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