



## smallpt1

AMD Ryzen 5 3600X 6-Core testing with a ASRock B450M/ac (P1.70 BIOS) and Sapphire AMD Radeon RX 5600 OEM/5600 XT / 5700/5700 6GB on ArcoLinuxB-plasma v20.4.10 via the Phoronix Test Suite.

### Test Systems:

#### smallpt1

Processor: Intel Core i5-3340M @ 3.40GHz (2 Cores / 4 Threads), Motherboard: TOSHIBA Portable PC (6.70 BIOS), Chipset: Intel 3rd Gen Core DRAM, Memory: 8192MB, Disk: 240GB CT240BX500SSD1 + 640GB + 500GB, Graphics: Intel Ivybridge Mobile 2GB (1250MHz), Audio: Realtek ALC269VB, Monitor: L185V, Network: Qualcomm Atheros AR8162 + Realtek RTL8188EE

OS: ManjaroLinux 18.1.1, Kernel: 5.3.7-2-MANJARO (x86\_64), Display Server: X Server 1.20.5, Display Driver: intel 2.99.917, OpenGL: 4.2 Mesa 19.2.2, Compiler: GCC 9.2.0 + Clang 9.0.0 + LLVM 9.0.0, File-System: ext4, Screen Resolution: 2732x768

Compiler Notes: --disable-libssp --disable-libstdcxx-pch --disable-libunwind-exceptions --disable-werror --enable-\_\_cxa\_atexit --enable-cet=auto --enable-checking=release --enable-clocale=gnu --enable-default-pie --enable-default-ssp --enable-gnu-indirect-function --enable-gnu-unique-object --enable-install-liberty

--enable-languages=c,c++,ada,fortran,go,lto,objc,obj-c++ --enable-lto --enable-multilib --enable-plugin --enable-shared --enable-threads=posix --mandir=/usr/share/man  
--with-isl --with-linker-hash-style=gnu

Processor Notes: Scaling Governor: intel\_pstate powersave

Security Notes: l1tf: Mitigation of PTE Inversion; VMX: conditional cache flushes SMT vulnerable + mds: Vulnerable: Clear buffers attempted no microcode; SMT vulnerable + meltdown: Mitigation of PTI + spec\_store\_bypass: Vulnerable + spectre\_v1: Mitigation of usercopy/swaps barriers and \_\_user pointer sanitization + spectre\_v2: Mitigation of Full generic retpoline STIBP: disabled RSB filling

## smallpt4

Processor: AMD Ryzen 3 3200G (4 Cores), Motherboard: ASRock B450M/ac (P1.20 BIOS), Chipset: AMD Raven/Raven2, Memory: 16384MB, Disk: 500GB Seagate ST500LT012-1DG14 + 80GB + 640GB TOSHIBA MK6475GS + 500GB HGST HTS545050A7 + 16GB USB Flash Disk + 240GB CT240BX500SSD1, Graphics: XFX AMD Radeon RX 470/480/570/570X/580/580X/590 4GB (1385/1900MHz), Audio: AMD Ellesmere HDMI Audio, Monitor: L185V + E420i-B0, Network: Realtek RTL8111/8168/8411 + Intel Dual Band-AC 3168NGW

OS: ManjaroLinux 18.1.2, Kernel: 5.4.0-1-MANJARO (x86\_64), Desktop: Deepin Desktop Environment, Display Server: X Server 1.20.5, OpenGL: 4.5 Mesa 19.2.3 (LLVM 9.0.0), Vulkan: 1.1.107, Compiler: GCC 9.2.0 + Clang 8.0.0, File-System: ext4, Screen Resolution: 3286x1080

Kernel Notes: amdgpu.ppfeaturemask=0xffffffff amdgpu.dcfeaturemask=2

Compiler Notes: --disable-libssp --disable-libstdcxx-pch --disable-libunwind-exceptions --disable-werror --enable-\_\_cxa\_atexit --enable-cet=auto --enable-checking=release --enable-clocale=gnu --enable-default-pie --enable-default-ssp --enable-gnu-indirect-function --enable-gnu-unique-object --enable-install-liberty --enable-languages=c,c++,ada,fortran,go,lto,objc,obj-c++,d --enable-lto --enable-multilib --enable-plugin --enable-shared --enable-threads=posix --mandir=/usr/share/man --with-isl --with-linker-hash-style=gnu

Security Notes: 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/swaps barriers and \_\_user pointer sanitization + spectre\_v2: Mitigation of Full AMD retpoline IBPB: conditional STIBP: disabled RSB filling

## test

### test2

Processor: AMD Ryzen 3 3200G @ 3.60GHz (4 Cores), Motherboard: ASRock B450M/ac (P1.20 BIOS), Chipset: AMD Raven/Raven2, Memory: 16384MB, Disk: 500GB Seagate ST500LT012-1DG14 + 80GB + 640GB TOSHIBA MK6475GS + 500GB HGST HTS545050A7 + 16GB USB Flash Disk + 240GB CT240BX500SSD1, Graphics: XFX AMD Radeon RX 470/480/570/570X/580/580X/590 4GB (1380/1920MHz), Audio: AMD Ellesmere HDMI Audio, Monitor: L185V + E420i-B0, Network: Realtek RTL8111/8168/8411 + Intel Dual Band-AC 3168NGW

OS: ManjaroLinux 18.1.3, Kernel: 5.4.0-1-MANJARO (x86\_64), Desktop: Deepin Desktop Environment, Display Server: X Server 1.20.5, OpenGL: 4.5 Mesa 20.0.0-devel (git-2e64afa5e3) (LLVM 9.0.0), Vulkan: 1.1.107, Compiler: GCC 9.2.0 + Clang 8.0.0, File-System: ext4, Screen Resolution: 3286x1080

Kernel Notes: amdgpu.ppfeaturemask=0xffffffff amdgpu.dcfeaturemask=2

Compiler Notes: --disable-libssp --disable-libstdcxx-pch --disable-libunwind-exceptions --disable-werror --enable-\_\_cxa\_atexit --enable-cet=auto --enable-checking=release --enable-clocale=gnu --enable-default-pie --enable-default-ssp --enable-gnu-indirect-function --enable-gnu-unique-object --enable-install-liberty --enable-languages=c,c++,ada,fortran,go,lto,objc,obj-c++,d --enable-lto --enable-multilib --enable-plugin --enable-shared --enable-threads=posix --mandir=/usr/share/man --with-isl --with-linker-hash-style=gnu

Processor Notes: Scaling Governor: acpi-cpufreq userspace

Security Notes: 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/swaps barriers and \_\_user pointer sanitization + spectre\_v2: Mitigation of Full AMD retpoline IBPB: conditional STIBP: disabled RSB filling

### test3

Processor: AMD Ryzen 3 3200G (4 Cores), Motherboard: ASRock B450M/ac (P1.20 BIOS), Chipset: AMD Raven/Raven2, Memory: 16384MB, Disk: 500GB Seagate ST500LT012-1DG14 + 80GB + 640GB TOSHIBA MK6475GS + 500GB HGST HTS545050A7 + 16GB USB Flash Disk + 240GB CT240BX500SSD1, Graphics: XFX AMD Radeon RX 470/480/570/570X/580/580X/590 4GB (1380/1920MHz), Audio: AMD Ellesmere HDMI Audio, Monitor: L185V + E420i-B0, Network: Realtek RTL8111/8168/8411 + Intel Dual Band-AC 3168NGW

OS: ManjaroLinux 18.1.3, Kernel: 5.4.0-1-MANJARO (x86\_64), Desktop: Deepin Desktop Environment, Display Server: X Server 1.20.5, OpenGL: 4.5 Mesa 20.0.0-devel (git-2e64afa5e3) (LLVM 9.0.0), Vulkan: 1.1.107, Compiler: GCC 9.2.0 + Clang 8.0.0, File-System: ext4, Screen Resolution: 3286x1080

Kernel Notes: amdgpu.ppfeaturemask=0xffffffff amdgpu.dcfeaturemask=2  
Compiler Notes: --disable-libssp --disable-libstdcxx-pch --disable-libunwind-exceptions --disable-werror --enable-\_\_cxa\_atexit --enable-cet=auto --enable-checking=release --enable-clocale=gnu --enable-default-pie --enable-default-ssp --enable-gnu-indirect-function --enable-gnu-unique-object --enable-install-liberty --enable-languages=c,c++,ada,fortran,go,lo,objc,obj-c++,d --enable-lto --enable-multilib --enable-plugin --enable-shared --enable-threads=posix --mandir=/usr/share/man --with-isl --with-linker-hash-style=gnu  
Security Notes: 11tf: Not affected + mds: Not affected + meltdown: Not affected + spec\_store\_bypass: Mitigation of SSB disabled via prctl and seccomp + spectre\_v1: Mitigation of usercopy/swaps barriers and \_\_user pointer sanitization + spectre\_v2: Mitigation of Full AMD retpoline IBPB: conditional STIBP: disabled RSB filling

## test4

Processor: AMD Ryzen 3 3200G (4 Cores), Motherboard: ASRock B450M/ac (P1.20 BIOS), Chipset: AMD Raven/Raven2, Memory: 16384MB, Disk: 500GB Seagate ST500LT012-1DG14 + 640GB TOSHIBA MK6475GS + 80GB + 500GB HGST HTS545050A7 + 240GB CT240BX500SSD1 + 16GB USB Flash Disk, Graphics: XFX AMD Radeon RX 470/480/570/570X/580/580X/590 4GB (1380/1920MHz), Audio: AMD Ellesmere HDMI Audio, Monitor: L185V + E420i-B0, Network: Realtek RTL8111/8168/8411 + Intel Dual Band-AC 3168NGW

OS: ManjaroLinux 18.1.3, Kernel: 5.4.0-1-MANJARO (x86\_64), Desktop: Deepin Desktop Environment, Display Server: X Server 1.20.5, OpenGL: 4.5 Mesa 20.0.0-devel (git-2e64afa5e3) (LLVM 9.0.0), Vulkan: 1.1.107, Compiler: GCC 9.2.0 + Clang 8.0.0, File-System: ext4, Screen Resolution: 3286x1080

Kernel Notes: amdgpu.ppfeaturemask=0xffffffff amdgpu.dcfeaturemask=2  
Compiler Notes: --disable-libssp --disable-libstdcxx-pch --disable-libunwind-exceptions --disable-werror --enable-\_\_cxa\_atexit --enable-cet=auto --enable-checking=release --enable-clocale=gnu --enable-default-pie --enable-default-ssp --enable-gnu-indirect-function --enable-gnu-unique-object --enable-install-liberty --enable-languages=c,c++,ada,fortran,go,lo,objc,obj-c++,d --enable-lto --enable-multilib --enable-plugin --enable-shared --enable-threads=posix --mandir=/usr/share/man --with-isl --with-linker-hash-style=gnu  
Security Notes: 11tf: Not affected + mds: Not affected + meltdown: Not affected + spec\_store\_bypass: Mitigation of SSB disabled via prctl and seccomp + spectre\_v1: Mitigation of usercopy/swaps barriers and \_\_user pointer sanitization + spectre\_v2: Mitigation of Full AMD retpoline IBPB: conditional STIBP: disabled RSB filling

## 5

Processor: AMD Ryzen 3 3200G (4 Cores), Motherboard: ASRock B450M/ac (P1.20 BIOS), Chipset: AMD Raven/Raven2, Memory: 16384MB, Disk: 500GB Seagate ST500LT012-1DG14 + 80GB + 640GB TOSHIBA MK6475GS + 500GB HGST HTS545050A7 + 16GB USB Flash Disk + 240GB CT240BX500SSD1, Graphics: XFX AMD Radeon RX 470/480/570/570X/580/580X/590 4GB (1380/1920MHz), Audio: AMD Ellesmere HDMI Audio, Monitor: L185V + E420i-B0, Network: Realtek RTL8111/8168/8411 + Intel Dual Band-AC 3168NGW

OS: ManjaroLinux 18.1.3, Kernel: 5.4.0-1-MANJARO (x86\_64), Desktop: Deepin Desktop Environment, Display Server: X Server 1.20.5, OpenGL: 4.5 Mesa 20.0.0-devel (git-2e64afa5e3) (LLVM 9.0.0), Vulkan: 1.1.107, Compiler: GCC 9.2.0 + Clang 8.0.0, File-System: ext4, Screen Resolution: 3286x1080

Kernel Notes: amdgpu.ppfeaturemask=0xffffffff amdgpu.dcfeaturemask=2  
Compiler Notes: --disable-libssp --disable-libstdcxx-pch --disable-libunwind-exceptions --disable-werror --enable-\_\_cxa\_atexit --enable-cet=auto --enable-checking=release --enable-clocale=gnu --enable-default-pie --enable-default-ssp --enable-gnu-indirect-function --enable-gnu-unique-object --enable-install-liberty --enable-languages=c,c++,ada,fortran,go,lo,objc,obj-c++,d --enable-lto --enable-multilib --enable-plugin --enable-shared --enable-threads=posix --mandir=/usr/share/man --with-isl --with-linker-hash-style=gnu  
Security Notes: 11tf: Not affected + mds: Not affected + meltdown: Not affected + spec\_store\_bypass: Mitigation of SSB disabled via prctl and seccomp + spectre\_v1: Mitigation of usercopy/swaps barriers and \_\_user pointer sanitization + spectre\_v2: Mitigation of Full AMD retpoline IBPB: conditional STIBP: disabled RSB filling

## 6

Processor: AMD Ryzen 3 3200G @ 3.60GHz (4 Cores), Motherboard: ASRock B450M/ac (P1.20 BIOS), Chipset: AMD Raven/Raven2, Memory: 16384MB, Disk: 500GB Seagate ST500LT012-1DG14 + 80GB + 640GB TOSHIBA MK6475GS + 16GB USB Flash Disk + 500GB HGST HTS545050A7 + 240GB CT240BX500SSD1, Graphics: XFX AMD Radeon RX 470/480/570/570X/580/580X/590 4GB (1380/1920MHz), Audio: AMD Ellesmere HDMI Audio, Monitor:

L185V + E420i-B0, Network: Realtek RTL8111/8168/8411 + Intel Dual Band-AC 3168NGW

OS: ManjaroLinux 18.1.3, Kernel: 5.4.0-1-MANJARO (x86\_64), Desktop: Deepin Desktop Environment, Display Server: X Server 1.20.5, OpenGL: 4.5 Mesa 20.0.0-devel (git-2e64afa5e3) (LLVM 9.0.0), Vulkan: 1.1.107, Compiler: GCC 9.2.0 + Clang 8.0.0, File-System: ext4, Screen Resolution: 3286x1080

Kernel Notes: amdgpu.ppfeaturemask=0xffffffff amdgpu.dcfeaturemask=2

Compiler Notes: --disable-libssp --disable-libstdcxx-pch --disable-libunwind-exceptions --disable-werror --enable-\_\_cxa\_atexit --enable-cet=auto --enable-checking=release --enable-clocale=gnu --enable-default-pie --enable-default-ssp --enable-gnu-indirect-function --enable-gnu-unique-object --enable-install-liberty --enable-languages=c,c++,ada,fortran,go,ito,objc,obj-c++,d --enable-lto --enable-multilib --enable-plugin --enable-shared --enable-threads=posix --mandir=/usr/share/man --with-isl --with-linker-hash-style=gnu

Processor Notes: Scaling Governor: acpi-cpufreq schedutil

Security Notes: 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/swaps barriers and \_\_user pointer sanitization + spectre\_v2: Mitigation of Full AMD retpoline IBPB: conditional STIBP: disabled RSB filling

## 7

Processor: AMD Ryzen 3 3200G (4 Cores), Motherboard: ASRock B450M/ac (P1.20 BIOS), Chipset: AMD Raven/Raven2, Memory: 16384MB, Disk: 500GB Seagate ST500LT012-1DG14 + 80GB + 640GB TOSHIBA MK6475GS + 500GB HGST HTS545050A7 + 16GB USB Flash Disk + 240GB CT240BX500SSD1, Graphics: XFX AMD Radeon RX 470/480/570/570X/580/580X/590 4GB (1380/1920MHz), Audio: AMD Ellesmere HDMI Audio, Monitor: L185V + E420i-B0, Network: Realtek RTL8111/8168/8411 + Intel Dual Band-AC 3168NGW

OS: ManjaroLinux 18.1.3, Kernel: 5.4.0-1-MANJARO (x86\_64), Desktop: Deepin Desktop Environment, Display Server: X Server 1.20.5, OpenGL: 4.5 Mesa 20.0.0-devel (git-2e64afa5e3) (LLVM 9.0.0), Vulkan: 1.1.107, Compiler: GCC 9.2.0 + Clang 8.0.0, File-System: ext4, Screen Resolution: 3286x1080

Kernel Notes: amdgpu.ppfeaturemask=0xffffffff amdgpu.dcfeaturemask=2

Compiler Notes: --disable-libssp --disable-libstdcxx-pch --disable-libunwind-exceptions --disable-werror --enable-\_\_cxa\_atexit --enable-cet=auto --enable-checking=release --enable-clocale=gnu --enable-default-pie --enable-default-ssp --enable-gnu-indirect-function --enable-gnu-unique-object --enable-install-liberty --enable-languages=c,c++,ada,fortran,go,ito,objc,obj-c++,d --enable-lto --enable-multilib --enable-plugin --enable-shared --enable-threads=posix --mandir=/usr/share/man --with-isl --with-linker-hash-style=gnu

Security Notes: 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/swaps barriers and \_\_user pointer sanitization + spectre\_v2: Mitigation of Full AMD retpoline IBPB: conditional STIBP: disabled RSB filling

## 8

Processor: AMD Ryzen 3 3200G (4 Cores), Motherboard: ASRock B450M/ac (P1.20 BIOS), Chipset: AMD Raven/Raven2, Memory: 16384MB, Disk: 80GB + 500GB Seagate ST500LT012-1DG14 + 640GB TOSHIBA MK6475GS + 500GB HGST HTS545050A7 + 240GB CT240BX500SSD1, Graphics: XFX AMD Radeon RX 470/480/570/570X/580/580X/590 4GB (1366/1750MHz), Audio: AMD Ellesmere HDMI Audio, Monitor: L185V + E420i-B0, Network: Realtek RTL8111/8168/8411 + Intel Dual Band-AC 3168NGW

OS: ManjaroLinux 18.1.3, Kernel: 5.4.0-2-MANJARO (x86\_64), Desktop: Deepin Desktop Environment, Display Server: X Server 1.20.6, OpenGL: 4.5 Mesa 19.2.6 (LLVM 9.0.0), Vulkan: 1.1.107, Compiler: GCC 9.2.0 + Clang 9.0.0 + LLVM 9.0.0, File-System: ext4, Screen Resolution: 3286x1080

Kernel Notes: amdgpu.ppfeaturemask=0xffffffff

Compiler Notes: --disable-libssp --disable-libstdcxx-pch --disable-libunwind-exceptions --disable-werror --enable-\_\_cxa\_atexit --enable-cet=auto --enable-checking=release --enable-clocale=gnu --enable-default-pie --enable-default-ssp --enable-gnu-indirect-function --enable-gnu-unique-object --enable-install-liberty --enable-languages=c,c++,ada,fortran,go,ito,objc,obj-c++,d --enable-lto --enable-multilib --enable-plugin --enable-shared --enable-threads=posix --mandir=/usr/share/man --with-isl --with-linker-hash-style=gnu

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/swaps barriers and \_\_user pointer sanitization + spectre\_v2: Mitigation of Full AMD retpoline IBPB: conditional STIBP: disabled RSB filling + tsx\_async\_abort: Not affected

## test9

Processor: AMD Ryzen 3 3200G (4 Cores), Motherboard: ASRock B450M/ac (P1.20 BIOS), Chipset: AMD

Raven/Raven2, Memory: 16384MB, Disk: 80GB + 500GB Seagate ST500LT012-1DG14 + 640GB TOSHIBA MK6475GS + 500GB HGST HTS545050A7 + 240GB CT240BX500SSD1, Graphics: XFX AMD Radeon RX 470/480/570/570X/580/580X/590 4GB (1366/1750MHz), Audio: AMD Ellesmere HDMI Audio, Monitor: L185V + E420i-B0, Network: Realtek RTL8111/8168/8411 + Intel Dual Band-AC 3168NGW

OS: ManjaroLinux 18.1.3, Kernel: 5.4.1-2-MANJARO (x86\_64), Desktop: Deepin Desktop Environment, Display Server: X Server 1.20.6, OpenGL: 4.5 Mesa 19.2.6 (LLVM 9.0.0), Vulkan: 1.1.107, Compiler: GCC 9.2.0 + Clang 9.0.0 + LLVM 9.0.0, File-System: ext4, Screen Resolution: 3286x1080

Kernel Notes: amdgpu.ppfeaturemask=0xffff7fff

Compiler Notes: --disable-libssp --disable-libstdcxx-pch --disable-libunwind-exceptions --disable-werror --enable-\_\_cxa\_atexit --enable-cet=auto --enable-checking=release --enable-clocale=gnu --enable-default-pie --enable-default-ssp --enable-gnu-indirect-function --enable-gnu-unique-object --enable-install-liberty --enable-languages=c,c++,ada,fortran,go,lo,objc,obj-c++,d --enable-lto --enable-multilib --enable-plugin --enable-shared --enable-threads=posix --mandir=/usr/share/man --with-isl --with-linker-hash-style=gnu

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/swappgs barriers and \_\_user pointer sanitization + spectre\_v2: Mitigation of Full AMD retpoline IBPB: conditional STIBP: disabled RSB filling + tsx\_async\_abort: Not affected

## 10

Processor: AMD Ryzen 3 3200G (4 Cores), Motherboard: ASRock B450M/ac (P1.20 BIOS), Chipset: AMD Raven/Raven2, Memory: 16384MB, Disk: 80GB + 500GB Seagate ST500LT012-1DG14 + 640GB TOSHIBA MK6475GS + 500GB HGST HTS545050A7 + 240GB CT240BX500SSD1, Graphics: XFX AMD Radeon RX 470/480/570/570X/580/580X/590 4GB (1390/1900MHz), Audio: AMD Ellesmere HDMI Audio, Monitor: L185V + E420i-B0, Network: Realtek RTL8111/8168/8411 + Intel Dual Band-AC 3168NGW

OS: ManjaroLinux 18.1.3, Kernel: 5.4.1-2-MANJARO (x86\_64), Desktop: Deepin Desktop Environment, Display Server: X Server 1.20.6, OpenGL: 4.5 Mesa 19.2.6 (LLVM 9.0.0), Vulkan: 1.1.107, Compiler: GCC 9.2.0 + Clang 9.0.0 + LLVM 9.0.0, File-System: ext4, Screen Resolution: 3286x1080

Kernel Notes: amdgpu.ppfeaturemask=0xffff7fff

Compiler Notes: --disable-libssp --disable-libstdcxx-pch --disable-libunwind-exceptions --disable-werror --enable-\_\_cxa\_atexit --enable-cet=auto --enable-checking=release --enable-clocale=gnu --enable-default-pie --enable-default-ssp --enable-gnu-indirect-function --enable-gnu-unique-object --enable-install-liberty --enable-languages=c,c++,ada,fortran,go,lo,objc,obj-c++,d --enable-lto --enable-multilib --enable-plugin --enable-shared --enable-threads=posix --mandir=/usr/share/man --with-isl --with-linker-hash-style=gnu

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/swappgs barriers and \_\_user pointer sanitization + spectre\_v2: Mitigation of Full AMD retpoline IBPB: conditional STIBP: disabled RSB filling + tsx\_async\_abort: Not affected

## kernel 5.3.14

Processor: AMD Ryzen 3 3200G (4 Cores), Motherboard: ASRock B450M/ac (P1.20 BIOS), Chipset: AMD Raven/Raven2, Memory: 16384MB, Disk: 500GB Seagate ST500LT012-1DG14 + 80GB + 640GB TOSHIBA MK6475GS + 500GB HGST HTS545050A7 + 240GB CT240BX500SSD1, Graphics: XFX AMD Radeon RX 470/480/570/570X/580/580X/590 4GB (1390/1900MHz), Audio: AMD Ellesmere HDMI Audio, Monitor: L185V + E420i-B0, Network: Realtek RTL8111/8168/8411 + Intel Dual Band-AC 3168NGW

OS: ManjaroLinux 18.1.3, Kernel: 5.3.14-1-MANJARO (x86\_64), Desktop: Deepin Desktop Environment, Display Server: X Server 1.20.6, OpenGL: 4.5 Mesa 19.2.6 (LLVM 9.0.0), Vulkan: 1.1.107, Compiler: GCC 9.2.0 + Clang 9.0.0 + LLVM 9.0.0, File-System: ext4, Screen Resolution: 3286x1080

Kernel Notes: amdgpu.ppfeaturemask=0xffff7fff

Compiler Notes: --disable-libssp --disable-libstdcxx-pch --disable-libunwind-exceptions --disable-werror --enable-\_\_cxa\_atexit --enable-cet=auto --enable-checking=release --enable-clocale=gnu --enable-default-pie --enable-default-ssp --enable-gnu-indirect-function --enable-gnu-unique-object --enable-install-liberty --enable-languages=c,c++,ada,fortran,go,lo,objc,obj-c++,d --enable-lto --enable-multilib --enable-plugin --enable-shared --enable-threads=posix --mandir=/usr/share/man --with-isl --with-linker-hash-style=gnu

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/swappgs barriers and \_\_user pointer sanitization + spectre\_v2: Mitigation of Full AMD retpoline IBPB: conditional STIBP: disabled RSB filling + tsx\_async\_abort: Not affected

## Ryzen 2600X

Processor: AMD Ryzen 5 2600X Six-Core @ 4.00GHz (6 Cores / 12 Threads), Motherboard: ASRock B450M/ac (P1.20 BIOS), Chipset: AMD 17h, Memory: 16384MB, Disk: HP SSD EX900 120GB + 80GB + 500GB Seagate ST500LT012-1DG14 + 640GB TOSHIBA MK6475GS + 500GB HGST HTS545050A7 + 16GB USB Flash Disk + 240GB CT240BX500SSD1, Graphics: XFX AMD Radeon RX 470/480/570/570X/580/580X/590 4GB (1390/1900MHz), Audio: AMD Ellesmere HDMI Audio, Monitor: L185V + E420i-B0, Network: Realtek RTL8111/8168/8411 + Intel Dual Band-AC 3168NGW

OS: Arch rolling, Kernel: 5.4.2-arch1-1 (x86\_64), Desktop: Budgie, Display Server: X Server 1.20.6, Display Driver: modesetting 1.20.6, OpenGL: 4.5 Mesa 19.2.7 (LLVM 9.0.0), OpenCL: OpenCL 1.1 Mesa 19.2.7, Vulkan: 1.1.107, Compiler: GCC 9.2.0 + Clang 9.0.0 + LLVM 9.0.0, File-System: ext4, Screen Resolution: 3286x1080

Kernel Notes: amdgpu.ppfeaturemask=0xffff7fff

Compiler Notes: --disable-libssp --disable-libstdcxx-pch --disable-libunwind-exceptions --disable-werror --enable-\_\_cxa\_atexit --enable-cet=auto --enable-checking=release --enable-clocale=gnu --enable-default-pie --enable-default-ssp --enable-gnu-indirect-function --enable-gnu-unique-object --enable-install-liberty --enable-languages=c,c++,ada,fortran,go,lto,objc,obj-c++,d --enable-lto --enable-multilib --enable-plugin --enable-shared --enable-threads=posix --mandir=/usr/share/man --with-isl --with-linker-hash-style=gnu

Processor Notes: Scaling Governor: acpi-cpufreq schedutil - CPU Microcode: 0x800820d

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/swaps barriers and \_\_user pointer sanitization + spectre\_v2: Mitigation of Full AMD retpoline IBPB: conditional STIBP: disabled RSB filling + tsx\_async\_abort: Not affected

## 5.5-tkg

Processor: AMD Ryzen 5 2600X Six-Core @ 4.00GHz (6 Cores / 12 Threads), Motherboard: ASRock B450M/ac (P1.20 BIOS), Chipset: AMD 17h, Memory: 16384MB, Disk: HP SSD EX900 120GB + 500GB Seagate ST500LT012-1DG14 + 80GB + 640GB TOSHIBA MK6475GS + 500GB HGST HTS545050A7 + 16GB USB Flash Disk + 240GB CT240BX500SSD1, Graphics: XFX AMD Radeon RX 470/480/570/570X/580/580X/590 4GB (1390/1900MHz), Audio: AMD Ellesmere HDMI Audio, Monitor: L185V + E420i-B0, Network: Realtek RTL8111/8168/8411 + Intel Dual Band-AC 3168NGW

OS: Arch rolling, Kernel: 5.5.0-rc1-1-tkg-pds (x86\_64), Desktop: Budgie, Display Server: X Server 1.20.6, Display Driver: modesetting 1.20.6, OpenGL: 4.5 Mesa 19.2.7 (LLVM 9.0.0), OpenCL: OpenCL 1.1 Mesa 19.2.7, Vulkan: 1.1.127, Compiler: GCC 9.2.0 + Clang 9.0.0 + LLVM 9.0.0, File-System: ext4, Screen Resolution: 3286x1080

Kernel Notes: amdgpu.ppfeaturemask=0xffff7fff

Compiler Notes: --disable-libssp --disable-libstdcxx-pch --disable-libunwind-exceptions --disable-werror --enable-\_\_cxa\_atexit --enable-cet=auto --enable-checking=release --enable-clocale=gnu --enable-default-pie --enable-default-ssp --enable-gnu-indirect-function --enable-gnu-unique-object --enable-install-liberty --enable-languages=c,c++,ada,fortran,go,lto,objc,obj-c++,d --enable-lto --enable-multilib --enable-plugin --enable-shared --enable-threads=posix --mandir=/usr/share/man --with-isl --with-linker-hash-style=gnu

Processor Notes: Scaling Governor: acpi-cpufreq performance - CPU Microcode: 0x800820d

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/swaps barriers and \_\_user pointer sanitization + spectre\_v2: Mitigation of Full AMD retpoline IBPB: conditional STIBP: disabled RSB filling + tsx\_async\_abort: Not affected

## Precision Boost Overdrive

### PBO 5.5-tkg

#### pbo3

Processor: AMD Ryzen 5 2600X Six-Core @ 3.60GHz (6 Cores / 12 Threads), Motherboard: ASRock B450M/ac (P1.20 BIOS), Chipset: AMD 17h, Memory: 16384MB, Disk: HP SSD EX900 120GB + 500GB Seagate ST500LT012-1DG14 + 80GB + 640GB TOSHIBA MK6475GS + 500GB HGST HTS545050A7 + 16GB USB Flash Disk + 240GB CT240BX500SSD1, Graphics: XFX AMD Radeon RX 470/480/570/570X/580/580X/590 4GB (1390/1900MHz), Audio: AMD Ellesmere HDMI Audio, Monitor: L185V + E420i-B0, Network: Realtek RTL8111/8168/8411 + Intel Dual Band-AC 3168NGW

OS: Arch rolling, Kernel: 5.5.0-rc1-1-tkg-pds (x86\_64), Desktop: Budgie, Display Server: X Server 1.20.6, Display Driver: modesetting 1.20.6, OpenGL: 4.5 Mesa 20.0.0-devel (git-3409c06e26) (LLVM 9.0.0), OpenCL: OpenCL 1.1 Mesa 20.0.0-devel (git-3409c06e26), Vulkan: 1.1.127, Compiler: GCC 9.2.0 + Clang 9.0.0 + LLVM 9.0.0, File-System: ext4, Screen Resolution: 3286x1080

Kernel Notes: amdgpu.ppfeaturemask=0xffff7fff  
Compiler Notes: --disable-libssp --disable-libstdcxx-pch --disable-libunwind-exceptions --disable-werror --enable-\_\_cxa\_atexit --enable-cet=auto --enable-checking=release --enable-clocale=gnu --enable-default-pie --enable-default-ssp --enable-gnu-indirect-function --enable-gnu-unique-object --enable-install-libiberty --enable-languages=c,c++,ada,fortran,go,lto,objc,obj-c++,d --enable-lto --enable-multilib --enable-plugin --enable-shared --enable-threads=posix --mandir=/usr/share/man --with-isl --with-linker-hash-style=gnu  
Processor Notes: Scaling Governor: acpi-cpufreq performance - CPU Microcode: 0x800820d  
Security Notes: itlb\_multihit: Not affected + 11tf: Not affected + mds: Not affected + meltdown: Not affected + spec\_store\_bypass: Mitigation of SSB disabled via prctl and seccomp + spectre\_v1: Mitigation of usercopy/swaps barriers and \_\_user pointer sanitization + spectre\_v2: Mitigation of Full AMD retpoline IBPB: conditional STIBP: disabled RSB filling + tsx\_async\_abort: Not affected

## 5.5-rc

### Gamemode

#### async

Processor: AMD Ryzen 5 2600X Six-Core @ 3.60GHz (6 Cores / 12 Threads), Motherboard: ASRock B450M/ac (P1.20 BIOS), Chipset: AMD 17h, Memory: 16384MB, Disk: HP SSD EX900 120GB + 500GB Seagate ST500LT012-1DG14 + 80GB + 640GB TOSHIBA MK6475GS + 500GB HGST HTS545050A7 + 16GB USB Flash Disk + 240GB CT240BX500SSD1, Graphics: XFX AMD Radeon RX 470/480/570/570X/580/580X/590 4GB (1390/1900MHz), Audio: AMD Ellesmere HDMI Audio, Monitor: L185V + E420i-B0, Network: Realtek RTL8111/8168/8411 + Intel Dual Band-AC 3168NGW

OS: ManjaroLinux 18.1.4, Kernel: 5.5.0-2-MANJARO (x86\_64), Desktop: GNOME Shell 3.34.2, Display Server: X Server 1.20.6, OpenGL: 4.5 Mesa 19.3.0 (LLVM 9.0.0), Vulkan: 1.1.127, Compiler: GCC 9.2.0 + Clang 9.0.0 + LLVM 9.0.0, File-System: ext4, Screen Resolution: 3286x1080

Kernel Notes: amdgpu.ppfeaturemask=0xffff7fff  
Compiler Notes: --disable-libssp --disable-libstdcxx-pch --disable-libunwind-exceptions --disable-werror --enable-\_\_cxa\_atexit --enable-cet=auto --enable-checking=release --enable-clocale=gnu --enable-default-pie --enable-default-ssp --enable-gnu-indirect-function --enable-gnu-unique-object --enable-install-libiberty --enable-languages=c,c++,ada,fortran,go,lto,objc,obj-c++,d --enable-lto --enable-multilib --enable-plugin --enable-shared --enable-threads=posix --mandir=/usr/share/man --with-isl --with-linker-hash-style=gnu  
Processor Notes: Scaling Governor: acpi-cpufreq performance - CPU Microcode: 0x800820d  
Security Notes: itlb\_multihit: Not affected + 11tf: Not affected + mds: Not affected + meltdown: Not affected + spec\_store\_bypass: Mitigation of SSB disabled via prctl and seccomp + spectre\_v1: Mitigation of usercopy/swaps barriers and \_\_user pointer sanitization + spectre\_v2: Mitigation of Full AMD retpoline IBPB: conditional STIBP: disabled RSB filling + tsx\_async\_abort: Not affected

### modesetting attempt

#### schedutil

Processor: AMD Ryzen 5 2600X Six-Core @ 3.60GHz (6 Cores / 12 Threads), Motherboard: ASRock B450M/ac (P1.20 BIOS), Chipset: AMD 17h, Memory: 16384MB, Disk: HP SSD EX900 120GB + 500GB Seagate ST500LT012-1DG14 + 80GB + 640GB TOSHIBA MK6475GS + 500GB HGST HTS545050A7 + 16GB USB Flash Disk + 240GB CT240BX500SSD1, Graphics: XFX AMD Radeon RX 470/480/570/570X/580/580X/590 4GB (1390/1900MHz), Audio: AMD Ellesmere HDMI Audio, Monitor: L185V + E420i-B0, Network: Realtek RTL8111/8168/8411 + Intel Dual Band-AC 3168NGW

OS: ManjaroLinux 18.1.5, Kernel: 5.4.6-2-MANJARO (x86\_64), Desktop: GNOME Shell 3.34.2, Display Server: X Server 1.20.6, OpenGL: 4.5 Mesa 20.0.0-devel (git-3409c06e26) (LLVM 9.0.0), OpenCL: OpenCL 1.1 Mesa 20.0.0-devel (git-3409c06e26), Vulkan: 1.1.129, Compiler: GCC 9.2.0 + Clang 9.0.0 + LLVM 9.0.0, File-System: ext4, Screen Resolution: 3286x1080

Kernel Notes: amdgpu.ppfeaturemask=0xffffd7fff

Compiler Notes: --disable-libssp --disable-libstdcxx-pch --disable-libunwind-exceptions --disable-werror --enable-\_\_cxa\_atexit --enable-cet=auto --enable-checking=release --enable-clocale=gnu --enable-default-pie --enable-default-ssp --enable-gnu-indirect-function --enable-gnu-unique-object --enable-install-libiberty --enable-languages=c,c++,ada,fortran,go,ito,objc,obj-c++,d --enable-lto --enable-multilib --enable-plugin --enable-shared --enable-threads=posix --mandir=/usr/share/man --with-isl --with-linker-hash-style=gnu

Processor Notes: Scaling Governor: acpi-cpufreq schedutil - CPU Microcode: 0x800820d

Security Notes: itlb\_multihit: Not affected + 11tf: Not affected + mds: Not affected + meltdown: Not affected + spec\_store\_bypass: Mitigation of SSB disabled via prctl and seccomp + spectre\_v1: Mitigation of usercopy/swaps barriers and \_\_user pointer sanitization + spectre\_v2: Mitigation of Full AMD retpoline IBPB: conditional STIBP: disabled RSB filling + tsx\_async\_abort: Not affected

## 4.0GHz

Processor: AMD Ryzen 5 2600X Six-Core @ 4.00GHz (6 Cores / 12 Threads), Motherboard: ASRock B450M/ac (P1.20 BIOS), Chipset: AMD 17h, Memory: 16384MB, Disk: HP SSD EX900 120GB + 500GB Seagate ST500LT012-1DG14 + 80GB + 640GB TOSHIBA MK6475GS + 500GB HGST HTS545050A7 + 16GB USB Flash Disk + 240GB CT240BX500SSD1, Graphics: XFX AMD Radeon RX 470/480/570/570X/580/580X/590 4GB (1390/1900MHz), Audio: AMD Ellesmere HDMI Audio, Monitor: L185V + E420i-B0, Network: Realtek RTL8111/8168/8411 + Intel Dual Band-AC 3168NGW

OS: ManjaroLinux 18.1.5, Kernel: 5.4.6-2-MANJARO (x86\_64), Display Server: X Server 1.20.6, OpenGL: 4.5 Mesa 20.0.0-devel (git-3409c06e26) (LLVM 9.0.0), OpenCL: OpenCL 1.1 Mesa 20.0.0-devel (git-3409c06e26), Vulkan: 1.1.129, Compiler: GCC 9.2.0 + Clang 9.0.0 + LLVM 9.0.0, File-System: ext4, Screen Resolution: 3286x1080

Kernel Notes: amdgpu.ppfeaturemask=0xffffd7fff

Compiler Notes: --disable-libssp --disable-libstdcxx-pch --disable-libunwind-exceptions --disable-werror --enable-\_\_cxa\_atexit --enable-cet=auto --enable-checking=release --enable-clocale=gnu --enable-default-pie --enable-default-ssp --enable-gnu-indirect-function --enable-gnu-unique-object --enable-install-libiberty --enable-languages=c,c++,ada,fortran,go,ito,objc,obj-c++,d --enable-lto --enable-multilib --enable-plugin --enable-shared --enable-threads=posix --mandir=/usr/share/man --with-isl --with-linker-hash-style=gnu

Processor Notes: Scaling Governor: acpi-cpufreq performance - CPU Microcode: 0x800820d

Security Notes: itlb\_multihit: Not affected + 11tf: Not affected + mds: Not affected + meltdown: Not affected + spec\_store\_bypass: Mitigation of SSB disabled via prctl and seccomp + spectre\_v1: Mitigation of usercopy/swaps barriers and \_\_user pointer sanitization + spectre\_v2: Mitigation of Full AMD retpoline IBPB: conditional STIBP: disabled RSB filling + tsx\_async\_abort: Not affected

## fsync kernel

Processor: AMD Ryzen 5 2600X Six-Core @ 4.00GHz (6 Cores / 12 Threads), Motherboard: ASRock B450M/ac (P1.20 BIOS), Chipset: AMD 17h, Memory: 16384MB, Disk: HP SSD EX900 120GB + 500GB Seagate ST500LT012-1DG14 + 80GB + 640GB TOSHIBA MK6475GS + 500GB HGST HTS545050A7 + 16GB USB Flash Disk + 240GB CT240BX500SSD1, Graphics: XFX AMD Radeon RX 470/480/570/570X/580/580X/590 4GB (1390/1900MHz), Audio: AMD Ellesmere HDMI Audio, Monitor: L185V + E420i-B0, Network: Realtek RTL8111/8168/8411 + Intel Dual Band-AC 3168NGW

OS: ManjaroLinux 18.1.5, Kernel: 5.4.3-arch1-1-fsync (x86\_64), Desktop: KDE Frameworks 5.65.0, Display Server: X Server 1.20.6, OpenGL: 4.5 Mesa 20.0.0-devel (git-3409c06e26) (LLVM 9.0.0), OpenCL: OpenCL 1.1 Mesa 20.0.0-devel (git-3409c06e26), Vulkan: 1.1.129, Compiler: GCC 9.2.0 + Clang 9.0.1 + LLVM 9.0.1, File-System: ext4, Screen Resolution: 3286x1080

Kernel Notes: amdgpu.ppfeaturemask=0xffffd7fff

Compiler Notes: --disable-libssp --disable-libstdcxx-pch --disable-libunwind-exceptions --disable-werror --enable-\_\_cxa\_atexit --enable-cet=auto --enable-checking=release --enable-clocale=gnu --enable-default-pie --enable-default-ssp --enable-gnu-indirect-function --enable-gnu-unique-object --enable-install-libiberty --enable-languages=c,c++,ada,fortran,go,ito,objc,obj-c++,d --enable-lto --enable-multilib --enable-plugin --enable-shared --enable-threads=posix --mandir=/usr/share/man --with-isl --with-linker-hash-style=gnu

Processor Notes: Scaling Governor: acpi-cpufreq performance - CPU Microcode: 0x800820d

Security Notes: itlb\_multihit: Not affected + 11tf: Not affected + mds: Not affected + meltdown: Not affected + spec\_store\_bypass: Mitigation of SSB disabled via prctl and seccomp + spectre\_v1: Mitigation of usercopy/swaps barriers and \_\_user pointer sanitization + spectre\_v2: Mitigation of Full AMD retpoline IBPB: conditional STIBP: disabled RSB filling + tsx\_async\_abort: Not affected

## Arch Linux

Processor: AMD Ryzen 5 2600X Six-Core @ 4.03GHz (6 Cores / 12 Threads), Motherboard: ASRock B450M/ac (P1.20 BIOS), Chipset: AMD 17h, Memory: 16384MB, Disk: HP SSD EX900 120GB + 500GB Seagate ST500LT012-1DG14 +

80GB + 640GB TOSHIBA MK6475GS + 500GB HGST HTS545050A7 + 16GB USB Flash Disk + 240GB CT240BX500SSD1, Graphics: XFX AMD Radeon RX 470/480/570/570X/580/580X/590 4GB (1390/1900MHz), Audio: AMD Ellesmere HDMI Audio, Monitor: L185V + E420i-B0, Network: Realtek RTL8111/8168/8411 + Intel Dual Band-AC 3168NGW

OS: Arch rolling, Kernel: 5.5.0-rc1-1-tkg-pds (x86\_64), Desktop: GNOME Shell 3.34.2, Display Server: X Server 1.20.6, Display Driver: modesetting 1.20.6, OpenGL: 4.5 Mesa 20.0.0-devel (git-3409c06e26) (LLVM 9.0.0), OpenCL: OpenCL 1.1 Mesa 20.0.0-devel (git-3409c06e26), Vulkan: 1.1.129, Compiler: GCC 9.2.0 + Clang 9.0.1 + LLVM 9.0.1, File-System: ext4, Screen Resolution: 3286x1080

Kernel Notes: amdgpu.ppfeaturemask=0xffff7fff

Compiler Notes: --disable-libssp --disable-libstdcxx-pch --disable-libunwind-exceptions --disable-werror --enable-\_\_cxa\_atexit --enable-cet=auto --enable-checking=release --enable-clocale=gnu --enable-default-pie --enable-default-ssp --enable-gnu-indirect-function --enable-gnu-unique-object --enable-install-liberty --enable-languages=c,c++,ada,fortran,go,lto,objc,obj-c++,d --enable-lto --enable-multilib --enable-plugin --enable-shared --enable-threads=posix --mandir=/usr/share/man --with-isl --with-linker-hash-style=gnu

Processor Notes: Scaling Governor: acpi-cpufreq performance - CPU Microcode: 0x800820d

Security Notes: itlb\_multihit: Not affected + 11tf: Not affected + mds: Not affected + meltdown: Not affected + spec\_store\_bypass: Mitigation of SSB disabled via prctl and seccomp + spectre\_v1: Mitigation of usercopy/swappgs barriers and \_\_user pointer sanitization + spectre\_v2: Mitigation of Full AMD retpoline IBPB: conditional STIBP: disabled RSB filling + tsx\_async\_abort: Not affected

## Manjaro-TKG-5.5-PDS

Processor: AMD Ryzen 5 2600X Six-Core (6 Cores / 12 Threads), Motherboard: ASRock B450M/ac (P1.20 BIOS), Chipset: AMD 17h, Memory: 16384MB, Disk: HP SSD EX900 120GB + 500GB Seagate ST500LT012-1DG14 + 80GB + 640GB TOSHIBA MK6475GS + 500GB HGST HTS545050A7 + 16GB USB Flash Disk + 240GB CT240BX500SSD1, Graphics: XFX AMD Radeon RX 470/480/570/570X/580/580X/590 4GB (1420/1900MHz), Audio: AMD Ellesmere HDMI Audio, Monitor: L185V + E420i-B0, Network: Realtek RTL8111/8168/8411 + Intel Dual Band-AC 3168NGW

OS: ManjaroLinux 18.1.5, Kernel: 5.5.0-rc4-3-tkg-pds (x86\_64), Display Server: X Server 1.20.6, OpenGL: 4.5 Mesa 20.0.0-devel (git-3409c06e26) (LLVM 9.0.0), OpenCL: OpenCL 1.1 Mesa 20.0.0-devel (git-3409c06e26), Vulkan: 1.1.129, Compiler: GCC 9.2.0 + Clang 9.0.1 + LLVM 9.0.1, File-System: ext4, Screen Resolution: 3286x1080

Kernel Notes: amdgpu.ppfeaturemask=0xffff7fff

Compiler Notes: --disable-libssp --disable-libstdcxx-pch --disable-libunwind-exceptions --disable-werror --enable-\_\_cxa\_atexit --enable-cet=auto --enable-checking=release --enable-clocale=gnu --enable-default-pie --enable-default-ssp --enable-gnu-indirect-function --enable-gnu-unique-object --enable-install-liberty --enable-languages=c,c++,ada,fortran,go,lto,objc,obj-c++,d --enable-lto --enable-multilib --enable-plugin --enable-shared --enable-threads=posix --mandir=/usr/share/man --with-isl --with-linker-hash-style=gnu

Processor Notes: CPU Microcode: 0x800820d

Security Notes: itlb\_multihit: Not affected + 11tf: Not affected + mds: Not affected + meltdown: Not affected + spec\_store\_bypass: Mitigation of SSB disabled via prctl and seccomp + spectre\_v1: Mitigation of usercopy/swappgs barriers and \_\_user pointer sanitization + spectre\_v2: Mitigation of Full AMD retpoline IBPB: conditional STIBP: disabled RSB filling + tsx\_async\_abort: Not affected

## Arch with fsync kernel 5.4.3

Processor: AMD Ryzen 5 2600X Six-Core @ 4.00GHz (6 Cores / 12 Threads), Motherboard: ASRock B450M/ac (P1.20 BIOS), Chipset: AMD 17h, Memory: 16384MB, Disk: HP SSD EX900 120GB + 500GB Seagate ST500LT012-1DG14 + 80GB + 640GB TOSHIBA MK6475GS + 500GB HGST HTS545050A7 + 16GB USB Flash Disk + 240GB CT240BX500SSD1, Graphics: XFX AMD Radeon RX 470/480/570/570X/580/580X/590 4GB (1390/1900MHz), Audio: AMD Ellesmere HDMI Audio, Monitor: L185V + E420i-B0, Network: Realtek RTL8111/8168/8411 + Intel Dual Band-AC 3168NGW

OS: Arch rolling, Kernel: 5.4.3-arch1-1-fsync (x86\_64), Display Server: X Server 1.20.6, OpenGL: 4.5 Mesa 20.0.0-devel (git-3409c06e26) (LLVM 9.0.0), OpenCL: OpenCL 1.1 Mesa 20.0.0-devel (git-3409c06e26), Vulkan: 1.1.129, Compiler: GCC 9.2.0 + Clang 9.0.1 + LLVM 9.0.1, File-System: ext4, Screen Resolution: 3286x1080

Kernel Notes: amdgpu.ppfeaturemask=0xffff7fff

Compiler Notes: --disable-libssp --disable-libstdcxx-pch --disable-libunwind-exceptions --disable-werror --enable-\_\_cxa\_atexit --enable-cet=auto --enable-checking=release --enable-clocale=gnu --enable-default-pie --enable-default-ssp --enable-gnu-indirect-function --enable-gnu-unique-object --enable-install-liberty

--enable-languages=c,c++,ada,fortran,go,lto,objc,obj-c++,d --enable-lto --enable-multilib --enable-plugin --enable-shared --enable-threads=posix --mandir=/usr/share/man  
--with-isl --with-linker-hash-style=gnu  
Processor Notes: Scaling Governor: acpi-cpufreq schedutil - CPU Microcode: 0x800820d  
Security Notes: itlb\_multihit: Not affected + 11tf: Not affected + mds: Not affected + meltdown: Not affected + spec\_store\_bypass: Mitigation of SSB disabled via prctl and seccomp + spectre\_v1: Mitigation of usercopy/swaps barriers and \_\_user pointer sanitization + spectre\_v2: Mitigation of Full AMD retpoline IBPB: conditional STIBP: disabled RSB filling + tsx\_async\_abort: Not affected

## ArchLinuxZenPBO

Processor: AMD Ryzen 5 2600X Six-Core (6 Cores / 12 Threads), Motherboard: ASRock B450M/ac (P1.20 BIOS), Chipset: AMD 17h, Memory: 16384MB, Disk: HP SSD EX900 120GB + 500GB Seagate ST500LT012-1DG14 + 80GB + 640GB TOSHIBA MK6475GS + 500GB HGST HTS545050A7 + 16GB USB Flash Disk + 240GB CT240BX500SSD1, Graphics: XFX AMD Radeon RX 470/480/570/570X/580/580X/590 4GB (1390/1900MHz), Audio: AMD Ellesmere HDMI Audio, Monitor: L185V + E420i-B0, Network: Realtek RTL8111/8168/8411 + Intel Dual Band-AC 3168NGW

OS: Arch rolling, Kernel: 5.4.7-zen1-1-zen (x86\_64), Desktop: KDE Plasma 5.17.4, Display Server: X Server 1.20.6, Display Driver: modesetting 1.20.6, OpenGL: 4.5 Mesa 20.0.0-devel (git-3409c06e26) (LLVM 9.0.0), OpenCL: OpenCL 1.1 Mesa 20.0.0-devel (git-3409c06e26), Vulkan: 1.1.129, Compiler: GCC 9.2.0 + Clang 9.0.1 + LLVM 9.0.1, File-System: ext4, Screen Resolution: 3286x1080

Kernel Notes: amdgpu.ppfeaturemask=0xfffd7fff  
Compiler Notes: --disable-libssp --disable-libstdcxx-pch --disable-libunwind-exceptions --disable-werror --enable-\_\_cxa\_atexit --enable-cet=auto --enable-checking=release --enable-clocale=gnu --enable-default-pie --enable-default-ssp --enable-gnu-indirect-function --enable-gnu-unique-object --enable-install-liberty --enable-languages=c,c++,ada,fortran,go,lto,objc,obj-c++,d --enable-lto --enable-multilib --enable-plugin --enable-shared --enable-threads=posix --mandir=/usr/share/man --with-isl --with-linker-hash-style=gnu  
Processor Notes: CPU Microcode: 0x800820d  
Security Notes: itlb\_multihit: Not affected + 11tf: Not affected + mds: Not affected + meltdown: Not affected + spec\_store\_bypass: Mitigation of SSB disabled via prctl and seccomp + spectre\_v1: Mitigation of usercopy/swaps barriers and \_\_user pointer sanitization + spectre\_v2: Mitigation of Full AMD retpoline IBPB: conditional STIBP: disabled RSB filling + tsx\_async\_abort: Not affected

## New paste

### zenstates oc

Processor: AMD Ryzen 5 2600X Six-Core @ 3.60GHz (6 Cores / 12 Threads), Motherboard: ASRock B450M/ac (P1.20 BIOS), Chipset: AMD 17h, Memory: 16384MB, Disk: HP SSD EX900 120GB + 500GB Seagate ST500LT012-1DG14 + 80GB + 640GB TOSHIBA MK6475GS + 500GB HGST HTS545050A7 + 16GB USB Flash Disk + 240GB CT240BX500SSD1, Graphics: XFX AMD Radeon RX 470/480/570/570X/580/580X/590 4GB (1390/1900MHz), Audio: AMD Ellesmere HDMI Audio, Monitor: L185V + E420i-B0, Network: Realtek RTL8111/8168/8411 + Intel Dual Band-AC 3168NGW

OS: Arch rolling, Kernel: 5.4.8-zen1-1-zen (x86\_64), Desktop: KDE Plasma 5.17.4, Display Server: X Server 1.20.6, Display Driver: modesetting 1.20.6, OpenGL: 4.5 Mesa 20.0.0-devel (git-3409c06e26) (LLVM 9.0.0), OpenCL: OpenCL 1.1 Mesa 20.0.0-devel (git-3409c06e26), Vulkan: 1.1.129, Compiler: GCC 9.2.0 + Clang 9.0.1 + LLVM 9.0.1, File-System: ext4, Screen Resolution: 3286x1080

Kernel Notes: amdgpu.ppfeaturemask=0xfffd7fff  
Compiler Notes: --disable-libssp --disable-libstdcxx-pch --disable-libunwind-exceptions --disable-werror --enable-\_\_cxa\_atexit --enable-cet=auto --enable-checking=release --enable-clocale=gnu --enable-default-pie --enable-default-ssp --enable-gnu-indirect-function --enable-gnu-unique-object --enable-install-liberty --enable-languages=c,c++,ada,fortran,go,lto,objc,obj-c++,d --enable-lto --enable-multilib --enable-plugin --enable-shared --enable-threads=posix --mandir=/usr/share/man --with-isl --with-linker-hash-style=gnu  
Processor Notes: Scaling Governor: acpi-cpufreq performance - CPU Microcode: 0x800820d  
Security Notes: itlb\_multihit: Not affected + 11tf: Not affected + mds: Not affected + meltdown: Not affected + spec\_store\_bypass: Mitigation of SSB disabled via prctl and seccomp + spectre\_v1: Mitigation of usercopy/swaps barriers and \_\_user pointer sanitization + spectre\_v2: Mitigation of Full AMD retpoline IBPB: conditional STIBP: disabled RSB filling + tsx\_async\_abort: Not affected

## Arch 5.5-tkg

Processor: AMD Ryzen 5 2600X Six-Core (6 Cores / 12 Threads), Motherboard: ASRock B450M/ac (P1.20 BIOS),

Chipset: AMD 17h, Memory: 16384MB, Disk: HP SSD EX900 120GB + 500GB Seagate ST500LT012-1DG14 + 80GB + 640GB TOSHIBA MK6475GS + 500GB HGST HTS545050A7 + 16GB USB Flash Disk + 240GB CT240BX500SSD1, Graphics: XFX AMD Radeon RX 470/480/570/570X/580/580X/590 4GB (1390/1900MHz), Audio: AMD Ellesmere HDMI Audio, Monitor: L185V + E420i-B0, Network: Realtek RTL8111/8168/8411 + Intel Dual Band-AC 3168NGW

OS: Arch rolling, Kernel: 5.5.0-rc4-3-tkg-pds (x86\_64), Display Server: X Server 1.20.6, Display Driver: modesetting 1.20.6, OpenGL: 4.5 Mesa 20.0.0-devel (git-3409c06e26) (LLVM 9.0.0), OpenCL: OpenCL 1.1 Mesa 20.0.0-devel (git-3409c06e26), Vulkan: 1.1.129, Compiler: GCC 9.2.0 + Clang 9.0.1 + LLVM 9.0.1, File-System: ext4, Screen Resolution: 3286x1080

Kernel Notes: amdgpu.ppfeaturemask=0xffff7fff  
Compiler Notes: --disable-libssp --disable-libstdc++-pch --disable-libunwind-exceptions --disable-werror --enable-\_\_cxa\_atexit --enable-cet=auto --enable-checking=release --enable-clocale=gnu --enable-default-pie --enable-default-ssp --enable-gnu-indirect-function --enable-gnu-unique-object --enable-install-libiberty --enable-languages=c,c++,ada,fortran,go,lto,objc,obj-c++,d --enable-lto --enable-multilib --enable-plugin --enable-shared --enable-threads=posix --mandir=/usr/share/man --with-isl --with-linker-hash-style=gnu  
Processor Notes: CPU Microcode: 0x800820d  
Security Notes: itlb\_multihit: Not affected + 11tf: Not affected + mds: Not affected + meltdown: Not affected + spec\_store\_bypass: Mitigation of SSB disabled via prctl and seccomp + spectre\_v1: Mitigation of usercopy/swaps barriers and \_\_user pointer sanitization + spectre\_v2: Mitigation of Full AMD retpoline IBPB: conditional STIBP: disabled RSB filling + tsx\_async\_abort: Not affected

## Lower PBO

Processor: AMD Ryzen 5 2600X Six-Core (6 Cores / 12 Threads), Motherboard: ASRock B450M/ac (P1.20 BIOS), Chipset: AMD 17h, Memory: 16384MB, Disk: HP SSD EX900 120GB + 500GB Seagate ST500LT012-1DG14 + 80GB + 640GB TOSHIBA MK6475GS + 500GB HGST HTS545050A7 + 16GB USB Flash Disk + 240GB CT240BX500SSD1, Graphics: XFX AMD Radeon RX 470/480/570/570X/580/580X/590 4GB (1420/1900MHz), Audio: AMD Ellesmere HDMI Audio, Monitor: L185V + E420i-B0, Network: Realtek RTL8111/8168/8411 + Intel Dual Band-AC 3168NGW

OS: Arch rolling, Kernel: 5.5.0-rc4-3-tkg-pds (x86\_64), Desktop: KDE Plasma 5.17.4, Display Server: X Server 1.20.6, OpenGL: 4.5 Mesa 20.0.0-devel (git-3409c06e26) (LLVM 9.0.1), OpenCL: OpenCL 1.1 Mesa 20.0.0-devel (git-3409c06e26), Vulkan: 1.1.129, Compiler: GCC 9.2.0 + Clang 9.0.1 + LLVM 9.0.1, File-System: ext4, Screen Resolution: 3286x1080

Kernel Notes: amdgpu.ppfeaturemask=0xffff7fff  
Compiler Notes: --disable-libssp --disable-libstdc++-pch --disable-libunwind-exceptions --disable-werror --enable-\_\_cxa\_atexit --enable-cet=auto --enable-checking=release --enable-clocale=gnu --enable-default-pie --enable-default-ssp --enable-gnu-indirect-function --enable-gnu-unique-object --enable-install-libiberty --enable-languages=c,c++,ada,fortran,go,lto,objc,obj-c++,d --enable-lto --enable-multilib --enable-plugin --enable-shared --enable-threads=posix --mandir=/usr/share/man --with-isl --with-linker-hash-style=gnu  
Processor Notes: CPU Microcode: 0x800820d  
Security Notes: itlb\_multihit: Not affected + 11tf: Not affected + mds: Not affected + meltdown: Not affected + spec\_store\_bypass: Mitigation of SSB disabled via prctl and seccomp + spectre\_v1: Mitigation of usercopy/swaps barriers and \_\_user pointer sanitization + spectre\_v2: Mitigation of Full AMD retpoline IBPB: conditional STIBP: disabled RSB filling + tsx\_async\_abort: Not affected

## Arch 5.4.8

Processor: AMD Ryzen 5 2600X Six-Core @ 4.00GHz (6 Cores / 12 Threads), Motherboard: ASRock B450M/ac (P1.20 BIOS), Chipset: AMD 17h, Memory: 16384MB, Disk: HP SSD EX900 120GB + 500GB Seagate ST500LT012-1DG14 + 80GB + 640GB TOSHIBA MK6475GS + 500GB HGST HTS545050A7 + 16GB USB Flash Disk + 240GB CT240BX500SSD1, Graphics: XFX AMD Radeon RX 470/480/570/570X/580/580X/590 4GB (1420/1900MHz), Audio: AMD Ellesmere HDMI Audio, Monitor: L185V + E420i-B0, Network: Realtek RTL8111/8168/8411 + Intel Dual Band-AC 3168NGW

OS: Arch rolling, Kernel: 5.4.8-arch1-1 (x86\_64), Display Server: X Server 1.20.6, OpenGL: 4.6 Mesa 20.0.0-devel (git-7b444ba5ef) (LLVM 9.0.1), OpenCL: OpenCL 1.1 Mesa 20.0.0-devel (git-7b444ba5ef), Vulkan: 1.1.129, Compiler: GCC 9.2.0 + Clang 9.0.1 + LLVM 9.0.1, File-System: ext4, Screen Resolution: 3286x1080

Kernel Notes: amdgpu.ppfeaturemask=0xffff7fff

Compiler Notes: --disable-libssp --disable-libstdcxx-pch --disable-libunwind-exceptions --disable-werror --enable-\_\_cxa\_atexit --enable-cet=auto --enable-checking=release --enable-clocale=gnu --enable-default-pie --enable-default-ssp --enable-gnu-indirect-function --enable-gnu-unique-object --enable-install-libiberty --enable-languages=c,c++,ada,fortran,go,lt,objc,obj-c++,d --enable-lto --enable-multilib --enable-plugin --enable-shared --enable-threads=posix --mandir=/usr/share/man --with-isl --with-linker-hash-style=gnu

Processor Notes: Scaling Governor: acpi-cpufreq performance - CPU Microcode: 0x800820d

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/swaps barriers and \_\_user pointer sanitization + spectre\_v2: Mitigation of Full AMD retpoline IBPB: conditional STIBP: disabled RSB filling + tsx\_async\_abort: Not affected

## 4G

Processor: AMD Ryzen 5 2600X Six-Core (6 Cores / 12 Threads), Motherboard: ASRock B450M/ac (P1.20 BIOS), Chipset: AMD 17h, Memory: 16384MB, Disk: HP SSD EX900 120GB + 500GB Seagate ST500LT012-1DG14 + 640GB TOSHIBA MK6475GS + 240GB CT240BX500SSD1 + 500GB HGST HTS545050A7, Graphics: XFX AMD Radeon RX 470/480/570/570X/580/580X/590 4GB (1386/1900MHz), Audio: AMD Ellesmere HDMI Audio, Monitor: L185V + E420i-B0, Network: Realtek RTL8111/8168/8411 + Intel Dual Band-AC 3168NGW

OS: ManjaroLinux 18.1.5, Kernel: 5.5.0-rc5-4-tkg-acpi (x86\_64), Desktop: GNOME Shell 3.34.3, Display Server: X Server 1.20.7, OpenGL: 4.6 Mesa 20.0.0-devel (git-6e1411c9e8) (LLVM 9.0.1), OpenCL: OpenCL 1.1 Mesa 20.0.0-devel (git-6e1411c9e8), Vulkan: 1.1.129, Compiler: GCC 9.2.0 + Clang 9.0.1 + LLVM 9.0.1, File-System: ext4, Screen Resolution: 3286x1080

Kernel Notes: amdgpu.ppfeaturemask=0xffff7fff

Compiler Notes: --disable-libssp --disable-libstdcxx-pch --disable-libunwind-exceptions --disable-werror --enable-\_\_cxa\_atexit --enable-cet=auto --enable-checking=release --enable-clocale=gnu --enable-default-pie --enable-default-ssp --enable-gnu-indirect-function --enable-gnu-unique-object --enable-install-libiberty --enable-languages=c,c++,ada,fortran,go,lt,objc,obj-c++,d --enable-lto --enable-multilib --enable-plugin --enable-shared --enable-threads=posix --mandir=/usr/share/man --with-isl --with-linker-hash-style=gnu

Processor Notes: CPU Microcode: 0x800820d

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/swaps barriers and \_\_user pointer sanitization + spectre\_v2: Mitigation of Full AMD retpoline IBPB: conditional STIBP: disabled RSB filling + tsx\_async\_abort: Not affected

## 4075

Processor: AMD Ryzen 5 2600X Six-Core @ 4.08GHz (6 Cores / 12 Threads), Motherboard: ASRock B450M/ac (P1.20 BIOS), Chipset: AMD 17h, Memory: 16384MB, Disk: HP SSD EX900 120GB + 500GB Seagate ST500LT012-1DG14 + 640GB TOSHIBA MK6475GS + 500GB HGST HTS545050A7 + 240GB CT240BX500SSD1, Graphics: XFX AMD Radeon RX 470/480/570/570X/580/580X/590 4GB (1386/1900MHz), Audio: AMD Ellesmere HDMI Audio, Monitor: L185V + E420i-B0, Network: Realtek RTL8111/8168/8411 + Intel Dual Band-AC 3168NGW

OS: ManjaroLinux 18.1.5, Kernel: 5.5.0-rc6-6-tkg-acpi (x86\_64), Desktop: GNOME Shell 3.34.3, Display Server: X Server 1.20.7, OpenGL: 4.6 Mesa 20.0.0-devel (git-6e1411c9e8) (LLVM 9.0.1), OpenCL: OpenCL 1.1 Mesa 20.0.0-devel (git-6e1411c9e8), Vulkan: 1.1.129, Compiler: GCC 9.2.0 + Clang 9.0.1 + LLVM 9.0.1, File-System: ext4, Screen Resolution: 3286x1080

Kernel Notes: amdgpu.ppfeaturemask=0xffff7fff

Compiler Notes: --disable-libssp --disable-libstdcxx-pch --disable-libunwind-exceptions --disable-werror --enable-\_\_cxa\_atexit --enable-cet=auto --enable-checking=release --enable-clocale=gnu --enable-default-pie --enable-default-ssp --enable-gnu-indirect-function --enable-gnu-unique-object --enable-install-libiberty --enable-languages=c,c++,ada,fortran,go,lt,objc,obj-c++,d --enable-lto --enable-multilib --enable-plugin --enable-shared --enable-threads=posix --mandir=/usr/share/man --with-isl --with-linker-hash-style=gnu

Processor Notes: Scaling Governor: acpi-cpufreq performance - CPU Microcode: 0x800820d

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/swaps barriers and \_\_user pointer sanitization + spectre\_v2: Mitigation of Full AMD retpoline IBPB: conditional STIBP: disabled RSB filling + tsx\_async\_abort: Not affected

## noacpi-pbo

Processor: AMD Ryzen 5 2600X Six-Core (6 Cores / 12 Threads), Motherboard: ASRock B450M/ac (P1.20 BIOS), Chipset: AMD 17h, Memory: 16GB, Disk: HP SSD EX900 120GB + 500GB + 240GB CT240BX500SSD1 + 2 x 500GB Seagate ST500LT012-1DG14 + 640GB TOSHIBA MK6475GS + 16GB USB Flash Disk, Graphics: Sapphire AMD

Radeon RX 5700 / XT 6GB (1820/930MHz), Audio: AMD Navi 10 HDMI Audio, Monitor: L185V + E420i-B0, Network: Realtek RTL8111/8168/8411 + Intel Dual Band-AC 3168NGW

OS: Arch rolling, Kernel: 5.5.1-9-noacpi-nopatch (x86\_64), Display Server: X Server 1.20.7, OpenGL: 4.6 Mesa 20.0.0-devel (git-02658df152) (LLVM 9.0.1), OpenCL: OpenCL 1.1 Mesa 20.0.0-devel (git-02658df152), Vulkan: 1.1.130, Compiler: GCC 9.2.0 + Clang 9.0.1 + LLVM 9.0.1, File-System: ext4, Screen Resolution: 3286x1080

Kernel Notes: amdgpu.ppfeaturemask=0xffffffff  
Environment Notes: AMD\_DEBUG=nongg  
Compiler Notes: --disable-libssp --disable-libstdcxx-pch --disable-libunwind-exceptions --disable-werror --enable-\_\_cxa\_atexit --enable-cet=auto --enable-checking=release --enable-clocale=gnu --enable-default-pie --enable-default-ssp --enable-gnu-indirect-function --enable-gnu-unique-object --enable-install-liberty --enable-languages=c,c++,ada,fortran,go,lto,objc,obj-c++,d --enable-lto --enable-multilib --enable-plugin --enable-shared --enable-threads=posix --mandir=/usr/share/man --with-isl --with-linker-hash-style=gnu  
Processor Notes: CPU Microcode: 0x800820d  
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/swaps barriers and \_\_user pointer sanitization + spectre\_v2: Mitigation of Full AMD retpoline IBPB: conditional STIBP: disabled RSB filling + tsx\_async\_abort: Not affected

## Deepcool

Processor: AMD Ryzen 5 2600X Six-Core @ 3.60GHz (6 Cores / 12 Threads), Motherboard: ASRock B450M/ac (P1.20 BIOS), Chipset: AMD 17h, Memory: 16GB, Disk: HP SSD EX900 120GB + 240GB CT240BX500SSD1 + 500GB + 2 x 500GB Seagate ST500LT012-1DG14 + 640GB TOSHIBA MK6475GS + 16GB USB Flash Disk, Graphics: Sapphire AMD Radeon RX 5700 / XT 6GB (1780/875MHz), Audio: AMD Navi 10 HDMI Audio, Monitor: L185V + E420i-B0, Network: Realtek RTL8111/8168/8411 + Intel Dual Band-AC 3168NGW

OS: Arch rolling, Kernel: 5.5.2-11-tkg-pds (x86\_64), Display Server: X Server 1.20.7, OpenGL: 4.6 Mesa 20.0.0-rc1 (git-14c0d58c7f) (LLVM 9.0.1), OpenCL: OpenCL 1.1 Mesa 20.0.0-rc1 (git-14c0d58c7f), Vulkan: 1.1.130, Compiler: GCC 9.2.0 + Clang 9.0.1 + LLVM 9.0.1, File-System: ext4, Screen Resolution: 3286x1080

Kernel Notes: amdgpu.ppfeaturemask=0xffffffff  
Environment Notes: AMD\_DEBUG=nongg  
Compiler Notes: --disable-libssp --disable-libstdcxx-pch --disable-libunwind-exceptions --disable-werror --enable-\_\_cxa\_atexit --enable-cet=auto --enable-checking=release --enable-clocale=gnu --enable-default-pie --enable-default-ssp --enable-gnu-indirect-function --enable-gnu-unique-object --enable-install-liberty --enable-languages=c,c++,ada,fortran,go,lto,objc,obj-c++,d --enable-lto --enable-multilib --enable-plugin --enable-shared --enable-threads=posix --mandir=/usr/share/man --with-isl --with-linker-hash-style=gnu  
Processor Notes: Scaling Governor: acpi-cpufreq performance - CPU Microcode: 0x800820d  
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/swaps barriers and \_\_user pointer sanitization + spectre\_v2: Mitigation of Full AMD retpoline IBPB: conditional STIBP: disabled RSB filling + tsx\_async\_abort: Not affected

## muqss

Processor: AMD Ryzen 5 2600X Six-Core @ 4.08GHz (6 Cores / 12 Threads), Motherboard: ASRock B450M/ac (P1.20 BIOS), Chipset: AMD 17h, Memory: 16GB, Disk: HP SSD EX900 120GB + 240GB CT240BX500SSD1 + 500GB + 2 x 500GB Seagate ST500LT012-1DG14 + 640GB TOSHIBA MK6475GS + 16GB USB Flash Disk, Graphics: Sapphire AMD Radeon RX 5700 / XT 6GB (1780/875MHz), Audio: AMD Navi 10 HDMI Audio, Monitor: L185V + E420i-B0, Network: Realtek RTL8111/8168/8411 + Intel Dual Band-AC 3168NGW

OS: Arch rolling, Kernel: 5.5.2-12-tkg-muqss (x86\_64), Display Server: X Server 1.20.7, OpenGL: 4.6 Mesa 20.1.0-devel (git-35961b10da) (LLVM 9.0.1), OpenCL: OpenCL 1.1 Mesa 20.1.0-devel (git-35961b10da), Vulkan: 1.1.130, Compiler: GCC 9.2.0 + Clang 9.0.1 + LLVM 9.0.1, File-System: ext4, Screen Resolution: 3286x1080

Kernel Notes: amdgpu.ppfeaturemask=0xffffffff  
Environment Notes: AMD\_DEBUG=nongg  
Compiler Notes: --disable-libssp --disable-libstdcxx-pch --disable-libunwind-exceptions --disable-werror --enable-\_\_cxa\_atexit --enable-cet=auto --enable-checking=release --enable-clocale=gnu --enable-default-pie --enable-default-ssp --enable-gnu-indirect-function --enable-gnu-unique-object --enable-install-liberty --enable-languages=c,c++,ada,fortran,go,lto,objc,obj-c++,d --enable-lto --enable-multilib --enable-plugin --enable-shared --enable-threads=posix --mandir=/usr/share/man --with-isl --with-linker-hash-style=gnu  
Processor Notes: Scaling Governor: acpi-cpufreq performance - CPU Microcode: 0x800820d  
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/swappgs barriers and \_\_user pointer sanitization + spectre\_v2: Mitigation of Full AMD retpoline IBPB: conditional STIBP: disabled RSB filling + tsx\_async\_abort: Not affected

## 5.6

Processor: AMD Ryzen 5 2600X Six-Core (6 Cores / 12 Threads), Motherboard: ASRock B450M/ac (P1.20 BIOS), Chipset: AMD 17h, Memory: 16GB, Disk: HP SSD EX900 120GB + 500GB + 240GB CT240BX500SSD1 + 2 x 500GB Seagate ST500LT012-1DG14 + 640GB TOSHIBA MK6475GS + 16GB USB Flash Disk, Graphics: Sapphire AMD Radeon RX 5600 OEM/5600 XT / 5700/5700 6GB (1780/875MHz), Audio: AMD Navi 10 HDMI Audio, Monitor: L185V + E420i-B0, Network: Realtek RTL8111/8168/8411 + Intel Dual Band-AC 3168NGW

OS: Arch rolling, Kernel: 5.6.0-rc1-1-tkg-pds (x86\_64), Display Server: X Server 1.20.7, OpenGL: 4.6 Mesa 20.1.0-devel (git-35961b10da) (LLVM 9.0.1), OpenCL: OpenCL 1.1 Mesa 20.1.0-devel (git-35961b10da), Vulkan: 1.1.130, Compiler: GCC 9.2.0 + Clang 9.0.1 + LLVM 9.0.1, File-System: ext4, Screen Resolution: 3286x1080

Kernel Notes: amdgpu.ppfeaturemask=0xffffffff

Environment Notes: AMD\_DEBUG=nongg

Compiler Notes: --disable-libssp --disable-libstdcxx-pch --disable-libunwind-exceptions --disable-werror --enable-\_\_cxa\_atexit --enable-cet=auto --enable-checking=release --enable-clocale=gnu --enable-default-pie --enable-default-ssp --enable-gnu-indirect-function --enable-gnu-unique-object --enable-install-liberty --enable-languages=c,c++,ada,fortran,go,lto,objc,obj-c++,d --enable-lto --enable-multilib --enable-plugin --enable-shared --enable-threads=posix --mandir=/usr/share/man --with-isl --with-linker-hash-style=gnu

Processor Notes: CPU Microcode: 0x800820d

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/swappgs barriers and \_\_user pointer sanitization + spectre\_v2: Mitigation of Full AMD retpoline IBPB: conditional STIBP: disabled RSB filling + tsx\_async\_abort: Not affected

## fancontrol

Processor: AMD Ryzen 5 2600X Six-Core (6 Cores / 12 Threads), Motherboard: ASRock B450M/ac (P1.20 BIOS), Chipset: AMD 17h, Memory: 16384MB, Disk: HP SSD EX900 120GB + 240GB CT240BX500SSD1 + 500GB + 2 x 500GB Seagate ST500LT012-1DG14 + 640GB TOSHIBA MK6475GS + 16GB USB Flash Disk, Graphics: Sapphire AMD Radeon RX 5700 / XT 6GB (1780/875MHz), Audio: AMD Navi 10 HDMI Audio, Monitor: L185V + E420i-B0, Network: Realtek RTL8111/8168/8411 + Intel Dual Band-AC 3168NGW

OS: ManjaroLinux 19.0.0, Kernel: 5.6.0-rc1-1-tkg-pds (x86\_64), Desktop: Xfce 4.14, Display Server: X Server 1.20.7, Display Driver: modesetting 1.20.7, OpenGL: 4.5 Mesa 19.3.4 (LLVM 9.0.1), Compiler: GCC 9.2.0 + Clang 9.0.1 + LLVM 9.0.1, File-System: ext4, Screen Resolution: 3286x1080

Environment Notes: AMD\_DEBUG=nongg

Compiler Notes: --disable-libssp --disable-libstdcxx-pch --disable-libunwind-exceptions --disable-werror --enable-\_\_cxa\_atexit --enable-cet=auto --enable-checking=release --enable-clocale=gnu --enable-default-pie --enable-default-ssp --enable-gnu-indirect-function --enable-gnu-unique-object --enable-install-liberty --enable-languages=c,c++,ada,fortran,go,lto,objc,obj-c++,d --enable-lto --enable-multilib --enable-plugin --enable-shared --enable-threads=posix --mandir=/usr/share/man --with-isl --with-linker-hash-style=gnu

Processor Notes: CPU Microcode: 0x800820d

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/swappgs barriers and \_\_user pointer sanitization + spectre\_v2: Mitigation of Full AMD retpoline IBPB: conditional STIBP: disabled RSB filling + tsx\_async\_abort: Not affected

## noacpi-5.6

Processor: AMD Ryzen 5 2600X Six-Core @ 4.05GHz (6 Cores / 12 Threads), Motherboard: ASRock B450M/ac (P1.20 BIOS), Chipset: AMD 17h, Memory: 16384MB, Disk: HP SSD EX900 120GB + 240GB CT240BX500SSD1 + 500GB + 2 x 500GB Seagate ST500LT012-1DG14 + 640GB TOSHIBA MK6475GS + 16GB USB Flash Disk, Graphics: Sapphire AMD Radeon RX 5600 OEM/5600 XT / 5700/5700 6GB (1780/875MHz), Audio: AMD Navi 10 HDMI Audio, Monitor: L185V + E420i-B0, Network: Realtek RTL8111/8168/8411 + Intel Dual Band-AC 3168NGW

OS: ManjaroLinux 19.0, Kernel: 5.6.0-rc2-1-tkg-pds (x86\_64), Display Server: X Server 1.20.7, Display Driver: modesetting 1.20.7, OpenGL: 4.5 Mesa 19.3.4 (LLVM 9.0.1), Vulkan: 1.1.107, Compiler: GCC 9.2.1 20200130 + Clang

## 9.0.1 + LLVM 9.0.1, File-System: ext4, Screen Resolution: 3286x1080

Kernel Notes: amdgpu.ppfeaturemask=0xfffffff  
Environment Notes: AMD\_DEBUG=nongg  
Compiler Notes: --disable-libssp --disable-libstdcxx-pch --disable-libunwind-exceptions --disable-werror --enable-\_\_cxa\_atexit --enable-cet=auto --enable-checking=release --enable-clocale=gnu --enable-default-pie --enable-default-ssp --enable-gnu-indirect-function --enable-gnu-unique-object --enable-install-liberty --enable-languages=c,c++,ada,fortran,go,ito,objc,obj-c++,d --enable-lto --enable-multilib --enable-plugin --enable-shared --enable-threads=posix --mandir=/usr/share/man --with-isl --with-linker-hash-style=gnu  
Processor Notes: Scaling Governor: acpi-cpufreq performance - CPU Microcode: 0x800820d  
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/swaps barriers and \_\_user pointer sanitization + spectre\_v2: Mitigation of Full AMD retpoline IBPB: conditional STIBP: disabled RSB filling + tsx\_async\_abort: Not affected

## 5.6-tkg-pds-acpi

## 5.6-tkg-acpi-nmon

### 4100-5.6

Processor: AMD Ryzen 5 2600X Six-Core @ 4.05GHz (6 Cores / 12 Threads), Motherboard: ASRock B450M/ac (P1.20 BIOS), Chipset: AMD 17h, Memory: 16384MB, Disk: HP SSD EX900 120GB + 240GB CT240BX500SSD1 + 500GB + 2 x 500GB Seagate ST500LT012-1DG14 + 640GB TOSHIBA MK6475GS, Graphics: Sapphire AMD Radeon RX 5600 OEM/5600 XT / 5700/5700 6GB (1780/875MHz), Audio: AMD Navi 10 HDMI Audio, Monitor: L185V + E420i-B0, Network: Realtek RTL8111/8168/8411 + Intel Dual Band-AC 3168NGW

OS: ManjaroLinux 19.0, Kernel: 5.6.0-rc2-1-tkg-pds (x86\_64), Display Server: X Server 1.20.7, Display Driver: modesetting 1.20.7, OpenGL: 4.6 Mesa 20.1.0-devel (git-740cb3d193) (LLVM 11.0.0), Vulkan: 1.2.131, Compiler: GCC 9.2.1 20200130 + Clang 11.0.0, File-System: ext4, Screen Resolution: 3286x1080

Kernel Notes: amdgpu.ppfeaturemask=0xfffd7fff amdgpu.dc=1  
Compiler Notes: --disable-libssp --disable-libstdcxx-pch --disable-libunwind-exceptions --disable-werror --enable-\_\_cxa\_atexit --enable-cet=auto --enable-checking=release --enable-clocale=gnu --enable-default-pie --enable-default-ssp --enable-gnu-indirect-function --enable-gnu-unique-object --enable-install-liberty --enable-languages=c,c++,ada,fortran,go,ito,objc,obj-c++,d --enable-lto --enable-multilib --enable-plugin --enable-shared --enable-threads=posix --mandir=/usr/share/man --with-isl --with-linker-hash-style=gnu  
Processor Notes: Scaling Governor: acpi-cpufreq performance - CPU Microcode: 0x800820d  
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/swaps barriers and \_\_user pointer sanitization + spectre\_v2: Mitigation of Full AMD retpoline IBPB: conditional STIBP: disabled RSB filling + tsx\_async\_abort: Not affected

## 5.6-tkg-acpi-pbo

### 4150

Processor: AMD Ryzen 5 2600X Six-Core @ 3.60GHz (6 Cores / 12 Threads), Motherboard: ASRock B450M/ac (P1.20 BIOS), Chipset: AMD 17h, Memory: 16384MB, Disk: HP SSD EX900 120GB + 240GB CT240BX500SSD1 + 500GB + 2 x 500GB Seagate ST500LT012-1DG14 + 640GB TOSHIBA MK6475GS, Graphics: Sapphire AMD Radeon RX 5600 OEM/5600 XT / 5700/5700 6GB (1780/875MHz), Audio: AMD Navi 10 HDMI Audio, Monitor: L185V + E420i-B0, Network: Realtek RTL8111/8168/8411 + Intel Dual Band-AC 3168NGW

OS: ManjaroLinux 19.0, Kernel: 5.6.0-rc2-1-tkg-pds (x86\_64), Display Server: X Server 1.20.7, Display Driver: modesetting 1.20.7, OpenGL: 4.6 Mesa 20.1.0-devel (git-740cb3d193) (LLVM 11.0.0), Vulkan: 1.2.131, Compiler: GCC 9.2.1 20200130 + Clang 11.0.0, File-System: ext4, Screen Resolution: 3286x1080

Kernel Notes: amdgpu.ppfeaturemask=0xfffd7fff amdgpu.dc=1  
Compiler Notes: --disable-libssp --disable-libstdcxx-pch --disable-libunwind-exceptions --disable-werror --enable-\_\_cxa\_atexit --enable-cet=auto --enable-checking=release --enable-clocale=gnu --enable-default-pie --enable-default-ssp --enable-gnu-indirect-function --enable-gnu-unique-object --enable-install-liberty --enable-languages=c,c++,ada,fortran,go,ito,objc,obj-c++,d --enable-lto --enable-multilib --enable-plugin --enable-shared --enable-threads=posix --mandir=/usr/share/man --with-isl --with-linker-hash-style=gnu  
Processor Notes: Scaling Governor: acpi-cpufreq performance - CPU Microcode: 0x800820d  
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/swaps barriers and \_\_user pointer sanitization + spectre\_v2: Mitigation of Full AMD retpoline IBPB: conditional STIBP: disabled RSB filling + tsx\_async\_abort: Not affected

## bmq

### bmq2

Processor: AMD Ryzen 5 2600X Six-Core @ 4.08GHz (6 Cores / 12 Threads), Motherboard: ASRock B450M/ac (P1.20 BIOS), Chipset: AMD 17h, Memory: 16384MB, Disk: HP SSD EX900 120GB + 240GB CT240BX500SSD1 + 500GB + 2 x 500GB Seagate ST500LT012-1DG14 + 640GB TOSHIBA MK6475GS, Graphics: Sapphire AMD Radeon RX 5600 OEM/5600 XT / 5700/5700 6GB (1780/875MHz), Audio: AMD Navi 10 HDMI Audio, Monitor: L185V + E420i-B0, Network: Realtek RTL8111/8168/8411 + Intel Dual Band-AC 3168NGW

OS: ManjaroLinux 19.0, Kernel: 5.5.4-15-tkg-bmq (x86\_64), Display Server: X Server 1.20.7, Display Driver: modesetting 1.20.7, OpenGL: 4.6 Mesa 20.1.0-devel (git-5de8bc7c75) (LLVM 11.0.0), Vulkan: 1.2.131, Compiler: GCC 9.2.1 20200130 + Clang 11.0.0, File-System: ext4, Screen Resolution: 3286x1080

Kernel Notes: amdgpu.ppfeaturemask=0xffff7fff amdgpu.dc=1  
Compiler Notes: --disable-libssp --disable-libstdcxx-pch --disable-libunwind-exceptions --disable-werror --enable-\_\_cxa\_atexit --enable-cet=auto --enable-checking=release --enable-clocale=gnu --enable-default-pie --enable-default-ssp --enable-gnu-indirect-function --enable-gnu-unique-object --enable-install-liberty --enable-languages=c,c++,ada,fortran,go,lto,objc,obj-c++,d --enable-lto --enable-multilib --enable-plugin --enable-shared --enable-threads=posix --mandir=/usr/share/man --with-isl --with-linker-hash-style=gnu  
Processor Notes: Scaling Governor: acpi-cpufreq performance - CPU Microcode: 0x800820d  
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/swaps barriers and \_\_user pointer sanitization + spectre\_v2: Mitigation of Full AMD retpoline IBPB: conditional STIBP: disabled RSB filling + tsx\_async\_abort: Not affected

## Vanilla Manjaro 5.6-rc2

Processor: AMD Ryzen 5 2600X Six-Core @ 4.08GHz (6 Cores / 12 Threads), Motherboard: ASRock B450M/ac (P1.20 BIOS), Chipset: AMD 17h, Memory: 16384MB, Disk: HP SSD EX900 120GB + 240GB CT240BX500SSD1 + 500GB + 2 x 500GB Seagate ST500LT012-1DG14 + 640GB TOSHIBA MK6475GS, Graphics: Sapphire AMD Radeon RX 5600 OEM/5600 XT / 5700/5700 6GB (1780/875MHz), Audio: AMD Navi 10 HDMI Audio, Monitor: L185V + E420i-B0, Network: Realtek RTL8111/8168/8411 + Intel Dual Band-AC 3168NGW

OS: ManjaroLinux 19.0, Kernel: 5.6.0-2-MANJARO (x86\_64), Display Server: X Server 1.20.7, Display Driver: modesetting 1.20.7, OpenGL: 4.6 Mesa 20.1.0-devel (git-5de8bc7c75) (LLVM 11.0.0), Vulkan: 1.2.131, Compiler: GCC 9.2.1 20200130 + Clang 11.0.0, File-System: ext4, Screen Resolution: 3286x1080

Kernel Notes: amdgpu.ppfeaturemask=0xffff7fff amdgpu.dc=1  
Compiler Notes: --disable-libssp --disable-libstdcxx-pch --disable-libunwind-exceptions --disable-werror --enable-\_\_cxa\_atexit --enable-cet=auto --enable-checking=release --enable-clocale=gnu --enable-default-pie --enable-default-ssp --enable-gnu-indirect-function --enable-gnu-unique-object --enable-install-liberty --enable-languages=c,c++,ada,fortran,go,lto,objc,obj-c++,d --enable-lto --enable-multilib --enable-plugin --enable-shared --enable-threads=posix --mandir=/usr/share/man --with-isl --with-linker-hash-style=gnu  
Processor Notes: Scaling Governor: acpi-cpufreq performance - CPU Microcode: 0x800820d  
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/swaps barriers and \_\_user pointer sanitization + spectre\_v2: Mitigation of Full AMD retpoline IBPB: conditional STIBP: disabled RSB filling + tsx\_async\_abort: Not affected

## ArcoLinux

### ArcoLinux 4100

Processor: AMD Ryzen 5 2600X Six-Core @ 4.05GHz (6 Cores / 12 Threads), Motherboard: ASRock B450M/ac (P1.20 BIOS), Chipset: AMD 17h, Memory: 16384MB, Disk: HP SSD EX900 120GB + 240GB CT240BX500SSD1 + 500GB + 2 x 500GB Seagate ST500LT012-1DG14 + 640GB TOSHIBA MK6475GS + 16GB USB Flash Disk, Graphics: Sapphire AMD Radeon RX 5600 OEM/5600 XT / 5700/5700 6GB (1780/875MHz), Audio: AMD Navi 10 HDMI Audio, Monitor: L185V + E420i-B0, Network: Realtek RTL8111/8168/8411 + Intel Dual Band-AC 3168NGW

OS: ArcoLinuxD v20.2.12, Kernel: 5.6.0-rc4-1-tkg-pds (x86\_64), Desktop: Budgie, Display Server: X Server 1.20.7, Display Driver: modesetting 1.20.7, OpenGL: 4.5 Mesa 19.3.4 (LLVM 9.0.1), OpenCL: OpenCL 1.1 Mesa 19.3.4, Vulkan: 1.2.131, Compiler: GCC 9.2.1 20200130 + Clang 9.0.1, File-System: ext4, Screen Resolution: 3286x1080

Kernel Notes: amdgpu.ppfeaturemask=0xffffffff  
Compiler Notes: --disable-libssp --disable-libstdcxx-pch --disable-libunwind-exceptions --disable-werror --enable-\_\_cxa\_atexit --enable-cet=auto --enable-checking=release --enable-clocale=gnu --enable-default-pie --enable-default-ssp --enable-gnu-indirect-function --enable-gnu-unique-object --enable-install-liberty --enable-languages=c,c++,ada,fortran,go,lto,objc,obj-c++,d --enable-lto --enable-multilib --enable-plugin --enable-shared --enable-threads=posix --mandir=/usr/share/man --with-isl --with-linker-hash-style=gnu  
Processor Notes: Scaling Governor: acpi-cpufreq performance - CPU Microcode: 0x800820d  
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/swaps barriers and \_\_user pointer sanitization + spectre\_v2: Mitigation of Full AMD retpoline IBPB: conditional STIBP: disabled RSB filling + tsx\_async\_abort: Not affected

## arcoPBO

Processor: AMD Ryzen 5 2600X Six-Core @ 3.60GHz (6 Cores / 12 Threads), Motherboard: ASRock B450M/ac (P1.70 BIOS), Chipset: AMD 17h, Memory: 16384MB, Disk: HP SSD EX900 120GB + 240GB CT240BX500SSD1 + 500GB + 500GB HGST HTS545050A7 + 640GB TOSHIBA MK6475GS + 1000GB Samsung SSD 860 + 16GB USB Flash Disk, Graphics: Sapphire AMD Radeon RX 5600 OEM/5600 XT / 5700/5700 6GB (1780/875MHz), Audio: AMD Navi 10 HDMI Audio, Monitor: L185V + E420i-B0, Network: Realtek RTL8111/8168/8411 + Intel Dual Band-AC 3168NGW

OS: ArcoLinuxD v20.2.12, Kernel: 5.6.0-rc4-1-tkg-pds (x86\_64), Desktop: GNOME Shell 3.36.0, Display Server: X Server 1.20.7, OpenGL: 4.6 Mesa 20.0.0 (git-7a965bd4c3) (LLVM 9.0.1), OpenCL: OpenCL 2.1 AMD-APP (3004.6) + OpenCL 1.1 Mesa 20.0.0 (git-7a965bd4c3), Vulkan: 1.2.131, Compiler: GCC 9.2.1 20200130 + Clang 9.0.1 + LLVM 9.0.1, File-System: ext4, Screen Resolution: 3286x1080

Kernel Notes: amdgpu.ppfeaturemask=0xffffffff  
Environment Notes: AMD\_DEBUG=nodma  
Compiler Notes: --disable-libssp --disable-libstdcxx-pch --disable-libunwind-exceptions --disable-werror --enable-\_\_cxa\_atexit --enable-cet=auto --enable-checking=release --enable-clocale=gnu --enable-default-pie --enable-default-ssp --enable-gnu-indirect-function --enable-gnu-unique-object --enable-install-liberty --enable-languages=c,c++,ada,fortran,go,lto,objc,obj-c++,d --enable-lto --enable-multilib --enable-plugin --enable-shared --enable-threads=posix --mandir=/usr/share/man --with-isl --with-linker-hash-style=gnu  
Processor Notes: Scaling Governor: acpi-cpufreq performance - CPU Microcode: 0x800820d  
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/swaps barriers and \_\_user pointer sanitization + spectre\_v2: Mitigation of Full AMD retpoline IBPB: conditional STIBP: disabled RSB filling + tsx\_async\_abort: Not affected

## New arco

### Arco4100

Processor: AMD Ryzen 5 2600X Six-Core @ 4.05GHz (6 Cores / 12 Threads), Motherboard: ASRock B450M/ac (P1.70 BIOS), Chipset: AMD 17h, Memory: 16GB, Disk: HP SSD EX900 120GB + 240GB CT240BX500SSD1 + 500GB + 500GB HGST HTS545050A7 + 640GB TOSHIBA MK6475GS + 1000GB Samsung SSD 860 + 16GB USB Flash Disk, Graphics: Sapphire AMD Radeon RX 5600 OEM/5600 XT / 5700/5700 6GB (1780/875MHz), Audio: AMD Navi 10 HDMI Audio, Monitor: L185V + E420i-B0, Network: Realtek RTL8111/8168/8411 + Intel Dual Band-AC 3168NGW

OS: ArcoLinuxB-plasma v20.3.3, Kernel: 5.6.0-rc5-1-tkg-pds-00326-gccc9b5c40c99 (x86\_64), Desktop: KDE Plasma 5.18.3, Display Server: X Server 1.20.7, Display Driver: modesetting 1.20.7, OpenGL: 4.6 Mesa 20.1.0-devel (git-7ac8bb33cd) (LLVM 11.0.0), Vulkan: 1.1.129, Compiler: GCC 9.3.0 + Clang 9.0.1, File-System: ext4, Screen Resolution: 3286x1080

Environment Notes: AMD\_DEBUG=nongg,nodma  
Compiler Notes: --disable-libssp --disable-libstdcxx-pch --disable-libunwind-exceptions --disable-werror --enable-\_\_cxa\_atexit --enable-cet=auto --enable-checking=release --enable-clocale=gnu --enable-default-pie --enable-default-ssp --enable-gnu-indirect-function --enable-gnu-unique-object --enable-install-liberty --enable-languages=c,c++,ada,fortran,go,lto,objc,obj-c++,d --enable-lto --enable-multilib --enable-plugin --enable-shared --enable-threads=posix --mandir=/usr/share/man --with-isl --with-linker-hash-style=gnu  
Processor Notes: Scaling Governor: acpi-cpufreq performance - CPU Microcode: 0x800820d  
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/swappgs barriers and \_\_user pointer sanitization + spectre\_v2: Mitigation of Full AMD retpoline IBPB: conditional STIBP: disabled RSB filling + tsx\_async\_abort: Not affected

## arco4075

Processor: AMD Ryzen 5 2600X Six-Core @ 4.08GHz (6 Cores / 12 Threads), Motherboard: ASRock B450M/ac (P1.70 BIOS), Chipset: AMD 17h, Memory: 16GB, Disk: HP SSD EX900 120GB + 240GB CT240BX500SSD1 + 500GB + 500GB HGST HTS545050A7 + 640GB TOSHIBA MK6475GS + 1000GB Samsung SSD 860 + 16GB USB Flash Disk, Graphics: Sapphire AMD Radeon RX 5600 OEM/5600 XT / 5700/5700 6GB (1725/820MHz), Audio: AMD Navi 10 HDMI Audio, Monitor: L185V + E420i-B0, Network: Realtek RTL8111/8168/8411 + Intel Dual Band-AC 3168NGW

OS: ArcoLinuxB-plasma v20.3.3, Kernel: 5.6.0-rc5-1-tkg-pds-00326-gccc9b5c40c99 (x86\_64), Desktop: KDE Plasma 5.18.3, Display Server: X Server 1.20.7, Display Driver: modesetting 1.20.7, OpenGL: 4.6 Mesa 20.1.0-devel (git-84e707e6f2) (LLVM 11.0.0), Vulkan: 1.2.128, Compiler: GCC 9.3.0 + Clang 9.0.1, File-System: ext4, Screen Resolution: 3286x1080

Kernel Notes: amdgpu.ppfeaturemask=0xffff7fff

Environment Notes: AMD\_DEBUG=nongg,nodma

Compiler Notes: --disable-libssp --disable-libstdcxx-pch --disable-libunwind-exceptions --disable-werror --enable-\_\_cxa\_atexit --enable-cet=auto --enable-checking=release --enable-clocale=gnu --enable-default-pie --enable-default-ssp --enable-gnu-indirect-function --enable-gnu-unique-object --enable-install-liberty --enable-languages=c,c++,ada,fortran,go,lt,objc,obj-c++,d --enable-lto --enable-multilib --enable-plugin --enable-shared --enable-threads=posix --mandir=/usr/share/man --with-isl --with-linker-hash-style=gnu

Processor Notes: Scaling Governor: acpi-cpufreq performance - CPU Microcode: 0x800820d

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/swappgs barriers and \_\_user pointer sanitization + spectre\_v2: Mitigation of Full AMD retpoline IBPB: conditional STIBP: disabled RSB filling + tsx\_async\_abort: Not affected

## 3600x pbo1

Processor: AMD Ryzen 5 3600X 6-Core @ 3.80GHz (6 Cores / 12 Threads), Motherboard: ASRock B450M/ac (P1.70 BIOS), Chipset: AMD Starship/Matisse, Memory: 16GB, Disk: HP SSD EX900 120GB + 240GB CT240BX500SSD1 + 500GB HGST HTS545050A7 + 640GB TOSHIBA MK6475GS + 1000GB Samsung SSD 860 + 500GB + 16GB USB Flash Disk, Graphics: Sapphire AMD Radeon RX 5600 OEM/5600 XT / 5700/5700 6GB (1725/820MHz), Audio: AMD Navi 10 HDMI Audio, Monitor: E420i-B0, Network: Realtek RTL8111/8168/8411 + Intel Dual Band-AC 3168NGW

OS: ArcoLinuxB-plasma v20.4.10, Kernel: 5.6.3-8.2-tkg-pds-00192-g552f15a96825 (x86\_64), Display Server: X Server 1.20.8, OpenGL: 4.6 Mesa 20.1.0-devel (git-acf7e73be5) (LLVM 9.0.1), OpenCL: OpenCL 2.1 AMD-APP (3004.6) + OpenCL 1.1 Mesa 20.1.0-devel (git-acf7e73be5), Vulkan: 1.2.128, Compiler: GCC 9.3.0 + Clang 9.0.1 + LLVM 9.0.1, File-System: ext4, Screen Resolution: 1920x1080

Kernel Notes: amdgpu.ppfeaturemask=0xffff7fff

Environment Notes: AMD\_DEBUG=nodma,nongg

Compiler Notes: --disable-libssp --disable-libstdcxx-pch --disable-libunwind-exceptions --disable-werror --enable-\_\_cxa\_atexit --enable-cet=auto --enable-checking=release --enable-clocale=gnu --enable-default-pie --enable-default-ssp --enable-gnu-indirect-function --enable-gnu-unique-object --enable-install-liberty --enable-languages=c,c++,ada,fortran,go,lt,objc,obj-c++,d --enable-lto --enable-multilib --enable-plugin --enable-shared --enable-threads=posix --mandir=/usr/share/man --with-isl --with-linker-hash-style=gnu

Processor Notes: Scaling Governor: acpi-cpufreq performance - CPU Microcode: 0x8701013

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/swappgs barriers and \_\_user pointer sanitization + spectre\_v2: Mitigation of Full AMD retpoline IBPB: conditional STIBP: conditional RSB filling + tsx\_async\_abort: Not affected

## 3600X PBO 2 3200MHz RAM

Processor: AMD Ryzen 5 3600X 6-Core @ 3.80GHz (6 Cores / 12 Threads), Motherboard: ASRock B450M/ac (P1.70 BIOS), Chipset: AMD Starship/Matisse, Memory: 16GB, Disk: HP SSD EX900 120GB + 240GB CT240BX500SSD1 + 500GB HGST HTS545050A7 + 640GB TOSHIBA MK6475GS + 1000GB Samsung SSD 860 + 500GB + 16GB USB Flash Disk, Graphics: Sapphire AMD Radeon RX 5600 OEM/5600 XT / 5700/5700 6GB (1790/860MHz), Audio: AMD Navi 10 HDMI Audio, Monitor: E420i-B0, Network: Realtek RTL8111/8168/8411 + Intel Dual Band-AC 3168NGW

OS: ArcoLinuxB-plasma v20.4.10, Kernel: 5.6.4-9-tkg-pds (x86\_64), Display Server: X Server 1.20.8, OpenGL: 4.6 Mesa 20.1.0-devel (git-acf7e73be5) (LLVM 9.0.1), OpenCL: OpenCL 2.1 AMD-APP (3004.6) + OpenCL 1.1 Mesa 20.1.0-devel (git-acf7e73be5), Vulkan: 1.2.128, Compiler: GCC 9.3.0 + Clang 9.0.1 + LLVM 9.0.1, File-System: ext4, Screen Resolution: 1920x1080

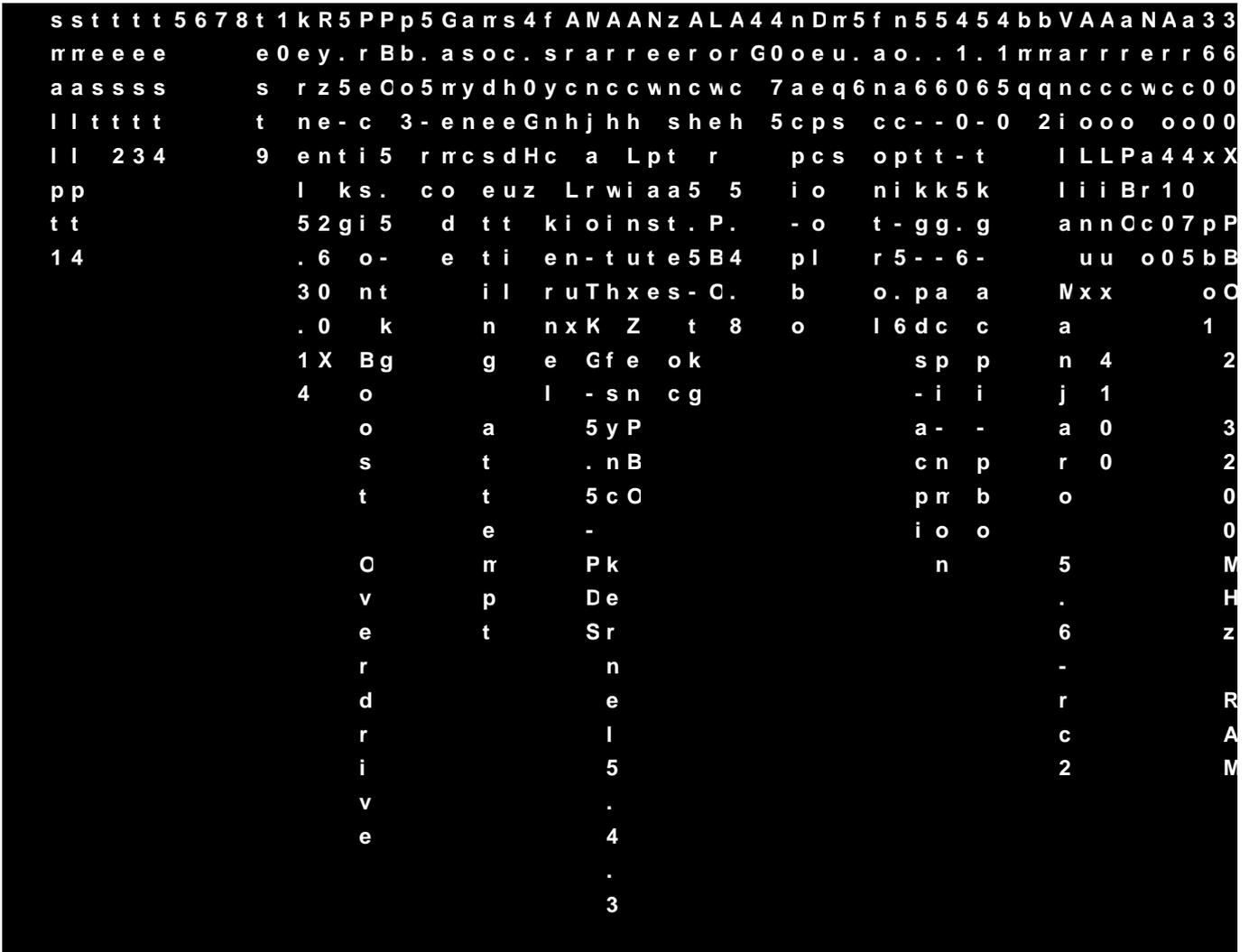
Kernel Notes: amdgpu.ppfeaturemask=0xfffd7fff

Environment Notes: AMD\_DEBUG=nodma,nongg

Compiler Notes: --disable-libssp --disable-libstdcxx-pch --disable-libunwind-exceptions --disable-werror --enable-\_\_cxa\_atexit --enable-cet=auto --enable-checking=release --enable-clocale=gnu --enable-default-pie --enable-default-ssp --enable-gnu-indirect-function --enable-gnu-unique-object --enable-install-liberty --enable-languages=c,c++,ada,fortran,go,lto,objc,obj-c++,d --enable-lto --enable-multilib --enable-plugin --enable-shared --enable-threads=posix --mandir=/usr/share/man --with-isl --with-linker-hash-style=gnu

Processor Notes: Scaling Governor: acpi-cpufreq performance - CPU Microcode: 0x8701013

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/swaps barriers and \_\_user pointer sanitization + spectre\_v2: Mitigation of Full AMD retpoline IBPB: conditional STIBP: conditional RSB filling + tsx\_async\_abort: Not affected



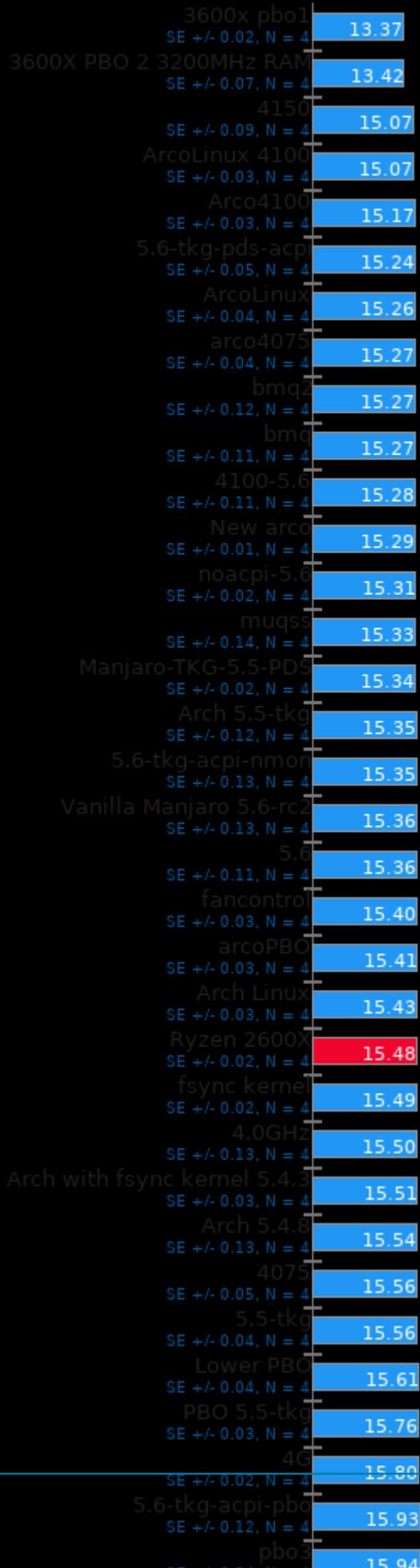


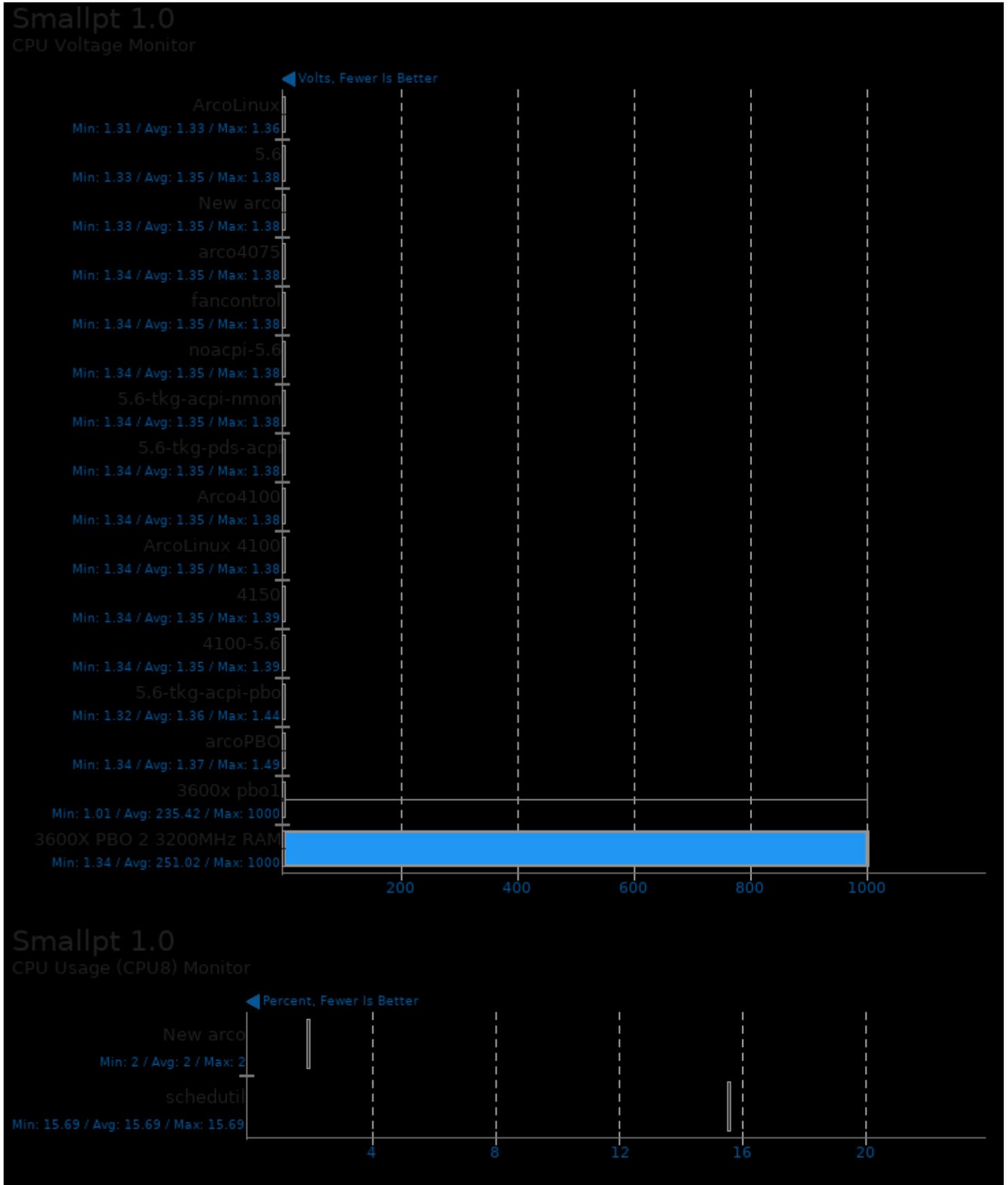


# Smallpt 1.0

Global Illumination Renderer; 128 Samples

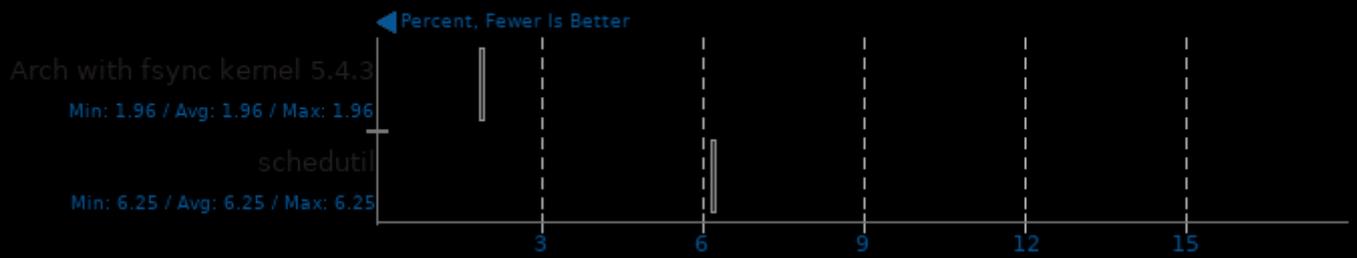
← Seconds, Fewer Is Better





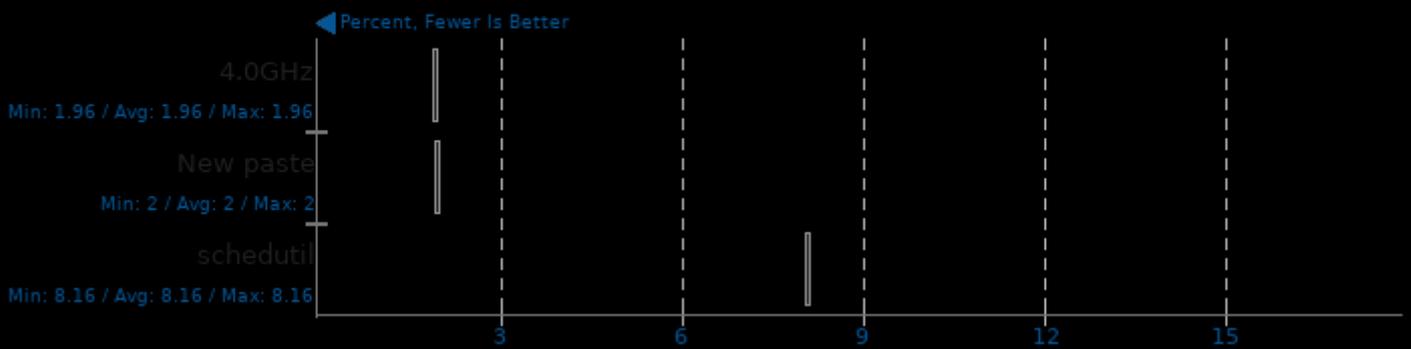
### Smallpt 1.0

CPU Usage (CPU7) Monitor



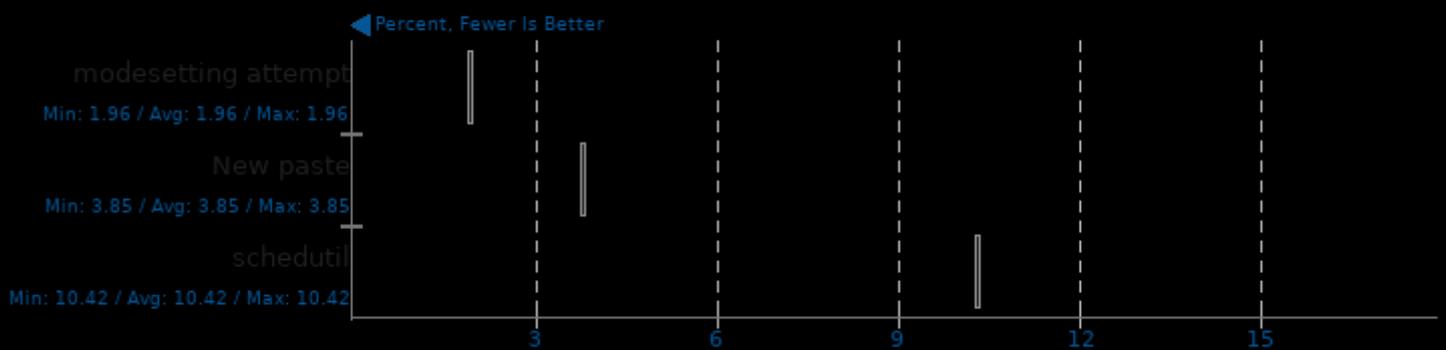
### Smallpt 1.0

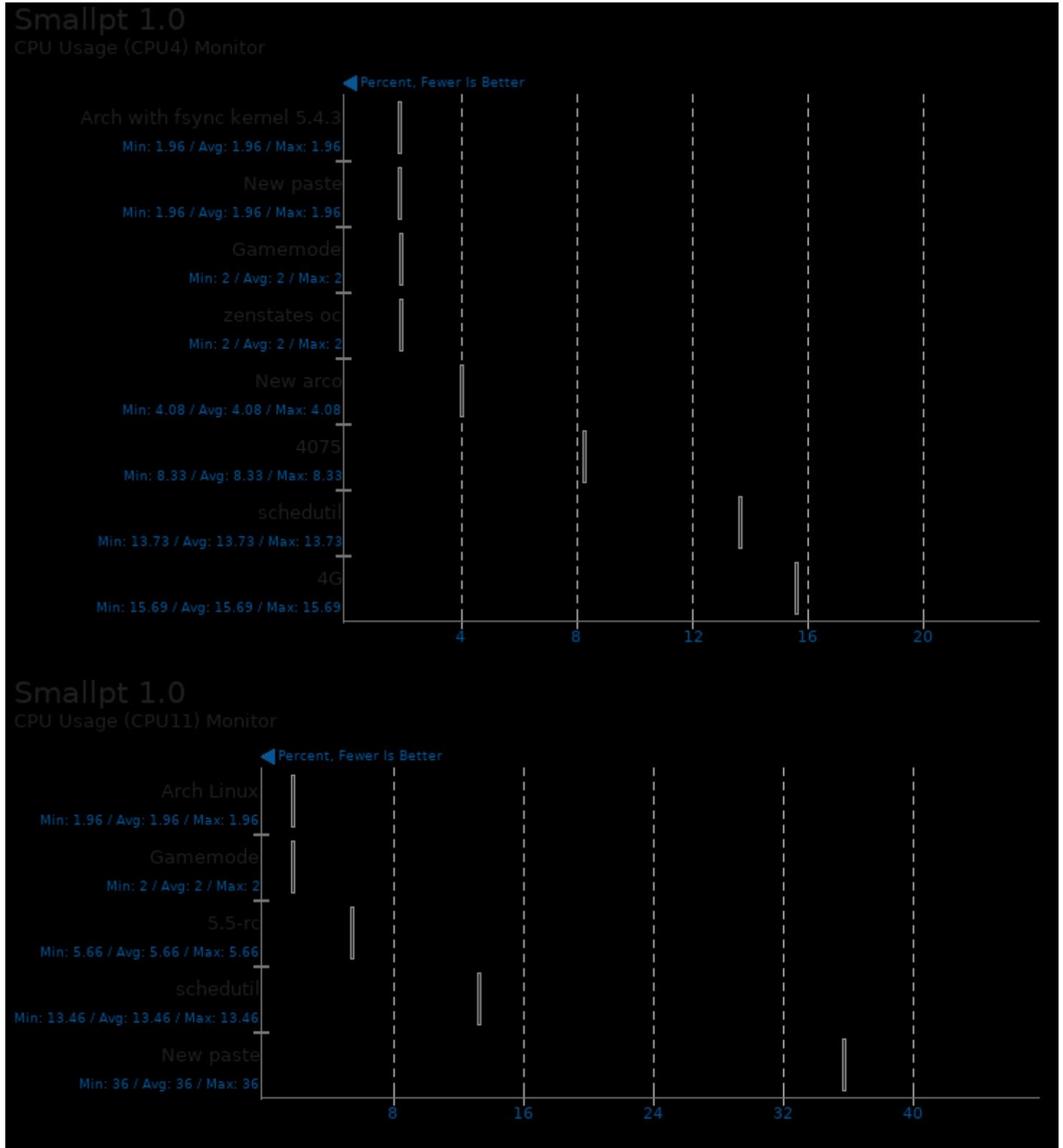
CPU Usage (CPU6) Monitor



### Smallpt 1.0

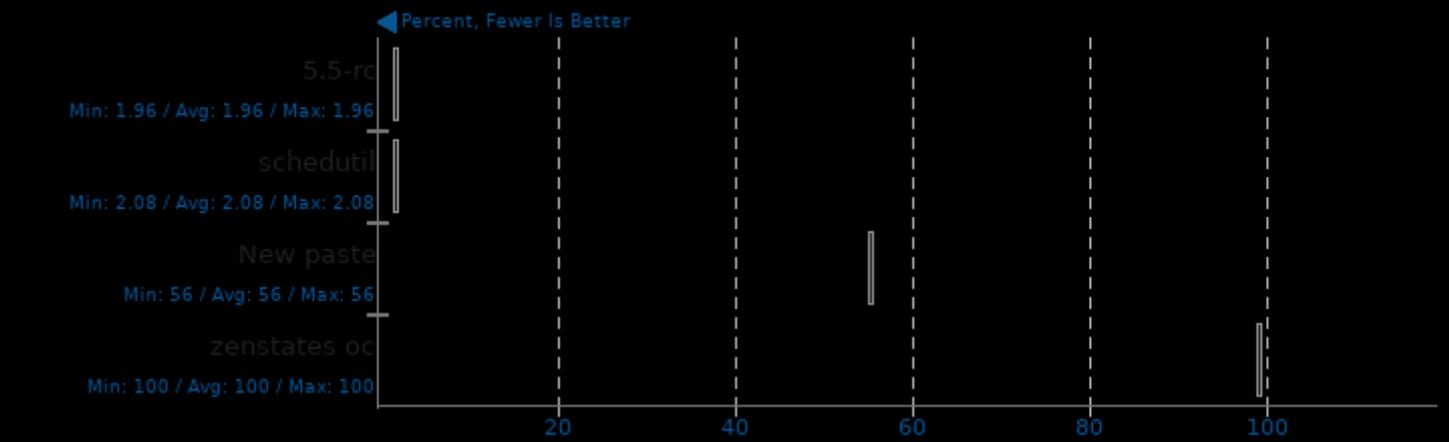
CPU Usage (CPU9) Monitor





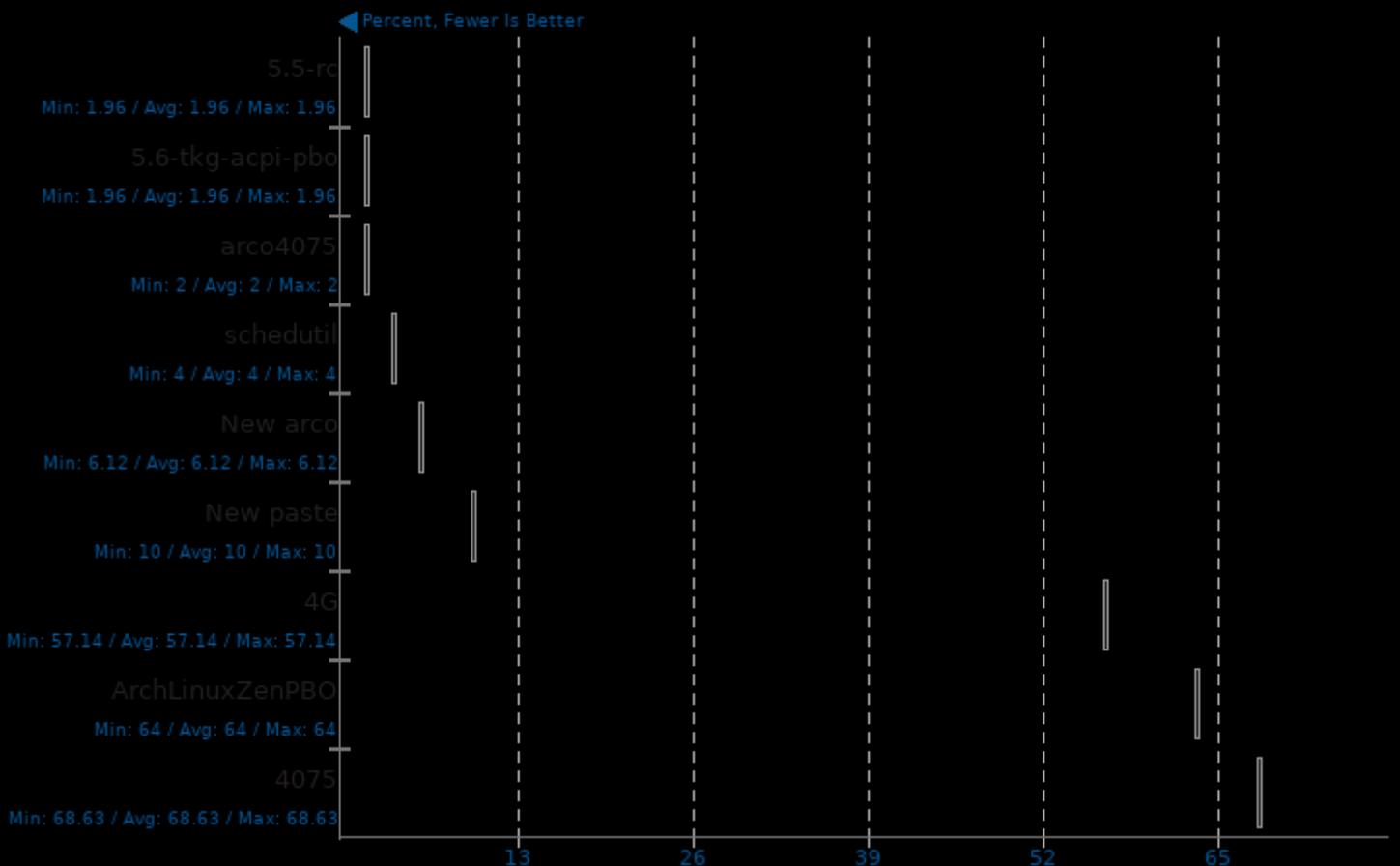
### Smallpt 1.0

CPU Usage (CPU10) Monitor



### Smallpt 1.0

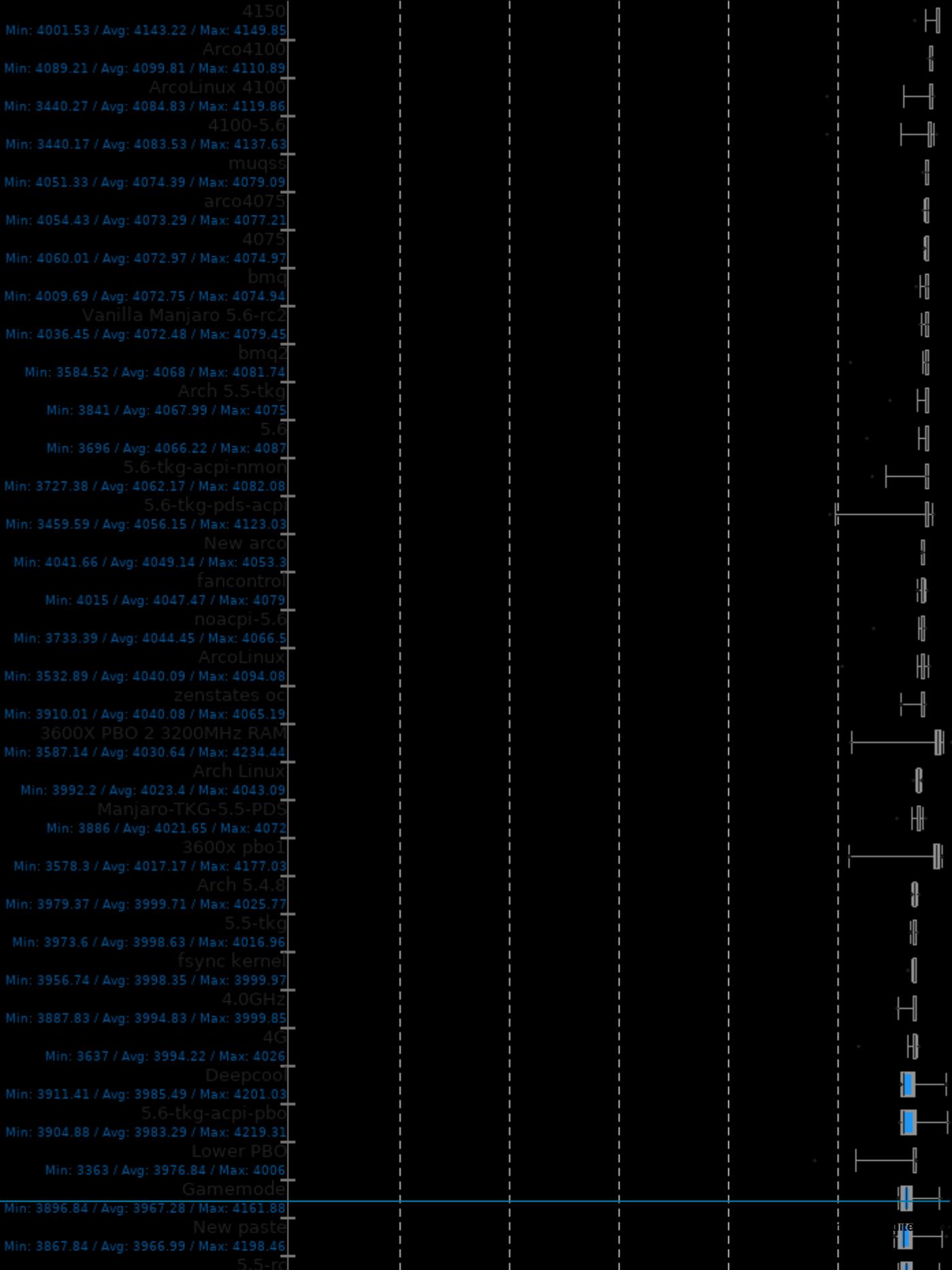
CPU Usage (CPU5) Monitor



# Smallpt 1.0

CPU Frequency (CPU11) Monitor

► Megahertz, More Is Better



# Smallpt 1.0

CPU Frequency (CPU10) Monitor

► Megahertz, More Is Better

|  |
|--|
| 4150                                       |
| Min: 4127.46 / Avg: 4147.88 / Max: 4157.29 |
| Arco4100                                   |
| Min: 4022.97 / Avg: 4097.86 / Max: 4109.24 |
| ArcoLinux 4100                             |
| Min: 4064.65 / Avg: 4097.54 / Max: 4124.11 |
| 4100-5.6                                   |
| Min: 4065.79 / Avg: 4096.31 / Max: 4106.14 |
| bmq2                                       |
| Min: 4063.02 / Avg: 4074.53 / Max: 4074.96 |
| arco4075                                   |
| Min: 4052.4 / Avg: 4074.11 / Max: 4079.48  |
| Vanilla Manjaro 5.6-rc2                    |
| Min: 4037.23 / Avg: 4074.08 / Max: 4081.8  |
| bmq  |
| Min: 4017.28 / Avg: 4073.32 / Max: 4083.25 |
| Arch 5.5-tkg                               |
| Min: 4036 / Avg: 4072.85 / Max: 4088       |
| 4075                                       |
| Min: 4036.86 / Avg: 4072.72 / Max: 4074.98 |
| 5.6-tkg-pds-acpi                           |
| Min: 4045.85 / Avg: 4072.55 / Max: 4119.87 |
| muqs                                       |
| Min: 4041.28 / Avg: 4072.49 / Max: 4089.87 |
| 5.6-tkg-acpi-nmon                          |
| Min: 4048.92 / Avg: 4072.22 / Max: 4099.77 |
| 5.6  |
| Min: 4019 / Avg: 4070.7 / Max: 4093        |
| noacpi-5.6                                 |
| Min: 4031.06 / Avg: 4050.41 / Max: 4093.71 |
| zenstates oc                               |
| Min: 4042 / Avg: 4049.83 / Max: 4061.43    |
| New arco                                   |
| Min: 4037.82 / Avg: 4048.87 / Max: 4049.91 |
| fancontrol                                 |
| Min: 4024 / Avg: 4047.29 / Max: 4057       |
| ArcoLinux                                  |
| Min: 4001.98 / Avg: 4046.15 / Max: 4049.87 |
| 3600X PBO 2 3200MHz RAM                    |
| Min: 3592.53 / Avg: 4027.68 / Max: 4234.46 |
| Arch Linux                                 |
| Min: 4005.04 / Avg: 4025.41 / Max: 4069.62 |
| 3600x pbo1                                 |
| Min: 3584.06 / Avg: 4021.68 / Max: 4181.89 |
| Manjaro-TKG-5.5-PDS                        |
| Min: 3991 / Avg: 4021.1 / Max: 4038        |
| fsync kernel                               |
| Min: 3993.17 / Avg: 3999.65 / Max: 3999.97 |
| 4.0GHz                                     |
| Min: 3993.56 / Avg: 3999.4 / Max: 3999.85  |
| 5.5-tkg                                    |
| Min: 3988.51 / Avg: 3998.83 / Max: 4000.12 |
| Arch 5.4.8                                 |
| Min: 3971.66 / Avg: 3998.59 / Max: 4017.89 |
| 4G   |
| Min: 3970 / Avg: 3997.28 / Max: 4009       |
| Lower PBO                                  |
| Min: 3961 / Avg: 3997.08 / Max: 4000       |
| Deepcool                                   |
| Min: 3907.21 / Avg: 3984.68 / Max: 4205.87 |
| 5.6-tkg-acpi-pbo                           |
| Min: 3864.82 / Avg: 3982.03 / Max: 4229.17 |
| Gamemode                                   |
| Min: 3898.44 / Avg: 3974.47 / Max: 4198.45 |
| 5.5-rc                                     |
| Min: 3890.44 / Avg: 3971.23 / Max: 4192.51 |
| async                                      |



# Smallpt 1.0

CPU Frequency (CPU9) Monitor

▶ Megahertz, More Is Better

|                         |  |
|-------------------------|--|
| 4150                    | Min: 4112.96 / Avg: 4148.77 / Max: 4200.57 |
| Arco4100                | Min: 4089.3 / Avg: 4099.28 / Max: 4111.52  |
| ArcoLinux 4100          | Min: 4069.61 / Avg: 4098.32 / Max: 4123.99 |
| 4100-5.6                | Min: 4008.35 / Avg: 4095.67 / Max: 4099.36 |
| Vanilla Manjaro 5.6-rc2 | Min: 4051.33 / Avg: 4074.74 / Max: 4093.32 |
| arco4075                | Min: 4062.85 / Avg: 4074.67 / Max: 4092.71 |
| bmq2                    | Min: 4047.45 / Avg: 4074.34 / Max: 4088.04 |
| bmq                     | Min: 4046.91 / Avg: 4074.3 / Max: 4082.36  |
| 4075                    | Min: 4055.93 / Avg: 4073 / Max: 4074.98    |
| Arch 5.5-tkg            | Min: 4047 / Avg: 4072.55 / Max: 4087       |
| 5.6-tkg-acpi-nmon       | Min: 4042.91 / Avg: 4072.18 / Max: 4086.67 |
| muqss                   | Min: 4023.48 / Avg: 4071.71 / Max: 4079.97 |
| 5.6-tkg-pds-acpi        | Min: 3614.05 / Avg: 4065.28 / Max: 4076.11 |
| 5.6                     | Min: 3601 / Avg: 4064.7 / Max: 4078        |
| New arco                | Min: 4041.7 / Avg: 4049.41 / Max: 4056.93  |
| ArcoLinux               | Min: 4018.49 / Avg: 4049.16 / Max: 4073.54 |
| noacpi-5.6              | Min: 4023.3 / Avg: 4048.85 / Max: 4069.43  |
| zenstates oc            | Min: 3846.43 / Avg: 4046.69 / Max: 4051.32 |
| fancontrol              | Min: 4023 / Avg: 4046.41 / Max: 4050       |
| 3600X PBO 2 3200MHz RAM | Min: 3589.98 / Avg: 4027.56 / Max: 4234.44 |
| Arch Linux              | Min: 3994.5 / Avg: 4022.94 / Max: 4049     |
| 3600x pbo1              | Min: 3589.1 / Avg: 4022.91 / Max: 4185.56  |
| Manjaro-TKG-5.5-PDS     | Min: 4008 / Avg: 4022.71 / Max: 4040       |
| 4.0GHZ                  | Min: 3987.93 / Avg: 3999.32 / Max: 3999.85 |
| fsync kernel            | Min: 3984.12 / Avg: 3998.96 / Max: 3999.96 |
| Arch 5.4.8              | Min: 3970.34 / Avg: 3998.93 / Max: 4036.16 |
| 4G                      | Min: 3973 / Avg: 3998.86 / Max: 4017       |
| 5.5-tkg                 | Min: 3983.22 / Avg: 3998.68 / Max: 4000.11 |
| Lower PBO               | Min: 3964 / Avg: 3997.67 / Max: 4021       |
| 5.6-tkg-acpi-pbo        | Min: 3910.13 / Avg: 3985.87 / Max: 4221.47 |
| Deepcool                | Min: 3712.17 / Avg: 3979.36 / Max: 4213.42 |
| Gamemode                | Min: 3898.44 / Avg: 3975.39 / Max: 4208.69 |
| 5.5-rc                  | Min: 3890.43 / Avg: 3971.58 / Max: 4188.42 |
| async                   |  |



# Smallpt 1.0

## CPU Frequency (CPU8) Monitor

► Megahertz, More Is Better

|                         |  |
|-------------------------|--|
| 4150                    | Min: 4115.3 / Avg: 4147.64 / Max: 4176.57  |
| 4100-5.6                | Min: 4040.25 / Avg: 4097.6 / Max: 4130.21  |
| ArcoLinux 4100          | Min: 4048.14 / Avg: 4096.67 / Max: 4136.36 |
| Arco4100                | Min: 3697.72 / Avg: 4092.75 / Max: 4112.91 |
| Vanilla Manjaro 5.6-rc2 | Min: 4062.44 / Avg: 4075.01 / Max: 4086.9  |
| muqss                   | Min: 4031.28 / Avg: 4074.28 / Max: 4076.74 |
| arco4075                | Min: 4057.81 / Avg: 4073.99 / Max: 4076.82 |
| bmq                     | Min: 4035.67 / Avg: 4073.88 / Max: 4092.17 |
| 5.6-tkg-pds-acpi        | Min: 4031.88 / Avg: 4073.6 / Max: 4120.58  |
| 5.6-tkg-acpi-nmon       | Min: 4052.05 / Avg: 4073.27 / Max: 4098.65 |
| bmq2                    | Min: 4026.14 / Avg: 4073.2 / Max: 4082.06  |
| 4075                    | Min: 3975.7 / Avg: 4071.2 / Max: 4074.98   |
| Arch 5.5-tkg            | Min: 3469 / Avg: 4063.45 / Max: 4091       |
| 5.6                     | Min: 3493 / Avg: 4061.68 / Max: 4099       |
| noacpi-5.6              | Min: 4024.24 / Avg: 4050.1 / Max: 4091.39  |
| ArcoLinux               | Min: 4006.11 / Avg: 4047.51 / Max: 4071.91 |
| fancontrol              | Min: 4004 / Avg: 4046.37 / Max: 4058       |
| New arco                | Min: 3679.45 / Avg: 4044.22 / Max: 4064.4  |
| zenstates oc            | Min: 3580.38 / Avg: 4042.94 / Max: 4080.73 |
| Manjaro-TKG-5.5-PDS     | Min: 3988 / Avg: 4022.44 / Max: 4039       |
| 3600X PBO 2 3200MHz RAM | Min: 3597.4 / Avg: 4019.93 / Max: 4233.76  |
| Arch Linux              | Min: 3906.34 / Avg: 4019.73 / Max: 4034.17 |
| 3600x pbo1              | Min: 3576.99 / Avg: 4016.4 / Max: 4192.1   |
| fsync kernel            | Min: 3932.17 / Avg: 3998 / Max: 3999.97    |
| 4G                      | Min: 3948 / Avg: 3997.14 / Max: 4022       |
| 5.5-tkg                 | Min: 3931.63 / Avg: 3997.04 / Max: 4009.12 |
| 4.0GHz                  | Min: 3908.6 / Avg: 3993.29 / Max: 3999.85  |
| Arch 5.4.8              | Min: 3300.11 / Avg: 3988.44 / Max: 4037.08 |
| Lower PBO               | Min: 3801 / Avg: 3986.97 / Max: 4000       |
| 5.6-tkg-acpi-pbo        | Min: 3910.19 / Avg: 3984.68 / Max: 4253.62 |
| Deepcool                | Min: 3910.94 / Avg: 3984.27 / Max: 4209.25 |
| async                   | Min: 3887.3 / Avg: 3971.99 / Max: 4205.26  |
| Gamemode                | Min: 3898.55 / Avg: 3971.89 / Max: 4183.55 |
| 5.5-rc                  |  |

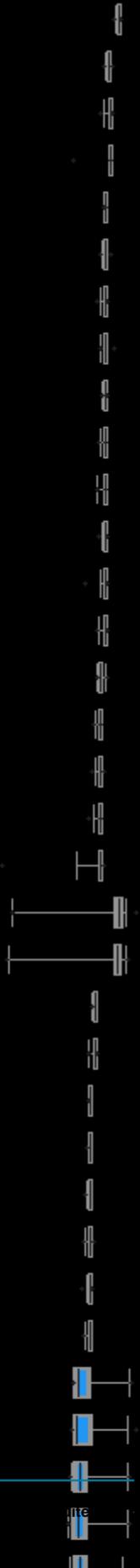


# Smallpt 1.0

## CPU Frequency (CPU7) Monitor

▶ Megahertz, More Is Better

|                         |  |
|-------------------------|--|
| 4150                    | Min: 4119.85 / Avg: 4147.43 / Max: 4157.86 |
| 4100-5.6                | Min: 4071.72 / Avg: 4096.88 / Max: 4108.81 |
| ArcoLinux 4100          | Min: 4047.42 / Avg: 4096.75 / Max: 4112.63 |
| Arco4100                | Min: 3909.5 / Avg: 4096.75 / Max: 4105.82  |
| arco4075                | Min: 4065.53 / Avg: 4074.24 / Max: 4081.99 |
| Arch 5.5-tkg            | Min: 4049 / Avg: 4073.76 / Max: 4102       |
| muqs8                   | Min: 4031.77 / Avg: 4073.61 / Max: 4085.4  |
| 5.6-tkg-pds-acpi        | Min: 4053.56 / Avg: 4073.59 / Max: 4118.95 |
| 4075                    | Min: 4061.49 / Avg: 4073.54 / Max: 4082.54 |
| bmq2                    | Min: 4043.71 / Avg: 4073.4 / Max: 4079.16  |
| Vanilla Manjaro 5.6-rc2 | Min: 4034.87 / Avg: 4073.38 / Max: 4077.64 |
| 5.6-tkg-acpi-nmon       | Min: 4045.23 / Avg: 4072.91 / Max: 4090.3  |
| bmq                     | Min: 3974.73 / Avg: 4072.87 / Max: 4088.29 |
| 5.6                     | Min: 4033 / Avg: 4070.95 / Max: 4087       |
| noacpi-5.6              | Min: 4031.36 / Avg: 4049.83 / Max: 4087.99 |
| New arco                | Min: 4016.21 / Avg: 4048.73 / Max: 4052.56 |
| fancontrol              | Min: 4010 / Avg: 4046.85 / Max: 4068       |
| ArcoLinux               | Min: 3991.88 / Avg: 4046.19 / Max: 4053.48 |
| zenstates oc            | Min: 3544.12 / Avg: 4040.37 / Max: 4071.7  |
| 3600X PBO 2 3200MHz RAM | Min: 3595.81 / Avg: 4028.06 / Max: 4237.5  |
| 3600x pbo1              | Min: 3574.34 / Avg: 4025.57 / Max: 4191.21 |
| Arch Linux              | Min: 4005.27 / Avg: 4021.69 / Max: 4024.4  |
| Manjaro-TKG-5.5-PDS     | Min: 3990 / Avg: 4021.67 / Max: 4038       |
| fsync kernel            | Min: 3993.73 / Avg: 3999.62 / Max: 3999.97 |
| 5.5-tkg                 | Min: 3982.33 / Avg: 3998.36 / Max: 4000.11 |
| 4.0GHZ                  | Min: 3971.02 / Avg: 3997.86 / Max: 3999.85 |
| Lower PBO               | Min: 3966 / Avg: 3997.61 / Max: 4015       |
| Arch 5.4.8              | Min: 3958.28 / Avg: 3997.33 / Max: 4008.77 |
| 4G                      | Min: 3967 / Avg: 3997.01 / Max: 4000       |
| Deepcool                | Min: 3911.35 / Avg: 3985.73 / Max: 4206.17 |
| 5.6-tkg-acpi-pbo        | Min: 3905.02 / Avg: 3979.76 / Max: 4231.2  |
| Gamemode                | Min: 3898.54 / Avg: 3975.33 / Max: 4199.18 |
| async                   | Min: 3887.85 / Avg: 3971.81 / Max: 4203.31 |
| 5.5-rc                  |  |

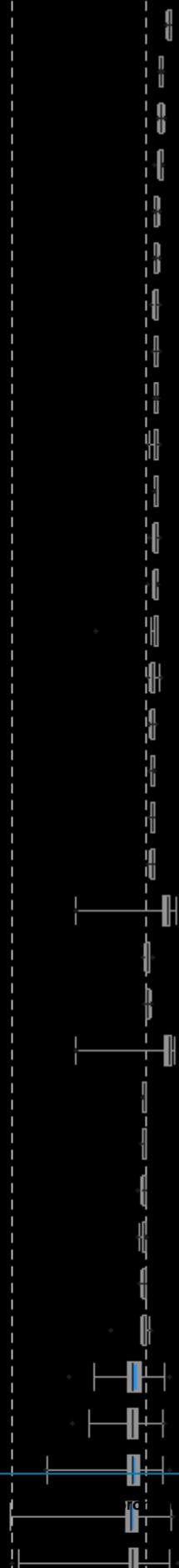


# Smallpt 1.0

## CPU Frequency (CPU6) Monitor

▶ Megahertz, More Is Better

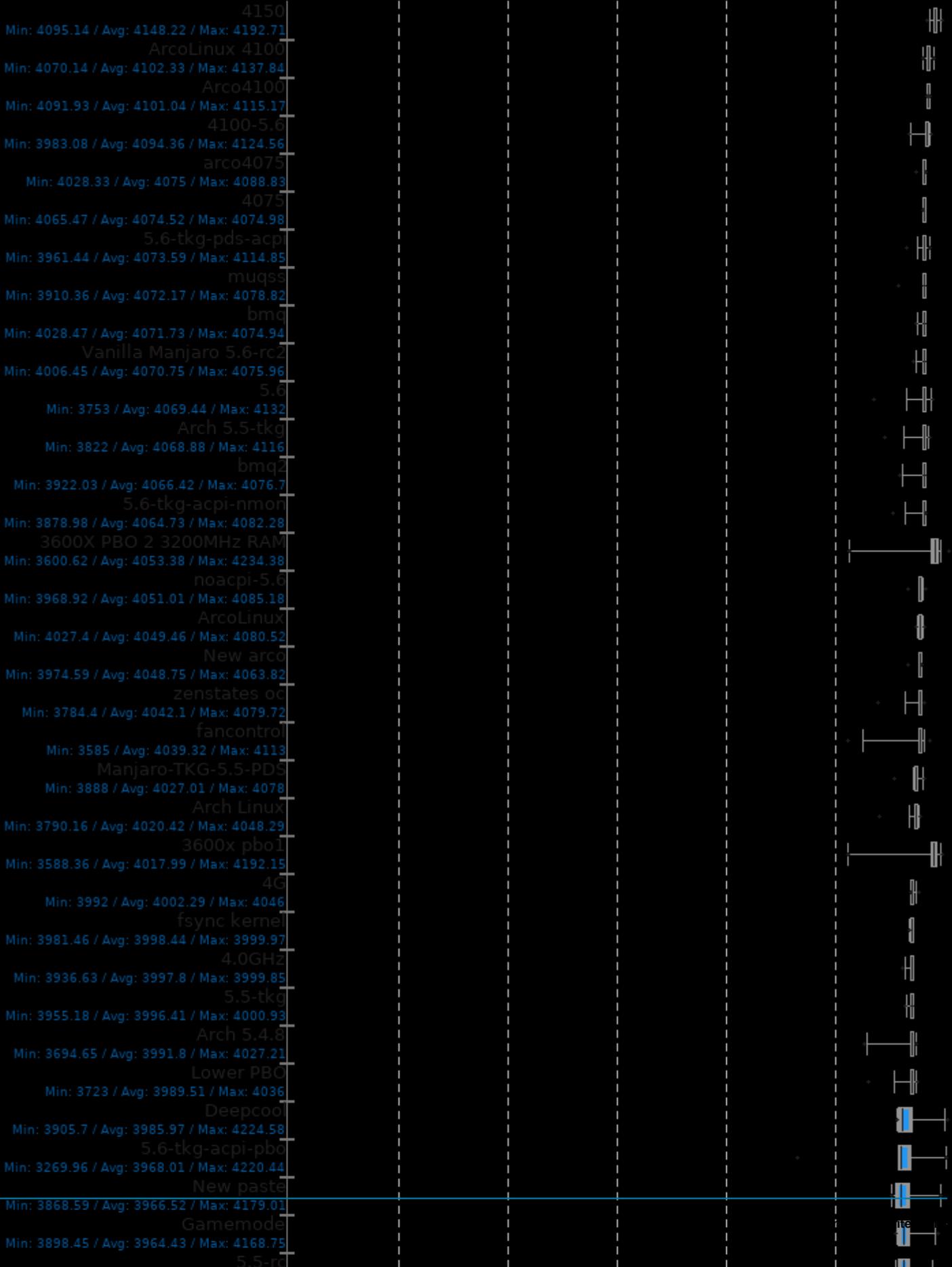
|  |
|--|
| 4150                                       |
| Min: 4130.27 / Avg: 4148.35 / Max: 4150.49 |
| Arco4100                                   |
| Min: 4092.39 / Avg: 4099.54 / Max: 4110.59 |
| ArcoLinux 4100                             |
| Min: 4079.75 / Avg: 4099.46 / Max: 4123.3  |
| 4100-5.6                                   |
| Min: 4059.96 / Avg: 4097.6 / Max: 4115.54  |
| bmq2                                       |
| Min: 4056.58 / Avg: 4075.3 / Max: 4091.88  |
| bmq  |
| Min: 4061.24 / Avg: 4074.48 / Max: 4096.01 |
| Vanilla Manjaro 5.6-rc2                    |
| Min: 4045.42 / Avg: 4074.06 / Max: 4093.17 |
| 5.6-tkg-pds-acpi                           |
| Min: 4055.41 / Avg: 4074.03 / Max: 4092.98 |
| arco4075                                   |
| Min: 4060.09 / Avg: 4074.01 / Max: 4078.99 |
| muqss                                      |
| Min: 4024.21 / Avg: 4073.16 / Max: 4096.35 |
| 4075                                       |
| Min: 4057.73 / Avg: 4072.94 / Max: 4074.98 |
| Arch 5.5-tkg                               |
| Min: 4031 / Avg: 4072.39 / Max: 4090       |
| 5.6-tkg-acpi-nmon                          |
| Min: 4018.88 / Avg: 4071.73 / Max: 4078.86 |
| 5.6  |
| Min: 3713 / Avg: 4066.42 / Max: 4076       |
| ArcoLinux                                  |
| Min: 4018.93 / Avg: 4051.41 / Max: 4098.57 |
| noacpi-5.6                                 |
| Min: 4031.9 / Avg: 4049.18 / Max: 4070.13  |
| New arco                                   |
| Min: 4036.38 / Avg: 4048.94 / Max: 4058.87 |
| zenstates oc                               |
| Min: 4029.97 / Avg: 4048.9 / Max: 4051.66  |
| fancontrol                                 |
| Min: 4024 / Avg: 4047.23 / Max: 4053       |
| 3600x pbo1                                 |
| Min: 3590.52 / Avg: 4046.09 / Max: 4320.7  |
| Arch Linux                                 |
| Min: 3990.83 / Avg: 4023.09 / Max: 4050.38 |
| Manjaro-TKG-5.5-PDS                        |
| Min: 4003 / Avg: 4022.6 / Max: 4039        |
| 3600X PBO 2 3200MHz RAM                    |
| Min: 3589.48 / Avg: 4018.37 / Max: 4237.67 |
| fsync kernel                               |
| Min: 3994.09 / Avg: 3999.59 / Max: 3999.97 |
| 4.0GHz                                     |
| Min: 3983.73 / Avg: 3998.97 / Max: 3999.85 |
| 5.5-tkg                                    |
| Min: 3957.69 / Avg: 3998.11 / Max: 4000.12 |
| 4G   |
| Min: 3961 / Avg: 3997.83 / Max: 4007       |
| Lower PBO                                  |
| Min: 3970 / Avg: 3997.32 / Max: 4001       |
| Arch 5.4.8                                 |
| Min: 3799.93 / Avg: 3996.83 / Max: 4038.02 |
| Gamemode                                   |
| Min: 3556.11 / Avg: 3946.43 / Max: 4150.5  |
| async                                      |
| Min: 3569.13 / Avg: 3939.52 / Max: 4118.34 |
| 5.5-rc                                     |
| Min: 3408.42 / Avg: 3932.28 / Max: 4150.11 |
| New paste                                  |
| Min: 2808.03 / Avg: 3918.37 / Max: 4168.25 |
| 5.6-tkg-acpi-pbo                           |



# Smallpt 1.0

## CPU Frequency (CPU5) Monitor

▶ Megahertz, More Is Better



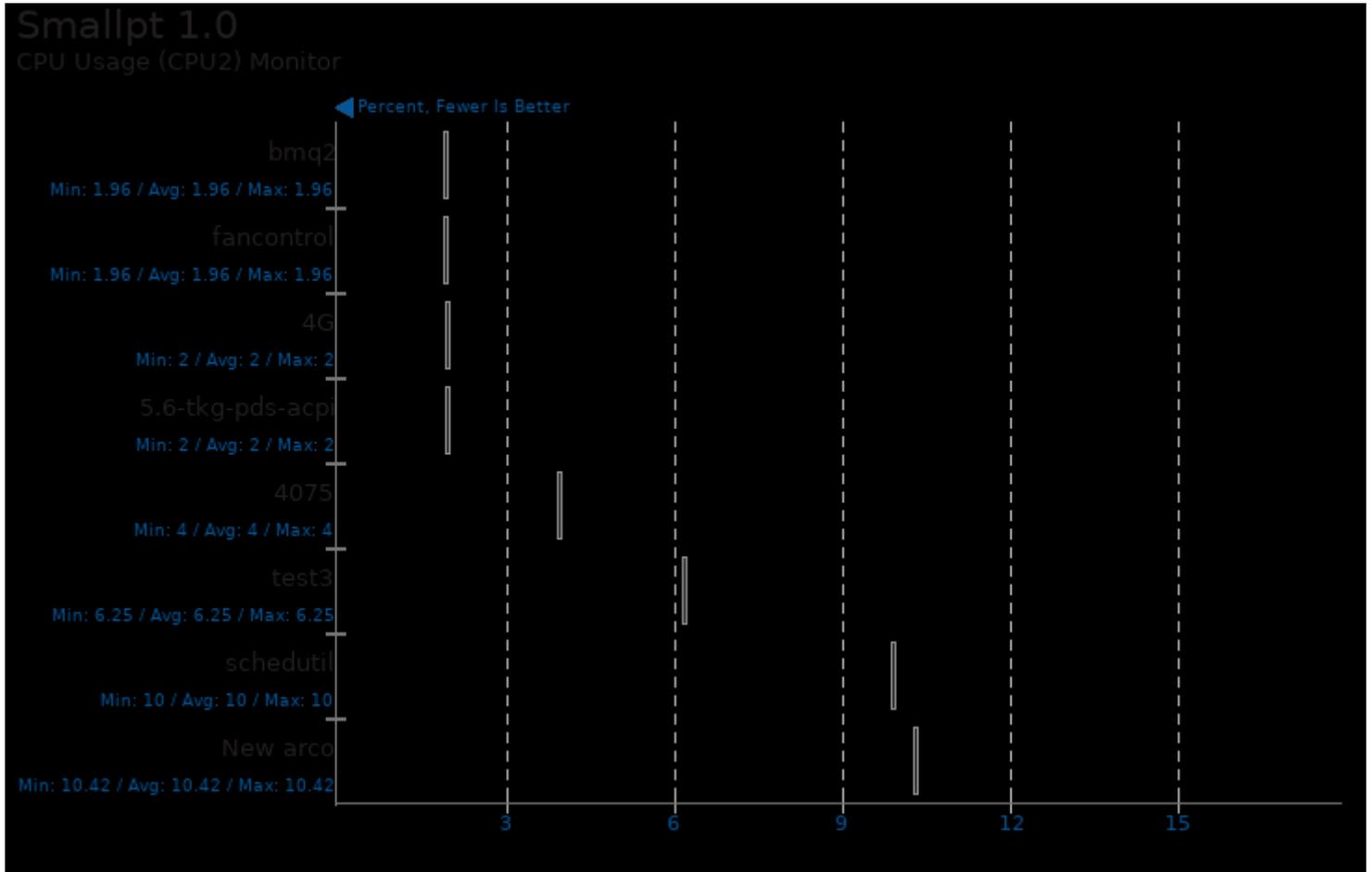
# Smallpt 1.0

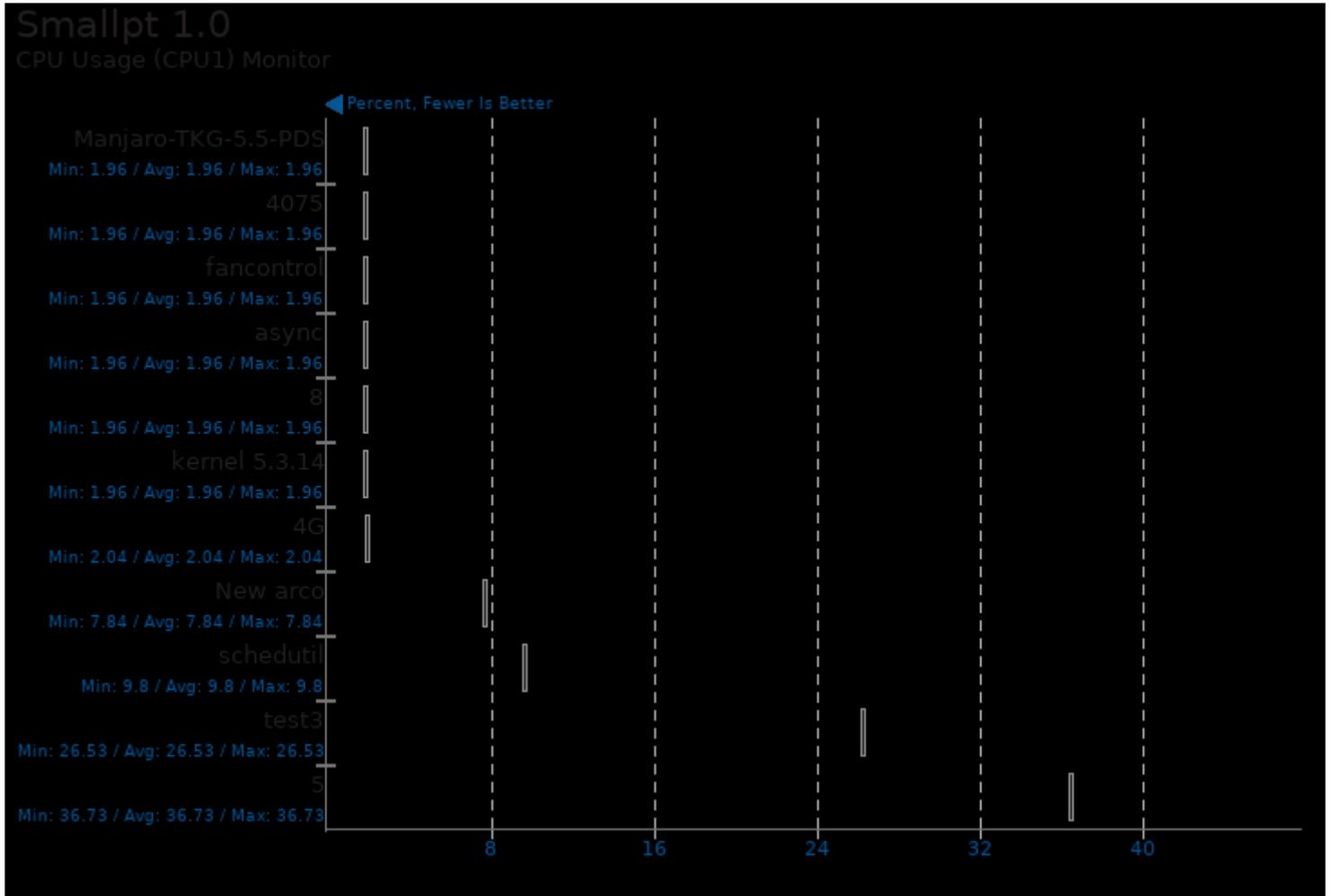
CPU Frequency (CPU4) Monitor

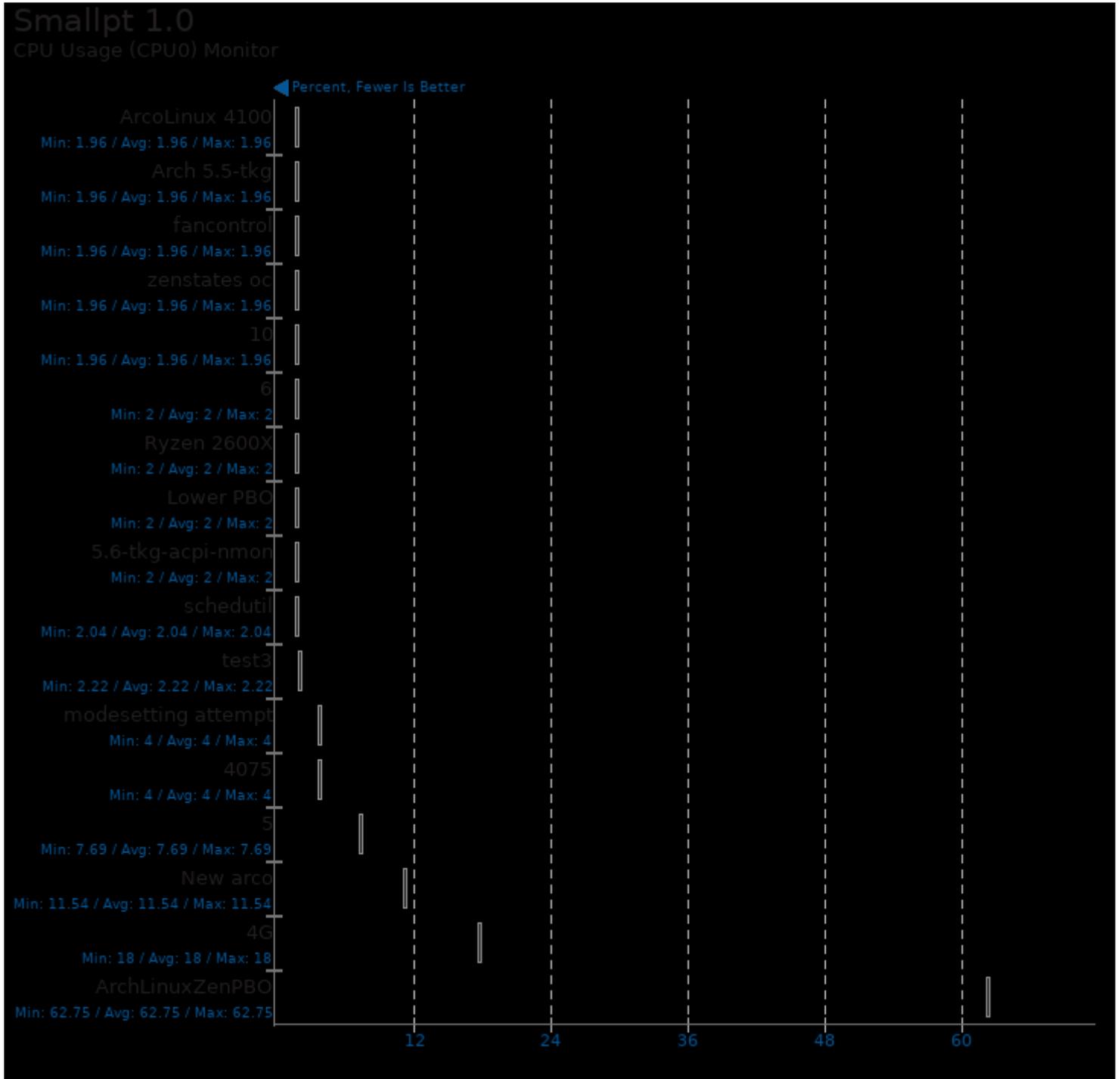
► Megahertz, More Is Better

|  |
|--|
| 4150                                       |
| Min: 4145.92 / Avg: 4151.01 / Max: 4188.03 |
| ArcoLinux 4100                             |
| Min: 4084.43 / Avg: 4100.45 / Max: 4130.72 |
| Arco4100                                   |
| Min: 4097.57 / Avg: 4099.76 / Max: 4102.31 |
| 4100-5.6                                   |
| Min: 4088.3 / Avg: 4099.01 / Max: 4104.57  |
| muqs9                                      |
| Min: 4055.06 / Avg: 4077.32 / Max: 4138.77 |
| arco4075                                   |
| Min: 4069.35 / Avg: 4075.28 / Max: 4094.02 |
| Vanilla Manjaro 5.6-rc2                    |
| Min: 4068.31 / Avg: 4075.13 / Max: 4089.42 |
| 5.6  |
| Min: 4061 / Avg: 4074.82 / Max: 4128       |
| 4075                                       |
| Min: 4069.58 / Avg: 4074.67 / Max: 4074.98 |
| bmq2                                       |
| Min: 4065.81 / Avg: 4074.59 / Max: 4089.37 |
| Arch 5.5-tkg                               |
| Min: 4040 / Avg: 4074.53 / Max: 4114       |
| 5.6-tkg-acpi-nmon                          |
| Min: 4069.83 / Avg: 4074.36 / Max: 4093.9  |
| 5.6-tkg-pds-acpi                           |
| Min: 4063.19 / Avg: 4074.08 / Max: 4077.82 |
| bmq  |
| Min: 4049.1 / Avg: 4073.98 / Max: 4074.96  |
| noacpi-5.6                                 |
| Min: 4045.17 / Avg: 4051.12 / Max: 4076.02 |
| zenstates oc                               |
| Min: 4044.17 / Avg: 4050.97 / Max: 4085.44 |
| ArcoLinux                                  |
| Min: 4039.75 / Avg: 4050.17 / Max: 4069.86 |
| New arco                                   |
| Min: 4006.54 / Avg: 4049.24 / Max: 4059.88 |
| fancontrol                                 |
| Min: 4048 / Avg: 4049.17 / Max: 4058       |
| 3600x pbo1                                 |
| Min: 3591.82 / Avg: 4045.22 / Max: 4207.08 |
| Manjaro-TKG-5.5-PDS                        |
| Min: 4024 / Avg: 4024.19 / Max: 4027       |
| Arch Linux                                 |
| Min: 3950.61 / Avg: 4022.97 / Max: 4030.44 |
| 3600X PBO 2 3200MHz RAM                    |
| Min: 3596.39 / Avg: 4021.86 / Max: 4234.26 |
| 4G   |
| Min: 3994 / Avg: 4001.31 / Max: 4027       |
| Arch 5.4.8                                 |
| Min: 3991.19 / Avg: 4001.26 / Max: 4035.5  |
| Lower PBO                                  |
| Min: 3970 / Avg: 4000.49 / Max: 4041       |
| fsync kernel                               |
| Min: 3993.69 / Avg: 3999.63 / Max: 3999.97 |
| 4.0GHZ                                     |
| Min: 3978.02 / Avg: 3999.4 / Max: 3999.85  |
| 5.5-tkg                                    |
| Min: 3985.24 / Avg: 3999.38 / Max: 4000.12 |
| 5.6-tkg-acpi-pbo                           |
| Min: 3910.18 / Avg: 3987.15 / Max: 4207.65 |
| Deepcool                                   |
| Min: 3911.44 / Avg: 3984.93 / Max: 4221.07 |
| Gamemode                                   |
| Min: 3898.44 / Avg: 3974.63 / Max: 4203.45 |
| New paste                                  |
| Min: 3869.72 / Avg: 3974.29 / Max: 4199.1  |
| 5.5-rc                                     |









# Smallpt 1.0

CPU Peak Freq (Highest CPU Core Frequency) Monitor

► Megahertz, More Is Better

4150  
Min: 4148 / Avg: 4150.19 / Max: 4176

ArcoLinux 4100  
Min: 4099 / Avg: 4103.32 / Max: 4146

Arco4100  
Min: 4099 / Avg: 4100.74 / Max: 4111

4100-5.6  
Min: 4098 / Avg: 4100.49 / Max: 4152

3600X PBO 2 3200MHz RAM  
Min: 3601 / Avg: 4089.7 / Max: 4243

muqs  
Min: 4075 / Avg: 4077.23 / Max: 4114

5.6-tkg-pds-acpi  
Min: 4074 / Avg: 4077 / Max: 4123

bmq2  
Min: 4075 / Avg: 4076.32 / Max: 4100

bmq  
Min: 4075 / Avg: 4076.06 / Max: 4096

arco4075  
Min: 4074 / Avg: 4075.86 / Max: 4088

Vanilla Manjaro 5.6-rc2  
Min: 4075 / Avg: 4075.59 / Max: 4098

4075  
Min: 4073 / Avg: 4074.95 / Max: 4076

5.6-tkg-acpi-nmon  
Min: 4072 / Avg: 4074.68 / Max: 4089

3600x pbo1  
Min: 3594 / Avg: 4074.16 / Max: 4321

6  
Min: 3841 / Avg: 4069.94 / Max: 4088

test2  
Min: 3799 / Avg: 4063.49 / Max: 4088

ArcoLinux  
Min: 4050 / Avg: 4054.03 / Max: 4094

noacpi-5.6  
Min: 4050 / Avg: 4052.43 / Max: 4071

zenstates oc  
Min: 4049 / Avg: 4051.21 / Max: 4083

New arco  
Min: 4049 / Avg: 4050.23 / Max: 4056

Arch Linux  
Min: 4024 / Avg: 4025.95 / Max: 4053

Arch 5.4.8  
Min: 3999 / Avg: 4003.8 / Max: 4151

5.5-tkg  
Min: 3997 / Avg: 4000.78 / Max: 4060

fsync kernel  
Min: 3999 / Avg: 3999.95 / Max: 4000

4.0GHz  
Min: 3999 / Avg: 3999.94 / Max: 4000

Deepcool  
Min: 3911 / Avg: 3992.46 / Max: 4240

5.6-tkg-acpi-pbo  
Min: 3910 / Avg: 3990.64 / Max: 4225

test  
Min: 3613 / Avg: 3984.43 / Max: 4088

Gamemode  
Min: 3899 / Avg: 3978.47 / Max: 4211

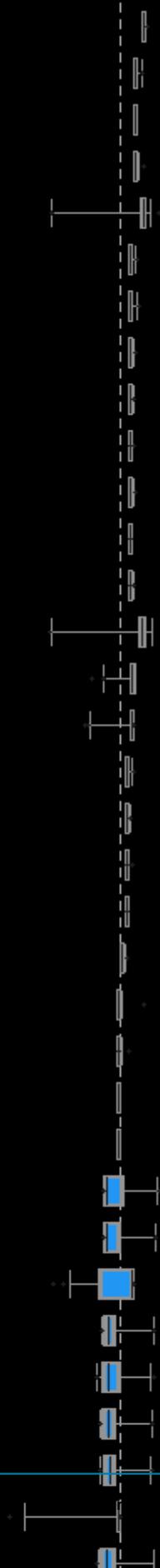
New paste  
Min: 3873 / Avg: 3976.6 / Max: 4211

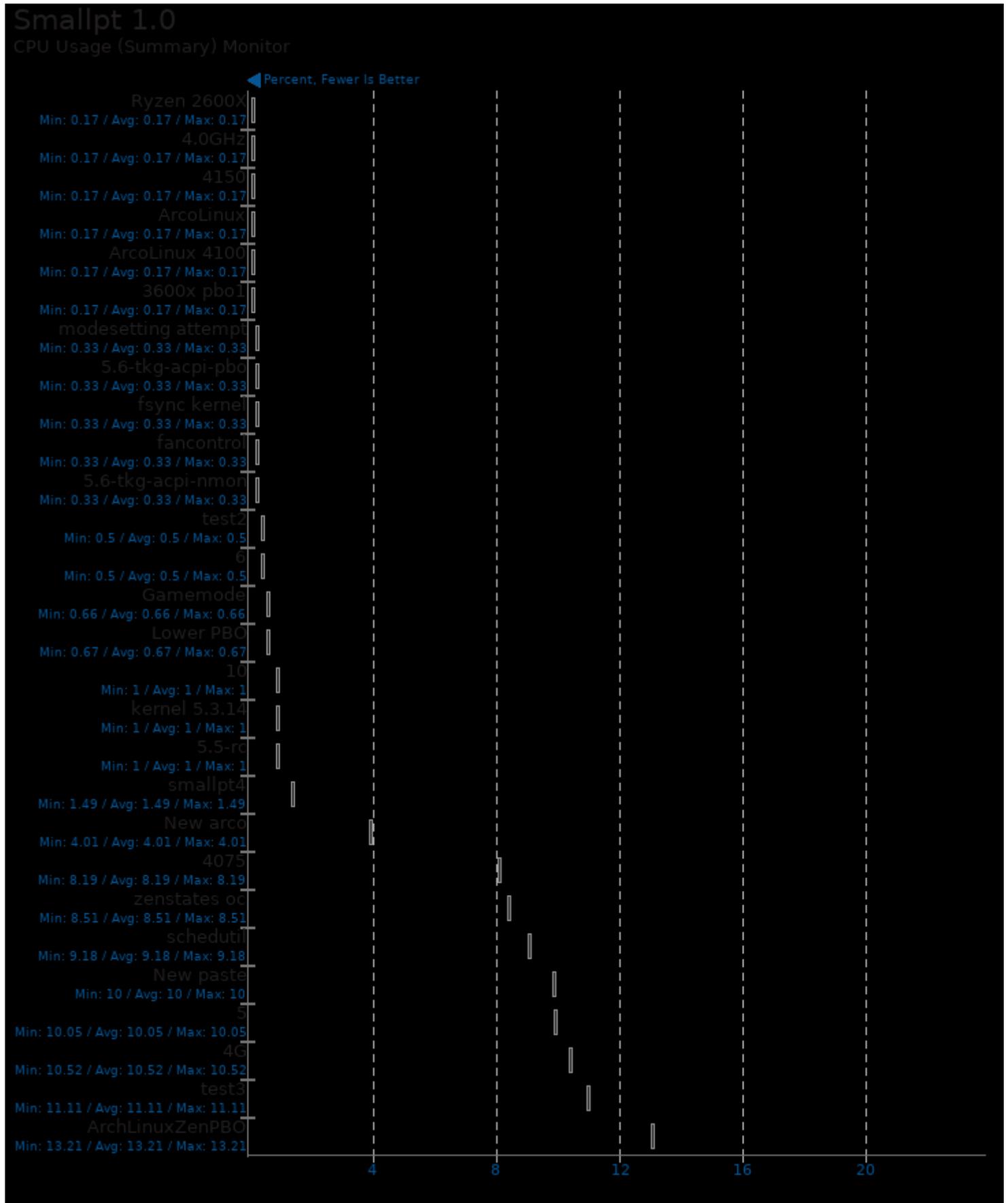
async  
Min: 3888 / Avg: 3975.54 / Max: 4205

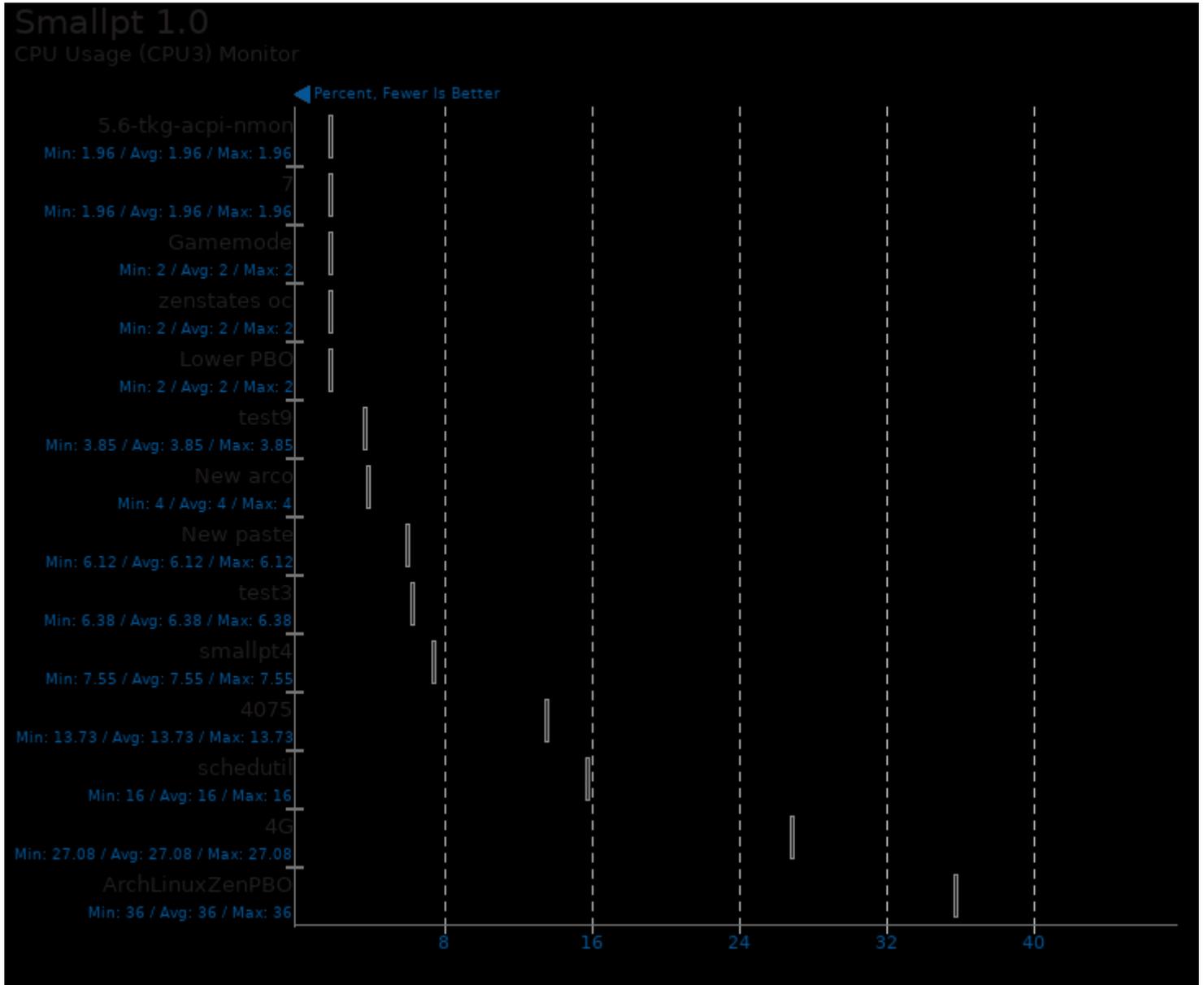
5.5-rc  
Min: 3890 / Avg: 3975.03 / Max: 4198

Arch with fsync kernel 5.4.3  
Min: 3349 / Avg: 3969.67 / Max: 4009

Precision Boost Overdrive







# Smallpt 1.0

## CPU Temperature Monitor

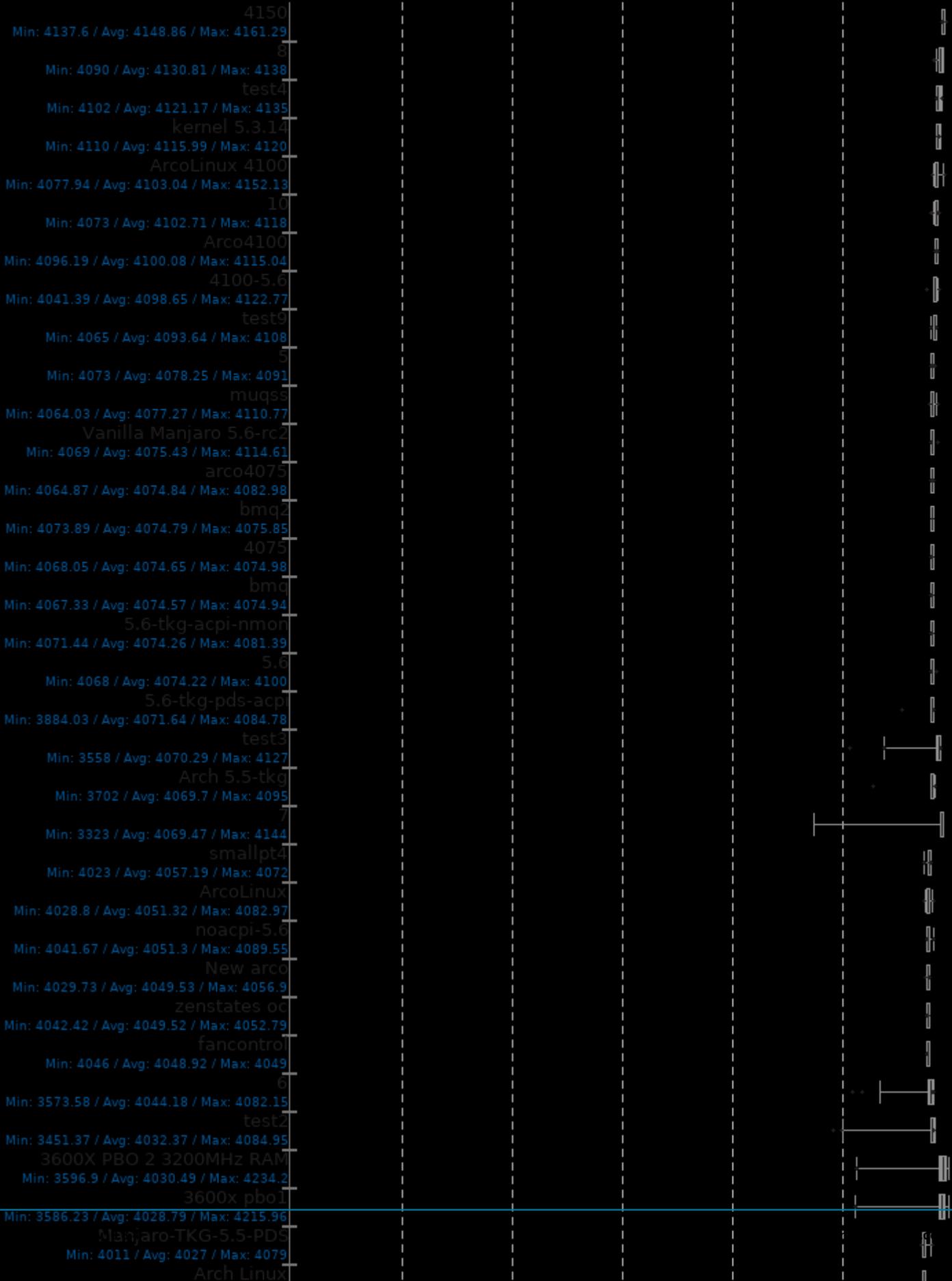
◀ Celsius, Fewer Is Better



# Smallpt 1.0

CPU Frequency (CPU3) Monitor

► Megahertz, More Is Better

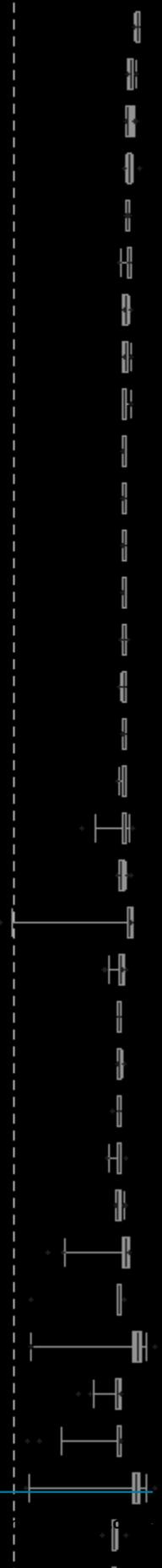


# Smallpt 1.0

CPU Frequency (CPU2) Monitor

▶ Megahertz, More Is Better

|                         |  |
|-------------------------|--|
| 4150                    | Min: 4129.35 / Avg: 4148.72 / Max: 4151.73 |
| 8                       | Min: 4096 / Avg: 4112.02 / Max: 4143       |
| test4                   | Min: 4083 / Avg: 4105.23 / Max: 4142       |
| ArcoLinux 4100          | Min: 4076.36 / Avg: 4101.44 / Max: 4154.6  |
| 4100-5.6                | Min: 4086.02 / Avg: 4098.85 / Max: 4100.27 |
| Arco4100                | Min: 4051.67 / Avg: 4098.56 / Max: 4100.71 |
| 10                      | Min: 4075 / Avg: 4085.3 / Max: 4110        |
| kernel 5.3.14           | Min: 4074 / Avg: 4085.23 / Max: 4112       |
| 5.6                     | Min: 4073 / Avg: 4075 / Max: 4113          |
| Vanilla Manjaro 5.6-rc2 | Min: 4068.27 / Avg: 4074.85 / Max: 4075.14 |
| arco4075                | Min: 4067.95 / Avg: 4074.81 / Max: 4078.27 |
| bmq2                    | Min: 4066.73 / Avg: 4074.57 / Max: 4075.58 |
| bmq                     | Min: 4069.66 / Avg: 4074.54 / Max: 4074.96 |
| 5.6-tkg-pds-acpi        | Min: 4064.62 / Avg: 4074.53 / Max: 4097.99 |
| muqs9                   | Min: 4052 / Avg: 4074.26 / Max: 4076.03    |
| 5.6-tkg-acpi-nmon       | Min: 4065.84 / Avg: 4074.03 / Max: 4075.63 |
| 4075                    | Min: 4045.2 / Avg: 4073.1 / Max: 4074.98   |
| Arch 5.5-tkg            | Min: 3858 / Avg: 4069.77 / Max: 4119       |
| test9                   | Min: 4044 / Avg: 4066.17 / Max: 4117       |
| 7                       | Min: 3397 / Avg: 4060.02 / Max: 4116       |
| smallpt4                | Min: 3973 / Avg: 4058.05 / Max: 4087       |
| New arco                | Min: 4048.08 / Avg: 4049.74 / Max: 4050.01 |
| fancontrol              | Min: 4046 / Avg: 4049.6 / Max: 4081        |
| noacpi-5.6              | Min: 4018.04 / Avg: 4049.39 / Max: 4051.32 |
| zenstates oc            | Min: 3990.74 / Avg: 4048.12 / Max: 4083.77 |
| 5                       | Min: 4037 / Avg: 4047.41 / Max: 4086       |
| test3                   | Min: 3688 / Avg: 4045.29 / Max: 4101       |
| ArcoLinux               | Min: 3595.49 / Avg: 4043.03 / Max: 4077.45 |
| 3600X PBO 2 3200MHz RAM | Min: 3598.42 / Avg: 4040.41 / Max: 4233.75 |
| 6                       | Min: 3840.59 / Avg: 4034.96 / Max: 4063.96 |
| test2                   | Min: 3583.85 / Avg: 4025.58 / Max: 4057.71 |
| 3600x pbo1              | Min: 3574.46 / Avg: 4025.29 / Max: 4231.88 |
| Arch Linux              | Min: 3967.48 / Avg: 4025.16 / Max: 4086    |
| Manjaro-TKG-5.5-PDS     |  |

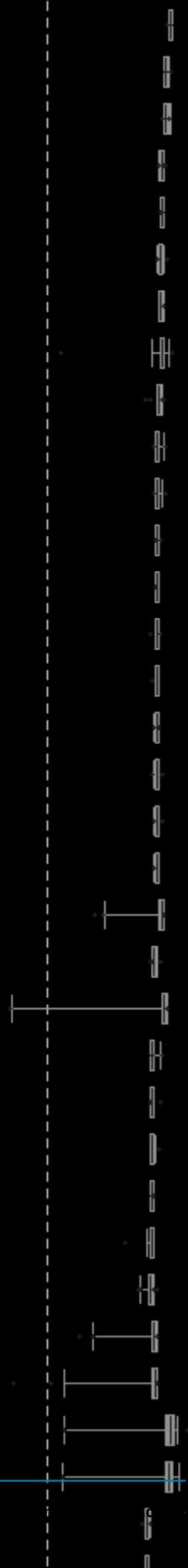


# Smallpt 1.0

## CPU Frequency (CPU1) Monitor

► Megahertz, More Is Better

4150  
Min: 4134.46 / Avg: 4149.16 / Max: 4150.64  
8  
Min: 4120 / Avg: 4126.56 / Max: 4144  
test4  
Min: 4106 / Avg: 4124.9 / Max: 4142  
10  
Min: 4088 / Avg: 4102.19 / Max: 4118  
Arco4100  
Min: 4090.98 / Avg: 4099.37 / Max: 4102.55  
4100-5.6  
Min: 4080.61 / Avg: 4099.29 / Max: 4131.23  
kernel 5.3.14  
Min: 4087 / Avg: 4097.12 / Max: 4115  
ArcoLinux 4100  
Min: 3579.06 / Avg: 4091.49 / Max: 4152.7  
test9  
Min: 4018 / Avg: 4087.84 / Max: 4110  
5.6  
Min: 4061 / Avg: 4075.52 / Max: 4120  
Arch 5.5-tkg  
Min: 4058 / Avg: 4075.2 / Max: 4118  
arco4075  
Min: 4068.42 / Avg: 4075.09 / Max: 4092.56  
4075  
Min: 4072.46 / Avg: 4074.71 / Max: 4074.98  
bmq2  
Min: 4046.69 / Avg: 4074.63 / Max: 4094.16  
Vanilla Manjaro 5.6-rc2  
Min: 4054.85 / Avg: 4074.63 / Max: 4075.13  
muqss  
Min: 4056.81 / Avg: 4074.56 / Max: 4085.82  
5.6-tkg-pds-acpi  
Min: 4049.57 / Avg: 4074.55 / Max: 4101.11  
5.6-tkg-acpi-nmon  
Min: 4059.64 / Avg: 4074.43 / Max: 4101.87  
bmq  
Min: 4057.85 / Avg: 4073.54 / Max: 4074.95  
test3  
Min: 3757 / Avg: 4063.87 / Max: 4114  
5  
Min: 4042 / Avg: 4062.46 / Max: 4091  
7  
Min: 3322 / Avg: 4057.62 / Max: 4131  
ArcoLinux  
Min: 4049.06 / Avg: 4052.78 / Max: 4103.08  
noacpi-5.6  
Min: 4044.01 / Avg: 4050.7 / Max: 4092.92  
fancontrol  
Min: 4048 / Avg: 4050.21 / Max: 4087  
New arco  
Min: 4048.35 / Avg: 4049.93 / Max: 4056.18  
zenstates oc  
Min: 3916.13 / Avg: 4046.92 / Max: 4049.73  
smallpt4  
Min: 3981 / Avg: 4043.87 / Max: 4079  
test2  
Min: 3672.14 / Avg: 4039.09 / Max: 4076.77  
6  
Min: 3337.9 / Avg: 4037.08 / Max: 4076.17  
3600X PBO 2 3200MHz RAM  
Min: 3598.73 / Avg: 4034.24 / Max: 4236.67  
3600x pbo1  
Min: 3585.09 / Avg: 4028.07 / Max: 4276.68  
Arch Linux  
Min: 3995.02 / Avg: 4024.61 / Max: 4042.27  
Manjaro-TKG-5.5-PDS

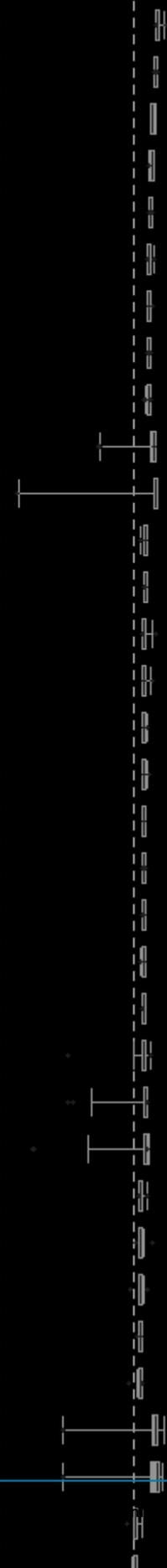


# Smallpt 1.0

## CPU Frequency (CPU0) Monitor

► Megahertz, More Is Better

4150  
Min: 4141.93 / Avg: 4151.38 / Max: 4203.55  
8  
Min: 4132 / Avg: 4144.06 / Max: 4148  
test4  
Min: 4114 / Avg: 4124.71 / Max: 4137  
kernel 5.3.14  
Min: 4100 / Avg: 4116.3 / Max: 4120  
10  
Min: 4098 / Avg: 4111.67 / Max: 4119  
4100-5.6  
Min: 4088.2 / Avg: 4100.25 / Max: 4130.34  
ArcoLinux 4100  
Min: 4096.6 / Avg: 4100.06 / Max: 4116.54  
Arco4100  
Min: 4089.97 / Avg: 4099.95 / Max: 4109.75  
test9  
Min: 4067 / Avg: 4097.96 / Max: 4113  
test3  
Min: 3802 / Avg: 4086.06 / Max: 4133  
7  
Min: 3321 / Avg: 4084.84 / Max: 4146  
smallpt4  
Min: 4051 / Avg: 4080.91 / Max: 4086  
5  
Min: 4070 / Avg: 4079.07 / Max: 4084  
muqs  
Min: 4057.94 / Avg: 4077.46 / Max: 4138.32  
5.6-tkg-pds-acpi  
Min: 4071.61 / Avg: 4076.06 / Max: 4122.96  
arco4075  
Min: 4068.04 / Avg: 4075.51 / Max: 4091.87  
5.6-tkg-acpi-nmon  
Min: 4070.97 / Avg: 4074.83 / Max: 4099.35  
4075  
Min: 4070.07 / Avg: 4074.67 / Max: 4074.98  
bmq  
Min: 4065.07 / Avg: 4074.39 / Max: 4077.69  
Arch 5.5-tkg  
Min: 4060 / Avg: 4074.28 / Max: 4076  
Vanilla Manjaro 5.6-rc2  
Min: 4055.15 / Avg: 4074.21 / Max: 4075.14  
bmq2  
Min: 4061.56 / Avg: 4074.14 / Max: 4074.95  
5.6  
Min: 3624 / Avg: 4068.99 / Max: 4111  
test2  
Min: 3618.29 / Avg: 4055.55 / Max: 4087.54  
6  
Min: 3408.25 / Avg: 4052.08 / Max: 4088.48  
noacpi-5.6  
Min: 4037.82 / Avg: 4052.03 / Max: 4095.25  
ArcoLinux  
Min: 4017.75 / Avg: 4050.78 / Max: 4118.73  
fancontrol  
Min: 3988 / Avg: 4049.41 / Max: 4095  
zenstates oc  
Min: 4031.27 / Avg: 4049.02 / Max: 4050.62  
New arco  
Min: 3979.05 / Avg: 4048.51 / Max: 4058.82  
3600x pbo1  
Min: 3592.18 / Avg: 4039.79 / Max: 4317.82  
3600X PBO 2 3200MHz RAM  
Min: 3591.48 / Avg: 4027.04 / Max: 4243.19  
Manjaro-TKG-5.5-PDS  
Min: 3973 / Avg: 4024.94 / Max: 4062  
Arch Linux



# Smallpt 1.0

CPU Fan Speed Monitor



*This file was automatically generated via the Phoronix Test Suite benchmarking software on Thursday, 28 March 2024 22:20.*