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new whiskey may

Intel Core i7-8565U testing with a Dell 0KTW76 (1.11.0 BIOS) and Intel UHD 620 WHL GT2 3GB on Ubuntu 20.10 via the Phoronix Test Suite.

Automated Executive Summary

3 had the most wins, coming in first place for 41% of the tests.

Based on the geometric mean of all complete results, the fastest (2) was 1.008x the speed of the slowest (4). 3 was 0.993x the speed of 2, 1 was 1x the speed of 3, 4 was 0.999x the speed of 1.

Test Systems:

1

2

3

4

Processor: Intel Core i7-8565U @ 4.60GHz (4 Cores / 8 Threads), Motherboard: Dell 0KTW76 (1.11.0 BIOS), Chipset: Intel Cannon Point-LP, Memory: 16GB, Disk: SK hynix PC401 NVMe 256GB, Graphics: Intel UHD 620 WHL 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

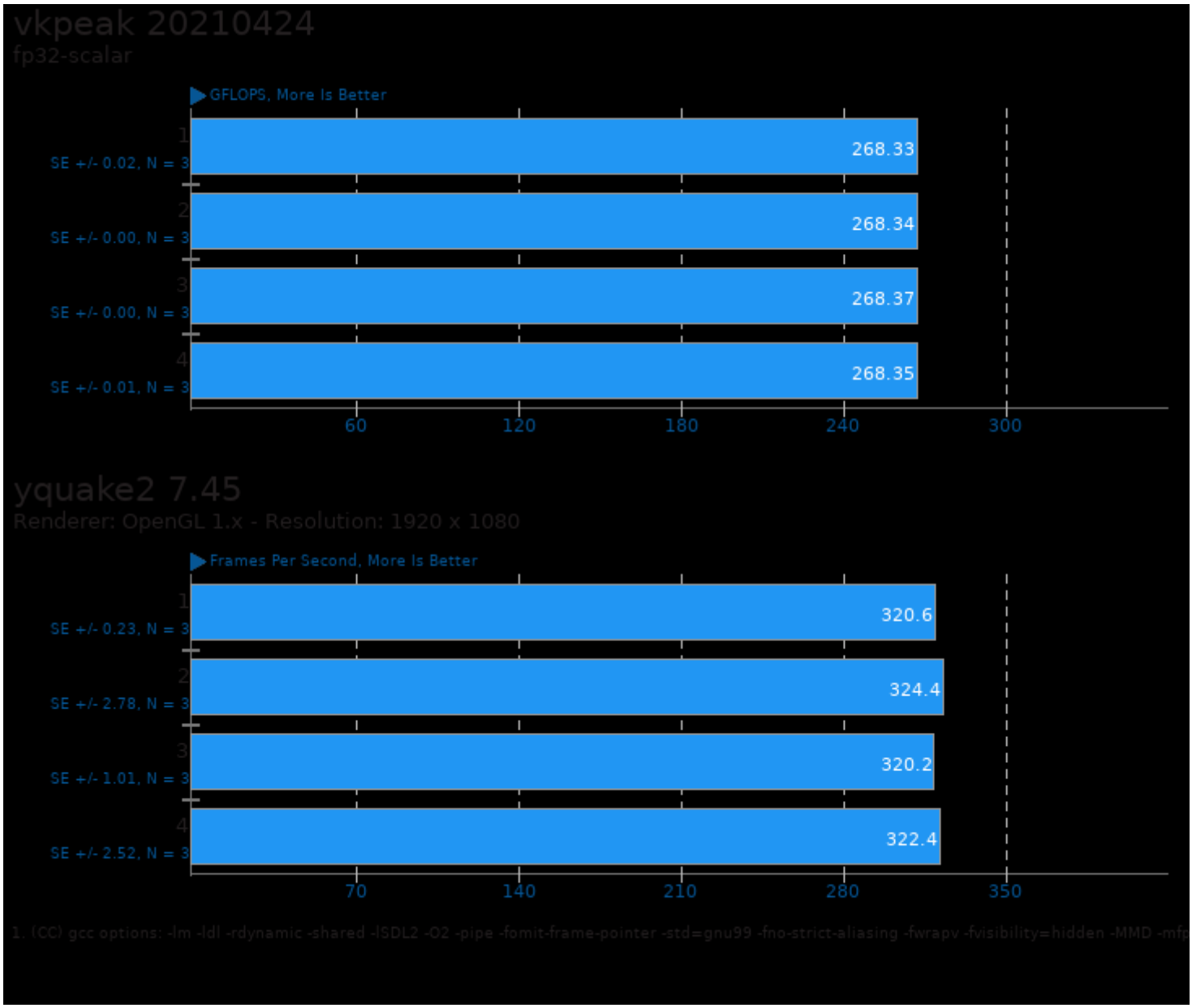
Kernel Notes: Transparent Huge Pages: madvise
Compiler Notes: --build=x86_64-linux-gnu --disable-vtable-verify --disable-werror --enable-checking=release --enable-clocale=gnu --enable-default-pie --enable-gnu-unique-object --enable-languages=c,ada,c++,go,brig,d,fortran,objc,obj-c++,m2 --enable-libphobos-checking=release --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: 0xde - Thermald 2.3
Python Notes: Python 3.8.6
Security Notes: itlb_multihit: KVM: Mitigation of VMX disabled + l1tf: Not affected + mds: Mitigation of Clear buffers; SMT vulnerable + 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 generic retpoline IBPB: conditional IBRS_FW STIBP: conditional RSB filling + srbds: Mitigation of Microcode + tsx_async_abort: Not affected

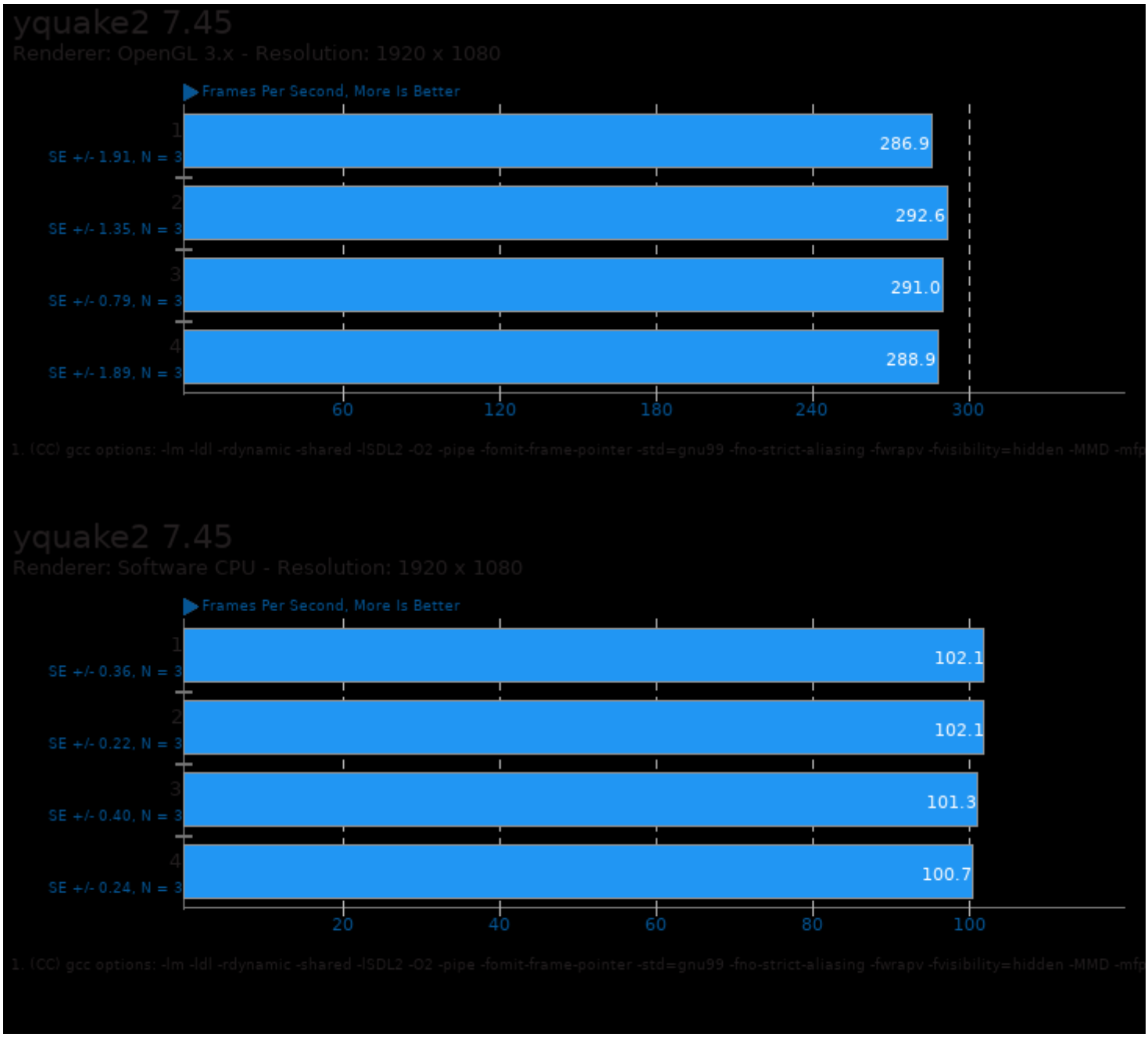
	1	2	3	4
vkpeak - fp32-scalar (GFLOPS)	**268.33**	268.34	**268.37**	268.35
Normalized	99.99%	99.99%	100%	99.99%
Standard Deviation	0%	0%	0%	0%
yquake2 - OpenGL 1.x - 1920 x 1080 (FPS)	320.6	**324.4**	**320.2**	322.4
Normalized	98.83%	100%	98.71%	99.38%
Standard Deviation	0.1%	1.5%	0.5%	1.4%
yquake2 - OpenGL 3.x - 1920 x 1080 (FPS)	**286.9**	**292.6**	291.0	288.9
Normalized	98.05%	100%	99.45%	98.74%
Standard Deviation	1.2%	0.8%	0.5%	1.1%
yquake2 - Software CPU - 1920 x 1080 (FPS)	**102.1**	**102.1**	101.3	**100.7**
Normalized	100%	100%	99.22%	98.63%
Standard Deviation	0.6%	0.4%	0.7%	0.4%
Chia Blockchain VDF - Square (IPS)	**129567**	**129300**	129467	129467
Normalized	100%	99.79%	99.92%	99.92%
Standard Deviation	0%	0.2%	0.1%	0%
Chia Blockchain VDF - Square (IPS)	188067	**191075**	**187700**	187783
Normalized	98.43%	100%	98.23%	98.28%
Standard Deviation	1.9%	2.4%	2.3%	2.5%
vkpeak - fp32-vec4 (GFLOPS)			**338.58**	**338.53**
Normalized			100%	99.99%
Standard Deviation			0%	0.1%
vkpeak - fp16-scalar (GFLOPS)			**445.16**	**445.21**
Normalized			99.99%	100%

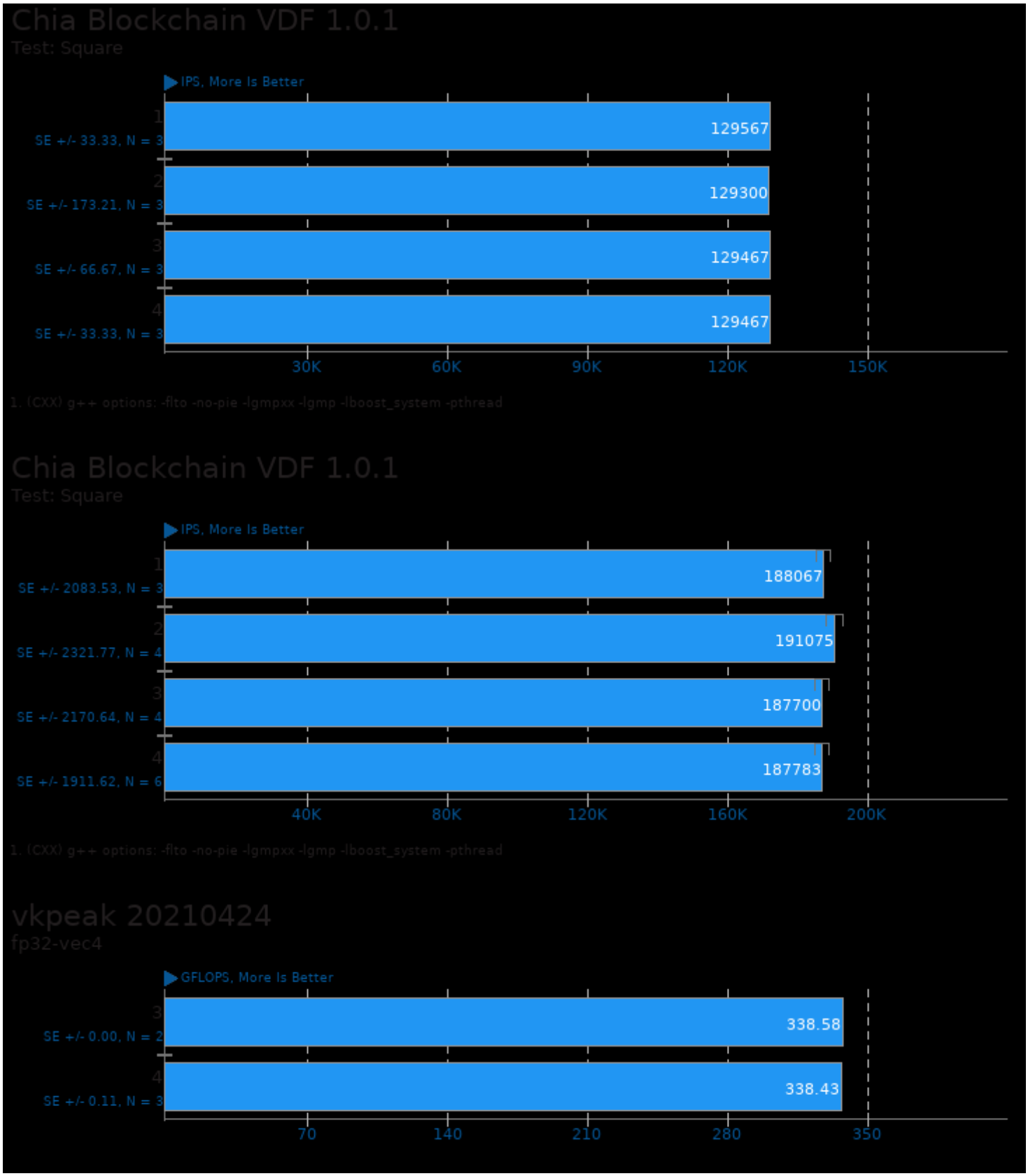
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vkpeak - fp16-vec4 (GFLOPS)	**766.42**	**766.4**
Normalized	100%	100%
vkpeak - fp64-scalar (GFLOPS)	100.49	100.49
vkpeak - fp64-vec4 (GFLOPS)	**96.37**	**96.38**
Normalized	99.99%	100%
vkpeak - int32-scalar (GIOPS)	132.59	132.59
vkpeak - int32-vec4 (GIOPS)		142.84
vkpeak - int16-scalar (GIOPS)		144.52
vkpeak - int16-vec4 (GIOPS)		145.87

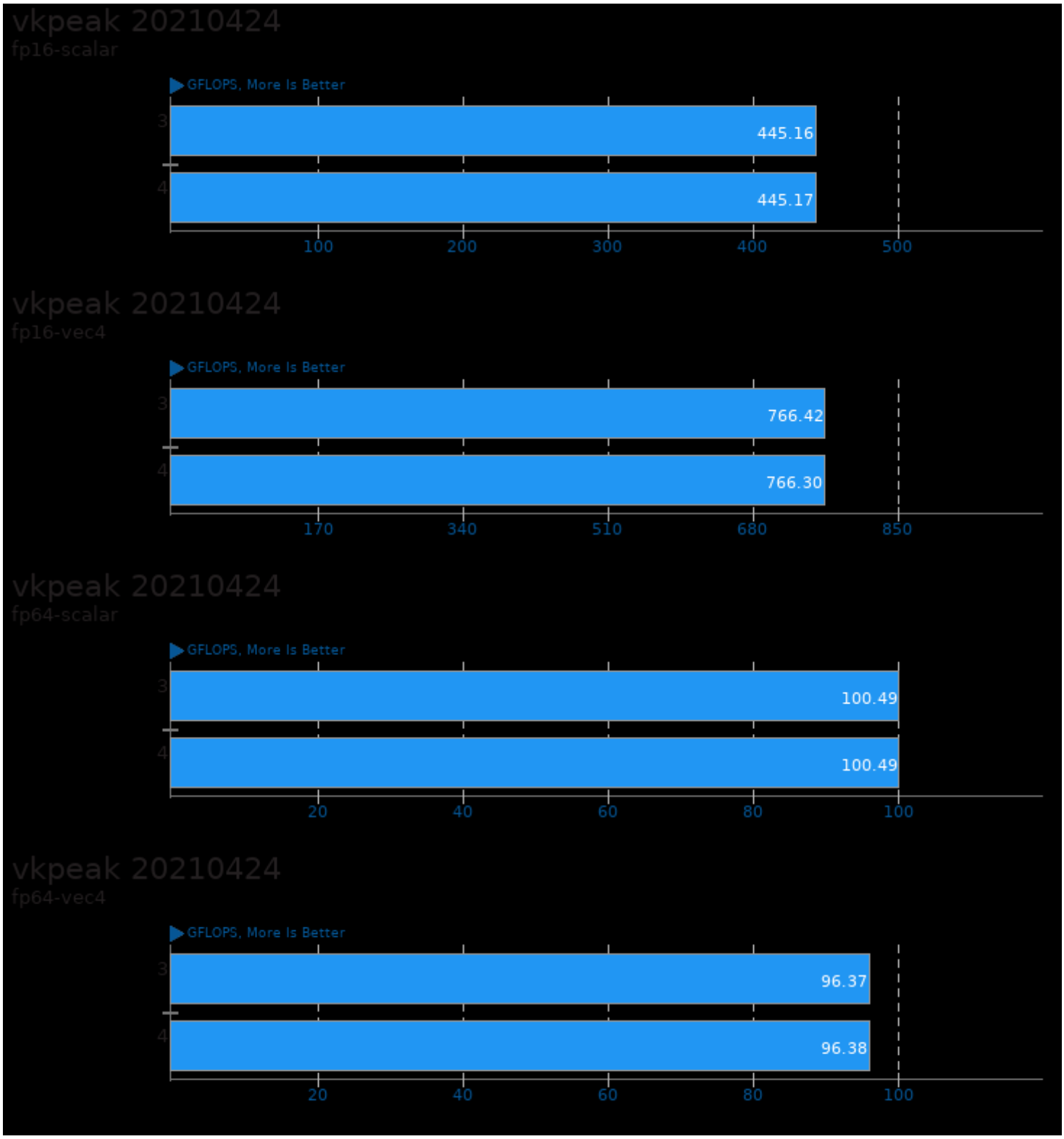
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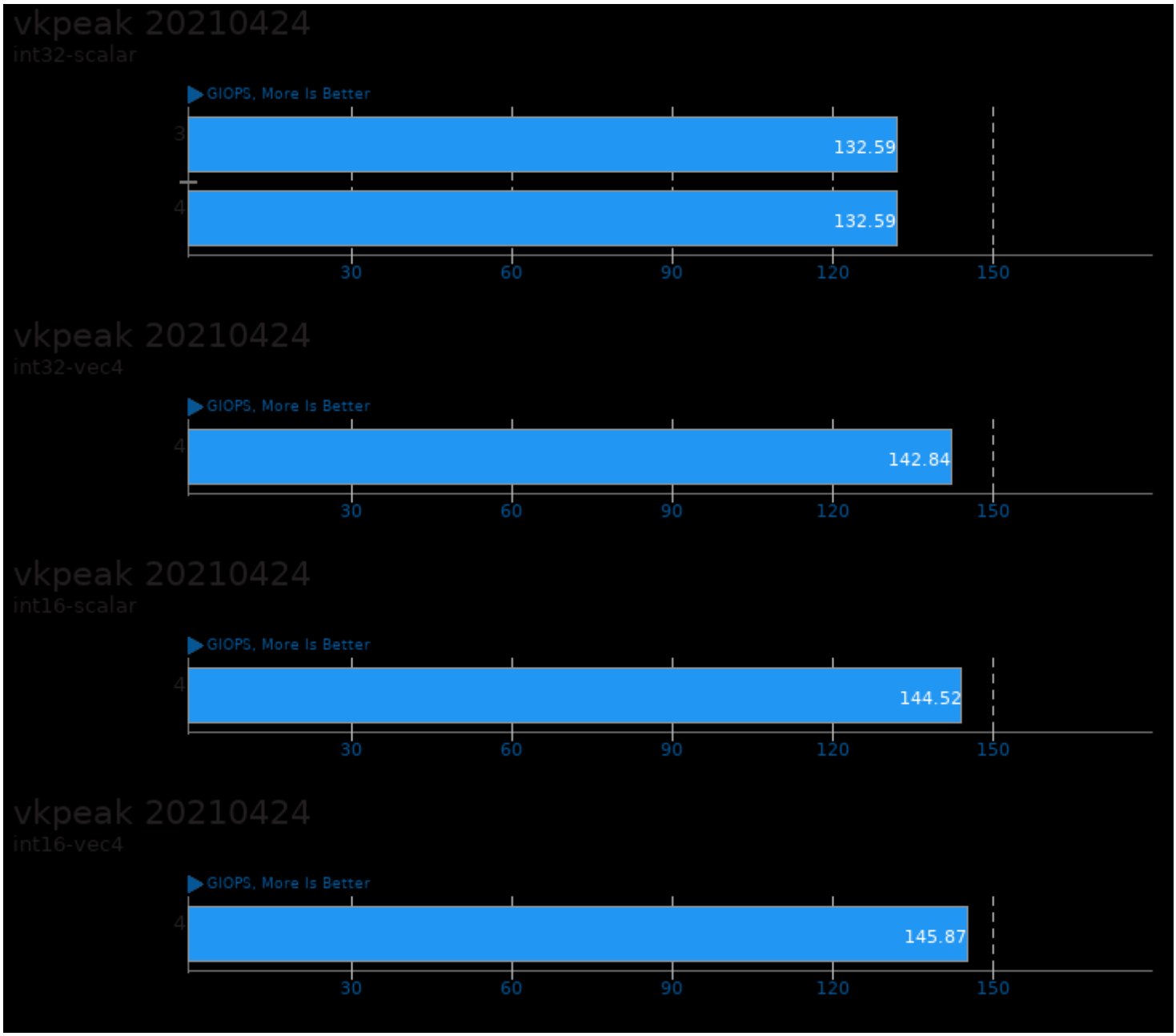



yquake2 7.45
Renderer: OpenGL 3.x - Resolution: 1920 x 1080
Frames Per Second, More Is Better
1
SE +/- 1.91, N = 3
286.9
2
SE +/- 1.35, N = 3
292.6
3
SE +/- 0.79, N = 3
291.0
4
SE +/- 1.89, N = 3
288.9
60
120
180
240
300
1. (CC) gcc options: -lm -ldl -rdynamic -shared -lSDL2 -O2 -pipe -fomit-frame-pointer -std=gnu99 -fno-strict-aliasing -fwrapv -fvisibility=hidden -MMD -mf
yquake2 7.45
Renderer: Software CPU - Resolution: 1920 x 1080
Frames Per Second, More Is Better
1
SE +/- 0.36, N = 3
102.1
2
SE +/- 0.22, N = 3
102.1
3
SE +/- 0.40, N = 3
101.3
4
SE +/- 0.24, N = 3
100.7
20
40
60
80
100
1. (CC) gcc options: -lm -ldl -rdynamic -shared -lSDL2 -O2 -pipe -fomit-frame-pointer -std=gnu99 -fno-strict-aliasing -fwrapv -fvisibility=hidden -MMD -mf


Chia Blockchain VDF 1.0.1
Test: Square
IPS, More Is Better
1
SE +/- 33.33, N = 3
129567
2
SE +/- 173.21, N = 3
129300
3
SE +/- 66.67, N = 3
129467
4
SE +/- 33.33, N = 3
129467
30K
60K
90K
120K
150K
1. (CXX) g++ options: -flto -no-pie -lgmpxx -lgmp -lboost_system -pthread
Chia Blockchain VDF 1.0.1
Test: Square
IPS, More Is Better
1
SE +/- 2083.53, N = 3
188067
2
SE +/- 2321.77, N = 4
191075
3
SE +/- 2170.64, N = 4
187700
4
SE +/- 1911.62, N = 6
187783
40K
80K
120K
160K
200K
1. (CXX) g++ options: -flto -no-pie -lgmpxx -lgmp -lboost_system -pthread
vkpeak 20210424
fp32-vec4
GFLOPS, More Is Better
3
SE +/- 0.00, N = 2
338.58
4
SE +/- 0.11, N = 3
338.43
70
140
210
280
350

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This file was automatically generated via the Phoronix Test Suite benchmarking software on Friday, 29 March 2024 03:48.