

3.1 With guided media, the electromagnetic waves are guided along an enclosed physical path whereas unguided media provide a means for transmitting electromagnetic waves but do not guide them.

3.2 A continuous or analog signal is one in which the signal intensity varies in a smooth fashion over time while a discrete or digital signal is one in which the signal intensity maintains one of a finite number of constant levels for some period of time and then changes to another constant level.

3.3 Amplitude, frequency, and phase are three important characteristics of a periodic signal.

3.4 2π radians.

3.5 The relationship is $\lambda * f = v$, where λ is the wavelength, f is the frequency, and v is the speed at which the signal is traveling.

3.6 The fundamental frequency is the lowest frequency component in the Fourier representation of a periodic quantity.

3.7 The spectrum of a signal is the frequencies it contains while the bandwidth of a signal is the width of the spectrum.

3.8 Attenuation is the gradual weakening of a signal over distance.

3.9 The rate at which data can be transmitted over a given communication path, or channel, under given conditions, is referred to as the channel capacity.

3.10 Bandwidth, noise, and error rate.