ANALOG COMMUNICATIONS LAB

ABSTRACT

Single Side Band (SSB) modulation by phase shift method and synchronous demodulation with phase and frequency deviations (offset errors).

PROJECT BASED LAB

Project Goals:

1. To explore the practical implementation of theoretical concepts like Amplitude Modulation techniques those are studied in the class room.

2. To investigate the phase and frequency deviations (offset errors) in the demodulation of DSB-SC signals.

3. Exposure to simulation on modulation/demodulation systems for Amplitude Modulation using MATLAB for synthetic & real signals (such as speech).

   A base band signal $m(t)$ is used to generate SSB Modulated signal by generating DSBSC modulated signal and then band pass filtering either LSB or USB frequencies, as shown in the Fig.1. The objective is to explore the theoretical concepts of SSB signal by modelling and simulation using Matlab and Simulink.
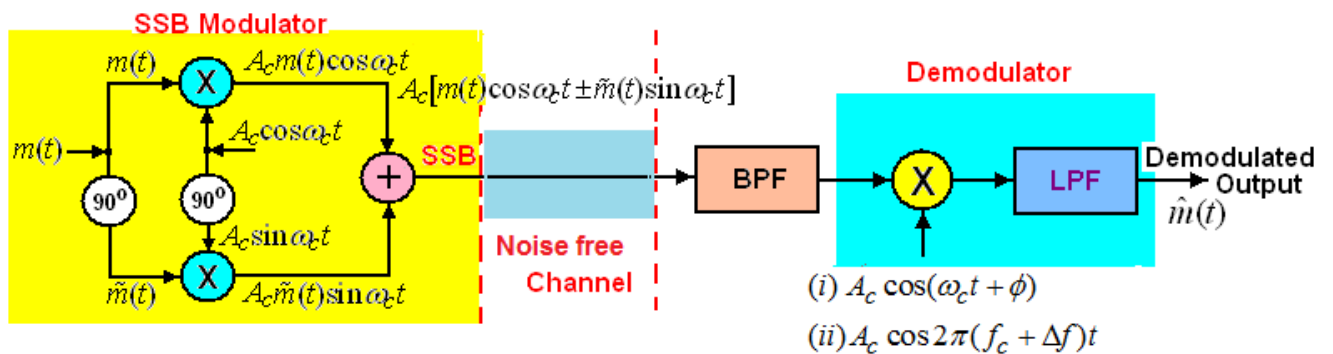
Block diagram of SSM modulation and noise free demodulation system

BATCH – 19

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