

Format is as follows.

p prime value

q prime value

e coprime value constant set to 307

All timings are in milliseconds.

1. KEY SIZE: 40

51607342168733122729

29721111015894753089

Timing Data Points (ms)	ESP32	ARDUINO MEGA	ARDUINO UNO	ESP8266
Key Generation	2	21	21	2
Encryption	9	421	417	19
Decryption	166	4199	N/A	320

2. KEY SIZE: 60

270829151403165362263353014441

862699783256371538247782181241

Timing Data Points (ms)	ESP32	ARDUINO MEGA	ARDUINO UNO	ESP8266
Key Generation	2	30	29	2
Encryption	19	858	N/A	38
Decryption	478	22063	N/A	964

3. KEY SIZE: 80

3355742264777942619007360619874091502729

3346855342101636770171551746108571583689

Timing Data Points (ms)	ESP32	ARDUINO MEGA	ARDUINO UNO	ESP8266
Key Generation	3	42	41	4
Encryption	35	1418	N/A	64
Decryption	1178	50159	N/A	2235

4. KEY SIZE: 100

44256147362648635591180759714901880352084568531441

59825284065294471803934385308121573453067330700487

Timing Data Points (ms)	ESP32	ARDUINO MEGA	ARDUINO UNO	ESP8266
Key Generation	3	50	49	4
Encryption	48	2056	N/A	91
Decryption	2255	99801	N/A	4377

5. KEY SIZE: 120

776461117678462501394427023494885396951961522985402234046567

300275624045858129288470784448701564492318132790253956042107

Timing Data Points (ms)	ESP32	ARDUINO MEGA	ARDUINO UNO	ESP8266
Key Generation	4	61		4
Encryption	57	2792		123
Decryption	3308	162051		7074

6. KEY SIZE: 140

9932139943339554751655031442828579353277196020045387852012083330216751

7104411554778760027250011387254928276716637756917863968861551676876553

Timing Data Points (ms)	ESP32	ARDUINO MEGA	ARDUINO UNO	ESP8266
Key Generation	4	71		5
Encryption	66	3431		150
Decryption	4653	248167		N/A

6. KEY SIZE: 155 (RSA - 512)

73876994494307542360607835849776308028761548518813298873221350532322237104687

321538625144835508338276064648892293814103155617777116608040141481480882702241

Timing Data Points (ms)	ESP32	ARDUINO MEGA	ARDUINO UNO	ESP8266
Key Generation	3	75		5
Encryption	75	4101		179
Decryption	5862	331241		N/A

7. KEY SIZE: 160

15436701471534901110511656846498037568773674524990940562313325142387499042385671

25447465335187775067515713265705508118414169952767988586091362514874537708120761

Timing Data Points (ms)	ESP32	ARDUINO MEGA	ARDUINO UNO	ESP8266
Key Generation	5	87		6
Encryption	100	4397		194
Decryption	8426	381352		N/A

8. KEY SIZE: 180

253947395212197736207978572291090479087443193463601263538541413339303051755292167646466123

549797916873259806228045270606100249518474464256909871531530675844206233894767403814042841

Timing Data Points (ms)	ESP32	ARDUINO MEGA	ARDUINO UNO	ESP8266
Key Generation	6	97		6
Encryption	122	5433		241
Decryption	12143	549575		N/A

9. KEY SIZE: 200

1075535819668131606442156051661324989387508263477986114466910162445618364409504011876641760556751119

1785793487037785182943636403877554073651868258941964422327180733125444771076458070002870484662366447

Timing Data Points (ms)	ESP32	ARDUINO MEGA	ARDUINO UNO	ESP8266
Key Generation	6	105		7
Encryption	133	6328		277
Decryption	14813	725480		N/A

10. KEY SIZE: 220

47616175312520248170724492168534805801971521103173398823349171275495836845015735958370549814437534497091729883

27809831917510368299476959744530807001167772977973557734379833335973649629314463720953256524333666961538996927

Timing Data Points (ms)	ESP32	ARDUINO MEGA	ARDUINO UNO	ESP8266
Key Generation	5	115		6
Encryption	151	7559		309

Decryption	18718	959445		N/A
------------	-------	--------	--	-----

11. KEY SIZE: 240

57071878053910157814334597822459532515436774929615981962268606788012038755931032114508053756033634244687855
2852264760497

14710416926215596967998302247292964921791817632446868697309274725398961876146241002907769910867231015842441
8017640784307

Timing Data Points (ms)	ESP32	ARDUINO MEGA	ARDUINO UNO	ESP8266
Key Generation	6	127		7
Encryption	164	8534		373
Decryption	22392	1195498		N/A

12. KEY SIZE: 260

56573623603097923784774428882491323056732930390142221505014633620892517051999134014878033314971687776191662
14835560015606807362831

26229341079868766017090148457928766824614243653961375108350483808890911426083105624488329046402167220215251
78089951173864498931513

Timing Data Points (ms)	ESP32	ARDUINO MEGA	ARDUINO UNO	ESP8266
Key Generation	6	137		8
Encryption	182	10009		431
Decryption	27397	N/A		N/A

13. KEY SIZE: 280

28992777969460055881470761734430774853064035014166047821169004423091915740361154010608171735453749950197354
256281277704811704887703703227113

67438794515146730217265583979602693832140448783662589179941624195534115353204721506923334379517340243831635
849125423368800267898239390738977

Timing Data Points (ms)	ESP32	ARDUINO MEGA	ARDUINO UNO	ESP8266
Key Generation	6			9
Encryption	198			483
Decryption	33656			N/A

14. KEY SIZE: 300

62107590053577985407267823132250947611834297571697860496814103392295152018162932448820555956689202181562898
7785012277116933673237614792724629120960311

22583735985548023195594522006542304954584698657776868604481144568395964880458134142619527826112138125985890
1230620923614181405927057637372216282747251

Timing Data Points (ms)	ESP32	ARDUINO MEGA	ARDUINO UNO	ESP8266
Key Generation	6			9
Encryption	212			535
Decryption	38497			N/A

15. KEY SIZE: 309 (RSA 1024)

34169090529181804975509056946439162865195316898547061713223274034873259174398131810568013649207194042897653
590213438750899278631021362723640271358164566011

64807482639046190316802603319365646696238699524924696411619302628566280033603176879939289820652153491387006
31936521201127616864444987232349342262924810817

Timing Data Points (ms)	ESP32	ARDUINO MEGA	ARDUINO UNO	ESP8266
Key Generation	7			10

Encryption	222			558
Decryption	41682			N/A

16. KEY SIZE: 320

62410827357919368361720959279299542013602734040540266063821107698915439071405424975153043760644068918079499
26381688969558851741659428246115855133876206991555299

87454710170949318943315387678101932077746135875742400977623864871787342117105391263082109425922354223838422
70515699586910546722067981958562848449918163734067489

Timing Data Points (ms)	ESP32	ARDUINO MEGA	ARDUINO UNO	ESP8266
Key Generation	10			
Encryption	310			
Decryption	62494			

17. KEY SIZE: 340

89049822016008124052907114542463206749910377762905362250362510369561838489269703037289824863820940851924298
203510776489833415039330131568405181734178369936309232298037343

8332110688551240936297510280770123031098371193861828994297256358235532453008773670480248902589074831602566
061263373895075878706772619550072180078680742403290561149331223

Timing Data Points (ms)	ESP32	ARDUINO MEGA	ARDUINO UNO	ESP8266
Key Generation	11			
Encryption	344			
Decryption	74225			

18. KEY SIZE: 360

49542197613896786026094161761969611269454400185759031509810428543212236875092035516500334055559947618931366
9767040909381450671761428364592821899997453959509499621414056516173605079

71626644713526573853516570027561129629640208442866811039762160527252669535840881504113368816308695602612560
0728073164226016319953682112709790062785797684194215802370724983813908451

Timing Data Points (ms)	ESP32	ARDUINO MEGA	ARDUINO UNO	ESP8266
Key Generation	12			
Encryption	365			
Decryption	83056			

19. ///KEY SIZE : 380

43710701650535849911022247438812194767335152123489618583263706167886473909870771526208978414366958483069151
28383227999993865081269390583918752847383083649451933164490375171866900236518478553

75451585530500882462130452125918289263598170937651218589544232169009434476926051777705741866741244429397293
55098324278414795399689758833096194357272509182796469317310109361086497651872838303

Timing Data Points (ms)	ESP32	ARDUINO MEGA	ARDUINO UNO	ESP8266
Key Generation	11			
Encryption	393			
Decryption	94298			

20. KEY SIZE : 400

40092966033999428230269718232238652639129486927263284436154056279902972194469244108053926049595627515542429
930064926457043231685442840758723365149287654227162839563542478411685167199668829833727715537303

82100294145996584148666222271930646118943752171081761585424776100724302962624100544127150339397025852211719
695279694773186897087186831962978566423469588586454999755940899499658749983709700772208770079

Timing Data Points (ms)	ESP32	ARDUINO MEGA	ARDUINO UNO	ESP8266
-------------------------	-------	--------------	-------------	---------

Key Generation	12			
Encryption	417			
Decryption	109358			

21. KEY SIZE: 420

96675265830014173806930030674597547330894039719388841679788392678224221903684750132181882312409120985853825
2424768400870378938680840370973037742012544769863719343608213308141904251265631113781761912611521621361

57298322652006995193378592260459648209228805441585403846065350433812672144870208904936915329475375346586533
6927575485283487204924434435191879246801543977295120324621325169157045656733154860666515992182300505873

Timing Data Points (ms)	ESP32	ARDUINO MEGA	ARDUINO UNO	ESP8266
Key Generation	12			
Encryption	433			
Decryption	119580			

22. KEY SIZE : 440

68708147082049304770087906451008168844900603469777574482210275717421702699840257178293826606203957428190735
42846895604197259471448549574472236779242928367614564783588390307458425965120262262056463099160045298257051
835067

67032152854775882450742365103844436797298103458646370164712817905214236986138672066871899998573882035482003
63835270682720803756575555282710434861656247052226379608637853534735264067218781075322999813804752671700731
165713

Timing Data Points (ms)	ESP32	ARDUINO MEGA	ARDUINO UNO	ESP8266
Key Generation	13			
Encryption	453			
Decryption	133670			

23. KEY SIZE : 460

51045961239941554301812433870341797863646847983841659602031788381437308382314627120882997460753625646234578
31017167543863346668329762844601677786866051553083578871531995470681679855704887801460862651492171715909693
8980554598360273

41516763835540864368549842511468247928848937399762636988655749084557096144499279789897311636449217684582165
61985621250636833288203802342447022521095385050936746308446732075135157179264100121926958586139105529500328
6675789548709431

Timing Data Points (ms)	ESP32	ARDUINO MEGA	ARDUINO UNO	ESP8266
Key Generation	13			
Encryption	484			
Decryption	147810			

24. KEY SIZE : 480

13409567945402929503017965025548130826448050230293632339888579404891247684464167901664298813479454593146760
59424957650624562075696809141438798394576616482327719072061517572558209958022636148631576306401279014409932
75077816842531289520416337

75868765599392367354379981596680213515952023876102165395432941437374627757142798345958031655326659168204438
50905187083480502777382894582848137674659007398847047852111080565997366241062480500180040951417850475145431
59258368276390677055860761

Timing Data Points (ms)	ESP32	ARDUINO MEGA	ARDUINO UNO	ESP8266
Key Generation	13			
Encryption	513			
Decryption	164162			

25. KEY SIZE: 500

77450912572370871848950798035907476265274681581258872647147033718931697756589823211260189062388938168583149
30225802838095395042513319959946326065678669428843306086193845190055868030125829772157159353509064829603206
310515125974887401174961460349717769

68730686207162378732960867383558129418443009289321890453224451506172116539694247836016893326913804795147562
63203395882368096575725157644452351473599820916075271387408785739231050683979973719286166850218316856083280
011954000958101542726025396887201211

Timing Data Points (ms)	ESP32	ARDUINO MEGA	ARDUINO UNO	ESP8266
Key Generation	15			
Encryption	524			
Decryption	177804			

26. KEY SIZE: 520

40742978275188718211267875314113499542015020323782061582441152004922440800274905331010814022670642762407601
85772686468753048895496574618774969586731021213914135887321725189463618190290720502881889515864532262510494
9017425358732965651477264331397264348327711511

50019166583525596076047895978772464313542335753935006569310426004124512672869223829183654894198203288973299
11722701829532443539034551639476183798366697549267922305893658086859935269592093018341957916805714400231233
7862082900351405624841026071782591600123071643

Timing Data Points (ms)	ESP32	ARDUINO MEGA	ARDUINO UNO	ESP8266
Key Generation	14			
Encryption	554			
Decryption	198160			

27. KEY SIZE : 540

62196811306759393980505663891006234815427095331227059359515762572669179717520475513169071258473886586377752
86888153761983056996951172901036422521018784784233539052558633501743875934049029116062185254984787400649294
89111023785527654473179915423398251856379899257153073099

11382297785151265617888352198619647616783229263972977320561691200115329866221716969694905180006105203295734
77255631061543779361332223187315114445204672746364118011317365600799926678812557937977017214529104001006871
80302553912471227653935141081511202846228381682142217631

Timing Data Points (ms)	ESP32	ARDUINO MEGA	ARDUINO UNO	ESP8266
Key Generation	14			
Encryption	573			
Decryption	215917			

28. KEY SIZE : 560

64072542232512998306547960621839493741542130746289867512437937427162875856740737718257463522695966873418925
44512667779404464235525385455407805253294303546950302200544333436000938446777015429513166899724371165311800
049263303706538061539495170900908882606627748223162149724626620609

17332545662368627863312844102714080912582085634799335416033476584803563582145555509904706328540957555594282
62649220578521097686765282985098166905894339814428211048516447951462212160771747170262118234783763758898326
481843142743125785720522477382339521956780383729235099090424613331

Timing Data Points (ms)	ESP32	ARDUINO MEGA	ARDUINO UNO	ESP8266
Key Generation	15			
Encryption	597			
Decryption	236049			

29. KEY SIZE : 580

18605056129216374838987133628705016389797915095029037115708180446367773231597162434846680074784085379014198

68627969506361635879313201324998822076960842023140527430351565627501068543036922104397834699422193097116070
1238692930332407672664109950178378386672934238035933003985296634512708138267

42477209457650805606475905002983078087878586549511572145476151751448869937068557835239609566634252130547217
97181087324009738068224324394673162862452713389531015663412834256148337511379385842117895770062120184639168
8136778929668040630665487501074319401008382075436713781387898750941315681803

Timing Data Points (ms)	ESP32	ARDUINO MEGA	ARDUINO UNO	ESP8266
Key Generation	15			
Encryption	618			
Decryption	251666			

30. KEY SIZE : 600

90899293974735102508637998710239635908495970809950149377733866918571598291447403080742362058858800513884495
12422665934978707121848270030250448649487431007308035677367882410406289117406071998694221521434210797935417
30459373498651490509315436701960079605061508713175342971570723034810122343480694238953

76099561283700528511627465740724263982089660901182287247158853188047283467015804158810173491041586174520670
72723209631581665584423962813007290581162773890994561383013569051212721501653642918454291582743136086859320
56681176075945910100799479171399191319454015710253269866957769353032936078655614096831

Timing Data Points (ms)	ESP32	ARDUINO MEGA	ARDUINO UNO	ESP8266
Key Generation	16			
Encryption	644			
Decryption	278582			

31. KEY SIZE : 617 (RSA 2048)

53247350319049238890507069967681946552334904699507264130680780365326321873292626584654587561690724714640964
80149160745157922443013338702836460076192602534339167770931401273892757329831143639079961024678564299126085
75852991139374045542910962206243221452907297698725202782202005627249167701976828388493583543779

23601175403774924785985585177215320886188431070119021461670186702930074705126510135567812440659691735276637
29225973044427303244676061534554023281245538344243428407952683181258530204538287189833443387415587480154586
3106273433953935788530880199692750334370070073271322680349013848774969439484392421551563732191

Timing Data Points (ms)	ESP32	ARDUINO MEGA	ARDUINO UNO	ESP8266
Key Generation	16			
Encryption	676			
Decryption	303105			

32. KEY SIZE : 620

36745367155705274915666902879510379961979916033986013579515723412626520154726829099624712891621443270780181
96450074365270956902387303469672209560485876936760165768272002090529902157310049944651653308441240723607748
241072648854430684942215002444075095862627810361032947335194198388687577904995548344232923851411

54062242082213397529333019835008436808301384631667837173169331339157238307839399370979194123278667868591467
19438900713803830457061950705600998974477130305556868955524249888840266526670555376680583898320813018824397
037181175035157806372871892164260602958028923592067350657548556866276172521142347890253282211883

Timing Data Points (ms)	ESP32	ARDUINO MEGA	ARDUINO UNO	ESP8266
Key Generation	16			
Encryption	669			
Decryption	303245			