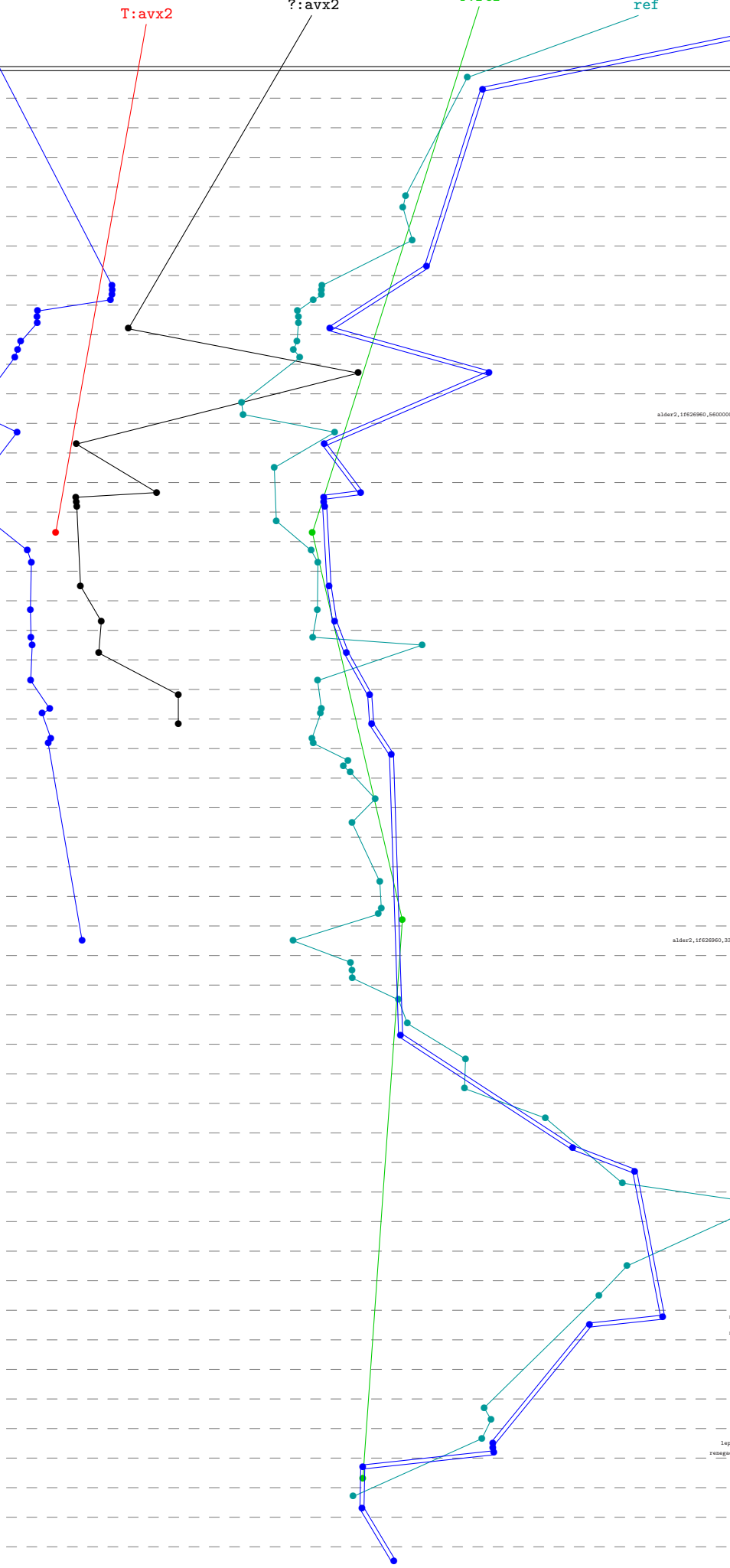


crypto_kem
 kyber1024
 implementations
 amd64 Bobcat
 amd64 K8
 amd64 K10 65nm
 amd64 K10 45nm
 amd64 K10 32nm
 amd64 Bulldozer
 amd64 Piledriver
 amd64 Zen
 amd64 Zen 2
 amd64 Zen 3
 amd64 Knights Landing
 amd64 Golden Cove
 amd64 Cascade Lake
 amd64 Tiger Lake
 amd64 Skylake+512x2
 amd64 Ice Lake
 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
 mips32 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

avx2
 T:avx2
 ?:avx2
 T:ref
 ref
 ?:ref



https://bench.cr.y.p.to
 20230702

hBobcat: 2 x 1650MHz; 2011 AMD G-T56n; amd64; Bobcat (500F10); supercop-20230630
 h4e50: 2 x 1650MHz; 2011 AMD E-450; amd64; Bobcat (500F20); supercop-20230618
 naca: 2 x 2000MHz; 2006 AMD Athlon 64 X2; amd64; K8 (40f2); supercop-20230105
 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
 somnigstar: 4 x 3200MHz; 2009 AMD Phenom II X4 955; amd64; K10 45nm (100f42); supercop-20170904
 h5aw: 1 x 1700MHz; 2010 AMD Athlon II Neo K125; amd64; K10 45nm (100f63); supercop-20171218
 hydra4: 4 x 2600MHz; 2011 AMD A8-3850; 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 (600F20); supercop-20171218
 calvin: 4 x 4000MHz; 2012 AMD FX-8350; amd64; Bulldozer (600F20); supercop-20171218
 hydra4: 4 x 3100MHz; 2011 AMD FX-8120; amd64; Bulldozer (600F12); supercop-20171218
 sawer216: 4 x 4000MHz; 2012 AMD FX-8350; amd64; Bulldozer (600F20); supercop-20230630
 hydra9: 2 x 3800MHz; 2012 AMD A10-5800K; amd64; Piledriver (610F11); supercop-20171218
 hpiratary: 2 x 2000MHz; 2012 AMD A10-6650M; amd64; Piledriver (610F11); supercop-20200818
 rzebe: 8 x 3000MHz; 2017 AMD Ryzen 7 1700; amd64; Zen (800H11); supercop-20230630
 rzebe: 8 x 3000MHz; 2017 AMD Ryzen 7 1700; amd64; Zen (800H11); supercop-20230630
 rzebe3: 4 x 3000MHz; 2017 AMD Ryzen 7 1700; amd64; Zen (800H11); supercop-20230630
 rzebe4: 4 x 3000MHz; 2017 AMD Ryzen 7 1700; amd64; Zen (800H11); supercop-20230630
 dall: 2 x 3400MHz; 2017 AMD Ryzen 5 2400G; amd64; Zen (800H11); supercop-20230630
 rzebe: 64 x 2250MHz; 2019 AMD EPYC 7742; amd64; Zen 2 (830F10); supercop-20230630
 rzebe3: 6 x 3000MHz; 2022 AMD Ryzen 5 4500U; amd64; Zen 2 (860F01); supercop-20230630
 lacienne: 4 x 2000MHz; 2021 AMD Ryzen 9 5950X; amd64; Zen 3 (820F11); supercop-20230630
 gwj3346: 64 x 2000MHz; 2019 AMD EPYC 7702; amd64; Zen 2 (830F10); supercop-20191017
 beeline: 6 x 4062MHz; 2021 AMD Ryzen 5 5600G; amd64; Zen 3 (a50F00); supercop-20211122
 saah: 16 x 3400MHz; 2020 AMD Ryzen 9 5950X; amd64; Zen 3 (a20F10); supercop-20220313
 cesanae: 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
 avx121aah: 18 x 3000MHz; 2019 Intel Core i9-10980XE; amd64; Cascade Lake (50657); supercop-20211126
 pm0d076: 20 x 2500MHz; 2019 Intel Xeon Gold 6248; amd64; Cascade Lake (50657); supercop-20191017
 panther: 4 x 2800MHz; 2020 Intel Core i7-1165G7; amd64; Tiger Lake (806c1); supercop-20230630
 sanxy1024: 18 x 2100MHz; 2017 Intel Xeon Gold 6150; amd64; Skylake+512x2 (806e4); supercop-20171016
 pm0c007: 8 x 2500MHz; 2017 Intel Core i7-8750; amd64; Skylake+512x2 (806e4); supercop-20211122
 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
 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
 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-20200626
 cubio: 2 x 2100MHz; 2019 Intel Core i3-10110U; amd64; Comet Lake (806ec); supercop-20230630
 cova: 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
 r4000: 4 x 3300MHz; 2018 Intel Xeon E-2124; amd64; Coffee Lake (906e3); supercop-20230630
 n13v16: 6 x 3200MHz; 2017 Intel Core i7-8700; amd64; Coffee Lake (906e3); supercop-20190910
 kizaoba: 4 x 3000MHz; 2017 Intel Xeon E3-1220 v6; amd64; Kaby Lake (906e9); supercop-20230630
 shoufara: 2 x 2400MHz; 2017 Intel Core i3-7100; amd64; Kaby Lake (906e9); supercop-20211122
 intaluaic1: 4 x 3100MHz; 2018 Intel Core i7-8809G; amd64; Kaby Lake (906e9); supercop-20191017
 saad: 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 E5-2650 v4; amd64; Broadwell+AES (406f); supercop-20180818
 sawer171: 18 x 2400MHz; 2016 Intel Xeon E5-2650 v4; amd64; Broadwell+AES (406f); supercop-20170228
 sawer172: 18 x 2400MHz; 2016 Intel Xeon E5-2650 v4; amd64; Broadwell+AES (406f); supercop-20170228
 sawer173: 18 x 2400MHz; 2016 Intel Xeon E5-2650 v4; amd64; Broadwell+AES (406f); supercop-20170228
 sawer174: 18 x 2400MHz; 2016 Intel Xeon E5-2650 v4; amd64; Broadwell+AES (406f); supercop-20170228
 sawer175: 18 x 2400MHz; 2016 Intel Xeon E5-2650 v4; amd64; Broadwell+AES (406f); supercop-20170228
 gwj1441: 28 x 2400MHz; 2016 Intel Xeon E5-2650 v4; amd64; Broadwell+AES (406f); supercop-20180818
 gwj1442: 28 x 2400MHz; 2016 Intel Xeon E5-2650 v4; amd64; Broadwell+AES (406f); supercop-20180818
 gwj1443: 28 x 2400MHz; 2016 Intel Xeon E5-2650 v4; amd64; Broadwell+AES (406f); supercop-20180818
 gwj1444: 28 x 2400MHz; 2016 Intel Xeon E5-2650 v4; amd64; Broadwell+AES (406f); supercop-20180818
 gwj1445: 28 x 2400MHz; 2016 Intel Xeon E5-2650 v4; amd64; Broadwell+AES (406f); supercop-20180818
 gwj1446: 28 x 2400MHz; 2016 Intel Xeon E5-2650 v4; amd64; Broadwell+AES (406f); supercop-20180818
 gwj1447: 28 x 2400MHz; 2016 Intel Xeon E5-2650 v4; amd64; Broadwell+AES (406f); supercop-20180818
 gwj1448: 28 x 2400MHz; 2016 Intel Xeon E5-2650 v4; amd64; Broadwell+AES (406f); supercop-20180818
 gwj1449: 28 x 2400MHz; 2016 Intel Xeon E5-2650 v4; amd64; Broadwell+AES (406f); supercop-20180818
 gwj1450: 28 x 2400MHz; 2016 Intel Xeon E5-2650 v4; amd64; Broadwell+AES (406f); supercop-20180818
 gwj1451: 28 x 2400MHz; 2016 Intel Xeon E5-2650 v4; amd64; Broadwell+AES (406f); supercop-20180818
 gwj1452: 28 x 2400MHz; 2016 Intel Xeon E5-2650 v4; amd64; Broadwell+AES (406f); supercop-20180818
 gwj1453: 28 x 2400MHz; 2016 Intel Xeon E5-2650 v4; amd64; Broadwell+AES (406f); supercop-20180818
 gwj1454: 28 x 2400MHz; 2016 Intel Xeon E5-2650 v4; amd64; Broadwell+AES (406f); supercop-20180818
 gwj1455: 28 x 2400MHz; 2016 Intel Xeon E5-2650 v4; amd64; Broadwell+AES (406f); supercop-20180818
 gwj1456: 28 x 2400MHz; 2016 Intel Xeon E5-2650 v4; amd64; Broadwell+AES (406f); supercop-20180818
 gwj1457: 28 x 2400MHz; 2016 Intel Xeon E5-2650 v4; amd64; Broadwell+AES (406f); supercop-20180818
 gwj1458: 28 x 2400MHz; 2016 Intel Xeon E5-2650 v4; amd64; Broadwell+AES (406f); supercop-20180818
 gwj1459: 28 x 2400MHz; 2016 Intel Xeon E5-2650 v4; amd64; Broadwell+AES (406f); supercop-20180818
 gwj1460: 28 x 2400MHz; 2016 Intel Xeon E5-2650 v4; amd64; Broadwell+AES (406f); supercop-20180818
 gwj1461: 28 x 2400MHz; 2016 Intel Xeon E5-2650 v4; amd64; Broadwell+AES (406f); supercop-20180818
 gwj1462: 28 x 2400MHz; 2016 Intel Xeon E5-2650 v4; amd64; Broadwell+AES (406f); supercop-20180818
 gwj1463: 28 x 2400MHz; 2016 Intel Xeon E5-2650 v4; amd64; Broadwell+AES (406f); supercop-20180818
 gwj1464: 28 x 2400MHz; 2016 Intel Xeon E5-2650 v4; amd64; Broadwell+AES (406f); supercop-20180818
 gwj1465: 28 x 2400MHz; 2016 Intel Xeon E5-2650 v4; amd64; Broadwell+AES (406f); supercop-20180818
 gwj1466: 28 x 2400MHz; 2016 Intel Xeon E5-2650 v4; amd64; Broadwell+AES (406f); supercop-20180818
 gwj1467: 28 x 2400MHz; 2016 Intel Xeon E5-2650 v4; amd64; Broadwell+AES (406f); supercop-20180818
 gwj1468: 28 x 2400MHz; 2016 Intel Xeon E5-2650 v4; amd64; Broadwell+AES (406f); supercop-20180818
 gwj1469: 28 x 2400MHz; 2016 Intel Xeon E5-2650 v4; amd64; Broadwell+AES (406f); supercop-20180818
 gwj1470: 28 x 2400MHz; 2016 Intel Xeon E5-2650 v4; amd64; Broadwell+AES (406f); supercop-20180818
 gwj1471: 28 x 2400MHz; 2016 Intel Xeon E5-2650 v4; amd64; Broadwell+AES (406f); supercop-20180818
 gwj1472: 28 x 2400MHz; 2016 Intel Xeon E5-2650 v4; amd64; Broadwell+AES (406f); supercop-20180818
 gwj1473: 28 x 2400MHz; 2016 Intel Xeon E5-2650 v4; amd64; Broadwell+AES (406f); supercop-20180818
 gwj1474: 28 x 2400MHz; 2016 Intel Xeon E5-2650 v4; amd64; Broadwell+AES (406f); supercop-20180818
 gwj1475: 28 x 2400MHz; 2016 Intel Xeon E5-2650 v4; amd64; Broadwell+AES (406f); supercop-20180818
 gwj1476: 28 x 2400MHz; 2016 Intel Xeon E5-2650 v4; amd64; Broadwell+AES (406f); supercop-20180818
 gwj1477: 28 x 2400MHz; 2016 Intel Xeon E5-2650 v4; amd64; Broadwell+AES (406f); supercop-20180818
 gwj1478: 28 x 2400MHz; 2016 Intel Xeon E5-2650 v4; amd64; Broadwell+AES (406f); supercop-20180818
 gwj1479: 28 x 2400MHz; 2016 Intel Xeon E5-2650 v4; amd64; Broadwell+AES (406f); supercop-20180818
 gwj1480: 28 x 2400MHz; 2016 Intel Xeon E5-2650 v4; amd64; Broadwell+AES (406f); supercop-20180818
 gwj1481: 28 x 2400MHz; 2016 Intel Xeon E5-2650 v4; amd64; Broadwell+AES (406f); supercop-20180818
 gwj1482: 28 x 2400MHz; 2016 Intel Xeon E5-2650 v4; amd64; Broadwell+AES (406f); supercop-20180818
 gwj1483: 28 x 2400MHz; 2016 Intel Xeon E5-2650 v4; amd64; Broadwell+AES (406f); supercop-20180818
 gwj1484: 28 x 2400MHz; 2016 Intel Xeon E5-2650 v4; amd64; Broadwell+AES (406f); supercop-20180818
 gwj1485: 28 x 2400MHz; 2016 Intel Xeon E5-2650 v4; amd64; Broadwell+AES (406f); supercop-20180818
 gwj1486: 28 x 2400MHz; 2016 Intel Xeon E5-2650 v4; amd64; Broadwell+AES (406f); supercop-20180818
 gwj1487: 28 x 2400MHz; 2016 Intel Xeon E5-2650 v4; amd64; Broadwell+AES (406f); supercop-20180818
 gwj1488: 28 x 2400MHz; 2016 Intel Xeon E5-2650 v4; amd64; Broadwell+AES (406f); supercop-20180818
 gwj1489: 28 x 2400MHz; 2016 Intel Xeon E5-2650 v4; amd64; Broadwell+AES (406f); supercop-20180818
 gwj1490: 28 x 2400MHz; 2016 Intel Xeon E5-2650 v4; amd64; Broadwell+AES (406f); supercop-20180818
 gwj1491: 28 x 2400MHz; 2016 Intel Xeon E5-2650 v4; amd64; Broadwell+AES (406f); supercop-20180818
 gwj1492: 28 x 2400MHz; 2016 Intel Xeon E5-2650 v4; amd64; Broadwell+AES (406f); supercop-20180818
 gwj1493: 28 x 2400MHz; 2016 Intel Xeon E5-2650 v4; amd64; Broadwell+AES (406f); supercop-20180818
 gwj1494: 28 x 2400MHz; 2016 Intel Xeon E5-2650 v4; amd64; Broadwell+AES (406f); supercop-20180818
 gwj1495: 28 x 2400MHz; 2016 Intel Xeon E5-2650 v4; amd64; Broadwell+AES (406f); supercop-20180818
 gwj1496: 28 x 2400MHz; 2016 Intel Xeon E5-2650 v4; amd64; Broadwell+AES (406f); supercop-20180818
 gwj1497: 28 x 2400MHz; 2016 Intel Xeon E5-2650 v4; amd64; Broadwell+AES (406f); supercop-20180818
 gwj1498: 28 x 2400MHz; 2016 Intel Xeon E5-2650 v4; amd64; Broadwell+AES (406f); supercop-20180818
 gwj1499: 28 x 2400MHz; 2016 Intel Xeon E5-2650 v4; amd64; Broadwell+AES (406f); supercop-20180818
 gwj1500: 28 x 2400MHz; 2016 Intel Xeon E5-2650 v4; amd64; Broadwell+AES (406f); supercop-20180818
 h6saandy: 2 x 2100MHz; 2011 Intel Core i3-2310M; amd64; Sandy Bridge (206a7); supercop-20221122
 g1yso: 2 x 3200MHz; 2010 Intel Core i5-650; amd64; Westmere (20652); supercop-20170105
 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 (606); supercop-20170105
 trsrand: 2 x 2000MHz; 2007 Intel Core 2 Duo T7300; amd64; Core 2 65nm (606); supercop-20230630
 aargat: 4 x 2404MHz; 2007 Intel Core 2 Quad Q6600; amd64; Core 2 65nm (606); supercop-20230630
 lafour: 4 x 2394MHz; 2007 Intel Core 2 Quad Q6600; amd64; Core 2 65nm (606); 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
 Jasper4: 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
 aov18M31: 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-Z8350; amd64; Silvermont (406c4); supercop-20230630
 h8atoa: 2 x 1866MHz; 2011 Intel Atom D2500; amd64; Bonnell (306f1); supercop-20230630
 aintandouillauxng: 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; mips32; Octeon II (cmnips64v2); supercop-20230630
 hbfz7: 2 x 2000MHz; 2011 Cavium Octeon II CN6120; mips32; 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 XAM3359AZCZ100; armeabi; Cortex-A8 (413fc082); supercop-20230630
 noveablow: 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
 noveablow: 4 x 1200MHz; 2011 Freescale i.MX6 Quad; armeabi; Cortex-A9+NEON (412fc09a); supercop-20191221
 jtsosasi: 4 x 2065MHz; 2014 NVIDIA Tegra K1; armeabi; Cortex-A15 (413fc0f3); supercop-20170728
 gcc16: 8 x 1600MHz; 2014 APM 88320B-X1; aarch64; X-Gene (500F000); supercop-20171218
 pi3hpa1: 4 x 1400MHz; 2018 Broadcom BCM2837B0; aarch64; Cortex-A53 (410fc034); supercop-20230630
 pi3hpa2: 4 x 1400MHz; 2018 Broadcom BCM2837B0; aarch64; Cortex-A53 (410fc034); supercop-20211212
 leeds: 4 x 1500MHz; 2015 ARMv8-A; aarch64; Cortex-A53+crypto (410fc034); supercop-20170424
 leptostanip16: 4 x 1500MHz; 2015 ARMv8-A; aarch64; Cortex-A53+crypto (410fc034); supercop-20170424
 gogiacraslav: 4 x 1500MHz; 2015 NXP i.MX 8M; aarch64; Cortex-A53+crypto (410fc034); supercop-20191221
 reageadec83830c: 4 x 1812MHz; 2011 Rockchip RK3288; aarch64; Cortex-A53+crypto (410fc034); supercop-20191221
 jtsosasi: 4 x 1734MHz; 2015 NVIDIA Tegra X1; aarch64; Cortex-A57+crypto (418fc071); supercop-20191017
 varbear: 8 x 2000MHz; 2016 AMD Opteron A1100; aarch64; Cortex-A57+crypto (4116072); supercop-20200826
 pi4b: 4 x 1500MHz; 2019 Broadcom BCM2711; aarch64; Cortex-A72 (410fc083); supercop-20221122
 rpi4bunleashed: 4 x 1500MHz; 2019 Broadcom BCM2711; aarch64; Cortex-A72 (410fc083); supercop-20191221
 a72: 2 x 2100MHz; 2015 Mediatek MT8173; aarch64; Cortex-A72+crypto (418fc080); supercop-20170904
 pm04145: 64 x 2500MHz; 2018 Cavium ThunderX2 CN9980; aarch64; ThunderX2 (431fa0f1); supercop-20191017

131072 524288 2097152 8388608