

Distinguish, differentiate, compare and explain what is the difference Between Baseband and Broadband Signals in Transmission. Comparison and Differences.

Difference Between Baseband and Broadband Signals in Transmission

1. Baseband transmissions typically use digital signaling over a single wire. Broadband uses analog signals in the form of optical or electromagnetic waves over multiple transmission frequencies.
2. Baseband is used for short distance signal traveling. Broadband is used for a signal traveling for longer distance.
3. Baseband communication is a bidirectional transmission, allowing computers to both send and receive data using a single cable. Broadband alternatively, can use two cables: one to send and one to receive transmissions.
4. Frequency division multiplexing is not possible as baseband uses Time-Division Multiplexing (TDM), which divides a single channel into time slots. Frequency division multiplexing is possible in broadband transmission. FDM allows broadband media to accommodate traffic going differently in directions on a single media at the same time.
5. Entire bandwidth of the cable is consumed by a single signal in a baseband transmission. The signals are sent on multiple frequencies and allow all the multiple signals are sent simultaneously in broadband transmission. In baseband transmission, the entire bandwidth of the cable is consumed by a single signal. In broadband transmission, signals are sent on multiple frequencies, allowing multiple signals to be sent simultaneously.