



FCC RF Test Report

APPLICANT : Motorola Mobility LLC
EQUIPMENT : Mobile Cellular Phone
BRAND NAME : Motorola
MODEL NAME : XT2229-2
FCC ID : IHDT56AC6
STANDARD : FCC Part 15 Subpart E §15.407
CLASSIFICATION : (NII) Unlicensed National Information Infrastructure
TEST DATE(S) : Feb. 17, 2022 ~ Feb. 26, 2022

We, Sporton International Inc. (Shenzhen), 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 Inc. (Shenzhen), the test report shall not be reproduced except in full.

Reviewed by: Derreck Chen / Supervisor

Approved by: Eric Shih / Manager



Sporton International Inc. (ShenZhen)

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People's Republic of China



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REVISION HISTORY

REPORT NO.	VERSION	DESCRIPTION	ISSUED DATE
FR1N1011-03D	Rev. 01	Initial issue of report	Mar. 15, 2022

SUMMARY OF TEST RESULT

Report Section	FCC Rule	Description	Limit	Result	Remark
4.1	15.407(a)	Maximum Conducted Output Power	≤ 24 dBm	Pass	-
4.2	15.407(b)	Unwanted Emissions	15.407(b) & 15.209(a)	Pass	Under limit 3.01 dB at 5350.24 MHz
4.3	15.203 & 15.407(a)	Antenna Requirement	15.203 & 15.407(a)	Pass	-

Declaration of Conformity:

The test results with all measurement uncertainty excluded are presented in accordance with the regulation limits or requirements declared by manufacturers.

Comments and Explanations:

The declared of product specification for EUT presented in the report are provided by the manufacturer, and the manufacturer takes all the responsibilities for the accuracy of product specification.



1 General Description

1.1 Applicant

Motorola Mobility LLC
222 W,Merchandise Mart Plaza,Chicago,IL60654 USA

1.2 Manufacturer

Motorola Mobility LLC
222 W,Merchandise Mart Plaza,Chicago,IL60654 USA

1.3 Product Feature of Equipment Under Test

Product Feature	
Equipment	Mobile Cellular Phone
Brand Name	Motorola
Model Name	XT2229-2
FCC ID	IHDT56AC6
IMEI Code	Radiation: 352303500031051/352303500032208 for Sample 1 352303500035193/352303500037645 for Sample 2
HW Version	DVT2
SW Version	STA32.48
EUT Stage	Identical Prototype

Remark:

1. The above EUT's information was declared by manufacturer. Please refer to the specifications or user's manual for more detailed description.
2. There are two types of EUT, the difference could be referred to the XT2229-2_Operational Description of Product Equality Declaration which is exhibit separately. According to the difference, we evaluate the sample 1 to perform full test and the sample 2 verified worse cases for RSE testing.

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> 802.11a : 18.40 dBm / 0.0692 W 802.11n HT20 : 17.90 dBm / 0.0617 W 802.11n HT40 : 16.80 dBm / 0.0479 W 802.11ac VHT20 : 16.80 dBm / 0.0479 W 802.11ac VHT40 : 16.70 dBm / 0.0468 W 802.11ac VHT80 : 12.40 dBm / 0.0174 W <5260 MHz ~ 5320 MHz> 802.11a : 18.40 dBm / 0.0692 W 802.11n HT20 : 17.80 dBm / 0.0603 W 802.11n HT40 : 16.60 dBm / 0.0457 W 802.11ac VHT20 : 16.80 dBm / 0.0479 W 802.11ac VHT40 : 16.50 dBm / 0.0447 W 802.11ac VHT80 : 12.80 dBm / 0.0191 W <5500 MHz ~ 5720 MHz > 802.11a : 18.30 dBm / 0.0676 W 802.11n HT20 : 17.80 dBm / 0.0603 W 802.11n HT40 : 16.90 dBm / 0.0490 W 802.11ac VHT20 : 16.90 dBm / 0.0490 W 802.11ac VHT40 : 16.80 dBm / 0.0479 W 802.11ac VHT80 : 16.80 dBm / 0.0479 W
Antenna Type / Gain	<5180 MHz ~ 5240 MHz > PIFA Antenna type with gain -6.2 dBi <5260 MHz ~ 5320 MHz > PIFA Antenna type with gain -5.7 dBi <5500 MHz ~ 5720 MHz > PIFA Antenna type with gain -5.5 dBi
Type of Modulation	802.11a/n : OFDM (BPSK / QPSK / 16QAM / 64QAM) 802.11ac : OFDM (BPSK / QPSK / 16QAM / 64QAM / 256QAM)

Note: 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 for RSE testing.

1.5 Modification of EUT

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

1.6 Testing Location

Sporton International Inc. (Shenzhen) is accredited to ISO/IEC 17025:2017 by American Association for Laboratory Accreditation with Certificate Number 5145.01.

Test Firm	Sporton International Inc. (Shenzhen)		
Test Site Location	1/F, 2/F, Bldg 5, Shiling Industrial Zone, Xinwei Village, Xili, Nanshan, Shenzhen, 518055 People's Republic of China TEL: +86-755-86379589 FAX: +86-755-86379595		
Test Site No.	Sporton Site No.	FCC Designation No.	FCC Test Firm Registration No.
	TH01-SZ	CN1256	421272

Test Firm	Sporton International Inc. (Shenzhen)		
Test Site Location	101, 1st Floor, Block B, Building 1, No. 2, Tengfeng 4th Road, Fenghuang Community, Fuyong Street, Baoan District, Shenzhen City Guangdong Province China 518103 TEL: +86-755-33202398		
Test Site No.	Sporton Site No.	FCC Designation No.	FCC Test Firm Registration No.
	03CH01-SZ	CN1256	421272

1.7 Test Software

Item	Site	Manufacturer	Name	Version
1.	03CH01-SZ	AUDIX	E3	6.2009-8-24

1.8 Applicable Standards

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

- 47 CFR Part 15 Subpart E
- FCC KDB 789033 D02 General UNII Test Procedures New Rules 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.



1.9 Specification of Accessory

Specification of Accessory				
AC Adapter 1(US)	Brand Name	Motorola (Chenyang)	Model Name	MC-201
AC Adapter 1(EU)	Brand Name	Motorola (Chenyang)	Model Name	MC-202
AC Adapter 1(AR)	Brand Name	Motorola (Chenyang)	Model Name	MC-206
AC Adapter 2(US)	Brand Name	Motorola (Acbel)	Model Name	MC-201
AC Adapter 2(EU)	Brand Name	Motorola (Acbel)	Model Name	MC-202
AC Adapter 2(AR)	Brand Name	Motorola (Acbel)	Model Name	MC-206
AC Adapter 2(CHILE)	Brand Name	Motorola (Acbel)	Model Name	MC-209
AC Adapter 3(IN)	Brand Name	Motorola (Chenyang)	Model Name	MC-204
AC Adapter 4(IN)	Brand Name	Motorola (Aohai)	Model Name	MC-204
AC Adapter 5(BR)	Brand Name	Motorola (Flex)	Model Name	MC-207
AC Adapter 6(BR)	Brand Name	Motorola (Salcomp)	Model Name	MC-207
AC Adapter 7(US)	Brand Name	Motorola (Chenyang)	Model Name	MC-101
AC Adapter 7(EU)	Brand Name	Motorola (Chenyang)	Model Name	MC-102
AC Adapter 7(UK)	Brand Name	Motorola (Chenyang)	Model Name	MC-103
AC Adapter 7(AU)	Brand Name	Motorola (Chenyang)	Model Name	MC-105
AC Adapter 8(US)	Brand Name	Motorola (Salcomp)	Model Name	MC-101
AC Adapter 8(EU)	Brand Name	Motorola (Salcomp)	Model Name	MC-102
AC Adapter 8(UK)	Brand Name	Motorola (Salcomp)	Model Name	MC-103
AC Adapter 8(AU)	Brand Name	Motorola (Salcomp)	Model Name	MC-105
AC Adapter 9(US)	Brand Name	Motorola (Aohai)	Model Name	MC-101
AC Adapter 9(EU)	Brand Name	Motorola (Aohai)	Model Name	MC-102
AC Adapter 9(UK)	Brand Name	Motorola (Aohai)	Model Name	MC-103
AC Adapter 10(IN)	Brand Name	Motorola (Chenyang)	Model Name	MC-104
AC Adapter 11(IN)	Brand Name	Motorola (Aohai)	Model Name	MC-104
AC Adapter 12(AU)	Brand Name	Motorola (Aohai)	Model Name	MC-105
AC Adapter 13(EU)	Brand Name	Motorola (Salom)	Model Name	SC-42
AC Adapter 14(UK)	Brand Name	Motorola (Chenyang)	Model Name	SC-43
Earphone 1	Brand Name	Motorola (Iyand)	Model Name	LYM239-76C-003
Earphone 2	Brand Name	Motorola (LCHSE)	Model Name	MEND1432B875000
Earphone 3	Brand Name	Motorola (New Leader)	Model Name	MH202
USB Cable 1	Brand Name	Motorola(Yihuaxing)	Model Name	T365-011B
USB Cable 2	Brand Name	Motorola(SUNTOPS)	Model Name	336258
USB Cable 3	Brand Name	Motorola(SUNTOPS)	Model Name	336281
USB Cable 4	Brand Name	Motorola(I SHENG)	Model Name	SC18D33506
USB Cable 5	Brand Name	Motorola(Yihuaxing)	Model Name	T365-012B
Battery 1	Brand Name	Motorola(Sunwoda)	Model Name	NH50
Battery 2	Brand Name	Motorola(SCUD)	Model Name	NH50



2 Re-use of Measured Data

2.1 Introduction Section

This application re-uses data collected on a similar device. The subject device of this application (Model: XT2229-2, FCC ID: IHDT56AC6) is electrically identical to the reference device (Model: XT2231-2, FCC ID: IHDT56AC3) for the portions of the circuitry corresponding to the data being re-used. Based on their similarity, the FCC Part 15E U-NII-1, U-NII-2A, U-NII-2C reuse the original model's result do spot-check, following the FCC KDB 484596 D01 v01.

The applicant takes full responsibility that the test data as referenced in this report represent compliance for this FCC ID: IHDT56AC6 .

2.2 Model Difference Information

The **main** difference between FCC ID: IHDT56AC3 and FCC ID: IHDT56AC6 is as below:

- Remove NFC.

Other differences and all the details of similarity and difference can be found in the confidential documents (XT2229-2_Operational Description of Product Equality Declaration).

The re-used RF data includes the following bands provided in Appendix D (Sporton RF Report No. 1N1011-01 for the reference device Model: XT2231-2, FCC ID: IHDT56AC3).

2.3 Reference detail Section:

Rule Part	Equipment Class	Frequency Band (MHz)	Reference FCC ID(Parent)	Type Grant/ Permissive Change	Reference Title	FCC ID Filling (Variant)	Report Title/Section
15E	U-NII-1	5180~5240	IHDT56AC2	Original Grant	1N1011-01	IHDT56AC6	All sections applicable except for RSE and Conducted Power
			IHDT56AC3	Data reuse			
	U-NII-2A	5260~5320	IHDT56AC2	Original Grant	1N1011-01	IHDT56AC6	
			IHDT56AC3	Data reuse			
	U-NII-2C	5500~5720	IHDT56AC2	Original Grant	1N1011-01	IHDT56AC6	
			IHDT56AC3	Data reuse			



2.4 Spot Check Verification Data Section

Conducted power test and radiated spurious emission for re-testing against the variant model based on the original model was performed in this filing.

Summary for power spot check for rule entry and technology is listed as below:

Test Item	Mode	IHDT56AC3 Parent Worst Result	IHDT56AC6 Variant Check Result	Difference (dB)
Conducted Power (dBm)	11a	17.38	18.40	1.02
	11n HT20	16.99	17.90	0.91
	11n HT40	15.99	16.90	0.91
	11ac VHT20	15.98	16.90	0.92
	11ac VHT40	15.87	16.80	0.93
	11ac VHT80	15.42	16.80	1.38

Conclusion:

We confirm that the test data reuse policy of FCC KDB 484596 D01 Referencing Test Data v01 has been followed and the test data for AC Conduction and Conducted test items except Conducted Power as referenced from the parent model report represents compliance with new FCC ID.

3 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: radiation 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 (Y plane) were recorded in this report.

3.1 Carrier Frequency and Channel

Frequency Band	Channel	Freq. (MHz)	Channel	Freq. (MHz)
5180-5240 MHz (U-NII-1)	36	5180	44	5220
	38*	5190	46*	5230
	40	5200	48	5240
	42 [#]	5210		
Frequency Band	Channel	Freq. (MHz)	Channel	Freq. (MHz)
5260-5320 MHz (U-NII-2A)	52	5260	60	5300
	54*	5270	62*	5310
	56	5280	64	5320
	58 [#]	5290		
Frequency Band	Channel	Freq. (MHz)	Channel	Freq. (MHz)
5500-5720 MHz (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.

3.2 Test Mode

Final test modes are considering the modulation and worse data rates as below table.

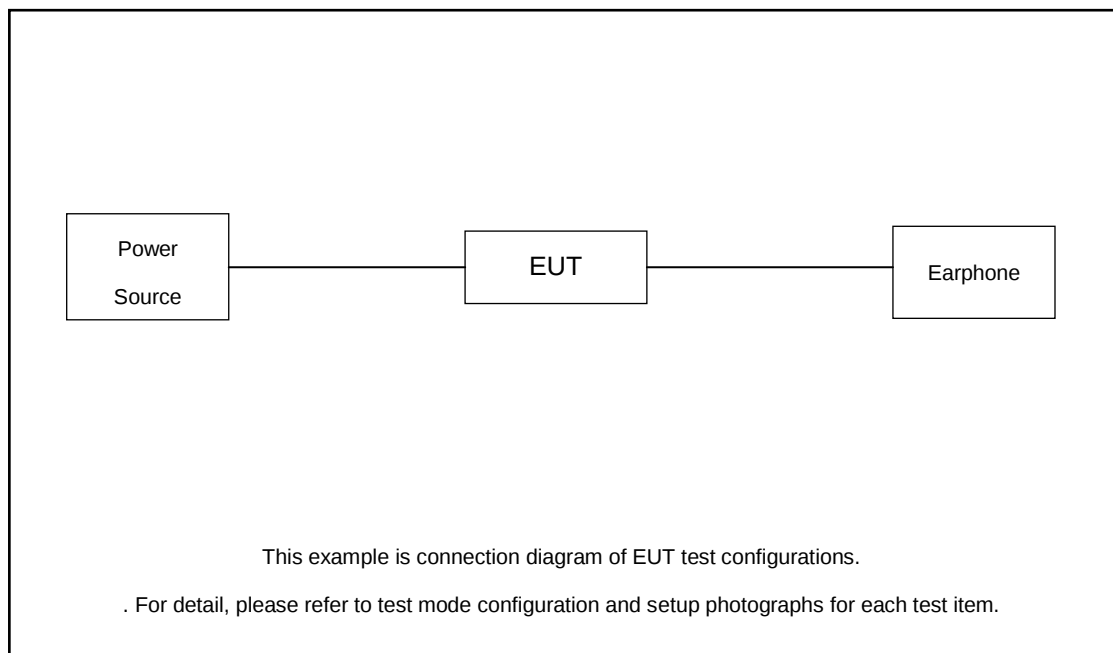
Modulation	Data Rate
802.11a	6 Mbps
802.11n HT20	MCS0
802.11n HT40	MCS0
802.11ac VHT80	MCS0

Simultaneous transmission

WIFI 802.11n HT20 CH64 + LTE Band 41Link

Remark: For Radiated Test Cases, The tests were performed with Adapter 1, Earphone 1 and USB Cable 1.

3.3 Connection Diagram of Test System



3.4 EUT Operation Test Setup

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

4 Test Result

4.1 Maximum Conducted Output Power Measurement

4.1.1 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 $11 + 10 \log B$, dBm, where B is the 26 dB emission bandwidth in megahertz.

For the 5.47–5.6 GHz and 5.65–5.725 GHz band, the maximum conducted output power shall not exceed 250 mW or $11 + 10 \log_{10} B$, dBm, whichever power is less. The maximum e.i.r.p. shall not exceed 1.0 W or $17 + 10 \log_{10} B$, dBm, whichever is less. B is the 99% emission bandwidth in megahertz.

For Straddle Channel, According to KDB 789033 D02 General UNII Test Procedures New Rules v02r01, If the power and PSD of the devices are uniform and comply with the lower limits specified for the U-NII-2 bands, a single measurement over the entire emission bandwidth can be performed to show compliance.

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.

4.1.2 Measuring Instruments

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

4.1.3 Test Procedures

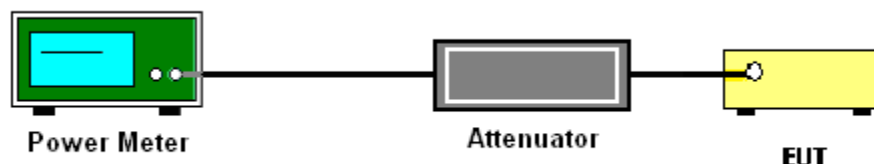
The testing follows Method PM of FCC KDB 789033 D02 General UNII Test Procedures New Rules v02r01.

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.
4. For MIMO mode, the measure-and-sum technique should be used for measuring the in-band transmit power of a device.

For Straddle Channel, According to KDB 789033 D02 General UNII Test Procedures New Rules v02r01, If the power and PSD of the devices are uniform and comply with the lower limits specified for the U-NII-2 bands, a single measurement over the entire emission bandwidth can be performed to show compliance.

4.1.4 Test Setup





4.1.5 Test Result of Maximum Conducted Output Power

U-NII-1									
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	Duty Factor (dB)	Average Conducted Power (dBm)	FCC Conducted Power Limit (dBm)	DG (dBi)	Pass/Fail
11a	6Mbps	1	36	5180	96.97	16.10	24.00	-6.20	Pass
11a	6Mbps	1	44	5220	96.97	18.40	24.00	-6.20	Pass
11a	6Mbps	1	48	5240	96.97	18.40	24.00	-6.20	Pass
HT20	MCS0	1	36	5180	0.14	16.80	24.00	-6.20	Pass
HT20	MCS0	1	44	5220	0.14	17.90	24.00	-6.20	Pass
HT20	MCS0	1	48	5240	0.14	17.90	24.00	-6.20	Pass
HT40	MCS0	1	38	5190	0.30	14.10	24.00	-6.20	Pass
HT40	MCS0	1	46	5230	0.30	16.80	24.00	-6.20	Pass
VHT20	MCS0	1	36	5180	0.12	16.70	24.00	-6.20	Pass
VHT20	MCS0	1	44	5220	0.12	16.80	24.00	-6.20	Pass
VHT20	MCS0	1	48	5240	0.12	16.80	24.00	-6.20	Pass
VHT40	MCS0	1	38	5190	0.28	14.00	24.00	-6.20	Pass
VHT40	MCS0	1	46	5230	0.28	16.70	24.00	-6.20	Pass
VHT80	MCS0	1	42	5210	0.57	12.40	24.00	-6.20	Pass

U-NII-2A										
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
11a	6M bps	1	52	5260	96.97	18.40	23.98	-5.70	26.99	Pass
11a	6M bps	1	60	5300	96.97	18.40	23.98	-5.70	26.99	Pass
11a	6M bps	1	64	5320	96.97	15.50	23.98	-5.70	26.99	Pass
HT20	MCS 0	1	52	5260	0.14	17.70	23.98	-5.70	26.99	Pass
HT20	MCS 0	1	60	5300	0.14	17.80	23.98	-5.70	26.99	Pass
HT20	MCS 0	1	64	5320	0.14	15.30	23.98	-5.70	26.99	Pass
HT40	MCS 0	1	54	5270	0.30	16.60	23.98	-5.70	26.99	Pass
HT40	MCS 0	1	62	5310	0.30	13.80	23.98	-5.70	26.99	Pass
VHT20	MCS 0	1	52	5260	0.12	16.60	23.98	-5.70	26.99	Pass
VHT20	MCS 0	1	60	5300	0.12	16.80	23.98	-5.70	26.99	Pass
VHT20	MCS 0	1	64	5320	0.12	15.20	23.98	-5.70	26.99	Pass
VHT40	MCS 0	1	54	5270	0.28	16.50	23.98	-5.70	26.99	Pass
VHT40	MCS 0	1	62	5310	0.28	13.70	23.98	-5.70	26.99	Pass
VHT80	MCS 0	1	58	5290	0.57	12.80	23.98	-5.70	26.99	Pass



U-NII-2C										
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
11a	6M bps	1	100	5500	96.97	16.00	23.98	-5.50	26.99	Pass
11a	6M bps	1	116	5580	96.97	18.10	23.98	-5.50	26.99	Pass
11a	6Mbps	1	136	5680	96.97	16.10	23.98	-5.50	26.99	Pass
11a	6M bps	1	140	5700	96.97	13.80	23.98	-5.50	26.99	Pass
11a	6M bps	1	144	5720	96.97	18.30	23.98	-5.50	26.99	Pass
HT20	MCS 0	1	100	5500	0.14	15.80	23.98	-5.50	26.99	Pass
HT20	MCS 0	1	116	5580	0.14	17.40	23.98	-5.50	26.99	Pass
HT20	MCS 0	1	140	5700	0.14	14.40	23.98	-5.50	26.99	Pass
HT20	MCS 0	1	144	5720	0.14	17.80	23.98	-5.50	26.99	Pass
HT40	MCS 0	1	102	5510	0.30	14.80	23.98	-5.50	26.99	Pass
HT40	MCS 0	1	110	5550	0.30	16.50	23.98	-5.50	26.99	Pass
HT40	MCS 0	1	134	5670	0.30	16.90	23.98	-5.50	26.99	Pass
HT40	MCS 0	1	142	5710	0.30	16.80	23.98	-5.50	26.99	Pass
VHT20	MCS 0	1	100	5500	0.12	15.70	23.98	-5.50	26.99	Pass
VHT20	MCS 0	1	116	5580	0.12	16.60	23.98	-5.50	26.99	Pass
VHT20	MCS 0	1	140	5700	0.12	14.30	23.98	-5.50	26.99	Pass
VHT20	MCS 0	1	144	5720	0.12	16.90	23.98	-5.50	26.99	Pass
VHT40	MCS 0	1	102	5510	0.28	14.70	23.98	-5.50	26.99	Pass
VHT40	MCS 0	1	110	5550	0.28	16.40	23.98	-5.50	26.99	Pass
VHT40	MCS 0	1	134	5670	0.28	16.80	23.98	-5.50	26.99	Pass
VHT40	MCS 0	1	142	5710	0.28	16.70	23.98	-5.50	26.99	Pass
VHT80	MCS 0	1	106	5530	0.57	13.20	23.98	-5.50	26.99	Pass
VHT80	MCS 0	1	122	5610	0.57	16.50	23.98	-5.50	26.99	Pass
VHT80	MCS 0	1	138	5690	0.57	16.80	23.98	-5.50	26.99	Pass

4.2 Unwanted Emissions Measurement

This section is to measure unwanted emissions through radiated measurement for band edge spurious emissions and out of band emissions measurement.

4.2.1 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 5470-5725 MHz band: all emissions outside of the 5470-5725 MHz 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	$2400/F(\text{kHz})$	300
0.490 – 1.705	$24000/F(\text{kHz})$	30
1.705 – 30.0	30	30
30 – 88	100	3
88 – 216	150	3
216 - 960	200	3
Above 960	500	3



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

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

$$\text{EIRP} = E_{\text{Meas}} + 20\log(d_{\text{Meas}}) - 104.7$$

where

EIRP is the equivalent isotropically radiated power, in dBm

E_{Meas} is the field strength of the emission at the measurement distance, in dBμV/m

d_{Meas} is the measurement distance, in m

4.2.2 Measuring Instruments

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

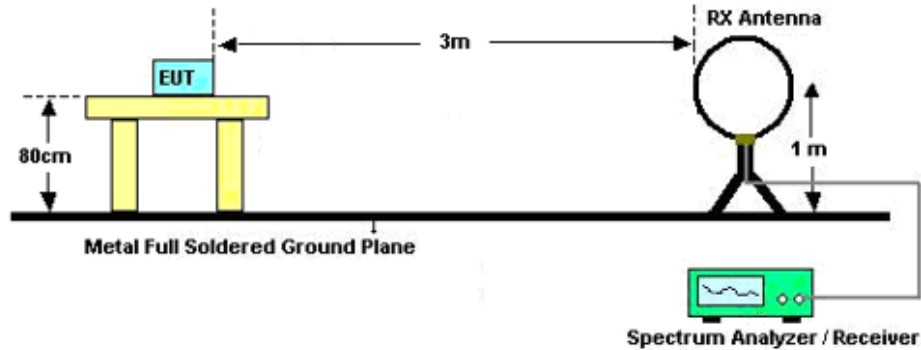


4.2.3 Test Procedures

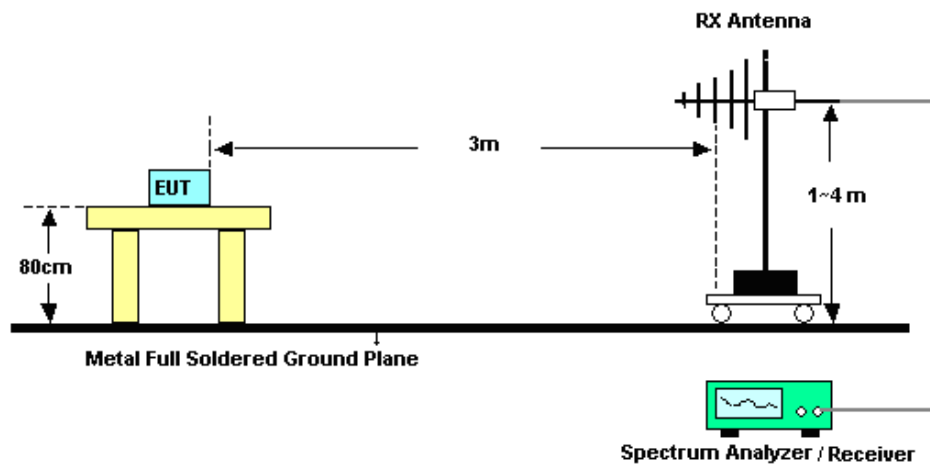
1. The testing follows FCC KDB 789033 D02 General UNII Test Procedures New Rules v02r01.
Section G) Unwanted emissions measurement.
 - (1) Procedure for Unwanted Emissions Measurements Below 1000MHz
 - RBW = 120 kHz
 - VBW = 300 kHz
 - Detector = Peak
 - Trace mode = max hold
 - (2) Procedure for Peak Unwanted Emissions Measurements Above 1000 MHz
 - RBW = 1 MHz
 - VBW $\geq$ 3 MHz
 - Detector = Peak
 - Sweep time = auto
 - Trace mode = max hold
 - (3) Procedures for Average Unwanted Emissions Measurements Above 1000MHz
 - RBW = 1 MHz
 - VBW = 10 Hz, when duty cycle is no less than 98 percent.
 - VBW $\geq$ 1/T, when duty cycle is less than 98 percent where T is the minimum transmission duration over which the transmitter is on and is transmitting at its maximum power control level for the tested mode of operation.
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 peak 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.

4.2.4 Test Setup

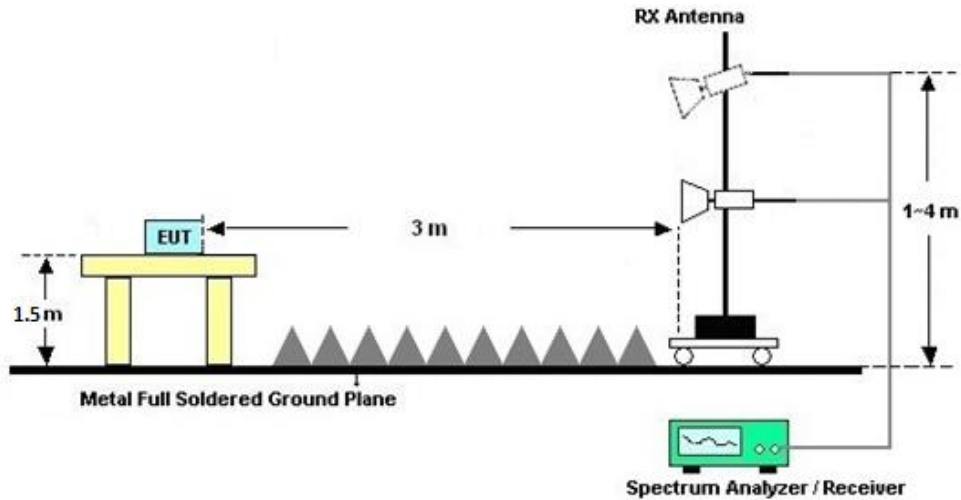
For radiated emissions below 30MHz



For radiated emissions from 30MHz to 1GHz



For radiated emissions above 1GHz



4.2.5 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.

There is a comparison data of both open-field test site and semi-Anechoic chamber, and the result came out very similar.

4.2.6 Test Result of Radiated Spurious at Band Edges

Please refer to Appendix A.

4.2.7 Duty Cycle

Please refer to Appendix B.

4.2.8 Test Result of Radiated Spurious Emissions (30MHz ~ 10th Harmonic or 40GHz, whichever is lower)

Please refer to Appendix A.



4.3 Antenna Requirements

4.3.1 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.

4.3.2 Antenna Anti-Replacement Construction

An embedded-in antenna design is used.

4.3.3 Antenna Gain

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



5 List of Measuring Equipment

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Test Date	Due Date	Remark
Spectrum Analyzer	R&S	FSV40	101078	10Hz~40GHz	Apr. 08, 2021	Feb. 17, 2022	Apr. 07, 2022	Conducted (TH01-SZ)
Pulse Power Sensor	Anritsu	MA2411B	1339473	30MHz~40GHz	Dec. 28, 2021	Feb. 17, 2022	Dec. 27, 2022	Conducted (TH01-SZ)
Power Meter	Anritsu	ML2495A	1542004	50MHz Bandwidth	Dec. 28, 2021	Feb. 17, 2022	Dec. 27, 2022	Conducted (TH01-SZ)
EXA Spectrum Analyzer	KEYSIGHT	N9010A	MY55150213	10Hz~44GHz	Jul. 21, 2021	Feb. 26, 2022	Jul. 20, 2022	Radiation (03CH01-SZ)
Loop Antenna	R&S	HFH2-Z2	100354	9kHz~30MHz	Jun. 22, 2021	Feb. 26, 2022	Jun. 21, 2022	Radiation (03CH01-SZ)
Bilog Antenna	TeseQ	CBL6112D	35407	30MHz~2GHz	Jul. 15, 2021	Feb. 26, 2022	Jul. 14, 2022	Radiation (03CH01-SZ)
Double Ridge Horn Antenna	ETS-Lindgren	3117	00119436	1GHz~18GHz	Jul. 25, 2021	Feb. 26, 2022	Jul. 24, 2022	Radiation (03CH01-SZ)
SHF-EHF Horn	com-power	AH-840	101071	18GHz~40GHz	Apr. 11, 2021	Feb. 26, 2022	Apr. 10, 2022	Radiation (03CH01-SZ)
LF Amplifier	Burgeon	BPA-530	102209	0.01~3000Mhz	Apr. 07, 2021	Feb. 26, 2022	Apr. 06, 2022	Radiation (03CH01-SZ)
HF Amplifier	MITEQ	AMF-7D-0010 1800-30-10P-R	1943528	1GHz~18GHz	Oct. 16, 2021	Feb. 26, 2022	Oct. 15, 2022	Radiation (03CH01-SZ)
HF Amplifier	KEYSIGHT	83017A	MY53270105	0.5GHz~26.5Ghz	Oct. 16, 2021	Feb. 26, 2022	Oct. 15, 2022	Radiation (03CH01-SZ)
HF Amplifier	MITEQ	TTA1840-35-HG	1871923	18GHz~40GHz	Jul. 21, 2021	Feb. 26, 2022	Jul. 20, 2022	Radiation (03CH01-SZ)
AC Power Source	Chroma	61601	616010001985	N/A	NCR	Feb. 26, 2022	NCR	Radiation (03CH01-SZ)
Turn Table	EM	EM1000	N/A	0~360 degree	NCR	Feb. 26, 2022	NCR	Radiation (03CH01-SZ)
Antenna Mast	EM	EM1000	N/A	1 m~4 m	NCR	Feb. 26, 2022	NCR	Radiation (03CH01-SZ)

NCR: No Calibration Required



6 Uncertainty of Evaluation

The measurement uncertainties shown below were calculated in accordance with the requirements of ANSI 63.10-2013. All the measurement uncertainty value were shown with a coverage $K=2$ to indicate 95% level of confidence. The measurement data show herein meets or exceeds the CISPR measurement uncertainty values specified in CISPR 16-4-2 and can be compared directly to specified limit to determine compliance.

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

Measuring Uncertainty for a Level of Confidence of 95% ($U = 2Uc(y)$)	2.48dB
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Uncertainty of Radiated Emission Measurement (1000 MHz ~ 18000 MHz)

Measuring Uncertainty for a Level of Confidence of 95% ($U = 2Uc(y)$)	3.53dB
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Uncertainty of Radiated Emission Measurement (18000 MHz ~ 40000 MHz)

Measuring Uncertainty for a Level of Confidence of 95% ($U = 2Uc(y)$)	4.02dB
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----- THE END -----



Appendix A. Radiated Spurious Emission

For Sample 1:

5150~5250MHz

WIFI 802.11a (Band Edge @ 3m)

WIFI Ant.	Note	Frequency	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Path Loss	Preamplifier Factor	Ant Pos	Table Pos	Peak Avg.	Pol.
1		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11a CH 36 5180MHz		5142.74	63.59	-10.41	74	49.97	34	12.15	32.53	202	143	P	H
		5150	49.46	-4.54	54	35.84	34	12.15	32.53	202	143	A	H
		5180	104.41	-	-	90.66	34.13	12.16	32.54	202	143	P	H
		5180	96.81	-	-	83.06	34.13	12.16	32.54	202	143	A	H
		5149.76	60.13	-13.87	74	46.51	34	12.15	32.53	332	84	P	V
		5150	48.64	-5.36	54	35.02	34	12.15	32.53	332	84	A	V
		5180	102.45	-	-	88.7	34.13	12.16	32.54	332	84	P	V
		5180	96.07	-	-	82.32	34.13	12.16	32.54	332	84	A	V
802.11a CH 44 5220MHz		5146.64	53.29	-20.71	74	39.67	34	12.15	32.53	293	141	P	H
		5147.42	43.52	-10.48	54	29.9	34	12.15	32.53	293	141	A	H
		5220	105.76	-	-	91.91	34.23	12.17	32.55	293	141	P	H
		5220	99.38	-	-	85.53	34.23	12.17	32.55	293	141	A	H
		5351.76	51.84	-22.16	74	37.8	34.4	12.21	32.57	293	141	P	H
		5388.24	42.44	-11.56	54	28.4	34.4	12.22	32.58	293	141	A	H
		5149.24	53.06	-20.94	74	39.44	34	12.15	32.53	349	88	P	V
		5146.38	42.87	-11.13	54	29.25	34	12.15	32.53	349	88	A	V
		5220	105.15	-	-	91.3	34.23	12.17	32.55	349	88	P	V
		5220	98.13	-	-	84.28	34.23	12.17	32.55	349	88	A	V
		5430	52.49	-21.51	74	38.45	34.4	12.23	32.59	349	88	P	V
		5388.24	42.27	-11.73	54	28.23	34.4	12.22	32.58	349	88	A	V



802.11a CH 48 5240MHz		5143.52	52.79	-21.21	74	39.17	34	12.15	32.53	215	146	P	H
		5148.72	43.05	-10.95	54	29.43	34	12.15	32.53	215	146	A	H
		5240	106.32	-	-	92.42	34.27	12.18	32.55	215	146	P	H
		5240	99.57	-	-	85.67	34.27	12.18	32.55	215	146	A	H
		5453.76	52.74	-21.26	74	38.69	34.4	12.24	32.59	215	146	P	H
		5353.68	42.89	-11.11	54	28.85	34.4	12.21	32.57	215	146	A	H
		5026.26	52.02	-21.98	74	38.61	33.8	12.12	32.51	334	90	P	V
		5149.76	43.02	-10.98	54	29.4	34	12.15	32.53	334	90	A	V
		5240	105.16	-	-	91.26	34.27	12.18	32.55	334	90	P	V
		5240	98.47	-	-	84.57	34.27	12.18	32.55	334	90	A	V
		5456.64	52.33	-21.67	74	38.28	34.4	12.24	32.59	334	90	P	V
		5353.44	42.32	-11.68	54	28.28	34.4	12.21	32.57	334	90	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



5150~5250MHz

WIFI 802.11a (Harmonic @ 3m)

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11a CH 36 5180MHz		10360	49.86	-18.44	68.3	48.21	37.39	15.31	51.05	-	-	P	H
		15540	50.12	-23.88	74	44.94	40.08	17.76	52.66	-	-	P	H
		10360	49.2	-19.1	68.3	47.55	37.39	15.31	51.05	-	-	P	V
		15540	50.53	-23.47	74	45.35	40.08	17.76	52.66	-	-	P	V
802.11a CH 44 5220MHz		10440	48.7	-19.6	68.3	47	37.45	15.32	51.07	-	-	P	H
		15660	48.91	-25.09	74	43.77	40.19	17.83	52.88	-	-	P	H
		10440	47.92	-20.38	68.3	46.22	37.45	15.32	51.07	-	-	P	V
		15660	49.21	-24.79	74	44.07	40.19	17.83	52.88	-	-	P	V
802.11a CH 48 5240MHz		10480	48.66	-19.64	68.3	46.94	37.49	15.32	51.09	-	-	P	H
		15720	49.63	-24.37	74	44.51	40.25	17.87	53	-	-	P	H
		10480	49.06	-19.24	68.3	47.34	37.49	15.32	51.09	-	-	P	V
		15720	48.53	-25.47	74	43.41	40.25	17.87	53	-	-	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



5150~5250MHz

WIFI 802.11n HT20 (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)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11n HT20 CH 36 5180MHz		5148.98	61.05	-12.95	74	47.43	34	12.15	32.53	296	193	P	H
		5149.24	48.79	-5.21	54	35.17	34	12.15	32.53	296	193	A	H
		5180	103.89	-	-	90.14	34.13	12.16	32.54	296	193	P	H
		5180	97.03	-	-	83.28	34.13	12.16	32.54	296	193	A	H
		5147.16	63.46	-10.54	74	49.84	34	12.15	32.53	318	99	P	V
		5148.98	48.91	-5.09	54	35.29	34	12.15	32.53	318	99	A	V
		5180	103.28	-	-	89.53	34.13	12.16	32.54	318	99	P	V
		5180	96.81	-	-	83.06	34.13	12.16	32.54	318	99	A	V
802.11n HT20 CH 44 5220MHz		5047.58	52.57	-21.43	74	39.16	33.8	12.12	32.51	291	196	P	H
		5140.92	42.7	-11.3	54	29.08	34	12.15	32.53	291	196	A	H
		5220	104.39	-	-	90.54	34.23	12.17	32.55	291	196	P	H
		5220	97.92	-	-	84.07	34.23	12.17	32.55	291	196	A	H
		5379.36	52.2	-21.8	74	38.16	34.4	12.22	32.58	291	196	P	H
		5394	42.1	-11.9	54	28.06	34.4	12.22	32.58	291	196	A	H
		5038.74	52.95	-21.05	74	39.54	33.8	12.12	32.51	333	112	P	V
		5149.24	42.54	-11.46	54	28.92	34	12.15	32.53	333	112	A	V
		5220	104.22	-	-	90.37	34.23	12.17	32.55	333	112	P	V
		5220	97.4	-	-	83.55	34.23	12.17	32.55	333	112	A	V
		5399.04	52.32	-21.68	74	38.28	34.4	12.22	32.58	333	112	P	V
		5382	42.13	-11.87	54	28.09	34.4	12.22	32.58	333	112	A	V



802.11n HT20 CH 48 5240MHz		5073.84	52.51	-21.49	74	39.03	33.87	12.13	32.52	305	193	P	H
		5148.2	42.48	-11.52	54	28.86	34	12.15	32.53	305	193	A	H
		5240	104.37	-	-	90.47	34.27	12.18	32.55	305	193	P	H
		5240	97.9	-	-	84	34.27	12.18	32.55	305	193	A	H
		5424.96	51.66	-22.34	74	37.61	34.4	12.23	32.58	305	193	P	H
		5399.52	42.21	-11.79	54	28.17	34.4	12.22	32.58	305	193	A	H
		5127.14	52.28	-21.72	74	38.69	33.97	12.15	32.53	293	113	P	V
		5149.24	42.36	-11.64	54	28.74	34	12.15	32.53	293	113	A	V
		5240	104.05	-	-	90.15	34.27	12.18	32.55	293	113	P	V
		5240	97.42	-	-	83.52	34.27	12.18	32.55	293	113	A	V
		5434.8	52.77	-21.23	74	38.73	34.4	12.23	32.59	293	113	P	V
		5416.56	42.13	-11.87	54	28.08	34.4	12.23	32.58	293	113	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



5150~5250MHz

WIFI 802.11n HT20 (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)	Path Loss (dB)	Preamplifier Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11n		10360	49.92	-18.38	68.3	48.27	37.39	15.31	51.05	-	-	P	H
HT20		15540	49.64	-24.36	74	44.46	40.08	17.76	52.66	-	-	P	H
CH 36		10360	50.21	-18.09	68.3	48.56	37.39	15.31	51.05	-	-	P	V
5180MHz		15540	50.27	-23.73	74	45.09	40.08	17.76	52.66	-	-	P	V
802.11n		10440	48.34	-19.96	68.3	46.64	37.45	15.32	51.07	-	-	P	H
HT20		15660	49.96	-24.04	74	44.82	40.19	17.83	52.88	-	-	P	H
CH 44		10440	48.23	-20.07	68.3	46.53	37.45	15.32	51.07	-	-	P	V
5220MHz		15660	49.37	-24.63	74	44.23	40.19	17.83	52.88	-	-	P	V
802.11n		10480	48.52	-19.78	68.3	46.8	37.49	15.32	51.09	-	-	P	H
HT20		15720	49.53	-24.47	74	44.41	40.25	17.87	53	-	-	P	H
CH 48		10480	47.96	-20.34	68.3	46.24	37.49	15.32	51.09	-	-	P	V
5240MHz		15720	50.41	-23.59	74	45.29	40.25	17.87	53	-	-	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



5150~5250MHz

WIFI 802.11n HT40 (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)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11n HT40 CH 38 5190MHz		5149.76	61.4	-12.6	74	47.78	34	12.15	32.53	380	135	P	H
		5148.98	50.67	-3.33	54	37.05	34	12.15	32.53	380	135	A	H
		5190	98.64	-	-	84.89	34.13	12.16	32.54	380	135	P	H
		5190	92.13	-	-	78.38	34.13	12.16	32.54	380	135	A	H
		5369	52.75	-21.25	74	38.71	34.4	12.21	32.57	380	135	P	H
		5398.96	43.34	-10.66	54	29.3	34.4	12.22	32.58	380	135	A	H
		5149.5	60.61	-13.39	74	46.99	34	12.15	32.53	364	85	P	V
		5148.98	49.34	-4.66	54	35.72	34	12.15	32.53	364	85	A	V
		5190	97.62	-	-	83.87	34.13	12.16	32.54	364	85	P	V
		5190	90.67	-	-	76.92	34.13	12.16	32.54	364	85	A	V
		5351.36	52.32	-21.68	74	38.28	34.4	12.21	32.57	364	85	P	V
		5369.84	43.34	-10.66	54	29.3	34.4	12.21	32.57	364	85	A	V
802.11n HT40 CH 46 5230MHz		5147.94	56.71	-17.29	74	43.09	34	12.15	32.53	339	189	P	H
		5148.98	48.1	-5.9	54	34.48	34	12.15	32.53	339	189	A	H
		5230	99.82	-	-	85.93	34.27	12.17	32.55	339	189	P	H
		5230	93.91	-	-	80.02	34.27	12.17	32.55	339	189	A	H
		5362.32	53.12	-20.88	74	39.08	34.4	12.21	32.57	339	189	P	H
		5352	43.98	-10.02	54	29.94	34.4	12.21	32.57	339	189	A	H
		5149.5	56.49	-17.51	74	42.87	34	12.15	32.53	342	99	P	V
		5146.64	47.07	-6.93	54	33.45	34	12.15	32.53	342	99	A	V
		5230	99.85	-	-	85.96	34.27	12.17	32.55	342	99	P	V
		5230	93.73	-	-	79.84	34.27	12.17	32.55	342	99	A	V
		5353.92	52.88	-21.12	74	38.84	34.4	12.21	32.57	342	99	P	V
		5366.16	43.84	-10.16	54	29.8	34.4	12.21	32.57	342	99	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



5150~5250MHz

WIFI 802.11n HT40 (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)	Path 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	49.29	-19.01	68.3	47.61	37.41	15.32	51.05	-	-	P	H
		15570	50.09	-23.91	74	44.92	40.11	17.78	52.72	-	-	P	H
		10380	49.4	-18.9	68.3	47.72	37.41	15.32	51.05	-	-	P	V
		15570	50.4	-23.6	74	45.23	40.11	17.78	52.72	-	-	P	V
802.11n HT40 CH 46 5230MHz		10460	48.94	-19.36	68.3	47.24	37.46	15.32	51.08	-	-	P	H
		15690	49.89	-24.11	74	44.76	40.22	17.85	52.94	-	-	P	H
		10460	48.13	-20.17	68.3	46.43	37.46	15.32	51.08	-	-	P	V
		15690	49.51	-24.49	74	44.38	40.22	17.85	52.94	-	-	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



5150~5250MHz

WIFI 802.11ac VHT80 (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)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11ac VHT80 CH 42 5210MHz		5145.6	58.93	-15.07	74	45.31	34	12.15	32.53	377	145	P	H
		5149.76	50.89	-3.11	54	37.27	34	12.15	32.53	377	145	A	H
		5210	94.74	-	-	80.88	34.23	12.17	32.54	377	145	P	H
		5210	87.67	-	-	73.81	34.23	12.17	32.54	377	145	A	H
		5437.2	51.3	-22.7	74	37.26	34.4	12.23	32.59	377	145	P	H
		5356.08	44.42	-9.58	54	30.38	34.4	12.21	32.57	377	145	A	H
		5147.42	56.61	-17.39	74	42.99	34	12.15	32.53	364	81	P	V
		5149.24	49.57	-4.43	54	35.95	34	12.15	32.53	364	81	A	V
		5210	93.67	-	-	79.81	34.23	12.17	32.54	364	81	P	V
		5210	86.07	-	-	72.21	34.23	12.17	32.54	364	81	A	V
		5409.12	51.42	-22.58	74	37.38	34.4	12.22	32.58	364	81	P	V
		5425.44	44.4	-9.6	54	30.35	34.4	12.23	32.58	364	81	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

**5150~5250MHz****WIFI 802.11ac VHT80 (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)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11ac		10420	49.19	-19.11	68.3	47.51	37.43	15.32	51.07	-	-	P	H
VHT80		15630	49.94	-24.06	74	44.8	40.17	17.82	52.85	-	-	P	H
CH 42		10420	49.52	-18.78	68.3	47.84	37.43	15.32	51.07	-	-	P	V
5210MHz		15630	50.61	-23.39	74	45.47	40.17	17.82	52.85	-	-	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



5250~5350MHz

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)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11a CH 52 5260MHz		5122.72	51.97	-22.03	74	38.39	33.97	12.14	32.53	187	140	P	H
		5146.38	42.45	-11.55	54	28.83	34	12.15	32.53	187	140	A	H
		5260	105.96	-	-	92	34.33	12.18	32.55	187	140	P	H
		5260	98.23	-	-	84.27	34.33	12.18	32.55	187	140	A	H
		5454.96	52.14	-21.86	74	38.09	34.4	12.24	32.59	187	140	P	H
		5351.28	42.99	-11.01	54	28.95	34.4	12.21	32.57	187	140	A	H
		5061.88	51.84	-22.16	74	38.39	33.83	12.13	32.51	335	97	P	V
		5126.62	42.37	-11.63	54	28.78	33.97	12.15	32.53	335	97	A	V
		5260	103.85	-	-	89.89	34.33	12.18	32.55	335	97	P	V
		5260	97.23	-	-	83.27	34.33	12.18	32.55	335	97	A	V
		5395.2	51.54	-22.46	74	37.5	34.4	12.22	32.58	335	97	P	V
		5350.08	42.43	-11.57	54	28.39	34.4	12.21	32.57	335	97	A	V
802.11a CH 60 5300MHz		5127.4	51.39	-22.61	74	37.8	33.97	12.15	32.53	184	138	P	H
		5129.5	42.56	-11.44	54	28.97	33.97	12.15	32.53	184	138	A	H
		5300	106.36	-	-	92.33	34.4	12.19	32.56	184	138	P	H
		5300	99.84	-	-	85.81	34.4	12.19	32.56	184	138	A	H
		5353.2	57.94	-16.06	74	43.9	34.4	12.21	32.57	184	138	P	H
		5351.52	47.03	-6.97	54	32.99	34.4	12.21	32.57	184	138	A	H
		5063.7	52.47	-21.53	74	39.03	33.83	12.13	32.52	332	95	P	V
		5129.85	42.4	-11.6	54	28.81	33.97	12.15	32.53	332	95	A	V
		5300	103.88	-	-	89.85	34.4	12.19	32.56	332	95	P	V
		5300	97.2	-	-	83.17	34.4	12.19	32.56	332	95	A	V
		5351.52	57.99	-16.01	74	43.95	34.4	12.21	32.57	332	95	P	V
		5350.32	44.64	-9.36	54	30.6	34.4	12.21	32.57	332	95	A	V



802.11a CH 64 5320MHz		5320	104.37	-	-	90.33	34.4	12.2	32.56	142	132	P	H
		5320	97.61	-	-	83.57	34.4	12.2	32.56	142	132	A	H
		5351.52	65.03	-8.97	74	50.99	34.4	12.21	32.57	142	132	P	H
		5350.08	49.62	-4.38	54	35.58	34.4	12.21	32.57	142	132	A	H
		5320	101.67	-	-	87.63	34.4	12.2	32.56	349	93	P	V
		5320	94.38	-	-	80.34	34.4	12.2	32.56	349	93	A	V
		5351.84	62.2	-11.8	74	48.16	34.4	12.21	32.57	349	93	P	V
		5350.56	47.4	-6.6	54	33.36	34.4	12.21	32.57	349	93	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



5250~5350MHz

WIFI 802.11a (Harmonic @ 3m)

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11a CH 52 5260MHz		10520	50.21	-18.09	68.3	48.44	37.51	15.37	51.11	-	-	P	H
		15780	50.49	-23.51	74	45.39	40.3	17.9	53.1	-	-	P	H
		10520	48.93	-19.37	68.3	47.16	37.51	15.37	51.11	-	-	P	V
		15780	50	-24	74	44.9	40.3	17.9	53.1	-	-	P	V
802.11a CH 60 5300MHz		10600	49.87	-24.13	74	47.92	37.56	15.55	51.16	-	-	P	H
		15900	50.44	-23.56	74	45.37	40.41	17.97	53.31	-	-	P	H
		10600	49.02	-24.98	74	47.07	37.56	15.55	51.16	-	-	P	V
		15900	50.34	-23.66	74	45.27	40.41	17.97	53.31	-	-	P	V
802.11a CH 64 5320MHz		10640	50.6	-23.4	74	48.55	37.58	15.65	51.18	-	-	P	H
		15960	50.11	-23.89	74	45.07	40.47	18.01	53.44	-	-	P	H
		10640	50.53	-23.47	74	48.48	37.58	15.65	51.18	-	-	P	V
		15960	50.76	-23.24	74	45.72	40.47	18.01	53.44	-	-	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



5250~5350MHz

WIFI 802.11n HT20 (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)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11n HT20 CH 52 5260MHz		5146.9	52.93	-21.07	74	39.31	34	12.15	32.53	351	208	P	H
		5150	42.19	-11.81	54	28.57	34	12.15	32.53	351	208	A	H
		5260	104.29	-	-	90.33	34.33	12.18	32.55	351	208	P	H
		5260	97.65	-	-	83.69	34.33	12.18	32.55	351	208	A	H
		5359.2	52.37	-21.63	74	38.33	34.4	12.21	32.57	351	208	P	H
		5352.24	42.51	-11.49	54	28.47	34.4	12.21	32.57	351	208	A	H
		5122.46	53.03	-20.97	74	39.49	33.93	12.14	32.53	350	97	P	V
		5129.22	42.34	-11.66	54	28.75	33.97	12.15	32.53	350	97	A	V
		5260	103.72	-	-	89.76	34.33	12.18	32.55	350	97	P	V
		5260	97.43	-	-	83.47	34.33	12.18	32.55	350	97	A	V
		5393.76	51.99	-22.01	74	37.95	34.4	12.22	32.58	350	97	P	V
		5354.16	42.45	-11.55	54	28.41	34.4	12.21	32.57	350	97	A	V
802.11n HT20 CH 60 5300MHz		5068.25	51.99	-22.01	74	38.55	33.83	12.13	32.52	328	199	P	H
		5127.75	42.08	-11.92	54	28.49	33.97	12.15	32.53	328	199	A	H
		5300	105.87	-	-	91.84	34.4	12.19	32.56	328	199	P	H
		5300	99.03	-	-	85	34.4	12.19	32.56	328	199	A	H
		5350.56	60.68	-13.32	74	46.64	34.4	12.21	32.57	328	199	P	H
		5350.08	47.54	-6.46	54	33.5	34.4	12.21	32.57	328	199	A	H
		5108.15	52.18	-21.82	74	38.63	33.93	12.14	32.52	330	106	P	V
		5122.15	42.1	-11.9	54	28.56	33.93	12.14	32.53	330	106	A	V
		5300	103.4	-	-	89.37	34.4	12.19	32.56	330	106	P	V
		5300	96.99	-	-	82.96	34.4	12.19	32.56	330	106	A	V
		5352.48	57.51	-16.49	74	43.47	34.4	12.21	32.57	330	106	P	V
		5350.56	46.6	-7.4	54	32.56	34.4	12.21	32.57	330	106	A	V



802.11n HT20 CH 64 5320MHz		5320	103.53	-	-	89.49	34.4	12.2	32.56	326	200	P	H
		5320	96.51	-	-	82.47	34.4	12.2	32.56	326	200	A	H
		5351.52	65.15	-8.85	74	51.11	34.4	12.21	32.57	326	200	P	H
		5350.24	50.99	-3.01	54	36.95	34.4	12.21	32.57	326	200	A	H
		5320	102	-	-	87.96	34.4	12.2	32.56	356	92	P	V
		5320	96.34	-	-	82.3	34.4	12.2	32.56	356	92	A	V
		5352.32	64.95	-9.05	74	50.91	34.4	12.21	32.57	356	92	P	V
		5350.08	49.83	-4.17	54	35.79	34.4	12.21	32.57	356	92	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



5250~5350MHz

WIFI 802.11n HT20 (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)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11n		10520	50.1	-18.2	68.3	48.33	37.51	15.37	51.11	-	-	P	H
HT20		15780	50.67	-23.33	74	45.57	40.3	17.9	53.1	-	-	P	H
CH 52		10520	50.47	-17.83	68.3	48.7	37.51	15.37	51.11	-	-	P	V
5260MHz		15780	50.84	-23.16	74	45.74	40.3	17.9	53.1	-	-	P	V
802.11n		10600	49.39	-24.61	74	28.36	37.56	15.55	32.08	-	-	P	H
HT20		15900	49.36	-24.64	74	44.29	40.41	17.97	53.31	-	-	P	H
CH 60		10600	49.55	-24.45	74	47.6	37.56	15.55	51.16	-	-	P	V
5300MHz		15900	50.8	-23.2	74	45.73	40.41	17.97	53.31	-	-	P	V
802.11n		10640	49.75	-24.25	74	28.59	37.58	15.65	32.07	-	-	P	H
HT20		15960	50.51	-23.49	74	45.47	40.47	18.01	53.44	-	-	P	H
CH 64		10640	49.5	-24.5	74	47.45	37.58	15.65	51.18	-	-	P	V
5320MHz		15960	50.54	-23.46	74	45.5	40.47	18.01	53.44	-	-	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



5250~5350MHz

WIFI 802.11n HT40 (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)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11n HT40 CH 54 5270MHz		5085.75	51.81	-22.19	74	38.33	33.87	12.13	32.52	347	191	P	H
		5134.05	43.39	-10.61	54	29.8	33.97	12.15	32.53	347	191	A	H
		5270	100.43	-	-	86.46	34.33	12.19	32.55	347	191	P	H
		5270	94.64	-	-	80.67	34.33	12.19	32.55	347	191	A	H
		5351.76	56.71	-17.29	74	42.67	34.4	12.21	32.57	347	191	P	H
		5350.32	47.29	-6.71	54	33.25	34.4	12.21	32.57	347	191	A	H
		5094.85	51.81	-22.19	74	38.29	33.9	12.14	32.52	353	99	P	V
		5150	43.82	-10.18	54	30.2	34	12.15	32.53	353	99	A	V
		5270	99.4	-	-	85.43	34.33	12.19	32.55	353	99	P	V
		5270	93.8	-	-	79.83	34.33	12.19	32.55	353	99	A	V
		5350.8	55.66	-18.34	74	41.62	34.4	12.21	32.57	353	99	P	V
		5350.32	44.91	-9.09	54	30.87	34.4	12.21	32.57	353	99	A	V
802.11n HT40 CH 62 5310MHz		5096.95	51.71	-22.29	74	38.19	33.9	12.14	32.52	375	196	P	H
		5140	43.17	-10.83	54	29.55	34	12.15	32.53	375	196	A	H
		5310	97.43	-	-	83.39	34.4	12.2	32.56	375	196	P	H
		5310	91.71	-	-	77.67	34.4	12.2	32.56	375	196	A	H
		5350.8	64.49	-9.51	74	50.45	34.4	12.21	32.57	375	196	P	H
		5350.32	50.83	-3.17	54	36.79	34.4	12.21	32.57	375	196	A	H
		5138.95	51.91	-22.09	74	38.32	33.97	12.15	32.53	353	87	P	V
		5139.3	43.2	-10.8	54	29.61	33.97	12.15	32.53	353	87	A	V
		5310	97.03	-	-	82.99	34.4	12.2	32.56	353	87	P	V
		5310	90.61	-	-	76.57	34.4	12.2	32.56	353	87	A	V
		5351.04	61.62	-12.38	74	47.58	34.4	12.21	32.57	353	87	P	V
		5351.52	49.56	-4.44	54	35.52	34.4	12.21	32.57	353	87	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



5250~5350MHz

WIFI 802.11n HT40 (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)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11n		10540	48	-20.3	68.3	46.19	37.52	15.41	51.12	-	-	P	H
HT40		15810	49.83	-24.17	74	44.74	40.33	17.92	53.16	-	-	P	H
CH 54		10540	48.02	-20.28	68.3	46.21	37.52	15.41	51.12	-	-	P	V
5270MHz		15810	49.74	-24.26	74	44.65	40.33	17.92	53.16	-	-	P	V
802.11n		10620	48.23	-25.77	74	46.23	37.57	15.6	51.17	-	-	P	H
HT40		15930	50.04	-23.96	74	44.99	40.44	17.99	53.38	-	-	P	H
CH 62		10620	48.65	-25.35	74	46.65	37.57	15.6	51.17	-	-	P	V
5310MHz		15930	49.92	-24.08	74	44.87	40.44	17.99	53.38	-	-	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



5250~5350MHz

WIFI 802.11ac VHT80 (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)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11ac VHT80 CH 58 5290MHz		5097.65	51.88	-22.12	74	38.36	33.9	12.14	32.52	387	145	P	H
		5147.7	44.97	-9.03	54	31.35	34	12.15	32.53	387	145	A	H
		5290	95	-	-	81	34.37	12.19	32.56	387	145	P	H
		5290	88.17	-	-	74.17	34.37	12.19	32.56	387	145	A	H
		5352.48	60.4	-13.6	74	46.36	34.4	12.21	32.57	387	145	P	H
		5361.84	50.26	-3.74	54	36.22	34.4	12.21	32.57	387	145	A	H
		5149.8	52.12	-21.88	74	38.5	34	12.15	32.53	390	81	P	V
		5143.85	45	-9	54	31.38	34	12.15	32.53	390	81	A	V
		5290	93.47	-	-	79.47	34.37	12.19	32.56	390	81	P	V
		5290	86.21	-	-	72.21	34.37	12.19	32.56	390	81	A	V
		5356.08	58.9	-15.1	74	44.86	34.4	12.21	32.57	390	81	P	V
		5354.88	48.72	-5.28	54	34.68	34.4	12.21	32.57	390	81	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

**5250~5350MHz****WIFI 802.11ac VHT80 (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)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11ac		10580	49.44	-18.86	68.3	47.53	37.55	15.51	51.15	-	-	P	H
VHT80		15870	50.31	-23.69	74	45.25	40.39	17.95	53.28	-	-	P	H
CH 58		10580	48.8	-19.5	68.3	46.89	37.55	15.51	51.15	-	-	P	V
5290MHz		15870	50.57	-23.43	74	45.51	40.39	17.95	53.28	-	-	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



5470~5725MHz

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)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11a CH 100 5500MHz		5455.76	59.46	-14.54	74	45.41	34.4	12.24	32.59	174	150	P	H
		5469.68	65.14	-3.16	68.3	51.09	34.4	12.24	32.59	174	150	P	H
		5459.6	46.91	-7.09	54	32.86	34.4	12.24	32.59	174	150	A	H
		5500	103.91	-	-	89.86	34.4	12.25	32.6	174	150	P	H
		5500	97.32	-	-	83.27	34.4	12.25	32.6	174	150	A	H
		5457.36	56.25	-17.75	74	42.2	34.4	12.24	32.59	337	227	P	V
		5469.68	61.36	-6.94	68.3	47.31	34.4	12.24	32.59	337	227	P	V
		5459.92	44.67	-9.33	54	30.62	34.4	12.24	32.59	337	227	A	V
		5500	102.41	-	-	88.36	34.4	12.25	32.6	337	227	P	V
		5500	95.74	-	-	81.69	34.4	12.25	32.6	337	227	A	V
802.11a CH 116 5580MHz		5453.92	52.73	-21.27	74	38.68	34.4	12.24	32.59	216	192	P	H
		5466.64	52.11	-16.19	68.3	38.06	34.4	12.24	32.59	216	192	P	H
		5458.72	42.57	-11.43	54	28.52	34.4	12.24	32.59	216	192	A	H
		5580	106.03	-	-	92.06	34.3	12.27	32.6	216	192	P	H
		5580	99.73	-	-	85.76	34.3	12.27	32.6	216	192	A	H
		5742.95	52.9	-15.4	68.3	38.7	34.5	12.3	32.6	216	192	P	H
		5431.12	53.91	-20.09	74	39.87	34.4	12.23	32.59	325	102	P	V
		5465.92	52.83	-15.47	68.3	38.78	34.4	12.24	32.59	325	102	P	V
		5459.92	42.52	-11.48	54	28.47	34.4	12.24	32.59	325	102	A	V
		5580	104.15	-	-	90.18	34.3	12.27	32.6	325	102	P	V
		5580	97.93	-	-	83.96	34.3	12.27	32.6	325	102	A	V
		5755.235	51.97	-16.33	68.3	37.7	34.57	12.3	32.6	325	102	P	V



802.11a CH 140 5700MHz		5700	103.15	-	-	89.06	34.4	12.29	32.6	299	191	P	H
		5700	96	-	-	81.91	34.4	12.29	32.6	299	191	A	H
		5728.2	64.09	-4.21	68.3	49.92	34.47	12.3	32.6	299	191	P	H
		5700	100.26	-	-	86.17	34.4	12.29	32.6	294	97	P	V
		5700	94.13	-	-	80.04	34.4	12.29	32.6	294	97	A	V
		5728.28	62.18	-6.12	68.3	48.01	34.47	12.3	32.6	294	97	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



5470~5725MHz

WIFI 802.11a (Harmonic @ 3m)

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11a CH 100 5500MHz		11000	49.76	-24.24	74	46.87	37.8	16.49	51.4	-	-	P	H
		16500	51.84	-16.46	68.3	45.03	41.31	18.2	52.7	-	-	P	H
		11000	50.44	-23.56	74	47.55	37.8	16.49	51.4	-	-	P	V
		16500	51.7	-16.6	68.3	44.89	41.31	18.2	52.7	-	-	P	V
802.11a CH 116 5580MHz		11160	50.56	-23.44	74	47.39	37.94	16.5	51.27	-	-	P	H
		16740	50.52	-17.78	68.3	43.68	41.69	18.28	53.13	-	-	P	H
		11160	50.06	-23.94	74	46.89	37.94	16.5	51.27	-	-	P	V
		16740	50.58	-17.72	68.3	43.74	41.69	18.28	53.13	-	-	P	V
802.11a CH 140 5700MHz		11400	50.61	-23.39	74	47.04	38.13	16.52	51.08	-	-	P	H
		17100	51.25	-17.05	68.3	44.36	42	18.41	53.52	-	-	P	H
		11400	49.39	-24.61	74	45.82	38.13	16.52	51.08	-	-	P	V
		17100	50.41	-17.89	68.3	43.52	42	18.41	53.52	-	-	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



5470~5725MHz

WIFI 802.11n HT20 (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)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11n HT20 CH 100 5500MHz		5458	61.5	-12.5	74	47.45	34.4	12.24	32.59	348	188	P	H
		5469.52	65.02	-3.28	68.3	50.97	34.4	12.24	32.59	348	188	P	H
		5458.32	48.98	-5.02	54	34.93	34.4	12.24	32.59	348	188	A	H
		5500	103.71	-	-	89.66	34.4	12.25	32.6	348	188	P	H
		5500	96.19	-	-	82.14	34.4	12.25	32.6	348	188	A	H
		5459.12	59.57	-14.43	74	45.52	34.4	12.24	32.59	344	89	P	V
		5461.68	64.53	-3.77	68.3	50.48	34.4	12.24	32.59	344	89	P	V
		5460	47.94	-6.06	54	33.89	34.4	12.24	32.59	344	89	A	V
		5500	101.93	-	-	87.88	34.4	12.25	32.6	344	89	P	V
		5500	94.32	-	-	80.27	34.4	12.25	32.6	344	89	A	V
802.11n HT20 CH 116 5580MHz		5392.24	51.23	-22.77	74	37.19	34.4	12.22	32.58	355	190	P	H
		5464.24	50.73	-17.57	68.3	36.68	34.4	12.24	32.59	355	190	P	H
		5453.44	42.59	-11.41	54	28.54	34.4	12.24	32.59	355	189	A	H
		5580	104.97	-	-	91	34.3	12.27	32.6	355	189	P	H
		5580	97.64	-	-	83.67	34.3	12.27	32.6	355	189	A	H
		5740.745	51	-17.3	68.3	36.8	34.5	12.3	32.6	355	189	P	H
		5356.24	51.45	-22.55	74	37.41	34.4	12.21	32.57	328	96	P	V
		5463.76	51.35	-16.95	68.3	37.3	34.4	12.24	32.59	328	96	P	V
		5437.6	42.31	-11.69	54	28.27	34.4	12.23	32.59	328	96	A	V
		5580	103.15	-	-	89.18	34.3	12.27	32.6	328	96	P	V
		5580	96.34	-	-	82.37	34.3	12.27	32.6	328	96	A	V
		5744.21	51.13	-17.17	68.3	36.93	34.5	12.3	32.6	328	96	P	V



802.11n HT20 CH 140 5700MHz		5700	101.76	-	-	87.67	34.4	12.29	32.6	360	181	P	H
		5700	94.77	-	-	80.68	34.4	12.29	32.6	360	181	A	H
		5725.72	64.18	-4.12	68.3	50.01	34.47	12.3	32.6	360	181	P	H
		5700	99.2	-	-	85.11	34.4	12.29	32.6	377	86	P	V
		5700	93.98	-	-	79.89	34.4	12.29	32.6	377	86	A	V
		5725.24	60.65	-7.65	68.3	46.48	34.47	12.3	32.6	377	86	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



5470~5725MHz

WIFI 802.11n HT20 (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)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11n		11000	50.28	-23.72	74	47.39	37.8	16.49	51.4	-	-	P	H
HT20		16500	51.15	-17.15	68.3	44.34	41.31	18.2	52.7	-	-	P	H
CH 100		11000	50.38	-23.62	74	47.49	37.8	16.49	51.4	-	-	P	V
5500MHz		16500	51.07	-17.23	68.3	44.26	41.31	18.2	52.7	-	-	P	V
802.11n		11160	48.96	-25.04	74	45.79	37.94	16.5	51.27	-	-	P	H
HT20		16740	49.96	-18.34	68.3	43.12	41.69	18.28	53.13	-	-	P	H
CH 116		11160	49.47	-24.53	74	46.3	37.94	16.5	51.27	-	-	P	V
5580MHz		16740	50.32	-17.98	68.3	43.48	41.69	18.28	53.13	-	-	P	V
802.11n		11400	48.58	-25.42	74	45.01	38.13	16.52	51.08	-	-	P	H
HT20		17100	49.87	-18.43	68.3	42.98	42	18.41	53.52	-	-	P	H
CH 140		11400	48.66	-25.34	74	45.09	38.13	16.52	51.08	-	-	P	V
5700MHz		17100	50.64	-17.66	68.3	43.75	42	18.41	53.52	-	-	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



5470~5725MHz

WIFI 802.11n HT40 (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)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11n HT40 CH 102 5510MHz		5454.16	60.71	-13.29	74	46.66	34.4	12.24	32.59	369	197	P	H
		5467.84	64.73	-3.57	68.3	50.68	34.4	12.24	32.59	369	197	P	H
		5459.44	50.59	-3.41	54	36.54	34.4	12.24	32.59	369	197	A	H
		5510	99.92	-	-	85.87	34.4	12.25	32.6	369	197	P	H
		5510	92.74	-	-	78.69	34.4	12.25	32.6	369	197	A	H
		5742.95	51.51	-16.79	68.3	37.31	34.5	12.3	32.6	369	197	P	H
		5459.68	60.1	-13.9	74	46.05	34.4	12.24	32.59	385	93	P	V
		5467.6	62.72	-5.58	68.3	48.67	34.4	12.24	32.59	385	93	P	V
		5458.96	49.93	-4.07	54	35.88	34.4	12.24	32.59	385	93	A	V
		5510	98.24	-	-	84.19	34.4	12.25	32.6	385	93	P	V
		5510	91.73	-	-	77.68	34.4	12.25	32.6	385	93	A	V
		5727.2	52.51	-15.79	68.3	38.34	34.47	12.3	32.6	385	93	P	V
802.11n HT40 CH 110 5550MHz		5459.2	56.85	-17.15	74	42.8	34.4	12.24	32.59	381	194	P	H
		5467.84	54.24	-14.06	68.3	40.19	34.4	12.24	32.59	381	194	P	H
		5458.72	45.33	-8.67	54	31.28	34.4	12.24	32.59	381	194	A	H
		5550	100.72	-	-	86.76	34.3	12.26	32.6	381	194	P	H
		5550	93.81	-	-	79.85	34.3	12.26	32.6	381	194	A	H
		5732.87	51.84	-16.46	68.3	37.67	34.47	12.3	32.6	381	194	P	H
		5440.48	53.06	-20.94	74	39.02	34.4	12.23	32.59	384	88	P	V
		5464	53.95	-14.35	68.3	39.9	34.4	12.24	32.59	384	88	P	V
		5458.96	44.68	-9.32	54	30.63	34.4	12.24	32.59	384	88	A	V
		5550	98.6	-	-	84.64	34.3	12.26	32.6	384	88	P	V
		5550	92.65	-	-	78.69	34.3	12.26	32.6	384	88	A	V
		5744.21	51.58	-16.72	68.3	37.38	34.5	12.3	32.6	384	88	P	V



802.11n HT40 CH 134 5670MHz		5421.4	50.48	-23.52	74	36.43	34.4	12.23	32.58	382	188	P	H
		5466.2	50.15	-18.15	68.3	36.1	34.4	12.24	32.59	382	188	P	H
		5456.75	42.82	-11.18	54	28.77	34.4	12.24	32.59	382	188	A	H
		5670	100.83	-	-	86.75	34.4	12.28	32.6	382	188	P	H
		5670	94.02	-	-	79.94	34.4	12.28	32.6	382	188	A	H
		5725.1	61.99	-6.31	68.3	47.82	34.47	12.3	32.6	382	188	P	H
		5378.35	50.85	-23.15	74	36.81	34.4	12.22	32.58	366	77	P	V
		5460.95	49.31	-18.99	68.3	35.26	34.4	12.24	32.59	366	77	P	V
		5361.9	42.95	-11.05	54	28.91	34.4	12.21	32.57	366	77	A	V
		5670	98.53	-	-	84.45	34.4	12.28	32.6	366	77	P	V
		5670	92.76	-	-	78.68	34.4	12.28	32.6	366	77	A	V
		5737.875	55.16	-13.14	68.3	40.96	34.5	12.3	32.6	366	77	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



5470~5725MHz

WIFI 802.11n HT40 (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)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11n		11020	50	-24	74	47.09	37.81	16.49	51.39	-	-	P	H
HT40		16530	50.9	-17.4	68.3	44.08	41.37	18.21	52.76	-	-	P	H
CH 102		11020	49.1	-24.9	74	46.19	37.81	16.49	51.39	-	-	P	V
5510MHz		16530	51.28	-17.02	68.3	44.46	41.37	18.21	52.76	-	-	P	V
802.11n		11100	50.23	-23.77	74	47.17	37.88	16.5	51.32	-	-	P	H
HT40		16650	50.33	-17.97	68.3	43.5	41.56	18.25	52.98	-	-	P	H
CH 110		11100	50.71	-23.29	74	47.65	37.88	16.5	51.32	-	-	P	V
5550MHz		16650	50.46	-17.84	68.3	43.63	41.56	18.25	52.98	-	-	P	V
802.11n		11340	49.36	-24.64	74	45.9	38.07	16.52	51.13	-	-	P	H
HT40		17010	51.99	-16.31	68.3	45.13	42.08	18.37	53.59	-	-	P	H
CH 134		11340	49.53	-24.47	74	46.07	38.07	16.52	51.13	-	-	P	V
5670MHz		17010	50.56	-17.74	68.3	43.7	42.08	18.37	53.59	-	-	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



5470~5725MHz

WIFI 802.11ac VHT80 (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)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11ac VHT80 CH 106 5530MHz		5455.12	61.44	-12.56	74	47.39	34.4	12.24	32.59	400	188	P	H
		5468.8	63.19	-5.11	68.3	49.14	34.4	12.24	32.59	400	188	P	H
		5450.08	50.84	-3.16	54	36.79	34.4	12.24	32.59	400	188	A	H
		5530	96.22	-	-	82.19	34.37	12.26	32.6	400	188	P	H
		5530	89.14	-	-	75.11	34.37	12.26	32.6	400	188	A	H
		5730.35	52.86	-15.44	68.3	38.69	34.47	12.3	32.6	400	188	P	H
		5454.64	56.83	-17.17	74	42.78	34.4	12.24	32.59	389	81	P	V
		5469.04	59.87	-8.43	68.3	45.82	34.4	12.24	32.59	389	81	P	V
		5448.88	49.48	-4.52	54	35.43	34.4	12.24	32.59	389	81	A	V
		5530	92.68	-	-	78.65	34.37	12.26	32.6	389	81	P	V
		5530	85.31	-	-	71.28	34.37	12.26	32.6	389	81	A	V
		5748.935	51.32	-16.98	68.3	37.12	34.5	12.3	32.6	389	81	P	V
802.11ac VHT80 CH 122 5610MHz		5458.24	55.93	-18.07	74	41.88	34.4	12.24	32.59	371	188	P	H
		5466.4	57.01	-11.29	68.3	42.96	34.4	12.24	32.59	371	188	P	H
		5459.2	47.93	-6.07	54	33.88	34.4	12.24	32.59	371	188	A	H
		5610	97.61	-	-	83.64	34.3	12.27	32.6	371	188	P	H
		5610	90.92	-	-	76.95	34.3	12.27	32.6	371	188	A	H
		5734.55	61.74	-6.56	68.3	47.54	34.5	12.3	32.6	371	188	P	H
		5453.44	54.86	-19.14	74	40.81	34.4	12.24	32.59	400	87	P	V
		5468.8	54.68	-13.62	68.3	40.63	34.4	12.24	32.59	400	87	P	V
		5459.92	47.01	-6.99	54	32.96	34.4	12.24	32.59	400	87	A	V
		5610	95.89	-	-	81.92	34.3	12.27	32.6	400	87	P	V
		5610	87.62	-	-	73.65	34.3	12.27	32.6	400	87	A	V
		5741.9	56.48	-11.82	68.3	42.28	34.5	12.3	32.6	400	87	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



5470~5725MHz

WIFI 802.11ac VHT80 (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)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11ac		11060	49.81	-24.19	74	46.82	37.85	16.49	51.35	-	-	P	H
VHT80		16590	51.2	-17.1	68.3	44.38	41.45	18.23	52.86	-	-	P	H
CH 106		11060	49.72	-24.28	74	46.73	37.85	16.49	51.35	-	-	P	V
5530MHz		16590	51.21	-17.09	68.3	44.39	41.45	18.23	52.86	-	-	P	V
802.11ac		11220	48.91	-25.09	74	45.65	37.98	16.51	51.23	-	-	P	H
VHT80		16830	50.04	-18.26	68.3	43.19	41.83	18.31	53.29	-	-	P	H
CH 122		11220	49.89	-24.11	74	46.63	37.98	16.51	51.23	-	-	P	V
5610MHz		16830	49.72	-18.58	68.3	42.87	41.83	18.31	53.29	-	-	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



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)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11a CH 144 5720MHz		5361.55	51.28	-22.72	74	37.24	34.4	12.21	32.57	297	184	P	H
		5468.8	52	-16.3	68.3	37.95	34.4	12.24	32.59	297	184	P	H
		5720	105.76	-	-	91.6	34.47	12.29	32.6	297	184	P	H
		5886.25	52.65	-15.65	68.3	37.99	34.93	12.33	32.6	297	184	P	H
		5446.8	44.61	-9.39	54	30.56	34.4	12.24	32.59	297	184	A	H
		5720	101.12	-	-	86.96	34.47	12.29	32.6	297	184	A	H
		5370.9	50.88	-23.12	74	36.84	34.4	12.21	32.57	343	93	P	V
		5463.85	50.56	-17.74	68.3	36.51	34.4	12.24	32.59	343	93	P	V
		5720	104.36	-	-	90.2	34.47	12.29	32.6	343	93	P	V
		5860.95	52.07	-16.23	68.3	37.48	34.87	12.32	32.6	343	93	P	V
		5455.6	44.57	-9.43	54	30.52	34.4	12.24	32.59	343	93	A	V
		5720	100.06	-	-	85.9	34.47	12.29	32.6	343	93	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



Straddle Channel

WIFI 802.11a (Band Edge @ 3m)

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Path	Preamp	Ant	Table	Peak	Pol.
Ant.				Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
1		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11a CH 144 5720MHz		5361.55	51.28	-22.72	74	37.24	34.4	12.21	32.57	297	184	P	H
		5468.8	52	-16.3	68.3	37.95	34.4	12.24	32.59	297	184	P	H
		5720	105.76	-	-	91.6	34.47	12.29	32.6	297	184	P	H
		5886.25	52.65	-15.65	68.3	37.99	34.93	12.33	32.6	297	184	P	H
		5446.8	44.61	-9.39	54	30.56	34.4	12.24	32.59	297	184	A	H
		5720	101.12	-	-	86.96	34.47	12.29	32.6	297	184	A	H
		5370.9	50.88	-23.12	74	36.84	34.4	12.21	32.57	343	93	P	V
		5463.85	50.56	-17.74	68.3	36.51	34.4	12.24	32.59	343	93	P	V
		5720	104.36	-	-	90.2	34.47	12.29	32.6	343	93	P	V
		5860.95	52.07	-16.23	68.3	37.48	34.87	12.32	32.6	343	93	P	V
		5455.6	44.57	-9.43	54	30.52	34.4	12.24	32.59	343	93	A	V
		5720	100.06	-	-	85.9	34.47	12.29	32.6	343	93	A	V
Remark	3. No other spurious found.												
	4. All results are PASS against Peak and Average limit line.												



Straddle Channel
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)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11a CH 144 5720MHz		11440	50.01	-23.99	74	27.42	38.15	16.53	32.09	-	-	P	H
		17160	50.58	-17.72	68.3	24.69	41.93	18.43	34.47	-	-	P	H
		11440	49.76	-24.24	74	27.17	38.15	16.53	32.09	-	-	P	V
		17160	49.77	-18.53	68.3	23.88	41.93	18.43	34.47	-	-	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



Straddle Channel
WIFI 802.11n HT20 (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)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11n HT20 CH 144 5720MHz		5376.4	50.96	-23.04	74	36.92	34.4	12.22	32.58	297	195	P	H
		5466.6	50.08	-18.22	68.3	36.03	34.4	12.24	32.59	297	195	P	H
		5720	105.08	-	-	90.92	34.47	12.29	32.6	297	195	P	H
		5890.1	51.16	-17.14	68.3	36.43	35	12.33	32.6	297	195	P	H
		5413.25	45.12	-8.88	54	31.07	34.4	12.23	32.58	297	195	A	H
		5720	100.11	-	-	85.95	34.47	12.29	32.6	297	195	A	H
		5453.4	51.63	-22.37	74	37.58	34.4	12.24	32.59	324	96	P	V
		5469.35	50.26	-18.04	68.3	36.21	34.4	12.24	32.59	324	96	P	V
		5720	103.09	-	-	88.93	34.47	12.29	32.6	324	96	P	V
		5865.35	52.27	-16.03	68.3	37.68	34.87	12.32	32.6	324	96	P	V
		5453.95	44.1	-9.9	54	30.05	34.4	12.24	32.59	324	96	A	V
		5720	98.62	-	-	84.46	34.47	12.29	32.6	324	96	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

**Straddle Channel****WIFI 802.11n HT20 (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)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11n HT20 CH 144 5720MHz		11440	49.84	-24.16	74	46.21	38.15	16.53	51.05	-	-	P	H
		17160	50.97	-17.33	68.3	44.08	41.93	18.43	53.47	-	-	P	H
		11440	49.81	-24.19	74	46.18	38.15	16.53	51.05	-	-	P	V
		17160	50.01	-18.29	68.3	43.12	41.93	18.43	53.47	-	-	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



Straddle Channel
WIFI 802.11n HT40 (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)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11n HT40 CH 142 5710MHz		5366.5	51.86	-22.14	74	37.82	34.4	12.21	32.57	299	200	P	H
		5462.75	51.16	-17.14	68.3	37.11	34.4	12.24	32.59	299	200	P	H
		5710	101.75	-	-	87.63	34.43	12.29	32.6	299	200	P	H
		5880.75	52.14	-16.16	68.3	37.48	34.93	12.33	32.6	299	200	P	H
		5459.45	44.28	-9.72	54	30.23	34.4	12.24	32.59	299	200	A	H
		5710	96.76	-	-	82.64	34.43	12.29	32.6	299	200	A	H
		5370.9	51.88	-22.12	74	37.84	34.4	12.21	32.57	323	91	P	V
		5463.85	51.28	-17.02	68.3	37.23	34.4	12.24	32.59	323	91	P	V
		5710	99.89	-	-	85.77	34.43	12.29	32.6	323	91	P	V
		5891.2	52.46	-15.84	68.3	37.73	35	12.33	32.6	323	91	P	V
		5355.5	44.44	-9.56	54	30.4	34.4	12.21	32.57	323	91	A	V
		5710	95.33	-	-	81.21	34.43	12.29	32.6	323	91	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

**Straddle Channel****WIFI 802.11n HT40 (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)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11n		11420	50.6	-23.4	74	47.01	38.14	16.52	51.07	-	-	P	H
HT40		17130	50.75	-17.55	68.3	43.86	41.96	18.42	53.49	-	-	P	H
CH 142		11420	49.67	-24.33	74	46.08	38.14	16.52	51.07	-	-	P	V
5710MHz		17130	48.81	-19.49	68.3	41.92	41.96	18.42	53.49	-	-	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



Straddle Channel
WIFI 802.11ac VHT80 (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)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11ac VHT80 CH 138 5690MHz		5373.1	51.66	-22.34	74	37.62	34.4	12.21	32.57	302	199	P	H
		5468.25	51.83	-16.47	68.3	37.78	34.4	12.24	32.59	302	199	P	H
		5690	98.8	-	-	84.71	34.4	12.29	32.6	302	199	P	H
		5851.6	53.19	-15.11	68.3	38.67	34.8	12.32	32.6	302	199	P	H
		5442.4	44.2	-9.8	54	30.16	34.4	12.23	32.59	302	199	A	H
		5690	92.81	-	-	78.72	34.4	12.29	32.6	302	199	A	H
		5447.9	51.84	-22.16	74	37.79	34.4	12.24	32.59	346	93	P	V
		5469.9	51.45	-16.85	68.3	37.4	34.4	12.24	32.59	346	93	P	V
		5690	97.04	-	-	82.95	34.4	12.29	32.6	346	93	P	V
		5850.5	53.36	-14.94	68.3	38.84	34.8	12.32	32.6	346	93	P	V
		5398.95	44.15	-9.85	54	30.11	34.4	12.22	32.58	346	93	A	V
		5690	91.37	-	-	77.28	34.4	12.29	32.6	346	93	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

**Straddle Channel****WIFI 802.11ac VHT80 (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)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11ac		11380	49.43	-24.57	74	45.89	38.11	16.52	51.09	-	-	P	H
VHT80		17070	50.07	-18.23	68.3	43.19	42.03	18.4	53.55	-	-	P	H
CH 138		11380	49.8	-24.2	74	46.26	38.11	16.52	51.09	-	-	P	V
5690MHz		17070	49.92	-18.38	68.3	43.04	42.03	18.4	53.55	-	-	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



Emission below 1GHz

WIFI 802.11n HT20 (LF @ 3m)

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Path	Preamp	Ant	Table	Peak	Pol.
Ant.				Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
1		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11n HT20 LF		41.64	20.84	-19.16	40	33.94	19.9	2.02	35.02	-	-	P	H
		98.87	23.84	-19.66	43.5	41.97	14.6	2.47	35.2	-	-	P	H
		148.34	21.46	-22.04	43.5	34.68	19.33	2.55	35.1	-	-	P	H
		203.63	23.71	-19.79	43.5	39.57	16.47	2.76	35.09	-	-	P	H
		321	21.37	-24.63	46	32.8	20.26	3.21	34.9	-	-	P	H
		423.82	22.32	-23.68	46	31.21	22.55	3.31	34.75	-	-	P	H
		43.58	31.28	-8.72	40	44.15	20.1	2.07	35.04	-	-	P	V
		100.81	19.96	-23.54	43.5	37.79	14.91	2.46	35.2	-	-	P	V
		178.41	22.07	-21.43	43.5	36.32	18.19	2.66	35.1	-	-	P	V
		287.05	19.95	-26.05	46	32.27	19.51	3.1	34.93	-	-	P	V
		465.53	22.96	-23.04	46	30.91	23.4	3.35	34.7	-	-	P	V
		579.02	24.94	-21.06	46	30.32	25.37	3.79	34.54	-	-	P	V
Remark	1. No other spurious found. 2. All results are PASS against limit line.												



For Sample 2

5250~5350MHz

WIFI 802.11n HT20 (Band Edge @ 3m)

WIFI Ant.	Note	Frequency	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Path Loss	Preamp Factor	Ant Pos	Table Pos	Peak Avg.	Pol.
1		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11n HT20 CH 64 5320MHz		5320	102.45	-	-	88.41	34.4	12.2	32.56	357	189	P	H
		5320	95.45	-	-	81.41	34.4	12.2	32.56	357	189	A	H
		5358.24	66.52	-7.48	74	52.48	34.4	12.21	32.57	357	189	P	H
		5350.08	50.58	-3.42	54	36.54	34.4	12.21	32.57	357	189	A	H
		5320	100.34	-	-	86.3	34.4	12.2	32.56	335	240	P	V
		5320	93.09	-	-	79.05	34.4	12.2	32.56	335	240	A	V
		5352	62.76	-11.24	74	48.72	34.4	12.21	32.57	335	240	P	V
		5350.88	50.75	-3.25	54	36.71	34.4	12.21	32.57	335	240	A	V

5250~5350MHz

WIFI 802.11n HT20 (Harmonic @ 3m)

WIFI Ant.	Note	Frequency	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Path Loss	Preamp Factor	Ant Pos	Table Pos	Peak Avg.	Pol.
1		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11n HT20 CH 64 5320MHz		10640	48.95	-25.05	74	46.9	37.58	15.65	51.18	-	-	P	H
		15960	48.11	-25.89	74	43.07	40.47	18.01	53.44	-	-	P	H
		10640	49.37	-24.63	74	47.32	37.58	15.65	51.18	-	-	P	V
		15960	49.67	-24.33	74	44.63	40.47	18.01	53.44	-	-	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



For Simultaneous transmission:

WIFI 802.11n HT20 CH64 + LTE Band 41Link (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)
802.11n HT20 CH 64 5320MHz & LTE Band41Link	*	5320	103.6	-	-	89.56	34.4	12.2	32.56	358	194	P	H
	*	5320	96.63	-	-	82.59	34.4	12.2	32.56	358	194	A	H
		5352.16	66.52	-7.48	74	52.48	34.4	12.21	32.57	358	194	P	H
		5350.24	50.73	-3.27	54	36.69	34.4	12.21	32.57	358	194	A	H
	*	5320	99.44	-	-	85.4	34.4	12.2	32.56	369	94	P	V
	*	5320	92.68	-	-	78.64	34.4	12.2	32.56	369	94	A	V
		5357.12	61.28	-12.72	74	47.24	34.4	12.21	32.57	369	94	P	V
		5352.32	47.75	-6.25	54	33.71	34.4	12.21	32.57	369	94	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

WIFI 802.11n HT20 CH64 + LTE Band 41Link (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)
802.11n HT20 CH 64 5320MHz & LTE Band41Link		5168	53.2	-15.1	68.3	39.51	34.07	12.16	32.54	-	-	P	H
		7752	50.07	-18.23	68.3	51.13	35.85	14.59	51.5	-	-	P	H
		10640	50.63	-23.37	74	48.58	37.58	15.65	51.18	-	-	P	H
		15960	49.93	-24.07	74	44.89	40.47	18.01	53.44	-	-	P	H
		5168	51.06	-17.24	68.3	37.37	34.07	12.16	32.54	-	-	P	V
		7752	49.87	-18.43	68.3	50.93	35.85	14.59	51.5	-	-	P	V
		10640	50.26	-23.74	74	48.21	37.58	15.65	51.18	-	-	P	V
		15960	50.2	-23.8	74	45.16	40.47	18.01	53.44	-	-	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



Note symbol

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



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

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Path	Preamp	Ant	Table	Peak	Pol.
Ant.				Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
1		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11b		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. Path Loss(dB) = Cable loss(dB) + Filter loss(dB) + Attenuator loss(dB)
2. Level(dBμV/m) = Antenna Factor(dB/m) + Path Loss(dB) + Read Level(dBμV) - Preamp Factor(dB)
3. Over Limit(dB) = Level(dBμV/m) – Limit Line(dBμV/m)

For Peak Limit @ 2390MHz:

1. Level(dBμV/m)
 = Antenna Factor(dB/m) + Path 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:

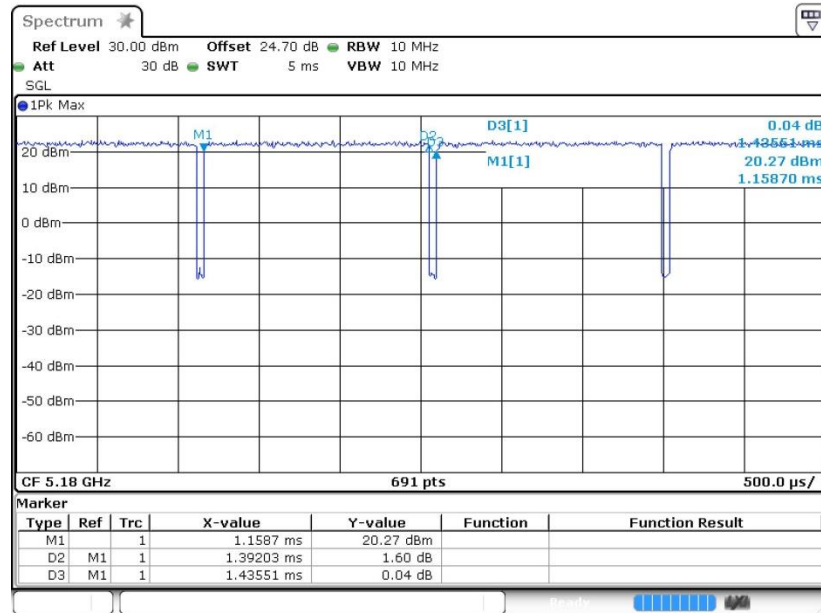
1. Level(dBμV/m)
 = Antenna Factor(dB/m) + Path Loss(dB) + Read Level(dBμV) - Preamp Factor(dB)
 = 32.22(dB/m) + 4.58(dB) + 42.6(dBμV) – 35.86 (dB)
 = 43.54 (dBμV/m)
2. Over Limit(dB) = Level(dBμV/m) – Limit Line(dBμV/m)
 = 43.54(dBμV/m) – 54(dBμV/m)
 = -10.46(dB)

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

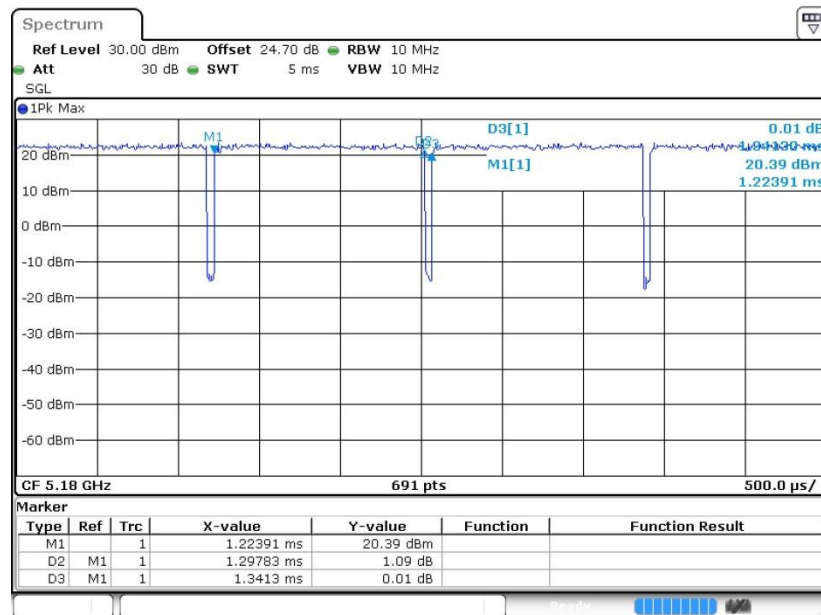
Appendix B. Duty Cycle Plots

Band	Duty Cycle(%)	T(ms)	1/T(kHz)	VBW Setting
802.11a	96.97	1.392	0.718	1KHz
802.11n HT20	96.76	1.298	0.771	1KHz
802.11n HT40	93.30	0.646	1.549	3KHz
802.11ac VHT80	87.77	0.323	3.101	10KHZ

802.11a

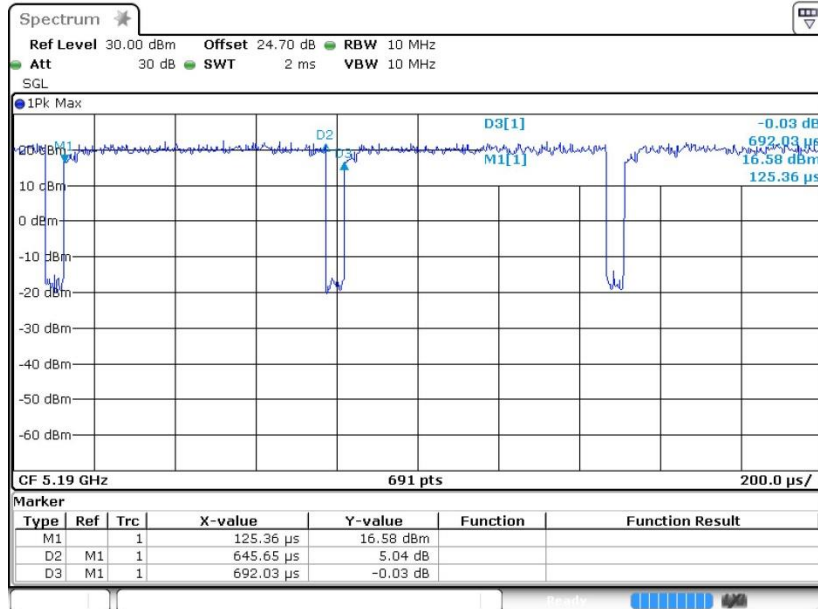


802.11n HT20

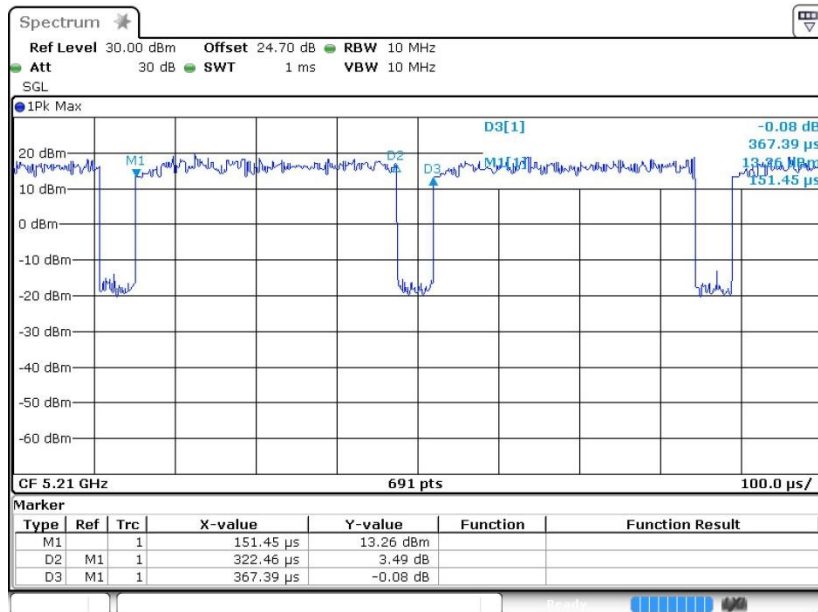




802.11n HT40



802.11ac VHT80





Appendix D. Reference Report

Please refer to Sporton report number 1N1011-01 which is issued separately.