



# FCC RF Test Report

**APPLICANT** : Motorola Mobility LLC  
**EQUIPMENT** : Mobile Cellular Phone  
**BRAND NAME** : Motorola  
**MODEL NAME** : XT2127-4  
**FCC ID** : IHDT56ZM3  
**STANDARD** : FCC Part 15 Subpart E §15.407  
**CLASSIFICATION** : (NII) Unlicensed National Information Infrastructure

The product was received on Oct. 22, 2020 and testing was completed on Dec. 23, 2020. We, Sporton International (ShenZhen) Inc., would like to declare that the tested sample has been evaluated in accordance with the test procedures and has been in compliance with the applicable technical standards.

The test results in this report apply exclusively to the tested model / sample. Without written approval of Sporton International (ShenZhen) Inc., the test report shall not be reproduced except in full.

Reviewed by: Derreck Chen / Supervisor

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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 Product Feature of Equipment Under Test ..... 5

    1.4 Product Specification of Equipment Under Test ..... 5

    1.5 Modification of EUT ..... 6

    1.6 Testing Location ..... 6

    1.7 Test Software ..... 6

    1.8 Applicable Standards ..... 6

    1.9 Specification of Accessory ..... 7

    1.10 Re-use of Measured Data ..... 7

**2 TEST CONFIGURATION OF EQUIPMENT UNDER TEST ..... 9**

    2.1 Carrier Frequency and Channel ..... 9

    2.2 Test Mode ..... 10

    2.3 Connection Diagram of Test System ..... 12

    2.4 Support Unit used in test configuration and system ..... 12

    2.5 EUT Operation Test Setup ..... 12

**3 TEST RESULT ..... 13**

    3.1 Unwanted Emissions Measurement ..... 13

    3.2 Antenna Requirements ..... 18

**4 LIST OF MEASURING EQUIPMENT ..... 19**

**5 UNCERTAINTY OF EVALUATION ..... 20**

**APPENDIX A. RADIATED SPURIOUS EMISSION**

**APPENDIX B. DUTY CYCLE PLOTS**

**APPENDIX C. SETUP PHOTOGRAPHS**

**APPENDIX D. REFERENCE REPORT**





### SUMMARY OF TEST RESULT

Report Section	FCC Rule	Description	Limit	Result	Remark
3.1	15.407(b)	Unwanted Emissions	15.407(b) & 15.209(a)	Pass	Under limit 3.02 dB at 5359.920 MHz
3.2	15.203 & 15.407(a)	Antenna Requirement	N/A	Pass	-

<b>Declaration of Conformity:</b>
The test results with all measurement uncertainty excluded are presented in accordance with the regulation limits or requirements declared by manufacturers.
<b>Comments and Explanations:</b>
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	XT2127-4
FCC ID	IHDT56ZM3
EUT supports Radios application	GSM/WCDMA/LTE WLAN 2.4GHz 802.11b/g/n HT20 WLAN 5GHz 802.11a/n HT20/HT40 WLAN 5GHz 802.11ac VHT20/VHT40/VHT80 Bluetooth BR/EDR/LE FM Receiver and GNSS
IMEI Code	Radiation: 358922320014619/358922320014627
HW Version	DVT2
SW Version	RRB31.30
EUT Stage	Production Unit

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
Antenna Type / Gain	<5150 MHz ~ 5250 MHz> PIFA Antenna with gain -0.40 dBi <5250 MHz ~ 5350 MHz> PIFA Antenna with gain -0.50 dBi <5470 MHz ~ 5725 MHz> PIFA Antenna with gain -0.60 dBi
Type of Modulation	802.11a/n : OFDM (BPSK / QPSK / 16QAM / 64QAM) 802.11ac : OFDM (BPSK / QPSK / 16QAM / 64QAM / 256QAM)



### 1.5 Modification of EUT

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

### 1.6 Testing Location

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

<b>Test Firm</b>	Sporton International (Shenzhen) Inc.		
<b>Test Site Location</b>	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		
<b>Test Site No.</b>	<b>Sporton Site No.</b>	<b>FCC Designation No.</b>	<b>FCC Test Firm Registration No.</b>
	TH01-SZ	CN1256	421272

<b>Test Firm</b>	Sporton International (Shenzhen) Inc.		
<b>Test Site Location</b>	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		
<b>Test Site No.</b>	<b>Sporton Site No.</b>	<b>FCC Designation No.</b>	<b>FCC Test Firm Registration No.</b>
	03CH04-SZ	CN1256	421272

### 1.7 Test Software

Item	Site	Manufacture	Name	Version
1.	03CH04-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 (Acbel)	Model Name	MC-201
AC Adapter 2(US)	Brand Name	Motorola (Chenyang)	Model Name	MC-201
AC Adapter 2(IN)	Brand Name	Motorola (Chenyang)	Model Name	MC-204
Battery	Brand Name	Motorola (ATL)	Model Name	MH60
USB Cable 1	Brand Name	Motorola (Chuangyitong)	Model Name	88806-024
USB Cable 2	Brand Name	Motorola (SUNTOPS)	Model Name	336258

## 1.10 Re-use of Measured Data

### 1.10.1 Introduction Section

This application re-uses data collected on a similar device. The subject device of this application (Model: XT2127-4, FCC ID: IHDT56ZM3) is electrically identical to the reference device (Model: XT2127-2, FCC ID: IHDT56ZM2) for the portions of the circuitry corresponding to the data being re-used, as treated by KDB Publication 484596 D01.

### 1.10.2 Difference Section

For details concerning the similarity with respect to component placement, mechanical/electrical design etc., please refer to the Product Equality Declaration.

The re-used RF data includes the following bands provided in Appendix D (Sporton RF Report No. FR002013E for the reference device Model: XT2127-2, FCC ID: IHDT56ZM2).

### 1.10.3 Reference detail Section:

Equipment Class	Reference FCC ID	Folder Test	Report Title/Section
NII (B1~3)	IHDT56ZM2	Part15E(FR002013E)	All sections applicable except for RSE
NII (B4)	IHDT56ZM2	Part15E(FR002013F)	All sections applicable except for RSE
DFS	IHDT56ZM2	Part15E(FZ002013)	All sections applicable



1.10.4 Spot Check Verification Data Section

In order to confirm hardware similarity of the subject device with the reference device, spot check measurements were performed on the subject device for the following test items, the test result were consistent with FCC ID: IHDT56ZM2 and the RSE to re-test

Assertions concerning the similarity of these devices are based on representations by the applicant. The applicant accepts full responsibility for the validity of the similarity claim, and for the determination that verification test data are sufficient to support it.

Table with 5 columns: Test Item, Mode, IHDT56ZM2 Worst Result, IHDT56ZM3 Worst Result, Difference (dB). Rows include various modes like 802.11a CH60, 802.11n HT20 CH60, etc.





## 2 Test Configuration of Equipment Under Test

- a. 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.

### 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 <sup>#</sup>	5610	128	5640

Frequency Band	Channel	Freq. (MHz)	Channel	Freq. (MHz)
Straddle Channel	138 <sup>#</sup>	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 "<sup>#</sup>" were 802.11ac VHT80.

## 2.2 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



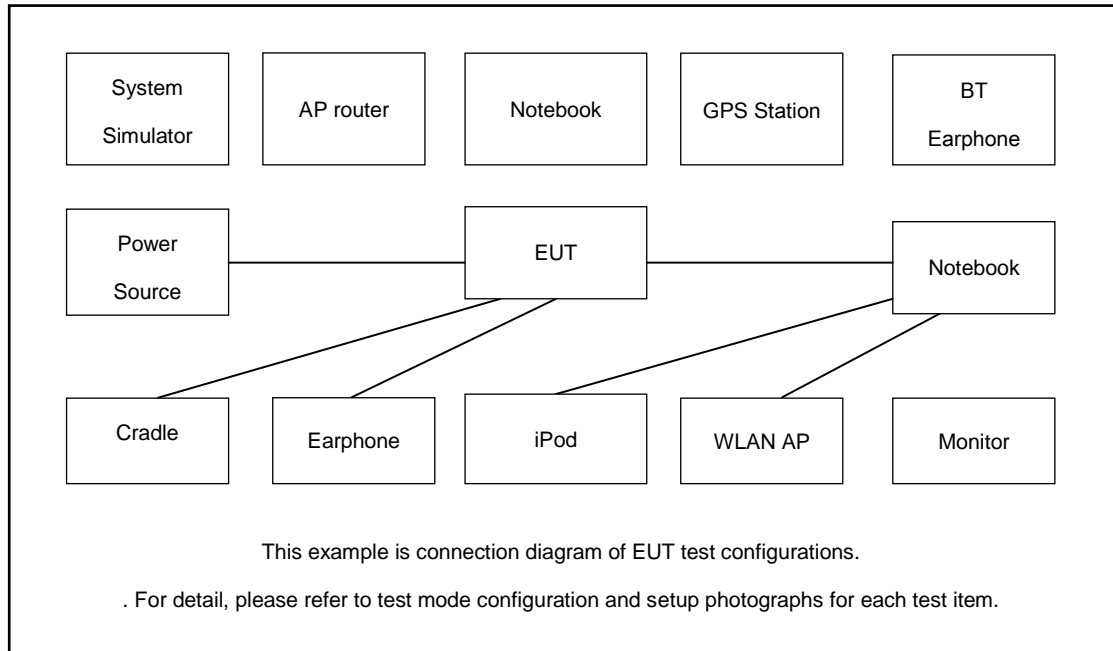
Ch. #		Band I : 5150-5250 MHz	Band II : 5250-5350 MHz	Band III : 5470-5725MHz
		802.11a	802.11a	802.11a
L	Low	36	52	100
M	Middle	44	60	116
H	High	48	64	140
Straddle		-	-	144

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

Ch. #		Band I : 5150-5250 MHz	Band II : 5250-5350 MHz	Band III : 5470-5725MHz
		802.11ac VHT80	802.11ac VHT80	802.11ac VHT80
L	Low	-	-	106
M	Middle	42	58	-
H	High	-	-	-
Straddle		-	-	138

## 2.3 Connection Diagram of Test System



## 2.4 Support Unit used in test configuration and system

Item	Equipment	Trade Name	Model Name	FCC ID	Data Cable	Power Cord
1.	Earphone	Apple	MC690ZP/A	N/A	Shielded, 1.0m	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.



### 3 Test Result

#### 3.1 Unwanted Emissions Measurement

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

##### 3.1.1 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



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

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

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

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

### 3.1.2 Measuring Instruments

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

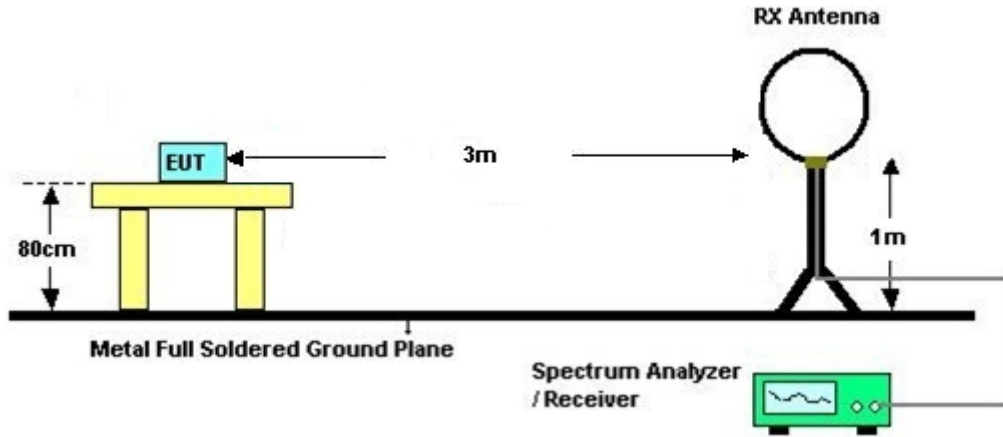


### 3.1.3 Test Procedures

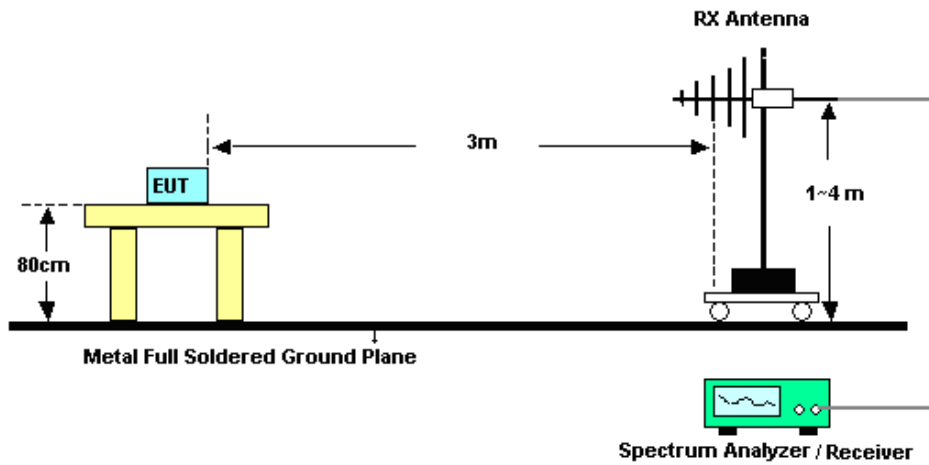
1. The testing follows FCC KDB 789033 D02 General UNII Test Procedures New Rules v02r01. Section G) Unwanted emissions measurement.
  - (1) Procedure for Unwanted Emissions Measurements Below 1000MHz
    - RBW = 120 kHz
    - VBW = 300 kHz
    - Detector = Peak
    - Trace mode = max hold
  - (2) Procedure 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.

### 3.1.4 Test Setup

For radiated emissions below 30MHz

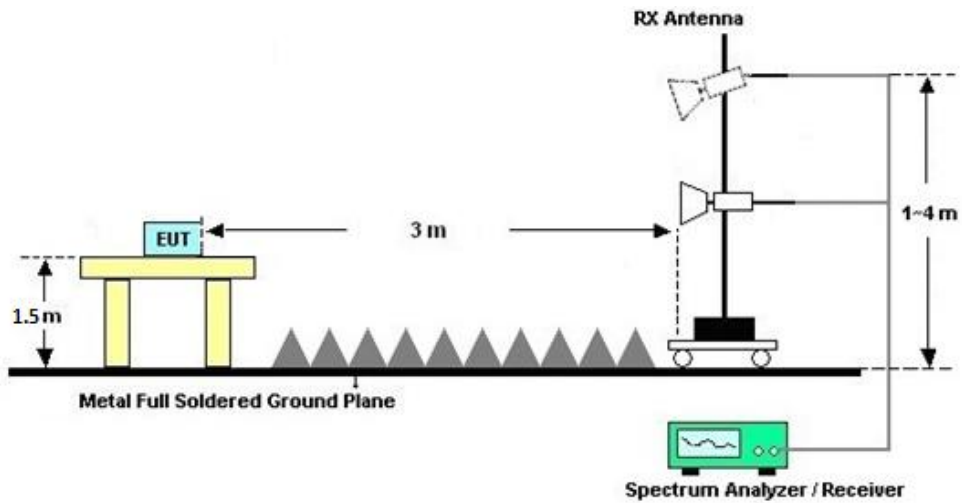


For radiated emissions from 30MHz to 1GHz





For radiated emissions above 1GHz



### 3.1.5 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.

### 3.1.6 Test Result of Radiated Spurious at Band Edges

Please refer to Appendix A.

### 3.1.7 Duty Cycle

Please refer to Appendix B.

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

Please refer to Appendix A.



## **3.2 Antenna Requirements**

### **3.2.1 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.

### **3.2.2 Antenna Anti-Replacement Construction**

An embedded-in antenna design is used.

### **3.2.3 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.



## 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	10Hz~40GHz	Apr. 17, 2020	Dec. 23, 2020	Apr. 16, 2021	Conducted (TH01-SZ)
Pulse Power Sensor	Anritsu	MA2411B	1207253	30MHz~40GHz	Dec. 26, 2019	Dec. 23, 2020	Dec. 25, 2020	Conducted (TH01-SZ)
Power Meter	Anritsu	ML2495A	1218010	50MHz Bandwidth	Dec. 26, 2019	Dec. 23, 2020	Dec. 25, 2020	Conducted (TH01-SZ)
EMI Test Receiver	R&S	ESR7	101404	9kHz~7GHz	Oct. 16, 2020	Dec. 12, 2020	Oct. 15, 2021	Radiation (03CH04-SZ)
EXA Spectrum Analyzer	KEYSIGHT	N9010A	MY55150213	10Hz~44GHz	Jul. 21, 2020	Dec. 12, 2020	Jul. 20, 2021	Radiation (03CH04-SZ)
Loop Antenna	R&S	HFH2-Z2	100354	9kHz~30MHz	Jun. 22, 2020	Dec. 12, 2020	Jun. 21, 2022	Radiation (03CH04-SZ)
Bilog Antenna	TeseQ	CBL6111D	41909	30MHz~1GHz	Nov. 07, 2020	Dec. 12, 2020	Nov. 06, 2021	Radiation (03CH04-SZ)
Double Ridge Horn Antenna	SCHWARZBECK	BBHA9120D	9120D-1474	1GHz~18GHz	May 23, 2020	Dec. 12, 2020	May 22, 2021	Radiation (03CH04-SZ)
Horn Antenna	SCHWARZBECK	BBHA9170	9170#679	15GHz~40GHz	Jul. 26, 2020	Dec. 12, 2020	Jul. 25, 2021	Radiation (03CH04-SZ)
Amplifier	Burgeon	BPA-530	102211	0.01Hz~3000MHz	Oct. 16, 2020	Dec. 12, 2020	Oct. 15, 2021	Radiation (03CH04-SZ)
HF Amplifier	MITEQ	AMF-7D-00101800-30-10P-R	1943528	1GHz~18GHz	Oct. 17, 2020	Dec. 12, 2020	Oct. 16, 2021	Radiation (03CH04-SZ)
HF Amplifier	MITEQ	TTA1840-35-HG	1871923	18GHz~40GHz	Jul. 21, 2020	Dec. 12, 2020	Jul. 20, 2021	Radiation (03CH04-SZ)
Amplifier	Agilent Technologies	83017A	MY53270156	500MHz~26.5GHz	Oct. 17, 2020	Dec. 12, 2020	Oct. 16, 2021	Radiation (03CH04-SZ)
AC Power Source	Chroma	61601	N/A	N/A	NCR	Dec. 12, 2020	NCR	Radiation (03CH04-SZ)
Turn Table	EM	EM1000	N/A	0~360 degree	NCR	Dec. 12, 2020	NCR	Radiation (03CH04-SZ)
Antenna Mast	EM	EM1000	N/A	1 m~4 m	NCR	Dec. 12, 2020	NCR	Radiation (03CH04-SZ)

NCR: No Calibration Required



## 5 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% ( $U = 2Uc(y)$ )	5.0dB
-------------------------------------------------------------------------	-------

### Uncertainty of Radiated Emission Measurement (1000 MHz ~ 18000 MHz)

Measuring Uncertainty for a Level of Confidence of 95% ( $U = 2Uc(y)$ )	4.8dB
-------------------------------------------------------------------------	-------

### Uncertainty of Radiated Emission Measurement (18000 MHz ~ 40000 MHz)

Measuring Uncertainty for a Level of Confidence of 95% ( $U = 2Uc(y)$ )	5.1dB
-------------------------------------------------------------------------	-------



## Appendix A. Radiated Spurious Emission

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

WIFI Ant.	Note	Frequency	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable 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)
802.11a CH 36 5180MHz		5149.76	54.15	-19.85	74	46.4	31.8	8.51	32.56	149	335	P	H
		5150	45.29	-8.71	54	37.54	31.8	8.51	32.56	149	335	A	H
		5180	102.96	-	-	95.09	31.86	8.58	32.57	149	335	P	H
		5180	94.89	-	-	87.02	31.86	8.58	32.57	149	335	A	H
		5149.5	50.92	-23.08	74	43.17	31.8	8.51	32.56	256	261	P	V
		5150	41.28	-12.72	54	33.53	31.8	8.51	32.56	256	261	A	V
		5180	101.59	-	-	93.72	31.86	8.58	32.57	256	261	P	V
		5180	95.49	-	-	87.62	31.86	8.58	32.57	256	261	A	V
802.11a CH 44 5220MHz		5134.94	47.63	-26.37	74	39.9	31.77	8.51	32.55	121	343	P	H
		5150	38.39	-15.61	54	30.64	31.8	8.51	32.56	121	343	A	H
		5220	99.69	-	-	91.75	31.87	8.65	32.58	121	343	P	H
		5220	91.86	-	-	83.92	31.87	8.65	32.58	121	343	A	H
		5454.48	47.68	-26.32	74	38.93	31.76	9.68	32.69	121	343	P	H
		5457.36	37.77	-16.23	54	29.01	31.77	9.68	32.69	121	343	A	H
		5124.28	47.23	-26.77	74	39.52	31.75	8.51	32.55	234	264	P	V
		5149.24	38.32	-15.68	54	30.57	31.8	8.51	32.56	234	264	A	V
		5220	102.63	-	-	94.69	31.87	8.65	32.58	234	264	P	V
		5220	94.91	-	-	86.97	31.87	8.65	32.58	234	264	A	V
		5398.8	46.99	-27.01	74	38.4	31.6	9.66	32.67	234	264	P	V
		5457.36	37.64	-16.36	54	28.88	31.77	9.68	32.69	234	264	A	V



802.11a CH 48 5240MHz		5114.92	48.36	-25.64	74	40.66	31.73	8.51	32.54	108	343	P	H
		5145.08	37.9	-16.1	54	30.16	31.79	8.51	32.56	108	343	A	H
		5240	97	-	-	88.9	31.84	8.85	32.59	108	343	P	H
		5240	90.65	-	-	82.55	31.84	8.85	32.59	108	343	P	H
		5446.8	47.3	-26.7	74	38.56	31.74	9.68	32.68	108	343	P	H
		5460	37.57	-16.43	54	28.8	31.78	9.68	32.69	108	343	A	H
		5050.96	47.55	-26.45	74	40.11	31.6	8.36	32.52	150	301	P	V
		5147.68	37.94	-16.06	54	30.19	31.8	8.51	32.56	150	301	A	V
		5240	102.42	-	-	94.32	31.84	8.85	32.59	150	301	P	V
		5240	94.65	-	-	86.55	31.84	8.85	32.59	150	301	A	V
		5460	47.36	-20.94	68.3	38.59	31.78	9.68	32.69	150	301	P	V
		5459.52	37.47	-16.53	54	28.7	31.78	9.68	32.69	150	301	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



Band 1 5150~5250MHz

WIFI 802.11a (Harmonic @ 3m)

WIFI Ant. 1	Note	Frequency ( MHz )	Level ( dBμV/m )	Over Limit ( dB )	Limit Line ( dBμV/m )	Read Level ( dBμV )	Antenna Factor ( dB/m )	Cable Loss ( dB )	Preamp Factor ( dB )	Ant Pos ( cm )	Table Pos ( deg )	Peak Avg. ( P/A )	Pol. ( H/V )
802.11a CH 36 5180MHz		6907	48.95	-19.35	68.3	36.93	34.97	10.24	33.19	192	45	P	H
		10360	48.32	-19.98	68.3	48.14	39.58	12.06	51.46	122	255	P	H
		15540	48.43	-25.57	74	47.51	38.87	14.59	52.54	169	232	P	H
		6907	51.74	-16.56	68.3	39.72	34.97	10.24	33.19	163	294	P	V
		10360	48.94	-19.36	68.3	48.76	39.58	12.06	51.46	152	260	P	V
		15540	49.03	-24.97	74	48.11	38.87	14.59	52.54	189	238	P	V
802.11a CH 44 5220MHz		6962	52.99	-15.31	68.3	59.09	35.17	10.23	51.5	201	0	P	H
		10440	49.25	-19.05	68.3	48.81	39.7	12.12	51.38	116	226	P	H
		15660	49.36	-24.64	74	48.58	38.49	14.64	52.35	155	233	P	H
		6962	53.67	-14.63	68.3	41.53	35.17	10.23	33.26	152	146	P	V
		10440	49.65	-18.65	68.3	49.21	39.7	12.12	51.38	150	230	P	V
		15660	50.03	-23.97	74	49.25	38.49	14.64	52.35	160	225	P	V
802.11a CH 48 5240MHz		6984	56.37	-11.93	68.3	62.4	35.24	10.23	51.5	122	163	P	H
		10480	51.11	-17.19	68.3	50.51	39.77	12.15	51.32	142	236	P	H
		15720	49.32	-24.68	74	48.6	38.3	14.66	52.24	146	269	P	H
		6984	55.57	-12.73	68.3	61.6	35.24	10.23	51.5	152	194	P	V
		10480	51.38	-16.92	68.3	50.78	39.77	12.15	51.32	150	289	P	V
		15720	49.22	-24.78	74	48.5	38.3	14.66	52.24	150	291	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



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

WIFI Ant. 1	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		5145.86	51.08	-22.92	74	44.31	31.79	8.51	33.53	159	338	P	H
		5150	42.68	-11.32	54	35.9	31.8	8.51	33.53	159	338	A	H
		5180	103.37	-	-	96.47	31.86	8.58	33.54	159	338	P	H
		5180	97.12	-	-	90.22	31.86	8.58	33.54	159	338	A	H
		5142.22	47.64	-26.36	74	40.88	31.78	8.51	33.53	115	24	P	V
		5150	39.52	-14.48	54	32.74	31.8	8.51	33.53	115	24	A	V
		5180	100.48	-	-	93.58	31.86	8.58	33.54	115	24	P	V
802.11n HT20 CH 44 5220MHz		5180	94.23	-	-	87.33	31.86	8.58	33.54	115	24	A	V
		5149.76	47.16	-26.84	74	40.38	31.8	8.51	33.53	171	331	P	H
		5150	38.19	-15.81	54	31.41	31.8	8.51	33.53	171	331	A	H
		5220	102.28	-	-	95.3	31.87	8.65	33.54	171	331	P	H
		5220	95.06	-	-	88.08	31.87	8.65	33.54	171	331	A	H
		5362.08	46.72	-27.28	74	39.17	31.66	9.46	33.57	171	331	P	H
		5458.08	37.05	-16.95	54	29.19	31.77	9.68	33.59	171	331	A	H
		5023.66	47.23	-26.77	74	40.9	31.55	8.29	33.51	102	23	P	V
		5146.12	37.29	-16.71	54	30.52	31.79	8.51	33.53	102	23	A	V
		5220	99.07	-	-	92.09	31.87	8.65	33.54	102	23	P	V
		5220	93.86	-	-	86.88	31.87	8.65	33.54	102	23	A	V
	5442.96	47.32	-26.68	74	39.5	31.73	9.68	33.59	102	23	P	V	
	5458.32	36.76	-17.24	54	28.9	31.77	9.68	33.59	102	23	A	V	





802.11n HT20 CH 48 5240MHz		5137.28	47.03	-26.97	74	40.28	31.77	8.51	33.53	173	340	P	H
		5150	37.47	-16.53	54	30.69	31.8	8.51	33.53	173	340	A	H
		5240	98.9	-	-	91.76	31.84	8.85	33.55	173	340	P	H
		5240	92.8	-	-	85.66	31.84	8.85	33.55	173	340	A	H
		5399.28	46.79	-27.21	74	39.11	31.6	9.66	33.58	173	340	P	H
		5460	36.94	-17.06	54	29.07	31.78	9.68	33.59	173	340	A	H
		5116.74	47.01	-26.99	74	40.29	31.73	8.51	33.52	307	270	P	V
		5148.2	37.14	-16.86	54	30.36	31.8	8.51	33.53	307	270	A	V
		5240	102.47	-	-	95.33	31.84	8.85	33.55	307	270	P	V
		5240	95.14	-	-	88	31.84	8.85	33.55	307	270	A	V
		5366.88	45.61	-28.39	74	38.07	31.65	9.46	33.57	307	270	P	V
	5457.84	36.89	-17.11	54	29.03	31.77	9.68	33.59	307	270	A	V	
<b>Remark</b>	<ol style="list-style-type: none"> <li>No other spurious found.</li> <li>All results are PASS against Peak and Average limit line.</li> </ol>												



**Band 1 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 )	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		6907	54.19	-14.11	68.3	60.48	34.97	10.24	51.5	163	255	P	H
		10360	49.52	-18.78	68.3	49.34	39.58	12.06	51.46	122	255	P	H
		15540	48.43	-25.57	74	47.51	38.87	14.59	52.54	169	232	P	H
		6907	53.3	-15	68.3	59.59	34.97	10.24	51.5	100	122	P	V
		10360	49.39	-18.91	68.3	49.21	39.58	12.06	51.46	152	260	P	V
		15540	49.03	-24.97	74	48.11	38.87	14.59	52.54	189	238	P	V
802.11n HT20 CH 44 5220MHz		6962	52.99	-15.31	68.3	59.09	35.17	10.23	51.5	122	163	P	H
		10440	49.77	-18.53	68.3	49.33	39.7	12.12	51.38	116	226	P	H
		15660	49.36	-24.64	74	48.58	38.49	14.64	52.35	155	233	P	H
		6962	52.67	-15.63	68.3	58.77	35.17	10.23	51.5	155	194	P	V
		10440	50.21	-18.09	68.3	49.77	39.7	12.12	51.38	150	230	P	V
		15660	50.03	-23.97	74	49.25	38.49	14.64	52.35	160	225	P	V
802.11n HT20 CH 48 5240MHz		6984	52.71	-15.59	68.3	58.74	35.24	10.23	51.5	152	194	P	H
		10480	49.68	-18.62	68.3	49.08	39.77	12.15	51.32	142	236	P	H
		15720	49.32	-24.68	74	48.6	38.3	14.66	52.24	146	269	P	H
		6984	52.8	-15.5	68.3	58.83	35.24	10.23	51.5	122	163	P	V
		10480	50.78	-17.52	68.3	50.18	39.77	12.15	51.32	150	289	P	V
		15720	49.22	-24.78	74	48.5	38.3	14.66	52.24	150	291	P	V
<b>Remark</b>	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



**Band 1 5150~5250MHz**  
**WIFI 802.11n HT40 (Band Edge @ 3m)**

WIFI Ant. 1	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		5149.24	53.96	-20.04	74	43.29	31.8	8.51	29.64	206	205	P	H
		5149.76	48.13	-5.87	54	37.46	31.8	8.51	29.64	206	205	A	H
		5190	94.81	-	-	83.98	31.88	8.58	29.63	206	205	P	H
		5190	87.13	-	-	76.3	31.88	8.58	29.63	206	205	A	H
		5442.64	51.56	-22.44	74	39.67	31.73	9.68	29.52	206	205	P	H
		5454.96	43.37	-10.63	54	31.44	31.76	9.68	29.51	206	205	A	H
		5147.16	56.23	-17.77	74	45.57	31.79	8.51	29.64	190	303	P	V
		5149.76	49.66	-4.34	54	38.99	31.8	8.51	29.64	190	303	A	V
		5190	96.67	-	-	85.84	31.88	8.58	29.63	190	303	P	V
		5190	88.46	-	-	77.63	31.88	8.58	29.63	190	303	A	V
		5441.24	51.02	-22.98	74	39.14	31.72	9.68	29.52	190	303	P	V
		5457.48	43.35	-10.65	54	31.41	31.77	9.68	29.51	190	303	A	V
802.11n HT40 CH 46 5230MHz		5086.58	52.13	-21.87	74	41.7	31.67	8.43	29.67	206	211	P	H
		5067.34	43.2	-10.8	54	32.88	31.63	8.36	29.67	206	211	A	H
		5230	94.64	-	-	83.75	31.85	8.65	29.61	206	211	P	H
		5230	87.03	-	-	76.14	31.85	8.65	29.61	206	211	A	H
		5404.32	51.33	-22.67	74	39.59	31.61	9.66	29.53	206	211	P	H
		5452.56	43.49	-10.51	54	31.56	31.76	9.68	29.51	206	211	A	H
		5058.76	51.87	-22.13	74	41.57	31.62	8.36	29.68	211	298	P	V
		5066.56	43.25	-10.75	54	32.94	31.63	8.36	29.68	211	298	A	V
		5230	98.68	-	-	87.79	31.85	8.65	29.61	211	298	P	V
		5230	91.03	-	-	80.14	31.85	8.65	29.61	211	298	A	V
	5448.24	51.94	-22.06	74	40.04	31.74	9.68	29.52	211	298	P	V	
	5452.56	43.24	-10.76	54	31.31	31.76	9.68	29.51	211	298	A	V	
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



**Band 1 5150~5250MHz**  
**WIFI 802.11n HT40 (Harmonic @ 3m)**

WIFI Ant. 1	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		6918	53.73	-14.57	68.3	59.98	35.01	10.24	51.5	147	184	P	H
		10380	49.45	-18.85	68.3	49.19	39.61	12.09	51.44	150	360	P	H
		15570	49.24	-24.76	74	48.35	38.78	14.6	52.49	155	360	P	H
		6918	53.03	-15.27	68.3	59.28	35.01	10.24	51.5	152	69	P	V
		10380	49.36	-18.94	68.3	49.1	39.61	12.09	51.44	144	325	P	V
		15570	49.32	-24.68	74	48.43	38.78	14.6	52.49	113	311	P	V
802.11n HT40 CH 46 5230MHz		6973	53.63	-14.67	68.3	59.69	35.21	10.23	51.5	144	177	P	H
		10460	49.75	-18.55	68.3	49.22	39.74	12.15	51.36	150	360	P	H
		15690	49.58	-24.42	74	48.83	38.39	14.66	52.3	150	225	P	H
		6973	52.27	-16.03	68.3	58.33	35.21	10.23	51.5	155	194	P	V
		10460	49.97	-18.33	68.3	49.44	39.74	12.15	51.36	122	315	P	V
		15690	50	-24	74	49.25	38.39	14.66	52.3	116	236	P	V
<b>Remark</b>	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



**Band 1 5150~5250MHz**  
**WIFI 802.11ac VHT80 (Band Edge @ 3m)**

WIFI Ant. 1	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		5135.46	59.1	-14.9	74	48.47	31.77	8.51	29.65	127	326	P	H
		5146.12	50.55	-3.45	54	39.89	31.79	8.51	29.64	127	326	A	H
		5210	89.52	-	-	78.6	31.89	8.65	29.62	127	326	P	H
		5210	82.74	-	-	71.82	31.89	8.65	29.62	127	326	A	H
		5422.8	51.33	-22.67	74	39.53	31.67	9.66	29.53	127	326	P	H
		5455.92	43.26	-10.74	54	31.32	31.77	9.68	29.51	127	326	A	H
		5135.46	58.58	-15.42	74	47.95	31.77	8.51	29.65	120	28	P	V
		5147.16	49.53	-4.47	54	38.87	31.79	8.51	29.64	120	28	A	V
		5210	90.4	-	-	79.48	31.89	8.65	29.62	120	28	P	V
		5210	82.75	-	-	71.83	31.89	8.65	29.62	120	28	A	V
	5443.68	51.63	-22.37	74	39.74	31.73	9.68	29.52	120	28	P	V	
	5450.88	43.31	-10.69	54	31.39	31.75	9.68	29.51	120	28	A	V	
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



Band 1 5150~5250MHz
WIFI 802.11ac VHT80 (Harmonic @ 3m)

Table with 14 columns: 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). Rows include data for 802.11ac VHT80 CH 42 at 5210MHz and a Remark section.



**Band 2 - 5250~5350MHz**  
**WIFI 802.11a (Band Edge @ 3m)**

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Peak	Pol.
Ant.				Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
1		( MHz )	( dBμV/m )	( dB )	( dBμV/m )	( dBμV )	( dB/m )	( dB )	( dB )	( cm )	( deg )	(P/A)	(H/V)
802.11a CH 52 5260MHz		5070.72	47.93	-26.07	74	40.46	31.64	8.36	32.53	106	343	P	H
		5146.38	37.83	-16.17	54	30.09	31.79	8.51	32.56	106	343	A	H
		5260	98.26	-	-	90.21	31.81	8.85	32.61	106	343	P	H
		5260	90.63	-	-	82.58	31.81	8.85	32.61	106	343	A	H
		5439.84	46.33	-27.67	74	37.61	31.72	9.68	32.68	106	343	P	H
		5458.8	37.58	-16.42	54	28.81	31.78	9.68	32.69	106	343	A	H
		5096.46	47.16	-26.84	74	39.58	31.69	8.43	32.54	242	263	P	V
		5087.88	37.86	-16.14	54	30.28	31.68	8.43	32.53	242	263	A	V
		5260	102.54	-	-	94.49	31.81	8.85	32.61	242	263	P	V
		5260	93.55	-	-	85.5	31.81	8.85	32.61	242	263	A	V
		5458.56	46.81	-27.19	74	38.04	31.78	9.68	32.69	242	263	P	V
		5458.8	37.53	-16.47	54	28.76	31.78	9.68	32.69	242	263	A	V
802.11a CH 60 5300MHz		5065.1	47.38	-26.62	74	39.91	31.63	8.36	32.52	295	319	P	H
		5099.05	37.88	-16.12	54	30.29	31.7	8.43	32.54	295	319	A	H
		5300	97.85	-	-	89.68	31.75	9.05	32.63	295	319	P	H
		5300	91.93	-	-	83.76	31.75	9.05	32.63	295	319	A	H
		5353.44	46.66	-27.34	74	38.18	31.67	9.46	32.65	295	319	P	H
		5350.08	38.41	-15.59	54	29.93	31.67	9.46	32.65	295	319	A	H
		5016.45	47.25	-26.75	74	39.94	31.53	8.29	32.51	226	263	P	V
		5144.55	37.93	-16.07	54	30.19	31.79	8.51	32.56	226	263	A	V
		5300	102.74	-	-	94.57	31.75	9.05	32.63	226	263	P	V
		5300	95.73	-	-	87.56	31.75	9.05	32.63	226	263	A	V
		5352.96	47.9	-26.1	74	39.42	31.67	9.46	32.65	226	263	P	V
		5350.56	38.97	-15.03	54	30.49	31.67	9.46	32.65	226	263	A	V



802.11a CH 64 5320MHz		5320	97.17	-	-	85.76	31.72	9.26	29.57	287	227	P	H
		5320	89.46	-	-	78.05	31.72	9.26	29.57	287	227	A	H
		5350.08	53.54	-20.46	74	41.96	31.67	9.46	29.55	287	227	P	H
		5350.08	43.52	-10.48	54	31.94	31.67	9.46	29.55	287	227	A	H
		5320	102.5	-	-	91.09	31.72	9.26	29.57	233	275	P	V
		5320	95.06	-	-	83.65	31.72	9.26	29.57	233	275	A	V
		5350.24	53.83	-20.17	74	42.25	31.67	9.46	29.55	233	275	P	V
		5350.08	45.35	-8.65	54	33.77	31.67	9.46	29.55	233	275	A	V
Remark	<ol style="list-style-type: none"> <li>No other spurious found.</li> <li>All results are PASS against Peak and Average limit line.</li> </ol>												





Band 2 5250~5350MHz

WIFI 802.11a (Harmonic @ 3m)

WIFI Ant. 1	Note	Frequency ( MHz )	Level ( dBμV/m )	Over Limit ( dB )	Limit Line ( dBμV/m )	Read Level (dBμV)	Antenna Factor ( dB/m )	Cable Loss ( dB )	Preamp Factor ( dB )	Ant Pos ( cm )	Table Pos ( deg )	Peak Avg. (P/A)	Pol. (H/V)
802.11a CH 52 5260MHz		6984	54.12	-14.18	68.3	41.95	35.24	10.23	33.3	163	294	P	H
		10520	51.47	-16.83	68.3	50.82	39.82	12.17	51.34	144	213	P	H
		15780	48.42	-25.58	74	47.79	38.1	14.69	52.16	136	142	P	H
		6984	55.95	-12.35	68.3	43.78	35.24	10.23	33.3	155	142	P	V
		10520	51.36	-16.94	68.3	50.71	39.82	12.17	51.34	150	220	P	V
		15780	48.5	-25.5	74	47.87	38.1	14.69	52.16	159	345	P	V
802.11a CH 60 5300MHz		7066.5	54.88	-13.42	68.3	60.68	35.57	10.2	51.57	163	259	P	H
		10600	50.83	-23.17	74	50.21	39.92	12.23	51.53	126	252	P	H
		15900	49.7	-24.3	74	49.2	37.72	14.75	51.97	129	164	P	H
		7066.5	54.34	-13.96	68.3	60.14	35.57	10.2	51.57	122	145	P	V
		10600	50.59	-23.41	74	49.97	39.92	12.23	51.53	185	215	P	V
		15900	49.33	-24.67	74	48.83	37.72	14.75	51.97	196	190	P	V
802.11a CH 64 5320MHz		7094	53.95	-14.35	68.3	59.66	35.68	10.2	51.59	122	156	P	H
		10640	50.15	-23.85	74	49.52	39.97	12.26	51.6	126	139	P	H
		15960	50.13	-23.87	74	49.68	37.53	14.78	51.86	146	263	P	H
		7094	54.39	-13.91	68.3	60.1	35.68	10.2	51.59	163	19	P	V
		10640	50.08	-23.92	74	49.45	39.97	12.26	51.6	152	135	P	V
		15960	48.77	-25.23	74	48.32	37.53	14.78	51.86	173	245	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



Band 2 5250~5350MHz
WIFI 802.11n HT20 (Band Edge @ 3m)

Table with 14 columns: 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). Rows include data for 802.11n HT20 CH 52 (5260MHz) and 802.11n HT20 CH 60 (5300MHz).



802.11n HT20 CH 64 5320MHz		5320	97.41	-	-	89.99	31.72	9.26	33.56	227	188	P	H
		5320	91.01	-	-	83.59	31.72	9.26	33.56	227	188	A	H
		5351.68	47.46	-26.54	74	39.9	31.67	9.46	33.57	227	188	P	H
		5350.08	39.72	-14.28	54	32.16	31.67	9.46	33.57	227	188	A	H
		5320	101.34	-	-	93.92	31.72	9.26	33.56	326	256	P	V
		5320	93.04	-	-	85.62	31.72	9.26	33.56	326	256	A	V
		5350.56	49.36	-24.64	74	41.8	31.67	9.46	33.57	326	256	P	V
		5350.08	41.25	-12.75	54	33.69	31.67	9.46	33.57	326	256	A	V
Remark	<ol style="list-style-type: none"> <li>No other spurious found.</li> <li>All results are PASS against Peak and Average limit line.</li> </ol>												



**Band 2 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 )	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		7011.5	52.77	-15.53	68.3	58.72	35.35	10.22	51.52	122	185	P	H
		10520	50.87	-17.43	68.3	50.22	39.82	12.17	51.34	144	213	P	H
		15780	48.98	-25.02	74	48.35	38.1	14.69	52.16	136	142	P	H
		7011.5	52.6	-15.7	68.3	58.55	35.35	10.22	51.52	163	299	P	V
		10520	49.52	-18.78	68.3	48.87	39.82	12.17	51.34	150	220	P	V
		15780	49.17	-24.83	74	48.54	38.1	14.69	52.16	159	345	P	V
802.11n HT20 CH 60 5300MHz		7066.5	51.2	-17.1	68.3	57	35.57	10.2	51.57	201	0	P	H
		10600	49.99	-24.01	74	49.37	39.92	12.23	51.53	126	252	P	H
		15900	49.1	-24.9	74	48.6	37.72	14.75	51.97	129	164	P	H
		7066.5	50.96	-17.34	68.3	56.76	35.57	10.2	51.57	100	0	P	V
		10600	50.16	-23.84	74	49.54	39.92	12.23	51.53	185	215	P	V
		15900	48.55	-25.45	74	48.05	37.72	14.75	51.97	196	190	P	V
802.11n HT20 CH 64 5320MHz		7094	51.6	-16.7	68.3	57.31	35.68	10.2	51.59	155	194	P	H
		10640	50.49	-23.51	74	49.86	39.97	12.26	51.6	126	139	P	H
		15960	50.13	-23.87	74	49.68	37.53	14.78	51.86	146	263	P	H
		7094	51.56	-16.74	68.3	57.27	35.68	10.2	51.59	133	269	P	V
		10640	49.74	-24.26	74	49.11	39.97	12.26	51.6	152	135	P	V
		15960	48.77	-25.23	74	48.32	37.53	14.78	51.86	173	245	P	V
<b>Remark</b>	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



**Band 2 5250~5350MHz**  
**WIFI 802.11n HT40 (Band Edge @ 3m)**

WIFI Ant. 1	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		5040.6	52.57	-21.43	74	42.32	31.58	8.36	29.69	121	36	P	H
		5069.3	43.09	-10.91	54	32.76	31.64	8.36	29.67	121	36	A	H
		5270	94.39	-	-	83.33	31.8	8.85	29.59	121	36	P	H
		5270	86.74	-	-	75.68	31.8	8.85	29.59	121	36	A	H
		5373.6	51.79	-22.21	74	40.23	31.64	9.46	29.54	121	36	P	H
		5438.16	43.15	-10.85	54	31.28	31.71	9.68	29.52	121	36	A	H
		5146.3	51.09	-22.91	74	40.43	31.79	8.51	29.64	282	276	P	V
		5020.65	43.11	-10.89	54	32.97	31.54	8.29	29.69	282	276	A	V
		5270	99.23	-	-	88.17	31.8	8.85	29.59	282	276	P	V
		5270	90.27	-	-	79.21	31.8	8.85	29.59	282	276	A	V
		5350.08	51.17	-22.83	74	39.59	31.67	9.46	29.55	282	276	P	V
		5448.48	43.43	-10.57	54	31.52	31.75	9.68	29.52	282	276	A	V
802.11n HT40 CH 62 5310MHz		5130.55	51.28	-22.72	74	40.66	31.76	8.51	29.65	313	186	P	H
		5081.55	43.13	-10.87	54	32.71	31.66	8.43	29.67	313	186	A	H
		5310	91.21	-	-	79.78	31.74	9.26	29.57	313	186	P	H
		5310	84.75	-	-	73.32	31.74	9.26	29.57	313	186	A	H
		5356.08	53.54	-20.46	74	41.96	31.67	9.46	29.55	313	186	P	H
		5350.08	46.49	-7.51	54	34.91	31.67	9.46	29.55	313	186	A	H
		5100.45	51.24	-22.76	74	40.77	31.7	8.43	29.66	234	247	P	V
		5065.8	43.22	-10.78	54	32.91	31.63	8.36	29.68	234	247	A	V
		5310	96.29	-	-	84.86	31.74	9.26	29.57	234	247	P	V
		5310	90.09	-	-	78.66	31.74	9.26	29.57	234	247	A	V
	5356.32	55.87	-18.13	74	44.29	31.67	9.46	29.55	234	247	P	V	
	5350.32	50.13	-3.87	54	38.55	31.67	9.46	29.55	234	247	A	V	
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



**Band 2 5250~5350MHz**  
**WIFI 802.11n HT40 (Harmonic @ 3m)**

WIFI Ant. 1	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		7028	52.05	-16.25	68.3	57.96	35.41	10.21	51.53	182	16	P	H
		10540	49.85	-18.45	68.3	49.18	39.85	12.2	51.38	125	211	P	H
		15810	49.05	-24.95	74	48.43	38.01	14.71	52.1	126	269	P	H
		7028	51.77	-16.53	68.3	57.68	35.41	10.21	51.53	152	194	P	V
		10540	49.67	-18.63	68.3	49	39.85	12.2	51.38	150	220	P	V
		15810	49.42	-24.58	74	48.8	38.01	14.71	52.1	168	345	P	V
802.11n HT40 CH 62 5310MHz		7077.5	51.87	-16.43	68.3	57.65	35.61	10.2	51.59	152	184	P	H
		10620	49.75	-24.25	74	49.12	39.94	12.26	51.57	126	248	P	H
		15930	49.08	-24.92	74	48.61	37.62	14.76	51.91	120	149	P	H
		7077.5	51.64	-16.66	68.3	57.42	35.61	10.2	51.59	133	26	P	V
		10620	49.84	-24.16	74	49.21	39.94	12.26	51.57	150	220	P	V
		15930	48.38	-25.62	74	47.91	37.62	14.76	51.91	160	100	P	V
<b>Remark</b>	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



Band 2 5250~5350MHz
WIFI 802.11ac VHT80 (Band Edge @ 3m)

Table with 14 columns: 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). Rows include test results for 802.11ac VHT80 CH 58 5290MHz and a Remark section.



Band 2 5250~5350MHz
WIFI 802.11ac VHT80 (Harmonic @ 3m)

Table with 14 columns: 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). Rows include data for 802.11ac VHT80 CH 58 at 5290MHz and a Remark section.





**Band 3 - 5470~5725MHz**  
**WIFI 802.11a (Band Edge @ 3m)**

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Peak	Pol.
Ant.				Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
1		( MHz )	( dBμV/m )	( dB )	( dBμV/m )	( dBμV )	( dB/m )	( dB )	( dB )	( cm )	( deg )	(P/A)	(H/V)
802.11a CH 100 5500MHz		5460.08	51.01	-17.29	68.3	42.24	31.78	9.68	32.69	169	327	P	H
		5469.84	55.98	-12.32	68.3	47.16	31.81	9.7	32.69	169	327	P	H
		5460	42.71	-11.29	54	33.94	31.78	9.68	32.69	169	327	A	H
		5500	108.56	-	-	99.66	31.9	9.7	32.7	169	327	P	H
		5500	101.3	-	-	92.4	31.9	9.7	32.7	169	327	A	H
		5459.92	49.48	-24.52	74	40.71	31.78	9.68	32.69	161	242	P	V
		5467.28	53.46	-14.84	68.3	44.65	31.8	9.7	32.69	161	242	P	V
		5460	40.97	-13.03	54	32.2	31.78	9.68	32.69	161	242	A	V
		5500	105.39	-	-	96.49	31.9	9.7	32.7	161	242	P	V
		5500	97.53	-	-	88.63	31.9	9.7	32.7	161	242	A	V
802.11a CH 116 5580MHz		5355.76	46.7	-27.3	74	38.22	31.67	9.46	32.65	176	326	P	H
		5465.68	45.95	-22.35	68.3	37.14	31.8	9.7	32.69	176	326	P	H
		5459.44	38.03	-15.97	54	29.26	31.78	9.68	32.69	176	326	A	H
		5580	110.59	-	-	101.39	32.14	9.74	32.68	176	326	P	H
		5580	103.76	-	-	94.56	32.14	9.74	32.68	176	326	A	H
		5739.485	48.3	-20	68.3	38.66	32.2	10.09	32.65	176	326	P	H
		5404.48	47.29	-26.71	74	38.69	31.61	9.66	32.67	164	241	P	V
		5461.84	46.68	-21.62	68.3	37.9	31.79	9.68	32.69	164	241	P	V
		5459.68	37.84	-16.16	54	29.07	31.78	9.68	32.69	164	241	A	V
		5580	104.74	-	-	95.54	32.14	9.74	32.68	164	241	P	V
		5580	97.26	-	-	88.06	32.14	9.74	32.68	164	241	A	V
		5763.74	48.99	-19.31	68.3	39.35	32.2	10.09	32.65	164	241	P	V



802.11a CH 140 5700MHz		5700	111.13	-	-	101.58	32.2	10.01	32.66	177	327	P	H
		5700	103.91	-	-	94.36	32.2	10.01	32.66	177	327	A	H
		5727	63.46	-4.84	68.3	53.9	32.2	10.01	32.65	177	327	P	H
		5700	103.43	-	-	93.88	32.2	10.01	32.66	180	247	P	V
		5700	96.01	-	-	86.46	32.2	10.01	32.66	180	247	A	V
		5726.68	53.51	-14.79	68.3	43.95	32.2	10.01	32.65	180	247	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



**Band 3 - 5470~5725MHz**  
**WIFI 802.11a (Harmonic @ 3m)**

WIFI Ant. 1	Note	Frequency ( MHz )	Level ( dBμV/m )	Over Limit ( dB )	Limit Line ( dBμV/m )	Read Level (dBμV)	Antenna Factor ( dB/m )	Cable Loss ( dB )	Preamp Factor ( dB )	Ant Pos ( cm )	Table Pos ( deg )	Peak Avg. (P/A)	Pol. (H/V)
802.11a CH 100 5500MHz		7330.5	54.01	-19.99	74	59.43	36.23	10.18	51.83	163	360	P	H
		7330.5	48.64	-5.36	54	54.06	36.23	10.18	51.83	163	360	A	H
		11000	50.58	-23.42	74	50.07	40.4	12.51	52.4	123	216	P	H
		16500	49.83	-18.47	68.3	47.68	39.5	15.15	52.5	184	226	P	H
		7336	51.58	-22.42	74	57	36.24	10.18	51.84	100	264	P	V
		7336	45.77	-8.23	54	51.19	36.24	10.18	51.84	122	264	A	V
		11000	51.72	-22.28	74	51.21	40.4	12.51	52.4	155	212	P	V
		16500	50.93	-17.37	68.3	48.78	39.5	15.15	52.5	178	296	P	V
802.11a CH 116 5580MHz		11160	49.18	-24.82	74	48.67	40.43	12.65	52.57	183	320	P	H
		16740	50.42	-17.88	68.3	46.43	40.89	15.36	52.26	163	232	P	H
		11160	49.91	-24.09	74	49.4	40.43	12.65	52.57	170	200	P	V
		16740	51.03	-17.27	68.3	47.04	40.89	15.36	52.26	156	350	P	V
802.11a CH 140 5700MHz		11400	50.63	-23.37	74	50.13	40.48	12.82	52.8	157	285	P	H
		17100	49.44	-18.86	68.3	43.22	42.74	15.62	52.14	165	246	P	H
		11400	53.36	-20.64	74	52.86	40.48	12.82	52.8	122	291	P	V
		17100	51.17	-17.13	68.3	44.95	42.74	15.62	52.14	153	102	P	V
<b>Remark</b>	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



**Band 3 - 5470~5725MHz**  
**WIFI 802.11n HT20 (Band Edge @ 3m)**

WIFI Ant. 1	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		5457.68	48.35	-25.65	74	40.49	31.77	9.68	33.59	276	193	P	H
		5465.36	52.37	-15.93	68.3	44.48	31.8	9.68	33.59	276	193	P	H
		5460	40.18	-13.82	54	32.31	31.78	9.68	33.59	276	193	A	H
		5500	106.07	-	-	98.07	31.9	9.7	33.6	276	193	P	H
		5500	99.6	-	-	91.6	31.9	9.7	33.6	276	193	A	H
		5458.32	47.31	-26.69	74	39.45	31.77	9.68	33.59	308	268	P	V
		5467.6	53.11	-15.19	68.3	45.2	31.8	9.7	33.59	308	268	P	V
		5460	39.83	-14.17	54	31.96	31.78	9.68	33.59	308	268	A	V
		5500	105.5	-	-	97.5	31.9	9.7	33.6	308	268	P	V
	5500	98.3	-	-	90.3	31.9	9.7	33.6	308	268	A	V	
802.11n HT20 CH 116 5580MHz		5458.48	50.12	-23.88	74	38.17	31.78	9.68	29.51	170	318	P	H
		5467.6	49.76	-18.54	68.3	37.77	31.8	9.7	29.51	170	318	P	H
		5459.92	40.62	-13.38	54	28.67	31.78	9.68	29.51	170	318	A	H
		5580	108.17	-	-	95.75	32.14	9.74	29.46	170	318	P	H
		5580	102.02	-	-	89.6	32.14	9.74	29.46	170	318	A	H
		5742.32	50.31	-17.99	68.3	37.42	32.2	10.09	29.4	170	318	P	H
		5423.44	50.75	-23.25	74	38.95	31.67	9.66	29.53	322	275	P	V
		5465.44	49.35	-18.95	68.3	37.38	31.8	9.68	29.51	322	275	P	V
		5459.68	40.65	-13.35	54	28.7	31.78	9.68	29.51	322	275	A	V
		5580	108.87	-	-	96.45	32.14	9.74	29.46	322	275	P	V
		5580	100.88	-	-	88.46	32.14	9.74	29.46	322	275	A	V
	5747.045	50.7	-17.6	68.3	37.81	32.2	10.09	29.4	322	275	P	V	



802.11n HT20 CH 140 5700MHz	5700	107.16	-	-	94.37	32.2	10.01	29.42	157	323	P	H
	5700	99.85	-	-	87.06	32.2	10.01	29.42	157	323	A	H
	5725	64.83	-3.47	68.3	52.03	32.2	10.01	29.41	157	323	P	H
	5700	106.35	-	-	93.56	32.2	10.01	29.42	325	284	P	V
	5700	99.75	-	-	86.96	32.2	10.01	29.42	325	284	A	V
	5725.08	65.22	-3.08	68.3	52.42	32.2	10.01	29.41	325	284	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.											



**Band 3 - 5470~5725MHz**  
**WIFI 802.11n HT20 (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 100		7336	50.06	-23.94	74	55.48	36.24	10.18	51.84	152	174	P	H	
		11000	50.56	-23.44	74	50.05	40.4	12.51	52.4	123	216	P	H	
		16500	50.43	-17.87	68.3	48.28	39.5	15.15	52.5	184	226	P	H	
5500MHz		7336	48.03	-25.97	74	53.45	36.24	10.18	51.84	122	155	P	V	
		11000	50.19	-23.81	74	49.68	40.4	12.51	52.4	155	212	P	V	
		16500	50.61	-17.69	68.3	48.46	39.5	15.15	52.5	178	296	P	V	
802.11n HT20 CH 116		7440.5	47.38	-26.62	74	52.82	36.34	10.17	51.95	122	189	P	H	
		11160	50.06	-23.94	74	49.55	40.43	12.65	52.57	183	320	P	H	
		16740	50.42	-17.88	68.3	46.43	40.89	15.36	52.26	163	232	P	H	
		7440.5	47.48	-26.52	74	52.92	36.34	10.17	51.95	163	295	P	V	
		11160	49.33	-24.67	74	48.82	40.43	12.65	52.57	170	200	P	V	
5580MHz		16740	51.03	-17.27	68.3	47.04	40.89	15.36	52.26	156	350	P	V	
	802.11n HT20 CH 140		11400	49.52	-24.48	74	49.02	40.48	12.82	52.8	157	285	P	H
			17100	49.44	-18.86	68.3	43.22	42.74	15.62	52.14	165	246	P	H
			11400	52.53	-21.47	74	52.03	40.48	12.82	52.8	122	291	P	V
			11400	48.73	-5.27	54	48.23	40.48	12.82	52.8	122	291	A	V
		17100	51.17	-17.13	68.3	44.95	42.74	15.62	52.14	153	102	P	V	
5700MHz														
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.													



**Band 3 - 5470~5725MHz**  
**WIFI 802.11n HT40 (Band Edge @ 3m)**

WIFI Ant. 1	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		5459.92	58.65	-15.35	74	46.7	31.78	9.68	29.51	188	359	P	H
		5469.76	64.12	-4.18	68.3	52.12	31.81	9.7	29.51	188	359	P	H
		5459.92	50.48	-3.52	54	38.53	31.78	9.68	29.51	188	359	A	H
		5510	102.33	-	-	90.17	31.93	9.72	29.49	188	359	P	H
		5510	95.9	-	-	83.74	31.93	9.72	29.49	188	359	A	H
		5759.015	51.43	-16.87	68.3	38.53	32.2	10.09	29.39	188	359	P	H
		5458.72	55.39	-18.61	74	43.44	31.78	9.68	29.51	194	300	P	V
		5468.08	63.32	-4.98	68.3	51.33	31.8	9.7	29.51	194	300	P	V
		5459.92	49.18	-4.82	54	37.23	31.78	9.68	29.51	194	300	A	V
		5510	100.22	-	-	88.06	31.93	9.72	29.49	194	300	P	V
		5510	93.22	-	-	81.06	31.93	9.72	29.49	194	300	A	V
		5729.09	51.61	-16.69	68.3	38.81	32.2	10.01	29.41	194	300	P	V
802.11n HT40 CH 110 5550MHz		5459.68	52.71	-21.29	74	40.76	31.78	9.68	29.51	233	323	P	H
		5465.44	56.17	-12.13	68.3	44.2	31.8	9.68	29.51	233	323	P	H
		5459.68	46.53	-7.47	54	34.58	31.78	9.68	29.51	233	323	A	H
		5550	105.81	-	-	93.5	32.05	9.74	29.48	233	323	P	H
		5550	98.56	-	-	86.25	32.05	9.74	29.48	233	323	A	H
		5736.965	52.01	-16.29	68.3	39.2	32.2	10.01	29.4	233	323	P	H
		5458.96	54.01	-19.99	74	42.06	31.78	9.68	29.51	390	243	P	V
		5465.68	57.99	-10.31	68.3	46	31.8	9.7	29.51	390	243	P	V
		5458.96	47.14	-6.86	54	35.19	31.78	9.68	29.51	390	243	A	V
		5550	105.19	-	-	92.88	32.05	9.74	29.48	390	243	P	V
		5550	97.52	-	-	85.21	32.05	9.74	29.48	390	243	A	V
		5758.7	52.75	-15.55	68.3	39.85	32.2	10.09	29.39	390	243	P	V



802.11n HT40 CH 134 5670MHz		5451.85	50.57	-23.43	74	38.64	31.76	9.68	29.51	360	327	P	H
		5465.5	50.97	-17.33	68.3	39	31.8	9.68	29.51	360	327	P	H
		5458.85	43.22	-10.78	54	31.27	31.78	9.68	29.51	360	327	A	H
		5670	105.43	-	-	92.74	32.2	9.92	29.43	360	327	P	H
		5670	98.48	-	-	85.79	32.2	9.92	29.43	360	327	A	H
		5725.1	63.43	-4.87	68.3	50.63	32.2	10.01	29.41	360	327	P	H
		5404.6	50.82	-23.18	74	39.08	31.61	9.66	29.53	390	243	P	V
		5462.35	51.17	-17.13	68.3	39.21	31.79	9.68	29.51	390	243	P	V
		5459.55	43.08	-10.92	54	31.13	31.78	9.68	29.51	390	243	A	V
		5670	104.89	-	-	92.2	32.2	9.92	29.43	390	243	P	V
		5670	96.94	-	-	84.25	32.2	9.92	29.43	390	243	A	V
		5727.375	62.97	-5.33	68.3	50.17	32.2	10.01	29.41	390	243	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												





**Band 3 - 5470~5725MHz**  
**WIFI 802.11n HT40 (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 HT40 CH 102 5510MHz		7347	49.51	-24.49	74	54.92	36.25	10.18	51.84	163	24	P	H
		11020	50.26	-23.74	74	49.74	40.4	12.54	52.42	123	215	P	H
		16530	48.34	-19.96	68.3	45.96	39.67	15.18	52.47	182	148	P	H
		7347	46.21	-27.79	74	51.62	36.25	10.18	51.84	152	15	P	V
		11020	49.64	-24.36	74	49.12	40.4	12.54	52.42	170	230	P	V
		16530	50.34	-17.96	68.3	47.96	39.67	15.18	52.47	160	300	P	V
802.11n HT40 CH 110 5550MHz		7402	48.15	-25.85	74	53.58	36.3	10.18	51.91	122	164	P	H
		7402	44.5	-9.5	54	49.93	36.3	10.18	51.91	122	164	A	H
		11100	49.48	-24.52	74	48.96	40.42	12.6	52.5	153	216	P	H
		16650	49.75	-18.55	68.3	46.45	40.37	15.27	52.34	123	315	P	H
		7402	47.87	-26.13	74	53.3	36.3	10.18	51.91	155	184	P	V
		11100	49.41	-24.59	74	48.89	40.42	12.6	52.5	155	210	P	V
802.11n HT40 CH 134 5670MHz		11340	50.1	-23.9	74	49.6	40.47	12.76	52.73	195	335	P	H
		17010	49.25	-19.05	68.3	43.28	42.43	15.56	52.02	144	152	P	H
		11340	50.33	-23.67	74	49.83	40.47	12.76	52.73	125	198	P	V
		17010	51.33	-16.97	68.3	45.36	42.43	15.56	52.02	185	290	P	V
<b>Remark</b>	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



**Band 3 - 5470~5725MHz**  
**WIFI 802.11ac VHT80 (Band Edge @ 3m)**

WIFI Ant. 1	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		5458.96	56.74	-17.26	74	44.79	31.78	9.68	29.51	163	324	P	H
		5467.36	59.29	-9.01	68.3	47.3	31.8	9.7	29.51	163	324	P	H
		5459.92	50.23	-3.77	54	38.28	31.78	9.68	29.51	163	324	A	H
		5530	98.9	-	-	86.67	31.99	9.72	29.48	163	324	P	H
		5530	91.26	-	-	79.03	31.99	9.72	29.48	163	324	A	H
		5740.115	51.01	-17.29	68.3	38.12	32.2	10.09	29.4	163	324	P	H
		5432.32	55.17	-18.83	74	43.31	31.7	9.68	29.52	177	299	P	V
		5469.04	59.03	-9.27	68.3	47.03	31.81	9.7	29.51	177	299	P	V
		5459.92	49.07	-4.93	54	37.12	31.78	9.68	29.51	177	299	A	V
		5530	95.74	-	-	83.51	31.99	9.72	29.48	177	299	P	V
		5530	87.86	-	-	75.63	31.99	9.72	29.48	177	299	A	V
		5754.605	52.86	-15.44	68.3	39.97	32.2	10.09	29.4	177	299	P	V
802.11ac VHT80 CH 122 5610MHz		5458.72	52.53	-21.47	74	40.58	31.78	9.68	29.51	157	324	P	H
		5466.88	54.23	-14.07	68.3	42.24	31.8	9.7	29.51	157	324	P	H
		5458	46.84	-7.16	54	34.9	31.77	9.68	29.51	157	324	A	H
		5610	105.04	-	-	92.53	32.2	9.76	29.45	157	324	P	H
		5610	98.94	-	-	86.43	32.2	9.76	29.45	157	324	A	H
		5727.55	64.77	-3.53	68.3	51.97	32.2	10.01	29.41	157	324	P	H
		5456.8	53.39	-20.61	74	41.45	31.77	9.68	29.51	174	299	P	V
		5464	53.27	-15.03	68.3	41.31	31.79	9.68	29.51	174	299	P	V
		5457.76	45.71	-8.29	54	33.77	31.77	9.68	29.51	174	299	A	V
		5610	101.27	-	-	88.76	32.2	9.76	29.45	174	299	P	V
	5610	93.56	-	-	81.05	32.2	9.76	29.45	174	299	A	V	
	5727.9	61.59	-6.71	68.3	48.79	32.2	10.01	29.41	174	299	P	V	
<b>Remark</b>	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



Band 3 5470~5725MHz

WIFI 802.11ac VHT80 (Harmonic @ 3m)

WIFI Ant. 1	Note	Frequency ( MHz )	Level ( dBμV/m )	Over Limit ( dB )	Limit Line ( dBμV/m )	Read Level (dBμV)	Antenna Factor ( dB/m )	Cable Loss ( dB )	Preamp Factor ( dB )	Ant Pos ( cm )	Table Pos ( deg )	Peak Avg. (P/A)	Pol. (H/V)
802.11ac		11060	51.23	-22.77	74	50.72	40.41	12.57	52.47	170	230	P	H
VHT80		16590	49.72	-18.58	68.3	46.87	40.02	15.24	52.41	155	305	P	H
CH 106		11060	50.87	-23.13	74	50.36	40.41	12.57	52.47	166	212	P	V
5530MHz		16590	50.4	-17.9	68.3	47.55	40.02	15.24	52.41	132	343	P	V
802.11ac		11220	51.54	-22.46	74	51.04	40.44	12.68	52.62	200	360	P	H
VHT80		16830	50.11	-18.19	68.3	45.45	41.41	15.42	52.17	170	315	P	H
CH 122		11220	49.37	-24.63	74	48.87	40.44	12.68	52.62	155	260	P	V
5610MHz		16830	50.98	-17.32	68.3	46.32	41.41	15.42	52.17	180	220	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 (Harmonic @ 3m)

Table with 14 columns: WIFI, Note, Frequency, Level, Over, Limit, Read, Antenna, Cable, Preamp, Ant, Table, Peak, Pol. It contains test data for 802.11a and CH 144 at 5720MHz, and a Remark section.



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

Table with 14 columns: 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). Rows include test data for 802.11n HT20 CH 144 5720MHz and a Remark section.



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

Table with 14 columns: 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). Rows include test data for 802.11n HT40 CH 142 and a Remark section.



**Band 3 - 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 )	Cable Loss ( dB )	Preamp Factor ( dB )	Ant Pos ( cm )	Table Pos ( deg )	Peak Avg. (P/A)	Pol. (H/V)
802.11ac		11380	48.42	-25.58	74	47.93	40.48	12.79	52.78	195	335	P	H
VHT80		17070	50.74	-17.56	68.3	44.6	42.64	15.59	52.09	162	310	P	H
CH 138		11380	48.29	-25.71	74	47.8	40.48	12.79	52.78	125	315	P	V
5690MHz		17070	51.2	-17.1	68.3	45.06	42.64	15.59	52.09	185	290	P	V
<b>Remark</b>	<ol style="list-style-type: none"> <li>No other spurious found.</li> <li>All results are PASS against Peak and Average limit line.</li> </ol>												



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		( MHz )	( dBμV/m )	( dB )	( dBμV/m )	( dBμV )	( dB/m )	( dB )	( dB )	( cm )	( deg )	( P/A )	( H/V )
802.11ac VHT80 LF		37.76	30.45	-9.55	40	40.98	20.68	0.59	31.8	144	188	P	H
		150.28	29.99	-13.51	43.5	44.38	16.76	1.25	32.4	-	-	P	H
		169.68	28.9	-14.6	43.5	44.02	15.87	1.33	32.32	-	-	P	H
		288.02	28.54	-17.46	46	39.61	19.17	1.76	32	-	-	P	H
		503.36	30.1	-15.9	46	36.09	23.78	2.34	32.11	-	-	P	H
		670.2	31.43	-14.57	46	35.64	25.3	2.69	32.2	-	-	P	H
		37.76	36.31	-3.69	40	46.84	20.68	0.59	31.8	182	180	P	V
		166.77	29.85	-13.65	43.5	44.88	15.98	1.32	32.33	-	-	P	V
		276.38	28.22	-17.78	46	39.49	19	1.73	32	-	-	P	V
		442.25	30.45	-15.55	46	37.38	22.79	2.18	31.9	-	-	P	V
		740.04	28.33	-17.67	46	31.73	26.05	2.83	32.28	-	-	P	V
		806	28.65	-17.35	46	31.67	26.24	2.95	32.21	-	-	P	V
Remark	1. No other spurious found. 2. All results are PASS against limit line.												





**Note symbol**

*	<b>Fundamental Frequency</b> which can be ignored. However, the level of any unwanted emissions shall not exceed the level of the fundamental frequency.
!	Test result is <b>over limit</b> line.
P/A	<b>Peak</b> or <b>Average</b>
H/V	<b>Horizontal</b> or <b>Vertical</b>



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

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Peak	Pol.
Ant.				Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
1		( MHz )	( dBμV/m )	( dB )	( dBμV/m )	( dBμV )	( dB/m )	( dB )	( dB )	( cm )	( deg )	( P/A )	( H/V )
802.11b		2390	55.45	-18.55	74	54.51	32.22	4.58	35.86	103	308	P	H
CH 01													
2412MHz		2390	43.54	-10.46	54	42.6	32.22	4.58	35.86	103	308	A	H

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

**For Peak Limit @ 2390MHz:**

- Level(dBμV/m)  
= Antenna Factor(dB/m) + Cable Loss(dB) + Read Level(dBμV) - Preamp Factor(dB)  
= 32.22(dB/m) + 4.58(dB) + 54.51(dBμV) – 35.86 (dB)  
= 55.45 (dBμV/m)
- Over Limit(dB)  
= Level(dBμV/m) – Limit Line(dBμV/m)  
= 55.45(dBμV/m) – 74(dBμV/m)  
= -18.55(dB)

**For Average Limit @ 2390MHz:**

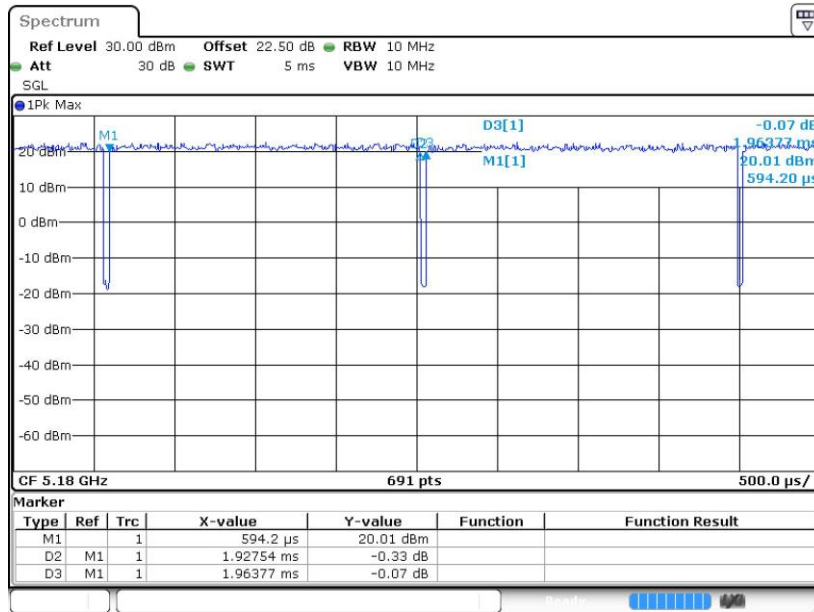
- Level(dBμV/m)  
= Antenna Factor(dB/m) + Cable Loss(dB) + Read Level(dBμV) - Preamp Factor(dB)  
= 32.22(dB/m) + 4.58(dB) + 42.6(dBμV) – 35.86 (dB)  
= 43.54 (dBμV/m)
- Over Limit(dB)  
= Level(dBμV/m) – Limit Line(dBμV/m)  
= 43.54(dBμV/m) – 54(dBμV/m)  
= -10.46(dB)

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

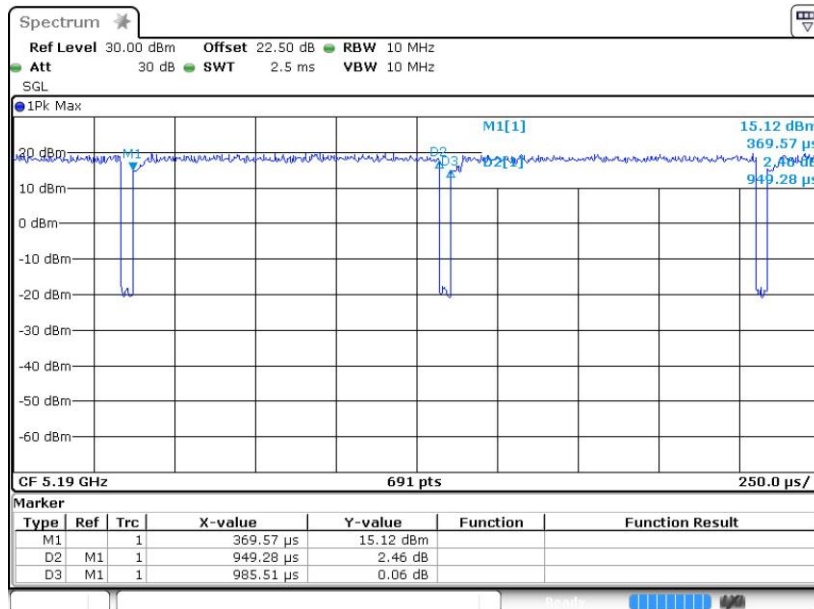




802.11n HT20

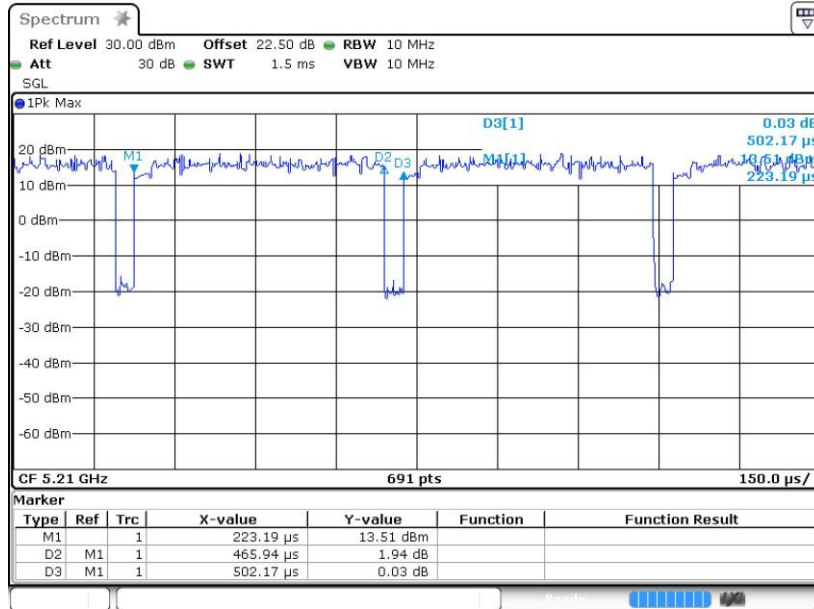


802.11n HT40





802.11ac VHT80





## **Appendix D. Reference Report**

Please refer to Sporton report number FR002013E and FZ002013 which is issued separately.