

# Differences between Baseband and Broadband Explained

Both baseband and broadband describe how data is transmitted between two nodes. Baseband technology transmits a single data signal/stream/channel at a time while broadband technology transmits multiple data signals/streams/channels simultaneously at the same time.

# What is Baseband Transmission?

Baseband transmission is the type of transmission technique that uses a single channel for data transmission. In this method, the entire bandwidth can either send or receive. Moreover, the complete data transmission process happens through a single cable or a channel. Thus, the transmission can not process the sending and receiving process together.

It works as per the TDM model or Time Division Multiplexing and does not use any division method. Thus, the bandwidth can use its total capacity to transmit the entire data. Therefore people use this **data transmission** technique to send the data within a short distance. /

Ans. **Telephone** and Intercom communication are examples of baseband communication.

# What is Broadband Transmission?

Broadband transmission is another popular name when it comes to data transmission. It uses analog signals, and with this method, the data can be sent simultaneously using various frequencies. It is a unidirectional method of data transmission, and it can follow only one-way directions at a time.

Broadband transmission is based on the FDM or Frequency Division Model. And this model can pass the multiple frequency bands at a time, and each frequency carries a separate signal. And the receiver of the data divides the various signals in the relevant frequencies. Because of this feature, it can be used to transmit the data for longer devices as well. And mainly, it is used in cable TV, DSLs, ATMs, and many other lines to connect.

# Baseband



# Broadband

