

## Operational Description

This device is a Wireless 802.11a/b/g Mini PCI module which operates in the 2.4GHz frequency spectrum with throughput of up to 54Mbps which OFDM technique will be applied. If the signal to noise ratio is too poor which could not support 108Mbps, the 11Mbps data rate with DSSS technique will be applied.

The transmitter of the EUT is powered by host equipment. The antenna for 2.4GHz is Hi-Gain Outdoor Directional Antenna with N Jack connector & Omnidirectional Wireless LAN Marine Antenna with RP-SMA plug connector. The antenna for 5GHz is Dipole antenna with Reverse SMA antenna connector and printed antenna with RP SMA Plug connector.

This device is a 802.11abg wireless LAN, which operates in both of the 5GHz and 2.4GHz bands and can't transmitting simultaneously, the maximum data rate could be 54Mbps.

For more detailed instruction, please take a look at the user's manual.

FCC 15.407(c) states: The device shall automatically discontinue transmission in case of either absence of information to transmit or operational failure. These provisions are not intended to preclude the transmission of control or signaling information or the use of repetitive codes used by certain digital technologies to complete frame or burst intervals.

Applicants shall include in their application for equipment authorization a description of how this requirement is met”

Data transmission is always initiated by software, which is then pass down through the MAC, through the digital and analog baseband, and finally to the RF chip. Several special packets (ACKs, CTS, PSPoll, etc...) are initiated by the MAC. There are the only ways the digital baseband portion will turn on the RF transmitter, which it then turns off at the end of the packet. Therefore, the transmitter will be on only while one of the aforementioned packets are being transmitted.