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Intel Core i7-8550U testing with a Dell 0H0VG3 (1.10.0 BIOS) and Intel UHD 620 KBL GT2 3GB on Ubuntu 20.10 via the Phoronix Test Suite.

Automated Executive Summary

2 had the most wins, coming in first place for 30% of the tests.

Based on the geometric mean of all complete results, the fastest (5) was 1.022x the speed of the slowest (1). 2 was 0.999x the speed of 5, 3 was 1x the speed of 2, 4 was 0.997x the speed of 3, 1 was 0.983x the speed of 4.

Test Systems:

1

2

3

4

5

Processor: Intel Core i7-8550U @ 4.00GHz (4 Cores / 8 Threads), Motherboard: Dell 0H0VG3 (1.10.0 BIOS), Chipset: Intel Xeon E3-1200 v6/7th, Memory: 8GB, Disk: PM961 NVMe SAMSUNG 256GB, Graphics: Intel UHD 620 KBL GT2 3GB (1150MHz), Audio: Realtek ALC3271, Network: Qualcomm Atheros QCA6174 802.11ac

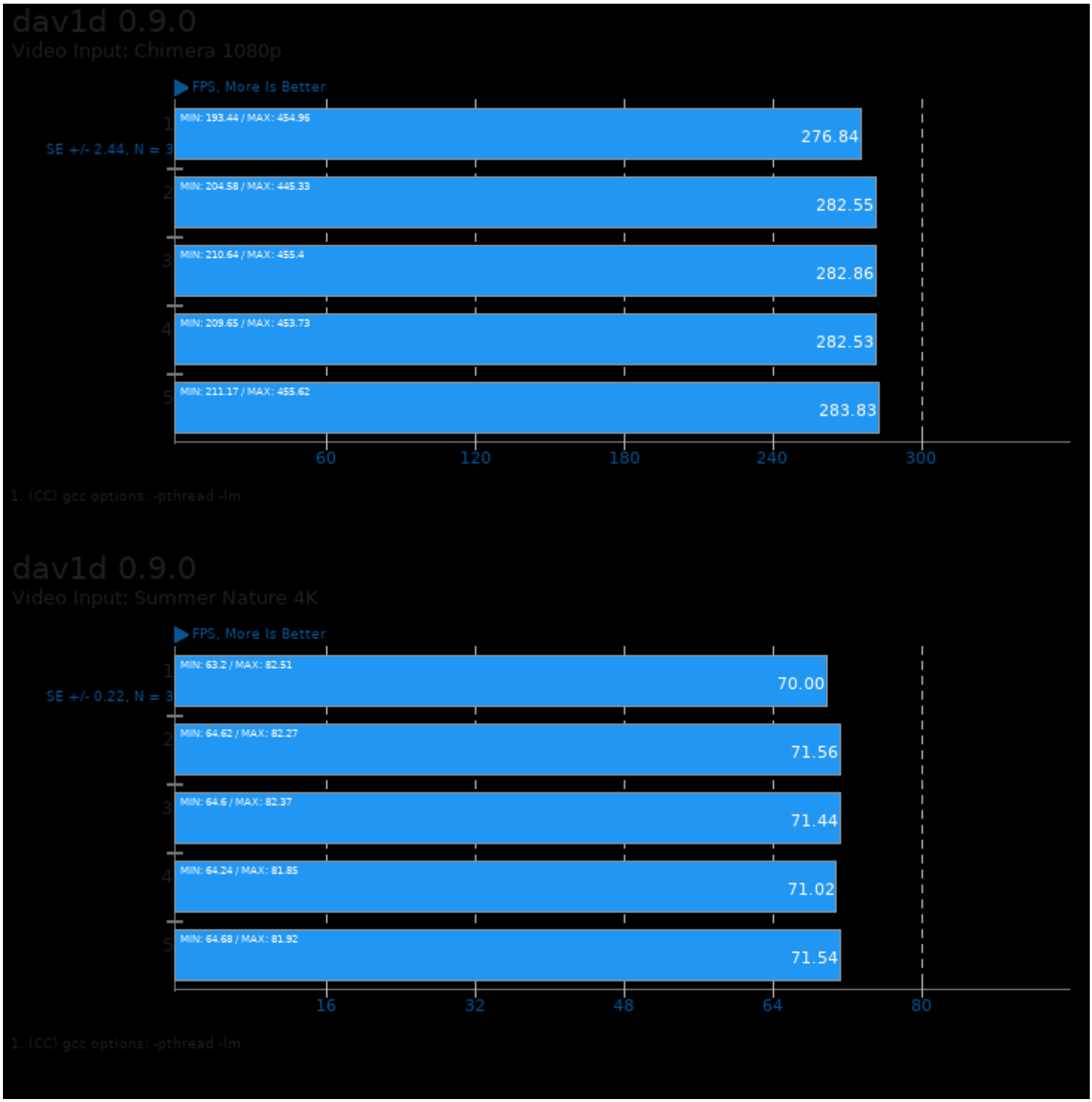
OS: Ubuntu 20.10, Kernel: 5.8.0-50-generic (x86_64), Desktop: GNOME Shell 3.38.2, Display Server: X Server 1.20.9, OpenGL: 4.6 Mesa 20.2.6, OpenCL: OpenCL 2.1, Vulkan: 1.2.145, Compiler: GCC 10.2.0, File-System: ext4, Screen Resolution: 1920x1080

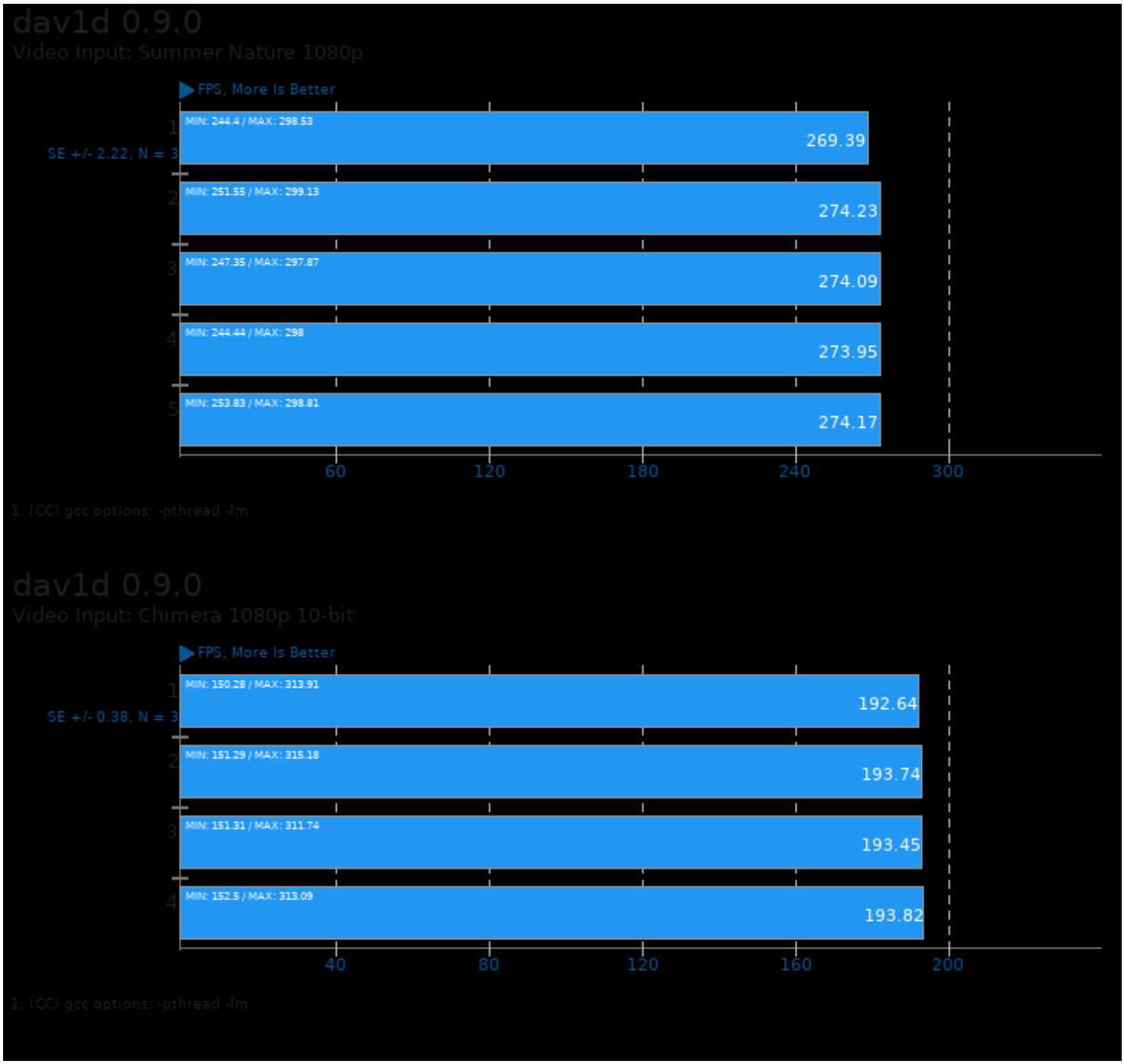
Kernel Notes: Transparent Huge Pages: madvise
Compiler Notes: --build=x86_64-linux-gnu --disable-vtable-verify --disable-werror --enable-checking=release --enable-clocale=gnu --enable-default-pie --enable-gnu-unique-object --enable-languages=c,ada,c++,go,brig,d,fortran,objc,obj-c++,m2 --enable-libphobos-checking=release --enable-libstdcxx-debug --enable-libstdcxx-time=yes --enable-multiarch --enable-multilib --enable-nls --enable-objc-gc=auto --enable-offload-targets=nvptx-none=/build/gcc-10-JvwpWM/gcc-10-10.2.0/debian/tmp-nvptx/usr,amdgcn-amdhsa=/build/gcc-10-JvwpWM/gcc-10-10.2.0/debian/tmp-gcn/usr,hsa --enable-plugin --enable-shared --enable-threads=posix --host=x86_64-linux-gnu --program-prefix=x86_64-linux-gnu- --target=x86_64-linux-gnu --with-abi=m64 --with-arch-32=i686 --with-default-libstdcxx-abi=new --with-gcc-major-version-only --with-multilib-list=m32,m64,mx32 --with-target-system-zlib=auto --with-tune=generic --without-cuda-driver -v
Processor Notes: Scaling Governor: intel_pstate powersave - CPU Microcode: 0xe0 - Thermald 2.3
Security Notes: itlb_multihit: KVM: Mitigation of VMX disabled + l1tf: Mitigation of PTE Inversion; VMX: conditional cache flushes SMT vulnerable + mds: Mitigation of Clear buffers; SMT vulnerable + meltdown: Mitigation of PTI + spec_store_bypass: Mitigation of SSB disabled via prctl and seccomp + spectre_v1: Mitigation of usercopy/swapgs barriers and __user pointer sanitization + spectre_v2: Mitigation of Full generic retpoline IBPB: conditional IBRS_FW STIBP: conditional RSB filling + srbds: Mitigation of Microcode + tsx_async_abort: Not affected

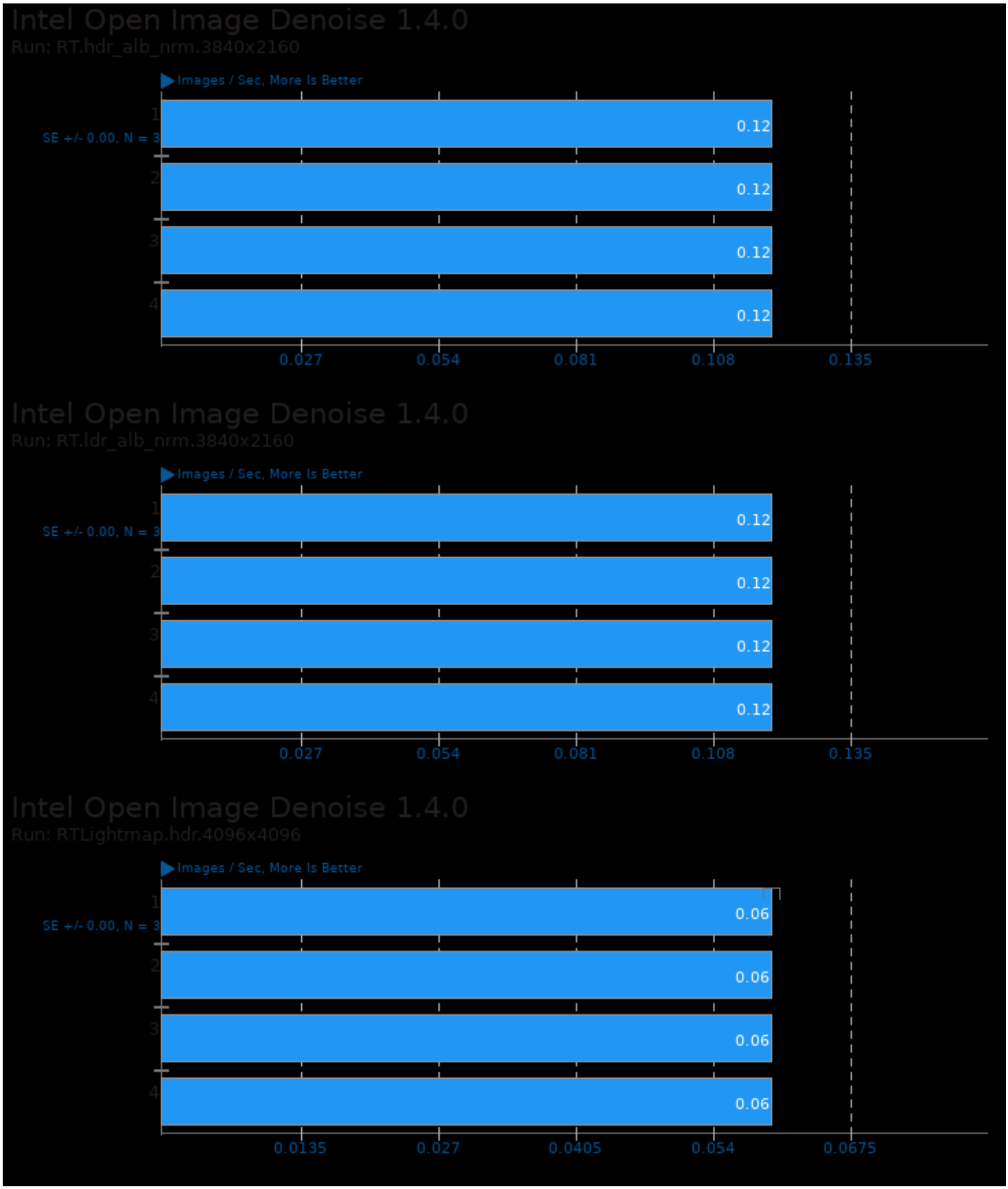
	1	2	3	4	5
dav1d - Chimera 1080p (FPS)	**276.84**	282.55	282.86	282.53	**283.83**
Normalized	97.54%	99.55%	99.66%	99.54%	100%
Standard Deviation	1.5%				
dav1d - Summer Nature 4K (FPS)	**70.00**	**71.56**	71.44	71.02	71.54
Normalized	97.82%	100%	99.83%	99.25%	99.97%
Standard Deviation	0.6%				
dav1d - S.N.1 (FPS)	**269.39**	**274.23**	274.09	273.95	274.17
Normalized	98.24%	100%	99.95%	99.9%	99.98%
Standard Deviation	1.4%				
dav1d - C.1.1.b (FPS)	**192.64**	193.74	193.45	**193.82**	
Normalized	99.39%	99.96%	99.81%	100%	
Standard Deviation	0.3%				
Intel Open Image Denoise - RT.hdr_alb_nrm.3840x2160 (Images / Sec)	0.12	0.12	0.12	0.12	
Standard Deviation	1.4%				
Intel Open Image Denoise - RT.ldr_alb_nrm.3840x2160 (Images / Sec)	0.12	0.12	0.12	0.12	
Standard Deviation	0.1%				

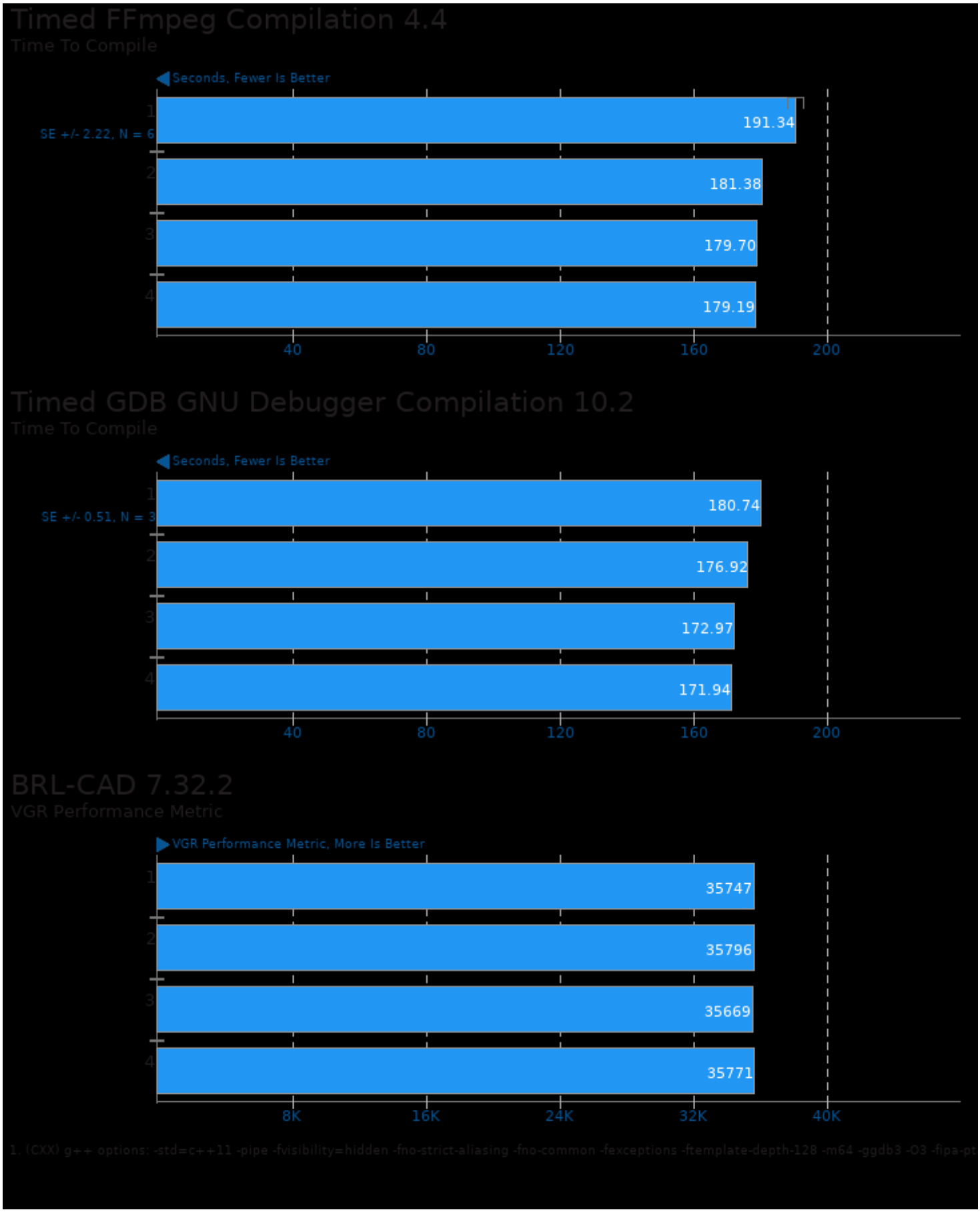
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Intel Open Image Denoise - RTLightmap.hdr.4096x4096 (Images / Sec)	0.06	0.06	0.06	0.06
Standard Deviation	2.4%			
Timed FFmpeg Compilation - Time To Compile (sec)	**191.337**	181.375	179.704	**179.19**
Normalized	93.65%	98.8%	99.71%	100%
Standard Deviation	2.8%			
Timed GDB GNU Debugger Compilation - Time To Compile (sec)	**180.738**	176.917	172.974	**171.941**
Normalized	95.13%	97.19%	99.4%	100%
Standard Deviation	0.5%			
BRL-CAD - V.P.M (VGR Performance Metric)	35747	**35796**	**35669**	35771
Normalized	99.86%	100%	99.65%	99.93%

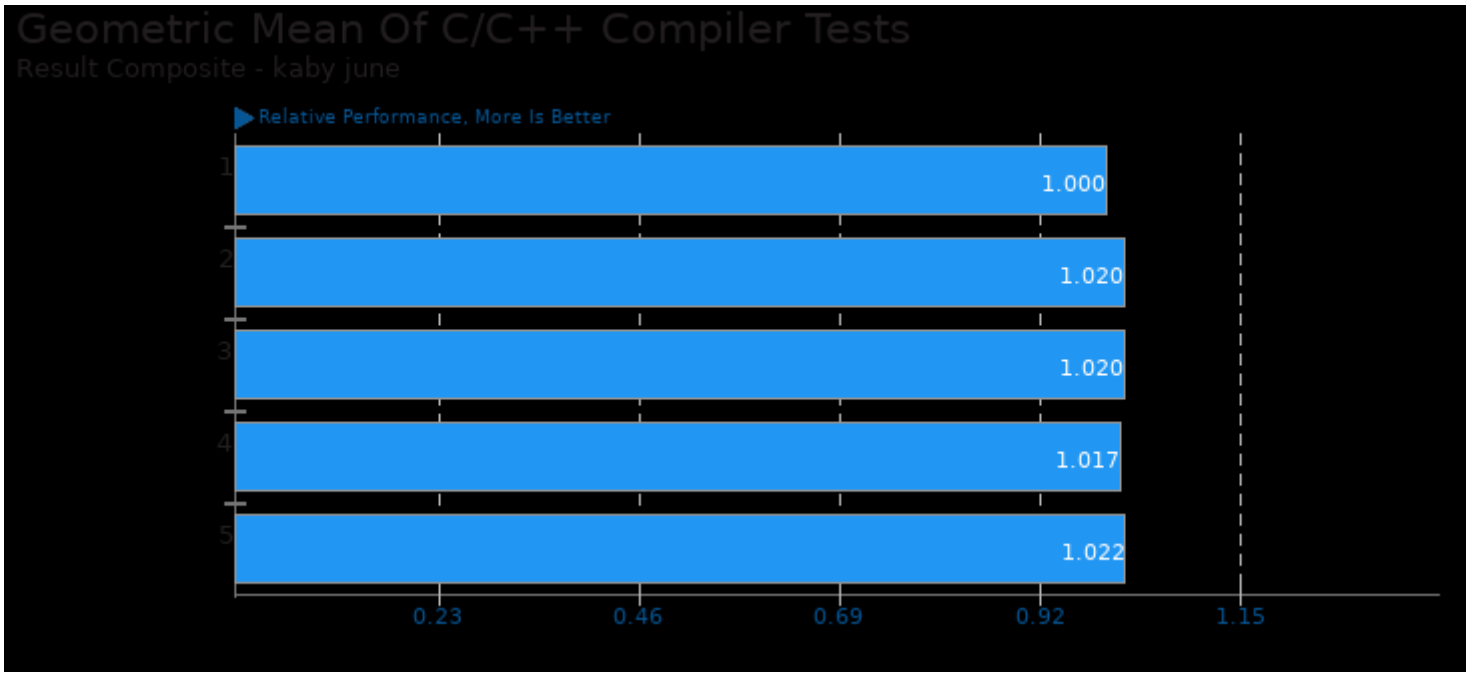

dav1d 0.9.0
Video Input: Chimera 1080p
FPS, More Is Better
SE +/- 2.44, N = 3
1
MIN: 193.44 / MAX: 454.96
276.84
2
MIN: 204.58 / MAX: 446.33
282.55
3
MIN: 210.64 / MAX: 455.4
282.86
4
MIN: 209.65 / MAX: 453.73
282.53
5
MIN: 211.17 / MAX: 455.62
283.83
60
120
180
240
300
1. (CC) gcc options: -pthread -lm
dav1d 0.9.0
Video Input: Summer Nature 4K
FPS, More Is Better
SE +/- 0.22, N = 3
1
MIN: 63.2 / MAX: 82.51
70.00
2
MIN: 64.62 / MAX: 82.27
71.56
3
MIN: 64.6 / MAX: 82.37
71.44
4
MIN: 64.24 / MAX: 81.85
71.02
5
MIN: 64.68 / MAX: 81.92
71.54
16
32
48
64
80
1. (CC) gcc options: -pthread -lm


dav1d 0.9.0
Video Input: Summer Nature 1080p
FPS, More Is Better
SE +/- 2.22, N = 3
1
MIN: 244.4 / MAX: 298.53
269.39
2
MIN: 251.55 / MAX: 298.13
274.23
3
MIN: 247.35 / MAX: 297.87
274.09
4
MIN: 244.44 / MAX: 298
273.95
5
MIN: 253.83 / MAX: 298.81
274.17
60
120
180
240
300
1. (CC) gcc options: -pthread -lm
dav1d 0.9.0
Video Input: Chimera 1080p 10-bit
FPS, More Is Better
SE +/- 0.38, N = 3
1
MIN: 150.28 / MAX: 313.91
192.64
2
MIN: 151.29 / MAX: 315.18
193.74
3
MIN: 151.31 / MAX: 311.74
193.45
4
MIN: 152.5 / MAX: 313.09
193.82
40
80
120
160
200
1. (CC) gcc options: -pthread -lm

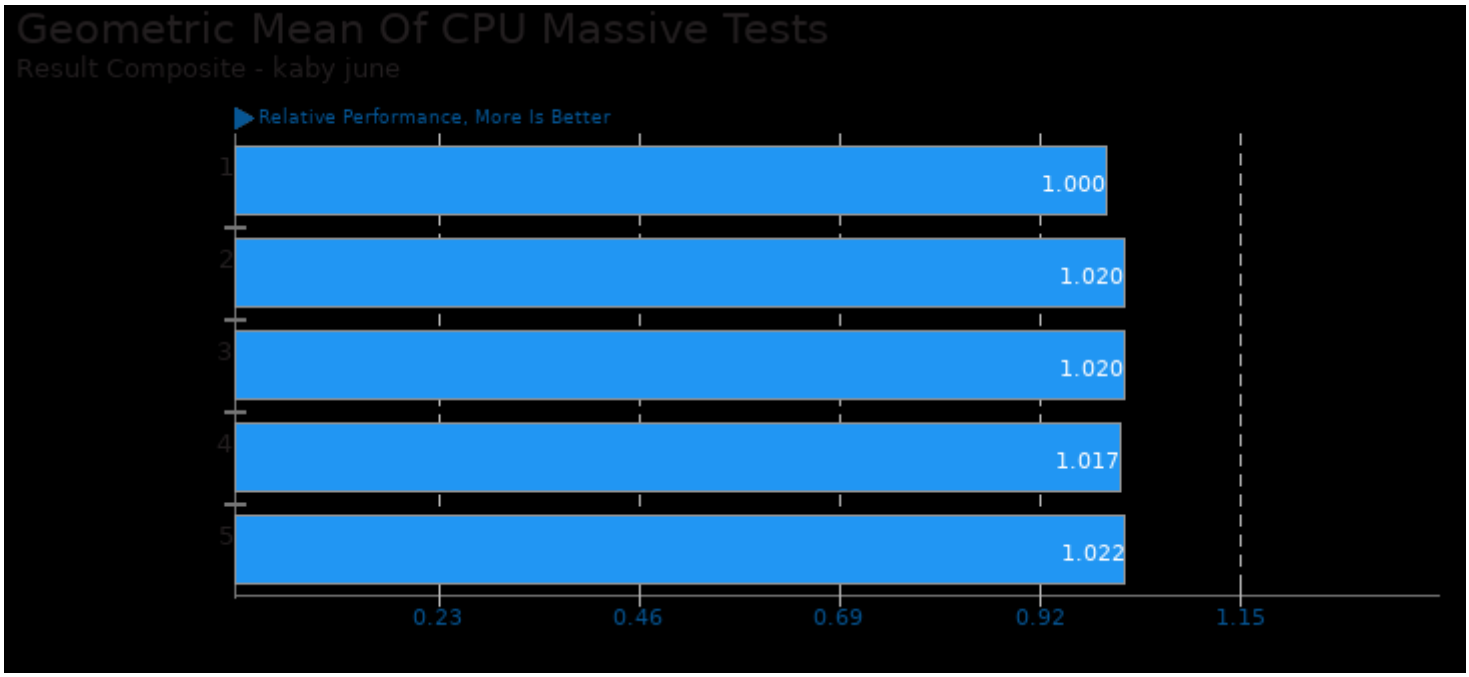

Intel Open Image Denoise 1.4.0
Run: RT.hdr_alb_nrm.3840x2160
Images / Sec, More Is Better
SE +/- 0.00, N = 3
1
2
3
4
0.12
0.12
0.12
0.12
0.027
0.054
0.081
0.108
0.135
Intel Open Image Denoise 1.4.0
Run: RT.ldr_alb_nrm.3840x2160
Images / Sec, More Is Better
SE +/- 0.00, N = 3
1
2
3
4
0.12
0.12
0.12
0.12
0.027
0.054
0.081
0.108
0.135
Intel Open Image Denoise 1.4.0
Run: RTLightmap.hdr.4096x4096
Images / Sec, More Is Better
SE +/- 0.00, N = 3
1
2
3
4
0.06
0.06
0.06
0.06
0.0135
0.027
0.0405
0.054
0.0675


Timed FFmpeg Compilation 4.4
Time To Compile
Seconds, Fewer Is Better
SE +/- 2.22, N = 6
191.34
181.38
179.70
179.19
40
80
120
160
200
Timed GDB GNU Debugger Compilation 10.2
Time To Compile
Seconds, Fewer Is Better
SE +/- 0.51, N = 3
180.74
176.92
172.97
171.94
40
80
120
160
200
BRL-CAD 7.32.2
VGR Performance Metric
VGR Performance Metric, More Is Better
35747
35796
35669
35771
8K
16K
24K
32K
40K
1. (CXX) g++ options: -std=c++11 -pipe -fvisibility=hidden -fno-strict-aliasing -fno-common -fexceptions -ftemplate-depth-128 -m64 -ggdb3 -O3 -fipa-pc

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

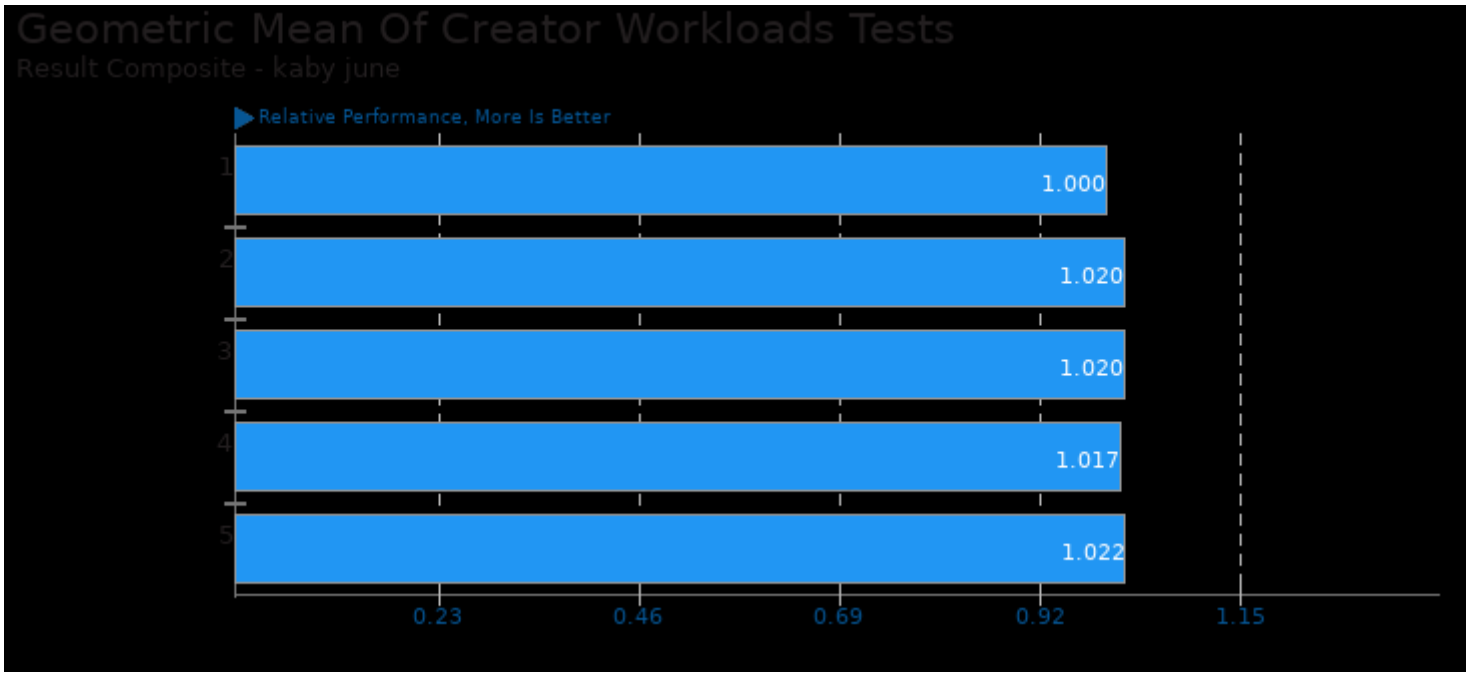


Geometric mean based upon tests: pts/dav1d, pts/build-gdb and pts/build-ffmpeg

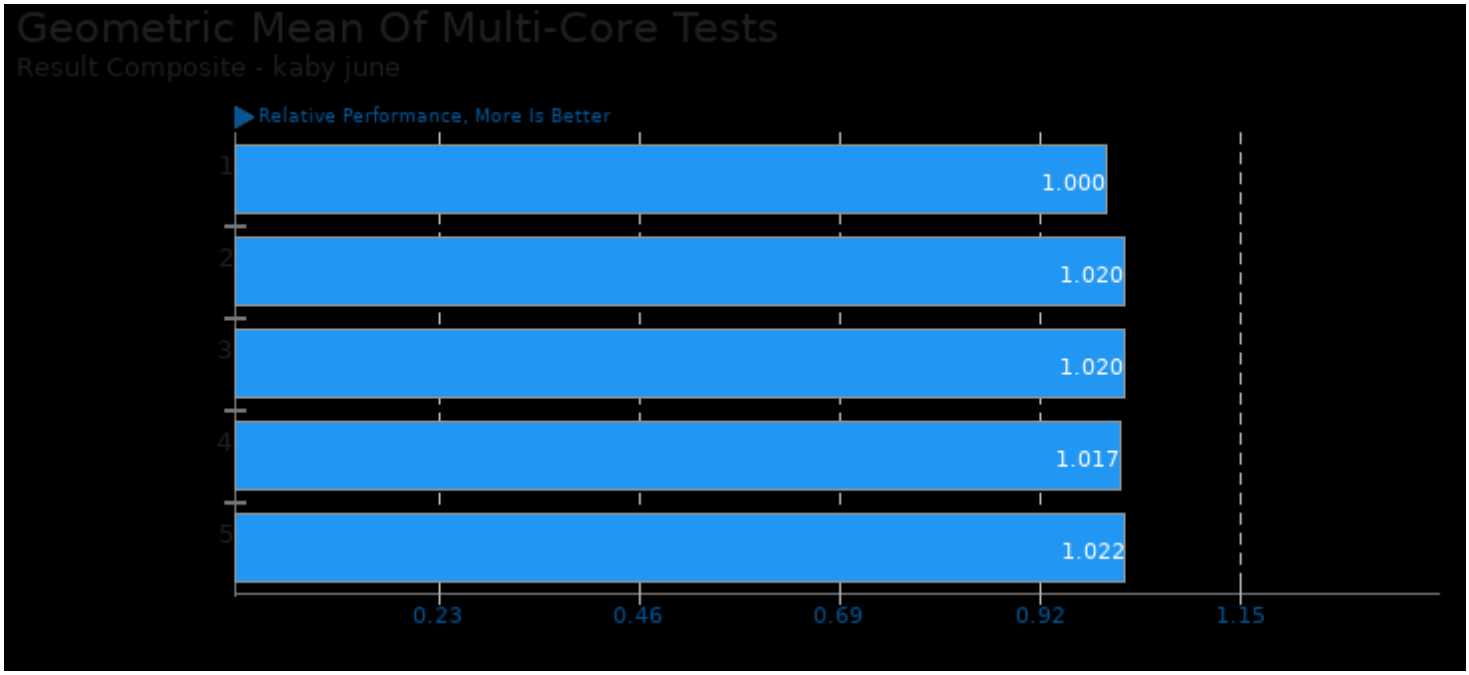


Geometric mean based upon tests: pts/brl-cad and pts/dav1d

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Geometric mean based upon tests: pts/dav1d, pts/oidn and pts/brl-cad



Geometric mean based upon tests: pts/dav1d, pts/build-gdb, pts/build-ffmpeg and pts/oidn

This file was automatically generated via the Phoronix Test Suite benchmarking software on Thursday, 28 March 2024 16:02.