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Raspberry Pi 3 Linux Benchmark Comparison

Testing allowing more cpufreq steps to see whether thermal throttling improves

Automated Executive Summary

Jetson TX1 had the most wins, coming in first place for 42% of the tests.

Test Systems:

Raspberry Pi 3

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

Raspberry Pi 2

Processor: ARMv7 rev 5 @ 0.90GHz (4 Cores), Motherboard: BCM2709 Raspberry Pi 2 Model B Rev 1.1, Memory: 925MB, Disk: 8GB SD

OS: Raspbian 8.0, Kernel: 4.1.13-v7+ (armv7l), Desktop: LXDE 0.7.2, Display Server: X Server 1.16.4, 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

Raspberry Pi Zero

Processor: ARMv6-compatible rev 7 @ 1.00GHz (1 Core), Motherboard: BCM2708 Raspberry Pi ? Rev 1.2, Memory: 434MB, Disk: 8GB SL08G

OS: Raspbian 8.0, Kernel: 4.1.13+ (armv6l), Desktop: LXDE 0.7.2, Display Server: X Server 1.16.4, Compiler: GCC 4.9.2, File-System: ext4, Screen Resolution: 1776x952

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

Banana Pi M2

Processor: ARMv7 rev 3 @ 1.01GHz (4 Cores), Motherboard: Allwinner sun6i (A31) Family Banana Pi BPI-M2, Memory: 1024MB, Disk: 8GB SD

OS: Debian 8.1, Kernel: 4.2.0-BPI-kernel+ (armv7l), Compiler: GCC 4.9.2, File-System: ext4, Screen Resolution: 1920x1080

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=armv7-a --with-float=hard --with-fpu=vfpv3-d16 --with-mode=thumb -v
Processor Notes: Scaling Governor: cpufreq-dt ondemand

ODROID C1 Plus

Processor: ARMv7 rev 1 @ 1.54GHz (4 Cores), Motherboard: ODROIDC, Memory: 836MB, Disk: 8GB SD

OS: Ubuntu 14.04, Kernel: 3.10.80-135 (armv7l), Desktop: LXDE 0.6.1, Display Server: X Server 1.15.1, OpenGL: 2.1 Mesa 10.1.3, Compiler: GCC 4.9.3, File-System: ext4, Screen Resolution: 1920x1080

Compiler Notes: --build=arm-linux-gnueabihf --disable-browser-plugin --disable-libitm --disable-libquadmath --disable-sjlj-exceptions --disable-werror --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-multilib --enable-multilib --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=armv7-a --with-float=hard --with-fpu=vfpv3-d16 --with-mode=thumb -v
Processor Notes: Scaling Governor: meson_cpufreq performance

Orange Pi PC

Processor: ARMv7 rev 5 @ 1.20GHz (4 Cores), Motherboard: sun8i, Memory: 1024MB, Disk: 16GB SL16G

OS: Raspbian GNU/Linux 7, Kernel: 3.4.39 (armv7l), Desktop: LXDE 0.7.1, Display Server: X Server 1.12.4, Compiler: GCC 4.6.3, File-System: ext4, Screen Resolution: 1280x720

Compiler Notes: --build=arm-linux-gnueabihf --disable-sjlj-exceptions --enable-checking=release --enable-clocale=gnu --enable-gnu-unique-object --enable-languages=c,c++,fortran,objc,obj-c++ --enable-libstdcxx-debug --enable-libstdcxx-time=yes --enable-nls --enable-objc-gc --enable-plugin --enable-shared --enable-threads=posix --host=arm-linux-gnueabihf --target=arm-linux-gnueabihf --with-arch=armv6 --with-float=hard --with-fpu=vfp -v
Processor Notes: Scaling Governor: cpufreq-sunxi ondemand

Orange Pi Plus

Processor: ARMv7 rev 5 @ 1.20GHz (3 Cores), Motherboard: sun8i, Memory: 1024MB, Disk: 16GB SL16G

OS: Raspbian GNU/Linux 7, Kernel: 3.4.39 (armv7l), Desktop: LXDE 0.7.1, Display Server: X Server 1.12.4, Compiler: GCC 4.6.3, File-System: ext4, Screen Resolution: 1280x720

Compiler Notes: --build=arm-linux-gnueabihf --disable-sjlj-exceptions --enable-checking=release --enable-clocale=gnu --enable-gnu-unique-object --enable-languages=c,c++,fortran,objc,obj-c++ --enable-libstdcxx-debug --enable-libstdcxx-time=yes --enable-nls --enable-objc-gc --enable-plugin --enable-shared --enable-threads=posix --host=arm-linux-gnueabihf --target=arm-linux-gnueabihf --with-arch=armv6 --with-float=hard --with-fpu=vfp -v
Processor Notes: Scaling Governor: cpufreq-sunxi ondemand

Jetson TK1

Processor: ARMv7 rev 3 @ 2.32GHz (4 Cores), Motherboard: jetson-tk1, Memory: 2048MB, Disk: 16GB SEM16G, Graphics: GK20A/NullRM/AXI, Network: Realtek RTL8111/8168/8411

OS: Ubuntu 14.04, Kernel: 3.10.40-gdacac96 (armv7l), Desktop: Unity 7.2.2, Display Server: X Server 1.15.1, Display Driver: NVIDIA 21.4, OpenGL: 4.3.0, Compiler: GCC 4.8.4 + CUDA 6.5, File-System: ext4, Screen Resolution: 1920x1080

Compiler Notes: --build=arm-linux-gnueabihf --disable-browser-plugin --disable-libitm --disable-libmudflap --disable-libquadmath --disable-sjlj-exceptions --disable-werror --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-multilib --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=armv7-a --with-float=hard --with-fpu=vfpv3-d16 --with-mode=thumb -v
Processor Notes: Scaling Governor: tegra interactive

Jetson TX1

Processor: Cortex A57 rev 1 @ 1.91GHz (4 Cores), Motherboard: jetson_tx1, Memory: 4096MB, Disk: 16GB 016G32, Graphics: NVIDIA Tegra X1 (nvgpu)/, Monitor: Acer G237HL

OS: Ubuntu 14.04, Kernel: 3.10.67-g3a5c467 (aarch64), Desktop: Unity 7.2.2, Display Server: X Server 1.15.1, Display Driver: NVIDIA 23.1.1, OpenGL: 4.3.0, Compiler: GCC 4.8.4 + Clang 3.4-1ubuntu3 + CUDA 7.0, File-System: ext4, Screen Resolution: 1920x1080

Compiler Notes: --build=arm-linux-gnueabihf --disable-browser-plugin --disable-libitm --disable-libmudflap --disable-libquadmath --disable-sjlj-exceptions --disable-werror --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-multilib --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=armv7-a --with-float=hard --with-fpu=vfpv3-d16 --with-mode=thumb -v
Processor Notes: Scaling Governor: tegra interactive

Pine64+

Processor: AArch64 rev 4 @ 1.15GHz (4 Cores), Motherboard: sun50iw1p1, Memory: 1024MB, Disk: 32GB SE32G,

Graphics: NVIDIA GeForce GT 650M

OS: Ubuntu 16.04, Kernel: 3.10.65+ (aarch64), Desktop: Xfce 4.12, Display Server: X Server 1.17.3, Display Driver: modesetting 1.17.3, OpenGL: 1.4, Compiler: GCC 5.3.1 20160225, File-System: ext4, Screen Resolution: 2560x1578

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: cpufreq-sunxi interactive

Pine64+ take 2

Processor: AArch64 rev 4 @ 1.15GHz (4 Cores), Motherboard: sun50iw1p1, Memory: 1024MB, Disk: 32GB SE32G, Graphics: NVIDIA GeForce GT 650M

OS: Ubuntu 16.04, Kernel: 3.10.65+ (aarch64), Display Server: X Server 1.17.3, Display Driver: modesetting 1.17.3, OpenGL: 1.4, Compiler: GCC 5.3.1 20160225, File-System: ext4, Screen Resolution: 2560x1578

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: cpufreq-sunxi interactive

Pine64+ take 3

Pine64+ take4

Processor: AArch64 rev 4 @ 1.15GHz (4 Cores), Motherboard: sun50iw1p1, Memory: 1024MB, Disk: 32GB SE32G, Graphics: NVIDIA GeForce GT 650M

OS: Ubuntu 16.04, Kernel: 3.10.65+ (aarch64), Display Server: X Server 1.17.3, Display Driver: modesetting 1.17.3, OpenGL: 1.4, Compiler: GCC 5.3.1 20160225, File-System: ext4, Screen Resolution: 1440x878

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: cpufreq-sunxi interactive

Pine64+ ARMv8

Processor: AArch64 rev 4 @ 1.34GHz (4 Cores), Motherboard: sun50iw1p1, Memory: 1024MB, Disk: 16GB SD16G

OS: Ubuntu 16.04, Kernel: 3.10.65-2-pine64-longsleep (aarch64), Compiler: GCC 5.3.1 20160225, File-System: ext4, Screen Resolution: 1920x2160

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: cpufreq-sunxi performance

Orange Pi PC Armbian

Processor: ARMv7 rev 5 @ 1.30GHz (4 Cores), Motherboard: sun8i, Memory: 1024MB, Disk: 8GB SU08G

OS: Debian 8.3, Kernel: 3.4.110-sun8i (armv7l), Compiler: GCC 4.9.2, File-System: ext4, Screen Resolution: 1920x2160

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=armv7-a --with-float=hard --with-fpu=vfpv3-d16 --with-mode=thumb -v
Processor Notes: Scaling Governor: cpufreq-sunxi performance

Pine64+ ARMv8 -O3

Processor: AArch64 rev 4 @ 1.34GHz (4 Cores), Motherboard: sun50iw1p1, Memory: 1024MB, Disk: 16GB SD16G

OS: Ubuntu 16.04, Kernel: 3.10.65-2-pine64-longsleep (aarch64), Compiler: GCC 5.3.1 20160225, File-System: ext4, Screen Resolution: 1920x2160

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: cpufreq-sunxi performance

Pine64+ in enclosure

Processor: AArch64 rev 4 @ 1.10GHz (4 Cores), Motherboard: sun50iw1p1, Memory: 1024MB, Disk: 16GB SD16G

OS: Ubuntu 16.04, Kernel: 3.10.65-2-pine64-longsleep (aarch64), Compiler: GCC 5.3.1 20160225, File-System: ext4, Screen Resolution: 1920x2160

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: cpufreq-sunxi interactive

Pine64+ enclosure+heatsink

Pine64+ encl/heatsink/cpufreq

Processor: AArch64 rev 4 @ 1.15GHz (4 Cores), Motherboard: sun50iw1p1, Memory: 1024MB, Disk: 16GB SD16G

OS: Ubuntu 16.04, Kernel: 3.10.65-2-pine64-longsleep (aarch64), Compiler: GCC 5.3.1 20160225, File-System: ext4, Screen Resolution: 1920x2160

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: cpufreq-sunxi interactive

Raspberry Pi 3 Linux Benchmark Comparison

	Raspberry Pi 3	Raspberry Pi 2	Raspberry Pi Zero	Banana Pi M2	ODROID C1 Plus	Orange Pi PC	Orange Pi Plus	Jetson TK1	Jetson TX1	Pine64+	Pine64+ take 2	Pine64+ take 3	Pine64+ take 4	Pine64+ ARMv8	Orange Pi PC Armbian	Pine64+ ARMv8-O3	Pine64+ in enclosure	Pine64+ enclosure+heatsink	Pine64+ encl/heatsink/cpufre
John The Ripper - Blowfish (Real C/S)	629	387	88.73	427	494	315	322	422	1563	497	513		547	763	542	866	418	532	581
Normalized	40.24%	24.76%	5.68%	27.32%	31.61%	20.15%	20.6%	27%	100%	31.8%	32.82%		35%	48.82%	34.68%	55.41%	26.74%	34.04%	37.17%
Standard Deviation	2.6%	0.3%	3.4%	0.1%	0.1%	11.3%	0%	0.1%	0.2%	9.5%	8.4%		3.3%	2%	0.8%	4.1%	5.1%	5.6%	3.1%
John The Ripper - Performance / Cost - Blowfish (Real C/S/Dollar	17.97	10.46	17.75		10.98	12.60	7.16	2.20	2.61										
Normalized	100%	58.21%	98.78%		61.1%	70.12%	39.84%	12.24%	14.52%										
C-Ray - Total Time (sec)	247.37	505.44	3038	436.18	323.08	951.10	1425	95.01	85.30	290.58	289.96		281.87	210.23	346.72	208.71	354.50	303.39	283.69
Normalized	34.48%	16.88%	2.81%	19.56%	26.4%	8.97%	5.99%	89.78%	100%	29.36%	29.42%		30.26%	40.57%	24.6%	40.87%	24.06%	28.12%	30.07%
Standard Deviation	0.4%	0.3%	0.9%	0.2%	0.9%	0.9%	2%	13.4%	3.5%	0.9%	0.3%		0.7%	1.3%	1%	0.2%	0.2%	1.4%	1.6%
Smallpt - G.I.R.1.S (sec)	1388	2175	12029	1984	1590	1982	3042	288	613		1489		1470	1045	1550	215	1920	1574	1488
Normalized	15.49%	9.89%	1.79%	10.84%	13.52%	10.85%	7.07%	7.44%	35.07%		14.44%		14.63%	20.57%	13.87%	100%	11.2%	13.66%	14.45%
Standard Deviation	0.4%	0.5%	0.5%	0.1%	0.2%	0.1%	0.1%	0.1%	0.1%		0.8%		0.5%	0.1%	0%	0.8%	3%	0.6%	0.8%
Timed MAFFT Alignment - M.S.A (sec)	53.62	75.46	501.11	71.58	51.54	77.16	103.05	15.10	16.56		57.61		57.91	42.03	63.58	43.74	80.65	60.82	62.18
Normalized	28.16%	20.01%	3.01%	21.1%	29.3%	19.57%	14.65%	100%	91.18%		26.21%		26.07%	35.93%	23.75%	34.52%	18.72%	24.83%	24.28%
Standard Deviation	3.3%	2.3%	1.8%	7%	0.8%	0.9%	5.5%	5.6%	0.7%		1.5%		6.5%	3.4%	0.2%	3.1%	4%	7.2%	1.8%

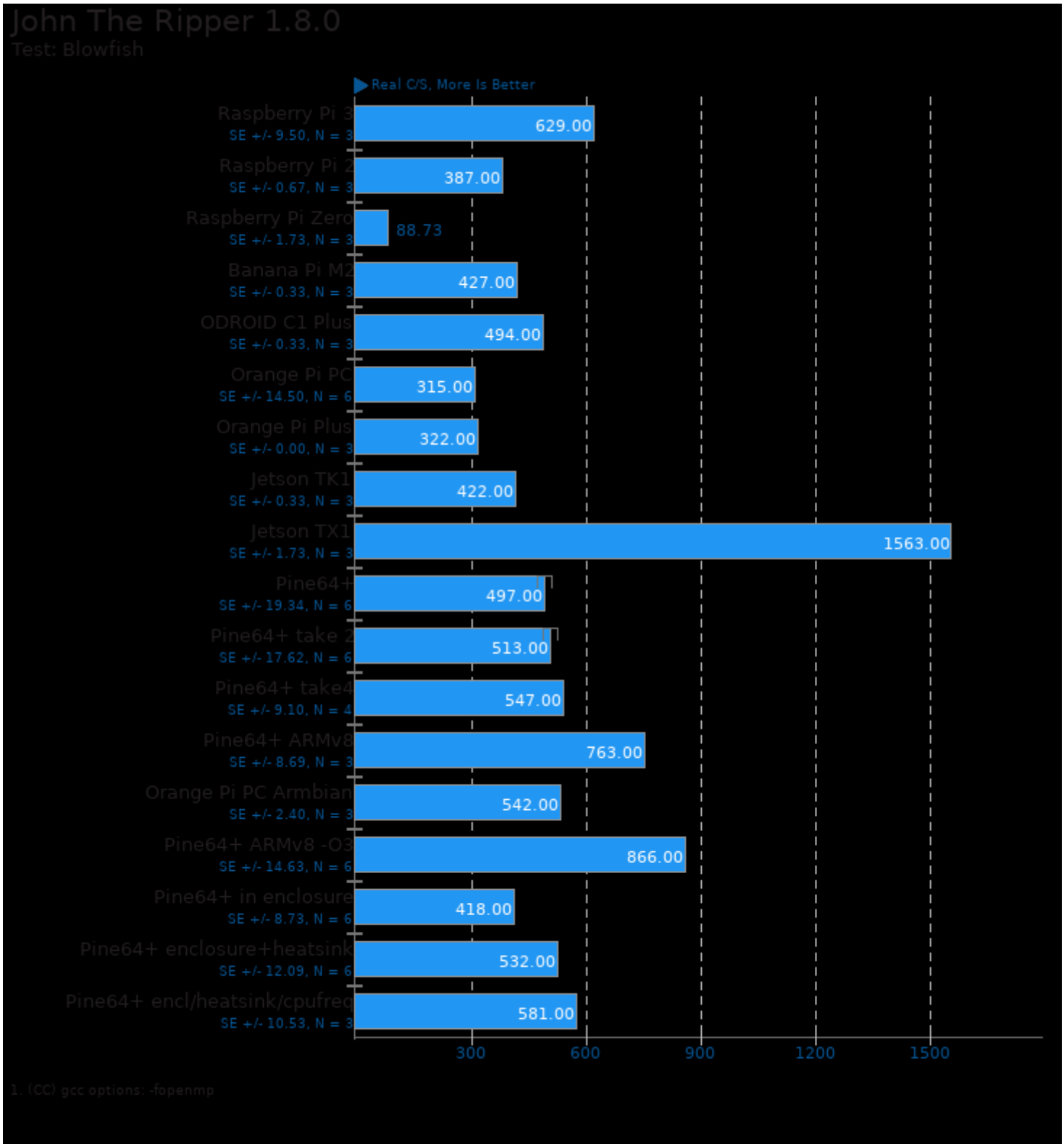
Raspberry Pi 3 Linux Benchmark Comparison

Himeno Benchmark - P.P.S (MFLOPS)	62.54	33.29	10.00	60.08	81.97	59.24	64.38	141.30	83.40	58.94	62.62	72.00	66.29	66.37	60.16	62.42	64.44
Normalized	44.26%	23.56%	7.08%	42.52%	58.01%	41.92%	45.56%	100%	59.02%	41.71%	44.32%	50.96%	46.91%	46.97%	42.58%	44.18%	45.61%
Standard Deviation	5.9%	2.4%	1.2%	2.3%	3%	1.2%	0.1%	1.8%	1.8%	3.5%	2.4%	3.5%	1.2%	2%	0.7%	0.9%	0.8%
Himeno Benchmark - Performance / Cost - P.P.S (MFLOPS/Dollar)	1.79	0.90	2.00		1.82	2.37	1.43	0.74	0.14								
Normalized	75.53%	37.97%	84.39%		76.79%	100%	60.34%	31.22%	5.91%								
OpenSSL - R.4.b.P (Signs/sec	20.25	11.93	2.60	13.40	18.80	11.93	7.83	54.40	24.67	13.83	13.97	18.47	17.17	18.50	9.40	12.70	13.50
Normalized	37.22%	21.93%	4.78%	24.63%	34.56%	21.93%	14.39%	100%	45.35%	25.42%	25.68%	33.95%	31.56%	34.01%	17.28%	23.35%	24.82%
Standard Deviation	8.6%	0.5%	0%	0%	0%	0.5%	0.7%	0.2%	0.2%	2.2%	1.5%	0.3%	0.3%	0%	12.9%	4.5%	2.2%
OpenSSL - Performance / Cost - R.4.b.P (Signs/sec	0.58	0.32	0.52		0.42	0.48	0.17	0.28	0.04								
Normalized	100%	55.17%	89.66%		72.41%	82.76%	29.31%	48.28%	6.9%								
FLAC Audio Encoding - WAV To FLAC (sec)	228.37	314.58	606.76	269.63	200.50	261.83	257.87	50.29	47.64	215.92	215.24	177.58	223.11	177.35	234.33	217.02	216.50
Normalized	20.86%	15.14%	7.85%	17.67%	23.76%	18.2%	18.47%	94.73%	100%	22.06%	22.13%	26.83%	21.35%	26.86%	20.33%	21.95%	22%
Standard Deviation	0.3%	0.9%	1.5%	0.1%	2.7%	2.2%	1.1%	0.1%	0.2%	0.3%	0.3%	0.2%	0.6%	0.2%	0.7%	1.1%	0.7%

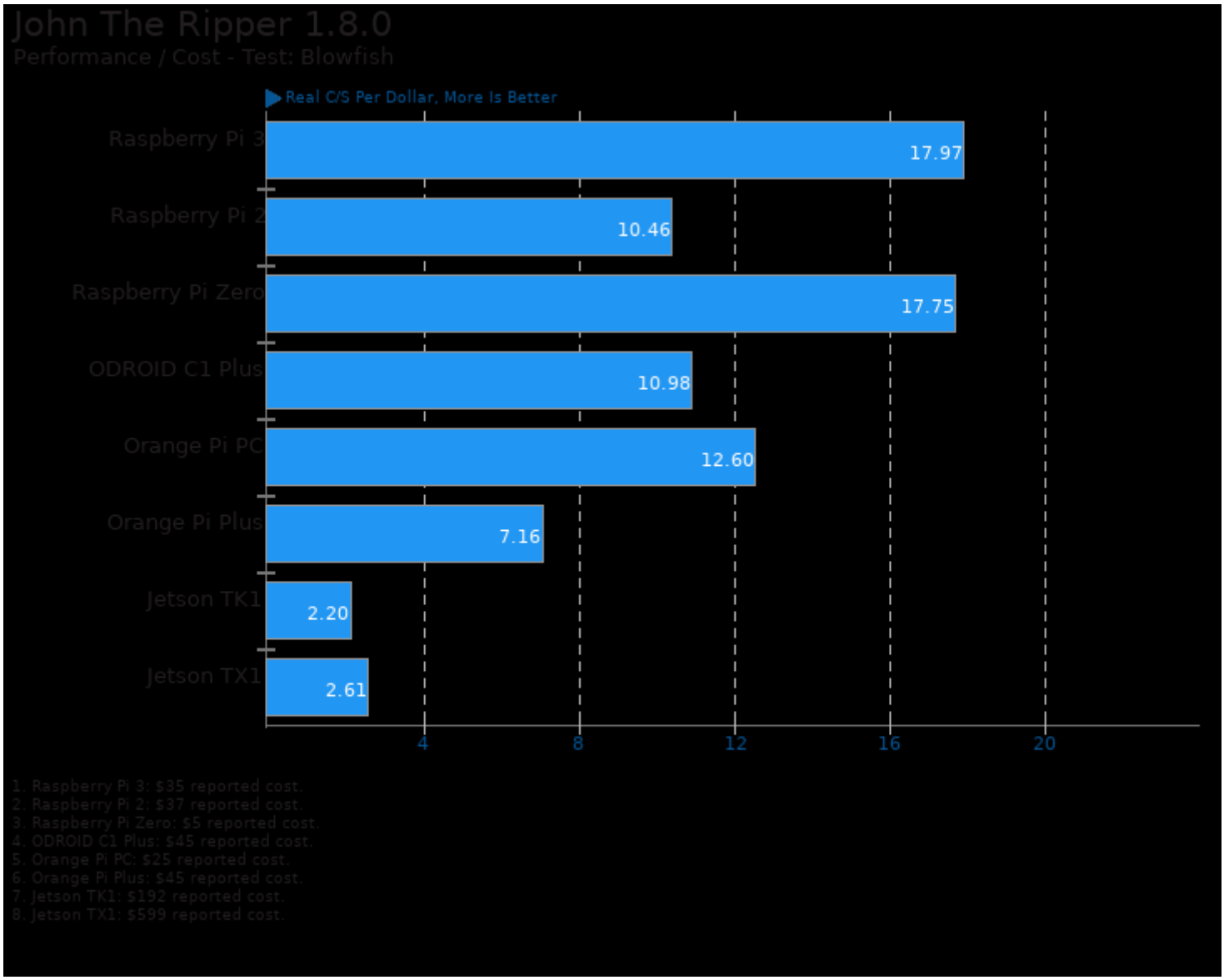
Raspberry Pi 3 Linux Benchmark Comparison

Meta Performance Per Dollar - P.P.D (Performance/Dollar	6.78	3.58	**8.08**	4.07	5.07	2.92	1.03	**0.79**
Normalized	83.91 %	44.31 %	100%	50.37 %	62.75 %	36.14 %	12.75 %	9.78 %

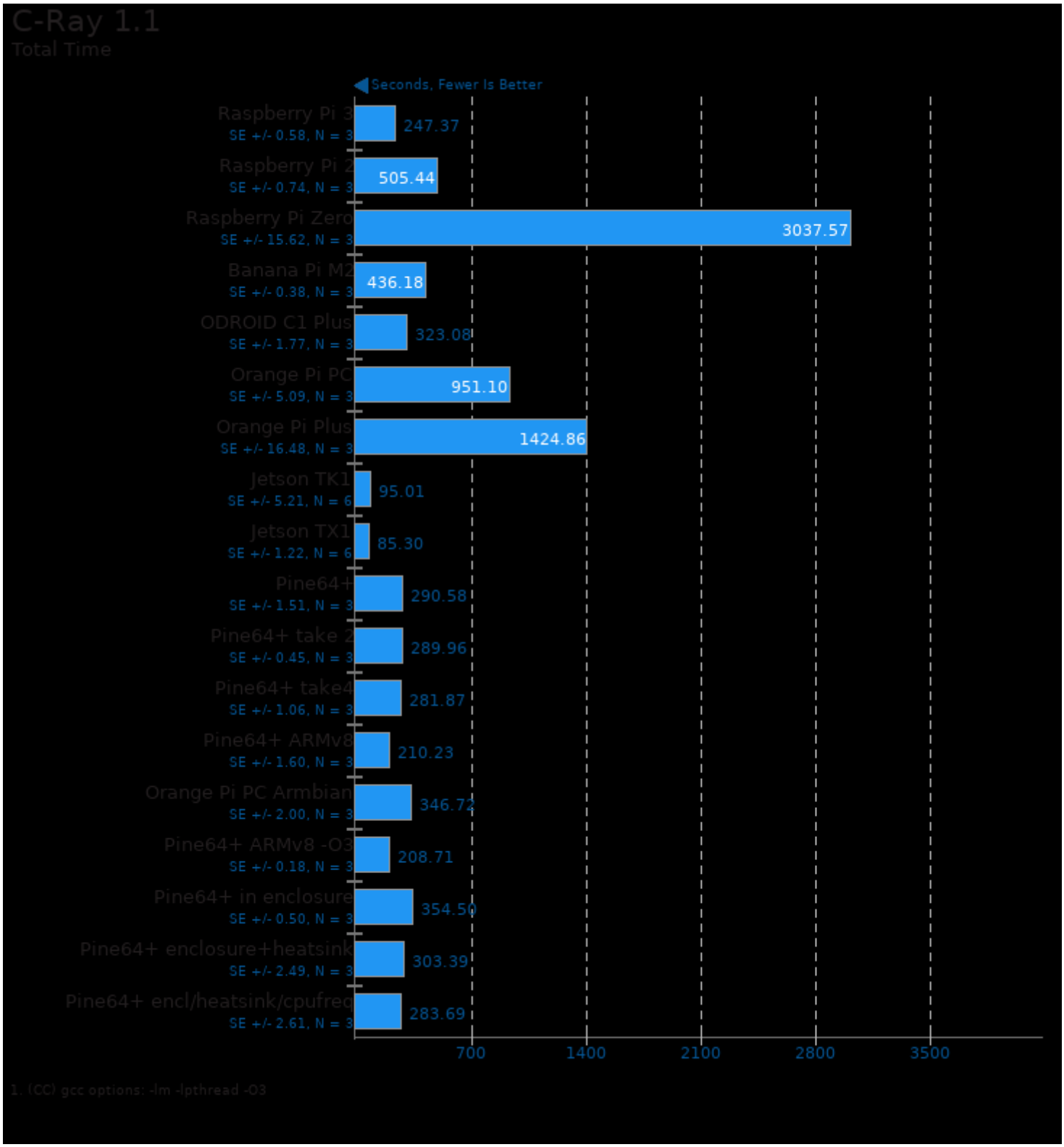
Raspberry Pi 3 Linux Benchmark Comparison



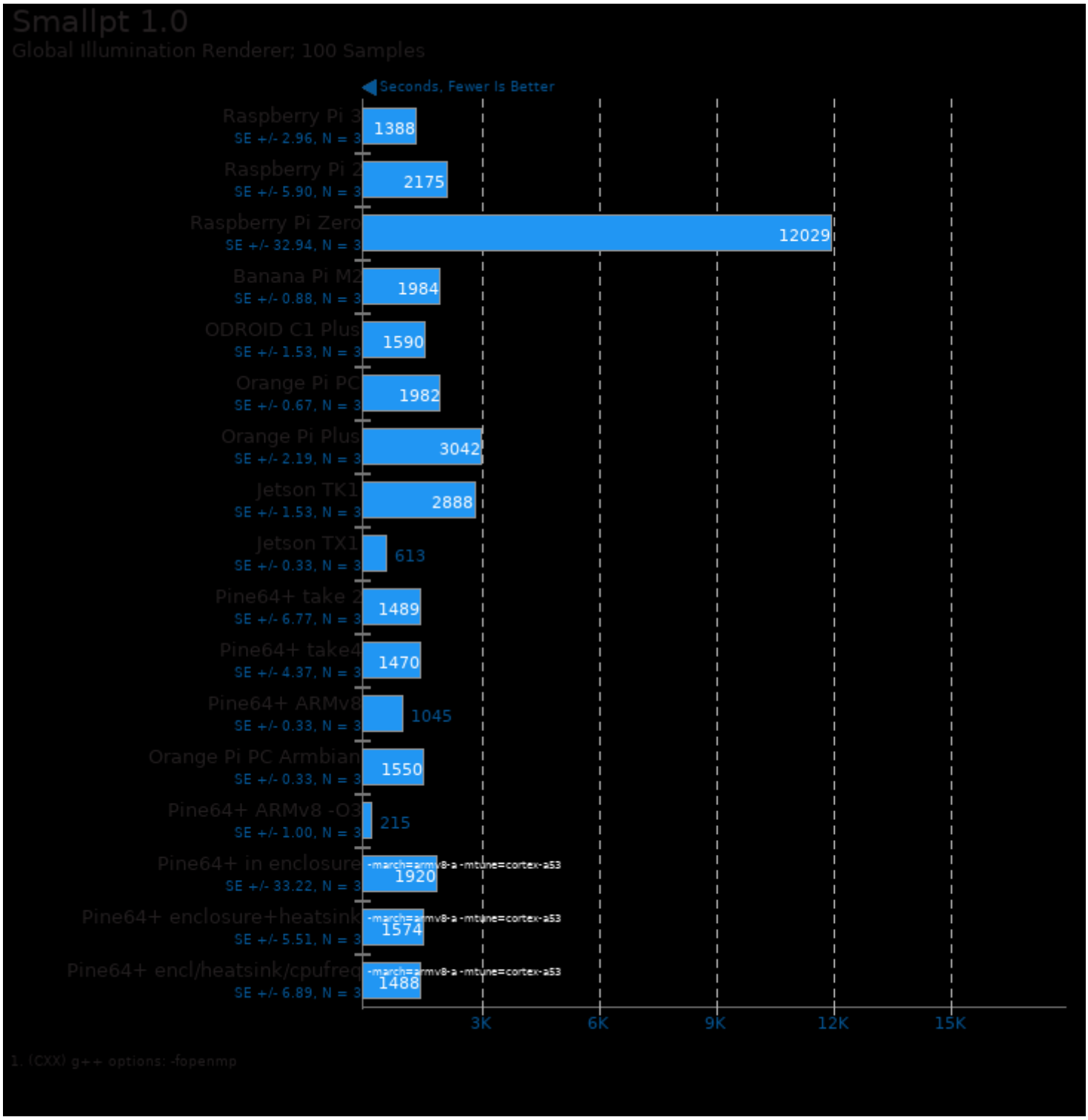
Raspberry Pi 3 Linux Benchmark Comparison



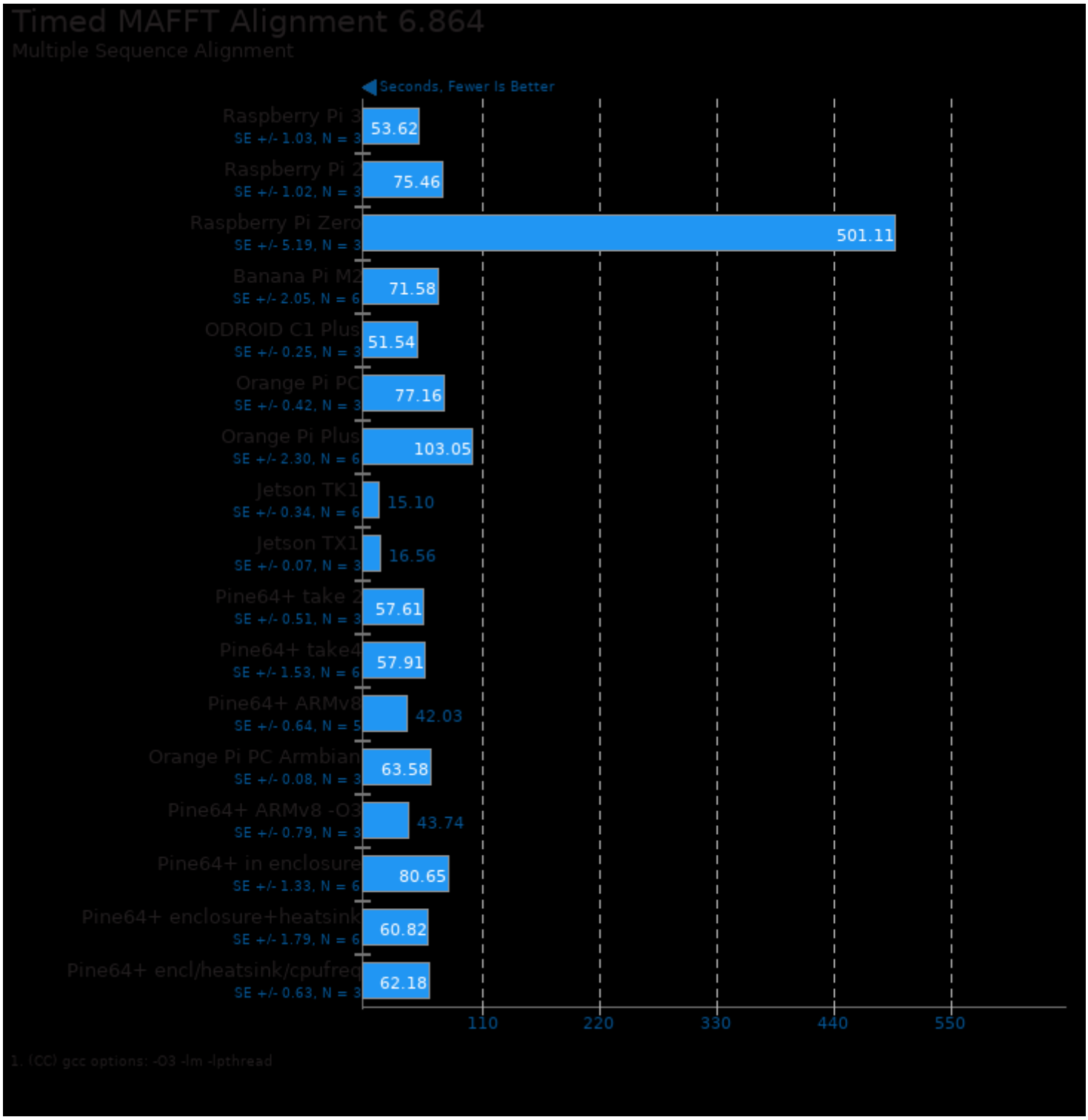
Raspberry Pi 3 Linux Benchmark Comparison



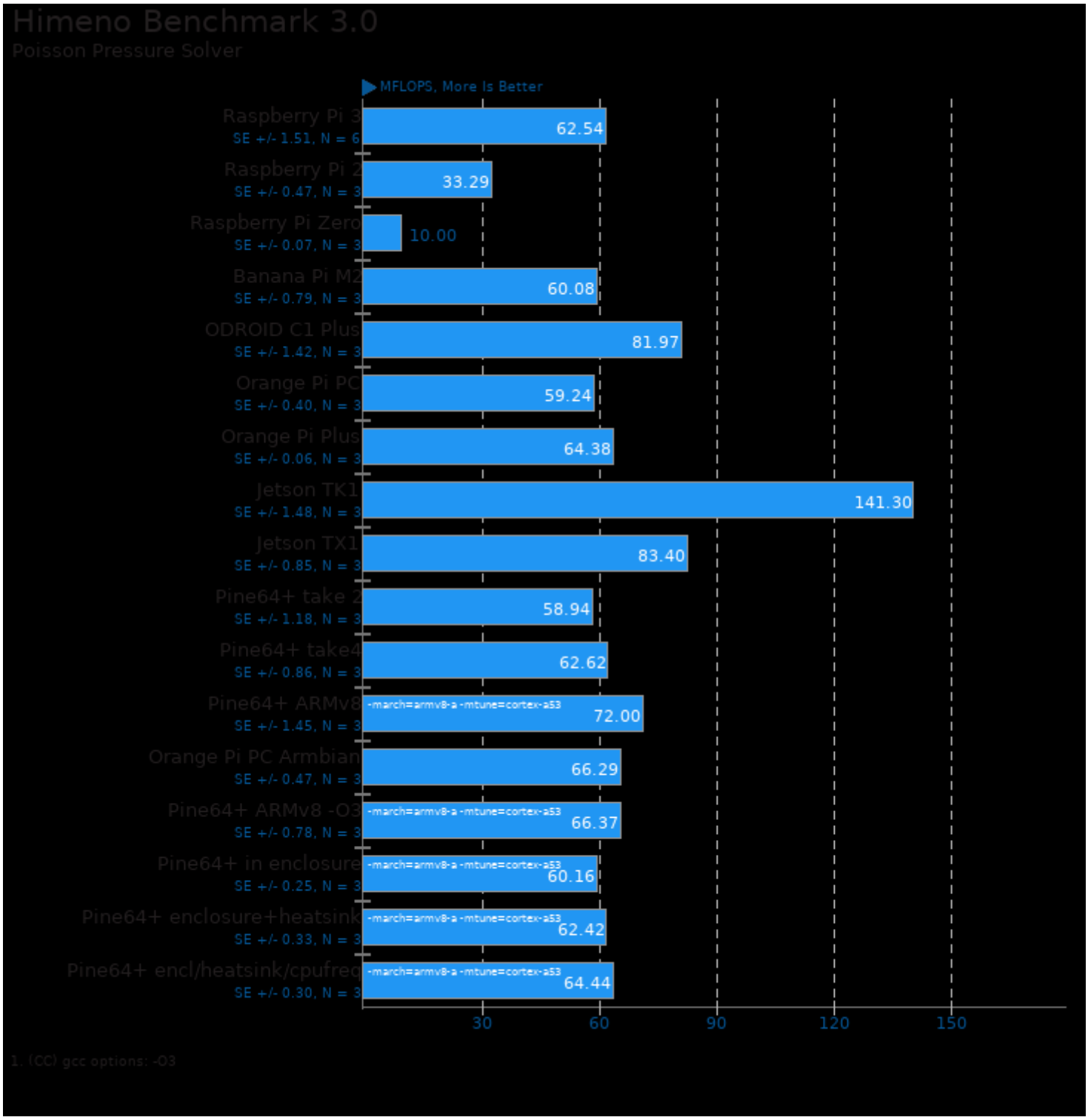
Raspberry Pi 3 Linux Benchmark Comparison



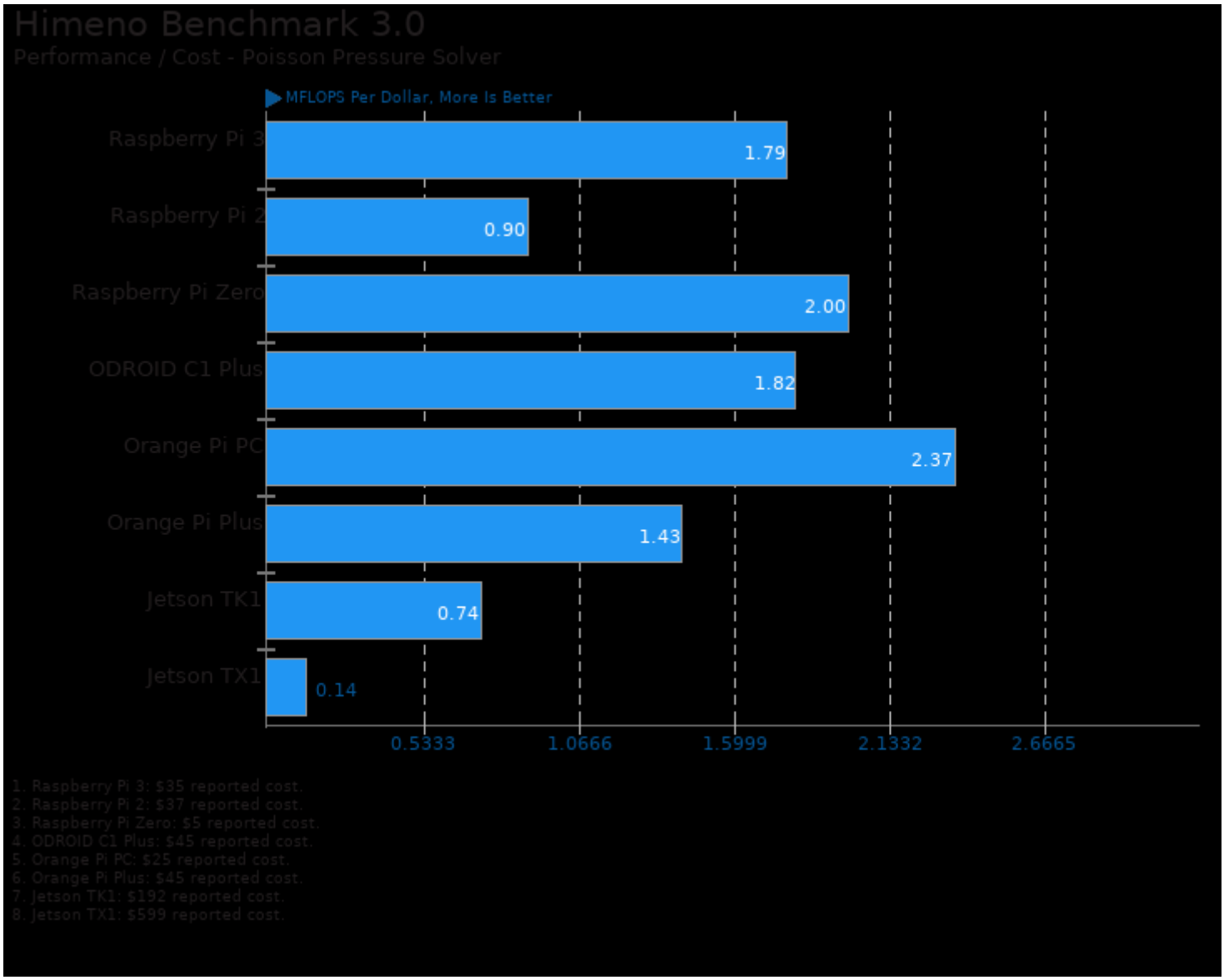
Raspberry Pi 3 Linux Benchmark Comparison



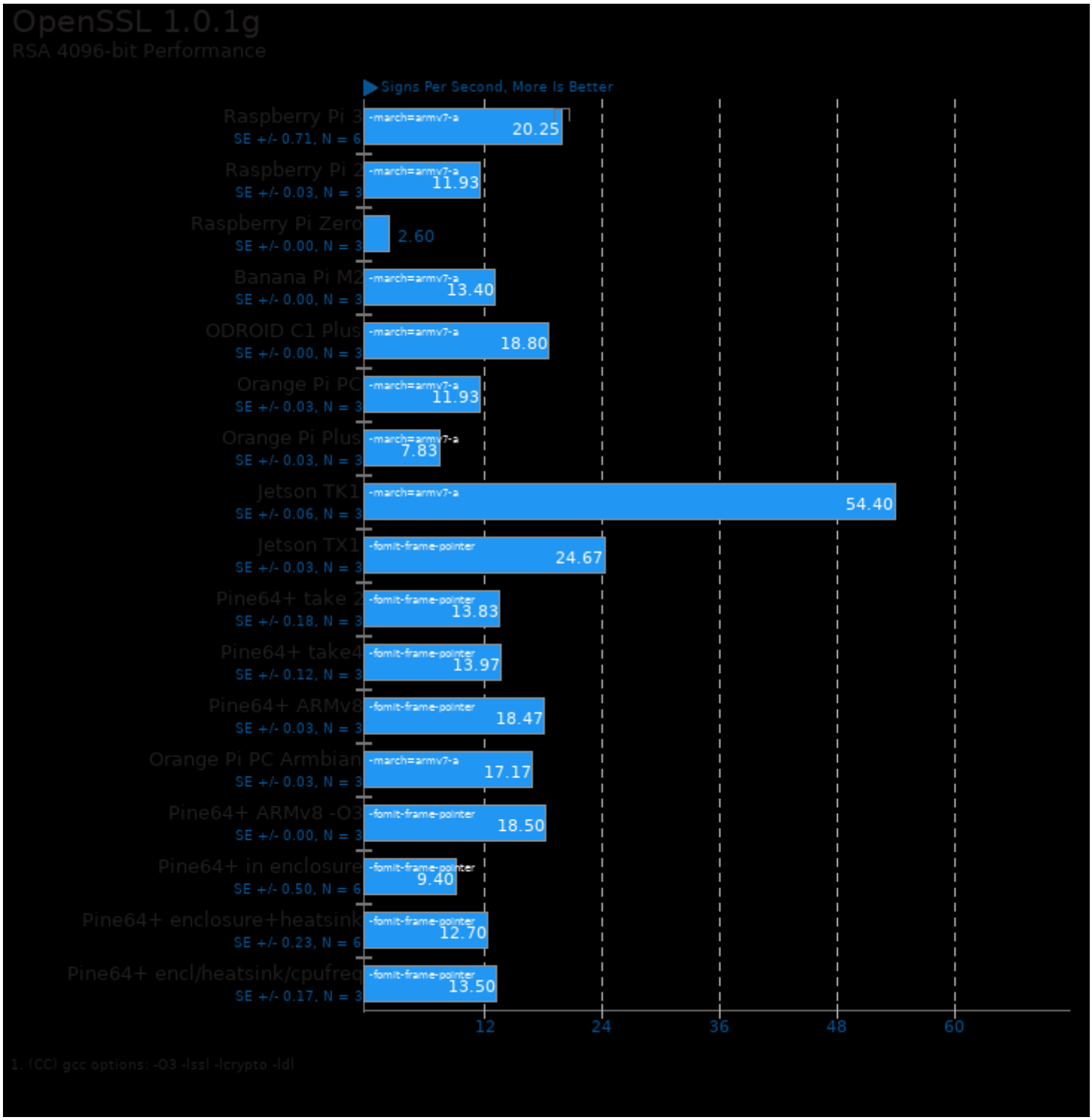
Raspberry Pi 3 Linux Benchmark Comparison



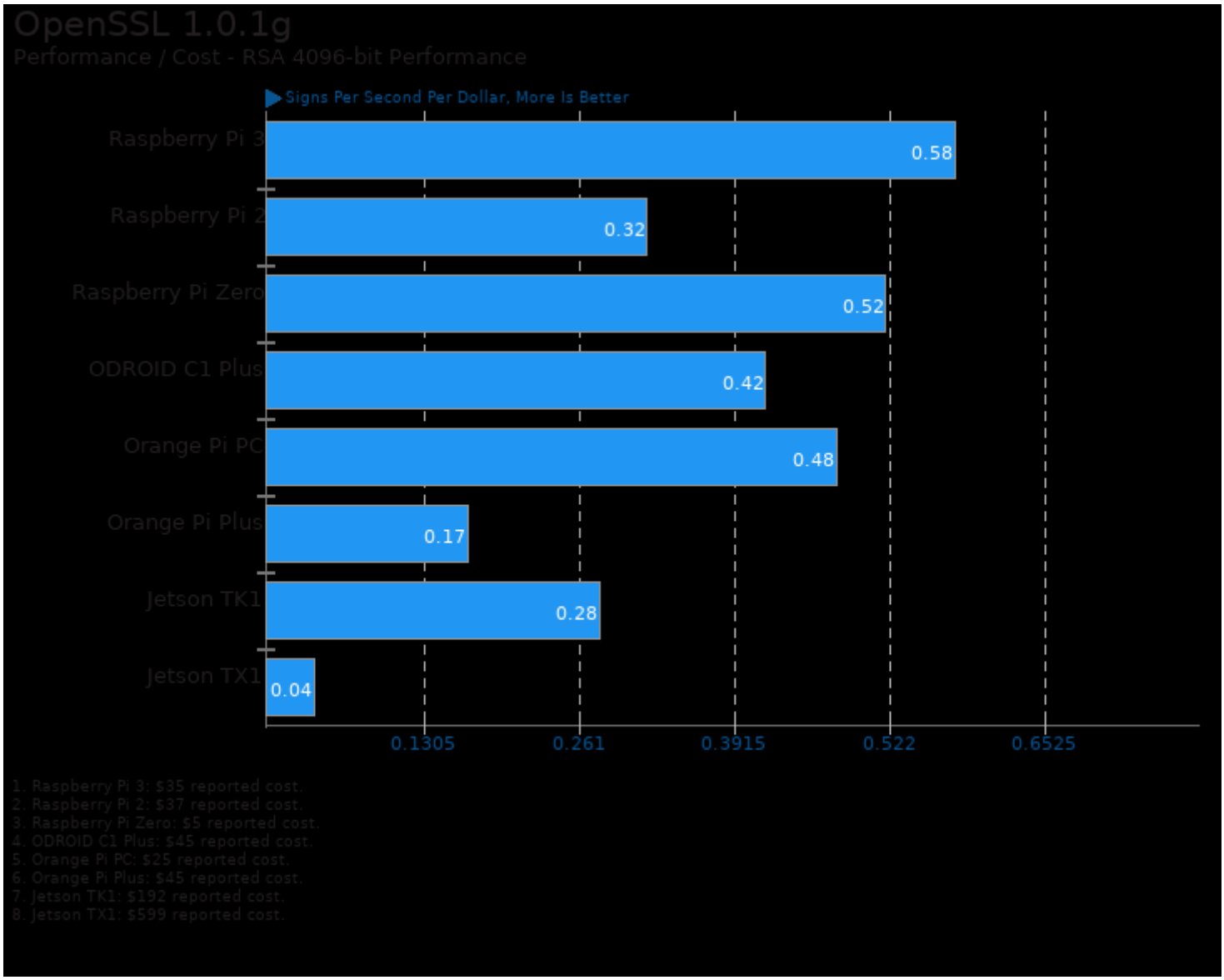
Raspberry Pi 3 Linux Benchmark Comparison



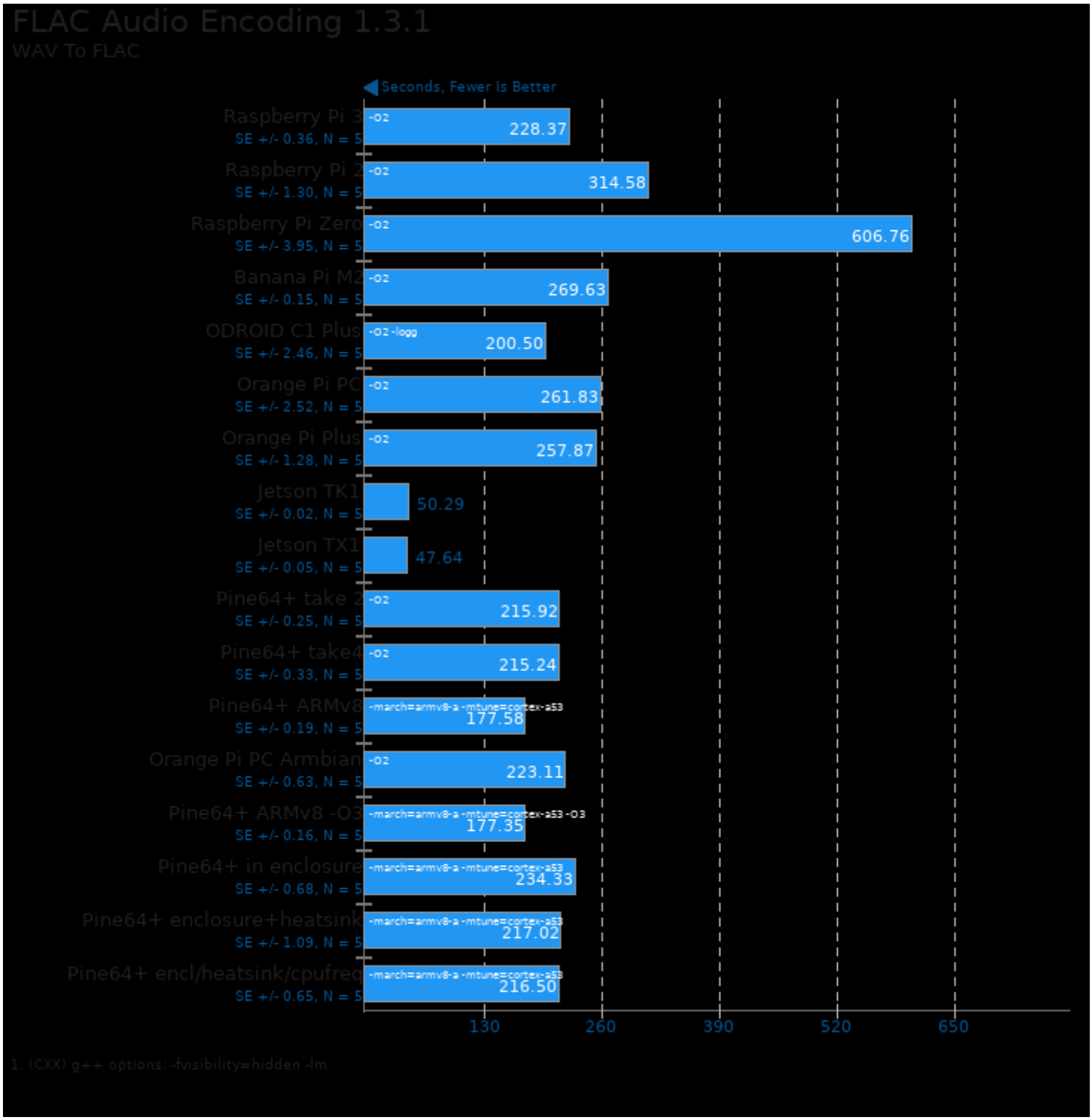
Raspberry Pi 3 Linux Benchmark Comparison



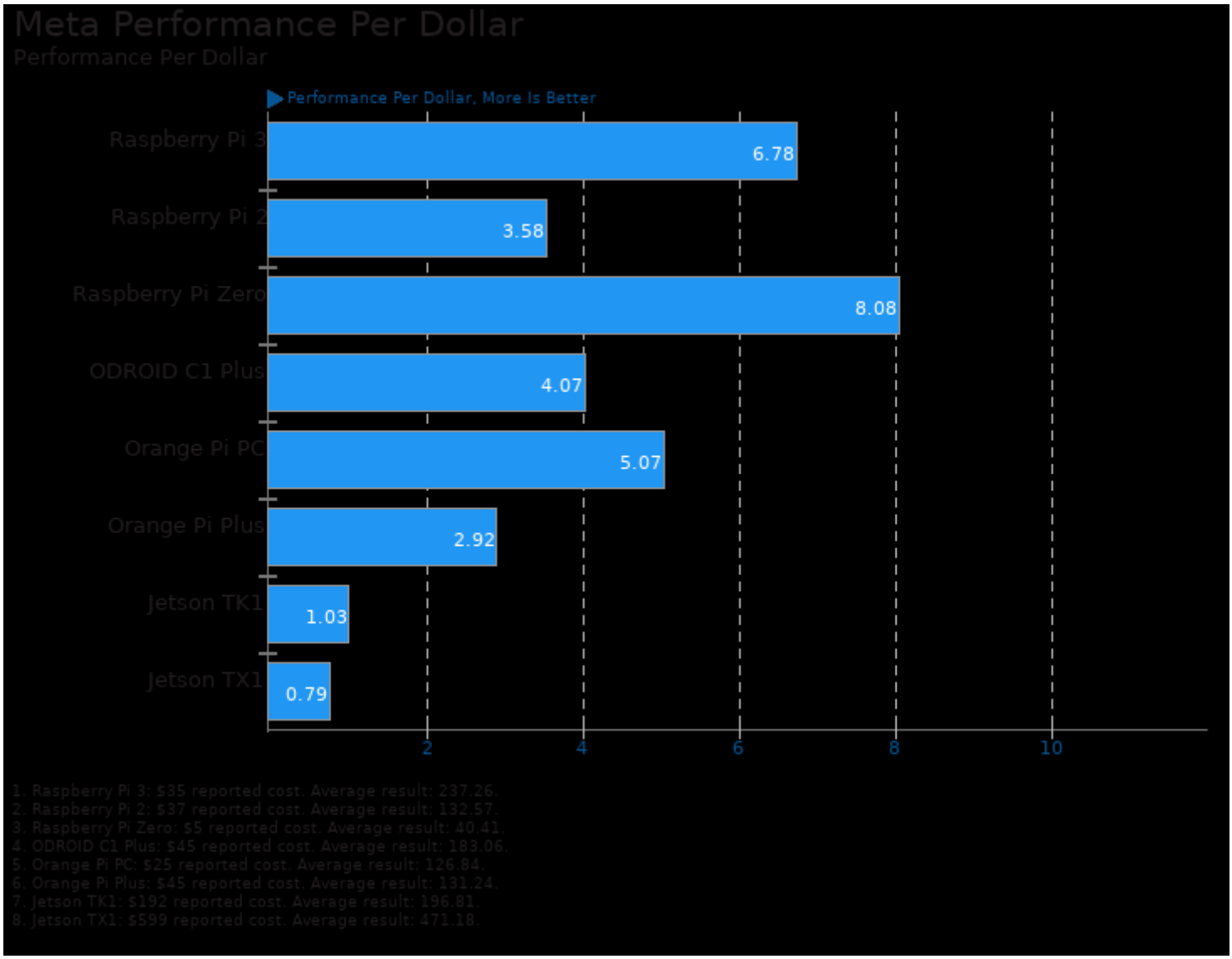
Raspberry Pi 3 Linux Benchmark Comparison



Raspberry Pi 3 Linux Benchmark Comparison



Raspberry Pi 3 Linux Benchmark Comparison



This file was automatically generated via the Phoronix Test Suite benchmarking software on Tuesday, 19 March 2024 09:51.