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TR 2970WX sun

AMD Ryzen Threadripper 2970WX 24-Core testing with a Gigabyte X399 AORUS Gaming 7 (F12h BIOS) and Sapphire AMD Radeon RX 550 640SP / 560/560X 4GB on Ubuntu 20.04 via the Phoronix Test Suite.

Automated Executive Summary

2 had the most wins, coming in first place for 46% of the tests.

Based on the geometric mean of all complete results, the fastest (2) was 1.006x the speed of the slowest (4). 3 was 0.995x the speed of 2, 1 was 1x the speed of 3, 4 was 0.999x the speed of 1.

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

ViennaCL (Test: CPU BLAS - dAXPY) at 1.083x
ViennaCL (Test: CPU BLAS - dCOPY) at 1.074x
LuxCoreRender (Scene: DLSC - Acceleration: CPU) at 1.048x
Xmrig (Variant: Monero - Hash Count: 1M) at 1.034x
ViennaCL (Test: CPU BLAS - dGEMV-N) at 1.029x
SecureMark (Benchmark: SecureMark-TLS) at 1.024x
ViennaCL (Test: CPU BLAS - dGEMM-NT) at 1.022x
CP2K Molecular Dynamics (Input: Fayalite-FIST) at 1.018x
LuxCoreRender (Scene: Danish Mood - Acceleration: CPU) at 1.016x

ViennaCL (Test: CPU BLAS - dGEMM-NN) at 1.016x.

Test Systems:

1

2

3

4

Processor: AMD Ryzen Threadripper 2970WX 24-Core @ 3.00GHz (24 Cores / 48 Threads), Motherboard: Gigabyte X399 AORUS Gaming 7 (F12h BIOS), Chipset: AMD 17h, Memory: 16GB, Disk: 120GB Corsair Force MP500, Graphics: Sapphire AMD Radeon RX 550 640SP / 560/560X 4GB (1300/1750MHz), Audio: Realtek ALC1220, Monitor: VA2431, Network: Qualcomm Atheros Killer E2500 + 2 x QLogic cLOM8214 1/10GbE + Intel 8265 / 8275

OS: Ubuntu 20.04, Kernel: 5.9.0-050900rc6daily20200926-generic (x86_64) 20200925, Desktop: GNOME Shell 3.36.4, Display Server: X Server 1.20.9, OpenGL: 4.6 Mesa 20.2.6 (LLVM 11.0.0), Compiler: GCC 9.3.0, 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++,gm2 --enable-libstdcxx-debug --enable-libstdcxx-time=yes --enable-multiarch --enable-multilib --enable-nls --enable-objc-gc=auto --enable-offload-targets=nvptx-none=/build/gcc-9-HskZEa/gcc-9-9.3.0/debian/tmp-nvptx/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: acpi-cpufreq ondemand (Boost: Enabled) - CPU Microcode: 0x800820d
Graphics Notes: GLAMOR
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 STIBP: disabled RSB filling + srbds: Not affected + tsx_async_abort: Not affected

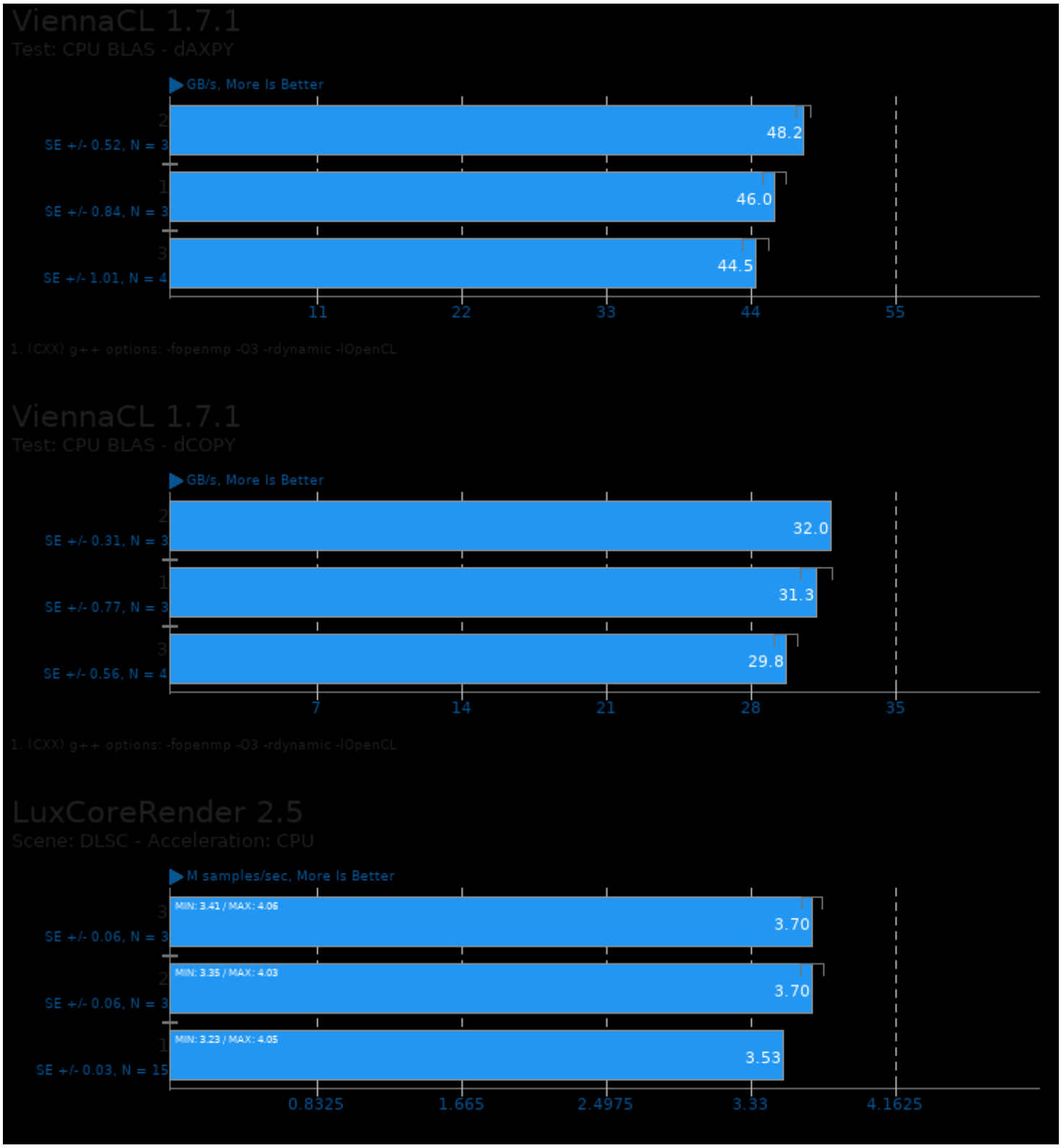
	1	2	3	4
ViennaCL - CPU BLAS - dAXPY (GB/s)	46.0	**48.2**	**44.5**	
Normalized	95.44%	100%	92.32%	
Standard Deviation	3.2%	1.9%	4.5%	
ViennaCL - CPU BLAS - dCOPY (GB/s)	31.3	**32.0**	**29.8**	
Normalized	97.81%	100%	93.13%	
Standard Deviation	4.2%	1.7%	3.8%	
LuxCoreRender - DLSC - CPU (M samples/sec)	**3.53**	**3.70**	**3.70**	
Normalized	95.41%	100%	100%	
Standard Deviation	3.2%	2.9%	2.9%	
Xmrig - Monero - 1M (H/s)	2972	**3049**	2967	**2949**
Normalized	97.47%	100%	97.31%	96.71%

Standard Deviation	3%	5.5%	1.9%	2.4%
ViennaCL - CPU BLAS - dGEMV-N (GB/s)	55.6	54.6	56.2	
Normalized	98.93%	97.15%	100%	
Standard Deviation	1%	2.6%	4.1%	
SecureMark - SecureMark-TLS	207268	203614	202482	
Normalized	100%	98.24%	97.69%	
Standard Deviation	1.1%	1.4%	0.5%	
ViennaCL - CPU BLAS - dGEMM-NT (GFLOPs/s)	67.8	68.2	66.7	
Normalized	99.41%	100%	97.8%	
Standard Deviation	0.4%	2.3%	3.8%	
CP2K Molecular Dynamics - Fayalite-FIST (sec)	1646	1617	1625	1642
Normalized	98.27%	100%	99.56%	98.5%
LuxCoreRender - Danish Mood - CPU (M samples/sec)	2.45	2.47	2.43	
Normalized	99.19%	100%	98.38%	
Standard Deviation	2.1%	1.8%	2.5%	
ViennaCL - CPU BLAS - dGEMM-NN (GFLOPs/s)	70.5	70.8	69.7	
Normalized	99.58%	100%	98.45%	
Standard Deviation	0.3%	0.8%	2.4%	
Helsing - 12 digit (sec)	2.369	2.354	2.334	
Normalized	98.52%	99.15%	100%	
Botan - AES-256 (MiB/s)	5556	5567	5639	
Normalized	98.53%	98.71%	100%	
Standard Deviation	0.1%	0.2%	1.1%	
ViennaCL - CPU BLAS - dGEMM-TN (GFLOPs/s)	71.8	71.2	72.2	
Normalized	99.45%	98.61%	100%	
Standard Deviation	2.1%	2.4%	1.3%	
Botan - ChaCha20Poly1305 (MiB/s)	499.408	499.450	506.266	
Normalized	98.65%	98.65%	100%	
Standard Deviation	0%	0.1%	1%	
Botan - ChaCha20Poly1305 - Decrypt (MiB/s)	497.766	497.425	504.105	
Normalized	98.74%	98.67%	100%	
Standard Deviation	0.1%	0.2%	0.9%	
Botan - Twofish (MiB/s)	364.677	369.541	365.861	
Normalized	98.68%	100%	99%	
Standard Deviation	0.3%	0.3%	0.1%	
Botan - AES-256 - Decrypt (MiB/s)	5572	5589	5646	
Normalized	98.69%	98.99%	100%	
Standard Deviation	0.1%	0.5%	1%	
ViennaCL - CPU BLAS - dGEMM-TT (GFLOPs/s)	69.9	70.8	70.6	
Normalized	98.73%	100%	99.72%	
Standard Deviation	1.9%	4.3%	0.9%	
Botan - Twofish - Decrypt (MiB/s)	363.921	368.521	364.159	
Normalized	98.75%	100%	98.82%	
Standard Deviation	0%	0.4%	0.1%	
ViennaCL - CPU BLAS - sCOPY (GB/s)	85.2	85.4	84.5	
Normalized	99.77%	100%	98.95%	

Standard Deviation	1.9%	0.5%	2.8%	
libjpeg-turbo tjbench - D.T (Megapixels/sec)	**171.452130**	**173.268416**	172.715108	
Normalized	98.95%	100%	99.68%	
Standard Deviation	0.1%	0.5%	0%	
Google Draco - Church Facade (ms)	7922	**7919**	**7997**	
Normalized	99.96%	100%	99.02%	
Standard Deviation	0.8%	0.9%	1%	
KTX-Software toktx - U.4.Z.C.1 (sec)	174.015	**174.008**	**175.511**	
Normalized	100%	100%	99.14%	
Standard Deviation	2.8%	2.6%	2.7%	
LuxCoreRender - LuxCore Benchmark - CPU (M samples/sec)	**2.58**	**2.60**	**2.60**	
Normalized	99.23%	100%	100%	
Standard Deviation	1.6%	1.3%	1.3%	
GNU GMP GMPbench - Total Time (GMPbench Score)	5149	5156	**5120**	**5158**
Normalized	99.84%	99.96%	99.28%	100%
LuxCoreRender - Orange Juice - CPU (M samples/sec)	**5.39**	5.38	**5.36**	
Normalized	100%	99.81%	99.44%	
Standard Deviation	0.9%	0.9%	0.6%	
Helsing - 14 digit (sec)	247.415	**247.442**	**246.177**	
Normalized	99.5%	99.49%	100%	
KTX-Software toktx - UASTC 3 (sec)	**7.386**	7.355	**7.351**	
Normalized	99.53%	99.95%	100%	
Standard Deviation	0.1%	0%	0.5%	
KTX-Software toktx - Zstd Compression 9 (sec)	**3.041**	**3.029**	**3.041**	
Normalized	99.61%	100%	99.61%	
Standard Deviation	0.8%	0.3%	0.9%	
vkpeak - fp32-vec4 (GFLOPS)	**2477**	2471	2472	**2470**
Normalized	100%	99.74%	99.77%	99.72%
Standard Deviation	0.3%	0.1%	0.1%	0.1%
vkpeak - fp32-scalar (GFLOPS)	2607	**2609**	2603	**2603**
Normalized	99.92%	100%	99.76%	99.75%
Standard Deviation	0.1%	0%	0.1%	0.2%
Botan - CAST-256 - Decrypt (MiB/s)	**146.793**	146.885	**147.129**	
Normalized	99.77%	99.83%	100%	
Standard Deviation	0%	0.1%	0.2%	
KTX-Software toktx - Z.C.1 (sec)	22.263	**22.258**	**22.302**	
Normalized	99.98%	100%	99.8%	
Standard Deviation	0.2%	0.2%	0.6%	
KTX-Software toktx - U.3.Z.C.1 (sec)	**13.500**	**13.525**	13.518	
Normalized	100%	99.82%	99.87%	
Standard Deviation	0.1%	0.2%	0.1%	
Botan - CAST-256 (MiB/s)	**147.007**	147.127	**147.243**	
Normalized	99.84%	99.92%	100%	
Standard Deviation	0%	0.1%	0.1%	
Botan - Blowfish - Decrypt (MiB/s)	446.135	**445.997**	**446.473**	
Normalized	99.92%	99.89%	100%	
Standard Deviation	0.1%	0.1%	0.1%	
Google Draco - Lion (ms)	**5705**	**5711**	5708	
Normalized	100%	99.89%	99.95%	

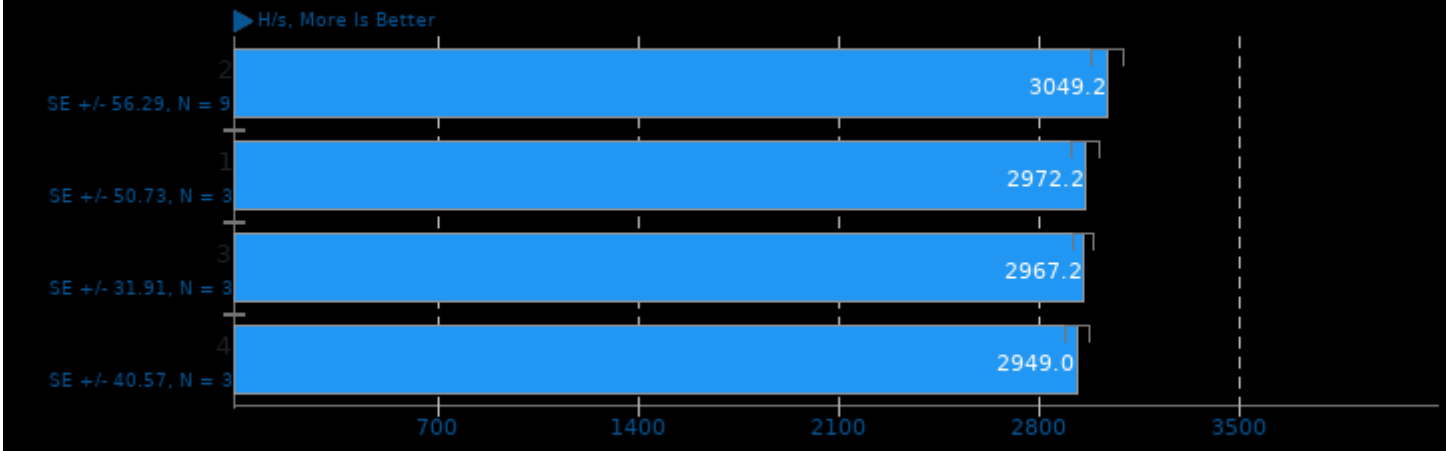
TR 2970WX sun

Standard Deviation	0.1%	0.4%	0.4%	
Botan - Blowfish (MiB/s)	**447.321**	447.551	**447.787**	
Normalized	99.9%	99.95%	100%	
Standard Deviation	0.1%	0.1%	0.1%	
Botan - KASUMI - Decrypt (MiB/s)	**90.124**	**90.191**	90.128	
Normalized	99.93%	100%	99.93%	
Standard Deviation	0.4%	0.5%	0.5%	
Botan - KASUMI (MiB/s)	**93.831**	93.881	**93.897**	
Normalized	99.93%	99.98%	100%	
Standard Deviation	0.4%	0.5%	0.6%	
vkpeak - int32-scalar (GIOPS)	**523.27**	523.35	523.41	**523.43**
Normalized	99.97%	99.98%	100%	100%
Standard Deviation	0%	0%	0%	0%
vkpeak - fp64-scalar (GFLOPS)	109.11	**109.13**	109.11	**109.10**
Normalized	99.98%	100%	99.98%	99.97%
Standard Deviation	0%	0.1%	0.1%	0.1%
vkpeak - int32-vec4 (GIOPS)	**521.65**	**521.65**	**521.73**	**521.65**
Normalized	99.98%	99.98%	100%	99.98%
Standard Deviation	0%	0%	0%	0%
ViennaCL - CPU BLAS - dGEMV-T (GB/s)	**65.4**	63.4	**61.9**	
Normalized	100%	96.94%	94.65%	
Standard Deviation	16.4%	15.3%	8%	
ViennaCL - CPU BLAS - dDOT (GB/s)	**43.8**	**49.5**	48.1	
Normalized	88.48%	100%	97.17%	
Standard Deviation	2%	4.7%	8.4%	
ViennaCL - CPU BLAS - sDOT (GB/s)	**135**	**135**	**126**	
Normalized	100%	100%	93.33%	
Standard Deviation	2.6%	1.5%	8.9%	
ViennaCL - CPU BLAS - sAXPY (GB/s)	**129**	**123**	127	
Normalized	100%	95.35%	98.45%	
Standard Deviation	1.9%	7.4%	3%	
LuxCoreRender - R.C.a.P - CPU (M samples/sec)	11.27	**11.51**	**11.15**	
Normalized	97.91%	100%	96.87%	
Standard Deviation	6%	6.2%	4.9%	
Xmrig - Wownero - 1M (H/s)	**7069**	6918	**6782**	
Normalized	100%	97.86%	95.94%	
Standard Deviation	6.2%	3.2%	2.9%	


ViennaCL 1.7.1
Test: CPU BLAS - dAXPY
GB/s, More Is Better
2
SE +/- 0.52, N = 3
48.2
1
SE +/- 0.84, N = 3
46.0
3
SE +/- 1.01, N = 4
44.5
11
22
33
44
55
1. (CXX) g++ options: -fopenmp -O3 -rdynamic -lOpenCL
ViennaCL 1.7.1
Test: CPU BLAS - dCOPY
GB/s, More Is Better
2
SE +/- 0.31, N = 3
32.0
1
SE +/- 0.77, N = 3
31.3
3
SE +/- 0.56, N = 4
29.8
7
14
21
28
35
1. (CXX) g++ options: -fopenmp -O3 -rdynamic -lOpenCL
LuxCoreRender 2.5
Scene: DLSC - Acceleration: CPU
M samples/sec, More Is Better
3
SE +/- 0.06, N = 3
MIN: 3.41 / MAX: 4.06
3.70
2
SE +/- 0.06, N = 3
MIN: 3.35 / MAX: 4.03
3.70
1
SE +/- 0.03, N = 15
MIN: 3.23 / MAX: 4.05
3.53
0.8325
1.665
2.4975
3.33
4.1625

Xmrig 6.12.1

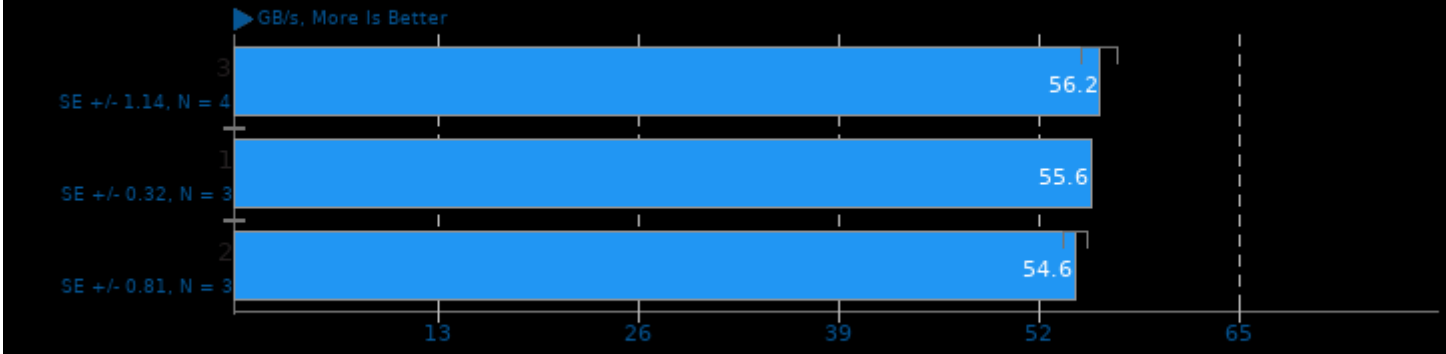
Variant: Monero - Hash Count: 1M



1. (CXX) g++ options: -fexceptions -fno-rtti -maes -O3 -Ofast -static-libgcc -static-libstdc++ -rdynamic -lssl -lcrypto -luv -lpthread -lrt -ldl -lhwloc

ViennaCL 1.7.1

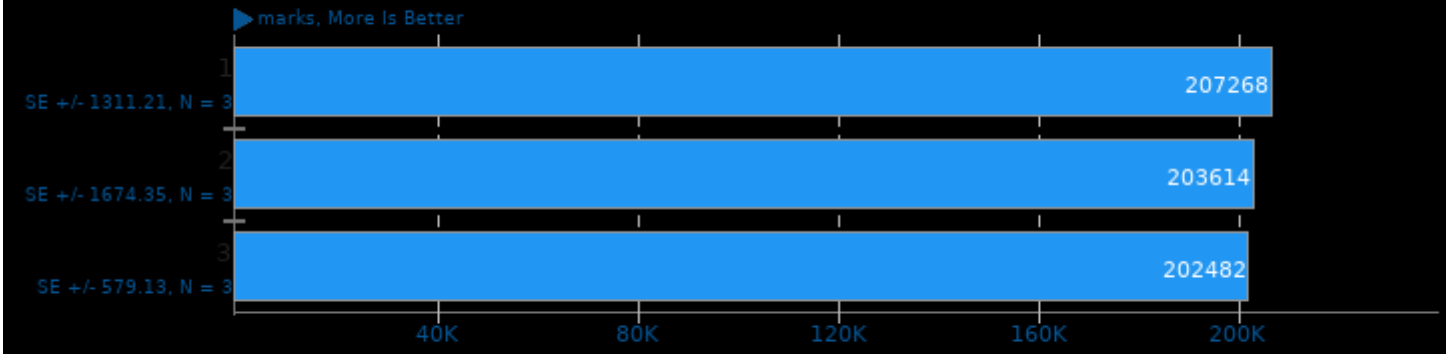
Test: CPU BLAS - dGEMV-N



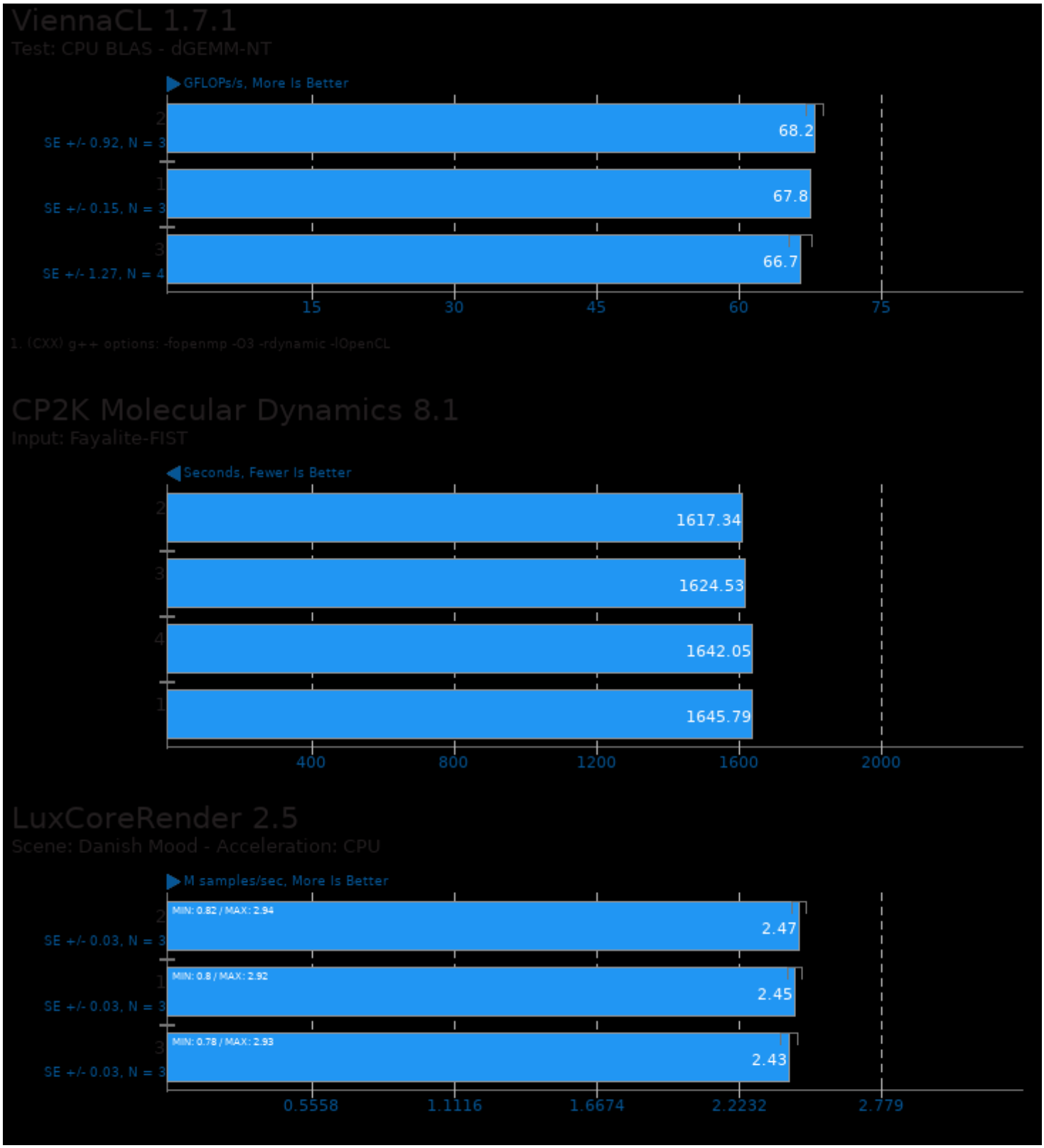
1. (CXX) g++ options: -fopenmp -O3 -rdynamic -lOpenCL

SecureMark 1.0.4

Benchmark: SecureMark-TLS

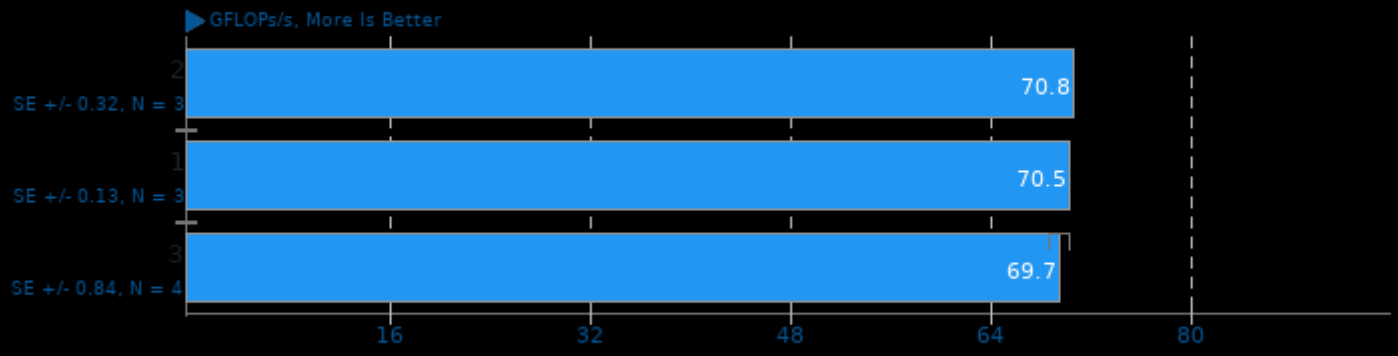


1. (CC) gcc options: -pedantic -O3


ViennaCL 1.7.1
Test: CPU BLAS - dGEMM-NT
GFLOPs/s, More Is Better
2
SE +/- 0.92, N = 3
68.2
1
SE +/- 0.15, N = 3
67.8
3
SE +/- 1.27, N = 4
66.7
15
30
45
60
75
1. (CXX) g++ options: -fopenmp -O3 -rdynamic -lOpenCL
CP2K Molecular Dynamics 8.1
Input: Fayalite-FIST
Seconds, Fewer Is Better
2
1617.34
3
1624.53
4
1642.05
1
1645.79
400
800
1200
1600
2000
LuxCoreRender 2.5
Scene: Danish Mood - Acceleration: CPU
M samples/sec, More Is Better
2
MIN: 0.82 / MAX: 2.94
SE +/- 0.03, N = 3
2.47
1
MIN: 0.8 / MAX: 2.92
SE +/- 0.03, N = 3
2.45
3
MIN: 0.78 / MAX: 2.93
SE +/- 0.03, N = 3
2.43
0.5558
1.1116
1.6674
2.2232
2.779

ViennaCL 1.7.1

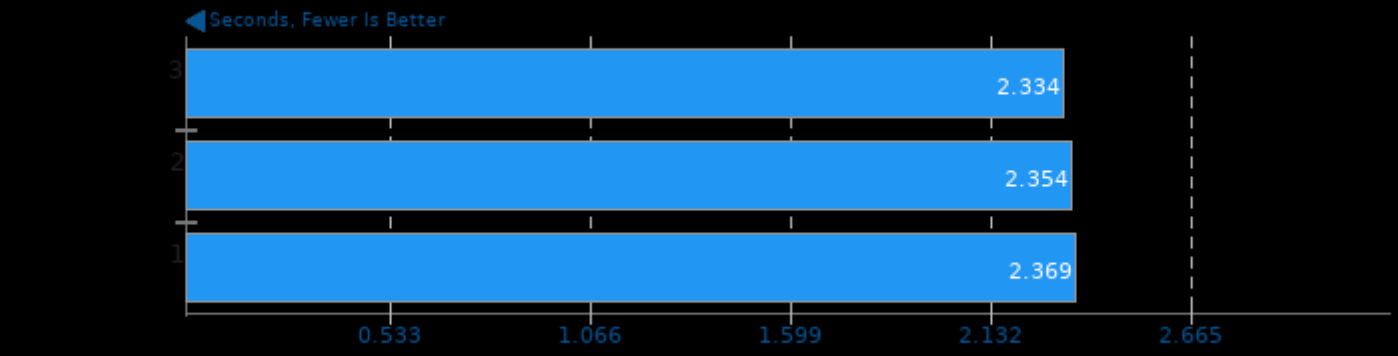
Test: CPU BLAS - dGEMM-NN



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

Helsing 1.0-beta

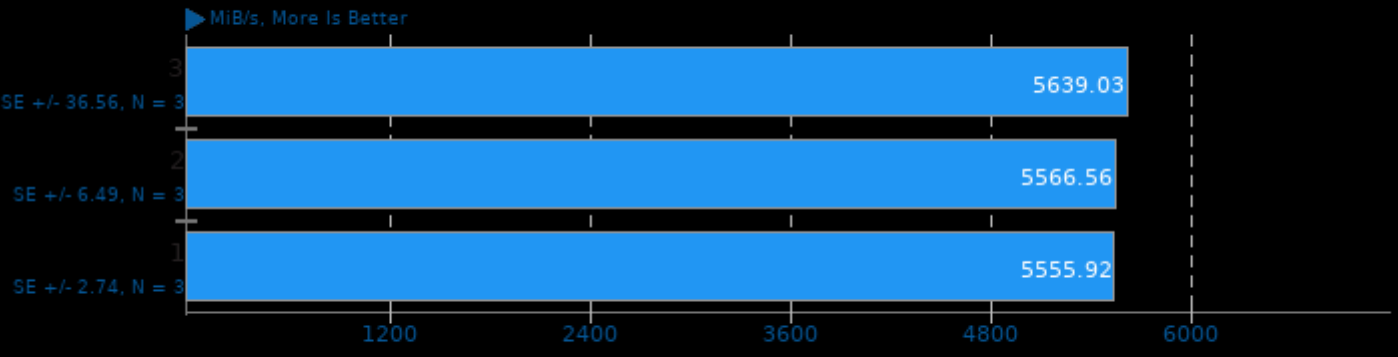
Digit Range: 12 digit



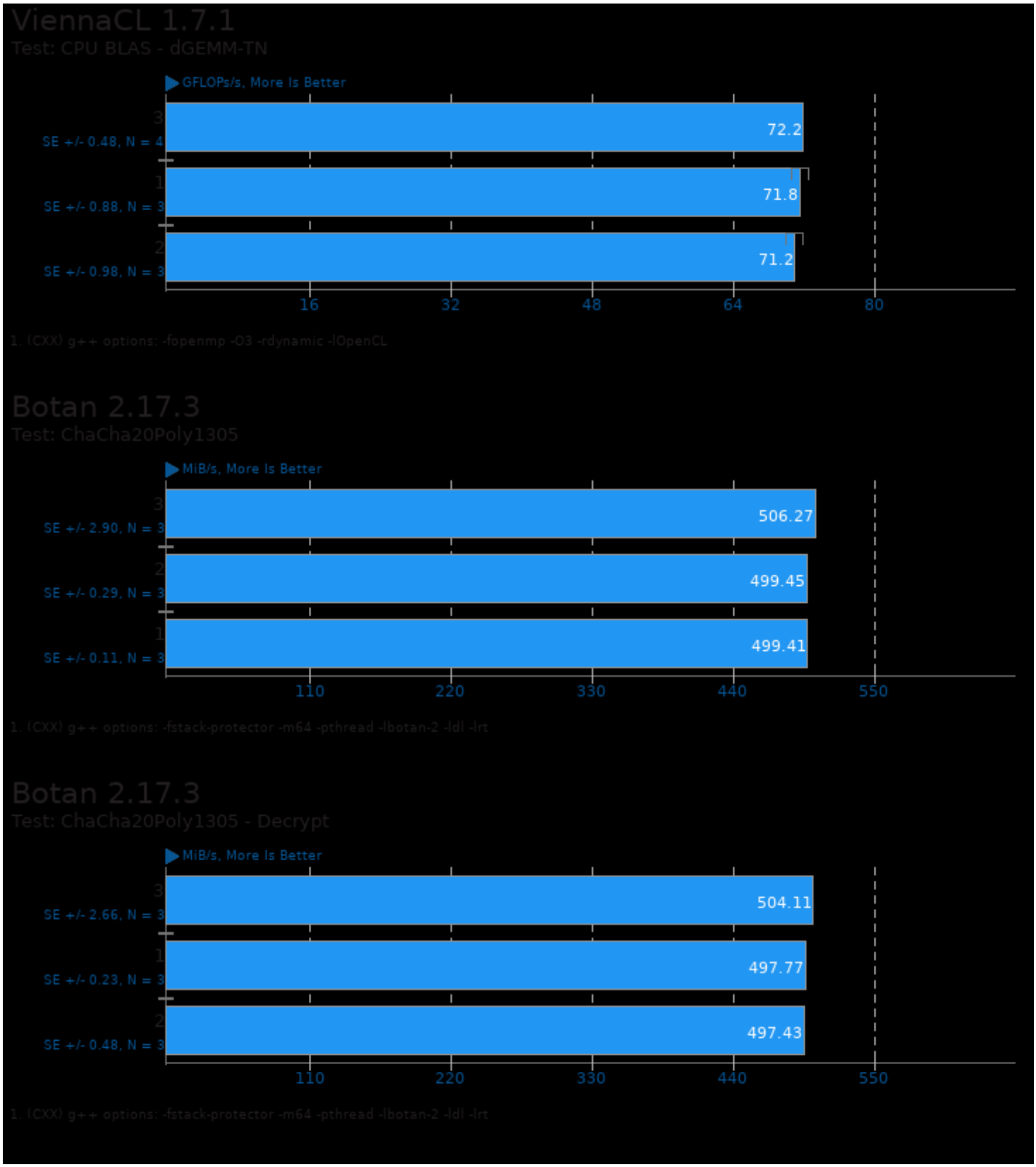
1. (CC) gcc options: -O2 -pthread -lcrypto

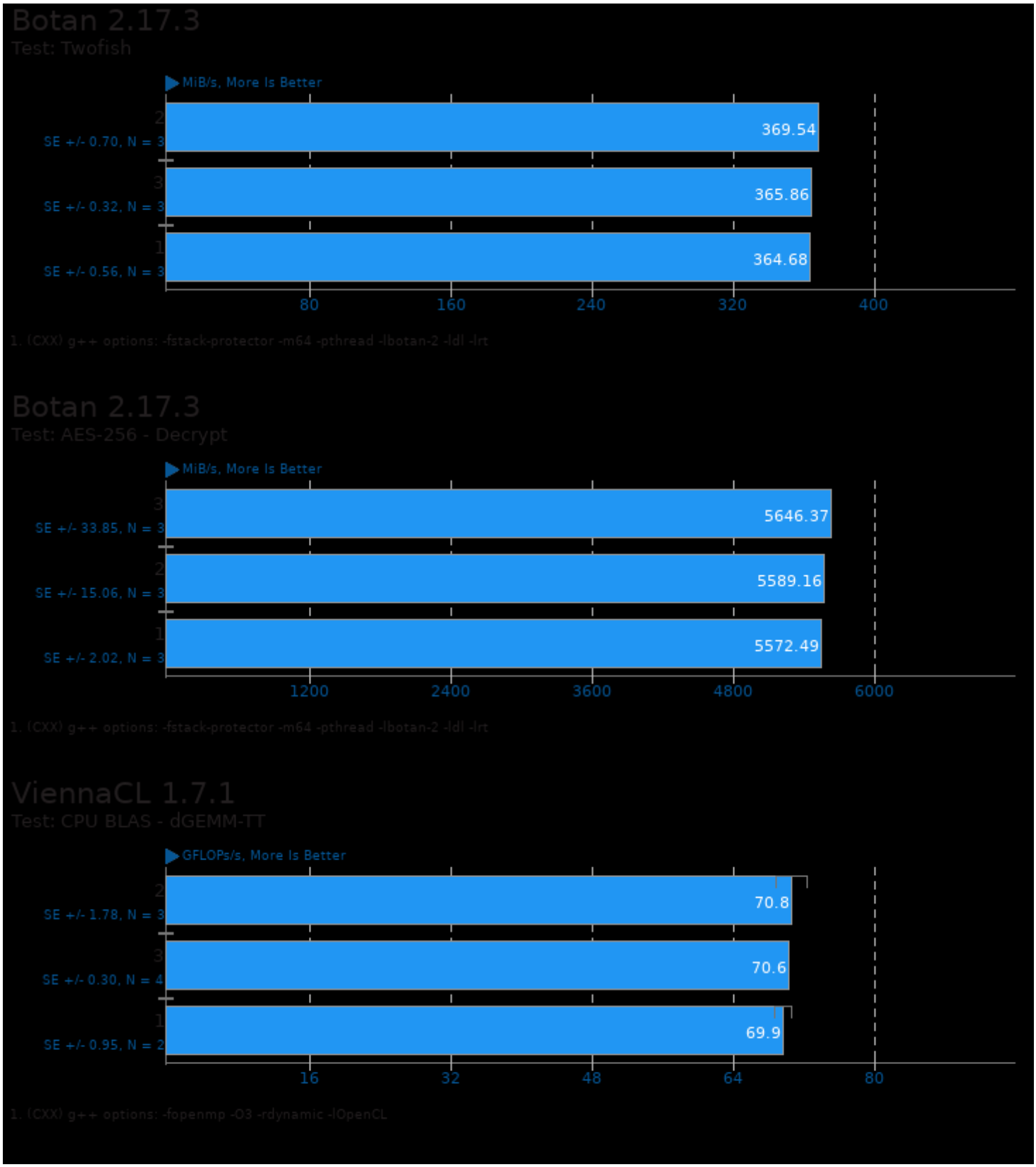
Botan 2.17.3

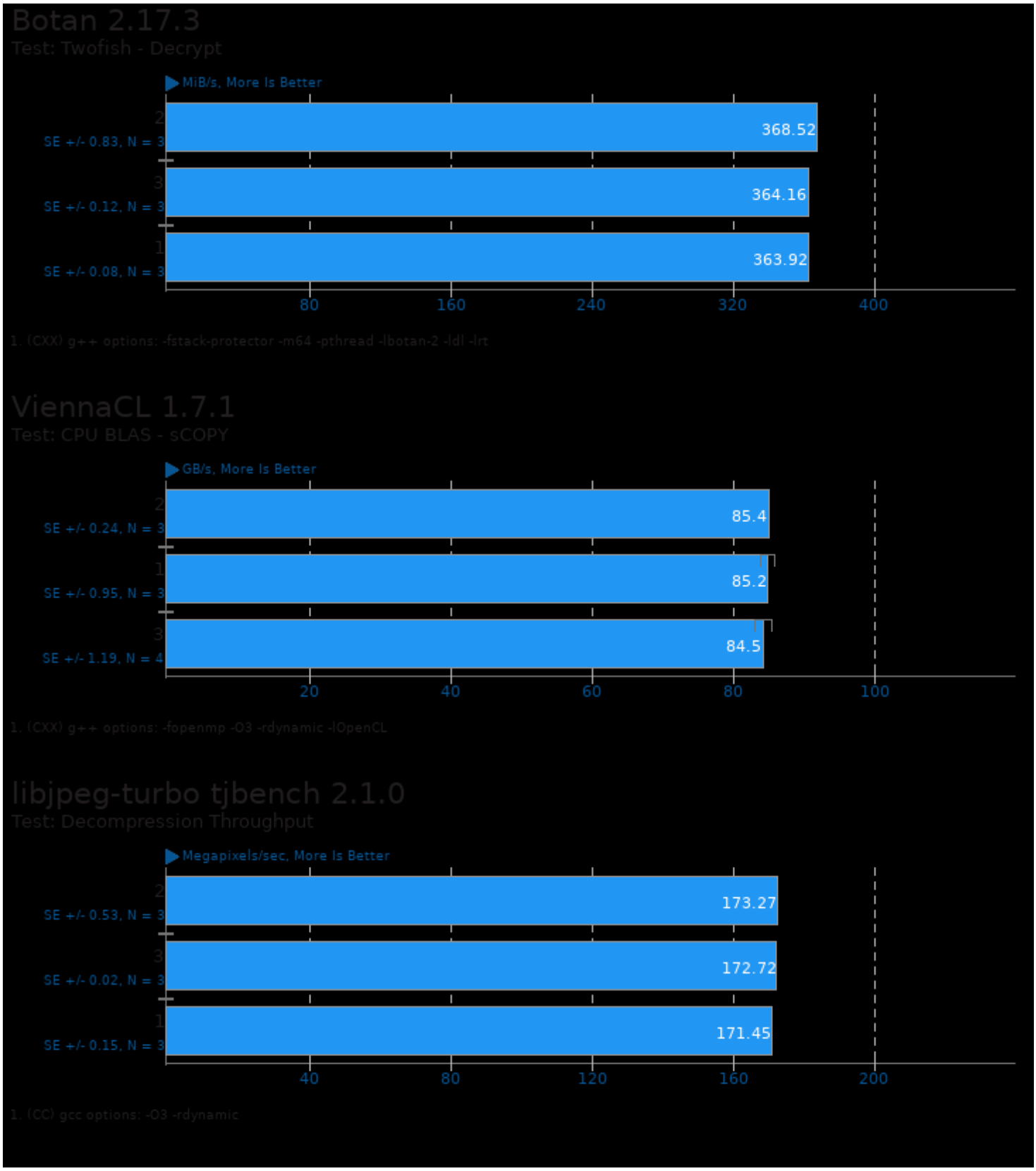
Test: AES-256

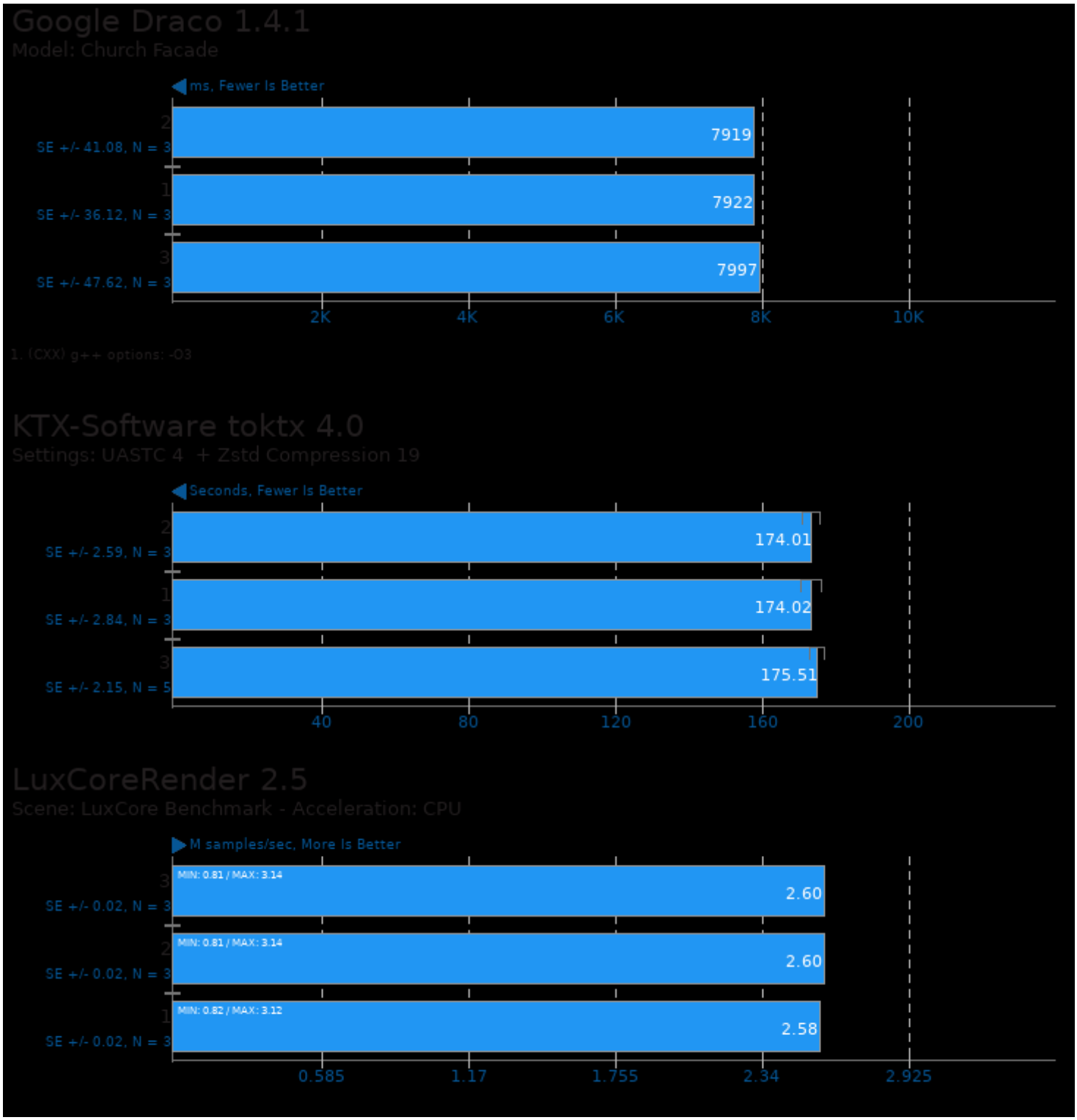


1. (CXX) g++ options: -fstack-protector -m64 -pthread -lbotan-2 -ldl -lrt


ViennaCL 1.7.1
Test: CPU BLAS - dGEMM-TN
GFLOPs/s, More Is Better
3
SE +/- 0.48, N = 4
72.2
1
SE +/- 0.88, N = 3
71.8
2
SE +/- 0.98, N = 3
71.2
16
32
48
64
80
1. (CXX) g++ options: -fopenmp -O3 -rdynamic -lOpenCL
Botan 2.17.3
Test: ChaCha20Poly1305
MiB/s, More Is Better
3
SE +/- 2.90, N = 3
506.27
2
SE +/- 0.29, N = 3
499.45
1
SE +/- 0.11, N = 3
499.41
110
220
330
440
550
1. (CXX) g++ options: -fstack-protector -m64 -pthread -lbotan-2 -ldl -lrt
Botan 2.17.3
Test: ChaCha20Poly1305 - Decrypt
MiB/s, More Is Better
3
SE +/- 2.66, N = 3
504.11
1
SE +/- 0.23, N = 3
497.77
2
SE +/- 0.48, N = 3
497.43
110
220
330
440
550
1. (CXX) g++ options: -fstack-protector -m64 -pthread -lbotan-2 -ldl -lrt

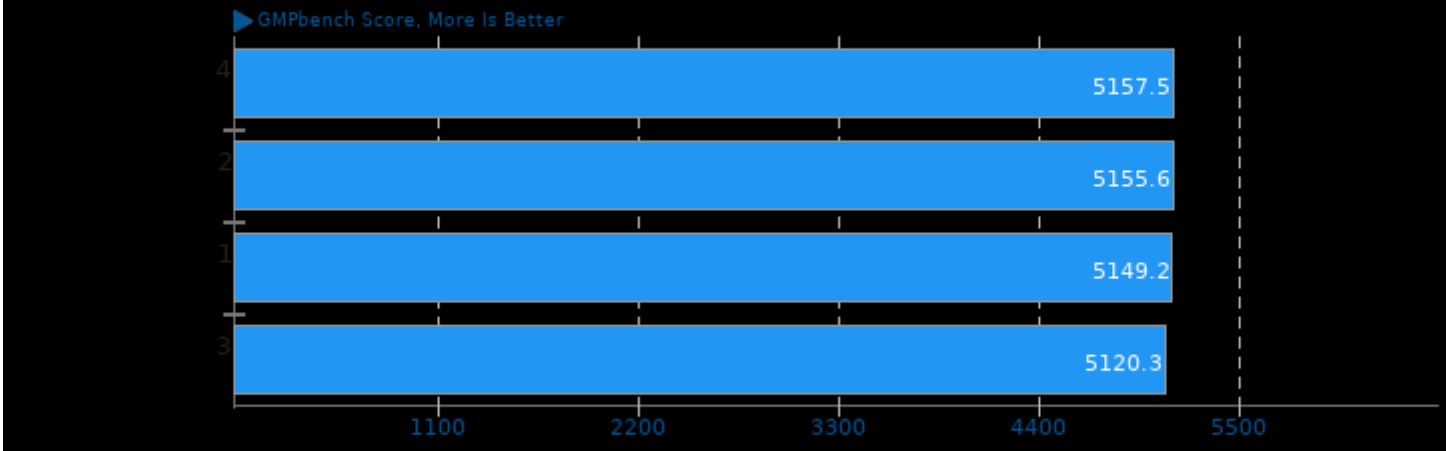

Botan 2.17.3
Test: Twofish
MiB/s, More Is Better
2
SE +/- 0.70, N = 3
369.54
3
SE +/- 0.32, N = 3
365.86
1
SE +/- 0.56, N = 3
364.68
80
160
240
320
400
1. (CXX) g++ options: -fstack-protector -m64 -pthread -lbotan-2 -ldl -lrt
Botan 2.17.3
Test: AES-256 - Decrypt
MiB/s, More Is Better
3
SE +/- 33.85, N = 3
5646.37
2
SE +/- 15.06, N = 3
5589.16
1
SE +/- 2.02, N = 3
5572.49
1200
2400
3600
4800
6000
1. (CXX) g++ options: -fstack-protector -m64 -pthread -lbotan-2 -ldl -lrt
ViennaCL 1.7.1
Test: CPU BLAS - dGEMM-TT
GFLOPs/s, More Is Better
2
SE +/- 1.78, N = 3
70.8
3
SE +/- 0.30, N = 4
70.6
1
SE +/- 0.95, N = 2
69.9
16
32
48
64
80
1. (CXX) g++ options: -fopenmp -O3 -rdynamic -lOpenCL


Botan 2.17.3
Test: Twofish - Decrypt
MiB/s, More Is Better
2
SE +/- 0.83, N = 3
368.52
3
SE +/- 0.12, N = 3
364.16
1
SE +/- 0.08, N = 3
363.92
80
160
240
320
400
1. (CXX) g++ options: -fstack-protector -m64 -pthread -lbotan-2 -ldl -lrt
ViennaCL 1.7.1
Test: CPU BLAS - sCOPY
GB/s, More Is Better
2
SE +/- 0.24, N = 3
85.4
1
SE +/- 0.95, N = 3
85.2
3
SE +/- 1.19, N = 4
84.5
20
40
60
80
100
1. (CXX) g++ options: -fopenmp -O3 -rdynamic -lOpenCL
libjpeg-turbo tjbench 2.1.0
Test: Decompression Throughput
Megapixels/sec, More Is Better
2
SE +/- 0.53, N = 3
173.27
3
SE +/- 0.02, N = 3
172.72
1
SE +/- 0.15, N = 3
171.45
40
80
120
160
200
1. (CC) gcc options: -O3 -rdynamic


Google Draco 1.4.1
Model: Church Facade
ms, Fewer Is Better
2
SE +/- 41.08, N = 3
7919
1
SE +/- 36.12, N = 3
7922
3
SE +/- 47.62, N = 3
7997
2K
4K
6K
8K
10K
1. (CXX) g++ options: -O3
KTX-Software toktx 4.0
Settings: UASTC 4 + Zstd Compression 19
Seconds, Fewer Is Better
2
SE +/- 2.59, N = 3
174.01
1
SE +/- 2.84, N = 3
174.02
3
SE +/- 2.15, N = 5
175.51
40
80
120
160
200
LuxCoreRender 2.5
Scene: LuxCore Benchmark - Acceleration: CPU
M samples/sec, More Is Better
3
SE +/- 0.02, N = 3
MIN: 0.81 / MAX: 3.14
2.60
2
SE +/- 0.02, N = 3
MIN: 0.81 / MAX: 3.14
2.60
1
SE +/- 0.02, N = 3
MIN: 0.82 / MAX: 3.12
2.58
0.585
1.17
1.755
2.34
2.925

GNU GMP GMPbench 6.2.1

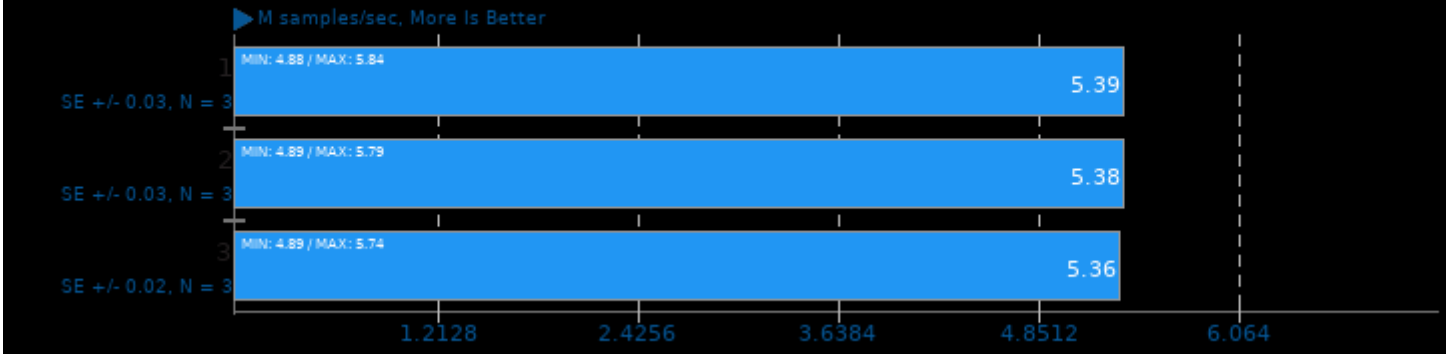
Total Time



1. (CC) gcc options: -O3 -fomit-frame-pointer -lm

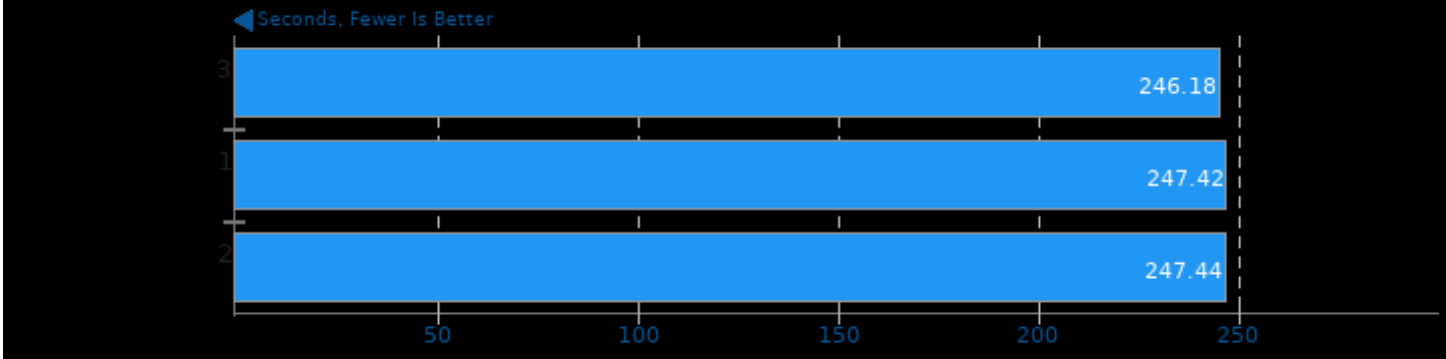
LuxCoreRender 2.5

Scene: Orange Juice - Acceleration: CPU

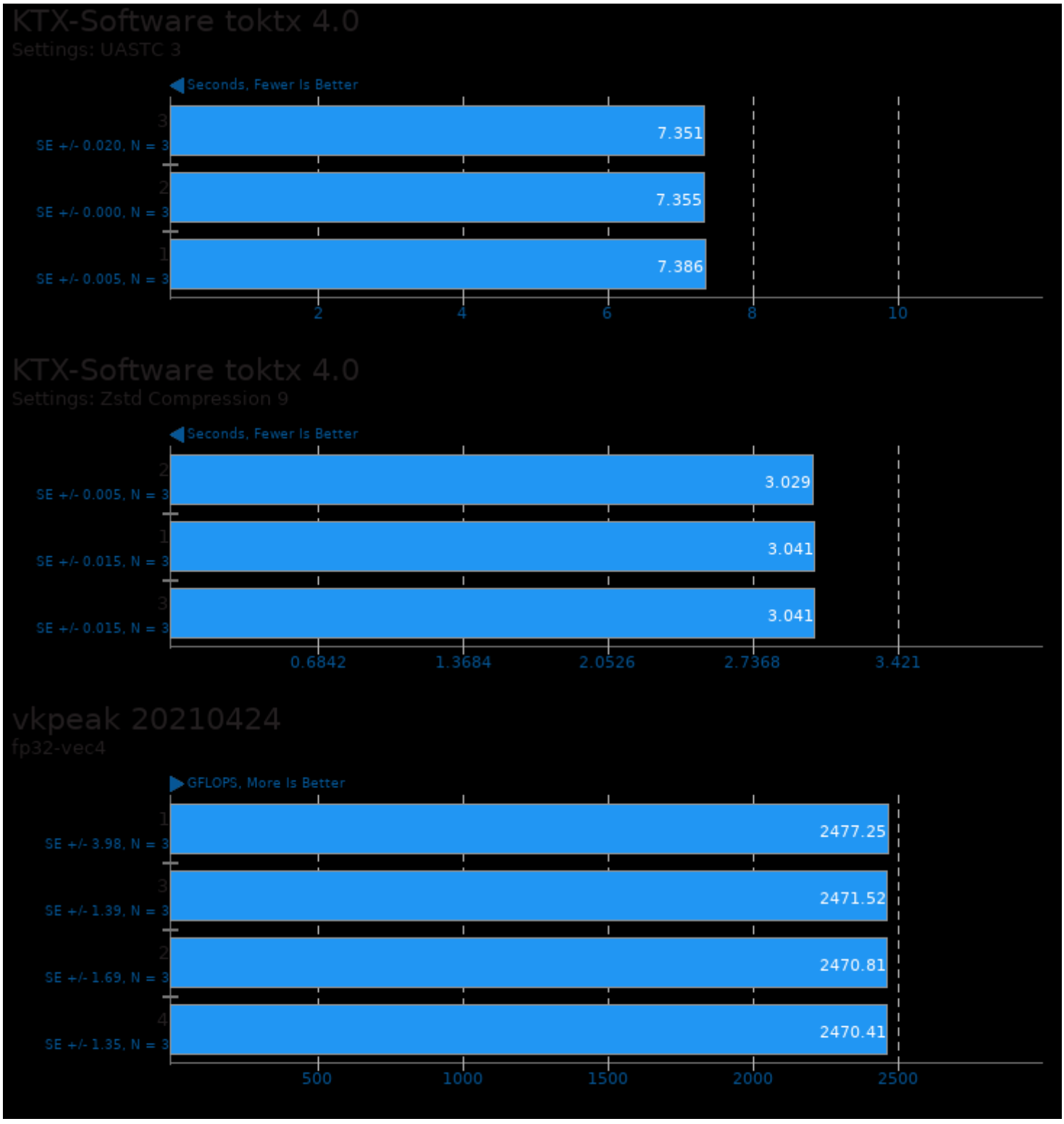


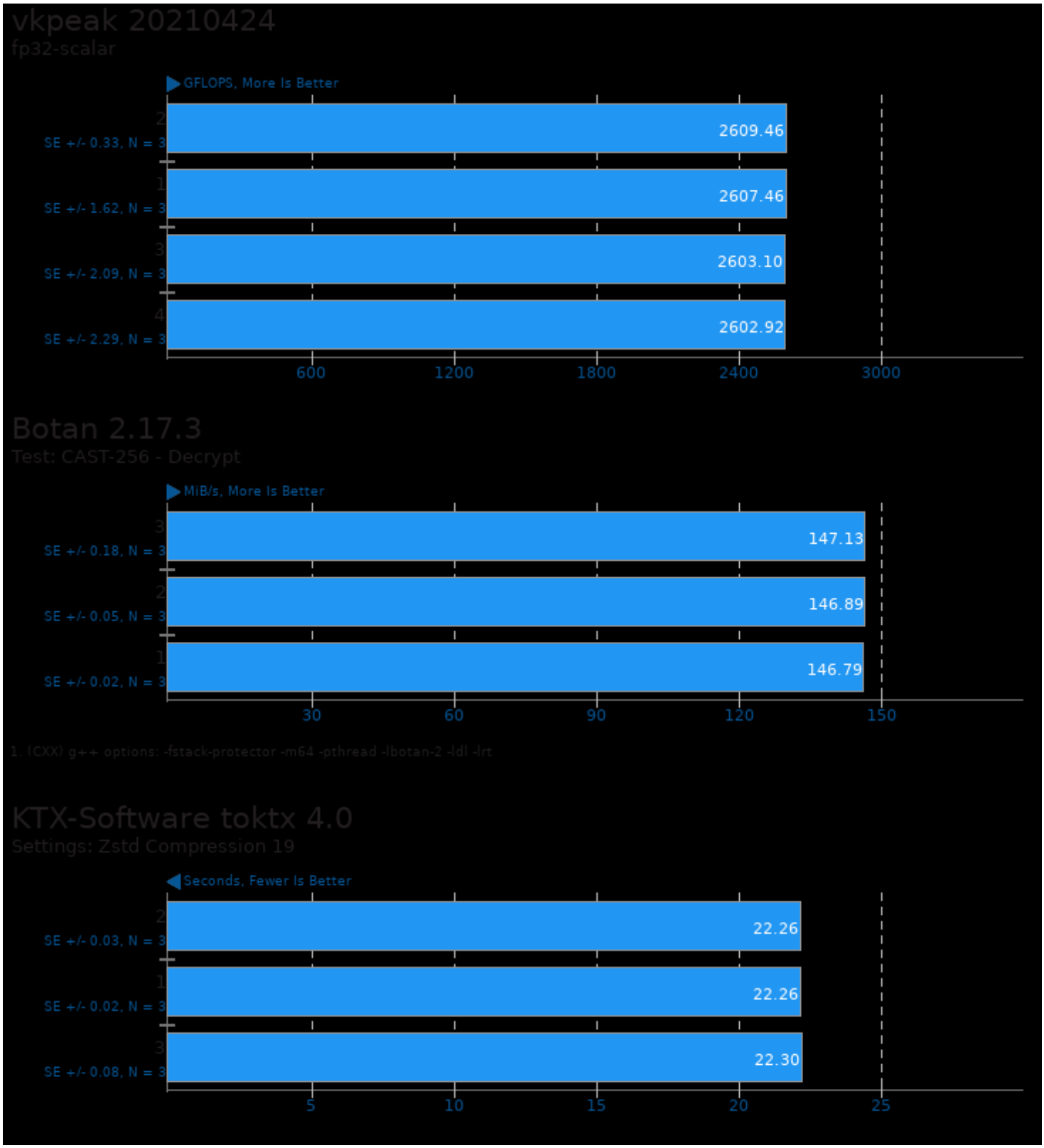
Helsing 1.0-beta

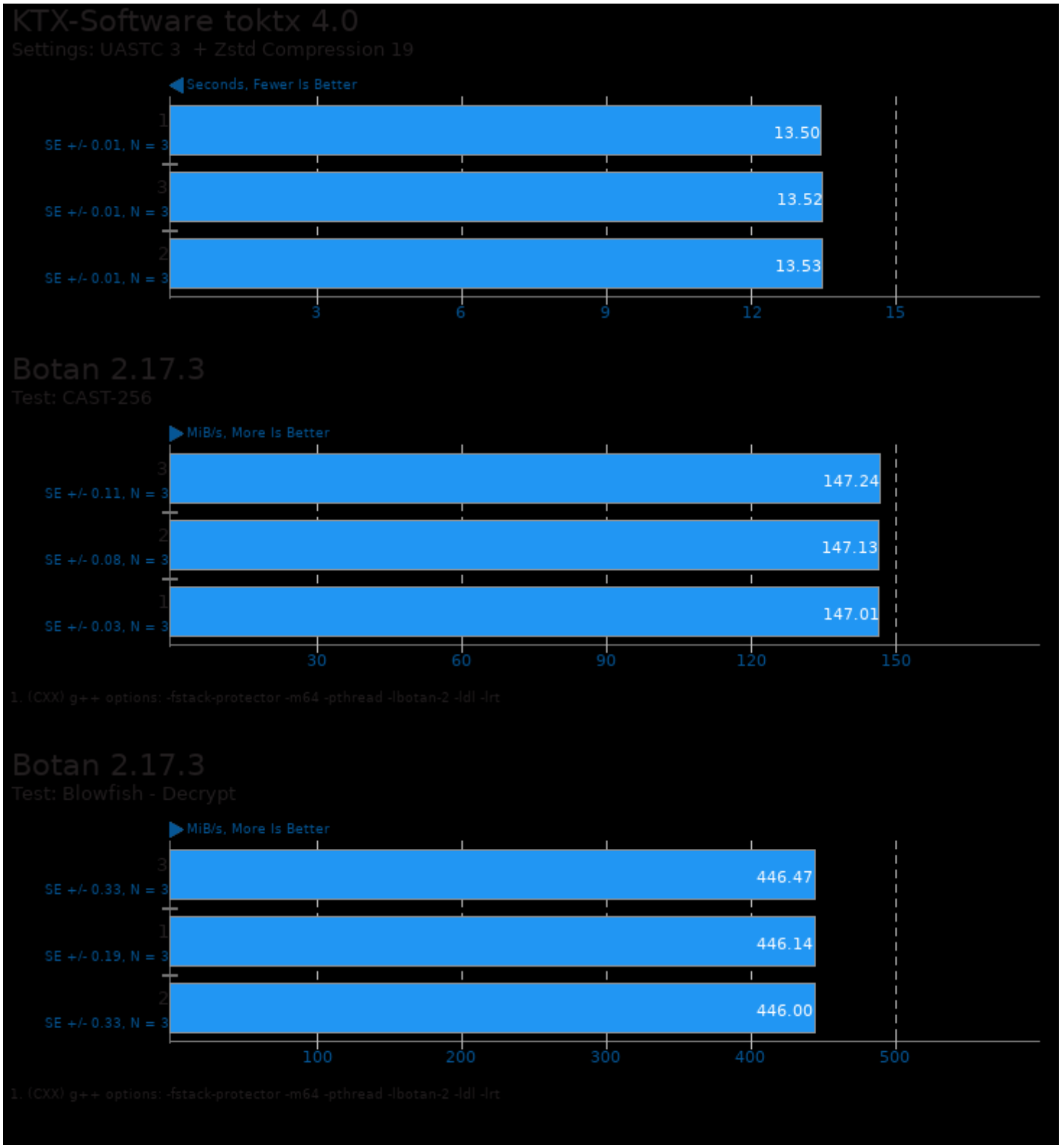
Digit Range: 14 digit



1. (CC) gcc options: -O2 -pthread -lcrypto

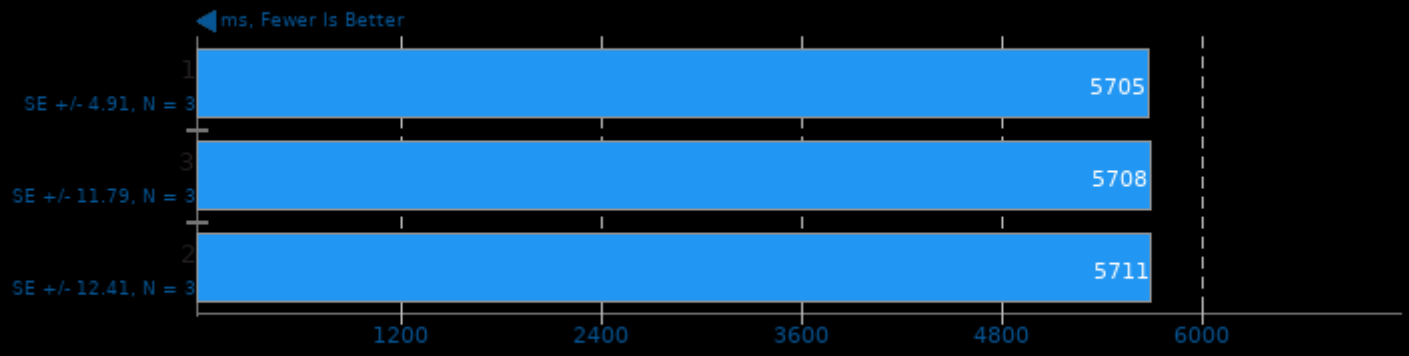

KTX-Software toktx 4.0
Settings: UASTC 3
Seconds, Fewer Is Better
3
SE +/- 0.020, N = 3
7.351
2
SE +/- 0.000, N = 3
7.355
1
SE +/- 0.005, N = 3
7.386
2
4
6
8
10
KTX-Software toktx 4.0
Settings: Zstd Compression 9
Seconds, Fewer Is Better
2
SE +/- 0.005, N = 3
3.029
1
SE +/- 0.015, N = 3
3.041
3
SE +/- 0.015, N = 3
3.041
0.6842
1.3684
2.0526
2.7368
3.421
vkpeak 20210424
fp32-vec4
GFLOPS, More Is Better
1
SE +/- 3.98, N = 3
2477.25
3
SE +/- 1.39, N = 3
2471.52
2
SE +/- 1.69, N = 3
2470.81
4
SE +/- 1.35, N = 3
2470.41
500
1000
1500
2000
2500


vkpeak 20210424
fp32-scalar
GFLOPS, More Is Better
2
SE +/- 0.33, N = 3
2609.46
1
SE +/- 1.62, N = 3
2607.46
3
SE +/- 2.09, N = 3
2603.10
4
SE +/- 2.29, N = 3
2602.92
600
1200
1800
2400
3000
Botan 2.17.3
Test: CAST-256 - Decrypt
MiB/s, More Is Better
3
SE +/- 0.18, N = 3
147.13
2
SE +/- 0.05, N = 3
146.89
1
SE +/- 0.02, N = 3
146.79
30
60
90
120
150
1. (CXX) g++ options: -fstack-protector -m64 -pthread -lbotan-2 -ldl -lrt
KTX-Software toktx 4.0
Settings: Zstd Compression 19
Seconds, Fewer Is Better
2
SE +/- 0.03, N = 3
22.26
1
SE +/- 0.02, N = 3
22.26
3
SE +/- 0.08, N = 3
22.30
5
10
15
20
25


KTX-Software toktx 4.0
Settings: UASTC 3 + Zstd Compression 19
Seconds, Fewer Is Better
1
SE +/- 0.01, N = 3
13.50
3
SE +/- 0.01, N = 3
13.52
2
SE +/- 0.01, N = 3
13.53
3
6
9
12
15
Botan 2.17.3
Test: CAST-256
MiB/s, More Is Better
3
SE +/- 0.11, N = 3
147.24
2
SE +/- 0.08, N = 3
147.13
1
SE +/- 0.03, N = 3
147.01
30
60
90
120
150
1. (CXX) g++ options: -fstack-protector -m64 -pthread -lbotan-2 -ldl -lrt
Botan 2.17.3
Test: Blowfish - Decrypt
MiB/s, More Is Better
3
SE +/- 0.33, N = 3
446.47
1
SE +/- 0.19, N = 3
446.14
2
SE +/- 0.33, N = 3
446.00
100
200
300
400
500
1. (CXX) g++ options: -fstack-protector -m64 -pthread -lbotan-2 -ldl -lrt

Google Draco 1.4.1

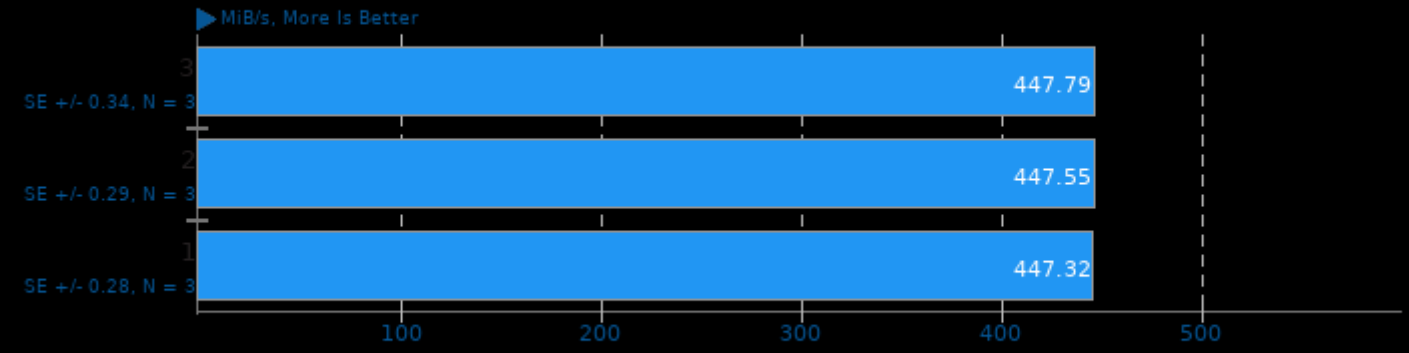
Model: Lion



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

Botan 2.17.3

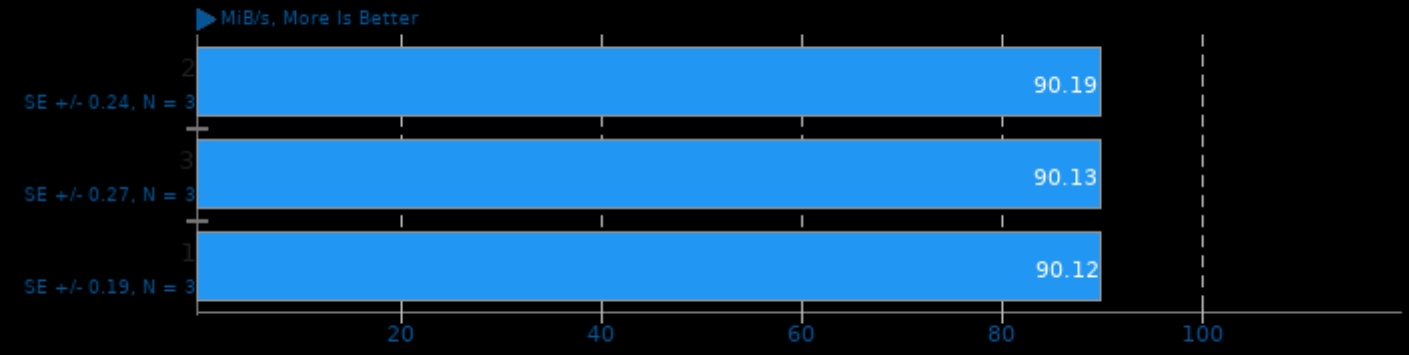
Test: Blowfish



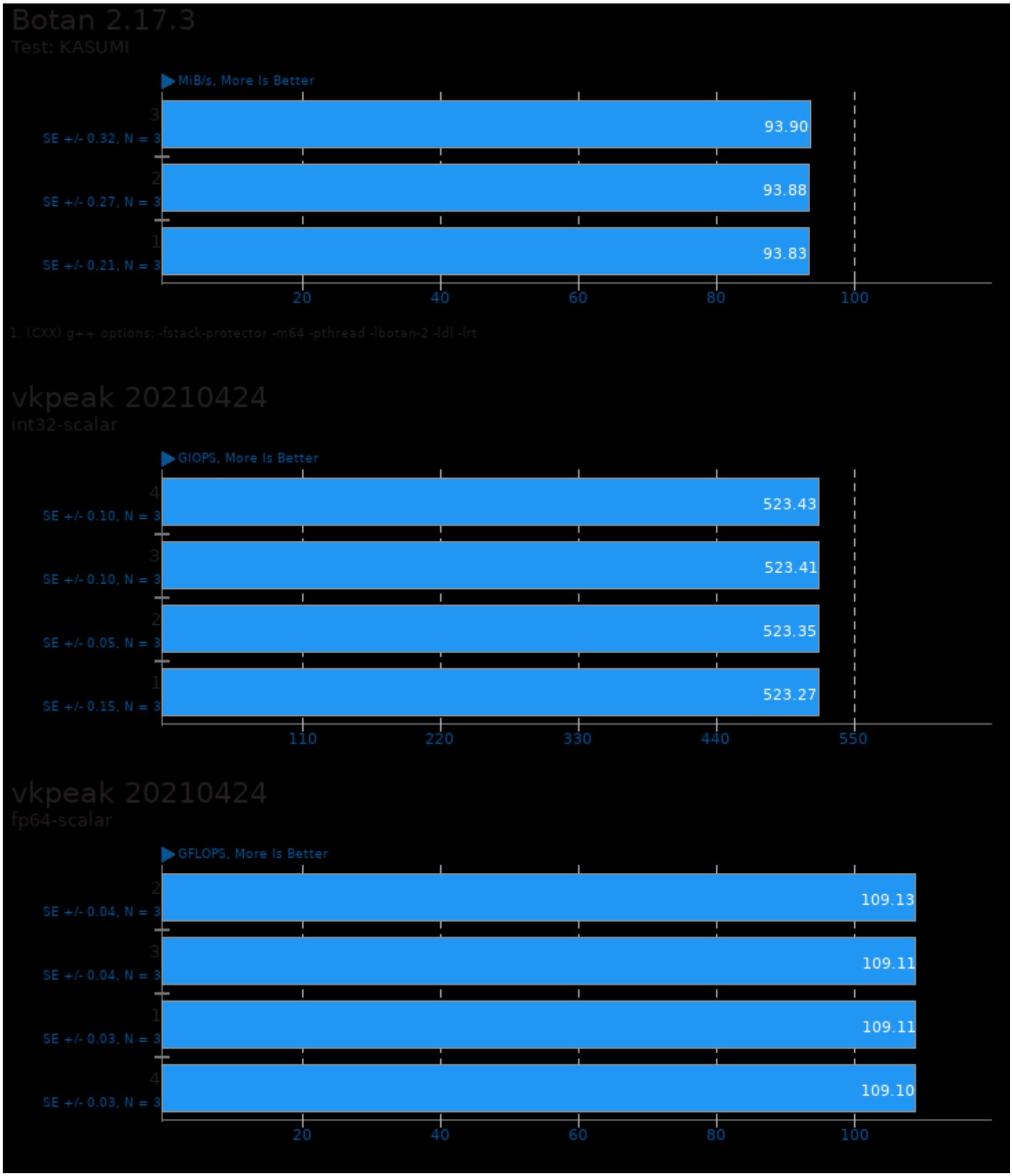
1. (CXX) g++ options: -fstack-protector -m64 -pthread -lbotan-2 -ldl -lrt

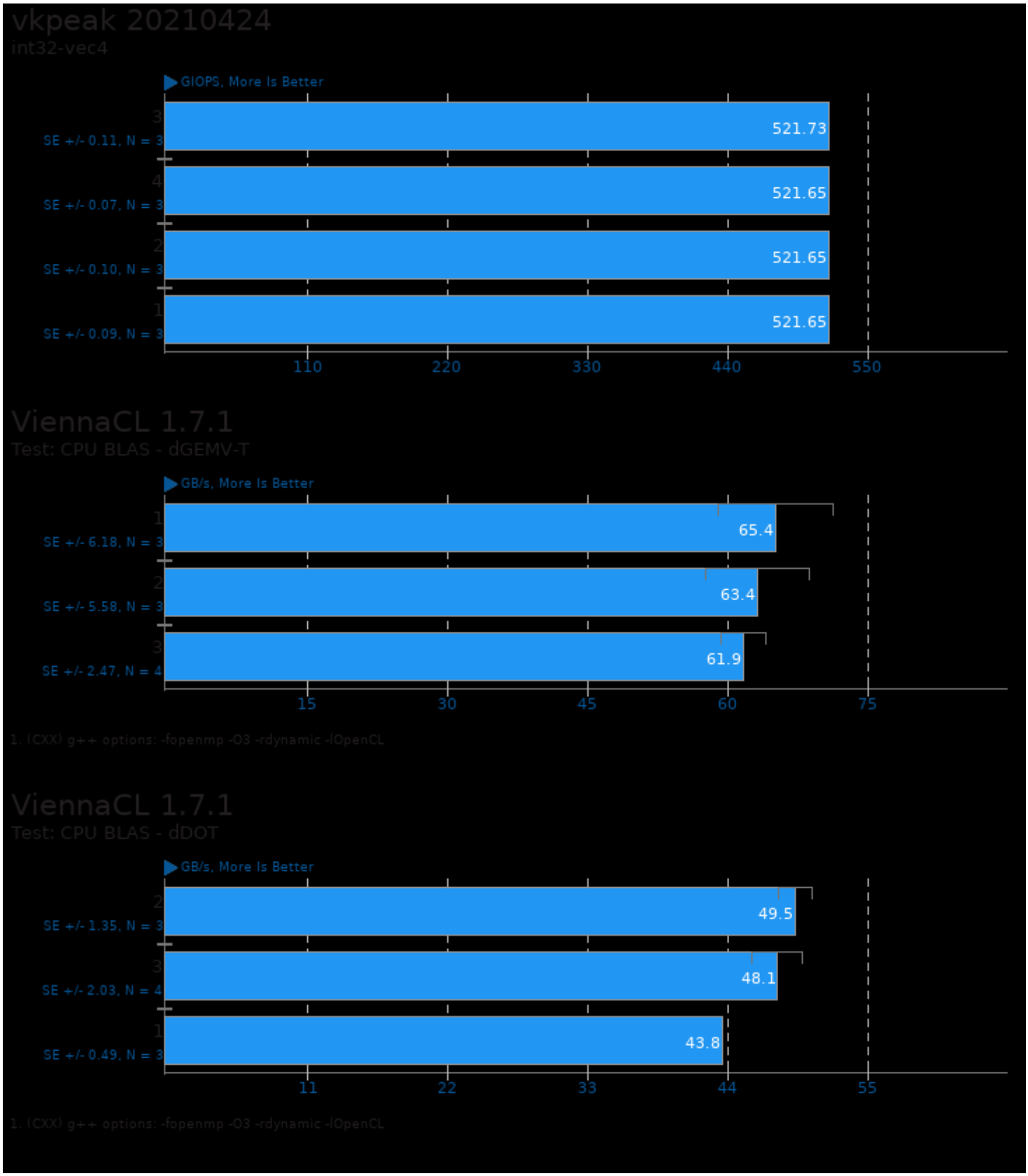
Botan 2.17.3

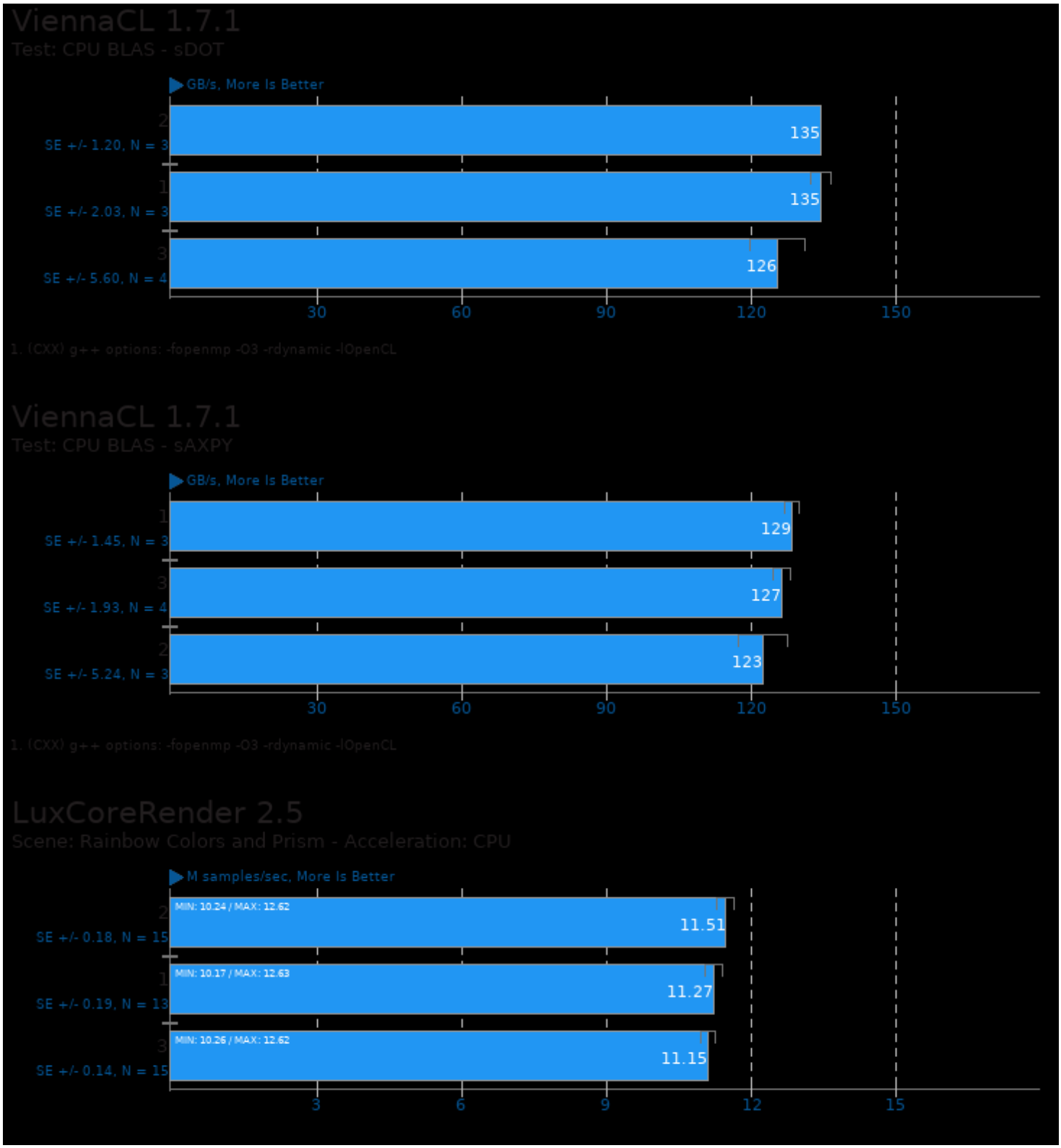
Test: KASUMI - Decrypt



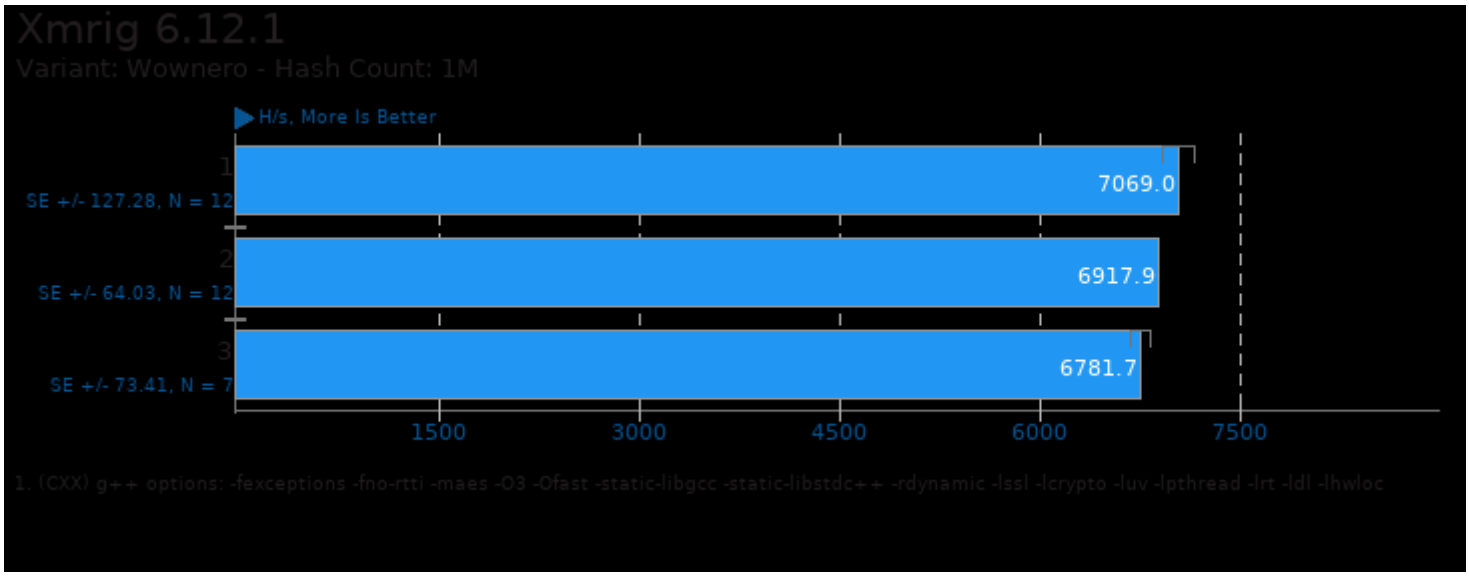
1. (CXX) g++ options: -fstack-protector -m64 -pthread -lbotan-2 -ldl -lrt


Botan 2.17.3
Test: KASUMI
MiB/s, More Is Better
3
SE +/- 0.32, N = 3
93.90
2
SE +/- 0.27, N = 3
93.88
1
SE +/- 0.21, N = 3
93.83
20
40
60
80
100
1. (CXX) g++ options: -fstack-protector -m64 -pthread -lbotan-2 -ldl -lrt
vkpeak 20210424
int32-scalar
GIOPS, More Is Better
4
SE +/- 0.10, N = 3
523.43
3
SE +/- 0.10, N = 3
523.41
2
SE +/- 0.05, N = 3
523.35
1
SE +/- 0.15, N = 3
523.27
110
220
330
440
550
vkpeak 20210424
fp64-scalar
GFLOPS, More Is Better
2
SE +/- 0.04, N = 3
109.13
3
SE +/- 0.04, N = 3
109.11
1
SE +/- 0.03, N = 3
109.11
4
SE +/- 0.03, N = 3
109.10
20
40
60
80
100


vkpeak 20210424
int32-vec4
GIOPS, More Is Better
3
SE +/- 0.11, N = 3
521.73
4
SE +/- 0.07, N = 3
521.65
2
SE +/- 0.10, N = 3
521.65
1
SE +/- 0.09, N = 3
521.65
110
220
330
440
550
ViennaCL 1.7.1
Test: CPU BLAS - dGEMV-T
GB/s, More Is Better
1
SE +/- 6.18, N = 3
65.4
2
SE +/- 5.58, N = 3
63.4
3
SE +/- 2.47, N = 4
61.9
15
30
45
60
75
1. (CXX) g++ options: -fopenmp -O3 -rdynamic -lOpenCL
ViennaCL 1.7.1
Test: CPU BLAS - dDOT
GB/s, More Is Better
2
SE +/- 1.35, N = 3
49.5
3
SE +/- 2.03, N = 4
48.1
1
SE +/- 0.49, N = 3
43.8
11
22
33
44
55
1. (CXX) g++ options: -fopenmp -O3 -rdynamic -lOpenCL

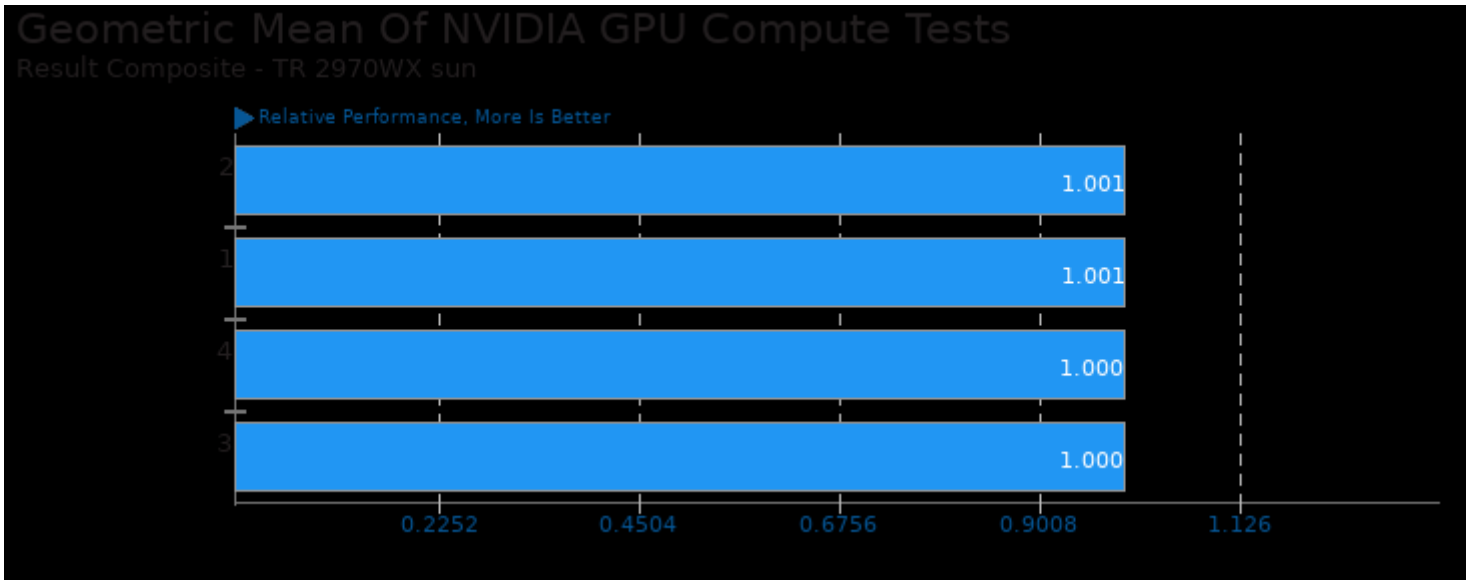

ViennaCL 1.7.1
Test: CPU BLAS - sDOT
GB/s, More Is Better
2
SE +/- 1.20, N = 3
135
1
SE +/- 2.03, N = 3
135
3
SE +/- 5.60, N = 4
126
30
60
90
120
150
1. (CXX) g++ options: -fopenmp -O3 -rdynamic -lOpenCL
ViennaCL 1.7.1
Test: CPU BLAS - sAXPY
GB/s, More Is Better
1
SE +/- 1.45, N = 3
129
3
SE +/- 1.93, N = 4
127
2
SE +/- 5.24, N = 3
123
30
60
90
120
150
1. (CXX) g++ options: -fopenmp -O3 -rdynamic -lOpenCL
LuxCoreRender 2.5
Scene: Rainbow Colors and Prism - Acceleration: CPU
M samples/sec, More Is Better
2
SE +/- 0.18, N = 15
MIN: 10.24 / MAX: 12.62
11.51
1
SE +/- 0.19, N = 13
MIN: 10.17 / MAX: 12.63
11.27
3
SE +/- 0.14, N = 15
MIN: 10.26 / MAX: 12.62
11.15
3
6
9
12
15

TR 2970WX sun



TR 2970WX sun

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



Geometric mean based upon tests: pts/luxcorerender, pts/viennacl and pts/vkpeak

This file was automatically generated via the Phoronix Test Suite benchmarking software on Thursday, 28 March 2024 07:02.