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Intel Core i7 990X Testing

Benchmarks for an Intel Core i7 990X Gulftown comparison. This is currently Intel's $999 USD fastest six-core system based on Gulftown, not Sandy Bridge. Look for more in an upcoming Phoronix article.

Automated Executive Summary

Core i5 2500K had the most wins, coming in first place for 50% of the tests.

Based on the geometric mean of all complete results, the fastest (Core i7 990X) was 1.549x the speed of the slowest (Core i3 2100). Core i7 970 was 0.918x the speed of Core i7 990X, Core i5 2500K was 0.984x the speed of Core i7 970, Core i5 2500K Fatbox Default was 0.933x the speed of Core i5 2500K, Core i7 920 was 0.861x the speed of Core i5 2500K Fatbox Default, Core i3 2100 was 0.89x the speed of Core i7 920.

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

C-Ray (Total Time) at 3.775x
TTSIOD 3D Renderer (Phong Rendering With Soft-Shadow Mapping) at 3.392x
Parallel BZIP2 Compression (256MB File Compression) at 3.299x
Smallpt (Global Illumination Renderer; 100 Samples) at 3.125x
7-Zip Compression (Compress Speed Test) at 3.106x
x264 (H.264 Video Encoding) at 2.934x
NAS Parallel Benchmarks (Test / Class: UA.A) at 2.577x

Timed HMMer Search (Pfam Database Search) at 2.435x
Himeno Benchmark (Poisson Pressure Solver) at 2.261x
GraphicsMagick (Operation: Local Adaptive Thresholding) at 2.225x.

Test Systems:

Core i3 2100

Processor: Intel Core i3-2100 @ 3.10GHz (4 Cores), Motherboard: SAPPHIRE Pure Black P67 Hydra, Chipset: Intel Sandy Bridge, Memory: 3072MB, Disk: 250GB Seagate ST3250310AS, Graphics: ATI Device 6738, Monitor: DELL P2210H

OS: Ubuntu 10.10, Kernel: 2.6.38-999-generic (x86_64), Desktop: GNOME 2.32.0, Display Server: X Server 1.9.0, Display Driver: vesa 2.3.0, OpenGL: 2.1 Mesa 7.9-devel, Compiler: GCC 4.4.5, File-System: ext4, Screen Resolution: 1280x1024

System Notes: Intel SpeedStep was enabled.

Core i5 2500K

Processor: Intel Core i5-2500K @ 3.30GHz (4 Cores), Motherboard: SAPPHIRE Pure Black P67 Hydra, Chipset: Intel Sandy Bridge, Memory: 3072MB, Disk: 250GB Seagate ST3250310AS, Graphics: ATI Device 6738 (960/1150MHz), Monitor: DELL P2210H

OS: Ubuntu 10.10, Kernel: 2.6.38-999-generic (x86_64), Desktop: GNOME 2.32.0, Display Server: X Server 1.9.0, Display Driver: radeon 6.14.99, OpenGL: 2.1 Mesa 7.11-devel Gallium 0.4, Compiler: GCC 4.4.5, File-System: ext4, Screen Resolution: 1920x1080

Core i7 920

Processor: Intel Core i7 920 @ 2.67GHz (8 Cores), Motherboard: ASRock X58 Super, Chipset: Intel 5520/5500/X58 + ICH10R, Memory: 3072MB, Disk: 320GB Seagate ST3320620AS, Graphics: NVIDIA GeForce 9800 GTX 512MB (675/1100MHz), Audio: Realtek ALC889A, Monitor: DELL S2409W

OS: Ubuntu 10.10, Kernel: 2.6.38-020638-generic (x86_64), Desktop: GNOME 2.32.0, Display Server: X Server 1.9.0, Display Driver: nouveau 0.0.16, Compiler: GCC 4.4.5, File-System: ext4, Screen Resolution: 1920x1080

System Notes: Intel SpeedStep was enabled.

Core i7 970

Processor: Intel Core i7 970 @ 3.20GHz (12 Cores), Motherboard: ASRock X58 Super, Chipset: Intel 5520/5500/X58 + ICH10R, Memory: 3072MB, Disk: 320GB Seagate ST3320620AS, Graphics: NVIDIA GeForce 9800 GTX 512MB (675/1100MHz), Audio: Realtek ALC889A, Monitor: DELL S2409W

OS: Ubuntu 10.10, Kernel: 2.6.38-020638-generic (x86_64), Desktop: GNOME 2.32.0, Display Server: X Server 1.9.0, Display Driver: nouveau 0.0.16, OpenGL: 2.1 Mesa 7.9-devel, Compiler: GCC 4.4.5 + Clang 4.2.1 + llvm 2.6, File-System: ext4, Screen Resolution: 1920x1080

System Notes: Intel SpeedStep was enabled.

Core i7 990X

Processor: Intel Core i7 X 990 @ 3.47GHz (12 Cores), Motherboard: ASRock X58 Super, Chipset: Intel 5520/5500/X58 + ICH10R, Memory: 3072MB, Disk: 320GB Seagate ST3320620AS, Graphics: NVIDIA GeForce 9800 GTX 512MB (675/1100MHz), Audio: Realtek ALC889A, Monitor: DELL S2409W

OS: Ubuntu 10.10, Kernel: 2.6.38-020638-generic (x86_64), Desktop: GNOME 2.32.0, Display Server: X Server 1.9.0, Display Driver: nouveau 0.0.16, Compiler: GCC 4.4.5, File-System: ext4, Screen Resolution: 1920x1080

System Notes: Intel SpeedStep was enabled.

Core i5 2500K Fatbox Default

Processor: Intel Core i5-2500K @ 3.30GHz (4 Cores), Motherboard: ASRock Z68 Extreme4 Gen3, Chipset: Intel 2nd Generation Core Family, Memory: 7680MB, Disk: 120GB OCZ VERTEX3 MI + 120GB Seagate ST3120026AS + 200GB Western Digital WDC WD2000JD-22H, Graphics: Intel 2nd Generation Core Family IGP 256MB, Audio: Realtek ALC892, Monitor: V243HL

OS: Ubuntu 11.04, Kernel: 2.6.38-11-generic (x86_64), Desktop: KDE 4.7.00, Display Server: X Server 1.10.1, Display Driver: intel 2.14.0, Compiler: GCC 4.5.2, File-System: ext4, Screen Resolution: 1920x1080

System Notes: Intel SpeedStep was enabled.

	Core i3 2100	Core i5 2500K	Core i7 920	Core i7 970	Core i7 990X	Core i5 2500K Fatbox
x264 - H.2.V.E (FPS)	**46.09**	74.17	74.53	113.53	**135.23**	72.87
Normalized	34.08%	54.85%	55.11%	83.95%	100%	53.89%
Standard Deviation	3.5%	4.8%	3.3%	4%	6.2%	1.4%
FFmpeg - AVI To NTSC VCD (sec)	13.11	**10.98**	**15.03**	13.15	12.17	11.04
Normalized	83.75%	100%	73.05%	83.5%	90.22%	99.46%
Standard Deviation	2%	2.2%	2.4%	2%	2.1%	0.4%
LAME MP3 Encoding - WAV To MP3 (sec)	22.94	**19.22**	**28.44**	25.39	22.45	19.63
Normalized	83.78%	100%	67.58%	75.7%	85.61%	97.91%
Standard Deviation	0.3%	0.3%	0.3%	0.1%	0.2%	0.8%
7-Zip Compression - C.S.T (MIPS)	**7712**	12611	13702	20413	**23951**	11723
Normalized	32.2%	52.65%	57.21%	85.23%	100%	48.95%
Standard Deviation	3.1%	0.1%	3.5%	1.8%	2.2%	0.4%

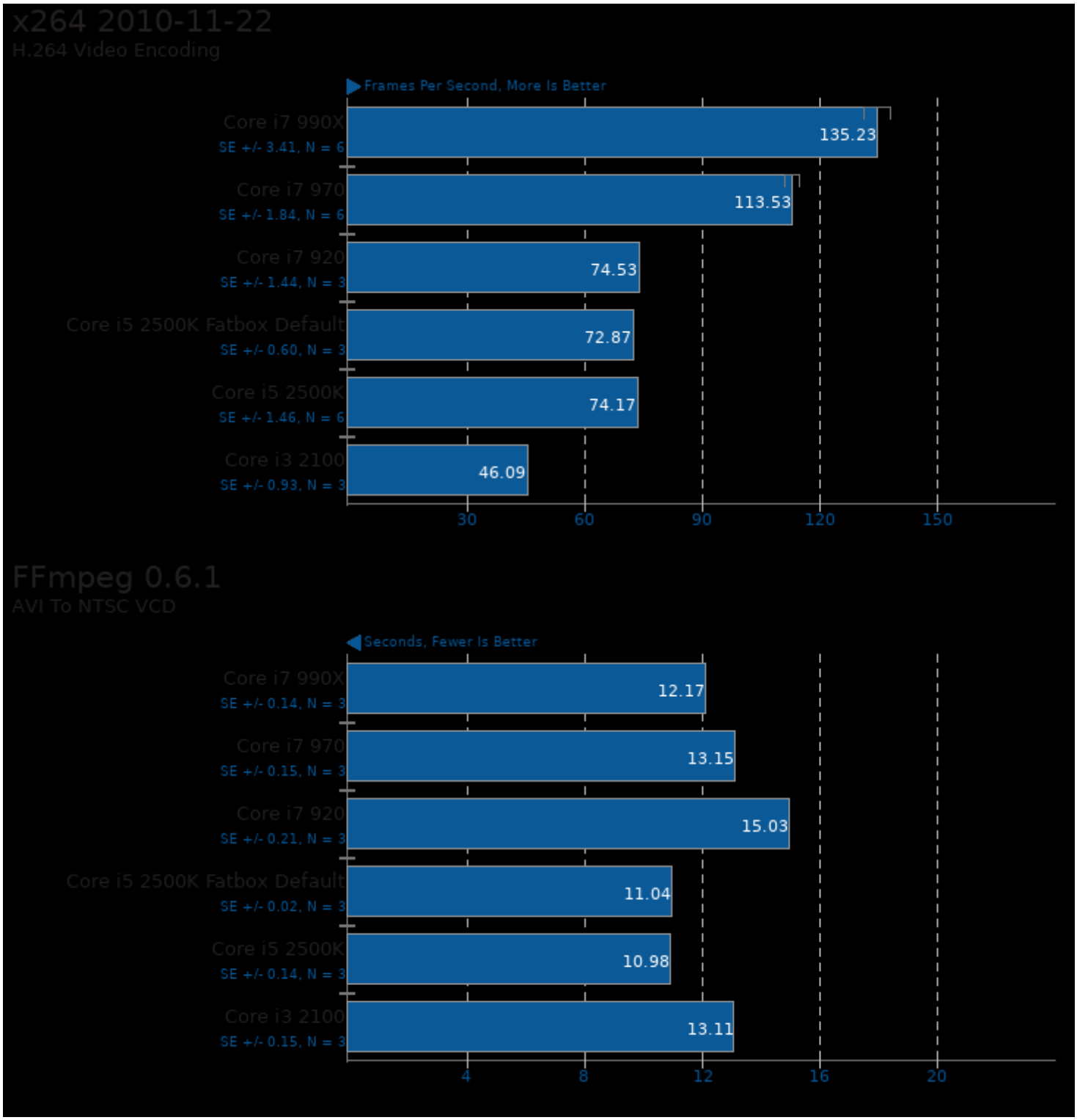
Intel Core i7 990X Testing

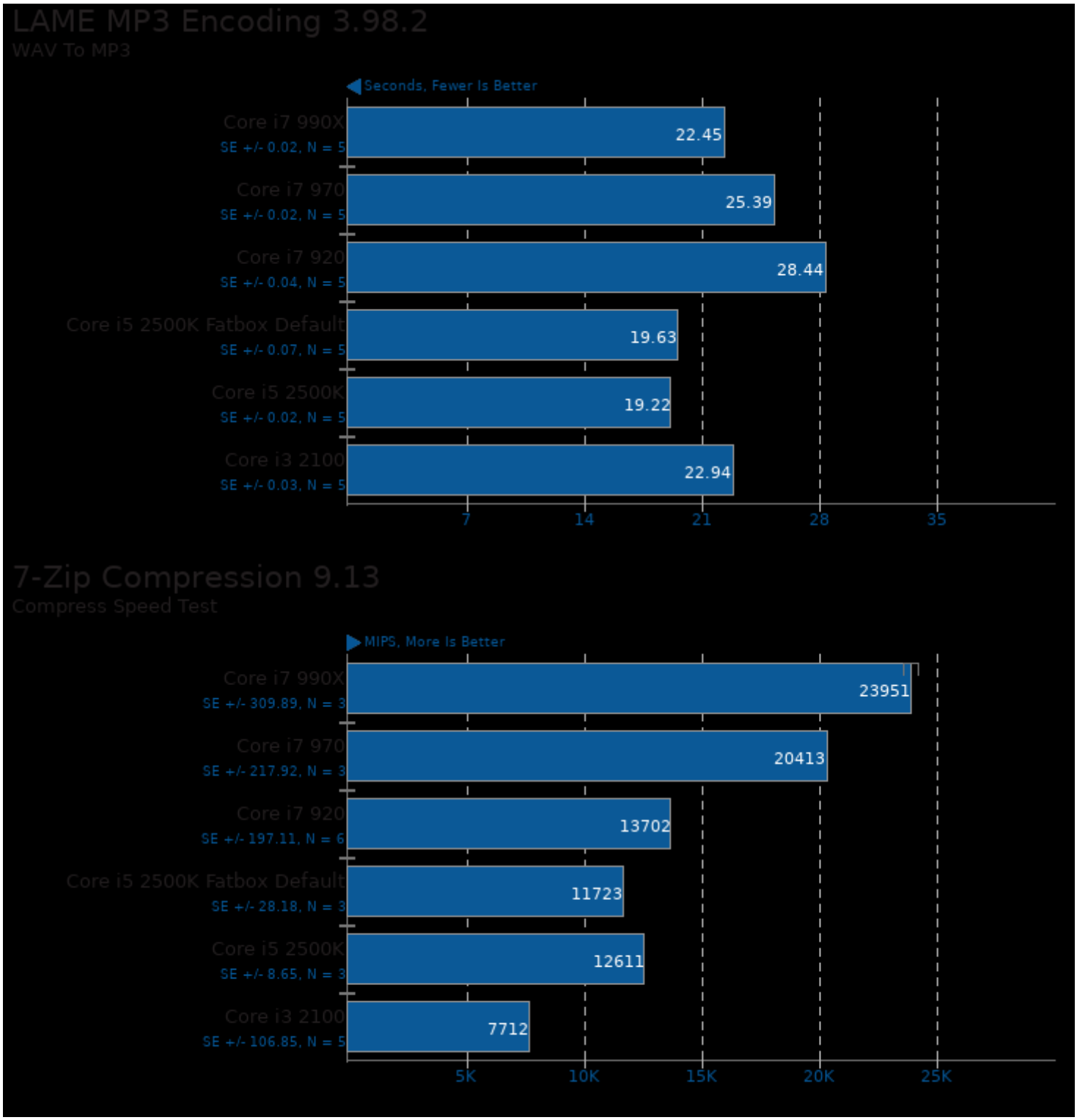
Parallel BZIP2 Compression - 2.F.C (sec)	19.96	11.23	10.95	7.02	6.05	15.60
Normalized	30.31%	53.87%	55.25%	86.18%	100%	38.78%
Standard Deviation	1.3%	0.7%	0.6%	1.8%	0.9%	15.7%
Himeno Benchmark - P.P.S (MFLOPS)	286.89	341.45	199.75	451.60	286.30	384.32
Normalized	63.53%	75.61%	44.23%	100%	63.4%	85.1%
Standard Deviation	0.3%	0.5%	0.3%	0.1%	0%	3.1%
Bullet Physics Engine - 3000 Fall (sec)	15.52	12.36	16.19	14.21	12.91	13.54
Normalized	79.64%	100%	76.34%	86.98%	95.74%	91.29%
Standard Deviation	0.2%	0.3%	0.3%	0.1%	0.4%	0.5%
Bullet Physics Engine - 1000 Stack (sec)	18.33	14.11	19.37	16.59	15.22	15.18
Normalized	76.98%	100%	72.84%	85.05%	92.71%	92.95%
Standard Deviation	0.5%	0.4%	0.7%	0.1%	0.2%	0.7%
Bullet Physics Engine - 136 Ragdolls (sec)	8.61	6.52	8.50	7.71	7.00	7.02
Normalized	75.73%	100%	76.71%	84.57%	93.14%	92.88%
Standard Deviation	0.2%	0.3%	0.8%	0%	0.1%	0.4%
Bullet Physics Engine - 1000 Convex (sec)	11.21	8.83	12.28	10.59	9.77	11.59
Normalized	78.77%	100%	71.91%	83.38%	90.38%	76.19%
Standard Deviation	0%	0.1%	0.8%	0%	0.7%	0.5%
Bullet Physics Engine - Prim Trimesh (sec)	11.21	9.12	12.43	10.78	9.99	9.39
Normalized	81.36%	100%	73.37%	84.6%	91.29%	97.12%
Standard Deviation	0.3%	0.1%	0.3%	0.2%	0.2%	1.8%
Bullet Physics Engine - Convex Trimesh (sec)	20.59	17.03	23.41	20.00	18.56	21.30
Normalized	82.71%	100%	72.75%	85.15%	91.76%	79.95%
Standard Deviation	0.1%	0.4%	0.2%	0%	0.2%	0.9%
Bullet Physics Engine - Raytests (sec)	24.01	19.88	27.40	23.40	21.66	24.84
Normalized	82.8%	100%	72.55%	84.96%	91.78%	80.03%
Standard Deviation	0.1%	0.1%	0.2%	0.1%	0.1%	0.8%
C-Ray - Total Time (sec)	128.42	61.65	71.29	34.02	35.94	55.17
Normalized	26.49%	55.18%	47.72%	100%	94.66%	61.66%
Standard Deviation	0.1%	0%	0.5%	0.3%	0.6%	0.8%
POV-Ray - Total Time (sec)	847	708	936	788	730	711
Normalized	83.59%	100%	75.64%	89.85%	96.99%	99.58%
Smallpt - G.I.R.1.S (sec)	225	144	144	91	72	148
Normalized	32%	50%	50%	79.12%	100%	48.65%
Standard Deviation	0%	0.4%	0%	1.3%	2.9%	1.4%
Timed HMMer Search - P.D.S (sec)	25.01	15.22	16.75	11.71	10.27	15.69
Normalized	41.06%	67.48%	61.31%	87.7%	100%	65.46%
Standard Deviation	0.1%	1.1%	0.7%	1.8%	2.5%	0.1%
Minion - Solitaire (sec)	143.97	115.05	185.81	187.49	166.80	114.05
Normalized	79.22%	99.13%	61.38%	60.83%	68.38%	100%
Standard Deviation	0.9%	0.1%	0.2%	0.3%	0.4%	0.2%

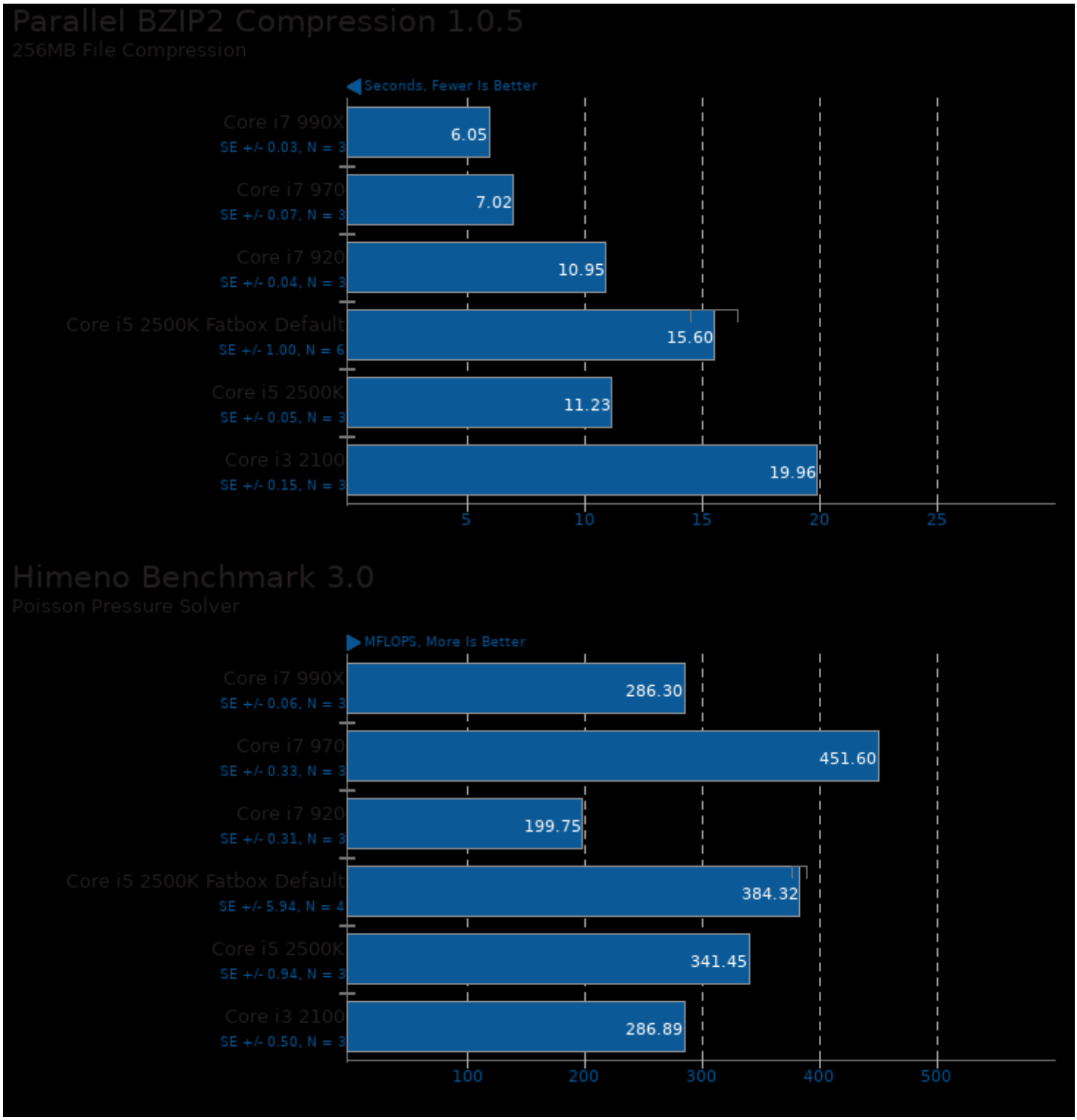
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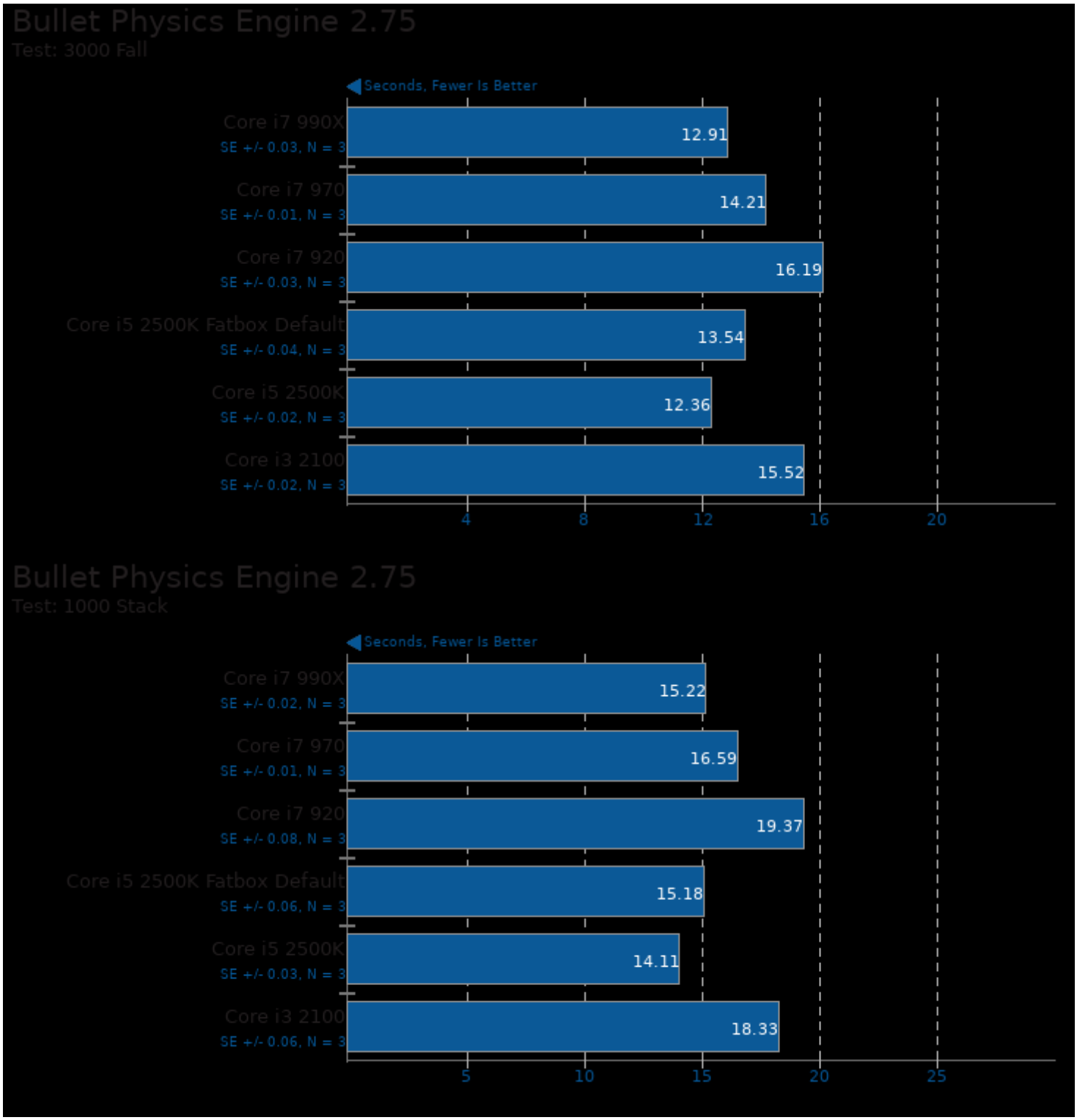
NAS Parallel Benchmarks - FT.B (Mop/s)	3676	6575	4648	3246	3960	5490
Normalized	55.91%	100%	70.69%	49.38%	60.23%	83.5%
Standard Deviation	3.5%	0.2%	0.7%	0%	0.1%	0.7%
NAS Parallel Benchmarks - IS.C (Mop/s)	156.25	184.42	124.31	133.89	148.22	177.52
Normalized	84.73%	100%	67.41%	72.6%	80.37%	96.26%
Standard Deviation	0%	0%	0.3%	0%	0%	0.4%
NAS Parallel Benchmarks - LU.A (Mop/s)	5208	9338	8238	9828	11467	8639
Normalized	45.41%	81.44%	71.84%	85.7%	100%	75.34%
Standard Deviation	0.7%	0.6%	0.7%	0.5%	0.4%	1.4%
NAS Parallel Benchmarks - MG.B (Mop/s)	4212	5761	4561	4362	4526	5138
Normalized	73.11%	100%	79.17%	75.71%	78.56%	89.19%
Standard Deviation	0.1%	0%	0.1%	0.2%	0.2%	0.4%
NAS Parallel Benchmarks - UA.A (Mop/s)	21.63	35.03	35.66	49.24	55.75	31.77
Normalized	38.8%	62.83%	63.96%	88.32%	100%	56.99%
Standard Deviation	0.1%	0.1%	0.2%	1%	0.8%	0.5%
OpenSSL - R.4.b.P	73.15	86.53	45.68	53.43	57.73	86.43
Normalized	84.54%	100%	52.79%	61.75%	66.72%	99.88%
Standard Deviation	0.6%	0.7%	0.3%	0.2%	0.1%	0.1%
GraphicsMagick - L.A.T (Iterations/min)	40	49	57	79	89	49
Normalized	44.94%	55.06%	64.04%	88.76%	100%	55.06%
Standard Deviation	0%	0%	0%	0%	0%	0%
GraphicsMagick - Resizing (Iterations/min)	96	123	103	128	143	119
Normalized	67.13%	86.01%	72.03%	89.51%	100%	83.22%
Standard Deviation	0.6%	0%	0%	0%	0%	0.5%
TTSIOD 3D Renderer - P.R.W.S.S.M (FPS)	62.19	108.60	118.00	179.86	210.95	97.58
Normalized	29.48%	51.48%	55.94%	85.26%	100%	46.26%
Standard Deviation	0.1%	0.1%	0.7%	0.6%	0.6%	3%
Timed Apache Compilation - Time To Compile (sec)	34.99	24.07	30.35	22.79	23.29	25.22
Normalized	65.13%	94.68%	75.09%	100%	97.85%	90.36%
Standard Deviation	0.5%	0.3%	0.3%	1.2%	0.2%	0.9%
Timed Linux Kernel Compilation - Time To Compile (sec)	612.55	352.71	366.38	258.29	227.78	
Normalized	37.19%	64.58%	62.17%	88.19%	100%	
Standard Deviation	2.9%	1%	4.1%	6.1%	9.6%	
PostgreSQL pgbench - T.B.T.P.S (TPS)	146.54	148.17		148.01		
Normalized	98.9%	100%		99.89%		
Standard Deviation	1.4%	3.4%		0.8%		

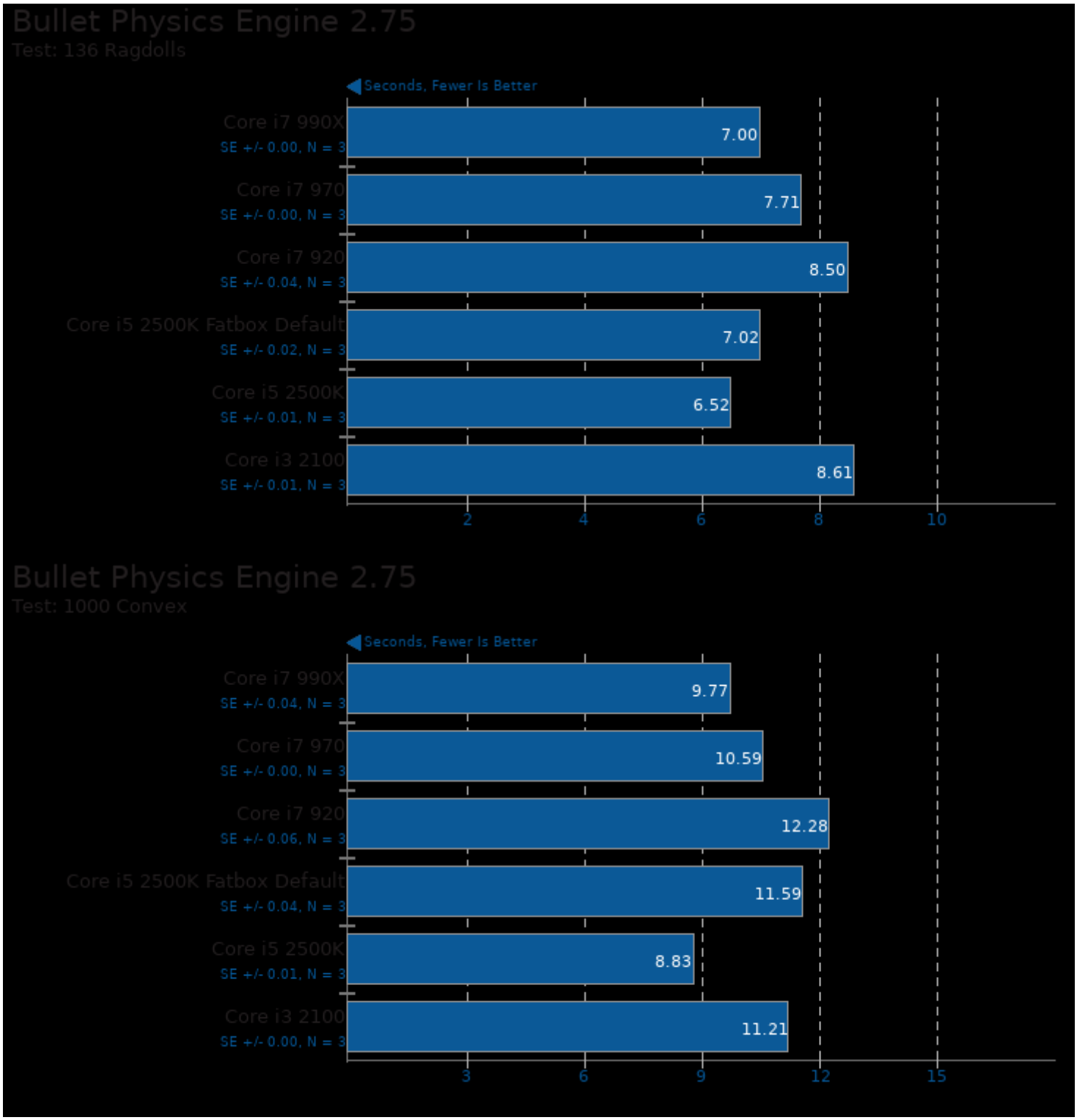
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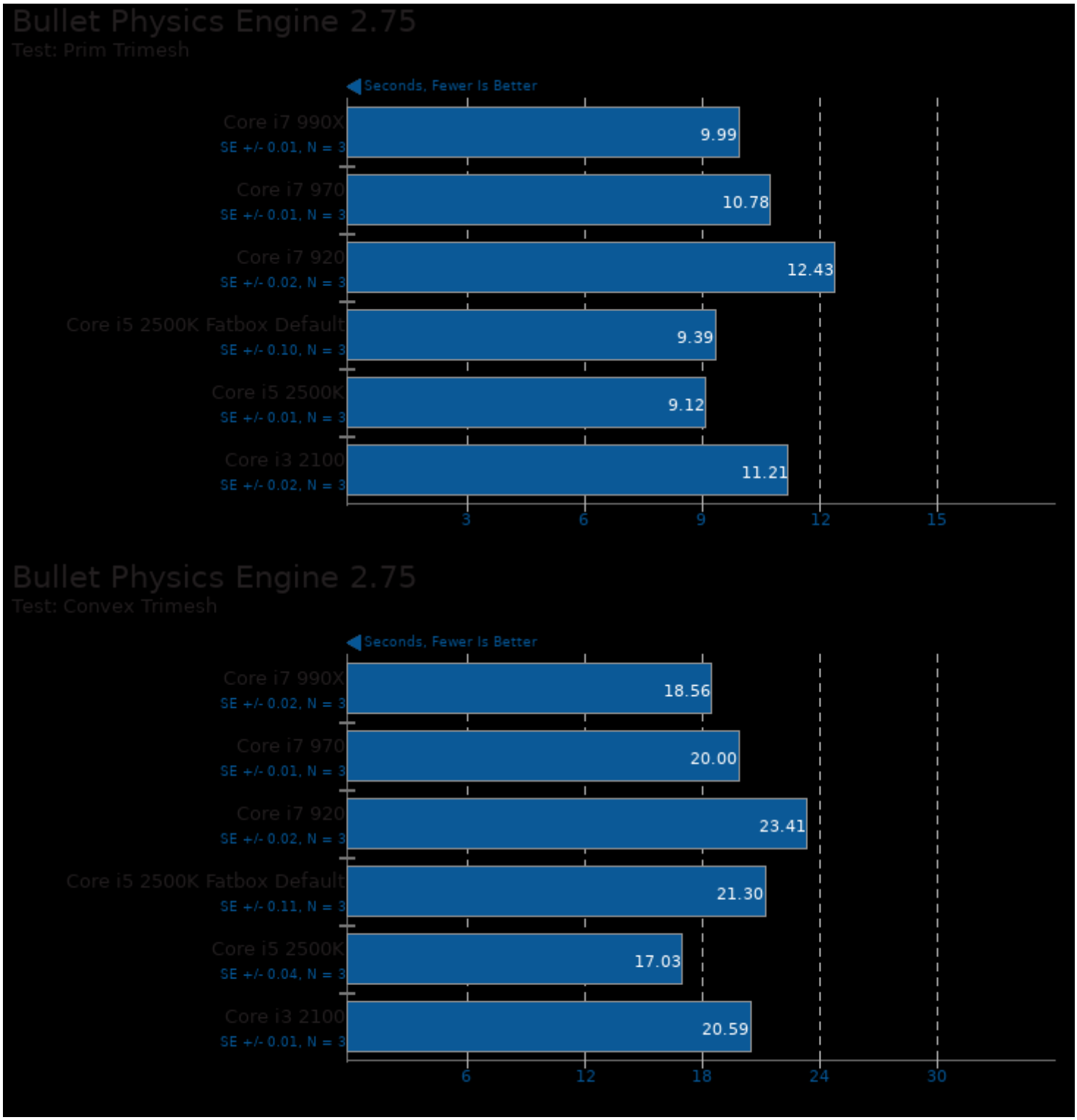


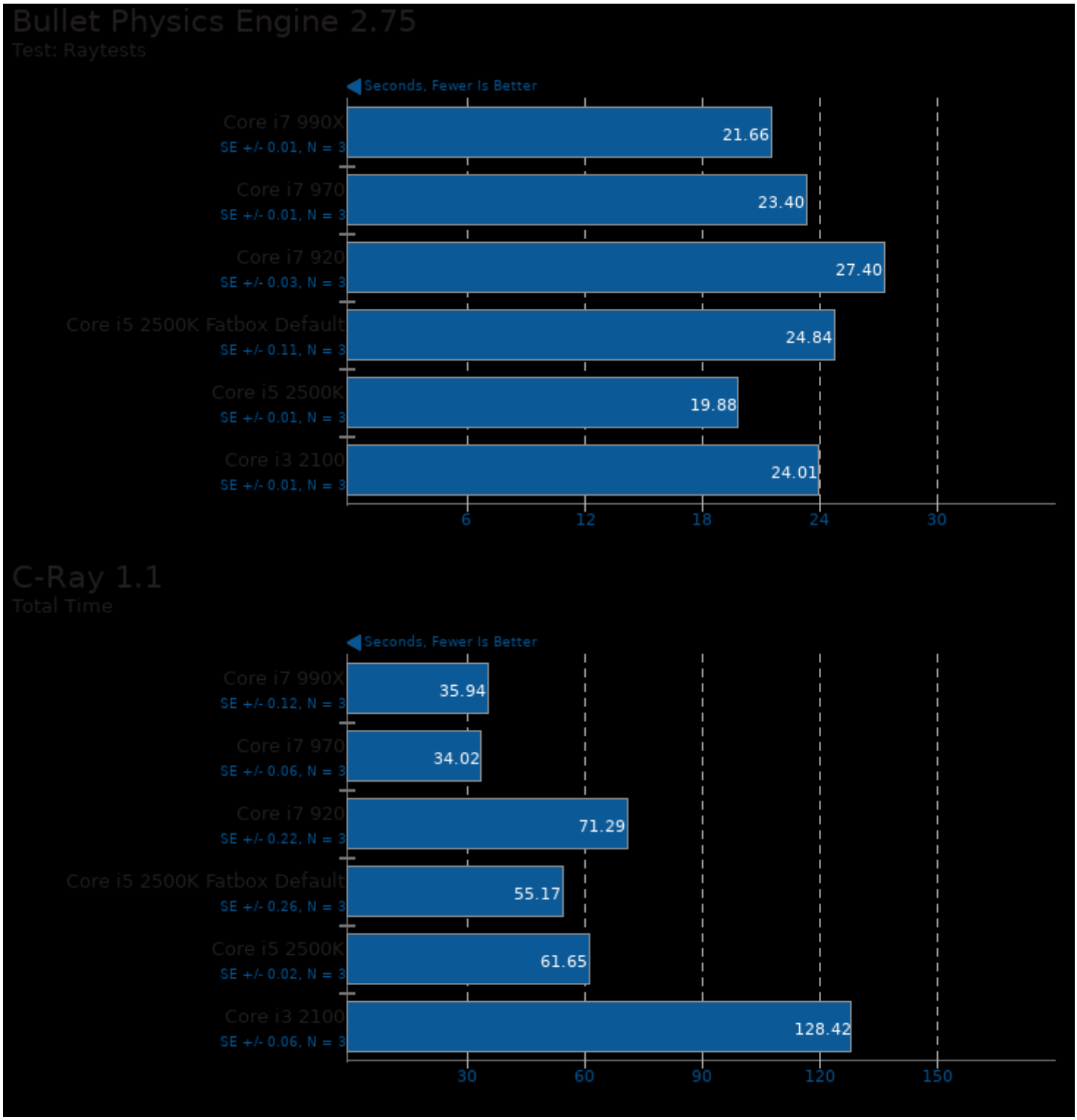

LAME MP3 Encoding 3.98.2
WAV To MP3
Seconds, Fewer Is Better
Core i7 990X
SE +/- 0.02, N = 5
22.45
Core i7 970
SE +/- 0.02, N = 5
25.39
Core i7 920
SE +/- 0.04, N = 5
28.44
Core i5 2500K Fatbox Default
SE +/- 0.07, N = 5
19.63
Core i5 2500K
SE +/- 0.02, N = 5
19.22
Core i3 2100
SE +/- 0.03, N = 5
22.94
7
14
21
28
35
7-Zip Compression 9.13
Compress Speed Test
MIPS, More Is Better
Core i7 990X
SE +/- 309.89, N = 3
23951
Core i7 970
SE +/- 217.92, N = 3
20413
Core i7 920
SE +/- 197.11, N = 6
13702
Core i5 2500K Fatbox Default
SE +/- 28.18, N = 3
11723
Core i5 2500K
SE +/- 8.65, N = 3
12611
Core i3 2100
SE +/- 106.85, N = 5
7712
5K
10K
15K
20K
25K

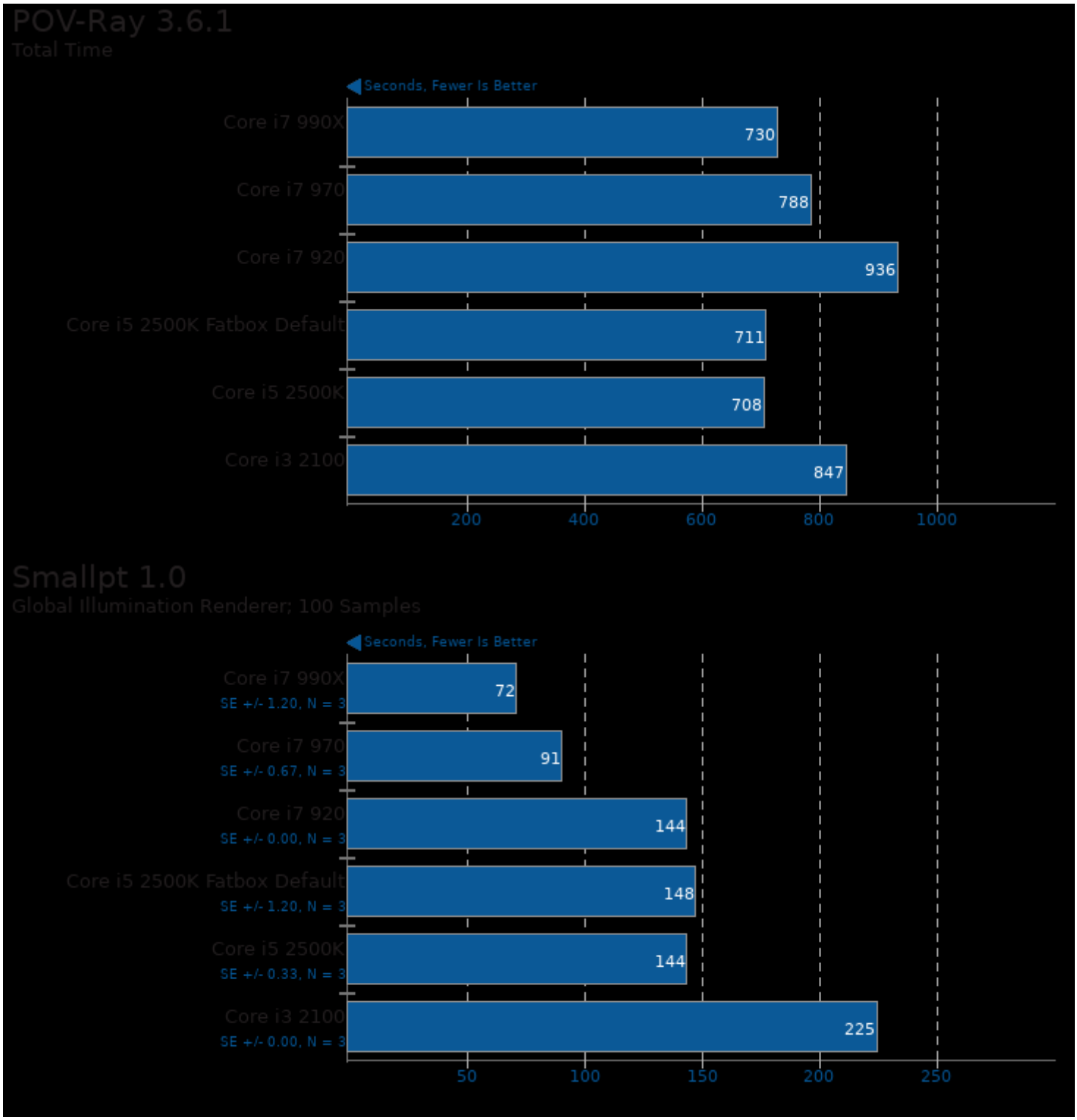

Parallel BZIP2 Compression 1.0.5
256MB File Compression
Seconds, Fewer Is Better
Core i7 990X
SE +/- 0.03, N = 3
6.05
Core i7 970
SE +/- 0.07, N = 3
7.02
Core i7 920
SE +/- 0.04, N = 3
10.95
Core i5 2500K Fatbox Default
SE +/- 1.00, N = 6
15.60
Core i5 2500K
SE +/- 0.05, N = 3
11.23
Core i3 2100
SE +/- 0.15, N = 3
19.96
5
10
15
20
25
Himeno Benchmark 3.0
Poisson Pressure Solver
MFLOPS, More Is Better
Core i7 990X
SE +/- 0.06, N = 3
286.30
Core i7 970
SE +/- 0.33, N = 3
451.60
Core i7 920
SE +/- 0.31, N = 3
199.75
Core i5 2500K Fatbox Default
SE +/- 5.94, N = 4
384.32
Core i5 2500K
SE +/- 0.94, N = 3
341.45
Core i3 2100
SE +/- 0.50, N = 3
286.89
100
200
300
400
500

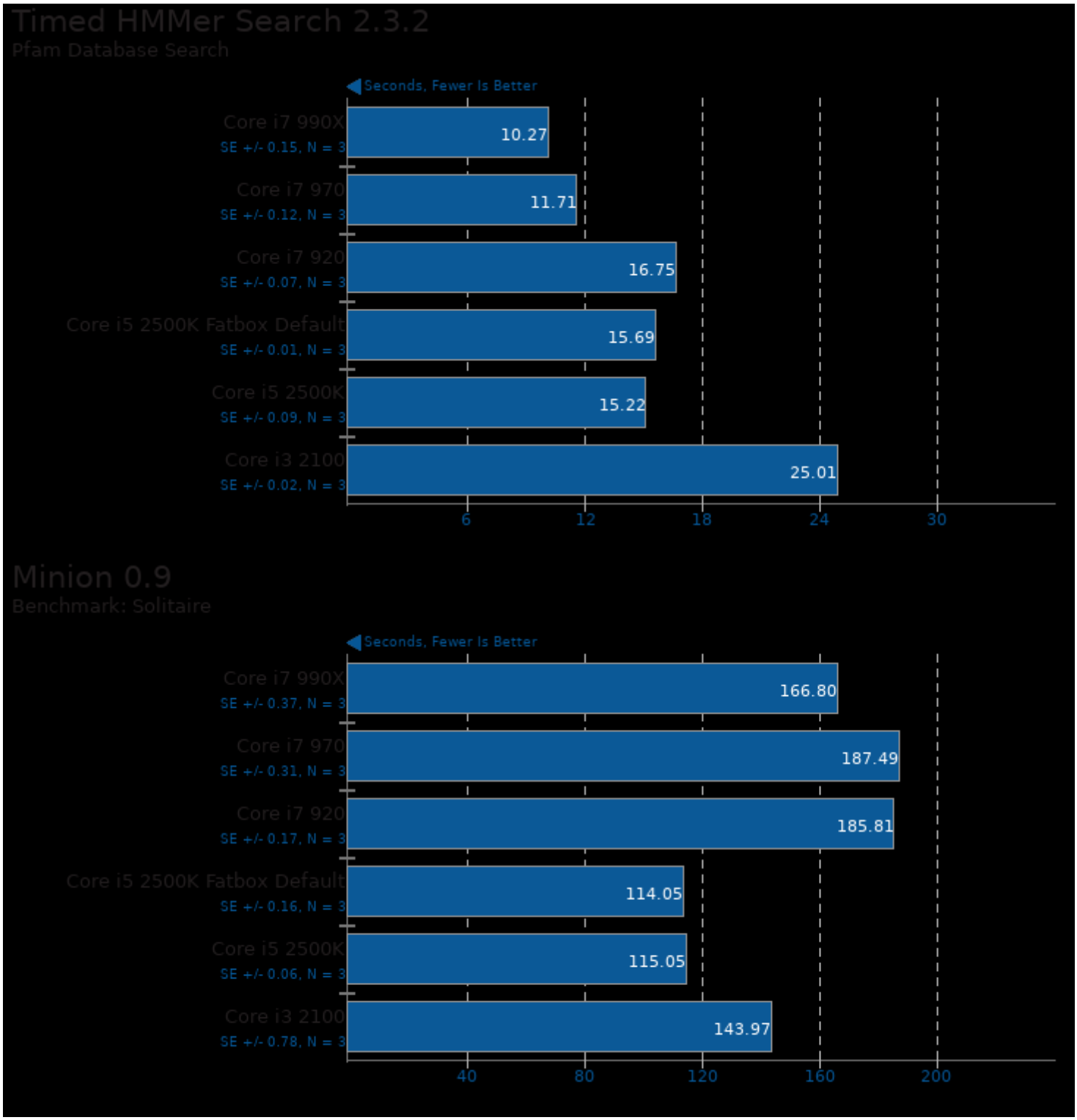

Bullet Physics Engine 2.75
Test: 3000 Fall
Seconds, Fewer Is Better
Core i7 990X
SE +/- 0.03, N = 3
12.91
Core i7 970
SE +/- 0.01, N = 3
14.21
Core i7 920
SE +/- 0.03, N = 3
16.19
Core i5 2500K Fatbox Default
SE +/- 0.04, N = 3
13.54
Core i5 2500K
SE +/- 0.02, N = 3
12.36
Core i3 2100
SE +/- 0.02, N = 3
15.52
4
8
12
16
20
Bullet Physics Engine 2.75
Test: 1000 Stack
Seconds, Fewer Is Better
Core i7 990X
SE +/- 0.02, N = 3
15.22
Core i7 970
SE +/- 0.01, N = 3
16.59
Core i7 920
SE +/- 0.08, N = 3
19.37
Core i5 2500K Fatbox Default
SE +/- 0.06, N = 3
15.18
Core i5 2500K
SE +/- 0.03, N = 3
14.11
Core i3 2100
SE +/- 0.06, N = 3
18.33
5
10
15
20
25

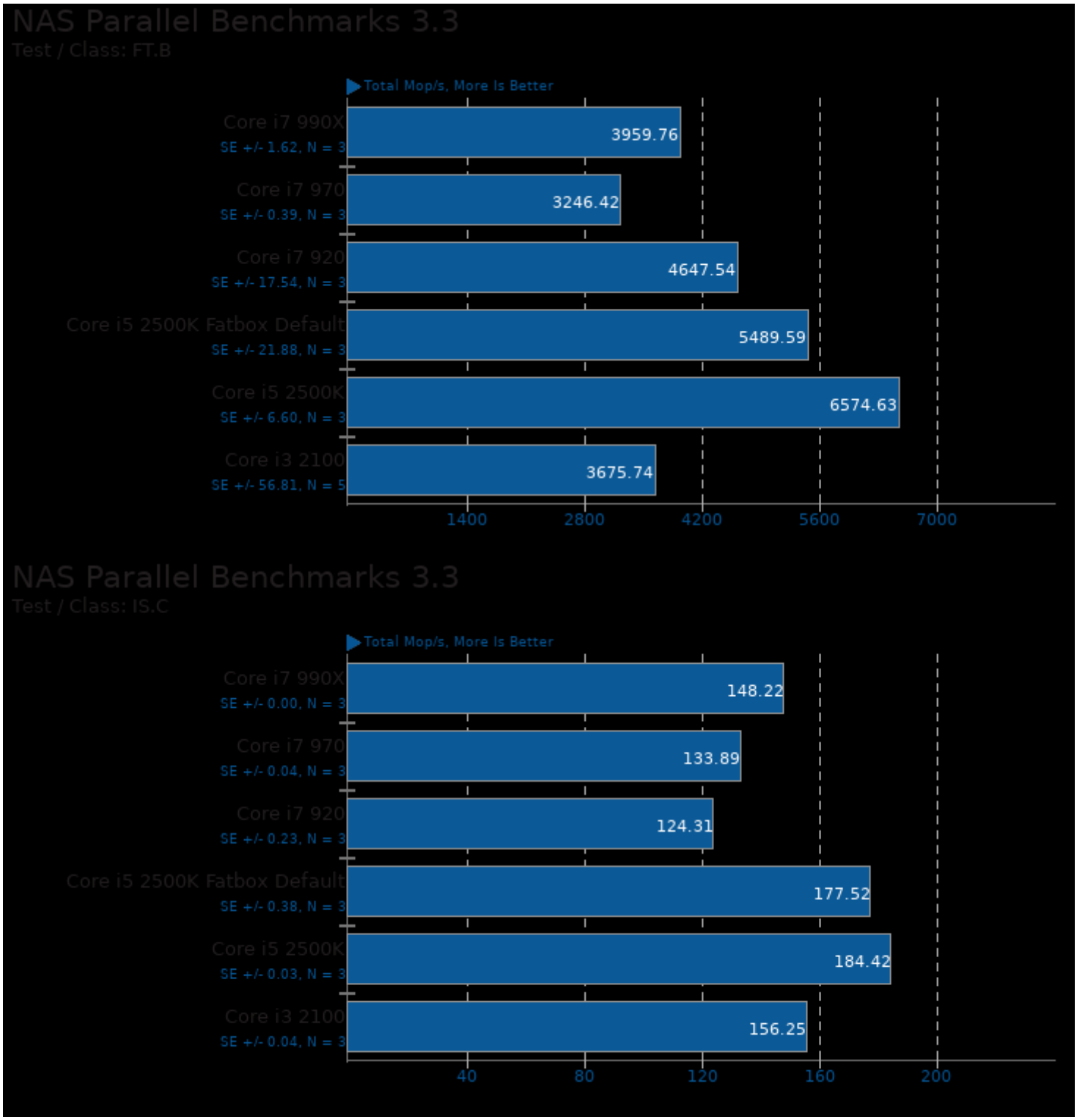

Bullet Physics Engine 2.75
Test: 136 Ragdolls
Seconds, Fewer Is Better
Core i7 990X
SE +/- 0.00, N = 3
7.00
Core i7 970
SE +/- 0.00, N = 3
7.71
Core i7 920
SE +/- 0.04, N = 3
8.50
Core i5 2500K Fatbox Default
SE +/- 0.02, N = 3
7.02
Core i5 2500K
SE +/- 0.01, N = 3
6.52
Core i3 2100
SE +/- 0.01, N = 3
8.61
2
4
6
8
10
Bullet Physics Engine 2.75
Test: 1000 Convex
Seconds, Fewer Is Better
Core i7 990X
SE +/- 0.04, N = 3
9.77
Core i7 970
SE +/- 0.00, N = 3
10.59
Core i7 920
SE +/- 0.06, N = 3
12.28
Core i5 2500K Fatbox Default
SE +/- 0.04, N = 3
11.59
Core i5 2500K
SE +/- 0.01, N = 3
8.83
Core i3 2100
SE +/- 0.00, N = 3
11.21
3
6
9
12
15

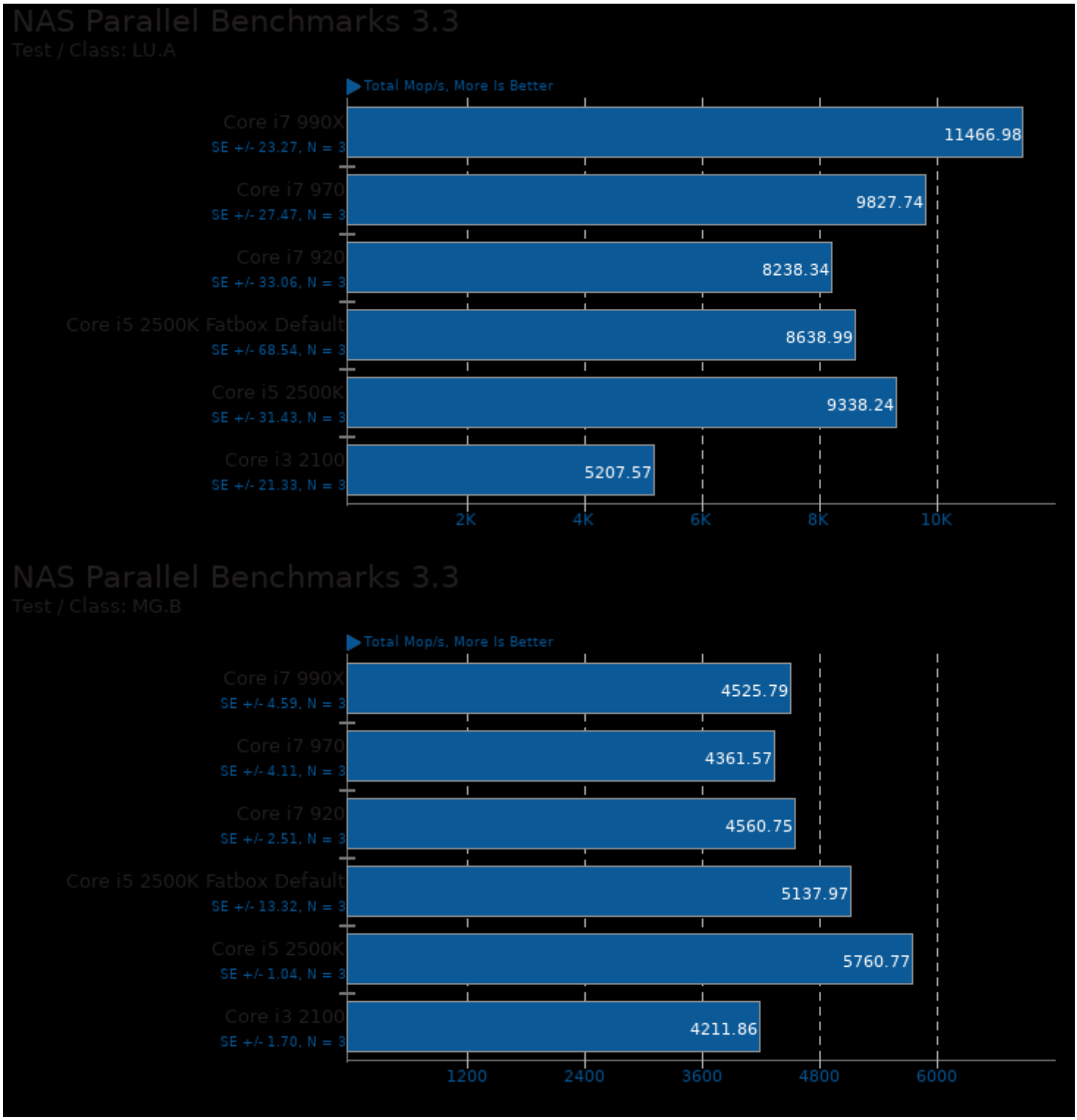

Bullet Physics Engine 2.75
Test: Prim Trimesh
Seconds, Fewer Is Better
Core i7 990X
SE +/- 0.01, N = 3
9.99
Core i7 970
SE +/- 0.01, N = 3
10.78
Core i7 920
SE +/- 0.02, N = 3
12.43
Core i5 2500K Fatbox Default
SE +/- 0.10, N = 3
9.39
Core i5 2500K
SE +/- 0.01, N = 3
9.12
Core i3 2100
SE +/- 0.02, N = 3
11.21
3
6
9
12
15
Bullet Physics Engine 2.75
Test: Convex Trimesh
Seconds, Fewer Is Better
Core i7 990X
SE +/- 0.02, N = 3
18.56
Core i7 970
SE +/- 0.01, N = 3
20.00
Core i7 920
SE +/- 0.02, N = 3
23.41
Core i5 2500K Fatbox Default
SE +/- 0.11, N = 3
21.30
Core i5 2500K
SE +/- 0.04, N = 3
17.03
Core i3 2100
SE +/- 0.01, N = 3
20.59
6
12
18
24
30

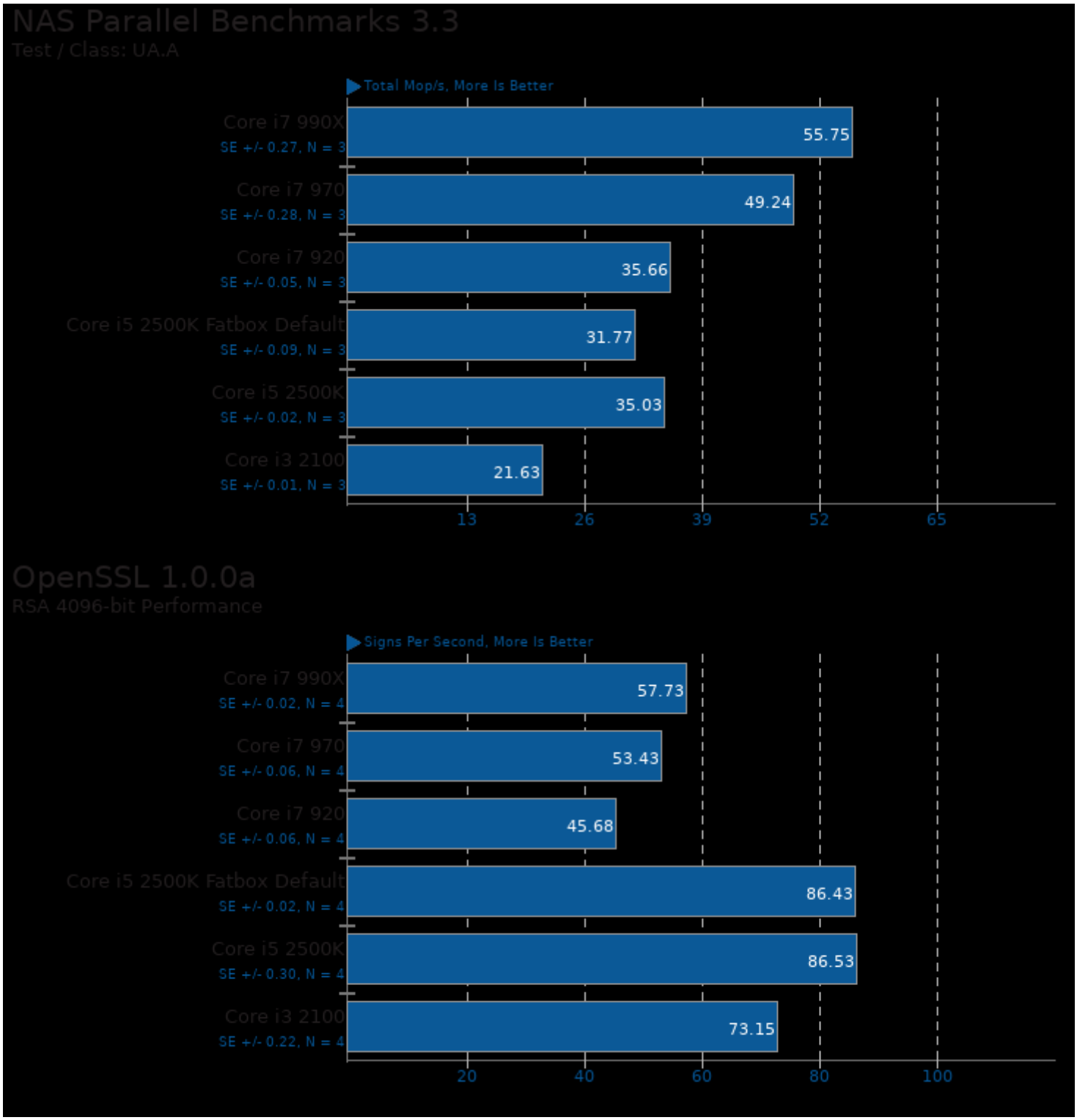

Bullet Physics Engine 2.75
Test: Raytests
Seconds, Fewer Is Better
Core i7 990X
SE +/- 0.01, N = 3
21.66
Core i7 970
SE +/- 0.01, N = 3
23.40
Core i7 920
SE +/- 0.03, N = 3
27.40
Core i5 2500K Fatbox Default
SE +/- 0.11, N = 3
24.84
Core i5 2500K
SE +/- 0.01, N = 3
19.88
Core i3 2100
SE +/- 0.01, N = 3
24.01
6
12
18
24
30
C-Ray 1.1
Total Time
Seconds, Fewer Is Better
Core i7 990X
SE +/- 0.12, N = 3
35.94
Core i7 970
SE +/- 0.06, N = 3
34.02
Core i7 920
SE +/- 0.22, N = 3
71.29
Core i5 2500K Fatbox Default
SE +/- 0.26, N = 3
55.17
Core i5 2500K
SE +/- 0.02, N = 3
61.65
Core i3 2100
SE +/- 0.06, N = 3
128.42
30
60
90
120
150

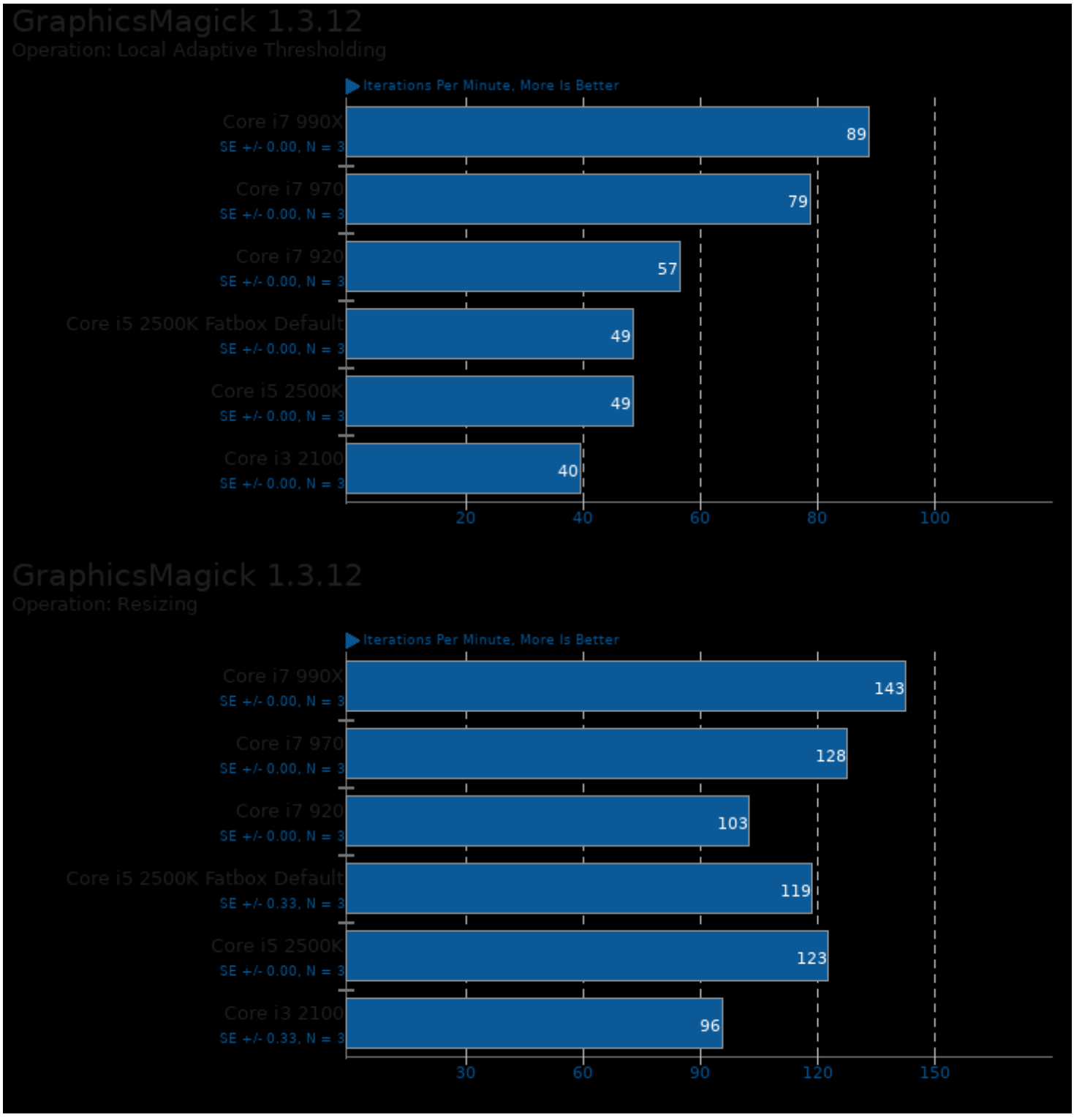

POV-Ray 3.6.1
Total Time
Seconds, Fewer Is Better
Core i7 990X
730
Core i7 970
788
Core i7 920
936
Core i5 2500K Fatbox Default
711
Core i5 2500K
708
Core i3 2100
847
200
400
600
800
1000
Smallpt 1.0
Global Illumination Renderer; 100 Samples
Seconds, Fewer Is Better
Core i7 990X
SE +/- 1.20, N = 3
72
Core i7 970
SE +/- 0.67, N = 3
91
Core i7 920
SE +/- 0.00, N = 3
144
Core i5 2500K Fatbox Default
SE +/- 1.20, N = 3
148
Core i5 2500K
SE +/- 0.33, N = 3
144
Core i3 2100
SE +/- 0.00, N = 3
225
50
100
150
200
250


Timed HMMer Search 2.3.2
Pfam Database Search
Seconds, Fewer Is Better
Core i7 990X
SE +/- 0.15, N = 3
10.27
Core i7 970
SE +/- 0.12, N = 3
11.71
Core i7 920
SE +/- 0.07, N = 3
16.75
Core i5 2500K Fatbox Default
SE +/- 0.01, N = 3
15.69
Core i5 2500K
SE +/- 0.09, N = 3
15.22
Core i3 2100
SE +/- 0.02, N = 3
25.01
6
12
18
24
30
Minion 0.9
Benchmark: Solitaire
Seconds, Fewer Is Better
Core i7 990X
SE +/- 0.37, N = 3
166.80
Core i7 970
SE +/- 0.31, N = 3
187.49
Core i7 920
SE +/- 0.17, N = 3
185.81
Core i5 2500K Fatbox Default
SE +/- 0.16, N = 3
114.05
Core i5 2500K
SE +/- 0.06, N = 3
115.05
Core i3 2100
SE +/- 0.78, N = 3
143.97
40
80
120
160
200

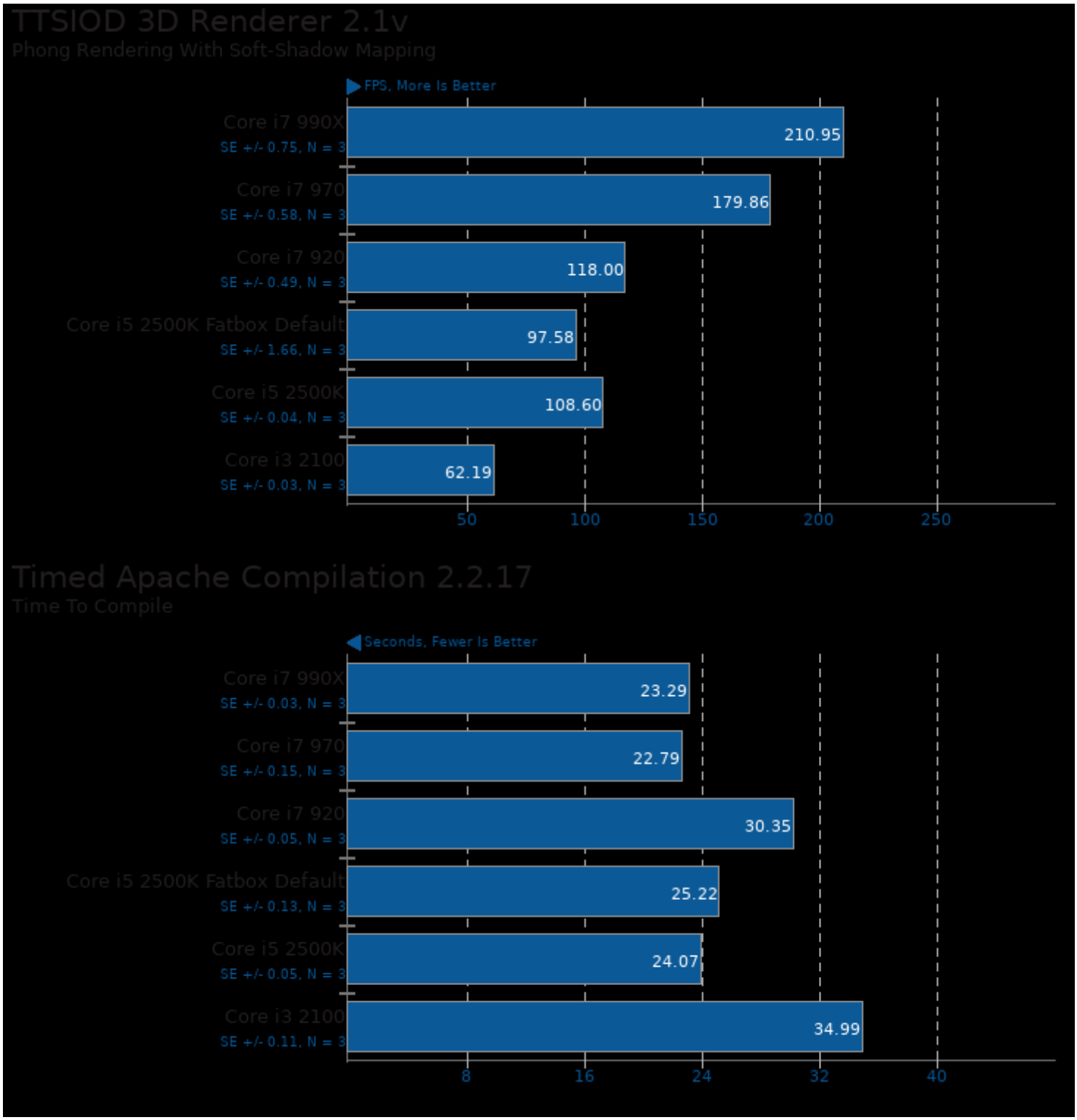

NAS Parallel Benchmarks 3.3
Test / Class: FT.B
Total Mop/s, More Is Better
Core i7 990X
SE +/- 1.62, N = 3
3959.76
Core i7 970
SE +/- 0.39, N = 3
3246.42
Core i7 920
SE +/- 17.54, N = 3
4647.54
Core i5 2500K Fatbox Default
SE +/- 21.88, N = 3
5489.59
Core i5 2500K
SE +/- 6.60, N = 3
6574.63
Core i3 2100
SE +/- 56.81, N = 5
3675.74
1400
2800
4200
5600
7000
NAS Parallel Benchmarks 3.3
Test / Class: IS.C
Total Mop/s, More Is Better
Core i7 990X
SE +/- 0.00, N = 3
148.22
Core i7 970
SE +/- 0.04, N = 3
133.89
Core i7 920
SE +/- 0.23, N = 3
124.31
Core i5 2500K Fatbox Default
SE +/- 0.38, N = 3
177.52
Core i5 2500K
SE +/- 0.03, N = 3
184.42
Core i3 2100
SE +/- 0.04, N = 3
156.25
40
80
120
160
200

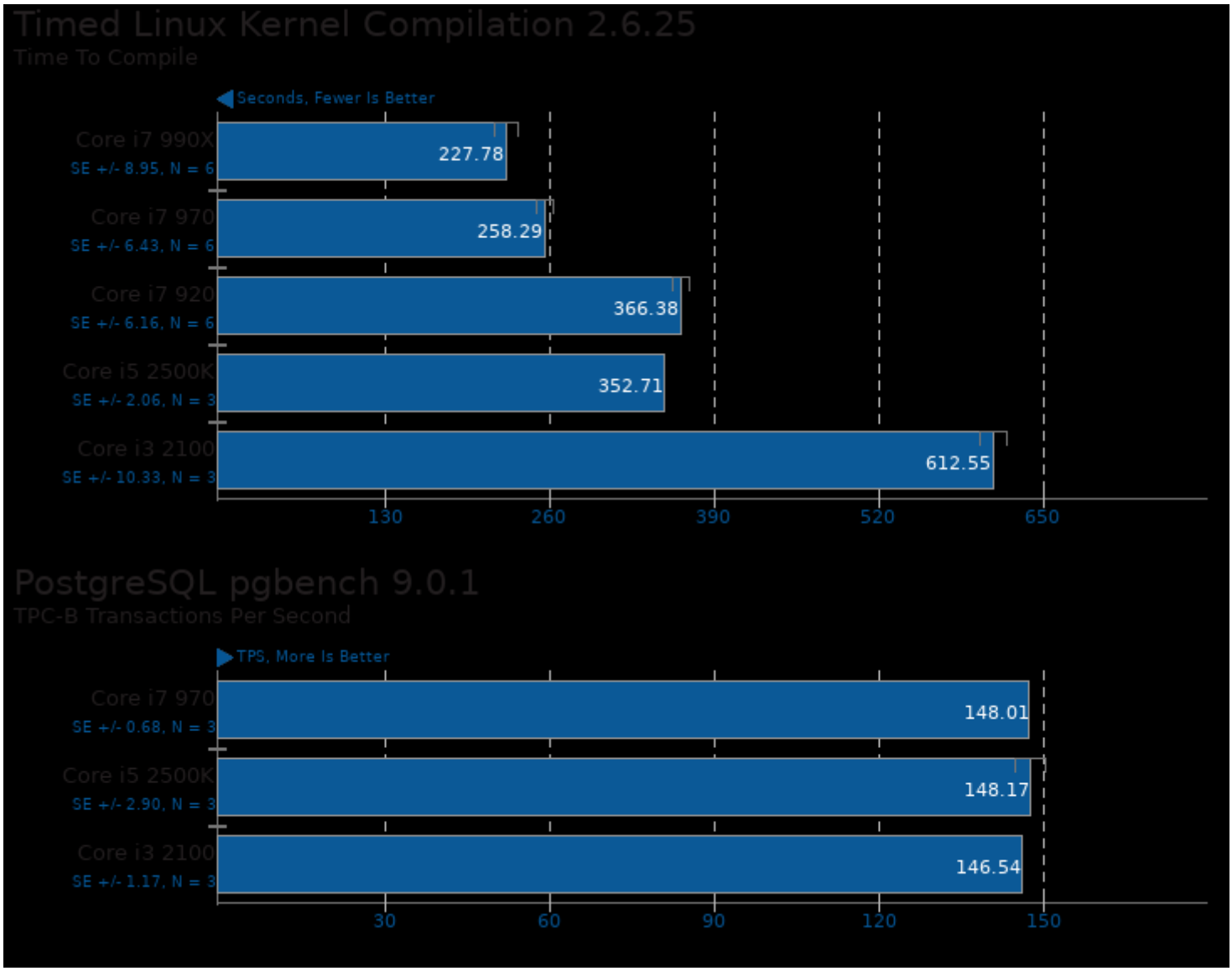

NAS Parallel Benchmarks 3.3
Test / Class: LU.A
Total Mop/s, More Is Better
Core i7 990X
SE +/- 23.27, N = 3
11466.98
Core i7 970
SE +/- 27.47, N = 3
9827.74
Core i7 920
SE +/- 33.06, N = 3
8238.34
Core i5 2500K Fatbox Default
SE +/- 68.54, N = 3
8638.99
Core i5 2500K
SE +/- 31.43, N = 3
9338.24
Core i3 2100
SE +/- 21.33, N = 3
5207.57
2K
4K
6K
8K
10K
NAS Parallel Benchmarks 3.3
Test / Class: MG.B
Total Mop/s, More Is Better
Core i7 990X
SE +/- 4.59, N = 3
4525.79
Core i7 970
SE +/- 4.11, N = 3
4361.57
Core i7 920
SE +/- 2.51, N = 3
4560.75
Core i5 2500K Fatbox Default
SE +/- 13.32, N = 3
5137.97
Core i5 2500K
SE +/- 1.04, N = 3
5760.77
Core i3 2100
SE +/- 1.70, N = 3
4211.86
1200
2400
3600
4800
6000


NAS Parallel Benchmarks 3.3
Test / Class: UA.A
Total Mop/s, More Is Better
Core i7 990X
SE +/- 0.27, N = 3
55.75
Core i7 970
SE +/- 0.28, N = 3
49.24
Core i7 920
SE +/- 0.05, N = 3
35.66
Core i5 2500K Fatbox Default
SE +/- 0.09, N = 3
31.77
Core i5 2500K
SE +/- 0.02, N = 3
35.03
Core i3 2100
SE +/- 0.01, N = 3
21.63
13
26
39
52
65
OpenSSL 1.0.0a
RSA 4096-bit Performance
Signs Per Second, More Is Better
Core i7 990X
SE +/- 0.02, N = 4
57.73
Core i7 970
SE +/- 0.06, N = 4
53.43
Core i7 920
SE +/- 0.06, N = 4
45.68
Core i5 2500K Fatbox Default
SE +/- 0.02, N = 4
86.43
Core i5 2500K
SE +/- 0.30, N = 4
86.53
Core i3 2100
SE +/- 0.22, N = 4
73.15
20
40
60
80
100


GraphicsMagick 1.3.12
Operation: Local Adaptive Thresholding
Iterations Per Minute, More Is Better
Core i7 990X
SE +/- 0.00, N = 3
89
Core i7 970
SE +/- 0.00, N = 3
79
Core i7 920
SE +/- 0.00, N = 3
57
Core i5 2500K Fatbox Default
SE +/- 0.00, N = 3
49
Core i5 2500K
SE +/- 0.00, N = 3
49
Core i3 2100
SE +/- 0.00, N = 3
40
20
40
60
80
100
GraphicsMagick 1.3.12
Operation: Resizing
Iterations Per Minute, More Is Better
Core i7 990X
SE +/- 0.00, N = 3
143
Core i7 970
SE +/- 0.00, N = 3
128
Core i7 920
SE +/- 0.00, N = 3
103
Core i5 2500K Fatbox Default
SE +/- 0.33, N = 3
119
Core i5 2500K
SE +/- 0.00, N = 3
123
Core i3 2100
SE +/- 0.33, N = 3
96
30
60
90
120
150

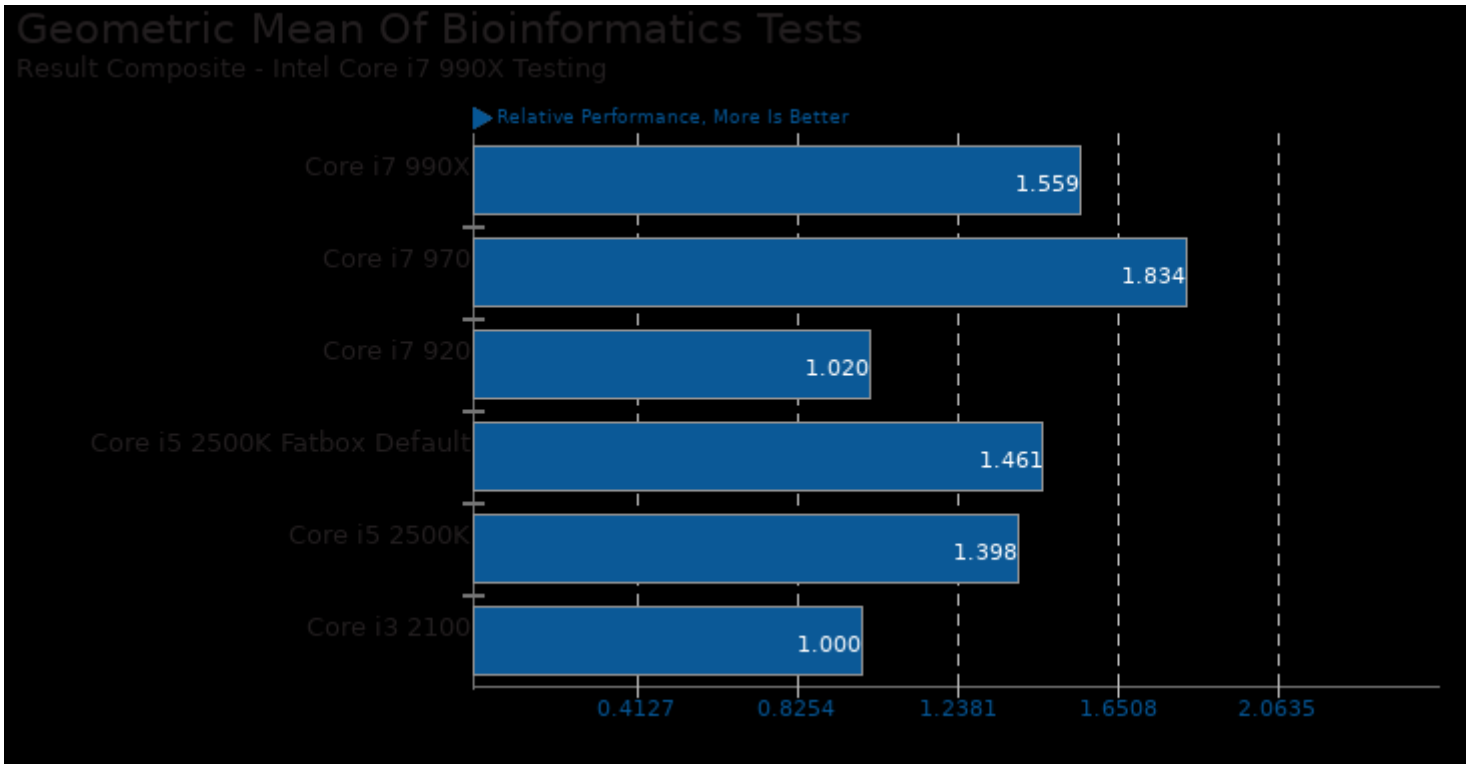
Intel Core i7 990X Testing



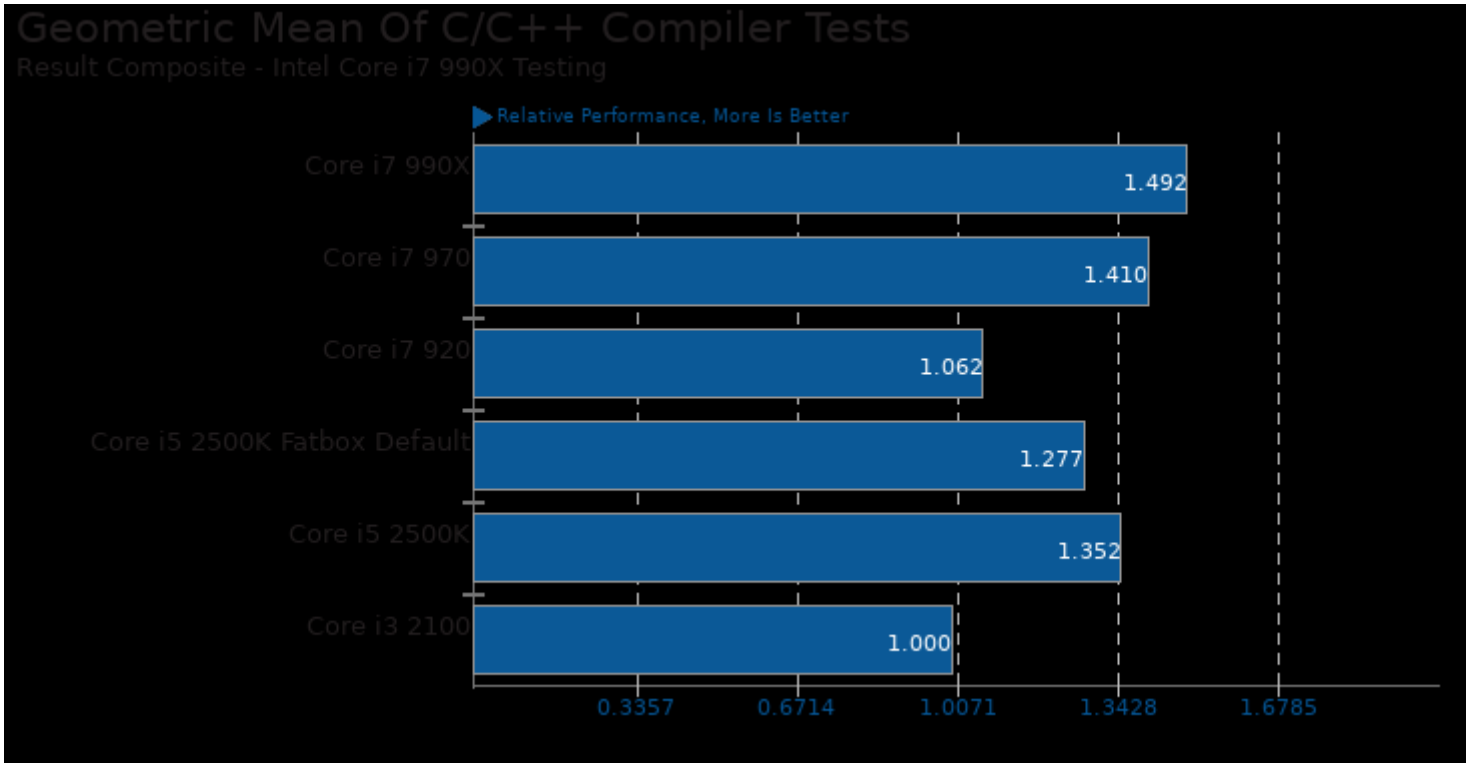

Timed Linux Kernel Compilation 2.6.25
Time To Compile
Seconds, Fewer Is Better
Core i7 990X
SE +/- 8.95, N = 6
227.78
Core i7 970
SE +/- 6.43, N = 6
258.29
Core i7 920
SE +/- 6.16, N = 6
366.38
Core i5 2500K
SE +/- 2.06, N = 3
352.71
Core i3 2100
SE +/- 10.33, N = 3
612.55
130
260
390
520
650
PostgreSQL pgbench 9.0.1
TPC-B Transactions Per Second
TPS, More Is Better
Core i7 970
SE +/- 0.68, N = 3
148.01
Core i5 2500K
SE +/- 2.90, N = 3
148.17
Core i3 2100
SE +/- 1.17, N = 3
146.54
30
60
90
120
150

Intel Core i7 990X Testing

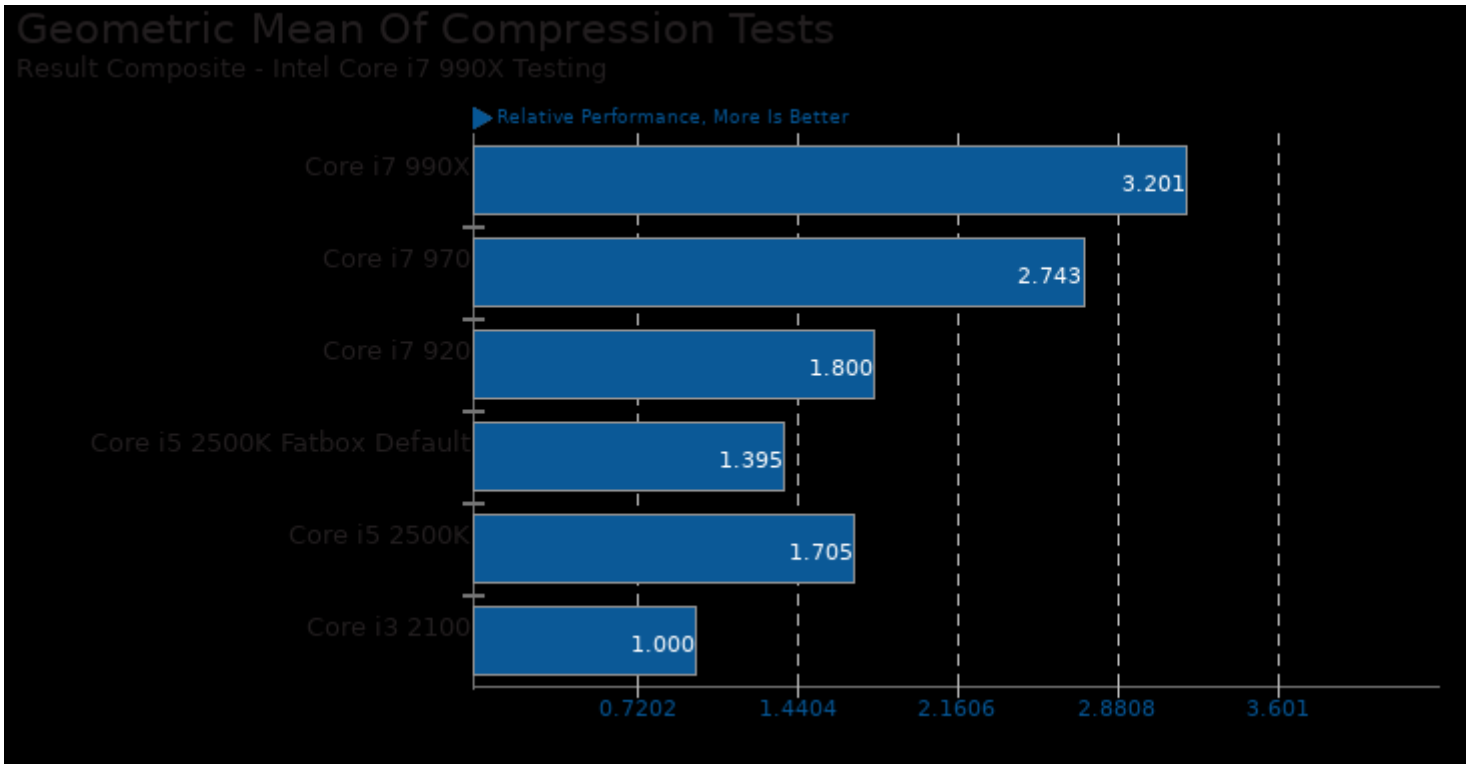
These geometric means are based upon test groupings / test suites for this result file.



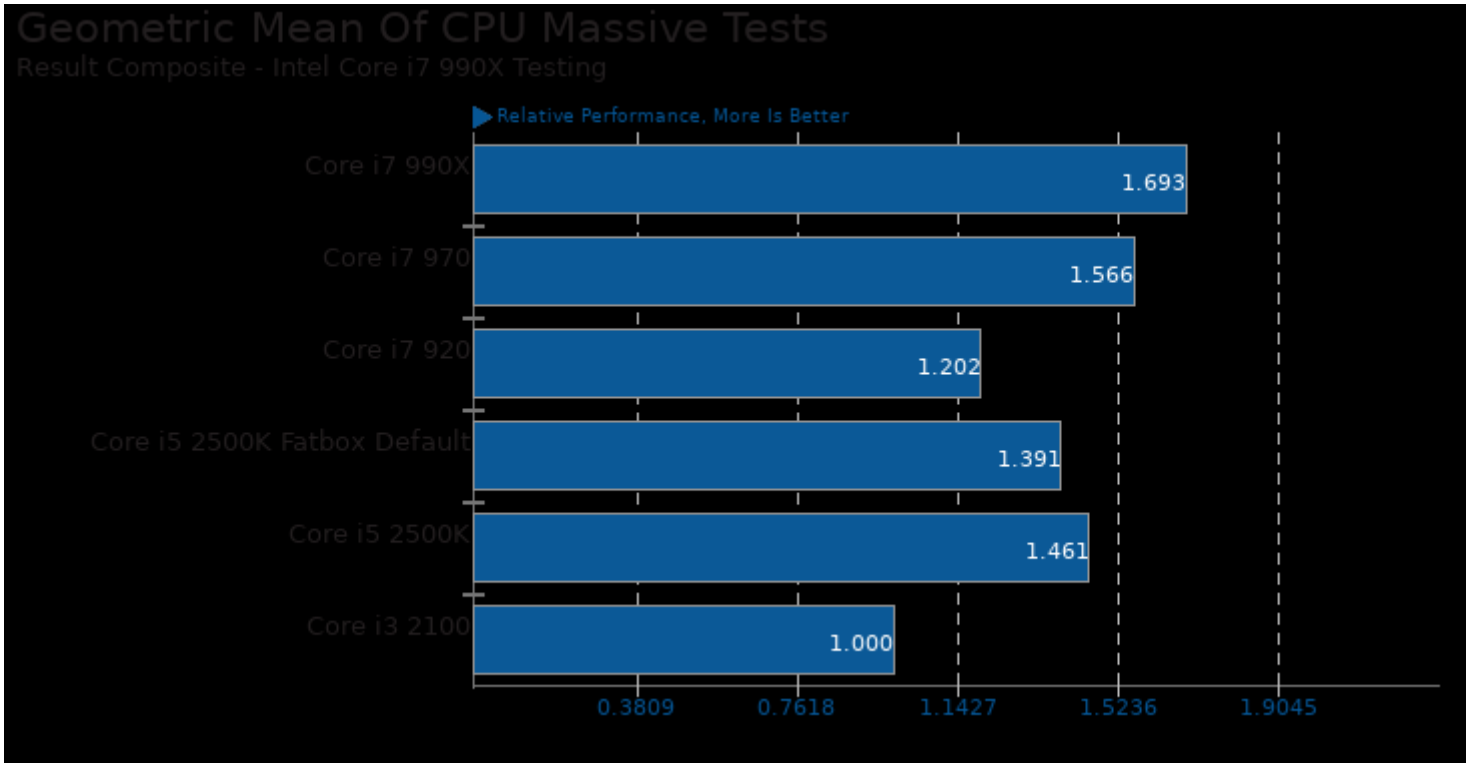
Geometric mean based upon tests: pts/himeno and pts/hmmer



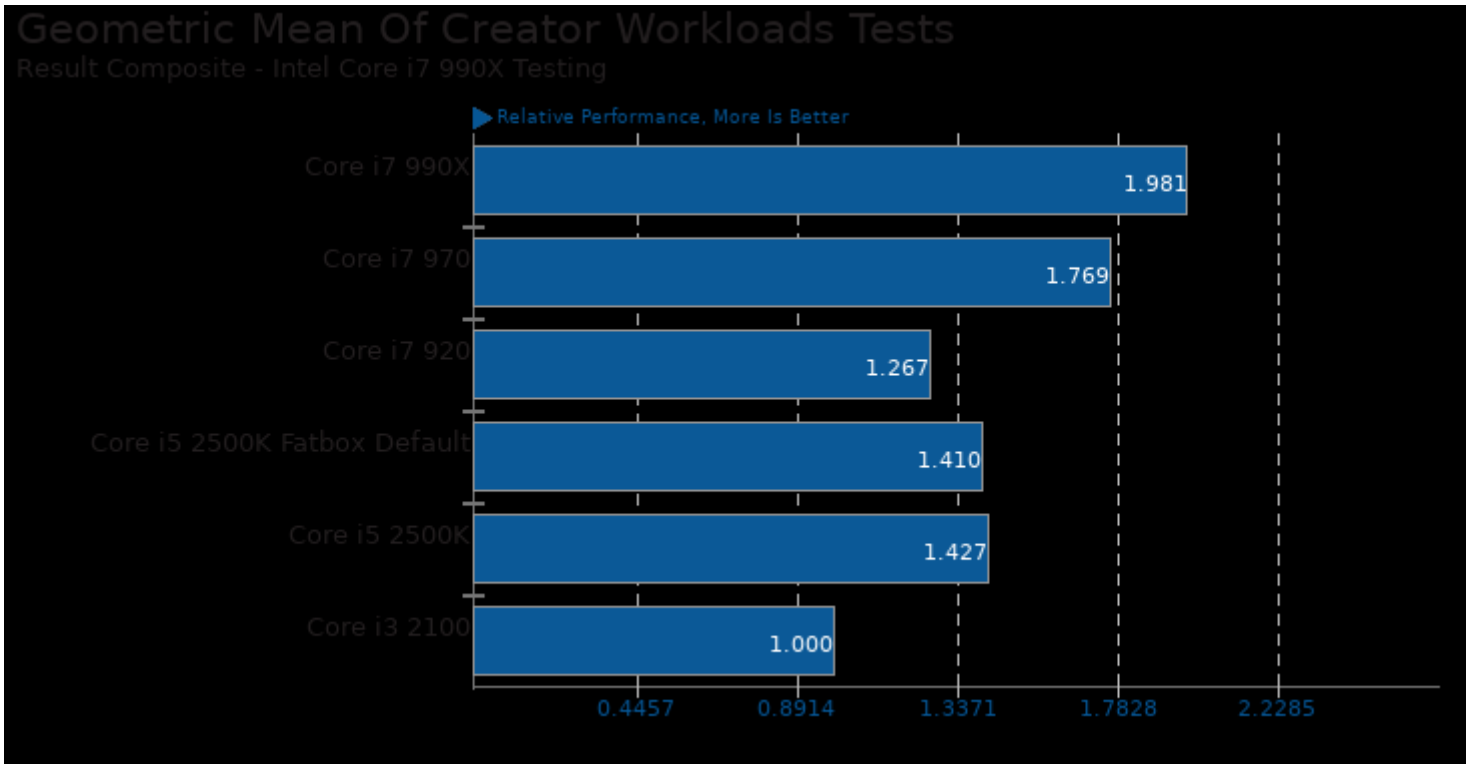
Geometric mean based upon tests: pts/graphics-magick, pts/himeno, pts/hmmer, pts/c-ray, pts/bullet, pts/compress-7zip, pts/encode-mp3, pts/pgbench, pts/x264, pts/openssl and pts/build-apache



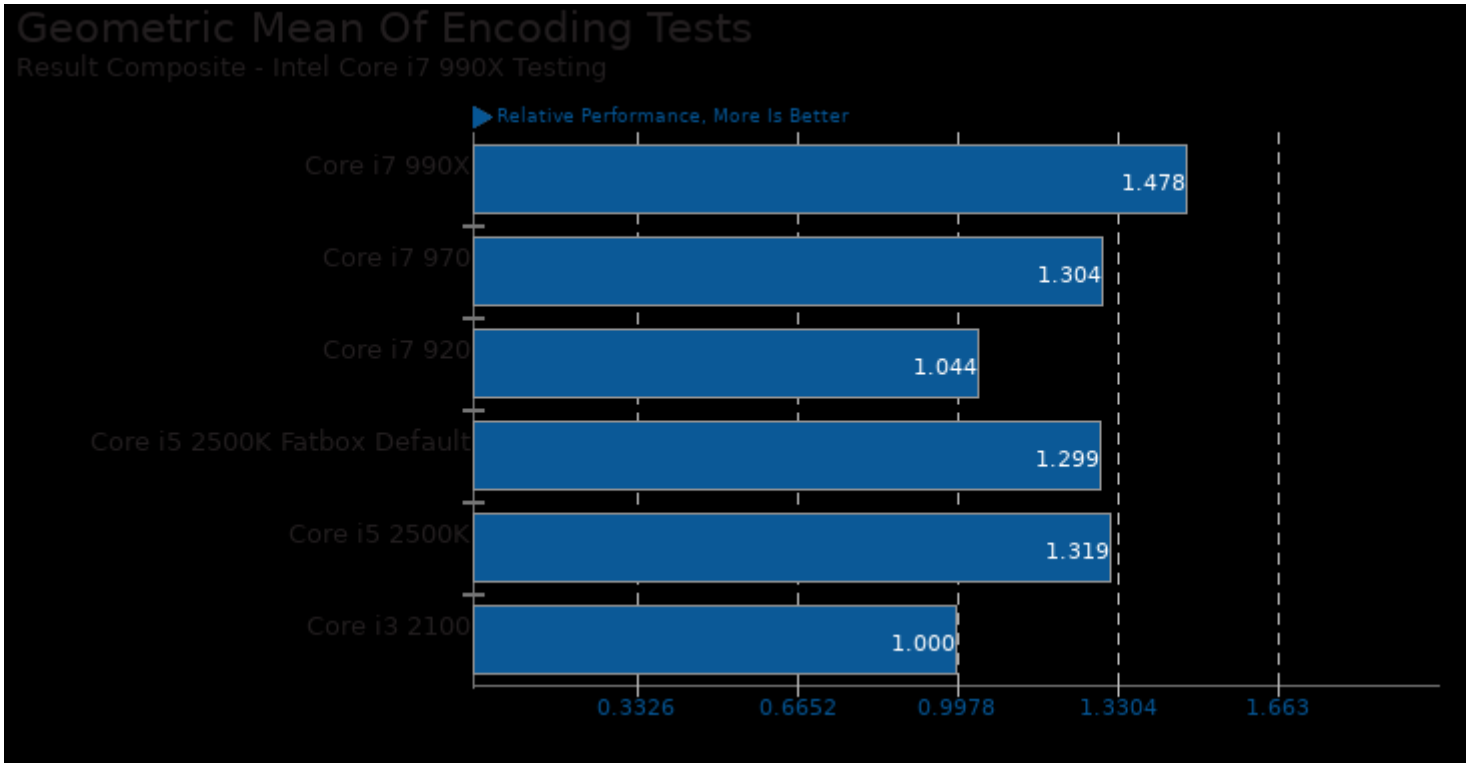
Geometric mean based upon tests: pts/compress-7zip and pts/compress-pbzip2



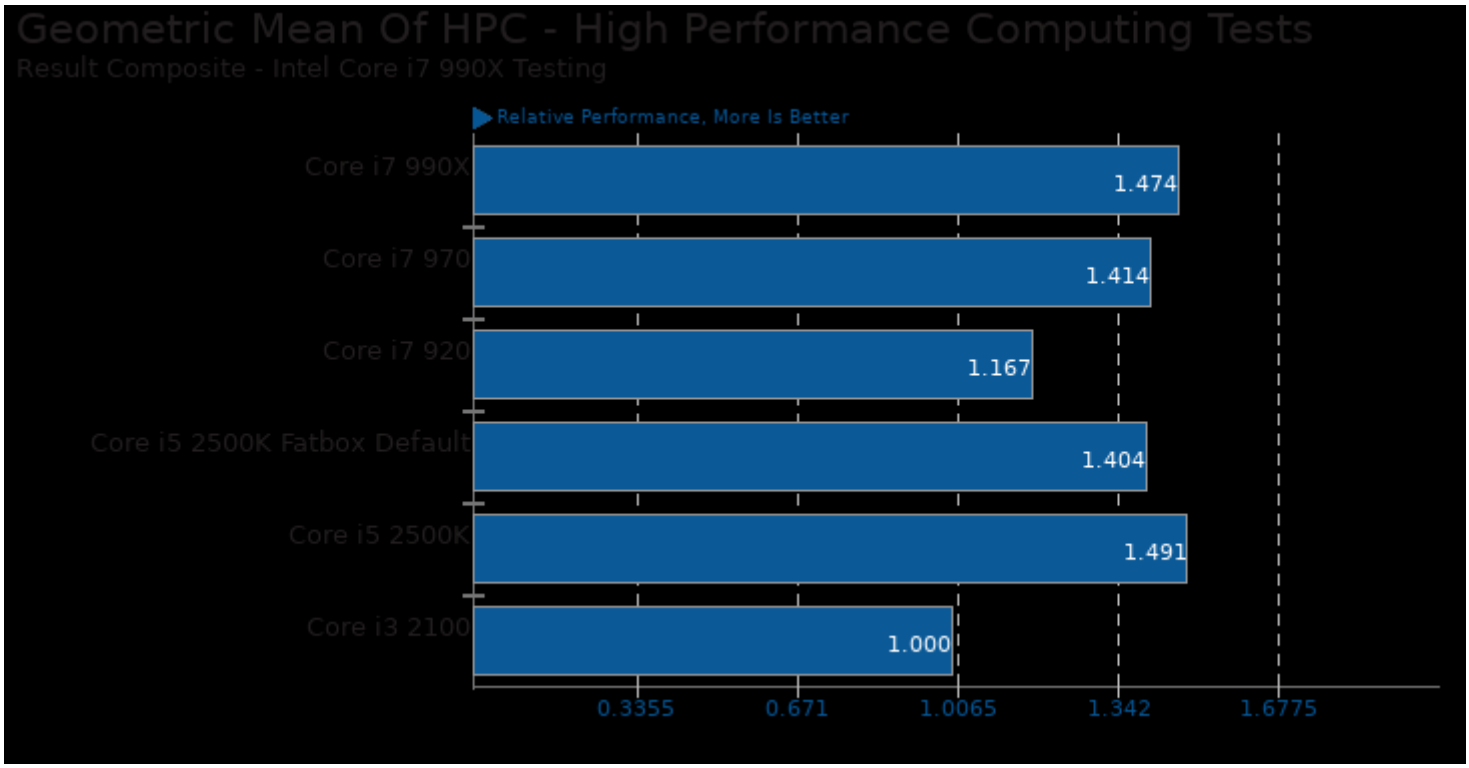
Geometric mean based upon tests: pts/build-apache, pts/build-linux-kernel, pts/c-ray, pts/compress-7zip, pts/compress-pbzip2, pts/x264, pts/encode-mp3, pts/graphics-magick, pts/himeno, pts/hmmer, pts/openssl, pts/minion, pts/npb, pts/pgbench, pts/povray and pts/ttsiod-renderer



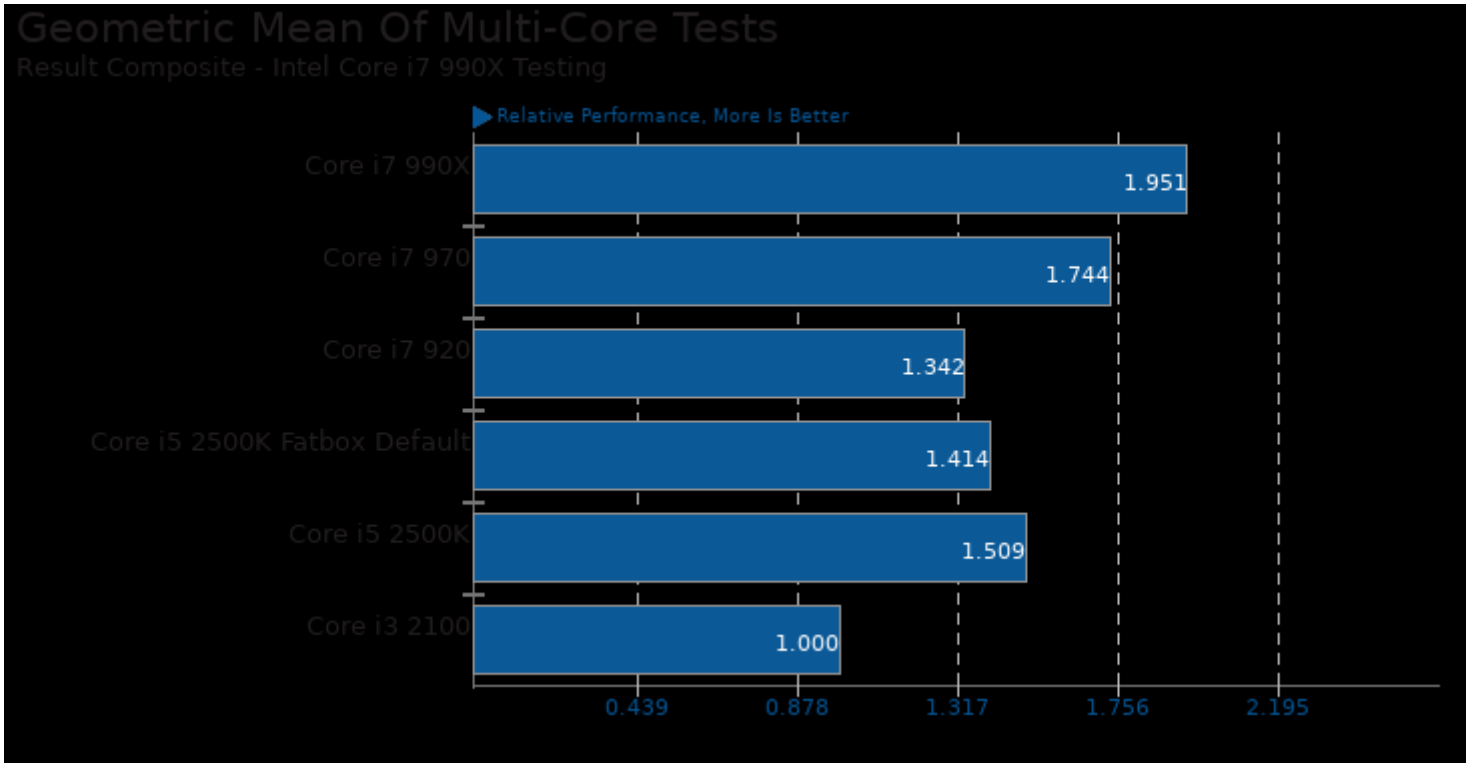
Geometric mean based upon tests: pts/c-ray, pts/povray, pts/smallpt, pts/ttsiod-renderer, pts/x264, pts/ffmpeg, pts/encode-mp3 and pts/graphics-magick



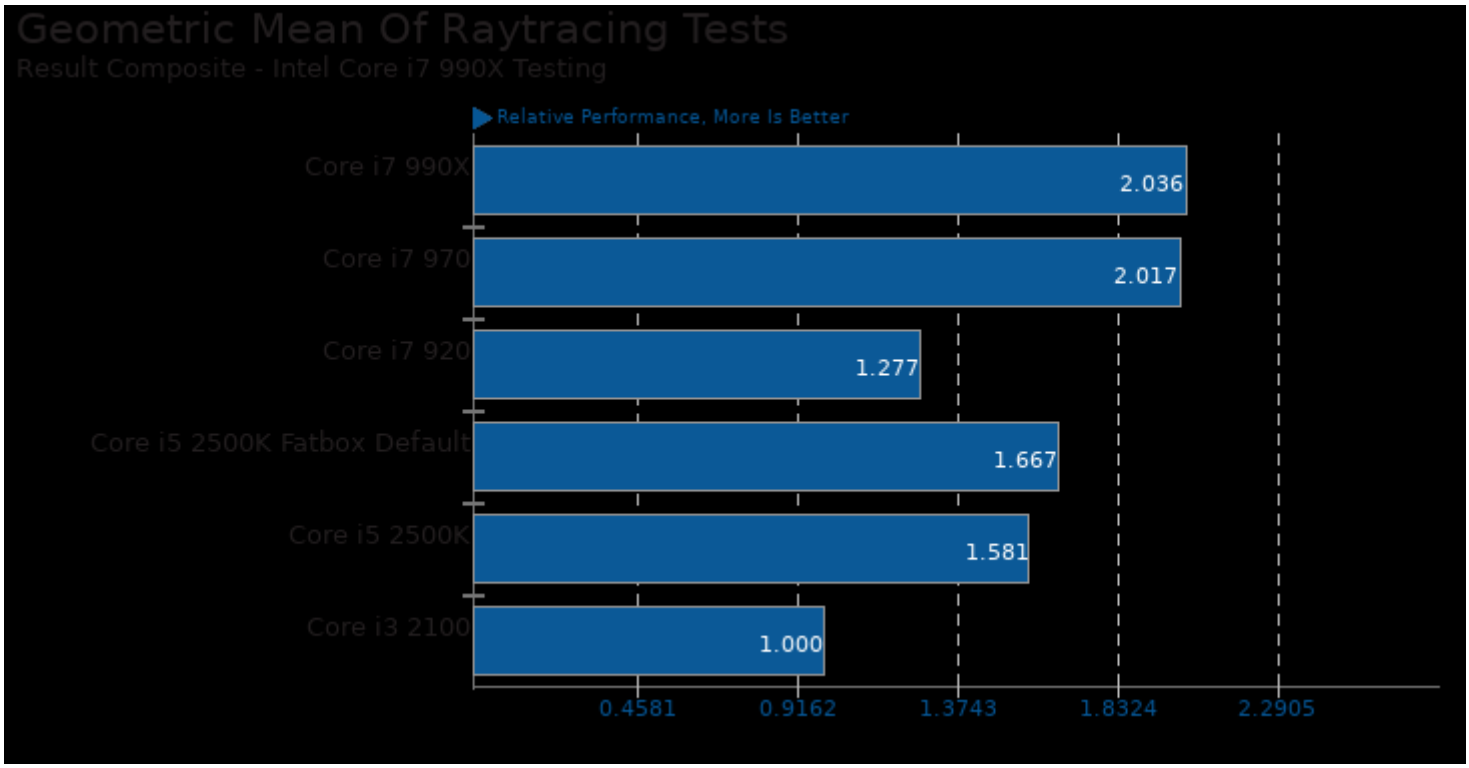
Geometric mean based upon tests: pts/encode-mp3, pts/x264 and pts/ffmpeg



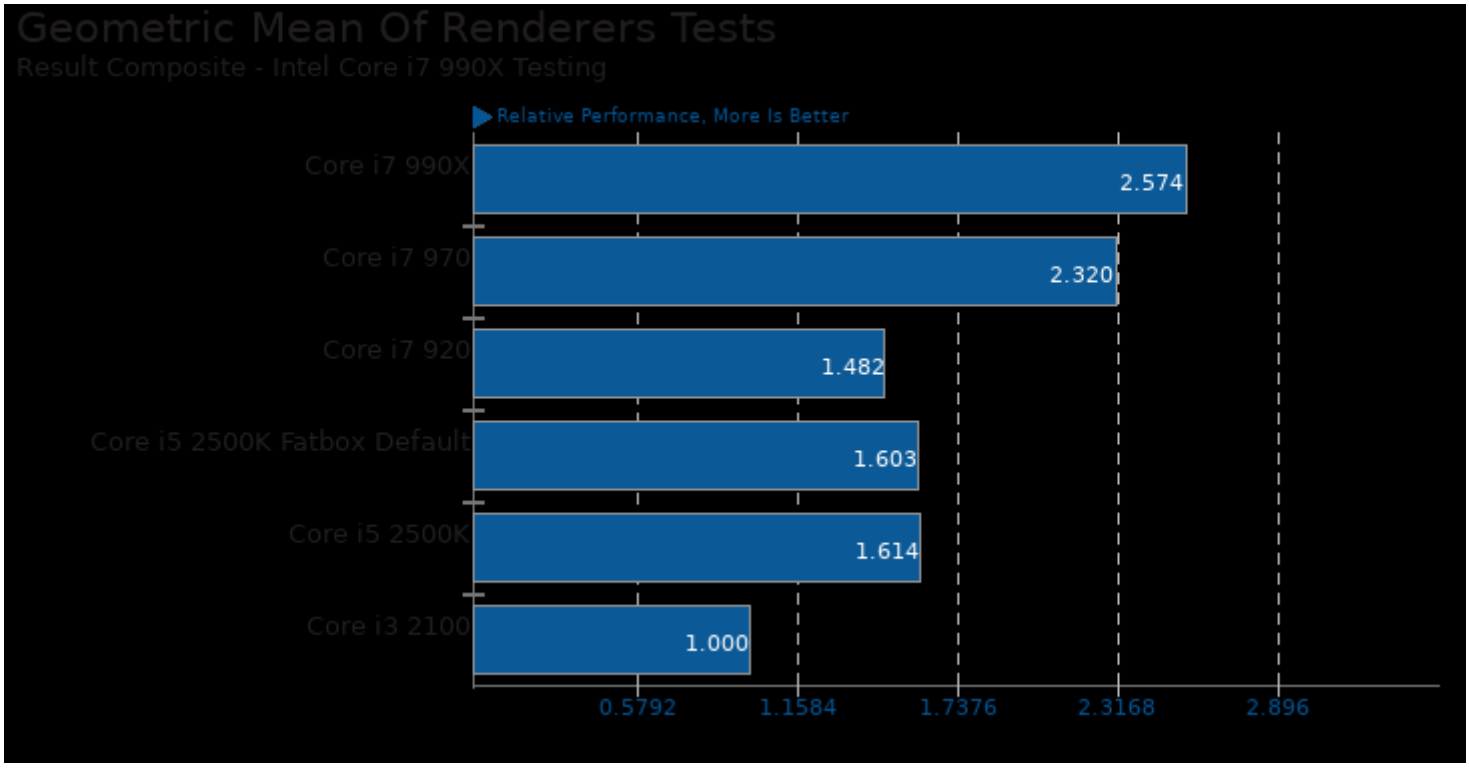
Geometric mean based upon tests: pts/npb, pts/himeno and pts/hmmer



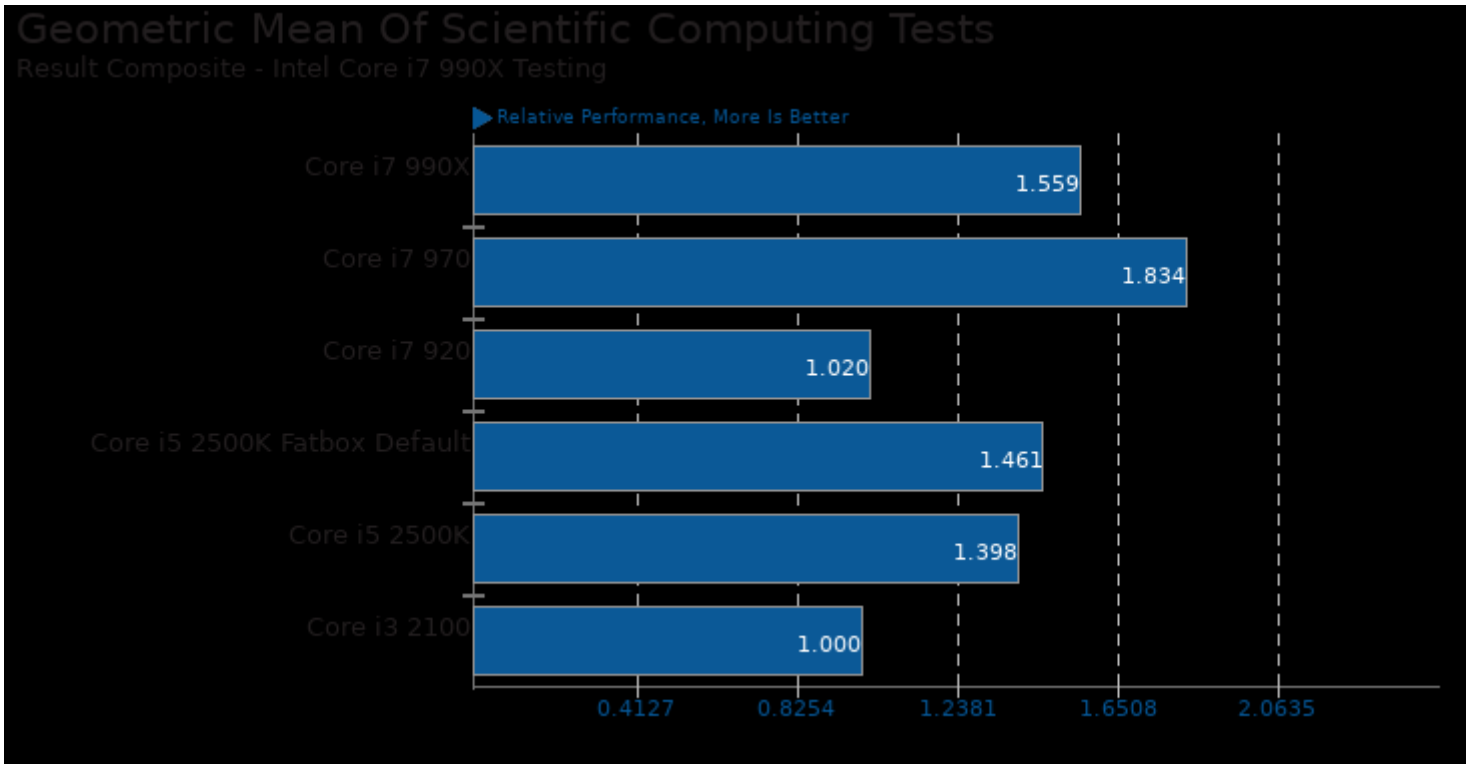
Geometric mean based upon tests: pts/c-ray, pts/povray, pts/x264, pts/ffmpeg, pts/npb, pts/smallpt, pts/graphics-magick, pts/compress-7zip, pts/compress-pbzip2, pts/build-apache, pts/build-linux-kernel, pts/ttsiod-renderer and pts/pgbench



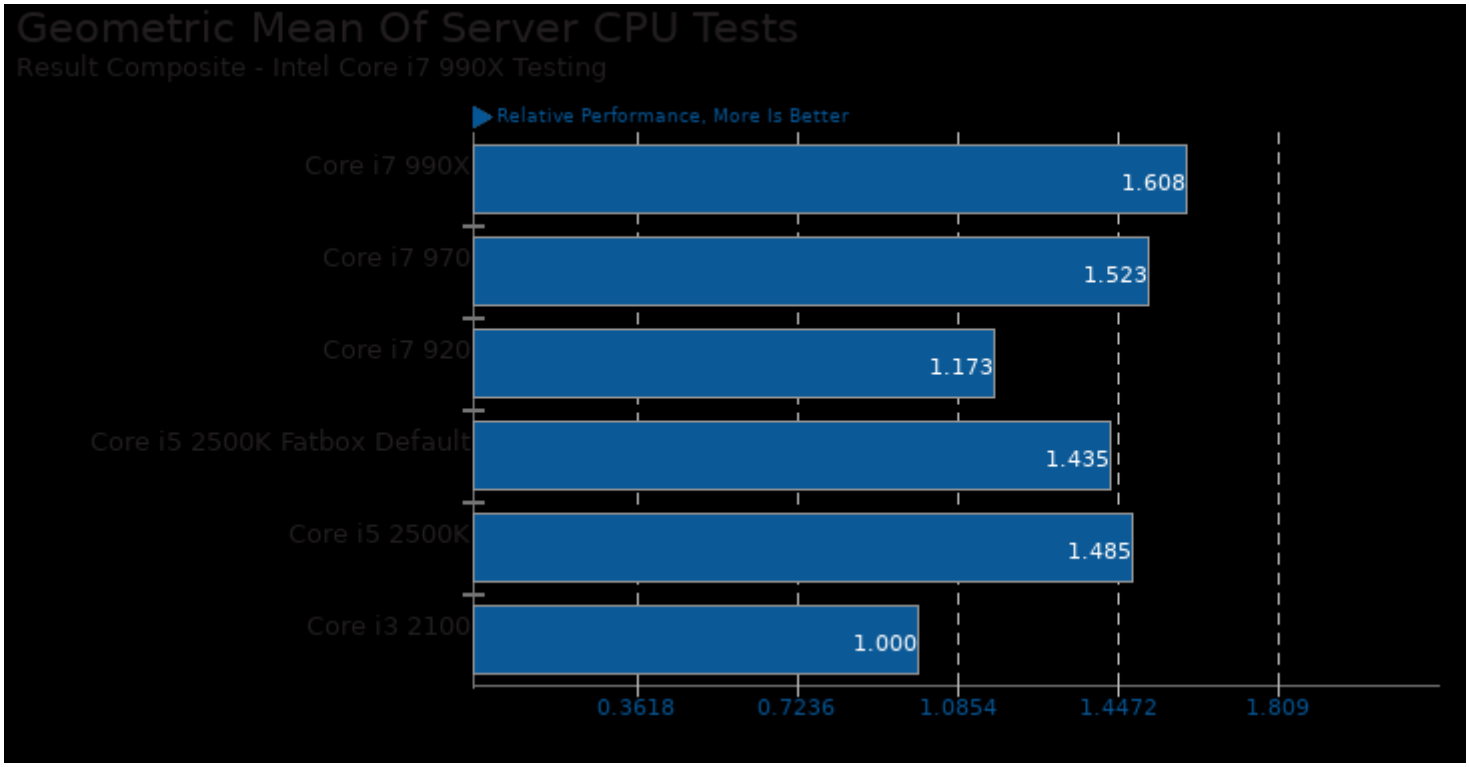
Geometric mean based upon tests: pts/c-ray and pts/povray



Geometric mean based upon tests: pts/c-ray, pts/povray, pts/smallpt and pts/ttsiod-renderer

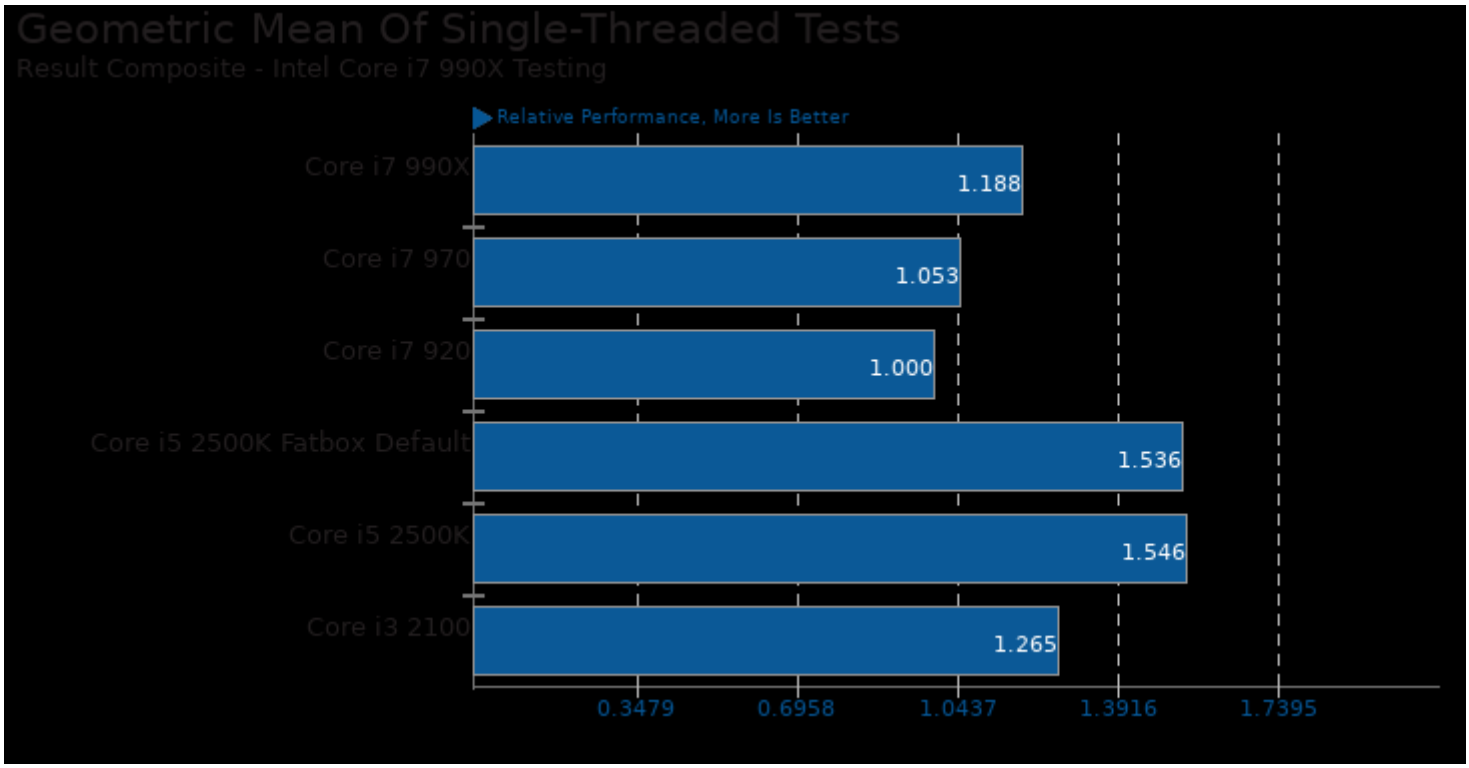


Geometric mean based upon tests: pts/himeno and pts/hmmer

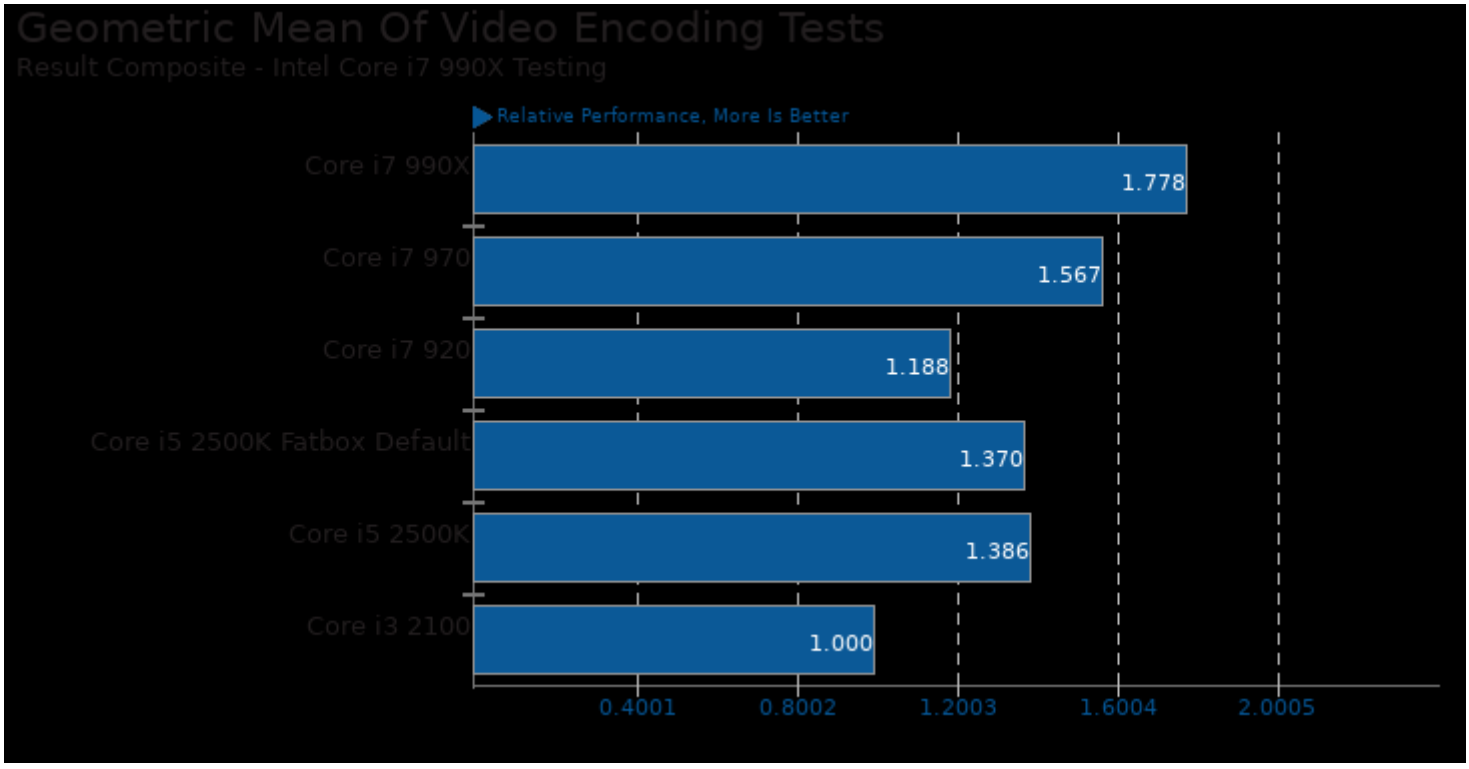


Geometric mean based upon tests: pts/npb, pts/x264, pts/himeno, pts/compress-7zip, pts/build-linux-kernel, pts/c-ray, pts/povray and pts/openssl

Intel Core i7 990X Testing



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



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

This file was automatically generated via the Phoronix Test Suite benchmarking software on Friday, 29 March 2024 03:01.