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AMD Ryzen 9 5900X 12-Core testing with a Gigabyte X570 AORUS MASTER (F33j BIOS) and AMD Radeon Pro W5500 8GB on Red Hat Enterprise Linux 8.4 via the Phoronix Test Suite.

Test Systems:

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Processor: AMD Ryzen 9 5900X 12-Core @ 3.70GHz (12 Cores / 24 Threads), Motherboard: Gigabyte X570 AORUS MASTER (F33j BIOS), Chipset: AMD Starship/Matisse, Memory: 32GB, Disk: 1000GB Samsung SSD 980 PRO 1TB + 500GB Seagate ST500LM000-1EJ16 + 32GB USB Flash Drive, Graphics: AMD Radeon Pro W5500 8GB (1900/875MHz), Audio: AMD Navi 10 HDMI Audio, Monitor: PHL 345B1C, Network: Intel I211 + Realtek RTL8125 2.5GbE + Intel Wi-Fi 6 AX200

OS: Red Hat Enterprise Linux 8.3, Kernel: 4.18.0-240.22.1.el8_3.x86_64 (x86_64), Desktop: GNOME Shell 3.32.2, Display Server: X Server + Wayland, OpenGL: 4.6 Mesa 20.1.4 (LLVM 10.0.1), Compiler: GCC 8.3.1 20191121, File-System: ext4, Screen Resolution: 3440x1440

Kernel Notes: Transparent Huge Pages: always
Compiler Notes: --build=x86_64-redhat-linux --disable-libmpx --disable-libunwind-exceptions --enable-__cxa_atexit --enable-bootstrap --enable-cet --enable-checking=release --enable-gnu-indirect-function --enable-gnu-unique-object --enable-initfini-array --enable-languages=c,c++,fortran,lto --enable-multilib --enable-offload-targets=nvptx-none --enable-plugin --enable-shared --enable-threads=posix --mandir=/usr/share/man --with-arch_32=x86-64 --with-gcc-major-version-only --with-isl --with-linker-hash-style=gnu --with-tune=generic --without-cuda-driver
Processor Notes: Scaling Governor: acpi-cpufreq performance (Boost: Enabled) - CPU Microcode: 0xa201009
Security Notes: SELinux + 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 IBRS_FW STIBP: always-on RSB filling + srbds: Not affected + tsx_async_abort: Not affected

AMD Ryzen 9 5900X 12-Core

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Processor: AMD Ryzen 9 5900X 12-Core @ 3.70GHz (12 Cores / 24 Threads), Motherboard: Gigabyte X570 AORUS MASTER (F33j BIOS), Chipset: AMD Starship/Matisse, Memory: 32GB, Disk: 1000GB Samsung SSD 980 PRO 1TB + 500GB Seagate ST500LM000-1EJ16, Graphics: AMD Radeon Pro W5500 8GB (1900/875MHz), Audio: AMD Navi 10 HDMI Audio, Monitor: PHL 345B1C + SyncMaster, Network: Intel I211 + Realtek RTL8125 2.5GbE + Intel Wi-Fi 6 AX200

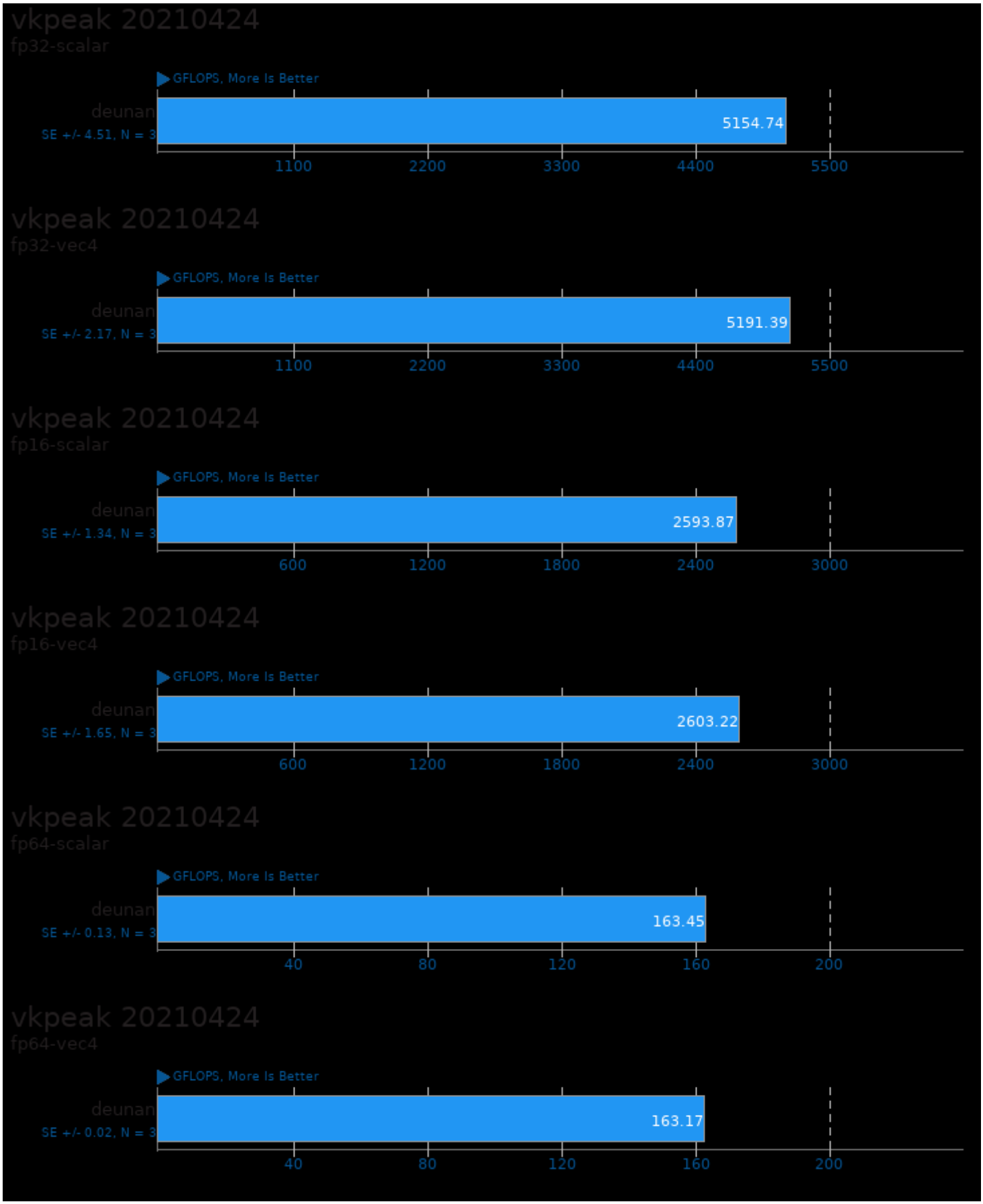
OS: Red Hat Enterprise Linux 8.4, Kernel: 5.4.121-1.el8.elrepo.x86_64 (x86_64), Desktop: GNOME Shell 3.32.2, Display Server: X Server + Wayland, OpenGL: 4.6.14756, Vulkan: 1.2.145, Compiler: GCC 8.4.1 20200928, File-System: ext4, Screen Resolution: 5120x1440

Kernel Notes: Transparent Huge Pages: always
Disk Notes: NONE / relatime,rw / Block Size: 4096
Processor Notes: Scaling Governor: acpi-cpufreq performance (Boost: Enabled) - CPU Microcode: 0xa201009
Python Notes: Python 3.6.8
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 IBRS_FW STIBP: always-on RSB filling + srbds: Not affected + tsx_async_abort: Not affected

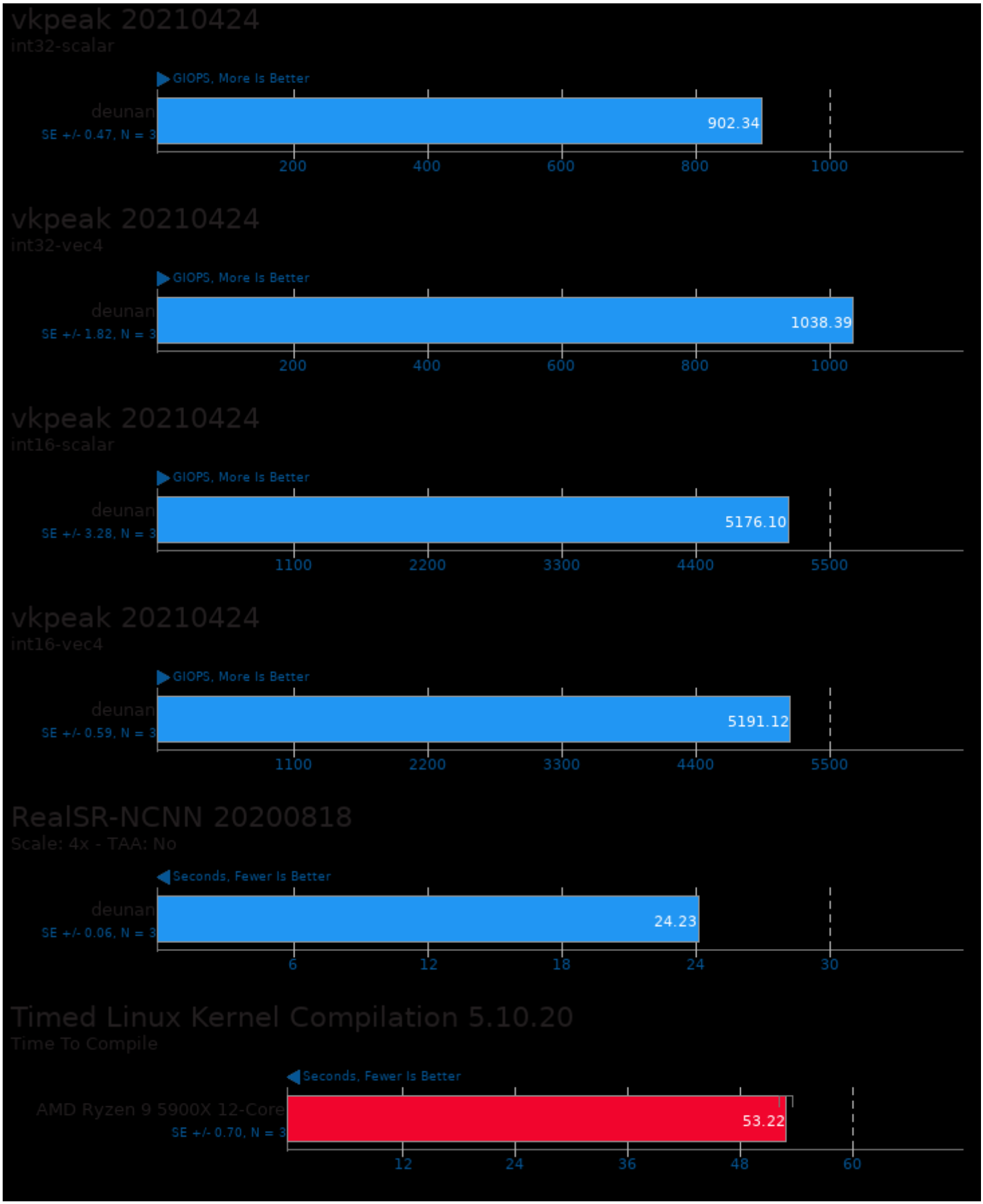
	deunan	AMD Ryzen 9 5900X 12-Core	deunan 20210527 1042
vkpeak - fp32-scalar (GFLOPS)	5155		
Standard Deviation	0.2%		
vkpeak - fp32-vec4 (GFLOPS)	5191		
Standard Deviation	0.1%		
vkpeak - fp16-scalar (GFLOPS)	2594		
Standard Deviation	0.1%		
vkpeak - fp16-vec4 (GFLOPS)	2603		
Standard Deviation	0.1%		
vkpeak - fp64-scalar (GFLOPS)	163.45		
Standard Deviation	0.1%		
vkpeak - fp64-vec4 (GFLOPS)	163.17		
Standard Deviation	0%		
vkpeak - int32-scalar (GIOPS)	902.34		
Standard Deviation	0.1%		
vkpeak - int32-vec4 (GIOPS)	1038		
Standard Deviation	0.3%		
vkpeak - int16-scalar (GIOPS)	5176		
Standard Deviation	0.1%		
vkpeak - int16-vec4 (GIOPS)	5191		

Standard Deviation	0%		
RealSR-NCNN - 4x - No (sec)	24.228		
Standard Deviation	0.4%		
Timed Linux Kernel Compilation - Time To Compile (sec)		53.216	
Standard Deviation		2.3%	
Compile Bench - Compile (MB/s)			3274
Standard Deviation			0.8%
Compile Bench - Initial Create (MB/s)			795.96
Standard Deviation			0.9%
Compile Bench - Read Compiled Tree (MB/s)			4549
Standard Deviation			1%

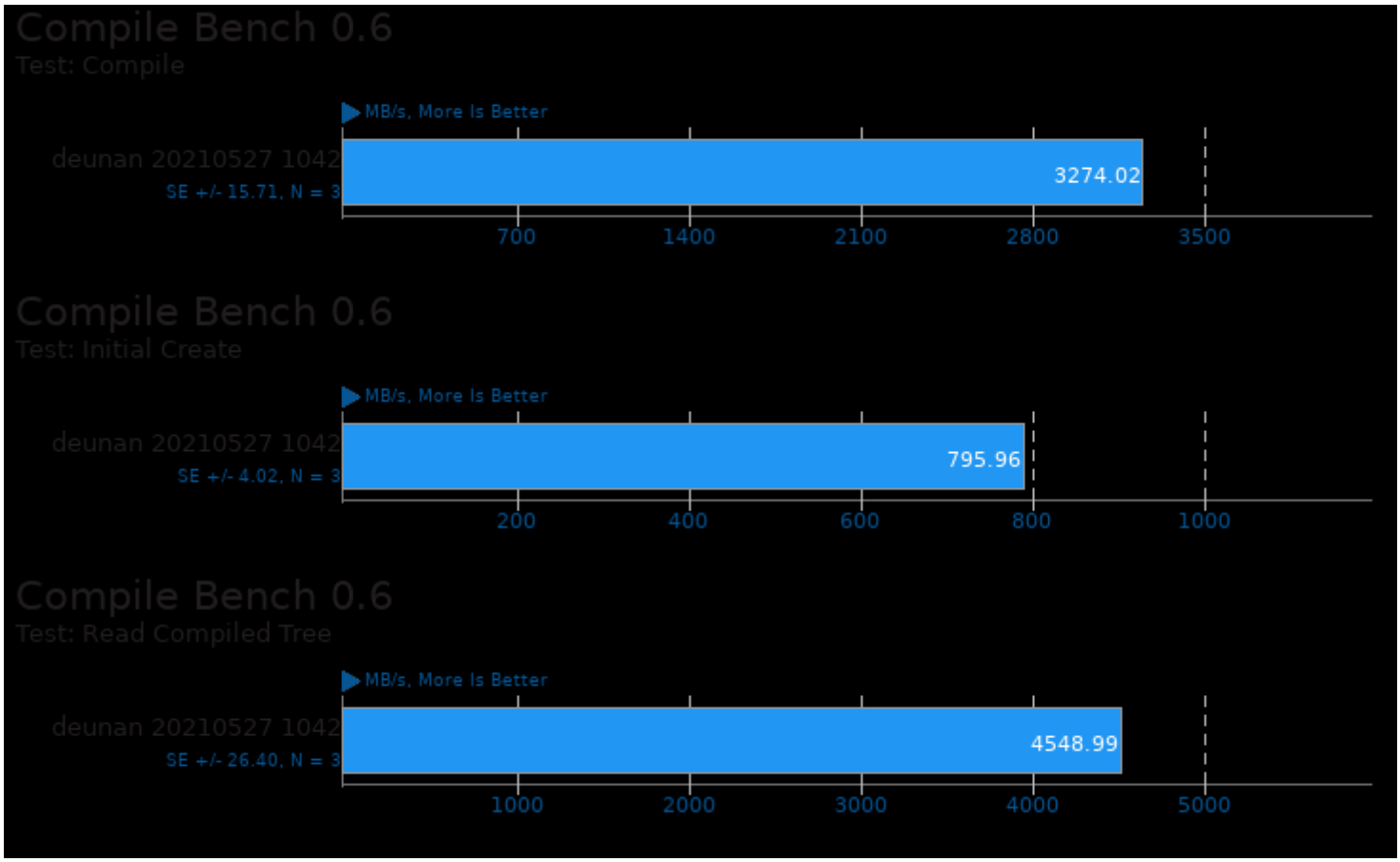
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vkpeak 20210424
fp32-scalar
GFLOPS, More Is Better
deunan
SE +/- 4.51, N = 3
5154.74
1100
2200
3300
4400
5500
vkpeak 20210424
fp32-vec4
GFLOPS, More Is Better
deunan
SE +/- 2.17, N = 3
5191.39
1100
2200
3300
4400
5500
vkpeak 20210424
fp16-scalar
GFLOPS, More Is Better
deunan
SE +/- 1.34, N = 3
2593.87
600
1200
1800
2400
3000
vkpeak 20210424
fp16-vec4
GFLOPS, More Is Better
deunan
SE +/- 1.65, N = 3
2603.22
600
1200
1800
2400
3000
vkpeak 20210424
fp64-scalar
GFLOPS, More Is Better
deunan
SE +/- 0.13, N = 3
163.45
40
80
120
160
200
vkpeak 20210424
fp64-vec4
GFLOPS, More Is Better
deunan
SE +/- 0.02, N = 3
163.17
40
80
120
160
200

deunan


vkpeak 20210424
int32-scalar
GIOPS, More Is Better
deunan
SE +/- 0.47, N = 3
902.34
200
400
600
800
1000
vkpeak 20210424
int32-vec4
GIOPS, More Is Better
deunan
SE +/- 1.82, N = 3
1038.39
200
400
600
800
1000
vkpeak 20210424
int16-scalar
GIOPS, More Is Better
deunan
SE +/- 3.28, N = 3
5176.10
1100
2200
3300
4400
5500
vkpeak 20210424
int16-vec4
GIOPS, More Is Better
deunan
SE +/- 0.59, N = 3
5191.12
1100
2200
3300
4400
5500
RealSR-NCNN 20200818
Scale: 4x - TAA: No
Seconds, Fewer Is Better
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SE +/- 0.06, N = 3
24.23
6
12
18
24
30
Timed Linux Kernel Compilation 5.10.20
Time To Compile
Seconds, Fewer Is Better
AMD Ryzen 9 5900X 12-Core
SE +/- 0.70, N = 3
53.22
12
24
36
48
60

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This file was automatically generated via the Phoronix Test Suite benchmarking software on Thursday, 28 March 2024 20:46.