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RPI4_64

AMD G-T56N testing with a HP 17E2 (K30 v01.16 BIOS) and AMD Radeon HD 6320 384MB on Ubuntu 20.04 via the Phoronix Test Suite.

Automated Executive Summary

HP_T610_4GB_SSD_UbuntuFocal had the most wins, coming in first place for 50% of the tests.

Based on the geometric mean of all complete results, the fastest (HP_T610_4GB_SSD_UbuntuFocal) was 2.421x the speed of the slowest (RPI4_64).

Test Systems:

RPI4_64

Processor: ARMv8 Cortex-A72 @ 1.50GHz (4 Cores), Motherboard: BCM2835 Raspberry Pi 4 Model B Rev 1.4, Memory: 8GB, Disk: 32GB SL32G

OS: Debian 10, Kernel: 5.4.42-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
Java Notes: OpenJDK Runtime Environment (build 11.0.7+10-post-Debian-3deb10u1)
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 + tsx_async_abort: Not affected

HP_T610_4GB_SSD_UbuntuFocal

Processor: AMD G-T56N @ 1.65GHz (2 Cores), Motherboard: HP 17E2 (K30 v01.16 BIOS), Chipset: AMD 14h Root Complex, Memory: 3584MB, Disk: 16GB SATA Flash + 128GB ADATA SP900, Graphics: AMD Radeon HD 6320 384MB, Audio: AMD Wrestler HDMI Audio, Network: Broadcom NetLink BCM57781 PCIe

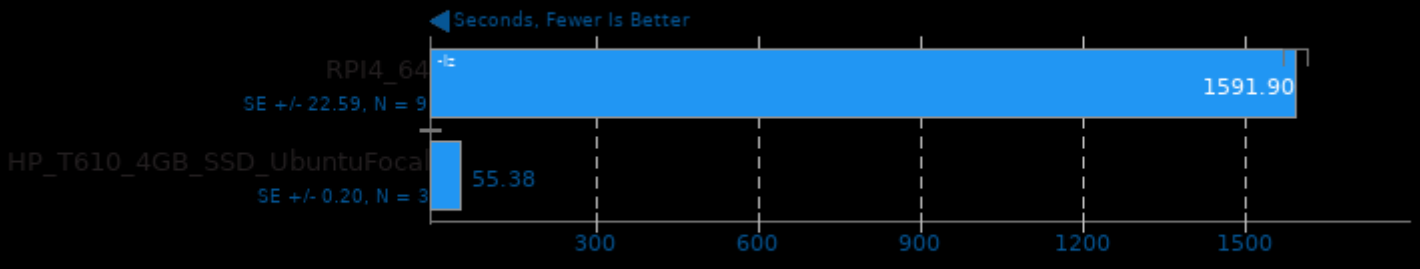
OS: Ubuntu 20.04, Kernel: 5.4.0-42-generic (x86_64), Compiler: GCC 9.3.0, File-System: ext4

Compiler Notes: --build=x86_64-linux-gnu --disable-vtable-verify --disable-werror --enable-checking=release --enable-clocale=gnu --enable-default-pie --enable-gnu-unique-object --enable-languages=c,ada,c++,go,brig,d,fortran,objc,obj-c++,gm2 --enable-libstdcxx-debug --enable-libstdcxx-time=yes --enable-multiarch --enable-multilib --enable-nls --enable-objc-gc=auto --enable-offload-targets=nvptx-none,hsa --enable-plugin --enable-shared --enable-threads=posix --host=x86_64-linux-gnu --program-prefix=x86_64-linux-gnu- --target=x86_64-linux-gnu --with-abi=m64 --with-arch-32=i686 --with-default-libstdcxx-abi=new --with-gcc-major-version-only --with-multilib-list=m32,m64,mx32 --with-target-system-zlib=auto --with-tune=generic --without-cuda-driver -v
Disk Notes: MQ-DEADLINE / errors=remount-ro,relatime,rw
Processor Notes: Scaling Governor: acpi-cpufreq ondemand - CPU Microcode: 0x5000119
Java Notes: OpenJDK Runtime Environment (build 11.0.8+10-post-Ubuntu-0ubuntu120.04)
Security Notes: itlb_multihit: Not affected + l1tf: Not affected + mds: Not affected + meltdown: Not affected + spec_store_bypass: Vulnerable + spectre_v1: Mitigation of usercopy/swapgs barriers and __user pointer sanitization + spectre_v2: Mitigation of Full AMD retpoline STIBP: disabled RSB filling + srbds: Not affected + tsx_async_abort: Not affected

	RPI4_64	HP_T610_4GB_SSD_UbuntuFocal
SQLite - 8 (sec)	**1592**	**55.380**
Normalized	3.48%	100%
Standard Deviation	4.3%	0.6%
Bork File Encrypter - F.E.T (sec)	**112.323**	**56.219**
Normalized	50.05%	100%
Standard Deviation	27.8%	9.4%
Apache Benchmark - S.W.P.S (Reqs/sec)	**3912**	**2530**
Normalized	100%	64.68%
Standard Deviation	0.3%	0.6%
CacheBench - R.M.W (MB/s)	11077	
Standard Deviation	0.2%	
CacheBench - Write (MB/s)	5571	
Standard Deviation	0%	
CacheBench - Read (MB/s)	3806	
Standard Deviation	0%	
FLAC Audio Encoding - WAV To FLAC (sec)	**88.620**	**95.807**
Normalized	100%	92.5%
Standard Deviation	2.3%	0.2%

SQLite 3.30.1

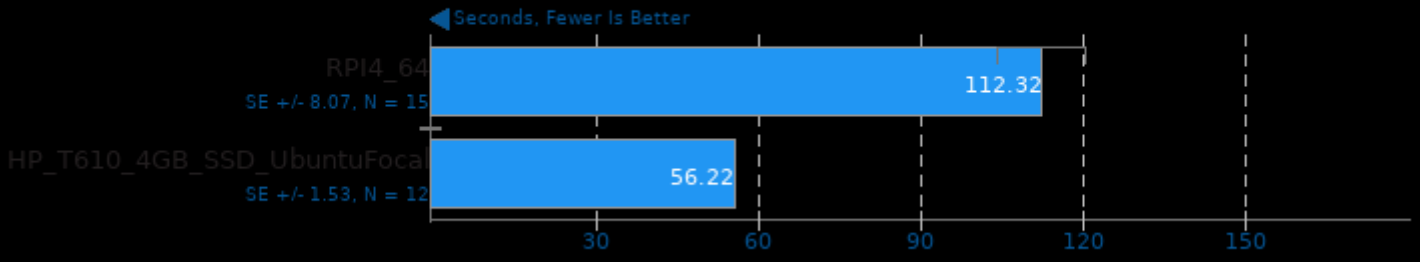
Threads / Copies: 8



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

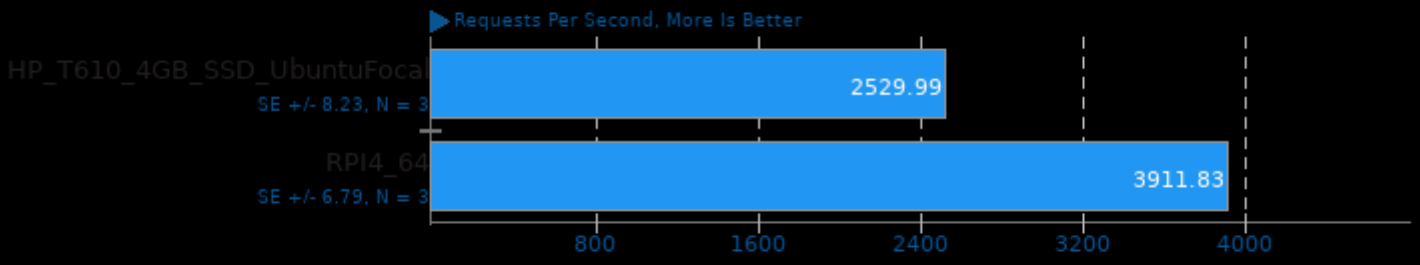
Bork File Encrypter 1.4

File Encryption Time



Apache Benchmark 2.4.29

Static Web Page Serving



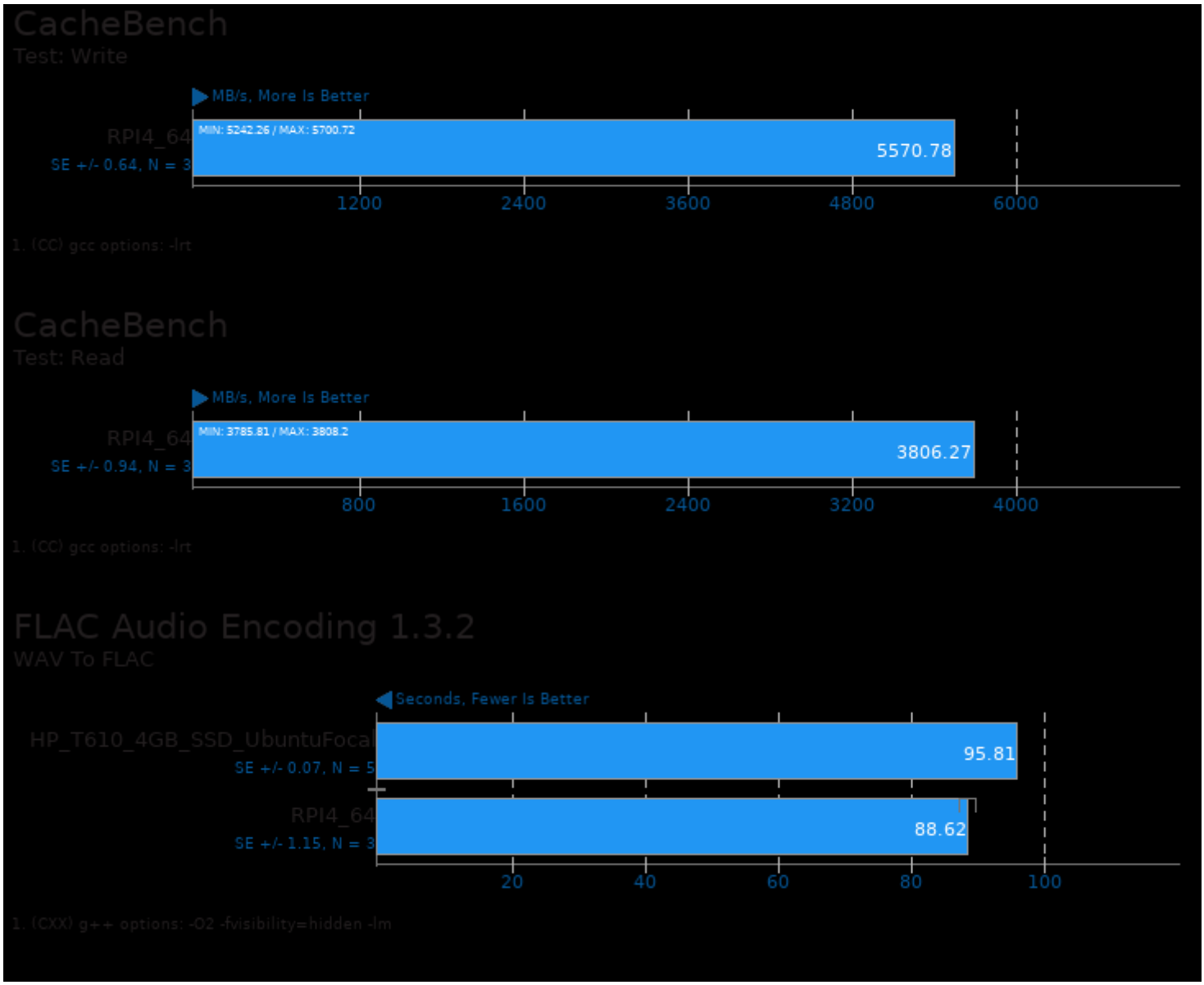
1. (CC) gcc options: -shared -fPIC -O2 -pthread

CacheBench

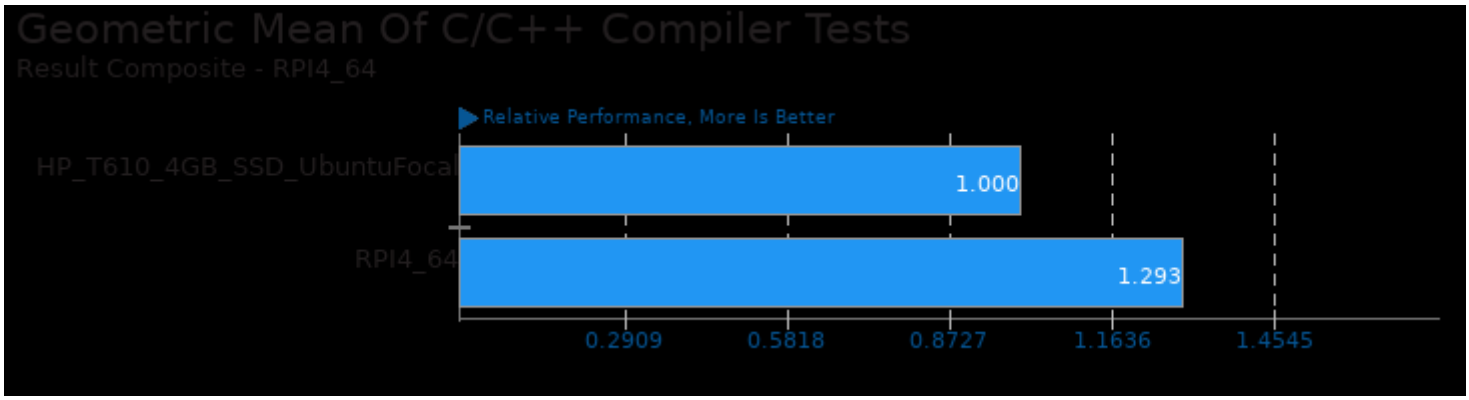
Test: Read / Modify / Write



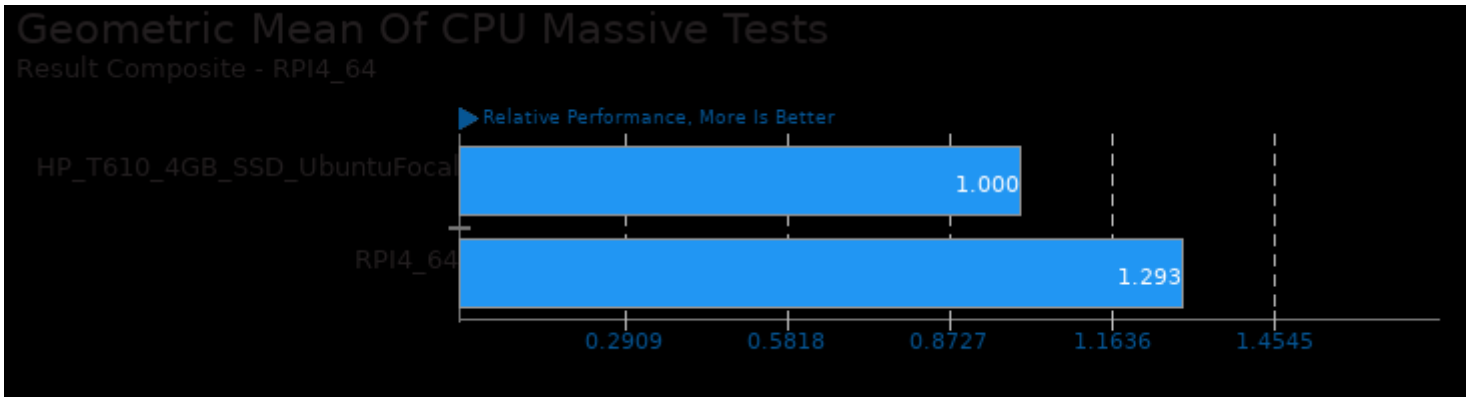
1. (CC) gcc options: -lrt


CacheBench
Test: Write
MB/s, More Is Better
RPI4_64
SE +/- 0.64, N = 3
MIN: 5242.26 / MAX: 5700.72
5570.78
1200
2400
3600
4800
6000
1. (CC) gcc options: -lrt
CacheBench
Test: Read
MB/s, More Is Better
RPI4_64
SE +/- 0.94, N = 3
MIN: 3785.81 / MAX: 3808.2
3806.27
800
1600
2400
3200
4000
1. (CC) gcc options: -lrt
FLAC Audio Encoding 1.3.2
WAV To FLAC
Seconds, Fewer Is Better
HP_T610_4GB_SSD_UbuntuFocal
SE +/- 0.07, N = 5
95.81
RPI4_64
SE +/- 1.15, N = 3
88.62
20
40
60
80
100
1. (CXX) g++ options: -O2 -fvisibility=hidden -lm

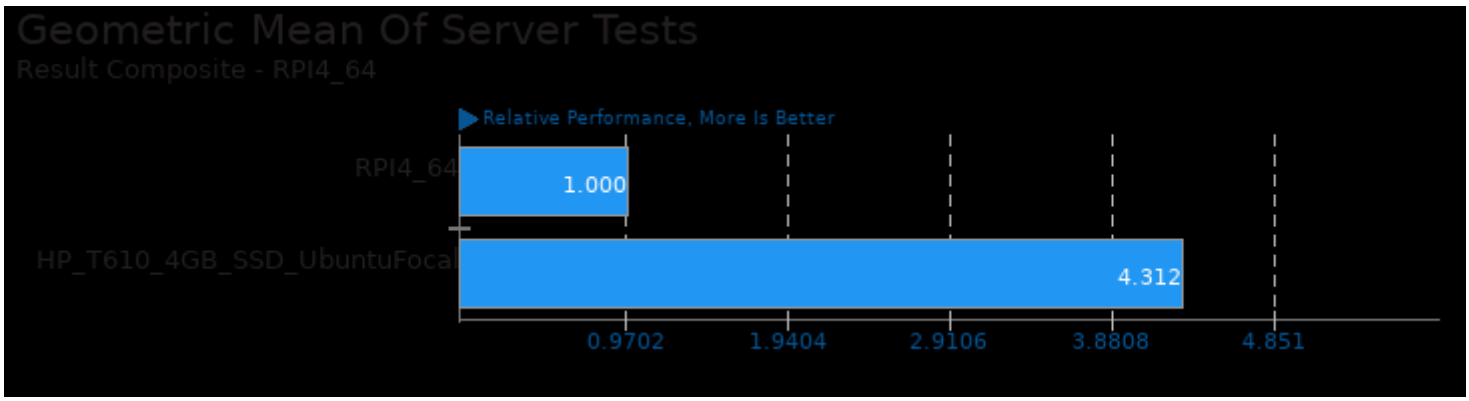
These geometric means are based upon test groupings / test suites for this result file.



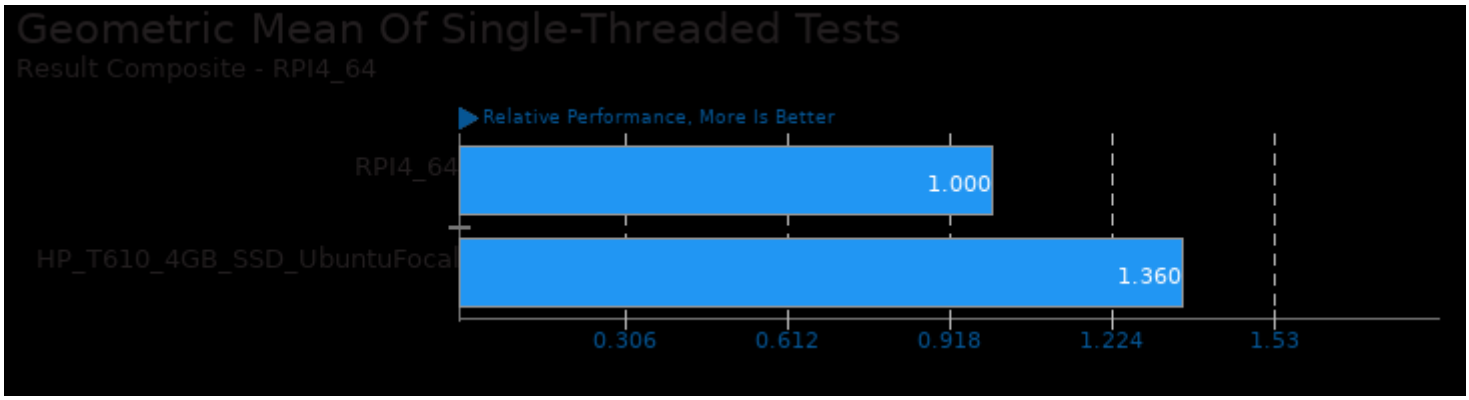
Geometric mean based upon tests: pts/encode-flac and pts/apache



Geometric mean based upon tests: pts/apache, pts/cachebench and pts/encode-flac



Geometric mean based upon tests: pts/apache and pts/sqlite



Geometric mean based upon tests: pts/bork, pts/cachebench and pts/encode-flac

This file was automatically generated via the Phoronix Test Suite benchmarking software on Friday, 29 March 2024 09:53.