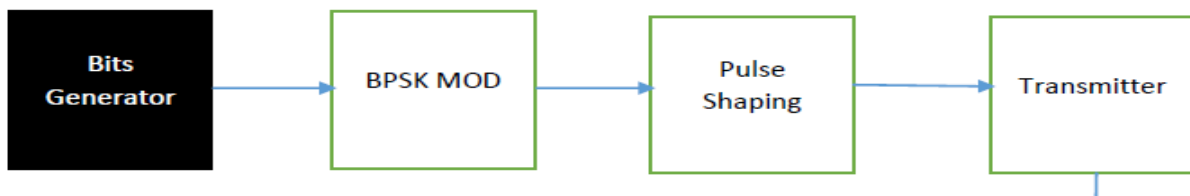


EXPERIMENT# 10

TO DESIGN A BPSK TRANSMITTER USING CARRIER MODULATION

OBJECTIVE:

BPSK TRANSMITTER:

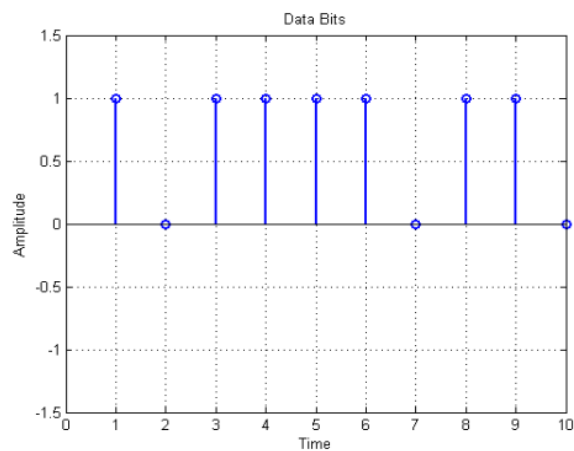


BINARY BIT PATTERN:

Binary Bit Pattern is a combination of binary digits arranged in a sequence.

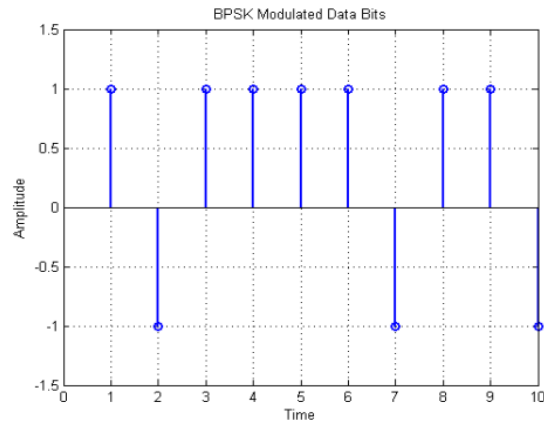
BIT PATTERN GENERATOR:

- In MATLAB rand, randint and randi functions are used to create sequences of random integers and numbers.



BPSK MODULATION:

Binary phase shift keying (**BPSK**) is a common form of phase **modulation** that conveys data by changing the phase of the carrier wave

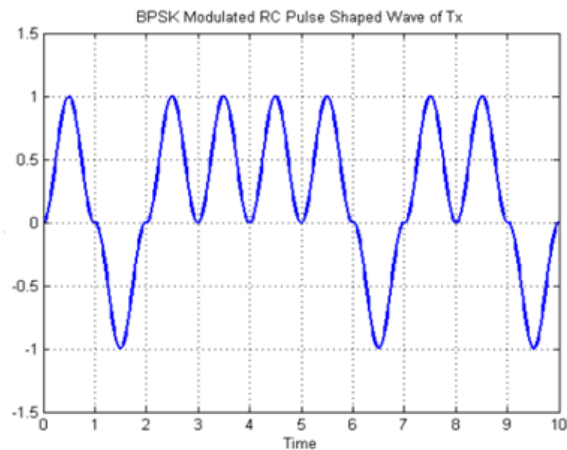


PULSE SHAPING:

Pulse shaping is the process of changing the waveform of transmitted pulses. Its purpose is to make the transmitted signal better suited to its purpose or the communication channel, typically by limiting the effective bandwidth of the transmission.

RC PULSE SHAPING;

This pulse is a sinusoid but with altered parameters necessary to raise it i.e. expanding it in t-domain while contracting it in f-domain.

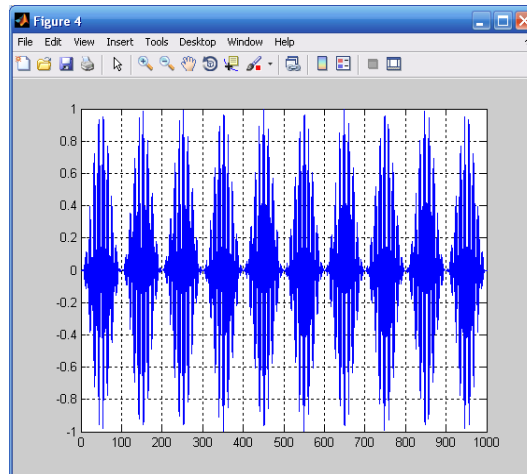


BASE BAND TRANSMISSION:

In telecommunications and signal processing, baseband signals are transmitted without modulation, that is, without any shift in the range of frequencies of the signal.

GENERATION OF CARRIER:

The phase of a carrier is changed according to the modulating waveform which is a digital signal. The carrier wave is then modulated with the signal to be transmitted.



SOFTWARE USED:

Lab Task :

Design BPSK Transmitter using carrier modulation in MATLAB, generate its pdf and attach the output.

CONCLUSION:

Post Lab Questions

a) Why BPSK is called binary shift keying?.

b) What are advantages of BPSK?

c) Differentiate between baseband and broadband transmission?
