



SPEC CPU®2017 Integer Speed Result

Copyright 2017-2024 Standard Performance Evaluation Corporation

ASUSTeK Computer Inc.

ASUS RS720-E11-RS12U
(2.30 GHz, Intel Xeon Platinum 8568Y+)

SPECSpeed®2017_int_base = 15.0

SPECSpeed®2017_int_peak = 15.3

CPU2017 License: 9016

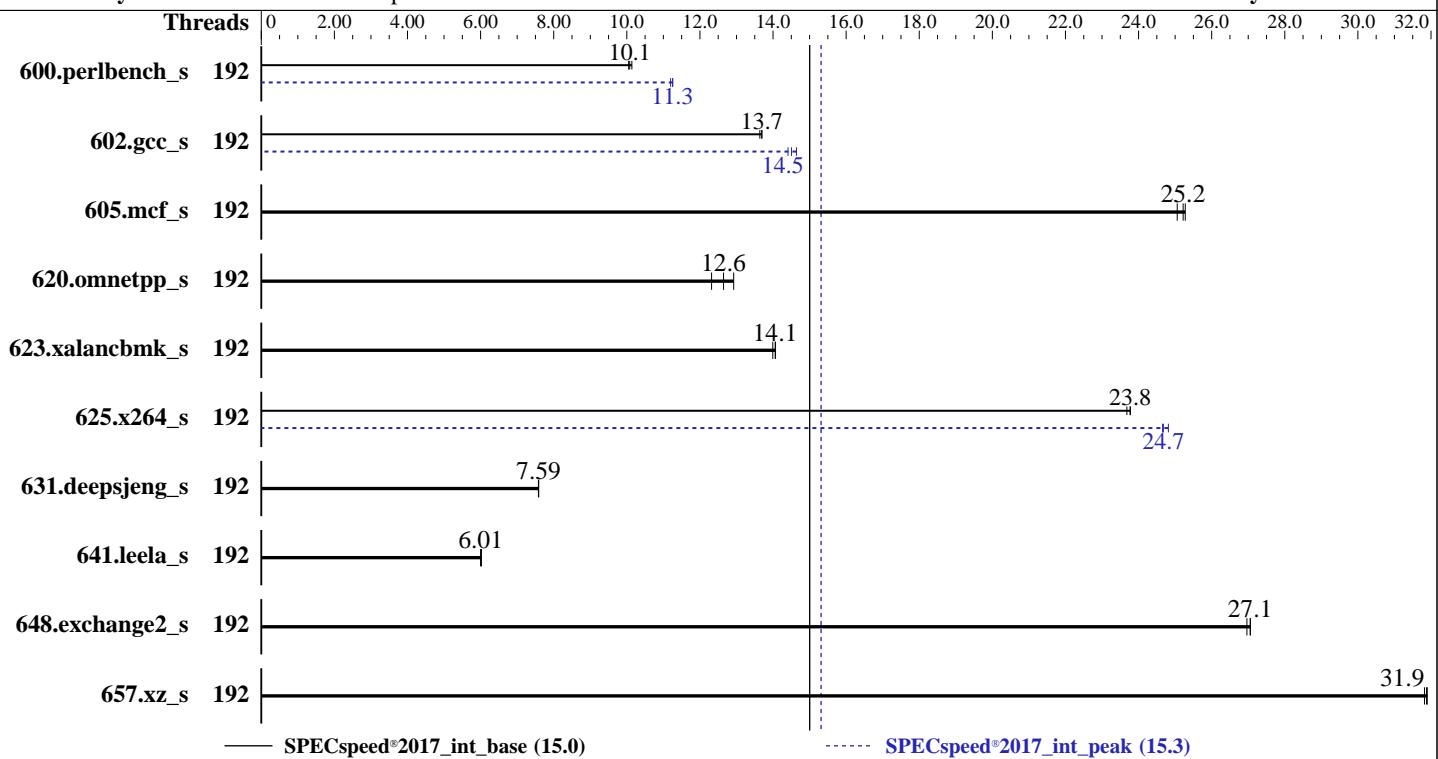
Test Date: Jun-2024

Test Sponsor: ASUSTeK Computer Inc.

Hardware Availability: Dec-2023

Tested by: ASUSTeK Computer Inc.

Software Availability: Mar-2024



Hardware

CPU Name: Intel Xeon Platinum 8568Y+
Max MHz: 4000
Nominal: 2300
Enabled: 96 cores, 2 chips, 2 threads/core
Orderable: 1, 2 chip(s)
Cache L1: 32 KB I + 48 KB D on chip per core
L2: 2 MB I+D on chip per core
L3: 300 MB I+D on chip per chip
Other: None
Memory: 1 TB (16 x 64 GB 2Rx4 PC5-5600B-R)
Storage: 1 x 1.6 TB PCIe NVMe SSD
Other: CPU Cooling: Air

Software

OS: SUSE Linux Enterprise High Performance Computing 15 SP5 (x86_64)
Kernel 5.14.21-150500.53-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: Yes
Firmware: Version 2201 released Dec-2023
File System: xfs
System State: Run level 3 (multi-user)
Base Pointers: 64-bit
Peak Pointers: 64-bit
Other: jemalloc memory allocator V5.0.1
Power Management: BIOS and OS set to prefer performance at the cost of additional power usage.



SPEC CPU®2017 Integer Speed Result

Copyright 2017-2024 Standard Performance Evaluation Corporation

ASUSTeK Computer Inc.

ASUS RS720-E11-RS12U
(2.30 GHz, Intel Xeon Platinum 8568Y+)

SPECspeed®2017_int_base = 15.0

SPECspeed®2017_int_peak = 15.3

CPU2017 License: 9016

Test Date: Jun-2024

Test Sponsor: ASUSTeK Computer Inc.

Hardware Availability: Dec-2023

Tested by: ASUSTeK Computer Inc.

Software Availability: Mar-2024

Results Table

Benchmark	Base								Peak							
	Threads	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Threads	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio
600.perlbench_s	192	177	10.0	176	10.1	175	10.1	192	158	11.3	158	11.3	159	11.2		
602.gcc_s	192	292	13.6	291	13.7	291	13.7	192	275	14.5	272	14.6	276	14.4		
605.mcf_s	192	188	25.1	187	25.2	187	25.3	192	188	25.1	187	25.2	187	25.3		
620.omnetpp_s	192	129	12.6	132	12.3	126	12.9	192	129	12.6	132	12.3	126	12.9		
623.xalancbmk_s	192	101	14.0	101	14.1	101	14.1	192	101	14.0	101	14.1	101	14.1		
625.x264_s	192	74.5	23.7	74.2	23.8	74.2	23.8	192	71.5	24.7	71.5	24.7	71.1	24.8		
631.deepsjeng_s	192	189	7.59	189	7.59	189	7.58	192	189	7.59	189	7.59	189	7.58		
641.leela_s	192	284	6.01	284	6.00	283	6.02	192	284	6.01	284	6.00	283	6.02		
648.exchange2_s	192	109	27.1	109	27.1	109	27.0	192	109	27.1	109	27.1	109	27.0		
657.xz_s	192	194	31.9	194	31.8	194	31.9	192	194	31.9	194	31.8	194	31.9		
SPECspeed®2017_int_base = 15.0								SPECspeed®2017_int_peak = 15.3								

Results appear in the order in which they were run. Bold underlined text indicates a median measurement.

Operating System Notes

Stack size set to unlimited using "ulimit -s unlimited"
OS set to performance mode via cpupower frequency-set -g performance

Environment Variables Notes

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

```
KMP_AFFINITY = "granularity=fine,scatter"
LD_LIBRARY_PATH = "/ic24u1/lib/intel64:/ic24u1/je5.0.1-64"
MALLOC_CONF = "retain:true"
OMP_STACKSIZE = "192M"
```

General Notes

Binaries compiled on a system with 2x Intel Xeon Platinum 8280M CPU + 384GB RAM

memory using Red Hat Enterprise Linux 8.0

Transparent Huge Pages enabled by default

Prior to runcpu invocation

Filesystem page cache synced and cleared with:

```
sync; echo 3> /proc/sys/vm/drop_caches
```

NA: The test sponsor attests, as of date of publication, that CVE-2017-5754 (Meltdown) is mitigated in the system as tested and documented.

Yes: The test sponsor attests, as of date of publication, that CVE-2017-5753 (Spectre variant 1) is mitigated in the system as tested and documented.

Yes: The test sponsor attests, as of date of publication, that CVE-2017-5715 (Spectre variant 2) is mitigated in the system as tested and documented.

jemalloc, a general purpose malloc implementation

built with the RedHat Enterprise 7.5, and the system compiler gcc 4.8.5

sources available from jemalloc.net or <https://github.com/jemalloc/jemalloc/releases>



SPEC CPU®2017 Integer Speed Result

Copyright 2017-2024 Standard Performance Evaluation Corporation

ASUSTeK Computer Inc.

ASUS RS720-E11-RS12U
(2.30 GHz, Intel Xeon Platinum 8568Y+)

SPECspeed®2017_int_base = 15.0

SPECspeed®2017_int_peak = 15.3

CPU2017 License: 9016

Test Date: Jun-2024

Test Sponsor: ASUSTeK Computer Inc.

Hardware Availability: Dec-2023

Tested by: ASUSTeK Computer Inc.

Software Availability: Mar-2024

Platform Notes

BIOS Configuration:

VT-d = Disabled

Patrol Scrub = Disabled

SNC = Enable SNC2 (2-clusters)

Engine Boost = Aggressive

SR-IOV Support = Disabled

BMC Configuration:

Fan mode = Full speed mode

Sysinfo program /ic24ul/bin/sysinfo
Rev: r6732 of 2022-11-07 fe91c89b7ed5c36ae2c92cc097bec197
running on localhost Wed Jun 19 18:40:26 2024

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 249 (249.16+suse.171.gdad0071f15)
 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 -a
Linux localhost 5.14.21-150500.53-default #1 SMP PREEMPT_DYNAMIC Wed May 10 07:56:26 UTC 2023 (b630043)
x86_64 x86_64 x86_64 GNU/Linux

2. w
18:40:26 up 3:04, 2 users, load average: 5.54, 4.96, 3.10
USER TTY FROM LOGIN@ IDLE JCPU PCPU WHAT
root tty1 - 15:36 3:03m 0.80s 0.00s /bin/bash ./speed.sh
root tty2 - 15:46 1:30m 0.01s 0.01s -bash

3. Username
From environment variable \$USER: root

(Continued on next page)



SPEC CPU®2017 Integer Speed Result

Copyright 2017-2024 Standard Performance Evaluation Corporation

ASUSTeK Computer Inc.

ASUS RS720-E11-RS12U
(2.30 GHz, Intel Xeon Platinum 8568Y+)

SPECspeed®2017_int_base = 15.0

SPECspeed®2017_int_peak = 15.3

CPU2017 License: 9016

Test Date: Jun-2024

Test Sponsor: ASUSTeK Computer Inc.

Hardware Availability: Dec-2023

Tested by: ASUSTeK Computer Inc.

Software Availability: Mar-2024

Platform Notes (Continued)

```
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) 4126710
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) 4126710
virtual memory            (kbytes, -v) unlimited
file locks               (-x) unlimited
```

```
-----  
5. sysinfo process ancestry
/usr/lib/systemd/systemd --switched-root --system --deserialize 30
login -- root
-bash
/bin/bash ./speed.sh
/bin/bash ./speed.sh
runcpu --nobuild --action validate --define default-platform-flags -c
  ic2024.1-lin-sapphirerapids-speed-20240308.cfg --define cores=192 --tune base,peak -o all --define
  intspeedaffinity --define drop_caches intspeed
runcpu --nobuild --action validate --define default-platform-flags --configfile
  ic2024.1-lin-sapphirerapids-speed-20240308.cfg --define cores=192 --tune base,peak --output_format all
  --define intspeedaffinity --define drop_caches --nopower --runmode speed --tune base:peak --size refspeed
  intspeed --nopreenv --note-preenv --logfile $SPEC/tmp/CPU2017.098/templogs/preenv.intspeed.098.0.log
  --lognum 098.0 --from_runcpu 2
specperl $SPEC/bin/sysinfo
$SPEC = /ic24ul
```

```
-----  
6. /proc/cpuinfo
model name          : INTEL(R) XEON(R) PLATINUM 8568Y+
vendor_id           : GenuineIntel
cpu family          : 6
model               : 207
stepping             : 2
microcode           : 0x21000200
bugs                : spectre_v1 spectre_v2 spec_store_bypass swapgs eibrss_pbrsb
cpu cores            : 48
siblings             : 96
2 physical ids (chips)
192 processors (hardware threads)
physical id 0: core ids 0-47
physical id 1: core ids 0-47
physical id 0: apicids 0-95
physical id 1: apicids 128-223
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:

(Continued on next page)



SPEC CPU®2017 Integer Speed Result

Copyright 2017-2024 Standard Performance Evaluation Corporation

ASUSTeK Computer Inc.

ASUS RS720-E11-RS12U
(2.30 GHz, Intel Xeon Platinum 8568Y+)

SPECspeed®2017_int_base = 15.0

SPECspeed®2017_int_peak = 15.3

CPU2017 License: 9016

Test Date: Jun-2024

Test Sponsor: ASUSTeK Computer Inc.

Hardware Availability: Dec-2023

Tested by: ASUSTeK Computer Inc.

Software Availability: Mar-2024

Platform Notes (Continued)

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
 Model name: INTEL(R) XEON(R) PLATINUM 8568Y+
 CPU family: 6
 Model: 207
 Thread(s) per core: 2
 Core(s) per socket: 48
 Socket(s): 2
 Stepping: 2
 CPU max MHz: 4000.0000
 CPU min MHz: 800.0000
 BogoMIPS: 4600.00
 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 aperf fmperf tsc_known_freq pni pclmulqdq dtes64 monitor ds_cpl vmx 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 rdrandlahf_lm abm 3dnowprefetch cpuid_fault epb cat_13 cat_12 cdp_13 invpcid_single cdp_12 ssbd mba ibrs ibpb stibp ibrs_enhanced tpr_shadow vnmi flexpriority ept vpid ept_ad fsgsbase tsc_adjust bmi1 hle avx2 smep bmi2 erms invpcid rtm 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 avx_vnni avx512_bf16 wbnoinvd dtherm ida arat pln pts hwp hwp_act_window hwp_epp hwp_pkg_req hfi 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 tsxlptrk pconfig arch_lbr avx512_fp16 amx_tile flush_ll1d arch_capabilities

Virtualization: VT-x

L1d cache: 4.5 MiB (96 instances)
 L1i cache: 3 MiB (96 instances)
 L2 cache: 192 MiB (96 instances)
 L3 cache: 600 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 Itlb multihit: Not affected
 Vulnerability Lltf: Not affected
 Vulnerability Mds: Not affected
 Vulnerability Meltdown: Not affected
 Vulnerability Mmio stale data: Not affected
 Vulnerability Retbleed: Not affected
 Vulnerability Spec store bypass: Mitigation; Speculative Store Bypass disabled via prctl and seccomp
 Vulnerability Spectre v1: Mitigation; usercopy/swapgs barriers and __user pointer sanitization
 Vulnerability Spectre v2: Mitigation; Enhanced IBRS, IBPB conditional, RSB filling, PBRSB-eIBRS SW sequence
 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
------	----------	----------	------	------	-------	------	----------	----------------

(Continued on next page)



SPEC CPU®2017 Integer Speed Result

Copyright 2017-2024 Standard Performance Evaluation Corporation

ASUSTeK Computer Inc.

ASUS RS720-E11-RS12U
(2.30 GHz, Intel Xeon Platinum 8568Y+)

SPECspeed®2017_int_base = 15.0

SPECspeed®2017_int_peak = 15.3

CPU2017 License: 9016

Test Date: Jun-2024

Test Sponsor: ASUSTeK Computer Inc.

Hardware Availability: Dec-2023

Tested by: ASUSTeK Computer Inc.

Software Availability: Mar-2024

Platform Notes (Continued)

L1d	48K	4.5M	12	Data	1	64	1	64
L1i	32K	3M	8	Instruction	1	64	1	64
L2	2M	192M	16	Unified	2	2048	1	64
L3	300M	600M	20	Unified	3	245760	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: 257673 MB
node 0 free: 256911 MB
node 1 cpus: 24-47,120-143
node 1 size: 258001 MB
node 1 free: 256333 MB
node 2 cpus: 48-71,144-167
node 2 size: 258035 MB
node 2 free: 257559 MB
node 3 cpus: 72-95,168-191
node 3 size: 257996 MB
node 3 free: 257534 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: 1056468824 kB

10. who -r

run-level 3 Jun 19 15:36

11. Systemd service manager version: systemd 249 (249.16+suse.171.gdad0071f15)

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 display-manager getty@ haveged irqbalance issue-generator kbdsettings klog lvm2-monitor nscd nvmefc-boot-connections postfix purge-kernels rollback rsyslog smartd sshd systemd-pstore wickedd-wickedd4 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 firewalld gpm grub2-once haveged-switch-root hwloc-dump-hwdata ipmi ipmievfd issue-add-ssh-keys kexec-load lumask man-db-create multipathd ndctl-monitor nfs nfs-blkmap nvmf-autoconnect rpcbind rpmconfigcheck rsyncd serial-getty@ smartd_generate_opts snmpd snmptrapd svnservice systemd-boot-check-no-failures systemd-network-generator systemd-sysext systemd-time-wait-sync systemd-timesyncd tuned udisks2 vncserver@ wickedd
indirect	

(Continued on next page)



SPEC CPU®2017 Integer Speed Result

Copyright 2017-2024 Standard Performance Evaluation Corporation

ASUSTeK Computer Inc.

ASUS RS720-E11-RS12U
(2.30 GHz, Intel Xeon Platinum 8568Y+)

SPECspeed®2017_int_base = 15.0

SPECspeed®2017_int_peak = 15.3

CPU2017 License: 9016

Test Date: Jun-2024

Test Sponsor: ASUSTeK Computer Inc.

Hardware Availability: Dec-2023

Tested by: ASUSTeK Computer Inc.

Software Availability: Mar-2024

Platform Notes (Continued)

```
13. Linux kernel boot-time arguments, from /proc/cmdline
    BOOT_IMAGE=/boot/vmlinuz-5.14.21-150500.53-default
    root=UUID=1821a225-9785-4821-9a33-99bd3ded8cae
    splash=silent
    mitigations=auto
    quiet
    security=apparmor

-----
14. 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
                    within this range.
    boost state support:
        Supported: yes
        Active: yes

-----
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)



SPEC CPU®2017 Integer Speed Result

Copyright 2017-2024 Standard Performance Evaluation Corporation

ASUSTeK Computer Inc.

ASUS RS720-E11-RS12U
(2.30 GHz, Intel Xeon Platinum 8568Y+)

SPECspeed®2017_int_base = 15.0

SPECspeed®2017_int_peak = 15.3

CPU2017 License: 9016

Test Date: Jun-2024

Test Sponsor: ASUSTeK Computer Inc.

Hardware Availability: Dec-2023

Tested by: ASUSTeK Computer Inc.

Software Availability: Mar-2024

Platform Notes (Continued)

scan_sleep_millisecs 10000

19. OS release
From /etc/*-release /etc/*-version
os-release SUSE Linux Enterprise High Performance Computing 15 SP5

20. Disk information
SPEC is set to: /ic24ul
Filesystem Type Size Used Avail Use% Mounted on
/dev/nvme0n1p8 xfs 1.3T 109G 1.2T 9% /

21. /sys/devices/virtual/dmi/id
Vendor: ASUSTeK COMPUTER INC.
Product: RS720-E11-RS12U
Product Family: Server
Serial: R1S0MD000002

22. 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:
16x Samsung M321R8GA0PB0-CWMXJ 64 GB 2 rank 5600

23. BIOS
(This section combines info from /sys/devices and dmidecode.)
BIOS Vendor: American Megatrends Inc.
BIOS Version: 2201
BIOS Date: 12/22/2023
BIOS Revision: 22.1

Compiler Version Notes

=====

C | 600.perlbench_s(base, peak) 602.gcc_s(base, peak) 605.mcf_s(base, peak) 625.x264_s(base, peak)
| 657.xz_s(base, peak)

=====

Intel(R) oneAPI DPC++/C++ Compiler for applications running on Intel(R) 64, Version 2024.1.0 Build 20240308
Copyright (C) 1985-2024 Intel Corporation. All rights reserved.

=====

=====

C++ | 620.omnetpp_s(base, peak) 623.xalancbmk_s(base, peak) 631.deepsjeng_s(base, peak)
| 641.leela_s(base, peak)

=====

Intel(R) oneAPI DPC++/C++ Compiler for applications running on Intel(R) 64, Version 2024.1.0 Build 20240308
Copyright (C) 1985-2024 Intel Corporation. All rights reserved.

=====

=====

Fortran | 648.exchange2_s(base, peak)

=====

(Continued on next page)



SPEC CPU®2017 Integer Speed Result

Copyright 2017-2024 Standard Performance Evaluation Corporation

ASUSTeK Computer Inc.

ASUS RS720-E11-RS12U
(2.30 GHz, Intel Xeon Platinum 8568Y+)

SPECspeed®2017_int_base = 15.0

SPECspeed®2017_int_peak = 15.3

CPU2017 License: 9016

Test Date: Jun-2024

Test Sponsor: ASUSTeK Computer Inc.

Hardware Availability: Dec-2023

Tested by: ASUSTeK Computer Inc.

Software Availability: Mar-2024

Compiler Version Notes (Continued)

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

Base Portability Flags

600.perlbench_s: -DSPEC_LP64 -DSPEC_LINUX_X64
602.gcc_s: -DSPEC_LP64
605.mcf_s: -DSPEC_LP64
620.omnetpp_s: -DSPEC_LP64
623.xalancbmk_s: -DSPEC_LP64 -DSPEC_LINUX
625.x264_s: -DSPEC_LP64
631.deepsjeng_s: -DSPEC_LP64
641.leela_s: -DSPEC_LP64
648.exchange2_s: -DSPEC_LP64
657.xz_s: -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 -fopenmp
-DSPEC_OPENMP -L/usr/local/jemalloc64-5.0.1/lib -ljemalloc

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

Fortran benchmarks:

-w -m64 -Wl,-z,muldefs -xsapphirerapids -O3 -ffast-math -flto

(Continued on next page)



SPEC CPU®2017 Integer Speed Result

Copyright 2017-2024 Standard Performance Evaluation Corporation

ASUSTeK Computer Inc.

ASUS RS720-E11-RS12U
(2.30 GHz, Intel Xeon Platinum 8568Y+)

SPECspeed®2017_int_base = 15.0

SPECspeed®2017_int_peak = 15.3

CPU2017 License: 9016

Test Date: Jun-2024

Test Sponsor: ASUSTeK Computer Inc.

Hardware Availability: Dec-2023

Tested by: ASUSTeK Computer Inc.

Software Availability: Mar-2024

Base Optimization Flags (Continued)

Fortran benchmarks (continued):

```
-mfpmath=sse -funroll-loops -qopt-mem-layout-trans=4
-nostandard-realloc-lhs -align array32byte
-L/usr/local/jemalloc64-5.0.1/lib -ljemalloc
```

Peak Compiler Invocation

C benchmarks:

icx

C++ benchmarks:

icpx

Fortran benchmarks:

ifx

Peak Portability Flags

Same as Base Portability Flags

Peak Optimization Flags

C benchmarks:

```
600.perlbench_s: -w -m64 -std=c11 -Wl,-z,muldefs
-fprofile-generate(pass 1)
-fprofile-use=default.profdata(pass 2) -xCORE-AVX2(pass 1)
-flto -Ofast(pass 1) -xCORE-AVX512 -O3 -ffast-math
-mfpmath=sse -funroll-loops -qopt-mem-layout-trans=4
-fiopenmp -DSPEC_OPENMP -fno-strict-overflow
-L/usr/local/jemalloc64-5.0.1/lib -ljemalloc
```

```
602.gcc_s: -w -m64 -std=c11 -Wl,-z,muldefs
-fprofile-generate(pass 1)
-fprofile-use=default.profdata(pass 2) -xCORE-AVX2(pass 1)
-flto -Ofast(pass 1) -xCORE-AVX512 -O3 -ffast-math
-mfpmath=sse -funroll-loops -qopt-mem-layout-trans=4
-fiopenmp -DSPEC_OPENMP -L/usr/local/jemalloc64-5.0.1/lib
-ljemalloc
```

(Continued on next page)



SPEC CPU®2017 Integer Speed Result

Copyright 2017-2024 Standard Performance Evaluation Corporation

ASUSTeK Computer Inc.

ASUS RS720-E11-RS12U
(2.30 GHz, Intel Xeon Platinum 8568Y+)

CPU2017 License: 9016

Test Sponsor: ASUSTeK Computer Inc.

Tested by: ASUSTeK Computer Inc.

SPECspeed®2017_int_base = 15.0

SPECspeed®2017_int_peak = 15.3

Test Date: Jun-2024

Hardware Availability: Dec-2023

Software Availability: Mar-2024

Peak Optimization Flags (Continued)

605.mcf_s: basepeak = yes

```
625.x264_s: -w -std=c11 -m64 -Wl,-z,muldefs -xsapphirerapids -O3
-ffast-math -futto -mfpmath=sse -funroll-loops
-qopt-mem-layout-trans=4 -fiopenmp -DSPEC_OPENMP
-fno-alias -L/usr/local/jemalloc64-5.0.1/lib -ljemalloc
```

657.xz_s: basepeak = yes

C++ benchmarks:

620.omnetpp_s: basepeak = yes

623.xalancbmk_s: basepeak = yes

631.deepsjeng_s: basepeak = yes

641.leela_s: basepeak = yes

Fortran benchmarks:

648.exchange2_s: basepeak = yes

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

<http://www.spec.org/cpu2017/flags/ASUSTekPlatform-Settings-z13-V1.3.html>
<http://www.spec.org/cpu2017/flags/Intel-ic2024-official-linux64.html>

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

<http://www.spec.org/cpu2017/flags/ASUSTekPlatform-Settings-z13-V1.3.xml>
<http://www.spec.org/cpu2017/flags/Intel-ic2024-official-linux64.xml>

SPEC CPU and SPECspeed are registered trademarks of the Standard Performance Evaluation Corporation. All other brand and product names appearing in this result are trademarks or registered trademarks of their respective holders.

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

Tested with SPEC CPU®2017 v1.1.9 on 2024-06-19 06:40:25-0400.

Report generated on 2024-07-30 19:32:35 by CPU2017 PDF formatter v6716.

Originally published on 2024-07-30.