Operational Description

This device is a IP Set-Top Box with Wi-Fi 11ac, which operates in Z-Wave technology and WLAN (2.4GHz & 5GHz), and can transmitting simultaneously. The maximum data rate could be up to 1733.3Mbps which OFDM technique. If the signal to noise radio is too poor which could not support 1733.3Mbps.

The transmitter of the EUT is powered by DC 12V from power adapter.

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

Zigbee							
Antenna No.	Transmitter Circuit	Brand	Model	Ant. Gain(dBi) <Including cable loss>	Frequency range (GHz to GHz)	Antenna Type	Connecter Type
1	Chain (0)	INPAQ	NA	2.78	2.4~2.5	PIFA	NA
2	Chain (1)		NA	2.45	2.4~2.5		
5GHz Band							
Antenna No.	Transmitter Circuit	Brand	Model	Ant. Gain(dBi) <Including cable loss>	Frequency range (GHz to GHz)	Antenna Type	Connecter Type
1	Chain (0)	TONGDA COMMUNICATION CO., LTD.	NA	3.49	5.15~5.25	PCB	i-pex(MHF)
			NA	3.99	5.725~5.85	PCB	i-pex(MHF)
2	Chain (1)		NA	3.47	5.15~5.25	PCB	i-pex(MHF)
			NA	4.57	5.725~5.85	PCB	i-pex(MHF)
3	Chain (2)		NA	4.11	5.15~5.25	PCB	i-pex(MHF)
			NA	3.7	5.725~5.85	PCB	i-pex(MHF)
4	Chain (3)		NA	3.45	5.15~5.25	PCB	i-pex(MHF)
			NA	3.46	5.725~5.85	PCB	i-pex(MHF)

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.