

### **SPECK 128/256 Performance Analysis**

The below performance results were performed on the CAEN machines using the “-O3” compiler optimizations.

	Time to perform one million operations (Seconds)
Key Generation	0.3
Encryption	0.49
Decryption	0.45

Since the SPECK block cipher has a set number of rounds to perform based on the key size, and each round function only uses additions, subtraction, and bit operations, changing the value of the key does not have any significant impact on the speed of encryption because it still uses all the bits of the key not matter the value. Thus, each size of the SPECK block cipher will always run in approximately the same time because they require a fixed key length.