SPEC® CPU2017 Integer Speed Result

sipeed
(Test Sponsor: PLCT)

Licheepi 4a

SPECspeed2017_int_base = 0.00

SPECspeed2017_int_peak = 0.00

CPU2017 License: 0
Test Sponsor: PLCT
Tested by: PLCT

Test Date: Nov-2023
Hardware Availability: May-2023
Software Availability: Nov-2023

Threads
600.perlbench_s
602.gcc_s
605.mcf_s
620.omnetpp_s
623.xalancbmk_s
625.x264_s
631.deepsjeng_s
641.leela_s
648.exchange2_s
657.xz_s

Hardware

CPU Name: TH1520
Max MHz.: 2000MHz
Nominal: 2000MHz
Enabled: 4 cores, 1 chip
Orderable: --
Cache L1: 64 KB I + 64 Kb D on chip per core
L2: 1MB L2 Cache for all core
L3: None
Other: None
Memory: 15.370 GB fixme: If using DDR4, the format is: 'N GB (N x N GB nRxn PC4-nnnnX-X)'
Storage: 115 GB add more disk info here
Other: None

Software

OS: Debian GNU/Linux 12 (bookworm) 5.10.113+
Compiler: Debian clang version 17.0.0 (+rc4-1~exp5revyos1)
Parallel: Yes
Firmware: Nov-2022
File System: ext4
System State: Run level 5 (add definition here)
Base Pointers: 64-bit
Peak Pointers: 64-bit
Other: None

Errors

'reportable' flag not set during run
620.omnetpp_s (base) did not have enough runs!
605.mcf_s (base) did not have enough runs!
623.xalancbmk_s (base) did not have enough runs!
600.perlbench_s (base) did not have enough runs!

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Errors (Continued)

602.gcc_s (base) did not have enough runs!
631.deepsjeng_s (base) did not have enough runs!
625.x264_s (base) did not have enough runs!
641.leela_s (base) did not have enough runs!
648.exchange2_s (base) did not have enough runs!
657.xz_s (base) did not have enough runs!
620.omnetpp_s (peak) did not have enough runs!
605.mcf_s (peak) did not have enough runs!
623.xalancbmk_s (peak) did not have enough runs!
600.perlbench_s (peak) did not have enough runs!
602.gcc_s (peak) did not have enough runs!
631.deepsjeng_s (peak) did not have enough runs!
625.x264_s (peak) did not have enough runs!
641.leela_s (peak) did not have enough runs!
648.exchange2_s (peak) did not have enough runs!
657.xz_s (peak) did not have enough runs!
Input set must be 'refspeed' for a valid run (set to 'test' for this run)
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						
	Threads	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Threads	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio
600.perlbench_s														
602.gcc_s														
605.mcf_s														
620.omnetpp_s														
623.xalancbmk_s														
625.x264_s														
631.deepsjeng_s														
641.leela_s														
648.exchange2_s	4	38.7	0.00					4	33.8	0.00				
657.xz_s														

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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 /home/sipeed/spec2017/bin/sysinfo
 Rev: r5974 of 2018-05-19 9bcde8f2999c33d61f64985e45859ea9
 running on lpi4a Wed Nov 29 13:17:12 2023

 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
 *
 * Did not identify cpu model.  If you would
 * like to write your own sysinfo program, see
 * www.spec.org/cpu2017/config.html#sysinfo
 *
 *
 * 0 "physical id" tags found.  Perhaps this is an older system,
 * or a virtualized system.  Not attempting to guess how to
 * count chips/cores for this system.
 *
       4 "processors"
    cores, siblings (Caution: counting these is hw and system dependent. The following
    excerpts from /proc/cpuinfo might not be reliable.  Use with caution.)

 From lscpu:
      Architecture:          riscv64
      Byte Order:            Little Endian
      CPU(s):                4
      On-line CPU(s) list:   0-3

 /proc/cpuinfo cache data
    cpu-cacheline : 64Bytes
    cpu-dcache : 64KB
    cpu-icache : 64KB
    cpu-l2cache : 1MB

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

 From /proc/meminfo
    MemTotal:       16116952 kB
```

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Platform Notes (Continued)

```
    HugePages_Total:       0
    Hugepagesize:       2048 kB

  /usr/bin/lsb_release -d
     Debian GNU/Linux 12 (bookworm)

  From /etc/*release* /etc/*version*
     debian_version: 12.0
     os-release:
        PRETTY_NAME="Debian GNU/Linux 12 (bookworm)"
        NAME="Debian GNU/Linux"
        VERSION_ID="12"
        VERSION="12 (bookworm)"
        VERSION_CODENAME=bookworm
        ID=debian
        HOME_URL="https://www.debian.org/"
        SUPPORT_URL="https://www.debian.org/support"
     revyos-release:
        BUILD_ID=20231009_134626
        BUILD_DATE=20231009
        COMMIT_ID=f9867c522485046f1965a3101bd4545520803623
        RUNNER_ID=6457521686

  uname -a:
     Linux lpi4a 5.10.113+ #4 SMP PREEMPT Fri Oct 20 06:59:14 UTC 2023 riscv64 GNU/Linux

  run-level 5 Nov 28 13:15

  SPEC is set to: /home/sipeed/spec2017
     Filesystem     Type  Size  Used Avail Use% Mounted on
     /dev/root      ext4  115G   12G   98G  11% /

  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  648.exchange2_s(base, peak)
------------------------------------------------------------------------------
Debian flang-new version 17.0.0 (+rc4-1~exp5revyos1)
Target: riscv64-unknown-linux-gnu
```

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Compiler Version Notes (Continued)

```
Thread model: posix
InstalledDir: /usr/lib/llvm-17/bin
------------------------------------------------------------------------------
```

Base Unknown Flags

648.exchange2_s: "/usr/bin/flang-new-17ARRAY(0x2ac0df7ff0)
"/usr/bin/flang-new-17ARRAY(0x2ac1ab98e0)
"-g -O3ARRAY(0x2ac1aba9e8)

Peak Unknown Flags

648.exchange2_s: "/usr/bin/flang-new-17ARRAY(0x2ac0df7ff0)
"/usr/bin/flang-new-17ARRAY(0x2ac1ab98e0)
"-g -O3ARRAY(0x2ac1aba9e8)

648.exchange2_s: "/usr/bin/flang-new-17ARRAY(0x2ac1aa7b40)
"/usr/bin/flang-new-17ARRAY(0x2ac1aa7a50)
"-g -OfastARRAY(0x2ac1c06ed0)

Base Portability Flags

648.exchange2_s: -DSPEC_LP64

Base Optimization Flags

Fortran benchmarks:
-DSPEC_OPENMP -DUSE_OPENMP

Peak Portability Flags

Same as Base Portability Flags

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Peak Optimization Flags

Fortran benchmarks:
`-DSPEC_OPENMP -DUSE_OPENMP`

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

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