



# Operational Description

This device is a Integrated Mobile Broadband Router, which operates in both of the 5GHz and 2.4GHz bands and can transmitting simultaneously, the maximum data rate could be up to 256Mbps which OFDM technique. If the signal to noise ratio is too poor which could not support 256Mbps, the 11Mbps data rate with DSSS technique will be applied.

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

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

Set 1									
Transmitter Circuit	Antenna Type	Gain(dBi) (Excludes cable loss )		Cable Loss (dB)		Net Gain (dBi)		Connector Type	Cable Length (cm)
		2.4GHz	5GHz	2.4GHz	5GHz	2.4GHz	5GHz		
Right Side Chain (0)	Dipole	5.03	5.59	1.2	2	3.83	3.59	R-SMA	18
In center Chain (1)	Dipole	5.03	5.59	1	1	4.03	4.59	R-SMA	11
Left Side Chain (2)	Dipole	5.03	5.59	1.2	2	3.83	3.59	R-SMA	18
Set 2									
Transmitter Circuit	Antenna Type	Gain(dBi) (Excludes cable loss )		Cable Loss (dB)		Net Gain (dBi)		Connector Type	Cable Length (cm)
		2.4GHz	5GHz	2.4GHz	5GHz	2.4GHz	5GHz		
Right Side Chain (0)	Dipole	4.7	4.7	1.2	2	3.5	2.7	R-SMA	18
In center Chain (1)	Dipole	4.7	4.7	1	1	3.7	3.7	R-SMA	11
Left Side Chain (2)	Dipole	4.7	4.7	1.2	2	3.5	2.7	R-SMA	18
Set 3									
Transmitter Circuit	Antenna Type	Gain(dBi) (Excludes cable loss )		Cable Loss (dB)		Net Gain (dBi)		Connector Type	Cable Length (cm)
		2.4GHz	5GHz	2.4GHz	5GHz	2.4GHz	5GHz		
Right Side Chain (0)	Dipole	3.8	5	1.2	2	2.6	3	R-SMA	18
In center Chain (1)	Dipole	3.8	5	1	1	2.8	4	R-SMA	11
Left Side Chain (2)	Dipole	3.8	5	1.2	2	2.6	3	R-SMA	18

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.



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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.