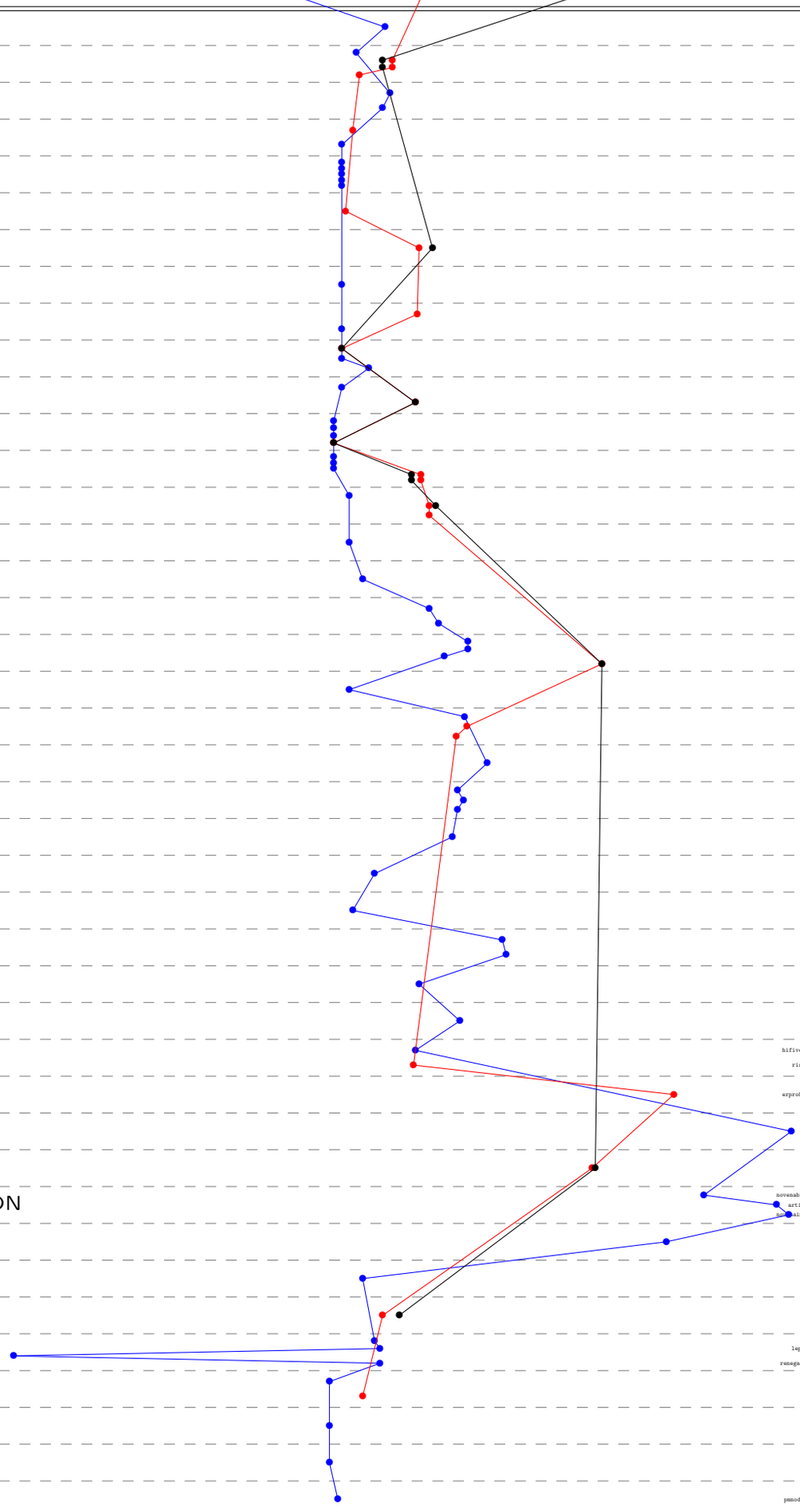
crypto_verify
8
implementations

https://bench.cr.yp.to
20210605

?:ref
ref
rust

amd64 Zen2
amd64 Zen
amd64 KnLanding
amd64 CascadeLake
amd64 SL+512x2
amd64 IceLake
amd64 CometLake
amd64 CannonLake
amd64 CoffeeLake
amd64 KabyLake
amd64 Skylake
amd64 BW+AES
amd64 HW+AES
amd64 IB+AES
amd64 SB+AES
amd64 Sandy Bridge
amd64 Piledriver
amd64 Bulldozer
amd64 Westmere
amd64 C2 65nm
amd64 K10 32nm
amd64 K10 45nm
amd64 K10 65nm
amd64 Goldmont
amd64 K8
amd64 Bobcat
amd64 Atom
ppc32 G3
riscv64 U54
mipso32 Octeon II
armeabi Armada
armeabi Cortex-A7
armeabi Cortex-A9+NEON
armeabi Cortex-A15
aarch64 X-Gene
aarch64 A53
aarch64 A53+crypto
aarch64 A57+crypto
aarch64 A72
aarch64 A72+crypto
aarch64 ThunderX2



ganji346; 64 x 2000MHz; 2019 AMD EPYC 7702; amd64; Zen2 (830f10); supercop-20191017

ryzen; 8 x 2994MHz; 2017 AMD Ryzen 7 1700; amd64; Zen (800f11); supercop-20170904
ruma7; 8 x 3000MHz; 2017 AMD Ryzen 7 1700; amd64; Zen (800f11); supercop-20210604
ruma5; 6 x 3200MHz; 2017 AMD Ryzen 5 1600; amd64; Zen (800f11); supercop-20210604
ruma3; 4 x 3100MHz; 2017 AMD Ryzen 3 1200; amd64; Zen (800f11); supercop-20200906

ganji291; 68 x 1400MHz; 2016 Intel Xeon Phi 7250; amd64; KnLanding (50671); supercop-20180818

ganji154; 64 x 1300MHz; 2016 Intel Xeon Phi 7210; amd64; KnLanding (50671); supercop-20170228

avx512imath; 18 x 3000MHz; 2019 Intel Core i9-10980XE; amd64; CascadeLake (50657); supercop-20210125

pmmod076; 20 x 2500MHz; 2019 Intel Xeon Gold 6248; amd64; CascadeLake (50657); supercop-20191017

mammy1024; 18 x 2700MHz; 2017 Intel Xeon Gold 6150; amd64; SL+512x2 (50654); supercop-20170904
oki; 6 x 3500MHz; 2017 Intel Core i7-7800X; amd64; SL+512x2 (50654); supercop-20181123
pmmod003; 20 x 2400MHz; 2017 Intel Xeon Gold 6148; amd64; SL+512x2 (50654); supercop-20190910
ganji548; 40 x 2400MHz; 2017 Intel Xeon Gold 6148; amd64; SL+512x2 (50654); supercop-20191017
ganji239; 32 x 2100MHz; 2017 Intel Xeon Gold 6130; amd64; SL+512x2 (50654); supercop-20191017

icelake; 4 x 1100MHz; 2020 Intel Core i5-1030NG7; amd64; IceLake (706e5); supercop-20200826

comet; 2 x 2100MHz; 2019 Intel Core i3-10110U; amd64; CometLake (806ec); supercop-20210604

cannon; 2 x 2200MHz; 2018 Intel Core i3-8121U; amd64; CannonLake (60663); supercop-20190910

r24000; 4 x 3300MHz; 2018 Intel Xeon E-2124; amd64; CoffeeLake (906ea); supercop-20210604

bitvise; 6 x 3200MHz; 2017 Intel Core i7-8700; amd64; CoffeeLake (906ea); supercop-20190910

kizomba; 4 x 3000MHz; 2017 Intel Xeon E3-1220 v6; amd64; KabyLake (906e9); supercop-20210604
intelnuc8; 4 x 3100MHz; 2018 Intel Core i7-8809G; amd64; KabyLake (906e9); supercop-20191017
intelnuc7; 2 x 3500MHz; 2017 Intel Core i7-7567U; amd64; KabyLake (806e9); supercop-20191017

sand; 2 x 3300MHz; 2015 Intel Pentium G4400; amd64; Skylake (506e3); supercop-20171218

samba; 4 x 3000MHz; 2015 Intel Xeon E3-1220 v5; amd64; Skylake (506e3); supercop-20210604

ganji441; 28 x 2400MHz; 2016 Intel Xeon E5-2680 v4; amd64; BW+AES (406f1); supercop-20180818
mammy357; 14 x 2400MHz; 2016 Intel Xeon E5-2680 v4; amd64; BW+AES (406f1); supercop-20170228
ganji122; 28 x 2400MHz; 2016 Intel Xeon E5-2680 v4; amd64; BW+AES (406f1); supercop-20171020
bolero; 8 x 1700MHz; 2016 Intel Xeon E5-2609 v4; amd64; BW+AES (406f1); supercop-20210604

ganji460; 20 x 2300MHz; 2014 Intel Xeon E5-2650 v3; amd64; HW+AES (306f2); supercop-20180818
ganji202; 24 x 2500MHz; 2014 Intel Xeon E5-2680 v3; amd64; HW+AES (306f2); supercop-20171020
robin204; 12 x 2500MHz; 2014 Intel Xeon E5-2680 v3; amd64; HW+AES (306f2); supercop-20170228
hipbap; 4 x 3100MHz; 2013 Intel Xeon E3-1220 v3; amd64; HW+AES (306c3); supercop-20210604
titan0; 4 x 3500MHz; 2013 Intel Xeon E3-1275 V3; amd64; HW+AES (306c3); supercop-20210604

mammy613; 12 x 2700MHz; 2013 Intel Xeon E5-2697 v2; amd64; IB+AES (306e4); supercop-20180818

hedera; 4 x 2500MHz; 2012 Intel Xeon E3-1265L V2; amd64; IB+AES (306a9); supercop-20210326
hydra8; 4 x 3500MHz; 2012 Intel Xeon E3-1275 V2; amd64; IB+AES (306a9); supercop-20210604

robin281; 8 x 2600MHz; 2012 Intel Xeon E5-4650L; amd64; SB+AES (206d7); supercop-20170228

h6sandy; 2 x 2100MHz; 2011 Intel Core i3-2310M; amd64; Sandy Bridge (206a7); supercop-20200618

hydra9; 2 x 3800MHz; 2012 AMD A10-5800K; amd64; Piledriver (610f01); supercop-20171218

h9trinity; 2 x 2000MHz; 2012 AMD A10-4655M; amd64; Piledriver (610f01); supercop-20200618

hobbes; 4 x 4000MHz; 2012 AMD FX-8350; amd64; Bulldozer (600f20); supercop-20171218
calvin; 4 x 4000MHz; 2012 AMD FX-8350; amd64; Bulldozer (600f20); supercop-20171218
hydra6; 4 x 3100MHz; 2011 AMD FX-8120; amd64; Bulldozer (600f12); supercop-20171218
saber24; 4 x 4000MHz; 2012 AMD FX-8350; amd64; Bulldozer (600f20); supercop-20210423

glyme; 2 x 3200MHz; 2010 Intel Core i5-650; amd64; Westmere (20652); supercop-20170105

katana; 2 x 2137MHz; 2006 Intel Core 2 Duo E6400; amd64; C2 65nm (6f6); supercop-20170105
margaux; 4 x 2404MHz; 2007 Intel Core 2 Quad Q6600; amd64; C2 65nm (6fb); supercop-20210604
latour; 4 x 2394MHz; 2007 Intel Core 2 Quad Q6600; amd64; C2 65nm (6fb); supercop-20201130

hydra5; 4 x 2900MHz; 2011 AMD A8-3850; amd64; K10 32nm (300f10); supercop-20191221

hydra3; 6 x 3300MHz; 2010 AMD Phenom II X6 1100T; amd64; K10 45nm (100fa0); supercop-20171218
morningstar; 4 x 3200MHz; 2009 AMD Phenom II X4 955; amd64; K10 45nm (100f42); supercop-20170904
h3sao; 1 x 1700MHz; 2010 AMD Athlon II Neo K125; amd64; K10 45nm (100f63); supercop-20170105

gcc16; 8 x 2194MHz; 2008 AMD Opteron 8354; amd64; K10 65nm (100f23); supercop-20171218

scwib63bi; 16 x 2100MHz; 2017 Intel Atom C3955; amd64; Goldmont (506f1); supercop-20191017

mace; 2 x 2000MHz; 2006 AMD Athlon 64 X2; amd64; K8 (40fb2); supercop-20170105

h8bobcat; 2 x 1650MHz; 2011 AMD G-T56N; amd64; Bobcat (500f10); supercop-20171218
h4e450; 2 x 1650MHz; 2011 AMD E-450; amd64; Bobcat (500f20); supercop-20200618

h8atom; 2 x 1866MHz; 2011 Intel Atom D2500; amd64; Atom (30661); supercop-20200618

nintendovillinuxmgs; 1 x 729MHz; 2006 IBM PowerPC Broadway; ppc32; G3 (G3); supercop-20191221

hifivesunleashedriscv; 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

erpro8fsf2; 2 x 2000MHz; 2011 Cavium Octeon II CN6120; mipso32; Octeon II (cnmips64v2); supercop-20210604

tonido; 1 x 1200MHz; 2010 Marvell Armada 310; armeabi; Armada (562f1311); supercop-20170718

berry2; 4 x 900MHz; 2016 Broadcom BCM2836; armeabi; Cortex-A7 (410fc075); supercop-20210604

novenablue; 4 x 1200MHz; 2011 Freescale i.MX6 Quad; armeabi; Cortex-A9+NEON (412fc09a); supercop-20200702
artik; 4 x 1200MHz; 2012 Samsung Exynos 4412?; armeabi; Cortex-A9+NEON (413fc090); supercop-20191221
g2chaix6; 4 x 1200MHz; 2011 Freescale i.MX6 Quad; armeabi; Cortex-A9+NEON (412fc09a); supercop-20191221

jetsontk1; 4 x 2065MHz; 2014 NVIDIA Tegra K1; armeabi; Cortex-A15 (413fc0f3); supercop-20170725

gcc16; 8 x 1600MHz; 2014 APM 883208-X1; aarch64; X-Gene (500f0000); supercop-20171218

pi3bplus; 4 x 1400MHz; 2018 Broadcom BCM2837B0; aarch64; A53 (410fd034); supercop-20210604

par3; 4 x 2000MHz; 2015 Amlogic S905; aarch64; A53+crypto (410fd034); supercop-20170718
lepotatoaml s905xcc; 4 x 1512MHz; 2016 Amlogic S905X; aarch64; A53+crypto (410fd034); supercop-20191221
google aarch64; 4 x 1500MHz; 2018 NXP i.MX 8M; aarch64; A53+crypto (410fd034); supercop-20191221
renegaderocrk3328cc; 4 x 1512MHz; 2017 Rockchip RK3328; aarch64; A53+crypto (410fd034); supercop-20191221

jetsontx1; 4 x 1734MHz; 2015 NVIDIA Tegra X1; aarch64; A57+crypto (418fd071); supercop-20191017

warbear0; 8 x 2000MHz; 2016 AMD Opteron A1100; aarch64; A57+crypto (411fd072); supercop-20200826

rpi4ubuntu64; 4 x 1500MHz; 2019 Broadcom BCM2711; aarch64; A72 (410fd083); supercop-20191221

a72; 2 x 2100MHz; 2015 Mediatek MT8173; aarch64; A72+crypto (418fd080); supercop-20170904

pmmod145; 64 x 2500MHz; 2018 Cavium ThunderX2 CN9980; aarch64; ThunderX2 (431f0af1); supercop-20191017

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