

1. Introduction



2. Mathematical Analysis

2.1. QPSK Modulation

QPSK Modulation And Demodulation- Complete Matlab Code With Explanation

2.2. Results



2.3. Conclusion

Matlab Mathematical Analysis of QPSK is a type of digital modulation technique that is used for transmitting data over a channel. It is a type of digital modulation technique that is used for transmitting data over a channel. It is a type of digital modulation technique that is used for transmitting data over a channel. It is a type of digital modulation technique that is used for transmitting data over a channel.

The principle of QPSK is based on the following mathematical equations:

$$S_1 = \sqrt{\frac{E_b}{2}} \cos(2\pi f_c t) \rightarrow \text{represented by '1'}$$

$$S_2 = \sqrt{\frac{E_b}{2}} \sin(2\pi f_c t) \rightarrow \text{represented by '0'}$$

or

$$S_3 = -\sqrt{\frac{E_b}{2}} \cos(2\pi f_c t) \rightarrow \text{represented by '1'}$$

Mathematically, the signal energy E_b is the energy per bit. It is the energy of the signal S over a period T of time. [Click here](#) to get a complete mathematical derivation of the QPSK modulation and demodulation process.

Matlab Code For Bpsk Modulation

JA Banks



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