crypto_kem
rolloi128
implementations

https://bench.cr.yp.to
20210208

?:avx
T:avx
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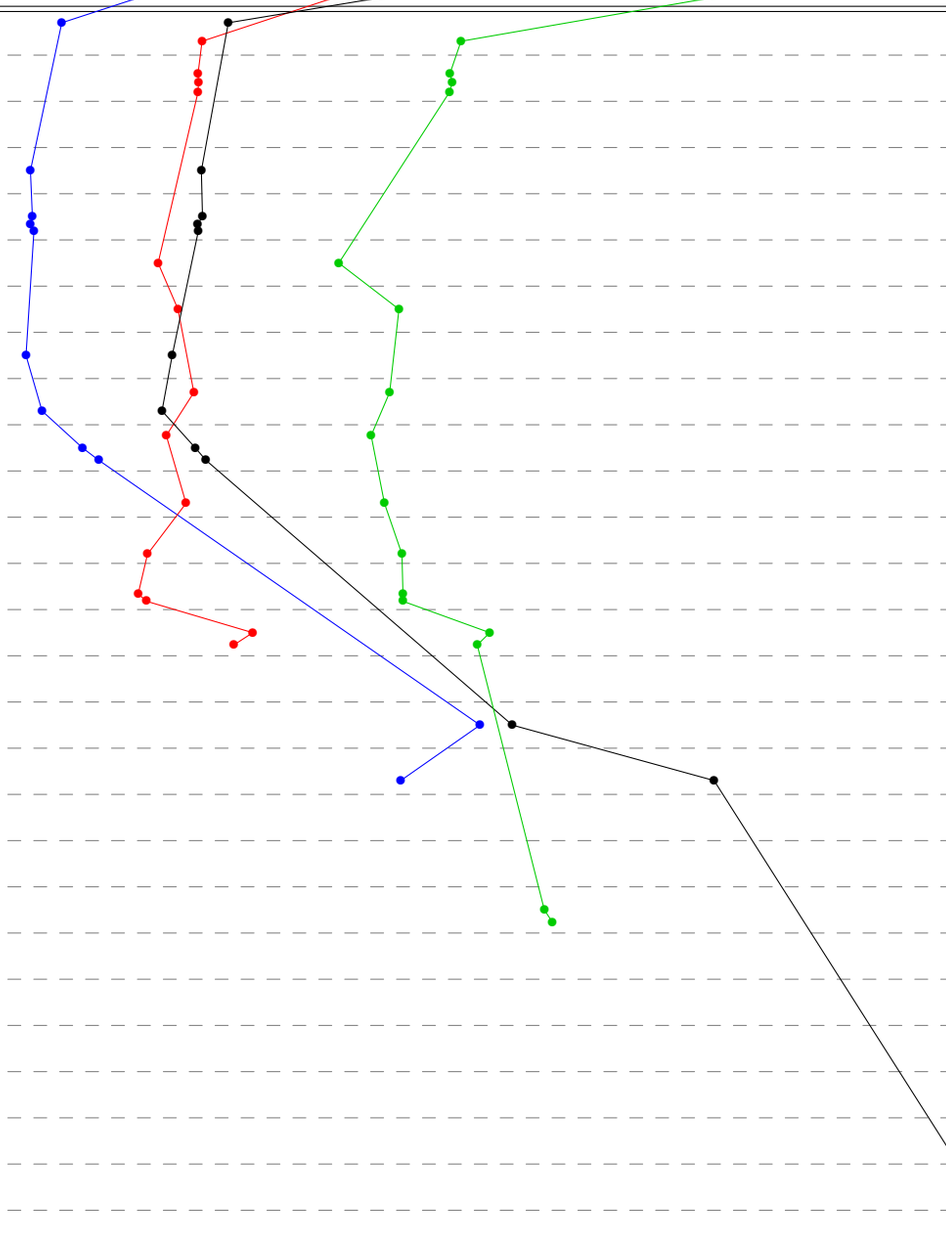
T:ref

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



gsnj1346; 64 x 2000MHz; 2019 AMD EPYC 7702; amd64; Zen2 (830f10); supercop-20191017
colossus6; 64 x 2250MHz; 2019 AMD EPYC 7742; amd64; Zen2 (830f10); supercop-20201018
ryzen; 8 x 2994MHz; 2017 AMD Ryzen 7 1700; amd64; Zen (800f11); supercop-20170904
rumba7; 8 x 3000MHz; 2017 AMD Ryzen 7 1700; amd64; Zen (800f11); supercop-20210125
rumba5; 6 x 3200MHz; 2017 AMD Ryzen 5 1600; amd64; Zen (800f11); supercop-20210125
rumba3; 4 x 3100MHz; 2017 AMD Ryzen 3 1200; amd64; Zen (800f11); supercop-20200906
gsnj1291; 68 x 1400MHz; 2016 Intel Xeon Phi 7250; amd64; KnLanding (50671); supercop-20180818
gsnj1154; 64 x 1300MHz; 2016 Intel Xeon Phi 7210; amd64; KnLanding (50671); supercop-20170228
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
gsnj1548; 40 x 2400MHz; 2017 Intel Xeon Gold 6148; amd64; SL+512x2 (50654); supercop-20191017
gsnj1239; 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-20210125
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-20210125
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-20210125
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
saad; 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-20210125
gsnj1441; 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
gsnj1122; 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-20210125
gsnj1460; 20 x 2300MHz; 2014 Intel Xeon E5-2650 v3; amd64; HW+AES (306f2); supercop-20180818
gsnj1202; 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-20210125
titan2; 4 x 3500MHz; 2013 Intel Xeon E3-1275 V3; amd64; HW+AES (306c3); supercop-20210125
mammy613; 12 x 2700MHz; 2013 Intel Xeon E5-2697 v2; amd64; IB+AES (306a6); supercop-20180818
hedera; 4 x 2500MHz; 2012 Intel Xeon E3-1265L V2; amd64; IB+AES (306a9); supercop-20210125
hydra8; 4 x 3500MHz; 2012 Intel Xeon E3-1275 V2; amd64; IB+AES (306a9); supercop-20210125
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
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-20210125
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
h3sac; 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
scwib63b1; 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
erpro8fsf2; 2 x 2000MHz; 2011 Cavium Octeon II CN6120; mipso32; Octeon II (cnmips64v2); supercop-20210125
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-20210125
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
novenaimx6; 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-20210125
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
googlecoraldev; 4 x 1500MHz; 2018 NXP i.MX 8M; 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

Time 1048576 2097152 4194304