



[www.phoronix-test-suite.com](http://www.phoronix-test-suite.com)

## rpi4@2GHz

ARMv8 Cortex-A72 testing on Debian 10 via the Phoronix Test Suite.

### Automated Executive Summary

*rockpi4@2GHz had the most wins, coming in first place for 84% of the tests.*

*Based on the geometric mean of all complete results, the fastest (rockpi4@2GHz) was 1.423x the speed of the slowest (rpi4b\_r@2ghz).*

*The results with the greatest spread from best to worst included:*

*Stress-NG (Test: MEMFD) at 3.164x*

*IPC\_benchmark (Type: TCP Socket - Message Bytes: 128) at 2.807x*

*IPC\_benchmark (Type: TCP Socket - Message Bytes: 256) at 2.747x*

*IPC\_benchmark (Type: TCP Socket - Message Bytes: 512) at 2.536x*

*Stress-NG (Test: MMAP) at 2.155x*

*IPC\_benchmark (Type: FIFO Named Pipe - Message Bytes: 128) at 1.998x*

*IPC\_benchmark (Type: Unnamed Unix Domain Socket - Message Bytes: 256) at 1.962x*

*IPC\_benchmark (Type: Unnamed Unix Domain Socket - Message Bytes: 128) at 1.934x*

*IPC\_benchmark (Type: Unnamed Pipe - Message Bytes: 128) at 1.93x*

*IPC\_benchmark (Type: Unnamed Unix Domain Socket - Message Bytes: 512) at 1.923x.*

## Test Systems:

### rockpi4@2GHz

Processor: Rockchip ARMv8 Cortex-A72 @ 1.51GHz (6 Cores), Motherboard: ROCK PI 4B, Memory: 4096MB, Disk: 31GB SDU1 + 31GB SLD32G

OS: Debian 10, Kernel: 4.4.154-113-rockchip-gdb9dfc2cdd25 (aarch64), Display Server: X Server 1.20.4, Compiler: GCC 8.3.0, File-System: ext4, Screen Resolution: 1024x768

Compiler Notes: --build=aarch64-linux-gnu --disable-libphobos --disable-libquadmath --disable-libquadmath-support --disable-werror --enable-bootstrap --enable-checking=release --enable-clocale=gnu --enable-default-pie --enable-fix-cortex-a53-843419 --enable-gnu-unique-object --enable-languages=c,ada,c++,go,d,fortran,objc,obj-c++ --enable-libstdcxx-debug --enable-libstdcxx-time=yes --enable-multiarch --enable-nls --enable-plugin --enable-shared --enable-threads=posix --host=aarch64-linux-gnu --program-prefix=aarch64-linux-gnu- --target=aarch64-linux-gnu --with-default-libstdcxx-abi=new --with-gcc-major-version-only -v  
 Processor Notes: Scaling Governor: cpufreq-dt performance  
 Disk Mount Options Notes: data=ordered,relatime,rw  
 Disk Details Notes: Block Size: 4096  
 Python Notes: Python 3.7.3

### rpi4b\_r@2ghz

Processor: ARMv8 Cortex-A72 @ 2.00GHz (4 Cores), Motherboard: BCM2835 Raspberry Pi 4 Model B Rev 1.2, Memory: 2048MB, Disk: 15GB SD16G

OS: Debian 10, Kernel: 5.4.51-v8+ (aarch64), Display Server: X Server 1.20.4, Compiler: GCC 8.3.0, File-System: ext4

Kernel Notes: snd\_bcm2835.enable\_compat\_alsa=0 snd\_bcm2835.enable\_hdmi=1 snd\_bcm2835.enable\_headphones=1  
 Compiler Notes: --build=aarch64-linux-gnu --disable-libphobos --disable-libquadmath --disable-libquadmath-support --disable-werror --enable-bootstrap --enable-checking=release --enable-clocale=gnu --enable-default-pie --enable-fix-cortex-a53-843419 --enable-gnu-unique-object --enable-languages=c,ada,c++,go,d,fortran,objc,obj-c++ --enable-libstdcxx-debug --enable-libstdcxx-time=yes --enable-multiarch --enable-nls --enable-plugin --enable-shared --enable-threads=posix --host=aarch64-linux-gnu --program-prefix=aarch64-linux-gnu- --target=aarch64-linux-gnu --with-default-libstdcxx-abi=new --with-gcc-major-version-only -v  
 Processor Notes: Scaling Governor: cpufreq-dt ondemand  
 Disk Mount Options Notes: noatime,rw  
 Disk Details Notes: Block Size: 4096  
 Python Notes: Python 2.7.16 + Python 3.7.3  
 Security Notes: itlb\_multihit: Not affected + l1tf: Not affected + mds: Not affected + meltdown: Not affected + spec\_store\_bypass: Vulnerable + spectre\_v1: Mitigation of \_\_user pointer sanitization + spectre\_v2: Vulnerable + srbs: Not affected + tsx\_async\_abort: Not affected

	rockpi4@2GHz	rpi4b_r@2ghz
<b>Stress-NG - MEMFD (Bogo Ops/s)</b>	<b>53.37</b>	<b>16.87</b>
Normalized	100%	31.61%
Standard Deviation	0.2%	0.5%
<b>IPC_benchmark - TCP Socket - 128 (Messages/sec)</b>	<b>1296725</b>	<b>462024</b>
Normalized	100%	35.63%
Standard Deviation	2.4%	0.7%
<b>IPC_benchmark - TCP Socket - 256 (Messages/sec)</b>	<b>1242060</b>	<b>452076</b>
Normalized	100%	36.4%
Standard Deviation	0.2%	1.8%
<b>IPC_benchmark - TCP Socket - 512 (Messages/sec)</b>	<b>1085305</b>	<b>427877</b>
Normalized	100%	39.42%
Standard Deviation	1.3%	1.5%
<b>Stress-NG - MMAP (Bogo Ops/s)</b>	<b>9.48</b>	<b>4.40</b>
Normalized	100%	46.41%

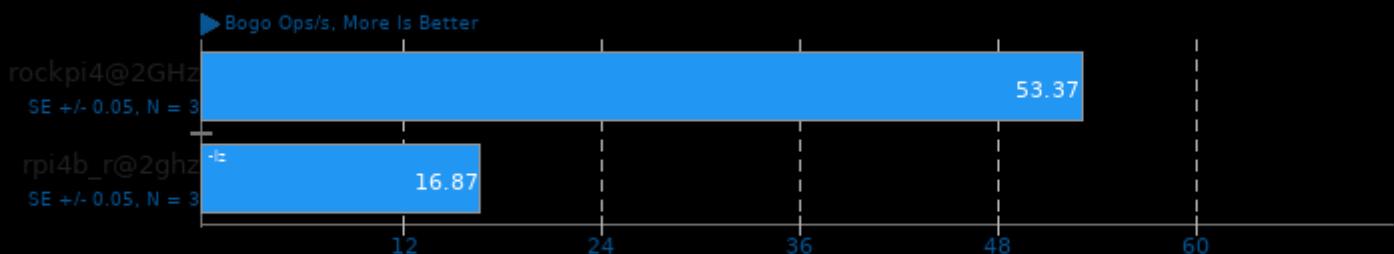
	Standard Deviation	0.1%	0.5%
IPC_benchmark - FIFO Named Pipe - 128 (Messages/sec)	Normalized	1369741	685499
	Standard Deviation	3.8%	0.2%
IPC_benchmark - U.U.D.S - 256 (Messages/sec)	Normalized	921845	469955
	Standard Deviation	2.1%	0.8%
IPC_benchmark - U.U.D.S - 128 (Messages/sec)	Normalized	929281	480562
	Standard Deviation	2.3%	1.2%
IPC_benchmark - Unnamed Pipe - 128 (Messages/sec)	Normalized	1319651	683713
	Standard Deviation	5.9%	1.1%
IPC_benchmark - U.U.D.S - 512 (Messages/sec)	Normalized	887585	461486
	Standard Deviation	2.4%	1.8%
IPC_benchmark - Unnamed Pipe - 1024	Normalized	1184817	621057
	Standard Deviation	0.5%	0.8%
IPC_benchmark - FIFO Named Pipe - 256 (Messages/sec)	Normalized	1284175	675667
	Standard Deviation	100%	52.61%
	Standard Deviation	1%	0.6%
IPC_benchmark - FIFO Named Pipe - 1024 (Messages/sec)	Normalized	1176832	627821
	Standard Deviation	2.5%	0.4%
IPC_benchmark - Unnamed Pipe - 256 (Messages/sec)	Normalized	1279133	682966
	Standard Deviation	1.7%	1.4%
Stress-NG - Socket Activity (Bogo Ops/s)	Normalized	783.00	418.50
	Standard Deviation	100%	53.39%
	Standard Deviation	0.6%	1.3%
IPC_benchmark - Unnamed Pipe - 512 (Messages/sec)	Normalized	1214093	665088
	Standard Deviation	4.8%	0.8%
IPC_benchmark - FIFO Named Pipe - 512 (Messages/sec)	Normalized	1198549	657047
	Standard Deviation	100%	54.78%
	Standard Deviation	3.6%	2.7%
Stress-NG - Memory Copying (Bogo Ops/s)	Normalized	168.21	92.51
	Standard Deviation	100%	55%
	Standard Deviation	0.1%	2.4%
IPC_benchmark - U.U.D.S - 1024 (Messages/sec)	Normalized	787023	433128
	Standard Deviation	3.8%	0.8%
Stress-NG - SENDFILE (Bogo Ops/s)	Normalized	29024	16205
	Standard Deviation	100%	55.83%
	Standard Deviation	1.7%	0.1%
Stress-NG - Malloc (Bogo Ops/s)	Normalized	4584714	2650730
	Standard Deviation	100%	57.82%
	Standard Deviation	0.1%	0.1%
RAMspeed SMP - Triad - Integer (MB/s)	Normalized	3856	2566
	Normalized	100%	66.56%

	Standard Deviation	1.4%	0.1%
<b>Stress-NG - Atomic (Bogo Ops/s)</b>	<b>68958</b>	<b>101834</b>	
Normalized	67.72%	100%	
Standard Deviation	0.2%	0.1%	
<b>Stress-NG - NUMA (Bogo Ops/s)</b>	<b>65.67</b>	<b>44.70</b>	
Normalized	100%	68.07%	
Standard Deviation	0.1%	0.1%	
<b>SQLite - 1 (sec)</b>	<b>105.509</b>	<b>139.275</b>	
Normalized	100%	75.76%	
Standard Deviation	0.5%	4.5%	
<b>Stress-NG - Matrix Math (Bogo Ops/s)</b>	<b>1903</b>	<b>1483</b>	
Normalized	100%	77.91%	
Standard Deviation	2.3%	2.5%	
<b>Stress-NG - Forking (Bogo Ops/s)</b>	<b>3991</b>	<b>3145</b>	
Normalized	100%	78.79%	
Standard Deviation	1.6%	0.9%	
<b>Hackbench - 2 - Thread (sec)</b>	<b>50.501</b>	<b>62.608</b>	
Normalized	100%	80.66%	
Standard Deviation	2.7%	0.8%	
<b>Hackbench - 4 - Thread (sec)</b>	<b>97.029</b>	<b>119.657</b>	
Normalized	100%	81.09%	
Standard Deviation	0.7%	0.3%	
<b>Coremark - CoreMark Size 666 - I.P.S (Iterations/Sec)</b>	<b>35944</b>	<b>43915</b>	
Normalized	81.85%	100%	
Standard Deviation	0%	0.1%	
<b>RAMspeed SMP - Average - Integer (MB/s)</b>	<b>4722</b>	<b>3866</b>	
Normalized	100%	81.86%	
Standard Deviation	0.2%	0.5%	
<b>RAMspeed SMP - Copy - Integer (MB/s)</b>	<b>5143</b>	<b>4240</b>	
Normalized	100%	82.44%	
Standard Deviation	0.2%	3.4%	
<b>SQLite - 8 (sec)</b>	<b>601.414</b>	<b>728.346</b>	
Normalized	100%	82.57%	
Standard Deviation	1.9%	1.6%	
<b>RAMspeed SMP - Add - Integer (MB/s)</b>	<b>4794</b>	<b>3972</b>	
Normalized	100%	82.84%	
Standard Deviation	0%	0.3%	
<b>Stress-NG - Vector Math (Bogo Ops/s)</b>	<b>5924</b>	<b>4926</b>	
Normalized	100%	83.15%	
Standard Deviation	0%	0.1%	
<b>Stress-NG - Semaphores (Bogo Ops/s)</b>	<b>292744</b>	<b>255835</b>	
Normalized	100%	87.39%	
Standard Deviation	0.2%	0.5%	
<b>OpenSSL (sign/s)</b>	<b>145.3</b>	<b>127.2</b>	
Normalized	100%	87.54%	
Standard Deviation	0%	0.4%	
<b>OpenSSL (verify/s)</b>	<b>9908</b>	<b>8682</b>	
Normalized	100%	87.63%	
Standard Deviation	0.1%	0%	
<b>Stress-NG - S.V.M.P (Bogo Ops/s)</b>	<b>1258234</b>	<b>1130537</b>	
Normalized	100%	89.85%	
Standard Deviation	0.2%	1.8%	
<b>RAMspeed SMP - Scale - Integer (MB/s)</b>	<b>5105</b>	<b>4649</b>	
Normalized	100%	91.07%	
Standard Deviation	0.2%	0.4%	

<b>Stress-NG - G.C.S.F (Bogo Ops/s)</b>	<b>100359</b>	<b>110045</b>
Normalized	91.2%	100%
Standard Deviation	0.1%	0.3%
<b>Smallpt - G.I.R.1.S (sec)</b>	<b>99.594</b>	<b>91.508</b>
Normalized	91.88%	100%
Standard Deviation	0.2%	0.4%
<b>LibRaw - P.P.B (Mpix/sec)</b>	<b>6.42</b>	<b>6.96</b>
Normalized	92.24%	100%
Standard Deviation	0.4%	0.2%
<b>7-Zip Compression - C.S.T (MIPS)</b>	<b>4451</b>	<b>4183</b>
Normalized	100%	93.98%
Standard Deviation	1.3%	0.3%
<b>PyBench - T.F.A.T.T (Milliseconds)</b>	<b>4513</b>	<b>4263</b>
Normalized	94.46%	100%
Standard Deviation	0.5%	0.2%
<b>Stress-NG - CPU Stress (Bogo Ops/s)</b>	<b>536.18</b>	<b>555.08</b>
Normalized	96.6%	100%
Standard Deviation	0.3%	0.4%
<b>Stress-NG - Crypto (Bogo Ops/s)</b>	<b>342.52</b>	<b>332.72</b>
Normalized	100%	97.14%
Standard Deviation	0.1%	0.2%
<b>CacheBench - R.M.W (MB/s)</b>	<b>14892</b>	<b>14783</b>
Normalized	100%	99.26%
Standard Deviation	0.2%	0.1%
<b>Stress-NG - G.Q.D.S (Bogo Ops/s)</b>	<b>14.09</b>	<b>14.09</b>
Normalized	2.2%	0.7%
<b>Stress-NG - Context Switching (Bogo Ops/s)</b>	<b>806439</b>	<b>345762</b>
Normalized	100%	42.88%
Standard Deviation	6%	4.7%
<b>Stress-NG - CPU Cache (Bogo Ops/s)</b>	<b>52.85</b>	<b>83.89</b>
Normalized	63%	100%
Standard Deviation	6.7%	1.6%
<b>Hackbench - 1 - Thread (sec)</b>	<b>31.059</b>	<b>34.415</b>
Normalized	100%	90.25%
Standard Deviation	20.2%	1.2%
<b>IPC_benchmark - TCP Socket - 1024 (Messages/sec)</b>	<b>681836</b>	<b>379937</b>
Normalized	100%	55.72%
Standard Deviation	6.7%	2.4%

## Stress-NG 0.13.02

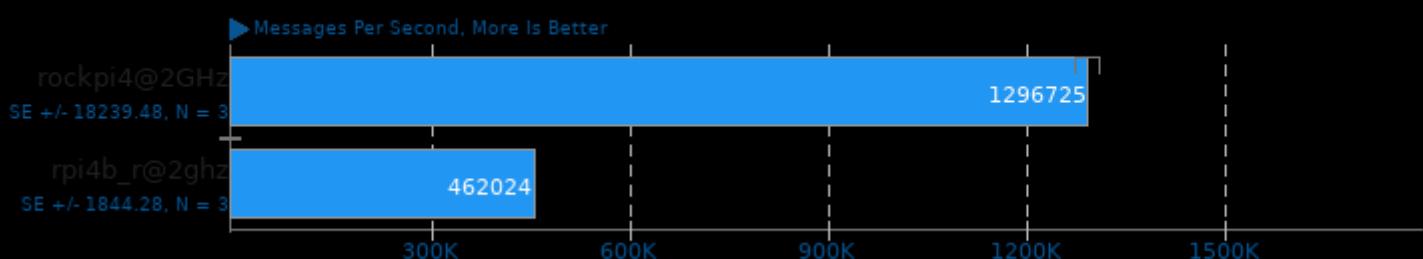
Test: MEMFD



1. (CC) gcc options: -O2 -std=gnu99 -lm -lcrypt -lrt -ldl -pthread -lc -latomic

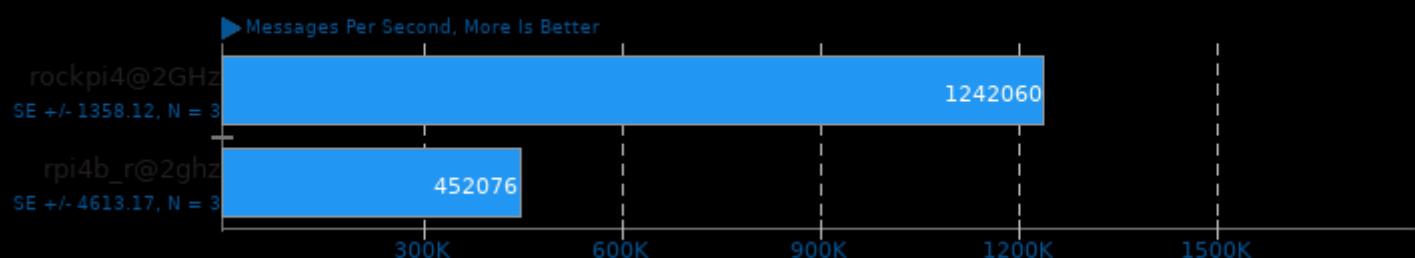
## IPC\_benchmark

Type: TCP Socket - Message Bytes: 128



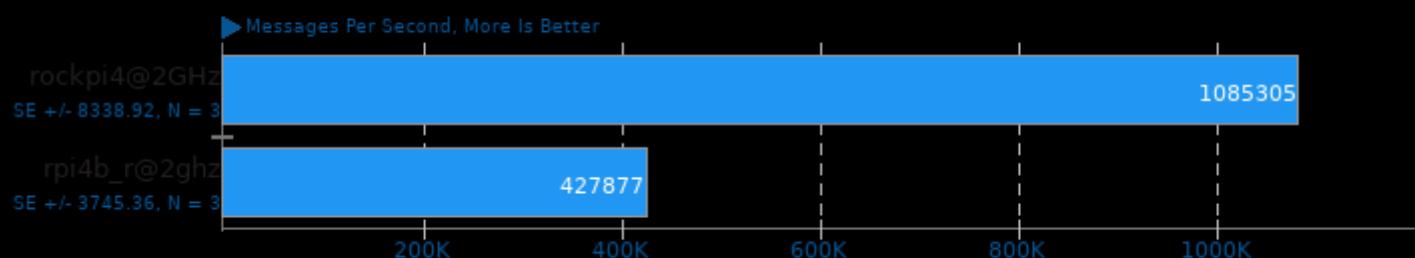
## IPC\_benchmark

Type: TCP Socket - Message Bytes: 256



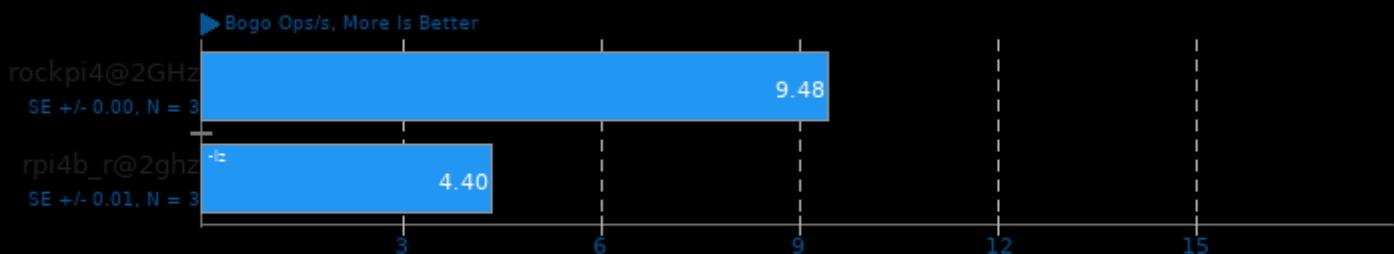
## IPC\_benchmark

Type: TCP Socket - Message Bytes: 512



## Stress-NG 0.13.02

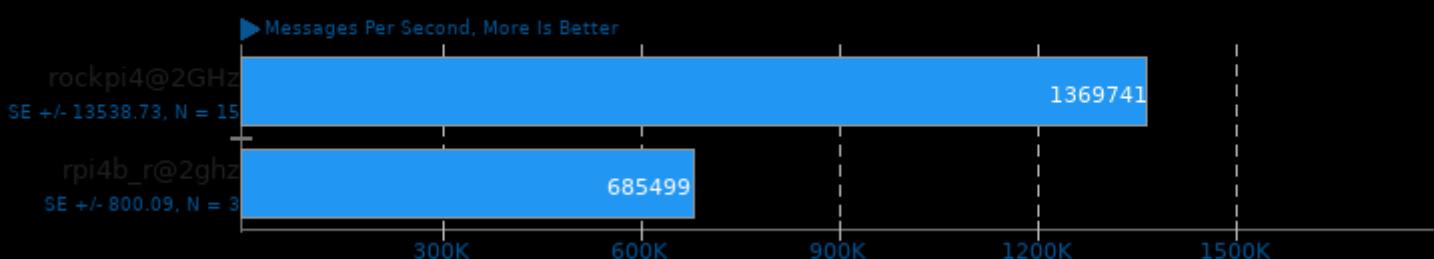
Test: MMAP



1. (CC) gcc options: -O2 -std=gnu99 -lm -lcrypt -lrt -ldl -pthread -lc -latomic

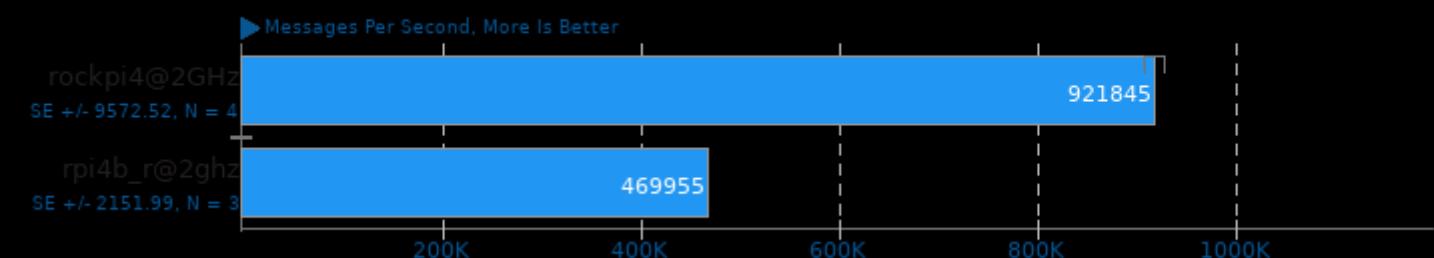
## IPC\_benchmark

Type: FIFO Named Pipe - Message Bytes: 128



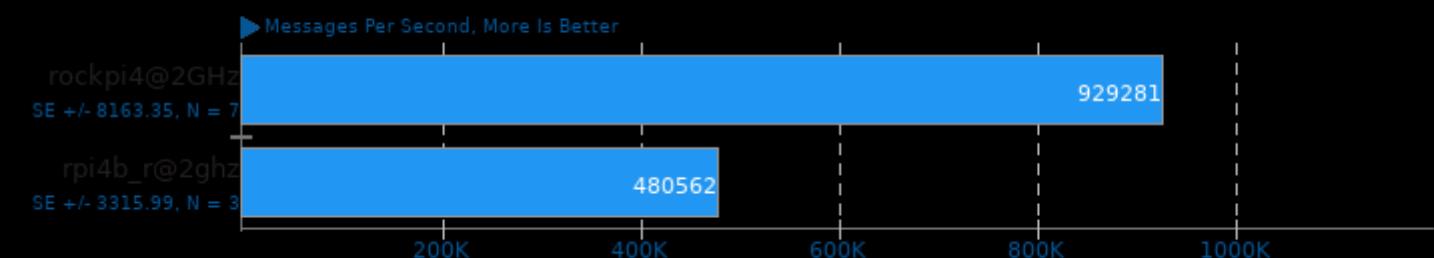
## IPC\_benchmark

Type: Unnamed Unix Domain Socket - Message Bytes: 256



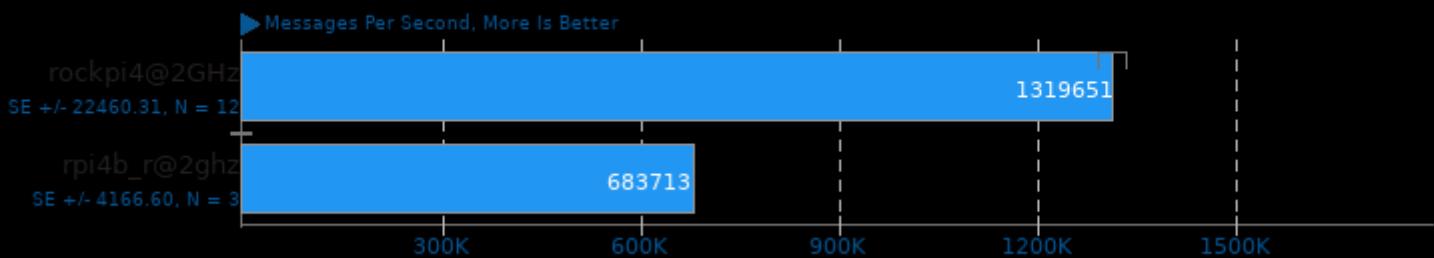
## IPC\_benchmark

Type: Unnamed Unix Domain Socket - Message Bytes: 128

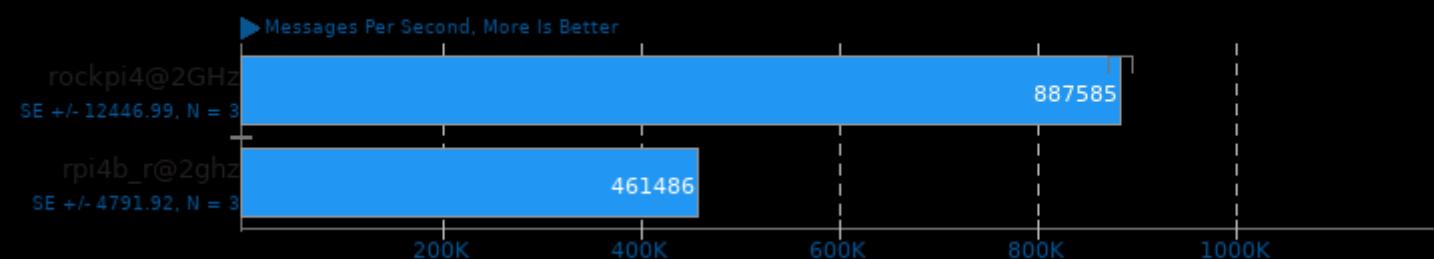


**IPC\_benchmark**

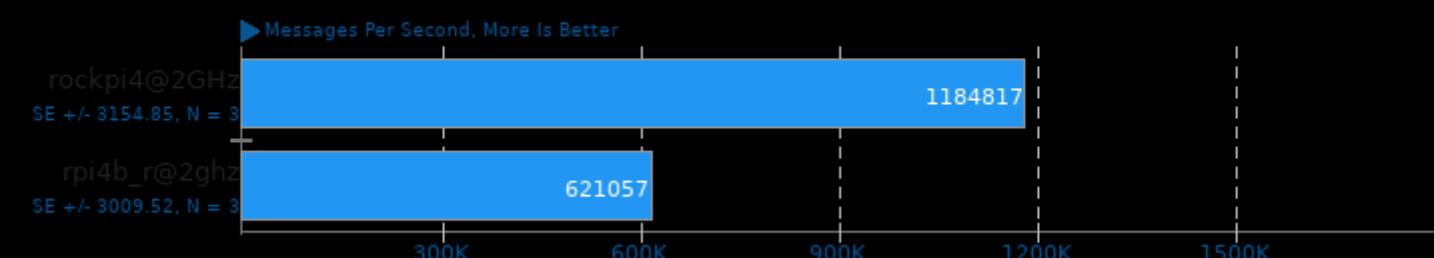
Type: Unnamed Pipe - Message Bytes: 128

**IPC\_benchmark**

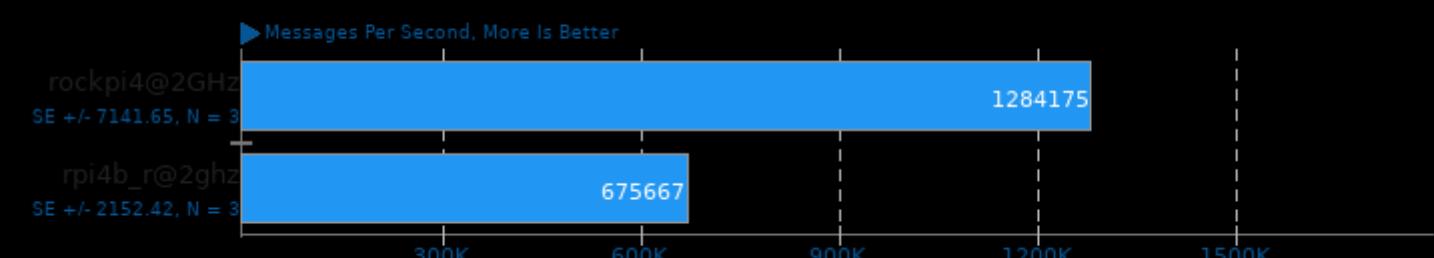
Type: Unnamed Unix Domain Socket - Message Bytes: 512

**IPC\_benchmark**

Type: Unnamed Pipe - Message Bytes: 1024

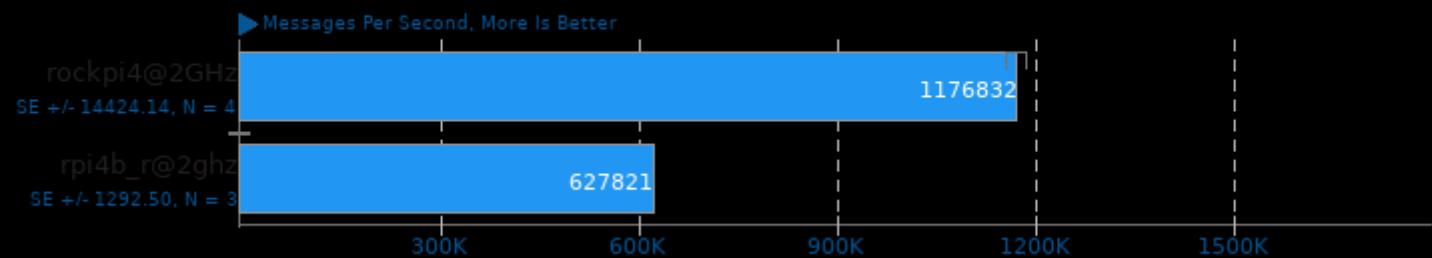
**IPC\_benchmark**

Type: FIFO Named Pipe - Message Bytes: 256

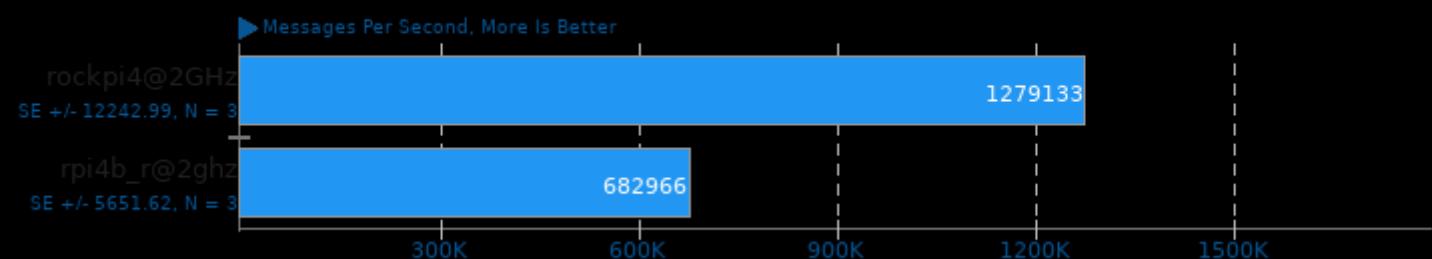


**IPC\_benchmark**

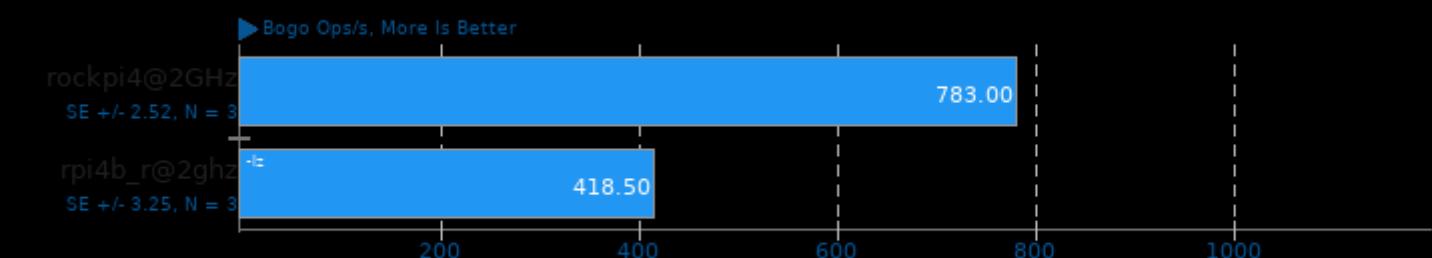
Type: FIFO Named Pipe - Message Bytes: 1024

**IPC\_benchmark**

Type: Unnamed Pipe - Message Bytes: 256

**Stress-NG 0.13.02**

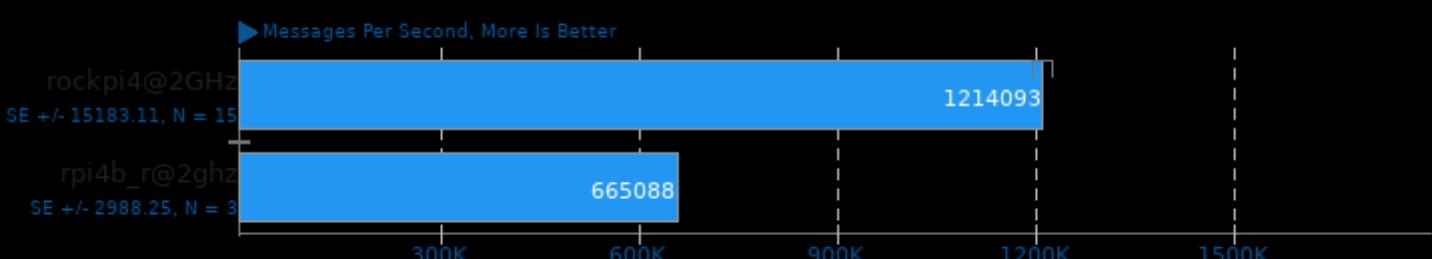
Test: Socket Activity



1. (CC) gcc options: -O2 -std=gnu99 -lm -lcrypt -lrt -ldl -pthread -lc -latomic

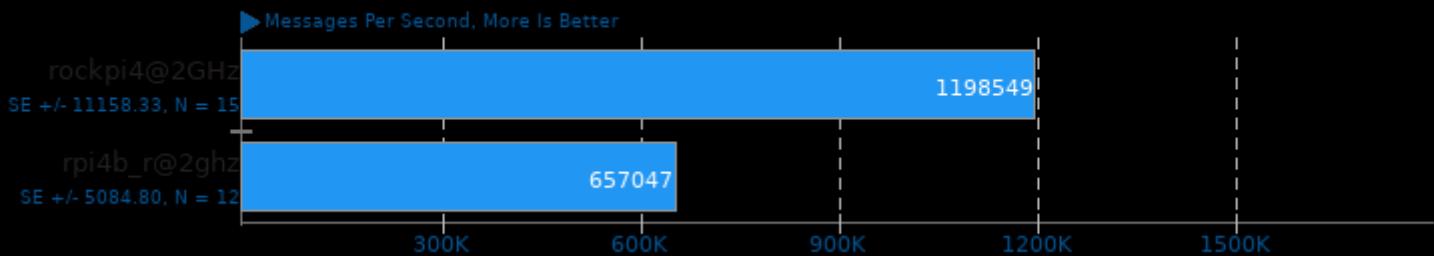
**IPC\_benchmark**

Type: Unnamed Pipe - Message Bytes: 512



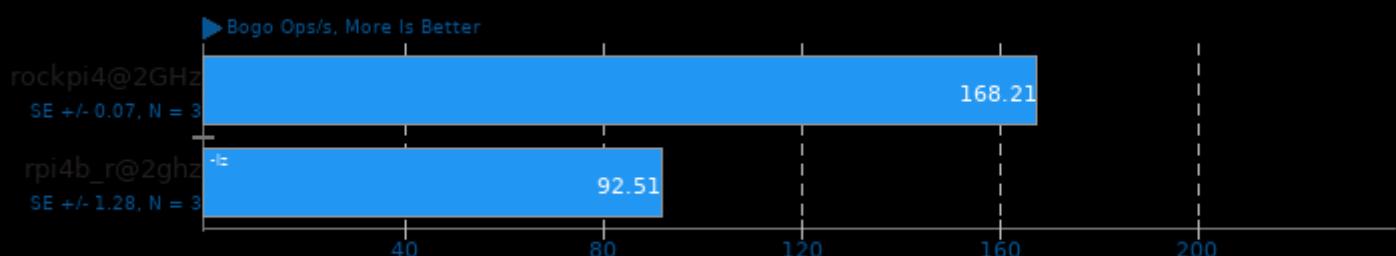
## IPC\_benchmark

Type: FIFO Named Pipe - Message Bytes: 512



## Stress-NG 0.13.02

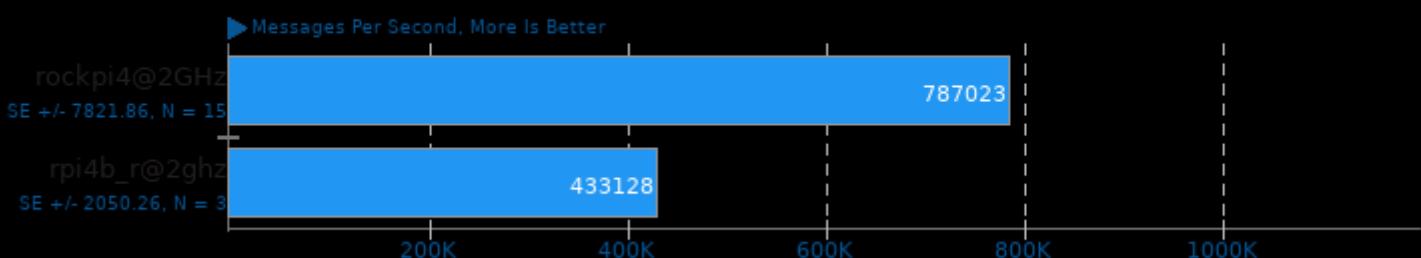
Test: Memory Copying



1. (CC) gcc options: -O2 -std=gnu99 -lm -lcrypt -lrt -ldl -pthread -lc -latomic

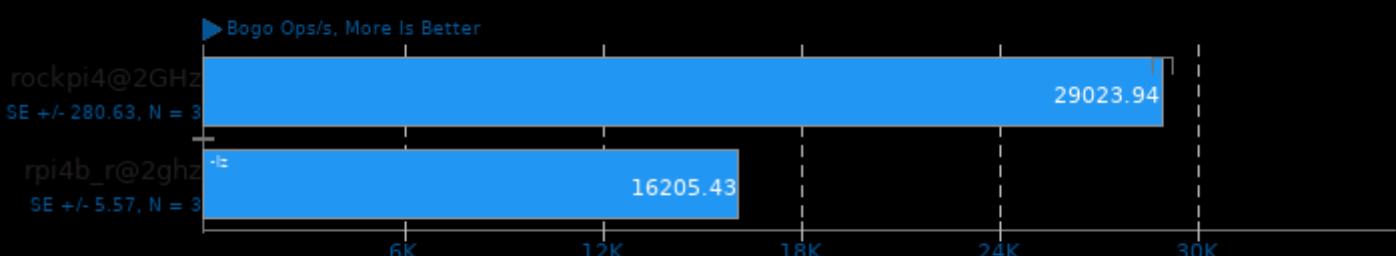
## IPC\_benchmark

Type: Unnamed Unix Domain Socket - Message Bytes: 1024



## Stress-NG 0.13.02

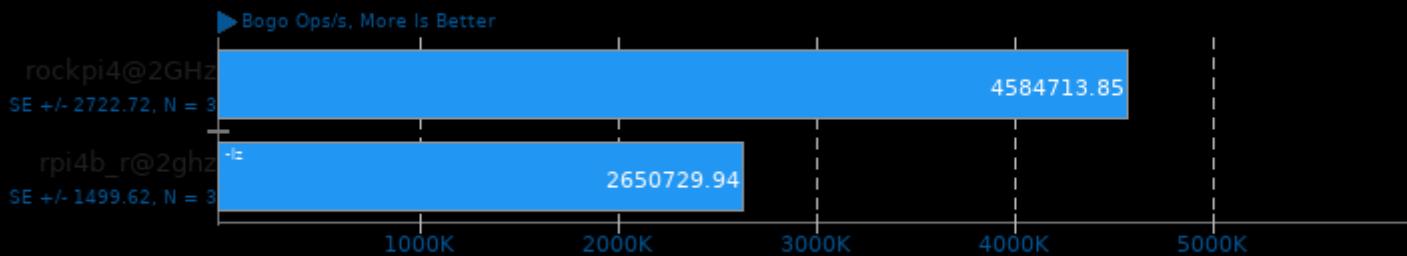
Test: SENDFILE



1. (CC) gcc options: -O2 -std=gnu99 -lm -lcrypt -lrt -ldl -pthread -lc -latomic

## Stress-NG 0.13.02

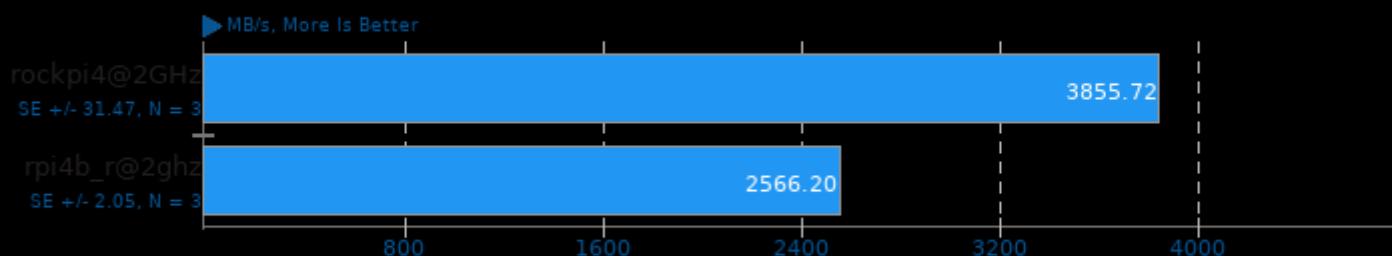
Test: Malloc



1. (CC) gcc options: -O2 -std=gnu99 -lm -lcrypt -lrt -ldl -pthread -lc -latomic

## RAMspeed SMP 3.5.0

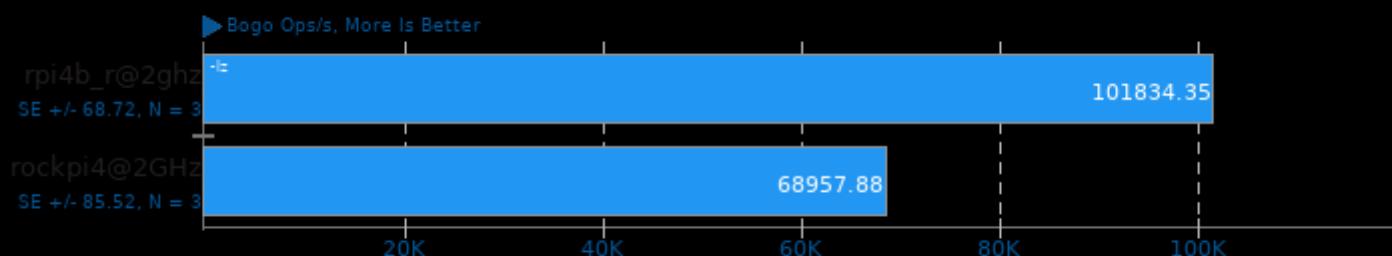
Type: Triad - Benchmark: Integer



1. (CC) gcc options: -O3 -march=native

## Stress-NG 0.13.02

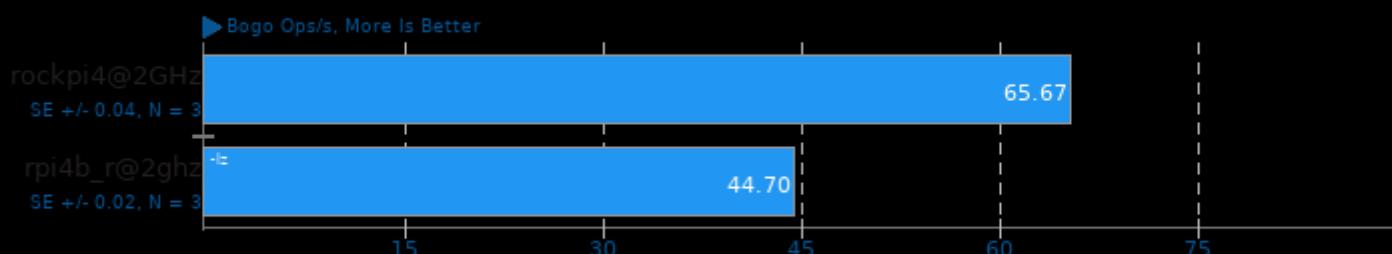
Test: Atomic



1. (CC) gcc options: -O2 -std=gnu99 -lm -lcrypt -lrt -ldl -pthread -lc -latomic

## Stress-NG 0.13.02

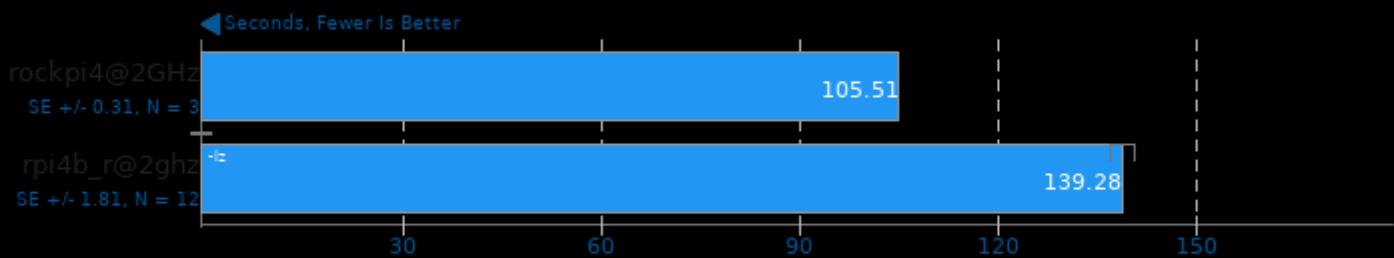
Test: NUMA



1. (CC) gcc options: -O2 -std=gnu99 -lm -lcrypt -lrt -ldl -pthread -lc -latomic

## SQLite 3.30.1

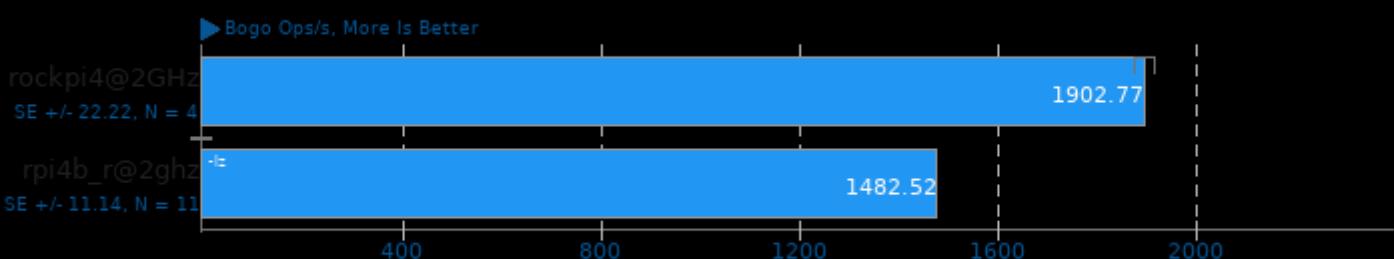
Threads / Copies: 1



1. (CC) gcc options: -O2 -lm -ldl -pthread

## Stress-NG 0.13.02

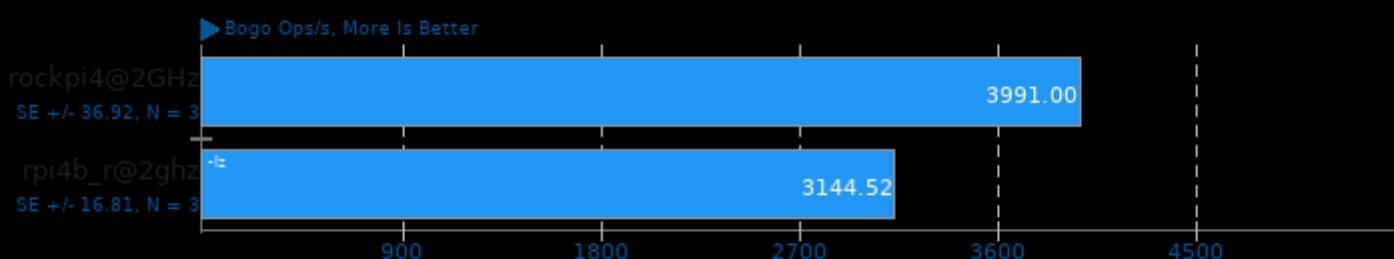
Test: Matrix Math



1. (CC) gcc options: -O2 -std=gnu99 -lm -lcrypt -lrt -ldl -pthread -lc -latomic

## Stress-NG 0.13.02

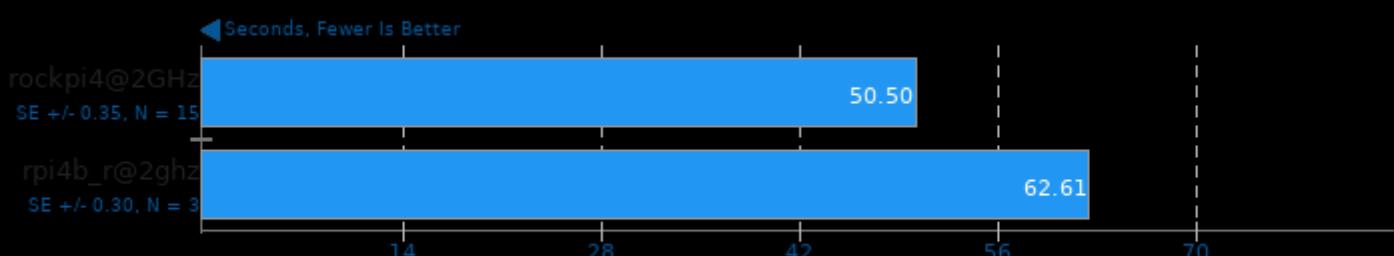
Test: Forking



1. (CC) gcc options: -O2 -std=gnu99 -lm -lcrypt -lrt -ldl -pthread -lc -latomic

## Hackbench

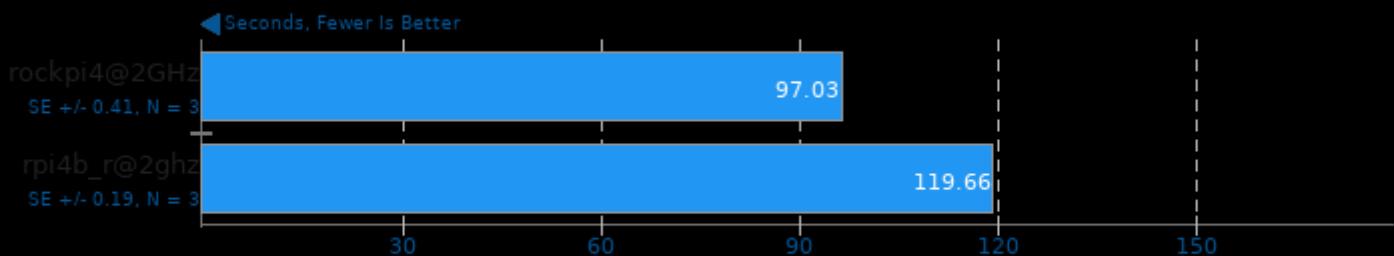
Count: 2 - Type: Thread



1. (CC) gcc options: -pthread

## Hackbench

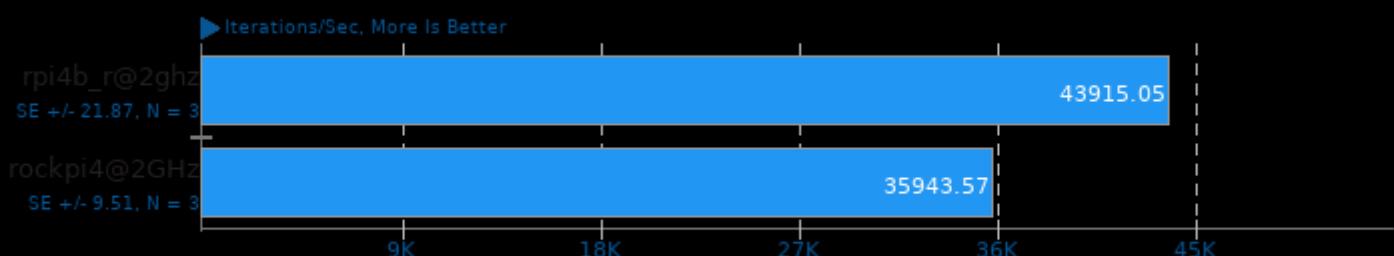
Count: 4 - Type: Thread



1. (CC) gcc options: -lpthread

## Coremark 1.0

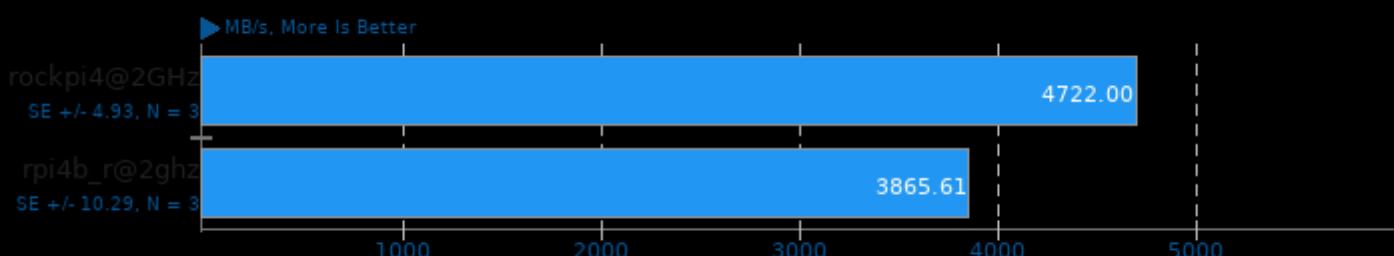
CoreMark Size 666 - Iterations Per Second



1. (CC) gcc options: -O2 -lirt -lrt

## RAMspeed SMP 3.5.0

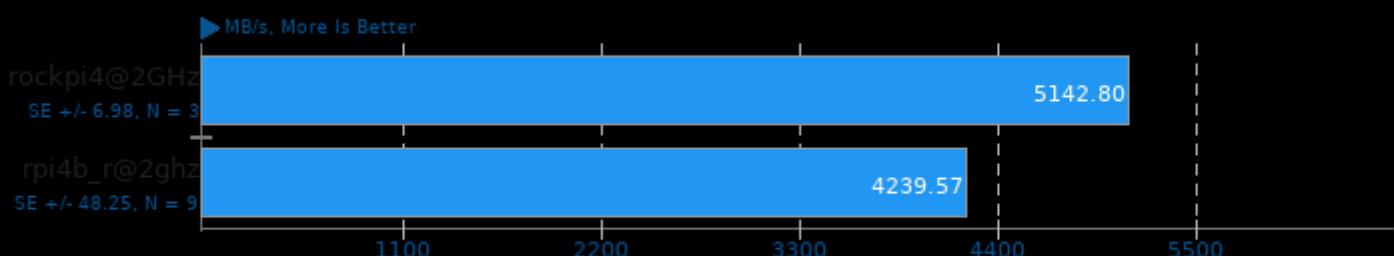
Type: Average - Benchmark: Integer



1. (CC) gcc options: -O3 -march=native

## RAMspeed SMP 3.5.0

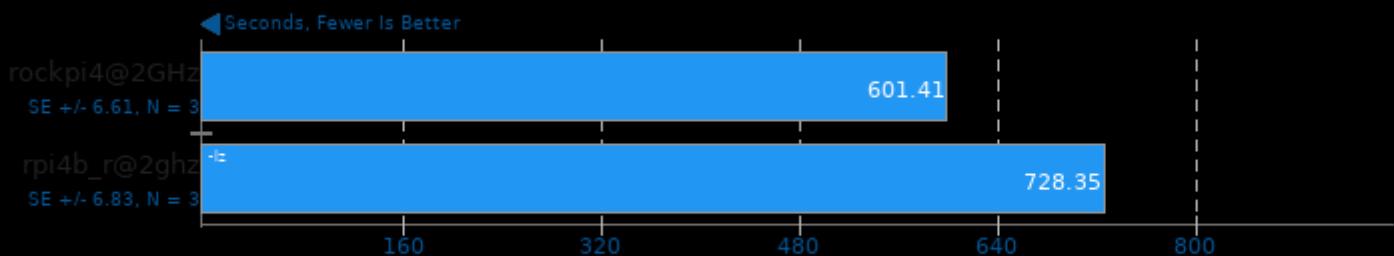
Type: Copy - Benchmark: Integer



1. (CC) gcc options: -O3 -march=native

## SQLite 3.30.1

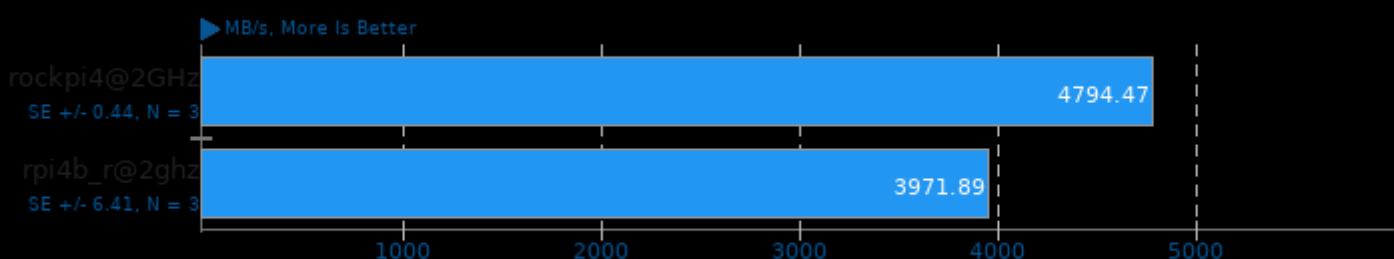
Threads / Copies: 8



1. (CC) gcc options: -O2 -lm -ldl -pthread

## RAMspeed SMP 3.5.0

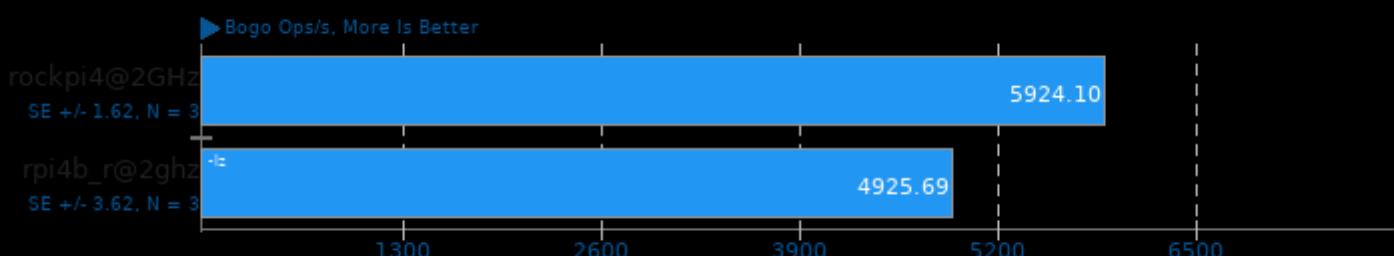
Type: Add - Benchmark: Integer



1. (CC) gcc options: -O3 -march=native

## Stress-NG 0.13.02

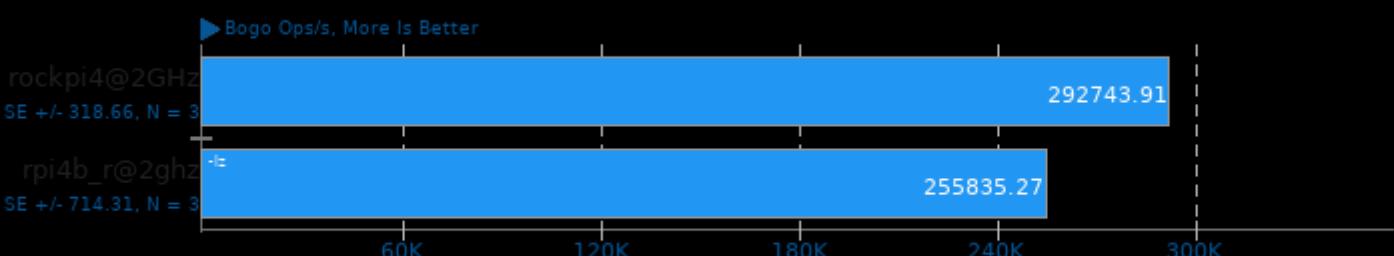
Test: Vector Math



1. (CC) gcc options: -O2 -std=gnu99 -lm -lcrypt -lrt -ldl -pthread -lc -latomic

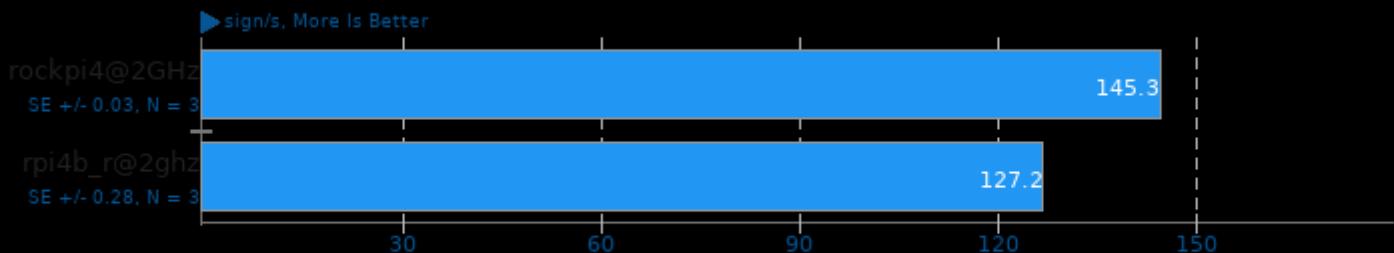
## Stress-NG 0.13.02

Test: Semaphores



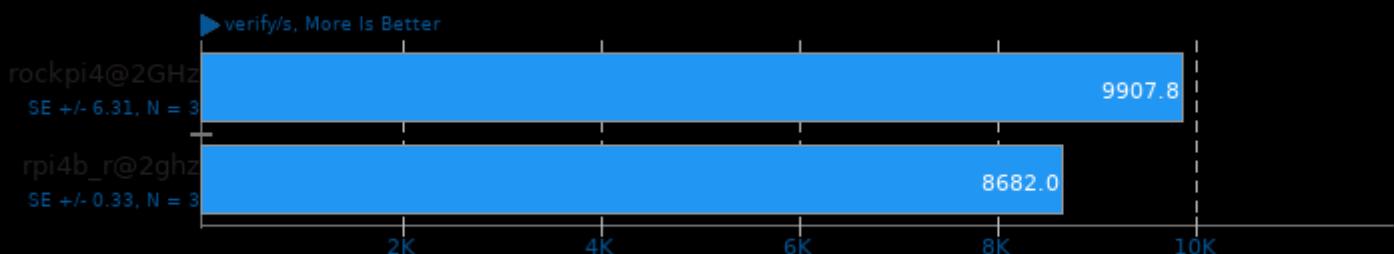
1. (CC) gcc options: -O2 -std=gnu99 -lm -lcrypt -lrt -ldl -pthread -lc -latomic

## OpenSSL



1. OpenSSL 1.1.1d 10 Sep 2019

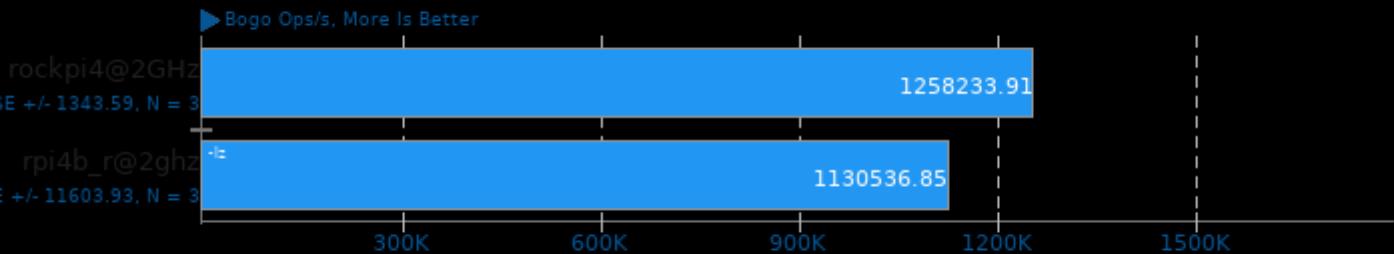
## OpenSSL



1. OpenSSL 1.1.1d 10 Sep 2019

## Stress-NG 0.13.02

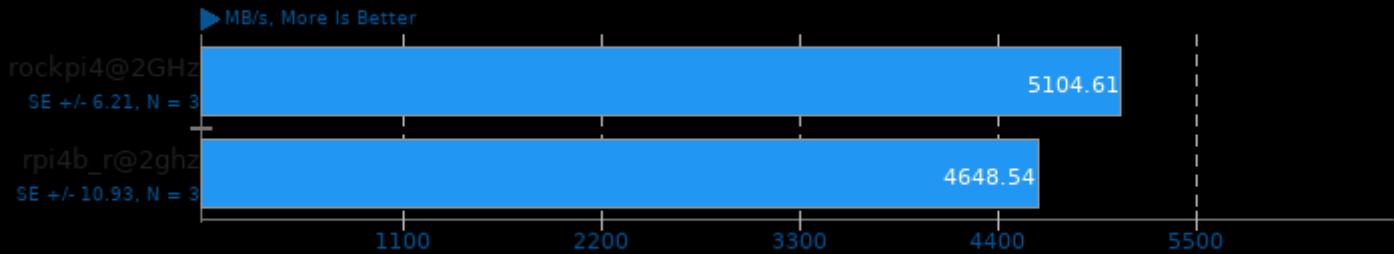
Test: System V Message Passing



1. (CC) gcc options: -O2 -std=gnu99 -lm -lcrypt -lrt -ldl -pthread -lc -latomic

## RAMspeed SMP 3.5.0

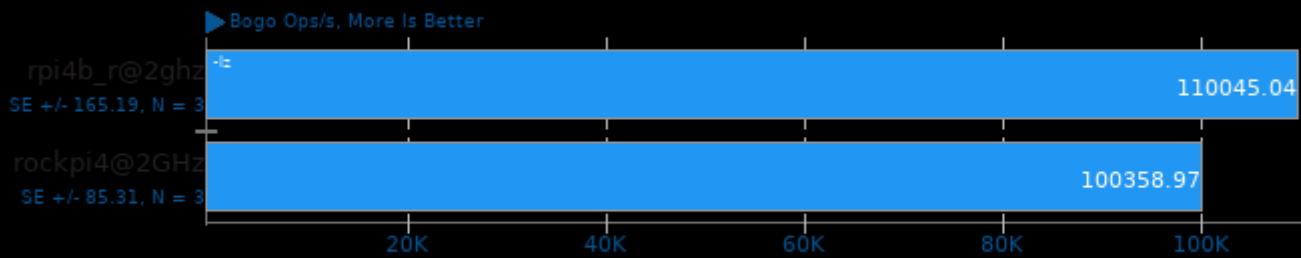
Type: Scale - Benchmark: Integer



1. (CC) gcc options: -O3 -march=native

## Stress-NG 0.13.02

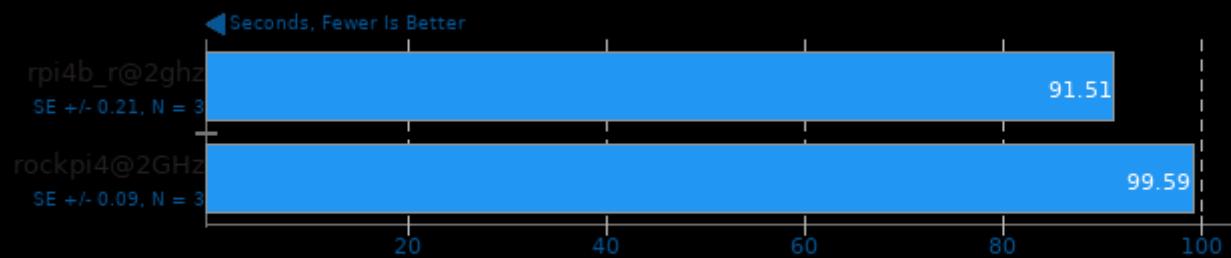
Test: Glibc C String Functions



1. (CC) gcc options: -O2 -std=gnu99 -lm -lcrypt -lrt -ldl -pthread -lc -latomic

## Smallpt 1.0

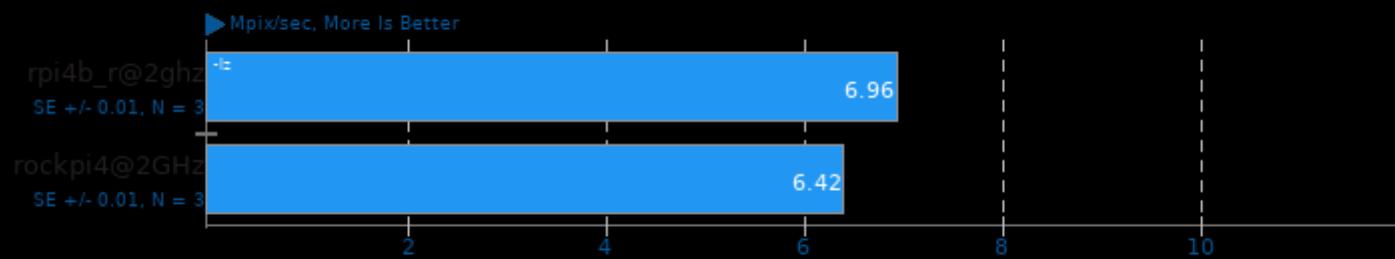
Global Illumination Renderer; 128 Samples



1. (CXX) g++ options: -fopenmp -O3

## LibRaw 0.20

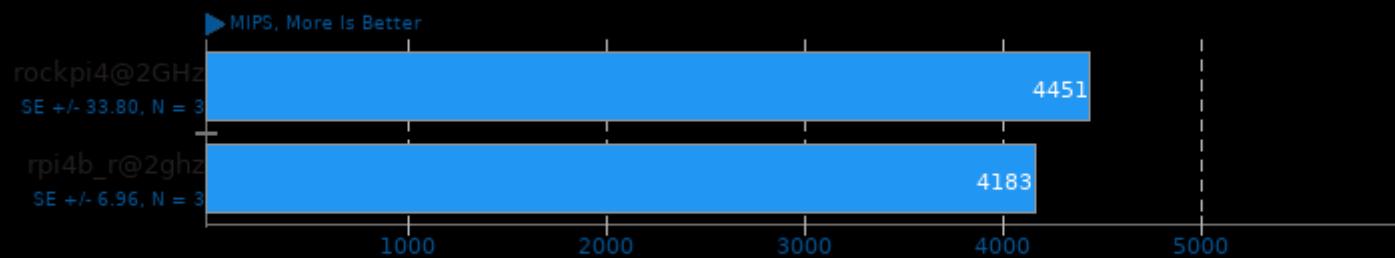
Post-Processing Benchmark



1. (CXX) g++ options: -O2 -fopenmp -lm

## 7-Zip Compression 16.02

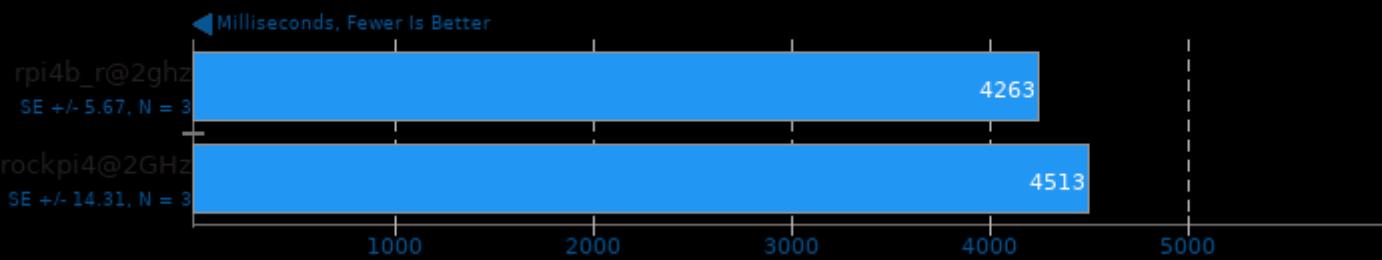
Compress Speed Test



1. (CXX) g++ options: -pipe -lpthread

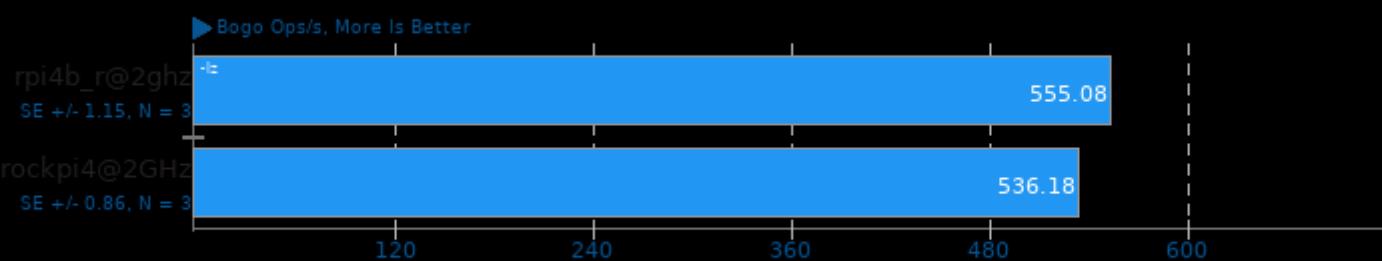
## PyBench 2018-02-16

Total For Average Test Times



## Stress-NG 0.13.02

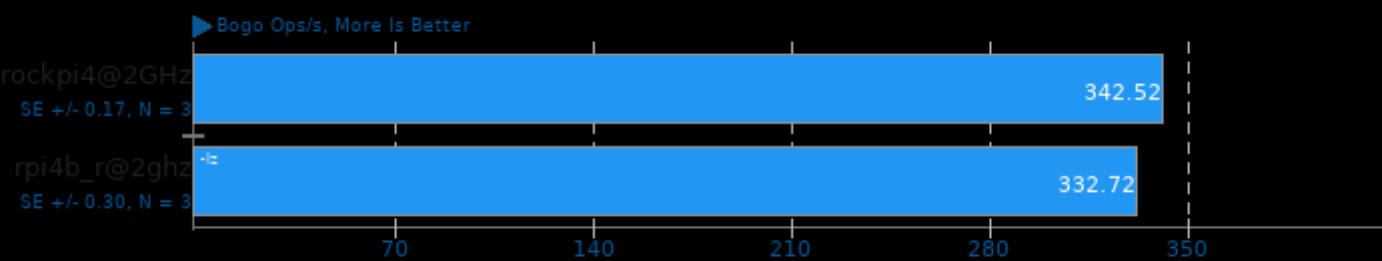
Test: CPU Stress



1. (CC) gcc options: -O2 -std=gnu99 -lm -lcrypt -lnt -ldl -pthread -lc -latomic

## Stress-NG 0.13.02

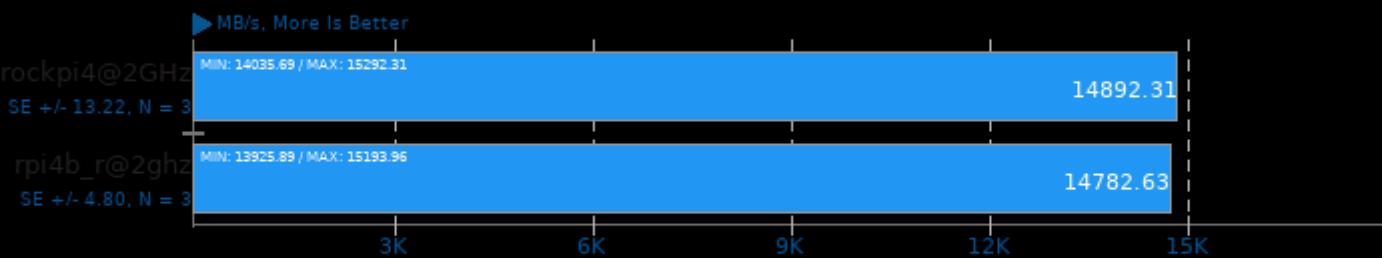
Test: Crypto



1. (CC) gcc options: -O2 -std=gnu99 -lm -lcrypt -lnt -ldl -pthread -lc -latomic

## CacheBench

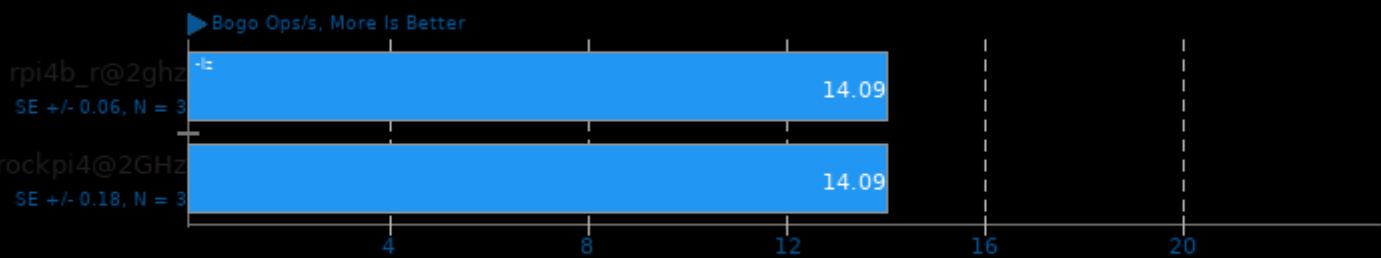
Test: Read / Modify / Write



1. (CC) gcc options: -lnt

## Stress-NG 0.13.02

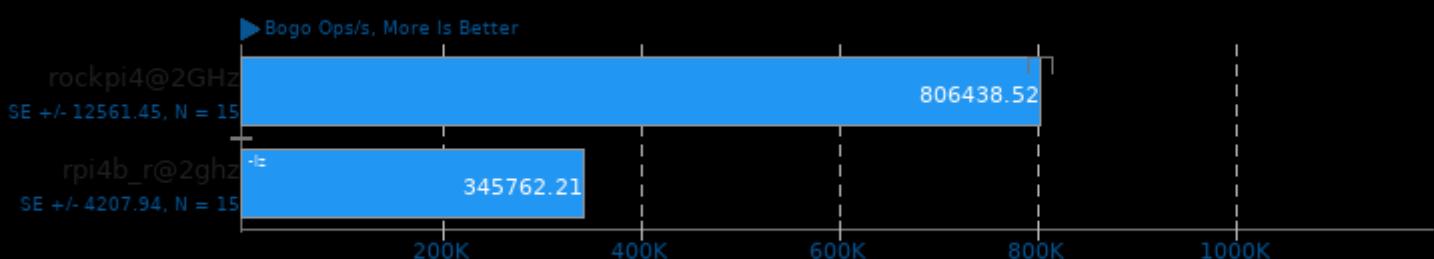
Test: Glibc Qsort Data Sorting



1. (CC) gcc options: -O2 -std=gnu99 -lm -lcrypt -lrt -ldl -pthread -lc -latomic

## Stress-NG 0.13.02

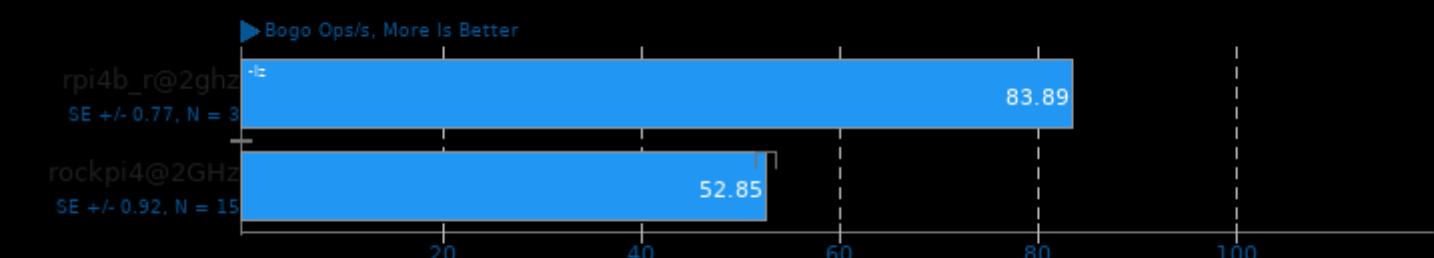
Test: Context Switching



1. (CC) gcc options: -O2 -std=gnu99 -lm -lcrypt -lrt -ldl -pthread -lc -latomic

## Stress-NG 0.13.02

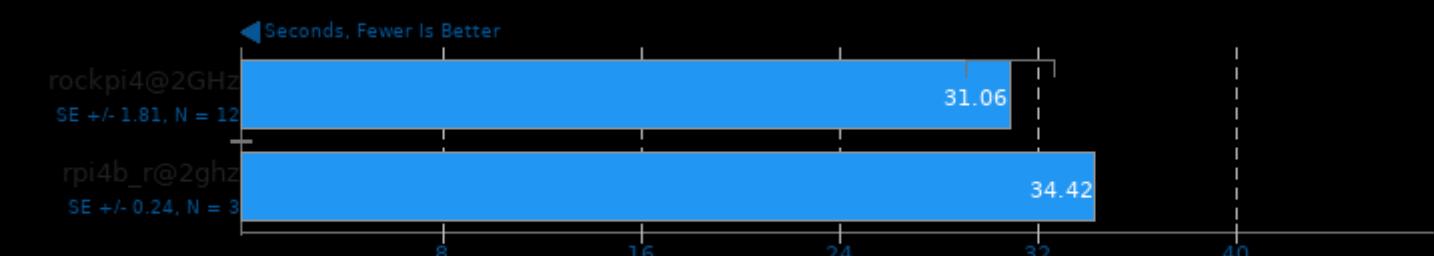
Test: CPU Cache



1. (CC) gcc options: -O2 -std=gnu99 -lm -lcrypt -lrt -ldl -pthread -lc -latomic

## Hackbench

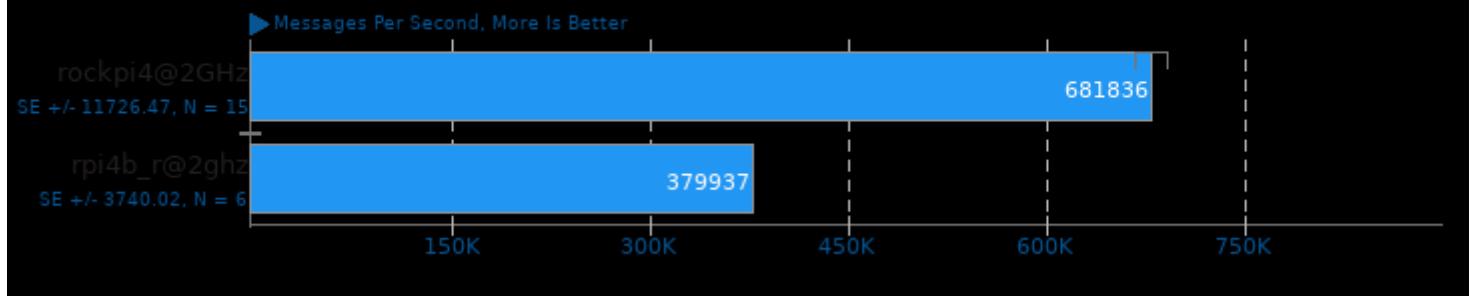
Count: 1 - Type: Thread



1. (CC) gcc options: -lpthread

**IPC\_benchmark**

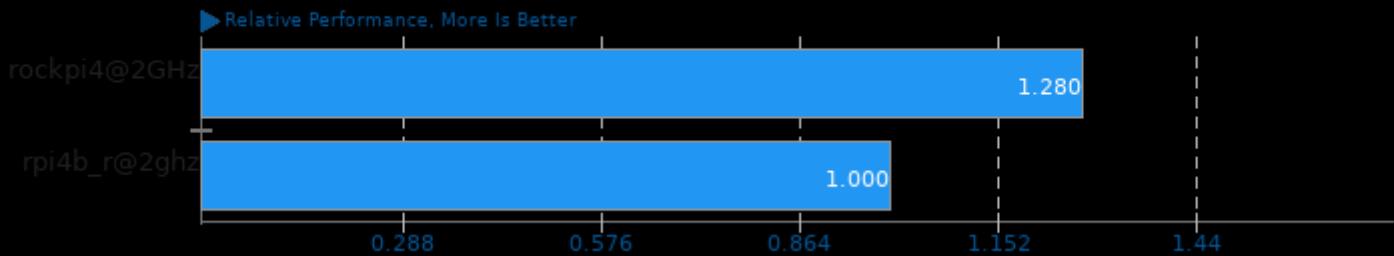
Type: TCP Socket - Message Bytes: 1024



These geometric means are based upon test groupings / test suites for this result file.

### Geometric Mean Of CPU Massive Tests

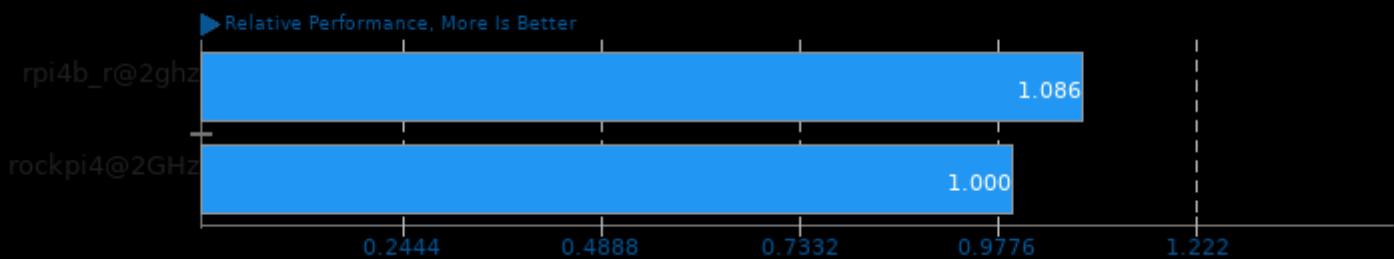
Result Composite - rpi4@2GHz



Geometric mean based upon tests: pts/cachebench, pts/compress-7zip, pts/hackbench, pts/ramspeed and pts/stress-ng

### Geometric Mean Of Creator Workloads Tests

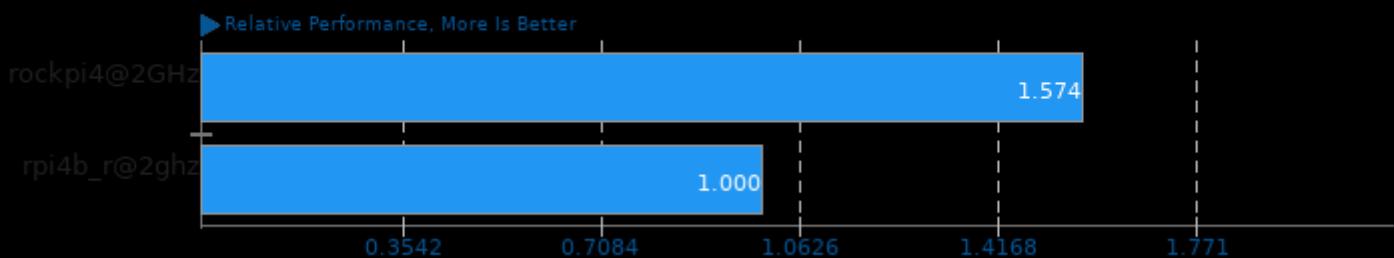
Result Composite - rpi4@2GHz



Geometric mean based upon tests: pts/smallpt and pts/libraw

### Geometric Mean Of Common Kernel Benchmarks Tests

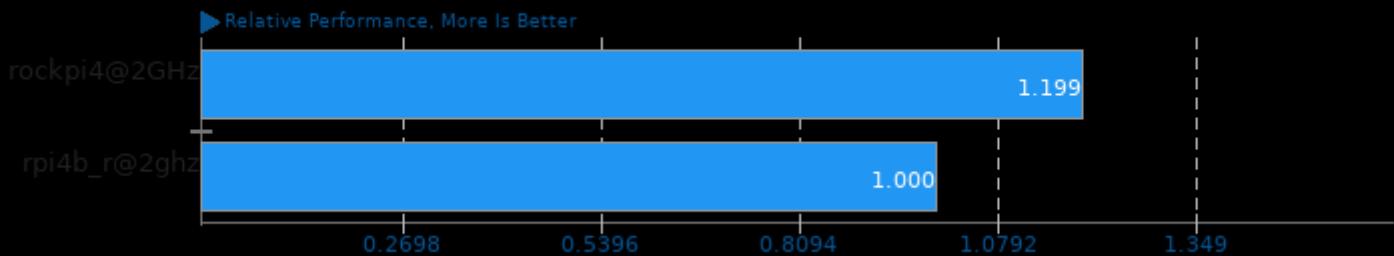
Result Composite - rpi4@2GHz



Geometric mean based upon tests: pts/hackbench, pts/ipc-benchmark and pts/stress-ng

## Geometric Mean Of Memory Test Suite

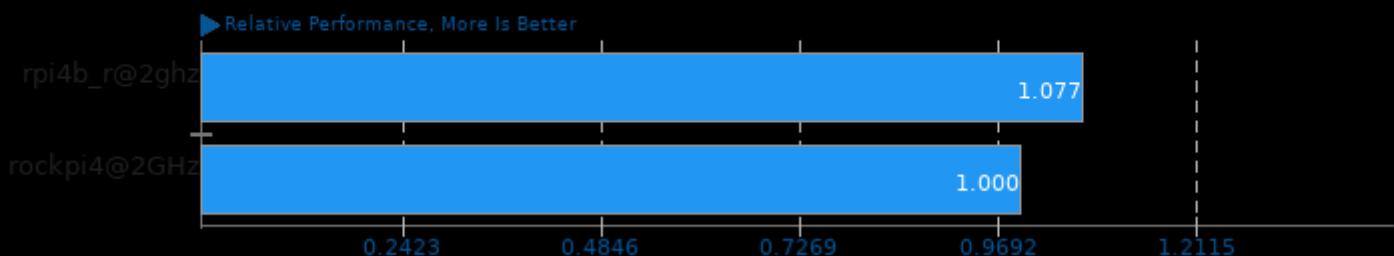
Result Composite - rpi4@2GHz



Geometric mean based upon tests: pts/ramspeed and pts/cachebench

## Geometric Mean Of Multi-Core Tests

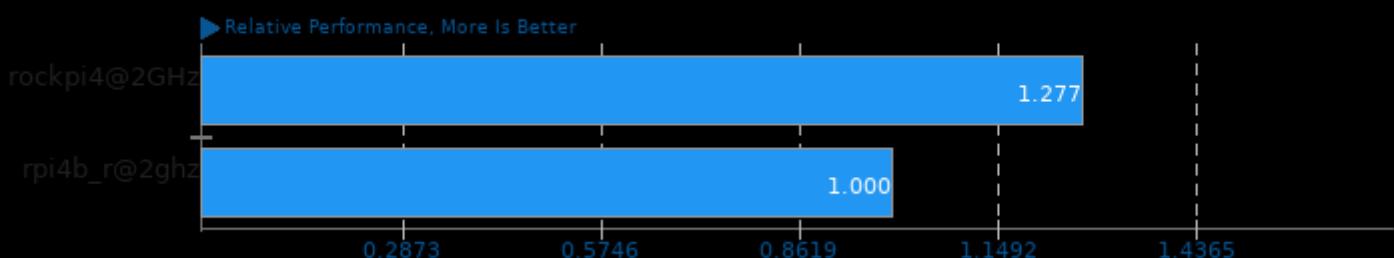
Result Composite - rpi4@2GHz



Geometric mean based upon tests: pts/coremark, pts/smallpt and pts/compress-7zip

## Geometric Mean Of Server CPU Tests

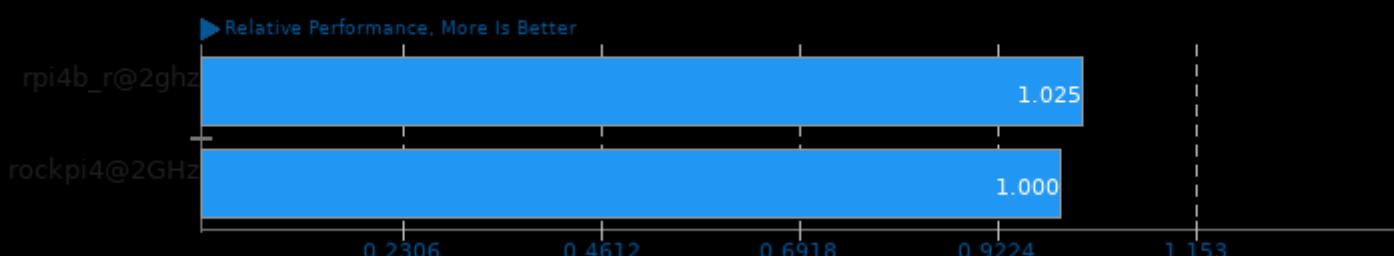
Result Composite - rpi4@2GHz



Geometric mean based upon tests: pts/compress-7zip, pts/hackbench, pts/stress-ng, pts/pybench and pts/ramspeed

## Geometric Mean Of Single-Threaded Tests

Result Composite - rpi4@2GHz



Geometric mean based upon tests: pts/cachebench and pts/pybench

*This file was automatically generated via the Phoronix Test Suite benchmarking software on Thursday, 28 March 2024 18:23.*