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2022-06-02-1407

Intel Core i7-12700K testing with a ASUS PRIME Z690-A (0403 BIOS) and ASUS Intel AlderLake-S GT1 on Ubuntu 22.04 via the Phoronix Test Suite.

Automated Executive Summary

Dasharo 0.4 i9-12900K had the most wins, coming in first place for 97% of the tests.

Based on the geometric mean of all complete results, the fastest (Dasharo 0.4 i9-12900K) was 1.434x the speed of the slowest (Dasharo 0.4 i9-12900T). Intel Core i7-12700K was 0.893x the speed of Dasharo 0.4 i9-12900K and Dasharo 0.4 i9-12900T was 0.781x the speed of Intel Core i7-12700K.

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

Timed Node.js Compilation (Time To Compile) at 2.511x
x265 (Video Input: Bosphorus 4K) at 2.246x
Timed Linux Kernel Compilation (Build: allmodconfig) at 2.109x
Timed Linux Kernel Compilation (Build: defconfig) at 1.993x
7-Zip Compression (Test: Decompression Rating) at 1.957x
OpenSSL (Algorithm: SHA256) at 1.874x
OpenSSL (Algorithm: RSA4096) at 1.861x
OpenSSL (Algorithm: RSA4096) at 1.836x

GEGL (Operation: Rotate 90 Degrees) at 1.518x
7-Zip Compression (Test: Compression Rating) at 1.428x.

Test Systems:

Dasharo 0.4 i9-12900K

Processor: Intel Core i9-12900K @ 5.20GHz (16 Cores / 24 Threads), Motherboard: MSI PRO Z690-A WIFI DDR4(MS-7D25) v1.0 (Dasharo coreboot+UEFI v0.4.0 BIOS), Chipset: Intel Alder Lake-S PCH, Memory: 4 x 8 GB DDR4-2400MT/s Kingston KF3600C17D4, Disk: 1024GB Samsung SSD 970 PRO 1TB, Graphics: MSI Intel AlderLake-S GT1 (1550MHz), Audio: Realtek ALC897, Monitor: PL2274HD, Network: Intel I225-V

OS: Debian testing, Kernel: 5.17.0-1-amd64 (x86_64), Display Server: X Server 1.21.1.3, Vulkan: 1.2.195, Compiler: GCC 11.3.0, File-System: ext4, Screen Resolution: 1920x1080

Kernel Notes: Transparent Huge Pages: always
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-11-6lTGZp/gcc-11-11.3.0/debian/tmp-nvptx/usr,amdgcn-amdhsa=/build/gcc-11-6lTGZp/gcc-11-11.3.0/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: intel_pstate performance (EPP: performance) - CPU Microcode: 0x1f
Python Notes: Python 3.10.4
Security Notes: itlb_multihit: Not affected + l1tf: Not affected + mds: Not affected + meltdown: Not affected + spec_store_bypass: Mitigation of SSB disabled via prctl + spectre_v1: Mitigation of usercopy/swapgs barriers and __user pointer sanitization + spectre_v2: Mitigation of Enhanced IBRS IBPB: conditional RSB filling + srbds: Not affected + tsx_async_abort: Not affected

Dasharo 0.4 i9-12900T

Processor: Intel Core i9-12900T @ 4.90GHz (16 Cores / 24 Threads), Motherboard: MSI PRO Z690-A WIFI DDR4(MS-7D25) v1.0 (Dasharo coreboot+UEFI v0.4.0 BIOS), Chipset: Intel Alder Lake-S PCH, Memory: 4 x 8 GB DDR4-2400MT/s Kingston KF3600C17D4, Disk: 1024GB Samsung SSD 970 PRO 1TB, Graphics: MSI Intel AlderLake-S GT1 (1550MHz), Audio: Realtek ALC897, Monitor: PL2274HD, Network: Intel I225-V

OS: Debian testing, Kernel: 5.17.0-1-amd64 (x86_64), Display Server: X Server 1.21.1.3, Vulkan: 1.2.195, Compiler: GCC 11.3.0, File-System: ext4, Screen Resolution: 1920x1080

Kernel Notes: Transparent Huge Pages: always
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-11-6lTGZp/gcc-11-11.3.0/debian/tmp-nvptx/usr,amdgcn-amdhsa=/build/gcc-11-6lTGZp/gcc-11-11.3.0/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: intel_pstate performance (EPP: performance) - CPU Microcode: 0x1f
Python Notes: Python 3.10.4
Security Notes: itlb_multihit: Not affected + l1tf: Not affected + mds: Not affected + meltdown: Not affected + spec_store_bypass: Mitigation of SSB disabled via prctl + spectre_v1: Mitigation of usercopy/swapgs barriers and __user pointer sanitization + spectre_v2: Mitigation of Enhanced IBRS IBPB: conditional RSB filling + srbds: Not affected + tsx_async_abort: Not affected

Intel Core i7-12700K

Processor: Intel Core i7-12700K @ 6.30GHz (12 Cores / 20 Threads), Motherboard: ASUS PRIME Z690-A (0403 BIOS),

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Chipset: Intel Device 7aa7, Memory: 32GB, Disk: Samsung SSD 980 500GB, Graphics: ASUS Intel AlderLake-S GT1 (1500MHz), Audio: Realtek ALC1220, Monitor: DELL U2520D, Network: Intel I225-V

OS: Ubuntu 22.04, Kernel: 5.15.0-39-generic (x86_64), Desktop: GNOME Shell 42.1, Display Server: X Server + Wayland, OpenGL: 4.6 Mesa 22.0.1, Vulkan: 1.3.204, Compiler: GCC 11.2.0, File-System: ext4, Screen Resolution: 2560x1440

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-gBFGDP/gcc-11-11.2.0/debian/tmp-nvptx/usr,amdgcn-amdhsa=/build/gcc-11-gBFGDP/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: intel_pstate powersave (EPP: balance_performance) - CPU Microcode: 0x1f - Thermald 2.4.9
Python Notes: Python 3.10.4
Security Notes: itlb_multihit: Not affected + l1tf: Not affected + mds: Not affected + meltdown: Not affected + mmio_stale_data: 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 Enhanced IBRS IBPB: conditional RSB filling + srbds: Not affected + tsx_async_abort: Not affected

	Dasharo 0.4	Dasharo 0.4	Intel Core i7-12700K
Timed Node.js Compilation - Time To Compile (sec)	**409.998**	**1030**	423.676
Normalized	100%	39.82%	96.77%
Standard Deviation	0.2%		0.1%
x265 - Bosphorus 4K (FPS)	**25.92**	**11.54**	22.68
Normalized	100%	44.52%	87.5%
Standard Deviation	2.4%	2.5%	2.1%
Timed Linux Kernel Compilation - allmodconfig (sec)	**728.741**	**1537**	
Normalized	100%	47.41%	
Standard Deviation	2.8%	0%	
Timed Linux Kernel Compilation - defconfig (sec)	**58.250**	**116.115**	
Normalized	100%	50.17%	
Standard Deviation	4.4%	0.5%	
7-Zip Compression - D.R (MIPS)	**95486**	**48801**	78079
Normalized	100%	51.11%	81.77%
Standard Deviation	1.7%	2.8%	0.1%
OpenSSL - SHA256 (byte/s)	**22311153000**	**11908801673**	18365850023
Normalized	100%	53.38%	82.32%
Standard Deviation	0.3%	0.2%	0.2%
OpenSSL - RSA4096 (verify/s)	**257439**	**138337**	240929
Normalized	100%	53.74%	93.59%
Standard Deviation	0.1%	0.1%	0%
OpenSSL - RSA4096 (sign/s)	**4038**	**2199**	3714
Normalized	100%	54.45%	91.98%
Standard Deviation	1%	2.5%	0.1%
GEGL - Rotate 90 Degrees (sec)	**34.649**	**52.582**	
Normalized	100%	65.9%	
Standard Deviation	1%	4.1%	

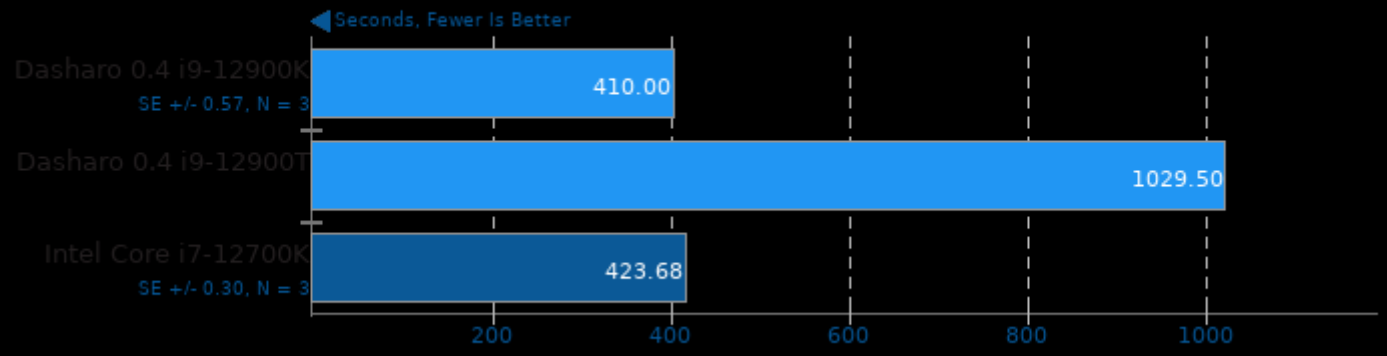
7-Zip Compression - Compression Rating (MIPS)	72336	**54794**	**78232**
Normalized	92.46%	70.04%	100%
Standard Deviation	0.1%	0.7%	1.1%
FFmpeg - H.2.H.T.N.D (sec)	**3.869**	4.328	**5.388**
Normalized	100%	89.39%	71.81%
Standard Deviation	2.2%	0.5%	2.5%
GIMP - rotate (sec)	**9.628**	10.189	**12.134**
Normalized	100%	94.49%	79.35%
Standard Deviation	2%	0.2%	1.6%
GIMP - resize (sec)	**13.105**	**15.795**	14.758
Normalized	100%	82.97%	88.8%
Standard Deviation	0.2%	3.7%	1.5%
GEGL - Crop (sec)	**6.001**	**7.172**	
Normalized	100%	83.67%	
Standard Deviation	2.2%	0.2%	
GIMP - auto-levels (sec)	**10.460**	11.246	**12.438**
Normalized	100%	93.01%	84.1%
Standard Deviation	0.8%	1.2%	1.9%
GEGL - Cartoon (sec)	**65.953**	**74.917**	
Normalized	100%	88.03%	
Standard Deviation	0.4%	1.2%	
GEGL - Antialias (sec)	**25.059**	**28.051**	
Normalized	100%	89.33%	
Standard Deviation	0.2%	0.4%	
GEGL - Tile Glass (sec)	**19.582**	**21.743**	
Normalized	100%	90.06%	
Standard Deviation	0.1%	0.5%	
GEGL - Reflect (sec)	**20.193**	**22.206**	
Normalized	100%	90.93%	
Standard Deviation	0.3%	0%	
GIMP - unsharp-mask (sec)	**12.961**	13.592	**14.129**
Normalized	100%	95.36%	91.73%
Standard Deviation	2.2%	0.7%	0.9%
GEGL - Color Enhance (sec)	**35.795**	**38.880**	
Normalized	100%	92.07%	
Standard Deviation	0%	0.1%	
PyBench - T.F.A.T.T (Milliseconds)	**486**	520	**525**
Normalized	100%	93.46%	92.57%
Standard Deviation	0.2%	1.3%	0.1%
LAME MP3 Encoding - WAV To MP3 (sec)	**5.184**	**5.573**	5.437
Normalized	100%	93.02%	95.35%
Standard Deviation	0.1%	0.8%	1%
PHPBench - P.B.S (Score)	**1478882**	**1383290**	1401611
Normalized	100%	93.54%	94.78%
Standard Deviation	0.2%	1%	0.4%
GEGL - Wavelet Blur (sec)	**40.902**	**43.680**	
Normalized	100%	93.64%	
Standard Deviation	0.5%	0.4%	
Cryptsetup - PBKDF2-whirlpool	**1209093**	**1134084**	
Normalized	100%	93.8%	
Standard Deviation	1.3%	1%	
Cryptsetup - A.X.2.E (MiB/s)	**6194**	**5810**	
Normalized	100%	93.8%	
Standard Deviation	0.3%	0%	

Cryptsetup - A.X.5.E (MiB/s)	**5690**	**5339**	
Normalized	100%	93.84%	
Standard Deviation	0.2%	0.1%	
Cryptsetup - A.X.2.D (MiB/s)	**6189**	**5809**	
Normalized	100%	93.85%	
Standard Deviation	0.3%	0%	
Cryptsetup - S.X.2.D (MiB/s)	**932.0**	**875.7**	
Normalized	100%	93.96%	
Standard Deviation	0%	0.1%	
Cryptsetup - S.X.5.D (MiB/s)	**931.5**	**875.4**	
Normalized	100%	93.98%	
Standard Deviation	0%	0.1%	
Cryptsetup - A.X.5.D (MiB/s)	**5660**	**5320**	
Normalized	100%	93.99%	
Standard Deviation	0.2%	0.1%	
Cryptsetup - S.X.5.E (MiB/s)	**903.3**	**849.4**	
Normalized	100%	94.03%	
Standard Deviation	0%	0.1%	
Cryptsetup - T.X.5.D (MiB/s)	**630.8**	**594.0**	
Normalized	100%	94.17%	
Standard Deviation	0%	0%	
Cryptsetup - T.X.5.E (MiB/s)	**625.1**	**588.7**	
Normalized	100%	94.18%	
Standard Deviation	0%	0.1%	
Cryptsetup - PBKDF2-sha512 (Iterations/sec)	**2605400**	**2455922**	
Normalized	100%	94.26%	
Standard Deviation	1.2%	1.2%	
Cryptsetup - T.X.2.D (MiB/s)	**630.8**	**594.7**	
Normalized	100%	94.28%	
Standard Deviation	0.1%	0.1%	
Cryptsetup - T.X.2.E (MiB/s)	**624.5**	**589.1**	
Normalized	100%	94.33%	
Standard Deviation	0.3%	0%	
Cryptsetup - S.X.2.E (MiB/s)	**896.9**	**849.6**	
Normalized	100%	94.73%	
Standard Deviation	1.3%	0.1%	
FLAC Audio Encoding - WAV To FLAC (sec)	**10.554**	**11.095**	10.916
Normalized	100%	95.12%	96.68%
Standard Deviation	0.5%	0.2%	0.9%
librsvg - SVG Files To PNG (sec)	**13.426**	**14.039**	
Normalized	100%	95.63%	
Standard Deviation	0.6%	0.1%	
GNU Octave Benchmark (sec)	**6.456**	**6.710**	
Normalized	100%	96.21%	
Standard Deviation	3.8%	0.6%	
GEGL - Scale (sec)	**6.291**	**9.371**	
Normalized	100%	67.13%	
Standard Deviation	1%	6.6%	
x265 - Bosphorus 1080p (FPS)	**80.14**	**48.41**	74.34
Normalized	100%	60.41%	92.76%
Standard Deviation	0.5%	10.2%	2.3%
x264 - Bosphorus 1080p (FPS)	**210.42**	**135.52**	172.18
Normalized	100%	64.4%	81.83%
Standard Deviation	0.3%	9.5%	4%
x264 - Bosphorus 4K (FPS)	**47.05**	**24.90**	42.68

Normalized	100%	52.92%	90.71%
Standard Deviation	2.5%	12.8%	3.8%

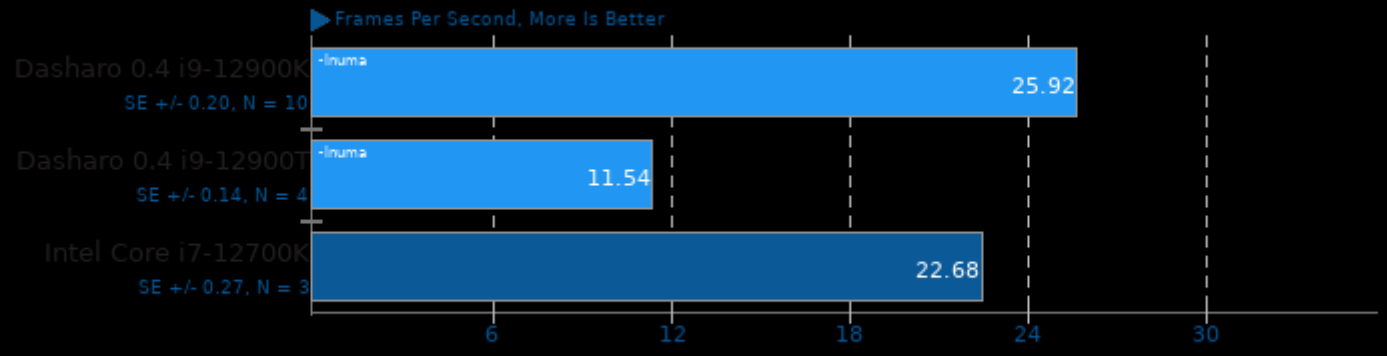
Timed Node.js Compilation 17.3

Time To Compile



x265 3.4

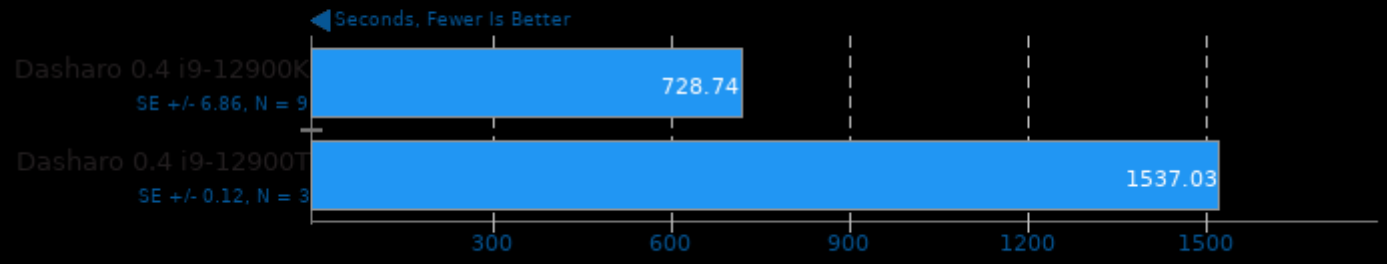
Video Input: Bosphorus 4K



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

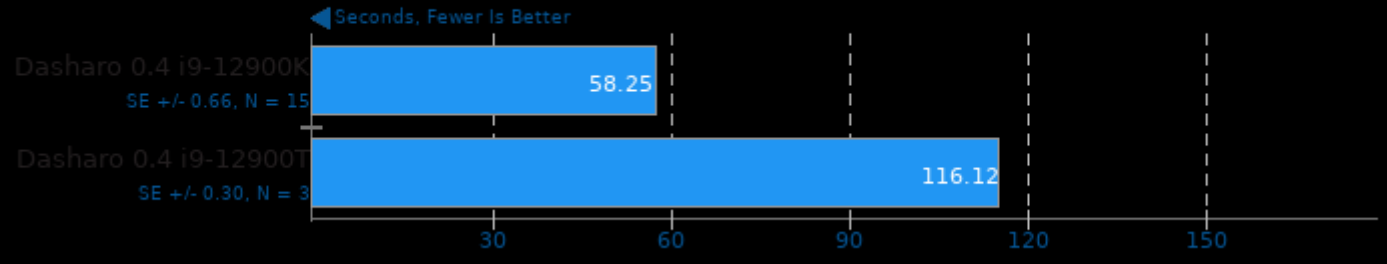
Timed Linux Kernel Compilation 5.16

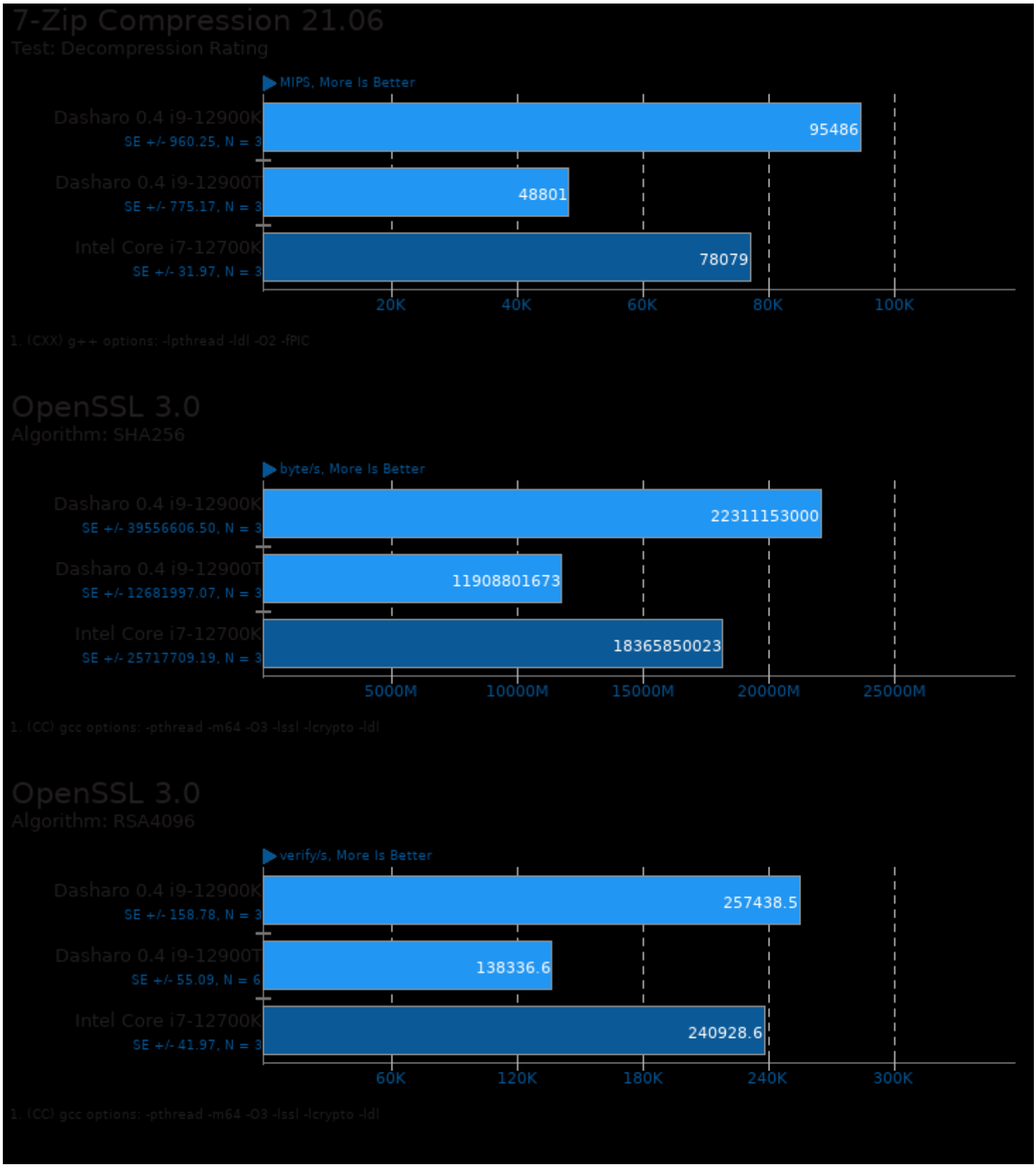
Build: allmodconfig

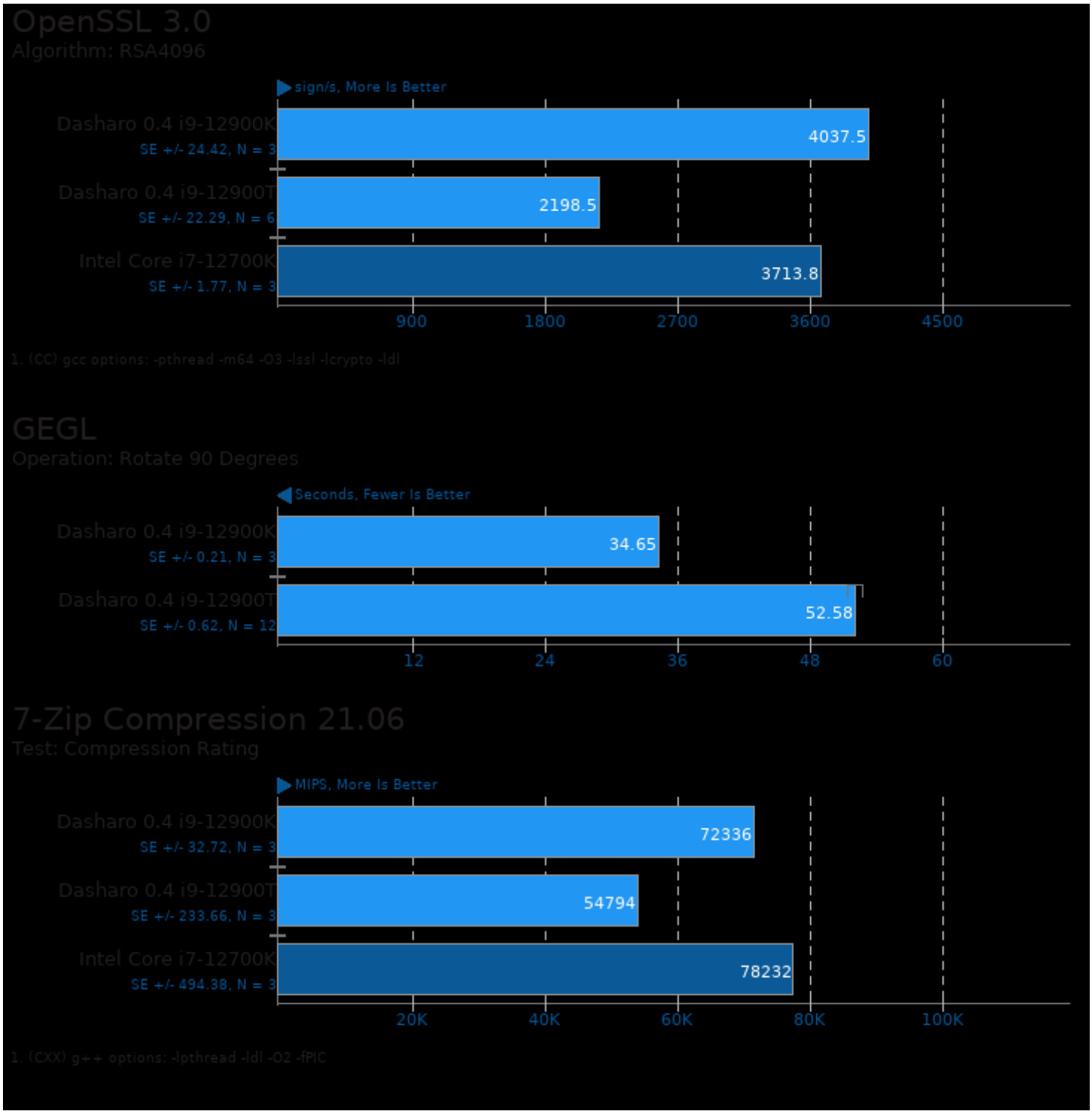


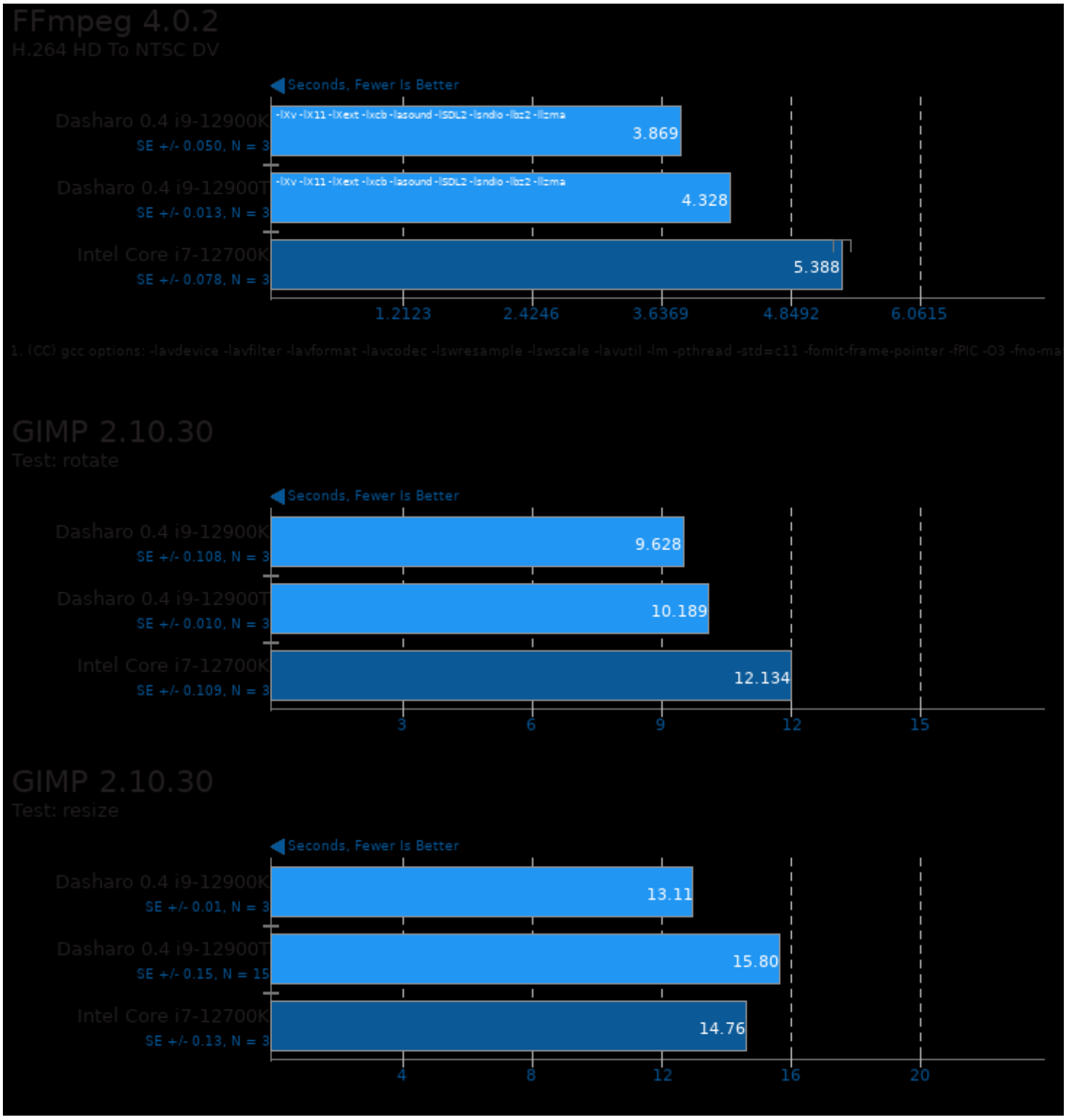
Timed Linux Kernel Compilation 5.16

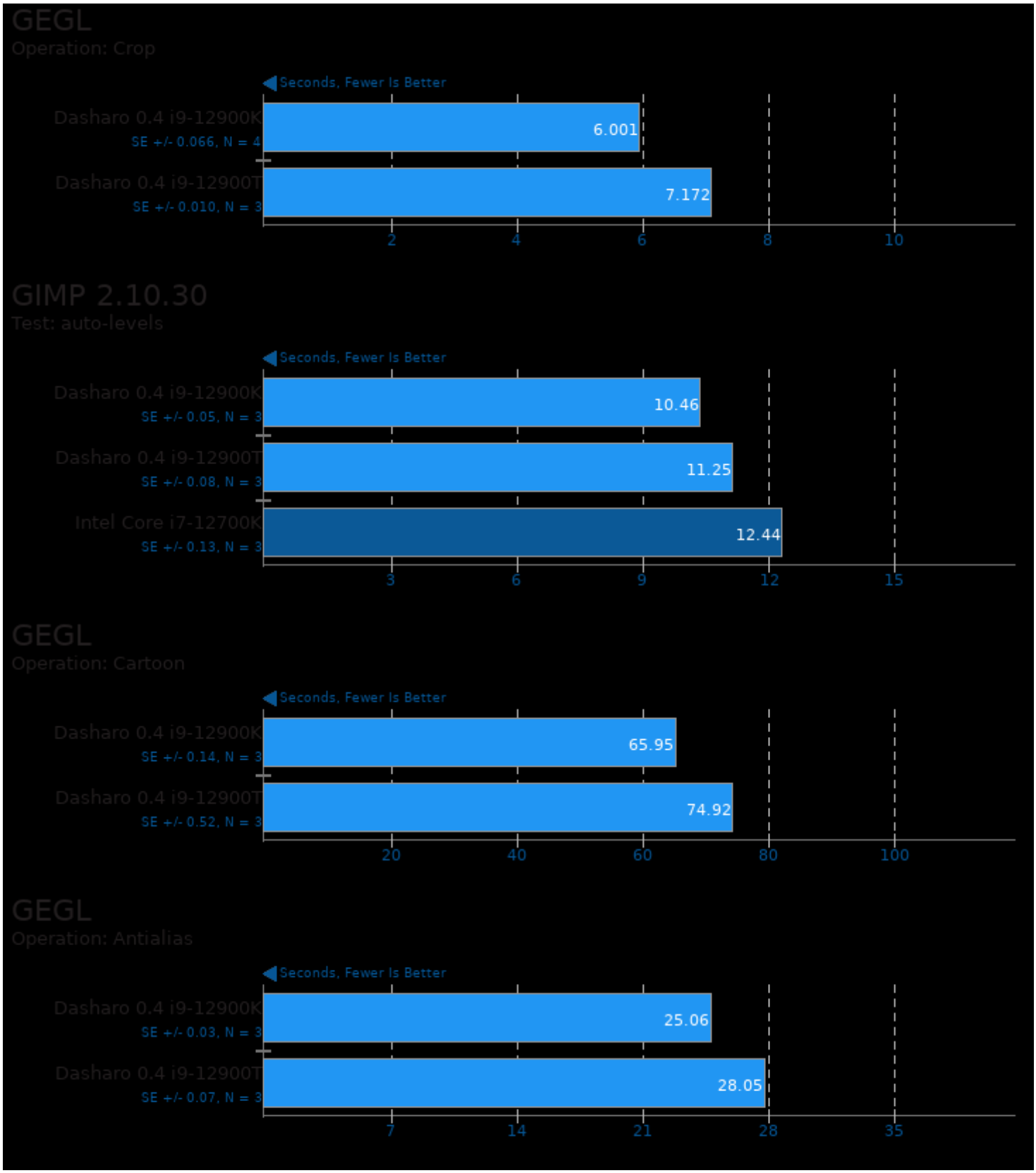
Build: defconfig

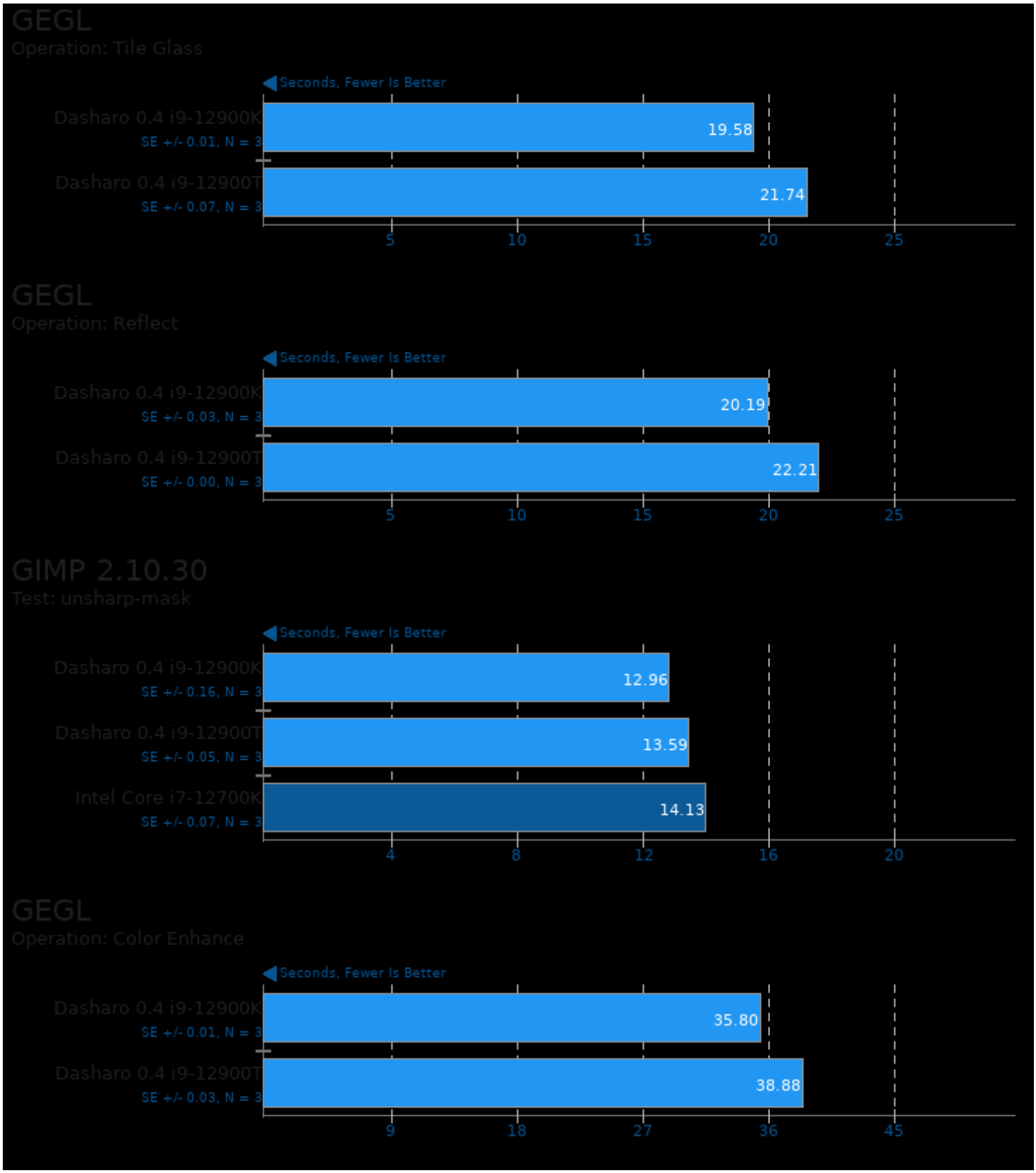


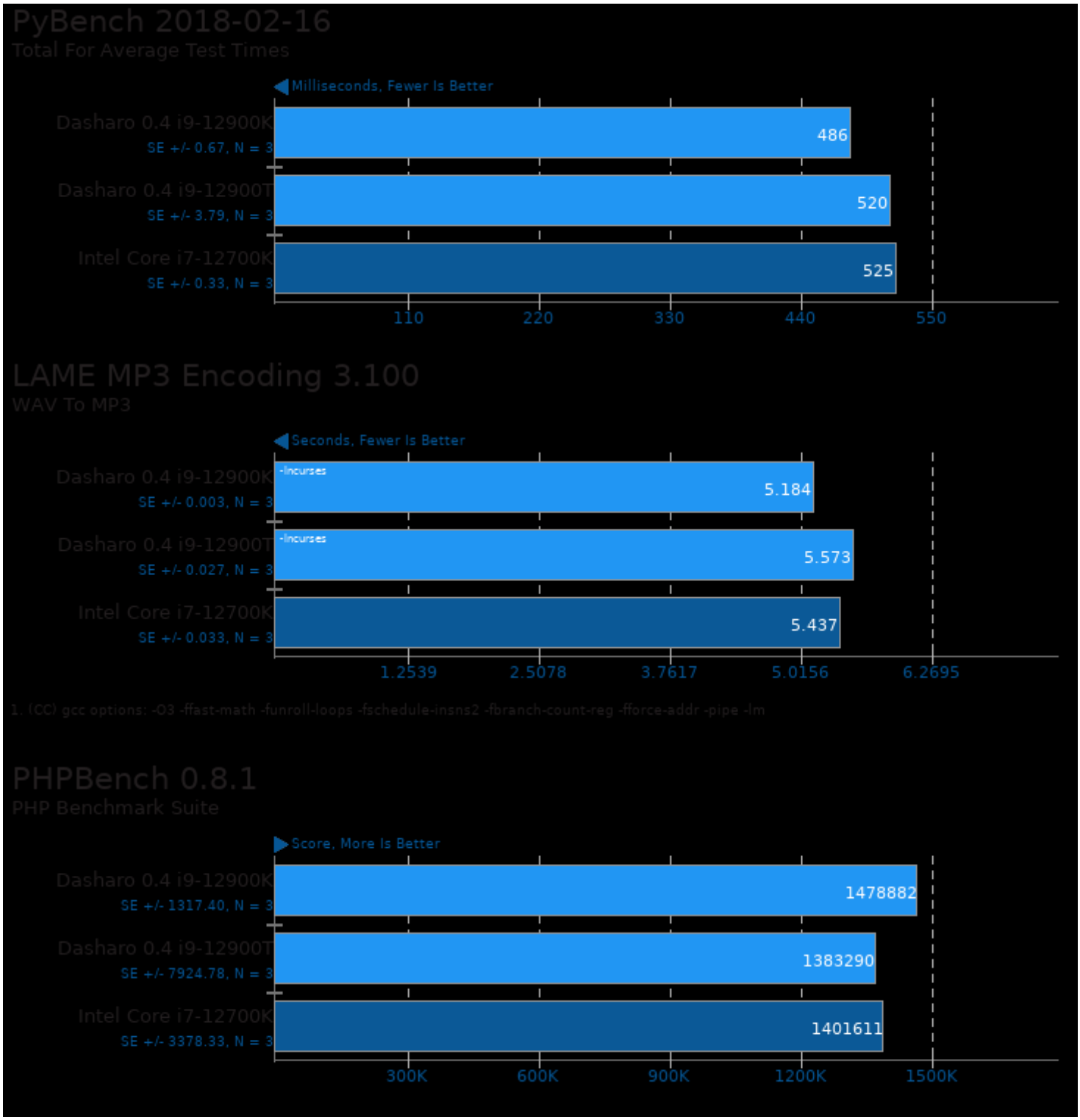

7-Zip Compression 21.06
Test: Decompression Rating
MIPS, More Is Better
Dasharo 0.4 i9-12900K
SE +/- 960.25, N = 3
95486
Dasharo 0.4 i9-12900T
SE +/- 775.17, N = 3
48801
Intel Core i7-12700K
SE +/- 31.97, N = 3
78079
20K
40K
60K
80K
100K
1. (CXX) g++ options: -lpthread -ldl -O2 -fPIC
OpenSSL 3.0
Algorithm: SHA256
byte/s, More Is Better
Dasharo 0.4 i9-12900K
SE +/- 39556606.50, N = 3
22311153000
Dasharo 0.4 i9-12900T
SE +/- 12681997.07, N = 3
11908801673
Intel Core i7-12700K
SE +/- 25717709.19, N = 3
18365850023
5000M
10000M
15000M
20000M
25000M
1. (CC) gcc options: -pthread -m64 -O3 -lssl -lcrypto -ldl
OpenSSL 3.0
Algorithm: RSA4096
verify/s, More Is Better
Dasharo 0.4 i9-12900K
SE +/- 158.78, N = 3
257438.5
Dasharo 0.4 i9-12900T
SE +/- 55.09, N = 6
138336.6
Intel Core i7-12700K
SE +/- 41.97, N = 3
240928.6
60K
120K
180K
240K
300K
1. (CC) gcc options: -pthread -m64 -O3 -lssl -lcrypto -ldl

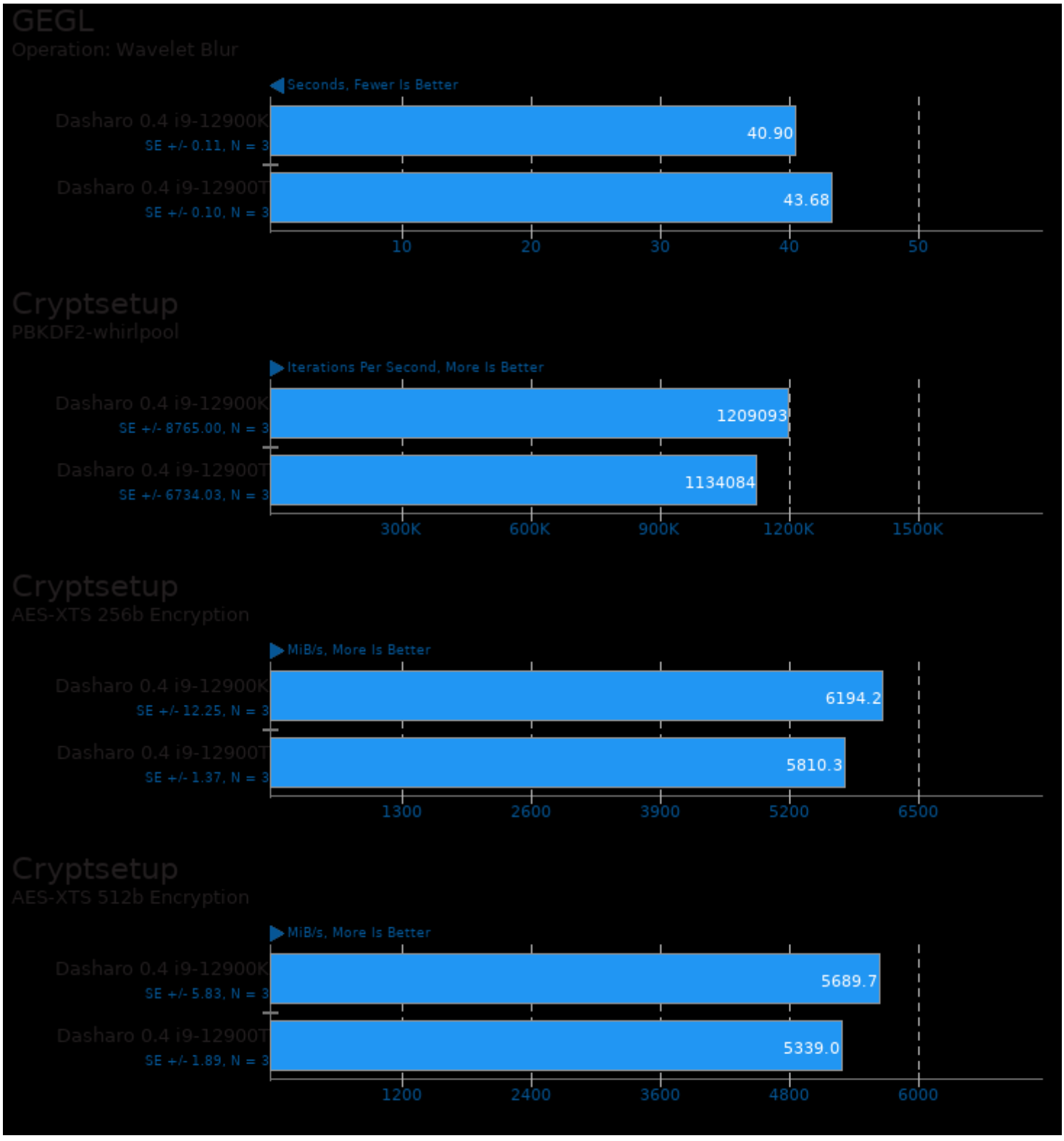

OpenSSL 3.0
Algorithm: RSA4096
sign/s, More Is Better
Dasharo 0.4 i9-12900K
SE +/- 24.42, N = 3
4037.5
Dasharo 0.4 i9-12900T
SE +/- 22.29, N = 6
2198.5
Intel Core i7-12700K
SE +/- 1.77, N = 3
3713.8
900
1800
2700
3600
4500
1. (CC) gcc options: -pthread -m64 -O3 -lssl -lcrypto -ldl
GEGL
Operation: Rotate 90 Degrees
Seconds, Fewer Is Better
Dasharo 0.4 i9-12900K
SE +/- 0.21, N = 3
34.65
Dasharo 0.4 i9-12900T
SE +/- 0.62, N = 12
52.58
12
24
36
48
60
7-Zip Compression 21.06
Test: Compression Rating
MIPS, More Is Better
Dasharo 0.4 i9-12900K
SE +/- 32.72, N = 3
72336
Dasharo 0.4 i9-12900T
SE +/- 233.66, N = 3
54794
Intel Core i7-12700K
SE +/- 494.38, N = 3
78232
20K
40K
60K
80K
100K
1. (CXX) g++ options: -lpthread -ldl -O2 -fPIC

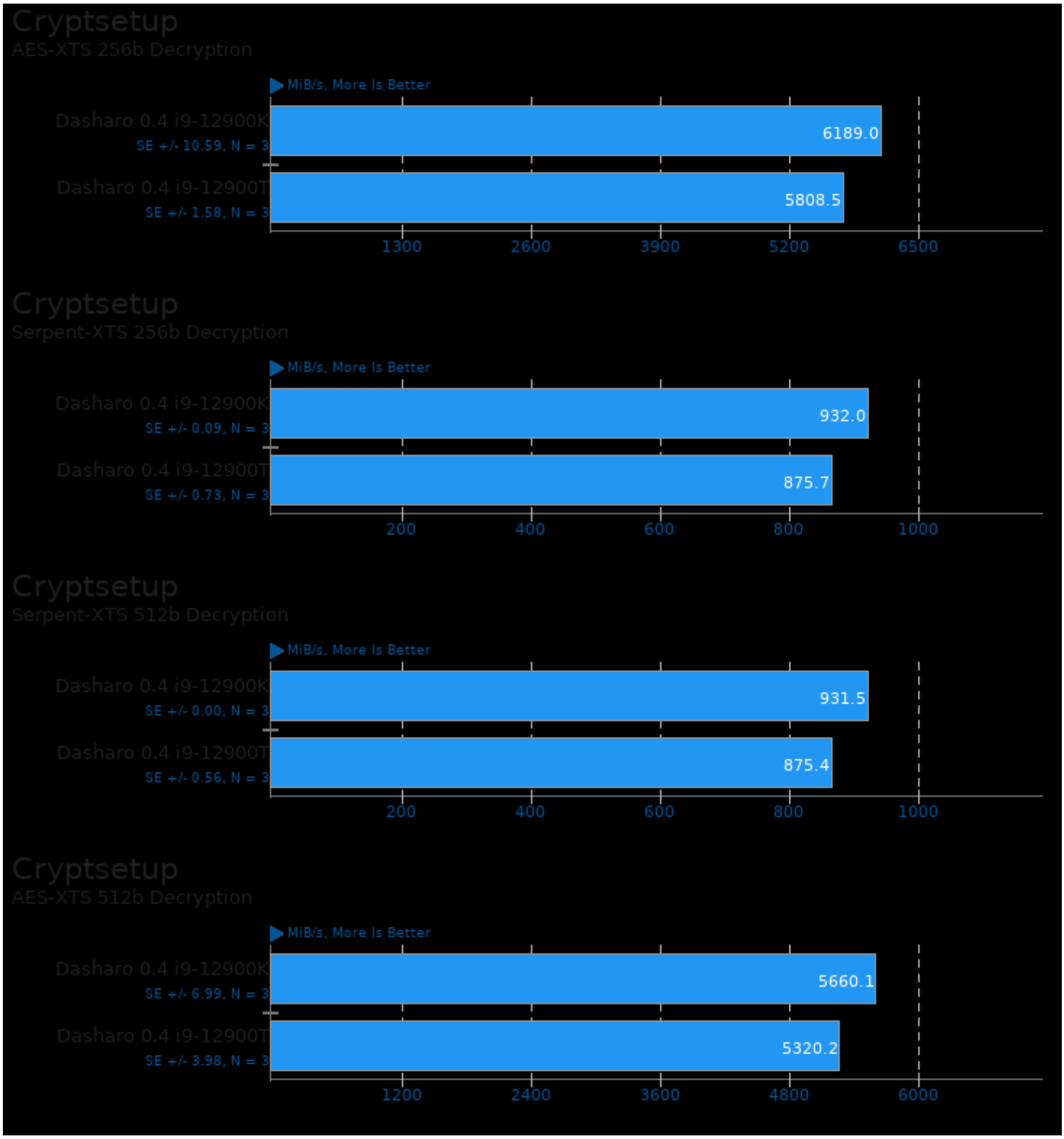

FFmpeg 4.0.2
H.264 HD To NTSC DV
Seconds, Fewer Is Better
Dasharo 0.4 i9-12900K
SE +/- 0.050, N = 3
-lXv -lX11 -lXext -lxcb -lasound -lSDL2 -lsndio -lbz2 -llzma
3.869
Dasharo 0.4 i9-12900T
SE +/- 0.013, N = 3
-lXv -lX11 -lXext -lxcb -lasound -lSDL2 -lsndio -lbz2 -llzma
4.328
Intel Core i7-12700K
SE +/- 0.078, N = 3
5.388
1.2123
2.4246
3.6369
4.8492
6.0615
1. (CC) gcc options: -lavdevice -lavfilter -lavformat -lavcodec -lswresample -lswscale -lavutil -lm -pthread -std=c11 -fomit-frame-pointer -fPIC -O3 -fno-ma
GIMP 2.10.30
Test: rotate
Seconds, Fewer Is Better
Dasharo 0.4 i9-12900K
SE +/- 0.108, N = 3
9.628
Dasharo 0.4 i9-12900T
SE +/- 0.010, N = 3
10.189
Intel Core i7-12700K
SE +/- 0.109, N = 3
12.134
3
6
9
12
15
GIMP 2.10.30
Test: resize
Seconds, Fewer Is Better
Dasharo 0.4 i9-12900K
SE +/- 0.01, N = 3
13.11
Dasharo 0.4 i9-12900T
SE +/- 0.15, N = 15
15.80
Intel Core i7-12700K
SE +/- 0.13, N = 3
14.76
4
8
12
16
20

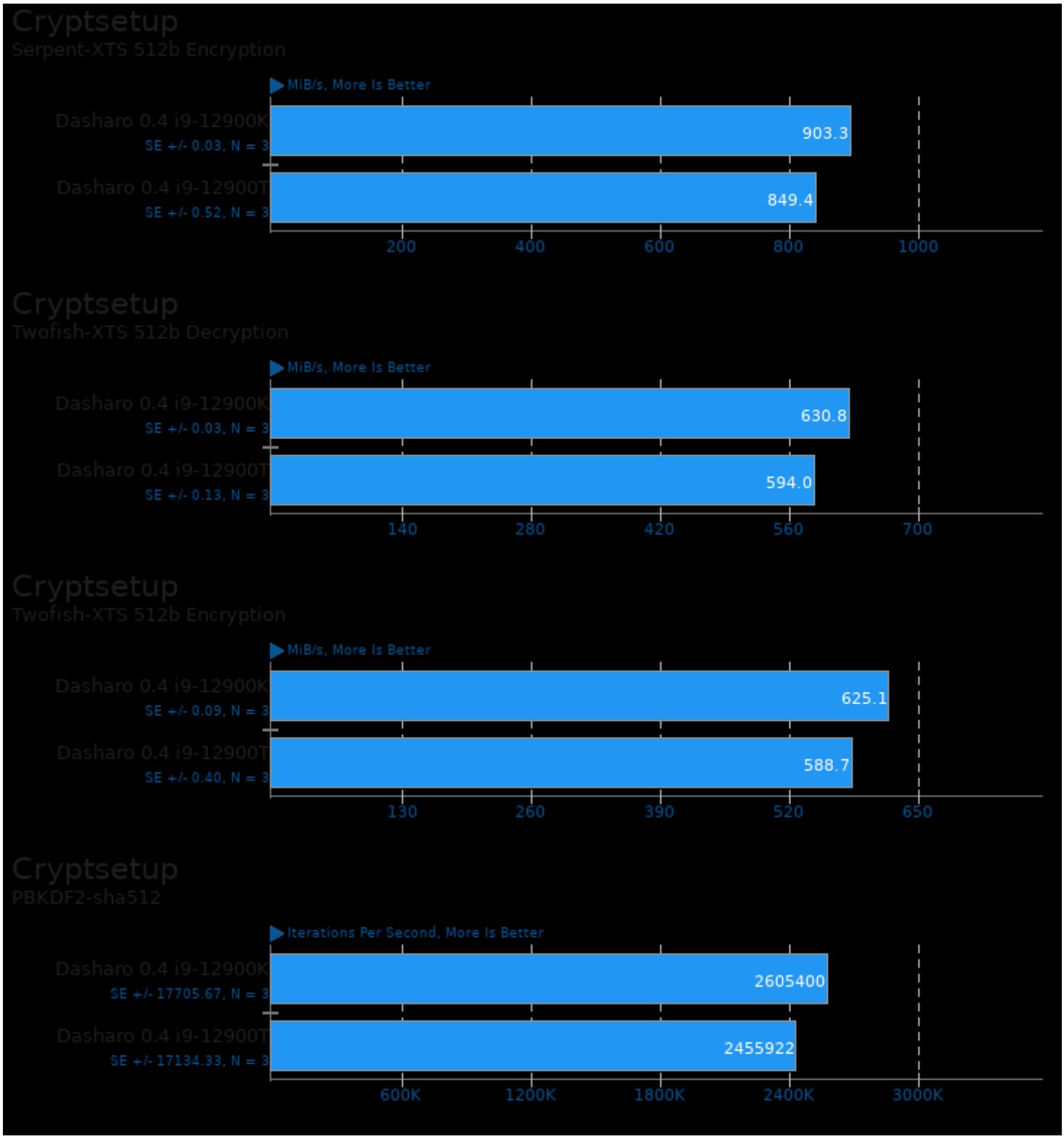

GEGL
Operation: Crop
Seconds, Fewer Is Better
Dasharo 0.4 i9-12900K
SE +/- 0.066, N = 4
6.001
Dasharo 0.4 i9-12900T
SE +/- 0.010, N = 3
7.172
2
4
6
8
10
GIMP 2.10.30
Test: auto-levels
Seconds, Fewer Is Better
Dasharo 0.4 i9-12900K
SE +/- 0.05, N = 3
10.46
Dasharo 0.4 i9-12900T
SE +/- 0.08, N = 3
11.25
Intel Core i7-12700K
SE +/- 0.13, N = 3
12.44
3
6
9
12
15
GEGL
Operation: Cartoon
Seconds, Fewer Is Better
Dasharo 0.4 i9-12900K
SE +/- 0.14, N = 3
65.95
Dasharo 0.4 i9-12900T
SE +/- 0.52, N = 3
74.92
20
40
60
80
100
GEGL
Operation: Antialias
Seconds, Fewer Is Better
Dasharo 0.4 i9-12900K
SE +/- 0.03, N = 3
25.06
Dasharo 0.4 i9-12900T
SE +/- 0.07, N = 3
28.05
7
14
21
28
35

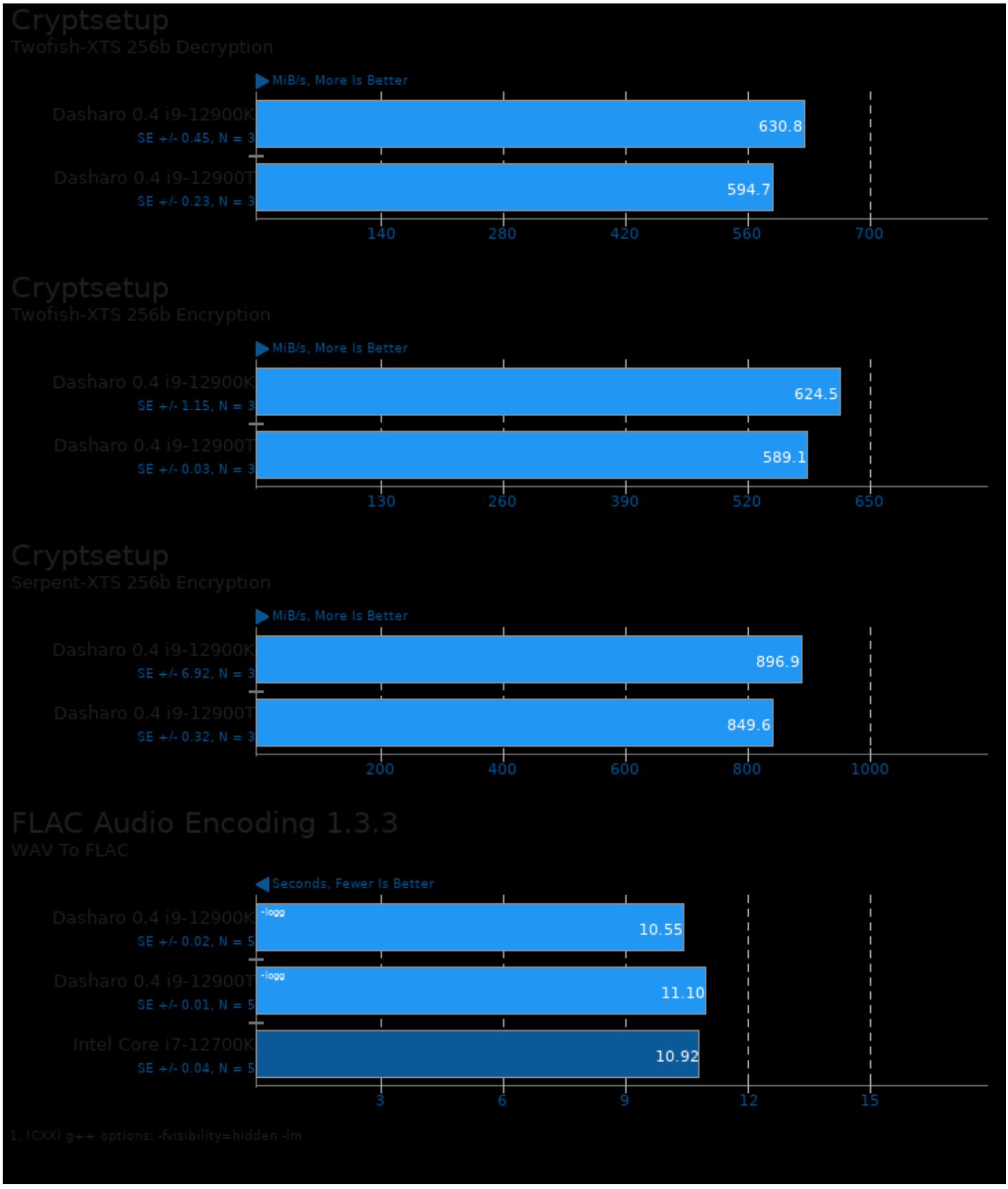

GEGL
Operation: Tile Glass
Seconds, Fewer Is Better
Dasharo 0.4 i9-12900K
SE +/- 0.01, N = 3
19.58
Dasharo 0.4 i9-12900T
SE +/- 0.07, N = 3
21.74
5
10
15
20
25
GEGL
Operation: Reflect
Seconds, Fewer Is Better
Dasharo 0.4 i9-12900K
SE +/- 0.03, N = 3
20.19
Dasharo 0.4 i9-12900T
SE +/- 0.00, N = 3
22.21
5
10
15
20
25
GIMP 2.10.30
Test: unsharp-mask
Seconds, Fewer Is Better
Dasharo 0.4 i9-12900K
SE +/- 0.16, N = 3
12.96
Dasharo 0.4 i9-12900T
SE +/- 0.05, N = 3
13.59
Intel Core i7-12700K
SE +/- 0.07, N = 3
14.13
4
8
12
16
20
GEGL
Operation: Color Enhance
Seconds, Fewer Is Better
Dasharo 0.4 i9-12900K
SE +/- 0.01, N = 3
35.80
Dasharo 0.4 i9-12900T
SE +/- 0.03, N = 3
38.88
9
18
27
36
45


PyBench 2018-02-16
Total For Average Test Times
Milliseconds, Fewer Is Better
Dasharo 0.4 i9-12900K
SE +/- 0.67, N = 3
486
Dasharo 0.4 i9-12900T
SE +/- 3.79, N = 3
520
Intel Core i7-12700K
SE +/- 0.33, N = 3
525
110
220
330
440
550
LAME MP3 Encoding 3.100
WAV To MP3
Seconds, Fewer Is Better
Dasharo 0.4 i9-12900K
SE +/- 0.003, N = 3
-lncurses
5.184
Dasharo 0.4 i9-12900T
SE +/- 0.027, N = 3
-lncurses
5.573
Intel Core i7-12700K
SE +/- 0.033, N = 3
5.437
1.2539
2.5078
3.7617
5.0156
6.2695
1. (CC) gcc options: -O3 -ffast-math -funroll-loops -fschedule-insns2 -fbranch-count-reg -fforce-addr -pipe -lm
PHPBench 0.8.1
PHP Benchmark Suite
Score, More Is Better
Dasharo 0.4 i9-12900K
SE +/- 1317.40, N = 3
1478882
Dasharo 0.4 i9-12900T
SE +/- 7924.78, N = 3
1383290
Intel Core i7-12700K
SE +/- 3378.33, N = 3
1401611
300K
600K
900K
1200K
1500K


GEGL
Operation: Wavelet Blur
Seconds, Fewer Is Better
Dasharo 0.4 i9-12900K
SE +/- 0.11, N = 3
40.90
Dasharo 0.4 i9-12900T
SE +/- 0.10, N = 3
43.68
10
20
30
40
50
Cryptsetup
PBKDF2-whirlpool
Iterations Per Second, More Is Better
Dasharo 0.4 i9-12900K
SE +/- 8765.00, N = 3
1209093
Dasharo 0.4 i9-12900T
SE +/- 6734.03, N = 3
1134084
300K
600K
900K
1200K
1500K
Cryptsetup
AES-XTS 256b Encryption
MiB/s, More Is Better
Dasharo 0.4 i9-12900K
SE +/- 12.25, N = 3
6194.2
Dasharo 0.4 i9-12900T
SE +/- 1.37, N = 3
5810.3
1300
2600
3900
5200
6500
Cryptsetup
AES-XTS 512b Encryption
MiB/s, More Is Better
Dasharo 0.4 i9-12900K
SE +/- 5.83, N = 3
5689.7
Dasharo 0.4 i9-12900T
SE +/- 1.89, N = 3
5339.0
1200
2400
3600
4800
6000

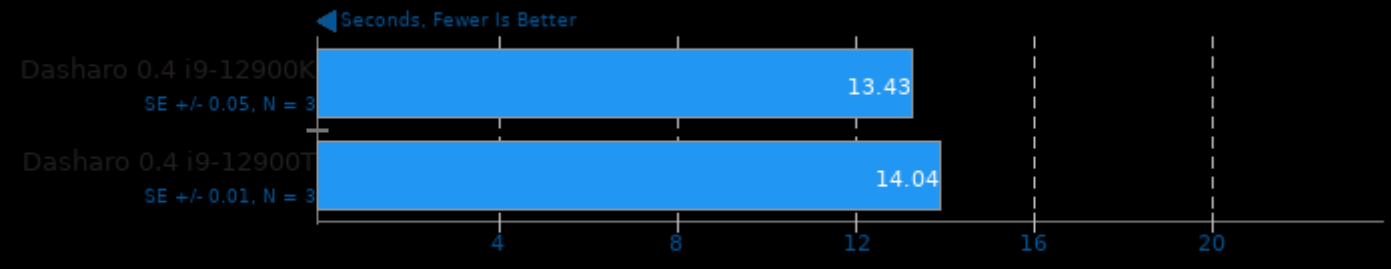

Cryptsetup
AES-XTS 256b Decryption
MiB/s, More Is Better
Dasharo 0.4 i9-12900K
SE +/- 10.59, N = 3
6189.0
Dasharo 0.4 i9-12900T
SE +/- 1.58, N = 3
5808.5
1300
2600
3900
5200
6500
Cryptsetup
Serpent-XTS 256b Decryption
MiB/s, More Is Better
Dasharo 0.4 i9-12900K
SE +/- 0.09, N = 3
932.0
Dasharo 0.4 i9-12900T
SE +/- 0.73, N = 3
875.7
200
400
600
800
1000
Cryptsetup
Serpent-XTS 512b Decryption
MiB/s, More Is Better
Dasharo 0.4 i9-12900K
SE +/- 0.00, N = 3
931.5
Dasharo 0.4 i9-12900T
SE +/- 0.56, N = 3
875.4
200
400
600
800
1000
Cryptsetup
AES-XTS 512b Decryption
MiB/s, More Is Better
Dasharo 0.4 i9-12900K
SE +/- 6.99, N = 3
5660.1
Dasharo 0.4 i9-12900T
SE +/- 3.98, N = 3
5320.2
1200
2400
3600
4800
6000


Cryptsetup
Serpent-XTS 512b Encryption
MiB/s, More Is Better
Dasharo 0.4 i9-12900K
SE +/- 0.03, N = 3
903.3
Dasharo 0.4 i9-12900T
SE +/- 0.52, N = 3
849.4
200
400
600
800
1000
Cryptsetup
Twofish-XTS 512b Decryption
MiB/s, More Is Better
Dasharo 0.4 i9-12900K
SE +/- 0.03, N = 3
630.8
Dasharo 0.4 i9-12900T
SE +/- 0.13, N = 3
594.0
140
280
420
560
700
Cryptsetup
Twofish-XTS 512b Encryption
MiB/s, More Is Better
Dasharo 0.4 i9-12900K
SE +/- 0.09, N = 3
625.1
Dasharo 0.4 i9-12900T
SE +/- 0.40, N = 3
588.7
130
260
390
520
650
Cryptsetup
PBKDF2-sha512
Iterations Per Second, More Is Better
Dasharo 0.4 i9-12900K
SE +/- 17705.67, N = 3
2605400
Dasharo 0.4 i9-12900T
SE +/- 17134.33, N = 3
2455922
600K
1200K
1800K
2400K
3000K


Cryptsetup
Twofish-XTS 256b Decryption
MiB/s, More Is Better
Dasharo 0.4 i9-12900K
SE +/- 0.45, N = 3
630.8
Dasharo 0.4 i9-12900T
SE +/- 0.23, N = 3
594.7
140
280
420
560
700
Cryptsetup
Twofish-XTS 256b Encryption
MiB/s, More Is Better
Dasharo 0.4 i9-12900K
SE +/- 1.15, N = 3
624.5
Dasharo 0.4 i9-12900T
SE +/- 0.03, N = 3
589.1
130
260
390
520
650
Cryptsetup
Serpent-XTS 256b Encryption
MiB/s, More Is Better
Dasharo 0.4 i9-12900K
SE +/- 6.92, N = 3
896.9
Dasharo 0.4 i9-12900T
SE +/- 0.32, N = 3
849.6
200
400
600
800
1000
FLAC Audio Encoding 1.3.3
WAV To FLAC
Seconds, Fewer Is Better
Dasharo 0.4 i9-12900K
SE +/- 0.02, N = 5
-logg
10.55
Dasharo 0.4 i9-12900T
SE +/- 0.01, N = 5
-logg
11.10
Intel Core i7-12700K
SE +/- 0.04, N = 5
10.92
3
6
9
12
15
1. (CXX) g++ options: -fvisibility=hidden -lm

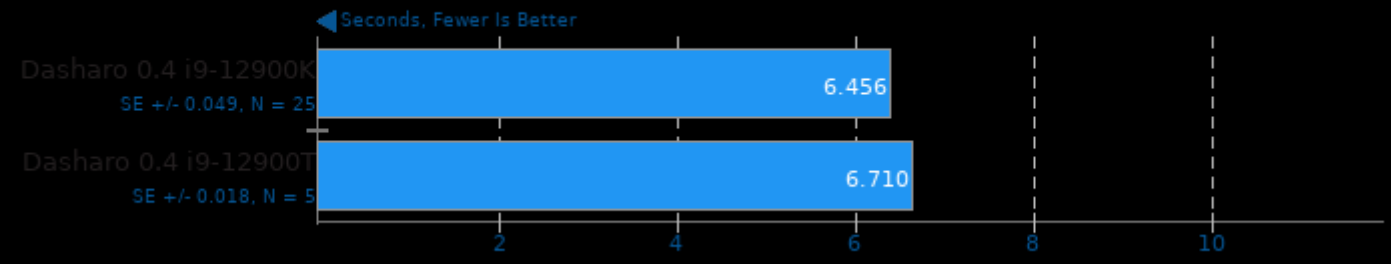
librsvg

Operation: SVG Files To PNG



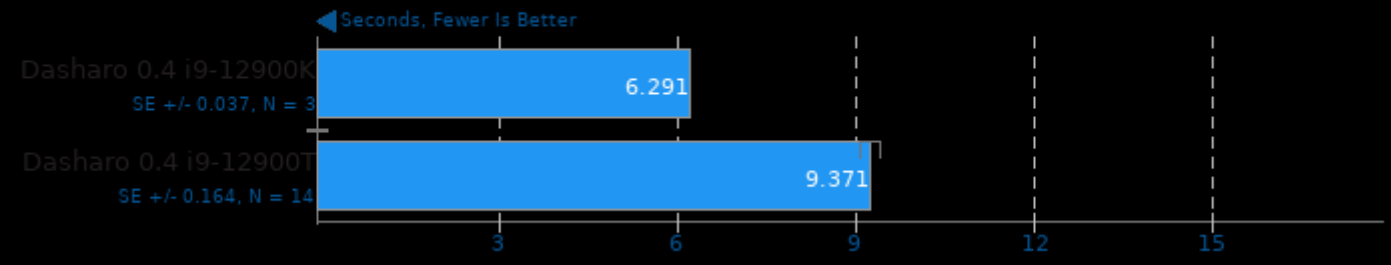
1: rsvg-convert version 2.52.5

GNU Octave Benchmark 7.1.0



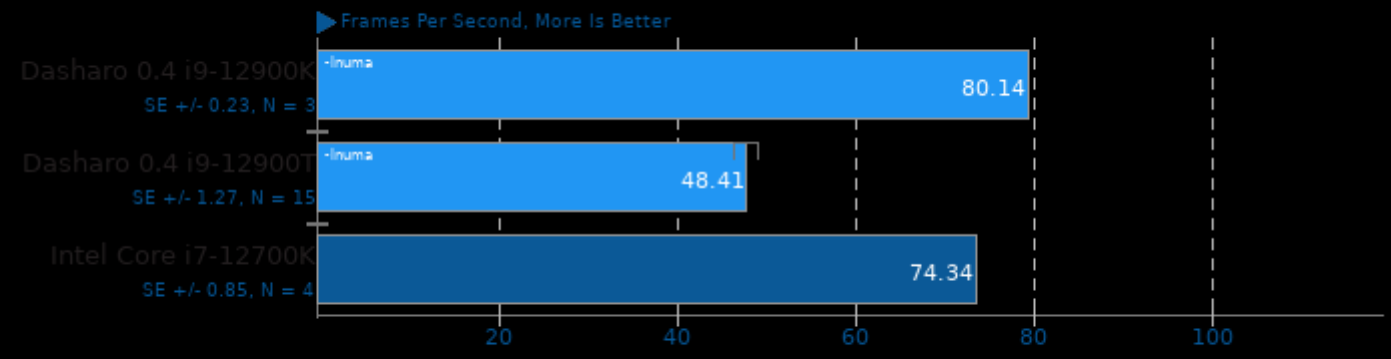
GEGL

Operation: Scale

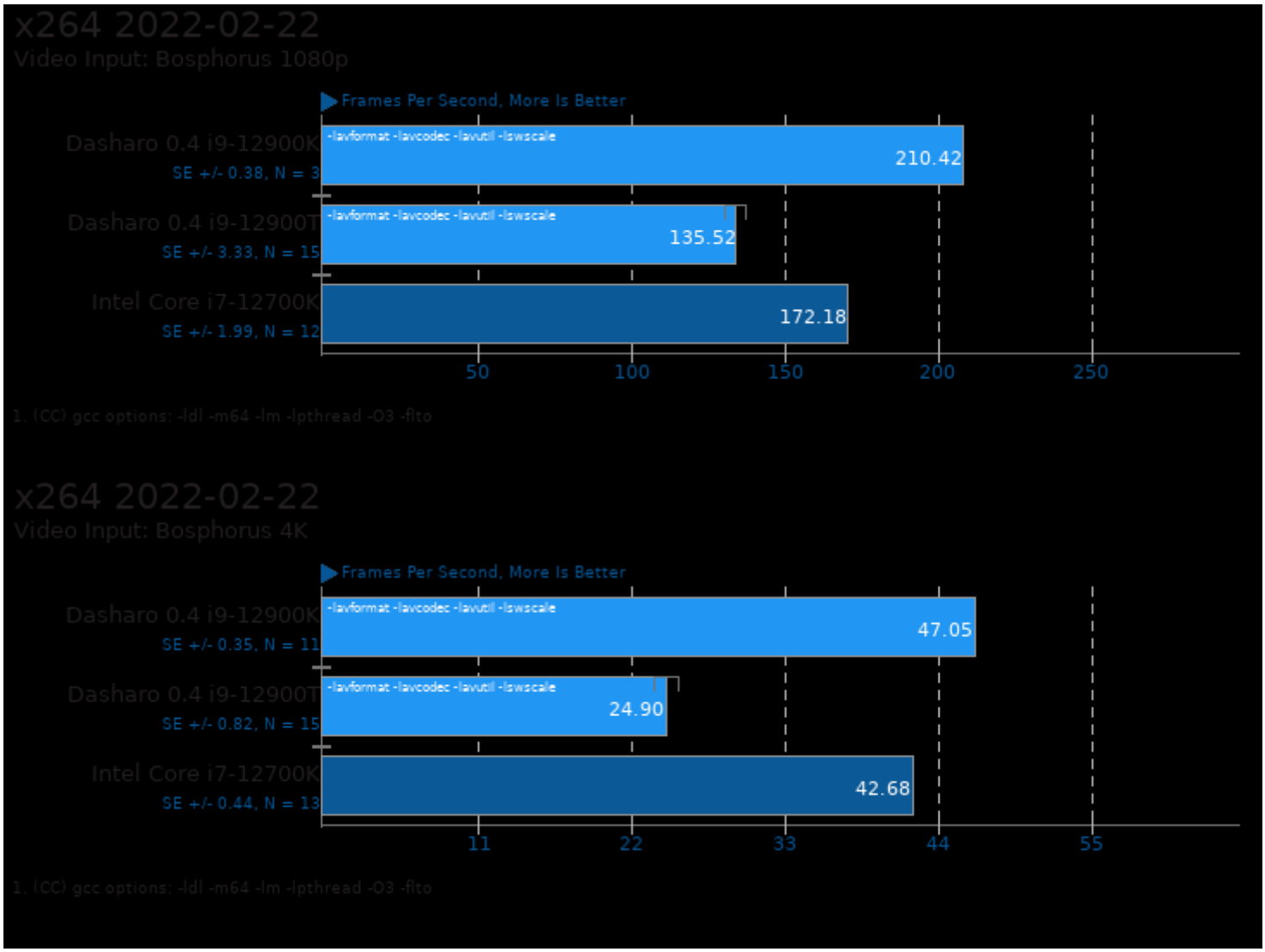


x265 3.4

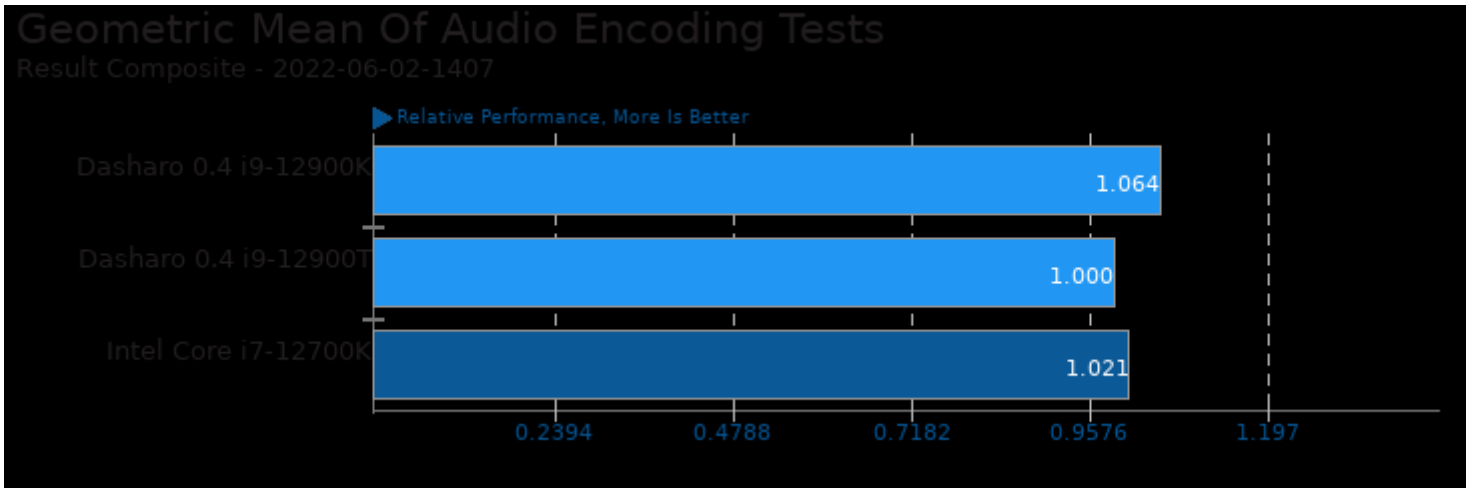
Video Input: Bosphorus 1080p



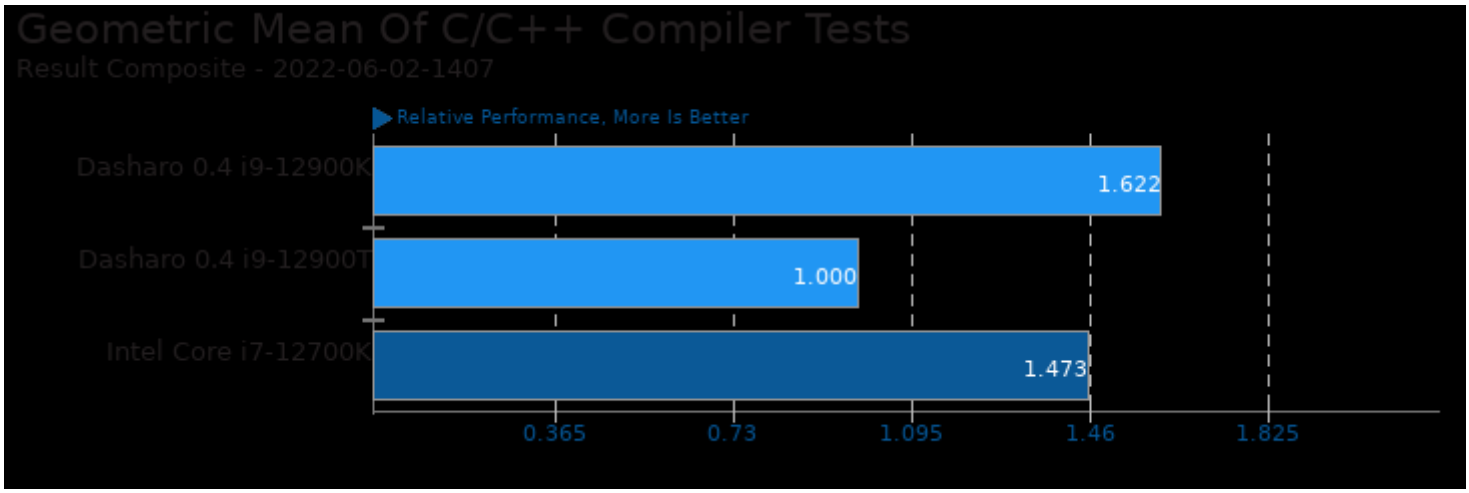
1: (CXX) g++ options: -O3 -rdynamic -lpthread -lrt -ldl


x264 2022-02-22
Video Input: Bosphorus 1080p
Frames Per Second, More Is Better
Dasharo 0.4 i9-12900K
SE +/- 0.38, N = 3
-lavformat -lavcodec -lavutil -lswscale
210.42
Dasharo 0.4 i9-12900T
SE +/- 3.33, N = 15
-lavformat -lavcodec -lavutil -lswscale
135.52
Intel Core i7-12700K
SE +/- 1.99, N = 12
172.18
50
100
150
200
250
1. (CC) gcc options: -ldl -m64 -lm -lpthread -O3 -flto
x264 2022-02-22
Video Input: Bosphorus 4K
Frames Per Second, More Is Better
Dasharo 0.4 i9-12900K
SE +/- 0.35, N = 11
-lavformat -lavcodec -lavutil -lswscale
47.05
Dasharo 0.4 i9-12900T
SE +/- 0.82, N = 15
-lavformat -lavcodec -lavutil -lswscale
24.90
Intel Core i7-12700K
SE +/- 0.44, N = 13
42.68
11
22
33
44
55
1. (CC) gcc options: -ldl -m64 -lm -lpthread -O3 -flto

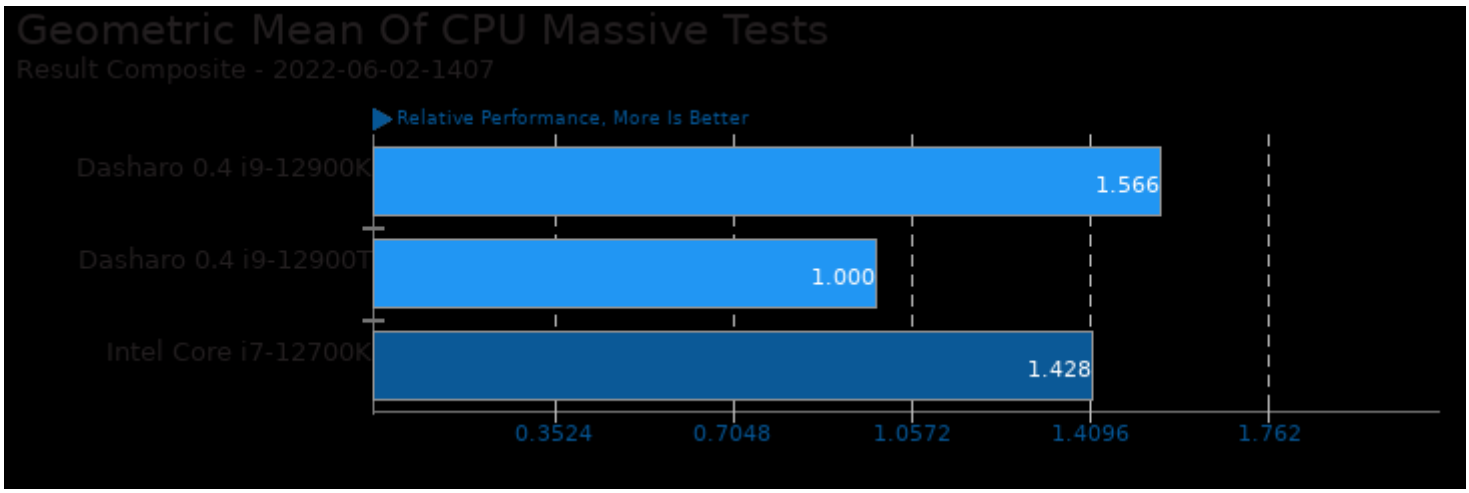
These geometric means are based upon test groupings / test suites for this result file.



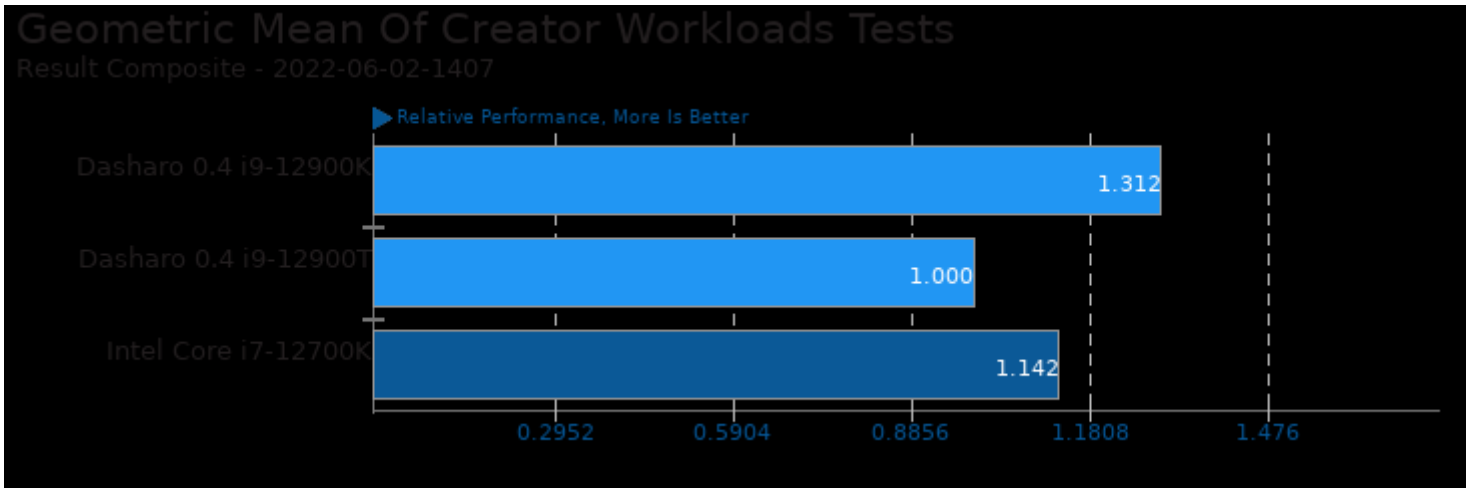
Geometric mean based upon tests: pts/encode-mp3 and pts/encode-flac



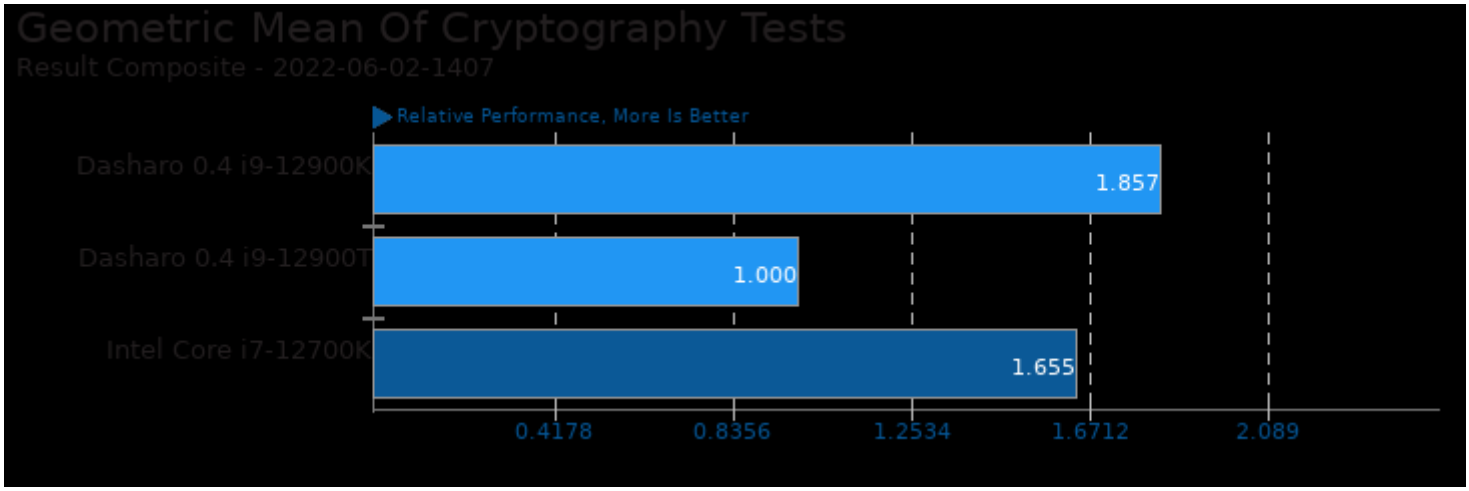
Geometric mean based upon tests: pts/compress-7zip, pts/encode-mp3, pts/encode-flac, pts/x264, pts/x265 and pts/openssl



Geometric mean based upon tests: pts/build-linux-kernel, pts/compress-7zip, pts/x264, pts/x265, pts/encode-flac, pts/encode-mp3, pts/openssl, pts/phpbench, system/cryptsetup and system/octave-benchmark



Geometric mean based upon tests: pts/x264, pts/x265, pts/ffmpeg, pts/encode-mp3, pts/encode-flac, system/gimp, system/rsvg and system/gegl



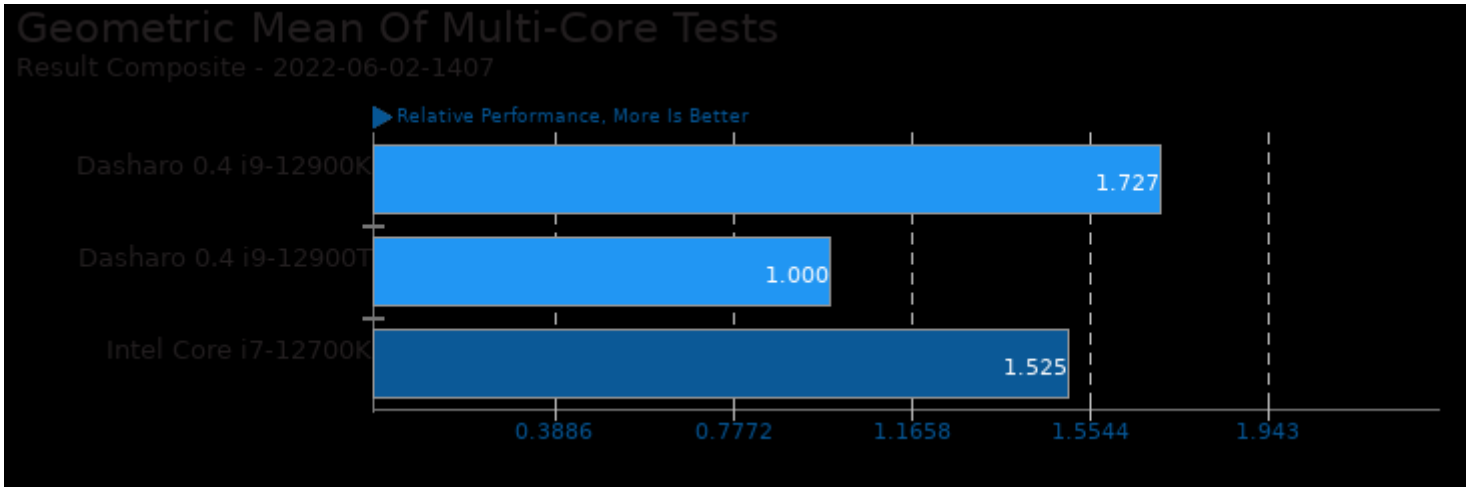
Geometric mean based upon tests: pts/openssl and system/cryptsetup



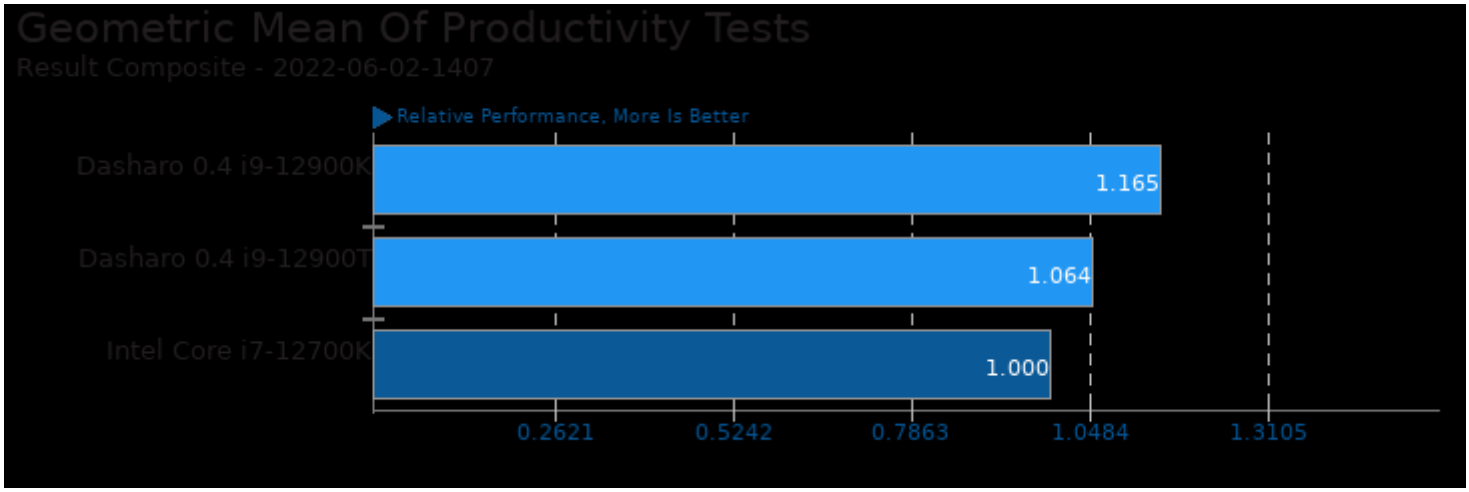
Geometric mean based upon tests: pts/encode-mp3, pts/encode-flac, pts/x264, pts/x265 and pts/ffmpeg



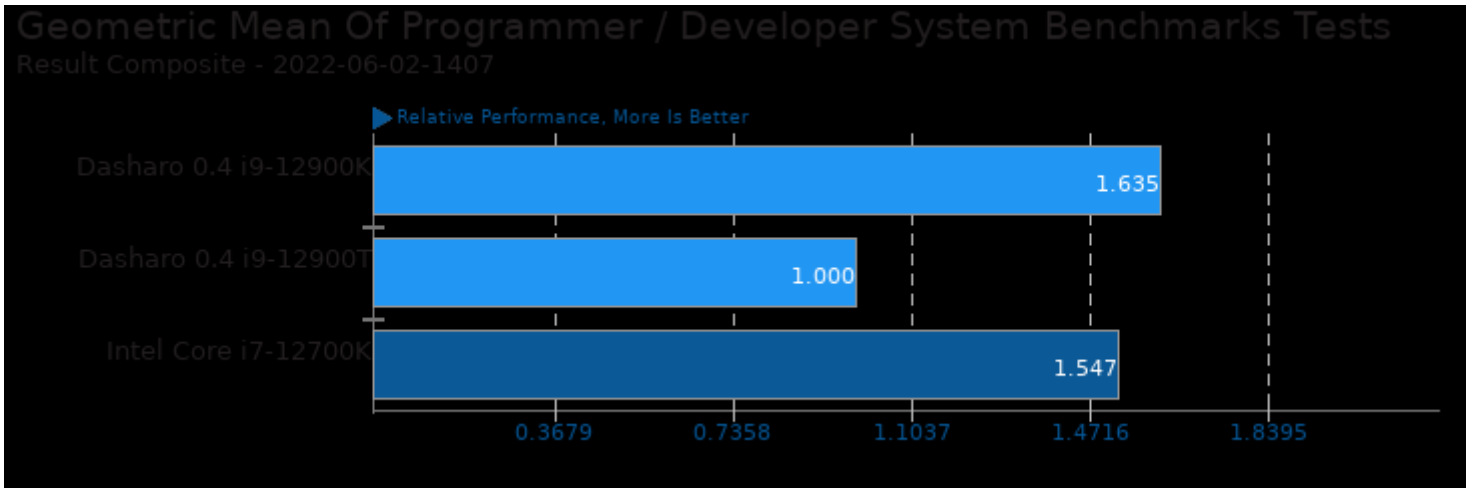
Geometric mean based upon tests: system/gimp, system/rsvg and system/gegl



Geometric mean based upon tests: pts/x264, pts/x265, pts/ffmpeg, pts/compress-7zip, pts/build-linux-kernel and pts/build-nodejs



Geometric mean based upon tests: system/octave-benchmark, system/gimp, system/gegl and system/rsvg



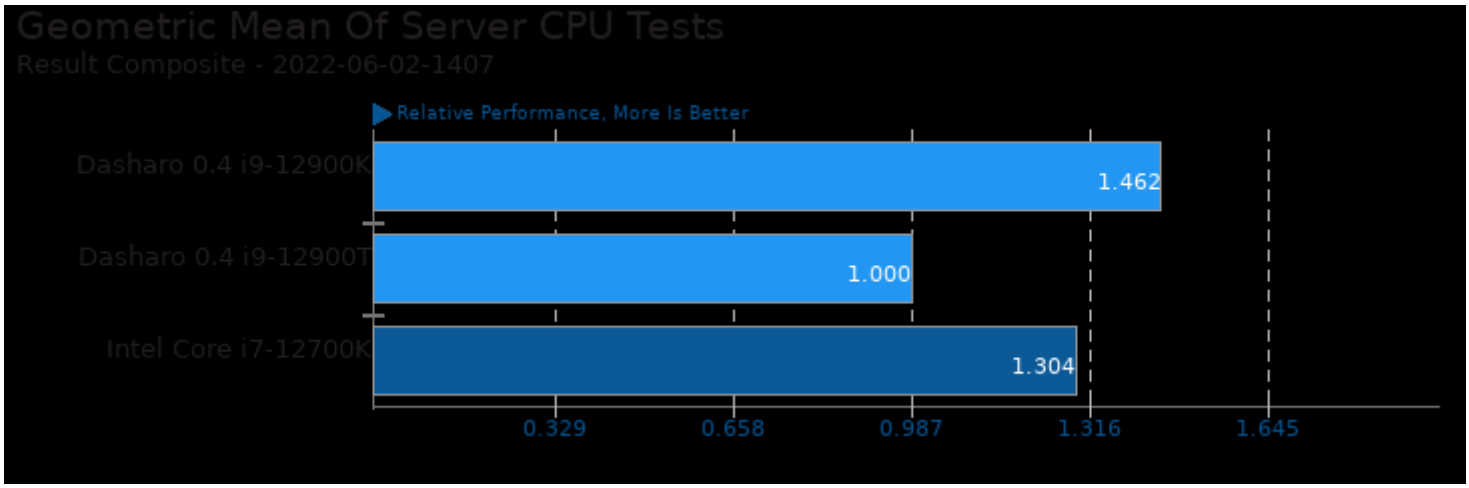
Geometric mean based upon tests: pts/pybench, system/cryptsetup, pts/build-linux-kernel and pts/build-nodejs



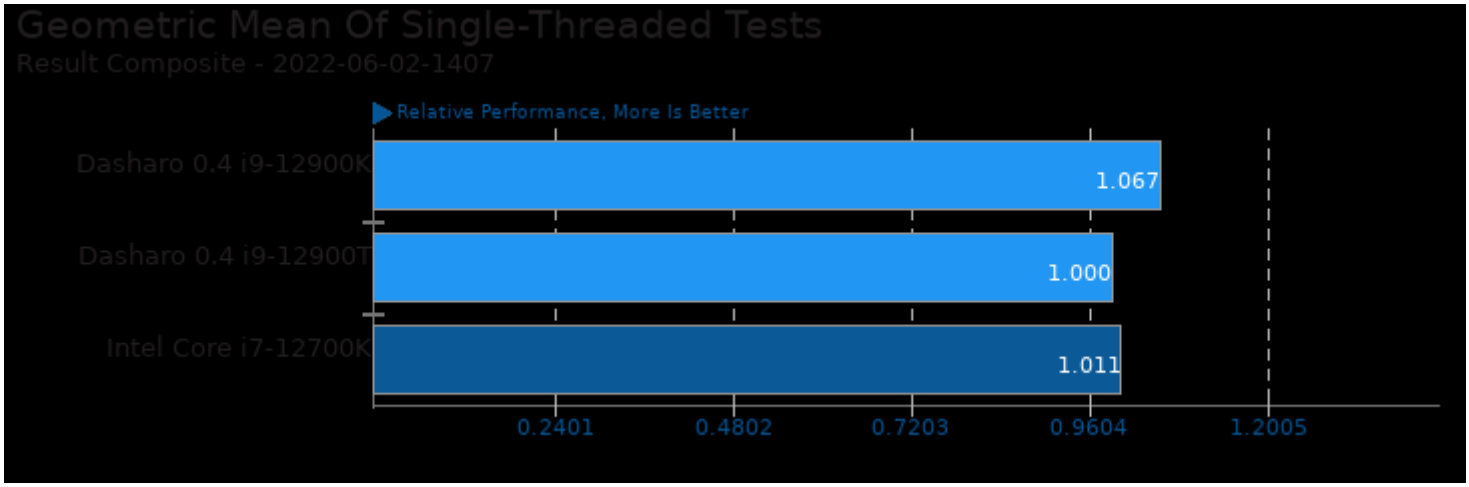
Geometric mean based upon tests: pts/build-nodejs and pts/pybench



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



Geometric mean based upon tests: pts/x264, pts/x265, pts/compress-7zip, pts/build-linux-kernel, pts/openssl, system/gimp, pts/pybench and pts/phpbench



Geometric mean based upon tests: pts/encode-flac, pts/encode-mp3, pts/pybench and pts/phpbench



Geometric mean based upon tests: pts/x264, pts/x265 and pts/ffmpeg

This file was automatically generated via the Phoronix Test Suite benchmarking software on Friday, 29 March 2024 04:42.