



FCC RF Test Report

APPLICANT : Acer Incorporated
EQUIPMENT : Tablet Computer
BRAND NAME : acer
MODEL NAME : N17H1
MARKETING NAME : Switch 3
FCC ID : HLZ7265D2W
STANDARD : FCC Part 15 Subpart E §15.407
CLASSIFICATION : (NII) Unlicensed National Information Infrastructure

The product was integrated the Wireless Module (Model Name: 7265D2W, 7265D2W AN, FCC ID: PD97265D2) during the test.

The product was received on Mar. 15, 2017 and testing was completed on Apr. 21, 2017. 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



SPORTON International (ShenZhen) INC.

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TABLE OF CONTENTS

REVISION HISTORY	3
SUMMARY OF TEST RESULT	4
1 GENERAL DESCRIPTION	5
1.1 Applicant	5
1.2 Manufacturer	5
1.3 Feature of Equipment Under Test	5
1.4 Product Specification of Equipment Under Test	6
1.5 Modification of EUT	8
1.6 Testing Location	8
1.7 Applicable Standards	9
1.8 Component list	9
2 TEST CONFIGURATION OF EQUIPMENT UNDER TEST	10
2.1 Carrier Frequency and Channel	10
2.2 Test Mode	12
2.3 Connection Diagram of Test System	14
2.4 Support Unit used in test configuration and system	16
2.5 EUT Operation Test Setup	16
3 TEST RESULT	17
3.1 Maximum Conducted Output Power Measurement	17
3.2 Unwanted Emissions Measurement	32
3.3 AC Conducted Emission Measurement	37
3.4 Automatically Discontinue Transmission	41
3.5 Antenna Requirements	42
4 LIST OF MEASURING EQUIPMENT	43
5 UNCERTAINTY OF EVALUATION	44
APPENDIX A. CONDUCTED TEST RESULTS	
APPENDIX B. RADIATED SPURIOUS EMISSION	
APPENDIX C. DUTY CYCLE PLOTS	
APPENDIX D. SETUP PHOTOGRAPHS	



REVISION HISTORY

REPORT NO.	VERSION	DESCRIPTION	ISSUED DATE
FR731501D	Rev. 01	Initial issue of report	Apr. 25, 2017

SUMMARY OF TEST RESULT

Report Section	FCC Rule	Description	Limit	Result	Remark
-	2.1049 15.403(i)	26dB & 99% Bandwidth	-	Pass	1
3.1	15.407(a)	Maximum Conducted Output Power	FCC ≤ 24 dBm (depend on band) IC RSS-247 Section 6 Limit	Pass	-
-	15.407(a)	Power Spectral Density	FCC ≤ 11 dBm (depend on band) IC RSS-247 Section 6 Limit	Pass	1
3.2	15.407(b)	Unwanted Emissions	15.407(b) 15.209(a)	Pass	Under limit 1.17 dB at 5142.220 MHz
3.3	15.207	AC Conducted Emission	15.207(a)	Pass	Under limit 7.98 dB at 1.000 MHz
-	15.407(g)	Frequency Stability	Within Operation Band	Pass	1
3.4	15.407(c)	Automatically Discontinue Transmission	Discontinue Transmission	Pass	-
3.5	15.203 & 15.407(a)	Antenna Requirement	N/A	Pass	-

Note: 1: All conducted test items were leverage from module RF report which can refer to Report No.

"FCC_7265D2W_UNII_Report".



1 General Description

1.1 Applicant

Acer Incorporated

8F, 88, Sec.1 Xintai 5th Rd., Xizhi, New Taipei City 221, Taiwan, R.O.C

1.2 Manufacturer

Acer Incorporated

8F, 88, Sec.1 Xintai 5th Rd., Xizhi, New Taipei City 221, Taiwan, R.O.C

1.3 Feature of Equipment Under Test

Product Feature	
Equipment	Tablet Computer
Brand Name	acer
Model Name	N17H1
Marketing Name	Switch 3
FCC ID	HLZ7265D2W
EUT supports Radios application	WLAN2.4GHz 802.11b/g/n HT20/HT40 WLAN5GHz 802.11a/n HT20/HT40 WLAN5GHz 802.11ac VHT20/VHT40/VHT80 Bluetooth v3.0+EDR/ Bluetooth v4.0 LE
HW Version	T8202_MB_V4
SW Version	14393.5
EUT Stage	Pre-Production

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

Standards-related Product Specification	
Tx/Rx Frequency Range	5180 MHz ~ 5240 MHz 5260 MHz ~ 5320 MHz 5500 MHz ~ 5720 MHz
Maximum Output Power to Antenna	<5180 MHz ~ 5240 MHz> <Ant. 1> 802.11a : 12.33 dBm / 0.0171 W 802.11n HT20 : 12.28 dBm / 0.0169 W 802.11n HT40 : 12.15 dBm / 0.0164 W 802.11ac VHT20: 12.27 dBm / 0.0169 W 802.11ac VHT40: 12.13 dBm / 0.0163 W 802.11ac VHT80: 11.80 dBm / 0.0151 W <Ant. 2> 802.11a : 14.60 dBm / 0.0288 W 802.11n HT20 : 14.36 dBm / 0.0273 W 802.11n HT40 : 14.10 dBm / 0.0257 W 802.11ac VHT20: 14.32 dBm / 0.0270 W 802.11ac VHT40: 14.08 dBm / 0.0256 W 802.11ac VHT80: 13.99 dBm / 0.0251 W MIMO <Ant. 1+2> 802.11n HT20 : 15.14 dBm / 0.0327 W 802.11n HT40 : 14.73 dBm / 0.0297 W 802.11ac VHT20: 15.10 dBm / 0.0324 W 802.11ac VHT40: 14.68 dBm / 0.0294 W 802.11ac VHT80: 12.60 dBm / 0.0182 W <5260 MHz ~ 5320 MHz> <Ant. 1> 802.11a : 13.64 dBm / 0.0231 W 802.11n HT20 : 13.62 dBm / 0.0230 W 802.11n HT40 : 13.09 dBm / 0.0204 W 802.11ac VHT20: 13.59 dBm / 0.0229 W 802.11ac VHT40: 13.08 dBm / 0.0203 W 802.11ac VHT80: 12.59 dBm / 0.0182 W <Ant. 2> 802.11a : 14.97 dBm / 0.0314 W 802.11n HT20 : 14.96 dBm / 0.0313 W 802.11n HT40 : 14.27 dBm / 0.0267 W 802.11ac VHT20: 14.79 dBm / 0.0301 W 802.11ac VHT40: 14.26 dBm / 0.0267 W 802.11ac VHT80: 13.37 dBm / 0.0217 W MIMO <Ant. 1+2> 802.11n HT20 : 16.25 dBm / 0.0422 W 802.11n HT40 : 15.40 dBm / 0.0347 W 802.11ac VHT20: 15.95 dBm / 0.0394 W 802.11ac VHT40: 15.15 dBm / 0.0327 W 802.11ac VHT80: 13.67 dBm / 0.0233 W <5500 MHz ~ 5720 MHz > <Ant. 1> 802.11a : 13.22 dBm / 0.0210 W 802.11n HT20 : 13.12 dBm / 0.0205 W 802.11n HT40 : 12.91 dBm / 0.0195 W 802.11ac VHT20: 13.11 dBm / 0.0205 W



	802.11ac VHT40: 12.85 dBm / 0.0193 W 802.11ac VHT80: 12.63 dBm / 0.0183 W <Ant. 2> 802.11a : 13.93 dBm / 0.0247 W 802.11n HT20 : 13.87 dBm / 0.0244 W 802.11n HT40 : 13.86 dBm / 0.0243 W 802.11ac VHT20: 13.84 dBm / 0.0242 W 802.11ac VHT40: 13.83 dBm / 0.0242 W 802.11ac VHT80: 13.67 dBm / 0.0233 W MIMO <Ant. 1+2> 802.11n HT20 : 15.78 dBm / 0.0378 W 802.11n HT40 : 15.46 dBm / 0.0352 W 802.11ac VHT20: 15.73 dBm / 0.0374 W 802.11ac VHT40: 15.40 dBm / 0.0347 W 802.11ac VHT80: 15.10 dBm / 0.0324 W		
Maximum Output Power to Antenna for Straddle Channel	<Ant. 1> 802.11a : 12.00 dBm / 0.0158 W 802.11n HT20 : 11.96 dBm / 0.0157 W 802.11n HT40 : 11.50 dBm / 0.0141 W 802.11ac VHT20: 11.94 dBm / 0.0156 W 802.11ac VHT40: 11.47 dBm / 0.0140 W 802.11ac VHT80: 11.38 dBm / 0.0137 W <Ant. 2> 802.11a : 13.97 dBm / 0.0249 W 802.11n HT20 : 12.70 dBm / 0.0186 W 802.11n HT40 : 12.99 dBm / 0.0199 W 802.11ac VHT20: 12.12 dBm / 0.0163 W 802.11ac VHT40: 12.54 dBm / 0.0179 W 802.11ac VHT80: 12.67 dBm / 0.0185 W MIMO <Ant. 1+2> 802.11n HT20 : 15.21 dBm / 0.0332 W 802.11n HT40 : 15.09 dBm / 0.0323 W 802.11ac VHT20: 14.96 dBm / 0.0313 W 802.11ac VHT40: 14.36 dBm / 0.0273 W 802.11ac VHT80: 14.78 dBm / 0.0301 W		
Antenna Type	Ant. 1 : PIFA Antenna Ant. 2 : PIFA Antenna		
Antenna Gain	<5180 MHz ~ 5240 MHz> Ant. 1 : 1.83 dBi Ant. 2 : 3.40 dBi <5260 MHz ~ 5320 MHz> Ant. 1 : 2.40 dBi Ant. 2 : 1.85 dBi <5500 MHz ~ 5720 MHz > Ant. 1 : 2.88 dBi Ant. 2 : 3.86 dBi		
Type of Modulation	802.11a/n : OFDM (BPSK / QPSK / 16QAM / 64QAM) 802.11ac : OFDM (BPSK / QPSK / 16QAM / 64QAM / 256QAM)		
Antenna Function Description		Ant. 1	Ant. 2
	802.11 a/n/ac SISO	V	V
	802.11 n/ac MIMO	V	V

Note:

1. MIMO Ant. 1+2 is a calculated result from sum of the power MIMO Ant. 1 and MIMO Ant. 2.
2. For 802.11n HT20 / ac VHT20 and 802.11n HT40 / ac VHT40 mode, the whole testing have assessed only 802.11n HT20/ HT40 by referring to their maximum conducted power.

1.5 Modification of EUT

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

1.6 Testing Location

Test Site	SPORTON International (ShenZhen) INC.	
Test Site Location	1/F, 2/F, Bldg 5, Shiling Industrial Zone, Xinwei Village, Xili, Nanshan District, Shenzhen City, Guangdong Province, China TEL: +86-755-8637-9589 FAX: +86-755-8637-9595	
Test Site No.	Sporton Site No.	
	TH01-SZ	CO01-SZ

Test Site	SPORTON International (ShenZhen) INC.	
Test Site Location	No. 3 Building, the third floor of south, Shahe River west, Fengzeyuan warehouse, Nanshan District, Shenzhen, Guangdong, P. R. China TEL: +86-755- 3320-2398	
Test Site No.	Sporton Site No.	FCC Registration No.
	03CH03-SZ	565805

Note: The test site complies with ANSI C63.4 2014 requirement.

1.7 Applicable Standards

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

- FCC Part 15 Subpart E
- FCC KDB 789033 D02 General UNII Test Procedures New Rules v01r03
- 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. This EUT has also been tested and complied with the requirements of FCC Part 15, Subpart B, recorded in a separate test report.

1.8 Component list

Note: There are two types of EUT, the details refer the following table. According to the difference, we choose sample 1 to perform full test.

Name	N17H1	
	Sample 1	Sample 2
PCB--MB	T8202_mainboard PCB_V4.0 (HUAXIN)	T8202_ mainboard PCB_V4.0 (RED BOARD)
CPU	N4200(INTEL)	N3350(INTEL)
Memory	4G+128G	4G+64G

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. The worst cases were recorded in this report.

2.1 Carrier Frequency and Channel

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

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

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

Frequency Band	Channel	Freq. (MHz)	Channel	Freq. (MHz)
TDWR Channel	118*	5590	124	5620
	120	5600	126*	5630
	122 [#]	5610	128	5640



Frequency Band	Channel	Freq. (MHz)	Channel	Freq. (MHz)
Straddle Channel	138 [#]	5690	144	5720
	142 [*]	5710		

Note:

1. The above Frequency and Channel in "*" were 802.11n HT40 and 802.11ac VHT40.
2. The above Frequency and Channel in "[#]" were 802.11ac VHT80.

2.2 Test Mode

Final test mode of conducted test items and radiated spurious emissions are considering the modulation and worse data rates as below table.

Single Antenna

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

MIMO Antenna

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

Test Cases	
AC Conducted	Mode 1 : WLAN Link (5G) + Bluetooth Link + Adapter 1 + Earphone
Emission	Mode 2 : WLAN Link (5G) + Bluetooth Link + Adapter 2 + Earphone
Remark: 1. The worst case of conducted emission is mode 1; only the test data of it was reported.	



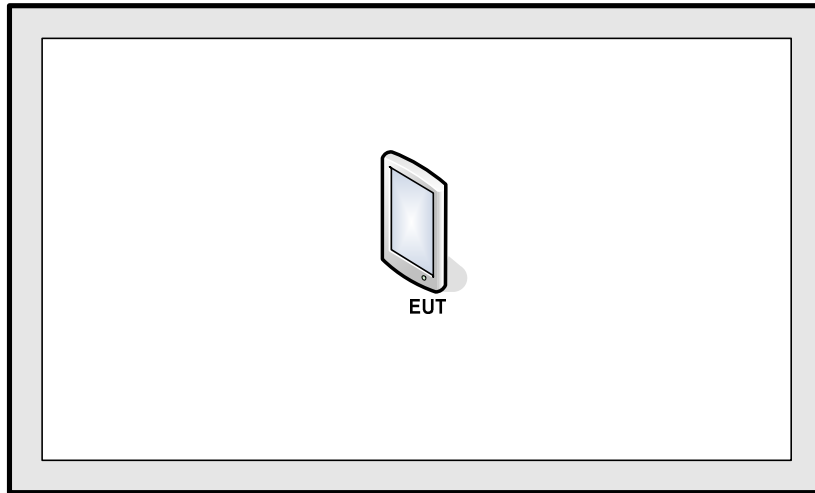
Ch. #		Band I : 5150-5250 MHz	Band II : 5250-5350 MHz	Band III : 5470-5725MHz
		802.11a	802.11a	802.11a
L	Low	36	52	100
M	Middle	44	60	116
H	High	48	64	140
Straddle		-	-	144

Ch. #		Band I : 5150-5250 MHz	Band II : 5250-5350 MHz	Band III : 5470-5725MHz
		802.11n HT20	802.11n HT20	802.11n HT20
L	Low	36	52	100
M	Middle	44	60	116
H	High	48	64	140
Straddle		-	-	144

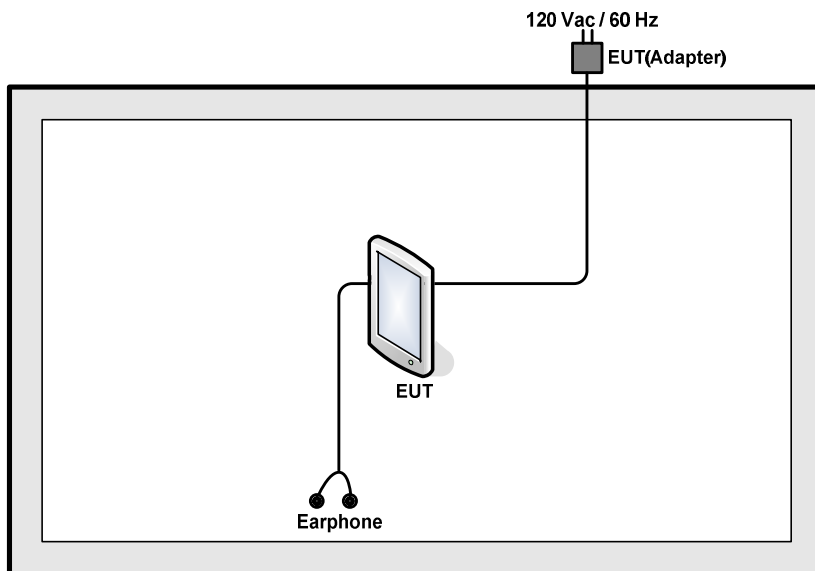
Ch. #		Band I : 5150-5250 MHz	Band II : 5250-5350 MHz	Band III : 5470-5725MHz
		802.11n HT40	802.11n HT40	802.11n HT40
L	Low	38	54	102
M	Middle	-	-	110
H	High	46	62	134
Straddle		-	-	142

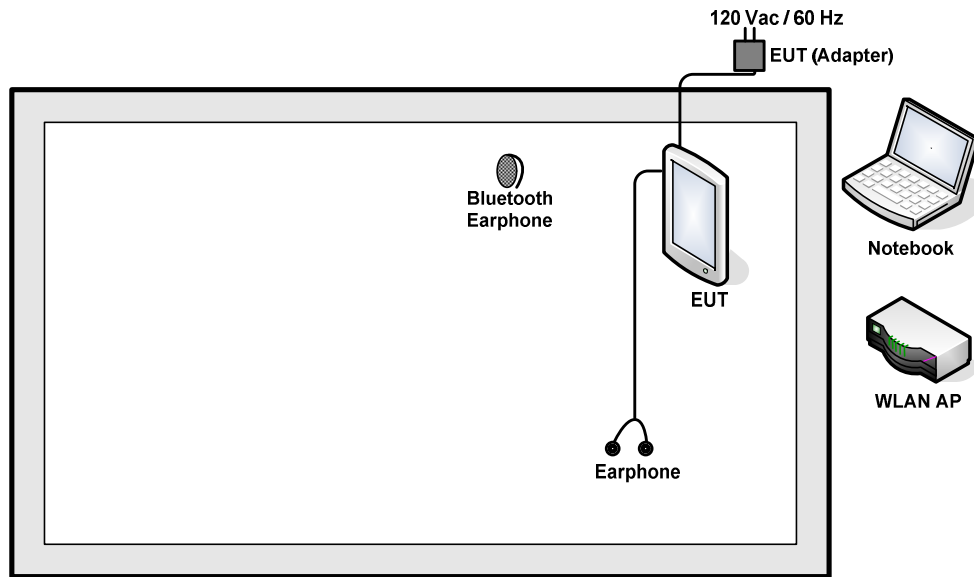
2.3 Connection Diagram of Test System

<WLAN Tx Mode>SISO



<WLAN Tx Mode>MIMO



<AC Conducted Emission Mode>

2.4 Support Unit used in test configuration and system

Item	Equipment	Trade Name	Model Name	FCC ID	Data Cable	Power Cord
1.	WLAN AP	D-Link	DIR-820L	KA2IR820LA1	N/A	Unshielded, 1.8 m
2.	Notebook	Lenovo	E540	FCC DoC	N/A	AC I/P: Unshielded, 1.2 m DC O/P: Shielded, 1.8 m
3.	Bluetooth Earphone	Nokia	BH-108	PYAHS-107W	N/A	N/A
4.	Earphone	Apple	MC690ZP/A	FCC DoC	Shielded, 1.0 m	N/A

2.5 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.

3 Test Result

3.1 Maximum Conducted Output Power Measurement

3.1.1 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 5.25–5.725 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.

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

For Straddle Channel, U-NII procedures and limits were applied for operations in the frequency band in accordance with FCC KDB 644545 D03.

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.

3.1.2 Measuring Instruments

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



3.1.3 Test Procedures

The testing follows Method PM of FCC KDB 789033 D02 General UNII Test Procedures New Rules v01r03 for CDD modes.

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

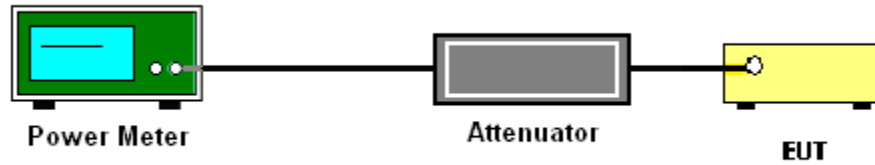
1. Measurement is performed using a wideband RF power meter.
2. The EUT is configured to transmit continuously with a consistent duty cycle at its maximum power control level.
3. Measure the average power of the transmitter, and the average power is corrected with duty factor, $10 \log(1/x)$, where x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

For straddle channel, the testing follows Method SA-3 (RMS detection with max hold) of FCC KDB 789033 D02 General UNII Test Procedures New Rules v01r03.

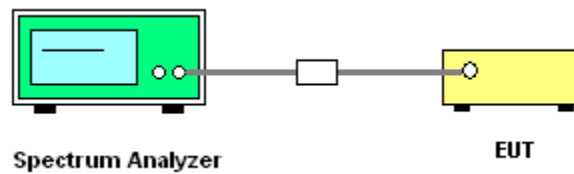
Compute power by integrating the spectrum across the 99% occupied bandwidth of the signal using the instrument's band power measurement function.

3.1.4 Test Setup

For normal channel:



For straddle channel:

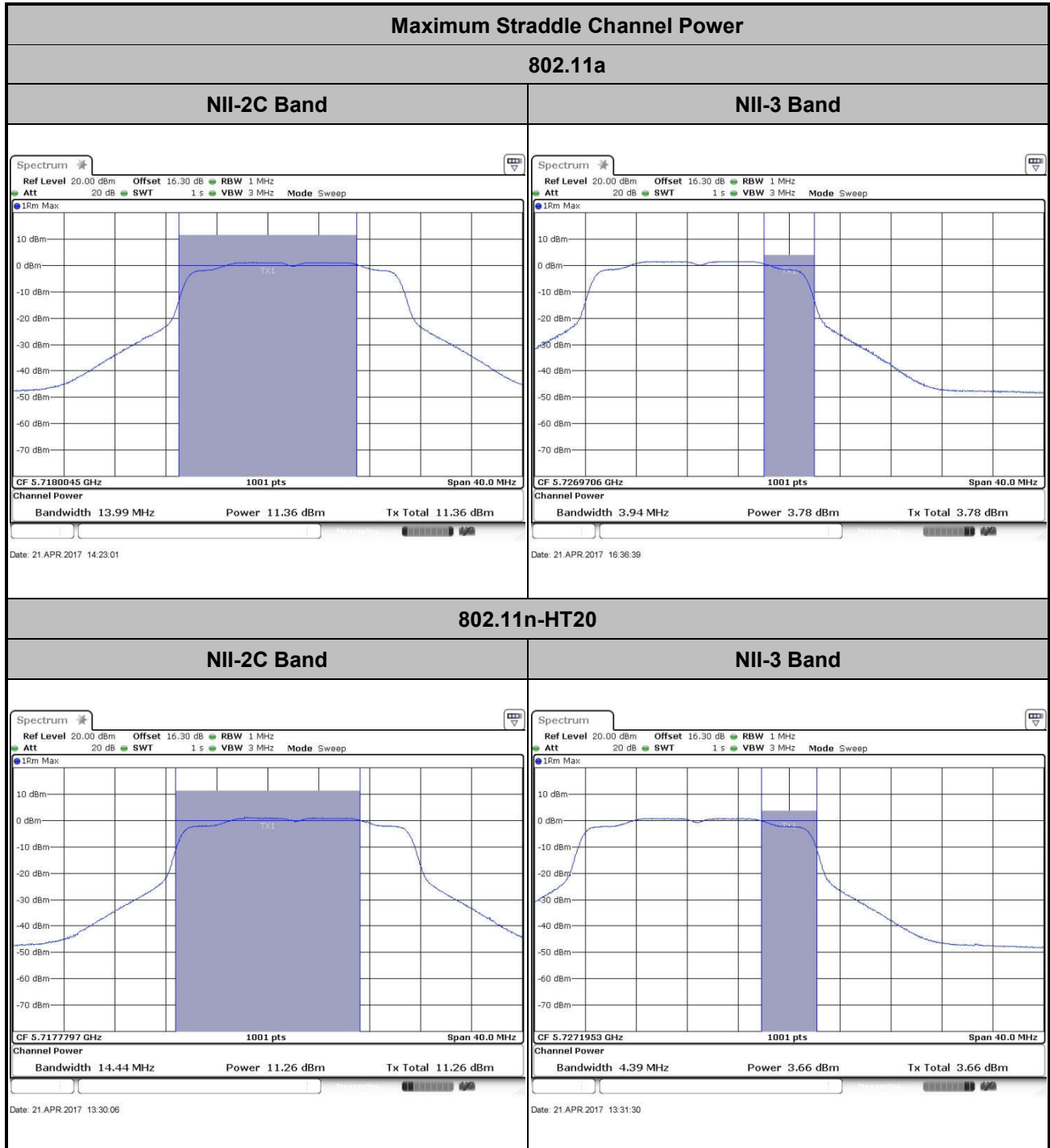




3.1.5 Test Result of Maximum Conducted Output Power

Please refer to Appendix A.

Ant.1

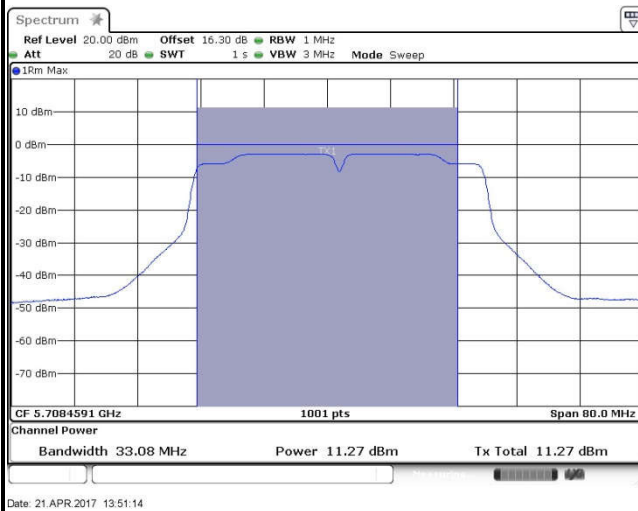




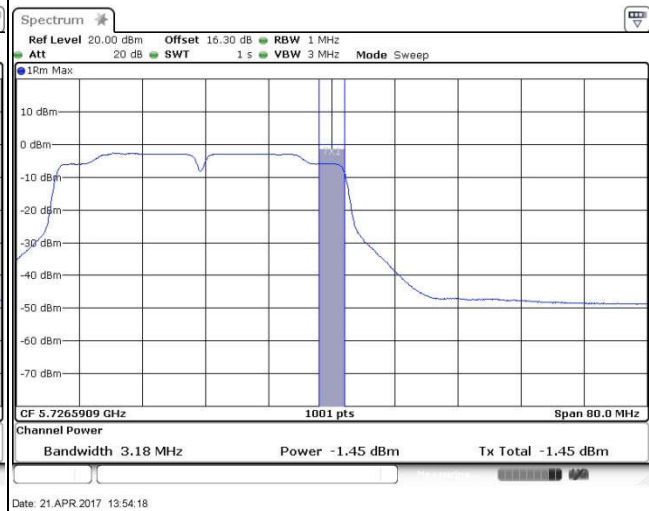
Maximum Straddle Channel Power

802.11n-HT40

NII-2C Band

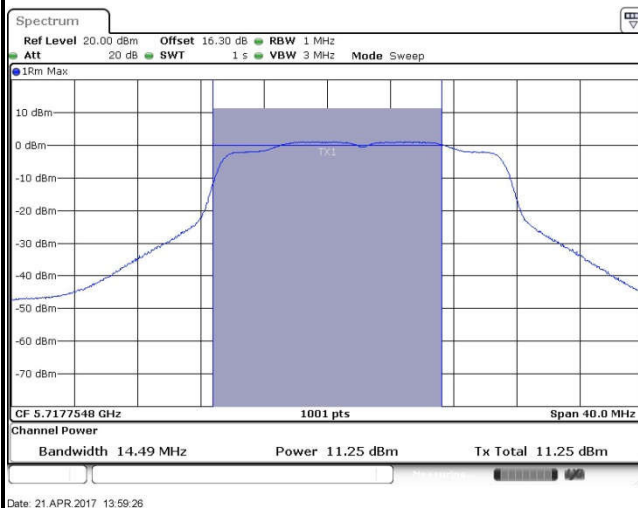


NII-3 Band

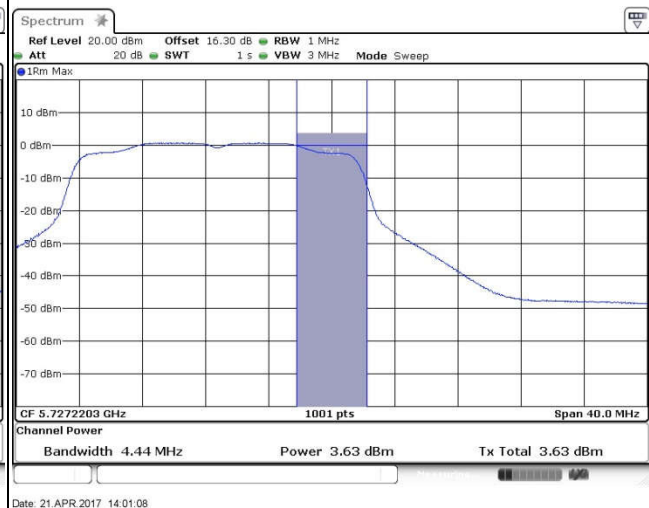


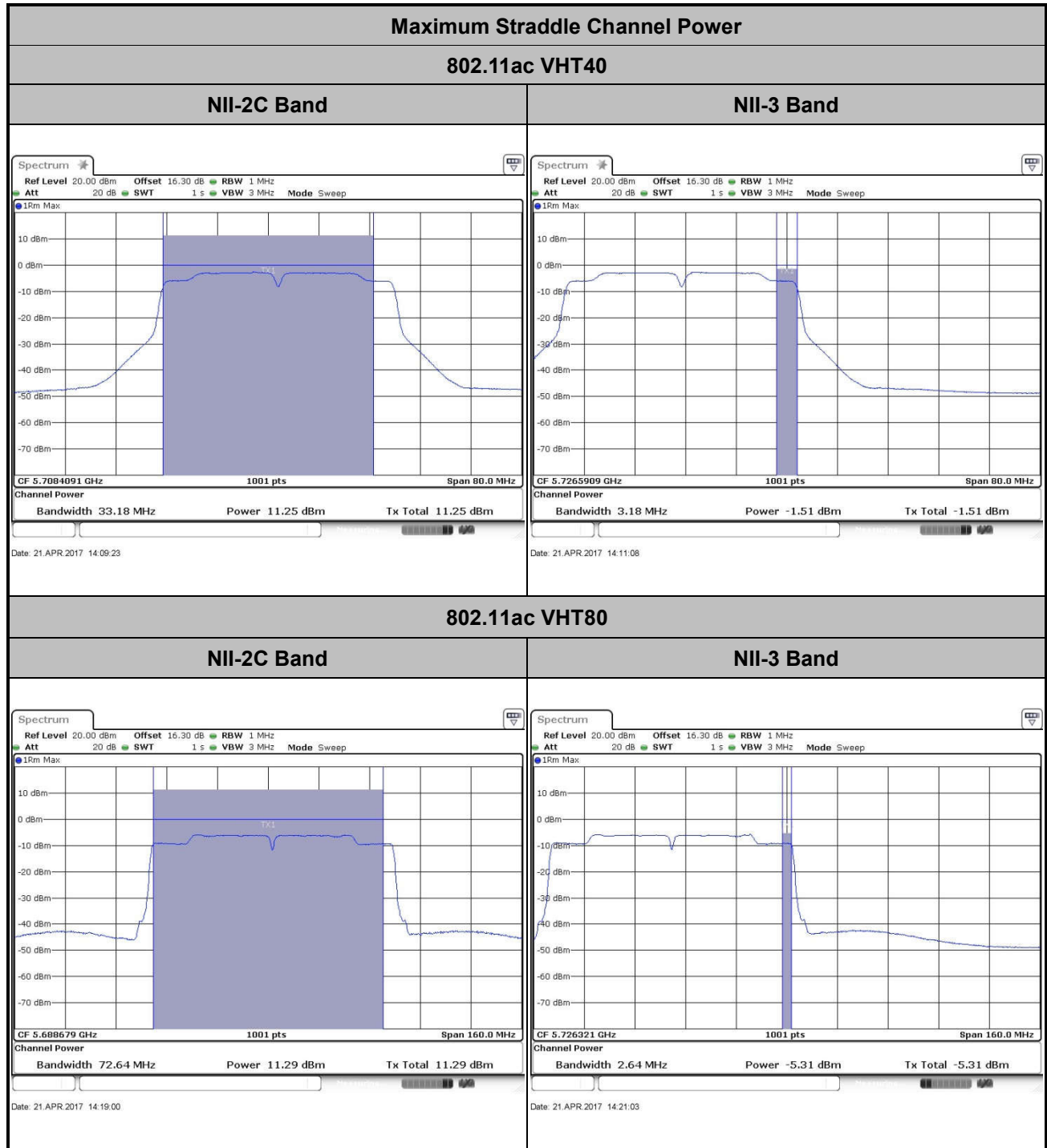
802.11ac VHT20

NII-2C Band



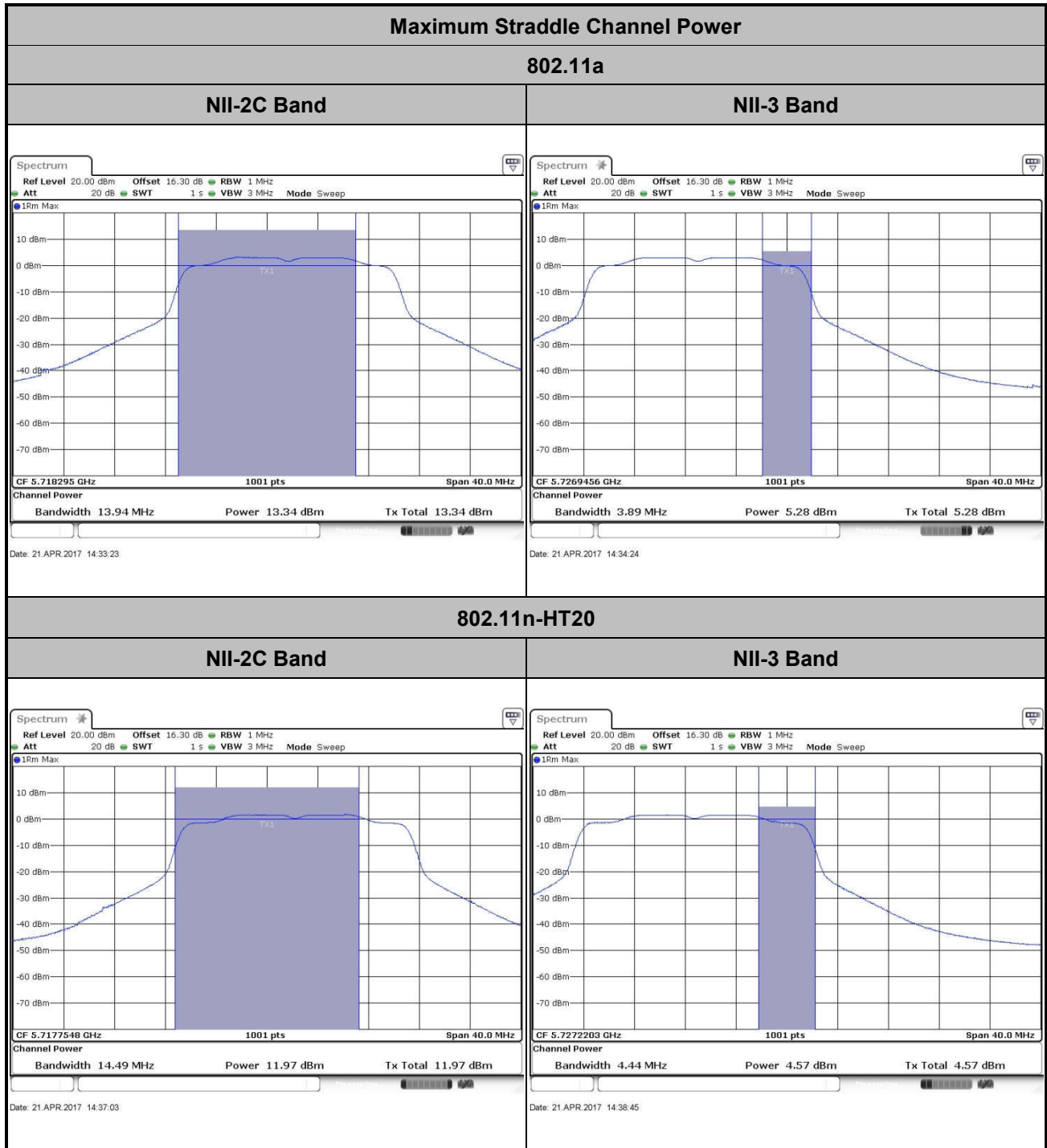
NII-3 Band







Ant.2

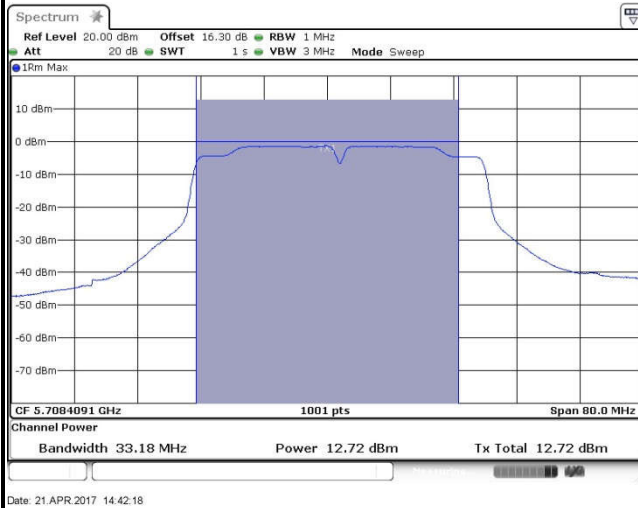




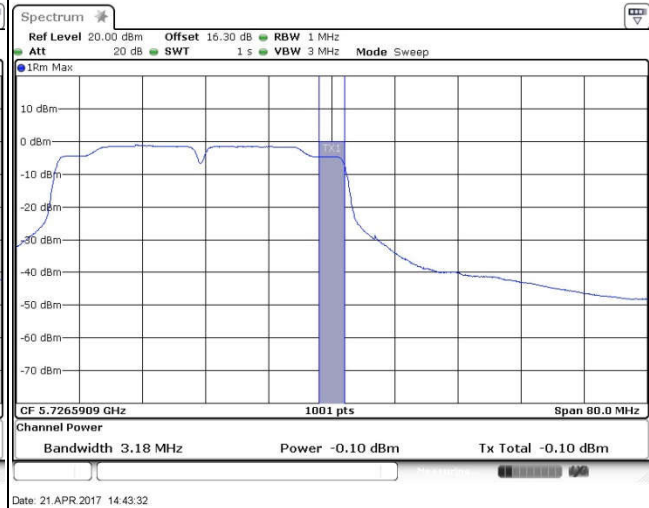
Maximum Straddle Channel Power

802.11n-HT40

NII-2C Band

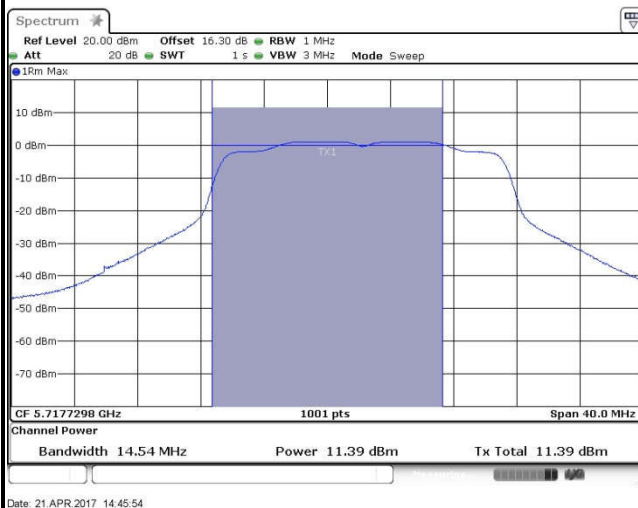


NII-3 Band

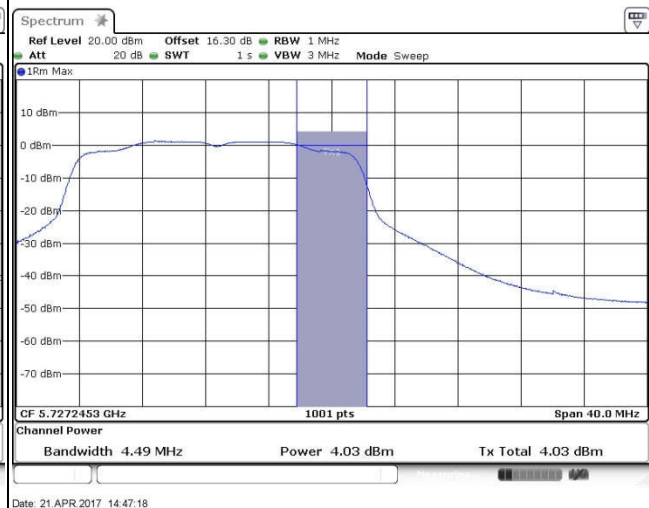


802.11ac VHT20

NII-2C Band



NII-3 Band

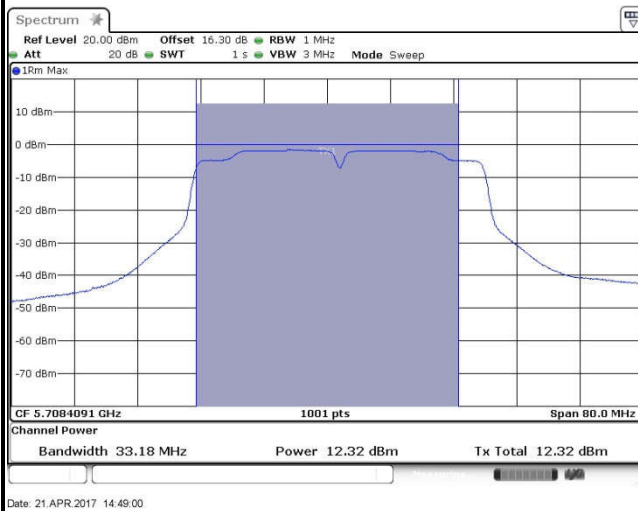




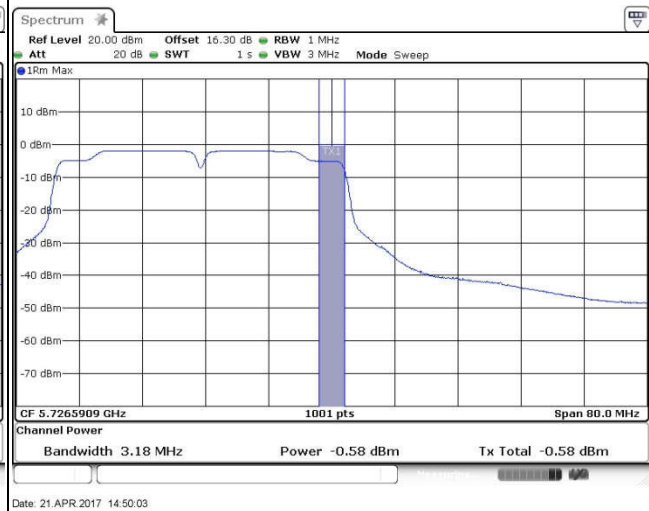
Maximum Straddle Channel Power

802.11ac VHT40

NII-2C Band

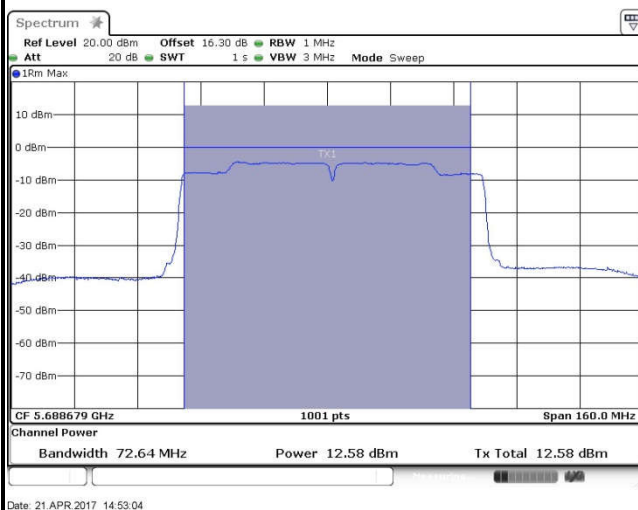


NII-3 Band

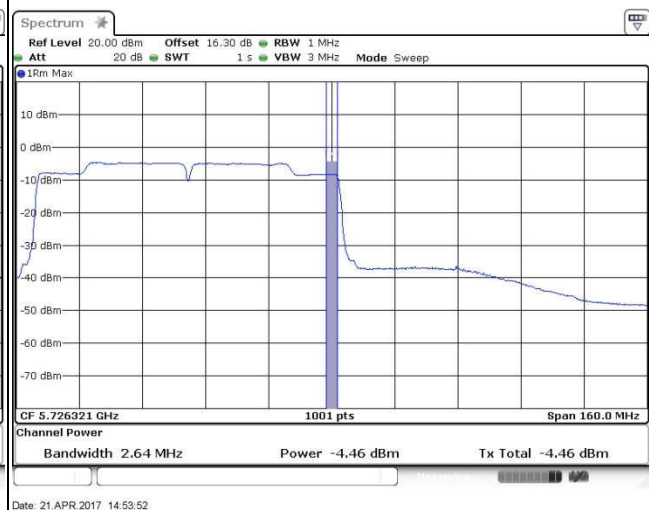


802.11ac VHT80

NII-2C Band

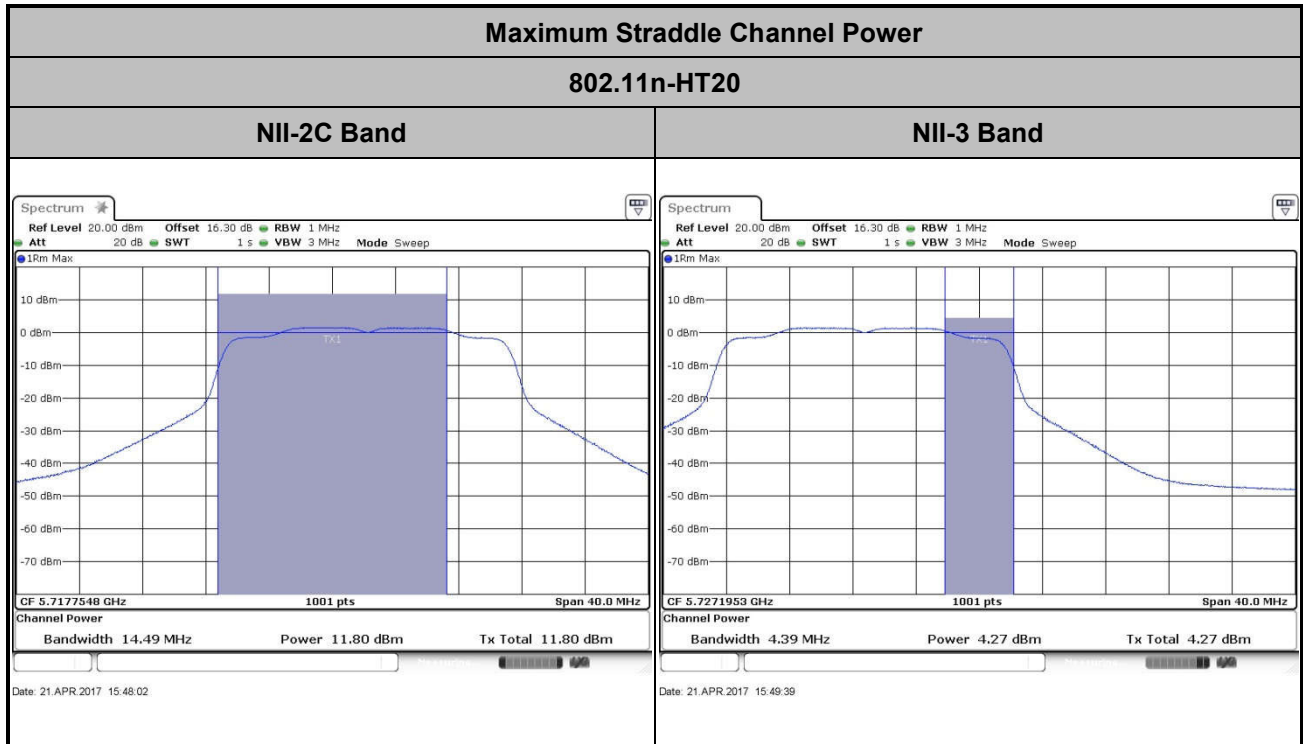


NII-3 Band





Ant.1+2(1)



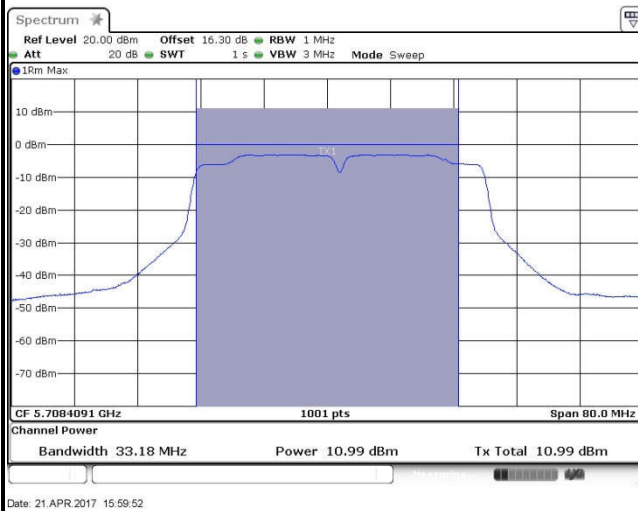




Maximum Straddle Channel Power

802.11ac VHT40

NII-2C Band

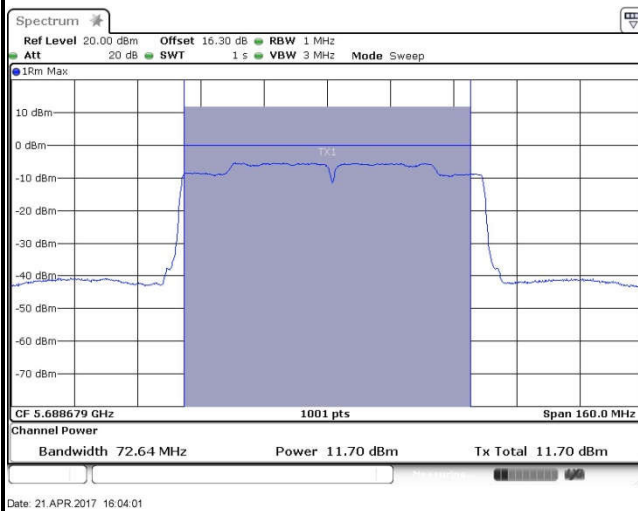


NII-3 Band

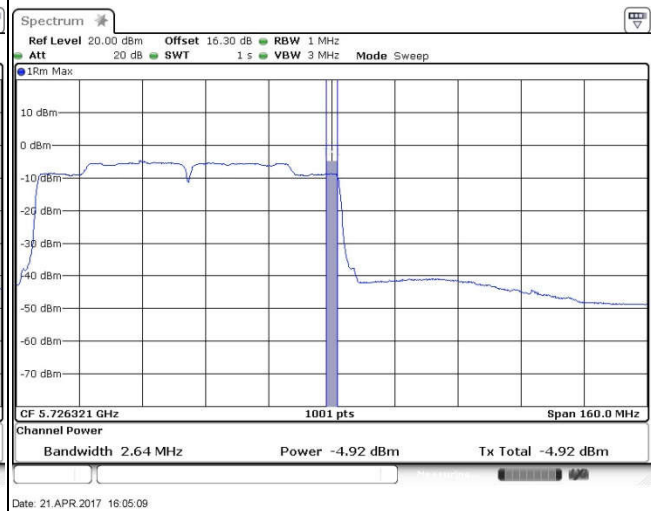


802.11ac VHT80

NII-2C Band

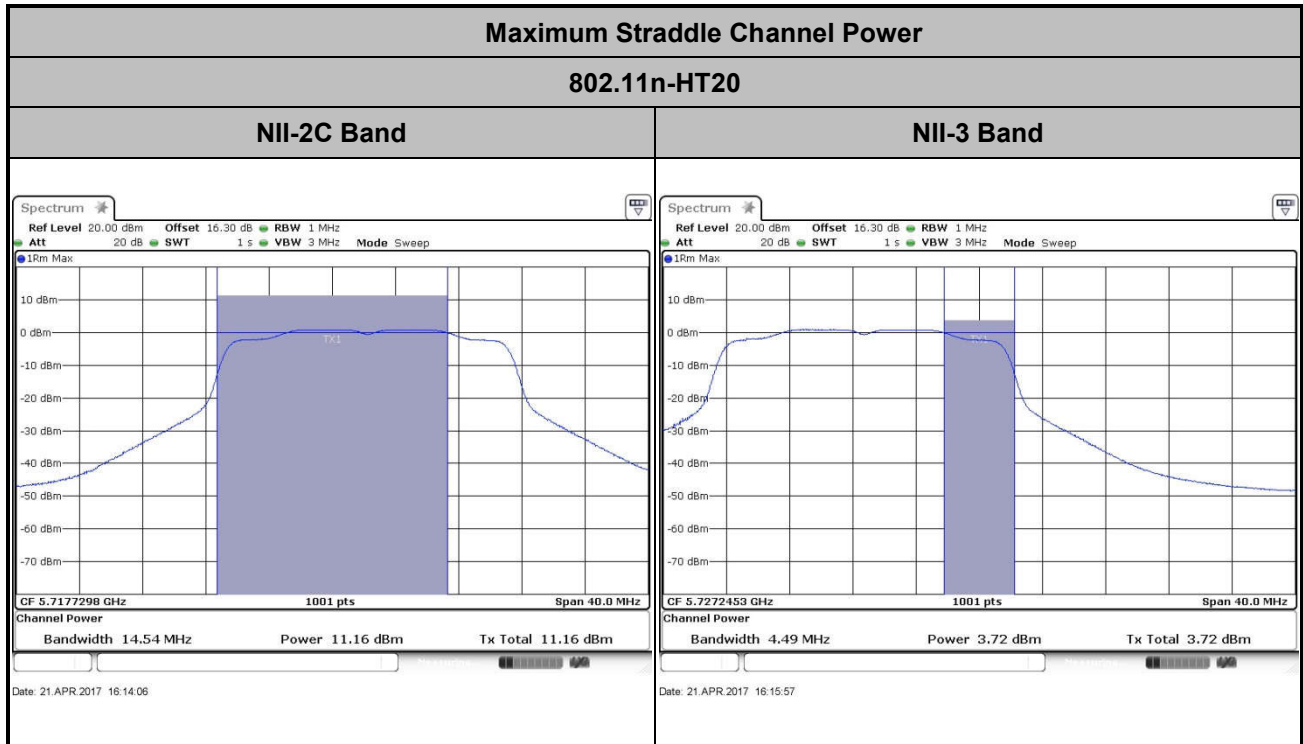


NII-3 Band





Ant.1+2(2)

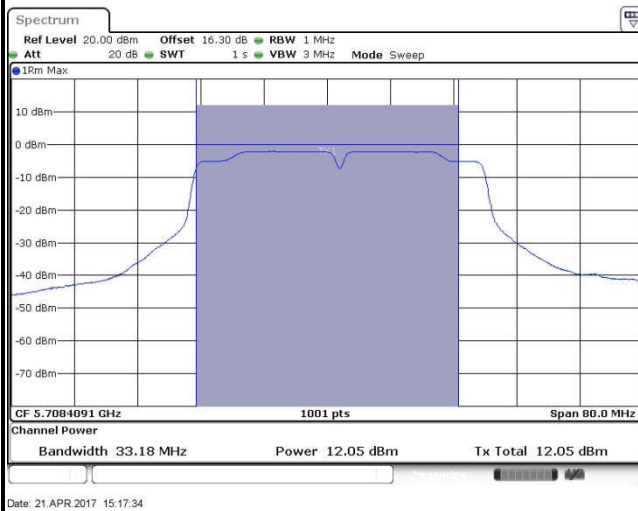




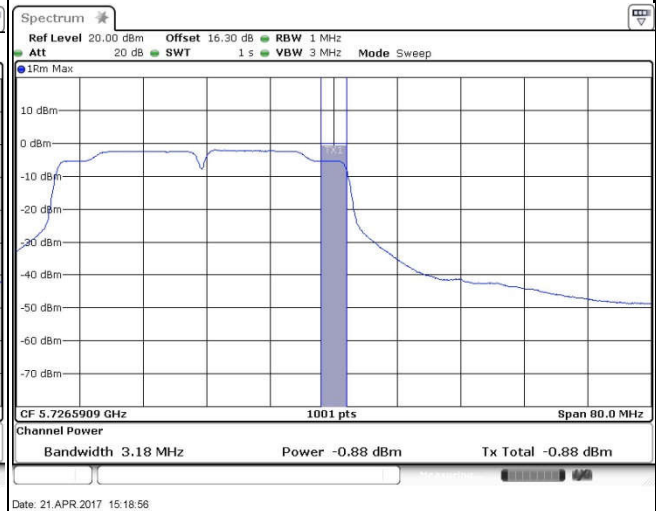
Maximum Straddle Channel Power

802.11n-HT40

NII-2C Band



NII-3 Band



802.11ac VHT20

NII-2C Band



NII-3 Band

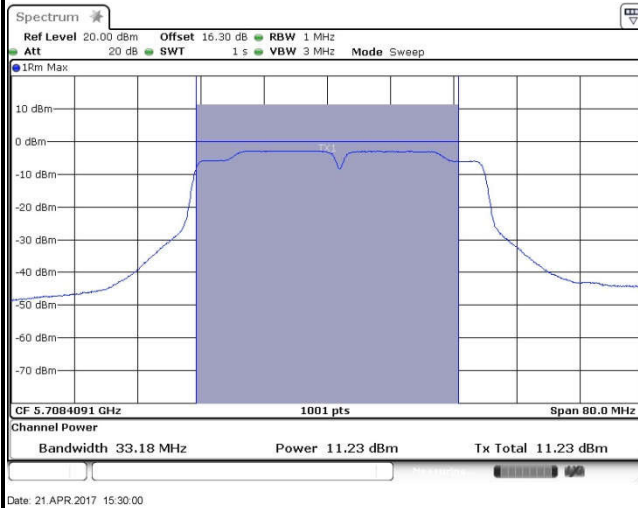




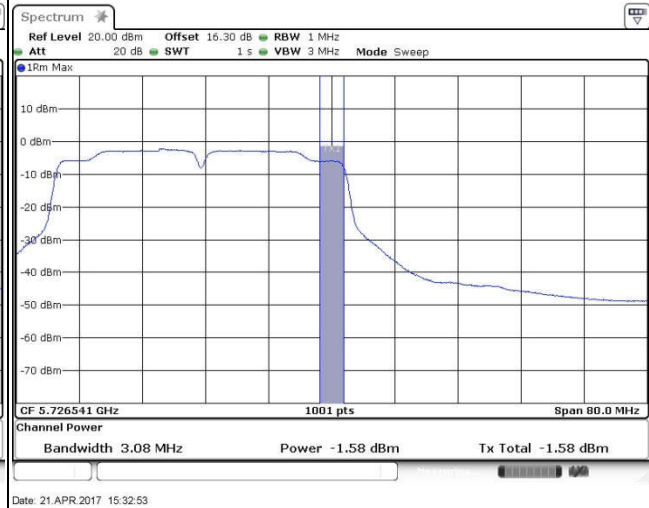
Maximum Straddle Channel Power

802.11ac VHT40

NII-2C Band

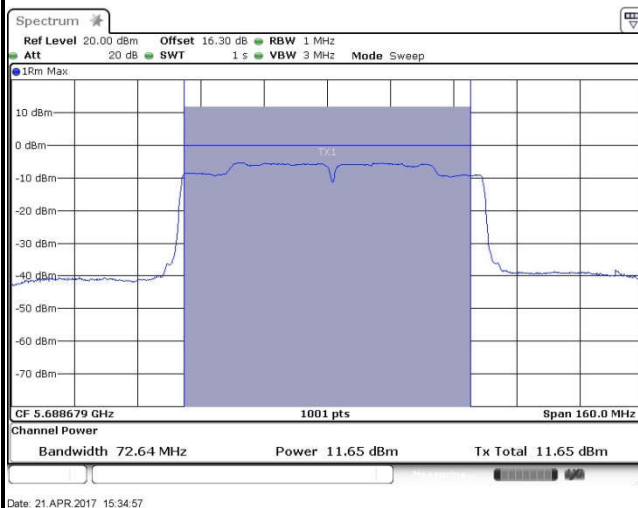


NII-3 Band

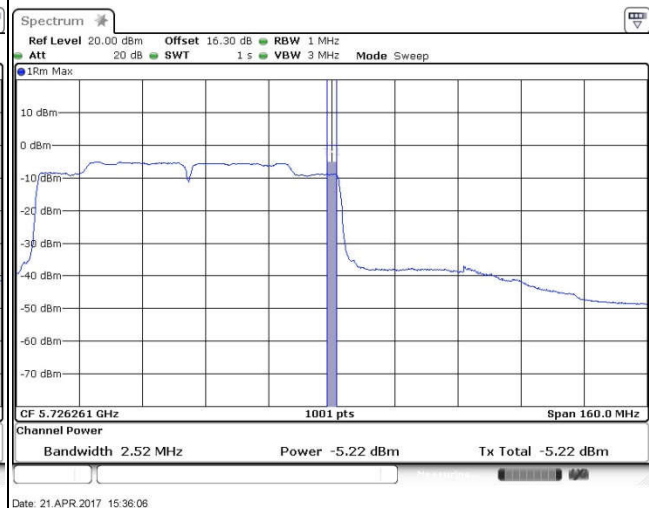


802.11ac VHT80

NII-2C Band



NII-3 Band



3.2 Unwanted Emissions Measurement

This section as specified in FCC Part 15.407(b) is to measure unwanted emissions through radiated measurement for band edge spurious emissions and out of band emissions measurement. The unwanted emissions shall comply with 15.407(b)(1) to (6), and restricted bands per FCC Part 15.205.

3.2.1 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 shall comply with the general field strength limits 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.

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

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

- (3) KDB789033 D02 v01r03 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.

3.2.2 Measuring Instruments

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

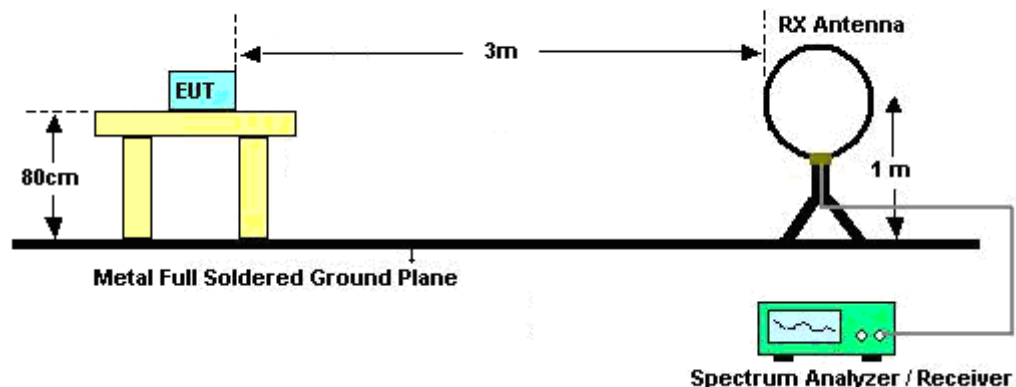
3.2.3 Test Procedures

1. The testing follows FCC KDB 789033 D02 General UNII Test Procedures New Rules v01r03. Section G) Unwanted emissions measurement.
 - (1) Procedure for Unwanted Emissions Measurements Below 1000MHz
 - RBW = 120 kHz
 - VBW = 300 kHz
 - Detector = Peak
 - Trace mode = max hold
 - (2) Procedure for Peak Unwanted Emissions Measurements Above 1000 MHz
 - RBW = 1 MHz
 - VBW ≥ 3 MHz
 - Detector = Peak
 - Sweep time = auto
 - Trace mode = max hold
 - (3) Procedures for Average Unwanted Emissions Measurements Above 1000MHz
 - RBW = 1 MHz
 - VBW = 10 Hz, when duty cycle is no less than 98 percent.
 - VBW ≥ 1/T, when duty cycle is less than 98 percent where T is the minimum transmission duration over which the transmitter is on and is transmitting at its maximum power control level for the tested mode of operation.

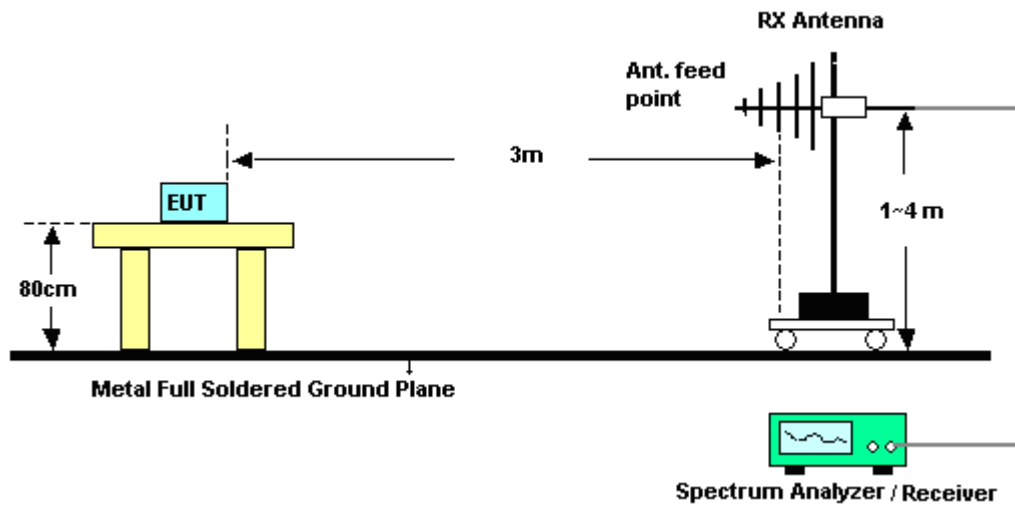
2. The EUT was placed on a turntable with 0.8 meter for frequency below 1GHz and 1.5 meter for frequency above 1GHz respectively above ground.
3. The EUT was set 3 meters from the interference receiving antenna which was mounted on the top of a variable height antenna tower.
4. The antenna is a broadband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

3.2.4 Test Setup

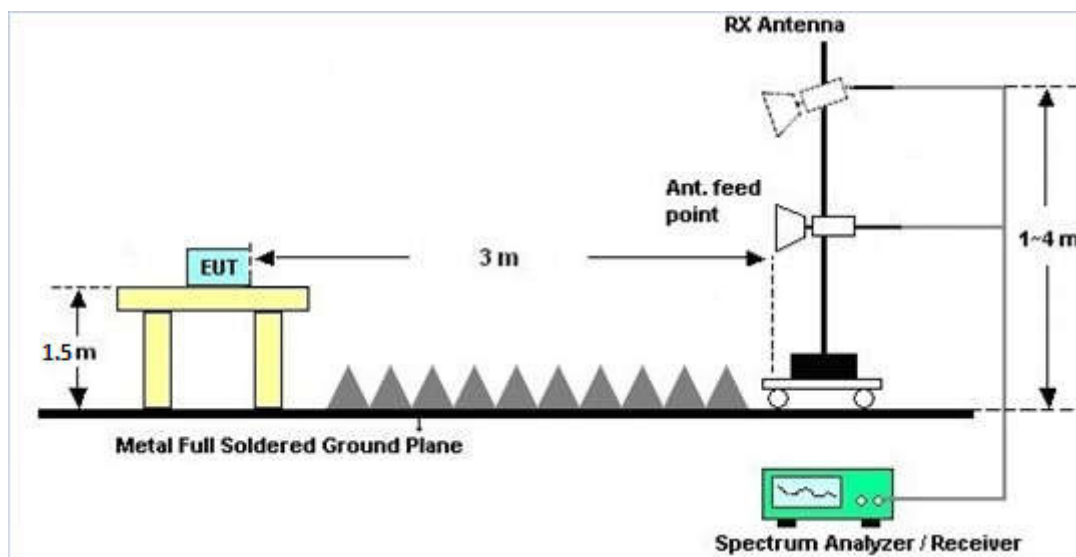
For radiated emissions below 30MHz



For radiated emissions from 30MHz to 1GHz



For radiated emissions above 1GHz



**3.2.5 Test Results of Radiated Spurious 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 was not reported.

3.2.6 Test Result of Radiated Spurious at Band Edges

Please refer to Appendix B.

3.2.7 Duty Cycle

Please refer to Appendix C.

3.2.8 Test Result of Radiated Spurious Emissions (30MHz ~ 10th Harmonic)

Please refer to Appendix B.

3.2.9 Test Result of Radiated Spurious Emission (Simultaneous TX)

Please refer to test report (FR731501B).

3.3 AC Conducted Emission Measurement

3.3.1 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.

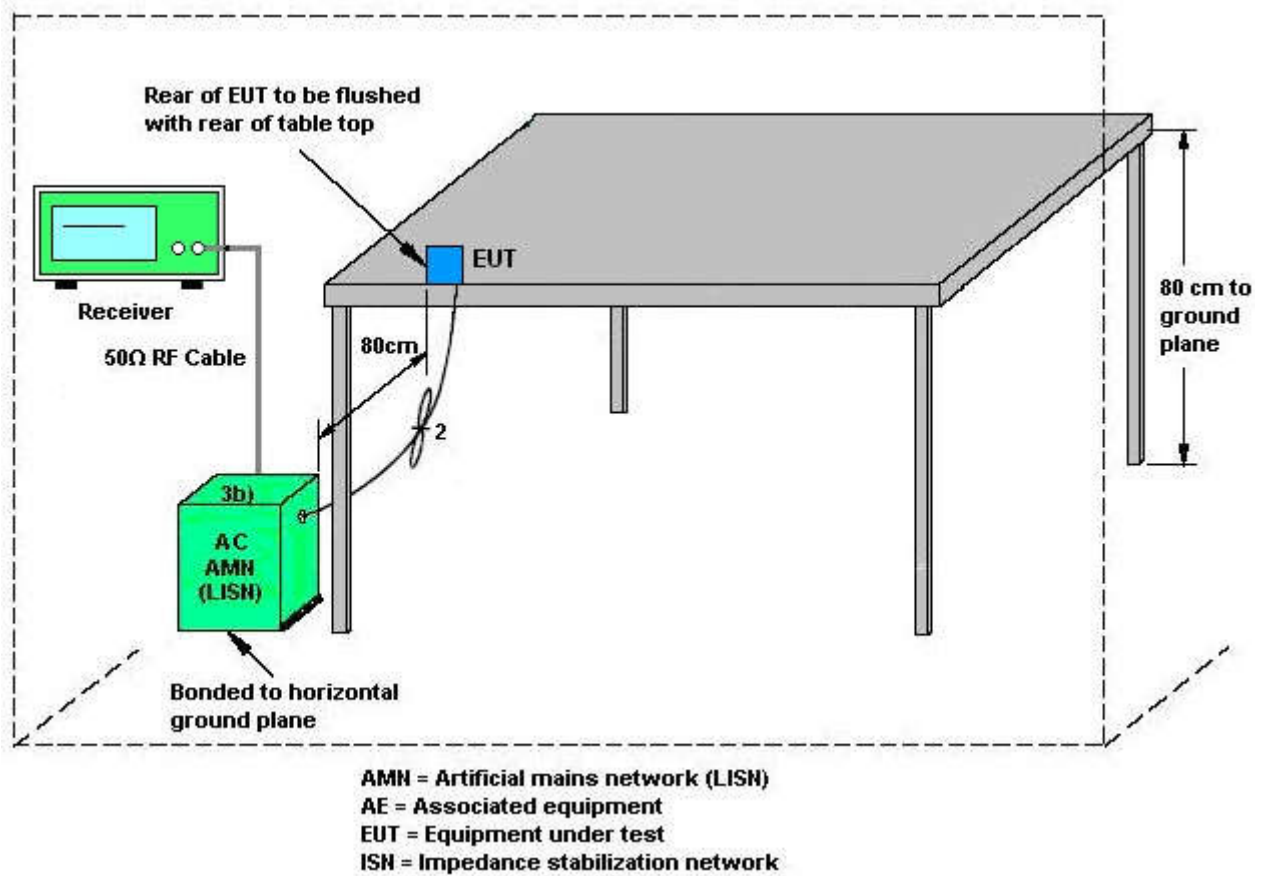
3.3.2 Measuring Instruments

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

3.3.3 Test Procedures

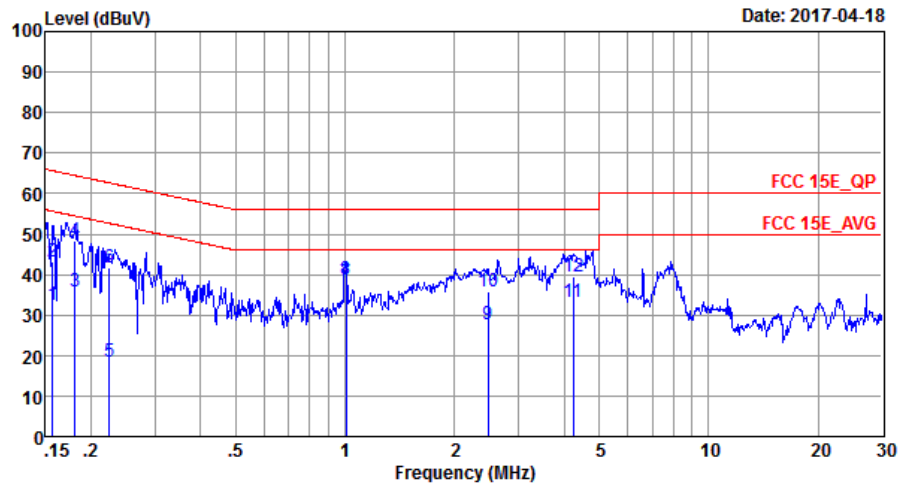
1. The EUT was placed 0.4 meter from the conducting wall of the shielding room was kept at least 80 centimeters from any other grounded conducting surface.
2. Connect EUT to the power mains through a line impedance stabilization network (LISN).
3. All the support units are connecting to the other LISN.
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.

3.3.4 Test Setup



3.3.5 Test Result of AC Conducted Emission

Test Mode :	Mode 1	Temperature :	21~23℃
Test Engineer :	Tao Cheng	Relative Humidity :	41~42%
Test Voltage :	120Vac / 60Hz	Phase :	Line
Function Type :	WLAN Link (5G) + Bluetooth Link + Adapter 1 + Earphone		



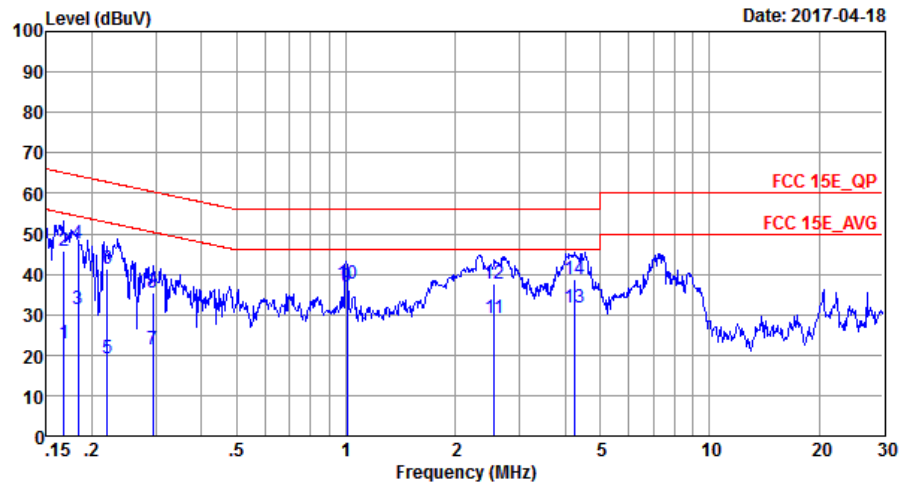
Site : CO01-SZ
Condition: FCC 15E_QP LISN_20170301_L LINE

Mode : Mode 1

	Freq	Level	Over Limit	Limit Line	Read Level	LISN Factor	Cable Loss	Remark
	MHz	dBuV		dB	dBuV	dB	dB	
1	0.16	32.41	-23.24	55.65	22.00	0.03	10.38	Average
2	0.16	43.08	-22.57	65.65	32.67	0.03	10.38	QP
3	0.18	35.65	-18.81	54.46	25.33	0.03	10.29	Average
4	0.18	48.30	-16.16	64.46	37.98	0.03	10.29	QP
5	0.22	18.45	-34.21	52.66	8.20	0.03	10.22	Average
6	0.22	41.85	-20.81	62.66	31.60	0.03	10.22	QP
7 *	1.00	38.02	-7.98	46.00	27.80	0.07	10.15	Average
8	1.00	38.62	-17.38	56.00	28.40	0.07	10.15	QP
9	2.47	27.62	-18.38	46.00	17.29	0.14	10.19	Average
10	2.47	35.92	-20.08	56.00	25.59	0.14	10.19	QP
11	4.25	33.24	-12.76	46.00	22.80	0.18	10.26	Average
12	4.25	39.54	-16.46	56.00	29.10	0.18	10.26	QP



Test Mode :	Mode 1	Temperature :	21~23℃
Test Engineer :	Tao Cheng	Relative Humidity :	41~42%
Test Voltage :	120Vac / 60Hz	Phase :	Neutral
Function Type :	WLAN Link (5G) + Bluetooth Link + Adapter 1 + Earphone		



Site : CO01-SZ
Condition: FCC 15E_QP LISN_20170301_N NEUTRAL

Mode : Mode 1

	Freq	Level	Over Limit	Limit Line	Read Level	LISN Factor	Cable Loss	Remark
	MHz	dBuV	dB	dBuV	dBuV	dB	dB	
1	0.17	22.77	-32.31	55.08	12.40	0.03	10.34	Average
2	0.17	45.77	-19.31	65.08	35.40	0.03	10.34	QP
3	0.18	31.51	-22.82	54.33	21.20	0.03	10.28	Average
4	0.18	47.71	-16.62	64.33	37.40	0.03	10.28	QP
5	0.22	19.35	-33.44	52.79	9.10	0.03	10.22	Average
6	0.22	41.25	-21.54	62.79	31.00	0.03	10.22	QP
7	0.29	21.55	-28.86	50.41	11.30	0.03	10.22	Average
8	0.29	35.35	-25.06	60.41	25.10	0.03	10.22	QP
9 *	1.00	37.00	-9.00	46.00	26.80	0.05	10.15	Average
10	1.00	37.60	-18.40	56.00	27.40	0.05	10.15	QP
11	2.55	29.33	-16.67	46.00	19.10	0.04	10.19	Average
12	2.55	37.73	-18.27	56.00	27.50	0.04	10.19	QP
13	4.27	31.82	-14.18	46.00	21.50	0.06	10.26	Average
14	4.27	38.62	-17.38	56.00	28.30	0.06	10.26	QP



3.4 Automatically Discontinue Transmission

3.4.1 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.

3.4.2 Measuring Instruments

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

3.4.3 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.

3.5 Antenna Requirements

3.5.1 Standard Applicable

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.

3.5.2 Antenna Anti-Replacement Construction

An embedded-in antenna design is used.

3.5.3 Antenna Gain

FCC KDB 662911 D01 Multiple Transmitter Output v02r01

For CDD transmissions, directional gain is calculated as

Directional gain = G_{ANT} + Array Gain, where Array Gain is as follows.

For power spectral density (PSD) measurements on all devices,

Array Gain = $10 \log(N_{ANT}/N_{SS}=1)$ dB.

For power measurements on IEEE 802.11 devices,

Array Gain = 0 dB (i.e., no array gain) for $N_{ANT} \leq 4$.

Directional gain may be calculated by using the formulas applicable to equal gain antennas with G_{ANT} set equal to the gain of the antenna having the highest gain;

The EUT supports CDD mode.

For power, the directional gain G_{ANT} is set equal to the antenna having the highest gain, i.e., F)2)f)i).

For PSD, the directional gain calculation is following F)2)f)ii) of KDB 662911 D01 v02r01.

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.

			DG for Power (dBi)	DG for PSD (dBi)	Power Limit Reduction (dB)	PSD Limit Reduction (dB)
	Ant 1 (dBi)	Ant 2 (dBi)				
Band I	1.83	3.40	3.40	5.66	0.00	0.00
Band II	2.40	1.85	2.40	5.14	0.00	0.00
Band III	2.88	3.86	3.86	6.39	0.00	0.39

Power limit reduction = Composite gain – 6dBi, (min = 0)

PSD limit reduction = Composite gain + PSD Array gain – 6dBi, (min = 0)



4 List of Measuring Equipment

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Test Date	Due Date	Remark
Spectrum Analyzer	R&S	FSV40	101078	9kHz~40GHz	May 07, 2016	Apr. 21, 2017	May 06, 2017	Conducted (TH01-SZ)
Pulse Power Sensor	Anritsu	MA2411B	1207253	30MHz~40GHz	Jan. 06, 2017	Apr. 21, 2017	Jan. 05, 2018	Conducted (TH01-SZ)
Power Meter	Anritsu	ML2495A	1218010	50MHz Bandwidth	Jan. 06, 2017	Apr. 21, 2017	Jan. 05, 2018	Conducted (TH01-SZ)
EMI Test Receiver&SA	KEYSIGHT	N9038A	MY54450083	20Hz~8.4GHz	May 07, 2016	Apr. 16, 2017~ Apr. 21, 2017	May 06, 2017	Radiation (03CH03-SZ)
EXA Spectrum Analyzer	KEYSIGHT	N9010A	MY55150246	10Hz~44GHz	May 07, 2016	Apr. 16, 2017~ Apr. 21, 2017	May 06, 2017	Radiation (03CH03-SZ)
Loop Antenna	R&S	HFH2-Z2	100354	9kHz~30MHz	May 07, 2016	Apr. 16, 2017~ Apr. 21, 2017	May 06, 2017	Radiation (03CH03-SZ)
Bilog Antenna	TeseQ	CBL6112D	35408	30MHz~2GHz	May 21, 2016	Apr. 16, 2017~ Apr. 21, 2017	May 20, 2017	Radiation (03CH03-SZ)
Double Ridge Horn Antenna	SCHWARZBECK	BBHA9120D	9120D-1355	1GHz~18GHz	May 07, 2016	Apr. 16, 2017~ Apr. 21, 2017	May 06, 2017	Radiation (03CH03-SZ)
SHF-EHF Horn	com-power	AH-840	101071	18GHz~40GHz	Aug. 10, 2016	Apr. 16, 2017~ Apr. 21, 2017	Aug. 09, 2017	Radiation (03CH03-SZ)
Amplifier	Burgeon	BPA-530	102210	0.01Hz~3000MHz	Oct. 11, 2016	Apr. 16, 2017~ Apr. 21, 2017	Oct. 10, 2017	Radiation (03CH03-SZ)
HF Amplifier	MITEQ	AMF-7D-0010 1800-30-10P-R	1943528	1GHz~18GHz	Oct. 11, 2016	Apr. 16, 2017~ Apr. 21, 2017	Oct. 10, 2017	Radiation (03CH03-SZ)
Amplifier	Agilent Technologies	83017A	MY39501302	500MHz~26.5GHz	Jan. 06, 2017	Apr. 16, 2017~ Apr. 21, 2017	Jan. 05, 2018	Radiation (03CH03-SZ)
HF Amplifier	MITEQ	TTA1840-35-HG	1871923	18GHz~40GHz	Jul. 16, 2016	Apr. 16, 2017~ Apr. 21, 2017	Jul. 15, 2017	Radiation (03CH03-SZ)
AC Power Source	Chroma	61601	616010001985	N/A	NCR	Apr. 16, 2017~ Apr. 21, 2017	NCR	Radiation (03CH03-SZ)
Turn Table	EM	EM1000	N/A	0~360 degree	NCR	Apr. 16, 2017~ Apr. 21, 2017	NCR	Radiation (03CH03-SZ)
Antenna Mast	EM	EM1000	N/A	1 m~4 m	NCR	Apr. 16, 2017~ Apr. 21, 2017	NCR	Radiation (03CH03-SZ)
EMI Receiver	R&S	ESR7	101630	9kHz~7GHz;	Jan. 06, 2017	Apr. 18, 2017	Jan. 05, 2018	Conduction (CO01-SZ)
AC LISN	EMCO	3816/2SH	00103892	9kHz~30MHz	Jan. 05, 2017	Apr. 18, 2017	Jan. 04, 2018	Conduction (CO01-SZ)
AC LISN (for auxiliary equipment)	MessTec	3816/2SH	00103912	9kHz~30MHz	Jan. 05, 2017	Apr. 18, 2017	Jan. 04, 2018	Conduction (CO01-SZ)
AC Power Source	Chroma	61602	616020000891	100Vac~250Vac	Jul. 16, 2016	Apr. 18, 2017	Jul. 15, 2017	Conduction (CO01-SZ)
Pulse Limiter	COM-POWER	LIT-153 Transient Limiter	53139	150kHz~30MHz	Oct. 11, 2016	Apr. 18, 2017	Oct. 10, 2017	Conduction (CO01-SZ)

NCR: No Calibration Required

5 Uncertainty of Evaluation

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

Measuring Uncertainty for a Level of Confidence of 95% ($U = 2Uc(y)$)	2.5 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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Uncertainty of Radiated Emission Measurement (1000 MHz ~ 18000 MHz)

Measuring Uncertainty for a Level of Confidence of 95% ($U = 2Uc(y)$)	5.0 dB
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Uncertainty of Radiated Emission Measurement (18000 MHz ~ 40000 MHz)

Measuring Uncertainty for a Level of Confidence of 95% ($U = 2Uc(y)$)	5.0 dB
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Appendix A. Conducted Test Results

Report Number : FR731501D

Test Engineer:	Sam Zheng	Temperature:	21~25	°C
Test Date:	2017/4/21	Relative Humidity:	51~54	%

TEST RESULTS DATA
Average Power Table

FCC Band I														
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	Duty Factor (dB)		Average Conducted Power (dBm)			FCC Conducted Power Limit (dBm)		DG (dBi)		Pass/Fail
					Ant 1	Ant 2	Ant 1	Ant 2	SUM	Ant 1	Ant 2	Ant 1	Ant 2	
11a	6Mbps	1	36	5180	0.08	0.05	12.08	13.73		24.00	24.00	1.83	3.40	Pass
11a	6Mbps	1	44	5220	0.08	0.05	12.33	14.37		24.00	24.00	1.83	3.40	Pass
11a	6Mbps	1	48	5240	0.08	0.05	12.26	14.60		24.00	24.00	1.83	3.40	Pass
HT20	MCS0	1	36	5180	0.07	0.06	12.07	13.70		24.00	24.00	1.83	3.40	Pass
HT20	MCS0	1	44	5220	0.07	0.06	12.28	14.36		24.00	24.00	1.83	3.40	Pass
HT20	MCS0	1	48	5240	0.07	0.06	12.25	14.32		24.00	24.00	1.83	3.40	Pass
HT40	MCS0	1	38	5190	0.15	0.12	11.71	12.35		24.00	24.00	1.83	3.40	Pass
HT40	MCS0	1	46	5230	0.15	0.12	12.15	14.10		24.00	24.00	1.83	3.40	Pass
VHT20	MCS0	1	36	5180	0.09	0.06	12.05	13.47		24.00	24.00	1.83	3.40	Pass
VHT20	MCS0	1	44	5220	0.09	0.06	12.27	14.32		24.00	24.00	1.83	3.40	Pass
VHT20	MCS0	1	48	5240	0.09	0.06	12.23	14.31		24.00	24.00	1.83	3.40	Pass
VHT40	MCS0	1	38	5190	0.13	0.12	11.69	12.25		24.00	24.00	1.83	3.40	Pass
VHT40	MCS0	1	46	5230	0.13	0.12	12.13	14.08		24.00	24.00	1.83	3.40	Pass
VHT80	MCS0	1	42	5210	0.25	0.25	11.80	13.99		24.00	24.00	1.83	3.40	Pass
HT20	MCS0	2	36	5180	0.07	0.06	11.69	12.00	14.86	24.00		3.40		Pass
HT20	MCS0	2	44	5220	0.07	0.06	12.18	11.74	14.97	24.00		3.40		Pass
HT20	MCS0	2	48	5240	0.07	0.06	12.25	12.01	15.14	24.00		3.40		Pass
HT40	MCS0	2	38	5190	0.15	0.12	10.66	10.54	13.61	24.00		3.40		Pass
HT40	MCS0	2	46	5230	0.15	0.12	11.96	11.47	14.73	24.00		3.40		Pass
VHT20	MCS0	2	36	5180	0.09	0.06	11.83	11.86	14.85	24.00		3.40		Pass
VHT20	MCS0	2	44	5220	0.09	0.06	11.65	12.01	14.84	24.00		3.40		Pass
VHT20	MCS0	2	48	5240	0.09	0.06	11.64	12.50	15.10	24.00		3.40		Pass
VHT40	MCS0	2	38	5190	0.13	0.12	10.37	10.38	13.38	24.00		3.40		Pass
VHT40	MCS0	2	46	5230	0.13	0.12	11.88	11.44	14.68	24.00		3.40		Pass
VHT80	MCS0	2	42	5210	0.25	0.25	9.45	9.73	12.60	24.00		3.40		Pass

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)		EIRP Power Limit (dBm)	Pass/Fail
					Ant 1	Ant 2	Ant 1	Ant 2	SUM	Ant 1	Ant 2	Ant 1	Ant 2		
11a	6Mbps	1	52	5260	0.08	0.05	13.16	14.97		24.00	24.00	2.40	1.85	26.99	Pass
11a	6Mbps	1	60	5300	0.08	0.05	13.64	14.83		24.00	24.00	2.40	1.85	26.99	Pass
11a	6Mbps	1	64	5320	0.08	0.05	13.60	13.00		24.00	24.00	2.40	1.85	26.99	Pass
HT20	MCS0	1	52	5260	0.07	0.06	13.02	14.96		24.00	24.00	2.40	1.85	26.99	Pass
HT20	MCS0	1	60	5300	0.07	0.06	13.62	14.81		24.00	24.00	2.40	1.85	26.99	Pass
HT20	MCS0	1	64	5320	0.07	0.06	13.58	12.97		24.00	24.00	2.40	1.85	26.99	Pass
HT40	MCS0	1	54	5270	0.15	0.12	12.63	14.27		24.00	24.00	2.40	1.85	26.99	Pass
HT40	MCS0	1	62	5310	0.15	0.12	13.09	13.27		24.00	24.00	2.40	1.85	26.99	Pass
VHT20	MCS0	1	52	5260	0.09	0.06	13.00	14.72		24.00	24.00	2.40	1.85	26.99	Pass
VHT20	MCS0	1	60	5300	0.09	0.06	13.59	14.79		24.00	24.00	2.40	1.85	26.99	Pass
VHT20	MCS0	1	64	5320	0.09	0.06	13.53	12.96		24.00	24.00	2.40	1.85	26.99	Pass
VHT40	MCS0	1	54	5270	0.13	0.12	12.61	14.26		24.00	24.00	2.40	1.85	26.99	Pass
VHT40	MCS0	1	62	5310	0.13	0.12	13.08	13.25		24.00	24.00	2.40	1.85	26.99	Pass
VHT80	MCS0	1	58	5290	0.25	0.25	12.59	13.37		24.00	24.00	2.40	1.85	26.99	Pass
HT20	MCS0	2	52	5260	0.07	0.06	13.07	12.45	15.78	24.00		2.40		26.99	Pass
HT20	MCS0	2	60	5300	0.07	0.06	13.60	12.86	16.25	24.00		2.40		26.99	Pass
HT20	MCS0	2	64	5320	0.07	0.06	12.80	12.54	15.68	24.00		2.40		26.99	Pass
HT40	MCS0	2	54	5270	0.15	0.12	12.60	12.17	15.40	24.00		2.40		26.99	Pass
HT40	MCS0	2	62	5310	0.15	0.12	11.80	12.00	14.91	24.00		2.40		26.99	Pass
VHT20	MCS0	2	52	5260	0.09	0.06	12.70	12.67	15.69	24.00		2.40		26.99	Pass
VHT20	MCS0	2	60	5300	0.09	0.06	13.10	12.77	15.95	24.00		2.40		26.99	Pass
VHT20	MCS0	2	64	5320	0.09	0.06	12.76	12.37	15.58	24.00		2.40		26.99	Pass
VHT40	MCS0	2	54	5270	0.13	0.12	12.13	12.15	15.15	24.00		2.40		26.99	Pass
VHT40	MCS0	2	62	5310	0.13	0.12	12.13	11.63	14.90	24.00		2.40		26.99	Pass
VHT80	MCS0	2	58	5290	0.25	0.25	10.62	10.70	13.67	24.00		2.40		26.99	Pass

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)		EIRP Power Limit (dBm)	Pass/Fail
					Ant 1	Ant 2	Ant 1	Ant 2	SUM	Ant 1	Ant 2	Ant 1	Ant 2		
11a	6Mbps	1	100	5500	0.08	0.05	12.70	13.64		24.00	24.00	2.88	3.86	26.99	Pass
11a	6Mbps	1	116	5580	0.08	0.05	13.22	13.93		24.00	24.00	2.88	3.86	26.99	Pass
11a	6Mbps	1	140	5700	0.08	0.05	12.11	12.75		24.00	24.00	2.88	3.86	26.99	Pass
HT20	MCS0	1	100	5500	0.07	0.06	12.67	13.61		24.00	24.00	2.88	3.86	26.99	Pass
HT20	MCS0	1	116	5580	0.07	0.06	13.12	13.87		24.00	24.00	2.88	3.86	26.99	Pass
HT20	MCS0	1	140	5700	0.07	0.06	12.09	12.73		24.00	24.00	2.88	3.86	26.99	Pass
HT40	MCS0	1	102	5510	0.15	0.12	12.24	13.02		24.00	24.00	2.88	3.86	26.99	Pass
HT40	MCS0	1	110	5550	0.15	0.12	12.91	13.86		24.00	24.00	2.88	3.86	26.99	Pass
HT40	MCS0	1	134	5670	0.15	0.12	11.89	12.77		24.00	24.00	2.88	3.86	26.99	Pass
VHT20	MCS0	1	100	5500	0.09	0.06	12.57	13.58		24.00	24.00	2.88	3.86	26.99	Pass
VHT20	MCS0	1	116	5580	0.09	0.06	13.11	13.84		24.00	24.00	2.88	3.86	26.99	Pass
VHT20	MCS0	1	140	5700	0.09	0.06	13.07	12.71		24.00	24.00	2.88	3.86	26.99	Pass
VHT40	MCS0	1	102	5510	0.13	0.12	12.19	13.00		24.00	24.00	2.88	3.86	26.99	Pass
VHT40	MCS0	1	110	5550	0.13	0.12	12.85	13.83		24.00	24.00	2.88	3.86	26.99	Pass
VHT40	MCS0	1	134	5670	0.13	0.12	11.87	12.47		24.00	24.00	2.88	3.86	26.99	Pass
VHT80	MCS0	1	106	5530	0.25	0.25	12.49	13.67		24.00	24.00	2.88	3.86	26.99	Pass
VHT80	MCS0	1	122	5610	0.25	0.25	12.63	12.83		24.00	24.00	2.88	3.86	26.99	Pass
HT20	MCS0	2	100	5500	0.07	0.06	12.05	11.76	14.91	24.00		3.86		26.99	Pass
HT20	MCS0	2	116	5580	0.07	0.06	13.07	12.46	15.78	24.00		3.86		26.99	Pass
HT20	MCS0	2	140	5700	0.07	0.06	11.42	11.18	14.31	24.00		3.86		26.99	Pass
HT40	MCS0	2	102	5510	0.15	0.12	12.21	11.70	14.97	24.00		3.86		26.99	Pass
HT40	MCS0	2	110	5550	0.15	0.12	12.75	12.12	15.46	24.00		3.86		26.99	Pass
HT40	MCS0	2	134	5670	0.15	0.12	11.79	11.66	14.74	24.00		3.86		26.99	Pass
VHT20	MCS0	2	100	5500	0.09	0.06	11.53	10.86	14.22	24.00		3.86		26.99	Pass
VHT20	MCS0	2	116	5580	0.09	0.06	12.69	12.76	15.73	24.00		3.86		26.99	Pass
VHT20	MCS0	2	140	5700	0.09	0.06	11.49	11.08	14.30	24.00		3.86		26.99	Pass
VHT40	MCS0	2	102	5510	0.13	0.12	12.18	11.56	14.89	24.00		3.86		26.99	Pass
VHT40	MCS0	2	110	5550	0.13	0.12	12.43	12.36	15.40	24.00		3.86		26.99	Pass
VHT40	MCS0	2	134	5670	0.13	0.12	11.46	11.15	14.32	24.00		3.86		26.99	Pass
VHT80	MCS0	2	106	5530	0.25	0.25	11.07	11.67	14.39	24.00		3.86		26.99	Pass
VHT80	MCS0	2	122	5610	0.25	0.25	12.35	11.80	15.10	24.00		3.86		26.99	Pass

TEST RESULTS DATA
Average Power Table

FCC Straddle Channel														
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	Duty Factor (dB)		Average Conducted Power (dBm)			FCC Conducted Power Limit (dBm)		DG (dBi)		Pass/Fail
					Ant 1	Ant 2	Ant 1	Ant 2	SUM	Ant 1	Ant 2	Ant 1	Ant 2	
11a	6Mbps	1	144	5720	0.08	0.05	12.00	13.97		-	-	2.88	3.86	-
				NII-2C	0.08	0.05	11.36	13.34		23.98	23.98	2.88	3.86	Pass
				NII-3	0.08	0.05	3.37	5.28		-	-	2.88	3.86	Pass
HT20	MCS0	1	144	5720	0.07	0.06	11.96	12.70		-	-	2.88	3.86	-
				NII-2C	0.07	0.06	11.26	11.97		23.98	23.98	2.88	3.86	Pass
				NII-3	0.07	0.06	3.66	4.57		-	-	2.88	3.86	Pass
HT40	MCS0	1	142	5710	0.15	0.12	11.50	12.99		-	-	2.88	3.86	-
				NII-2C	0.15	0.12	11.27	12.77		23.98	23.98	2.88	3.86	Pass
				NII-3	0.15	0.12	-1.45	-0.10		-	-	2.88	3.86	Pass
VHT20	MCS0	1	144	5720	0.09	0.06	11.94	12.12		-	-	2.88	3.86	-
				NII-2C	0.09	0.06	11.25	11.39		23.98	23.98	2.88	3.86	Pass
				NII-3	0.09	0.06	3.63	4.03		-	-	2.88	3.86	Pass
VHT40	MCS0	1	142	5710	0.13	0.12	11.47	12.54		-	-	2.88	3.86	-
				NII-2C	0.13	0.12	11.25	12.32		23.98	23.98	2.88	3.86	Pass
				NII-3	0.13	0.12	-1.51	-0.58		-	-	2.88	3.86	Pass
VHT80	MCS0	1	138	5690	0.25	0.25	11.38	12.67		-	-	2.88	3.86	-
				NII-2C	0.25	0.25	11.29	12.58		23.98	23.98	2.88	3.86	Pass
				NII-3	0.25	0.25	-5.31	-4.46		-	-	2.88	3.86	Pass
HT20	MCS0	2	144	5720	0.07	0.06	12.51	11.88	15.21	-	-	3.86	-	-
				NII-2C	0.07	0.06	11.80	11.16	14.50	23.98	-	3.86	-	Pass
				NII-3	0.07	0.06	4.27	3.72	7.01	-	-	3.86	-	Pass
HT40	MCS0	2	142	5710	0.15	0.12	11.88	12.27	15.09	-	-	3.86	-	-
				NII-2C	0.15	0.12	11.63	12.05	14.86	23.98	-	3.86	-	Pass
				NII-3	0.15	0.12	-0.71	-0.88	2.22	-	-	3.86	-	Pass
VHT20	MCS0	2	144	5720	0.09	0.06	12.22	11.66	14.96	-	-	3.86	-	-
				NII-2C	0.09	0.06	11.49	10.93	14.23	23.98	-	3.86	-	Pass
				NII-3	0.09	0.06	4.10	3.54	6.84	-	-	3.86	-	Pass
VHT40	MCS0	2	142	5710	0.13	0.12	11.24	11.45	14.36	-	-	3.86	-	-
				NII-2C	0.13	0.12	10.99	11.23	14.12	23.98	-	3.86	-	Pass
				NII-3	0.13	0.12	-1.34	-1.58	1.55	-	-	3.86	-	Pass
VHT80	MCS0	2	138	5690	0.25	0.25	11.79	11.74	14.78	-	-	3.86	-	-
				NII-2C	0.25	0.25	11.70	11.65	14.69	23.98	-	3.86	-	Pass
				NII-3	0.25	0.25	-4.92	-5.22	-2.06	-	-	3.86	-	Pass



Appendix B. Radiated Spurious Emission

Band 1 - 5180-5240 MHz

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.	
2		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11a CH 36 5180MHz		5133.64	50.82	-23.18	74	40.83	32.93	9.12	32.06	239	105	P	H
		5150	42.74	-11.26	54	32.77	32.93	9.12	32.08	239	105	A	H
	*	5180	102.81	-	-	92.73	32.94	9.24	32.1	239	105	P	H
	*	5180	93.6	-	-	83.52	32.94	9.24	32.1	239	105	A	H
		5117.52	53.74	-20.26	74	43.75	32.92	9.12	32.05	160	200	P	V
		5150	46.38	-7.62	54	36.41	32.93	9.12	32.08	160	200	A	V
		5180	107.33	-	-	97.25	32.94	9.24	32.1	160	200	P	V
	*	5180	98.64	-	-	88.56	32.94	9.24	32.1	160	200	A	V
802.11a CH 44 5220MHz		5136.76	50.47	-23.53	74	40.48	32.93	9.12	32.06	250	104	P	H
		5150	41.54	-12.46	54	31.57	32.93	9.12	32.08	250	104	A	H
	*	5220	103.68	-	-	93.48	32.94	9.37	32.11	250	104	P	H
	*	5220	95.42	-	-	85.22	32.94	9.37	32.11	250	104	A	H
		5350.56	48.65	-25.35	74	38.43	32.97	9.47	32.22	250	104	P	H
		5381.76	40.26	-13.74	54	30.04	32.98	9.47	32.23	250	104	A	H
		5105.56	53.3	-20.7	74	43.44	32.92	8.99	32.05	180	198	P	V
		5064.48	45.42	-8.58	54	35.65	32.91	8.87	32.01	180	198	A	V
	*	5220	107.05	-	-	96.85	32.94	9.37	32.11	180	198	P	V
	*	5220	99.07	-	-	88.87	32.94	9.37	32.11	180	198	A	V
		5383.68	51.08	-22.92	74	40.86	32.98	9.47	32.23	180	198	P	V
		5377.68	43.31	-10.69	54	33.09	32.98	9.47	32.23	180	198	A	V



802.11a CH 48 5240MHz		5145.6	50.05	-23.95	74	40.08	32.93	9.12	32.08	250	108	P	H
		5132.6	41.5	-12.5	54	31.51	32.93	9.12	32.06	250	108	A	H
	*	5240	102.72	-	-	92.51	32.95	9.39	32.13	250	108	P	H
	*	5240	94.03	-	-	83.82	32.95	9.39	32.13	250	108	A	H
		5363.28	48.86	-25.14	74	38.64	32.97	9.47	32.22	250	108	P	H
		5404.32	40.01	-13.99	54	29.79	32.98	9.49	32.25	250	108	A	H
		5080.34	53.65	-20.35	74	43.77	32.92	8.99	32.03	184	201	P	V
		5079.04	45.83	-8.17	54	35.95	32.92	8.99	32.03	184	201	A	V
	*	5240	107.46	-	-	97.25	32.95	9.39	32.13	184	201	P	V
	*	5240	98.66	-	-	88.45	32.95	9.39	32.13	184	201	A	V
		5354.64	51.69	-22.31	74	41.47	32.97	9.47	32.22	184	201	P	V
		5355.12	42.05	-11.95	54	31.83	32.97	9.47	32.22	184	201	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



Band 1 5180-5240 MHz

WIFI 802.11a (Harmonic @ 3m)

WIFI Ant. 2	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11a CH 36 5180MHz		10360	50.44	-23.56	74	58.83	39.71	12.75	60.85	152	260	P	H
		15540	48.62	-25.38	74	57.59	37.97	15.21	62.15	189	238	P	H
		10360	49.82	-24.18	74	58.21	39.71	12.75	60.85	152	260	P	V
		15540	48.61	-25.39	74	57.58	37.97	15.21	62.15	189	238	P	V
802.11a CH 44 5220MHz		10440	50.36	-23.64	74	58.52	39.85	12.79	60.8	150	230	P	H
		15660	48.48	-25.52	74	57.5	37.88	15.3	62.2	160	225	P	H
		10440	50.07	-23.93	74	58.23	39.85	12.79	60.8	150	230	P	V
		15660	49.7	-24.3	74	58.72	37.88	15.3	62.2	160	225	P	V
802.11a CH 48 5240MHz		10480	49.58	-24.42	74	57.56	39.96	12.82	60.76	150	289	P	H
		15720	49.73	-24.27	74	58.82	37.82	15.33	62.24	150	291	P	H
		10480	49.69	-24.31	74	57.67	39.96	12.82	60.76	150	289	P	V
		15720	49.27	-24.73	74	58.36	37.82	15.33	62.24	150	291	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



Band 2 - 5260-5320 MHz
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.	
2		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11a CH 52 5260MHz		5127.66	50.36	-23.64	74	40.37	32.93	9.12	32.06	248	116	P	H
		5148.98	41.73	-12.27	54	31.76	32.93	9.12	32.08	248	116	A	H
	*	5260	106.13	-	-	95.94	32.95	9.39	32.15	248	116	P	H
	*	5260	97.23	-	-	87.04	32.95	9.39	32.15	248	116	A	H
		5361.84	50.53	-23.47	74	40.31	32.97	9.47	32.22	248	116	P	H
		5355.84	41.07	-12.93	54	30.85	32.97	9.47	32.22	248	116	A	H
		5101.66	55.75	-18.25	74	45.89	32.92	8.99	32.05	213	200	P	V
		5102.44	45.86	-8.14	54	36	32.92	8.99	32.05	213	200	A	V
	*	5260	108.85	-	-	98.66	32.95	9.39	32.15	213	200	P	V
	*	5260	99.1	-	-	88.91	32.95	9.39	32.15	213	200	A	V
		5415.6	53.63	-20.37	74	43.41	32.98	9.49	32.25	213	200	P	V
		5421.36	43.74	-10.26	54	33.52	32.98	9.49	32.25	213	200	A	V
802.11a CH 60 5300MHz		5138.95	50.59	-23.41	74	40.6	32.93	9.12	32.06	156	191	P	H
		5139.3	41.95	-12.05	54	31.96	32.93	9.12	32.06	156	191	A	H
	*	5300	103.2	-	-	93	32.96	9.42	32.18	156	191	P	H
	*	5300	98.22	-	-	88.02	32.96	9.42	32.18	152	162	A	H
		5356.56	49.81	-24.19	74	39.59	32.97	9.47	32.22	156	191	P	H
		5350.08	41.02	-12.98	54	30.8	32.97	9.47	32.22	156	191	A	H
		5138.25	52.32	-21.68	74	42.33	32.93	9.12	32.06	208	181	P	V
		5144.2	44.32	-9.68	54	34.35	32.93	9.12	32.08	208	181	A	V
	*	5300	107.97	-	-	97.77	32.96	9.42	32.18	208	181	P	V
	*	5300	94.99	-	-	84.79	32.96	9.42	32.18	247	235	A	V
		5352	52.35	-21.65	74	42.13	32.97	9.47	32.22	208	181	P	V
		5350.08	43.58	-10.42	54	33.36	32.97	9.47	32.22	208	181	A	V



802.11a CH 64 5320MHz	*	5320	102.51	-	-	92.29	32.96	9.44	32.18	161	191	P	H
	*	5320	93.49	-	-	83.27	32.96	9.44	32.18	161	191	A	H
		5352.96	50.31	-23.69	74	40.09	32.97	9.47	32.22	161	191	P	H
		5350.08	41.02	-12.98	54	30.8	32.97	9.47	32.22	161	191	A	H
	*	5320	106.81	-	-	96.59	32.96	9.44	32.18	214	182	P	V
	*	5320	98.06	-	-	87.84	32.96	9.44	32.18	214	182	A	V
		5379.84	53.04	-20.96	74	42.82	32.98	9.47	32.23	214	182	P	V
		5350.08	43.6	-10.4	54	33.38	32.97	9.47	32.22	214	182	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



Band 2 - 5260-5320 MHz
WIFI 802.11a (Harmonic @ 3m)

WIFI Ant. 2	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11a CH 52 5260MHz		10520	49.61	-24.39	74	57.49	39.99	12.84	60.71	250	0	P	H
		15780	50.32	-23.68	74	59.41	37.78	15.39	62.26	150	0	P	H
		10520	50.77	-23.23	74	58.65	39.99	12.84	60.71	250	0	P	V
		15780	48.85	-25.15	74	57.94	37.78	15.39	62.26	150	0	P	V
802.11a CH 60 5300MHz		10600	50.34	-23.66	74	58.02	39.96	12.88	60.52	250	0	P	H
		15900	55.69	-18.31	74	64.85	37.68	15.48	62.32	150	0	P	H
		15900	48.08	-5.92	54	57.24	37.68	15.48	62.32	150	0	A	H
		10600	48.66	-25.34	74	56.34	39.96	12.88	60.52	250	0	P	V
		15900	55.47	-18.53	74	64.63	37.68	15.48	62.32	150	0	P	V
		15900	49.47	-4.53	54	58.63	37.68	15.48	62.32	150	0	A	V
802.11a CH 64 5320MHz		10640	49.4	-24.6	74	57	39.94	12.91	60.45	250	0	P	H
		15960	52.64	-21.36	74	61.82	37.63	15.54	62.35	150	0	P	H
		15960	45.67	-8.33	54	54.85	37.63	15.54	62.35	150	0	A	H
		10640	50.42	-23.58	74	58.02	39.94	12.91	60.45	250	0	P	V
		15960	51.93	-22.07	74	61.11	37.63	15.54	62.35	150	0	P	V
		15960	49.06	-4.94	54	58.24	37.63	15.54	62.35	150	0	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



Band 2 - 5260-5320 MHz

WIFI 802.11a (Band Edge @ 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 60 5300MHz		5143.85	50.58	-23.42	74	40.61	32.93	9.12	32.08	152	162	P	H
		5142.45	40.75	-13.25	54	30.76	32.93	9.12	32.06	152	162	A	H
	*	5300	107	-	-	96.8	32.96	9.42	32.18	152	162	P	H
	*	5300	98.22	-	-	88.02	32.96	9.42	32.18	152	162	A	H
		5359.44	51.27	-22.73	74	41.05	32.97	9.47	32.22	152	162	P	H
		5350.08	42.56	-11.44	54	32.34	32.97	9.47	32.22	152	162	A	H
		5140	50.63	-23.37	74	40.64	32.93	9.12	32.06	247	235	P	V
		5142.1	40.51	-13.49	54	30.52	32.93	9.12	32.06	247	235	A	V
	*	5300	104.24	-	-	94.04	32.96	9.42	32.18	247	235	P	V
	*	5300	94.99	-	-	84.79	32.96	9.42	32.18	247	235	A	V
		5351.28	49.56	-24.44	74	39.34	32.97	9.47	32.22	247	235	P	V
		5350.8	40.3	-13.7	54	30.08	32.97	9.47	32.22	247	235	A	V

Band 2 5260-5320 MHz

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 60 5300MHz		10600	49.64	-24.36	74	57.32	39.96	12.88	60.52	250	0	P	H
		15900	49.93	-24.07	74	59.09	37.68	15.48	62.32	150	0	P	H
		10600	50.45	-23.55	74	58.13	39.96	12.88	60.52	250	0	P	V
		15900	49.33	-24.67	74	58.49	37.68	15.48	62.32	150	0	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



Band 3 - 5500-5720MHz

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.	
2		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11a CH 100 5500MHz		5467.76	50.11	-23.89	74	40.05	32.99	9.35	32.28	228	184	P	H
		5470	41.35	-12.65	54	31.29	32.99	9.35	32.28	228	184	A	H
	*	5500	103.12	-	-	93.07	33	9.35	32.3	228	184	P	H
	*	5500	93.32	-	-	83.27	33	9.35	32.3	228	184	A	H
		5465.2	53.16	-20.84	74	43.03	32.99	9.42	32.28	212	200	P	V
		5470	45.24	-8.76	54	35.18	32.99	9.35	32.28	212	200	A	V
	*	5500	106.89	-	-	96.84	33	9.35	32.3	212	200	P	V
	*	5500	98.08	-	-	88.03	33	9.35	32.3	212	200	A	V
802.11a CH 116 5580MHz		5351.68	47.88	-26.12	74	37.66	32.97	9.47	32.22	225	182	P	H
		5469.52	39.17	-14.83	54	29.11	32.99	9.35	32.28	225	182	A	H
	*	5580	104.96	-	-	94.82	33.08	9.22	32.16	225	182	P	H
	*	5580	96.42	-	-	86.28	33.08	9.22	32.16	225	182	A	H
		5743.58	52.14	-21.86	74	41.25	33.29	9.54	31.94	225	182	P	H
		5736.335	42.2	-11.8	54	31.41	33.29	9.44	31.94	225	182	A	H
		5445.76	51.31	-22.69	74	41.17	32.99	9.42	32.27	217	154	P	V
		5423.44	42.28	-11.72	54	32.06	32.98	9.49	32.25	217	154	A	V
	*	5580	107.54	-	-	97.4	33.08	9.22	32.16	217	154	P	V
	*	5580	98.31	-	-	88.17	33.08	9.22	32.16	217	154	A	V
		5741.69	52.72	-21.28	74	41.83	33.29	9.54	31.94	217	154	P	V
		5736.02	44.75	-9.25	54	33.96	33.29	9.44	31.94	217	154	A	V



802.11a CH 140 5700MHz	*	5700	100.66	-	-	90	33.23	9.44	32.01	249	102	P	H
	*	5700	91.86	-	-	81.2	33.23	9.44	32.01	249	102	A	H
		5733	50.09	-23.91	74	39.32	33.27	9.44	31.94	249	102	P	H
		5725	41.4	-12.6	54	30.67	33.27	9.44	31.98	249	102	A	H
	*	5700	106.33	-	-	95.67	33.23	9.44	32.01	211	191	P	V
	*	5700	98.04	-	-	87.38	33.23	9.44	32.01	211	191	A	V
		5725.24	53.33	-20.67	74	42.6	33.27	9.44	31.98	211	191	P	V
		5725	44.92	-9.08	54	34.19	33.27	9.44	31.98	211	191	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



Band 3 - 5500-5720MHz

WIFI 802.11a (Harmonic @ 3m)

WIFI Ant. 2	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11a CH 100 5500MHz		11000	49.78	-24.22	74	56.53	39.8	13.11	59.66	250	0	P	H
		16500	49.78	-24.22	74	56.69	38.5	15.85	61.26	150	0	P	H
		11000	49.49	-24.51	74	56.24	39.8	13.11	59.66	250	0	P	V
		16500	51.3	-22.7	74	58.21	38.5	15.85	61.26	150	0	P	V
		16500	45.5	-8.5	54	52.41	38.5	15.85	61.26	150	0	A	V
802.11a CH 116 5580MHz		11160	49.11	-24.89	74	55.76	39.77	13.23	59.65	250	0	P	H
		16740	49.62	-24.38	74	55.32	38.98	16.01	60.69	150	0	P	H
		11160	49.59	-24.41	74	56.24	39.77	13.23	59.65	250	0	P	V
		16740	50.64	-23.36	74	56.34	38.98	16.01	60.69	150	0	P	V
802.11a CH 140 5700MHz		11400	50.28	-23.72	74	56.83	39.72	13.37	59.64	250	0	P	H
		17100	50.75	-23.25	74	54.87	39.74	16.22	60.08	150	0	P	H
		11400	49.44	-24.56	74	55.99	39.72	13.37	59.64	250	0	P	V
		17100	49.81	-24.19	74	53.93	39.74	16.22	60.08	150	0	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



Band 3 - Straddle Channel
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.	
2		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11a CH 144 5720MHz	*	5720	105.16	-	-	94.43	33.27	9.44	31.98	174	108	P	H
	*	5720	96.55	-	-	85.82	33.27	9.44	31.98	174	108	A	H
	*	5720	107.01	-	-	96.28	33.27	9.44	31.98	225	187	P	V
	*	5720	98.14	-	-	87.41	33.27	9.44	31.98	225	187	A	V
Remark		1. No other spurious found. 2. All results are PASS against Peak and Average limit line.											

Band 3 - Straddle Channel
WIFI 802.11a (Harmonic @ 3m)

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Peak	Pol.
Ant.				Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
2		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11a CH 144 5720MHz		11440	48.47	-25.53	74	55	39.71	13.39	59.63	250	0	P	H
		17160	51.4	-22.6	74	55.34	39.9	16.25	60.09	240	0	P	H
		11440	49.35	-24.65	74	55.88	39.71	13.39	59.63	250	0	P	V
		17160	54.02	-19.98	74	57.96	39.9	16.25	60.09	150	0	P	V
		17160	49.3	-4.7	54	53.24	39.9	16.25	60.09	150	0	A	V
Remark		1. No other spurious found. 2. All results are PASS against Peak and Average limit line.											



Band 3 - Straddle Channel
WIFI 802.11a (Band Edge @ 3m)

WIFI Ant. 2	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11a CH 144 5720MHz	*	5720	105.37	-	-	94.64	33.27	9.44	31.98	171	134	P	H
	*	5720	96.91	-	-	86.18	33.27	9.44	31.98	171	134	A	H
	*	5720	106.13	-	-	95.4	33.27	9.44	31.98	212	184	P	V
	*	5720	97.04	-	-	86.31	33.27	9.44	31.98	212	184	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 3 - Straddle Channel
WIFI 802.11a (Harmonic @ 3m)

WIFI Ant. 2	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11a CH 144 5720MHz		11440	49.82	-24.18	74	56.35	39.71	13.39	59.63	250	0	P	H
		17160	48.55	-25.45	74	52.49	39.9	16.25	60.09	150	0	P	H
		11440	49.14	-24.86	74	55.67	39.71	13.39	59.63	250	0	P	V
		17160	48.97	-25.03	74	52.91	39.9	16.25	60.09	150	0	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



Band 3 - Straddle Channel
WIFI 802.11n HT20 (Band Edge @ 3m)

WIFI Ant. 2	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11n	*	5720	103.63	-	-	92.9	33.27	9.44	31.98	178	109	P	H
HT20	*	5720	95.23	-	-	84.5	33.27	9.44	31.98	178	109	A	H
CH 144	*	5720	104.11	-	-	93.38	33.27	9.44	31.98	218	184	P	V
5720MHz	*	5720	95.26	-	-	84.53	33.27	9.44	31.98	218	184	A	V
Remark	1. No other spurious found.												
	2. All results are PASS against Peak and Average limit line.												

Band 3 - Straddle Channel
WIFI 802.11n HT20 (Harmonic @ 3m)

WIFI Ant. 2	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11n		11440	49.7	-24.3	74	56.23	39.71	13.39	59.63	250	0	P	H
HT20		17160	49.08	-24.92	74	53.02	39.9	16.25	60.09	150	0	P	H
CH 144		11440	49.46	-24.54	74	55.99	39.71	13.39	59.63	250	0	P	V
5720MHz		17160	49.96	-24.04	74	53.9	39.9	16.25	60.09	150	0	P	V
Remark	1. No other spurious found.												
	2. All results are PASS against Peak and Average limit line.												



Band 3 - Straddle Channel
WIFI 802.11an HT40 (Band Edge @ 3m)

WIFI Ant. 2	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11an	*	5710	101.47	-	-	90.76	33.25	9.44	31.98	183	108	P	H
HT40	*	5710	91.08	-	-	80.37	33.25	9.44	31.98	183	108	A	H
CH 142	*	5710	100.7	-	-	89.99	33.25	9.44	31.98	214	191	P	V
5710MHz	*	5710	92.24	-	-	81.53	33.25	9.44	31.98	214	191	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 3 - Straddle Channel
WIFI 802.11an HT40 (Harmonic @ 3m)

WIFI Ant. 2	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11an		11420	49.1	-24.9	74	55.65	39.72	13.37	59.64	250	0	P	H
HT40		17130	47.88	-26.12	74	51.89	39.82	16.25	60.08	150	0	P	H
CH 142		11420	48.8	-25.2	74	55.35	39.72	13.37	59.64	250	0	P	V
5710MHz		17130	49.39	-24.61	74	53.4	39.82	16.25	60.08	150	0	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



Band 3 - Straddle Channel
WIFI 802.11ac VHT80 (Band Edge @ 3m)

WIFI Ant. 2	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11ac	*	5690	97.29	-	-	86.72	33.23	9.35	32.01	165	135	P	H
VHT80	*	5690	88.98	-	-	78.41	33.23	9.35	32.01	165	135	A	H
CH 138	*	5690	98.64	-	-	88.07	33.23	9.35	32.01	220	186	P	V
5690MHz	*	5690	89.62	-	-	79.05	33.23	9.35	32.01	220	186	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 3 - Straddle Channel
WIFI 802.11ac VHT80 (Harmonic @ 3m)

WIFI Ant. 2	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11ac		11380	48.38	-25.62	74	54.96	39.72	13.34	59.64	250	0	P	H
VHT80		17070	48.37	-25.63	74	52.59	39.66	16.2	60.08	150	0	P	H
CH 138		11380	48.86	-25.14	74	55.44	39.72	13.34	59.64	250	0	P	V
5690MHz		17070	49.22	-24.78	74	53.44	39.66	16.2	60.08	150	0	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



Band 1 5180-5240 MHz
WIFI 802.11n HT20 (Band Edge @ 3m)

WIFI Ant. 1+2	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11n HT20 CH 36 5180MHz		5148.46	60.92	-13.08	74	50.95	32.93	9.12	32.08	161	158	P	H
		5150	49.48	-4.52	54	39.51	32.93	9.12	32.08	161	158	A	H
	*	5180	110.65	-	-	100.57	32.94	9.24	32.1	161	158	P	H
	*	5180	100.22	-	-	90.14	32.94	9.24	32.1	161	158	A	H
		5148.2	58.78	-15.22	74	48.81	32.93	9.12	32.08	181	215	P	V
		5150	48.31	-5.69	54	38.34	32.93	9.12	32.08	181	215	A	V
	*	5180	106.73	-	-	96.65	32.94	9.24	32.1	181	215	P	V
	*	5180	96.05	-	-	85.97	32.94	9.24	32.1	181	215	A	V
802.11n HT20 CH 44 5220MHz		5139.88	52.55	-21.45	74	42.56	32.93	9.12	32.06	155	190	P	H
		5150	44.19	-9.81	54	34.22	32.93	9.12	32.08	155	190	A	H
		5220	106.5	-	-	96.3	32.94	9.37	32.11	155	190	P	H
	*	5220	97.61	-	-	87.41	32.94	9.37	32.11	155	190	A	H
		5381.76	50.24	-23.76	74	40.02	32.98	9.47	32.23	155	190	P	H
		5381.52	41.87	-12.13	54	31.65	32.98	9.47	32.23	155	190	A	H
		5109.98	51.05	-22.95	74	41.19	32.92	8.99	32.05	152	234	P	V
		5150	42.29	-11.71	54	32.32	32.93	9.12	32.08	152	234	A	V
	*	5220	105.04	-	-	94.84	32.94	9.37	32.11	152	234	P	V
	*	5220	96.29	-	-	86.09	32.94	9.37	32.11	152	234	A	V
		5375.52	49.26	-24.74	74	39.05	32.97	9.47	32.23	152	234	P	V
		5375.28	41.16	-12.84	54	30.95	32.97	9.47	32.23	152	234	A	V



802.11n HT20 CH 48 5240MHz		5144.82	53.65	-20.35	74	43.68	32.93	9.12	32.08	150	161	P	H
		5147.94	43.66	-10.34	54	33.69	32.93	9.12	32.08	150	161	A	H
	*	5240	110.55	-	-	100.34	32.95	9.39	32.13	150	161	P	H
	*	5240	101.59	-	-	91.38	32.95	9.39	32.13	150	161	A	H
		5351.28	53.3	-20.7	74	43.08	32.97	9.47	32.22	150	161	P	H
		5351.76	45.9	-8.1	54	35.68	32.97	9.47	32.22	150	161	A	H
		5046.8	50.57	-23.43	74	40.8	32.91	8.87	32.01	191	136	P	V
		5127.4	41.61	-12.39	54	31.62	32.93	9.12	32.06	191	136	A	V
	*	5240	104.43	-	-	94.22	32.95	9.39	32.13	191	136	P	V
	*	5240	96.45	-	-	86.24	32.95	9.39	32.13	191	136	A	V
		5362.32	50.77	-23.23	74	40.55	32.97	9.47	32.22	191	136	P	V
		5351.28	41.88	-12.12	54	31.66	32.97	9.47	32.22	191	136	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



Band 1 5180-5240 MHz
WIFI 802.11n HT20 (Harmonic @ 3m)

WIFI Ant. 1+2	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11n HT20 CH 36 5180MHz		10360	50.97	-23.03	74	59.36	39.71	12.75	60.85	250	0	P	H
		15540	48.35	-25.65	74	57.32	37.97	15.21	62.15	150	0	P	H
		10360	52.4	-21.6	74	60.79	39.71	12.75	60.85	250	0	P	V
		10360	45.09	-8.91	54	53.48	39.71	12.75	60.85	250	0	A	V
		15540	49.61	-24.39	74	58.58	37.97	15.21	62.15	150	0	P	V
802.11n HT20 CH 44 5220MHz		10440	50.19	-23.81	74	58.35	39.85	12.79	60.8	250	0	P	H
		15660	54.22	-19.78	74	63.24	37.88	15.3	62.2	150	0	P	H
		15660	48.45	-5.55	54	57.47	37.88	15.3	62.2	150	0	A	H
		10440	49.78	-24.22	74	57.94	39.85	12.79	60.8	250	0	P	V
		15660	50.43	-23.57	74	59.45	37.88	15.3	62.2	150	0	P	V
802.11n HT20 CH 48 5240MHz		10480	49.18	-24.82	74	57.16	39.96	12.82	60.76	250	0	P	H
		15720	56.19	-17.81	74	65.28	37.82	15.33	62.24	150	0	P	H
		15720	50.05	-3.95	54	59.14	37.82	15.33	62.24	150	0	A	H
		10480	48.49	-25.51	74	56.47	39.96	12.82	60.76	250	0	P	V
		15720	53.21	-20.79	74	62.3	37.82	15.33	62.24	150	0	P	V
		15720	46.67	-7.33	54	55.76	37.82	15.33	62.24	150	0	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



Band 1 5180-5240 MHz
WIFI 802.11n HT40 (Band Edge @ 3m)

WIFI Ant. 1+2	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11n HT40 CH 38 5190MHz		5147.42	57.75	-16.25	74	47.78	32.93	9.12	32.08	167	185	P	H
		5147.42	50.99	-3.01	54	41.02	32.93	9.12	32.08	167	185	A	H
	*	5190	104.62	-	-	94.54	32.94	9.24	32.1	167	185	P	H
	*	5190	95.66	-	-	85.58	32.94	9.24	32.1	167	185	A	H
		5352.2	49.87	-24.13	74	39.65	32.97	9.47	32.22	167	185	P	H
		5350.8	42.66	-11.34	54	32.44	32.97	9.47	32.22	167	185	A	H
		5148.72	54.66	-19.34	74	44.69	32.93	9.12	32.08	180	235	P	V
		5147.68	51.18	-2.82	54	41.21	32.93	9.12	32.08	180	235	A	V
	*	5190	103.06	-	-	92.98	32.94	9.24	32.1	180	235	P	V
	*	5190	93.81	-	-	83.73	32.94	9.24	32.1	180	235	A	V
		5360.04	50.95	-23.05	74	40.73	32.97	9.47	32.22	180	235	P	V
		5353.6	42.59	-11.41	54	32.37	32.97	9.47	32.22	180	235	A	V
802.11n HT40 CH 46 5230MHz		5075.4	54.84	-19.16	74	45.08	32.92	8.87	32.03	150	186	P	H
		5139.1	45.96	-8.04	54	35.97	32.93	9.12	32.06	150	186	A	H
	*	5230	104.93	-	-	94.74	32.95	9.37	32.13	150	186	P	H
	*	5230	95.89	-	-	85.7	32.95	9.37	32.13	150	186	A	H
		5353.44	52.06	-21.94	74	41.84	32.97	9.47	32.22	150	186	P	H
		5350.8	44.02	-9.98	54	33.8	32.97	9.47	32.22	150	186	A	H
		5140.92	51.61	-22.39	74	41.62	32.93	9.12	32.06	175	234	P	V
		5130.52	44.02	-9.98	54	34.03	32.93	9.12	32.06	175	234	A	V
	*	5230	103.78	-	-	93.59	32.95	9.37	32.13	175	234	P	V
	*	5230	93.97	-	-	83.78	32.95	9.37	32.13	175	234	A	V
		5383.68	50.46	-23.54	74	40.24	32.98	9.47	32.23	175	234	P	V
		5356.56	43.09	-10.91	54	32.87	32.97	9.47	32.22	175	234	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



Band 1 5180-5240 MHz
WIFI 802.11n HT40 (Harmonic @ 3m)

WIFI Ant. 1+2	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11n HT40 CH 38 5190MHz		10380	51.69	-22.31	74	60.02	39.74	12.77	60.84	250	0	P	H
		10380	46.29	-7.71	54	54.62	39.74	12.77	60.84	250	0	A	H
		15570	48.75	-25.25	74	57.73	37.94	15.24	62.16	150	0	P	H
		10380	50.81	-23.19	74	59.14	39.74	12.77	60.84	250	0	P	V
		15570	48.38	-25.62	74	57.36	37.94	15.24	62.16	150	0	P	V
802.11n HT40 CH 46 5230MHz		10460	52.21	-21.79	74	60.29	39.89	12.82	60.79	250	0	P	H
		10460	46.16	-7.84	54	54.24	39.89	12.82	60.79	250	0	A	H
		15690	50.12	-23.88	74	59.16	37.85	15.33	62.22	150	0	P	H
		10460	51.79	-22.21	74	59.87	39.89	12.82	60.79	250	0	P	V
		10460	45.54	-8.46	54	53.62	39.89	12.82	60.79	250	0	A	V
Remark		15690	50.36	-23.64	74	59.4	37.85	15.33	62.22	150	0	P	V
	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



Band 1 5180-5240 MHz
WIFI 802.11ac VHT80 (Band Edge @ 3m)

WIFI Ant. 1+2	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11ac VHT80 CH 42 5210MHz		5136.5	60.97	-13.03	74	50.98	32.93	9.12	32.06	250	190	P	H
		5142.22	52.83	-1.17	54	42.84	32.93	9.12	32.06	250	190	A	H
	*	5210	102.48	-	-	92.28	32.94	9.37	32.11	250	190	P	H
	*	5210	93.76	-	-	83.56	32.94	9.37	32.11	250	190	A	H
		5355.36	52.03	-21.97	74	41.81	32.97	9.47	32.22	250	190	P	H
		5351.04	44.09	-9.91	54	33.87	32.97	9.47	32.22	250	190	A	H
		5148.56	55.73	-18.27	74	45.76	32.93	9.12	32.08	150	246	P	V
		5148.98	44.99	-9.01	54	35.02	32.93	9.12	32.08	150	246	A	V
	*	5210	93.59	-	-	83.39	32.94	9.37	32.11	150	246	P	V
	*	5210	83.45	-	-	73.25	32.94	9.37	32.11	150	246	A	V
		5394.24	45.56	-28.44	74	35.32	32.98	9.49	32.23	150	246	P	V
		5352.48	38.1	-15.9	54	27.88	32.97	9.47	32.22	150	246	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



Band 1 5180-5240 MHz

WIFI 802.11ac VHT80 (Harmonic @ 3m)

WIFI Ant. 1+2	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11ac		10420	50.04	-23.96	74	58.24	39.82	12.79	60.81	250	0	P	H
VHT80		15630	49.66	-24.34	74	58.7	37.89	15.27	62.2	150	0	A	H
CH 42		10420	50.87	-23.13	74	59.07	39.82	12.79	60.81	250	0	P	V
5210MHz		15630	49.54	-24.46	74	58.58	37.89	15.27	62.2	150	0	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



Band 1 5180-5240 MHz
WIFI 802.11ac VHT80 (Band Edge @ 3m)

WIFI Ant. 1+2	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11ac VHT80 CH 42 5210MHz		5146.12	62.11	-11.89	74	52.14	32.93	9.12	32.08	150	185	P	H
		5147.94	52.62	-1.38	54	42.65	32.93	9.12	32.08	150	179	P	H
	*	5210	100.94	-	-	90.74	32.94	9.37	32.11	150	185	P	H
	*	5210	92.96	-	-	82.76	32.94	9.37	32.11	150	185	A	H
		5352	51.37	-22.63	74	41.15	32.97	9.47	32.22	150	185	P	H
		5352.72	44.49	-9.51	54	34.27	32.97	9.47	32.22	150	185	A	H
		5147.16	59.6	-14.4	74	49.63	32.93	9.12	32.08	168	184	P	V
		5144.82	52.35	-1.65	54	42.38	32.93	9.12	32.08	168	184	A	V
	*	5210	100.14	-	-	89.94	32.94	9.37	32.11	168	184	P	V
	*	5210	90.22	-	-	80.02	32.94	9.37	32.11	168	184	A	V
		5374.32	50.15	-23.85	74	39.94	32.97	9.47	32.23	168	184	P	V
		5350.08	43.14	-10.86	54	32.92	32.97	9.47	32.22	168	184	A	V
Remark	3. No other spurious found.												
	4. All results are PASS against Peak and Average limit line.												



Band 1 5180-5240 MHz

WIFI 802.11ac VHT80 (Harmonic @ 3m)

WIFI Ant. 1+2	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11ac		10420	49.95	-24.05	74	58.15	39.82	12.79	60.81	250	0	P	H
VHT80		15630	50.97	-23.03	74	60.01	37.89	15.27	62.2	150	0	A	H
CH 42		10420	50.05	-23.95	74	58.25	39.82	12.79	60.81	250	0	P	V
5210MHz		15630	50.32	-23.68	74	59.36	37.89	15.27	62.2	150	0	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



Band 2 5260-5320 MHz
WIFI 802.11n HT20 (Band Edge @ 3m)

WIFI Ant. 1+2	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11n HT20 CH 52 5260MHz		5132.86	52.69	-21.31	74	42.7	32.93	9.12	32.06	150	164	P	H
		5148.2	43.86	-10.14	54	33.89	32.93	9.12	32.08	150	164	A	H
	*	5260	110.66	-	-	100.47	32.95	9.39	32.15	150	164	P	H
	*	5260	101.36	-	-	91.17	32.95	9.39	32.15	150	164	A	H
		5371.2	54.44	-19.56	74	44.22	32.97	9.47	32.22	150	164	P	H
		5352	45.67	-8.33	54	35.45	32.97	9.47	32.22	150	164	A	H
		5090.74	50.82	-23.18	74	40.94	32.92	8.99	32.03	150	243	P	V
		5147.68	41.09	-12.91	54	31.12	32.93	9.12	32.08	150	243	A	V
	*	5260	103.99	-	-	93.8	32.95	9.39	32.15	150	243	P	V
	*	5260	96.6	-	-	86.41	32.95	9.39	32.15	150	243	A	V
		5373.6	50.04	-23.96	74	39.83	32.97	9.47	32.23	150	243	P	V
		5351.76	41.46	-12.54	54	31.24	32.97	9.47	32.22	150	243	A	V
802.11n HT20 CH 60 5300MHz		5148.75	52.66	-21.34	74	42.69	32.93	9.12	32.08	152	188	P	H
		5144.55	43.65	-10.35	54	33.68	32.93	9.12	32.08	152	188	A	H
	*	5300	107.37	-	-	97.17	32.96	9.42	32.18	152	188	P	H
	*	5300	98.33	-	-	88.13	32.96	9.42	32.18	152	188	A	H
		5457.12	51.36	-22.64	74	41.23	32.99	9.42	32.28	152	188	P	H
		5458.32	42.74	-11.26	54	32.61	32.99	9.42	32.28	152	188	A	H
		5144.2	51.18	-22.82	74	41.21	32.93	9.12	32.08	150	233	P	V
		5144.9	42.48	-11.52	54	32.51	32.93	9.12	32.08	150	233	A	V
	*	5300	106.2	-	-	96	32.96	9.42	32.18	150	233	P	V
	*	5300	97.76	-	-	87.56	32.96	9.42	32.18	150	233	A	V
		5352.72	52.88	-21.12	74	42.66	32.97	9.47	32.22	150	233	P	V
		5350.32	43.25	-10.75	54	33.03	32.97	9.47	32.22	150	233	A	V



802.11n HT20 CH 64 5320MHz		5101.66	52.48	-21.52	74	42.62	32.92	8.99	32.05	176	188	P	H
		5150	43.24	-10.76	54	33.27	32.93	9.12	32.08	176	188	A	H
	*	5320	106.7	-	-	96.48	32.96	9.44	32.18	176	188	P	H
		5320	99.06	-	-	88.84	32.96	9.44	32.18	176	188	A	H
		5396.88	52.21	-21.79	74	41.97	32.98	9.49	32.23	176	188	P	H
		5350.08	44.48	-9.52	54	34.26	32.97	9.47	32.22	176	188	A	H
		5149.5	50.3	-23.7	74	40.33	32.93	9.12	32.08	159	231	P	V
		5150	41.83	-12.17	54	31.86	32.93	9.12	32.08	159	231	A	V
	*	5320	106.38	-	-	96.16	32.96	9.44	32.18	159	231	P	V
	*	5320	98.15	-	-	87.93	32.96	9.44	32.18	159	231	A	V
		5355.6	52.94	-21.06	74	42.72	32.97	9.47	32.22	159	231	P	V
		5350.08	44.47	-9.53	54	34.25	32.97	9.47	32.22	159	231	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



Band 2 5260-5320 MHz
WIFI 802.11n HT20 (Harmonic @ 3m)

WIFI Ant. 1+2	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11n HT20 CH 52 5260MHz		10520	49.84	-24.16	74	57.72	39.99	12.84	60.71	250	0	P	H
		15780	52.34	-21.66	74	61.43	37.78	15.39	62.26	150	0	P	H
		15780	46.59	-7.41	54	55.68	37.78	15.39	62.26	150	0	A	H
		10520	49.71	-24.29	74	57.59	39.99	12.84	60.71	250	0	P	V
		15780	51	-23	74	60.09	37.78	15.39	62.26	150	0	P	V
		15780	45.26	-8.74	54	54.35	37.78	15.39	62.26	150	0	A	V
802.11n HT20 CH 60 5300MHz		10600	49.23	-24.77	74	56.91	39.96	12.88	60.52	250	0	P	H
		15900	56.4	-17.6	74	65.56	37.68	15.48	62.32	150	0	P	H
		15900	50.26	-3.74	54	59.42	37.68	15.48	62.32	150	0	A	H
		10600	49.06	-24.94	74	56.74	39.96	12.88	60.52	250	0	P	V
		15900	55.68	-18.32	74	64.84	37.68	15.48	62.32	150	0	P	V
		15900	49.46	-4.54	54	58.62	37.68	15.48	62.32	150	0	A	V
802.11n HT20 CH 64 5320MHz		10640	50.04	-23.96	74	57.64	39.94	12.91	60.45	250	0	P	H
		15960	52.82	-21.18	74	62	37.63	15.54	62.35	150	0	P	H
		15960	44.28	-9.72	54	53.46	37.63	15.54	62.35	150	0	A	H
		10640	50.48	-23.52	74	58.08	39.94	12.91	60.45	250	0	P	V
		15960	53.29	-20.71	74	62.47	37.63	15.54	62.35	150	0	P	V
		15960	47.56	-6.44	54	56.74	37.63	15.54	62.35	150	0	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



Band 2 5260-5320 MHz
WIFI 802.11n HT40 (Band Edge @ 3m)

WIFI Ant. 1+2	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11n HT40 CH 54 5270MHz		5134.42	54.41	-19.59	74	44.42	32.93	9.12	32.06	181	161	P	H
		5143.78	45.6	-8.4	54	35.63	32.93	9.12	32.08	181	161	A	H
	*	5270	107.69	-	-	97.5	32.95	9.39	32.15	181	161	P	H
	*	5270	98.76	-	-	88.57	32.95	9.39	32.15	181	161	A	H
		5381.28	54.36	-19.64	74	44.14	32.98	9.47	32.23	181	161	P	H
		5360.4	47.94	-6.06	54	37.72	32.97	9.47	32.22	181	161	A	H
		5103.74	50.13	-23.87	74	40.27	32.92	8.99	32.05	248	131	P	V
		5148.46	42.93	-11.07	54	32.96	32.93	9.12	32.08	248	131	A	V
	*	5270	104	-	-	93.81	32.95	9.39	32.15	248	131	P	V
	*	5270	94.16	-	-	83.97	32.95	9.39	32.15	248	131	A	V
		5389.2	51.75	-22.25	74	41.51	32.98	9.49	32.23	248	131	P	V
		5385.12	44.39	-9.61	54	34.17	32.98	9.47	32.23	248	131	A	V
802.11n HT40 CH 62 5310MHz		5142.45	49.68	-24.32	74	39.69	32.93	9.12	32.06	180	190	P	H
		5142.45	43.9	-10.1	54	33.91	32.93	9.12	32.06	180	190	P	H
	*	5310	101.92	-	-	91.7	32.96	9.44	32.18	180	190	P	H
	*	5310	91.88	-	-	81.66	32.96	9.44	32.18	180	190	A	H
		5352.72	54.41	-19.59	74	44.19	32.97	9.47	32.22	180	190	P	H
		5350.32	48.33	-5.67	54	38.11	32.97	9.47	32.22	180	190	P	H
		5141.75	53.08	-20.92	74	43.09	32.93	9.12	32.06	228	191	P	V
		5148.4	45.63	-8.37	54	35.66	32.93	9.12	32.08	228	191	A	V
	*	5310	104.92	-	-	94.7	32.96	9.44	32.18	228	191	P	V
	*	5310	94.84	-	-	84.62	32.96	9.44	32.18	228	191	A	V
		5355.36	57.17	-16.83	74	46.95	32.97	9.47	32.22	228	191	P	V
		5350.32	51.95	-2.05	54	41.73	32.97	9.47	32.22	228	191	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



Band 2 5260-5320 MHz
WIFI 802.11n HT40 (Harmonic @ 3m)

WIFI Ant. 1+2	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11n HT40 CH 54 5270MHz		10540	51.35	-22.65	74	59.17	39.99	12.86	60.67	250	0	P	H
		10540	45.83	-8.17	54	53.65	39.99	12.86	60.67	250	0	A	H
		15810	52.77	-21.23	74	61.88	37.75	15.42	62.28	150	0	P	H
		15810	47.72	-6.28	54	56.83	37.75	15.42	62.28	150	0	A	H
		10540	51.69	-22.31	74	59.51	39.99	12.86	60.67	250	0	P	V
		10540	44.59	-9.41	54	52.41	39.99	12.86	60.67	250	0	A	V
		15810	50.37	-23.63	74	59.48	37.75	15.42	62.28	150	0	P	V
802.11n HT40 CH 62 5310MHz		10620	49.98	-24.02	74	57.61	39.95	12.91	60.49	250	0	P	H
		15930	48.79	-25.21	74	57.96	37.66	15.51	62.34	150	0	P	H
		10620	50.21	-23.79	74	57.84	39.95	12.91	60.49	250	0	P	V
		15930	47.02	-26.98	74	56.19	37.66	15.51	62.34	150	0	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



Band 2 5260-5320 MHz
WIFI 802.11ac VHT80 (Band Edge @ 3m)

WIFI Ant. 1+2	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11ac VHT80 CH 58 5290MHz		5121.94	53.34	-20.66	74	43.36	32.92	9.12	32.06	236	197	P	H
		5131.3	45.13	-8.87	54	35.14	32.93	9.12	32.06	236	197	A	H
	*	5290	101.73	-	-	91.52	32.96	9.42	32.17	236	197	P	H
	*	5290	92.8	-	-	82.59	32.96	9.42	32.17	236	197	A	H
		5373.6	59.15	-14.85	74	48.94	32.97	9.47	32.23	236	197	P	H
		5373.36	51.83	-2.17	54	41.62	32.97	9.47	32.23	236	197	A	H
		5062.35	45.61	-28.39	74	35.84	32.91	8.87	32.01	150	247	P	V
		5146.9	38.51	-15.49	54	28.54	32.93	9.12	32.08	150	247	A	V
	*	5290	93.47	-	-	83.26	32.96	9.42	32.17	150	247	P	V
	*	5290	84.36	-	-	74.15	32.96	9.42	32.17	150	247	A	V
		5351.28	54.85	-19.15	74	44.63	32.97	9.47	32.22	150	247	P	V
		5350.16	46.41	-7.59	54	36.19	32.97	9.47	32.22	150	247	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



Band 2 5260-5320 MHz

WIFI 802.11ac VHT80 (Harmonic @ 3m)

WIFI Ant. 1+2	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11ac VHT80 CH 58 5290MHz		10580	51.64	-22.36	74	59.35	39.97	12.88	60.56	250	0	P	H
		10580	42.81	-11.19	54	50.52	39.97	12.88	60.56	250	0	P	H
		15870	49.14	-24.86	74	58.3	37.7	15.45	62.31	150	0	A	H
		10580	51.75	-22.25	74	59.46	39.97	12.88	60.56	250	0	P	V
		10580	42.17	-11.83	54	49.88	39.97	12.88	60.56	250	0	A	V
		15870	49.39	-24.61	74	58.55	37.7	15.45	62.31	150	0	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



Band 3 - 5500-5720MHz
WIFI 802.11n HT20 (Band Edge @ 3m)

WIFI Ant. 1+2	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11n HT20 CH 100 5500MHz		5457.04	57.44	-16.56	74	47.31	32.99	9.42	32.28	158	161	P	H
		5470	47.61	-6.39	54	37.55	32.99	9.35	32.28	158	161	A	H
	*	5500	110.9	-	-	100.85	33	9.35	32.3	158	161	P	H
	*	5500	101.69	-	-	91.64	33	9.35	32.3	158	161	A	H
		5463.76	51.68	-22.32	74	41.55	32.99	9.42	32.28	179	270	P	V
		5468.4	43.16	-10.84	54	33.1	32.99	9.35	32.28	179	270	A	V
	*	5500	103.85	-	-	93.8	33	9.35	32.3	179	270	P	V
	*	5500	95.98	-	-	85.93	33	9.35	32.3	179	270	A	V
802.11n HT20 CH 116 5580MHz		5467.36	53.41	-20.59	74	43.35	32.99	9.35	32.28	150	184	P	H
		5393.68	40.58	-13.42	54	30.34	32.98	9.49	32.23	150	184	A	H
	*	5580	92.26	-	-	82.12	33.08	9.22	32.16	150	184	P	H
		5580	81.7	-	-	71.56	33.08	9.22	32.16	150	184	A	H
		5733.5	51.21	-22.79	74	40.44	33.27	9.44	31.94	150	184	P	H
		5737.595	42.84	-11.16	54	32.05	33.29	9.44	31.94	150	184	A	H
		5470	52.87	-21.13	74	42.81	32.99	9.35	32.28	162	273	P	V
		5468.32	43	-11	54	32.94	32.99	9.35	32.28	162	273	A	V
	*	5580	106.35	-	-	96.21	33.08	9.22	32.16	162	273	P	V
	*	5580	95.52	-	-	85.38	33.08	9.22	32.16	162	273	A	V
		5737.595	50.18	-23.82	74	39.39	33.29	9.44	31.94	162	273	P	V
		5742.95	41.29	-12.71	54	30.4	33.29	9.54	31.94	162	273	A	V



802.11n HT20 CH 140 5700MHz	*	5700	112.85	-	-	102.19	33.23	9.44	32.01	174	168	P	H
	*	5700	102.75	-	-	92.09	33.23	9.44	32.01	174	168	A	H
		5730.6	60.27	-13.73	74	49.5	33.27	9.44	31.94	174	168	P	H
		5725	50.85	-3.15	54	40.12	33.27	9.44	31.98	174	168	A	H
	*	5700	104.64	-	-	93.98	33.23	9.44	32.01	150	228	P	V
	*	5700	94.82	-	-	84.16	33.23	9.44	32.01	150	228	A	V
		5725.8	57.76	-16.24	74	47.03	33.27	9.44	31.98	150	228	P	V
		5725	47.49	-6.51	54	36.76	33.27	9.44	31.98	150	228	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



Band 3 - 5500-5720MHz
WIFI 802.11n HT20 (Harmonic @ 3m)

WIFI Ant. 1+2	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11n HT20 CH 100 5500MHz		11000	49.01	-24.99	74	55.76	39.8	13.11	59.66	250	0	P	H
		16500	54.23	-19.77	74	61.14	38.5	15.85	61.26	150	0	P	H
		16500	49.51	-4.49	54	56.42	38.5	15.85	61.26	150	0	A	H
		11000	49.91	-24.09	74	56.66	39.8	13.11	59.66	250	0	P	V
		16500	50.78	-23.22	74	57.69	38.5	15.85	61.26	150	0	P	V
802.11n HT20 CH 116 5580MHz		11160	50.2	-23.8	74	56.85	39.77	13.23	59.65	250	0	P	H
		16740	55.79	-18.21	74	61.49	38.98	16.01	60.69	150	0	P	H
		16740	49.55	-4.45	54	55.25	38.98	16.01	60.69	150	0	A	H
		11160	51.38	-22.62	74	58.03	39.77	13.23	59.65	250	0	P	V
		11160	45.23	-8.77	54	51.88	39.77	13.23	59.65	250	0	A	V
		16740	53.71	-20.29	74	59.41	38.98	16.01	60.69	150	0	P	V
		16740	46.96	-7.04	54	52.66	38.98	16.01	60.69	150	0	A	V
802.11n HT20 CH 140 5700MHz		11400	50.54	-23.46	74	57.09	39.72	13.37	59.64	250	0	P	H
		17100	50.91	-23.09	74	55.03	39.74	16.22	60.08	150	0	P	H
		11400	48.75	-25.25	74	55.3	39.72	13.37	59.64	250	0	P	V
		17100	50.64	-23.36	74	54.76	39.74	16.22	60.08	150	0	P	V
Remark	1. No other spurious found.												
	2. All results are PASS against Peak and Average limit line.												



Band 3 - 5500-5720MHz
WIFI 802.11n HT40 (Band Edge @ 3m)

WIFI Ant. 1+2	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11n HT40 CH 102 5510MHz		5467.36	56.45	-17.55	74	46.39	32.99	9.35	32.28	221	189	P	H
		5469.28	49.13	-4.87	54	39.07	32.99	9.35	32.28	221	189	A	H
	*	5510	104.28	-	-	94.25	33	9.29	32.26	221	189	P	H
	*	5510	95.54	-	-	85.51	33	9.29	32.26	221	189	A	H
		5733.815	49.16	-24.84	74	38.39	33.27	9.44	31.94	221	189	P	H
		5733.815	41.64	-12.36	54	30.87	33.27	9.44	31.94	221	189	A	H
		5468.8	53.97	-20.03	74	43.91	32.99	9.35	32.28	166	226	P	V
		5470	46.36	-7.64	54	36.3	32.99	9.35	32.28	166	226	A	V
	*	5510	102.28	-	-	92.25	33	9.29	32.26	166	226	P	V
	*	5510	94.52	-	-	84.49	33	9.29	32.26	166	226	A	V
		5742.32	49.83	-24.17	74	38.94	33.29	9.54	31.94	166	226	P	V
		5727.2	41.71	-12.29	54	30.98	33.27	9.44	31.98	166	226	A	V
802.11n HT40 CH 110 5550MHz		5465.68	56.08	-17.92	74	46.02	32.99	9.35	32.28	230	170	P	H
		5467.12	48.85	-5.15	54	38.79	32.99	9.35	32.28	230	170	A	H
	*	5550	109.53	-	-	99.48	33.06	9.22	32.23	230	170	P	H
		5550	101.66	-	-	91.61	33.06	9.22	32.23	230	170	A	H
		5725	53.99	-20.01	74	43.26	33.27	9.44	31.98	230	170	P	H
		5725	47.18	-6.82	54	36.45	33.27	9.44	31.98	230	170	A	H
		5393.68	51.84	-22.16	74	41.6	32.98	9.49	32.23	157	258	P	V
		5397.28	44.32	-9.68	54	34.08	32.98	9.49	32.23	157	258	A	V
	*	5550	102.11	-	-	92.06	33.06	9.22	32.23	157	258	P	V
		5550	93.31	-	-	83.26	33.06	9.22	32.23	157	258	A	V
		5738.54	49.32	-24.68	74	38.43	33.29	9.54	31.94	157	258	P	V
		5750.195	41.84	-12.16	54	30.95	33.29	9.54	31.94	157	258	A	V



802.11n HT40 CH 134 5670MHz		5426.3	51.34	-22.66	74	41.14	32.98	9.49	32.27	179	150	P	H
		5462	40.65	-13.35	54	30.52	32.99	9.42	32.28	179	150	A	H
	*	5670	105.96	-	-	95.45	33.21	9.35	32.05	179	150	P	H
	*	5670	96.52	-	-	86.01	33.21	9.35	32.05	179	150	A	H
		5750.65	56.1	-17.9	74	45.21	33.29	9.54	31.94	179	150	P	H
		5728.775	46.52	-7.48	54	35.79	33.27	9.44	31.98	179	150	A	H
		5397.95	50.39	-23.61	74	40.15	32.98	9.49	32.23	150	248	P	V
		5462.7	40.07	-13.93	54	29.94	32.99	9.42	32.28	150	248	A	V
	*	5670	102.86	-	-	92.35	33.21	9.35	32.05	150	248	P	V
	*	5670	93.6	-	-	83.09	33.21	9.35	32.05	150	248	A	V
		5728.95	55.17	-18.83	74	44.44	33.27	9.44	31.98	150	248	P	V
		5728.25	44.4	-9.6	54	33.67	33.27	9.44	31.98	150	248	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



Band 3 - 5500-5720MHz
WIFI 802.11n HT40 (Harmonic @ 3m)

WIFI Ant. 1+2	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11n HT40 CH 102 5510MHz		11020	51.68	-22.32	74	58.4	39.8	13.14	59.66	250	0	P	H
		11020	45.48	-8.52	54	52.2	39.8	13.14	59.66	250	0	A	H
		16530	51.07	-22.93	74	57.81	38.57	15.87	61.18	150	0	P	H
		16530	45.42	-8.58	54	52.16	38.57	15.87	61.18	150	0	A	H
		11020	51.89	-22.11	74	58.61	39.8	13.14	59.66	250	0	P	V
		11020	46.24	-7.76	54	52.96	39.8	13.14	59.66	250	0	A	V
		16530	50.28	-23.72	74	57.02	38.57	15.87	61.18	150	0	P	V
802.11n HT40 CH 110 5550MHz		11100	52.59	-21.41	74	59.28	39.78	13.18	59.65	250	0	P	H
		11100	46.41	-7.59	54	53.1	39.78	13.18	59.65	250	0	A	H
		16650	52.29	-21.71	74	58.43	38.81	15.94	60.89	150	0	P	H
		16650	46.56	-7.44	54	52.7	38.81	15.94	60.89	150	0	A	H
		11100	51.89	-22.11	74	58.58	39.78	13.18	59.65	250	0	P	V
		11100	45.27	-8.73	54	51.96	39.78	13.18	59.65	250	0	A	V
		16650	51.31	-22.69	74	57.45	38.81	15.94	60.89	150	0	P	V
		16650	45.67	-8.33	54	51.81	38.81	15.94	60.89	150	0	A	V
802.11n HT40 CH 134 5670MHz		11340	50.51	-23.49	74	57.1	39.73	13.32	59.64	250	0	P	H
		17010	52.66	-21.34	74	57.01	39.54	16.18	60.07	150	0	P	H
		17010	46.67	-7.33	54	51.02	39.54	16.18	60.07	150	0	A	H
		11340	50.99	-23.01	74	57.58	39.73	13.32	59.64	250	0	P	V
		17010	49.94	-24.06	74	54.29	39.54	16.18	60.07	150	0	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



Band 3 5500-5720MHz
WIFI 802.11ac VHT80 (Band Edge @ 3m)

WIFI Ant. 1+2	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11ac VHT80 CH 106 5530MHz		5457.04	60.04	-13.96	74	49.91	32.99	9.42	32.28	210	156	P	H
		5453.68	51.2	-2.8	54	41.07	32.99	9.42	32.28	210	156	A	H
	*	5530	102.05	-	-	91.97	33.02	9.29	32.23	210	156	P	H
	*	5530	92.72	-	-	82.64	33.02	9.29	32.23	210	156	A	H
		5734.76	51.71	-22.29	74	40.92	33.29	9.44	31.94	210	156	P	H
		5736.65	44.43	-9.57	54	33.64	33.29	9.44	31.94	210	156	A	H
		5468.95	49.31	-24.69	74	39.25	32.99	9.35	32.28	150	224	P	V
		5468.32	43.12	-10.88	54	33.06	32.99	9.35	32.28	150	224	A	V
	*	5530	94.43	-	-	84.35	33.02	9.29	32.23	150	224	P	V
	*	5530	84.33	-	-	74.25	33.02	9.29	32.23	150	224	A	V
		5742.005	51.61	-22.39	74	40.72	33.29	9.54	31.94	150	224	P	V
		5726.255	39.49	-14.51	54	28.76	33.27	9.44	31.98	150	224	A	V
802.11ac VHT80 CH 122 5610MHz		5457.52	54.8	-19.2	74	44.67	32.99	9.42	32.28	174	171	P	H
		5469.04	45.43	-8.57	54	35.37	32.99	9.35	32.28	174	171	A	H
	*	5610	104.81	-	-	94.66	33.12	9.15	32.12	174	171	P	H
	*	5610	93.87	-	-	83.72	33.12	9.15	32.12	174	171	A	H
		5750.65	57.66	-16.34	74	46.77	33.29	9.54	31.94	174	171	P	H
		5727.2	47.11	-6.89	54	36.38	33.27	9.44	31.98	174	171	A	H
		5457.52	52.22	-21.78	74	42.09	32.99	9.42	32.28	150	249	P	V
		5469.76	41.28	-12.72	54	31.22	32.99	9.35	32.28	150	249	A	V
	*	5610	96.99	-	-	86.84	33.12	9.15	32.12	150	249	P	V
	*	5610	87.68	-	-	77.53	33.12	9.15	32.12	150	249		V
		5727.2	54.96	-19.04	74	44.23	33.27	9.44	31.98	150	249	P	V
		5741.2	43.3	-10.7	54	32.41	33.29	9.54	31.94	150	249	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



Band 3 5500-5720MHz

WIFI 802.11ac VHT80 (Harmonic @ 3m)

WIFI Ant. 1+2	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11ac VHT80 CH 106 5530MHz		11060	52.29	-21.71	74	59	39.79	13.16	59.66	250	0	P	H
		11060	43.16	-10.84	54	49.87	39.79	13.16	59.66	250	0	A	H
		16590	50.14	-23.86	74	56.6	38.67	15.92	61.05	150	0	P	H
		11060	51.35	-22.65	74	58.06	39.79	13.16	59.66	250	0	P	V
		11060	41.91	-12.09	54	48.62	39.79	13.16	59.66	250	0	A	V
		16590	50.43	-23.57	74	56.89	38.67	15.92	61.05	150	0	P	V
802.11ac VHT80 CH 122 5610MHz		11220	50.89	-23.11	74	57.53	39.76	13.25	59.65	250	0	P	H
		16830	49.67	-24.33	74	54.93	39.16	16.06	60.48	150	0	P	H
		11220	50.84	-23.16	74	57.48	39.76	13.25	59.65	250	0	P	V
		16830	49.89	-24.11	74	55.15	39.16	16.06	60.48	150	0	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



Band 3 - Straddle Channel
WIFI 802.11n HT20 (Band Edge @ 3m)

WIFI Ant. 1+2	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11n		5720	108.72	-	-	97.99	33.27	9.44	31.98	152	114	P	H
HT20		5720	100.19	-	-	89.46	33.27	9.44	31.98	152	114	A	H
CH 144		5720	109.23	-	-	98.5	33.27	9.44	31.98	233	236	P	V
5720MHz		5720	100	-	-	89.27	33.27	9.44	31.98	233	236	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 3 - Straddle Channel
WIFI 802.11n HT20 (Harmonic @ 3m)

WIFI Ant. 1+2	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11n		11440	49.63	-24.37	74	56.16	39.71	13.39	59.63	250	0	P	H
HT20		17160	50.14	-23.86	74	54.08	39.9	16.25	60.09	150	0	P	H
CH 144		11440	49.55	-24.45	74	56.08	39.71	13.39	59.63	250	0	P	V
5720MHz		17160	49.06	-24.94	74	53	39.9	16.25	60.09	150	0	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



Band 3 - Straddle Channel
WIFI 802.11ac VHT40 (Band Edge @ 3m)

WIFI Ant. 1+2	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11ac	*	5710	104.73	-	-	94.02	33.25	9.44	31.98	182	175	P	H
VHT40	*	5710	95.11	-	-	84.4	33.25	9.44	31.98	182	175	A	H
CH 142	*	5710	106.06	-	-	95.35	33.25	9.44	31.98	241	192	P	V
5710MHz	*	5710	98.48	-	-	87.77	33.25	9.44	31.98	241	192	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 3 - Straddle Channel
WIFI 802.11ac VHT40 (Harmonic @ 3m)

WIFI Ant. 1+2	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11ac		11420	49.19	-24.81	74	55.74	39.72	13.37	59.64	250	0	P	H
VHT40		17130	49.23	-24.77	74	53.24	39.82	16.25	60.08	150	0	P	H
CH 142		11420	48.3	-25.7	74	54.85	39.72	13.37	59.64	250	0	P	V
5710MHz		17310	48.74	-25.26	74	52.28	40.22	16.34	60.1	150	0	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



Band 3 - Straddle Channel
WIFI 802.11ac VHT80 (Band Edge @ 3m)

WIFI Ant. 1+2	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11ac	*	5690	102.83	-	-	92.26	33.23	9.35	32.01	156	163	P	H
VHT80	*	5690	93.85	-	-	83.28	33.23	9.35	32.01	156	163	A	H
CH 138	*	5690	99.37	-	-	88.8	33.23	9.35	32.01	171	236	P	V
5690MHz	*	5690	90.45	-	-	79.88	33.23	9.35	32.01	171	236	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 3 - Straddle Channel
WIFI 802.11ac VHT80 (Harmonic @ 3m)

WIFI Ant. 1+2	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11ac		11380	48.56	-25.44	74	55.14	39.72	13.34	59.64	250	0	P	H
VHT80		17070	48.52	-25.48	74	52.74	39.66	16.2	60.08	150	0	P	H
CH 138		11380	47.79	-26.21	74	54.37	39.72	13.34	59.64	250	0	P	V
5690MHz		17070	48.27	-25.73	74	52.49	39.66	16.2	60.08	150	0	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average 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.	
1+2		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11ac VHT80		32.91	26.63	-13.37	40	32.82	25.44	0.37	32	-	-	P	H
		86.26	27.89	-12.11	40	42.18	16.84	0.69	31.82	-	-	P	H
		153.19	24.52	-18.98	43.5	37.29	17.67	1.07	31.51	-	-	P	H
		228.85	27.77	-18.23	46	40.79	16.98	1.37	31.37	-	-	P	H
		382.11	36.13	-9.87	46	41.48	24.02	1.89	31.26	140	20	P	H
		721.61	30.58	-15.42	46	31.63	27.53	2.66	31.24	-	-	P	H
		33.88	33.19	-6.81	40	39.78	25.02	0.39	32	100	120	P	V
		39.7	31.85	-8.15	40	40.93	22.5	0.41	31.99	-	-	P	V
		85.29	26.96	-13.04	40	41.5	16.6	0.68	31.82	-	-	P	V
		535.37	32.57	-13.43	46	37.22	24.32	2.21	31.18	-	-	P	V
		611.03	36.17	-9.83	46	39.81	25.14	2.43	31.21	-	-	P	V
		688.63	33.85	-12.15	46	35.36	27.15	2.59	31.25	-	-	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.	
2		(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

1. Level(dBμV/m) =

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

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

For Peak Limit @ 2390MHz:

1. Level(dBμV/m)

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

= 32.22(dB/m) + 4.58(dB) + 54.51(dBμV) – 35.86 (dB)

= 55.45 (dBμV/m)

2. Over Limit(dB)

= Level(dBμV/m) – Limit Line(dBμV/m)

= 55.45(dBμV/m) – 74(dBμV/m)

= -18.55(dB)

For Average Limit @ 2390MHz:

1. Level(dBμV/m)

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

= 32.22(dB/m) + 4.58(dB) + 42.6(dBμV) – 35.86 (dB)

= 43.54 (dBμV/m)

2. Over Limit(dB)

= Level(dBμV/m) – Limit Line(dBμV/m)

= 43.54(dBμV/m) – 54(dBμV/m)

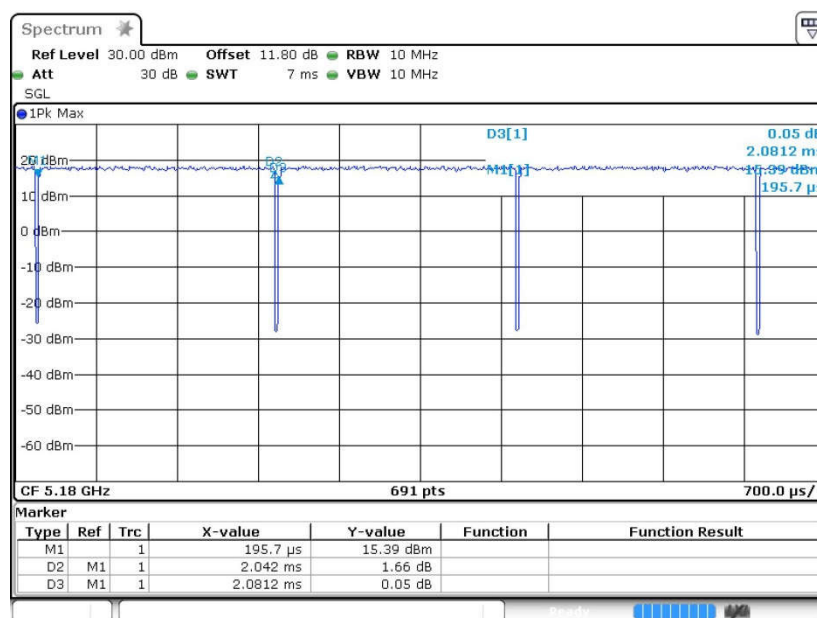
= -10.46(dB)

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

Appendix C. Duty Cycle Plots

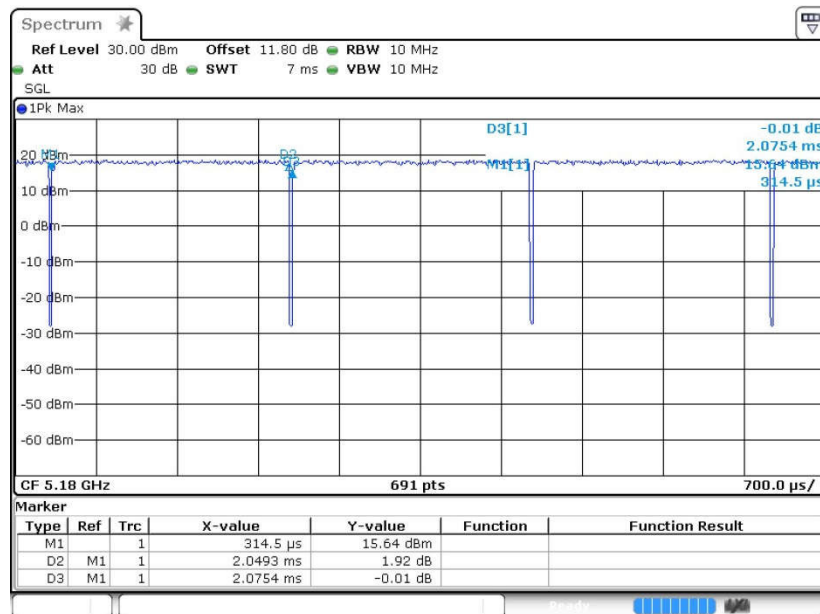
Antenna	Band	Duty Cycle(%)	T(ms)	1/T(kHz)	VBW Setting
1	802.11a	98.12	-	-	10Hz
2	802.11a	98.74	-	-	10Hz
2	802.11ac VHT80	94.37	0.438	2.285	3KHz
1+2	802.11n HT20	98.66	-	-	10Hz
1+2	802.11n HT40	97.28	0.93	1.070	3KHz
1+2	802.11ac VHT80	94.37	0.438	2.285	3KHz

802.11a for Ant.1



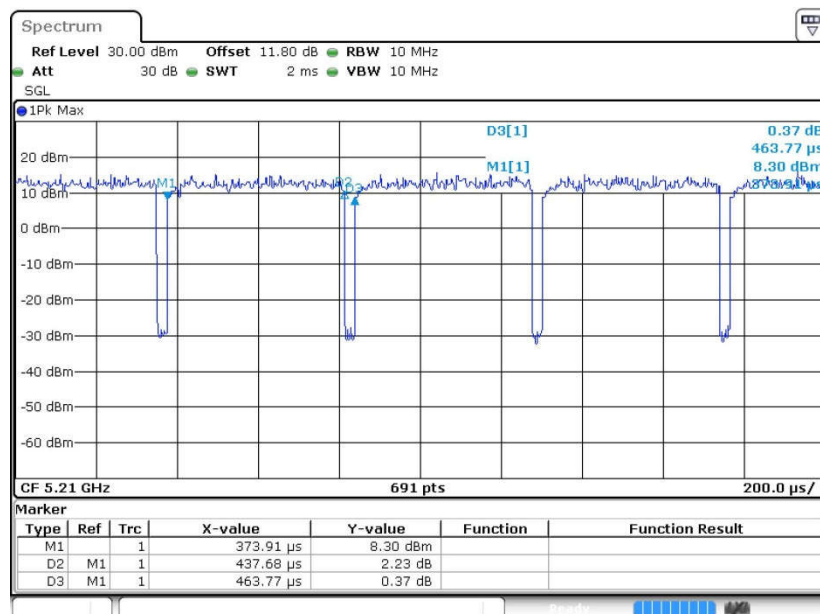
Date: 16.MAR.2017 11:26:27

802.11a for Ant.2



Date: 16.MAR.2017 11:30:57

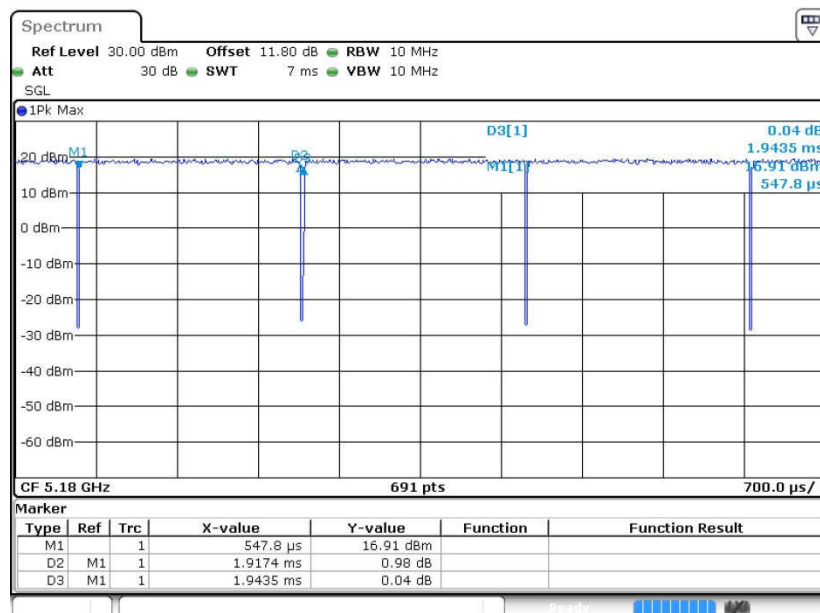
802.11ac VTH80 for Ant.2



Date: 16.MAR.2017 11:30:07

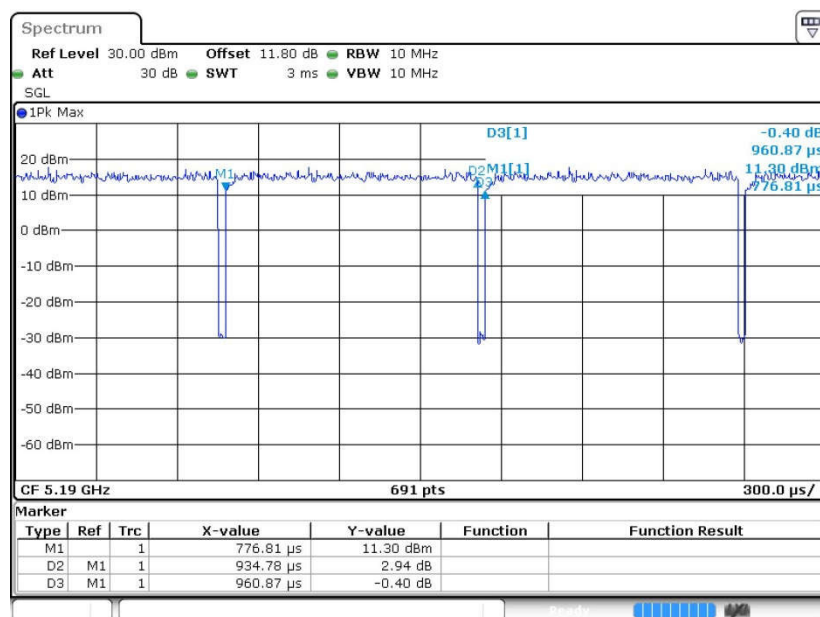


802.11n HT20 for Ant.1+2



Date: 16.MAR.2017 11:33:31

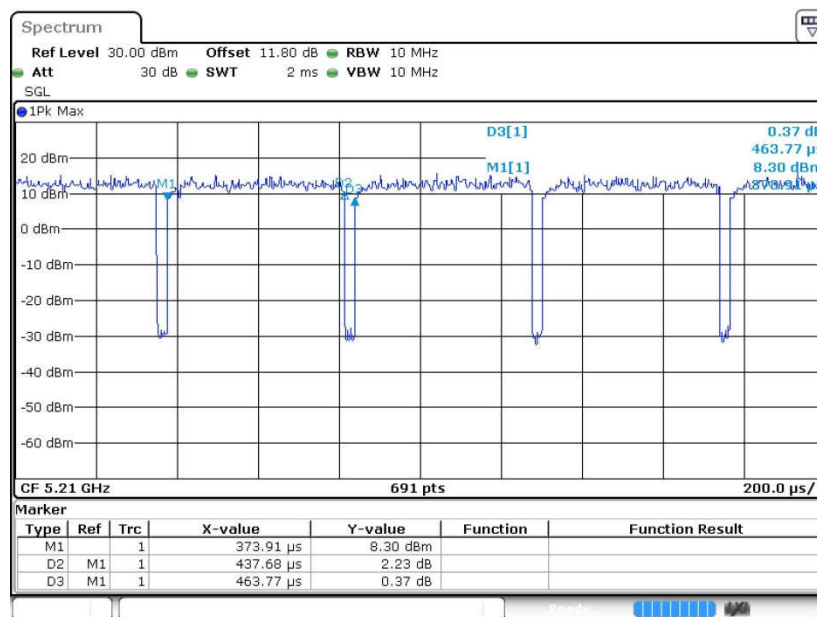
802.11n HT40 for Ant.1+2



Date: 16.MAR.2017 11:35:55



802.11ac VHT80 for Ant.1+2



Date: 16.MAR.2017 11:30:07