



SPEC CPU®2017 Floating Point Speed Result

Copyright 2017-2025 Standard Performance Evaluation Corporation

ASUSTeK Computer Inc.

ASUS RS720-E12-RS8G
(2.40 GHz, Intel Xeon 6710E)

SPECspeed®2017_fp_base = 281

SPECspeed®2017_fp_peak = 281

CPU2017 License: 9016

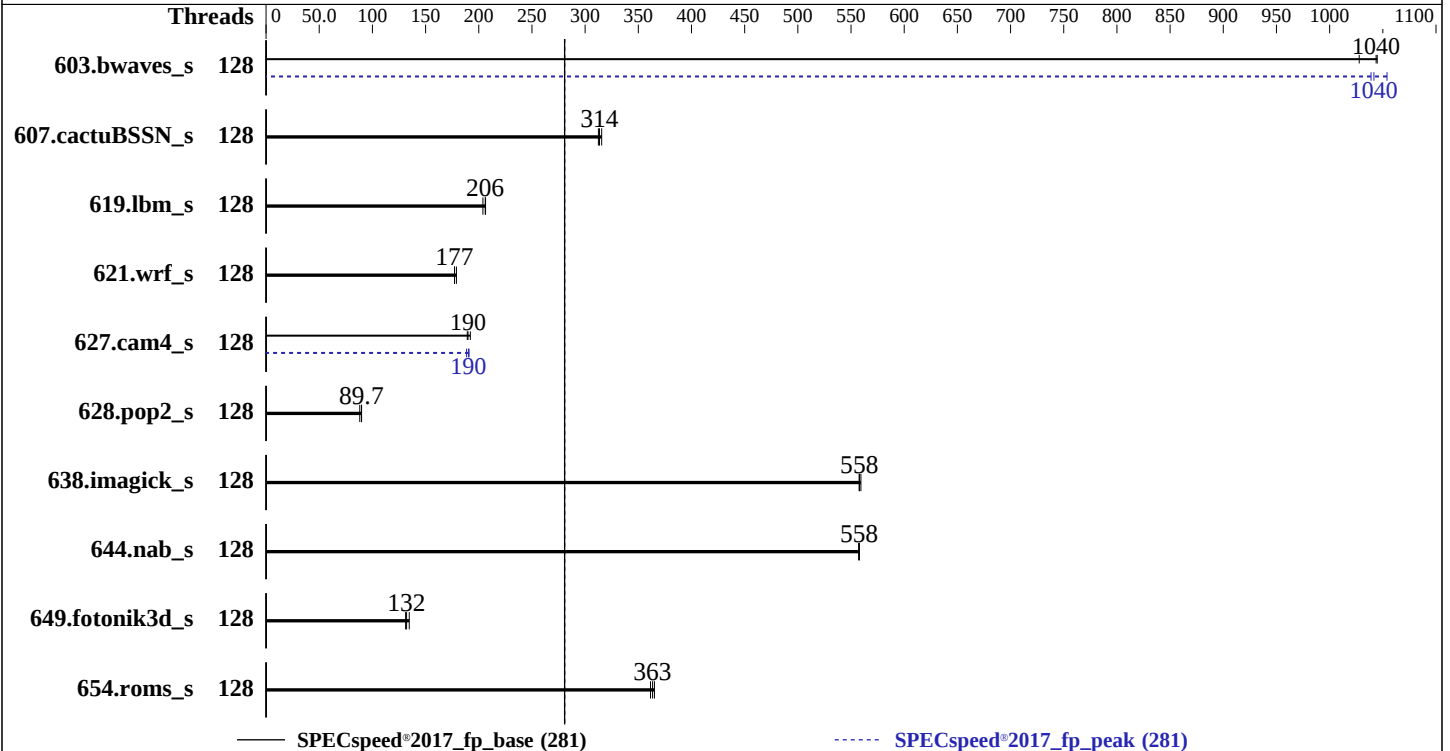
Test Sponsor: ASUSTeK Computer Inc.

Tested by: ASUSTeK Computer Inc.

Test Date: Sep-2025

Hardware Availability: Jul-2025

Software Availability: Jun-2024



Hardware

CPU Name: Intel Xeon 6710E
Max MHz: 3200
Nominal: 2400
Enabled: 128 cores, 2 chips
Orderable: 1, 2 chip(s)
Cache L1: 64 KB I + 32 KB D on chip per core
L2: 4 MB I+D on chip per core
L3: 96 MB I+D on chip per chip
Other: None
Memory: 1 TB (16 x 64 GB 2Rx4 PC5-6400B-R, running at 5600)
Storage: 1 x 1.6 TB PCIe NVMe SSD
Other: CPU Cooling: Air

Software

OS: SUSE Linux Enterprise Server 15 SP6
Kernel 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: Yes
Firmware: Version 0603 released Jul-2025
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 Floating Point Speed Result

Copyright 2017-2025 Standard Performance Evaluation Corporation

ASUSTeK Computer Inc.

ASUS RS720-E12-RS8G
(2.40 GHz, Intel Xeon 6710E)

SPECspeed®2017_fp_base = 281

SPECspeed®2017_fp_peak = 281

CPU2017 License: 9016

Test Sponsor: ASUSTeK Computer Inc.

Tested by: ASUSTeK Computer Inc.

Test Date: Sep-2025

Hardware Availability: Jul-2025

Software Availability: Jun-2024

Results Table

Benchmark	Base							Peak						
	Threads	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Threads	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio
603.bwaves_s	128	57.4	1030	56.5	1040	<u>56.5</u>	<u>1040</u>	128	56.8	1040	<u>56.6</u>	<u>1040</u>	56.0	1050
607.cactuBSSN_s	128	<u>53.2</u>	<u>314</u>	52.8	316	53.3	312	128	<u>53.2</u>	<u>314</u>	52.8	316	53.3	312
619.lbm_s	128	<u>25.4</u>	<u>206</u>	25.4	206	25.7	204	128	<u>25.4</u>	<u>206</u>	25.4	206	25.7	204
621.wrf_s	128	74.7	177	<u>74.6</u>	<u>177</u>	73.9	179	128	74.7	177	<u>74.6</u>	<u>177</u>	73.9	179
627.cam4_s	128	<u>46.7</u>	<u>190</u>	46.9	189	46.1	192	128	46.4	191	<u>46.6</u>	<u>190</u>	47.0	189
628.pop2_s	128	132	89.8	135	88.1	<u>132</u>	<u>89.7</u>	128	132	89.8	135	88.1	<u>132</u>	<u>89.7</u>
638.imagick_s	128	25.8	559	<u>25.9</u>	<u>558</u>	25.9	558	128	25.8	559	<u>25.9</u>	<u>558</u>	25.9	558
644.nab_s	128	31.3	558	31.4	557	<u>31.3</u>	<u>558</u>	128	31.3	558	31.4	557	<u>31.3</u>	<u>558</u>
649.fotonik3d_s	128	<u>69.0</u>	<u>132</u>	69.5	131	67.7	135	128	<u>69.0</u>	<u>132</u>	69.5	131	67.7	135
654.roms_s	128	<u>43.3</u>	<u>363</u>	43.1	365	43.6	361	128	<u>43.3</u>	<u>363</u>	43.1	365	43.6	361

SPECspeed®2017_fp_base = 281

SPECspeed®2017_fp_peak = 281

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,compact,1,0"
LD_LIBRARY_PATH = "/ic24u1/lib/intel64:/ic24u1/je5.0.1-64"
MALLOCONF = "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 Floating Point Speed Result

Copyright 2017-2025 Standard Performance Evaluation Corporation

ASUSTeK Computer Inc.

ASUS RS720-E12-RS8G
(2.40 GHz, Intel Xeon 6710E)

SPECspeed®2017_fp_base = 281

SPECspeed®2017_fp_peak = 281

CPU2017 License: 9016

Test Sponsor: ASUSTeK Computer Inc.

Tested by: ASUSTeK Computer Inc.

Test Date: Sep-2025

Hardware Availability: Jul-2025

Software Availability: Jun-2024

Platform Notes

BIOS Configuration:

ENERGY_PERF_BIAS_CFG mode = Performance

Latency Optimized Mode = Enabled

Engine Boost = Aggressive

SR-IOV Support = Disabled

Page Policy = Adaptive

Adjacent Cache Prefetch = Disable

Sysinfo program /ic24u1/bin/sysinfo

Rev: r6732 of 2022-11-07 fe91c89b7ed5c36ae2c92cc097bec197

running on localhost Tue Sep 16 08:59:39 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. 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 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
08:59:39 up 15:06,  2 users,  load average: 4.79, 6.09, 3.62
USER      TTY      FROM            LOGIN@   IDLE   JCPU   PCPU WHAT
root      tty1      -                Mon17    15:04m 1.19s  0.00s /bin/bash ./speed.sh
root      tty2      -                08:19    2.00s  0.02s  0.02s -bash
```

```
3. Username
From environment variable $USER:  root
```

```
4. ulimit -a
```

(Continued on next page)



SPEC CPU®2017 Floating Point Speed Result

Copyright 2017-2025 Standard Performance Evaluation Corporation

ASUSTeK Computer Inc.

ASUS RS720-E12-RS8G
(2.40 GHz, Intel Xeon 6710E)

SPECspeed®2017_fp_base = 281

SPECspeed®2017_fp_peak = 281

CPU2017 License: 9016

Test Sponsor: ASUSTeK Computer Inc.

Tested by: ASUSTeK Computer Inc.

Test Date: Sep-2025

Hardware Availability: Jul-2025

Software Availability: Jun-2024

Platform Notes (Continued)

```
core file size      (blocks, -c) unlimited
data seg size      (kbytes, -d) unlimited
scheduling priority (-e) 0
file size          (blocks, -f) unlimited
pending signals    (-i) 4126412
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) 4126412
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
/bin/bash ./speed.sh
/bin/bash ./speed.sh
runcpu --nobuild --action validate --define default-platform-flags -c
ic2024.1-lin-sierraforest-speed-20240308.cfg --define cores=128 --tune base,peak -o all --define smt-on
--define drop_caches fpspeed
runcpu --nobuild --action validate --define default-platform-flags --configfile
ic2024.1-lin-sierraforest-speed-20240308.cfg --define cores=128 --tune base,peak --output_format all
--define smt-on --define drop_caches --nopower --runmode speed --tune base:peak --size refspeak fpspeed
--nopreenv --note-preenv --logfile $SPEC/tmp/CPU2017.108/temlogs/preenv.fpspeed.108.0.log --lognum 108.0
--from_runcpu 2
specperl $SPEC/bin/sysinfo
$SPEC = /ic24u1
```

6. /proc/cpuinfo

```
model name      : Intel(R) Xeon(R) 6710E
vendor_id       : GenuineIntel
cpu family      : 6
model           : 175
stepping        : 3
microcode       : 0x3000362
bugs             : spectre_v1 spectre_v2 spec_store_bypass swapgs bhi
cpu cores       : 64
siblings        : 64
2 physical ids (chips)
128 processors (hardware threads)
physical id 0: core ids 0-63
physical id 1: core ids 0-63
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, 48, 50, 52, 54, 56, 58, 60, 62, 64, 66, 68, 70, 72
, 74, 76, 78, 80, 82, 84, 86, 88, 90, 92, 94, 96, 98, 100, 102, 104, 106, 108, 110, 112, 114, 116, 118, 120, 122, 124, 126
physical id 1: apicids
512, 514, 516, 518, 520, 522, 524, 526, 528, 530, 532, 534, 536, 538, 540, 542, 544, 546, 548, 550, 552, 554, 556, 558, 560, 562, 5
64, 566, 568, 570, 572, 574, 576, 578, 580, 582, 584, 586, 588, 590, 592, 594, 596, 598, 600, 602, 604, 606, 608, 610, 612, 614, 61
6, 618, 620, 622, 624, 626, 628, 630, 632, 634, 636, 638
```

Caution: /proc/cpuinfo data regarding chips, cores, and threads is not necessarily reliable, especially for virtualized systems. Use the above data carefully.

(Continued on next page)



SPEC CPU®2017 Floating Point Speed Result

Copyright 2017-2025 Standard Performance Evaluation Corporation

ASUSTeK Computer Inc.

ASUS RS720-E12-RS8G
(2.40 GHz, Intel Xeon 6710E)

SPECspeed®2017_fp_base = 281

SPECspeed®2017_fp_peak = 281

CPU2017 License: 9016

Test Sponsor: ASUSTeK Computer Inc.

Tested by: ASUSTeK Computer Inc.

Test Date: Sep-2025

Hardware Availability: Jul-2025

Software Availability: Jun-2024

Platform Notes (Continued)

7. lscpu

From lscpu from util-linux 2.39.3:

Architecture:	x86_64
CPU op-mode(s):	32-bit, 64-bit
Address sizes:	52 bits physical, 48 bits virtual
Byte Order:	Little Endian
CPU(s):	128
On-line CPU(s) list:	0-127
Vendor ID:	GenuineIntel
BIOS Vendor ID:	Intel(R) Corporation
Model name:	Intel(R) Xeon(R) 6710E
BIOS Model name:	Intel(R) Xeon(R) 6710E CPU @ 2.4GHz
BIOS CPU family:	179
CPU family:	6
Model:	175
Thread(s) per core:	1
Core(s) per socket:	64
Socket(s):	2
Stepping:	3
CPU(s) scaling MHz:	36%
CPU max MHz:	3200.0000
CPU min MHz:	800.0000
BogoMIPS:	4800.00
Flags:	fpu vme de pse tsc msr pae mce cx8 apic sep mtrr pge mca cmov pat pse36 clflush dts acpi mmx fxsr sse sse2 ss ht tm pbe syscall nx pdpe1gb rdtscp lm constant_tsc art arch_perfmon pebs bts rep_good nopl xtopology nonstop_tsc cpuid aperfmperf tsc_known_freq pni pclmulqdq dtes64 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 rdseed adx smap clflushopt clwb intel_pt sha_ni xsaveopt xsavec xgetbv1 xsaves cqm_llc cqm_occup_llc cqm_mbm_total cqm_mbm_local split_lock_detect user_shstk avx_vnni lam wbnoinvd dtherm ida arat pln pts hwp hwp_act_window hwp_epp hwp_pkg_req vnmi umip pku ospke waitpkg gfni vaes vpclmulqdq tme rdpid bus_lock_detect cldemote movdiri movdir64b enqcmd fsrm md_clear serialize pconfig arch_lbr ibt flush_l1d arch_capabilities
Virtualization:	VT-x
L1d cache:	4 MiB (128 instances)
L1i cache:	8 MiB (128 instances)
L2 cache:	128 MiB (32 instances)
L3 cache:	192 MiB (2 instances)
NUMA node(s):	2
NUMA node0 CPU(s):	0-63
NUMA node1 CPU(s):	64-127
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

(Continued on next page)



SPEC CPU®2017 Floating Point Speed Result

Copyright 2017-2025 Standard Performance Evaluation Corporation

ASUSTeK Computer Inc.

ASUS RS720-E12-RS8G
(2.40 GHz, Intel Xeon 6710E)

SPECspeed®2017_fp_base = 281

SPECspeed®2017_fp_peak = 281

CPU2017 License: 9016

Test Sponsor: ASUSTeK Computer Inc.

Tested by: ASUSTeK Computer Inc.

Test Date: Sep-2025

Hardware Availability: Jul-2025

Software Availability: Jun-2024

Platform Notes (Continued)

Vulnerability Spectre v1: Mitigation; usercopy/swaps barriers and __user pointer sanitization
Vulnerability Spectre v2: Mitigation; Enhanced / Automatic IBRS; IBPB conditional; RSB filling;
PBRSE-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	32K	4M	8	Data	1	64	1	64
L1i	64K	8M	8	Instruction	1	128	1	64
L2	4M	128M	16	Unified	2	4096	1	64
L3	96M	192M	12	Unified	3	131072	1	64

8. numactl --hardware

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

available: 2 nodes (0-1)
node 0 cpus: 0-63
node 0 size: 515591 MB
node 0 free: 508736 MB
node 1 cpus: 64-127
node 1 size: 516038 MB
node 1 free: 512599 MB
node distances:
node 0 1
0: 10 21
1: 21 10

9. /proc/meminfo

MemTotal: 1056388672 kB

10. who -r

run-level 3 Sep 15 17:54

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 display-manager getty@ irqbalance issue-generator kbdsettings klog lvm2-monitor nscd nvme-fc-boot-connections nvmf-autoconnect postfix purge-kernels rollback rsyslog sep5 smartd sshd systemd-pstore wicked wickedd-auto4 wickedd-dhcp4 wickedd-dhcp6 wickedd-nanny
enabled-runtime	systemd-remount-fs
disabled	autofs autovast-initscripts blk-availability boot-sysctl ca-certificates chrony-wait chronyd console-getty cups cups-browsed debug-shell ebttables exchange-bmc-os-info firewalld fsidd gpm grub2-once haveged hwloc-dump-hwdata 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 svnserv systemd-boot-check-no-failures systemd-confext systemd-network-generator systemd-sysext systemd-time-wait-sync systemd-timesyncd tuned udisks2 vncserver@
indirect	systemd-userdbd wickedd

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

(Continued on next page)



SPEC CPU®2017 Floating Point Speed Result

Copyright 2017-2025 Standard Performance Evaluation Corporation

ASUSTeK Computer Inc.

ASUS RS720-E12-RS8G
(2.40 GHz, Intel Xeon 6710E)

SPECspeed®2017_fp_base = 281

SPECspeed®2017_fp_peak = 281

CPU2017 License: 9016

Test Sponsor: ASUSTeK Computer Inc.

Tested by: ASUSTeK Computer Inc.

Test Date: Sep-2025

Hardware Availability: Jul-2025

Software Availability: Jun-2024

Platform Notes (Continued)

```
BOOT_IMAGE=/boot/vmlinuz-6.4.0-150600.21-default
root=UUID=9bcf0374-b29f-4a4c-932e-9c0e90fb0803
splash=silent
mitigations=auto
quiet
video=1024x768
```

14. cpupower frequency-info

analyzing CPU 107:

current policy: frequency should be within 800 MHz and 3.20 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+madvice [madvice] never
enabled     [always] madvice 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
scan_sleep_millisecs  10000
```

(Continued on next page)



SPEC CPU®2017 Floating Point Speed Result

Copyright 2017-2025 Standard Performance Evaluation Corporation

ASUSTeK Computer Inc.

ASUS RS720-E12-RS8G
(2.40 GHz, Intel Xeon 6710E)

SPECspeed®2017_fp_base = 281

SPECspeed®2017_fp_peak = 281

CPU2017 License: 9016

Test Sponsor: ASUSTeK Computer Inc.

Tested by: ASUSTeK Computer Inc.

Test Date: Sep-2025

Hardware Availability: Jul-2025

Software Availability: Jun-2024

Platform Notes (Continued)

19. OS release

From /etc/*-release /etc/*-version
os-release SUSE Linux Enterprise Server 15 SP6

20. Disk information

SPEC is set to: /ic24u1

Filesystem	Type	Size	Used	Avail	Use%	Mounted on
/dev/nvme0n1p8	xfs	500G	86G	414G	18%	/

21. /sys/devices/virtual/dmi/id

Vendor: ASUSTeK COMPUTER INC.
Product: RS720-E12-RS8G
Product Family: Server
Serial: ----

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 M321R8GA0EB2-CCPPC 64 GB 2 rank 6400, configured at 5600

23. BIOS

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

BIOS Vendor: American Megatrends Inc.
BIOS Version: 0603
BIOS Date: 07/31/2025
BIOS Revision: 6.3

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 2024.1.0 Build 20240308
Copyright (C) 1985-2024 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 2024.1.0 Build 20240308
Copyright (C) 1985-2024 Intel Corporation. All rights reserved.

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.

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.
=====

=====
Fortran | 603.bwaves_s(base, peak) 649.fotonik3d_s(base, peak) 654.roms_s(base, peak)
=====

(Continued on next page)



SPEC CPU®2017 Floating Point Speed Result

Copyright 2017-2025 Standard Performance Evaluation Corporation

ASUSTeK Computer Inc.

ASUS RS720-E12-RS8G
(2.40 GHz, Intel Xeon 6710E)

SPECspeed®2017_fp_base = 281

SPECspeed®2017_fp_peak = 281

CPU2017 License: 9016

Test Sponsor: ASUSTeK Computer Inc.

Tested by: ASUSTeK Computer Inc.

Test Date: Sep-2025

Hardware Availability: Jul-2025

Software Availability: Jun-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.

=====

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.

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.

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



SPEC CPU®2017 Floating Point Speed Result

Copyright 2017-2025 Standard Performance Evaluation Corporation

ASUSTeK Computer Inc.

ASUS RS720-E12-RS8G
(2.40 GHz, Intel Xeon 6710E)

SPECspeed®2017_fp_base = 281

SPECspeed®2017_fp_peak = 281

CPU2017 License: 9016

Test Sponsor: ASUSTeK Computer Inc.

Tested by: ASUSTeK Computer Inc.

Test Date: Sep-2025

Hardware Availability: Jul-2025

Software Availability: Jun-2024

Base Optimization Flags

C benchmarks:

```
-w -std=c11 -m64 -Wl,-z,muldefs -xsierraforest -Ofast -ffast-math  
-flto -mfpmath=sse -funroll-loops -qopt-mem-layout-trans=4 -fiopenmp  
-DSPEC_OPENMP -Wno-implicit-int -L/usr/local/jemalloc64-5.0.1/lib  
-ljemalloc
```

Fortran benchmarks:

```
-w -m64 -Wl,-z,muldefs -DSPEC_OPENMP -xsierraforest -Ofast  
-ffast-math -flto -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
```

Benchmarks using both Fortran and C:

```
-w -m64 -std=c11 -Wl,-z,muldefs -xsierraforest -Ofast -ffast-math  
-flto -mfpmath=sse -funroll-loops -qopt-mem-layout-trans=4 -fiopenmp  
-DSPEC_OPENMP -Wno-implicit-int -nostandard-realloc-lhs  
-align array32byte -auto -L/usr/local/jemalloc64-5.0.1/lib -ljemalloc
```

Benchmarks using Fortran, C, and C++:

```
-w -std=c++14 -m64 -std=c11 -Wl,-z,muldefs -xsierraforest -Ofast  
-ffast-math -flto -mfpmath=sse -funroll-loops  
-qopt-mem-layout-trans=4 -fiopenmp -DSPEC_OPENMP -Wno-implicit-int  
-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



SPEC CPU®2017 Floating Point Speed Result

Copyright 2017-2025 Standard Performance Evaluation Corporation

ASUSTeK Computer Inc.

ASUS RS720-E12-RS8G
(2.40 GHz, Intel Xeon 6710E)

SPECspeed®2017_fp_base = 281

SPECspeed®2017_fp_peak = 281

CPU2017 License: 9016

Test Sponsor: ASUSTeK Computer Inc.

Tested by: ASUSTeK Computer Inc.

Test Date: Sep-2025

Hardware Availability: Jul-2025

Software Availability: Jun-2024

Peak Portability Flags

Same as Base Portability Flags

Peak Optimization Flags

C benchmarks:

619.lbm_s: basepeak = yes

638.imagick_s: basepeak = yes

644.nab_s: basepeak = yes

Fortran benchmarks:

603.bwaves_s: -w -m64 -Wl,-z,muldefs -DSPEC_OPENMP -xsierraforest
-Ofast -ffast-math -flto -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: -w -m64 -std=c11 -Wl,-z,muldefs -xsierraforest -Ofast
-ffast-math -flto -mfpmath=sse -funroll-loops
-qopt-mem-layout-trans=4 -fiopenmp -DSPEC_OPENMP
-Wno-implicit-int -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



SPEC CPU®2017 Floating Point Speed Result

Copyright 2017-2025 Standard Performance Evaluation Corporation

ASUSTeK Computer Inc.

ASUS RS720-E12-RS8G
(2.40 GHz, Intel Xeon 6710E)

SPECspeed®2017_fp_base = 281

SPECspeed®2017_fp_peak = 281

CPU2017 License: 9016

Test Sponsor: ASUSTeK Computer Inc.

Tested by: ASUSTeK Computer Inc.

Test Date: Sep-2025

Hardware Availability: Jul-2025

Software Availability: Jun-2024

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

<http://www.spec.org/cpu2017/flags/ASUSTekPlatform-Settings-z14-V1.1.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-z14-V1.1.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 2025-09-15 20:59:39-0400.

Report generated on 2025-10-07 16:39:27 by CPU2017 PDF formatter v6716.

Originally published on 2025-10-07.