

www.phoronix-test-suite.com

3990X ASKAP Redis

AMD Ryzen Threadripper 3990X 64-Core testing with a System76 Thelio Major (F4c Z5 BIOS) and AMD Radeon RX 5600 OEM/5600 XT / 5700/5700 8GB on Pop 20.10 via the Phoronix Test Suite.

Automated Executive Summary

1 had the most wins, coming in first place for 38% of the tests.

Based on the geometric mean of all complete results, the fastest (1) was 1.051x the speed of the slowest (3). 2 was 0.962x the speed of 1, 4 was 0.998x the speed of 2, 3 was 0.991x the speed of 4.

Test Systems:

1

2

3990X ASKAP Redis

3

4

Processor: AMD Ryzen Threadripper 3990X 64-Core @ 2.90GHz (64 Cores / 128 Threads), Motherboard: System76 Thelio Major (F4c Z5 BIOS), Chipset: AMD Starship/Matisse, Memory: 126GB, Disk: Samsung SSD 970 EVO Plus 500GB, Graphics: AMD Radeon RX 5600 OEM/5600 XT / 5700/5700 8GB (1750/875MHz), Audio: AMD Navi 10 HDMI Audio, Monitor: DELL P2415Q, Network: Intel I211 + Intel Wi-Fi 6 AX200

OS: Pop 20.10, Kernel: 5.8.0-7630-generic (x86_64), Desktop: GNOME Shell 3.38.2, Display Server: X Server 1.20.8, Display Driver: amdgpu 19.1.0, OpenGL: 4.6 Mesa 21.1.0-devel (git-96d7555 2021-01-22 groovy-oibaf-ppa) (LLVM 11.0.1), Vulkan: 1.2.145, Compiler: GCC 10.2.0 + Clang 11.0.1-1~oibaf~g, File-System: ext4, Screen Resolution: 3840x2160

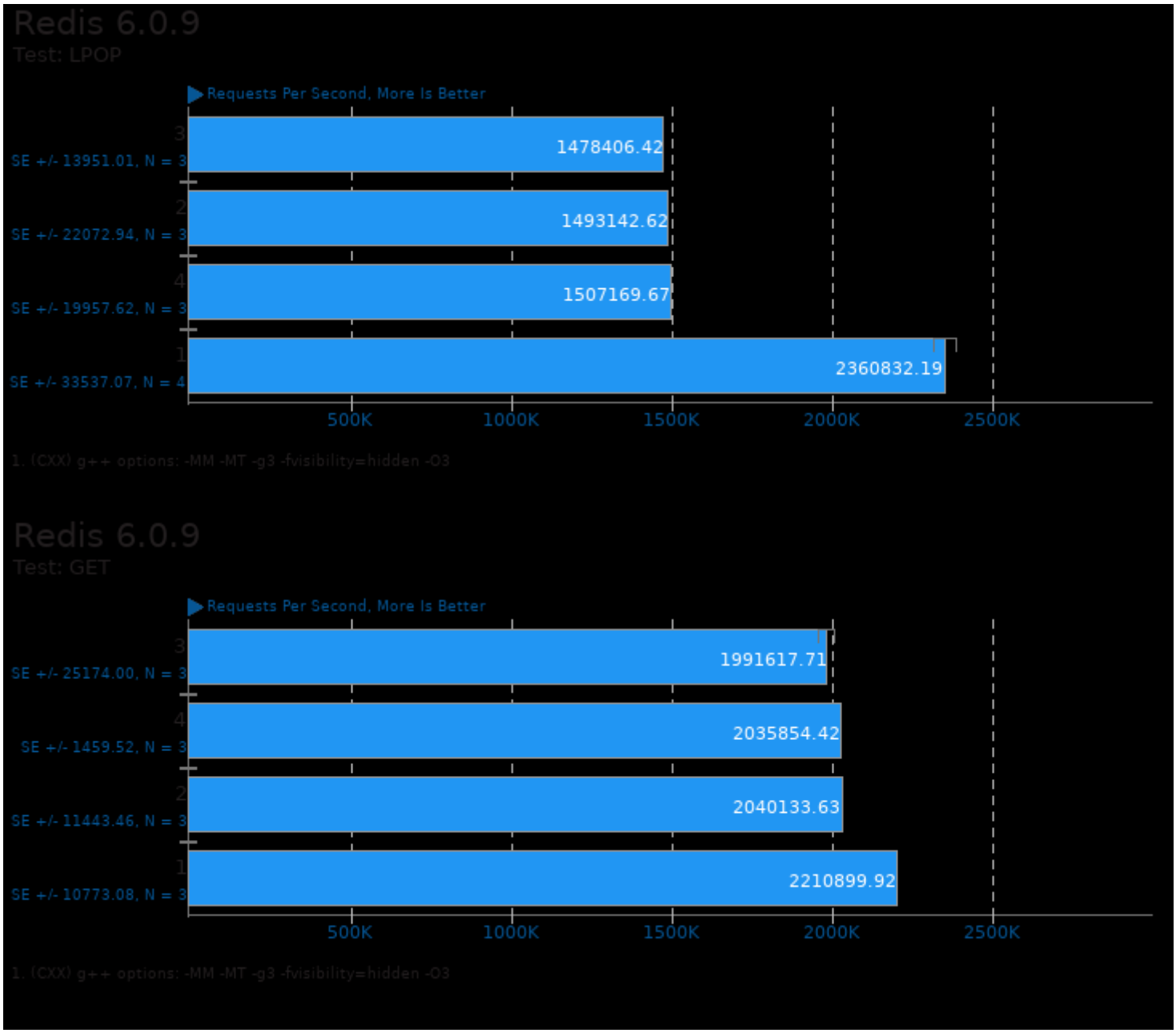
Kernel Notes: snd_usb_audio.ignore_ctl_error=1 - Transparent Huge Pages: madvise
Compiler Notes: --build=x86_64-linux-gnu --disable-vtable-verify --disable-werror --enable-checking=release --enable-clocale=gnu --enable-default-pie --enable-gnu-unique-object --enable-languages=c,ada,c++,go,brig,d,fortran,objc,obj-c++,m2 --enable-libphobos-checking=release --enable-libstdcxx-debug --enable-libstdcxx-time=yes --enable-multiarch --enable-multilib --enable-nls --enable-objc-gc=auto --enable-offload-targets=nvptx-none=/build/gcc-10-JvwpWM/gcc-10-10.2.0/debian/tmp-nvptx/usr,amdgcn-amdhsa=/build/gcc-10-JvwpWM/gcc-10-10.2.0/debian/tmp-gcn/usr,hsa --enable-plugin --enable-shared --enable-threads=posix --host=x86_64-linux-gnu --program-prefix=x86_64-linux-gnu- --target=x86_64-linux-gnu --with-abi=m64 --with-arch-32=i686 --with-default-libstdcxx-abi=new --with-gcc-major-version-only --with-multilib-list=m32,m64,mx32 --with-target-system-zlib=auto --with-tune=generic --without-cuda-driver -v
Processor Notes: Scaling Governor: acpi-cpufreq ondemand (Boost: Enabled) - CPU Microcode: 0x8301025
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 + srbds: Not affected + tsx_async_abort: Not affected

	1	2	3	4
Redis - LPOP (Reqs/sec)	**2360832**	1493143	**1478406**	1507170
Normalized	100%	63.25%	62.62%	63.84%
Standard Deviation	2.8%	2.6%	1.6%	2.3%
Redis - GET (Reqs/sec)	**2210900**	2040134	**1991618**	2035854
Normalized	100%	92.28%	90.08%	92.08%
Standard Deviation	0.8%	1%	2.2%	0.1%
Redis - SET (Reqs/sec)	**1720843**	**1662128**	1675287	1671280
Normalized	100%	96.59%	97.35%	97.12%
Standard Deviation	1.5%	0.8%	2.9%	2.3%
Redis - SADD (Reqs/sec)	**1907089**	**1963851**	1931722	1907441
Normalized	97.11%	100%	98.36%	97.13%
Standard Deviation	2.2%	1.9%	0.7%	1.4%
Redis - LPUSH (Reqs/sec)	1469833	**1475498**	**1446173**	1460990
Normalized	99.62%	100%	98.01%	99.02%
Standard Deviation	1.6%	2.9%	2.6%	2.9%
ASKAP - tConvolve OpenMP - Degridding (Million Grid Points/sec)	**3469**	3519	3519	**3535**
Normalized	98.15%	99.56%	99.56%	100%
Standard Deviation	0.7%	0.8%	0.8%	0.8%
ASKAP - tConvolve OpenMP - Gridding (Million Grid Points/sec)	**5729**	**5788**	5747	**5788**
Normalized	98.98%	100%	99.29%	100%
Standard Deviation	2.8%	0%	1.2%	0%
ASKAP - H.C.O (Iterations/sec)	360.581	360.584	**361.453**	**358.859**
Normalized	99.76%	99.76%	100%	99.28%

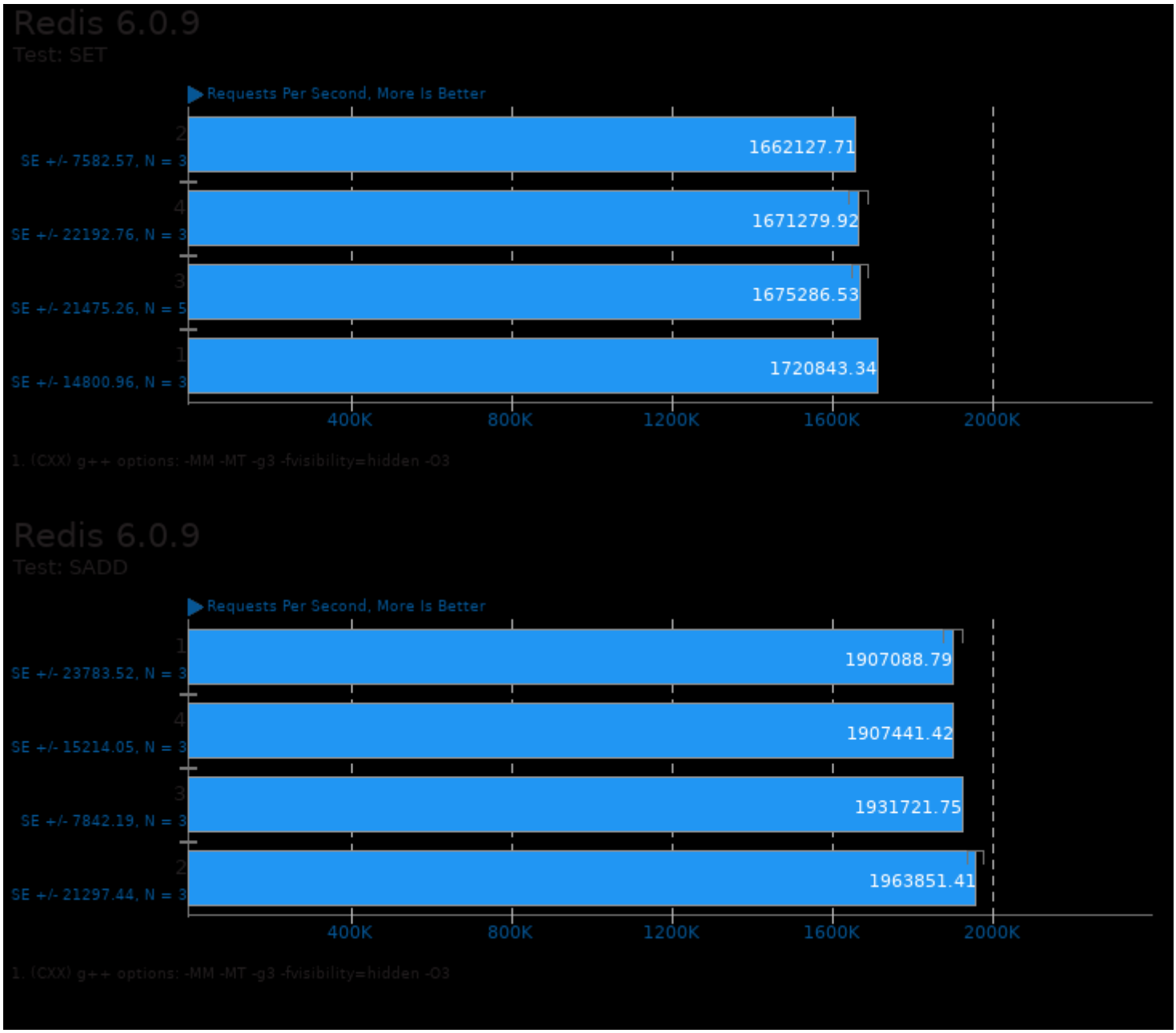
3990X ASKAP Redis

Standard Deviation	0.4%	0.5%	0.6%	0.5%
Gcrypt Library (sec)	204.262	204.192	**204.956**	**203.669**
Normalized	99.71%	99.74%	99.37%	100%
Standard Deviation	0.7%	0.2%	0.6%	0.7%
ASKAP - tConvolve MT - Degridding (Million Grid Points/sec)	**3128**	**3125**	3127	3126
Normalized	100%	99.91%	99.96%	99.93%
Standard Deviation	0.1%	0.1%	0%	0%
ASKAP - tConvolve MT - Gridding (Million Grid Points/sec)	2140	**2140**	2140	**2140**
Normalized	99.99%	99.96%	100%	100%
Standard Deviation	0.1%	0.1%	0%	0%
ASKAP - tConvolve MPI - Gridding (Mpix/sec)	**16326**	16321	**15663**	16319
Normalized	100%	99.97%	95.94%	99.96%
Standard Deviation	1.7%	2.4%	7.7%	2%
ASKAP - tConvolve MPI - Degridding (Mpix/sec)	17957	18100	**17640**	**18151**
Normalized	98.93%	99.72%	97.19%	100%
Standard Deviation	5.1%	1.7%	9.5%	1.3%

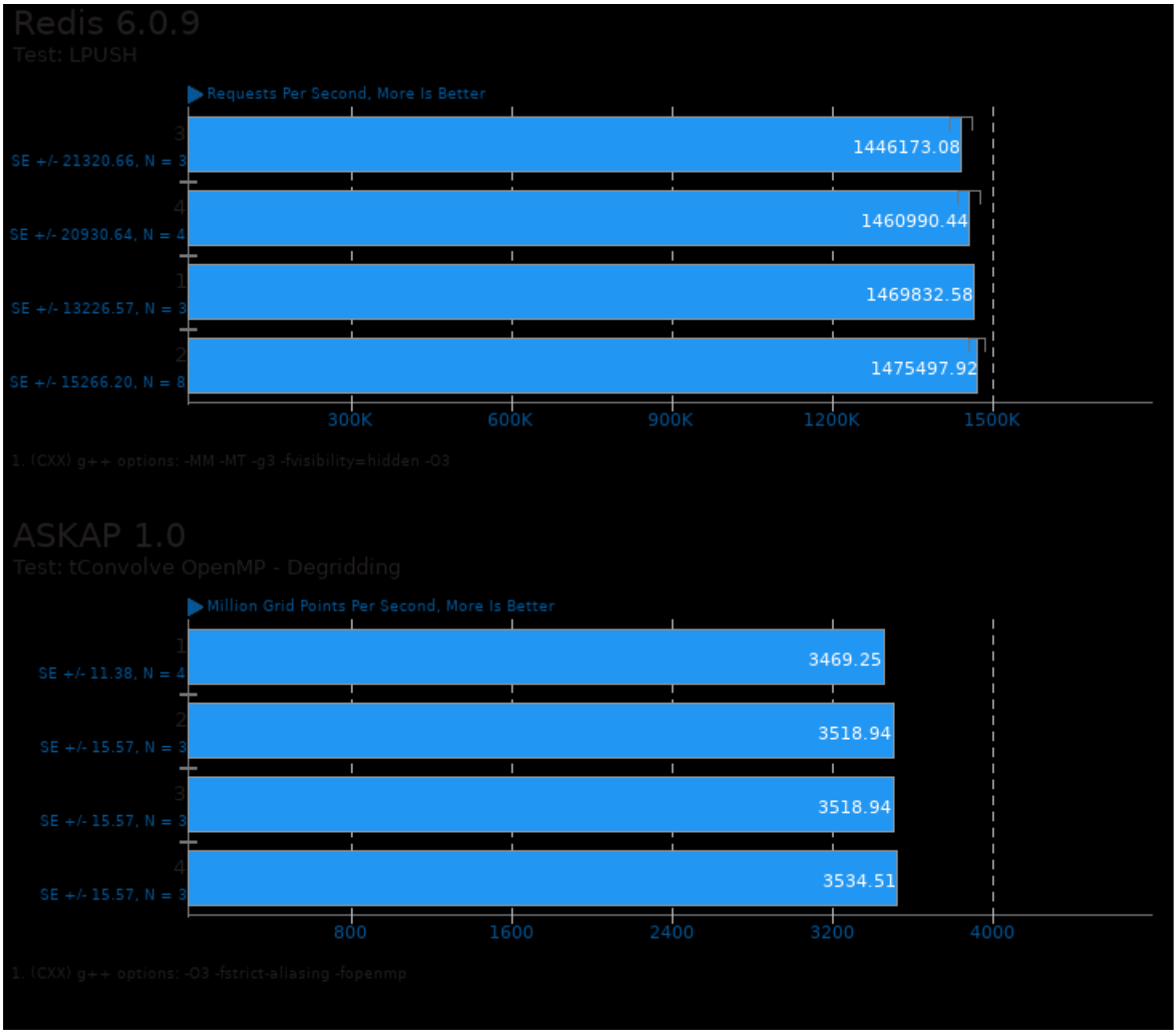
3990X ASKAP Redis



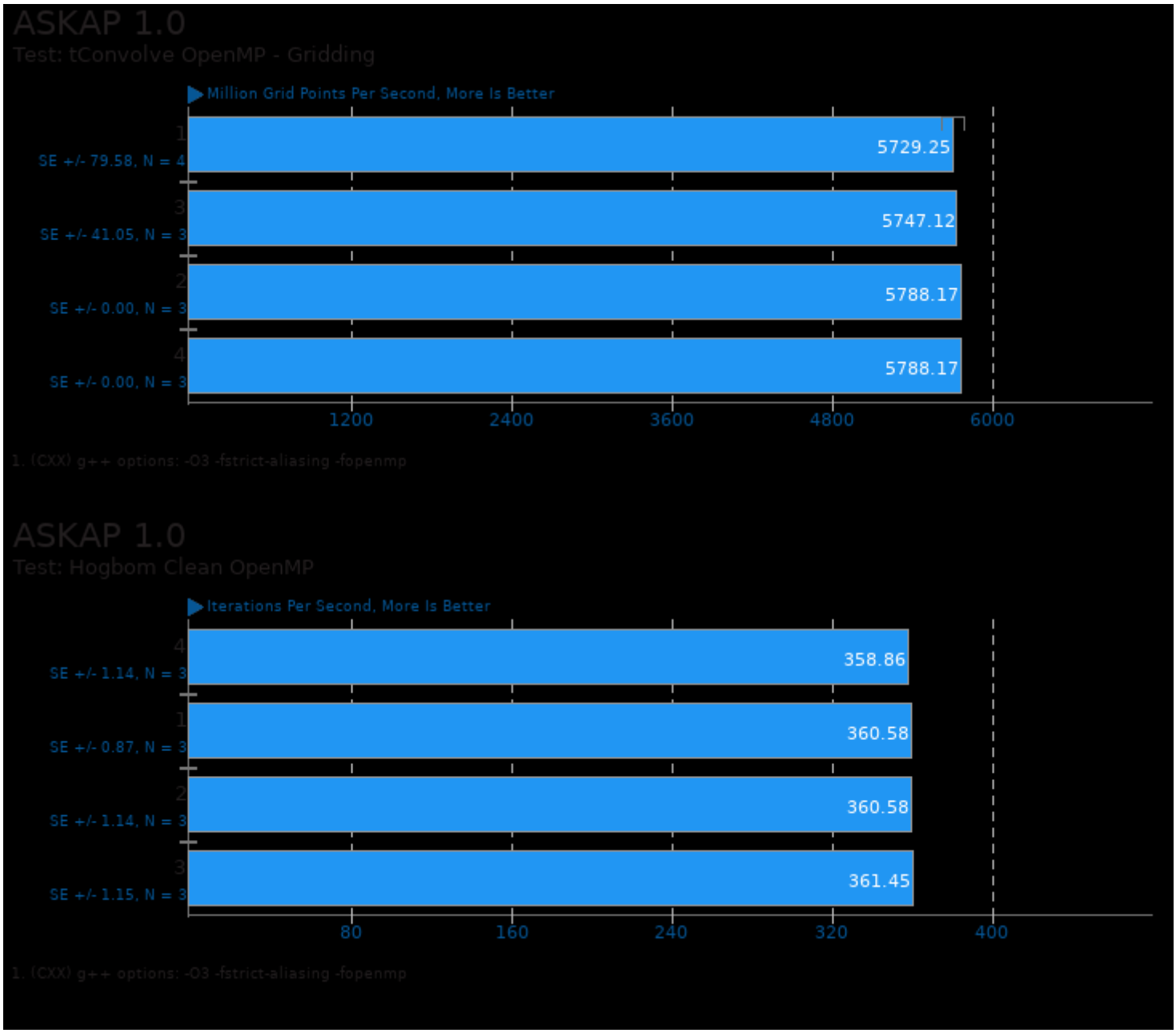
3990X ASKAP Redis



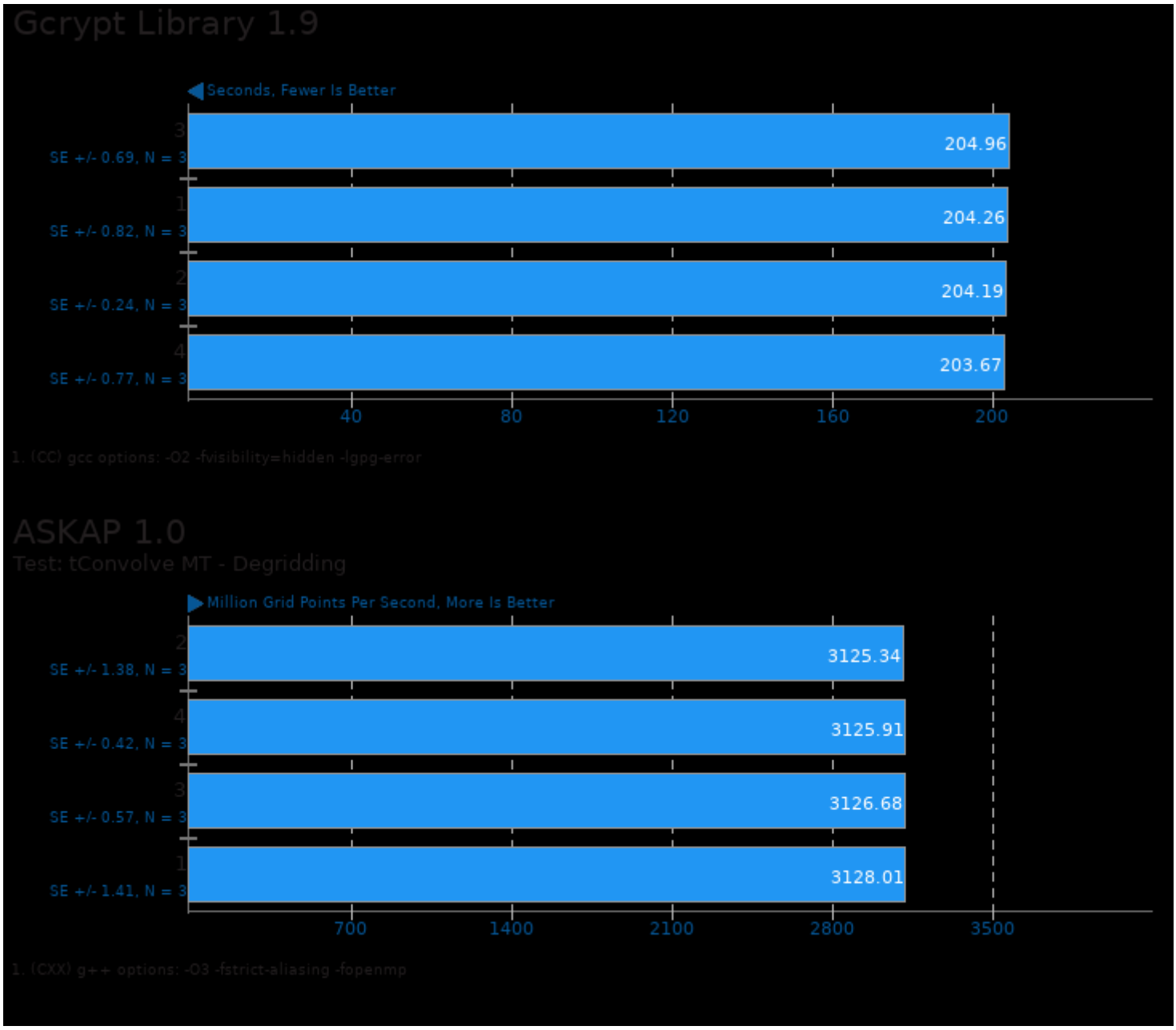
3990X ASKAP Redis



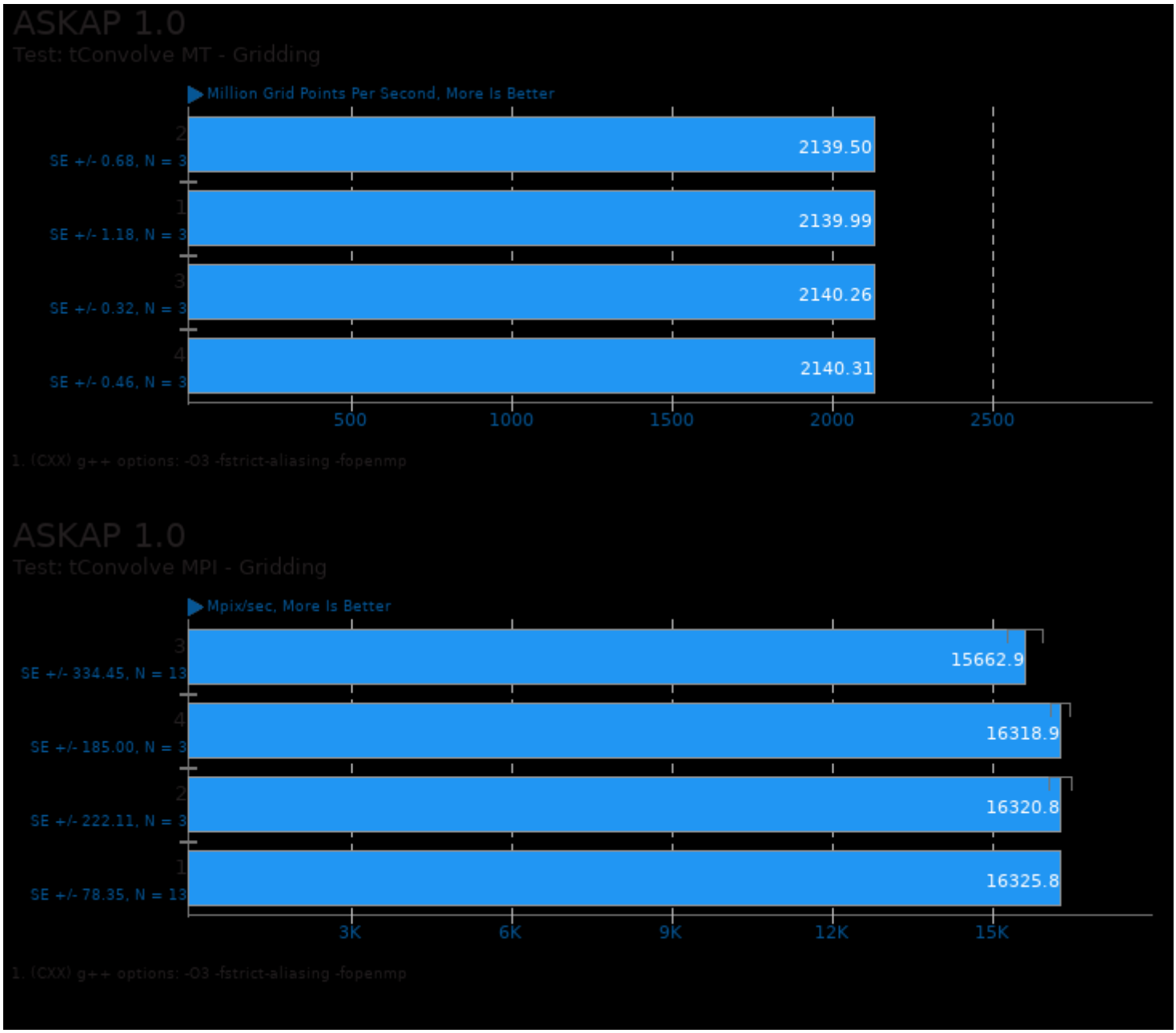
3990X ASKAP Redis



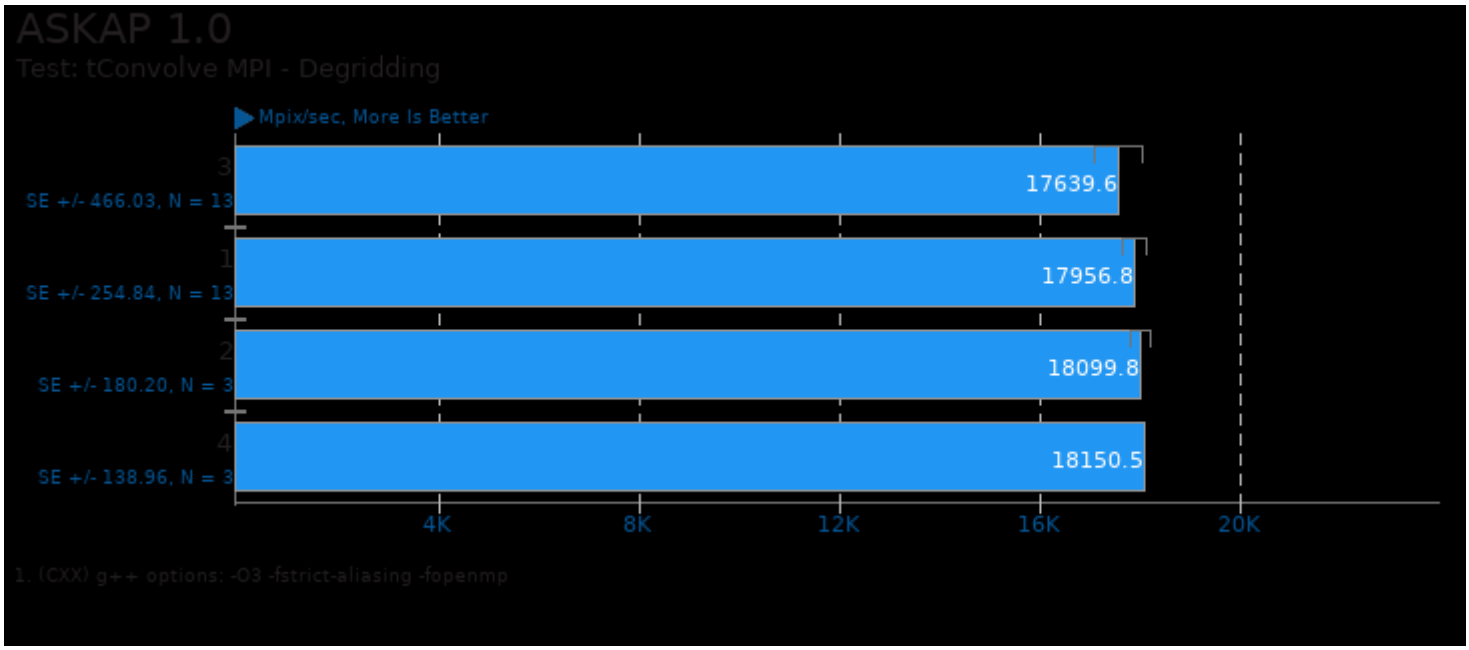
3990X ASKAP Redis



3990X ASKAP Redis



3990X ASKAP Redis



This file was automatically generated via the Phoronix Test Suite benchmarking software on Thursday, 28 March 2024 15:28.