

## **DIR-513A operation description**

This device integrates the WiFi chipset. The compact size and iPhone charging of this design Make it a multi-functional portable WiFi electronic products. The WiFi chipset includes an integrated, RF front-end (Power Amplifier, Low-Noise Amplifier, and RF switch) and high-frequency reference clock, enabling low-cost designs with minimal external components. Advanced architecture and protocol techniques save power during sleep, stand-by, and active states.

### **WiFi operation:**

The chipset is compliant with IEEE 802.11 b/g/n standards. The device adapts direct sequence spread spectrum modulation. The modulation implemented includes DQPSK, DBPSK, CCK, and OFDM, and the crystal frequency of the WLAN RF circuitry is 20 MHz. In addition, its standard compliance ensures that it can communicate with any 802.11 b/g/n network. The country code selection ability is disabled for products marketed in the United States and Canada.

The device supports the WiFi operation frequency range as outlined below, and does not support Ad-Hoc and hotspot capability on non-US operational frequency.

Frequency Range	Mode	Type of Modulation
2412-2462 MHz	802.11b	DSSS (DBPSK/DQPSK/CCK)
2412-2462 MHz	802.11g 802.11n HT20/HT40	OFDM (BPSK/QPSK/16QAM/64QAM)

Frequency Range	Scanning Plan	Ad Hoc Mode capability	Access point capability	WiFi Direct Group Owner	WiFi Direct Group Client
2412-2462 MHz	Active	Yes	Yes	Yes	Yes