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zst

AMD Ryzen 5 3400G testing with a ASUS PRIME B450M-A (2006 BIOS) and ASUS AMD Picasso 2GB on Ubuntu 19.10 via the Phoronix Test Suite.

Automated Executive Summary

1 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 1.004x the speed of the slowest (3). 1 was 0.998x the speed of 2 and 3 was 0.999x the speed of 1.

Test Systems:

1

2

3

Processor: AMD Ryzen 5 3400G @ 3.70GHz (4 Cores / 8 Threads), Motherboard: ASUS PRIME B450M-A (2006 BIOS), Chipset: AMD Raven/Raven2, Memory: 2 x 8192 MB DDR4-3000MT/s CRUCIAL, Disk: 29GB INTEL MEMPEK1W032GA + 4 x 6001GB Seagate ST6000VN0033-2EE, Graphics: ASUS AMD Picasso 2GB (1400/1500MHz), Audio: AMD Raven/Raven2/Fenghuang, Monitor: SyncMaster, Network: Realtek RTL8111/8168/8411

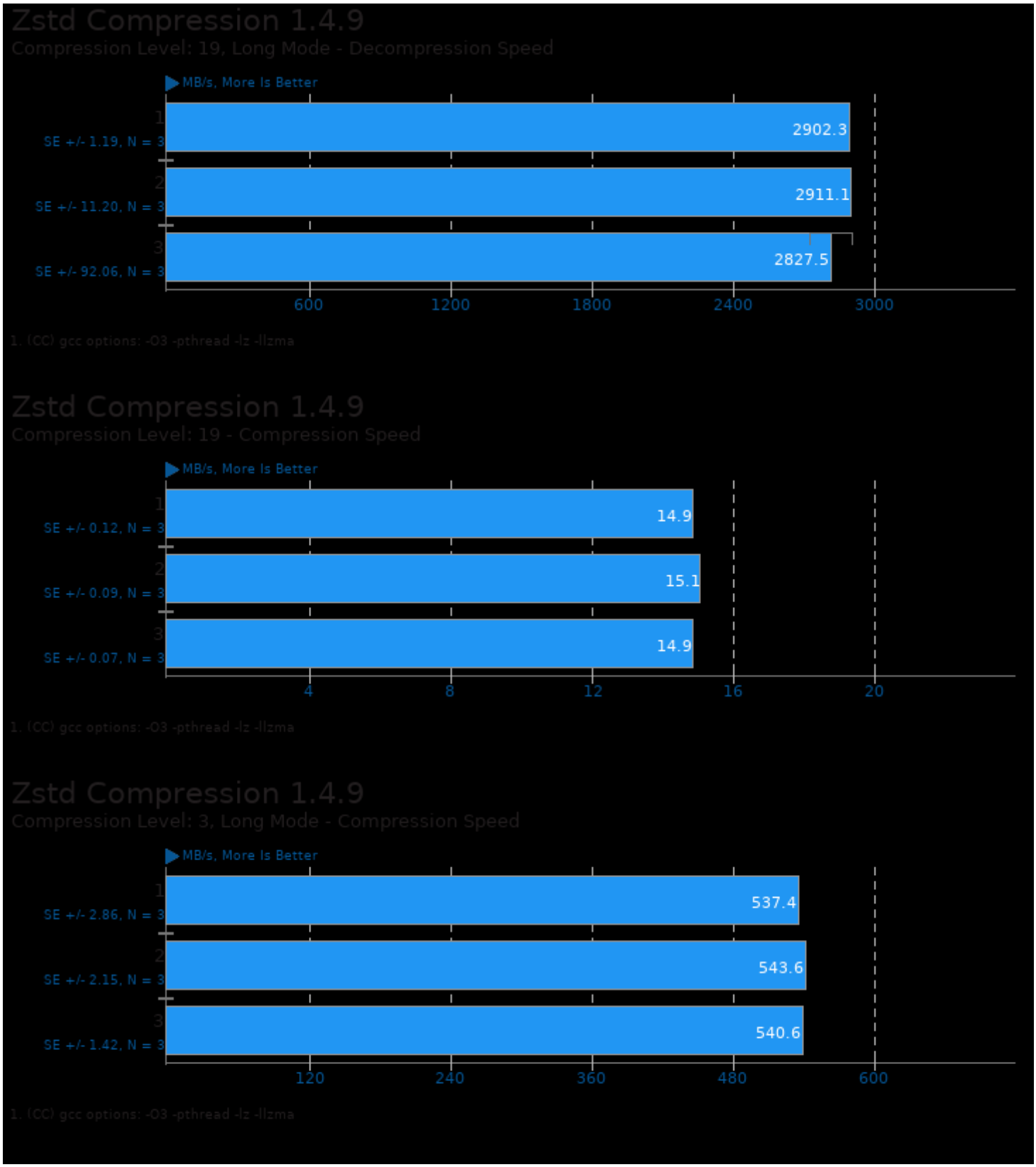
OS: Ubuntu 19.10, Kernel: 5.3.0-46-generic (x86_64), Desktop: GNOME Shell 3.34.1, Display Server: X Server, Display Driver: asus, Vulkan: 1.1.107, Compiler: GCC 9.2.1 20191008, File-System: ext4, Screen Resolution: 1280x800

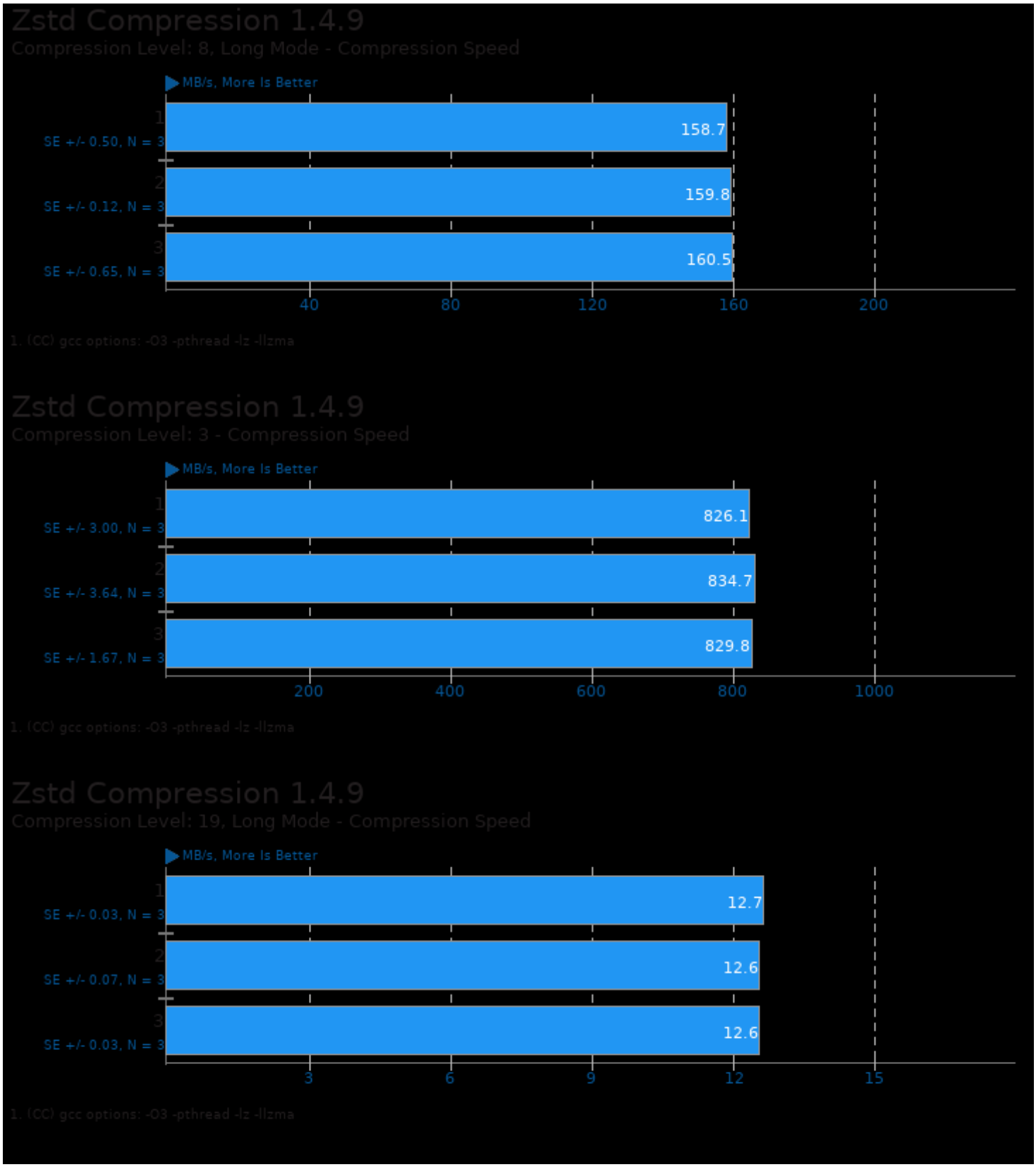
Kernel Notes: Transparent Huge Pages: madvise
Compiler Notes: --build=x86_64-linux-gnu --disable-vtable-verify --disable-werror --enable-bootstrap --enable-checking=release --enable-clocale=gnu --enable-default-pie --enable-gnu-unique-object --enable-languages=c,ada,c++,go,brig,d,fortran,objc,obj-c++,gm2 --enable-libstdcxx-debug --enable-libstdcxx-time=yes --enable-multiarch --enable-multilib --enable-nls --enable-offload-targets=nvptx-none,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: 0x8108109
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 + tsx_async_abort: Not affected

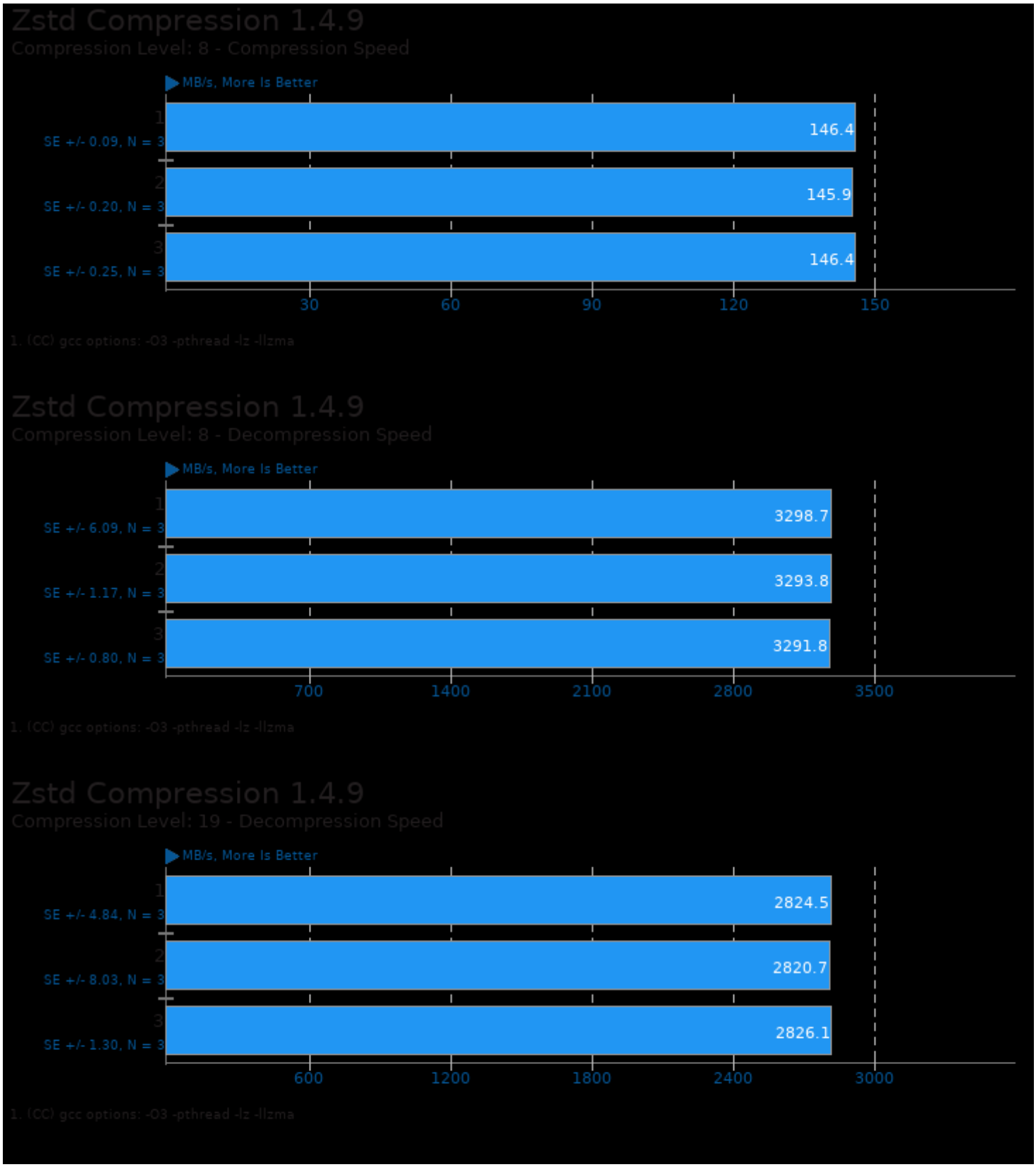
	1	2	3
Zstd Compression - 19, Long Mode - D.S (MB/s)	2902	**2911**	**2828**
Normalized	99.7%	100%	97.13%
Standard Deviation	0.1%	0.7%	5.6%
Zstd Compression - 19 - Compression Speed (MB/s)	**14.9**	**15.1**	**14.9**
Normalized	98.68%	100%	98.68%
Standard Deviation	1.3%	1%	0.8%
Zstd Compression - 3, Long Mode - Compression Speed (MB/s)	**537.4**	**543.6**	540.6
Normalized	98.86%	100%	99.45%
Standard Deviation	0.9%	0.7%	0.5%
Zstd Compression - 8, Long Mode - Compression Speed (MB/s)	**158.7**	159.8	**160.5**
Normalized	98.88%	99.56%	100%
Standard Deviation	0.6%	0.1%	0.7%
Zstd Compression - 3 - Compression Speed (MB/s)	**826.1**	**834.7**	829.8
Normalized	98.97%	100%	99.41%
Standard Deviation	0.6%	0.8%	0.3%
Zstd Compression - 19, Long Mode - Compression Speed (MB/s)	**12.7**	**12.6**	**12.6**
Normalized	100%	99.21%	99.21%
Standard Deviation	0.5%	0.9%	0.5%
Zstd Compression - 8 - Compression Speed (MB/s)	**146.4**	**145.9**	**146.4**
Normalized	100%	99.66%	100%
Standard Deviation	0.1%	0.2%	0.3%
Zstd Compression - 8 - D.S (MB/s)	**3299**	3294	**3292**
Normalized	100%	99.85%	99.79%

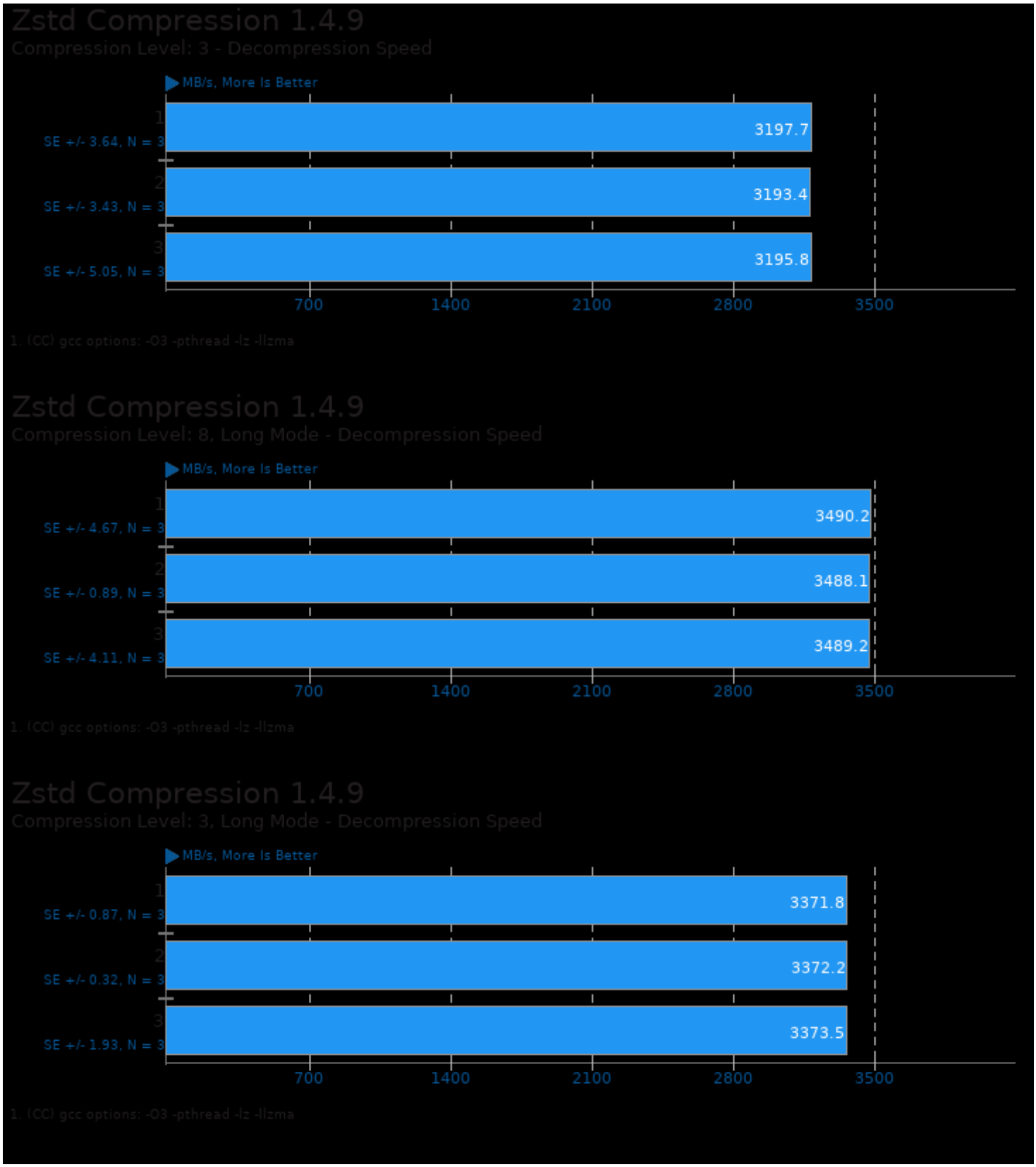
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Standard Deviation	0.3%	0.1%	0%
Zstd Compression - 19 - D.S (MB/s)	2825	**2821**	**2826**
Normalized	99.94%	99.81%	100%
Standard Deviation	0.3%	0.5%	0.1%
Zstd Compression - 3 - D.S (MB/s)	**3198**	**3193**	3196
Normalized	100%	99.87%	99.94%
Standard Deviation	0.2%	0.2%	0.3%
Zstd Compression - 8, Long Mode - D.S	**3490**	**3488**	3489
Normalized	100%	99.94%	99.97%
Standard Deviation	0.2%	0%	0.2%
Zstd Compression - 3, Long Mode - D.S	**3372**	3372	**3374**
Normalized	99.95%	99.96%	100%
Standard Deviation	0%	0%	0.1%


Zstd Compression 1.4.9
Compression Level: 19, Long Mode - Decompression Speed
MB/s, More Is Better
1
SE +/- 1.19, N = 3
2902.3
2
SE +/- 11.20, N = 3
2911.1
3
SE +/- 92.06, N = 3
2827.5
600
1200
1800
2400
3000
1. (CC) gcc options: -O3 -pthread -lz -llzma
Zstd Compression 1.4.9
Compression Level: 19 - Compression Speed
MB/s, More Is Better
1
SE +/- 0.12, N = 3
14.9
2
SE +/- 0.09, N = 3
15.1
3
SE +/- 0.07, N = 3
14.9
4
8
12
16
20
1. (CC) gcc options: -O3 -pthread -lz -llzma
Zstd Compression 1.4.9
Compression Level: 3, Long Mode - Compression Speed
MB/s, More Is Better
1
SE +/- 2.86, N = 3
537.4
2
SE +/- 2.15, N = 3
543.6
3
SE +/- 1.42, N = 3
540.6
120
240
360
480
600
1. (CC) gcc options: -O3 -pthread -lz -llzma


Zstd Compression 1.4.9
Compression Level: 8, Long Mode - Compression Speed
MB/s, More Is Better
1
SE +/- 0.50, N = 3
158.7
2
SE +/- 0.12, N = 3
159.8
3
SE +/- 0.65, N = 3
160.5
40
80
120
160
200
1. (CC) gcc options: -O3 -pthread -lz -llzma
Zstd Compression 1.4.9
Compression Level: 3 - Compression Speed
MB/s, More Is Better
1
SE +/- 3.00, N = 3
826.1
2
SE +/- 3.64, N = 3
834.7
3
SE +/- 1.67, N = 3
829.8
200
400
600
800
1000
1. (CC) gcc options: -O3 -pthread -lz -llzma
Zstd Compression 1.4.9
Compression Level: 19, Long Mode - Compression Speed
MB/s, More Is Better
1
SE +/- 0.03, N = 3
12.7
2
SE +/- 0.07, N = 3
12.6
3
SE +/- 0.03, N = 3
12.6
3
6
9
12
15
1. (CC) gcc options: -O3 -pthread -lz -llzma


Zstd Compression 1.4.9
Compression Level: 8 - Compression Speed
MB/s, More Is Better
1
SE +/- 0.09, N = 3
146.4
2
SE +/- 0.20, N = 3
145.9
3
SE +/- 0.25, N = 3
146.4
30
60
90
120
150
1. (CC) gcc options: -O3 -pthread -lz -llzma
Zstd Compression 1.4.9
Compression Level: 8 - Decompression Speed
MB/s, More Is Better
1
SE +/- 6.09, N = 3
3298.7
2
SE +/- 1.17, N = 3
3293.8
3
SE +/- 0.80, N = 3
3291.8
700
1400
2100
2800
3500
1. (CC) gcc options: -O3 -pthread -lz -llzma
Zstd Compression 1.4.9
Compression Level: 19 - Decompression Speed
MB/s, More Is Better
1
SE +/- 4.84, N = 3
2824.5
2
SE +/- 8.03, N = 3
2820.7
3
SE +/- 1.30, N = 3
2826.1
600
1200
1800
2400
3000
1. (CC) gcc options: -O3 -pthread -lz -llzma



This file was automatically generated via the Phoronix Test Suite benchmarking software on Thursday, 28 March 2024 17:53.