## Evaluation of SEAL functions on Linux:

## Parameters:

poly\_modulus: 1x<sup>4096</sup> + 1
coeff\_modulus size: 109 bits
plain\_modulus: 786433

• noise standard deviation: 3.19

Key generation	6872 microseconds
Encryption	7516 microseconds
Decryption	1926 microseconds
Addition (plain+cipher)	140 microseconds
Addition (cipher+cipher)	29 microseconds
Multiplication (plain+cipher)	2291 microseconds
Multiplication (cipher+cipher)	13150 microseconds
Secret key size	120 bytes
Public key size	96 bytes
Plain-text size	56 bytes
Ciphertext size	96 bytes

## Parameters:

poly\_modulus: 1x<sup>8192</sup> + 1
 coeff\_modulus size: 218 bits
 plain modulus: 786433

• noise standard deviation: 3.19

Key generation	37827 microseconds
Encryption	14863 microseconds
Decryption	3599 microseconds
Addition (plain+cipher)	398 microseconds
Addition (cipher+cipher)	96 microseconds
Multiplication (plain+cipher)	8675 microseconds
Multiplication (cipher+cipher)	60759 microseconds
Secret key size	120
Public key size	96
Plain-text size	56
Ciphertext size	96