

RF Exposure Report

Report No.: SA171215C04G

FCC ID: YZKECWO5211L

Test Model: ECWO5213-L

Received Date: Sep. 27, 2018

Test Date: Oct. 12 ~ Oct. 27, 2018

Issued Date: Nov. 09, 2018

Applicant: Edgecore Networks Corporation

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FCC Registration / 788550 / TW0003

Designation Number:



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Release Control Record

Issue No.	Description	Date Issued
SA171215C04G	Original release.	Nov. 09, 2018

1 Certificate of Conformity

Product: CONCURRENT DUAL-BAND 11AC WAVE 2 AP

Brand: Edgecore

Test Model: ECW05213-L

Sample Status: Engineering sample

Applicant: Edgecore Networks Corporation

Test Date: Oct. 12 ~ Oct. 27, 2018

Standards: FCC Part 2 (Section 2.1091)

KDB 447498 D01 General RF Exposure Guidance v06

IEEE C95.1-1992

The above equipment has been tested by **Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch**, and found compliance with the requirement of the above standards. The test record, data evaluation & Equipment Under Test (EUT) configurations represented herein are true and accurate accounts of the measurements of the sample's RF characteristics under the conditions specified in this report.

Prepared by : *Suntee Liu* , **Date:** Nov. 09, 2018
Suntee Liu / Specialist

Approved by : *Bruce Chen* , **Date:** Nov. 09, 2018
Bruce Chen / Project Engineer

2 RF Exposure

2.1 Limits for Maximum Permissible Exposure (MPE)

Frequency Range (MHz)	Electric Field Strength (V/m)	Magnetic Field Strength (A/m)	Power Density (mW/cm ²)	Average Time (minutes)
Limits For General Population / Uncontrolled Exposure				
300-1500	F/1500	30
1500-100,000	1.0	30

F = Frequency in MHz

2.2 MPE Calculation Formula

$$Pd = (Pout * G) / (4 * pi * r^2)$$

where

Pd = power density in mW/cm²

Pout = output power to antenna in mW

G = gain of antenna in linear scale

Pi = 3.1416

R = distance between observation point and center of the radiator in cm

2.3 Classification

The antenna of this product, under normal use condition, is at least 31cm away from the body of the user. So, this device is classified as Mobile Device.

3 Calculation Result of Maximum Conducted Power

For WLAN

Frequency Band (MHz)	Mode	Max Power (dBm)	Antenna Gain (dBi)	Distance (cm)	Power Density (mW/cm ²)	Limit (mW/cm ²)
WLAN 2412~2462	-	21.71	14.41	31	0.339	1
WLAN 5180~5240	Master	22.93	13.51	31	0.365	1
	Client	19.14	13.51	31	0.152	1
WLAN 5720~5825	-	25.42	13.51	31	0.647	1

Note:

2412~2462MHz Max. Gain = 11.4dBi + 10log(2) = 14.41 dBi

5180~5825MHz Max. Gain = 10.5dBi + 10log(2) = 13.51dBi

For BT-LE (FCC ID: RC6-M2-TBT)

Frequency Band (MHz)	Mode	Max Power (dBm)	Antenna Gain (dBi)	Distance (cm)	Power Density (mW/cm ²)	Limit (mW/cm ²)
BT LE 2402~2480	-	1.059	3.88	31	0.0003	1

Conclusion:

The formula of calculated the MPE is:

$CPD1 / LPD1 + CPD2 / LPD2 + \dots \text{etc.} < 1$

CPD = Calculation power density

LPD = Limit of power density

Worst case: WLAN 2.4GHz + WLAN 5GHz + BT = 0.339/1 + 0.647/1 + 0.0003/1 = 0.9863 < 1

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