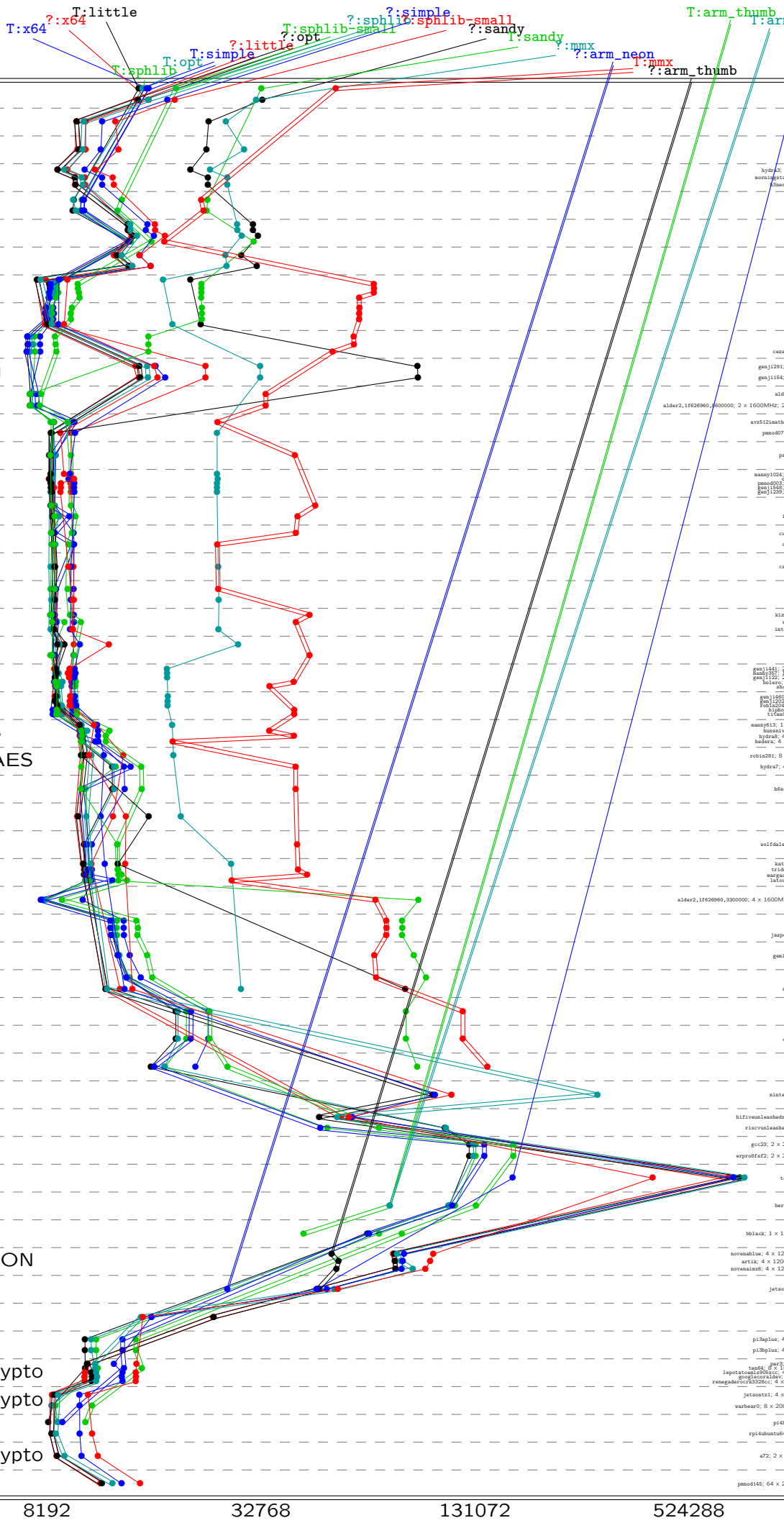


crypto_hash
skein512512
implementations
amd64 Bobcat
amd64 K8
amd64 K10 65nm
amd64 K10 45nm
amd64 K10 32nm
amd64 Bulldozer
amd64 Piledriver
amd64 Zen
amd64 Zen 2
amd64 Zen 3
amd64 Knights Landing
amd64 Golden Cove
amd64 Cascade Lake
amd64 Tiger Lake
amd64 Skylake+512x2
amd64 Ice Lake
amd64 Comet Lake
amd64 Cannon Lake
amd64 Coffee Lake
amd64 Kaby Lake
amd64 Skylake
amd64 Broadwell+AES
amd64 Haswell+AES
amd64 Ivy Bridge+AES
amd64 Sandy Bridge+AES
amd64 Sandy Bridge
amd64 Westmere
amd64 Core 2 45nm
amd64 Core 2 65nm
amd64 Gracemont
amd64 Tremont
amd64 Goldmont Plus
amd64 Goldmont
amd64 Airmont
amd64 Silvermont
amd64 Bonnell
ppc32 G3
riscv64 U54
mips64 Octeon II
armeabi Armada
armeabi Cortex-A7
armeabi Cortex-A8
armeabi Cortex-A9+NEON
armeabi Cortex-A15
aarch64 X-Gen
aarch64 Cortex-A53
aarch64 Cortex-A53+crypto
aarch64 Cortex-A57+crypto
aarch64 Cortex-A72
aarch64 Cortex-A72+crypto
aarch64 ThunderX2



<https://bench.cr.yp.to>
20230702

bbobcat: 2 x 1650MHz; 2011 AMD G-T56N; amd64; Bobcat (500F10); supercop-20230630
b4450: 2 x 1650MHz; 2011 AMD E-450; amd64; Bobcat (500F20); supercop-20230618
naac: 2 x 2000MHz; 2006 AMD Athlon 64 X2; amd64; K8 (40F2); supercop-20171015
gcc16: 8 x 2194MHz; 2008 AMD Opteron 8354; amd64; K10 65nm (100F23); supercop-20171218
hydra3: 6 x 3300MHz; 2010 AMD Phenom II X6 1100T; amd64; K10 45nm (100F40); supercop-20171218
sornigstar: 4 x 3200MHz; 2009 AMD Phenom II X4 955; amd64; K10 45nm (100F42); supercop-20170904
l3naw: 1 x 1700MHz; 2010 AMD Athlon II Neo K125; amd64; K10 45nm (100F63); supercop-20171015
hydra4: 4 x 2900MHz; 2011 AMD A6-3850; amd64; K10 32nm (300F10); supercop-20230630
hydra4s: 4 x 2900MHz; 2011 AMD A6-3850; amd64; K10 32nm (300F10); supercop-20230630
bobcat: 4 x 4000MHz; 2012 AMD FX-8350; amd64; Bulldozer (500F20); supercop-20171218
calvin: 4 x 4000MHz; 2012 AMD FX-8350; amd64; Bulldozer (500F20); supercop-20171218
hydra4s: 4 x 3100MHz; 2011 AMD FX-8120; amd64; Bulldozer (500F12); supercop-20171218
hawker16: 4 x 4000MHz; 2012 AMD FX-8350; amd64; Bulldozer (500F20); supercop-20230630
hydra9: 2 x 3800MHz; 2012 AMD A10-5800K; amd64; Piledriver (610F11); supercop-20171218
fpriari2: 2 x 2000MHz; 2012 AMD A10-6655M; amd64; Piledriver (610F11); supercop-20200618
z8eas: 8 x 3000MHz; 2017 AMD Ryzen 7 1700; amd64; Zen (800F11); supercop-20170855
z8eas: 8 x 3000MHz; 2017 AMD Ryzen 7 1700; amd64; Zen (800F11); supercop-20170855
z8eas: 4 x 3100MHz; 2017 AMD Ryzen 3 3300; amd64; Zen (800F11); supercop-20211222
z8eas: 4 x 3100MHz; 2017 AMD Ryzen 3 3300; amd64; Zen (800F11); supercop-20211222
z8eas: 4 x 3100MHz; 2017 AMD Ryzen 3 3300; amd64; Zen (800F11); supercop-20211222
dali: 2 x 3000MHz; 2019 AMD EPYC 7702; amd64; Zen 2 (830F10); supercop-20191017
z8eas: 64 x 2250MHz; 2019 AMD EPYC 7742; amd64; Zen 2 (830F10); supercop-20230630
reozor: 6 x 3000MHz; 2022 AMD Ryzen 5 4500U; amd64; Zen 2 (860F01); supercop-20230630
lactense: 4 x 2000MHz; 2020 AMD Ryzen 9 3900X; amd64; Zen 3 (820F11); supercop-20230630
gajj346: 64 x 2000MHz; 2019 AMD EPYC 7702; amd64; Zen 2 (830F10); supercop-20191017
bealina: 6 x 4026MHz; 2021 AMD Ryzen 5 5600G; amd64; Zen 3 (a50F00); supercop-20211122
sanq: 16 x 3400MHz; 2020 AMD Ryzen 9 5900X; amd64; Zen 3 (a20F10); supercop-20230630
cezanne: 6 x 3900MHz; 2021 AMD Ryzen 5 PRO 5650G; amd64; Zen 3 (a50F00); supercop-20230630
gajj129: 68 x 1400MHz; 2016 Intel Xeon Phi 7210; amd64; Knights Landing (506F71); supercop-20180818
gajj129: 68 x 1400MHz; 2016 Intel Xeon Phi 7210; amd64; Knights Landing (506F71); supercop-20180818
gajj129: 64 x 1300MHz; 2016 Intel Xeon Phi 7210; amd64; Knights Landing (506F71); supercop-20170228
alder: 4 x 3300MHz; 2022 Intel Core i3-12100; amd64; Golden Cove (906F7-00); supercop-20230630
alder2:1f62690;300000; 2 x 1600MHz; 2022 Intel Core i3-1215U performance cores; amd64; Golden Cove (906A4-00); supercop-20230630
avx512lake: 18 x 3000MHz; 2019 Intel Core i9-10980XE; amd64; Cascade Lake (506F7); supercop-20210126
peno476: 20 x 2500MHz; 2019 Intel Xeon Gold 6248; amd64; Cascade Lake (506F7); supercop-20191017
panther: 4 x 2800MHz; 2020 Intel Core i7-1165G7; amd64; Tiger Lake (806C1); supercop-20230630
sanq1024: 16 x 2100MHz; 2017 Intel Xeon Gold 6150; amd64; Skylake-SP (506E4); supercop-20170804
sanq1024: 8 x 2500MHz; 2017 Intel Xeon Gold 6150; amd64; Skylake-SP (506E4); supercop-20181123
sanq1024: 8 x 2500MHz; 2017 Intel Xeon Gold 6150; amd64; Skylake-SP (506E4); supercop-20181123
sanq1024: 20 x 2100MHz; 2017 Intel Xeon Gold 6150; amd64; Skylake-SP (506E4); supercop-20191017
sanq1024: 20 x 2100MHz; 2017 Intel Xeon Gold 6150; amd64; Skylake-SP (506E4); supercop-20191017
icelake2: 4 x 1000MHz; 2019 Intel Core i3-1035G1; amd64; Ice Lake (706E5); supercop-20221005
icelake2: 4 x 1100MHz; 2020 Intel Core i5-1030NG7; amd64; Ice Lake (706E5); supercop-20200626
cubio: 2 x 2100MHz; 2019 Intel Core i3-10110U; amd64; Comet Lake (806C); supercop-20230630
cosat: 2 x 2100MHz; 2019 Intel Core i3-10110U; amd64; Comet Lake (806C); supercop-20230630
cannon: 2 x 2200MHz; 2018 Intel Core i3-8121U; amd64; Cannon Lake (90663); supercop-20190910
r2400: 4 x 3300MHz; 2018 Intel Xeon E-2124; amd64; Coffee Lake (906A); supercop-20230630
bitwise: 6 x 3200MHz; 2017 Intel Core i7-8700; amd64; Coffee Lake (906A); supercop-20190910
kizama: 4 x 3000MHz; 2017 Intel Xeon E3-1220 v6; amd64; Kaby Lake (906E9); supercop-20230630
shoahara: 2 x 2400MHz; 2017 Intel Core i3-7120; amd64; Kaby Lake (906E9); supercop-2021122
istalau8: 4 x 3100MHz; 2018 Intel Core i7-8809G; amd64; Kaby Lake (906E9); supercop-20191017
sanq: 2 x 3300MHz; 2015 Intel Pentium G4400; amd64; Skylake (506E3); supercop-20171218
sanq4: 4 x 3000MHz; 2015 Intel Xeon E3-1220 v5; amd64; Skylake (506E3); supercop-20230630
sanq1441: 28 x 2400MHz; 2016 Intel Xeon E5-2680 v4; amd64; Broadwell+AES (406F); supercop-20180818
sanq1441: 28 x 2400MHz; 2016 Intel Xeon E5-2680 v4; amd64; Broadwell+AES (406F); supercop-20180818
sanq1441: 28 x 2400MHz; 2016 Intel Xeon E5-2680 v4; amd64; Broadwell+AES (406F); supercop-20170228
sanq1441: 28 x 2400MHz; 2016 Intel Xeon E5-2680 v4; amd64; Broadwell+AES (406F); supercop-20170228
sanq1441: 28 x 2400MHz; 2016 Intel Xeon E5-2680 v4; amd64; Broadwell+AES (406F); supercop-20230630
sanq1441: 28 x 2400MHz; 2016 Intel Xeon E5-2680 v4; amd64; Broadwell+AES (406F); supercop-20230630
sanq1441: 20 x 2200MHz; 2014 Intel Xeon E5-2697 v2; amd64; Haswell+AES (306E4); supercop-20191918
sanq1441: 20 x 2200MHz; 2014 Intel Xeon E5-2697 v2; amd64; Haswell+AES (306E4); supercop-20191918
sanq1441: 20 x 2200MHz; 2014 Intel Xeon E5-2697 v2; amd64; Haswell+AES (306E4); supercop-20230630
sanq1441: 20 x 2200MHz; 2014 Intel Xeon E5-2697 v2; amd64; Haswell+AES (306E4); supercop-20230630
sanq1441: 12 x 2700MHz; 2013 Intel Xeon E5-2697 v2; amd64; Ivy Bridge+AES (306E4); supercop-20180818
sanq1441: 12 x 2700MHz; 2013 Intel Xeon E5-2697 v2; amd64; Ivy Bridge+AES (306E4); supercop-20180818
sanq1441: 12 x 2700MHz; 2013 Intel Xeon E5-2697 v2; amd64; Ivy Bridge+AES (306E4); supercop-20230630
hydra4: 4 x 3500MHz; 2012 Intel Xeon E3-1275 V2; amd64; Ivy Bridge+AES (306E4); supercop-20230630
bedera: 4 x 2500MHz; 2012 Intel Xeon E3-1265L V2; amd64; Ivy Bridge+AES (306E4); supercop-20210326
robin28: 8 x 2600MHz; 2012 Intel Xeon E5-4650L; amd64; Sandy Bridge+AES (206F7); supercop-20170228
hydra7: 4 x 3100MHz; 2011 Intel Xeon E3-1225; amd64; Sandy Bridge+AES (206F7); supercop-20230630
hsandy: 2 x 2100MHz; 2011 Intel Core i3-2310M; amd64; Sandy Bridge (206F7); supercop-20211122
g3sw: 2 x 3200MHz; 2010 Intel Core i5-650; amd64; Westmere (206S2); supercop-20171015
voirdale: 2 x 3060MHz; 2009 Intel Core 2 Duo E7600; amd64; Core 2 45nm (106F4); supercop-20230630
katana: 2 x 2137MHz; 2006 Intel Core 2 Duo E6400; amd64; Core 2 65nm (60F); supercop-20171015
tristan: 2 x 2000MHz; 2007 Intel Core 2 Duo T7300; amd64; Core 2 65nm (60F); supercop-20230630
august: 4 x 2404MHz; 2007 Intel Core 2 Quad Q6600; amd64; Core 2 65nm (60F); supercop-20230630
laour: 4 x 2394MHz; 2007 Intel Core 2 Quad Q6600; amd64; Core 2 65nm (60F); supercop-20201130
alder2:1f62690;3300000; 4 x 1600MHz; 2022 Intel Core i3-1215U efficiency cores; amd64; Gracemont (906A4-20); supercop-20230630
jasper2: 2 x 1100MHz; 2021 Intel Celeron N4500; amd64; Tremont (906C0); supercop-20230630
jasper3: 4 x 2000MHz; 2021 Intel Celeron N5105; amd64; Tremont (906C0); supercop-20230630
jasper: 4 x 1100MHz; 2021 Intel Pentium Silver N6000; amd64; Tremont (906C0); supercop-20230630
gemini: 2 x 1100MHz; 2019 Intel Celeron N4020; amd64; Goldmont Plus (706A8); supercop-20230630
wooden: 4 x 1500MHz; 2016 Intel Celeron J3455; amd64; Goldmont (506C9); supercop-20230630
avx16b1: 16 x 2100MHz; 2017 Intel Atom C3955; amd64; Goldmont (506F1); supercop-20191017
mccmc: 4 x 1600MHz; 2015 Intel Pentium N3700; amd64; Airmont (406C3); supercop-20230630
cherry: 4 x 1440MHz; 2016 Intel Atom i5-Z8350; amd64; Silvermont (406C4); supercop-20230630
b8ato: 2 x 1866MHz; 2011 Intel Atom D2500; amd64; Bonnell (306E1); supercop-20230630
alntendosilluaxng: 1 x 729MHz; 2006 IBM PowerPC Broadway; ppc32; G3 (03); supercop-20191221
hifiveu54aahdsvic: 4 x 1400MHz; 2017 SiFive Freedom U540; riscv64; U54 (sifive,u54-mc); supercop-20191221
riscvu54aahd8000: 4 x 1000MHz; 2017 SiFive Freedom U540; riscv64; U54 (sifive,u54-mc); supercop-20210326
gcc23: 2 x 2000MHz; 2011 Cavium Octeon II CN6120; mips64; Octeon II (cmnips64v2); supercop-20230630
expofaf2: 2 x 2000MHz; 2011 Cavium Octeon II CN6120; mips64; Octeon II (cmnips64v2); supercop-20220213
tesla: 1 x 1200MHz; 2010 Marvell Armada 310; armeabi; Armada (562F311); supercop-20170718
berry2: 4 x 900MHz; 2016 Broadcom BCM2836; armeabi; Cortex-A7 (410F075); supercop-20230630
black: 1 x 1000MHz; 2012 TI Sitara XAM3359A2C12100; armeabi; Cortex-A8 (413F082); supercop-20230630
novaleon: 4 x 1200MHz; 2011 Freescale i.MX6 Quad; armeabi; Cortex-A9+NEON (412F09A); supercop-20200702
artix: 4 x 1200MHz; 2012 Samsung Exynos 44127; armeabi; Cortex-A9+NEON (413F090); supercop-20191221
novaleon4: 4 x 1200MHz; 2011 Freescale i.MX6 Quad; armeabi; Cortex-A9+NEON (412F09A); supercop-20191221
jtsosaiti: 4 x 2065MHz; 2014 NVIDIA Tegra K1; armeabi; Cortex-A15 (413F0F3); supercop-20170725
gcc16: 8 x 1600MHz; 2014 APM 88320B-X1; aarch64; X-Gen (500F000); supercop-20171218
pi3aplu: 4 x 1400MHz; 2018 Broadcom BCM2837B0; aarch64; Cortex-A53 (410F034); supercop-20230630
pi3aplu: 4 x 1400MHz; 2018 Broadcom BCM2837B0; aarch64; Cortex-A53 (410F034); supercop-20211222
leah: 4 x 1500MHz; 2015 ARMv8-A Cortex-A53; aarch64; Cortex-A53+crypto (410F034); supercop-20171014
leah: 4 x 1500MHz; 2015 ARMv8-A Cortex-A53; aarch64; Cortex-A53+crypto (410F034); supercop-20171014
leah: 4 x 1500MHz; 2015 ARMv8-A Cortex-A53; aarch64; Cortex-A53+crypto (410F034); supercop-20191221
leah: 4 x 1500MHz; 2015 ARMv8-A Cortex-A53; aarch64; Cortex-A53+crypto (410F034); supercop-20191221
leah: 4 x 1500MHz; 2015 ARMv8-A Cortex-A53; aarch64; Cortex-A53+crypto (410F034); supercop-20230630
jtsosaiti: 4 x 1734MHz; 2015 NVIDIA Tegra X1; aarch64; Cortex-A57+crypto (418F071); supercop-20191017
warbear: 8 x 2000MHz; 2016 AMD Opteron A1100; aarch64; Cortex-A57+crypto (411F072); supercop-20200626
pi4b: 4 x 1500MHz; 2019 Broadcom BCM2711; aarch64; Cortex-A72 (410F083); supercop-20221122
rp16bun64: 4 x 1500MHz; 2019 Broadcom BCM2711; aarch64; Cortex-A72 (410F083); supercop-20191221
a7: 2 x 2100MHz; 2015 Mediatek MT8173; aarch64; Cortex-A72+crypto (418F080); supercop-20170904
jmsod45: 64 x 2500MHz; 2018 Cavium ThunderX2 CN9980; aarch64; ThunderX2 (431F0A1); supercop-20191017

Time 8192 32768 131072 524288