

SPEC® CPU2017 Floating Point Speed Result

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sipeed

(Test Sponsor: PLCT)

Licheepi 4a

SPECSpeed2017_fp_base = 0.00

SPECSpeed2017_fp_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

603.bwaves_s

607.cactuBSSN_s

619.lbm_s

621.wrf_s

627.cam4_s

628.pop2_s

638.imagick_s

644.nab_s

649.fotonik3d_s

654.roms_s

Hardware

CPU Name: TH1520
Max MHz.: 2000MHz
Nominal: 2000MHz
Enabled: 4 cores, 1 chip
Orderable: 1
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
654.roms_s (base) did not have enough runs!
644.nab_s (base) did not have enough runs!
628.pop2_s (base) did not have enough runs!
619.lbm_s (base) did not have enough runs!

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Errors (Continued)

621.wrf_s (base) did not have enough runs!
638.imagick_s (base) did not have enough runs!
627.cam4_s (base) did not have enough runs!
603.bwaves_s (base) did not have enough runs!
607.cactuBSSN_s (base) did not have enough runs!
649.fotonik3d_s (base) did not have enough runs!
603.bwaves_s (base) had invalid runs!
654.roms_s (peak) did not have enough runs!
644.nab_s (peak) did not have enough runs!
628.pop2_s (peak) did not have enough runs!
619.lbm_s (peak) did not have enough runs!
621.wrf_s (peak) did not have enough runs!
638.imagick_s (peak) did not have enough runs!
627.cam4_s (peak) did not have enough runs!
603.bwaves_s (peak) did not have enough runs!
607.cactuBSSN_s (peak) did not have enough runs!
649.fotonik3d_s (peak) did not have enough runs!
603.bwaves_s (peak) had invalid runs!
Input set must be 'refspeed' for a valid run (set to 'test' for this run)
Run of 603.bwaves_s (base) was not valid; status is RE
Run of 603.bwaves_s (peak) was not valid; status is RE
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
603.bwaves_s	4	0.115	0.00					4	0.115	0.00				
607.cactuBSSN_s														
619.lbm_s														
621.wrf_s														
627.cam4_s														
628.pop2_s														
638.imagick_s														
644.nab_s														
649.fotonik3d_s														
654.roms_s														

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

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General Notes

Environment variables set by runcpu before the start of the run:
LD_LIBRARY_PATH = "/usr/lib64/:/usr/lib/./lib64"
OMP_STACKSIZE = "120M"

Platform Notes

Sysinfo program /home/sipeed/spec2017/bin/sysinfo
Rev: r5974 of 2018-05-19 9bcde8f2999c33d51f64985e45859ea9
running on lpi4a Wed Nov 29 13:24:27 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 /scpu:
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

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Platform Notes (Continued)

MemTotal: 16116952 kB
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"

revynos-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

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FC 603.bwaves_s(base, peak)

Debian flang-new version 17.0.0 (+rc4-1~exp5revyos1)

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Compiler Version Notes (Continued)

Target: riscv64-unknown-linux-gnu
Thread model: posix
InstalledDir: /usr/lib/llvm-17/bin

Base Unknown Flags

603.bwaves_s: "/usr/bin/flang-new-17ARRAY(0x2ae8d325a8)
"/usr/bin/flang-new-17ARRAY(0x2ae8d58730)
"-g -O3ARRAY(0x2ae8d42da8)

Peak Unknown Flags

603.bwaves_s: "/usr/bin/flang-new-17ARRAY(0x2ae8d325a8)
"/usr/bin/flang-new-17ARRAY(0x2ae8d58730)
"-g -O3ARRAY(0x2ae8d42da8)

603.bwaves_s: "/usr/bin/flang-new-17ARRAY(0x2ae8d4d8a0)
"/usr/bin/flang-new-17ARRAY(0x2ae8d54308)
"-g -OfastARRAY(0x2ae8eab2e0)

Runtime Environment

Fortran benchmarks:

603.bwaves_s: No flags used

Compiler Invocation

Fortran benchmarks:

603.bwaves_s: No flags used

Portability Flags

603.bwaves_s: -DSPEC_LP64

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Optimization Flags

Fortran benchmarks:

603.bwaves_s: -DSPEC_OPENMP -DUSE_OPENMP

Runtime Environment

Fortran benchmarks:

603.bwaves_s: No flags used

Other Flags

Fortran benchmarks:

603.bwaves_s: No flags used

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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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