FCC RF Test Report

APPLICANT	:	**Huawei Technologies Co., Ltd.**
EQUIPMENT	:	**Smart Phone**
BRAND NAME	:	**HUAWEI**
MODEL NAME	:	**GLK-LX1U**
FCC ID	:	**QISGLK-LX1U**
STANDARD	:	**FCC Part 15 Subpart E §15.407**
CLASSIFICATION	:	**(NII) Unlicensed National Information Infrastructure**

The product was received on May 16, 2019 and testing was completed on May 30, 2019. 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.

Derreck Chen

Reviewed by: Derreck Chen / Supervisor

Eric Shih

Approved by: Eric Shih / Manager

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People's Republic of China

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REVISION HISTORY

REPORT NO.	VERSION	DESCRIPTION	ISSUED DATE
FR932820-01E	Rev. 01	Initial issue of report	Jun. 06, 2019

SUMMARY OF TEST RESULT

Report Section	FCC Rule	Description	Limit	Result	Remark
3.1	2.1049 & 15.403(i)	26dB & 99% Bandwidth	-	Pass	-
3.2	15.407(a)	Maximum Conducted Output Power	≤ 24 dBm	Pass	-
3.3	15.407(a)	Power Spectral Density	≤ 11 dBm	Pass	-
3.4	15.407(b)	Unwanted Emissions	15.407(b) & 15.209(a)	Pass	Under limit 2.86 dB at 5149.760 MHz
3.5	15.207	AC Conducted Emission	15.207(a)	Pass	Under limit 12.04 dB at 0.490 MHz
3.6	15.407(c)	Automatically Discontinue Transmission	Discontinue Transmission	Pass	-
3.7	15.203 & 15.407(a)	Antenna Requirement	N/A	Pass	-

1 General Description

1.1 Applicant

Huawei Technologies Co., Ltd.
Administration Building, Headquarters of Huawei Technologies Co., Ltd., Bantian, Longgang District, Shenzhen, 518129, P.R.C

1.2 Product Feature of Equipment Under Test

Product Feature	
Equipment	Smart Phone
Brand Name	HUAWEI
Model Name	GLK-LX1U
FCC ID	QISGLK-LX1U
EUT supports Radios application	GSM/GPRS/EGPRS/WCDMA/HSPA/DC-HSDPA/ HSPA+(16QAM Uplink is not supported)/LTE/NFC WLAN 2.4GHz 802.11b/g/n HT20/HT40 WLAN 5GHz 802.11a/n HT20/HT40 WLAN 5GHz 802.11ac VHT20/VHT40/VHT80 Bluetooth BR/EDR/LE FM Receiver/GNSS
IMEI Code	Conducted: 865951040001537 Conduction: 865951040001362 Radiation: 865951040001479
HW Version	HL7SENEM
SW Version	9.1.0.102(C900E102R1P1)

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. This is a variant report for GLK-LX1U, the change note could be referred to the product equality declaration which is exhibit separately. According to the change, all the test items are verified from original test report (Sporton Report Number FR932820E).

1.3 Product Specification of Equipment Under Test

Standards-related Product Specification	
Tx/Rx Frequency Range	5180 MHz ~ 5240 MHz 5260 MHz ~ 5320 MHz 5500 MHz ~ 5700 MHz
Maximum Output Power to Antenna	**<5180 MHz ~ 5240 MHz>** 802.11a : 14.72 dBm / 0.0296 W 802.11n HT20 : 13.69 dBm / 0.0234 W 802.11n HT40 : 13.13 dBm / 0.0206 W 802.11ac VHT20 : 13.56 dBm / 0.0227 W 802.11ac VHT40 : 13.04 dBm / 0.0201 W 802.11ac VHT80 : 10.66 dBm / 0.0116 W **<5260 MHz ~ 5320 MHz>** 802.11a : 14.17 dBm / 0.0261 W 802.11n HT20 : 12.59 dBm / 0.0182 W 802.11n HT40 : 11.83 dBm / 0.0152 W 802.11ac VHT20 : 12.54 dBm / 0.0179 W 802.11ac VHT40 : 11.75 dBm / 0.0150 W 802.11ac VHT80 : 9.04 dBm / 0.0080 W **<5500 MHz ~ 5700 MHz >** 802.11a : 14.22 dBm / 0.0264 W 802.11n HT20 : 13.15 dBm / 0.0207 W 802.11n HT40 : 12.77 dBm / 0.0189 W 802.11ac VHT20 : 13.07 dBm / 0.0203 W 802.11ac VHT40 : 12.65 dBm / 0.0184 W 802.11ac VHT80 : 9.77 dBm / 0.0095 W
99% Occupied Bandwidth	**<5180 MHz ~ 5240 MHz>** 802.11a : 17.68 MHz 802.11an HT20 : 18.38 MHz 802.11an HT40 : 36.26 MHz 802.11ac VHT80 : 74.93 MHz **<5260 MHz ~ 5320 MHz>** 802.11a : 17.58 MHz 802.11an HT20 : 18.43 MHz 802.11an HT40 : 36.06 MHz 802.11ac VHT80 : 74.81 MHz **<5500 MHz ~ 5700 MHz >** 802.11a : 17.58 MHz 802.11an HT20 : 18.38 MHz 802.11an HT40 : 36.16 MHz 802.11ac VHT80 : 74.81 MHz
Antenna Type / Gain	**<5180 MHz ~ 5240 MHz >** Internal Antenna with gain 1.00 dBi **<5260 MHz ~ 5320 MHz >** Internal Antenna with gain 1.00 dBi **<5500 MHz ~ 5700 MHz >** Internal Antenna with gain 1.00 dBi
Type of Modulation	802.11a/n : OFDM (BPSK / QPSK / 16QAM / 64QAM) 802.11ac : OFDM (BPSK / QPSK / 16QAM / 64QAM / 256QAM)

Note: For 802.11an HT20 / ac VHT20 and 802.11an HT40 / ac VHT40 mode, the whole testing have assessed only 802.11an HT20/HT40 by referring to their maximum conducted power.

1.4 Modification of EUT

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

1.5 Testing Location

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

Test Firm	Sporton International (Shenzhen) Inc.		
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.**
	CO01-SZ TH01-SZ	CN1256	421272

Test Firm	Sporton International (Shenzhen) Inc.		
Test Site Location	No. 3 Bldg the third floor of south, Shahe River west, Fengzeyuan Warehouse, Nanshan Shenzhen, 518055 People's Republic of China TEL: +86-755-33202398		
Test Site No.	**Sporton Site No.**	**FCC Designation No.**	**FCC Test Firm Registration No.**
	03CH01-SZ	CN1256	421272

1.6 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.

1.7 Specification of Accessory

AC Adapter 1	Brand Name	Huawei Technologies Co., Ltd.	Model Name	HW-050200U02
	Power Rating	I/P: 100 - 240 Vac, 500 mA, O/P: 5 Vdc, 2000 mA		
	Manufacturer	Manufacturer: Salcomp	SN	
AC Adapter 2	Brand Name	Huawei Technologies Co., Ltd.	Model Name	HW-050200U02
	Power Rating	I/P: 100 - 240 Vac, 500 mA, O/P: 5 Vdc, 2000 mA		
	Manufacturer	Manufacturer: BYD	SN	
AC Adapter 3	Brand Name	Huawei Technologies Co., Ltd.	Model Name	HW-050200U02
	Power Rating	I/P: 100 - 240 Vac, 500 mA, O/P: 5 Vdc, 2000 mA		
	Manufacturer	Manufacturer: HUNTKEY	SN	
AC Adapter 4	Brand Name	Huawei Technologies Co., Ltd.	Model Name	HW-050200U02
	Power Rating	I/P: 100 - 240 Vac, 500 mA, O/P: 5 Vdc, 2000 mA		
	Manufacturer	Manufacturer: PHIHONG	SN	
AC Adapter 5	Brand Name	Huawei Technologies Co., Ltd.	Model Name	HW-050200E02
	Power Rating	I/P: 100 - 240 Vac, 500 mA, O/P: 5 Vdc, 2000 mA		
	Manufacturer	Manufacturer: Salcomp	SN	
AC Adapter 6	Brand Name	Huawei Technologies Co., Ltd.	Model Name	HW-050200E02
	Power Rating	I/P: 100 - 240 Vac, 500 mA, O/P: 5 Vdc, 2000 mA		
	Manufacturer	Manufacturer: BYD	SN	
AC Adapter 7	Brand Name	Huawei Technologies Co., Ltd.	Model Name	HW-050200E02
	Power Rating	I/P: 100 - 240 Vac, 500 mA, O/P: 5 Vdc, 2000 mA		
	Manufacturer	Manufacturer: HUNTKEY	SN	
AC Adapter 8	Brand Name	Huawei Technologies Co., Ltd.	Model Name	HW-050200E02
	Power Rating	I/P: 100 - 240 Vac, 500 mA, O/P: 5 Vdc, 2000 mA		
	Manufacturer	Manufacturer: PHIHONG	SN	
AC Adapter 9	Brand Name	Huawei Technologies Co., Ltd.	Model Name	HW-050200B02
	Power Rating	I/P: 100 - 240 Vac, 500 mA, O/P: 5 Vdc, 2000 mA		
	Manufacturer	Manufacturer: Salcomp	SN	
AC Adapter 10	Brand Name	Huawei Technologies Co., Ltd.	Model Name	HW-050200B02
	Power Rating	I/P: 100 - 240 Vac, 500 mA, O/P: 5 Vdc, 2000 mA		
	Manufacturer	Manufacturer: BYD	SN	
AC Adapter 11	Brand Name	Huawei Technologies Co., Ltd.	Model Name	HW-050200B02
	Power Rating	I/P: 100 - 240 Vac, 500 mA, O/P: 5 Vdc, 2000 mA		
	Manufacturer	Manufacturer: HUNTKEY	SN	
AC Adapter 12	Brand Name	Huawei Technologies Co., Ltd.	Model Name	HW-050200B02
	Power Rating	I/P: 100 - 240 Vac, 500 mA, O/P: 5 Vdc, 2000 mA		
	Manufacturer	Manufacturer: PHIHONG	SN	
AC Adapter 13	Brand Name	Huawei Technologies Co., Ltd.	Model Name	HW-050200A02
	Power Rating	I/P: 100 - 240 Vac, 500 mA, O/P: 5 Vdc, 2000 mA		
	Manufacturer	Manufacturer: Salcomp	SN	
AC Adapter 14	Brand Name	Huawei Technologies Co., Ltd.	Model Name	HW-050200A02
	Power Rating	I/P: 100 - 240 Vac, 500 mA, O/P: 5 Vdc, 2000 mA		
	Manufacturer	Manufacturer: BYD	SN	
USB Cable 1	Brand Name	Ningbo Broad Telecommunication Co., Ltd	Model Name	WA0020
	Signal Line	1 meter, non-shielded cable, with w/o ferrite core		

USB Cable 2	Brand Name	Dongguan Mingji Electronics Technology Group Co.,Ltd	Model Name	203-1572-0
	Signal Line	1 meter, non-shielded cable, with w/o ferrite core		
USB Cable 3	Brand Name	Freeport Resources Enterprises (Jiangxi) Co.,Ltd	Model Name	18-93C2CHO-001HF
	Signal Line	1 meter, non-shielded cable, with w/o ferrite core		
USB Cable 4	Brand Name	HONGFUJIN PRECISION IND USTRIAL(SHENZHEN).LTD	Model Name	CUDU01B-HC295-EH
	Signal Line	1 meter, non-shielded cable, with w/o ferrite core		
USB Cable 5	Brand Name	LUXSHARE Precision Industry Co., Ltd.	Model Name	L99UC131-CS-H
	Signal Line	1 meter, non-shielded cable, with w/o ferrite core		
USB Cable 6	Brand Name	HUIZHOU DEHONG TECHNOLOGY CO.,LTD.	Model Name	330-50507
	Signal Line	1 meter, non-shielded cable, with w/o ferrite core		
Earphone 1	Brand Name	HONGFUJIN PRECISION INDUSTRIAL(SHENZHEN).LTD	Model Name	EPAB542-2WH06-DH
	Signal Line	1.1 meter, non-shielded cable, with w/o ferrite core		
Earphone 2	Brand Name	HONGFUJIN PRECISION INDUSTRIAL(SHENZHEN).LTD	Model Name	EPAB542-2WH05-DH
	Signal Line	1.1 meter, non-shielded cable, with w/o ferrite core		
Earphone 3	Brand Name	Boluo County Quancheng Electronic Co., Ltd.	Model Name	1293-3283-3.5MM-322
	Signal Line	1.1 meter, non-shielded cable, with w/o ferrite core		
Earphone 4	Brand Name	Jiangxi Lianchuang Hongsheng Electronic Co., LTD.	Model Name	MEND1532B528A02
	Signal Line	1.1 meter, non-shielded cable, with w/o ferrite core		
Earphone 5	Brand Name	Jiangxi Lianchuang Hongsheng Electronic Co., LTD.	Model Name	MEND1532B528B00
	Signal Line	1.1 meter, non-shielded cable, with w/o ferrite core		
Battery	Brand Name	HuaweiTechnologies Co., Ltd.	Model Name	HB446486ECW
	Power Rating	3.82 Vdc, 3900 mAh	Type	Li-ion, Yes

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: conduction emission (150 kHz to 30 MHz), 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 (X plane) were recorded in this report.

b. AC power line Conducted Emission was tested under maximum output power.

2.1 Carrier Frequency and Channel

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

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

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

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

Note:

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

2.2 Test Mode

Final test 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 VHT20	MCS0
802.11ac VHT40	MCS0
802.11ac VHT80	MCS0

Test Cases	
AC Conducted Emission	Mode 1 : GSM 850 Idle + Bluetooth Link + WLAN Link(5G) + Earphone 1 + USB Cable 1(Charging from Adapter 1) + SIM 1
Remark: For Radiated Test Cases, The tests were performance with Adapter 5, Earphone 5, USB Cable 5.	

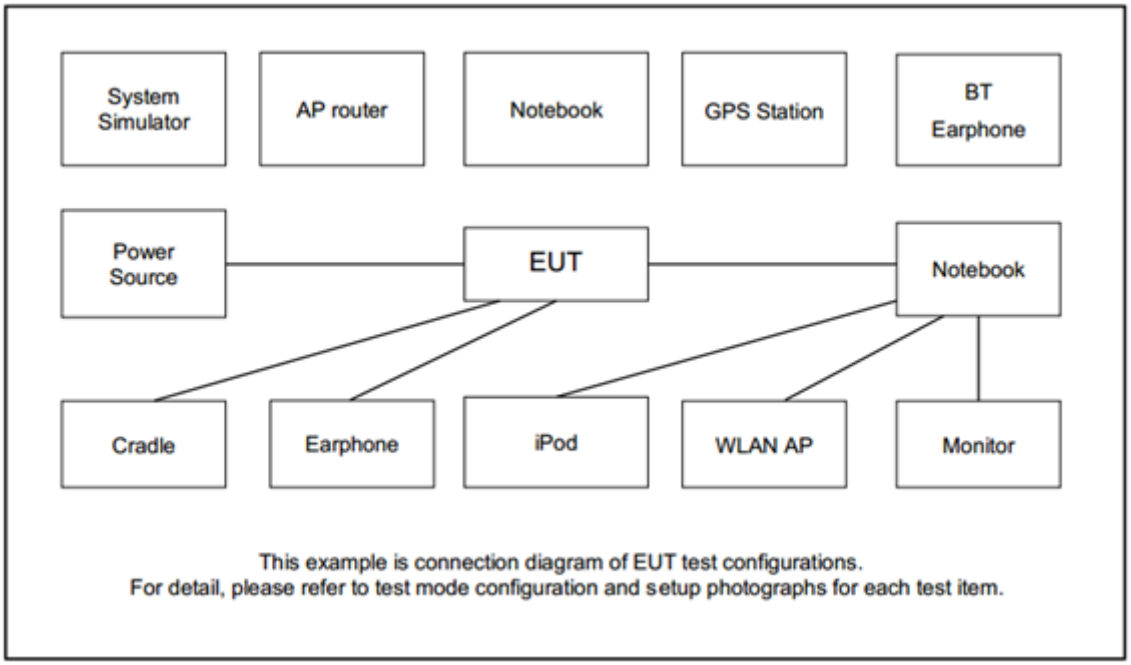
Ch. #		Band I：5180-5240 MHz	Band II：5260-5320 MHz	Band III：5500-5700MHz
		802.11a	802.11a	802.11a
L	Low	36	52	100
M	Middle	44	60	116
H	High	48	64	140

Ch. #		Band I：5180-5240 MHz	Band II：5260-5320 MHz	Band III：5500-5700MHz
		802.11n HT20	802.11n HT20	802.11n HT20
L	Low	36	52	100
M	Middle	44	60	116
H	High	48	64	140

Ch. #		Band I：5180-5240 MHz	Band II：5260-5320 MHz	Band III：5500-5700MHz
		802.11n HT40	802.11n HT40	802.11n HT40
L	Low	38	54	102
M	Middle	-	-	110
H	High	46	62	134

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

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.	System Simulator	Anritsu	MT8820C	N/A	N/A	Unshielded,1.8m
2.	WLAN AP	D-Link	DIR-820L	KA2IR820LA1	N/A	Unshielded,1.8m
3.	Bluetooth Earphone	Samsung	EO-MG900	N/A	N/A	N/A
4.	Notebook	Lenovo	E540	FCC DoC	N/A	AC I/P: Unshielded, 1.2m DC O/P: Shielded, 1.8 m

2.5 EUT Operation Test Setup

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

For AC power line conducted emissions, the EUT was set to connect with the WLAN AP under large package sizes transmission.

2.6 Measurement Results Explanation Example

For all conducted test items:

The offset level is set in the spectrum analyzer to compensate the RF cable loss and attenuator factor between EUT conducted output port and spectrum analyzer. With the offset compensation, the spectrum analyzer reading level is exactly the EUT RF output level.

Example :

The spectrum analyzer offset is derived from RF cable loss and attenuator factor.

Offset = RF cable loss + attenuator factor.

Following shows an offset computation example with cable loss 5.4 dB and 10dB attenuator.

Offset(dB) = RF cable loss(dB) + attenuator factor(dB).

= 5.4 + 10 = 15.4 (dB)

3 Test Result

3.1 26dB & 99% Occupied Bandwidth Measurement

3.1.1 Description of 26dB & 99% Occupied Bandwidth

This section is for reporting purpose only.

There is no restriction limits for bandwidth.

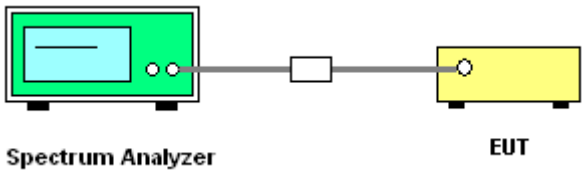
3.1.2 Measuring Instruments

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

3.1.3 Test Procedures

1. The testing follows FCC KDB 789033 D02 General UNII Test Procedures New Rules v02r01. Section C) Emission bandwidth
2. Set RBW = approximately 1% of the emission bandwidth.
3. Set the VBW > RBW.
4. Detector = Peak.
5. Trace mode = max hold
6. Measure the maximum width of the emission that is 26 dB down from the peak of the emission. Compare this with the RBW setting of the analyzer. Readjust RBW and repeat measurement as needed until the RBW/EBW ratio is approximately 1%.
7. For 99% Bandwidth Measurement, the spectrum analyzer's resolution bandwidth (RBW) is set 1MHz and set the Video bandwidth (VBW) ≥ 3 * RBW.
8. Measure and record the results in the test report.

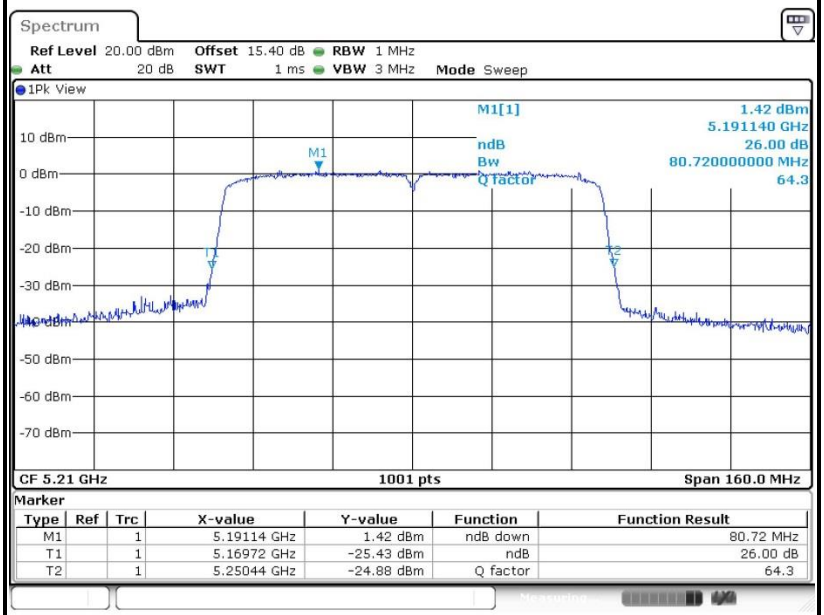
3.1.4 Test Setup



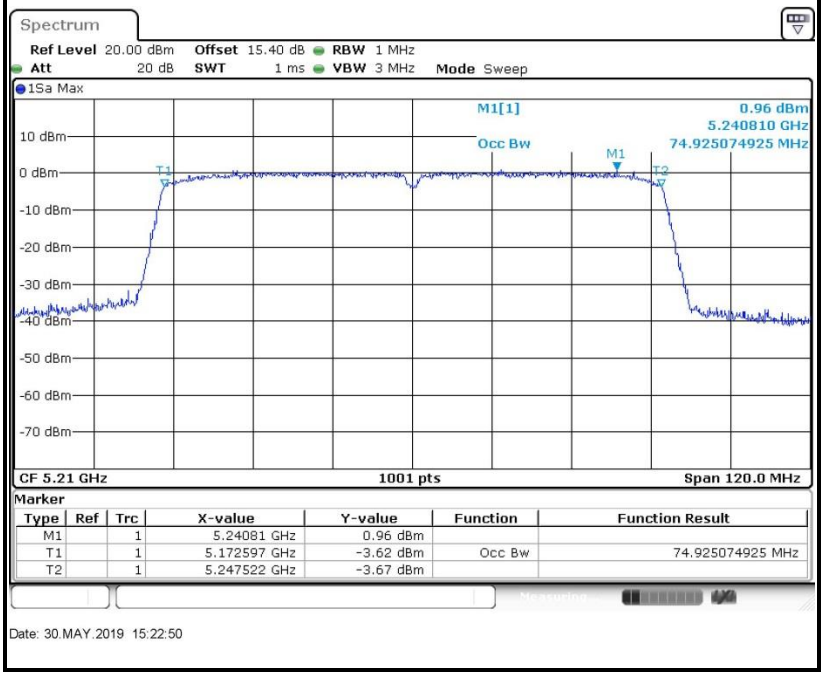
3.1.5 Test Result of 26dB & 99% Occupied Bandwidth

Please refer to Appendix A.

Maximum 26dB Bandwidth



Maximum 99% Occupied Bandwidth



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

3.2 Maximum Conducted Output Power Measurement

3.2.1 Limit of Maximum Conducted Output Power

<FCC 14-30 CFR 15.407>

For mobile and portable client devices in the 5.15–5.25 GHz band, the maximum conducted output power over the frequency band of operation shall not exceed 250 mW.

For the 5.25–5.725 GHz bands, the maximum conducted output power over the frequency bands of operation shall not exceed the lesser of 250 mW or 11 dBm 10 log B, where B is the 26 dB emission bandwidth in megahertz.

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

Note that U-NII-2 band, devices with a maximum e.i.r.p. greater than 500 mW shall implement TPC in order to have the capability to operate at least 6 dB below the maximum permitted e.i.r.p. of 1 W.

3.2.2 Measuring Instruments

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

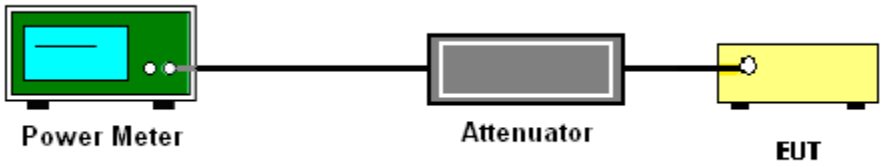
3.2.3 Test Procedures

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

3.2.4 Test Setup



3.2.5 Test Result of Maximum Conducted Output Power

Please refer to Appendix A.

3.3 Power Spectral Density Measurement

3.3.1 Limit of Power Spectral Density

<FCC 14-30 CFR 15.407>

For mobile and portable client devices in the 5.15–5.25 GHz band, the maximum power spectral density shall not exceed 11dBm in any 1 megahertz band.

For the 5.25–5.725 GHz bands, the maximum power spectral density shall not exceed 11 dBm in any 1 megahertz band.

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

3.3.2 Measuring Instruments

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

3.3.3 Test Procedures

The testing follows FCC KDB 789033 D02 General UNII Test Procedures New Rules v02r01. Section F) Maximum power spectral density.

 # Method SA-2 #

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

- Measure the duty cycle.
- Set span to encompass the entire emission bandwidth (EBW) of the signal.
- Set RBW = 1 MHz.
- Set VBW ≥ 3 MHz.
- Number of points in sweep ≥ 2 Span / RBW.
- Sweep time = auto.
- Detector = RMS
- Trace average at least 100 traces in power averaging mode.
- Add 10 log(1/x), where x is the duty cycle, to the measured power in order to compute the average power during the actual transmission times. For example, add 10 log(1/0.25) = 6 dB if the duty cycle is 25 percent.

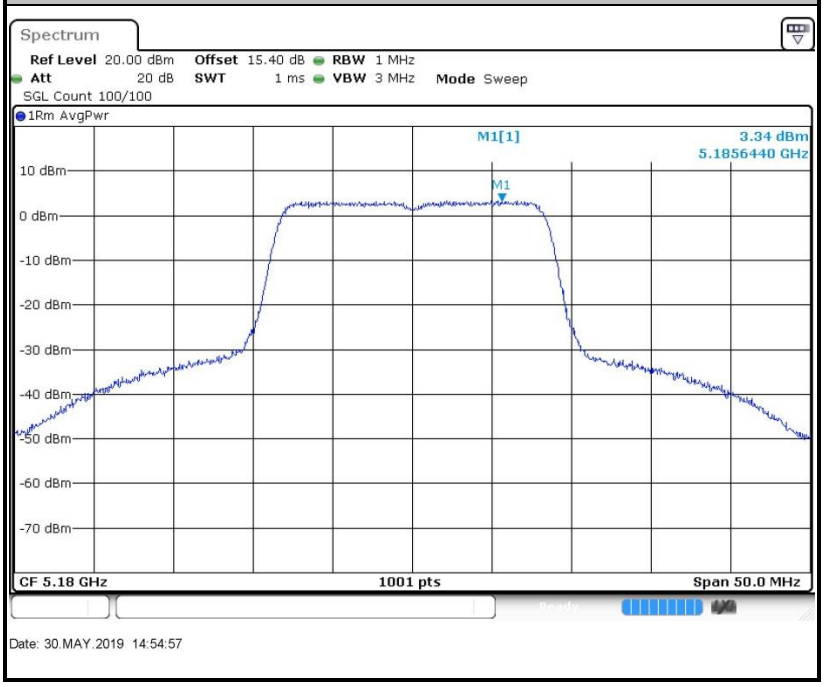
1. The RF output of EUT was connected to the spectrum analyzer by a low loss cable.
2. Each plot has already offset with cable loss, and attenuator loss. Measure the PPSD and record it.

3.3.4 Test Setup

3.3.5 Test Result of Power Spectral Density

Please refer to Appendix A.

Worst Case Power Density (dBm/MHz)



Note: Average Power Density (dB) = Measured value+ Duty Factor

3.4 Unwanted Emissions Measurement

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

3.4.1 Limit of Unwanted Emissions

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

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

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

(2) Unwanted spurious emissions fallen in restricted bands 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	68.2

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

3.4.2 Measuring Instruments

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

3.4.3 Test Procedures

1. The testing follows FCC KDB 789033 D02 General UNII Test Procedures New Rules v02r01. Section G) Unwanted emissions measurement.

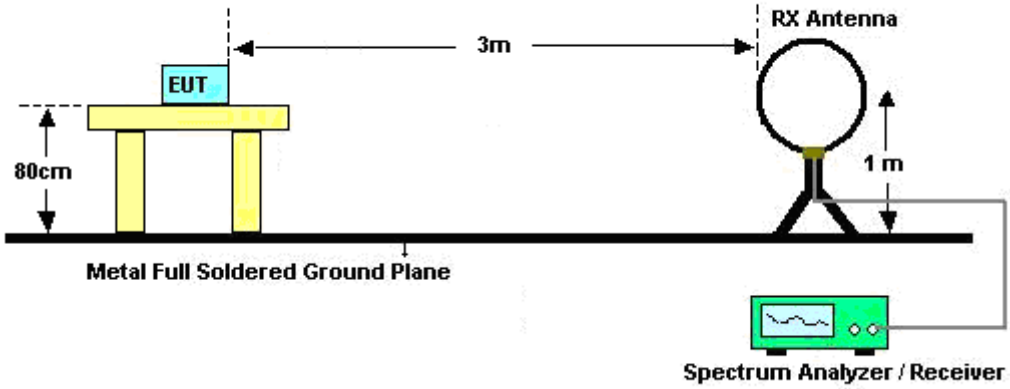
   (1) Procedure for Unwanted Emissions Measurements Below 1000MHz
   - RBW = 120 kHz
   - VBW = 300 kHz
   - Detector = Peak
   - Trace mode = max hold

   (2) Procedure for Peak Unwanted Emissions Measurements Above 1000 MHz
   - RBW = 1 MHz
   - VBW ≥ 3 MHz
   - Detector = Peak
   - Sweep time = auto
   - Trace mode = max hold

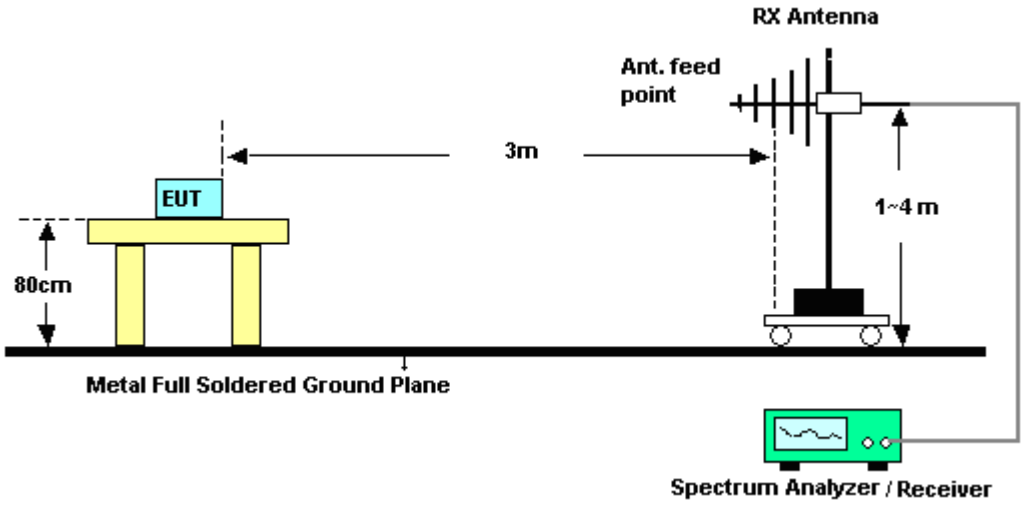
   (3) Procedures for Average Unwanted Emissions Measurements Above 1000MHz
   - RBW = 1 MHz
   - VBW = 10 Hz, when duty cycle is no less than 98 percent.
   - VBW ≥ 1/T, when duty cycle is less than 98 percent where T is the minimum transmission duration over which the transmitter is on and is transmitting at its maximum power control level for the tested mode of operation.
2. The EUT was placed on a turntable with 0.8 meter for frequency below 1GHz and 1.5 meter for frequency above 1GHz respectively above ground.
3. The EUT was set 3 meters from the interference receiving antenna which was mounted on the top of a variable height antenna tower.
4. The antenna is a broadband antenna and its height is adjusted between one meter and four meters above ground to find the maximum value of the field strength for both horizontal polarization and vertical polarization of the antenna.
5. For each suspected emission, the EUT was arranged to its worst case and then adjust the antenna tower (from 1 m to 4 m) and turntable (from 0 degree to 360 degrees) to find the maximum reading.
6. For testing below 1GHz, if the emission level of the EUT in peak mode was 3 dB lower than the limit specified, then peak values of EUT will be reported, otherwise, the emissions will be repeated one by one using the CISPR quasi-peak method and reported.
7. For testing above 1GHz, the emission level of the EUT in peak mode was 20dB lower than average limit (that means the emission level in average mode also complies with the limit in average mode), then peak values of EUT will be reported, otherwise, the emissions will be measured in average mode again and reported.

3.4.4 Test Setup

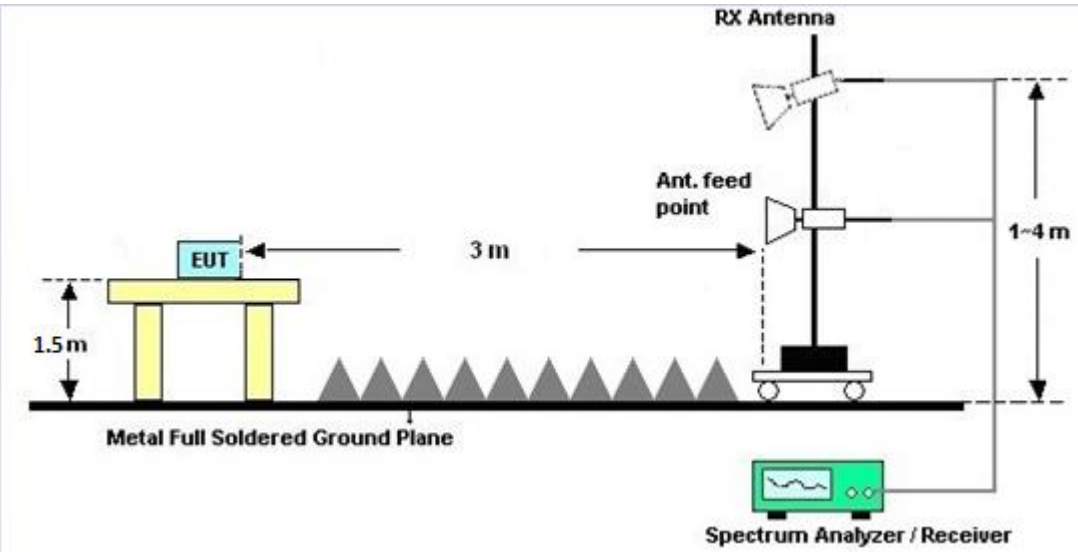
For radiated emissions below 30MHz



For radiated emissions from 30MHz to 1GHz



For radiated emissions above 1GHz



3.4.5 Test Results of Radiated 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.

3.4.6 Test Result of Radiated Spurious at Band Edges

Please refer to Appendix C.

3.4.7 Duty Cycle

Please refer to Appendix D.

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

Please refer to Appendix C.

3.5 AC Conducted Emission Measurement

3.5.1 Limit of AC Conducted Emission

For equipment that is designed to be connected to the public utility (AC) power line, the radio frequency voltage that is conducted back onto the AC power line on any frequency or frequencies within the band 150 kHz to 30 MHz shall not exceed the limits in the following table.

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

*Decreases with the logarithm of the frequency.

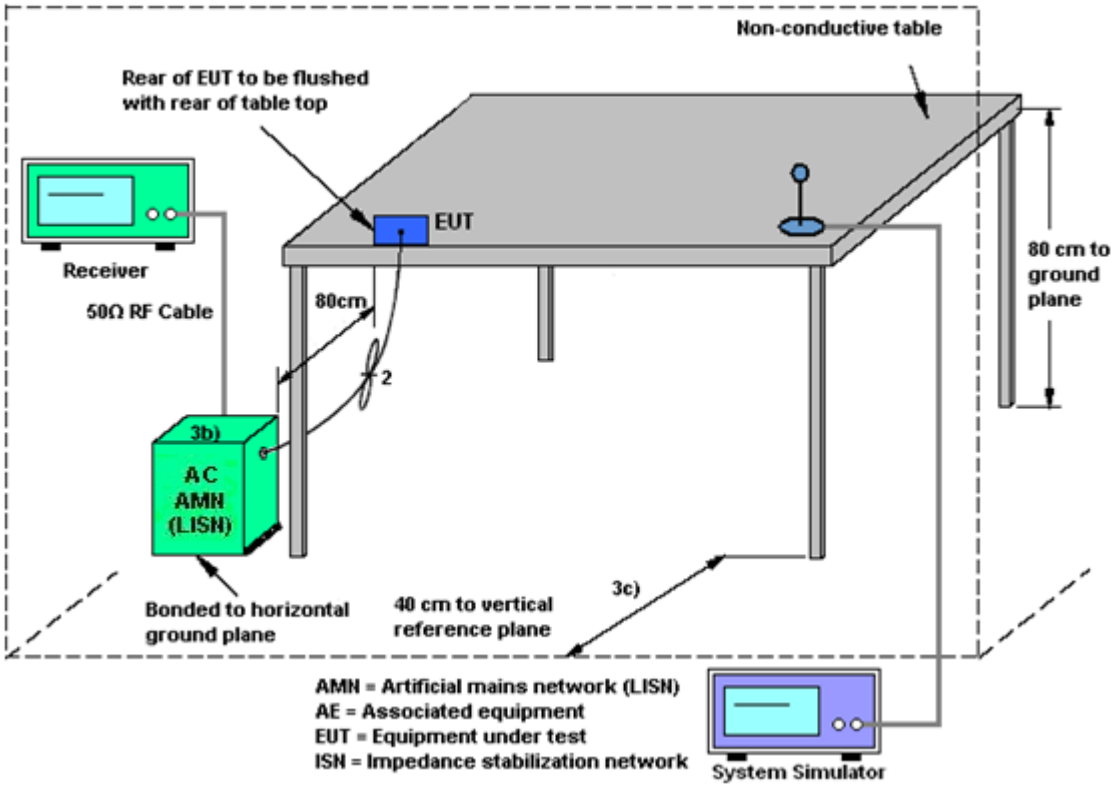
3.5.2 Measuring Instruments

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

3.5.3 Test Procedures

1. The EUT was placed 0.4 meter from the conducting wall of the shielding room was kept at least 80 centimeters from any other grounded conducting surface.
2. Connect EUT to the power mains through a line impedance stabilization network (LISN).
3. All the support units are connecting to the other LISN.
4. The LISN provides 50 ohm coupling impedance for the measuring instrument.
5. The FCC states that a 50 ohm, 50 microhenry LISN should be used.
6. Both sides of AC line were checked for maximum conducted interference.
7. The frequency range from 150 kHz to 30 MHz was searched.
8. Set the test-receiver system to Peak Detect Function and specified bandwidth with Maximum Hold Mode.

3.5.4 Test Setup



3.5.5 Test Result of AC Conducted Emission

Please refer to Appendix B.

3.6 Automatically Discontinue Transmission

3.6.1 Limit of Automatically Discontinue Transmission

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

3.6.2 Measuring Instruments

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

3.6.3 Test Result of Automatically Discontinue Transmission

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

3.7 Antenna Requirements

3.7.1 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.

3.7.2 Antenna Anti-Replacement Construction

An embedded-in antenna design is used.

3.7.3 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. 18, 2019	May 30, 2019	Apr. 17, 2020	Conducted (TH01-SZ)
Pulse Power Senor	Anritsu	MA2411B	1207253	30MHz~40GHz	Dec. 22, 2018	May 30, 2019	Dec. 21, 2019	Conducted (TH01-SZ)
Power Meter	Anritsu	ML2495A	1218010	50MHz Bandwidth	Dec. 22, 2018	May 30, 2019	Dec. 21, 2019	Conducted (TH01-SZ)
EMI Test Receiver&SA	Agilent	N9038A	MY52260185	20Hz~26.5GHz	Aug. 30, 2018	May 30, 2019	Aug. 29, 2019	Radiation (03CH01-SZ)
Loop Antenna	R&S	HFH2-Z2	100354	9kHz~30MHz	May 28, 2019	May 30, 2019	May 27, 2020	Radiation (03CH01-SZ)
Bilog Antenna	TeseQ	CBL6112D	35407	30MHz-2GHz	Jun. 05, 2018	May 30, 2019	Jun. 04, 2019	Radiation (03CH01-SZ)
Double Ridge Horn Antenna	ETS Lindgren	3117	119436	1GHz~18GHz	Jun. 28, 2018	May 30, 2019	Jun. 27, 2019	Radiation (03CH01-SZ)
SHF-EHF Horn	com-power	AH-840	101071	18Ghz-40GHz	Mar. 30, 2019	May 30, 2019	Mar. 29, 2020	Radiation (03CH01-SZ)
LF Amplifier	Burgeon	BPA-530	102209	0.01~3000Mhz	Apr. 19, 2019	May 30, 2019	Apr. 18, 2020	Radiation (03CH01-SZ)
HF Amplifier	MITEQ	AMF-7D-00101800-30-10P-R	1707137	1GHz~18GHz	Oct. 19, 2018	May 30, 2019	Oct. 18, 2019	Radiation (03CH01-SZ)
HF Amplifier	KEYSIGHT	83017A	MY53270104	0.5GHz~26.5Ghz	Dec. 22, 2018	May 30, 2019	Dec. 21, 2019	Radiation (03CH01-SZ)
HF Amplifier	MITEQ	TTA1840-35-HG	1871923	18GHz~40GHz	Jul. 17, 2018	May 30, 2019	Jul. 16, 2019	Radiation (03CH01-SZ)
AC Power Source	Chroma	61601	616010001985	N/A	NCR	May 30, 2019	NCR	Radiation (03CH01-SZ)
Turn Table	EM	EM1000	N/A	0~360 degree	NCR	May 30, 2019	NCR	Radiation (03CH01-SZ)
Antenna Mast	EM	EM1000	N/A	1 m~4 m	NCR	May 30, 2019	NCR	Radiation (03CH01-SZ)
EMI Receiver	R&S	ESR7	101630	9kHz~7GHz;	Dec. 23, 2018	May 28, 2019	Dec. 22, 2019	Conduction (CO01-SZ)
AC LISN	EMCO	3816/2SH	00103912	9kHz~30MHz	Oct. 18, 2018	May 28, 2019	Oct. 17, 2019	Conduction (CO01-SZ)
AC LISN (for auxiliary equipment)	EMCO	3816/2SH	00103892	9kHz~30MHz	Dec. 23, 2018	May 28, 2019	Dec. 22, 2019	Conduction (CO01-SZ)
AC Power Source	Chroma	61602	616020000891	100Vac~250Vac	Jul. 18, 2018	May 28, 2019	Jul. 17, 2019	Conduction (CO01-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 Conducted Emission Measurement (150kHz ~ 30MHz)

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	**2.6dB**

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

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

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

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	**5.0 dB**

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

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	**4.3 dB**

Appendix A. Conducted Test Results

Report Number : FR932820-01E

Test Engineer:	Jensen Wu	Temperature:	24~26	°C
Test Date:	2019/5/30	Relative Humidity:	50~53	%

TEST RESULTS DATA
26dB and 99% OBW

Band I										
Mod.	Data Rate	NTx	CH.	Freq. (MHz)	99% Bandwidth (MHz)	26 dB Bandwidth (MHz)	IC 99% Bandwidth Power Limit (dBm)	IC 99% Bandwidth EIRP Limit (dBm)		
11a	6Mbps	1	36	5180	17.58	20.83	-	22.45		
11a	6Mbps	1	44	5220	17.68	20.73	-	22.48		
11a	6Mbps	1	48	5240	17.63	20.73	-	22.46		
HT20	MCS0	1	36	5180	18.33	21.28	-	22.63		
HT20	MCS0	1	44	5220	18.38	21.33	-	22.64		
HT20	MCS0	1	48	5240	18.38	21.43	-	22.64		
HT40	MCS0	1	38	5190	36.26	39.83	-	23.01		
HT40	MCS0	1	46	5230	36.26	39.92	-	23.01		
VHT80	MCS0	1	42	5210	74.93	80.72	-	23.01		

TEST RESULTS DATA
Average Power Table

FCC Band I										
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	Duty Factor (dB)	Average Conducted Power (dBm)	FCC Conducted Power Limit (dBm)	DG (dBi)		Pass/Fail
11a	6Mbps	1	36	5180	0.11	14.33	24.00	1.00		Pass
11a	6Mbps	1	44	5220	0.11	14.61	24.00	1.00		Pass
11a	6Mbps	1	48	5240	0.11	14.72	24.00	1.00		Pass
HT20	MCS0	1	36	5180	0.07	13.32	24.00	1.00		Pass
HT20	MCS0	1	44	5220	0.07	13.61	24.00	1.00		Pass
HT20	MCS0	1	48	5240	0.07	13.69	24.00	1.00		Pass
HT40	MCS0	1	38	5190	0.17	13.00	24.00	1.00		Pass
HT40	MCS0	1	46	5230	0.17	13.13	24.00	1.00		Pass
VHT20	MCS0	1	36	5180	0.06	13.17	24.00	1.00		Pass
VHT20	MCS0	1	44	5220	0.06	13.40	24.00	1.00		Pass
VHT20	MCS0	1	48	5240	0.06	13.56	24.00	1.00		Pass
VHT40	MCS0	1	38	5190	0.09	12.95	24.00	1.00		Pass
VHT40	MCS0	1	46	5230	0.09	13.04	24.00	1.00		Pass
VHT80	MCS0	1	42	5210	0.16	10.66	24.00	1.00		Pass

TEST RESULTS DATA
Power Spectral Density

FCC Band I										
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	Duty Factor (dB)	Average Power Density (dBm/MHz)	Average PSD Limit (dBm/MHz)	DG (dBi)	-	Pass/Fail
11a	6Mbps	1	36	5180	0.11	3.45	11.00	1.00		Pass
11a	6Mbps	1	44	5220	0.11	3.45	11.00	1.00		Pass
11a	6Mbps	1	48	5240	0.11	3.25	11.00	1.00		Pass
HT20	MCS0	1	36	5180	0.07	1.70	11.00	1.00		Pass
HT20	MCS0	1	44	5220	0.07	1.69	11.00	1.00		Pass
HT20	MCS0	1	48	5240	0.07	1.80	11.00	1.00		Pass
HT40	MCS0	1	38	5190	0.17	-2.78	11.00	1.00		Pass
HT40	MCS0	1	46	5230	0.17	-3.21	11.00	1.00		Pass
VHT80	MCS0	1	42	5210	0.16	-7.46	11.00	1.00		Pass

TEST RESULTS DATA
26dB and 99% OBW

Band II										
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	99% Bandwidth (MHz)	26 dB Bandwidth (MHz)	IC 99% Bandwidth Power Limit (dBm)	IC 99% Bandwidth EIRP Limit (dBm)	FCC 26dB Bandwidth Power Limit (dBm)	Note
11a	6M bps	1	52	5260	17.58	20.78	23.45	29.45	23.98	
11a	6M bps	1	60	5300	17.53	20.78	23.44	29.44	23.98	
11a	6M bps	1	64	5320	17.58	20.78	23.45	29.45	23.98	
HT20	MCS 0	1	52	5260	18.33	21.28	23.63	29.63	23.98	
HT20	MCS 0	1	60	5300	18.43	21.43	23.66	29.66	23.98	
HT20	MCS 0	1	64	5320	18.33	21.38	23.63	29.63	23.98	
HT40	MCS 0	1	54	5270	36.06	40.01	23.98	30.00	23.98	
HT40	MCS 0	1	62	5310	36.06	40.01	23.98	30.00	23.98	
VHT80	MCS 0	1	58	5290	74.81	80.56	23.98	30.00	23.98	

TEST RESULTS DATA
Average Power Table

FCC Band II										
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	Duty Factor (dB)	Average Conducted Power (dBm)	FCC Conducted Power Limit (dBm)	DG (dBi)	EIRP Power Limit (dBm)	Pass/Fail
11a	6M bps	1	52	5260	0.11	14.11	23.98	1.00	26.99	Pass
11a	6M bps	1	60	5300	0.11	14.17	23.98	1.00	26.99	Pass
11a	6M bps	1	64	5320	0.11	14.14	23.98	1.00	26.99	Pass
HT20	MCS 0	1	52	5260	0.07	11.96	23.98	1.00	26.99	Pass
HT20	MCS 0	1	60	5300	0.07	12.41	23.98	1.00	26.99	Pass
HT20	MCS 0	1	64	5320	0.07	12.59	23.98	1.00	26.99	Pass
HT40	MCS 0	1	54	5270	0.17	11.61	23.98	1.00	26.99	Pass
HT40	MCS 0	1	62	5310	0.17	11.83	23.98	1.00	26.99	Pass
VHT20	MCS 0	1	52	5260	0.06	11.86	23.98	1.00	26.99	Pass
VHT20	MCS 0	1	60	5300	0.06	12.36	23.98	1.00	26.99	Pass
VHT20	MCS 0	1	64	5320	0.06	12.54	23.98	1.00	26.99	Pass
VHT40	MCS 0	1	54	5270	0.09	11.46	23.98	1.00	26.99	Pass
VHT40	MCS 0	1	62	5310	0.09	11.75	23.98	1.00	26.99	Pass
VHT80	MCS 0	1	58	5290	0.16	9.04	23.98	1.00	26.99	Pass

TEST RESULTS DATA
Power Spectral Density

Band II										
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	Duty Factor (dB)	Average Power Density (dBm/MHz)	Average PSD Limit (dBm/MHz)	DG (dBi)		Pass/Fail
11a	6M bps	1	52	5260	0.11	1.60	11.00	1.00		Pass
11a	6M bps	1	60	5300	0.11	2.24	11.00	1.00		Pass
11a	6M bps	1	64	5320	0.11	2.33	11.00	1.00		Pass
HT20	MCS 0	1	52	5260	0.07	0.47	11.00	1.00		Pass
HT20	MCS 0	1	60	5300	0.07	0.34	11.00	1.00		Pass
HT20	MCS 0	1	64	5320	0.07	0.88	11.00	1.00		Pass
HT40	MCS 0	1	54	5270	0.17	-4.89	11.00	1.00		Pass
HT40	MCS 0	1	62	5310	0.17	-4.43	11.00	1.00		Pass
VHT80	MCS 0	1	58	5290	0.16	-8.84	11.00	1.00		Pass

TEST RESULTS DATA
26dB and 99% OBW

Band III										
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	99% Bandwidth (MHz)	26 dB Bandwidth (MHz)	IC 99% Bandwidth Power Limit (dBm)	IC 99% Bandwidth EIRP Limit (dBm)	FCC 26dB Bandwidth Power Limit (dBm)	Note
11a	6M bps	1	100	5500	17.53	20.73	23.44	29.44	23.98	
11a	6M bps	1	116	5580	17.43	20.68	23.41	29.41	23.98	
11a	6M bps	1	140	5700	17.58	20.68	23.45	29.45	23.98	
HT20	MCS 0	1	100	5500	18.33	21.38	23.63	29.63	23.98	
HT20	MCS 0	1	116	5580	18.33	21.43	23.63	29.63	23.98	
HT20	MCS 0	1	140	5700	18.38	21.48	23.64	29.64	23.98	
HT40	MCS 0	1	102	5510	36.06	40.19	23.98	30.00	23.98	
HT40	MCS 0	1	110	5550	36.16	40.10	23.98	30.00	23.98	
HT40	MCS 0	1	134	5670	36.16	40.01	23.98	30.00	23.98	
VHT80	MCS 0	1	106	5530	74.81	80.56	23.98	30.00	23.98	
VHT80	MCS 0	1	122	5610	74.81	80.72	23.98	30.00	23.98	

TEST RESULTS DATA
Average Power Table

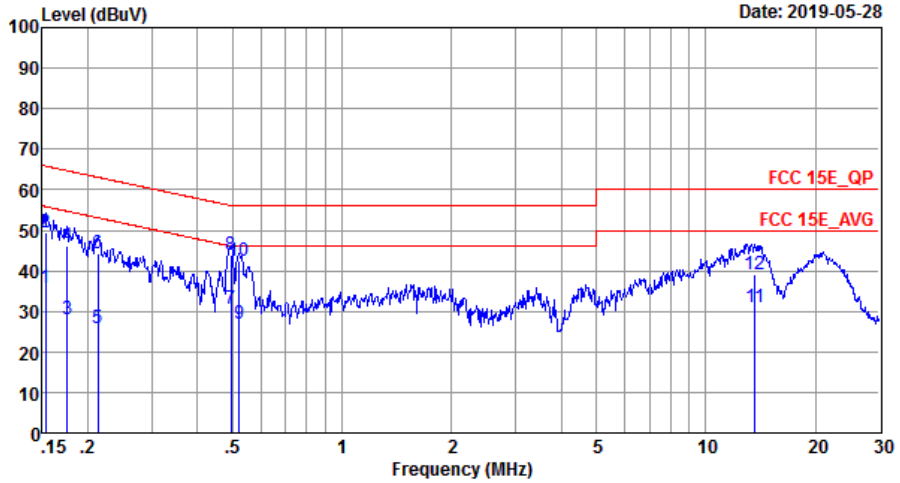
FCC Band III										
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	Duty Factor (dB)	Average Conducted Power (dBm)	FCC Conducted Power Limit (dBm)	DG (dBi)	EIRP Power Limit (dBm)	Pass/Fail
11a	6M bps	1	100	5500	0.11	14.16	23.98	1.00	26.99	Pass
11a	6M bps	1	116	5580	0.11	14.15	23.98	1.00	26.99	Pass
11a	6M bps	1	140	5700	0.11	14.22	23.98	1.00	26.99	Pass
HT20	MCS 0	1	100	5500	0.07	12.78	23.98	1.00	26.99	Pass
HT20	MCS 0	1	116	5580	0.07	13.15	23.98	1.00	26.99	Pass
HT20	MCS 0	1	140	5700	0.07	12.70	23.98	1.00	26.99	Pass
HT40	MCS 0	1	102	5510	0.17	12.50	23.98	1.00	26.99	Pass
HT40	MCS 0	1	110	5550	0.17	12.77	23.98	1.00	26.99	Pass
HT40	MCS 0	1	134	5670	0.17	12.32	23.98	1.00	26.99	Pass
VHT20	MCS 0	1	100	5500	0.06	12.71	23.98	1.00	26.99	Pass
VHT20	MCS 0	1	116	5580	0.06	13.07	23.98	1.00	26.99	Pass
VHT20	MCS 0	1	140	5700	0.06	12.63	23.98	1.00	26.99	Pass
VHT40	MCS 0	1	102	5510	0.09	12.41	23.98	1.00	26.99	Pass
VHT40	MCS 0	1	110	5550	0.09	12.65	23.98	1.00	26.99	Pass
VHT40	MCS 0	1	134	5670	0.09	12.21	23.98	1.00	26.99	Pass
VHT80	MCS 0	1	106	5530	0.16	9.77	23.98	1.00	26.99	Pass
VHT80	MCS 0	1	122	5610	0.16	9.53	23.98	1.00	26.99	Pass

TEST RESULTS DATA
Power Spectral Density

Band III										
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	Duty Factor (dB)	Average Power Density (dBm/MHz)	Average PSD Limit (dBm/MHz)	DG (dBi)		Pass/Fail
11a	6M bps	1	100	5500	0.11	2.15	11.00	1.00		Pass
11a	6M bps	1	116	5580	0.11	2.75	11.00	1.00		Pass
11a	6M bps	1	140	5700	0.11	2.49	11.00	1.00		Pass
HT20	MCS 0	1	100	5500	0.07	0.76	11.00	1.00		Pass
HT20	MCS 0	1	116	5580	0.07	1.17	11.00	1.00		Pass
HT20	MCS 0	1	140	5700	0.07	1.03	11.00	1.00		Pass
HT40	MCS 0	1	102	5510	0.17	-2.06	11.00	1.00		Pass
HT40	MCS 0	1	110	5550	0.17	-2.21	11.00	1.00		Pass
HT40	MCS 0	1	134	5670	0.17	-2.88	11.00	1.00		Pass
VHT80	MCS 0	1	106	5530	0.16	-8.05	11.00	1.00		Pass
VHT80	MCS 0	1	122	5610	0.16	-8.29	11.00	1.00		Pass

Appendix B. AC Conducted Emission Test Results

Test Engineer :	Bear Xiong	Temperature :	22~25℃
		Relative Humidity :	50~55%
Test Voltage :	120Vac / 60Hz	Phase :	Line

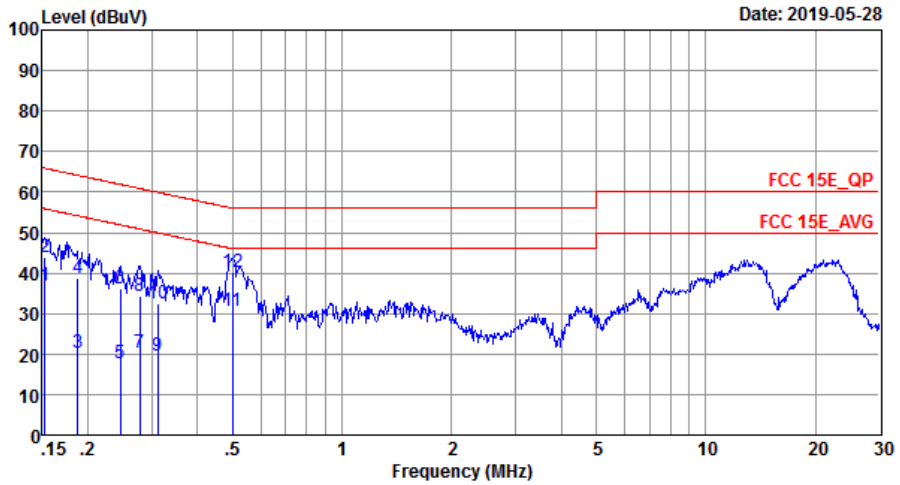


Site : CO01-SZ
Condition: FCC 15E_QP LISN_20180719_L LINE

Mode : Mode 1
IMEI : 865951040001362

		Freq	Level	Over Limit	Limit Line	Read Level	LISN Factor	Cable Loss	Remark
		MHz	dBuV	dB	dBuV	dBuV	dB	dB	
1		0.15	35.94	-19.88	55.82	25.75	0.03	10.16	Average
2		0.15	49.39	-16.43	65.82	39.20	0.03	10.16	QP
3		0.18	28.19	-26.49	54.68	18.00	0.03	10.16	Average
4		0.18	45.99	-18.69	64.68	35.80	0.03	10.16	QP
5		0.21	25.89	-27.21	53.10	15.70	0.03	10.16	Average
6		0.21	44.29	-18.81	63.10	34.10	0.03	10.16	QP
7		0.49	30.51	-15.59	46.10	20.32	0.02	10.17	Average
8	*	0.49	44.06	-12.04	56.10	33.87	0.02	10.17	QP
9		0.52	27.09	-18.91	46.00	16.90	0.02	10.17	Average
10		0.52	42.29	-13.71	56.00	32.10	0.02	10.17	QP
11		13.62	30.84	-19.16	50.00	20.10	0.47	10.27	Average
12		13.62	39.14	-20.86	60.00	28.40	0.47	10.27	QP

Test Engineer :	Bear Xiong	**Temperature :**	22~25℃
		Relative Humidity :	50~55%
Test Voltage :	120Vac / 60Hz	**Phase :**	Neutral



Site : CO01-SZ
Condition: FCC 15E_QP LISN_20180719_N NEUTRAL

Mode : Mode 1
IMEI : 865951040001362

		Freq	Level	Over Limit	Limit Line	Read Level	LISN Factor	Cable Loss	Remark
		MHz	dBuV	dB	dBuV	dBuV	dB	dB	
1		0.15	36.74	-19.13	55.87	26.55	0.03	10.16	Average
2		0.15	44.09	-21.78	65.87	33.90	0.03	10.16	QP
3		0.19	20.29	-33.86	54.15	10.10	0.03	10.16	Average
4		0.19	38.89	-25.26	64.15	28.70	0.03	10.16	QP
5		0.25	17.64	-34.27	51.91	7.44	0.03	10.17	Average
6		0.25	36.30	-25.61	61.91	26.10	0.03	10.17	QP
7		0.28	20.30	-30.60	50.90	10.10	0.03	10.17	Average
8		0.28	34.30	-26.60	60.90	24.10	0.03	10.17	QP
9		0.31	19.60	-30.33	49.93	9.40	0.03	10.17	Average
10		0.31	32.60	-27.33	59.93	22.40	0.03	10.17	QP
11	*	0.50	30.77	-15.24	46.01	20.58	0.02	10.17	Average
12		0.50	40.19	-15.82	56.01	30.00	0.02	10.17	QP

Appendix C. Radiated Spurious Emission

Test Engineer :	Fuquan Wu	**Temperature :**	24~25°C
		Relative Humidity :	48~49%

Band 1 - 5150~5250MHz

WIFI 802.11a (Band Edge @ 3m)

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Peak	Pol.
Ant.				Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
1		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11a CH 36 5180MHz		5117.26	53.03	-20.97	74	38.62	33.83	13.68	33.1	102	142	P	H
		5149.5	43.9	-10.1	54	29.45	33.87	13.68	33.1	102	142	A	H
	*	5180	105.03	-	-	90.44	33.92	13.77	33.1	102	142	P	H
		5180	97.01	-	-	82.42	33.92	13.77	33.1	102	142	A	H
		5124.02	52.35	-21.65	74	37.92	33.85	13.68	33.1	376	235	P	V
		5144.56	43.57	-10.43	54	29.12	33.87	13.68	33.1	376	235	A	V
	*	5180	100.1	-	-	85.51	33.92	13.77	33.1	376	235	P	V
		5180	92.91	-	-	78.32	33.92	13.77	33.1	376	235	A	V
802.11a CH 44 5220MHz		5130.52	52.88	-21.12	74	38.45	33.85	13.68	33.1	125	143	P	H
		5116.22	43.36	-10.64	54	28.95	33.83	13.68	33.1	125	143	A	H
	*	5220	105.1	-	-	90.38	33.96	13.86	33.1	125	143	P	H
		5220	97.5	-	-	82.78	33.96	13.86	33.1	125	143	A	H
		5392.56	53.3	-20.7	74	38.06	34.18	14.16	33.1	125	143	P	H
		5455.2	43.93	-10.07	54	28.5	34.26	14.27	33.1	125	143	A	H
		5117.78	52.51	-21.49	74	38.1	33.83	13.68	33.1	376	235	P	V
		5143	43.35	-10.65	54	28.9	33.87	13.68	33.1	376	235	A	V
	*	5220	99.29	-	-	84.57	33.96	13.86	33.1	376	235	P	V
		5220	92.84	-	-	78.12	33.96	13.86	33.1	376	235	A	V
		5416.32	52.9	-21.1	74	37.62	34.22	14.16	33.1	376	235	P	V
		5431.44	43.74	-10.26	54	28.33	34.24	14.27	33.1	376	235	A	V

802.11a CH 48 5240MHz		5088.66	53.26	-20.74	74	38.95	33.81	13.6	33.1	113	143	P	H
		5147.42	43.37	-10.63	54	28.92	33.87	13.68	33.1	113	143	A	H
	*	5240	105.27	-	-	90.47	33.98	13.92	33.1	113	143	P	H
		5240	97.76	-	-	82.96	33.98	13.92	33.1	113	143	A	H
		5442	53.42	-20.58	74	38.01	34.24	14.27	33.1	113	143	P	H
		5406.48	44.01	-9.99	54	28.75	34.2	14.16	33.1	113	143	A	H
		5078	52.35	-21.65	74	38.06	33.79	13.6	33.1	376	234	P	V
		5140.4	43.33	-10.67	54	28.88	33.87	13.68	33.1	376	234	A	V
	*	5240	99.49	-	-	84.69	33.98	13.92	33.1	376	234	P	V
		5240	93.16	-	-	78.36	33.98	13.92	33.1	376	234	A	V
		5448.96	53.42	-20.58	74	37.99	34.26	14.27	33.1	376	234	P	V
		5429.04	43.74	-10.26	54	28.33	34.24	14.27	33.1	376	234	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		10360	45.83	-22.37	68.2	48.15	37.02	19.65	58.99	152	260	P	H
		15540	45.93	-28.07	74	41.73	40.78	22.35	58.93	161	0	P	H
		10360	44.78	-23.42	68.2	47.1	37.02	19.65	58.99	152	260	P	V
		15540	47.08	-26.92	74	42.88	40.78	22.35	58.93	161	196	P	V
802.11a CH 44 5220MHz		10440	45.9	-22.3	68.2	48.07	37.06	19.69	58.92	150	230	P	H
		15660	46.89	-27.11	74	42.46	41.07	22.42	59.06	160	225	P	H
		10440	46.44	-21.76	68.2	48.61	37.06	19.69	58.92	185	230	P	V
		15660	46	-28	74	41.57	41.07	22.42	59.06	160	59	P	V
802.11a CH 48 5240MHz		10480	45.64	-22.56	68.2	47.7	37.09	19.71	58.86	150	289	P	H
		15720	47.07	-26.93	74	42.5	41.24	22.45	59.12	150	291	P	H
		10480	45.44	-22.76	68.2	47.5	37.09	19.71	58.86	126	238	P	V
		15720	47.12	-26.88	74	42.55	41.24	22.45	59.12	186	329	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)
		5149.24	54.8	-19.2	74	40.35	33.87	13.68	33.1	110	142	P	H
		5149.5	45.1	-8.9	54	30.65	33.87	13.68	33.1	110	142	A	H
802.11n	*	5180	103.83	-	-	89.24	33.92	13.77	33.1	110	142	P	H
HT20		5180	98.01	-	-	83.42	33.92	13.77	33.1	110	142	A	H
CH 36		5149.76	53.94	-20.06	74	39.49	33.87	13.68	33.1	386	242	P	V
5180MHz		5149.76	45.45	-8.55	54	31	33.87	13.68	33.1	386	242	A	V
	*	5180	100.41	-	-	85.82	33.92	13.77	33.1	386	242	P	V
		5180	92.48	-	-	77.89	33.92	13.77	33.1	386	242	A	V
		5103.48	52.68	-21.32	74	38.37	33.81	13.6	33.1	114	143	P	H
		5147.16	43.69	-10.31	54	29.24	33.87	13.68	33.1	114	143	A	H
	*	5220	104.79	-	-	90.07	33.96	13.86	33.1	114	143	P	H
		5220	97.88	-	-	83.16	33.96	13.86	33.1	114	143	A	H
802.11n		5369.56	52.77	-21.23	74	37.62	34.15	14.1	33.1	114	143	P	H
HT20		5425.84	43.98	-10.02	54	28.7	34.22	14.16	33.1	114	143	A	H
CH 44		5110.76	52.37	-21.63	74	38.04	33.83	13.6	33.1	374	223	P	V
5220MHz		5120.64	43.27	-10.73	54	28.86	33.83	13.68	33.1	374	223	A	V
	*	5220	102.22	-	-	87.5	33.96	13.86	33.1	374	223	P	V
		5220	95.45	-	-	80.73	33.96	13.86	33.1	374	223	A	V
		5355	53.67	-20.33	74	38.54	34.13	14.1	33.1	374	223	P	V
		5395.04	43.72	-10.28	54	28.46	34.2	14.16	33.1	374	223	A	V

		5145.86	52.28	-21.72	74	37.83	33.87	13.68	33.1	115	143	P	H
		5139.1	43.62	-10.38	54	29.19	33.85	13.68	33.1	115	143	A	H
	*	5240	104.29	-	-	89.49	33.98	13.92	33.1	115	143	P	H
		5240	96.76	-	-	81.96	33.98	13.92	33.1	115	143	A	H
802.11n		5394.2	52.61	-21.39	74	37.37	34.18	14.16	33.1	115	143	P	H
HT20		5432.56	43.88	-10.12	54	28.47	34.24	14.27	33.1	115	143	A	H
CH 48		5062.92	52.41	-21.59	74	38.24	33.76	13.51	33.1	370	234	P	V
5240MHz		5119.6	43.35	-10.65	54	28.94	33.83	13.68	33.1	370	234	A	V
	*	5240	102.1	-	-	87.3	33.98	13.92	33.1	370	234	P	V
		5240	95.15	-	-	80.35	33.98	13.92	33.1	370	234	A	V
		5446.84	53.7	-20.3	74	38.27	34.26	14.27	33.1	370	234	P	V
		5447.68	43.86	-10.14	54	28.43	34.26	14.27	33.1	370	234	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 1 5150~5250MHz

WIFI 802.11n HT20 (Harmonic @ 3m)

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11n		10360	45.41	-22.79	68.2	47.73	37.02	19.65	58.99	152	260	P	H
HT20		15540	46.22	-27.78	74	42.02	40.78	22.35	58.93	189	238	P	H
CH 36		10360	44.26	-23.94	68.2	46.58	37.02	19.65	58.99	241	260	P	V
5180MHz		15540	46.52	-27.48	74	42.32	40.78	22.35	58.93	189	184	P	V
802.11n		10440	46.65	-21.55	68.2	48.82	37.06	19.69	58.92	185	230	P	H
HT20		15660	47.53	-26.47	74	43.1	41.07	22.42	59.06	160	59	P	H
CH 44		10440	47.29	-20.91	68.2	49.46	37.06	19.69	58.92	150	230	P	V
5220MHz		15660	46.26	-27.74	74	41.83	41.07	22.42	59.06	160	225	P	V
802.11n		10480	45.64	-22.56	68.2	47.7	37.09	19.71	58.86	150	289	P	H
HT20		15720	47.07	-26.93	74	42.5	41.24	22.45	59.12	150	291	P	H
CH 48		10480	45.44	-22.76	68.2	47.5	37.09	19.71	58.86	126	238	P	V
5240MHz		15720	47.12	-26.88	74	42.55	41.24	22.45	59.12	186	329	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 1 5150~5250MHz

WIFI 802.11n HT40 (Band Edge @ 3m)

WIFI Ant. 1	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		5148.98	60.78	-13.22	74	46.33	33.87	13.68	33.1	104	138	P	H
		5149.76	51.14	-2.86	54	36.69	33.87	13.68	33.1	104	138	A	H
	*	5190	99.17	-	-	84.58	33.92	13.77	33.1	104	138	P	H
		5190	92.11	-	-	77.52	33.92	13.77	33.1	104	138	A	H
		5423.04	53.01	-20.99	74	37.73	34.22	14.16	33.1	104	138	P	H
		5459.16	43.68	-10.32	54	28.25	34.26	14.27	33.1	104	138	A	H
		5149.99	59.52	-14.48	74	45.07	33.87	13.68	33.1	352	231	P	V
		5150	48.8	-5.2	54	34.35	33.87	13.68	33.1	352	231	A	V
	*	5190	96.84	-	-	82.25	33.92	13.77	33.1	352	231	P	V
		5190	89.95	-	-	75.36	33.92	13.77	33.1	352	231	A	V
		5377.12	53.1	-20.9	74	37.95	34.15	14.1	33.1	352	231	P	V
		5431.44	43.68	-10.32	54	28.27	34.24	14.27	33.1	352	231	A	V
802.11n HT40 CH 46 5230MHz		5035.88	52.53	-21.47	74	38.49	33.72	13.42	33.1	111	139	P	H
		5138.84	43.62	-10.38	54	29.19	33.85	13.68	33.1	111	139	A	H
	*	5230	100.11	-	-	85.37	33.98	13.86	33.1	111	139	P	H
		5230	93.54	-	-	78.8	33.98	13.86	33.1	111	139	A	H
		5423.88	52.37	-21.63	74	37.09	34.22	14.16	33.1	111	139	P	H
		5457.48	43.89	-10.11	54	28.46	34.26	14.27	33.1	111	139	A	H
		5127.66	52.26	-21.74	74	37.83	33.85	13.68	33.1	392	236	P	V
		5095.94	43.25	-10.75	54	28.94	33.81	13.6	33.1	392	236	A	V
	*	5230	97.68	-	-	82.94	33.98	13.86	33.1	392	236	P	V
		5230	90.22	-	-	75.48	33.98	13.86	33.1	392	236	A	V
		5441.24	52.9	-21.1	74	37.49	34.24	14.27	33.1	392	236	P	V
		5456.92	43.74	-10.26	54	28.31	34.26	14.27	33.1	392	236	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 1 5150~5250MHz

WIFI 802.11n HT40 (Harmonic @ 3m)

WIFI Ant. 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		10380	45.88	-22.32	68.2	48.15	37.03	19.67	58.97	150	360	P	H
HT40		15570	46.03	-27.97	74	41.76	40.87	22.37	58.97	155	360	P	H
CH 38		10380	45.68	-22.52	68.2	47.95	37.03	19.67	58.97	128	346	P	V
5190MHz		15570	46.33	-27.67	74	42.06	40.87	22.37	58.97	139	294	P	V
802.11n		10460	47.65	-20.55	68.2	49.77	37.07	19.71	58.9	150	360	P	H
HT40		15690	46.42	-27.58	74	41.9	41.16	22.45	59.09	150	225	P	H
CH 46		10460	46.92	-21.28	68.2	49.04	37.07	19.71	58.9	166	278	P	V
5230MHz		15690	45.24	-28.76	74	40.72	41.16	22.45	59.09	126	337	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 1 5150~5250MHz

WIFI 802.11ac VHT20 (Band Edge @ 3m)

WIFI Ant. 1	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)
		5103.48	52.84	-21.16	74	38.53	33.81	13.6	33.1	112	139	P	H
		5148.72	44	-10	54	29.55	33.87	13.68	33.1	112	139	A	H
802.11ac	*	5180	103.35	-	-	88.76	33.92	13.77	33.1	112	139	P	H
VHT20		5180	95.15	-	-	80.56	33.92	13.77	33.1	112	139	A	H
CH 36		5148.2	51.99	-22.01	74	37.54	33.87	13.68	33.1	381	233	P	V
5180MHz		5149.5	43.98	-10.02	54	29.53	33.87	13.68	33.1	381	233	A	V
	*	5180	100.44	-	-	85.85	33.92	13.77	33.1	381	233	P	V
		5180	94.44	-	-	79.85	33.92	13.77	33.1	381	233	A	V
		5149.24	53.16	-20.84	74	38.71	33.87	13.68	33.1	112	138	P	H
		5138.58	43.11	-10.89	54	28.68	33.85	13.68	33.1	112	138	A	H
	*	5220	104.27	-	-	89.55	33.96	13.86	33.1	112	138	P	H
		5220	97.04	-	-	82.32	33.96	13.86	33.1	112	138	A	H
802.11ac		5454.48	53.53	-20.47	74	38.1	34.26	14.27	33.1	112	138	P	H
VHT20		5436.48	43.9	-10.1	54	28.49	34.24	14.27	33.1	112	138	A	H
CH 44		5147.94	52.6	-21.4	74	38.15	33.87	13.68	33.1	393	234	P	V
5220MHz		5139.62	43.21	-10.79	54	28.76	33.87	13.68	33.1	393	234	A	V
	*	5220	101.58	-	-	86.86	33.96	13.86	33.1	393	234	P	V
		5220	94.95	-	-	80.23	33.96	13.86	33.1	393	234	A	V
		5427.6	53.21	-20.79	74	37.82	34.22	14.27	33.1	393	234	P	V
		5454.96	43.67	-10.33	54	28.24	34.26	14.27	33.1	393	234	A	V

		5046.8	51.87	-22.13	74	37.72	33.74	13.51	33.1	108	138	P	H
		5134.94	43.4	-10.6	54	28.97	33.85	13.68	33.1	108	138	A	H
	*	5240	103.39	-	-	88.59	33.98	13.92	33.1	108	138	P	H
		5240	96.03	-	-	81.23	33.98	13.92	33.1	108	138	A	H
802.11ac		5440.08	52.96	-21.04	74	37.55	34.24	14.27	33.1	108	138	P	H
VHT20		5444.4	43.89	-10.11	54	28.48	34.24	14.27	33.1	108	138	A	H
CH 48		5107.12	52.55	-21.45	74	38.22	33.83	13.6	33.1	381	231	P	V
5240MHz		5147.94	43.19	-10.81	54	28.74	33.87	13.68	33.1	381	231	A	V
	*	5240	99.29	-	-	84.49	33.98	13.92	33.1	381	231	P	V
		5240	93.16	-	-	78.36	33.98	13.92	33.1	381	231	A	V
		5385.12	52.72	-21.28	74	37.54	34.18	14.1	33.1	381	231	P	V
		5456.4	43.82	-10.18	54	28.39	34.26	14.27	33.1	381	231	A	V

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

Band 1 5150~5250MHz

WIFI 802.11ac VHT20 (Harmonic @ 3m)

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11ac		10360	45.27	-22.93	68.2	47.59	37.02	19.65	58.99	152	260	P	H
VHT20		15540	45.55	-28.45	74	41.35	40.78	22.35	58.93	189	238	P	H
CH 36		10360	45.4	-22.8	68.2	47.72	37.02	19.65	58.99	241	260	P	V
5180MHz		15540	47.68	-26.32	74	43.48	40.78	22.35	58.93	189	184	P	V
802.11ac		10440	45.59	-22.61	68.2	47.76	37.06	19.69	58.92	150	230	P	H
VHT20		15660	47.03	-26.97	74	42.6	41.07	22.42	59.06	160	225	P	H
CH 44		10440	46.49	-21.71	68.2	48.66	37.06	19.69	58.92	185	230	P	V
5220MHz		15660	47.24	-26.76	74	42.81	41.07	22.42	59.06	160	59	P	V
802.11ac		10480	44.72	-23.48	68.2	46.78	37.09	19.71	58.86	150	289	P	H
VHT20		15720	46.62	-27.38	74	42.05	41.24	22.45	59.12	150	291	P	H
CH 48		10480	44.87	-23.33	68.2	46.93	37.09	19.71	58.86	126	238	P	V
5240MHz		15720	47.91	-26.09	74	43.34	41.24	22.45	59.12	186	329	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 1 5150~5250MHz

WIFI 802.11ac VHT40 (Band Edge @ 3m)

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11ac VHT40 CH 38 5190MHz		5141.44	57.05	-16.95	74	42.6	33.87	13.68	33.1	105	143	P	H
		5150	50.22	-3.78	54	35.77	33.87	13.68	33.1	105	143	A	H
	*	5190	98.68	-	-	84.09	33.92	13.77	33.1	105	143	P	H
		5190	91.57	-	-	76.98	33.92	13.77	33.1	105	143	A	H
		5379.64	52.75	-21.25	74	37.57	34.18	14.1	33.1	105	143	P	H
		5447.12	43.75	-10.25	54	28.32	34.26	14.27	33.1	105	143	A	H
		5148.2	58.54	-15.46	74	44.09	33.87	13.68	33.1	385	227	P	V
		5149.76	48.77	-5.23	54	34.32	33.87	13.68	33.1	385	227	A	V
	*	5190	95.75	-	-	81.16	33.92	13.77	33.1	385	227	P	V
		5190	89.45	-	-	74.86	33.92	13.77	33.1	385	227	A	V
		5358.36	53.17	-20.83	74	38.04	34.13	14.1	33.1	385	227	P	V
		5451.32	43.56	-10.44	54	28.13	34.26	14.27	33.1	385	227	A	V
802.11ac VHT40 CH 46 5230MHz		5145.08	51.93	-22.07	74	37.48	33.87	13.68	33.1	104	144	P	H
		5139.88	43.21	-10.79	54	28.76	33.87	13.68	33.1	104	144	A	H
	*	5230	98.38	-	-	83.64	33.98	13.86	33.1	104	144	P	H
		5230	91.7	-	-	76.96	33.98	13.86	33.1	104	144	A	H
		5444.16	53.79	-20.21	74	38.38	34.24	14.27	33.1	104	144	P	H
		5355.36	43.66	-10.34	54	28.53	34.13	14.1	33.1	104	144	A	H
		5083.46	51.78	-22.22	74	37.49	33.79	13.6	33.1	385	227	P	V
		5149.76	43.2	-10.8	54	28.75	33.87	13.68	33.1	385	227	A	V
	*	5230	95.61	-	-	80.87	33.98	13.86	33.1	385	227	P	V
		5230	89.13	-	-	74.39	33.98	13.86	33.1	385	227	A	V
		5367.36	53.07	-20.93	74	37.92	34.15	14.1	33.1	385	227	P	V
		5431.92	43.58	-10.42	54	28.17	34.24	14.27	33.1	385	227	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 1 5150~5250MHz

WIFI 802.11ac VHT40 (Harmonic @ 3m)

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11ac		10380	44.26	-23.94	68.2	46.53	37.03	19.67	58.97	150	360	P	H
VHT40		15570	46.75	-27.25	74	42.48	40.87	22.37	58.97	155	360	P	H
CH 38		10380	45.5	-22.7	68.2	47.77	37.03	19.67	58.97	128	346	P	V
5190MHz		15570	44.98	-29.02	74	40.71	40.87	22.37	58.97	139	294	P	V
802.11ac		10460	44.62	-23.58	68.2	46.74	37.07	19.71	58.9	166	278	P	H
VHT40		15690	46.44	-27.56	74	41.92	41.16	22.45	59.09	126	337	P	H
CH 46		10460	45.65	-22.55	68.2	47.77	37.07	19.71	58.9	150	360	P	V
5230MHz		15690	46.58	-27.42	74	42.06	41.16	22.45	59.09	150	225	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 1 5150~5250MHz

WIFI 802.11ac VHT80 (Band Edge @ 3m)

WIFI Ant. 1	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		5140.66	55.13	-18.87	74	40.68	33.87	13.68	33.1	110	143	P	H
		5150	47.54	-6.46	54	33.09	33.87	13.68	33.1	110	143	A	H
	*	5210	92.82	-	-	78.1	33.96	13.86	33.1	110	143	P	H
		5210	86.2	-	-	71.48	33.96	13.86	33.1	110	143	A	H
		5358	53.76	-20.24	74	38.63	34.13	14.1	33.1	110	143	P	H
		5446.56	43.74	-10.26	54	28.31	34.26	14.27	33.1	110	143	A	H
		5072.02	52.74	-21.26	74	38.54	33.79	13.51	33.1	400	230	P	V
		5149.24	44.04	-9.96	54	29.59	33.87	13.68	33.1	400	230	A	V
	*	5210	86.67	-	-	71.95	33.96	13.86	33.1	400	230	P	V
		5210	79.9	-	-	65.18	33.96	13.86	33.1	400	230	A	V
		5448	52.97	-21.03	74	37.54	34.26	14.27	33.1	400	230	P	V
		5446.8	43.48	-10.52	54	28.05	34.26	14.27	33.1	400	230	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 1 5150~5250MHz

WIFI 802.11ac 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 VHT80 CH 42 5210MHz		10400	44.81	-23.39	68.2	47.05	37.04	19.67	58.95	150	230	P	H
		15600	45.54	-28.46	74	41.22	40.95	22.37	59	160	225	P	H
		10420	45.19	-23.01	68.2	47.38	37.05	19.69	58.93	150	230	P	V
		15630	46.07	-27.93	74	41.68	41.03	22.4	59.04	160	225	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 2 - 5250~5350MHz

WIFI 802.11a (Band Edge @ 3m)

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Peak	Pol.
Ant.				Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
1		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11a CH 52 5260MHz		5141.44	52.08	-21.92	74	37.63	33.87	13.68	33.1	128	144	P	H
		5145.34	43.23	-10.77	54	28.78	33.87	13.68	33.1	128	144	A	H
	*	5260	105.18	-	-	90.34	34.02	13.92	33.1	128	144	P	H
		5260	97.36	-	-	82.52	34.02	13.92	33.1	128	144	A	H
		5410.32	53.53	-20.47	74	38.27	34.2	14.16	33.1	128	144	P	H
		5412.72	44.12	-9.88	54	28.84	34.22	14.16	33.1	128	144	A	H
		5098.02	52.41	-21.59	74	38.1	33.81	13.6	33.1	376	234	P	V
		5136.76	43.13	-10.87	54	28.7	33.85	13.68	33.1	376	234	A	V
	*	5260	98.52	-	-	83.68	34.02	13.92	33.1	376	234	P	V
		5260	92.89	-	-	78.05	34.02	13.92	33.1	376	234	A	V
		5442.72	52.48	-21.52	74	37.07	34.24	14.27	33.1	376	234	P	V
		5410.32	43.71	-10.29	54	28.45	34.2	14.16	33.1	376	234	A	V
802.11a CH 60 5300MHz		5064.75	52.59	-21.41	74	38.42	33.76	13.51	33.1	128	143	P	H
		5149.8	43.36	-10.64	54	28.91	33.87	13.68	33.1	128	143	A	H
	*	5300	105.08	-	-	90.13	34.07	13.98	33.1	128	143	P	H
		5300	97.31	-	-	82.36	34.07	13.98	33.1	128	143	A	H
		5454.24	52.86	-21.14	74	37.43	34.26	14.27	33.1	128	143	P	H
		5457.36	44.05	-9.95	54	28.62	34.26	14.27	33.1	128	143	A	H
		5063	51.69	-22.31	74	37.52	33.76	13.51	33.1	376	234	P	V
		5149.1	43.46	-10.54	54	29.01	33.87	13.68	33.1	376	234	A	V
	*	5300	100.06	-	-	85.11	34.07	13.98	33.1	376	234	P	V
		5300	93.58	-	-	78.63	34.07	13.98	33.1	376	234	A	V
		5415.6	53.43	-20.57	74	38.15	34.22	14.16	33.1	376	234	P	V
		5442.96	43.98	-10.02	54	28.57	34.24	14.27	33.1	376	234	A	V

802.11a CH 64 5320MHz	*	5320	105.27	-	-	90.24	34.09	14.04	33.1	110	146	P	H
		5320	98.43	-	-	83.4	34.09	14.04	33.1	110	146	A	H
		5421.6	53.12	-20.88	74	37.84	34.22	14.16	33.1	110	146	P	H
		5357.28	44.17	-9.83	54	29.04	34.13	14.1	33.1	110	146	A	H
	*	5320	100.04	-	-	85.01	34.09	14.04	33.1	376	234	P	V
		5320	93.51	-	-	78.48	34.09	14.04	33.1	376	234	A	V
		5383.52	53.42	-20.58	74	38.24	34.18	14.1	33.1	376	234	P	V
		5437.44	43.89	-10.11	54	28.48	34.24	14.27	33.1	376	234	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 2 5250~5350MHz

WIFI 802.11a (Harmonic @ 3m)

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11a CH 52 5260MHz		10520	46.86	-21.34	68.2	48.85	37.11	19.72	58.82	129	266	P	H
		15780	47.01	-26.99	74	42.33	41.36	22.5	59.18	146	275	P	H
		10520	45.77	-22.43	68.2	47.76	37.11	19.72	58.82	129	266	P	V
		15780	47.24	-26.76	74	42.56	41.36	22.5	59.18	146	275	P	V
802.11a CH 60 5300MHz		10600	45.58	-28.42	74	47.39	37.16	19.76	58.73	189	235	P	H
		15900	46.78	-27.22	74	41.86	41.65	22.57	59.3	136	145	P	H
		10600	45.97	-28.03	74	47.78	37.16	19.76	58.73	185	215	P	V
		15900	47.17	-26.83	74	42.25	41.65	22.57	59.3	196	190	P	V
802.11a CH 64 5320MHz		10640	45.81	-28.19	74	47.54	37.18	19.78	58.69	196	153	P	H
		15960	46.59	-27.41	74	41.52	41.82	22.62	59.37	157	269	P	H
		10640	46.65	-27.35	74	48.38	37.18	19.78	58.69	152	135	P	V
		15960	47.49	-26.51	74	42.42	41.82	22.62	59.37	173	245	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 2 5250~5350MHz

WIFI 802.11n HT20 (Band Edge @ 3m)

WIFI Ant. 1	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)
		5133.35	52.38	-21.62	74	37.95	33.85	13.68	33.1	118	140	P	H
		5132.65	43.42	-10.58	54	28.99	33.85	13.68	33.1	118	140	A	H
	*	5260	103.77	-	-	88.93	34.02	13.92	33.1	118	140	P	H
		5260	95.63	-	-	80.79	34.02	13.92	33.1	118	140	A	H
802.11n		5452.8	52.96	-21.04	74	37.53	34.26	14.27	33.1	118	140	P	H
HT20		5451.6	44.23	-9.77	54	28.8	34.26	14.27	33.1	118	140	A	H
CH 52		5019.95	51.8	-22.2	74	37.78	33.7	13.42	33.1	369	235	P	V
5260MHz		5148.75	43.44	-10.56	54	28.99	33.87	13.68	33.1	369	235	A	V
	*	5260	103.97	-	-	89.13	34.02	13.92	33.1	369	235	P	V
		5260	96.6	-	-	81.76	34.02	13.92	33.1	369	235	A	V
		5407.2	53.34	-20.66	74	38.08	34.2	14.16	33.1	369	235	P	V
		5440.08	44.24	-9.76	54	28.83	34.24	14.27	33.1	369	235	A	V
		5119.35	51.88	-22.12	74	37.47	33.83	13.68	33.1	114	143	P	H
		5143.85	43.42	-10.58	54	28.97	33.87	13.68	33.1	114	143	A	H
	*	5300	104.85	-	-	89.9	34.07	13.98	33.1	114	143	P	H
		5300	97.12	-	-	82.17	34.07	13.98	33.1	114	143	A	H
802.11n		5440.8	53.56	-20.44	74	38.15	34.24	14.27	33.1	114	143	P	H
HT20		5455.2	44.16	-9.84	54	28.73	34.26	14.27	33.1	114	143	A	H
CH 60		5068.6	53.05	-20.95	74	38.88	33.76	13.51	33.1	361	234	P	V
5300MHz		5124.25	43.43	-10.57	54	29	33.85	13.68	33.1	361	234	A	V
	*	5300	103.93	-	-	88.98	34.07	13.98	33.1	361	234	P	V
		5300	95.91	-	-	80.96	34.07	13.98	33.1	361	234	A	V
		5411.76	53.09	-20.91	74	37.81	34.22	14.16	33.1	361	234	P	V
		5434.08	44.08	-9.92	54	28.67	34.24	14.27	33.1	361	234	A	V

802.11n HT20 CH 64 5320MHz	*	5320	105.37	-	-	90.34	34.09	14.04	33.1	100	146	P	H
		5320	97.49	-	-	82.46	34.09	14.04	33.1	100	146	A	H
		5368.48	53.43	-20.57	74	38.28	34.15	14.1	33.1	100	146	P	H
		5350.08	44.93	-9.07	54	29.8	34.13	14.1	33.1	100	146	A	H
	*	5320	103.52	-	-	88.49	34.09	14.04	33.1	364	235	P	V
		5320	96.49	-	-	81.46	34.09	14.04	33.1	364	235	A	V
		5354.24	55.03	-18.97	74	39.9	34.13	14.1	33.1	364	235	P	V
		5351.04	45.27	-8.73	54	30.14	34.13	14.1	33.1	364	235	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 2 5250~5350MHz

WIFI 802.11n HT20 (Harmonic @ 3m)

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11n		10520	46.76	-21.44	68.2	48.75	37.11	19.72	58.82	129	266	P	H
HT20		15780	47.83	-26.17	74	43.15	41.36	22.5	59.18	146	275	P	H
CH 52		10520	45.41	-22.79	68.2	47.4	37.11	19.72	58.82	150	220	P	V
5260MHz		15780	47.1	-26.9	74	42.42	41.36	22.5	59.18	159	345	P	V
802.11n		10600	45.71	-28.29	74	47.52	37.16	19.76	58.73	189	235	P	H
HT20		15900	45.24	-28.76	74	40.32	41.65	22.57	59.3	136	145	P	H
CH 60		10600	44.86	-29.14	74	46.67	37.16	19.76	58.73	185	215	P	V
5300MHz		15900	46.65	-27.35	74	41.73	41.65	22.57	59.3	196	190	P	V
802.11n		10640	47.23	-26.77	74	48.96	37.18	19.78	58.69	196	153	P	H
HT20		15960	45.35	-28.65	74	40.28	41.82	22.62	59.37	157	269	P	H
CH 64		10640	47.65	-26.35	74	49.38	37.18	19.78	58.69	152	135	P	V
5320MHz		15960	47.49	-26.51	74	42.42	41.82	22.62	59.37	173	245	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 2 5250~5350MHz

WIFI 802.11n HT40 (Band Edge @ 3m)

WIFI Ant. 1	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		5019.25	51.78	-22.22	74	37.76	33.7	13.42	33.1	125	144	P	H
		5148.75	43.35	-10.65	54	28.9	33.87	13.68	33.1	125	144	A	H
	*	5270	99.8	-	-	84.96	34.02	13.92	33.1	125	144	P	H
		5270	91.33	-	-	76.49	34.02	13.92	33.1	125	144	A	H
		5388.96	53.55	-20.45	74	38.31	34.18	14.16	33.1	125	144	P	H
		5415.36	44.17	-9.83	54	28.89	34.22	14.16	33.1	125	144	A	H
		5125.3	52.31	-21.69	74	37.88	33.85	13.68	33.1	388	232	P	V
		5147.7	43.22	-10.78	54	28.77	33.87	13.68	33.1	388	232	A	V
	*	5270	98.06	-	-	83.22	34.02	13.92	33.1	388	232	P	V
		5270	91.94	-	-	77.1	34.02	13.92	33.1	388	232	A	V
		5447.52	52.84	-21.16	74	37.41	34.26	14.27	33.1	388	232	P	V
		5425.92	43.99	-10.01	54	28.71	34.22	14.16	33.1	388	232	A	V
802.11n HT40 CH 62 5310MHz		5072.1	51.65	-22.35	74	37.45	33.79	13.51	33.1	111	145	P	H
		5145.25	43.34	-10.66	54	28.89	33.87	13.68	33.1	111	145	A	H
	*	5310	98.58	-	-	83.55	34.09	14.04	33.1	111	145	P	H
		5310	92.21	-	-	77.18	34.09	14.04	33.1	111	145	A	H
		5352.96	55.67	-18.33	74	40.54	34.13	14.1	33.1	111	145	P	H
		5350.8	47.85	-6.15	54	32.72	34.13	14.1	33.1	111	145	A	H
		5098.7	52.19	-21.81	74	37.88	33.81	13.6	33.1	352	231	P	V
		5145.25	43.33	-10.67	54	28.88	33.87	13.68	33.1	352	231	A	V
	*	5310	95.77	-	-	80.74	34.09	14.04	33.1	352	231	P	V
		5310	90.15	-	-	75.12	34.09	14.04	33.1	352	231	A	V
		5350.8	54.29	-19.71	74	39.16	34.13	14.1	33.1	352	231	P	V
		5350.08	46.55	-7.45	54	31.42	34.13	14.1	33.1	352	231	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		10540	47.66	-20.54	68.2	49.6	37.12	19.74	58.8	139	242	P	H
HT40		15810	46.64	-27.36	74	41.89	41.44	22.52	59.21	152	296	P	H
CH 54		10540	47.93	-20.27	68.2	49.87	37.12	19.74	58.8	150	220	P	V
5270MHz		15810	46.3	-27.7	74	41.55	41.44	22.52	59.21	168	345	P	V
802.11n		10620	47.4	-26.6	74	49.16	37.17	19.78	58.71	148	269	P	H
HT40		15930	46.43	-27.57	74	41.43	41.73	22.6	59.33	187	241	P	H
CH 62		10620	46.76	-27.24	74	48.52	37.17	19.78	58.71	150	220	P	V
5310MHz		15930	46.53	-27.47	74	41.53	41.73	22.6	59.33	160	100	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 2 5250~5350MHz

WIFI 802.11ac VHT20 (Band Edge @ 3m)

WIFI Ant. 1	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)
		5141.44	53.28	-20.72	74	38.83	33.87	13.68	33.1	107	136	P	H
		5142.48	43.16	-10.84	54	28.71	33.87	13.68	33.1	107	136	A	H
	*	5260	103.76	-	-	88.92	34.02	13.92	33.1	107	136	P	H
		5260	96.49	-	-	81.65	34.02	13.92	33.1	107	136	A	H
802.11ac		5407.92	53.91	-20.09	74	38.65	34.2	14.16	33.1	107	136	P	H
VHT20		5447.04	43.62	-10.38	54	28.19	34.26	14.27	33.1	107	136	A	H
CH 52		5109.72	51.98	-22.02	74	37.65	33.83	13.6	33.1	381	231	P	V
5260MHz		5145.08	43.14	-10.86	54	28.69	33.87	13.68	33.1	381	231	A	V
	*	5260	98.94	-	-	84.1	34.02	13.92	33.1	381	231	P	V
		5260	93.47	-	-	78.63	34.02	13.92	33.1	381	231	A	V
		5416.8	52.71	-21.29	74	37.43	34.22	14.16	33.1	381	231	P	V
		5452.32	43.66	-10.34	54	28.23	34.26	14.27	33.1	381	231	A	V
		5052.5	51.53	-22.47	74	37.38	33.74	13.51	33.1	107	137	P	H
		5141.4	43.16	-10.84	54	28.71	33.87	13.68	33.1	107	137	A	H
	*	5300	103.89	-	-	88.94	34.07	13.98	33.1	107	137	P	H
		5300	96.34	-	-	81.39	34.07	13.98	33.1	107	137	A	H
802.11ac		5439.12	53.84	-20.16	74	38.43	34.24	14.27	33.1	107	137	P	H
VHT20		5440.32	43.91	-10.09	54	28.5	34.24	14.27	33.1	107	137	A	H
CH 60		5101.5	51.75	-22.25	74	37.44	33.81	13.6	33.1	381	231	P	V
5300MHz		5143.15	43.26	-10.74	54	28.81	33.87	13.68	33.1	381	231	A	V
	*	5300	99.82	-	-	84.87	34.07	13.98	33.1	381	231	P	V
		5300	93.16	-	-	78.21	34.07	13.98	33.1	381	231	A	V
		5422.32	53.32	-20.68	74	38.04	34.22	14.16	33.1	381	231	P	V
		5444.4	43.78	-10.22	54	28.37	34.24	14.27	33.1	381	231	A	V

	*	5320	103.7	-	-	88.67	34.09	14.04	33.1	102	144	P	H
		5320	96.26	-	-	81.23	34.09	14.04	33.1	102	144	A	H
802.11ac		5372.16	52.94	-21.06	74	37.79	34.15	14.1	33.1	102	144	P	H
VHT20		5450.24	43.8	-10.2	54	28.37	34.26	14.27	33.1	102	144	A	H
CH 64	*	5320	98.97	-	-	83.94	34.09	14.04	33.1	381	232	P	V
5320MHz		5320	92.88	-	-	77.85	34.09	14.04	33.1	381	232	A	V
		5382.56	53.34	-20.66	74	38.16	34.18	14.1	33.1	381	232	P	V
		5418.88	43.74	-10.26	54	28.46	34.22	14.16	33.1	381	232	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 2 5250~5350MHz

WIFI 802.11ac VHT20 (Harmonic @ 3m)

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11ac		10520	45.71	-22.49	68.2	47.7	37.11	19.72	58.82	150	220	P	H
VHT20		15780	47.29	-26.71	74	42.61	41.36	22.5	59.18	159	345	P	H
CH 52		10520	45.86	-22.34	68.2	47.85	37.11	19.72	58.82	129	266	P	V
5260MHz		15780	45.65	-28.35	74	40.97	41.36	22.5	59.18	161	0	P	V
802.11ac		10600	44.55	-29.45	74	46.36	37.16	19.76	58.73	185	215	P	H
VHT20		15900	47.23	-26.77	74	42.31	41.65	22.57	59.3	196	190	P	H
CH 60		10600	44.58	-29.42	74	46.39	37.16	19.76	58.73	185	215	P	V
5300MHz		15900	47.5	-26.5	74	42.58	41.65	22.57	59.3	196	190	P	V
802.11ac		10640	44.96	-29.04	74	46.69	37.18	19.78	58.69	152	135	P	H
VHT20		15960	46.76	-27.24	74	41.69	41.82	22.62	59.37	173	245	P	H
CH 64		10640	44.88	-29.12	74	46.61	37.18	19.78	58.69	196	153	P	V
5320MHz		15960	46.77	-27.23	74	41.7	41.82	22.62	59.37	157	269	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 2 5250~5350MHz

WIFI 802.11ac VHT40 (Band Edge @ 3m)

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11ac VHT40 CH 54 5270MHz		5102.7	53.73	-20.27	74	39.42	33.81	13.6	33.1	104	144	P	H
		5145.6	43.15	-10.85	54	28.7	33.87	13.68	33.1	104	144	A	H
	*	5270	98.02	-	-	83.18	34.02	13.92	33.1	104	144	P	H
		5270	91.7	-	-	76.86	34.02	13.92	33.1	104	144	A	H
		5427.36	52.52	-21.48	74	37.13	34.22	14.27	33.1	104	144	P	H
		5439.84	43.91	-10.09	54	28.5	34.24	14.27	33.1	104	144	A	H
		5086.06	52.9	-21.1	74	38.61	33.79	13.6	33.1	385	228	P	V
		5135.2	43.06	-10.94	54	28.63	33.85	13.68	33.1	385	228	A	V
	*	5270	95.65	-	-	80.81	34.02	13.92	33.1	385	228	P	V
		5270	89.05	-	-	74.21	34.02	13.92	33.1	385	228	A	V
		5434.32	53.07	-20.93	74	37.66	34.24	14.27	33.1	385	228	P	V
		5430.24	43.81	-10.19	54	28.4	34.24	14.27	33.1	385	228	A	V
802.11ac VHT40 CH 62 5310MHz		5081.9	52.62	-21.38	74	38.33	33.79	13.6	33.1	102	144	P	H
		5123.2	43.58	-10.42	54	29.15	33.85	13.68	33.1	102	144	A	H
	*	5310	99.15	-	-	84.12	34.09	14.04	33.1	102	144	P	H
		5310	92.52	-	-	77.49	34.09	14.04	33.1	102	144	A	H
		5350.32	56.2	-17.8	74	41.07	34.13	14.1	33.1	102	144	P	H
		5350.08	47.7	-6.3	54	32.57	34.13	14.1	33.1	102	144	A	H
		5096.95	51.69	-22.31	74	37.38	33.81	13.6	33.1	341	225	P	V
		5113.75	43.16	-10.84	54	28.83	33.83	13.6	33.1	341	225	A	V
	*	5310	95.52	-	-	80.49	34.09	14.04	33.1	341	225	P	V
		5310	88.52	-	-	73.49	34.09	14.04	33.1	341	225	A	V
		5451.6	53.44	-20.56	74	38.01	34.26	14.27	33.1	341	225	P	V
		5350.56	44.92	-9.08	54	29.79	34.13	14.1	33.1	341	225	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 2 5250~5350MHz

WIFI 802.11ac VHT40 (Harmonic @ 3m)

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11ac		10540	44.43	-23.77	68.2	46.37	37.12	19.74	58.8	150	220	P	H
VHT40		15810	47.51	-26.49	74	42.76	41.44	22.52	59.21	168	345	P	H
CH 54		10540	44.67	-23.53	68.2	46.61	37.12	19.74	58.8	139	242	P	V
5270MHz		15810	46.9	-27.1	74	42.15	41.44	22.52	59.21	152	296	P	V
802.11ac		10620	45.01	-28.99	74	46.77	37.17	19.78	58.71	148	269	P	H
VHT40		15930	47.9	-26.1	74	42.9	41.73	22.6	59.33	187	241	P	H
CH 62		10620	45.25	-28.75	74	47.01	37.17	19.78	58.71	150	220	P	V
5310MHz		15930	47.04	-26.96	74	42.04	41.73	22.6	59.33	160	100	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 2 5250~5350MHz

WIFI 802.11ac VHT80 (Band Edge @ 3m)

WIFI Ant. 1	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)
		5125.06	52.81	-21.19	74	38.38	33.85	13.68	33.1	105	144	P	H
		5140.92	43.16	-10.84	54	28.71	33.87	13.68	33.1	105	144	A	H
	*	5290	92.09	-	-	77.16	34.05	13.98	33.1	105	144	P	H
		5290	85.39	-	-	70.46	34.05	13.98	33.1	105	144	A	H
802.11ac		5367.36	53.88	-20.12	74	38.73	34.15	14.1	33.1	105	144	P	H
VHT80		5352.72	45.27	-8.73	54	30.14	34.13	14.1	33.1	105	144	A	H
CH 58		5084.76	52.56	-21.44	74	38.27	33.79	13.6	33.1	400	231	P	V
5290MHz		5144.56	43.04	-10.96	54	28.59	33.87	13.68	33.1	400	231	A	V
	*	5290	86.42	-	-	71.49	34.05	13.98	33.1	400	231	P	V
		5290	80.35	-	-	65.42	34.05	13.98	33.1	400	231	A	V
		5376.24	52.89	-21.11	74	37.74	34.15	14.1	33.1	400	231	P	V
		5354.16	43.6	-10.4	54	28.47	34.13	14.1	33.1	400	231	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 2 5250~5350MHz

WIFI 802.11ac VHT80 (Harmonic @ 3m)

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11ac		10580	44.63	-23.57	68.2	46.47	37.15	19.76	58.75	215	196	P	H
VHT80		15870	46.79	-27.21	74	41.91	41.61	22.55	59.28	148	315	P	H
CH 58		10580	43.66	-24.54	68.2	45.5	37.15	19.76	58.75	150	220	P	V
5290MHz		15870	46.58	-27.42	74	41.7	41.61	22.55	59.28	168	345	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 3 - 5470~5725MHz

WIFI 802.11a (Band Edge @ 3m)

WIFI 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		5452.24	53.35	-20.65	74	37.92	34.26	14.27	33.1	119	136	P	H
		5462.64	53.57	-14.63	68.2	38.12	34.28	14.27	33.1	119	136	P	H
		5460	44.45	-9.55	54	29.02	34.26	14.27	33.1	119	136	A	H
	*	5500	106.62	-	-	91.02	34.33	14.37	33.1	119	136	P	H
		5500	99.56	-	-	83.96	34.33	14.37	33.1	119	136	A	H
		5455.12	53.75	-20.25	74	38.32	34.26	14.27	33.1	376	234	P	V
		5465.04	53.06	-15.14	68.2	37.61	34.28	14.27	33.1	376	234	P	V
		5458.32	44.1	-9.9	54	28.67	34.26	14.27	33.1	376	234	A	V
	*	5500	103.76	-	-	88.16	34.33	14.37	33.1	376	234	P	V
		5500	95.72	-	-	80.12	34.33	14.37	33.1	376	234	A	V
802.11a CH 116 5580MHz		5430.16	54.06	-19.94	74	38.65	34.24	14.27	33.1	101	140	P	H
		5461.12	53.26	-14.94	68.2	37.83	34.26	14.27	33.1	101	140	P	H
		5454.88	44.2	-9.8	54	28.77	34.26	14.27	33.1	101	140	A	H
	*	5580	107.11	-	-	91.22	34.41	14.58	33.1	101	140	P	H
		5580	99.52	-	-	83.63	34.41	14.58	33.1	101	140	A	H
		5727.83	55.4	-12.8	68.2	39.07	34.46	14.97	33.1	101	140	P	H
		5363.92	53.89	-20.11	74	38.74	34.15	14.1	33.1	379	228	P	V
		5463.52	52.71	-15.49	68.2	37.26	34.28	14.27	33.1	379	228	P	V
		5457.28	44.43	-9.57	54	29	34.26	14.27	33.1	379	228	A	V
	*	5580	103.89	-	-	88	34.41	14.58	33.1	379	228	P	V
		5580	97.13	-	-	81.24	34.41	14.58	33.1	379	228	A	V
		5765	54.34	-13.86	68.2	37.93	34.45	15.06	33.1	379	228	P	V

802.11a CH 140 5700MHz	*	5700	106.7	-	-	90.35	34.48	14.97	33.1	101	140	P	H
		5700	99.9	-	-	83.55	34.48	14.97	33.1	101	140	A	H
		5725.72	57.1	-11.1	68.2	40.77	34.46	14.97	33.1	101	140	P	H
	*	5700	104.25	-	-	87.9	34.48	14.97	33.1	341	233	P	V
		5700	97.35	-	-	81	34.48	14.97	33.1	341	233	A	V
		5727.16	54.91	-13.29	68.2	38.58	34.46	14.97	33.1	341	233	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		11000	47.19	-26.81	74	48.13	37.4	19.96	58.3	148	219	P	H
		16500	47.69	-20.51	68.2	40.31	43.27	22.95	58.84	148	232	P	H
		11000	46.34	-27.66	74	47.28	37.4	19.96	58.3	163	230	P	V
		16500	47.77	-20.43	68.2	40.39	43.27	22.95	58.84	178	296	P	V
802.11a CH 116 5580MHz		11160	46.3	-27.7	74	46.85	37.5	20.06	58.11	170	200	P	H
		16740	47.59	-20.61	68.2	39.14	43.91	23.12	58.58	156	350	P	H
		11160	46.24	-27.76	74	46.79	37.5	20.06	58.11	148	232	P	V
		16740	47.66	-20.54	68.2	39.21	43.91	23.12	58.58	136	342	P	V
802.11a CH 140 5700MHz		11400	46.72	-27.28	74	46.75	37.64	20.18	57.85	157	285	P	H
		17100	47.79	-20.41	68.2	38.32	44.29	23.34	58.16	165	246	P	H
		11400	46.53	-27.47	74	46.56	37.64	20.18	57.85	136	246	P	V
		17100	47.41	-20.79	68.2	37.94	44.29	23.34	58.16	155	196	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 3 - 5470~5725MHz

WIFI 802.11n HT20 (Band Edge @ 3m)

WIFI Ant. 1	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)
		5383.12	53.86	-20.14	74	38.68	34.18	14.1	33.1	117	149	P	H
		5467.28	54.29	-13.91	68.2	38.74	34.28	14.37	33.1	117	149	P	H
		5459.92	45.08	-8.92	54	29.65	34.26	14.27	33.1	117	149	A	H
802.11n	*	5500	106.75	-	-	91.15	34.33	14.37	33.1	117	149	P	H
HT20		5500	99.16	-	-	83.56	34.33	14.37	33.1	117	149	A	H
CH 100		5453.04	54.32	-19.68	74	38.89	34.26	14.27	33.1	358	242	P	V
5500MHz		5468.24	56.15	-12.05	68.2	40.6	34.28	14.37	33.1	358	242	P	V
		5458.16	44.84	-9.16	54	29.41	34.26	14.27	33.1	358	242	A	V
	*	5500	105.4	-	-	89.8	34.33	14.37	33.1	358	242	P	V
		5500	98.03	-	-	82.43	34.33	14.37	33.1	358	242	A	V
		5448.4	53.86	-20.14	74	38.43	34.26	14.27	33.1	110	151	P	H
		5464.72	52.03	-16.17	68.2	36.58	34.28	14.27	33.1	110	151	P	H
		5459.68	44.05	-9.95	54	28.62	34.26	14.27	33.1	110	151	A	H
	*	5580	106.73	-	-	90.84	34.41	14.58	33.1	110	151	P	H
802.11n		5580	98.43	-	-	82.54	34.41	14.58	33.1	110	151	A	H
HT20		5733.815	54.26	-13.94	68.2	37.93	34.46	14.97	33.1	110	151	P	H
CH 116		5443.36	53.1	-20.9	74	37.69	34.24	14.27	33.1	362	239	P	V
5580MHz		5462.08	52.83	-15.37	68.2	37.4	34.26	14.27	33.1	362	239	P	V
		5459.68	44.24	-9.76	54	28.81	34.26	14.27	33.1	362	239	A	V
	*	5580	105.62	-	-	89.73	34.41	14.58	33.1	362	239	P	V
		5580	97.36	-	-	81.47	34.41	14.58	33.1	362	239	A	V
		5758.07	54.19	-14.01	68.2	37.78	34.45	15.06	33.1	362	239	P	V

802.11n HT20 CH 140 5700MHz	*	5700	106.58	-	-	90.23	34.48	14.97	33.1	111	153	P	H
		5700	99.8	-	-	83.45	34.48	14.97	33.1	111	153	A	H
		5725.08	61.96	-6.24	68.2	45.63	34.46	14.97	33.1	111	153	P	H
	*	5700	104.78	-	-	88.43	34.48	14.97	33.1	369	240	P	V
		5700	98.12	-	-	81.77	34.48	14.97	33.1	369	240	A	V
		5725.16	57.78	-10.42	68.2	41.45	34.46	14.97	33.1	369	240	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		11000	47.38	-26.62	74	48.32	37.4	19.96	58.3	163	230	P	H
HT20		16500	47.6	-20.6	68.2	40.22	43.27	22.95	58.84	178	296	P	H
CH 100		11000	46.41	-27.59	74	47.35	37.4	19.96	58.3	148	219	P	V
5500MHz		16500	47.63	-20.57	68.2	40.25	43.27	22.95	58.84	148	232	P	V
802.11n		11160	46.27	-27.73	74	46.82	37.5	20.06	58.11	170	200	P	H
HT20		16740	47.62	-20.58	68.2	39.17	43.91	23.12	58.58	156	350	P	H
CH 116		11160	46.74	-27.26	74	47.29	37.5	20.06	58.11	148	232	P	V
5580MHz		16740	47.17	-21.03	68.2	38.72	43.91	23.12	58.58	136	342	P	V
802.11n		11400	46.97	-27.03	74	47	37.64	20.18	57.85	157	285	P	H
HT20		17100	46.68	-21.52	68.2	37.21	44.29	23.34	58.16	165	246	P	H
CH 140		11400	46.65	-27.35	74	46.68	37.64	20.18	57.85	136	246	P	V
5700MHz		17100	47.37	-20.83	68.2	37.9	44.29	23.34	58.16	155	196	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 3 - 5470~5725MHz

WIFI 802.11n HT40 (Band Edge @ 3m)

WIFI Ant. 1	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)
		5450.08	53.43	-20.57	74	38	34.26	14.27	33.1	118	133	P	H
		5469.76	60.45	-7.75	68.2	44.9	34.28	14.37	33.1	118	133	P	H
		5459.44	44.71	-9.29	54	29.28	34.26	14.27	33.1	118	133	A	H
	*	5510	101.15	-	-	85.44	34.33	14.48	33.1	118	133	P	H
802.11n		5510	94.65	-	-	78.94	34.33	14.48	33.1	118	133	A	H
HT40		5761.22	53.58	-14.62	68.2	37.17	34.45	15.06	33.1	118	133	P	H
CH 102		5452.48	53.97	-20.03	74	38.54	34.26	14.27	33.1	387	234	P	V
5510MHz		5469.04	58.05	-10.15	68.2	42.5	34.28	14.37	33.1	387	234	P	V
		5459.92	44.28	-9.72	54	28.85	34.26	14.27	33.1	387	234	A	V
	*	5510	98.77	-	-	83.06	34.33	14.48	33.1	387	234	P	V
		5510	92.65	-	-	76.94	34.33	14.48	33.1	387	234	A	V
		5735.075	54.41	-13.79	68.2	38.09	34.45	14.97	33.1	387	234	P	V
		5450.08	53.54	-20.46	74	38.11	34.26	14.27	33.1	130	140	P	H
		5461.36	52.92	-15.28	68.2	37.49	34.26	14.27	33.1	130	140	P	H
		5439.76	44.43	-9.57	54	29.02	34.24	14.27	33.1	130	140	A	H
	*	5550	102.57	-	-	86.7	34.39	14.58	33.1	130	140	P	H
802.11n		5550	95.04	-	-	79.17	34.39	14.58	33.1	130	140	A	H
HT40		5757.44	55.39	-12.81	68.2	38.98	34.45	15.06	33.1	130	140	P	H
CH 110		5458.72	52.49	-21.51	74	37.06	34.26	14.27	33.1	384	235	P	V
5550MHz		5463.76	53.33	-14.87	68.2	37.88	34.28	14.27	33.1	384	235	P	V
		5440.24	43.81	-10.19	54	28.4	34.24	14.27	33.1	384	235	A	V
	*	5550	98.69	-	-	82.82	34.39	14.58	33.1	384	235	P	V
		5550	92.23	-	-	76.36	34.39	14.58	33.1	384	235	A	V
		5761.535	53.48	-14.72	68.2	37.07	34.45	15.06	33.1	384	235	P	V

		5458.5	53	-21	74	37.57	34.26	14.27	33.1	100	140	P	H
		5463.75	51.69	-16.51	68.2	36.24	34.28	14.27	33.1	100	140	P	H
		5459.55	43.98	-10.02	54	28.55	34.26	14.27	33.1	100	140	A	H
	*	5670	102.47	-	-	86.22	34.48	14.87	33.1	100	140	P	H
802.11n		5670	94.74	-	-	78.49	34.48	14.87	33.1	100	140	A	H
HT40		5742.6	55.59	-12.61	68.2	39.18	34.45	15.06	33.1	100	140	P	H
CH 134		5435.4	52.67	-21.33	74	37.26	34.24	14.27	33.1	348	238	P	V
5670MHz		5460.6	51.71	-16.49	68.2	36.28	34.26	14.27	33.1	348	238	P	V
		5440.3	43.79	-10.21	54	28.38	34.24	14.27	33.1	348	238	A	V
	*	5670	100.8	-	-	84.55	34.48	14.87	33.1	348	238	P	V
		5670	93.71	-	-	77.46	34.48	14.87	33.1	348	238	A	V
		5731.4	53.85	-14.35	68.2	37.52	34.46	14.97	33.1	348	238	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		11020	47.77	-26.23	74	48.66	37.41	19.98	58.28	158	256	P	H
HT40		16530	47.85	-20.35	68.2	40.32	43.36	22.97	58.8	112	353	P	H
CH 102		11020	47.41	-26.59	74	48.3	37.41	19.98	58.28	158	256	P	V
5510MHz		16530	46.7	-21.5	68.2	39.17	43.36	22.97	58.8	112	353	P	V
802.11n		11100	47.34	-26.66	74	48.05	37.46	20.02	58.19	125	246	P	H
HT40		16650	47.57	-20.63	68.2	39.51	43.68	23.05	58.67	138	347	P	H
CH 110		11100	47.02	-26.98	74	47.73	37.46	20.02	58.19	125	246	P	V
5550MHz		16650	47.6	-20.6	68.2	39.54	43.68	23.05	58.67	138	347	P	V
802.11n		11340	47.44	-26.56	74	47.63	37.6	20.14	57.93	200	360	P	H
HT40		17010	47.27	-20.93	68.2	37.71	44.55	23.29	58.28	200	360	P	H
CH 134		11340	46.32	-27.68	74	46.51	37.6	20.14	57.93	125	327	P	V
5670MHz		17010	47.76	-20.44	68.2	38.2	44.55	23.29	58.28	248	316	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 3 - 5470~5725MHz

WIFI 802.11ac VHT20 (Band Edge @ 3m)

WIFI Ant. 1	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)
		5459.12	54.04	-19.96	74	38.61	34.26	14.27	33.1	121	137	P	H
		5462.8	53.69	-14.51	68.2	38.24	34.28	14.27	33.1	121	137	P	H
		5446.32	44.14	-9.86	54	28.71	34.26	14.27	33.1	121	137	A	H
802.11ac	*	5500	105.11	-	-	89.51	34.33	14.37	33.1	121	137	P	H
VHT20		5500	97.74	-	-	82.14	34.33	14.37	33.1	121	137	A	H
CH 100		5444.4	53.09	-20.91	74	37.68	34.24	14.27	33.1	381	232	P	V
5500MHz		5466.32	53.35	-14.85	68.2	37.8	34.28	14.37	33.1	381	232	P	V
		5452.56	43.93	-10.07	54	28.5	34.26	14.27	33.1	381	232	A	V
	*	5500	100.37	-	-	84.77	34.33	14.37	33.1	381	232	P	V
		5500	93.96	-	-	78.36	34.33	14.37	33.1	381	232	A	V
		5455.36	52.75	-21.25	74	37.32	34.26	14.27	33.1	102	138	P	H
		5469.52	52.43	-15.77	68.2	36.88	34.28	14.37	33.1	102	138	P	H
		5455.6	43.9	-10.1	54	28.47	34.26	14.27	33.1	102	138	A	H
	*	5580	105.81	-	-	89.92	34.41	14.58	33.1	102	138	P	H
802.11ac		5580	98.21	-	-	82.32	34.41	14.58	33.1	102	138	A	H
VHT20		5742.635	53.43	-14.77	68.2	37.02	34.45	15.06	33.1	102	138	P	H
CH 116		5452.24	53.15	-20.85	74	37.72	34.26	14.27	33.1	381	231	P	V
5580MHz		5468.56	54.26	-13.94	68.2	38.71	34.28	14.37	33.1	381	231	P	V
		5446.24	43.82	-10.18	54	28.39	34.26	14.27	33.1	381	231	A	V
	*	5580	100.72	-	-	84.83	34.41	14.58	33.1	381	231	P	V
		5580	94.86	-	-	78.97	34.41	14.58	33.1	381	231	A	V
		5754.29	53.18	-15.02	68.2	36.77	34.45	15.06	33.1	381	231	P	V

	*	5700	105.9	-	-	89.55	34.48	14.97	33.1	101	139	P	H
802.11ac		5700	98.2	-	-	81.85	34.48	14.97	33.1	101	139	A	H
VHT20		5725.08	56.38	-11.82	68.2	40.05	34.46	14.97	33.1	101	139	P	H
CH 140	*	5700	100.89	-	-	84.54	34.48	14.97	33.1	381	231	P	V
5700MHz		5700	94.46	-	-	78.11	34.48	14.97	33.1	381	231	A	V
		5725.72	54.2	-14	68.2	37.87	34.46	14.97	33.1	381	231	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 3 - 5470~5725MHz

WIFI 802.11ac VHT20 (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		11000	45.66	-28.34	74	46.6	37.4	19.96	58.3	163	230	P	H
VHT20		16500	48.58	-19.62	68.2	41.2	43.27	22.95	58.84	178	296	P	H
CH 100		11000	44.35	-29.65	74	45.29	37.4	19.96	58.3	148	219	P	V
5500MHz		16500	48.13	-20.07	68.2	40.75	43.27	22.95	58.84	148	98	P	V
802.11ac		11160	46.27	-27.73	74	46.82	37.5	20.06	58.11	170	200	P	H
VHT20		16740	46.54	-21.66	68.2	38.09	43.91	23.12	58.58	156	350	P	H
CH 116		11160	46.17	-27.83	74	46.72	37.5	20.06	58.11	148	232	P	V
5580MHz		16740	47.96	-20.24	68.2	39.51	43.91	23.12	58.58	136	342	P	V
802.11ac		11400	45.32	-28.68	74	45.35	37.64	20.18	57.85	136	246	P	H
VHT20		17100	48.17	-20.03	68.2	38.7	44.29	23.34	58.16	155	196	P	H
CH 140		11400	45.52	-28.48	74	45.55	37.64	20.18	57.85	157	285	P	V
5700MHz		17100	48.53	-19.67	68.2	39.06	44.29	23.34	58.16	165	246	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 3 - 5470~5725MHz

WIFI 802.11ac VHT40 (Band Edge @ 3m)

WIFI Ant. 1	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)
		5438.32	53.57	-20.43	74	38.16	34.24	14.27	33.1	120	146	P	H
		5464.24	58.68	-9.52	68.2	43.23	34.28	14.27	33.1	120	146	P	H
		5458.24	44.5	-9.5	54	29.07	34.26	14.27	33.1	120	146	A	H
	*	5510	100.93	-	-	85.22	34.33	14.48	33.1	120	146	P	H
802.11ac		5510	93.57	-	-	77.86	34.33	14.48	33.1	120	146	A	H
VHT40		5751.77	53.18	-15.02	68.2	36.77	34.45	15.06	33.1	120	146	P	H
CH 102		5360.8	52.47	-21.53	74	37.32	34.15	14.1	33.1	352	227	P	V
5510MHz		5469.28	56.13	-12.07	68.2	40.58	34.28	14.37	33.1	352	227	P	V
		5459.92	43.79	-10.21	54	28.36	34.26	14.27	33.1	352	227	A	V
	*	5510	98.4	-	-	82.69	34.33	14.48	33.1	352	227	P	V
		5510	91.17	-	-	75.46	34.33	14.48	33.1	352	227	A	V
		5730.98	54.12	-14.08	68.2	37.79	34.46	14.97	33.1	352	227	P	V
		5437.36	53.47	-20.53	74	38.06	34.24	14.27	33.1	100	139	P	H
		5460.64	53.65	-14.55	68.2	38.22	34.26	14.27	33.1	100	139	P	H
		5452.24	44.07	-9.93	54	28.64	34.26	14.27	33.1	100	139	A	H
	*	5550	101.61	-	-	85.74	34.39	14.58	33.1	100	139	P	H
802.11ac		5550	93.66	-	-	77.79	34.39	14.58	33.1	100	139	A	H
VHT40		5736.65	53.84	-14.36	68.2	37.52	34.45	14.97	33.1	100	139	P	H
CH 110		5437.36	53.01	-20.99	74	37.6	34.24	14.27	33.1	345	230	P	V
5550MHz		5465.92	52.08	-16.12	68.2	36.53	34.28	14.37	33.1	345	230	P	V
		5453.44	43.67	-10.33	54	28.24	34.26	14.27	33.1	345	230	A	V
	*	5550	97.56	-	-	81.69	34.39	14.58	33.1	345	230	P	V
		5550	91.34	-	-	75.47	34.39	14.58	33.1	345	230	A	V
		5742.32	53.2	-15	68.2	36.79	34.45	15.06	33.1	345	230	P	V

		5365.05	52.37	-21.63	74	37.22	34.15	14.1	33.1	102	132	P	H
		5467.25	51.49	-16.71	68.2	35.94	34.28	14.37	33.1	102	132	P	H
		5448.35	43.83	-10.17	54	28.4	34.26	14.27	33.1	102	132	A	H
	*	5670	100.64	-	-	84.39	34.48	14.87	33.1	102	132	P	H
802.11ac		5670	93.87	-	-	77.62	34.48	14.87	33.1	102	132	A	H
VHT40		5748.725	54.37	-13.83	68.2	37.96	34.45	15.06	33.1	102	132	P	H
CH 134		5396.55	52.33	-21.67	74	37.07	34.2	14.16	33.1	349	224	P	V
5670MHz		5459.9	52.27	-21.73	74	36.84	34.26	14.27	33.1	349	224	P	V
		5439.25	43.6	-10.4	54	28.19	34.24	14.27	33.1	349	224	A	V
	*	5670	98.22	-	-	81.97	34.48	14.87	33.1	349	224	P	V
		5670	91.15	-	-	74.9	34.48	14.87	33.1	349	224	A	V
		5730.525	54.14	-14.06	68.2	37.81	34.46	14.97	33.1	349	224	P	V

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

Band 3 - 5470~5725MHz

WIFI 802.11ac VHT40 (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		11020	45.43	-28.57	74	46.32	37.41	19.98	58.28	170	230	P	H
VHT40		16530	47.62	-20.58	68.2	40.09	43.36	22.97	58.8	160	300	P	H
CH 102		11020	44.52	-29.48	74	45.41	37.41	19.98	58.28	158	256	P	V
5510MHz		16530	47.52	-20.68	68.2	39.99	43.36	22.97	58.8	112	353	P	V
802.11ac		11100	44.83	-29.17	74	45.54	37.46	20.02	58.19	150	200	P	H
VHT40		16650	47.27	-20.93	68.2	39.21	43.68	23.05	58.67	180	350	P	H
CH 110		11100	45.33	-28.67	74	46.04	37.46	20.02	58.19	125	246	P	V
5550MHz		16650	47.48	-20.72	68.2	39.42	43.68	23.05	58.67	138	347	P	V
802.11ac		11340	44.15	-29.85	74	44.34	37.6	20.14	57.93	200	360	P	H
VHT40		17010	47.49	-20.71	68.2	37.93	44.55	23.29	58.28	200	360	P	H
CH 134		11340	45.2	-28.8	74	45.39	37.6	20.14	57.93	125	327	P	V
5670MHz		17010	49.07	-19.13	68.2	39.51	44.55	23.29	58.28	248	316	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 3 5470~5725MHz

WIFI 802.11ac VHT80 (Band Edge @ 3m)

WIFI Ant. 1	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)
		5450.32	55.4	-18.6	74	39.97	34.26	14.27	33.1	106	144	P	H
		5463.76	55.76	-12.44	68.2	40.31	34.28	14.27	33.1	106	144	P	H
		5459.68	46.13	-7.87	54	30.7	34.26	14.27	33.1	106	144	A	H
	*	5530	95.24	-	-	79.51	34.35	14.48	33.1	106	144	P	H
802.11ac		5530	88.62	-	-	72.89	34.35	14.48	33.1	106	144	A	H
VHT80		5740.115	53.4	-14.8	68.2	36.99	34.45	15.06	33.1	106	144	P	H
CH 106		5370.4	53.62	-20.38	74	38.47	34.15	14.1	33.1	396	226	P	V
5530MHz		5461.6	54.31	-13.89	68.2	38.88	34.26	14.27	33.1	396	226	P	V
		5457.52	44.25	-9.75	54	28.82	34.26	14.27	33.1	396	226	A	V
	*	5530	88.79	-	-	73.06	34.35	14.48	33.1	396	226	P	V
		5530	81.52	-	-	65.79	34.35	14.48	33.1	396	226	A	V
		5749.565	53.43	-14.77	68.2	37.02	34.45	15.06	33.1	396	226	P	V
		5384.8	53.04	-20.96	74	37.86	34.18	14.1	33.1	103	132	P	H
		5469.52	51.95	-16.25	68.2	36.4	34.28	14.37	33.1	103	132	P	H
		5443.12	44.08	-9.92	54	28.67	34.24	14.27	33.1	103	132	A	H
	*	5610	94.86	-	-	78.81	34.46	14.69	33.1	103	132	P	H
802.11ac		5610	87.85	-	-	71.8	34.46	14.69	33.1	103	132	A	H
VHT80		5753.625	53.37	-14.83	68.2	36.96	34.45	15.06	33.1	103	132	P	H
CH 122		5426.8	53.82	-20.18	74	38.43	34.22	14.27	33.1	356	228	P	V
5610MHz		5466.64	53.16	-15.04	68.2	37.61	34.28	14.37	33.1	356	228	P	V
		5456.8	43.8	-10.2	54	28.37	34.26	14.27	33.1	356	228	A	V
	*	5610	91.95	-	-	75.9	34.46	14.69	33.1	356	228	P	V
		5610	84.52	-	-	68.47	34.46	14.69	33.1	356	228	A	V
		5746.8	53.41	-14.79	68.2	37	34.45	15.06	33.1	356	228	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 3 5470~5725MHz

WIFI 802.11ac VHT80 (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	44.56	-29.44	74	45.35	37.44	20	58.23	150	200	P	H
VHT80		16590	47.32	-20.88	68.2	39.55	43.5	23.02	58.75	180	350	P	H
CH 106		11060	44.48	-29.52	74	45.27	37.44	20	58.23	125	263	P	V
5530MHz		16590	47.43	-20.77	68.2	39.66	43.5	23.02	58.75	174	328	P	V
802.11ac		11220	46.23	-27.77	74	46.68	37.53	20.08	58.06	200	360	P	H
VHT80		16830	46.08	-22.12	68.2	37.26	44.14	23.17	58.49	200	360	P	H
CH 122		11220	45.04	-28.96	74	45.49	37.53	20.08	58.06	125	278	P	V
5610MHz		16830	46.41	-21.79	68.2	37.59	44.14	23.17	58.49	162	278	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 HT40 (LF @ 3m)

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Peak	Pol.
Ant.				Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
1		(MHz)	(dBµV/m)	(dB)	(dBµV/m)	(dBµV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11n HT40 LF		30	24.5	-15.5	40	30.44	24.4	0.96	31.3	100	73	P	H
		83.35	23.86	-16.14	40	40.35	13.44	1.62	31.55	-	-	P	H
		229.82	27.97	-18.03	46	40.51	16.3	2.7	31.54	-	-	P	H
		269.59	28.02	-17.98	46	37.3	19.37	2.93	31.58	-	-	P	H
		296.75	29.99	-16.01	46	39.18	19.16	3.07	31.42	-	-	P	H
		796.3	30.34	-15.66	46	30.44	26.15	5.04	31.29	-	-	P	H
		41.64	25.64	-14.36	40	38.15	17.78	1.16	31.45	100	176	P	V
		119.24	25.75	-17.75	43.5	37.39	17.94	1.94	31.52	-	-	P	V
		213.33	22.6	-20.9	43.5	36.02	15.4	2.6	31.42	-	-	P	V
		426.73	27.99	-18.01	46	33.69	22.08	3.68	31.46	-	-	P	V
		656.62	29.71	-16.29	46	31.85	24.73	4.57	31.44	-	-	P	V
		911.73	31.09	-14.91	46	30.56	26.6	5.38	31.45	-	-	P	V
Remark	1. No other spurious found. 2. All results are PASS against limit line.												

Note symbol

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

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

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

1. Level(dBμV/m) =

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

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

For Peak Limit @ 2390MHz:

1. Level(dBμV/m)

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

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

= 55.45 (dBμV/m)

2. Over Limit(dB)

= Level(dBμV/m) – Limit Line(dBμV/m)

= 55.45(dBμV/m) – 74(dBμV/m)

= -18.55(dB)

For Average Limit @ 2390MHz:

1. Level(dBμV/m)

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

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

= 43.54 (dBμV/m)

2. Over Limit(dB)

= Level(dBμV/m) – Limit Line(dBμV/m)

= 43.54(dBμV/m) – 54(dBμV/m)

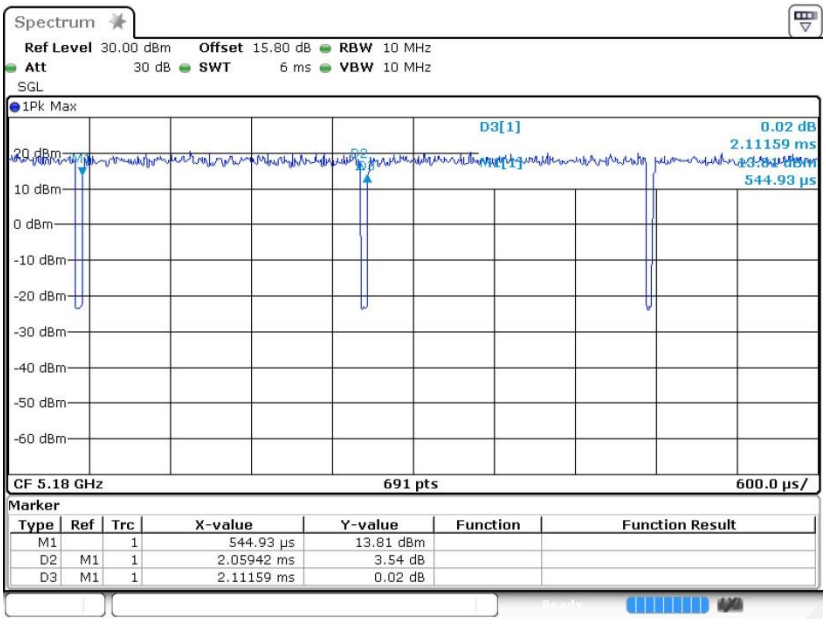
= -10.46(dB)

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

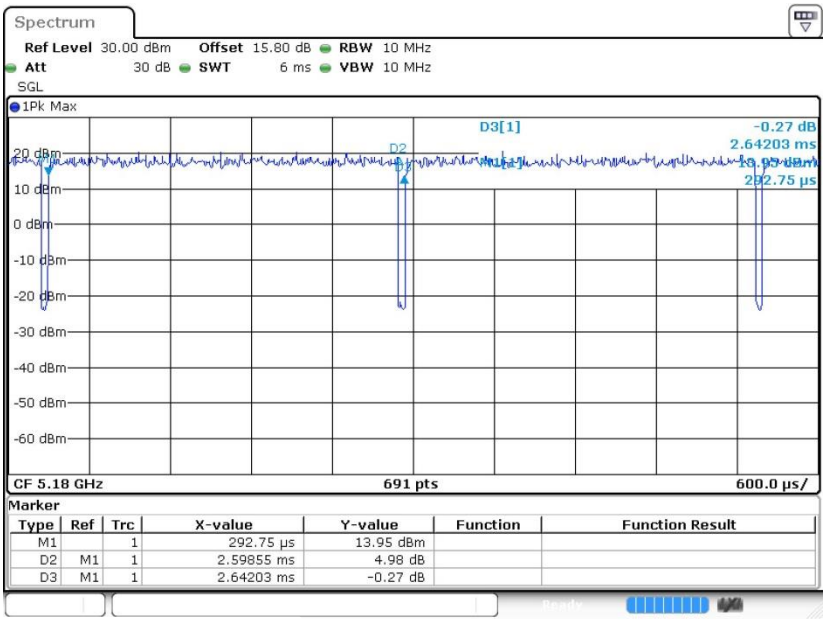
Appendix D. Duty Cycle Plots

Band	Duty Cycle(%)	T(ms)	1/T(kHz)	VBW Setting
802.11a	97.53	2.059	0.486	1KHz
802.11an HT 20	98.35	-	-	10Hz
802.11an HT 40	96.26	1.268	0.789	1KHz
802.11ac VHT 20	98.60	-	-	10Hz
802.11ac VHT 40	98.01	-	-	10Hz
802.11ac VHT80	96.34	1.144	0.875	1KHz

802.11a



802.11an HT20



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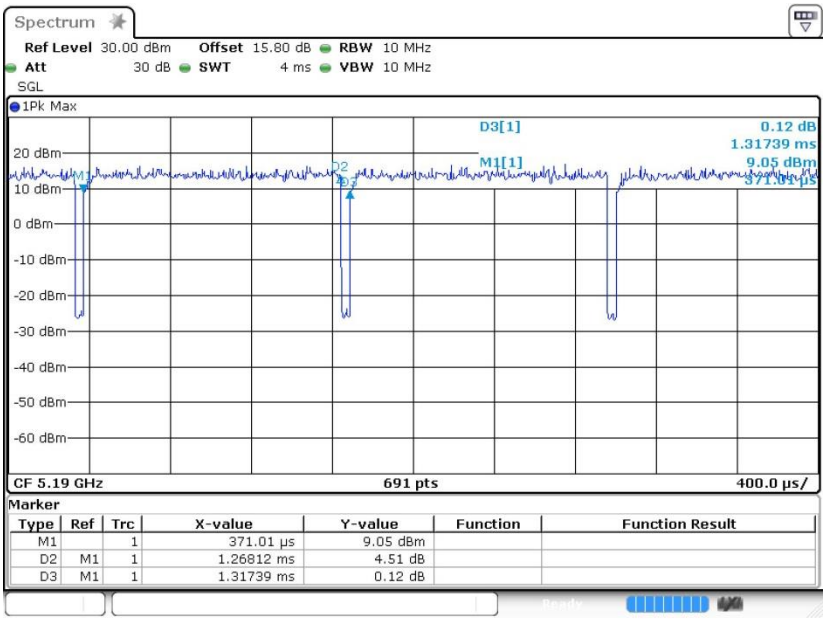
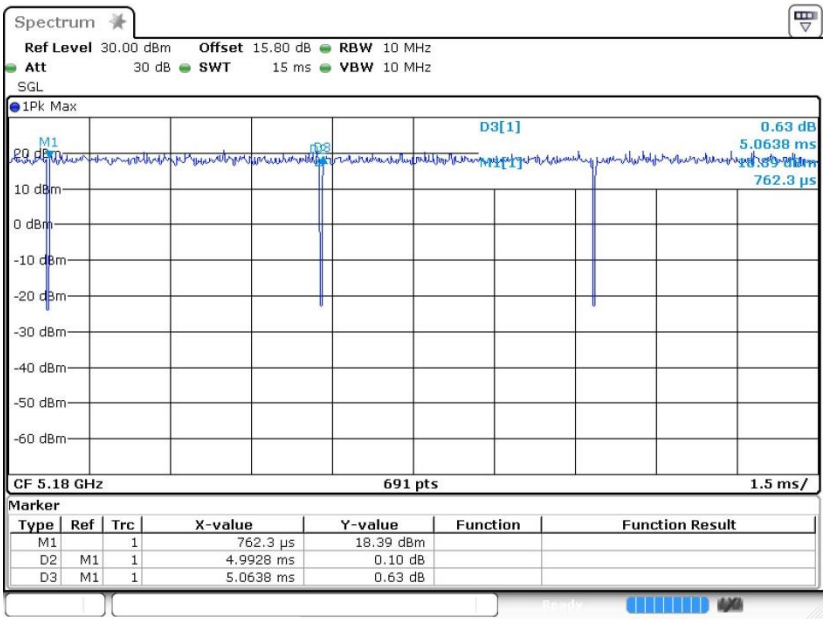


802.11ac VHT20



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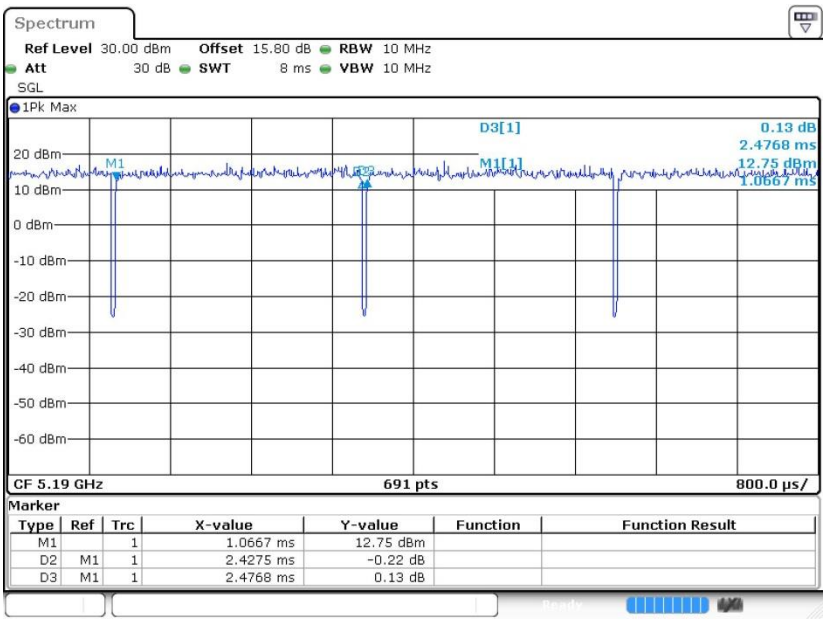

802.11ac VHT80