SPEC CPU®2017 Integer Speed Result

Esconet Technologies Ltd.

Hexadata HDR-RM2386212I Ver: ILX-002
(Intel Xeon Gold 5318Y, 2.10 GHz)

$SPECspeed®2017\_int\_base = 11.4$

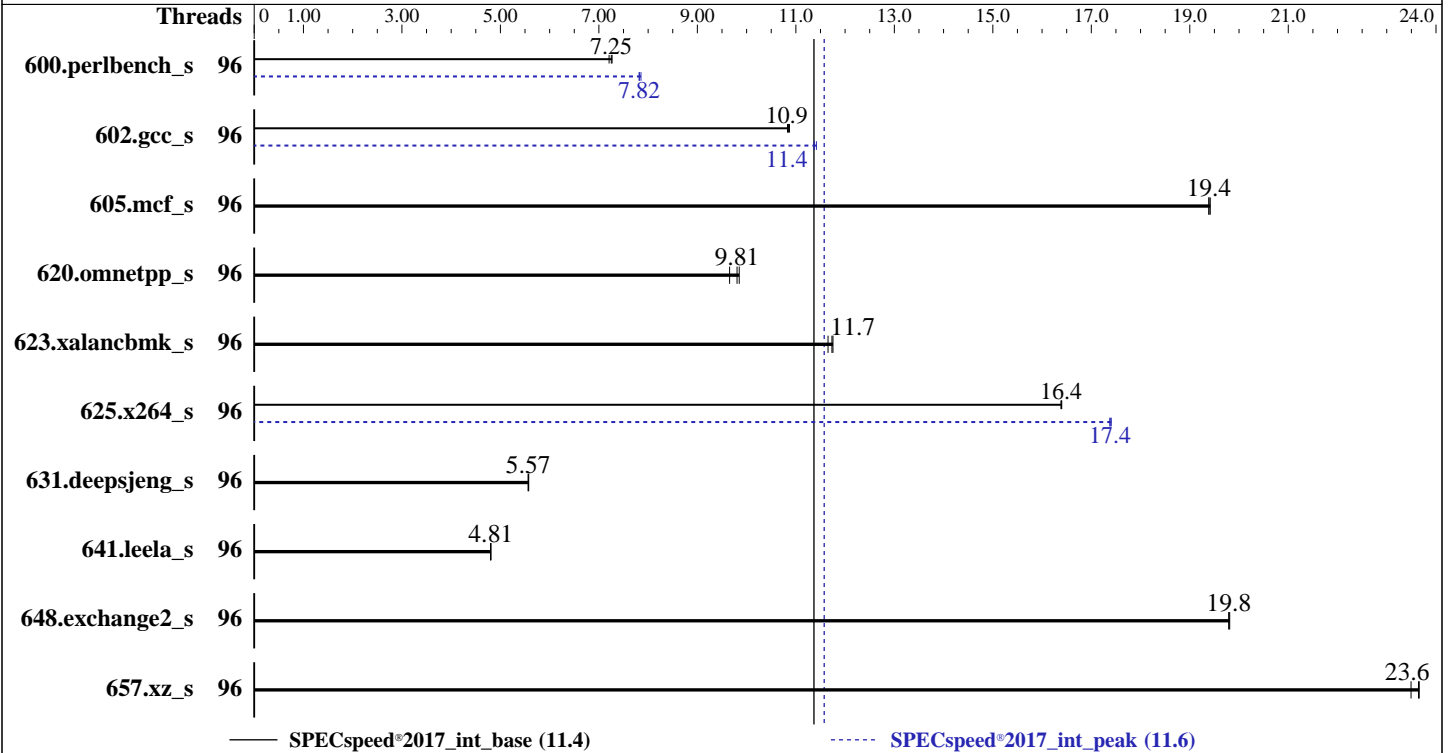$SPECspeed®2017\_int\_peak = 11.6$

CPU2017 License: 6523

Test Sponsor: Esconet Technologies Ltd.

Tested by: Esconet Technologies Ltd.

Test Date: Dec-2023

Hardware Availability: May-2021

Software Availability: Dec-2023

600.perlbench_s 96	base 7.25 / peak 7.82
602.gcc_s 96	base 10.9 / peak 11.4
605.mcf_s 96	19.4
620.omnetpp_s 96	9.81
623.xalancbmk_s 96	11.7
625.x264_s 96	base 16.4 / peak 17.4
631.deepsjeng_s 96	5.57
641.leela_s 96	4.81
648.exchange2_s 96	19.8
657.xz_s 96	23.6

SPECspeed®2017_int_base (11.4)   SPECspeed®2017_int_peak (11.6)

Hardware

CPU Name: Intel Xeon Gold 5318Y

Max MHz: 3400

Nominal: 2100

Enabled: 48 cores, 2 chips, 2 threads/core

Orderable: 1,2 chips

Cache L1: 32 KB I + 48 KB D on chip per core

L2: 1.25 MB I+D on chip per core

L3: 36 MB I+D on chip per chip

Other: None

Memory: 1 TB (16 x 64 GB 2Rx4 PC4-3200AA-R, running at 2933)

Storage: 960 GB SSD

Other: None

Software

OS: Red Hat Enterprise Linux 8.4 (Ootpa) 4.18.0-305.el8.x86_64

Compiler: 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;

Parallel: Yes

Firmware: Version F26 released May-2023

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: OS set to prefer performance at the cost of additional power usage.

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SPECspeed®2017_int_peak = 11.6

CPU2017 License: 6523	**Test Date:** Dec-2023
Test Sponsor: Esconet Technologies Ltd.	**Hardware Availability:** May-2021
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Results Table

Benchmark	Base							Peak						
	Threads	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Threads	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio
600.perlbench_s	96	246	7.21	**245**	**7.25**	244	7.27	96	227	7.82	226	7.85	**227**	**7.82**
602.gcc_s	96	**367**	**10.9**	366	10.9	368	10.8	96	349	11.4	**350**	**11.4**	350	11.4
605.mcf_s	96	243	19.4	**243**	**19.4**	244	19.4	96	243	19.4	**243**	**19.4**	244	19.4
620.omnetpp_s	96	**166**	**9.81**	169	9.65	166	9.85	96	**166**	**9.81**	169	9.65	166	9.85
623.xalancbmk_s	96	122	11.7	**121**	**11.7**	121	11.8	96	122	11.7	**121**	**11.7**	121	11.8
625.x264_s	96	**108**	**16.4**	108	16.4	108	16.4	96	102	17.4	101	17.4	**101**	**17.4**
631.deepsjeng_s	96	257	5.58	258	5.56	**257**	**5.57**	96	257	5.58	258	5.56	**257**	**5.57**
641.leela_s	96	355	4.81	355	4.80	**355**	**4.81**	96	355	4.81	355	4.80	**355**	**4.81**
648.exchange2_s	96	149	19.8	148	19.8	**149**	**19.8**	96	149	19.8	148	19.8	**149**	**19.8**
657.xz_s	96	261	23.7	263	23.5	**261**	**23.6**	96	261	23.7	263	23.5	**261**	**23.6**
SPECspeed®2017_int_base =		**11.4**												
SPECspeed®2017_int_peak =		**11.6**												

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"
```

Environment Variables Notes

```
Environment variables set by runcpu before the start of the run:
KMP_AFFINITY = "granularity=fine,scatter"
LD_LIBRARY_PATH = "/home/ub/cpu17/lib/intel64:/home/ub/cpu17/lib/ia32:/home/ub/cpu17/je5.0.1-64"
MALLOC_CONF = "retain:true"
OMP_STACKSIZE = "192M"
```

General Notes

```
Binaries compiled on a system with 2x Intel Xeon Platinum 8280M CPU + 384GB RAM
memory using Redhat 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
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

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.
```

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Test Date: Dec-2023
Hardware Availability: May-2021
Software Availability: Dec-2023

Platform Notes

```
BIOS settings: Default

Sysinfo program /home/ub/cpu17/bin/sysinfo
Rev: r6732 of 2022-11-07 fe91c89b7ed5c36ae2c92cc097bec197
running on localhost.localdomain Thu Dec 21 23:29:16 2023

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 239 (239-45.el8)
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. Kernel self-reported vulnerability status, from /sys/devices/system/cpu/vulnerabilities
21. Disk information
22. /sys/devices/virtual/dmi/id
23. dmidecode
24. BIOS
------------------------------------------------------------


------------------------------------------------------------
1. uname -a
  Linux localhost.localdomain 4.18.0-305.el8.x86_64 #1 SMP Thu Apr 29 08:54:30 EDT 2021 x86_64 x86_64 x86_64
  GNU/Linux


------------------------------------------------------------
2. w
  23:29:16 up  3:38,  1 user,  load average: 0.04, 0.11, 0.11
  USER     TTY       FROM             LOGIN@   IDLE   JCPU   PCPU WHAT
  ub       pts/0     172.16.5.40      19:54    3.00s  1.09s  0.00s sh
  reportable-ic2023.2.3-lin-core-avx512-speed-smt-on-20231121.sh


------------------------------------------------------------
3. Username
  From environment variable $USER:  ub


------------------------------------------------------------
4. ulimit -a
  core file size          (blocks, -c) unlimited
  data seg size           (kbytes, -d) unlimited
  scheduling priority             (-e) 0
  file size               (blocks, -f) unlimited
```

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Software Availability: Dec-2023

Platform Notes (Continued)

```
  pending signals              (-i) 4125556
  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) 4125556
  virtual memory         (kbytes, -v) unlimited
  file locks                   (-x) unlimited


  ----------------------------------------------------------
  5. sysinfo process ancestry
  /usr/lib/systemd/systemd --switched-root --system --deserialize 18
  /usr/sbin/sshd -D
    -oCiphers=aes256-gcm@openssh.com,chacha20-poly1305@openssh.com,aes256-ctr,aes256-cbc,aes128-gcm@openssh.co
    m,aes128-ctr,aes128-cbc
    -oMACs=hmac-sha2-256-etm@openssh.com,hmac-sha1-etm@openssh.com,umac-128-etm@openssh.com,hmac-sha2-512-etm@
    openssh.com,hmac-sha2-256,hmac-sha1,umac-128@openssh.com,hmac-sha2-512...
  sshd: ub [priv]
  sshd: ub@pts/0
  -bash
  sh reportable-ic2023.2.3-lin-core-avx512-speed-smt-on-20231121.sh
  runcpu --nobuild --action validate --define default-platform-flags -c
    ic2023.2.3-lin-core-avx512-speed-20231121.cfg --define cores=48 --tune base,peak -o all --define
    intspeedaffinity --define smt-on --define drop_caches intspeed
  runcpu --nobuild --action validate --define default-platform-flags --configfile
    ic2023.2.3-lin-core-avx512-speed-20231121.cfg --define cores=48 --tune base,peak --output_format all
    --define intspeedaffinity --define smt-on --define drop_caches --nopower --runmode speed --tune base:peak
    --size refspeed intspeed --nopreenv --note-preenv --logfile
    $SPEC/tmp/CPU2017.001/templogs/preenv.intspeed.001.0.log --lognum 001.0 --from_runcpu 2
  specperl $SPEC/bin/sysinfo
  $SPEC = /home/ub/cpu17


  ----------------------------------------------------------
  6. /proc/cpuinfo
    model name      : Intel(R) Xeon(R) Gold 5318Y CPU @ 2.10GHz
    vendor_id       : GenuineIntel
    cpu family      : 6
    model           : 106
    stepping        : 6
    microcode       : 0xd0003a5
    bugs            : spectre_v1 spectre_v2 spec_store_bypass swapgs
    cpu cores       : 24
    siblings        : 48
    2 physical ids (chips)
    96 processors (hardware threads)
    physical id 0: core ids 0-23
    physical id 1: core ids 0-23
    physical id 0: apicids 0-47
    physical id 1: apicids 64-111
  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 2.32.1:
```

(Continued on next page)

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Test Date: Dec-2023
Hardware Availability: May-2021
Software Availability: Dec-2023

Platform Notes (Continued)

```
Architecture:        x86_64
CPU op-mode(s):      32-bit, 64-bit
Byte Order:          Little Endian
CPU(s):              96
On-line CPU(s) list: 0-95
Thread(s) per core:  2
Core(s) per socket:  24
Socket(s):           2
NUMA node(s):        2
Vendor ID:           GenuineIntel
CPU family:          6
Model:               106
Model name:          Intel(R) Xeon(R) Gold 5318Y CPU @ 2.10GHz
Stepping:            6
CPU MHz:             800.091
CPU max MHz:         3400.0000
CPU min MHz:         800.0000
BogoMIPS:            4200.00
Virtualization:      VT-x
L1d cache:           48K
L1i cache:           32K
L2 cache:            1280K
L3 cache:            36864K
NUMA node0 CPU(s):   0-23,48-71
NUMA node1 CPU(s):   24-47,72-95
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 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 invpcid_single intel_ppin ssbd mba ibrs ibpb
                     stibp ibrs_enhanced tpr_shadow vnmi flexpriority ept vpid ept_ad fsgsbase tsc_adjust
                     bmi1 hle avx2 smep bmi2 erms invpcid 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
                     wbnoinvd dtherm ida arat pln pts hwp hwp_act_window hwp_epp hwp_pkg_req avx512vbmi
                     umip pku ospke avx512_vbmi2 gfni vaes vpclmulqdq avx512_vnni avx512_bitalg tme
                     avx512_vpopcntdq la57 rdpid fsrm md_clear pconfig flush_l1d arch_capabilities

     ----------------------------------------------------------
8. numactl --hardware
NOTE: a numactl 'node' might or might not correspond to a physical chip.
  available: 2 nodes (0-1)
  node 0 cpus: 0-23,48-71
  node 0 size: 515382 MB
  node 0 free: 512041 MB
  node 1 cpus: 24-47,72-95
  node 1 size: 516045 MB
  node 1 free: 511709 MB
  node distances:
  node   0   1
    0:  10  20
    1:  20  10

     ----------------------------------------------------------
9. /proc/meminfo
   MemTotal:       1056182840 kB

     ----------------------------------------------------------
10. who -r
```

(Continued on next page)

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Platform Notes (Continued)

```
  run-level 3 Dec 21 19:51

  ----------------------------------------------------------
  11. Systemd service manager version: systemd 239 (239-45.el8)
    Default Target  Status
    multi-user      running

  ----------------------------------------------------------
  12. Services, from systemctl list-unit-files
    STATE     UNIT FILES
    enabled   NetworkManager NetworkManager-dispatcher NetworkManager-wait-online auditd autovt@ chronyd crond
              firewalld getty@ import-state irqbalance kdump loadmodules lvm2-monitor mdmonitor microcode
              nis-domainname rhsmcertd rsyslog selinux-autorelabel-mark sshd sssd syslog timedatex tuned
              udisks2
    disabled  blk-availability chrony-wait console-getty cpupower debug-shell ebtables iprdump iprinit
              iprupdate kvm_stat nftables rdisc rhcd rhsm rhsm-facts serial-getty@ sshd-keygen@
              systemd-resolved tcsd
    indirect  sssd-autofs sssd-kcm sssd-nss sssd-pac sssd-pam sssd-ssh sssd-sudo
    masked    systemd-timedated

  ----------------------------------------------------------
  13. Linux kernel boot-time arguments, from /proc/cmdline
    BOOT_IMAGE=(hd0,gpt2)/vmlinuz-4.18.0-305.el8.x86_64
    root=/dev/mapper/rhel-root
    ro
    crashkernel=auto
    resume=/dev/mapper/rhel-swap
    rd.lvm.lv=rhel/root
    rd.lvm.lv=rhel/swap
    rhgb
    quiet

  ----------------------------------------------------------
  14. cpupower frequency-info
    analyzing CPU 0:
      current policy: frequency should be within 800 MHz and 3.40 GHz.
                      The governor "performance" may decide which speed to use
                      within this range.
    boost state support:
      Supported: yes
      Active: yes

  ----------------------------------------------------------
  15. tuned-adm active
    Current active profile: throughput-performance

  ----------------------------------------------------------
  16. sysctl
    kernel.numa_balancing            1
    kernel.randomize_va_space        2
    vm.compaction_proactiveness      0
    vm.dirty_background_bytes        0
    vm.dirty_background_ratio        10
    vm.dirty_bytes                   0
    vm.dirty_expire_centisecs        3000
    vm.dirty_ratio                   40
    vm.dirty_writeback_centisecs     500
    vm.dirtytime_expire_seconds      43200
    vm.extfrag_threshold             500
    vm.min_unmapped_ratio            1
```

(Continued on next page)

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Platform Notes (Continued)

```
  vm.nr_hugepages                     0
  vm.nr_hugepages_mempolicy           0
  vm.nr_overcommit_hugepages          0
  vm.swappiness                      10
  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


  ---------------------------------------------------------------
18. /sys/kernel/mm/transparent_hugepage/khugepaged
  alloc_sleep_millisecs   60000
  defrag                      1
  max_ptes_none             511
  max_ptes_swap              64
  pages_to_scan            4096
  scan_sleep_millisecs    10000


  ---------------------------------------------------------------
19. OS release
  From /etc/*-release /etc/*-version
  os-release     Red Hat Enterprise Linux 8.4 (Ootpa)
  redhat-release Red Hat Enterprise Linux release 8.4 (Ootpa)
  system-release Red Hat Enterprise Linux release 8.4 (Ootpa)


  ---------------------------------------------------------------
20. Kernel self-reported vulnerability status, from /sys/devices/system/cpu/vulnerabilities
  itlb_multihit       Not affected
  l1tf                Not affected
  mds                 Not affected
  meltdown            Not affected
  spec_store_bypass   Mitigation: Speculative Store Bypass disabled via prctl and seccomp
  spectre_v1          Mitigation: usercopy/swapgs barriers and __user pointer sanitization
  spectre_v2          Mitigation: Enhanced IBRS, IBPB: conditional, RSB filling
  srbds               Not affected
  tsx_async_abort     Not affected
For more information, see the Linux documentation on hardware vulnerabilities, for example
    https://www.kernel.org/doc/html/latest/admin-guide/hw-vuln/index.html


  ---------------------------------------------------------------
21. Disk information
SPEC is set to: /home/ub/cpu17
  Filesystem           Type  Size  Used Avail Use% Mounted on
  /dev/mapper/rhel-home xfs   819G  9.9G  809G   2% /home


  ---------------------------------------------------------------
22. /sys/devices/virtual/dmi/id
    Vendor:         ESCONET TECHNOLOGIES LTD.
    Product:        HEXADATA
    Product Family: Server


  ---------------------------------------------------------------
23. dmidecode
  Additional information from dmidecode 3.2 follows.  WARNING: Use caution when you interpret this section.
```

(Continued on next page)

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Platform Notes (Continued)

```
   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 M393A8G40AB2-CWE 64 GB 2 rank 3200, configured at 2933


   ------------------------------------------------------------
 24. BIOS
 (This section combines info from /sys/devices and dmidecode.)
    BIOS Vendor:       GIGABYTE
    BIOS Version:      F26
    BIOS Date:         05/29/2023
    BIOS Revision:     5.22
```

Compiler Version Notes

```
==============================================================================================================
C          | 600.perlbench_s(base, peak) 602.gcc_s(base, peak) 605.mcf_s(base, peak) 625.x264_s(base, peak)
           | 657.xz_s(base, peak)
--------------------------------------------------------------------------------------------------------------
Intel(R) oneAPI DPC++/C++ Compiler for applications running on Intel(R) 64, Version 2023.2.3 Build x
Copyright (C) 1985-2023 Intel Corporation. All rights reserved.
--------------------------------------------------------------------------------------------------------------


==============================================================================================================
C++        | 620.omnetpp_s(base, peak) 623.xalancbmk_s(base, peak) 631.deepsjeng_s(base, peak)
           | 641.leela_s(base, peak)
--------------------------------------------------------------------------------------------------------------
Intel(R) oneAPI DPC++/C++ Compiler for applications running on Intel(R) 64, Version 2023.2.3 Build x
Copyright (C) 1985-2023 Intel Corporation. All rights reserved.
--------------------------------------------------------------------------------------------------------------


==============================================================================================================
Fortran | 648.exchange2_s(base, peak)
--------------------------------------------------------------------------------------------------------------
Intel(R) Fortran Compiler for applications running on Intel(R) 64, Version 2023.2.3 Build x
Copyright (C) 1985-2023 Intel Corporation. All rights reserved.
--------------------------------------------------------------------------------------------------------------
```

Base Compiler Invocation

C benchmarks:
```
icx
```

C++ benchmarks:
```
icpx
```

Fortran benchmarks:
```
ifx
```

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

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Base Portability Flags

600.perlbench_s: `-DSPEC_LP64 -DSPEC_LINUX_X64`
602.gcc_s: `-DSPEC_LP64`
605.mcf_s: `-DSPEC_LP64`
620.omnetpp_s: `-DSPEC_LP64`
623.xalancbmk_s: `-DSPEC_LP64 -DSPEC_LINUX`
625.x264_s: `-DSPEC_LP64`
631.deepsjeng_s: `-DSPEC_LP64`
641.leela_s: `-DSPEC_LP64`
648.exchange2_s: `-DSPEC_LP64`
657.xz_s: `-DSPEC_LP64`

Base Optimization Flags

C benchmarks:
```
-w -std=c11 -m64 -Wl,-z,muldefs -xCORE-AVX512 -O3 -ffast-math
-flto -mfpmath=sse -funroll-loops -qopt-mem-layout-trans=4 -fiopenmp
-DSPEC_OPENMP -L/usr/local/jemalloc64-5.0.1/lib -ljemalloc
```

C++ benchmarks:
```
-w -std=c++14 -m64 -Wl,-z,muldefs -xCORE-AVX512 -O3 -ffast-math
-flto -mfpmath=sse -funroll-loops -qopt-mem-layout-trans=4
-L/usr/local/jemalloc64-5.0.1/lib -ljemalloc
```

Fortran benchmarks:
```
-w -m64 -Wl,-z,muldefs -xCORE-AVX512 -O3 -ffast-math -flto
-mfpmath=sse -funroll-loops -qopt-mem-layout-trans=4
-nostandard-realloc-lhs -align array32byte
-L/usr/local/jemalloc64-5.0.1/lib -ljemalloc
```

Peak Compiler Invocation

C benchmarks:
`icx`

C++ benchmarks:
`icpx`

Fortran benchmarks:
`ifx`

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

Esconet Technologies Ltd.

Hexadata HDR-RM2386212I Ver: ILX-002
(Intel Xeon Gold 5318Y, 2.10 GHz)

SPECspeed®2017_int_base = 11.4

SPECspeed®2017_int_peak = 11.6

CPU2017 License: 6523
Test Sponsor: Esconet Technologies Ltd.
Tested by: Esconet Technologies Ltd.

Test Date: Dec-2023
Hardware Availability: May-2021
Software Availability: Dec-2023

Peak Portability Flags

Same as Base Portability Flags

Peak Optimization Flags

C benchmarks:

600.perlbench_s: -w -m64 -std=c11 -Wl,-z,muldefs
-fprofile-generate(pass 1)
-fprofile-use=default.profdata(pass 2) -xCORE-AVX2(pass 1)
-flto -Ofast(pass 1) -xCORE-AVX512 -O3 -ffast-math
-mfpmath=sse -funroll-loops -qopt-mem-layout-trans=4
-fiopenmp -DSPEC_OPENMP -fno-strict-overflow
-L/usr/local/jemalloc64-5.0.1/lib -ljemalloc

602.gcc_s: -w -m64 -std=c11 -Wl,-z,muldefs
-fprofile-generate(pass 1)
-fprofile-use=default.profdata(pass 2) -xCORE-AVX2(pass 1)
-flto -Ofast(pass 1) -xCORE-AVX512 -O3 -ffast-math
-mfpmath=sse -funroll-loops -qopt-mem-layout-trans=4
-fiopenmp -DSPEC_OPENMP -L/usr/local/jemalloc64-5.0.1/lib
-ljemalloc

605.mcf_s: basepeak = yes

625.x264_s: -w -std=c11 -m64 -Wl,-z,muldefs -xCORE-AVX512 -O3
-ffast-math -flto -mfpmath=sse -funroll-loops
-qopt-mem-layout-trans=4 -fiopenmp -DSPEC_OPENMP
-fno-alias -L/usr/local/jemalloc64-5.0.1/lib -ljemalloc

657.xz_s: basepeak = yes

C++ benchmarks:

620.omnetpp_s: basepeak = yes

623.xalancbmk_s: basepeak = yes

631.deepsjeng_s: basepeak = yes

641.leela_s: basepeak = yes

Fortran benchmarks:

(Continued on next page)

Esconet Technologies Ltd.

Hexadata HDR-RM2386212I Ver: ILX-002
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SPECspeed®2017_int_base = 11.4

SPECspeed®2017_int_peak = 11.6

CPU2017 License: 6523

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Test Date: Dec-2023

Hardware Availability: May-2021

Software Availability: Dec-2023

Peak Optimization Flags (Continued)

648.exchange2_s: basepeak = yes

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

http://www.spec.org/cpu2017/flags/Hexadata-Default-Platform-Flags.html
http://www.spec.org/cpu2017/flags/Hexadata-Intel-ic2023p2-official-linux64.html

You can also download the XML flags sources by saving the following links:

http://www.spec.org/cpu2017/flags/Hexadata-Default-Platform-Flags.xml
http://www.spec.org/cpu2017/flags/Hexadata-Intel-ic2023p2-official-linux64.xml

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

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