Operational Description

This device is a Unified Concurrent Dual-band Access Point, which operates in both of the 5GHz and 2.4GHz bands; the maximum data rate could be up to 300Mbps which OFDM technique. If the signal to noise radio is too poor which could not support 300Mbps, the 11Mbps data rate with DSSS technique will be applied.

The transmitter of the EUT is powered by the 48Vdc POE or 12Vdc power adapter. The antenna information is as below.

Internal antenna:

Antenna	Antenna Type	Antenna Gain	Antenna Connector
Ant 1 (2.4G)	PIFA	3.47 dBi	IPEX PLUG
Ant 2 (2.4G)	PIFA	2.23 dBi	
Ant 3 (5G)	PIFA	1.40 dBi @ 5.0G 1.43 dBi @ 5.2G 3.65 dBi @ 5.5G 4.19 dBi @ 5.8G	
Ant 4 (5G)	PIFA	2.38 dBi @ 5.0G 4.09 dBi @ 5.2G 4.75 dBi @ 5.5G 5.23 dBi @ 5.8G	

External antenna:

Antenna	Antenna Type	Antenna Gain	Antenna Connector
Ant 1, 2, 3, 4 (2.4+5G)	Dipole	3 dBi @ 2.4G 5 dBi @ 5.0G 5 dBi @ 5.2G 5 dBi @ 5.5G 5 dBi @ 5.8G	R-SMA

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.