

## RF Exposure Report

**Report No.:** SA190625C32

**FCC ID:** RYK-WPEQ262ACNIBT

**Test Model:** WPEQ-262ACNI(BT)

**Received Date:** Jun. 25, 2019

**Test Date:** Jul. 19 to Sep. 12, 2019

**Issued Date:** Sep. 17, 2019

**Applicant:** SparkLAN Communications, Inc.

**Address:** 8F., No.257, Sec. 2, Tiding Blvd., Neihu District, Taipei City 11493, Taiwan (R.O.C.)

**Issued By:** Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch

**Lab Address:** No. 47-2, 14<sup>th</sup> Ling, Chia Pau Vil., Lin Kou Dist., New Taipei City, Taiwan

**Test Location (1):** No. 47-2, 14<sup>th</sup> Ling, Chia Pau Vil., Lin Kou Dist., New Taipei City, Taiwan

**Test Location (2):** No. 19, Hwa Ya 2nd Rd., Wen Hwa Vil., Kwei Shan Dist., Taoyuan City 33383, TAIWAN

**FCC Registration /  
Designation Number:** 198487 / TW2021



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### Release Control Record

Issue No.	Description	Date Issued
SA190625C32	Original release.	Sep. 17, 2019

## 1 Certificate of Conformity

**Product:** 802.11ac/b/g/n Wi-Fi+BT Module

**Brand:** SparkLAN

**Test Model:** WPEQ-262ACNI(BT)

**Sample Status:** R&D sample

**Applicant:** SparkLAN Communications, Inc.

**Test Date:** Jul. 19 to Sep. 12, 2019

**Standards:** FCC Part 2 (Section 2.1091)

KDB 447498 D01 General RF Exposure Guidance v06

IEEE C95.3 -2002

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 :**

*Annie Chang*

**Date:**

Sep. 17, 2019

Annie Chang / Senior Specialist

**Approved by :**

*Rex Lai*

**Date:**

Sep. 17, 2019

Rex Lai / Associate Technical Manager

## 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 <sup>2</sup> )	Average Time (minutes)
Limits For General Population / Uncontrolled Exposure				
0.3-1.34	614	1.63	(100)*	30
1.34-30	824/f	2.19/f	(180/f <sup>2</sup> )*	30
30-300	27.5	0.073	0.2	30
300-1500	...	...	f/1500	30
1500-100,000	...	...	1.0	30

f = Frequency in MHz ; \*Plane-wave equivalent power density

### 2.2 MPE Calculation Formula

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

where

Pd = power density in mW/cm<sup>2</sup>

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 20cm away from the body of the user.

So, this device is classified as **Mobile Device**.

## 2.4 Calculation Result Of Maximum Conducted Power

Function	Frequency Band (MHz)	Max Power (dBm)	Antenna Gain (dBi)	Distance (cm)	Power Density (mW/cm <sup>2</sup> )	Limit (mW/cm <sup>2</sup> )
BT LE	2402-2480	2.56	3	20	0.0007	1
BT EDR	2402-2480	11.05	3	20	0.0051	1
WLAN	2412-2462	21.08	6.01	20	0.1018	1
WLAN	5180-5240	22.00	8.01	20	0.1994	1
WLAN	5260-5320	21.88	8.01	20	0.1940	1
WLAN	5500-5720	22.05	8.01	20	0.2017	1
WLAN	5745-5825	22.91	8.01	20	0.2459	1

### Note:

1. Determining compliance based on the results of the compliance measurement, not taking into account measurement instrumentation uncertainty.
2. 2.4GHz: Directional gain = 3dBi + 10log(2) = 6.01dBi  
5.0GHz: Directional gain = 5dBi + 10log(2) = 8.01dBi
3. 2.4GHz & 5GHz technologies cannot transmit at same time.  
WLAN & BT technologies cannot transmit at same time.

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