


www.phoronix-test-suite.com

# openvkl updated

AMD Ryzen 9 5900HX testing with a ASUS G513QY v1.0 (G513QY.318 BIOS) and ASUS AMD Cezanne 512MB on Ubuntu 22.10 via the Phoronix Test Suite.

**Automated Executive Summary**

*c had the most wins, coming in first place for 46% of the tests.*

*Based on the geometric mean of all complete results, the fastest (c) was 1.015x the speed of the slowest (a). b was 1x the speed of c and a was 0.985x the speed of b.*

## Test Systems:

### a

Processor: AMD Ryzen 9 5900HX @ 4.89GHz (8 Cores / 16 Threads), Motherboard: ASUS G513QY v1.0 (G513QY.318 BIOS), Chipset: AMD Renoir/Cezanne, Memory: 16GB, Disk: 512GB SAMSUNG MZVLQ512HBLU-00B00, Graphics: ASUS AMD Cezanne 512MB (2500/1000MHz), Audio: AMD Navi 21/23, Monitor: LQ156M1JW25, Network: Realtek

RTL8111/8168/8411 + MEDIATEK MT7921 802.11ax PCI

OS: Ubuntu 22.10, Kernel: 5.19.0-26-generic (x86_64), Desktop: GNOME Shell 43.0, Display Server: X Server 1.21.1.4 + Wayland, OpenGL: 4.6 Mesa 22.2.1 (LLVM 15.0.2 DRM 3.47), Vulkan: 1.3.224, Compiler: GCC 12.2.0, File-System: ext4, Screen Resolution: 1920x1080

Kernel Notes: Transparent Huge Pages: madvise
Processor Notes: Scaling Governor: amd-pstate schedutil (Boost: Enabled) - Platform Profile: balanced - CPU Microcode: 0xa50000c - ACPI Profile: balanced
Security Notes: itlb_multihit: Not affected + l1tf: Not affected + mds: Not affected + meltdown: Not affected + mmio_stale_data: Not affected + retbleed: Not affected + spec_store_bypass: Mitigation of SSB disabled via prctl + spectre_v1: Mitigation of usercopy/swapgs barriers and __user pointer sanitization + spectre_v2: Mitigation of Retpolines IBPB: conditional IBRS_FW STIBP: always-on RSB filling PBRSB-eIBRS: Not affected + srbds: Not affected + tsx_async_abort: Not affected

## b

Processor: AMD Ryzen 9 5900HX @ 4.89GHz (8 Cores / 16 Threads), Motherboard: ASUS G513QY v1.0 (G513QY.318 BIOS), Chipset: AMD Renoir/Cezanne, Memory: 16GB, Disk: 512GB SAMSUNG MZVLQ512HBLU-00B00, Graphics: ASUS AMD Cezanne 512MB, Audio: AMD Navi 21/23, Monitor: LQ156M1JW25, Network: Realtek RTL8111/8168/8411 + MEDIATEK MT7921 802.11ax PCI

OS: Ubuntu 22.10, Kernel: 5.19.0-26-generic (x86_64), Desktop: GNOME Shell 43.0, Display Server: X Server 1.21.1.4 + Wayland, OpenGL: 4.6 Mesa 22.2.1 (LLVM 15.0.2 DRM 3.47), Vulkan: 1.3.224, Compiler: GCC 12.2.0, File-System: ext4, Screen Resolution: 1920x1080

Kernel Notes: Transparent Huge Pages: madvise
Processor Notes: Scaling Governor: amd-pstate schedutil (Boost: Enabled) - Platform Profile: balanced - CPU Microcode: 0xa50000c - ACPI Profile: balanced
Security Notes: itlb_multihit: Not affected + l1tf: Not affected + mds: Not affected + meltdown: Not affected + mmio_stale_data: Not affected + retbleed: Not affected + spec_store_bypass: Mitigation of SSB disabled via prctl + spectre_v1: Mitigation of usercopy/swapgs barriers and __user pointer sanitization + spectre_v2: Mitigation of Retpolines IBPB: conditional IBRS_FW STIBP: always-on RSB filling PBRSB-eIBRS: Not affected + srbds: Not affected + tsx_async_abort: Not affected

## c

Processor: AMD Ryzen 9 5900HX @ 4.89GHz (8 Cores / 16 Threads), Motherboard: ASUS G513QY v1.0 (G513QY.318 BIOS), Chipset: AMD Renoir/Cezanne, Memory: 16GB, Disk: 512GB SAMSUNG MZVLQ512HBLU-00B00, Graphics: ASUS AMD Cezanne 512MB (2500/1000MHz), Audio: AMD Navi 21/23, Monitor: LQ156M1JW25, Network: Realtek RTL8111/8168/8411 + MEDIATEK MT7921 802.11ax PCI

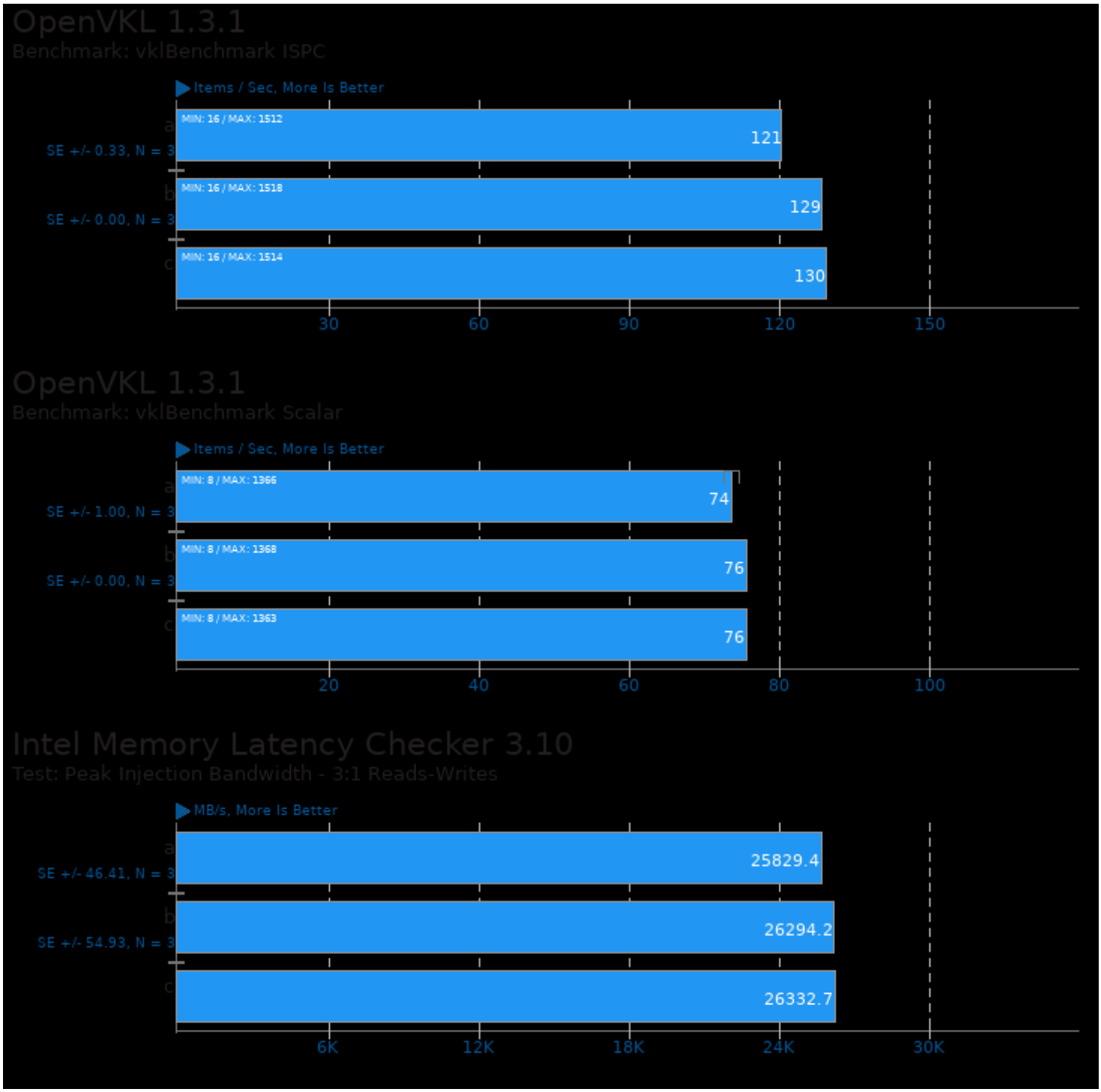
OS: Ubuntu 22.10, Kernel: 5.19.0-26-generic (x86_64), Desktop: GNOME Shell 43.0, Display Server: X Server 1.21.1.4 + Wayland, OpenGL: 4.6 Mesa 22.2.1 (LLVM 15.0.2 DRM 3.47), Vulkan: 1.3.224, Compiler: GCC 12.2.0, File-System: ext4, Screen Resolution: 1920x1080

Kernel Notes: Transparent Huge Pages: madvise
Processor Notes: Scaling Governor: amd-pstate schedutil (Boost: Enabled) - Platform Profile: balanced - CPU Microcode: 0xa50000c - ACPI Profile: balanced
Security Notes: itlb_multihit: Not affected + l1tf: Not affected + mds: Not affected + meltdown: Not affected + mmio_stale_data: Not affected + retbleed: Not affected + spec_store_bypass: Mitigation of SSB disabled via prctl + spectre_v1: Mitigation of usercopy/swapgs barriers and __user pointer sanitization + spectre_v2: Mitigation of Retpolines IBPB: conditional IBRS_FW STIBP: always-on RSB filling PBRSB-eIBRS: Not affected + srbds: Not affected + tsx_async_abort: Not affected

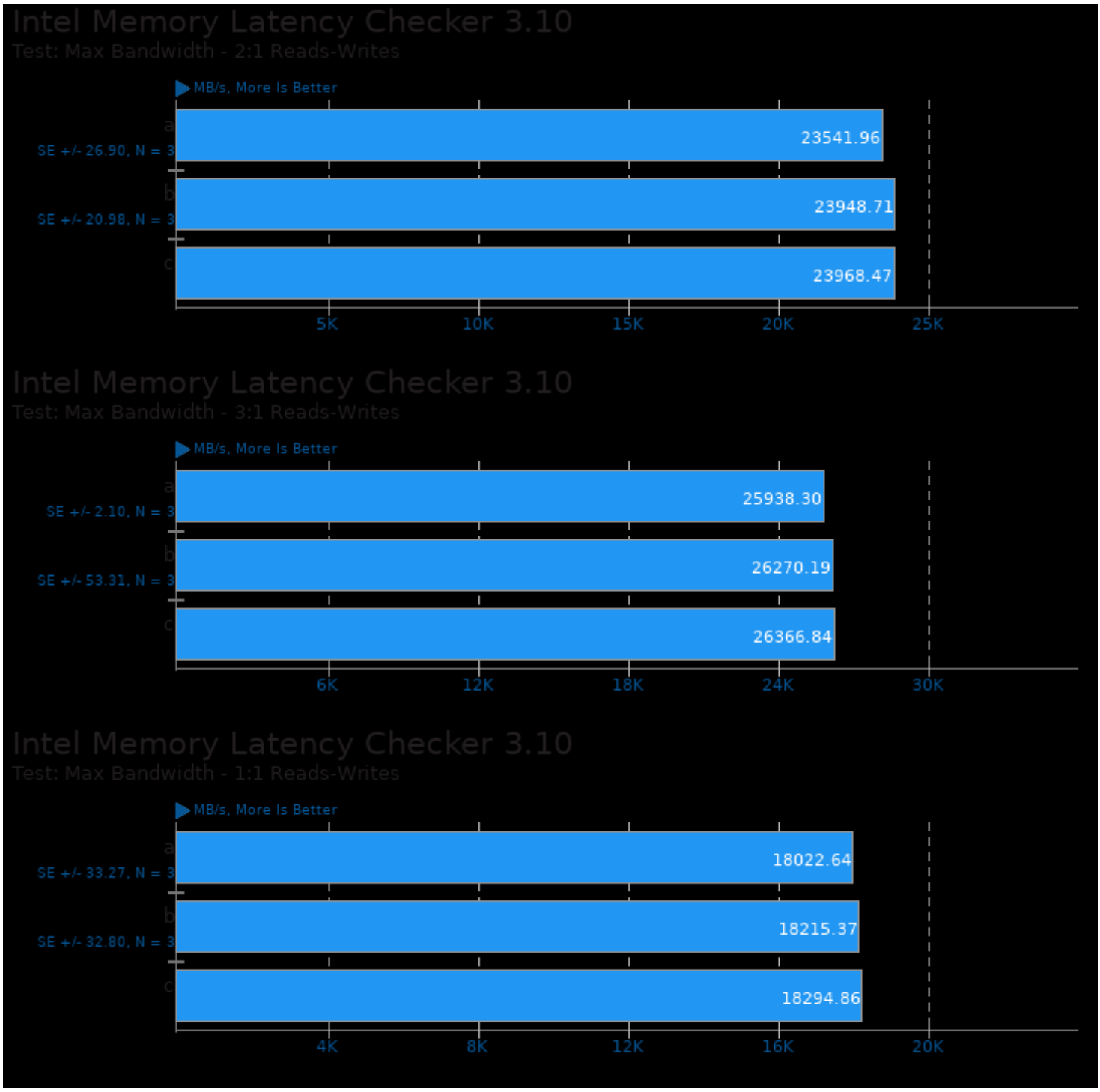
| | a | b | c |
|---|---|---|---|
| **OpenVKL - vklBenchmark ISPC (Items / Sec)** | **121** | 129 | **130** |
| **Normalized** | 93.08% | 99.23% | 100% |
| **Standard Deviation** | 0.5% | 0% | |
| **OpenVKL - v.S (Items / Sec)** | **74** | **76** | **76** |
| **Normalized** | 97.37% | 100% | 100% |

| | | | |
|---|---|---|---|
| Standard Deviation | 2.3% | 0% | |
| **Intel Memory Latency Checker - P.I.B - 3:1 Reads-Writes (MB/s)** | **25829** | 26294 | **26333** |
| Normalized | 98.09% | 99.85% | 100% |
| Standard Deviation | 0.3% | 0.4% | |
| **Intel Memory Latency Checker - Max Bandwidth - 2:1 Reads-Writes (MB/s)** | **23542** | 23949 | **23968** |
| Normalized | 98.22% | 99.92% | 100% |
| Standard Deviation | 0.2% | 0.2% | |
| **Intel Memory Latency Checker - Max Bandwidth - 3:1 Reads-Writes (MB/s)** | **25938** | 26270 | **26367** |
| Normalized | 98.37% | 99.63% | 100% |
| Standard Deviation | 0% | 0.4% | |
| **Intel Memory Latency Checker - Max Bandwidth - 1:1 Reads-Writes (MB/s)** | **18023** | 18215 | **18295** |
| Normalized | 98.51% | 99.57% | 100% |
| Standard Deviation | 0.3% | 0.3% | |
| **Intel Memory Latency Checker - Idle Latency (ns)** | **98.2** | **96.8** | 97.9 |
| Normalized | 98.57% | 100% | 98.88% |
| Standard Deviation | 0.2% | 1.1% | |
| **Intel Memory Latency Checker - P.I.B - 2:1 Reads-Writes (MB/s)** | **23374** | **23702** | 23700 |
| Normalized | 98.61% | 100% | 99.99% |
| Standard Deviation | 0% | 0% | |
| **Intel Memory Latency Checker - P.I.B - 1:1 Reads-Writes (MB/s)** | **17978** | **18204** | 18183 |
| Normalized | 98.76% | 100% | 99.89% |
| Standard Deviation | 0.1% | 0.1% | |
| **Intel Memory Latency Checker - Max Bandwidth - All Reads (MB/s)** | **35081** | **34968** | 35016 |
| Normalized | 100% | 99.68% | 99.81% |
| Standard Deviation | 0% | 0.1% | |
| **Intel Memory Latency Checker - P.I.B - Stream-Triad Like (MB/s)** | **28379** | **28443** | 28434 |
| Normalized | 99.77% | 100% | 99.97% |
| Standard Deviation | 0% | 0% | |
| **Intel Memory Latency Checker - Max Bandwidth - Stream-Triad Like (MB/s)** | **28711** | **28774** | 28748 |
| Normalized | 99.78% | 100% | 99.91% |
| Standard Deviation | 0.1% | 0.1% | |
| **Intel Memory Latency Checker - P.I.B - All Reads (MB/s)** | **27230** | 27267 | **27281** |
| Normalized | 99.81% | 99.95% | 100% |
| Standard Deviation | 0% | 0% | |

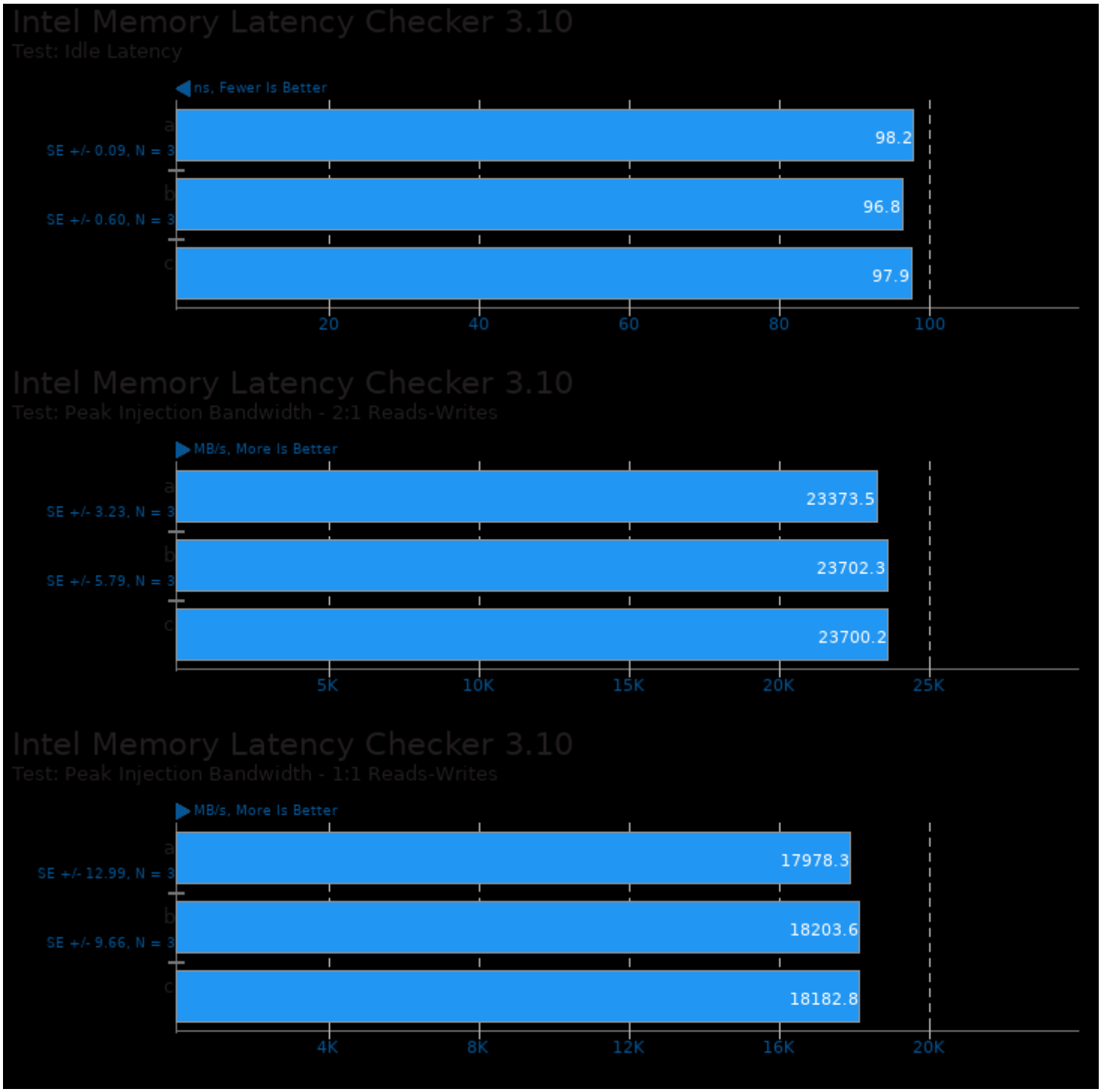
# openvkl updated



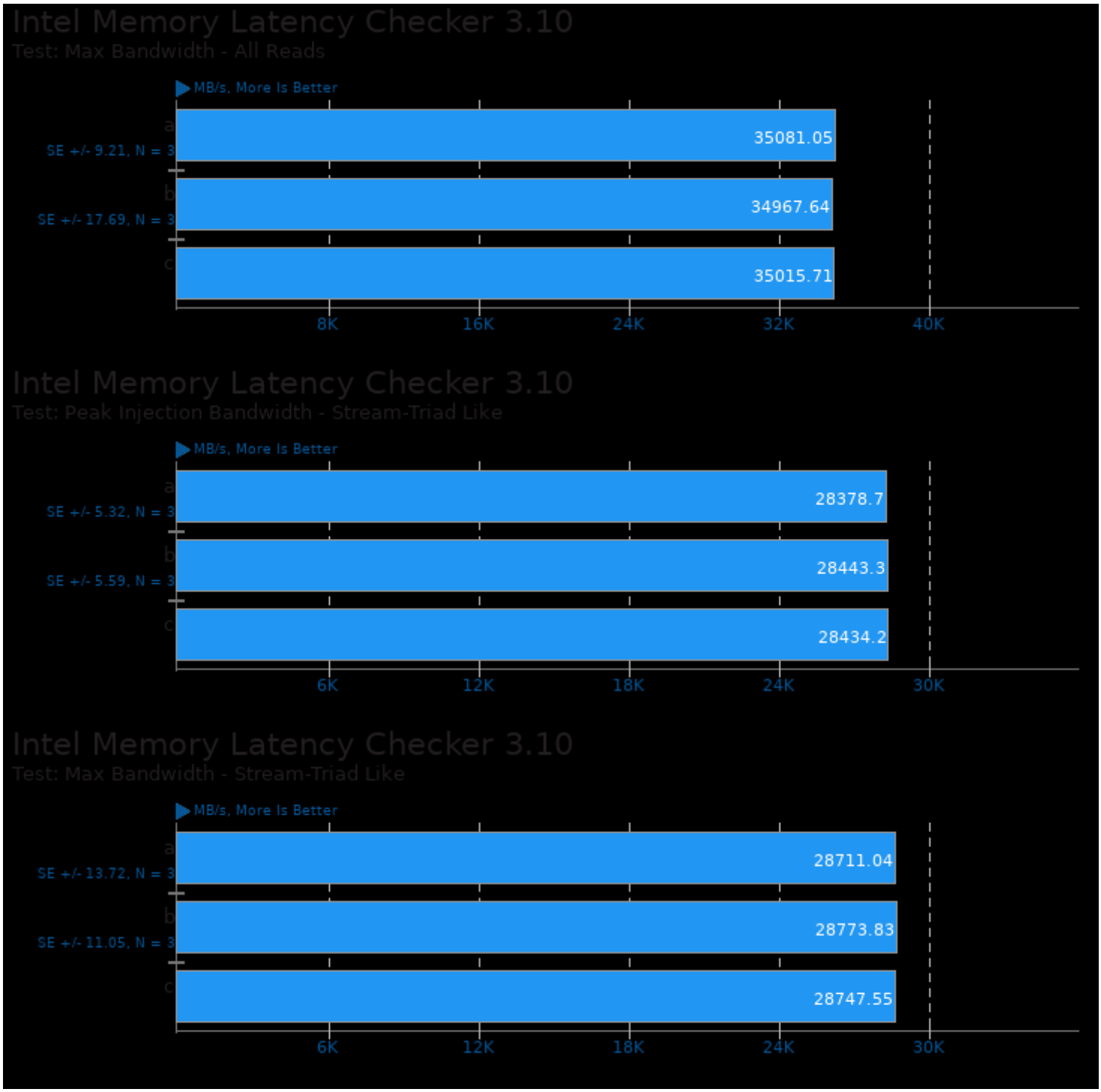
# openvkl updated



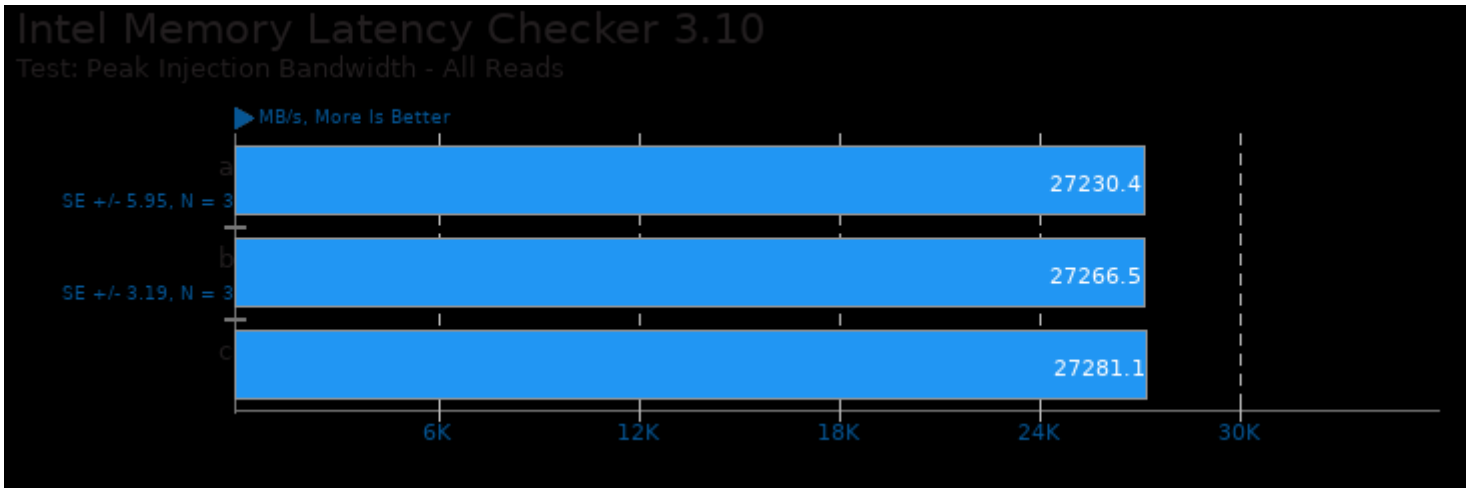
# openvkl updated



# openvkl updated



# openvkl updated




*This file was automatically generated via the Phoronix Test Suite benchmarking software on Friday, 29 March 2024 05:16.*