MPE TEST REPORT

The product

Equipment Under Test	：WiFi Module
Model Number	：WN7911B-ZZ
Product Series	：N/A
Report Number	：HA160058-MPE
Issue Date	：25-April-2016
Test Result	：Compliance

is produced by

LawMate International Co., Ltd.

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HongAn TECHNOLOGY CO., LTD.

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BSMI Registration No.: SL2-IN-E-0023, SL2-A1-E-0023,   **FCC Designation No.:** TW1071
SL2-IS-E-0023, SL2-R1-E-0023,   **TAF Accreditation No.:** 1163
SL2-R2-E-0023, SL2-L1-E-0023   **VCCI Registration No.:** R-2156, C-2329, T-219

Contents

Test Result Certification

Applicant	：	LawMate International Co., Ltd.
Address of Applicant	：	3F, No.34, Lane 60, Wenhu St., Taipei, Taiwan
Manufacturer	：	New Champion Technology Co., Ltd.
Address of Manufacturer	：	Rm. 804, Sino Centre, 582-592 Nathan Rd., Mongkok, Kln., Hong Kong
Trade Name	：	LawMate
Equipment Under Test	：	WiFi Module
Model Number	：	WN7911B-ZZ
Product Series	：	N/A
FCC ID	：	2AHTX-WN7911B-ZZ
Filing Type	：	Certification
Sample Received Date	：	16-FEB-2016
Test Standard	：	

⊠ 47 CFR § 2.1091; 47 CFR § 1.1310; ANSI/ IEEE Std.C95.1-1992

Deviations from standard test methods & any other specifications : NONE
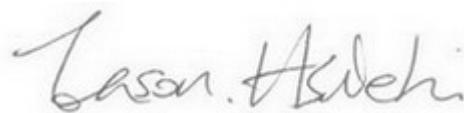
Remark:

1. This report details the results of the test carried out on one sample.

2. This report applies to the above sample only and shall not be reproduced in part without written approval of HongAn Technology Co., Ltd..

Documented by:

Kay Wang/ ADM. Dept Staff   2016-04-22

Tested by:

Eason Hsieh / ENG. Dept. Staff   2016-04-22

Approved by: **Date:**

Peter Chin / Section Manager   2016-04-25

1 General Description

1.1 Description of EUT

Equipment Under Test	:	WiFi Module
Model Number of EUT	:	WN7911B-ZZ
Product Series	:	N/A
Power Supply	:	DC input 3.3V
Frequency Range	:	802.11 b/ g/ n HT(20) : 2412~2462 MHz 802.11n HT(40) : 2422~2452 MHz
Number of Channels	:	11 Channels

Carrier Frequency of Each Channel	:	Ch.	Fre. (MHz)	Ch.	Fre. (MHz)	Ch.	Fre. (MHz)	Ch.	Fre. (MHz)	Ch.	Fre. (MHz)
		01	2412	02	2417	03	2422	04	2427	05	2432
		06	2437	07	2442	08	2447	09	2452	10	2457
		11	2462								

Antenna Specification	:	PCB Antenna/ Gain: 1.5 dBi
Modulation Technique	:	802.11b : DSSS (Type: CCK, DQPSK, DBPSK) 802.11g : OFDM 802.11n : OFDM (Type: 64QAM, 16QAM, QPSK, BPSK)
Transmit Data Rate	:	802.11b : 11/5.5/2/1 Mbps 802.11g : 54/48/36/24/18/12/9/6 Mbps 802.11n : MSC 0/1/2/3/4/5/6/7
Specification	:	**Dimensions**： 25 mm (L) X 13 mm (W) X 2 mm (H) **Weight**：2g **Function**：The EUT is a WIFI single module. ※**For more detail specification, please refer to the User Manual.**

2 Human Exposure Assessment

2.1 Limit

Due to the design and installation of this product, it is not possible to conduct SAR evaluation. This is because client either manufactures or supplies the antenna(s) that will be used in the installation of this product. Therefore, this product will be evaluated as a mobile device per 47 CFR § 1.1310 titled "Radiofrequency radiation exposure limits". Generally referred to as MPE limits.

In 47 CFR § 2.1091, paragraph (b) defines a mobile device as "a transmitting device designed to be used in other than fixed locations and to generally be used in such a way that a separation distance of at least 20 cm is normally maintained between the transmitter's radiating structure(s) and the body of the user or nearby persons. "This product is intended to be installed into a vehicle such that the unit is physically secured at one location. In the installation guide supplied with the product.

Client has made the following statement: "IMPORTANT: To meet the FCC's RF Exposure Guidelines, the antenna should be installed so there is at least 20 cm of separation between the body of the user and nearby persons and the antenna". Based on the installation of the transceiver and the antenna, the transmitters radiating structure is more than 20 cm from the user. Thus, this product is a "mobile device" as defined in section § 2.1091 paragraph (b).

Exposure evaluation
Equation from page 18 of OET Bulletin 65, Edition 97-01 $$S \;=\; \frac{PG}{4\pi R^2}$$ Where   S: power density   P: power input to the antenna   G: power gain of the antenna in the direction of interest relative to an isotropic radiator   R: distance to the center of radiation of the antenna.

2.2 Test Result

Pass

Please refer to the next page for detailed information.

Maximum Output Power:

| Temperature | : | 21.9℃ | | Humidity | : | 51% |
| Test Date | : | 2016-03-22 | | Tested by | : | Eason Hsieh |

Test Mode　　:　802.11 b

Test Channel	Frequency	Test Result		Worst Case
	(MHz)	(dBm)	(W)	
01	2412	13.35	0.02163	☐
06	2437	14.27	0.02673	☐
11	2462	14.56	0.02858	☒

Test Mode　　:　802.11 g

Test Channel	Frequency	Test Result		Worst Case
	(MHz)	(dBm)	(W)	
01	2412	11.35	0.013646	☐
06	2437	12.32	0.017061	☐
11	2462	12.44	0.017539	☒

Test Mode　　:　802.11 n HT(20)

Test Channel	Frequency	Test Result		Worst Case
	(MHz)	(dBm)	(W)	
01	2412	10.40	0.010965	☐
06	2437	11.35	0.013646	☐
11	2462	11.47	0.014029	☒

Test Mode　　:　802.11n HT(40)

Test Channel	Frequency	Test Result		Worst Case
	(MHz)	(dBm)	(W)	
03	2422	10.47	0.011143	☐
06	2437	10.98	0.012531	☐
09	2452	11.06	0.012764	☒

MPE Value:

Test mode ： 802.11 b

Test Channel	Frequency (MHz)	Output power (mW)	Antenna Gain (dBi)	Antenna Gain (numeric)	MPE (mW/cm^2)	Limit (mW/cm^2)
01	2412	21.63	1.5	1.412538	0.006078	1.0
06	2437	26.73	1.5	1.412538	0.007512	1.0
11	2462	28.58	1.5	1.412538	0.008030	1.0

MPE= $(P*G)/4\pi(R)^2$

Test mode ： 802.11 g

Test Channel	Frequency (MHz)	Output power (mW)	Antenna Gain (dBi)	Antenna Gain (numeric)	MPE (mW/cm^2)	Limit (mW/cm^2)
01	2412	13.646	1.5	1.412538	0.003835	1.0
06	2437	17.061	1.5	1.412538	0.004794	1.0
11	2462	17.539	1.5	1.412538	0.004929	1.0

MPE= $(P*G)/4\pi(R)^2$

Test mode ： 802.11 n HT(20)

Test Channel	Frequency (MHz)	Output power (mW)	Antenna Gain (dBi)	Antenna Gain (numeric)	MPE (mW/cm^2)	Limit (mW/cm^2)
01	2412	10.965	1.5	1.412538	0.003081	1.0
06	2437	13.646	1.5	1.412538	0.003835	1.0
11	2462	14.029	1.5	1.412538	0.003942	1.0

MPE= $(P*G)/4\pi(R)^2$

Test mode ： 802.11 n HT(40)

Test Channel	Frequency (MHz)	Output power (mW)	Antenna Gain (dBi)	Antenna Gain (numeric)	MPE (mW/cm^2)	Limit (mW/cm^2)
03	2422	11.143	1.5	1.412538	0.003131	1.0
06	2437	12.531	1.5	1.412538	0.003522	1.0
09	2452	12.764	1.5	1.412538	0.003587	1.0

MPE= $(P*G)/4\pi(R)^2$