wolfCrypt Benchmark (block bytes 1048576, min 1.0 sec each)

Algorithm	Total	With SP/ARMv8	No SP/ARMv8	Times Faster
RNG	310 MB	307.924 MB/s	13.668 MB/s	22.5
AES-128-CBC-enc	915 MB	912.347 MB/s	24.939 MB/s	36.6
AES-128-CBC-dec	6085 MB	6084.83 MB/s	23.755 MB/s	256.1
AES-192-CBC-enc	825 MB	820.296 MB/s	23.755 MB/s	34.5
AES-192-CBC-dec	4850 MB	4845.639 MB/s	22.717 MB/s	213.3
AES-256-CBC-enc	705 MB	703.863 MB/s	22.829 MB/s	30.8
AES-256-CBC-dec	3945 MB	3942.166 MB/s	21.776 MB/s	181.0
AES-128-GCM-enc	1245 MB	1242.278 MB/s	6.415 MB/s	193.7
AES-128-GCM-dec	580 MB	575.827 MB/s	6.38 MB/s	90.3
AES-192-GCM-enc	1240 MB	1235.2 MB/s	6.18 MB/s	199.9
AES-192-GCM-dec	580 MB	575.198 MB/s	6.164 MB/s	93.3
AES-256-GCM-enc	1245 MB	1241.43 MB/s	6.16 MB/s	201.5
AES-256-GCM-dec	575 MB	570.444 MB/s	6.143 MB/s	92.9
CHACHA	40 MB	36.349 MB/s	34.516 MB/s	1.1
CHA-POLY	35 MB	32.403 MB/s	31.536 MB/s	1.0
3DES	10 MB	7.129 MB/s	7.12 MB/s	1.0
MD5	90 MB	88.325 MB/s	89.044 MB/s	1.0
POLY1305	355 MB	354.424 MB/s	346.26 MB/s	1.0
SHA	80 MB	79.331 MB/s	79.072 MB/s	1.0
SHA-256	1720 MB	1717.28 MB/s	30.607 MB/s	56.1
SHA-384	50 MB	46.015 MB/s	46.007 MB/s	1.0
SHA-512	50 MB	45.853 MB/s	45.809 MB/s	1.0
SHA3-224	50 MB	59.996 MB/s	58.99 MB/s	1.0
SHA3-256	50 MB	55.955 MB/s	55.716 MB/s	1.0
SHA3-384	40 MB	43.284 MB/s	42.976 MB/s	1.0
SHA3-512	25 MB	30.142 MB/s	29.847 MB/s	1.0
HMAC-MD5	90 MB	88.231 MB/s	88.172 MB/s	1.0
HMAC-SHA	80 MB	78.639 MB/s	78.418 MB/s	1.0
HMAC-SHA256	1685 MB	1681.504 MB/s	30.626 MB/s	54.9
HMAC-SHA384	50 MB	45.913 MB/s	45.905 MB/s	1.0
HMAC-SHA512	50 MB	45.906 MB/s	45.788 MB/s	1.0
RSA 2048 public	1300 ops	1211.272 ops/sec	810.161 ops/sec	1.5
RSA 2048 private	100 ops	32.589 ops/sec	27.66 ops/sec	1.2
DH 2048 key gen	78 ops	77.438 ops/sec	62.579 ops/sec	1.2
DH 2048 key agree	100 ops	77.445 ops/sec	60.239 ops/sec	1.3
ECC 256 key gen	1671 ops	1670.646 ops/sec	192.737 ops/sec	8.7
ECDHE 256 agree	400 ops	396.877 ops/sec	193.997 ops/sec	2.0
ECDSA 256 sign	1300 ops	1212.333 ops/sec	188.926 ops/sec	6.4
ECDSA 256 verify	400 ops	331.015 ops/sec	139.334 ops/sec	2.4

TLS Benchmark (1 thread, 2 second runtime)

Side	Cipher	Total Bytes	Num Conns	Rx ms	Tx ms	Rx MB/s	Tx MB/s	Conn Avg ms	CPS
Server	DHE-RSA-AES128-SHA	408,150	45	2.97	6.67	65.56	29.20	44.62	22.4
Client	DHE-RSA-AES128-SHA	408,150	45	3.01	9.58	64.75	20.32	44.57	22.4
Server	DHE-RSA-AES256-SHA	408,150	45	3.02	6.74	64.56	28.86	44.61	22.4
Client	DHE-RSA-AES256-SHA	408,150	45	3.07	9.65	63.38	20.17	44.55	22.4
Server	ECDHE-RSA-AES128-SHA	471,640	52	3.43	7.77	65.52	28.94	38.22	26.2
Client	ECDHE-RSA-AES128-SHA	471,640	52	3.47	11.10	64.86	20.27	38.16	26.2
Server	ECDHE-RSA-AES256-SHA	471,640	52	3.52	7.85	63.90	28.67	38.22	26.2
Client	ECDHE-RSA-AES256-SHA	471,640	52	3.55	11.17	63.41	20.13	38.16	26.2
Server	ECDHE-ECDSA-AES128-SHA	1,478,410	163	12.18	27.21	57.89	25.91	12.05	83.0
Client	ECDHE-ECDSA-AES128-SHA	1,478,410	163	12.36	38.47	57.04	18.33	11.97	83.5
Server	ECDHE-ECDSA-AES256-SHA	1,469,340	162	12.40	27.43	56.52	25.54	12.13	82.4
Client	ECDHE-ECDSA-AES256-SHA	1,469,340	162	12.55	38.68	55.82	18.12	12.05	83.0
Server	ECDHE-RSA-DES-CBC3-SHA	444,430	49	33.05	67.10	6.41	3.16	38.93	25.7
Client	ECDHE-RSA-DES-CBC3-SHA	444,430	49	33.07	100.15	6.41	2.12	38.28	26.1
Server	ECDHE-ECDSA-DES-CBC3-SHA	1,233,520	136	100.78	205.24	5.84	2.87	12.46	80.3
Client	ECDHE-ECDSA-DES-CBC3-SHA	1,233,520	136	100.82	305.12	5.83	1.93	11.71	85.4
Server	DHE-RSA-AES128-SHA256	408,150	45	0.47	1.49	416.48	130.63	44.52	22.5
Client	DHE-RSA-AES128-SHA256	408,150	45	0.50	1.83	387.79	106.17	44.52	22.5
Server	DHE-RSA-AES256-SHA256	408,150	45	0.52	1.57	371.89	124.02	44.54	22.5
Client	DHE-RSA-AES256-SHA256	408,150	45	0.56	2.17	347.51	89.52	44.52	22.5
Server	DHE-RSA-AES128-GCM-SHA256	408,150	45	0.33	1.44	587.27	134.95	44.56	22.4
Client	DHE-RSA-AES128-GCM-SHA256	408,150	45	0.33	1.54	583.49	126.17	44.52	22.5
Server	DHE-RSA-AES256-GCM-SHA384	408,150	45	0.32	1.78	605.12	109.29	44.74	22.4
Client	DHE-RSA-AES256-GCM-SHA384	408,150	45	0.35	1.90	558.35	102.24	44.74	22.4
Server	ECDHE-RSA-AES128-GCM-SHA256	480,710	53	0.37	1.70	612.76	134.71	38.17	26.2
Client	ECDHE-RSA-AES128-GCM-SHA256	480,710	53	0.38	1.84	598.27	124.84	38.17	26.2
Server	ECDHE-RSA-AES256-GCM-SHA384	480,710	53	0.37	1.97	613.93	116.59	38.39	26.0
Client	ECDHE-RSA-AES256-GCM-SHA384	480,710	53	0.42	2.15	550.01	106.68	38.39	26.0
Server	ECDHE-ECDSA-AES128-GCM-SHA256	1,505,620	166	1.26	6.43	571.94	111.61	12.01	83.3
Client	ECDHE-ECDSA-AES128-GCM-SHA256	1,505,620	166	1.42	7.78	504.82	92.23	11.98	83.4
Server	ECDHE-ECDSA-AES256-GCM-SHA384	1,478,410	163	1.23	6.41	574.59	110.05	12.21	81.9
Client	ECDHE-ECDSA-AES256-GCM-SHA384	1,478,410	163	1.39	7.70	508.57	91.59	12.19	82.1
Server	ECDHE-RSA-AES128-SHA256	480,710	53	0.56	1.76	409.99	130.24	38.23	26.2
Client	ECDHE-RSA-AES128-SHA256	480,710	53	0.57	1.93	404.30	118.80	38.23	26.2
Server	ECDHE-ECDSA-AES128-SHA256	1,505,620	166	1.93	6.69	371.25	107.39	12.02	83.2
Client	ECDHE-ECDSA-AES128-SHA256	1,505,620	166	2.08	7.62	344.73	94.26	12.00	83.3
Server	ECDHE-RSA-AES256-SHA384	471,640	52	6.00	13.06	37.46	17.22	38.72	25.8
Client	ECDHE-RSA-AES256-SHA384	471,640	52	6.14	18.79	36.66	11.97	38.58	25.9
Server	ECDHE-ECDSA-AES256-SHA384	1,423,990	157	20.54	44.98	33.06	15.10	12.30	81.3
Client	ECDHE-ECDSA-AES256-SHA384	1,423,990	157	20.73	63.18	32.76	10.75	12.19	82.1
Server	ECDHE-RSA-CHACHA20-POLY1305	471,640	52	7.07	15.31	31.82	14.69	38.35	26.1
Client	ECDHE-RSA-CHACHA20-POLY1305	471,640	52	7.14	22.43	31.50	10.03	38.23	26.2
Server	ECDHE-ECDSA-CHACHA20-POLY1305	1,433,060	158	24.60	52.73	27.78	12.96	12.20	82.0
Client	ECDHE-ECDSA-CHACHA20-POLY1305	1,433,060	158	24.79	76.99	27.56	8.88	12.05	83.0
Server	DHE-RSA-CHACHA20-POLY1305	408,150	45	6.11	13.21	31.88	14.73	44.76	22.3
Client	DHE-RSA-CHACHA20-POLY1305	408,150	45	6.18	19.45	31.48	10.01	44.63	22.4
Server	ECDHE-RSA-CHACHA20-POLY1305-OLD	471,640	52	7.13	15.32	31.55	14.68	38.30	26.1
Client	ECDHE-RSA-CHACHA20-POLY1305-OLD	471,640	52	7.14	22.51	31.49	9.99	38.17	26.2
Server	ECDHE-ECDSA-CHACHA20-POLY1305-OLD	1,433,060	158	24.56	52.68	27.82	12.97	12.18	82.1
Client	ECDHE-ECDSA-CHACHA20-POLY1305-OLD	1,433,060	158	24.70	76.92	27.67	8.88	12.01	83.3
Server	DHE-RSA-CHACHA20-POLY1305-OLD	408,150	45	6.18	13.16	31.49	14.79	44.77	22.3
Client	DHE-RSA-CHACHA20-POLY1305-OLD	408,150	45	6.18	19.51	31.50	9.98	44.64	22.4
Server	EDH-RSA-DES-CBC3-SHA	390,010	43	29.08	59.10	6.39	3.15	45.34	22.1
Client	EDH-RSA-DES-CBC3-SHA	390,010	43	29.09	87.84	6.39	2.12	44.65	22.4