



FCC RF Test Report

APPLICANT : Lenovo(Shanghai) Electronics Technology Co., Ltd.
EQUIPMENT : Portable Tablet Computer
BRAND NAME : Lenovo
MODEL NAME : Lenovo YT3-X90X
FCC ID : O57YT3X90X
STANDARD : FCC Part 15 Subpart E §15.407
CLASSIFICATION : (NII) Unlicensed National Information Infrastructure

The product was received on Jul. 16, 2015 and testing was completed on Sep. 01, 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.

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Approved by: Jones Tsai / Manager



Testing Laboratory
2353

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FCC ID : O57YT3X90X

Page Number : 1 of 45

Report Issued Date : Sep. 21, 2015

Report Version : Rev. 01



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REVISION HISTORY

REPORT NO.	VERSION	DESCRIPTION	ISSUED DATE
FR571615D	Rev. 01	Initial issue of report	Sep. 21, 2015



SUMMARY OF TEST RESULT

Report Section	FCC Rule	Description	Limit	Result	Remark
3.1	2.1049 15.403(i)	26dB & 99% Bandwidth	-	Pass	-
3.2	15.407(a)	Maximum Conducted Output Power	FCC ≤24 dBm (depend on band)	Pass	-
3.3	15.407(a)	Power Spectral Density	FCC ≤11 dBm (depend on band)	Pass	-
3.4	15.407(b)	Unwanted Emissions	≤ -17, -27 dBm (depend on band)&15.209(a)	Pass	Under limit 5.51 dB at 5149.850 MHz
3.5	15.207	AC Conducted Emission	15.207(a)	Pass	Under limit 5.31 dB at 0.150 MHz
3.6	15.407(g)	Frequency Stability	Within Operation Band	Pass	-
3.7	15.407(c)	Automatically Discontinue Transmission	Discontinue Transmission	Pass	-
3.8	15.203 & 15.407(a)	Antenna Requirement	N/A	Pass	-



1 General Description

1.1 Applicant

Lenovo(Shanghai) Electronics Technology Co., Ltd.

NO.68 BUILDING, 199 FENJU RD, China (Shanghai) Pilot Free Trade Zone, 200131, CHINA

1.2 Manufacturer

Lenovo PC HK Limited

23/F, Lincoln House, Taikoo Place 979 King's Road, Quarry Bay, Hong Kong

1.3 Feature of Equipment Under Test

Product Feature & Specification	
Equipment	Portable Tablet Computer
Brand Name	Lenovo
Model Name	Lenovo YT3-X90X
FCC ID	O57YT3X90X
EUT supports Radios application	GSM/GPRS/EGPRS/WCDMA/HSPA/DC-HSDPA/ HSPA+(Downlink only)/LTE WLAN 2.4GHz 802.11b/g/n HT20 WLAN 5GHz 802.11a/n HT20/HT40 WLAN 5GHz 802.11ac VHT20/VHT40/VHT80 Bluetooth v3.0 + EDR/Bluetooth v4.1 LE
HW Version	LenovoPad YT3-X90X
SW Version	YT3-X90X_150710
EUT Stage	Identical Prototype

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



1.4 Product Specification of Equipment Under Test

Product Specification subjective to this standard	
Tx/Rx Frequency Range	5180 MHz ~ 5240 MHz 5260 MHz ~ 5320 MHz 5500 MHz ~ 5700 MHz
Maximum Output Power to Antenna	<p><5180 MHz ~ 5240 MHz> 802.11a : 14.82 dBm / 0.0303 W 802.11n HT20 : 15.25 dBm / 0.0335 W 802.11n HT40 : 14.78 dBm / 0.0301 W 802.11ac VHT20 : 15.22 dBm / 0.0333 W 802.11ac VHT40 : 15.13 dBm / 0.0326 W 802.11ac VHT80 : 14.65 dBm / 0.0292 W</p> <p><5260 MHz ~ 5320 MHz> 802.11a : 13.74 dBm / 0.0237 W 802.11n HT20 : 14.95 dBm / 0.0313 W 802.11n HT40 : 14.37 dBm / 0.0274 W 802.11ac VHT20 : 14.72 dBm / 0.0296 W 802.11ac VHT40 : 14.80 dBm / 0.0302 W 802.11ac VHT80 : 14.43 dBm / 0.0277 W</p> <p><5500 MHz ~ 5700 MHz> 802.11a : 12.99 dBm / 0.0199 W 802.11n HT20 : 13.74 dBm / 0.0237 W 802.11n HT40 : 13.68 dBm / 0.0233 W 802.11ac VHT20 : 13.60 dBm / 0.0229 W 802.11ac VHT40 : 13.61 dBm / 0.0230 W 802.11ac VHT80 : 12.96 dBm / 0.0198 W</p>
99% Occupied Bandwidth	<p><5180 MHz ~ 5240 MHz> 802.11a : 18.40 MHz 802.11n HT20 : 19.25 MHz 802.11n HT40 : 36.80 MHz 802.11ac VHT20: 19.10 MHz 802.11ac VHT40 : 36.80 MHz 802.11ac VHT80 : 75.84 MHz</p> <p><5260 MHz ~ 5320 MHz> 802.11a : 18.30 MHz 802.11n HT20 : 19.20 MHz 802.11n HT40 : 36.80 MHz 802.11ac VHT20: 19.10 MHz 802.11ac VHT40 : 36.80 MHz 802.11ac VHT80 : 75.96 MHz</p> <p><5500 MHz ~ 5700 MHz> 802.11a : 18.35 MHz 802.11n HT20 : 19.15 MHz 802.11n HT40 : 36.90 MHz 802.11ac VHT20: 19.05 MHz 802.11ac VHT40 : 36.90 MHz 802.11ac VHT80 : 75.96 MHz</p>



Antenna Type	PIFA Antenna		
Antenna Gain	<5180 MHz ~ 5240 MHz>: Chain Port 0 : -1.80 dBi Chain Port 1 : 0.80 dBi <5260 MHz ~ 5320 MHz>: Chain Port 0 : -1.60 dBi Chain Port 1 : 0.80 dBi <5500 MHz ~ 5700 MHz>: Chain Port 0 : 0.10 dBi Chain Port 1 : 1.20 dBi		
Type of Modulation	802.11a/n : OFDM (BPSK / QPSK / 16QAM / 64QAM) 802.11ac : OFDM (BPSK / QPSK / 16QAM / 64QAM / 256QAM)		
Antenna Function Description		Chain Port 0	Chain Port 1
	802.11a	V	V
	802.11n/ac SISO	V	V
	802.11n/ac MIMO	V	V



1.5 Component List

Note: there are two types of EUT, the details refer the following table. According to the difference, we evaluate is not affect RF performance, so only choose sample 1 to perform RF test.

Component	Sample 1	Sample 2
CPU	Intel_Z8500 Cherry Trail T4 Z8500,2.55 GHz Quad Core	Intel_Z8500 Cherry Trail T4 Z8500,2.55 GHz Quad Core
BT/WIFI Module	Broadcom_BCM4356XKUBG BT/WIFI;BCM4356XKUBG;WLBGA192	Broadcom_BCM4356XKUBG BT/WIFI;BCM4356XKUBG;WLBGA192
2G/3G/LTE Module	Intel_PMB5747 E302 SMARTi4.5 P20(PMB5747 E302)	Intel_PMB5747 E302 SMARTi4.5 P20(PMB5747 E302)
Flash	Samsung_K3QF2F2 OEMAGCE EMMC;KLMAG2WEPD-B031;16GB; FBGA153 LPDDR3;K3QF2F2 OEM-AGCE ; 1GB;1600Mbps	Toshiba & Micron_ ELPIDA-F8164A3MA-GD-F EMMC;THGBMFG7C2LBAIL;16GB;WFBGA 153LPDDR3;EDF8164A3MA-GD-F-R;1GB;1 600Mbps
LCM	AUO_B101QAN01 B101QAN01.0;10.1inch;IPS;2560x1600	Innolux_P101SFA-AF0 P101SFA-AF0;10.1inch;IPS;2560x1600
TP	Ofilm_IST940E 152011 Yoga3 X10 _GFF TP MCF-101-2261	GIS_S7813 5141 334 0037 ACFM727 YT3X10_GFF TC101GFL09V.B IST9400E
Front_camera	Sunny_F1521 CCM D5V13C 5M OV5693 COB 25PIN ZIF	Ofilm_L5693F40 CCM L5693F40 5M OV5693 COB 25PIN ZIF
Back_camera	Sunny_F13M01D CCM F13M01D 13M AR1335 COB 30PIN BtoB	Ofilm_L1335A00 CCM L1335A00 13M AR1335 COB 30PIN BtoB
Main Battery	SUNWODA_L15D2K32 LG-ICR18650E1-3200mAh	SCUD_L15D2K32 ICR18650-3200mAh
Ancillary Battery	SCUD_L15D1P31 CA3448F2HV-4000mAh	SUNWODA_L15D1P31 ATL-3448F2 -4000mAh



1.6 Modification of EUT

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

1.7 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		

Test Site	SPORTON INTERNATIONAL (KUNSHAN) INC.		
Test Site Location	No. 3-2, PingXiang Road, Kunshan, Jiangsu Province, P. R. China TEL: +86-0512-5790-0158 FAX: +86-0512-5790-0958		
Test Site No.	Sporton Site No.		FCC Registration No.
	CO01-KS	03CH02-KS	418269

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



1.8 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.
- ♦ ANSI C63.10-2013

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.



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). For radiated measurement, pre-scanned in three orthogonal panels, X, Y, Z, Laptop. The worst cases were recorded in this report.

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

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

2.1 Carrier Frequency Channel

Frequency Band	Channel	Freq. (MHz)	Channel	Freq. (MHz)
5180- 5240 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)
5260-5320 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)
5500-5700 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.

WLAN 5GHz 802.11a Average Power (dBm)											
Power vs. Channel				Power vs. Data Rate							
Channel	Frequency (MHz)	Chain Port	Data Rate	Channel	9Mbps	12Mbps	18Mbps	24Mbps	36Mbps	48Mbps	54Mbps
			6Mbps								
CH 36	5180	0	14.67	CH 48	14.73	14.59	14.48	14.70	14.76	14.74	14.73
CH 44	5220	0	14.66								
CH 48	5240	0	14.82								
CH 52	5260	0	13.74								
CH 60	5300	0	13.41								
CH 64	5320	0	13.13								
CH 100	5500	0	12.99								
CH 116	5580	0	12.85								
CH 140	5700	0	12.38								
CH 36	5180	1	12.50	CH 52	12.20	12.32	12.29	12.41	12.48	12.49	12.45
CH 44	5220	1	12.58								
CH 48	5240	1	12.67								
CH 52	5260	1	12.53								
CH 60	5300	1	12.25								
CH 64	5320	1	12.44								
CH 100	5500	1	10.56								
CH 116	5580	1	10.41								
CH 140	5700	1	10.26								
CH 36	5180	1	12.50	CH 100	10.35	10.36	10.31	10.44	10.45	10.51	10.48
CH 44	5220	1	12.58								
CH 48	5240	1	12.67								
CH 52	5260	1	12.53								
CH 60	5300	1	12.25								
CH 64	5320	1	12.44								
CH 100	5500	1	10.56								
CH 116	5580	1	10.41								
CH 140	5700	1	10.26								



WLAN 5GHz 802.11n-HT20 Average Power (dBm)											
Power vs. Channel				Power vs. Data Rate							
Channel	Frequency (MHz)	Chain Port	MCS Index	Channel	MCS1	MCS2	MCS3	MCS4	MCS5	MCS6	MCS7
			MCS0								
CH 36	5180	0	13.68	CH 48	13.86	13.86	13.86	13.85	13.83	13.85	13.86
CH 44	5220	0	13.74								
CH 48	5240	0	13.90								
CH 52	5260	0	13.57								
CH 60	5300	0	13.67								
CH 64	5320	0	13.49								
CH 100	5500	0	11.86								
CH 116	5580	0	11.09	CH 60	13.58	13.57	13.61	13.58	13.51	13.59	13.58
CH 140	5700	0	11.47								
CH 36	5180	1	12.17								
CH 44	5220	1	12.38								
CH 48	5240	1	12.58								
CH 52	5260	1	11.11								
CH 60	5300	1	11.15								
CH 64	5320	1	11.08								
CH 100	5500	1	10.50	CH 100	11.76	11.77	11.77	11.72	11.75	11.70	11.77
CH 116	5580	1	10.24								
CH 140	5700	1	10.03								
CH 36	5180	0+1(0)	12.18								
CH 44	5220	0+1(0)	12.09								
CH 48	5240	0+1(0)	12.01								
CH 52	5260	0+1(0)	11.75								
CH 60	5300	0+1(0)	11.79								
CH 64	5320	0+1(0)	11.65								
CH 100	5500	0+1(0)	10.47								
CH 116	5580	0+1(0)	10.02								
CH 140	5700	0+1(0)	9.75								
CH 36	5180	0+1(1)	12.31								
CH 44	5220	0+1(1)	12.24								
CH 48	5240	0+1(1)	12.22								
CH 52	5260	0+1(1)	11.94								
CH 60	5300	0+1(1)	12.10								
CH 64	5320	0+1(1)	12.06								
CH 100	5500	0+1(1)	10.98								
CH 116	5580	0+1(1)	10.84								
CH 140	5700	0+1(1)	10.75								
CH 36	5180	0+1	15.25								
CH 44	5220	0+1	15.17								
CH 48	5240	0+1	15.12								
CH 52	5260	0+1	14.85								
CH 60	5300	0+1	14.95								
CH 64	5320	0+1	14.87								
CH 100	5500	0+1	13.74								
CH 116	5580	0+1	13.45								
CH 140	5700	0+1	13.28								



WLAN 5GHz 802.11n-HT40 Average Power (dBm)											
Power vs. Channel				Power vs. Data Rate							
Channel	Frequency (MHz)	Chain Port	MCS Index	Channel	MCS1	MCS2	MCS3	MCS4	MCS5	MCS6	MCS7
			MCS0								
CH 38	5190	0	12.49	CH 38	12.47	12.44	12.40	12.39	12.45	12.45	12.47
CH 46	5230	0	12.42								
CH 54	5270	0	11.99								
CH 62	5310	0	11.87								
CH 102	5510	0	11.50								
CH 110	5550	0	11.42								
CH 134	5670	0	10.65								
CH 38	5190	1	12.59	CH 38	12.58	12.58	12.50	12.58	12.52	12.52	12.56
CH 46	5230	1	12.58								
CH 54	5270	1	12.51								
CH 62	5310	1	12.35								
CH 102	5510	1	12.20								
CH 110	5550	1	10.12								
CH 134	5670	1	9.56								
Channel	Frequency (MHz)	Chain Port	MCS Index	Channel	MCS9	MCS10	MCS11	MCS12	MCS13	MCS14	MCS15
			MCS8								
CH 38	5190	0+1(0)	11.72	CH 38	11.59	11.60	11.63	11.59	11.66	11.61	11.67
CH 46	5230	0+1(0)	11.54								
CH 54	5270	0+1(0)	10.95								
CH 62	5310	0+1(0)	10.88								
CH 102	5510	0+1(0)	10.07								
CH 110	5550	0+1(0)	10.01								
CH 134	5670	0+1(0)	9.40								
CH 38	5190	0+1(1)	11.81	CH 38	11.72	11.71	11.76	11.69	11.75	11.73	11.75
CH 46	5230	0+1(1)	11.73								
CH 54	5270	0+1(1)	11.74								
CH 62	5310	0+1(1)	11.69								
CH 102	5510	0+1(1)	11.20								
CH 110	5550	0+1(1)	11.02								
CH 134	5670	0+1(1)	10.46								
CH 38	5190	0+1	14.78	CH 38	14.67	14.67	14.70	14.65	14.71	14.68	14.72
CH 46	5230	0+1	14.65								
CH 54	5270	0+1	14.37								
CH 62	5310	0+1	14.31								
CH 102	5510	0+1	13.68								
CH 110	5550	0+1	13.56								
CH 134	5670	0+1	12.97								



WLAN 5GHz 802.11ac VHT20 Average Power (dBm)												
Power vs. Channel				Power vs. Data Rate								
Channel	Frequency (MHz)	Chain Port	MCS Index	Channel	MCS1	MCS2	MCS3	MCS4	MCS5	MCS6	MCS7	MCS8
			MCS0									
CH 36	5180	0	12.06	CH 36	12.05	12.02	11.97	12.03	12.00	12.00	11.92	11.89
CH 44	5220	0	11.93									
CH 48	5240	0	11.86									
CH 52	5260	0	11.75									
CH 60	5300	0	11.62									
CH 64	5320	0	11.64									
CH 100	5500	0	10.95									
CH 116	5580	0	10.19									
CH 140	5700	0	10.42									
CH 36	5180	1	12.28	CH 36	12.21	12.20	12.16	12.20	12.16	12.21	12.06	12.11
CH 44	5220	1	12.04									
CH 48	5240	1	12.15									
CH 52	5260	1	11.98									
CH 60	5300	1	11.56									
CH 64	5320	1	11.75									
CH 100	5500	1	9.75									
CH 116	5580	1	9.70									
CH 140	5700	1	9.23									
CH 36	5180	0+1(0)	12.15	CH 36	12.11	12.10	12.13	12.12	12.14	12.11	12.10	12.06
CH 44	5220	0+1(0)	11.96									
CH 48	5240	0+1(0)	11.88									
CH 52	5260	0+1(0)	11.54									
CH 60	5300	0+1(0)	11.36									
CH 64	5320	0+1(0)	11.18									
CH 100	5500	0+1(0)	10.46									
CH 116	5580	0+1(0)	10.10									
CH 140	5700	0+1(0)	9.77									
CH 36	5180	0+1(1)	12.26	CH 36	12.24	12.21	12.24	12.23	12.24	12.23	12.23	12.21
CH 44	5220	0+1(1)	12.09									
CH 48	5240	0+1(1)	11.86									
CH 52	5260	0+1(1)	11.88									
CH 60	5300	0+1(1)	11.64									
CH 64	5320	0+1(1)	11.72									
CH 100	5500	0+1(1)	10.72									
CH 116	5580	0+1(1)	10.55									
CH 140	5700	0+1(1)	10.49									
CH 36	5180	0+1	15.22	CH 36	15.19	15.16	15.19	15.19	15.20	15.18	15.18	15.15
CH 44	5220	0+1	15.04									
CH 48	5240	0+1	14.88									
CH 52	5260	0+1	14.72									
CH 60	5300	0+1	14.51									
CH 64	5320	0+1	14.47									
CH 100	5500	0+1	13.60									
CH 116	5580	0+1	13.34									
CH 140	5700	0+1	13.16									



WLAN 5GHz 802.11ac VHT40 Average Power (dBm)														
Power vs. Channel				Power vs. Data Rate										
Channel	Frequency (MHz)	Chain Port	MCS Index MCS0	Channel	MCS1	MCS2	MCS3	MCS4	MCS5	MCS6	MCS7	MCS8	MCS9	
CH 38	5190	0	12.50	CH 38	12.42	12.40	12.43	12.37	12.36	12.41	12.44	12.42	12.42	
CH 46	5230	0	12.40											
CH 54	5270	0	12.22		CH 54	12.12	12.09	12.10	12.04	12.05	12.09	12.12	12.09	12.07
CH 62	5310	0	12.04											
CH 102	5510	0	11.28	CH 102	11.18	11.12	11.12	11.12	11.05	11.16	11.17	11.16	11.18	
CH 110	5550	0	10.97											
CH 134	5670	0	10.60											
CH 38	5190	1	12.63		CH 38	12.49	12.46	12.48	12.39	12.42	12.48	12.50	12.49	12.48
CH 46	5230	1	12.44											
CH 54	5270	1	12.48	CH 54		12.30	12.28	12.24	12.19	12.25	12.30	12.34	12.30	12.31
CH 62	5310	1	12.43											
CH 102	5510	1	10.51	CH 102	10.28	10.31	10.31	10.21	10.26	10.33	10.29	10.32	10.34	
CH 110	5550	1	10.46											
CH 134	5670	1	10.40											
CH 38	5190	0+1(0)	12.06		CH 38	12.01	12.02	12.04	12.03	12.04	12.05	12.05	12.03	11.99
CH 46	5230	0+1(0)	11.86											
CH 54	5270	0+1(0)	11.48	CH 54		11.37	11.42	11.42	11.36	11.43	11.42	11.41	11.41	11.38
CH 62	5310	0+1(0)	11.37											
CH 102	5510	0+1(0)	10.05	CH 102	9.96	9.98	9.94	9.97	10.01	10.01	10.03	9.98	9.96	
CH 110	5550	0+1(0)	9.89											
CH 134	5670	0+1(0)	10.00											
CH 38	5190	0+1(1)	12.18		CH 38	12.09	12.14	12.12	12.12	12.13	12.17	12.15	12.12	12.04
CH 46	5230	0+1(1)	11.95											
CH 54	5270	0+1(1)	12.08	CH 54		11.96	11.94	11.96	11.98	12.02	12.04	12.04	11.98	11.95
CH 62	5310	0+1(1)	11.94											
CH 102	5510	0+1(1)	11.09	CH 102	10.48	10.48	10.52	10.44	10.49	10.49	10.51	10.50	10.48	
CH 110	5550	0+1(1)	11.00											
CH 134	5670	0+1(1)	11.03											
CH 38	5190	0+1	15.13		CH 38	15.06	15.09	15.09	15.09	15.09	15.12	15.11	15.09	15.02
CH 46	5230	0+1	14.91											
CH 54	5270	0+1	14.80	CH 54		14.69	14.70	14.71	14.70	14.74	14.75	14.75	14.71	14.68
CH 62	5310	0+1	14.67											
CH 102	5510	0+1	13.61	CH 102	13.24	13.25	13.25	13.23	13.26	13.27	13.29	13.26	13.24	
CH 110	5550	0+1	13.49											
CH 134	5670	0+1	13.55											



WLAN 5GHz 802.11ac VHT80 Average Power (dBm)													
Power vs. Channel				Power vs. Data Rate									
Channel	Frequency (MHz)	Chain Port	MCS Index	Channel	MCS1	MCS2	MCS3	MCS4	MCS5	MCS6	MCS7	MCS8	MCS9
			MCS0										
CH 42	5210	0	11.55	CH 42	11.46	11.49	11.49	11.47	11.46	11.45	11.46	11.48	11.45
CH 058	5290	0	11.04	CH 058	10.91	10.95	10.97	10.92	10.93	10.91	10.94	10.89	10.90
CH 106	5530	0	10.10	CH 106	9.96	10.01	9.99	9.98	9.97	9.95	9.98	10.01	9.97
CH 122	5610	0	9.83										
CH 42	5210	1	12.01	CH 42	11.96	11.99	11.99	11.97	11.96	11.95	11.96	11.98	11.95
CH 058	5290	1	11.89	CH 058	11.79	11.85	11.81	11.81	11.78	11.79	11.81	11.80	11.80
CH 106	5530	1	10.04	CH 106	9.98	10.01	9.97	9.96	9.97	9.97	9.95	9.96	9.95
CH 122	5610	1	10.03										
CH 42	5210	0+1(0)	11.32	CH 42	11.28	11.31	11.28	11.31	11.31	11.26	11.30	11.29	11.31
CH 058	5290	0+1(0)	10.98	CH 058	10.88	10.95	10.90	10.88	10.94	10.87	10.90	10.91	10.94
CH 106	5530	0+1(0)	9.18	CH 106	9.11	9.08	9.09	9.15	9.11	9.06	9.12	9.12	9.08
CH 122	5610	0+1(0)	8.89										
CH 42	5210	0+1(1)	11.94	CH 42	11.90	11.91	11.89	11.93	11.92	11.87	11.90	11.90	11.91
CH 058	5290	0+1(1)	11.82	CH 058	11.72	11.76	11.73	11.79	11.77	11.74	11.74	11.76	11.74
CH 106	5530	0+1(1)	10.61	CH 106	10.33	10.37	10.37	10.43	10.41	10.37	10.39	10.40	10.40
CH 122	5610	0+1(1)	10.56										
CH 42	5210	0+1	14.65	CH 42	14.61	14.63	14.61	14.65	14.64	14.59	14.62	14.61	14.63
CH 058	5290	0+1	14.43	CH 058	14.33	14.38	14.35	14.37	14.39	14.34	14.35	14.36	14.37
CH 106	5530	0+1	12.96	CH 106	12.78	12.78	12.79	12.85	12.82	12.78	12.81	12.81	12.80
CH 122	5610	0+1	12.81										

Note: Chain Port 0+1 is a calculated result from sum of the power Chain Port 0+1(0) and Chain Port 0+1(1).



2.3 Test Mode

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

Modulation	Data Rate
802.11a	6 Mbps
802.11n HT20	MCS0/MCS8
802.11n HT40	MCS0/MCS8
802.11ac VHT20	MCS0
802.11ac VHT40	MCS0
802.11ac VHT80	MCS0

Test Cases	
AC Conducted Emission	Mode 1 : GSM850 Idle + Bluetooth Link + WLAN (5GHz) Link + Earphone + USB Cable (Charging from Adapter 12V) + Battery 1 for Sample 1 Mode 2 : GSM850 Idle + Bluetooth Link + WLAN (5GHz) Link + Earphone + USB Cable (Charging from Adapter 5.2V) + Battery 2 for Sample 2
Remark: 1. For Radiated TCs, the tests were performed with Adapter, Earphone, USB cable and Sample 1. 2. The worst case of conducted emission is mode 2; only the test data of it was reported.	



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

Ch. #		Band I : 5180-5240 MHz	Band II : 5260-5320 MHz	Band III : 5500-5700MHz
		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 : 5180-5240 MHz	Band II : 5260-5320 MHz	Band III : 5500-5700MHz
		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 : 5180-5240 MHz	Band II : 5260-5320 MHz	Band III : 5500-5700MHz
		802.11ac VHT20	802.11ac VHT20	802.11ac VHT20
L	Low	36	52	100
M	Middle	44	60	116
H	High	48	64	140

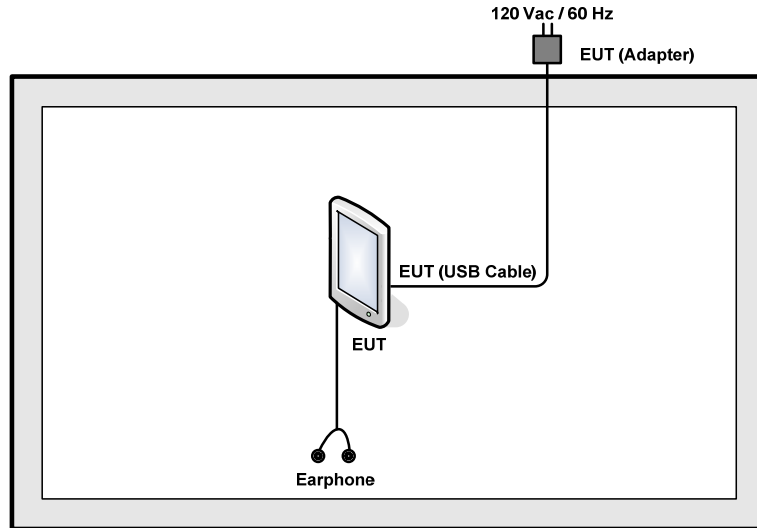
Ch. #		Band I : 5180-5240 MHz	Band II : 5260-5320 MHz	Band III : 5500-5700MHz
		802.11ac VHT40	802.11ac VHT40	802.11ac VHT40
L	Low	38	54	102
M	Middle	-	-	110
H	High	46	62	134



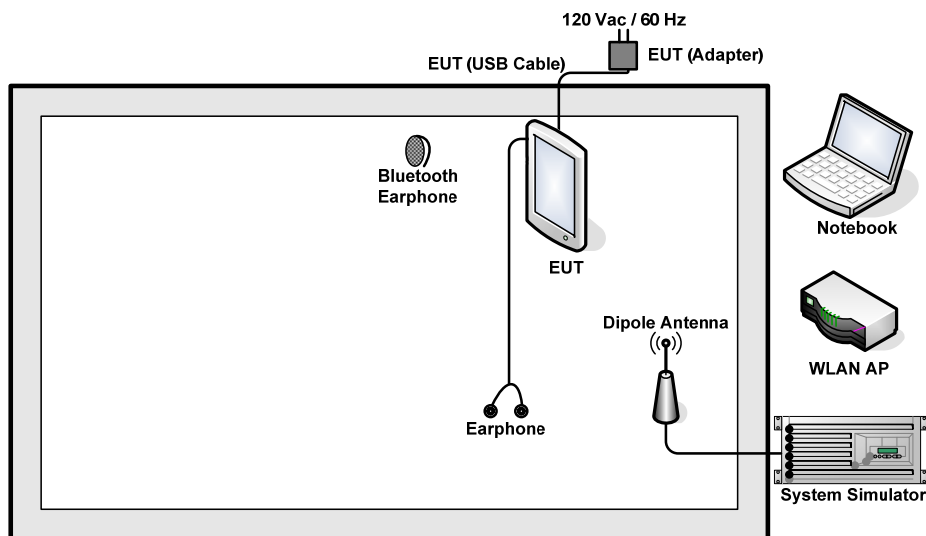
Ch. #		Band I : 5180-5240 MHz	Band II : 5260-5320 MHz	Band III : 5500-5700MHz
		802.11ac VHT80	802.11ac VHT80	802.11ac VHT80
L	Low	-	-	106
M	Middle	42	58	-
H	High	-	-	122

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.	Notebook	Lenovo	G480	PRC4	N/A	AC I/P: Unshielded, 1.8 m DC O/P: Shielded, 1.8 m
2.	System Simulator	R&S	CMU 200	N/A	N/A	Unshielded, 1.8m
3.	WLAN AP	LINKSYS	WRT600N	Q87-WRT600NV11	N/A	Unshielded, 1.8 m
4.	Bluetooth Earphone	Lenovo	LBH505	N/A	N/A	N/A
5.	DC Power Supply	GW INSTEK	GPD-2303S	N/A	N/A	Unshielded, 1.8 m
6.	Earphone	Lenovo	LH102	N/A	N/A	Unshielded, 1.2 m

2.6 EUT Operation Test Setup

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

For AC power line conducted emissions, the EUT was set to connect with the Notebook 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.

$$\begin{aligned}\text{Offset(dB)} &= \text{RF cable loss(dB)} + \text{attenuator factor(dB)} \\ &= 6.5 + 10 = 16.5 \text{ (dB)}\end{aligned}$$

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.

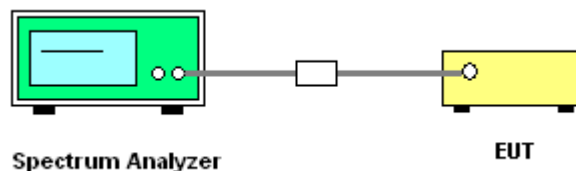
3.1.2 Measuring Instruments

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) $\geq 3 * RBW$.
8. Measure and record the results in the test report.

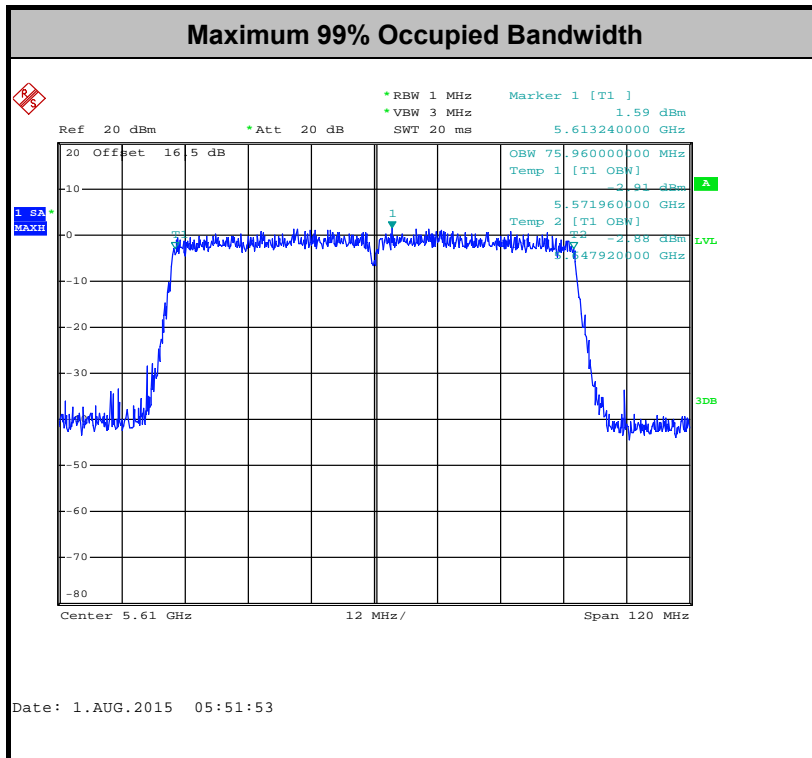
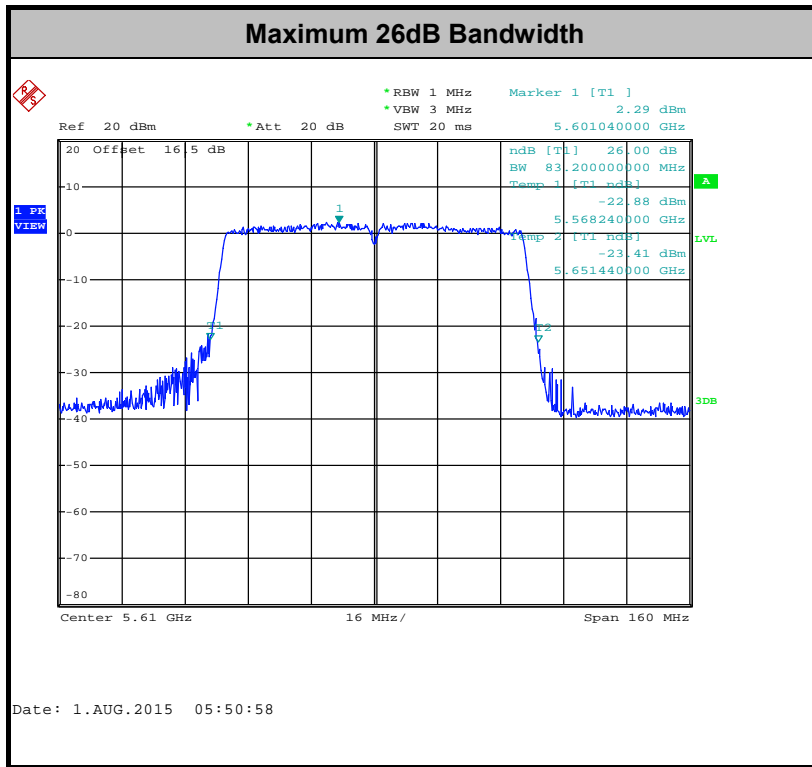
3.1.4 Test Setup





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

Please refer to Appendix A.



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.

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.

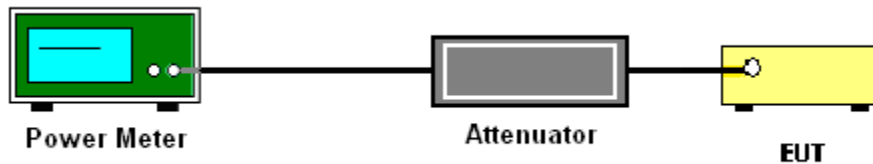
3.2.3 Test Procedures

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.

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

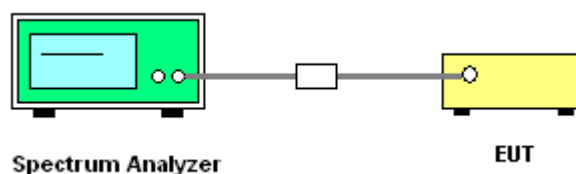
(trace averaging across on and off times of the EUT transmissions, followed by duty cycle correction).

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 \geq 3 MHz.
 - Number of points in sweep \geq 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.

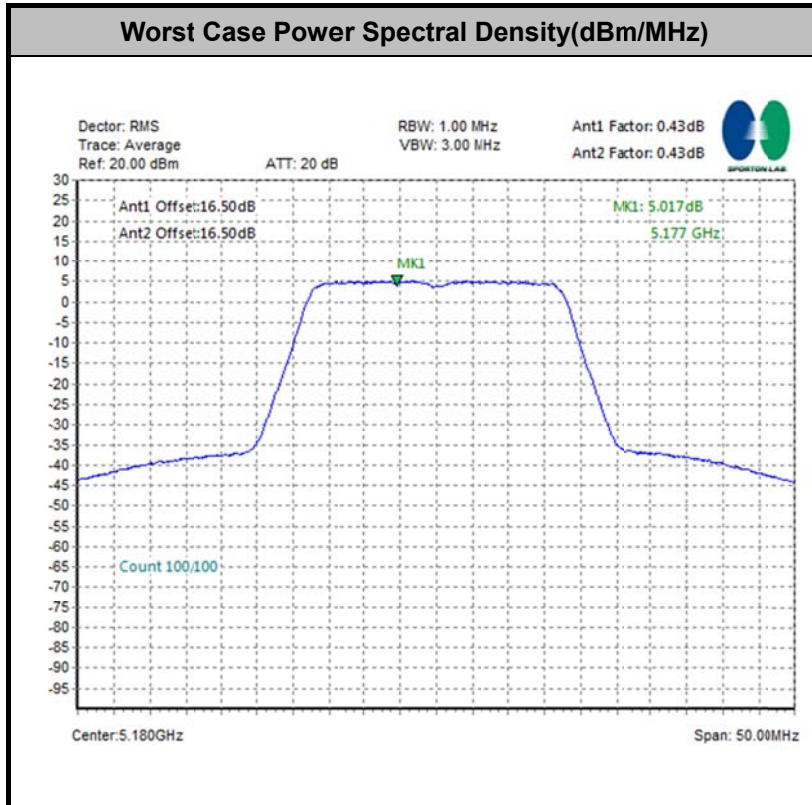
3.3.4 Test Setup





3.3.5 Test Result of Power Spectral Density

Please refer to Appendix A.





3.4 Unwanted Radiated Emission Measurement

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

3.4.1 Limit of Unwanted Emissions

(1) For transmitters operating in the 5150-5250 MHz band: all emissions outside of the 5150-5350 MHz band shall not exceed an EIRP of -27dBm/MHz.

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

For transmitters operating in the 5470-5600 MHz and 5650-5725MHz band: all emissions outside of the 5470-5600 MHz and 5650-5725MHz band shall not exceed an EIRP of -27 dBm/MHz.

(2) Unwanted spurious emissions fallen in restricted bands per FCC Part15.205 shall comply with the general field strength limits set forth in § 15.209 as below table

Frequency (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.

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



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

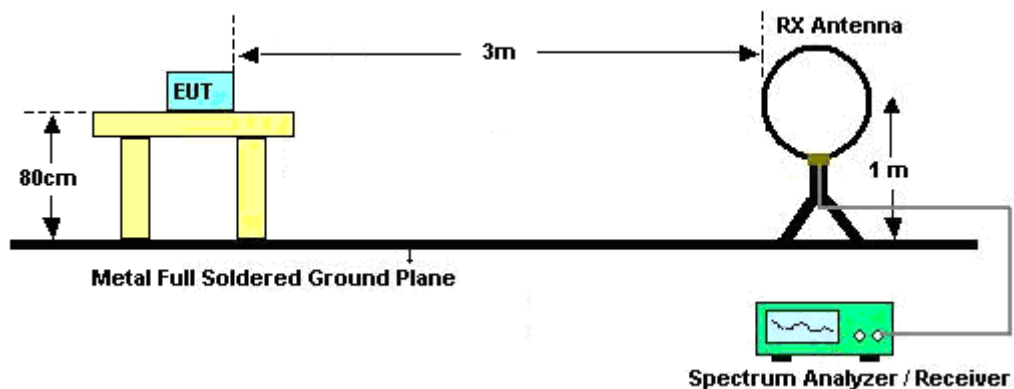
- RBW = 1 MHz
- VBW = 10 Hz, when duty cycle is no less than 98 percent.
- $VBW \geq 1/T$, when duty cycle is less than 98 percent where T is the minimum transmission duration over which the transmitter is on and is transmitting at its maximum power control level for the tested mode of operation.

Antenna	Band	Duty Cycle(%)	T(ms)	1/T(kHz)	VBW Setting
0	802.11a	92.857	1.430	0.699	1kHz
1	802.11a	92.857	1.430	0.699	1kHz
0+1	802.11n HT20	90.676	0.992	1.008	3kHz
0+1	802.11n HT40	82.781	0.500	2.000	3kHz
0+1	802.11n VHT20	87.484	0.693	1.442	3kHz
0+1	802.11n VHT40	87.313	0.702	1.425	3kHz
0+1	802.11n VHT80	66.438	0.194	5.155	10kHz

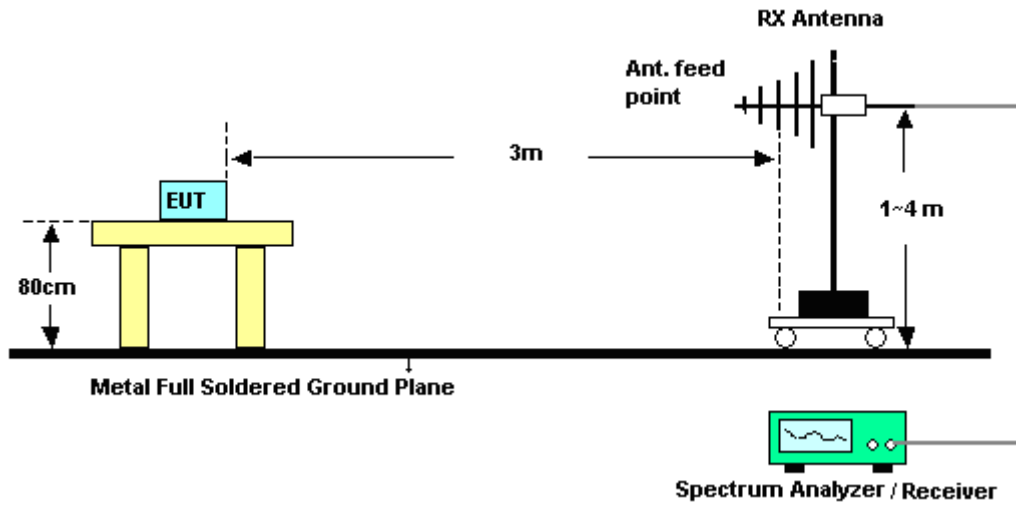
2. The EUT was placed on a turntable with 0.8 meter for frequency below 1GHz and 1.5 meter for frequency above 1GHz respectively above ground.
3. The EUT was set 3 meters from the interference receiving antenna which was mounted on the top of a variable height antenna tower.
4. The antenna is a broadband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

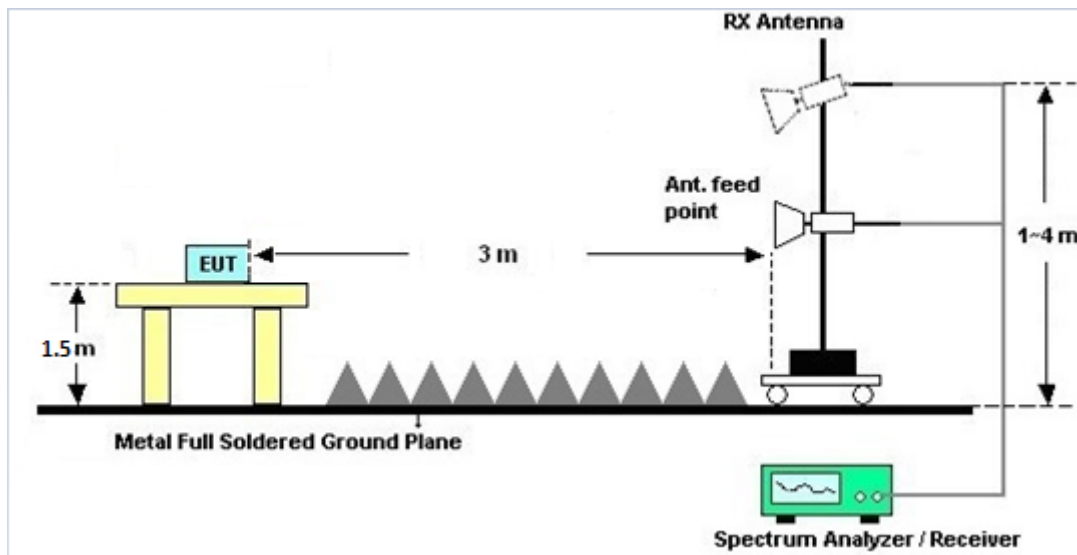
For radiated emissions below 30MHz



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 (dB μ V)	
	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.

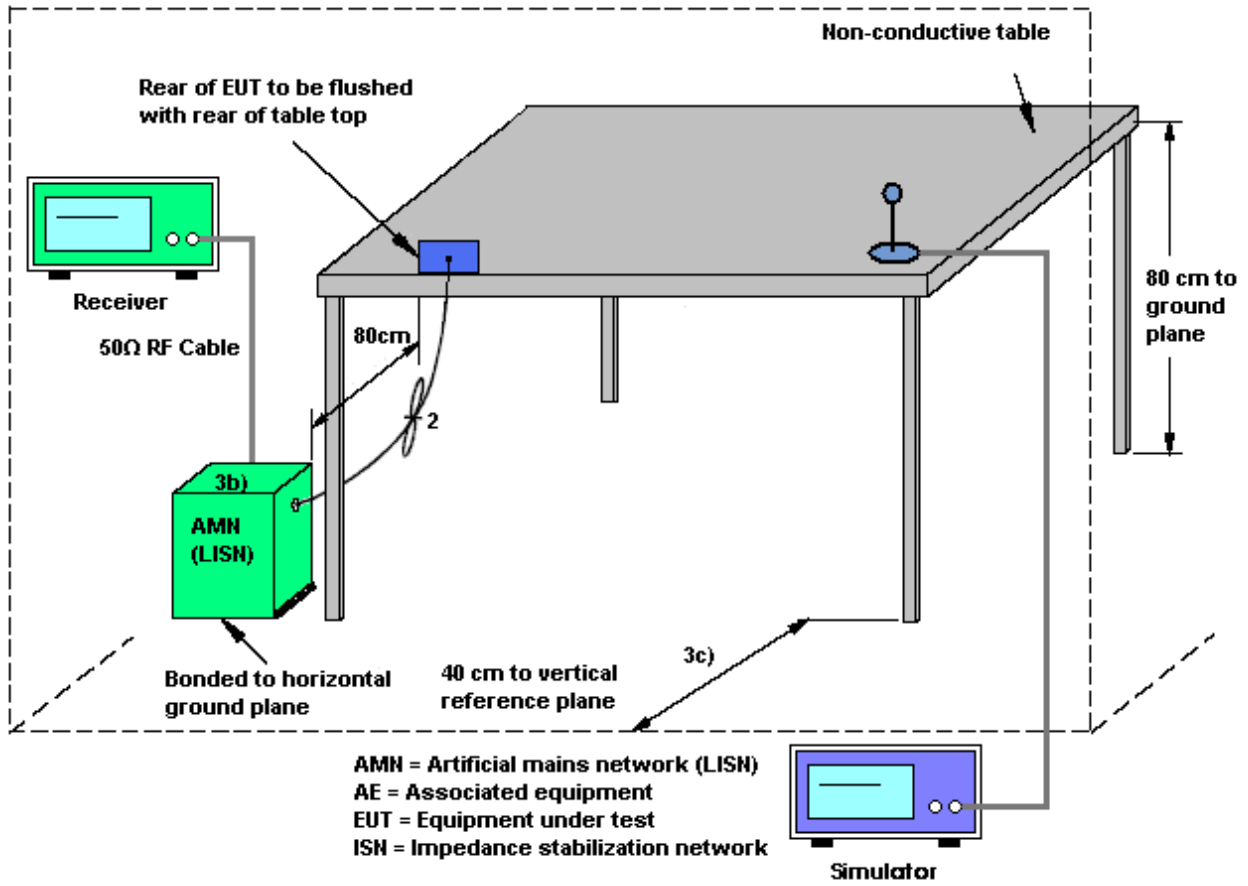
3.5.2 Measuring Instruments

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.

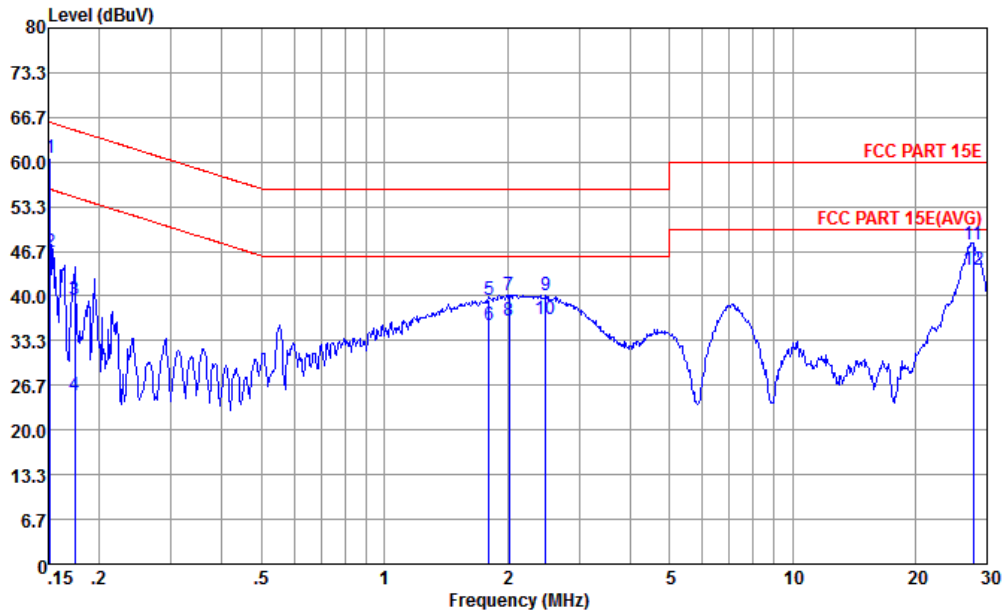
3.5.4 Test Setup





3.5.5 Test Result of AC Conducted Emission

Test Mode :	Mode 2	Temperature :	22~24°C
Test Engineer :	Amos Zhang	Relative Humidity :	43~45%
Test Voltage :	120Vac / 60Hz	Phase :	Line
Function Type :	GSM850 Idle + Bluetooth Link + WLAN (5GHz) Link + Earphone + USB Cable (Charging from Adapter 5.2V) + Battery 2 for Sample 2		



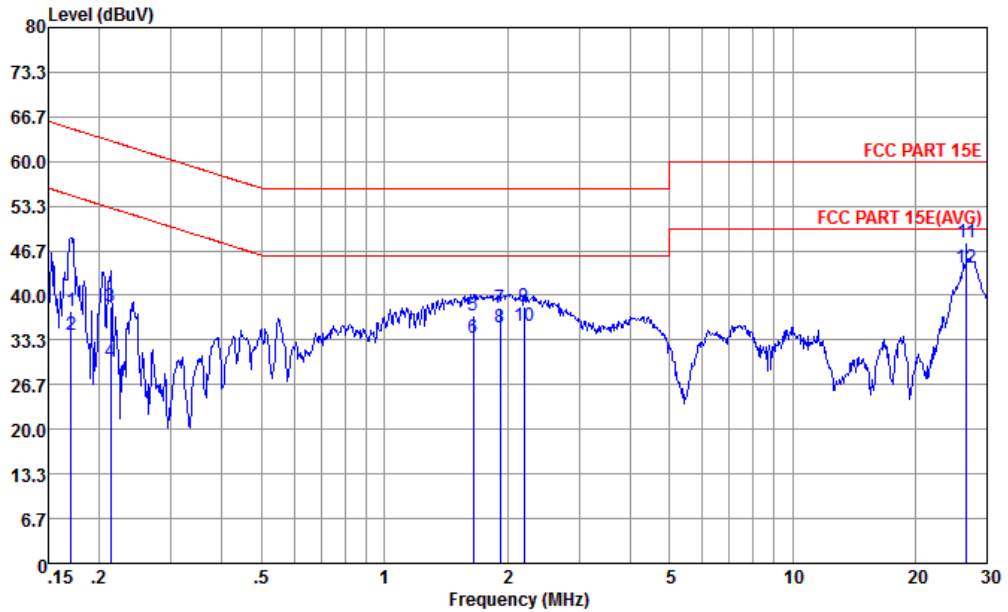
Site : CO01-KS
Condition : FCC PART 15E LISN-L20140306 LINE

mode : Mode 2

	Freq	Level	Over Limit	Limit Line	Read Level	LISN Factor	Cable Loss	Remark
	MHz	dBuV	dB	dBuV	dBuV	dB	dB	
1 *	0.15	60.60	-5.31	65.91	48.30	1.93	10.37	QP
2	0.15	46.50	-9.41	55.91	34.20	1.93	10.37	Average
3	0.17	39.49	-25.28	64.77	27.60	1.45	10.44	QP
4	0.17	25.19	-29.58	54.77	13.30	1.45	10.44	Average
5	1.80	39.40	-16.60	56.00	28.60	0.10	10.70	QP
6	1.80	35.70	-10.30	46.00	24.90	0.10	10.70	Average
7	2.02	40.10	-15.90	56.00	29.30	0.10	10.70	QP
8	2.02	36.40	-9.60	46.00	25.60	0.10	10.70	Average
9	2.49	40.14	-15.86	56.00	29.30	0.11	10.73	QP
10	2.49	36.44	-9.56	46.00	25.60	0.11	10.73	Average
11	27.71	47.65	-12.35	60.00	36.40	0.10	11.15	QP
12	27.71	43.85	-6.15	50.00	32.60	0.10	11.15	Average



Test Mode :	Mode 2	Temperature :	22~24°C
Test Engineer :	Amos Zhang	Relative Humidity :	43~45%
Test Voltage :	120Vac / 60Hz	Phase :	Neutral
Function Type :	GSM850 Idle + Bluetooth Link + WLAN (5GHz) Link + Earphone + USB Cable (Charging from Adapter 5.2V) + Battery 2 for Sample 2		



Site : CO01-KS
Condition : FCC PART 15E LISN-N20140306 NEUTRAL

mode : Mode 2

	Freq	Level	Over Limit	Limit Line	Read Level	LISN Factor	Cable Loss	Remark
	MHz	dBuV	dB	dBuV	dBuV	dB	dB	
1	0.17	37.75	-27.19	64.94	25.81	1.52	10.42	QP
2	0.17	34.15	-20.79	54.94	22.21	1.52	10.42	Average
3	0.21	38.38	-24.72	63.10	26.90	0.97	10.51	QP
4	0.21	30.08	-23.02	53.10	18.60	0.97	10.51	Average
5	1.65	36.99	-19.01	56.00	26.20	0.10	10.69	QP
6	1.65	33.59	-12.41	46.00	22.80	0.10	10.69	Average
7	1.92	38.10	-17.90	56.00	27.30	0.10	10.70	QP
8	1.92	35.10	-10.90	46.00	24.30	0.10	10.70	Average
9	2.20	38.32	-17.68	56.00	27.50	0.11	10.71	QP
10	2.20	35.42	-10.58	46.00	24.60	0.11	10.71	Average
11	26.70	47.81	-12.19	60.00	36.50	0.17	11.14	QP
12 *	26.70	44.21	-5.79	50.00	32.90	0.17	11.14	Average

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.

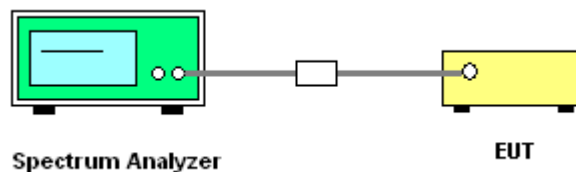
3.6.2 Measuring Instruments

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.



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

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

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 k th antenna is being fed by spatial stream j , or zero if it is not;
 G_k is the gain in dBi of the k th 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 (dBi)	Chain Port 1 (dBi)	DG for Power (dBi)	DG for PSD (dBi)	Power Limit Reduction (dB)	PSD Limit Reduction (dB)
Band I	-1.80	0.80	2.61	2.61	0.00	0.00
Band II	-1.60	0.80	2.69	2.69	0.00	0.00
Band III	0.10	1.20	3.68	3.68	0.00	0.00

$Power\ Limit\ Reduction = DG(Power) - 6dBi, (min = 0)$

$PSD\ Limit\ Reduction = DG(PSD) - 6dBi, (min = 0)$



4 List of Measuring Equipments

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	Aug. 01, 2015	Jan. 27, 2016	Conducted (TH01-SZ)
Pulse Power Sensor	Anritsu	MA2411B	1207253	30MHz~40GHz	Jan. 28, 2015	Aug. 01, 2015	Jan. 27, 2016	Conducted (TH01-SZ)
Power Meter	Anritsu	ML2495A	1218010	50MHz Bandwidth	Jan. 28, 2015	Aug. 01, 2015	Jan. 27, 2016	Conducted (TH01-SZ)
Thermal Chamber	Ten Billion Hongzhangroup	LP-150U	H2014081803	-40~+150°C	Sep. 16, 2015	Aug. 01, 2015	Sep. 15, 2016	Conducted (TH01-SZ)
EMI Test Receiver	R&S	ESR7	101403	9kHz~7GHz; Max 30dBm	Sep. 29, 2014	Sep. 01, 2015	Sep. 28, 2015	Radiation (03CH02-KS)
Spectrum Analyzer	R&S	FSV40	101040	10kHz~40GHz; Max 30dBm	Sep. 25, 2014	Sep. 01, 2015	Sep. 24, 2015	Radiation (03CH02-KS)
Loop Antenna	R&S	HFH2-Z2	100321	9kHz~30MHz	Nov. 13, 2014	Sep. 01, 2015	Nov. 12, 2015	Radiation (03CH02-KS)
Bilog Antenna	TeseQ	CBL6112D	37879	30MHz~2GHz	Sep. 13, 2014	Sep. 01, 2015	Sep. 12, 2015	Radiation (03CH02-KS)
Double Ridge Horn Antenna	ETS-Lindgren	3117	75957	1GHz~18GHz	Nov. 08, 2014	Sep. 01, 2015	Nov. 07, 2015	Radiation (03CH02-KS)
Active Horn Antenna	com-power	AHA-118	701030	1GHz~18GHz	Nov. 08, 2014	Sep. 01, 2015	Nov. 07, 2015	Radiation (03CH02-KS)
SHF-EHF Horn	com-power	AH-840	101070	18GHz~40GHz	Sep. 04, 2014	Sep. 01, 2015	Sep. 03, 2015	Radiation (03CH02-KS)
Amplifier	com-power	PA-103A	161069	1kHz~1000MHz / 32 dB	May 04, 2015	Sep. 01, 2015	May 03, 2016	Radiation (03CH02-KS)
Amplifier	Agilent	8449B	3008A02384	1GHz~26.5GHz Gain 30dB	Oct. 28, 2014	Sep. 01, 2015	Oct. 27, 2015	Radiation (03CH02-KS)
AC Power Source	Chroma	61601	616010002473	N/A	NCR	Sep. 01, 2015	NCR	Radiation (03CH02-KS)
Turn Table	MF	MF7802	N/A	0~360 degree	NCR	Sep. 01, 2015	NCR	Radiation (03CH02-KS)
Antenna Mast	MF	MF7802	N/A	1 m~4 m	NCR	Sep. 01, 2015	NCR	Radiation (03CH02-KS)
EMI Receiver	R&S	ESCI7	100768	9kHz~7GHz;	May 04, 2015	Aug. 21, 2015	May 03, 2016	Conduction (CO01-KS)
AC LISN	MessTec	AN3016	060103	9kHz~30MHz	Oct. 25, 2014	Aug. 21, 2015	Oct. 24, 2015	Conduction (CO01-KS)
AC LISN (for auxiliary equipment)	MessTec	AN3016	060105	9kHz~30MHz	Oct. 25, 2014	Aug. 21, 2015	Oct. 24, 2015	Conduction (CO01-KS)
AC Power Source	Chroma	61602	ABP000000811	AC 0V~300V, 45Hz~1000Hz	Oct. 25, 2014	Aug. 21, 2015	Oct. 24, 2015	Conduction (CO01-KS)



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

Measuring Uncertainty for a Level of Confidence of 95% ($U = 2Uc(y)$)	5.1 dB
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Appendix A. Conducted Test Results

Test Engineer:	Tiny You	Temperature:	21~25	°C
Test Date:	2015/8/1	Relative Humidity:	51~54	%

TEST RESULTS DATA
26dB and 99% OBW

Band I													
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	99% Bandwidth (MHz)		26 dB Bandwidth (MHz)		IC 99% Bandwidth Power Limit (dBm)		IC 99% Bandwidth EIRP Limit (dBm)		Note
					Ant 0	Ant 1	Ant 0	Ant 1	Ant 0	Ant 1	Ant 0	Ant 1	
11a	6Mbps	1	36	5180	18.30	18.40	23.35	23.50	-	-	22.62	22.65	
11a	6Mbps	1	44	5220	18.35	18.35	23.10	23.05	-	-	22.64	22.64	
11a	6Mbps	1	48	5240	17.25	17.25	20.65	20.75	-	-	22.37	22.37	
HT20	MCS0	1	36	5180	19.00	19.05	23.30	23.35	-	-	22.79	22.80	
HT20	MCS0	1	44	5220	19.25	19.05	23.05	23.55	-	-	22.84	22.80	
HT20	MCS0	1	48	5240	18.00	18.00	20.95	20.90	-	-	22.55	22.55	
HT40	MCS0	1	38	5190	36.60	36.80	41.40	41.67	-	-	23.01	23.01	
HT40	MCS0	1	46	5230	36.60	36.70	41.58	41.67	-	-	23.01	23.01	
VHT20	MCS0	1	36	5180	18.90	19.05	23.10	23.20	-	-	22.76	22.80	
VHT20	MCS0	1	44	5220	18.75	19.10	23.10	23.30	-	-	22.73	22.81	
VHT20	MCS0	1	48	5240	18.05	18.05	21.05	20.95	-	-	22.56	22.56	
VHT40	MCS0	1	38	5190	36.70	36.70	41.49	41.67	-	-	23.01	23.01	
VHT40	MCS0	1	46	5230	36.80	36.70	41.58	41.67	-	-	23.01	23.01	
VHT80	MCS0	1	42	5210	75.84	75.84	82.40	82.56	-	-	23.01	23.01	
HT20	MCS8	2	36	5180	19.10	18.95	23.55	23.15	-	-	22.78		
HT20	MCS8	2	44	5220	19.10	19.00	23.40	23.20	-	-	22.79		
HT20	MCS8	2	48	5240	18.00	18.00	21.00	20.85	-	-	22.55		
HT40	MCS8	2	38	5190	36.70	36.80	41.67	41.31	-	-	23.01		
HT40	MCS8	2	46	5230	36.70	36.70	41.49	41.40	-	-	23.01		
VHT20	MCS0	2	36	5180	19.05	18.95	23.35	23.20	-	-	22.78		
VHT20	MCS0	2	44	5220	19.00	18.90	23.45	23.25	-	-	22.76		
VHT20	MCS0	2	48	5240	17.95	18.05	20.80	20.90	-	-	22.54		
VHT40	MCS0	2	38	5190	36.70	36.60	41.58	41.31	-	-	23.01		
VHT40	MCS0	2	46	5230	36.70	36.70	41.67	41.40	-	-	23.01		
VHT80	MCS0	2	42	5210	75.84	75.84	82.56	82.08	-	-	23.01		

TEST RESULTS DATA
Average Power Table

FCC Band I														
Mod.	Data Rate	N _{TX}	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		1	36	5180	0.32	0.32	14.67	12.50		24.00	24.00	-1.80	0.80	Pass
11a		1	44	5220	0.32	0.32	14.66	12.58		24.00	24.00	-1.80	0.80	Pass
11a		1	48	5240	0.32	0.32	14.82	12.67		24.00	24.00	-1.80	0.80	Pass
HT20	MCS0	1	36	5180	0.22	0.22	13.68	12.17		24.00	24.00	-1.80	0.80	Pass
HT20	MCS0	1	44	5220	0.22	0.22	13.74	12.38		24.00	24.00	-1.80	0.80	Pass
HT20	MCS0	1	48	5240	0.22	0.22	13.90	12.58		24.00	24.00	-1.80	0.80	Pass
HT40	MCS0	1	38	5190	0.44	0.44	12.49	12.59		24.00	24.00	-1.80	0.80	Pass
HT40	MCS0	1	46	5230	0.44	0.44	12.42	12.58		24.00	24.00	-1.80	0.80	Pass
VHT20	MCS0	1	36	5180	0.21	0.21	12.06	12.28		24.00	24.00	-1.80	0.80	Pass
VHT20	MCS0	1	44	5220	0.21	0.21	11.93	12.04		24.00	24.00	-1.80	0.80	Pass
VHT20	MCS0	1	48	5240	0.21	0.21	11.86	12.15		24.00	24.00	-1.80	0.80	Pass
VHT40	MCS0	1	38	5190	0.59	0.59	12.50	12.63		24.00	24.00	-1.80	0.80	Pass
VHT40	MCS0	1	46	5230	0.59	0.59	12.40	12.44		24.00	24.00	-1.80	0.80	Pass
VHT80	MCS0	1	42	5210	1.13	1.13	11.55	12.01		24.00	24.00	-1.80	0.80	Pass
HT20	MCS8	2	36	5180	0.43	0.43	12.18	12.31	15.25	24.00		2.61		Pass
HT20	MCS8	2	44	5220	0.43	0.43	12.09	12.24	15.17	24.00		2.61		Pass
HT20	MCS8	2	48	5240	0.43	0.43	12.01	12.22	15.12	24.00		2.61		Pass
HT40	MCS8	2	38	5190	0.82	0.82	11.72	11.81	14.78	24.00		2.61		Pass
HT40	MCS8	2	46	5230	0.82	0.82	11.54	11.73	14.65	24.00		2.61		Pass
VHT20	MCS0	2	36	5180	0.58	0.58	12.15	12.26	15.22	24.00		2.61		Pass
VHT20	MCS0	2	44	5220	0.58	0.58	11.96	12.09	15.04	24.00		2.61		Pass
VHT20	MCS0	2	48	5240	0.58	0.58	11.88	11.86	14.88	24.00		2.61		Pass
VHT40	MCS0	2	38	5190	0.59	0.59	12.06	12.08	15.13	24.00		2.61		Pass
VHT40	MCS0	2	46	5230	0.59	0.59	11.86	11.94	14.91	24.00		2.61		Pass
VHT80	MCS0	2	42	5210	1.78	1.78	11.32	11.94	14.65	24.00		2.61		Pass

TEST RESULTS DATA
Power Spectral Density

FCC Band I														
Mod.	Data Rate	N _{TX}	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		1	36	5180	0.32	0.32	2.35	5.01		11.00	11.00	-1.80	0.80	Pass
11a		1	44	5220	0.32	0.32	2.03	4.57		11.00	11.00	-1.80	0.80	Pass
11a		1	48	5240	0.32	0.32	1.96	4.77		11.00	11.00	-1.80	0.80	Pass
HT20	MCS0	1	36	5180	0.22	0.22	2.96	2.39		11.00	11.00	-1.80	0.80	Pass
HT20	MCS0	1	44	5220	0.22	0.22	4.23	2.13		11.00	11.00	-1.80	0.80	Pass
HT20	MCS0	1	48	5240	0.22	0.22	2.66	2.28		11.00	11.00	-1.80	0.80	Pass
HT40	MCS0	1	38	5190	0.44	0.44	-1.15	-1.75		11.00	11.00	-1.80	0.80	Pass
HT40	MCS0	1	46	5230	0.44	0.44	1.08	-1.78		11.00	11.00	-1.80	0.80	Pass
VHT20	MCS0	1	36	5180	0.21	0.21	0.42	0.73		11.00	11.00	-1.80	0.80	Pass
VHT20	MCS0	1	44	5220	0.21	0.21	0.02	0.57		11.00	11.00	-1.80	0.80	Pass
VHT20	MCS0	1	48	5240	0.21	0.21	0.27	0.66		11.00	11.00	-1.80	0.80	Pass
VHT40	MCS0	1	38	5190	0.59	0.59	-1.37	-1.44		11.00	11.00	-1.80	0.80	Pass
VHT40	MCS0	1	46	5230	0.59	0.59	-1.57	-1.61		11.00	11.00	-1.80	0.80	Pass
VHT80	MCS0	1	42	5210	1.13	1.13	-4.56	-5.03		11.00	11.00	-1.80	0.80	Pass
HT20	MCS8	2	36	5180	0.43	0.43			5.02	11.00		2.61	Pass	
HT20	MCS8	2	44	5220	0.43	0.43			4.79	11.00		2.61	Pass	
HT20	MCS8	2	48	5240	0.43	0.43			4.83	11.00		2.61	Pass	
HT40	MCS8	2	38	5190	0.82	0.82			0.78	11.00		2.61	Pass	
HT40	MCS8	2	46	5230	0.82	0.82			0.31	11.00		2.61	Pass	
VHT20	MCS0	2	36	5180	0.58	0.58			3.04	11.00		2.61	Pass	
VHT20	MCS0	2	44	5220	0.58	0.58			2.84	11.00		2.61	Pass	
VHT20	MCS0	2	48	5240	0.58	0.58			2.81	11.00		2.61	Pass	
VHT40	MCS0	2	38	5190	0.59	0.59			0.24	11.00		2.61	Pass	
VHT40	MCS0	2	46	5230	0.59	0.59			0.26	11.00		2.61	Pass	
VHT80	MCS0	2	42	5210	1.78	1.78			-3.65	11.00		2.61	Pass	

TEST RESULTS DATA
26dB and 99% OBW

Band II															
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	99% Bandwidth (MHz)		26 dB Bandwidth (MHz)		IC 99% Bandwidth Power Limit (dBm)		IC 99% Bandwidth EIRP Limit (dBm)		FCC 26dB Bandwidth Power Limit (dBm)		Note
					Ant 0	Ant 1	Ant 0	Ant 1	Ant 0	Ant 1	Ant 0	Ant 1	Ant 0	Ant 1	
11a	6Mbps	1	52	5260	17.25	17.35	20.75	20.80	23.37	23.39	29.37	29.39	23.98	23.98	
11a	6Mbps	1	60	5300	18.25	18.20	22.95	23.05	23.61	23.60	29.61	29.60	23.98	23.98	
11a	6Mbps	1	64	5320	18.25	18.30	23.10	23.15	23.61	23.62	29.61	29.62	23.98	23.98	
HT20	MCS0	1	52	5260	17.95	18.00	21.00	20.90	23.54	23.55	29.54	29.55	23.98	23.98	
HT20	MCS0	1	60	5300	19.10	19.00	23.50	23.45	23.81	23.79	29.81	29.79	23.98	23.98	
HT20	MCS0	1	64	5320	19.00	19.00	23.50	23.55	23.79	23.79	29.79	29.79	23.98	23.98	
HT40	MCS0	1	54	5270	36.70	36.70	41.58	41.58	23.98	23.98	30.00	30.00	23.98	23.98	
HT40	MCS0	1	62	5310	36.80	36.70	41.31	41.58	23.98	23.98	30.00	30.00	23.98	23.98	
VHT20	MCS0	1	52	5260	18.00	18.00	21.00	20.95	23.55	23.55	29.55	29.55	23.98	23.98	
VHT20	MCS0	1	60	5300	18.80	19.10	22.80	23.45	23.74	23.81	29.74	29.81	23.98	23.98	
VHT20	MCS0	1	64	5320	18.80	19.00	23.05	23.60	23.74	23.79	29.74	29.79	23.98	23.98	
VHT40	MCS0	1	54	5270	36.60	36.70	41.67	41.67	23.98	23.98	30.00	30.00	23.98	23.98	
VHT40	MCS0	1	62	5310	36.70	36.70	41.67	41.58	23.98	23.98	30.00	30.00	23.98	23.98	
VHT80	MCS0	1	58	5290	75.84	75.84	83.04	82.40	23.98	23.98	30.00	30.00	23.98	23.98	
HT20	MCS8	2	52	5260	18.00	18.00	20.95	20.80	23.55		29.55		23.98		
HT20	MCS8	2	60	5300	19.20	18.95	23.65	23.20	23.78		29.78		23.98		
HT20	MCS8	2	64	5320	19.00	18.95	23.40	23.25	23.78		29.78		23.98		
HT40	MCS8	2	54	5270	36.60	36.70	41.58	41.22	23.98		30.00		23.98		
HT40	MCS8	2	62	5310	36.70	36.70	41.58	41.31	23.98		30.00		23.98		
VHT20	MCS0	2	52	5260	18.00	18.00	20.95	20.90	23.55		29.55		23.98		
VHT20	MCS0	2	60	5300	19.10	18.90	23.25	23.20	23.76		29.76		23.98		
VHT20	MCS0	2	64	5320	19.05	18.95	23.45	23.15	23.78		29.78		23.98		
VHT40	MCS0	2	54	5270	36.80	36.60	41.58	41.22	23.98		30.00		23.98		
VHT40	MCS0	2	62	5310	36.70	36.70	41.67	41.40	23.98		30.00		23.98		
VHT80	MCS0	2	58	5290	75.96	75.96	82.72	82.72	23.98		30.00		23.98		

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		1	52	5260	0.32	0.32	13.74	12.53		23.98	23.98	-1.60	0.80	Pass
11a		1	60	5300	0.32	0.32	13.41	12.25		23.98	23.98	-1.60	0.80	Pass
11a		1	64	5320	0.32	0.32	13.13	12.44		23.98	23.98	-1.60	0.80	Pass
HT20	MCS0	1	52	5260	0.22	0.22	13.57	11.11		23.98	23.98	-1.60	0.80	Pass
HT20	MCS0	1	60	5300	0.22	0.22	13.67	11.15		23.98	23.98	-1.60	0.80	Pass
HT20	MCS0	1	64	5320	0.22	0.22	13.49	11.08		23.98	23.98	-1.60	0.80	Pass
HT40	MCS0	1	54	5270	0.44	0.44	11.99	12.51		23.98	23.98	-1.60	0.80	Pass
HT40	MCS0	1	62	5310	0.44	0.44	11.87	12.35		23.98	23.98	-1.60	0.80	Pass
VHT20	MCS0	1	52	5260	0.21	0.21	11.75	11.98		23.98	23.98	-1.60	0.80	Pass
VHT20	MCS0	1	60	5300	0.21	0.21	11.62	11.56		23.98	23.98	-1.60	0.80	Pass
VHT20	MCS0	1	64	5320	0.21	0.21	11.64	11.75		23.98	23.98	-1.60	0.80	Pass
VHT40	MCS0	1	54	5270	0.59	0.59	12.22	12.48		23.98	23.98	-1.60	0.80	Pass
VHT40	MCS0	1	62	5310	0.59	0.59	12.04	12.43		23.98	23.98	-1.60	0.80	Pass
VHT80	MCS0	1	58	5290	1.13	1.13	11.04	11.89		23.98	23.98	-1.60	0.80	Pass
HT20	MCS8	2	52	5260	0.43	0.43	11.75	11.94	14.85	23.98		2.69		Pass
HT20	MCS8	2	60	5300	0.43	0.43	11.79	12.10	14.95	23.98		2.69		Pass
HT20	MCS8	2	64	5320	0.43	0.43	11.65	12.06	14.87	23.98		2.69		Pass
HT40	MCS8	2	54	5270	0.82	0.82	10.95	11.74	14.37	23.98		2.69		Pass
HT40	MCS8	2	62	5310	0.82	0.82	10.88	11.69	14.31	23.98		2.69		Pass
VHT20	MCS0	2	52	5260	0.58	0.58	11.54	11.88	14.72	23.98		2.69		Pass
VHT20	MCS0	2	60	5300	0.58	0.58	11.36	11.64	14.51	23.98		2.69		Pass
VHT20	MCS0	2	64	5320	0.58	0.58	11.18	11.72	14.47	23.98		2.69		Pass
VHT40	MCS0	2	54	5270	0.59	0.59	11.48	12.08	14.80	23.98		2.69		Pass
VHT40	MCS0	2	62	5310	0.59	0.59	11.37	11.94	14.67	23.98		2.69		Pass
VHT80	MCS0	2	58	5290	1.78	1.78	10.98	11.82	14.43	23.98		2.69		Pass

TEST RESULTS DATA
Power Spectral Density

Band II														
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	Duty Factor (dB)		Average Power Density (dBm/MHz)			Average PSD Limit (dBm/MHz)		DG (dBi)		Pass /Fail
					Ant 0	Ant 1	Ant 0	Ant 1	SUM	Ant 0	Ant 1	Ant 0	Ant 1	
11a	6Mbps	1	52	5260	0.32	0.32	1.03	4.58		11.00	11.00	-1.60	0.80	Pass
11a	6Mbps	1	60	5300	0.32	0.32	0.83	4.34		11.00	11.00	-1.60	0.80	Pass
11a	6Mbps	1	64	5320	0.32	0.32	0.95	4.42		11.00	11.00	-1.60	0.80	Pass
HT20	MCS0	1	52	5260	0.22	0.22	2.57	2.33		11.00	11.00	-1.60	0.80	Pass
HT20	MCS0	1	60	5300	0.22	0.22	2.27	1.96		11.00	11.00	-1.60	0.80	Pass
HT20	MCS0	1	64	5320	0.22	0.22	2.40	1.91		11.00	11.00	-1.60	0.80	Pass
HT40	MCS0	1	54	5270	0.44	0.44	-1.80	-1.93		11.00	11.00	-1.60	0.80	Pass
HT40	MCS0	1	62	5310	0.44	0.44	0.48	-1.83		11.00	11.00	-1.60	0.80	Pass
VHT20	MCS0	1	52	5260	0.21	0.21	0.08	0.50		11.00	11.00	-1.60	0.80	Pass
VHT20	MCS0	1	60	5300	0.21	0.21	0.20	0.29		11.00	11.00	-1.60	0.80	Pass
VHT20	MCS0	1	64	5320	0.21	0.21	-0.18	0.44		11.00	11.00	-1.60	0.80	Pass
VHT40	MCS0	1	54	5270	0.59	0.59	-1.69	-2.05		11.00	11.00	-1.60	0.80	Pass
VHT40	MCS0	1	62	5310	0.59	0.59	-1.60	-1.96		11.00	11.00	-1.60	0.80	Pass
VHT80	MCS0	1	58	5290	1.13	1.13	-4.96	-5.14		11.00	11.00	-1.60	0.80	Pass
HT20	MCS8	2	52	5260	0.43	0.43			4.76	11.00		2.69	Pass	
HT20	MCS8	2	60	5300	0.43	0.43			4.21	11.00		2.69	Pass	
HT20	MCS8	2	64	5320	0.43	0.43			4.48	11.00		2.69	Pass	
HT40	MCS8	2	54	5270	0.82	0.82			0.09	11.00		2.69	Pass	
HT40	MCS8	2	62	5310	0.82	0.82			0.05	11.00		2.69	Pass	
VHT20	MCS0	2	52	5260	0.58	0.58			2.75	11.00		2.69	Pass	
VHT20	MCS0	2	60	5300	0.58	0.58			2.40	11.00		2.69	Pass	
VHT20	MCS0	2	64	5320	0.58	0.58			2.34	11.00		2.69	Pass	
VHT40	MCS0	2	54	5270	0.59	0.59			-0.03	11.00		2.69	Pass	
VHT40	MCS0	2	62	5310	0.59	0.59			-0.02	11.00		2.69	Pass	
VHT80	MCS0	2	58	5290	1.78	1.78			-4.39	11.00		2.69	Pass	

TEST RESULTS DATA
26dB and 99% OBW

Band III															
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	99% Bandwidth (MHz)		26 dB Bandwidth (MHz)		IC 99% Bandwidth Power Limit (dBm)		IC 99% Bandwidth EIRP Limit (dBm)		FCC 26dB Bandwidth Power Limit (dBm)		Note
					Ant 0	Ant 1	Ant 0	Ant 1	Ant 0	Ant 1	Ant 0	Ant 1	Ant 0	Ant 1	
11a	6Mbps	1	100	5500	18.25	18.35	23.05	23.10	23.61	23.64	29.61	29.64	23.98	23.98	
11a	6Mbps	1	116	5580	17.35	17.20	20.75	20.70	23.39	23.36	29.39	29.36	23.98	23.98	
11a	6Mbps	1	140	5700	18.30	18.25	23.20	23.10	23.62	23.61	29.62	29.61	23.98	23.98	
HT20	MCS0	1	100	5500	19.05	19.05	23.40	23.40	23.80	23.80	29.80	29.80	23.98	23.98	
HT20	MCS0	1	116	5580	18.00	18.00	20.90	21.10	23.55	23.55	29.55	29.55	23.98	23.98	
HT20	MCS0	1	140	5700	19.05	19.00	23.40	23.45	23.80	23.79	29.80	29.79	23.98	23.98	
HT40	MCS0	1	102	5510	36.70	36.70	41.58	41.49	23.98	23.98	30.00	30.00	23.98	23.98	
HT40	MCS0	1	110	5550	36.80	36.90	41.58	41.58	23.98	23.98	30.00	30.00	23.98	23.98	
HT40	MCS0	1	134	5670	36.90	36.70	41.85	41.58	23.98	23.98	30.00	30.00	23.98	23.98	
VHT20	MCS0	1	100	5500	18.85	19.00	23.15	23.40	23.75	23.79	29.75	29.79	23.98	23.98	
VHT20	MCS0	1	116	5580	18.15	17.95	21.10	20.90	23.59	23.54	29.59	29.54	23.98	23.98	
VHT20	MCS0	1	140	5700	18.90	19.00	22.95	23.50	23.76	23.79	29.76	29.79	23.98	23.98	
VHT40	MCS0	1	102	5510	36.70	36.70	41.58	41.76	23.98	23.98	30.00	30.00	23.98	23.98	
VHT40	MCS0	1	110	5550	36.90	36.70	41.67	41.58	23.98	23.98	30.00	30.00	23.98	23.98	
VHT40	MCS0	1	134	5670	36.70	36.70	41.49	41.67	23.98	23.98	30.00	30.00	23.98	23.98	
VHT80	MCS0	1	106	5530	75.84	75.96	82.40	83.04	23.98	23.98	30.00	30.00	23.98	23.98	
VHT80	MCS0	1	122	5610	75.96	75.96	83.04	82.40	23.98	23.98	30.00	30.00	23.98	23.98	
HT20	MCS8	2	100	5500	19.15	18.90	23.35	23.15	23.76		29.76		23.98		
HT20	MCS8	2	116	5580	18.00	18.00	20.95	20.90	23.55		29.55		23.98		
HT20	MCS8	2	140	5700	19.10	19.00	23.45	23.25	23.79		29.79		23.98		
HT40	MCS8	2	102	5510	36.70	36.70	41.40	41.40	23.98		30.00		23.98		
HT40	MCS8	2	110	5550	36.70	36.90	41.76	41.31	23.98		30.00		23.98		
HT40	MCS8	2	134	5670	36.70	36.70	41.49	41.31	23.98		30.00		23.98		
VHT20	MCS0	2	100	5500	19.00	18.95	23.40	23.15	23.78		29.78		23.98		
VHT20	MCS0	2	116	5580	18.00	18.00	20.95	20.90	23.55		29.55		23.98		
VHT20	MCS0	2	140	5700	19.05	18.95	23.35	23.15	23.78		29.78		23.98		
VHT40	MCS0	2	102	5510	36.70	36.70	41.76	41.31	23.98		30.00		23.98		
VHT40	MCS0	2	110	5550	36.70	36.70	41.58	41.40	23.98		30.00		23.98		
VHT40	MCS0	2	134	5670	36.70	36.70	41.49	41.49	23.98		30.00		23.98		
VHT80	MCS0	2	106	5530	75.96	75.84	82.40	83.04	23.98		30.00		23.98		
VHT80	MCS0	2	122	5610	75.96	75.84	83.20	82.72	23.98		30.00		23.98		

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	0.32	0.32	12.99	10.56		23.98	23.98	0.10	1.20	Pass
11a	6Mbps	1	116	5580	0.32	0.32	12.85	10.41		23.98	23.98	0.10	1.20	Pass
11a	6Mbps	1	140	5700	0.32	0.32	12.38	10.26		23.98	23.98	0.10	1.20	Pass
HT20	MCS0	1	100	5500	0.22	0.22	11.86	10.50		23.98	23.98	0.10	1.20	Pass
HT20	MCS0	1	116	5580	0.22	0.22	11.09	10.24		23.98	23.98	0.10	1.20	Pass
HT20	MCS0	1	140	5700	0.22	0.22	11.47	10.03		23.98	23.98	0.10	1.20	Pass
HT40	MCS0	1	102	5510	0.44	0.44	11.50	10.20		23.98	23.98	0.10	1.20	Pass
HT40	MCS0	1	110	5550	0.44	0.44	11.42	10.12		23.98	23.98	0.10	1.20	Pass
HT40	MCS0	1	134	5670	0.44	0.44	10.65	9.56		23.98	23.98	0.10	1.20	Pass
VHT20	MCS0	1	100	5500	0.21	0.21	10.95	9.75		23.98	23.98	0.10	1.20	Pass
VHT20	MCS0	1	116	5580	0.21	0.21	10.19	9.70		23.98	23.98	0.10	1.20	Pass
VHT20	MCS0	1	140	5700	0.21	0.21	10.42	9.23		23.98	23.98	0.10	1.20	Pass
VHT40	MCS0	1	102	5510	0.59	0.59	11.28	10.51		23.98	23.98	0.10	1.20	Pass
VHT40	MCS0	1	110	5550	0.59	0.59	10.97	10.46		23.98	23.98	0.10	1.20	Pass
VHT40	MCS0	1	134	5670	0.59	0.59	10.60	10.40		23.98	23.98	0.10	1.20	Pass
VHT80	MCS0	1	106	5530	1.13	1.13	10.10	10.04		23.98	23.98	0.10	1.20	Pass
VHT80	MCS0	1	122	5610	1.13	1.13	9.83	10.03		23.98	23.98	0.10	1.20	Pass
HT20	MCS8	2	100	5500	0.43	0.43	10.47	10.98	13.74	23.98		3.68		Pass
HT20	MCS8	2	116	5580	0.43	0.43	10.02	10.84	13.45	23.98		3.68		Pass
HT20	MCS8	2	140	5700	0.43	0.43	9.75	10.75	13.28	23.98		3.68		Pass
HT40	MCS8	2	102	5510	0.82	0.82	10.07	11.20	13.68	23.98		3.68		Pass
HT40	MCS8	2	110	5550	0.82	0.82	10.01	11.02	13.56	23.98		3.68		Pass
HT40	MCS8	2	134	5670	0.82	0.82	9.40	10.46	12.97	23.98		3.68		Pass
VHT20	MCS0	2	100	5500	0.58	0.58	10.46	10.72	13.60	23.98		3.68		Pass
VHT20	MCS0	2	116	5580	0.58	0.58	10.10	10.55	13.34	23.98		3.68		Pass
VHT20	MCS0	2	140	5700	0.58	0.58	9.77	10.49	13.16	23.98		3.68		Pass
VHT40	MCS0	2	102	5510	0.59	0.59	10.05	11.09	13.61	23.98		3.68		Pass
VHT40	MCS0	2	110	5550	0.59	0.59	9.89	11.00	13.49	23.98		3.68		Pass
VHT40	MCS0	2	134	5670	0.59	0.59	10.00	11.03	13.55	23.98		3.68		Pass
VHT80	MCS0	2	106	5530	1.78	1.78	9.18	10.61	12.96	23.98		3.68		Pass
VHT80	MCS0	2	122	5610	1.78	1.78	8.89	10.56	12.81	23.98		3.68		Pass

TEST RESULTS DATA
Power Spectral Density

Band III														
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	100	5500	0.32	0.32	2.19	4.13		11.00	11.00	0.10	1.20	Pass
11a	6Mbps	1	116	5580	0.32	0.32	2.03	4.32		11.00	11.00	0.10	1.20	Pass
11a	6Mbps	1	140	5700	0.32	0.32	2.05	4.09		11.00	11.00	0.10	1.20	Pass
HT20	MCS0	1	100	5500	0.22	0.22	2.06	1.83		11.00	11.00	0.10	1.20	Pass
HT20	MCS0	1	116	5580	0.22	0.22	0.55	1.90		11.00	11.00	0.10	1.20	Pass
HT20	MCS0	1	140	5700	0.22	0.22	0.63	1.61		11.00	11.00	0.10	1.20	Pass
HT40	MCS0	1	102	5510	0.44	0.44	-2.55	-2.22		11.00	11.00	0.10	1.20	Pass
HT40	MCS0	1	110	5550	0.44	0.44	-1.43	-2.22		11.00	11.00	0.10	1.20	Pass
HT40	MCS0	1	134	5670	0.44	0.44	-1.40	-2.37		11.00	11.00	0.10	1.20	Pass
VHT20	MCS0	1	100	5500	0.21	0.21	-0.47	0.26		11.00	11.00	0.10	1.20	Pass
VHT20	MCS0	1	116	5580	0.21	0.21	-0.93	0.43		11.00	11.00	0.10	1.20	Pass
VHT20	MCS0	1	140	5700	0.21	0.21	-1.17	-0.14		11.00	11.00	0.10	1.20	Pass
VHT40	MCS0	1	102	5510	0.59	0.59	-2.40	-2.16		11.00	11.00	0.10	1.20	Pass
VHT40	MCS0	1	110	5550	0.59	0.59	-2.62	-2.24		11.00	11.00	0.10	1.20	Pass
VHT40	MCS0	1	134	5670	0.59	0.59	-2.88	-2.59		11.00	11.00	0.10	1.20	Pass
VHT80	MCS0	1	106	5530	1.13	1.13	-5.98	-5.59		11.00	11.00	0.10	1.20	Pass
VHT80	MCS0	1	122	5610	1.13	1.13	-6.18	-5.55		11.00	11.00	0.10	1.20	Pass
HT20	MCS8	2	100	5500	0.43	0.43			4.21	11.00		3.68	Pass	
HT20	MCS8	2	116	5580	0.43	0.43			4.44	11.00		3.68	Pass	
HT20	MCS8	2	140	5700	0.43	0.43			3.88	11.00		3.68	Pass	
HT40	MCS8	2	102	5510	0.82	0.82			-0.14	11.00		3.68	Pass	
HT40	MCS8	2	110	5550	0.82	0.82			-0.06	11.00		3.68	Pass	
HT40	MCS8	2	134	5670	0.82	0.82			-0.51	11.00		3.68	Pass	
VHT20	MCS0	2	100	5500	0.58	0.58			2.21	11.00		3.68	Pass	
VHT20	MCS0	2	116	5580	0.58	0.58			2.36	11.00		3.68	Pass	
VHT20	MCS0	2	140	5700	0.58	0.58			2.14	11.00		3.68	Pass	
VHT40	MCS0	2	102	5510	0.59	0.59			-0.29	11.00		3.68	Pass	
VHT40	MCS0	2	110	5550	0.59	0.59			-0.36	11.00		3.68	Pass	
VHT40	MCS0	2	134	5670	0.59	0.59			-0.80	11.00		3.68	Pass	
VHT80	MCS0	2	106	5530	1.78	1.78			-4.40	11.00		3.68	Pass	
VHT80	MCS0	2	122	5610	1.78	1.78			-4.40	11.00		3.68	Pass	

TEST RESULTS DATA
Frequency Stability

Band I										
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	Center Frequency (MHz)	Frequency Deviation (MHz)	Frequency Stability (ppm)	Temperature (°C)	Voltage (V)	Note
11a	6Mbps	1	36	5180	5180.025	0.025	4.83	20	3.6	
11a	6Mbps	1	36	5180	5180.000	0.000	0.00	20	4.35	
11a	6Mbps	1	36	5180	5180.000	0.000	0.00	20	3.8	
11a	6Mbps	1	36	5180	5180.025	0.025	4.83	-30	3.8	
11a	6Mbps	1	36	5180	5180.025	0.025	4.83	50	3.8	

Band II										
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	Center Frequency (MHz)	Frequency Deviation (MHz)	Frequency Stability (ppm)	Temperature (°C)	Voltage (V)	Note
11a	6Mbps	1	64	5320	5320.000	0.000	0.00	20	3.6	
11a	6Mbps	1	64	5320	5320.000	0.000	0.00	20	4.35	
11a	6Mbps	1	64	5320	5320.000	0.000	0.00	20	3.8	
11a	6Mbps	1	64	5320	5320.000	0.000	0.00	-30	3.8	
11a	6Mbps	1	64	5320	5320.000	0.000	0.00	50	3.8	

Band III										
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	Center Frequency (MHz)	Frequency Deviation (MHz)	Frequency Stability (ppm)	Temperature (°C)	Voltage (V)	Note
11a	6Mbps	1	100	5500	5500.000	0.000	0.00	20	3.6	
11a	6Mbps	1	100	5500	5500.000	0.000	0.00	20	4.35	
11a	6Mbps	1	100	5500	5499.975	-0.025	-4.55	20	3.8	
11a	6Mbps	1	100	5500	5499.975	-0.025	-4.55	-30	3.8	
11a	6Mbps	1	100	5500	5500.000	0.000	0.00	50	3.8	



Appendix B. Radiated Test Results

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.	
0		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11a CH 36 5180MHz	*	5178	96.37	-	-	94	31.85	7.03	36.51	150	115	P	H
	*	5174	86.18	-	-	83.81	31.85	7.03	36.51	150	115	A	H
		5150	49.69	-24.31	74	47.36	31.84	7.02	36.53	150	115	P	H
		5149.9	34.8	-19.2	54	32.47	31.84	7.02	36.53	150	115	A	H
	*	5176	96.51	-	-	94.14	31.85	7.03	36.51	150	303	P	V
	*	5176	86.51	-	-	84.14	31.85	7.03	36.51	150	303	A	V
		5149.1	49.39	-24.61	74	47.06	31.84	7.02	36.53	150	303	P	V
		5150	34.98	-19.02	54	32.65	31.84	7.02	36.53	150	303	A	V
802.11a CH 44 5220MHz	*	5218	98.89	-	-	96.48	31.86	7.05	36.5	163	113	P	H
	*	5222	88.28	-	-	85.87	31.86	7.05	36.5	163	113	A	H
	*	5218	99.02	-	-	96.61	31.86	7.05	36.5	150	306	P	V
	*	5216	88.41	-	-	86	31.86	7.05	36.5	150	306	A	V
802.11a CH 48 5240MHz	*	5240	99.57	-	-	97.13	31.87	7.07	36.5	174	115	P	H
	*	5234	89.23	-	-	86.79	31.87	7.07	36.5	174	115	A	H
		5398.9	48.58	-25.42	74	45.91	31.92	7.25	36.5	174	115	P	H
		5354.45	34.08	-19.92	54	31.47	31.91	7.2	36.5	174	115	A	H
	*	5240	101.35	-	-	98.91	31.87	7.07	36.5	177	309	P	V
	*	5242	90.83	-	-	88.36	31.88	7.09	36.5	177	309	A	V
		5382.2	48.49	-25.51	74	45.84	31.92	7.23	36.5	177	309	P	V
		5383.5	34.18	-19.82	54	31.53	31.92	7.23	36.5	177	309	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. 0	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	49.65	-24.35	74	38.66	38.02	10.3	37.33	150	228	P	H
		10360	48.39	-25.61	74	37.4	38.02	10.3	37.33	150	78	P	V
802.11a CH 44 5220MHz		10440	48.51	-25.49	74	37.43	38.06	10.33	37.31	162	284	P	H
		10440	48.43	-25.57	74	37.35	38.06	10.33	37.31	150	312	P	V
802.11a CH 48 5240MHz		10479	48.63	-25.37	74	37.49	38.09	10.35	37.3	150	251	P	H
		10480	48.85	-25.15	74	37.71	38.09	10.35	37.3	150	216	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.	
0		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11a CH 52 5260MHz	*	5258	98.97	-	-	96.5	31.88	7.09	36.5	172	109	P	H
	*	5254	89.16	-	-	86.69	31.88	7.09	36.5	172	109	A	H
		5120.45	47.78	-26.22	74	45.49	31.83	7.01	36.55	172	109	P	H
		5137.7	33.56	-20.44	54	31.25	31.84	7.01	36.54	172	109	A	H
	*	5262	100.19	-	-	97.71	31.88	7.1	36.5	175	310	P	V
	*	5252	90.21	-	-	87.74	31.88	7.09	36.5	175	310	A	V
		5137.95	48.47	-25.53	74	46.16	31.84	7.01	36.54	175	310	P	V
		5140.5	33.57	-20.43	54	31.24	31.84	7.02	36.53	175	310	A	V
802.11a CH 60 5300MHz	*	5298	99.44	-	-	96.91	31.89	7.14	36.5	150	113	P	H
	*	5292	89.39	-	-	86.88	31.89	7.12	36.5	150	113	A	H
	*	5302	99.99	-	-	97.46	31.89	7.14	36.5	175	309	P	V
	*	5294	90.05	-	-	87.52	31.89	7.14	36.5	175	309	A	V
802.11a CH 64 5320MHz	*	5320	99.82	-	-	97.26	31.9	7.16	36.5	150	112	P	H
	*	5314	89.31	-	-	86.75	31.9	7.16	36.5	150	112	A	H
		5351.75	50.64	-23.36	74	48.03	31.91	7.2	36.5	150	112	P	H
		5350.05	36.52	-17.48	54	33.91	31.91	7.2	36.5	150	112	A	H
	*	5318	99.76	-	-	97.2	31.9	7.16	36.5	173	311	P	V
	*	5316	89.78	-	-	87.22	31.9	7.16	36.5	173	311	A	V
		5357.25	50.56	-23.44	74	47.95	31.91	7.2	36.5	173	311	P	V
		5350.25	36.63	-17.37	54	34.02	31.91	7.2	36.5	173	311	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. 0	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		10521	46.54	-27.46	74	35.36	38.11	10.36	37.29	150	110	P	H
5260MHz		10521	47.62	-26.38	74	36.44	38.11	10.36	37.29	165	327	P	V
802.11a CH 60		10599	47.39	-26.61	74	36.1	38.16	10.4	37.27	158	115	P	H
5300MHz		10599	47.65	-26.35	74	36.36	38.16	10.4	37.27	165	324	P	V
802.11a CH 64		10641	46.7	-27.3	74	35.37	38.18	10.41	37.26	155	107	P	H
5320MHz		10640	46.95	-27.05	74	35.62	38.18	10.41	37.26	156	308	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.	
0		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11a CH 100 5500MHz	*	5500	96.25	-	-	93.33	31.96	7.31	36.35	177	113	P	H
	*	5502	85.72	-	-	82.8	31.96	7.31	36.35	177	113	A	H
		5470	48.07	-25.93	74	45.23	31.95	7.29	36.4	177	113	P	H
		5469.68	35.7	-18.3	54	32.86	31.95	7.29	36.4	177	113	A	H
	*	5500	97.13	-	-	94.21	31.96	7.31	36.35	152	290	P	V
	*	5496	86.47	-	-	83.6	31.95	7.3	36.38	152	290	A	V
		5470	49.79	-24.21	74	46.95	31.95	7.29	36.4	152	290	P	V
		5469.12	35.79	-18.21	54	32.95	31.95	7.29	36.4	152	290	A	V
802.11a CH 116 5600MHz	*	5580	98.59	24.59	74	95.52	31.98	7.34	36.25	179	109	P	H
	*	5574	88.29	34.29	54	85.22	31.98	7.34	36.25	179	109	A	H
	*	5584	97.46	23.46	74	94.36	31.98	7.35	36.23	150	293	P	V
	*	5582	87.16	33.16	54	84.06	31.98	7.35	36.23	150	293	A	V
802.11a CH 140 5700MHz	*	5700	101.82	-	-	98.61	32.02	7.44	36.25	171	109	P	H
	*	5702	91.54	-	-	88.33	32.03	7.45	36.27	171	109	A	H
		5725	50.34	-23.66	74	47.11	32.04	7.47	36.28	171	109	P	H
		5725	37.68	-16.32	54	34.45	32.04	7.47	36.28	171	109	P	H
	*	5702	99.05	-	-	95.84	32.03	7.45	36.27	150	304	P	V
	*	5702	89.05	-	-	85.84	32.03	7.45	36.27	150	304	A	V
		5725	49.31	-24.69	74	46.08	32.04	7.47	36.28	150	304	P	V
		5725	36	-18	54	32.77	32.04	7.47	36.28	150	304	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. 0	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		11001	46.63	-27.37	74	34.84	38.4	10.56	37.17	168	109	P	H
5500MHz		11001	47.52	-26.48	74	35.73	38.4	10.56	37.17	150	201	P	V
802.11a CH 116		11160	46.69	-27.31	74	34.71	38.47	10.63	37.12	150	109	P	H
5600MHz		11160	47.57	-26.43	74	35.59	38.47	10.63	37.12	150	285	P	V
802.11a CH 140		11400	48.44	-25.56	74	36.21	38.56	10.73	37.06	165	108	P	H
5700MHz		11400	48.83	-25.17	74	36.6	38.56	10.73	37.06	184	215	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.		
0		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)	
802.11a LF		31.94	25.48	-14.52	40	41.47	18.5	0.75	35.24	165	217	P	H	
		136.7	21.85	-21.65	43.5	43.91	11.44	1.51	35.01	-	-	P	H	
		272.5	23.32	-22.68	46	43.62	12.35	2.17	34.82	-	-	P	H	
		309.36	25.26	-20.74	46	44.06	13.71	2.31	34.82	-	-	P	H	
		384.05	24.77	-21.23	46	41.67	15.7	2.58	35.18	-	-	P	H	
		452.92	28.49	-17.51	46	43.53	17.02	2.81	34.87	-	-	P	H	
		31.94	31.13	-8.87	40	47.12	18.5	0.75	35.24	155	210	P	V	
		53.28	23.54	-16.46	40	50.14	7.85	0.96	35.41	-	-	P	V	
		77.53	19.04	-20.96	40	44.65	8.65	1.14	35.4	-	-	P	V	
		288.02	21.88	-24.12	46	41.42	13.01	2.23	34.78	-	-	P	V	
		323.91	23.08	-22.92	46	41.61	14.03	2.36	34.92	-	-	P	V	
		475.23	26.19	-19.81	46	40.88	17.15	2.88	34.72	-	-	P	V	
	Remark	1. No other spurious found. 2. All results are PASS against limit line.												



Band 1 - 5150~5250MHz
WIFI 802.11a (Band Edge @ 3m)

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Peak	Pol.
Ant.				Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
1		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11a CH 36 5180MHz	*	5174	101.71	-	-	99.34	31.85	7.03	36.51	150	109	P	H
	*	5174	92.43	-	-	90.06	31.85	7.03	36.51	150	109	A	H
		5149.6	51.13	-22.87	74	48.8	31.84	7.02	36.53	150	109	P	H
		5149	38.34	-15.66	54	36.01	31.84	7.02	36.53	150	109	A	H
	*	5184	98.34	-	-	95.97	31.85	7.03	36.51	300	94	P	V
	*	5182	88.76	-	-	86.39	31.85	7.03	36.51	300	94	A	V
		5143.65	48.11	-25.89	74	45.78	31.84	7.02	36.53	300	94	P	V
		5148.15	35.89	-18.11	54	33.56	31.84	7.02	36.53	300	94	A	V
802.11a CH 44 5220MHz	*	5216	100.55	-	-	98.14	31.86	7.05	36.5	150	59	P	H
	*	5216	90.98	-	-	88.57	31.86	7.05	36.5	150	59	A	H
	*	5218	97.02	-	-	94.61	31.86	7.05	36.5	252	87	P	V
	*	5214	88.02	-	-	85.61	31.86	7.05	36.5	252	87	A	V
802.11a CH 48 5240MHz	*	5242	98.42	-	-	95.95	31.88	7.09	36.5	151	53	P	H
	*	5248	89.12	-	-	86.65	31.88	7.09	36.5	151	53	A	H
		5384.35	46.49	-27.51	74	43.84	31.92	7.23	36.5	151	53	P	H
		5386.55	36.12	-17.88	54	33.47	31.92	7.23	36.5	151	53	A	H
	*	5244	97.07	-	-	94.6	31.88	7.09	36.5	150	171	P	V
	*	5234	87.72	-	-	85.28	31.87	7.07	36.5	150	171	A	V
		5395.45	46.24	-27.76	74	43.57	31.92	7.25	36.5	150	171	P	V
		5385.6	36.72	-17.28	54	34.07	31.92	7.23	36.5	150	171	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	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		10359	46.82	-27.18	74	35.83	38.02	10.3	37.33	150	265	P	H
		10359	47.03	-26.97	74	36.04	38.02	10.3	37.33	150	221	P	V
802.11a CH 44 5220MHz		10440	46.53	-27.47	74	35.45	38.06	10.33	37.31	182	249	P	H
		10440	46.86	-27.14	74	35.78	38.06	10.33	37.31	150	281	P	V
802.11a CH 48 5240MHz		10479	46.5	-27.5	74	35.36	38.09	10.35	37.3	204	110	P	H
		10479	46.64	-27.36	74	35.5	38.09	10.35	37.3	150	257	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		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11a CH 52 5260MHz	*	5262	99.03	-	-	96.55	31.88	7.1	36.5	150	50	P	H
	*	5256	89.5	-	-	87.03	31.88	7.09	36.5	150	50	A	H
		5133.65	45.9	-28.1	74	43.59	31.84	7.01	36.54	150	50	P	H
		5104.4	34.64	-19.36	54	32.37	31.83	7	36.56	150	50	A	H
	*	5256	95.36	-	-	92.89	31.88	7.09	36.5	300	89	P	V
	*	5254	86.1	-	-	83.63	31.88	7.09	36.5	300	89	A	V
		5124.3	46.51	-27.49	74	44.2	31.84	7.01	36.54	300	89	P	V
		5106.95	34.03	-19.97	54	31.74	31.83	7.01	36.55	300	89	A	V
802.11a CH 60 5300MHz	*	5298	98.02	-	-	95.49	31.89	7.14	36.5	150	349	P	H
	*	5298	87.92	-	-	85.39	31.89	7.14	36.5	150	349	A	H
	*	5294	96.45	-	-	93.92	31.89	7.14	36.5	150	260	P	V
	*	5298	86.31	-	-	83.78	31.89	7.14	36.5	150	260	A	V
802.11a CH 64 5320MHz	*	5316	98.34	-	-	95.78	31.9	7.16	36.5	150	56	P	H
	*	5322	88.63	-	-	86.07	31.9	7.16	36.5	150	56	A	H
		5366	47.17	-26.83	74	44.55	31.91	7.21	36.5	150	56	P	H
		5350.1	35.98	-18.02	54	33.37	31.91	7.2	36.5	150	56	A	H
	*	5314	97.16	-	-	94.6	31.9	7.16	36.5	150	274	P	V
	*	5314	87.53	-	-	84.97	31.9	7.16	36.5	150	274	A	V
		5361.8	45.38	-28.62	74	42.76	31.91	7.21	36.5	150	274	P	V
		5350.5	34.77	-19.23	54	32.16	31.91	7.2	36.5	150	274	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	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	46.27	-27.73	74	35.09	38.11	10.36	37.29	150	316	P	H
		10521	47.11	-26.89	74	35.93	38.11	10.36	37.29	150	11	P	V
802.11a CH 60 5300MHz		10600	47.22	-26.78	74	35.93	38.16	10.4	37.27	150	78	P	H
		10599	46.97	-27.03	74	35.68	38.16	10.4	37.27	150	205	P	V
802.11a CH 64 5320MHz		10640	45.64	-28.36	74	34.31	38.18	10.41	37.26	150	214	P	H
		10641	45.92	-28.08	74	34.59	38.18	10.41	37.26	150	99	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		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11a CH 100 5500MHz	*	5504	96.68	-	-	93.76	31.96	7.31	36.35	150	16	P	H
	*	5502	87.29	-	-	84.37	31.96	7.31	36.35	150	16	A	H
		5463.68	46.4	-27.6	74	43.56	31.95	7.29	36.4	150	16	P	H
		5468.8	35.66	-18.34	54	32.82	31.95	7.29	36.4	150	16	A	H
	*	5496	97.05	-	-	94.18	31.95	7.3	36.38	225	294	P	V
	*	5498	87.44	-	-	84.52	31.96	7.31	36.35	225	294	A	V
		5469.6	45.81	-28.19	74	42.97	31.95	7.29	36.4	225	294	P	V
		5469.36	35.03	-18.97	54	32.19	31.95	7.29	36.4	225	294	A	V
802.11a CH 116 5600MHz	*	5576	97.58	-	-	94.51	31.98	7.34	36.25	150	59	P	H
	*	5572	87.84	-	-	84.77	31.98	7.34	36.25	150	59	A	H
	*	5574	96.6	-	-	93.53	31.98	7.34	36.25	150	167	P	V
	*	5574	87.54	-	-	84.47	31.98	7.34	36.25	150	167	A	V
802.11a CH 140 5700MHz	*	5698	98.46	-	-	95.25	32.02	7.44	36.25	150	66	P	H
	*	5694	89.59	-	-	86.38	32.02	7.44	36.25	150	66	A	H
		5728.76	49.09	-24.91	74	45.86	32.04	7.47	36.28	150	66	P	H
		5727.88	37.04	-16.96	54	33.81	32.04	7.47	36.28	150	66	A	H
	*	5694	97.86	-	-	94.65	32.02	7.44	36.25	300	261	P	V
	*	5694	88.61	-	-	85.4	32.02	7.44	36.25	300	261	A	V
		5726.44	48.23	-25.77	74	45	32.04	7.47	36.28	300	261	P	V
		5725	36.42	-17.58	54	33.19	32.04	7.47	36.28	300	261	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	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	47.03	-26.97	74	35.24	38.4	10.56	37.17	150	79	P	H
		11001	46.53	-27.47	74	34.74	38.4	10.56	37.17	150	122	P	V
802.11a CH 116 5600MHz		11160	46.41	-27.59	74	34.43	38.47	10.63	37.12	150	144	P	H
		11160	45.68	-28.32	74	33.7	38.47	10.63	37.12	150	46	P	V
802.11a CH 140 5700MHz		11400	47.89	-26.11	74	35.66	38.56	10.73	37.06	150	159	P	H
		11400	47.19	-26.81	74	34.96	38.56	10.73	37.06	150	104	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		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)	
802.11a LF		31.94	26.48	-13.52	40	42.47	18.5	0.75	35.24	213	187	P	H	
		136.7	22.85	-20.65	43.5	44.91	11.44	1.51	35.01	-	-	P	H	
		272.5	23.32	-22.68	46	43.62	12.35	2.17	34.82	-	-	P	H	
		309.36	25.26	-20.74	46	44.06	13.71	2.31	34.82	-	-	P	H	
		384.05	24.77	-21.23	46	41.67	15.7	2.58	35.18	-	-	P	H	
		452.92	28.49	-17.51	46	43.53	17.02	2.81	34.87	-	-	P	H	
		31.94	32.13	-7.87	40	48.12	18.5	0.75	35.24	184	217	P	V	
		53.28	24.54	-15.46	40	51.14	7.85	0.96	35.41	-	-	P	V	
		77.53	20.04	-19.96	40	45.65	8.65	1.14	35.4	-	-	P	V	
		288.02	21.88	-24.12	46	41.42	13.01	2.23	34.78	-	-	P	V	
		323.91	23.08	-22.92	46	41.61	14.03	2.36	34.92	-	-	P	V	
		475.23	26.19	-19.81	46	40.88	17.15	2.88	34.72	-	-	P	V	
	Remark	1. No other spurious found. 2. All results are PASS against limit line.												



Band 1 5150~5250MHz
WIFI 802.11n HT20 (Band Edge @ 3m)

WIFI Ant. 0+1	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 HT20 CH 36 5180MHz	*	5180	100.62	-	-	98.25	31.85	7.03	36.51	191	73	P	H
	*	5182	90.3	-	-	87.93	31.85	7.03	36.51	191	73	A	H
		5135.8	49.4	-24.6	74	47.09	31.84	7.01	36.54	191	73	P	H
		5148.95	37.01	-16.99	54	34.68	31.84	7.02	36.53	191	73	A	H
	*	5184	100.52	-	-	98.15	31.85	7.03	36.51	272	268	P	V
	*	5182	90.19	-	-	87.82	31.85	7.03	36.51	272	268	A	V
		5147.95	48.93	-25.07	74	46.6	31.84	7.02	36.53	272	268	P	V
	5149.75	37.12	-16.88	54	34.79	31.84	7.02	36.53	272	268	A	V	
802.11n HT20 CH 44 5220MHz	*	5216	99.77	-	-	97.36	31.86	7.05	36.5	150	276	P	H
	*	5222	88.99	-	-	86.58	31.86	7.05	36.5	150	276	A	H
	*	5222	99.78	-	-	97.37	31.86	7.05	36.5	278	265	P	V
	*	5218	90.14	-	-	87.73	31.86	7.05	36.5	278	265	A	V
802.11n HT20 CH 48 5240MHz	*	5246	100.57	-	-	98.1	31.88	7.09	36.5	150	286	P	H
	*	5246	89.9	-	-	87.43	31.88	7.09	36.5	150	286	A	H
		5396.8	47.99	-26.01	74	45.32	31.92	7.25	36.5	150	286	P	H
		5396.4	36.11	-17.89	54	33.44	31.92	7.25	36.5	150	286	A	H
	*	5236	99.91	-	-	97.47	31.87	7.07	36.5	274	267	P	V
	*	5246	90.04	-	-	87.57	31.88	7.09	36.5	274	267	A	V
		5386.9	47.19	-26.81	74	44.54	31.92	7.23	36.5	274	267	P	V
	5387.5	35.78	-18.22	54	33.13	31.92	7.23	36.5	274	267	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. 0+1	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 HT20 CH 36 5180MHz		10360	46.78	-27.22	74	35.79	38.02	10.3	37.33	155	221	P	H
		10359	46.84	-27.16	74	35.85	38.02	10.3	37.33	150	79	P	V
802.11n HT20 CH 44 5220MHz		10440	47.77	-26.23	74	36.69	38.06	10.33	37.31	150	116	P	H
		10440	47.85	-26.15	74	36.77	38.06	10.33	37.31	150	150	P	V
802.11n HT20 CH 48 5240MHz		10480	47.19	-26.81	74	36.05	38.09	10.35	37.3	150	85	P	H
		10480	46.42	-27.58	74	35.28	38.09	10.35	37.3	150	286	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. 0+1	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 38 5190MHz	*	5182	99.87	-	-	97.5	31.85	7.03	36.51	150	63	P	H
	*	5198	88.99	-	-	86.6	31.86	7.03	36.5	150	63	A	H
		5148	63.74	-10.26	74	61.41	31.84	7.02	36.53	150	63	P	H
	!	5149.85	48.49	-5.51	54	46.16	31.84	7.02	36.53	150	63	A	H
	*	5204	95.88	-	-	93.49	31.86	7.03	36.5	241	231	P	V
	*	5196	85.37	-	-	82.98	31.86	7.03	36.5	241	231	A	V
		5149.05	58.2	-15.8	74	55.87	31.84	7.02	36.53	241	231	P	V
	5149.9	43.58	-10.42	54	41.25	31.84	7.02	36.53	241	231	A	V	
802.11n HT40 CH 46 5230MHz	*	5218	100.28	-	-	97.87	31.86	7.05	36.5	150	66	P	H
	*	5234	89.02	-	-	86.58	31.87	7.07	36.5	150	66	A	H
		5384.3	48.84	-25.16	74	46.19	31.92	7.23	36.5	150	66	P	H
		5390.05	36.2	-17.8	54	33.55	31.92	7.23	36.5	150	66	A	H
	*	5236	95.62	-	-	93.18	31.87	7.07	36.5	150	236	P	V
	*	5244	84.73	-	-	82.26	31.88	7.09	36.5	150	236	A	V
		5375.2	48.01	-25.99	74	45.39	31.91	7.21	36.5	150	236	P	V
	5390.5	34.95	-19.05	54	32.3	31.92	7.23	36.5	150	236	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. 0+1	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 38 5190MHz		10380	46.13	-27.87	74	35.13	38.03	10.3	37.33	150	65	P	H
		10380	47.33	-26.67	74	36.33	38.03	10.3	37.33	238	232	P	V
802.11n HT40 CH 46 5230MHz		10461	46.42	-27.58	74	35.3	38.08	10.34	37.3	150	66	P	H
		10461	47.41	-26.59	74	36.29	38.08	10.34	37.3	230	242	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. 0+1	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 VHT20 CH 36 5180MHz	*	5182	101.6	-	-	99.23	31.85	7.03	36.51	150	249	P	H
	*	5176	89.89	-	-	87.52	31.85	7.03	36.51	150	249	A	H
		5143.1	50.51	-23.49	74	48.18	31.84	7.02	36.53	150	249	P	H
		5148.6	36.96	-17.04	54	34.63	31.84	7.02	36.53	150	249	A	H
	*	5182	100.64	-	-	98.27	31.85	7.03	36.51	150	321	P	V
	*	5178	90.09	-	-	87.72	31.85	7.03	36.51	150	321	A	V
		5144.05	49.35	-24.65	74	47.02	31.84	7.02	36.53	150	321	P	V
	5145.55	36.01	-17.99	54	33.68	31.84	7.02	36.53	150	321	A	V	
802.11ac VHT20 CH 44 5220MHz	*	5216	100.8	-	-	98.39	31.86	7.05	36.5	150	252	P	H
	*	5218	89.5	-	-	87.09	31.86	7.05	36.5	150	252	A	H
	*	5222	101.19	-	-	98.78	31.86	7.05	36.5	163	273	P	V
	*	5214	90.68	-	-	88.27	31.86	7.05	36.5	163	273	A	V
802.11ac VHT20 CH 48 5240MHz	*	5236	100.01	-	-	97.57	31.87	7.07	36.5	150	251	P	H
	*	5234	89.6	-	-	87.16	31.87	7.07	36.5	150	251	A	H
		5396.45	50.01	-23.99	74	47.34	31.92	7.25	36.5	150	251	P	H
		5391.2	36.35	-17.65	54	33.7	31.92	7.23	36.5	150	251	A	H
	*	5242	101	-	-	98.53	31.88	7.09	36.5	150	266	P	V
	*	5240	89.57	-	-	87.13	31.87	7.07	36.5	150	266	A	V
		5390.35	49.03	-24.97	74	46.38	31.92	7.23	36.5	150	266	P	V
	5394.15	35.91	-18.09	54	33.26	31.92	7.23	36.5	150	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. 0+1	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 VHT20		10359	46.72	-27.28	74	35.73	38.02	10.3	37.33	150	0	P	H
CH 36		10359	47.86	-26.14	74	36.87	38.02	10.3	37.33	150	360	P	V
5180MHz													
802.11ac VHT20		10440	46.81	-27.19	74	35.73	38.06	10.33	37.31	150	360	P	H
CH 44		10440	47.22	-26.78	74	36.14	38.06	10.33	37.31	150	0	P	V
5220MHz													
802.11ac VHT20		10479	49.4	-24.6	74	38.26	38.09	10.35	37.3	150	351	P	H
CH 48		10479	46.5	-27.5	74	35.36	38.09	10.35	37.3	150	0	P	V
5240MHz													
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. 0+1	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 VHT40 CH 38 5190MHz	*	5198	99.24	-	-	96.85	31.86	7.03	36.5	150	64	P	H
	*	5198	88.66	-	-	86.27	31.86	7.03	36.5	150	64	A	H
		5148.85	63.25	-10.75	74	60.92	31.84	7.02	36.53	150	64	P	H
		5149.6	47.94	-6.06	54	45.61	31.84	7.02	36.53	150	64	A	H
	*	5198	95.28	-	-	92.89	31.86	7.03	36.5	150	275	P	V
	*	5196	85.03	-	-	82.64	31.86	7.03	36.5	150	275	A	V
		5148.9	57.59	-16.41	74	55.26	31.84	7.02	36.53	150	275	P	V
	5149.75	42.34	-11.66	54	40.01	31.84	7.02	36.53	150	275	A	V	
802.11ac VHT40 CH 46 5230MHz	*	5226	99.34	-	-	96.9	31.87	7.07	36.5	150	111	P	H
	*	5236	88.52	-	-	86.08	31.87	7.07	36.5	150	111	A	H
		5380.45	48.92	-25.08	74	46.27	31.92	7.23	36.5	150	111	P	H
		5390.55	35.92	-18.08	54	33.27	31.92	7.23	36.5	150	111	A	H
	*	5238	95.79	-	-	93.35	31.87	7.07	36.5	246	78	P	V
	*	5244	85.23	-	-	82.76	31.88	7.09	36.5	246	78	A	V
		5381.5	47.31	-26.69	74	44.66	31.92	7.23	36.5	246	78	P	V
	5386.1	34.98	-19.02	54	32.33	31.92	7.23	36.5	246	78	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. 0+1	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 VHT40		10380	47.47	-26.53	74	36.47	38.03	10.3	37.33	150	265	P	H
CH 38 5190MHz		10380	47.27	-26.73	74	36.27	38.03	10.3	37.33	150	221	P	V
802.11ac VHT40		10460	47.83	-26.17	74	36.74	38.07	10.33	37.31	150	230	P	H
CH 46 5230MHz		10461	47.98	-26.02	74	36.86	38.08	10.34	37.3	150	178	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. 0+1	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	*	5206	96.56	-	-	94.17	31.86	7.03	36.5	150	37	P	H
	*	5196	86.75	-	-	84.36	31.86	7.03	36.5	150	37	A	H
		5120.55	60.19	-13.81	74	57.9	31.83	7.01	36.55	150	37	P	H
		5148.2	47.93	-6.07	54	45.6	31.84	7.02	36.53	150	37	A	H
		5356.7	48.63	-25.37	74	46.02	31.91	7.2	36.5	150	37	P	H
		5355.45	37.33	-16.67	54	34.72	31.91	7.2	36.5	150	37	A	H
	*	5198	92.55	-	-	90.16	31.86	7.03	36.5	150	21	P	V
	*	5222	81.94	-	-	79.53	31.86	7.05	36.5	150	21	A	V
		5141.75	54.74	-19.26	74	52.41	31.84	7.02	36.53	150	21	P	V
		5145.55	42.89	-11.11	54	40.56	31.84	7.02	36.53	150	21	A	V
		5371.65	48.49	-25.51	74	45.87	31.91	7.21	36.5	150	21	P	V
	5360.9	36.53	-17.47	54	33.91	31.91	7.21	36.5	150	21	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. 0+1	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		10419	46.78	-27.22	74	35.73	38.05	10.32	37.32	150	0	P	H
CH 42 5210MHz		10419	46.4	-27.6	74	35.35	38.05	10.32	37.32	150	360	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. 0+1	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 HT20 CH 52 5260MHz	*	5256	100.18	-	-	97.71	31.88	7.09	36.5	150	275	P	H
	*	5264	90.39	-	-	87.91	31.88	7.1	36.5	150	275	A	H
		5120.65	46.28	-27.72	74	43.99	31.83	7.01	36.55	150	275	P	H
		5108.95	34.68	-19.32	54	32.39	31.83	7.01	36.55	150	275	A	H
	*	5264	101.25	-	-	98.77	31.88	7.1	36.5	276	265	P	V
	*	5262	90.77	-	-	88.29	31.88	7.1	36.5	276	265	A	V
		5115.5	46.53	-27.47	74	44.24	31.83	7.01	36.55	276	265	P	V
	5114.15	34.64	-19.36	54	32.35	31.83	7.01	36.55	276	265	A	V	
802.11n HT20 CH 60 5300MHz	*	5292	101.59	-	-	99.08	31.89	7.12	36.5	150	288	P	H
	*	5298	90.65	-	-	88.12	31.89	7.14	36.5	150	288	A	H
	*	5294	100.83	-	-	98.3	31.89	7.14	36.5	281	264	P	V
	*	5298	90.54	-	-	88.01	31.89	7.14	36.5	281	264	A	V
802.11n HT20 CH 64 5320MHz	*	5316	102.1	-	-	99.54	31.9	7.16	36.5	150	269	P	H
	*	5318	90.48	-	-	87.92	31.9	7.16	36.5	150	269	A	H
		5353.05	48.53	-25.47	74	45.92	31.91	7.2	36.5	150	269	P	H
		5350.1	37.17	-16.83	54	34.56	31.91	7.2	36.5	150	269	A	H
	*	5316	101.79	-	-	99.23	31.9	7.16	36.5	276	262	P	V
	*	5326	90.54	-	-	87.98	31.9	7.16	36.5	276	262	A	V
		5361.9	48.37	-25.63	74	45.75	31.91	7.21	36.5	276	262	P	V
	5350.45	37.09	-16.91	54	34.48	31.91	7.2	36.5	276	262	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. 0+1	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 HT20 CH 52 5260MHz		10520	46.73	-27.27	74	35.55	38.11	10.36	37.29	150	119	P	H
		10521	46.42	-27.58	74	35.24	38.11	10.36	37.29	150	215	P	V
802.11n HT20 CH 60 5300MHz		10600	46.82	-27.18	74	35.53	38.16	10.4	37.27	150	284	P	H
		10599	46.64	-27.36	74	35.35	38.16	10.4	37.27	150	180	P	V
802.11n HT20 CH 64 5320MHz		10640	46.93	-27.07	74	35.6	38.18	10.41	37.26	150	130	P	H
		10641	45.97	-28.03	74	34.64	38.18	10.41	37.26	150	316	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. 0+1	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	*	5284	99.92	-	-	97.41	31.89	7.12	36.5	150	112	P	H
	*	5280	88.75	-	-	86.24	31.89	7.12	36.5	150	112	A	H
		5114.15	47.37	-26.63	74	45.08	31.83	7.01	36.55	150	112	P	H
		5127.05	34.66	-19.34	54	32.35	31.84	7.01	36.54	150	112	A	H
	*	5278	96.34	-	-	93.83	31.89	7.12	36.5	177	236	P	V
	*	5276	85.54	-	-	83.03	31.89	7.12	36.5	177	236	A	V
		5118.55	46.89	-27.11	74	44.6	31.83	7.01	36.55	177	236	P	V
	5133.25	34.05	-19.95	54	31.74	31.84	7.01	36.54	177	236	A	V	
802.11n HT40 CH 62 5310MHz	*	5316	98.76	-	-	96.2	31.9	7.16	36.5	150	35	P	H
	*	5310	87.83	-	-	85.27	31.9	7.16	36.5	150	35	A	H
		5351.45	56.81	-17.19	74	54.2	31.91	7.2	36.5	150	35	P	H
		5350.05	42.42	-11.58	54	39.81	31.91	7.2	36.5	150	35	A	H
	*	5314	96.88	-	-	94.32	31.9	7.16	36.5	172	268	P	V
	*	5314	86	-	-	83.44	31.9	7.16	36.5	172	268	A	V
		5356.15	54.58	-19.42	74	51.97	31.91	7.2	36.5	172	268	P	V
	5351.25	40.55	-13.45	54	37.94	31.91	7.2	36.5	172	268	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. 0+1	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		10539	45.65	-28.35	74	34.45	38.12	10.37	37.29	150	108	P	H
		10539	47.24	-26.76	74	36.04	38.12	10.37	37.29	165	249	P	V
802.11n HT40 CH 62 5310MHz		10620	45.34	-28.66	74	34.03	38.17	10.4	37.26	150	126	P	H
		10620	45.39	-28.61	74	34.08	38.17	10.4	37.26	158	243	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. 0+1	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 VHT20 CH 52 5260MHz	*	5258	100.54	-	-	98.07	31.88	7.09	36.5	150	258	P	H
	*	5258	89.58	-	-	87.11	31.88	7.09	36.5	150	258	A	H
		5107.1	47.44	-26.56	74	45.15	31.83	7.01	36.55	150	258	P	H
		5107.35	33.9	-20.1	54	31.61	31.83	7.01	36.55	150	258	A	H
	*	5260	100.16	-	-	97.68	31.88	7.1	36.5	300	263	P	V
	*	5258	89.19	-	-	86.72	31.88	7.09	36.5	300	263	A	V
		5112.9	47.61	-26.39	74	45.32	31.83	7.01	36.55	300	263	P	V
	5103.7	33.85	-20.15	54	31.58	31.83	7	36.56	300	263	A	V	
802.11ac VHT20 CH 60 5300MHz	*	5298	102.5	-	-	99.97	31.89	7.14	36.5	150	251	P	H
	*	5304	90.28	-	-	87.75	31.89	7.14	36.5	150	251	A	H
	*	5294	101.88	-	-	99.35	31.89	7.14	36.5	150	269	P	V
	*	5298	91.09	-	-	88.56	31.89	7.14	36.5	150	269	A	V
802.11ac VHT20 CH 64 5320MHz	*	5320	101.53	-	-	98.97	31.9	7.16	36.5	150	256	P	H
	*	5318	90.66	-	-	88.1	31.9	7.16	36.5	150	256	A	H
		5350.7	51.26	-22.74	74	48.65	31.91	7.2	36.5	150	256	P	H
		5350.4	37.61	-16.39	54	35	31.91	7.2	36.5	150	256	A	H
	*	5316	101.74	-	-	99.18	31.9	7.16	36.5	150	275	P	V
	*	5318	90.52	-	-	87.96	31.9	7.16	36.5	150	275	A	V
		5350	49.95	-24.05	74	47.34	31.91	7.2	36.5	150	275	P	V
	5351.55	37.63	-16.37	54	35.02	31.91	7.2	36.5	150	275	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. 0+1	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 VHT20		10521	46.61	-27.39	74	35.43	38.11	10.36	37.29	300	0	P	H
CH 52 5260MHz		10521	47.81	-26.19	74	36.63	38.11	10.36	37.29	300	360	P	V
802.11ac VHT20		10600	47.68	-26.32	74	36.39	38.16	10.4	37.27	150	221	P	H
CH 60 5300MHz		10600	47.39	-26.61	74	36.1	38.16	10.4	37.27	300	120	P	V
802.11ac VHT20		10640	46.6	-27.4	74	35.27	38.18	10.41	37.26	150	154	P	H
CH 64 5320MHz		10641	47.38	-26.62	74	36.05	38.18	10.41	37.26	150	147	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. 0+1	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 VHT40 CH 54 5270MHz	*	5264	100.39	-	-	97.91	31.88	7.1	36.5	150	115	P	H
	*	5278	88.53	-	-	86.02	31.89	7.12	36.5	150	115	A	H
		5121.85	47.82	-26.18	74	45.53	31.83	7.01	36.55	150	115	P	H
		5115.8	34.65	-19.35	54	32.36	31.83	7.01	36.55	150	115	A	H
	*	5264	96.32	-	-	93.84	31.88	7.1	36.5	233	230	P	V
	*	5278	84.92	-	-	82.41	31.89	7.12	36.5	233	230	A	V
		5124.55	46.6	-27.4	74	44.29	31.84	7.01	36.54	233	230	P	V
	5124.4	33.62	-20.38	54	31.31	31.84	7.01	36.54	233	230	A	V	
802.11ac VHT40 CH 62 5310MHz	*	5316	101.08	-	-	98.52	31.9	7.16	36.5	152	65	P	H
	*	5312	89.84	-	-	87.28	31.9	7.16	36.5	152	65	A	H
		5352.15	59.79	-14.21	74	57.18	31.91	7.2	36.5	152	65	P	H
		5350.25	44.49	-9.51	54	41.88	31.91	7.2	36.5	152	65	A	H
	*	5316	96.45	-	-	93.89	31.9	7.16	36.5	222	273	P	V
	*	5318	85.4	-	-	82.84	31.9	7.16	36.5	222	273	A	V
		5358.15	55.95	-18.05	74	53.34	31.91	7.2	36.5	222	273	P	V
	5350.15	40.6	-13.4	54	37.99	31.91	7.2	36.5	222	273	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. 0+1	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 VHT40 CH 54 5270MHz		10540	47.21	-26.79	74	36.01	38.12	10.37	37.29	150	288	P	H
		10539	46.72	-27.28	74	35.52	38.12	10.37	37.29	150	300	P	V
802.11ac VHT40 CH 62 5310MHz		10620	47.21	-26.79	74	35.9	38.17	10.4	37.26	150	288	P	H
		10620	46.72	-27.28	74	35.41	38.17	10.4	37.26	150	300	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. 0+1	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	*	5286	96.37	-	-	93.86	31.89	7.12	36.5	214	122	P	H
	*	5304	86.3	-	-	83.77	31.89	7.14	36.5	214	112	A	H
		5147.05	47.08	-26.92	74	44.75	31.84	7.02	36.53	214	112	P	H
		5146.9	36.5	-17.5	54	34.17	31.84	7.02	36.53	214	112	A	H
		5351.8	55.24	-18.76	74	52.63	31.91	7.2	36.5	214	112	P	H
		5387.35	43.81	-10.19	54	41.16	31.92	7.23	36.5	214	112	A	H
	*	5302	92.61	-	-	90.08	31.89	7.14	36.5	150	273	P	V
	*	5302	83.05	-	-	80.52	31.89	7.14	36.5	150	273	A	V
		5144.2	46.87	-27.13	74	44.54	31.84	7.02	36.53	150	273	P	V
		5140.05	35.35	-18.65	54	33.02	31.84	7.02	36.53	150	273	A	V
		5373.05	52.81	-21.19	74	50.19	31.91	7.21	36.5	150	273	P	V
	5387.45	41.19	-12.81	54	38.54	31.92	7.23	36.5	150	273	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. 0+1	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		10580	47.48	-26.52	74	36.21	38.15	10.39	37.27	150	0	P	H
CH 58 5290MHz		10581	47.54	-26.46	74	36.27	38.15	10.39	37.27	150	360	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. 0+1	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 HT20 CH 100 5500MHz	*	5496	100.9	-	-	98.03	31.95	7.3	36.38	150	285	P	H
	*	5498	90.47	-	-	87.55	31.96	7.31	36.35	150	285	A	H
		5470	47.02	-26.98	74	44.18	31.95	7.29	36.4	150	285	P	H
		5470	36.96	-17.04	54	34.12	31.95	7.29	36.4	150	285	A	H
	*	5496	100.51	-	-	97.64	31.95	7.3	36.38	292	185	P	V
	*	5504	89.79	-	-	86.87	31.96	7.31	36.35	292	185	A	V
		5470	46.9	-27.1	74	44.06	31.95	7.29	36.4	292	185	P	V
		5470	36.51	-17.49	54	33.67	31.95	7.29	36.4	292	185	A	V
802.11n HT20 CH 116 5600MHz		5588	101.17	-	-	98.07	31.98	7.35	36.23	150	285	P	H
		5586	90.3	-	-	87.2	31.98	7.35	36.23	150	285	A	H
		5574	101.03	-	-	97.96	31.98	7.34	36.25	273	262	P	V
		5586	90.86	-	-	87.76	31.98	7.35	36.23	273	262	A	V
802.11n HT20 CH 140 5700MHz	*	5702	100.58	-	-	97.37	32.03	7.45	36.27	150	288	P	H
	*	5706	90.99	-	-	87.78	32.03	7.45	36.27	150	288	A	H
		5725	45.95	-28.05	74	42.72	32.04	7.47	36.28	150	288	P	H
		5725	36.89	-17.11	54	33.66	32.04	7.47	36.28	150	288	A	H
	*	5702	100.57	-	-	97.36	32.03	7.45	36.27	268	262	P	V
	*	5698	90.56	-	-	87.35	32.02	7.44	36.25	268	262	A	V
		5725	47.79	-26.21	74	44.56	32.04	7.47	36.28	268	262	P	V
		5725	37.59	-16.41	54	34.36	32.04	7.47	36.28	268	262	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. 0+1	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 HT20 CH 100 5500MHz		11100	47.98	-26.02	74	36.08	38.44	10.6	37.14	150	58	P	H
		11100	47.85	-26.15	74	35.95	38.44	10.6	37.14	150	286	P	V
802.11n HT20 CH 116 5600MHz		11160	47.84	-26.16	74	35.86	38.47	10.63	37.12	158	64	P	H
		11160	45.77	-28.23	74	33.79	38.47	10.63	37.12	164	275	P	V
802.11n HT20 CH 140 5700MHz		11400	49.25	-24.75	74	37.02	38.56	10.73	37.06	162	284	P	H
		11400	47.71	-26.29	74	35.48	38.56	10.73	37.06	152	283	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. 0+1	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	*	5516	97.86	-	-	94.92	31.96	7.31	36.33	150	63	P	H
	*	5504	86.88	-	-	83.96	31.96	7.31	36.35	150	63	A	H
		5467.36	59.71	-14.29	74	56.87	31.95	7.29	36.4	150	63	P	H
		5469.52	44.83	-9.17	54	41.99	31.95	7.29	36.4	150	63	A	H
	*	5506	97.63	-	-	94.71	31.96	7.31	36.35	245	265	P	V
	*	5504	86.96	-	-	84.04	31.96	7.31	36.35	245	265	A	V
		5466.4	60.09	-13.91	74	57.25	31.95	7.29	36.4	245	265	P	V
	5469.84	44.68	-9.32	54	41.84	31.95	7.29	36.4	245	265	A	V	
802.11n HT40 CH 110 5590MHz		5564	98.14			95.12	31.97	7.33	36.28	161	60	P	H
		5552	87.82			84.8	31.97	7.33	36.28	161	60	A	H
		5554	97.77			94.75	31.97	7.33	36.28	207	266	P	V
		5550	86.38			83.36	31.97	7.33	36.28	207	266	A	V
802.11n HT40 CH 134 5670MHz	*	5676	98.79	-	-	95.59	32.02	7.42	36.24	150	64	P	H
	*	5674	87.73	-	-	84.53	32.02	7.42	36.24	150	64	A	H
		5725	50.67	-23.33	74	47.44	32.04	7.47	36.28	150	64	P	H
		5725	36.63	-17.37	54	33.4	32.04	7.47	36.28	150	64	A	H
	*	5654	98.01	-	-	94.82	32.01	7.41	36.23	270	274	P	V
	*	5658	86.65	-	-	83.46	32.01	7.41	36.23	270	274	A	V
		5725	47.51	-26.49	74	44.28	32.04	7.47	36.28	270	274	P	V
	5725	35.33	-18.67	54	32.1	32.04	7.47	36.28	270	274	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. 0+1	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		11019	46.47	-27.53	74	34.65	38.41	10.57	37.16	150	53	P	H
5510MHz		11019	47.55	-26.45	74	35.73	38.41	10.57	37.16	152	281	P	V
802.11n HT40 CH 110		11100	48.05	-25.95	74	36.15	38.44	10.6	37.14	150	66	P	H
5590MHz		11100	46.86	-27.14	74	34.96	38.44	10.6	37.14	284	234	P	V
802.11n HT40 CH 134		11340	46.54	-27.46	74	34.39	38.53	10.7	37.08	150	0	P	H
5670MHz		11340	48.17	-25.83	74	36.02	38.53	10.7	37.08	150	360	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. 0+1	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 VHT20 CH 100 5500MHz	*	5500	102.34	-	-	99.42	31.96	7.31	36.35	150	254	P	H
	*	5498	90.5	-	-	87.58	31.96	7.31	36.35	150	254	A	H
		5456.88	50.72	-23.28	74	47.92	31.94	7.28	36.42	150	254	P	H
		5469.36	37.9	-16.1	54	35.06	31.95	7.29	36.4	150	254	A	H
	*	5496	101.1	-	-	98.23	31.95	7.3	36.38	279	272	P	V
	*	5498	91.13	-	-	88.21	31.96	7.31	36.35	279	272	A	V
		5465.68	50.19	-23.81	74	47.35	31.95	7.29	36.4	279	272	P	V
	5468.96	38.11	-15.89	54	35.27	31.95	7.29	36.4	279	272	A	V	
802.11ac VHT20 CH 116 5600MHz		5576	101.44			98.37	31.98	7.34	36.25	150	252	P	H
		5576	89.73			86.66	31.98	7.34	36.25	150	252	A	H
		5578	101.35			98.28	31.98	7.34	36.25	253	266	P	V
		5578	91.11			88.04	31.98	7.34	36.25	253	266	A	V
802.11ac VHT20 CH 140 5700MHz	*	5706	100.18	-	-	96.97	32.03	7.45	36.27	150	106	P	H
	*	5696	89.17	-	-	85.96	32.02	7.44	36.25	150	106	A	H
		5728.6	49.82	-24.18	74	46.59	32.04	7.47	36.28	150	106	P	H
		5730.04	37.51	-16.49	54	34.28	32.04	7.47	36.28	150	106	A	H
	*	5706	101.95	-	-	98.74	32.03	7.45	36.27	175	87	P	V
	*	5698	90.64	-	-	87.43	32.02	7.44	36.25	175	87	A	V
		5725.8	51.92	-22.08	74	48.69	32.04	7.47	36.28	175	87	P	V
	5725	38.92	-15.08	54	35.69	32.04	7.47	36.28	175	87	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. 0+1	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 VHT20 CH 100		11000	46.95	-27.05	74	35.16	38.4	10.56	37.17	150	14	P	H
5500MHz		11001	48.25	-25.75	74	36.46	38.4	10.56	37.17	150	45	P	V
802.11ac VHT20 CH 116		11160	46.49	-27.51	74	34.51	38.47	10.63	37.12	150	145	P	H
5600MHz		11160	47.29	-26.71	74	35.31	38.47	10.63	37.12	150	228	P	V
802.11ac VHT20 CH 140		11400	47.73	-26.27	74	35.5	38.56	10.73	37.06	300	266	P	H
5700MHz		11400	49.09	-24.91	74	36.86	38.56	10.73	37.06	166	254	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. 0+1	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 VHT40 CH 102 5510MHz	*	5506	99.92	-	-	97	31.96	7.31	36.35	150	64	P	H
	*	5512	88.15	-	-	85.23	31.96	7.31	36.35	150	64	A	H
		5470	59.63	-14.37	74	56.79	31.95	7.29	36.4	150	64	P	H
		5470	45.78	-8.22	54	42.94	31.95	7.29	36.4	150	64	A	H
	*	5508	98.26	-	-	95.34	31.96	7.31	36.35	293	271	P	V
	*	5500	86.86	-	-	83.94	31.96	7.31	36.35	293	271	A	V
		5470	57.08	-16.92	74	54.24	31.95	7.29	36.4	293	271	P	V
		5470	43.47	-10.53	54	40.63	31.95	7.29	36.4	293	271	A	V
802.11ac VHT40 CH 110 5590MHz		5562	99.44			96.42	31.97	7.33	36.28	150	113	P	H
		5542	87.84			84.85	31.97	7.32	36.3	150	113	A	H
		5552	98.58			95.56	31.97	7.33	36.28	300	268	P	V
		5552	87.06			84.04	31.97	7.33	36.28	300	268	A	V
802.11ac VHT40 CH 134 5670MHz	*	5656	98.81	-	-	95.62	32.01	7.41	36.23	150	110	P	H
	*	5676	87.83	-	-	84.63	32.02	7.42	36.24	150	110	A	H
		5725	50.08	-23.92	74	46.85	32.04	7.47	36.28	150	110	P	H
		5725	37.35	-16.65	54	34.12	32.04	7.47	36.28	150	110	A	H
	*	5658	95.85	-	-	92.66	32.01	7.41	36.23	168	214	P	V
	*	5666	84.89	-	-	81.7	32.01	7.41	36.23	168	214	A	V
		5725	48.28	-25.72	74	45.05	32.04	7.47	36.28	168	214	P	V
		5725	36.07	-17.93	54	32.84	32.04	7.47	36.28	168	214	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. 0+1	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 VHT40 CH 102		11019	46.99	-27.01	74	35.17	38.41	10.57	37.16	150	0	P	H
5510MHz		11019	46.99	-27.01	74	35.17	38.41	10.57	37.16	150	360	P	V
802.11ac VHT40 CH 110		11100	47.59	-26.41	74	35.69	38.44	10.6	37.14	150	0	P	H
5590MHz		11100	48.29	-25.71	74	36.39	38.44	10.6	37.14	150	360	P	V
802.11ac VHT40 CH 134		11340	47.84	-26.16	74	35.69	38.53	10.7	37.08	150	0	P	H
5670MHz		11340	47.65	-26.35	74	35.5	38.53	10.7	37.08	150	360	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. 0+1	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		5470	56.65	-17.35	74	53.81	31.95	7.29	36.4	184	114	P	H	
		5470	43.9	-10.1	54	41.06	31.95	7.29	36.4	184	114	A	H	
	*	5522	95.41	-	-	92.47	31.96	7.31	36.33	184	114	P	H	
	*	5522	85.18	-	-	82.24	31.96	7.31	36.33	184	114	A	H	
		5725	45.92	-28.08	74	42.69	32.04	7.47	36.28	184	114	P	H	
		5725	35.44	-18.56	54	32.21	32.04	7.47	36.28	184	114	A	H	
	*	5522	95.05	-	-	92.11	31.96	7.31	36.33	287	270	P	V	
	*	5516	83.98	-	-	81.04	31.96	7.31	36.33	287	270	A	V	
		5470	56.74	-17.26	74	53.9	31.95	7.29	36.4	287	270	P	V	
		5470	43.18	-10.82	54	40.34	31.95	7.29	36.4	287	270	A	V	
		5725	46.74	-27.26	74	43.51	32.04	7.47	36.28	287	270	P	V	
		5725	35.08	-18.92	54	31.85	32.04	7.47	36.28	287	270	A	V	
	802.11ac VHT80 CH 122 5610MHz		5461.2	46.01	-27.99	74	43.21	31.94	7.28	36.42	150	15	P	H
			5452.72	36.8	-17.2	54	34	31.94	7.28	36.42	150	15	A	H
*		5622	94.58	-	-	91.42	31.99	7.38	36.21	150	14	P	H	
*		5620	84.34	-	-	81.18	31.99	7.38	36.21	150	15	A	H	
		5747.32	46.35	-27.65	74	43.11	32.05	7.48	36.29	150	15	P	H	
		5732.36	36.76	-17.24	54	33.53	32.04	7.47	36.28	150	15	A	H	
		5458.64	45.92	-28.08	74	43.12	31.94	7.28	36.42	150	262	P	V	
		5466.88	36.09	-17.91	54	33.25	31.95	7.29	36.4	150	262	A	V	
*		5596	92.86	-	-	89.76	31.98	7.35	36.23	150	262	P	V	
*		5622	84.18	-	-	81.02	31.99	7.38	36.21	150	262	A	V	
	5761.88	46.28	-27.72	74	43.03	32.05	7.5	36.3	150	262	P	V		
	5746.6	36.43	-17.57	54	33.19	32.05	7.48	36.29	150	262	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. 0+1	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		11061	48.19	-25.81	74	36.32	38.43	10.59	37.15	150	0	P	H
CH 106 5530MHz		11061	48.95	-25.05	74	37.08	38.43	10.59	37.15	150	360	P	V
802.11ac VHT80		11220	48.09	-25.91	74	36.06	38.49	10.65	37.11	150	216	P	H
CH 122 5610MHz		11220	48.01	-25.99	74	35.98	38.49	10.65	37.11	150	78	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



Emission below 1GHz

Emission below 1GHz

WIFI 802.11n HT20 (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.	
0+1		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11n HT20 LF		31.94	25.48	-14.52	40	41.47	18.5	0.75	35.24	165	217	P	H
		136.7	21.85	-21.65	43.5	43.91	11.44	1.51	35.01	-	-	P	H
		272.5	23.32	-22.68	46	43.62	12.35	2.17	34.82	-	-	P	H
		309.36	25.26	-20.74	46	44.06	13.71	2.31	34.82	-	-	P	H
		384.05	24.77	-21.23	46	41.67	15.7	2.58	35.18	-	-	P	H
		452.92	28.49	-17.51	46	43.53	17.02	2.81	34.87	-	-	P	H
		31.94	31.13	-8.87	40	47.12	18.5	0.75	35.24	155	210	P	V
		53.28	23.54	-16.46	40	50.14	7.85	0.96	35.41	-	-	P	V
		77.53	19.04	-20.96	40	44.65	8.65	1.14	35.4	-	-	P	V
		288.02	21.88	-24.12	46	41.42	13.01	2.23	34.78	-	-	P	V
		323.91	23.08	-22.92	46	41.61	14.03	2.36	34.92	-	-	P	V
		475.23	26.19	-19.81	46	40.88	17.15	2.88	34.72	-	-	P	V

Remark

- No other spurious found.
- All results are PASS against limit line.



Emission below 1GHz
WIFI 802.11n HT40 (LF @ 3m)

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Peak	Pol.
Ant.				Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
0+1		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11n HT40 LF		31.94	28.48	-11.52	40	44.47	18.5	0.75	35.24	214	237	P	H
		53.28	23.98	-16.02	40	50.58	7.85	0.96	35.41	-	-	P	H
		136.7	23.85	-19.65	43.5	45.91	11.44	1.51	35.01	-	-	P	H
		272.5	23.32	-22.68	46	43.62	12.35	2.17	34.82	-	-	P	H
		309.36	25.26	-20.74	46	44.06	13.71	2.31	34.82	-	-	P	H
		452.92	28.49	-17.51	46	43.53	17.02	2.81	34.87	-	-	P	H
		31.94	32.13	-7.87	40	48.12	18.5	0.75	35.24	158	317	P	V
		53.28	24.54	-15.46	40	51.14	7.85	0.96	35.41	-	-	P	V
		77.53	20.04	-19.96	40	45.65	8.65	1.14	35.4	-	-	P	V
		278.32	20.95	-25.05	46	40.97	12.59	2.19	34.8	-	-	P	V
		323.91	23.08	-22.92	46	41.61	14.03	2.36	34.92	-	-	P	V
		475.23	26.19	-19.81	46	40.88	17.15	2.88	34.72	-	-	P	V
Remark	1. No other spurious found. 2. All results are PASS against limit line.												



Emission below 1GHz
WIFI 802.11ac VHT20 (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.	
0+1		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11ac VHT20 LF		31.94	28.48	-11.52	40	44.47	18.5	0.75	35.24	159	217	P	H
		53.28	23.98	-16.02	40	50.58	7.85	0.96	35.41	-	-	P	H
		136.7	24.85	-18.65	43.5	46.91	11.44	1.51	35.01	-	-	P	H
		272.5	25.32	-20.68	46	45.62	12.35	2.17	34.82	-	-	P	H
		309.36	25.26	-20.74	46	44.06	13.71	2.31	34.82	-	-	P	H
		452.92	28.49	-17.51	46	43.53	17.02	2.81	34.87	-	-	P	H
		31.94	32.13	-7.87	40	48.12	18.5	0.75	35.24	184	259	P	V
		53.28	24.54	-15.46	40	51.14	7.85	0.96	35.41	-	-	P	V
		77.53	20.04	-19.96	40	45.65	8.65	1.14	35.4	-	-	P	V
		288.02	21.88	-24.12	46	41.42	13.01	2.23	34.78	-	-	P	V
		323.91	23.08	-22.92	46	41.61	14.03	2.36	34.92	-	-	P	V
		475.23	26.19	-19.81	46	40.88	17.15	2.88	34.72	-	-	P	V
Remark	1. No other spurious found. 2. All results are PASS against limit line.												



Emission below 1GHz
WIFI 802.11ac VHT40 (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.	
0+1		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11ac VHT40 LF		31.94	28.48	-11.52	40	44.47	18.5	0.75	35.24	187	237	P	H
		53.28	23.98	-16.02	40	50.58	7.85	0.96	35.41	-	-	P	H
		136.7	23.85	-19.65	43.5	45.91	11.44	1.51	35.01	-	-	P	H
		272.5	23.32	-22.68	46	43.62	12.35	2.17	34.82	-	-	P	H
		309.36	25.26	-20.74	46	44.06	13.71	2.31	34.82	-	-	P	H
		452.92	28.49	-17.51	46	43.53	17.02	2.81	34.87	-	-	P	H
		31.94	30.13	-9.87	40	46.12	18.5	0.75	35.24	214	321	P	V
		53.28	22.54	-17.46	40	49.14	7.85	0.96	35.41	-	-	P	V
		77.53	18.04	-21.96	40	43.65	8.65	1.14	35.4	-	-	P	V
		278.32	20.95	-25.05	46	40.97	12.59	2.19	34.8	-	-	P	V
		323.91	23.08	-22.92	46	41.61	14.03	2.36	34.92	-	-	P	V
		475.23	26.19	-19.81	46	40.88	17.15	2.88	34.72	-	-	P	V
Remark	1. No other spurious found. 2. All results are PASS against limit line.												



Emission below 1GHz
WiFi 802.11ac VHT80 (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.	
0+1		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11ac VHT80 LF		31.94	26.48	-13.52	40	42.47	18.5	0.75	35.24	152	241	P	H
		136.7	22.85	-20.65	43.5	44.91	11.44	1.51	35.01	-	-	P	H
		272.5	23.32	-22.68	46	43.62	12.35	2.17	34.82	-	-	P	H
		309.36	25.26	-20.74	46	44.06	13.71	2.31	34.82	-	-	P	H
		384.05	24.77	-21.23	46	41.67	15.7	2.58	35.18	-	-	P	H
		452.92	28.49	-17.51	46	43.53	17.02	2.81	34.87	-	-	P	H
		31.94	32.13	-7.87	40	48.12	18.5	0.75	35.24	150	184	P	V
		53.28	24.54	-15.46	40	51.14	7.85	0.96	35.41	-	-	P	V
		77.53	20.04	-19.96	40	45.65	8.65	1.14	35.4	-	-	P	V
		288.02	21.88	-24.12	46	41.42	13.01	2.23	34.78	-	-	P	V
		323.91	23.08	-22.92	46	41.61	14.03	2.36	34.92	-	-	P	V
		475.23	26.19	-19.81	46	40.88	17.15	2.88	34.72	-	-	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	Peak or Average
H/V	Horizontal or Vertical



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.	
0+1		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11b		2390	55.45	-18.55	74	54.51	32.22	4.58	35.86	103	308	P	H
CH 01													
2412MHz		2390	43.54	-10.46	54	42.6	32.22	4.58	35.86	103	308	A	H

- Level(dBμV/m) =
Antenna Factor(dB/m) + Cable Loss(dB) + Read Level(dBμV) - Preamp Factor(dB)
- Over Limit(dB) = Level(dBμV/m) – Limit Line(dBμV/m)

For Peak Limit @ 2390MHz:

- 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)
- Over Limit(dB)
= Level(dBμV/m) – Limit Line(dBμV/m)
= 55.45(dBμV/m) – 74(dBμV/m)
= -18.55(dB)

For Average Limit @ 2390MHz:

- 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)
- 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”.