

Operational Description

This device is a 802.11ac/a/b/g/n + BT Wireless Module, which operates in both of 2.4GHz and 5GHz bands; the maximum data rate could be up to 866.7Mbps which OFDM technique. If the signal to noise radio is too poor which could not support 866.7Mbps, the 11Mbps data rate with DSSS technique will be applied.

The transmitter of the EUT is powered by DC 3.3V from host equipment.

The antennas provided to the EUT, please refer to the following table:

Transmitter Circuit	Brand	Model	Antenna Gain(dBi) <Including cable loss>	Frequency range (GHz to GHz)	Antenna Type	Connector Type	Cable Loss (dB)	Cable Length (mm)
Chain (0) Ant. 1 (WLAN Ant)	High-Tek Electronics Co.,Ltd	DC33001JB20	1.5	2.4~2.4835	PIFA	i-pex(MHF)	0.65	260
			0.68	5.15~5.35	PIFA	i-pex(MHF)	1.02	260
			2.77	5.47~5.75			1.07	
			2.72	5.75~5.85			1.09	
Chain (1) Ant. 2 (WLAN+BT Ant)	High-Tek Electronics Co.,Ltd	DC33001JB30	-1.55	2.4~2.4835	PIFA	i-pex(MHF)	0.98	390
			1.57	5.15~5.35	PIFA	i-pex(MHF)	1.53	390
			2.77	5.47~5.7			1.6	
			1.70	5.75~5.85			1.64	

Note: For 802.11a/b/g mode: Max. antenna gain was chosen for final test.

The other instruction, please have a look at the users 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.