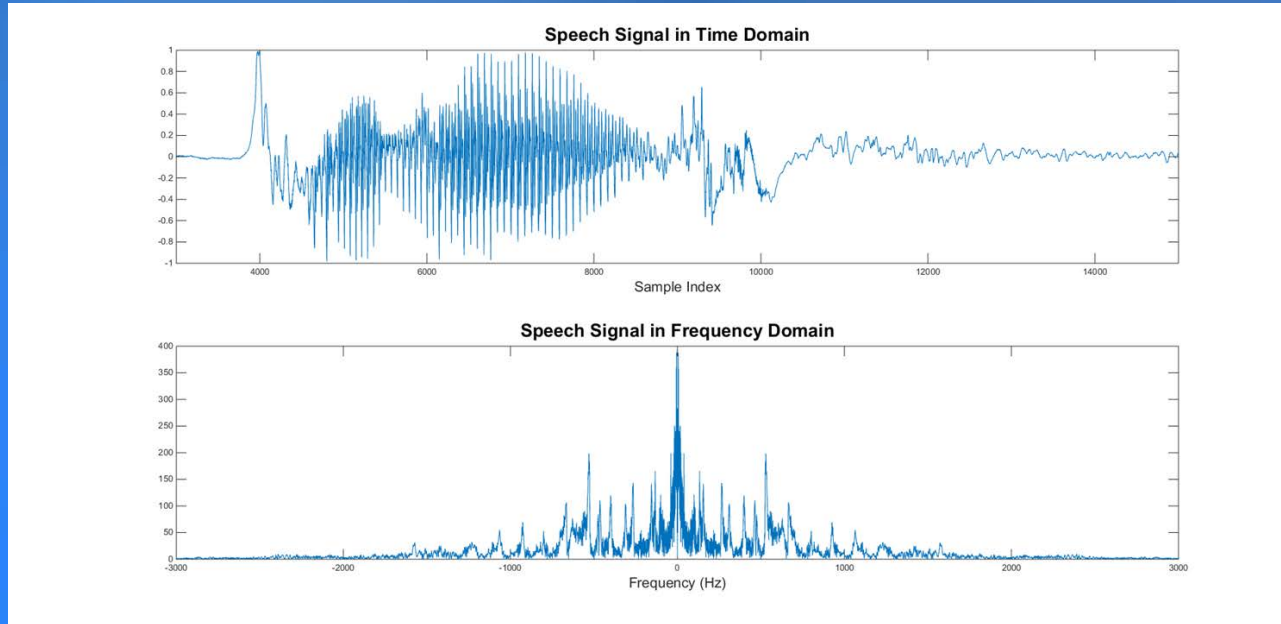


Signal Transmission



**Can my voice be heard 2km away
or even outside this room?**

**Why can I talk with my friend
in NY through mobile phone?**

Carrier and Modulation

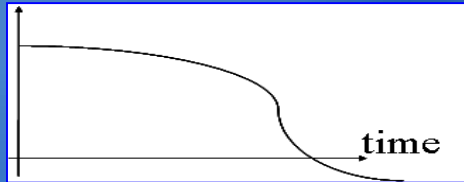
I need an airplane to carry me from Hong Kong to New York.



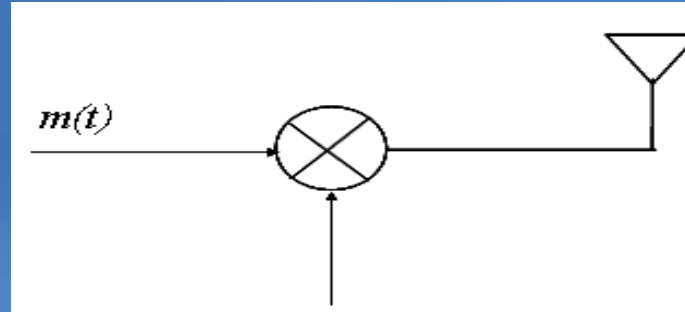
Amplitude Modulation: Time Domain



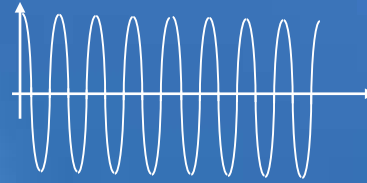
Message



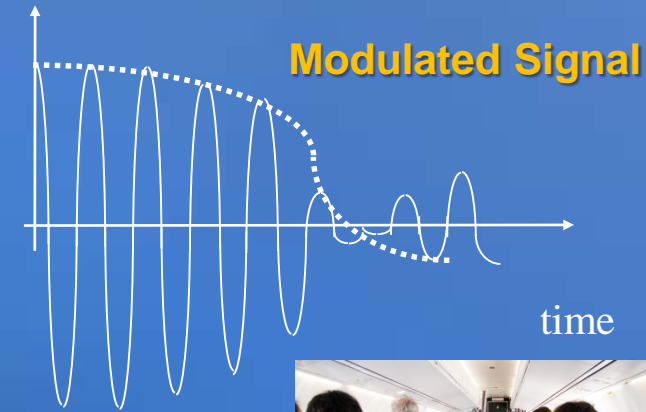
Transmitter



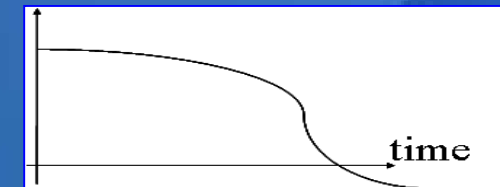
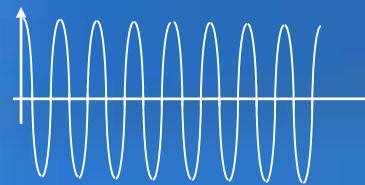
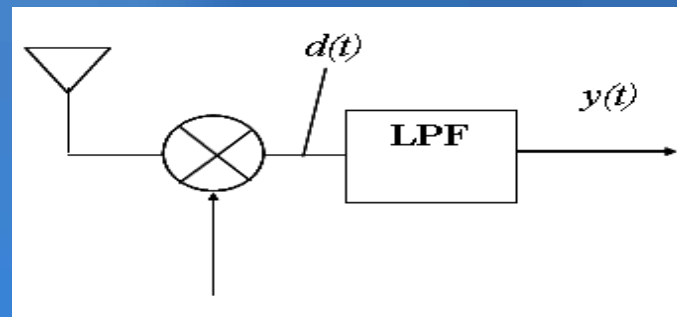
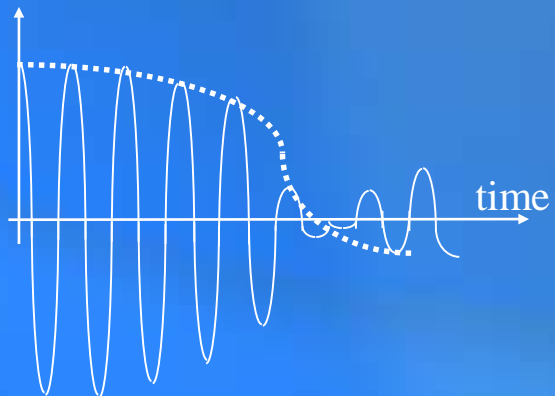
Carrier



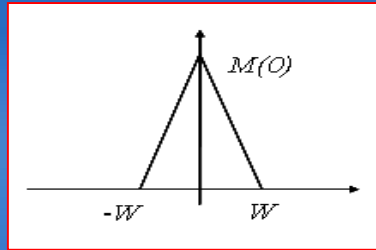
Modulated Signal



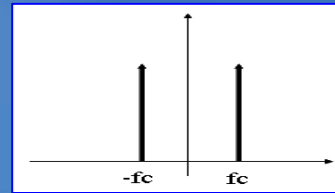
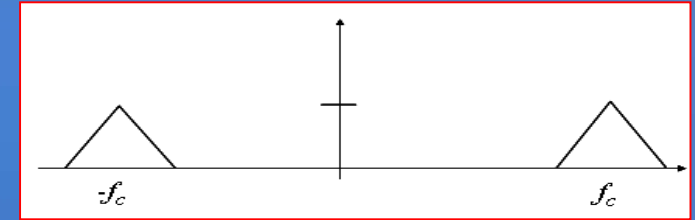
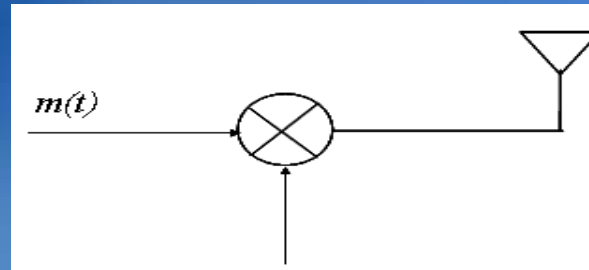
Receiver



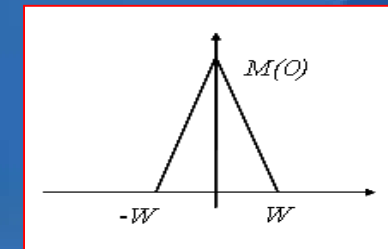
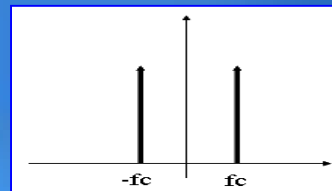
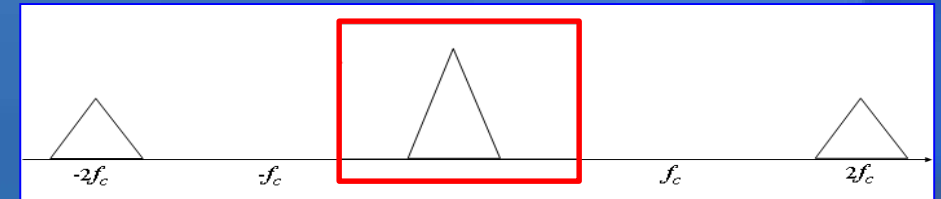
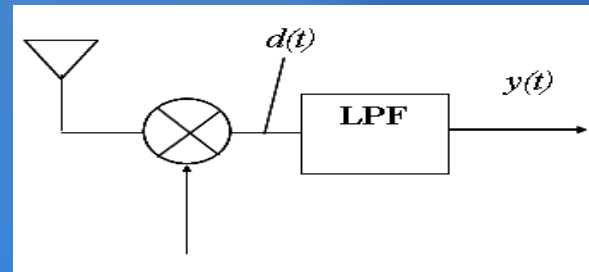
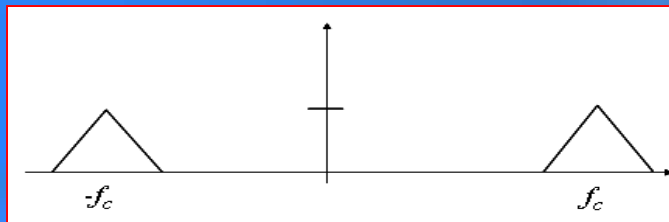
Amplitude Modulation: Frequency Domain



Transmitter



Receiver



Matlab Program