FCC RF Test Report

APPLICANT : Lemobile Information Technology (Beijing) Co.,

Ltd.

EQUIPMENT: mobile phone

BRAND NAME : Letv

MODEL NAME : Le 1 Pro

FCC ID : 2AFWMLE1PRO

STANDARD : FCC Part 15 Subpart E §15.407

CLASSIFICATION : (NII) Unlicensed National Information Infrastructure

The product was received on Aug. 25, 2015 and testing was completed on Sep. 16, 2015. We, SPORTON INTERNATIONAL (SHENZHEN) INC., would like to declare that the tested sample has been evaluated in accordance with the test procedures and has been in compliance with the applicable technical standards.

The test results in this report apply exclusively to the tested model / sample. Without written approval of SPORTON INTERNATIONAL (SHENZHEN) INC., the test report shall not be reproduced except in full.

Reviewed by: Joseph Lin / Supervisor

Approved by: Jones Tsai / Manager

SPORTON INTERNATIONAL (SHENZHEN) INC.

1F & 2F, Building A, Morning Business Center, No. 4003 ShiGu Rd., Xili Town, Nanshan District, Shenzhen, Guangdong, P. R. China

Page Number : 1 of 32 Report Issued Date : Sep. 29, 2015

Testing Laboratory

Report No.: FR582501E

Report Version : Rev. 01

TABLE OF CONTENTS

1	GEN	ERAL DESCRIPTION	5
	1.1 1.2 1.3 1.4 1.5 1.6 1.7	Applicant Manufacturer Feature of Equipment Under Test Product Specification of Equipment Under Test Modification of EUT Testing Location Applicable Standards	5 6 7 7
2	TEST	CONFIGURATION OF EQUIPMENT UNDER TEST	
	2.1 2.2 2.3 2.4 2.5 2.6 2.7	Carrier Frequency and Channel Pre-Scanned RF Power Test Mode Connection Diagram of Test System Support Unit used in test configuration and system EUT Operation Test Setup Measurement Results Explanation Example	9 11 12 13
3	TEST	RESULT	14
	3.1 3.2 3.3 3.4 3.5 3.6 3.7 3.8	6dB Bandwidth Measurement Maximum Conducted Output Power Measurement Power Spectral Density Measurement Unwanted Emissions Measurement AC Conducted Emission Measurement Frequency Stability Measurement Automatically Discontinue Transmission Antenna Requirements	16 17 20 24 28 29
4	LIST	OF MEASURING EQUIPMENT	31
	PEND	ERTAINTY OF EVALUATIONIX A. CONDUCTED TEST RESULTS IX B. RADIATED TEST RESULTS	32
ΑP	PEND	IX C. SETUP PHOTOGRAPHS	

TEL: 86-755-8637-9589 FAX: 86-755-8637-9595 FCC ID: 2AFWMLE1PRO Page Number : 2 of 32
Report Issued Date : Sep. 29, 2015
Report Version : Rev. 01

REVISION HISTORY

REPORT NO.	VERSION	DESCRIPTION	ISSUED DATE
FR582501E	Rev. 01	Initial issue of report	Sep. 29, 2015

TEL: 86-755-8637-9589 FAX: 86-755-8637-9595 FCC ID: 2AFWMLE1PRO Page Number : 3 of 32
Report Issued Date : Sep. 29, 2015
Report Version : Rev. 01

SUMMARY OF TEST RESULT

Report Section	FCC Rule	Description	Limit	Result	Remark
3.1	15.403(i)	6dB Bandwidth	> 500kHz	Pass	-
3.2	15.407(a)	Maximum Conducted Output Power	≤ 30 dBm	Pass	-
3.3	15.407(a)	Power Spectral Density	≤ 30 dBm/500kHz	Pass	-
3.4	15.407(b)	Unwanted Emissions	≤ -17, -27 dBm/MHz &15.209(a)	Pass	Under limit 13.26 dB at 48.430 MHz
3.5	15.207	AC Conducted Emission	15.207(a)	Pass	Under limit 11.54 dB at 0.520 MHz
3.6	15.407(g)	Frequency Stability	Within Operation Band	Pass	-
3.7	15.407(c)	Automatically Discontinue Transmission	Discontinue Transmission	Pass	-
3.8	15.203 & 15.407(a)	Antenna Requirement	N/A	Pass	-

TEL: 86-755-8637-9589 FAX: 86-755-8637-9595 FCC ID: 2AFWMLE1PRO Page Number : 4 of 32 Report Issued Date : Sep. 29, 2015

Report No. : FR582501E

Report Version : Rev. 01

General Description 1

1.1 Applicant

Lemobile Information Technology (Beijing) Co., Ltd.

WENHUAYING NORTH (No.1, LINKONG 2nd St), GAOLIYING, SHUNYI DISTRICT, BEIJING.China

1.2 Manufacturer

Lemobile Information Technology (Beijing) Co., Ltd.

WENHUAYING NORTH (No.1, LINKONG 2nd St), GAOLIYING, SHUNYI DISTRICT, BEIJING.China

1.3 Feature of Equipment Under Test

Р	roduct Feature
Equipment	mobile phone
Brand Name	Letv
Model Name	Le 1 Pro
FCC ID	2AFWMLE1PRO
EUT supports Radios application	CDMA/EV-DO/GSM/GPRS/EGPRS/WCDMA/HSPA/HS PA+(Downlink Only)/DC-HSDPA/LTE/ANT+ WLAN2.4GHz 802.11b/g/n HT20/HT40 WLAN5GHz 802.11a/n HT20/HT40 WLAN5GHz 802.11ac VHT20/VHT40/VHT80 Bluetooth v3.0+EDR/Bluetooth v4.1 LE
IMEI Code	Conducted: 868126020009142/868126020009159 Radiation: 868126020009670/868126020009662 Conduction: 868126020002824/868126020002832
HW Version	DVT3.2
SW Version	5.0.008S
EUT Stage	Identical Prototype

Remark: The above EUT's information was declared by manufacturer. Please refer to the specifications or user's manual for more detailed description.

SPORTON INTERNATIONAL (SHENZHEN) INC. TEL: 86-755-8637-9589

FAX: 86-755-8637-9595 FCC ID: 2AFWMLE1PRO

: 5 of 32 Page Number Report Issued Date: Sep. 29, 2015 Report Version

: Rev. 01

1.4 Product Specification of Equipment Under Test

Product Sp	Product Specification subjective to this standard								
Tx/Rx Channel Frequency Range	5745 MHz ~ 5825 MHz								
	802.11a : 16.01 dBm / 0.0399 W								
	802.11n HT20 : 15.82 dBm / 0.0382 W								
Maximum Output Bawar	802.11n HT40 : 14.88 dBm / 0.0308 W								
Maximum Output Power	802.11ac VHT20: 15.80 dBm / 0.0380 W								
	802.11ac VHT40: 14.87 dBm / 0.0307 W								
	802.11ac VHT80: 12.16 dBm / 0.0164 W								
Type of Medulation	802.11a/n: OFDM (BPSK / QPSK / 16QAM / 64QAM)								
Type of Modulation	802.11ac : OFDM (BPSK / QPSK / 16QAM / 64QAM / 256QAM)								
Antenna Type / Gain	PIFA Antenna with gain -2.43 dBi								

SPORTON INTERNATIONAL (SHENZHEN) INC.

TEL: 86-755-8637-9589 FAX: 86-755-8637-9595 FCC ID: 2AFWMLE1PRO Page Number : 6 of 32
Report Issued Date : Sep. 29, 2015

Report No. : FR582501E

Report Version : Rev. 01

1.5 Modification of EUT

No modifications are made to the EUT during all test items.

1.6 Testing Location

Test Site	SPORTON INTERNATIONAL (SHENZHEN) INC.							
Test Site Location	1F & 2F, Building A, Morning Busin Town, Nanshan District, Shenzhen, G TEL: +86-755-8637-9589 FAX: +86-755-8637-9595	ess Center, No. 4003 ShiGu Rd., Xili uangdong, P. R. China						
Sporton Site No.								
iest Site No.	st Site No. TH01-SZ CO01-SZ							

Test Site	SPORTON INTERNATIONAL (SHENZHEN) INC.						
Test Site Location	No. 3 Building, the third floor of so warehouse, Nanshan District, Shenzh	outh, Shahe River west, Fengzeyuan nen, Guangdong, P. R. China					
	TEL: +86-755- 3320-2398						
Took Cita No	Sporton Site No.	FCC Registration No.					
Test Site No.	03CH01-SZ	831040					

Note: The test site complies with ANSI C63.4 2009 requirement.

1.7 Applicable Standards

According to the specifications of the manufacturer, the EUT must comply with the requirements of the following standards:

- FCC Part 15 Subpart E
- FCC KDB 789033 D02 General UNII Test Procedures New Rules v01
- ANSI C63.10-2013

Remark:

- All test items were verified and recorded according to the standards and without any deviation during the test.
- 2. FCC permits the use of the 1.5 meter table as an alternative in C63.10-2013 through inquiry tracking number 961829.
- 3. This EUT has also been tested and complied with the requirements of FCC Part 15, Subpart B, recorded in a separate test report.

SPORTON INTERNATIONAL (SHENZHEN) INC.

TEL: 86-755-8637-9589 FAX: 86-755-8637-9595 FCC ID: 2AFWMLE1PRO Page Number : 7 of 32
Report Issued Date : Sep. 29, 2015
Report Version : Rev. 01

Test Configuration of Equipment Under Test

The EUT has been associated with peripherals and configuration operated in a manner tended to maximize its emission characteristics in a typical application. Frequency range investigated: conducted emission (150 kHz to 30 MHz) and radiated emission (9 kHz to the 10th harmonic of the highest fundamental frequency or to 40 GHz, whichever is lower). For radiated measurement, pre-scanned in three orthogonal panels, X, Y, Z. The worst cases were recorded in this report.

The final configuration from all the combinations and the worst-case data rates were investigated by measuring the maximum power across all the data rates and modulation modes under section 2.2.

Based on the worst configuration found above, the RF power setting is set individually to meet FCC compliance limit for the final conducted and radiated tests shown in section 2.3.

2.1 Carrier Frequency and Channel

Frequency Band	Channel	Freq. (MHz)	Channel	Freq. (MHz)
	149	5745	157	5785
5745 -5825 MHz Band 4	151	5755	159	5795
(U-NII-3)	153	5765	161	5805
(5 1 5)	155	5775	165	5825

Note: The above Frequency and Channel in boldface were 802.11n HT40.

TEL: 86-755-8637-9589 FAX: 86-755-8637-9595 FCC ID: 2AFWMLE1PRO Page Number : 8 of 32 Report Issued Date: Sep. 29, 2015

Report No.: FR582501E

Report Version : Rev. 01

2.2 Pre-Scanned RF Power

Preliminary tests were performed in different data rate and data rate associated with the highest power were chosen for full test in the following tables. Final Output Power equals to Measured Output Power adds the duty factor.

	WLAN 5GHz 802.11a Output Power (dBm)														
Pow	ver vs. Chan	nel			F	ower vs.	Data Rat	е							
Channel	Frequency	Data Rate	Channel	9Mbps	12Mbps	18Mbps	24Mbps	36Mbps	48Mbps	54Mbps					
	(MHz)	6Mbps													
CH 149	5745	<mark>16.01</mark>													
CH 157	5785	15.99	CH 149	15.97	15.93	15.87	15.36	15.22	15.25	15.34					
CH 165	5825	15.53													

	WLAN 5GHz 802.11n-HT20 Output Power (dBm)													
Pov	ver vs. Chan	nel		Power vs. Data Rate										
Channel	Frequency	MCS Index	Channel	MCS1	MCS2	MCS3	MCS4	MCS5	MCS6	MCS7				
	(MHz)	MCS0												
CH 149	5745	15.82					15.34	15.23	15.25					
CH 157	5785	15.76	CH 149	15.76	15.77	15.24				15.25				
CH 165	5825	15.27												

	WLAN 5GHz 802.11n-HT40 Output Power (dBm)														
Pov	ver vs. Chan	nel		Power vs. Data Rate											
Channel	Frequency (MHz)		Channel	MCS1	MCS2	MCS3	MCS4	MCS5	MCS6	MCS7					
	(111112)	MCS0													
CH 151	5755	<mark>14.88</mark>	CU 151	14.83	3 14.84	14.39	39 14.32	14.38	14.36	14.48					
CH 159	5795	14.70	CH 151	14.03		14.39				14.40					

	WLAN 5GHz 802.11ac VHT20 Average Power (dBm)													
Power v			Power vs. Data Rate											
Channel	Frequency (MHz)	MCS Index MCS0	Channel	MCS1	MCS2	MCS3	MCS4	MCS5	MCS6	MCS7	MCS8			
CH 149	5745	<mark>15.80</mark>												
CH 157	5785	15.75	CH 157	15.74	5.74 15.74	15.36	15.36 15.31	15.40	15.40	15.29	15.27			
CH 165	5825	15.21												

WLAN 5GHz 802.11ac VHT40 Average Power (dBm)												
Powe	er vs. Chanı	nel		Power vs. Data Rate								
		MCS										
Channel		Index	Channel	MCS1	MCS2	MCS3	MCS4	MCS5	MCS6	MCS7	MCS8	MCS9
		MCS0										
CH 151	5755	<mark>14.87</mark>	CH 151	14 74	14 70	14.30	44.00	14.47	14.35	11 21	14.05	14 20
CH 159	5795	14.66	CH ISI	14.74	14.70	14.30	14.33	14.47	14.33	14.31	14.33	14.30

SPORTON INTERNATIONAL (SHENZHEN) INC.

TEL: 86-755-8637-9589 FAX: 86-755-8637-9595 FCC ID: 2AFWMLE1PRO Page Number : 9 of 32
Report Issued Date : Sep. 29, 2015
Report Version : Rev. 01

WLAN 5GHz 802.11n-HT80 Average Power (dBm)												
Power vs. Channel Power vs. Data Rate												
Channel		MCS Index MCS0	Channel	MCS1	MCS2	MCS3	MCS4	MCS5	MCS6	MCS7	MCS8	MCS9
CH 155	5775	<mark>12.16</mark>	CH 155	12.11	12.10	11.69	11.64	11.64	11.67	11.61	11.61	11.51

SPORTON INTERNATIONAL (SHENZHEN) INC.

TEL: 86-755-8637-9589 FAX: 86-755-8637-9595 FCC ID: 2AFWMLE1PRO Page Number : 10 of 32
Report Issued Date : Sep. 29, 2015
Report Version : Rev. 01

2.3 Test Mode

Final test mode of conducted test items and radiated spurious emissions are considering the modulation and worse data rates from the power table described in section 2.2.

Modulation	Data Rate
802.11a	6 Mbps
802.11n HT20	MCS0
802.11n HT40	MCS0
802.11ac VHT20	MCS0
802.11ac VHT40	MCS0
802.11ac VHT80	MCS0

AC Conducted	Mode 1 : GSM850 Idle + Bluetooth Link + WLAN (5GHz) Link + Earphone + USB Cable (Charging
Emission	from Adapter)

Remark: For Radiated TCs, the tests were performed with adapter, earphone and USB cable.

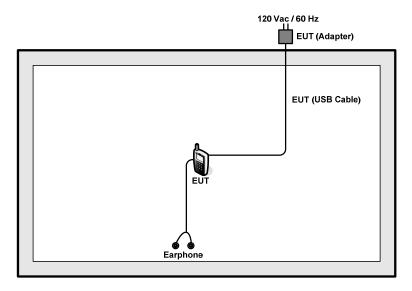
	Ch. #	Band IV:5745 -5825 MHz							
	CII.#	802.11a	802.11n HT20	802.11n HT40					
L	Low	149	149	151					
М	Middle	157	157	-					
Н	High	165	165	159					

	Ch. #	Band IV:5745 -5825 MHz							
	CII. #	802.11ac VHT20	802.11ac VHT40	802.11ac VHT80					
L	Low	149	151	-					
M	Middle	157	-	155					
Н	High	165	159	-					

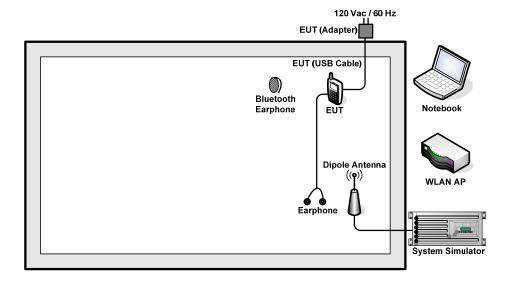
TEL: 86-755-8637-9589 FAX: 86-755-8637-9595 FCC ID: 2AFWMLE1PRO Page Number : 11 of 32
Report Issued Date : Sep. 29, 2015
Report Version : Rev. 01

2.4 Connection Diagram of Test System

<WLAN Tx Mode>



<AC Conducted Emission Mode>



TEL: 86-755-8637-9589 FAX: 86-755-8637-9595 FCC ID: 2AFWMLE1PRO Page Number : 12 of 32
Report Issued Date : Sep. 29, 2015
Report Version : Rev. 01

2.5 Support Unit used in test configuration and system

Item	Equipment	Trade Name	Model Name	FCC ID	Data Cable	Power Cord
1.	WLAN AP	D-Link	DIR-815	KA2IR815A1	N/A	Unshielded, 1.8 m
2.	System Simulator	R&S	CMU 200	N/A	N/A	Unshielded, 1.8 m
						AC I/P:
3.	Notebook	Lenovo	E540	FCC DoC	N/A	Unshielded, 1.2 m
J.				I CC DOC	14/74	DC O/P:
						Shielded, 1.8 m
4.	Bluetooth	Nokia	BH-108	PYAHS-107W	N/A	N/A
٦.	Earphone	Νοκια	DI 1-100	1 1A113-107W	14/74	IN/A
5.	iPod Earphone	Apple	MC690ZP/A	FCC DoC	Unshielded, 1.6 m	N/A

2.6 EUT Operation Test Setup

For WLAN RF test items, an engineering test program was provided and enabled to make EUT continuously transmit/receive.

For AC power line conducted emissions, the EUT was set to connect with the WLAN AP under large package sizes transmission.

2.7 Measurement Results Explanation Example

For all conducted test items:

The offset level is set in the spectrum analyzer to compensate the RF cable loss and attenuator factor between EUT conducted output port and spectrum analyzer. With the offset compensation, the spectrum analyzer reading level is exactly the EUT RF output level.

Example:

The spectrum analyzer offset is derived from RF cable loss and attenuator factor.

Offset = RF cable loss + attenuator factor.

Following shows an offset computation example with cable loss 6.5 dB and 10dB attenuator.

Offset(dB) = RF cable loss(dB) + attenuator factor(dB).

= 6.5 + 10 = 16.5 (dB)

SPORTON INTERNATIONAL (SHENZHEN) INC.

TEL: 86-755-8637-9589 FAX: 86-755-8637-9595 FCC ID: 2AFWMLE1PRO Page Number : 13 of 32 Report Issued Date : Sep. 29, 2015

Report No.: FR582501E

Report Version : Rev. 01

3 Test Result

3.1 6dB Bandwidth Measurement

3.1.1 Description of 6dB Bandwidth

The minimum 6 dB bandwidth shall be at least 500 kHz.

3.1.2 Measuring Instruments

The measuring equipment is listed in the section 4 of this test report.

3.1.3 Test Procedures

- The testing follows FCC KDB 789033 D02 General UNII Test Procedures New Rules v01.
 Section C) Emission bandwidth for the band 5.725-5.85GHz
- 2. Set RBW = 100kHz.
- 3. Set the VBW \geq 3 x RBW.
- 4. Detector = Peak.
- 5. Trace mode = max hold
- 6. Measure the maximum width of the emission that is 6 dB down from the peak of the emission.
- 7. Measure and record the results in the test report.

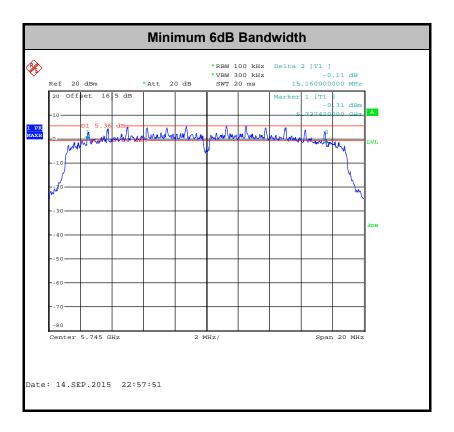
3.1.4 Test Setup



FAX: 86-755-8637-9595 FCC ID: 2AFWMLE1PRO Page Number : 14 of 32
Report Issued Date : Sep. 29, 2015
Report Version : Rev. 01

3.1.5 Test Result of 6dB Bandwidth

Please refer to Appendix A.



Note: The occupied channel bandwidth is maintained within the band of operation for all of the modulations.

TEL: 86-755-8637-9589 FAX: 86-755-8637-9595 FCC ID: 2AFWMLE1PRO Page Number : 15 of 32
Report Issued Date : Sep. 29, 2015
Report Version : Rev. 01

3.2 Maximum Conducted Output Power Measurement

3.2.1 Limit of Maximum Conducted Output Power

<FCC 14-30 CFR 15.407>

For the band 5.725–5.85 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W.

If transmitting antennas of directional gain greater than 6 dBi are used, the peak output power shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

3.2.2 Measuring Instruments

The measuring equipment is listed in the section 4 of this test report.

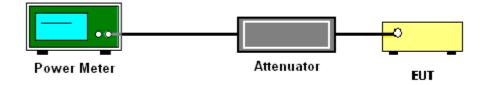
3.2.3 Test Procedures

The testing follows Method PM of FCC KDB 789033 D02 General UNII Test Procedures New Rules v01.

Method PM (Measurement using an RF average power meter):

- 1. Measurement is performed using a wideband RF power meter.
- 2. The EUT is configured to transmit continuously with a consistent duty cycle at its maximum power control level.
- 3. Measure the average power of the transmitter, and the average power is corrected with duty factor, 10 log(1/x), where x is the duty cycle.

3.2.4 Test Setup



3.2.5 Test Result of Maximum Conducted Output Power

Please refer to Appendix A.

SPORTON INTERNATIONAL (SHENZHEN) INC.

TEL: 86-755-8637-9589 FAX: 86-755-8637-9595 FCC ID: 2AFWMLE1PRO Page Number : 16 of 32
Report Issued Date : Sep. 29, 2015
Report Version : Rev. 01

3.3 Power Spectral Density Measurement

3.3.1 Limit of Power Spectral Density

<FCC 14-30 CFR 15.407>

For the band 5.725-5.85 GHz, the maximum power spectral density shall not exceed 30 dBm in any 500-kHz band.

If transmitting antennas of directional gain greater than 6 dBi are used, the peak output power shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

3.3.2 Measuring Instruments

The measuring equipment is listed in the section 4 of this test report.

3.3.3 Test Procedures

The testing follows FCC KDB 789033 D02 General UNII Test Procedures New Rules v01. Section F) Maximum power spectral density.

Method SA-2

(trace averaging across on and off times of the EUT transmissions, followed by duty cycle correction).

- The testing follows Method SA-2 of FCC KDB 789033 D01 General UNII Test Procedures v01r03.
 - Measure the duty cycle.
 - Set span to encompass the entire emission bandwidth (EBW) of the signal.
 - Set RBW = 300 kHz.
 - Set VBW ≥ 1 MHz.
 - Number of points in sweep ≥ 2 Span / RBW.
 - Sweep time = auto.
 - Detector = RMS
 - Trace average at least 100 traces in power averaging mode.
 - Add 10 log(500kHz/RBW) to the test result.
 - Add 10 log(1/x), where x is the duty cycle, to the measured power in order to compute the average power during the actual transmission times. For example, add 10 log(1/0.25) = 6 dB if the duty cycle is 25 percent.

TEL: 86-755-8637-9589 FAX: 86-755-8637-9595 FCC ID: 2AFWMLE1PRO Page Number : 17 of 32 Report Issued Date: Sep. 29, 2015

Report No.: FR582501E

Report Version : Rev. 01

- 2. The RF output of EUT was connected to the spectrum analyzer by a low loss cable.
- 3. Each plot has already offset with cable loss, and attenuator loss. Measure the PPSD and record it.

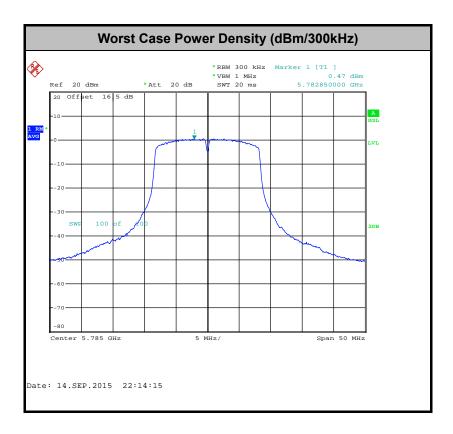
3.3.4 Test Setup



TEL: 86-755-8637-9589 FAX: 86-755-8637-9595 FCC ID: 2AFWMLE1PRO Page Number : 18 of 32
Report Issued Date : Sep. 29, 2015
Report Version : Rev. 01

3.3.5 Test Result of Power Spectral Density

Please refer to Appendix A.



TEL: 86-755-8637-9589 FAX: 86-755-8637-9595 FCC ID: 2AFWMLE1PRO Page Number : 19 of 32
Report Issued Date : Sep. 29, 2015
Report Version : Rev. 01

3.4 Unwanted Emissions Measurement

This section as specified in FCC Part 15.407(b) is to measure unwanted emissions through radiated measurement for band edge spurious emissions and out of band emissions measurement. The unwanted emissions shall comply with 15.407(b)(1) to (6), and restricted bands per FCC Part15.205.

Limit of Unwanted Emissions 3.4.1

- (1) For transmitters operating in the 5725-5850 MHz band: all emissions within the frequency range from the band edge to 10 MHz above or below the band edge shall not exceed an EIRP of -17 dBm/MHz (78.3dBµV/m); for frequencies 10 MHz or greater above or below the band edge, emissions shall not exceed an EIRP of -27 dBm/MHz (68.3dBµV/m).
- (2) Unwanted spurious emissions fallen in restricted bands per FCC Part15.205 shall comply with the general field strength limits set forth in § 15.209 as below table,

Frequency	Field Strength	Measurement Distance		
(MHz)	(microvolts/meter)	(meters)		
0.009 – 0.490	2400/F(kHz)	300		
0.490 – 1.705	24000/F(kHz)	30		
1.705 – 30.0	30	30		
30 – 88	100	3		
88 – 216	150	3		
216 - 960	200	3		
Above 960	500	3		

Note: The following formula is used to convert the EIRP to field strength.

$$E = \frac{1000000\sqrt{30P}}{3}$$
 µV/m, where P is the eirp (Watts)

EIRP (dBm)	Field Strength at 3m (dBµV/m)				
-17	78.3				
- 27	68.3				

(3) KDB789033 v01r03 H)2)c)(i) As specified in 15.407(b), emissions above 1000 MHz that are outside of the restricted bands are subject to a peak emission limit of -27 dBm/MHz (or -17 dBm/MHz as specified in 15.407(b)(4)). However, an out-of-band emission that complies with both the average and peak limits of 15.209 is not required to satisfy the -27 dBm/MHz or -17 dBm/MHz peak emission limit.

SPORTON INTERNATIONAL (SHENZHEN) INC.

TEL: 86-755-8637-9589 FAX: 86-755-8637-9595 FCC ID: 2AFWMLE1PRO Page Number : 20 of 32 Report Issued Date: Sep. 29, 2015

Report No.: FR582501E

: Rev. 01 Report Version

3.4.2 Measuring Instruments

The measuring equipment is listed in the section 4 of this test report.

3.4.3 Test Procedures

- The testing follows FCC KDB 789033 D02 General UNII Test Procedures New Rules v01. Section G) Unwanted emissions measurement.
 - (1) Procedure for Unwanted Emissions Measurements Below 1000MHz
 - RBW = 120 kHz
 - VBW = 300 kHz
 - Detector = Peak
 - Trace mode = max hold
 - (2) Procedure for Peak Unwanted Emissions Measurements Above 1000 MHz
 - RBW = 1 MHz
 - VBW ≥ 3 MHz
 - Detector = Peak
 - Sweep time = auto
 - Trace mode = max hold
 - (3) Procedures for Average Unwanted Emissions Measurements Above 1000MHz
 - RBW = 1 MHz
 - VBW = 10 Hz, when duty cycle is no less than 98 percent.
 - VBW \geq 1/T, when duty cycle is less than 98 percent where T is the minimum transmission duration over which the transmitter is on and is transmitting at its maximum power control level for the tested mode of operation.

Band	Duty Cycle (%)	T(ms)	1/T(kHz)	VBW Setting
802.11a	94.83	2.06	0.49	1kHz
802.11n HT20	95.26	1.93	0.52	1kHz
802.11n HT40	90.82	0.95	1.05	3kHz
802.11n VHT20	95.09	1.94	0.52	1kHz
802.11n VHT40	90.19	0.96	1.05	3kHz
802.11n VHT80	82.55	0.47	2.13	3kHz

SPORTON INTERNATIONAL (SHENZHEN) INC.

TEL: 86-755-8637-9589 FAX: 86-755-8637-9595 FCC ID: 2AFWMLE1PRO Page Number : 21 of 32 Report Issued Date: Sep. 29, 2015

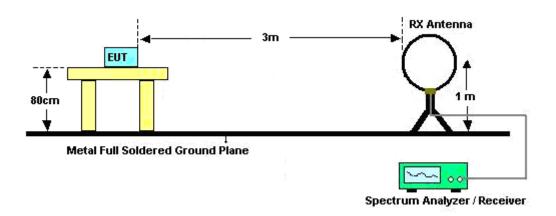
Report No.: FR582501E

Report Version : Rev. 01

- - The EUT was placed on a turntable with 0.8 meter for frequency below 1GHz and 1.5 meter for frequency above 1GHz respectively above ground.
 - The EUT was set 3 meters from the interference receiving antenna which was mounted on the top of a variable height antenna tower.
 - The antenna is a broadband antenna and its height is adjusted between one meter and four meters above ground to find the maximum value of the field strength for both horizontal polarization and vertical polarization of the antenna.
 - For each suspected emission, the EUT was arranged to its worst case and then adjust the antenna tower (from 1 m to 4 m) and turntable (from 0 degree to 360 degrees) to find the maximum reading.
 - For testing below 1GHz, if the emission level of the EUT in peak mode was 3 dB lower than the limit specified, then peak values of EUT will be reported, otherwise, the emissions will be repeated one by one using the CISPR quasi-peak method and reported.
 - 7. For testing above 1GHz, the emission level of the EUT in peak mode was 20dB lower than average limit (that means the emission level in average mode also complies with the limit in average mode), then peak values of EUT will be reported, otherwise, the emissions will be measured in average mode again and reported.

3.4.4 Test Setup

For radiated emissions below 30MHz



SPORTON INTERNATIONAL (SHENZHEN) INC.

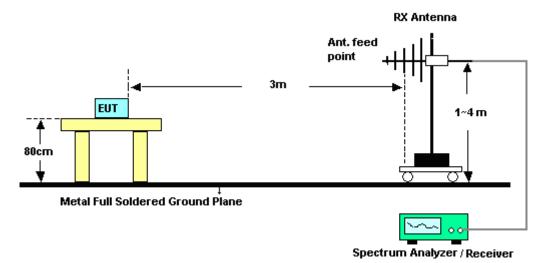
TEL: 86-755-8637-9589 FAX: 86-755-8637-9595 FCC ID: 2AFWMLE1PRO

: 22 of 32 Page Number Report Issued Date: Sep. 29, 2015

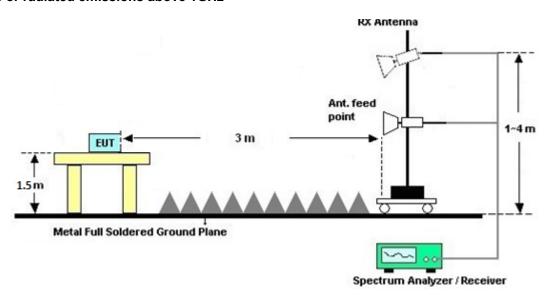
Report No.: FR582501E

Report Version : Rev. 01

For radiated emissions from 30MHz to 1GHz



For radiated emissions above 1GHz



3.4.5 Test Results of Radiated Emissions (9 kHz ~ 30 MHz)

The low frequency, which started from 9 kHz to 30MHz, was pre-scanned and the result which was 20dB lower than the limit line per 15.31(o) was not reported.

3.4.6 Test Result of Radiated Band Edges

Please refer to Appendix B.

3.4.7 Test Result of Unwanted Radiated Emission (30MHz ~ 10th Harmonic)

Please refer to Appendix B.

SPORTON INTERNATIONAL (SHENZHEN) INC.

TEL: 86-755-8637-9589 FAX: 86-755-8637-9595 FCC ID: 2AFWMLE1PRO Page Number : 23 of 32
Report Issued Date : Sep. 29, 2015
Report Version : Rev. 01

3.5 AC Conducted Emission Measurement

3.5.1 Limit of AC Conducted Emission

For equipment that is designed to be connected to the public utility (AC) power line, the radio frequency voltage that is conducted back onto the AC power line on any frequency or frequencies within the band 150 kHz to 30 MHz shall not exceed the limits in the following table.

Frequency of emission (MUz)	Conducted limit (dBμV)					
Frequency of emission (MHz)	Quasi-peak	Average				
0.15-0.5	66 to 56*	56 to 46*				
0.5-5	56	46				
5-30	60	50				

^{*}Decreases with the logarithm of the frequency.

3.5.2 Measuring Instruments

The measuring equipment is listed in the section 4 of this test report.

3.5.3 Test Procedures

- 1. The EUT was placed 0.4 meter from the conducting wall of the shielding room was kept at least 80 centimeters from any other grounded conducting surface.
- 2. Connect EUT to the power mains through a line impedance stabilization network (LISN).
- 3. All the support units are connecting to the other LISN.
- 4. The LISN provides 50 ohm coupling impedance for the measuring instrument.
- 5. The FCC states that a 50 ohm, 50 microhenry LISN should be used.
- Both sides of AC line were checked for maximum conducted interference. 6.
- 7. The frequency range from 150 kHz to 30 MHz was searched.
- 8. Set the test-receiver system to Peak Detect Function and specified bandwidth with Maximum Hold Mode.

SPORTON INTERNATIONAL (SHENZHEN) INC. TEL: 86-755-8637-9589

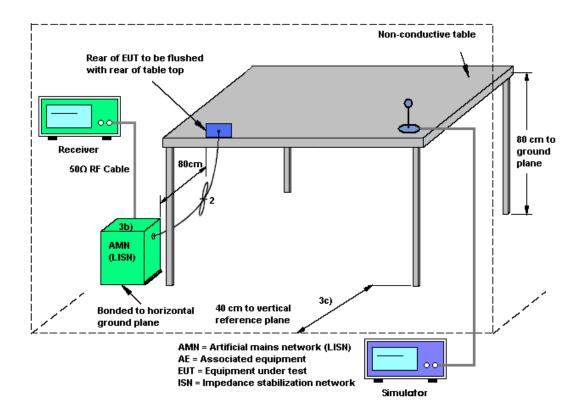
FAX: 86-755-8637-9595 FCC ID: 2AFWMLE1PRO

: 24 of 32 Page Number Report Issued Date: Sep. 29, 2015

Report No.: FR582501E

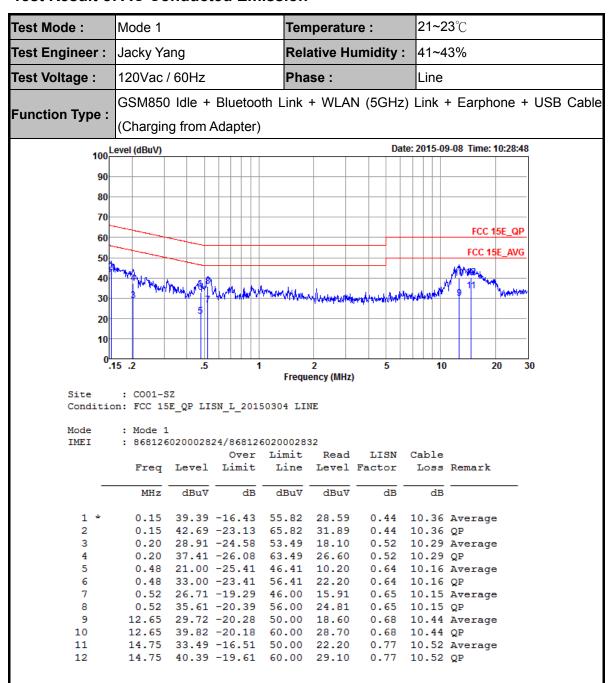
Report Version : Rev. 01

3.5.4 Test Setup



TEL: 86-755-8637-9589 FAX: 86-755-8637-9595 FCC ID: 2AFWMLE1PRO Page Number : 25 of 32
Report Issued Date : Sep. 29, 2015
Report Version : Rev. 01

3.5.5 Test Result of AC Conducted Emission



TEL: 86-755-8637-9589 FAX: 86-755-8637-9595 FCC ID: 2AFWMLE1PRO Page Number : 26 of 32
Report Issued Date : Sep. 29, 2015
Report Version : Rev. 01

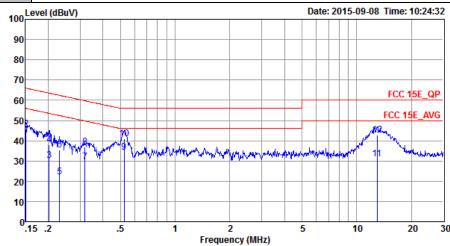


 Test Mode :
 Mode 1
 Temperature :
 21~23°C

 Test Engineer :
 Jacky Yang
 Relative Humidity :
 41~43%

 Test Voltage :
 120Vac / 60Hz
 Phase :
 Neutral

 Function Type :
 GSM850 Idle + Bluetooth Link + WLAN (5GHz) Link + Earphone + USB Cable (Charging from Adapter)



Site : CO01-SZ

Condition: FCC 15E_QP LISN_N_20150304 NEUTRAL

Mode : Mode 1

IMEI : 868126020002824/868126020002832 Over Limit Read

	I	req	Level	Limit	Line	Level	Factor	Loss	Remark
		MHz	dBu∀	dB	dBu∀	dBu∀	dB	dB	
1	(0.15	42.81	-13.15	55.96	32.00	0.45	10.36	Average
2	(1.15	45.71	-20.25	65.96	34.90	0.45	10.36	QP
3	(0.20	30.10	-23.39	53.49	19.30	0.51	10.29	Average
4	(.20	37.90	-25.59	63.49	27.10	0.51	10.29	QP
5	(.23	22.10	-30.29	52.39	11.30	0.54	10.26	Average
6	(.23	35.50	-26.89	62.39	24.70	0.54	10.26	QP
7	(32	29.38	-20.37	49.75	18.61	0.58	10.19	Average
8	(32	37.08	-22.67	59.75	26.31	0.58	10.19	QP
9 4	٠ (.52	34.46	-11.54	46.00	23.71	0.60	10.15	Average
10	(.52	40.86	-15.14	56.00	30.11	0.60	10.15	QP
11	12	2.99	31.16	-18.84	50.00	19.99	0.71	10.46	Average
12	12	2.99	42.66	-17.34	60.00	31.49	0.71	10.46	QP

LISN Cable

TEL: 86-755-8637-9589 FAX: 86-755-8637-9595 FCC ID: 2AFWMLE1PRO Page Number : 27 of 32
Report Issued Date : Sep. 29, 2015
Report Version : Rev. 01

3.6 Frequency Stability Measurement

Limit of Frequency Stability

Manufacturers of U-NII devices are responsible for ensuring frequency stability such that an emission is maintained within the band of operation under all conditions of normal operation as specified in the user's manual.

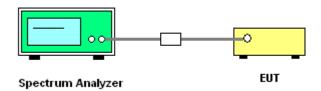
3.6.2 **Measuring Instruments**

The measuring equipment is listed in the section 4 of this test report.

3.6.3 Test Procedures

- 1. To ensure emission at the band edge is maintained within the authorized band, those values shall be measured by radiation emissions at upper and lower frequency points, and finally compensated by frequency deviation as procedures below.
- 2. The EUT was operated at the maximum output power, and connected to the spectrum analyzer, which is set to maximum hold function and peak detector. The peak value of the power envelope was measured and noted. The upper and lower frequency points were respectively measured relatively 10dB lower than the measured peak value.
- 3. The frequency deviation was calculated by adding the upper frequency point and the lower frequency point divided by two. Those detailed values of frequency deviation are provided in table below.

3.6.4 Test Setup



Test Result of Frequency Stability 3.6.5

Please refer to Appendix A.

TEL: 86-755-8637-9589 FAX: 86-755-8637-9595 FCC ID: 2AFWMLE1PRO

: 28 of 32 Page Number Report Issued Date: Sep. 29, 2015

Report No.: FR582501E

Report Version : Rev. 01

3.7 Automatically Discontinue Transmission

3.7.1 Limit of Automatically Discontinue Transmission

The device shall automatically discontinue transmission in case of either absence of information to transmit or operational failure. These provisions are not intended to preclude the transmission of control or signaling information or the use of repetitive codes used by certain digital technologies to complete frame or burst intervals. Applicants shall include in their application for equipment authorization to describe how this requirement is met.

3.7.2 Measuring Instruments

The measuring equipment is listed in the section 4 of this test report.

3.7.3 Test Result of Automatically Discontinue Transmission

While the EUT is not transmitting any information, the EUT can automatically discontinue transmission and become standby mode for power saving. The EUT can detect the controlling signal of ACK message transmitting from remote device and verify whether it shall resend or discontinue transmission.

3.8 Antenna Requirements

3.8.1 Standard Applicable

According to FCC 47 CFR Section 15.407(a)(1)(2) ,if transmitting antenna directional gain is greater than 6 dBi, both the peak transmit power and the peak power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

3.8.2 Antenna Anti-Replacement Construction

An embedded-in antenna design is used.

3.8.3 Antenna Gain

The antenna gain is less than 6 dBi. Therefore, it is not necessary to reduce maximum output power limit.

SPORTON INTERNATIONAL (SHENZHEN) INC.

FAX: 86-755-8637-9595 FCC ID: 2AFWMLE1PRO

TEL: 86-755-8637-9589

Page Number : 30 of 32
Report Issued Date : Sep. 29, 2015
Report Version : Rev. 01

4 List of Measuring Equipment

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Test Date	Due Date	Remark
Spectrum Analyzer	R&S	FSP30	101400	9kHz~30GHz	Jan. 28, 2015	Sep. 14, 2015	Jan. 27, 2016	Conducted (TH01-SZ)
Pulse Power Senor	Anritsu	MA2411B	1207253	30MHz~40GHz	Jan. 28, 2015	Sep. 14, 2015	Jan. 27, 2016	Conducted (TH01-SZ)
Power Meter	Anritsu	ML2495A	1218010	50MHz Bandwidth	Jan. 28, 2015	Sep. 14, 2015	Jan. 27, 2016	Conducted (TH01-SZ)
Thermal Chamber	Ten Billion Hongzhangroup	LP-150U	H2014081803	-40~+150°C	Sep. 17, 2014	Sep. 14, 2015	Sep. 16, 2015	Conducted (TH01-SZ)
EMI Test Receiver&SA	Agilent Technologies	N9038A	MY52260185	20Hz~26.5GHz	May 26, 2015	Sep. 16, 2015	May 25, 2016	Radiation (03CH01-SZ)
Spectrum Analyzer	R&S	FSV40	101041	10kHz~40GHz; Max 30dBm	Oct. 15, 2014	Sep. 16, 2015	Oct. 14, 2015	Radiation (03CH01-SZ)
Loop Antenna	R&S	HFH2-Z2	100354	9kHz~30MHz	May 06, 2015	Sep. 16, 2015	May 05, 2016	Radiation (03CH01-SZ)
Bilog Antenna	TeseQ	CBL6112D	23188	30MHz~2GHz	Nov. 07, 2014	Sep. 16, 2015	Nov. 06, 2015	Radiation (03CH01-SZ)
Double Ridge Horn Antenna	ETS-Lindgren	3117	00119436	1GHz~18GHz	Oct. 15, 2014	Sep. 16, 2015	Oct. 14, 2015	Radiation (03CH01-SZ)
SHF-EHF Horn	com-power	AH-840	101071	18GHz~40GHz	Aug.19, 2015	Sep. 16, 2015	Aug. 18, 2016	Radiation (03CH01-SZ)
Amplifier	ADVANTEST	BB525C	E9007003	9kHz~3000MHz / 30 dB	Jan. 28, 2015	Sep. 16, 2015	Jan. 27, 2016	Radiation (03CH01-SZ)
Amplifier	Agilent Technologies	83017A	MY39501302	500MHz~26.5G Hz	Jan. 28, 2015	Sep. 16, 2015	Jan. 27, 2016	Radiation (03CH01-SZ)
AC Power Source	Chroma	61601	616010001985	N/A	NCR	Sep. 16, 2015	NCR	Radiation (03CH01-SZ)
Turn Table	EM	EM1000	N/A	0~360 degree	NCR	Sep. 16, 2015	NCR	Radiation (03CH01-SZ)
Antenna Mast	EM	EM1000	N/A	1 m~4 m	NCR	Sep. 16, 2015	NCR	Radiation (03CH01-SZ)
EMI Receiver	R&S	ESCI7	100724	9kHz~3GHz;	Jan. 28, 2015	Sep. 08, 2015	Jan. 27, 2016	Conduction (CO01-SZ)
AC LISN	EMCO	3816/2SH	103892	9kHz~30MHz	Feb. 02, 2015	Sep. 08, 2015	Feb. 01, 2016	Conduction (CO01-SZ)
AC LISN (for auxiliary equipment)	MessTec	AN3016	16850	9kHz~30MHz	Feb. 02, 2015	Sep. 08, 2015	Feb. 01, 2016	Conduction (CO01-SZ)
AC Power Source	Chroma	61602	616020000891	100Vac~250Vac	Aug. 07, 2015	Sep. 08, 2015	Aug. 06, 2016	Conduction (CO01-SZ)
Pulse Limiter	COM-POWER	LIT-153 Transient Limiter	53139	150kHz~30MHz	Oct. 24, 2014	Sep. 08, 2015	Oct. 23, 2015	Conduction (CO01-SZ)

SPORTON INTERNATIONAL (SHENZHEN) INC.

TEL: 86-755-8637-9589 FAX: 86-755-8637-9595 FCC ID: 2AFWMLE1PRO Page Number : 31 of 32
Report Issued Date : Sep. 29, 2015
Report Version : Rev. 01

5 Uncertainty of Evaluation

Uncertainty of Conducted Emission Measurement (150kHz ~ 30MHz)

Measuring Uncertainty for a Level of Confidence	2.3dB
of 95% (U = 2Uc(y))	2.300

Uncertainty of Radiated Emission Measurement (30 MHz ~ 1000 MHz)

Measuring Uncertainty for a Level of Confidence	3.9dB
of 95% (U = 2Uc(y))	3.9ub

SPORTON INTERNATIONAL (SHENZHEN) INC.

FAX: 86-755-8637-9595 FCC ID: 2AFWMLE1PRO

TEL: 86-755-8637-9589

Page Number : 32 of 32
Report Issued Date : Sep. 29, 2015
Report Version : Rev. 01

Appendix A. Conducted Test Results

SPORTON INTERNATIONAL (SHENZHEN) INC.

TEL: 86-755-8637-9589 FAX: 86-755-8637-9595 FCC ID: 2AFWMLE1PRO Page Number : A1 of A1
Report Issued Date : Sep. 29, 2015
Report Version : Rev. 01

Report Number : FR582501E

Test Engineer:	Mygai Xu	Temperature:	21~25	°C
Test Date:	2015/9/14	Relative Humidity:	51~54	%

Report Number : FR582501E

TEST RESULTS DATA 6dB Bandwidth

Band IV										
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	6 dB Bandwidth (MHz)	FCC 6dB Bandwidth Limit (MHz)	Pass/Fail			
11a	6M bps	1	149	5745	15.32	0.5	Pass			
11a	6Mbps	1	157	5785	15.32	0.5	Pass			
11a	6Mbps	1	165	5825	15.36	0.5	Pass			
HT20	MCS 0	1	149	5745	15.16	0.5	Pass			
HT20	MCS 0	1	157	5785	15.44	0.5	Pass			
HT20	MCS 0	1	165	5825	15.16	0.5	Pass			
HT40	MCS 0	1	151	5755	35.12	0.5	Pass			
HT40	MCS 0	1	159	5795	35.12	0.5	Pass			
VHT20	MCS 0	1	149	5745	15.16	0.5	Pass			
VHT20	MCS 0	1	157	5785	15.48	0.5	Pass			
VHT20	MCS 0	1	165	5825	15.16	0.5	Pass			
VHT40	22.06	1	151	5755	35.12	0.5	Pass			
VHT40	22.06	1	159	5795	35.12	0.5	Pass			
VHT80	MCS 0	1	155	5775	75.04	0.5	Pass			

Report Number : FR582501E

TEST RESULTS DATA Average Power Table

	Band IV										
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	Duty Factor (dB)	Average Conducted Power (dBm)	FCC Conducted Power Limit (dBm)	DG (dBi)		Pass/Fail	
11a	6M bps	1	149	5745	0.23	16.01	30.00	-2.43		Pass	
11a	6Mbps	1	157	5785	0.23	15.99	30.00	-2.43		Pass	
11a	6Mbps	1	165	5825	0.23	15.53	30.00	-2.43		Pass	
HT20	MCS 0	1	149	5745	0.21	15.82	30.00	-2.43		Pass	
HT20	MCS 0	1	157	5785	0.21	15.76	30.00	-2.43		Pass	
HT20	MCS 0	1	165	5825	0.21	15.27	30.00	-2.43		Pass	
HT40	MCS 0	1	151	5755	0.42	14.88	30.00	-2.43		Pass	
HT40	MCS 0	1	159	5795	0.42	14.70	30.00	-2.43		Pass	
VHT20	MCS 0	1	149	5745	0.22	15.80	30.00	-2.43		Pass	
VHT20	MCS 0	1	157	5785	0.22	15.75	30.00	-2.43		Pass	
VHT20	MCS 0	1	165	5825	0.22	15.21	30.00	-2.43		Pass	
VHT40	22.06	1	151	5755	0.45	14.87	30.00	-2.43		Pass	
VHT40	22.06	1	159	5795	0.45	14.66	30.00	-2.43		Pass	
VHT80	MCS 0	1	155	5775	0.83	12.16	30.00	-2.43		Pass	

Report Number : FR582501E

TEST RESULTS DATA Power Spectral Density

						Band	IV			
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	Duty Factor (dB)	10log (500kHz /RBW) Factor (dB)	Average Power Density (dBm/500kHz)	Average PSD Limit (dBm/500kHz)	DG (dBi)	Pass/Fail
11a	6M bps	1	149	5745	0.23	2.22	2.68	30.00	-2.43	Pass
11a	6Mbps	1	157	5785	0.23	2.22	2.92	30.00	-2.43	Pass
11a	6Mbps	1	165	5825	0.23	2.22	2.39	30.00	-2.43	Pass
HT20	MCS 0	1	149	5745	0.21	2.22	2.29	30.00	-2.43	Pass
HT20	MCS 0	1	157	5785	0.21	2.22	2.60	30.00	-2.43	Pass
HT20	MCS 0	1	165	5825	0.21	2.22	1.99	30.00	-2.43	Pass
HT40	MCS 0	1	151	5755	0.42	2.22	-1.70	30.00	-2.43	Pass
HT40	MCS 0	1	159	5795	0.42	2.22	-1.66	30.00	-2.43	Pass
VHT20	MCS 0	1	149	5745	0.22	2.22	2.31	30.00	-2.43	Pass
VHT20	MCS 0	1	157	5785	0.22	2.22	2.46	30.00	-2.43	Pass
VHT20	MCS 0	1	165	5825	0.22	2.22	2.01	30.00	-2.43	Pass
VHT40	22.06	1	151	5755	0.45	2.22	-1.69	30.00	-2.43	Pass
VHT40	22.06	1	159	5795	0.45	2.22	-1.64	30.00	-2.43	Pass
VHT80	MCS 0	1	155	5775	0.83	2.22	-7.21	30.00	-2.43	Pass

Report Number : FR582501E

TEST RESULTS DATA Frequency Stability

						Band	IV			
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	Center Frequency (MHz)	Frequency Deviation (MHz)	Frequency Stablility (ppm)	Temperature (°C)	Voltage (V)	Note
11a	6M bps	1	149	5745	5745.000	0.000	0.00	20	3.6	
11a	6M bps	1	149	5745	5745.000	0.000	0.00	20	4.2	
11a	6M bps	1	149	5745	5745.000	0.000	0.00	20	3.9	
11a	6M bps	1	149	5745	5745.000	0.000	0.00	-30	3.9	
11a	6M bps	1	149	5745	5745.000	0.000	0.00	50	3.9	

Appendix B. Radiated Test Results

15E Band 4 - 5725~5850MHz

WIFI 802.11a (Band Edge @ 3m)

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Peak	Pol.
Ant.				Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
1		(MHz)	(dBµV/m)	(dB)	(dBµV/m)	(dBµV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
		5705.64	49.09	-19.21	68.3	42.92	32.33	7.36	33.52	150	122	Р	Н
		5715.56	50.72	-27.58	78.3	44.55	32.33	7.36	33.52	150	122	Р	Н
000 44 -	*	5745	98.14	-	-	91.87	32.39	7.41	33.53	150	122	Р	Н
802.11a CH 149		5745	91.17	-	-	84.9	32.39	7.41	33.53	150	122	Α	Н
5745MHz		5713.96	46.7	-21.6	68.3	40.53	32.33	7.36	33.52	250	62	Р	V
074011112		5722.68	47.14	-31.16	78.3	40.94	32.36	7.36	33.52	250	62	Р	V
	*	5745	93.04	1	-	86.77	32.39	7.41	33.53	250	62	Р	V
		5745	85.47	-	-	79.2	32.39	7.41	33.53	250	62	Α	V
		5710.84	45.6	-22.7	68.3	39.43	32.33	7.36	33.52	150	123	Р	Н
		5724.2	45.49	-32.81	78.3	39.29	32.36	7.36	33.52	150	123	Р	Н
	*	5785	97.27	-	-	90.92	32.44	7.45	33.54	150	123	Р	Н
		5785	89.59	-	-	83.24	32.44	7.45	33.54	150	123	Α	Н
		5850.08	44.61	-33.69	78.3	38.11	32.55	7.51	33.56	150	123	Р	Н
802.11a		5885.68	45.72	-22.58	68.3	39.15	32.61	7.53	33.57	150	123	Р	Н
CH 157 5785MHz		5692.28	44.52	-23.78	68.3	38.37	32.3	7.36	33.51	150	61	Р	V
37 0 3 WII 12		5719.96	44.1	-34.2	78.3	37.9	32.36	7.36	33.52	150	61	Р	V
	*	5785	91.85	1	-	85.5	32.44	7.45	33.54	150	61	Р	V
		5785	83.7	-	-	77.35	32.44	7.45	33.54	150	61	Α	V
		5854.32	46.37	-31.93	78.3	39.84	32.58	7.51	33.56	150	61	Р	V
		5884.56	45.55	-22.75	68.3	39	32.61	7.51	33.57	150	61	Р	V

SPORTON INTERNATIONAL (SHENZHEN) INC.

TEL: 86-755-8637-9589 FAX: 86-755-8637-9595 FCC ID: 2AFWMLE1PRO Page Number : B1 of B20
Report Issued Date : Sep. 29, 2015
Report Version : Rev. 01



WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Peak	Pol.
Ant.				Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
1		(MHz)	(dBµV/m)	(dB)	(dBµV/m)	(dBµV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
	*	5825	95.15	-	-	88.7	32.52	7.48	33.55	150	124	Р	Н
		5825	87.75	-	1	81.3	32.52	7.48	33.55	150	124	Α	Н
000.44		5857.6	46.71	-31.59	78.3	40.18	32.58	7.51	33.56	150	124	Р	Н
802.11a CH 165		5889.68	46.32	-21.98	68.3	39.73	32.63	7.53	33.57	150	124	Р	Н
5825MHz	*	5825	90.25	-	1	83.8	32.52	7.48	33.55	150	60	Р	V
3023141112		5825	82.21	-	-	75.76	32.52	7.48	33.55	150	60	Α	٧
		5851.76	45.47	-32.83	78.3	38.97	32.55	7.51	33.56	150	60	Р	V
		5863.6	45.59	-22.71	68.3	39.06	32.58	7.51	33.56	150	60	Р	V

Remark

1. No other spurious found.

TEL: 86-755-8637-9589 FAX: 86-755-8637-9595 FCC ID: 2AFWMLE1PRO Page Number : B2 of B20
Report Issued Date : Sep. 29, 2015
Report Version : Rev. 01

^{2.} All results are PASS against Peak and Average limit line.

15E Band 4 5725~5850MHz

WIFI 802.11a (Harmonic @ 3m)

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Peak	Pol.
Ant.				Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
1		(MHz)	(dBµV/m)	(dB)	(dBµV/m)	(dBµV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
		11490	44.51	-29.49	74	54.15	39.06	11.05	59.75	145	265	Р	Н
802.11a		17235	49.93	-18.37	68.3	52.14	41.39	14.65	58.25	174	321	Р	Н
CH 149 5745MHz		11490	45.19	-28.81	74	54.83	39.06	11.05	59.75	145	265	Р	V
3743WHZ		17235	50.63	-17.67	68.3	52.84	41.39	14.65	58.25	174	321	Р	V
		11570	45.19	-28.81	74	55.03	38.98	11.01	59.83	105	198	Р	Н
802.11a CH 157		17355	49.31	-18.99	68.3	50.15	42.18	14.78	57.8	189	185	Р	Н
5785MHz		11570	46.04	-27.96	74	55.88	38.98	11.01	59.83	105	198	Р	V
3703141112		17355	49.16	-19.14	68.3	50	42.18	14.78	57.8	189	185	Р	V
		11650	45.42	-28.58	74	55.43	38.92	10.97	59.9	146	347	Р	Н
802.11a		17475	50.83	-17.47	68.3	50.3	42.98	14.9	57.35	100	360	Р	Н
CH 165 5825MHz		11650	44.73	-29.27	74	54.74	38.92	10.97	59.9	146	347	Р	V
3023WII IZ		17475	50.24	-18.06	68.3	49.71	42.98	14.9	57.35	100	360	Р	V

Remark

TEL: 86-755-8637-9589 FAX: 86-755-8637-9595 FCC ID: 2AFWMLE1PRO Page Number : B3 of B20
Report Issued Date : Sep. 29, 2015
Report Version : Rev. 01

^{1.} No other spurious found.

^{2.} All results are PASS against Peak and Average limit line.

15E Band 4 5725~5850MHz WIFI 802.11n HT20 (Band Edge @ 3m)

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Peak	Pol.
Ant.				Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
1		(MHz)	(dBµV/m)	(dB)	(dBµV/m)	(dBµV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
		5702.84	48.39	-19.91	68.3	42.21	32.33	7.36	33.51	150	123	Р	Н
		5721.72	51.63	-26.67	78.3	45.43	32.36	7.36	33.52	150	123	Р	Н
802.11n	*	5745	98.3	-	-	92.03	32.39	7.41	33.53	150	123	Р	Н
HT20		5745	90.87	-	-	84.6	32.39	7.41	33.53	150	123	Α	Н
CH 149		5710.04	47.04	-21.26	68.3	40.87	32.33	7.36	33.52	150	59	Р	V
5745MHz		5722.92	45.89	-32.41	78.3	39.69	32.36	7.36	33.52	150	59	Р	٧
	*	5745	92.68	-	-	86.41	32.39	7.41	33.53	150	59	Р	٧
		5745	85.15	-	-	78.88	32.39	7.41	33.53	150	59	Α	٧
		5694.68	45.2	-23.1	68.3	39.05	32.3	7.36	33.51	150	122	Р	Н
		5724.2	46.13	-32.17	78.3	39.93	32.36	7.36	33.52	150	122	Р	Н
	*	5785	97.33	-	-	90.98	32.44	7.45	33.54	150	122	Р	Н
		5785	89.42	-	-	83.07	32.44	7.45	33.54	150	122	Α	Н
802.11n		5853.28	45.85	-32.45	78.3	39.35	32.55	7.51	33.56	150	122	Р	Н
HT20		5874.48	45.21	-23.09	68.3	38.65	32.61	7.51	33.56	150	122	Р	Н
CH 157		5708.68	45.45	-22.85	68.3	39.28	32.33	7.36	33.52	150	61	Р	V
5785MHz		5718.92	43.9	-34.4	78.3	37.7	32.36	7.36	33.52	150	61	Р	٧
	*	5785	91.53	-	-	85.18	32.44	7.45	33.54	150	61	Р	V
		5785	83.74	-	-	77.39	32.44	7.45	33.54	150	61	Α	V
		5855.44	44.94	-33.36	78.3	38.41	32.58	7.51	33.56	150	61	Р	V
		5882.64	45.31	-22.99	68.3	38.75	32.61	7.51	33.56	150	61	Р	V

TEL: 86-755-8637-9589 FAX: 86-755-8637-9595 FCC ID: 2AFWMLE1PRO Page Number : B4 of B20
Report Issued Date : Sep. 29, 2015
Report Version : Rev. 01



WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Peak	Pol.
Ant.				Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
1		(MHz)	(dBµV/m)	(dB)	(dBµV/m)	(dBµV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
	*	5825	95.61	-	-	89.16	32.52	7.48	33.55	150	124	Р	Н
		5825	87.68	-	-	81.23	32.52	7.48	33.55	150	124	Α	Н
802.11n		5852.16	46.41	-31.89	78.3	39.91	32.55	7.51	33.56	150	124	Р	Н
HT20		5864.96	48.2	-20.1	68.3	41.67	32.58	7.51	33.56	150	124	Р	Н
CH 165	*	5825	90.31	1	1	83.86	32.52	7.48	33.55	250	63	Р	٧
5825MHz		5825	82.63	-	-	76.18	32.52	7.48	33.55	250	63	Α	٧
		5851.28	44.97	-33.33	78.3	38.47	32.55	7.51	33.56	250	63	Р	٧
		5873.92	45.19	-23.11	68.3	38.63	32.61	7.51	33.56	250	63	Р	V

Remark

TEL: 86-755-8637-9589 FAX: 86-755-8637-9595 FCC ID: 2AFWMLE1PRO Page Number : B5 of B20
Report Issued Date : Sep. 29, 2015
Report Version : Rev. 01

^{1.} No other spurious found.

^{2.} All results are PASS against Peak and Average limit line.

15E Band 4 5725~5850MHz WIFI 802.11n HT20 (Harmonic @ 3m)

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Peak	Pol.
Ant.				Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
1		(MHz)	(dBµV/m)	(dB)	(dBµV/m)	(dBµV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11n		11490	45.63	-28.37	74	55.27	39.06	11.05	59.75	145	265	Р	Н
HT20		17235	50.56	-17.74	68.3	52.77	41.39	14.65	58.25	174	321	Р	Н
CH 149		11490	45.24	-28.76	74	54.88	39.06	11.05	59.75	145	265	Р	\
5745MHz		17235	50.56	-17.74	68.3	52.77	41.39	14.65	58.25	174	321	Р	V
802.11n		11570	46.04	-27.96	74	55.88	38.98	11.01	59.83	105	198	Р	Н
HT20		17355	49.06	-19.24	68.3	49.9	42.18	14.78	57.8	189	185	Р	Н
CH 157		11570	45.19	-28.81	74	55.03	38.98	11.01	59.83	105	198	Р	V
5785MHz		17355	49.72	-18.58	68.3	50.56	42.18	14.78	57.8	189	185	Р	V
802.11n		11650	44.83	-29.17	74	54.84	38.92	10.97	59.9	146	347	Р	Н
HT20		17475	50.37	-17.93	68.3	49.84	42.98	14.9	57.35	100	360	Р	Н
CH 165		11650	45.33	-28.67	74	55.34	38.92	10.97	59.9	146	347	Р	٧
5825MHz		17475	50.35	-17.95	68.3	49.82	42.98	14.9	57.35	100	360	Р	V

Remark

No other spurious found.

SPORTON INTERNATIONAL (SHENZHEN) INC.

TEL: 86-755-8637-9589 FAX: 86-755-8637-9595 FCC ID: 2AFWMLE1PRO Page Number : B6 of B20
Report Issued Date : Sep. 29, 2015
Report Version : Rev. 01

^{2.} All results are PASS against Peak and Average limit line.

15E Band 4 5725~5850MHz WIFI 802.11n HT40 (Band Edge @ 3m)

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Peak	Pol.
Ant.				Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
1		(MHz)	(dBµV/m)	(dB)	(dBµV/m)	(dBµV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
		5712.36	49.81	-18.49	68.3	43.64	32.33	7.36	33.52	150	123	Р	Н
		5724.92	51.8	-26.5	78.3	45.6	32.36	7.36	33.52	150	123	Р	Н
	*	5755	94.12	1	-	87.83	32.41	7.41	33.53	150	123	Р	Н
		5755	87.07	1	-	80.78	32.41	7.41	33.53	150	123	Α	Н
802.11n		5852.72	44.55	-33.75	78.3	38.05	32.55	7.51	33.56	150	123	Р	Н
HT40		5877.6	45.41	-22.89	68.3	38.85	32.61	7.51	33.56	150	123	Р	Н
CH 151		5706.84	46.95	-21.35	68.3	40.78	32.33	7.36	33.52	150	60	Р	V
5755MHz		5722.28	48.57	-29.73	78.3	42.37	32.36	7.36	33.52	150	60	Р	٧
	*	5755	88.44	-	-	82.15	32.41	7.41	33.53	150	60	Р	٧
		5755	81.39	-	-	75.1	32.41	7.41	33.53	150	60	Α	V
		5857.6	45.58	-32.72	78.3	39.05	32.58	7.51	33.56	150	60	Р	٧
		5868.48	45.49	-22.81	68.3	38.96	32.58	7.51	33.56	150	60	Р	٧
		5713.32	48.32	-19.98	68.3	42.15	32.33	7.36	33.52	150	121	Р	Н
		5724.52	45.94	-32.36	78.3	39.74	32.36	7.36	33.52	150	121	Р	Н
	*	5795	92.19	-	-	85.81	32.47	7.45	33.54	150	121	Р	Н
		5795	85.38	-	-	79	32.47	7.45	33.54	150	121	Α	Н
802.11n		5853.2	44.91	-33.39	78.3	38.41	32.55	7.51	33.56	150	121	Р	Н
HT40		5874	45.23	-23.07	68.3	38.67	32.61	7.51	33.56	150	121	Р	Н
CH 159		5700.2	45.39	-22.91	68.3	39.24	32.3	7.36	33.51	150	60	Р	٧
5795MHz		5716.44	44.25	-34.05	78.3	38.08	32.33	7.36	33.52	150	60	Р	V
	*	5795	86.94	-	-	80.56	32.47	7.45	33.54	150	60	Р	V
		5795	79.99	ı	-	73.61	32.47	7.45	33.54	150	60	Α	V
		5853.68	45.76	-32.54	78.3	39.23	32.58	7.51	33.56	150	60	Р	V
		5861.2	45.22	-23.08	68.3	38.69	32.58	7.51	33.56	150	60	Р	V

Remark

1. No other spurious found.

2. All results are PASS against Peak and Average limit line.

SPORTON INTERNATIONAL (SHENZHEN) INC.

TEL: 86-755-8637-9589 FAX: 86-755-8637-9595 FCC ID: 2AFWMLE1PRO Page Number : B7 of B20
Report Issued Date : Sep. 29, 2015
Report Version : Rev. 01

15E Band 4 5725~5850MHz WIFI 802.11n HT40 (Harmonic @ 3m)

						•	_	•					
WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Peak	Pol.
Ant.				Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
1		(MHz)	(dBµV/m)	(dB)	(dBµV/m)	(dBµV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11n		11510	44.21	-29.79	74	53.88	39.04	11.05	59.76	100	360	Р	Н
HT40		17265	50.4	-17.9	68.3	52.22	41.62	14.69	58.13	100	360	Р	Н
CH 151		11510	45.55	-28.45	74	55.22	39.04	11.05	59.76	100	360	Р	٧
5755MHz		17265	50.46	-17.84	68.3	52.28	41.62	14.69	58.13	100	360	Р	٧
802.11n		11590	43.99	-30.01	74	53.86	38.97	11.01	59.85	100	300	Р	Н
HT40		17385	50.76	-17.54	68.3	51.2	42.41	14.82	57.67	100	200	Р	Н
CH 159		11590	44.44	-29.56	74	54.31	38.97	11.01	59.85	100	300	Р	٧
5795MHz		17385	49.91	-18.39	68.3	50.35	42.41	14.82	57.67	100	200	Р	V
		•	•	•	•	•	•		•	•	•		

Remark

No other spurious found.

2. All results are PASS against Peak and Average limit line.

TEL: 86-755-8637-9589 FAX: 86-755-8637-9595 FCC ID: 2AFWMLE1PRO Page Number : B8 of B20
Report Issued Date : Sep. 29, 2015
Report Version : Rev. 01

15E Band 4 5725~5850MHz WIFI 802.11ac VHT20 (Band Edge @ 3m)

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Peak	Pol.
Ant.				Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
1		(MHz)	(dBµV/m)	(dB)	(dBµV/m)	(dBµV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
		5713.8	50.47	-17.83	68.3	44.3	32.33	7.36	33.52	150	122	Р	Н
		5723.16	51.08	-27.22	78.3	44.88	32.36	7.36	33.52	150	122	Р	Н
802.11ac		5745	99.12	-	-	92.85	32.39	7.41	33.53	150	122	Р	Н
VHT20		5745	91.35	-	-	85.08	32.39	7.41	33.53	150	122	Α	Н
CH 149		5711.4	46.65	-21.65	68.3	40.48	32.33	7.36	33.52	150	60	Р	V
5745MHz		5722.92	47.22	-31.08	78.3	41.02	32.36	7.36	33.52	150	60	Р	٧
		5745	93.76	-	-	87.49	32.39	7.41	33.53	150	60	Р	V
		5745	85.75	-	1	79.48	32.39	7.41	33.53	150	60	Α	V

Remark

TEL: 86-755-8637-9589 FAX: 86-755-8637-9595 FCC ID: 2AFWMLE1PRO Page Number : B9 of B20
Report Issued Date : Sep. 29, 2015
Report Version : Rev. 01

^{1.} No other spurious found.

^{2.} All results are PASS against Peak and Average limit line.



WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Peak	Pol.
Ant.				Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
1		(MHz)	(dBµV/m)	(dB)	(dBµV/m)	(dBµV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
		5706.52	46.27	-22.03	68.3	40.1	32.33	7.36	33.52	150	123	Р	Н
		5715.48	46.12	-32.18	78.3	39.95	32.33	7.36	33.52	150	123	Р	Н
		5785	97.06	-	-	90.71	32.44	7.45	33.54	150	123	Р	Н
		5785	89.41	-	-	83.06	32.44	7.45	33.54	150	123	Α	Н
802.11ac		5851.68	45.12	-33.18	78.3	38.62	32.55	7.51	33.56	150	123	Р	Н
VHT20		5886	45.64	-22.66	68.3	39.07	32.61	7.53	33.57	150	123	Р	Н
CH 157		5694.52	44.41	-23.89	68.3	38.26	32.3	7.36	33.51	150	59	Р	٧
5785MHz		5716.2	44.25	-34.05	78.3	38.08	32.33	7.36	33.52	150	59	Р	٧
		5785	90.72	-	-	84.37	32.44	7.45	33.54	150	59	Р	V
		5785	84.02	-	-	77.67	32.44	7.45	33.54	150	59	Α	V
		5854	44.94	-33.36	78.3	38.41	32.58	7.51	33.56	150	59	Р	V
		5889.44	44.97	-23.33	68.3	38.38	32.63	7.53	33.57	150	59	Р	V

Remark 2.

TEL: 86-755-8637-9589 FAX: 86-755-8637-9595 FCC ID: 2AFWMLE1PRO

: B10 of B20 Page Number Report Issued Date: Sep. 29, 2015 Report Version : Rev. 01

No other spurious found.

All results are PASS against Peak and Average limit line.



WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Peak	Pol.
Ant.				Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
1		(MHz)	(dBµV/m)	(dB)	(dBµV/m)	(dBµV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
		5825	95.19	-	-	88.74	32.52	7.48	33.55	150	122	Р	Н
		5825	87.56	-	-	81.11	32.52	7.48	33.55	150	122	Α	Н
802.11ac		5855.6	47.6	-30.7	78.3	41.07	32.58	7.51	33.56	150	122	Р	Н
VHT20		5880.4	47.53	-20.77	68.3	40.97	32.61	7.51	33.56	150	122	Р	Н
CH 165		5825	89.94	-	-	83.49	32.52	7.48	33.55	150	60	Р	٧
5825MHz		5825	82.21	-	-	75.76	32.52	7.48	33.55	150	60	Α	٧
		5851.2	45.17	-33.13	78.3	38.67	32.55	7.51	33.56	150	60	Р	٧
		5878.08	46.95	-21.35	68.3	40.39	32.61	7.51	33.56	150	60	Р	٧

Remark

1. No other spurious found.

2. All results are PASS against Peak and Average limit line.

TEL: 86-755-8637-9589 FAX: 86-755-8637-9595 FCC ID: 2AFWMLE1PRO Page Number : B11 of B20
Report Issued Date : Sep. 29, 2015
Report Version : Rev. 01

15E Band 4 5725~5850MHz WIFI 802.11ac VHT20 (Harmonic @ 3m)

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Peak	Pol.
Ant.				Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
1		(MHz)	(dBµV/m)	(dB)	(dBµV/m)	(dBµV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11ac		11490	45.49	-28.51	74	55.13	39.06	11.05	59.75	145	265	Р	Н
VHT20		17235	50.03	-18.27	68.3	52.24	41.39	14.65	58.25	174	321	Р	Н
CH 149		11490	45.91	-28.09	74	55.55	39.06	11.05	59.75	145	265	Р	V
5775MHz		17235	50.23	-18.07	68.3	52.44	41.39	14.65	58.25	174	321	Р	V
802.11ac		11570	43.29	-30.71	74	53.13	38.98	11.01	59.83	105	198	Р	Н
VHT20		17355	50.42	-17.88	68.3	51.26	42.18	14.78	57.8	189	185	Р	Н
CH 157		11570	45.44	-28.56	74	55.28	38.98	11.01	59.83	105	198	Р	V
5785MHz		17355	50.79	-17.51	68.3	51.63	42.18	14.78	57.8	189	185	Р	V
802.11ac		11650	43.46	-30.54	74	53.47	38.92	10.97	59.9	146	347	Р	Н
VHT20		17475	50.39	-17.91	68.3	49.86	42.98	14.9	57.35	100	360	Р	Н
CH 165		11650	42.26	-31.74	74	52.27	38.92	10.97	59.9	146	347	Р	V
5825MHz		17475	50.81	-17.49	68.3	50.28	42.98	14.9	57.35	100	360	Р	V

Remark

TEL: 86-755-8637-9589 FAX: 86-755-8637-9595 FCC ID: 2AFWMLE1PRO Page Number : B12 of B20
Report Issued Date : Sep. 29, 2015
Report Version : Rev. 01

^{1.} No other spurious found.

^{2.} All results are PASS against Peak and Average limit line.

15E Band 4 5725~5850MHz WIFI 802.11ac VHT40 (Harmonic @ 3m)

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Peak	Pol.
Ant.				Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
1		(MHz)	(dBµV/m)	(dB)	(dBµV/m)	(dBµV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
		5707.64	50.71	-17.59	68.3	44.54	32.33	7.36	33.52	150	122	Р	Н
		5724.84	52.64	-25.66	78.3	46.44	32.36	7.36	33.52	150	122	Р	Н
		5755	93.66	-	-	87.37	32.41	7.41	33.53	150	122	Р	Н
		5755	87.1	-	-	80.81	32.41	7.41	33.53	150	122	Α	Н
802.11ac		5855.52	45.52	-32.78	78.3	38.99	32.58	7.51	33.56	150	122	Р	Н
VHT40		5867.2	45.15	-23.15	68.3	38.62	32.58	7.51	33.56	150	122	Р	Н
CH 151		5708.52	51.14	-17.16	68.3	44.97	32.33	7.36	33.52	150	59	Р	٧
5755MHz		5722.84	47.65	-30.65	78.3	41.45	32.36	7.36	33.52	150	59	Р	V
		5755	88.27	-	-	81.98	32.41	7.41	33.53	150	59	Р	V
		5755	81.5	-	ı	75.21	32.41	7.41	33.53	150	59	Α	V
		5858	44.85	-33.45	78.3	38.32	32.58	7.51	33.56	150	59	Р	V
		5886.32	45.56	-22.74	68.3	38.99	32.61	7.53	33.57	150	59	Р	V

TEL: 86-755-8637-9589 FAX: 86-755-8637-9595 FCC ID : 2AFWMLE1PRO Page Number : B13 of B20 Report Issued Date: Sep. 29, 2015

Report No. : FR582501E

Report Version : Rev. 01

No other spurious found.

All results are PASS against Peak and Average limit line.



Ant.	Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Peak	Pol.
AIII.			Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
1	(MHz)	(dBµV/m)	(dB)	(dBµV/m)	(dBµV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
	5715	45.55	-32.75	78.3	39.38	32.33	7.36	33.52	150	122	Р	Н
	5724.44	46.12	-32.18	78.3	39.92	32.36	7.36	33.52	150	122	Р	Н
	5795	92.42	-	-	86.04	32.47	7.45	33.54	150	122	Р	Н
	5795	85.36	-	-	78.98	32.47	7.45	33.54	150	122	Α	Н
802.11ac	5852.56	48.37	-29.93	78.3	41.87	32.55	7.51	33.56	150	122	Р	Н
VHT40	5866.8	46.05	-22.25	68.3	39.52	32.58	7.51	33.56	150	122	Р	Н
CH 159	5707	45.09	-23.21	68.3	38.92	32.33	7.36	33.52	150	61	Р	٧
5795MHz	5724.6	45.6	-32.7	78.3	39.4	32.36	7.36	33.52	150	61	Р	٧
	5795	87.06	-	-	80.68	32.47	7.45	33.54	150	61	Р	٧
	5795	80.13	-	-	73.75	32.47	7.45	33.54	150	61	Α	٧
	5850.16	46.33	-31.97	78.3	39.83	32.55	7.51	33.56	150	61	Р	٧
	5873.92	45.58	-22.72	68.3	39.02	32.61	7.51	33.56	150	61	Р	٧

Remark 1.

TEL: 86-755-8637-9589 FAX: 86-755-8637-9595 FCC ID: 2AFWMLE1PRO Page Number : B14 of B20
Report Issued Date : Sep. 29, 2015
Report Version : Rev. 01

[.] No other spurious found.

^{2.} All results are PASS against Peak and Average limit line.



WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Peak	Pol.
Ant.				Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
1		(MHz)	(dBµV/m)	(dB)	(dBµV/m)	(dBµV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11ac		11510	45.91	-28.09	74	55.58	39.04	11.05	59.76	100	360	Р	Н
VHT40		17265	50.34	-17.96	68.3	52.16	41.62	14.69	58.13	100	360	Р	Н
CH151		11510	45.82	-28.18	74	55.49	39.04	11.05	59.76	100	360	Р	٧
5755MHz		17265	50.55	-17.75	68.3	52.37	41.62	14.69	58.13	100	360	Р	٧
802.11ac		11590	43.47	-30.53	74	53.34	38.97	11.01	59.85	100	300	Р	Н
VHT40		17385	50.17	-18.13	68.3	50.61	42.41	14.82	57.67	100	200	Р	Н
CH 159		11590	41.86	-32.14	74	51.73	38.97	11.01	59.85	100	300	Р	V
5795MHz		17385	50.07	-18.23	68.3	50.51	42.41	14.82	57.67	100	200	Р	٧

Remark 2.

TEL: 86-755-8637-9589 FAX: 86-755-8637-9595 FCC ID: 2AFWMLE1PRO Page Number : B15 of B20
Report Issued Date : Sep. 29, 2015
Report Version : Rev. 01

^{1.} No other spurious found.

^{2.} All results are PASS against Peak and Average limit line.

15E Band 4 5725~5850MHz WIFI 802.11ac VHT80(Harmonic @ 3m)

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Peak	Pol.
Ant.				Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
1		(MHz)	(dBµV/m)	(dB)	(dBµV/m)	(dBµV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
		5687.24	49.77	-18.53	68.3	43.62	32.3	7.36	33.51	150	122	Р	Н
		5724.6	51.61	-26.69	78.3	45.41	32.36	7.36	33.52	150	122	Р	Н
		5775	89.18	-	-	82.82	32.44	7.45	33.53	150	122	Р	Н
		5775	80.74	-	-	74.38	32.44	7.45	33.53	150	122	Α	Н
802.11ac		5855.84	47.04	-31.26	78.3	40.51	32.58	7.51	33.56	150	122	Р	Н
VHT80		5865.12	46.11	-22.19	68.3	39.58	32.58	7.51	33.56	150	122	Р	Н
CH 155		5710.68	46.32	-21.98	68.3	40.15	32.33	7.36	33.52	150	59	Р	٧
5775MHz		5720.6	46.79	-31.51	78.3	40.59	32.36	7.36	33.52	150	59	Р	٧
		5775	83.24	-	-	76.88	32.44	7.45	33.53	150	59	Р	V
		5775	75.38	-	-	69.02	32.44	7.45	33.53	150	59	Α	V
		5855.04	45.11	-33.19	78.3	38.58	32.58	7.51	33.56	150	59	Р	V
		5886.72	46.15	-22.15	68.3	39.58	32.61	7.53	33.57	150	59	Р	V

Remark

TEL: 86-755-8637-9589 FAX: 86-755-8637-9595 FCC ID: 2AFWMLE1PRO Page Number : B16 of B20
Report Issued Date : Sep. 29, 2015
Report Version : Rev. 01

^{2.} All results are PASS against Peak and Average limit line.



WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Peak	Pol.
Ant.				Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
1		(MHz)	(dBµV/m)	(dB)	(dBµV/m)	(dB _µ V)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11ac		11550	43.91	-30.09	74	53.69	39	11.03	59.81	150	360	Р	Н
VHT80		17325	50.45	-17.85	68.3	51.64	41.96	14.78	57.93	150	0	Р	Н
CH155		11550	45.51	-28.49	74	55.29	39	11.03	59.81	150	360	Р	٧
5775MHz		17325	50.85	-17.45	68.3	52.04	41.96	14.78	57.93	150	0	Р	V

Remark 2.

TEL: 86-755-8637-9589 FAX: 86-755-8637-9595 FCC ID: 2AFWMLE1PRO Page Number : B17 of B20
Report Issued Date : Sep. 29, 2015
Report Version : Rev. 01

^{1.} No other spurious found.

^{2.} All results are PASS against Peak and Average limit line.

15E Emission below 1GHz

5GHz WIFI 802.11ac40 (LF @ 3m)

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Peak	Pol.
Ant.				Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
1		(MHz)	(dBµV/m)	(dB)	(dBµV/m)	(dBµV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
		48.43	22.94	-17.06	40	45.69	9.63	1	33.38	100	360	Р	Н
		98.87	20.18	-23.32	43.5	40.03	12.14	1.38	33.37	-	-	Р	Н
		166.77	17.38	-26.12	43.5	38.23	10.83	1.53	33.21	-	-	Р	Н
		232.73	19.86	-26.14	46	39.86	11.32	1.8	33.12	-	-	Р	Н
5011		312.27	23.54	-22.46	46	40.47	14.14	1.94	33.01	1	-	Р	Н
5GHz 802.11ac40		429.64	27.16	-18.84	46	40.71	16.92	2.22	32.69	-	-	Р	Н
LF		48.43	26.74	-13.26	40	49.49	9.63	1	33.38	200	0	Р	V
		119.24	29.15	-14.35	43.5	49.22	11.87	1.38	33.32	1	-	Р	٧
		210.42	24.44	-19.06	43.5	45.29	10.5	1.8	33.15	-	-	Р	٧
		312.27	28.26	-17.74	46	45.19	14.14	1.94	33.01	-	-	Р	٧
		432.55	27.31	-18.69	46	40.81	16.96	2.22	32.68	-	-	Р	V
		759.44	25.97	-20.03	46	34.92	19.91	2.85	31.71	-	-	Р	٧

Remark

TEL: 86-755-8637-9589 FAX: 86-755-8637-9595 FCC ID: 2AFWMLE1PRO Page Number : B18 of B20
Report Issued Date : Sep. 29, 2015
Report Version : Rev. 01

^{1.} No other spurious found.

^{2.} All results are PASS against limit line.

Note symbol

	Fundamental Frequency which can be ignored. However, the level of any
*	unwanted emissions shall not exceed the level of the fundamental frequency per
	15.209(c).
!	Test result is over limit line.
P/A	Peak or Average
H/V	Horizontal or Vertical

TEL: 86-755-8637-9589 FAX: 86-755-8637-9595 FCC ID: 2AFWMLE1PRO Page Number : B19 of B20
Report Issued Date : Sep. 29, 2015
Report Version : Rev. 01

A calculation example for radiated spurious emission is shown as below:

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Peak	Pol.
Ant.				Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
1		(MHz)	(dBµV/m)	(dB)	(dBµV/m)	(dB _µ V)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11b		2390	55.45	-18.55	74	54.51	32.22	4.58	35.86	103	308	Р	Н
CH 01													
2412MHz		2390	43.54	-10.46	54	42.6	32.22	4.58	35.86	103	308	Α	Н

1. Level($dB\mu V/m$) =

Antenna Factor(dB/m) + Cable Loss(dB) + Read Level(dBµV) - Preamp Factor(dB)

2. Over Limit(dB) = Level(dB μ V/m) – Limit Line(dB μ V/m)

For Peak Limit @ 2390MHz:

- 1. Level(dBµV/m)
- = Antenna Factor(dB/m) + Cable Loss(dB) + Read Level(dBµV) Preamp Factor(dB)
- $= 32.22(dB/m) + 4.58(dB) + 54.51(dB\mu V) 35.86 (dB)$
- $= 55.45 (dB\mu V/m)$
- 2. Over Limit(dB)
- = Level($dB\mu V/m$) Limit Line($dB\mu V/m$)
- $= 55.45(dB\mu V/m) 74(dB\mu V/m)$
- = -18.55(dB)

For Average Limit @ 2390MHz:

- 1. Level(dBµV/m)
- = Antenna Factor(dB/m) + Cable Loss(dB) + Read Level(dB μ V) Preamp Factor(dB)
- $= 32.22(dB/m) + 4.58(dB) + 42.6(dB\mu V) 35.86 (dB)$
- $= 43.54 (dB\mu V/m)$
- 2. Over Limit(dB)
- = Level($dB\mu V/m$) Limit Line($dB\mu V/m$)
- $= 43.54(dB\mu V/m) 54(dB\mu V/m)$
- = -10.46(dB)

Both peak and average measured complies with the limit line, so test result is "PASS".

SPORTON INTERNATIONAL (SHENZHEN) INC.

TEL: 86-755-8637-9589 FAX: 86-755-8637-9595 FCC ID: 2AFWMLE1PRO Page Number : B20 of B20
Report Issued Date : Sep. 29, 2015

Report Version : Rev. 01