Department of Information Technology

Communication Systems Lab (IT 2271)

Assignment 3

1. Generate a complex signal. Plot the envelop of the complex signal. Plot also the phase angle.
2. Read a .wav file stored in your computer and plot the time domain and frequency domain response of the signal. Use a low pass filter with cut-off frequency of your choice in Hz. (1000-2000 Hz.) to restrict the bandwidth of the signal.
3. Generate an analog signal and perform DSB-SC modulation and demodulation on the signal. Choose a proper carrier frequency to modulate the signal. Plot the time domain and frequency domain response of the modulated and demodulated signals.
4. Perform AM+C modulation on an analog baseband signal with a cosine waveform for carrier signal.