Ruckus Wireless
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Sunnyvale, CA 94089 USA

February 8, 2018

Federal Communications Commission
Authorization and Evaluation Division
Equipment Authorization Branch
7435 Oakland Mills Road
Columbia, MD 21046

Applicant's declaration concerning RF Radiation Exposure

Product description: IOT Dongle
Model No: I100

The equipment complies with FCC RF radiation exposure limits set forth for an uncontrolled environment. The integral antennas used for this transmitter must not be co-located or operating in conjunction with any other antenna or transmitter within the host device.

A safety statement concerning minimum separation distances from enclosure of the Product: IOT Dongle will be integrated in the regulatory flyer to provide end-users with transmitter operating conditions for satisfying RF exposure compliance.

The appropriate information can be drawn from the test report no: W6M21711-17606-C-1-R and the accompanying calculations.

Sincerely,

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3.2 RF Exposure Compliance Requirements

FCC Rule: 15.247(b)(3)
Test exclusion = max. conducted output power
Test exclusion = 16.27 dBm (for BLE)
Test exclusion = 15.56 dBm (for Zigbee)

Test equipment used: ETSTW-RE 055

FCC OET Bulletin 65 Edition 97.01 determines the equations for predicting RF fields and applicable limits.
The prediction for power density in the far-field but will over-predict power density in the near field, where it could be used for walking a “worst case” or conservative prediction.

$$S = \frac{PG}{4\pi R^2}$$

S – Power Density
P – Output power ERP
R – Distance
D – Cable Loss
AG – Antenna Gain
BLE:

Item	Unit	Value	Remarks
P	mW	42.36	Peak value
D	dB		
AG	dBi	2.2	
G		1.66	Calculated Value
R	cm	20	Assumed value
S	mW/cm^2	0.014	Calculated value

Zigbee:

Item	Unit	Value	Remarks
P	mW	35.97	Peak value
D	dB		
AG	dBi	2.2	
G		1.66	Calculated Value
R	cm	20	Assumed value
S	mW/cm^2	0.012	Calculated value

Limits:

Limit for General Population / Uncontrolled Exposure	
Frequency (MHz)	Power Density (mW/cm^2)
1500 – 100.000	1.0