

# [Free wifi modem essay example](https://assignbuster.com/free-wifi-modem-essay-example/)

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Modem is a word that is derived from two words – modulator and demodulator. A modem is a device that allows the use of analog signals to encode digital signals for transmission and performs the reverse of the encoding process at the receiver. The modems are used to transform the digital information of computer systems to the analog form that can be transmitted and the digital information is retrieved at the receiving modem for the computer. WiFi also stands for wireless Fidelity. It describes a means of communication between transmitting and receiving devices without the use of wires but radio waves.

## A WiFi modem is thus a modem device that transmits and receives computer data communication through a wireless medium.

WiFi modems are classified based on the data rate (how much data it transmits per second in bits/s), the modulation technique used and the coverage range of the wireless device.
For other devices such as laptops, Personal Digital Assistants (PDAs) etc to communicate with a WiFi modem, they must be equipped with a wireless card and be within the coverage range of the modem.
WiFi modems make it easier to set up a computer network for devices to communicate since it does not require running wires through buildings to achieve this purpose. Furthermore, it makes it easier to access network resources from anywhere within the coverage range of the modem, since one is not physically restricted by cables.
The performance of a modem depends largely on its specifications in terms of range, coverage area and modulation technique used. In the light of this, there are so many manufacturers that produce and sell modem. The choice of a particular brand will depend on the communication requirements of the user and how affordable the device is to the client.