

Task 5

2Bit CFB Encryption:

Time taken 0.009303092956542969 seconds

Time taken 0.00015505154927571615 minutes

2Bit CFB Decryption:

Time taken 0.010017156600952148 seconds

Time taken 0.00016695261001586914 minutes

3Bit CFB Encryption:

Time taken 0.008556842803955078 seconds

Time taken 0.00014261404673258463 minutes

3Bit CFB Decryption:

Time taken 0.007523059844970703 seconds

Time taken 0.0001253843307495117 minutes

In general, the larger the block size, the more processing power is required for encryption/decryption. This means that a 2-bit CFB mode would generally be faster than a 4-bit CFB mode because it requires less processing power.

However, it's important to note that larger block sizes provide a higher degree of security compared to smaller block sizes, so there's a trade-off between speed and security. When choosing a CFB mode, it's important to balance the need for speed with the need for security.

But in this scenario, the number of rounds required for the 3bit CFB compared to the 2bit CFB is lesser therefore the time taken is shorter.