

## RF Exposure Report

**Report No.:** SA180823C24

**FCC ID:** RYK-WNFB263ACNIBT

**Test Model:** WNFB-263ACNI(BT)

**Received Date:** Aug. 23, 2018

**Test Date:** Sep. 22 ~ Oct. 08, 2018

**Issued Date:** Oct. 19, 2018

**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, 14th Ling, Chia Pau Vil., Lin Kou Dist., New Taipei City, Taiwan, R.O.C.

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

**FCC Registration /** 788550 / TW0003  
**Designation Number:**



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### Release Control Record

Issue No.	Description	Date Issued
SA180823C24	Original release.	Oct. 19, 2018

## 1 Certificate of Conformity

**Product:** 802.11ac/a/b/g/n 2T2R Industrial Grade Wi-Fi / Bluetooth 4.1 Combo M.2 2230 Module

**Brand:** SparkLAN

**Test Model:** WNFB-263ACNI(BT)

**Sample Status:** R&D sample

**Applicant:** SparkLAN Communications, Inc.

**Test Date:** Sep. 22 ~ Oct. 08, 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 :**

  
Polly Chien / Specialist

**Date:**

Oct. 19, 2018

**Approved by :**



Bruce Chen / Project Engineer

**Date:**

Oct. 19, 2018

## 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				
300-1500	...	...	F/1500	30
1500-100,000	...	...	1.0	30

F = Frequency in MHz

### 2.2 MPE Calculation Formula

$$P_d = (P_{out} \cdot G) / (4 \cdot \pi \cdot r^2)$$

where

$P_d$  = power density in mW/cm<sup>2</sup>

$P_{out}$  = 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.

## 3 Calculation Result of Maximum Conducted Power

Frequency Band (MHz)	Max Power (dBm)	Antenna Gain (dBi)	Distance (cm)	Power Density (mW/cm <sup>2</sup> )	Limit (mW/cm <sup>2</sup> )
WLAN 2412~2462	18.60	5.0	20	0.046	1
WLAN 5180~5240	16.48	5.8	20	0.034	1
WLAN 5260~5320	16.50	5.8	20	0.034	1
WLAN 5500~5700	16.48	5.8	20	0.034	1
WLAN 5745~5825	16.48	5.8	20	0.034	1
BT LE 2402~2480	4.45	5.0	20	0.001	1
BT EDR 2402~2480	4.37	5.0	20	0.001	1

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