

www.phoronix-test-suite.com

jpegxl 5900HX

AMD Ryzen 9 5900HX testing with a ASUS G513QY v1.0 (G513QY.311 BIOS) and ASUS AMD Cezanne 512MB on Ubuntu 21.10 via the Phoronix Test Suite.

Automated Executive Summary

1 had the most wins, coming in first place for 62% of the tests.

Based on the geometric mean of all complete results, the fastest (1) was 1.004x the speed of the slowest (3). 2 was 1x the speed of 1 and 3 was 0.997x the speed of 2.

Test Systems:

1

2

jpegxl 5900HX

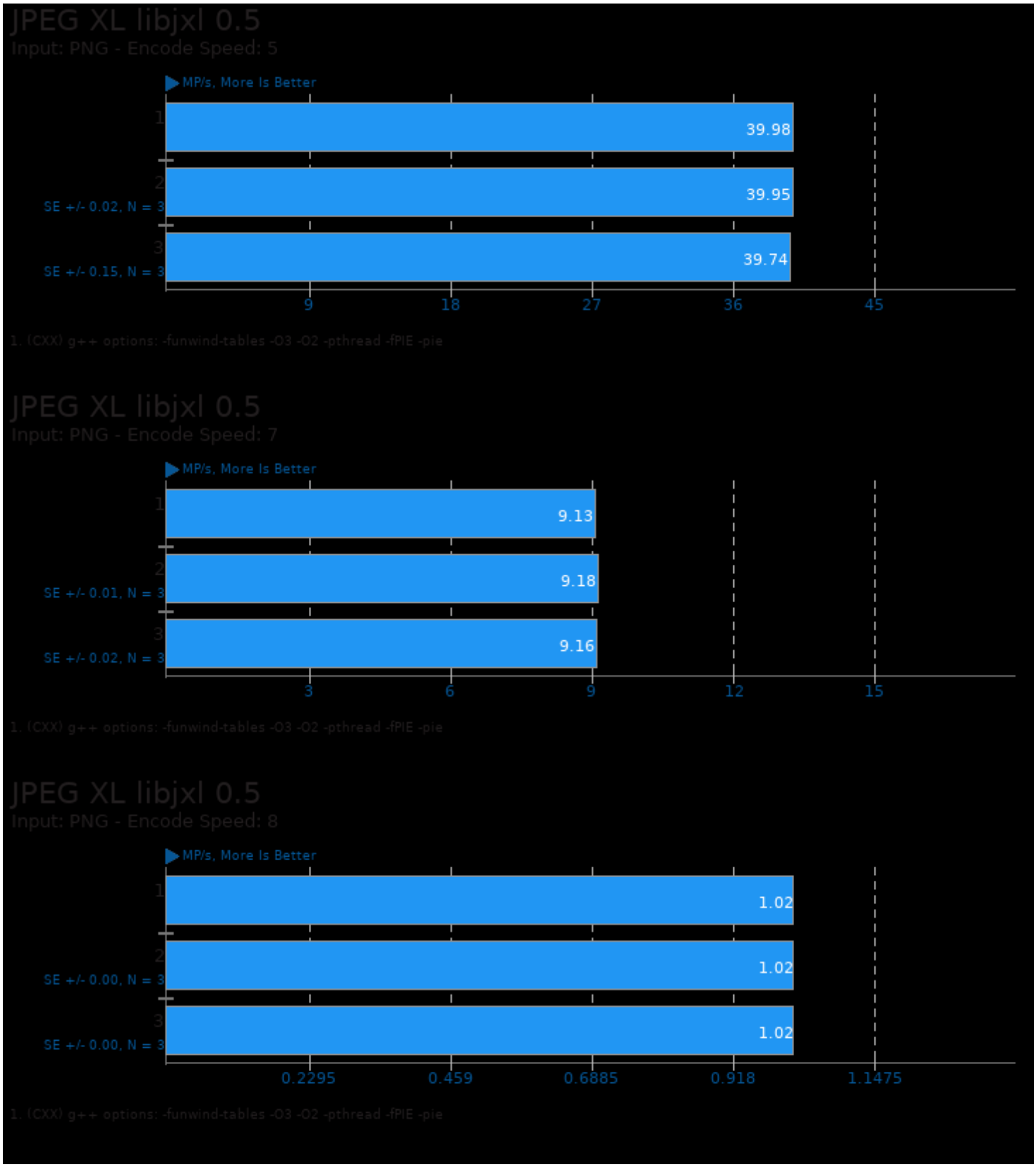
3

Processor: AMD Ryzen 9 5900HX @ 3.30GHz (8 Cores / 16 Threads), Motherboard: ASUS G513QY v1.0 (G513QY.311 BIOS), Chipset: AMD Renoir/Cezanne, Memory: 16GB, Disk: 512GB SAMSUNG MZVLQ512HBLU-00B00, Graphics: ASUS AMD Cezanne 512MB (2600/1000MHz), Audio: AMD Navi 21 HDMI Audio, Monitor: LQ156M1JW25, Network: Realtek RTL8111/8168/8411 + MEDIATEK Device 7961

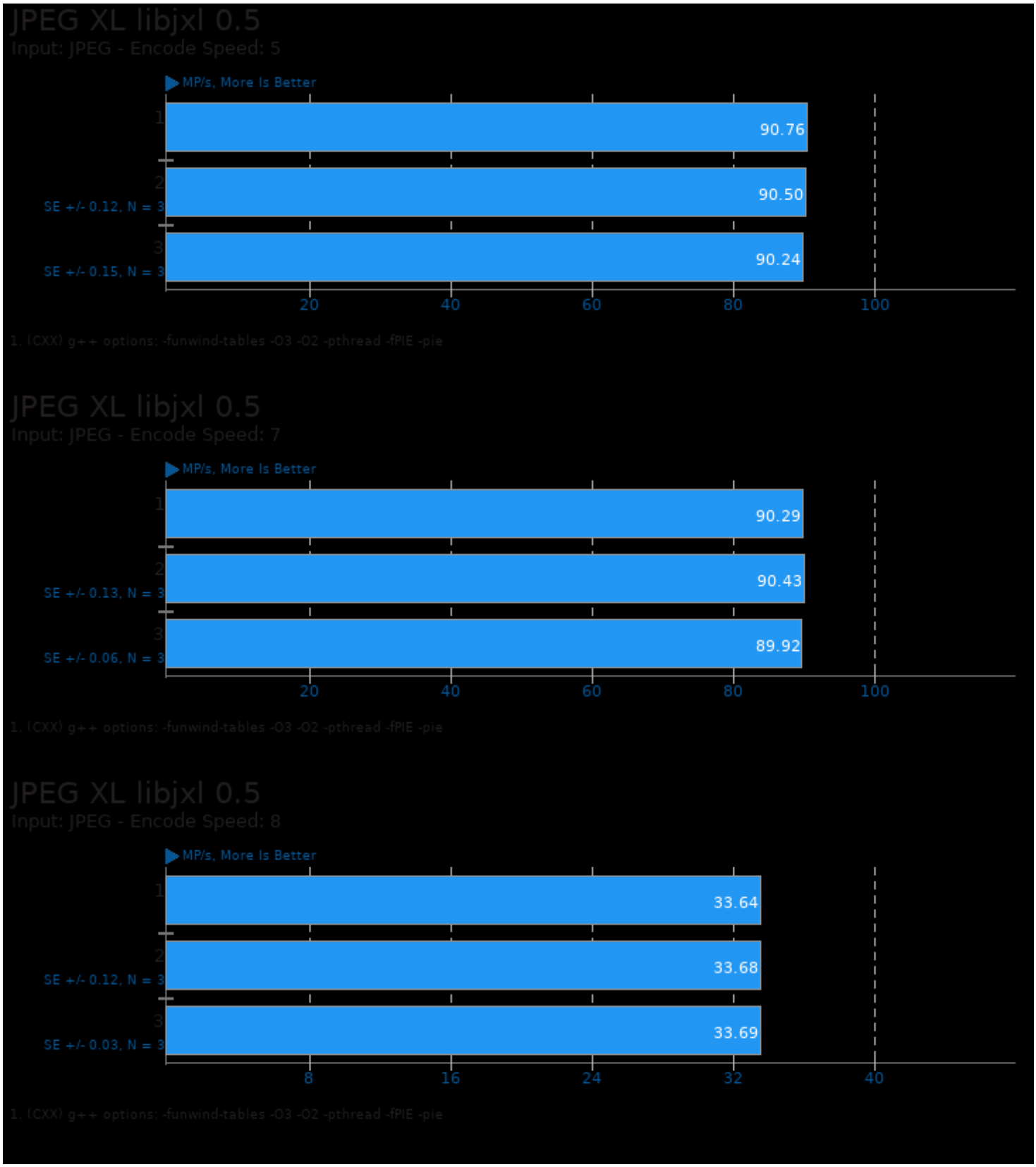
OS: Ubuntu 21.10, Kernel: 5.14.0-051400rc4daily20210804-generic (x86_64) 20210803, Desktop: GNOME Shell 40.2, Display Server: X Server + Wayland, OpenGL: 4.6 Mesa 21.1.4 (LLVM 12.0.1), Vulkan: 1.2.168, Compiler: GCC 11.2.0, File-System: ext4, Screen Resolution: 1920x1080

Kernel Notes: Transparent Huge Pages: madvise
Compiler Notes: --build=x86_64-linux-gnu --disable-vtable-verify --disable-werror --enable-bootstrap --enable-cet --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-link-serialization=2 --enable-multiarch --enable-multilib --enable-nls --enable-objc-gc=auto --enable-offload-targets=nvptx-none=/build/gcc-11-M6DaQn/gcc-11-11.2.0/debian/tmp-nvptx/usr,amdgcn-amdhsa=/build/gcc-11-M6DaQn/gcc-11-11.2.0/debian/tmp-gcn/usr --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-build-config=bootstrap-lto-lean --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: acpi-cpufreq schedutil (Boost: Enabled) - CPU Microcode: 0xa50000c
Security Notes: itlb_multihit: Not affected + l1tf: Not affected + mds: Not affected + meltdown: Not affected + 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 AMD retpoline IBPB: conditional IBRS_FW STIBP: always-on RSB filling + srbds: Not affected + tsx_async_abort: Not affected

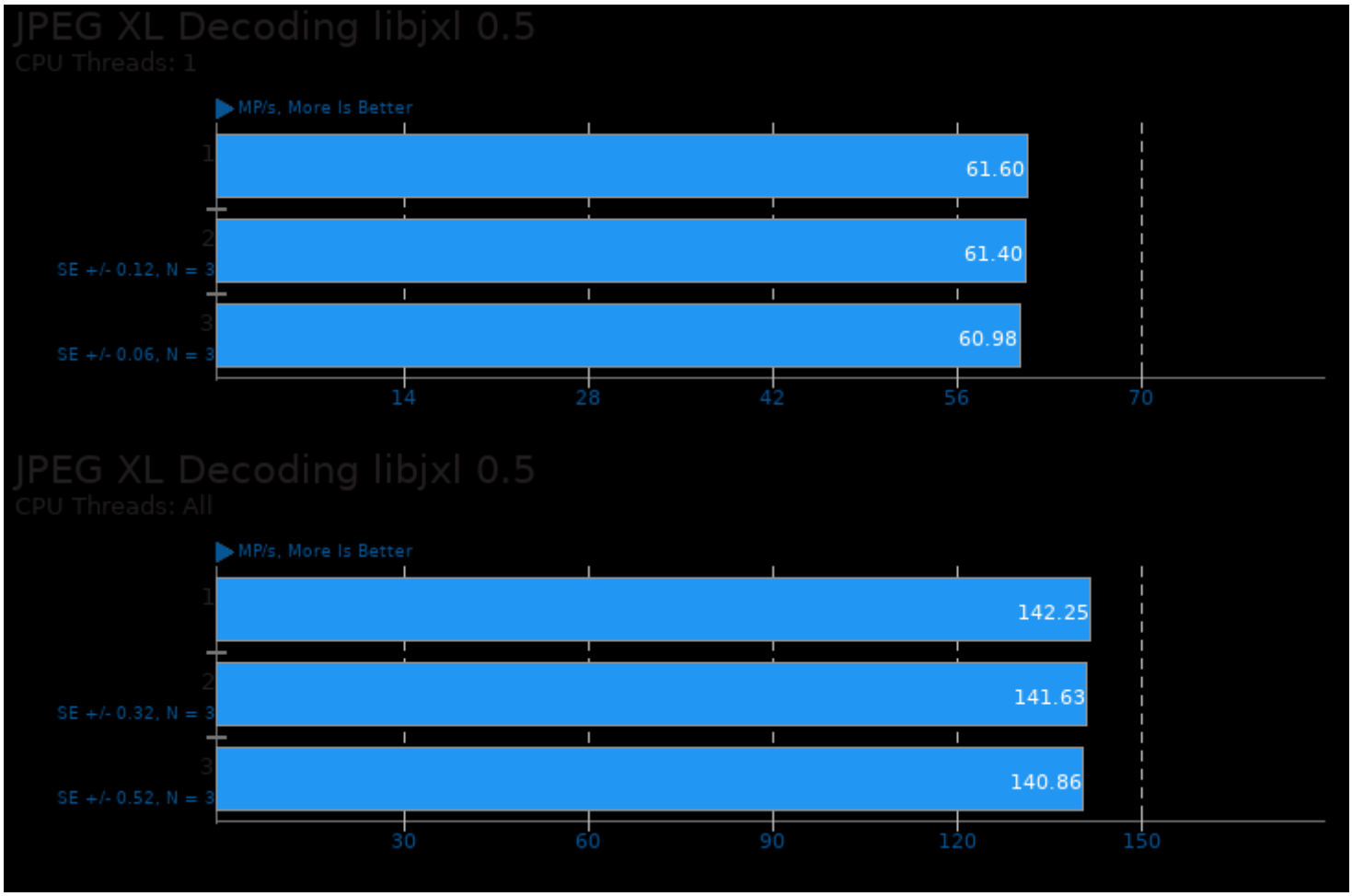
	1	2	3
JPEG XL libjxl - PNG - 5 (MP/s)	**39.98**	39.95	**39.74**
Normalized	100%	99.92%	99.4%
Standard Deviation		0.1%	0.6%
JPEG XL libjxl - PNG - 7 (MP/s)	**9.13**	**9.18**	9.16
Normalized	99.46%	100%	99.78%
Standard Deviation		0.2%	0.5%
JPEG XL libjxl - PNG - 8 (MP/s)	1.02	1.02	1.02
Standard Deviation		0%	0.6%
JPEG XL libjxl - JPEG - 5 (MP/s)	**90.76**	90.50	**90.24**
Normalized	100%	99.71%	99.43%
Standard Deviation		0.2%	0.3%
JPEG XL libjxl - JPEG - 7 (MP/s)	90.29	**90.43**	**89.92**
Normalized	99.85%	100%	99.44%
Standard Deviation		0.3%	0.1%
JPEG XL libjxl - JPEG - 8 (MP/s)	**33.64**	33.68	**33.69**
Normalized	99.85%	99.97%	100%
Standard Deviation		0.6%	0.2%
JPEG XL Decoding libjxl - 1 (MP/s)	**61.6**	61.40	**60.98**
Normalized	100%	99.68%	98.99%
Standard Deviation		0.3%	0.2%
JPEG XL Decoding libjxl - All (MP/s)	**142.25**	141.63	**140.86**
Normalized	100%	99.56%	99.02%
Standard Deviation		0.4%	0.6%


JPEG XL libjxl 0.5
Input: PNG - Encode Speed: 5
MP/s, More Is Better
1
2
3
39.98
39.95
39.74
SE +/- 0.02, N = 3
SE +/- 0.15, N = 3
9
18
27
36
45
1. (CXX) g++ options: -funwind-tables -O3 -O2 -pthread -fPIE -pie
JPEG XL libjxl 0.5
Input: PNG - Encode Speed: 7
MP/s, More Is Better
1
2
3
9.13
9.18
9.16
SE +/- 0.01, N = 3
SE +/- 0.02, N = 3
3
6
9
12
15
1. (CXX) g++ options: -funwind-tables -O3 -O2 -pthread -fPIE -pie
JPEG XL libjxl 0.5
Input: PNG - Encode Speed: 8
MP/s, More Is Better
1
2
3
1.02
1.02
1.02
SE +/- 0.00, N = 3
SE +/- 0.00, N = 3
0.2295
0.459
0.6885
0.918
1.1475
1. (CXX) g++ options: -funwind-tables -O3 -O2 -pthread -fPIE -pie

jpegxl 5900HX



jpegxl 5900HX

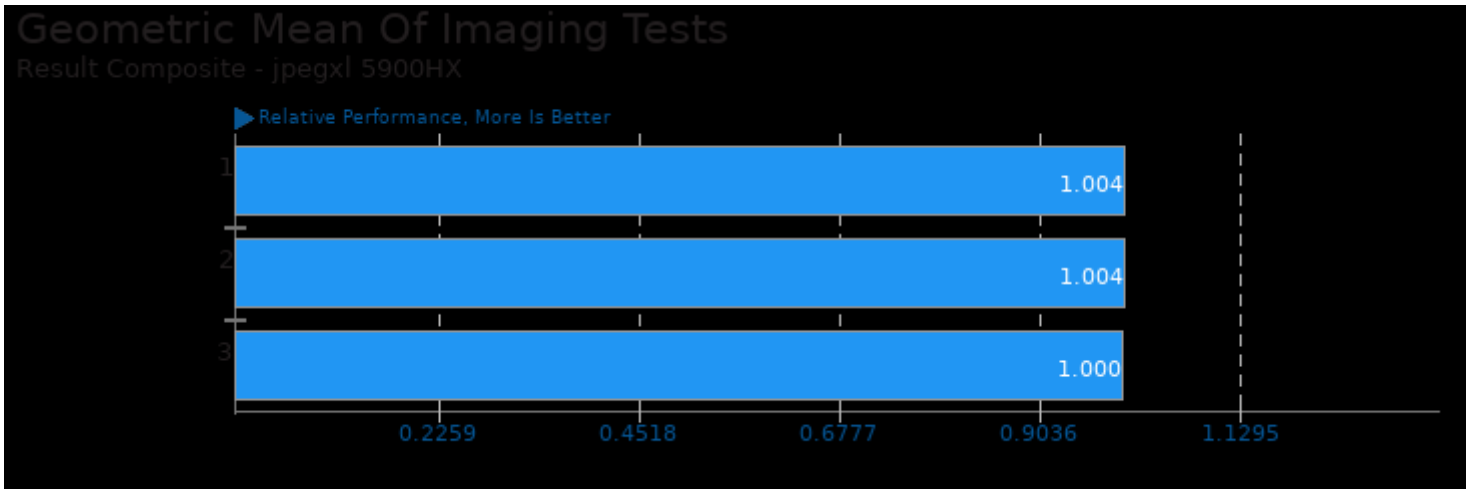


jpegxl 5900HX

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



Geometric mean based upon tests: pts/jpegxl and pts/jpegxl-decode



Geometric mean based upon tests: pts/jpegxl and pts/jpegxl-decode

This file was automatically generated via the Phoronix Test Suite benchmarking software on Thursday, 28 March 2024 08:17.