Lab 2

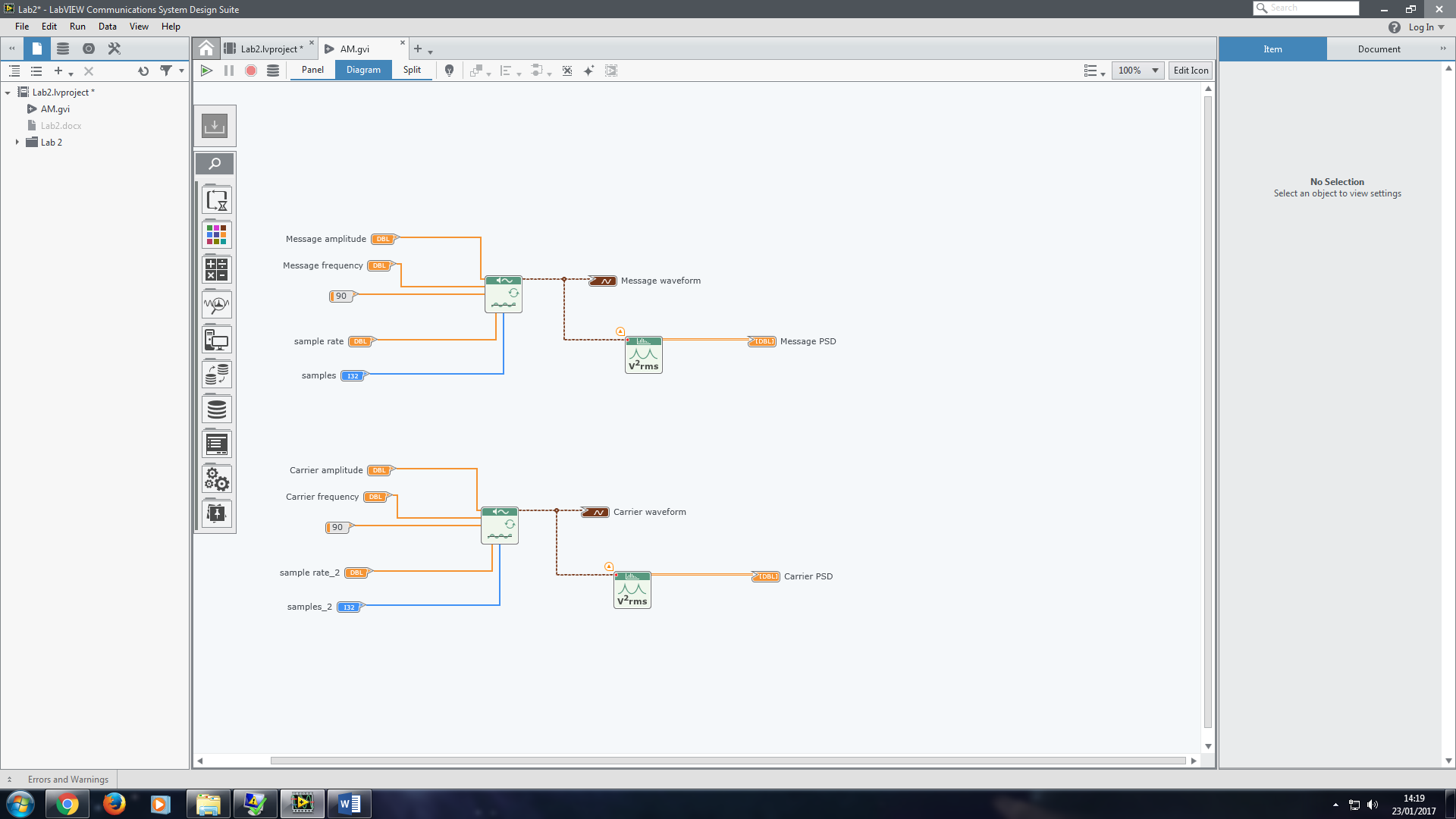
Ex1. AM Modulator

AM(Amplitude modulation) uses the basic relation:

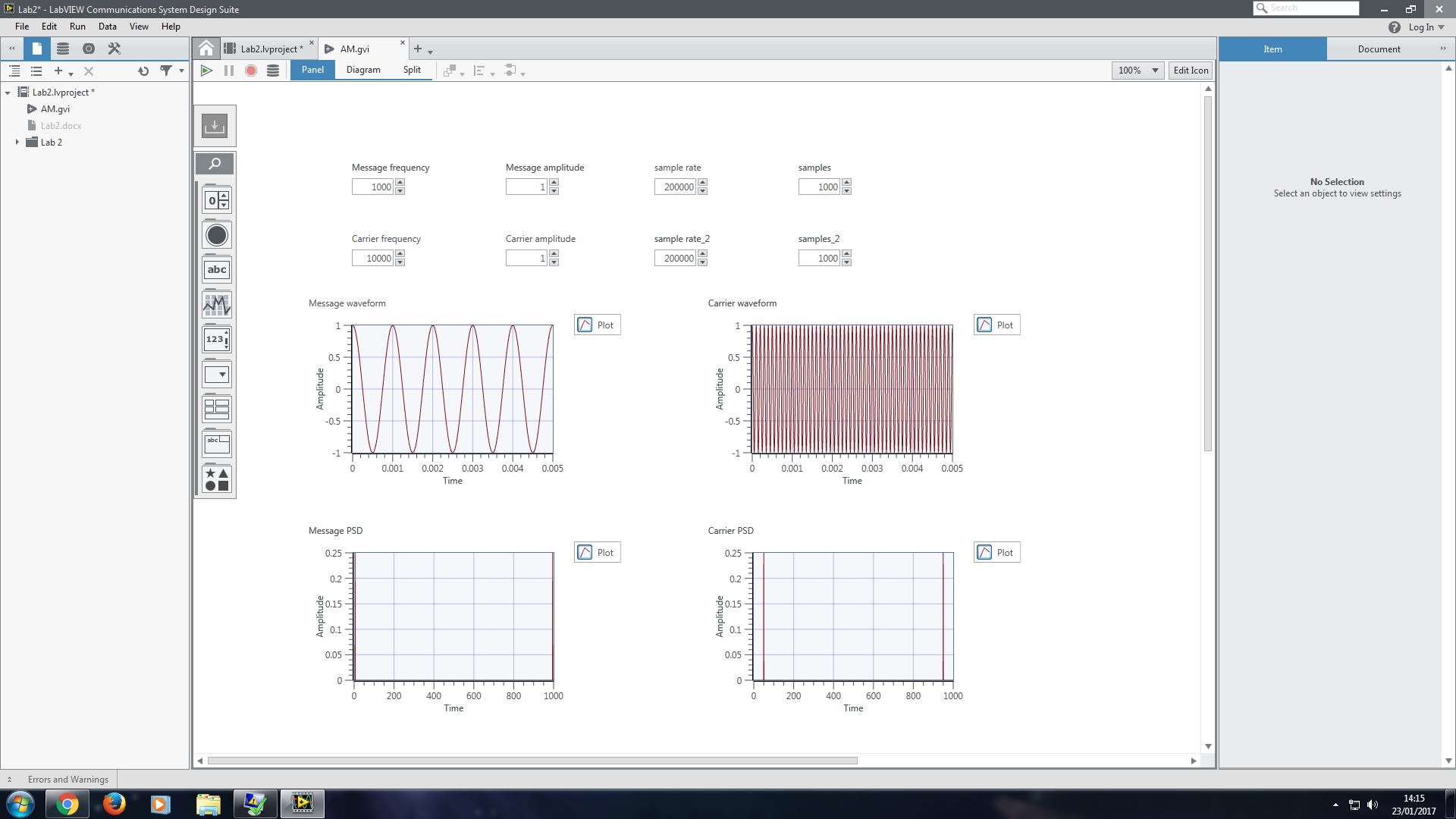
𝒔(𝒕) = [𝑨𝒄 + 𝑨𝒎𝐜𝐨𝐬(𝟐𝝅𝒇𝒎𝒕)]𝐜𝐨𝐬(𝟐𝝅𝒇𝒄𝒕)

Where fm is the frequency of message signal; fc is that of carrier signal.

Ac and Am are amplitude of carrier and message signals.



Obtain the waveforms of carrier and message signals and corresponding PSD.



Obtain the AM waveform with modulation index 1.

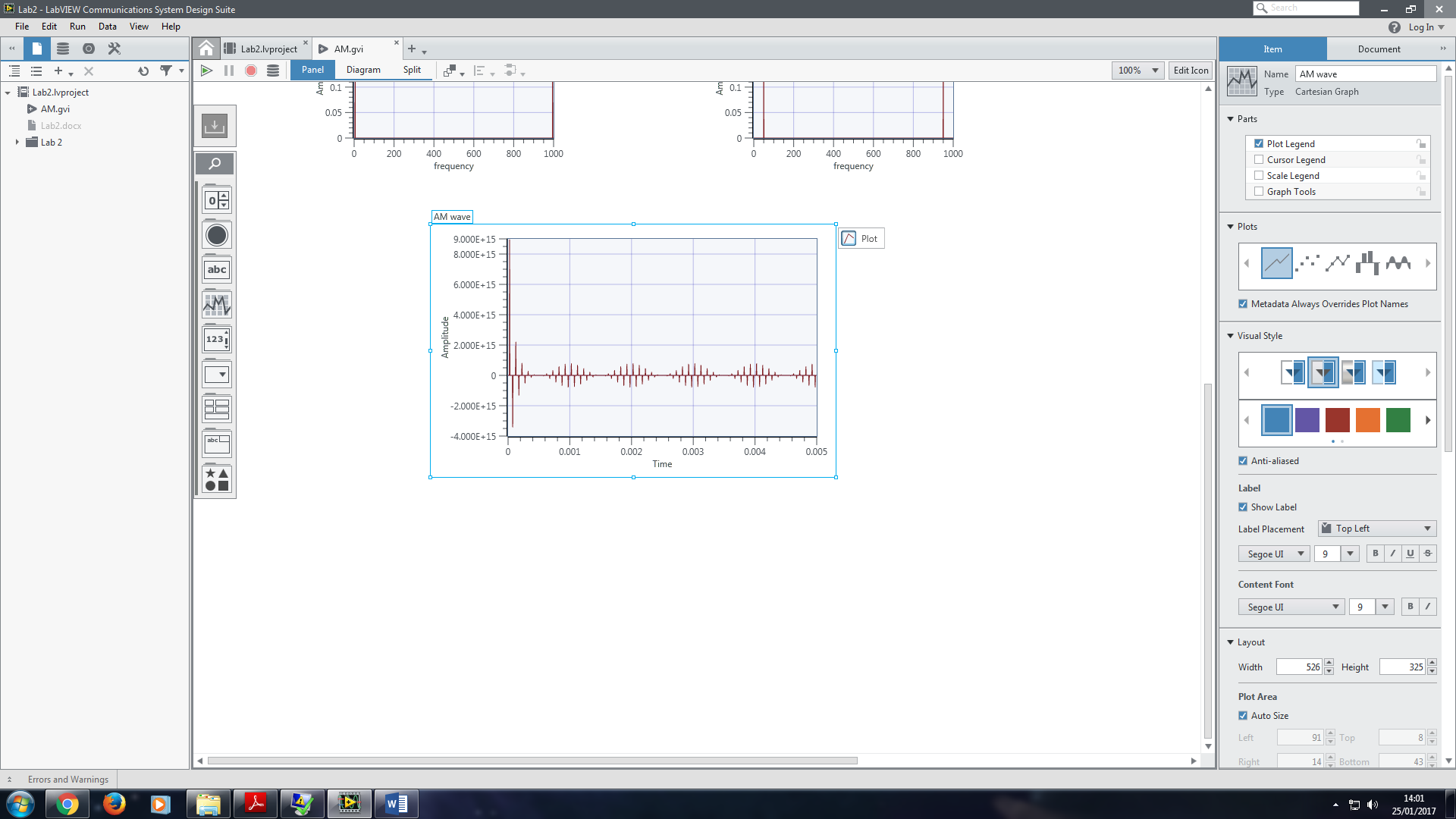


Diagram of construction of AM:

