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Intel Bay Trail NUC Kit Ubuntu Linux Comparison

Testing by Michael Larabel of Phoronix for a future article on Phoronix of the Intel Bay Trail NUC Kit Celeron SoC and other hardware while running Ubuntu Linux.

Automated Executive Summary

CompuLab Intense-PC had the most wins, coming in first place for 81% of the tests.

Based on the geometric mean of all complete results, the fastest (CompuLab Intense-PC) was 68.915x the speed of the slowest (Intel Galileo Squeeze). ASRock 3D Vision NetTop was 0.687x the speed of CompuLab Intense-PC, ASRock Core i3 NetTop was 0.902x the speed of ASRock 3D Vision NetTop, Intel Bay Trail NUC Kit was 0.62x the speed of ASRock Core i3 NetTop, TREK-572_2nd was 0.569x the speed of Intel Bay Trail NUC Kit, TREK-572 was 0.999x the speed of TREK-572_2nd, CompuLab Fit-PC2 was 0.545x the speed of TREK-572, CompuLab Utilite was 0.845x the speed of CompuLab Fit-PC2, CompuLab Trim-Slice was 0.903x the speed of CompuLab Utilite, Intel Galileo Squeeze was 0.16x the speed of CompuLab Trim-Slice.

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

C-Ray (Total Time) at 318.028x
Smallpt (Global Illumination Renderer; 100 Samples) at 140.77x
SciMark (Computational Test: Sparse Matrix Multiply) at 123.591x
SciMark (Computational Test: Dense LU Matrix Factorization) at 111.236x

SciMark (Computational Test: Composite) at 79.577x
Timed Apache Compilation (Time To Compile) at 79.506x
Himeno Benchmark (Poisson Pressure Solver) at 78.722x
FLAC Audio Encoding (WAV To FLAC) at 72.554x
Primesieve (1e12 Prime Number Generation) at 59.752x
SciMark (Computational Test: Monte Carlo) at 51.965x.

Test Systems:

CompuLab Utilite

Processor: ARMv7 rev 10 @ 1.00GHz (4 Cores), Motherboard: Compulab CM-FX6, Memory: 2048MB, Disk: 32GB SanDisk SSD U100, Graphics: GC2000 Engine, Network: Intel I211 Gigabit Connection

OS: Ubuntu 12.04, Kernel: 3.0.35-cm-fx6-5.1 (armv7l), Desktop: GNOME 3.2.1, Display Server: X Server 1.11.3, OpenGL: 2.1, Compiler: GCC 4.6, File-System: ext4, Screen Resolution: 1920x1080

Compiler Notes: --build=arm-linux-gnueabi --disable-sjlj-exceptions --disable-werror --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-multilib --enable-nls --enable-objc-gc --enable-plugin --enable-shared --enable-threads=posix --host=arm-linux-gnueabi --target=arm-linux-gnueabi --with-arch=armv7-a --with-float=softfp --with-fpu=vfpv3-d16 --with-mode=thumb -v
Processor Notes: Scaling Governor: imx ondemand

CompuLab Fit-PC2

Processor: Intel Atom Z530 @ 1.60GHz (2 Cores), Motherboard: Intel SBC-FITPC2, Chipset: Intel Hub + SCH, Memory: 1024MB, Disk: 160GB Hitachi HTS54501, Graphics: Intel Hub (SCH Poulsbo), Audio: Realtek ALC260, Monitor: DELL S2409W, Network: Realtek RTL8111/8168B + Ralink RT3090 Wireless 802.11n 1T/1R

OS: Ubuntu 12.04, Kernel: 3.8.0-29-generic (i686), Display Driver: modesetting 0.7.0, Compiler: GCC 4.6, File-System: ext4, Screen Resolution: 1920x1080

Compiler Notes: --build=i686-linux-gnu --disable-werror --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-targets=all --enable-threads=posix --host=i686-linux-gnu --target=i686-linux-gnu --with-arch-32=i686 --with-tune=generic -v
Processor Notes: Scaling Governor: acpi-cpufreq ondemand

CompuLab Trim-Slice

Processor: ARMv7 rev 0 @ 1.00GHz (2 Cores), Motherboard: trimslice, Memory: 593MB, Disk: 250GB Samsung HM251HI, Graphics: NVIDIA TEGRA, Monitor: DELL S2409W, Network: Realtek RTL8111/8168B

OS: Ubuntu 12.04, Kernel: 3.1.10-l4t.r16.01 (armv7l), Compiler: GCC 4.6, File-System: ext2, Screen Resolution: 1366x1536

Compiler Notes: --build=arm-linux-gnueabihf --disable-sjlj-exceptions --disable-werror --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-multilib --enable-nls --enable-objc-gc --enable-plugin --enable-shared --enable-threads=posix --host=arm-linux-gnueabihf --target=arm-linux-gnueabihf --with-arch=armv7-a --with-float=hard --with-fpu=vfpv3-d16 --with-mode=thumb -v
Processor Notes: Scaling Governor: tegra ondemand

CompuLab Intense-PC

Processor: Intel Core i7-3517UE @ 2.10GHz (4 Cores), Motherboard: CompuLab Intense-PC, Chipset: Intel Ivy Bridge DRAM, Memory: 8192MB, Disk: 500GB Hitachi HCC54755, Graphics: Intel Ivy Bridge (1000MHz), Audio: Realtek ALC888, Monitor: DELL S2409W, Network: Intel 82579LM Gigabit Connection + Realtek RTL8188CE 802.11b/g/n

OS: Ubuntu 12.04, Kernel: 3.8.0-29-generic (x86_64), Desktop: Unity 5.20.0, Display Server: X Server 1.13.3, Display Driver: intel 2.21.6, OpenGL: 3.0 Mesa 9.1.4, Compiler: GCC 4.6, File-System: ext4, Screen Resolution: 1920x1080

Compiler Notes: --build=x86_64-linux-gnu --disable-werror --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=x86_64-linux-gnu --target=x86_64-linux-gnu --with-arch-32=i686 --with-tune=generic -v
Processor Notes: Scaling Governor: acpi-cpufreq ondemand

ASRock 3D Vision NetTop

Processor: Intel Core i3 370M @ 2.40GHz (4 Cores), Motherboard: ASRock HM55-MXM, Chipset: Intel Core DRAM, Memory: 4096MB, Disk: 500GB Western Digital WD5000BEKT-8, Graphics: NVIDIA GeForce GT 425M 512MB (202/324MHz), Audio: Realtek ALC889A, Monitor: DELL S2409W, Network: Realtek RTL8111/8168B + Atheros AR9287 Wireless

OS: Ubuntu 12.04, Kernel: 3.8.0-29-generic (x86_64), Desktop: Unity 5.20.0, Display Server: X Server 1.13.3, Display Driver: nouveau 1.0.7, OpenGL: 3.0 Mesa 9.1.4 Gallium 0.4, Compiler: GCC 4.6, File-System: ext4, Screen Resolution: 1920x1080

Compiler Notes: --build=x86_64-linux-gnu --disable-werror --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=x86_64-linux-gnu --target=x86_64-linux-gnu --with-arch-32=i686 --with-tune=generic -v
Processor Notes: Scaling Governor: acpi-cpufreq ondemand

ASRock Core i3 NetTop

Processor: Intel Core i3 330M @ 2.13GHz (4 Cores), Motherboard: ASRock HM55-HT, Chipset: Intel Core DRAM, Memory: 4096MB, Disk: 500GB Seagate ST9500325AS, Graphics: Intel Core IGP, Audio: VIA VT2020, Monitor: DELL S2409W, Network: Realtek RTL8111/8168B + Atheros AR9287 Wireless

OS: Ubuntu 12.04, Kernel: 3.8.0-29-generic (x86_64), Desktop: Unity 5.20.0, Display Server: X Server 1.13.3, Display Driver: intel 2.21.6, OpenGL: 2.1 Mesa 9.1.4, Compiler: GCC 4.6, File-System: ext4, Screen Resolution: 1920x1080

Compiler Notes: --build=x86_64-linux-gnu --disable-werror --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=x86_64-linux-gnu --target=x86_64-linux-gnu --with-arch-32=i686 --with-tune=generic -v
Processor Notes: Scaling Governor: acpi-cpufreq ondemand

Intel Bay Trail NUC Kit

Processor: Intel Celeron N2820 @ 1.60GHz (2 Cores), Motherboard: Intel DN2820FYK, Chipset: Intel ValleyView SSA-CUnit, Memory: 8192MB, Disk: 60GB OCZ VERTEX2, Graphics: Intel ValleyView Gen7 (708MHz), Audio: Realtek ALC283, Network: Realtek RTL8111/8168/8411 + Intel Wireless 7260

OS: Ubuntu 13.10, Kernel: 3.14.0-999-generic (x86_64), Desktop: Unity 7.1.2, Display Server: X Server 1.14.5, Display Driver: intel 2.99.909, OpenGL: 3.3 Mesa 10.2.0-devel (git-57f94bf saucy-oibaf-ppa), Compiler: GCC 4.8, File-System: ext4, Screen Resolution: 1920x1080

Compiler Notes: --build=x86_64-linux-gnu --disable-browser-plugin --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-nls --enable-objc-gc --enable-plugin --enable-shared --enable-threads=posix --host=x86_64-linux-gnu --target=x86_64-linux-gnu --with-abi=m64

--with-arch-32=i686 --with-arch-directory=amd64 --with-multilib-list=m32,m64,mx32 --with-tune=generic -v
Processor Notes: Scaling Governor: intel_pstate performance

Intel Galileo Squeeze

Processor: Unknown (1 Core), Disk: 4GB

OS: Debian Linux 6.0.8, Kernel: 3.8.7-yocto-standard (i686), Desktop: GNOME, Display Server: Wayland Weston + SurfaceFlinger + GNOME Shell Wayland, Compiler: GCC 4.4.5, File-System: ext2/ext3

Compiler Notes: --build=i486-linux-gnu --enable-checking=release --enable-clocale=gnu --enable-languages=c,c++,fortran,objc,obj-c++ --enable-libstdcxx-debug --enable-multiarch --enable-nls --enable-objc-gc --enable-shared --enable-targets=all --enable-threads=posix --host=i486-linux-gnu --target=i486-linux-gnu --with-arch-32=i586 --with-tune=generic -v

TREK-572

TREK-572_2nd

Processor: Intel Atom E3815 @ 1.10GHz (1 Core), Motherboard: AMI Aptio CRB, Chipset: Intel ValleyView SSA-CUnit, Memory: 1 x 2048 MB DDR3-1600MHz Transcend, Disk: 16GB SQF-SMSS4-16G-S8, Graphics: Intel ValleyView Gen7 (397MHz), Audio: Realtek ALC892, Network: Intel I210 Gigabit Connection + Qualcomm Atheros AR9462 Wireless

OS: Ubuntu 14.04, Kernel: 3.13.6 (i686), Desktop: LXDE 0.6.1, Display Server: X Server 1.15.1, Display Driver: intel 2.99.910, OpenGL: 3.3 Mesa 10.1.3, Compiler: GCC 4.8.2, File-System: ext4, Screen Resolution: 1920x1080

Compiler Notes: --build=i686-linux-gnu --disable-browser-plugin --disable-libmudflap --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-nls --enable-objc-gc --enable-plugin --enable-shared --enable-targets=all --enable-threads=posix --host=i686-linux-gnu --target=i686-linux-gnu --with-arch-32=i686 --with-arch-directory=i386 --with-multilib-list=m32,m64,mx32 --with-tune=generic -v
Processor Notes: Scaling Governor: intel_pstate performance

	CompuLab Utilite	CompuLab Fit-PC2	CompuLab Trim-Slice	CompuLab Intense-PC	ASRock 3D Vision NetTop	ASRock Core i3 NetTop	Intel Bay Trail NUC Kit	Intel Galileo Squeeze	TREK-572	TREK-572_2nd
HPC Challenge - G-HPL (GFLOPS)	2.01655	**0.82762**	1.04644	**7.73103**	5.85633	5.19380	3.82001		1.18203	1.18228
Normalized	26.08%	10.71%	13.54%	100%	75.75%	67.18%	49.41%		15.29%	15.29%
Standard Deviation	0.1%	0.8%	1%	0%	0.3%	0.3%	0.6%		0%	0%
HPC Challenge - G-Ffte (GFLOPS)	0.24977	0.18720	**0.15694**	**2.20394**	1.41956	1.28883	0.71068		0.25661	0.25779
Normalized	11.33%	8.49%	7.12%	100%	64.41%	58.48%	32.25%		11.64%	11.7%
Standard Deviation	0.6%	0.3%	2.1%	0.8%	0.9%	1.2%	0.6%		0.2%	0.3%
HPC Challenge - EP-DGEMM (GFLOPS)	0.56971	**0.44101**	0.56679	**2.01932**	1.54409	1.36686	1.99315		1.21239	1.21131
Normalized	28.21%	21.84%	28.07%	100%	76.47%	67.69%	98.7%		60.04%	59.99%
Standard Deviation	0.1%	4.4%	2.7%	0%	0.1%	0%	0%		0.1%	0%

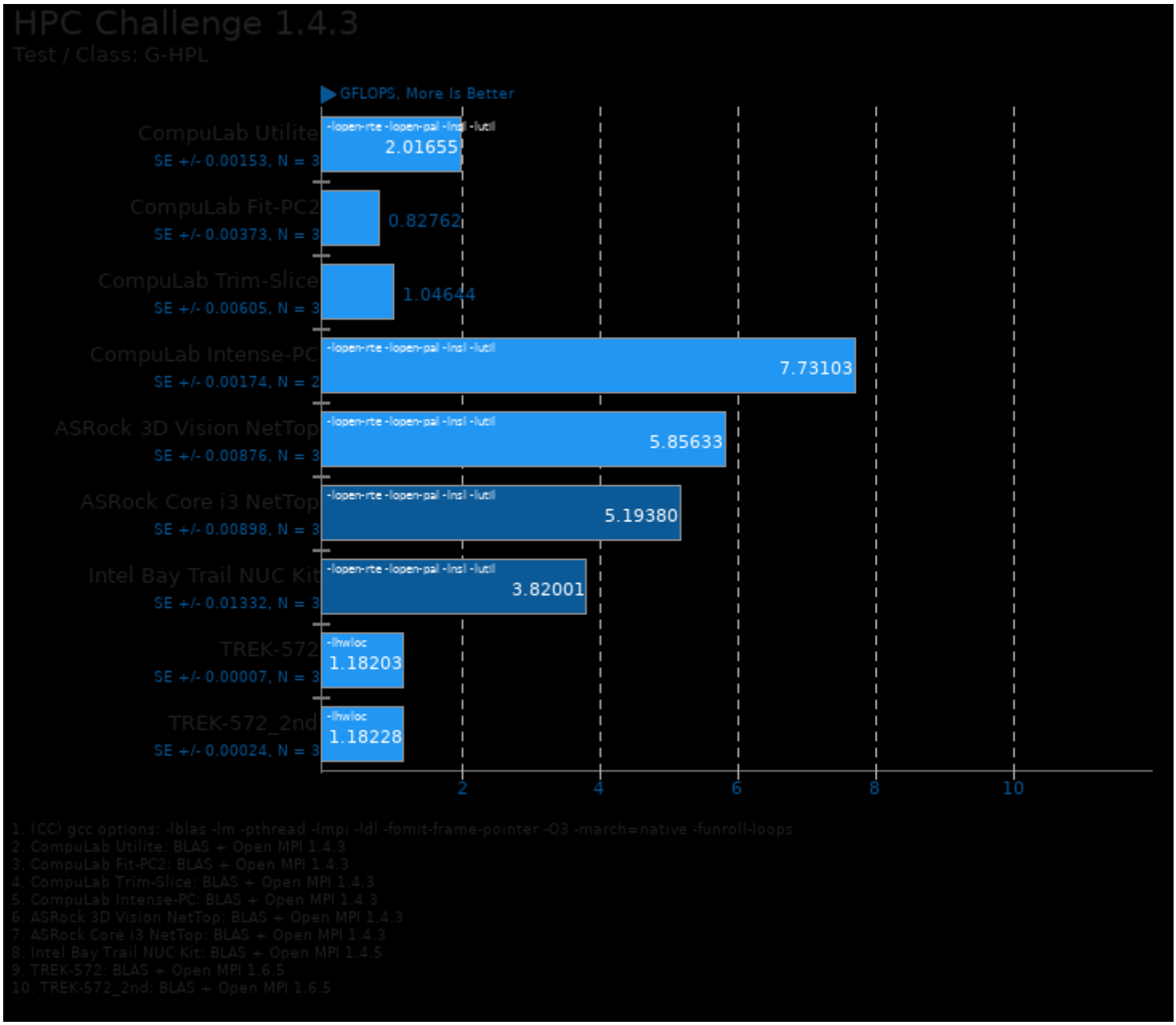
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HPC Challenge - G-Ptrans (GB/s)	0.08971	0.11404	0.13199	0.55574	0.33193	0.31007	0.59813		0.11219	0.11011
Normalized	15%	19.07%	22.07%	92.91%	55.49%	51.84%	100%		18.76%	18.41%
Standard Deviation	3.9%	0.4%	2.6%	0.7%	1%	0.6%	0.2%		0.6%	1.2%
HPC Challenge - EP-STREAM Triad (GB/s)	0.51484	0.85012	0.44687	3.49379	2.05182	1.88436	2.04644		3.78999	3.78503
Normalized	13.58%	22.43%	11.79%	92.18%	54.14%	49.72%	54%		100%	99.87%
Standard Deviation	1.6%	1.3%	0.8%	6.6%	0.4%	0.7%	1.9%		0%	0%
HPC Challenge - M.P.P.B (MB/s)	711.956	521.511	1281	6411	3758	3482	1858			
Normalized	11.11%	8.13%	19.97%	100%	58.61%	54.31%	28.99%			
Standard Deviation	1.9%	9.6%	0.7%	0%	1.3%	1.1%	1.1%			
Dolfyn - C.F.D (sec)	578.60	325.91	551.51	32.92	50.46	58.67	109.32		177.30	177.44
Normalized	5.69%	10.1%	5.97%	100%	65.24%	56.11%	30.11%		18.57%	18.55%
Standard Deviation	0.4%	0.2%	0.9%	1%	0.2%	0.2%	0.8%		0.1%	0.2%
PolyBench-C - C.C (sec)	24.53	30.88	21.87	7.14	7.94	9.00	5.84	240.01	15.81	15.72
Normalized	23.81%	18.91%	26.7%	81.79%	73.55%	64.89%	100%	2.43%	36.94%	37.15%
Standard Deviation	0.6%	1.4%	1.5%	2.8%	0.3%	0.2%	10.1%	0%	0.4%	0.3%
PolyBench-C - C.C (sec)	24.59	31.22	21.97	7.03	7.89	8.94	5.85		15.84	15.76
Normalized	23.79%	18.74%	26.63%	83.21%	74.14%	65.44%	100%		36.93%	37.12%
Standard Deviation	0.1%	3.6%	1.7%	2.9%	0.2%	0.1%	10%		0.7%	0.4%
PolyBench-C - 3.M.M (sec)	571.48	485.77	551.93	30.63	49.31	52.30	126.50	1270	157.59	157.61
Normalized	5.36%	6.31%	5.55%	100%	62.12%	58.57%	24.21%	2.41%	19.44%	19.43%
Standard Deviation	0.3%	0.1%	0.1%	1.9%	3.2%	0.9%	0.8%	0.1%	0.3%	0.2%
SciMark - Composite (Mflops)	62.15	128.86	64.53	927.07	563.63	502.71	323.06	11.65	226.94	227.23
Normalized	6.7%	13.9%	6.96%	100%	60.8%	54.23%	34.85%	1.26%	24.48%	24.51%
Standard Deviation	0.2%	0.1%	1.6%	0.5%	0.4%	0.3%	0.2%	0.1%	0.1%	0.1%
SciMark - Monte Carlo (Mflops)	49.80	48.11	56.33	398.05	290.99	258.11	157.90	7.66	90.74	90.71
Normalized	12.51%	12.09%	14.15%	100%	73.1%	64.84%	39.67%	1.92%	22.8%	22.79%
Standard Deviation	0.4%	0%	3.4%	0.4%	0.2%	0%	0%	0%	0%	0%
SciMark - F.F.T (Mflops)	16.57	16.15	17.48	221.33	124.28	119.34	51.30	4.80	41.73	41.69
Normalized	7.49%	7.3%	7.9%	100%	56.15%	53.92%	23.18%	2.17%	18.85%	18.84%
Standard Deviation	0.9%	0.1%	2.3%	3.8%	0.5%	0.6%	0.3%	0%	0.1%	0.1%
SciMark - S.M.M (Mflops)	52.73	156.46	54.77	1563	830.85	748.14	463.35	12.65	331.06	331.02
Normalized	3.37%	10.01%	3.5%	100%	53.14%	47.85%	29.64%	0.81%	21.18%	21.17%
Standard Deviation	0.2%	0.3%	1.5%	0.8%	0.5%	0.5%	0.4%	0%	0.1%	0.1%
SciMark - D.L.M.F (Mflops)	67.53	153.00	53.98	1604	905.52	797.22	384.81	14.42	276.85	276.84
Normalized	4.21%	9.54%	3.37%	100%	56.45%	49.7%	23.99%	0.9%	17.26%	17.26%
Standard Deviation	0.2%	0.1%	1.1%	0.2%	0.7%	0.4%	0.2%	0%	0%	0.1%
SciMark - J.S.O.R (Mflops)	124.12	270.60	140.10	839.39	666.50	590.73	557.94	18.71	394.79	395.86
Normalized	14.79%	32.24%	16.69%	100%	79.4%	70.38%	66.47%	2.23%	47.03%	47.16%
Standard Deviation	0.2%	0.2%	4.7%	0.3%	0.4%	0.2%	0.2%	0.3%	0.2%	0.4%

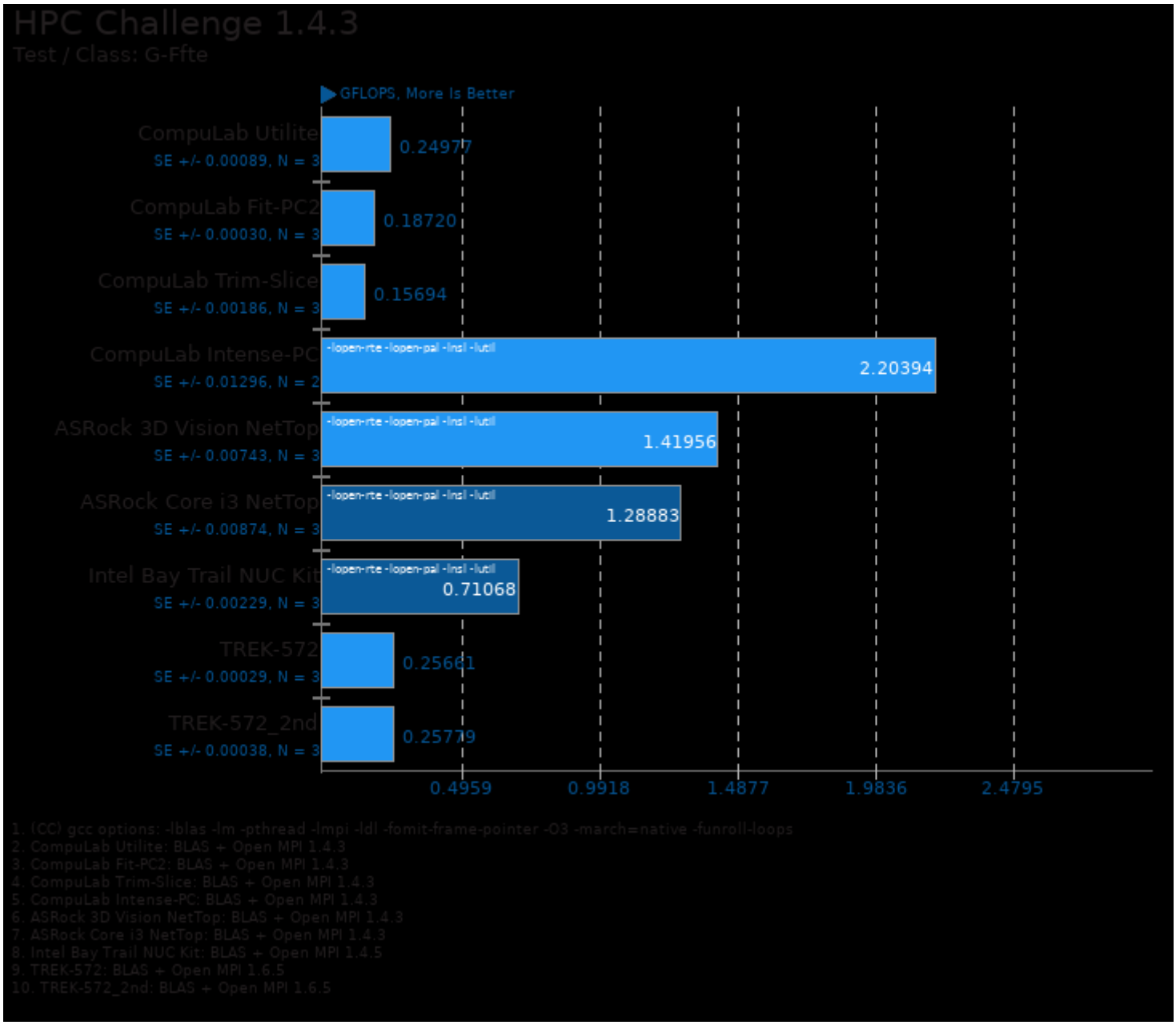
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TSCP - A.C.P (Nodes/s)	127979	197936	126451	**807594**	555678	488369	323454	**40673**	234393	234393
Normalized	15.85%	24.51%	15.66%	100%	68.81%	60.47%	40.05%	5.04%	29.02%	29.02%
Standard Deviation	1.5%	0%	1.9%	0.2%	0.5%	0.3%	0%	0.5%	0%	0%
Himeno Benchmark - P.P.S (MFLOPS)	109.12	104.05	103.47	**1094**	803.71	779.53	535.62	**13.90**	327.68	327.88
Normalized	9.97%	9.51%	9.46%	100%	73.45%	71.24%	48.95%	1.27%	29.95%	29.96%
Standard Deviation	1.8%	0.6%	1%	0.9%	0.2%	0.3%	0%	0.3%	0.2%	0%
Timed Apache Compilation - Time To Compile (sec)	390.00	473.04	537.40	**61.52**	76.30	85.40	226.44	**4891**		
Normalized	15.77%	13.01%	11.45%	100%	80.63%	72.04%	27.17%	1.26%		
Standard Deviation	0.4%	0%	0.1%	0.2%	0.6%	0.3%	0.2%	0.1%		
C-Ray - Total Time (sec)	630.47	1823	1261	**127.32**	141.01	159.21	282.25	**40491**	1234	1235
Normalized	20.19%	6.98%	10.09%	100%	90.29%	79.97%	45.11%	0.31%	10.32%	10.31%
Standard Deviation	1.2%	0%	0%	0%	0%	0%	0%	0.5%	0%	0.1%
Primesieve - 1.P.N.G (sec)	1382	2264	**2513**	233.49	289.83	340.10	558.17	**42.06**		
Normalized	3.04%	1.86%	1.67%	18.01%	14.51%	12.37%	7.54%	100%		
Standard Deviation	5.6%	0.2%	17.8%	0.1%	0.2%	0.1%	0.1%	198.6%		
Smallpt - G.I.R.1.S (sec)	1419	2559	3049	**230**	315	366	888	**32377**	2787	2786
Normalized	16.21%	8.99%	7.54%	100%	73.02%	62.84%	25.9%	0.71%	8.25%	8.26%
Standard Deviation	0.1%	0%	0%	0%	0%	0.2%	0.1%	0.3%	0.1%	0%
Gzip Compression - 2.F.C (sec)	102.70	86.34	146.01	**17.28**	19.37	25.82	31.50	**868.31**		
Normalized	16.83%	20.01%	11.83%	100%	89.21%	66.92%	54.86%	1.99%		
Standard Deviation	0.2%	0.8%	0.7%	7.8%	2.8%	1.3%	0.2%	0.6%		
FLAC Audio Encoding - WAV To FLAC (sec)	56.82	56.70	61.44	**7.33**	11.68	13.19	19.28	**531.82**		
Normalized	12.9%	12.93%	11.93%	100%	62.76%	55.57%	38.02%	1.38%		
Standard Deviation	0.8%	0.2%	1.2%	1.1%	0.5%	0.5%	0.2%	0.3%		
LAME MP3 Encoding - WAV To MP3 (sec)	128.79	135.49	**135.75**	**17.96**	26.35	29.84	48.00			
Normalized	13.95%	13.26%	13.23%	100%	68.16%	60.19%	37.42%			
Standard Deviation	0.9%	0.1%	0.1%	0.1%	0.4%	0.1%	0%			
FFmpeg - H.2.H.T.N.D (sec)	357.63		**489.53**	**28.73**	33.53	36.97	55.35			
Normalized	8.03%		5.87%	100%	85.68%	77.71%	51.91%			
Standard Deviation	0.7%		2.3%	2.2%	1.8%	1.7%	0.2%			
N-Queens - Elapsed Time (sec)	246.59		518.44	**113.19**	140.39	162.77	250.56	**4043**	745.89	746.01
Normalized	45.9%		21.83%	100%	80.63%	69.54%	45.17%	2.8%	15.18%	15.17%
Standard Deviation	3.4%		0%	0%	0%	0%	0%	0%	0%	0%

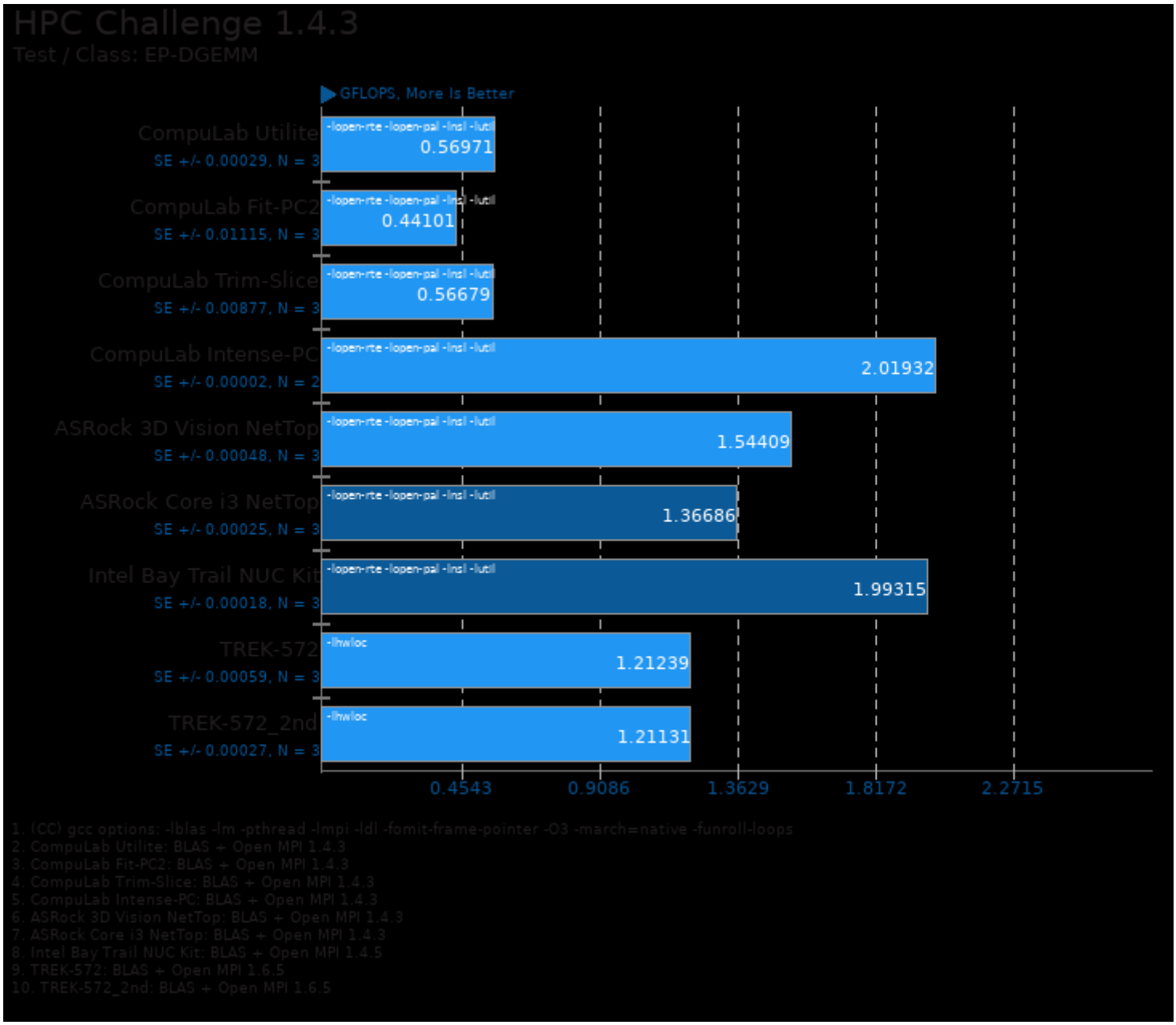
Intel Bay Trail NUC Kit Ubuntu Linux Comparison



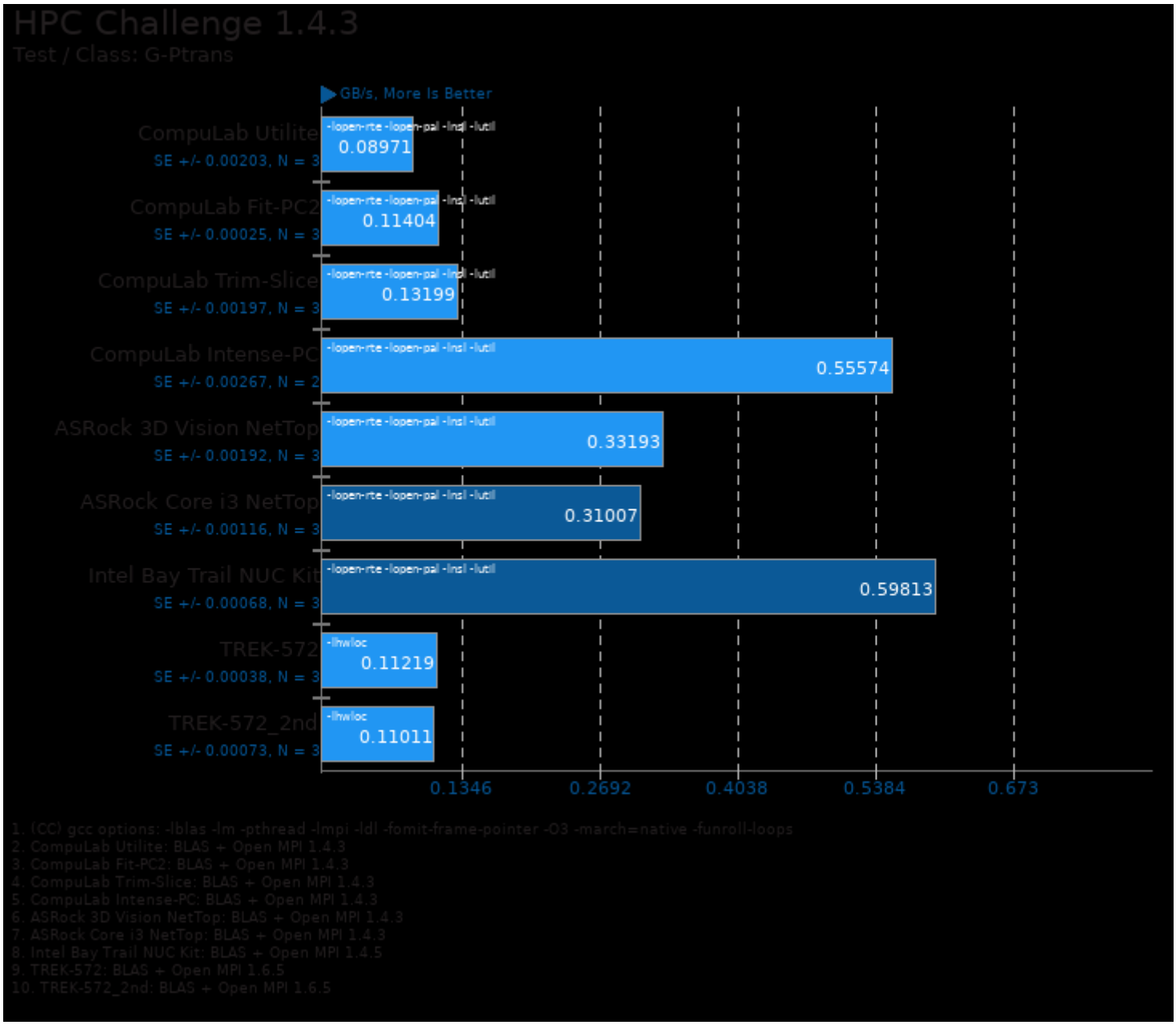
Intel Bay Trail NUC Kit Ubuntu Linux Comparison



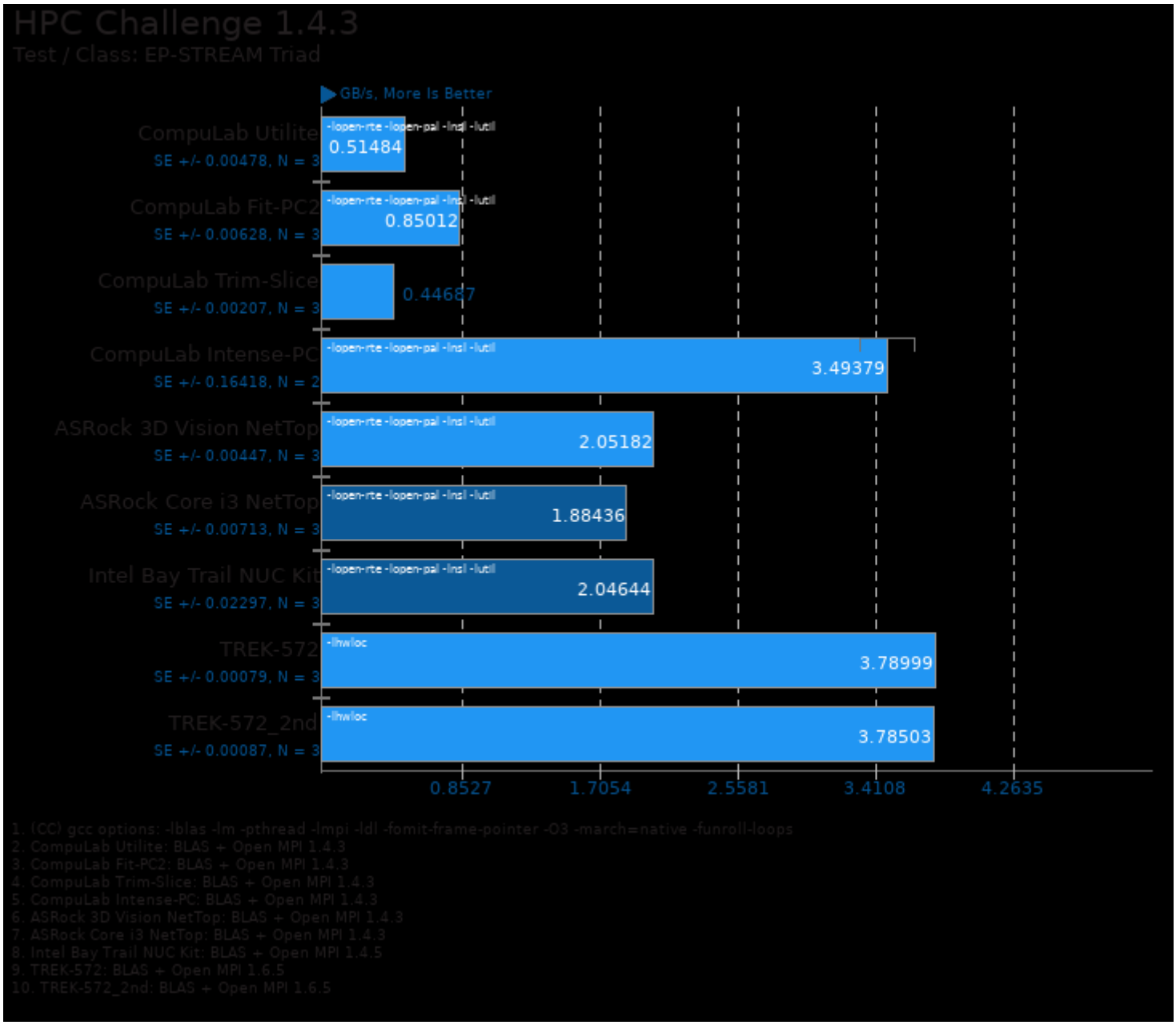
Intel Bay Trail NUC Kit Ubuntu Linux Comparison



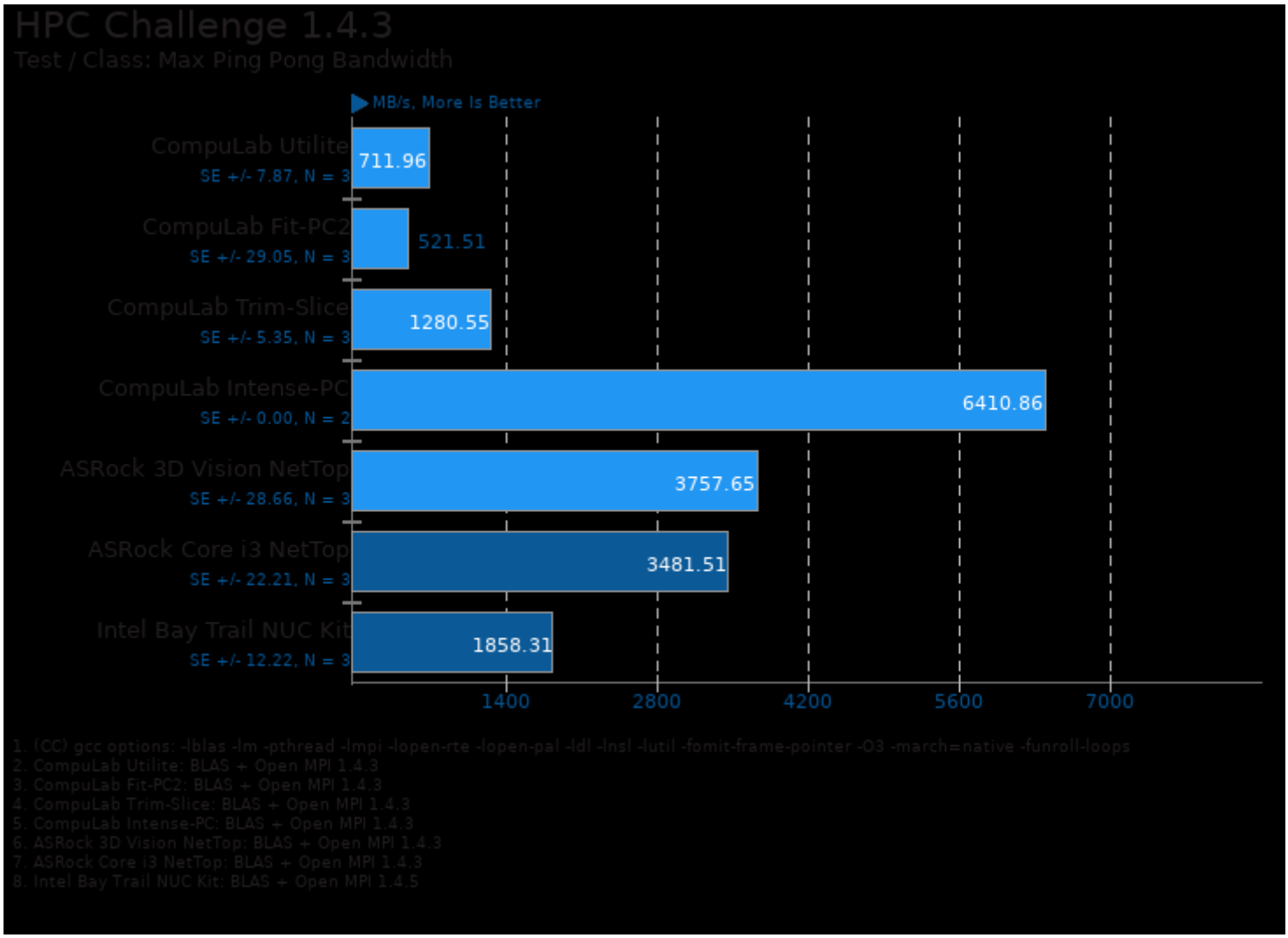
Intel Bay Trail NUC Kit Ubuntu Linux Comparison



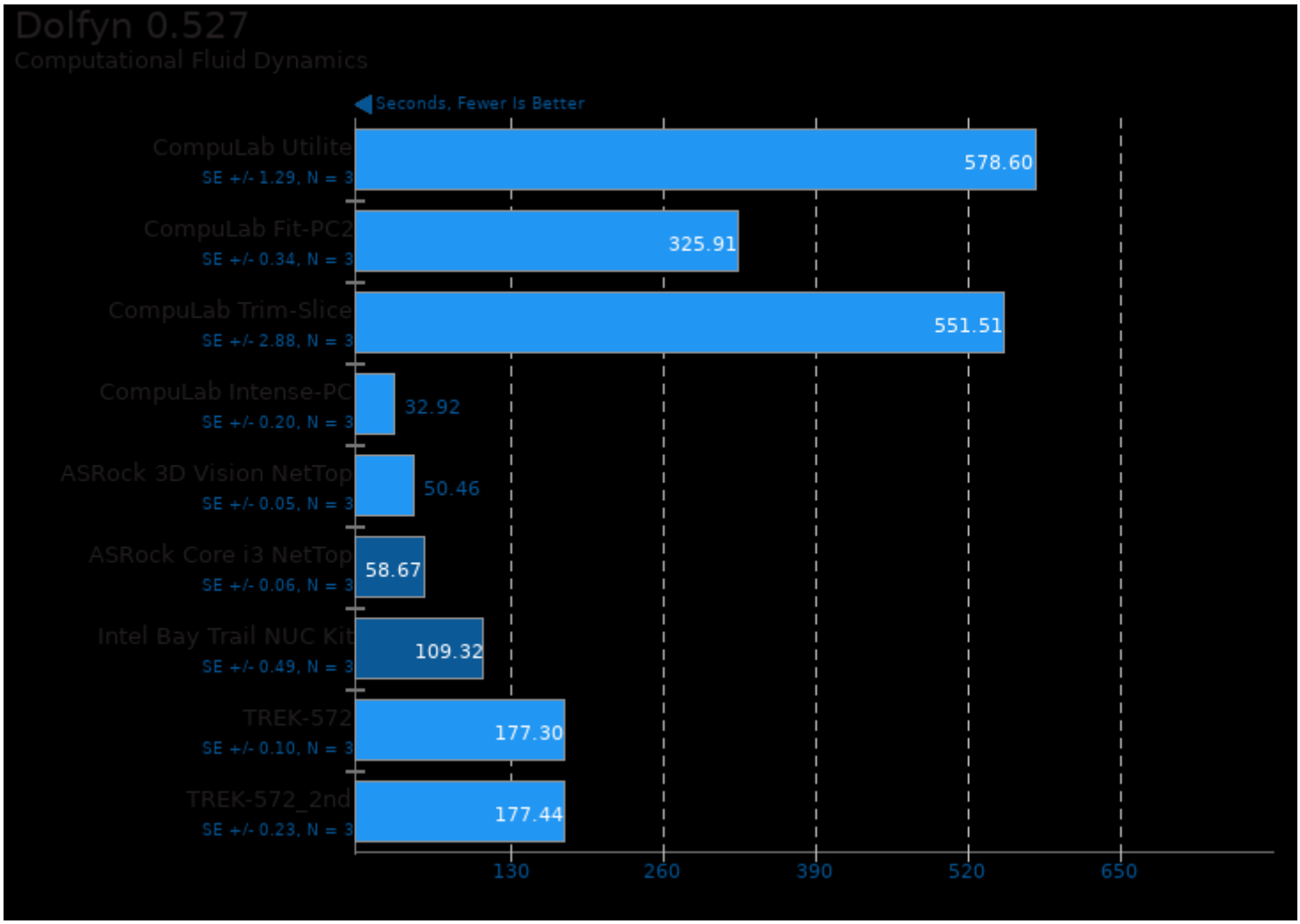
Intel Bay Trail NUC Kit Ubuntu Linux Comparison



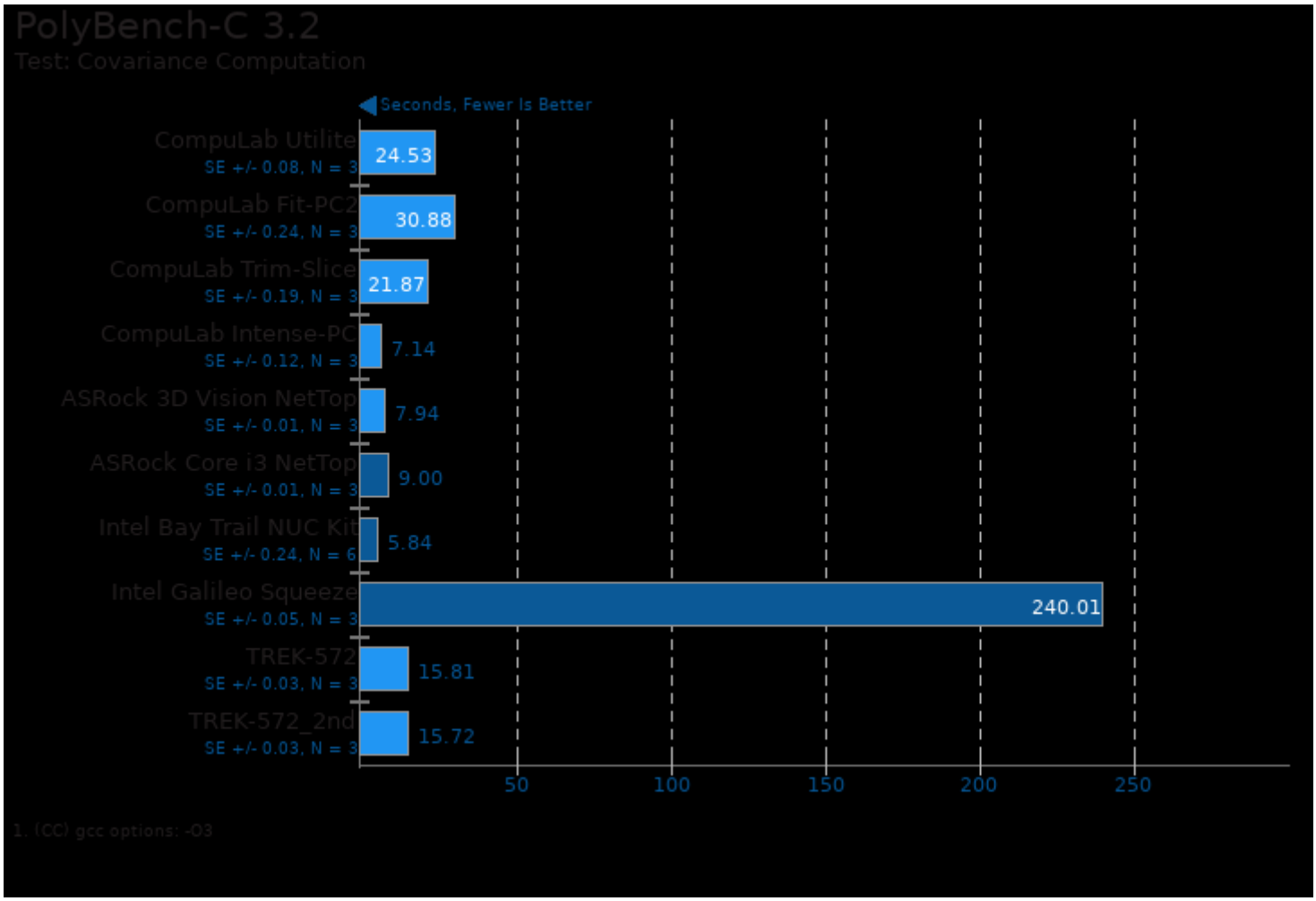
Intel Bay Trail NUC Kit Ubuntu Linux Comparison



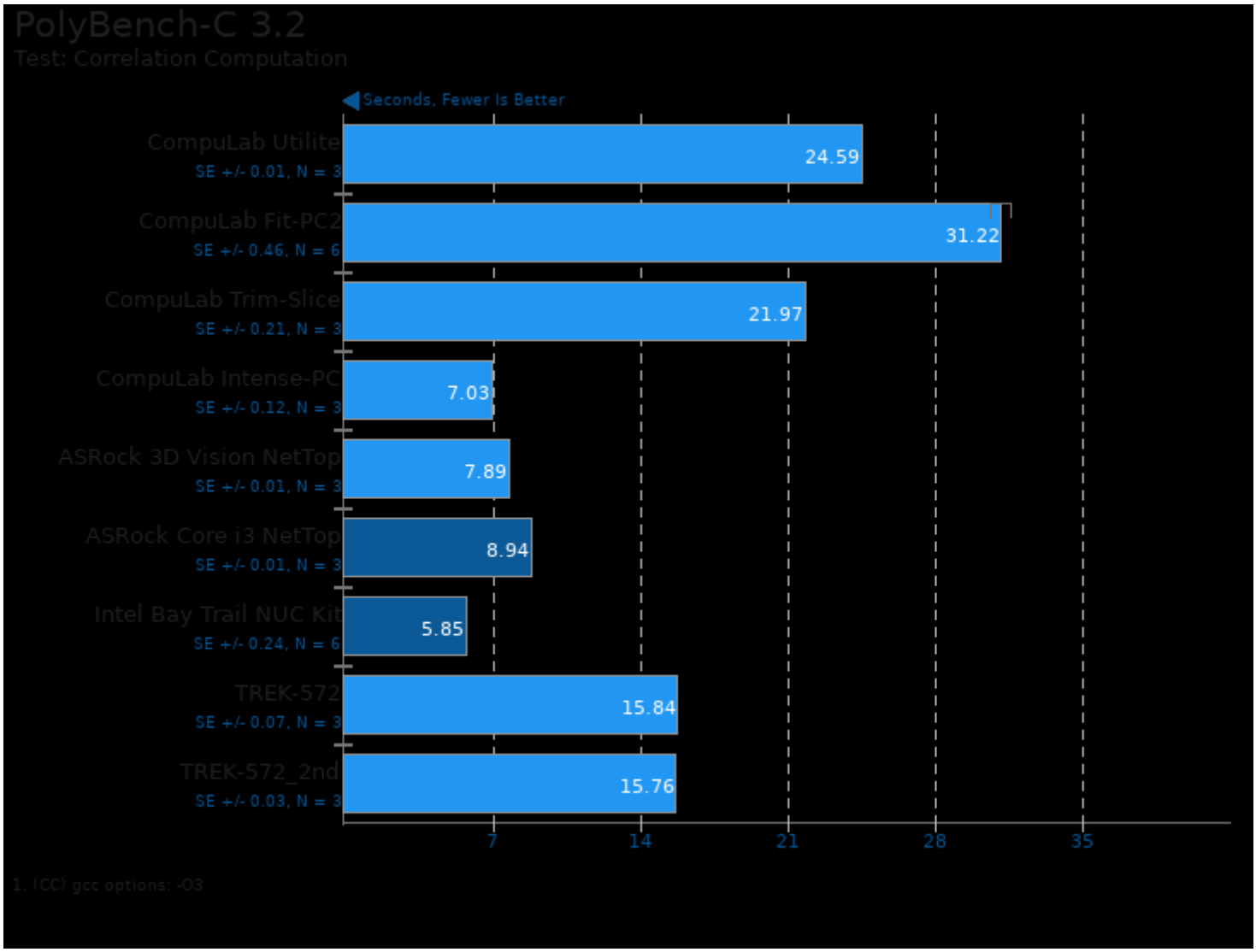
Intel Bay Trail NUC Kit Ubuntu Linux Comparison



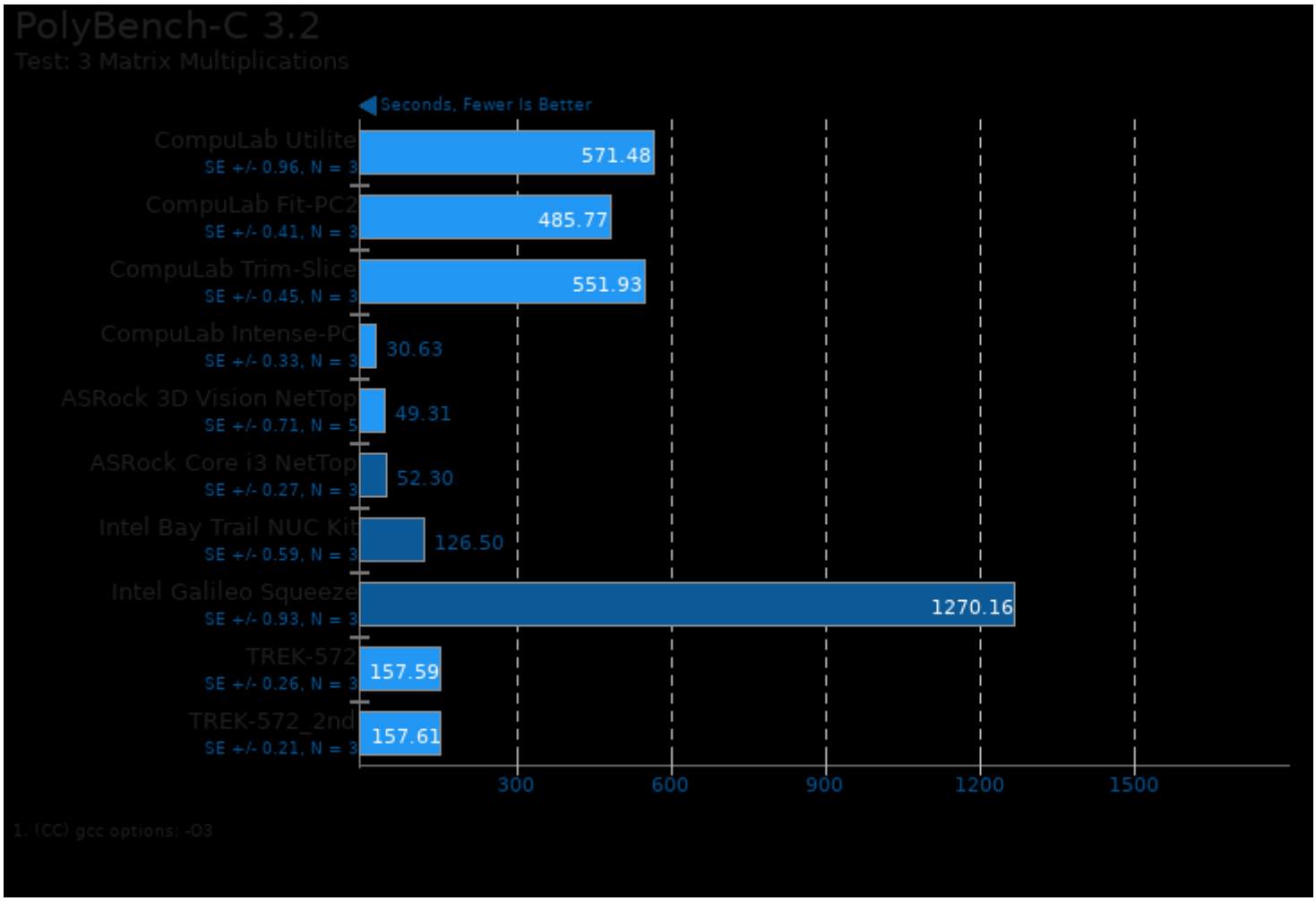
Intel Bay Trail NUC Kit Ubuntu Linux Comparison

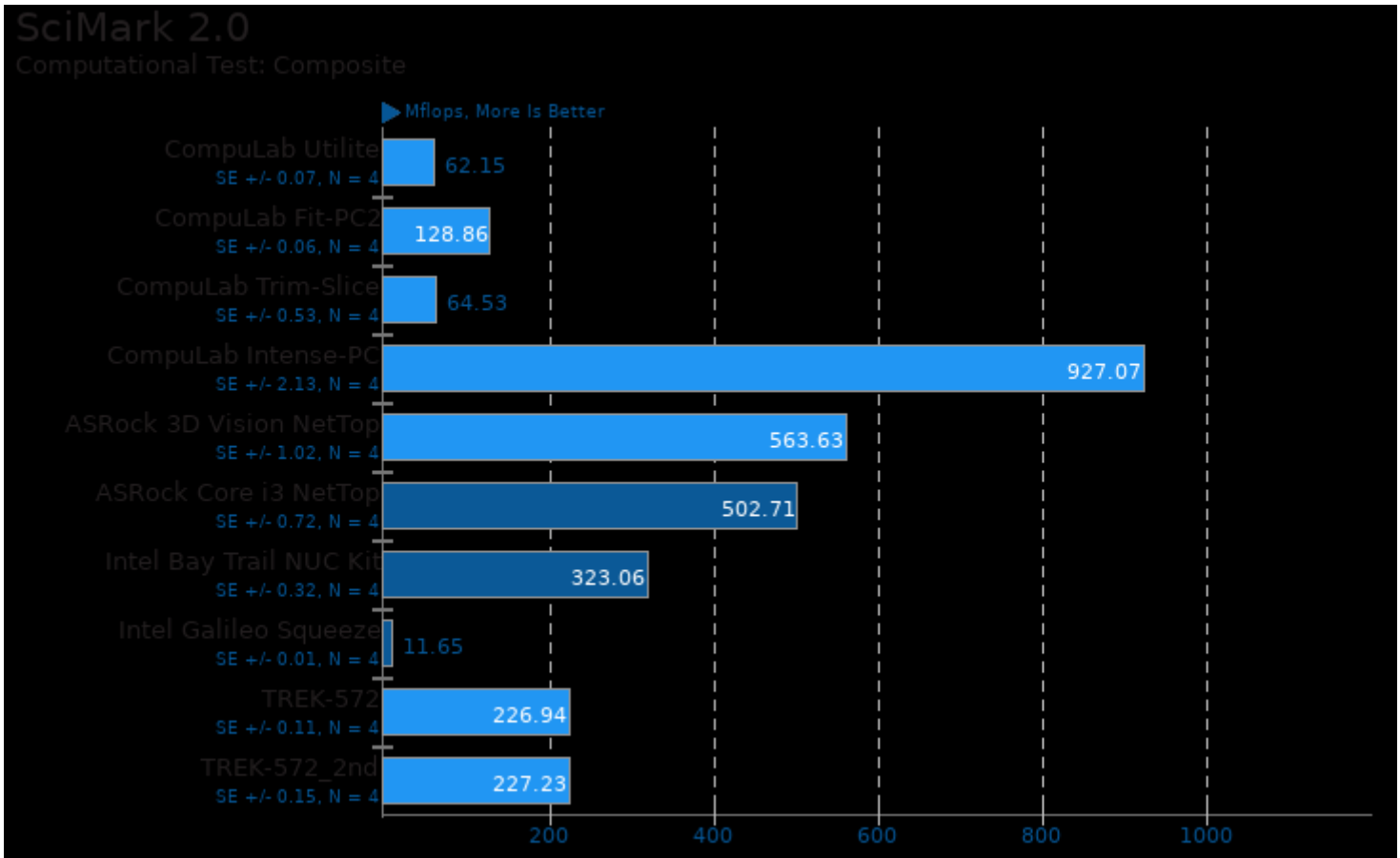


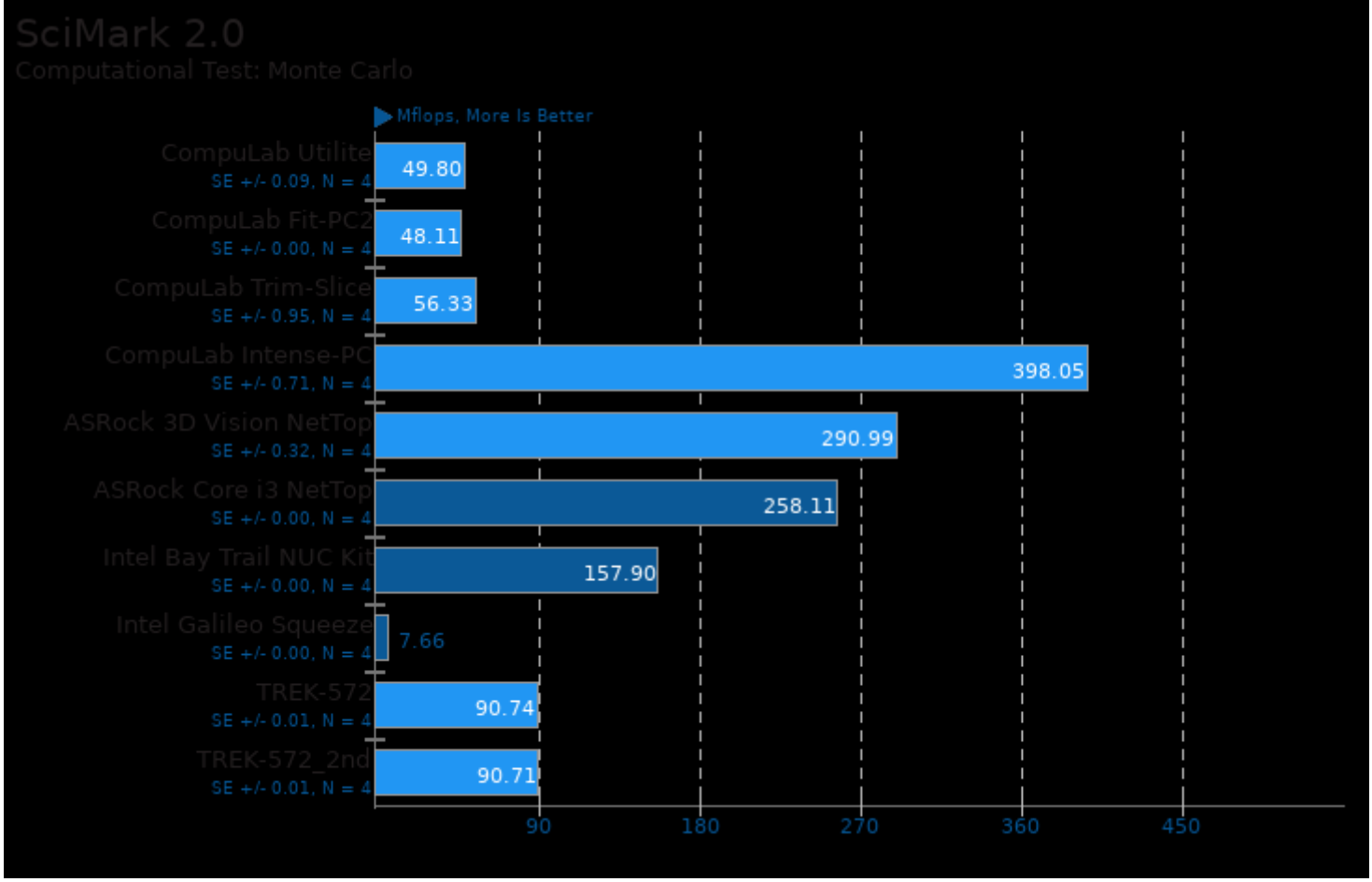
Intel Bay Trail NUC Kit Ubuntu Linux Comparison

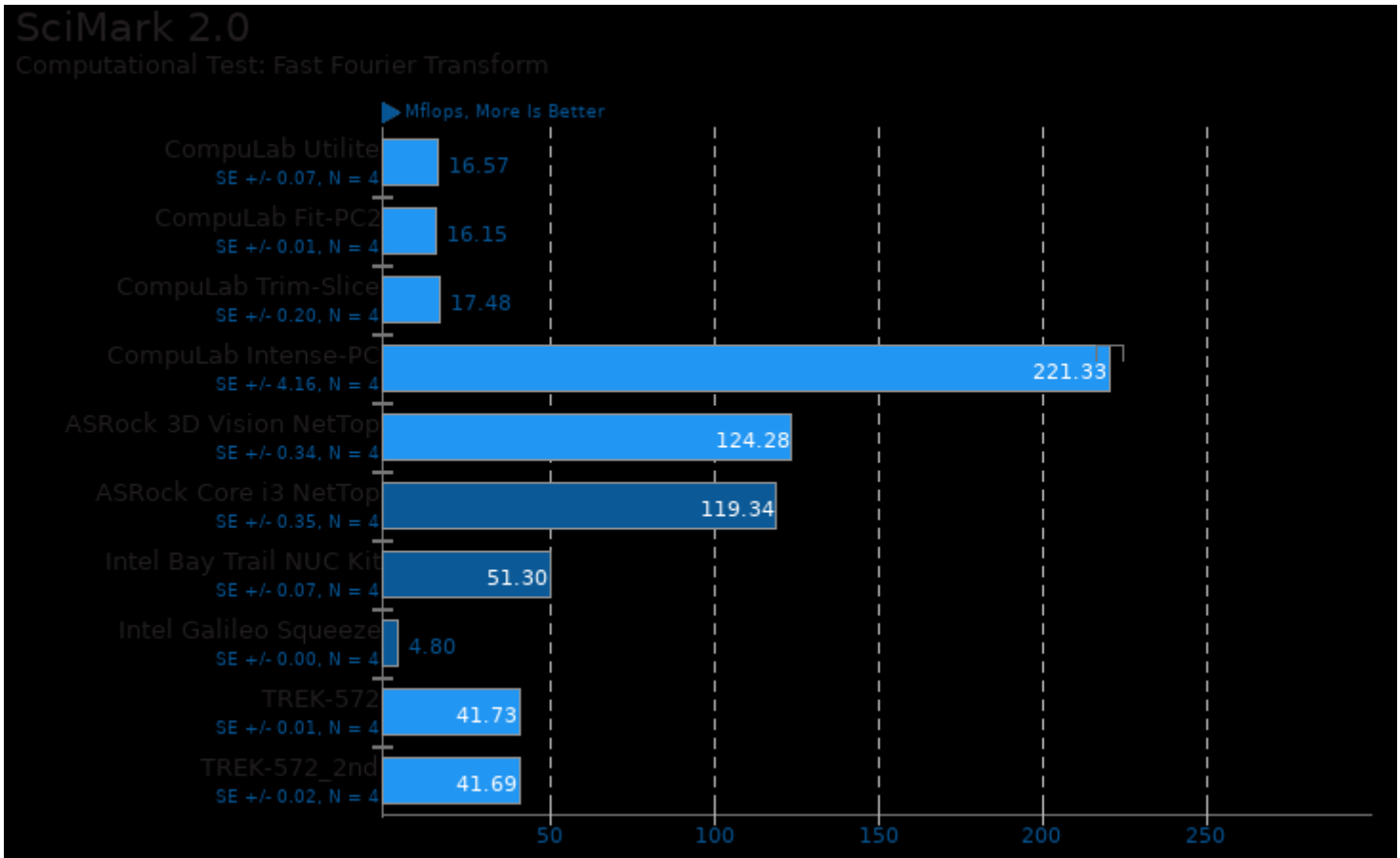


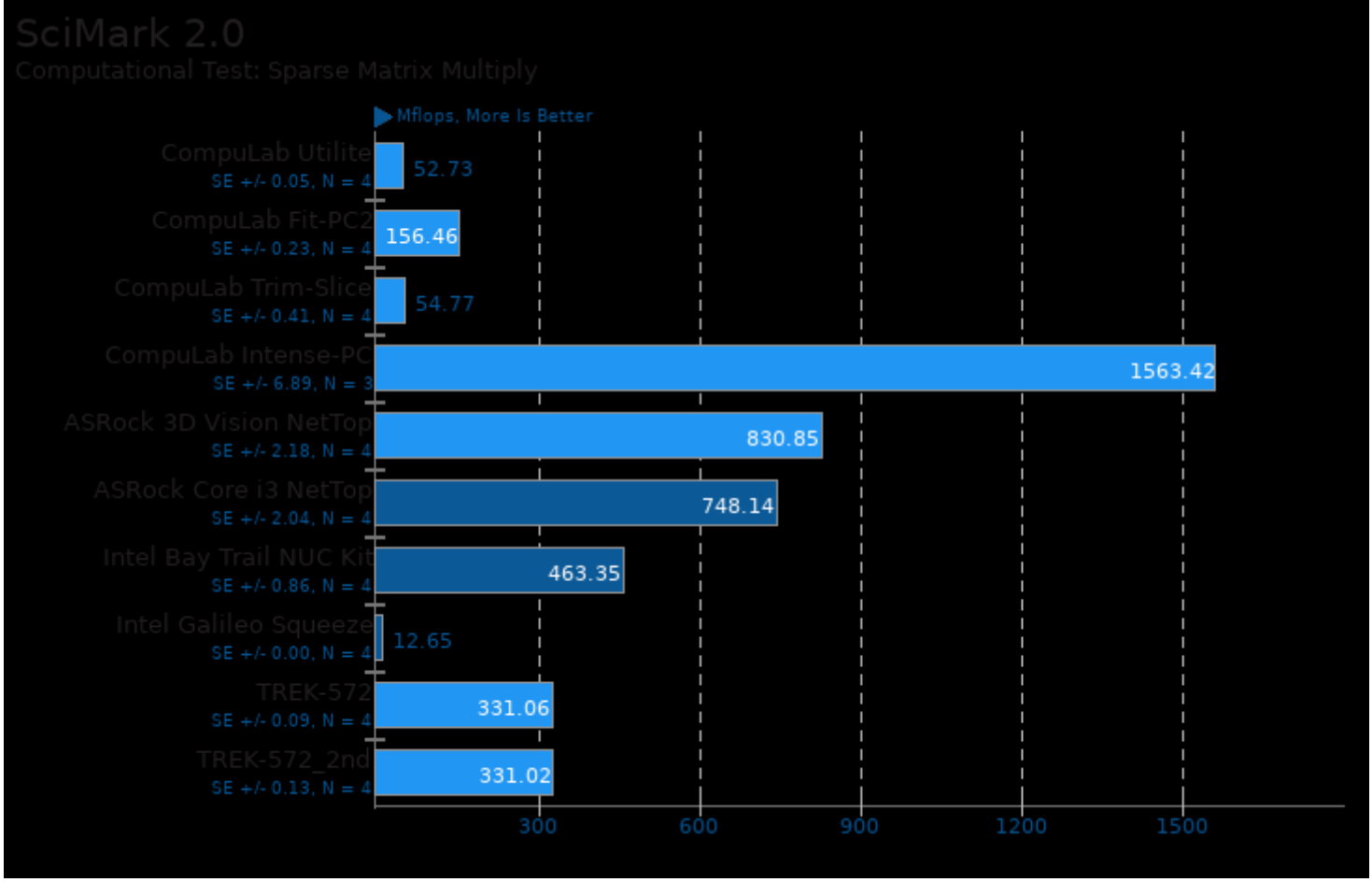
Intel Bay Trail NUC Kit Ubuntu Linux Comparison

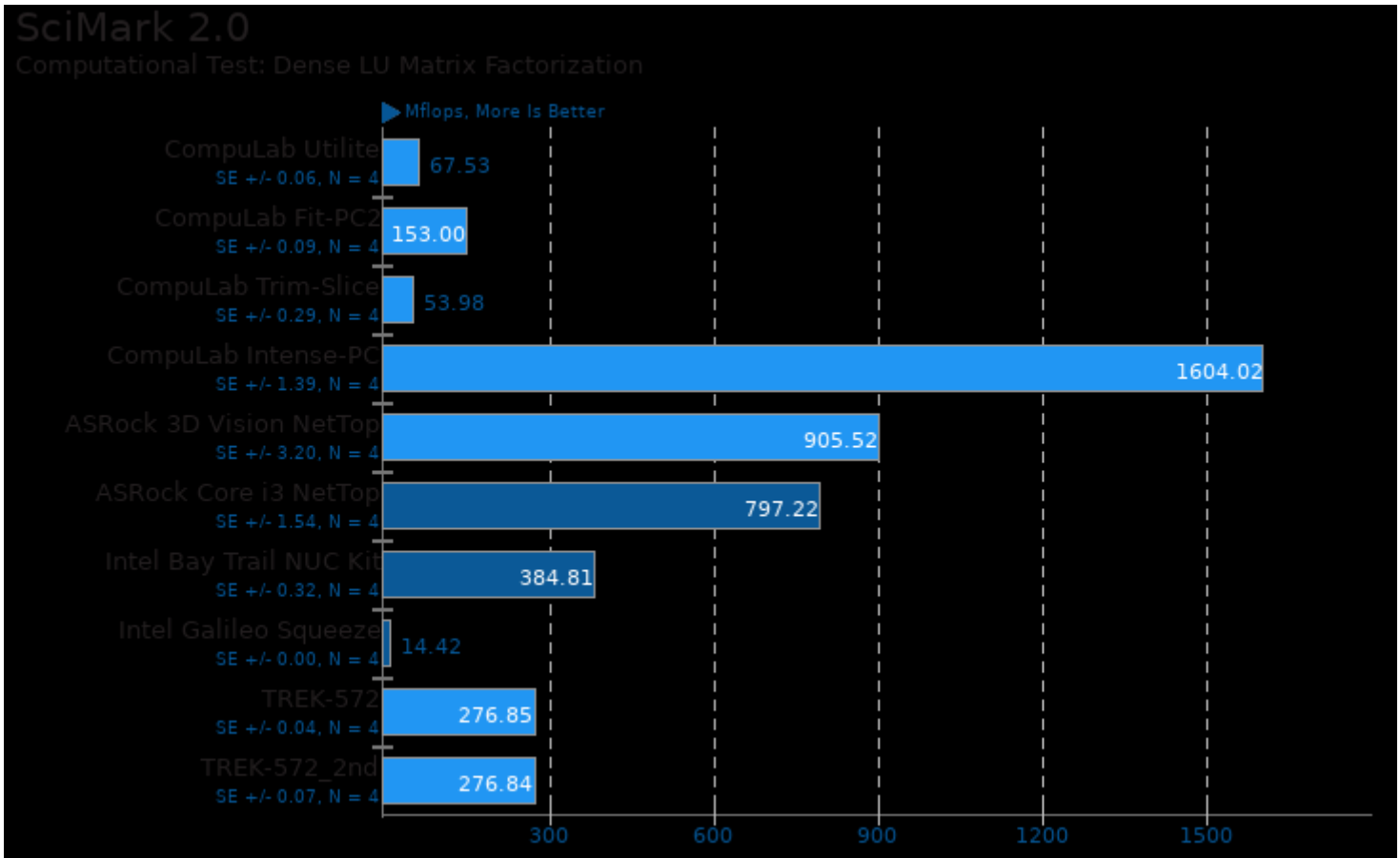


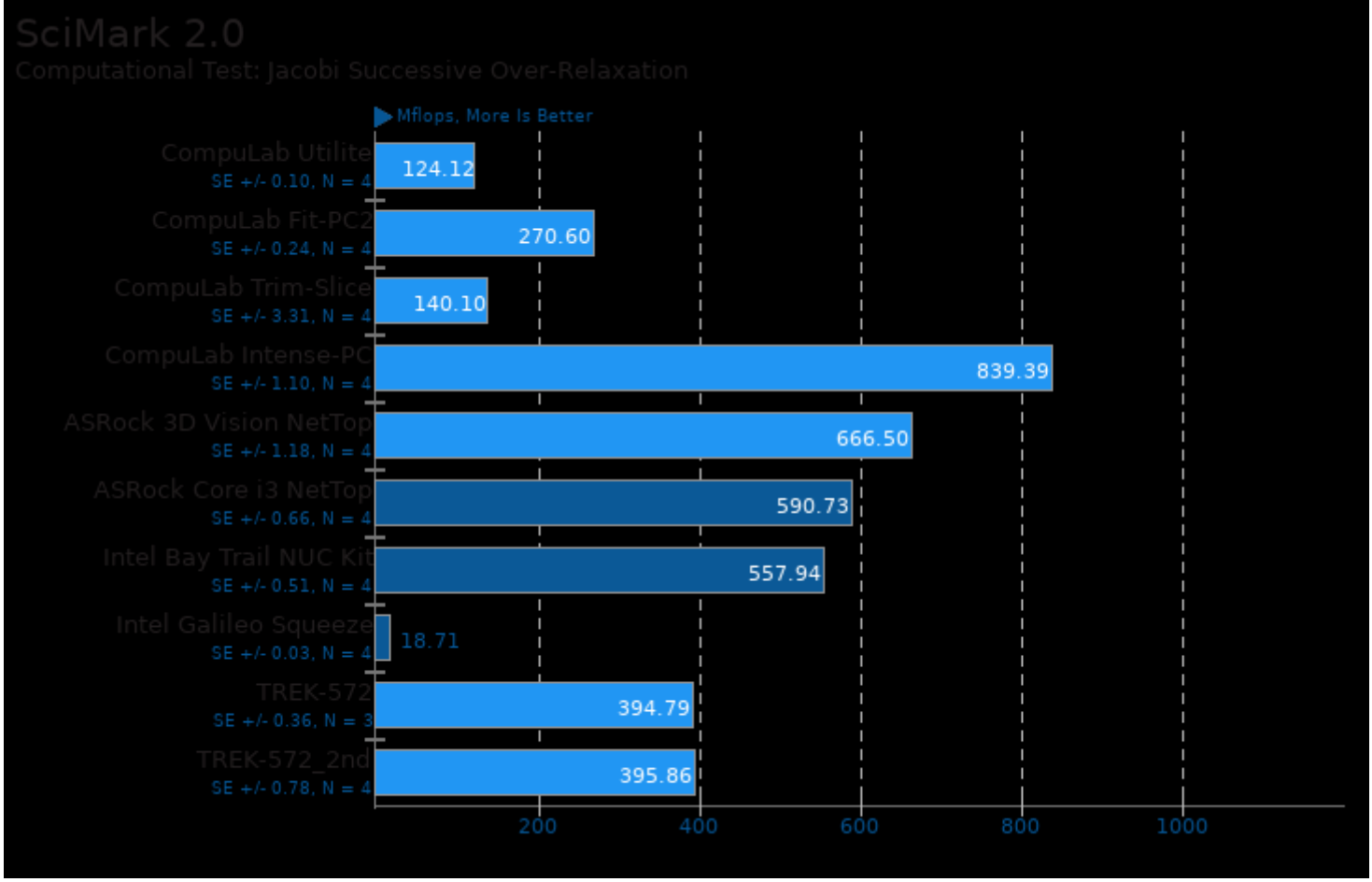

SciMark 2.0
Computational Test: Composite
Mflops, More Is Better
CompuLab Utilite
SE +/- 0.07, N = 4
62.15
CompuLab Fit-PC2
SE +/- 0.06, N = 4
128.86
CompuLab Trim-Slice
SE +/- 0.53, N = 4
64.53
CompuLab Intense-PC
SE +/- 2.13, N = 4
927.07
ASRock 3D Vision NetTop
SE +/- 1.02, N = 4
563.63
ASRock Core i3 NetTop
SE +/- 0.72, N = 4
502.71
Intel Bay Trail NUC Kit
SE +/- 0.32, N = 4
323.06
Intel Galileo Squeeze
SE +/- 0.01, N = 4
11.65
TREK-572
SE +/- 0.11, N = 4
226.94
TREK-572_2nd
SE +/- 0.15, N = 4
227.23
200
400
600
800
1000


SciMark 2.0
Computational Test: Monte Carlo
Mflops, More Is Better
CompuLab Utilite
SE +/- 0.09, N = 4
49.80
CompuLab Fit-PC2
SE +/- 0.00, N = 4
48.11
CompuLab Trim-Slice
SE +/- 0.95, N = 4
56.33
CompuLab Intense-PC
SE +/- 0.71, N = 4
398.05
ASRock 3D Vision NetTop
SE +/- 0.32, N = 4
290.99
ASRock Core i3 NetTop
SE +/- 0.00, N = 4
258.11
Intel Bay Trail NUC Kit
SE +/- 0.00, N = 4
157.90
Intel Galileo Squeeze
SE +/- 0.00, N = 4
7.66
TREK-572
SE +/- 0.01, N = 4
90.74
TREK-572_2nd
SE +/- 0.01, N = 4
90.71
90
180
270
360
450

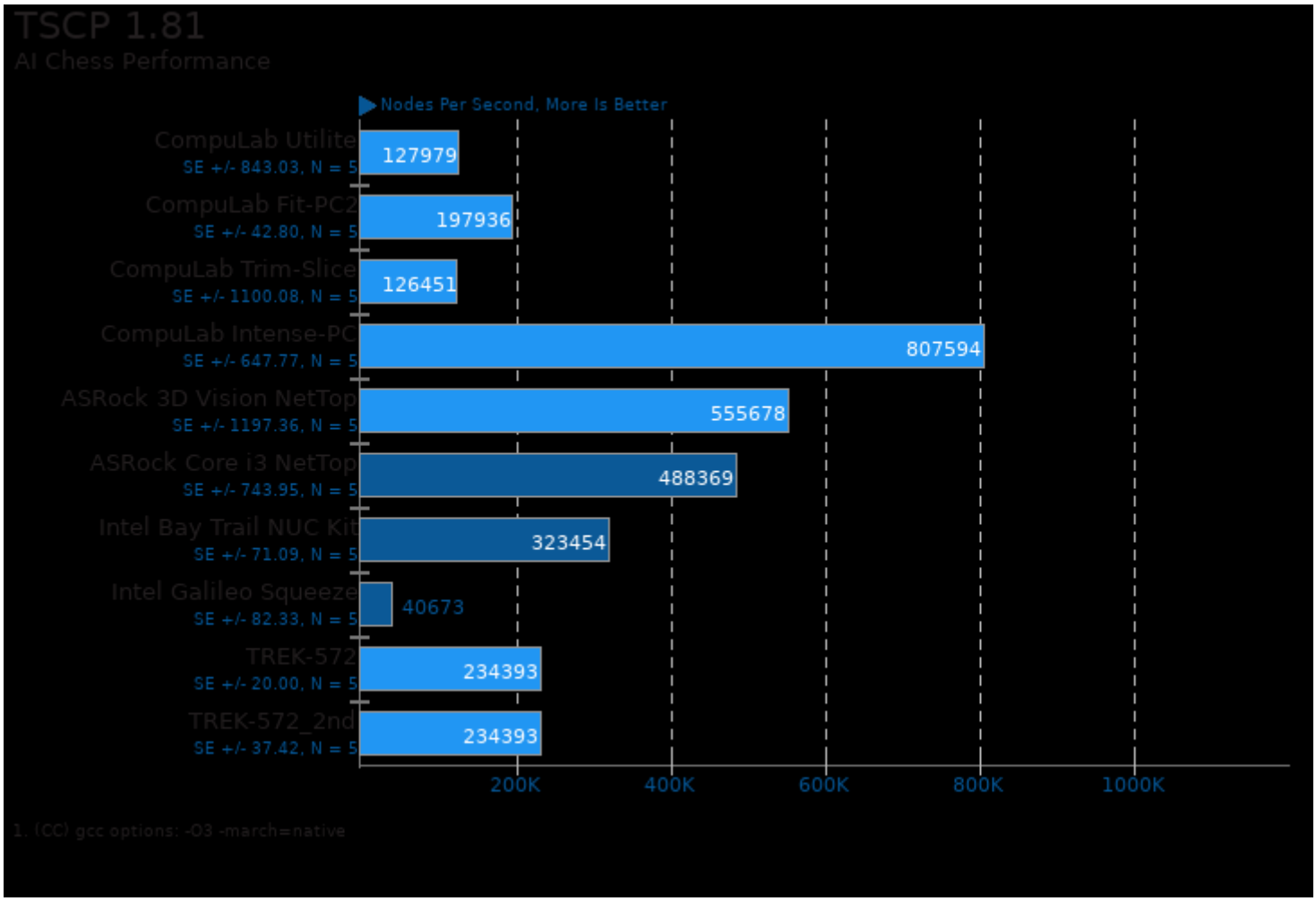

SciMark 2.0
Computational Test: Fast Fourier Transform
Mflops, More Is Better
CompuLab Utilite
SE +/- 0.07, N = 4
16.57
CompuLab Fit-PC2
SE +/- 0.01, N = 4
16.15
CompuLab Trim-Slice
SE +/- 0.20, N = 4
17.48
CompuLab Intense-PC
SE +/- 4.16, N = 4
221.33
ASRock 3D Vision NetTop
SE +/- 0.34, N = 4
124.28
ASRock Core i3 NetTop
SE +/- 0.35, N = 4
119.34
Intel Bay Trail NUC Kit
SE +/- 0.07, N = 4
51.30
Intel Galileo Squeeze
SE +/- 0.00, N = 4
4.80
TREK-572
SE +/- 0.01, N = 4
41.73
TREK-572_2nd
SE +/- 0.02, N = 4
41.69
50
100
150
200
250


SciMark 2.0
Computational Test: Sparse Matrix Multiply
Mflops, More Is Better
CompuLab Utilite
SE +/- 0.05, N = 4
52.73
CompuLab Fit-PC2
SE +/- 0.23, N = 4
156.46
CompuLab Trim-Slice
SE +/- 0.41, N = 4
54.77
CompuLab Intense-PC
SE +/- 6.89, N = 3
1563.42
ASRock 3D Vision NetTop
SE +/- 2.18, N = 4
830.85
ASRock Core i3 NetTop
SE +/- 2.04, N = 4
748.14
Intel Bay Trail NUC Kit
SE +/- 0.86, N = 4
463.35
Intel Galileo Squeeze
SE +/- 0.00, N = 4
12.65
TREK-572
SE +/- 0.09, N = 4
331.06
TREK-572_2nd
SE +/- 0.13, N = 4
331.02
300
600
900
1200
1500

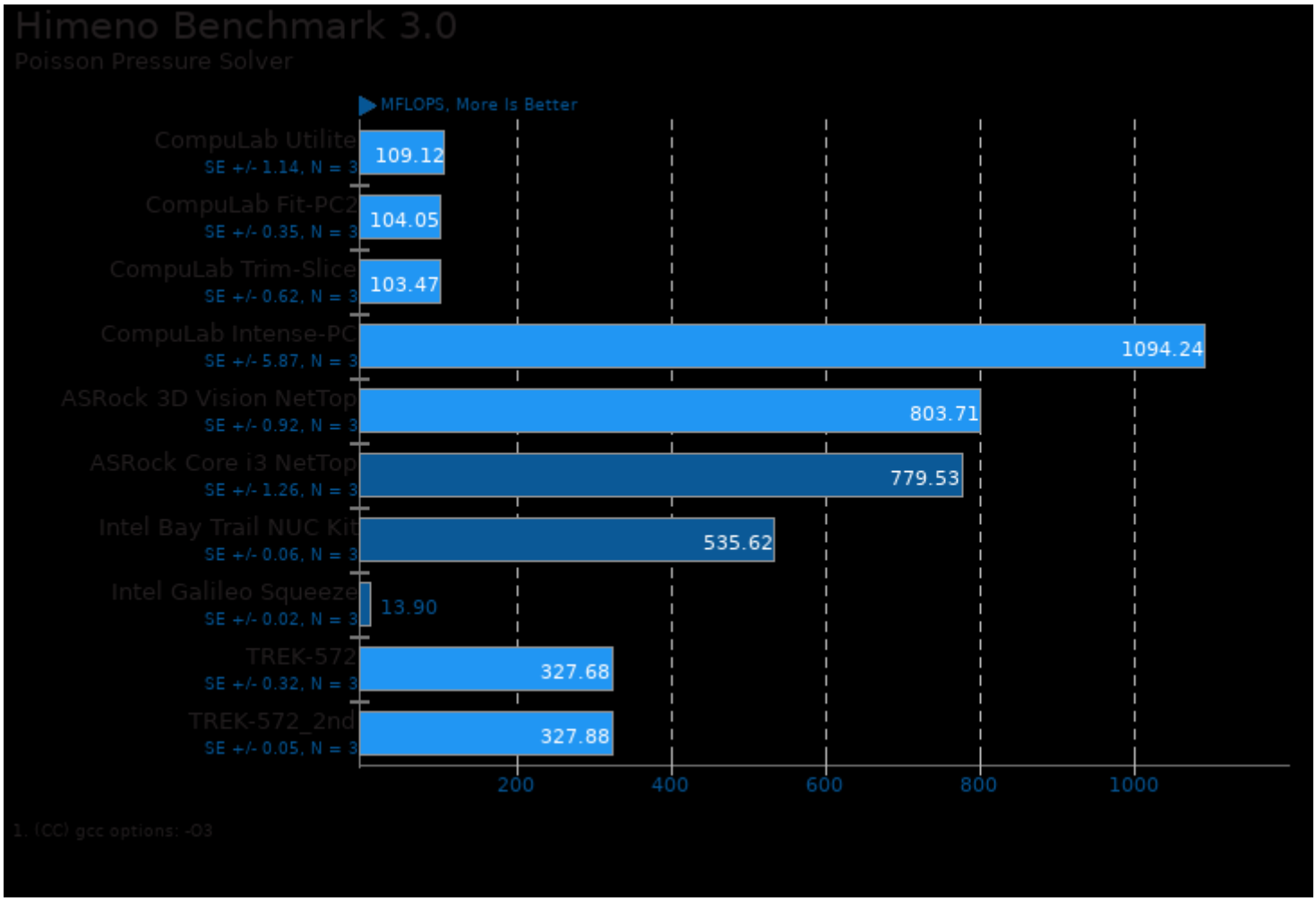

SciMark 2.0
Computational Test: Dense LU Matrix Factorization
Mflops, More Is Better
CompuLab Utilite
SE +/- 0.06, N = 4
67.53
CompuLab Fit-PC2
SE +/- 0.09, N = 4
153.00
CompuLab Trim-Slice
SE +/- 0.29, N = 4
53.98
CompuLab Intense-PC
SE +/- 1.39, N = 4
1604.02
ASRock 3D Vision NetTop
SE +/- 3.20, N = 4
905.52
ASRock Core i3 NetTop
SE +/- 1.54, N = 4
797.22
Intel Bay Trail NUC Kit
SE +/- 0.32, N = 4
384.81
Intel Galileo Squeeze
SE +/- 0.00, N = 4
14.42
TREK-572
SE +/- 0.04, N = 4
276.85
TREK-572_2nd
SE +/- 0.07, N = 4
276.84
300
600
900
1200
1500


SciMark 2.0
Computational Test: Jacobi Successive Over-Relaxation
Mflops, More Is Better
CompuLab Utilite
SE +/- 0.10, N = 4
124.12
CompuLab Fit-PC2
SE +/- 0.24, N = 4
270.60
CompuLab Trim-Slice
SE +/- 3.31, N = 4
140.10
CompuLab Intense-PC
SE +/- 1.10, N = 4
839.39
ASRock 3D Vision NetTop
SE +/- 1.18, N = 4
666.50
ASRock Core i3 NetTop
SE +/- 0.66, N = 4
590.73
Intel Bay Trail NUC Kit
SE +/- 0.51, N = 4
557.94
Intel Galileo Squeeze
SE +/- 0.03, N = 4
18.71
TREK-572
SE +/- 0.36, N = 3
394.79
TREK-572_2nd
SE +/- 0.78, N = 4
395.86
200
400
600
800
1000

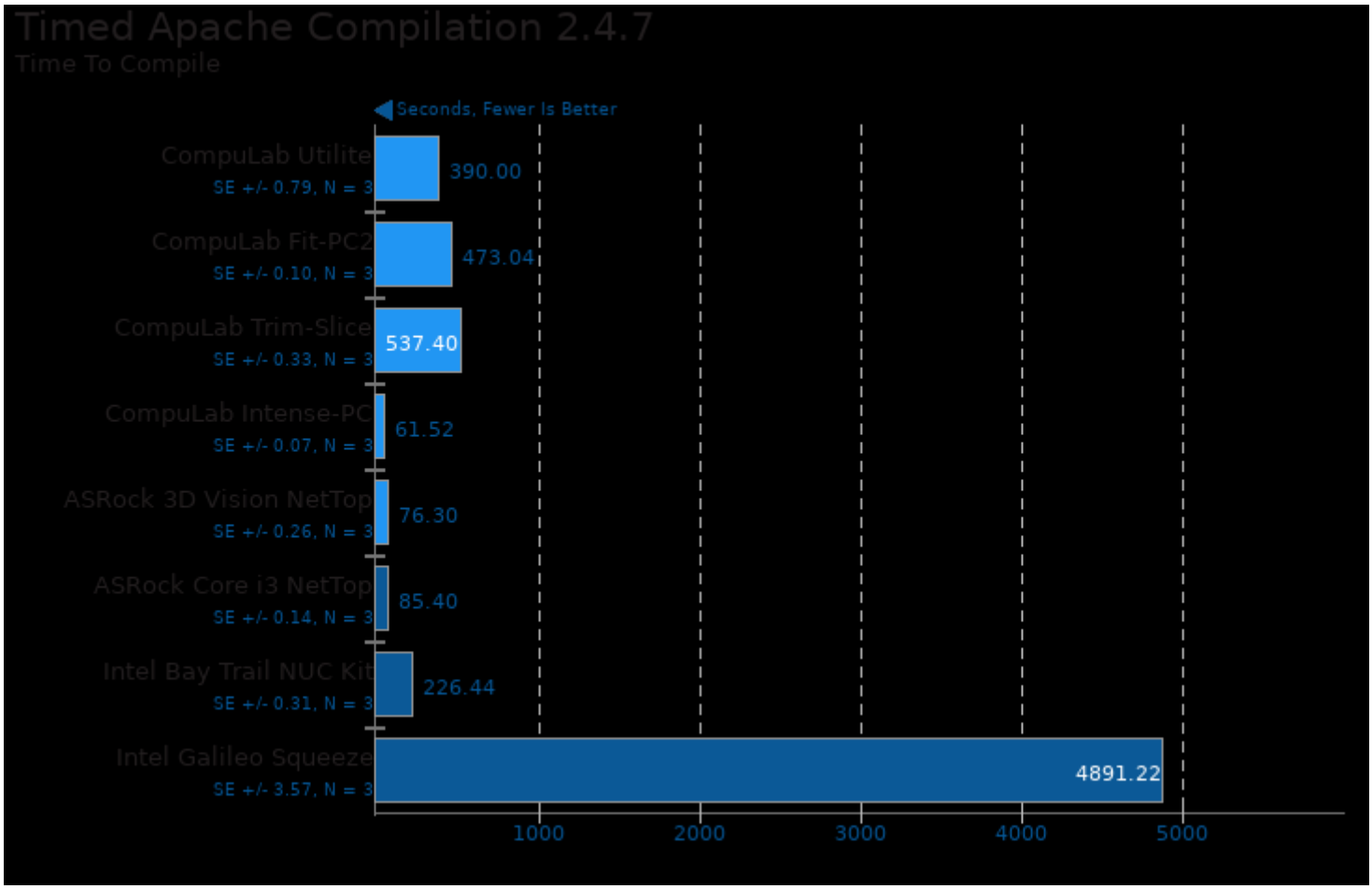
Intel Bay Trail NUC Kit Ubuntu Linux Comparison



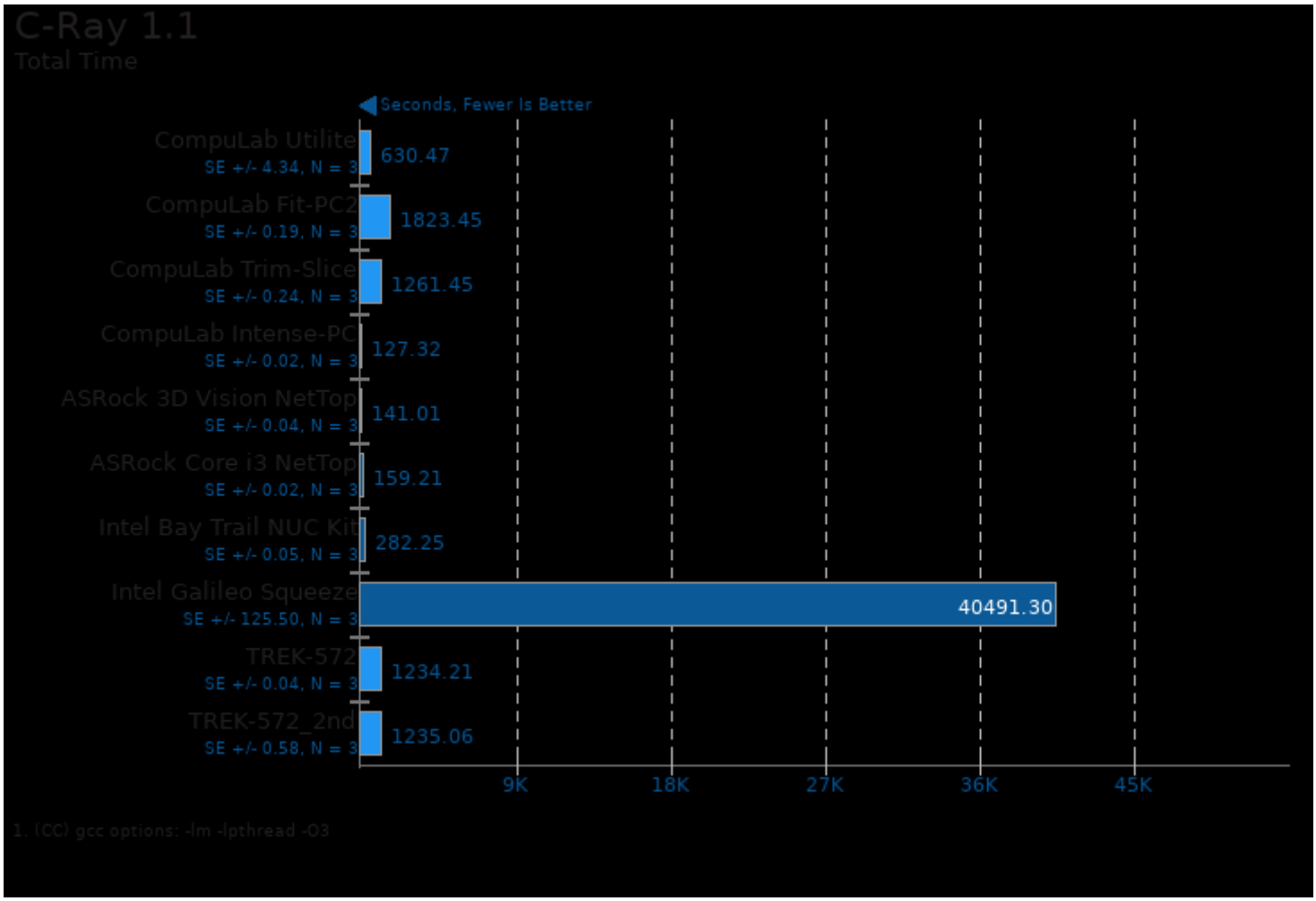
Intel Bay Trail NUC Kit Ubuntu Linux Comparison



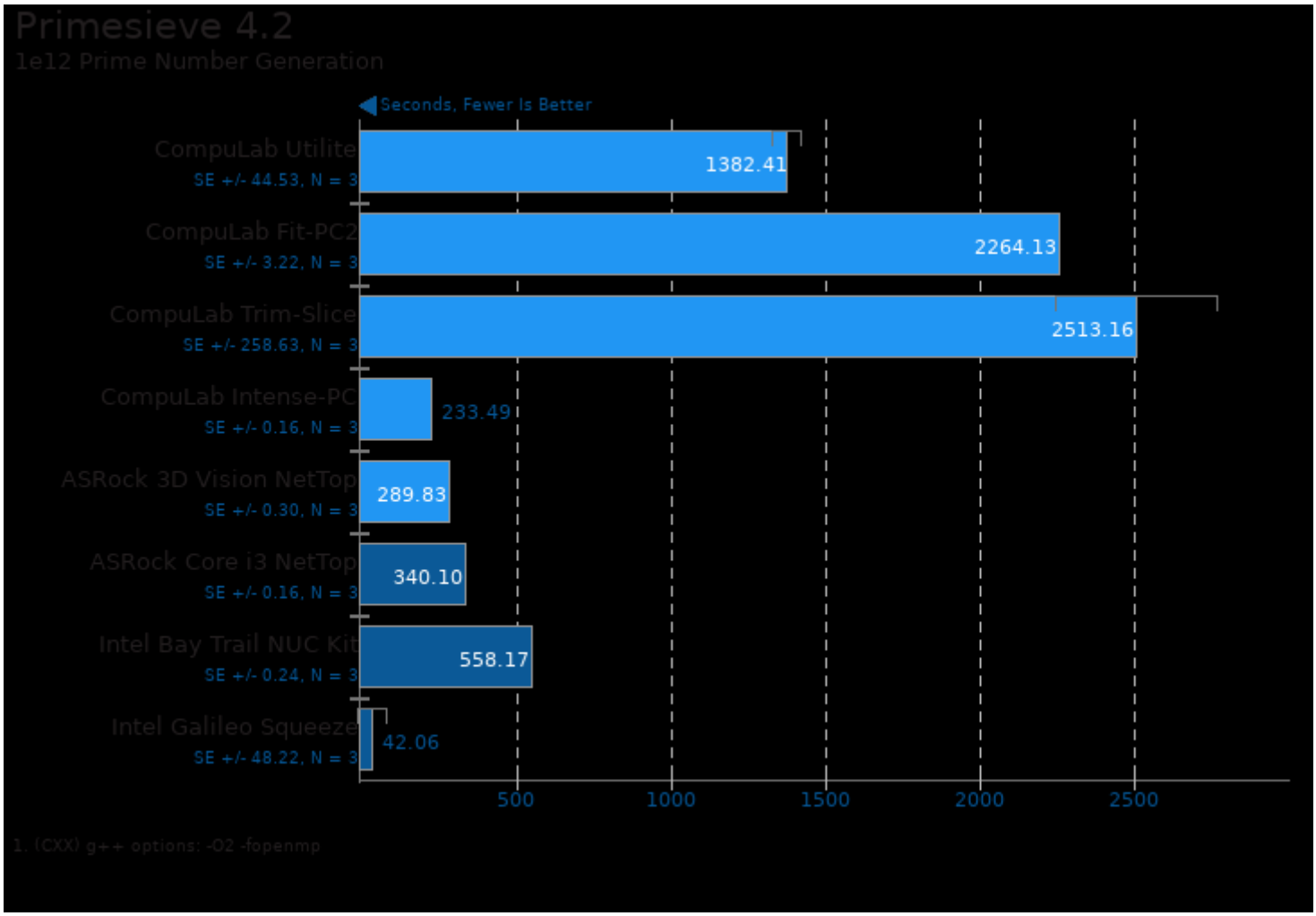
Intel Bay Trail NUC Kit Ubuntu Linux Comparison



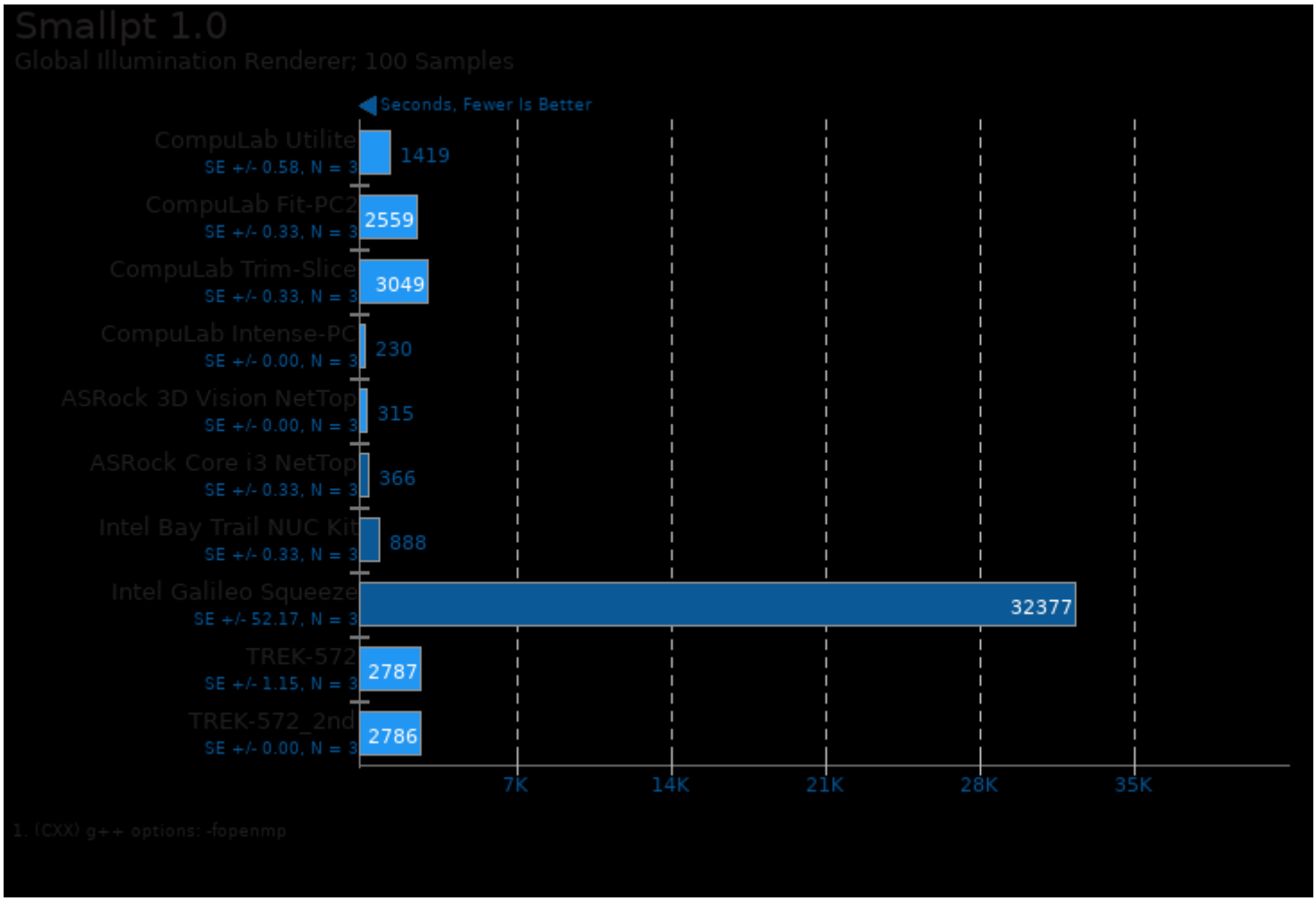
Intel Bay Trail NUC Kit Ubuntu Linux Comparison



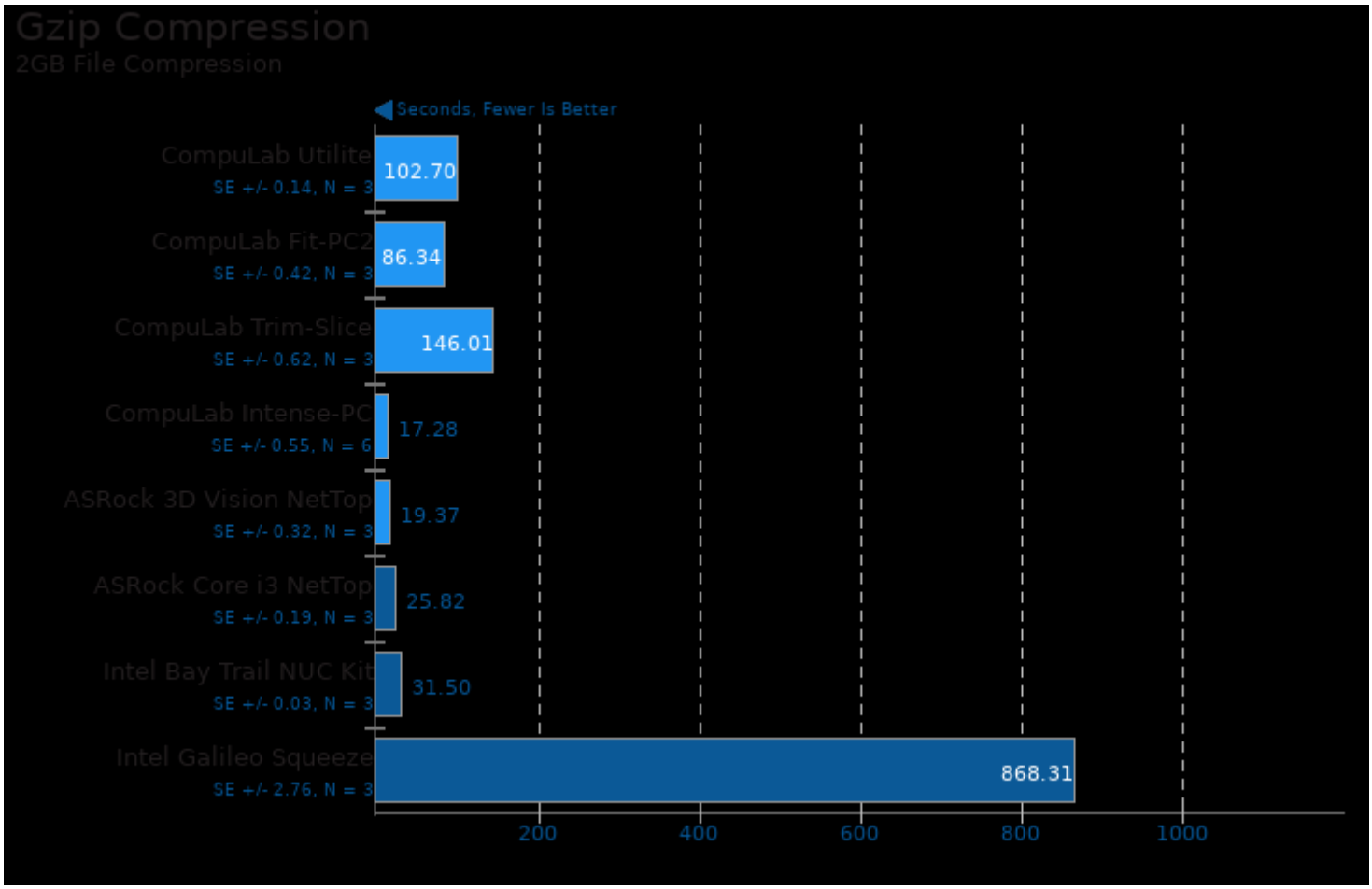
Intel Bay Trail NUC Kit Ubuntu Linux Comparison



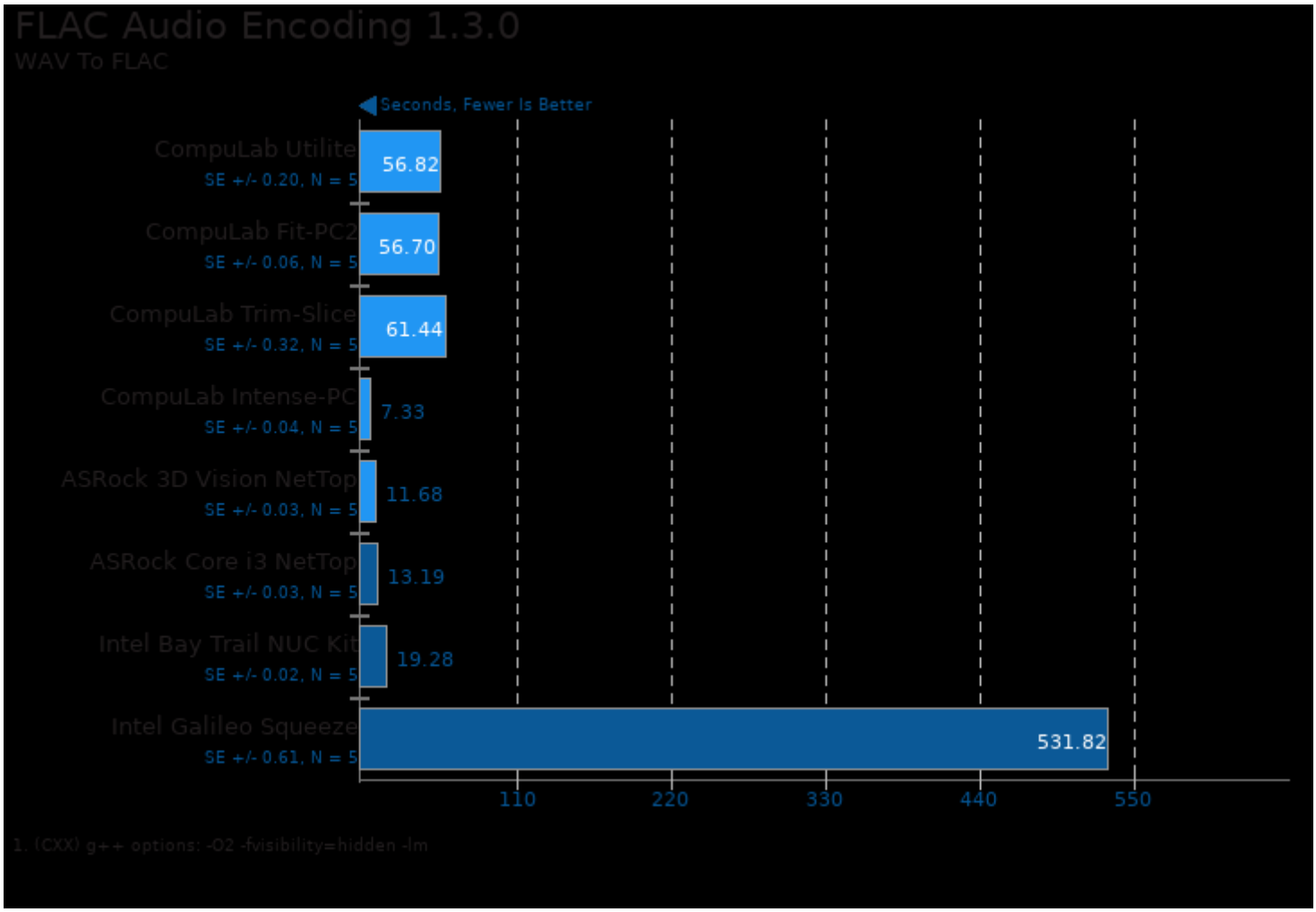
Intel Bay Trail NUC Kit Ubuntu Linux Comparison

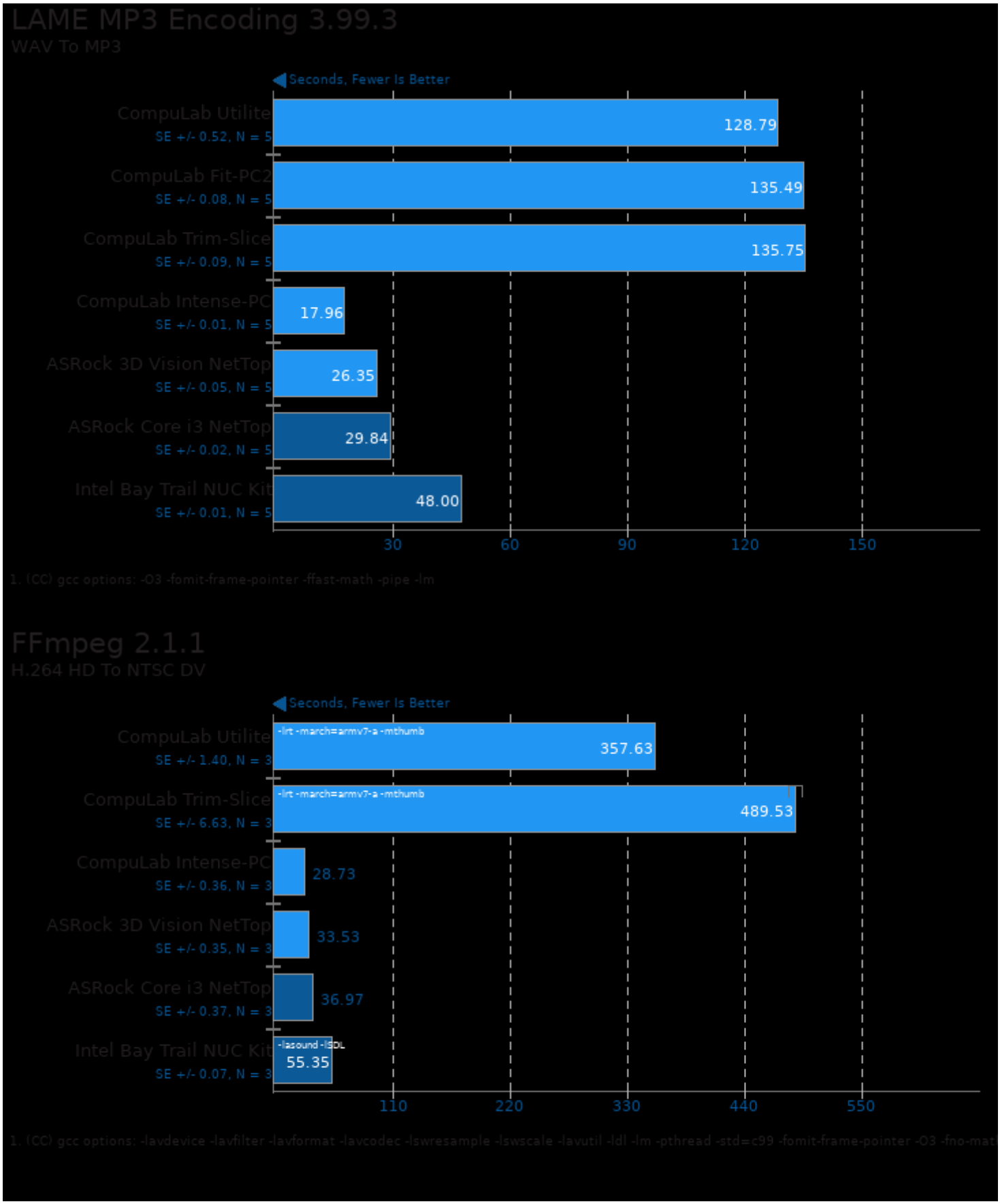


Intel Bay Trail NUC Kit Ubuntu Linux Comparison

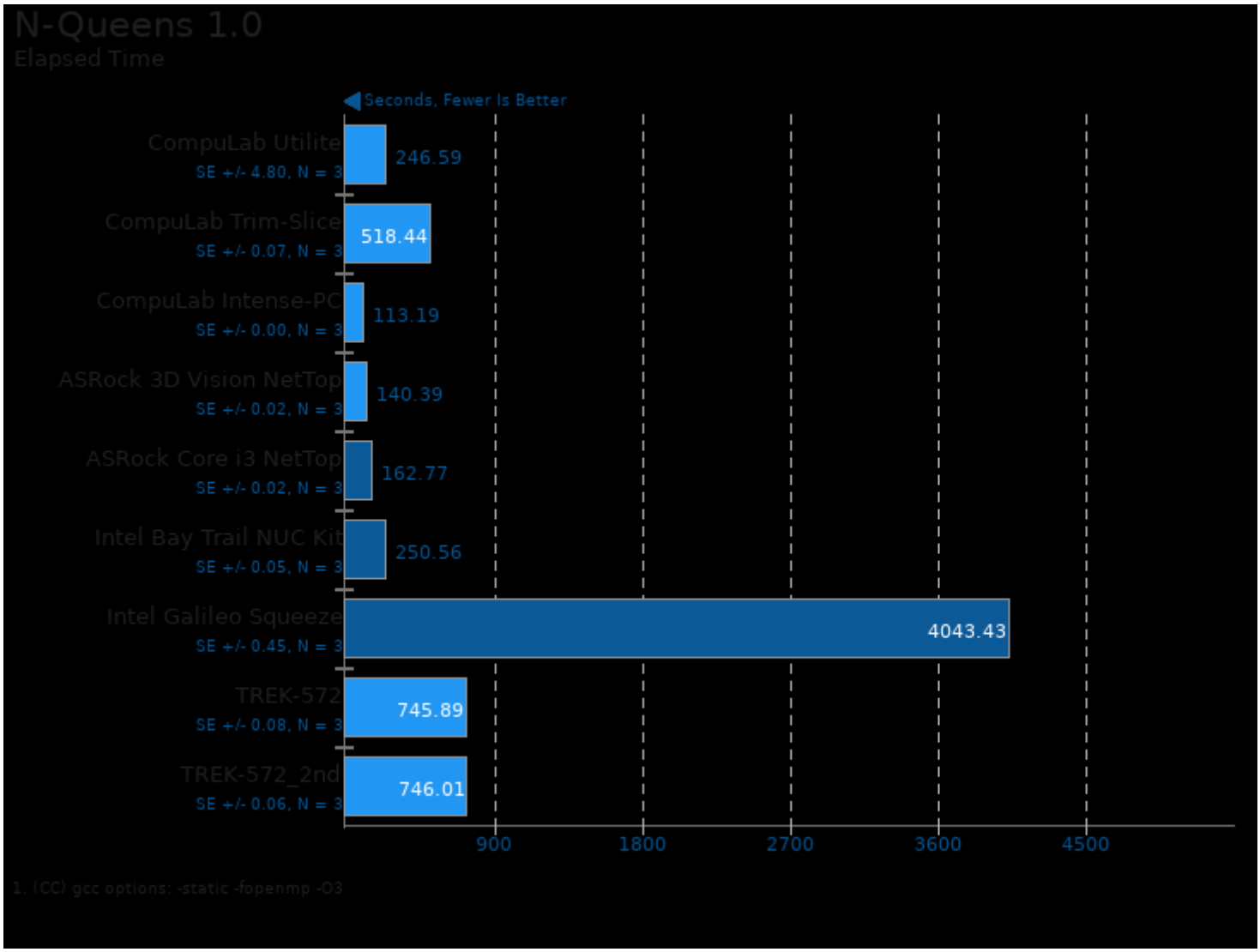


Intel Bay Trail NUC Kit Ubuntu Linux Comparison

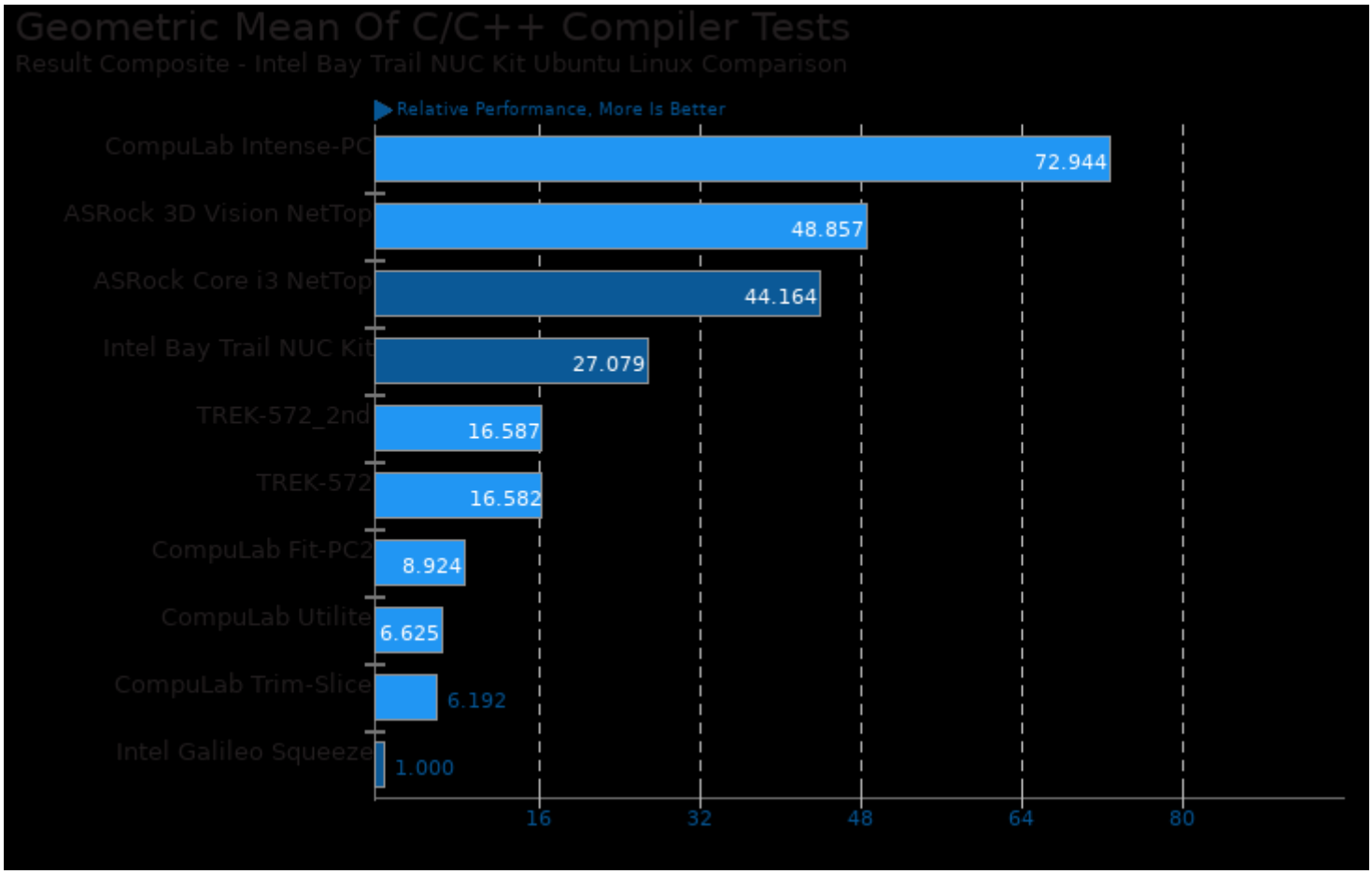



LAME MP3 Encoding 3.99.3
WAV To MP3
Seconds, Fewer Is Better
CompuLab Utilite
SE +/- 0.52, N = 5
128.79
CompuLab Fit-PC2
SE +/- 0.08, N = 5
135.49
CompuLab Trim-Slice
SE +/- 0.09, N = 5
135.75
CompuLab Intense-PC
SE +/- 0.01, N = 5
17.96
ASRock 3D Vision NetTop
SE +/- 0.05, N = 5
26.35
ASRock Core i3 NetTop
SE +/- 0.02, N = 5
29.84
Intel Bay Trail NUC Kit
SE +/- 0.01, N = 5
48.00
30
60
90
120
150
1. (CC) gcc options: -O3 -fomit-frame-pointer -ffast-math -pipe -lm
FFmpeg 2.1.1
H.264 HD To NTSC DV
Seconds, Fewer Is Better
CompuLab Utilite
SE +/- 1.40, N = 3
-lrt -march=armv7-a -mthumb
357.63
CompuLab Trim-Slice
SE +/- 6.63, N = 3
-lrt -march=armv7-a -mthumb
489.53
CompuLab Intense-PC
SE +/- 0.36, N = 3
28.73
ASRock 3D Vision NetTop
SE +/- 0.35, N = 3
33.53
ASRock Core i3 NetTop
SE +/- 0.37, N = 3
36.97
Intel Bay Trail NUC Kit
SE +/- 0.07, N = 3
-lasound -lSDL
55.35
110
220
330
440
550
1. (CC) gcc options: -lavdevice -lavfilter -lavformat -lavcodec -lswresample -lswscale -lavutil -ldl -lm -pthread -std=c99 -fomit-frame-pointer -O3 -fno-mat

Intel Bay Trail NUC Kit Ubuntu Linux Comparison

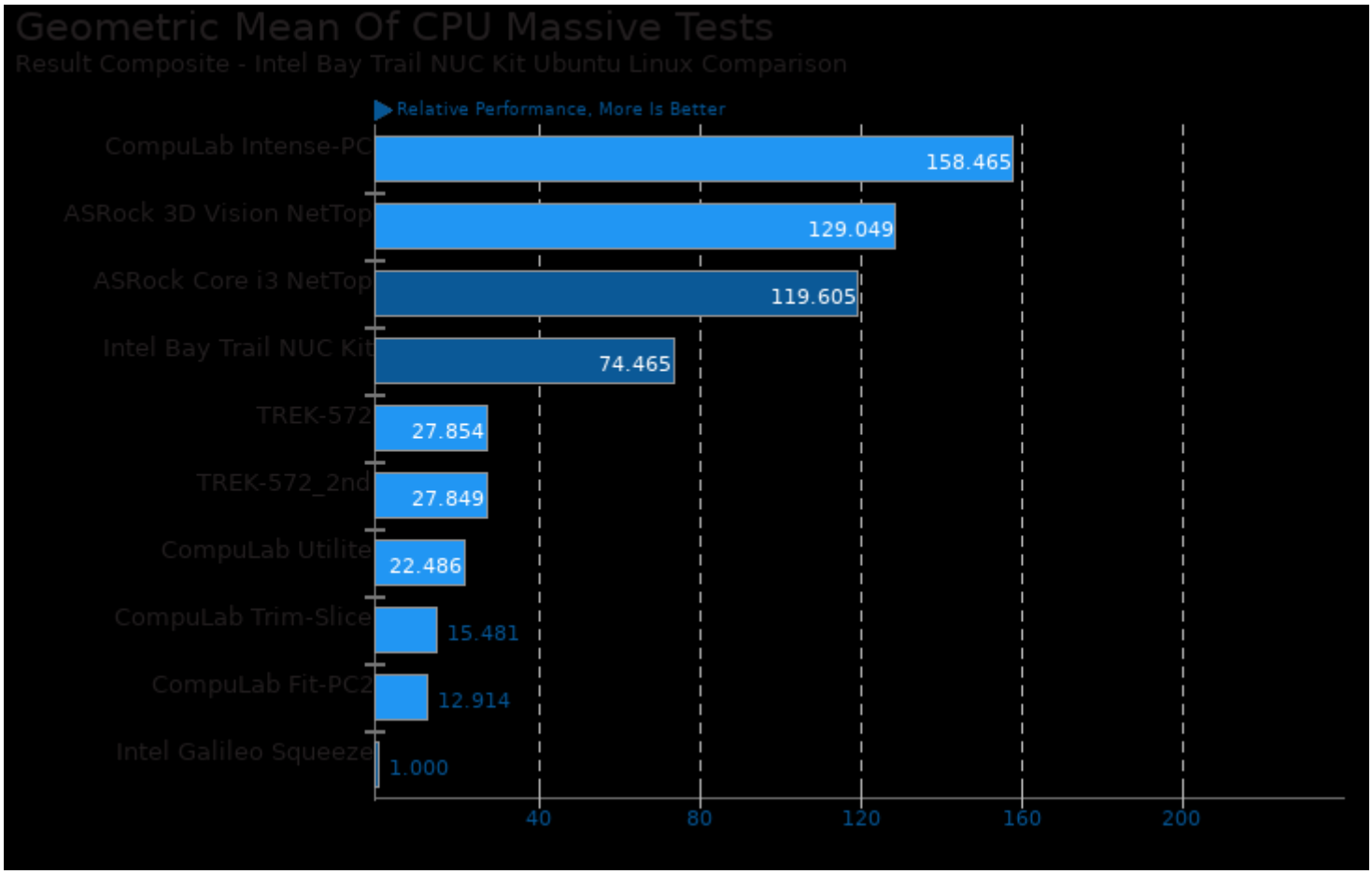


These geometric means are based upon test groupings / test suites for this result file.

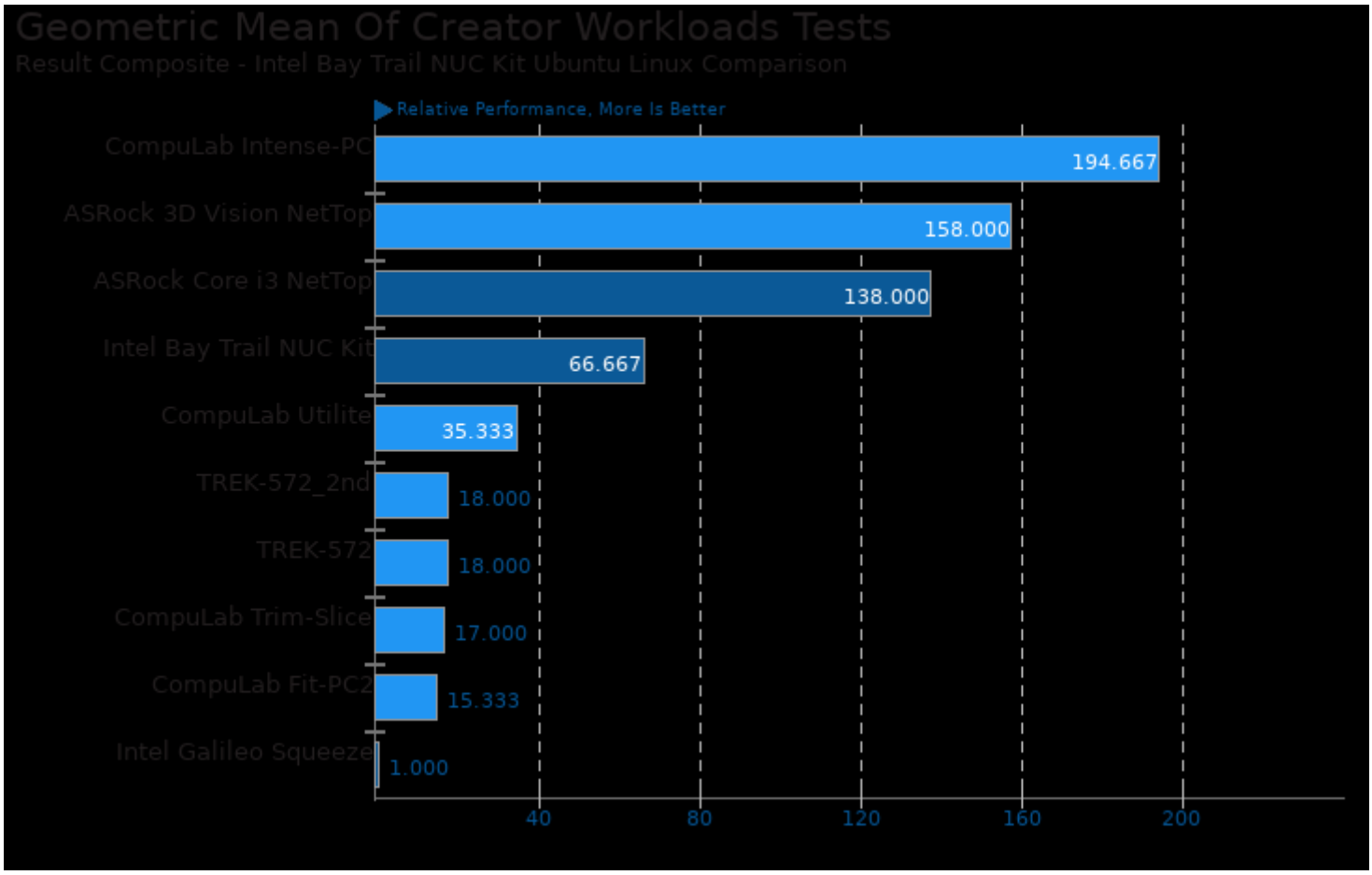


Geometric mean based upon tests: pts/scimark2, pts/tscp, pts/himeno, pts/c-ray, pts/encode-mp3, pts/encode-flac and pts/build-apache

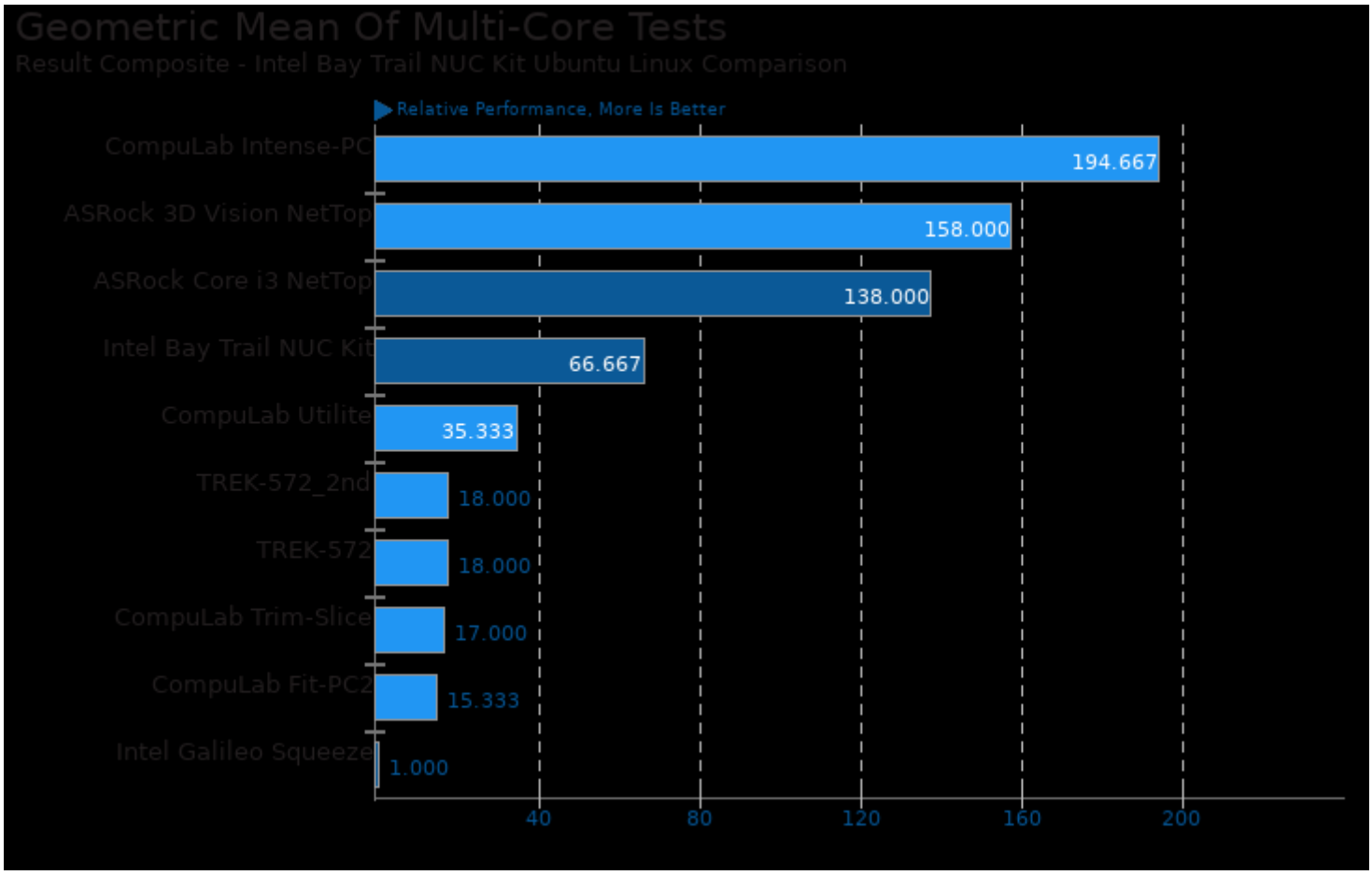
Intel Bay Trail NUC Kit Ubuntu Linux Comparison



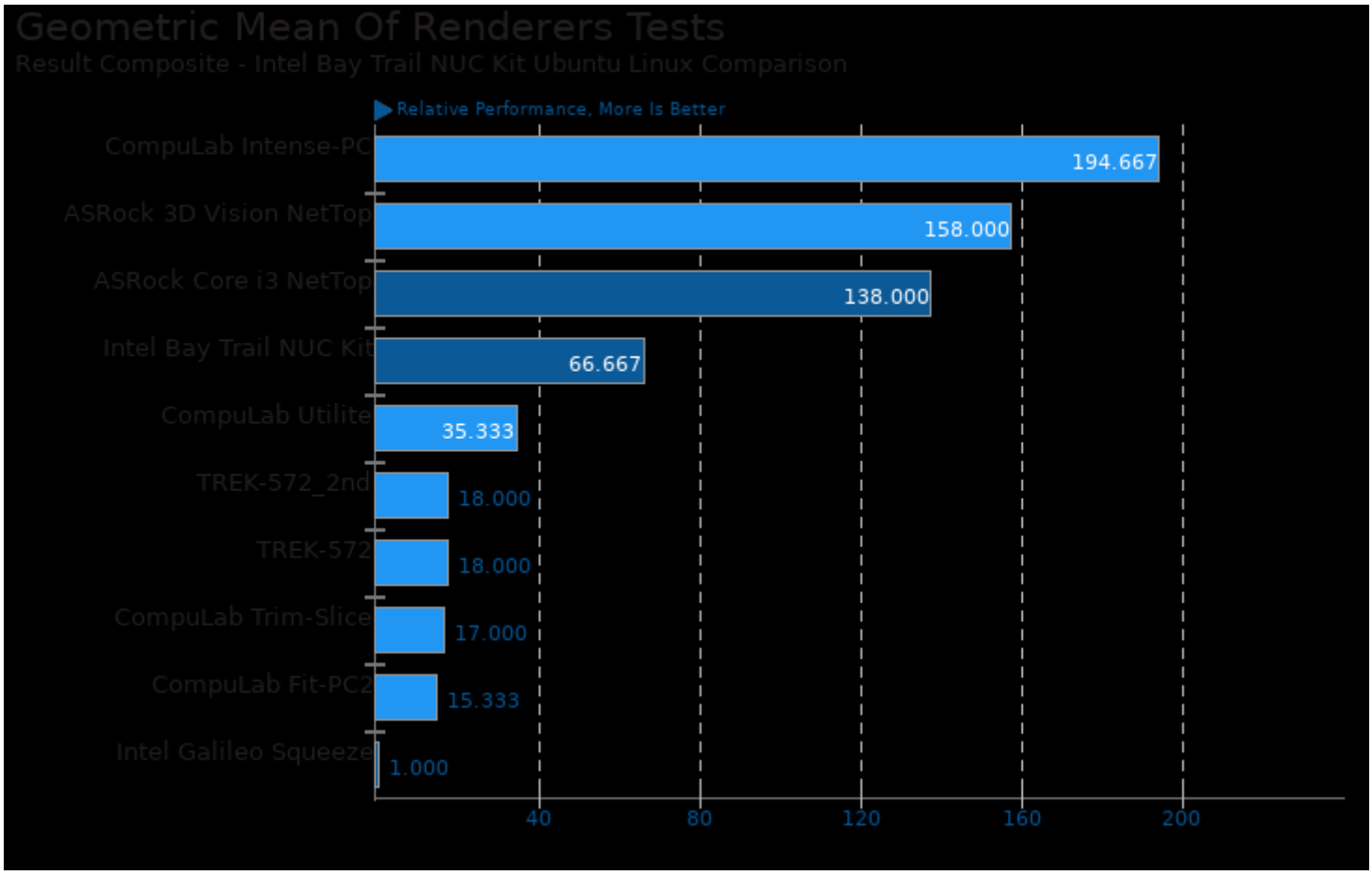
Geometric mean based upon tests: pts/build-apache, pts/c-ray, pts/dolfyn, pts/encode-flac, pts/encode-mp3, pts/himeno, pts/hpcc and pts/primesieve



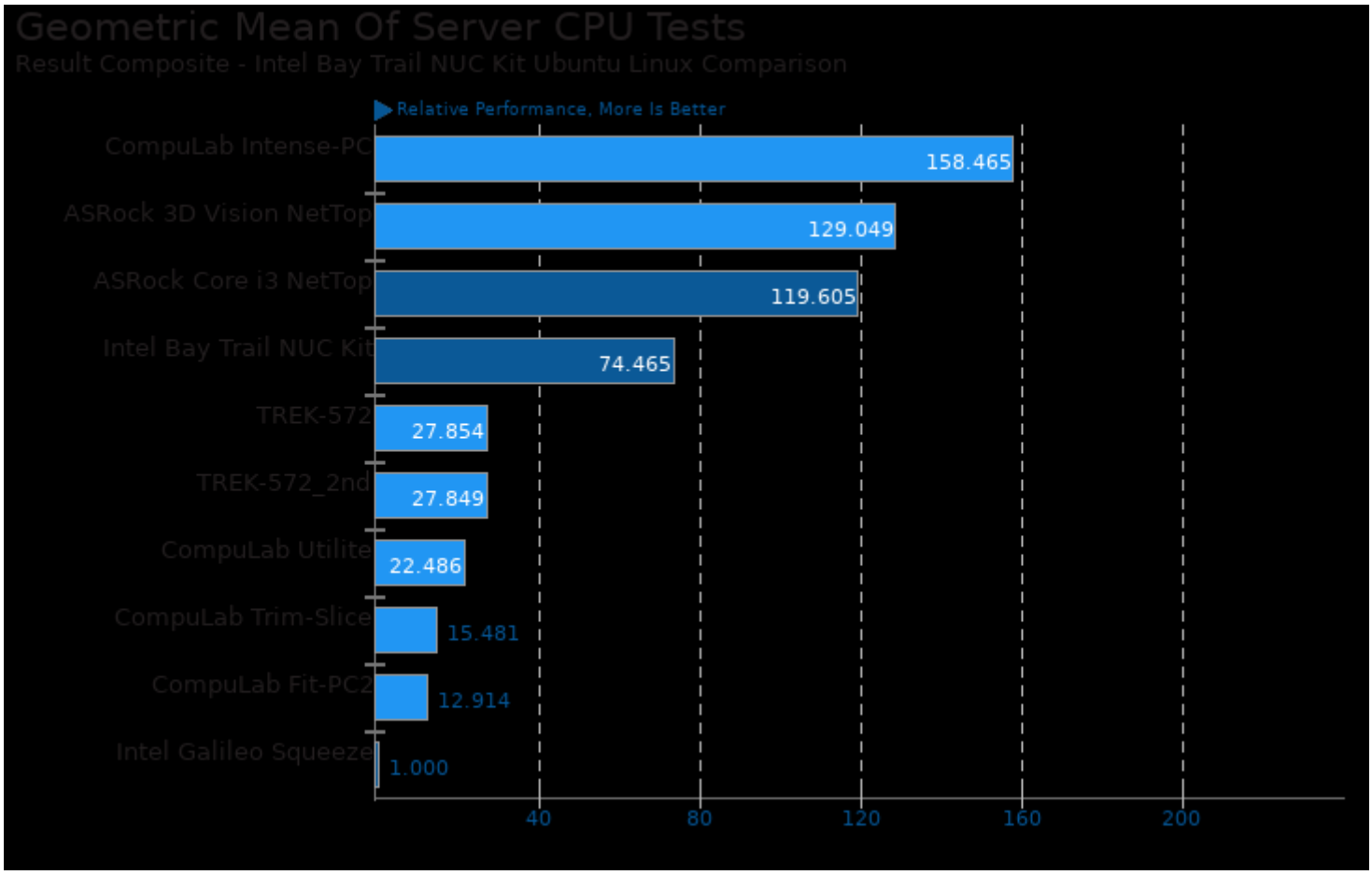
Geometric mean based upon tests: pts/c-ray, pts/smallpt, pts/ffmpeg, pts/encode-mp3 and pts/encode-flac



Geometric mean based upon tests: pts/c-ray, pts/n-queens, pts/ffmpeg, pts/primesieve, pts/smallpt and pts/build-apache

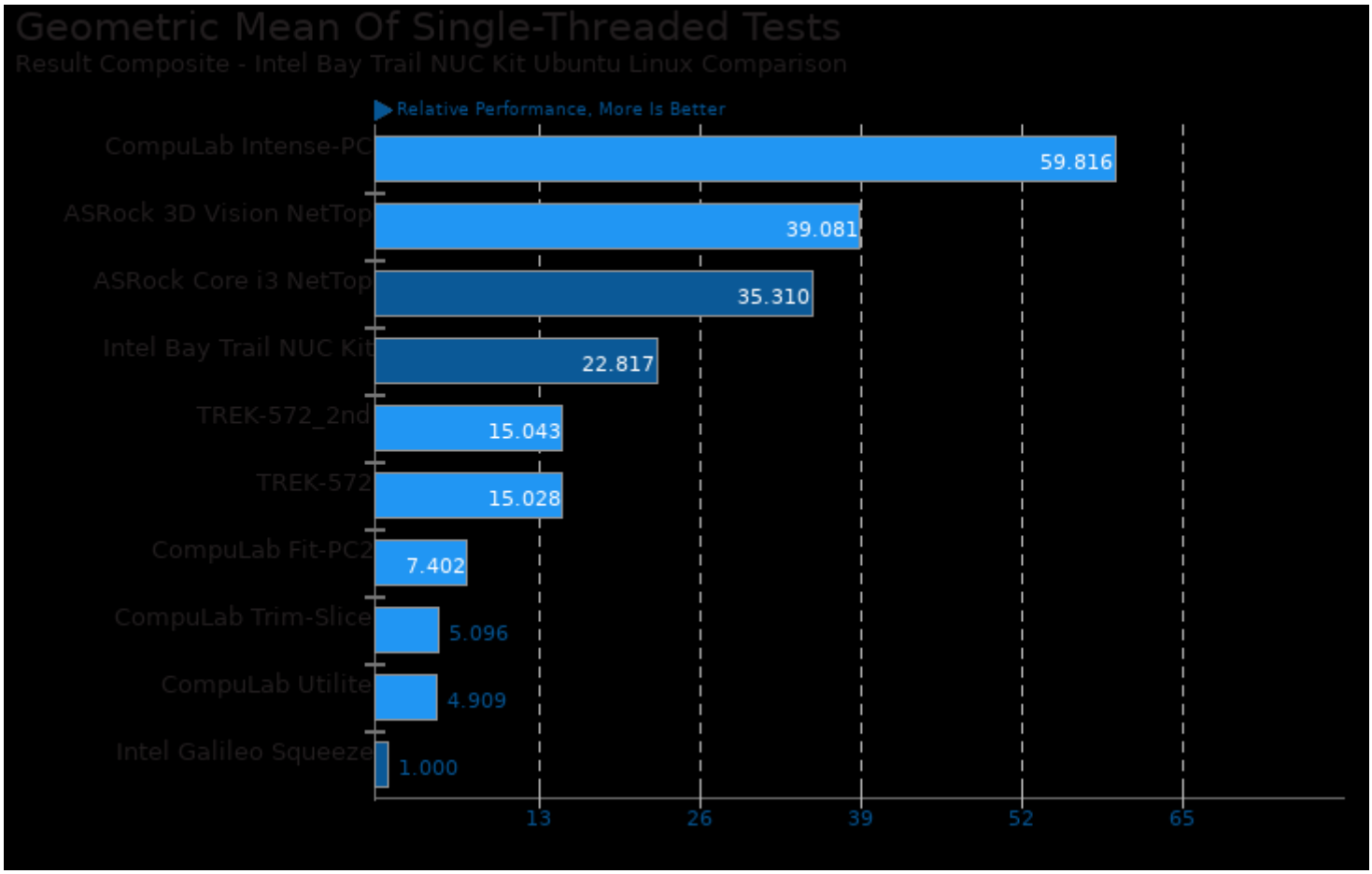


Geometric mean based upon tests: pts/c-ray and pts/smallpt



Geometric mean based upon tests: pts/himeno and pts/c-ray

Intel Bay Trail NUC Kit Ubuntu Linux Comparison



Geometric mean based upon tests: pts/polybench-c, pts/scimark2, pts/compress-gzip, pts/encode-flac and pts/encode-mp3

This file was automatically generated via the Phoronix Test Suite benchmarking software on Thursday, 28 March 2024 19:25.