# SPEC CPU®2017 Integer Rate Result

## ZTE Corporation

**ZTE R8500G5 Server System**  
(2.20 GHz, Intel Xeon Gold 6416H)

<table>
<thead>
<tr>
<th>SPECrate®2017_int_base</th>
<th>660</th>
</tr>
</thead>
<tbody>
<tr>
<td>SPECrate®2017_int_peak</td>
<td>676</td>
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</table>

**Test Sponsor:** ZTE Corporation  
**Tested by:** ZTE Corporation

<table>
<thead>
<tr>
<th>CPU2017 License</th>
<th>9061</th>
</tr>
</thead>
<tbody>
<tr>
<td>Test Date</td>
<td>May-2024</td>
</tr>
<tr>
<td>Hardware Availability</td>
<td>Apr-2023</td>
</tr>
<tr>
<td>Software Availability</td>
<td>Dec-2023</td>
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<tr>
<td>500.perlbench_r</td>
<td>144</td>
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<td>595</td>
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</tbody>
</table>

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### Hardware

<table>
<thead>
<tr>
<th>CPU Name</th>
<th>Intel Xeon Gold 6416H</th>
</tr>
</thead>
<tbody>
<tr>
<td>Max MHz</td>
<td>4200</td>
</tr>
<tr>
<td>Nominal</td>
<td>2200</td>
</tr>
<tr>
<td>Enabled</td>
<td>72 cores, 4 chips, 2 threads/core</td>
</tr>
<tr>
<td>Orderable</td>
<td>2.4 chips</td>
</tr>
<tr>
<td>Cache L1</td>
<td>32 KB I + 48 KB D on chip per core</td>
</tr>
<tr>
<td>Cache L2</td>
<td>2 MB I+D on chip per core</td>
</tr>
<tr>
<td>Cache L3</td>
<td>45 MB I+D on chip per chip</td>
</tr>
<tr>
<td>Other</td>
<td>None</td>
</tr>
<tr>
<td>Memory</td>
<td>2 TB (32 x 64 GB 2Rx4 PC5-4800B-R)</td>
</tr>
<tr>
<td>Storage</td>
<td>1 x 960 GB SATA SSD</td>
</tr>
<tr>
<td>Other</td>
<td>CPU Cooling: Air</td>
</tr>
</tbody>
</table>

### Software

<table>
<thead>
<tr>
<th>OS</th>
<th>Red Hat Enterprise Linux 9.0 (Plow)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Compiler</td>
<td>C/C++: Version 2023.2.3 of Intel oneAPI DPC++/C++ Compiler for Linux; Fortran: Version 2023.2.3 of Intel Fortran Compiler for Linux;</td>
</tr>
<tr>
<td>Parallel</td>
<td>No</td>
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<tr>
<td>Firmware</td>
<td>Version 01.23.04.20 released Feb-2024</td>
</tr>
<tr>
<td>File System</td>
<td>xfs</td>
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<tr>
<td>System State</td>
<td>Run level 3 (multi-user)</td>
</tr>
<tr>
<td>Base Pointers</td>
<td>64-bit</td>
</tr>
<tr>
<td>Peak Pointers</td>
<td>32/64-bit</td>
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<tr>
<td>Other</td>
<td>jemalloc memory allocator V5.0.1</td>
</tr>
<tr>
<td>Power Management</td>
<td>BIOS and OS set to prefer performance at the cost of additional power usage.</td>
</tr>
</tbody>
</table>
SPEC CPU®2017 Integer Rate Result

ZTE Corporation
ZTE R8500G5 Server System
(2.20 GHz, Intel Xeon Gold 6416H)

Copyright 2017-2024 Standard Performance Evaluation Corporation

SPECrate®2017_int_base = 660
SPECrate®2017_int_peak = 676

Results Table

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<td>317</td>
<td>488</td>
<td>319</td>
<td>491</td>
<td>317</td>
</tr>
</tbody>
</table>

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 = "/home/spec2017/lib/intel64:/home/spec2017/lib/ia32:/home/spec2017/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)
SPEC CPU®2017 Integer Rate Result

ZTE Corporation
ZTE R8500G5 Server System
(2.20 GHz, Intel Xeon Gold 6416H)

SPECrate®2017_int_base = 660
SPECrate®2017_int_peak = 676

CPU2017 License: 9061
Test Sponsor: ZTE Corporation
Tested by: ZTE Corporation

Test Date: May-2024
Hardware Availability: Apr-2023
Software Availability: Dec-2023

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

Platform Notes

BIOS Configuration:
ENERGY_PERF_BIAS_CFG mode = performance
LLC dead line alloc = Disabled
Patrol Scrub = Disabled
Intel VT for Directed I/O (VT-d) = Disabled
SR-IOV Support = Disabled
Sub NUMA (SNC) = Enable SNC2

Sysinfo program /home/spec2017/bin/sysinfo
Rev: r6732 of 2022-11-07 fe91c89b7ed5c36ae2c92cc097bec197
running on localhost.localdomain Fri May 24 15:42:58 2024

SUT (System Under Test) info as seen by some common utilities.

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1. uname -a
2. w
3. Username
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6. /proc/cpuinfo
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8. numacl --hardware
9. /proc/meminfo
10. who -r
11. Systemd service manager version: systemctl list-unit-files
12. Linux kernel boot-time arguments, from /proc/cmdline
13. cpupower frequency-info
14. sysctl
15. /sys/kernel/mm/transparent_hugepage
16. /sys/kernel/mm/transparent_hugepage/khugepaged
17. OS release
18. Disk information
19. /sys/devices/virtual/dmi/id
20. BIOS

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

2. w
15:42:58 up 19 min, 3 users, load average: 0.15, 0.04, 0.05
USER  TTY LOGNAME    IDLE    JCPU    PCPU   WHAT
root pts/0  15:32    8.00s   0.81s    0.00s /bin/sh
./reportable-ic2023.2.3-lin-sapphirerapids-rate-smt-on-20231121.sh

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Platform Notes (Continued)

3. Username
   From environment variable $USER: root

4. ulimit -a
   real-time non-blocking time (microseconds, -R) unlimited
   core file size (blocks, -c) 0
   data seg size (kbytes, -d) unlimited
   scheduling priority (-e) 0
   file size (blocks, -f) unlimited
   pending signals (-i) 8253303
   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) 8253303
   virtual memory (kbytes, -v) unlimited
   file locks (-x) unlimited

5. sysinfo process ancestry
   /usr/lib/systemd/systemd --switched-root --system --deserialize 27
   sshd: /usr/sbin/sshd -D [listener] 0 of 10-100 startups
   sshd: root [priv]
   sshd: root@pts/0
   -bash
   /bin/sh .reportable-ic2023.2.3-lin-sapphirerapids-rate-smt-on-20231121.sh
   runcpu --nobuild --action validate --define default-platform-flags --define numcopies=144 --c
   ic2023.2.3-lin-sapphirerapids-rate-20231121.cfg --define smt-on --define cores=72 --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=144 --configfile
   ic2023.2.3-lin-sapphirerapids-rate-20231121.cfg --define smt-on --define cores=72 --define physicalfirst
   --define invoke_with_interleave --define drop_caches --tune base,peak --o output_format all --nopower
   --runmode rate --tune base:peak --size refrate intrate --nopreenv --note-preenv --logfile
   $SPEC/tmp/CPU2017.014/templogs/preenv.intrate.014.0.log --lognum 014.0 --from_runcpu 2
   specperl $SPEC/bin/sysinfo
   $SPEC = /home/spec2017
   $SPEC = /home/spec2017

6. /proc/cpuinfo
   model name : Intel(R) Xeon(R) Gold 6416H
   vendor_id : GenuineIntel
   cpu family : 6
   model : 143
   stepping : 8
   microcode : 0x2b0004d0
   bugs : spectre_v1 spectre_v2 spec_store_bypass swaps
   cpu cores : 18
   siblings : 36
   4 physical ids (chips)
   144 processors (hardware threads)
   physical id 0: core ids 0-17

(Continued on next page)
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SPEC CPU®2017 Integer Rate Result

SPECrate®2017_int_base = 660
SPECrate®2017_int_peak = 676

CPU2017 License: 9061
Test Sponsor: ZTE Corporation
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Test Date: May-2024
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ZTE Corporation

SPECrates®2017_int_base = 660
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Platform Notes (Continued)

physical id 1: core ids 0-17
physical id 2: core ids 0-17
physical id 3: core ids 0-17
physical id 0: apicids 0-39
physical id 1: apicids 128-163
physical id 2: apicids 256-291
physical id 3: apicids 384-419

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

From lscpu from util-linux 2.37.4:
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): 144
On-line CPU(s) list: 0-143
Vendor ID: GenuineIntel
BIOS Vendor ID: Intel(R) Corporation
Model name: Intel(R) Xeon(R) Gold 6416H
BIOS Model name: Intel(R) Xeon(R) Gold 6416H
CPU family: 6
Model: 143
Thread(s) per core: 2
Core(s) per socket: 18
Socket(s): 4
Stepping: 8
CPU max MHz: 4200.0000
CPU min MHz: 800.0000
BogoMIPS: 4400.00
Flags:
  fpu vme de pse tsc msr pae mca cx8 apic sep mtrr pge mca cmov pat pse36
  clflush dts acpi mmx fxsr sse sse2 ss ht tm pbe syscall nx pdpe1gb rdtps
  pm constant tsc arch_perfmon pebs bts rep_good nopl stp ibt
  tscsync mmca pdeducation pvrdm mon aprm mce cmov pxrmd pcx8 pmx pae mce
  cx8 apicpop movbe popcnt tsc_deadline_timer aes xsave avx f16c rdseed iahf
  lm 3dnowprefetch cpuid_fault eb cat_l3 cat_l2 cdp cdp_13 invpcid_single
  intel_pmm cdp_12 sdbd mba ibrs ldbp stibp ibrs enhanced fsgsbase
  tsc_adjust bmi1 avx2 smep bmi2 erms invpcid cmq rdt_a avx512f avx512dq
  rdseed adx smap avx512fma clflushopt clwb intel_pt avx512cd sha ni
  avx512bw avx512vl xsavecpo xsavec xsavec1 xsave vcmovaq lgendb1
  pcm hever ida arat pdn pts hwtop act_window hwp_epp hwp_pgreq
  avx512v bmi umip pku msep wpmk avx512_v bmi gfi vaes vpcm1ldg
  avx512_v nmi avx512_bitalg tme avx512_vpopcntdq la57 rpdp run_profile
  detect cldcomte movdi movdix64b enqcmd fmdr_clear serialize tsxidtrk pconf
  arch xcrv xcr512_fp16 amx_tile flush_lld arch_capabilities

L1d cache: 3.4 MiB (72 instances)
L1i cache: 2.3 MiB (72 instances)
L2 cache: 144 MiB (72 instances)
L3 cache: 180 MiB (4 instances)
NUMA node(s): 8
NUMA node0 CPU(s): 0-8,72
NUMA node1 CPU(s): 8-16, 80-88
NUMA node2 CPU(s): 9-17, 81-89
NUMA node3 CPU(s): 18-26, 90-98
NUMA node4 CPU(s): 27-35, 99-107
NUMA node5 CPU(s): 36-44, 108-116

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ZTE Corporation

ZTE R8500G5 Server System
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CPU2017 License: 9061
Test Sponsor: ZTE Corporation
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Platform Notes (Continued)

NUMA node5 CPU(s): 45–53, 117–125
NUMA node6 CPU(s): 54–62, 126–134
NUMA node7 CPU(s): 63–71, 135–143
Vulnerability Icli multihit: Not affected
Vulnerability L1tf: Not affected
Vulnerability Mds: Not affected
Vulnerability Meltdown: Not affected
Vulnerability Spec store bypass: Mitigation; Speculative Store Bypass disabled via prctl
Vulnerability Spectre v1: Mitigation; usercopy/swappgs barriers and __user pointer sanitization
Vulnerability Spectre v2: Mitigation; Enhanced IBRS, IBPB conditional, RSB filling
Vulnerability Srbds: Not affected
Vulnerability Tax async abort: Not affected

From lscpu --cache:

NAME ONE-SIZE ALL-SIZE WAYS TYPE LEVEL SETS PHY-LINE COHERENCY-SIZE
L1d 48K 3.4M 12 Data 1 64 1 64
L1i 32K 2.3M 8 Instruction 1 64 1 64
L2 2M 144M 16 Unified 2 2048 1 64
L3 45M 180M 15 Unified 3 49152 1 64

8. numactl --hardware
NOTE: a numactl 'node' might or might not correspond to a physical chip.
available: 8 nodes (0–7)
node 0 cpus: 0–8, 72–80
node 0 size: 257114 MB
node 0 free: 256606 MB
node 1 cpus: 9–17, 81–89
node 1 size: 258043 MB
node 1 free: 257725 MB
node 2 cpus: 18–26, 90–98
node 2 size: 258043 MB
node 2 free: 257718 MB
node 3 cpus: 27–35, 99–107
node 3 size: 258043 MB
node 3 free: 257722 MB
node 4 cpus: 36–44, 108–116
node 4 size: 258043 MB
node 4 free: 257619 MB
node 5 cpus: 45–53, 117–125
node 5 size: 258043 MB
node 5 free: 257118 MB
node 6 cpus: 54–62, 126–134
node 6 size: 258043 MB
node 6 free: 257208 MB
node 7 cpus: 63–71, 135–143
node 7 size: 257987 MB
node 7 free: 257174 MB
node distances:

node 0 1 2 3 4 5 6 7
0: 10 12 21 21 21 21 21 21
1: 12 10 21 21 21 21 21 21
2: 21 10 12 21 21 21 21 21
3: 21 21 12 10 21 21 21 21
4: 21 21 21 10 12 21 21 21
5: 21 21 21 21 12 10 21 21
6: 21 21 21 21 21 10 12 21
7: 21 21 21 21 21 21 12 10

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ZTE Corporation
ZTE R8500G5 Server System
(2.20 GHz, Intel Xeon Gold 6416H)

SPEC CPU®2017 Integer Rate Result
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CPU2017 License: 9061
Test Sponsor: ZTE Corporation
Tested by: ZTE Corporation

CPU2017 version: 2017.2.0.5.9061
Tested by: ZTE Corporation

SPECrate®2017_int_base = 660
SPECrate®2017_int_peak = 676

Test Date: May-2024
Hardware Availability: Apr-2023
Software Availability: Dec-2023

Platform Notes (Continued)

9. /proc/meminfo
   MemTotal:  2112886924 kB

10. who -r
    run-level 3 May 24 15:24

11. Systemd service manager version: systemd 250 (250-6.e19_0)
    Default Target Status
    multi-user running

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

13. Linux kernel boot-time arguments, from /proc/cmdline
    BOOT_IMAGE=(hd0,gpt2)/vmlinuz-5.14.0-70.13.1.e19_0.x86_64
    root=/dev/mapper/rhel-root
    ro
    crashkernel=1G-4G:192M,4G-64G:256M,64G-:512M
    resume=/dev/mapper/rhel-swap
    rd.lvm.lv=rhel/root
    rd.lvm.lv=rhel/swap
    nohz_full=0-143

14. cpupower frequency-info
    analyzing CPU 0:
    current policy: frequency should be within 800 MHz and 4.20 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.companion_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

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Platform Notes (Continued)

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

16. /sys/kernel/mm/transparent_hugepage
   defrag always defer+madvise [madvise] never
   enabled [always] madvise never
   hpage_pmd_size 2097152
   shmem_enabled always within_size advise [never] deny force

17. /sys/kernel/mm/transparent_hugepage/transparent_hugepage
    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 Red Hat Enterprise Linux 9.0 (Plow)
   redhat-release Red Hat Enterprise Linux release 9.0 (Plow)
   system-release Red Hat Enterprise Linux release 9.0 (Plow)

19. Disk information
   SPEC is set to: /home/spec2017
   Filesystem Type Size Used Avail Use% Mounted on
   /dev/mapper/rhel-home xfs 819G 135G 684G 17% /home

20. /sys/devices/virtual/dmi/id
    Vendor: ZTE
    Product: R8500 G5
    Product Family: Server
    Serial: 219413636851

21. dmidecode
    Additional information from dmidecode 3.3 follows. WARNING: Use caution when you interpret this section.
    The 'dmidecode' program reads system data which is "intended to allow hardware to be accurately
determined", but the intent may not be met, as there are frequent changes to hardware, firmware, and the
"DMTF SMBIOS" standard.
    Memory:
    32x Samsung M321R8GA0BB0-CQKMG 64 GB 2 rank 4800

22. BIOS
    (This section combines info from /sys/devices and dmidecode.)
    BIOS Vendor: American Megatrends Inc.

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ZTE Corporation
ZTE R8500G5 Server System
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CPU2017 License: 9061
Test Sponsor: ZTE Corporation
Tested by: ZTE Corporation

BIOS Version: 01.23.04.20
BIOS Date: 02/27/2024
BIOS Revision: 1.23

Compiler Version Notes

Base Compiler Invocation

C benchmarks:
- icx

Base Compiler Invocation (Continued)
**SPEC CPU®2017 Integer Rate Result**

**ZTE Corporation**
ZTE R8500G5 Server System
(2.20 GHz, Intel Xeon Gold 6416H)

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**Software Availability:** Dec-2023

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**Base Compiler Invocation (Continued)**

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
520.omnetpp_r: -DSPEC_LP64
523.xalancbmk_r: -DSPEC_LP64 -DSPEC_LINUX
525.x264_r: -DSPEC_LP64
531.deepsjeng_r: -DSPEC_LP64 -DSPEC_LINUX
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/home/specdev/new_compilers/ic2023.2.3/compiler/lib/intel64_lin
-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/home/specdev/new_compilers/ic2023.2.3/compiler/lib/intel64_lin
-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/home/specdev/new_compilers/ic2023.2.3/compiler/lib/intel64_lin
-lqkmalloc
```
## SPEC CPU®2017 Integer Rate Result

ZTE Corporation  
ZTE R8500G5 Server System  
(2.20 GHz, Intel Xeon Gold 6416H)

<table>
<thead>
<tr>
<th>SPECrate®2017_int_base</th>
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</tbody>
</table>

**CPU2017 License:** 9061  
**Test Sponsor:** ZTE Corporation  
**Tested by:** ZTE Corporation  
**Test Date:** May-2024  
**Hardware Availability:** Apr-2023  
**Software Availability:** Dec-2023

### Peak Compiler Invocation

C benchmarks:  
icx  

C++ benchmarks:  
icpx  

Fortran benchmarks:  
ifx

### 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 -gopt-mem-layout-trans=4 -fno-strict-overflow -L/home/specdev/new_compilers/ic2023.2.3/compiler/lib/intel64_lin -lqkmalloc  

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ZTE Corporation
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SPECrated®2017_int_base = 660
SPECrated®2017_int_peak = 676

CPU2017 License: 9061
Test Sponsor: ZTE Corporation
Tested by: ZTE Corporation

Test Date: May-2024
Hardware Availability: Apr-2023
Software Availability: Dec-2023

Peak Optimization Flags (Continued)

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/home/specdev/new_compilers/ic2023.2.3/compiler/lib/intel64_lin
-lqkmalloc

557.xz_r: basepeak = yes

C++ benchmarks:

520.omnetpp_r: basepeak = yes
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-ic2023p2-official-linux64.html
http://www.spec.org/cpu2017/flags/ZTE-Platform-Settings-SPR-V1.11.html

You can also download the XML flags sources by saving the following links:
http://www.spec.org/cpu2017/flags/Intel-ic2023p2-official-linux64.xml
http://www.spec.org/cpu2017/flags/ZTE-Platform-Settings-SPR-V1.11.xml

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

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