SPEC CPU®2026 Floating Point Rate Result

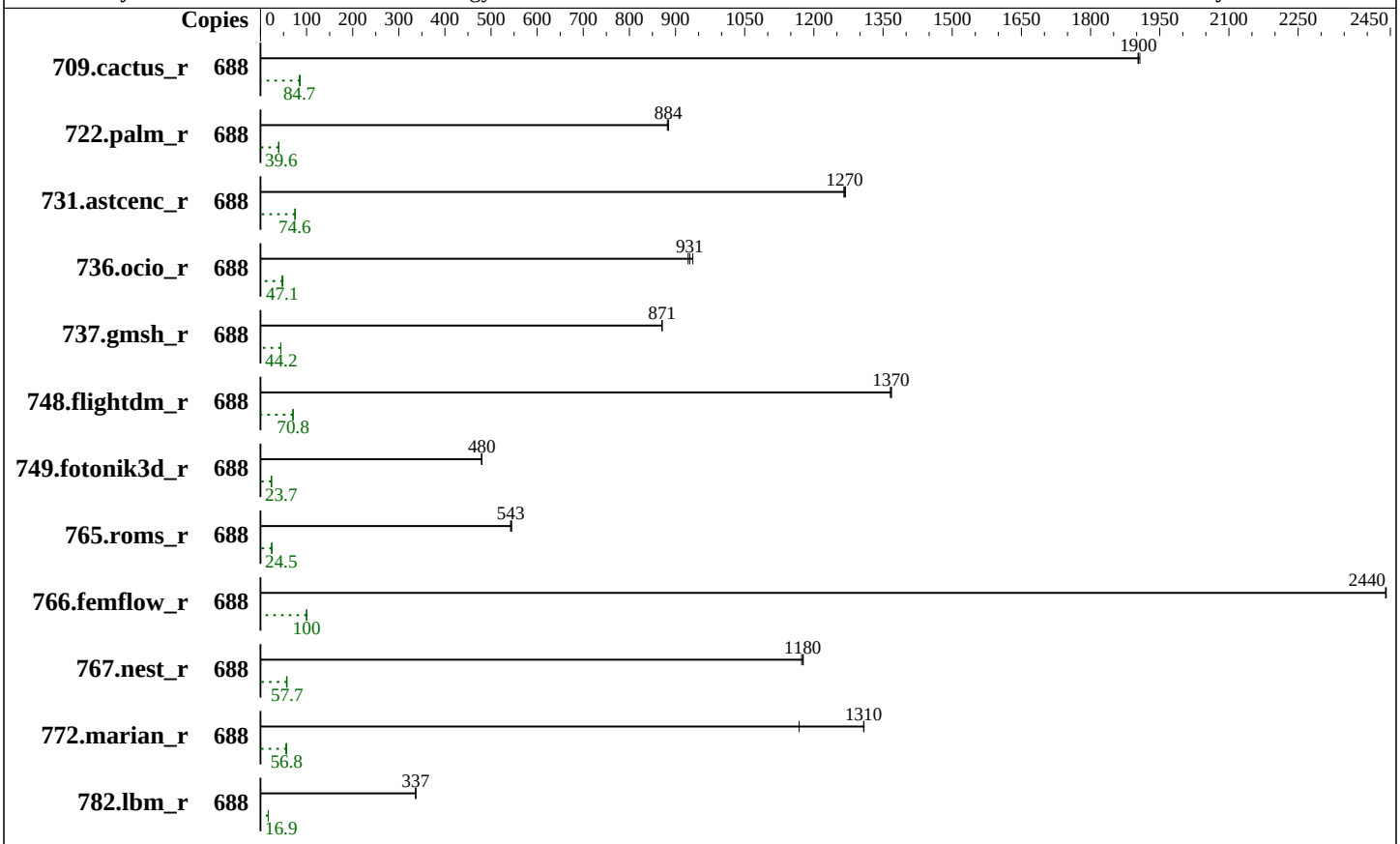
Lenovo Global Technology

ThinkSystem SR850 V4 (2.0 GHZ, Intel Xeon 6788P)

SPECrate®2026_fp_base =	979
SPECrate®2026_fp_energy_base =	47.1
SPECrate®2026_fp_peak =	Not Run
SPECrate®2026_fp_energy_peak =	Not Run

CPU2026 License: 9017
Test Sponsor: Lenovo Global Technology
Tested by: Lenovo Global Technology

Test Date: Feb-2026
Hardware Availability: Nov-2025
Software Availability: Jan-2026



Hardware

CPU Name:	Intel Xeon 6788P
Max MHz:	3800
Nominal:	2000
Enabled:	344 cores, 4 chips, 2 threads/core
Orderable:	2,4 chips
Cache L1:	64 KB I + 48 KB D on chip per core
L2:	2 MB I+D on chip per core
L3:	336 MB I+D on chip per chip
Other:	None
Memory:	2 TB (32 x 64 GB 2Rx4 PC5-6400B-R)
Storage:	1 x 960 GB M.2 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 2025.3 of Intel oneAPI DPC++/C++ Compiler for Linux; Fortran: Version 2025.3 of Intel Fortran Compiler for Linux
Compiler Category:	Vendor
Firmware:	BIOS Version RVE105I 1.20 released Dec-2025
File System:	xfs
System State:	Run level 3 (multi-user)
Base Pointers:	64-bit
Peak Pointers:	Not Applicable
Other:	jemalloc memory allocator v5.3
Power Management:	BIOS set to balance power and performance

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Power

Max. Power (W): 2179.2
Idle Power (W): 440.39
Min. Temperature (C): 21.69
Elevation (m): 43
Line Standard: 220 V / 50 Hz / 1 phase / 3 wires
Provisioning: Line-powered

Power Settings

Management FW: Version 2.00 of IHX427H
Memory Mode: Normal

Power-Relevant Hardware

Power Supply: 2 x 2000 W (redundant)
Details: ThinkSystem 2000W 230V Titanium CRPS Hot-Swap Power Supply 4P57A88689
Backplane: M.2 SATA/NVMe Drive Assembly Kit
Other Storage: None
Storage Model #s: 4XB7A13999
NICs Installed: 1 x ThinkSystem Ethernet 2-port Adaptor @ 10 Gb
NICs Enabled (FW/OS): 2 / 1
NICs Connected/Speed: 1 @ 10 Gb
Other HW Model #s: 6 x Performance fans

Power Analyzer

Power Analyzer: WIN:9888
Hardware Vendor: YOKOGAWA, Inc.
Model: YokogawaWT310E
Serial Number: C3SH31009E
Input Connection: Default
Metrology Institute: CNAS
Calibration By: CEPREI Calibration and Testing Centre
Calibration Label: 1GA25011731-0001
Calibration Date: 15-Sep-2025
PTDaemon® Version: 1.11.1 (462c978e; 2024-09-07)
Setup Description: Connected to PSU1
Current Ranges Used: 10A
Voltage Range Used: 300V

Temperature Meter

Temperature Meter: WIN:9889
Hardware Vendor: Digi International, Inc.
Model: DigiWATCHPORT_H
Serial Number: W63181846
Input Connection: USB
PTDaemon Version: 1.11.1 (462c978e; 2024-09-07)
Setup Description: 50 mm in front of SUT main intake

Base Results Table

Benchmark	Copies	Seconds	Ratio	Energy (kJ)	Energy Ratio	Average Power	Maximum Power	Seconds	Ratio	Energy (kJ)	Energy Ratio	Average Power	Maximum Power	Seconds	Ratio	Energy (kJ)	Energy Ratio	Average Power	Maximum Power
709.cactus_r	688	310	1910	582	86.1	1880	2070	310	1900	590	85.0	1900	2080	**310**	**1900**	**593**	**84.7**	**1910**	**2090**
722.palm_r	688	1029	882	1950	39.5	1890	2020	1027	885	1940	39.7	1890	2010	**1027**	**884**	**1950**	**39.6**	**1900**	**2010**
731.astcenc_r	688	457	1270	640	75.3	1400	1520	**456**	**1270**	**646**	**74.6**	**1420**	**1520**	456	1270	643	75.0	1410	1520
736.ocio_r	688	649	927	1060	47.6	1630	1880	642	937	1040	48.7	1610	1840	**647**	**931**	**1070**	**47.1**	**1650**	**1900**
737.gmsh_r	688	363	870	599	44.1	1650	1830	363	871	600	44.1	1650	1830	**363**	**871**	**599**	**44.2**	**1650**	**1830**
748.flightdm_r	688	360	1370	585	70.8	1620	1730	**360**	**1370**	**584**	**70.8**	**1620**	**1690**	361	1370	590	70.1	1640	1730
749.fotonik3d_r	688	**1657**	**480**	**2860**	**23.7**	**1730**	**1800**	1656	480	2860	23.7	1730	1780	1660	479	2840	23.9	1710	1770
765.roms_r	688	1997	543	3880	24.4	1940	2030	**1996**	**543**	**3870**	**24.5**	**1940**	**2030**	1989	545	3840	24.6	1930	2010
766.femflow_r	688	414	2440	854	100	2060	2160	**413**	**2440**	**852**	**100**	**2060**	**2180**	413	2440	854	100	2070	2170
767.nest_r	688	465	1170	803	56.6	1730	1960	**464**	**1180**	**788**	**57.7**	**1700**	**1890**	464	1180	803	56.6	1730	1970

Table continues on next page. Results appear in the order in which they were run. Bold underlined text indicates a median measurement.

Base Results Table (Continued)

Benchmark	Copies	Seconds	Ratio	Energy (kJ)	Energy Ratio	Average Power	Maximum Power	Seconds	Ratio	Energy (kJ)	Energy Ratio	Average Power	Maximum Power	Seconds	Ratio	Energy (kJ)	Energy Ratio	Average Power	Maximum Power
772.marian_r	688	830	1310	1610	56.6	1940	2050	930	1170	1660	55.1	1780	2050	**831**	**1310**	**1610**	**56.8**	**1930**	**2050**
782.lbm_r	688	**1171**	**337**	**2080**	**16.9**	**1770**	**1840**	1170	337	2080	16.9	1780	1840	1172	336	2070	16.9	1770	1790

SPECrate®2026_fp_base = 979

SPECrate®2026_fp_energy_base = 47.1

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/cpu2026-0.902.0-ic2025p3/lib"
MALLOC_CONF = "retain:true"
```

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.:
numactl --interleave=all runcpu <etc>
jemalloc, a general purpose malloc implementation
built with the CentOS Stream 9, and the system compiler gcc 11.5.0
sources available from jemalloc.net or https://github.com/jemalloc/jemalloc/releases
```

Platform Notes

```
BIOS configuration:
Workload Profile set to Custom
Turbo Mode set to Disabled
```

(Continued on next page)

Platform Notes (Continued)

```
UPI Link Disable set to Minimum Number of Links Enabled
SNC set to Enabled

 Sysinfo program /home/cpu2026-0.902.0-ic2025p3/bin/sysinfo
 Rev: 069f95da7e7f5d81b2ce48a82150e54f
 running on localhost Wed Feb  4 04:03:40 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. tuned-adm active
 16. sysctl
 17. /sys/kernel/mm/transparent_hugepage
 18. /sys/kernel/mm/transparent_hugepage/khugepaged
 19. OS release
 20. Disk information
 21. /sys/devices/virtual/dmi/id
 22. dmidecode
 23. BIOS
 ------------------------------------------------------------

 ------------------------------------------------------------
 1. uname -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
    04:03:40 up 6 min,  1 user,  load average: 2.11, 9.64, 5.67
   USER     TTY      FROM             LOGIN@   IDLE   JCPU   PCPU WHAT
```

(Continued on next page)

Platform Notes (Continued)

```
------------------------------------------------------------
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) 8253538
  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) 8253538
  virtual memory          (kbytes, -v) unlimited
  file locks                      (-x) unlimited

------------------------------------------------------------
5. sysinfo process ancestry
 /usr/lib/systemd/systemd --switched-root --system --deserialize=42
 sshd: /usr/sbin/sshd -D [listener] 0 of 10-100 startups
 sshd: root [priv]
 sshd: root@notty
 /bin/bash ./02.remote_local_SPECcpu_1.01.sh
 sh Run503-compliant-ic2025.3-lin-sapphirerapids-ratefp-base-smt-on-20260121.sh
 runcpu --power --nobuild --reportable --iterations=3 --action validate --define default-platform-flags
   --copies 688 -c ic2025.3-sapphirerapids-cpu2026-0.902-rate-20260121.cfg --define smt-on --define cores=344
   --define physicalfirst --define invoke_with_interleave --define drop_caches --tune base -o all fprate
 runcpu --power --nobuild --reportable --iterations 3 --action validate --define default-platform-flags
   --copies 688 --configfile ic2025.3-sapphirerapids-cpu2026-0.902-rate-20260121.cfg --define smt-on --define
   cores=344 --define physicalfirst --define invoke_with_interleave --define drop_caches --tune base
   --output_format all --runmode rate --tune base --size refrate fprate --nopreenv --note-preenv --logfile
    $SPEC/tmp/CPU2026.015/templogs/preenv.fprate.015.0.log --lognum 015.0 --from_runcpu 2
 specperl $SPEC/bin/sysinfo
$SPEC = /home/cpu2026-0.902.0-ic2025p3

------------------------------------------------------------
6. /proc/cpuinfo
```

(Continued on next page)

Platform Notes (Continued)

```
     model name      : Intel(R) Xeon(R) 6788P
     vendor_id       : GenuineIntel
     cpu family      : 6
     model           : 173
     stepping        : 1
     microcode       : 0x1000405
     bugs            : spectre_v1 spectre_v2 spec_store_bypass swapgs bhi
     cpu cores       : 86
     siblings        : 172
     4 physical ids (chips)
     688 processors (hardware threads)
     physical id 0: core ids 0-42,64-106
     physical id 1: core ids 0-42,64-106
     physical id 2: core ids 0-42,64-106
     physical id 3: core ids 0-42,64-106
     physical id 0: apicids 0-85,128-213
     physical id 1: apicids 256-341,384-469
     physical id 2: apicids 512-597,640-725
     physical id 3: apicids 768-853,896-981
   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:                         52 bits physical, 57 bits virtual
   Byte Order:                            Little Endian
   CPU(s):                                688
   On-line CPU(s) list:                   0-687
   Vendor ID:                             GenuineIntel
   Model name:                            Intel(R) Xeon(R) 6788P
   CPU family:                            6
   Model:                                 173
   Thread(s) per core:                    2
   Core(s) per socket:                    86
   Socket(s):                             4
   Stepping:                              1
   BogoMIPS:                              4000.00
   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
```

(Continued on next page)

Platform Notes (Continued)

```
                    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 intel_ppin cdp_l2
                      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
                    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_l1d arch_capabilities
  Virtualization:               VT-x
  L1d cache:                    16.1 MiB (344 instances)
  L1i cache:                    21.5 MiB (344 instances)
  L2 cache:                     688 MiB (344 instances)
  L3 cache:                     1.3 GiB (4 instances)
  NUMA node(s):                 8
  NUMA node0 CPU(s):            0-42,344-386
  NUMA node1 CPU(s):            43-85,387-429
  NUMA node2 CPU(s):            86-128,430-472
  NUMA node3 CPU(s):            129-171,473-515
  NUMA node4 CPU(s):            172-214,516-558
  NUMA node5 CPU(s):            215-257,559-601
  NUMA node6 CPU(s):            258-300,602-644
  NUMA node7 CPU(s):            301-343,645-687
  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;
                                        PBRSB-eIBRS Not affected; BHI BHI_DIS_S
  Vulnerability Srbds:                  Not affected
  Vulnerability Tsx async abort:        Not affected
```

(Continued on next page)

Platform Notes (Continued)

```
From lscpu --cache:
     NAME ONE-SIZE ALL-SIZE WAYS TYPE        LEVEL   SETS PHY-LINE COHERENCY-SIZE
     L1d       48K    16.1M   12 Data            1     64        1             64
     L1i       64K    21.5M   16 Instruction     1     64        1             64
     L2         2M     688M   16 Unified         2   2048        1             64
     L3       336M     1.3G   16 Unified         3 344064        1             64

------------------------------------------------------------
8. numactl --hardware
NOTE: a numactl 'node' might or might not correspond to a physical chip.
  available: 8 nodes (0-7)
  node 0 cpus: 0-42,344-386
  node 0 size: 257434 MB
  node 0 free: 256431 MB
  node 1 cpus: 43-85,387-429
  node 1 size: 258025 MB
  node 1 free: 257187 MB
  node 2 cpus: 86-128,430-472
  node 2 size: 258025 MB
  node 2 free: 257160 MB
  node 3 cpus: 129-171,473-515
  node 3 size: 258025 MB
  node 3 free: 257117 MB
  node 4 cpus: 172-214,516-558
  node 4 size: 258025 MB
  node 4 free: 257288 MB
  node 5 cpus: 215-257,559-601
  node 5 size: 257986 MB
  node 5 free: 257247 MB
  node 6 cpus: 258-300,602-644
  node 6 size: 258025 MB
  node 6 free: 257131 MB
  node 7 cpus: 301-343,645-687
  node 7 size: 257865 MB
  node 7 free: 257049 MB
  node distances:
  node   0   1   2   3   4   5   6   7
    0:  10  12  21  21  31  31  21  21
    1:  12  10  21  21  31  31  21  21
    2:  21  21  10  12  21  21  31  31
    3:  21  21  12  10  21  21  31  31
    4:  31  31  21  21  10  12  21  21
    5:  31  31  21  21  12  10  21  21
    6:  21  21  31  31  21  21  10  12
    7:  21  21  31  31  21  21  12  10
```

(Continued on next page)

Platform Notes (Continued)

```
------------------------------------------------------------
9. /proc/meminfo
   MemTotal:       2112933844 kB

------------------------------------------------------------
10. who -r
  run-level 3 Feb 4 03:59

------------------------------------------------------------
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 nvmefc-boot-connections nvmf-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 ebtables exchange-bmc-os-info
                   firewalld 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-sysext systemd-time-wait-sync systemd-timesyncd tuned
  generated        ntp_sync
  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=5caa0f87-5156-4d0e-b8a9-eafcf70a6b5a
  splash=silent
  mitigations=auto
  quiet
  security=apparmor

------------------------------------------------------------
14. cpupower frequency-info
  analyzing CPU 97:
    Unable to determine current policy
    boost state support:
```

(Continued on next page)

Platform Notes (Continued)

```
      Supported: no
      Active: no

------------------------------------------------------------
15. tuned-adm active
  It seems that tuned daemon is not running, preset profile is not activated.
  Preset profile: latency-performance

------------------------------------------------------------
16. 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

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

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

(Continued on next page)

Platform Notes (Continued)

```
  scan_sleep_millisecs    10000

------------------------------------------------------------
19. OS release
  From /etc/*-release /etc/*-version
  os-release SUSE Linux Enterprise Server 15 SP7

------------------------------------------------------------
20. Disk information
SPEC is set to: /home/cpu2026-0.902.0-ic2025p3
  Filesystem     Type  Size  Used Avail Use% Mounted on
  /dev/nvme0n1p3 xfs   890G   99G  792G  12% /

------------------------------------------------------------
21. /sys/devices/virtual/dmi/id
    Vendor:         Lenovo
    Product:        ThinkSystem SR850 V4
    Product Family: ThinkSystem
    Serial:         9876543210

------------------------------------------------------------
22. 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:
    5x Samsung M321R8GA0PB2-CCPEC 64 GB 2 rank 6400
    6x Samsung M321R8GA0PB2-CCPKC 64 GB 2 rank 6400
    17x Samsung M321R8GA0PB2-CCPPC 64 GB 2 rank 6400
    4x Samsung M321R8GA0PB2-CCPWC 64 GB 2 rank 6400


------------------------------------------------------------
23. BIOS
(This section combines info from /sys/devices and dmidecode.)
   BIOS Vendor:       Lenovo
   BIOS Version:      RVE105I-1.20
   BIOS Date:         12/16/2025
   BIOS Revision:     1.20
   Firmware Revision: 2.0
```

Compiler Version Notes

```
==============================================================================
C       | 782.lbm_r(base)
------------------------------------------------------------------------------
Intel(R) oneAPI DPC++/C++ Compiler for applications running on Intel(R) 64,
  Version 2025.3.0 Build 20251010
Copyright (C) 1985-2025 Intel Corporation. All rights reserved.
------------------------------------------------------------------------------

==============================================================================
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 2025.3.0 Build 20251010
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------------------------------------------------------------------------------

==============================================================================
C++, C  | 709.cactus_r(base) 737.gmsh_r(base)
------------------------------------------------------------------------------
Intel(R) oneAPI DPC++/C++ Compiler for applications running on Intel(R) 64,
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------------------------------------------------------------------------------

==============================================================================
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
  2025.3.0 Build 20251010
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```

Base Compiler Invocation

C benchmarks:
icx

C++ benchmarks:
icpx

Fortran benchmarks:
ifx

(Continued on next page)

Base Compiler Invocation (Continued)

Benchmarks using both C and C++:
icpx icx

Base Portability Flags

709.cactus_r: -DSPEC_LP64
722.palm_r: -DSPEC_LP64
731.astcenc_r: -DSPEC_LP64
736.ocio_r: -DSPEC_LP64
737.gmsh_r: -DSPEC_LP64 -fno-associative-math
748.flightdm_r: -DSPEC_LP64
749.fotonik3d_r: -DSPEC_LP64
765.roms_r: -DSPEC_LP64
766.femflow_r: -DSPEC_LP64
767.nest_r: -DSPEC_LP64
772.marian_r: -DSPEC_LP64
782.lbm_r: -DSPEC_LP64

Base Optimization Flags

C benchmarks:
-m64 -std=c18 -Wl,-z,muldefs -xsapphirerapids
-mprefer-vector-width=512 -O3 -ffp-model=fast -flto -mfpmath=sse
-funroll-loops -qopt-mem-layout-trans=4 -L/usr/local/jemalloc-5.3.0/lib
-ljemalloc

C++ benchmarks:
-m64 -std=c++17 -Wl,-z,muldefs -xsapphirerapids
-mprefer-vector-width=512 -O3 -ffp-model=fast -flto -mfpmath=sse
-funroll-loops -qopt-mem-layout-trans=4 -L/usr/local/jemalloc-5.3.0/lib
-ljemalloc

Fortran benchmarks:
-m64 -stand f18 -Wl,-z,muldefs -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/jemalloc-5.3.0/lib -ljemalloc

(Continued on next page)

Base Optimization Flags (Continued)

Benchmarks using both C and C++:
-m64 -std=c++17 -std=c18 -Wl,-z,muldefs -xsapphirerapids
-mprefer-vector-width=512 -O3 -ffp-model=fast -flto -mfpmath=sse
-funroll-loops -qopt-mem-layout-trans=4 -L/usr/local/jemalloc-5.3.0/lib
-ljemalloc

The flags files that were used to format this result can be browsed at
http://www.spec.org/cpu2026/results/flags/Lenovo-Platform-SPECcpu-Flags-V1.2-Birchstream-M.html
http://www.spec.org/cpu2026/results/flags/Intel-ic2025-official-linux64-cpu2026-0.902.html

You can also download the XML flags sources by saving the following links:
http://www.spec.org/cpu2026/results/flags/Lenovo-Platform-SPECcpu-Flags-V1.2-Birchstream-M.xml
http://www.spec.org/cpu2026/results/flags/Intel-ic2025-official-linux64-cpu2026-0.902.xml

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

Tested with SPEC CPU®2026 v0.902.0 on 2026-02-03 15:03:38-0500.
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