



www.phoronix-test-suite.com

SiFive RISC-V HiFive Unmatched Benchmarks

SiFive RISC-V HiFive Unmatched Ubuntu Linux benchmarks by Michael Larabel for a future article.

Automated Executive Summary

HiFive Unmatched - Ubuntu 21.10 had the most wins, coming in first place for 98% of the tests.

Based on the geometric mean of all complete results, the fastest (HiFive Unmatched - Ubuntu 21.10) was 1.179x the speed of the slowest (HiFive Unmatched - Ubuntu 21.04).

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

Stress-NG (Test: SENDFILE) at 1.313x

Stress-NG (Test: Forking) at 1.282x

GraphicsMagick (Operation: Resizing) at 1.25x

PHPBench (PHP Benchmark Suite) at 1.24x

Monkey Audio Encoding (WAV To APE) at 1.237x

Coremark (CoreMark Size 666 - Iterations Per Second) at 1.227x

SecureMark (Benchmark: SecureMark-TLS) at 1.224x

Stress-NG (Test: CPU Stress) at 1.223x

Stress-NG (Test: Vector Math) at 1.214x

eSpeak-NG Speech Engine (Text-To-Speech Synthesis) at 1.211x.

Test Systems:

HiFive Unmatched - Ubuntu 21.04

Processor: SiFive RISC-V (4 Cores), Motherboard: SiFive HiFive Unmatched A00, Memory: 16GB, Disk: 1000GB Samsung SSD 980 1TB + 32GB SC32G, Graphics: Sapphire AMD Radeon HD 6770, Audio: AMD Juniper HDMI Audio, Monitor: LG Ultra HD

OS: Ubuntu 21.04, Kernel: 5.11.0-1018-generic (riscv64), Desktop: GNOME Shell 3.38.4, Display Server: X Server, Compiler: GCC 10.3.0, File-System: ext4, Screen Resolution: 1920x1080

Compiler Notes: --build=riscv64-linux-gnu --disable-libitm --disable-libquadmath --disable-libquadmath-support --disable-lbsanitizer --disable-multilib --disable-werror --enable-checking=release --enable-clocale=gnu --enable-default-pie --enable-gnu-unique-object --enable-languages=c,ada,c++,go,d,fortran,objc,obj-c++,m2 --enable-libphobos-checking=release --enable-libstdcxx-debug --enable-libstdcxx-time=yes --enable-multiarch --enable-nls --enable-objc-gc=auto --enable-plugin --enable-shared --enable-threads=posix --host=riscv64-linux-gnu --program-prefix=riscv64-linux-gnu- --target=riscv64-linux-gnu --with-abi=lp64d --with-arch=rv64imafdc --with-default-libstdcxx-abi=new --with-gcc-major-version-only --with-target-system-zlib=auto -v
Python Notes: Python 3.9.5

HiFive Unmatched - Ubuntu 21.10

Processor: SiFive RISC-V (4 Cores), Motherboard: SiFive HiFive Unmatched A00, Chipset: SiFive FU740-C000 RISC-V SoC, Memory: 16GB, Disk: 1000GB Samsung SSD 980 1TB + 32GB SC32G, Graphics: Sapphire AMD Radeon HD 6770, Audio: AMD Juniper HDMI Audio, Monitor: LG Ultra HD

OS: Ubuntu 21.10, Kernel: 5.13.0-1002-generic (riscv64), Desktop: GNOME Shell 40.2, Display Server: X Server, Compiler: GCC 11.2.0, File-System: ext4, Screen Resolution: 1920x1080

Compiler Notes: --build=riscv64-linux-gnu --disable-libitm --disable-libquadmath --disable-libquadmath-support --disable-multilib --disable-werror --enable-checking=release --enable-clocale=gnu --enable-default-pie --enable-gnu-unique-object --enable-languages=c,ada,c++,go,d,fortran,objc,obj-c++,m2 --enable-libphobos-checking=release --enable-libstdcxx-debug --enable-libstdcxx-time=yes --enable-link-serialization=4 --enable-multiarch --enable-nls --enable-objc-gc=auto --enable-plugin --enable-shared --enable-threads=posix --host=riscv64-linux-gnu --program-prefix=riscv64-linux-gnu- --target=riscv64-linux-gnu --with-abi=lp64d --with-arch=rv64imafdc --with-build-config=bootstrap-lto-lean --with-default-libstdcxx-abi=new --with-gcc-major-version-only --with-target-system-zlib=auto -v
Python Notes: Python 3.9.7

	HiFive Unmatched - Ubuntu 21.04	HiFive Unmatched - Ubuntu 21.10
Coremark - CoreMark Size 666 - I.P.S (Iterations/Sec)	13033	15995
Normalized	81.48%	100%
Standard Deviation	0.3%	0.3%
OpenSSL - SHA256 (byte/s)	67880263	78055297
Normalized	86.96%	100%
Standard Deviation	0.1%	0.5%
OpenSSL - RSA4096 (sign/s)	27.2	32.4
Normalized	83.95%	100%
Standard Deviation	0.2%	0%
OpenSSL - RSA4096 (verify/s)	1991	2366
Normalized	84.15%	100%
Standard Deviation	0.1%	0%
Stress-NG - MMAP (Bogo Ops/s)	1.39	1.62
Normalized	85.8%	100%
Standard Deviation	2.2%	0.4%

Stress-NG - MEMFD (Bogo Ops/s)	6.76	7.49
Normalized	90.25%	100%
Standard Deviation	1%	0.1%
Stress-NG - Atomic (Bogo Ops/s)	46800	55091
Normalized	84.95%	100%
Standard Deviation	0.2%	0.2%
Stress-NG - Crypto (Bogo Ops/s)	75.48	90.34
Normalized	83.55%	100%
Standard Deviation	0.1%	0.1%
Stress-NG - Malloc (Bogo Ops/s)	1415782	1559514
Normalized	90.78%	100%
Standard Deviation	1%	0.6%
Stress-NG - Forking (Bogo Ops/s)	2341	3001
Normalized	78.02%	100%
Standard Deviation	1%	1.5%
Stress-NG - SENDFILE (Bogo Ops/s)	5664	7440
Normalized	76.13%	100%
Standard Deviation	0.3%	0.4%
Stress-NG - CPU Cache (Bogo Ops/s)	12.64	16.64
Normalized	75.96%	100%
Standard Deviation	6.2%	4.5%
Stress-NG - CPU Stress (Bogo Ops/s)	169.24	206.98
Normalized	81.77%	100%
Standard Deviation	0.3%	0.1%
Stress-NG - Semaphores (Bogo Ops/s)	109226	118296
Normalized	92.33%	100%
Standard Deviation	0.4%	0.3%
Stress-NG - Matrix Math (Bogo Ops/s)	518.49	618.44
Normalized	83.84%	100%
Standard Deviation	0.1%	0.1%
Stress-NG - Vector Math (Bogo Ops/s)	368.51	447.42
Normalized	82.36%	100%
Standard Deviation	0%	0.2%
Stress-NG - Memory Copying (Bogo Ops/s)	30.91	35.11
Normalized	88.04%	100%
Standard Deviation	5.3%	5.3%
Stress-NG - Socket Activity (Bogo Ops/s)	166.81	177.82
Normalized	93.81%	100%
Standard Deviation	3.7%	0.3%
Stress-NG - Context Switching (Bogo Ops/s)	107998	139323
Normalized	77.52%	100%
Standard Deviation	8.5%	4.5%
Stress-NG - G.C.S.F (Bogo Ops/s)	14527	17542
Normalized	82.81%	100%
Standard Deviation	0.4%	0.7%
Stress-NG - G.Q.D.S (Bogo Ops/s)	4.85	5.69
Normalized	85.24%	100%
Standard Deviation	0.8%	0.3%
Stress-NG - S.V.M.P (Bogo Ops/s)	260083	396601
Normalized	65.58%	100%
Standard Deviation	14.1%	4.5%
Monkey Audio Encoding - WAV To APE (sec)	514.784	416.016
Normalized	80.81%	100%
Standard Deviation	0.1%	0%
FLAC Audio Encoding - WAV To FLAC (sec)	438.153	366.640

SiFive RISC-V HiFive Unmatched Benchmarks

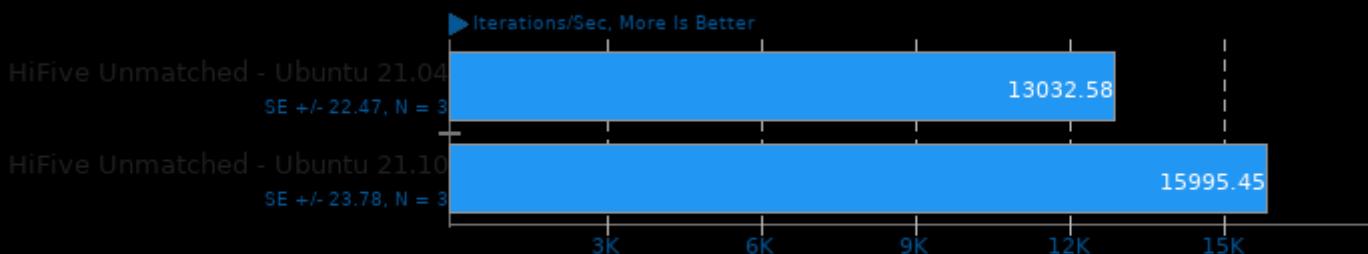
	Normalized	83.68%	100%
	Standard Deviation	0%	0.1%
WavPack Audio Encoding - WAV To WavPack (sec)	838.977	704.991	
	Normalized	84.03%	100%
	Standard Deviation	0.4%	0.3%
Smallpt - G.I.R.1.S (sec)	583.845	488.386	
	Normalized	83.65%	100%
	Standard Deviation	0.4%	0.5%
eSpeak-NG Speech Engine - T.T.S.S (sec)	390.019	322.075	
	Normalized	82.58%	100%
	Standard Deviation	0.8%	0.8%
RNNoise (sec)	216.383	180.065	
	Normalized	83.22%	100%
	Standard Deviation	0.1%	0.4%
Google SynthMark - VoiceMark_100 (Voices)	52.4558	63.1188	
	Normalized	83.11%	100%
	Standard Deviation	1.1%	1.6%
SecureMark - SecureMark-TLS (marks)	16655	20389	
	Normalized	81.69%	100%
	Standard Deviation	1.3%	0.6%
Dolfyn - C.F.D (sec)	842.218	593.212	
	Normalized	70.43%	100%
	Standard Deviation	8.1%	5.9%
WebP Image Encode - Default (Encode Time - sec)	39.747	34.028	
	Normalized	85.61%	100%
	Standard Deviation	0.6%	0.3%
WebP Image Encode - Quality 100 (Encode Time - sec)	51.583	43.377	
	Normalized	84.09%	100%
	Standard Deviation	1.1%	2.5%
WebP Image Encode - Q.1.L (Encode Time - sec)	255.980	215.380	
	Normalized	84.14%	100%
	Standard Deviation	0.2%	0.2%
WebP Image Encode - Q.1.H.C (Encode Time - sec)	92.302	78.853	
	Normalized	85.43%	100%
	Standard Deviation	1.9%	2.3%
LZ4 Compression - 1 - Compression Speed (MB/s)	113.69	127.34	
	Normalized	89.28%	100%
	Standard Deviation	0.2%	0.7%
LZ4 Compression - 1 - D.S (MB/s)	110.4	121.5	
	Normalized	90.86%	100%
	Standard Deviation	0%	1.2%
LZ4 Compression - 3 - Compression Speed (MB/s)	3.23	3.81	
	Normalized	84.78%	100%
	Standard Deviation	1.2%	0.9%
LZ4 Compression - 3 - D.S (MB/s)	109.9	122.2	
	Normalized	89.93%	100%
	Standard Deviation	0.1%	0%
LZ4 Compression - 9 - Compression Speed (MB/s)	3.10	3.70	
	Normalized	83.78%	100%
	Standard Deviation	0.5%	0.6%
LZ4 Compression - 9 - D.S (MB/s)	109.9	122.3	
	Normalized	89.86%	100%
	Standard Deviation	0%	0%
Zstd Compression - 3 - Compression Speed (MB/s)	36.8	39.7	
	Normalized	92.7%	100%

	Standard Deviation	2.3%	1.5%
Zstd Compression - 3 - D.S (MB/s)	76.0	87.8	
	Normalized	86.56%	100%
	Standard Deviation	0.3%	0.3%
Zstd Compression - 8 - Compression Speed (MB/s)	8.12	8.84	
	Normalized	91.86%	100%
	Standard Deviation	0.8%	1.4%
Zstd Compression - 8 - D.S (MB/s)	77.9	89.4	
	Normalized	87.14%	100%
	Standard Deviation	0.1%	0.3%
Zstd Compression - 19 - Compression Speed (MB/s)	1.13	1.35	
	Normalized	83.7%	100%
	Standard Deviation	0%	2.1%
Zstd Compression - 19 - D.S (MB/s)	70.6	81.8	
	Normalized	86.31%	100%
	Standard Deviation	0.4%	0.1%
Zstd Compression - 19, Long Mode - Compression Speed (MB/s)	0.92	1.09	
	Normalized	84.4%	100%
	Standard Deviation	0%	2.4%
Zstd Compression - 19, Long Mode - D.S (MB/s)	72.4	83.9	
	Normalized	86.29%	100%
	Standard Deviation	0.2%	0.5%
GraphicsMagick - Swirl (Iterations/min)	9	10	
	Normalized	90%	100%
	Standard Deviation	5.6%	0%
GraphicsMagick - Rotate (Iterations/min)	25	28	
	Normalized	89.29%	100%
	Standard Deviation		0%
GraphicsMagick - Sharpen (Iterations/min)	7	8	
	Normalized	87.5%	100%
	Standard Deviation		0%
GraphicsMagick - Enhanced (Iterations/min)	3	3	
	Normalized		0%
GraphicsMagick - Resizing (Iterations/min)	20	25	
	Normalized	80%	100%
	Standard Deviation		0%
GraphicsMagick - Noise-Gaussian (Iterations/min)	6	7	
	Normalized	85.71%	100%
	Standard Deviation		0%
GraphicsMagick - HWB Color Space (Iterations/min)	21	24	
	Normalized	87.5%	100%
	Standard Deviation		0%
x265 - Bosphorus 4K (FPS)			0.11
	Standard Deviation		0%
7-Zip Compression - C.S.T (MIPS)	1432	1605	
	Normalized	89.22%	100%
	Standard Deviation	0.6%	5.7%
libavif avifenc - 6 (sec)			1552
	Standard Deviation		0.8%
Gzip Compression - L.S.T.A.T.t.g (sec)	449.730	377.308	
	Normalized	83.9%	100%
	Standard Deviation	0.4%	0.2%
OCRMyPDF - P.6.P.P.D (sec)	1190	1009	
	Normalized	84.76%	100%

	Standard Deviation	0.2%	
GNU Octave Benchmark (sec)	264.845		0.2%
	Standard Deviation	0.3%	
PyBench - T.F.A.T.T (Milliseconds)	24919	21056	
	Normalized	84.5%	100%
	Standard Deviation	2.1%	1.8%
PHPBench - P.B.S (Score)	33113	41058	
	Normalized	80.65%	100%
	Standard Deviation	1%	1.7%
Timed GDB GNU Debugger Compilation - Time To Compile (sec)	2115	1909	
	Normalized	90.29%	100%
	Standard Deviation	0.1%	0.1%
GNU Octave Benchmark (sec)		230.743	
	Standard Deviation		1.3%

Coremark 1.0

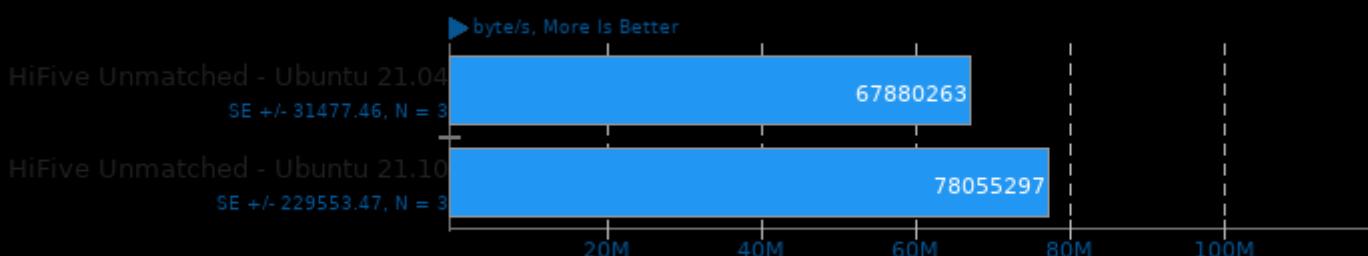
CoreMark Size 666 - Iterations Per Second



1. (CC) gcc options: -O2 -fintc -fintt

OpenSSL 3.0

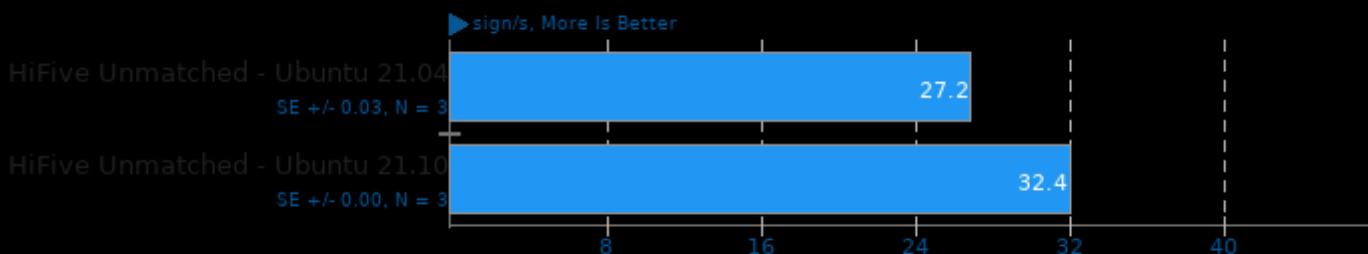
Algorithm: SHA256



1. (CC) gcc options: -pthread -O3 -lssl -lcrypto -ldl

OpenSSL 3.0

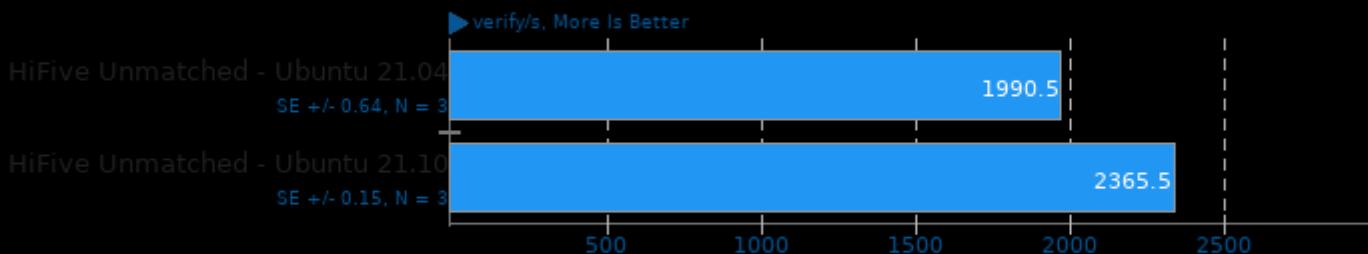
Algorithm: RSA4096



1. (CC) gcc options: -pthread -O3 -lssl -lcrypto -ldl

OpenSSL 3.0

Algorithm: RSA4096

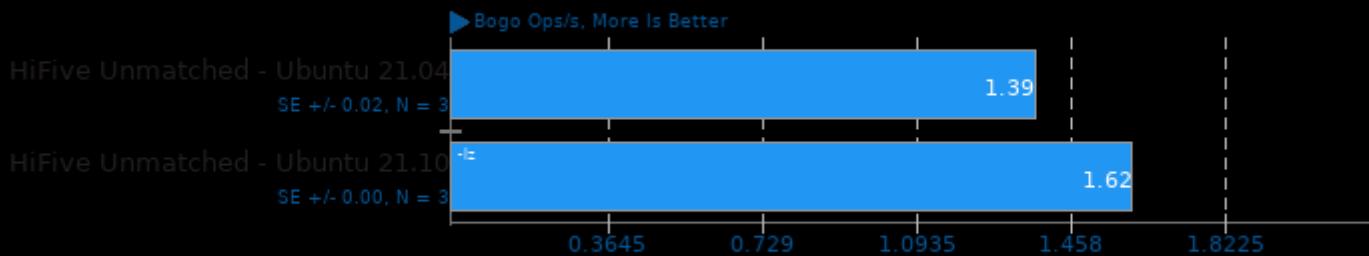


1. (CC) gcc options: -pthread -O3 -lssl -lcrypto -ldl

SiFive RISC-V HiFive Unmatched Benchmarks

Stress-NG 0.13.02

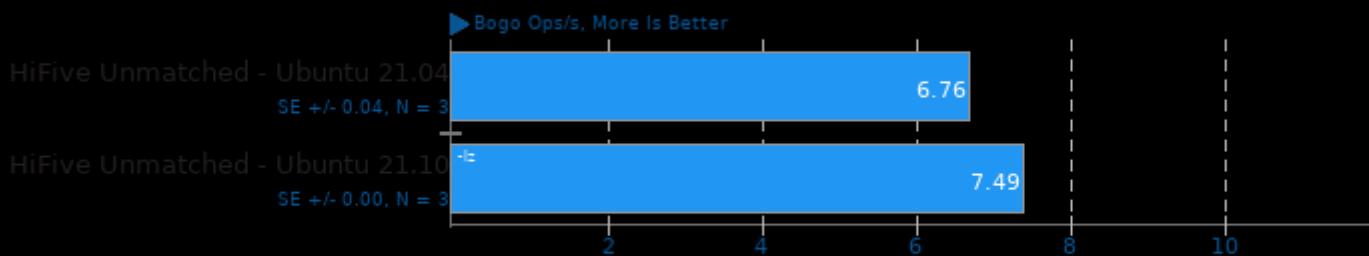
Test: MMAP



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

Stress-NG 0.13.02

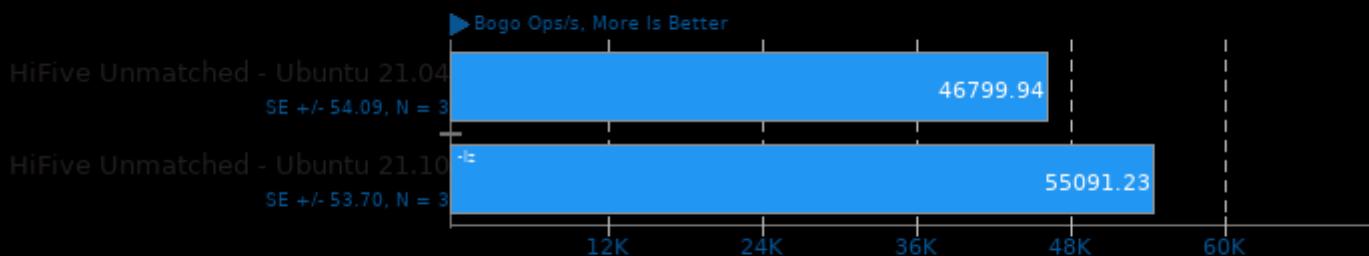
Test: MEMFD



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

Stress-NG 0.13.02

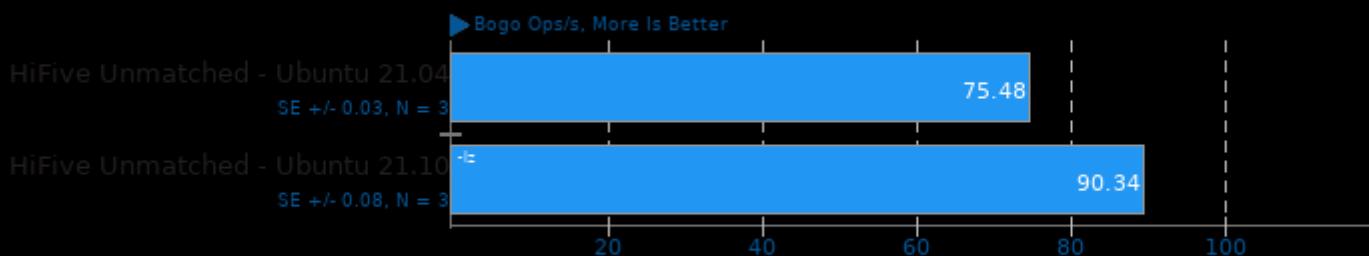
Test: Atomic



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

Stress-NG 0.13.02

Test: Crypto

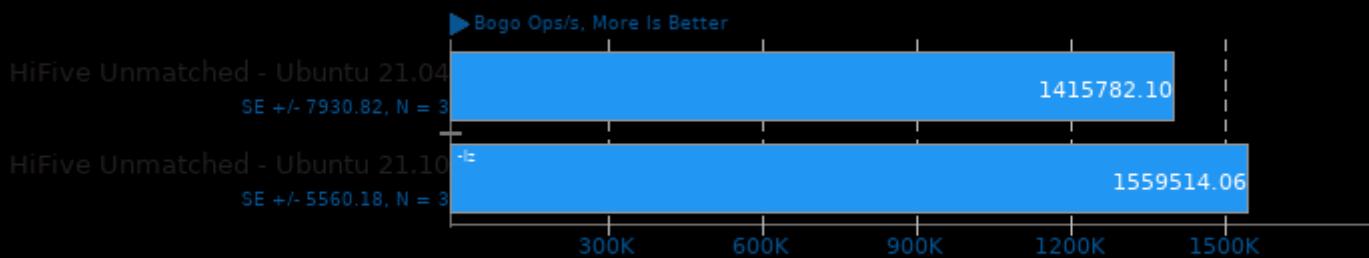


1. (CC) gcc options: -O2 -std=gnu99 -lm -lcrypt -lrt -ldl -pthread -lc -latomic

SiFive RISC-V HiFive Unmatched Benchmarks

Stress-NG 0.13.02

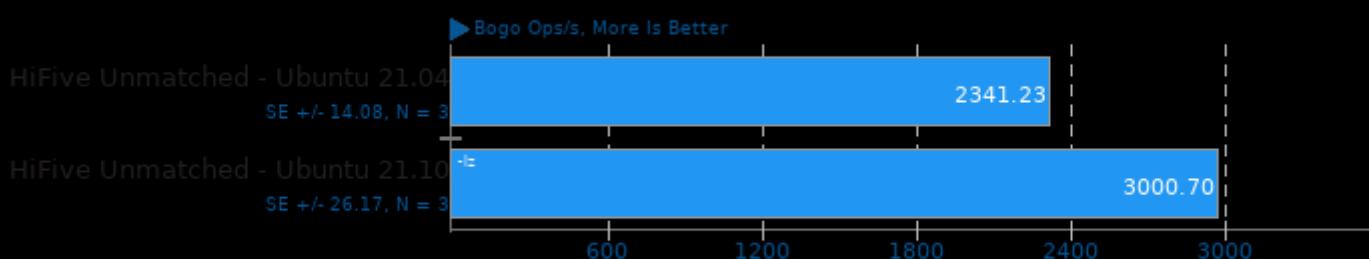
Test: Malloc



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

Stress-NG 0.13.02

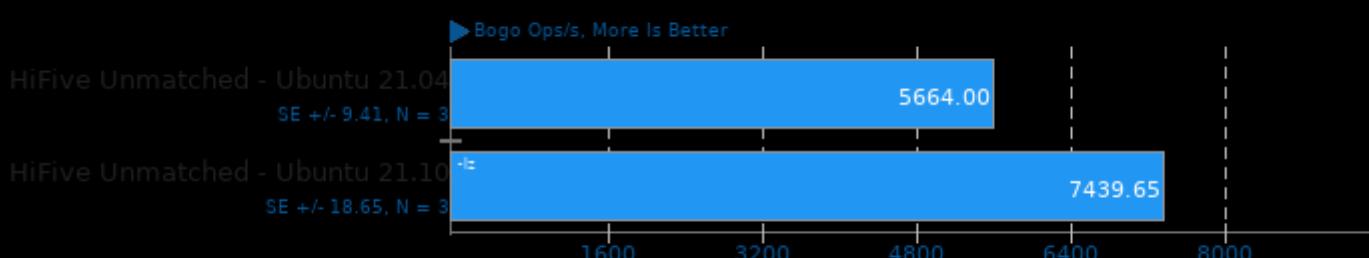
Test: Forking



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

Stress-NG 0.13.02

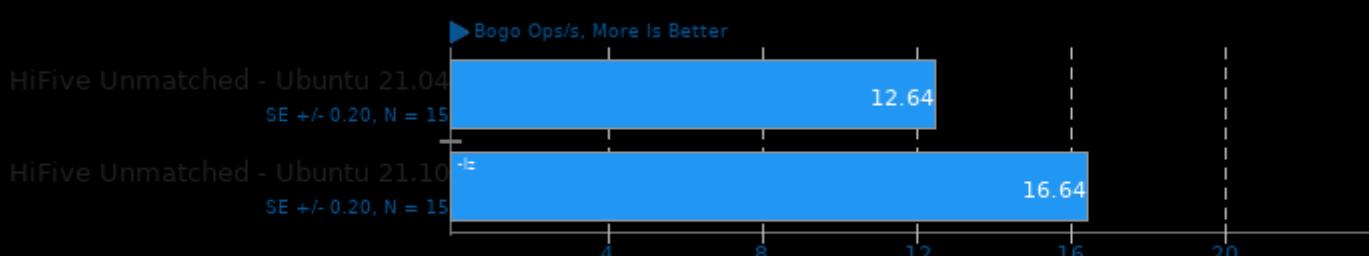
Test: SENDFILE



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

Stress-NG 0.13.02

Test: CPU Cache

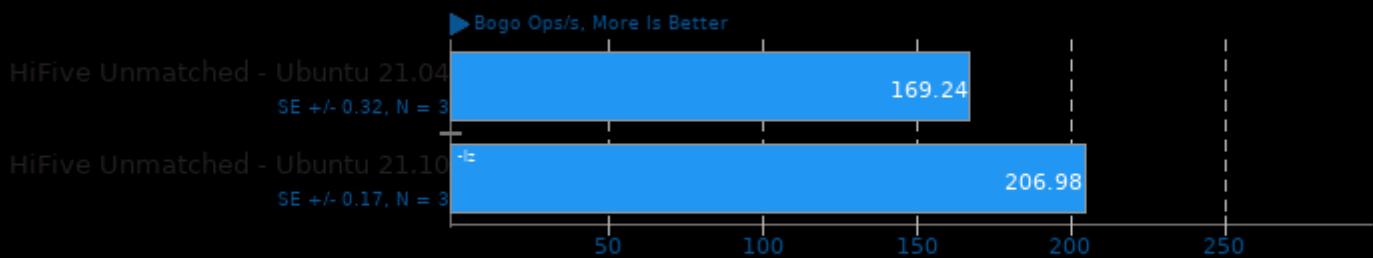


1. (CC) gcc options: -O2 -std=gnu99 -lm -lcrypt -lrt -ldl -pthread -lc -latomic

SiFive RISC-V HiFive Unmatched Benchmarks

Stress-NG 0.13.02

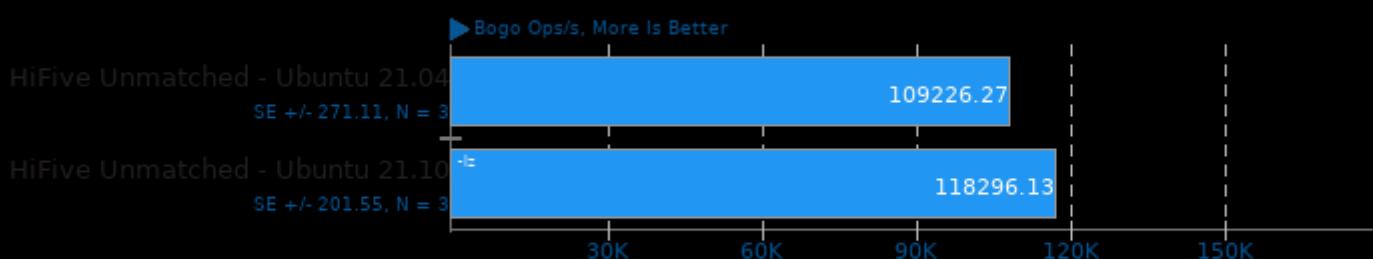
Test: CPU Stress



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

Stress-NG 0.13.02

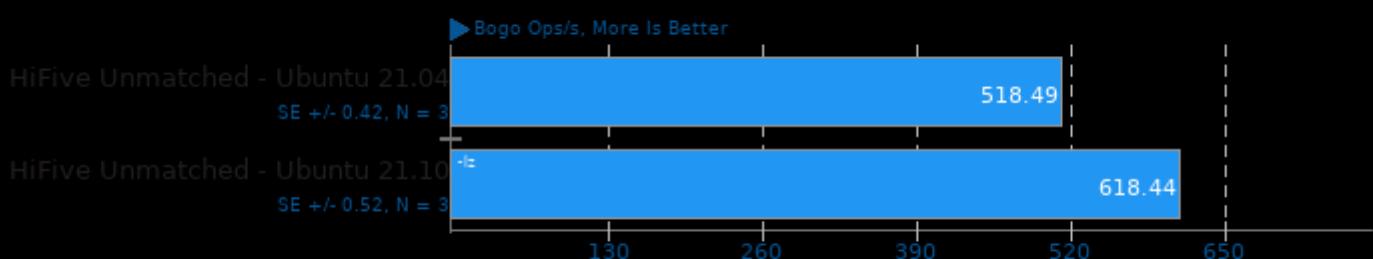
Test: Semaphores



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

Stress-NG 0.13.02

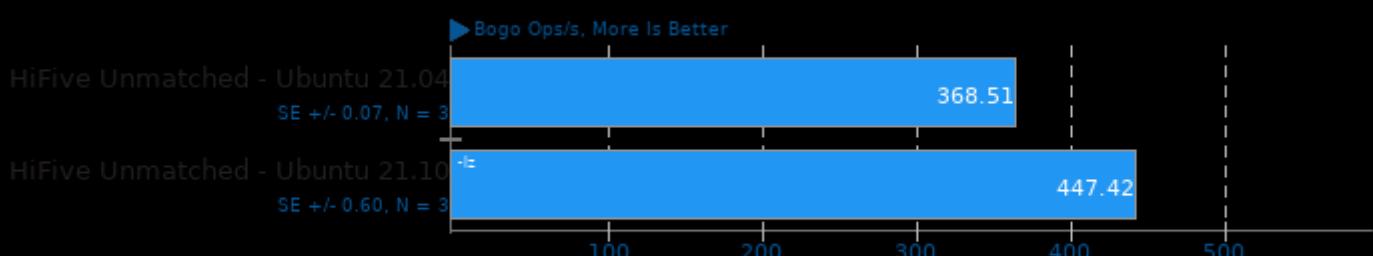
Test: Matrix Math



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

Stress-NG 0.13.02

Test: Vector Math

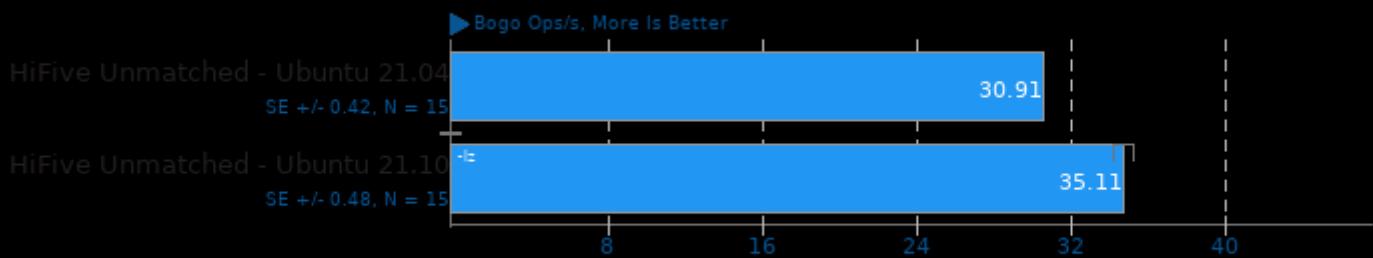


1. (CC) gcc options: -O2 -std=gnu99 -lm -lcrypt -lrt -ldl -pthread -lc -latomic

SiFive RISC-V HiFive Unmatched Benchmarks

Stress-NG 0.13.02

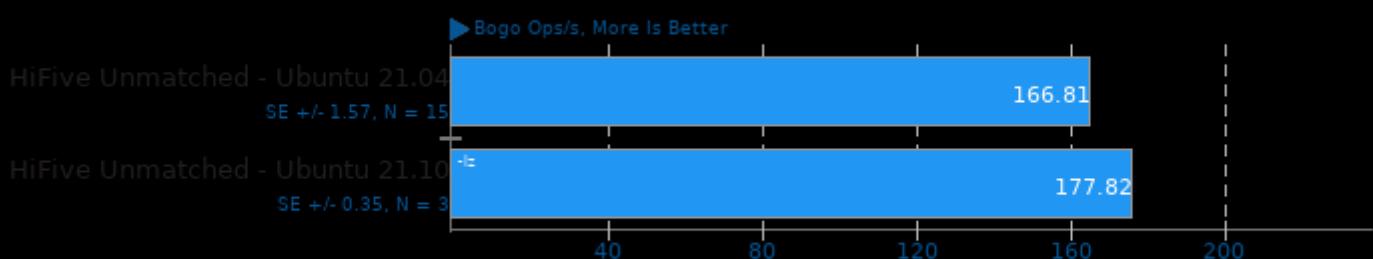
Test: Memory Copying



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

Stress-NG 0.13.02

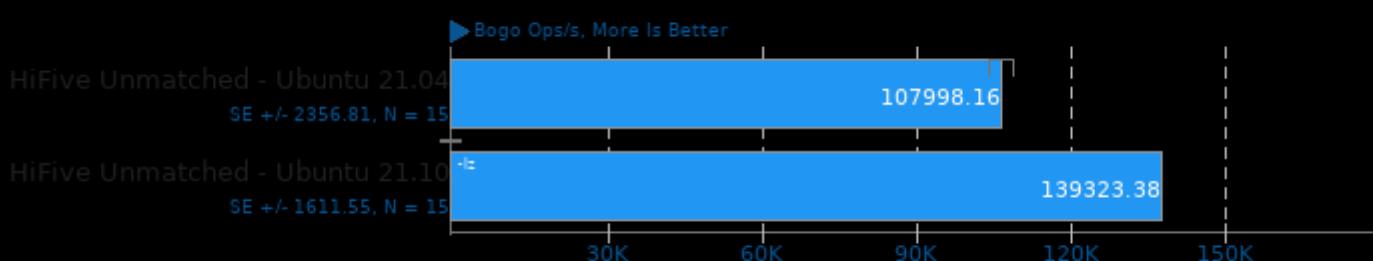
Test: Socket Activity



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

Stress-NG 0.13.02

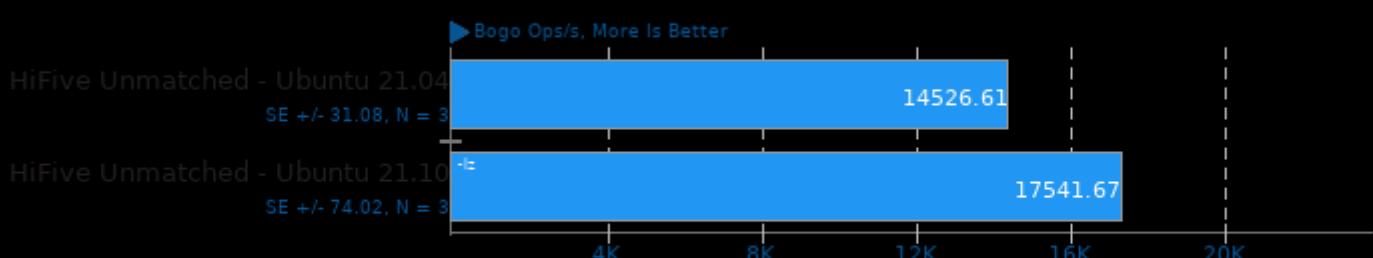
Test: Context Switching



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

Stress-NG 0.13.02

Test: Glibc C String Functions

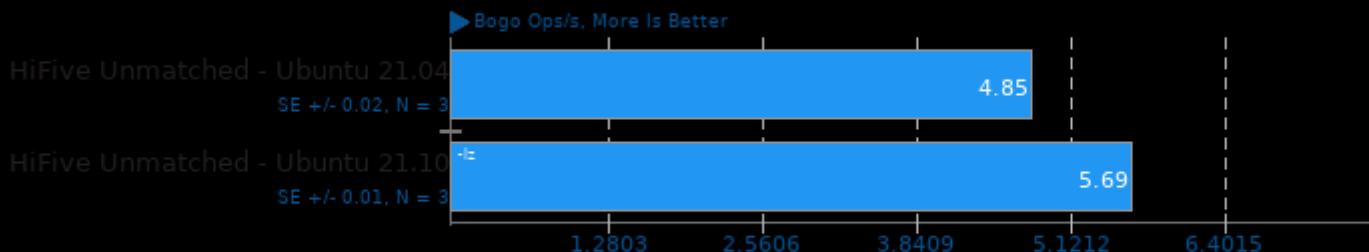


1. (CC) gcc options: -O2 -std=gnu99 -lm -lcrypt -lrt -ldl -pthread -lc -latomic

SiFive RISC-V HiFive Unmatched Benchmarks

Stress-NG 0.13.02

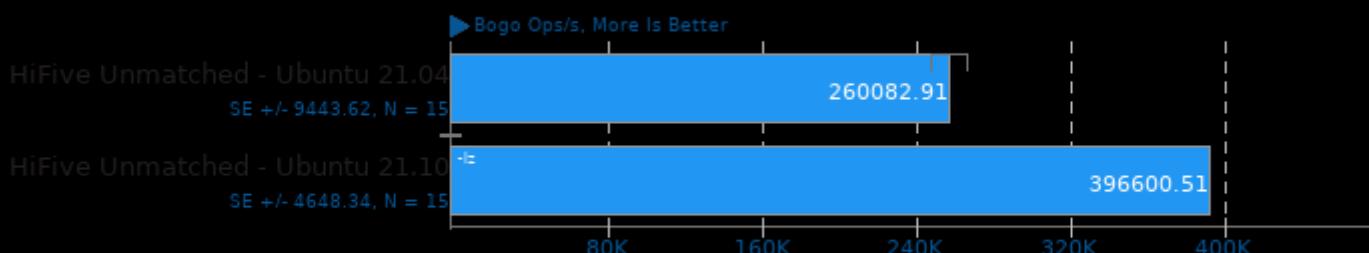
Test: Glibc Qsort Data Sorting



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

Stress-NG 0.13.02

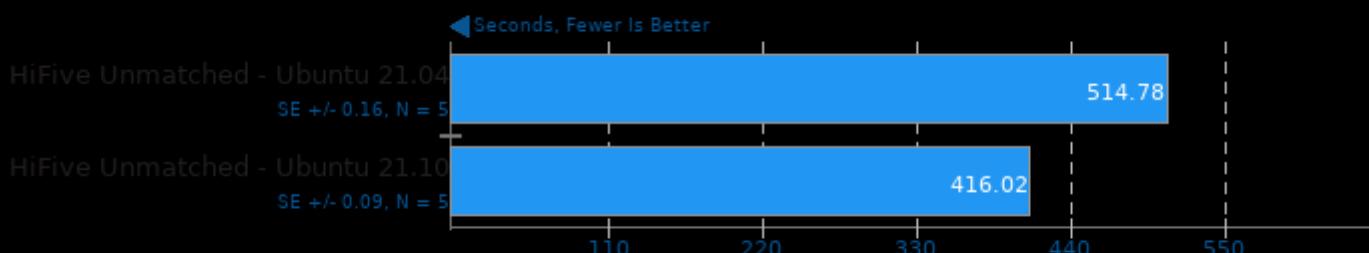
Test: System V Message Passing



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

Monkey Audio Encoding 3.99.6

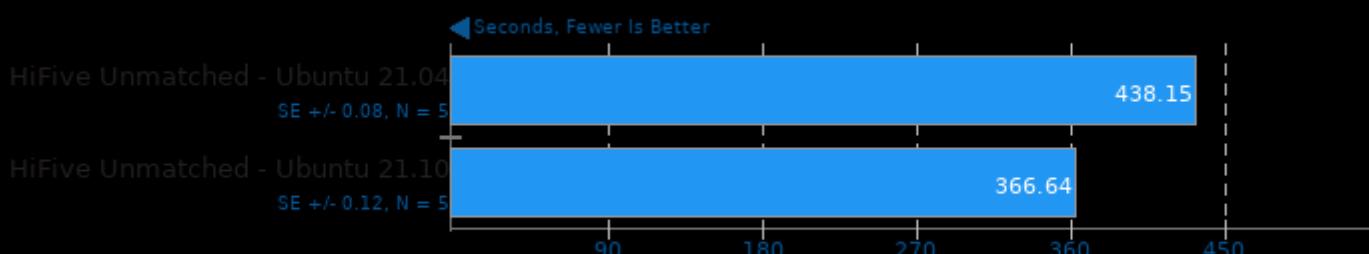
WAV To APE



1. (CXX) g++ options: -O3 -pedantic -rdynamic -lrt -latomic

FLAC Audio Encoding 1.3.2

WAV To FLAC

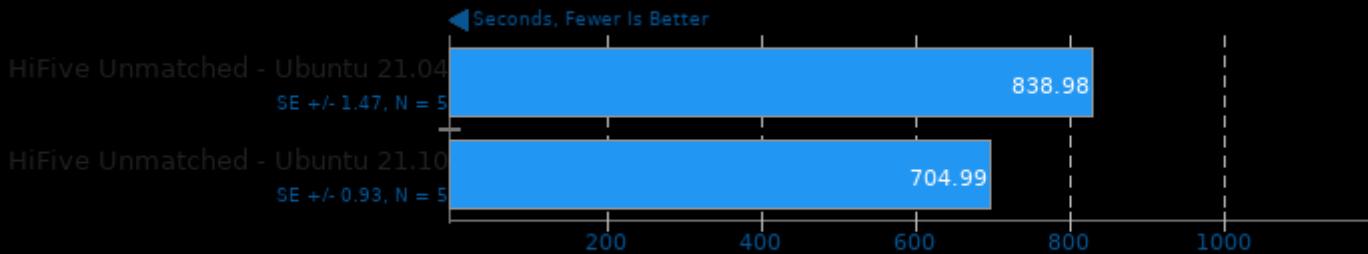


1. (CXX) g++ options: -O2 -fvisibility=hidden -llog -lm

SiFive RISC-V HiFive Unmatched Benchmarks

WavPack Audio Encoding 5.3

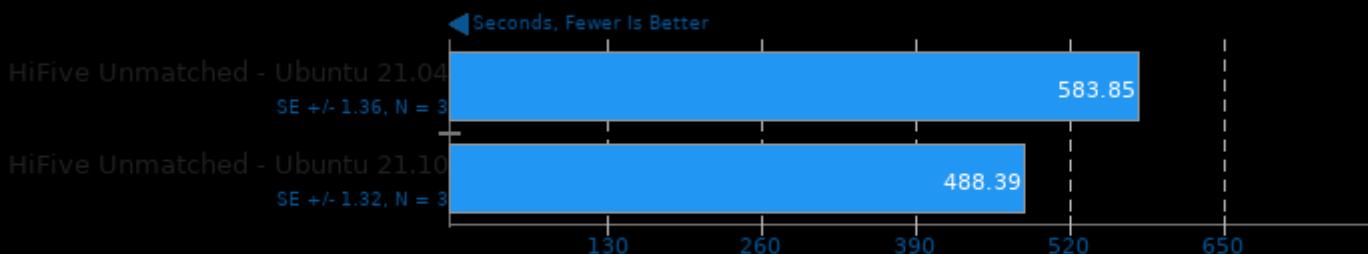
WAV To WavPack



1. (CXX) g++ options: -rdynamic -fatomic

Smallpt 1.0

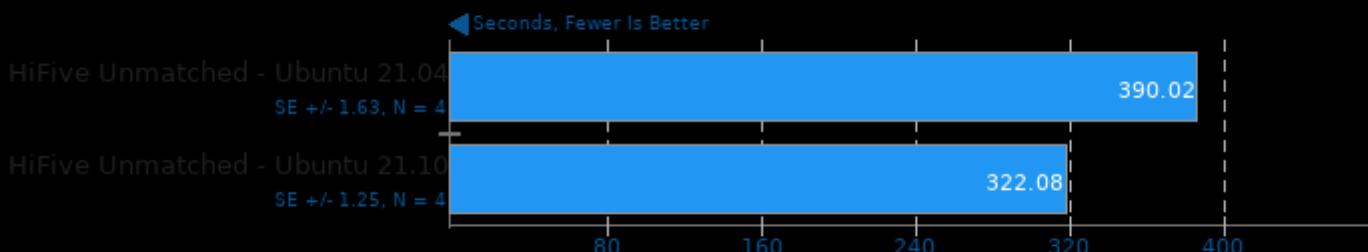
Global Illumination Renderer; 128 Samples



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

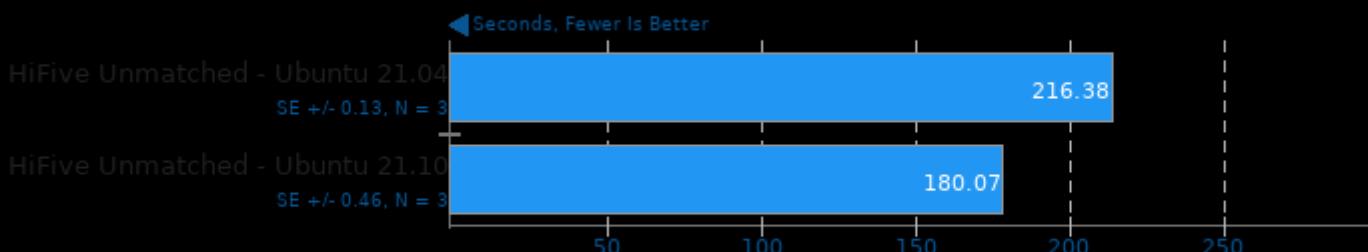
eSpeak-NG Speech Engine 20200907

Text-To-Speech Synthesis



1. (CC) gcc options: -O2 -std=c99

RNNoise 2020-06-28

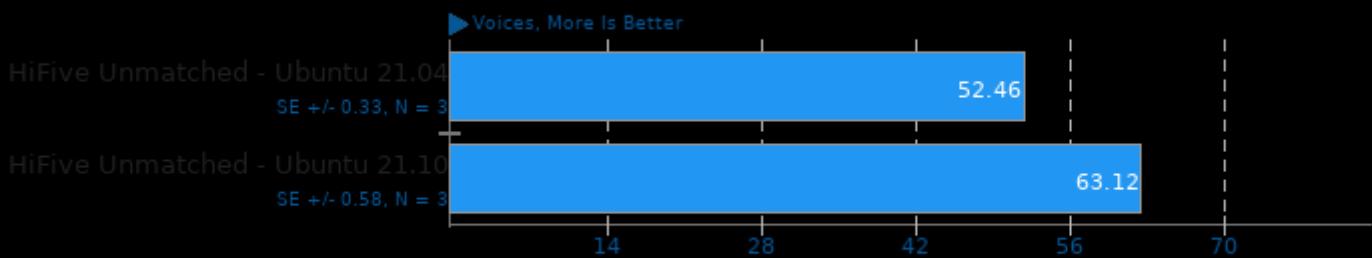


1. (CC) gcc options: -O2 -pedantic -fvisibility=hidden

SiFive RISC-V HiFive Unmatched Benchmarks

Google SynthMark 20201109

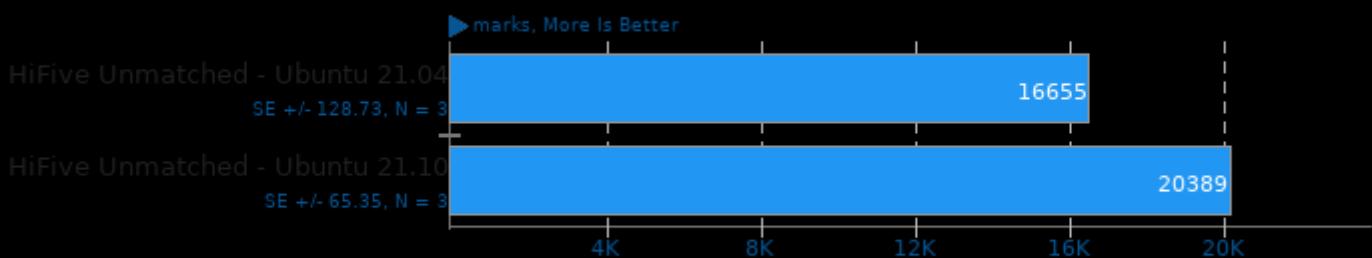
Test: VoiceMark_100



1. (CXX) g++ options: -lm -lpthread -std=c++11 -Ofast

SecureMark 1.0.4

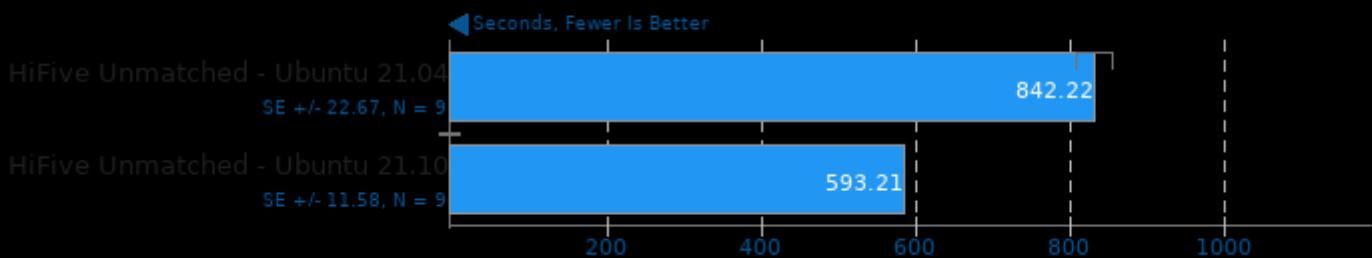
Benchmark: SecureMark-TLS



1. (CC) gcc options: -pedantic -O3 -fatomic

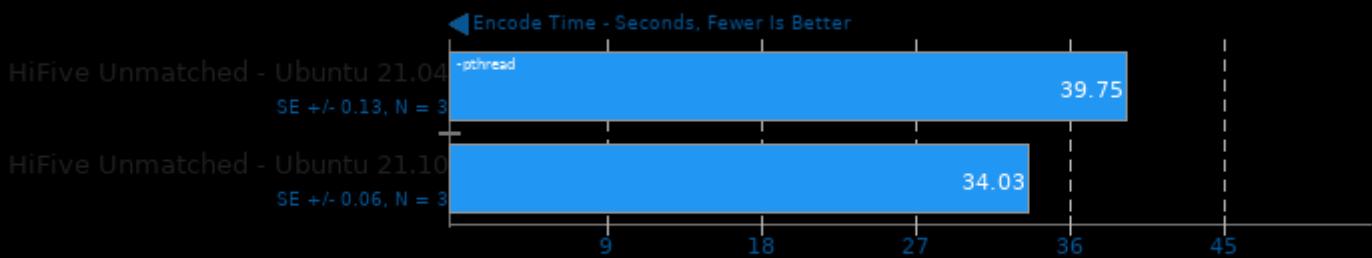
Dolfyn 0.527

Computational Fluid Dynamics



WebP Image Encode 1.1

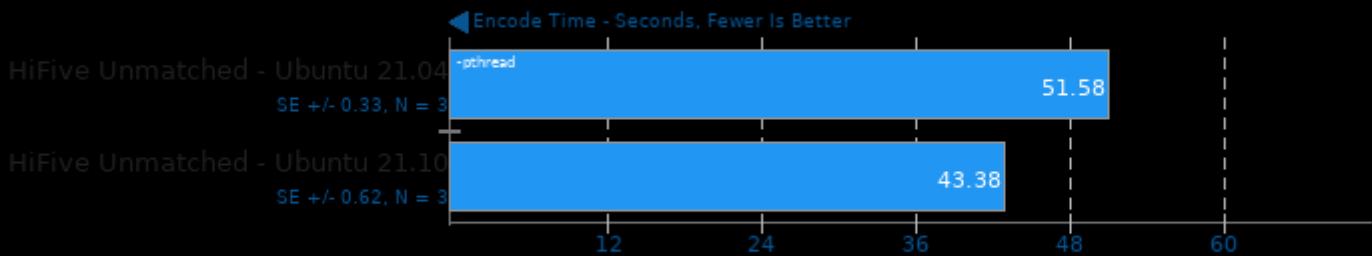
Encode Settings: Default



1. (CC) gcc options: -fvisibility=hidden -O2 -lm -ljpeg -lpng16

WebP Image Encode 1.1

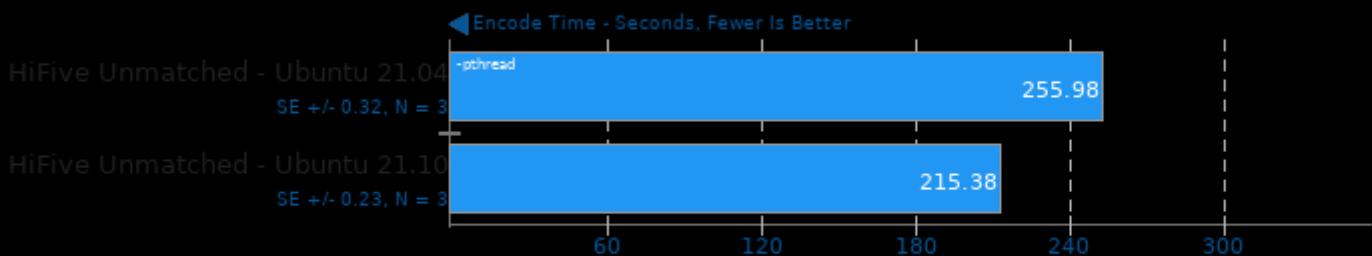
Encode Settings: Quality 100



1. (CC) gcc options: -fvisibility=hidden -O2 -lm -ljpeg -lpng16

WebP Image Encode 1.1

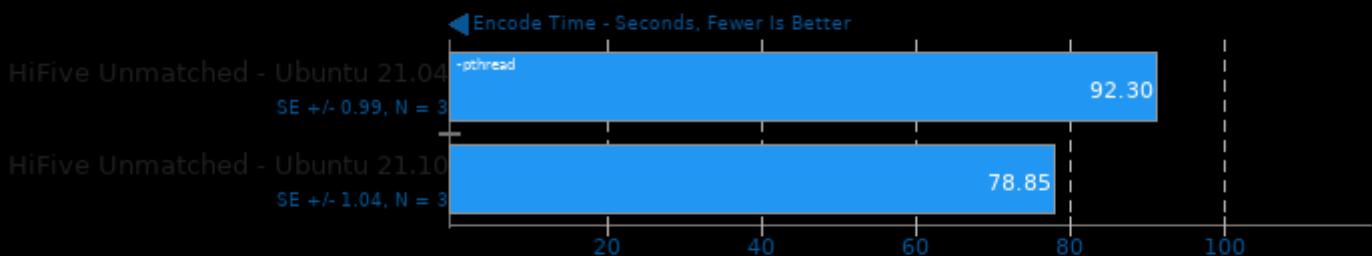
Encode Settings: Quality 100, Lossless



1. (CC) gcc options: -fvisibility=hidden -O2 -lm -ljpeg -lpng16

WebP Image Encode 1.1

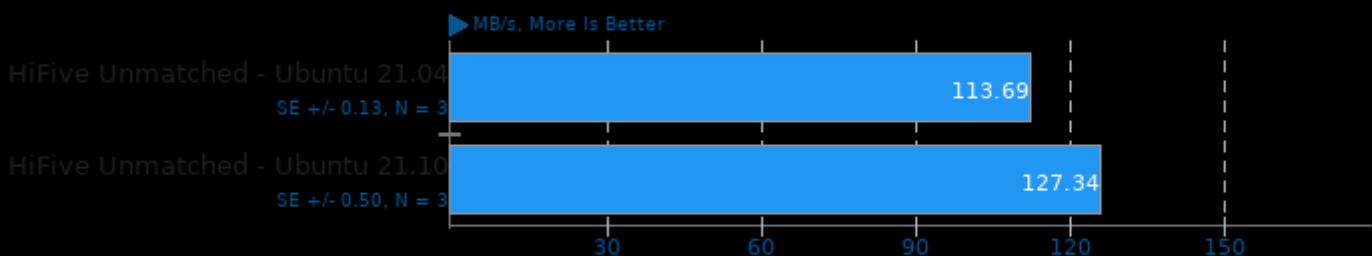
Encode Settings: Quality 100, Highest Compression



1. (CC) gcc options: -fvisibility=hidden -O2 -lm -ljpeg -lpng16

LZ4 Compression 1.9.3

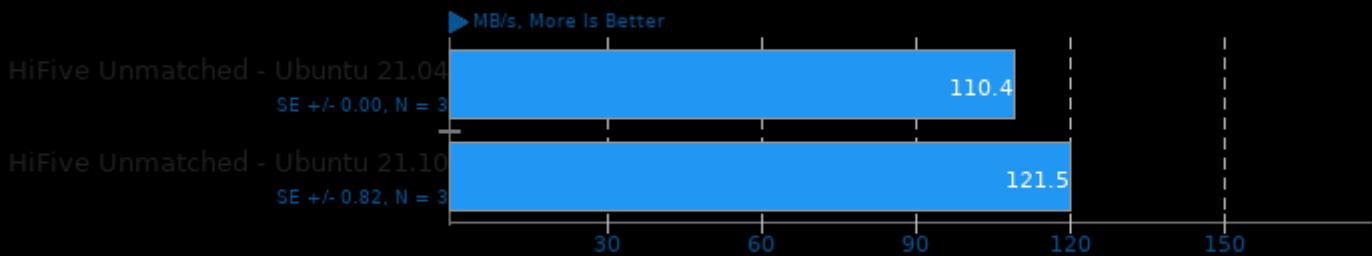
Compression Level: 1 - Compression Speed



1. (CC) gcc options: -O3

LZ4 Compression 1.9.3

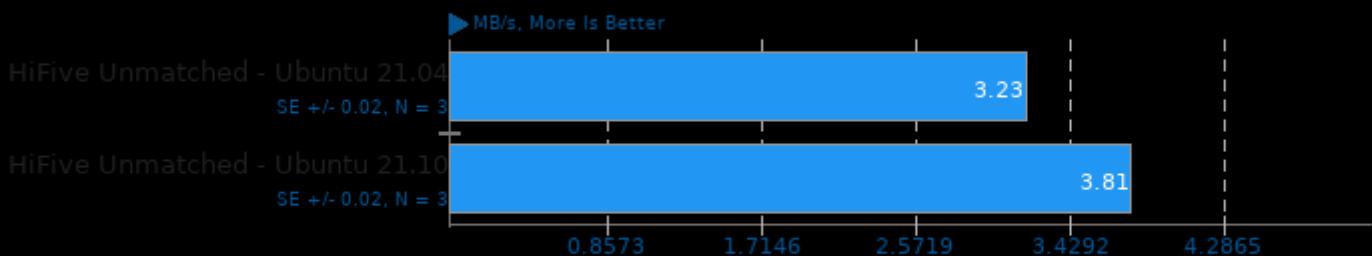
Compression Level: 1 - Decompression Speed



1. (CC) gcc options: -O3

LZ4 Compression 1.9.3

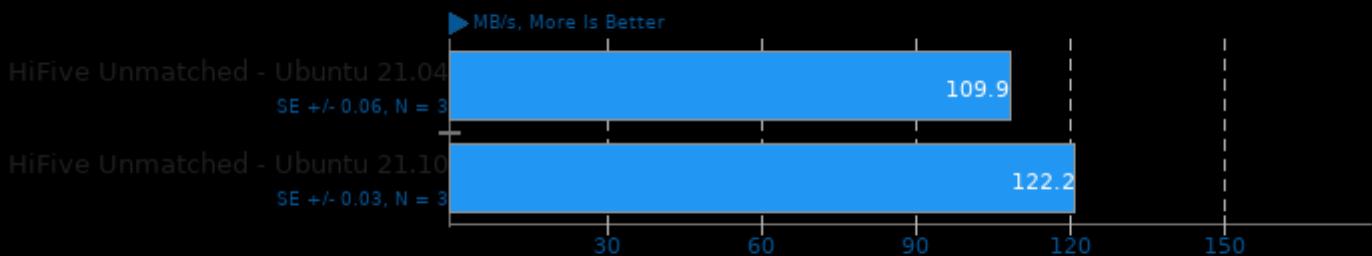
Compression Level: 3 - Compression Speed



1. (CC) gcc options: -O3

LZ4 Compression 1.9.3

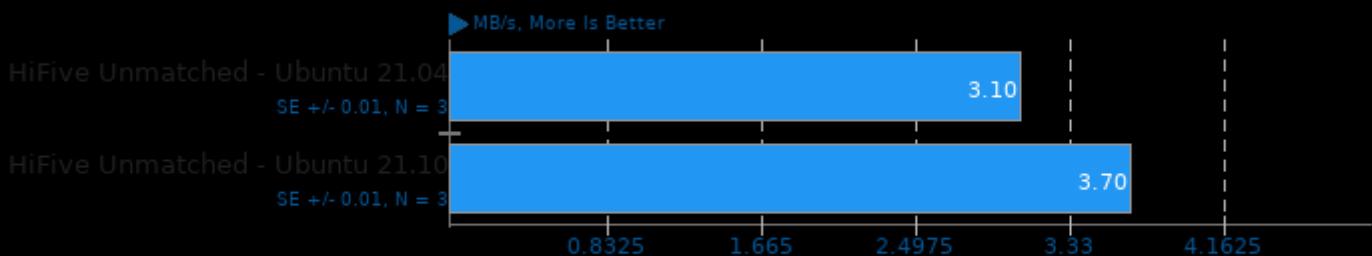
Compression Level: 3 - Decompression Speed



1. (CC) gcc options: -O3

LZ4 Compression 1.9.3

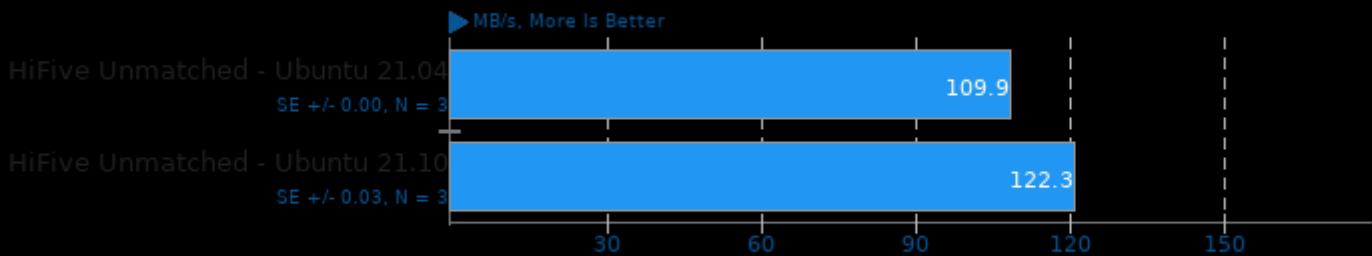
Compression Level: 9 - Compression Speed



1. (CC) gcc options: -O3

LZ4 Compression 1.9.3

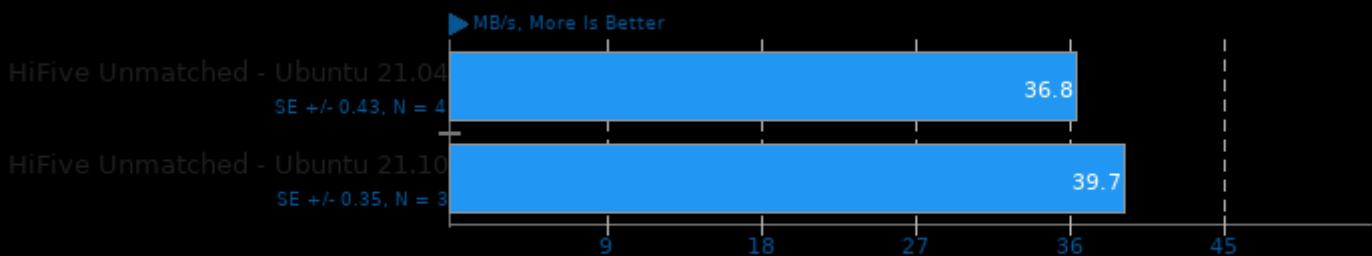
Compression Level: 9 - Decompression Speed



1. (CC) gcc options: -O3

Zstd Compression 1.5.0

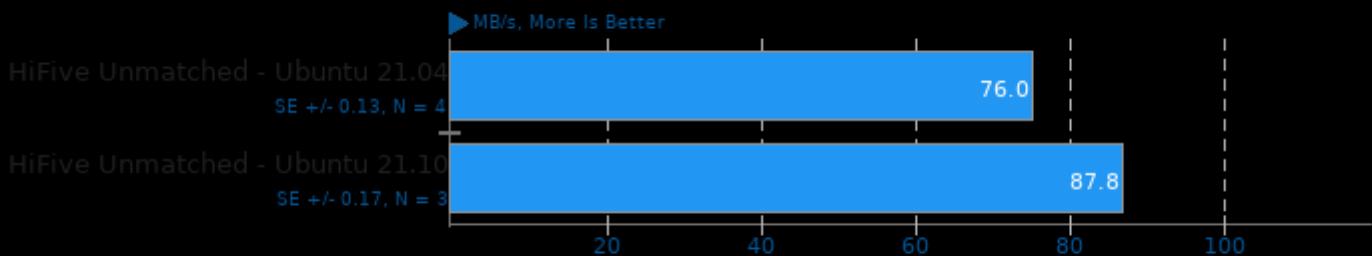
Compression Level: 3 - Compression Speed



1. (CC) gcc options: -O3 -pthread -lz

Zstd Compression 1.5.0

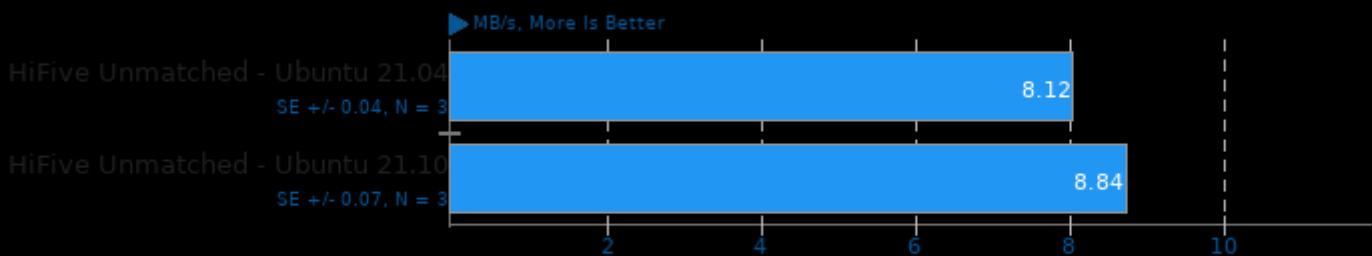
Compression Level: 3 - Decompression Speed



1. (CC) gcc options: -O3 -pthread -lz

Zstd Compression 1.5.0

Compression Level: 8 - Compression Speed

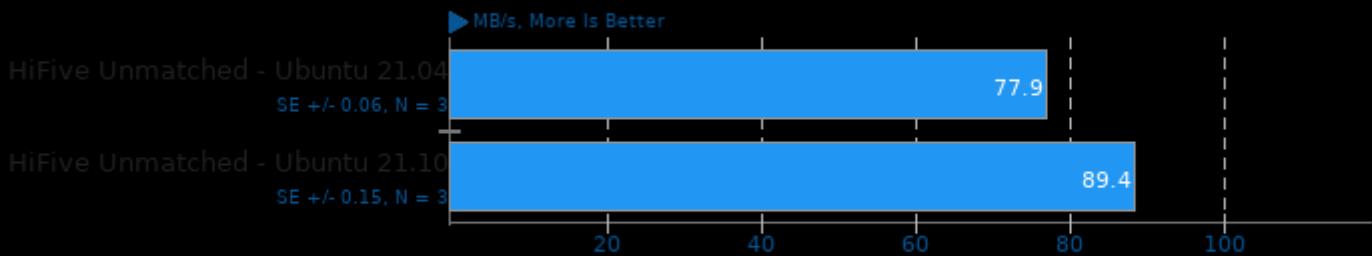


1. (CC) gcc options: -O3 -pthread -lz

SiFive RISC-V HiFive Unmatched Benchmarks

Zstd Compression 1.5.0

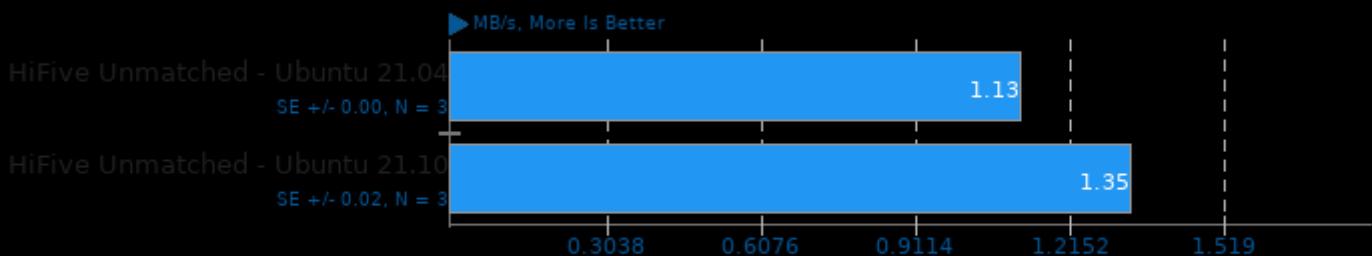
Compression Level: 8 - Decompression Speed



1. (CC) gcc options: -O3 -pthread -lz

Zstd Compression 1.5.0

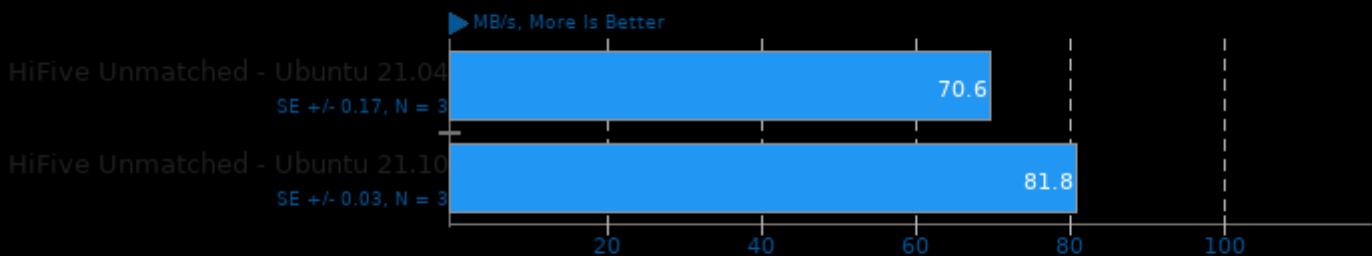
Compression Level: 19 - Compression Speed



1. (CC) gcc options: -O3 -pthread -lz

Zstd Compression 1.5.0

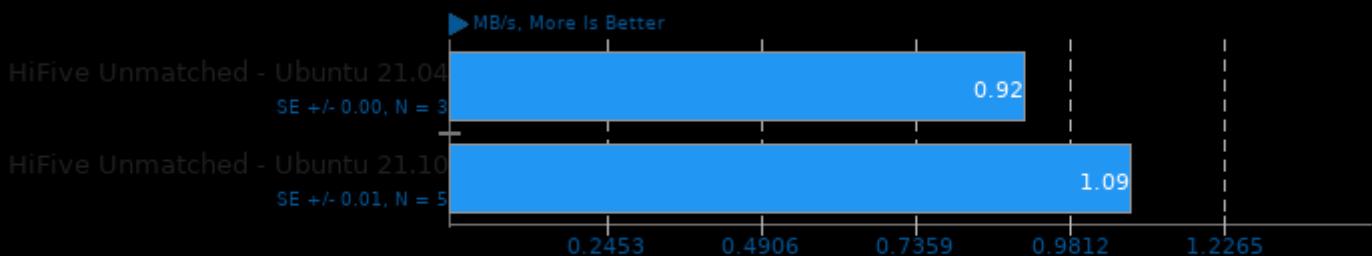
Compression Level: 19 - Decompression Speed



1. (CC) gcc options: -O3 -pthread -lz

Zstd Compression 1.5.0

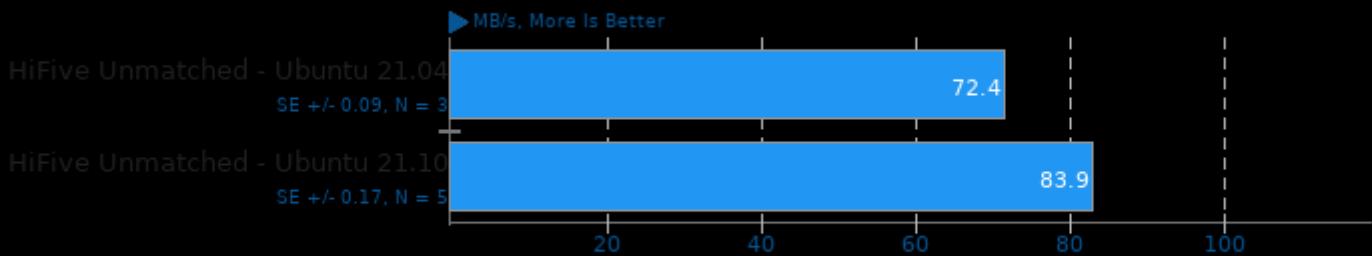
Compression Level: 19, Long Mode - Compression Speed



1. (CC) gcc options: -O3 -pthread -lz

Zstd Compression 1.5.0

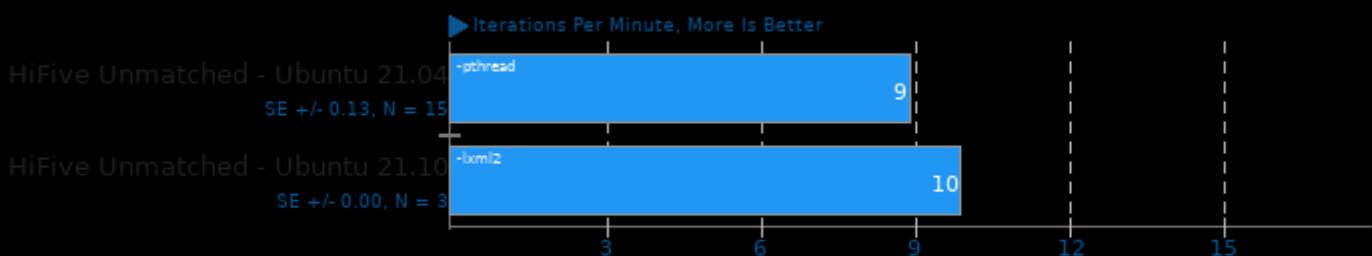
Compression Level: 19, Long Mode - Decompression Speed



1. (CC) gcc options: -O3 -pthread -lz

GraphicsMagick 1.3.33

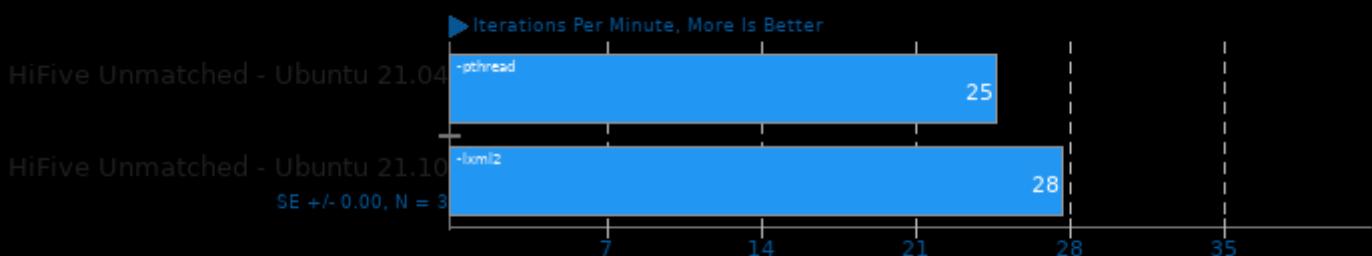
Operation: Swirl



1. (CC) gcc options: -fopenmp -O2 -ljpeg -lz -lm -lpthread

GraphicsMagick 1.3.33

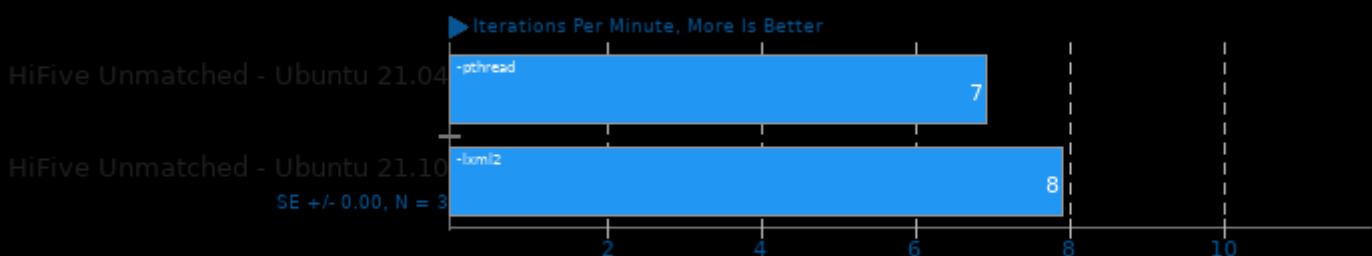
Operation: Rotate



1. (CC) gcc options: -fopenmp -O2 -ljpeg -lz -lm -lpthread

GraphicsMagick 1.3.33

Operation: Sharpen

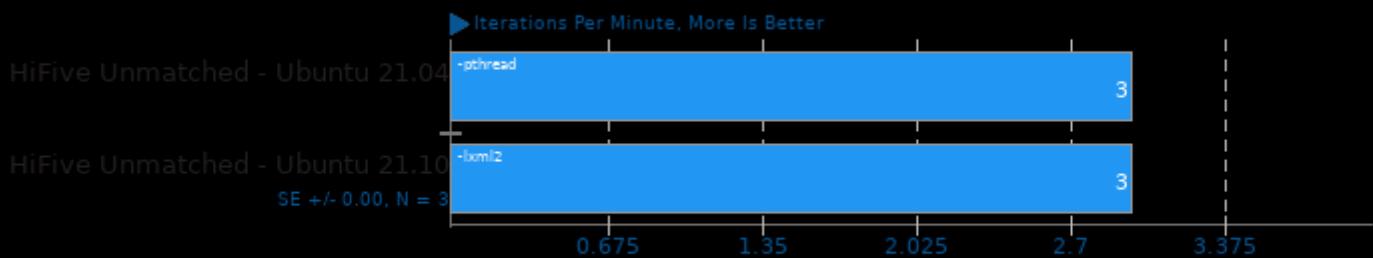


1. (CC) gcc options: -fopenmp -O2 -ljpeg -lz -lm -lpthread

SiFive RISC-V HiFive Unmatched Benchmarks

GraphicsMagick 1.3.33

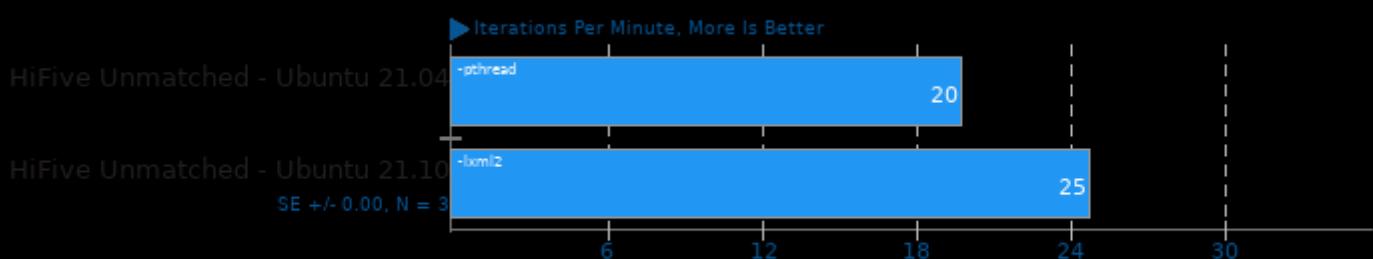
Operation: Enhanced



1. (CC) gcc options: -fopenmp -O2 -ljpeg -lz -lm -lpthread

GraphicsMagick 1.3.33

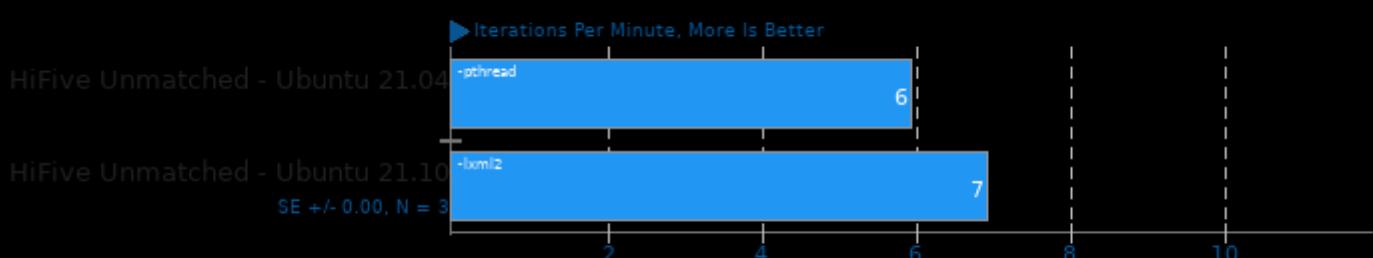
Operation: Resizing



1. (CC) gcc options: -fopenmp -O2 -ljpeg -lz -lm -lpthread

GraphicsMagick 1.3.33

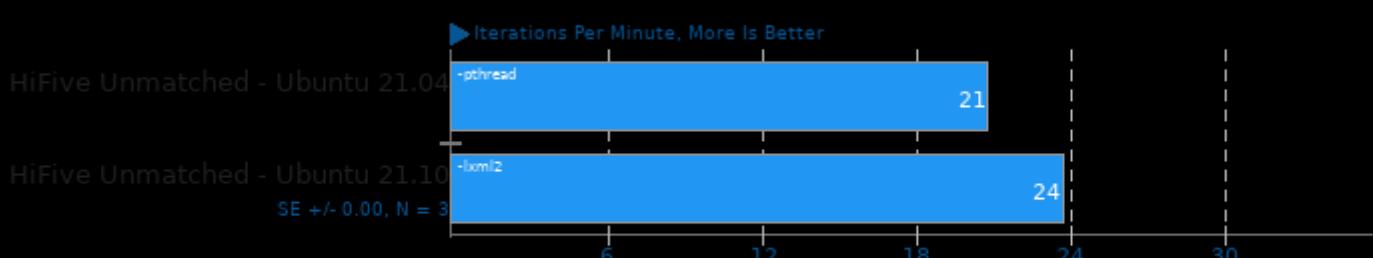
Operation: Noise-Gaussian



1. (CC) gcc options: -fopenmp -O2 -ljpeg -lz -lm -lpthread

GraphicsMagick 1.3.33

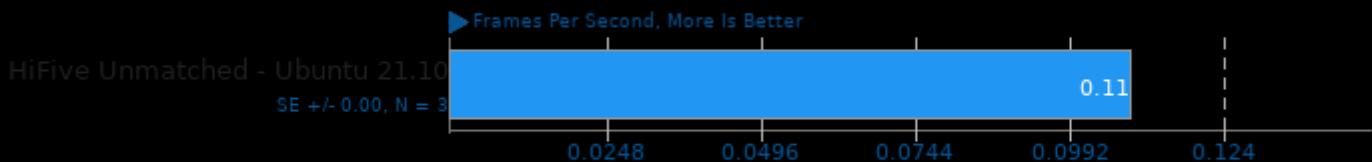
Operation: HWB Color Space



1. (CC) gcc options: -fopenmp -O2 -ljpeg -lz -lm -lpthread

x265 3.4

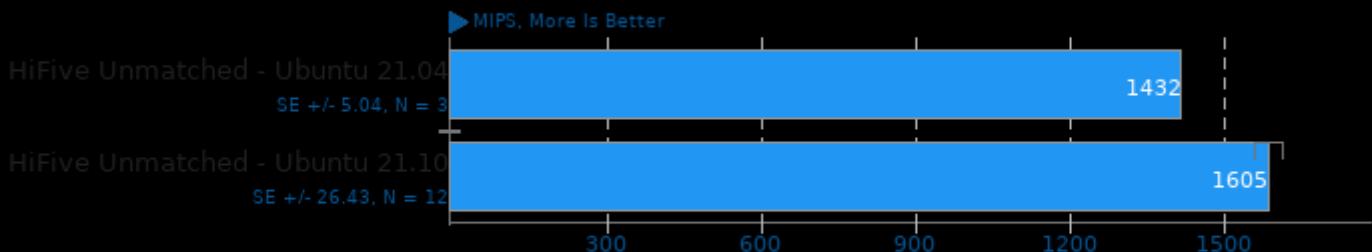
Video Input: Bosphorus 4K



1. (CXX) g++ options: -O3 -rdynamic -lpthread -lrt -ldl -lnuma -latomic

7-Zip Compression 16.02

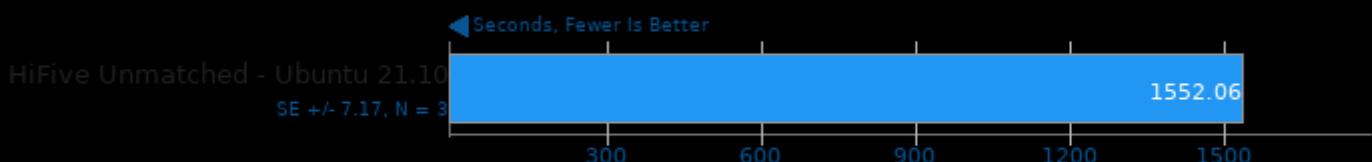
Compress Speed Test



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

libavif avifenc 0.9.0

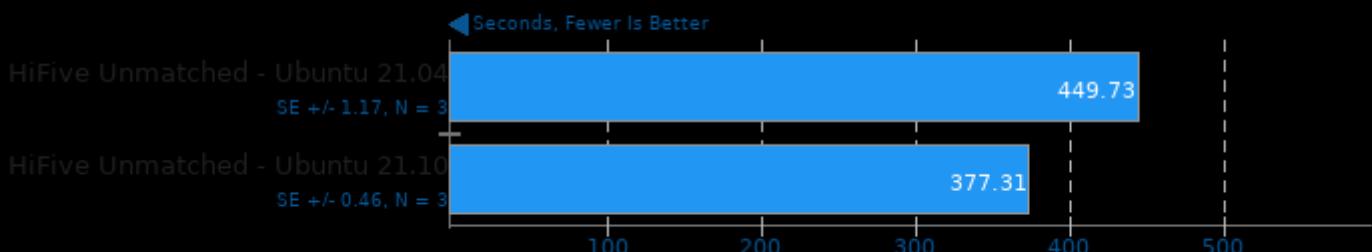
Encoder Speed: 6



1. (CXX) g++ options: -O3 -fPIC -lm -latomic

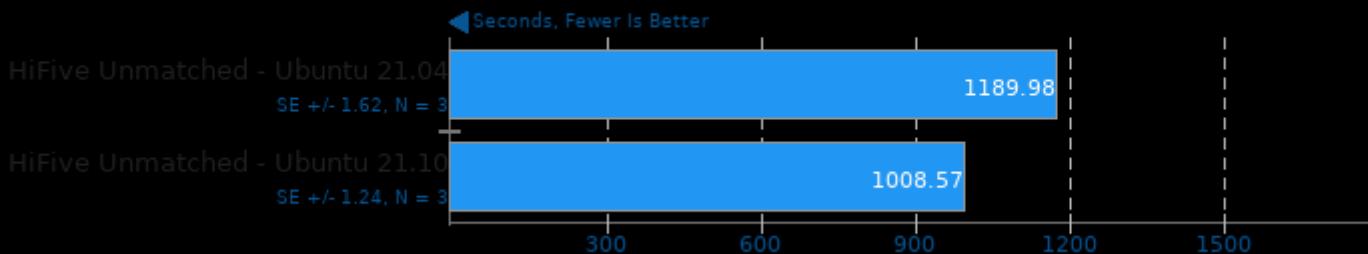
Gzip Compression

Linux Source Tree Archiving To .tar.gz

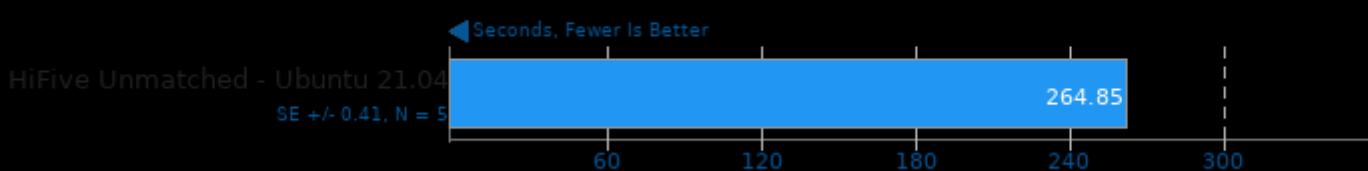


OCRMyPDF 10.3.1+dfsg

Processing 60 Page PDF Document

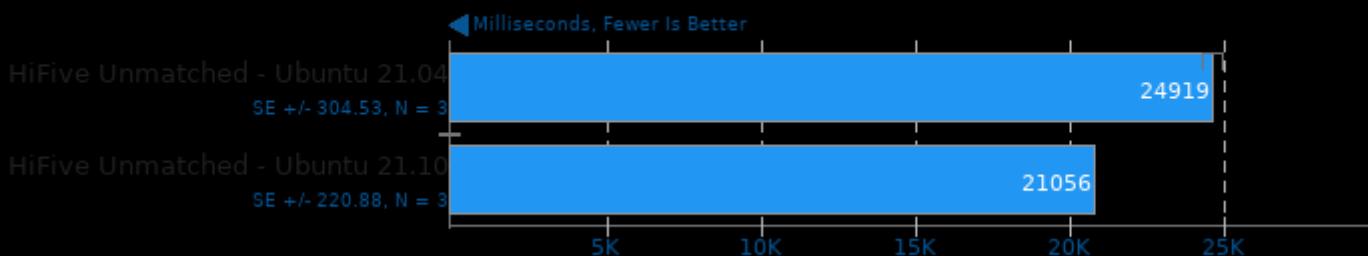


GNU Octave Benchmark 6.1.1~hg.2021.01.26



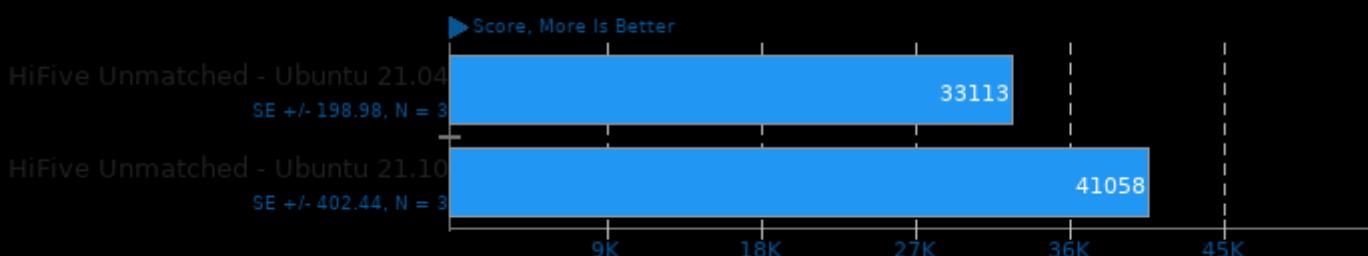
PyBench 2018-02-16

Total For Average Test Times



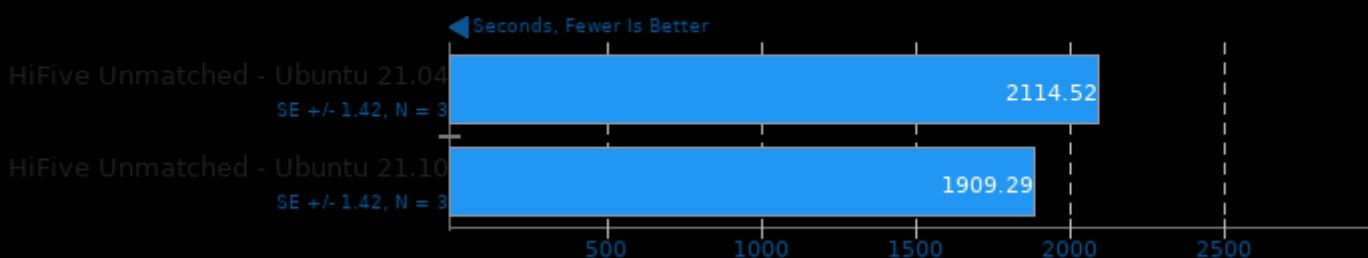
PHPBench 0.8.1

PHP Benchmark Suite

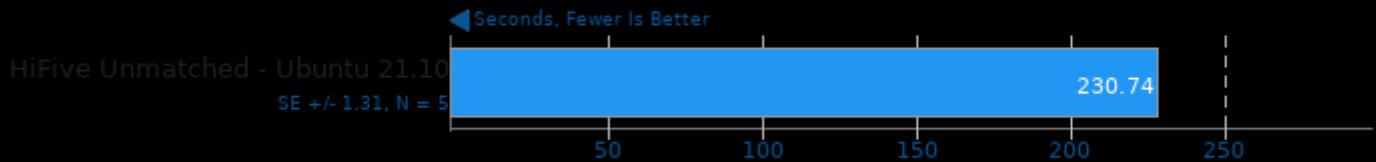


Timed GDB GNU Debugger Compilation 10.2

Time To Compile



GNU Octave Benchmark 6.2.0



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



Geometric mean based upon tests: pts/encode-flac, pts/encode-ape and pts/encode-wavpack



Geometric mean based upon tests: pts/graphics-magick, pts/compress-7zip, pts/encode-flac, pts/x265, pts/compress-zstd, pts/openssl and pts/build-gdb

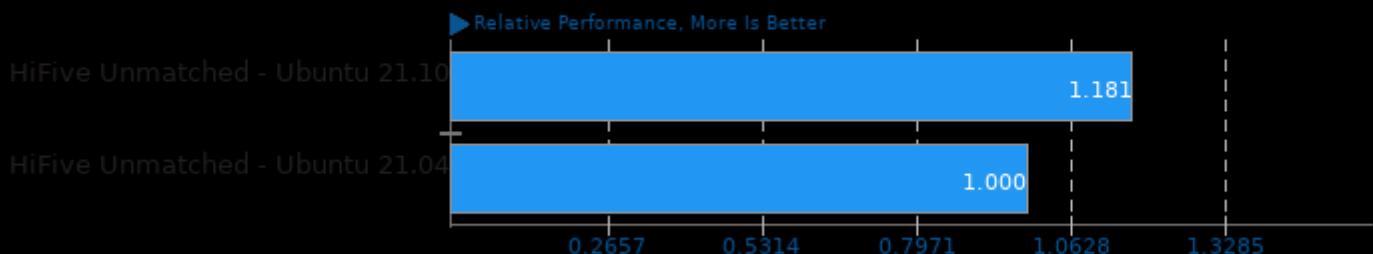


Geometric mean based upon tests: pts/compress-7zip, pts/compress-gzip, pts/compress-zstd and pts/compress-lz4

SiFive RISC-V HiFive Unmatched Benchmarks

Geometric Mean Of CPU Massive Tests

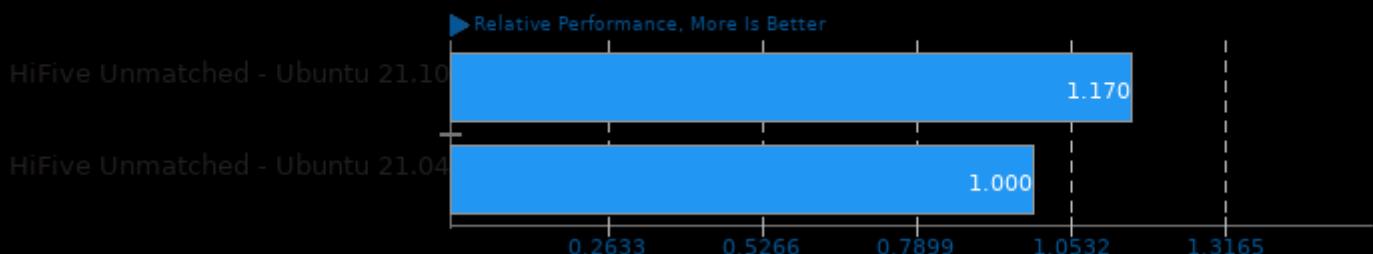
Result Composite - SiFive RISC-V HiFive Unmatched Benchmarks



Geometric mean based upon tests: pts/compress-7zip, pts/compress-zstd, pts/x265, pts/dolfin, pts/encode-flac, pts/graphics-magick, pts/openssl, pts/phpbench, pts/stress-ng and system/octave-benchmark

Geometric Mean Of Creator Workloads Tests

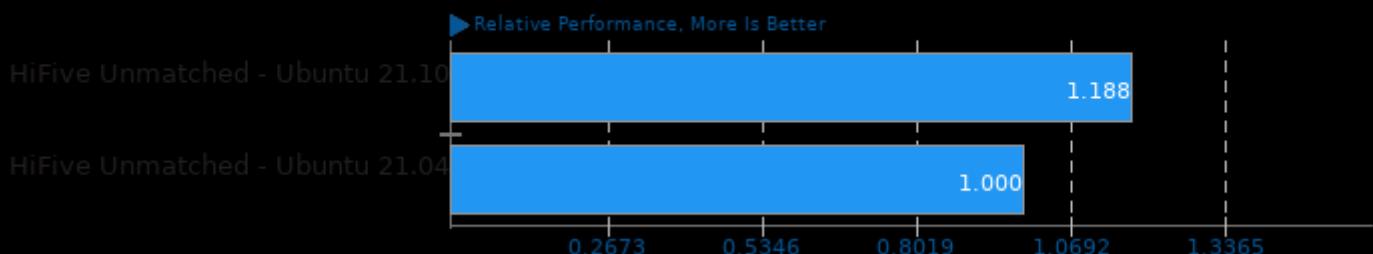
Result Composite - SiFive RISC-V HiFive Unmatched Benchmarks



Geometric mean based upon tests: pts/smallpt, system/ocrmypdf, pts/x265, pts/avifenc, pts/encode-flac, pts/encode-ape, pts/encode-wavpack, pts/graphics-magick, pts/webp, pts/espeak, pts/rnnoise and pts/synthmark

Geometric Mean Of Cryptography Tests

Result Composite - SiFive RISC-V HiFive Unmatched Benchmarks

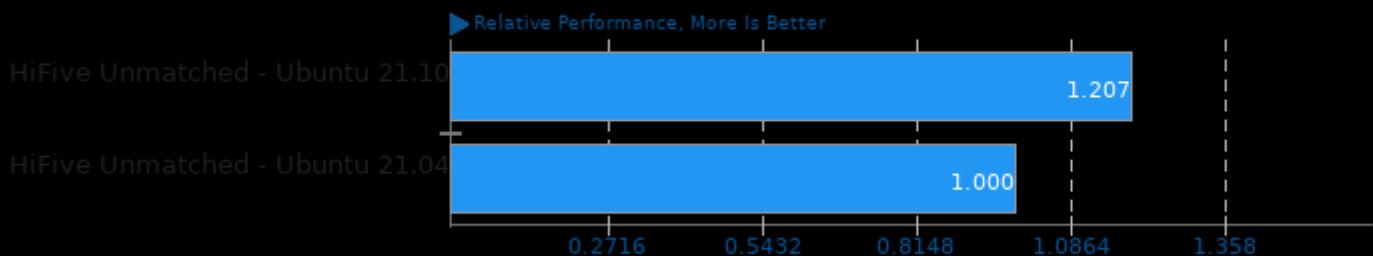


Geometric mean based upon tests: pts/openssl and pts/securemark

SiFive RISC-V HiFive Unmatched Benchmarks

Geometric Mean Of Encoding Tests

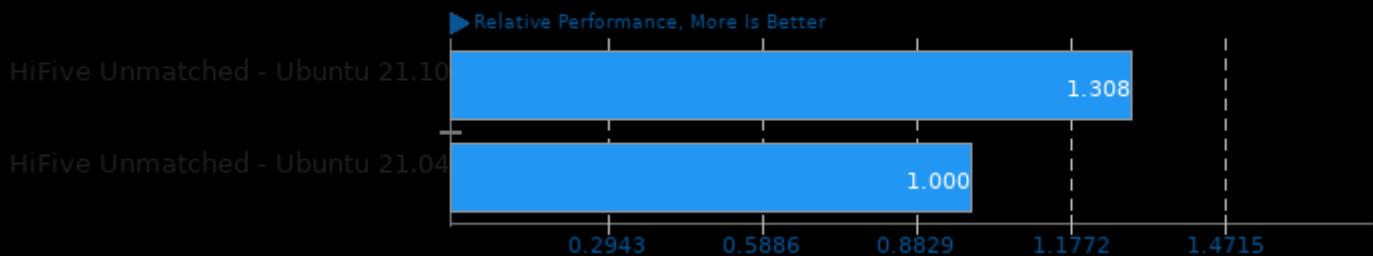
Result Composite - SiFive RISC-V HiFive Unmatched Benchmarks



Geometric mean based upon tests: pts/encode-flac, pts/encode-ape, pts/encode-wavpack, pts/x265 and pts/avifenc

Geometric Mean Of HPC - High Performance Computing Tests

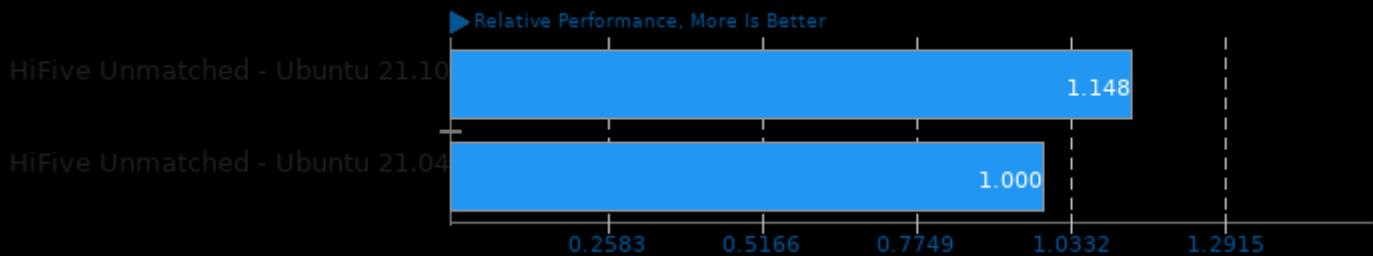
Result Composite - SiFive RISC-V HiFive Unmatched Benchmarks



Geometric mean based upon tests: system/octave-benchmark, pts/dolfin and pts/rnnoise

Geometric Mean Of Imaging Tests

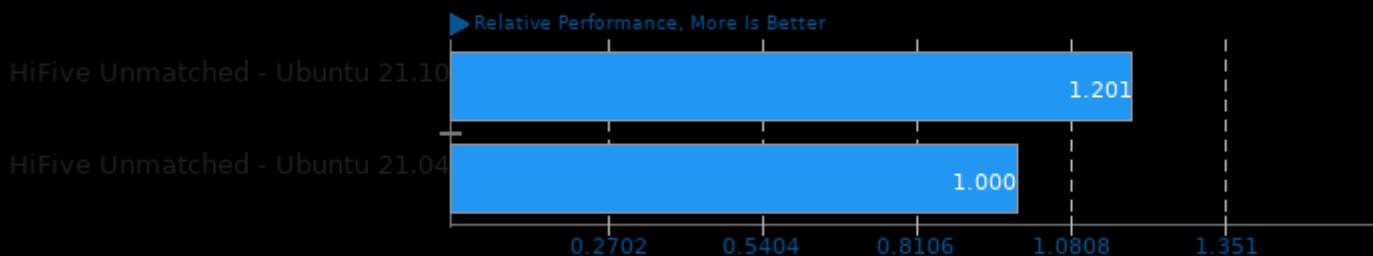
Result Composite - SiFive RISC-V HiFive Unmatched Benchmarks



Geometric mean based upon tests: pts/graphics-magick, pts/webp and pts/avifenc

Geometric Mean Of Common Kernel Benchmarks Tests

Result Composite - SiFive RISC-V HiFive Unmatched Benchmarks

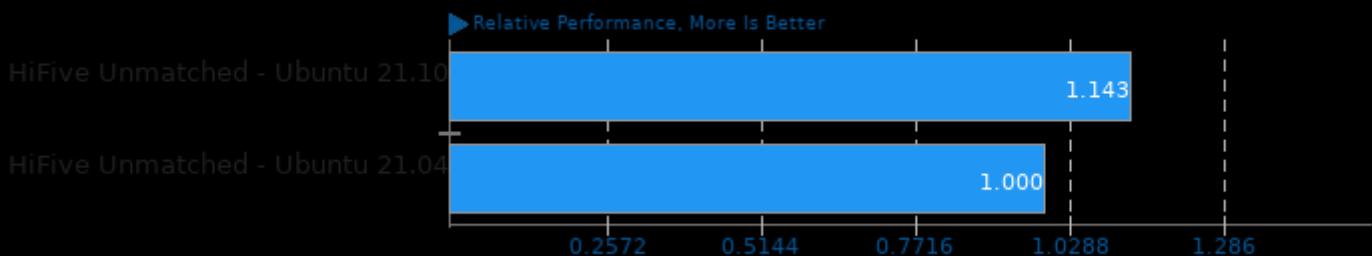


Geometric mean based upon tests: pts/openssl and pts/stress-ng

SiFive RISC-V HiFive Unmatched Benchmarks

Geometric Mean Of Multi-Core Tests

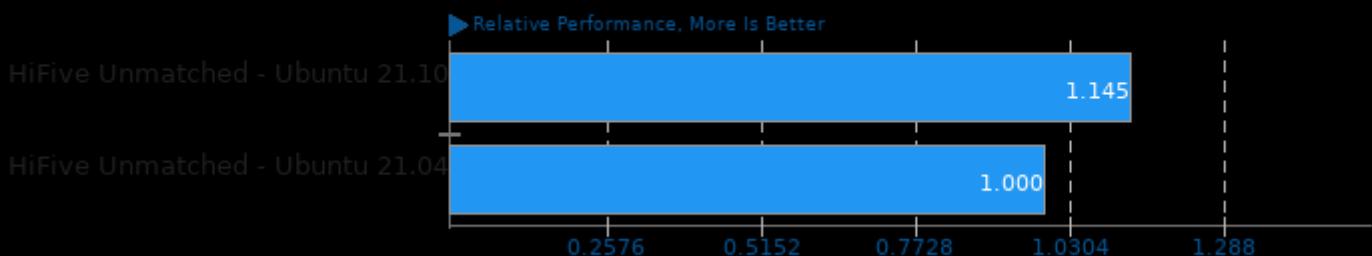
Result Composite - SiFive RISC-V HiFive Unmatched Benchmarks



Geometric mean based upon tests: pts/coremark, pts/x265, pts/avifenc, pts/smallpt, pts/graphics-magick, pts/compress-7zip, pts/compress-zstd and pts/build-gdb

Geometric Mean Of Programmer / Developer System Benchmarks Tests

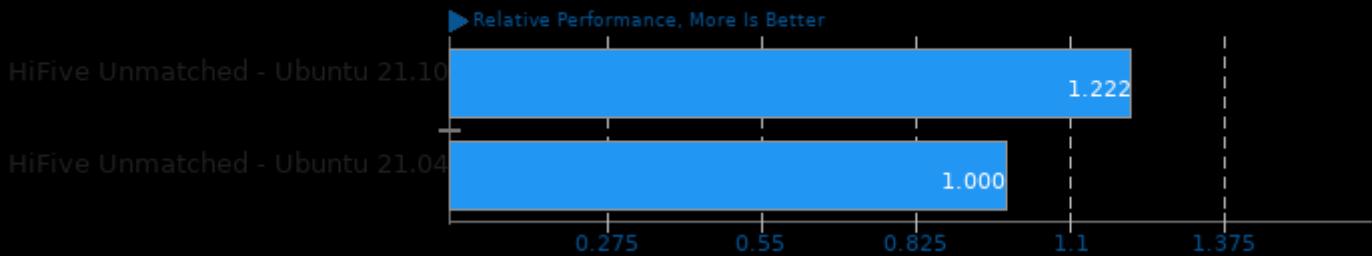
Result Composite - SiFive RISC-V HiFive Unmatched Benchmarks



Geometric mean based upon tests: pts/compress-zstd, pts/pybench and pts/build-gdb

Geometric Mean Of Python Tests

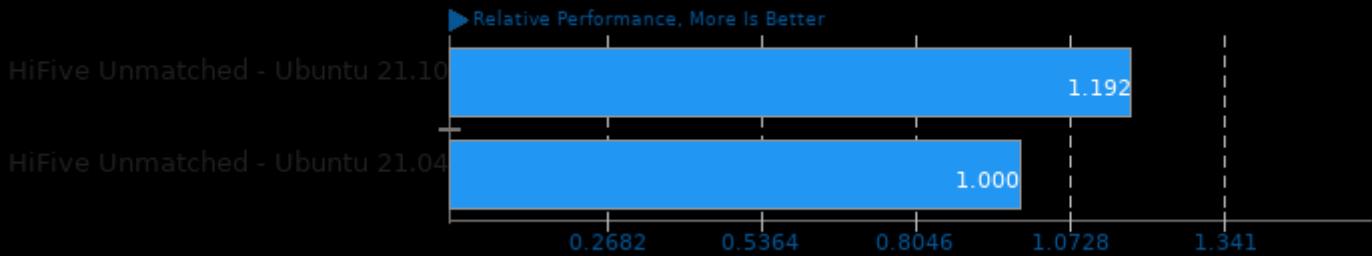
Result Composite - SiFive RISC-V HiFive Unmatched Benchmarks



Geometric mean based upon tests: system/ocrmypdf and pts/pybench

Geometric Mean Of Server Tests

Result Composite - SiFive RISC-V HiFive Unmatched Benchmarks

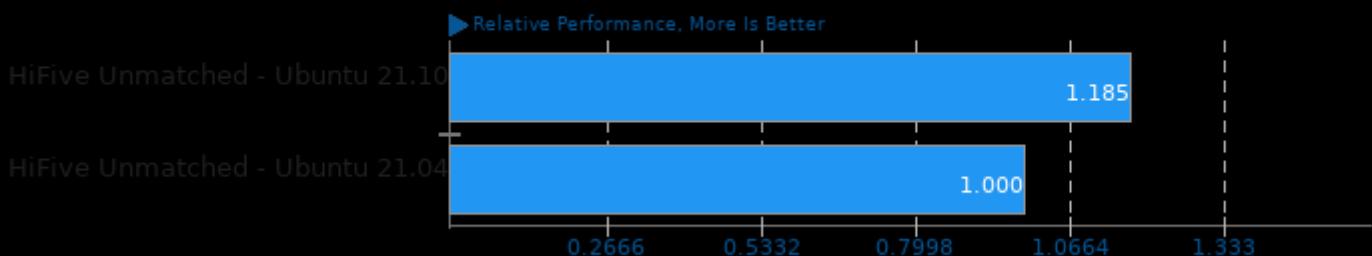


Geometric mean based upon tests: pts/phpbench and pts/openssl

SiFive RISC-V HiFive Unmatched Benchmarks

Geometric Mean Of Server CPU Tests

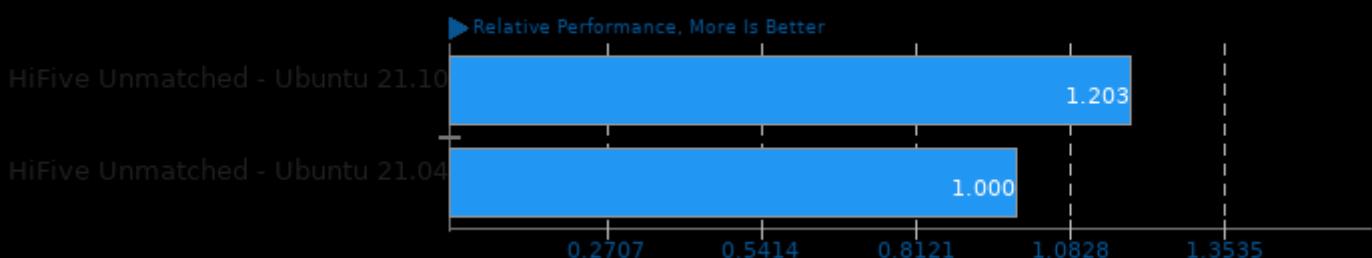
Result Composite - SiFive RISC-V HiFive Unmatched Benchmarks



Geometric mean based upon tests: pts/x265, pts/compress-7zip, pts/compress-zstd, pts/openssl, pts/stress-ng, pts/pybench and pts/phpbench

Geometric Mean Of Single-Threaded Tests

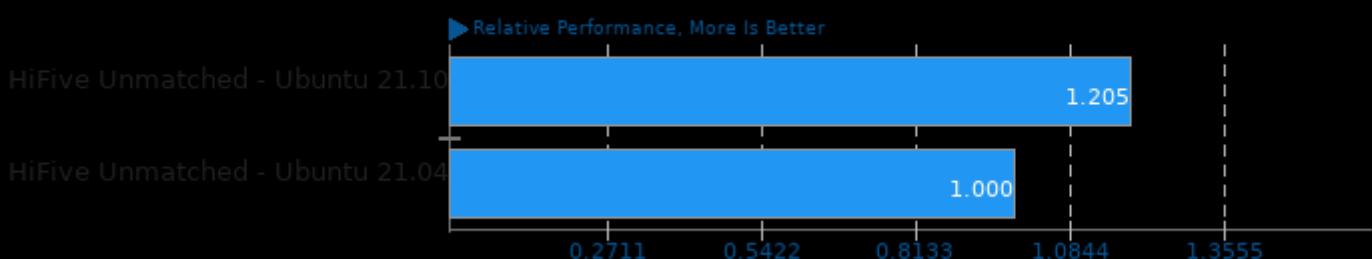
Result Composite - SiFive RISC-V HiFive Unmatched Benchmarks



Geometric mean based upon tests: pts/compress-gzip, pts/encode-flac, pts/espeak, pts/pybench and pts/phpbench

Geometric Mean Of Speech Tests

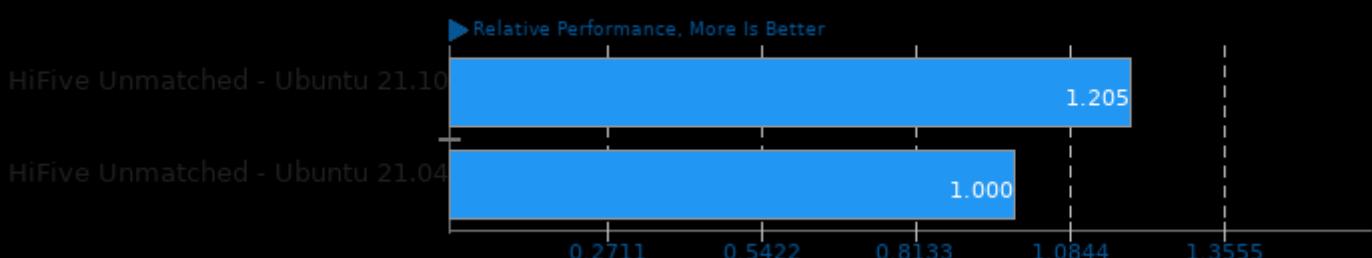
Result Composite - SiFive RISC-V HiFive Unmatched Benchmarks



Geometric mean based upon tests: pts/espeak, pts/rnnoise and pts/synthmark

Geometric Mean Of Telephony Tests

Result Composite - SiFive RISC-V HiFive Unmatched Benchmarks



Geometric mean based upon tests: pts/espeak, pts/rnnoise and pts/synthmark

This file was automatically generated via the Phoronix Test Suite benchmarking software on Friday, 29 March 2024 09:19.