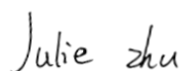


TEST REPORT

Applicant: UROVO TECHNOLOGY CO., LTD.
Address: 36F, High-Tech Zone Union Tower, No.63, Xuefu Road, Nanshan District, Shenzhen, Guangdong, China
Equipment Type: Smart POS Payment Terminal
Model Name: i9200 (refer to chapter 2.3)
Brand Name: UROVO
FCC ID: SWSI9200
Test Standard: 47 CFR Part 15 Subpart E (refer to section 3.1)
Sample Arrival Date: Oct. 17, 2025
Test Date: Oct. 29, 2025 - Nov. 26, 2025
Date of Issue: Dec. 12, 2025

ISSUED BY:

Shenzhen BALUN Technology Co., Ltd.

Tested by: Julie zhu**Checked by:** Ye Hongji**Approved by:** Tolan Tu
(Testing Director)

Revision History

Version	Issue Date	Revisions
<u>Rev. 01</u>	<u>Dec. 12, 2025</u>	<u>Initial Issue</u>

TABLE OF CONTENTS

1	GENERAL INFORMATION	4
1.1	Test Laboratory	4
1.2	Test Location	4
2	PRODUCT INFORMATION	5
2.1	Applicant Information	5
2.2	Manufacturer Information	5
2.3	General Description for Equipment under Test (EUT)	5
2.4	Technical Information	6
2.5	Channel List	7
3	SUMMARY OF TEST RESULTS	11
3.1	Test Standards	11
3.2	Test Verdict	11
4	GENERAL TEST CONFIGURATIONS	12
4.1	Test Environments	12
4.2	Test Equipment List	12
4.3	Test Software List	12
4.4	Measurement Uncertainty	13
4.5	Description of Test Setup	13
5	TEST ITEMS	16
5.1	RF Output Power	16
5.2	Emission Bandwidth and 6 dB Bandwidth	18
5.3	Power Spectral density (PSD)	19
5.4	Conducted Emission	20
5.5	Radiated Spurious Emissions and Band Edge (Restricted-band)	21

ANNEX A	TEST RESULT	26
A.1	RF Output Power.....	26
A.2	Emission Bandwidth & 99% Bandwidth.....	30
A.3	6 dB Bandwidth	32
A.4	Power Spectral Density	33
A.5	Conducted Emissions.....	35
A.6	Radiated Spurious Emissions and Band Edge (Restricted-band).....	37
ANNEX B	TEST SETUP PHOTOS	207
ANNEX C	EUT EXTERNAL PHOTOS	207
ANNEX D	EUT INTERNAL PHOTOS	207

1 GENERAL INFORMATION

1.1 Test Laboratory

Name	Shenzhen BALUN Technology Co., Ltd.
Address	Block B, 1/F, Baisha Science and Technology Park, Shahe Xi Road, Nanshan District, Shenzhen, Guangdong Province, P. R. China
Phone Number	+86 755 6685 0100

1.2 Test Location

Name	Shenzhen BALUN Technology Co., Ltd.
Location	☐ Block B, 1/F, Baisha Science and Technology Park, Shahe Xi Road, Nanshan District, Shenzhen, Guangdong Province, P. R. China
	☒ 1/F, Building B, Ganghongji High-tech Intelligent Industrial Park, No. 1008, Songbai Road, Yangguang Community, Xili Sub-district, Nanshan District, Shenzhen, Guangdong Province, P. R. China
	☐ Building 2, Intelligent Connected Vehicle Industrial Park, No. 55, Xiangshan Road, Luotian Community, Yanluo Sub-district, Bao'an District, Shenzhen
Accreditation Certificate	The laboratory is a testing organization accredited by FCC as a accredited testing laboratory. The designation number is CN1196.

2 PRODUCT INFORMATION

2.1 Applicant Information

Applicant	UROVO TECHNOLOGY CO., LTD.
Address	36F, High-Tech Zone Union Tower, No.63, Xuefu Road, Nanshan District, Shenzhen, Guangdong, China

2.2 Manufacturer Information

Manufacturer	UROVO TECHNOLOGY CO., LTD.
Address	36F, High-Tech Zone Union Tower, No.63, Xuefu Road, Nanshan District, Shenzhen, Guangdong, China

2.3 General Description for Equipment under Test (EUT)

EUT Name	Smart POS Payment Terminal
Model Name Under Test	i9200
Series Model Name	i9210, i9220, i9230, i9200A
Description of Model name differentiation	All models are same with electrical parameters and internal circuit structure, but only differ in model name. (this information provided by the applicant)
Hardware Version	SQ68_MB_V1.0.0
Software Version	SQ68_GO_EN_XX_WE_DS_R01_D_250923_01
Dimensions (Approx.)	N/A
Weight (Approx.)	N/A

2.4 Technical Information

Network and Wireless connectivity	2G Network GSM/GPRS/EDGE 850/1900 3G Network WCDMA/HSDPA/HSUPA/DC-HSUPA Band 2/4/5 4G Network LTE FDD Band 2/4/5/7/26/66 LTE TDD Band 38 Bluetooth (BR+EDR+BLE) WIFI 802.11a, 802.11b, 802.11g, 802.11n, 802.11ac
-----------------------------------	--

The requirement for the following technical information of the EUT was tested in this report:

Frequency Range	U-NII-1: 5150 MHz to 5250 MHz, U-NII-2A: 5250 MHz to 5350 MHz, U-NII-2C: 5470 MHz to 5725 MHz, U-NII-3: 5725 MHz to 5850 MHz
Product Type	☐ Mobile ☒ Portable ☐ Fix Location
Modulation technology	OFDM
Modulation Type	256QAM, 64QAM, 16QAM, BPSK, QPSK
Transfer Rate (Mbps) (Single RF path)	802.11a: 54/ 48/ 36/ 24/ 18/ 12/ 9/ 6 Mbps 802.11n: up to 150 Mbps 802.11ac: up to VHT-MCS9
Channel Bandwidth	802.11a: 20 MHz 802.11n: 20 MHz, 40 MHz 802.11ac: 20 MHz, 40 MHz, 80 MHz
Maximum Output Power	U-NII-1: 31.19 mW U-NII-2A: 29.58 mW U-NII-2C: 31.19 mW U-NII-3: 45.60 mW
Antenna System (eg., MIMO, Smart Antenna)	N/A
Categorization as Correlated or Completely Uncorrelated	N/A
Antenna Type	PIFA Antenna
Antenna Gain	U-NII-1: 5150 MHz to 5250 MHz: 2.34 dBi U-NII-2A: 5250 MHz to 5350 MHz: 3.75 dBi U-NII-2C: 5470 MHz to 5725 MHz: 3.05 dBi U-NII-3: 5725 MHz to 5850 MHz: 1.73 dBi
About the Product	The equipment is Smart POS Payment Terminal, intended for used with information technology equipment.

Note: The above EUT information in section 2.4 was declared by manufacturer and for more detailed features description, please refer to the manufacturer's specifications or user's manual.

2.5 Channel List

20 MHz		40 MHz		80 MHz	
Channel Number	Frequency (MHz)	Channel Number	Frequency (MHz)	Channel Number	Frequency (MHz)
36	5180	38	5190	42	5210
40	5200	46	5230	58	5290
44	5220	54	5270	106	5530
48	5240	62	5310	122	5610
52	5260	102	5510	155	5775
56	5280	110	5550		
60	5300	118	5590		
64	5320	126	5630		
100	5500	134	5670		
104	5520	151	5755		
108	5540	159	5795		
112	5560				
116	5580				
120	5600				
124	5620				
128	5640				
132	5660				
136	5680				
140	5700				
149	5745				
153	5765				
157	5785				
161	5805				
165	5825				

The Lowest frequency, the middle frequency and the highest frequency of channel were selected to perform the test, and the selected channel see below:

For 802.11a/n(HT20)/ac(VHT20)

U-NII-1 (5150 - 5250 MHz)			U-NII-2A (5250 - 5350 MHz)		
Channel Number	Channel	Frequency (MHz)	Channel Number	Channel	Frequency (MHz)
36	Low	5180	52	Low	5260
44	Mid	5220	60	Mid	5300
48	High	5240	64	High	5320

U-NII-2C (5470 - 5725 MHz)			U-NII-3 (5725 - 5850 MHz)		
Channel Number	Channel	Frequency (MHz)	Channel Number	Channel	Frequency (MHz)
100	Low	5500	149	Low	5745
116	Mid	5580	157	Mid	5785
140	High	5700	165	High	5825

For 802.11n(HT40)/ac(VHT40)

U-NII-1 (5150 - 5250 MHz)			U-NII-2A (5250 - 5350 MHz)		
Channel Number	Channel	Frequency (MHz)	Channel Number	Channel	Frequency (MHz)
38	Low	5190	54	Low	5270
46	High	5230	62	High	5310

U-NII-2C (5470 - 5725 MHz)			U-NII-3 (5725 - 5850 MHz)		
Channel Number	Channel	Frequency (MHz)	Channel Number	Channel	Frequency (MHz)
102	Low	5510	151	Low	5755
118	Mid	5590	159	High	5795
134	High	5670	--	--	--

For 802.11ac(VHT80)

U-NII-1 (5150 - 5250 MHz)			U-NII-2A (5250 - 5350 MHz)		
Channel Number	Channel	Frequency (MHz)	Channel Number	Channel	Frequency (MHz)
42	Mid	5210	58	Mid	5290

U-NII-2C (5470 - 5725 MHz)			U-NII-3 (5725 - 5850 MHz)		
Channel Number	Channel	Frequency (MHz)	Channel Number	Channel	Frequency (MHz)
106	Low	5530	155	Mid	5775
122	High	5610	--	--	--

Note: Preliminary tests were performed in different data rate in above table to find the worst radiated emission. The data rate shown in the table below is the worst-case rate with respect to the specific test item. Investigation has been done on all the possible configurations for searching the worst cases. The following table is a list of the test modes shown in this test report.

Test Items	Mode	Data Rate	Modulation Type	U-NII-1	U-NII-2A	U-NII-2C	U-NII-3
				Channel	Channel	Channel	Channel
RF Output Power	11a	6	BPSK	48/44/36	64/60/52	140/116/100	165/157/149
	11n(20 MHz)	6.5		48/44/36	64/60/52	140/116/100	165/157/149
	11n(40 MHz)	13.5		46/38	62/54	134/118/102	159/151
	11ac(20 MHz)	6.5		48/44/36	64/60/52	140/116/100	165/157/149
	11ac(40 MHz)	13.5		46/38	62/54	134/118/102	159/151
	11ac(80 MHz)	29.3		42	58	122/106	155
Emission Bandwidth & 99% Occupied Bandwidth	11a	6	BPSK	48/44/36	64/60/52	140/116/100	165/157/149
	11n(20 MHz)	6.5		48/44/36	64/60/52	140/116/100	165/157/149
	11n(40 MHz)	13.5		46/38	62/54	134/118/102	159/151
	11ac(20 MHz)	6.5		48/44/36	64/60/52	140/116/100	165/157/149
	11ac(40 MHz)	13.5		46/38	62/54	134/118/102	159/151
	11ac(80 MHz)	29.3		42	58	122/106	155
6 dB bandwidth	11a	6	BPSK	N/A	N/A	N/A	165/157/149
	11n(20 MHz)	6.5		N/A	N/A	N/A	165/157/149
	11n(40 MHz)	13.5		N/A	N/A	N/A	159/151
	11ac(20 MHz)	6.5		N/A	N/A	N/A	165/157/149
	11ac(40 MHz)	13.5		N/A	N/A	N/A	159/151
	11ac(80 MHz)	29.3		N/A	N/A	N/A	155
Power Spectral Density	11a	6	BPSK	48/44/36	64/60/52	140/116/100	165/157/149
	11n(20 MHz)	6.5		48/44/36	64/60/52	140/116/100	165/157/149
	11n(40 MHz)	13.5		46/38	62/54	134/118/102	159/151
	11ac(20 MHz)	6.5		48/44/36	64/60/52	140/116/100	165/157/149
	11ac(40 MHz)	13.5		46/38	62/54	134/118/102	159/151
	11ac(80 MHz)	29.3		42	58	122/106	155
Radiated Spurious Emissions	11a	6	BPSK	48/44/36	64/60/52	140/116/100	165/157/149
	11n(20 MHz)	6.5		48/44/36	64/60/52	140/116/100	165/157/149
	11n(40 MHz)	13.5		46/38	62/54	134/118/102	159/151
	11ac(20 MHz)	6.5		48/44/36	64/60/52	140/116/100	165/157/149
	11ac(40 MHz)	13.5		46/38	62/54	134/118/102	159/151
	11ac(80 MHz)	29.3		42	58	122/106	155
Band Edge (Restricted-band)	11a	6	BPSK	48/36	64/52	140/100	165/149
	11n(20 MHz)	6.5		48/36	64/52	140/100	165/149
	11n(40 MHz)	13.5		46/38	62/54	134/102	159/151
	11ac(20 MHz)	6.5		48/36	64/52	140/100	165/149
	11ac(40 MHz)	13.5		46/38	62/54	134/102	159/151
	11ac(80 MHz)	29.3		42	58	122/106	155

3 SUMMARY OF TEST RESULTS

3.1 Test Standards

No.	Identity	Document Title
1	47 CFR Part 15 Subpart E	Unlicensed National Information Infrastructure Devices
2	KDB Publication 789033 D02v02r01	Guidelines for Compliance Testing of Unlicensed National Information Infrastructure (U-NII) Devices Part 15, Subpart E
3	ANSI C63.10-2020	American National Standard of Procedures for Compliance Testing of Unlicensed Wireless Devices

3.2 Test Verdict

No.	Description	FCC Part No.	Test Result	Verdict
1	Antenna Requirement	15.203	--	Pass ^{Note1}
2	RF Output Power	15.407(a)	ANNEX A.1	Pass
3	Emission Bandwidth & 99% Occupied Bandwidth	15.407(a)	ANNEX A.2	Pass
4	6 dB bandwidth	15.407(e)	ANNEX A.3	Pass
5	Power Spectral Density	15.407(a)	ANNEX A.4	Pass
6	Conducted Emission	15.207	ANNEX A.5	Pass
7	Radiated Spurious Emissions and Band Edge (Restricted-band)	15.407(b)	ANNEX A.6	Pass

4 GENERAL TEST CONFIGURATIONS

4.1 Test Environments

During the measurement, the normal environmental conditions were within the listed ranges:

Relative Humidity	30% to 65%	
Atmospheric Pressure	100 kPa to 102 kPa	
Temperature	NT (Normal Temperature)	+20.3℃ to +25.3℃
Working Voltage of the EUT	NV (Normal Voltage)	3.85V

4.2 Test Equipment List

Description	Manufacturer	Model	Serial No.	Cal. Date	Cal. Due
Spectrum Analyzer	KEYSIGHT	N9020A	MY54420186	2025.05.21	2026.05.20
Power meter	R&S	NRP8S	101498	2025.07.07	2026.07.06
Spectrum Analyzer	R&S	FSV40	101544	2024.12.16	2025.12.15
Test Antenna-Horn	A-INFO	LB-180400KF	J211060273	2024.06.15	2027.06.14
Test Antenna-Bi-Log	Schwarzbeck	VULB 9163	01414	2023.11.03	2026.11.02
Test Antenna-Horn	Schwarzbeck	BBHA 9120D	02459	2023.10.26	2026.10.25
Test Antenna-Loop	Schwarzbeck	FMZB 1513-60	00015	2024.05.07	2026.05.06
Anechoic Chamber	YIHENG	C8-966	N/A	2024.05.15	2027.05.11
EMI Receiver	Keysight	N9038A	MY55330121	2025.04.16	2026.04.15
EMI Receiver	keysight	N9038B	MY61380132	2025.04.01	2026.03.31
LISN	SCHWARZBECK MESS-ELEKTRONIK	NSLK8127	01009	2025.07.15	2026.07.14
Shielded Enclosure	YiHeng Electronic Co., Ltd	4.3m*2.9m*2.4 m	235	2024.11.05	2027.11.04

4.3 Test Software List

Description	Manufacturer	Software Version	Serial No.	Applicable test Setup
BL410R	BALUN	V2.1.1.488	N/A	The section 4.5.1
BL410E	BALUN	V22.930	N/A	The section 4.5.2&4.5.3&4.5.4&4.5.5

4.4 Measurement Uncertainty

The following measurement uncertainty levels have been estimated for tests performed on the EUT as specified in CISPR 16-4-2.

This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=2.

Parameters	Uncertainty
Occupied Channel Bandwidth	2.8%
RF output power, conducted	1.28 dB
Power Spectral Density, conducted	1.30 dB
Unwanted Emissions, conducted	1.84 dB
All emissions, radiated	5.36 dB
Temperature	0.8°C
Humidity	4%

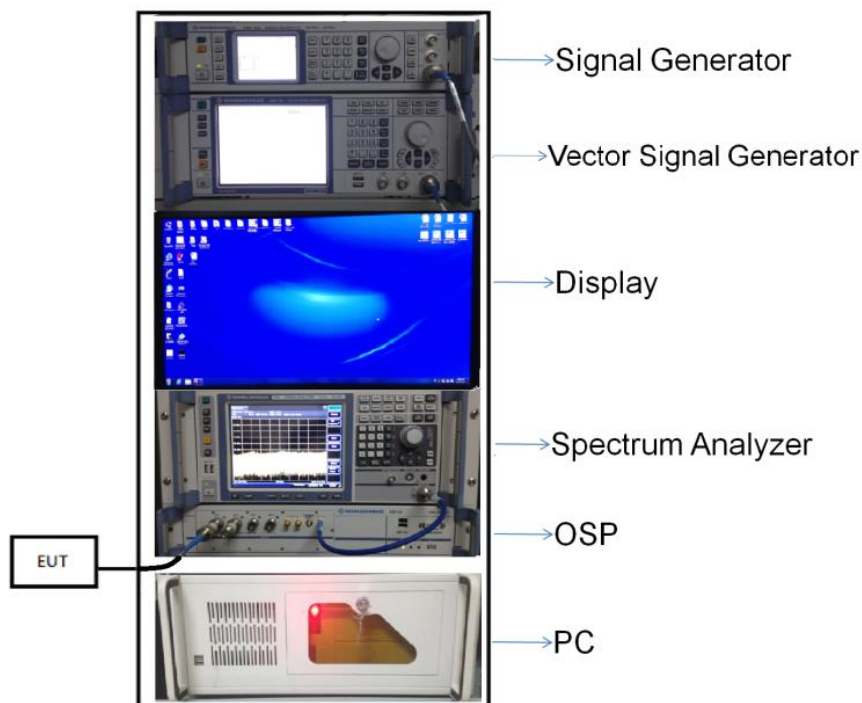
4.5 Description of Test Setup

4.5.1 For Antenna Port Test

Conducted value (dBm) = Measurement value (dBm) + cable loss (dB)

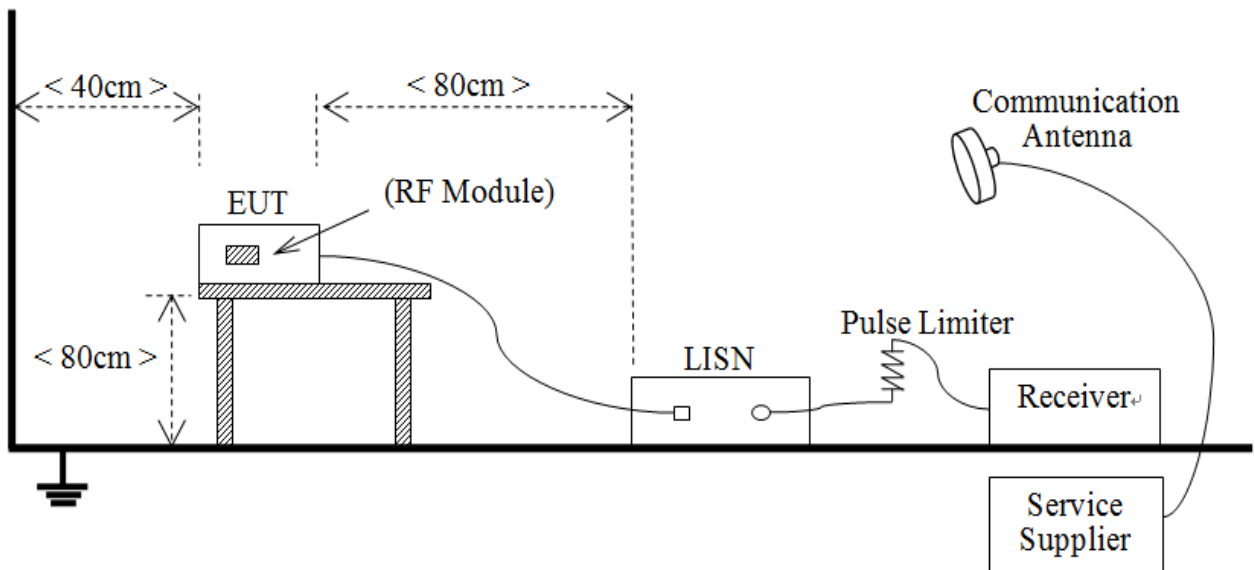
For example: the measurement value is 10 dBm and the cable 0.5dBm used, then the final result of EUT:

Conducted value (dBm) = 10 dBm + 0.5 dB = 10.5 dBm



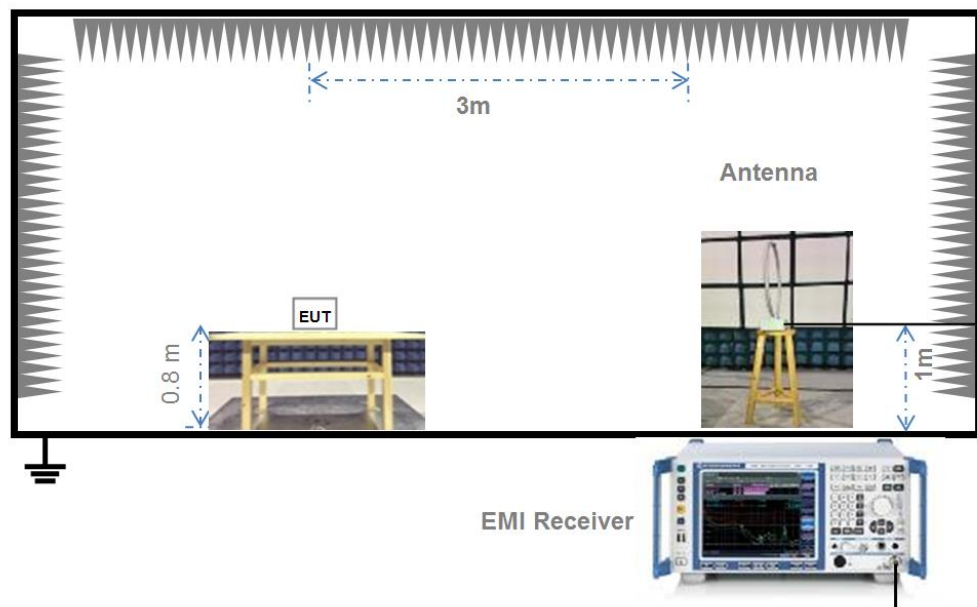
(Diagram 1)

4.5.2 For AC Power Supply Port Test



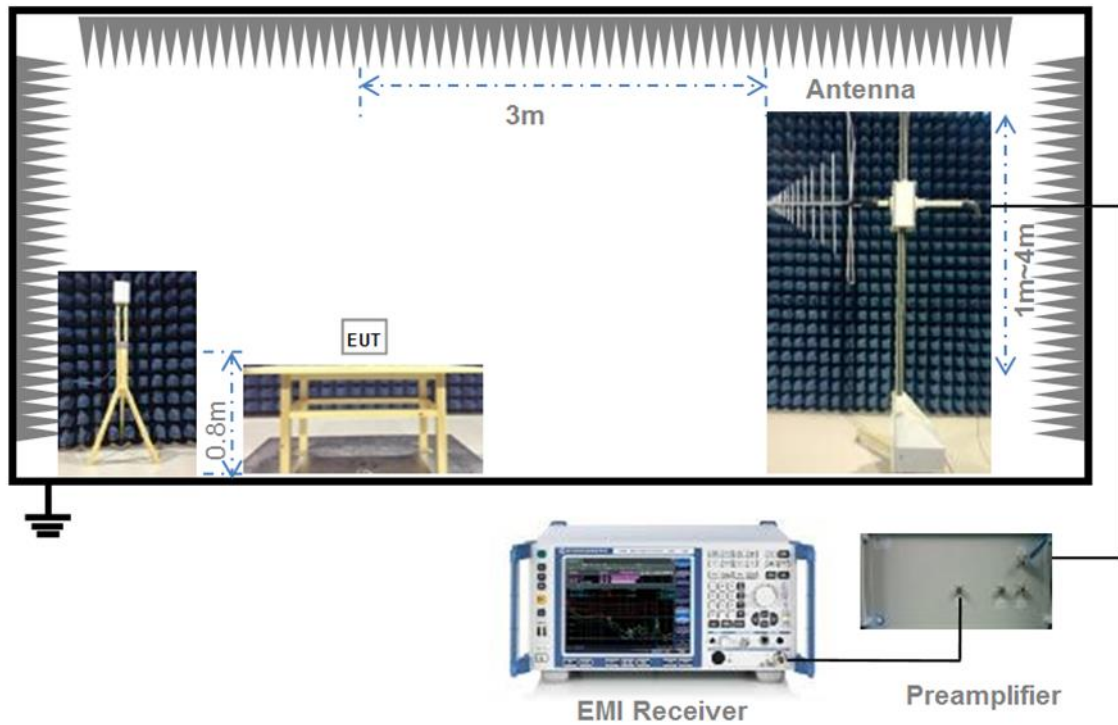
(Diagram 2)

4.5.3 For Radiated Test (Below 30 MHz)



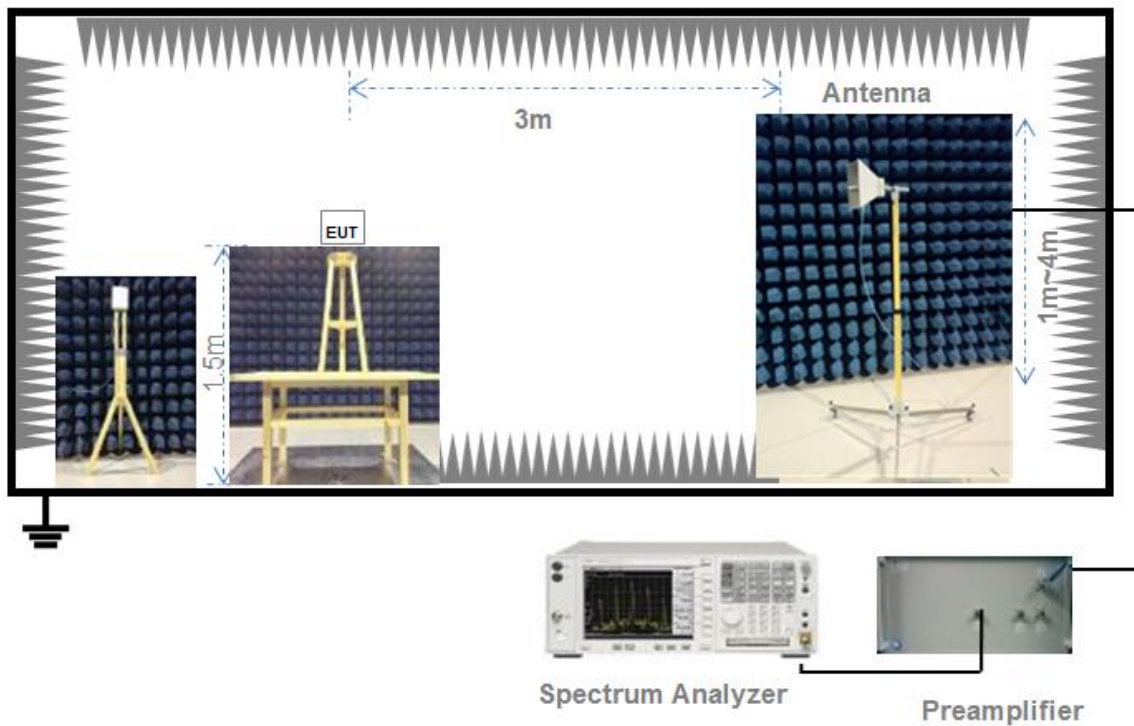
(Diagram 3)

4.5.4 For Radiated Test (30 MHz-1 GHz)



(Diagram 4)

4.5.5 For Radiated Test (Above 1 GHz)



(Diagram 5)

5 TEST ITEMS

5.1 RF Output Power

5.1.1 Test Limit

FCC §15.407(a)

The maximum conducted output power should not exceed:

Frequency Band (MHz)	Limit
5150-5250	250 mW
5250-5350	250 mW or 11 dBm + 10log B, whichever is less.
5470-5725	250 mW or 11 dBm + 10log B, whichever is less.
5725-5850	1 W
Note: Where "B" is the 26 dB emissions bandwidth in MHz.	

5.1.2 Test Setup

The section 4.5.1 (Diagram 1) test setup description was used for this test. The photo of test setup please refer to ANNEX B.

5.1.3 Test Procedure

Maximum conducted (average) output power

a) Measurements may be performed using a wideband RF power meter with a thermocouple detector or equivalent if all of the conditions listed below are satisfied.

- 1) The EUT is configured to transmit continuously or to transmit with a constant duty cycle.
- 2) At all times when the EUT is transmitting, it shall be transmitting at its maximum power control level.
- 3) The integration period of the power meter exceeds the repetition period of the transmitted signal by at least a factor of five.

b) If the transmitter does not transmit continuously, measure the duty cycle (x) of the transmitter output signal.

c) Measure the average power of the transmitter. This measurement is an average over both the on and off periods of the transmitter.

d) Adjust the measurement in dBm by adding 10 log (1/x) where x is the duty cycle.

Measurements of duty cycle

The zero-span mode on a spectrum analyzer or EMI receiver if the response time and spacing between bins on the sweep are sufficient to permit accurate measurements of the on and off times of the transmitted signal.

Set the center frequency of the instrument to the center frequency of the transmission.

Set RBW ≥ OBW if possible; otherwise, set RBW to the largest available value.

Set VBW $\geq$ RBW. Set detector = peak or average.

The zero-span measurement method shall not be used unless both RBW and VBW are $> 50/T$ and the number of sweep points across duration T exceeds 100. (For example, if VBW and/or RBW are limited to 3 MHz, then the zero-span method of measuring duty cycle shall not be used if $T \leq 16.7$ microseconds.)

The E.I.R.P used radiated test method. At a test site that has been validated using the procedures of ANSI C63.10 or the latest CISPR 16-1-4 for measurements above 1 GHz, so as to simulate a near free-space environment.

5.1.4 Test Result

Please refer to ANNEX A.1.

5.2 Emission Bandwidth and 6 dB Bandwidth

5.2.1 Limit

FCC §15.407(a)

Within the 5.725-5.85 GHz band, the minimum 6 dB bandwidth of U-NII devices shall be at least 500 kHz.

5.2.2 Test Setup

The test setup photo please refer to 4.5.1 (Diagram 1) test setup description was used for this test. The photo of test setup please refer to ANNEX B.

5.2.3 Test Procedure

Emission bandwidth

1. Set RBW = approximately 1% of the emission bandwidth.
2. Set VBW $\geq 3 \times$ RBW,
3. Detector = Peak.
4. Trace mode = Max hold.
5. Measure the maximum width of the emission that is 26 dB down from the peak of the emission.

Occupied Bandwidth

1. Set Span = 1.5 times to 5.0 times the OBW
2. Set RBW = 1% to 5% of the OBW.
3. Set VBW $\geq 3 \times$ RBW, Detector = Peak.
4. Trace mode = Max hold.
5. Use the 99% power bandwidth function of the instrument.

6 dB bandwidth

1. Set RBW = 100 kHz, VBW = 300 kHz.
2. Detector = Peak. Trace mode = Max hold.
3. Allow the trace to stabilize.
4. Measure the maximum width of the emission that is constrained by the frequencies associated with the two outermost amplitude points (upper and lower frequencies) that are attenuated by 6 dB relative to the maximum level measured in the fundamental emission.

5.2.4 Test Result

Please refer to ANNEX A.2 and ANNEX A.3.

5.3 Power Spectral density (PSD)

5.3.1 Limit

FCC §15.407(a)

The maximum power spectral density should not exceed:

Frequency Band (MHz)	Limit
5150-5250	11 dBm/MHz
5250-5350	11 dBm/MHz
5470-5725	11 dBm/MHz
5725-5850	30 dBm/500kHz

5.3.2 Test Setup

The section 4.5.1 (Diagram 1) test setup description was used for this test. The photo of test setup please refer to ANNEX B.

5.3.3 Test Procedure

Set the spectrum analyzer or EMI receiver span to view the entire emission bandwidth.

1. Set RBW = 510 kHz/1 MHz, VBW $\geq 3 \times$ RBW, Sweep time = Auto, Detector = RMS.
2. Allow the sweeps to continue until the trace stabilizes.
3. Use the peak marker function to determine the maximum amplitude level.
4. The E.I.R.P spectral density used radiated test method. At a test site that has been validated using the procedures of ANSI C63.10 or the latest CISPR 16-1-4 for measurements above 1 GHz, so as to simulate a near free-space environment.

5.3.4 Test Result

Please refer to ANNEX A.4.

5.4 Conducted Emission

5.4.1 Limit

FCC §15.207

For an intentional radiator 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 within the U-NII-150 kHz to 30 MHz shall not exceed the limits in the following table, as measured using a 50 μ H/50 Ω line impedance stabilization network (LISN).

Frequency range (MHz)	Conducted Limit (dB μ V)	
	Quai-peak	Average
0.15 - 0.50	66 to 56	56 to 46
0.50 - 5	56	46
0.50 - 30	60	50

5.4.2 Test Setup

The section 4.5.2 (Diagram 2) test setup description was used for this test. The photo of test setup please refer to ANNEX B.

5.4.3 Test Procedure

The maximum conducted interference is searched using Peak (PK), if the emission levels more than the AV and QP limits, and that have narrow margins from the AV and QP limits will be re-measured with AV and QP detectors. Tests for both L phase and N phase lines of the power mains connected to the EUT are performed. Refer to recorded points and plots below.

5.4.4 Test Result

Please refer to ANNEX A.5.

5.5 Radiated Spurious Emissions and Band Edge (Restricted-band)

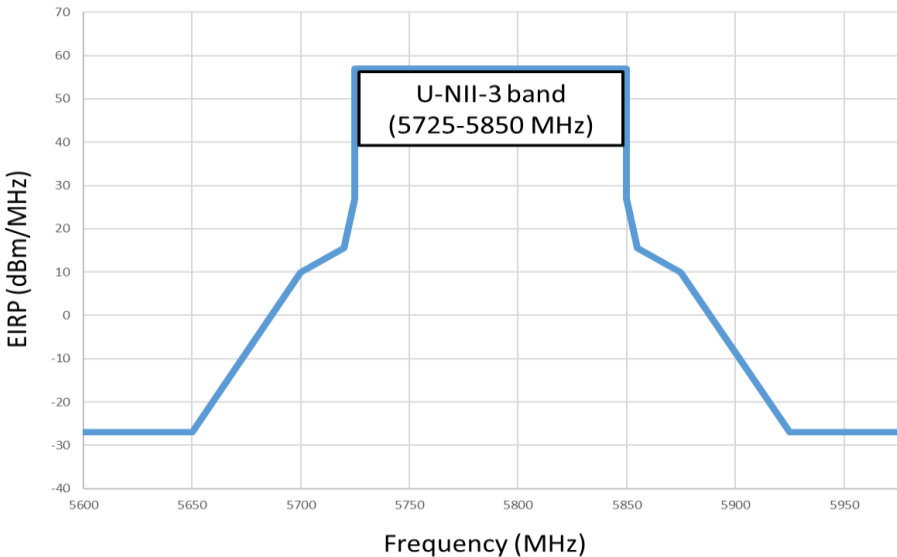
5.5.1 Limit

FCC §15.209 & 15.407(b)

Frequency (MHz)	Field Strength ($\mu\text{V/m}$)	Measurement Distance (m)
0.009 - 0.490	2400/F(kHz)	300
0.490 - 1.705	24000/F(kHz)	30
1.705 - 30.0	30	30
30 - 88	100	3
88 - 216	150	3
216 - 960	200	3
Above 960	500	3

Note ¹: The Limit for radiated test was performed according to FCC Part 15C

Note ²: The tighter limit applies at the band edge.

Un-restricted band emissions	
Out Operating Band (MHz)	Limit
5150 - 5250	e.i.r.p. -27 dBm (68.2 dBuV/m@3m)
5250 - 5350	e.i.r.p. -27 dBm (68.2 dBuV/m@3m)
5470 - 5725	e.i.r.p. -27 dBm (68.2 dBuV/m@3m)
5725 - 5850	All emissions shall be limited to a level of -27 dBm/MHz at 75 MHz or more above or below the band edge increasing linearly to 10 dBm/MHz at 25 MHz above or below the band edge, and from 25 MHz above or below the band edge increasing linearly to a level of 15.6 dBm/MHz at 5 MHz above or below the band edge, and from 5 MHz above or below the band edge increasing linearly to a level of 27 dBm/MHz at the band edge. 

Note: The following formula is used to convert the equipment isotropic radiated power (eirp) to field strength.

5.5.2 Test Setup

The section 4.5.3-4.5.5 (Diagram 3 - Diagram 5) test setup description was used for this test. The photo of test setup please refer to ANNEX B.

5.5.3 Test Procedure

Since the emission limits are specified in terms of radiated field strength levels, measurements performed to demonstrate compliance have traditionally relied on a radiated test configuration. Radiated measurements remain the principal method for demonstrating compliance to the specified limits; however antenna-port conducted measurements are also now acceptable to demonstrate compliance (see below for details). When radiated measurements are utilized, test site requirements and procedures for maximizing and measuring radiated emissions that are described in ANSI C63.10 shall be followed.

Antenna-port conducted measurements may also be used as an alternative to radiated measurements for demonstrating compliance in the restricted frequency bands. If conducted measurements are performed, then proper impedance matching must be ensured and an additional radiated test for cabinet/case spurious emissions is required.

General Procedure for conducted measurements in restricted bands

- a) Measure the conducted output power (in dBm) using the detector specified (see guidance regarding measurement procedures for determining quasi-peak, peak, and average conducted output power, respectively).
- b) Add the appropriate maximum ground reflection factor to the EIRP level (6 dB for frequencies ≤ 30 MHz, 4.7 dB for frequencies between 30 MHz and 1000 MHz, inclusive and 0 dB for frequencies > 1000 MHz).
- c) For devices with multiple antenna-ports, measure the power of each individual chain and sum the EIRP of all chains in linear terms (e.g., Watts, mW).
- d) Convert the resultant EIRP level to an equivalent electric field strength using the following relationship:

$$E = \text{EIRP} - 20\log D + 104.8$$

where:

E = electric field strength in dB μ V/m,

EIRP = equivalent isotropic radiated power in dBm

D = specified measurement distance in meters.

- e) Compare the resultant electric field strength level to the applicable limit.
- f) Perform radiated spurious emission test.

Quasi-Peak measurement procedure

The specifications for measurements using the CISPR quasi-peak detector can be found in Publication 16 of the International Special Committee on Radio Frequency Interference (CISPR) of the International Electrotechnical Commission.

As an alternative to CISPR quasi-peak measurement, compliance can be demonstrated to the applicable

emission limits using a peak detector.

Peak power measurement procedure

Peak emission levels are measured by setting the instrument as follows:

- a) RBW = as specified in Table 1.
- b) VBW $\geq 3 \times$ RBW.
- c) Detector = Peak.
- d) Sweep time = auto.
- e) Trace mode = max hold.
- f) Allow sweeps to continue until the trace stabilizes. (Note that the required measurement time may be longer for low duty cycle applications).

Table 1—RBW as a function of frequency

Frequency	RBW
9-150 kHz	200-300 Hz
0.15-30 MHz	9-10 kHz
30-1000 MHz	100-120 kHz
> 1000 MHz	1 MHz

If the peak-detected amplitude can be shown to comply with the average limit, then it is not necessary to perform a separate average measurement.

Trace averaging across on and off times of the EUT transmissions followed by duty cycle correction

If continuous transmission of the EUT (i.e., duty cycle ≥ 98 percent) cannot be achieved and the duty cycle is constant (i.e., duty cycle variations are less than ± 2 percent), then the following procedure shall be used:

- a) The EUT shall be configured to operate at the maximum achievable duty cycle.
- b) Measure the duty cycle, x , of the transmitter output signal as described in section 6.0.
- c) RBW = 1 MHz (unless otherwise specified).
- d) VBW $\geq 3 \times$ RBW.
- e) Detector = RMS, if $\text{span}/(\# \text{ of points in sweep}) \leq (\text{RBW}/2)$. Satisfying this condition may require increasing the number of points in the sweep or reducing the span. If this condition cannot be satisfied, then the detector mode shall be set to peak.
- f) Averaging type = power (i.e., RMS).
 - 1) As an alternative, the detector and averaging type may be set for linear voltage averaging.
 - 2) Some instruments require linear display mode in order to use linear voltage averaging. Log or dB averaging shall not be used.
- g) Sweep time = auto.

h) Perform a trace average of at least 100 traces.

i) A correction factor shall be added to the measurement results prior to comparing to the emission limit in order to compute the emission level that would have been measured had the test been performed at 100 percent duty cycle. The correction factor is computed as follows:

1) If power averaging (RMS) mode was used in step f), then the applicable correction factor is $10 \log(1/x)$, where x is the duty cycle.

2) If linear voltage averaging mode was used in step f), then the applicable correction factor is $20 \log(1/x)$, where x is the duty cycle.

3) If a specific emission is demonstrated to be continuous (≥ 98 percent duty cycle) rather than turning on and off with the transmit cycle, then no duty cycle correction is required for that emission.

NOTE: Reduction of the measured emission amplitude levels to account for operational duty factor is not permitted. Compliance is based on emission levels occurring during transmission - not on an average across on and off times of the transmitter.

Determining the applicable transmit antenna gain

A conducted power measurement will determine the maximum output power associated with a restricted band emission; however, in order to determine the associated EIRP level, the gain of the transmitting antenna (in dBi) must be added to the measured output power (in dBm).

Since the out-of-band characteristics of the EUT transmit antenna will often be unknown, the use of a conservative antenna gain value is necessary. Thus, when determining the EIRP based on the measured conducted power, the upper bound on antenna gain for a device with a single RF output shall be selected as the maximum in-band gain of the antenna across all operating bands, or 2 dBi, whichever is greater. However, for devices that operate in multiple frequency bands while using the same transmit antenna, the highest gain of the antenna within the operating band nearest in frequency to the restricted band emission being measured may be used in lieu of the overall highest gain when the emission is at a frequency that is within 20 percent of the nearest band edge frequency, but in no case shall a value less than 2 dBi be used.

See KDB 662911 for guidance on calculating the additional array gain term when determining the effective antenna gain for a EUT with multiple outputs occupying the same or overlapping frequency ranges in the same band.

Radiated spurious emission test

An additional consideration when performing conducted measurements of restricted band emissions is that unwanted emissions radiating from the EUT cabinet, control circuits, power leads, or intermediate circuit elements will likely go undetected in a conducted measurement configuration. To address this concern, a radiated test shall be performed to ensure that emissions emanating from the EUT cabinet (rather than the antenna port) also comply with the applicable limits.

For these cabinet radiated spurious emission measurements the EUT transmit antenna may be replaced with a termination matching the nominal impedance of the antenna. Procedures for performing radiated measurements are specified in ANSI C63.10. All detected emissions shall comply with the applicable limits.

The measurement frequency range is from 30 MHz to the 10th harmonic of the fundamental frequency. The Turn Table is actuated to turn from 0° to 360°, and both horizontal and vertical polarizations of the Test Antenna are used to find the maximum radiated power. Mid channels on all channel bandwidth verified. Only the worst RB size/offset presented.

The power of the EUT transmitting frequency should be ignored.

All Spurious Emission tests were performed in X, Y, Z axis direction. And only the worst axis test condition was recorded in this test report.

Use the following spectrum analyzer settings:

Span = wide enough to fully capture the emission being measured

RBW = 1 MHz for $f \geq 1$ GHz, 100 kHz for $f < 1$ GHz

VBW $\geq$ RBW

Sweep = auto

Detector function = peak

Trace = max hold

5.5.4 Test Result

Please refer to ANNEX A.6.

ANNEX A TEST RESULT

A.1 RF Output Power

Note ¹: For FCC standard, if transmitting antennas of directional gain greater than 6 dBi are used, all band maximum conducted output power shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

Duty Cycle

Test Mode	On Time (ms)	On+Off time (ms)	Duty Cycle	Duty Factor
11a	50.00	50.00	100.00%	0.00
11n(HT20)/11ac(VHT20)	50.00	50.00	100.00%	0.00
11n(HT40)/11ac(VHT40)	50.00	50.00	100.00%	0.00
11ac(VHT80)	50.00	50.00	100.00%	0.00

Test DataConducted Power

U-NII-1 (5150 - 5250 MHz)					
Mode	Channel	Conducted Power (dBm)	Conducted Power (mW)	FCC Limit (mW)	Verdict
11a	CH36	14.75	29.85	250	Pass
11a	CH44	14.78	30.06	250	Pass
11a	CH48	14.55	28.51	250	Pass
11n(HT20)	CH36	14.53	28.38	250	Pass
11n(HT20)	CH44	14.54	28.44	250	Pass
11n(HT20)	CH48	14.57	28.64	250	Pass
11n(HT40)	CH38	14.73	29.72	250	Pass
11n(HT40)	CH46	14.43	27.73	250	Pass
11ac(VHT20)	CH36	14.53	28.38	250	Pass
11ac(VHT20)	CH44	14.59	28.77	250	Pass
11ac(VHT20)	CH48	14.42	27.67	250	Pass
11ac(VHT40)	CH38	14.88	30.76	250	Pass
11ac(VHT40)	CH46	14.47	27.99	250	Pass
11ac(VHT80)	CH42	14.94	31.19	250	Pass

U-NII-2A (5250 - 5350 MHz)					
Mode	Channel	Conducted Power (dBm)	Conducted Power (mW)	FCC Limit (mW)	Verdict
11a	CH52	14.57	28.64	250	Pass
11a	CH60	14.58	28.71	250	Pass
11a	CH64	14.71	29.58	250	Pass
11n(HT20)	CH52	14.35	27.23	250	Pass
11n(HT20)	CH60	14.41	27.61	250	Pass
11n(HT20)	CH64	14.55	28.51	250	Pass
11n(HT40)	CH54	14.28	26.79	250	Pass
11n(HT40)	CH62	14.35	27.23	250	Pass
11ac(VHT20)	CH52	14.34	27.16	250	Pass
11ac(VHT20)	CH60	14.32	27.04	250	Pass
11ac(VHT20)	CH64	14.59	28.77	250	Pass
11ac(VHT40)	CH54	14.28	26.79	250	Pass
11ac(VHT40)	CH62	14.32	27.04	250	Pass
11ac(VHT80)	CH58	14.35	27.23	250	Pass

U-NII-2C (5470 - 5725 MHz)					
Mode	Channel	Conducted Power (dBm)	Conducted Power (mW)	FCC Limit (mW)	Verdict
11a	CH100	14.94	31.19	250	Pass
11a	CH116	14.47	27.99	250	Pass
11a	CH140	14.61	28.91	250	Pass
11n(HT20)	CH100	14.24	26.55	250	Pass
11n(HT20)	CH116	14.85	30.55	250	Pass
11n(HT20)	CH140	14.74	29.79	250	Pass
11n(HT40)	CH102	13.86	24.32	250	Pass
11n(HT40)	CH118	14.63	29.04	250	Pass
11n(HT40)	CH134	14.28	26.79	250	Pass
11ac(VHT20)	CH100	14.78	30.06	250	Pass
11ac(VHT20)	CH116	14.85	30.55	250	Pass
11ac(VHT20)	CH140	13.83	24.15	250	Pass
11ac(VHT40)	CH102	13.44	22.08	250	Pass
11ac(VHT40)	CH118	14.77	29.99	250	Pass
11ac(VHT40)	CH134	14.88	30.76	250	Pass
11ac(VHT80)	CH106	13.24	21.09	250	Pass
11ac(VHT80)	CH122	14.57	28.64	250	Pass

U-NII-3 (5725 - 5850 MHz)					
Mode	Channel	Conducted Power (dBm)	Conducted Power (mW)	FCC Limit (mW)	Verdict
11a	CH149	16.53	44.98	1000	Pass
11a	CH157	16.41	43.75	1000	Pass
11a	CH165	16.14	41.11	1000	Pass
11n(HT20)	CH149	16.38	43.45	1000	Pass
11n(HT20)	CH157	16.21	41.78	1000	Pass
11n(HT20)	CH165	16.54	45.08	1000	Pass
11n(HT40)	CH151	16.16	41.30	1000	Pass
11n(HT40)	CH159	16.45	44.16	1000	Pass
11ac(VHT20)	CH149	16.52	44.87	1000	Pass
11ac(VHT20)	CH157	16.22	41.88	1000	Pass
11ac(VHT20)	CH165	16.51	44.77	1000	Pass
11ac(VHT40)	CH151	16.59	45.60	1000	Pass
11ac(VHT40)	CH159	16.52	44.87	1000	Pass
11ac(VHT80)	CH155	16.41	43.75	1000	Pass

A.2 Emission Bandwidth & 99% Bandwidth

Note ¹: Test plots please refer to the document “Annex No.: BL-SZ25A0767-604 Data Part 1.pdf”.

Test Data

U-NII-1 (5150 - 5250 MHz)			
Mode	Channel	26 dB Bandwidth (MHz)	99% Bandwidth (MHz)
11a	CH36	21.92	16.55
11a	CH44	31.87	16.69
11a	CH48	31.37	16.69
11n(HT20)	CH36	20.60	17.57
11n(HT20)	CH44	29.11	17.76
11n(HT20)	CH48	33.43	17.80
11n(HT40)	CH38	41.18	35.99
11n(HT40)	CH46	53.36	36.32
11ac(VHT20)	CH36	20.49	17.59
11ac(VHT20)	CH44	23.64	17.65
11ac(VHT20)	CH48	25.03	17.69
11ac(VHT40)	CH38	41.08	36.04
11ac(VHT40)	CH46	54.10	36.08
11ac(VHT80)	CH42	81.46	75.28

U-NII-2A (5250 - 5350 MHz)			
Mode	Channel	26 dB Bandwidth (MHz)	99% Bandwidth (MHz)
11a	CH52	26.40	16.62
11a	CH60	29.57	16.68
11a	CH64	20.81	16.48
11n(HT20)	CH52	24.80	17.79
11n(HT20)	CH60	25.76	17.68
11n(HT20)	CH64	20.58	17.59
11n(HT40)	CH54	51.70	36.14
11n(HT40)	CH62	41.02	35.98
11ac(VHT20)	CH52	26.14	17.68
11ac(VHT20)	CH60	23.59	17.64
11ac(VHT20)	CH64	20.65	17.61
11ac(VHT40)	CH54	53.81	36.15
11ac(VHT40)	CH62	41.25	36.00
11ac(VHT80)	CH58	81.68	75.33

U-NII-2C (5470 - 5725 MHz)			
Mode	Channel	26 dB Bandwidth (MHz)	99% Bandwidth (MHz)
11a	CH100	20.35	16.47
11a	CH116	28.87	16.61
11a	CH140	20.16	16.46
11n(HT20)	CH100	20.54	17.57
11n(HT20)	CH116	28.37	17.75
11n(HT20)	CH140	20.44	17.57
11n(HT40)	CH102	41.36	36.05
11n(HT40)	CH118	53.77	36.14
11n(HT40)	CH134	41.78	36.09
11ac(VHT20)	CH100	20.57	17.58
11ac(VHT20)	CH116	24.09	17.64
11ac(VHT20)	CH140	20.53	17.60
11ac(VHT40)	CH102	41.08	36.04
11ac(VHT40)	CH118	60.52	36.12
11ac(VHT40)	CH134	50.94	36.09
11ac(VHT80)	CH106	81.57	75.28
11ac(VHT80)	CH122	98.32	75.39

U-NII-3 (5725 - 5850 MHz)			
Mode	Channel	26 dB Bandwidth (MHz)	99% Bandwidth (MHz)
11a	CH149	28.66	16.62
11a	CH157	27.02	16.63
11a	CH165	26.26	16.62
11n(HT20)	CH149	27.19	17.73
11n(HT20)	CH157	27.12	17.73
11n(HT20)	CH165	28.10	17.71
11n(HT40)	CH151	57.64	36.18
11n(HT40)	CH159	56.39	36.15
11ac(VHT20)	CH149	27.95	17.72
11ac(VHT20)	CH157	28.98	17.74
11ac(VHT20)	CH165	27.50	17.71
11ac(VHT40)	CH151	56.45	36.17
11ac(VHT40)	CH159	56.10	36.14
11ac(VHT80)	CH155	86.96	75.42

A.3 6 dB Bandwidth

Note ¹: Test plots please refer to the document “Annex No.: BL-SZ25A0767-604 Data Part 2.pdf”.

Test Data

U-NII-3 (5725 - 5850 MHz)				
Mode	Channel	6 dB Bandwidth (MHz)	Limit (kHz)	Verdict
11a	CH149	16.60	500.00	Pass
11a	CH157	16.60	500.00	Pass
11a	CH165	16.50	500.00	Pass
11n(HT20)	CH149	17.80	500.00	Pass
11n(HT20)	CH157	17.80	500.00	Pass
11n(HT20)	CH165	17.80	500.00	Pass
11n(HT40)	CH151	36.20	500.00	Pass
11n(HT40)	CH159	36.30	500.00	Pass
11ac(VHT20)	CH149	17.80	500.00	Pass
11ac(VHT20)	CH157	17.80	500.00	Pass
11ac(VHT20)	CH165	17.80	500.00	Pass
11ac(VHT40)	CH151	36.30	500.00	Pass
11ac(VHT40)	CH159	36.10	500.00	Pass
11ac(VHT80)	CH155	76.50	500.00	Pass

A.4 Power Spectral Density

Note ¹: Test plots please refer to the document “Annex No.: BL-SZ25A0767-604 Data Part 3.pdf”.

Test Data

U-NII-1 (5150 - 5250 MHz)				
Mode	Channel	PSD (dBm/MHz)	FCC Limit (dBm/MHz)	Verdict
11a	CH36	3.94	11.00	Pass
11a	CH44	3.98	11.00	Pass
11a	CH48	4.07	11.00	Pass
11n(HT20)	CH36	3.77	11.00	Pass
11n(HT20)	CH44	3.82	11.00	Pass
11n(HT20)	CH48	3.65	11.00	Pass
11n(HT40)	CH38	0.78	11.00	Pass
11n(HT40)	CH46	0.79	11.00	Pass
11ac(VHT20)	CH36	3.83	11.00	Pass
11ac(VHT20)	CH44	3.94	11.00	Pass
11ac(VHT20)	CH48	3.63	11.00	Pass
11ac(VHT40)	CH38	0.96	11.00	Pass
11ac(VHT40)	CH46	0.66	11.00	Pass
11ac(VHT80)	CH42	-2.62	11.00	Pass

U-NII-2A (5250 - 5350 MHz)				
Mode	Channel	PSD (dBm/MHz)	FCC Limit (dBm/MHz)	Verdict
11a	CH52	3.99	11.00	Pass
11a	CH60	3.97	11.00	Pass
11a	CH64	4.11	11.00	Pass
11n(HT20)	CH52	3.70	11.00	Pass
11n(HT20)	CH60	3.83	11.00	Pass
11n(HT20)	CH64	3.70	11.00	Pass
11n(HT40)	CH54	0.51	11.00	Pass
11n(HT40)	CH62	0.70	11.00	Pass
11ac(VHT20)	CH52	3.56	11.00	Pass
11ac(VHT20)	CH60	3.73	11.00	Pass
11ac(VHT20)	CH64	3.79	11.00	Pass
11ac(VHT40)	CH54	0.47	11.00	Pass
11ac(VHT40)	CH62	0.59	11.00	Pass
11ac(VHT80)	CH58	-3.68	11.00	Pass

U-NII-2C (5470 - 5725 MHz)				
Mode	Channel	PSD (dBm/MHz)	FCC Limit (dBm/MHz)	Verdict
11a	CH100	4.16	11.00	Pass
11a	CH116	4.18	11.00	Pass
11a	CH140	3.70	11.00	Pass
11n(HT20)	CH100	3.36	11.00	Pass
11n(HT20)	CH116	4.39	11.00	Pass
11n(HT20)	CH140	3.74	11.00	Pass
11n(HT40)	CH102	-0.43	11.00	Pass
11n(HT40)	CH118	-1.34	11.00	Pass
11n(HT40)	CH134	1.05	11.00	Pass
11ac(VHT20)	CH100	3.66	11.00	Pass
11ac(VHT20)	CH116	4.32	11.00	Pass
11ac(VHT20)	CH140	3.28	11.00	Pass
11ac(VHT40)	CH102	0.06	11.00	Pass
11ac(VHT40)	CH118	1.36	11.00	Pass
11ac(VHT40)	CH134	1.36	11.00	Pass
11ac(VHT80)	CH106	-3.89	11.00	Pass
11ac(VHT80)	CH122	-2.05	11.00	Pass

U-NII-3 (5725 - 5850 MHz)				
Mode	Channel	PSD (dBm/500kHz)	FCC Limit (dBm/500kHz)	Verdict
11a	CH149	3.44	30.00	Pass
11a	CH157	3.22	30.00	Pass
11a	CH165	2.78	30.00	Pass
11n(HT20)	CH149	3.21	30.00	Pass
11n(HT20)	CH157	2.91	30.00	Pass
11n(HT20)	CH165	2.91	30.00	Pass
11n(HT40)	CH151	-0.23	30.00	Pass
11n(HT40)	CH159	0.08	30.00	Pass
11ac(VHT20)	CH149	3.07	30.00	Pass
11ac(VHT20)	CH157	2.65	30.00	Pass
11ac(VHT20)	CH165	2.98	30.00	Pass
11ac(VHT40)	CH151	0.37	30.00	Pass
11ac(VHT40)	CH159	0.05	30.00	Pass
11ac(VHT80)	CH155	-2.93	30.00	Pass

A.5 Conducted Emissions

Note¹: The EUT is working in the Normal link mode. All modes have been tested and normal link mode is worst.

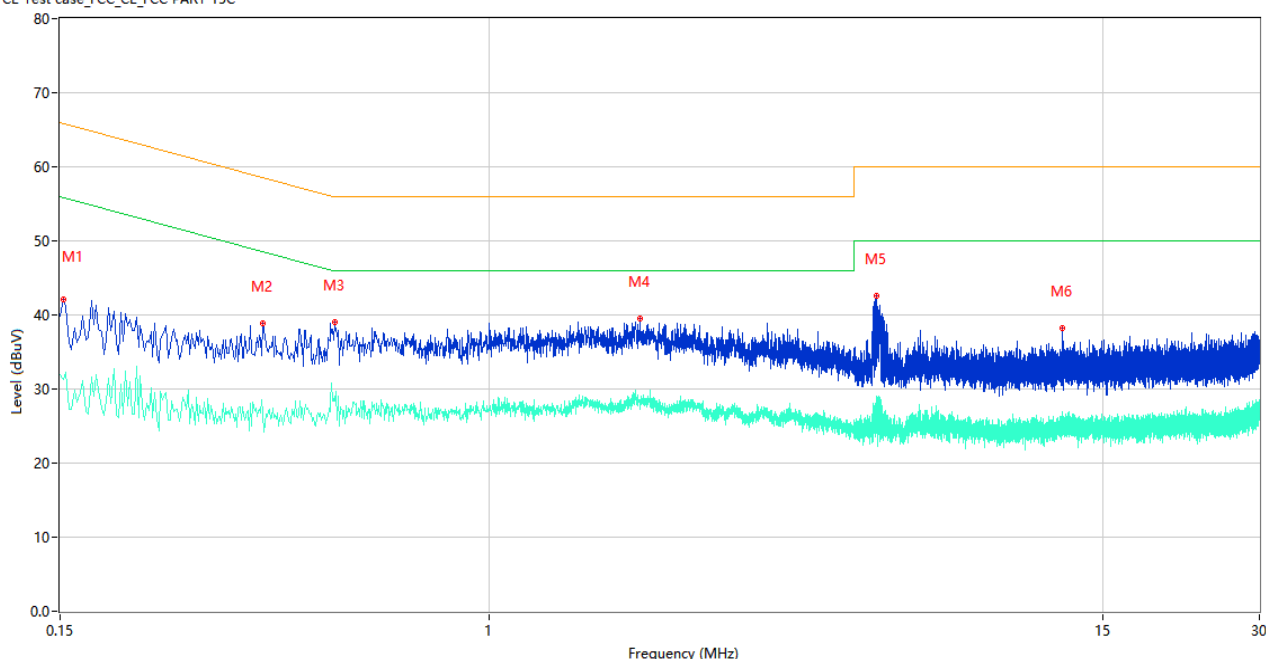
Note²: Devices subject to Part 15 must be tested for all available U.S. voltages and frequencies (such as a nominal 120 VAC, 60 Hz and 240 VAC, 50 Hz) for which the device is capable of operation. So, The configuration 120 VAC, 60 Hz and 240 VAC, 50 Hz were tested respectively, but only the worst configuration (120 VAC, 60 Hz) shown here.

Note³: Results (dBuV) = Original reading level of Spectrum Analyzer (dBuV) + Factor (dB)

Test Data and Plots

PHASE L

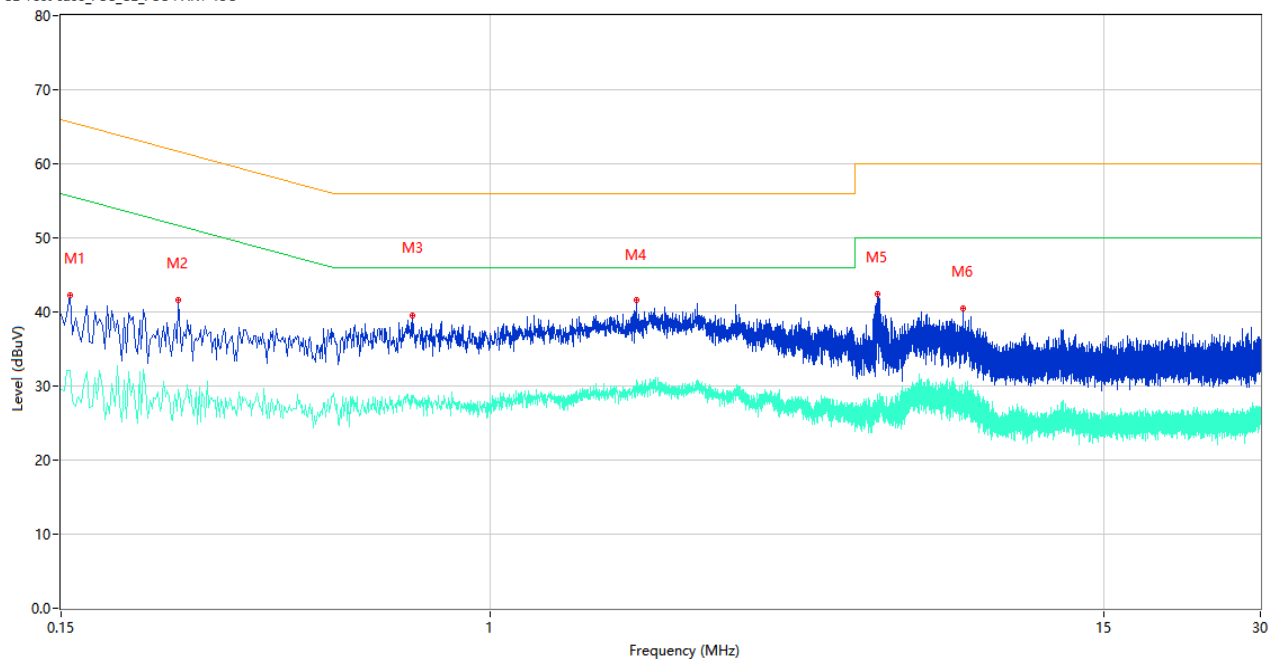
CE Test case_FCC_CE_FCC PART 15C



No.	Frequency (MHz)	Results (dBuV)	Factor (dB)	Limit (dBuV)	Margin (dB)	Detector	Line	Verdict
1	0.152	42.08	9.86	65.89	23.81	Peak	L	Pass
1**	0.152	31.34	9.86	55.89	24.55	AV	L	Pass
2	0.368	38.86	10.74	58.55	19.69	Peak	L	Pass
2**	0.368	26.70	10.74	48.55	21.85	AV	L	Pass
3	0.504	38.99	10.04	56.00	17.01	Peak	L	Pass
3**	0.504	29.01	10.04	46.00	16.99	AV	L	Pass
4	1.948	39.55	10.22	56.00	16.45	Peak	L	Pass
4**	1.948	27.28	10.22	46.00	18.72	AV	L	Pass
5	5.538	42.65	10.56	60.00	17.35	Peak	L	Pass
5**	5.538	25.24	10.56	50.00	24.76	AV	L	Pass
6	12.586	38.23	10.72	60.00	21.77	Peak	L	Pass
6**	12.586	25.94	10.72	50.00	24.06	AV	L	Pass

PHASE N

CE Test case_FCC_CE_FCC PART 15C



No.	Frequency (MHz)	Results (dBuV)	Factor (dB)	Limit (dBuV)	Margin (dB)	Detector	Line	Verdict
1	0.156	42.34	9.86	65.67	23.33	Peak	N	Pass
1**	0.156	32.07	9.86	55.67	23.60	AV	N	Pass
2	0.252	41.67	9.82	61.69	20.02	Peak	N	Pass
2**	0.252	29.55	9.82	51.69	22.14	AV	N	Pass
3	0.710	39.46	10.61	56.00	16.54	Peak	N	Pass
3**	0.710	27.74	10.61	46.00	18.26	AV	N	Pass
4	1.908	41.57	10.69	56.00	14.43	Peak	N	Pass
4**	1.908	30.23	10.69	46.00	15.77	AV	N	Pass
5	5.530	42.39	10.53	60.00	17.61	Peak	N	Pass
5**	5.530	27.67	10.53	50.00	22.33	AV	N	Pass
6	8.050	40.41	10.28	60.00	19.59	Peak	N	Pass
6**	8.050	27.77	10.28	50.00	22.23	AV	N	Pass

A.6 Radiated Spurious Emissions and Band Edge (Restricted-band)

Note¹: The symbol of "--" in the table which means not application.

Note²: For the test data above 1 GHz, According the ANSI C63.10, where limits are specified for both average and peak (or quasi-peak) detector functions, if the peak (or quasi-peak) measured value complies with the average limit, it is unnecessary to perform an average measurement.

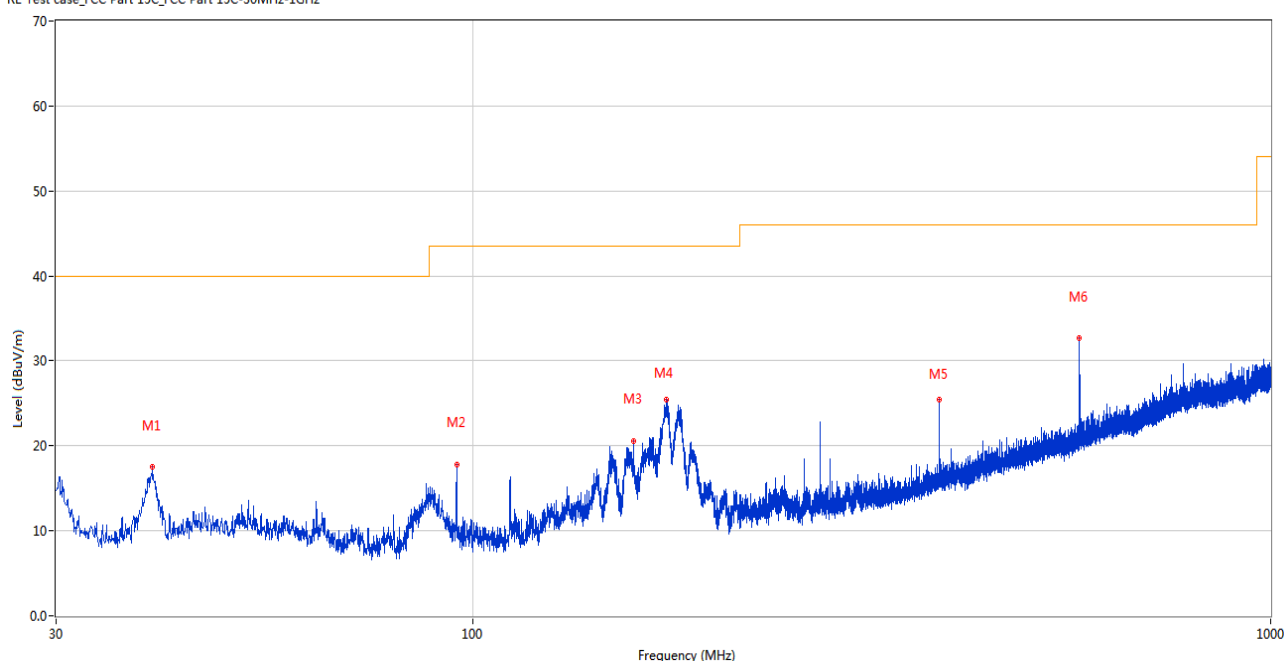
Note³: The low frequency, which started from 9 kHz to 30 MHz, was pre-scanned and the result which was 20 dB lower than the limit line per 15.31(o) was not reported.

Note⁴: The EUT is working in the Normal link mode below 1 GHz. All modes have been tested and normal link mode is worst.

Test Data and Plots

30 MHz to 1 GHz, ANT H

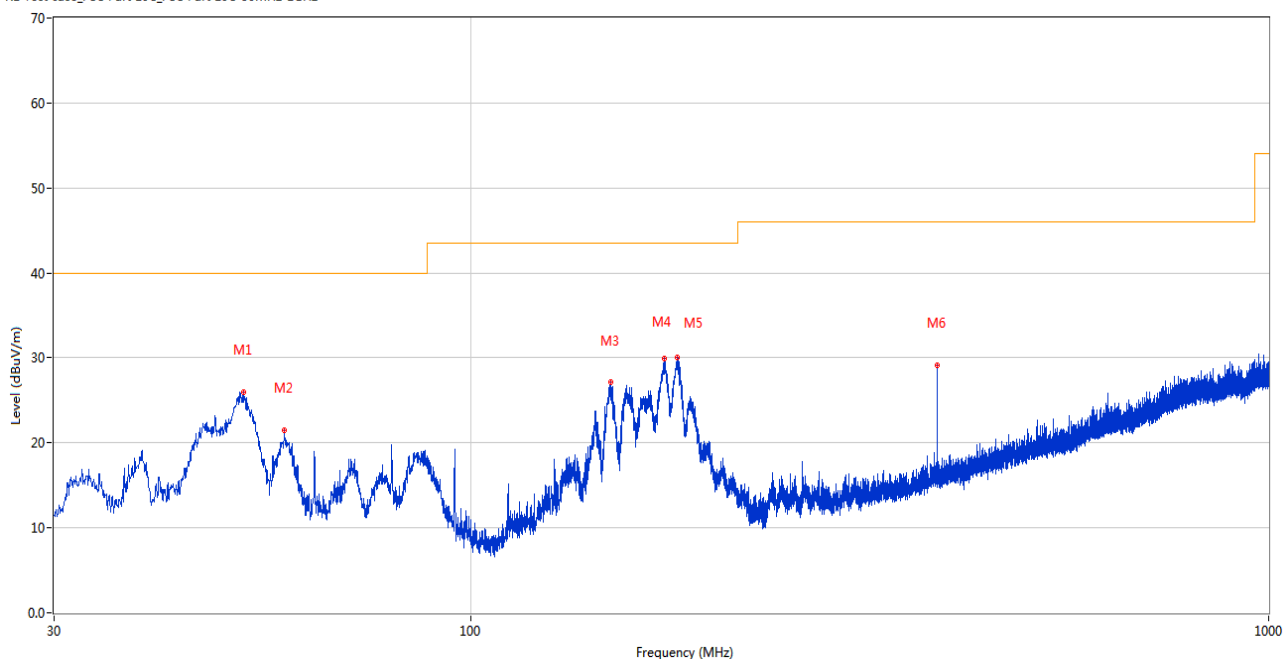
RE Test case_FCC Part 15C_FCC Part 15C-30MHz-1GHz



No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB/m)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	39.603	17.48	-26.27	40.0	22.52	Peak	240.00	100	Horizontal	Pass
2	95.378	17.78	-30.65	43.5	25.72	Peak	360.00	200	Horizontal	Pass
3	159.010	20.54	-24.66	43.5	22.96	Peak	269.00	200	Horizontal	Pass
4	174.918	25.46	-25.80	43.5	18.04	Peak	254.00	200	Horizontal	Pass
5	384.002	25.45	-21.03	46.0	20.55	Peak	147.00	200	Horizontal	Pass
6	576.013	32.63	-16.33	46.0	13.37	Peak	147.00	200	Horizontal	Pass

30 MHz to 1 GHz, ANT V

RE Test case_FCC Part 15C_FCC Part 15C-30MHz-1GHz

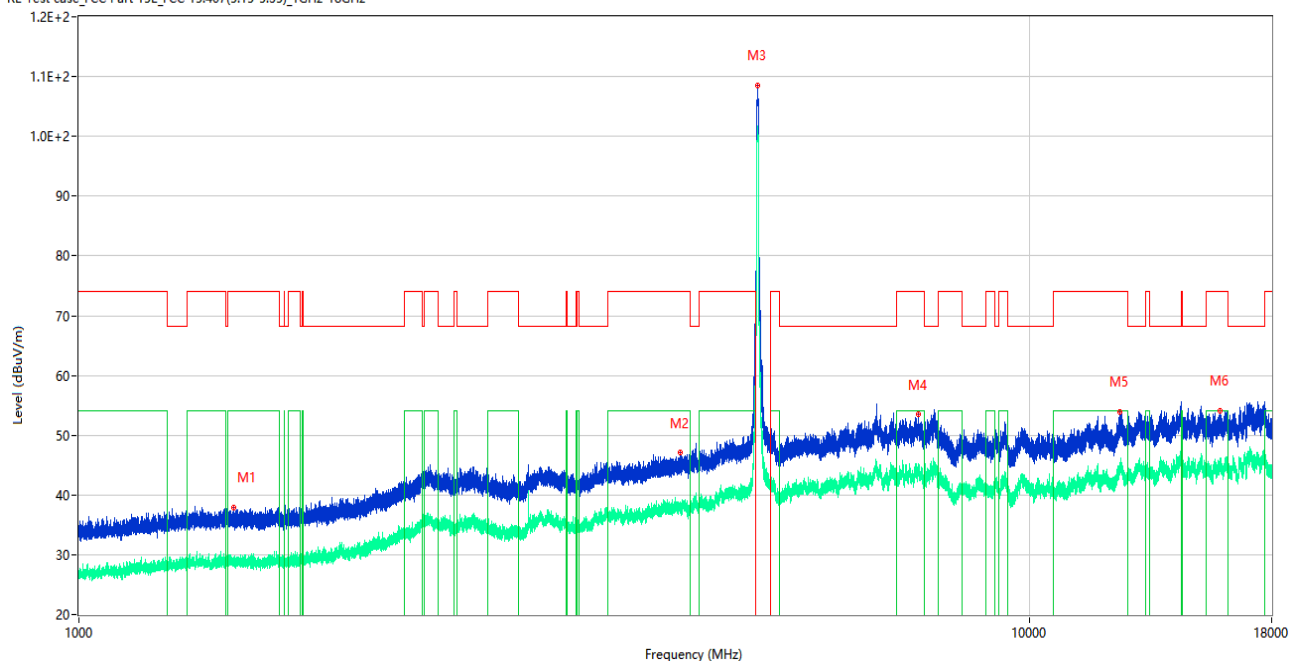


No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB/m)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	51.825	26.02	-25.66	40.0	13.98	Peak	0.00	100	Vertical	Pass
2	58.373	21.45	-26.28	40.0	18.55	Peak	89.00	100	Vertical	Pass
3	149.698	27.10	-24.99	43.5	16.40	Peak	226.00	100	Vertical	Pass
4	174.918	29.90	-25.80	43.5	13.60	Peak	20.00	100	Vertical	Pass
5	181.078	30.10	-26.49	43.5	13.40	Peak	360.00	100	Vertical	Pass
6	384.002	29.18	-21.03	46.0	16.82	Peak	89.00	100	Vertical	Pass

Note 1: The spurious above 18G is noise only, do not show on the report.

11a, U-NII-1, 1 GHz to 18 GHz, Low Channel, ANT H

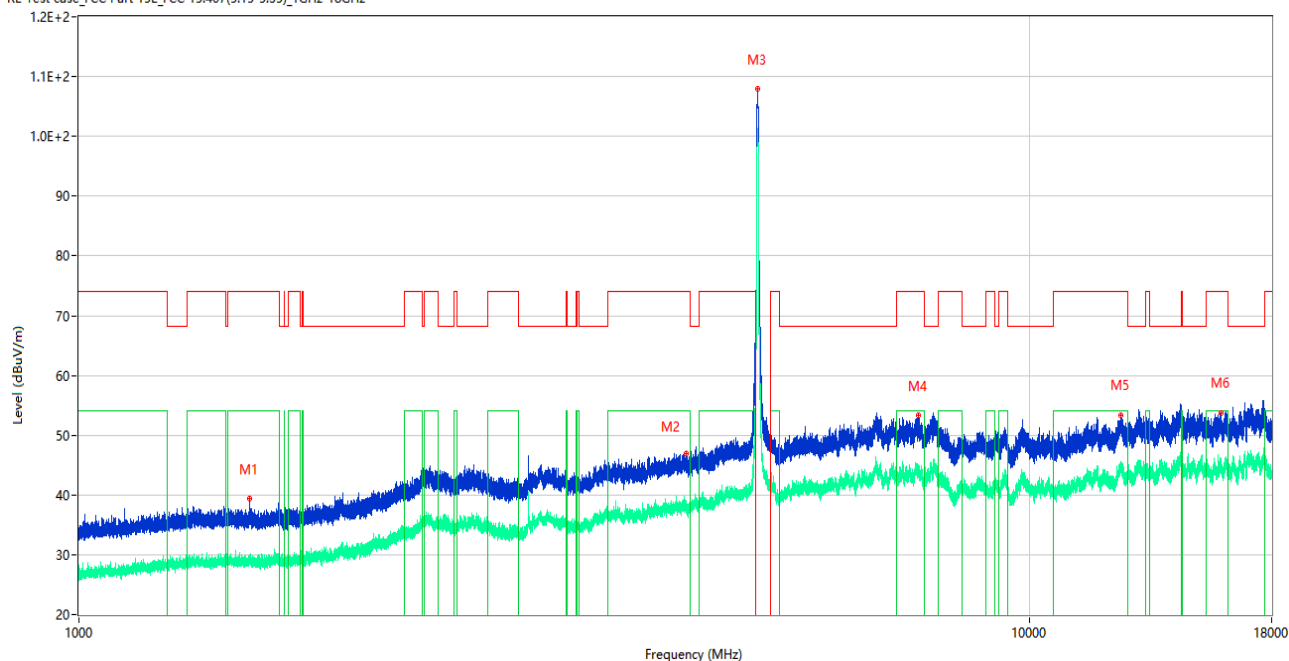
RE Test case_FCC Part 15E_FCC 15.407(5.15-5.35)_1GHz-18GHz



No.	Frequency (MHz)	Results (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1454.400	37.88	74.0	36.12	Peak	276.00	300	Horizontal	Pass
1**	1454.400	28.99	54.0	25.01	AV	276.00	300	Horizontal	Pass
2	4290.250	47.06	74.0	26.94	Peak	113.00	100	Horizontal	Pass
2**	4290.250	38.10	54.0	15.90	AV	113.00	100	Horizontal	Pass
3	5183.500	108.58	--	--	Peak	360.00	100	Horizontal	N/A
3**	5183.500	101.05	--	--	AV	360.00	100	Horizontal	N/A
4	7645.250	53.44	74.0	20.56	Peak	325.00	200	Horizontal	Pass
4**	7645.250	43.67	54.0	10.33	AV	325.00	200	Horizontal	Pass
5	12473.787	53.89	74.0	20.11	Peak	239.00	150	Horizontal	Pass
5**	12473.787	44.86	54.0	9.14	AV	239.00	150	Horizontal	Pass
6	15883.463	54.18	74.0	19.82	Peak	44.00	200	Horizontal	Pass
6**	15883.463	45.20	54.0	8.80	AV	44.00	200	Horizontal	Pass

11a, U-NII-1, 1 GHz to 18 GHz, Low Channel, ANT V

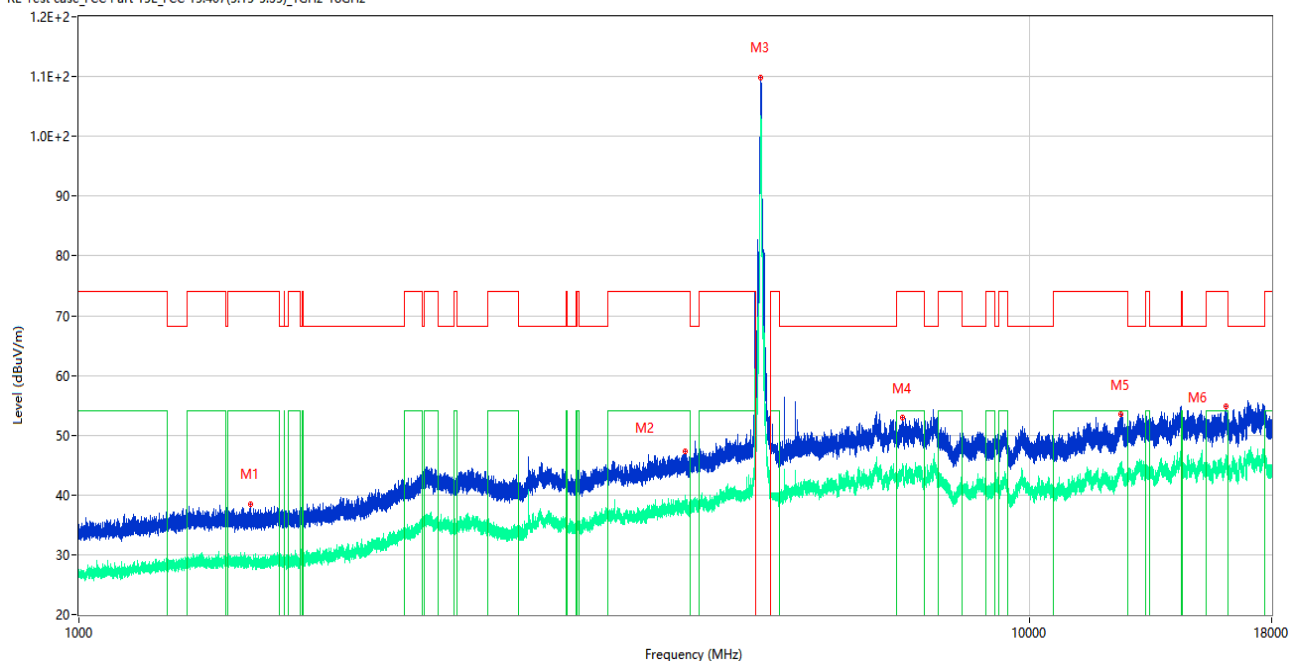
RE Test case_FCC Part 15E_FCC 15.407(5.15-5.35)_1GHz-18GHz



No.	Frequency (MHz)	Results (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1513.000	39.31	74.0	34.69	Peak	149.00	400	Vertical	Pass
1**	1513.000	28.74	54.0	25.26	AV	149.00	400	Vertical	Pass
2	4351.250	46.92	74.0	27.08	Peak	225.00	200	Vertical	Pass
2**	4351.250	38.93	54.0	15.07	AV	225.00	200	Vertical	Pass
3	5181.500	107.88	--	--	Peak	344.00	150	Vertical	N/A
3**	5181.500	100.78	--	--	AV	344.00	150	Vertical	N/A
4	7651.500	53.26	74.0	20.74	Peak	125.00	100	Vertical	Pass
4**	7651.500	43.98	54.0	10.02	AV	125.00	100	Vertical	Pass
5	12491.837	53.35	74.0	20.65	Peak	336.00	200	Vertical	Pass
5**	12491.837	43.91	54.0	10.09	AV	336.00	200	Vertical	Pass
6	15920.737	53.77	74.0	20.23	Peak	286.00	100	Vertical	Pass
6**	15920.737	44.43	54.0	9.57	AV	286.00	100	Vertical	Pass

11a, U-NII-1, 1 GHz to 18 GHz, Middle Channel, ANT H

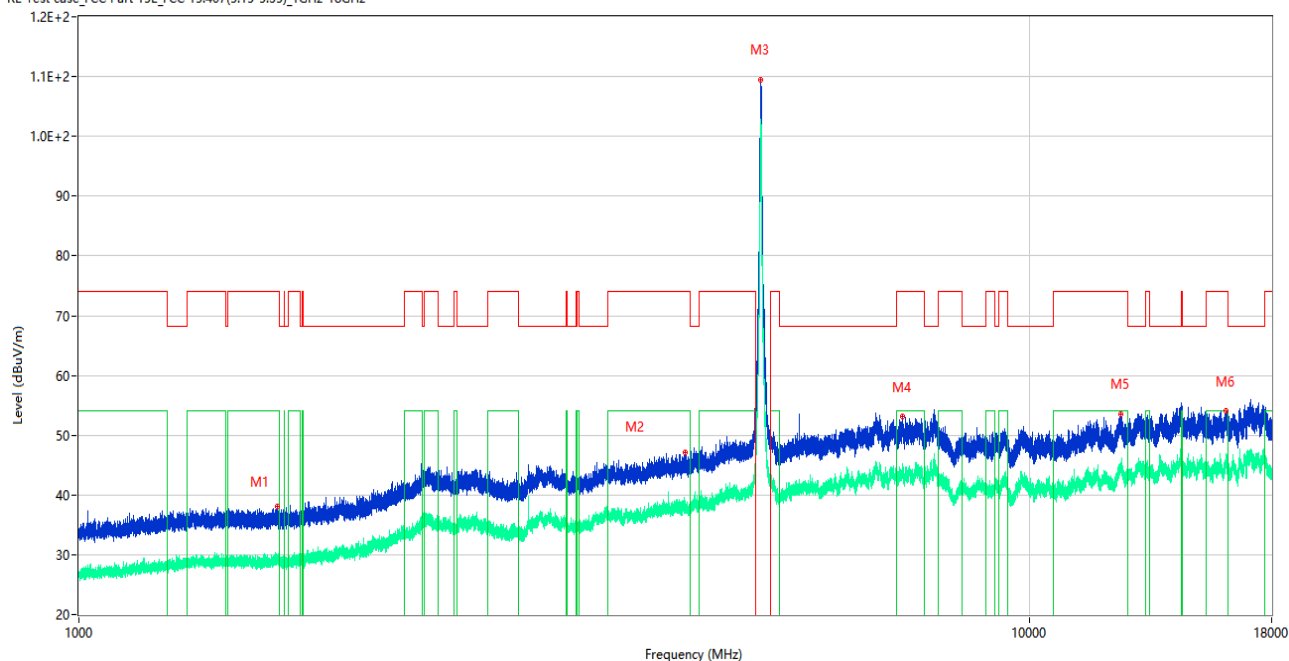
RE Test case_FCC Part 15E_FCC 15.407(5.15-5.35)_1GHz-18GHz



No.	Frequency (MHz)	Results (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1515.300	38.51	74.0	35.49	Peak	203.00	100	Horizontal	Pass
1**	1515.300	28.94	54.0	25.06	AV	203.00	100	Horizontal	Pass
2	4349.500	47.25	74.0	26.75	Peak	225.00	400	Horizontal	Pass
2**	4349.500	37.91	54.0	16.09	AV	225.00	400	Horizontal	Pass
3	5223.000	109.87	--	--	Peak	346.00	150	Horizontal	N/A
3**	5223.000	102.54	--	--	AV	346.00	150	Horizontal	N/A
4	7354.000	52.89	74.0	21.11	Peak	325.00	400	Horizontal	Pass
4**	7354.000	44.96	54.0	9.04	AV	325.00	400	Horizontal	Pass
5	12504.188	53.45	74.0	20.55	Peak	273.00	200	Horizontal	Pass
5**	12504.188	45.08	54.0	8.92	AV	273.00	200	Horizontal	Pass
6	16133.888	54.80	74.0	19.20	Peak	6.00	200	Horizontal	Pass
6**	16133.888	44.83	54.0	9.17	AV	6.00	200	Horizontal	Pass

11a, U-NII-1, 1 GHz to 18 GHz, Middle Channel, ANT V

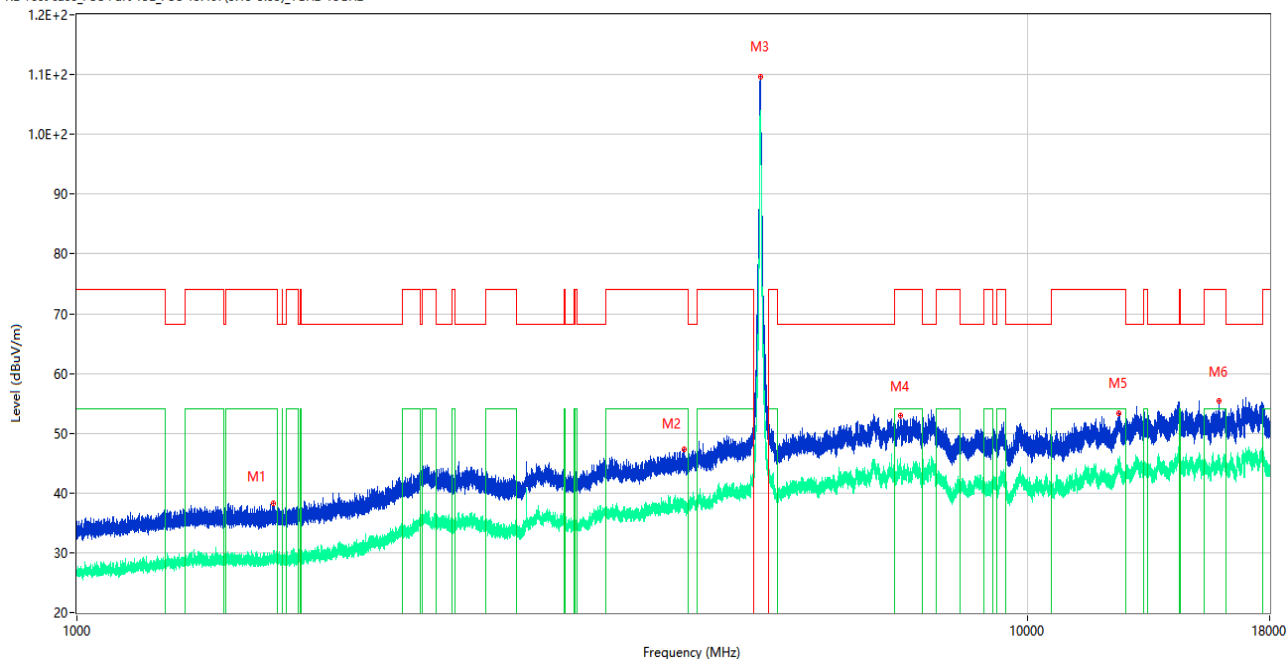
RE Test case_FCC Part 15E_FCC 15.407(5.15-5.35)_1GHz-18GHz



No.	Frequency (MHz)	Results (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1619.300	38.01	74.0	35.99	Peak	39.00	200	Vertical	Pass
1**	1619.300	29.11	54.0	24.89	AV	39.00	200	Vertical	Pass
2	4349.500	47.16	74.0	26.84	Peak	33.00	200	Vertical	Pass
2**	4349.500	38.78	54.0	15.22	AV	33.00	200	Vertical	Pass
3	5219.000	109.49	--	--	Peak	0.00	100	Vertical	N/A
3**	5219.000	102.59	--	--	AV	0.00	100	Vertical	N/A
4	7358.500	53.09	74.0	20.91	Peak	230.00	100	Vertical	Pass
4**	7358.500	44.53	54.0	9.47	AV	230.00	100	Vertical	Pass
5	12503.713	53.53	74.0	20.47	Peak	290.00	100	Vertical	Pass
5**	12503.713	45.02	54.0	8.98	AV	290.00	100	Vertical	Pass
6	16129.162	54.03	74.0	19.97	Peak	201.00	300	Vertical	Pass
6**	16129.162	45.14	54.0	8.86	AV	201.00	300	Vertical	Pass

11a, U-NII-1, 1 GHz to 18 GHz, High Channel, ANT H

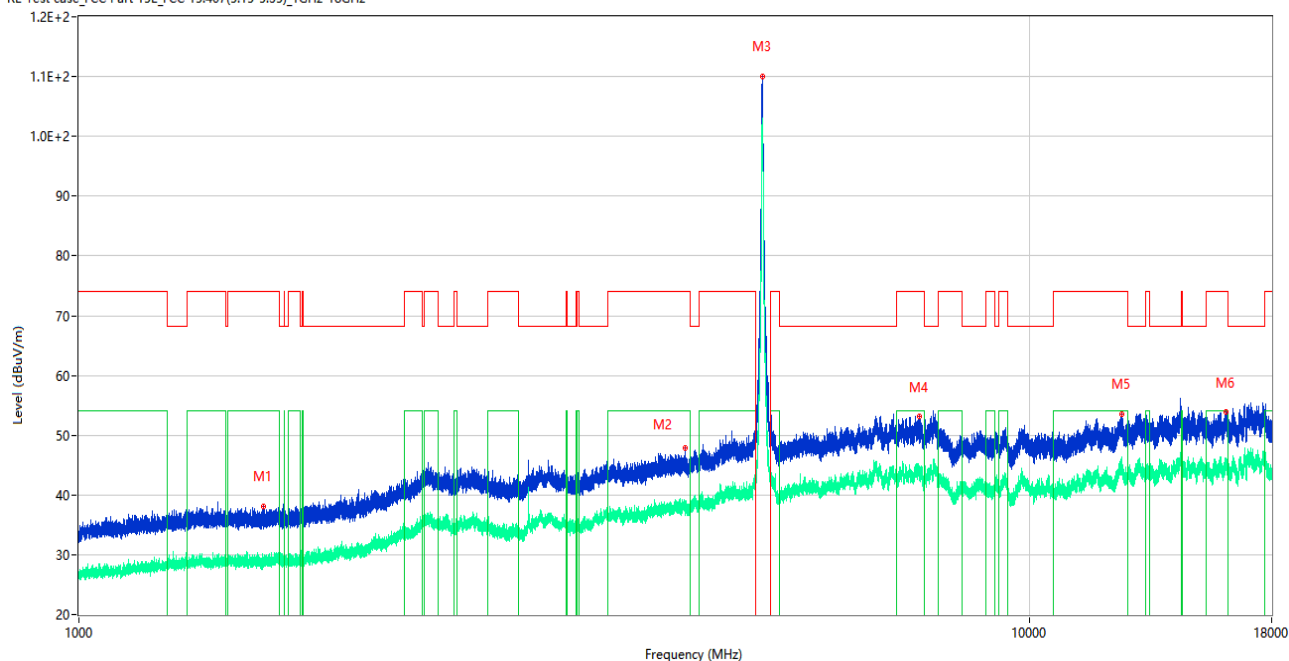
RE Test case_FCC Part 15E_FCC 15.407(5.15-5.35)_1GHz-18GHz



No.	Frequency (MHz)	Results (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1609.600	38.34	74.0	35.66	Peak	277.00	300	Horizontal	Pass
1**	1609.600	29.28	54.0	24.72	AV	277.00	300	Horizontal	Pass
2	4353.000	47.30	74.0	26.70	Peak	228.00	100	Horizontal	Pass
2**	4353.000	37.72	54.0	16.28	AV	228.00	100	Horizontal	Pass
3	5237.500	109.73	--	--	Peak	0.00	200	Horizontal	N/A
3**	5237.500	102.39	--	--	AV	0.00	200	Horizontal	N/A
4	7359.250	52.90	74.0	21.10	Peak	91.00	100	Horizontal	Pass
4**	7359.250	44.34	54.0	9.66	AV	91.00	100	Horizontal	Pass
5	12501.100	53.43	74.0	20.57	Peak	200.00	200	Horizontal	Pass
5**	12501.100	44.45	54.0	9.55	AV	200.00	200	Horizontal	Pass
6	15909.188	55.38	74.0	18.62	Peak	116.00	400	Horizontal	Pass
6**	15909.188	45.09	54.0	8.91	AV	116.00	400	Horizontal	Pass

11a, U-NII-1, 1 GHz to 18 GHz, High Channel, ANT V

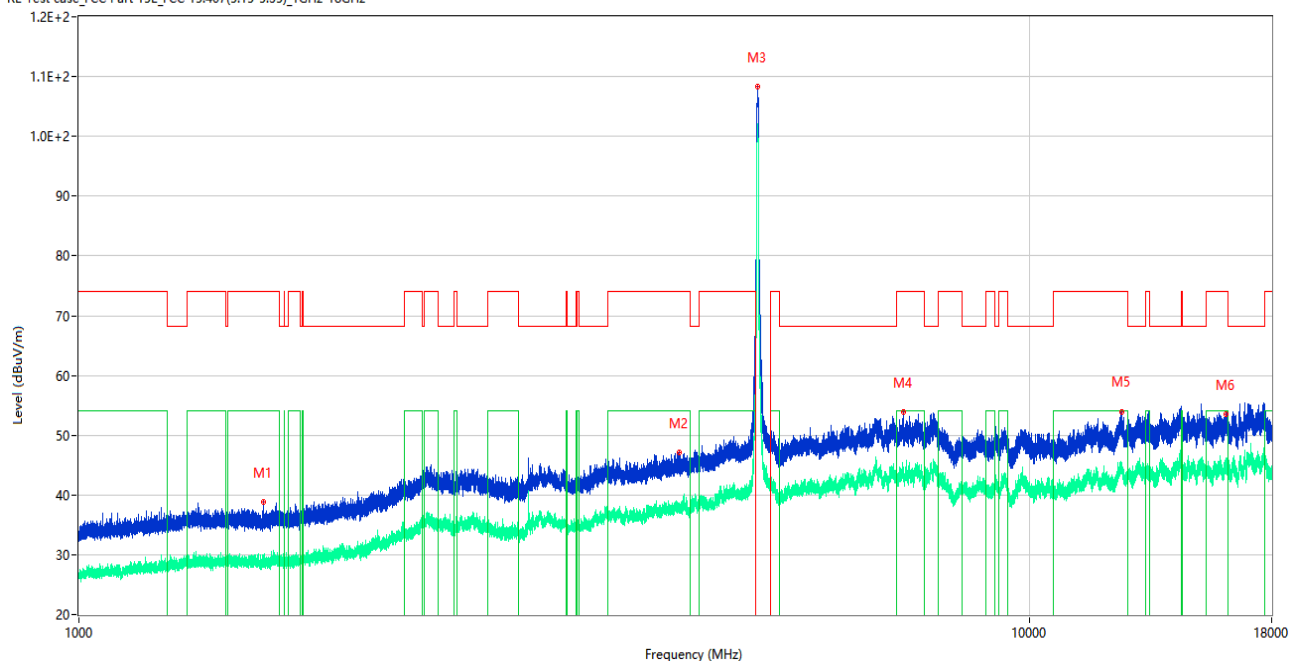
RE Test case_FCC Part 15E_FCC 15.407(5.15-5.35)_1GHz-18GHz



No.	Frequency (MHz)	Results (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1564.700	38.09	74.0	35.91	Peak	0.00	200	Vertical	Pass
1**	1564.700	28.96	54.0	25.04	AV	0.00	200	Vertical	Pass
2	4347.750	47.80	74.0	26.20	Peak	123.00	300	Vertical	Pass
2**	4347.750	37.74	54.0	16.26	AV	123.00	300	Vertical	Pass
3	5242.000	110.05	--	--	Peak	325.00	200	Vertical	N/A
3**	5242.000	102.16	--	--	AV	325.00	200	Vertical	N/A
4	7661.500	53.13	74.0	20.87	Peak	24.00	400	Vertical	Pass
4**	7661.500	43.27	54.0	10.73	AV	24.00	400	Vertical	Pass
5	12533.875	53.54	74.0	20.46	Peak	31.00	200	Vertical	Pass
5**	12533.875	43.70	54.0	10.30	AV	31.00	200	Vertical	Pass
6	16105.800	53.85	74.0	20.15	Peak	264.00	100	Vertical	Pass
6**	16105.800	44.86	54.0	9.14	AV	264.00	100	Vertical	Pass

11n20, U-NII-1, 1 GHz to 18 GHz, Low Channel, ANT H

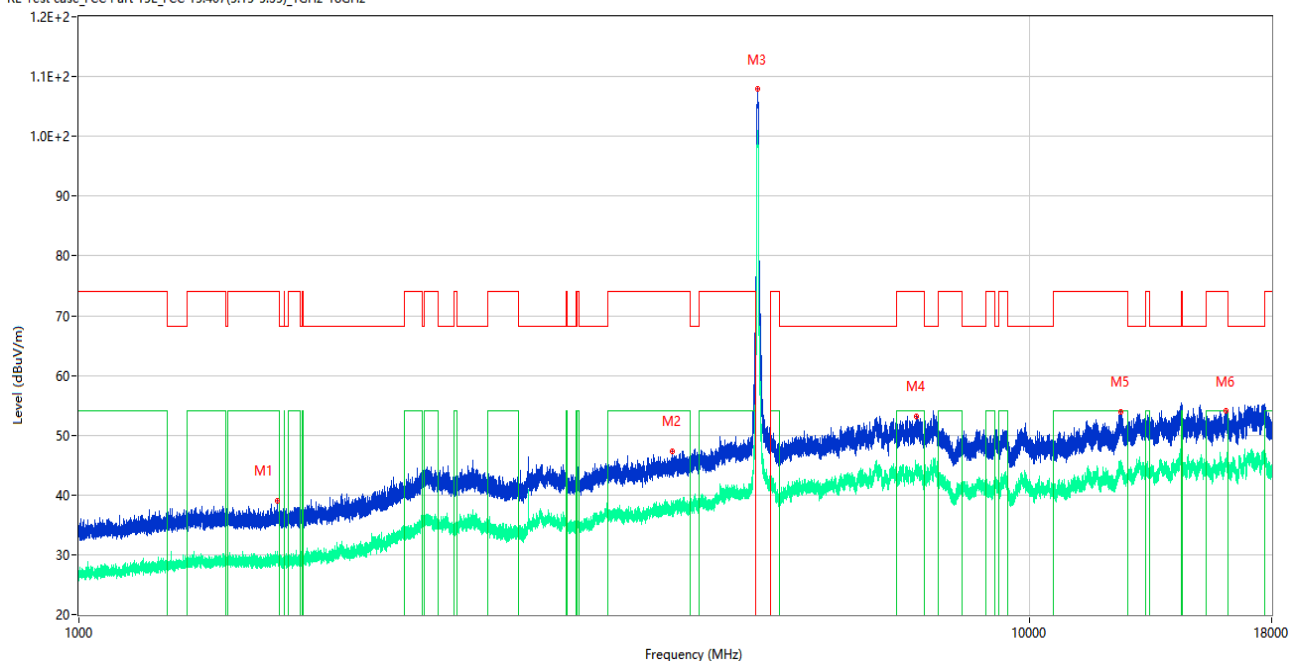
RE Test case_FCC Part 15E_FCC 15.407(5.15-5.35)_1GHz-18GHz



No.	Frequency (MHz)	Results (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1565.000	38.80	74.0	35.20	Peak	122.00	400	Horizontal	Pass
1**	1565.000	29.61	54.0	24.39	AV	122.00	400	Horizontal	Pass
2	4285.500	47.07	74.0	26.93	Peak	0.00	200	Horizontal	Pass
2**	4285.500	37.86	54.0	16.14	AV	0.00	200	Horizontal	Pass
3	5183.000	108.24	--	--	Peak	0.00	200	Horizontal	N/A
3**	5183.000	100.67	--	--	AV	0.00	200	Horizontal	N/A
4	7367.500	53.89	74.0	20.11	Peak	112.00	300	Horizontal	Pass
4**	7367.500	44.25	54.0	9.75	AV	112.00	300	Horizontal	Pass
5	12507.037	53.97	74.0	20.03	Peak	50.00	100	Horizontal	Pass
5**	12507.037	44.46	54.0	9.54	AV	50.00	100	Horizontal	Pass
6	16102.388	53.45	74.0	20.55	Peak	360.00	100	Horizontal	Pass
6**	16102.388	45.17	54.0	8.83	AV	360.00	100	Horizontal	Pass

11n20, U-NII-1, 1 GHz to 18 GHz, Low Channel, ANT V

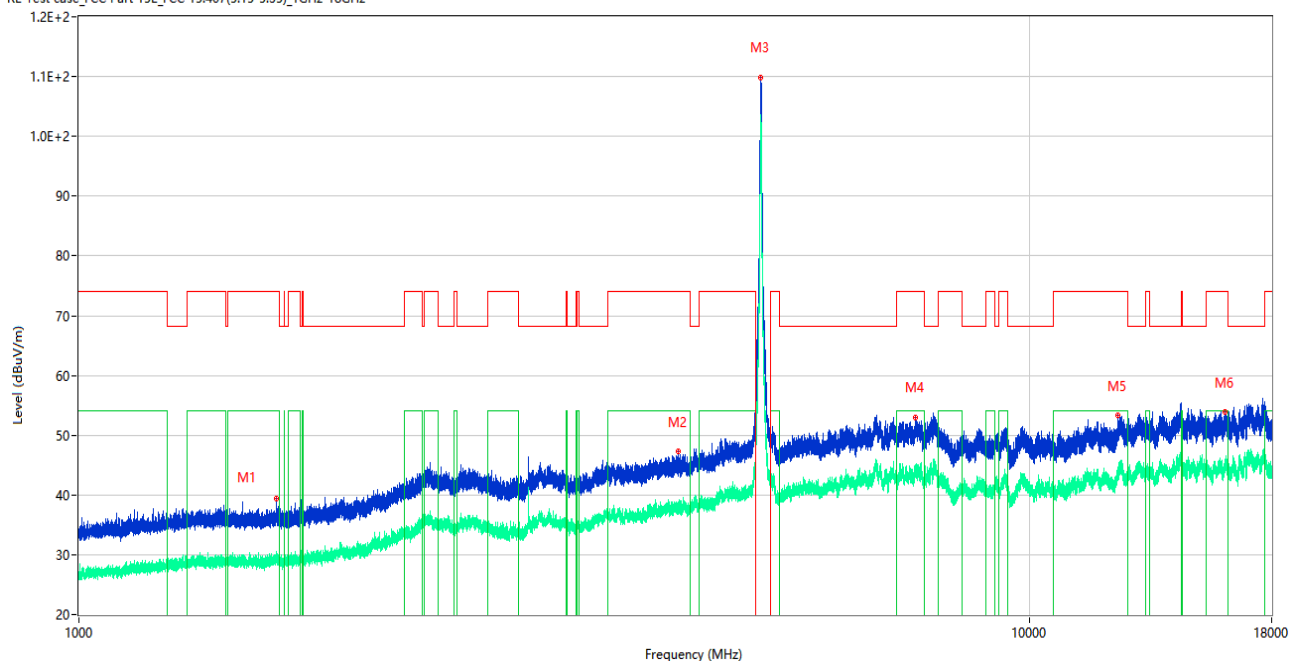
RE Test case_FCC Part 15E_FCC 15.407(5.15-5.35)_1GHz-18GHz



No.	Frequency (MHz)	Results (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1615.800	38.97	74.0	35.03	Peak	56.00	200	Vertical	Pass
1**	1615.800	29.13	54.0	24.87	AV	56.00	200	Vertical	Pass
2	4216.500	47.30	74.0	26.70	Peak	151.00	100	Vertical	Pass
2**	4216.500	37.16	54.0	16.84	AV	151.00	100	Vertical	Pass
3	5181.250	107.89	--	--	Peak	286.00	200	Vertical	N/A
3**	5181.250	100.75	--	--	AV	286.00	200	Vertical	N/A
4	7606.250	53.22	74.0	20.78	Peak	208.00	400	Vertical	Pass
4**	7606.250	44.08	54.0	9.92	AV	208.00	400	Vertical	Pass
5	12476.875	53.89	74.0	20.11	Peak	188.00	100	Vertical	Pass
5**	12476.875	44.55	54.0	9.45	AV	188.00	100	Vertical	Pass
6	16101.599	54.07	74.0	19.93	Peak	235.00	300	Vertical	Pass
6**	16101.599	45.03	54.0	8.97	AV	235.00	300	Vertical	Pass

11n20, U-NII-1, 1 GHz to 18 GHz, Middle Channel, ANT H

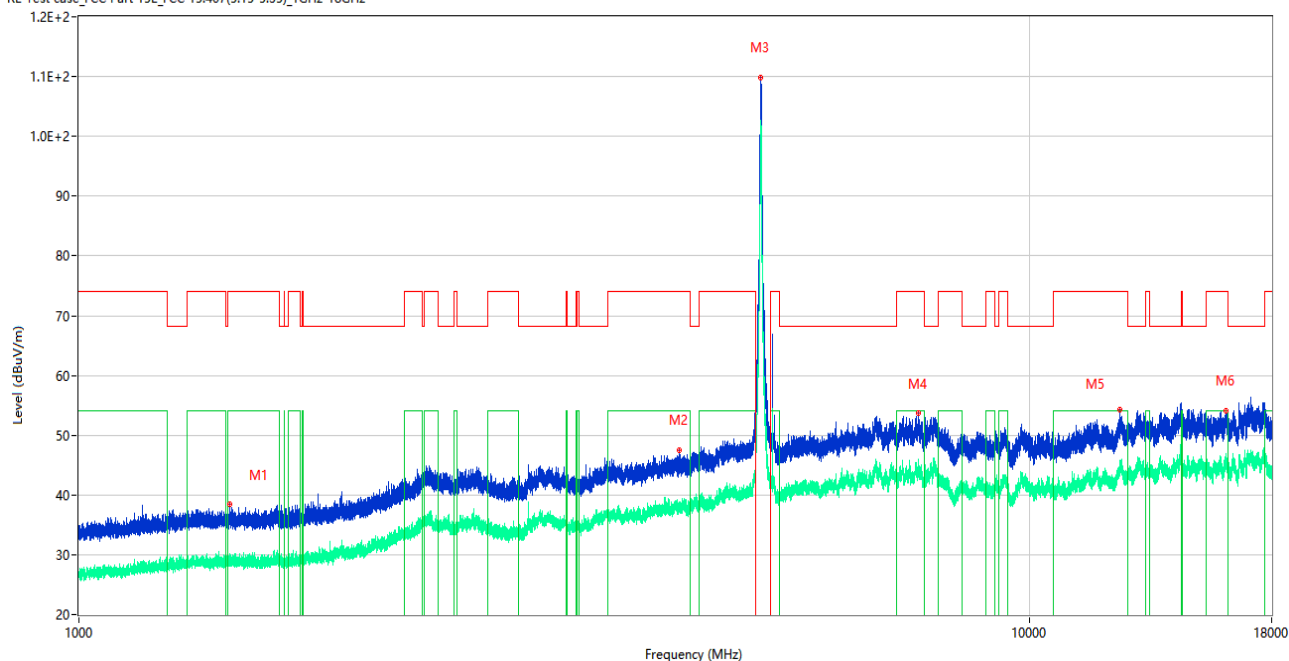
RE Test case_FCC Part 15E_FCC 15.407(5.15-5.35)_1GHz-18GHz



No.	Frequency (MHz)	Results (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1615.300	39.38	74.0	34.62	Peak	65.00	400	Horizontal	Pass
1**	1615.300	28.74	54.0	25.26	AV	65.00	400	Horizontal	Pass
2	4275.750	47.28	74.0	26.72	Peak	190.00	400	Horizontal	Pass
2**	4275.750	37.71	54.0	16.29	AV	190.00	400	Horizontal	Pass
3	5215.000	109.88	--	--	Peak	0.00	100	Horizontal	N/A
3**	5215.000	101.90	--	--	AV	0.00	100	Horizontal	N/A
4	7593.750	52.95	74.0	21.05	Peak	307.00	300	Horizontal	Pass
4**	7593.750	43.97	54.0	10.03	AV	307.00	300	Horizontal	Pass
5	12404.912	53.28	74.0	20.72	Peak	350.00	100	Horizontal	Pass
5**	12404.912	43.84	54.0	10.16	AV	350.00	100	Horizontal	Pass
6	16093.463	53.87	74.0	20.13	Peak	237.00	100	Horizontal	Pass
6**	16093.463	44.95	54.0	9.05	AV	237.00	100	Horizontal	Pass

11n20, U-NII-1, 1 GHz to 18 GHz, Middle Channel, ANT V

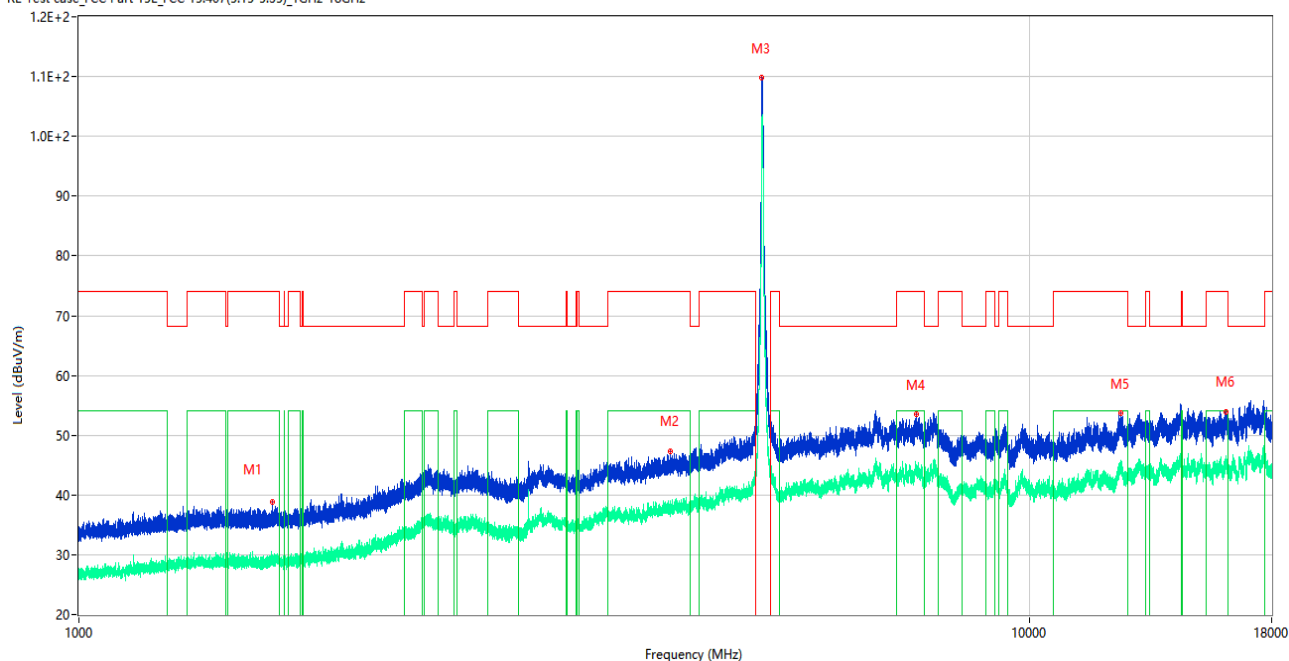
RE Test case_FCC Part 15E_FCC 15.407(5.15-5.35)_1GHz-18GHz



No.	Frequency (MHz)	Results (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1442.900	38.40	74.0	35.60	Peak	72.00	300	Vertical	Pass
1**	1442.900	28.69	54.0	25.31	AV	72.00	300	Vertical	Pass
2	4279.000	47.59	74.0	26.41	Peak	191.00	300	Vertical	Pass
2**	4279.000	37.91	54.0	16.09	AV	191.00	300	Vertical	Pass
3	5219.250	109.84	--	--	Peak	346.00	200	Vertical	N/A
3**	5219.250	102.38	--	--	AV	346.00	200	Vertical	N/A
4	7655.500	53.69	74.0	20.31	Peak	191.00	400	Vertical	Pass
4**	7655.500	45.11	54.0	8.89	AV	191.00	400	Vertical	Pass
5	12469.037	54.37	74.0	19.63	Peak	214.00	200	Vertical	Pass
5**	12469.037	45.09	54.0	8.91	AV	214.00	200	Vertical	Pass
6	16105.538	54.12	74.0	19.88	Peak	130.00	400	Vertical	Pass
6**	16105.538	45.05	54.0	8.95	AV	130.00	400	Vertical	Pass

11n20, U-NII-1, 1 GHz to 18 GHz, High Channel, ANT H

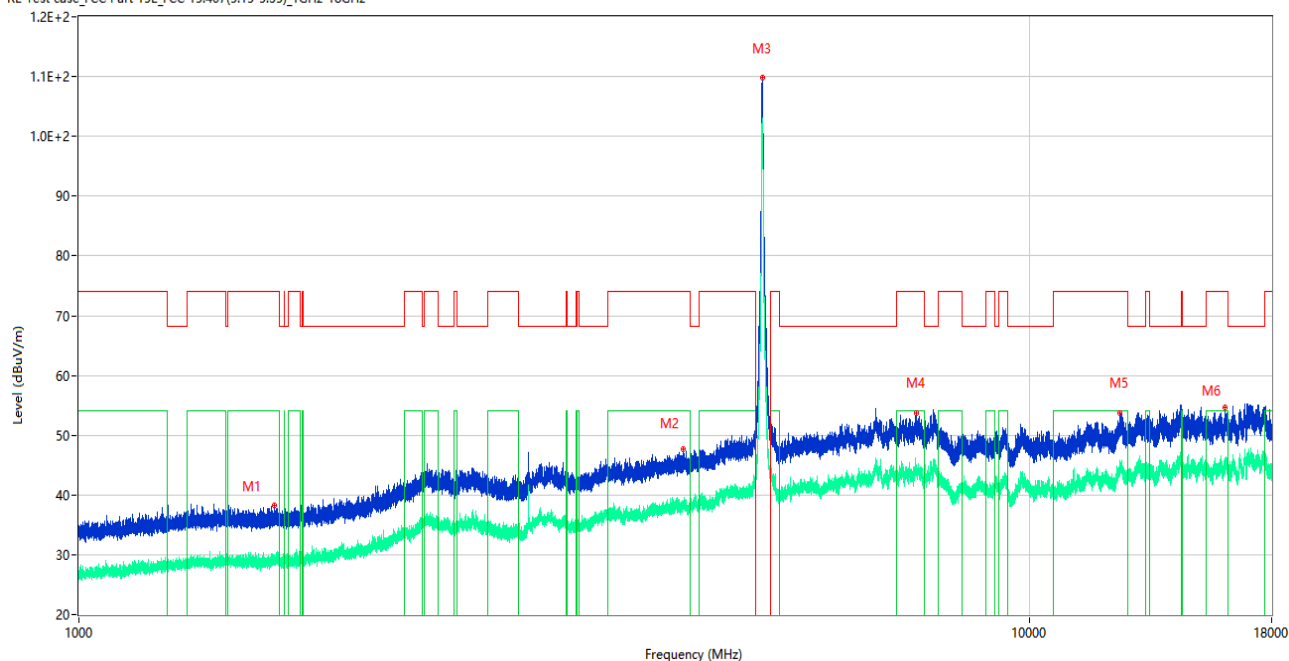
RE Test case_FCC Part 15E_FCC 15.407(5.15-5.35)_1GHz-18GHz



No.	Frequency (MHz)	Results (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1596.700	38.78	74.0	35.22	Peak	108.00	400	Horizontal	Pass
1**	1596.700	29.32	54.0	24.68	AV	108.00	400	Horizontal	Pass
2	4191.750	47.35	74.0	26.65	Peak	360.00	300	Horizontal	Pass
2**	4191.750	38.11	54.0	15.89	AV	360.00	300	Horizontal	Pass
3	5236.000	109.77	--	--	Peak	360.00	150	Horizontal	N/A
3**	5236.000	102.61	--	--	AV	360.00	150	Horizontal	N/A
4	7608.000	53.44	74.0	20.56	Peak	170.00	100	Horizontal	Pass
4**	7608.000	44.03	54.0	9.97	AV	170.00	100	Horizontal	Pass
5	12503.950	53.64	74.0	20.36	Peak	105.00	100	Horizontal	Pass
5**	12503.950	44.92	54.0	9.08	AV	105.00	100	Horizontal	Pass
6	16129.424	53.95	74.0	20.05	Peak	157.00	400	Horizontal	Pass
6**	16129.424	46.41	54.0	7.59	AV	157.00	400	Horizontal	Pass

11n20, U-NII-1, 1 GHz to 18 GHz, High Channel, ANT V

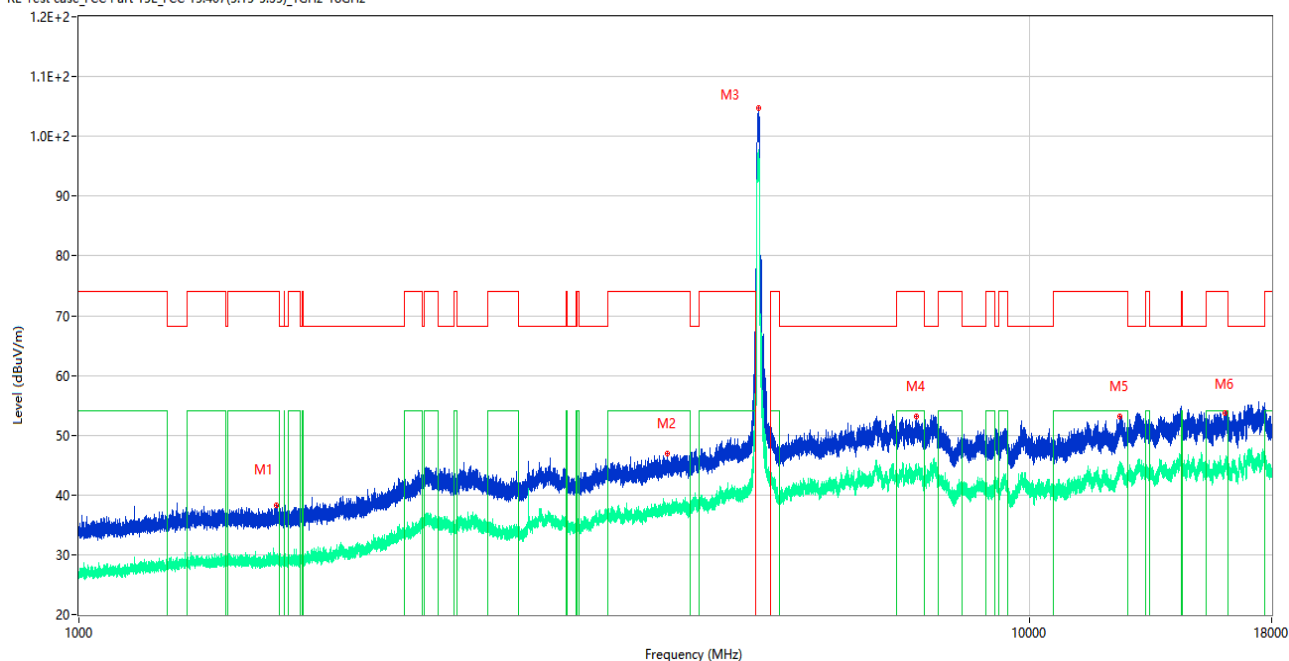
RE Test case_FCC Part 15E_FCC 15.407(5.15-5.35)_1GHz-18GHz



No.	Frequency (MHz)	Results (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1604.900	38.31	74.0	35.69	Peak	338.00	300	Vertical	Pass
1**	1604.900	29.43	54.0	24.57	AV	338.00	300	Vertical	Pass
2	4322.000	47.62	74.0	26.38	Peak	172.00	100	Vertical	Pass
2**	4322.000	37.87	54.0	16.13	AV	172.00	100	Vertical	Pass
3	5242.250	109.77	--	--	Peak	360.00	200	Vertical	N/A
3**	5242.250	102.49	--	--	AV	360.00	200	Vertical	N/A
4	7607.500	53.76	74.0	20.24	Peak	0.00	300	Vertical	Pass
4**	7607.500	44.41	54.0	9.59	AV	0.00	300	Vertical	Pass
5	12461.200	53.71	74.0	20.29	Peak	134.00	150	Vertical	Pass
5**	12461.200	44.97	54.0	9.03	AV	134.00	150	Vertical	Pass
6	16094.250	54.63	74.0	19.37	Peak	257.00	400	Vertical	Pass
6**	16094.250	44.51	54.0	9.49	AV	257.00	400	Vertical	Pass

11n40, U-NII-1, 1 GHz to 18 GHz, Low Channel, ANT H

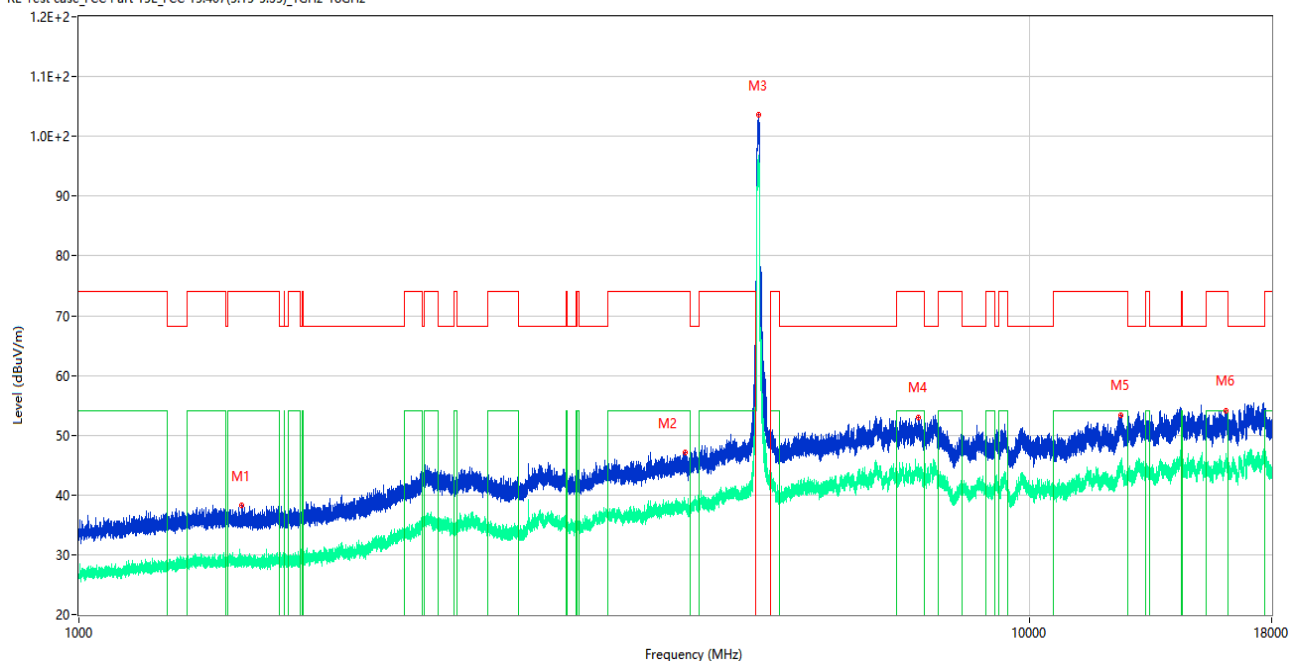
RE Test case_FCC Part 15E_FCC 15.407(5.15-5.35)_1GHz-18GHz



No.	Frequency (MHz)	Results (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1612.900	38.32	74.0	35.68	Peak	219.00	400	Horizontal	Pass
1**	1612.900	29.65	54.0	24.35	AV	219.00	400	Horizontal	Pass
2	4161.750	46.94	74.0	27.06	Peak	285.00	400	Horizontal	Pass
2**	4161.750	37.52	54.0	16.48	AV	285.00	400	Horizontal	Pass
3	5191.500	104.68	--	--	Peak	6.00	200	Horizontal	N/A
3**	5191.500	97.32	--	--	AV	6.00	200	Horizontal	N/A
4	7606.500	53.24	74.0	20.76	Peak	65.00	300	Horizontal	Pass
4**	7606.500	44.17	54.0	9.83	AV	65.00	300	Horizontal	Pass
5	12468.325	53.17	74.0	20.83	Peak	180.00	200	Horizontal	Pass
5**	12468.325	43.60	54.0	10.40	AV	180.00	200	Horizontal	Pass
6	16091.888	53.64	74.0	20.36	Peak	329.00	100	Horizontal	Pass
6**	16091.888	44.85	54.0	9.15	AV	329.00	100	Horizontal	Pass

11n40, U-NII-1, 1 GHz to 18 GHz, Low Channel, ANT V

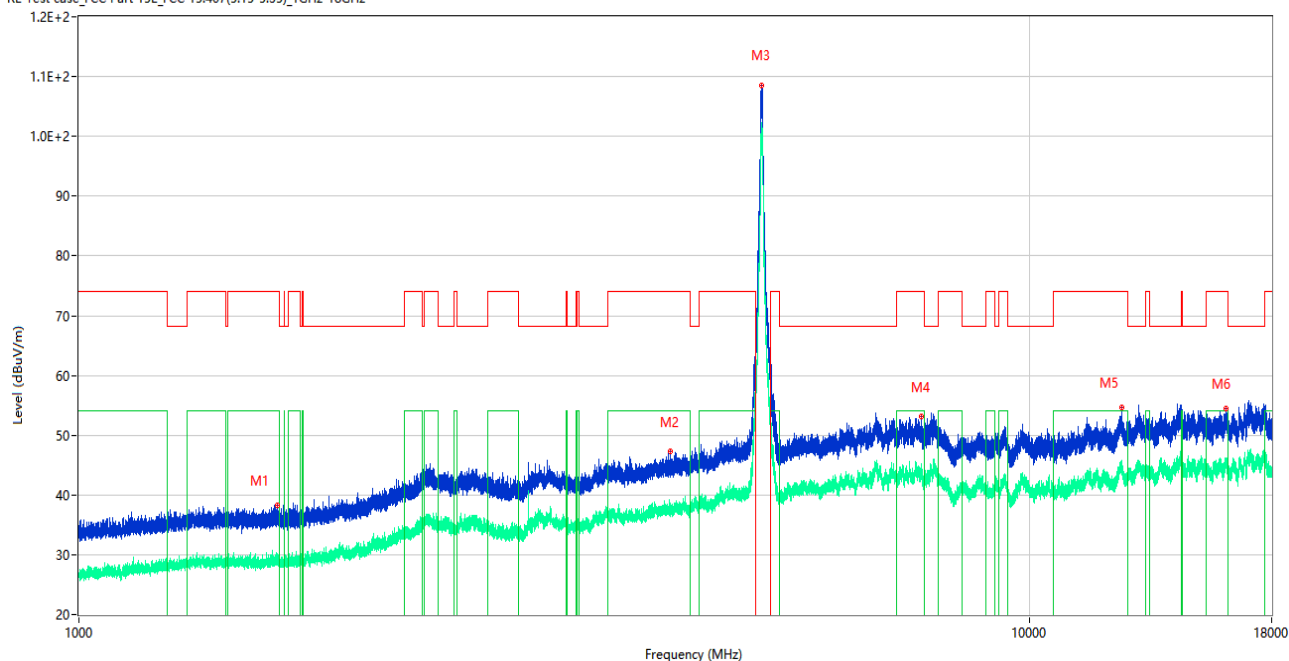
RE Test case_FCC Part 15E_FCC 15.407(5.15-5.35)_1GHz-18GHz



No.	Frequency (MHz)	Results (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1483.200	38.18	74.0	35.82	Peak	89.00	300	Vertical	Pass
1**	1483.200	28.69	54.0	25.31	AV	89.00	300	Vertical	Pass
2	4350.750	47.16	74.0	26.84	Peak	150.00	200	Vertical	Pass
2**	4350.750	38.08	54.0	15.92	AV	150.00	200	Vertical	Pass
3	5188.250	103.52	--	--	Peak	344.00	150	Vertical	N/A
3**	5188.250	96.48	--	--	AV	344.00	150	Vertical	N/A
4	7646.750	53.04	74.0	20.96	Peak	210.00	300	Vertical	Pass
4**	7646.750	44.21	54.0	9.79	AV	210.00	300	Vertical	Pass
5	12490.651	53.36	74.0	20.64	Peak	353.00	150	Vertical	Pass
5**	12490.651	43.80	54.0	10.20	AV	353.00	150	Vertical	Pass
6	16099.763	54.13	74.0	19.87	Peak	360.00	100	Vertical	Pass
6**	16099.763	44.90	54.0	9.10	AV	360.00	100	Vertical	Pass

11n40, U-NII-1, 1 GHz to 18 GHz, High Channel, ANT H

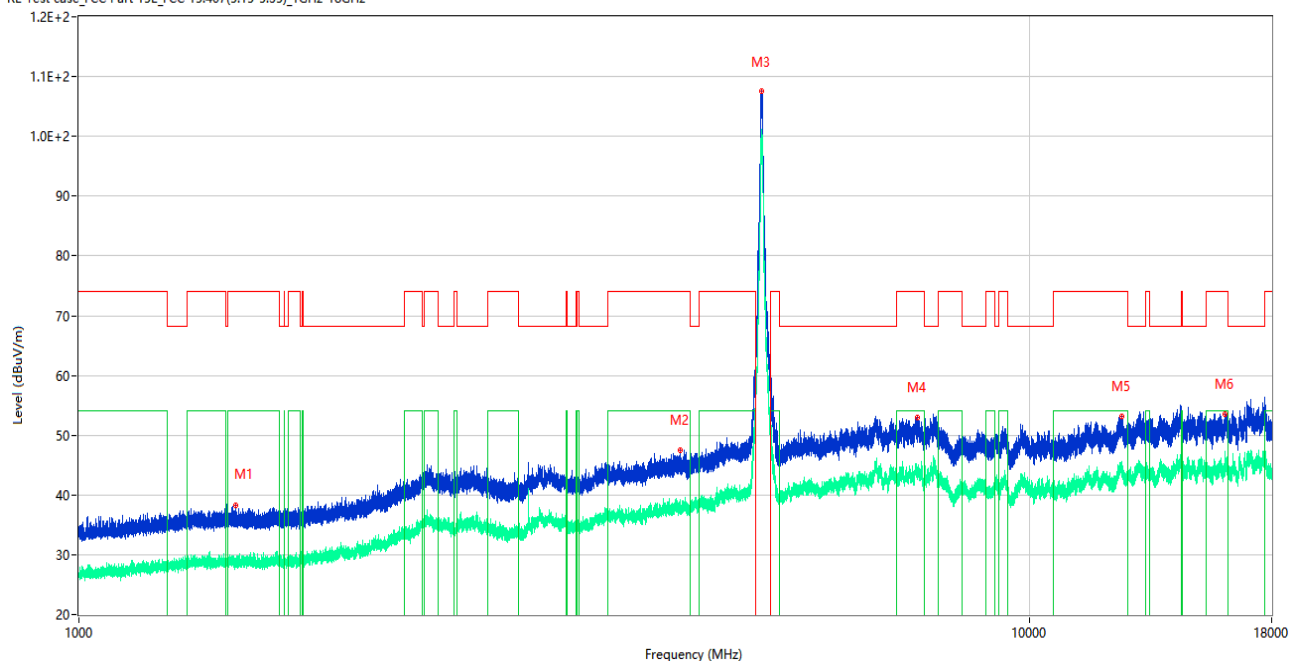
RE Test case_FCC Part 15E_FCC 15.407(5.15-5.35)_1GHz-18GHz



No.	Frequency (MHz)	Results (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1617.900	38.30	74.0	35.70	Peak	279.00	100	Horizontal	Pass
1**	1617.900	29.14	54.0	24.86	AV	279.00	100	Horizontal	Pass
2	4190.750	47.28	74.0	26.72	Peak	108.00	100	Horizontal	Pass
2**	4190.750	37.46	54.0	16.54	AV	108.00	100	Horizontal	Pass
3	5231.750	108.54	--	--	Peak	8.00	150	Horizontal	N/A
3**	5231.750	101.70	--	--	AV	8.00	150	Horizontal	N/A
4	7701.250	53.08	74.0	20.92	Peak	69.00	200	Horizontal	Pass
4**	7701.250	43.01	54.0	10.99	AV	69.00	200	Horizontal	Pass
5	12508.701	54.63	74.0	19.37	Peak	273.00	200	Horizontal	Pass
5**	12508.701	44.47	54.0	9.53	AV	273.00	200	Horizontal	Pass
6	16098.450	54.42	74.0	19.58	Peak	30.00	100	Horizontal	Pass
6**	16098.450	44.65	54.0	9.35	AV	30.00	100	Horizontal	Pass

11n40, U-NII-1, 1 GHz to 18 GHz, High Channel, ANT V

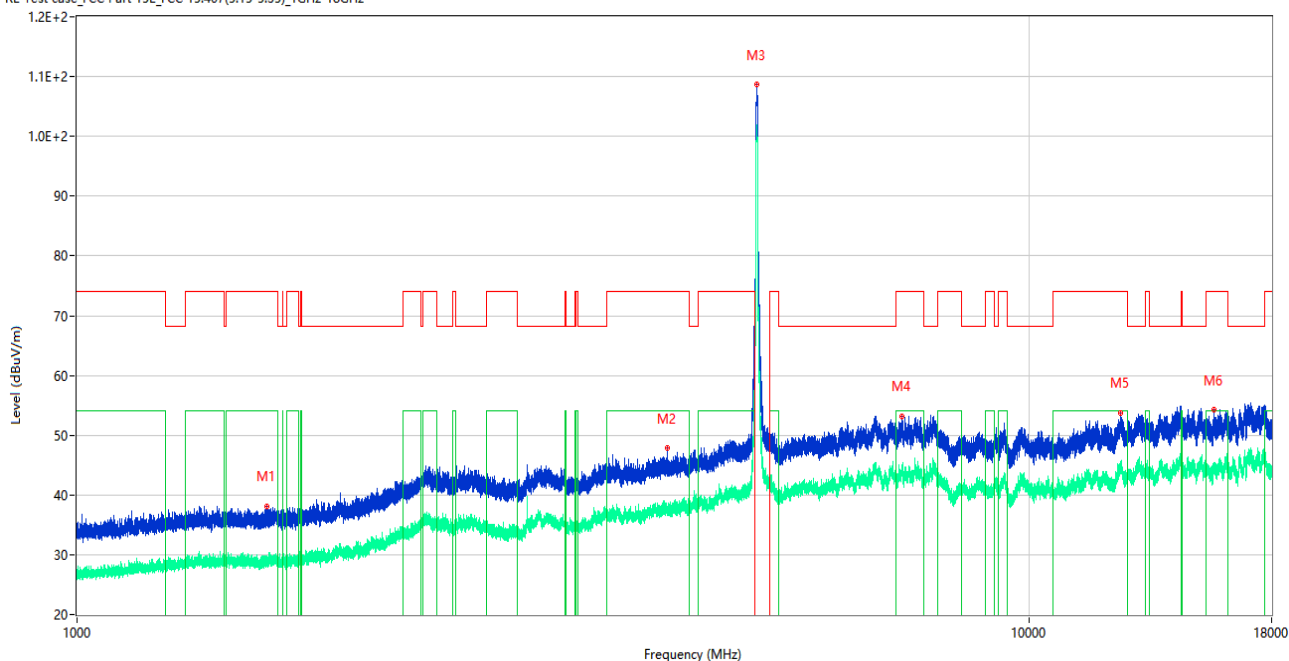
RE Test case_FCC Part 15E_FCC 15.407(5.15-5.35)_1GHz-18GHz



No.	Frequency (MHz)	Results (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1462.600	38.28	74.0	35.72	Peak	317.00	300	Vertical	Pass
1**	1462.600	28.78	54.0	25.22	AV	317.00	300	Vertical	Pass
2	4292.500	47.58	74.0	26.42	Peak	88.00	400	Vertical	Pass
2**	4292.500	37.59	54.0	16.41	AV	88.00	400	Vertical	Pass
3	5232.250	107.50	--	--	Peak	344.00	100	Vertical	N/A
3**	5232.250	101.11	--	--	AV	344.00	100	Vertical	N/A
4	7636.250	53.01	74.0	20.99	Peak	344.00	200	Vertical	Pass
4**	7636.250	43.51	54.0	10.49	AV	344.00	200	Vertical	Pass
5	12505.850	53.24	74.0	20.76	Peak	337.00	150	Vertical	Pass
5**	12505.850	44.68	54.0	9.32	AV	337.00	150	Vertical	Pass
6	16089.000	53.56	74.0	20.44	Peak	283.00	200	Vertical	Pass
6**	16089.000	44.15	54.0	9.85	AV	283.00	200	Vertical	Pass

11ac20, U-NII-1, 1 GHz to 18 GHz, Low Channel, ANT H

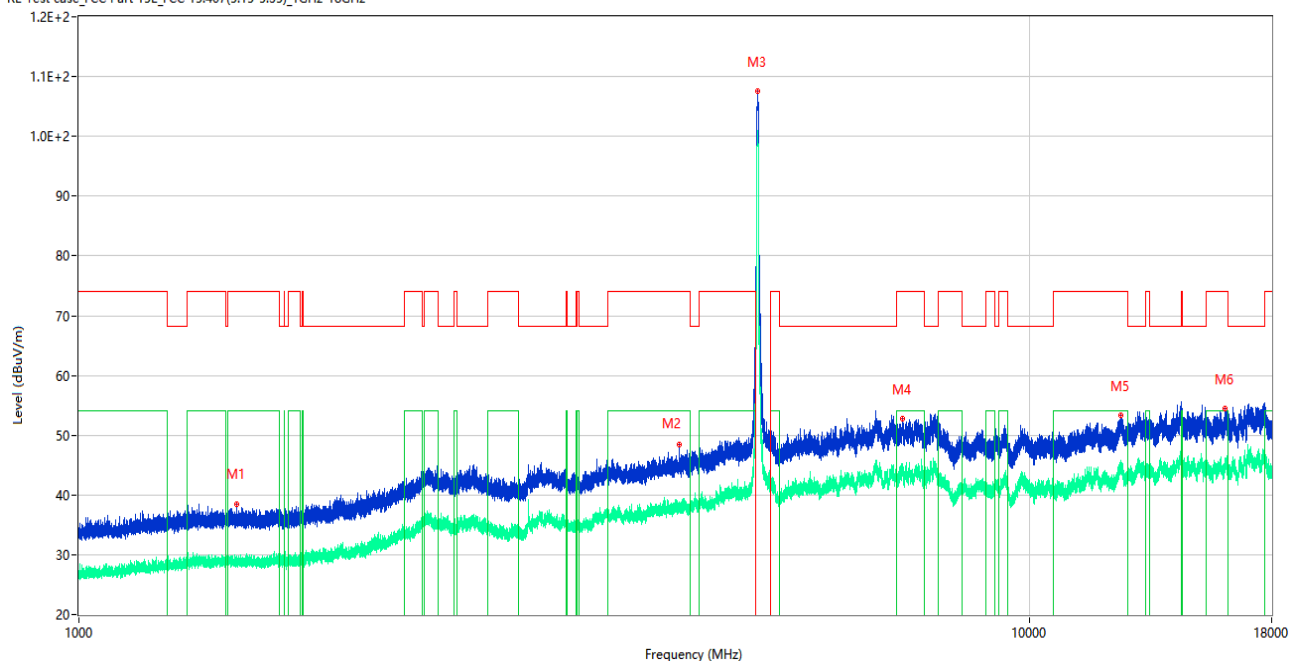
RE Test case_FCC Part 15E_FCC 15.407(5.15-5.35)_1GHz-18GHz



No.	Frequency (MHz)	Results (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1583.000	38.13	74.0	35.87	Peak	72.00	300	Horizontal	Pass
1**	1583.000	28.05	54.0	25.95	AV	72.00	300	Horizontal	Pass
2	4171.000	47.82	74.0	26.18	Peak	286.00	100	Horizontal	Pass
2**	4171.000	37.92	54.0	16.08	AV	286.00	100	Horizontal	Pass
3	5182.000	108.66	--	--	Peak	0.00	150	Horizontal	N/A
3**	5182.000	101.39	--	--	AV	0.00	150	Horizontal	N/A
4	7360.500	53.24	74.0	20.76	Peak	152.00	100	Horizontal	Pass
4**	7360.500	44.55	54.0	9.45	AV	152.00	100	Horizontal	Pass
5	12500.862	53.74	74.0	20.26	Peak	16.00	150	Horizontal	Pass
5**	12500.862	45.47	54.0	8.53	AV	16.00	150	Horizontal	Pass
6	15674.250	54.20	74.0	19.80	Peak	273.00	100	Horizontal	Pass
6**	15674.250	44.11	54.0	9.89	AV	273.00	100	Horizontal	Pass

11ac20, U-NII-1, 1 GHz to 18 GHz, Low Channel, ANT V

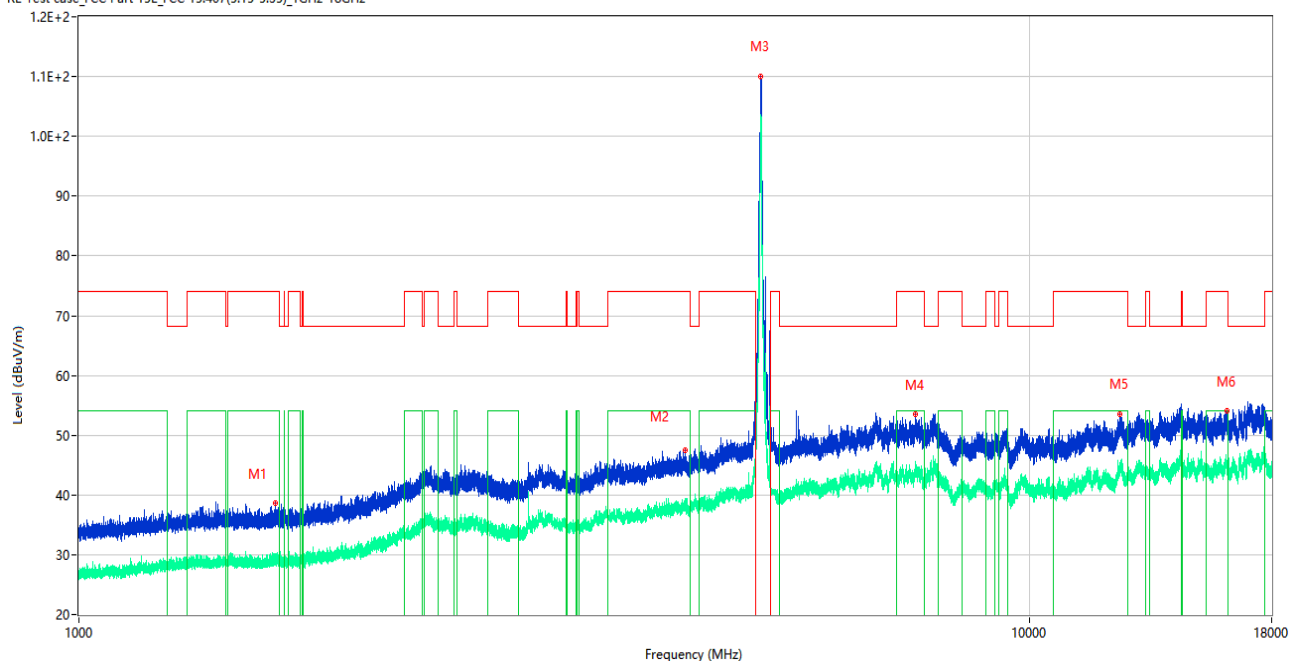
RE Test case_FCC Part 15E_FCC 15.407(5.15-5.35)_1GHz-18GHz



No.	Frequency (MHz)	Results (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1464.600	38.47	74.0	35.53	Peak	168.00	100	Vertical	Pass
1**	1464.600	29.37	54.0	24.63	AV	168.00	100	Vertical	Pass
2	4286.250	48.41	74.0	25.59	Peak	112.00	300	Vertical	Pass
2**	4286.250	38.48	54.0	15.52	AV	112.00	300	Vertical	Pass
3	5181.000	107.48	--	--	Peak	0.00	150	Vertical	N/A
3**	5181.000	100.43	--	--	AV	0.00	150	Vertical	N/A
4	7356.000	52.74	74.0	21.26	Peak	151.00	100	Vertical	Pass
4**	7356.000	43.78	54.0	10.22	AV	151.00	100	Vertical	Pass
5	12478.063	53.29	74.0	20.71	Peak	208.00	200	Vertical	Pass
5**	12478.063	44.49	54.0	9.51	AV	208.00	200	Vertical	Pass
6	16074.825	54.44	74.0	19.56	Peak	215.00	300	Vertical	Pass
6**	16074.825	45.05	54.0	8.95	AV	215.00	300	Vertical	Pass

11ac20, U-NII-1, 1 GHz to 18 GHz, Middle Channel, ANT H

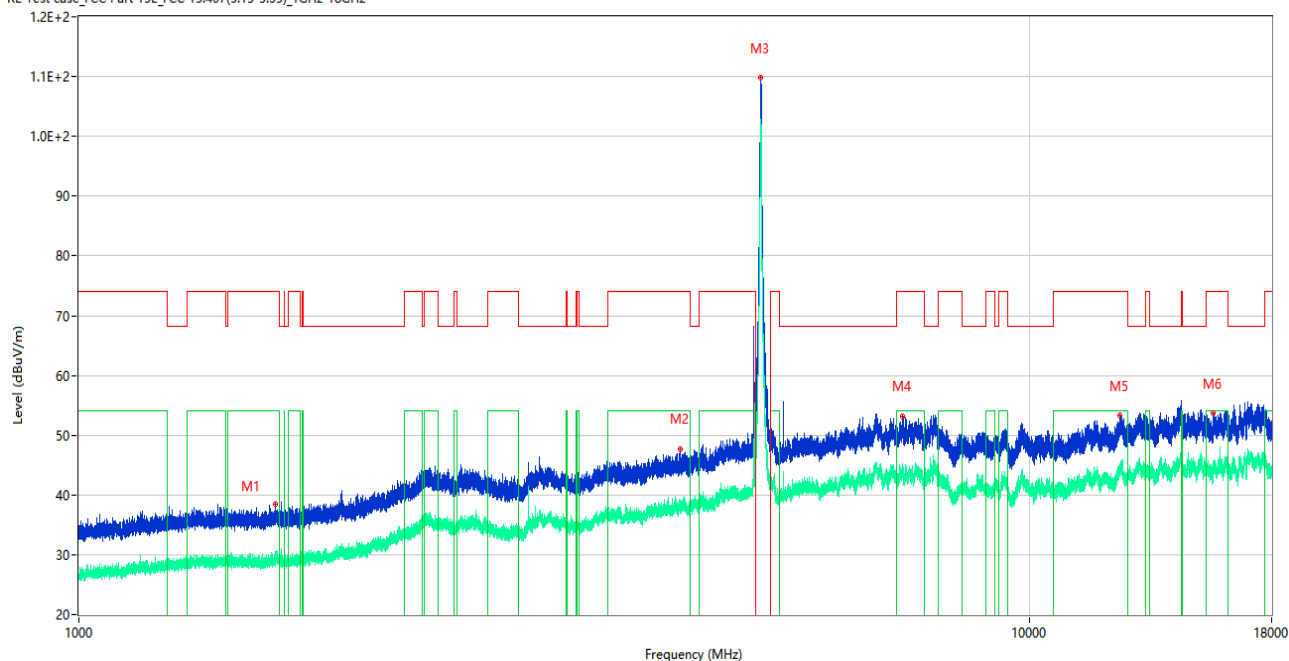
RE Test case_FCC Part 15E_FCC 15.407(5.15-5.35)_1GHz-18GHz



No.	Frequency (MHz)	Results (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1611.300	38.60	74.0	35.40	Peak	140.00	400	Horizontal	Pass
1**	1611.300	29.21	54.0	24.79	AV	140.00	400	Horizontal	Pass
2	4349.000	47.41	74.0	26.59	Peak	268.00	200	Horizontal	Pass
2**	4349.000	39.32	54.0	14.68	AV	268.00	200	Horizontal	Pass
3	5218.000	110.08	--	--	Peak	346.00	100	Horizontal	N/A
3**	5218.000	103.41	--	--	AV	346.00	100	Horizontal	N/A
4	7600.250	53.47	74.0	20.53	Peak	327.00	200	Horizontal	Pass
4**	7600.250	44.64	54.0	9.36	AV	327.00	200	Horizontal	Pass
5	12467.849	53.56	74.0	20.44	Peak	2.00	150	Horizontal	Pass
5**	12467.849	44.38	54.0	9.62	AV	2.00	150	Horizontal	Pass
6	16154.625	54.02	74.0	19.98	Peak	67.00	200	Horizontal	Pass
6**	16154.625	45.18	54.0	8.82	AV	67.00	200	Horizontal	Pass

11ac20, U-NII-1, 1 GHz to 18 GHz, Middle Channel, ANT V

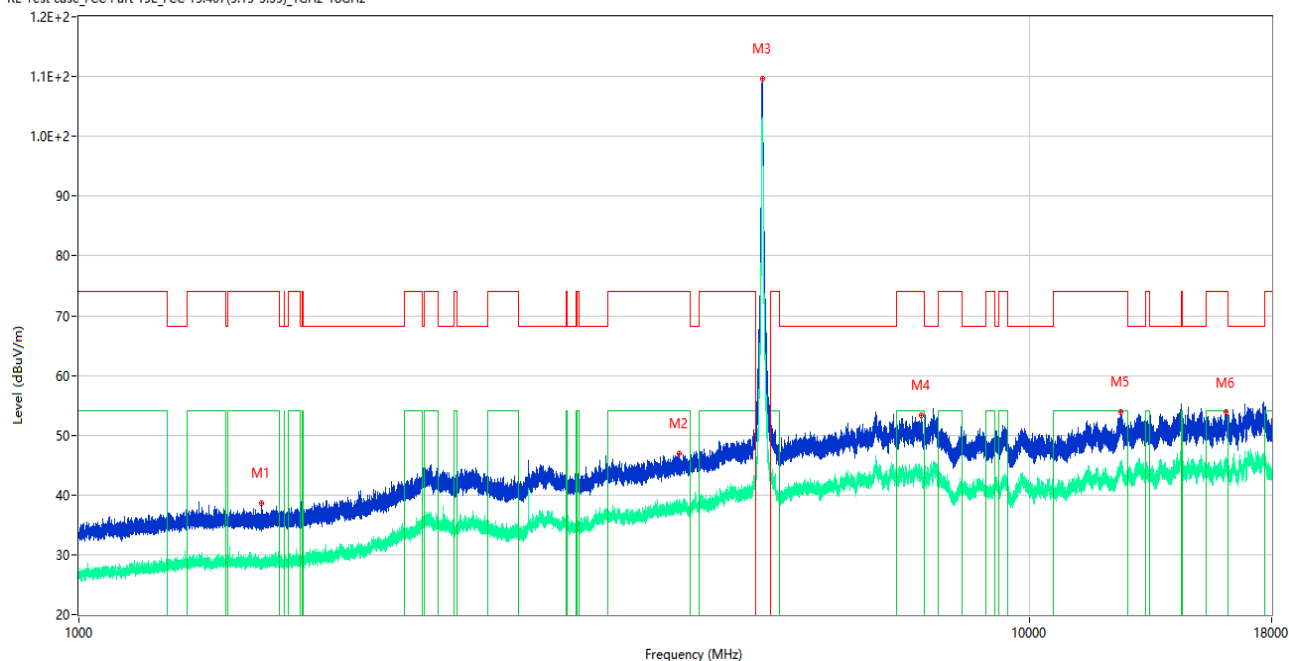
RE Test case_FCC Part 15E_FCC 15.407(5.15-5.35)_1GHz-18GHz



No.	Frequency (MHz)	Results (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1608.400	38.37	74.0	35.63	Peak	89.00	200	Vertical	Pass
1**	1608.400	29.36	54.0	24.64	AV	89.00	200	Vertical	Pass
2	4290.500	47.71	74.0	26.29	Peak	268.00	200	Vertical	Pass
2**	4290.500	37.80	54.0	16.20	AV	268.00	200	Vertical	Pass
3	5219.000	109.81	--	--	Peak	307.00	150	Vertical	N/A
3**	5219.000	102.21	--	--	AV	307.00	150	Vertical	N/A
4	7360.750	53.19	74.0	20.81	Peak	0.00	200	Vertical	Pass
4**	7360.750	44.54	54.0	9.46	AV	0.00	200	Vertical	Pass
5	12466.425	53.26	74.0	20.74	Peak	220.00	200	Vertical	Pass
5**	12466.425	44.82	54.0	9.18	AV	220.00	200	Vertical	Pass
6	15630.412	53.79	74.0	20.21	Peak	76.00	100	Vertical	Pass
6**	15630.412	44.04	54.0	9.96	AV	76.00	100	Vertical	Pass

11ac20, U-NII-1, 1 GHz to 18 GHz, High Channel, ANT H

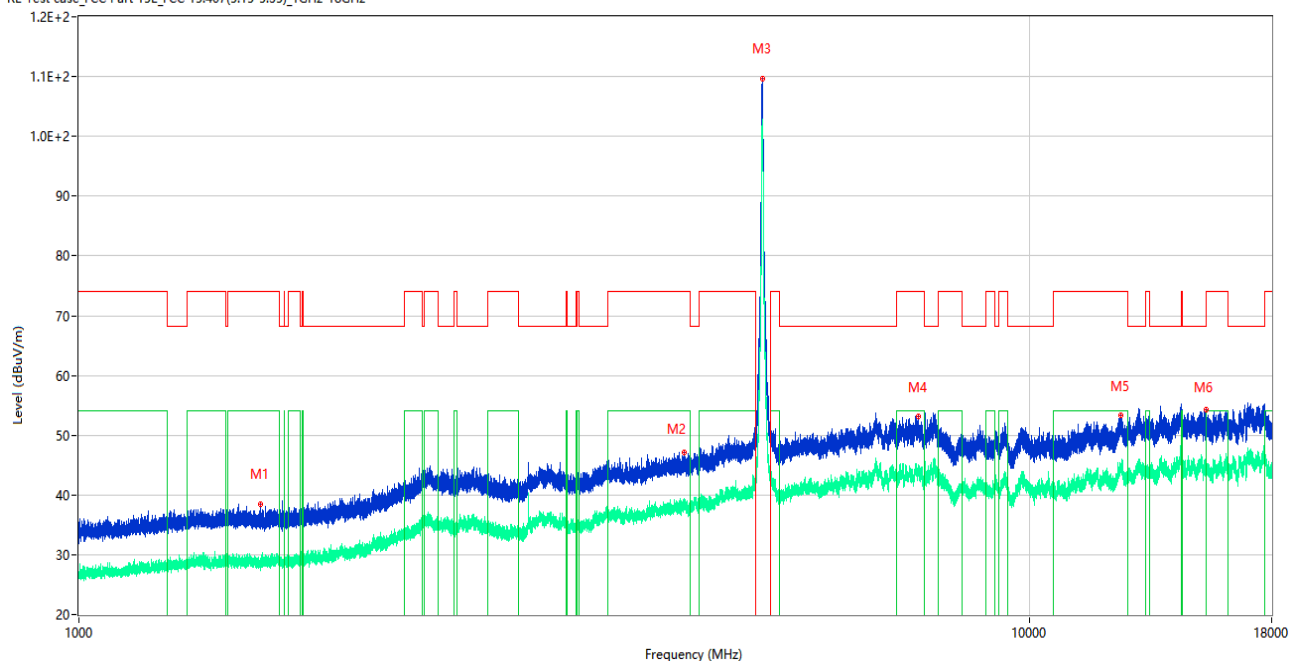
RE Test case_FCC Part 15E_FCC 15.407(5.15-5.35)_1GHz-18GHz



No.	Frequency (MHz)	Results (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1557.800	38.68	74.0	35.32	Peak	157.00	100	Horizontal	Pass
1**	1557.800	28.28	54.0	25.72	AV	157.00	100	Horizontal	Pass
2	4285.500	47.01	74.0	26.99	Peak	346.00	300	Horizontal	Pass
2**	4285.500	37.49	54.0	16.51	AV	346.00	300	Horizontal	Pass
3	5242.500	109.66	--	--	Peak	346.00	100	Horizontal	N/A
3**	5242.500	102.70	--	--	AV	346.00	100	Horizontal	N/A
4	7704.750	53.38	74.0	20.62	Peak	346.00	200	Horizontal	Pass
4**	7704.750	44.71	54.0	9.29	AV	346.00	200	Horizontal	Pass
5	12474.738	53.89	74.0	20.11	Peak	64.00	100	Horizontal	Pass
5**	12474.738	44.76	54.0	9.24	AV	64.00	100	Horizontal	Pass
6	16104.750	53.86	74.0	20.14	Peak	280.00	400	Horizontal	Pass
6**	16104.750	44.94	54.0	9.06	AV	280.00	400	Horizontal	Pass

11ac20, U-NII-1, 1 GHz to 18 GHz, High Channel, ANT V

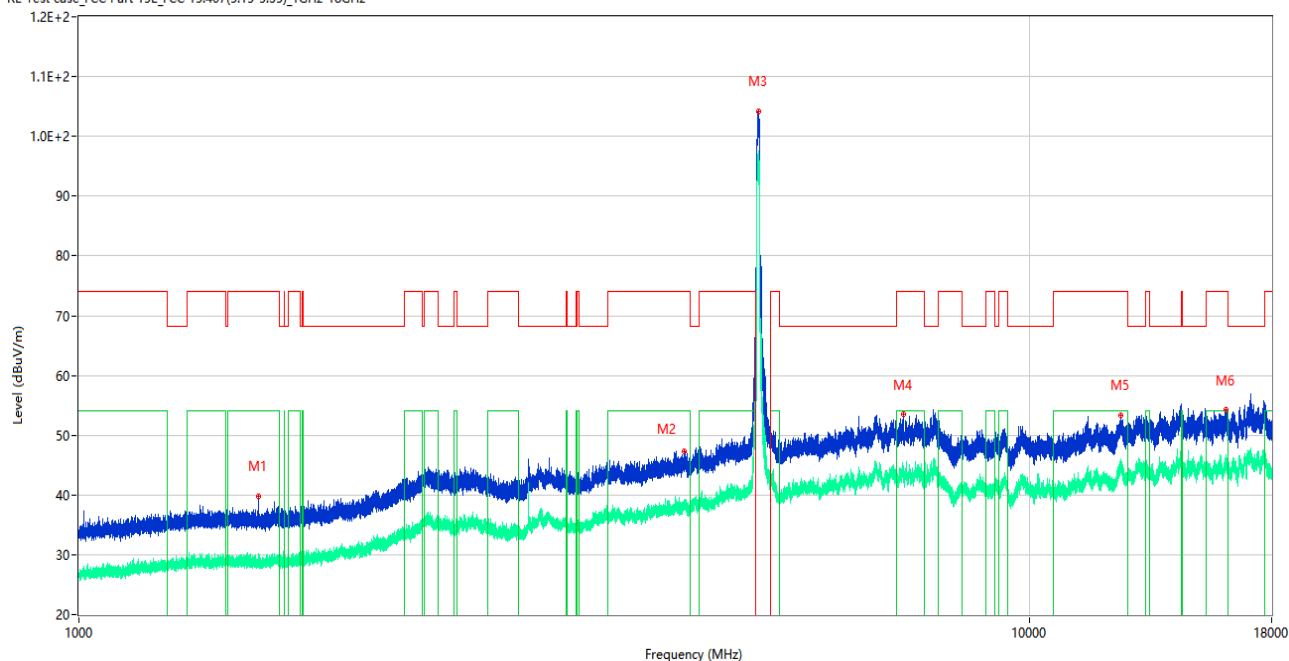
RE Test case_FCC Part 15E_FCC 15.407(5.15-5.35)_1GHz-18GHz



No.	Frequency (MHz)	Results (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1551.600	38.54	74.0	35.46	Peak	258.00	200	Vertical	Pass
1**	1551.600	29.16	54.0	24.84	AV	258.00	200	Vertical	Pass
2	4332.500	47.16	74.0	26.84	Peak	74.00	100	Vertical	Pass
2**	4332.500	38.05	54.0	15.95	AV	74.00	100	Vertical	Pass
3	5239.000	109.66	--	--	Peak	346.00	150	Vertical	N/A
3**	5239.000	102.73	--	--	AV	346.00	150	Vertical	N/A
4	7643.250	53.07	74.0	20.93	Peak	249.00	300	Vertical	Pass
4**	7643.250	44.48	54.0	9.52	AV	249.00	300	Vertical	Pass
5	12485.900	53.27	74.0	20.73	Peak	37.00	200	Vertical	Pass
5**	12485.900	45.11	54.0	8.89	AV	37.00	200	Vertical	Pass
6	15375.263	54.20	74.0	19.80	Peak	208.00	400	Vertical	Pass
6**	15375.263	43.94	54.0	10.06	AV	208.00	400	Vertical	Pass

11ac40, U-NII-1, 1 GHz to 18 GHz, Low Channel, ANT H

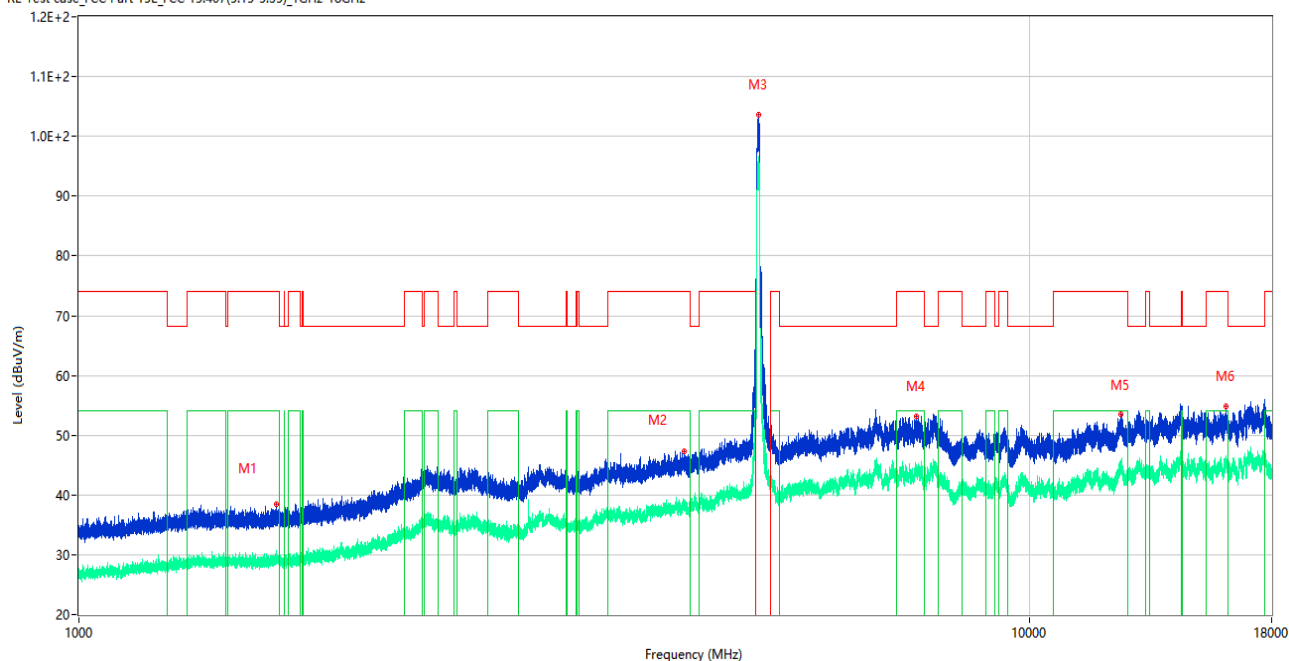
RE Test case_FCC Part 15E_FCC 15.407(5.15-5.35)_1GHz-18GHz



No.	Frequency (MHz)	Results (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1546.700	39.85	74.0	34.15	Peak	30.00	300	Horizontal	Pass
1**	1546.700	28.56	54.0	25.44	AV	30.00	300	Horizontal	Pass
2	4332.000	47.31	74.0	26.69	Peak	307.00	100	Horizontal	Pass
2**	4332.000	38.67	54.0	15.33	AV	307.00	100	Horizontal	Pass
3	5187.250	104.17	--	--	Peak	0.00	150	Horizontal	N/A
3**	5187.250	96.81	--	--	AV	0.00	150	Horizontal	N/A
4	7371.500	53.45	74.0	20.55	Peak	249.00	300	Horizontal	Pass
4**	7371.500	43.98	54.0	10.02	AV	249.00	300	Horizontal	Pass
5	12477.587	53.36	74.0	20.64	Peak	297.00	100	Horizontal	Pass
5**	12477.587	44.49	54.0	9.51	AV	297.00	100	Horizontal	Pass
6	16105.275	54.19	74.0	19.81	Peak	351.00	200	Horizontal	Pass
6**	16105.275	44.93	54.0	9.07	AV	351.00	200	Horizontal	Pass

11ac40, U-NII-1, 1 GHz to 18 GHz, Low Channel, ANT V

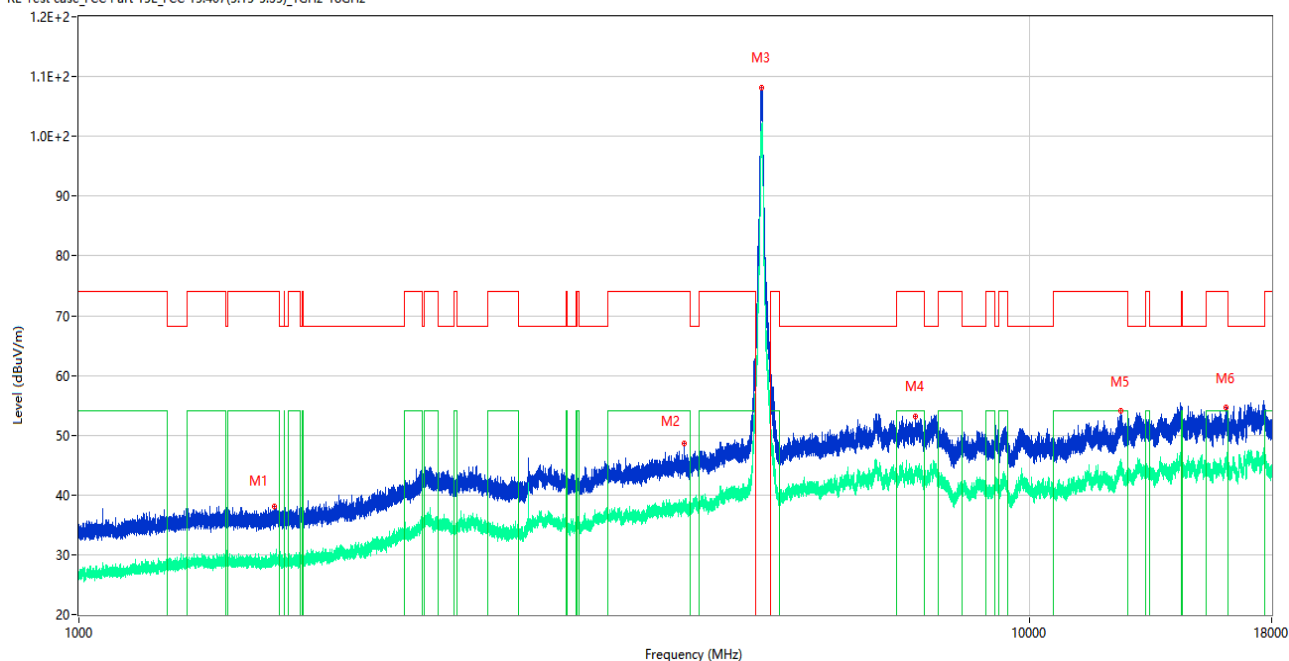
RE Test case_FCC Part 15E_FCC 15.407(5.15-5.35)_1GHz-18GHz



No.	Frequency (MHz)	Results (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1614.200	38.53	74.0	35.47	Peak	258.00	100	Vertical	Pass
1**	1614.200	28.91	54.0	25.09	AV	258.00	100	Vertical	Pass
2	4336.000	47.29	74.0	26.71	Peak	268.00	200	Vertical	Pass
2**	4336.000	38.69	54.0	15.31	AV	268.00	200	Vertical	Pass
3	5191.750	103.62	--	--	Peak	346.00	100	Vertical	N/A
3**	5191.750	96.05	--	--	AV	346.00	100	Vertical	N/A
4	7606.500	53.18	74.0	20.82	Peak	230.00	200	Vertical	Pass
4**	7606.500	44.60	54.0	9.40	AV	230.00	200	Vertical	Pass
5	12499.912	53.46	74.0	20.54	Peak	248.00	100	Vertical	Pass
5**	12499.912	43.95	54.0	10.05	AV	248.00	100	Vertical	Pass
6	16111.838	54.85	74.0	19.15	Peak	140.00	300	Vertical	Pass
6**	16111.838	45.26	54.0	8.74	AV	140.00	300	Vertical	Pass

11ac40, U-NII-1, 1 GHz to 18 GHz, High Channel, ANT H

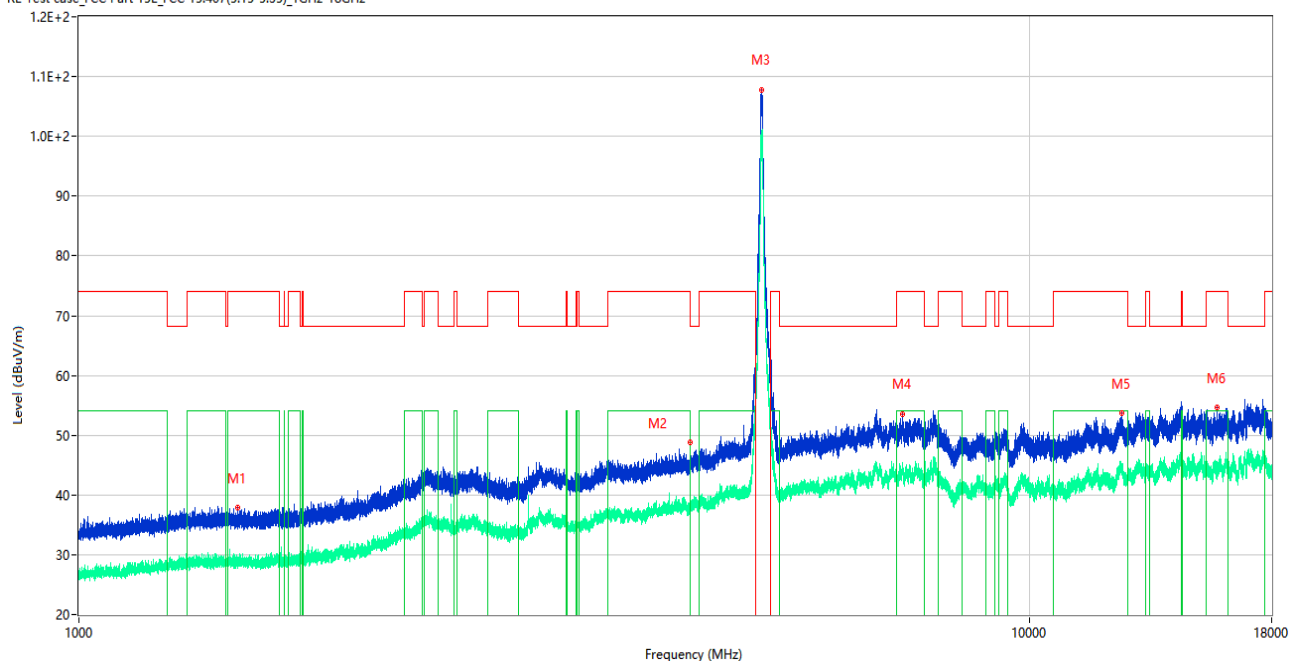
RE Test case_FCC Part 15E_FCC 15.407(5.15-5.35)_1GHz-18GHz



No.	Frequency (MHz)	Results (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1607.500	38.17	74.0	35.83	Peak	308.00	300	Horizontal	Pass
1**	1607.500	28.81	54.0	25.19	AV	308.00	300	Horizontal	Pass
2	4334.750	48.57	74.0	25.43	Peak	360.00	200	Horizontal	Pass
2**	4334.750	37.63	54.0	16.37	AV	360.00	200	Horizontal	Pass
3	5236.000	108.21	--	--	Peak	3.00	150	Horizontal	N/A
3**	5236.000	100.63	--	--	AV	3.00	150	Horizontal	N/A
4	7583.250	53.14	74.0	20.86	Peak	144.00	100	Horizontal	Pass
4**	7583.250	44.25	54.0	9.75	AV	144.00	100	Horizontal	Pass
5	12496.349	54.01	74.0	19.99	Peak	98.00	100	Horizontal	Pass
5**	12496.349	44.62	54.0	9.38	AV	98.00	100	Horizontal	Pass
6	16110.262	54.58	74.0	19.42	Peak	49.00	400	Horizontal	Pass
6**	16110.262	45.64	54.0	8.36	AV	49.00	400	Horizontal	Pass

11ac40, U-NII-1, 1 GHz to 18 GHz, High Channel, ANT V

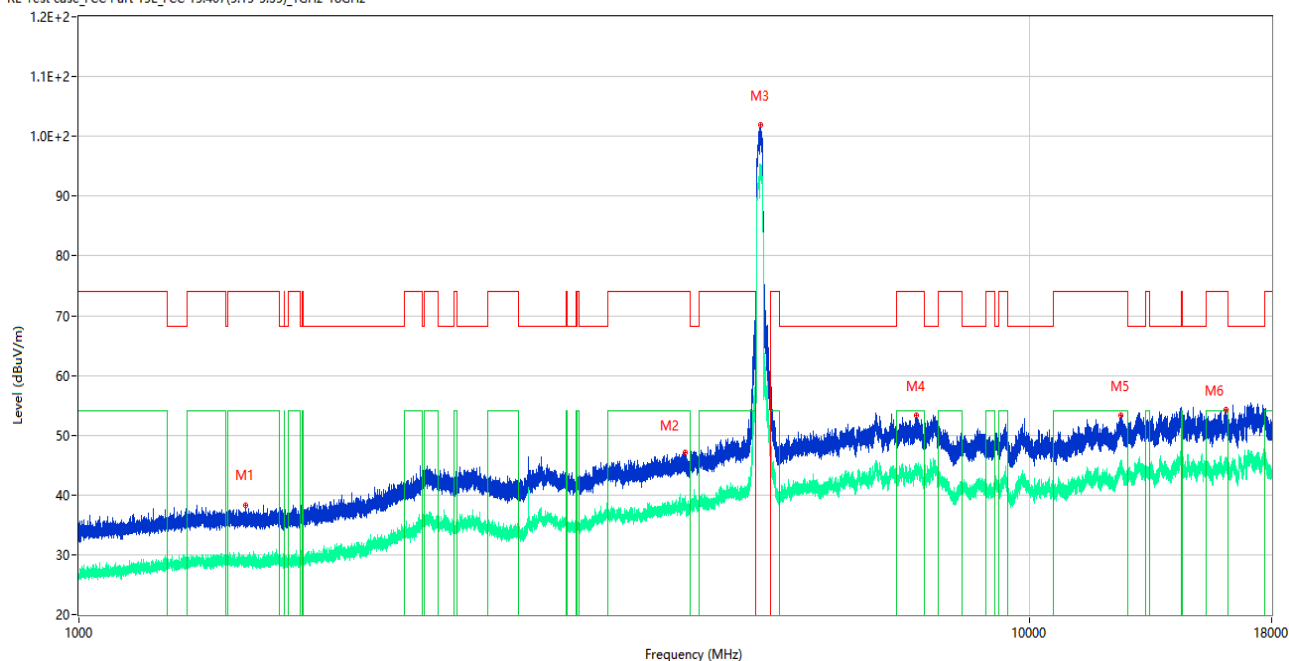
RE Test case_FCC Part 15E_FCC 15.407(5.15-5.35)_1GHz-18GHz



No.	Frequency (MHz)	Results (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1469.200	37.85	74.0	36.15	Peak	304.00	200	Vertical	Pass
1**	1469.200	28.73	54.0	25.27	AV	304.00	200	Vertical	Pass
2	4399.750	48.77	74.0	25.23	Peak	36.00	300	Vertical	Pass
2**	4399.750	39.03	54.0	14.97	AV	36.00	300	Vertical	Pass
3	5232.000	107.83	--	--	Peak	347.00	150	Vertical	N/A
3**	5232.000	100.76	--	--	AV	347.00	150	Vertical	N/A
4	7362.750	53.57	74.0	20.43	Peak	95.00	400	Vertical	Pass
4**	7362.750	44.38	54.0	9.62	AV	95.00	400	Vertical	Pass
5	12522.237	53.63	74.0	20.37	Peak	84.00	200	Vertical	Pass
5**	12522.237	44.38	54.0	9.62	AV	84.00	200	Vertical	Pass
6	15785.550	54.63	74.0	19.37	Peak	59.00	200	Vertical	Pass
6**	15785.550	45.28	54.0	8.72	AV	59.00	200	Vertical	Pass

11ac80, U-NII-1, 1 GHz to 18 GHz, Middle Channel, ANT H

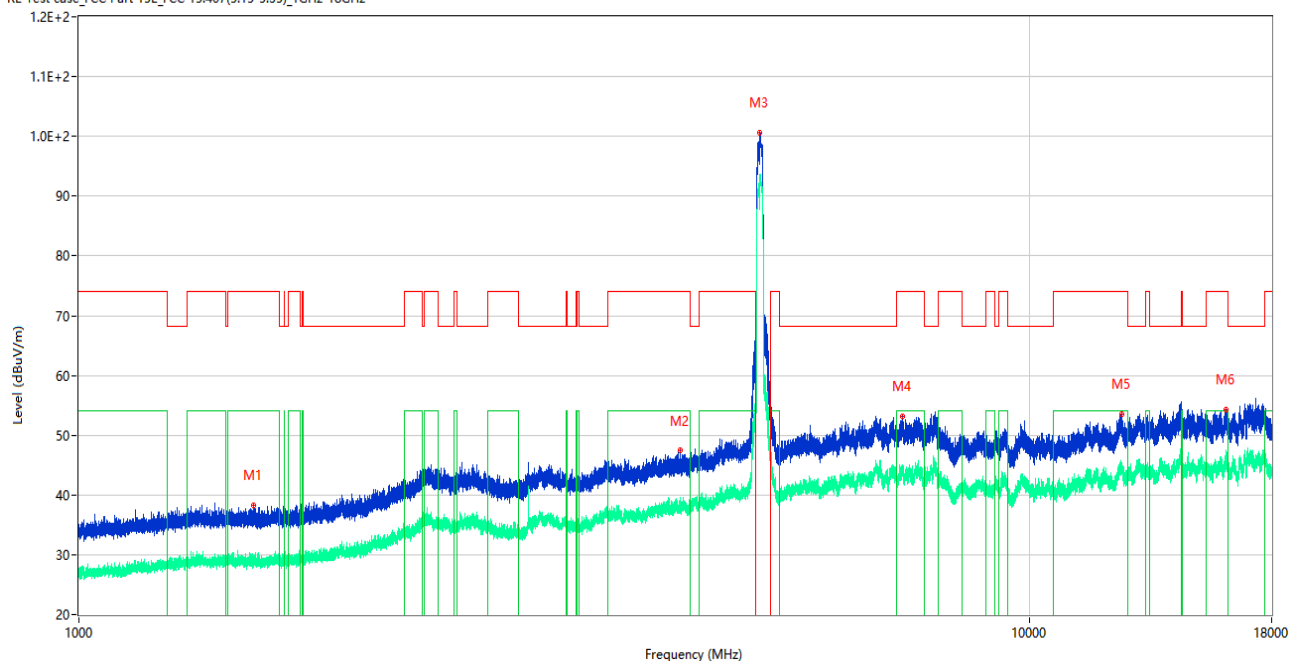
RE Test case_FCC Part 15E_FCC 15.407(5.15-5.35)_1GHz-18GHz



No.	Frequency (MHz)	Results (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1496.000	38.34	74.0	35.66	Peak	191.00	400	Horizontal	Pass
1**	1496.000	28.96	54.0	25.04	AV	191.00	400	Horizontal	Pass
2	4342.500	47.16	74.0	26.84	Peak	0.00	100	Horizontal	Pass
2**	4342.500	37.90	54.0	16.10	AV	0.00	100	Horizontal	Pass
3	5216.000	101.86	--	--	Peak	8.00	150	Horizontal	N/A
3**	5216.000	94.01	--	--	AV	8.00	150	Horizontal	N/A
4	7607.750	53.27	74.0	20.73	Peak	168.00	300	Horizontal	Pass
4**	7607.750	44.21	54.0	9.79	AV	168.00	300	Horizontal	Pass
5	12487.088	53.30	74.0	20.70	Peak	169.00	100	Horizontal	Pass
5**	12487.088	44.26	54.0	9.74	AV	169.00	100	Horizontal	Pass
6	16112.362	54.33	74.0	19.67	Peak	253.00	200	Horizontal	Pass
6**	16112.362	45.22	54.0	8.78	AV	253.00	200	Horizontal	Pass

11ac80, U-NII-1, 1 GHz to 18 GHz, Middle Channel, ANT V

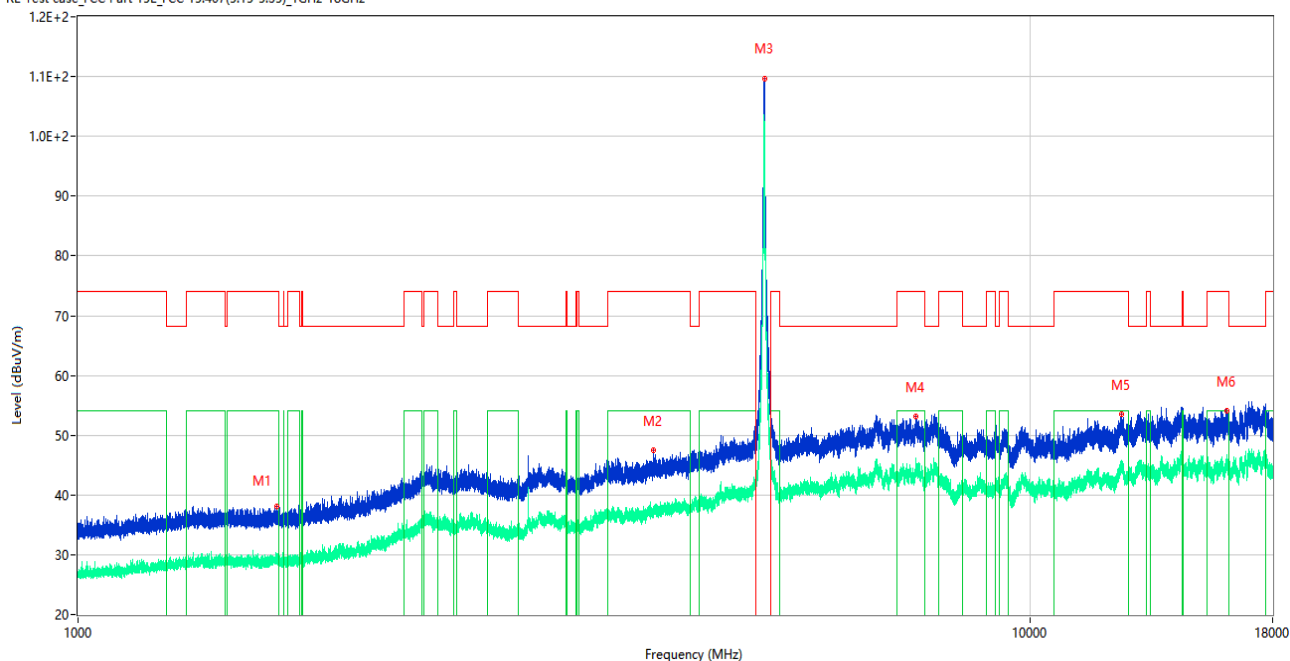
RE Test case_FCC Part 15E_FCC 15.407(5.15-5.35)_1GHz-18GHz



No.	Frequency (MHz)	Results (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1525.800	38.27	74.0	35.73	Peak	118.00	200	Vertical	Pass
1**	1525.800	29.25	54.0	24.75	AV	118.00	200	Vertical	Pass
2	4291.000	47.44	74.0	26.56	Peak	49.00	400	Vertical	Pass
2**	4291.000	37.76	54.0	16.24	AV	49.00	400	Vertical	Pass
3	5203.500	100.64	--	--	Peak	305.00	150	Vertical	N/A
3**	5203.500	92.63	--	--	AV	305.00	150	Vertical	N/A
4	7359.000	53.22	74.0	20.78	Peak	0.00	200	Vertical	Pass
4**	7359.000	44.71	54.0	9.29	AV	0.00	200	Vertical	Pass
5	12507.987	53.59	74.0	20.41	Peak	74.00	100	Vertical	Pass
5**	12507.987	44.23	54.0	9.77	AV	74.00	100	Vertical	Pass
6	16124.438	54.29	74.0	19.71	Peak	0.00	400	Vertical	Pass
6**	16124.438	45.48	54.0	8.52	AV	0.00	400	Vertical	Pass

11a, U-NII-2A, 1 GHz to 18 GHz, Low Channel, ANT H

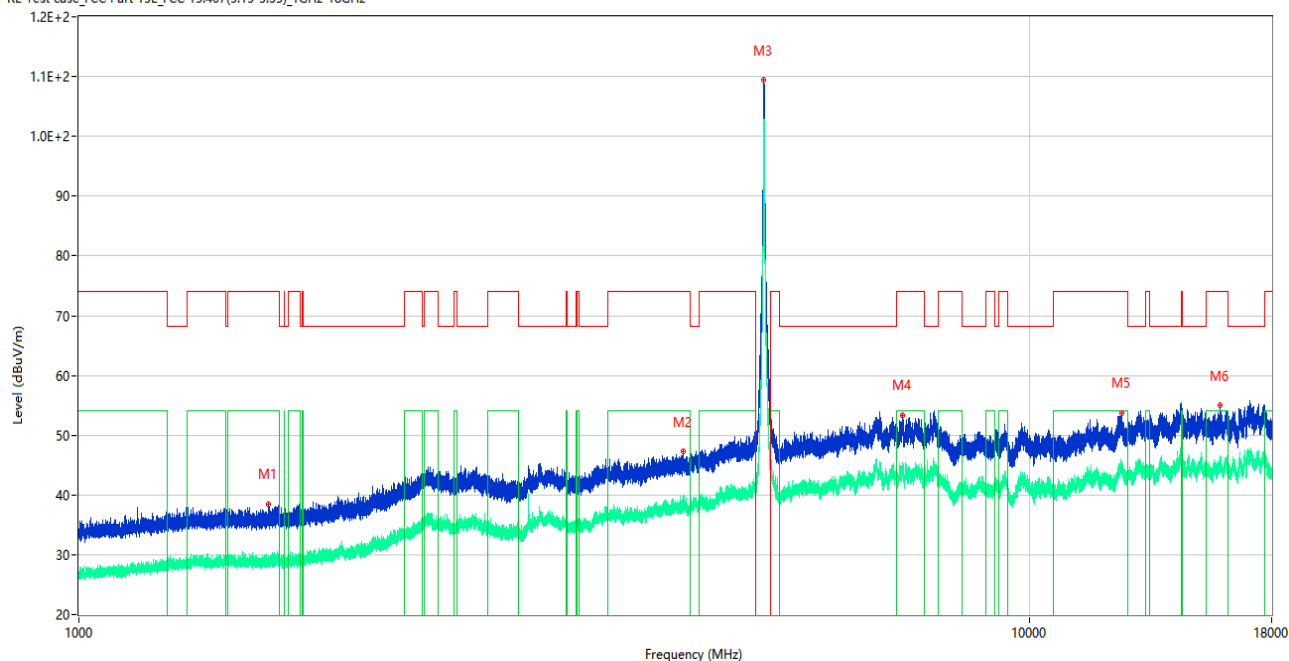
RE Test case_FCC Part 15E_FCC 15.407(5.15-5.35)_1GHz-18GHz



No.	Frequency (MHz)	Results (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1618.800	38.13	74.0	35.87	Peak	162.00	400	Horizontal	Pass
1**	1618.800	29.03	54.0	24.97	AV	162.00	400	Horizontal	Pass
2	4028.500	47.40	74.0	26.60	Peak	28.00	200	Horizontal	Pass
2**	4028.500	36.91	54.0	17.09	AV	28.00	200	Horizontal	Pass
3	5263.500	109.71	--	--	Peak	0.00	150	Horizontal	N/A
3**	5263.500	101.98	--	--	AV	0.00	150	Horizontal	N/A
4	7592.500	53.12	74.0	20.88	Peak	69.00	200	Horizontal	Pass
4**	7592.500	44.19	54.0	9.81	AV	69.00	200	Horizontal	Pass
5	12490.174	53.44	74.0	20.56	Peak	276.00	100	Horizontal	Pass
5**	12490.174	45.06	54.0	8.94	AV	276.00	100	Horizontal	Pass
6	16113.150	54.03	74.0	19.97	Peak	297.00	100	Horizontal	Pass
6**	16113.150	45.33	54.0	8.67	AV	297.00	100	Horizontal	Pass

11a, U-NII-2A, 1 GHz to 18 GHz, Low Channel, ANT V

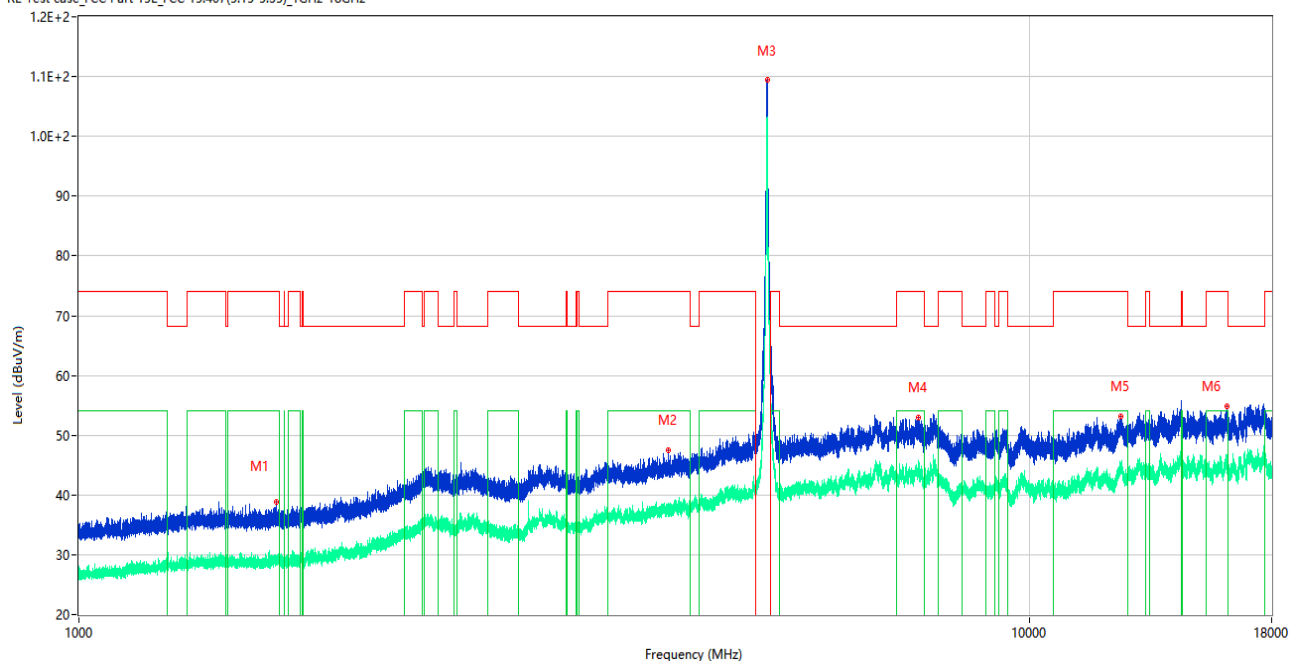
RE Test case_FCC Part 15E_FCC 15.407(5.15-5.35)_1GHz-18GHz



No.	Frequency (MHz)	Results (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1582.000	38.45	74.0	35.55	Peak	190.00	400	Vertical	Pass
1**	1582.000	28.88	54.0	25.12	AV	190.00	400	Vertical	Pass
2	4325.750	47.24	74.0	26.76	Peak	325.00	400	Vertical	Pass
2**	4325.750	38.38	54.0	15.62	AV	325.00	400	Vertical	Pass
3	5259.250	109.40	--	--	Peak	346.00	150	Vertical	N/A
3**	5259.250	102.57	--	--	AV	346.00	150	Vertical	N/A
4	7359.000	53.39	74.0	20.61	Peak	168.00	300	Vertical	Pass
4**	7359.000	44.93	54.0	9.07	AV	168.00	300	Vertical	Pass
5	12515.826	53.74	74.0	20.26	Peak	324.00	200	Vertical	Pass
5**	12515.826	43.78	54.0	10.22	AV	324.00	200	Vertical	Pass
6	15900.000	54.99	74.0	19.01	Peak	358.00	400	Vertical	Pass
6**	15900.000	45.27	54.0	8.73	AV	358.00	400	Vertical	Pass

11a, U-NII-2A, 1 GHz to 18 GHz, Middle Channel, ANT H

RE Test case_FCC Part 15E_FCC 15.407(5.15-5.35)_1GHz-18GHz



No.	Frequency (MHz)	Results (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1612.700	38.87	74.0	35.13	Peak	297.00	100	Horizontal	Pass
1**	1612.700	29.57	54.0	24.43	AV	297.00	100	Horizontal	Pass
2	4167.500	47.52	74.0	26.48	Peak	360.00	400	Horizontal	Pass
2**	4167.500	38.38	54.0	15.62	AV	360.00	400	Horizontal	Pass
3	5301.000	109.37	--	--	Peak	0.00	150	Horizontal	N/A
3**	5301.000	102.65	--	--	AV	0.00	150	Horizontal	N/A
4	7642.500	52.97	74.0	21.03	Peak	205.00	100	Horizontal	Pass
4**	7642.500	43.93	54.0	10.07	AV	205.00	100	Horizontal	Pass
5	12480.675	53.24	74.0	20.76	Peak	239.00	100	Horizontal	Pass
5**	12480.675	44.94	54.0	9.06	AV	239.00	100	Horizontal	Pass
6	16147.276	54.86	74.0	19.14	Peak	252.00	400	Horizontal	Pass
6**	16147.276	45.56	54.0	8.44	AV	252.00	400	Horizontal	Pass