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1280v5 sdr

Intel Xeon E3-1280 v5 testing with a MSI Z170A SLI PLUS (MS-7998) v1.0 (2.A0 BIOS) and ASUS AMD Radeon HD 7850 / R7 265 R9 270 1024SP on Ubuntu 20.04 via the Phoronix Test Suite.

Automated Executive Summary

3 had the most wins, coming in first place for 40% of the tests.

Based on the geometric mean of all complete results, the fastest (2) was 1.004x the speed of the slowest (1). 3 was 0.999x the speed of 2 and 1 was 0.997x the speed of 3.

Test Systems:

1

2

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3

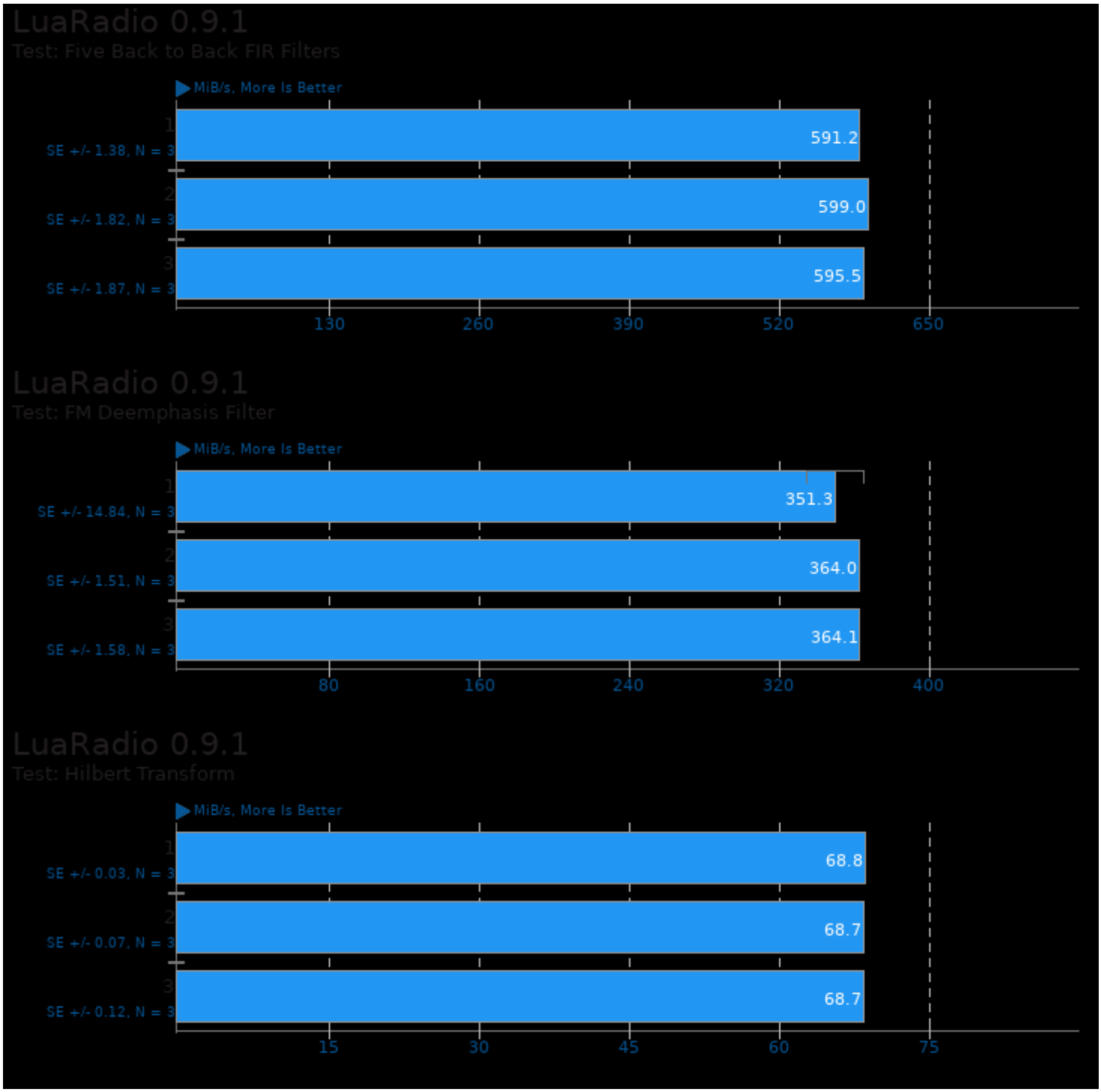
Processor: Intel Xeon E3-1280 v5 @ 4.00GHz (4 Cores / 8 Threads), Motherboard: MSI Z170A SLI PLUS (MS-7998) v1.0 (2.A0 BIOS), Chipset: Intel Xeon E3-1200 v5/E3-1500, Memory: 32GB, Disk: 256GB TOSHIBA RD400, Graphics: ASUS AMD Radeon HD 7850 / R7 265 R9 270 1024SP, Audio: Realtek ALC1150, Monitor: VA2431, Network: Intel I219-V

OS: Ubuntu 20.04, Kernel: 5.9.0-050900rc2daily20200826-generic (x86_64) 20200825, Desktop: GNOME Shell 3.36.4, Display Server: X Server 1.20.9, OpenGL: 4.5 Mesa 20.0.8 (LLVM 10.0.0), Compiler: GCC 9.3.0, File-System: ext4, Screen Resolution: 1920x1080

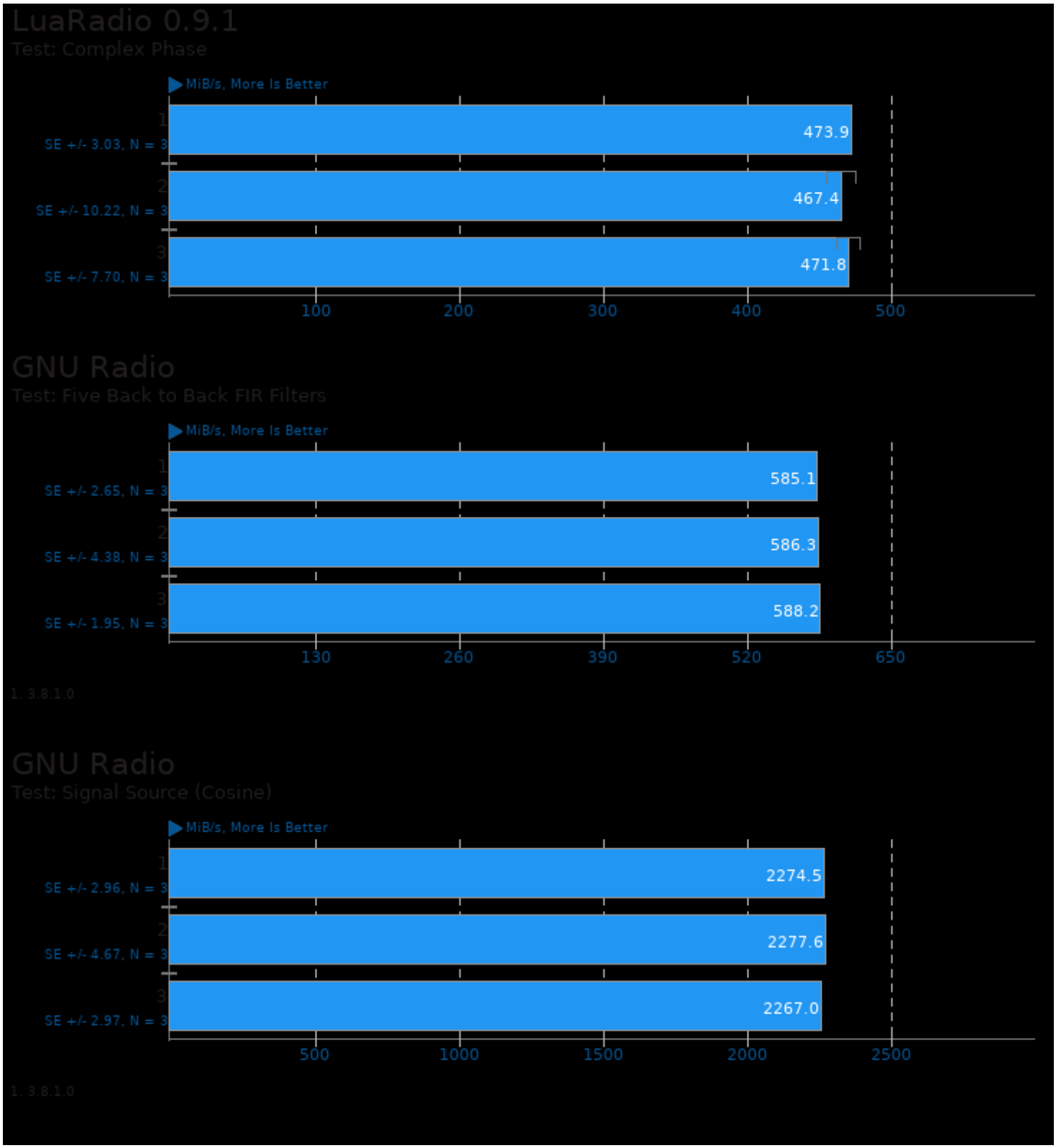
Kernel Notes: Transparent Huge Pages: madvise
Processor Notes: Scaling Governor: intel_pstate powersave - CPU Microcode: 0xe2 - Thermald 1.9.1
Python Notes: Python 3.8.5
Security Notes: itlb_multihit: KVM: Mitigation of VMX disabled + l1tf: Mitigation of PTE Inversion; VMX: conditional cache flushes SMT vulnerable + mds: Mitigation of Clear buffers; SMT vulnerable + meltdown: Mitigation of PTI + 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 generic retpoline IBPB: conditional IBRS_FW STIBP: conditional RSB filling + srbds: Mitigation of Microcode + tsx_async_abort: Mitigation of Clear buffers; SMT vulnerable

	1	2	3
LuaRadio - F.B.t.B.F.F (MiB/s)	**591.2**	**599.0**	595.5
Normalized	98.7%	100%	99.42%
Standard Deviation	0.4%	0.5%	0.5%
LuaRadio - F.D.F (MiB/s)	**351.3**	364.0	**364.1**
Normalized	96.48%	99.97%	100%
Standard Deviation	7.3%	0.7%	0.7%
LuaRadio - Hilbert Transform (MiB/s)	**68.8**	**68.7**	**68.7**
Normalized	100%	99.85%	99.85%
Standard Deviation	0.1%	0.2%	0.3%
LuaRadio - Complex Phase (MiB/s)	**473.9**	**467.4**	471.8
Normalized	100%	98.63%	99.56%
Standard Deviation	1.1%	3.8%	2.8%
GNU Radio - F.B.t.B.F.F (MiB/s)	**585.1**	586.3	**588.2**
Normalized	99.47%	99.68%	100%
Standard Deviation	0.8%	1.3%	0.6%
GNU Radio - S.S.C (MiB/s)	2275	**2278**	**2267**
Normalized	99.86%	100%	99.53%
Standard Deviation	0.2%	0.4%	0.2%
GNU Radio - FIR Filter (MiB/s)	**590.4**	**593.4**	590.5
Normalized	99.49%	100%	99.51%
Standard Deviation	1.2%	0.9%	0.5%
GNU Radio - IIR Filter (MiB/s)	**439.3**	436.6	**430.7**
Normalized	100%	99.39%	98.04%
Standard Deviation	1%	0.1%	0.5%
GNU Radio - F.D.F (MiB/s)	613.4	**613.3**	**614.4**
Normalized	99.84%	99.82%	100%
Standard Deviation	1.3%	1.7%	0.8%
GNU Radio - Hilbert Transform (MiB/s)	**432.5**	435.5	**436.4**
Normalized	99.11%	99.79%	100%
Standard Deviation	2.9%	1%	0.8%

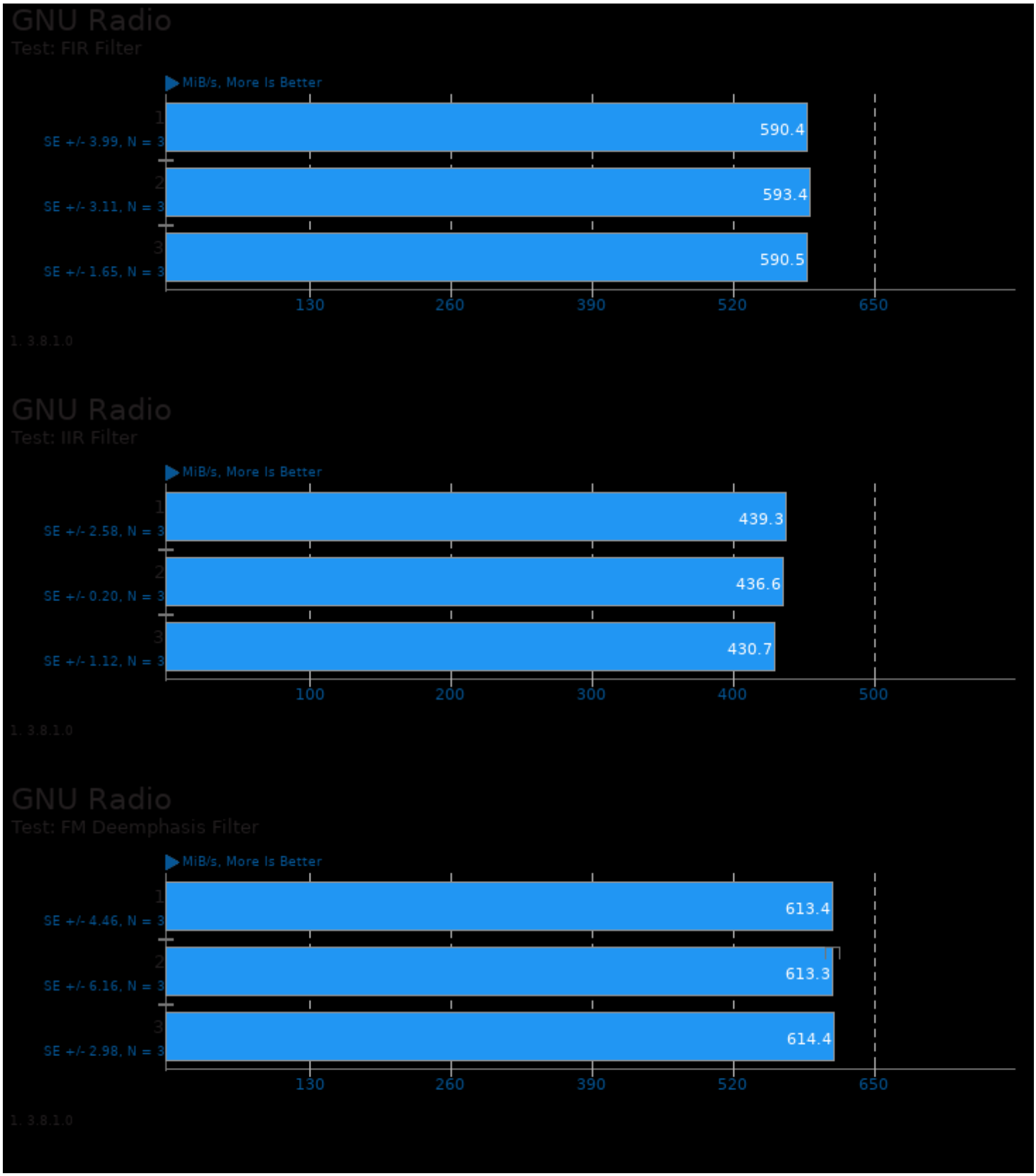
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LuaRadio 0.9.1
Test: Five Back to Back FIR Filters
MiB/s, More Is Better
1
SE +/- 1.38, N = 3
591.2
2
SE +/- 1.82, N = 3
599.0
3
SE +/- 1.87, N = 3
595.5
130
260
390
520
650
LuaRadio 0.9.1
Test: FM Deemphasis Filter
MiB/s, More Is Better
1
SE +/- 14.84, N = 3
351.3
2
SE +/- 1.51, N = 3
364.0
3
SE +/- 1.58, N = 3
364.1
80
160
240
320
400
LuaRadio 0.9.1
Test: Hilbert Transform
MiB/s, More Is Better
1
SE +/- 0.03, N = 3
68.8
2
SE +/- 0.07, N = 3
68.7
3
SE +/- 0.12, N = 3
68.7
15
30
45
60
75

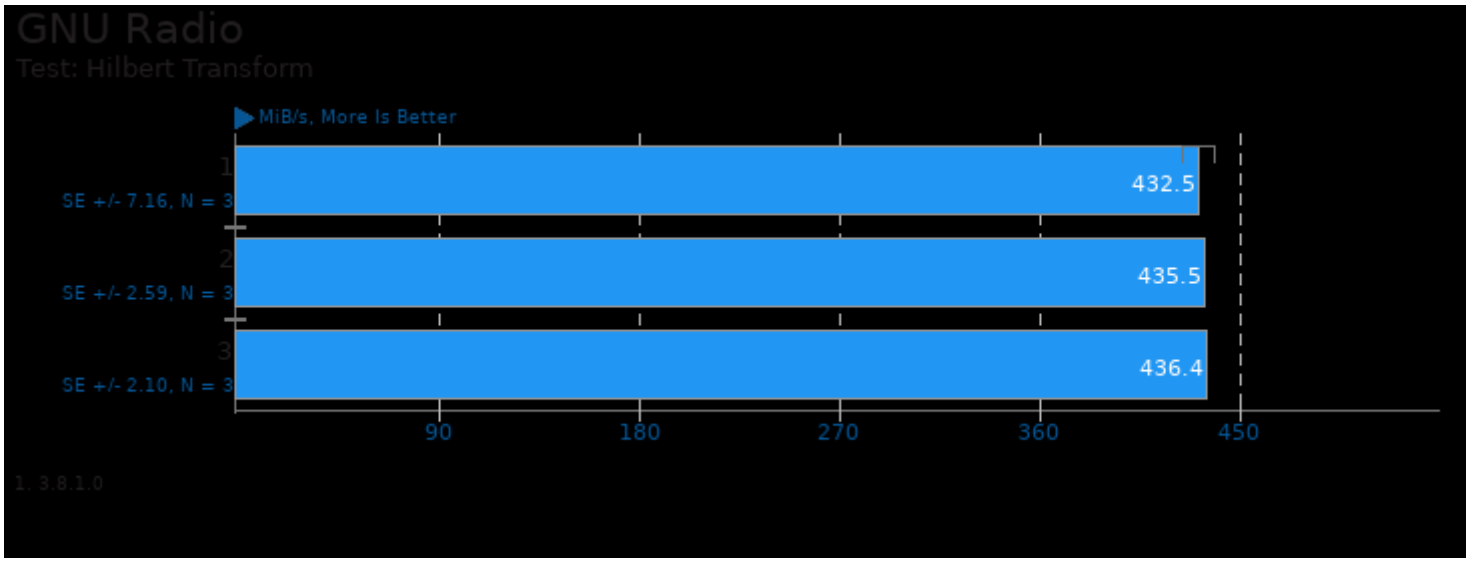
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LuaRadio 0.9.1
Test: Complex Phase
MiB/s, More Is Better
1
SE +/- 3.03, N = 3
473.9
2
SE +/- 10.22, N = 3
467.4
3
SE +/- 7.70, N = 3
471.8
100
200
300
400
500
GNU Radio
Test: Five Back to Back FIR Filters
MiB/s, More Is Better
1
SE +/- 2.65, N = 3
585.1
2
SE +/- 4.38, N = 3
586.3
3
SE +/- 1.95, N = 3
588.2
130
260
390
520
650
1. 3.8.1.0
GNU Radio
Test: Signal Source (Cosine)
MiB/s, More Is Better
1
SE +/- 2.96, N = 3
2274.5
2
SE +/- 4.67, N = 3
2277.6
3
SE +/- 2.97, N = 3
2267.0
500
1000
1500
2000
2500
1. 3.8.1.0

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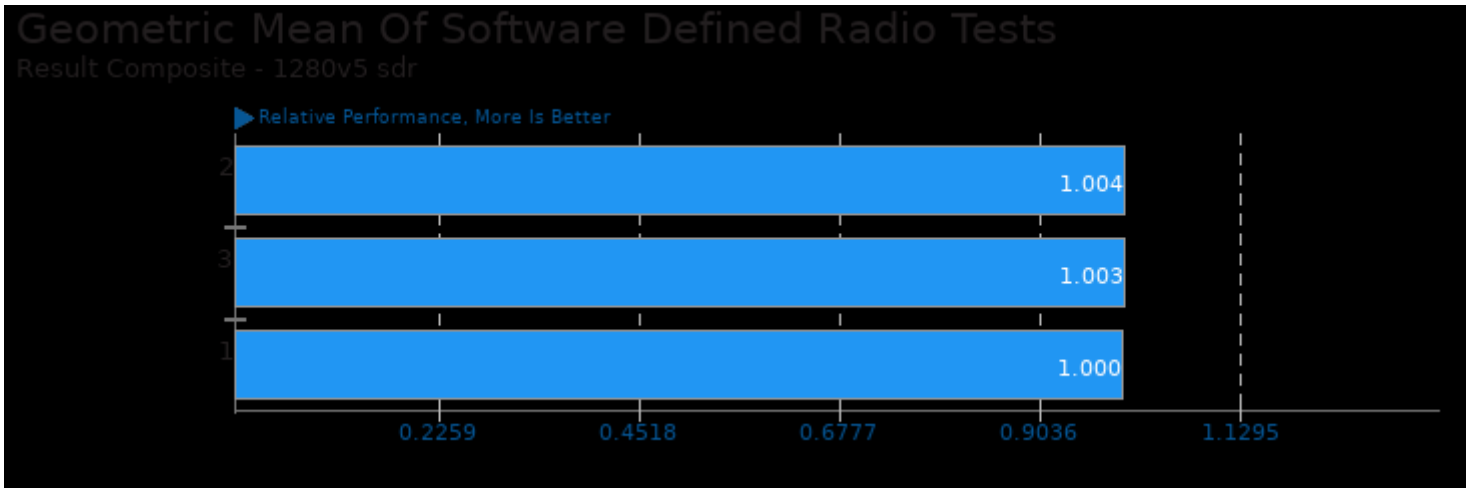

GNU Radio
Test: FIR Filter
MiB/s, More Is Better
1
SE +/- 3.99, N = 3
590.4
2
SE +/- 3.11, N = 3
593.4
3
SE +/- 1.65, N = 3
590.5
130
260
390
520
650
1. 3.8.1.0
GNU Radio
Test: IIR Filter
MiB/s, More Is Better
1
SE +/- 2.58, N = 3
439.3
2
SE +/- 0.20, N = 3
436.6
3
SE +/- 1.12, N = 3
430.7
100
200
300
400
500
1. 3.8.1.0
GNU Radio
Test: FM Deemphasis Filter
MiB/s, More Is Better
1
SE +/- 4.46, N = 3
613.4
2
SE +/- 6.16, N = 3
613.3
3
SE +/- 2.98, N = 3
614.4
130
260
390
520
650
1. 3.8.1.0

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GNU Radio
Test: Hilbert Transform
MiB/s, More Is Better
1
SE +/- 7.16, N = 3
432.5
2
SE +/- 2.59, N = 3
435.5
3
SE +/- 2.10, N = 3
436.4
90
180
270
360
450
1. 3.8.1.0

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



Geometric mean based upon tests: pts/luaradio and system/gnuradio

This file was automatically generated via the Phoronix Test Suite benchmarking software on Thursday, 28 March 2024 11:30.