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hdparm-read-all

Intel Core i5-3570K testing with a Gigabyte Z77X-UD5H (F16j BIOS) and MSI AMD Radeon RX 470/480/570/570X/580/580X/590 4GB on ManjaroLinux 20.1.2 via the Phoronix Test Suite.

Test Systems:

Samsung SSD 970 EVO

Processor: AMD Ryzen 7 2700X Eight-Core @ 3.70GHz (8 Cores / 16 Threads), Motherboard: Gigabyte X470 AORUS ULTRA GAMING-CF (F50 BIOS), Chipset: AMD 17h, Memory: 16GB, Disk: Samsung SSD 970 EVO 250GB + 1000GB Seagate ST1000DM003-1CH1 + 2 x 120GB OCZ VECTOR150 + 2000GB Hitachi HDS72302, Graphics: MSI AMD Radeon RX 470/480/570/570X/580/580X/590 8GB (1380/2000MHz), Audio: AMD Ellesmere HDMI Audio, Monitor: BenQ GL2460, Network: Intel I211

OS: Arch rolling, Kernel: 5.9.7-lqx1-1-lqx (x86_64), Desktop: KDE Plasma 5.20.2, Display Server: X Server 1.20.9, OpenGL: 4.6 Mesa 20.2.1 (LLVM 10.0.1), Compiler: GCC 10.2.0 + Clang 10.0.1, File-System: ext4, Screen Resolution: 3840x1080

Kernel Notes: usbhid.quirks=0x1B1C:0x1B17:0x20000000 amdgpu.cik_support=1 amdgpu.dpm=1 amdgpu.dc=1
Disk Notes: BFQ / relatime,rw
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: Vulnerable + spectre_v1: Vulnerable: __user pointer sanitization and usercopy barriers only; no swapgs barriers + spectre_v2: Vulnerable IBPB: disabled STIBP: disabled + srbds: Not affected + tsx_async_abort: Not affected

system2

Processor: AMD FX-6300 Six-Core @ 3.50GHz (3 Cores / 6 Threads), Motherboard: Gigabyte GA-78LMT-USB3 (FA BIOS), Chipset: AMD RS780 + SB7x0/SB8x0/SB9x0, Memory: 2 x 4096 MB 1600MT/s, Disk: 1000GB Seagate ST1000DX001-1NS1, Graphics: ASUS NVIDIA GeForce GTX 460 959MB, Audio: VIA VT2020, Network: Realtek RTL8111/8168/8411

OS: ManjaroLinux 20.1.2, Kernel: 4.19.152-1-MANJARO (x86_64), Desktop: GNOME Shell 3.36.6, Display Server: X Server 1.20.9, Compiler: GCC 10.2.0 + Clang 10.0.1, File-System: ext4, Screen Resolution: 1280x1024

Disk Notes: MQ-DEADLINE / noatime,rw
Processor Notes: Scaling Governor: acpi-cpufreq schedutil - CPU Microcode: 0x6000852
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 + srbds: Not affected + tsx_async_abort: Not affected

system1

Processor: Intel Core i5-3570K @ 3.40GHz (4 Cores), Motherboard: Gigabyte Z77X-UD5H (F16j BIOS), Chipset: Intel Xeon E3-1200 v2/3rd, Memory: 4 x 4096 MB DDR3-1600MT/s F3-14900CL9-4GBSR, Disk: 60GB OCZ VERTEX2 + 500GB TOSHIBA DT01ACA0, Graphics: MSI AMD Radeon RX 470/480/570/570X/580/580X/590 4GB (1281/1750MHz), Audio: Realtek ALC898, Monitor: DELL 2005FPW, Network: Intel 82579V + Qualcomm Atheros AR8151 v2.0

OS: ManjaroLinux 20.1.2, Kernel: 5.8.16-2-MANJARO (x86_64), Display Server: X Server 1.20.9, Display Driver: modesetting 1.20.9, Compiler: GCC 10.2.0, File-System: ext4, Screen Resolution: 1680x1050

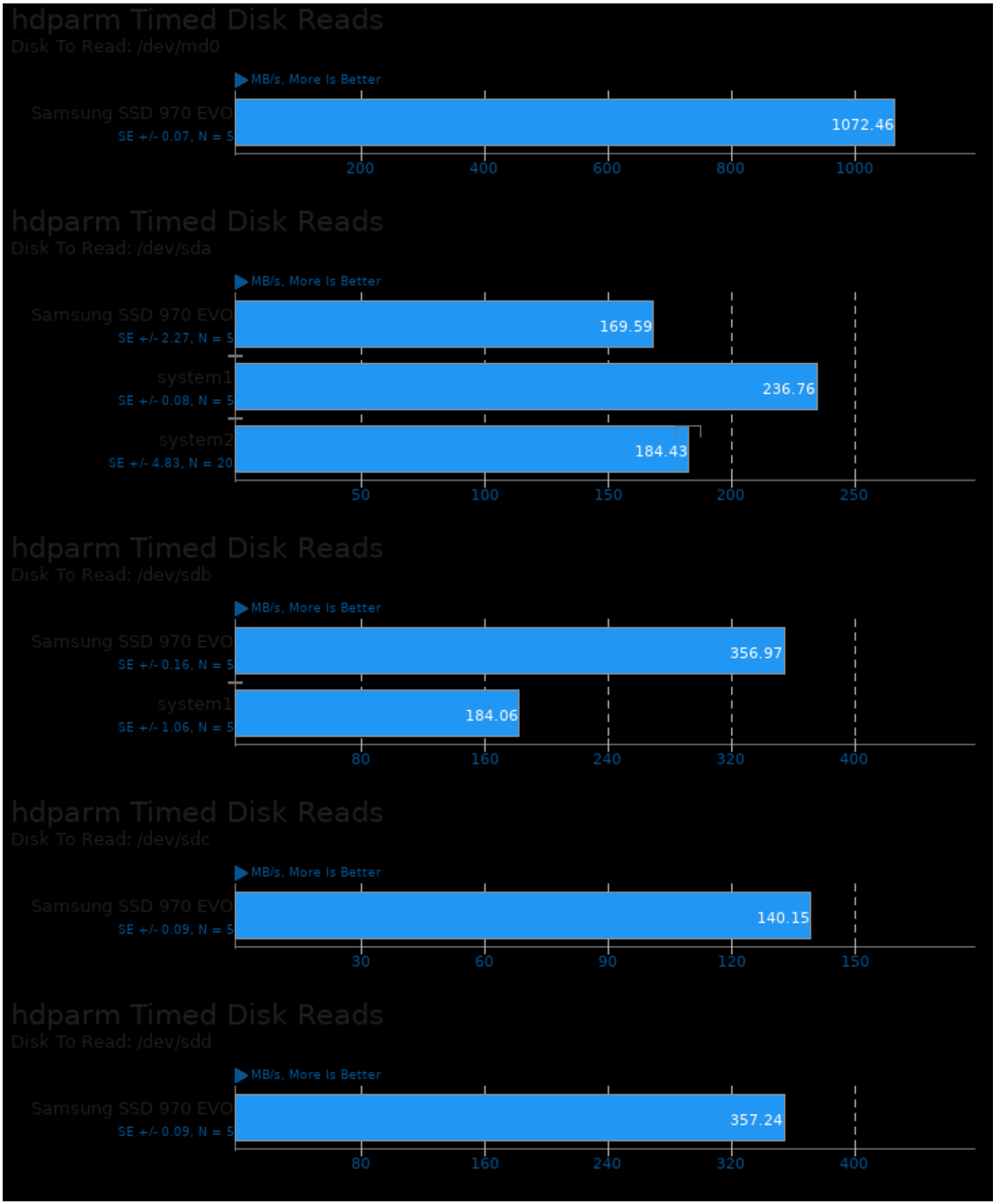
Disk Notes: MQ-DEADLINE / noatime,rw
Processor Notes: Scaling Governor: intel_cpufreq schedutil - CPU Microcode: 0x21
Security Notes: itlb_multihit: KVM: Mitigation of VMX disabled + l1tf: Mitigation of PTE Inversion; VMX: conditional cache flushes SMT disabled + mds: Mitigation of Clear buffers; SMT disabled + meltdown: Mitigation of PTI + 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 generic retpoline IBPB: conditional IBRS_FW STIBP: disabled RSB filling + srbds: Vulnerable: No microcode + tsx_async_abort: Not affected

	Samsung SSD 970 EVO	system2	system1
hdparm Timed Disk Reads - /dev/md0 (MB/s)	1072		
Standard Deviation	0%		
hdparm Timed Disk Reads - /dev/sda (MB/s)	**169.59**	184.43	**236.76**
Normalized	71.63%	77.9%	100%
Standard Deviation	3%	11.7%	0.1%
hdparm Timed Disk Reads - /dev/sdb (MB/s)	**356.97**		**184.06**
Normalized	100%		51.56%
Standard Deviation	0.1%		1.3%
hdparm Timed Disk Reads - /dev/sdc (MB/s)	140.15		
Standard Deviation	0.1%		
hdparm Timed Disk Reads - /dev/sdd (MB/s)	357.24		

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Standard Deviation 0.1%

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This file was automatically generated via the Phoronix Test Suite benchmarking software on Friday, 29 March 2024 11:30.