



SPEC CPU®2017 Floating Point Speed Result

Copyright 2017-2023 Standard Performance Evaluation Corporation

Inspur Electronic Information Industry Co., Ltd.

SPECSpeed®2017_fp_base = 288

NF5266M7 (Intel Xeon Gold 6442Y)

SPECSpeed®2017_fp_peak = 289

CPU2017 License: 3358

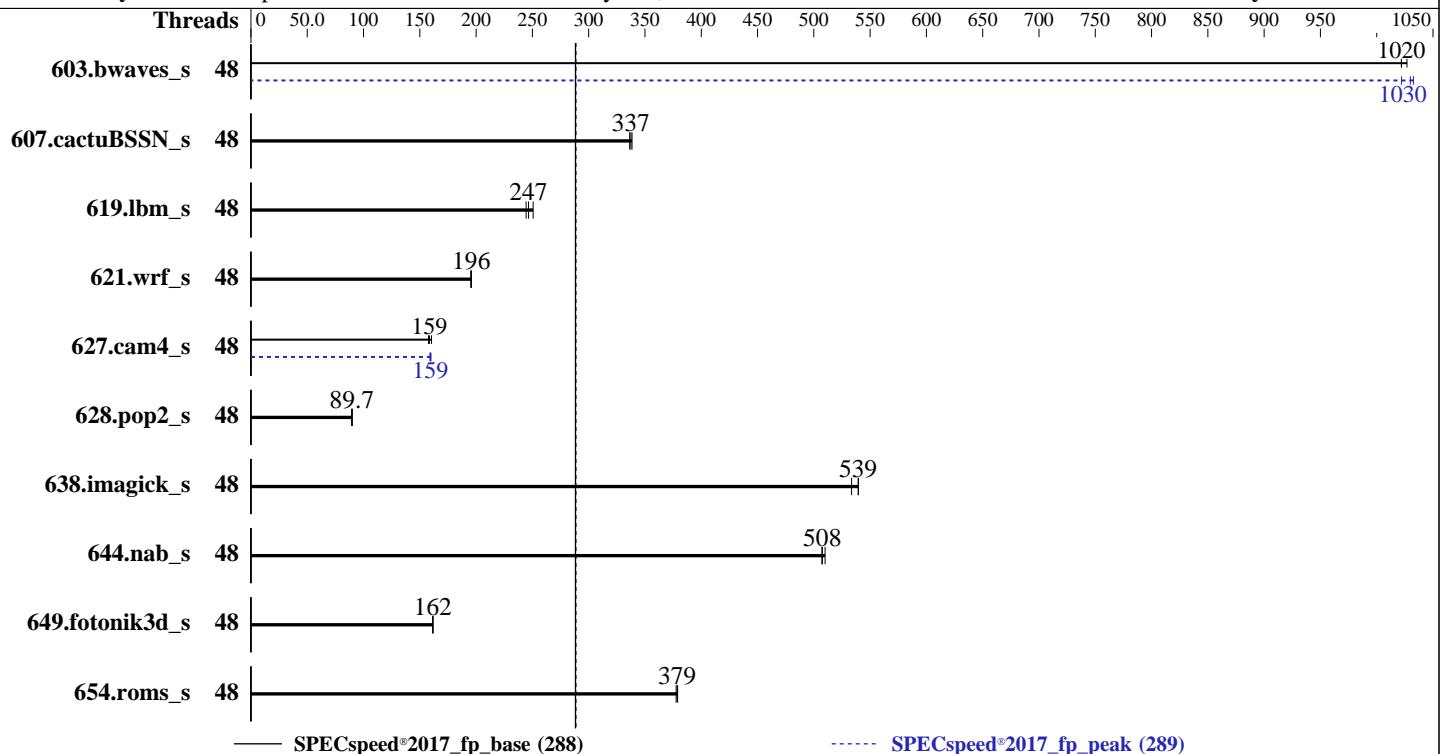
Test Date: Aug-2023

Test Sponsor: Inspur Electronic Information Industry Co., Ltd.

Hardware Availability: Apr-2023

Tested by: Inspur Electronic Information Industry Co., Ltd.

Software Availability: Dec-2022



Hardware		Software	
CPU Name:	Intel Xeon Gold 6442Y	OS:	Red Hat Enterprise Linux 9.0 (Plow)
Max MHz:	4000	Compiler:	5.14.0-70.13.1.el9_0.x86_64
Nominal:	2600	Parallel:	C/C++: Version 2023.0 of Intel oneAPI DPC++/C++ Compiler for Linux;
Enabled:	48 cores, 2 chips	Firmware:	Fortran: Version 2023.0 of Intel Fortran Compiler for Linux;
Orderable:	1,2 chips	File System:	Yes
Cache L1:	32 KB I + 48 KB D on chip per core	System State:	Version 05.01.00 released Apr-2023
L2:	2 MB I+D on chip per core	Base Pointers:	xfs
L3:	60 MB I+D on chip per chip	Peak Pointers:	Run level 3 (multi-user)
Other:	None	Other:	64-bit
Memory:	512 GB (16 x 32 GB 2Rx4 PC5-4800B-R)	Power Management:	64-bit
Storage:	1 x 4 TB NVME SSD		jemalloc memory allocator V5.0.1
Other:	None		BIOS and OS set to prefer performance at the cost of additional power usage.



SPEC CPU®2017 Floating Point Speed Result

Copyright 2017-2023 Standard Performance Evaluation Corporation

Inspur Electronic Information Industry Co., Ltd.

SPECSpeed®2017_fp_base = 288

NF5266M7 (Intel Xeon Gold 6442Y)

SPECSpeed®2017_fp_peak = 289

CPU2017 License: 3358

Test Date: Aug-2023

Test Sponsor: Inspur Electronic Information Industry Co., Ltd.

Hardware Availability: Apr-2023

Tested by: Inspur Electronic Information Industry Co., Ltd.

Software Availability: Dec-2022

Platform Notes

BIOS configuration:
ENERGY_PERF_BIAS_CFG mode set to Performance
Hardware Prefetch set to Disable
VT Support set to Disable
Sub NUMA Cluster (SNC) set to disable
Hyper Threading set to disable

Sysinfo program /home/cpu2017/bin/sysinfo
Rev: r6732 of 2022-11-07 fe91c89b7ed5c36ae2c92cc097bec197
running on localhost.localdomain Mon Aug 28 06:59:33 2023

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 250 (250-6.el9_0)
 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. 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 -a
Linux localhost.localdomain 5.14.0-70.13.1.el9_0.x86_64 #1 SMP PREEMPT Thu Apr 14 12:42:38 EDT 2022 x86_64
x86_64 x86_64 GNU/Linux

2. w
06:59:33 up 22 min, 1 user, load average: 0.00, 5.05, 10.62
USER TTY LOGIN@ IDLE JCPU PCPU WHAT
root tty1 06:38 12.00s 0.89s 0.00s sh
reportable-ic2023.0-lin-sapphirerapids-speed-smt-off-20221201.sh

3. Username
From environment variable \$USER: root

4. ulimit -a
real-time non-blocking time (microseconds, -R) unlimited

(Continued on next page)



SPEC CPU®2017 Floating Point Speed Result

Copyright 2017-2023 Standard Performance Evaluation Corporation

Inspur Electronic Information Industry Co., Ltd.

SPECSpeed®2017_fp_base = 288

NF5266M7 (Intel Xeon Gold 6442Y)

SPECSpeed®2017_fp_peak = 289

CPU2017 License: 3358

Test Date: Aug-2023

Test Sponsor: Inspur Electronic Information Industry Co., Ltd.

Hardware Availability: Apr-2023

Tested by: Inspur Electronic Information Industry Co., Ltd.

Software Availability: Dec-2022

Platform Notes (Continued)

```
core file size          (blocks, -c) 0
data seg size           (kbytes, -d) unlimited
scheduling priority     (-e) 0
file size               (blocks, -f) unlimited
pending signals         (-i) 2062218
max locked memory       (kbytes, -l) 64
max memory size         (kbytes, -m) unlimited
open files              (-n) 1024
pipe size               (512 bytes, -p) 8
POSIX message queues    (bytes, -q) 819200
real-time priority      (-r) 0
stack size               (kbytes, -s) unlimited
cpu time                (seconds, -t) unlimited
max user processes       (-u) 2062218
virtual memory           (kbytes, -v) unlimited
file locks              (-x) unlimited
```

```
-----
5. sysinfo process ancestry
/usr/lib/systemd/systemd --switched-root --system --deserialize 27
login -- root
-bash
sh reportable-ic2023.0-lin-sapphirerapids-speed-smt-off-20221201.sh
runcpu --nobuild --action validate --define default-platform-flags -c
  ic2023.0-lin-sapphirerapids-speed-20221201.cfg --define cores=48 --tune base,peak -o all --define
    drop_caches fpspeed
runcpu --nobuild --action validate --define default-platform-flags --configfile
  ic2023.0-lin-sapphirerapids-speed-20221201.cfg --define cores=48 --tune base,peak --output_format all
  --define drop_caches --nopower --runmode speed --tune base:peak --size refspeed fpspeed --nopreenv
  --note-preenv --logfile $SPEC/tmp/CPU2017.017/templogs/preenv.fpspeed.017.0.log --lognum 017.0
  --from_runcpu 2
specperl $SPEC/bin/sysinfo
$SPEC = /home/cpu2017
```

```
-----
6. /proc/cpuinfo
model name      : Intel(R) Xeon(R) Gold 6442Y
vendor_id       : GenuineIntel
cpu family      : 6
model          : 143
stepping        : 7
microcode       : 0x2b0001b0
bugs            : spectre_v1 spectre_v2 spec_store_bypass swapgs
cpu cores       : 24
siblings        : 24
2 physical ids (chips)
48 processors (hardware threads)
physical id 0: core ids 0-23
physical id 1: core ids 0-23
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
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
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 Floating Point Speed Result

Copyright 2017-2023 Standard Performance Evaluation Corporation

Inspur Electronic Information Industry Co., Ltd.

SPECSpeed®2017_fp_base = 288

NF5266M7 (Intel Xeon Gold 6442Y)

SPECSpeed®2017_fp_peak = 289

CPU2017 License: 3358

Test Date: Aug-2023

Test Sponsor: Inspur Electronic Information Industry Co., Ltd.

Hardware Availability: Apr-2023

Tested by: Inspur Electronic Information Industry Co., Ltd.

Software Availability: Dec-2022

Platform Notes (Continued)

```

CPU op-mode(s):           32-bit, 64-bit
Address sizes:            52 bits physical, 57 bits virtual
Byte Order:               Little Endian
CPU(s):                  48
On-line CPU(s) list:     0-47
Vendor ID:                GenuineIntel
BIOS Vendor ID:          Intel(R) Corporation
Model name:               Intel(R) Xeon(R) Gold 6442Y
BIOS Model name:          Intel(R) Xeon(R) Gold 6442Y
CPU family:               6
Model:                   143
Thread(s) per core:      1
Core(s) per socket:       24
Socket(s):                2
Stepping:                 7
CPU max MHz:              4000.0000
CPU min MHz:              800.0000
BogoMIPS:                 5200.00
Flags:                    fpu vme de pse tsc msr pae mce cx8 apic sep mtrr pge mca cmov pat pse36
                           clflush dts acpi mmx fxsr sse sse2 ss ht tm pbe syscall nx pdpe1gb rdtscp
                           lm constant_tsc art arch_perfmon pebs bts rep_good nopl xtTopology
                           nonstop_tsc cpuid aperfmpf tsc_known_freq pn1 pclmulqdq dtes64 monitor
                           ds_cpl smx est tm2 ssse3 sdbg fma cx16 xtrp 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 invpcid_single
                           intel_ppin cdp_12 ssbd mba ibrs ibpb stibp ibrs_enhanced fsgsbase
                           tsc_adjust bmil avx2 smep bmi2 erms invpcid cqmq rdt_a avx512f avx512dq
                           rdseed adx smap avx512ifma clflushopt clwb intel_pt avx512cd sha_ni
                           avx512bw avx512vl xsaveopt xsavec xgetbv1 xsavec cqmq_llc cqmq_occup_llc
                           cqmq_mbmb_total cqmq_mbmb_local split_lock_detect avx_vnni avx512_bf16
                           wbnoinvd dtherm ida arat pln pts hwp hwp_act_window hwp_epp hwp_pkg_req
                           avx512vbmi umip pkru ospke waitpkg avx512_vbmi2 gfni vaes vpclmulqdq
                           avx512_vnni avx512_bitalg tme avx512_vpopcntdq la57 rdpid bus_lock_detect
                           cldemote movdir64b enqcmd fsrm md_clear serialize tsxldtrk pconfig
                           arch_lbr avx512_fp16 amx_tile flush_lld arch_capabilities

L1d cache:                2.3 MiB (48 instances)
L1i cache:                1.5 MiB (48 instances)
L2 cache:                 96 MiB (48 instances)
L3 cache:                 120 MiB (2 instances)

NUMA node(s):              2
NUMA node0 CPU(s):         0-23
NUMA node1 CPU(s):         24-47

Vulnerability Itlb multihit: Not affected
Vulnerability Llft:        Not affected
Vulnerability Mds:         Not affected
Vulnerability Meltdown:    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
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    2.3M   12 Data        1    64      1          64
  L1i    32K    1.5M    8 Instruction  1    64      1          64
  L2     2M     96M   16 Unified      2  2048      1          64
  L3    60M   120M   15 Unified      3 65536      1          64

```

(Continued on next page)



SPEC CPU®2017 Floating Point Speed Result

Copyright 2017-2023 Standard Performance Evaluation Corporation

Inspur Electronic Information Industry Co., Ltd.

SPECSpeed®2017_fp_base = 288

NF5266M7 (Intel Xeon Gold 6442Y)

SPECSpeed®2017_fp_peak = 289

CPU2017 License: 3358

Test Date: Aug-2023

Test Sponsor: Inspur Electronic Information Industry Co., Ltd.

Hardware Availability: Apr-2023

Tested by: Inspur Electronic Information Industry Co., Ltd.

Software Availability: Dec-2022

Platform Notes (Continued)

8. numactl --hardware

NOTE: a numactl 'node' might or might not correspond to a physical chip.
available: 2 nodes (0-1)
node 0 cpus: 0-23
node 0 size: 257562 MB
node 0 free: 252745 MB
node 1 cpus: 24-47
node 1 size: 258031 MB
node 1 free: 255550 MB
node distances:
node 0 1
0: 10 21
1: 21 10

9. /proc/meminfo

MemTotal: 527968924 kB

10. who -r
run-level 3 Aug 28 06:37

11. Systemd service manager version: systemd 250 (250-6.el9_0)
Default Target Status
multi-user degraded

12. Failed units, from systemctl list-units --state=failed
UNIT LOAD ACTIVE SUB DESCRIPTION
* NetworkManager-wait-online.service loaded failed failed Network Manager Wait Online

13. Services, from systemctl list-unit-files
STATE UNIT FILES
enabled NetworkManager NetworkManager-dispatcher NetworkManager-wait-online auditd chronyd crond
dbus-broker firewalld getty@ irqbalance kdump lvm2-monitor mdmonitor microcode
nis-domainname rhsmcertd rsyslog selinux-autorelabel-mark sshd sssd
systemd-network-generator udisks2 upower
enabled-runtime systemd-remount-fs
disabled blk-availability canberra-system-bootup canberra-system-shutdown
canberra-system-shutdown-reboot chrony-wait console-getty cpupower debug-shell kvm_stat
man-db-restart-cache-update nftables rdisc rhsm rhsm-facts rpmbuild rebuild serial-getty@
sshd-keygen@ systemd-boot-check-no-failures systemd-pstore systemd-sysext
indirect sssd-autofs sssd-kcm sssd-nss sssd-pac sssd-pam sssd-ssh sssd-sudo

14. Linux kernel boot-time arguments, from /proc/cmdline
BOOT_IMAGE=(hd24,gpt2)/vmlinuz-5.14.0-70.13.1.el9_0.x86_64
root=/dev/mapper/rhel-root
ro
resume=/dev/mapper/rhel-swap
rd.lvm.lv=rhel/root
rd.lvm.lv=rhel/swap

15. cpupower frequency-info
analyzing CPU 0:
current policy: frequency should be within 800 MHz and 4.00 GHz.
The governor "performance" may decide which speed to use

(Continued on next page)



SPEC CPU®2017 Floating Point Speed Result

Copyright 2017-2023 Standard Performance Evaluation Corporation

Inspur Electronic Information Industry Co., Ltd.

SPECSpeed®2017_fp_base = 288

NF5266M7 (Intel Xeon Gold 6442Y)

SPECSpeed®2017_fp_peak = 289

CPU2017 License: 3358

Test Date: Aug-2023

Test Sponsor: Inspur Electronic Information Industry Co., Ltd.

Hardware Availability: Apr-2023

Tested by: Inspur Electronic Information Industry Co., Ltd.

Software Availability: Dec-2022

Platform Notes (Continued)

within this range.

boost state support:
Supported: yes
Active: yes

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
hugepage_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
scan_sleep_millisecs 10000

19. OS release
From /etc/*-release /etc/*-version
os-release Red Hat Enterprise Linux 9.0 (Plow)
redhat-release Red Hat Enterprise Linux release 9.0 (Plow)
system-release Red Hat Enterprise Linux release 9.0 (Plow)

20. Disk information
SPEC is set to: /home/cpu2017
Filesystem Type Size Used Avail Use% Mounted on
/dev/mapper/rhel-home xfs 3.5T 161G 3.3T 5% /home

21. /sys/devices/virtual/dmi/id
Vendor: Inspur

(Continued on next page)



SPEC CPU®2017 Floating Point Speed Result

Copyright 2017-2023 Standard Performance Evaluation Corporation

Inspur Electronic Information Industry Co., Ltd.

SPECSpeed®2017_fp_base = 288

NF5266M7 (Intel Xeon Gold 6442Y)

SPECSpeed®2017_fp_peak = 289

CPU2017 License: 3358

Test Date: Aug-2023

Test Sponsor: Inspur Electronic Information Industry Co., Ltd.

Hardware Availability: Apr-2023

Tested by: Inspur Electronic Information Industry Co., Ltd.

Software Availability: Dec-2022

Platform Notes (Continued)

Product: NF5266-M7-A0-R0-00

Product Family: Not specified

Serial: 21B647207

22. 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:

16x Samsung M321R4GA3BB6-CQKVG 32 GB 2 rank 4800

23. BIOS

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

BIOS Vendor: American Megatrends International, LLC.

BIOS Version: 05.01.00

BIOS Date: 04/20/2023

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 2023.0.0 Build 20221201
Copyright (C) 1985-2022 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 2023.0.0 Build 20221201
Copyright (C) 1985-2022 Intel Corporation. All rights reserved.

=====

Intel(R) oneAPI DPC++/C++ Compiler for applications running on Intel(R) 64, Version 2023.0.0 Build 20221201
Copyright (C) 1985-2022 Intel Corporation. All rights reserved.

=====

Intel(R) Fortran Compiler for applications running on Intel(R) 64, Version 2023.0.0 Build 20221201
Copyright (C) 1985-2022 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 2023.0.0 Build 20221201
Copyright (C) 1985-2022 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 2023.0.0 Build 20221201
Copyright (C) 1985-2022 Intel Corporation. All rights reserved.

=====

Intel(R) oneAPI DPC++/C++ Compiler for applications running on Intel(R) 64, Version 2023.0.0 Build 20221201
Copyright (C) 1985-2022 Intel Corporation. All rights reserved.



SPEC CPU®2017 Floating Point Speed Result

Copyright 2017-2023 Standard Performance Evaluation Corporation

Inspur Electronic Information Industry Co., Ltd.

SPECSpeed®2017_fp_base = 288

NF5266M7 (Intel Xeon Gold 6442Y)

SPECSpeed®2017_fp_peak = 289

CPU2017 License: 3358

Test Date: Aug-2023

Test Sponsor: Inspur Electronic Information Industry Co., Ltd.

Hardware Availability: Apr-2023

Tested by: Inspur Electronic Information Industry Co., Ltd.

Software Availability: Dec-2022

Base 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

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:

-m64 -std=c11 -Wl,-z,muldefs -xsapphirerapids -Ofast -ffast-math
-flto -mfpmath=sse -funroll-loops -qopt-mem-layout-trans=4 -fopenmp
-DSPEC_OPENMP -Wno-implicit-int -mprefer-vector-width=512
-L/usr/local/jemalloc64-5.0.1/lib -ljemalloc

Fortran benchmarks:

-m64 -Wl,-z,muldefs -DSPEC_OPENMP -xsapphirerapids -Ofast
-ffast-math -flto -mfpmath=sse -funroll-loops
-qopt-mem-layout-trans=4 -fopenmp -nostandard-realloc-lhs
-align array32byte -auto -L/usr/local/jemalloc64-5.0.1/lib -ljemalloc

Benchmarks using both Fortran and C:

-m64 -std=c11 -Wl,-z,muldefs -xsapphirerapids -Ofast -ffast-math

(Continued on next page)



SPEC CPU®2017 Floating Point Speed Result

Copyright 2017-2023 Standard Performance Evaluation Corporation

Inspur Electronic Information Industry Co., Ltd.

SPECspeed®2017_fp_base = 288

NF5266M7 (Intel Xeon Gold 6442Y)

SPECspeed®2017_fp_peak = 289

CPU2017 License: 3358

Test Date: Aug-2023

Test Sponsor: Inspur Electronic Information Industry Co., Ltd.

Hardware Availability: Apr-2023

Tested by: Inspur Electronic Information Industry Co., Ltd.

Software Availability: Dec-2022

Base Optimization Flags (Continued)

Benchmarks using both Fortran and C (continued):

```
-flto -mfpmath=sse -funroll-loops -qopt-mem-layout-trans=4 -fopenmp  
-DSPEC_OPENMP -Wno-implicit-int -mprefer-vector-width=512  
-nostandard-realloc-lhs -align array32byte -auto  
-L/usr/local/jemalloc64-5.0.1/lib -ljemalloc
```

Benchmarks using Fortran, C, and C++:

```
-m64 -std=c++14 -std=c11 -Wl,-z,muldefs -xsapphirerapids -Ofast  
-ffast-math -flto -mfpmath=sse -funroll-loops  
-qopt-mem-layout-trans=4 -fopenmp -DSPEC_OPENMP -Wno-implicit-int  
-mprefer-vector-width=512 -nostandard-realloc-lhs -align array32byte  
-auto -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

(Continued on next page)



SPEC CPU®2017 Floating Point Speed Result

Copyright 2017-2023 Standard Performance Evaluation Corporation

Inspur Electronic Information Industry Co., Ltd.

SPECSpeed®2017_fp_base = 288

NF5266M7 (Intel Xeon Gold 6442Y)

SPECSpeed®2017_fp_peak = 289

CPU2017 License: 3358

Test Date: Aug-2023

Test Sponsor: Inspur Electronic Information Industry Co., Ltd.

Hardware Availability: Apr-2023

Tested by: Inspur Electronic Information Industry Co., Ltd.

Software Availability: Dec-2022

Peak Optimization Flags (Continued)

644.nab_s: basepeak = yes

Fortran benchmarks:

```
603.bwaves_s: -m64 -Wl,-z,muldefs -DSPEC_OPENMP -xsapphirerapids  
-Ofast -ffast-math -futto -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
```

649.fotonik3d_s: basepeak = yes

654.roms_s: basepeak = yes

Benchmarks using both Fortran and C:

621.wrf_s: basepeak = yes

```
627.cam4_s: -m64 -std=c11 -Wl,-z,muldefs -xsapphirerapids -Ofast  
-ffast-math -futto -mfpmath=sse -funroll-loops  
-qopt-mem-layout-trans=4 -fiopenmp -DSPEC_OPENMP  
-Wno-implicit-int -mprefer-vector-width=512  
-nostandard-realloc-lhs -align array32byte -auto  
-L/usr/local/jemalloc64-5.0.1/lib -ljemalloc
```

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/Intel-ic2023-official-linux64.html>

<http://www.spec.org/cpu2017/flags/Inspur-Platform-Settings-intel-V3.3.html>

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

<http://www.spec.org/cpu2017/flags/Intel-ic2023-official-linux64.xml>

<http://www.spec.org/cpu2017/flags/Inspur-Platform-Settings-intel-V3.3.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.

Tested with SPEC CPU®2017 v1.1.9 on 2023-08-28 06:59:33-0400.

Report generated on 2023-09-13 14:49:48 by CPU2017 PDF formatter v6716.

Originally published on 2023-09-13.