

Frequency Overview Chart			
Frequency	Uses/Applications	Advantages	Disadvantages
400 MHz	GMRS, SCADA, UHF Business Band, General Mobile Radio Service, Family Radio Service 2-way "walkie-talkies" and public safety band applications	Very long range and excellent penetration of solid objects such as trees, leaves etc.	Very low throughput not for use with high bandwidth applications such as video
900 MHz	RFID, SCADA, GSM, ISM, 900 MHz Cellular, Wireless Security Cameras	Very long range and excellent penetration of solid objects such as trees, leaves etc.	Very low throughput not for use with high bandwidth applications such as video
1.2 GHz	Wireless Video Links, Wireless Security Cameras	long range and good penetration of solid objects such as trees	Low throughput
1.9 GHz	Personal Communication Service (PCS), Cellular, LTE	Superior transmission clarity even with increased traffic from other 1.9 GHz devices	Lower throughput than higher frequencies such as 2.4 GHz and 5.8 GHz
2.4 GHz	Wi-Fi, 802.11b/g/n, Bluetooth, ZigBee	High throughput, Supports Voice, Video and Data	Poor signal penetration qualities, absorbs into water found in trees and leaves
2.6 GHz	WiMAX, LTE, MMDS	High spectral efficiency and high throughput	Inferior in-building penetration characteristics compared to lower frequencies
3.5 GHz	WiMAX, SOFDMA, Small Cell	High throughput	Inherent propagation limitations
4.9 GHz	Public Safety, Homeland Security, Police, Fire, PAN	Very high throughput	A license is required to operate within this band in the United States
5 GHz	Wi-Fi, 802.11a/n/ac	Highest throughput of the ISM bands	Shorter range than lower frequencies