

crypto\_hash  
 lane512  
 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  
 mipso32 Octeon II  
 armeabi Armada  
 armeabi Cortex-A7  
 armeabi Cortex-A8  
 armeabi Cortex-A9+NEON  
 armeabi Cortex-A15  
 aarch64 X-Gene  
 aarch64 Cortex-A53  
 aarch64 Cortex-A53+crypto  
 aarch64 Cortex-A57+crypto  
 aarch64 Cortex-A72  
 aarch64 Cortex-A72+crypto  
 aarch64 ThunderX2  
 Time

65536 131072 262144 524288 1048576

T:c

?:c

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

bbobcat: 2 x 1650MHz; 2011 AMD G-T56N; amd64; Bobcat (600F10); supercop-20230630  
 m4450: 2 x 1650MHz; 2011 AMD E-450; amd64; Bobcat (600F20); supercop-20230618  
 naca: 2 x 2000MHz; 2006 AMD Athlon 64 X2; amd64; K8 (40fb2); supercop-201710105  
 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 (100fa0); supercop-20171218  
 sonnigstar: 4 x 3200MHz; 2009 AMD Phenom II X4 955; amd64; K10 45nm (100fa2); supercop-20170904  
 h3naw: 1 x 1700MHz; 2010 AMD Athlon II Neo K125; amd64; K10 45nm (100fb3); supercop-20171218  
 hydra4: 4 x 2600MHz; 2011 AMD A6-3850; amd64; K10 32nm (300f10); supercop-20230630  
 hydra5: 4 x 2900MHz; 2011 AMD A8-3850; amd64; K10 32nm (300f10); supercop-20230630  
 bobcat: 4 x 4000MHz; 2012 AMD FX-8350; amd64; Bulldozer (600P20); supercop-20171218  
 calvin: 4 x 4000MHz; 2012 AMD FX-8350; amd64; Bulldozer (600P20); supercop-20171218  
 hydra4: 4 x 3100MHz; 2011 AMD FX-8120; amd64; Bulldozer (600P12); supercop-20171218  
 sawer216: 4 x 4000MHz; 2012 AMD FX-8350; amd64; Bulldozer (600P20); supercop-20230630  
 hydra9: 2 x 3800MHz; 2012 AMD A10-5800K; amd64; Piledriver (610F01); supercop-20171218  
 h3priarty: 2 x 2000MHz; 2012 AMD A10-6650M; amd64; Piledriver (610F01); supercop-20200818  
 r3naw: 8 x 3000MHz; 2017 AMD Ryzen 7 1700; amd64; Zen (800H11); supercop-20210855  
 r3naw: 8 x 3000MHz; 2017 AMD Ryzen 7 1700; amd64; Zen (800H11); supercop-20210855  
 r3naw: 4 x 3100MHz; AV10; AMD Ryzen 3 1300G; amd64; Zen (800H11); supercop-20210855  
 r3naw: 4 x 3100MHz; AV10; AMD Ryzen 3 1300G; amd64; Zen (800H11); supercop-20210855  
 dall: 2 x 1400MHz; 2019 AMD EPYC 7702; amd64; Zen 2 (830F10); supercop-20210810  
 r3naw: 64 x 2250MHz; 2019 AMD EPYC 7742; amd64; Zen 2 (830F10); supercop-20230630  
 r3naw: 6 x 3000MHz; 2022 AMD Ryzen 5 4500U; amd64; Zen 2 (860H01); supercop-20230630  
 lucienne: 4 x 2000MHz; 2021 AMD Ryzen 9 5950X; amd64; Zen 3 (c00f10); supercop-20230630  
 gwj346: 64 x 2000MHz; 2019 AMD EPYC 7702; amd64; Zen 2 (830F10); supercop-20191017  
 beavlin: 6 x 4062MHz; 2021 AMD Ryzen 5 5600G; amd64; Zen 3 (a50f00); supercop-20211122  
 r3naw: 16 x 3400MHz; 2020 AMD Ryzen 9 5950X; amd64; Zen 3 (c00f10); supercop-20230630  
 ceszawa: 6 x 3900MHz; 2021 AMD Ryzen 5 PRO 5650G; amd64; Zen 3 (a50f00); supercop-20230630  
 gwj1291: 68 x 1400MHz; 2016 Intel Xeon Phi 7250; amd64; Knights Landing (50671); supercop-20180818  
 gwj1154: 64 x 1300MHz; 2016 Intel Xeon Phi 7210; amd64; Knights Landing (50671); supercop-20170228  
 alder: 4 x 3300MHz; 2022 Intel Core i3-12100; amd64; Golden Cove (90673-00); supercop-20230630  
 alder2:1f62690,5600000; 2 x 1600MHz; 2022 Intel Core i3-1215U performance cores; amd64; Golden Cove (906A4-40); supercop-20230630  
 avs512mats: 18 x 3000MHz; 2019 Intel Core i9-10980XE; amd64; Cascade Lake (50657); supercop-20210126  
 jmsd4076: 20 x 2500MHz; 2019 Intel Xeon Gold 6248; amd64; Cascade Lake (50657); supercop-20191017  
 panthar: 4 x 2800MHz; 2020 Intel Core i7-1165G7; amd64; Tiger Lake (806c1); supercop-20230630  
 nany1024: 18 x 2700MHz; 2017 Intel Xeon Gold 6150; amd64; Skylake+512x2 (90654); supercop-201710105  
 nany1024: 8 x 2500MHz; 2017 Intel Core i7-8750; amd64; Skylake+512x2 (90654); supercop-201710105  
 nany1024: 8 x 2500MHz; 2017 Intel Core i7-8750; amd64; Skylake+512x2 (90654); supercop-201710105  
 gwj1291: 20 x 2100MHz; 2017 Intel Xeon Gold 6150; amd64; Skylake+512x2 (90654); supercop-20210122  
 gwj1291: 20 x 2100MHz; 2017 Intel Xeon Gold 6150; amd64; Skylake+512x2 (90654); supercop-20210122  
 icelake2: 4 x 1000MHz; 2019 Intel Core i3-1035G1; amd64; Ice Lake (706e5); supercop-20221005  
 icelake: 4 x 1100MHz; 2020 Intel Core i5-1030NG7; amd64; Ice Lake (706e5); supercop-20200826  
 cubio: 2 x 2100MHz; 2019 Intel Core i3-10110U; amd64; Comet Lake (806ec); supercop-20230630  
 coss: 2 x 2100MHz; 2019 Intel Core i3-10110U; amd64; Comet Lake (806ec); supercop-20230630  
 cannon: 2 x 2200MHz; 2018 Intel Core i3-8121U; amd64; Cannon Lake (90663); supercop-20190910  
 r3naw: 4 x 3300MHz; 2018 Intel Xeon E-2134; amd64; Coffee Lake (906a3); supercop-20230630  
 n3vria: 6 x 3200MHz; 2017 Intel Core i7-8700; amd64; Coffee Lake (906a3); supercop-20190910  
 kizawa: 4 x 3000MHz; 2017 Intel Xeon E3-1220 v6; amd64; Kaby Lake (906e9); supercop-20230630  
 shoushara: 2 x 2400MHz; 2017 Intel Core i3-7100; amd64; Kaby Lake (906e9); supercop-20211122  
 instalaci: 4 x 3100MHz; 2018 Intel Core i7-8809G; amd64; Kaby Lake (906e9); supercop-20191017  
 saas: 2 x 3300MHz; 2015 Intel Pentium G4400; amd64; Skylake (506e3); supercop-20171218  
 saaba: 4 x 3000MHz; 2015 Intel Xeon E3-1220 v5; amd64; Skylake (506e3); supercop-20230630  
 gwj1441: 28 x 2400MHz; 2016 Intel Xeon E5-2680 v4; amd64; Broadwell+AES (406f1); supercop-20180818  
 Bant177: 18 x 2400MHz; 2016 Intel Xeon E5-2680 v4; amd64; Broadwell+AES (406f1); supercop-20170228  
 Bant177: 18 x 2400MHz; 2016 Intel Xeon E5-2680 v4; amd64; Broadwell+AES (406f1); supercop-20170228  
 Bant177: 18 x 2400MHz; 2016 Intel Xeon E5-2680 v4; amd64; Broadwell+AES (406f1); supercop-20170228  
 bol: 2 x 1700MHz; 2015 Intel Core i3-5005G1; amd64; Broadwell+AES (506d4); supercop-20230630  
 bol: 2 x 1700MHz; 2015 Intel Core i3-5005G1; amd64; Broadwell+AES (506d4); supercop-20230630  
 gwj1450: 20 x 2000MHz; 2014 Intel Xeon E5-2680 v3; amd64; Haswell+AES (306e4); supercop-20190910  
 intel1024: 18 x 2000MHz; 2014 Intel Xeon E5-2680 v3; amd64; Haswell+AES (306e4); supercop-20190910  
 intel1024: 18 x 2000MHz; 2014 Intel Xeon E5-2680 v3; amd64; Haswell+AES (306e4); supercop-20190910  
 intel1024: 18 x 2000MHz; 2014 Intel Xeon E5-2680 v3; amd64; Haswell+AES (306e4); supercop-20190910  
 nany513: 12 x 2700MHz; 2013 Intel Xeon E5-2697 v2; amd64; Ivy Bridge+AES (306e4); supercop-20180818  
 nany513: 12 x 2700MHz; 2013 Intel Xeon E5-2697 v2; amd64; Ivy Bridge+AES (306e4); supercop-20180818  
 hysaviv: 2 x 1800MHz; 2012 Intel Core i5-3427U; amd64; Ivy Bridge+AES (306e9); supercop-20230630  
 hydra6: 4 x 3500MHz; 2012 Intel Xeon E3-1275 V2; amd64; Ivy Bridge+AES (306e9); supercop-20230630  
 bedera: 4 x 2500MHz; 2012 Intel Xeon E3-1265L V2; amd64; Ivy Bridge+AES (306e9); supercop-20210326  
 robia281: 8 x 2600MHz; 2012 Intel Xeon E5-4650L; amd64; Sandy Bridge+AES (206d7); supercop-20170228  
 hydra7: 4 x 3100MHz; 2011 Intel Xeon E3-1225; amd64; Sandy Bridge+AES (206a7); supercop-20230630  
 h6sandy: 2 x 2100MHz; 2011 Intel Core i3-2310M; amd64; Sandy Bridge (206a7); supercop-20221122  
 glysw: 2 x 3200MHz; 2010 Intel Core i5-650; amd64; Westmere (20652); supercop-201710105  
 wolfdale: 2 x 3060MHz; 2009 Intel Core 2 Duo E7600; amd64; Core 2 45nm (1067a); supercop-20230630  
 katana: 2 x 2137MHz; 2006 Intel Core 2 Duo E6400; amd64; Core 2 65nm (6f6); supercop-201710105  
 trsiant: 2 x 2000MHz; 2007 Intel Core 2 Duo T7300; amd64; Core 2 65nm (6f6); supercop-20230630  
 nargat: 4 x 2004MHz; 2007 Intel Core 2 Quad Q6600; amd64; Core 2 65nm (6f6); supercop-20230630  
 lafour: 4 x 2394MHz; 2007 Intel Core 2 Quad Q6600; amd64; Core 2 65nm (6f6); 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  
 sov1M8h1: 16 x 2100MHz; 2017 Intel Atom C3955; amd64; Goldmont (506f1); supercop-20191017  
 mcccc: 4 x 1600MHz; 2015 Intel Pentium N3700; amd64; Airmont (406c3); supercop-20230630  
 cherry: 4 x 1440MHz; 2016 Intel Atom i5-28350; amd64; Silvermont (406c4); supercop-20230630  
 h8aton: 2 x 1866MHz; 2011 Intel Atom D2500; amd64; Bonnell (306f1); supercop-20230630  
 aintendedoilluaxng: 1 x 720MHz; 2006 IBM PowerPC Broadway; ppc32; G3 (G3); supercop-20191221  
 hifiveunleashedriscv: 4 x 1400MHz; 2017 SiFive Freedom U540; riscv64; U54 (sifive,u54-mc); supercop-20191221  
 riscvunleashed000: 4 x 1000MHz; 2017 SiFive Freedom U540; riscv64; U54 (sifive,u54-mc); supercop-20210326  
 gcc23: 2 x 2000MHz; 2011 Cavium Octeon II CN6120; mipso32; Octeon II (cmnips64v2); supercop-20230630  
 epyroffaz7: 2 x 2000MHz; 2011 Cavium Octeon II CN6120; mipso32; Octeon II (cmnips64v2); supercop-20220213  
 teside: 1 x 1200MHz; 2010 Marvell Armada 310; armeabi; Armada (562f311); supercop-20170718  
 berry2: 4 x 900MHz; 2016 Broadcom BCM2836; armeabi; Cortex-A7 (410fc075); supercop-20230630  
 nblack: 1 x 1000MHz; 2012 TI Sitara XAM3359AZC12100; armeabi; Cortex-A8 (413fc082); supercop-20230630  
 norveblue: 4 x 1200MHz; 2011 Freescale i.MX6 Quad; armeabi; Cortex-A9+NEON (412fc09a); supercop-20200702  
 artik: 4 x 1200MHz; 2012 Samsung Exynos 44127; armeabi; Cortex-A9+NEON (413fc090); supercop-20191221  
 aoveasax: 4 x 1200MHz; 2011 Freescale i.MX6 Quad; armeabi; Cortex-A9+NEON (413fc09a); supercop-20191221  
 jtsosati: 4 x 2065MHz; 2014 NVIDIA Tegra K1; armeabi; Cortex-A15 (413fc0f3); supercop-20170728  
 gcc18: 8 x 1600MHz; 2014 APM 88320B-X1; aarch64; X-Gene (500f000); supercop-20171218  
 p3hpa1a: 4 x 1400MHz; 2018 Broadcom BCM2837B0; aarch64; Cortex-A53 (410fc034); supercop-20230630  
 p3hpa1a: 4 x 1400MHz; 2018 Broadcom BCM2837B0; aarch64; Cortex-A53 (410fc034); supercop-20221122  
 leeds: 8 x 1500MHz; 2015 ARMv8-A Cortex-A53; aarch64; Cortex-A53+crypto (410fc034); supercop-201710105  
 leptostanislav: 4 x 1500MHz; 2015 ARMv8-A Cortex-A53; aarch64; Cortex-A53+crypto (410fc034); supercop-201710105  
 gogiacraslav: 4 x 1500MHz; 2015 NXP i.MX 8M; aarch64; Cortex-A53+crypto (410fc034); supercop-20191221  
 renegeadec83838: 4 x 1820MHz; 2015 Rockchip RK3288; aarch64; Cortex-A53+crypto (410fc034); supercop-20191221  
 jtsosati: 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-20200826  
 pi4h: 4 x 1500MHz; 2019 Broadcom BCM2711; aarch64; Cortex-A72 (410f083); supercop-20221122  
 rpi4bun64: 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-20190904  
 jmsd145: 64 x 2500MHz; 2018 Cavium ThunderX2 CN9980; aarch64; ThunderX2 (431fa0f1); supercop-20191017