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GL-VK-Simple

Intel Core i3-3217U testing with a Intel D33217GKE (GKPPT10H.86A.0040.2013.0325.1514 BIOS) and Intel HD 4000 IVB GT2 2GB on EndeavourOS rolling via the Phoronix Test Suite.

Test Systems:

Intel HD Graphics 4000 IVB GT2

Processor: Intel Core i3-3217U @ 1.70GHz (2 Cores / 4 Threads), Motherboard: Intel D33217GKE (GKPPT10H.86A.0040.2013.0325.1514 BIOS), Chipset: Intel 3rd Gen Core DRAM, Memory: 16GB, Disk: 256GB SAMSUNG SSD PM85, Graphics: Intel HD 4000 IVB GT2 2GB (1050MHz), Audio: Intel 7 /C216, Monitor: 32S305, Network: Intel 82579V + Intel 7260

OS: Arch rolling, Kernel: 5.19.3-arch1-1 (x86_64), Desktop: GNOME Shell 42.4, Display Server: X Server 1.21.1.4, OpenGL: 4.2 Mesa 22.1.6, OpenCL: OpenCL 2.0 beignet 1.4 (git-419c0417), Vulkan: 1.3.211, Compiler: GCC 12.2.0 + Clang 14.0.6 + LLVM 14.0.6, File-System: ext4, Screen Resolution: 1360x768

Kernel Notes: Transparent Huge Pages: always
Compiler Notes: --disable-libssp --disable-libstdcxx-pch --disable-werror --enable-__cxa_atexit --enable-bootstrap --enable-cet=auto --enable-checking=release

--enable-clocale=gnu --enable-default-pie --enable-default-ssp --enable-gnu-indirect-function --enable-gnu-unique-object --enable-languages=c,c++,ada,fortran,go,lto,objc,obj-c++,d --enable-libstdcxx-backtrace --enable-link-serialization=1 --enable-lto --enable-multilib --enable-plugin --enable-shared --enable-threads=posix --mandir=/usr/share/man --with-build-config=bootstrap-lto --with-linker-hash-style=gnu
Processor Notes: Scaling Governor: intel_cpufreq schedutil - CPU Microcode: 0x21
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 + 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: conditional RSB filling PBRSB-eIBRS: Not affected + srbds: Not affected + tsx_async_abort: Not affected

AMD Radeon RAVEN2 Vega 2CU, Athlon 3050U

Processor: AMD Athlon Silver 3050U @ 2.30GHz (2 Cores), Motherboard: HP 879E v84.51 (F.65 BIOS), Chipset: AMD Raven/Raven2, Memory: 30GB, Disk: 512GB XPG GAMMIX S5, Graphics: AMD RAVEN2 2GB (1100/1067MHz), Audio: AMD Raven/Raven2/Fenghuang, Network: Realtek RTL8111/8168/8411 + Realtek RTL8821CE 802.11ac PCIe

OS: EndeavourOS rolling, Kernel: 5.19.5-AMD (x86_64), Desktop: KDE Plasma 5.25.4, Display Server: X Server 1.21.1.4, OpenGL: 4.6 Mesa 22.1.7 (LLVM 14.0.6 DRM 3.47), Vulkan: 1.3.211, Compiler: GCC 12.2.0 + Clang 14.0.6 + LLVM 14.0.6, File-System: ext4, Screen Resolution: 1920x1080

Kernel Notes: Transparent Huge Pages: always
Compiler Notes: --disable-libssp --disable-libstdcxx-pch --disable-werror --enable-__cxa_atexit --enable-bootstrap --enable-cet=auto --enable-checking=release --enable-clocale=gnu --enable-default-pie --enable-default-ssp --enable-gnu-indirect-function --enable-gnu-unique-object --enable-languages=c,c++,ada,fortran,go,lto,objc,obj-c++,d --enable-libstdcxx-backtrace --enable-link-serialization=1 --enable-lto --enable-multilib --enable-plugin --enable-shared --enable-threads=posix --mandir=/usr/share/man --with-build-config=bootstrap-lto --with-linker-hash-style=gnu
Processor Notes: Scaling Governor: acpi-cpufreq schedutil (Boost: Enabled) - CPU Microcode: 0x8108109
Graphics Notes: GLAMOR - BAR1 / Visible vRAM Size: 2048 MB - vBIOS Version: 113-RAVEN2-117
Security Notes: itlb_multihit: Not affected + l1tf: Not affected + mds: Not affected + meltdown: Not affected + mmio_stale_data: Not affected + retbleed: Mitigation of untrained return thunk; SMT disabled + 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 STIBP: disabled RSB filling PBRSB-eIBRS: Not affected + srbds: Not affected + tsx_async_abort: Not affected

Intel HD Graphics 4000 IVB GT2 - Arch 5.19 Kernel

Processor: Intel Core i3-3217U @ 1.70GHz (2 Cores / 4 Threads), Motherboard: Intel D33217GKE (GKPPT10H.86A.0040.2013.0325.1514 BIOS), Chipset: Intel 3rd Gen Core DRAM, Memory: 16GB, Disk: 256GB SAMSUNG SSD PM85, Graphics: Intel HD 4000 IVB GT2 2GB (1050MHz), Audio: Intel 7 /C216, Monitor: 32S305, Network: Intel 82579V + Intel 7260

OS: EndeavourOS rolling, Kernel: 5.19.5-arch1-1 (x86_64), Desktop: GNOME Shell 42.4, Display Server: X Server 1.21.1.4, OpenGL: 4.2 Mesa 22.1.7, Vulkan: 1.3.211, Compiler: GCC 12.2.0 + Clang 14.0.6 + LLVM 14.0.6, File-System: ext4, Screen Resolution: 1360x768

Kernel Notes: Transparent Huge Pages: always
Compiler Notes: --disable-libssp --disable-libstdcxx-pch --disable-werror --enable-__cxa_atexit --enable-bootstrap --enable-cet=auto --enable-checking=release --enable-clocale=gnu --enable-default-pie --enable-default-ssp --enable-gnu-indirect-function --enable-gnu-unique-object --enable-languages=c,c++,ada,fortran,go,lto,objc,obj-c++,d --enable-libstdcxx-backtrace --enable-link-serialization=1 --enable-lto --enable-multilib --enable-plugin --enable-shared --enable-threads=posix --mandir=/usr/share/man --with-build-config=bootstrap-lto --with-linker-hash-style=gnu
Processor Notes: Scaling Governor: intel_cpufreq performance - CPU Microcode: 0x21
Graphics Notes: SNA
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 + 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: conditional RSB filling PBRSB-eIBRS: Not affected + srbds: Not affected + tsx_async_abort: Not affected

Intel HD Graphics 4000 IVB GT2 - AUR Clear 5.19 Kernel

Processor: Intel Core i3-3217U @ 1.70GHz (2 Cores / 4 Threads), Motherboard: Intel D33217GKE (GKPPT10H.86A.0040.2013.0325.1514 BIOS), Chipset: Intel 3rd Gen Core DRAM, Memory: 16GB, Disk: 256GB SAMSUNG SSD PM85, Graphics: Intel HD 4000 IVB GT2 2GB (1050MHz), Audio: Intel 7 /C216, Monitor: 32S305, Network: Intel 82579V + Intel 7260

OS: EndeavourOS rolling, Kernel: 5.19.5-1-clear (x86_64), Desktop: GNOME Shell 42.4, Display Server: X Server

1.21.1.4, OpenGL: 4.2 Mesa 22.1.7, Vulkan: 1.3.211, Compiler: GCC 12.2.0 + Clang 14.0.6 + LLVM 14.0.6, File-System: ext4, Screen Resolution: 1360x768

Kernel Notes: Transparent Huge Pages: always
Compiler Notes: --disable-libssp --disable-libstdcxx-pch --disable-werror --enable-__cxa_atexit --enable-bootstrap --enable-cet=auto --enable-checking=release --enable-clocale=gnu --enable-default-pie --enable-default-ssp --enable-gnu-indirect-function --enable-gnu-unique-object --enable-languages=c,c++,ada,fortran,go,lto,objc,obj-c++,d --enable-libstdcxx-backtrace --enable-link-serialization=1 --enable-lto --enable-multilib --enable-plugin --enable-shared --enable-threads=posix --mandir=/usr/share/man --with-build-config=bootstrap-lto --with-linker-hash-style=gnu
Processor Notes: Scaling Governor: intel_cpufreq performance - CPU Microcode: 0x21
Graphics Notes: SNA
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 + 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: conditional RSB filling PBRSB-eIBRS: Not affected + srbds: Not affected + tsx_async_abort: Not affected

Intel HD Graphics 4000 IVB GT2 - AUR Liquorix 5.19 Kernel

Processor: Intel Core i3-3217U (2 Cores / 4 Threads), Motherboard: Intel D33217GKE (GKPPT10H.86A.0040.2013.0325.1514 BIOS), Chipset: Intel 3rd Gen Core DRAM, Memory: 16GB, Disk: 256GB SAMSUNG SSD PM85, Graphics: Intel HD 4000 IVB GT2 2GB (1050MHz), Audio: Intel 7 /C216, Monitor: 32S305, Network: Intel 82579V + Intel 7260

OS: EndeavourOS rolling, Kernel: 5.19.4-lqx1-2-lqx (x86_64), Desktop: GNOME Shell 42.4, Display Server: X Server 1.21.1.4, OpenGL: 4.2 Mesa 22.1.7, Vulkan: 1.3.211, Compiler: GCC 12.2.0 + Clang 14.0.6 + LLVM 14.0.6, File-System: ext4, Screen Resolution: 1360x768

Kernel Notes: Transparent Huge Pages: madvise
Compiler Notes: --disable-libssp --disable-libstdcxx-pch --disable-werror --enable-__cxa_atexit --enable-bootstrap --enable-cet=auto --enable-checking=release --enable-clocale=gnu --enable-default-pie --enable-default-ssp --enable-gnu-indirect-function --enable-gnu-unique-object --enable-languages=c,c++,ada,fortran,go,lto,objc,obj-c++,d --enable-libstdcxx-backtrace --enable-link-serialization=1 --enable-lto --enable-multilib --enable-plugin --enable-shared --enable-threads=posix --mandir=/usr/share/man --with-build-config=bootstrap-lto --with-linker-hash-style=gnu
Processor Notes: CPU Microcode: 0x21
Graphics Notes: SNA
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 + 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: conditional RSB filling PBRSB-eIBRS: Not affected + srbds: Not affected + tsx_async_abort: Not affected

AMD Radeon RX 6900 XT - AUR Xanmod 5.19 Kernel

Processor: AMD Ryzen 7 5700X 8-Core @ 3.40GHz (8 Cores / 16 Threads), Motherboard: ASRock B550 Phantom Gaming-ITX/ax (P2.30 BIOS), Chipset: AMD Starship/Matisse, Memory: 32GB, Disk: 1000GB Samsung SSD 980 PRO 1TB + 2000GB Samsung SSD 970 EVO Plus 2TB, Graphics: AMD Radeon RX 6900 XT 16GB (2720/1000MHz), Audio: AMD Navi 21/23, Monitor: LC27G7xT, Network: Intel I225-V + Intel Wi-Fi 6 AX200

OS: EndeavourOS rolling, Kernel: 5.19.6-xanmod1-1-x64v2 (x86_64), Desktop: GNOME Shell 42.4, Display Server: X Server 1.21.1.4, OpenGL: 4.6 Mesa 22.1.7 (LLVM 14.0.6 DRM 3.47), Vulkan: 1.3.211, Compiler: GCC 12.2.0 + Clang 14.0.6 + LLVM 14.0.6, File-System: ext4, Screen Resolution: 2560x1440

Kernel Notes: Transparent Huge Pages: madvise
Compiler Notes: --disable-libssp --disable-libstdcxx-pch --disable-werror --enable-__cxa_atexit --enable-bootstrap --enable-cet=auto --enable-checking=release --enable-clocale=gnu --enable-default-pie --enable-default-ssp --enable-gnu-indirect-function --enable-gnu-unique-object --enable-languages=c,c++,ada,fortran,go,lto,objc,obj-c++,d --enable-libstdcxx-backtrace --enable-link-serialization=1 --enable-lto --enable-multilib --enable-plugin --enable-shared --enable-threads=posix --mandir=/usr/share/man --with-build-config=bootstrap-lto --with-linker-hash-style=gnu
Processor Notes: Scaling Governor: acpi-cpufreq performance (Boost: Enabled) - CPU Microcode: 0xa201205
Graphics Notes: GLAMOR - BAR1 / Visible vRAM Size: 256 MB - vBIOS Version: 113-D41213-XTXH
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

Intel HD Graphics 4000 IVB GT2 - AUR Xanmod-Edge 5.19 Kernel

Processor: Intel Core i3-3217U @ 1.70GHz (2 Cores / 4 Threads), Motherboard: Intel D33217GKE

(GKPPT10H.86A.0040.2013.0325.1514 BIOS), Chipset: Intel 3rd Gen Core DRAM, Memory: 16GB, Disk: 256GB SAMSUNG SSD PM85, Graphics: Intel HD 4000 IVB GT2 2GB (1050MHz), Audio: Intel 7 /C216, Monitor: 32S305, Network: Intel 82579V + Intel 7260

OS: EndeavourOS rolling, Kernel: 5.19.6-xanmod1-1-x64v2 (x86_64), Desktop: GNOME Shell 42.4, Display Server: X Server 1.21.1.4, OpenGL: 4.2 Mesa 22.1.7, OpenCL: OpenCL 2.0 beignet 1.4 (git-419c0417), Vulkan: 1.3.211, Compiler: GCC 12.2.0 + Clang 14.0.6 + LLVM 14.0.6, File-System: ext4, Screen Resolution: 1360x768

Kernel Notes: Transparent Huge Pages: madvise
Compiler Notes: --disable-libssp --disable-libstdcxx-pch --disable-werror --enable-__cxa_atexit --enable-bootstrap --enable-cet=auto --enable-checking=release --enable-clocale=gnu --enable-default-pie --enable-default-ssp --enable-gnu-indirect-function --enable-gnu-unique-object --enable-languages=c,c++,ada,fortran,go,lto,objc,obj-c++,d --enable-libstdcxx-backtrace --enable-link-serialization=1 --enable-lto --enable-multilib --enable-plugin --enable-shared --enable-threads=posix --mandir=/usr/share/man --with-build-config=bootstrap-lto --with-linker-hash-style=gnu
Processor Notes: Scaling Governor: intel_cpufreq performance - CPU Microcode: 0x21
Graphics Notes: SNA
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 + mmio_stale_data: Unknown: No mitigations + 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: conditional RSB filling PBRSB-eIBRS: Not affected + srbds: Not affected + tsx_async_abort: Not affected

Intel HD Graphics 4000 IVB GT2 - AUR Liquorix 5.19 Kernel - HASVK initial commit

Processor: Intel Core i3-3217U (2 Cores / 4 Threads), Motherboard: Intel D33217GKE (GKPPT10H.86A.0040.2013.0325.1514 BIOS), Chipset: Intel 3rd Gen Core DRAM, Memory: 16GB, Disk: 256GB SAMSUNG SSD PM85, Graphics: Intel HD 4000 IVB GT2 2GB (1050MHz), Audio: Intel 7 /C216, Monitor: 32S305, Network: Intel 82579V + Intel 7260

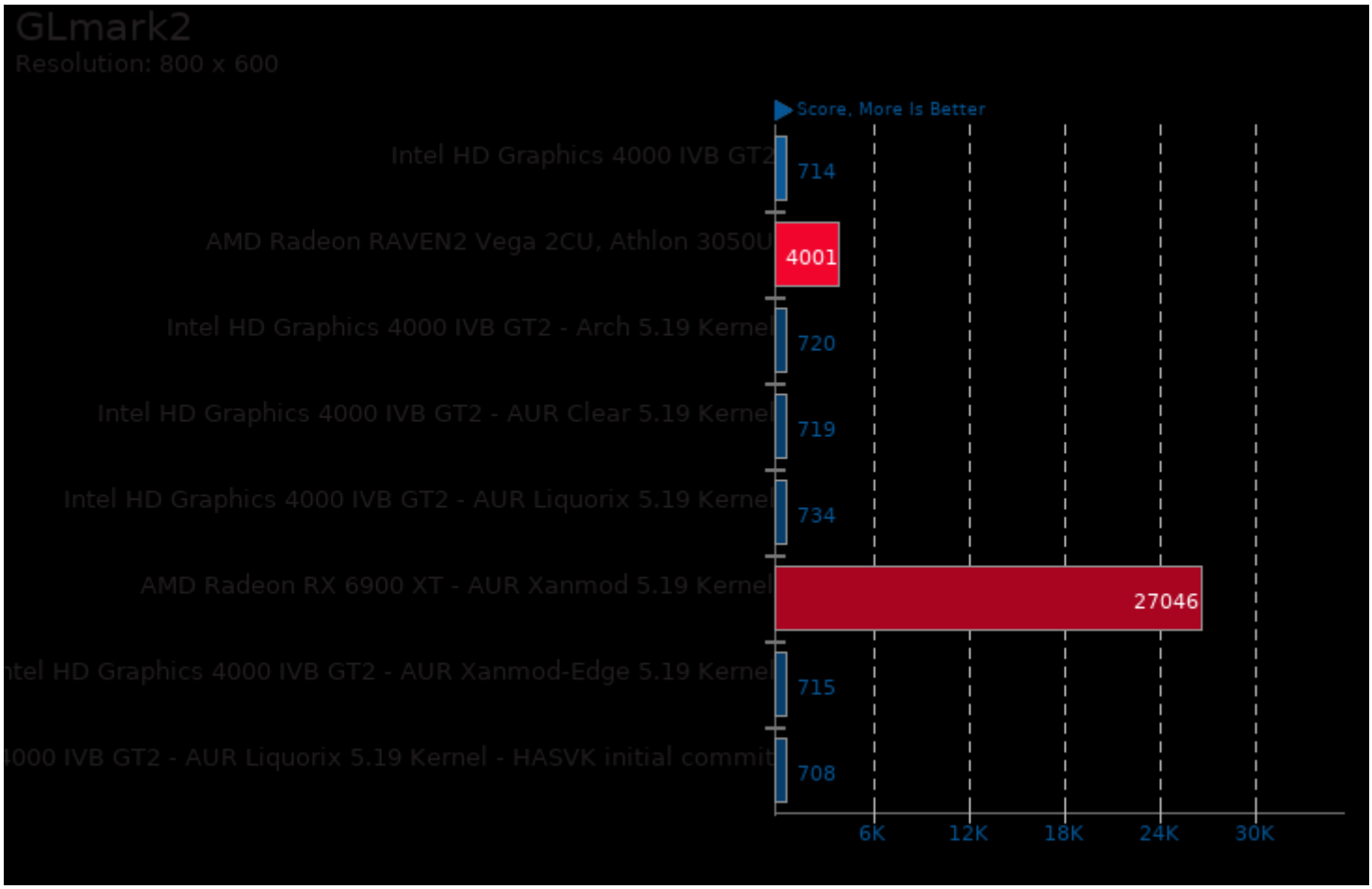
OS: EndeavourOS rolling, Kernel: 5.19.6-lqx1-1-lqx (x86_64), Desktop: GNOME Shell 42.4, Display Server: X Server 1.21.1.4, OpenGL: 4.2 Mesa 22.3.0-devel (git-136a26f271), OpenCL: OpenCL 2.0 beignet 1.4 (git-419c0417), Vulkan: 1.2.226, Compiler: GCC 12.2.0 + Clang 14.0.6 + LLVM 14.0.6, File-System: ext4, Screen Resolution: 1360x768

Kernel Notes: Transparent Huge Pages: madvise
Compiler Notes: --disable-libssp --disable-libstdcxx-pch --disable-werror --enable-__cxa_atexit --enable-bootstrap --enable-cet=auto --enable-checking=release --enable-clocale=gnu --enable-default-pie --enable-default-ssp --enable-gnu-indirect-function --enable-gnu-unique-object --enable-languages=c,c++,ada,fortran,go,lto,objc,obj-c++,d --enable-libstdcxx-backtrace --enable-link-serialization=1 --enable-lto --enable-multilib --enable-plugin --enable-shared --enable-threads=posix --mandir=/usr/share/man --with-build-config=bootstrap-lto --with-linker-hash-style=gnu
Processor Notes: CPU Microcode: 0x21
Graphics Notes: SNA
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 + mmio_stale_data: Unknown: No mitigations + 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: conditional RSB filling PBRSB-eIBRS: Not affected + srbds: Not affected + tsx_async_abort: Not affected

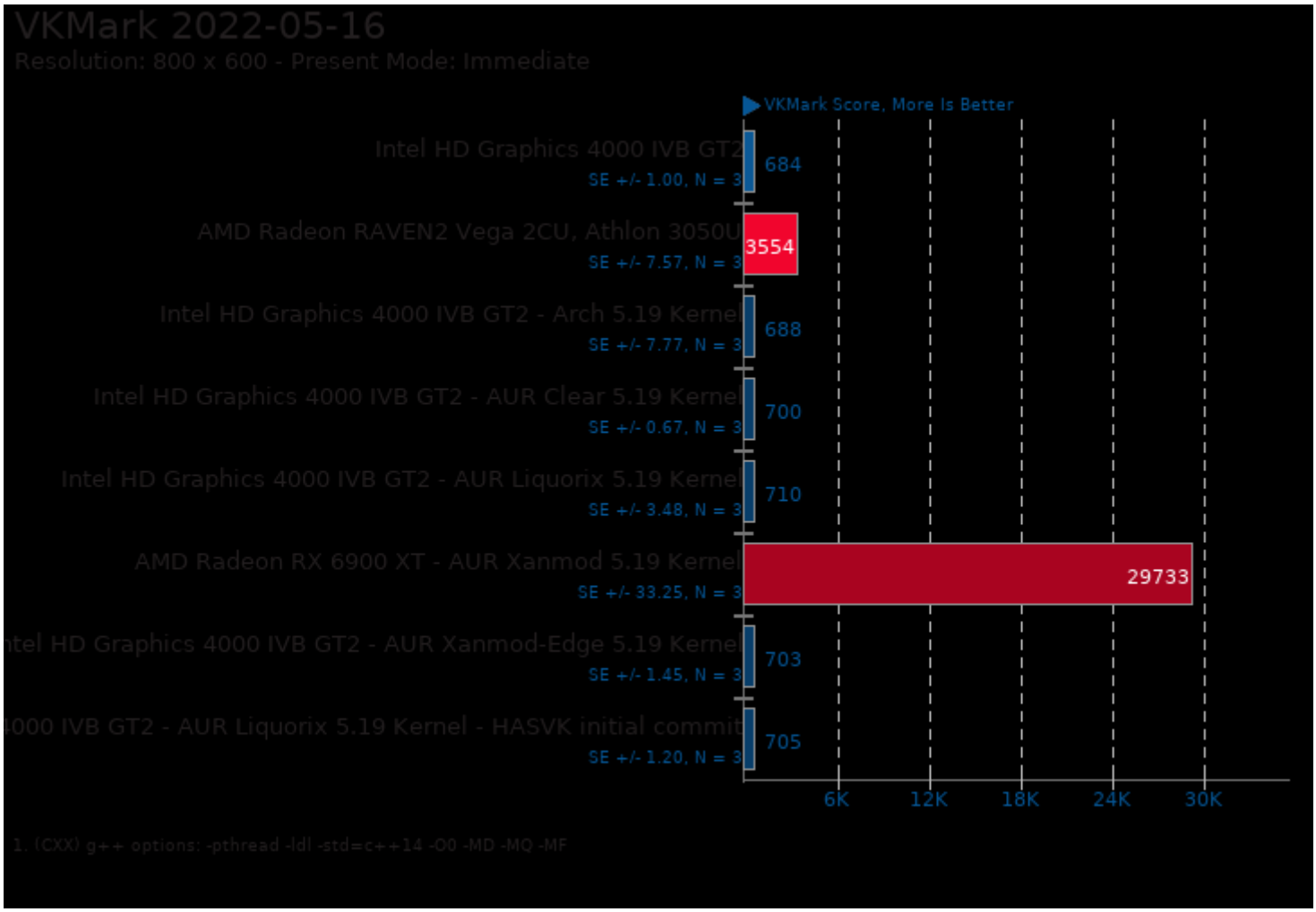
GL-VK-Simple

	Intel HD Graphics 4000 IVB GT2	AMD Radeon RAVEN2 Vega 2CU, Athlon 3050U	Intel HD Graphics 4000 IVB GT2 - Arch 5.19 Kernel	Intel HD Graphics 4000 IVB GT2 - AUR Clear 5.19 Kernel	Intel HD Graphics 4000 IVB GT2 - AUR Liquorix 5.19 Kernel	AMD Radeon RX 6900 XT - AUR Xanmod 5.19 Kernel	Intel HD Graphics 4000 IVB GT2 - AUR Xanmod-Edge 5.19 Kernel	Intel HD Graphics 4000 IVB GT2 - AUR Liquorix 5.19 Kernel - HASVK initial commit
GLmark2 - 800 x 600 (Score)	714	4001	720	719	734	**27046**	715	**708**
Normalized	2.64%	14.79%	2.66%	2.66%	2.71%	100%	2.64%	2.62%
VKMark - 800 x 600 - Immediate (VKMark Score)	**684**	3554	688	700	710	**29733**	703	705
Normalized	2.3%	11.95%	2.31%	2.35%	2.39%	100%	2.36%	2.37%
Standard Deviation	0.3%	0.4%	2%	0.2%	0.8%	0.2%	0.4%	0.3%

GL-VK-Simple


GLmark2
Resolution: 800 x 600
Score, More Is Better
Intel HD Graphics 4000 IVB GT2
714
AMD Radeon RAVEN2 Vega 2CU, Athlon 3050U
4001
Intel HD Graphics 4000 IVB GT2 - Arch 5.19 Kerne
720
Intel HD Graphics 4000 IVB GT2 - AUR Clear 5.19 Kerne
719
Intel HD Graphics 4000 IVB GT2 - AUR Liquorix 5.19 Kerne
734
AMD Radeon RX 6900 XT - AUR Xanmod 5.19 Kernel
27046
tel HD Graphics 4000 IVB GT2 - AUR Xanmod-Edge 5.19 Kerne
715
000 IVB GT2 - AUR Liquorix 5.19 Kernel - HASVK initial commit
708
6K
12K
18K
24K
30K

GL-VK-Simple



This file was automatically generated via the Phoronix Test Suite benchmarking software on Thursday, 28 March 2024 18:27.