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Intel Core i7-1065G7 testing with a Dell 06CDVY (1.0.9 BIOS) and Intel Iris Plus ICL GT2 3GB on Ubuntu 21.04 via the Phoronix Test Suite.

Automated Executive Summary

2 had the most wins, coming in first place for 44% of the tests.

Based on the geometric mean of all complete results, the fastest (3) was 1.073x the speed of the slowest (2). 1 was 0.964x the speed of 3 and 2 was 0.967x the speed of 1.

Test Systems:

1

2

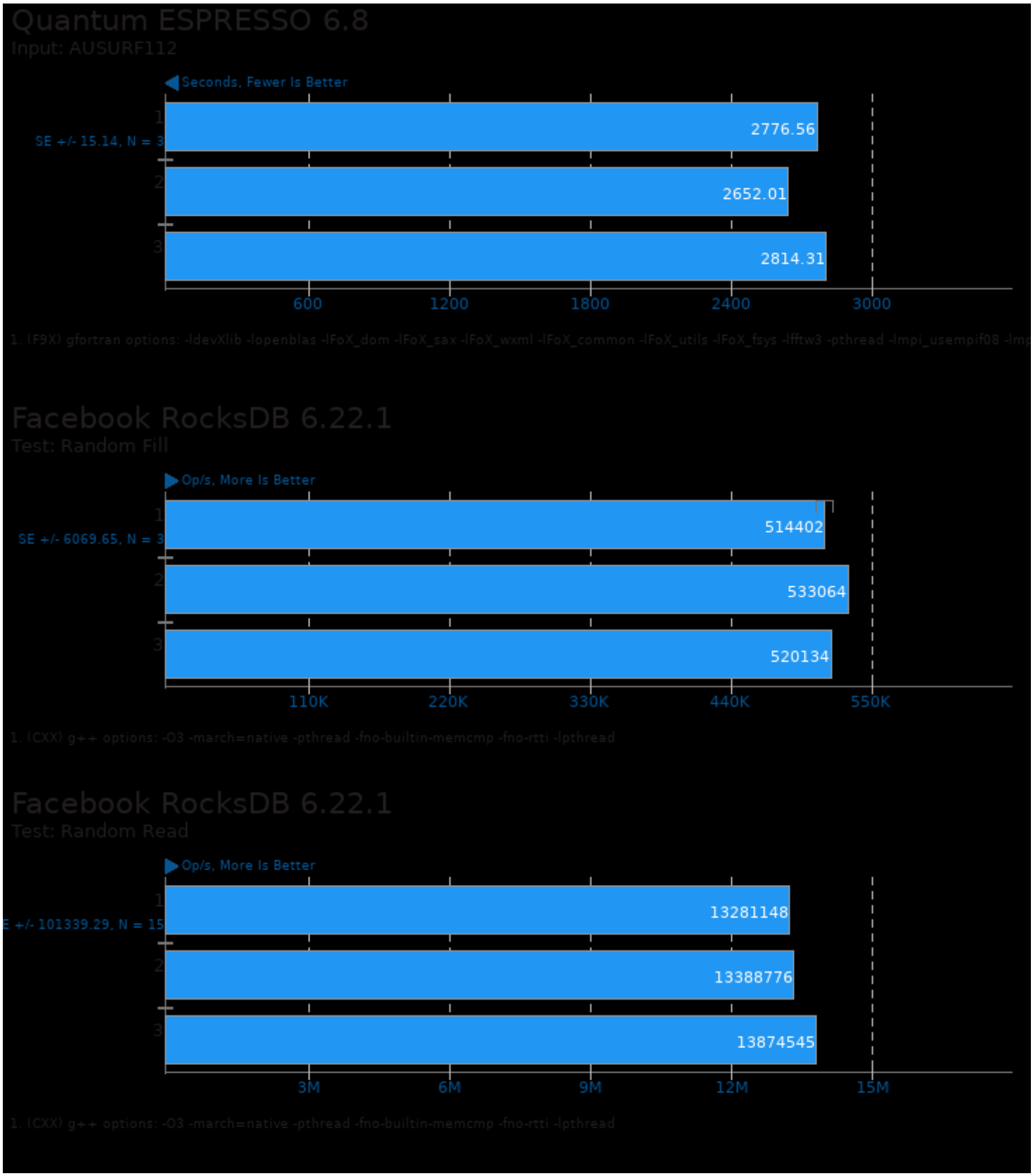
3

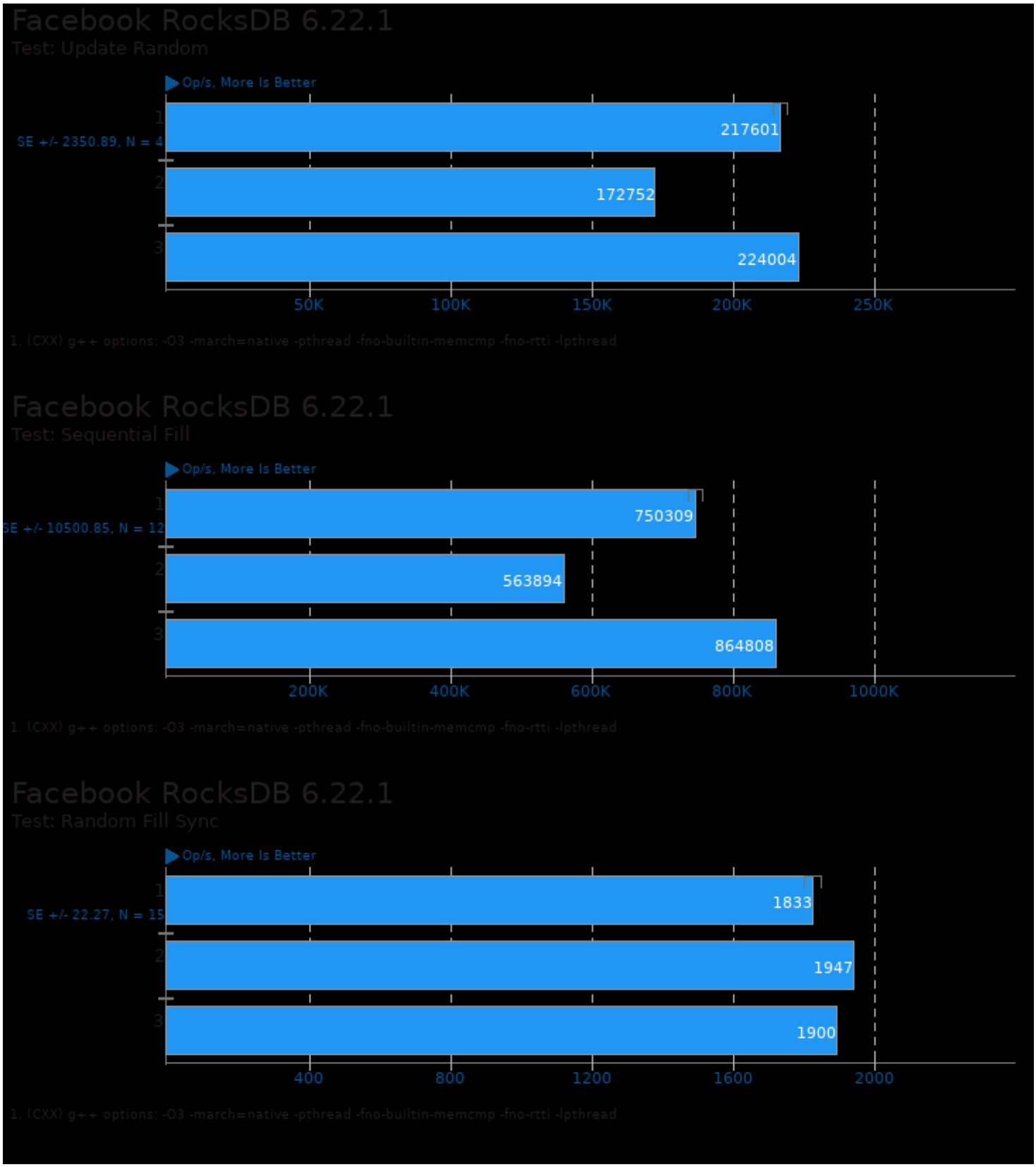
Processor: Intel Core i7-1065G7 @ 3.90GHz (4 Cores / 8 Threads), Motherboard: Dell 06CDVY (1.0.9 BIOS), Chipset: Intel Ice Lake-LP DRAM, Memory: 16GB, Disk: Toshiba KBG40ZPZ512G NVMe 512GB, Graphics: Intel Iris Plus ICL GT2 3GB (1100MHz), Audio: Realtek ALC289, Network: Intel Killer Wi-Fi 6 AX1650i 160MHz

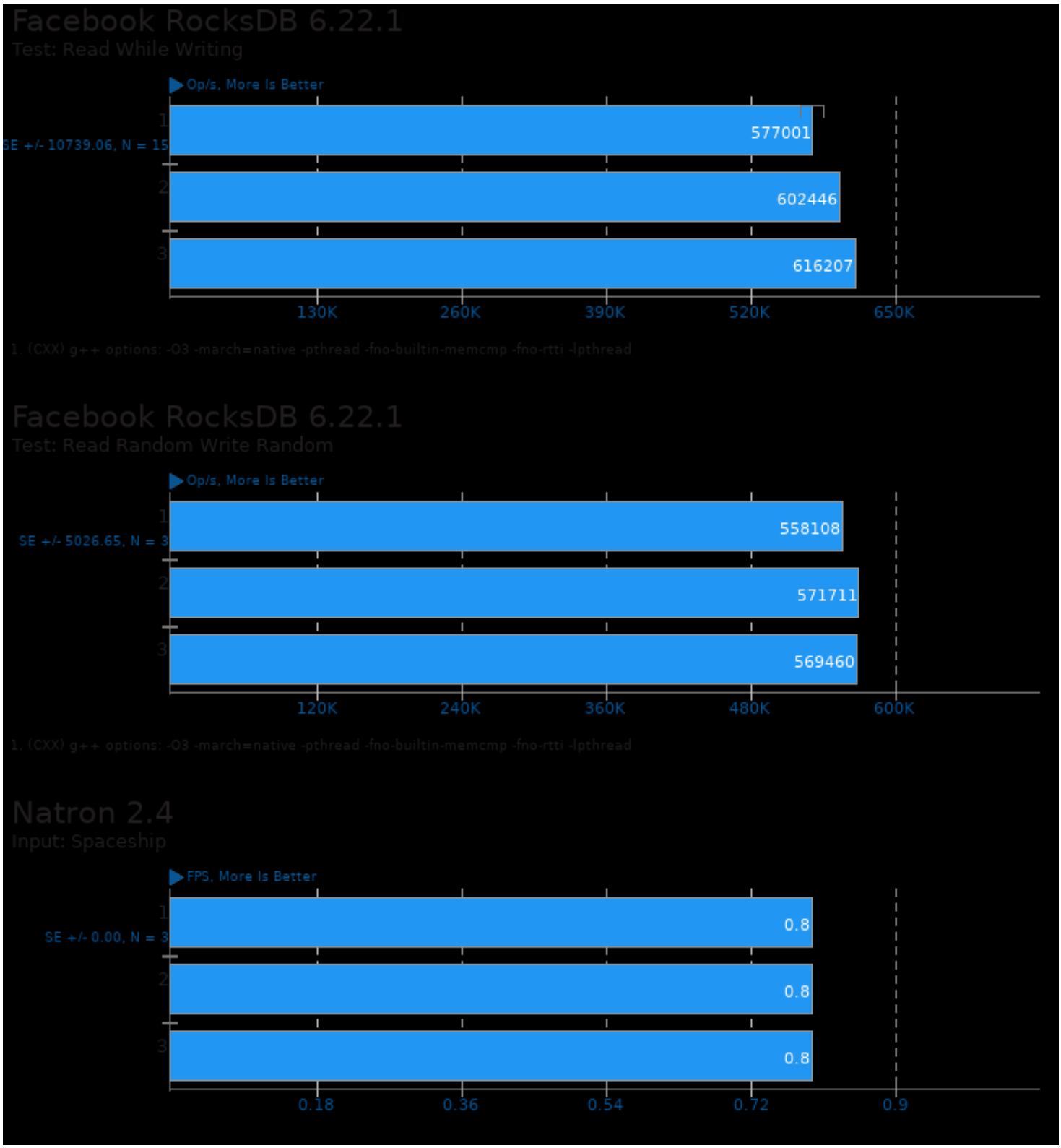
OS: Ubuntu 21.04, Kernel: 5.13.0-051300-generic (x86_64), Desktop: GNOME Shell 3.38.4, Display Server: X Server + Wayland, OpenGL: 4.6 Mesa 21.2.0-devel (git-4698755 2021-07-03 hirsute-oibaf-ppa), Vulkan: 1.2.182, Compiler: GCC 10.3.0, File-System: ext4, Screen Resolution: 1920x1200

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++,m2 --enable-libphobos-checking=release --enable-libstdcxx-debug --enable-libstdcxx-time=yes --enable-link-mutex --enable-multiarch --enable-multilib --enable-nls --enable-objc-gc=auto --enable-offload-targets=nvptx-none=/build/gcc-10-gDeRY6/gcc-10-10.3.0/debian/tmp-nvptx/usr,amdgcn-amdhsa=/build/gcc-10-gDeRY6/gcc-10-10.3.0/debian/tmp-gcn/usr, 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-build-config=bootstrap-lto-lean --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: intel_pstate powersave - CPU Microcode: 0xa6 - Thermald 2.4.3
Security Notes: itlb_multihit: KVM: Mitigation of VMX disabled + 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 Enhanced IBRS IBPB: conditional RSB filling + srbds: Not affected + tsx_async_abort: Not affected

	1	2	3
Quantum ESPRESSO - AUSURF112 (sec)	2777	**2652**	**2814**
Normalized	95.51%	100%	94.23%
Standard Deviation	0.9%		
Facebook RocksDB - Rand Fill (Op/s)	**514402**	**533064**	520134
Normalized	96.5%	100%	97.57%
Standard Deviation	2%		
Facebook RocksDB - Rand Read (Op/s)	**13281148**	13388776	**13874545**
Normalized	95.72%	96.5%	100%
Standard Deviation	3%		
Facebook RocksDB - Update Rand (Op/s)	217601	**172752**	**224004**
Normalized	97.14%	77.12%	100%
Standard Deviation	2.2%		
Facebook RocksDB - Seq Fill (Op/s)	750309	**563894**	**864808**
Normalized	86.76%	65.2%	100%
Standard Deviation	4.8%		
Facebook RocksDB - Rand Fill Sync (Op/s)	**1833**	**1947**	1900
Normalized	94.14%	100%	97.59%
Standard Deviation	4.7%		
Facebook RocksDB - Read While Writing	**577001**	602446	**616207**
Normalized	93.64%	97.77%	100%
Standard Deviation	7.2%		
Facebook RocksDB - R.R.W.R (Op/s)	**558108**	**571711**	569460
Normalized	97.62%	100%	99.61%
Standard Deviation	1.6%		
Natron - Spaceship (FPS)	0.8	0.8	0.8
Standard Deviation	0%		


Quantum ESPRESSO 6.8
Input: AUSURF112
Seconds, Fewer Is Better
SE +/- 15.14, N = 3
1
2
3
2776.56
2652.01
2814.31
600
1200
1800
2400
3000
1. (F9X) gfortran options: -ldevXlib -lopenblas -lFoX_dom -lFoX_sax -lFoX_wxml -lFoX_common -lFoX_utils -lFoX_fsys -lfftw3 -pthread -lmpi_usempif08 -lmp
Facebook RocksDB 6.22.1
Test: Random Fill
Op/s, More Is Better
SE +/- 6069.65, N = 3
1
2
3
514402
533064
520134
110K
220K
330K
440K
550K
1. (CXX) g++ options: -O3 -march=native -pthread -fno-builtin-memcmp -fno-rtti -lpthread
Facebook RocksDB 6.22.1
Test: Random Read
Op/s, More Is Better
E +/- 101339.29, N = 15
1
2
3
13281148
13388776
13874545
3M
6M
9M
12M
15M
1. (CXX) g++ options: -O3 -march=native -pthread -fno-builtin-memcmp -fno-rtti -lpthread


Facebook RocksDB 6.22.1
Test: Update Random
Op/s, More Is Better
SE +/- 2350.89, N = 4
1
217601
2
172752
3
224004
50K
100K
150K
200K
250K
1. (CXX) g++ options: -O3 -march=native -pthread -fno-builtin-memcmp -fno-rtti -lpthread
Facebook RocksDB 6.22.1
Test: Sequential Fill
Op/s, More Is Better
SE +/- 10500.85, N = 12
1
750309
2
563894
3
864808
200K
400K
600K
800K
1000K
1. (CXX) g++ options: -O3 -march=native -pthread -fno-builtin-memcmp -fno-rtti -lpthread
Facebook RocksDB 6.22.1
Test: Random Fill Sync
Op/s, More Is Better
SE +/- 22.27, N = 15
1
1833
2
1947
3
1900
400
800
1200
1600
2000
1. (CXX) g++ options: -O3 -march=native -pthread -fno-builtin-memcmp -fno-rtti -lpthread



This file was automatically generated via the Phoronix Test Suite benchmarking software on Thursday, 28 March 2024 22:30.