Operational Description

This device is a AC1750 Dual Band Wireless Router & AC1750 Dual Band Wireless Access Point, which operates in both of the 5GHz and 2.4GHz bands; the maximum data rate could be up to 1300Mbps which OFDM technique. If the signal to noise radio is too poor which could not support 1300Mbps, the 11Mbps data rate with DSSS technique will be applied.

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

The antenna provided to the EUT, please refer to following table.

For 2.4GHz

Transmitter Circuit	Antenna Type	Peak Gain(dBi) (Include cable loss)	Connecter Type	Frequency range (MHz to MHz)	Cable Length (mm)
Chain (0)	Dipole	2.5	i-pex	2400~2500	78
Chain (1)	Dipole	6	i-pex	2400~2500	90
Chain (2)	Dipole	5.5	i-pex	2400~2500	185

For 5GHz (Band 1)

Transmitter Circuit	Antenna Type	Peak Gain(dBi) (Include cable loss)	Connecter Type	Frequency range (MHz to MHz)	Cable Length (mm)
Chain (0)	Dipole	4.8	i-pex	5150~5825	78
Chain (1)	Dipole	6	i-pex	5150~5825	90
Chain (2)	Dipole	6	i-pex	5150~5825	185

Note:
1. For 802.11b mode will fix transmission on Chain (0).
2. For 802.11g, the worst case was found in Chain (1) Therefore only the test data of the mode was recorded in this report.
3. For 802.11a, the worst case was found in Chain (1) Therefore only the test data of the mode was recorded in this report.

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.