# **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

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Report Issued Date : Sep. 29, 2015

Testing Laboratory

Report No.: FR582501D

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# **REVISION HISTORY**

REPORT NO.	VERSION	DESCRIPTION	ISSUED DATE
FR582501D	Rev. 01	Initial issue of report	Sep. 29, 2015

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# **SUMMARY OF TEST RESULT**

Report Section	FCC Rule	Description	Limit	Result	Remark
3.1	2.1049 15.403(i)	26dB & 99% Bandwidth	-	Pass	-
3.2	15.407(a)	Maximum Conducted Output Power	FCC ≤24 dBm (depend on band)	Pass	-
3.3	15.407(a)	Power Spectral Density	FCC ≤11 dBm (depend on band)	Pass	-
3.4	15.407(b)	Unwanted Emissions	≤ -17, -27 dBm (depend on band)&15.209(a)	Pass	Under limit 4.83 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	-

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# 1 General Description

# 1.1 Applicant

Lemobile Information Technology (Beijing) Co., Ltd.

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

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# 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

Product Feature & Specification					
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/HSP A+(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.

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# 1.4 Product Specification of Equipment Under Test

Product Specification subjective to this standard				
	5180 MHz ~ 5240 MHz			
Tx/Rx Frequency Range	5260 MHz ~ 5320 MHz			
	5500 MHz ~ 5700 MHz			
	<5180 MHz ~ 5240 MHz>			
	802.11a: 15.43 dBm / 0.0349 W			
	802.11n HT20 : 15.17 dBm / 0.0329 W			
	802.11n HT40 : 14.95 dBm / 0.0313 W			
	802.11ac VHT20 : 15.10 dBm / 0.0324 W			
	802.11ac VHT40: 14.86 dBm / 0.0306 W			
	802.11ac VHT80 : 12.45 dBm / 0.0176 W			
	<5260 MHz ~ 5320 MHz>			
	802.11a : 16.47 dBm / 0.0444 W			
	802.11n HT20 : 16.20 dBm / 0.0417 W			
Maximum Output Power to	802.11n HT40 : 14.48 dBm / 0.0281 W			
Antenna	802.11ac VHT20 : 16.01 dBm / 0.0399 W			
	802.11ac VHT40 : 14.47 dBm / 0.0280 W			
	802.11ac VHT80 : 13.30 dBm / 0.0214 W			
	<5500 MHz ~ 5700 MHz>			
	802.11a : 15.29 dBm / 0.0338 W			
	802.11n HT20 : 14.93 dBm / 0.0311 W			
	802.11n HT40 : 14.81 dBm / 0.0303 W			
	802.11ac VHT20 : 14.90 dBm / 0.0309 W			
	802.11ac VHT40 : 14.78 dBm / 0.0301 W			
	802.11ac VHT80 : 12.35 dBm / 0.0172 W			
	<5180 MHz ~ 5240 MHz>			
	802.11a : 16.85 MHz			
	802.11n HT20 : 17.85 MHz			
	802.11n HT40 : 36.00 MHz			
	802.11ac VHT20: 17.85 MHz			
	802.11ac VHT40 : 36.00 MHz			
	802.11ac VHT80 : 75.12 MHz			
	<5260 MHz ~ 5320 MHz>			
	802.11a : 16.90 MHz			
	802.11n HT20 : 17.85 MHz			
99% Occupied Bandwidth	802.11n HT40 : 36.10 MHz			
	802.11ac VHT20: 17.85 MHz			
	802.11ac VHT40 : 36.10 MHz			
	802.11ac VHT80 : 74.88 MHz			
	<5500 MHz ~ 5700 MHz>			
	802.11a : 16.85 MHz			
	802.11n HT20 : 17.80 MHz			
	802.11n HT40 : 36.20 MHz			
	802.11ac VHT20: 17.85 MHz			
	802.11ac VHT40 : 36.10 MHz			
	802.11ac VHT80 : 75.24 MHz			

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Antenna Type	PIFA Antenna				
	<b>&lt;5180 MHz ~ 5240 MHz&gt;</b> : -6.94 dBi				
Antenna Gain	<5260 MHz ~ 5320 MHz>: -5.64 dBi				
	<b>&lt;5500 MHz ~ 5700 MHz&gt;</b> : -2.63 dBi				
Type of Madulation	802.11a/n: OFDM (BPSK / QPSK / 16QAM / 64QAM)				
Type of Modulation	802.11ac : OFDM (BPSK / QPSK / 16QAM / 64QAM / 256QAM)				

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## 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			
Took Cita No	Sportor	n Site No.			
Test Site No.	TH01-SZ	CO01-SZ			

Test Site	SPORTON INTERNATIONAL (SHENZHEN) INC.					
Test Site Location	No. 3 Building, the third floor of south, Shahe River west, Fengzeyuan warehouse, Nanshan District, Shenzhen, Guangdong, P. R. China					
	TEL: +86-755- 3320-2398					
Took Cita No	Sporton Site No. FCC Registration N					
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 above 1 GHz 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.

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# **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 Channel

Frequency Band	Channel	Freq. (MHz)	Channel	Freq. (MHz)
	36	5180	44	5220
5180- 5240 MHz Band 1	38	5190	46	5230
(U-NII-1)	40	5200	48	5240
(= :)	42	5210		

Frequency Band	Channel	Freq. (MHz)	Channel	Freq. (MHz)
	52	5260	60	5300
5260-5320 MHz Band 2	54	5270	62	5310
(U-NII-2A)	56	5280	64	5320
(0 : = .,)	58	5290		

Frequency Band	Channel	Freq. (MHz)	Channel	Freq. (MHz)
	100	5500	112	5560
	102	5510	116	5580
5500-5700 MHz	104	5520	132	5660
Band 3 (U-NII-2C)	106	5530	134	5670
(3.111.23)	108	5540	136	5680
	110	5550	140	5700

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

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# 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.

	5GHz 802.11a RF Output Power (dBm)													
Power vs. Channel				Power vs. MCS Index										
Channel	Frequency (MHz)	MCS Index 6Mbps	Channel	9M bps	12Mbps	18Mbps	24Mbps	36Mbps	48Mbps	54Mbps				
CH 36	5180	14.45												
CH 44	5220	15.10	CH 48	CH 48	CH 48	CH 48	CH 48 15.38	15.38	8 15.33	15.31	14.65	14.59	14.67	14.70
CH 48	5240	<mark>15.43</mark>												
CH 52	5260	16.26		CH 64 16.39			16.37 15.74	15.66	15.75	15.74				
CH 60	5300	16.35	CH 64		16.36	16.37								
CH 64	5320	<mark>16.47</mark>												
CH 100	5500	<mark>15.29</mark>					5.18 14.57	14.52		14.60				
CH 116	5580	14.91	CH 100	CH 100 15.21	15.22	15.18			14.53					
CH 140	5700	14.62												

		50	GHz 802.11	n HT20 F	RF Outpu	t Power (	dBm)			
Pow	er vs. Chanr	nel			Po	wer vs. N	ICS Inde	x		
Channel	Frequency (MHz)	MCS Index MCS0	Channel	MCS1	MCS2	MCS3	MCS4	MCS5	MCS6	MCS7
CH 36	5180	14.79								
CH 44	5220	14.85	CH 48	15.15	15.14	14.56	14.62	14.58	14.62	14.54
CH 48	5240	<mark>15.17</mark>								
CH 52	5260	15.33								
CH 60	5300	16.06	CH 64	16.17	16.14	15.60	15.69	15.61	15.62	15.59
CH 64	5320	<mark>16.20</mark>								
CH 100	5500	<mark>14.93</mark>								
CH 116	5580	13.88	CH 100	14.86	14.88	14.32	14.42	14.41	14.38	14.33
CH 140	5700	13.45								

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		50	GHz 802.11	n HT40 F	RF Outpu	t Power (	dBm)				
Pow	Power vs. Channel			Power vs. MCS Index							
Channel	Frequency (MHz)	MCS Index MCS0	Channel	MCS1	MCS2	MCS3	MCS4	MCS5	MCS6	MCS7	
CH 38	5190	14.23	CLI 46	CH 46 14.93	14.94	14.46	14.37	14.44	14.40	14.54	
CH 46	5230	<mark>14.95</mark>	CH 40			14.40	14.31				
CH 54	5270	14.29	CH 62	311.00	14.46 14.47	12.00	13.90	13.97	13.93	14.07	
CH 62	5310	<mark>14.48</mark>	CH 62	14.40		13.99	13.90				
CH 102	5510	<mark>14.81</mark>									
CH 110	5550	14.65	CH 102	14.79	14.80	14.32	14.32 14.23	14.30	14.26	14.40	
CH 134	5670	13.40									

		WLAI	N 5GHz 80	2.11ac	VHT20 A	Average	Power	(dBm)			
Pow	er vs. Chanr	nel				Power	vs. MCS	S Index			
Channel	Frequency (MHz)	MCS Index MCS0	Channel	MCS1	MCS2	MCS3	MCS4	MCS5	MCS6	MCS7	MCS8
CH 36	5180	14.09									
CH 44	5220	14.76	CH 48	15.08	15.03	14.62	14.61	14.66	14.70	14.55	14.51
CH 48	5240	<mark>15.10</mark>									
CH 52	5260	15.18									
CH 60	5300	15.89	CH 64	15.97	15.93	15.55	15.52	15.59	15.61	15.51	15.45
CH 64	5320	<mark>16.01</mark>									
CH 100	5500	<mark>14.90</mark>									
CH 116	5580	13.85	CH 100	14.87	14.80	14.46	14.45	14.51	14.50	14.41	14.37
CH 140	5700	13.36									

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	WLAN 5GHz 802.11ac VHT40 Average Power (dBm)											
Powe	Power vs. Channel			Power vs. Data Rate								
Channel	Frequency (MHz)	MCS Index MCS0	Channel	MCS1	MCS2	MCS3	MCS4	MCS5	MCS6	MCS7	MCS8	MCS9
CH 38	5190	14.20	CH 46	14.73	14.78	14.29	14.34	11 11	14.35	14.30	14.35	14.36
CH 46	5230	<mark>14.86</mark>	CH 40	14.73	14.73 14.70	14.29	14.34	14.44	14.55	14.30	14.55	14.30
CH 54	5270	14.19	011.00	14 22 14 27	13.89	12.07	14.00	13.96	12.05	12.06	12.00	
CH 62	5310	14.47	CH 62	14.32	14.37	13.09	13.97	14.09	13.90	13.95	13.96	13.98
CH 102	5510	14.78										
CH 110	5550	14.67	CH 102	14.67	14.73	14.25	14.31	14.36	14.29	14.23	14.29	14.28
CH 134	5670	13.46										

	WLAN 5GHz 802.11ac VHT80 Average Power (dBm)											
Power vs. Channel				Power vs. Data Rate								
Channel	Frequency (MHz)	MCS Index MCS0	Channel	MCS1	MCS2	MCS3	MCS4	MCS5	MCS6	MCS7	MCS8	MCS9
CH 42	5210	12.45	CH 42	12.44	12.40	11.97	11.88	11.89	11.96	11.87	11.88	11.82
CH 58	5290	13.30	CH 58	13.26	13.23	12.82	12.79	12.87	12.85	12.72	12.77	12.69
CH 106	5530	12.35	CH 106	12.29	12.29	11.87	1.87 11.82	.82 11.81	11.86	11.79	11.79	11.72
CH 122	5610	11.96	CH 100									

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# 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	Made 1 : CSM950 Idle   Diveteeth Link   WI AN (ECLIE) Link   Fernhane   LISD Cable (Charging					
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.						

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	Ch. #	Band I: 5180-5240 MHz	Band II: 5260-5320 MHz	Band III:5500-5700MHz
	CII. #	802.11a	802.11a	802.11a
L	Low	36	52	100
M	Middle	44	60	116
Н	High	48	64	140

	Ch. #	Band I: 5180-5240 MHz	Band II: 5260-5320 MHz	Band III:5500-5700MHz
	CII.#	802.11n HT20	802.11n HT20	802.11n HT20
L	Low	36	52	100
M	Middle	44	60	116
Н	High	48	64	140

	Ch. #	Band I: 5180-5240 MHz	Band II: 5260-5320 MHz	Band III:5500-5700MHz
	CII. #	802.11n HT40	802.11n HT40	802.11n HT40
L	Low	38	54	102
М	Middle	-	-	110
Н	High	46	62	134

	Ch. #	Band I: 5150-5250 MHz	Band II: 5250-5350 MHz	Band III: 5500-5700MHz
	CII. #	802.11ac VHT20	802.11ac VHT20	802.11ac VHT20
L	Low	36	52	100
М	Middle	44	60	116
Н	High	48	64	140

	Ch. #	Band I: 5150-5250 MHz	Band II: 5250-5350 MHz	Band III: 5500-5700MHz
	CII. #	802.11ac VHT40	802.11ac VHT40	802.11ac VHT40
L	Low	38	54	102
M	Middle	-	-	110
Н	High	46	62	134

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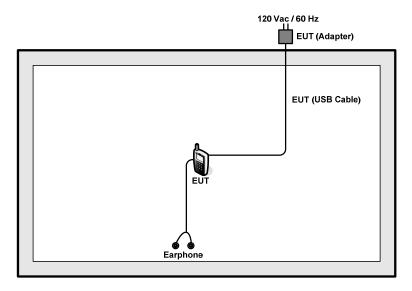
	Ch. #	Band I: 5150-5250 MHz	Band II: 5250-5350 MHz	Band III: 5500-5700MHz			
	CII.#	802.11ac VHT80	802.11ac VHT80	802.11ac VHT80			
L	Low	-	-	106			
M	Middle	42	58	-			
Н	High	-	-	122			

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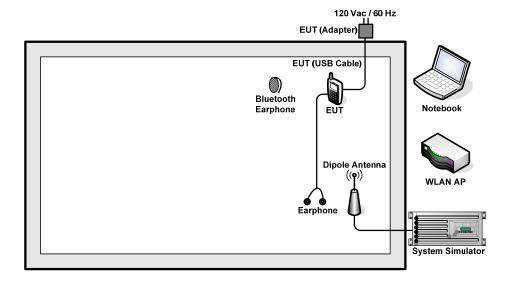
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# 2.4 Connection Diagram of Test System

### <WLAN Tx Mode>



### <AC Conducted Emission Mode>



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# 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.	Notebook					DC O/P:
						Shielded, 1.8 m
4.	Bluetooth	Nokia	BH-108	PYAHS-107W	N/A	N/A
4.	Earphone	Ινοκία	DI 1-100	F 1A(13-101W	IN/A	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)

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## **Test Result**

# 3.1 26dB & 99% Occupied Bandwidth Measurement

#### 3.1.1 **Description of 26dB & 99% Occupied Bandwidth**

This section is for reporting purpose only.

There is no restriction limits for bandwidth.

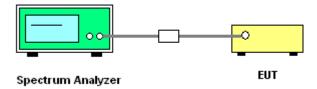
#### 3.1.2 **Measuring Instruments**

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
- 2. Set RBW = approximately 1% of the emission bandwidth.
- 3. Set the VBW > RBW.
- 4. Detector = Peak.
- 5. Trace mode = max hold
- 6. Measure the maximum width of the emission that is 26 dB down from the peak of the emission. Compare this with the RBW setting of the analyzer. Readjust RBW and repeat measurement as needed until the RBW/EBW ratio is approximately 1%.
- 7. For 99% Bandwidth Measurement, the spectrum analyzer's resolution bandwidth (RBW) is set 1MHz and set the Video bandwidth (VBW) ≥ 3 \* RBW.
- 8. Measure and record the results in the test report.

### 3.1.4 Test Setup



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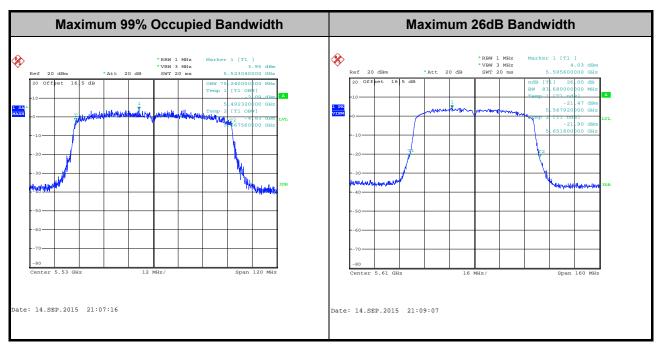
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# 3.1.5 Test Result of 26dB & 99% Occupied Bandwidth Plots

Please refer to Appendix A.



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

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# 3.2 Maximum Conducted Output Power Measurement

# **Limit of Maximum Conducted Output Power**

### <FCC 14-30 CFR 15.407>

For mobile and portable client devices in the 5.15-5.25 GHz band, the maximum conducted output power over the frequency band of operation shall not exceed 250 mW.

For the 5.25–5.35 GHz and 5.47–5.725 GHz bands, the maximum conducted output power over the frequency bands of operation shall not exceed the lesser of 250 mW or 11 dBm 10 log B, where B is the 26 dB emission bandwidth in megahertz.

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.

Note that U-NII-2 band, devices with a maximum e.i.r.p. greater than 500 mW shall implement TPC in order to have the capability to operate at least 6 dB below the maximum permitted e.i.r.p. of 1 W.

# 3.2.2 Measuring Instruments

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

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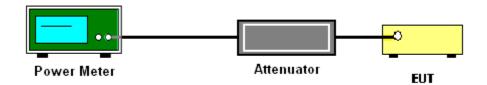
### 3.2.3 Test Procedures

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.

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# 3.3 Power Spectral Density Measurement

# 3.3.1 Limit of Power Spectral Density

### <FCC 14-30 CFR 15.407>

For mobile and portable client devices in the 5.15-5.25 GHz band, the maximum power spectral density shall not exceed 11dBm in any 1 megahertz band.

For the 5.25-5.35 GHz and 5.47-5.725 GHz bands, the maximum power spectral density shall not exceed 11 dBm in any 1 megahertz 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.

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### 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).

- 1. The testing follows Method SA-2 of FCC KDB 789033 D02 General UNII Test Procedures New Rules v01.
  - Measure the duty cycle.
  - Set span to encompass the entire emission bandwidth (EBW) of the signal.
  - Set RBW = 1 MHz.
  - Set VBW ≥ 3 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(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.
- 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



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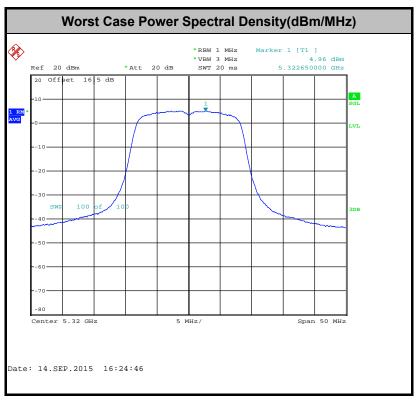
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# 3.3.5 Test Result of Power Spectral Density

Please refer to Appendix A.



Note: Average Power Density (dB) = Measured value+ Duty Factor

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### 3.4 Unwanted Radiated Emission 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.

### 3.4.1 Limit of Unwanted Emissions

- (1) For transmitters operating in the 5150-5250 MHz band: all emissions outside of the 5150-5350 MHz band shall not exceed an EIRP of -27dBm/MHz.
  - For transmitters operating in the 5250-5350 MHz band: all emissions outside of the 5150-5350 MHz band shall not exceed an EIRP of -27 dBm/MHz. Devices operating in the 5250-5350 MHz band that generate emissions in the 5150-5250 MHz band must meet all applicable technical requirements for operation in the 5150-5250 MHz band (including indoor use) or alternatively meet an out-of-band emission EIRP limit of -27 dBm/MHz in the 5150-5250 MHz band.
  - For transmitters operating in the 5470-5600 MHz and 5650-5725MHz band: all emissions outside of the 5470-5600 MHz and 5650-5725MHz band shall not exceed an EIRP of -27 dBm/MHz.
- (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)

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

(3) KDB789033 v01 G)2)c) 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.

# 3.4.2 Measuring Instruments

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

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### 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

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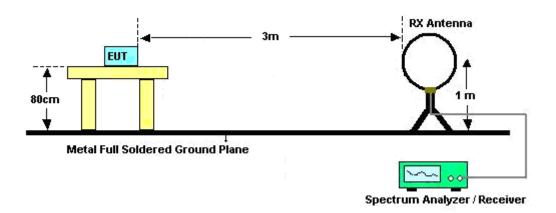
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- The EUT was placed on a turntable with 0.8 meter for frequency below 1GHz and 1.5 meter for frequency above 1GHz respectively above ground.
- The EUT was set 3 meters from the interference receiving antenna which was mounted on the top of a variable 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



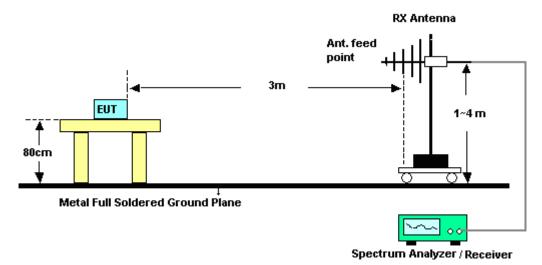
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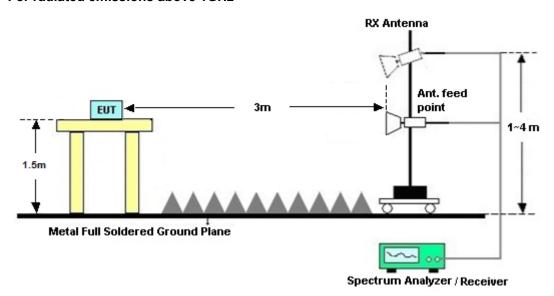
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### For radiated emissions from 30MHz to 1GHz



### 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.

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### 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						

<sup>\*</sup>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.

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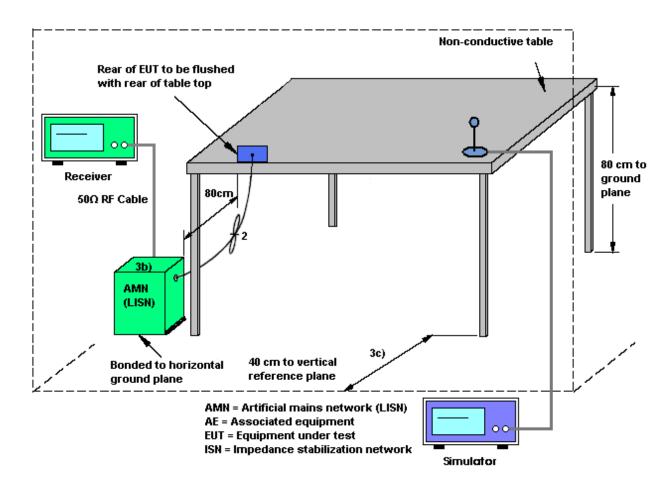
FAX: 86-755-8637-9595 FCC ID: 2AFWMLE1PRO

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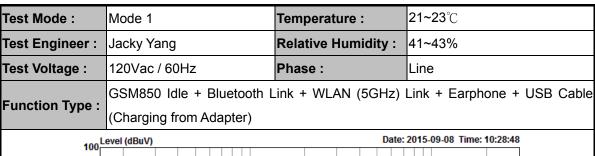
Report No.: FR582501D

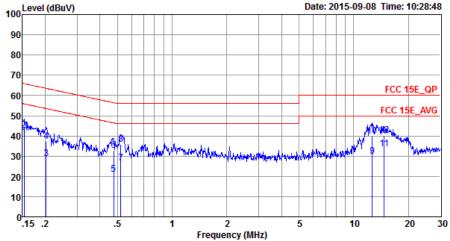
# 3.5.4 Test Setup



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## 3.5.5 Test Result of AC Conducted Emission





Site : CO01-SZ

Condition: FCC 15E\_QP LISN\_L\_20150304 LINE

Mode : Mode 1

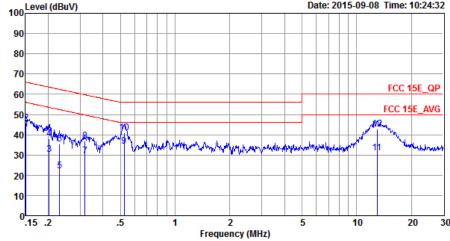
IMEI : 868126020002824/868126020002832

			Over	Limit	Read	LISN	Cable	
	Freq	Level	Limit	Line	Level	Factor	Loss	Remark
	MHz	dBu∀	dB	dBu∀	dBuV	dB	dB	
1 4	0.15	39.39	-16.43	55.82	28.59	0.44	10.36	Average
2	0.15	42.69	-23.13	65.82	31.89	0.44	10.36	QP
3	0.20	28.91	-24.58	53.49	18.10	0.52	10.29	Average
4	0.20	37.41	-26.08	63.49	26.60	0.52	10.29	QP
5	0.48	21.00	-25.41	46.41	10.20	0.64	10.16	Average
6	0.48	33.00	-23.41	56.41	22.20	0.64	10.16	QP
7	0.52	26.71	-19.29	46.00	15.91	0.65	10.15	Average
8	0.52	35.61	-20.39	56.00	24.81	0.65	10.15	QP
9	12.65	29.72	-20.28	50.00	18.60	0.68	10.44	Average
10	12.65	39.82	-20.18	60.00	28.70	0.68	10.44	QP
11	14.75	33.49	-16.51	50.00	22.20	0.77	10.52	Average
12	14.75	40.39	-19.61	60.00	29.10	0.77	10.52	_

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Test Mode :	Mode 1							Temperature :						21~23℃								
Test Engineer :	Jacky Yang							Relative Humidity :						41~43%								
Test Voltage :	120Vac / 60Hz						F	Phase :						Neutral								
Function Type :	GSM85	GSM850 Idle + Bluetooth Link + WLAN (5GHz) Link + Earphone + USB Cabl									Cable											
Function Type :	(Chargii	(Charging from Adapter)																				
100	evel (dBuV) Date: 2015-09-08 Time: 10:24:32																					
90				-	++	+				+	+	-	-	$\rightarrow$	+			+		1		



Site : CO01-SZ

Condition: FCC 15E\_QP LISN\_N\_20150304 NEUTRAL

Mode : Mode 1

IMEI : 868126020002824/868126020002832 Over Limit Read

		Freq	Level	Limit	Line	Level	Factor	Loss	Remark
		MHz	dBu∇	dB	dBu∇	dBuV	dB	dB	
1		0.15	42.81	-13.15	55.96	32.00	0.45	10.36	Average
2		0.15	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		0.20	37.90	-25.59	63.49	27.10	0.51	10.29	QP
5		0.23	22.10	-30.29	52.39	11.30	0.54	10.26	Average
6		0.23	35.50	-26.89	62.39	24.70	0.54	10.26	QP
7		0.32	29.38	-20.37	49.75	18.61	0.58	10.19	Average
8		0.32	37.08	-22.67	59.75	26.31	0.58	10.19	QP
9 *	lr .	0.52	34.46	-11.54	46.00	23.71	0.60	10.15	Average
10		0.52	40.86	-15.14	56.00	30.11	0.60	10.15	QP
11	- 1	12.99	31.16	-18.84	50.00	19.99	0.71	10.46	Average
12		12.99	42.66	-17.34	60.00	31.49	0.71	10.46	QP

LISN Cable

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# 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.

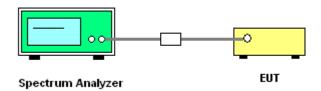
#### 3.6.2 **Measuring Instruments**

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.

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# 3.7 Automatically Discontinue Transmission

## **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.

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# 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.

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# 4 List of Measuring Equipments

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration	Test Date	Due Date	Remark
					Date	1001 2 0.00	200 2000	
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)

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# 5 Uncertainty of Evaluation

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

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

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

Measuring Uncertainty for a Level of	3.9 dB
Confidence of 95% (U = 2Uc(y))	0.0 42

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# **Appendix A. Conducted Test Results**

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

#### TEST RESULTS DATA 26dB and 99% OBW

						Band	I		
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	99% Bandwidth (MHz)	26 dB Bandwidth (MHz)	IC 99% Bandwidth Power Limit (dBm)	IC 99% Bandwidth EIRP Limit (dBm)	
11a	6Mbps	1	36	5180	16.85	20.90	-	22.27	
11a	6Mbps	1	44	5220	16.85	20.95	-	22.27	
11a	6Mbps	1	48	5240	16.80	20.75	-	22.25	
HT20	MCS0	1	36	5180	17.80	21.80	-	22.50	
HT20	MCS0	1	44	5220	17.80	21.80	-	22.50	
HT20	MCS0	1	48	5240	17.85	21.70	-	22.52	
HT40	MCS0	1	38	5190	36.00	41.67	-	23.01	
HT40	MCS0	1	46	5230	36.00	41.76	-	23.01	
VHT20	MCS0	1	36	5180	17.85	21.75	-	22.52	
VHT20	MCS0	1	44	5220	17.80	21.80	-	22.50	
VHT20	MCS0	1	48	5240	17.80	21.85	-	22.50	
VHT40	MCS0	1	38	5190	36.00	41.76	-	23.01	
VHT40	MCS0	1	46	5230	36.00	41.76	-	23.01	
VHT80	MCS0	1	42	5210	75.12	82.88	-	23.01	

# TEST RESULTS DATA Average Power Table

						FCC Ba	ınd I		
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	Duty Factor (dB)	Average Conducted Power (dBm)	FCC Conducted Power Limit (dBm)	DG (dBi)	Pass/Fail
11a	6Mbps	1	36	5180	0.23	14.45	24.00	-6.94	Pass
11a	6Mbps	1	44	5220	0.23	15.10	24.00	-6.94	Pass
11a	6Mbps	1	48	5240	0.23	15.43	24.00	-6.94	Pass
HT20	MCS0	1	36	5180	0.21	14.79	24.00	-6.94	Pass
HT20	MCS0	1	44	5220	0.21	14.85	24.00	-6.94	Pass
HT20	MCS0	1	48	5240	0.21	15.17	24.00	-6.94	Pass
HT40	MCS0	1	38	5190	0.42	14.23	24.00	-6.94	Pass
HT40	MCS0	1	46	5230	0.42	14.95	24.00	-6.94	Pass
VHT20	MCS0	1	36	5180	0.22	14.09	24.00	-6.94	Pass
VHT20	MCS0	1	44	5220	0.22	14.76	24.00	-6.94	Pass
VHT20	MCS0	1	48	5240	0.22	15.10	24.00	-6.94	Pass
VHT40	MCS0	1	38	5190	0.45	14.20	24.00	-6.94	Pass
VHT40	MCS0	1	46	5230	0.45	14.86	24.00	-6.94	Pass
VHT80	MCS0	1	42	5210	0.83	12.45	24.00	-6.94	Pass

# TEST RESULTS DATA Power Spectral Density

						FCC Ba	ind I			
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	Duty Factor (dB)	Average Power Density (dBm/MHz)	Average PSD Limit (dBm/MHz)	DG (dBi)	-	Pass/Fail
11a	6Mbps	1	36	5180	0.23	3.90	11.00	-6.94		Pass
11a	6Mbps	1	44	5220	0.23	4.12	11.00	-6.94		Pass
11a	6Mbps	1	48	5240	0.23	4.41	11.00	-6.94		Pass
HT20	MCS0	1	36	5180	0.21	3.03	11.00	-6.94		Pass
HT20	MCS0	1	44	5220	0.21	3.54	11.00	-6.94		Pass
HT20	MCS0	1	48	5240	0.21	3.83	11.00	-6.94		Pass
HT40	MCS0	1	38	5190	0.42	0.69	11.00	-6.94		Pass
HT40	MCS0	1	46	5230	0.42	1.11	11.00	-6.94		Pass
VHT20	MCS0	1	36	5180	0.22	3.40	11.00	-6.94		Pass
VHT20	MCS0	1	44	5220	0.22	3.88	11.00	-6.94		Pass
VHT20	MCS0	1	48	5240	0.22	4.16	11.00	-6.94		Pass
VHT40	MCS0	1	38	5190	0.45	0.62	11.00	-6.94		Pass
VHT40	MCS0	1	46	5230	0.45	1.14	11.00	-6.94		Pass
VHT80	MCS0	1	42	5210	0.83	-4.34	11.00	-6.94		Pass

#### TEST RESULTS DATA 26dB and 99% OBW

						Band	II			
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	99% Bandwidth (MHz)	26 dB Bandwidth (MHz)	IC 99% Bandwidth Power Limit (dBm)	IC 99% Bandwidth EIRP Limit (dBm)	FCC 26dB Bandwidth Power Limit (dBm)	Note
11a	6M bps	1	52	5260	16.85	20.8	23.27	29.27	23.98	
11a	6M bps	1	60	5300	16.9	20.8	23.28	29.28	23.98	
11a	6M bps	1	64	5320	16.85	20.8	23.27	29.27	23.98	
HT20	MCS 0	1	52	5260	17.85	21.8	23.52	29.52	23.98	
HT20	MCS 0	1	60	5300	17.8	21.8	23.50	29.50	23.98	
HT20	MCS 0	1	64	5320	17.8	21.8	23.50	29.50	23.98	
HT40	MCS 0	1	54	5270	36	41.85	23.98	30.00	23.98	
HT40	MCS 0	1	62	5310	36.1	41.85	23.98	30.00	23.98	
VHT20	MCS 0	1	52	5260	17.85	21.75	23.52	29.52	23.98	
VHT20	MCS 0	1	60	5300	17.8	21.8	23.50	29.50	23.98	
VHT20	MCS 0	1	64	5320	17.8	21.8	23.50	29.50	23.98	
VHT40	MCS 0	1	54	5270	36.1	41.76	23.98	30.00	23.98	
VHT40	MCS 0	1	62	5310	36.1	41.76	23.98	30.00	23.98	
VHT80	MCS 0	1	58	5290	74.88	83.2	23.98	30.00	23.98	

# TEST RESULTS DATA Average Power Table

						FCC Ba	nd II		
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	52	5260	0.23	16.26	23.98	-5.64	Pass
11a	6M bps	1	60	5300	0.23	16.35	23.98	-5.64	Pass
11a	6M bps	1	64	5320	0.23	16.47	23.98	-5.64	Pass
HT20	MCS 0	1	52	5260	0.21	15.33	23.98	-5.64	Pass
HT20	MCS 0	1	60	5300	0.21	16.06	23.98	-5.64	Pass
HT20	MCS 0	1	64	5320	0.21	16.20	23.98	-5.64	Pass
HT40	MCS 0	1	54	5270	0.42	14.29	23.98	-5.64	Pass
HT40	MCS 0	1	62	5310	0.42	14.48	23.98	-5.64	Pass
VHT20	MCS 0	1	52	5260	0.22	15.18	23.98	-5.64	Pass
VHT20	MCS 0	1	60	5300	0.22	15.89	23.98	-5.64	Pass
VHT20	MCS 0	1	64	5320	0.22	16.01	23.98	-5.64	Pass
VHT40	MCS 0	1	54	5270	0.45	14.19	23.98	-5.64	Pass
VHT40	MCS 0	1	62	5310	0.45	14.47	23.98	-5.64	Pass
VHT80	MCS 0	1	58	5290	0.83	13.30	23.98	-5.64	Pass

# TEST RESULTS DATA Power Spectral Density

						Band	II		
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	Duty Factor (dB)	Average Power Density (dBm/MHz)	Average PSD Limit (dBm/MHz)	DG (dBi)	Pass/Fail
11a	6M bps	1	52	5260	0.23	4.60	11.00	-5.64	Pass
11a	6M bps	1	60	5300	0.23	5.04	11.00	-5.64	Pass
11a	6M bps	1	64	5320	0.23	5.19	11.00	-5.64	Pass
HT20	MCS 0	1	52	5260	0.21	4.08	11.00	-5.64	Pass
HT20	MCS 0	1	60	5300	0.21	4.69	11.00	-5.64	Pass
HT20	MCS 0	1	64	5320	0.21	4.84	11.00	-5.64	Pass
HT40	MCS 0	1	54	5270	0.42	2.28	11.00	-5.64	Pass
HT40	MCS 0	1	62	5310	0.42	2.34	11.00	-5.64	Pass
VHT20	MCS 0	1	52	5260	0.22	4.34	11.00	-5.64	Pass
VHT20	MCS 0	1	60	5300	0.22	5.00	11.00	-5.64	Pass
VHT20	MCS 0	1	64	5320	0.22	5.14	11.00	-5.64	Pass
VHT40	MCS 0	1	54	5270	0.45	0.34	11.00	-5.64	Pass
VHT40	MCS 0	1	62	5310	0.45	0.58	11.00	-5.64	Pass
VHT80	MCS 0	1	58	5290	0.83	-3.23	11.00	-5.64	Pass

#### TEST RESULTS DATA 26dB and 99% OBW

						Band	III			
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	99% Bandwidth (MHz)	26 dB Bandwidth (MHz)	IC 99% Bandwidth Power Limit (dBm)	IC 99% Bandwidth EIRP Limit (dBm)	FCC 26dB Bandwidth Power Limit (dBm)	Note
11a	6M bps	1	100	5500	16.85	20.75	23.27	29.27	23.98	
11a	6M bps	1	116	5580	16.85	20.8	23.27	29.27	23.98	
11a	6M bps	1	140	5700	16.85	20.85	23.27	29.27	23.98	
HT20	MCS 0	1	100	5500	17.8	21.75	23.50	29.50	23.98	
HT20	MCS 0	1	116	5580	17.8	21.7	23.50	29.50	23.98	
HT20	MCS 0	1	140	5700	17.8	21.7	23.50	29.50	23.98	
HT40	MCS 0	1	102	5510	36.1	41.85	23.98	30.00	23.98	
HT40	MCS 0	1	110	5550	36.1	41.85	23.98	30.00	23.98	
HT40	MCS 0	1	134	5670	36.2	41.85	23.98	30.00	23.98	
VHT20	MCS 0	1	100	5500	17.85	21.7	23.52	29.52	23.98	
VHT20	MCS 0	1	116	5580	17.8	21.65	23.50	29.50	23.98	
VHT20	MCS 0	1	140	5700	17.8	21.85	23.50	29.50	23.98	
VHT40	MCS 0	1	102	5510	36	41.76	23.98	30.00	23.98	
VHT40	MCS 0	1	110	5550	36.1	41.85	23.98	30.00	23.98	
VHT40	MCS 0	1	134	5670	36.1	41.58	23.98	30.00	23.98	
VHT80	MCS 0	1	106	5530	75.24	83.52	23.98	30.00	23.98	
VHT80	MCS 0	1	122	5610	75.24	83.68	23.98	30.00	23.98	

# TEST RESULTS DATA Average Power Table

						FCC Bar	nd III		
Mod.	Data Rate	<b>N</b> TX	CH.	Freq. (MHz)	Duty Factor (dB)	Average Conducted Power (dBm)	FCC Conducted Power Limit (dBm)	DG (dBi)	Pass/Fail
11a	6M bps	1	100	5500	0.23	15.29	23.98	-2.63	Pass
11a	6M bps	1	116	5580	0.23	14.91	23.98	-2.63	Pass
11a	6M bps	1	140	5700	0.23	14.62	23.98	-2.63	Pass
HT20	MCS 0	1	100	5500	0.21	14.93	23.98	-2.63	Pass
HT20	MCS 0	1	116	5580	0.21	13.88	23.98	-2.63	Pass
HT20	MCS 0	1	140	5700	0.21	13.45	23.98	-2.63	Pass
HT40	MCS 0	1	102	5510	0.42	14.81	23.98	-2.63	Pass
HT40	MCS 0	1	110	5550	0.42	14.65	23.98	-2.63	Pass
HT40	MCS 0	1	134	5670	0.42	13.40	23.98	-2.63	Pass
VHT20	MCS 0	1	100	5500	0.22	14.90	23.98	-2.63	Pass
VHT20	MCS 0	1	116	5580	0.22	13.85	23.98	-2.63	Pass
VHT20	MCS 0	1	140	5700	0.22	13.36	23.98	-2.63	Pass
VHT40	MCS 0	1	102	5510	0.45	14.78	23.98	-2.63	Pass
VHT40	MCS 0	1	110	5550	0.45	14.67	23.98	-2.63	Pass
VHT40	MCS 0	1	134	5670	0.45	13.46	23.98	-2.63	Pass
VHT80	MCS 0	1	106	5530	0.83	12.35	23.98	-2.63	Pass
VHT80	MCS 0	1	122	5610	0.83	11.96	23.98	-2.63	 Pass

# TEST RESULTS DATA Power Spectral Density

						Band	III		
Mod.	Data Rate	N⊤x	CH.	Freq. (MHz)	Duty Factor (dB)	Average Power Density (dBm/MHz)	Average PSD Limit (dBm/MHz)	DG (dBi)	Pass/Fail
11a	6M bps	1	100	5500	0.23	4.19	11.00	-2.63	Pass
11a	6M bps	1	116	5580	0.23	3.38	11.00	-2.63	Pass
11a	6M bps	1	140	5700	0.23	2.91	11.00	-2.63	Pass
HT20	MCS 0	1	100	5500	0.21	3.88	11.00	-2.63	Pass
HT20	MCS 0	1	116	5580	0.21	3.02	11.00	-2.63	Pass
HT20	MCS 0	1	140	5700	0.21	2.25	11.00	-2.63	Pass
HT40	MCS 0	1	102	5510	0.42	1.33	11.00	-2.63	Pass
HT40	MCS 0	1	110	5550	0.42	1.29	11.00	-2.63	Pass
HT40	MCS 0	1	134	5670	0.42	-0.42	11.00	-2.63	Pass
VHT20	MCS 0	1	100	5500	0.22	4.29	11.00	-2.63	Pass
VHT20	MCS 0	1	116	5580	0.22	3.34	11.00	-2.63	Pass
VHT20	MCS 0	1	140	5700	0.22	2.54	11.00	-2.63	Pass
VHT40	MCS 0	1	102	5510	0.45	1.23	11.00	-2.63	Pass
VHT40	MCS 0	1	110	5550	0.45	1.16	11.00	-2.63	Pass
VHT40	MCS 0	1	134	5670	0.45	-0.33	11.00	-2.63	Pass
VHT80	MCS 0	1	106	5530	0.83	-4.23	11.00	-2.63	Pass
VHT80	MCS 0	1	122	5610	0.83	-4.85	11.00	-2.63	Pass

#### TEST RESULTS DATA Frequency Stability

						Band	I			
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	Center Frequency (MHz)	Frequency Deviation (MHz)	Frequency Stablility (ppm)	Temperature (°C)	Voltage (V)	Note
11a	6Mbps	1	36	5180	5180.000	0.000	0.00	20	3.6	
11a	6Mbps	1	36	5180	5180.000	0.000	0.00	20	4.2	
11a	6Mbps	1	36	5180	5180.000	0.000	0.00	20	3.9	
11a	6Mbps	1	36	5180	5180.000	0.000	0.00	-30	3.9	
11a	6Mbps	1	36	5180	5180.000	0.000	0.00	50	3.9	

						Band	II			
Mod.	Data Rate	Voltage (V)	Note							
11a	6Mbps	1	64	5320	5320.000	0.000	0.00	20	3.6	
11a	6Mbps	1	64	5320	5320.000	0.000	0.00	20	4.2	
11a	6Mbps	1	64	5320	5320.000	0.000	0.00	20	3.9	
11a	6Mbps	1	64	5320	5320.000	0.000	0.00	-30	3.9	
11a	6Mbps	1	64	5320	5320.000	0.000	0.00	50	3.9	

						Band	III			
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	Center Frequency (MHz)	Frequency Deviation (MHz)	Frequency Stablility (ppm)	Temperature (°C)	Voltage (V)	Note
11a	6Mbps	1	100	5500	5499.975	-0.025	-4.55	20	3.6	
11a	6Mbps	1	100	5500	5500.000	0.000	0.00	20	4.2	
11a	6Mbps	1	100	5500	5500.025	0.025	4.55	20	3.9	
11a	6Mbps	1	100	5500	5500.025	0.025	4.55	-30	3.9	
11a	6Mbps	1	100	5500	5499.975	-0.025	-4.55	50	3.9	

# Appendix B. Radiated Test Results

# 15E Band 1 - 5150~5250MHz

#### 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)	( $dB\mu V/m$ )	(dBµV)	( dB/m )	( dB )	( dB )	( cm )	(deg)	(P/A)	(H/V)
		5139.05	47.35	-26.65	74	42.49	31.48	7.07	33.69	150	122	Р	Н
		5146.1	37.14	-16.86	54	32.24	31.5	7.07	33.67	150	122	Α	Н
000 44 -	*	5180	94.14	-	-	89.16	31.55	7.08	33.65	150	122	Р	Н
802.11a CH 36	*	5180	86.58	-	-	81.6	31.55	7.08	33.65	150	122	Α	Н
5180MHz		5149.4	46	-28	74	41.1	31.5	7.07	33.67	163	69	Р	V
010011112		5149.1	35.42	-18.58	54	30.52	31.5	7.07	33.67	163	69	Α	V
	*	5180	89.36	-	-	84.38	31.55	7.08	33.65	163	69	Р	V
	*	5180	81.53	1	-	76.55	31.55	7.08	33.65	163	69	Α	V
		5073.2	45.15	-28.85	74	40.4	31.41	7.06	33.72	150	122	Р	Н
		5147.9	35.95	-18.05	54	31.05	31.5	7.07	33.67	150	122	Α	Н
	*	5220	95.18	1	-	90.13	31.6	7.09	33.64	150	122	Р	Н
	*	5220	87.57	ı	-	82.52	31.6	7.09	33.64	150	122	Α	Н
		5354.62	45.56	-28.44	74	40.18	31.79	7.12	33.53	150	122	Р	Н
802.11a CH 44		5460	35.03	-18.97	54	29.4	31.93	7.17	33.47	150	122	Α	Н
5220MHz		5038.4	46.23	-27.77	74	41.57	31.36	7.05	33.75	155	75	Р	V
OZZOWII IZ		5129.9	34.98	-19.02	54	30.12	31.48	7.07	33.69	155	75	Α	V
	*	5220	89.94	-	-	84.89	31.6	7.09	33.64	155	75	Р	V
	*	5220	82.4	-	-	77.35	31.6	7.09	33.64	155	75	Α	V
		5383.44	45.08	-28.92	74	39.64	31.83	7.13	33.52	155	75	Р	V
		5390.59	34.71	-19.29	54	29.27	31.83	7.13	33.52	155	75	Α	V

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		5075.3	45.25	-28.75	74	40.5	31.41	7.06	33.72	155	120	Р	Ι
		5148.95	35.5	-18.5	54	30.6	31.5	7.07	33.67	155	120	Α	Н
	*	5240	96.59	-	-	91.5	31.62	7.09	33.62	155	120	Р	Н
	*	5240	88.75	-	-	83.66	31.62	7.09	33.62	155	120	Α	Н
44		5364.85	44.43	-29.57	74	39.03	31.81	7.12	33.53	155	120	Р	Η
802.11a		5377.83	35.09	-18.91	54	29.65	31.83	7.13	33.52	155	120	Α	Н
CH 48 5240MHz		5103.2	45.56	-28.44	74	40.77	31.43	7.06	33.7	161	62	Р	٧
3240WII 12		5143.7	34.95	-19.05	54	30.07	31.5	7.07	33.69	161	62	Α	<b>V</b>
	*	5240	91.43	-	1	86.34	31.62	7.09	33.62	161	62	Р	>
	*	5240	83.56	-	1	78.47	31.62	7.09	33.62	161	62	Α	>
		5386.41	43.95	-30.05	74	38.51	31.83	7.13	33.52	161	62	Р	<b>V</b>
		5441.85	34.56	-19.44	54	28.98	31.91	7.15	33.48	161	62	Α	<b>V</b>

# Remark 2.

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<sup>1.</sup> No other spurious found.

<sup>2.</sup> All results are PASS against Peak and Average limit line.

#### 15E band 1 5150~5250MHz

#### WIFI 802.11a (Harmonic @ 3m)

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Doak	Pol
	Note	rrequericy	Level						•				FOI.
Ant.				Limit	Line	Level	Factor	Loss	Factor	Pos		Avg.	
1		(MHz)	$(dB\mu V/m)$	(dB)	( dBµV/m )	(dBµV)	( dB/m )	( dB )	( dB )	( cm )	( deg )	(P/A)	(H/V)
		10360	48.8	-25.2	74	59.11	38.62	10.07	59	152	260	Р	Н
802.11a		15540	45.15	-28.85	74	53.53	38.54	12.77	59.69	189	238	Р	Н
CH 36 5180MHz		10360	49.88	-24.12	74	60.19	38.62	10.07	59	152	260	Р	V
3100W112		15540	45.68	-28.32	74	54.06	38.54	12.77	59.69	189	238	Р	V
802.11a		10440	48.9	-25.1	74	59.07	38.72	10.13	59.02	125	230	Р	Н
		15660	47.53	-26.47	74	56.18	38.17	12.93	59.75	110	225	Р	Н
CH 44 5220MHz		10440	48.38	-25.62	74	58.55	38.72	10.13	59.02	125	230	Р	V
3220WII 12		15660	46.47	-27.53	74	55.12	38.17	12.93	59.75	110	225	Р	V
000 44		10480	48.5	-25.5	74	58.59	38.79	10.15	59.03	149	289	Р	Н
802.11a CH 48 -		15720	46.88	-27.12	74	55.68	37.96	13.03	59.79	139	291	Р	Н
		10480	48.94	-25.06	74	59.03	38.79	10.15	59.03	149	289	Р	V
3240WIF12		15720	47.1	-26.9	74	55.9	37.96	13.03	59.79	139	291	Р	V

#### Remark

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<sup>1.</sup> No other spurious found.

<sup>2.</sup> All results are PASS against Peak and Average limit line.

## 15E band 1 5150~5250MHz 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)
		5148.8	47.37	-26.63	74	42.47	31.5	7.07	33.67	250	114	Р	Н
		5148.8	38.13	-15.87	54	33.23	31.5	7.07	33.67	250	114	Α	Н
802.11n	*	5180	94.83	1	-	89.85	31.55	7.08	33.65	250	114	Р	Н
HT20	*	5180	87.09	-	-	82.11	31.55	7.08	33.65	250	114	Α	Н
CH 36		5145.35	45.25	-28.75	74	40.35	31.5	7.07	33.67	150	63	Р	٧
5180MHz		5149	35.42	-18.58	54	30.52	31.5	7.07	33.67	150	63	Α	٧
	*	5180	86.58	-	-	81.6	31.55	7.08	33.65	150	63	Р	٧
	*	5180	79.25	-	-	74.27	31.55	7.08	33.65	150	63	Α	٧
		5135.45	45.23	-28.77	74	40.37	31.48	7.07	33.69	150	125	Р	Н
		5146.55	36.04	-17.96	54	31.14	31.5	7.07	33.67	150	125	Α	Н
	*	5220	95.07	-	-	90.02	31.6	7.09	33.64	150	125	Р	Н
	*	5220	87.68	-	-	82.63	31.6	7.09	33.64	150	125	Α	Н
802.11n		5427	44.05	-29.95	74	38.5	31.88	7.15	33.48	150	125	Р	Н
HT20		5459.01	34.76	-19.24	54	29.13	31.93	7.17	33.47	150	125	Α	Н
CH 44		5007.35	45.49	-28.51	74	40.9	31.31	7.05	33.77	248	93	Р	٧
5220MHz		5136.2	34.78	-19.22	54	29.92	31.48	7.07	33.69	248	93	Α	V
	*	5220	87.94	-	-	82.89	31.6	7.09	33.64	248	93	Р	٧
	*	5220	80.6	-	-	75.55	31.6	7.09	33.64	248	93	Α	٧
		5407.53	45.08	-28.92	74	39.57	31.86	7.15	33.5	248	93	Р	٧
		5459.45	34.49	-19.51	54	28.86	31.93	7.17	33.47	248	93	Α	V

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		5135.45	45.23	-28.77	74	40.37	31.48	7.07	33.69	150	120	Р	Н
		5145.55	36.04	-17.96	54	31.14	31.5	7.07	33.67	150	120	Α	Н
	*	5240	95.88	-	-	90.79	31.62	7.09	33.62	150	120	Р	Н
	*	5240	87.99	-	-	82.9	31.62	7.09	33.62	150	120	Α	Н
802.11n		5363.31	44.92	-29.08	74	39.52	31.81	7.12	33.53	150	120	Р	Н
HT20		5350.88	35.04	-18.96	54	29.66	31.79	7.12	33.53	150	120	Α	Н
CH 48		5007.35	46.59	-27.41	74	42	31.31	7.05	33.77	150	62	Р	٧
5240MHz		5136.2	34.78	-19.22	54	29.92	31.48	7.07	33.69	150	62	Α	V
	*	5240	89.87	-	-	84.78	31.62	7.09	33.62	150	62	Р	٧
	*	5240	81.93	-	-	76.84	31.62	7.09	33.62	150	62	Α	٧
		5420.4	44.78	-29.22	74	39.25	31.88	7.15	33.5	150	62	Р	٧
		5441.96	34.43	-19.57	54	28.85	31.91	7.15	33.48	150	62	Α	V

#### Remark

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<sup>1.</sup> No other spurious found.

<sup>2.</sup> All results are PASS against Peak and Average limit line.

## 15E band 1 5150~5250MHz 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		10360	48.76	-25.24	74	59.07	38.62	10.07	59	152	260	Р	Н
HT20		15540	46.3	-27.7	74	54.68	38.54	12.77	59.69	189	238	Р	Н
CH 36		10360	48.42	-25.58	74	58.73	38.62	10.07	59	152	260	Р	<b>V</b>
5180MHz		15540	45.78	-28.22	74	54.16	38.54	12.77	59.69	189	238	Р	٧
802.11n		10440	48.6	-25.4	74	58.77	38.72	10.13	59.02	125	230	Р	Н
HT20		15660	47.16	-26.84	74	55.81	38.17	12.93	59.75	110	225	Р	Н
CH 44		10440	49.38	-24.62	74	59.55	38.72	10.13	59.02	125	230	Р	V
5220MHz		15660	46.36	-27.64	74	55.01	38.17	12.93	59.75	110	225	Р	٧
802.11n		10480	48.58	-25.42	74	58.67	38.79	10.15	59.03	149	289	Р	Н
HT20		15720	46.91	-27.09	74	55.71	37.96	13.03	59.79	139	291	Р	Н
CH 48		10480	48.11	-25.89	74	58.2	38.79	10.15	59.03	149	289	Р	V
5240MHz		15720	46.99	-27.01	74	55.79	37.96	13.03	59.79	139	291	Р	V

# Remark

SPORTON INTERNATIONAL (SHENZHEN) INC.

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Report No.: FR582501D

Report Version : Rev. 01

<sup>1.</sup> No other spurious found.

<sup>2.</sup> All results are PASS against Peak and Average limit line.

## 15E band 1 5150~5250MHz 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)
		5149.55	49.02	-24.98	74	44.12	31.5	7.07	33.67	150	122	Р	Н
		5149.55	40.97	-13.03	54	36.07	31.5	7.07	33.67	150	122	Α	Н
	*	5190	91.63	-	-	86.65	31.55	7.08	33.65	150	122	Р	Н
	*	5190	83.88	-	-	78.9	31.55	7.08	33.65	150	122	Α	Н
802.11n		5431.4	44.41	-29.59	74	38.83	31.91	7.15	33.48	150	122	Р	Н
HT40		5456.7	35.47	-18.53	54	29.84	31.93	7.17	33.47	150	122	Α	Н
CH 38		5141.6	45.81	-28.19	74	40.93	31.5	7.07	33.69	150	60	Р	V
5190MHz		5149.25	36.45	-17.55	54	31.55	31.5	7.07	33.67	150	60	Α	٧
	*	5190	84.09	-	-	79.11	31.55	7.08	33.65	150	60	Р	٧
	*	5190	76.66	-	-	71.68	31.55	7.08	33.65	150	60	Α	٧
		5355.5	44.36	-29.64	74	38.98	31.79	7.12	33.53	150	60	Р	٧
		5427.66	35.17	-18.83	54	29.62	31.88	7.15	33.48	150	60	Α	٧
		5033.9	46.09	-27.91	74	41.45	31.34	7.05	33.75	150	129	Р	Н
		5149.7	37.03	-16.97	54	32.13	31.5	7.07	33.67	150	129	Α	Н
	*	5230	92.09	-	-	87	31.62	7.09	33.62	150	129	Р	Н
	*	5230	85.13	-	-	80.04	31.62	7.09	33.62	150	129	Α	Н
802.11n		5365.51	45.54	-28.46	74	40.14	31.81	7.12	33.53	150	129	Р	Н
HT40		5374.2	36.16	-17.84	54	30.74	31.81	7.13	33.52	150	129	Α	Н
CH 46		5099.6	44.77	-29.23	74	39.98	31.43	7.06	33.7	150	178	Р	٧
5230MHz		5149.85	35.75	-18.25	54	30.85	31.5	7.07	33.67	150	178	Α	٧
	*	5230	85.09	-	-	80	31.62	7.09	33.62	150	178	Р	٧
	*	5230	77.69	-	-	72.6	31.62	7.09	33.62	150	178	Α	٧
		5441.19	44.3	-29.7	74	38.72	31.91	7.15	33.48	150	178	Р	V
		5429.42	35.21	-18.79	54	29.63	31.91	7.15	33.48	150	178	Α	٧

# Remark 2.

1. No other spurious found.

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

SPORTON INTERNATIONAL (SHENZHEN) INC.

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## 15E band 1 5150~5250MHz 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		10380	48.77	-25.23	74	59.03	38.65	10.1	59.01	150	360	Р	Н
HT40		15570	45.02	-28.98	74	53.47	38.44	12.82	59.71	100	360	Р	Н
CH 38		10380	48.68	-25.32	74	58.94	38.65	10.1	59.01	150	360	Р	V
5190MHz		15570	45.16	-28.84	74	53.61	38.44	12.82	59.71	100	360	Р	V
802.11n		10460	47.79	-26.21	74	57.93	38.74	10.15	59.03	100	360	Р	Н
HT40		15690	46.92	-27.08	74	55.65	38.06	12.98	59.77	100	225	Р	Н
CH 46		10460	48.03	-25.97	74	58.17	38.74	10.15	59.03	100	360	Р	V
5230MHz		15690	47.24	-26.76	74	55.97	38.06	12.98	59.77	100	225	Р	V
Remark		o other spurio results are P		st Peak	and Averag	e limit lin	e.						

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All results are PASS against Peak and Average limit line.

## 15E band 1 5150~5250MHz 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)
		5138	46.67	-27.33	74	41.81	31.48	7.07	33.69	150	113	Р	Н
		5148.8	37.77	-16.23	54	32.87	31.5	7.07	33.67	150	113	Α	Н
802.11ac		5180	94.49	-	-	89.51	31.55	7.08	33.65	150	113	Р	Н
VHT20		5180	86.74	-	-	81.76	31.55	7.08	33.65	150	113	Α	Н
CH 36		5146.55	45.36	-28.64	74	40.46	31.5	7.07	33.67	150	73	Р	٧
5180MHz		5149.25	35.59	-18.41	54	30.69	31.5	7.07	33.67	150	73	Α	٧
		5180	89.96	-	-	84.98	31.55	7.08	33.65	150	73	Р	٧
		5180	81.96	-	-	76.98	31.55	7.08	33.65	150	73	Α	٧
		5104.25	45.02	-28.98	74	40.23	31.43	7.06	33.7	150	116	Р	Н
		5148.5	36.04	-17.96	54	31.14	31.5	7.07	33.67	150	116	Α	Н
		5220	95.26	-	-	90.21	31.6	7.09	33.64	150	116	Р	Н
		5220	87.25	-	-	82.2	31.6	7.09	33.64	150	116	Α	Н
802.11ac		5358.25	44.4	-29.6	74	39.02	31.79	7.12	33.53	150	116	Р	Н
VHT20		5356.38	35.03	-18.97	54	29.65	31.79	7.12	33.53	150	116	Α	Н
CH 44		5132.75	44.55	-29.45	74	39.69	31.48	7.07	33.69	154	64	Р	V
5220MHz		5147.15	35.05	-18.95	54	30.15	31.5	7.07	33.67	154	64	Α	V
		5220	91.49	-	-	86.44	31.6	7.09	33.64	154	64	Р	٧
		5220	83.49	-	-	78.44	31.6	7.09	33.64	154	64	Α	٧
		5399.72	34.72	-19.28	54	29.23	31.86	7.13	33.5	154	64	Р	V
		5399.72	34.72	-19.28	54	29.23	31.86	7.13	33.5	154	64	Α	٧

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												,
	5079.05	46.06	-27.94	74	41.31	31.41	7.06	33.72	161	114	Р	Н
	5146.7	35.39	-18.61	54	30.49	31.5	7.07	33.67	161	114	Α	Н
	5240	96.71	-	-	91.62	31.62	7.09	33.62	161	114	Р	Н
	5240	88.4	-	-	83.31	31.62	7.09	33.62	161	114	Α	Н
802.11ac	5456.04	44.45	-29.55	74	38.82	31.93	7.17	33.47	161	114	Р	Н
VHT20	5356.38	35.31	-18.69	54	29.93	31.79	7.12	33.53	161	114	Α	Н
CH 48	5043.2	45.68	-28.32	74	41.01	31.36	7.05	33.74	150	72	Р	٧
5240MHz	5147.45	34.87	-19.13	54	29.97	31.5	7.07	33.67	150	72	Α	٧
	5240	91.23	-	-	86.14	31.62	7.09	33.62	150	72	Р	٧
	5240	83.46	-	-	78.37	31.62	7.09	33.62	150	72	Α	٧
	5413.14	44.4	-29.6	74	38.87	31.88	7.15	33.5	150	72	Р	V
	5435.25	34.63	-19.37	54	29.05	31.91	7.15	33.48	150	72	Α	V

#### Remark

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<sup>1.</sup> No other spurious found.

<sup>2.</sup> All results are PASS against Peak and Average limit line.

# 15E band 1 5150~5250MHz 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		10360	49.2	-24.8	74	59.51	38.62	10.07	59	152	260	Р	Н
VHT20		15540	45.59	-28.41	74	53.97	38.54	12.77	59.69	189	238	Р	Н
CH 36		10360	49.51	-24.49	74	59.82	38.62	10.07	59	152	260	Р	V
5180MHz		15540	45.45	-28.55	74	53.83	38.54	12.77	59.69	189	238	Р	V
802.11ac		10440	48.43	-25.57	74	58.6	38.72	10.13	59.02	125	230	Р	Н
VHT20		15660	46.27	-27.73	74	54.92	38.17	12.93	59.75	110	225	Р	Н
CH 44		10440	48.99	-25.01	74	59.16	38.72	10.13	59.02	125	230	Р	V
5220MHz		15660	46.56	-27.44	74	55.21	38.17	12.93	59.75	110	225	Р	V
802.11ac		10480	48.47	-25.53	74	58.56	38.79	10.15	59.03	149	289	Р	Н
VHT20		15720	46.13	-27.87	74	54.93	37.96	13.03	59.79	139	291	Р	Н
CH 48		10480	48.39	-25.61	74	58.48	38.79	10.15	59.03	149	289	Р	V
5240MHz		15720	47.07	-26.93	74	55.87	37.96	13.03	59.79	139	291	Р	V

#### Remark

1. No other spurious found.

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<sup>2.</sup> All results are PASS against Peak and Average limit line.

## 15E band 1 5150~5250MHz WIFI 802.11ac VHT40 (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)
		5144.75	47.92	-26.08	74	43.02	31.5	7.07	33.67	150	107	Р	Н
		5149	40.69	-13.31	54	35.79	31.5	7.07	33.67	150	107	Α	Н
		5190	91.48	1	-	86.5	31.55	7.08	33.65	150	107	Р	Н
		5190	86.26	1	-	81.28	31.55	7.08	33.65	150	107	Α	Н
802.11ac		5375.74	44.59	-29.41	74	39.17	31.81	7.13	33.52	150	107	Р	Н
VHT40		5437.01	35.7	-18.3	54	30.12	31.91	7.15	33.48	150	107	Α	Н
CH 38		5045.15	45.79	-28.21	74	41.12	31.36	7.05	33.74	150	56	Р	٧
5190MHz		5149.1	36.6	-17.4	54	31.7	31.5	7.07	33.67	150	56	Α	٧
		5190	84.98	-	-	80	31.55	7.08	33.65	150	56	Р	٧
		5190	77.93	-	-	72.95	31.55	7.08	33.65	150	56	Α	٧
		5437.67	44.88	-29.12	74	39.3	31.91	7.15	33.48	150	56	Р	V
		5379.26	34.88	-19.12	54	29.44	31.83	7.13	33.52	150	56	Α	V
		5098.7	44.67	-29.33	74	39.88	31.43	7.06	33.7	170	105	Р	Н
		5149.1	36.4	-17.6	54	31.5	31.5	7.07	33.67	170	105	Α	Н
		5230	92.59	-	-	87.5	31.62	7.09	33.62	170	105	Р	Н
		5230	80.29	-	-	75.2	31.62	7.09	33.62	170	105	Α	Н
802.11ac		5456.59	45.23	-28.77	74	39.6	31.93	7.17	33.47	170	105	Р	Н
VHT40		5454.17	35.52	-18.48	54	29.89	31.93	7.17	33.47	170	105	Α	Н
CH 46		5056.25	45.44	-28.56	74	40.74	31.38	7.06	33.74	150	57	Р	٧
5230MHz		5128.7	35.15	-18.85	54	30.29	31.48	7.07	33.69	150	57	Α	٧
		5230	86.5	-	-	81.41	31.62	7.09	33.62	150	57	Р	٧
		5230	79.58	-	-	74.49	31.62	7.09	33.62	150	57	Α	٧
		5448.01	43.69	-30.31	74	38.07	31.93	7.17	33.48	150	57	Р	V
		5385.86	34.92	-19.08	54	29.48	31.83	7.13	33.52	150	57	Α	٧

#### Remark

1. No other spurious found.

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

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## 15E band 1 5150~5250MHz 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)
802.11ac		10380	48.98	-25.02	74	59.24	38.65	10.1	59.01	150	360	Р	Н
VHT40		15570	45.54	-28.46	74	53.99	38.44	12.82	59.71	100	360	Р	Н
CH 38		10380	48.37	-25.63	74	58.63	38.65	10.1	59.01	150	360	Р	V
5190MHz		15570	45.1	-28.9	74	53.55	38.44	12.82	59.71	100	360	Р	V
802.11ac		10460	48.11	-25.89	74	58.25	38.74	10.15	59.03	100	360	Р	Н
VHT40		15690	47.56	-26.44	74	56.29	38.06	12.98	59.77	100	225	Р	Н
CH 46		10460	49.05	-24.95	74	59.19	38.74	10.15	59.03	100	360	Р	V
5230MHz		15690	47.42	-26.58	74	56.15	38.06	12.98	59.77	100	225	Р	V
Remark		o other spurio I results are P		st Peak	and Averag	e limit lin	e.						

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All results are PASS against Peak and Average limit line.

## 15E band 1 5150~5250MHz WIFI 802.11ac VHT80 (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)
		5149.25	50.78	-23.22	74	45.88	31.5	7.07	33.67	150	106	Р	Н
		5145.8	41.15	-12.85	54	36.25	31.5	7.07	33.67	150	106	Α	Н
		5210	87.19	-	-	82.14	31.6	7.09	33.64	150	106	Р	Н
		5210	79.11	-	1	74.06	31.6	7.09	33.64	150	106	Α	Н
802.11ac		5352.42	46.92	-27.08	74	41.54	31.79	7.12	33.53	150	106	Р	Н
VHT80		5350.33	38.95	-15.05	54	33.57	31.79	7.12	33.53	150	106	Α	Н
CH 42		5077.1	46.1	-27.9	74	41.35	31.41	7.06	33.72	150	56	Р	٧
5210MHz		5145.95	36.87	-17.13	54	31.97	31.5	7.07	33.67	150	56	Α	٧
		5210	81.54	-	-	76.49	31.6	7.09	33.64	150	56	Р	V
		5210	72.83	-	-	67.78	31.6	7.09	33.64	150	56	Α	V
		5381.9	45.01	-28.99	74	39.57	31.83	7.13	33.52	150	56	Р	V
		5356.71	35.25	-18.75	54	29.87	31.79	7.12	33.53	150	56	Α	V
Remark		o other spurio I results are F		st Peak	and Averag	e limit lin	e.						

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# 15E band 1 5150~5250MHz

#### 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)
802.11ac		10420	47.46	-26.54	74	57.65	38.69	10.13	59.01	150	360	Р	Н
VHT80		15630	44.57	-29.43	74	53.21	38.22	12.88	59.74	150	0	Р	Н
CH 42		10420	46.98	-27.02	74	57.17	38.69	10.13	59.01	150	360	Р	٧
5210MHz		15630	44.93	-29.07	74	53.57	38.22	12.88	59.74	150	0	Р	V

#### Remark

1. No other spurious found.

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

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#### 15E Band 2 - 5250~5350MHz

#### 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)
		5092.1	46.16	-27.84	74	41.39	31.43	7.06	33.72	169	121	Р	Н
		5146.55	35.13	-18.87	54	30.23	31.5	7.07	33.67	169	121	Α	Н
	*	5260	96.66	-	-	91.49	31.67	7.1	33.6	169	121	Р	Н
	*	5260	88.93	-	-	83.76	31.67	7.1	33.6	169	121	Α	Н
000 44 -		5372.33	45	-29	74	39.59	31.81	7.13	33.53	169	121	Р	Н
802.11a CH 52		5351.43	35.35	-18.65	54	29.97	31.79	7.12	33.53	169	121	Α	Н
5260MHz		5122.4	45.13	-28.87	74	40.31	31.45	7.06	33.69	156	63	Р	V
020011112		5065.4	34.83	-19.17	54	30.13	31.38	7.06	33.74	156	63	Α	V
	*	5260	91.97	ı	-	86.8	31.67	7.1	33.6	156	63	Р	V
	*	5260	84.2	1	-	79.03	31.67	7.1	33.6	156	63	Α	V
		5376.95	44.41	-29.59	74	38.99	31.81	7.13	33.52	156	63	Р	V
		5459.34	34.5	-19.5	54	28.87	31.93	7.17	33.47	156	63	Α	V
		5126.45	45.27	-28.73	74	40.41	31.48	7.07	33.69	160	120	Р	Н
		5068.1	35.12	-18.88	54	30.4	31.38	7.06	33.72	160	120	Α	Н
	*	5300	97.55	1	-	92.29	31.72	7.11	33.57	160	120	Р	Н
	*	5300	89.64	-	-	84.38	31.72	7.11	33.57	160	120	Α	Н
		5358.69	46.85	-27.15	74	41.47	31.79	7.12	33.53	160	120	Р	Н
802.11a		5350.88	38.32	-15.68	54	32.94	31.79	7.12	33.53	160	120	Α	Н
CH 60 5300MHz		5137.25	44.36	-29.64	74	39.5	31.48	7.07	33.69	155	63	Р	V
3300WII 12		5066.45	34.89	-19.11	54	30.19	31.38	7.06	33.74	155	63	Α	V
	*	5300	92.47	-	-	87.21	31.72	7.11	33.57	155	63	Р	V
	*	5300	84.75	-	-	79.49	31.72	7.11	33.57	155	63	Α	V
		5364.3	45.32	-28.68	74	39.92	31.81	7.12	33.53	155	63	Р	V
		5350.99	35.97	-18.03	54	30.59	31.79	7.12	33.53	155	63	Α	V

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	*	5320	97.85	-	-	92.57	31.74	7.11	33.57	150	120	Р	Н
	*	5320	90.08	-	1	84.8	31.74	7.11	33.57	150	120	Α	Н
222.44		5357.04	49.43	-24.57	74	44.05	31.79	7.12	33.53	150	120	Р	Н
802.11a CH 64		5350.11	39.96	-14.04	54	34.58	31.79	7.12	33.53	150	120	Α	Н
5320MHz	*	5320	93.3	-	1	88.02	31.74	7.11	33.57	150	64	Р	V
332011112	*	5320	85.72	-	-	80.44	31.74	7.11	33.57	150	64	Α	V
		5350.44	45.81	-28.19	74	40.43	31.79	7.12	33.53	150	64	Р	V
		5350.22	37.07	-16.93	54	31.69	31.79	7.12	33.53	150	64	Α	V

Remark

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<sup>.</sup> No other spurious found.

<sup>2.</sup> All results are PASS against Peak and Average limit line.

#### 15E band 2 5250~5350MHz

#### 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)
		10520	49.22	-24.78	74	59.26	38.84	10.18	59.06	110	220	Р	Н
802.11a		15780	47.05	-26.95	74	55.99	37.79	13.09	59.82	109	345	Р	Н
CH 52 5260MHz		10520	49.31	-24.69	74	59.35	38.84	10.18	59.06	110	220	Р	V
3200WII 12		15780	47.27	-26.73	74	56.21	37.79	13.09	59.82	109	345	Р	V
222.44		10600	48.23	-25.77	74	58.14	38.95	10.29	59.15	185	215	Р	Н
802.11a		15900	46.85	-27.15	74	56.07	37.42	13.24	59.88	196	190	Р	Н
CH 60 5300MHz		10600	47.21	-26.79	74	57.12	38.95	10.29	59.15	185	215	Р	V
3300WII 12		15900	46.46	-27.54	74	55.68	37.42	13.24	59.88	196	190	Р	V
		10640	49.16	-24.84	74	59	39	10.34	59.18	152	135	Р	Н
802.11a		15960	45.99	-28.01	74	55.35	37.21	13.35	59.92	173	245	Р	Н
CH 64 5320MHz		10640	48.45	-25.55	74	58.29	39	10.34	59.18	152	135	Р	٧
JJZUWIFIZ		15960	45.94	-28.06	74	55.3	37.21	13.35	59.92	173	245	Р	V

Remark

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<sup>1.</sup> No other spurious found.

<sup>2.</sup> All results are PASS against Peak and Average limit line.

## 15E band 2 5250~5350MHz 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)
		5030.15	45.23	-28.77	74	40.59	31.34	7.05	33.75	150	125	Р	Н
		5149.85	35.1	-18.9	54	30.2	31.5	7.07	33.67	150	125	Α	Н
	*	5260	95.86	-	-	90.69	31.67	7.1	33.6	150	125	Р	Н
	*	5260	88.47	-	-	83.3	31.67	7.1	33.6	150	125	Α	Н
802.11n		5394.77	45.68	-28.32	74	40.21	31.86	7.13	33.52	150	125	Р	Н
HT20		5350.99	35.4	-18.6	54	30.02	31.79	7.12	33.53	150	125	Α	Н
CH 52		5076.8	44.9	-29.1	74	40.15	31.41	7.06	33.72	150	177	Р	٧
5260MHz		5041.7	34.89	-19.11	54	30.23	31.36	7.05	33.75	150	177	Α	٧
	*	5260	87.7	-	-	82.53	31.67	7.1	33.6	150	177	Р	٧
	*	5260	80.1	-	-	74.93	31.67	7.1	33.6	150	177	Α	٧
		5402.03	44.46	-29.54	74	38.97	31.86	7.13	33.5	150	177	Р	٧
		5432.61	34.46	-19.54	54	28.88	31.91	7.15	33.48	150	177	Α	٧
		5091.05	44.94	-29.06	74	40.17	31.43	7.06	33.72	150	124	Р	Н
		5129.3	34.92	-19.08	54	30.06	31.48	7.07	33.69	150	124	Α	Н
	*	5300	95.97	-	-	90.71	31.72	7.11	33.57	150	124	Р	Н
	*	5300	88.97	-	-	83.71	31.72	7.11	33.57	150	124	Α	Н
802.11n		5356.6	46.66	-27.34	74	41.28	31.79	7.12	33.53	150	124	Р	Н
HT20		5350.77	38.06	-15.94	54	32.68	31.79	7.12	33.53	150	124	Α	Н
CH 60		5114.9	44.86	-29.14	74	40.05	31.45	7.06	33.7	242	91	Р	٧
5300MHz		5102.9	34.88	-19.12	54	30.09	31.43	7.06	33.7	242	91	Α	٧
	*	5300	92.11	-	-	86.85	31.72	7.11	33.57	242	91	Р	٧
	*	5300	83.6	-	-	78.34	31.72	7.11	33.57	242	91	Α	٧
		5429.2	44.63	-29.37	74	39.05	31.91	7.15	33.48	242	91	Р	V
		5350.55	35.74	-18.26	54	30.36	31.79	7.12	33.53	242	91	Α	٧

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	*	5320	96.58	-	-	91.3	31.74	7.11	33.57	150	122	Р	Н
	*	5320	89.36	-	-	84.08	31.74	7.11	33.57	150	122	Α	Н
802.11n		5351.87	48.27	-25.73	74	42.89	31.79	7.12	33.53	150	122	Р	Н
HT20		5351.43	39.38	-14.62	54	34	31.79	7.12	33.53	150	122	Α	Н
CH 64	*	5320	93.59	-	1	88.31	31.74	7.11	33.57	242	90	Р	V
5320MHz	*	5320	85.76	-	-	80.48	31.74	7.11	33.57	242	90	Α	٧
		5350	45.94	-28.06	74	40.56	31.79	7.12	33.53	242	90	Р	٧
		5351.54	36.98	-17.02	54	31.6	31.79	7.12	33.53	242	90	Α	V

Remark

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<sup>.</sup> No other spurious found.

<sup>2.</sup> All results are PASS against Peak and Average limit line.

## 15E band 2 5250~5350MHz 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		10520	49.54	-24.46	74	59.58	38.84	10.18	59.06	110	220	Р	Н
HT20		15780	47.04	-26.96	74	55.98	37.79	13.09	59.82	109	345	Р	Н
CH 52		10520	48.22	-25.78	74	58.26	38.84	10.18	59.06	110	220	Р	<b>V</b>
5260MHz		15780	47.07	-26.93	74	56.01	37.79	13.09	59.82	109	345	Р	٧
802.11n		10600	47.76	-26.24	74	57.67	38.95	10.29	59.15	185	215	Р	Н
HT20		15900	46.21	-27.79	74	55.43	37.42	13.24	59.88	196	190	Р	Н
CH 60		10600	47.94	-26.06	74	57.85	38.95	10.29	59.15	185	215	Р	V
5300MHz		15900	46.9	-27.1	74	56.12	37.42	13.24	59.88	196	190	Р	٧
802.11n		10640	49	-25	74	58.84	39	10.34	59.18	152	135	Р	Н
HT20		15960	45.3	-28.7	74	54.66	37.21	13.35	59.92	173	245	Р	Н
CH 64		10640	47.93	-26.07	74	57.77	39	10.34	59.18	152	135	Р	٧
5320MHz		15960	45.7	-28.3	74	55.06	37.21	13.35	59.92	173	245	Р	V

#### Remark

1. No other spurious found.

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<sup>2.</sup> All results are PASS against Peak and Average limit line.

## 15E band 2 5250~5350MHz 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)
		5115.95	45.56	-28.44	74	40.75	31.45	7.06	33.7	150	127	Р	Н
		5139.05	35.97	-18.03	54	31.11	31.48	7.07	33.69	150	127	Α	Н
	*	5270	92.6	-	-	87.43	31.67	7.1	33.6	150	127	Р	Н
	*	5270	84.77	-	-	79.6	31.67	7.1	33.6	150	127	Α	Н
802.11n		5354.84	46.36	-27.64	74	40.98	31.79	7.12	33.53	150	127	Р	Н
HT40		5357.37	37.57	-16.43	54	32.19	31.79	7.12	33.53	150	127	Α	Н
CH 54		5106.65	46.39	-27.61	74	41.58	31.45	7.06	33.7	246	92	Р	V
5270MHz		5083.7	35.76	-18.24	54	31.01	31.41	7.06	33.72	246	92	Α	٧
	*	5270	88.55	-	-	83.38	31.67	7.1	33.6	246	92	Р	٧
	*	5270	80.69	-	-	75.52	31.67	7.1	33.6	246	92	Α	V
		5401.48	46.96	-27.04	74	41.47	31.86	7.13	33.5	246	92	Р	٧
		5350.55	35.82	-18.18	54	30.44	31.79	7.12	33.53	246	92	Α	V
		5071.85	45	-29	74	40.25	31.41	7.06	33.72	150	126	Р	Н
		5122.4	35.91	-18.09	54	31.09	31.45	7.06	33.69	150	126	Α	Н
	*	5310	92.34	-	-	87.06	31.74	7.11	33.57	150	126	Р	Н
	*	5310	85.21	-	-	79.93	31.74	7.11	33.57	150	126	Α	Н
802.11n		5354.18	49.08	-24.92	74	43.7	31.79	7.12	33.53	150	126	Р	Н
HT40		5350.88	40.81	-13.19	54	35.43	31.79	7.12	33.53	150	126	Α	Н
CH 62		5021.75	45.5	-28.5	74	40.86	31.34	7.05	33.75	240	91	Р	V
5310MHz		5090.3	35.53	-18.47	54	30.76	31.43	7.06	33.72	240	91	Α	V
	*	5310	88.4	-	-	83.12	31.74	7.11	33.57	240	91	Р	V
	*	5310	81.62	-	-	76.34	31.74	7.11	33.57	240	91	Α	V
		5365.95	46.19	-27.81	74	40.79	31.81	7.12	33.53	240	91	Р	V
		5350.11	37.71	-16.29	54	32.33	31.79	7.12	33.53	240	91	Α	٧

#### Remark

1. No other spurious found.

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

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## 15E band 2 5250~5350MHz 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		10540	47.92	-26.08	74	57.91	38.86	10.23	59.08	110	220	Р	Н
HT40		15810	46.83	-27.17	74	55.84	37.69	13.14	59.84	109	345	Р	Н
CH 54		10540	47.04	-26.96	74	57.03	38.86	10.23	59.08	110	220	Р	V
5270MHz		15810	45.41	-28.59	74	54.42	37.69	13.14	59.84	109	345	Р	V
802.11n		10620	47.78	-26.22	74	57.63	38.98	10.34	59.17	100	220	Р	Н
HT40		15930	45.71	-28.29	74	55	37.31	13.3	59.9	100	100	Р	Н
CH 62		10620	47.66	-26.34	74	57.51	38.98	10.34	59.17	100	220	Р	V
5310MHz		15930	47.02	-26.98	74	56.31	37.31	13.3	59.9	100	100	Р	V
Remark		o other spurio results are P		st Peak	and Averag	je limit lin	e.						

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All results are PASS against Peak and Average limit line.

## 15E band 2 5250~5350MHz 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)
		5145.95	45.15	-28.85	74	40.25	31.5	7.07	33.67	150	112	Р	Н
		5148.65	35.21	-18.79	54	30.31	31.5	7.07	33.67	150	112	Α	Н
		5260	97.41	-	-	92.24	31.67	7.1	33.6	150	112	Р	Н
		5260	88.95	-	-	83.78	31.67	7.1	33.6	150	112	Α	Н
802.11ac		5436.46	45.45	-28.55	74	39.87	31.91	7.15	33.48	150	112	Р	Н
VHT20		5350	35.89	-18.11	54	30.51	31.79	7.12	33.53	150	112	Α	Н
CH 52		5117.6	45.63	-28.37	74	40.82	31.45	7.06	33.7	150	70	Р	٧
5260MHz		5125.85	34.85	-19.15	54	30	31.48	7.06	33.69	150	70	Α	٧
		5260	92.02	-	-	86.85	31.67	7.1	33.6	150	70	Р	٧
		5260	84.38	-	-	79.21	31.67	7.1	33.6	150	70	Α	V
		5443.17	44.83	-29.17	74	39.25	31.91	7.15	33.48	150	70	Р	V
		5436.79	34.86	-19.14	54	29.28	31.91	7.15	33.48	150	70	Α	٧
		5116.55	45.5	-28.5	74	40.69	31.45	7.06	33.7	156	114	Р	Н
		5064.8	35.06	-18.94	54	30.36	31.38	7.06	33.74	156	114	Α	Н
		5300	97.52	-	-	92.26	31.72	7.11	33.57	156	114	Р	Н
		5300	89.51	-	-	84.25	31.72	7.11	33.57	156	114	Α	Н
802.11ac		5360.01	47.45	-26.55	74	42.07	31.79	7.12	33.53	156	114	Р	Н
VHT20		5350.99	39.26	-14.74	54	33.88	31.79	7.12	33.53	156	114	Α	Н
CH 60		5048	44.54	-29.46	74	39.86	31.36	7.06	33.74	150	71	Р	٧
5300MHz		5064.05	34.87	-19.13	54	30.17	31.38	7.06	33.74	150	71	Α	٧
		5300	93.55	-	-	88.29	31.72	7.11	33.57	150	71	Р	٧
		5300	85.42	-	-	80.16	31.72	7.11	33.57	150	71	Α	٧
		5350.11	45.23	-28.77	74	39.85	31.79	7.12	33.53	150	71	Р	٧
		5352.2	36.36	-17.64	54	30.98	31.79	7.12	33.53	150	71	Α	٧

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	5320	98.04	-	-	92.76	31.74	7.11	33.57	154	113	Р	Н
	5320	90	-	-	84.72	31.74	7.11	33.57	154	113	Α	Н
802.11ac	5352.75	50.04	-23.96	74	44.66	31.79	7.12	33.53	154	113	Р	Н
VHT20	5351.76	40.26	-13.74	54	34.88	31.79	7.12	33.53	154	113	Α	Н
CH 64	5320	93.91	-	1	88.63	31.74	7.11	33.57	150	69	Р	V
5320MHz	5320	85.95	-	1	80.67	31.74	7.11	33.57	150	69	Α	V
	5357.7	46.38	-27.62	74	41	31.79	7.12	33.53	150	69	Р	٧
	5351.87	37.67	-16.33	54	32.29	31.79	7.12	33.53	150	69	Α	٧

Remark

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<sup>.</sup> No other spurious found.

<sup>2.</sup> All results are PASS against Peak and Average limit line.

## 15E band 2 5250~5350MHz 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		10520	48.21	-25.79	74	58.25	38.84	10.18	59.06	110	220	Р	Н
VHT20		15780	46.36	-27.64	74	55.3	37.79	13.09	59.82	109	345	Р	Н
CH 52		10520	48.01	-25.99	74	58.05	38.84	10.18	59.06	110	220	Р	٧
5260MHz		15780	48.2	-25.8	74	57.14	37.79	13.09	59.82	109	345	Р	٧
802.11ac		10600	48.71	-25.29	74	58.62	38.95	10.29	59.15	185	215	Р	Н
VHT20		15900	45.83	-28.17	74	55.05	37.42	13.24	59.88	196	190	Р	Н
CH 60		10600	47.63	-26.37	74	57.54	38.95	10.29	59.15	185	215	Р	٧
5300MHz		15900	47.44	-26.56	74	56.66	37.42	13.24	59.88	196	190	Р	٧
802.11ac		10640	47.81	-26.19	74	57.65	39	10.34	59.18	152	135	Р	Н
VHT20		15960	45.55	-28.45	74	54.91	37.21	13.35	59.92	173	245	Р	Н
CH 64		10640	48.31	-25.69	74	58.15	39	10.34	59.18	152	135	Р	٧
5320MHz		15960	45.93	-28.07	74	55.29	37.21	13.35	59.92	173	245	Р	V

#### Remark

1. No other spurious found.

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<sup>2.</sup> All results are PASS against Peak and Average limit line.

## 15E band 2 5250~5350MHz WIFI 802.11ac VHT40 (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)
		5058.95	44.91	-29.09	74	40.21	31.38	7.06	33.74	158	116	Р	Н
		5149.7	35.53	-18.47	54	30.63	31.5	7.07	33.67	158	116	Α	Н
		5270	91.89	1	-	86.72	31.67	7.1	33.6	158	116	Р	Н
		5270	85.64	1	-	80.47	31.67	7.1	33.6	158	116	Α	Н
802.11ac		5369.69	44.78	-29.22	74	39.37	31.81	7.13	33.53	158	116	Р	Н
VHT40		5351.43	36.78	-17.22	54	31.4	31.79	7.12	33.53	158	116	Α	Н
CH 54		5069.15	45.29	-28.71	74	40.57	31.38	7.06	33.72	150	57	Р	٧
5270MHz		5116.7	35.21	-18.79	54	30.4	31.45	7.06	33.7	150	57	Α	٧
		5270	86.54	-	-	81.37	31.67	7.1	33.6	150	57	Р	٧
		5270	79.43	-	-	74.26	31.67	7.1	33.6	150	57	Α	٧
		5445.81	44.08	-29.92	74	38.48	31.93	7.15	33.48	150	57	Р	V
		5361.99	35.19	-18.81	54	29.79	31.81	7.12	33.53	150	57	Α	V
		5147	44.78	-29.22	74	39.88	31.5	7.07	33.67	150	117	Р	Н
		5038.1	35.26	-18.74	54	30.6	31.36	7.05	33.75	150	117	Α	Н
		5310	92.33	-	-	87.05	31.74	7.11	33.57	150	117	Р	Н
		5310	85.87	-	-	80.59	31.74	7.11	33.57	150	117	Α	Н
802.11ac		5350.99	50.31	-23.69	74	44.93	31.79	7.12	33.53	150	117	Р	Н
VHT40		5351.65	40.46	-13.54	54	35.08	31.79	7.12	33.53	150	117	Α	Н
CH 62		5064.35	43.99	-30.01	74	39.29	31.38	7.06	33.74	153	58	Р	٧
5310MHz		5038.85	35.31	-18.69	54	30.65	31.36	7.05	33.75	153	58	Α	٧
		5310	86.52	-	-	81.24	31.74	7.11	33.57	153	58	Р	٧
		5310	79.46	-	-	74.18	31.74	7.11	33.57	153	58	Α	٧
		5355.17	47.53	-26.47	74	42.15	31.79	7.12	33.53	153	58	Р	٧
		5350.33	37	-17	54	31.62	31.79	7.12	33.53	153	58	Α	٧

#### Remark

1. No other spurious found.

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

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## 15E band 2 5250~5350MHz 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)
802.11ac		10540	48.58	-25.42	74	58.57	38.86	10.23	59.08	110	220	Р	Н
VHT40		15810	48.2	-25.8	74	57.21	37.69	13.14	59.84	109	345	Р	Н
CH 54		10540	48.99	-25.01	74	58.98	38.86	10.23	59.08	110	220	Р	V
5270MHz		15810	46.24	-27.76	74	55.25	37.69	13.14	59.84	109	345	Р	V
802.11ac		10620	48.7	-25.3	74	58.55	38.98	10.34	59.17	100	220	Р	Н
VHT40		15930	45.21	-28.79	74	54.5	37.31	13.3	59.9	100	100	Р	Н
CH 62		10620	47.53	-26.47	74	57.38	38.98	10.34	59.17	100	220	Р	V
5310MHz		15930	47.16	-26.84	74	56.45	37.31	13.3	59.9	100	100	Р	V
Remark		o other spurio I results are P		st Peak	and Averag	e limit lin	e.						

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All results are PASS against Peak and Average limit line.

## 15E band 2 5250~5350MHz WIFI 802.11ac VHT80 (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)
		5144.15	46.05	-27.95	74	41.15	31.5	7.07	33.67	150	109	Р	Н
		5147.3	37.85	-16.15	54	32.95	31.5	7.07	33.67	150	109	Α	Н
		5290	89.02	-	-	83.8	31.69	7.11	33.58	150	109	Р	Н
		5290	81.2	-	-	75.98	31.69	7.11	33.58	150	109	Α	Н
802.11ac		5359.24	50.2	-23.8	74	44.82	31.79	7.12	33.53	150	109	Р	Н
VHT80		5377.61	41.29	-12.71	54	35.85	31.83	7.13	33.52	150	109	Α	Н
CH 58		5129.3	45.45	-28.55	74	40.59	31.48	7.07	33.69	150	55	Р	V
5290MHz		5126.3	35.36	-18.64	54	30.5	31.48	7.07	33.69	150	55	Α	V
		5290	82.67	-	-	77.45	31.69	7.11	33.58	150	55	Р	٧
		5290	74.23	-	-	69.01	31.69	7.11	33.58	150	55	Α	V
		5390.48	45.32	-28.68	74	39.88	31.83	7.13	33.52	150	55	Р	٧
		5384.54	36.85	-17.15	54	31.41	31.83	7.13	33.52	150	55	Α	V
Remark		o other spurio I results are F		st Peak	and Averag	e limit lin	e.						

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## 15E band 2 5250~5350MHz

#### 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)
802.11ac		10580	46.55	-27.45	74	56.46	38.93	10.29	59.13	150	360	Р	Н
VHT80		15870	45.94	-28.06	74	55.15	37.47	13.19	59.87	150	0	Р	Н
CH 58		10580	47.27	-26.73	74	57.18	38.93	10.29	59.13	150	360	Р	٧
5290MHz		15870	46.41	-27.59	74	55.62	37.47	13.19	59.87	150	0	Р	V

#### Remark

1. No other spurious found.

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

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#### 15E Band 3 - 5470~5725MHz

#### WIFI 802.11a (Band Edge @ 3m)

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Peak	Pol
Ant.	11010	Troquonoy	2010.	Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	1 0
1		( MHz )	( dBµV/m )	(dB)	( dBµV/m )	(dBµV)	( dB/m )	(dB)	( dB )	( cm )	( deg )	(P/A)	(H/V)
		5466.8	49.53	-24.47	74	43.88	31.95	7.17	33.47	150	111	Р	Н
		5469.2	41.43	-12.57	54	35.78	31.95	7.17	33.47	150	111	Α	Н
	*	5500	99.48	1	1	93.74	32	7.19	33.45	150	111	Р	Н
802.11a	*	5500	92.16	-	-	86.42	32	7.19	33.45	150	111	Α	Н
5500MHz		5460.72	46.21	-27.79	74	40.58	31.93	7.17	33.47	166	62	Р	V
3300141112		5465.68	37.58	-16.42	54	31.93	31.95	7.17	33.47	166	62	Α	V
	*	5500	93.58	1	1	87.84	32	7.19	33.45	166	62	Р	V
	*	5500	83.51	-	-	77.77	32	7.19	33.45	166	62	Α	V
		5437.2	45.34	-28.66	74	39.76	31.91	7.15	33.48	150	113	Р	Н
		5468.24	35.78	-18.22	54	30.13	31.95	7.17	33.47	150	113	Α	Н
	*	5580	99.36	1	-	93.5	32.11	7.23	33.48	150	113	Р	Н
	*	5580	92.12	-	-	86.26	32.11	7.23	33.48	150	113	Α	Н
		5744.2	45.59	-28.41	74	39.32	32.39	7.41	33.53	150	113	Р	Н
802.11a		5727.24	35.45	-18.55	54	29.2	32.36	7.41	33.52	150	113	Α	Н
CH 116 5580MHz		5392.4	44.23	-29.77	74	38.79	31.83	7.13	33.52	150	61	Р	٧
3300W1112		5465.04	34.65	-19.35	54	29	31.95	7.17	33.47	150	61	Α	V
	*	5580	91.51	-	-	85.65	32.11	7.23	33.48	150	61	Р	V
	*	5580	84.29	-	-	78.43	32.11	7.23	33.48	150	61	Α	V
		5751.88	45.05	-28.95	74	38.76	32.41	7.41	33.53	150	61	Р	V
		5752.68	35.14	-18.86	54	28.85	32.41	7.41	33.53	150	61	Α	V

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	*	5700	97.43	-	-	91.28	32.3	7.36	33.51	150	119	Р	Н
	*	5700	89.87	-	-	83.72	32.3	7.36	33.51	150	119	Α	Н
		5735.32	48.5	-25.5	74	42.23	32.39	7.41	33.53	150	119	Р	Н
802.11a CH 140		5725.8	38.36	-15.64	54	32.11	32.36	7.41	33.52	150	119	Α	Н
5700MHz	*	5700	89.06	-	1	82.91	32.3	7.36	33.51	150	64	Р	V
3700141112	*	5700	81.96	-	-	75.81	32.3	7.36	33.51	150	64	Α	V
		5739.16	45.68	-28.32	74	39.41	32.39	7.41	33.53	150	64	Р	V
		5730.44	35.79	-18.21	54	29.55	32.36	7.41	33.53	150	64	Α	V

Remark

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No other spurious found.

<sup>2.</sup> All results are PASS against Peak and Average limit line.

#### 15E band 3 - 5470~5725MHz

#### 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		Avg.	
1		(MHz)	( dBµV/m )	(dB)	( dBµV/m )	(dBµV)	( dB/m )	( dB )	(dB)	( cm )		(P/A)	
		11000	47.25	-26.75	74	56.48	39.5	10.83	59.56	163	230	Р	Н
802.11a		16500	46.66	-27.34	74	54.5	38.47	13.36	59.67	178	296	Р	Н
CH 100 5500MHz		11000	47.58	-26.42	74	56.81	39.5	10.83	59.56	163	230	Р	٧
3300WIF12		16500	46.36	-27.64	74	54.2	38.47	13.36	59.67	178	296	Р	٧
		11160	46.81	-27.19	74	56.19	39.35	10.9	59.63	170	200	Р	Н
802.11a		16740	47.06	-26.94	74	53.51	39.11	13.86	59.42	156	350	Р	Н
CH 116 5580MHz		11160	46.55	-27.45	74	55.93	39.35	10.9	59.63	170	200	Р	V
3300WITZ		16740	47	-27	74	53.45	39.11	13.86	59.42	156	350	Р	٧
		11400	45.64	-28.36	74	55.23	39.13	11	59.72	147	285	Р	Н
802.11a		17100	49.26	-24.74	74	53.02	40.48	14.53	58.77	165	246	Р	Н
CH 140 5700MHz		11400	45.4	-28.6	74	54.99	39.13	11	59.72	147	285	Р	٧
5/UUIVIITIZ		17100	48.06	-25.94	74	51.82	40.48	14.53	58.77	165	246	Р	٧

#### Remark

SPORTON INTERNATIONAL (SHENZHEN) INC.

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<sup>1.</sup> No other spurious found.

<sup>2.</sup> All results are PASS against Peak and Average limit line.

## 15E band 3 - 5470~5725MHz 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)
		5464.72	48.98	-25.02	74	43.33	31.95	7.17	33.47	150	120	Р	Н
		5467.12	40.68	-13.32	54	35.03	31.95	7.17	33.47	150	120	Α	Н
802.11n	*	5500	98.25	1	-	92.51	32	7.19	33.45	150	120	Р	Н
HT20	*	5500	90.82	-	-	85.08	32	7.19	33.45	150	120	Α	Н
CH 100		5462.96	45.63	-28.37	74	39.98	31.95	7.17	33.47	250	91	Р	٧
5500MHz		5465.36	36.7	-17.3	54	31.05	31.95	7.17	33.47	250	91	Α	٧
	*	5500	91.26	-	-	85.52	32	7.19	33.45	250	91	Р	V
	*	5500	84.02	-	-	78.28	32	7.19	33.45	250	91	Α	٧
		5405.52	44.41	-29.59	74	38.92	31.86	7.13	33.5	164	120	Р	Н
		5469.2	35.21	-18.79	54	29.56	31.95	7.17	33.47	164	120	Α	Н
	*	5580	99.68	-	-	93.82	32.11	7.23	33.48	164	120	Р	Н
	*	5580	91.38	-	-	85.52	32.11	7.23	33.48	164	120	Α	Н
802.11n		5738.6	45.19	-28.81	74	38.92	32.39	7.41	33.53	164	120	Р	Н
HT20		5725.48	35.41	-18.59	54	29.21	32.36	7.36	33.52	164	120	Α	Н
CH 116		5397.68	43.71	-30.29	74	38.24	31.86	7.13	33.52	250	199	Р	٧
5580MHz		5455.6	34.59	-19.41	54	28.96	31.93	7.17	33.47	250	199	Α	V
	*	5580	89.65	-	-	83.79	32.11	7.23	33.48	250	199	Р	٧
	*	5580	81.69	-	-	75.83	32.11	7.23	33.48	250	199	Α	٧
		5730.12	45.32	-28.68	74	39.07	32.36	7.41	33.52	250	199	Р	٧
		5754.92	35.14	-18.86	54	28.85	32.41	7.41	33.53	250	199	Α	٧

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	*	5700	97.38	-	-	91.23	32.3	7.36	33.51	150	118	Р	Н
	*	5700	89.45	-	-	83.3	32.3	7.36	33.51	150	118	Α	Н
802.11n		5729.08	47.99	-26.01	74	41.74	32.36	7.41	33.52	150	118	Р	Н
HT20		5727.72	37.95	-16.05	54	31.7	32.36	7.41	33.52	150	118	Α	Н
CH 140	*	5700	89.61	-	1	83.46	32.3	7.36	33.51	150	64	Р	V
5700MHz	*	5700	81.25	-	1	75.1	32.3	7.36	33.51	150	64	Α	V
		5761.16	45.74	-28.26	74	39.45	32.41	7.41	33.53	150	64	Р	V
	•	5725.64	35.63	-18.37	54	29.43	32.36	7.36	33.52	150	64	Α	V

Remark

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No other spurious found.

<sup>2.</sup> All results are PASS against Peak and Average limit line.

## 15E band 3 - 5470~5725MHz 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		11000	47.8	-26.2	74	57.03	39.5	10.83	59.56	163	230	Р	Н
HT20		16500	45.27	-28.73	74	53.11	38.47	13.36	59.67	178	296	Р	Н
CH 100		11000	47.62	-26.38	74	56.85	39.5	10.83	59.56	163	230	Р	٧
5500MHz		16500	46.42	-27.58	74	54.26	38.47	13.36	59.67	178	296	Р	٧
802.11n		11160	46.64	-27.36	74	56.02	39.35	10.9	59.63	170	200	Р	Н
HT20		16740	45.67	-28.33	74	52.12	39.11	13.86	59.42	156	350	Р	Н
CH 116		11160	45.89	-28.11	74	55.27	39.35	10.9	59.63	170	200	Р	٧
5580MHz		16740	47.3	-26.7	74	53.75	39.11	13.86	59.42	156	350	Р	٧
802.11n		11400	44.84	-29.16	74	54.43	39.13	11	59.72	147	285	Р	Н
HT20		17100	48.14	-25.86	74	51.9	40.48	14.53	58.77	165	246	Р	Н
CH 140		11400	45.53	-28.47	74	55.12	39.13	11	59.72	147	285	Р	٧
5700MHz		17100	48.1	-25.9	74	51.86	40.48	14.53	58.77	165	246	Р	٧

## Remark

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<sup>1.</sup> No other spurious found.

<sup>2.</sup> All results are PASS against Peak and Average limit line.

## 15E band 3 - 5470~5725MHz 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)
		5465.2	52.01	-21.99	74	46.36	31.95	7.17	33.47	150	117	Р	Н
		5468.88	43.15	-10.85	54	37.5	31.95	7.17	33.47	150	117	Α	Н
	*	5510	95.77	-	-	90.04	32	7.19	33.46	150	117	Р	Н
	*	5510	88.56	-	-	82.83	32	7.19	33.46	150	117	Α	Н
802.11n		5756.12	44.92	-29.08	74	38.63	32.41	7.41	33.53	150	117	Р	Н
HT40		5736.92	36.24	-17.76	54	29.97	32.39	7.41	33.53	150	117	Α	Н
CH 102		5469.84	48.47	-25.53	74	42.82	31.95	7.17	33.47	152	74	Р	V
5510MHz		5469.36	38.98	-15.02	54	33.33	31.95	7.17	33.47	152	74	Α	٧
	*	5510	90.64	-	-	84.91	32	7.19	33.46	152	74	Р	٧
	*	5510	83.18	-	-	77.45	32	7.19	33.46	152	74	Α	V
		5731.08	44.81	-29.19	74	38.57	32.36	7.41	33.53	152	74	Р	٧
		5756.68	35.93	-18.07	54	29.64	32.41	7.41	33.53	152	74	Α	٧
		5448.56	46.13	-27.87	74	40.51	31.93	7.17	33.48	150	111	Р	Н
		5464.72	37.5	-16.5	54	31.85	31.95	7.17	33.47	150	111	Α	Н
	*	5550	95.93	-	-	90.11	32.08	7.21	33.47	150	111	Р	Н
	*	5550	88.47	-	-	82.65	32.08	7.21	33.47	150	111	Α	Н
802.11n		5726.36	45.47	-28.53	74	39.22	32.36	7.41	33.52	150	111	Р	Н
HT40		5749.24	36.09	-17.91	54	29.82	32.39	7.41	33.53	150	111	Α	Н
CH 110		5461.84	45.35	-28.65	74	39.72	31.93	7.17	33.47	150	67	Р	V
5550MHz		5469.84	36.06	-17.94	54	30.41	31.95	7.17	33.47	150	67	Α	V
	*	5550	92.13	-	-	86.31	32.08	7.21	33.47	150	67	Р	V
	*	5550	84.32	-	-	78.5	32.08	7.21	33.47	150	67	Α	V
		5731.08	45.56	-28.44	74	39.32	32.36	7.41	33.53	150	67	Р	V
		5765	35.98	-18.02	54	29.69	32.41	7.41	33.53	150	67	Α	٧

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		5418.8	45.04	-28.96	74	39.51	31.88	7.15	33.5	150	111	Р	Н
		5464.56	35.66	-18.34	54	30.01	31.95	7.17	33.47	150	111	Α	Н
	*	5670	95.38	-	-	89.28	32.28	7.32	33.5	150	111	Р	Н
	*	5670	87.66	-	-	81.56	32.28	7.32	33.5	150	111	Α	Н
802.11n		5741.08	50.54	-23.46	74	44.27	32.39	7.41	33.53	150	111	Р	Н
HT40		5726.6	38.72	-15.28	54	32.47	32.36	7.41	33.52	150	111	Α	Н
CH 134		5367.44	43.93	-30.07	74	38.52	31.81	7.13	33.53	153	66	Р	٧
5670MHz		5467.76	35.48	-18.52	54	29.83	31.95	7.17	33.47	153	66	Α	٧
	*	5670	91.96	-	-	85.86	32.28	7.32	33.5	153	66	Р	٧
	*	5670	84.21	-	-	78.11	32.28	7.32	33.5	153	66	Α	٧
		5727.72	46.17	-27.83	74	39.92	32.36	7.41	33.52	153	66	Р	V
		5725.56	37.15	-16.85	54	30.95	32.36	7.36	33.52	153	66	Α	V

# Remark 2.

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<sup>1.</sup> No other spurious found.

<sup>2.</sup> All results are PASS against Peak and Average limit line.

## 15E band 3 - 5470~5725MHz WIFI 802.11n HT40 (Harmonic @ 3m)

WIFI 1	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		11020	47.53	-26.47	74	56.77	39.48	10.85	59.57	100	230	Р	Н
HT40		16530	45.65	-28.35	74	53.28	38.56	13.44	59.63	100	300	Р	Н
CH 102		11020	47.66	-26.34	74	56.9	39.48	10.85	59.57	100	230	Р	V
5510MHz		16530	45.6	-28.4	74	53.23	38.56	13.44	59.63	100	300	Р	V
802.11n		11100	48	-26	74	57.31	39.41	10.88	59.6	100	200	Р	Н
HT40		16650	46.74	-27.26	74	53.67	38.88	13.7	59.51	100	350	Р	Н
CH 110		11100	47.88	-26.12	74	57.19	39.41	10.88	59.6	100	200	Р	V
5550MHz		16650	48.47	-25.53	74	55.4	38.88	13.7	59.51	100	350	Р	V
802.11n		11340	45.49	-28.51	74	55.01	39.19	10.98	59.69	200	360	Р	Н
HT40		17010	47.52	-26.48	74	52.26	39.91	14.45	59.1	200	360	Р	Н
CH 134		11340	46.25	-27.75	74	55.77	39.19	10.98	59.69	200	360	Р	V
5670MHz		17010	47.88	-26.12	74	52.62	39.91	14.45	59.1	200	360	Р	V

#### Remark

1. No other spurious found.

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

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## 15E band 3 - 5470~5725MHz WIFI 802.11ac VHT20 (Band Edge @ 3m)

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Peak	Pol
Ant.	NOLE	Trequency	Level	Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	1 01.
1		( MHz )	( dBµV/m )	(dB)	( dBµV/m )	(dBµV)	(dB/m)	( dB )	(dB)	( cm )	( deg )	(P/A)	(H/V)
		5462	48.56	-25.44	74	42.93	31.93	7.17	33.47	150	121	Р	Н
		5468.56	38.98	-15.02	54	33.33	31.95	7.17	33.47	150	121	Α	Н
802.11ac		5500	97.24	-	-	91.5	32	7.19	33.45	150	121	Р	Н
VHT20		5500	90.24	-	-	84.5	32	7.19	33.45	150	121	Α	Н
CH 100		5464.24	47.61	-26.39	74	41.96	31.95	7.17	33.47	250	64	Р	V
5500MHz		5470	37.4	-16.6	54	31.75	31.95	7.17	33.47	250	64	Α	V
		5500	93.33	1	-	87.59	32	7.19	33.45	250	64	Р	V
		5500	85.42	1	-	79.68	32	7.19	33.45	250	64	Α	V
		5416.08	45.2	-28.8	74	39.67	31.88	7.15	33.5	150	106	Р	Н
		5462.16	35.25	-18.75	54	29.62	31.93	7.17	33.47	150	106	Α	Н
		5580	97.09	1	-	91.23	32.11	7.23	33.48	150	106	Р	Н
		5580	89.57	ı	-	83.71	32.11	7.23	33.48	150	106	Α	Н
802.11ac		5726.68	44.89	-29.11	74	38.64	32.36	7.41	33.52	150	106	Р	Н
VHT20		5748.52	35.25	-18.75	54	28.98	32.39	7.41	33.53	150	106	Α	Н
CH 116		5463.44	43.76	-30.24	74	38.11	31.95	7.17	33.47	250	66	Р	V
5580MHz		5465.52	34.92	-19.08	54	29.27	31.95	7.17	33.47	250	66	Α	V
		5580	93.66	1	-	87.8	32.11	7.23	33.48	250	66	Р	V
		5580	85.81	-	-	79.95	32.11	7.23	33.48	250	66	Α	V
		5744.84	45.34	-28.66	74	39.07	32.39	7.41	33.53	250	66	Р	V
		5738.28	35.2	-18.8	54	28.93	32.39	7.41	33.53	250	66	Α	V

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	5700	95.38	-	-	89.23	32.3	7.36	33.51	150	119	Р	Н
	5700	88.76	-	-	82.61	32.3	7.36	33.51	150	119	Α	Н
802.11ac	5737.4	8 46.78	-27.22	74	40.51	32.39	7.41	33.53	150	119	Р	Н
VHT20	5728.7	6 37.66	-16.34	54	31.41	32.36	7.41	33.52	150	119	Α	Н
CH 140	5700	91.09	-	-	84.94	32.3	7.36	33.51	250	61	Р	٧
5700MHz	5700	83.06	-	-	76.91	32.3	7.36	33.51	250	61	Α	V
	5735.5	6 45.52	-28.48	74	39.25	32.39	7.41	33.53	250	61	Р	٧
	5725.8	36.56	-17.44	54	30.31	32.36	7.41	33.52	250	61	Α	V

Remark

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No other spurious found.

<sup>2.</sup> All results are PASS against Peak and Average limit line.

## 15E band 3 - 5470~5725MHz 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		11000	47.49	-26.51	74	56.72	39.5	10.83	59.56	163	230	Р	Н
VHT20		16500	46.61	-27.39	74	54.45	38.47	13.36	59.67	178	296	Р	Н
CH 100		11000	47.12	-26.88	74	56.35	39.5	10.83	59.56	163	230	Р	٧
5500MHz		16500	45.82	-28.18	74	53.66	38.47	13.36	59.67	178	296	Р	V
802.11ac		11160	46.52	-27.48	74	55.9	39.35	10.9	59.63	170	200	Р	Н
VHT20		16740	46.3	-27.7	74	52.75	39.11	13.86	59.42	156	350	Р	Н
CH 116		11160	46.72	-27.28	74	56.1	39.35	10.9	59.63	170	200	Р	٧
5580MHz		16740	46.23	-27.77	74	52.68	39.11	13.86	59.42	156	350	Р	٧
802.11ac		11400	45.65	-28.35	74	55.24	39.13	11	59.72	147	285	Р	Н
VHT20		17100	47.46	-26.54	74	51.22	40.48	14.53	58.77	165	246	Р	Н
CH 140		11400	45.36	-28.64	74	54.95	39.13	11	59.72	147	285	Р	٧
5700MHz		17100	48.28	-25.72	74	52.04	40.48	14.53	58.77	165	246	Р	٧

#### Remark

I. No other spurious found.

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<sup>2.</sup> All results are PASS against Peak and Average limit line.

## 15E band 3 - 5470~5725MHz WIFI 802.11ac VHT40 (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 )		(P/A)	
		5468.08	49.63	-24.37	74	43.98	31.95	7.17	33.47	150	118	Р	Н
		5468.88	41.95	-12.05	54	36.3	31.95	7.17	33.47	150	118	Α	Н
		5510	93.43	-	-	87.7	32	7.19	33.46	150	118	Р	Н
		5510	87.25	-	-	81.52	32	7.19	33.46	150	118	Α	Н
802.11ac		5745.08	44.81	-29.19	74	38.54	32.39	7.41	33.53	150	118	Р	Н
VHT40		5741.4	35.7	-18.3	54	29.43	32.39	7.41	33.53	150	118	Α	Н
CH 102		5466.8	46.94	-27.06	74	41.29	31.95	7.17	33.47	250	59	Р	V
5510MHz		5467.92	38.7	-15.3	54	33.05	31.95	7.17	33.47	250	59	Α	V
		5510	89.12	-	-	83.39	32	7.19	33.46	250	59	Р	V
		5510	82.29	-	-	76.56	32	7.19	33.46	250	59	Α	V
		5738.44	44.27	-29.73	74	38	32.39	7.41	33.53	250	59	Р	V
		5739.88	35.8	-18.2	54	29.53	32.39	7.41	33.53	250	59	Α	V
		5469.52	46.54	-27.46	74	40.89	31.95	7.17	33.47	150	107	Р	Н
		5459.92	36.91	-17.09	54	31.28	31.93	7.17	33.47	150	107	Α	Н
		5550	94.49	-	-	88.67	32.08	7.21	33.47	150	107	Р	Н
		5550	87.54	-	-	81.72	32.08	7.21	33.47	150	107	Α	Н
802.11ac		5738.36	46.21	-27.79	74	39.94	32.39	7.41	33.53	150	107	Р	Н
VHT40		5748.6	35.72	-18.28	54	29.45	32.39	7.41	33.53	150	107	Α	Н
CH 110		5467.92	44.34	-29.66	74	38.69	31.95	7.17	33.47	250	58	Р	٧
5550MHz		5469.04	35.22	-18.78	54	29.57	31.95	7.17	33.47	250	58	Α	٧
		5550	88.34	-	-	82.52	32.08	7.21	33.47	250	58	Р	٧
		5550	81.01	-	-	75.19	32.08	7.21	33.47	250	58	Α	٧
		5739.08	45.27	-28.73	74	39	32.39	7.41	33.53	250	58	Р	٧
		5747.96	35.73	-18.27	54	29.46	32.39	7.41	33.53	250	58	Α	٧

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	5439.6	44.12	-29.88	74	38.54	31.91	7.15	33.48	150	107	Р	Н
	5462.32	35.5	-18.5	54	29.87	31.93	7.17	33.47	150	107	Α	Н
	5670	93.51	-	-	87.41	32.28	7.32	33.5	150	107	Р	Н
	5670	86.53	-	-	80.43	32.28	7.32	33.5	150	107	Α	Н
802.11ac	5731.88	47.19	-26.81	74	40.95	32.36	7.41	33.53	150	107	Р	Н
VHT40	5726.12	37.69	-16.31	54	31.44	32.36	7.41	33.52	150	107	Α	Н
CH 134	5465.52	44	-30	74	38.35	31.95	7.17	33.47	250	62	Р	V
5670MHz	5459.6	35.11	-18.89	54	29.48	31.93	7.17	33.47	250	62	Α	V
	5670	88.67	-	-	82.57	32.28	7.32	33.5	250	62	Р	V
	5670	81.41	-	-	75.31	32.28	7.32	33.5	250	62	Α	V
	5741.56	46.2	-27.8	74	39.93	32.39	7.41	33.53	250	62	Р	V
	5738.28	36.37	-17.63	54	30.1	32.39	7.41	33.53	250	62	Α	V
1	1											

#### Remark

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<sup>1.</sup> No other spurious found.

<sup>2.</sup> All results are PASS against Peak and Average limit line.

## 15E band 3 - 5470~5725MHz 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 )	(dB <sub>µ</sub> V)	( dB/m )	(dB)	(dB)	( cm )	(deg)	(P/A)	(H/V)
802.11ac		11020	47.24	-26.76	74	56.48	39.48	10.85	59.57	100	230	Р	Н
VHT40		16530	45.84	-28.16	74	53.47	38.56	13.44	59.63	100	300	Р	Н
CH 102		11020	47.32	-26.68	74	56.56	39.48	10.85	59.57	100	230	Р	V
5510MHz		16530	45.78	-28.22	74	53.41	38.56	13.44	59.63	100	300	Р	٧
802.11ac		11100	47.01	-26.99	74	56.32	39.41	10.88	59.6	100	200	Р	Н
VHT40		16650	46.89	-27.11	74	53.82	38.88	13.7	59.51	100	350	Р	Н
CH 110		11100	47.25	-26.75	74	56.56	39.41	10.88	59.6	100	200	Р	V
5550MHz		16650	46.25	-27.75	74	53.18	38.88	13.7	59.51	100	350	Р	V
802.11ac		11340	45.39	-28.61	74	54.91	39.19	10.98	59.69	200	360	Р	Н
VHT40		17010	47.57	-26.43	74	52.31	39.91	14.45	59.1	200	360	Р	Н
CH 134		11340	45.85	-28.15	74	55.37	39.19	10.98	59.69	200	360	Р	V
5670MHz		17010	47.39	-26.61	74	52.13	39.91	14.45	59.1	200	360	Р	V

#### Remark

1. No other spurious found.

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

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## 15E band 3 5470~5725MHz WIFI 802.11ac VHT80 (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)
		5461.84	51.67	-22.33	74	46.04	31.93	7.17	33.47	150	105	Р	Н
		5458	41.73	-12.27	54	36.1	31.93	7.17	33.47	150	105	Α	Н
		5530	90.36	-	-	84.59	32.03	7.21	33.47	150	105	Р	Н
		5530	82.35	-	1	76.58	32.03	7.21	33.47	150	105	Α	Н
802.11ac		5746.52	44.53	-29.47	74	38.26	32.39	7.41	33.53	150	105	Р	Н
VHT80		5742.12	36.04	-17.96	54	29.77	32.39	7.41	33.53	150	105	Α	Н
CH 106		5439.6	47.89	-26.11	74	42.31	31.91	7.15	33.48	250	62	Р	V
5530MHz		5441.52	38.86	-15.14	54	33.28	31.91	7.15	33.48	250	62	Α	V
		5530	86.82	-	-	81.05	32.03	7.21	33.47	250	62	Р	V
		5530	78.39	-	-	72.62	32.03	7.21	33.47	250	62	Α	V
		5753.96	44.52	-29.48	74	38.23	32.41	7.41	33.53	250	62	Р	V
		5746.36	35.77	-18.23	54	29.5	32.39	7.41	33.53	250	62	Α	V
Remark		o other spurio I results are P		st Peak	and Averag	e limit lin	e.						

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## 15E band 3 5470~5725MHz

#### 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)
802.11ac		11060	46.67	-27.33	74	55.96	39.44	10.86	59.59	150	360	Р	Н
VHT80		16590	46.61	-27.39	74	53.96	38.7	13.53	59.58	150	0	Р	Н
CH 106		11060	46.61	-27.39	74	55.9	39.44	10.86	59.59	150	360	Р	V
5530MHz		16590	46.43	-27.57	74	53.78	38.7	13.53	59.58	150	0	Р	V

#### Remark

1. No other spurious found.

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

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#### 15E Band 3 - Straddle Channel

#### 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)
		5467.28	46.94	-27.06	74	41.29	31.95	7.17	33.47	150	110	Р	Н
		5469.04	37.67	-16.33	54	32.02	31.95	7.17	33.47	150	110	Α	Н
		5610	90.01	-	1	84.06	32.17	7.27	33.49	150	110	Р	Н
		5610	80.55	-	-	74.6	32.17	7.27	33.49	150	110	Α	Н
000.44		5725.16	45.61	-28.39	74	39.41	32.36	7.36	33.52	150	110	Р	Н
802.11a CH 122		5725.48	37.93	-16.07	54	31.73	32.36	7.36	33.52	150	110	Α	Н
5610MHz		5410.96	45.83	-28.17	74	40.32	31.86	7.15	33.5	250	63	Р	V
301011112		5469.52	37.19	-16.81	54	31.54	31.95	7.17	33.47	250	63	Α	V
		5610	87	-	1	81.05	32.17	7.27	33.49	250	63	Р	٧
		5610	79.6	-	1	73.65	32.17	7.27	33.49	250	63	Α	V
		5725.88	46.05	-27.95	74	39.8	32.36	7.41	33.52	250	63	Р	٧
		5725.56	37.47	-16.53	54	31.27	32.36	7.36	33.52	250	63	Α	٧
	1 No	o other spurio	us found										

## Remark 1.

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No other spurious found.

<sup>2.</sup> All results are PASS against Peak and Average limit line.

## 15E band 3 - Straddle Channel 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)
		11220	45.7	-28.3	74	55.12	39.3	10.93	59.65	150	360	Р	Н
802.11a		16830	45.04	-28.96	74	51.01	39.34	14.03	59.34	150	0	Р	Н
5610MHz		11220	46.02	-27.98	74	55.44	39.3	10.93	59.65	150	360	Р	٧
SOTOWINZ		16830	45.77	-28.23	74	51.74	39.34	14.03	59.34	150	0	Р	٧

Remark 2.

1. No other spurious found.

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

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#### 15E Emission below 1GHz

#### WIFI 802.11n HT40 (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)
		38.73	30.57	-9.43	40	49.52	13.43	1	33.38	150	251	Р	Н
		118.27	23.26	-20.24	43.5	43.31	11.89	1.38	33.32	ı	1	Р	Н
		209.45	24.02	-19.48	43.5	45.14	10.46	1.57	33.15	Ī	1	Р	Н
		312.27	26.91	-19.09	46	43.84	14.14	1.94	33.01	Ī	1	Р	Н
000.44		432.55	27.26	-18.74	46	40.76	16.96	2.22	32.68	Ī	1	Р	Н
802.11n HT40		504.33	24	-22	46	36.13	17.93	2.41	32.47	ı	1	Р	Н
LF		48.43	35.17	-4.83	40	57.92	9.63	1	33.38	100	112	Р	V
		120.21	28.91	-14.59	43.5	49	11.85	1.38	33.32	Ī	1	Р	V
		209.45	34.6	-8.9	43.5	55.72	10.46	1.57	33.15	ı	1	Р	V
		312.27	27.09	-18.91	46	44.02	14.14	1.94	33.01	Ī	1	Р	V
		504.33	27.36	-18.64	46	39.49	17.93	2.41	32.47	ı	1	Р	V
		758.47	25.76	-20.24	46	34.72	19.91	2.85	31.72	ı	1	Р	V

#### Remark

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<sup>1.</sup> No other spurious found.

<sup>2.</sup> 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 <b>over limit</b> line.
P/A	Peak or Average
H/V	Horizontal or Vertical

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#### 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 <sub>µ</sub> 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 $\mu$ V/m) – Limit Line(dB $\mu$ 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 $\mu$ V) Preamp Factor(dB)
- $= 32.22(dB/m) + 4.58(dB) + 42.6(dB\mu V) 35.86 (dB)$
- $= 43.54 (dB\mu V/m)$
- Over Limit(dB)
- = Level(dBµV/m) Limit Line(dBµV/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.

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