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## **smallpt1**

AMD Ryzen 7 5800X 8-Core testing with a ASRock X570 Taichi (P3.61 BIOS) and eVGA NVIDIA GeForce RTX 3090 24GB on Arch rolling 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,ito,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: I1tf: 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/swapgs barriers and \_\_user pointer sanitization + spectre\_v2: Mitigation of Full generic retrpoine 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.pffeaturemask=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: I1tf: Not affected + mds: Not affected + meltdown: Not affected + spec\_store\_bypass: Mitigation of SSB disabled via prctl and seccomp + spectre\_v1: Mitigation of usercopy/swapgs barriers and \_\_user pointer sanitization + spectre\_v2: Mitigation of Full AMD retrpoine 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.pffeaturemask=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 userspace

Security Notes: I1tf: Not affected + mds: Not affected + meltdown: Not affected + spec\_store\_bypass: Mitigation of SSB disabled via prctl and seccomp + spectre\_v1: Mitigation of usercopy/swapgs barriers and \_\_user pointer sanitization + spectre\_v2: Mitigation of Full AMD retrpoine 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.pffeaturemask=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-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  
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/swapgs barriers and \_\_user pointer sanitization + spectre\_v2: Mitigation of Full AMD retrpoline 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.pffeaturemask=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-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  
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/swapgs barriers and \_\_user pointer sanitization + spectre\_v2: Mitigation of Full AMD retrpoline 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.pffeaturemask=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-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  
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/swapgs barriers and \_\_user pointer sanitization + spectre\_v2: Mitigation of Full AMD retrpoline 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.pffeaturemask=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-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  
Security Notes: I1tf: 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 retrpoline 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.pffeaturemask=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-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  
Security Notes: I1tf: 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 retrpoline 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.pffeaturemask=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-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  
Security Notes: itlb\_multihit: Not affected + I1tf: 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 retrpoline 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.pffeaturemask=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  
Security Notes: itlb\_multithit: Not affected + l1tf: Not affected + mds: Not affected + meltdown: Not affected + spec\_store\_bypass: Mitigation of SSB disabled via prctl and seccomp + spectre\_v1: Mitigation of usercopy/swapgs barriers and \_\_user pointer sanitization + spectre\_v2: Mitigation of Full AMD retpoline IBPB: conditional 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.pffeaturemask=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  
Security Notes: itlb\_multithit: Not affected + l1tf: Not affected + mds: Not affected + meltdown: Not affected + spec\_store\_bypass: Mitigation of SSB disabled via prctl and seccomp + spectre\_v1: Mitigation of usercopy/swapgs barriers and \_\_user pointer sanitization + spectre\_v2: Mitigation of Full AMD retpoline IBPB: conditional 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.pffeaturemask=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  
Security Notes: itlb\_multithit: Not affected + l1tf: Not affected + mds: Not affected + meltdown: Not affected + spec\_store\_bypass: Mitigation of SSB disabled via prctl and seccomp + spectre\_v1: Mitigation of usercopy/swapgs barriers and \_\_user pointer sanitization + spectre\_v2: Mitigation of Full AMD retpoline IBPB: conditional 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.pffeaturemask=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,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/swapgs 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.pffeaturemask=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,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/swapgs 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=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 + l1tf: Not affected + mds: Not affected + meltdown: Not affected + spec\_store\_bypass: Mitigation of SSB disabled via prctl and seccomp + spectre\_v1: Mitigation of usercopy/swapgs barriers and \_\_user pointer sanitization + spectre\_v2: Mitigation of Full AMD retrpoline 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=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 + l1tf: Not affected + mds: Not affected + meltdown: Not affected + spec\_store\_bypass: Mitigation of SSB disabled via prctl and seccomp + spectre\_v1: Mitigation of usercopy/swapgs barriers and \_\_user pointer sanitization + spectre\_v2: Mitigation of Full AMD retrpoline 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.pffeaturemask=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 + l1tf: Not affected + mds: Not affected + meltdown: Not affected + spec\_store\_bypass: Mitigation of SSB disabled via prctl and seccomp + spectre\_v1: Mitigation of usercopy/swapgs barriers and \_\_user pointer sanitization + spectre\_v2: Mitigation of Full AMD retpoline IBPB: conditional 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.pffeaturemask=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 + l1tf: Not affected + mds: Not affected + meltdown: Not affected + spec\_store\_bypass: Mitigation of SSB disabled via prctl and seccomp + spectre\_v1: Mitigation of usercopy/swapgs barriers and \_\_user pointer sanitization + spectre\_v2: Mitigation of Full AMD retpoline IBPB: conditional 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.pffeaturemask=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 + l1tf: Not affected + mds: Not affected + meltdown: Not affected + spec\_store\_bypass: Mitigation of SSB disabled via prctl and seccomp + spectre\_v1: Mitigation of usercopy/swapgs barriers and \_\_user pointer sanitization + spectre\_v2: Mitigation of Full AMD retpoline IBPB: conditional 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 470/480/570X/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.pffeaturemask=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-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/swapgs barriers and \_\_user pointer sanitization + spectre\_v2: Mitigation of Full AMD retpoline IPBP: 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 470/480/570X/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, File-System: ext4, Screen Resolution: 3286x1080

Kernel Notes: amdgpu.pffeaturemask=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-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: 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/swapgs barriers and \_\_user pointer sanitization + spectre\_v2: Mitigation of Full AMD retpoline IPBP: 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 470/480/570X/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.pffeaturemask=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-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 - 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/swapgs barriers and __user pointer sanitization + spectre_v2: Mitigation of Full AMD retrpoline 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.pffeaturemask=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: 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/swapgs barriers and __user pointer sanitization + spectre_v2: Mitigation of Full AMD retrpoline 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.pffeaturemask=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 + l1tf: Not affected + mds: Not affected + meltdown: Not affected + spec_store_bypass: Mitigation of SSB disabled via prctl and  
seccomp + spectre_v1: Mitigation of usercopy/swapgs barriers and __user pointer sanitization + spectre_v2: Mitigation of Full AMD retrpoline 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.pffeaturemask=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,io,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/swapgs 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.pffeaturemask=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,io,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/swapgs 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.pffeaturemask=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-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/swapgs 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 470/480/570X/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.pffeaturemask=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-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/swapgs 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 470/480/570X/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.pffeaturemask=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-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/swapgs 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.pffeaturemask=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,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: 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.pffeaturemask=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,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

## 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.pffeaturemask=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,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/swapgs barriers and \_\_user pointer sanitization + spectre\_v2: Mitigation of Full AMD retrpoline 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.pffeaturemask=0xffffffff

Environment Notes: AMD\_DEBUG=nong

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/swapgs barriers and \_\_user pointer sanitization + spectre\_v2: Mitigation of Full AMD retrpoline 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=nong

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/swapgs barriers and \_\_user pointer sanitization + spectre\_v2: Mitigation of Full AMD retrpoline 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.pffeaturemask=0xffffffff  
Environment Notes: AMD\_DEBUG=nong  
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 + l1tf: Not affected + mds: Not affected + meltdown: Not affected + spec\_store\_bypass: Mitigation of SSB disabled via prctl and seccomp + spectre\_v1: Mitigation of usercopy/swapgs barriers and \_\_user pointer sanitization + spectre\_v2: Mitigation of Full AMD retpoline IBPB: conditional 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.pffeaturemask=0xffffd7fff 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-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 + l1tf: Not affected + mds: Not affected + meltdown: Not affected + spec\_store\_bypass: Mitigation of SSB disabled via prctl and seccomp + spectre\_v1: Mitigation of usercopy/swapgs barriers and \_\_user pointer sanitization + spectre\_v2: Mitigation of Full AMD retpoline IBPB: conditional 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.pffeaturemask=0xffffd7fff 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-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 + l1tf: Not affected + mds: Not affected + meltdown: Not affected + spec\_store\_bypass: Mitigation of SSB disabled via prctl and

seccomp + spectre\_v1: Mitigation of usercopy/swapgs barriers and \_\_user pointer sanitization + spectre\_v2: Mitigation of Full AMD retpoline IBPB: conditional 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.pffeaturemask=0xffffd7fff 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/swapgs 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.pffeaturemask=0xffffd7fff 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/swapgs 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.pffeaturemask=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-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: 0x8000820d  
Security Notes: itlb\_multihit: Not affected + l1tf: Not affected + mds: Not affected + meltdown: Not affected + spec\_store\_bypass: Mitigation of SSB disabled via prctl and seccomp + spectre\_v1: Mitigation of usercopy/swapgs barriers and \_\_user pointer sanitization + spectre\_v2: Mitigation of Full AMD retpoline IBPB: conditional 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.pffeaturemask=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-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: 0x8000820d  
Security Notes: itlb\_multihit: Not affected + l1tf: Not affected + mds: Not affected + meltdown: Not affected + spec\_store\_bypass: Mitigation of SSB disabled via prctl and seccomp + spectre\_v1: Mitigation of usercopy/swapgs barriers and \_\_user pointer sanitization + spectre\_v2: Mitigation of Full AMD retpoline IBPB: conditional 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-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: 0x8000820d  
Security Notes: itlb\_multihit: Not affected + l1tf: Not affected + mds: Not affected + meltdown: Not affected + spec\_store\_bypass: Mitigation of SSB disabled via prctl and

seccomp + spectre\_v1: Mitigation of usercopy/swapgs barriers and \_\_user pointer sanitization + spectre\_v2: Mitigation of Full AMD retrpoline 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.pffeaturemask=0xffffd7fff  
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-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: 0x8000820d  
Security Notes: itlb\_multihit: Not affected + l1tf: Not affected + mds: Not affected + meltdown: Not affected + spec\_store\_bypass: Mitigation of SSB disabled via prctl and seccomp + spectre\_v1: Mitigation of usercopy/swapgs barriers and \_\_user pointer sanitization + spectre\_v2: Mitigation of Full AMD retrpoline 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.pffeaturemask=0xffffd7fff  
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-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: 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/swapgs barriers and \_\_user pointer sanitization + spectre\_v2: Mitigation of Full AMD retrpoline 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.pffeaturemask=0xffffd7fff  
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-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: 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/swapgs barriers and \_\_user pointer sanitization + spectre\_v2: Mitigation of Full AMD retrpoline IBPB: conditional STIBP: conditional RSB filling + tsx\_async\_abort: Not affected

## 3600X X570 Taichi

Processor: AMD Ryzen 5 3600X 6-Core @ 3.80GHz (6 Cores / 12 Threads), Motherboard: ASRock X570 Taichi (P2.70 BIOS), Chipset: AMD Starship/Matisse, Memory: 16GB, Disk: HP SSD EX900 120GB + 640GB TOSHIBA MK6475GS + 240GB CT240BX500SSD1 + 500GB HGST HTS545050A7 + 1000GB Samsung SSD 860 + 500GB + 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: VG27WQ + E420i-B0, Network: Intel I211 + Intel Wi-Fi 6 AX200

OS: ArcoLinuxB-plasma v20.4.10, Kernel: 5.6.2-5-tkg-pds (x86\_64), Display Server: X Server 1.20.8, OpenGL: 4.6 Mesa 20.1.0-devel (git-adeef43d15) (LLVM 11.0.0), OpenCL: OpenCL 2.1 AMD-APP (3004.6), Vulkan: 1.2.128, Compiler: GCC 9.3.0 + Clang 10.0.0 + LLVM 10.0.0, File-System: ext4, Screen Resolution: 4480x1440

Kernel Notes: amdgpu.pffeaturemask=0xffffd7fff  
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-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: 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/swapgs barriers and \_\_user pointer sanitization + spectre\_v2: Mitigation of Full AMD retrpoline IBPB: conditional STIBP: conditional RSB filling + tsx\_async\_abort: Not affected

## 3600X Zenstates

Processor: AMD Ryzen 5 3600X 6-Core @ 3.80GHz (6 Cores / 12 Threads), Motherboard: ASRock X570 Taichi (P2.70 BIOS), Chipset: AMD Starship/Matisse, Memory: 16GB, Disk: HP SSD EX900 120GB + 500GB + 640GB TOSHIBA MK6475GS + 240GB CT240BX500SSD1 + 500GB HGST HTS545050A7 + 1000GB Samsung SSD 860 + 16GB USB Flash Disk, Graphics: Gigabyte AMD Radeon RX 5600 OEM/5600 XT / 5700/5700 8GB (2065/875MHz), Audio: AMD Navi 10 HDMI Audio, Monitor: VG27WQ + 43S421, Network: Intel I211 + Intel Wi-Fi 6 AX200

OS: ManjaroLinux 20.0.1, Kernel: 5.7.0-rc3-1-tkg-pds (x86\_64), Desktop: Deepin Desktop Environment, Display Server: X Server 1.20.8, Display Driver: modesetting 1.20.8, OpenGL: 4.6 Mesa 20.0.6 (LLVM 10.0.0), OpenCL: OpenCL 1.1 Mesa 20.0.6, Vulkan: 1.2.128, Compiler: GCC 9.3.0 + Clang 10.0.0 + LLVM 10.0.0, File-System: ext4, Screen Resolution: 6400x2160

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

## 4250 OC

### 3600X @ 4250MHz

Processor: AMD Ryzen 5 3600X 6-Core @ 4.25GHz (6 Cores / 12 Threads), Motherboard: ASRock X570 Taichi (P2.70 BIOS), Chipset: AMD Starship/Matisse, Memory: 16GB, Disk: HP SSD EX900 120GB + 640GB TOSHIBA MK6475GS + 240GB CT240BX500SSD1 + 500GB HGST HTS545050A7 + 1000GB Samsung SSD 860 + 500GB + 16GB USB Flash Disk, Graphics: Gigabyte AMD Radeon RX 5600 OEM/5600 XT / 5700/5700 8GB (2070/875MHz), Audio: AMD Navi 10 HDMI Audio, Monitor: VG27WQ + 43S421, Network: Intel I211 + Intel Wi-Fi 6 AX200

OS: ManjaroLinux 20.0.1, Kernel: 5.6.10-3-MANJARO (x86\_64), Desktop: Deepin Desktop Environment, Display Server: X Server 1.20.8, Display Driver: vesa 2.4.0, OpenGL: 4.6 Mesa 20.0.6 (LLVM 10.0.0), OpenCL: OpenCL 1.1 Mesa 20.0.6, Vulkan: 1.2.128, Compiler: GCC 9.3.0 + Clang 10.0.0 + LLVM 10.0.0, File-System: ext4, Screen Resolution: 6400x2160

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

### 3600X 4250MHz 5.7-rc4-tkg

## 4250 1.3

Processor: AMD Ryzen 5 3600X 6-Core @ 4.25GHz (6 Cores / 12 Threads), Motherboard: ASRock X570 Taichi (P2.70 BIOS), Chipset: AMD Starship/Matisse, Memory: 16GB, Disk: HP SSD EX900 120GB + 500GB + 640GB TOSHIBA MK6475GS + 240GB CT240BX500SSD1 + 500GB HGST HTS545050A7 + 1000GB Samsung SSD 860 + 16GB USB Flash Disk, Graphics: Gigabyte AMD Radeon RX 5600 OEM/5600 XT / 5700/5700 8GB (2065/875MHz), Audio: AMD Navi 10 HDMI Audio, Monitor: VG27WQ + 43S421, Network: Intel I211 + Intel Wi-Fi 6 AX200

OS: ManjaroLinux 20.0.1, Kernel: 5.7.0-rc4-1-tkg-pds (x86\_64), Desktop: Deepin Desktop Environment, Display Server: X Server 1.20.8, OpenGL: 4.6 Mesa 20.0.6 (LLVM 10.0.0), OpenCL: OpenCL 1.1 Mesa 20.0.6, Vulkan: 1.2.128, Compiler: GCC 9.3.0 + Clang 10.0.0 + LLVM 10.0.0, File-System: ext4, Screen Resolution: 6400x2160

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

## 2400ram

Processor: AMD Ryzen 5 3600X 6-Core @ 3.80GHz (6 Cores / 12 Threads), Motherboard: ASRock X570 Taichi (P2.70 BIOS), Chipset: AMD Starship/Matisse, Memory: 16GB, Disk: HP SSD EX900 120GB + 500GB + 640GB TOSHIBA MK6475GS + 240GB CT240BX500SSD1 + 500GB HGST HTS545050A7 + 1000GB Samsung SSD 860 + 16GB USB Flash Disk, Graphics: Gigabyte AMD Radeon RX 5600 OEM/5600 XT / 5700/5700 8GB (2065/875MHz), Audio: AMD Navi 10 HDMI Audio, Monitor: VG27WQ + 43S421, Network: Intel I211 + Intel Wi-Fi 6 AX200

OS: ManjaroLinux 20.0.1, Kernel: 5.7.0-rc4-1-tkg-pds (x86\_64), Desktop: Deepin Desktop Environment, Display Server:

X Server 1.20.8, OpenGL: 4.6 Mesa 20.0.6 (LLVM 10.0.0), OpenCL: OpenCL 1.1 Mesa 20.0.6, Vulkan: 1.2.128, Compiler: GCC 9.3.0 + Clang 10.0.0 + LLVM 10.0.0, File-System: ext4, Screen Resolution: 6400x2160

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

## G.Skill

Processor: AMD Ryzen 5 3600X 6-Core @ 3.80GHz (6 Cores / 12 Threads), Motherboard: ASRock X570 Taichi (P2.70 BIOS), Chipset: AMD Starship/Matisse, Memory: 16GB, Disk: 1024GB TEAM TM8FP4001T + HP SSD EX900 120GB + 500GB + 240GB CT240BX500SSD1 + 640GB TOSHIBA MK6475GS + 500GB HGST HTS545050A7 + 1000GB Samsung SSD 860 + 16GB USB Flash Disk, Graphics: Gigabyte AMD Radeon RX 5600 OEM/5600 XT / 5700/5700 8GB (2070/875MHz), Audio: AMD Navi 10 HDMI Audio, Monitor: VG27WQ + 43S421, Network: Intel I211 + Intel Wi-Fi 6 AX200

OS: ManjaroLinux 20.0.1, Kernel: 5.7.0-rc4-1-tkg-pds (x86\_64), Desktop: Deepin Desktop Environment, Display Server: X Server 1.20.8, Display Driver: modesetting 1.20.8, OpenGL: 4.6 Mesa 20.0.6 (LLVM 10.0.0), OpenCL: OpenCL 1.1 Mesa 20.0.6, Vulkan: 1.2.128, Compiler: GCC 9.3.0 + Clang 10.0.0 + LLVM 10.0.0, File-System: ext4, Screen Resolution: 6400x2160

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

## 3800X Test 1

### 3800X2

Processor: AMD Ryzen 7 3800X 8-Core @ 3.90GHz (8 Cores / 16 Threads), Motherboard: ASRock X570 Taichi (P2.70 BIOS), Chipset: AMD Starship/Matisse, Memory: 16GB, Disk: 1024GB TEAM TM8FP4001T + HP SSD EX900 120GB + 500GB + 240GB CT240BX500SSD1 + 640GB TOSHIBA MK6475GS + 500GB HGST HTS545050A7 + 1000GB Samsung SSD 860 + 16GB USB Flash Disk, Graphics: Gigabyte AMD Radeon RX 5600 OEM/5600 XT / 5700/5700 8GB (2105/875MHz), Audio: AMD Navi 10 HDMI Audio, Monitor: VG27WQ + 43S421, Network: Intel I211 + Intel Wi-Fi 6 AX200

OS: ManjaroLinux 20.0.1, Kernel: 5.7.0-rc5-1-tkg-pds (x86\_64), Display Server: X Server 1.20.8, Display Driver: modesetting 1.20.8, OpenGL: 4.6 Mesa 20.0.6 (LLVM 10.0.0), OpenCL: OpenCL 1.1 Mesa 20.0.6, Vulkan: 1.2.128, Compiler: GCC 10.1.0 + Clang 10.0.0 + LLVM 10.0.0, File-System: ext4, Screen Resolution: 6400x2160

Kernel Notes: amdgpu.pffeaturemask=0xffffffff  
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-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: 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/swapgs barriers and \_\_user pointer sanitization + spectre\_v2: Mitigation of Full AMD retpoline IBPB: conditional STIBP: conditional RSB filling + tsx\_async\_abort: Not affected

## 3800X 2 CPU fans

Processor: AMD Ryzen 7 3800X 8-Core @ 3.90GHz (8 Cores / 16 Threads), Motherboard: ASRock X570 Taichi (P2.70 BIOS), Chipset: AMD Starship/Matisse, Memory: 16GB, Disk: 1024GB TEAM TM8FP4001T + HP SSD EX900 120GB + 500GB + 240GB CT240BX500SSD1 + 640GB TOSHIBA MK6475GS + 500GB HGST HTS545050A7 + 1000GB Samsung SSD 860 + 16GB USB Flash Disk, Graphics: Gigabyte AMD Radeon RX 5600 OEM/5600 XT / 5700/5700 8GB (2105/875MHz), Audio: AMD Navi 10 HDMI Audio, Monitor: VG27WQ + 43S421, Network: Intel I211 + Intel Wi-Fi 6 AX200

OS: ManjaroLinux 20.0.1, Kernel: 5.7.0-rc5-1-tkg-pds (x86\_64), Display Server: X Server 1.20.8, Display Driver: modesetting 1.20.8, OpenGL: 4.6 Mesa 20.0.7 (LLVM 10.0.0), OpenCL: OpenCL 1.1 Mesa 20.0.7, Vulkan: 1.2.128, Compiler: GCC 10.1.0 + Clang 10.0.0 + LLVM 10.0.0, File-System: ext4, Screen Resolution: 6400x2160

Kernel Notes: amdgpu.pffeaturemask=0xffffffff  
Environment Notes: AMD\_DEBUG=nodma,nong  
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: 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/swapgs barriers and \_\_user pointer sanitization + spectre\_v2: Mitigation of Full AMD retpoline IBPB: conditional STIBP: conditional RSB filling + tsx\_async\_abort: Not affected

## first aio

Processor: AMD Ryzen 7 3800X 8-Core @ 3.90GHz (8 Cores / 16 Threads), Motherboard: ASRock X570 Taichi (P2.70 BIOS), Chipset: AMD Starship/Matisse, Memory: 16GB, Disk: 2 x 1024GB TEAM TM8FP4001T + 2 x 500GB + 640GB TOSHIBA MK6475GS + 1000GB Samsung SSD 860 + 16GB USB Flash Disk, Graphics: Gigabyte AMD Radeon RX 5600 OEM/5600 XT / 5700/5700 8GB (2105/875MHz), Audio: AMD Navi 10 HDMI Audio, Monitor: 43S421 + VG27WQ, Network: Intel I211 + Intel Wi-Fi 6 AX200

OS: ManjaroLinux 20.0.1, Kernel: 5.7.0-rc6-1-tkg-pds (x86\_64), Display Server: X Server 1.20.8, Display Driver: modesetting 1.20.8, OpenGL: 4.6 Mesa 20.0.7 (LLVM 10.0.0), OpenCL: OpenCL 1.1 Mesa 20.0.7, Vulkan: 1.2.128, Compiler: GCC 10.1.0 + Clang 10.0.0 + LLVM 10.0.0, File-System: ext4, Screen Resolution: 6400x2160

Kernel Notes: amdgpu.pffeaturemask=0xffffffff  
Environment Notes: AMD\_DEBUG=nodma,nong  
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: 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/swapgs barriers and \_\_user pointer sanitization + spectre\_v2: Mitigation of Full AMD retpoline IBPB: conditional STIBP: conditional RSB filling + tsx\_async\_abort: Not affected

## 3800X 4350 1.4v 5.7-rc7 tkg-pds

## 3800X 4350 1.4v 5.7-rc7 tkg-pds AIO 100

## 3800X 4350 pds run 3

Processor: AMD Ryzen 7 3800X 8-Core @ 2.80GHz (8 Cores / 16 Threads), Motherboard: ASRock X570 Taichi (P2.70 BIOS), Chipset: AMD Starship/Matisse, Memory: 16GB, Disk: 2 x 1024GB TEAM TM8FP4001T + 500GB + 640GB TOSHIBA MK6475GS + 1000GB Samsung SSD 860 + 16GB USB Flash Disk, Graphics: Gigabyte AMD Radeon RX

5600 OEM/5600 XT / 5700/5700 8GB (2090/875MHz), Audio: AMD Navi 10 HDMI Audio, Monitor: G32QC + VG27WQ + 43S421, Network: Intel I211 + Intel Wi-Fi 6 AX200

OS: Arch rolling, Kernel: 5.7.0-rc7-1-tkg-pds (x86\_64), Desktop: Deepin Desktop Environment, Display Server: X Server 1.20.8, Display Driver: modesetting 1.20.8, OpenGL: 4.6 Mesa 20.0.7 (LLVM 10.0.0), OpenCL: OpenCL 2.1 AMD-APP (3075.10) + OpenCL 1.1 Mesa 20.0.7, Vulkan: 1.2.128, Compiler: GCC 10.1.0 + Clang 10.0.0 + LLVM 10.0.0, File-System: ext4, Screen Resolution: 8960x2160

Kernel Notes: amdgpu.ppfeaturemask=0xffffffff  
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-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: 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/swapgs barriers and \_\_user pointer sanitization + spectre\_v2: Mitigation of Full AMD retpoline IPBP: conditional STIBP: conditional RSB filling + tsx\_async\_abort: Not affected

## 3800X 4.4GHz

Processor: AMD Ryzen 7 3800X 8-Core @ 4.40GHz (8 Cores / 16 Threads), Motherboard: ASRock X570 Taichi (P2.70 BIOS), Chipset: AMD Starship/Matisse, Memory: 16GB, Disk: 2 x 1024GB TEAM TM8FP4001T + 640GB TOSHIBA MK6475GS + 1000GB Samsung SSD 860 + 500GB, Graphics: Gigabyte AMD Radeon RX 5600 OEM/5600 XT / 5700/5700 8GB (2010/875MHz), Audio: AMD Navi 10 HDMI Audio, Monitor: G32QC + VG27WQ + 43S421, Network: Intel I211 + Intel Wi-Fi 6 AX200

OS: Arch rolling, Kernel: 5.7.1-3-tkg-pds (x86\_64), Display Server: X Server 1.20.8, Display Driver: modesetting 1.20.8, OpenGL: 4.6 Mesa 20.1.1 (LLVM 10.0.0), OpenCL: OpenCL 2.1 AMD-APP (3110.6), Vulkan: 1.2.131, Compiler: GCC 10.1.0 + Clang 10.0.0 + LLVM 10.0.0, File-System: ext4, Screen Resolution: 8960x2160

Kernel Notes: amdgpu.ppfeaturemask=0xffffffff amdgpu.dcfeaturemask=1  
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-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: 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/swapgs barriers and \_\_user pointer sanitization + spectre\_v2: Mitigation of Full AMD retpoline IPBP: conditional STIBP: conditional RSB filling + tsx\_async\_abort: Not affected

## 4400 3800X 1.33V

### 3800X 4400MHz 1.3V

Processor: AMD Ryzen 7 3800X 8-Core @ 4.40GHz (8 Cores / 16 Threads), Motherboard: ASRock X570 Taichi (P2.70 BIOS), Chipset: AMD Starship/Matisse, Memory: 32GB, Disk: 2 x 1024GB TEAM TM8FP4001T + 500GB + 640GB TOSHIBA MK6475GS + 1000GB Samsung SSD 860 + 16GB USB Flash Disk, Graphics: Gigabyte AMD Radeon RX 5600 OEM/5600 XT / 5700/5700 8GB (2060/875MHz), Audio: AMD Navi 10 HDMI Audio, Monitor: G32QC + VG27WQ + 43S421, Network: Intel I211 + Intel Wi-Fi 6 AX200

OS: Arch rolling, Kernel: 5.8.0-rc2-1-tkg-pds (x86\_64), Display Server: X Server 1.20.8, Display Driver: modesetting 1.20.8, OpenGL: 4.6 Mesa 20.1.2 (LLVM 10.0.0), OpenCL: OpenCL 2.1 AMD-APP (3110.6) + OpenCL 1.1 Mesa 20.1.2, Vulkan: 1.2.131, Compiler: GCC 10.1.0 + Clang 10.0.0 + LLVM 10.0.0, File-System: ext4, Screen Resolution: 8960x2160

Kernel Notes: amdgpu.ppfeaturemask=0xffffffff amdgpu.dcfeaturemask=1

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

## New BIOS

Processor: AMD Ryzen 7 3800X 8-Core @ 3.90GHz (8 Cores / 16 Threads), Motherboard: ASRock X570 Taichi (P3.20 BIOS), Chipset: AMD Starship/Matisse, Memory: 32GB, Disk: 2 x 1024GB TEAM TM8FP4001T + 640GB TOSHIBA MK6475GS + 1000GB Samsung SSD 860 + 500GB + 16GB USB Flash Disk, Graphics: Gigabyte AMD Radeon RX 5600 OEM/5600 XT / 5700/5700 8GB (2060/875MHz), Audio: AMD Navi 10 HDMI Audio, Monitor: G32QC + VG27WQ + 43S421, Network: Intel I211 + Intel Wi-Fi 6 AX200

OS: Arch rolling, Kernel: 5.7.9-arch1-1 (x86\_64), Desktop: Deepin Desktop Environment, Display Server: X Server 1.20.8, Display Driver: modesetting 1.20.8, OpenGL: 4.6 Mesa 20.1.3 (LLVM 10.0.0), OpenCL: OpenCL 2.1 AMD-APP (3110.6) + OpenCL 1.1 Mesa 20.1.3, Vulkan: 1.2.131, Compiler: GCC 10.1.0 + Clang 10.0.0 + LLVM 10.0.0, File-System: ext4, Screen Resolution: 8966x2160

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-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: 0x8701021  
Security Notes: itlb\_multihit: Not affected + l1tf: Not affected + mds: Not affected + meltdown: Not affected + spec\_store\_bypass: Mitigation of SSB disabled via prctl and seccomp + spectre\_v1: Mitigation of usercopy/swapgs barriers and \_\_user pointer sanitization + spectre\_v2: Mitigation of Full AMD retpoline IBPB: conditional STIBP: conditional RSB filling + srbs: Not affected + tsx\_async\_abort: Not affected

## ugh

Processor: AMD Ryzen 7 3800X 8-Core @ 3.90GHz (8 Cores / 16 Threads), Motherboard: ASRock X570 Taichi (P3.20 BIOS), Chipset: AMD Starship/Matisse, Memory: 32GB, Disk: 2 x 1024GB TEAM TM8FP4001T + 640GB TOSHIBA MK6475GS + 1000GB Samsung SSD 860 + 500GB + 16GB USB Flash Disk, Graphics: Gigabyte AMD Radeon RX 5600 OEM/5600 XT / 5700/5700 8GB (2060/875MHz), Audio: AMD Navi 10 HDMI Audio, Monitor: G32QC + VG27WQ + 43S421, Network: Intel I211 + Intel Wi-Fi 6 AX200

OS: Arch rolling, Kernel: 5.8.0-rc6-1-tkg-pds (x86\_64), Desktop: Deepin Desktop Environment, Display Server: X Server 1.20.8, Display Driver: modesetting 1.20.8, OpenGL: 4.6 Mesa 20.1.3 (LLVM 10.0.0), OpenCL: OpenCL 2.1 AMD-APP (3110.6) + OpenCL 1.1 Mesa 20.1.3, Vulkan: 1.2.131, Compiler: GCC 10.1.0 + Clang 10.0.0 + LLVM 10.0.0, File-System: ext4, Screen Resolution: 8966x2160

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-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: 0x8701021  
Security Notes: itlb\_multihit: Not affected + l1tf: Not affected + mds: Not affected + meltdown: Not affected + spec\_store\_bypass: Mitigation of SSB disabled via prctl and seccomp + spectre\_v1: Mitigation of usercopy/swapgs barriers and \_\_user pointer sanitization + spectre\_v2: Mitigation of Full AMD retpoline IBPB: conditional STIBP: conditional RSB filling + srbs: Not affected + tsx\_async\_abort: Not affected

## 3.00 BIOS

Processor: AMD Ryzen 7 3800X 8-Core @ 3.90GHz (8 Cores / 16 Threads), Motherboard: ASRock X570 Taichi (P3.00 BIOS), Chipset: AMD Starship/Matisse, Memory: 32GB, Disk: 3 x 1024GB TEAM TM8FP4001T + 640GB TOSHIBA MK6475GS + 1000GB Samsung SSD 860 + 500GB + 16GB USB Flash Disk, Graphics: Gigabyte AMD Radeon RX

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5600 OEM/5600 XT / 5700/5700 8GB (2065/875MHz), Audio: AMD Navi 10 HDMI Audio, Monitor: G32QC + VG27WQ, Network: Intel I211 + Intel Wi-Fi 6 AX200

OS: ManjaroLinux 20.1, Kernel: 5.8.3-6-tkg-pds (x86\_64), Desktop: KDE Plasma 5.19.4, Display Server: X Server 1.20.8, Display Driver: modesetting 1.20.8, OpenGL: 4.6 Mesa 20.1.6 (LLVM 10.0.1), Vulkan: 1.2.131, Compiler: GCC 10.2.0 + Clang 10.0.1 + LLVM 10.0.1, File-System: ext4, Screen Resolution: 5120x1440

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

## 5800X first run

Processor: AMD Ryzen 7 5800X 8-Core @ 3.80GHz (8 Cores / 16 Threads), Motherboard: ASRock X570 Taichi (P3.61 BIOS), Chipset: AMD Starship/Matisse, Memory: 32GB, Disk: 3 x 1024GB TEAM TM8FP4001T + 1000GB Samsung SSD 870 + 640GB TOSHIBA MK6475GS + 1000GB Samsung SSD 860 + 500GB + 16GB USB Flash Disk, Graphics: eVGA NVIDIA GeForce RTX 3090 24GB (1725/9851MHz), Audio: NVIDIA Device 1aef, Monitor: G32QC, Network: Intel I211 + Intel Wi-Fi 6 AX200

OS: Arch rolling, Kernel: 5.10.0-rc6-96-tkg-cfs (x86\_64), Desktop: KDE Plasma 5.20.4, Display Server: X Server 1.20.10, Display Driver: NVIDIA 455.46.02, OpenGL: 4.6.0, OpenCL: OpenCL 1.2 CUDA 11.1.114, Vulkan: 1.2.162, Compiler: GCC 10.2.0 + Clang 11.0.0Target: + CUDA 11.1, File-System: ext4, Screen Resolution: 5120x1440

Environment Notes: \_\_GL\_SYNC\_DISPLAY\_DEVICE=DP-0 \_\_GL\_SHADER\_DISK\_CACHE\_SKIP\_CLEANUP=1 AMD\_DEBUG=nodmg,nongg  
\_\_GL\_SHADER\_DISK\_CACHE=1 \_\_GL\_SHADER\_DISK\_CACHE\_SIZE=1000000000  
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: 0xa201009  
Security Notes: itlb\_multihit: Not affected + l1tf: Not affected + mds: Not affected + meltdown: Not affected + spec\_store\_bypass: Mitigation of SSB disabled via prctl and seccomp + spectre\_v1: Mitigation of usercopy/swapgs barriers and \_\_user pointer sanitization + spectre\_v2: Mitigation of Full AMD retpoline IBPB: conditional IBRS\_FW STIBP: always-on RSB filling + srbs: Not affected + tsx\_async\_abort: Not affected

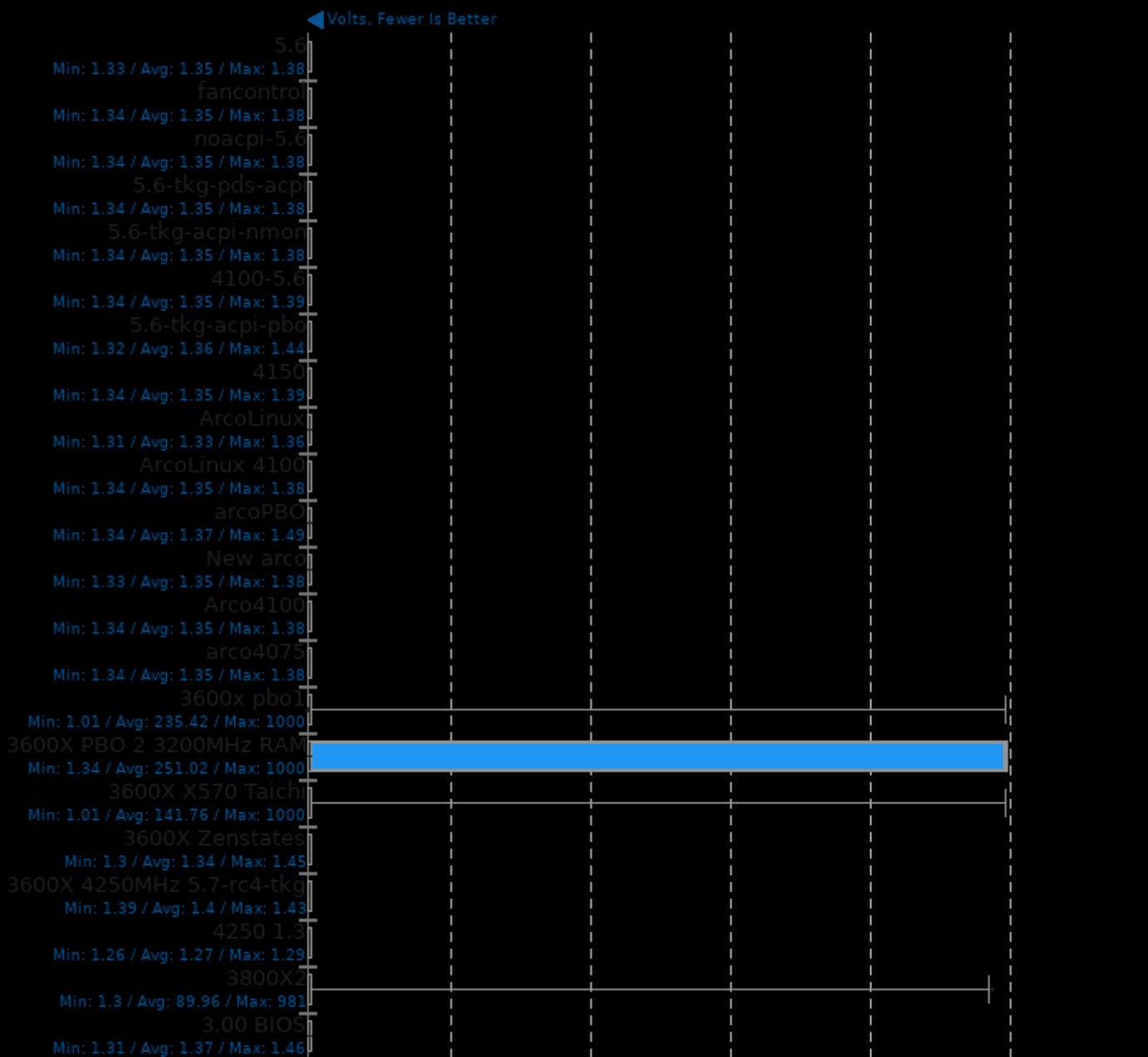
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lllffffttt t re-c 3-ereetrtbjth steh Ecps cc--(-c siccc cc((CCCCCCCCCCCCcccc(((CCCC  
II 234 S eritiE rrcscht a lpt r pcc cptt-t IIIFa44)) ) ri))t))) )E >  
FF I ls. cc etz lrviact E ic rikkEi lliEr1C C 1e1 2 3 1 E  
tt 2giE c tt hicirst.F. -c t-gg.ç arrCc(7pF)2((4.111 2e444484C If  
14 EE c- e ti er-tuteEE4 pl rE--E- u cCEEEe 20 e i333.C4S (i  
.C rt il r1bhes-C. k c.p a D) cCr 45 s CEEE4CC Er  
EE k r r0k 2 t E c 16ccc a 1 Cs 20 t F ((CC)C s  
.D Eg g e (fe ck spp r 4 2 t E1 U H T t  
1 c l -sr cç -i i j 1 7a Ch 1 11pz1F  
4 c a EYF a- - a C sat Iz f ..c .2 n  
s t .rE crp r C 2ie h a 44s 3 u  
t t EcC prk c Ccs zE r w 31 n  
e - ic c Ch . s r V.  
C r FF r E Mi 7 EEE 2  
V F De - E - ..r V  
e t Sr E 2 r - 77  
r r - r - C --3  
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r l C A - CC  
i - 2 T t 77  
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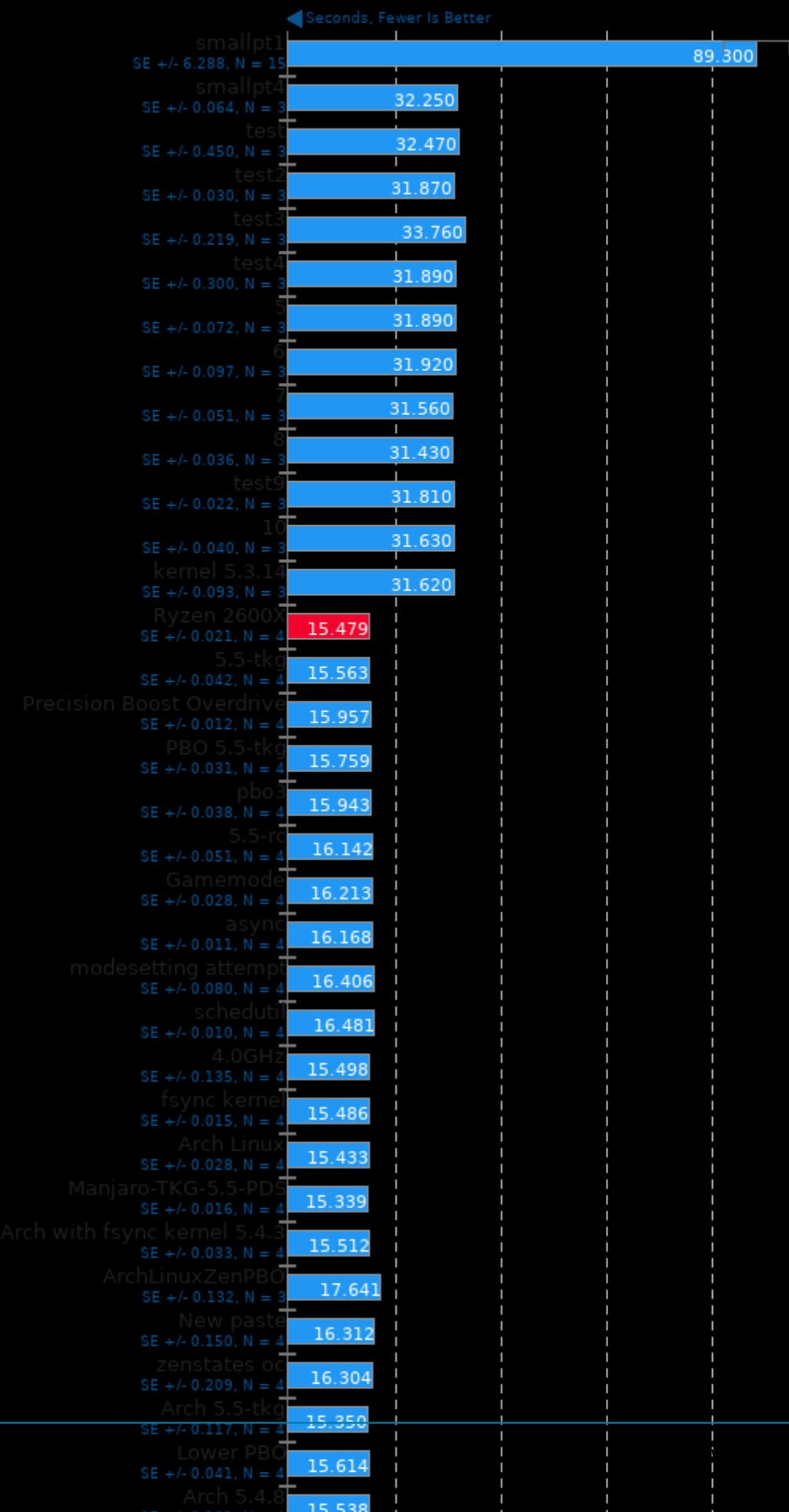
## Smallpt 1.0

CPU Voltage Monitor



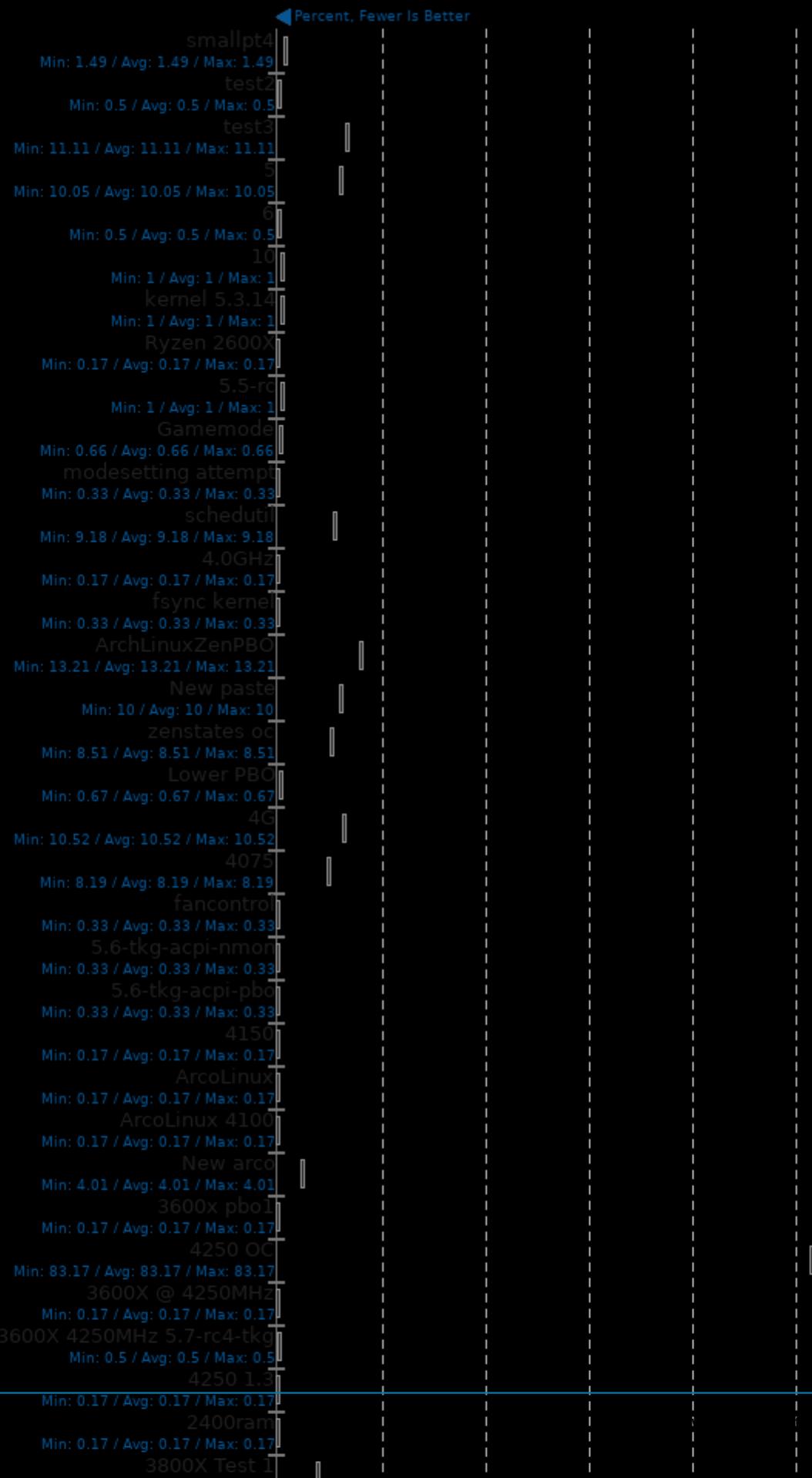
## Smallpt 1.0

Global Illumination Renderer; 128 Samples



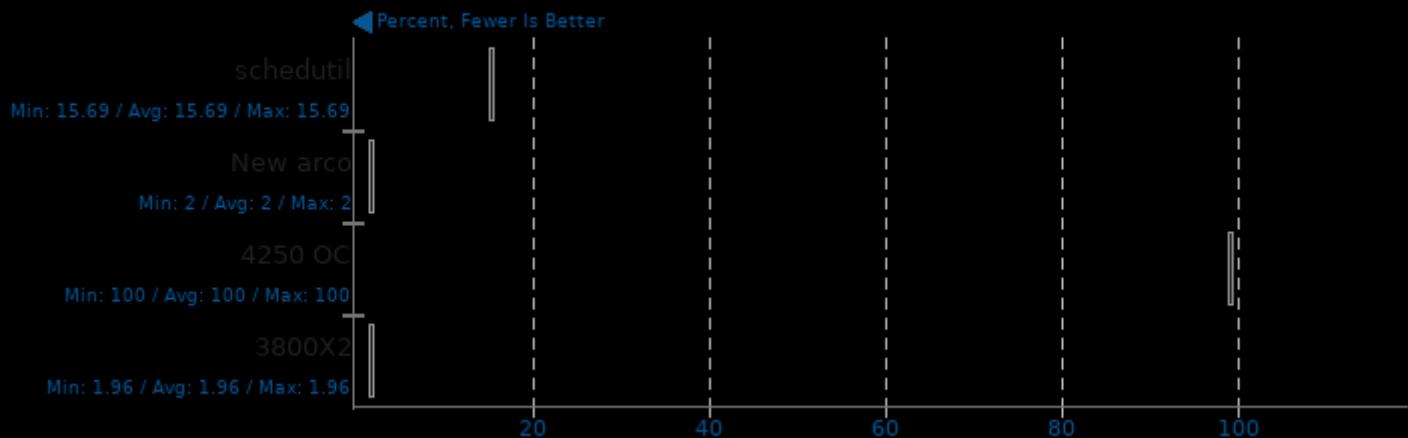
## Smallpt 1.0

CPU Usage (Summary) Monitor



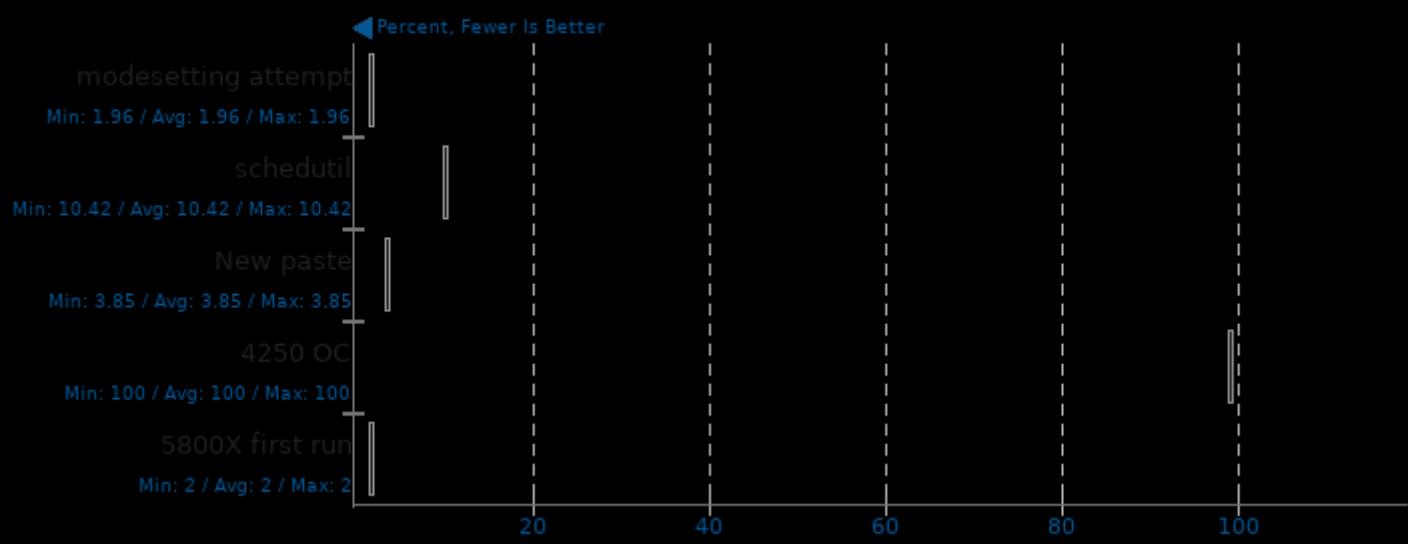
## Smallpt 1.0

CPU Usage (CPU8) Monitor



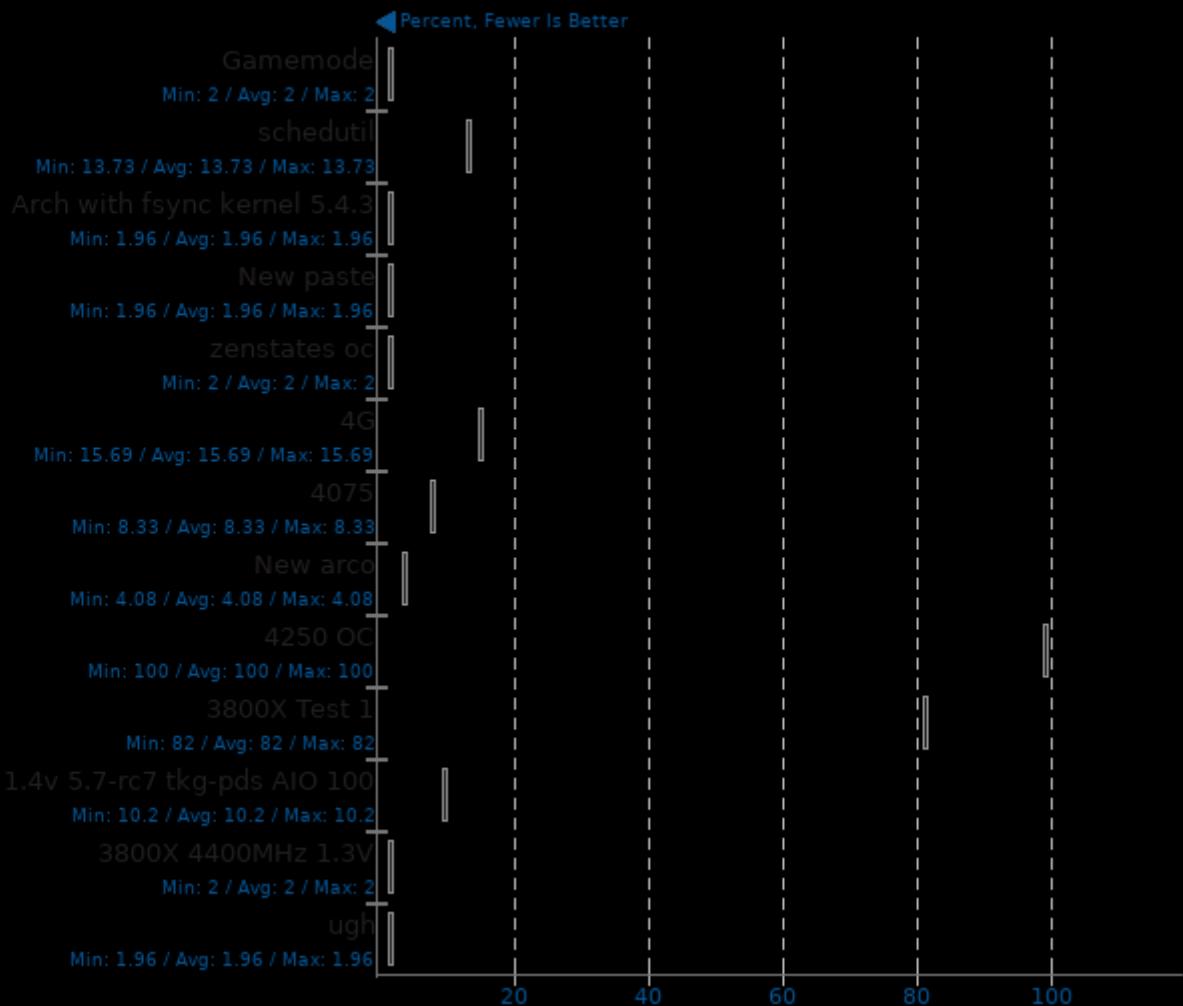
## Smallpt 1.0

CPU Usage (CPU9) Monitor



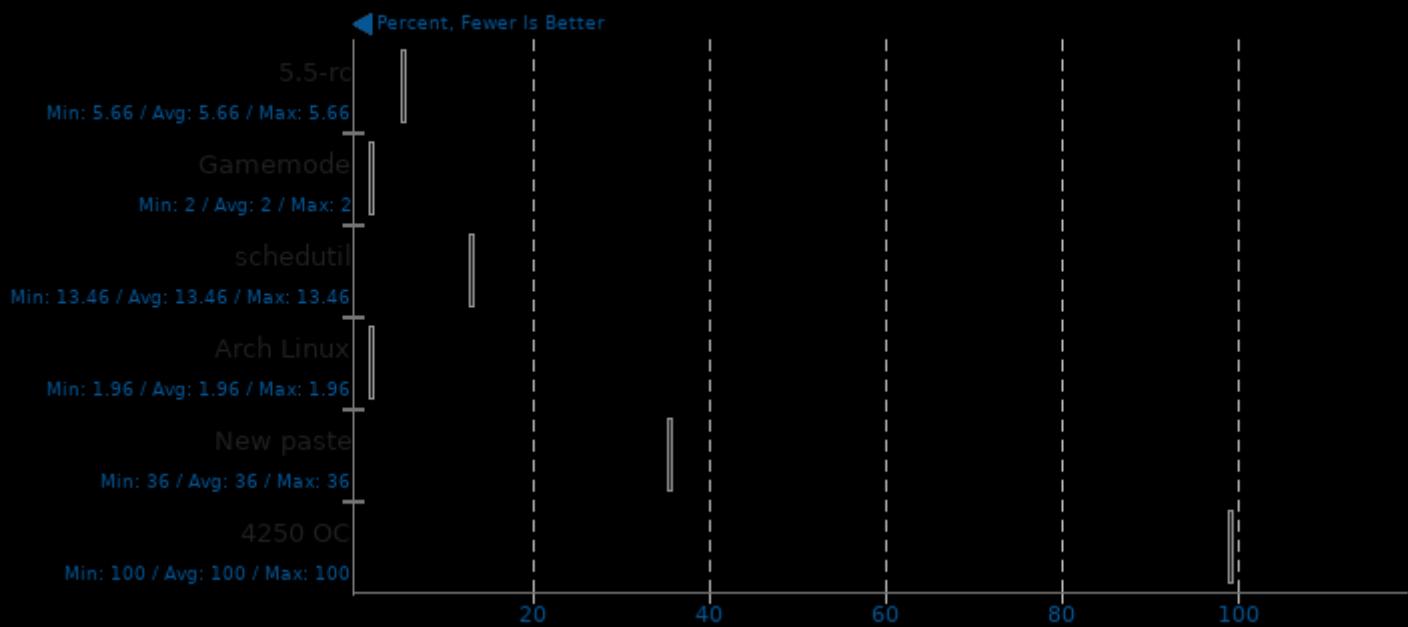
## Smallpt 1.0

CPU Usage (CPU4) Monitor



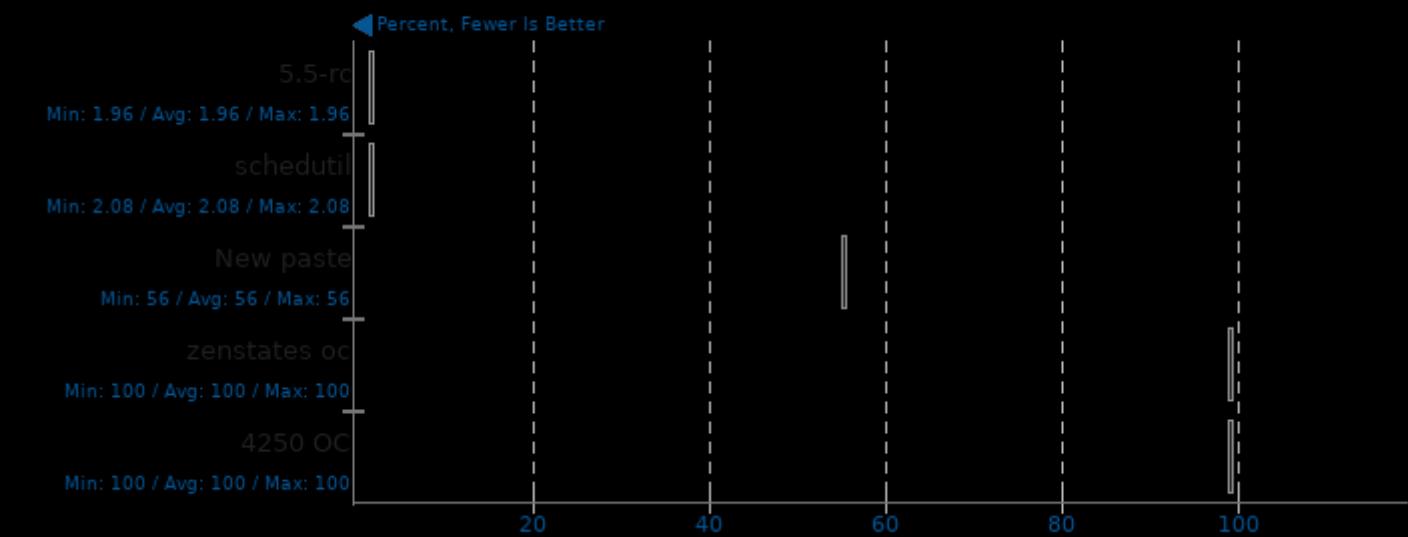
## Smallpt 1.0

CPU Usage (CPU11) Monitor



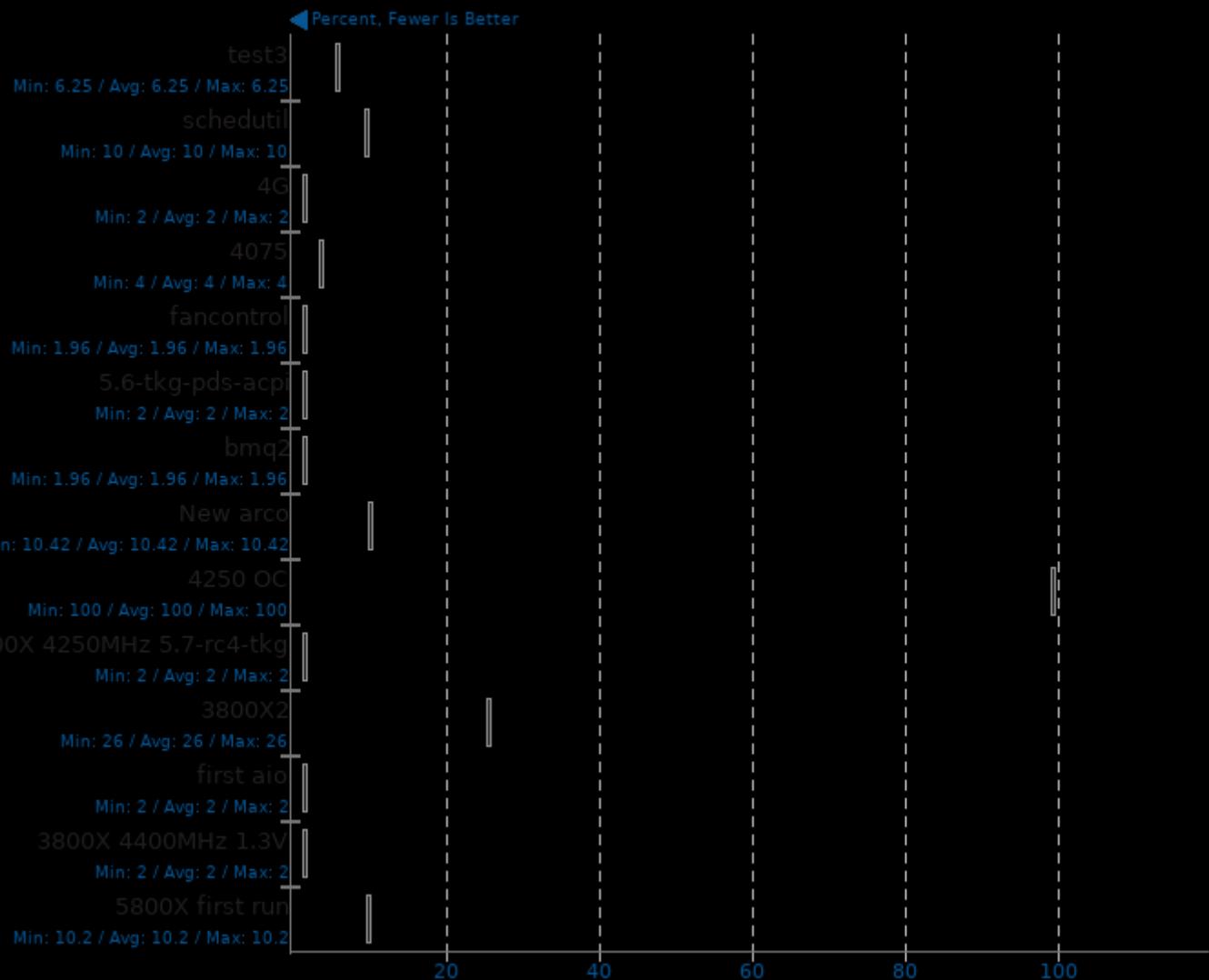
## Smallpt 1.0

CPU Usage (CPU10) Monitor



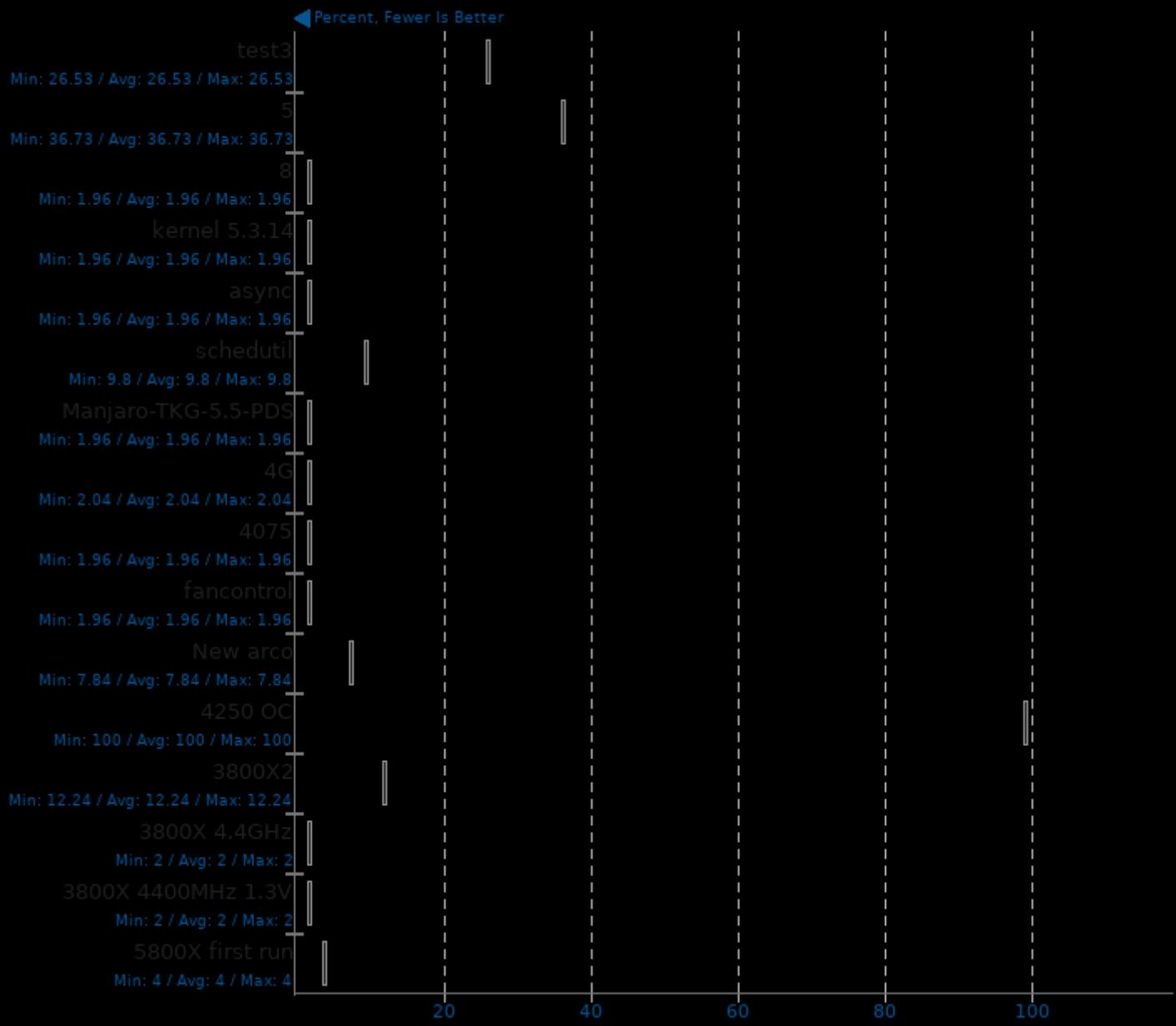
## Smallpt 1.0

### CPU Usage (CPU2) Monitor



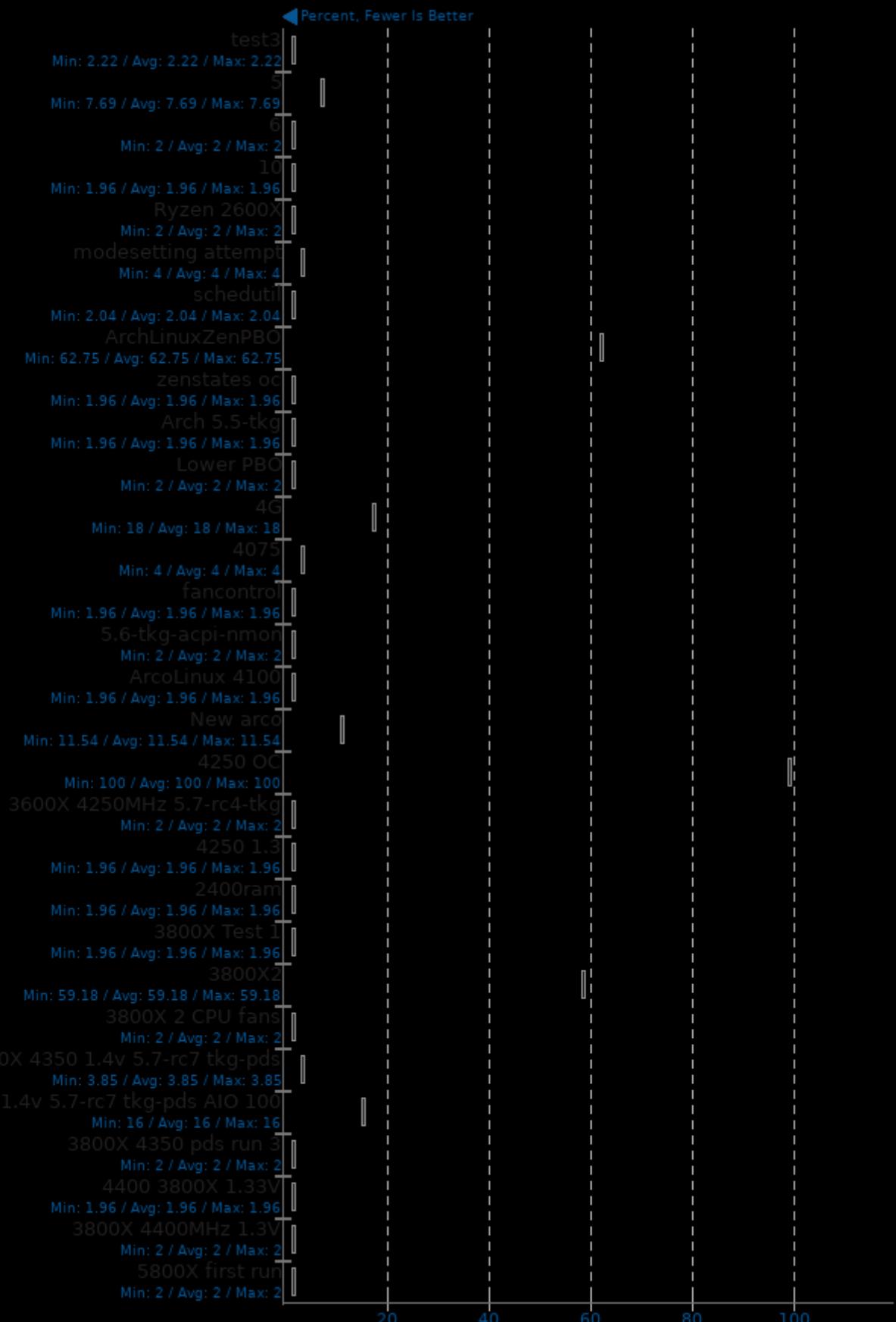
## Smallpt 1.0

### CPU Usage (CPU1) Monitor



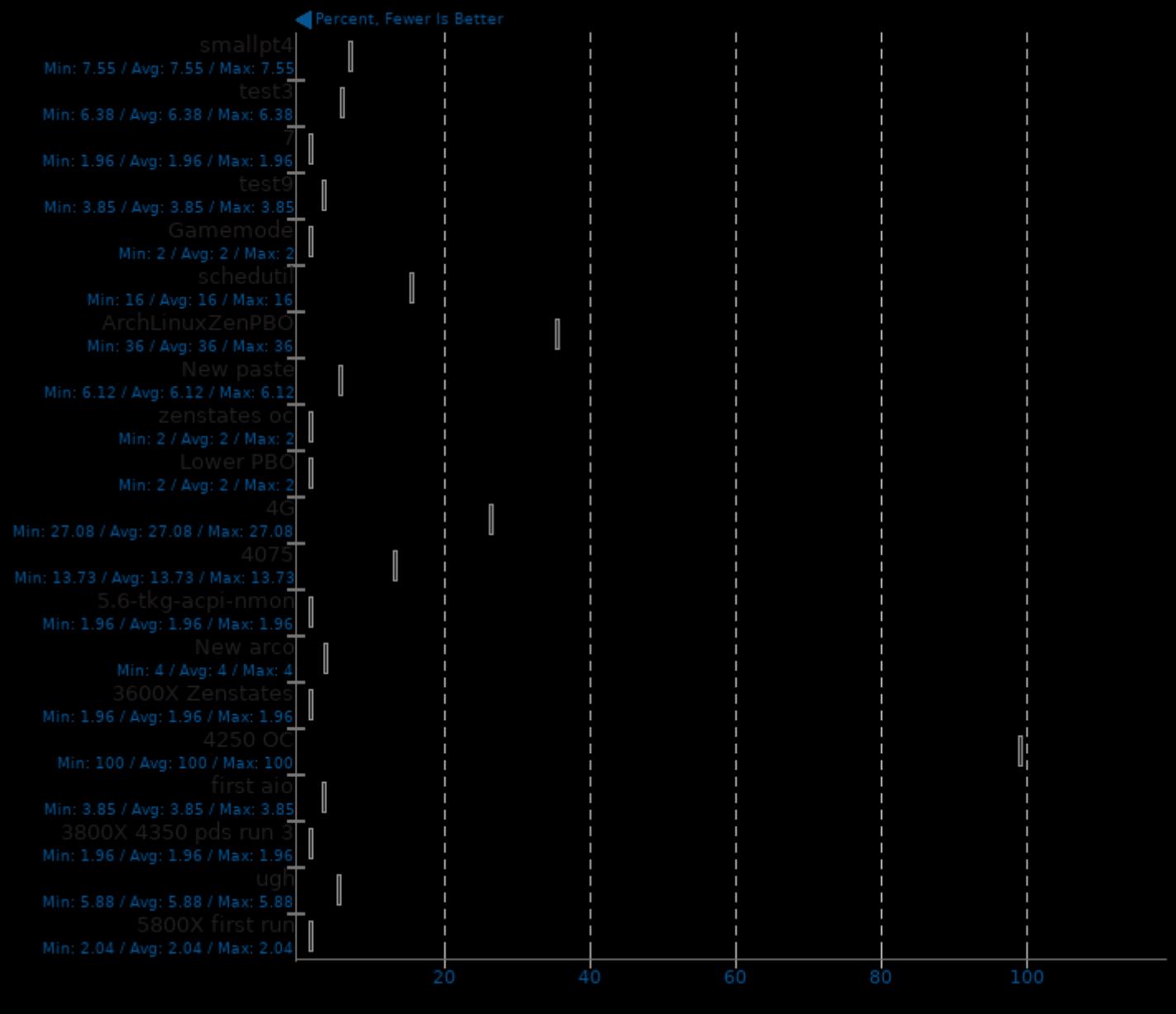
## Smallpt 1.0

CPU Usage (CPU0) Monitor



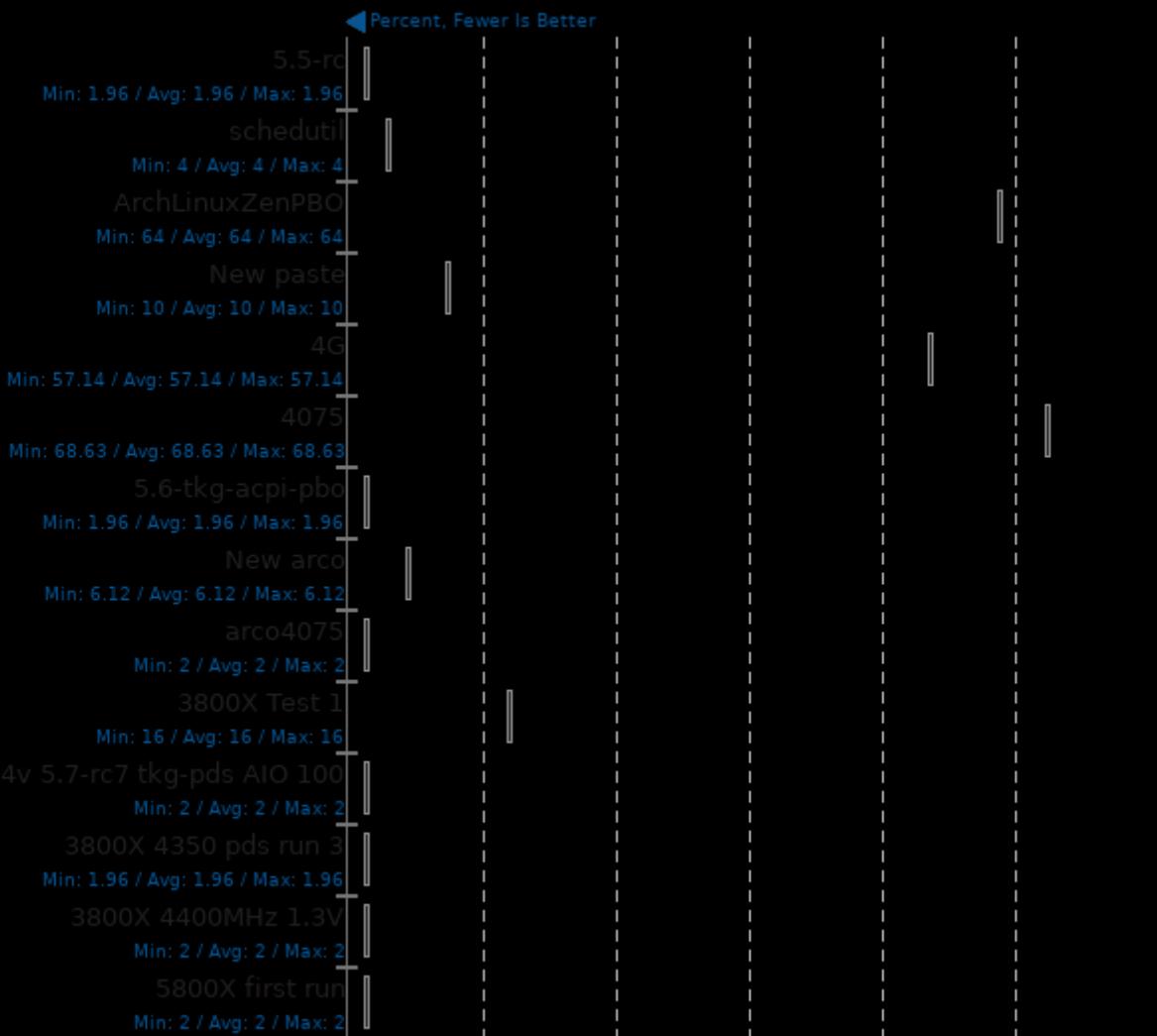
## Smallpt 1.0

### CPU Usage (CPU3) Monitor



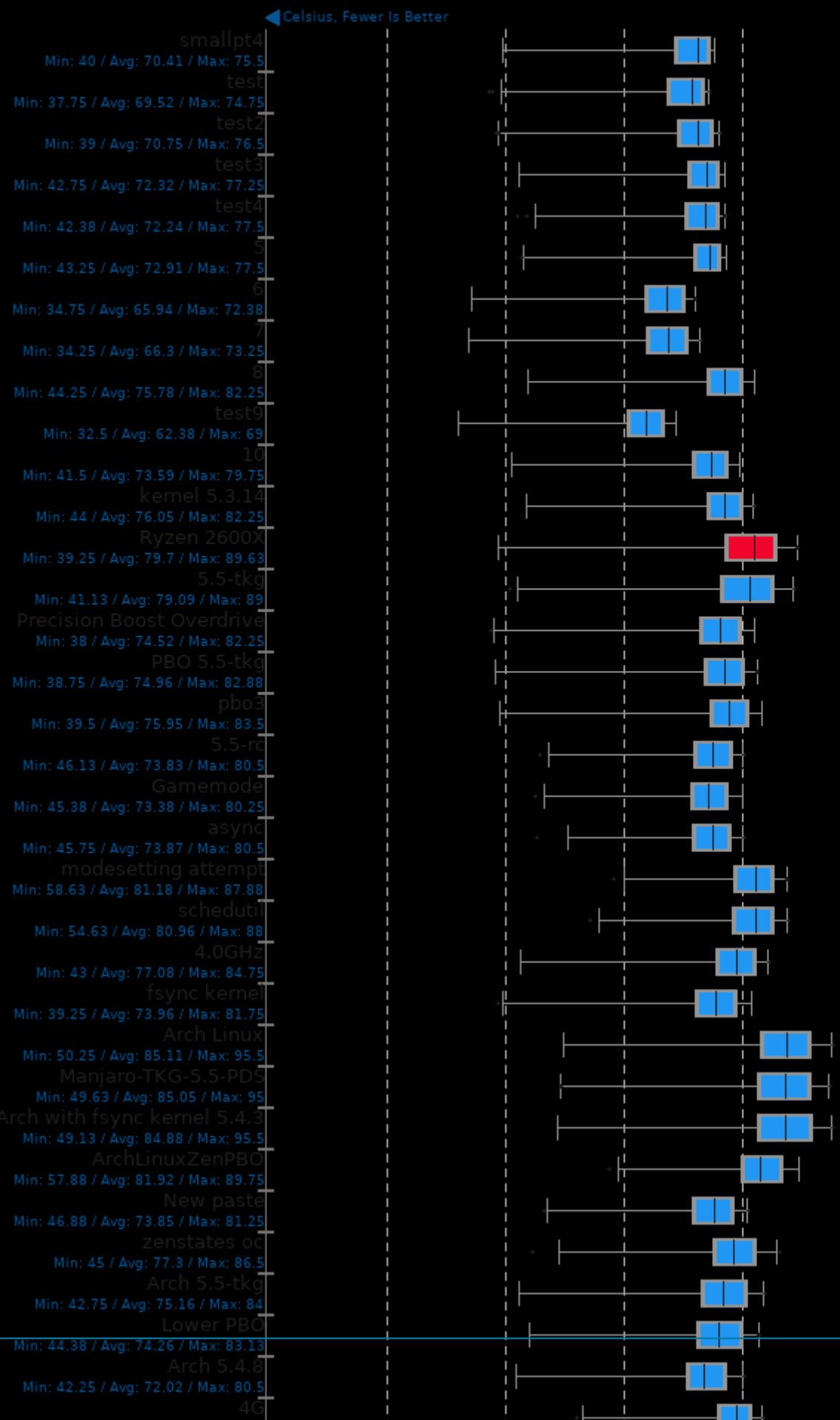
## Smallpt 1.0

CPU Usage (CPU5) Monitor



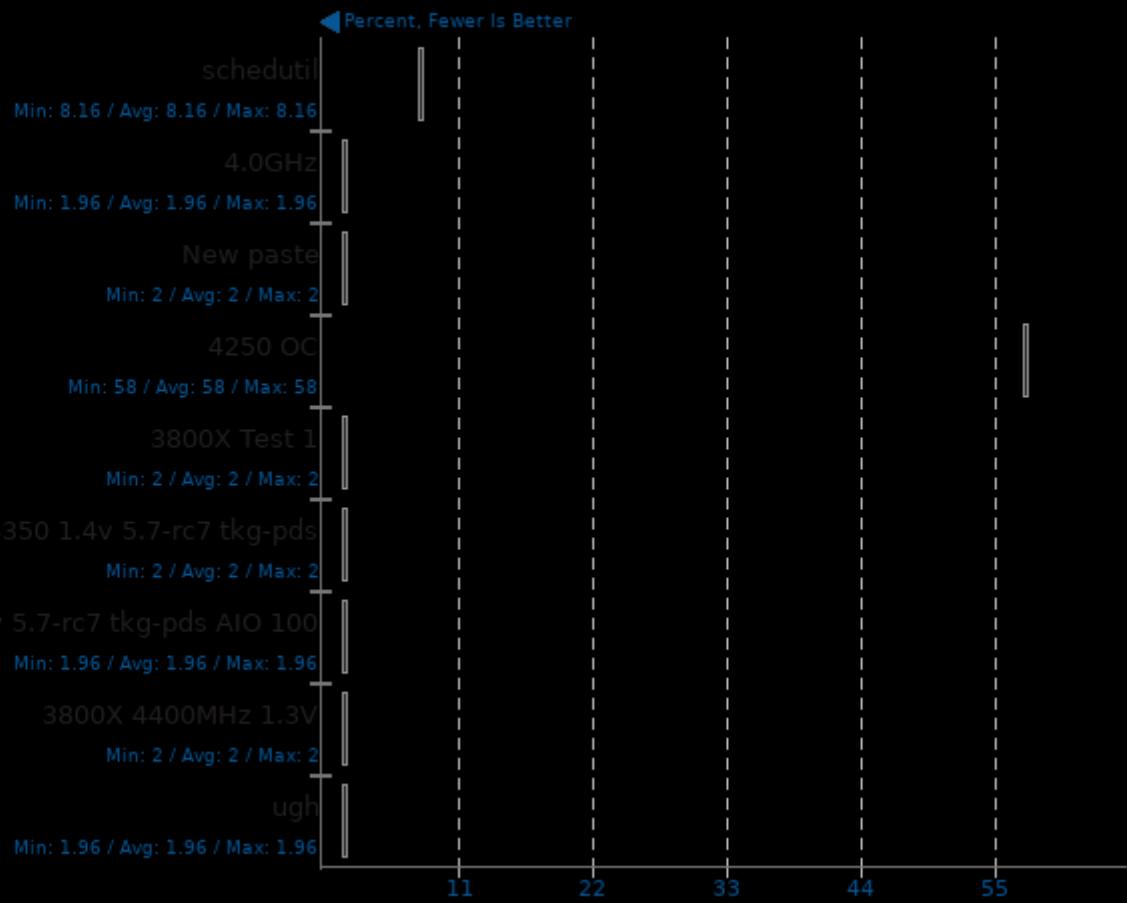
## Smallpt 1.0

CPU Temperature Monitor



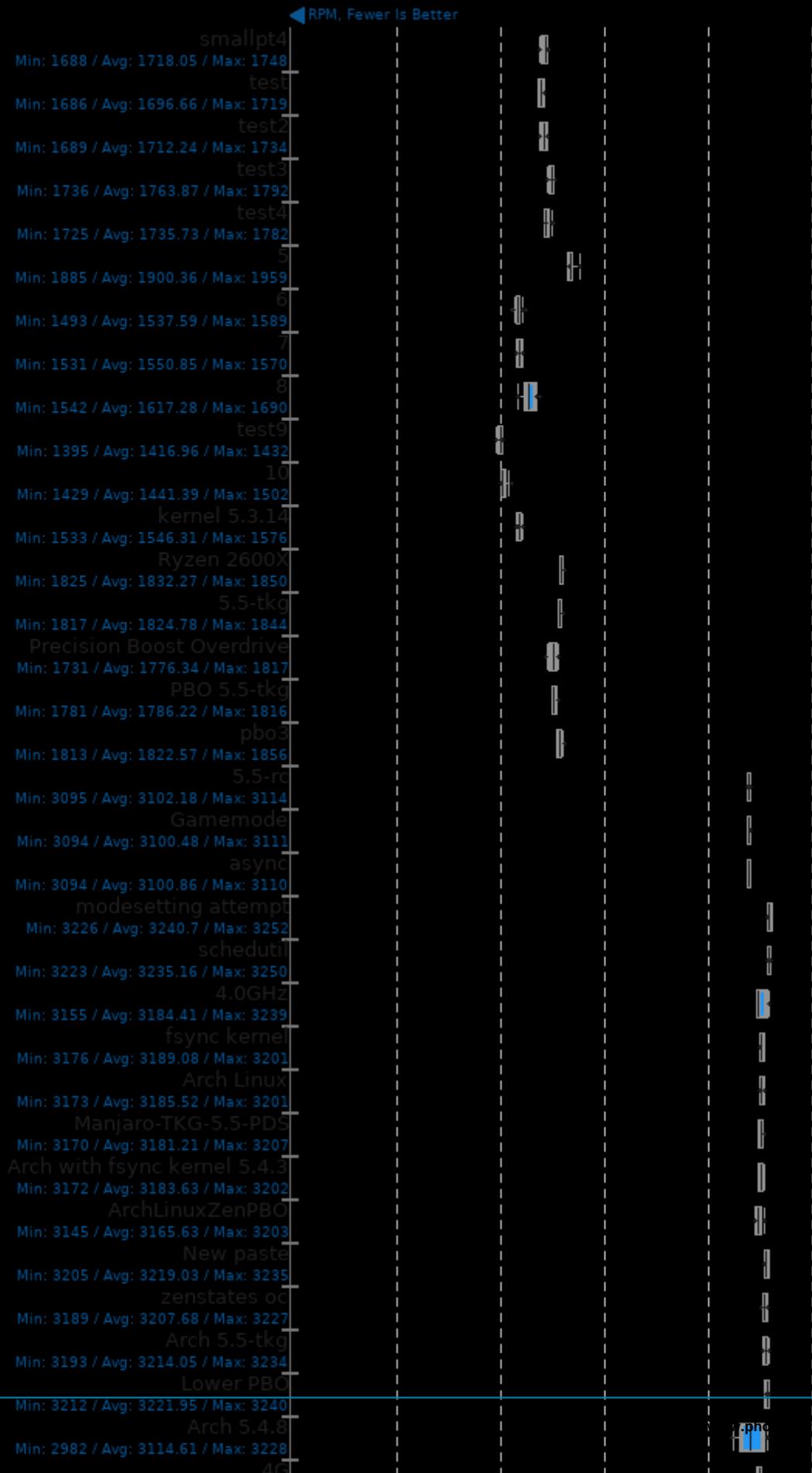
## Smallpt 1.0

CPU Usage (CPU6) Monitor



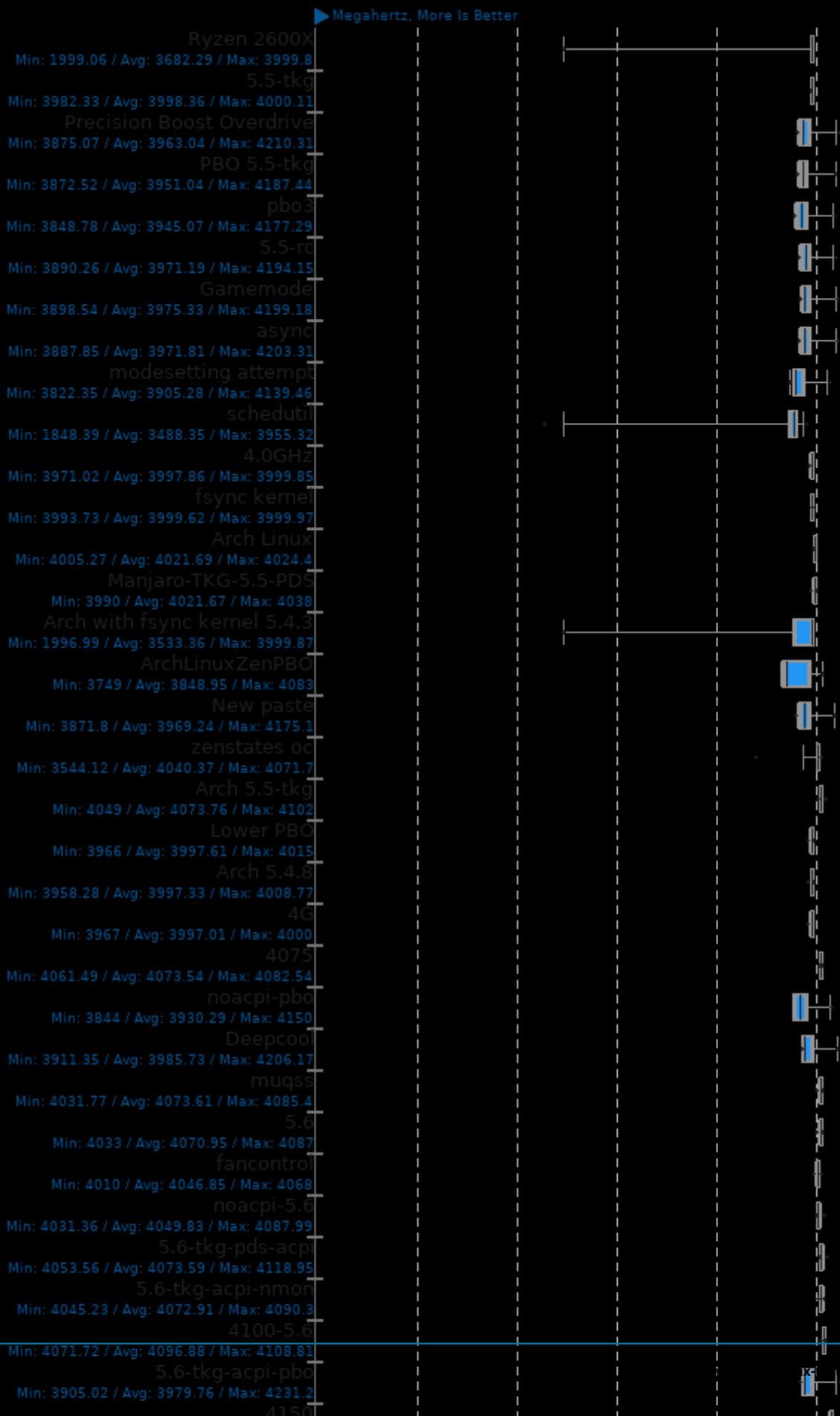
**Smallpt 1.0**

CPU Fan Speed Monitor



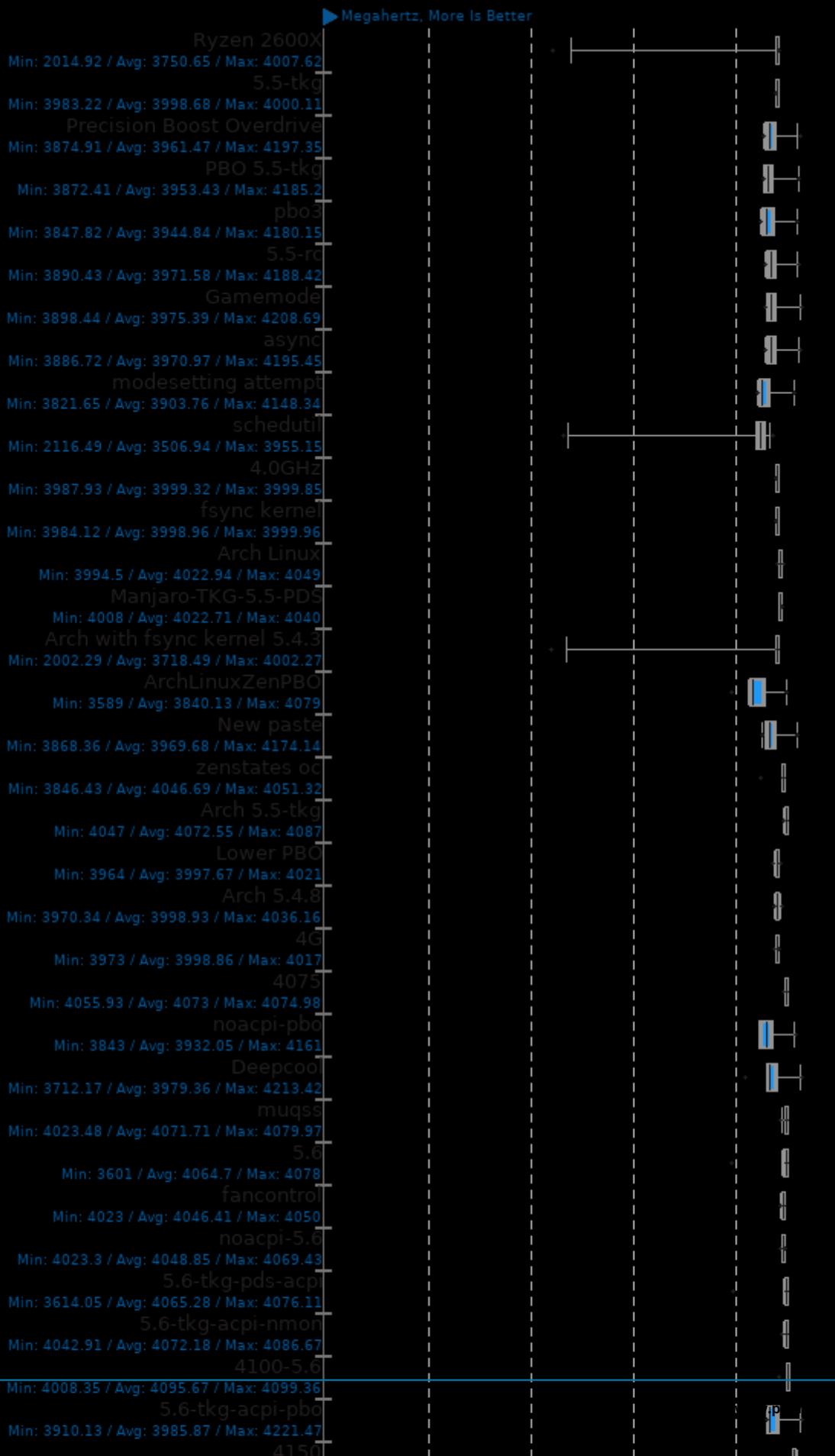
## Smallpt 1.0

CPU Frequency (CPU7) Monitor



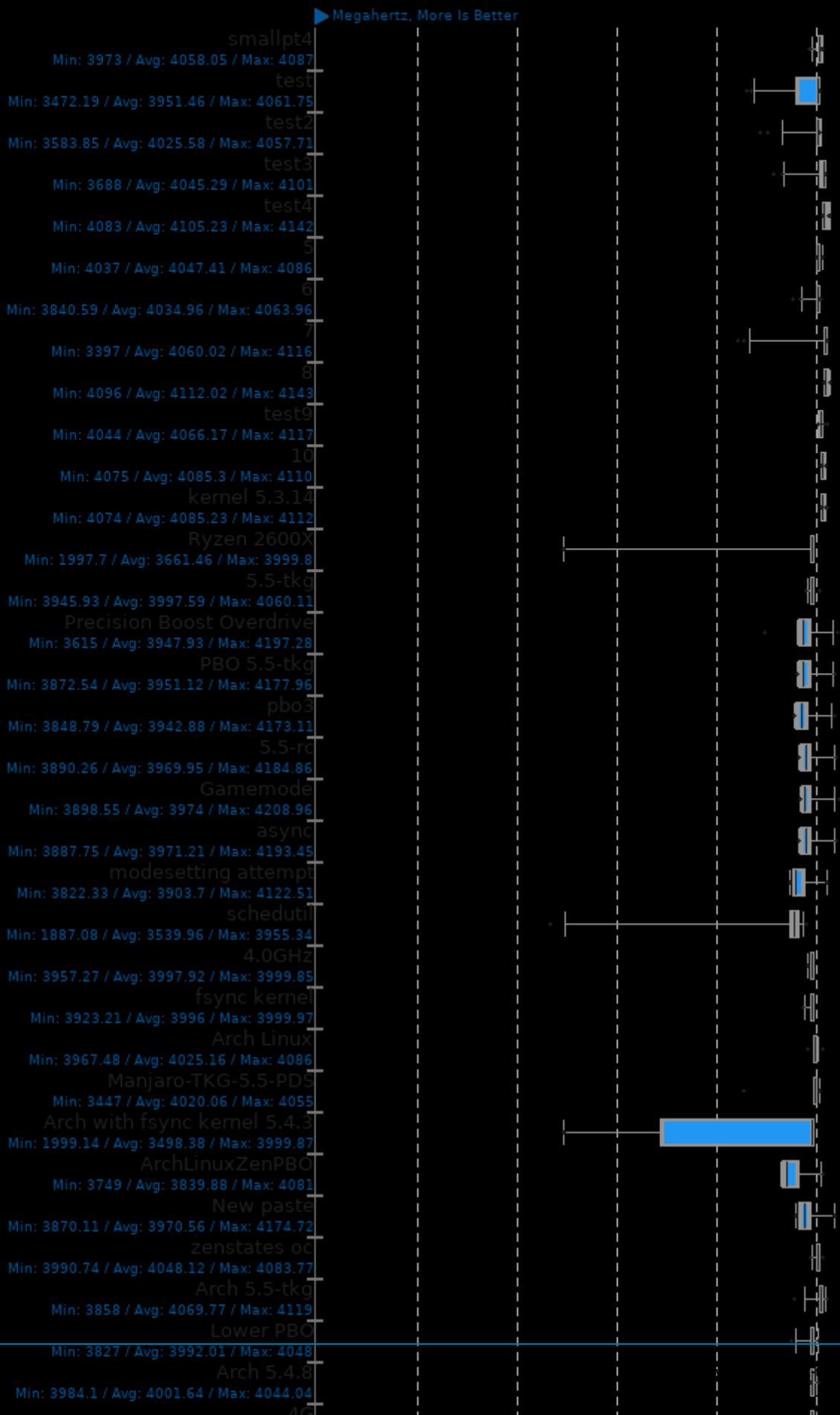
## Smallpt 1.0

CPU Frequency (CPU9) Monitor



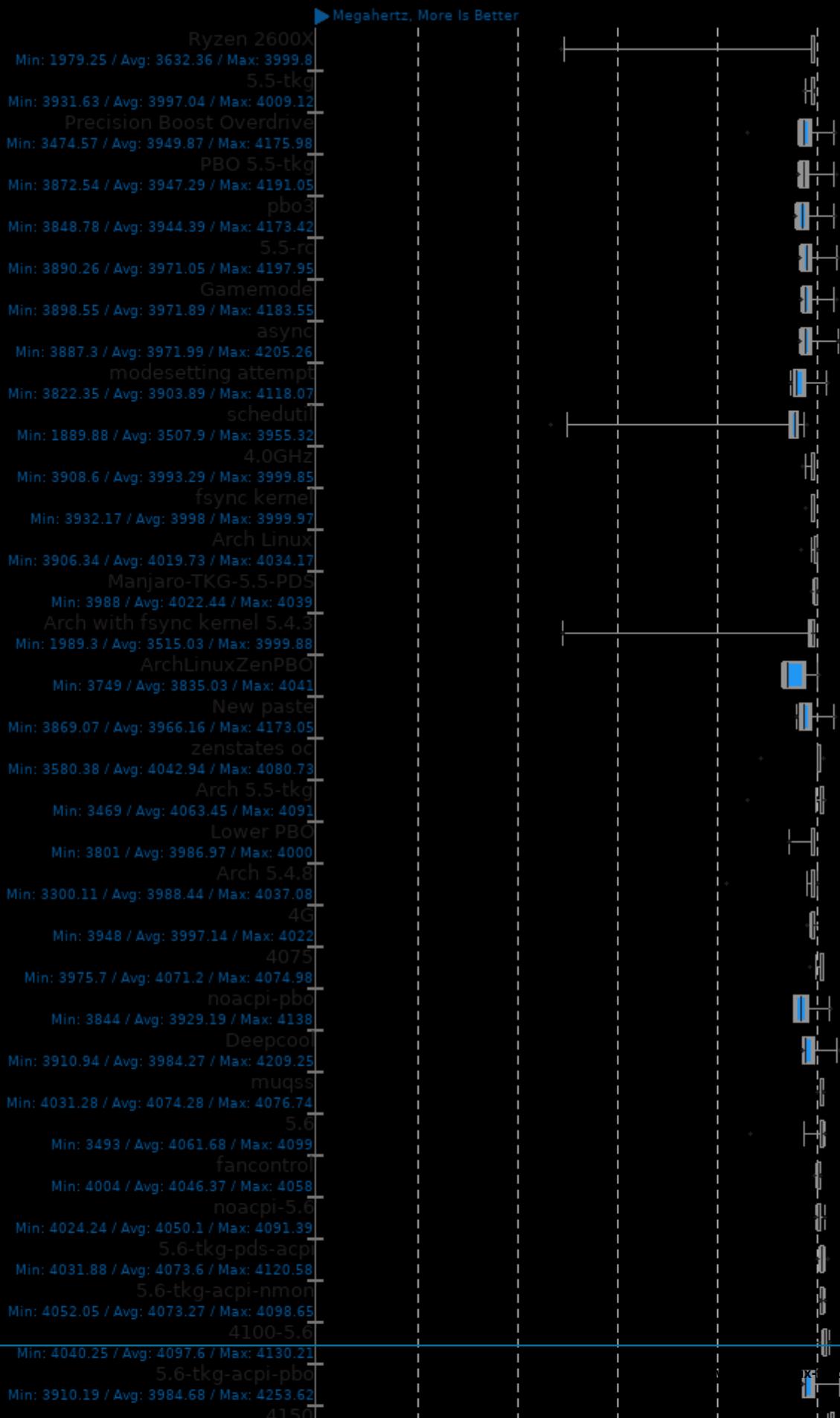
## Smallpt 1.0

CPU Frequency (CPU2) Monitor



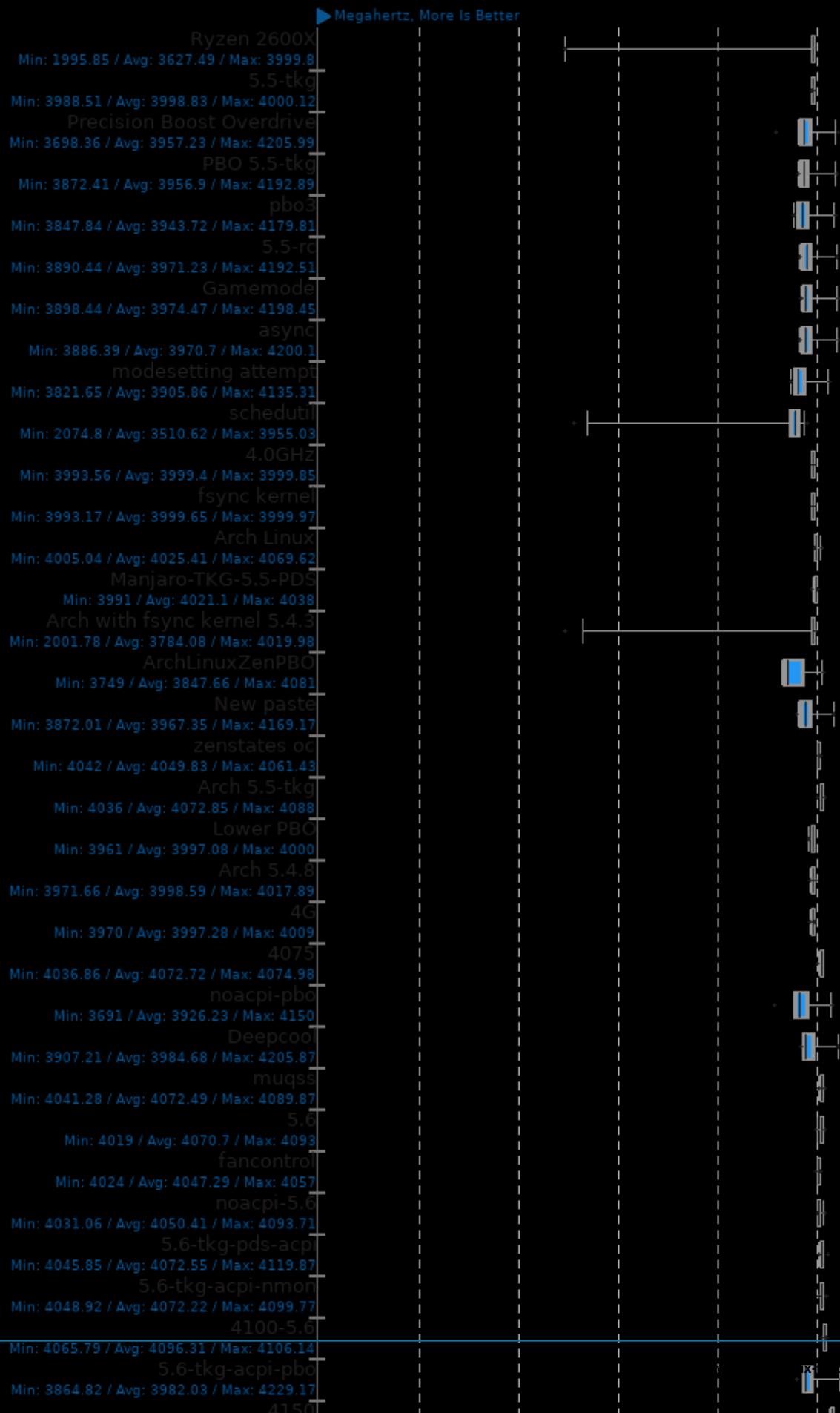
## Smallpt 1.0

CPU Frequency (CPU8) Monitor



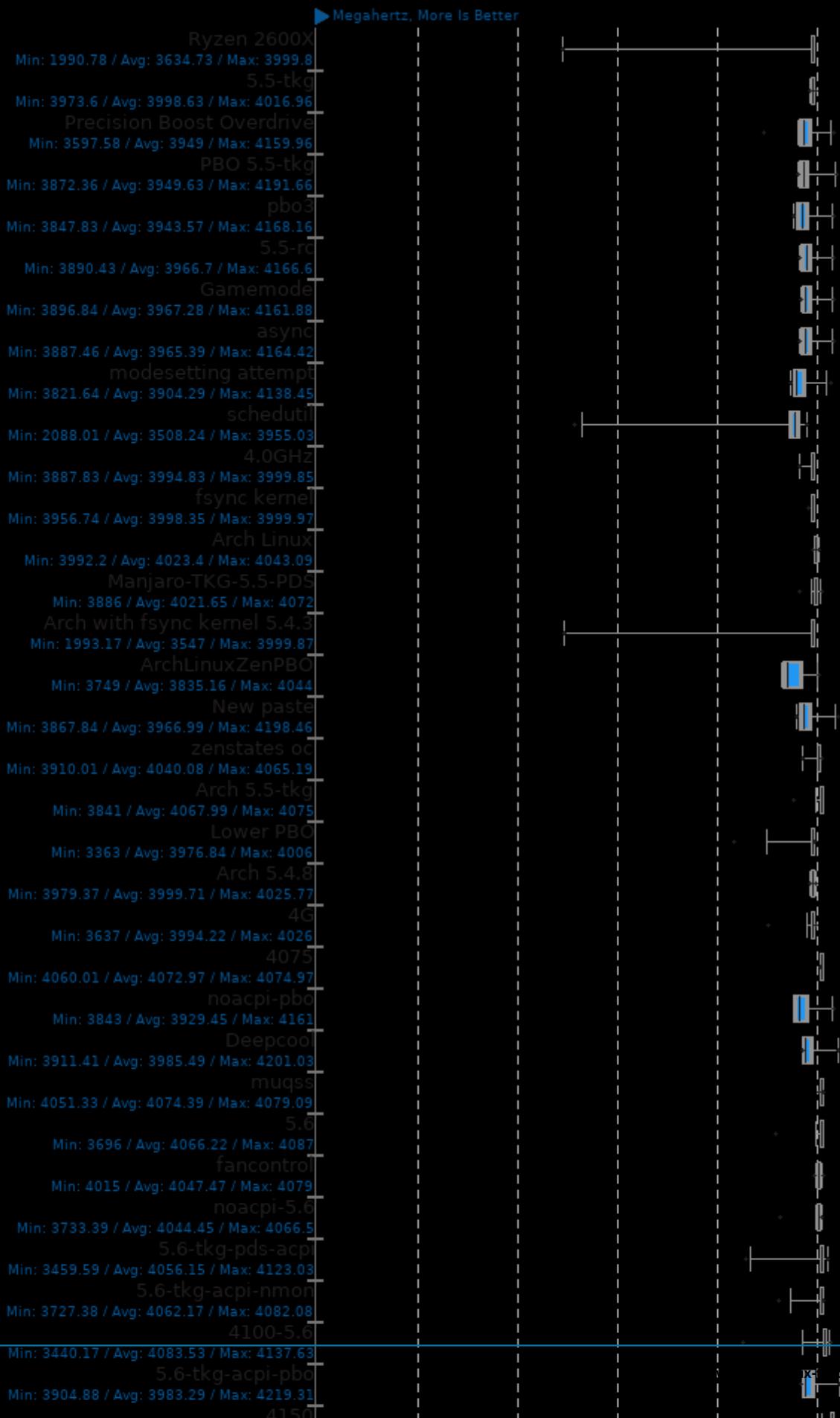
## Smallpt 1.0

CPU Frequency (CPU10) Monitor



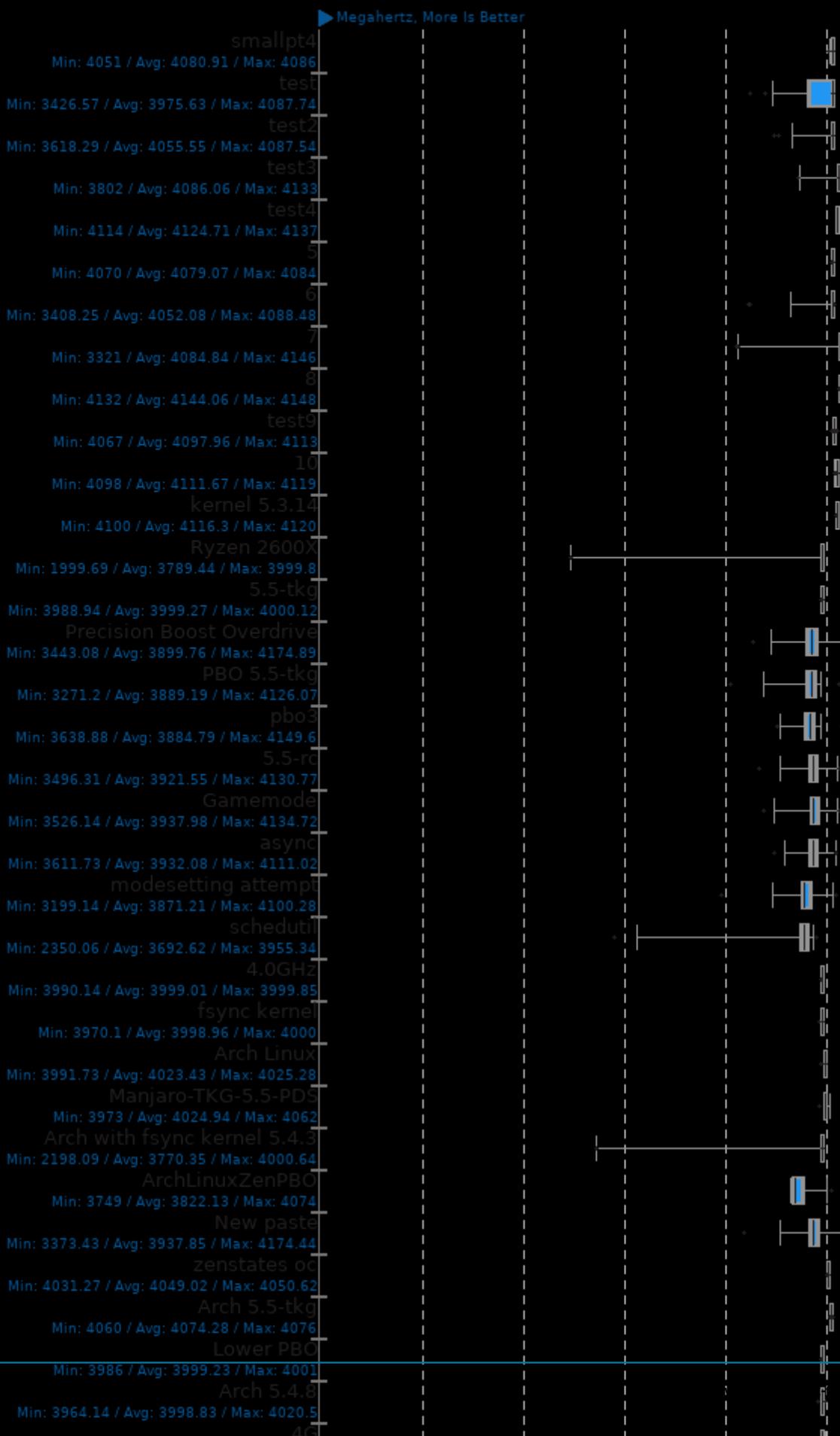
## Smallpt 1.0

CPU Frequency (CPU11) Monitor



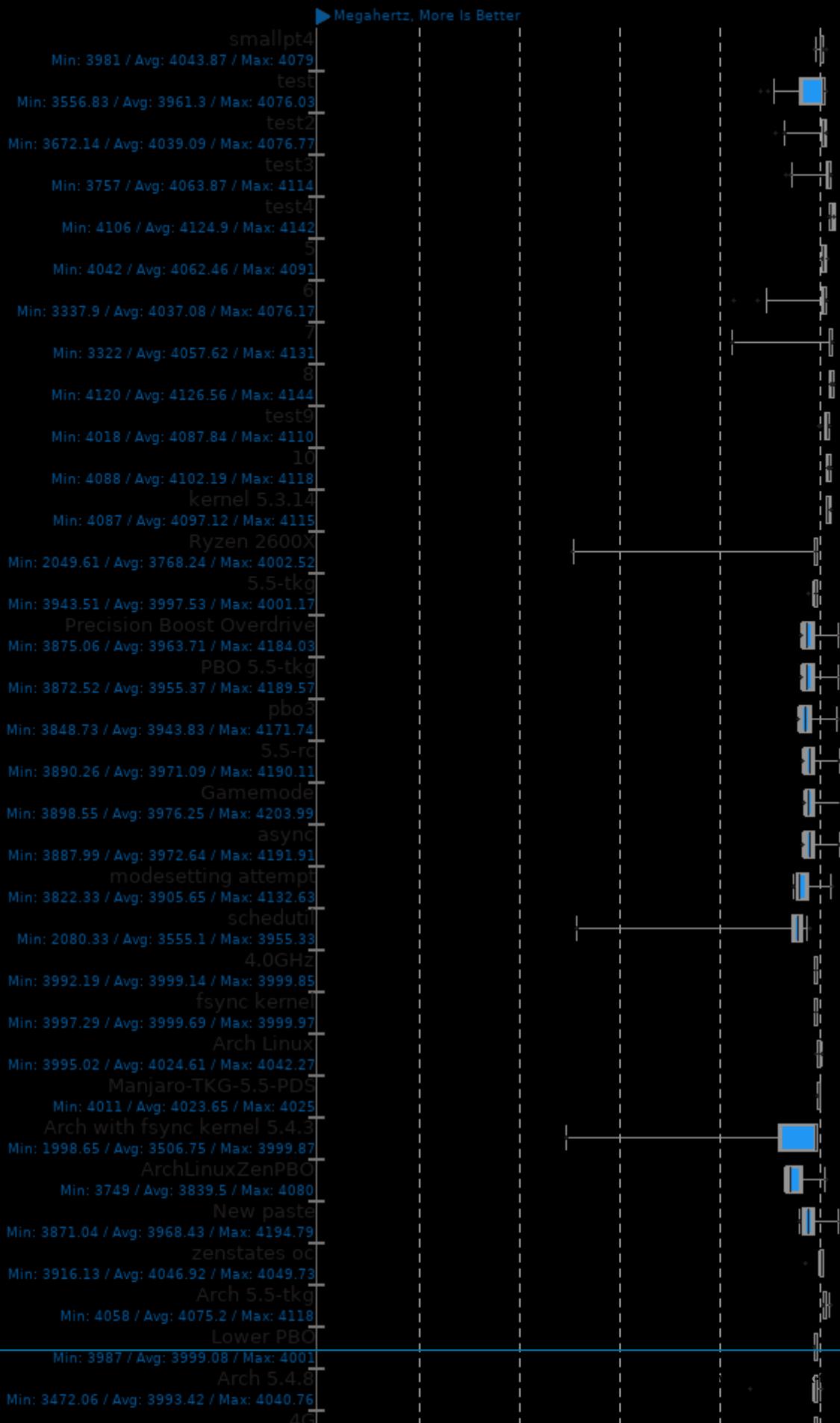
## Smallpt 1.0

CPU Frequency (CPU0) Monitor



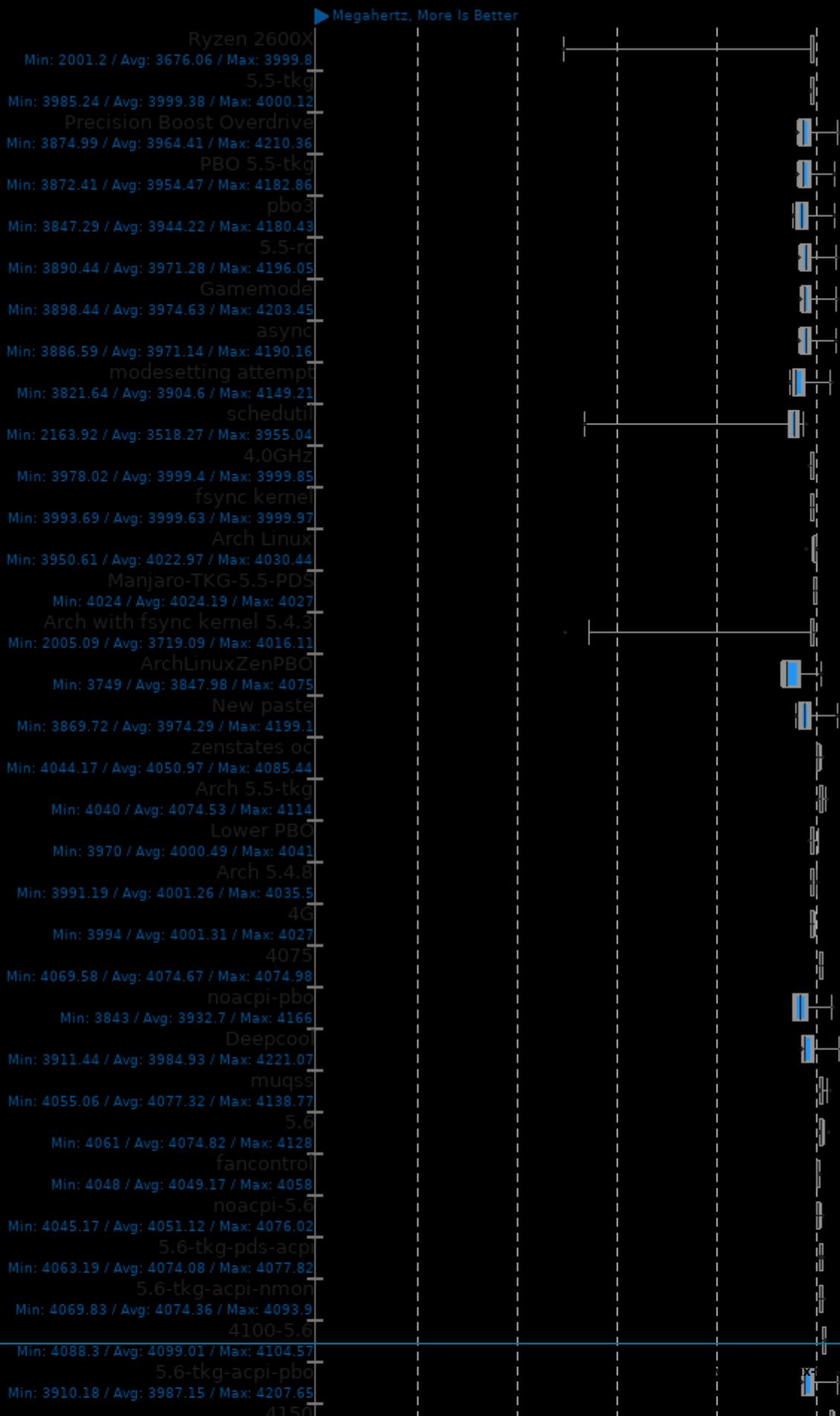
## Smallpt 1.0

CPU Frequency (CPU1) Monitor



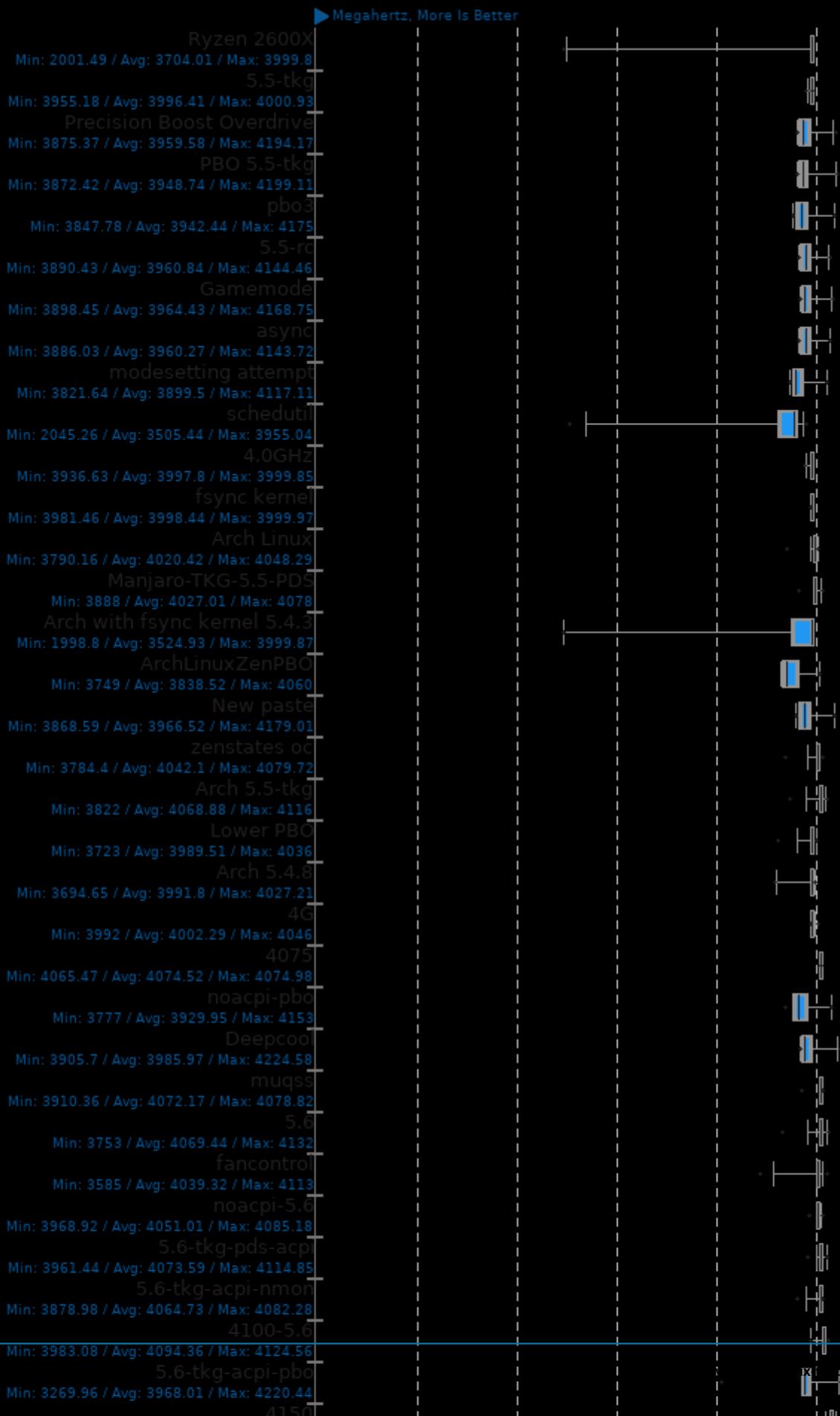
## Smallpt 1.0

CPU Frequency (CPU4) Monitor



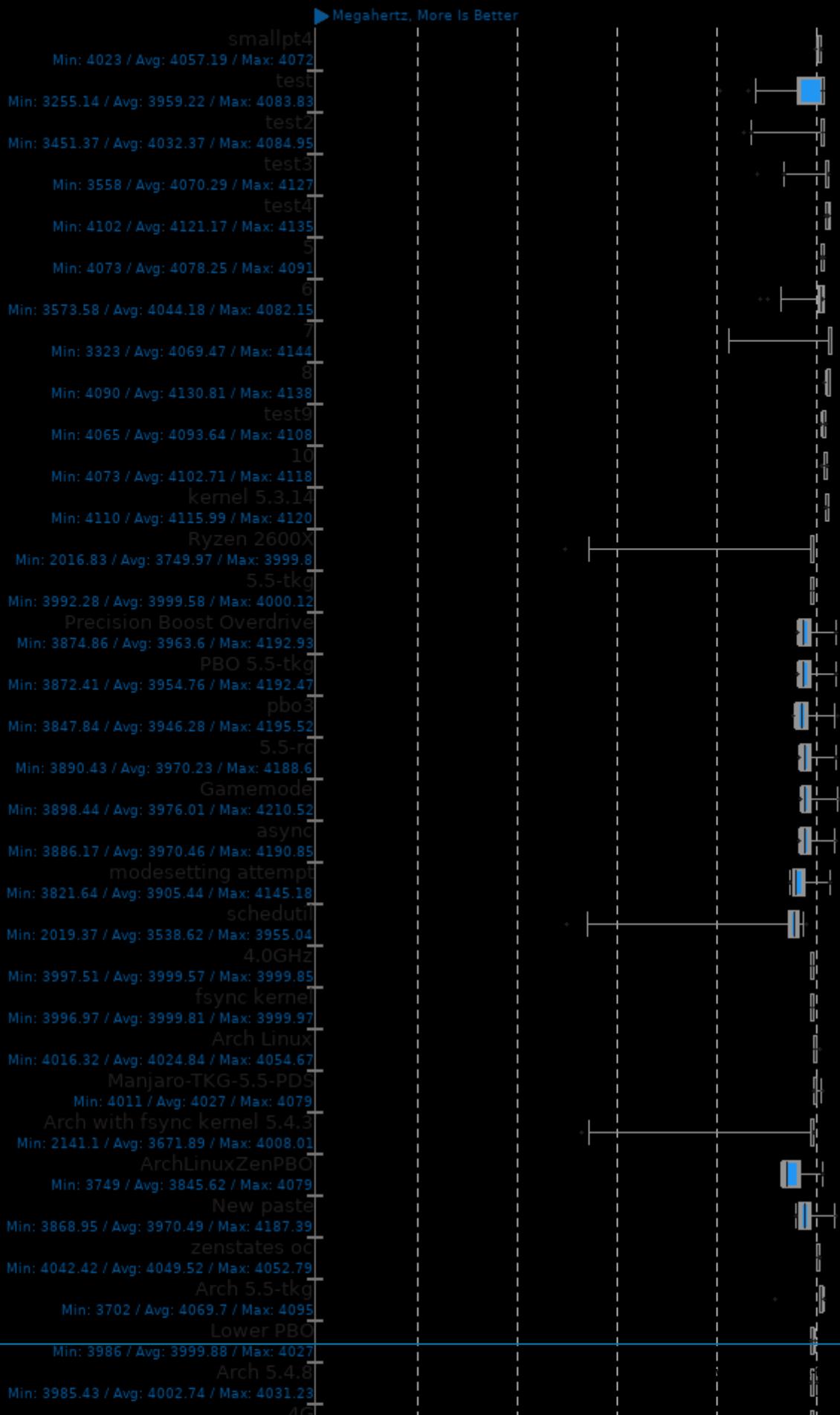
## Smallpt 1.0

CPU Frequency (CPU5) Monitor



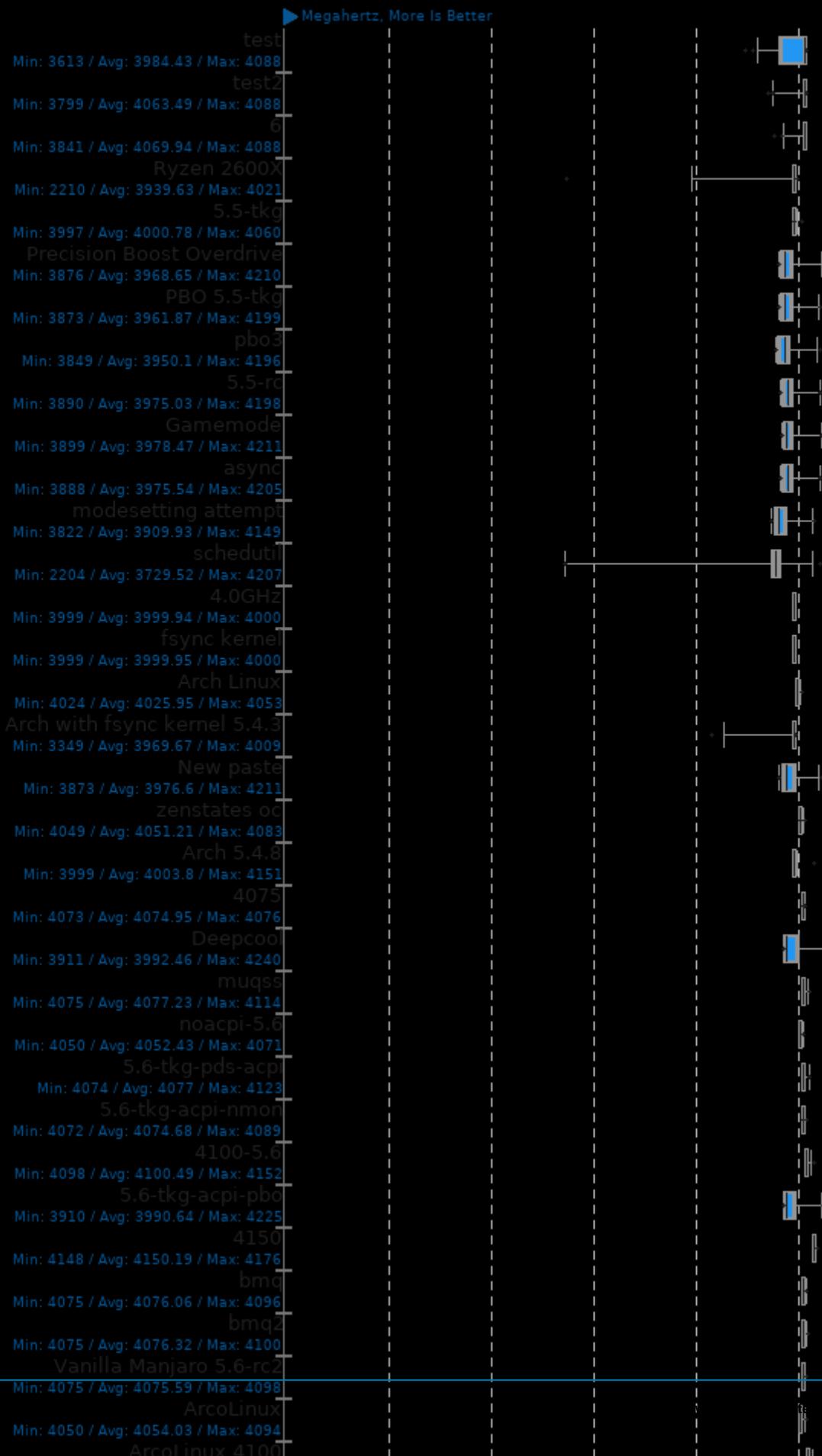
## Smallpt 1.0

CPU Frequency (CPU3) Monitor



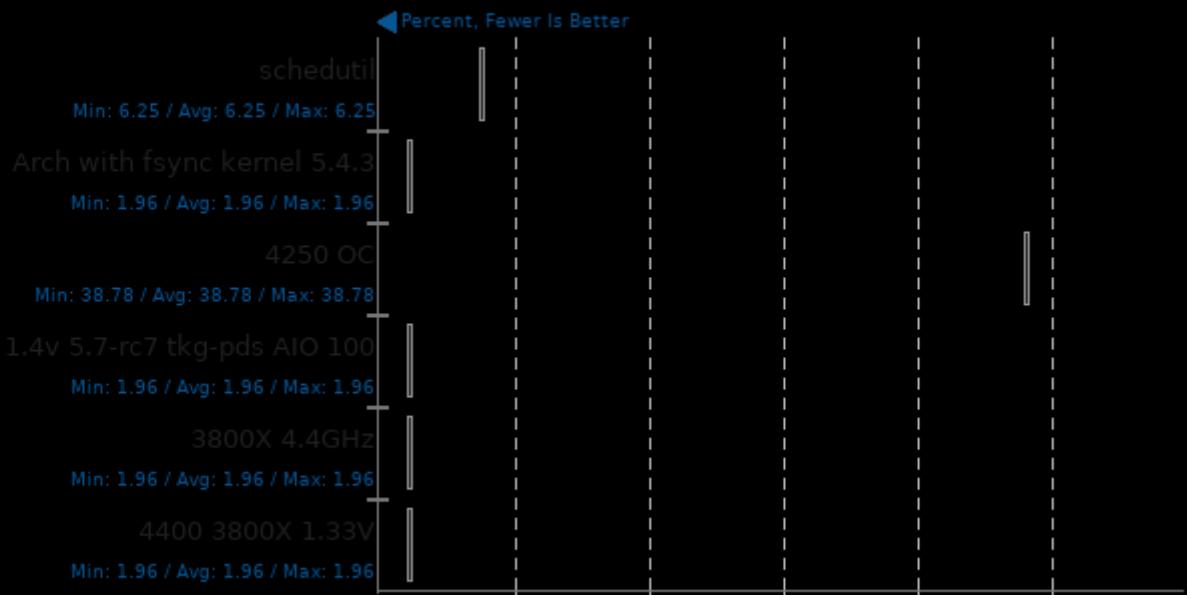
## Smallpt 1.0

CPU Peak Freq (Highest CPU Core Frequency) Monitor



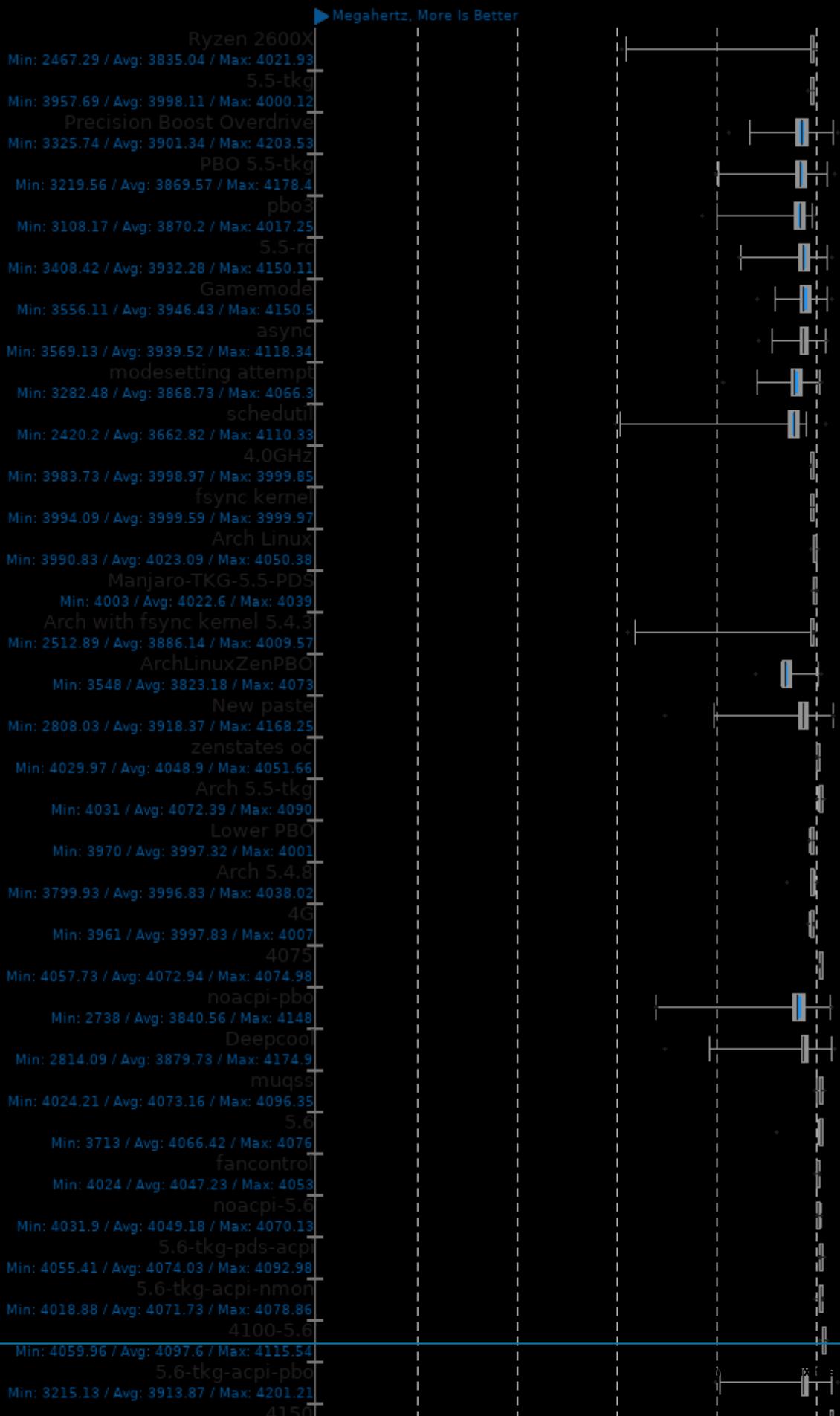
## Smallpt 1.0

CPU Usage (CPU7) Monitor



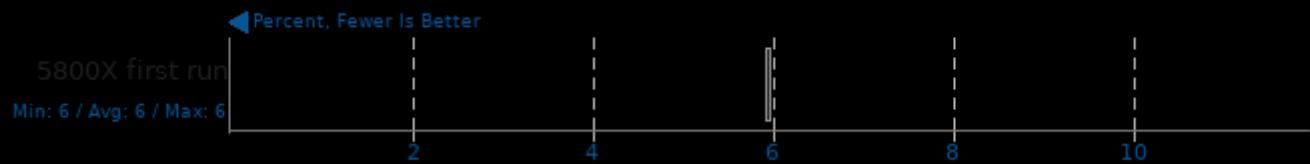
## Smallpt 1.0

CPU Frequency (CPU6) Monitor

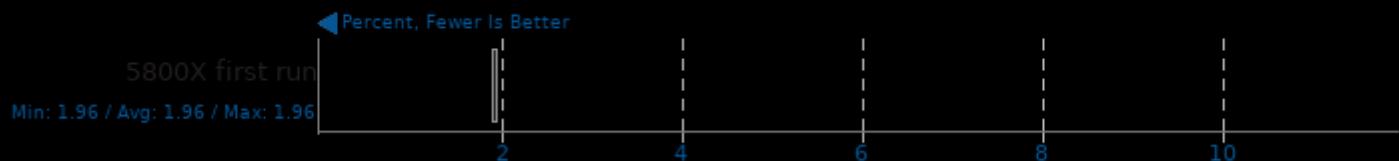


**Smallpt 1.0**

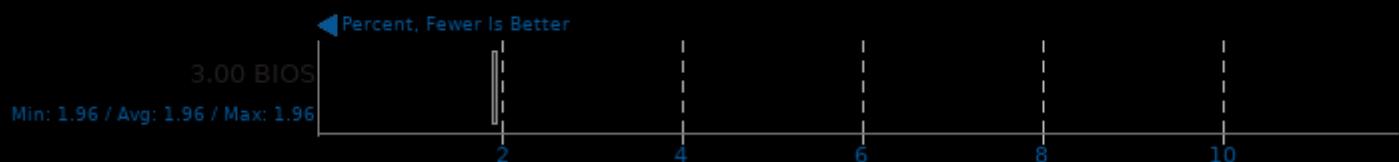
CPU Usage (CPU15) Monitor

**Smallpt 1.0**

CPU Usage (CPU13) Monitor

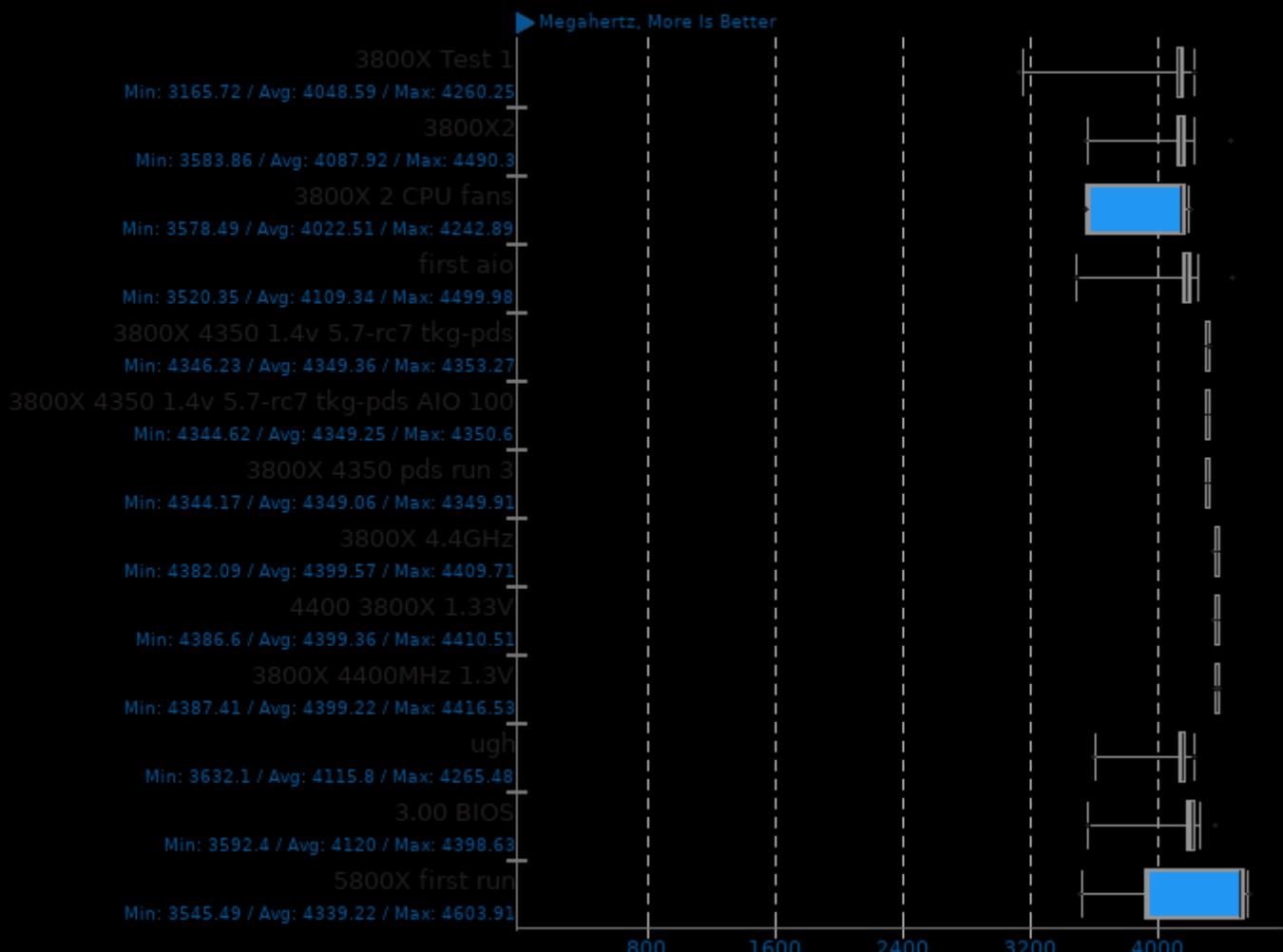
**Smallpt 1.0**

CPU Usage (CPU14) Monitor



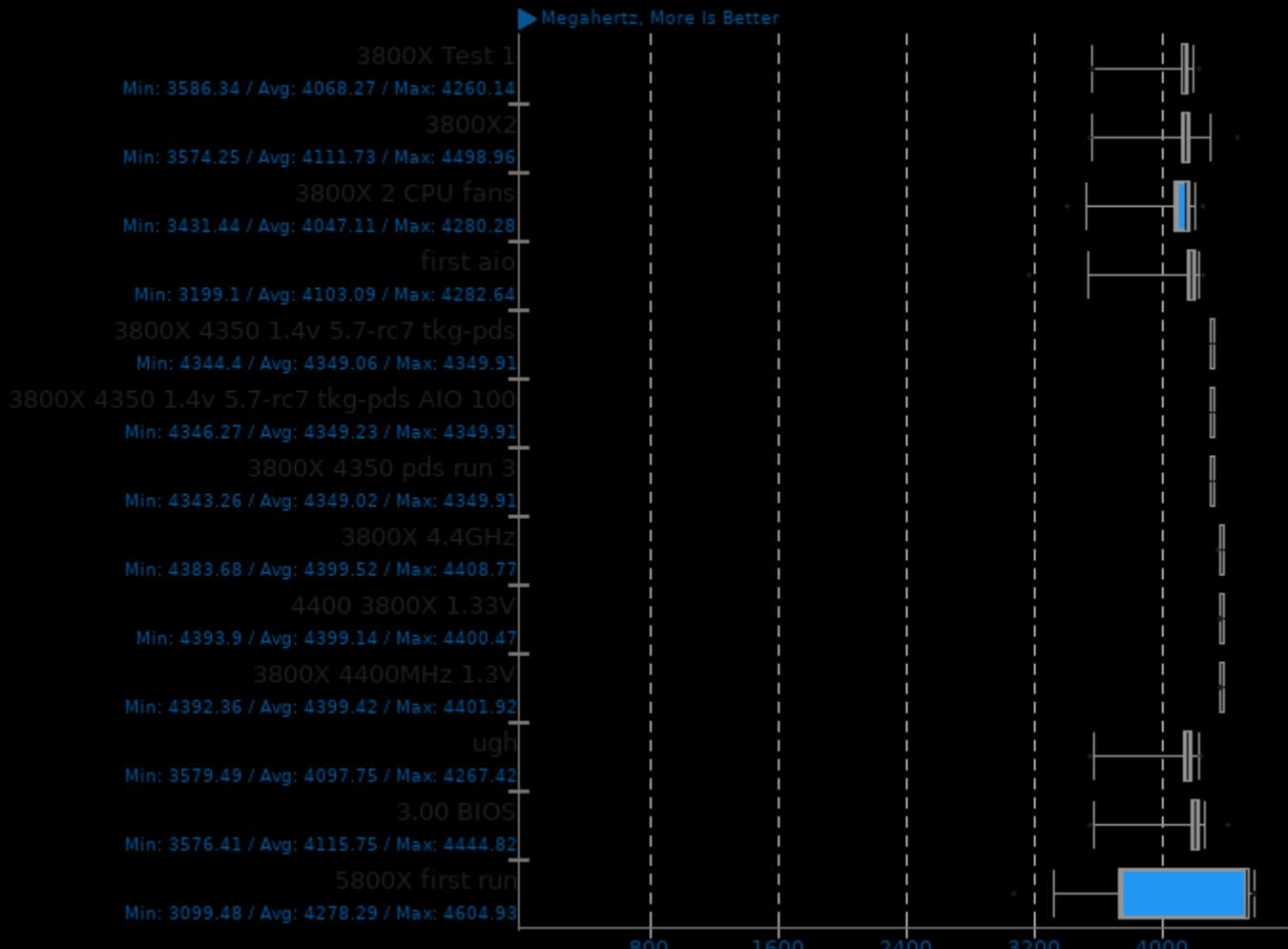
## Smallpt 1.0

CPU Frequency (CPU15) Monitor



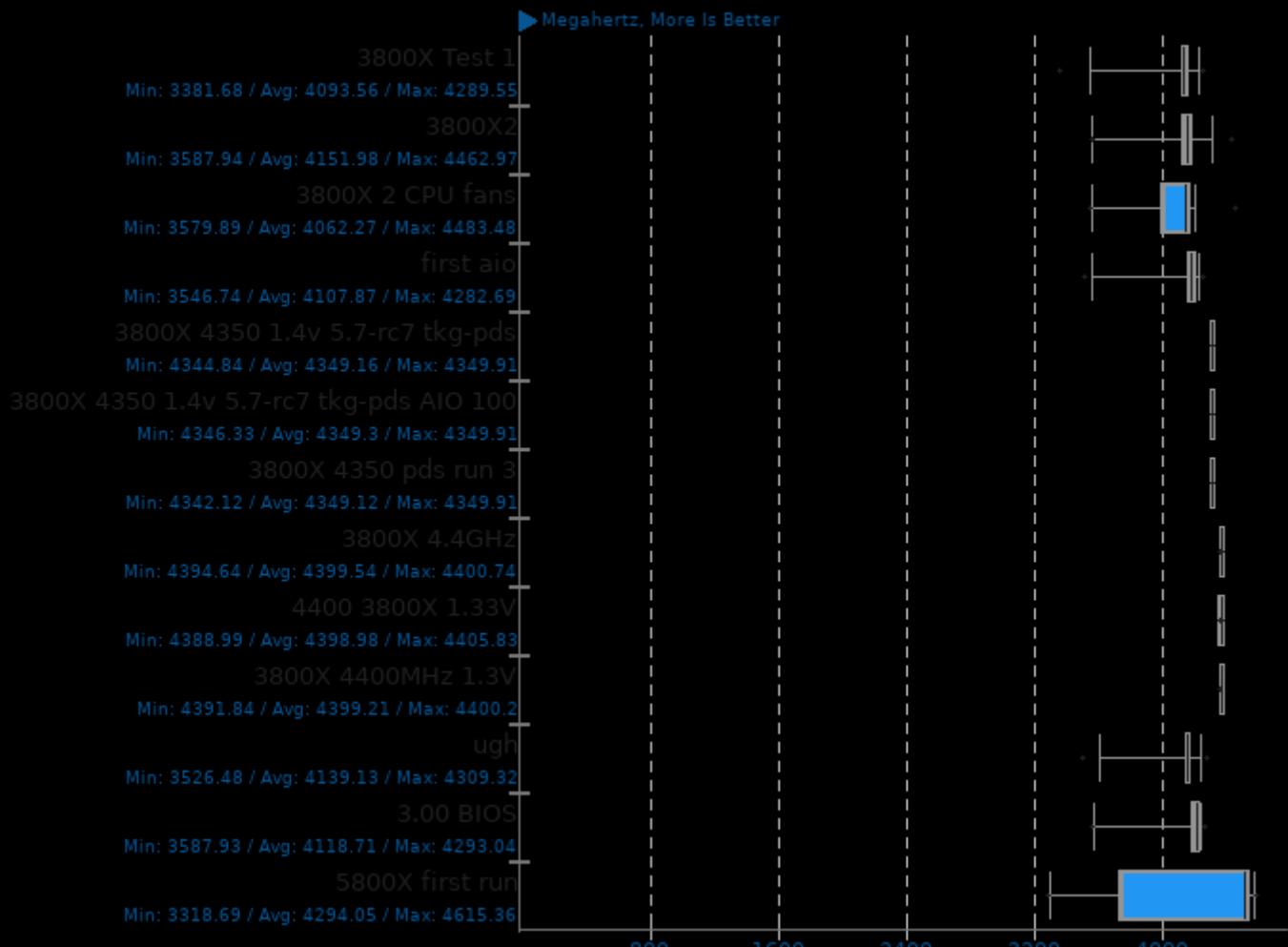
## Smallpt 1.0

CPU Frequency (CPU14) Monitor



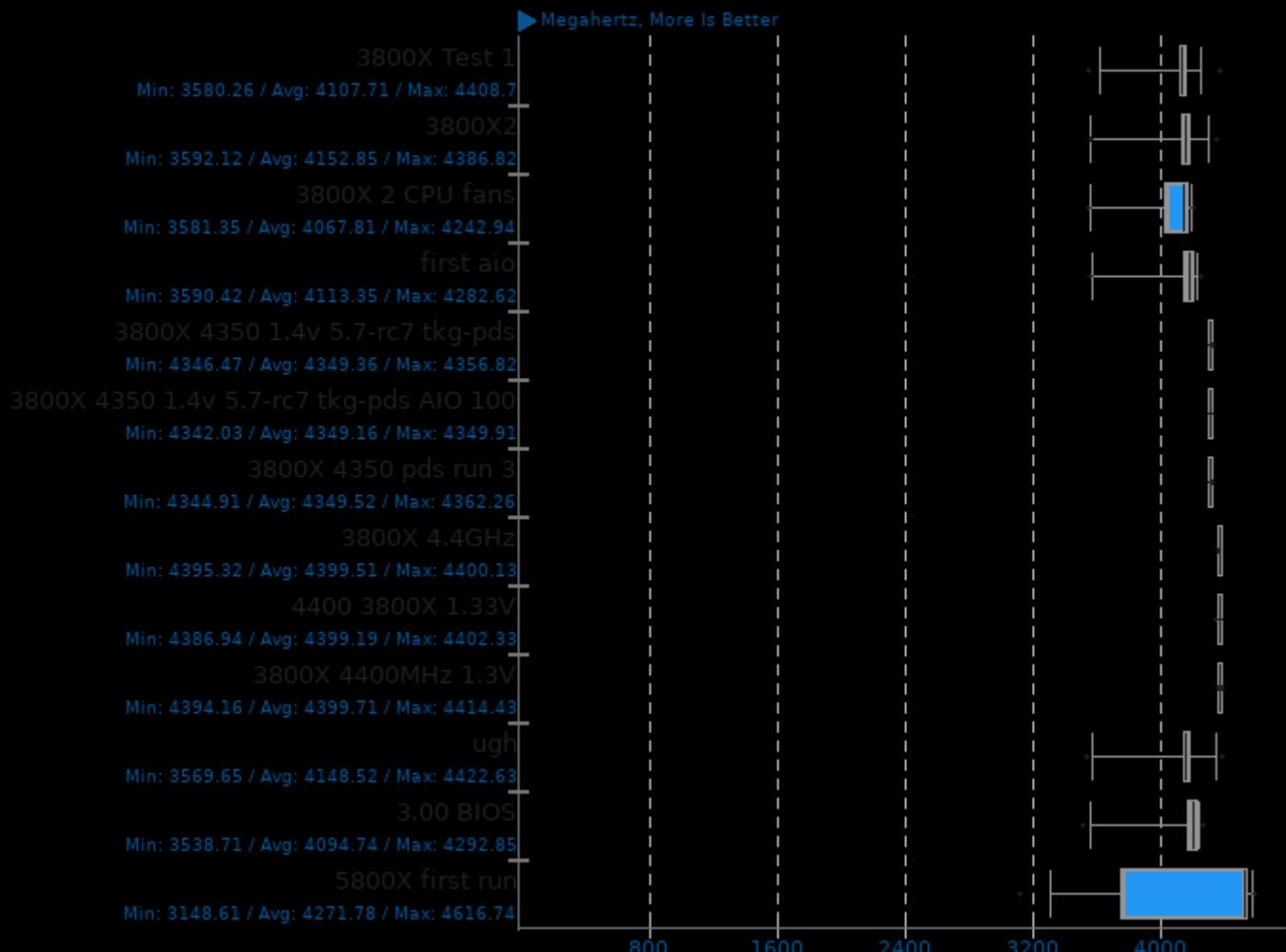
## Smallpt 1.0

CPU Frequency (CPU13) Monitor



## Smallpt 1.0

CPU Frequency (CPU12) Monitor



This file was automatically generated via the Phoronix Test Suite benchmarking software on Thursday, 28 March 2024 19:25.