FCC RF Test Report

APPLICANT	:	AzureWave Technologies, Inc.
EQUIPMENT	:	IEEE 802.11 2x2 MIMO a/b/g/n/ac Wireless LAN + Bluetooth + NFC NGFF Module
BRAND NAME	:	AzureWave
MODEL NAME	:	AW-CM389NF
FCC ID	:	TLZ-CM389NF
STANDARD	:	FCC Part 15 Subpart E §15.407
CLASSIFICATION	:	(NII) Unlicensed National Information Infrastructure

The product was installed into ChromeBook (Brand Name: Hisense, CTL, POIN2, BITLAND; Model Name: C11, J2, LT0101-01, B800) during test.

The product was received on Mar. 03, 2015 and testing was completed on Mar. 31, 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

Testing Laboratory 2353

SPORTON INTERNATIONAL (SHENZHEN) INC.

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REVISION HISTORY

REPORT NO.	VERSION	DESCRIPTION	ISSUED DATE
FR530302D	Rev. 01	Initial issue of report	Apr. 03, 2015

SUMMARY OF TEST RESULT

Report Section	FCC Rule	IC Rule	Description	Limit	Result	Remark
3.1	2.1049 15.403(i)	RSS-210 A9.2	26dB & 99% Bandwidth	-	Pass	-
3.2	15.407(a)	RSS-210 A9.2	Maximum Conducted Output Power	FCC ≤24 dBm (depend on band) IC RSS-210 A9.2 Limit	Pass	-
3.3	15.407(a)	RSS-210 A9.2	Power Spectral Density	FCC ≤11 dBm (depend on band) IC RSS-210 A9.2 Limit	Pass	-
3.4	15.407(b)	RSS-210 A9.3	Unwanted Emissions	≤ -17, -27 dBm (depend on band)&15.209(a)	Pass	Under limit 4.98 dB at 62.980 MHz
3.5	15.207	RSS-Gen 7.2.4	AC Conducted Emission	15.207(a)	Pass	Under limit 12.46 dB at 0.250 MHz
3.6	15.407(g)	-	Frequency Stability	Within Operation Band	Pass	-
3.7	15.407(c)	RSS-210 A9.4	Automatically Discontinue Transmission	Discontinue Transmission	Pass	-
3.8	15.203 & 15.407(a)	RSS-210 A9.2	Antenna Requirement	N/A	Pass	-

1 General Description

1.1 Applicant

AzureWave Technologies, Inc.
8F., No.94, Baozhong Rd., Xindian, Taipei, Taiwan 231

1.2 Manufacturer

AzureWave Technologies, Inc..
8F., No.94, Baozhong Rd., Xindian, Taipei, Taiwan 231

1.3 Feature of Equipment Under Test

Product Feature	
Equipment	IEEE 802.11 2x2 MIMO a/b/g/n/ac Wireless LAN + Bluetooth + NFC NGFF Module
Brand Name	AzureWave
Model Name	AW-CM389NF
FCC ID	TLZ-CM389NF
EUT supports Radios application	WLAN2.4GHz 802.11b/g/n HT20/HT40 WLAN5GHz 802.11a/n HT20/HT40 WLAN5GHz 802.11ac VHT20/VHT40/VHT80 Bluetooth v2.1+EDR Bluetooth v4.0 LE

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

Host Feature & Specification	
Host	ChromeBook
Brand Name	Hisense, CTL, POIN2, BITLAND
Model Name	C11, J2, LT0101-01, B800
HW Version	1.3
SW Version	google chrome
EUT Stage	Production Unit

1.4 Product Specification of Equipment Under Test

Product Specification subjective to this standard	
Tx/Rx Channel Frequency Range	5180 MHz ~ 5240 MHz 5260 MHz ~ 5320 MHz 5500 MHz ~ 5580 MHz and 5660 MHz ~ 5700 MHz
Maximum Output Power	**<5180 MHz ~ 5240 MHz>** **<Ant. 0>** 802.11a : 14.85 dBm / 0.0305 W 802.11n HT20 : 13.93 dBm / 0.0247 W 802.11n HT40 : 11.64 dBm / 0.0146 W 802.11ac VHT20: 8.17 dBm / 0.0066 W 802.11ac VHT40: 8.02 dBm / 0.0063 W 802.11ac VHT80: 8.34 dBm / 0.0068 W **<Ant. 1>** 802.11a : 14.46 dBm / 0.0279 W 802.11n HT20 : 13.25 dBm / 0.0211 W 802.11n HT40 : 10.83 dBm / 0.0121 W 802.11ac VHT20: 7.51 dBm / 0.0056 W 802.11ac VHT40: 6.82 dBm / 0.0048 W 802.11ac VHT80: 7.32 dBm / 0.0054 W **MIMO <Ant. Port 0+1>** 802.11a : 15.36 dBm / 0.0344 W 802.11n HT20 : 13.99 dBm / 0.0251 W 802.11n HT40 : 12.07 dBm / 0.0161 W 802.11ac VHT20: 8.31 dBm / 0.0068 W 802.11ac VHT40: 8.41 dBm / 0.0069 W 802.11ac VHT80: 9.22 dBm / 0.0084 W

Product Specification subjective to this standard	
Maximum Output Power	**<5260 MHz ~ 5320 MHz>** **<Ant. 0>** 802.11a : 14.81 dBm / 0.0303 W 802.11n HT20 : 13.90 dBm / 0.0245 W 802.11n HT40 : 11.36 dBm / 0.0137 W 802.11ac VHT20: 7.92 dBm / 0.0062 W 802.11ac VHT40: 7.89 dBm / 0.0062 W 802.11ac VHT80: 7.81 dBm / 0.0060 W **<Ant. 1>** 802.11a : 14.15 dBm / 0.0282 W 802.11n HT20 : 13.21 dBm / 0.0209 W 802.11n HT40 : 10.72 dBm / 0.0118 W 802.11ac VHT20: 6.92 dBm / 0.0049 W 802.11ac VHT40: 6.78 dBm / 0.0048 W 802.11ac VHT80: 7.02 dBm / 0.0050 W **MIMO <Ant. Port 0 + 1>** 802.11a : 15.23 dBm / 0.0333 W 802.11n HT20 : 13.91 dBm / 0.0246 W 802.11n HT40 : 11.94 dBm / 0.0156 W 802.11ac VHT20: 8.00 dBm / 0.0063 W 802.11ac VHT40: 8.28 dBm / 0.0067 W 802.11ac VHT80: 8.79 dBm / 0.0076 W **5500 MHz ~ 5580 MHz and 5660 MHz ~ 5700 MHz** **<Ant. 0>** 802.11a : 14.06 dBm / 0.0255 W 802.11n HT20 : 13.35 dBm / 0.0216 W 802.11n HT40 : 10.10 dBm / 0.0102 W 802.11ac VHT20: 6.73 dBm / 0.0047 W 802.11ac VHT40: 6.46 dBm / 0.0044 W 802.11ac VHT80: 6.51 dBm / 0.0045 W **<Ant. 1>** 802.11a : 14.62 dBm / 0.0290 W 802.11n HT20 : 13.44 dBm / 0.0221 W 802.11n HT40 : 10.52 dBm / 0.0113 W 802.11ac VHT20: 7.61 dBm / 0.0058 W 802.11ac VHT40: 6.47 dBm / 0.0044 W 802.11ac VHT80: 7.08 dBm / 0.0051 W **MIMO <Ant. Port 0+1>** 802.11a : 14.96 dBm / 0.0313 W 802.11n HT20 : 13.37 dBm / 0.0217 W 802.11n HT40 : 11.85 dBm / 0.0153 W 802.11ac VHT20: 7.16 dBm / 0.0052 W 802.11ac VHT40: 7.66 dBm / 0.0058 W 802.11ac VHT80: 8.31 dBm / 0.0068 W

<table>
<tr><th colspan="2">Product Specification subjective to this standard</th></tr>
<tr><td>99% Occupied Bandwidth</td><td><5180 MHz ~ 5240 MHz>
802.11a : 17.50 MHz
802.11n HT20 : 18.40 MHz
802.11n HT40 : 36.50 MHz
802.11ac VHT20 : 18.35 MHz
802.11ac VHT40 : 36.50 MHz
802.11ac VHT80 : 76.20 MHz</td></tr>
<tr><td>Type of Modulation</td><td>802.11a/n : OFDM (BPSK / QPSK / 16QAM / 64QAM)
802.11ac : OFDM (BPSK / QPSK / 16QAM / 64QAM / 256QAM)</td></tr>
<tr><td>Antenna Type</td><td>Chain Port 0: PIFA Antenna
Chain Port 1: PIFA Antenna</td></tr>
<tr><td>Antenna Gain</td><td>Chain Port 0
5150 MHz ~ 5250 MHz : 2.87 dBi
5250 MHz ~ 5350 MHz : 2.40 dBi
5470 MHz ~ 5725 MHz : 3.12 dBi
Chain Port 1
5150 MHz ~ 5250 MHz : 0.68 dBi
5250 MHz ~ 5350 MHz : 0.55 dBi
5470 MHz ~ 5725 MHz : 2.42 dBi</td></tr>
<tr><td>Antenna Function Description</td><td>
<table>
<tr><th></th><th>Chain Port 0</th><th>Chain Port 1</th></tr>
<tr><td>802.11 a/n/ac SISO</td><td>V</td><td>V</td></tr>
<tr><td>802.11 a/n/ac MIMO</td><td>V</td><td>V</td></tr>
</table>
</td></tr>
</table>

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 Business Center, No. 4003 ShiGu Rd., Xili Town, Nanshan District, Shenzhen, Guangdong, P. R. China TEL: +86-755-8637-9589 FAX: +86-755-8637-9595	
Test Site No.	**Sporton 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	
Test Site No.	**Sporton Site No.**	**FCC/IC Registration No.**
	03CH02-SZ	831040/4086F-1

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
- FCC KDB 662911 D01 Multiple Transmitter Output v02r01.
- FCC KDB 644545 D03 Guidance for IEEE 802 11ac New Rules v01
- ANSI C63.10-2013
- IC RSS-210 Issued 8
- IC RSS-Gen Issue 4
- NOTICE 2012-DRS0126

Remark:

1. All test items were verified and recorded according to the standards and without any deviation during the test.
2. FCC permits the use of the 1.5 meter table as an alternative in C63.10-2013 through inquiry tracking number 961829.
3. This EUT has also been tested and complied with the requirements of FCC Part 15, Subpart B, recorded in a separate test report.
4. Per the section 2.2.3 of Notice of 2012-DRS0126, " Receivers Excluded from Industry Canada Requirements", only radio-communication receivers operating in stand-alone mode within the band 30-960 MHz and scanner receivers are subject to Industry Canada requirements.

2 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).

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

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

2.1 Carrier Frequency and Channel

Frequency Band	Channel	Freq. (MHz)	Channel	Freq. (MHz)
5150-5250 MHz Band 1 (U-NII-1)	36	5180	44	5220
	38	**5190**	**46**	**5230**
	40	5200	48	5240
	42	5210		

Frequency Band	Channel	Freq. (MHz)	Channel	Freq. (MHz)
5250-5350 MHz Band 2 (U-NII-2A)	52	5260	60	5300
	54	**5270**	**62**	**5310**
	56	5280	64	5320
	58	5290		

Frequency Band	Channel	Freq. (MHz)	Channel	Freq. (MHz)
5470-5600 MHz and 5650-5725 MHz Band 3 (U-NII-2C)	100	5500	112	5560
	102	**5510**	116	5580
	104	5520	132	5660
	106	5530	**134**	**5670**
	108	5540	136	5680
	110	**5550**	140	5700

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

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.

<Chain Port 0>

5GHz 802.11a RF Output Power (dBm)										
Power vs. Channel			Power vs. Data Rate							
Channel	Frequency (MHz)	Data Rate 6Mbps	Channel	9Mbps	12Mbps	18Mbps	24Mbps	36Mbps	48Mbps	54Mbps
CH 36	5180	**14.85**	CH 36	14.78	14.76	14.74	14.75	14.73	14.68	14.66
CH 44	5220	14.74								
CH 48	5240	14.47								
CH 52	5260	**14.81**	CH 52	14.76	14.71	14.69	14.68	14.72	14.63	14.67
CH 60	5300	14.74								
CH 64	5320	14.25								
CH 100	5500	13.65	CH 116	13.96	13.97	13.98	13.89	13.95	13.87	13.92
CH 116	5580	**14.06**								
CH 140	5700	13.14								

5GHz 802.11n HT20 RF Output Power (dBm)										
Power vs. Channel			Power vs. MCS Index							
Channel	Frequency (MHz)	MCS Index MCS0	Channel	MCS1	MCS2	MCS3	MCS4	MCS5	MCS6	MCS7
CH 36	5180	**13.93**	CH 36	13.84	13.91	13.89	13.88	13.81	13.85	13.86
CH 44	5220	13.79								
CH 48	5240	13.56								
CH 52	5260	**13.90**	CH 52	13.78	13.87	13.81	13.81	13.74	13.76	13.80
CH 60	5300	13.72								
CH 64	5320	13.45								
CH 100	5500	12.74	CH 116	13.21	13.26	13.24	13.25	13.16	13.25	13.19
CH 116	5580	**13.35**								
CH 140	5700	12.89								

5GHz 802.11n HT40 RF Output Power (dBm)										
Power vs. Channel			Power vs. MCS Index							
Channel	Frequency (MHz)	MCS Index MCS0	Channel	MCS1	MCS2	MCS3	MCS4	MCS5	MCS6	MCS7
CH 38	5190	**11.64**	CH 38	11.62	11.61	11.59	11.57	11.60	11.55	11.56
CH 46	5230	11.52								
CH 54	5270	**11.36**	CH 54	11.35	11.28	11.32	11.34	11.23	11.32	11.28
CH 62	5310	11.28								
CH 102	5510	9.72	CH 110	10.08	10.06	10.03	9.98	10.01	10.07	10.08
CH 110	5550	**10.10**								
CH 134	5670	10.07								

5GHz 802.11ac VHT20 RF Output Power (dBm)										
Power vs. Channel			Power vs. MCS Index							
Channel	Frequency (MHz)	MCS Index MCS0	Channel	MCS1	MCS2	MCS3	MCS4	MCS5	MCS6	MCS7	MCS8
CH 36	5180	**8.17**	CH 36	8.05	8.13	8.09	7.99	7.99	8.11	8.07	8.05
CH 44	5220	7.85									
CH 48	5240	7.76									
CH 52	5260	**7.92**	CH 52	8.05	8.03	8.01	7.96	7.97	8.05	8.06	8.04
CH 60	5300	7.68									
CH 64	5320	7.55									
CH 100	5500	6.64	CH 140	6.71	6.75	6.77	6.71	6.79	6.77	6.73	6.79
CH 116	5580	6.71									
CH 140	5700	**6.73**									

5GHz 802.11ac VHT40 RF Output Power (dBm)											
Power vs. Channel			Power vs. MCS Index								
Channel	Frequency (MHz)	MCS Index MCS0	Channel	MCS1	MCS2	MCS3	MCS4	MCS5	MCS6	MCS7	MCS8	MCS9
CH 38	5190	**8.02**	CH 38	7.92	7.96	7.97	7.96	7.92	7.97	7.96	7.92	7.90
CH 46	5230	7.86										
CH 54	5270	**7.89**	CH 54	7.70	7.63	7.65	7.68	7.70	7.65	7.63	7.67	7.61
CH 62	5310	7.73										
CH 102	5510	6.21	CH 110	6.33	6.22	6.21	6.27	6.21	6.25	6.30	6.29	6.27
CH 110	5550	**6.46**										
CH 134	5670	6.35										

5GHz 802.11ac VHT80 RF Output Power (dBm)											
Power vs. Channel			Power vs. MCS Index								
Channel	Frequency (MHz)	MCS Index MCS0	Channel	MCS1	MCS2	MCS3	MCS4	MCS5	MCS6	MCS7	MCS8	MCS9
CH 42	5210	**8.34**	CH 42	8.28	8.24	8.22	8.28	8.22	8.27	8.31	8.30	8.30
CH 58	5290	**7.81**	CH 58	7.80	7.75	7.78	7.80	7.78	7.77	7.79	7.71	7.69
CH 106	5530	**6.51**	CH 106	6.47	6.50	6.45	6.44	6.39	6.44	6.48	6.47	6.50

<Chain Port 1>

5GHz 802.11a RF Output Power (dBm)										
Power vs. Channel			Power vs. Data Rate							
Channel	Frequency (MHz)	Data Rate 6Mbps	Channel	9Mbps	12Mbps	18Mbps	24Mbps	36Mbps	48Mbps	54Mbps
CH 36	5180	14.03	CH 44	14.32	14.30	14.29	14.30	14.28	14.23	14.21
CH 44	5220	**14.46**								
CH 48	5240	14.27								
CH 52	5260	**14.15**	CH 52	14.13	14.08	14.06	14.05	14.09	14.00	14.04
CH 60	5300	14.10								
CH 64	5320	13.80								
CH 100	5500	14.13	CH 116	14.51	14.46	14.45	14.43	14.47	14.37	14.42
CH 116	5580	**14.62**								
CH 140	5700	13.41								

5GHz 802.11n HT20 RF Output Power (dBm)										
Power vs. Channel			Power vs. MCS Index							
Channel	Frequency (MHz)	MCS Index MCS0	Channel	MCS1	MCS2	MCS3	MCS4	MCS5	MCS6	MCS7
CH 36	5180	**13.25**	CH 36	13.16	13.23	13.21	13.20	13.13	13.17	13.18
CH 44	5220	13.21								
CH 48	5240	13.14								
CH 52	5260	**13.21**	CH 52	13.05	13.14	13.08	13.08	13.01	13.02	13.05
CH 60	5300	13.16								
CH 64	5320	12.74								
CH 100	5500	12.68	CH 116	13.29	13.34	13.32	13.33	13.24	13.33	13.27
CH 116	5580	**13.44**								
CH 140	5700	12.33								

5GHz 802.11n HT40 RF Output Power (dBm)											
Power vs. Channel			Power vs. MCS Index								
Channel	Frequency (MHz)	MCS Index MCS0	Channel	MCS1	MCS2	MCS3	MCS4	MCS5	MCS6	MCS7	
CH 38	5190	**10.83**	CH 38	10.79	10.72	10.76	10.78	10.67	10.76	10.72	
CH 46	5230	10.76									
CH 54	5270	**10.72**	CH 54	10.61	10.59	10.66	10.63	10.54	10.65	10.61	
CH 62	5310	10.53									
CH 102	5510	10.16	CH 110	10.41	10.30	10.37	10.42	10.35	10.39	10.41	
CH 110	5550	**10.52**									
CH 134	5670	9.73									

5GHz 802.11ac VHT20 RF Output Power (dBm)										
Power vs. Channel			Power vs. MCS Index							
Channel	Frequency (MHz)	MCS Index MCS0	Channel	MCS1	MCS2	MCS3	MCS4	MCS5	MCS6	MCS7	MCS8
CH 36	5180	**7.51**	CH 36	7.43	7.41	7.37	7.46	7.37	7.43	7.48	7.46
CH 44	5220	7.32									
CH 48	5240	7.06									
CH 52	5260	6.76	CH 64	6.87	6.84	6.78	6.82	6.89	6.86	6.82	6.86
CH 60	5300	6.22									
CH 64	5320	**6.92**									
CH 100	5500	7.01	CH 116	7.58	7.55	7.55	7.58	7.55	7.58	7.56	7.53
CH 116	5580	**7.61**									
CH 140	5700	6.57									

5GHz 802.11ac VHT40 RF Output Power (dBm)											
Power vs. Channel			Power vs. MCS Index								
Channel	Frequency (MHz)	MCS Index MCS0	Channel	MCS1	MCS2	MCS3	MCS4	MCS5	MCS6	MCS7	MCS8	MCS9
CH 38	5190	**6.82**	CH 38	6.75	6.78	6.73	6.75	6.78	6.75	6.78	6.75	6.78
CH 46	5230	6.76										
CH 54	5270	**6.78**	CH 54	6.64	6.60	6.64	6.66	6.64	6.67	6.70	6.66	6.64
CH 62	5310	6.51										
CH 102	5510	6.27	CH 110	6.42	6.36	6.39	6.40	6.31	6.37	6.42	6.36	6.39
CH 110	5550	**6.47**										
CH 134	5670	5.91										

5GHz 802.11ac VHT80 RF Output Power (dBm)											
Power vs. Channel			Power vs. MCS Index								
Channel	Frequency (MHz)	MCS Index MCS0	Channel	MCS1	MCS2	MCS3	MCS4	MCS5	MCS6	MCS7	MCS8	MCS9
CH 42	5210	**7.32**	CH 42	7.26	7.19	7.22	7.26	7.22	7.26	7.22	7.26	7.19
CH 58	5290	**7.02**	CH 58	6.83	6.89	6.92	6.89	6.94	6.98	6.92	6.89	6.94
CH 106	5530	**7.08**	CH 106	6.98	7.02	7.04	6.91	7.00	7.06	6.98	7.02	7.04

<Chain Port 0+1>

5GHz 802.11a RF Output Power (dBm)										
Power vs. Channel			Power vs. Data Rate							
Channel	Frequency (MHz)	Data Rate 6Mbps	Channel	9Mbps	12Mbps	18Mbps	24Mbps	36Mbps	48Mbps	54Mbps
CH 36	5180	**15.36**	CH 36	15.23	15.23	15.21	15.18	15.25	15.16	15.14
CH 44	5220	15.22								
CH 48	5240	15.20								
CH 52	5260	**15.23**	CH 52	15.07	15.07	15.05	15.02	14.57	15.00	14.98
CH 60	5300	15.12								
CH 64	5320	14.72								
CH 100	5500	14.41	CH 116	14.80	14.79	14.78	14.74	14.82	14.72	14.71
CH 116	5580	**14.96**								
CH 140	5700	14.11								

5GHz 802.11n HT20 RF Output Power (dBm)										
Power vs. Channel			Power vs. MCS Index							
Channel	Frequency (MHz)	MCS Index MCS0	Channel	MCS1	MCS2	MCS3	MCS4	MCS5	MCS6	MCS7
CH 36	5180	**13.99**	CH 36	13.69	13.70	13.68	13.70	13.70	13.74	13.73
CH 44	5220	13.57								
CH 48	5240	13.53								
CH 52	5260	**13.91**	CH 52	13.42	13.48	13.46	13.44	13.45	13.45	13.46
CH 60	5300	13.43								
CH 64	5320	13.10								
CH 100	5500	12.63	CH 116	12.96	13.02	13.00	13.00	12.92	12.99	12.96
CH 116	5580	**13.37**								
CH 140	5700	12.30								

5GHz 802.11n HT40 RF Output Power (dBm)										
Power vs. Channel			Power vs. MCS Index							
Channel	Frequency (MHz)	MCS Index MCS0	Channel	MCS1	MCS2	MCS3	MCS4	MCS5	MCS6	MCS7
CH 38	5190	**12.07**	CH 38	12.02	11.99	11.97	11.96	11.98	12.01	11.99
CH 46	5230	12.07								
CH 54	5270	**11.94**	CH 54	11.87	11.86	11.81	11.84	11.85	11.83	11.79
CH 62	5310	11.87								
CH 102	5510	10.99	CH 110	11.14	11.16	11.11	11.14	11.16	11.14	11.16
CH 110	5550	**11.85**								
CH 134	5670	11.06								

5GHz 802.11ac VHT20 RF Output Power (dBm)										
Power vs. Channel			Power vs. MCS Index							
Channel	Frequency (MHz)	MCS Index MCS0	Channel	MCS1	MCS2	MCS3	MCS4	MCS5	MCS6	MCS7	MCS8
CH 36	5180	**8.31**	CH 36	8.23	8.28	8.17	8.24	8.22	8.21	8.22	8.23
CH 44	5220	7.96									
CH 48	5240	7.86									
CH 52	5260	**8.00**	CH 52	7.83	7.85	7.83	7.88	7.88	7.84	7.88	7.88
CH 60	5300	7.78									
CH 64	5320	7.60									
CH 100	5500	**7.16**	CH 100	7.06	7.12	7.07	7.11	7.11	7.08	7.08	7.09
CH 116	5580	7.04									
CH 140	5700	6.80									

5GHz 802.11ac VHT40 RF Output Power (dBm)											
Power vs. Channel			Power vs. MCS Index								
Channel	Frequency (MHz)	MCS Index MCS0	Channel	MCS1	MCS2	MCS3	MCS4	MCS5	MCS6	MCS7	MCS8	MCS9
CH 38	5190	**8.41**	CH 38	8.34	8.36	8.34	8.34	8.35	8.38	8.34	8.37	8.39
CH 46	5230	8.21										
CH 54	5270	**8.28**	CH 54	8.15	8.17	8.14	8.10	8.16	8.14	8.15	8.14	8.16
CH 62	5310	8.21										
CH 102	5510	7.34	CH 110	7.60	7.61	7.57	7.56	7.60	7.57	7.57	7.57	7.58
CH 110	5550	**7.66**										
CH 134	5670	7.19										

5GHz 802.11ac VHT80 RF Output Power (dBm)											
Power vs. Channel			Power vs. MCS Index								
Channel	Frequency (MHz)	MCS Index MCS0	Channel	MCS1	MCS2	MCS3	MCS4	MCS5	MCS6	MCS7	MCS8	MCS9
CH 42	5210	**9.22**	CH 42	9.12	9.15	9.12	9.12	9.14	9.11	9.09	9.17	9.07
CH 58	5290	**8.79**	CH 58	8.64	8.68	8.64	8.70	8.68	8.71	8.64	8.71	8.75
CH 106	5530	**8.31**	CH 106	8.16	8.14	8.26	8.22	8.14	8.20	8.25	8.26	8.23

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.

Single Antenna

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

MIMO Antenna

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

Test Cases	
AC Conducted Emission	Mode 1 ： Bluetooth Link + WLAN (5G) Link + Earphone + Battery 2 + Adapter 2

Ch. #		Band I：5150-5250 MHz	Band II：5250-5350 MHz	Band III：5470-5600 MHz and 5650-5725MHz
		802.11a	802.11a	802.11a
L	Low	36	52	100
M	Middle	44	60	116
H	High	48	64	140

Ch. #		Band I：5150-5250 MHz	Band II：5250-5350 MHz	Band III：5470-5600 MHz and 5650-5725MHz
		802.11n HT20	802.11n HT20	802.11n HT20
L	Low	36	52	100
M	Middle	44	60	116
H	High	48	64	140

Ch. #		Band I：5150-5250 MHz	Band II：5250-5350 MHz	Band III：5470-5600 MHz and 5650-5725MHz
		802.11n HT40	802.11n HT40	802.11n HT40
L	Low	38	54	102
M	Middle	-	-	110
H	High	46	62	134

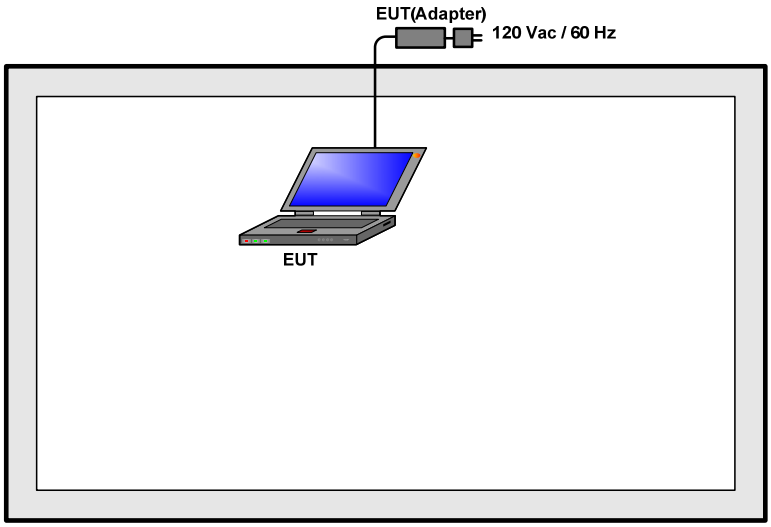
Ch. #		Band I：5150-5250 MHz	Band II：5250-5350 MHz	Band III：5470-5600 MHz and 5650-5725MHz
		802.11ac VHT20	802.11ac VHT20	802.11ac VHT20
L	Low	36	52	100
M	Middle	44	60	116
H	High	48	64	140

Ch. #		Band I：5150-5250 MHz	Band II：5250-5350 MHz	Band III：5470-5600 MHz and 5650-5725MHz
		802.11ac VHT40	802.11ac VHT40	802.11ac VHT40
L	Low	38	54	102
M	Middle	-	-	110
H	High	46	62	134

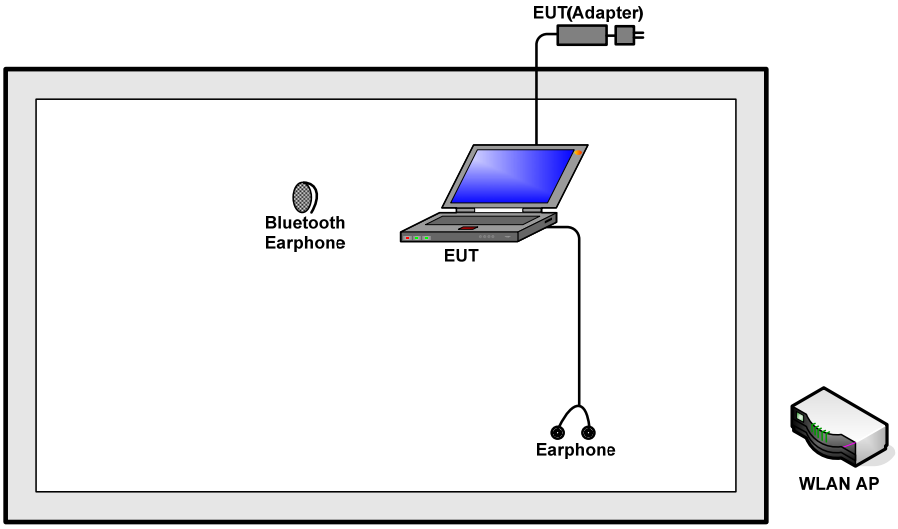
Ch. #		Band I：5150-5250 MHz	Band II：5250-5350 MHz	Band III：5470-5600 MHz and 5650-5725MHz
		802.11ac VHT80	802.11ac VHT80	802.11ac VHT80
L	Low	-	-	-
M	Middle	42	58	106
H	High	-	-	-

2.4 Connection Diagram of Test System

<WLAN Tx Mode>



<AC Conducted Emission Mode>



2.5 Support Unit used in test configuration and system

Item	Equipment	Trade Name	Model Name	FCC ID	Data Cable	Power Cord
1.	Bluetooth Earphone	Nokia	BH-108	PYAHS-107W	N/A	N/A
2.	WLAN AP	D-Link	DIR-815	KA2DIR815A1	N/A	Unshielded, 1.8 m
3.	Notebook	Lenovo	G480	FCC DoC	N/A	AC I/P: Unshielded, 1.8 m DC O/P: Shielded, 1.8 m
4.	Earphone	Apple	MC692ZFA	FCC DoC	Unshielded, 16 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 continuous 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)

3 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.

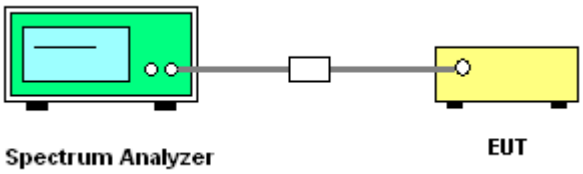
3.1.2 Measuring Instruments

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

3.1.3 Test Procedures

1. 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.

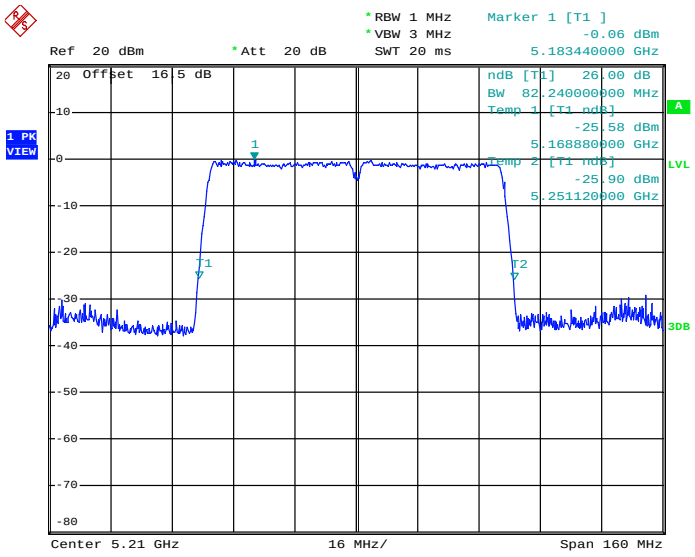
3.1.4 Test Setup



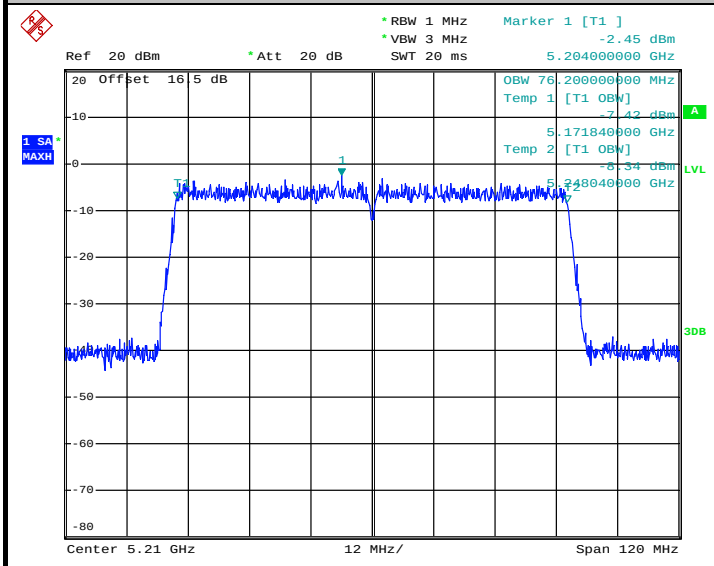
3.1.5 Test Result of 26dB & 99% Occupied Bandwidth

Please refer to Appendix A.

Maximum 26dB Bandwidth



Maximum 99% Occupied Bandwidth



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

3.2 Maximum Conducted Output Power Measurement

3.2.1 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.

<IC RSS-210 Annex 9>

For the 5.15–5.25 GHz band, the maximum e.i.r.p. shall not exceed 200 mW or 10 + 10 log10 B, dBm, whichever power is less. B is the 99% emission bandwidth in MHz.

For the 5.25–5.35 GHz band, the maximum conducted output power shall not exceed 250 mW or 11 + 10 log10 B, dBm, whichever power is less.

For the 5.47–5.6 GHz and 5.65–5.725 GHz band, the maximum conducted output power shall not exceed 250 mW or 11 + 10 log10 B, dBm, whichever power is less.

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.

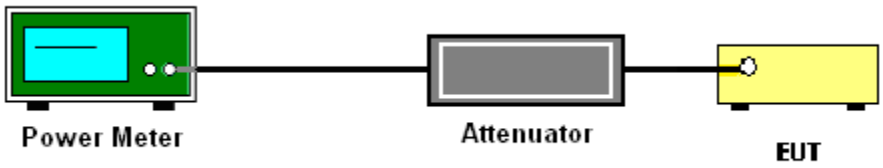
3.2.3 Test Procedures

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.

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.

<IC RSS-210 Annex 9>

For the 5.15–5.25 GHz band, the e.i.r.p. spectral density shall not exceed 10 dBm in any 1.0 MHz band.

For the 5.25–5.35 GHz band, the power spectral density shall not exceed 11 dBm in any 1.0 MHz band.

For the 5.47–5.6 GHz and 5.65–5.725 GHz band, the power spectral density shall not exceed 11 dBm in any 1.0 MHz band.

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

3.3.2 Measuring Instruments

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

3.3.3 Test Procedures

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

 # Method SA-2 #

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

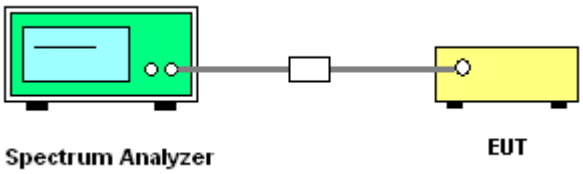
1. The testing follows Method SA-2 of FCC KDB 789033 D02 General UNII Test Procedures New Rules v01.
   - Measure the duty cycle.
   - Set span to encompass the entire emission bandwidth (EBW) of the signal.
   - Set RBW = 1 MHz.
   - Set VBW ≥ 3 MHz.
   - Number of points in sweep ≥ 2 Span / RBW.
   - 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.
4. For MIMO mode, calculation method follows FCC KDB 662911 D01 Multiple Transmitter Output v02r01.

Method (1): Measure and sum the spectra across the outputs.

The total final Power Spectral Density is from a device with 2 transmitter outputs. The spectrum measurements of the individual outputs are all performed with the same span and number of points, the spectrum value in the first spectral bin of output 1 is summed with that in the first spectral bin of output 2 to obtain the value for the first frequency bin of the summed spectrum.

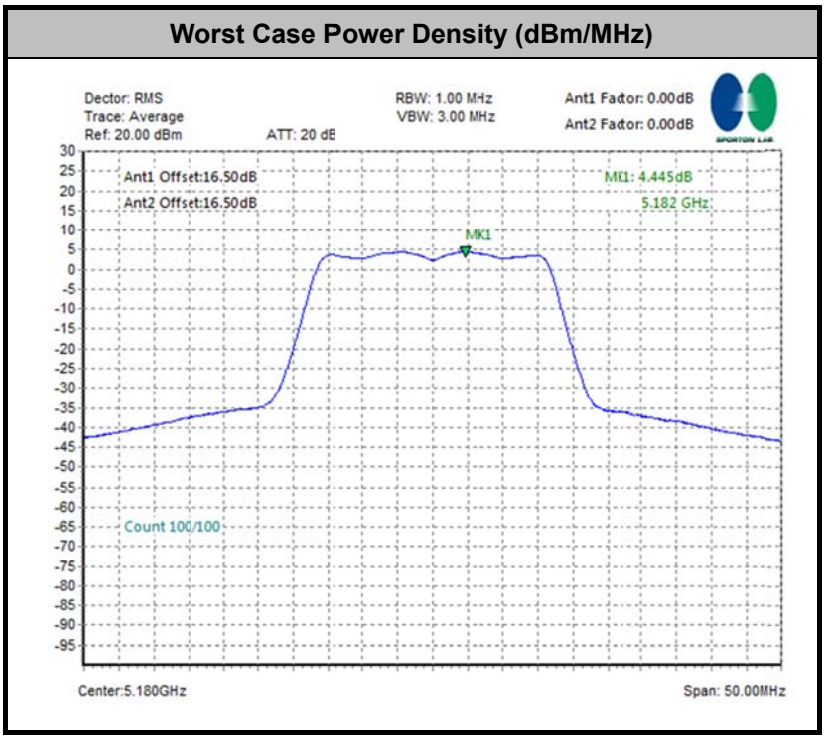
3.3.4 Test Setup



3.3.5 Test Result of Power Spectral Density

Please refer to Appendix A.

Worst Case Power Density (dBm/MHz)



3.4 Unwanted Emissions Measurement

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

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

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

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

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

(3) KDB789033 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.

3.4.3 Test Procedures

1. 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

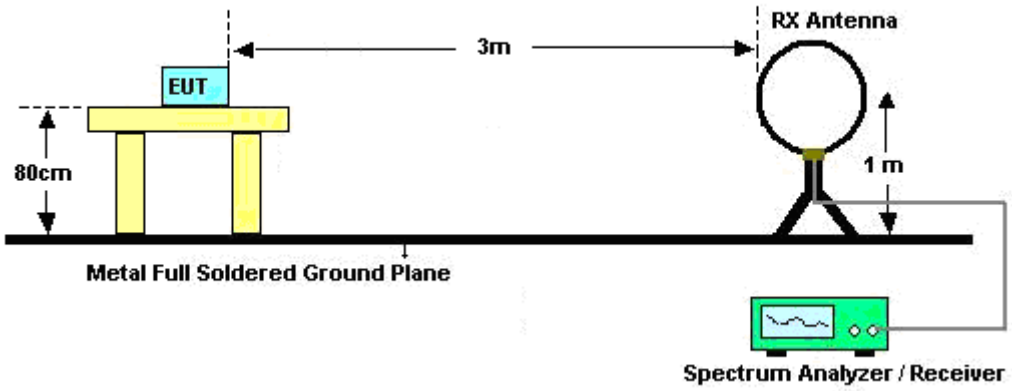
- RBW = 1 MHz
- VBW = 10 Hz, when duty cycle is no less than 98 percent.
- VBW ≥ 1/T, when duty cycle is less than 98 percent where T is the minimum transmission duration over which the transmitter is on and is transmitting at its maximum power control level for the tested mode of operation.

Antenna	Band	Duty Cycle(%)	T(ms)	1/T(kHz)	VBW Setting
0+1	802.11a	100	-	-	10Hz
0+1	802.11n HT20	100	-	-	10Hz
0+1	802.11n HT40	100	-	-	10Hz
0+1	802.11ac VHT20	100	-	-	10Hz
0+1	802.11ac VHT40	100	-	-	10Hz
0+1	802.11ac VHT80	100	-	-	10Hz

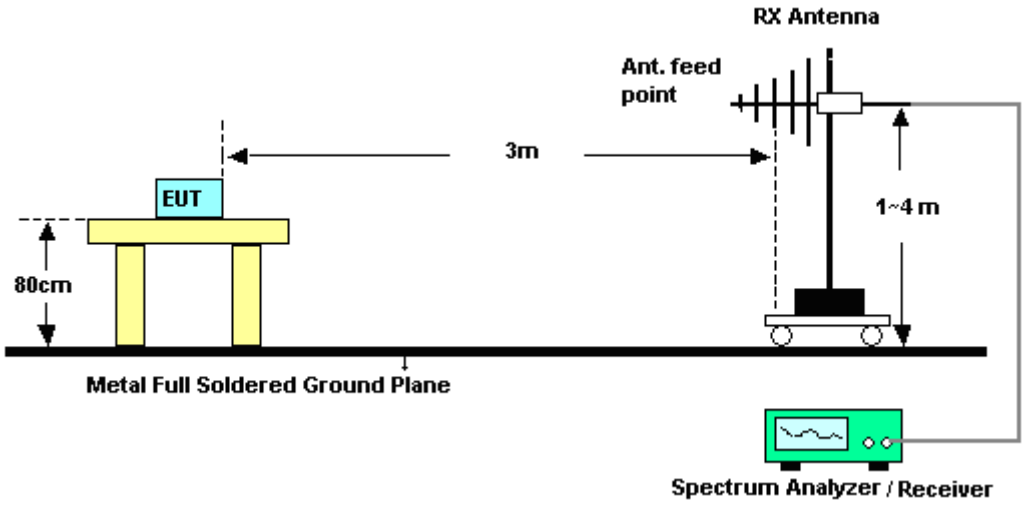
2. The EUT was placed on a turntable with 0.8 meter for frequency below 1GHz and 1.5 meter for frequency above 1GHz respectively above ground.
3. The EUT was set 3 meters from the interference receiving antenna which was mounted on the top of a variable height antenna tower.
4. The antenna is a broadband 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.
5. 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.
6. 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

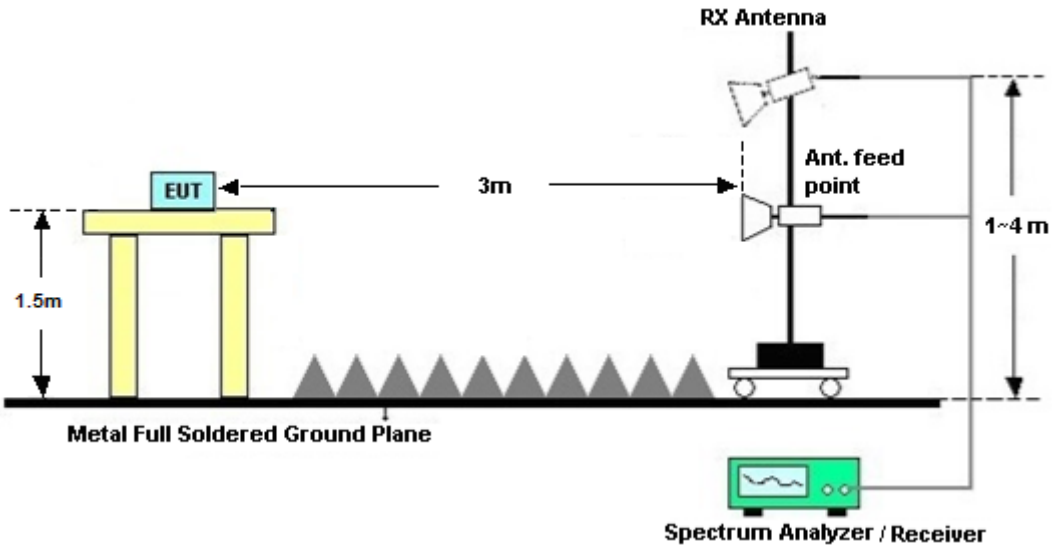
For radiated emissions below 30MHz



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.

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

*Decreases with the logarithm of the frequency.

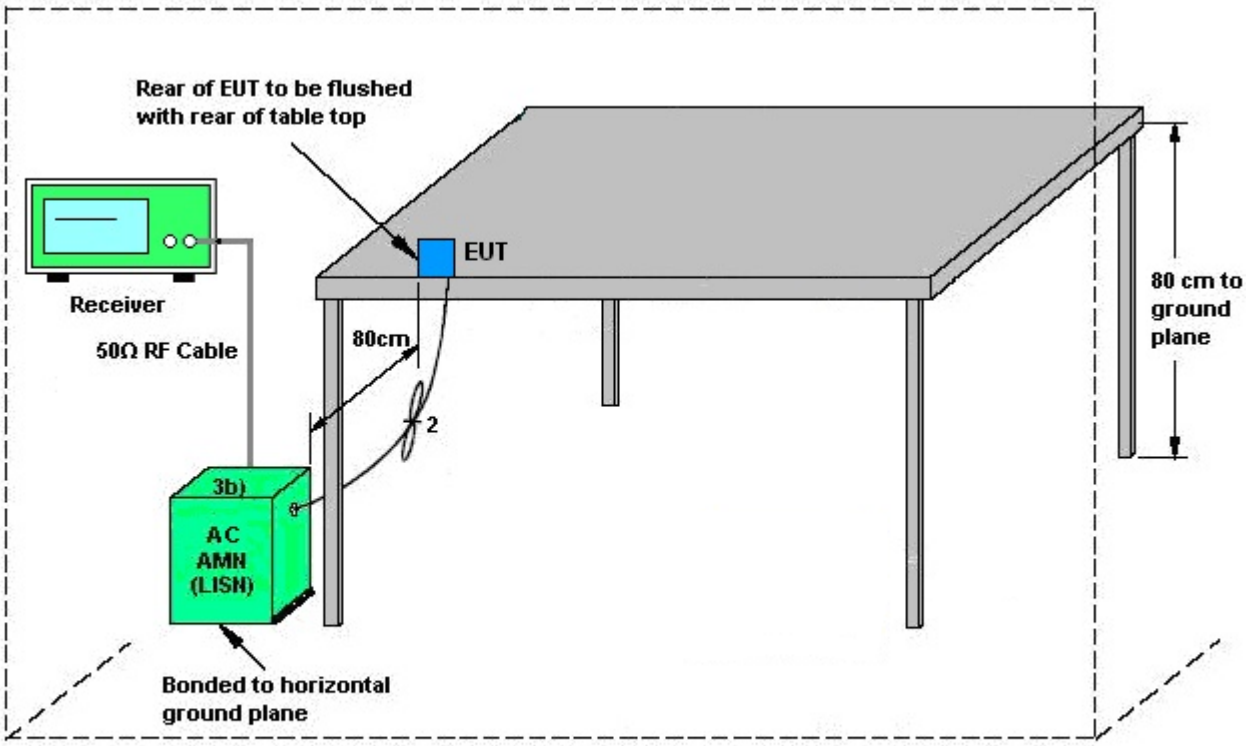
3.5.2 Measuring Instruments

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

3.5.3 Test Procedures

1. The EUT was placed 0.4 meter from the conducting wall of the shielding room was kept at least 80 centimeters from any other grounded conducting surface.
2. Connect EUT to the power mains through a line impedance stabilization network (LISN).
3. All the support units are connecting to the other LISN.
4. The LISN provides 50 ohm coupling impedance for the measuring instrument.
5. The FCC states that a 50 ohm, 50 microhenry LISN should be used.
6. Both sides of AC line were checked for maximum conducted interference.
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.

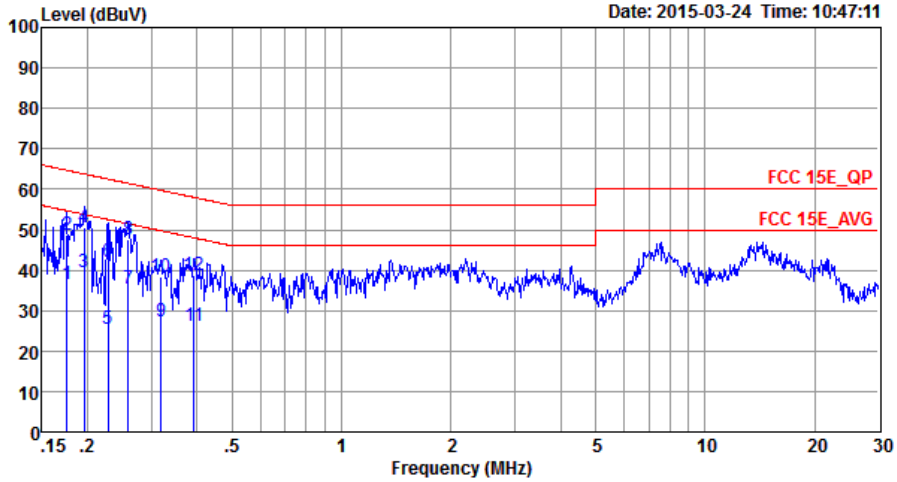
3.5.4 Test Setup



AMN = Artificial mains network (LISN)
AE = Associated equipment
EUT = Equipment under test
ISN = Impedance stabilization network

3.5.5 Test Result of AC Conducted Emission

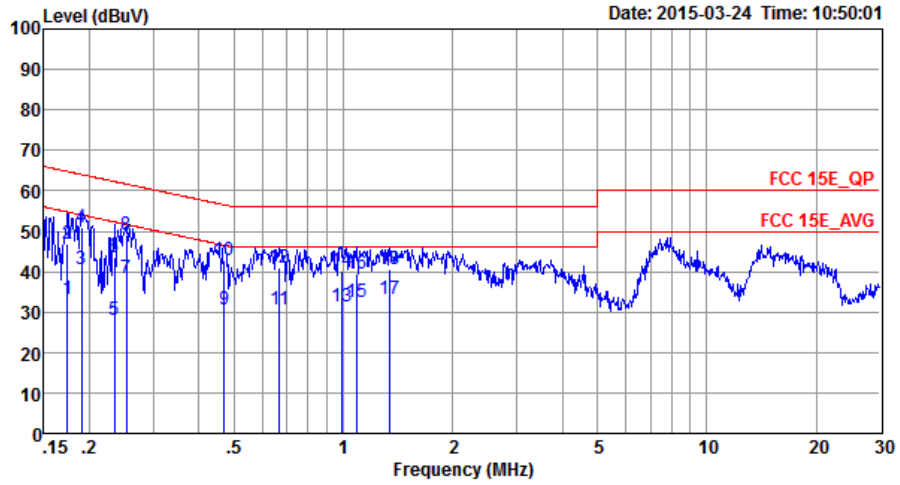
Test Mode :	Mode 1	Temperature :	21~22℃
Test Engineer :	Jack Tian	Relative Humidity :	41~42%
Test Voltage :	120Vac / 60Hz	Phase :	Line
Function Type :	Bluetooth Link + WLAN (5G) Link + Earphone + Battery 2 + Adapter 2		



Site : CO01-SZ
Condition: FCC 15E_QP LISN_L_20140304 LINE

		Freq	Level	Over Limit	Limit Line	Read Level	LISN Factor	Cable Loss	Remark
		MHz	dBuV	dB	dBuV	dBuV	dB	dB	
1		0.18	36.54	-18.14	54.68	26.00	0.22	10.32	Average
2		0.18	48.74	-15.94	64.68	38.20	0.22	10.32	QP
3		0.20	39.42	-14.38	53.80	28.90	0.22	10.30	Average
4	*	0.20	50.62	-13.18	63.80	40.10	0.22	10.30	QP
5		0.23	25.49	-27.03	52.52	15.00	0.23	10.26	Average
6		0.23	42.09	-20.43	62.52	31.60	0.23	10.26	QP
7		0.26	35.58	-15.89	51.47	25.11	0.24	10.23	Average
8		0.26	47.78	-13.69	61.47	37.31	0.24	10.23	QP
9		0.32	27.46	-22.29	49.75	17.01	0.26	10.19	Average
10		0.32	38.36	-21.39	59.75	27.91	0.26	10.19	QP
11		0.39	26.35	-21.64	47.99	15.90	0.28	10.17	Average
12		0.39	38.75	-19.24	57.99	28.30	0.28	10.17	QP

Test Mode :	Mode 1	Temperature :	21~22℃
Test Engineer :	Jack Tian	Relative Humidity :	41~42%
Test Voltage :	120Vac / 60Hz	Phase :	Neutral
Function Type :	Bluetooth Link + WLAN (5G) Link + Earphone + Battery 2 + Adapter 2		



Site : CO01-SZ
Condition: FCC 15E_QP LISN_N_20140304 NEUTRAL

		Freq	Level	Over Limit	Limit Line	Read Level	LISN Factor	Cable Loss	Remark
		MHz	dBuV	dB	dBuV	dBuV	dB	dB	
1		0.17	33.25	-21.52	54.77	22.60	0.32	10.33	Average
2		0.17	46.75	-18.02	64.77	36.10	0.32	10.33	QP
3		0.19	40.53	-13.49	54.02	29.90	0.32	10.31	Average
4		0.19	50.83	-13.19	64.02	40.20	0.32	10.31	QP
5		0.23	28.09	-24.21	52.30	17.49	0.34	10.26	Average
6		0.23	43.49	-18.81	62.30	32.89	0.34	10.26	QP
7		0.25	38.38	-13.26	51.64	27.80	0.34	10.24	Average
8	*	0.25	49.18	-12.46	61.64	38.60	0.34	10.24	QP
9		0.47	30.66	-15.83	46.49	20.10	0.40	10.16	Average
10		0.47	42.76	-13.73	56.49	32.20	0.40	10.16	QP
11		0.67	30.62	-15.38	46.00	20.20	0.27	10.15	Average
12		0.67	41.02	-14.98	56.00	30.60	0.27	10.15	QP
13		0.99	31.48	-14.52	46.00	21.00	0.33	10.15	Average
14		0.99	40.18	-15.82	56.00	29.70	0.33	10.15	QP
15		1.09	32.49	-13.51	46.00	22.01	0.33	10.15	Average
16		1.09	39.59	-16.41	56.00	29.11	0.33	10.15	QP
17		1.34	33.21	-12.79	46.00	22.69	0.35	10.17	Average
18		1.34	40.71	-15.29	56.00	30.19	0.35	10.17	QP

3.6 Frequency Stability Measurement

3.6.1 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.

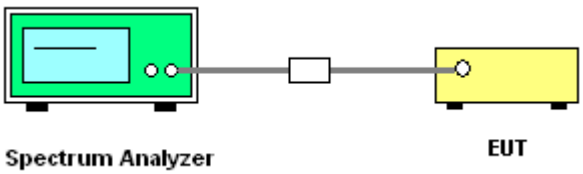
3.6.2 Measuring Instruments

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



3.6.5 Test Result of Frequency Stability

Please refer to Appendix A.

The frequency band 5180-5240MHz which was verified by testing against other standard is less than 20 ppm which is sufficient to maintain the signal within the 5150-5250MHz band.

3.7 Automatically Discontinue Transmission

3.7.1 Limit of Automatically Discontinue Transmission

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

3.7.2 Measuring Instruments

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

3.7.3 Test Result of Automatically Discontinue Transmission

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

3.8 Antenna Requirements

3.8.1 Standard Applicable

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

3.8.2 Antenna Anti-Replacement Construction

An embedded-in antenna design is used.

3.8.3 Antenna Gain

FCC KDB 662911 D01 Multiple Transmitter Output v02r01

For CDD transmissions, directional gain is calculated as

$$Directional Gain = 10 \cdot \log \left[\frac{\sum_{j=1}^{N_{SS}} \left\{ \sum_{k=1}^{N_{ANT}} g_{j,k} \right\}^2}{N_{ANT}} \right]$$

where

Each antenna is driven by no more than one spatial stream;

N_{SS} = the number of independent spatial streams of data;

N_{ANT} = the total number of antennas

$g_{j,k} = 10^{G_k / 20}$ if the kth antenna is being fed by spatial stream j, or zero if it is not;

G_k is the gain in dBi of the kth antenna.

The EUT supports CDD mode.

The power and PSD limit should be modified if the directional gain of EUT is over 6 dBi,

The directional gain “DG” is calculated as following table.

	Chain Port 0 Ant 1 (dBi)	Chain Port 1 Ant 2 (dBi)	DG for Power (dBi)	DG for PSD (dBi)	Power Limit Reduction (dB)	PSD Limit Reduction (dB)
Band I	2.87	0.68	4.85	4.85	0.00	0.00
Band II	2.40	0.55	4.53	4.53	0.00	0.00
Band III	3.12	2.42	5.79	5.79	0.00	0.00

Power Limit Reduction = DG(Power) – 6dBi, (min = 0)

PSD Limit Reduction = DG(PSD) – 6dBi, (min = 0)

4 List of Measuring Equipment

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Test Date	Due Date	Remark
Spectrum Analyzer	R&S	FSP30	101400	9kHz~30GHz	Jan. 28, 2015	Mar. 27, 2015~ Mar. 31, 2015	Jan. 27, 2016	Conducted (TH01-SZ)
Power Meter	Anritsu	ML2495A	1218010	10Hz~40GHz	Jan. 28, 2015	Mar. 27, 2015~ Mar. 31, 2015	Jan. 27, 2016	Conducted (TH01-SZ)
Power Sensor	Anritsu	MA2411B	1207253	0.3GHz~40GHz	Jan. 28, 2015	Mar. 27, 2015~ Mar. 31, 2015	Jan. 27, 2016	Conducted (TH01-SZ)
EMI TEST Receiver	R&S	ESCI7	100768	9kHz~3GHz	May 04, 2014	Mar. 25, 2015	May 03, 2015	Radiation (03CH02-SZ)
Spectrum Analyzer	Agilent Technologies	N9038A	MY52260185	20Hz~26.5GHz	May 26, 2014	Mar. 25, 2015	May 25, 2015	Radiation (03CH02-SZ)
Loop Antenna	R&S	HFH2-Z2	100354	9kHz~30MHz	May 09, 2014	Mar. 25, 2015	May 08, 2015	Radiation (03CH02-SZ)
Bilog Antenna	TESEQ	CBL 6112D	37877	30MHz~2GHz	Oct. 15, 2014	Mar. 25, 2015	Oct. 14, 2015	Radiation (03CH02-SZ)
Double Ridge Horn Antenna	SCHWARZBECK	BBHA 9120D	9120D-1285	1GHz~18GHz	Jan. 20, 2015	Mar. 25, 2015	Jan. 19, 2016	Radiation (03CH02-SZ)
Double Ridged Horn Antenna	COM-POWER	AH-840	101071	18GHz~40GHz	Sep. 04, 2014	Mar. 25, 2015	Sep. 03, 2015	Radiation (03CH02-SZ)
Amplifier	com-power	PA-103A	161069	1~1000MHz	May 04, 2014	Mar. 25, 2015	May 03, 2015	Radiation (03CH02-SZ)
Amplifier	Agilent	8449B	3008A01023	1GHz~26.5GHz	Oct. 29, 2014	Mar. 25, 2015	Oct. 28, 2015	Radiation (03CH02-SZ)
AC Source(AVR)	CHROMA	61601ACSOURCE	616010002470	100Vac~240Vac	NCR	Mar. 25, 2015	NCR	Radiation (03CH02-SZ)
Turn Table	Qiangdian	3000	N/A	0~360 degree	NCR	Mar. 25, 2015	NCR	Radiation (03CH02-SZ)
Antenna Mast	Qiangdian	3000	N/A	1 m~4 m	NCR	Mar. 25, 2015	NCR	Radiation (03CH02-SZ)
EMI TEST Receiver	R&S	ESCI7	100768	9kHz~3GHz	May 04, 2014	Mar. 24, 2015	May 03, 2015	Conduction (CO01-SZ)
AC LISN	EMCO	3816/2SH	00103912	9kHz~30MHz	Feb. 02, 2015	Mar. 24, 2015	Feb. 01, 2016	Conduction (CO01-SZ)
AC LISN (for auxiliary equipment)	EMCO	3816/2SH	00103892	9kHz~30MHz	Feb. 02, 2015	Mar. 24, 2015	Feb. 01, 2016	Conduction (CO01-SZ)
AC Power Source	Chroma	61602	616020000891	100Vac~250Vac	Sep. 29, 2014	Mar. 24, 2015	Sep. 28, 2015	Conduction (CO01-SZ)

5 Uncertainty of Evaluation

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

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

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

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	**4.5**

Appendix A. Conducted Test Results

Report Number : FR530302D

Test Engineer:	Tiny You	Temperature:	21~25	°C
Test Date:	2015/3/27~2015/3/31	Relative Humidity:	51~54	%

Report Number : FR530302D

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)			Note
					Ant 0	Ant 1	Ant 0	Ant 1	Ant 0	Ant 1	Ant 0	Ant 1		
11a	6Mbps	1	36	5180	17.40	17.50	21.70	21.35	-		22.41	22.43		
11a	6Mbps	1	44	5220	17.40	17.40	21.45	21.20	-		22.41	22.41		
11a	6Mbps	1	48	5240	17.45	17.45	21.60	21.15	-		22.42	22.42		
HT20	MCS0	1	36	5180	18.30	18.35	21.60	21.70	-		22.62	22.64		
HT20	MCS0	1	44	5220	18.40	18.35	21.70	21.80	-		22.65	22.64		
HT20	MCS0	1	48	5240	18.30	18.25	21.85	21.80	-		22.62	22.61		
HT40	MCS0	1	38	5190	36.50	36.50	42.03	41.67	-		23.01	23.01		
HT40	MCS0	1	46	5230	36.40	36.40	41.94	41.76	-		23.01	23.01		
VHT20	MCS0	1	36	5180	18.30	18.30	21.60	21.70	-		22.62	22.62		
VHT20	MCS0	1	44	5220	18.25	18.30	21.60	21.75	-		22.61	22.62		
VHT20	MCS0	1	48	5240	18.30	18.25	21.70	21.85	-		22.62	22.61		
VHT40	MCS0	1	38	5190	36.50	36.50	41.85	41.76	-		23.01	23.01		
VHT40	MCS0	1	46	5230	36.40	36.50	41.94	41.85	-		23.01	23.01		
VHT80	MCS0	1	42	5210	75.96	76.08	82.24	82.24	-		23.01	23.01		
11a	6Mbps	2	36	5180	17.40	17.40	21.45	21.20	-		22.41			
11a	6Mbps	2	44	5220	17.40	17.35	21.45	21.30	-		22.39			
HT20	MCS0	2	36	5180	18.30	18.30	21.80	21.65	-		22.62			
HT20	MCS0	2	44	5220	18.30	18.30	21.80	21.65	-		22.62			
HT20	MCS0	2	48	5240	18.25	18.30	21.70	21.55	-		22.61			
HT40	MCS0	2	38	5190	36.40	36.50	41.94	41.31	-		23.01			
HT40	MCS0	2	46	5230	36.40	36.50	42.03	41.31	-		23.01			
VHT20	MCS0	2	36	5180	18.30	18.35	21.65	21.55	-		22.62			
VHT20	MCS0	2	44	5220	18.35	18.30	21.80	21.55	-		22.62			
VHT20	MCS0	2	48	5240	18.35	18.25	21.75	21.45	-		22.61			
VHT40	MCS0	2	38	5190	36.50	36.40	42.12	41.31	-		23.01			
VHT40	MCS0	2	46	5230	36.50	36.50	41.94	41.31	-		23.01			
VHT80	MCS0	2	42	5210	76.08	76.20	82.24	81.92	-		23.01			

Report Number : FR530302D

TEST RESULTS DATA
Average Power Table

FCC Band I															
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	Duty Factor (dB)		Average Conducted Power (dBm)			FCC Conducted Power Limit (dBm)		DG (dBi)			Pass/Fail
					Ant 0	Ant 1	Ant 0	Ant 1	SUM	Ant 0	Ant 1	Ant 0	Ant 1		
11a	6Mbps	1	36	5180	0.00	0.00	14.85	14.03		24.00	24.00	2.87	0.68		Pass
11a	6Mbps	1	44	5220	0.00	0.00	14.74	14.46		24.00	24.00	2.87	0.68		Pass
11a	6Mbps	1	48	5240	0.00	0.00	14.47	14.27		24.00	24.00	2.87	0.68		Pass
HT20	MCS0	1	36	5180	0.00	0.00	13.93	13.25		24.00	24.00	2.87	0.68		Pass
HT20	MCS0	1	44	5220	0.00	0.00	13.79	13.21		24.00	24.00	2.87	0.68		Pass
HT20	MCS0	1	48	5240	0.00	0.00	13.56	13.14		24.00	24.00	2.87	0.68		Pass
HT40	MCS0	1	38	5190	0.00	0.00	11.64	10.83		24.00	24.00	2.87	0.68		Pass
HT40	MCS0	1	46	5230	0.00	0.00	11.52	10.76		24.00	24.00	2.87	0.68		Pass
VHT20	MCS0	1	36	5180	0.00	0.00	8.17	7.51		24.00	24.00	2.87	0.68		Pass
VHT20	MCS0	1	44	5220	0.00	0.00	7.85	7.32		24.00	24.00	2.87	0.68		Pass
VHT20	MCS0	1	48	5240	0.00	0.00	7.76	7.06		24.00	24.00	2.87	0.68		Pass
VHT40	MCS0	1	38	5190	0.00	0.00	8.02	6.82		24.00	24.00	2.87	0.68		Pass
VHT40	MCS0	1	46	5230	0.00	0.00	7.86	6.76		24.00	24.00	2.87	0.68		Pass
VHT80	MCS0	1	42	5210	0.00	0.00	8.34	7.32		24.00	24.00	2.87	0.68		Pass
11a	6Mbps	2	36	5180	0.00	0.00	12.78	11.88	15.36	24.00		4.85			Pass
11a	6Mbps	2	44	5220	0.00	0.00	12.56	11.82	15.22	24.00		4.85			Pass
HT20	MCS0	2	36	5180	0.00	0.00	11.21	10.73	13.99	24.00		4.85			Pass
HT20	MCS0	2	44	5220	0.00	0.00	10.92	10.17	13.57	24.00		4.85			Pass
HT20	MCS0	2	48	5240	0.00	0.00	10.74	10.28	13.53	24.00		4.85			Pass
HT40	MCS0	2	38	5190	0.00	0.00	9.67	8.34	12.07	24.00		4.85			Pass
HT40	MCS0	2	46	5230	0.00	0.00	9.42	8.67	12.07	24.00		4.85			Pass
VHT20	MCS0	2	36	5180	0.00	0.00	5.57	5.02	8.31	24.00		4.85			Pass
VHT20	MCS0	2	44	5220	0.00	0.00	5.21	4.67	7.96	24.00		4.85			Pass
VHT20	MCS0	2	48	5240	0.00	0.00	5.11	4.58	7.86	24.00		4.85			Pass
VHT40	MCS0	2	38	5190	0.00	0.00	5.61	4.94	8.41	24.00		4.85			Pass
VHT40	MCS0	2	46	5230	0.00	0.00	5.48	4.85	8.21	24.00		4.85			Pass
VHT80	MCS0	2	42	5210	0.00	0.00	6.63	5.75	9.22	24.00		4.85			Pass

Report Number : FR530302D

TEST RESULTS DATA
Power Spectral Density

FCC Band 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
					Ant 0	Ant 1	Ant 0	Ant 1	SUM	Ant 0	Ant 1	Ant 0	Ant 1		
11a	6Mbps	1	36	5180	0.00	0.00	4.08	3.66		11.00	11.00	2.87	0.68		Pass
11a	6Mbps	1	44	5220	0.00	0.00	3.85	3.85		11.00	11.00	2.87	0.68		Pass
11a	6Mbps	1	48	5240	0.00	0.00	3.70	3.68		11.00	11.00	2.87	0.68		Pass
HT20	MCS0	1	36	5180	0.00	0.00	3.16	2.50		11.00	11.00	2.87	0.68		Pass
HT20	MCS0	1	44	5220	0.00	0.00	2.78	2.82		11.00	11.00	2.87	0.68		Pass
HT20	MCS0	1	48	5240	0.00	0.00	2.77	2.64		11.00	11.00	2.87	0.68		Pass
HT40	MCS0	1	38	5190	0.00	0.00	-2.36	-3.01		11.00	11.00	2.87	0.68		Pass
HT40	MCS0	1	46	5230	0.00	0.00	-2.72	-2.77		11.00	11.00	2.87	0.68		Pass
VHT20	MCS0	1	36	5180	0.00	0.00	-2.68	-3.38		11.00	11.00	2.87	0.68		Pass
VHT20	MCS0	1	44	5220	0.00	0.00	-3.00	-3.08		11.00	11.00	2.87	0.68		Pass
VHT20	MCS0	1	48	5240	0.00	0.00	-3.22	-3.29		11.00	11.00	2.87	0.68		Pass
VHT40	MCS0	1	38	5190	0.00	0.00	-6.42	-7.04		11.00	11.00	2.87	0.68		Pass
VHT40	MCS0	1	46	5230	0.00	0.00	-6.81	-6.90		11.00	11.00	2.87	0.68		Pass
VHT80	MCS0	1	42	5210	0.00	0.00	-9.46	-10.19		11.00	11.00	2.87	0.68		Pass
11a	6Mbps	2	36	5180	0.00	0.00			4.45	11.00		4.85			Pass
11a	6Mbps	2	44	5220	0.00	0.00			4.41	11.00		4.85			Pass
HT20	MCS0	2	36	5180	0.00	0.00			2.57	11.00		4.85			Pass
HT20	MCS0	2	44	5220	0.00	0.00			2.40	11.00		4.85			Pass
HT20	MCS0	2	48	5240	0.00	0.00			2.18	11.00		4.85			Pass
HT40	MCS0	2	38	5190	0.00	0.00			-1.97	11.00		4.85			Pass
HT40	MCS0	2	46	5230	0.00	0.00			-2.34	11.00		4.85			Pass
VHT20	MCS0	2	36	5180	0.00	0.00			-3.52	11.00		4.85			Pass
VHT20	MCS0	2	44	5220	0.00	0.00			-3.34	11.00		4.85			Pass
VHT20	MCS0	2	48	5240	0.00	0.00			-3.69	11.00		4.85			Pass
VHT40	MCS0	2	38	5190	0.00	0.00			-5.88	11.00		4.85			Pass
VHT40	MCS0	2	46	5230	0.00	0.00			-6.06	11.00		4.85			Pass
VHT80	MCS0	2	42	5210	0.00	0.00			-8.89	11.00		4.85			Pass

Report Number : FR530302D

TEST RESULTS DATA
Average Power Table

FCC Band II															
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	Duty Factor (dB)		Average Conducted Power (dBm)			FCC Conducted Power Limit (dBm)		DG (dBi)			Pass/Fail
					Ant 0	Ant 1	Ant 0	Ant 1	SUM	Ant 0	Ant 1	Ant 0	Ant 1		
11a	6Mbps	1	52	5260	0.00	0.00	14.81	14.15				2.40	0.55		Pass
11a	6Mbps	1	60	5300	0.00	0.00	14.74	14.10				2.40	0.55		Pass
11a	6Mbps	1	64	5320	0.00	0.00	14.25	13.80				2.40	0.55		Pass
HT20	MCS0	1	52	5260	0.00	0.00	13.90	13.21				2.40	0.55		Pass
HT20	MCS0	1	60	5300	0.00	0.00	13.72	13.16				2.40	0.55		Pass
HT20	MCS0	1	64	5320	0.00	0.00	13.45	12.74				2.40	0.55		Pass
HT40	MCS0	1	54	5270	0.00	0.00	11.36	10.72				2.40	0.55		Pass
HT40	MCS0	1	62	5310	0.00	0.00	11.28	10.53				2.40	0.55		Pass
VHT20	MCS0	1	52	5260	0.00	0.00	7.92	6.76				2.40	0.55		Pass
VHT20	MCS0	1	60	5300	0.00	0.00	7.68	6.22				2.40	0.55		Pass
VHT20	MCS0	1	64	5320	0.00	0.00	7.55	6.92				2.40	0.55		Pass
VHT40	MCS0	1	54	5270	0.00	0.00	7.89	6.78				2.40	0.55		Pass
VHT40	MCS0	1	62	5310	0.00	0.00	7.73	6.51				2.40	0.55		Pass
VHT80	MCS0	1	58	5290	0.00	0.00	7.81	7.02				2.40	0.55		Pass
11a	6Mbps	2	52	5260	0.00	0.00	12.66	11.73	15.23	24.00		4.53			Pass
11a	6Mbps	2	60	5300	0.00	0.00	12.57	11.60	15.12	24.00		4.53			Pass
HT20	MCS0	2	52	5260	0.00	0.00	10.91	10.89	13.91	24.00		4.53			Pass
HT20	MCS0	2	60	5300	0.00	0.00	10.75	10.06	13.43	24.00		4.53			Pass
HT20	MCS0	2	64	5320	0.00	0.00	10.54	9.58	13.10	24.00		4.53			Pass
HT40	MCS0	2	54	5270	0.00	0.00	9.51	8.26	11.94	24.00		4.53			Pass
HT40	MCS0	2	62	5310	0.00	0.00	9.49	8.12	11.87	24.00		4.53			Pass
VHT20	MCS0	2	52	5260	0.00	0.00	5.20	4.76	8.00	24.00		4.53			Pass
VHT20	MCS0	2	60	5300	0.00	0.00	5.13	4.38	7.78	24.00		4.53			Pass
VHT20	MCS0	2	64	5320	0.00	0.00	5.06	4.06	7.60	24.00		4.53			Pass
VHT40	MCS0	2	54	5270	0.00	0.00	5.58	4.94	8.28	24.00		4.53			Pass
VHT40	MCS0	2	62	5310	0.00	0.00	5.53	4.85	8.21	24.00		4.53			Pass
VHT80	MCS0	2	58	5290	0.00	0.00	6.21	5.31	8.79	24.00		4.53			Pass

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TEST RESULTS DATA
Average Power Table

FCC Band III															
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	Duty Factor (dB)		Average Conducted Power (dBm)			FCC Conducted Power Limit (dBm)		DG (dBi)			Pass/Fail
					Ant 0	Ant 1	Ant 0	Ant 1	SUM	Ant 0	Ant 1	Ant 0	Ant 1		
11a	6Mbps	1	100	5500	0.00	0.00	13.65	14.13				3.12	2.42		Pass
11a	6Mbps	1	116	5580	0.00	0.00	14.06	14.62				3.12	2.42		Pass
11a	6Mbps	1	140	5700	0.00	0.00	13.14	13.41				3.12	2.42		Pass
HT20	MCS0	1	100	5500	0.00	0.00	12.74	12.68				3.12	2.42		Pass
HT20	MCS0	1	116	5580	0.00	0.00	13.35	13.44				3.12	2.42		Pass
HT20	MCS0	1	140	5700	0.00	0.00	12.89	12.33				3.12	2.42		Pass
HT40	MCS0	1	102	5510	0.00	0.00	9.72	10.16				3.12	2.42		Pass
HT40	MCS0	1	110	5550	0.00	0.00	10.10	10.52				3.12	2.42		Pass
HT40	MCS0	1	134	5670	0.00	0.00	10.07	9.73				3.12	2.42		Pass
VHT20	MCS0	1	100	5500	0.00	0.00	6.64	7.01				3.12	2.42		Pass
VHT20	MCS0	1	116	5580	0.00	0.00	6.71	7.61				3.12	2.42		Pass
VHT20	MCS0	1	140	5700	0.00	0.00	6.73	6.57				3.12	2.42		Pass
VHT40	MCS0	1	102	5510	0.00	0.00	6.21	6.27				3.12	2.42		Pass
VHT40	MCS0	1	110	5550	0.00	0.00	6.46	6.47				3.12	2.42		Pass
VHT40	MCS0	1	134	5670	0.00	0.00	6.35	5.91				3.12	2.42		Pass
VHT80	MCS0	1	106	5530	0.00	0.00	6.51	7.08				3.12	2.42		Pass
11a	6Mbps	2	100	5500	0.00	0.00	11.48	11.32	14.41	24.00		5.79			Pass
11a	6Mbps	2	116	5580	0.00	0.00	12.02	11.87	14.96	24.00		5.79			Pass
11a	6Mbps	2	140	5700	0.00	0.00	11.46	10.71	14.11	24.00		5.79			Pass
HT20	MCS0	2	100	5500	0.00	0.00	9.37	9.85	12.63	24.00		5.79			Pass
HT20	MCS0	2	116	5580	0.00	0.00	9.69	10.94	13.37	24.00		5.79			Pass
HT20	MCS0	2	140	5700	0.00	0.00	9.40	9.17	12.30	24.00		5.79			Pass
HT40	MCS0	2	102	5510	0.00	0.00	7.81	8.15	10.99	24.00		5.79			Pass
HT40	MCS0	2	110	5550	0.00	0.00	8.12	9.45	11.85	24.00		5.79			Pass
HT40	MCS0	2	134	5670	0.00	0.00	8.05	8.05	11.06	24.00		5.79			Pass
VHT20	MCS0	2	100	5500	0.00	0.00	4.13	4.17	7.16	24.00		5.79			Pass
VHT20	MCS0	2	116	5580	0.00	0.00	4.11	3.95	7.04	24.00		5.79			Pass
VHT20	MCS0	2	140	5700	0.00	0.00	4.07	3.48	6.80	24.00		5.79			Pass
VHT40	MCS0	2	102	5510	0.00	0.00	4.31	4.34	7.34	24.00		5.79			Pass
VHT40	MCS0	2	110	5550	0.00	0.00	4.61	4.69	7.66	24.00		5.79			Pass
VHT40	MCS0	2	134	5670	0.00	0.00	4.18	4.17	7.19	24.00		5.79			Pass
VHT80	MCS0	2	106	5530	0.00	0.00	5.13	5.46	8.31	24.00		5.79			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	6.3	
11a	6Mbps	1	36	5180	5180.025	0.025	4.83	20	8.4	
11a	6Mbps	1	36	5180	5179.975	-0.025	-4.83	20	7.4	
11a	6Mbps	1	36	5180	5180.000	0.000	0.00	-30	7.4	
11a	6Mbps	1	36	5180	5180.000	0.000	0.00	50	7.4	

Band II										
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	Center Frequency (MHz)	Frequency Deviation (MHz)	Frequency Stablility (ppm)	Temperature (°C)	Voltage (V)	Note
11a	6Mbps	1	64	5320	0.000	-5320.000	-1000000.00	20	6.3	
11a	6Mbps	1	64	5320	0.000	-5320.000	-1000000.00	20	8.4	
11a	6Mbps	1	64	5320	0.000	-5320.000	-1000000.00	20	7.4	
11a	6Mbps	1	64	5320	0.000	-5320.000	-1000000.00	-30	7.4	
11a	6Mbps	1	64	5320	0.000	-5320.000	-1000000.00	50	7.4	
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	0.000	-5500.000	-1000000.00	20	6.3	
11a	6Mbps	1	100	5500	0.000	-5500.000	-1000000.00	20	8.4	
11a	6Mbps	1	100	5500	0.000	-5500.000	-1000000.00	20	7.4	
11a	6Mbps	1	100	5500	0.000	-5500.000	-1000000.00	-30	7.4	
11a	6Mbps	1	100	5500	0.000	-5500.000	-1000000.00	50	7.4	

Appendix B. Radiated Spurious Emission

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+2		(MHz)	(dBµV/m)	(dB)	(dBµV/m)	(dBµV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11a CH 36 5180MHz		5149.7	57.06	-16.94	74	52.62	31.72	8.53	35.81	165	250	P	H
		5148.65	40.83	-13.17	54	36.39	31.72	8.53	35.81	165	250	A	H
	*	5180	104.85	-	-	100.34	31.75	8.56	35.8	165	250	P	H
	*	5180	94.97	-	-	90.46	31.75	8.56	35.8	165	250	A	H
		5147.3	53.23	-20.77	74	48.79	31.72	8.53	35.81	150	262	P	V
		5147.15	39.63	-14.37	54	35.19	31.72	8.53	35.81	150	262	A	V
	*	5180	103.65	-	-	99.14	31.75	8.56	35.8	150	262	P	V
	*	5180	91.09	-	-	86.58	31.75	8.56	35.8	150	262	A	V
802.11a CH 44 5220MHz		5133.35	49.07	-24.93	74	44.67	31.71	8.51	35.82	160	200	P	H
		5147.45	36.2	-17.8	54	31.76	31.72	8.53	35.81	160	200	A	H
	*	5220	106.06	-	-	101.5	31.77	8.58	35.79	160	200	P	H
	*	5220	96.03	-	-	91.47	31.77	8.58	35.79	160	200	A	H
		5432.94	48.74	-25.26	74	43.74	31.95	8.76	35.71	160	200	P	H
		5374.42	35	-19	54	30.13	31.89	8.71	35.73	160	200	A	H
		5043.35	48.98	-25.02	74	44.76	31.64	8.43	35.85	230	265	P	V
		5139.5	35.08	-18.92	54	30.67	31.72	8.51	35.82	230	265	A	V
	*	5220	104.67	-	-	100.11	31.77	8.58	35.79	230	265	P	V
	*	5220	95.45	-	-	90.89	31.77	8.58	35.79	230	265	A	V
		5372.55	49.12	-24.88	74	44.26	31.89	8.71	35.74	230	265	P	V
		5374.86	35.08	-18.92	54	30.21	31.89	8.71	35.73	230	265	A	V

802.11a CH 48 5240MHz		5143.55	49.19	-24.81	74	44.76	31.72	8.53	35.82	160	200	P	H
		5139.35	34.42	-19.58	54	30.02	31.71	8.51	35.82	160	200	A	H
	*	5240	104.1	-	-	99.48	31.79	8.61	35.78	160	200	P	H
	*	5240	94.39	-	-	89.77	31.79	8.61	35.78	160	200	A	H
		5429.42	49.26	-24.74	74	44.26	31.95	8.76	35.71	160	200	P	H
		5375.52	34.96	-19.04	54	30.09	31.89	8.71	35.73	160	200	A	H
		5012.9	48.75	-25.25	74	44.6	31.61	8.41	35.87	150	230	P	V
		5126.15	34.65	-19.35	54	30.25	31.71	8.51	35.82	150	230	A	V
	*	5240	104.57	-	-	99.95	31.79	8.61	35.78	150	230	P	V
	*	5240	94.42	-	-	89.8	31.79	8.61	35.78	150	230	A	V
		5412.37	49.6	-24.4	74	44.63	31.93	8.76	35.72	150	230	P	V
		5415.12	35.14	-18.86	54	30.17	31.93	8.76	35.72	150	230	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 1 5150~5250MHz

WIFI 802.11a (Harmonic @ 3m)

WIFI Ant. 1+2	Note	Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11a CH 36 5180MHz		10360	48.46	-25.54	74	32.84	38.62	12.52	35.52	152	260	P	H
		15540	48.54	-25.46	74	29.41	38.54	15.44	34.85	189	238	P	H
		10360	48.64	-25.36	74	33.02	38.62	12.52	35.52	152	260	P	V
		15540	49.42	-24.58	74	30.29	38.54	15.44	34.85	189	238	P	V
802.11a CH 44 5220MHz		10440	49.81	-24.19	74	34.01	38.72	12.58	35.5	125	230	P	H
		15660	48.51	-25.49	74	29.85	38.17	15.3	34.81	110	225	P	H
		10440	48.28	-25.72	74	32.48	38.72	12.58	35.5	125	230	P	V
		15660	46.42	-27.58	74	27.76	38.17	15.3	34.81	110	225	P	V
802.11a CH 48 5240MHz		10480	48.48	-25.52	74	32.54	38.79	12.64	35.49	149	289	P	H
		15720	47.08	-26.92	74	28.68	37.96	15.23	34.79	139	291	P	H
		10480	47.97	-26.03	74	32.03	38.79	12.64	35.49	149	289	P	V
		15720	47.53	-26.47	74	29.13	37.96	15.23	34.79	139	291	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 1 5150~5250MHz

WIFI 802.11n HT20 (Band Edge @ 3m)

WIFI Ant. 1+2	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
		5148.35	55.54	-18.46	74	51.1	31.72	8.53	35.81	150	290	P	H
		5148.2	40.03	-13.97	54	35.59	31.72	8.53	35.81	150	290	A	H
802.11n	*	5180	104.71	-	-	100.2	31.75	8.56	35.8	150	290	P	H
HT20	*	5180	94.75	-	-	90.24	31.75	8.56	35.8	150	290	A	H
CH 36		5147.75	53.7	-20.3	74	49.26	31.72	8.53	35.81	150	353	P	V
5180MHz		5150	38.38	-15.62	54	33.94	31.72	8.53	35.81	150	353	A	V
	*	5180	102.69	-	-	98.18	31.75	8.56	35.8	150	353	P	V
	*	5180	92.52	-	-	88.01	31.75	8.56	35.8	150	353	A	V
		5076.05	49.06	-24.94	74	44.77	31.67	8.46	35.84	150	290	P	H
		5148.35	36.12	-17.88	54	31.68	31.72	8.53	35.81	150	290	A	H
	*	5220	104.58	-	-	100.02	31.77	8.58	35.79	150	290	P	H
	*	5220	94.67	-	-	90.11	31.77	8.58	35.79	150	290	A	H
802.11n		5394.88	50.44	-23.56	74	45.52	31.92	8.73	35.73	150	290	P	H
HT20		5350.44	35.45	-18.55	54	30.6	31.88	8.71	35.74	150	290	A	H
CH 44		5149.55	49.6	-24.4	74	45.16	31.72	8.53	35.81	150	353	P	V
5220MHz		5147.15	35.32	-18.68	54	30.88	31.72	8.53	35.81	150	353	A	V
	*	5220	102.68	-	-	98.12	31.77	8.58	35.79	150	353	P	V
	*	5220	92.78	-	-	88.22	31.77	8.58	35.79	150	353	A	V
		5446.91	49.29	-24.71	74	44.26	31.96	8.78	35.71	150	353	P	V
		5375.08	35.3	-18.7	54	30.43	31.89	8.71	35.73	150	353	A	V

		5102.9	49.45	-24.55	74	45.12	31.68	8.48	35.83	150	290	P	H
		5136.5	34.86	-19.14	54	30.46	31.71	8.51	35.82	150	290	A	H
	*	5240	103.73	-	-	99.11	31.79	8.61	35.78	150	290	P	H
	*	5240	93.09	-	-	88.47	31.79	8.61	35.78	150	290	A	H
802.11n		5356.38	48.78	-25.22	74	43.93	31.88	8.71	35.74	150	290	P	H
HT20		5350.33	35.35	-18.65	54	30.5	31.88	8.71	35.74	150	290	A	H
CH 48		5069.75	48.14	-25.86	74	43.87	31.65	8.46	35.84	150	159	P	V
5240MHz		5138.15	34.47	-19.53	54	30.07	31.71	8.51	35.82	150	159	A	V
	*	5240	102.61	-	-	97.99	31.79	8.61	35.78	150	159	P	V
	*	5240	92.74	-	-	88.12	31.79	8.61	35.78	150	159	A	V
		5455.6	49.38	-24.62	74	44.34	31.96	8.78	35.7	150	159	P	V
		5374.31	35.06	-18.94	54	30.19	31.89	8.71	35.73	150	159	A	V

Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.

Band 1 5150~5250MHz

WIFI 802.11n HT20 (Harmonic @ 3m)

WIFI Ant. 1+2	Note	Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11n		10360	45.59	-28.41	74	29.97	38.62	12.52	35.52	152	260	P	H
HT20		15540	45.79	-28.21	74	26.66	38.54	15.44	34.85	189	238	P	H
CH 36		10360	45.24	-28.76	74	29.62	38.62	12.52	35.52	152	260	P	V
5180MHz		15540	45.48	-28.52	74	26.35	38.54	15.44	34.85	189	238	P	V
802.11n		10440	46.77	-27.23	74	30.97	38.72	12.58	35.5	125	230	P	H
HT20		15660	45.58	-28.42	74	26.92	38.17	15.3	34.81	110	225	P	H
CH 44		10440	45.82	-28.18	74	30.02	38.72	12.58	35.5	125	230	P	V
5220MHz		15660	44.94	-29.06	74	26.28	38.17	15.3	34.81	110	225	P	V
802.11n		10480	46.4	-27.6	74	30.46	38.79	12.64	35.49	149	289	P	H
HT20		15720	46.06	-27.94	74	27.66	37.96	15.23	34.79	139	291	P	H
CH 48		10480	45.47	-28.53	74	29.53	38.79	12.64	35.49	149	289	P	V
5240MHz		15720	44.84	-29.16	74	26.44	37.96	15.23	34.79	139	291	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 1 5150~5250MHz

WIFI 802.11n HT40 (Band Edge @ 3m)

WIFI Ant. 1+2	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
		5147.45	56.81	-17.19	74	52.37	31.72	8.53	35.81	150	294	P	H
		5147.6	41.25	-12.75	54	36.81	31.72	8.53	35.81	150	294	A	H
	*	5190	97.68	-	-	93.17	31.75	8.56	35.8	150	294	P	H
	*	5190	87.55	-	-	83.04	31.75	8.56	35.8	150	294	A	H
802.11n		5446.36	49.6	-24.4	74	44.57	31.96	8.78	35.71	150	294	P	H
HT40		5433.82	35.2	-18.8	54	30.2	31.95	8.76	35.71	150	294	A	H
CH 38		5146.55	56.49	-17.51	74	52.05	31.72	8.53	35.81	150	270	P	V
5190MHz		5146.85	41.51	-12.49	54	37.07	31.72	8.53	35.81	150	270	A	V
	*	5190	97.82	-	-	93.31	31.75	8.56	35.8	150	270	P	V
	*	5190	87.78	-	-	83.27	31.75	8.56	35.8	150	270	A	V
		5430.52	49.57	-24.43	74	44.57	31.95	8.76	35.71	150	270	P	V
		5432.06	35.2	-18.8	54	30.2	31.95	8.76	35.71	150	270	A	V
		5043.65	49.55	-24.45	74	45.33	31.64	8.43	35.85	150	290	P	H
		5149.85	35.37	-18.63	54	30.93	31.72	8.53	35.81	150	290	A	H
	*	5230	99.41	-	-	94.79	31.79	8.61	35.78	150	290	P	H
	*	5230	88.64	-	-	84.02	31.79	8.61	35.78	150	290	A	H
802.11n		5360.78	49.82	-24.18	74	44.96	31.89	8.71	35.74	150	290	P	H
HT40		5375.08	35.5	-18.5	54	30.63	31.89	8.71	35.73	150	290	A	H
CH 46		5120.15	48.66	-25.34	74	44.28	31.69	8.51	35.82	180	260	P	V
5230MHz		5084.75	35.2	-18.8	54	30.89	31.67	8.48	35.84	180	260	A	V
	*	5230	97.65	-	-	93.03	31.79	8.61	35.78	180	260	P	V
	*	5230	87.63	-	-	83.01	31.79	8.61	35.78	180	260	A	V
		5353.85	49.02	-24.98	74	44.17	31.88	8.71	35.74	180	260	P	V
		5374.64	35.47	-18.53	54	30.6	31.89	8.71	35.73	180	260	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 1 5150~5250MHz

WIFI 802.11n HT40 (Harmonic @ 3m)

WIFI Ant. 1+2	Note	Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11n		10380	49.05	-24.95	74	33.4	38.65	12.52	35.52	152	260	P	H
HT40		15570	42.29	-31.71	74	23.29	38.44	15.4	34.84	189	238	P	H
CH 38		10380	48	-26	74	32.35	38.65	12.52	35.52	152	260	P	V
5190MHz		15570	40.35	-33.65	74	21.35	38.44	15.4	34.84	189	238	P	V
802.11n		10460	49.7	-24.3	74	33.85	38.74	12.61	35.5	125	230	P	H
HT40		15690	41.11	-32.89	74	22.59	38.06	15.26	34.8	110	225	P	H
CH 46		10460	46.54	-27.46	74	30.69	38.74	12.61	35.5	125	230	P	V
5230MHz		15690	40.43	-33.57	74	21.91	38.06	15.26	34.8	110	225	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 1 5150~5250MHz

WIFI 802.11ac VHT20 (Band Edge @ 3m)

WIFI Ant. 1+2	Note	Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
		5149.25	50.89	-23.11	74	46.45	31.72	8.53	35.81	250	200	P	H
		5150	36.72	-17.28	54	32.28	31.72	8.53	35.81	250	200	A	H
802.11ac	*	5180	101.15	-	-	96.64	31.75	8.56	35.8	250	200	P	H
VHT20	*	5180	90.17	-	-	85.66	31.75	8.56	35.8	250	200	A	H
CH 36		5148.65	50.33	-23.67	74	45.89	31.72	8.53	35.81	243	266	P	V
5180MHz		5148.5	36.7	-17.3	54	32.26	31.72	8.53	35.81	243	266	A	V
	*	5180	99.5	-	-	94.99	31.75	8.56	35.8	243	266	P	V
	*	5180	88.85	-	-	84.34	31.75	8.56	35.8	243	266	A	V
		5077.1	48.63	-25.37	74	44.34	31.67	8.46	35.84	250	200	P	H
		5135.6	34.58	-19.42	54	30.18	31.71	8.51	35.82	250	200	A	H
	*	5220	100.56	-	-	96	31.77	8.58	35.79	250	200	P	H
	*	5220	89.81	-	-	85.25	31.77	8.58	35.79	250	200	A	H
802.11ac		5378.38	49.65	-24.35	74	44.76	31.91	8.71	35.73	250	200	P	H
VHT20		5374.53	35.13	-18.87	54	30.26	31.89	8.71	35.73	250	200	A	H
CH 44		5078.15	48.65	-25.35	74	44.36	31.67	8.46	35.84	243	266	P	V
5220MHz		5147.45	34.95	-19.05	54	30.51	31.72	8.53	35.81	243	266	A	V
	*	5220	100.36	-	-	95.8	31.77	8.58	35.79	243	266	P	V
	*	5220	89.72	-	-	85.16	31.77	8.58	35.79	243	266	A	V
		5410.72	49.45	-24.55	74	44.49	31.92	8.76	35.72	243	266	P	V
		5415.12	35.19	-18.81	54	30.22	31.93	8.76	35.72	243	266	A	V

		5007.5	48.5	-25.5	74	44.35	31.61	8.41	35.87	260	220	P	H
		5138	34.44	-19.56	54	30.04	31.71	8.51	35.82	260	220	A	H
	*	5240	100.19	-	-	95.57	31.79	8.61	35.78	260	220	P	H
	*	5240	89.1	-	-	84.48	31.79	8.61	35.78	260	220	A	H
802.11ac		5355.83	49.42	-24.58	74	44.57	31.88	8.71	35.74	260	220	P	H
VHT20		5374.75	35.05	-18.95	54	30.18	31.89	8.71	35.73	260	220	A	H
CH 48		5127.2	48.84	-25.16	74	44.44	31.71	8.51	35.82	244	266	P	V
5240MHz		5136.5	34.46	-19.54	54	30.06	31.71	8.51	35.82	244	266	A	V
	*	5240	100.06	-	-	95.44	31.79	8.61	35.78	244	266	P	V
	*	5240	89.28	-	-	84.66	31.79	8.61	35.78	244	266	A	V
		5416.88	49.85	-24.15	74	44.88	31.93	8.76	35.72	244	266	P	V
		5416.33	35.08	-18.92	54	30.11	31.93	8.76	35.72	244	266	A	V

Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.

Band 1 5150~5250MHz

WIFI 802.11ac VHT20 (Harmonic @ 3m)

WIFI Ant. 1+2	Note	Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11ac		10360	46.74	-27.26	74	31.12	38.62	12.52	35.52	152	260	P	H
VHT20		15540	46.06	-27.94	74	26.93	38.54	15.44	34.85	189	238	P	H
CH 36		10360	46.76	-27.24	74	31.14	38.62	12.52	35.52	152	260	P	V
5180MHz		15540	46.95	-27.05	74	27.82	38.54	15.44	34.85	189	238	P	V
802.11ac		10440	46.18	-27.82	74	30.38	38.72	12.58	35.5	125	230	P	H
VHT20		15660	45.67	-28.33	74	27.01	38.17	15.3	34.81	110	225	P	H
CH 44		10440	46.71	-27.29	74	30.91	38.72	12.58	35.5	125	230	P	V
5220MHz		15660	45.13	-28.87	74	26.47	38.17	15.3	34.81	110	225	P	V
802.11ac		10480	47.97	-26.03	74	32.03	38.79	12.64	35.49	149	289	P	H
VHT20		15720	43.77	-30.23	74	25.37	37.96	15.23	34.79	139	291	P	H
CH 48		10480	46.36	-27.64	74	30.42	38.79	12.64	35.49	149	289	P	V
5240MHz		15720	44.53	-29.47	74	26.13	37.96	15.23	34.79	139	291	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 1 5150~5250MHz

WIFI 802.11ac VHT40 (Band Edge @ 3m)

WIFI Ant. 1+2	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
		5146.25	52.52	-21.48	74	48.08	31.72	8.53	35.81	150	285	P	H
		5147.15	38.04	-15.96	54	33.6	31.72	8.53	35.81	150	285	A	H
	*	5190	95.33	-	-	90.82	31.75	8.56	35.8	150	285	P	H
	*	5190	85.7	-	-	81.19	31.75	8.56	35.8	150	285	A	H
802.11ac		5420.84	50.27	-23.73	74	45.3	31.93	8.76	35.72	150	285	P	H
VHT40		5416.77	35.47	-18.53	54	30.5	31.93	8.76	35.72	150	285	A	H
CH 38		5146.85	53.11	-20.89	74	48.67	31.72	8.53	35.81	150	355	P	V
5190MHz		5150	37.95	-16.05	54	33.51	31.72	8.53	35.81	150	355	A	V
	*	5190	94.72	-	-	90.21	31.75	8.56	35.8	150	355	P	V
	*	5190	84.83	-	-	80.32	31.75	8.56	35.8	150	355	A	V
		5356.71	49.2	-24.8	74	44.35	31.88	8.71	35.74	150	355	P	V
		5373.43	35.28	-18.72	54	30.41	31.89	8.71	35.73	150	355	A	V
		5104.7	48.57	-25.43	74	44.24	31.68	8.48	35.83	150	285	P	H
		5138.15	34.67	-19.33	54	30.27	31.71	8.51	35.82	150	285	A	H
	*	5230	94.83	-	-	90.21	31.79	8.61	35.78	150	285	P	H
	*	5230	85.08	-	-	80.46	31.79	8.61	35.78	150	285	A	H
802.11ac		5359.79	49.58	-24.42	74	44.73	31.88	8.71	35.74	150	285	P	H
VHT40		5374.53	35.34	-18.66	54	30.47	31.89	8.71	35.73	150	285	A	H
CH 46		5109.5	48.69	-25.31	74	44.35	31.69	8.48	35.83	230	255	P	V
5230MHz		5085.35	34.68	-19.32	54	30.37	31.67	8.48	35.84	230	255	A	V
	*	5230	95.92	-	-	91.3	31.79	8.61	35.78	230	255	P	V
	*	5230	86.17	-	-	81.55	31.79	8.61	35.78	230	255	A	V
		5376.95	49.22	-24.78	74	44.35	31.89	8.71	35.73	230	255	P	V
		5374.97	35.37	-18.63	54	30.5	31.89	8.71	35.73	230	255	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 1 5150~5250MHz

WIFI 802.11ac VHT40 (Harmonic @ 3m)

WIFI Ant. 1+2	Note	Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11ac		10380	46.78	-27.22	74	31.13	38.65	12.52	35.52	152	260	P	H
VHT40		15570	44.18	-29.82	74	25.18	38.44	15.4	34.84	189	238	P	H
CH 38		10380	45.75	-28.25	74	30.1	38.65	12.52	35.52	152	260	P	V
5190MHz		15570	47	-27	74	28	38.44	15.4	34.84	189	238	P	V
802.11ac		10460	47.81	-26.19	74	31.96	38.74	12.61	35.5	125	230	P	H
VHT40		15690	43.53	-30.47	74	25.01	38.06	15.26	34.8	110	225	P	H
CH 46		10460	45.97	-28.03	74	30.12	38.74	12.61	35.5	125	230	P	V
5230MHz		15690	46.36	-27.64	74	27.84	38.06	15.26	34.8	110	225	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 1 5150~5250MHz

WIFI 802.11ac VHT80 (Band Edge @ 3m)

WIFI Ant. 1+2	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11ac VHT80 CH 42 5210MHz		5144	56.94	-17.06	74	52.5	31.72	8.53	35.81	150	285	P	H
		5137.55	39.68	-14.32	54	35.28	31.71	8.51	35.82	150	285	A	H
	*	5210	92.03	-	-	87.47	31.77	8.58	35.79	150	285	P	H
	*	5210	81.9	-	-	77.34	31.77	8.58	35.79	150	285	A	H
		5368.15	49.26	-24.74	74	44.4	31.89	8.71	35.74	150	285	P	H
		5372.77	35.09	-18.91	54	30.23	31.89	8.71	35.74	150	285	A	H
		5138.75	56.46	-17.54	74	52.06	31.71	8.51	35.82	230	255	P	V
		5137.25	39.84	-14.16	54	35.44	31.71	8.51	35.82	230	255	A	V
	*	5210	92.91	-	-	88.35	31.77	8.58	35.79	230	255	P	V
	*	5210	82.88	-	-	78.32	31.77	8.58	35.79	230	255	A	V
		5362.76	48.72	-25.28	74	43.86	31.89	8.71	35.74	230	255	P	V
		5373.98	35.1	-18.9	54	30.23	31.89	8.71	35.73	230	255	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 1 5150~5250MHz

WIFI 802.11ac VHT80 (Harmonic @ 3m)

WIFI Ant. 1+2	Note	Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11ac		10420	47.34	-26.66	74	31.58	38.69	12.58	35.51	125	230	P	H
VHT80		15630	43.41	-30.59	74	24.67	38.22	15.33	34.81	110	225	P	H
CH 42		10420	45.61	-28.39	74	29.85	38.69	12.58	35.51	125	230	P	V
5210MHz		15630	46.06	-27.94	74	27.32	38.22	15.33	34.81	110	225	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

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+2		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11a CH 52 5260MHz		5009.9	48.65	-25.35	74	44.5	31.61	8.41	35.87	160	200	P	H
		5127.65	34.45	-19.55	54	30.05	31.71	8.51	35.82	160	200	A	H
	*	5260	104.33	-	-	99.67	31.81	8.63	35.78	160	200	P	H
	*	5260	94.9	-	-	90.24	31.81	8.63	35.78	160	200	A	H
		5448.78	49.11	-24.89	74	44.08	31.96	8.78	35.71	160	200	P	H
		5416.55	35.02	-18.98	54	30.05	31.93	8.76	35.72	160	200	A	H
		5127.8	48.91	-25.09	74	44.51	31.71	8.51	35.82	150	230	P	V
		5139.35	34.56	-19.44	54	30.16	31.71	8.51	35.82	150	230	A	V
	*	5260	104.57	-	-	99.91	31.81	8.63	35.78	150	230	P	V
	*	5260	94.67	-	-	90.01	31.81	8.63	35.78	150	230	A	V
		5446.03	49.23	-24.77	74	44.2	31.96	8.78	35.71	150	230	P	V
		5415.78	35.02	-18.98	54	30.05	31.93	8.76	35.72	150	230	A	V
802.11a CH 60 5300MHz		5107.1	48.77	-25.23	74	44.43	31.69	8.48	35.83	160	220	P	H
		5125.55	34.54	-19.46	54	30.14	31.71	8.51	35.82	160	220	A	H
	*	5300	103.55	-	-	98.81	31.84	8.66	35.76	160	220	P	H
	*	5300	93.61	-	-	88.87	31.84	8.66	35.76	160	220	A	H
		5389.71	49.47	-24.53	74	44.56	31.91	8.73	35.73	160	220	P	H
		5372.55	36.22	-17.78	54	31.36	31.89	8.71	35.74	160	220	A	H
		5134.85	48.51	-25.49	74	44.11	31.71	8.51	35.82	150	230	P	V
		5126.45	34.7	-19.3	54	30.3	31.71	8.51	35.82	150	230	A	V
	*	5300	103.88	-	-	99.14	31.84	8.66	35.76	150	230	P	V
	*	5300	94.61	-	-	89.87	31.84	8.66	35.76	150	230	A	V
		5366.94	49.28	-24.72	74	44.42	31.89	8.71	35.74	150	230	P	V
		5374.86	35.89	-18.11	54	31.02	31.89	8.71	35.73	150	230	A	V

802.11a CH 64 5320MHz	*	5320	103.27	-	-	98.5	31.85	8.68	35.76	160	220	P	H
	*	5320	94.65	-	-	89.88	31.85	8.68	35.76	160	220	A	H
		5353.96	53.3	-20.7	74	48.45	31.88	8.71	35.74	160	220	P	H
		5353.52	38.92	-15.08	54	34.07	31.88	8.71	35.74	160	220	A	H
	*	5320	104.13	-	-	99.36	31.85	8.68	35.76	150	230	P	V
	*	5320	91.55	-	-	86.78	31.85	8.68	35.76	150	230	A	V
		5350.33	55.91	-18.09	74	51.06	31.88	8.71	35.74	150	230	P	V
		5350	40.67	-13.33	54	35.82	31.88	8.71	35.74	150	230	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 2 5250~5350MHz

WIFI 802.11a (Harmonic @ 3m)

WIFI Ant. 1+2	Note	Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11a CH 52 5260MHz		10520	48.55	-25.45	74	32.53	38.84	12.66	35.48	110	220	P	H
		15780	47.66	-26.34	74	29.48	37.79	15.16	34.77	109	345	P	H
		10520	47.01	-26.99	74	30.99	38.84	12.66	35.48	110	220	P	V
		15780	47.2	-26.8	74	29.02	37.79	15.16	34.77	109	345	P	V
802.11a CH 60 5300MHz		10600	47.97	-26.03	74	31.73	38.95	12.75	35.46	185	215	P	H
		15900	48.94	-25.06	74	31.23	37.42	15.02	34.73	196	190	P	H
		10600	48.35	-25.65	74	32.11	38.95	12.75	35.46	185	215	P	V
		15900	47.32	-26.68	74	29.61	37.42	15.02	34.73	196	190	P	V
802.11a CH 64 5320MHz		10640	47.86	-26.14	74	31.53	39	12.78	35.45	152	135	P	H
		15960	46.83	-27.17	74	29.38	37.21	14.95	34.71	173	245	P	H
		10640	47.45	-26.55	74	31.12	39	12.78	35.45	152	135	P	V
		15960	46.03	-27.97	74	28.58	37.21	14.95	34.71	173	245	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 2 5250~5350MHz

WIFI 802.11n HT20 (Band Edge @ 3m)

WIFI Ant. 1+2	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
		5131.55	49.13	-24.87	74	44.73	31.71	8.51	35.82	150	290	P	H
		5137.1	34.66	-19.34	54	30.26	31.71	8.51	35.82	150	290	A	H
	*	5260	102.87	-	-	98.21	31.81	8.63	35.78	150	290	P	H
	*	5260	93.01	-	-	88.35	31.81	8.63	35.78	150	290	A	H
802.11n		5374.86	49.47	-24.53	74	44.6	31.89	8.71	35.73	150	290	P	H
HT20		5350.22	35.19	-18.81	54	30.34	31.88	8.71	35.74	150	290	A	H
CH 52		5131.1	48.98	-25.02	74	44.58	31.71	8.51	35.82	150	94	P	V
5260MHz		5137.25	34.44	-19.56	54	30.04	31.71	8.51	35.82	150	94	A	V
	*	5260	101.8	-	-	97.14	31.81	8.63	35.78	150	94	P	V
	*	5260	92.21	-	-	87.55	31.81	8.63	35.78	150	94	A	V
		5369.36	48.91	-25.09	74	44.05	31.89	8.71	35.74	150	94	P	V
		5373.21	35.09	-18.91	54	30.23	31.89	8.71	35.74	150	94	A	V
		5064.35	48.88	-25.12	74	44.62	31.65	8.46	35.85	150	290	P	H
		5138.15	34.68	-19.32	54	30.28	31.71	8.51	35.82	150	290	A	H
	*	5300	102.87	-	-	98.13	31.84	8.66	35.76	150	290	P	H
	*	5300	92.89	-	-	88.15	31.84	8.66	35.76	150	290	A	H
802.11n		5439.32	49.67	-24.33	74	44.67	31.95	8.76	35.71	150	290	P	H
HT20		5371.89	36.81	-17.19	54	31.95	31.89	8.71	35.74	150	290	A	H
CH 60		5073.05	48.7	-25.3	74	44.41	31.67	8.46	35.84	150	95	P	V
5300MHz		5137.7	34.43	-19.57	54	30.03	31.71	8.51	35.82	150	95	A	V
	*	5300	101.85	-	-	97.11	31.84	8.66	35.76	150	95	P	V
	*	5300	91.76	-	-	87.02	31.84	8.66	35.76	150	95	A	V
		5356.82	49.52	-24.48	74	44.67	31.88	8.71	35.74	150	95	P	V
		5372.22	35.75	-18.25	54	30.89	31.89	8.71	35.74	150	95	A	V

802.11n HT20 CH 64 5320MHz	*	5320	103.08	-	-	98.31	31.85	8.68	35.76	150	290	P	H
	*	5320	93.02	-	-	88.25	31.85	8.68	35.76	150	290	A	H
		5352.09	52.75	-21.25	74	47.9	31.88	8.71	35.74	150	290	P	H
		5351.54	39.74	-14.26	54	34.89	31.88	8.71	35.74	150	290	A	H
	*	5320	101.01	-	-	96.24	31.85	8.68	35.76	150	95	P	V
	*	5320	91.03	-	-	86.26	31.85	8.68	35.76	150	95	A	V
		5353.52	51.93	-22.07	74	47.08	31.88	8.71	35.74	150	95	P	V
		5350	37.95	-16.05	54	33.1	31.88	8.71	35.74	150	95	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 2 5250~5350MHz

WIFI 802.11n HT20 (Harmonic @ 3m)

WIFI Ant. 1+2	Note	Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11n		10520	45.31	-28.69	74	29.29	38.84	12.66	35.48	110	220	P	H
HT20		15780	45.74	-28.26	74	27.56	37.79	15.16	34.77	109	345	P	H
CH 52		10520	45.45	-28.55	74	29.43	38.84	12.66	35.48	110	220	P	V
5260MHz		15780	44.52	-29.48	74	26.34	37.79	15.16	34.77	109	345	P	V
802.11n		10600	45.39	-28.61	74	29.15	38.95	12.75	35.46	185	215	P	H
HT20		15900	45.09	-28.91	74	27.38	37.42	15.02	34.73	196	190	P	H
CH 60		10600	45.72	-28.28	74	29.48	38.95	12.75	35.46	185	215	P	V
5300MHz		15900	44.83	-29.17	74	27.12	37.42	15.02	34.73	196	190	P	V
802.11n		10640	44.9	-29.1	74	28.57	39	12.78	35.45	152	135	P	H
HT20		15960	46.29	-27.71	74	28.84	37.21	14.95	34.71	173	245	P	H
CH 64		10640	45.03	-28.97	74	28.7	39	12.78	35.45	152	135	P	V
5320MHz		15960	43.94	-30.06	74	26.49	37.21	14.95	34.71	173	245	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 2 5250~5350MHz

WIFI 802.11n HT40 (Band Edge @ 3m)

WIFI Ant. 1+2	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11n HT40 CH 54 5270MHz		5055.95	48.8	-25.2	74	44.54	31.65	8.46	35.85	150	153	P	H
		5126.15	35.2	-18.8	54	30.8	31.71	8.51	35.82	150	153	A	H
	*	5270	96.83	-	-	92.17	31.81	8.63	35.78	150	153	P	H
	*	5270	86.77	-	-	82.11	31.81	8.63	35.78	150	153	A	H
		5442.4	48.98	-25.02	74	43.96	31.95	8.78	35.71	150	153	P	H
		5413.25	35.18	-18.82	54	30.21	31.93	8.76	35.72	150	153	A	H
		5127.95	49.08	-24.92	74	44.68	31.71	8.51	35.82	150	260	P	V
		5127.05	35.38	-18.62	54	30.98	31.71	8.51	35.82	150	260	A	V
	*	5270	97.67	-	-	93.01	31.81	8.63	35.78	150	260	P	V
	*	5270	87.08	-	-	82.42	31.81	8.63	35.78	150	260	A	V
		5400.49	49.34	-24.66	74	44.41	31.92	8.73	35.72	150	260	P	V
		5350.22	35.41	-18.59	54	30.56	31.88	8.71	35.74	150	260	A	V
802.11n HT40 CH 62 5310MHz		5087.15	48.81	-25.19	74	44.5	31.67	8.48	35.84	150	300	P	H
		5126.75	34.45	-19.55	54	30.05	31.71	8.51	35.82	150	300	A	H
	*	5310	96.41	-	-	91.66	31.85	8.66	35.76	150	300	P	H
	*	5310	85.98	-	-	81.23	31.85	8.66	35.76	150	300	A	H
		5353.41	52.24	-21.76	74	47.39	31.88	8.71	35.74	150	300	P	H
		5353.96	38.1	-15.9	54	33.25	31.88	8.71	35.74	150	300	A	H
		5024.3	48.78	-25.22	74	44.58	31.63	8.43	35.86	153	260	P	V
		5102.45	34.57	-19.43	54	30.24	31.68	8.48	35.83	153	260	A	V
	*	5310	97.52	-	-	92.77	31.85	8.66	35.76	153	260	P	V
	*	5310	86.76	-	-	82.01	31.85	8.66	35.76	153	260	A	V
		5351.54	53.82	-20.18	74	48.97	31.88	8.71	35.74	153	260	P	V
		5352.53	39.44	-14.56	54	34.59	31.88	8.71	35.74	153	260	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 2 5250~5350MHz

WIFI 802.11n HT40 (Harmonic @ 3m)

WIFI Ant. 1+2	Note	Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11n		10540	46.96	-27.04	74	30.88	38.86	12.69	35.47	110	220	P	H
HT40		15810	40.25	-33.75	74	22.2	37.69	15.12	34.76	109	345	P	H
CH 54		10540	46.62	-27.38	74	30.54	38.86	12.69	35.47	110	220	P	V
5270MHz		15810	41.44	-32.56	74	23.39	37.69	15.12	34.76	109	345	P	V
802.11n		10620	47.53	-26.47	74	31.25	38.98	12.75	35.45	185	215	P	H
HT40		15930	41.37	-32.63	74	23.8	37.31	14.98	34.72	196	190	P	H
CH 62		10620	46.41	-27.59	74	30.13	38.98	12.75	35.45	185	215	P	V
5310MHz		15930	42.67	-31.33	74	25.1	37.31	14.98	34.72	196	190	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 2 5250~5350MHz

WIFI 802.11ac VHT20 (Band Edge @ 3m)

WIFI Ant. 1+2	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
		5026.55	48.44	-25.56	74	44.24	31.63	8.43	35.86	260	220	P	H
		5137.4	34.41	-19.59	54	30.01	31.71	8.51	35.82	260	220	A	H
	*	5260	98.78	-	-	94.12	31.81	8.63	35.78	260	220	P	H
	*	5260	88.26	-	-	83.6	31.81	8.63	35.78	260	220	A	H
802.11ac		5373.76	49.72	-24.28	74	44.85	31.89	8.71	35.73	260	220	P	H
VHT20		5375.3	35.06	-18.94	54	30.19	31.89	8.71	35.73	260	220	A	H
CH 52		5140.85	48.91	-25.09	74	44.48	31.72	8.53	35.82	230	262	P	V
5260MHz		5137.1	34.46	-19.54	54	30.06	31.71	8.51	35.82	230	262	A	V
	*	5260	99.45	-	-	94.79	31.81	8.63	35.78	230	262	P	V
	*	5260	88.79	-	-	84.13	31.81	8.63	35.78	230	262	A	V
		5458.24	49.06	-24.94	74	44.02	31.96	8.78	35.7	230	262	P	V
		5373.32	35.08	-18.92	54	30.21	31.89	8.71	35.73	230	262	A	V
		5007.2	48.89	-25.11	74	44.74	31.61	8.41	35.87	265	178	P	H
		5136.05	34.3	-19.7	54	29.9	31.71	8.51	35.82	265	178	A	H
	*	5300	98.85	-	-	94.11	31.84	8.66	35.76	265	178	P	H
	*	5300	87.8	-	-	83.06	31.84	8.66	35.76	265	178	A	H
802.11ac		5402.58	48.97	-25.03	74	44.04	31.92	8.73	35.72	265	178	P	H
VHT20		5371.56	35.66	-18.34	54	30.8	31.89	8.71	35.74	265	178	A	H
CH 60		5111.15	49.08	-24.92	74	44.71	31.69	8.51	35.83	244	266	P	V
5300MHz		5137.4	34.45	-19.55	54	30.05	31.71	8.51	35.82	244	266	A	V
	*	5300	100.09	-	-	95.35	31.84	8.66	35.76	244	266	P	V
	*	5300	89	-	-	84.26	31.84	8.66	35.76	244	266	A	V
		5393.23	49.42	-24.58	74	44.51	31.91	8.73	35.73	244	266	P	V
		5372.33	35.88	-18.12	54	31.02	31.89	8.71	35.74	244	266	A	V

802.11ac VHT20 CH 64 5320MHz	*	5320	99.68	-	-	94.91	31.85	8.68	35.76	342	202	P	H
	*	5320	88.93	-	-	84.16	31.85	8.68	35.76	342	202	A	H
		5354.07	50.23	-23.77	74	45.38	31.88	8.71	35.74	342	202	P	H
		5353.63	36.76	-17.24	54	31.91	31.88	8.71	35.74	342	202	A	H
	*	5320	98.91	-	-	94.14	31.85	8.68	35.76	231	266	P	V
	*	5320	88.23	-	-	83.46	31.85	8.68	35.76	231	266	A	V
		5351.98	49.82	-24.18	74	44.97	31.88	8.71	35.74	231	266	P	V
		5350.33	36.77	-17.23	54	31.92	31.88	8.71	35.74	231	266	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 2 5250~5350MHz

WIFI 802.11ac VHT20 (Harmonic @ 3m)

WIFI Ant. 1+2	Note	Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11ac		10520	45.8	-28.2	74	29.78	38.84	12.66	35.48	110	220	P	H
VHT20		15780	45.25	-28.75	74	27.07	37.79	15.16	34.77	109	345	P	H
CH 52		10520	45.97	-28.03	74	29.95	38.84	12.66	35.48	110	220	P	V
5260MHz		15780	44.14	-29.86	74	25.96	37.79	15.16	34.77	109	345	P	V
802.11ac		10600	45.9	-28.1	74	29.66	38.95	12.75	35.46	185	215	P	H
VHT20		15900	44.23	-29.77	74	26.52	37.42	15.02	34.73	196	190	P	H
CH 60		10600	46.43	-27.57	74	30.19	38.95	12.75	35.46	185	215	P	V
5300MHz		15900	44.48	-29.52	74	26.77	37.42	15.02	34.73	196	190	P	V
802.11ac		10640	45.78	-28.22	74	29.45	39	12.78	35.45	152	135	P	H
VHT20		15960	44.57	-29.43	74	27.12	37.21	14.95	34.71	173	245	P	H
CH 64		10640	45.39	-28.61	74	29.06	39	12.78	35.45	152	135	P	V
5320MHz		15960	43.25	-30.75	74	25.8	37.21	14.95	34.71	173	245	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 2 5250~5350MHz

WIFI 802.11ac VHT40 (Band Edge @ 3m)

WIFI Ant. 1+2	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
		5126.6	49.48	-24.52	74	45.08	31.71	8.51	35.82	152	293	P	H
		5125.55	34.73	-19.27	54	30.33	31.71	8.51	35.82	150	293	A	H
	*	5270	96.48	-	-	91.82	31.81	8.63	35.78	150	293	P	H
	*	5270	86.2	-	-	81.54	31.81	8.63	35.78	150	293	A	H
802.11ac		5352.97	49.05	-24.95	74	44.2	31.88	8.71	35.74	150	293	P	H
VHT40		5350.33	35.29	-18.71	54	30.44	31.88	8.71	35.74	150	293	A	H
CH 54		5101.1	48.58	-25.42	74	44.25	31.68	8.48	35.83	230	255	P	V
5270MHz		5125.55	34.66	-19.34	54	30.26	31.71	8.51	35.82	230	255	A	V
	*	5270	96.13	-	-	91.47	31.81	8.63	35.78	230	255	P	V
	*	5270	86.02	-	-	81.36	31.81	8.63	35.78	230	255	A	V
		5350.33	49.75	-24.25	74	44.9	31.88	8.71	35.74	230	255	P	V
		5350.22	35.24	-18.76	54	30.39	31.88	8.71	35.74	230	255	A	V
		5101.7	49.16	-24.84	74	44.83	31.68	8.48	35.83	150	289	P	H
		5137.1	34.47	-19.53	54	30.07	31.71	8.51	35.82	150	289	A	H
	*	5310	96.04	-	-	91.29	31.85	8.66	35.76	150	289	P	H
	*	5310	86	-	-	81.25	31.85	8.66	35.76	150	289	A	H
802.11ac		5361.44	52.24	-21.76	74	47.38	31.89	8.71	35.74	150	289	P	H
VHT40		5352.97	37.51	-16.49	54	32.66	31.88	8.71	35.74	150	289	A	H
CH 62		5101.85	48.38	-25.62	74	44.05	31.68	8.48	35.83	230	255	P	V
5310MHz		5137.1	34.45	-19.55	54	30.05	31.71	8.51	35.82	230	255	A	V
	*	5310	95.13	-	-	90.38	31.85	8.66	35.76	230	255	P	V
	*	5310	84.98	-	-	80.23	31.85	8.66	35.76	230	255	A	V
		5353.52	52.42	-21.58	74	47.57	31.88	8.71	35.74	230	255	P	V
		5352.75	37.34	-16.66	54	32.49	31.88	8.71	35.74	230	255	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 2 5250~5350MHz

WIFI 802.11ac VHT40 (Harmonic @ 3m)

WIFI Ant. 1+2	Note	Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11ac		10540	45.6	-28.4	74	29.52	38.86	12.69	35.47	110	220	P	H
VHT40		15810	43.75	-30.25	74	25.7	37.69	15.12	34.76	109	345	P	H
CH 54		10540	46.21	-27.79	74	30.13	38.86	12.69	35.47	110	220	P	V
5270MHz		15810	44.61	-29.39	74	26.56	37.69	15.12	34.76	109	345	P	V
802.11ac		10620	45.99	-28.01	74	29.71	38.98	12.75	35.45	185	215	P	H
VHT40		15930	43.25	-30.75	74	25.68	37.31	14.98	34.72	196	190	P	H
CH 62		10620	45.74	-28.26	74	29.46	38.98	12.75	35.45	185	215	P	V
5310MHz		15930	44.83	-29.17	74	27.26	37.31	14.98	34.72	196	190	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 2 5250~5350MHz

WIFI 802.11ac VHT80 (Band Edge @ 3m)

WIFI Ant. 1+2	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11ac VHT80 CH 58 5290MHz		5114.75	48.93	-25.07	74	44.56	31.69	8.51	35.83	150	285	P	H
		5138.45	34.45	-19.55	54	30.05	31.71	8.51	35.82	150	285	A	H
	*	5290	91.68	-	-	86.96	31.83	8.66	35.77	150	285	P	H
	*	5290	81.61	-	-	76.89	31.83	8.66	35.77	150	285	A	H
		5366.06	58.86	-15.14	74	54	31.89	8.71	35.74	150	285	P	H
		5360.56	40.58	-13.42	54	35.72	31.89	8.71	35.74	150	285	A	H
		5062.85	49.3	-24.7	74	45.04	31.65	8.46	35.85	230	255	P	V
		5137.55	34.44	-19.56	54	30.04	31.71	8.51	35.82	230	255	A	V
	*	5290	92.95	-	-	88.23	31.83	8.66	35.77	230	255	P	V
	*	5290	83.04	-	-	78.32	31.83	8.66	35.77	230	255	A	V
		5366.17	57.89	-16.11	74	53.03	31.89	8.71	35.74	230	255	P	V
		5360.34	41.59	-12.41	54	36.74	31.88	8.71	35.74	230	255	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 2 5250~5350MHz

WIFI 802.11ac VHT80 (Harmonic @ 3m)

WIFI Ant. 1+2	Note	Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11ac		10580	46.21	-27.79	74	30.02	38.93	12.72	35.46	185	215	P	H
VHT80		15870	43.85	-30.15	74	26.07	37.47	15.05	34.74	196	190	P	H
CH 58		10580	46.16	-27.84	74	29.97	38.93	12.72	35.46	185	215	P	V
5290MHz		15870	45.09	-28.91	74	27.31	37.47	15.05	34.74	196	190	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

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.				Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
1+2		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11a CH 100 5500MHz		5467.76	53.95	-20.05	74	48.9	31.97	8.78	35.7	160	200	P	H
		5468.72	40.3	-13.7	54	35.25	31.97	8.78	35.7	160	200	A	H
	*	5500	103.58	-	-	98.44	32	8.83	35.69	160	200	P	H
	*	5500	93.56	-	-	88.42	32	8.83	35.69	160	200	A	H
		5469.04	52.92	-21.08	74	47.87	31.97	8.78	35.7	150	230	P	V
		5470	39.19	-14.81	54	34.11	31.97	8.81	35.7	150	230	A	V
	*	5500	100.97	-	-	95.83	32	8.83	35.69	150	230	P	V
	*	5500	91.24	-	-	86.1	32	8.83	35.69	150	230	A	V
802.11a CH 116 5580MHz		5466.8	49.67	-24.33	74	44.62	31.97	8.78	35.7	160	200	P	H
		5458.64	35.5	-18.5	54	30.46	31.96	8.78	35.7	160	200	A	H
	*	5580	106.62	-	-	101.28	32.11	8.88	35.65	160	200	P	H
	*	5580	96.79	-	-	91.45	32.11	8.88	35.65	160	200	A	H
		5762.44	50.56	-23.44	74	44.73	32.41	9.01	35.59	160	200	P	H
		5761	36.13	-17.87	54	30.3	32.41	9.01	35.59	160	200	A	H
		5374.64	50.04	-23.96	74	45.17	31.89	8.71	35.73	150	230	P	V
		5350.96	35.43	-18.57	54	30.58	31.88	8.71	35.74	150	230	A	V
	*	5580	102.37	-	-	97.03	32.11	8.88	35.65	150	230	P	V
	*	5580	91.64	-	-	86.3	32.11	8.88	35.65	150	230	A	V
		5750.36	49.27	-24.73	74	43.46	32.39	9.01	35.59	150	230	P	V
		5763.48	35.75	-18.25	54	29.92	32.41	9.01	35.59	150	230	A	V

802.11a CH 140 5700MHz	*	5700	104.94	-	-	99.28	32.3	8.97	35.61	160	200	P	H
	*	5700	94.9	-	-	89.24	32.3	8.97	35.61	160	200	A	H
		5726.52	57.55	-16.45	74	51.8	32.36	8.99	35.6	160	200	P	H
		5727.08	42.31	-11.69	54	36.56	32.36	8.99	35.6	160	200	A	H
	*	5700	99.99	-	-	94.33	32.3	8.97	35.61	150	230	P	V
	*	5700	87.1	-	-	81.44	32.3	8.97	35.61	150	230	A	V
		5726.12	55.96	-18.04	74	50.21	32.36	8.99	35.6	150	230	P	V
		5726.84	39.19	-14.81	54	33.44	32.36	8.99	35.6	150	230	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 3 - 5470~5725MHz

WIFI 802.11a (Harmonic @ 3m)

WIFI Ant. 1+2	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11a CH 100 5500MHz		11000	48.53	-25.47	74	31.26	39.5	13.12	35.35	163	230	P	H
		16500	47.32	-26.68	74	28.13	38.47	15.43	34.71	178	296	P	H
		11000	48.65	-25.35	74	31.38	39.5	13.12	35.35	163	230	P	V
		16500	48.93	-25.07	74	29.74	38.47	15.43	34.71	178	296	P	V
802.11a CH 116 5580MHz		11160	47.49	-26.51	74	30.25	39.35	13.2	35.31	170	200	P	H
		16740	48.76	-25.24	74	28.68	39.11	15.68	34.71	156	350	P	H
		11160	48.61	-25.39	74	31.37	39.35	13.2	35.31	170	200	P	V
		16740	49.97	-24.03	74	29.89	39.11	15.68	34.71	156	350	P	V
802.11a CH 140 5700MHz		11400	48.08	-25.92	74	30.86	39.13	13.33	35.24	147	285	P	H
		17100	48.72	-25.28	74	26.81	40.48	16.14	34.71	165	246	P	H
		11400	47.84	-26.16	74	30.62	39.13	13.33	35.24	147	285	P	V
		17100	48.04	-25.96	74	26.13	40.48	16.14	34.71	165	246	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 3 - 5470~5725MHz

WIFI 802.11n HT20 (Band Edge @ 3m)

WIFI Ant. 1+2	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
		5466.96	51.2	-22.8	74	46.15	31.97	8.78	35.7	164	289	P	H
		5470	38.08	-15.92	54	33	31.97	8.81	35.7	164	289	A	H
802.11n	*	5500	101.92	-	-	96.78	32	8.83	35.69	164	289	P	H
HT20	*	5500	91.4	-	-	86.26	32	8.83	35.69	164	289	A	H
CH 100		5468.24	51.89	-22.11	74	46.84	31.97	8.78	35.7	150	272	P	V
5500MHz		5468.72	37.73	-16.27	54	32.68	31.97	8.78	35.7	150	272	A	V
	*	5500	100.62	-	-	95.48	32	8.83	35.69	150	272	P	V
	*	5500	90.37	-	-	85.23	32	8.83	35.69	150	272	A	V
		5417.68	48.91	-25.09	74	43.94	31.93	8.76	35.72	150	290	P	H
		5374.96	35.02	-18.98	54	30.15	31.89	8.71	35.73	150	290	A	H
	*	5580	101.44	-	-	96.1	32.11	8.88	35.65	150	290	P	H
	*	5580	90.88	-	-	85.54	32.11	8.88	35.65	150	290	A	H
802.11n		5742.04	50.15	-23.85	74	44.34	32.39	9.01	35.59	150	290	P	H
HT20		5750.68	35.57	-18.43	54	29.76	32.39	9.01	35.59	150	290	A	H
CH 116		5390.96	48.85	-25.15	74	43.94	31.91	8.73	35.73	150	270	P	V
5580MHz		5418.32	35.02	-18.98	54	30.05	31.93	8.76	35.72	150	270	A	V
	*	5580	99.58	-	-	94.24	32.11	8.88	35.65	150	270	P	V
	*	5580	89.68	-	-	84.34	32.11	8.88	35.65	150	270	A	V
		5725	49.42	-24.58	74	43.67	32.36	8.99	35.6	150	270	P	V
		5760.76	35.53	-18.47	54	29.7	32.41	9.01	35.59	150	270	A	V

802.11n HT20 CH 140 5700MHz	*	5700	102.99	-	-	97.33	32.3	8.97	35.61	150	178	P	H
	*	5700	92.81	-	-	87.15	32.3	8.97	35.61	150	178	A	H
		5731.56	57.28	-16.72	74	51.52	32.36	8.99	35.59	150	178	P	H
		5726.04	41.75	-12.25	54	36	32.36	8.99	35.6	150	178	A	H
	*	5700	98.75	-	-	93.09	32.3	8.97	35.61	150	206	P	V
	*	5700	88.86	-	-	83.2	32.3	8.97	35.61	150	206	A	V
		5725.8	52.79	-21.21	74	47.04	32.36	8.99	35.6	150	206	P	V
		5725.88	38.84	-15.16	54	33.09	32.36	8.99	35.6	150	206	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 3 - 5470~5725MHz

WIFI 802.11n HT20 (Harmonic @ 3m)

WIFI Ant. 1+2	Note	Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11n		11000	46.1	-27.9	74	28.83	39.5	13.12	35.35	163	230	P	H
HT20		16500	45.85	-28.15	74	26.66	38.47	15.43	34.71	178	296	P	H
CH 100		11000	46.35	-27.65	74	29.08	39.5	13.12	35.35	163	230	P	V
5500MHz		16500	45.18	-28.82	74	25.99	38.47	15.43	34.71	178	296	P	V
802.11n		11160	46.45	-27.55	74	29.21	39.35	13.2	35.31	170	200	P	H
HT20		16740	46.72	-27.28	74	26.64	39.11	15.68	34.71	156	350	P	H
CH 116		11160	44.69	-29.31	74	27.45	39.35	13.2	35.31	170	200	P	V
5580MHz		16740	46.28	-27.72	74	26.2	39.11	15.68	34.71	156	350	P	V
802.11n		11400	46.45	-27.55	74	29.23	39.13	13.33	35.24	147	285	P	H
HT20		17100	46.61	-27.39	74	24.7	40.48	16.14	34.71	165	246	P	H
CH 140		11400	47.12	-26.88	74	29.9	39.13	13.33	35.24	147	285	P	V
5700MHz		17100	47.12	-26.88	74	25.21	40.48	16.14	34.71	165	246	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 3 - 5470~5725MHz

WIFI 802.11n HT40 (Band Edge @ 3m)

WIFI Ant. 1+2	Note	Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11n HT40 CH 102 5510MHz		5465.04	49.62	-24.38	74	44.57	31.97	8.78	35.7	199	230	P	H
		5470	36.84	-17.16	54	31.76	31.97	8.81	35.7	199	230	A	H
	*	5510	93.95	-	-	88.8	32	8.83	35.68	199	230	P	H
	*	5510	85.37	-	-	80.22	32	8.83	35.68	199	230	A	H
		5736.52	49.48	-24.52	74	43.69	32.39	8.99	35.59	199	230	P	H
		5763.24	35.73	-18.27	54	29.9	32.41	9.01	35.59	199	230	A	H
		5467.12	54.91	-19.09	74	49.86	31.97	8.78	35.7	187	259	P	V
		5467.76	39.15	-14.85	54	34.1	31.97	8.78	35.7	187	259	A	V
	*	5510	95.24	-	-	90.09	32	8.83	35.68	187	259	P	V
	*	5510	85.27	-	-	80.12	32	8.83	35.68	187	259	A	V
		5743.32	49.47	-24.53	74	43.66	32.39	9.01	35.59	187	259	P	V
		5762.92	35.74	-18.26	54	29.91	32.41	9.01	35.59	187	259	A	V
802.11n HT40 CH 134 5670MHz		5399.92	48.69	-25.31	74	43.76	31.92	8.73	35.72	150	290	P	H
		5436.24	35.13	-18.87	54	30.13	31.95	8.76	35.71	150	290	A	H
	*	5670	95.71	-	-	90.11	32.28	8.94	35.62	150	290	P	H
	*	5670	85.72	-	-	80.12	32.28	8.94	35.62	150	290	A	H
		5738.28	50.61	-23.39	74	44.82	32.39	8.99	35.59	150	290	P	H
		5725	36.58	-17.42	54	30.83	32.36	8.99	35.6	150	290	A	H
		5437.2	49.56	-24.44	74	44.56	31.95	8.76	35.71	150	265	P	V
		5458.8	35.08	-18.92	54	30.04	31.96	8.78	35.7	150	265	A	V
	*	5670	91.83	-	-	86.23	32.28	8.94	35.62	150	265	P	V
	*	5670	83.83	-	-	78.23	32.28	8.94	35.62	150	265	A	V
		5743.72	49.29	-24.71	74	43.48	32.39	9.01	35.59	150	265	P	V
		5736.36	35.94	-18.06	54	30.15	32.39	8.99	35.59	150	265	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 3 - 5470~5725MHz

WIFI 802.11n HT40 (Harmonic @ 3m)

WIFI Ant. 1+2	Note	Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11n		11020	48.46	-25.54	74	31.18	39.48	13.14	35.34	163	230	P	H
HT40		16530	41.5	-32.5	74	22.19	38.56	15.46	34.71	178	296	P	H
CH 102		11020	48.76	-25.24	74	31.48	39.48	13.14	35.34	163	230	P	V
5510MHz		16530	42.08	-31.92	74	22.77	38.56	15.46	34.71	178	296	P	V
802.11n		11340	49.54	-24.46	74	32.31	39.19	13.3	35.26	170	200	P	H
HT40		17010	42.37	-31.63	74	21.19	39.91	15.98	34.71	156	350	P	H
CH 134		11340	48.23	-25.77	74	31	39.19	13.3	35.26	170	200	P	V
5670MHz		17010	41.46	-32.54	74	20.28	39.91	15.98	34.71	156	350	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 3 - 5470~5725MHz

WIFI 802.11ac VHT20 (Band Edge @ 3m)

WIFI Ant. 1+2	Note	Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
		5467.76	49.39	-24.61	74	44.34	31.97	8.78	35.7	323	179	P	H
		5466.64	36.43	-17.57	54	31.38	31.97	8.78	35.7	323	179	A	H
802.11ac	*	5500	99.72	-	-	94.58	32	8.83	35.69	323	179	P	H
VHT20	*	5500	88.73	-	-	83.59	32	8.83	35.69	323	179	A	H
CH 100		5399.6	49	-25	74	44.07	31.92	8.73	35.72	245	266	P	V
5500MHz		5468.08	35.89	-18.11	54	30.84	31.97	8.78	35.7	245	266	A	V
	*	5500	97.82	-	-	92.68	32	8.83	35.69	245	266	P	V
	*	5500	87.39	-	-	82.25	32	8.83	35.69	245	266	A	V
		5425.84	48.88	-25.12	74	43.9	31.93	8.76	35.71	265	178	P	H
		5417.52	34.98	-19.02	54	30.01	31.93	8.76	35.72	265	178	A	H
	*	5580	100.11	-	-	94.77	32.11	8.88	35.65	265	178	P	H
	*	5580	89.18	-	-	83.84	32.11	8.88	35.65	265	178	A	H
802.11ac		5736.84	49.62	-24.38	74	43.83	32.39	8.99	35.59	265	178	P	H
VHT20		5749.48	35.65	-18.35	54	29.84	32.39	9.01	35.59	265	178	A	H
CH 116		5397.52	49.01	-24.99	74	44.09	31.92	8.73	35.73	245	266	P	V
5580MHz		5417.04	34.99	-19.01	54	30.02	31.93	8.76	35.72	245	266	A	V
	*	5580	97.68	-	-	92.34	32.11	8.88	35.65	245	266	P	V
	*	5580	86.79	-	-	81.45	32.11	8.88	35.65	245	266	A	V
		5741.16	50.17	-23.83	74	44.36	32.39	9.01	35.59	245	266	P	V
		5751	35.61	-18.39	54	29.8	32.39	9.01	35.59	245	266	A	V

802.11ac VHT20 CH 140 5700MHz	*	5700	99.44	-	-	93.78	32.3	8.97	35.61	266	178	P	H
	*	5700	88.1	-	-	82.44	32.3	8.97	35.61	266	178	A	H
		5725.72	52.74	-21.26	74	46.99	32.36	8.99	35.6	266	178	P	H
		5727.48	37.7	-16.3	54	31.95	32.36	8.99	35.6	266	178	A	H
	*	5700	94.65	-	-	88.99	32.3	8.97	35.61	224	266	P	V
	*	5700	84.78	-	-	79.12	32.3	8.97	35.61	224	266	A	V
		5735.64	51.45	-22.55	74	45.66	32.39	8.99	35.59	224	266	P	V
		5725	36.74	-17.26	54	30.99	32.36	8.99	35.6	224	266	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 3 - 5470~5725MHz

WIFI 802.11ac VHT20 (Harmonic @ 3m)

WIFI Ant. 1+2	Note	Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11ac		11000	47.59	-26.41	74	30.32	39.5	13.12	35.35	163	230	P	H
VHT20		16500	46.15	-27.85	74	26.96	38.47	15.43	34.71	178	296	P	H
CH 100		11000	46.58	-27.42	74	29.31	39.5	13.12	35.35	163	230	P	V
5500MHz		16500	45.28	-28.72	74	26.09	38.47	15.43	34.71	178	296	P	V
802.11ac		11160	47.01	-26.99	74	29.77	39.35	13.2	35.31	170	200	P	H
VHT20		16740	43.92	-30.08	74	23.84	39.11	15.68	34.71	156	350	P	H
CH 116		11160	46.54	-27.46	74	29.3	39.35	13.2	35.31	170	200	P	V
5580MHz		16740	46.86	-27.14	74	26.78	39.11	15.68	34.71	156	350	P	V
802.11ac		11400	47.55	-26.45	74	30.33	39.13	13.33	35.24	147	285	P	H
VHT20		17100	44.19	-29.81	74	22.28	40.48	16.14	34.71	165	246	P	H
CH 140		11400	47.77	-26.23	74	30.55	39.13	13.33	35.24	147	285	P	V
5700MHz		17100	46.18	-27.82	74	24.27	40.48	16.14	34.71	165	246	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 3 - 5470~5725MHz

WIFI 802.11ac VHT40 (Band Edge @ 3m)

WIFI Ant. 1+2	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
		5446.64	49.71	-24.29	74	44.68	31.96	8.78	35.71	190	175	P	H
		5469.04	36.68	-17.32	54	31.63	31.97	8.78	35.7	190	175	A	H
	*	5510	94.16	-	-	89.01	32	8.83	35.68	190	175	P	H
	*	5510	84.71	-	-	79.56	32	8.83	35.68	190	175	A	H
802.11ac		5758.44	50.24	-23.76	74	44.41	32.41	9.01	35.59	190	175	P	H
VHT40		5762.12	35.67	-18.33	54	29.84	32.41	9.01	35.59	190	175	A	H
CH 102		5394.48	49.65	-24.35	74	44.74	31.91	8.73	35.73	230	255	P	V
5510MHz		5469.04	36.2	-17.8	54	31.15	31.97	8.78	35.7	230	255	A	V
	*	5510	92.58	-	-	87.43	32	8.83	35.68	230	255	P	V
	*	5510	82.51	-	-	77.36	32	8.83	35.68	230	255	A	V
		5761.08	49.75	-24.25	74	43.92	32.41	9.01	35.59	230	255	P	V
		5752.52	35.62	-18.38	54	29.79	32.41	9.01	35.59	230	255	A	V
		5359.28	48.77	-25.23	74	43.92	31.88	8.71	35.74	150	180	P	H
		5457.84	35.1	-18.9	54	30.06	31.96	8.78	35.7	150	180	A	H
	*	5670	94.95	-	-	89.35	32.28	8.94	35.62	150	180	P	H
	*	5670	84.84	-	-	79.24	32.28	8.94	35.62	150	180	A	H
802.11ac		5732.68	50.72	-23.28	74	44.96	32.36	8.99	35.59	150	180	P	H
VHT40		5734.12	36.85	-17.15	54	31.09	32.36	8.99	35.59	150	180	A	H
CH 134		5465.52	49.15	-24.85	74	44.1	31.97	8.78	35.7	230	265	P	V
5670MHz		5434.16	35.23	-18.77	54	30.23	31.95	8.76	35.71	230	265	A	V
	*	5670	92.28	-	-	86.68	32.28	8.94	35.62	230	265	P	V
	*	5670	82.19	-	-	76.59	32.28	8.94	35.62	230	265	A	V
		5741.24	50.7	-23.3	74	44.89	32.39	9.01	35.59	230	265	P	V
		5734.84	36.17	-17.83	54	30.38	32.39	8.99	35.59	230	265	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 3 - 5470~5725MHz

WIFI 802.11ac VHT40 (Harmonic @ 3m)

WIFI Ant. 1+2	Note	Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11ac		11020	47.98	-26.02	74	30.7	39.48	13.14	35.34	163	230	P	H
VHT40		16530	43.97	-30.03	74	24.66	38.56	15.46	34.71	178	296	P	H
CH 102		11020	47.83	-26.17	74	30.55	39.48	13.14	35.34	163	230	P	V
5510MHz		16530	45.92	-28.08	74	26.61	38.56	15.46	34.71	178	296	P	V
802.11ac		11340	46.65	-27.35	74	29.42	39.19	13.3	35.26	170	200	P	H
VHT40		17010	43.53	-30.47	74	22.35	39.91	15.98	34.71	156	350	P	H
CH 134		11340	46.47	-27.53	74	29.24	39.19	13.3	35.26	170	200	P	V
5670MHz		17010	46.51	-27.49	74	25.33	39.91	15.98	34.71	156	350	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 3 5470~5725MHz

WIFI 802.11ac VHT80 (Band Edge @ 3m)

WIFI Ant. 1+2	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11ac VHT80 CH 106 5530MHz		5467.6	55.22	-18.78	74	50.17	31.97	8.78	35.7	150	285	P	H
		5461.04	38.38	-15.62	54	33.34	31.96	8.78	35.7	150	285	A	H
	*	5530	90.55	-	-	85.34	32.03	8.85	35.67	150	285	P	H
	*	5530	80.55	-	-	75.34	32.03	8.85	35.67	150	285	A	H
		5749.56	49.93	-24.07	74	44.12	32.39	9.01	35.59	150	285	P	H
		5762.52	35.64	-18.36	54	29.81	32.41	9.01	35.59	150	285	A	H
		5463.6	53.53	-20.47	74	48.48	31.97	8.78	35.7	230	255	P	V
		5456.4	38.29	-15.71	54	33.25	31.96	8.78	35.7	230	255	A	V
	*	5530	90.27	-	-	85.06	32.03	8.85	35.67	230	255	P	V
	*	5530	80.24	-	-	75.03	32.03	8.85	35.67	230	255	A	V
		5735.8	49.95	-24.05	74	44.16	32.39	8.99	35.59	230	255	P	V
		5763.08	35.63	-18.37	54	29.8	32.41	9.01	35.59	230	255	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 3 5470~5725MHz

WIFI 802.11ac VHT80 (Harmonic @ 3m)

WIFI Ant. 1+2	Note	Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11ac		11060	47.69	-26.31	74	30.43	39.44	13.15	35.33	163	230	P	H
VHT80		16590	44.01	-29.99	74	24.5	38.7	15.52	34.71	178	296	P	H
CH 106		11060	47.8	-26.2	74	30.54	39.44	13.15	35.33	163	230	P	V
5530MHz		16590	45.91	-28.09	74	26.4	38.7	15.52	34.71	178	296	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Emission below 1GHz

WIFI 802.11a (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+2		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11a LF		120.21	35.34	-8.16	43.5	51.2	12.9	1.74	30.5	157	235	P	H
		161.92	34.85	-8.65	43.5	51.46	12	1.85	30.46	-	-	P	H
		285.11	29.57	-16.43	46	43.68	13.76	2.43	30.3	-	-	P	H
		399.57	23.47	-22.53	46	34.97	15.9	2.72	30.12	-	-	P	H
		695.42	23.37	-22.63	46	29.74	19.86	3.43	29.66	-	-	P	H
		971.87	23.77	-30.23	54	26.66	22.29	3.93	29.11	-	-	P	H
		62.98	35.02	-4.98	40	57.79	6.45	1.33	30.55	165	236	P	V
		113.42	32.46	-11.04	43.5	48.58	12.65	1.74	30.51	-	-	P	V
		191.02	29.36	-14.14	43.5	47.31	10.56	1.92	30.43	-	-	P	V
		385.02	21.64	-24.36	46	33.4	15.66	2.72	30.14	-	-	P	V
		660.5	23.31	-22.69	46	30	19.64	3.37	29.7	-	-	P	V
		935.98	24.36	-21.64	46	27.62	22.03	3.89	29.18	-	-	P	V
Remark	1. No other spurious found. 2. All results are PASS against limit line.												

Note symbol

*	**Fundamental Frequency** which can be ignored. However, the level of any unwanted emissions shall not exceed the level of the fundamental frequency.
!	Test result is **over limit** line.
P/A	**P**eak or **A**verage
H/V	**H**orizontal or **V**ertical

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+2		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11b CH 01 2412MHz		2390	55.45	-18.55	74	54.51	32.22	4.58	35.86	103	308	P	H
		2390	43.54	-10.46	54	42.6	32.22	4.58	35.86	103	308	A	H

1. Level(dBμV/m) =

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

2. Over Limit(dB) = Level(dBμV/m) – Limit Line(dBμV/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(dBμV) – 35.86 (dB)

= 55.45 (dBμV/m)

2. Over Limit(dB)

= Level(dBμV/m) – Limit Line(dBμV/m)

= 55.45(dBμV/m) – 74(dBμV/m)

= -18.55(dB)

For Average 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) + 42.6(dBμV) – 35.86 (dB)

= 43.54 (dBμV/m)

2. Over Limit(dB)

= Level(dBμV/m) – Limit Line(dBμV/m)

= 43.54(dBμV/m) – 54(dBμV/m)

= -10.46(dB)

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