

SPEC CPU®2017 Integer Rate Result

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My Corporation

SPECrate®2017_int_base = 114

SPECrate®2017_int_peak = Not Run

CPU2017 License: nnn (Your SPEC license number)

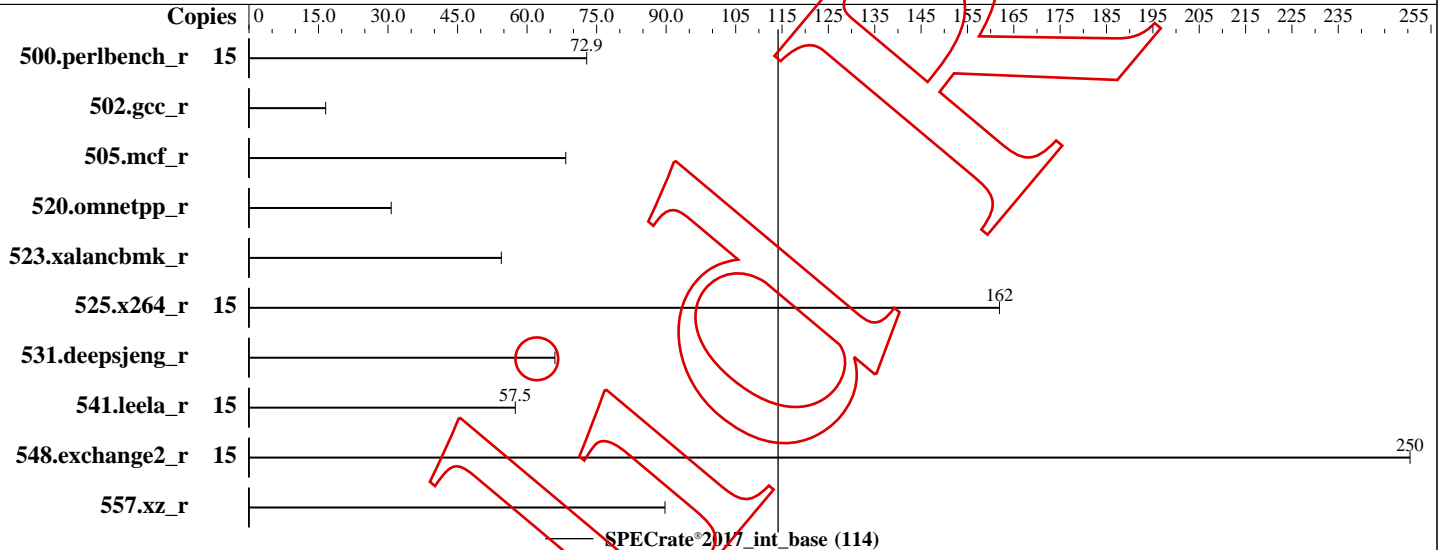
Test Sponsor: My Corporation

Tested by: My Corporation

Test Date: Nov-2024

Hardware Availability:

Software Availability:



Hardware

CPU Name: 06/8f
Max MHz:
Nominal:
Enabled: cores, 1 chip, threads/core
Orderable:
Cache L1:
L2:
L3:
Other:
Memory: 3.624 GB fixme: If using DDR4, the format is:
'N GB (N x N GB nRxn PC4-nnnnX-X)'
Storage: 66 GB add more disk info here
Other:

Software

OS: Ubuntu 24.04 LTS
6.8.0-35-generic
Compiler: C/C++/Fortran: Version 10.1.0 of GCC, the GNU Compiler Collection
Parallel: No
Firmware:
File System: ext4
System State: Run level 5 (add definition here)
Base Pointers: 64-bit
Peak Pointers: Not Applicable
Other:
Power Management:

Errors

'reportable' flag not set during run
520.omnetpp_r (base) did not have enough runs!
541.leela_r (base) did not have enough runs!
531.deepsjeng_r (base) did not have enough runs!
502.gcc_r (base) did not have enough runs!
525.x264_r (base) did not have enough runs!
505.mcf_r (base) did not have enough runs!
523.xalancbmk_r (base) did not have enough runs!
548.exchange2_r (base) did not have enough runs!
500.perlbench_r (base) did not have enough runs!
557.xz_r (base) did not have enough runs!

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Errors (Continued)

520.omnetpp_r (base) had invalid runs!
531.deepsjeng_r (base) had invalid runs!
502.gcc_r (base) had invalid runs!
505.mcf_r (base) had invalid runs!
523.xalancbmk_r (base) had invalid runs!
557.xz_r (base) had invalid runs!
Run of 502.gcc_r (base) was not valid; status is RE
Run of 505.mcf_r (base) was not valid; status is RE
Run of 520.omnetpp_r (base) was not valid; status is RE
Run of 523.xalancbmk_r (base) was not valid; status is RE
Run of 531.deepsjeng_r (base) was not valid; status is RE
Run of 557.xz_r (base) was not valid; status is RE

Results Table

Benchmark	Base						Peak							
	Copies	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Copies	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio
500.perlbench_r	15	328	72.9											
502.gcc_r	15	1283	0.00											
505.mcf_r	15	355	0.00											
520.omnetpp_r	15	641	0.00											
523.xalancbmk_r	15	291	0.00											
525.x264_r	15	162	162											
531.deepsjeng_r	15	260	0.00											
541.leela_r	15	432	57.5											
548.exchange2_r	15	157	250											
557.xz_r	15	180	0.00											

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

Environment Variables Notes

Environment variables set by runcpu before the start of the run:
LD_LIBRARY_PATH = "/usr/lib64:/usr/lib:/lib64"

Platform Notes

Sysinfo program /home/tdx/speccpu2017/bin/sysinfo
Rev: r6732 of 2022-11-07 fe91c89b7ed5c36ae2c92cc097bec197
running on tdx-guest Fri Nov 1 04:42:18 2024

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Platform Notes (Continued)

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

Table of contents

1. `uname -a`
Linux tdx-guest 6.8.0-35-generic #35-Ubuntu SMP PREEMPT_DYNAMIC Mon May 20 15:51:52 UTC 2024 x86_64 x86_64 x86_64 GNU/Linux
2. `w`
04:42:18 up 0 min, 1 user, load average: 0.25, 0.07, 0.02

USER	TTY	FROM	LOGIN@	IDLE	JCPU	PCPU	WHAT
root	hvc0	-	04:41	2.00s	2.22s	?	sh -c w 2>/dev/null
3. Username
From environment variable \$USER: root
4. `ulimit -a`

time(seconds)	unlimited
file(blocks)	unlimited
data(kbytes)	unlimited
stack(kbytes)	8192
coredump(blocks)	0
memory(kbytes)	unlimited
locked memory(kbytes)	474996
process	14641
nofiles	1024
vmemory(kbytes)	unlimited
locks	unlimited
rtprio	0

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Platform Notes (Continued)

5. sysinfo process ancestry

```
/sbin/init
/bin/login -p --
-bash
runcpu --config=tdx4.cfg --tune=base --size=ref intrate --copies=15
runcpu --configfile tdx4.cfg --tune base --size ref --copies 15 --noreportable --nopower --runmode rate
--tune base --size refrate intrate --nopreenv --note-preenv --logfile
$SPEC/tmp/CPU2017.003/temlogs/preenv.intrate.003.0.log --lognum 003.0 --from_runcpu 2
specperl $SPEC/bin/sysinfo
$SPEC = /home/tdx/speccpu2017
```

6. /proc/cpuinfo

```
model name      : 06/8f
vendor_id       : GenuineIntel
cpu family      : 6
model           : 143
stepping        : 8
microcode       : 0x2b0005d1
bugs            : spectre_v1 spectre_v2 spec_store_bypass swapgs eibrs_pbrsb bhi
cpu cores       : 16
siblings        : 16
1 physical ids (chips)
16 processors (hardware threads)
physical id 0: core ids 0-15
physical id 0: apicids 0-15
```

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):	16
On-line CPU(s) list:	0-15
Vendor ID:	GenuineIntel
BIOS Vendor ID:	QEMU
Model name:	06/8f
BIOS Model name:	pc-q35-8.2 CPU @ 2.0GHz
BIOS CPU family:	1
CPU family:	6
Model:	143
Thread(s) per core:	1
Core(s) per socket:	16
Socket(s):	1
Stepping:	8
BogoMIPS:	4800.00
Flags:	fpu vme de pse tsc msr pae mce cx8 apic sep mtrr pge mca cmov pat clflush dts mmx fxsr sse sse2 ss ht tm syscall nx pdpe1gb rdtscp lm constant_tsc bts rep_good nopl tsc_reliable nonstop_tsc cpuid tsc_known_freq pni pclmulqdq dtes64 ds_cpl sse3 fma cx16 pdcm pcid sse4_1 sse4_2 x2apic movbe popcnt tsc_deadline_timer aes xsave avx f16c rdrand hypervisor lahf_lm abm 3dnowprefetch cpuid_fault ssbd ibrs ibpb stibp ibrs_enhanced tdx_guest fgsgbase bmi1 avx2 smep bmi2 erms invpcid avx512f avx512dq rdseed adx smap avx512ifma clflushopt clwb avx512cd sha_ni avx512bw avx512vl xsaveopt xsavec xgetbv1 xsaves

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Platform Notes (Continued)

avx_vnni avx512_bf16 wbnoinvd avx512vbmi umip pku ospke avx512_vbmi2
gfni vaes vpclmulqdq avx512_vnni avx512_bitalg avx512_vpopcntdq la57
rdpid bus_lock_detect cldemote movdiri movdir64b fsrm md_clear
serialize tsxldtrk amx_bf16 avx512_fp16 amx_tile amx_int8 flush_l1d
arch_capabilities

KVM

full

512 KiB (16 instances)

512 KiB (16 instances)

64 MiB (16 instances)

16 MiB (1 instance)

Hypervisor vendor:

Virtualization type:

L1d cache:

L1i cache:

L2 cache:

L3 cache:

NUMA node(s):

NUMA node0 CPU(s):

Vulnerability Gather data sampling:

Vulnerability Itlb multihit:

Vulnerability L1tf:

Vulnerability Mds:

Vulnerability Meltdown:

Vulnerability Mmio stale data:

Vulnerability Reg file data sampling:

Vulnerability Retbleed:

Vulnerability Spec rstack overflow:

Vulnerability Spec store bypass:

Vulnerability Spectre v1:

Vulnerability Spectre v2:

1

0-15

Not affected

Not affected

Not affected

Not affected

Not affected

Not affected

Not affected

Not affected

Mitigation; Speculative Store Bypass disabled via prctl

Mitigation; usercopy/swaps barriers and __user pointer sanitization

Mitigation; Enhanced / Automatic IBRS; IBPB conditional; RSB filling;

PBRSE-IBRS SW sequence; BHI BHI_DIS_S

Vulnerability Srbds:

Vulnerability Tsx async abort:

Not affected

Not affected

From lscpu --cache:

NAME	ONE-SIZE	ALL-SIZE	WAYS	TYPE	LEVEL	SETS	PHY-LINE	COHERENCY-SIZE
L1d	32K	512K	8	Data	1	64	1	64
L1i	32K	512K	8	Instruction	1	64	1	64
L2	4M	64M	16	Unified	2	4096	1	64
L3	16M	16M	16	Unified	3	16384	1	64

8. numactl --hardware

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

available: 1 nodes (0)

node 0 cpus: 0-15

node 0 size: 3710 MB

node 0 free: 3080 MB

node distances:

node 0

0: 10

9. /proc/meminfo

MemTotal: 3799980 kB

10. who -r

run-level 5 Nov 1 04:41

11. Systemd service manager version: systemd 255 (255.4-lubuntu8.1)

Default Target Status

graphical running

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Platform Notes (Continued)

```
-----
12. Services, from systemctl list-unit-files
STATE                               UNIT FILES
enabled                             ModemManager apparmor appport blk-availability cloud-config cloud-final cloud-init
                                     cloud-init-local console-setup cron dmesg e2scrub_reap finalrd getty@ grub-common
                                     grub-initrd-fallback keyboard-setup lvm2-monitor multipathd networkd-dispatcher open-iscsi
                                     open-vm-tools rsyslog secureboot-db setvtrgb snapd ssh sstat systemd-networkd
                                     systemd-networkd-wait-online systemd-pstore systemd-resolved systemd-timesyncd
                                     ua-reboot-cmds ubuntu-advantage udisks2 ufw unattended-upgrades vgauth
enabled-runtime                     netplan-ovs-cleanup systemd-fsck-root systemd-remount-fs
disabled                             console-getty debug-shell iscsid nftables rsync systemd-bug-check-no-failures
                                     systemd-confext systemd-network-generator systemd-networkd-wait-online@
                                     systemd-pcrlock-file-system systemd-pcrlock-firmware-code systemd-pcrlock-firmware-config
                                     systemd-pcrlock-machine-id systemd-pcrlock-make-policy
                                     systemd-pcrlock-secureboot-authority systemd-pcrlock-secureboot-policy systemd-sysex
                                     systemd-time-wait-sync
indirect                             serial-getty@ systemd-sysupdate systemd-sysupdate-reboot uidd
masked                              cryptdisks cryptdisks-early hwclock multipath-tools-boot pollinate screen-cleanup sudo
                                     x11-common
-----
```

```
-----
13. Linux kernel boot-time arguments, from /proc/cmdline
BOOT_IMAGE=/vmlinuz-6.8.0-35-generic
root=UUID=41106c9c-97fc-4396-8622-4f692c8c5bb1
ro
console=tty1
console=ttyS0
-----
```

```
-----
14. cpupower frequency-info
analyzing CPU 4:
  Unable to determine current policy
  boost state support:
    Supported: no
    Active: no
-----
```

```
-----
15. sysctl
kernel.numa_balancing              0
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
-----
```

```
-----
16. /sys/kernel/mm/transparent_hugepage
-----
```

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Platform Notes (Continued)

```
defrag          always defer 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/khugepaged
alloc_sleep_millisecs  60000
defrag                 1
max_ptes_none          511
max_ptes_shared        256
max_ptes_swap          64
pages_to_scan          4096
scan_sleep_millisecs   10000
-----
```

```
-----
18. OS release
From /etc/*-release /etc/*-version
os-release Ubuntu 24.04 LTS
-----
```

```
-----
19. Disk information
SPEC is set to: /home/tdx/speccpu2017
Filesystem      Type  Size  Used Avail Use% Mounted on
/dev/vda1       ext4   66G   56G   11G   85%
-----
```

```
-----
20. /sys/devices/virtual/dmi/id
Vendor:         QEMU
Product:        Standard PC (Q35 + ICH9, 2009)
-----
```

```
-----
21. dmidecode
Additional information from dmidecode 3.5 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:
1x QEMU Not Specified 4 GB
-----
```

```
-----
22. BIOS
(This section combines info from /sys/devices and dmidecode.)
BIOS Vendor:      Ubuntu distribution of EDK II
BIOS Version:     2024.02-3+tdx1.0
BIOS Date:        07/03/2024
BIOS Revision:    0.0
-----
```

Compiler Version Notes

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

gcc (Ubuntu 13.2.0-23ubuntu4) 13.2.0

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Compiler Version Notes (Continued)

=====
C++ | 520.omnetpp_r(base) 523.xalancbmk_r(base) 531.deepsjeng_r(base) 541.leela_r(base)
=====

g++ (Ubuntu 13.2.0-23ubuntu4) 13.2.0

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warranty; not even for MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE.
=====

=====
Fortran | 548.exchange2_r(base)
=====

GNU Fortran (Ubuntu 13.2.0-23ubuntu4) 13.2.0

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=====

Base Compiler Invocation

C benchmarks:

gcc

C++ benchmarks:

g++

Fortran benchmarks:

gfortran

Base Portability Flags

500.perfbench_r: -DSPEC_LINUX_X64 -DSPEC_LP64

502.gcc_r: -DSPEC_LP64

505.mcf_r: -DSPEC_LP64

520.omnetpp_r: -DSPEC_LP64

523.xalancbmk_r: -DSPEC_LINUX -DSPEC_LP64

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

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Base Optimization Flags

C benchmarks:

-m64 -std=c99 -g -O3 -march=native -fno-strict-aliasing
-fno-unsafe-math-optimizations -fno-finite-math-only -fgnu89-inline

C++ benchmarks:

-m64 -std=c++03 -g -O3 -march=native

Fortran benchmarks:

-m64 -g -O3 -march=native

Base Other Flags

C benchmarks:

-fcommon

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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 2024-11-01 04:42:17+0000.

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