

AMERICAN INTERNATIONAL UNIVERSITY- BANGLADESH
Laboratory Report



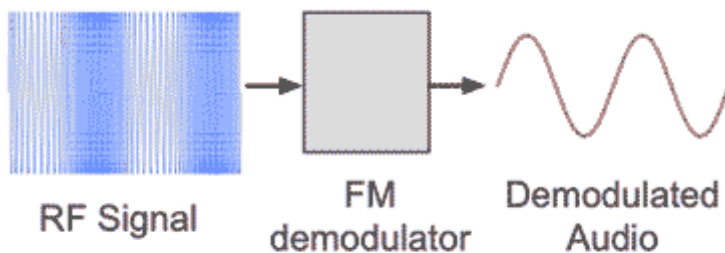
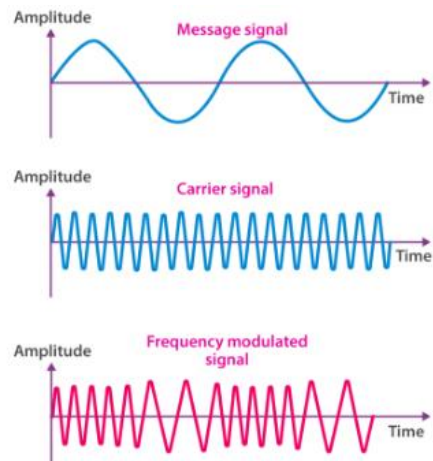
Report Title:	Study of Frequency Modulation and Demodulation using Simulink		
Lab Report No:	07	Date of Submission:	28-07-22
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Semester:	Summer 21-22	Program:	BSc. CSE
Course Code:	COE3103	Course Title:	Data Communication
Course Instructor:	Afsah Sharmin	Section:	B

Frequency Modulation:

Frequency modulation is a technique or a process of encoding information on a particular signal (analogue or digital) by varying the carrier wave frequency in accordance with the frequency of the modulating signal.

Frequency Demodulation:

Modulation is the process of encoding information in a transmitted signal, while demodulation is extracting information from a transmitted signal. This demodulation is also called FM detection or FM discrimination.



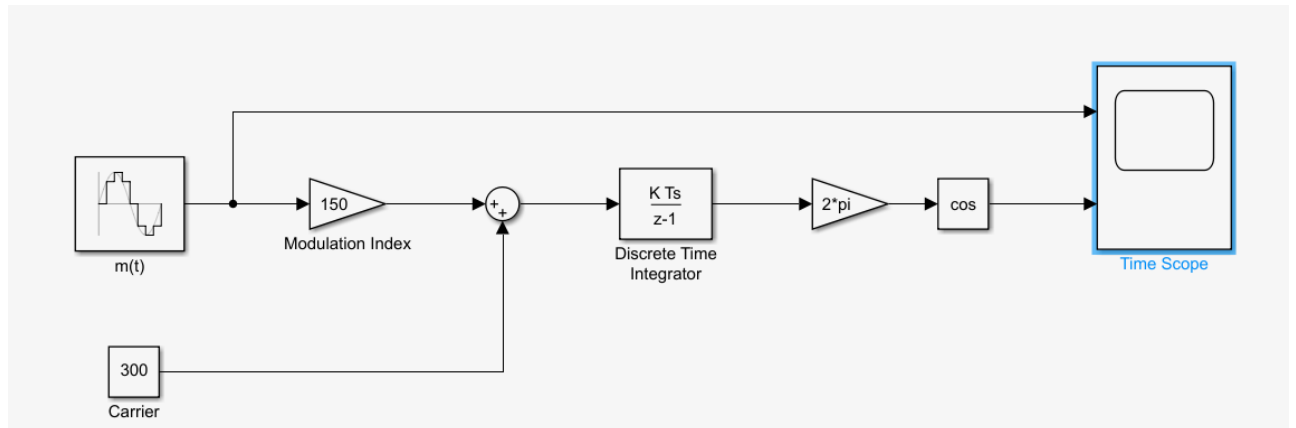
FM demodulation principle

Figure-1: Modulated Frequency

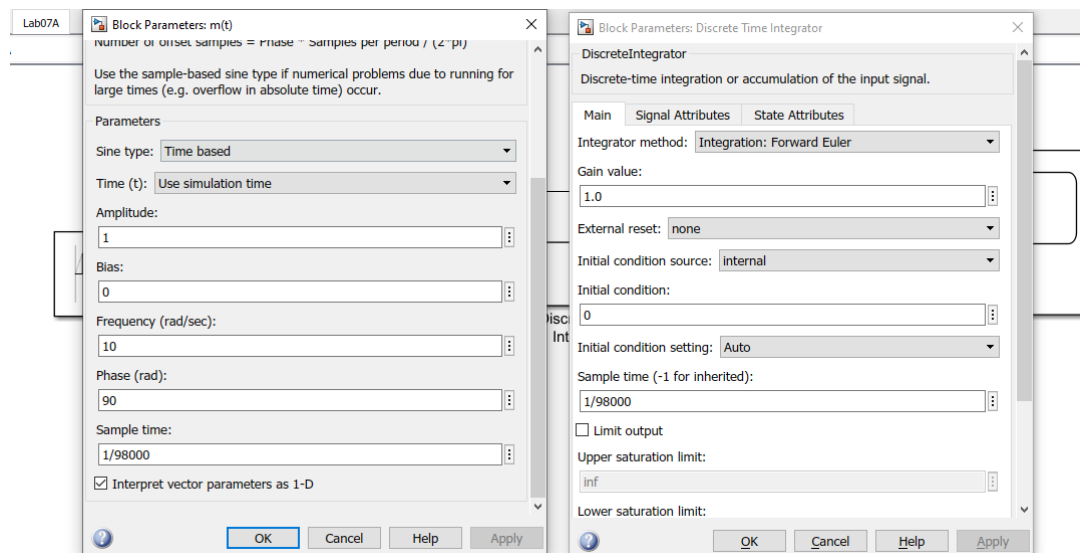
Figure-2: Demodulated Frequency

Simulink for FM Modulator is given below:

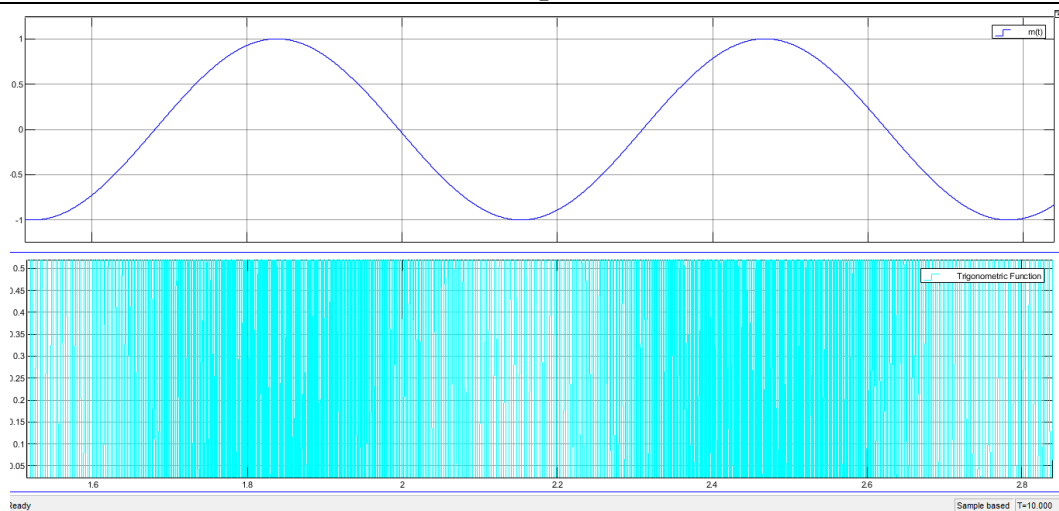
Block Diagram



Block Parameters

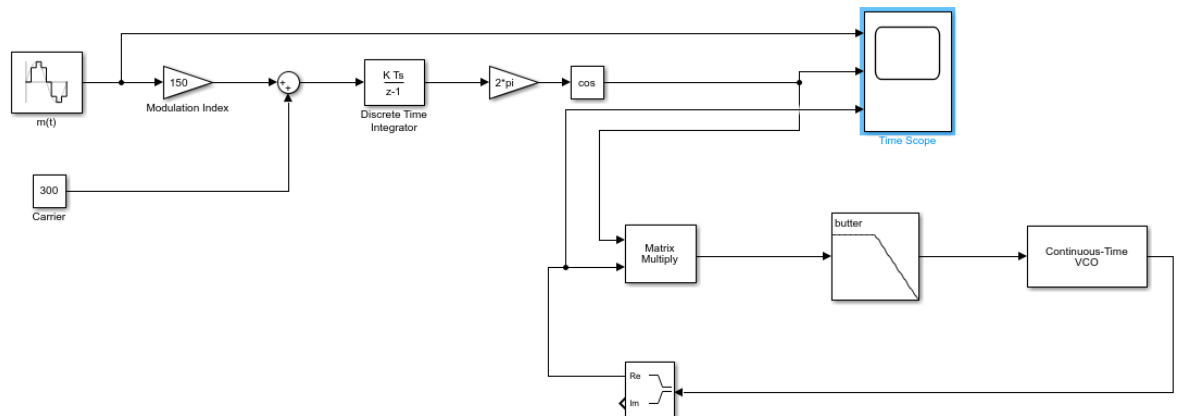


Output

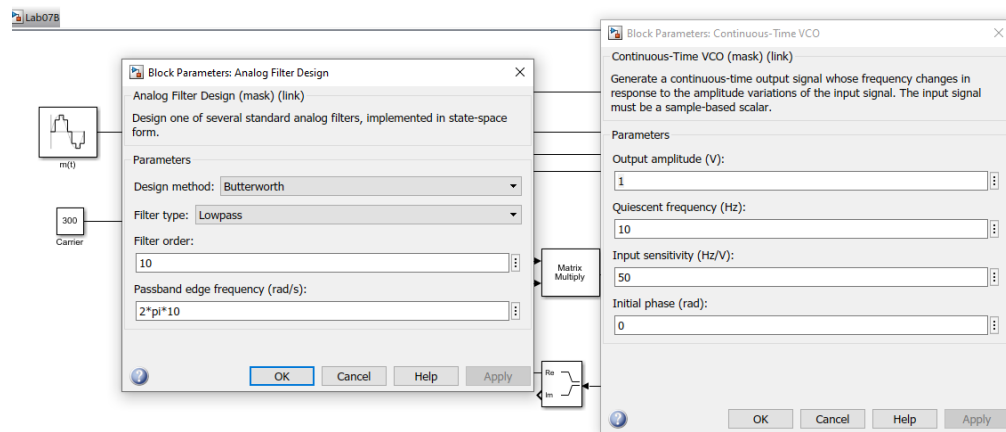


Frequency Modulator and Demodulator are given below:

Block Diagram



Block Parameters



Output

