UUID=ac8f2e4e-a15f-4475-ba58-5cea88b71de2  
ro  
resume=UUID=b1768a5a-be88-4ca4-8723-20387600340a

14. cpupower frequency-info  
analyzing CPU 11:  
Unable to determine current policy  
boost state support:  
Supported: yes  
Active: yes

15. sysctl

|                              |       |
|------------------------------|-------|
| kernel.numa_balancing        | 0     |
| 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               | 20    |
| vm.dirty_writeback_centisecs | 500   |
| vm.dirtytime_expire_seconds  | 43200 |
| vm.extfrag_threshold         | 500   |

(Continued on next page)



# SPEC CPU®2017 Floating Point Speed Result

Copyright 2017-2025 Standard Performance Evaluation Corporation

## Lenovo Global Technology

ThinkSystem SR250 V3  
(3.60 GHz, Intel Xeon 6349P)

SPECspeed®2017\_fp\_base = 78.0

SPECspeed®2017\_fp\_peak = 78.0

CPU2017 License: 9017

Test Sponsor: Lenovo Global Technology

Tested by: Lenovo Global Technology

Test Date: May-2025

Hardware Availability: Apr-2025

Software Availability: Nov-2024

### Platform Notes (Continued)

```
vm.min_unmapped_ratio      1
vm.nr_hugepages             0
vm.nr_hugepages_mempolicy   0
vm.nr_overcommit_hugepages  0
vm.swappiness               60
vm.watermark_boost_factor   15000
vm.watermark_scale_factor   10
vm.zone_reclaim_mode        0
```

```
-----
16. /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
-----
```

```
-----
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      Red Hat Enterprise Linux 9.5 (Plow)
redhat-release  Red Hat Enterprise Linux release 9.5 (Plow)
system-release  Red Hat Enterprise Linux release 9.5 (Plow)
-----
```

```
-----
19. Disk information
SPEC is set to: /home/cpu2017-1.1.9-ic2024.1
Filesystem      Type  Size  Used Avail Use% Mounted on
/dev/sdb4       xfs   361G   16G  345G   5% /home
-----
```

```
-----
20. /sys/devices/virtual/dmi/id
Vendor:      Lenovo
Product:     ThinkSystem SR250 V3
Product Family: ThinkSystem
Serial:      1234567890
-----
```

```
-----
21. dmidecode
Additional information from dmidecode 3.6 follows.  WARNING: Use caution when you interpret this section.
The 'dmidecode' program reads system data which is "intended to allow hardware to be accurately
determined", but the intent may not be met, as there are frequent changes to hardware, firmware, and the
"DMTF SMBIOS" standard.
Memory:
  2x SK Hynix HMC88AGBEA081N 32 GB 2 rank 5600, configured at 4400
-----
```

```
-----
22. BIOS
(This section combines info from /sys/devices and dmidecode.)
BIOS Vendor:      Lenovo
-----
```

(Continued on next page)





# SPEC CPU®2017 Floating Point Speed Result

Copyright 2017-2025 Standard Performance Evaluation Corporation

Lenovo Global Technology

ThinkSystem SR250 V3  
(3.60 GHz, Intel Xeon 6349P)

SPECspeed®2017\_fp\_base = 78.0

SPECspeed®2017\_fp\_peak = 78.0

CPU2017 License: 9017

Test Sponsor: Lenovo Global Technology

Tested by: Lenovo Global Technology

Test Date: May-2025

Hardware Availability: Apr-2025

Software Availability: Nov-2024

## Platform Notes (Continued)

BIOS Version: CTE119B-7.10  
BIOS Date: 02/20/2025  
BIOS Revision: 7.10  
Firmware Revision: 6.10

## Compiler Version Notes

=====  
C | 619.lbm\_s(base, peak) 638.imagick\_s(base, peak) 644.nab\_s(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++, C, Fortran | 607.cactuBSSN\_s(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.  
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.  
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.  
=====

=====  
Fortran | 603.bwaves\_s(base, peak) 649.fotonik3d\_s(base, peak) 654.roms\_s(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.  
=====

=====  
Fortran, C | 621.wrf\_s(base, peak) 627.cam4\_s(base, peak) 628.pop2\_s(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.  
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.  
=====

## Base Compiler Invocation

C benchmarks:

icx

Fortran benchmarks:

ifx

Benchmarks using both Fortran and C:

ifx icx

(Continued on next page)





# SPEC CPU®2017 Floating Point Speed Result

Copyright 2017-2025 Standard Performance Evaluation Corporation

Lenovo Global Technology

ThinkSystem SR250 V3  
(3.60 GHz, Intel Xeon 6349P)

SPECspeed®2017\_fp\_base = 78.0

SPECspeed®2017\_fp\_peak = 78.0

CPU2017 License: 9017

Test Sponsor: Lenovo Global Technology

Tested by: Lenovo Global Technology

Test Date: May-2025

Hardware Availability: Apr-2025

Software Availability: Nov-2024

## Base Compiler Invocation (Continued)

Benchmarks using Fortran, C, and C++:

icpx icx ifx

## Base Portability Flags

603.bwaves\_s: -DSPEC\_LP64  
607.cactuBSSN\_s: -DSPEC\_LP64  
619.lbm\_s: -DSPEC\_LP64  
621.wrf\_s: -DSPEC\_LP64 -DSPEC\_CASE\_FLAG -convert big\_endian  
627.cam4\_s: -DSPEC\_LP64 -DSPEC\_CASE\_FLAG  
628.pop2\_s: -DSPEC\_LP64 -DSPEC\_CASE\_FLAG -convert big\_endian  
-assume byterecl  
638.imagick\_s: -DSPEC\_LP64  
644.nab\_s: -DSPEC\_LP64  
649.fotonik3d\_s: -DSPEC\_LP64  
654.roms\_s: -DSPEC\_LP64

## Base Optimization Flags

C benchmarks:

-w -std=c11 -m64 -Wl,-z,muldefs -xsierraforest -Ofast -ffast-math  
-flto -mfpmath=sse -funroll-loops -qopt-mem-layout-trans=4 -fiopenmp  
-DSPEC\_OPENMP -Wno-implicit-int -L/usr/local/jemalloc64-5.0.1/lib  
-ljemalloc

Fortran benchmarks:

-w -m64 -Wl,-z,muldefs -DSPEC\_OPENMP -xsierraforest -Ofast  
-ffast-math -flto -mfpmath=sse -funroll-loops  
-qopt-mem-layout-trans=4 -fiopenmp -nostandard-realloc-lhs  
-align array32byte -auto -L/usr/local/jemalloc64-5.0.1/lib -ljemalloc

Benchmarks using both Fortran and C:

-w -m64 -std=c11 -Wl,-z,muldefs -xsierraforest -Ofast -ffast-math  
-flto -mfpmath=sse -funroll-loops -qopt-mem-layout-trans=4 -fiopenmp  
-DSPEC\_OPENMP -Wno-implicit-int -nostandard-realloc-lhs  
-align array32byte -auto -L/usr/local/jemalloc64-5.0.1/lib -ljemalloc

Benchmarks using Fortran, C, and C++:

-w -std=c++14 -m64 -std=c11 -Wl,-z,muldefs -xsierraforest -Ofast  
-ffast-math -flto -mfpmath=sse -funroll-loops  
-qopt-mem-layout-trans=4 -fiopenmp -DSPEC\_OPENMP -Wno-implicit-int  
-nostandard-realloc-lhs -align array32byte -auto

(Continued on next page)



# SPEC CPU®2017 Floating Point Speed Result

Copyright 2017-2025 Standard Performance Evaluation Corporation

**Lenovo Global Technology**

ThinkSystem SR250 V3  
(3.60 GHz, Intel Xeon 6349P)

SPECspeed®2017\_fp\_base = 78.0

SPECspeed®2017\_fp\_peak = 78.0

**CPU2017 License:** 9017

**Test Sponsor:** Lenovo Global Technology

**Tested by:** Lenovo Global Technology

**Test Date:** May-2025

**Hardware Availability:** Apr-2025

**Software Availability:** Nov-2024

## Base Optimization Flags (Continued)

Benchmarks using Fortran, C, and C++ (continued):

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

## Peak Compiler Invocation

C benchmarks:

icx

Fortran benchmarks:

ifx

Benchmarks using both Fortran and C:

ifx icx

Benchmarks using Fortran, C, and C++:

icpx icx ifx

## Peak Portability Flags

Same as Base Portability Flags

## Peak Optimization Flags

C benchmarks:

619.lbm\_s: basepeak = yes

638.imagick\_s: basepeak = yes

644.nab\_s: basepeak = yes

Fortran benchmarks:

603.bwaves\_s: basepeak = yes

649.fotonik3d\_s: basepeak = yes

654.roms\_s: basepeak = yes

(Continued on next page)



# SPEC CPU®2017 Floating Point Speed Result

Copyright 2017-2025 Standard Performance Evaluation Corporation

**Lenovo Global Technology**

ThinkSystem SR250 V3  
(3.60 GHz, Intel Xeon 6349P)

SPECspeed®2017\_fp\_base = 78.0

SPECspeed®2017\_fp\_peak = 78.0

**CPU2017 License:** 9017

**Test Sponsor:** Lenovo Global Technology

**Tested by:** Lenovo Global Technology

**Test Date:** May-2025

**Hardware Availability:** Apr-2025

**Software Availability:** Nov-2024

## Peak Optimization Flags (Continued)

Benchmarks using both Fortran and C:

621.wrf\_s: basepeak = yes

627.cam4\_s: basepeak = yes

628.pop2\_s: basepeak = yes

Benchmarks using Fortran, C, and C++:

607.cactuBSSN\_s: basepeak = yes

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

<http://www.spec.org/cpu2017/flags/Lenovo-Platform-SPECcpu2017-Flags-V1.2-Cat low-A.html>

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

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

<http://www.spec.org/cpu2017/flags/Lenovo-Platform-SPECcpu2017-Flags-V1.2-Cat low-A.xml>

<http://www.spec.org/cpu2017/flags/Intel-ic2024-official-linux64.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 2025-05-22 12:26:52-0400.

Report generated on 2025-06-17 18:13:19 by CPU2017 PDF formatter v6716.

Originally published on 2025-06-17.