

## **RSA CURVE STORAGE MODULUS**



What is RSA modulus? The rst variant of RSA is RSA with CRT and the second variant of RSA is the Multi-Prime RSA. For measuring time e ciency of these algorithms, the modulus used in experimentation are of 1024/2048/3072-bitfor RSA and 160/224/256-bit for ECC, with two sample OTP message data of 27-bit



Is ECC point multiplication better than RSA modular Expo-nentiation? On an Atmel ATmega128 at 8 MHz,they measured 0.81s for 160-bit ECC point multiplication and 0.43s for a RSA-1024 operation with exponent = 216 +1. The relative performance advantageof ECC point multiplication over RSA modular expo-nentiation increases with the decrease in pro-cessor word size and the increase in key size.



Is elliptic curve point multiplication better than RSA-1024? They compared elliptic curve point multiplication over three SECG/NIST curves secp160r1,secp192r1,and secp224r1 with RSA-1024 and RSA-2048 on two 8-bit processor architectures. On both platforms,ECC-160 point multiplication outperforms RSA-1024private-key operation by an order of magnitude and is a factor of 2 of RSA-1024 public-key operation.



What is the new minimum RSA key size? RFC-7525 specifies that "Implementations MUST NOT negotiate cipher suites offering less than 112 bits of security" - complying with this parameter yields a new minimum RSA key size: Suprisingly,RSA-2048 does not appear compliant using NIST's equation - RSA-2127should be their new minimum.



What is the difference between RSA-1024 and ecc-160 point multiplication? On both platforms, ECC-160 point multiplication outperforms RSA-1024 private-key operation by an order of magnitude and is a factor of 2 of RSA-1024 public-key operation. They presented a novel multiplication algorithm that signi cantly reduces the number of memory accesses.



## **RSA CURVE STORAGE MODULUS**



What is RSA algorithm? Algorithm 1 : RSA (also called RSA (Basic)) RSA algorithm exhibits key generation, encryption, and decryption. 1: Select p, and q; where, p and q both are primes, 2: Calculate n = p q. CRT.







RSA 1? 1/4 ?RSA???RSA???? 1/4 ? (1)pq? 1/4 ? (2)? 1/4 ?n=pq? 1/4 ?? 1/4 ?eular=(p-1)(q-1)? 1/4 ?? 1/4 ? (3)e? 1/4 ? (4) ???





RSA 1024? 1/4 ?,,???RSA 2048? 1/4 ?,,??? ???





However, for RSA, our best line of attack is not to execute a brute-force search for the key; instead, we "simply" factor the (public) modulus, so the security of the scheme ???





The new RSA-G2 is the most advanced platform for mechanical analysis of solids. The separate motor and transducer technology of the RSA-G2 insures the purest mechanical data through independent control of deformation and ???



## **RSA CURVE STORAGE MODULUS**



When Rivest, Shamir, and Adleman published the RSA algorithm in 1977, their implementation (RSA-129) was a 129-digit modulus that consisted of one 64-digit prime factor and one 65-digit prime factor. While modern ???