KDB 447498 D03
47 C.F.R. Part 1, Subpart I, Section 1.1310
47 C.F.R. Part 2, Subpart J, Section 2.1091

RF EXPOSURE REPORT

For

WiFi BL-M8811CU5

Model: WiFi BL-M8811CU5

Trade Name: Safe Fleet

Issued to

Fleetmind Seon Solutions Inc
Unit 111 – 3B Burbidge Street, Coquitlam, BC, V3K 7B2 Canada

Issued by

Compliance Certification Services Inc.
Wugu Laboratory
No.11, Wugong 6th Rd., Wugu Dist.,
New Taipei City, Taiwan. (R.O.C.)
Issue Date: May 12, 2020

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Revision History

Rev.	Issue Date	Revisions	Effect Page	Revised By
00	May 12, 2020	Initial Issue	ALL	Doris Chu

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1. TEST RESULT CERTIFICATION

We hereby certify that:

The above equipment was tested by Compliance Certification Services Inc. The test data, data evaluation, test procedures, and equipment configurations shown in this report were made in accordance with the procedures given in ANSI C63.10: 2013 and the energy emitted by the sample EUT tested as described in this report is in compliance with the requirements of FCC Rules Part 15.207, 15.209, 15.247.

The test results of this report relate only to the tested sample EUT identified in this report.

APPLICABLE STANDARDS	
STANDARD	**TEST RESULT**
KDB 447498 D03 47 C.F.R. Part 1, Subpart I, Section 1.1310 47 C.F.R. Part 2, Subpart J, Section 2.1091	No non-compliance noted
Statements of Conformity	
Determination of compliance is based on the results of the compliance measurement, not taking into account measurement instrumentation uncertainty.	

Approved by:

Kevin Tsai
Deputy Manager
Compliance Certification Services Inc.

2. LIMIT

According to §15.247(i), systems operating under the provisions of this section shall be operated in a manner that ensures that the public is not exposed to radio frequency energy levels in excess of the Commission's guidelines. See § 1.1307(b)(1) of this chapter.

3. EUT SPECIFICATION

EUT	WiFi BL-M8811CU5
Model	WiFi BL-M8811CU5
Model Discrepancy	N/A
Frequency band (Operating)	☒ 802.11b/g/n HT20: 2412MHz ~ 2462 MHz ☒ 802.11n HT40: 2422MHz ~ 2452MHz ☒ 802.11a/n HT20: 5180MHz ~ 5240MHz / 5260 ~ 5320MHz 5500 ~ 5700MHz / 5745MHz ~ 5825MHz 802.11n HT40: 5190MHz ~ 5230MHz / 5270 ~ 5310MHZ 5510 ~ 5670MHz / 5755MHz ~ 5795MHz 802.11ac VHT80: 5210MHz / 5290MHz / 5530MHz / 5775MHz ☐ Others
Device category	☐ Portable (<20cm separation) ☒ Mobile (>20cm separation) ☐ Others
Exposure classification	☐ Occupational/Controlled exposure (S = 5mW/cm^2) ☒ General Population/Uncontrolled exposure (S=1mW/cm^2)
Antenna Specification	Dual Band Omni Antenna 2.4GHz: Directional Gain : 4.00 dBi (Numeric gain: 2.51) Worst 5GHz: Directional Gain : 4.00 dBi (Numeric gain: 2.51) Worst

<table>
<tr><td>Maximum Measurement Average Power</td><td>
<table>
<tr><td>2.4GHz</td><td></td><td></td></tr>
<tr><td>IEEE 802.11b Mode:</td><td>21.24 dBm</td><td>(133.045 mW)</td></tr>
<tr><td>IEEE 802.11g Mode:</td><td>16.64 dBm</td><td>(46.132 mW)</td></tr>
<tr><td>IEEE 802.11n HT 20 Mode:</td><td>16.59 dBm</td><td>(45.604 mW)</td></tr>
<tr><td>IEEE 802.11n HT 40 Mode:</td><td>16.73 dBm</td><td>(47.098 mW)</td></tr>
<tr><td>5GHz</td><td></td><td></td></tr>
<tr><td>IEEE 802.11a Mode:</td><td>17.41 dBm</td><td>(55.081 mW)</td></tr>
<tr><td>IEEE 802.11n HT 20 Mode:</td><td>17.70 dBm</td><td>(58.884 mW)</td></tr>
<tr><td>IEEE 802.11n HT 40 Mode:</td><td>18.01 dBm</td><td>(63.241 mW)</td></tr>
<tr><td>IEEE 802.11ac VHT 80 Mode:</td><td>17.53 dBm</td><td>(56.624 mW)</td></tr>
</table>
</td></tr>
<tr><td>Maximum tune up power</td><td>
<table>
<tr><td>2.4GHz</td><td></td><td></td></tr>
<tr><td>IEEE 802.11b Mode:</td><td>21.50 dBm</td><td>(141.254 mW)</td></tr>
<tr><td>IEEE 802.11g Mode:</td><td>17.00 dBm</td><td>(50.119 mW)</td></tr>
<tr><td>IEEE 802.11n HT 20 Mode:</td><td>17.00 dBm</td><td>(50.119 mW)</td></tr>
<tr><td>IEEE 802.11n HT 40 Mode:</td><td>17.00 dBm</td><td>(50.119 mW)</td></tr>
<tr><td>5GHz</td><td></td><td></td></tr>
<tr><td>IEEE 802.11a Mode:</td><td>18.00 dBm</td><td>(63.096 mW)</td></tr>
<tr><td>IEEE 802.11n HT 20 Mode:</td><td>18.50 dBm</td><td>(70.795 mW)</td></tr>
<tr><td>IEEE 802.11n HT 40 Mode:</td><td>19.00 dBm</td><td>(79.433 mW)</td></tr>
<tr><td>IEEE 802.11ac VHT 80 Mode:</td><td>18.50 dBm</td><td>(70.795 mW)</td></tr>
</table>
</td></tr>
<tr><td>Evaluation applied</td><td>☒ MPE Evaluation*
☐ SAR Evaluation
☐ N/A</td></tr>
</table>

4. TEST RESULTS

No non-compliance noted.

Calculation

Given $E = \frac{\sqrt{30 \times P \times G}}{d}$ & $S = \frac{E^2}{377}$

Where E = Field strength in Volts / meter
P = Power in Watts
G = Numeric antenna gain
d = Distance in meters
S = Power density in milliwatts / square centimeter

Combining equations and re-arranging the terms to express the distance as a function of the remaining variables yields:

$$S = \frac{30 \times P \times G}{377 d^2}$$

Changing to units of mW and cm, using:

P (mW) = P (W) / 1000 and

d (cm) = d(m) / 100

Yields

$$S = \frac{30 \times (P/1000) \times G}{377 \times (d/100)^2} = 0.0796 \times \frac{P \times G}{d^2}$$ ***Equation 1***

Where d = Distance in cm
P = Power in mW
G = Numeric antenna gain
S = Power density in mW / cm²

5. MAXIMUM PERMISSIBLE EXPOSURE

Substituting the MPE safe distance using d = 20 cm into Equation 1:

$$S = 0.000199 \times P \times G$$

Where *P = Power in mW*
G = Numeric antenna gain
S = Power density in mW / cm²

IEEE 802.11b mode:

Ch.	Frq.(MHz)	P (mW)	Gain (num.)	D (cm)	Power density in mW / cm²	Limit (mW/cm2)
1	2412	141.254	2.51	20	0.0706	1

IEEE 802.11g mode:

Ch.	Frq.(MHz)	P (mW)	Gain (num.)	D (cm)	Power density in mW / cm²	Limit (mW/cm2)
1	2412	50.119	2.51	20	0.0250	1

IEEE 802.11n HT20 mode:

Ch.	Frq.(MHz)	P (mW)	Gain (num.)	D (cm)	Power density in mW / cm²	Limit (mW/cm2)
6	2437	50.119	2.51	20	0.0250	1

IEEE 802.11n HT40 mode:

Ch.	Frq.(MHz)	P (mW)	Gain (num.)	D (cm)	Power density in mW / cm²	Limit (mW/cm2)
3	2422	50.119	2.51	20	0.0250	1

IEEE 802.11a mode:

Ch.	Frq.(MHz)	P (mW)	Gain (num.)	D (cm)	Power density in mW / cm²	Limit (mW/cm2)
140	5700	63.096	2.51	20	0.0315	1

IEEE 802.11n HT20 mode:

Ch.	Frq.(MHz)	P (mW)	Gain (num.)	D (cm)	Power density in mW / cm²	Limit (mW/cm2)
52	5260	70.795	2.51	20	0.0354	1

IEEE 802.11n HT40 mode:

Ch.	Frq.(MHz)	P (mW)	Gain (num.)	D (cm)	Power density in mW / cm²	Limit (mW/cm2)
54	5270	79.433	2.51	20	0.0397	1

IEEE 802.11ac VHT80 mode:

Ch.	Frq.(MHz)	P (mW)	Gain (num.)	D (cm)	Power density in mW / cm²	Limit (mW/cm2)
58	5290	70.795	2.51	20	0.0354	1

--End of Report--