



# SPEC CPU®2026 Floating Point Rate Result

Copyright 2026 Standard Performance Evaluation Corporation

## Lenovo Global Technology

SPECrate®2026\_fp\_base = 832

ThinkSystem SR860 V3  
(1.90 GHz, Intel Xeon Platinum 8490H)

SPECrate®2026\_fp\_peak = Not Run

CPU2026 License: 9017

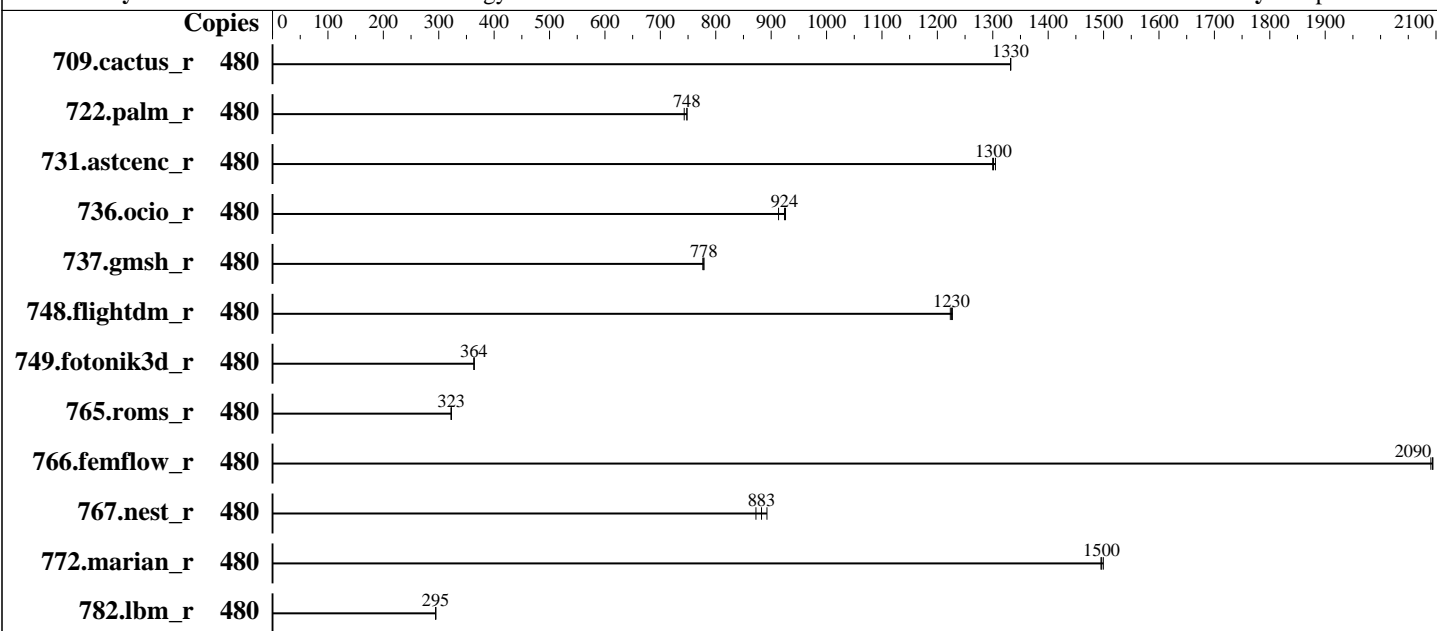
Test Date: May-2026

Test Sponsor: Lenovo Global Technology

Hardware Availability: Jun-2023

Tested by: Lenovo Global Technology

Software Availability: Apr-2026



### Hardware

CPU Name: Intel Xeon Platinum 8490H  
 Max MHz: 3500  
 Nominal: 1900  
 Enabled: 240 cores, 4 chips, 2 threads/core  
 Orderable: 2,4 chips  
 Cache L1: 32 KB I + 48 KB D on chip per core  
 L2: 2 MB I+D on chip per core  
 L3: 112.5 MB I+D on chip per chip  
 Other: None  
 Memory: 1 TB (32 x 32 GB 2Rx8 PC5-4800B-R)  
 Storage: 1 x 480 TB NVME SSD  
 Cooling: Air  
 Other: None

### Software

OS: SUSE Linux Enterprise Server 15 SP7  
 Kernel 6.4.0-150700.51-default  
 Compiler: C/C++: Version 2026.0 of Intel oneAPI DPC++/C++ Compiler for Linux;  
 Fortran: Version 2026.0 of Intel Fortran Compiler for Linux  
 Compiler Category: Vendor  
 Firmware: Lenovo BIOS Version RSE127G 8.50 released May-2026  
 File System: xfs  
 System State: Run level 3 (multi-user)  
 Base Pointers: 64-bit  
 Peak Pointers: Not Applicable  
 Other: tcmalloc memory allocator v2.18.1  
 Power Management: BIOS set to prefer performance at the cost of additional power usage



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### Results Table

Benchmark	Base								Peak							
	Copies	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Copies	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio		
709.cactus_r	480	<b>309</b>	<b>1330</b>	309	1330	309	1330									
722.palm_r	480	<b>847</b>	<b>748</b>	853	743	847	748									
731.ascenc_r	480	<b>310</b>	<b>1300</b>	310	1300	309	1300									
736.ocio_r	480	460	913	<b>455</b>	<b>924</b>	454	926									
737.gmsh_r	480	<b>283</b>	<b>778</b>	284	777	283	779									
748.flightdm_r	480	<b>280</b>	<b>1230</b>	280	1230	281	1220									
749.fotonik3d_r	480	1526	364	<b>1525</b>	<b>364</b>	1525	364									
765.roms_r	480	2345	322	2342	323	<b>2343</b>	<b>323</b>									
766.femflow_r	480	336	2090	337	2090	<b>336</b>	<b>2090</b>									
767.nest_r	480	436	873	427	892	<b>431</b>	<b>883</b>									
772.marian_r	480	505	1500	<b>506</b>	<b>1500</b>	507	1500									
782.lbm_r	480	934	294	934	295	<b>934</b>	<b>295</b>									

SPECrate®2026\_fp\_base = **832**

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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/cpu2026-1.0.1-ic2026.0-rate/lib"

### General Notes

Binaries compiled on a system with 2x Intel Xeon Platinum 8280M CPU + 384GB RAM memory using CentOS Stream 9.  
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.:

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### General Notes (Continued)

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.

tcmalloc, a fast, multithreaded malloc implementation

built with the CentOS Stream 9, and the system compiler gcc 11.5.0

sources available from [github.com/gperftools/gperftools](https://github.com/gperftools/gperftools)

### Platform Notes

BIOS configuration:

Choose Operating Mode set to Maximum Performance

SNC set to SNC4

Misc set to Option4

DCU Streamer Prefetcher set to Disabled

sysinfo program /home/cpu2026-1.0.1-ic2026.0-rate/bin/sysinfo

Rev: 779ab21020787073335a329f3a45e2cd

running on localhost Sat May 30 19:38:02 2026

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

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

1. uname -srvm
2. w
3. Username
4. ulimit -a
5. sysinfo process ancestry
6. /proc/cpuinfo
7. lscpu
8. numactl --hardware
9. /proc/meminfo
10. who -r
11. Systemd service manager version: systemd 254 (254.24+suse.148.g83b9060b6e)
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

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### Platform Notes (Continued)

- 19. Disk information
- 20. /sys/devices/virtual/dmi/id
- 21. dmidecode
- 22. BIOS

```
-----
1. uname -srvm
Linux 6.4.0-150700.51-default #1 SMP PREEMPT_DYNAMIC Wed Apr 30 21:35:43 UTC 2025 (6930611) x86_64
```

```
-----
2. w
19:38:02 up 4 min, 1 user, load average: 0.30, 0.15, 0.06
USER      TTY      FROM          LOGIN@      IDLE       JCPU      PCPU      WHAT
```

```
-----
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) 4126060
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) 4126060
virtual memory          (kbytes, -v) unlimited
file locks               (-x) unlimited
```

```
-----
5. sysinfo process ancestry
/usr/lib/systemd/systemd --switched-root --system --deserialize=43
sshd: /usr/sbin/sshd -D [listener] 0 of 10-100 startups
sshd: root [priv]
sshd: root@notty
/bin/bash ./02.remote_local_SPECcpu_1.02.sh
sh Run503-compliant-ic2026.0-lin-sapphirerapids-ratefp-base-smt-on-20260429_revB.sh
runcpu --nobuild --iterations=3 --reportable --action validate --define default-platform-flags --copies 480
```

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### Platform Notes (Continued)

```
-c ic2026.0-sapphirerapids-cpu2026-1.0.1-rate-20260429_revB.cfg --define smt-on --define cores=240
--define physicalfirst --define invoke_with_interleave --define drop_caches --tune base -o all fprate
runcpu --nobuild --iterations 3 --reportable --action validate --define default-platform-flags --copies 480
--configfile ic2026.0-sapphirerapids-cpu2026-1.0.1-rate-20260429_revB.cfg --define smt-on --define
cores=240 --define physicalfirst --define invoke_with_interleave --define drop_caches --tune base
--output_format all --nopower --runmode rate --tune base --size refrate fprate --nopreenv --note-preenv
--logfile $SPEC/tmp/CPU2026.007/templogs/preenv.fprate.007.0.log --lognum 007.0 --from_runcpu 2
specperl $SPEC/bin/sysinfo
$SPEC = /home/cpu2026-1.0.1-ic2026.0-rate
```

#### 6. /proc/cpuinfo

```
model name      : Intel(R) Xeon(R) Platinum 8490H
vendor_id       : GenuineIntel
cpu family      : 6
model           : 143
stepping        : 8
microcode       : 0x2b000661
bugs            : spectre_v1 spectre_v2 spec_store_bypass swapgs eibrs_pbrsb bhi
cpu cores       : 60
siblings        : 120
4 physical ids (chips)
480 processors (hardware threads)
physical id 0:  core ids 0-59
physical id 1:  core ids 0-59
physical id 2:  core ids 0-59
physical id 3:  core ids 0-59
physical id 0:  apicids 0-119
physical id 1:  apicids 128-247
physical id 2:  apicids 256-375
physical id 3:  apicids 384-503
```

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 2.40.4:

```
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):            480
On-line CPU(s) list: 0-479
Vendor ID:         GenuineIntel
Model name:        Intel(R) Xeon(R) Platinum 8490H
CPU family:        6
```

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### Platform Notes (Continued)

```

Model: 143
Thread(s) per core: 2
Core(s) per socket: 60
Socket(s): 4
Stepping: 8
CPU(s) scaling MHz: 24%
CPU max MHz: 3500.0000
CPU min MHz: 800.0000
BogoMIPS: 3800.00
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 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_13 cat_12 cdp_13 intel_ppin cdp_12 ssbd mba ibrs ibpb stibp
ibrs_enhanced tpr_shadow 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
user_shstk avx_vnni avx512_bf16 wbnoinvd dtherm ida arat pln pts vnmi
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: 11.3 MiB (240 instances)
L1i cache: 7.5 MiB (240 instances)
L2 cache: 480 MiB (240 instances)
L3 cache: 450 MiB (4 instances)
NUMA node(s): 16
NUMA node0 CPU(s): 0-14,240-254
NUMA node1 CPU(s): 15-29,255-269
NUMA node2 CPU(s): 30-44,270-284
NUMA node3 CPU(s): 45-59,285-299
NUMA node4 CPU(s): 60-74,300-314
NUMA node5 CPU(s): 75-89,315-329
NUMA node6 CPU(s): 90-104,330-344
NUMA node7 CPU(s): 105-119,345-359
NUMA node8 CPU(s): 120-134,360-374
NUMA node9 CPU(s): 135-149,375-389
NUMA node10 CPU(s): 150-164,390-404
NUMA node11 CPU(s): 165-179,405-419
NUMA node12 CPU(s): 180-194,420-434

```

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### Platform Notes (Continued)

```

NUMA node13 CPU(s):          195-209,435-449
NUMA node14 CPU(s):          210-224,450-464
NUMA node15 CPU(s):          225-239,465-479
Vulnerability Gather data sampling: Not affected
Vulnerability Itlb multihit:   Not affected
Vulnerability Lltf:           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/swaps barriers and __user pointer sanitization
Vulnerability Spectre v2:      Mitigation; Enhanced / Automatic IBRS; IBPB conditional; RSB filling;
                                PBR SB-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	11.3M	12	Data	1	64	1	64
L1i	32K	7.5M	8	Instruction	1	64	1	64
L2	2M	480M	16	Unified	2	2048	1	64
L3	112.5M	450M	15	Unified	3	122880	1	64

8. numactl --hardware

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

```

available: 16 nodes (0-15)
node 0 cpus: 0-14,240-254
node 0 size: 64101 MB
node 0 free: 63516 MB
node 1 cpus: 15-29,255-269
node 1 size: 64503 MB
node 1 free: 64106 MB
node 2 cpus: 30-44,270-284
node 2 size: 64503 MB
node 2 free: 64164 MB
node 3 cpus: 45-59,285-299
node 3 size: 64503 MB
node 3 free: 64065 MB
node 4 cpus: 60-74,300-314
node 4 size: 64503 MB
node 4 free: 64203 MB
node 5 cpus: 75-89,315-329
node 5 size: 64503 MB

```

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### Platform Notes (Continued)

```

node 5 free: 64200 MB
node 6 cpus: 90-104,330-344
node 6 size: 64503 MB
node 6 free: 64239 MB
node 7 cpus: 105-119,345-359
node 7 size: 64503 MB
node 7 free: 64077 MB
node 8 cpus: 120-134,360-374
node 8 size: 64465 MB
node 8 free: 64152 MB
node 9 cpus: 135-149,375-389
node 9 size: 64503 MB
node 9 free: 64143 MB
node 10 cpus: 150-164,390-404
node 10 size: 64503 MB
node 10 free: 64192 MB
node 11 cpus: 165-179,405-419
node 11 size: 64503 MB
node 11 free: 64143 MB
node 12 cpus: 180-194,420-434
node 12 size: 64503 MB
node 12 free: 64092 MB
node 13 cpus: 195-209,435-449
node 13 size: 64503 MB
node 13 free: 64171 MB
node 14 cpus: 210-224,450-464
node 14 size: 64503 MB
node 14 free: 64210 MB
node 15 cpus: 225-239,465-479
node 15 size: 64425 MB
node 15 free: 64140 MB

```

node distances:

node	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
0:	10	12	12	12	21	21	21	21	21	21	21	21	21	21	21	21
1:	12	10	12	12	21	21	21	21	21	21	21	21	21	21	21	21
2:	12	12	10	12	21	21	21	21	21	21	21	21	21	21	21	21
3:	12	12	12	10	21	21	21	21	21	21	21	21	21	21	21	21
4:	21	21	21	21	10	12	12	12	21	21	21	21	21	21	21	21
5:	21	21	21	21	12	10	12	12	21	21	21	21	21	21	21	21
6:	21	21	21	21	12	12	10	12	21	21	21	21	21	21	21	21
7:	21	21	21	21	12	12	12	10	21	21	21	21	21	21	21	21
8:	21	21	21	21	21	21	21	21	10	12	12	12	21	21	21	21
9:	21	21	21	21	21	21	21	21	12	10	12	12	21	21	21	21
10:	21	21	21	21	21	21	21	21	12	12	10	12	21	21	21	21
11:	21	21	21	21	21	21	21	21	12	12	12	10	21	21	21	21
12:	21	21	21	21	21	21	21	21	21	21	21	21	10	12	12	12
13:	21	21	21	21	21	21	21	21	21	21	21	21	12	10	12	12

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### Platform Notes (Continued)

14:	21	21	21	21	21	21	21	21	21	21	21	21	21	12	12	10	12
15:	21	21	21	21	21	21	21	21	21	21	21	21	21	12	12	12	10

9. /proc/meminfo

MemTotal: 1056300464 kB

10. who -r

run-level 3 May 30 19:34

11. Systemd service manager version: systemd 254 (254.24+suse.148.g83b9060b6e)

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 getty@ irqbalance issue-generator kbdsettings klog lvm2-monitor nscd nvme-fc-boot-connections nvme-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 firewallld fsidd gpm grub2-once haveged ipmi ipmievd issue-add-ssh-keys kexec-load lunmask man-db-create multipathd nfs nfs-blkmap rpcbind rpmconfigcheck rsyncd serial-getty@ smartd_generate_opts snmpd snmptrapd systemd-boot-check-no-failures systemd-confext systemd-network-generator systemd-sysexit systemd-time-wait-sync systemd-timesyncd
indirect	systemd-userdbd wickedd

13. Linux kernel boot-time arguments, from /proc/cmdline

BOOT\_IMAGE=/boot/vmlinuz-6.4.0-150700.51-default  
root=UUID=7a0ea09d-0975-48e7-9598-0d39dc424077  
splash=silent  
mitigations=auto  
quiet  
security=apparmor

14. cpupower frequency-info

analyzing CPU 180:  
current policy: frequency should be within 800 MHz and 3.50 GHz.  
The governor "powersave" may decide which speed to use within this range.

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### Platform Notes (Continued)

boost state support:  
Supported: yes  
Active: yes

-----  
15. 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	20
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	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+madvise	[madvise]	never
enabled	[always]	madvise	never		
hpage_pmd_size	2097152				
shmem_enabled	always	within_size	advise	[never]	deny force

-----  
17. /sys/kernel/mm/transparent\_hugepage/khugepaged

alloc_sleep_millisecs	60000
defrag	1
max_ptes_none	511
max_ptes_shared	256
max_ptes_swap	64
pages_to_scan	4096
scan_sleep_millisecs	10000

-----  
18. OS release

From /etc/\*-release /etc/\*-version  
os-release SUSE Linux Enterprise Server 15 SP7

(Continued on next page)



# SPEC CPU®2026 Floating Point Rate Result

Copyright 2026 Standard Performance Evaluation Corporation

## Lenovo Global Technology

SPECrate®2026\_fp\_base = 832

ThinkSystem SR860 V3  
(1.90 GHz, Intel Xeon Platinum 8490H)

SPECrate®2026\_fp\_peak = Not Run

CPU2026 License: 9017

Test Date: May-2026

Test Sponsor: Lenovo Global Technology

Hardware Availability: Jun-2023

Tested by: Lenovo Global Technology

Software Availability: Apr-2026

## Platform Notes (Continued)

### 19. Disk information

SPEC is set to: /home/cpu2026-1.0.1-ic2026.0-rate

Filesystem	Type	Size	Used	Avail	Use%	Mounted on
/dev/nvme0n1p3	xfs	892G	152G	741G	17%	/

### 20. /sys/devices/virtual/dmi/id

```
Vendor:          Lenovo
Product:         ThinkSystem SR860 V3
Product Family: ThinkSystem
Serial:          None
```

### 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:

```
7x Samsung M321R4GA3BB0-CQKDG 32 GB 2 rank 4800
13x Samsung M321R4GA3BB0-CQKEG 32 GB 2 rank 4800
5x Samsung M321R4GA3BB0-CQKMG 32 GB 2 rank 4800
7x Samsung M321R4GA3BB0-CQKVG 32 GB 2 rank 4800
```

### 22. BIOS

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

```
BIOS Vendor:      Lenovo
BIOS Version:     RSE127G-8.50
BIOS Date:        05/15/2026
BIOS Revision:    8.50
Firmware Revision: 8.10
```

## Compiler Version Notes

C | 782.lbm\_r(base)

```
Intel(R) oneAPI DPC++/C++ Compiler for applications running on Intel(R) 64,
Version 2026.0.0 Build 20260331
Copyright (C) 1985-2026 Intel Corporation. All rights reserved.
```

(Continued on next page)



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### Compiler Version Notes (Continued)

```

=====
C++      | 731.astcenc_r(base) 736.ocio_r(base) 748.flightdm_r(base)
         | 766.femflow_r(base) 767.nest_r(base) 772.marian_r(base)
=====

```

```

Intel(R) oneAPI DPC++/C++ Compiler for applications running on Intel(R) 64,
Version 2026.0.0 Build 20260331
Copyright (C) 1985-2026 Intel Corporation. All rights reserved.
=====

```

```

=====
C++, C   | 709.cactus_r(base) 737.gmsh_r(base)
=====

```

```

Intel(R) oneAPI DPC++/C++ Compiler for applications running on Intel(R) 64,
Version 2026.0.0 Build 20260331
Copyright (C) 1985-2026 Intel Corporation. All rights reserved.
=====

```

```

=====
Fortran  | 722.palm_r(base) 749.fotonik3d_r(base) 765.roms_r(base)
=====

```

```

Intel(R) Fortran Compiler for applications running on Intel(R) 64, Version
2026.0.0 Build 20260331
Copyright (C) 1985-2026 Intel Corporation. All rights reserved.
=====

```

### Base Compiler Invocation

C benchmarks:

icx

C++ benchmarks:

icpx

Fortran benchmarks:

ifx

Benchmarks using both C and C++:

icpx icx

### Base Portability Flags

737.gmsh\_r: -fno-associative-math



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**Tested by:** Lenovo Global Technology

**Test Date:** May-2026

**Hardware Availability:** Jun-2023

**Software Availability:** Apr-2026

## Base Optimization Flags

C benchmarks:

```
-m64 -std=c18 -Wl,-z,muldefs -Wl,-plugin-opt=-inline-threshold=1500
-xsapphirerapids -mprefer-vector-width=512 -O3 -ffp-model=fast -flto
-mfpmath=sse -funroll-loops -qopt-mem-layout-trans=4
-L/usr/local/tcmalloc-2.18.1/lib -ltcmalloc_minimal
```

C++ benchmarks:

```
-m64 -std=c++17 -Wl,-z,muldefs -Wl,-plugin-opt=-inline-threshold=1500
-xsapphirerapids -mprefer-vector-width=512 -O3 -ffp-model=fast -flto
-mfpmath=sse -funroll-loops -qopt-mem-layout-trans=4
-L/usr/local/tcmalloc-2.18.1/lib -ltcmalloc_minimal
```

Fortran benchmarks:

```
-m64 -stand f18 -Wl,-z,muldefs -Wl,-plugin-opt=-inline-threshold=1500
-xsapphirerapids -mprefer-vector-width=512 -O3 -ffp-model=fast -flto
-mfpmath=sse -funroll-loops -qopt-mem-layout-trans=4
-nostandard-realloc-lhs -align array32byte -auto
-L/usr/local/tcmalloc-2.18.1/lib -ltcmalloc_minimal
```

Benchmarks using both C and C++:

```
-m64 -std=c++17 -std=c18 -Wl,-z,muldefs
-Wl,-plugin-opt=-inline-threshold=1500 -xsapphirerapids
-mprefer-vector-width=512 -O3 -ffp-model=fast -flto -mfpmath=sse
-funroll-loops -qopt-mem-layout-trans=4
-L/usr/local/tcmalloc-2.18.1/lib -ltcmalloc_minimal
```

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

<http://www.spec.org/cpu2026/results/flags/Lenovo-Platform-SPECcpu2026-Flags-V1.2-Eaglestream-AD.html>  
<http://www.spec.org/cpu2026/results/flags/Intel-ic2026-official-linux64-v1.1.html>

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

<http://www.spec.org/cpu2026/results/flags/Lenovo-Platform-SPECcpu2026-Flags-V1.2-Eaglestream-AD.xml>  
<http://www.spec.org/cpu2026/results/flags/Intel-ic2026-official-linux64-v1.1.xml>

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