



SPEC CPU®2017 Integer Rate Result

Copyright 2017-2025 Standard Performance Evaluation Corporation

Cisco Systems

Cisco UCS C240 M8 (Intel Xeon 6747P 2.70 GHz processor)

SPECrate®2017_int_base = 1050

SPECrate®2017_int_peak = 1090

CPU2017 License: 9019

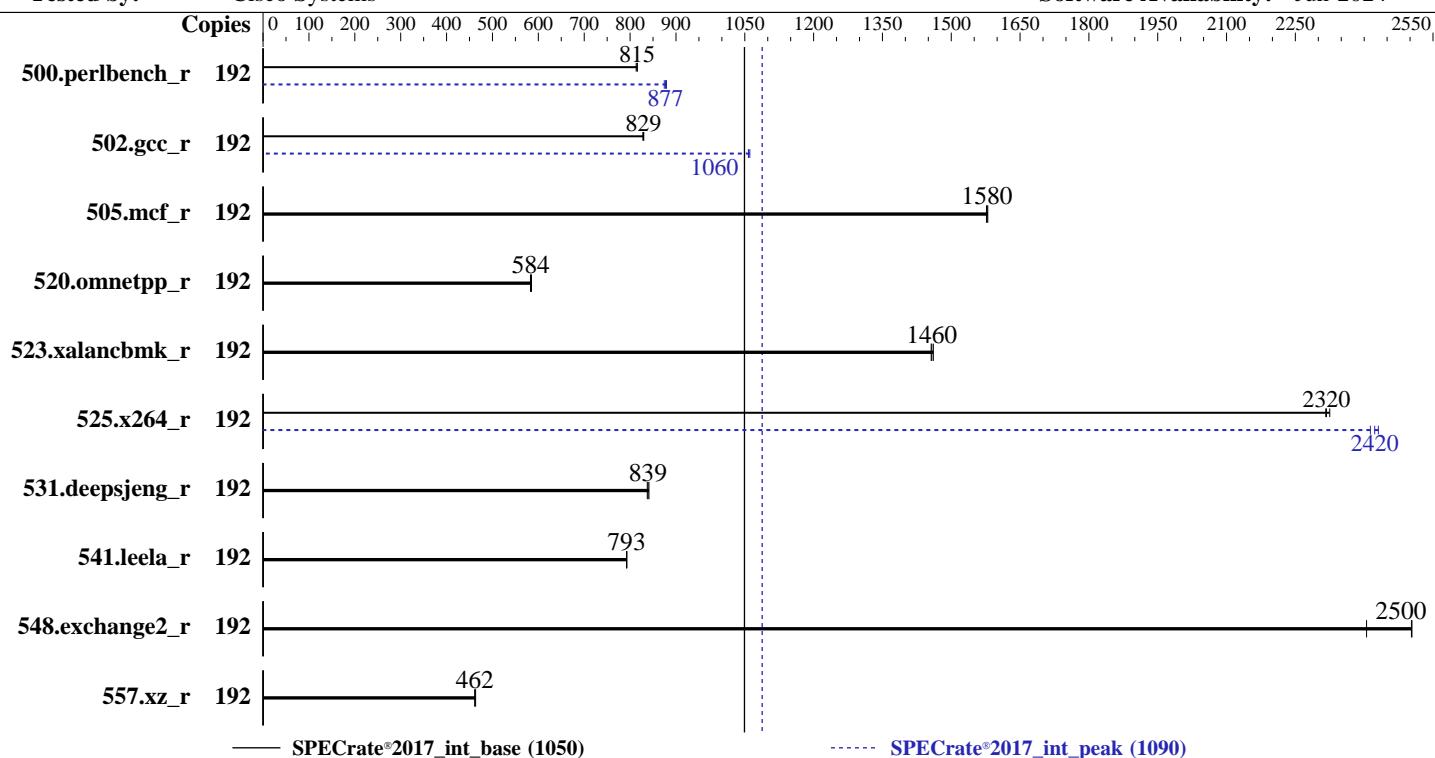
Test Date: Sep-2025

Test Sponsor: Cisco Systems

Hardware Availability: Feb-2025

Tested by: Cisco Systems

Software Availability: Jun-2024



Hardware

CPU Name: Intel Xeon 6747P
 Max MHz: 3900
 Nominal: 2700
 Enabled: 96 cores, 2 chips, 2 threads/core
 Orderable: 1,2 chips
 Cache L1: 64 KB I + 48 KB D on chip per core
 L2: 2 MB I+D on chip per core
 L3: 288 MB I+D on chip per chip
 Other: None
 Memory: 1 TB (16 x 64 GB 2Rx4 PC5-6400B-R)
 Storage: 1 x 960 GB SSD
 Other: CPU Cooling: Air

Software

OS: SUSE Linux Enterprise Server 15 SP6 6.4.0-150600.21-default
 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: No
 Firmware: Version 4.3.6b released Apr-2025
 File System: xfs
 System State: Run level 3 (multi-user)
 Base Pointers: 64-bit
 Peak Pointers: 32/64-bit
 Other: jemalloc memory allocator V5.0.1
 Power Management: BIOS and OS 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	Seconds	Ratio
500.perlbench_r	192	375	815	375	816	376	813	192	348	877	350	875	348	879		
502.gcc_r	192	328	830	328	829	328	828	192	257	1060	257	1060	256	1060		
505.mcf_r	192	196	1580	197	1580	197	1580	192	196	1580	197	1580	197	1580		
520.omnetpp_r	192	432	584	431	585	432	583	192	432	584	431	585	432	583		
523.xalancbmk_r	192	139	1460	139	1460	139	1460	192	139	1460	139	1460	139	1460		
525.x264_r	192	145	2320	145	2320	145	2320	192	139	2410	139	2420	138	2430		
531.deepsjeng_r	192	262	839	263	837	262	841	192	262	839	263	837	262	841		
541.leela_r	192	401	792	401	793	401	793	192	401	792	401	793	401	793		
548.exchange2_r	192	209	2410	201	2500	201	2500	192	209	2410	201	2500	201	2500		
557.xz_r	192	448	463	449	462	449	462	192	448	463	449	462	449	462		

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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/cpu2017/lib/intel64:/home/cpu2017/lib/ia32:/home/cpu2017/je5.0.1-32"
MALLOC_CONF = "retain:true"

General Notes

Binaries compiled on a system with 2x Intel Xeon Platinum 8280M CPU + 384GB RAM
memory using Red Hat Enterprise Linux 8.4
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>

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)

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General Notes (Continued)

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>

Platform Notes

BIOS settings:

Sub NUMA clustering set to Enabled

Hardware prefetcher set to Enabled

Adjacent cache line prefetcher set to Disabled

Patrol scrub set to Disabled

XPT prefetch set to Disabled

LLC prefetch set to Enabled

Enhanced CPU performance set to Auto

Sysinfo program /home/cpu2017/bin/sysinfo
Rev: r6732 of 2022-11-07 fe91c89b7ed5c36ae2c92cc097bec197
running on localhost Mon Sep 8 02:34:44 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 254 (254.10+suse.84.ge8d77af424)
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 6.4.0-150600.21-default #1 SMP PREEMPT_DYNAMIC Thu May 16 11:09:22 UTC 2024 (36c1e09)
x86_64 x86_64 x86_64 GNU/Linux

2. w
02:34:44 up 4:56, 3 users, load average: 0.00, 1.76, 42.02
USER TTY FROM LOGIN@ IDLE JCPU PCPU WHAT

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Platform Notes (Continued)

```
root      tty1      -          21:40  25.00s  1.34s  0.13s -bash
```

```
-----  
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) 4124867  
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) 4124867  
virtual memory           (kbytes, -v) unlimited  
file locks               (-x) unlimited
```

```
-----  
5. sysinfo process ancestry  
/usr/lib/systemd/systemd --switched-root --system --deserialize=42  
login -- root  
-bash  
-bash  
runcpu --nobuild --action validate --define default-platform-flags --define numcopies=192 -c  
ic2024.1-lin-sapphirerapids-rate-20240308.cfg --reportable --iterations 3 --define smt-on --define  
cores=96 --define physicalfirst --define invoke_with_interleave --define drop_caches --tune all -o all  
intrate  
runcpu --nobuild --action validate --define default-platform-flags --define numcopies=192 --configfile  
ic2024.1-lin-sapphirerapids-rate-20240308.cfg --reportable --iterations 3 --define smt-on --define  
cores=96 --define physicalfirst --define invoke_with_interleave --define drop_caches --tune all  
--output_format all --nopower --runmode rate --tune base:peak --size refrate intrate --nopreenv  
--note-preenv --logfile $SPEC/tmp/CPU2017.002/templogs/preenv.intrate.002.0.log --lognum 002.0  
--from_runcpu 2  
specperl $SPEC/bin/sysinfo  
$SPEC = /home/cpu2017
```

```
-----  
6. /proc/cpuinfo  
model name      : Intel(R) Xeon(R) 6747P  
vendor_id       : GenuineIntel  
cpu family     : 6  
model          : 173  
stepping        : 1  
microcode       : 0x1000380  
bugs            : spectre_v1 spectre_v2 spec_store_bypass swapgs bhi  
cpu cores       : 48  
siblings        : 96  
2 physical ids (chips)  
192 processors (hardware threads)  
physical id 0: core ids 0-23,64-87  
physical id 1: core ids 0-23,64-87  
physical id 0: apicids 0-47,128-175
```

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Platform Notes (Continued)

physical id 1: apicids 256-303,384-431

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 2.39.3:

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):	192
On-line CPU(s) list:	0-191
Vendor ID:	GenuineIntel
BIOS Vendor ID:	Intel(R) Corporation
Model name:	Intel(R) Xeon(R) 6747P
BIOS Model name:	Intel(R) Xeon(R) 6747P CPU @ 2.7GHz
BIOS CPU family:	179
CPU family:	6
Model:	173
Thread(s) per core:	2
Core(s) per socket:	48
Socket(s):	2
Stepping:	1
CPU(s) scaling MHz:	27%
CPU max MHz:	3900.0000
CPU min MHz:	800.0000
BogoMIPS:	5400.00
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 xtr 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 fsgsbbase tsc_adjust bm1l hle avx2 smep bm12 erms invpcid rtm cqmq rdt_a avx512f avx512dq rdseed adx smap avx512ifma clflushopt clwb intel_pt avx512cd sha_ni avx512bw avx512vl xsaveopt xsavec xgetbv1 xsaves cqmq_llc cqmq_occu_llc cqmq_mbmm_total cqmq_mbmm_local split_lock_detect user_shstk avx_vnni avx512_bf16 wbnoinvd dtherm ida arat pln pts hwp hwp_act_window hwp_epp hwp_pkg_req hfi avx512vbmi umip pkv ospke waitpkg avx512_vbmi2 gfni vaes vpclmulqdq avx512_vnni avx512_bitalg tme avx512_vpocndq la57 rdpid bus_lock_detect cldemote movdir64b enqcmd fsrm md_clear serialize tsxldtrk pconfig arch_lbr ibt amx_bf16 avx512_fp16 amx_tile amx_int8 flush_lld arch_capabilities
L1d cache:	4.5 MiB (96 instances)
L1i cache:	6 MiB (96 instances)
L2 cache:	192 MiB (96 instances)
L3 cache:	576 MiB (2 instances)
NUMA node(s):	4
NUMA node0 CPU(s):	0-23,96-119
NUMA node1 CPU(s):	24-47,120-143
NUMA node2 CPU(s):	48-71,144-167
NUMA node3 CPU(s):	72-95,168-191
Vulnerability Gather data sampling:	Not affected
Vulnerability Itlb multihit:	Not affected
Vulnerability L1tf:	Not affected

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Platform Notes (Continued)

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

From lscpu --cache:

NAME	ONE-SIZE	ALL-SIZE	WAYS	TYPE	LEVEL	SETS	PHY-LINE	COHERENCY-SIZE
L1d	48K	4.5M	12	Data	1	64	1	64
L1i	64K	6M	16	Instruction	1	64	1	64
L2	2M	192M	16	Unified	2	2048	1	64
L3	288M	576M	16	Unified	3	294912	1	64

8. numactl --hardware

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

```
available: 4 nodes (0-3)
node 0 cpus: 0-23,96-119
node 0 size: 257178 MB
node 0 free: 255949 MB
node 1 cpus: 24-47,120-143
node 1 size: 258035 MB
node 1 free: 256905 MB
node 2 cpus: 48-71,144-167
node 2 size: 258035 MB
node 2 free: 256110 MB
node 3 cpus: 72-95,168-191
node 3 size: 257995 MB
node 3 free: 256866 MB
node distances:
node   0   1   2   3
  0: 10 12 21 21
  1: 12 10 21 21
  2: 21 21 10 12
  3: 21 21 12 10
```

9. /proc/meminfo

MemTotal:	1055993792 kB
-----------	---------------

10. who -r

```
run-level 3 Sep 7 21:39
```

11. Systemd service manager version: systemd 254 (254.10+suse.84.ge8d77af424)

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 iscsi

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Platform Notes (Continued)

```
issue-generator kbdsettings klog lvm2-monitor nsqd nvmefc-boot-connections
nvmf-autoconnect postfix purge-kernels rollback rsyslog smartd sshd systemd-pstore
virtqemud wicked wickedd-auto4 wickedd-dhcp4 wickedd-dhcp6 wickedd-nanny
enabled-runtime
disabled
systemd-remount-fs
autofs autostart-initscripts blk-availability boot-sysctl ca-certificates chrony-wait
chronyd console-getty cups cups-browsed debug-shell dnsmasq ebttables exchange-bmc-os-info
firewalld fsidd gpm grub2-once haveged hv_fcopy_daemon hv_kvp_daemon hv_vss_daemon ipmi
ipmievrd iscsi-init iscsid issue-add-ssh-keys kexec-load ksm kvm_stat libvirt-guests
lunmask man-db-create multipathd nfs nfs-blkmap nfs-server nfsserver rpcbind
rpmconfigcheck rsyncd rtkit-daemon serial-getty@ smartd_generate_opts snmpd snmptrapd
strongswan strongswan-starter svnservice systemd-boot-check-no-failures systemd-confext
systemd-network-generator systemd-nspawn@ systemd-sysext systemd-time-wait-sync
systemd-timesyncd tcsd udisks2 virtinterfaced virtlockd virtlogd virtnetworkd virtnodedevedv
virtnwfilterd virtsecretd virtstoraged
indirect
pcscd systemd-userdbd tftp wickedd
```

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

```
BOOT_IMAGE=/boot/vmlinuz-6.4.0-150600.21-default
root=UUID=164e42fe-9eb7-4cc5-9a7d-0451c23f36b9
splash=silent
resume=/dev/disk/by-uuid/b4ff94da-d908-4fdb-a575-9f9e7887f2f9
mitigations=auto
quiet
security=apparmor
```

14. cpupower frequency-info

```
analyzing CPU 128:
    current policy: frequency should be within 800 MHz and 3.90 GHz.
                    The governor "performance" may decide which speed to use
                    within this range.

    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	1
vm.watermark_boost_factor	15000
vm.watermark_scale_factor	10
vm.zone_reclaim_mode	0

16. /sys/kernel/mm/transparent_hugepage

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Platform Notes (Continued)

```
defrag      always defer defer+advise [advise] 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 SP6
```

```
-----  
19. Disk information  
SPEC is set to: /home/cpu2017  
Filesystem Type Size Used Avail Use% Mounted on  
/dev/nvme0n1p3 xfs 741G 24G 718G 4% /home
```

```
-----  
20. /sys/devices/virtual/dmi/id  
Vendor: Cisco Systems Inc  
Product: UCSC-C240-M8SX  
Serial: WZP29209S1T
```

```
-----  
21. dmidecode  
Additional information from dmidecode 3.4 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 0xCE00 M321R8GA0PB2-CCPEC 64 GB 2 rank 6400  
9x 0xCE00 M321R8GA0PB2-CCPKC 64 GB 2 rank 6400  
2x 0xCE00 M321R8GA0PB2-CCPPC 64 GB 2 rank 6400
```

```
-----  
22. BIOS  
(This section combines info from /sys/devices and dmidecode.)  
BIOS Vendor: Cisco Systems, Inc.  
BIOS Version: C240M8.4.3.6b.0.0430251037  
BIOS Date: 04/30/2025  
BIOS Revision: 5.35
```

Compiler Version Notes

```
=====| 502.gcc_r(peak)=====
```

```
-----  
Intel(R) oneAPI DPC++/C++ Compiler for applications running on IA-32, Version 2024.1.0 Build 20240308  
Copyright (C) 1985-2024 Intel Corporation. All rights reserved.
```

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Compiler Version Notes (Continued)

```
=====
C      | 500.perlbench_r(base, peak) 502.gcc_r(base) 505.mcf_r(base, peak) 525.x264_r(base, peak)
      | 557.xz_r(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      | 502.gcc_r(peak)
```

```
Intel(R) oneAPI DPC++/C++ Compiler for applications running on IA-32, Version 2024.1.0 Build 20240308
Copyright (C) 1985-2024 Intel Corporation. All rights reserved.
```

```
=====
C      | 500.perlbench_r(base, peak) 502.gcc_r(base) 505.mcf_r(base, peak) 525.x264_r(base, peak)
      | 557.xz_r(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++     | 520.omnetpp_r(base, peak) 523.xalancmk_r(base, peak) 531.deepsjeng_r(base, peak)
      | 541.leela_r(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.
```

```
=====
Fortran | 548.exchange2_r(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.
```

Base Compiler Invocation

C benchmarks:

icx

C++ benchmarks:

icpx

Fortran benchmarks:

ifx



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Base Portability Flags

```
500.perlbench_r: -DSPEC_LP64 -DSPEC_LINUX_X64  
502.gcc_r: -DSPEC_LP64  
505.mcf_r: -DSPEC_LP64  
520.omnetpp_r: -DSPEC_LP64  
523.xalancbmk_r: -DSPEC_LP64 -DSPEC_LINUX  
525.x264_r: -DSPEC_LP64  
531.deepsjeng_r: -DSPEC_LP64  
541.leela_r: -DSPEC_LP64  
548.exchange2_r: -DSPEC_LP64  
557.xz_r: -DSPEC_LP64
```

Base Optimization Flags

C benchmarks:

```
-w -std=c11 -m64 -Wl,-z,muldefs -xsapphirerapids -O3 -ffast-math  
-flto -mfpmath=sse -funroll-loops -qopt-mem-layout-trans=4  
-L/opt/intel/oneapi/compiler/2024.1/lib -lgkmalloc
```

C++ benchmarks:

```
-w -std=c++14 -m64 -Wl,-z,muldefs -xsapphirerapids -O3 -ffast-math  
-flto -mfpmath=sse -funroll-loops -qopt-mem-layout-trans=4  
-L/opt/intel/oneapi/compiler/2024.1/lib -lgkmalloc
```

Fortran benchmarks:

```
-w -m64 -Wl,-z,muldefs -xsapphirerapids -O3 -ffast-math -flto  
-mfpmath=sse -funroll-loops -qopt-mem-layout-trans=4  
-nostandard-realloc-lhs -align array32byte -auto  
-L/opt/intel/oneapi/compiler/2024.1/lib -lgkmalloc
```

Peak Compiler Invocation

C benchmarks:

icx

C++ benchmarks:

icpx

Fortran benchmarks:

ifx



SPEC CPU®2017 Integer Rate Result

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Cisco Systems

Cisco UCS C240 M8 (Intel Xeon 6747P 2.70 GHz processor)

SPECrate®2017_int_base = 1050

SPECrate®2017_int_peak = 1090

CPU2017 License: 9019

Test Date: Sep-2025

Test Sponsor: Cisco Systems

Hardware Availability: Feb-2025

Tested by: Cisco Systems

Software Availability: Jun-2024

Peak Portability Flags

```
500.perlbench_r: -DSPEC_LP64 -DSPEC_LINUX_X64
502.gcc_r: -D_FILE_OFFSET_BITS=64
505.mcf_r: -DSPEC_LP64
520.omnetpp_r: -DSPEC_LP64
523.xalancbmk_r: -DSPEC_LP64 -DSPEC_LINUX
525.x264_r: -DSPEC_LP64
531.deepsjeng_r: -DSPEC_LP64
541.leela_r: -DSPEC_LP64
548.exchange2_r: -DSPEC_LP64
557.xz_r: -DSPEC_LP64
```

Peak Optimization Flags

C benchmarks:

```
500.perlbench_r: -w -std=c11 -m64 -Wl,-z,muldefs
-fprofile-generate(pass 1)
-fprofile-use=default.profdata(pass 2) -xCORE-AVX2(pass 1)
-flto -Ofast -xCORE-AVX512 -ffast-math -mfpmath=sse
-funroll-loops -qopt-mem-layout-trans=4
-fno-strict-overflow
-L/opt/intel/oneapi/compiler/2024.1/lib -lgkmalloc

502.gcc_r: -m32 -L/opt/intel/oneapi/compiler/2024.1/lib32 -std=gnu89
-Wl,-z,muldefs -fprofile-generate(pass 1)
-fprofile-use=default.profdata(pass 2) -xCORE-AVX2(pass 1)
-flto -Ofast -xCORE-AVX512 -ffast-math -mfpmath=sse
-funroll-loops -qopt-mem-layout-trans=4
-L/usr/local/jemalloc32-5.0.1/lib -ljemalloc

505.mcf_r: basepeak = yes
```

```
525.x264_r: -w -std=c11 -m64 -Wl,-z,muldefs -xsapphirerapids -Ofast
-ffast-math -flto -mfpmath=sse -funroll-loops
-qopt-mem-layout-trans=4 -fno-alias
-L/opt/intel/oneapi/compiler/2024.1/lib -lgkmalloc
```

```
557.xz_r: basepeak = yes
```

C++ benchmarks:

```
520.omnetpp_r: basepeak = yes
```

(Continued on next page)



SPEC CPU®2017 Integer Rate Result

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Peak Optimization Flags (Continued)

523.xalancbmk_r: basepeak = yes

531.deepsjeng_r: basepeak = yes

541.leela_r: basepeak = yes

Fortran benchmarks:

548.exchange2_r: basepeak = yes

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

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

<http://www.spec.org/cpu2017/flags/Cisco-Platform-Settings-V1.2-GNR-revE.html>

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

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

<http://www.spec.org/cpu2017/flags/Cisco-Platform-Settings-V1.2-GNR-revE.xml>

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