SPEC CPU®2017 Integer Rate Result

Copyright 2017-2026 Standard Performance Evaluation Corporation

ASUSTeK Computer Inc.

ASUS RS720-E12-RS8G
(2.20 GHz, Intel Xeon 6505P)

$SPECrate®2017\_int\_base = 298$
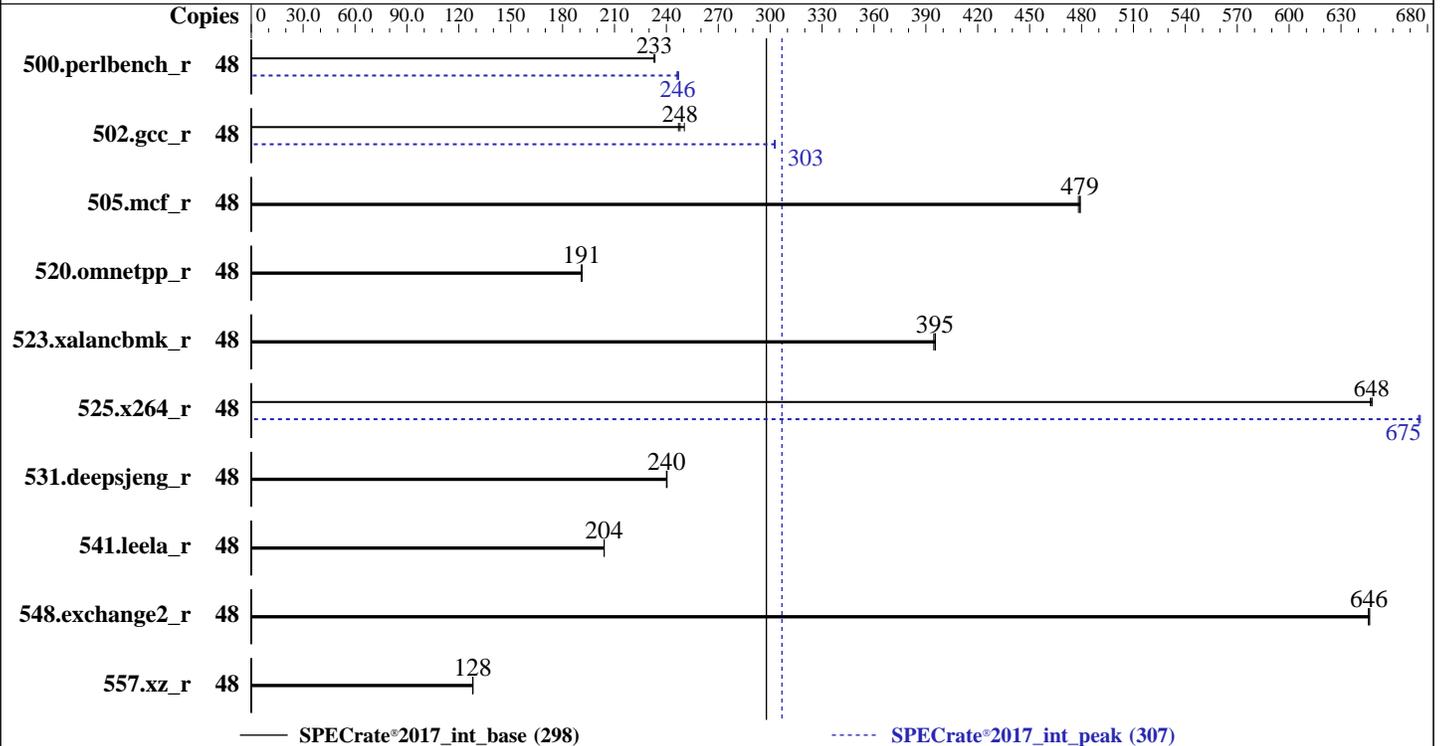
$SPECrate®2017\_int\_peak = 307$

CPU2017 License: 9016
Test Sponsor: ASUSTeK Computer Inc.
Tested by: ASUSTeK Computer Inc.

Test Date: Feb-2026
Hardware Availability: Jul-2025
Software Availability: Jun-2024

Copies: 0 30.0 60.0 90.0 120 150 180 210 240 270 300 330 360 390 420 450 480 510 540 570 600 630 680

Benchmark	Copies	base	peak
500.perlbench_r	48	233	246
502.gcc_r	48	248	303
505.mcf_r	48	479	
520.omnetpp_r	48	191	
523.xalancbmk_r	48	395	
525.x264_r	48	648	675
531.deepsjeng_r	48	240	
541.leela_r	48	204	
548.exchange2_r	48	646	
557.xz_r	48	128	

SPECrate®2017_int_base (298)   SPECrate®2017_int_peak (307)

Hardware

CPU Name: Intel Xeon 6505P
 Max MHz: 4100
 Nominal: 2200
Enabled: 24 cores, 2 chips, 2 threads/core
Orderable: 1, 2 chip(s)
Cache L1: 64 KB I + 48 KB D on chip per core
 L2: 2 MB I+D on chip per core
 L3: 48 MB I+D on chip per chip
 Other: None
Memory: 512 GB (16 x 32 GB 2Rx8 PC5-6400B-R)
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: No
Firmware: Version 0701 released Oct-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.

SPEC CPU®2017 Integer Rate Result

Copyright 2017-2026 Standard Performance Evaluation Corporation

ASUSTeK Computer Inc.

ASUS RS720-E12-RS8G
(2.20 GHz, Intel Xeon 6505P)

SPECrate®2017_int_base = 298

SPECrate®2017_int_peak = 307

CPU2017 License: 9016	**Test Date:** Feb-2026
Test Sponsor: ASUSTeK Computer Inc.	**Hardware Availability:** Jul-2025
Tested by: ASUSTeK Computer Inc.	**Software Availability:** Jun-2024

Results Table

Benchmark	Base							Peak						
	Copies	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Copies	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio
500.perlbench_r	48	**328**	**233**	327	233	328	233	48	**310**	**246**	310	246	309	247
502.gcc_r	48	271	250	275	247	**274**	**248**	48	224	303	**224**	**303**	225	302
505.mcf_r	48	**162**	**479**	162	479	162	478	48	**162**	**479**	162	479	162	478
520.omnetpp_r	48	329	191	**330**	**191**	330	191	48	329	191	**330**	**191**	330	191
523.xalancbmk_r	48	**128**	**395**	128	396	128	395	48	**128**	**395**	128	396	128	395
525.x264_r	48	130	647	**130**	**648**	130	648	48	125	675	**124**	**675**	124	676
531.deepsjeng_r	48	**229**	**240**	229	240	229	240	48	**229**	**240**	229	240	229	240
541.leela_r	48	390	204	390	204	**390**	**204**	48	390	204	390	204	**390**	**204**
548.exchange2_r	48	195	646	**195**	**646**	194	647	48	195	646	**195**	**646**	194	647
557.xz_r	48	**405**	**128**	405	128	405	128	48	**405**	**128**	405	128	405	128
SPECrate®2017_int_base =		**298**												
SPECrate®2017_int_peak =		**307**												

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"
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:
LD_LIBRARY_PATH = "/ic24u1/lib/intel64:/ic24u1/lib/ia32:/ic24u1/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.
```

(Continued on next page)

SPEC CPU®2017 Integer Rate Result
Copyright 2017-2026 Standard Performance Evaluation Corporation

ASUSTeK Computer Inc.

ASUS RS720-E12-RS8G
(2.20 GHz, Intel Xeon 6505P)

SPECrate®2017_int_base = 298

SPECrate®2017_int_peak = 307

CPU2017 License: 9016
Test Sponsor: ASUSTeK Computer Inc.
Tested by: ASUSTeK Computer Inc.

Test Date: Feb-2026
Hardware Availability: Jul-2025
Software Availability: Jun-2024

General Notes (Continued)

```
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
```

Platform Notes

```
BIOS Configuration:
ENERGY_PERF_BIAS_CFG mode = Performance
Latency Optimized Mode = Enabled
Engine Boost = Aggressive
SR-IOV Support = Disabled
Page Policy = Adaptive
DCU Streamer Prefetcher = Disable
LLC dead line alloc = Disable

Sysinfo program /ic24u1/bin/sysinfo
Rev: r6732 of 2022-11-07 fe91c89b7ed5c36ae2c92cc097bec197
running on localhost Thu Feb 26 22:02:30 2026

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
   22:02:30 up  9:46,  2 users,  load average: 13.28, 30.82, 38.63
```

SPEC CPU®2017 Integer Rate Result

Copyright 2017-2026 Standard Performance Evaluation Corporation

ASUSTeK Computer Inc.

ASUS RS720-E12-RS8G
(2.20 GHz, Intel Xeon 6505P)

SPECrate®2017_int_base = 298

SPECrate®2017_int_peak = 307

CPU2017 License: 9016   **Test Date:**   Feb-2026
Test Sponsor: ASUSTeK Computer Inc.   **Hardware Availability:** Jul-2025
Tested by: ASUSTeK Computer Inc.   **Software Availability:** Jun-2024

Platform Notes (Continued)

```
   USER     TTY      FROM             LOGIN@   IDLE   JCPU   PCPU WHAT
   root     tty1     -                12:17    9:45m  0.81s  0.00s /bin/bash ./rate.sh
   root     tty2     -                17:15    4:45m  0.04s  0.04s -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) 2062245
    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) 2062245
    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 ./rate.sh
   /bin/bash ./rate.sh
   runcpu --nobuild --action validate --define default-platform-flags --define numcopies=48 -c
     ic2024.1-lin-sapphirerapids-rate-20240308.cfg --define smt-on --define cores=24 --define physicalfirst
     --define invoke_with_interleave --define drop_caches --tune base,peak -o all intrate
   runcpu --nobuild --action validate --define default-platform-flags --define numcopies=48 --configfile
     ic2024.1-lin-sapphirerapids-rate-20240308.cfg --define smt-on --define cores=24 --define physicalfirst
     --define invoke_with_interleave --define drop_caches --tune base,peak --output_format all --nopower
     --runmode rate --tune base:peak --size refrate intrate --nopreenv --note-preenv --logfile
     $SPEC/tmp/CPU2017.757/templogs/preenv.intrate.757.0.log --lognum 757.0 --from_runcpu 2
   specperl $SPEC/bin/sysinfo
  $SPEC = /ic24u1


  ------------------------------------------------------------
  6. /proc/cpuinfo
    model name      : Intel(R) Xeon(R) 6505P
    vendor_id       : GenuineIntel
    cpu family      : 6
    model           : 173
    stepping        : 1
    microcode       : 0x10003f0
    bugs            : spectre_v1 spectre_v2 spec_store_bypass swapgs bhi
    cpu cores       : 12
    siblings        : 24
    2 physical ids (chips)
    48 processors (hardware threads)
    physical id 0: core ids 0-11
    physical id 1: core ids 0-11
```

(Continued on next page)

ASUSTeK Computer Inc.

ASUS RS720-E12-RS8G
(2.20 GHz, Intel Xeon 6505P)

SPECrate®2017_int_base = 298

SPECrate®2017_int_peak = 307

CPU2017 License: 9016
Test Sponsor: ASUSTeK Computer Inc.
Tested by: ASUSTeK Computer Inc.

Test Date: Feb-2026
Hardware Availability: Jul-2025
Software Availability: Jun-2024

Platform Notes (Continued)

```
    physical id 0: apicids 0-23
    physical id 1: apicids 128-151
  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:                   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) 6505P
  BIOS Model name:                 Intel(R) Xeon(R) 6505P  CPU @ 2.2GHz
  BIOS CPU family:                 179
  CPU family:                      6
  Model:                           173
  Thread(s) per core:              2
  Core(s) per socket:              12
  Socket(s):                       2
  Stepping:                        1
  CPU(s) scaling MHz:              40%
  CPU max MHz:                     4100.0000
  CPU min MHz:                     800.0000
  BogoMIPS:                        4400.00
  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 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
                                   split_lock_detect user_shstk avx_vnni avx512_bf16 wbnoinvd dtherm ida
                                   arat pln pts hwp hwp_act_window hwp_epp hwp_pkg_req vnmi avx512vbmi
                                   umip pku ospke waitpkg avx512_vbmi2 gfni vaes vpclmulqdq avx512_vnni
                                   avx512_bitalg tme avx512_vpopcntdq la57 rdpid bus_lock_detect
                                   cldemote movdiri movdir64b enqcmd fsrm md_clear serialize tsxldtrk
                                   pconfig arch_lbr ibt amx_bf16 avx512_fp16 amx_tile amx_int8 flush_l1d
                                   arch_capabilities
  Virtualization:                  VT-x
  L1d cache:                       1.1 MiB (24 instances)
  L1i cache:                       1.5 MiB (24 instances)
  L2 cache:                        48 MiB (24 instances)
  L3 cache:                        96 MiB (2 instances)
  NUMA node(s):                    2
  NUMA node0 CPU(s):               0-11,24-35
  NUMA node1 CPU(s):               12-23,36-47
  Vulnerability Gather data sampling: Not affected
  Vulnerability Itlb multihit:     Not affected
```

(Continued on next page)

ASUSTeK Computer Inc.

ASUS RS720-E12-RS8G
(2.20 GHz, Intel Xeon 6505P)

SPECrate®2017_int_base = 298

SPECrate®2017_int_peak = 307

CPU2017 License: 9016
Test Sponsor: ASUSTeK Computer Inc.
Tested by: ASUSTeK Computer Inc.

Test Date: Feb-2026
Hardware Availability: Jul-2025
Software Availability: Jun-2024

Platform Notes (Continued)

```
  Vulnerability L1tf:                   Not affected
  Vulnerability Mds:                    Not affected
  Vulnerability Meltdown:               Not affected
  Vulnerability Mmio stale data:        Not affected
  Vulnerability Reg file data sampling: Not affected
  Vulnerability Retbleed:               Not affected
  Vulnerability Spec rstack overflow:   Not affected
  Vulnerability Spec store bypass:      Mitigation; Speculative Store Bypass disabled via prctl
  Vulnerability Spectre v1:             Mitigation; usercopy/swapgs barriers and __user pointer sanitization
  Vulnerability Spectre v2:             Mitigation; Enhanced / Automatic IBRS; IBPB conditional; RSB filling;
                                        PBRSB-eIBRS Not affected; BHI BHI_DIS_S
  Vulnerability Srbds:                  Not affected
  Vulnerability Tsx async abort:        Not affected

From lscpu --cache:
    NAME ONE-SIZE ALL-SIZE WAYS TYPE        LEVEL  SETS PHY-LINE COHERENCY-SIZE
    L1d      48K     1.1M   12 Data           1    64      1            64
    L1i      64K     1.5M   16 Instruction    1    64      1            64
    L2        2M      48M   16 Unified        2  2048      1            64
    L3       48M      96M   16 Unified        3 49152      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: 0-11,24-35
  node 0 size: 257561 MB
  node 0 free: 255927 MB
  node 1 cpus: 12-23,36-47
  node 1 size: 258026 MB
  node 1 free: 256451 MB
  node distances:
  node   0   1
    0:  10  21
    1:  21  10


-------------------------------------------------------------
9. /proc/meminfo
   MemTotal:       527961824 kB


-------------------------------------------------------------
10. who -r
   run-level 3 Feb 26 12:17


-------------------------------------------------------------
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 nvmefc-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 autoyast-initscripts blk-availability boot-sysctl ca-certificates chrony-wait
                   chronyd console-getty cups cups-browsed debug-shell ebtables exchange-bmc-os-info
                   firewalld fsidd gpm grub2-once haveged hwloc-dump-hwdata ipmi ipmievd issue-add-ssh-keys
```

(Continued on next page)

ASUSTeK Computer Inc.

ASUS RS720-E12-RS8G
(2.20 GHz, Intel Xeon 6505P)

SPECrate®2017_int_base = 298

SPECrate®2017_int_peak = 307

CPU2017 License: 9016
Test Sponsor: ASUSTeK Computer Inc.
Tested by: ASUSTeK Computer Inc.

Test Date: Feb-2026
Hardware Availability: Jul-2025
Software Availability: Jun-2024

Platform Notes (Continued)

```
                kexec-load lunmask man-db-create multipathd nfs nfs-blkmap rpcbind rpmconfigcheck rsyncd
                serial-getty@ smartd_generate_opts snmpd snmptrapd svnserve 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
    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 39:
      current policy: frequency should be within 800 MHz and 4.10 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: throughput-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

  ----------------------------------------------------------------
```

ASUSTeK Computer Inc.

ASUS RS720-E12-RS8G
(2.20 GHz, Intel Xeon 6505P)

SPECrate®2017_int_base = 298

SPECrate®2017_int_peak = 307

CPU2017 License: 9016
Test Sponsor: ASUSTeK Computer Inc.
Tested by: ASUSTeK Computer Inc.

Test Date: Feb-2026
Hardware Availability: Jul-2025
Software Availability: Jun-2024

Platform Notes (Continued)

```
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 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   83G  418G  17% /


----------------------------------------------------------
21. /sys/devices/virtual/dmi/id
  Vendor:         ASUSTeK COMPUTER INC.
  Product:        RS720-E12-RS8G
  Product Family: Server
  Serial:         /psn/


----------------------------------------------------------
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 M321R4GA3PB2-CCPKC 32 GB 2 rank 6400



----------------------------------------------------------
23. BIOS
(This section combines info from /sys/devices and dmidecode.)
  BIOS Vendor:      American Megatrends Inc.
  BIOS Version:     0701
  BIOS Date:        10/13/2025
  BIOS Revision:    7.1
```

Compiler Version Notes

```
==========================================================================================
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
```

(Continued on next page)

ASUSTeK Computer Inc.

ASUS RS720-E12-RS8G
(2.20 GHz, Intel Xeon 6505P)

SPECrate®2017_int_base = 298

SPECrate®2017_int_peak = 307

CPU2017 License: 9016
Test Sponsor: ASUSTeK Computer Inc.
Tested by: ASUSTeK Computer Inc.

Test Date: Feb-2026
Hardware Availability: Jul-2025
Software Availability: Jun-2024

Compiler Version Notes (Continued)

```
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.xalancbmk_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`

Base Portability Flags

500.perlbench_r: `-DSPEC_LP64 -DSPEC_LINUX_X64`
502.gcc_r: `-DSPEC_LP64`
505.mcf_r: `-DSPEC_LP64`

(Continued on next page)

ASUSTeK Computer Inc.

ASUS RS720-E12-RS8G
(2.20 GHz, Intel Xeon 6505P)

SPECrate®2017_int_base = 298

SPECrate®2017_int_peak = 307

CPU2017 License: 9016
Test Sponsor: ASUSTeK Computer Inc.
Tested by: ASUSTeK Computer Inc.

Test Date: Feb-2026
Hardware Availability: Jul-2025
Software Availability: Jun-2024

Base Portability Flags (Continued)

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 -lqkmalloc

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 -lqkmalloc

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 -lqkmalloc

Peak Compiler Invocation

C benchmarks:
icx

C++ benchmarks:
icpx

Fortran benchmarks:
ifx

SPEC CPU®2017 Integer Rate Result

ASUSTeK Computer Inc.

ASUS RS720-E12-RS8G
(2.20 GHz, Intel Xeon 6505P)

$SPECrate^{®}2017\_int\_base = 298$

$SPECrate^{®}2017\_int\_peak = 307$

CPU2017 License:	9016	**Test Date:**	Feb-2026
Test Sponsor:	ASUSTeK Computer Inc.	**Hardware Availability:**	Jul-2025
Tested by:	ASUSTeK Computer Inc.	**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 -lqkmalloc`

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 -lqkmalloc`

557.xz_r: basepeak = yes

C++ benchmarks:

520.omnetpp_r: basepeak = yes

(**Continued on next page**)

Standard Performance Evaluation Corporation (info@spec.org) https://www.spec.org/

ASUSTeK Computer Inc.

ASUS RS720-E12-RS8G
(2.20 GHz, Intel Xeon 6505P)

SPECrate®2017_int_base = 298

SPECrate®2017_int_peak = 307

CPU2017 License:	9016	**Test Date:**	Feb-2026
Test Sponsor:	ASUSTeK Computer Inc.	**Hardware Availability:**	Jul-2025
Tested by:	ASUSTeK Computer Inc.	**Software Availability:**	Jun-2024

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/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`

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 2026-02-26 09:02:30-0500.
Report generated on 2026-03-25 10:08:33 by CPU2017 PDF formatter v6716.
Originally published on 2026-03-24.