COMPARISM OF AM AND FM SYSTEM

FM:

1.Amplitude of FM wave is constant. it is independant of the modulation index.

2.Hence transmitted power remains constant.it is idependant of m\_f.

3. All the transmitted power is useful.

4.FM receivers are immune to noise.

5.It is possible to decrease noise further by increasing deviation.

6. Bandwidth =2[^-f +f-m].The bandwidth depends on modulation index.

7.BW is large. Hence ,wide channel is required.

8.Space wave is used for propagation. So, radius of transmission is limited to line of sight.

9.Hence,it is possible to operate several transmitters on same frequency.

10.FM transmission and reception equipment are more complex.

11.The number of sidebunds having significant amplitudes depends on modulation index m-f.

12. The information is contained in the frequency variation of the carrier.

13. FM wave

14.application:

Radio, TV broadcasting, police wireless, point to point communicatiors.

AM:

1.Amplitude of AM wave will change with the modulating voltage .

2.Transmitted power is dependent on the modulation index.

3.Carrier power and one sideband power are useless.

4.AM receivers are not immune to noise.

5.This feature is absent in AM.

6.BW = 2 f-m. It is not dependant on the modulation index.

7.BW is much less than FM.

9.Not possible to operate more channels on the same frequency.

8. Ground wave and sky wave propogation is used. Therefore, larger area is covered than FM.

10. AM equipments are less complex .

11.Number of sidebands in AM will be constant and equal to 2 .

12. The information is contained in the amplitude variation of the carrier.

13.AM wave:

14.Applications:

Radio and TV broadcasting.