SPEC® CPU2017 Integer Rate Result

ASUS corp.

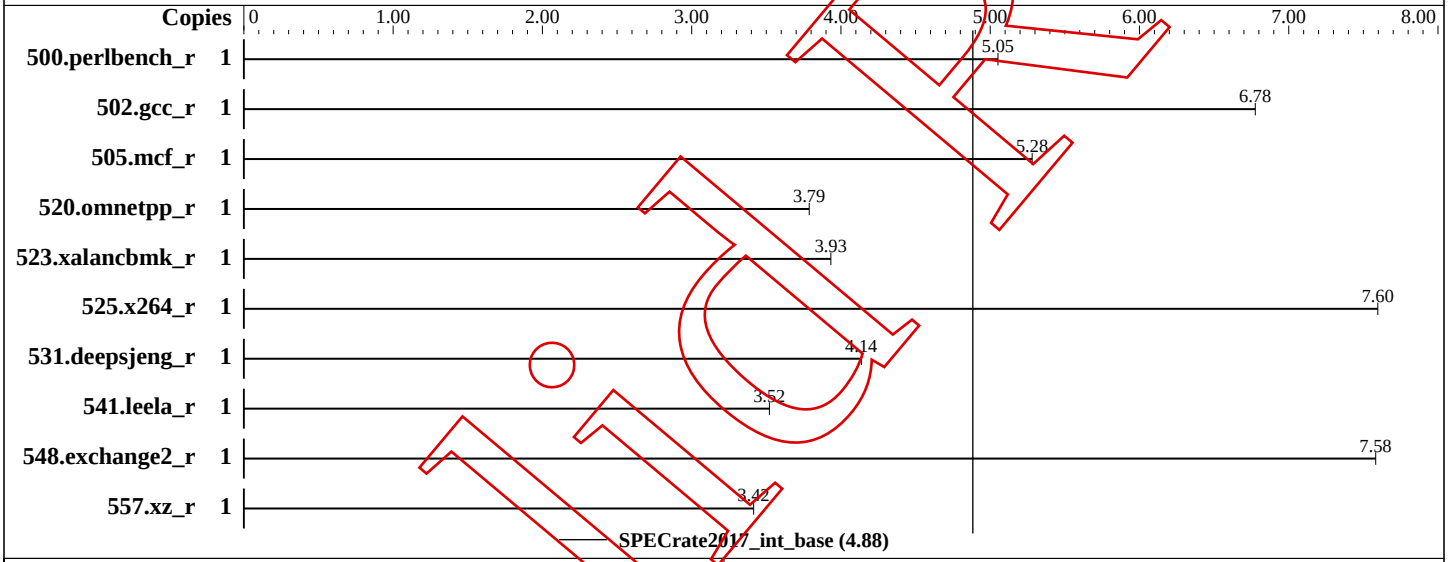
--

SPECrate2017_int_base = 4.88

SPECrate2017_int_peak = Not Run

CPU2017 License: --
Test Sponsor: ASUS corp.
Tested by: Manavjeet Singh

Test Date: Feb-2020
Hardware Availability:
Software Availability:



Hardware

CPU Name: Intel i5-8300H
Max MHz.: 4000
Nominal: 2300
Enabled: 4 cores, 1 chip, 2 threads/core
Orderable: --
Cache L1:
L2:
L3:
Other:
Memory: 7.701 GB fixme: If using DDR4, the format is: 'N GB (N x N GB nRxn PC4-nnnnX-X)'
Storage: 137 GB add more disk info here
Other: --

Software

OS: Parrot GNU/Linux 4.8
5.4.0-3parrot1-amd64
Compiler: C/C++/Fortran: Version 9.2.1 20200123 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:

Errors

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

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Errors (Continued)

Unknown flags were used! See
https://www.spec.org/cpu2017/Docs/runcpu.html#flagsurl
for information about how to get rid of this error.

Results Table

Benchmark	Base							Peak						
	Copies	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Copies	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio
500.perlbench_r	1	**315**	**5.05**											
502.gcc_r	1	**209**	**6.78**											
505.mcf_r	1	**306**	**5.28**											
520.omnetpp_r	1	**346**	**3.79**											
523.xalancbmk_r	1	**269**	**3.93**											
525.x264_r	1	**230**	**7.60**											
531.deepsjeng_r	1	**277**	**4.14**											
541.leela_r	1	**470**	**3.52**											
548.exchange2_r	1	**346**	**7.58**											
557.xz_r	1	**316**	**3.42**											

SPECrate2017_int_base = 4.88

SPECrate2017_int_peak = Not Run

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

General Notes

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

Platform Notes

```
 Sysinfo program
 /media/pheonix/d630b300-6092-41db-bf6a-dd1bd0f42bca/home/manavjeet/git/OS/Spec_OS/bin/sys
 info
 Rev: r5974 of 2018-05-19 9bcde8f2999c33d61f64985e45859ea9
 running on parrot Thu Feb 27 21:19:07 2020

 SUT (System Under Test) info as seen by some common utilities.
 For more information on this section, see
    https://www.spec.org/cpu2017/Docs/config.html#sysinfo

 From /proc/cpuinfo
    model name : Intel(R) Core(TM) i5-8300H CPU @ 2.30GHz
       1  "physical id"s (chips)
```

(Continued on next page)

Platform Notes (Continued)

```
      8 "processors"
   cores, siblings (Caution: counting these is hw and system dependent. The following
   excerpts from /proc/cpuinfo might not be reliable.  Use with caution.)
      cpu cores : 4
      siblings  : 8
      physical 0: cores 0 1 2 3

From lscpu:
     Architecture:                    x86_64
     CPU op-mode(s):                  32-bit, 64-bit
     Byte Order:                      Little Endian
     Address sizes:                   39 bits physical, 48 bits virtual
     CPU(s):                          8
     On-line CPU(s) list:             0-7
     Thread(s) per core:              2
     Core(s) per socket:              4
     Socket(s):                       1
     NUMA node(s):                    1
     Vendor ID:                       GenuineIntel
     CPU family:                      6
     Model:                           158
     Model name:                      Intel(R) Core(TM) i5-8300H CPU @ 2.30GHz
     Stepping:                        10
     CPU MHz:                         899.987
     CPU max MHz:                     4000.0000
     CPU min MHz:                     800.0000
     BogoMIPS:                        4599.93
     Virtualization:                  VT-x
     L1d cache:                       128 KiB
     L1i cache:                       128 KiB
     L2 cache:                        1 MiB
     L3 cache:                        8 MiB
     NUMA node0 CPU(s):               0-7
     Vulnerability Itlb multihit:     KVM: Mitigation: Split huge pages
     Vulnerability L1tf:              Mitigation; PTE Inversion; VMX conditional cache
     flushes, SMT vulnerable
     Vulnerability Mds:               Mitigation; Clear CPU buffers; SMT vulnerable
     Vulnerability Meltdown:          Mitigation; PTI
     Vulnerability Spec store bypass: Mitigation; Speculative Store Bypass disabled via
     prctl and seccomp
     Vulnerability Spectre v1:        Mitigation; usercopy/swapgs barriers and __user
     pointer sanitization
     Vulnerability Spectre v2:        Mitigation; Full generic retpoline, IBPB
     conditional, IBRS_FW, STIBP conditional, RSB filling
     Vulnerability Tsx async abort:   Not affected
     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
```

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Platform Notes (Continued)

```
      pdpe1gb rdtscp lm constant_tsc art arch_perfmon pebs bts rep_good nopl xtopology
      nonstop_tsc cpuid aperfmperf pni pclmulqdq dtes64 monitor ds_cpl vmx est tm2 ssse3
      sdbg fma cx16 xtpr pdcm pcid sse4_1 sse4_2 x2apic movbe popcnt tsc_deadline_timer
      aes xsave avx f16c rdrand lahf_lm abm 3dnowprefetch cpuid_fault epb invpcid_single
      pti ssbd ibrs ibpb stibp tpr_shadow vnmi flexpriority ept vpid ept_ad fsgsbase
      tsc_adjust bmi1 avx2 smep bmi2 erms invpcid mpx rdseed adx smap clflushopt intel_pt
      xsaveopt xsavec xgetbv1 xsaves dtherm ida arat pln pts hwp hwp_notify hwp_act_window
      hwp_epp md_clear flush_l1d

 /proc/cpuinfo cache data
    cache size : 8192 KB

 From numactl --hardware  WARNING: a numactl 'node' might or might not correspond to a
 physical chip.

 From /proc/meminfo
    MemTotal:        8074596 kB
    HugePages_Total:       0
    Hugepagesize:       2048 kB

 /usr/bin/lsb_release -d
    Parrot GNU/Linux 4.8

 From /etc/*release* /etc/*version*
    debian_version: parrot
    os-release:
       PRETTY_NAME="Parrot GNU/Linux 4.8"
       NAME="Parrot GNU/Linux"
       ID=parrot
       ID_LIKE=debian
       VERSION="4.8"
       VERSION_ID="4.8"
       HOME_URL="https://www.parrotlinux.org/"
       SUPPORT_URL="https://community.parrotlinux.org/"

 uname -a:
    Linux parrot 5.4.0-3parrot1-amd64 #1 SMP Parrot 5.4.13-3parrot2 (2020-02-01) x86_64
    GNU/Linux

 Kernel self-reported vulnerability status:

 CVE-2017-5754 (Meltdown):          Mitigation: PTI
 CVE-2017-5753 (Spectre variant 1): Mitigation: usercopy/swapgs barriers and __user
 pointer sanitization
 CVE-2017-5715 (Spectre variant 2): Mitigation: Full generic retpoline, IBPB: conditional,
 IBRS_FW, STIBP: conditional, RSB filling
```

(Continued on next page)

Platform Notes (Continued)

```
 run-level 5 Feb 27 21:14

 SPEC is set to:
 /media/pheonix/d630b300-6092-41db-bf6a-dd1bd0f42bca/home/manavjeet/git/OS/Spec_OS
    Filesystem     Type  Size  Used Avail Use% Mounted on
    /dev/sda4      ext4  137G   98G   33G  76%
    /media/pheonix/d630b300-6092-41db-bf6a-dd1bd0f42bca

 Additional information from dmidecode 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.

 (End of data from sysinfo program)
```

Compiler Version Notes

```
==============================================================================
 FC  548.exchange2_r(base)
------------------------------------------------------------------------------
Using built-in specs.
COLLECT_GCC=/usr/bin/gfortran
COLLECT_LTO_WRAPPER=/usr/lib/gcc/x86_64-linux-gnu/9/lto-wrapper
OFFLOAD_TARGET_NAMES=nvptx-none:hsa
OFFLOAD_TARGET_DEFAULT=1
Target: x86_64-linux-gnu
Configured with: ../src/configure -v --with-pkgversion='Debian 9.2.1-28'
  --with-bugurl=file:///usr/share/doc/gcc-9/README.Bugs
  --enable-languages=c,ada,c++,go,brig,d,fortran,objc,obj-c++,gm2
  --prefix=/usr --with-gcc-major-version-only --program-suffix=-9
  --program-prefix=x86_64-linux-gnu- --enable-shared --enable-linker-build-id
  --libexecdir=/usr/lib --without-included-gettext --enable-threads=posix
  --libdir=/usr/lib --enable-nls --enable-bootstrap --enable-clocale=gnu
  --enable-libstdcxx-debug --enable-libstdcxx-time=yes
  --with-default-libstdcxx-abi=new --enable-gnu-unique-object
  --disable-vtable-verify --enable-plugin --enable-default-pie
  --with-system-zlib --with-target-system-zlib=auto --enable-objc-gc=auto
  --enable-multiarch --disable-werror --with-arch-32=i686 --with-abi=m64
  --with-multilib-list=m32,m64,mx32 --enable-multilib --with-tune=generic
  --enable-offload-targets=nvptx-none,hsa --without-cuda-driver
  --enable-checking=release --build=x86_64-linux-gnu --host=x86_64-linux-gnu
  --target=x86_64-linux-gnu --with-build-config=bootstrap-lto-lean
  --enable-link-mutex
Thread model: posix
gcc version 9.2.1 20200203 (Debian 9.2.1-28)
------------------------------------------------------------------------------
```


(Continued on next page)

Compiler Version Notes (Continued)

```
==============================================================================
 CC  500.perlbench_r(base) 502.gcc_r(base) 505.mcf_r(base) 525.x264_r(base)
     557.xz_r(base)
------------------------------------------------------------------------------
clang version 8.0.1-7 (tags/RELEASE_801/final)
Target: x86_64-pc-linux-gnu
Thread model: posix
InstalledDir: /usr/bin
Found candidate GCC installation: /usr/bin/../lib/gcc/x86_64-linux-gnu/10
Found candidate GCC installation: /usr/bin/../lib/gcc/x86_64-linux-gnu/8
Found candidate GCC installation: /usr/bin/../lib/gcc/x86_64-linux-gnu/9
Found candidate GCC installation: /usr/lib/gcc/x86_64-linux-gnu/10
Found candidate GCC installation: /usr/lib/gcc/x86_64-linux-gnu/8
Found candidate GCC installation: /usr/lib/gcc/x86_64-linux-gnu/9
Selected GCC installation: /usr/bin/../lib/gcc/x86_64-linux-gnu/9
Candidate multilib: .;@m64
Candidate multilib: 32;@m32
Candidate multilib: x32;@mx32
Selected multilib: .;@m64
------------------------------------------------------------------------------

==============================================================================
 CXXC 520.omnetpp_r(base) 523.xalancbmk_r(base) 531.deepsjeng_r(base)
     541.leela_r(base)
------------------------------------------------------------------------------
clang version 8.0.1-7 (tags/RELEASE_801/final)
Target: x86_64-pc-linux-gnu
Thread model: posix
InstalledDir: /usr/bin
Found candidate GCC installation: /usr/bin/../lib/gcc/x86_64-linux-gnu/10
Found candidate GCC installation: /usr/bin/../lib/gcc/x86_64-linux-gnu/8
Found candidate GCC installation: /usr/bin/../lib/gcc/x86_64-linux-gnu/9
Found candidate GCC installation: /usr/lib/gcc/x86_64-linux-gnu/10
Found candidate GCC installation: /usr/lib/gcc/x86_64-linux-gnu/8
Found candidate GCC installation: /usr/lib/gcc/x86_64-linux-gnu/9
Selected GCC installation: /usr/bin/../lib/gcc/x86_64-linux-gnu/9
Candidate multilib: .;@m64
Candidate multilib: 32;@m32
Candidate multilib: x32;@mx32
Selected multilib: .;@m64
------------------------------------------------------------------------------
```

Base Unknown Flags

500.perlbench_r: "/usr/bin/clang -std=c99 -m64ARRAY(0x7eb19e8)
"/usr/bin/clang -std=c99 -m64ARRAY(0x7ea9fb0)
"-g -O3ARRAY(0x7e19108)

502.gcc_r: "/usr/bin/clang -std=c99 -m64ARRAY(0x7ed1890)
"/usr/bin/clang -std=c99 -m64ARRAY(0x7eb18e0)
"-g -O3ARRAY(0x7ec25c8)

505.mcf_r: "/usr/bin/clang -std=c99 -m64ARRAY(0x7e85168)
"/usr/bin/clang -std=c99 -m64ARRAY(0x7e7e728)
"-g -O3ARRAY(0x7ffbe98)

520.omnetpp_r: "/usr/bin/clang++ -std=c++03 -m64ARRAY(0x7e92128)
"/usr/bin/clang++ -std=c++03 -m64ARRAY(0x7ec2508)
"-g -O3ARRAY(0x7ffd828)

523.xalancbmk_r: "/usr/bin/clang++ -std=c++03 -m64ARRAY(0x7ea4f58)
"/usr/bin/clang++ -std=c++03 -m64ARRAY(0x7ffc648)
"-g -O3ARRAY(0x7ffebe8)

525.x264_r: "/usr/bin/clang -std=c99 -m64ARRAY(0x7eac0b0)
"/usr/bin/clang -std=c99 -m64ARRAY(0x7ffd240)
"-g -O3ARRAY(0x7fff950)

531.deepsjeng_r: "/usr/bin/clang++ -std=c++03 -m64ARRAY(0x7e8cc20)
"/usr/bin/clang++ -std=c++03 -m64ARRAY(0x7ffdc90)
"-g -O3ARRAY(0x8052a28)

541.leela_r: "/usr/bin/clang++ -std=c++03 -m64ARRAY(0x7ffb108)
"/usr/bin/clang++ -std=c++03 -m64ARRAY(0x7f797d0)
"-g -O3ARRAY(0x7f7cc50)

557.xz_r: "/usr/bin/clang -std=c99 -m64ARRAY(0x7ef92e0)
"/usr/bin/clang -std=c99 -m64ARRAY(0x804f758)
"-g -O3ARRAY(0x804f440)

Base Compiler Invocation

Fortran benchmarks:
gfortran

CPU2017 License: --
Test Sponsor: ASUS corp.
Tested by: Manavjeet Singh

Test Date: Feb-2020
Hardware Availability:
Software Availability:

Base Portability Flags

500.perlbench_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`

Base Optimization Flags

C benchmarks:
`-march=native -fno-unsafe-math-optimizations -fno-strict-aliasing -fgnu89-inline`

C++ benchmarks:
`-march=native -fno-unsafe-math-optimizations`

Fortran benchmarks:
`-m64 -g -O3 -march=native -fno-unsafe-math-optimizations`

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

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