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Raspberry Pi 3 vs. ODROID-C2 Benchmarks

Raspberry Pi 3 Model B vs. ODROID-C2 ARM Linux benchmarks. Tests by Michael Larabel for a future article on phoronix.

Test Systems:

ODROID-C2

Processor: AArch64 rev 4 @ 2.02GHz (4 Cores), Motherboard: ODROID-C2, Memory: 2048MB, Disk: 32GB SL32G

OS: Ubuntu 16.04, Kernel: 3.14.29+ (aarch64), Compiler: GCC 5.3.1 20160216, File-System: ext4, Screen Resolution: 1920x1080

Compiler Notes: --build=aarch64-linux-gnu --disable-browser-plugin --disable-libquadmath --disable-werror --enable-checking=release --enable-clocale=gnu --enable-fix-cortex-a53-843419 --enable-gnu-unique-object --enable-gtk-cairo --enable-java-awt=gtk --enable-java-home --enable-languages=c,ada,c++,java,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 --target=aarch64-linux-gnu --with-arch-directory=aarch64 --with-default-libstdcxx-abi=new -v
Processor Notes: Scaling Governor: meson_cpufreq performance

Raspberry Pi 3

Raspberry Pi 3 vs. ODROID-C2 Benchmarks

Processor: ARMv7 rev 4 @ 1.20GHz (4 Cores), Motherboard: BCM2709 Raspberry Pi 3 Model B Rev 1.2, Memory: 925MB, Disk: 16GB SD16G, Graphics: LLVMpipe

OS: Raspbian 8.0, Kernel: 4.1.18-v7+ (armv7l), Desktop: LXDE 0.7.2, Display Server: X Server 1.17.2, OpenGL: 3.0 Mesa 11.1.0 Gallium 0.4, Compiler: GCC 4.9.2, File-System: ext4, Screen Resolution: 1824x984

Compiler Notes: --build=arm-linux-gnueabihf --disable-browser-plugin --disable-libitm --disable-libquadmath --disable-sjlj-exceptions --enable-checking=release --enable-clocale=gnu --enable-gnu-unique-object --enable-gtk-cairo --enable-java-awt=gtk --enable-java-home --enable-languages=c,c++,java,go,d,fortran,objc,obj-c++ --enable-libstdcxx-debug --enable-libstdcxx-time=yes --enable-multiarch --enable-nls --enable-objc-gc --enable-plugin --enable-shared --enable-threads=posix --host=arm-linux-gnueabihf --target=arm-linux-gnueabihf --with-arch-directory=arm --with-arch=armv6 --with-float=hard --with-fpu=vfp -v
Processor Notes: Scaling Governor: BCM2835 Freq ondemand
Disk Mount Options Notes: data=ordered,noatime,rw

	ODROID-C2	Raspberry Pi 3
FLAC Audio Encoding - WAV To FLAC (sec)	**155.58**	**228.29**
Normalized	100%	68.15%
Standard Deviation	0.6%	0.3%
John The Ripper - Blowfish (Real C/S)	**852**	**574**
Normalized	100%	67.37%
Standard Deviation	0%	9.5%
John The Ripper - MD5 (Real C/S)	**17021**	**10829**
Normalized	100%	63.62%
Standard Deviation	0.1%	1.3%
C-Ray - Total Time (sec)	**186.93**	**251.91**
Normalized	100%	74.21%
Standard Deviation	0.9%	1.9%
FFmpeg - H.2.H.T.N.D (sec)	**202.73**	**253.17**
Normalized	100%	80.08%
Standard Deviation	0.8%	0.4%
SQLite - D.T.D (sec)	**12.98**	**219.03**
Normalized	100%	5.93%
Standard Deviation	0.4%	7%

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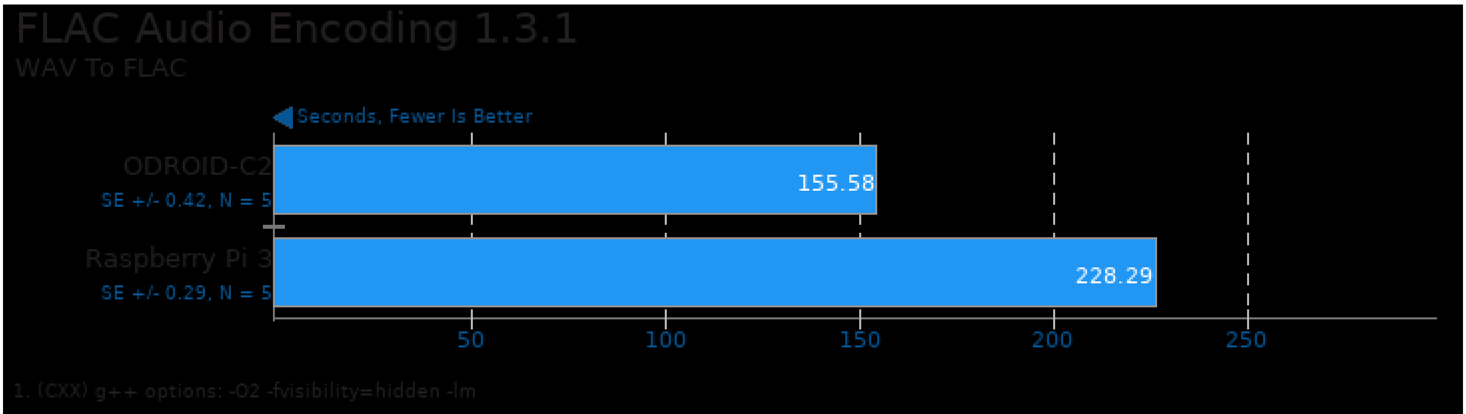
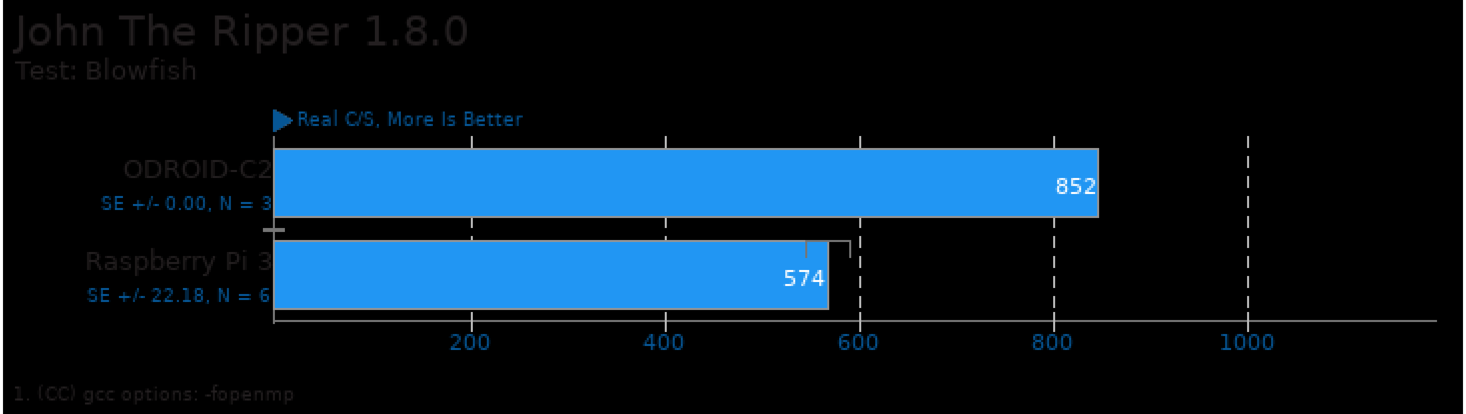
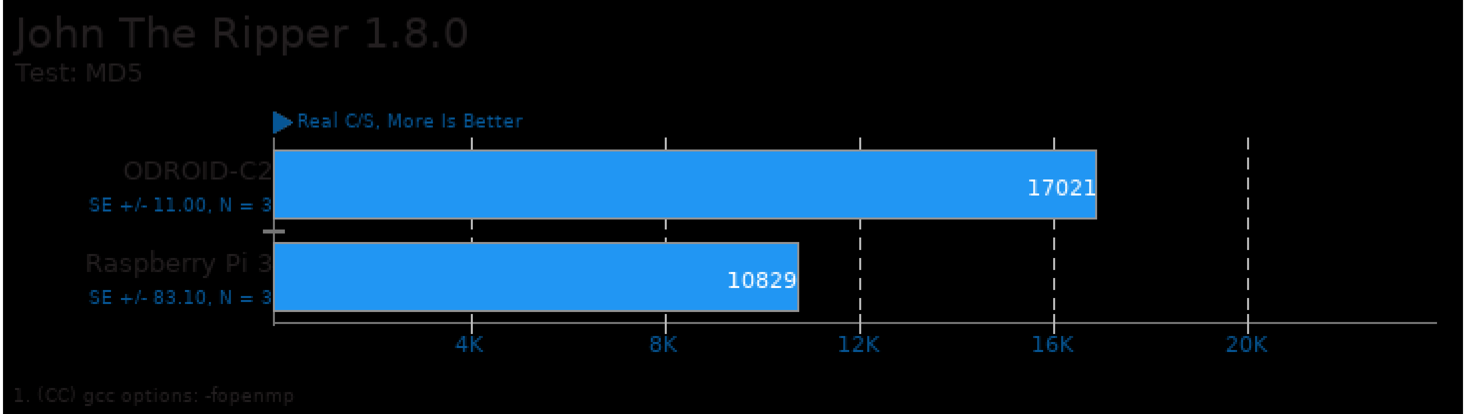
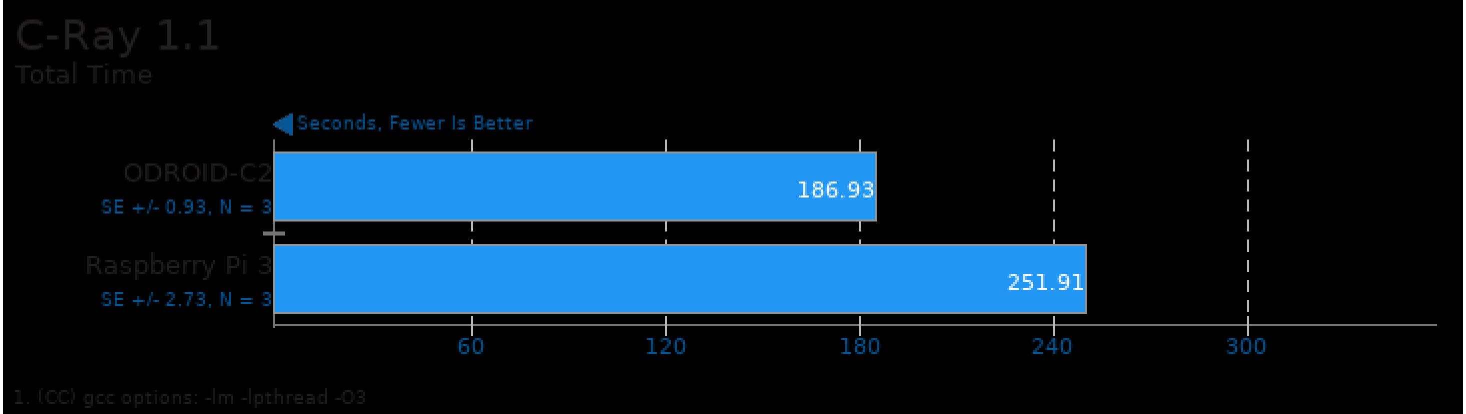
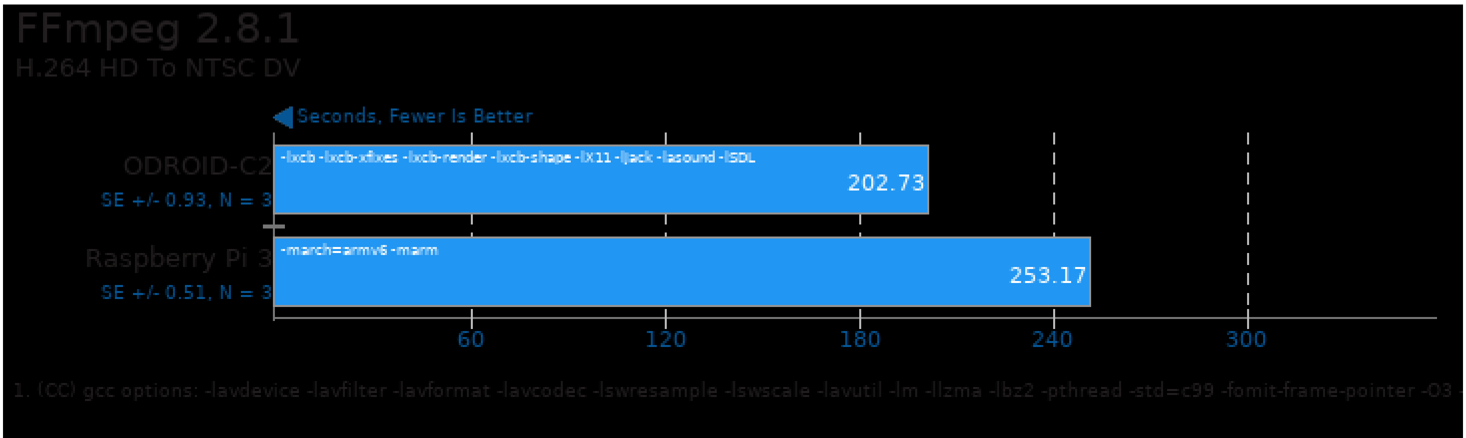
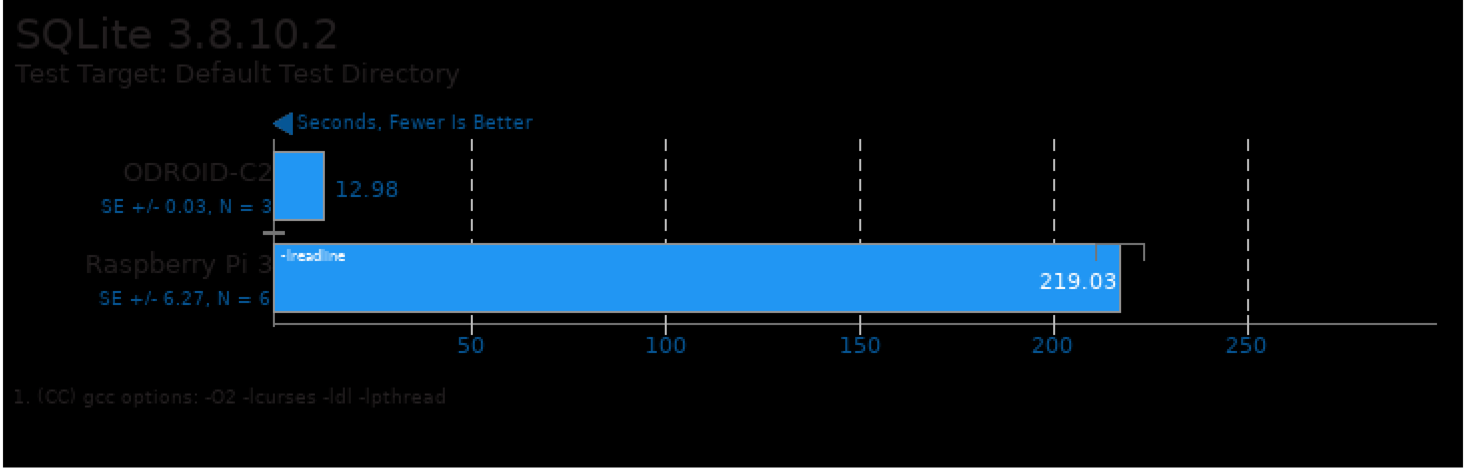






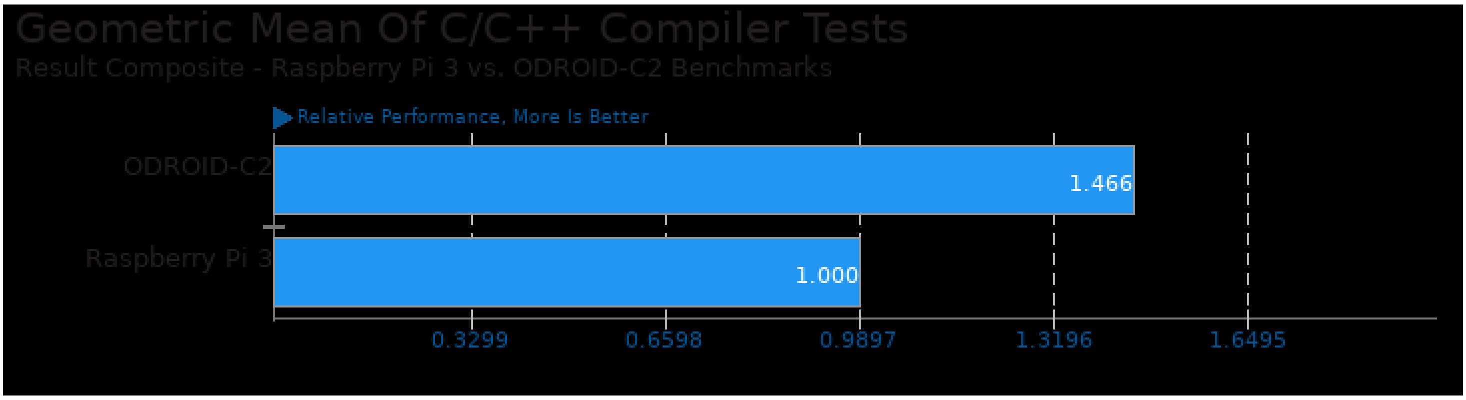



FFmpeg 2.8.1
H.264 HD To NTSC DV
Seconds, Fewer Is Better
ODROID-C2
SE +/- 0.93, N = 3
-lxcb -lxcb-xfixes -lxcb-render -lxcb-shape -lX11 -ljack -lasound -lSDL
202.73
Raspberry Pi 3
SE +/- 0.51, N = 3
-march=armv6 -marm
253.17
60
120
180
240
300
1. (CC) gcc options: -lavdevice -lavfilter -lavformat -lavcodec -lswresample -lswscale -lavutil -lm -llzma -lbz2 -pthread -std=c99 -fomit-frame-pointer -O3

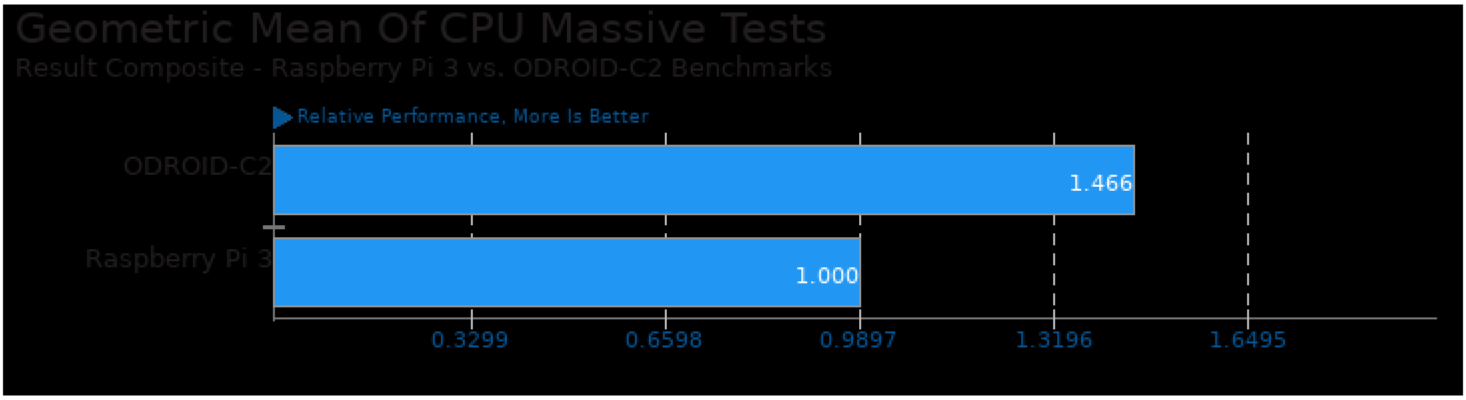

SQLite 3.8.10.2
Test Target: Default Test Directory
Seconds, Fewer Is Better
ODROID-C2
SE +/- 0.03, N = 3
12.98
Raspberry Pi 3
SE +/- 6.27, N = 6
-lreadline
219.03
50
100
150
200
250
1. (CC) gcc options: -O2 -lcurses -ldl -lpthread

Raspberry Pi 3 vs. ODROID-C2 Benchmarks

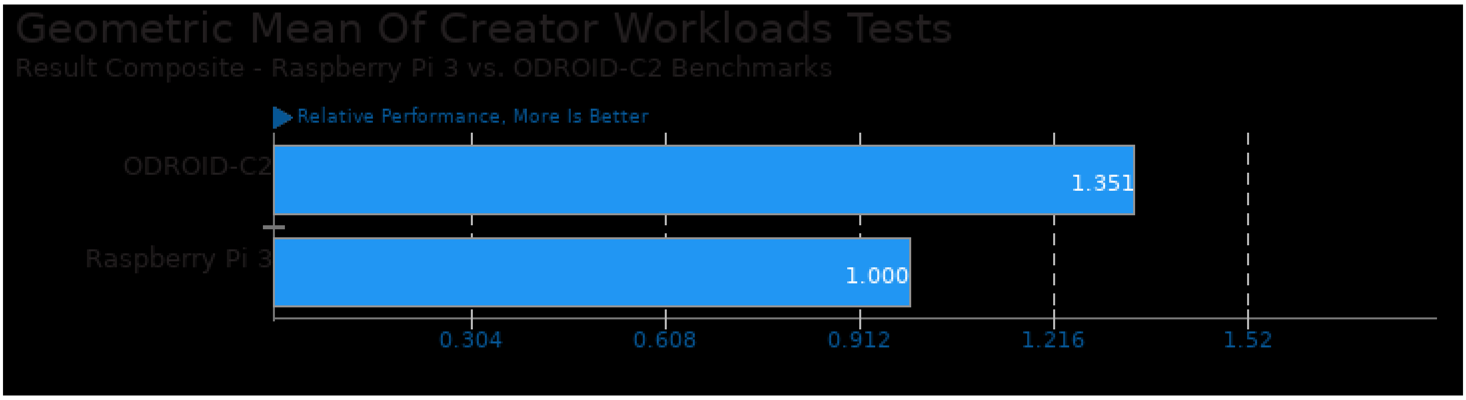
These geometric means are based upon test groupings / test suites for this result file.



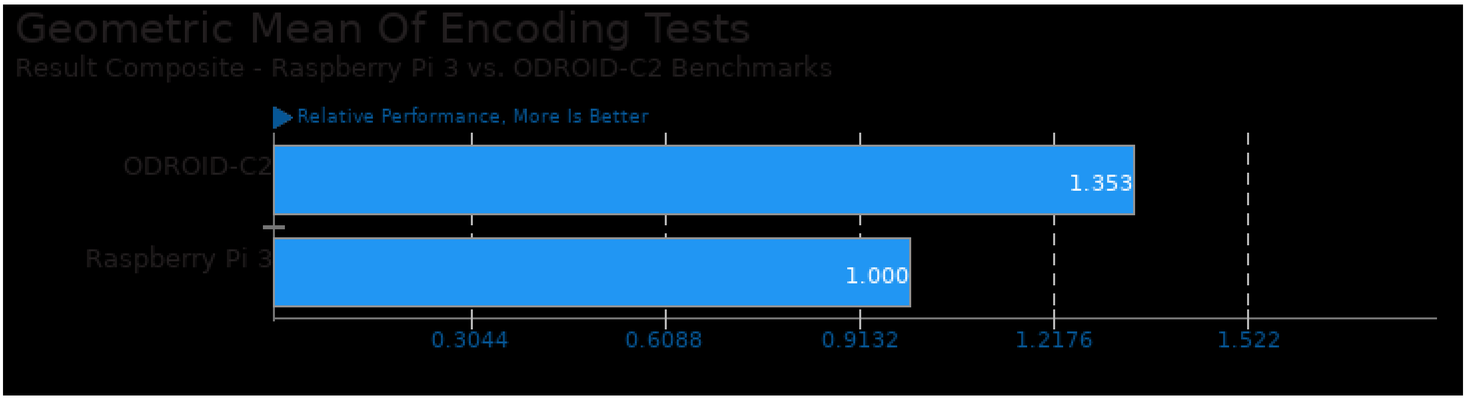
Geometric mean based upon tests: pts/c-ray, pts/encode-flac and pts/john-the-ripper



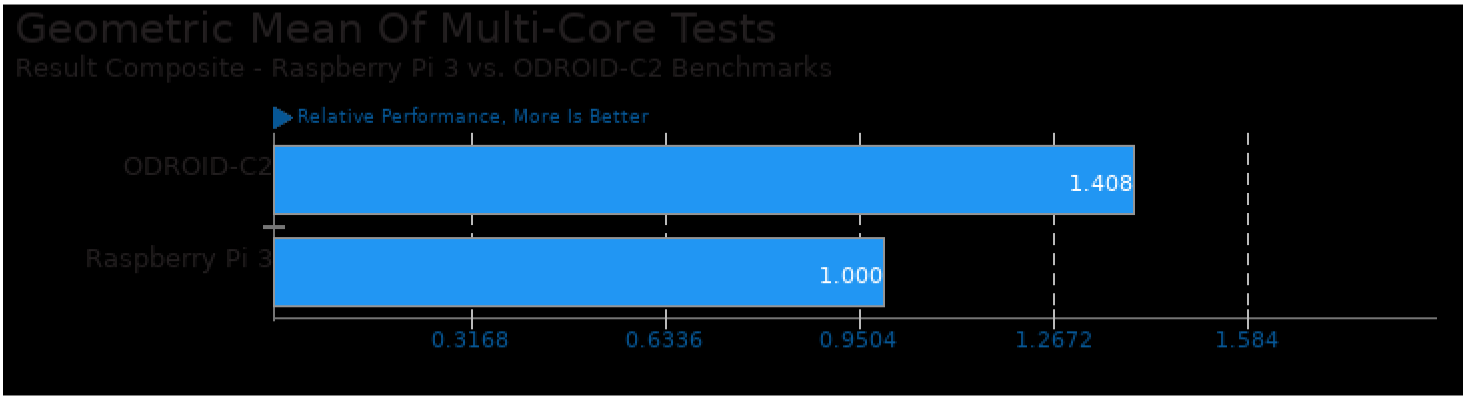
Geometric mean based upon tests: pts/c-ray, pts/encode-flac and pts/john-the-ripper



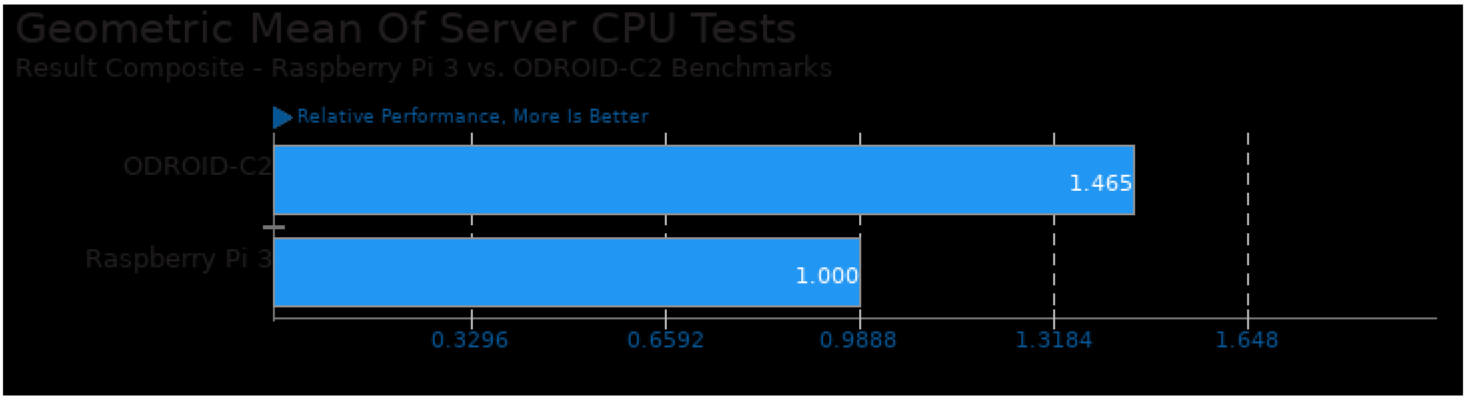
Geometric mean based upon tests: pts/c-ray, pts/ffmpeg and pts/encode-flac



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



Geometric mean based upon tests: pts/c-ray, pts/ffmpeg and pts/john-the-ripper



Geometric mean based upon tests: pts/john-the-ripper and pts/c-ray

This file was automatically generated via the Phoronix Test Suite benchmarking software on Thursday, 28 March 2024 22:37.