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5540W10SEP12112021Tests

Intel Core i7-9850H testing with a Dell 0WWHJ2 (1.3.3 BIOS) and Intel UHD 630 + NVIDIA Quadro T2000 + Microsoft Remote Display 4GB on Microsoft Windows 10 Enterprise Build 19042 via the Phoronix Test Suite.

Automated Executive Summary

NOAV-Tests-5540 had the most wins, coming in first place for 75% of the tests.

Based on the geometric mean of all complete results, the fastest (NOAV-Tests-5540) was 1.12x the speed of the slowest (SEP-Tests-5540). Crowdstrike-Tests-5540 was 0.951x the speed of NOAV-Tests-5540 and SEP-Tests-5540 was 0.939x the speed of Crowdstrike-Tests-5540.

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

Perl Benchmarks (Test: Interpreter) at 5.659x
Java SciMark (Computational Test: Composite) at 1.065x
SciMark (Computational Test: Composite) at 1.03x
OpenSSL (RSA 4096-bit Performance) at 1.023x
CacheBench (Test: Read) at 1.022x
LibRaw (Post-Processing Benchmark) at 1.021x
Smallpt (Global Illumination Renderer; 128 Samples) at 1.02x
7-Zip Compression (Compress Speed Test) at 1.019x

Basis Universal (Settings: ETC1S) at 1.015x
Intel Memory Latency Checker (Test: Peak Injection Bandwidth - 3:1 Reads-Writes) at 1.015x.

Test Systems:

SEP-Tests-5540

NOAV-Tests-5540

Crowdstrike-Tests-5540

Processor: Intel Core i7-9850H @ 2.59GHz (6 Cores / 12 Threads), Motherboard: Dell 0WWHJ2 (1.3.3 BIOS), Memory: 1 x 16384 MB 2667MHz HMA82GS6JJR8N-VK, Disk: 477GB NVMe Micron 2200S 512GB, Graphics: Intel UHD 630 + NVIDIA Quadro T2000 + Microsoft Remote Display 4GB, Audio: HD Audio Device + Intel Display Audio, Network: Intel Wireless-AC 9260 160MHz

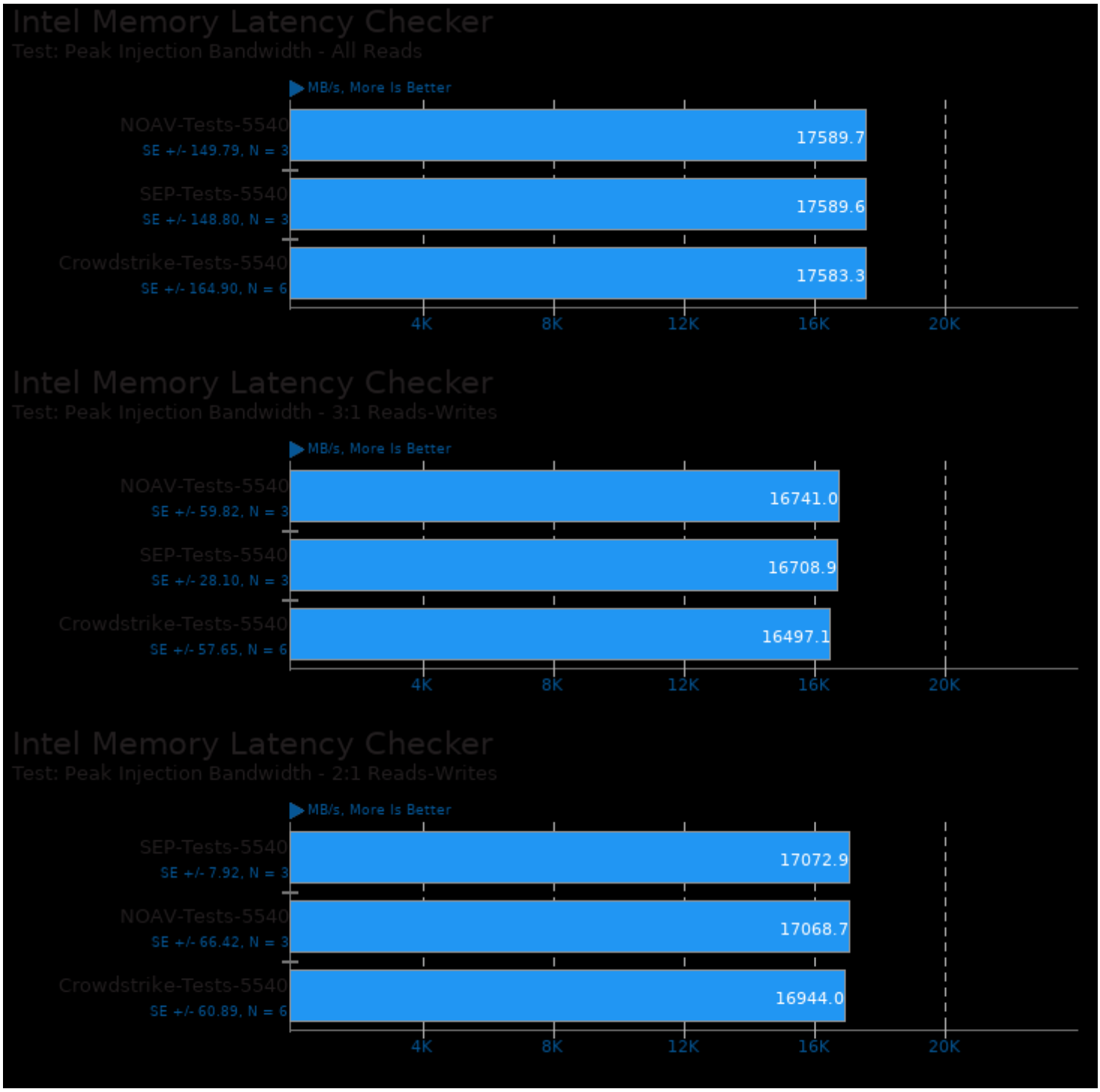
OS: Microsoft Windows 10 Enterprise Build 19042, Kernel: 10.0 (x86_64), Display Driver: 462.31 (27.20.100.9664), Compiler: GCC 8.3.0, File-System: NTFS, Screen Resolution: 1920x1080

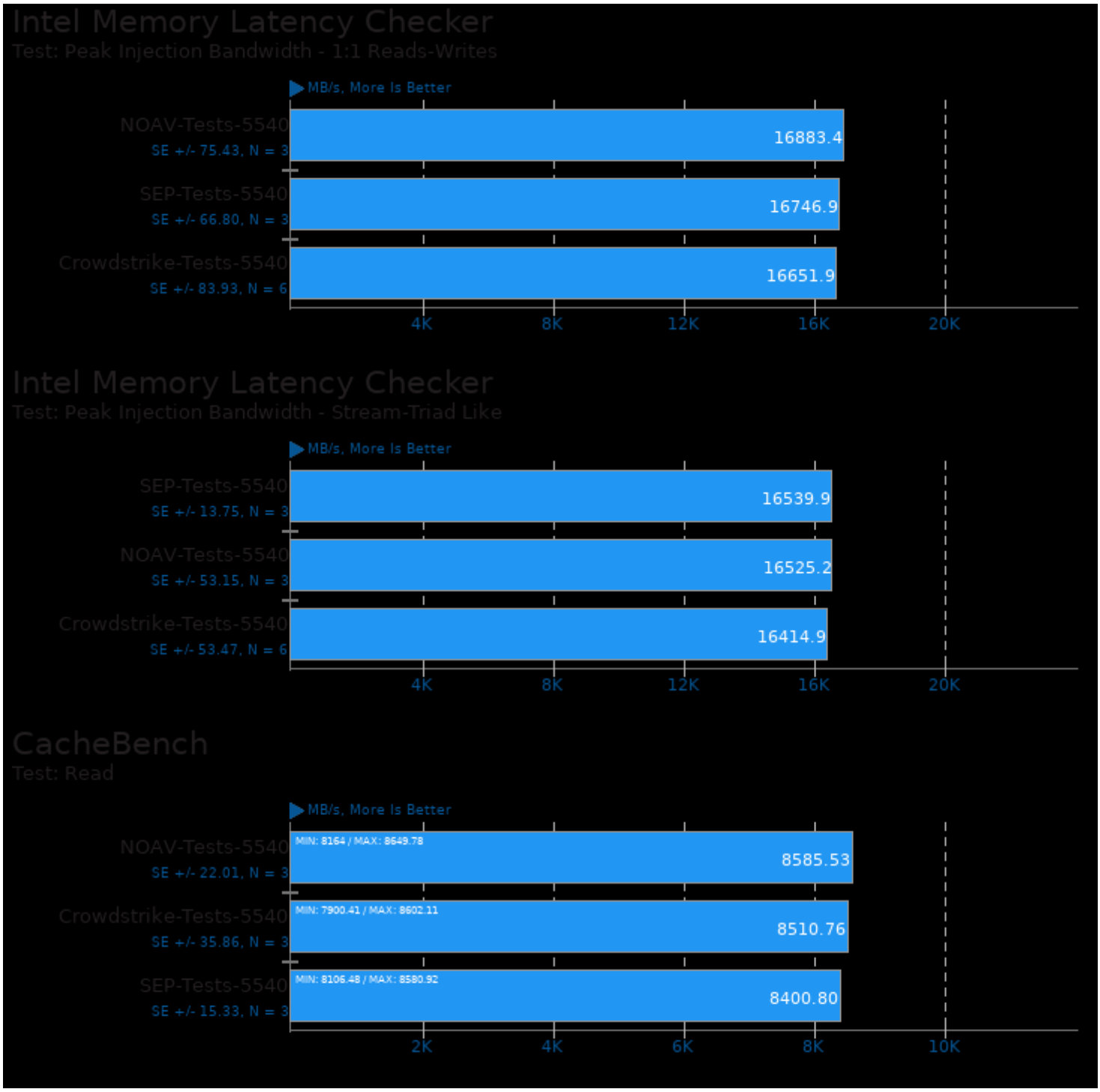
Java Notes: OpenJDK Runtime Environment 18.9 (build 11.0.6+10-LTS)
Python Notes: Python 3.7.1
Security Notes: __user pointer sanitization: Disabled + IBPB: Always + IBRS: Enabled + STIBP: Enabled

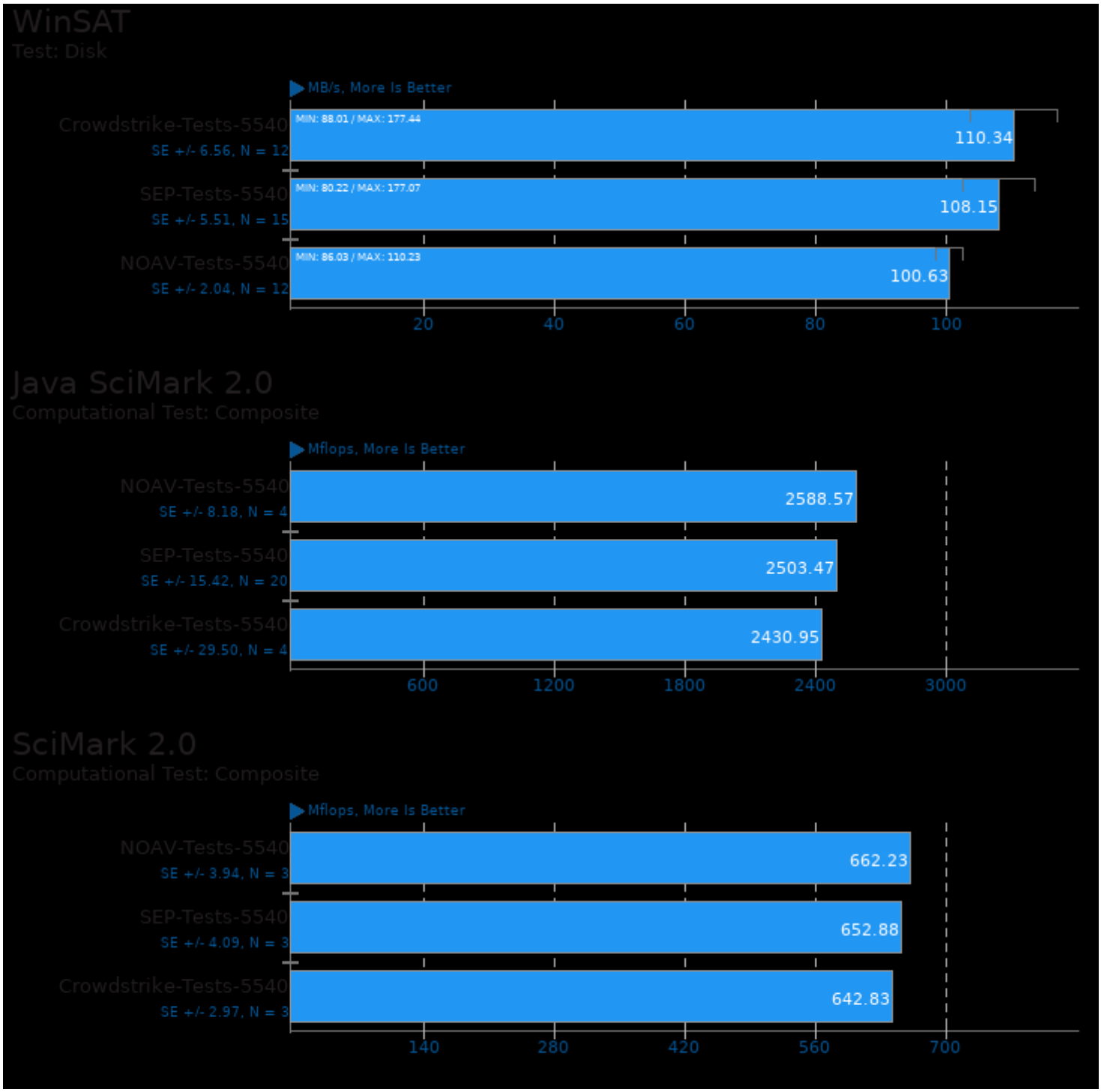
	SEP-Tests-5540	NOAV-Tests-5540	Crowdstrike-Tests-5540
Intel Memory Latency Checker - P.I.B - All Reads (MB/s)	17590	**17590**	**17583**
Normalized	100%	100%	99.96%
Standard Deviation	1.5%	1.5%	2.3%
Intel Memory Latency Checker - P.I.B - 3:1 Reads-Writes (MB/s)	16709	**16741**	**16497**
Normalized	99.81%	100%	98.54%
Standard Deviation	0.3%	0.6%	0.9%
Intel Memory Latency Checker - P.I.B - 2:1 Reads-Writes (MB/s)	**17073**	17069	**16944**
Normalized	100%	99.98%	99.25%
Standard Deviation	0.1%	0.7%	0.9%
Intel Memory Latency Checker - P.I.B - 1:1 Reads-Writes (MB/s)	16747	**16883**	**16652**
Normalized	99.19%	100%	98.63%
Standard Deviation	0.7%	0.8%	1.2%

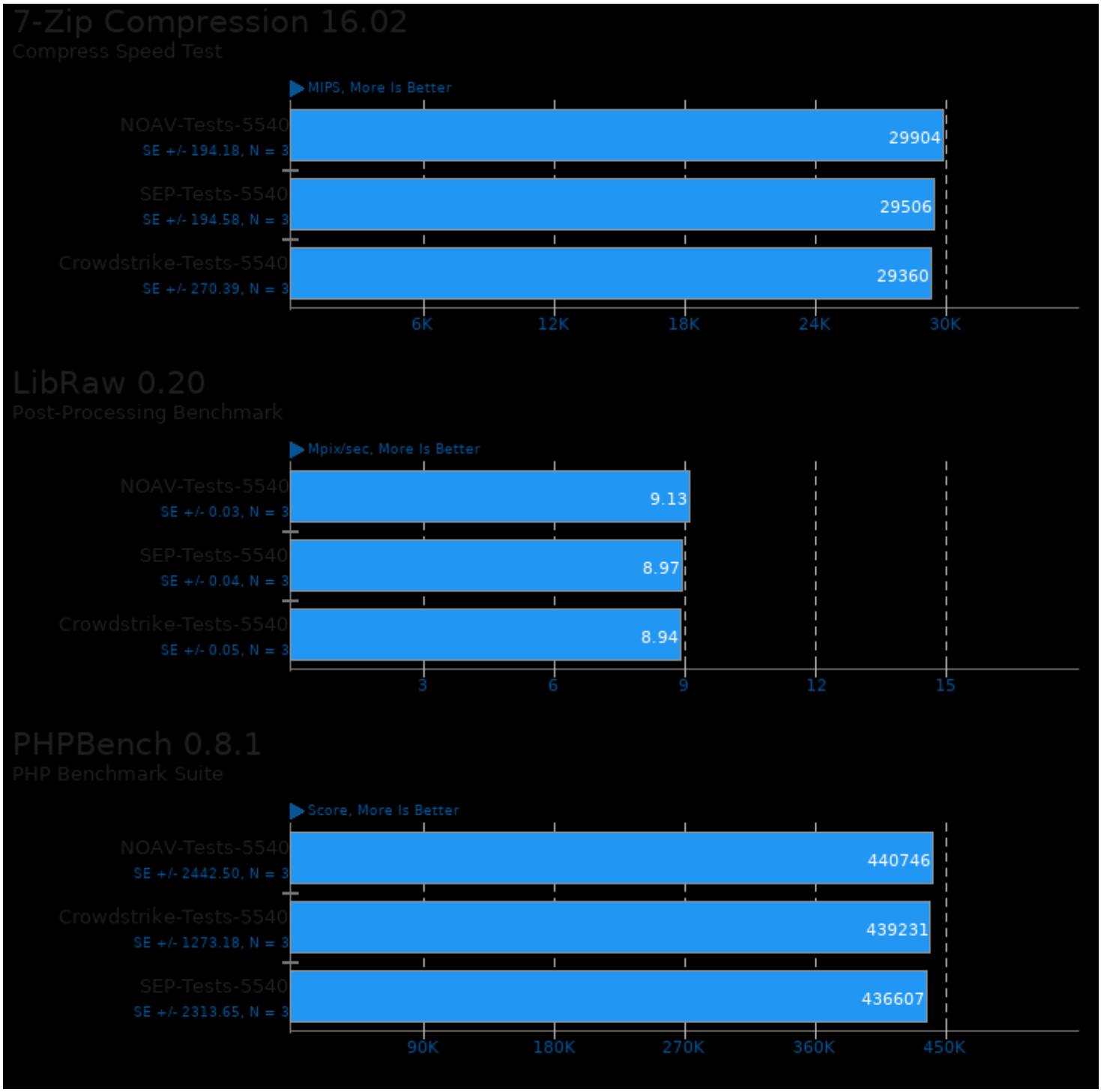
5540W10SEP12112021Tests

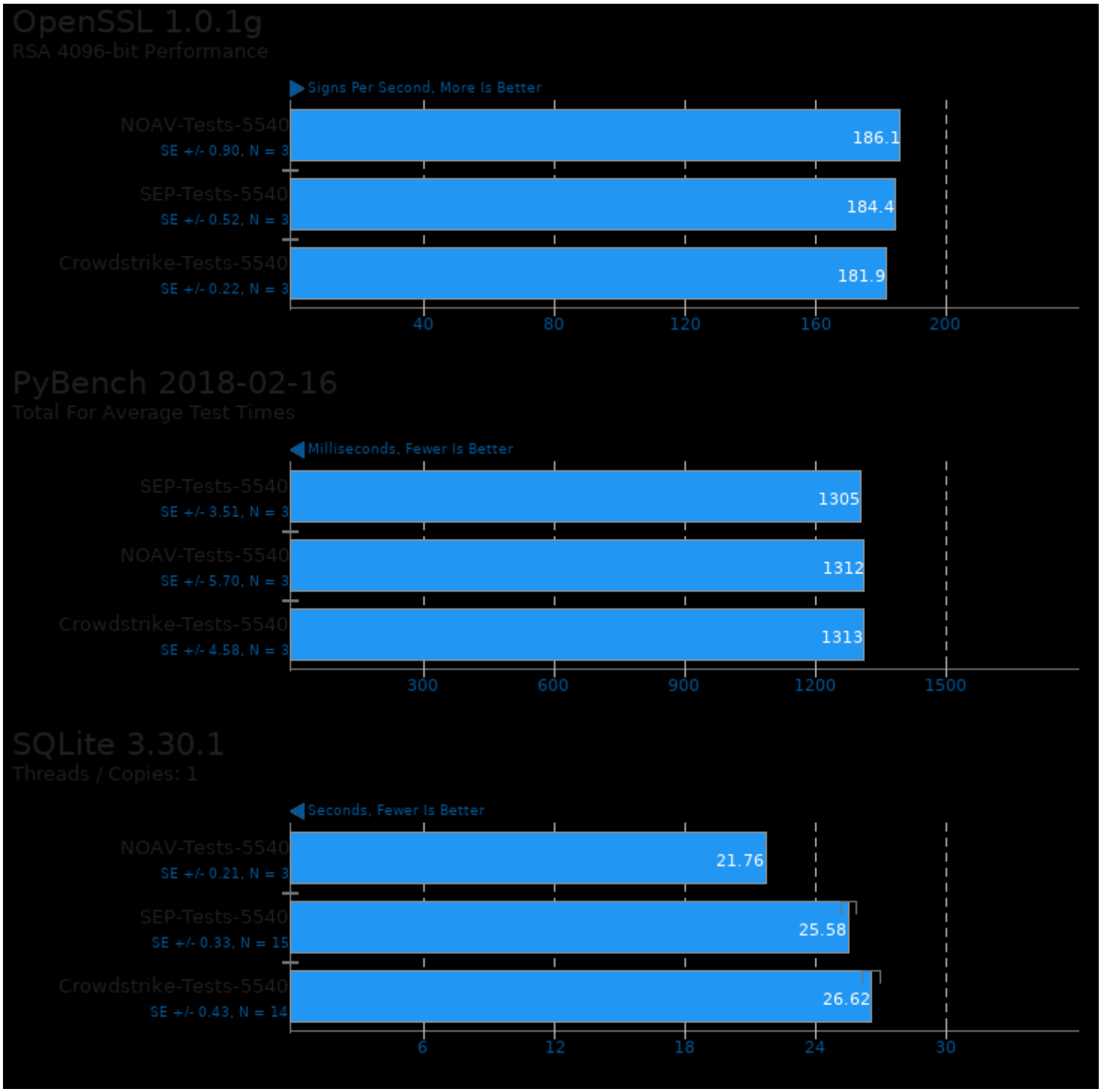
Intel Memory Latency Checker - P.I.B - Stream-Triad Like (MB/s)	**16540**	16525	**16415**
Normalized	100%	99.91%	99.24%
Standard Deviation	0.1%	0.6%	0.8%
CacheBench - Read (MB/s)	**8401**	**8586**	8511
Normalized	97.85%	100%	99.13%
Standard Deviation	0.3%	0.4%	0.7%
WinSAT - Disk (MB/s)	108.15	**100.63**	**110.34**
Normalized	98.02%	91.2%	100%
Standard Deviation	19.7%	7%	20.6%
Java SciMark - Composite (Mflops)	2503	**2589**	**2431**
Normalized	96.71%	100%	93.91%
Standard Deviation	2.8%	0.6%	2.4%
SciMark - Composite (Mflops)	652.88	**662.23**	**642.83**
Normalized	98.59%	100%	97.07%
Standard Deviation	1.1%	1%	0.8%
7-Zip Compression - C.S.T (MIPS)	29506	**29904**	**29360**
Normalized	98.67%	100%	98.18%
Standard Deviation	1.1%	1.1%	1.6%
LibRaw - P.P.B (Mpix/sec)	8.97	**9.13**	**8.94**
Normalized	98.25%	100%	97.92%
Standard Deviation	0.7%	0.6%	1%
PHPBench - P.B.S (Score)	**436607**	**440746**	439231
Normalized	99.06%	100%	99.66%
Standard Deviation	0.9%	1%	0.5%
OpenSSL - R.4.b.P (Signs/sec)	184.4	**186.1**	**181.9**
Normalized	99.09%	100%	97.74%
Standard Deviation	0.5%	0.8%	0.2%
PyBench - T.F.A.T.T (Milliseconds)	**1305**	1312	**1313**
Normalized	100%	99.47%	99.39%
Standard Deviation	0.5%	0.8%	0.6%
SQLite - 1 (sec)	25.580	**21.755**	**26.615**
Normalized	85.05%	100%	81.74%
Standard Deviation	5%	1.7%	6%
Smallpt - G.I.R.1.S (sec)	**27.103**	**26.561**	26.910
Normalized	98%	100%	98.7%
Standard Deviation	1.1%	0.3%	0.4%
Perl Benchmarks - Pod2html (sec)	**0.28489834**	**0.22291725**	0.23404261
Normalized	78.24%	100%	95.25%
Standard Deviation	0.9%	7.4%	6.8%
Perl Benchmarks - Interpreter (sec)	**0.14292889**	**0.02525871**	0.04286231
Normalized	17.67%	100%	58.93%
Standard Deviation	2.3%	4.7%	0.2%
Basis Universal - ETC1S (sec)	**28.663**	28.826	**29.089**
Normalized	100%	99.43%	98.54%
Standard Deviation	1.3%	1%	1.2%
Git - T.T.C.C.G.C (sec)	70.178	**66.426**	**71.844**
Normalized	94.65%	100%	92.46%
Standard Deviation	3.1%	3.2%	9.4%

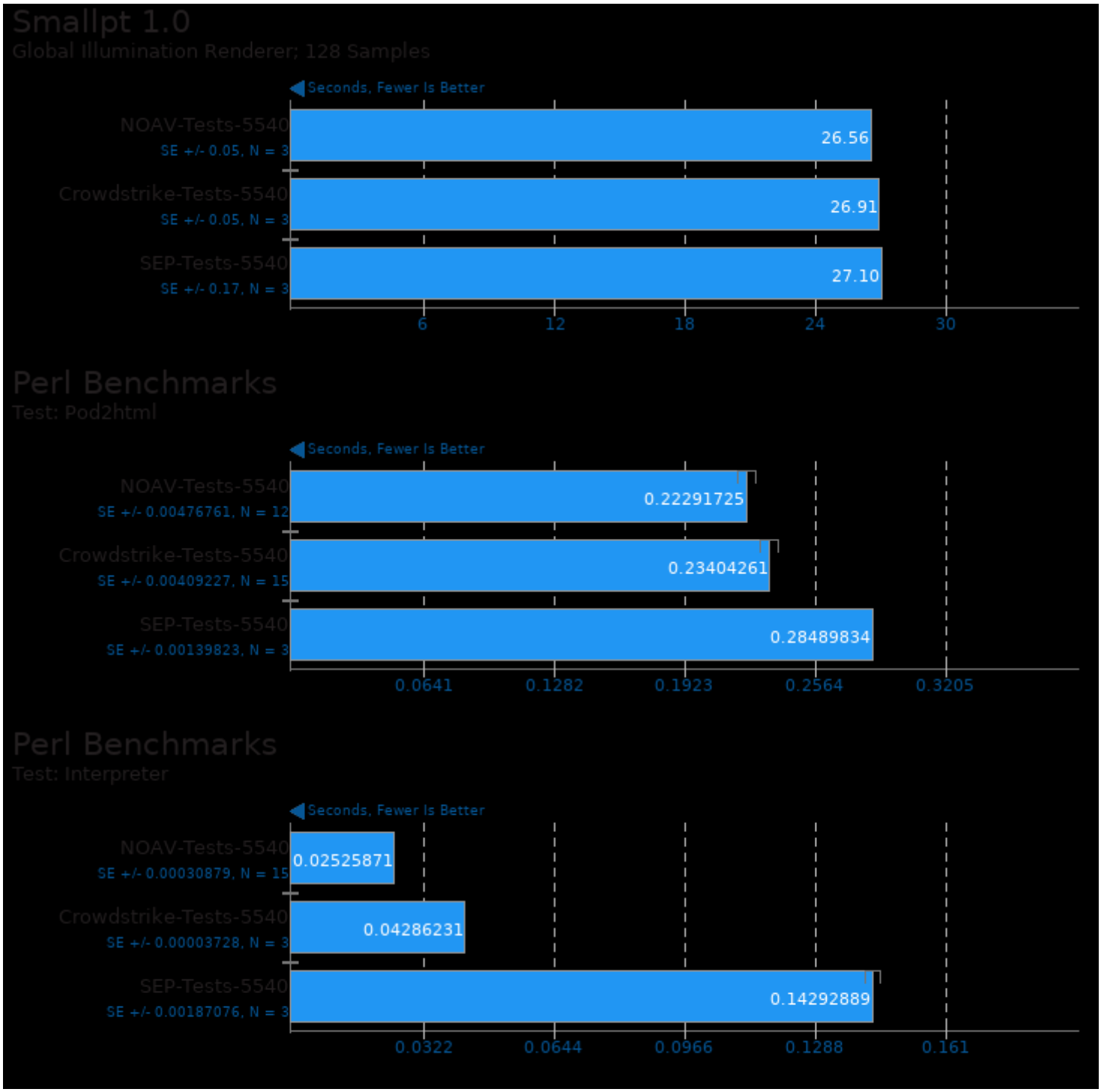

Intel Memory Latency Checker
Test: Peak Injection Bandwidth - All Reads
MB/s, More Is Better
NOAV-Tests-5540
SE +/- 149.79, N = 3
17589.7
SEP-Tests-5540
SE +/- 148.80, N = 3
17589.6
Crowdstrike-Tests-5540
SE +/- 164.90, N = 6
17583.3
4K
8K
12K
16K
20K
Intel Memory Latency Checker
Test: Peak Injection Bandwidth - 3:1 Reads-Writes
MB/s, More Is Better
NOAV-Tests-5540
SE +/- 59.82, N = 3
16741.0
SEP-Tests-5540
SE +/- 28.10, N = 3
16708.9
Crowdstrike-Tests-5540
SE +/- 57.65, N = 6
16497.1
4K
8K
12K
16K
20K
Intel Memory Latency Checker
Test: Peak Injection Bandwidth - 2:1 Reads-Writes
MB/s, More Is Better
SEP-Tests-5540
SE +/- 7.92, N = 3
17072.9
NOAV-Tests-5540
SE +/- 66.42, N = 3
17068.7
Crowdstrike-Tests-5540
SE +/- 60.89, N = 6
16944.0
4K
8K
12K
16K
20K

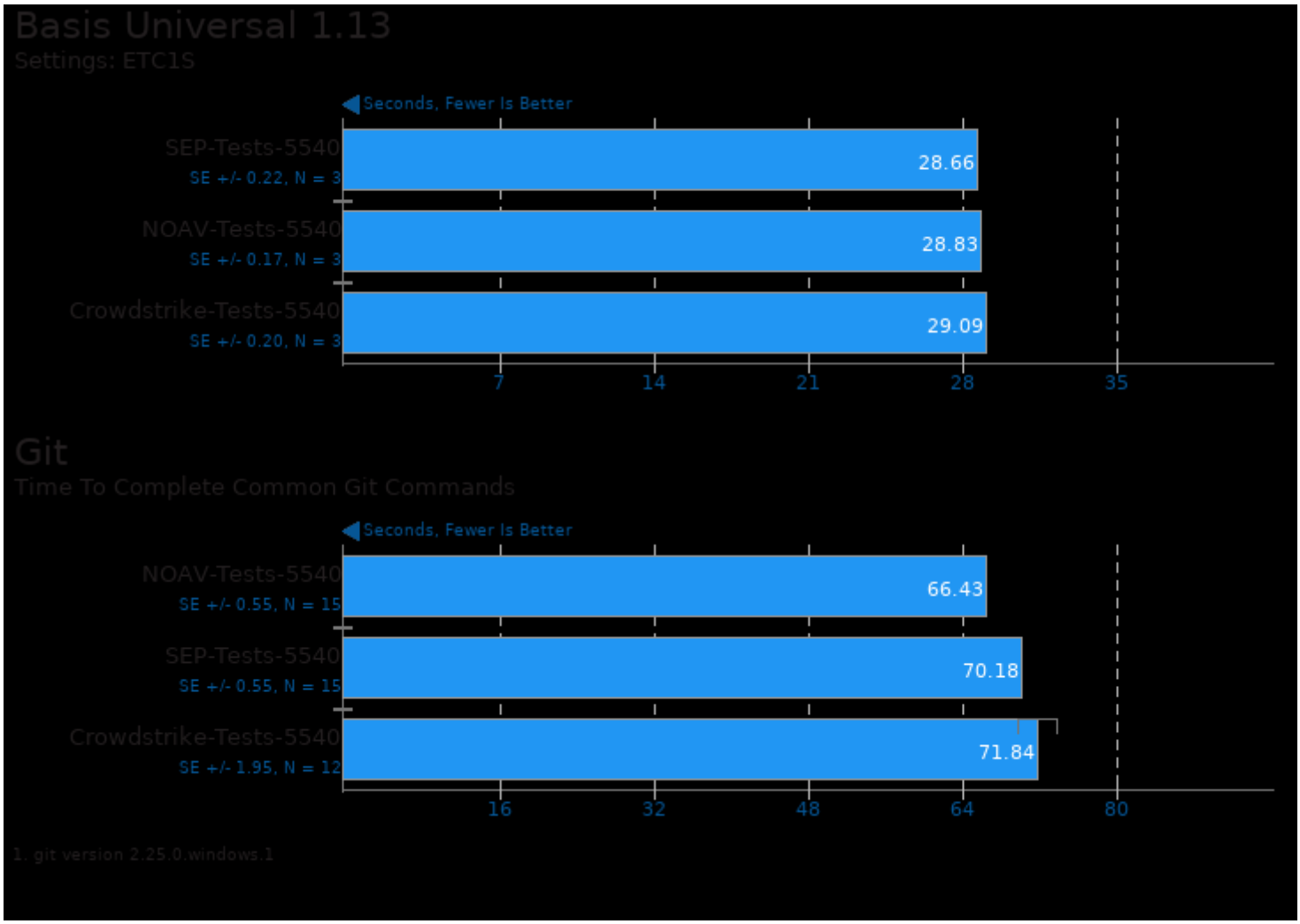

Intel Memory Latency Checker
Test: Peak Injection Bandwidth - 1:1 Reads-Writes
MB/s, More Is Better
NOAV-Tests-5540
SE +/- 75.43, N = 3
16883.4
SEP-Tests-5540
SE +/- 66.80, N = 3
16746.9
Crowdstrike-Tests-5540
SE +/- 83.93, N = 6
16651.9
4K
8K
12K
16K
20K
Intel Memory Latency Checker
Test: Peak Injection Bandwidth - Stream-Triad Like
MB/s, More Is Better
SEP-Tests-5540
SE +/- 13.75, N = 3
16539.9
NOAV-Tests-5540
SE +/- 53.15, N = 3
16525.2
Crowdstrike-Tests-5540
SE +/- 53.47, N = 6
16414.9
4K
8K
12K
16K
20K
CacheBench
Test: Read
MB/s, More Is Better
NOAV-Tests-5540
SE +/- 22.01, N = 3
MIN: 8164 / MAX: 8649.78
8585.53
Crowdstrike-Tests-5540
SE +/- 35.86, N = 3
MIN: 7900.41 / MAX: 8602.11
8510.76
SEP-Tests-5540
SE +/- 15.33, N = 3
MIN: 8106.48 / MAX: 8580.92
8400.80
2K
4K
6K
8K
10K


WinSAT
Test: Disk
MB/s, More Is Better
Crowdstrike-Tests-5540
SE +/- 6.56, N = 12
MIN: 88.01 / MAX: 177.44
110.34
SEP-Tests-5540
SE +/- 5.51, N = 15
MIN: 80.22 / MAX: 177.07
108.15
NOAV-Tests-5540
SE +/- 2.04, N = 12
MIN: 86.03 / MAX: 110.23
100.63
20
40
60
80
100
Java SciMark 2.0
Computational Test: Composite
Mflops, More Is Better
NOAV-Tests-5540
SE +/- 8.18, N = 4
2588.57
SEP-Tests-5540
SE +/- 15.42, N = 20
2503.47
Crowdstrike-Tests-5540
SE +/- 29.50, N = 4
2430.95
600
1200
1800
2400
3000
SciMark 2.0
Computational Test: Composite
Mflops, More Is Better
NOAV-Tests-5540
SE +/- 3.94, N = 3
662.23
SEP-Tests-5540
SE +/- 4.09, N = 3
652.88
Crowdstrike-Tests-5540
SE +/- 2.97, N = 3
642.83
140
280
420
560
700

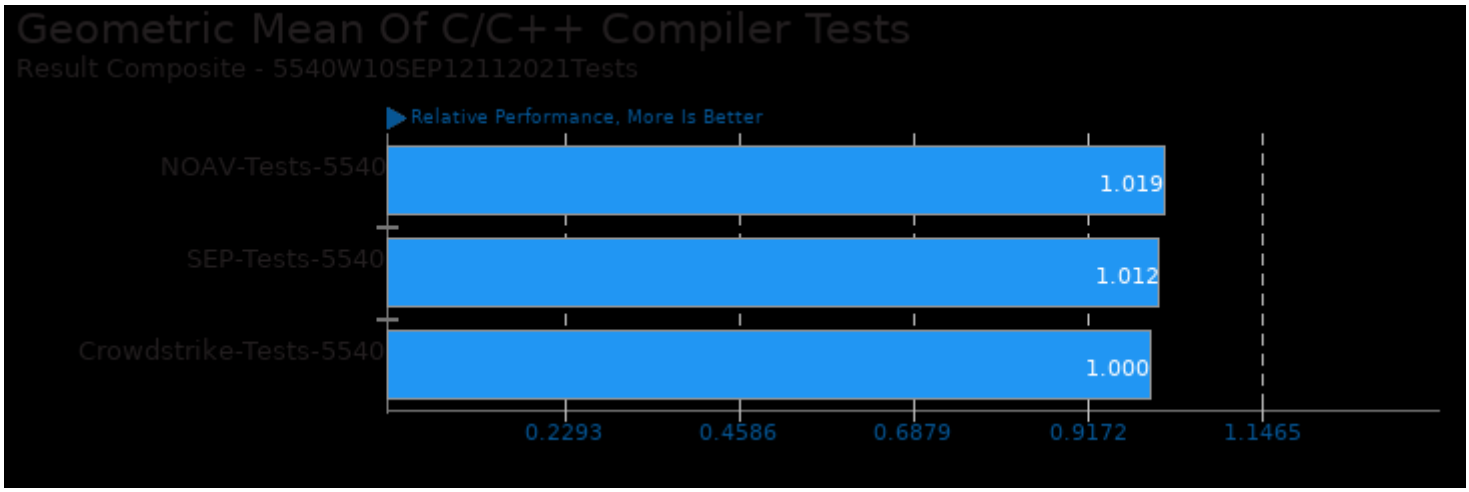

7-Zip Compression 16.02
Compress Speed Test
MIPS, More Is Better
NOAV-Tests-5540
SE +/- 194.18, N = 3
29904
SEP-Tests-5540
SE +/- 194.58, N = 3
29506
Crowdstrike-Tests-5540
SE +/- 270.39, N = 3
29360
6K
12K
18K
24K
30K
LibRaw 0.20
Post-Processing Benchmark
Mpix/sec, More Is Better
NOAV-Tests-5540
SE +/- 0.03, N = 3
9.13
SEP-Tests-5540
SE +/- 0.04, N = 3
8.97
Crowdstrike-Tests-5540
SE +/- 0.05, N = 3
8.94
3
6
9
12
15
PHPBench 0.8.1
PHP Benchmark Suite
Score, More Is Better
NOAV-Tests-5540
SE +/- 2442.50, N = 3
440746
Crowdstrike-Tests-5540
SE +/- 1273.18, N = 3
439231
SEP-Tests-5540
SE +/- 2313.65, N = 3
436607
90K
180K
270K
360K
450K


OpenSSL 1.0.1g
RSA 4096-bit Performance
Signs Per Second, More Is Better
NOAV-Tests-5540
SE +/- 0.90, N = 3
186.1
SEP-Tests-5540
SE +/- 0.52, N = 3
184.4
Crowdstrike-Tests-5540
SE +/- 0.22, N = 3
181.9
40
80
120
160
200
PyBench 2018-02-16
Total For Average Test Times
Milliseconds, Fewer Is Better
SEP-Tests-5540
SE +/- 3.51, N = 3
1305
NOAV-Tests-5540
SE +/- 5.70, N = 3
1312
Crowdstrike-Tests-5540
SE +/- 4.58, N = 3
1313
300
600
900
1200
1500
SQLite 3.30.1
Threads / Copies: 1
Seconds, Fewer Is Better
NOAV-Tests-5540
SE +/- 0.21, N = 3
21.76
SEP-Tests-5540
SE +/- 0.33, N = 15
25.58
Crowdstrike-Tests-5540
SE +/- 0.43, N = 14
26.62
6
12
18
24
30

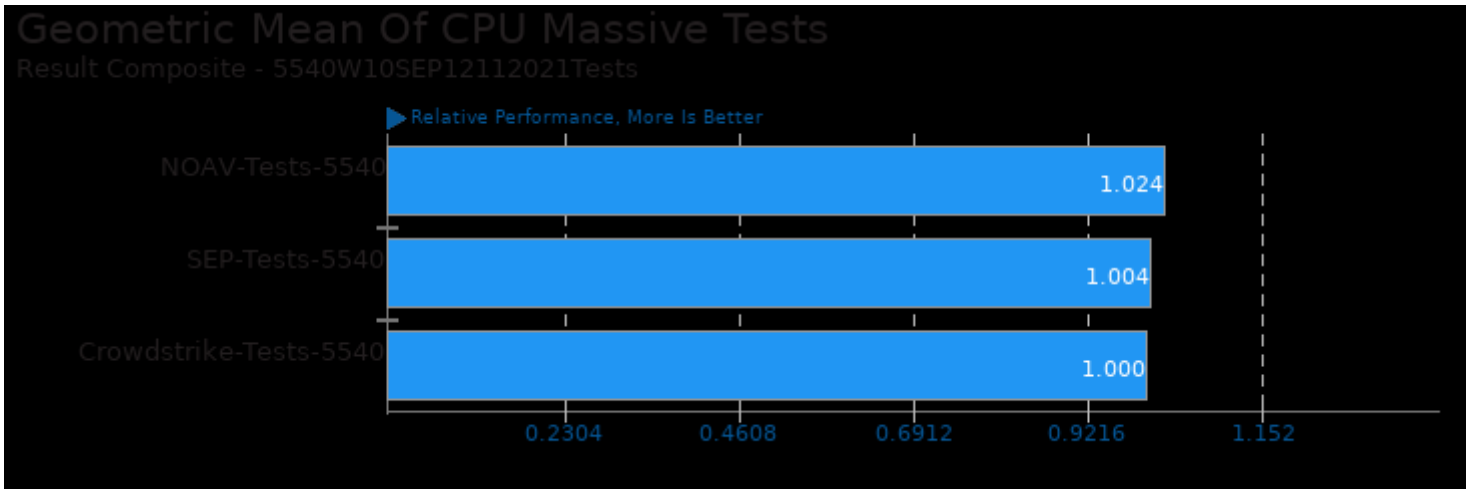

Smallpt 1.0
Global Illumination Renderer; 128 Samples
Seconds, Fewer Is Better
NOAV-Tests-5540
SE +/- 0.05, N = 3
26.56
Crowdstrike-Tests-5540
SE +/- 0.05, N = 3
26.91
SEP-Tests-5540
SE +/- 0.17, N = 3
27.10
6
12
18
24
30
Perl Benchmarks
Test: Pod2html
Seconds, Fewer Is Better
NOAV-Tests-5540
SE +/- 0.00476761, N = 12
0.22291725
Crowdstrike-Tests-5540
SE +/- 0.00409227, N = 15
0.23404261
SEP-Tests-5540
SE +/- 0.00139823, N = 3
0.28489834
0.0641
0.1282
0.1923
0.2564
0.3205
Perl Benchmarks
Test: Interpreter
Seconds, Fewer Is Better
NOAV-Tests-5540
SE +/- 0.00030879, N = 15
0.02525871
Crowdstrike-Tests-5540
SE +/- 0.00003728, N = 3
0.04286231
SEP-Tests-5540
SE +/- 0.00187076, N = 3
0.14292889
0.0322
0.0644
0.0966
0.1288
0.161


Basis Universal 1.13
Settings: ETC1S
Seconds, Fewer Is Better
SEP-Tests-5540
SE +/- 0.22, N = 3
28.66
NOAV-Tests-5540
SE +/- 0.17, N = 3
28.83
Crowdstrike-Tests-5540
SE +/- 0.20, N = 3
29.09
7
14
21
28
35
Git
Time To Complete Common Git Commands
Seconds, Fewer Is Better
NOAV-Tests-5540
SE +/- 0.55, N = 15
66.43
SEP-Tests-5540
SE +/- 0.55, N = 15
70.18
Crowdstrike-Tests-5540
SE +/- 1.95, N = 12
71.84
16
32
48
64
80
1. git version 2.25.0.windows.1

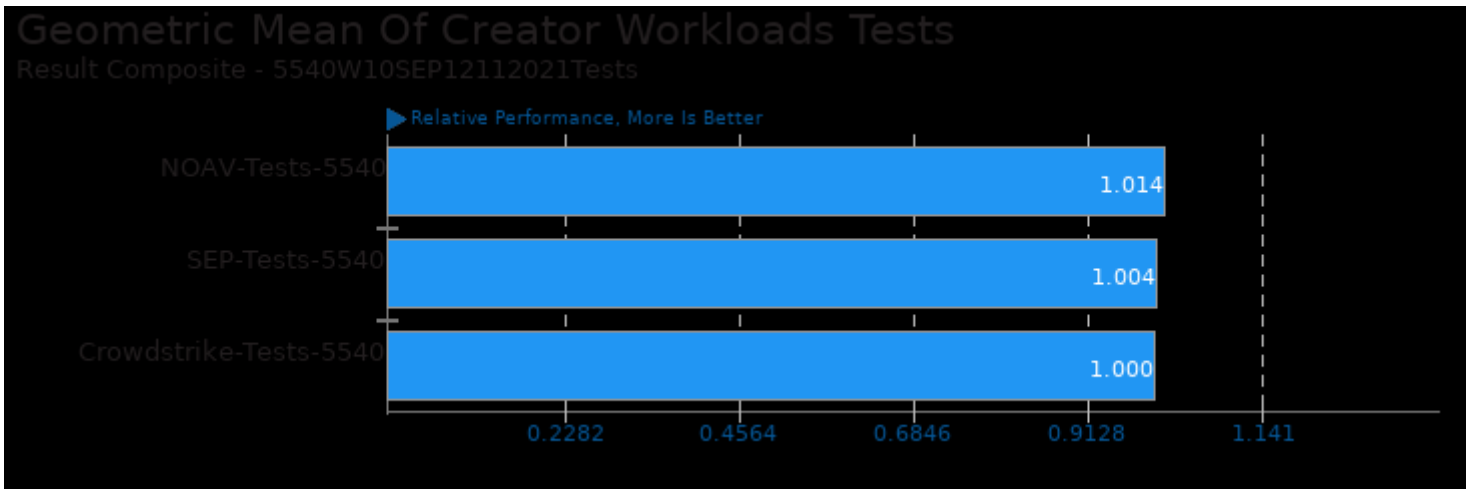
These geometric means are based upon test groupings / test suites for this result file.



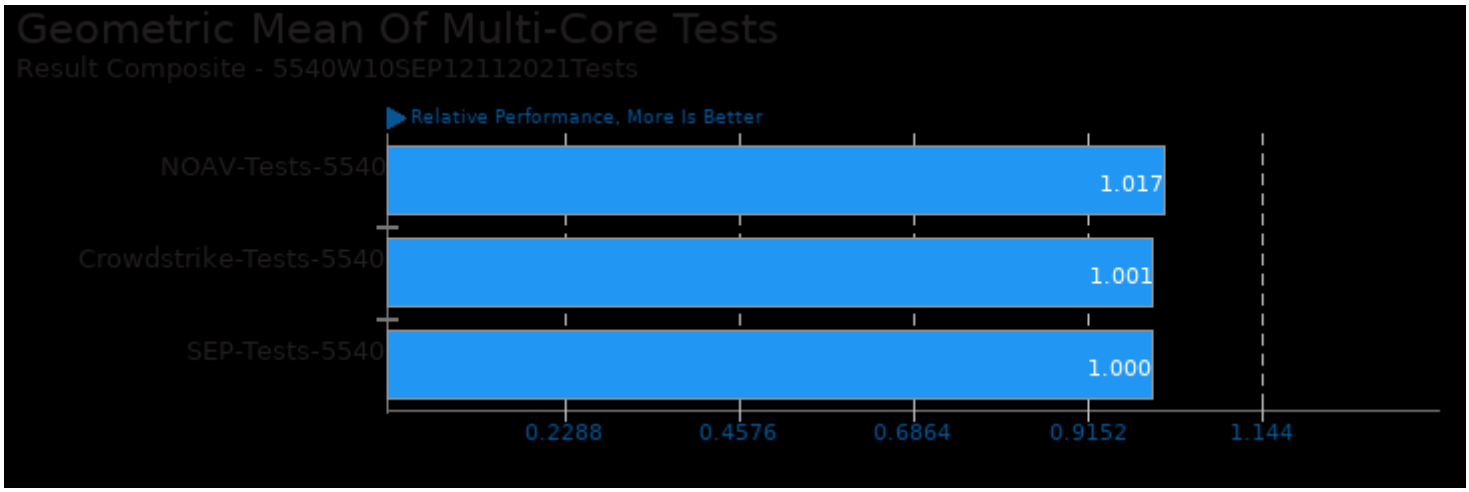
Geometric mean based upon tests: pts/scimark2, pts/compress-7zip, pts/pgbench and pts/basis



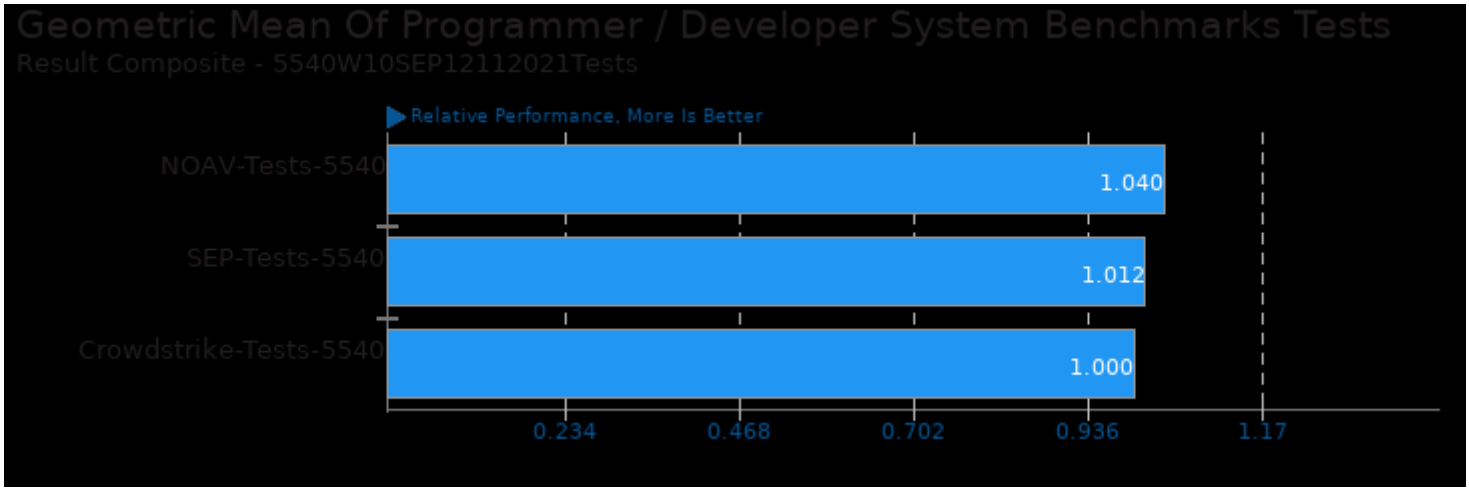
Geometric mean based upon tests: pts/cachebench, pts/compress-7zip, pts/java-scimark2, pts/pgbench and pts/phpbench



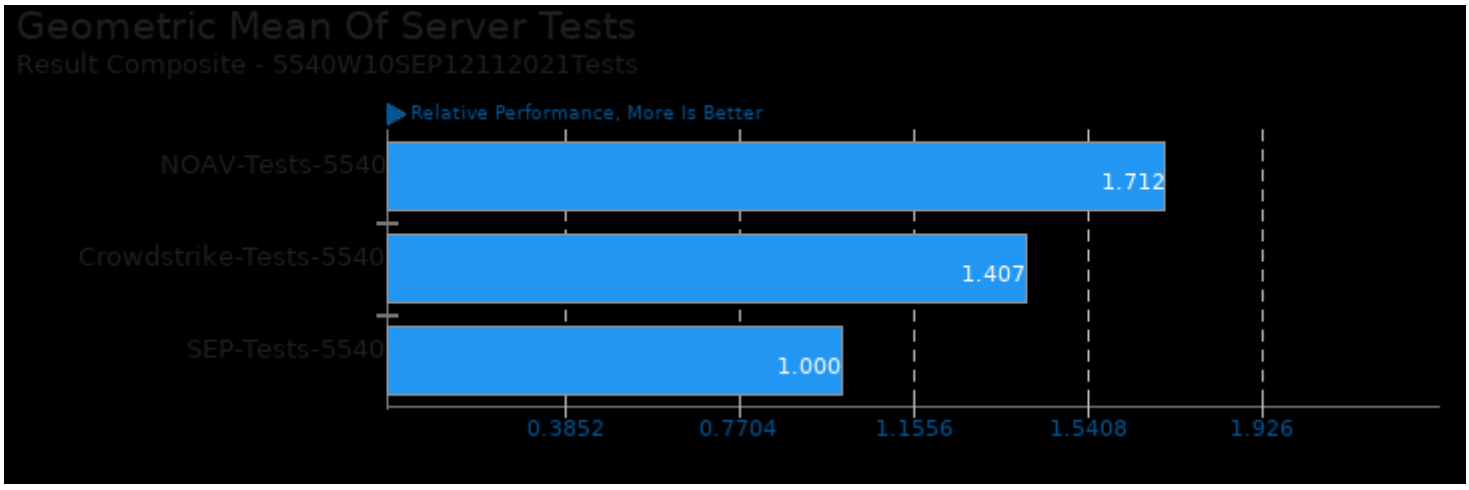
Geometric mean based upon tests: pts/smallpt, pts/libraw and pts/basis



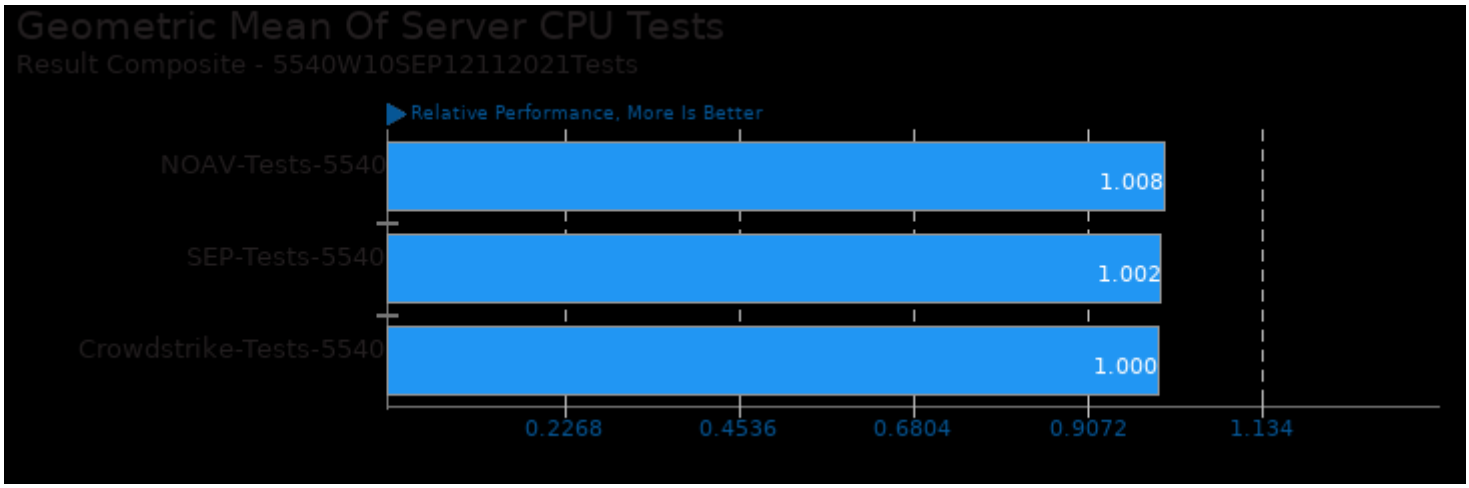
Geometric mean based upon tests: pts/smallpt, pts/compress-7zip and pts/pgbench



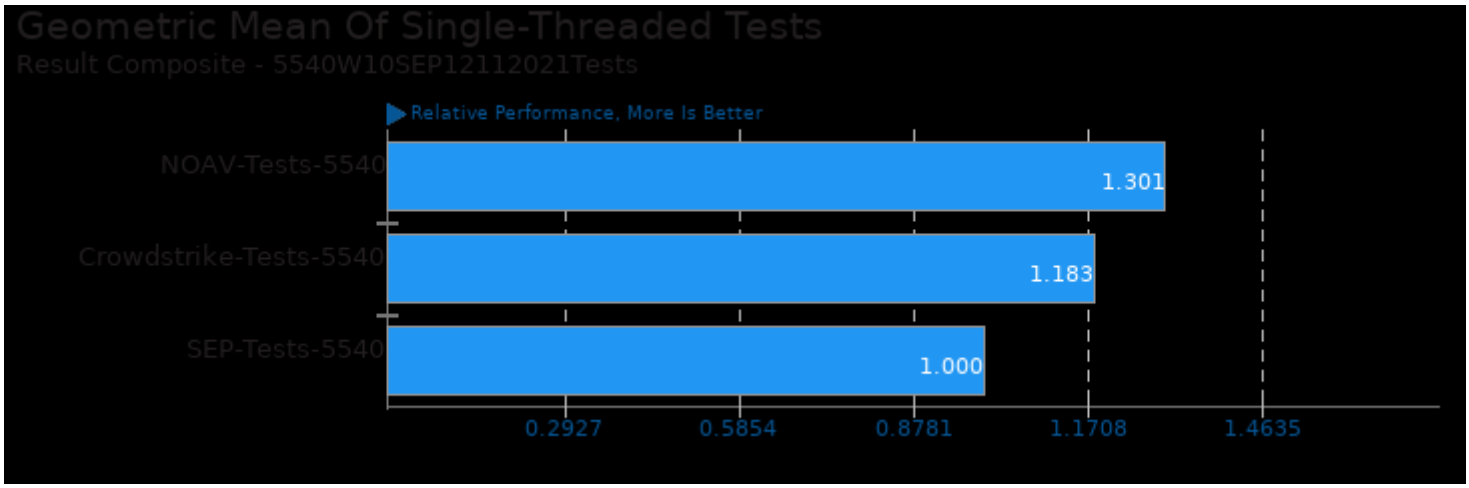
Geometric mean based upon tests: pts/git and pts/pybench



Geometric mean based upon tests: pts/pgbench, pts/php, pts/phpbench, pts/perl-benchmark and pts/sqlite



Geometric mean based upon tests: pts/compress-7zip, pts/pybench and pts/phpbench



Geometric mean based upon tests: pts/java-scimark2, pts/cachebench, pts/scimark2, pts/perl-benchmark, pts/pybench, pts/phpbench and pts/git

This file was automatically generated via the Phoronix Test Suite benchmarking software on Friday, 29 March 2024 03:56.