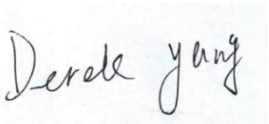
FCC TEST REPORT

Application No.:	AR/2021/30017
Applicant:	Xiaomi Communications Co., Ltd.
Address of Applicant	#019, 9th Floor, Building 6, 33 Xi'erqi Middle Road, Haidian District, Beijing, China, 100085
Manufacturer:	Xiaomi Communications Co., Ltd.
Address of Manufacturer	#019, 9th Floor, Building 6, 33 Xi'erqi Middle Road, Haidian District, Beijing, China, 100085
EUT Description:	Mobile Phone
Model No.:	21061110AG
Trade Mark:	POCO
FCC ID:	2AFZZK110AG
Standards:	47 CFR FCC Part 2, Subpart J 47 CFR Part 15, Subpart C
Date of Receipt:	2021/4/21
Date of Test:	2021/4/21 to 2021/5/14
Date of Issue:	2021/5/14
Test Result :	**PASS ***

* In the configuration tested, the EUT detailed in this report complied with the standards specified above.

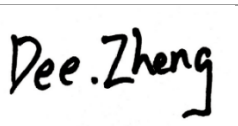
Authorized Signature:



Derek Yang
Wireless Laboratory Manager

1 Version

Revision Record				
Version	**Chapter**	**Date**	**Modifier**	**Remark**
01		2021-05-14		Original

Authorized for issue by:		
Prepared By		 **(Dee Zheng) / Engineer**
Checked By		 **(Jim Huang) / Reviewer**

2 Test Summary

Test Item	Test Requirement	Test Method	Test Result	Result	Test Lab*
AC Power Line Conducted Emission	15.207	ANSI C63.10 2013	Clause 4.2	PASS	B
Duty Cycle	--	--	Clause 4.3	PASS	A
Conducted Output Power	15.247 (b)(3)	ANSI C63.10 2013	Clause 4.4	PASS	A
DTS (6 dB) Bandwidth & 99% Occupied Bandwidth	15.247 (a)(2)	ANSI C63.10 2013	Clause 4.5	PASS	A
Power Spectral Density	15.247 (e)	ANSI C63.10 2013	Clause 4.6	PASS	A
Band-edge for RF Conducted Emissions	15.247(d)	ANSI C63.10 2013	Clause 4.7	PASS	A
RF Conducted Spurious Emissions	15.247(d)	ANSI C63.10 2013	Clause 4.8	PASS	A
Radiated Spurious Emissions	15.247(d);15.205/15.209	ANSI C63.10 2013	Clause 4.9	PASS	B
Restricted bands around fundamental frequency (Radiated Emission)	15.247(d);15.205/15.209	ANSI C63.10 2013	Clause 4.10	PASS	B

Remark：All test were performed by Lab A and B.
Lab A SGS-CSTC Standards Technical Services Co., Ltd. Shenzhen Branch
Lab B SGS-CSTC STANDARDS TECHNICAL SERVICES (XI 'AN) CO., LTD.

No.1 Workshop, M-10, Middle Section, Science & Technology Park, Shenzhen, China 518057 t (86-755) 26012053 f (86-755) 26710594 www.sgsgroup.com.cn
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Contents

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3 General Information

3.1 Details of Client

Applicant:	Xiaomi Communications Co., Ltd.
Address of Applicant	#019, 9th Floor, Building 6, 33 Xi'erqi Middle Road, Haidian District, Beijing, China, 100085
Manufacturer:	Xiaomi Communications Co., Ltd.
Address of Manufacturer	#019, 9th Floor, Building 6, 33 Xi'erqi Middle Road, Haidian District, Beijing, China, 100085

3.2 Test Location

Lab A:

Company:	SGS-CSTC Standards Technical Services Co., Ltd. Shenzhen Branch
Address:	No. 1 Workshop, M-10, Middle section, Science & Technology Park, Shenzhen, Guangdong, China
Post code:	518057
Test engineer:	Dee Zheng,Swing Hu,Habit Zeng

Lab B:

Company:	SGS-CSTC STANDARDS TECHNICAL SERVICES (XI 'AN) CO., LTD.
Address:	1/F, Unit D, Building 1, Kanghong Orange Technology Park, No.137, Keyuan 3rd Road, Fengdong New City, Xi'an, Shaanxi China
Post code:	710086
Test engineer:	Leah Chen,Ken Liu,Andy Yao

3.3 Test Facility

The test facility is recognized, certified, or accredited by the following organizations:

Lab A:

• A2LA (Certificate No. 3816.01)

SGS-CSTC Standards Technical Services Co., Ltd., Shenzhen EMC Laboratory is accredited by the American Association for Laboratory Accreditation(A2LA). Certificate No. 3816.01.

• VCCI

The 3m Fully-anechoic chamber for above 1GHz, 10m Semi-anechoic chamber for below 1GHz, Shielded Room for Mains Port Conducted Interference Measurement and Telecommunication Port Conducted Interference Measurement of SGS-CSTC Standards Technical Services Co., Ltd. have been registered in accordance with the Regulations for Voluntary Control Measures with Registration No.: G-20026, R-14188, C-12383 and T-11153 respectively.

• FCC –Designation Number: CN1178

SGS-CSTC Standards Technical Services Co., Ltd., Shenzhen EMC Laboratory has been recognized as an accredited testing laboratory.

Designation Number: CN1178. Test Firm Registration Number: 406779.

• Innovation, Science and Economic Development Canada

SGS-CSTC Standards Technical Services Co., Ltd., Shenzhen EMC Laboratory has been recognized by ISED as an accredited testing laboratory.

CAB identifier: CN0006.

IC#: 4620C.

Lab B:

A2LA (Certificate No. 4854.01)

SGS-CSTC STANDARDS TECHNICAL SERVICES (XI 'AN) CO., LTD. is accredited by the American Association for Laboratory Accreditation(A2LA). Certificate No. 4854.01.

FCC-Designation Number: CN1271.

3.4 General Description of EUT

EUT Description:	Mobile Phone
Model No.:	21061110AG
Trade Mark:	POCO
Hardware Version:	P2
Software Version:	MIUI 12
IEEE 802.11 WLAN Mode Supported	☒ 802.11B (20 MHz channel bandwidth), ☒ 802.11G (20 MHz channel bandwidth) ☒ 802.11N/AX (20 MHz channel bandwidth),
Operation Frequency:	2400 MHz -2483.5MHz fc = 2407 MHz + N * 5 MHz, where: -fc = "Operating Frequency" in MHz, -N = "Channel Number" with the range from 1 to 11 for the 20 MHz channel bandwidth, or 3 to 9 for the 40 MHz channel bandwidth.
Type of Modulation:	IEEE for 802.11B: DSSS IEEE for 802.11G : OFDM IEEE for 802.11N(HT20) : OFDM IEEE for 802.11AX(HE20) : OFDMA
Sample Type:	☒ Portable Device, ☐Module
Antenna Type:	PIFA Antenna
Antenna Ports	☒ Ant 1, ☒ Ant 2, ☐ Ant 3
Smart System	☒ SISO (for 802.11B/G/N/AX), ☒ MIMO (for 802.11B/G/N/AX): 2 Tx & 2 Rx, ☐ Diversity (for 802.11B/G) : Tx & Rx
Antenna Gain:	0.12dBi(ANT1);-3.18dBi(ANT2);

Operation Frequency of each channel (802.11B/G/N HT20 /AX HE/20)							
Channel	**Frequency**	**Channel**	**Frequency**	**Channel**	**Frequency**	**Channel**	**Frequency**
1	2412MHz	4	2427MHz	7	2442MHz	10	2457MHz
2	2417MHz	5	2432MHz	8	2447MHz	11	2462MHz
3	2422MHz	6	2437MHz	9	2452MHz		

Remark:
In section 15.31(m), regards to the operating frequency range over 10 MHz, the Lowest frequency, the middle frequency, and the highest frequency of channel were selected to perform the test, and the selected channel see below:

Channel	Frequency for 802.11B/G/N (HT20)/AX(HE20)
The Lowest channel	2412MHz
The Middle channel	2437MHz
The Highest channel	2462MHz

3.5 Test Environment and Mode

Operating Environment:	
Temperature:	25.0 ˚C
Humidity:	50 % RH
Atmospheric Pressure:	101.30 KPa
Test mode:	
Transmitting mode:	Keep the EUT in transmitting mode with all kind of modulation and all kind of data rate.

3.6 Description of Support Units

The EUT has been tested independent unit.

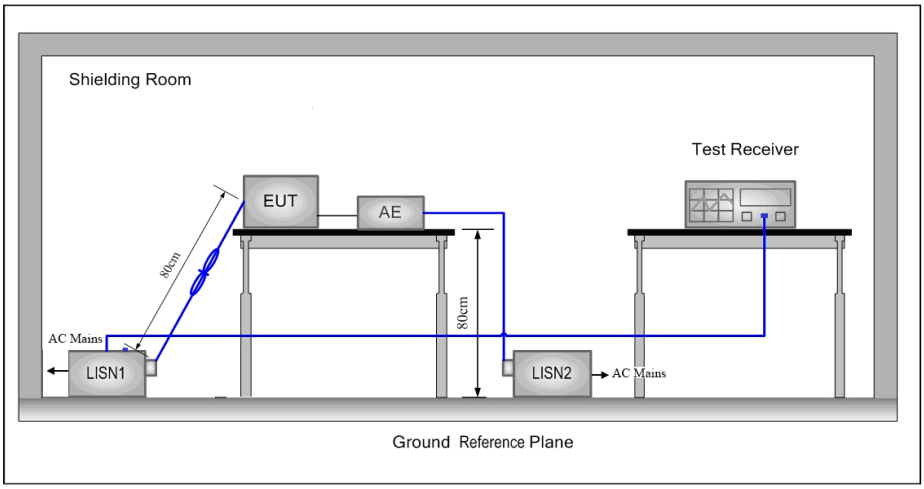
4 Test results and Measurement Data

4.1 Antenna Requirement

Standard requirement:	47 CFR Part 15C Section 15.203 /247(c)
15.203 requirement: An intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator, the manufacturer may design the unit so that a broken antenna can be replaced by the user, but the use of a standard antenna jack or electrical connector is prohibited. 15.247(b) (4) requirement: The conducted output power limit specified in paragraph (b) of this section is based on the use of antennas with directional gains that do not exceed 6 dBi. Except as shown in paragraph (c) of this section, if transmitting antennas of directional gain greater than 6 dBi are used, the conducted output power from the intentional radiator shall be reduced below the stated values in paragraphs (b)(1), (b)(2), and (b)(3) of this section, as appropriate, by the amount in dB that the directional gain of the antenna exceeds 6 dBi.	
The antenna is integrated on the main PCB and no consideration of replacement. The best case gain of the antenna is 0.12dBi(ANT1);-3.18dBi(ANT2).	

4.2 AC Power Line Conducted Emissions

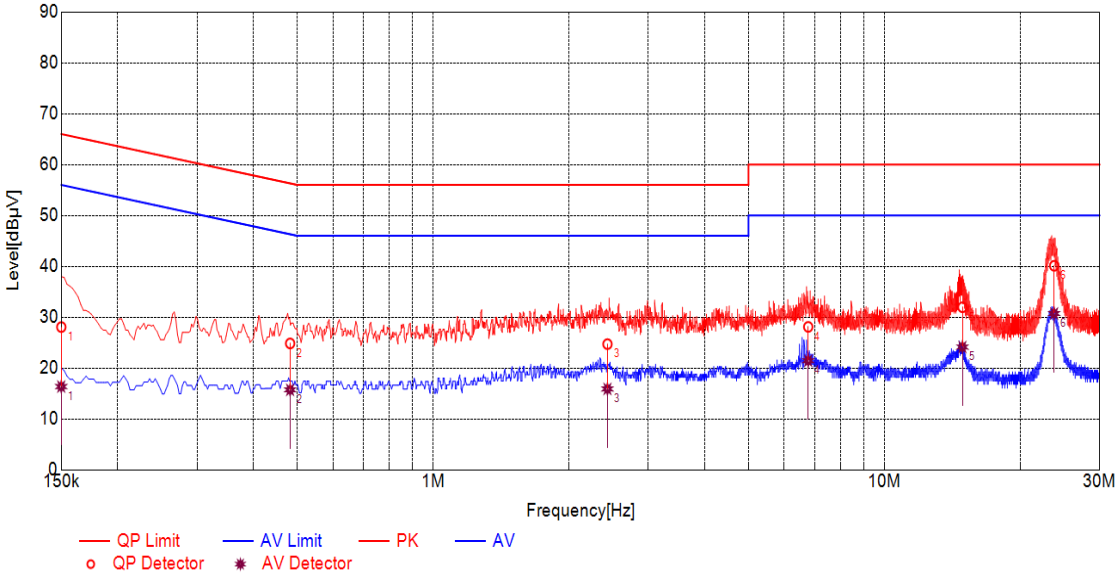
Test Requirement:	47 CFR Part 15C Section 15.207		
Test Method:	ANSI C63.10: 2013		
Test Frequency Range:	150kHz to 30MHz		
Limit:	Frequency range (MHz)	Limit (dBuV)	
		Quasi-peak	Average
	0.15-0.5	66 to 56*	56 to 46*
	0.5-5	56	46
	5-30	60	50
	* Decreases with the logarithm of the frequency.		
Test Procedure:	1) The mains terminal disturbance voltage test was conducted in a shielded room. 2) The EUT was connected to AC power source through a LISN 1 (Line Impedance Stabilization Network) which provides a 50Ω/50μH + 5Ω linear impedance. The power cables of all other units of the EUT were connected to a second LISN 2, which was bonded to the ground reference plane in the same way as the LISN 1 for the unit being measured. A multiple socket outlet strip was used to connect multiple power cables to a single LISN provided the rating of the LISN was not exceeded. 3) The tabletop EUT was placed upon a non-metallic table 0.8m above the ground reference plane. And for floor-standing arrangement, the EUT was placed on the horizontal ground reference plane, 4) The test was performed with a vertical ground reference plane. The rear of the EUT shall be 0.4 m from the vertical ground reference plane. The vertical ground reference plane was bonded to the horizontal ground reference plane. The LISN 1 was placed 0.8 m from the boundary of the unit under test and bonded to a ground reference plane for LISNs mounted on top of the ground reference plane. This distance was between the closest points of the LISN 1 and the EUT. All other units of the EUT and associated equipment was at least 0.8 m from the LISN 2. In order to find the maximum emission, the relative positions of equipment and all of the interface cables must be changed according to ANSI C63.10: 2013 on conducted measurement.		

Test Setup:	
Exploratory Test Mode:	Transmitting with all kind of modulations, data rates at lowest, middle and highest channel. Charge + Transmitting mode.
Final Test Mode:	Through Pre-scan, find the 1Mbps of rate of 802.11B at lowest channel is the worst case. Charge + Transmitting mode. Only the worst case is recorded in the report.
Instruments Used:	Refer to section 6 for details
Test Results:	Pass

Measurement Data

An initial pre-scan was performed on the live and neutral lines with peak detector.
Quasi-Peak and Average measurement were performed at the frequencies with maximized peak emission were detected.

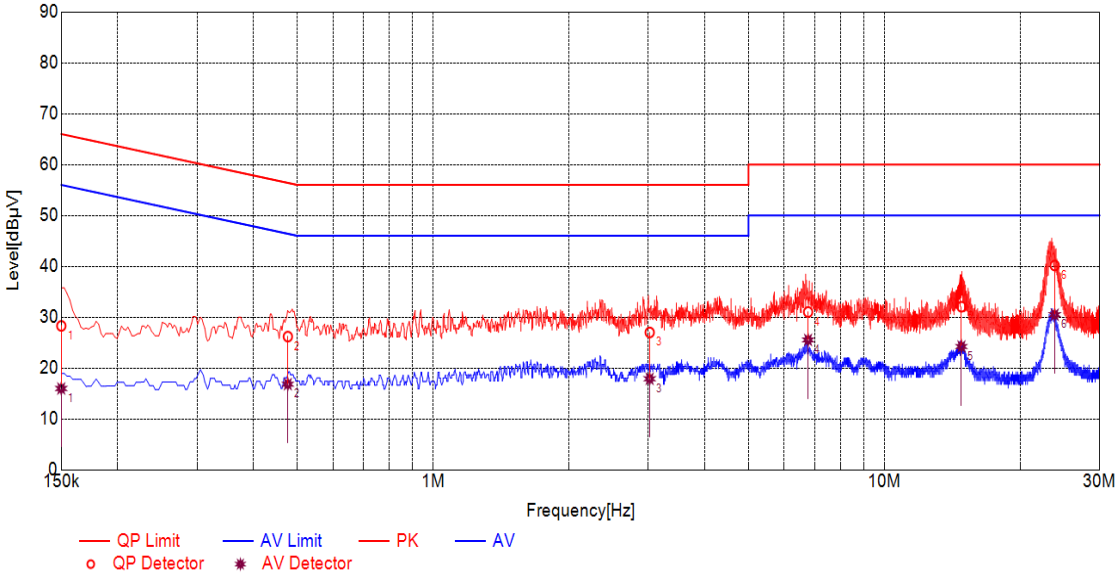
Live Line:



Test Graph

Final Data List								
NO.	Freq. [MHz]	Factor [dB]	QP Value [dBµV]	QP Limit [dBµV]	QP Margin [dB]	AV Value [dBµV]	AV Limit [dBµV]	AV Margin [dB]
1	0.1500	10.10	28.06	66.00	37.94	16.36	56.00	39.64
2	0.4822	10.10	24.85	56.30	31.45	15.72	46.30	30.58
3	2.4345	10.10	24.71	56.00	31.29	15.90	46.00	30.10
4	6.7804	10.10	28.10	60.00	31.90	21.44	50.00	28.56
5	14.8945	10.11	31.96	60.00	28.04	24.13	50.00	25.87
6	23.7822	10.11	40.11	60.00	19.89	30.72	50.00	19.28

Neutral Line:



Test Graph

Final Data List								
NO.	Freq. [MHz]	Factor [dB]	QP Value [dBµV]	QP Limit [dBµV]	QP Margin [dB]	AV Value [dBµV]	AV Limit [dBµV]	AV Margin [dB]
1	0.1500	10.10	28.29	66.00	37.71	15.98	56.00	40.02
2	0.4766	10.10	26.19	56.40	30.21	16.83	46.40	29.57
3	3.0195	10.10	27.01	56.00	28.99	17.89	46.00	28.11
4	6.7762	10.10	31.02	60.00	28.98	25.53	50.00	24.47
5	14.8191	10.11	32.06	60.00	27.94	24.23	50.00	25.77
6	23.8497	10.11	40.17	60.00	19.83	30.49	50.00	19.51

Remark:

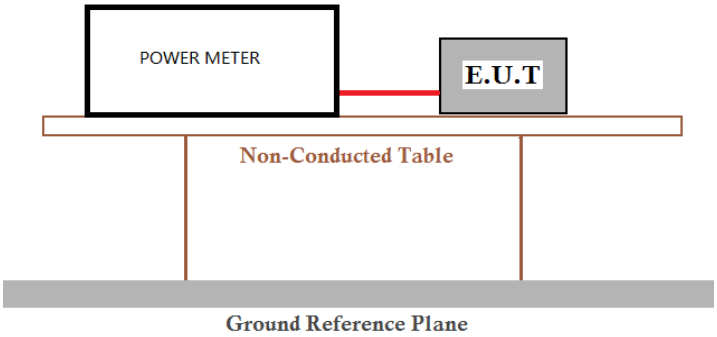
1. The following Quasi-Peak and Average measurements were performed on the EUT:

2. Final Test Level =Receiver Reading + LISN Factor + Cable Loss.

4.3 Duty Cycle

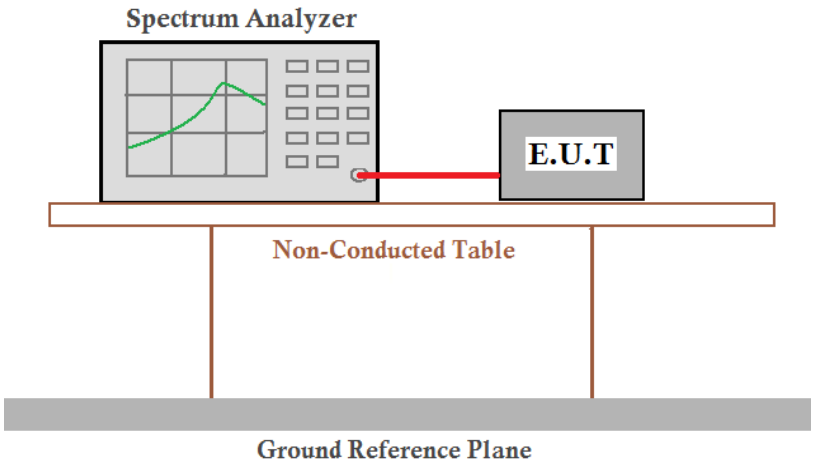
The detailed test data see: **Appendix C**

4.4 Conducted Output Power

Test Requirement:	47 CFR Part 15C Section 15.247 (b)(3)
Test Method:	ANSI C63.10 :2013 Section 11.9.1.3
Test Setup:	
Test Instruments:	Refer to section 6 for details
Exploratory Test Mode:	Transmitting with all kind of modulations, data rates
Final Test Mode:	Through Pre-scan, find the 1Mbps of rate is the worst case of 802.11B; 6Mbps of rate is the worst case of 802.11G ; 6.5Mbps of rate is the worst case of 802.11N/AX(HT20);
Limit:	30dBm
Test Results:	Pass

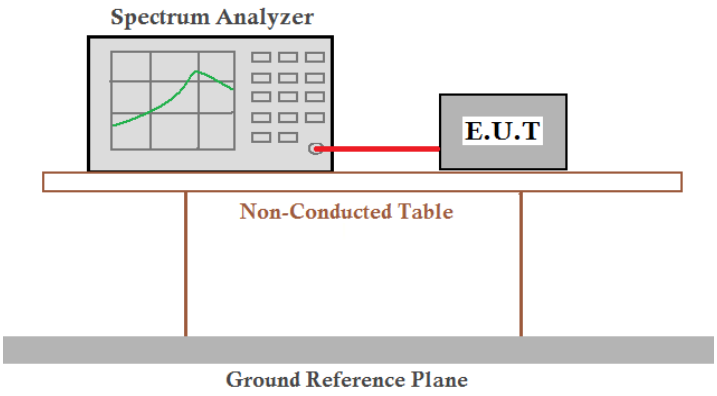
The detailed test data see: **Appendix C**

4.5 DTS (6 dB) Bandwidth & 99% Occupied Bandwidth

Test Requirement:	47 CFR Part 15C Section 15.247 (a)(2)
Test Method:	ANSI C63.10: 2013 Section 11.8.1 Option 1
Test Setup:	
Instruments Used:	Refer to section 6 for details
Exploratory Test Mode:	Transmitting with all kind of modulations, data rates
Final Test Mode:	Through Pre-scan, find the 1Mbps of rate is the worst case of 802.11B; 6Mbps of rate is the worst case of 802.11G ; 6.5Mbps of rate is the worst case of 802.11N/AX(HT20);
Limit:	≥ 500 kHz
Test Results:	Pass

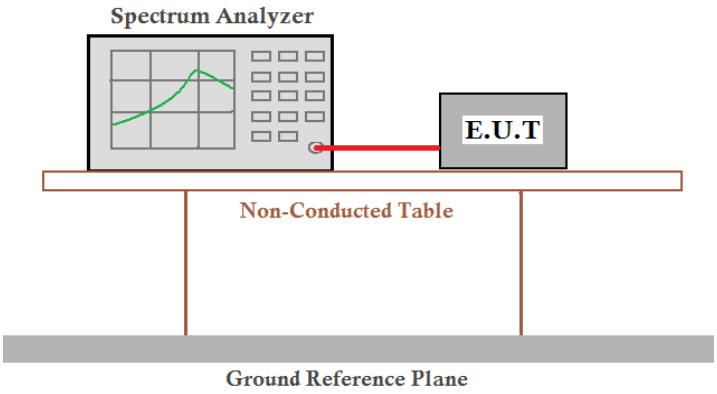
The detailed test data see: **Appendix C**

4.6 Power Spectral Density

Test Requirement:	47 CFR Part 15C Section 15.247 (e)
Test Method:	ANSI C63.10 :2013 Section 11.10.2
Test Setup:	
Test Instruments:	Refer to section 6 for details
Exploratory Test Mode:	Transmitting with all kind of modulations, data rates
Final Test Mode:	Through Pre-scan, find the 1Mbps of rate is the worst case of 802.11B; 6Mbps of rate is the worst case of 802.11G ; 6.5Mbps of rate is the worst case of 802.11N/AX(HT20);
Limit:	≤8.00dBm/3kHz
Test Results:	Pass

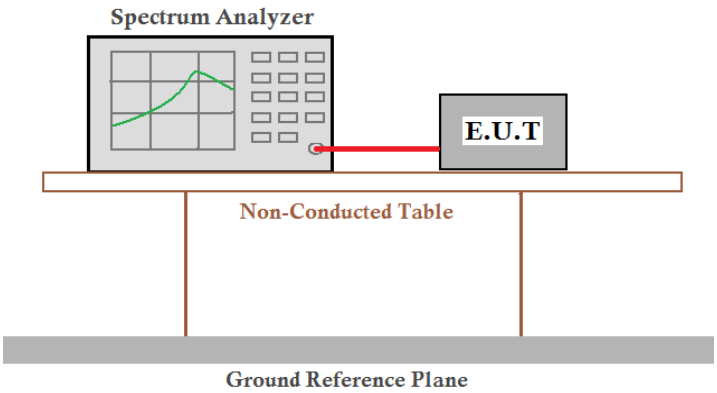
The detailed test data see: **Appendix C**

4.7 Band-edge for RF Conducted Emissions

Test Requirement:	47 CFR Part 15C Section 15.247 (d)
Test Method:	ANSI C63.10: 2013 Section 11.13
Test Setup:	
Instruments Used:	Refer to section 6 for details
Exploratory Test Mode:	Transmitting with all kind of modulations, data rates
Final Test Mode:	Through Pre-scan, find the 1Mbps of rate is the worst case of 802.11B; 6Mbps of rate is the worst case of 802.11G ; 6.5Mbps of rate is the worst case of 802.11N/AX(HT20);
Limit:	In any 100 kHz bandwidth outside the frequency band in which the spread spectrum intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement.
Test Results:	Pass

The detailed test data see: **Appendix C**

4.8 RF Conducted Spurious Emissions

Test Requirement:	47 CFR Part 15C Section 15.247 (d)
Test Method:	ANSI C63.10: 2013 Section 11.11
Test Setup:	
Instruments Used:	Refer to section 6 for details
Exploratory Test Mode:	Transmitting with all kind of modulations, data rates
Final Test Mode:	Through Pre-scan, find the 1Mbps of rate is the worst case of 802.11B; 6Mbps of rate is the worst case of 802.11G ; 6.5Mbps of rate is the worst case of 802.11N/AX(HT20);
Limit:	In any 100 kHz bandwidth outside the frequency band in which the spread spectrum intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement.
Test Results:	Pass

The detailed test data see: **Appendix C**

4.9 Radiated Spurious Emissions

Test Requirement:	47 CFR Part 15C Section 15.209 and 15.205				
Test Method:	ANSI C63.10 :2013 Section 11.12				
Test Site:	Measurement Distance: 3m or 10m (Semi-Anechoic Chamber)				
Receiver Setup:	Frequency	Detector	RBW	VBW	Remark
	0.009MHz-0.090MHz	Peak	10kHz	30kHz	Peak
	0.009MHz-0.090MHz	Average	10kHz	30kHz	Average
	0.090MHz-0.110MHz	Quasi-peak	10kHz	30kHz	Quasi-peak
	0.110MHz-0.490MHz	Peak	10kHz	30kHz	Peak
	0.110MHz-0.490MHz	Average	10kHz	30kHz	Average
	0.490MHz -30MHz	Quasi-peak	10kHz	30kHz	Quasi-peak
	30MHz-1GHz	Quasi-peak	120kHz	300kHz	Quasi-peak
	Above 1GHz	Peak	1MHz	3MHz	Peak
		Peak	1MHz	10Hz (DC⩾0.98) ⩾1/T (DC<0.98)	Average
Limit:	Frequency	Field strength (microvolt/meter)	Limit (dBuV/m)	Remark	Measurement distance (m)
	0.009MHz-0.490MHz	2400/F(kHz)	-	-	300
	0.490MHz-1.705MHz	24000/F(kHz)	-	-	30
	1.705MHz-30MHz	30	-	-	30
	30MHz-88MHz	100	40.0	Quasi-peak	3
	88MHz-216MHz	150	43.5	Quasi-peak	3
	216MHz-960MHz	200	46.0	Quasi-peak	3
	960MHz-1GHz	500	54.0	Quasi-peak	3
	Above 1GHz	500	54.0	Average	3
	Remark: 15.35(b),Unless otherwise specified, the limit on peak radio frequency emissions is 20dB above the maximum permitted average emission limit applicable to the equipment under test. This peak limit applies to the total peak emission level radiated by the device.				

Test Setup:	

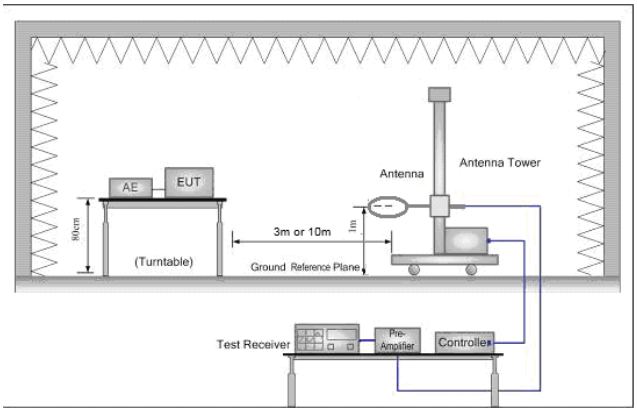


Figure 1. Below 30MHz

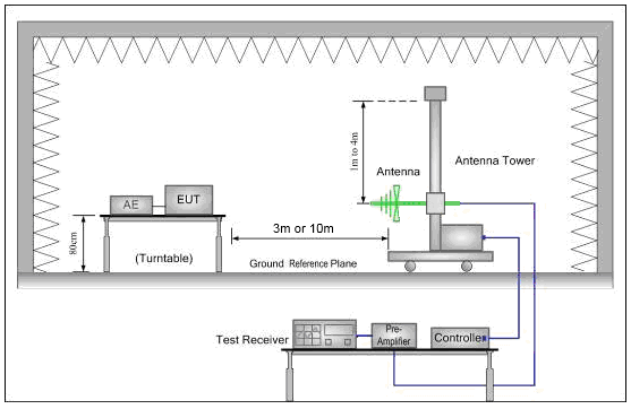


Figure 2. 30MHz to 1GHz

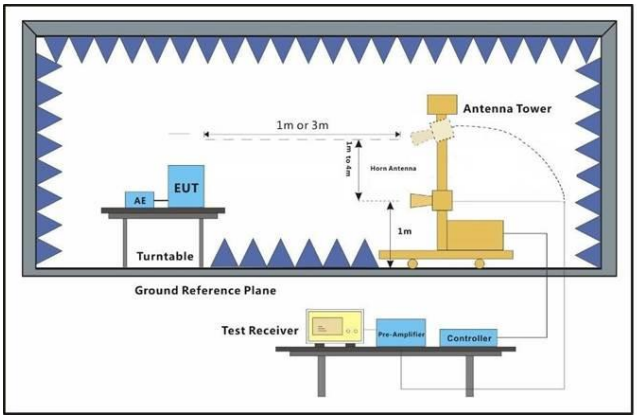


Figure 3. Above 1 GHz

Test Procedure:	a. For below 1GHz, the EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 or 10 meter semi-anechoic camber. The table was rotated 360 degrees to determine the position of the highest radiation. b. For above 1GHz, the EUT was placed on the top of a rotating table 1.5 meters above the ground at a 3 meter semi-anechoic camber. The table was rotated 360 degrees to determine the position of the highest radiation c. The EUT was set 3 or 10 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower. d. The antenna height is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement. e. Use the following spectrum analyzer settings: (1) Span shall wide enough to fully capture the emission being measured; (2) Set RBW=100 kHz for f < 1 GHz, RBW=1MHz for f>1GHz ; VBW ≥ RBW; Sweep = auto; Detector function = peak; Trace = max hold for peak (3) For average measurement: use duty cycle correction factor method per 15.35(c). Duty cycle = On time/100 milliseconds

	On time = N 1 *L 1 +N 2 *L 2 +...+N n-1 *LN n-1 +N n *L n Where N 1 is number of type 1 pulses, L 1 is length of type 1 pulses, etc. Average Emission Level = Peak Emission Level + 20*log(Duty cycle) f. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters(for the test frequency of below 30MHz, the antenna was tuned to heights 1 meter) and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading. g. The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode. h. If the emission level of the EUT in peak mode was 10dB lower than the limit specified, then testing could be stopped and the peak values of the EUT would be reported. Otherwise the emissions that did not have 10dB margin would be re-tested one by one using peak, quasi-peak or average method as specified and then reported in a data sheet. i. Test the EUT in the lowest channel, the middle channel ,the Highest channel. j. The radiation measurements are performed in X, Y, Z axis positioning for Transmitting mode, And found the X axis positioning which it is worse case. k. Repeat above procedures until all frequencies measured was complete.
Exploratory Test Mode:	Transmitting with all kind of modulations, data rates. Charge + Transmitting mode.
Final Test Mode:	Pretest the EUT at Charge + Transmitting mode. Through Pre-scan, find the 1Mbps of rate is the worst case of 802.11B; 6Mbps of rate is the worst case of 802.11G; 6.5Mbps of rate is the worst case of 802.11N/AX(HT20); For below 1GHz, through Pre-scan, find the 1Mbps of rate of 802.11B at lowest channel is the worst case. Only the worst case is recorded in the report.
Instruments Used:	Refer to section 6 for details
Test Results:	Pass

The detailed test data see: **Appendix C**

4.10 Restricted bands around fundamental frequency

Test Requirement:	47 CFR Part 15C Section 15.209 and 15.205		
Test Method:	ANSI C63.10: 2013 Section 11.12		
Test Site:	Measurement Distance: 3m or 10m (Semi-Anechoic Chamber)		
Limit:	Frequency	Limit (dBuV/m)	Remark
	30MHz-88MHz	40.0	Quasi-peak
	88MHz-216MHz	43.5	Quasi-peak
	216MHz-960MHz	46.0	Quasi-peak
	960MHz-1GHz	54.0	Quasi-peak
	Above 1GHz	54.0	Average Value
		74.0	Peak Value
Test Setup:			

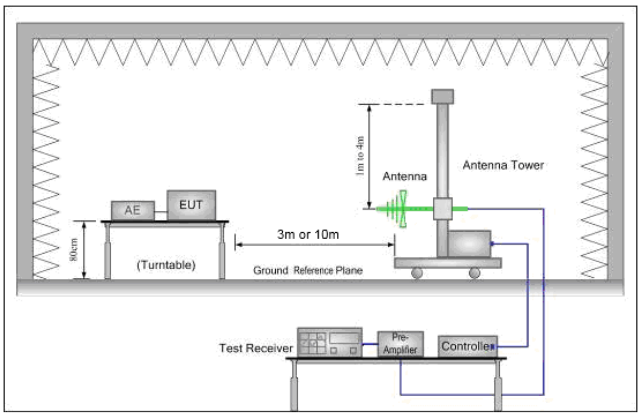


Figure 1. 30MHz to 1GHz

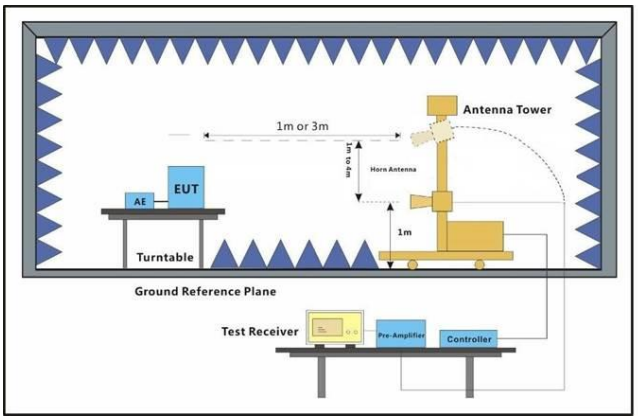


Figure 2. Above 1 GHz

Test Procedure:	a. For below 1GHz, the EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 or 10 meter semi-anechoic camber. The table was rotated 360 degrees to determine the position of the highest radiation. b. For above 1GHz, the EUT was placed on the top of a rotating table 1.5 meters above the ground at a 3 meter semi-anechoic camber. The table was rotated 360 degrees to determine the position of the highest radiation. c. The EUT was set 3 or 10 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower. d. The antenna height is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement. e. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading. f. The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode. g. Place a marker at the end of the restricted band closest to the transmit frequency to show compliance. Also measure any emissions in the restricted bands. Save the spectrum analyzer plot. Repeat for each power and modulation for lowest and highest channel h. Test the EUT in the lowest channel , the Highest channel i. The radiation measurements are performed in X, Y, Z axis positioning for Transmitting mode,And found the X axis positioning which it is worse case. j. Repeat above procedures until all frequencies measured was complete.
Exploratory Test Mode:	Transmitting with all kind of modulations, data rates. Charge + Transmitting mode.
Final Test Mode:	Pretest the EUT at Charge + Transmitting mode. Through Pre-scan, find the 1Mbps of rate is the worst case of 802.11B; 6Mbps of rate is the worst case of 802.11G; 6.5Mbps of rate is the worst case of 802.11N/AX(HT20); Only the worst case is recorded in the report.
Instruments Used:	Refer to section 6 for details
Test Results:	Pass

The detailed test data see: **Appendix C**

5 Measurement Uncertainty (95% confidence levels, k=2)

Lab A:

No.	Item	Measurement Uncertainty
1	Total RF power, conducted	±0.41dB
2	RF power density, conducted	±1.96dB
3	Spurious emissions, conducted	±0.41dB
4	Radio Frequency	$\pm 7.10 \times 10^{-8}$
5	Duty Cycle	±0.49%
6	Occupied Bandwidth	±0.2%

Lab B:

No.	Item	Measurement Uncertainty
1	Conduction Emission	± 3.0dB (150kHz to 30MHz)
2	Radiated Emission	± 4.8dB (Below 1GHz)
		± 4.8dB (1GHz to 6GHz)
		± 4.5dB (6GHz to 18GHz)
		± 5.02dB (Above 18GHz)

6 Equipment List

RF conducted					
Test Equipment	**Manufacturer**	**Model No.**	**Inventory No.**	**Cal. Date (yyyy-mm-dd)**	**Cal. Due date (yyyy-mm-dd)**
Signal Analyzer	Rohde & Schwarz	FSV	W025-05	2021/4/14	2022/4/13
DC Power Supply	Rohde & Schwarz	HMP2020	W009-08	2020/7/15	2021/7/15
Power Meter	Rohde & Schwarz	NRVS	SEM014-02	2020/7/14	2021/7/13
Humidity/ Temperature Indicator	Shanghai Meteorological Industry Factory	HTC-1	W006-17	2021/4/14	2022/4/13

CE Test System					
Equipment	**Manufacturer**	**Model No.**	**Inventory No.**	**Cal Date**	**Cal Due Date**
Shielding Room	Brilliant-emc	N/A	XAW03-35-01	2019-09-11	2022-09-10
Test receiver	ROHDE&SCHWARZ	ESR	XAW01-08-01	2020-09-11	2021-09-10
Artificial network	ROHDE&SCHWARZ	ENV216	XAW01-04-01	2020-08-04	2021-08-03
Temperature and humidity meter	MingGao	TH101B	XAW01-01-01	2020-11-06	2021-11-05
Measurement Software	Tonscend	TS+ CE V2.5	XAW02-05-02	NCR	NCR

RSE Test System					
Equipment	**Manufacturer**	**Model No.**	**Inventory No.**	**Cal Date**	**Cal Due Date**
Semi-Anechoic Chamber	Brilliant-emc	N/A	XAW03-35-01	2019-09-11	2022-09-10
MXA signal analyzer	Keysight	N9020A	XAW01-06-01	2021-04-01	2022-03-31
Test receiver	ROHDE&SCHWARZ	ESR	XAW01-08-01	2020-09-11	2021-09-10
Receiving antenna (30MHz-3GHz)	Schwarzbeck	VULB 9163	XAW01-09-01	2019-10-13	2021-10-12
Receiving antenna (1GHz~18GHz)	Schwarzbeck	BBHA 9120D	XAW01-09-02	2019-10-13	2021-10-12
Receiving antenna (15GHz~40GHz)	Schwarzbeck	BBHA 9170	XAW01-09-03	2019-10-13	2021-10-12
Directional antenna rack controller	Max-Full	MF-7802BS	XAW03-03-01	NCR	NCR
High-speed antenna rack controller	Max-Full	MF-7802	XAW03-04-01	NCR	NCR
Filter bank	Tonscend	JS0806-F	XAW03-05-01	NCR	NCR
Filter bank	Tonscend	JS0806s	XAW03-05-02	NCR	NCR
Amplifier	Tonscend	TAP00903040	XAW01-41-01	2020-10-26	2021-10-25
Amplifier	Tonscend	TAP01018048	XAW01-41-02	2020-10-26	2021-10-25
Amplifier	Tonscend	TAP18040048	XAW01-41-03	2020-10-27	2021-10-26
Amplifier	Shanghai Steed	YX28980930	XAW01-41-06	2020-10-26	2021-10-25
Temperature and humidity meter	MingGao	TH101B	XAW01-01-01	2020-11-06	2021-11-05
Measurement Software	Tonscend	TS+ RSE V3.0.0.2	XAW02-05-01	NCR	NCR

7 Photographs - EUT Constructional Details

Refer to Appendix A Setup Photos.

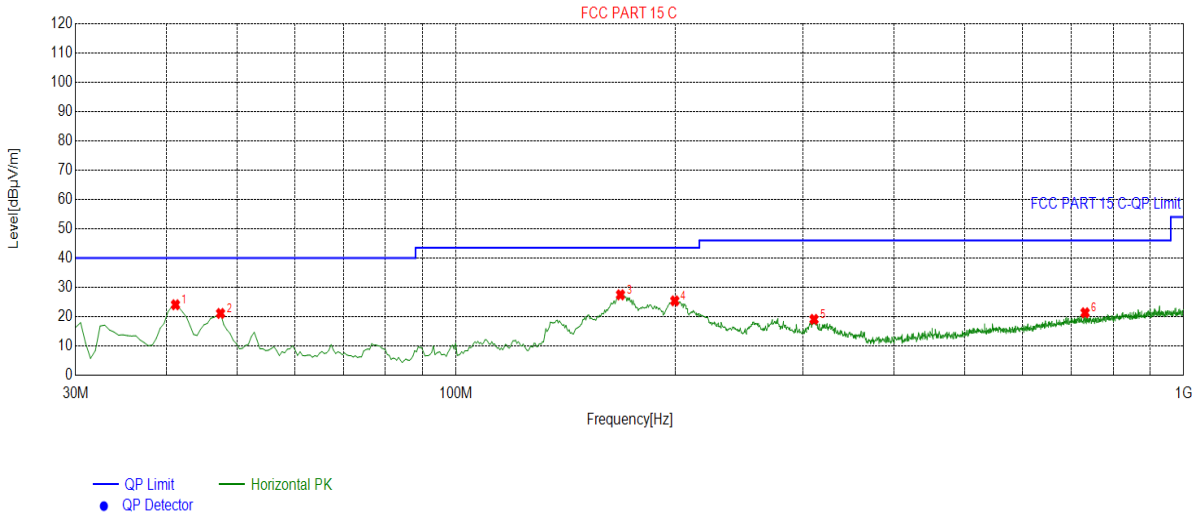
Appendix

Radiated Spurious Emissions

Radiated emission below 1GHz

Charge + Transmitting

Test Graph

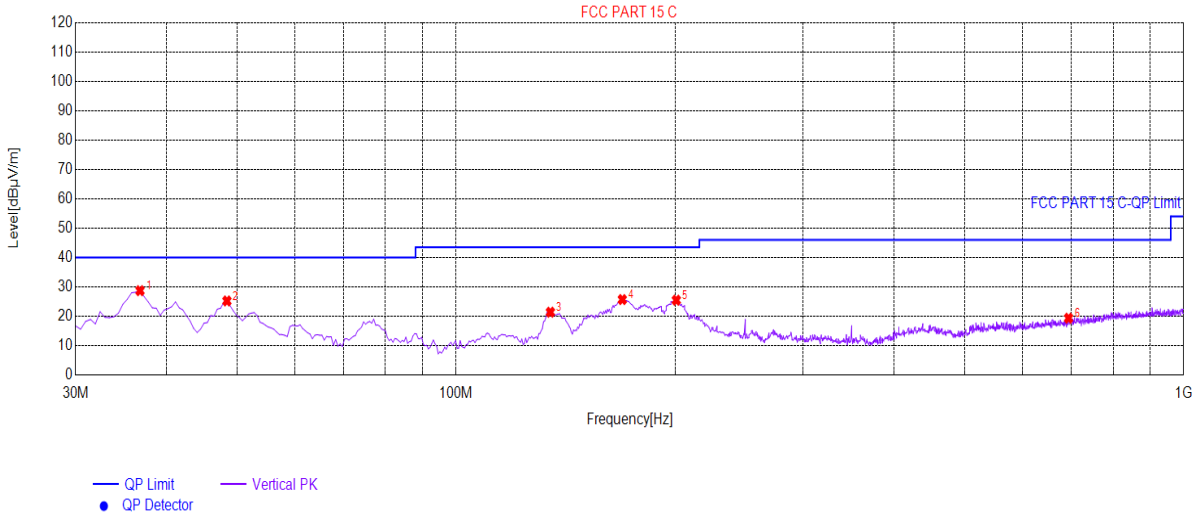


Suspected List

Suspected List								
NO.	Freq. [MHz]	Level [dBµV/m]	Factor [dB]	Limit [dBµV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	41.1606	24.06	-22.13	40.00	15.94	168	270	Horizontal
2	47.4687	21.10	-21.38	40.00	18.90	214	70	Horizontal
3	168.294	27.45	-25.23	43.50	16.05	157	285	Horizontal
4	199.834	25.38	-22.53	43.50	18.12	175	301	Horizontal
5	310.470	19.08	-18.68	46.00	26.92	169	70	Horizontal
6	732.146	21.31	-10.22	46.00	24.69	235	273	Horizontal

Final Data List

Test Graph



Suspected List

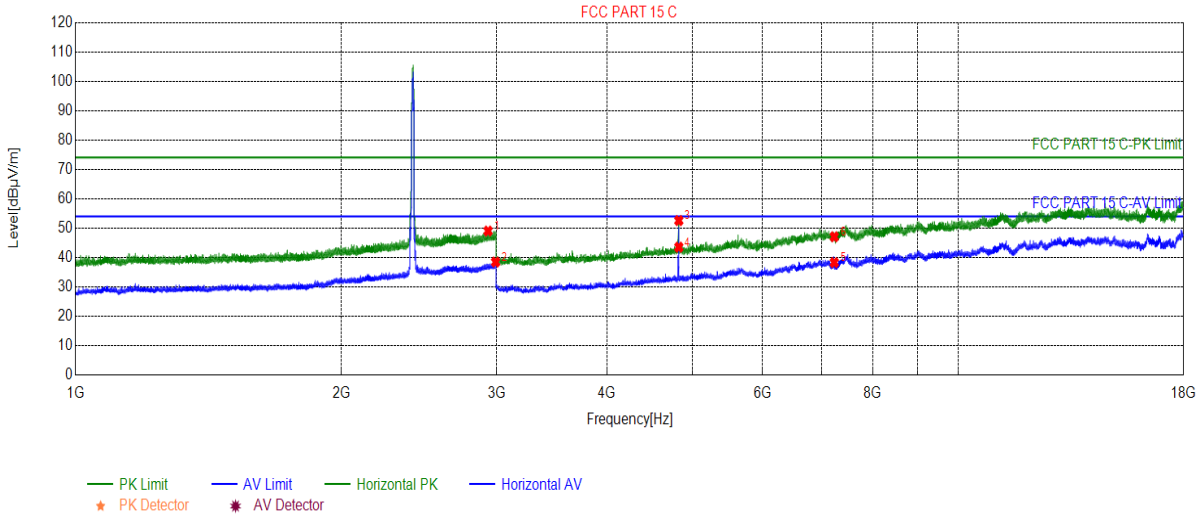
Suspected List								
NO.	Freq. [MHz]	Level [dBµV/m]	Factor [dB]	Limit [dBµV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	36.7934	28.71	-23.37	40.00	11.29	168	334	Vertical
2	48.4392	25.21	-21.37	40.00	14.79	197	351	Vertical
3	134.812	21.39	-25.97	43.50	22.11	214	254	Vertical
4	169.264	25.69	-25.20	43.50	17.81	225	357	Vertical
5	200.805	25.47	-22.45	43.50	18.03	247	32	Vertical
6	694.782	19.36	-10.83	46.00	26.64	189	240	Vertical

Final Data List

Transmitter emission above 1GHz

802.11B_Channel1

Test Graph



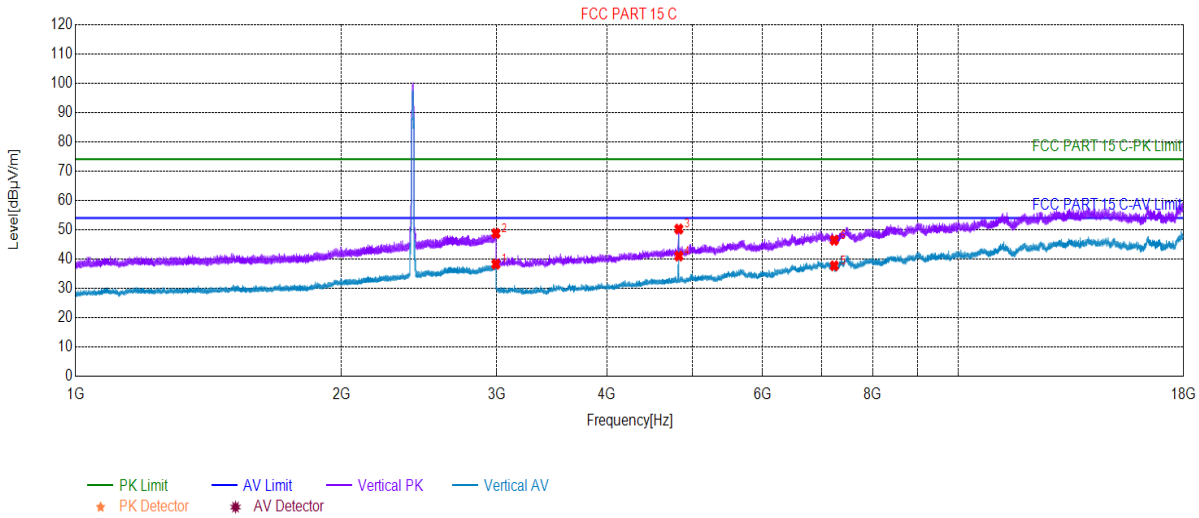
Suspected List

Suspected List								
NO.	Freq. [MHz]	Level [dBµV/m]	Factor [dB]	Limit [dBµV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	2932.99	49.02	10.54	74.00	24.98	163	360	Horizontal
2	2991.19	38.46	10.53	54.00	15.54	154	296	Horizontal
3	4824.00	52.56	-15.31	74.00	21.44	125	272	Horizontal
4	4824.00	43.51	-15.31	54.00	10.49	194	272	Horizontal
5	7236.00	38.28	-8.82	54.00	15.72	156	333	Horizontal
6	7236.00	47.06	-8.82	74.00	26.94	139	19	Horizontal

Final Data List

802.11B_Channel1

Test Graph



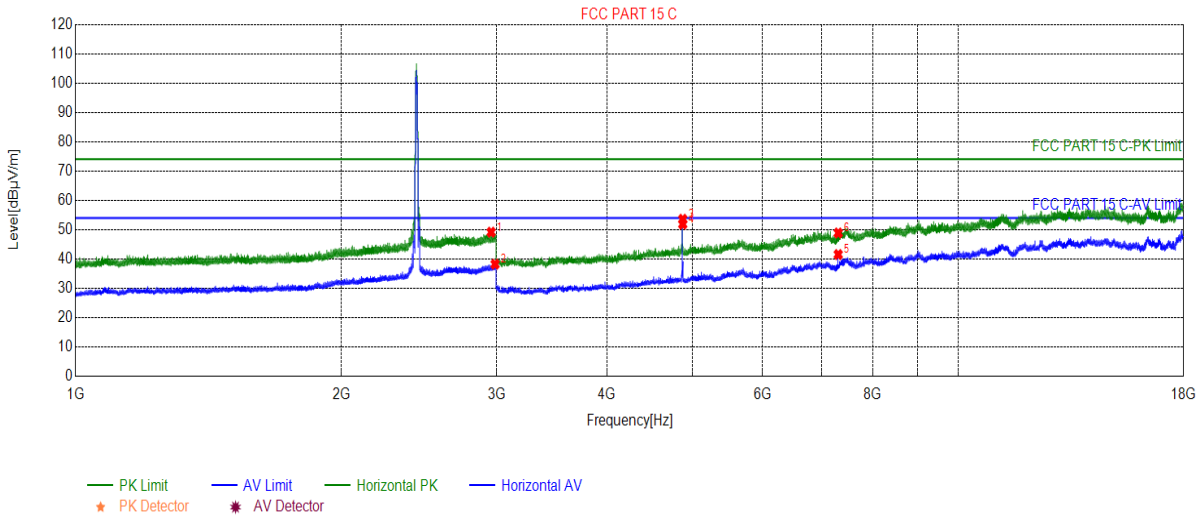
Suspected List

Suspected List								
NO.	Freq. [MHz]	Level [dBµV/m]	Factor [dB]	Limit [dBµV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	2992.99	38.23	10.59	54.00	15.77	269	190	Vertical
2	2993.89	48.72	10.61	74.00	25.28	245	334	Vertical
3	4824.00	50.21	-15.31	74.00	23.79	213	333	Vertical
4	4824.00	41.01	-15.31	54.00	12.99	265	333	Vertical
5	7236.00	37.68	-8.82	54.00	16.32	203	150	Vertical
6	7236.00	46.41	-8.82	74.00	27.59	294	176	Vertical

Final Data List

802.11B_Channel 6

Test Graph



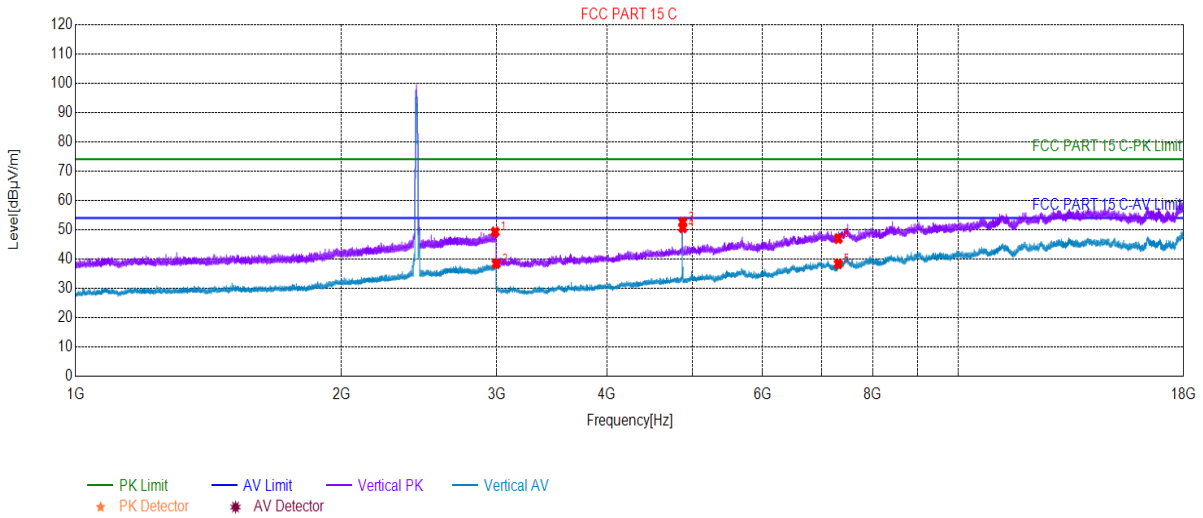
Suspected List

Suspected List								
NO.	Freq. [MHz]	Level [dBµV/m]	Factor [dB]	Limit [dBµV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	2956.69	49.14	10.53	74.00	24.86	169	258	Horizontal
2	2987.29	38.23	10.50	54.00	15.77	154	38	Horizontal
3	4874.00	53.55	-15.09	74.00	20.45	188	277	Horizontal
4	4874.00	51.88	-15.09	54.00	2.12	135	294	Horizontal
5	7311.00	41.53	-8.93	54.00	12.47	174	338	Horizontal
6	7311.00	48.86	-8.93	74.00	25.14	165	86	Horizontal

Final Data List

802.11B_Channel 6

Test Graph



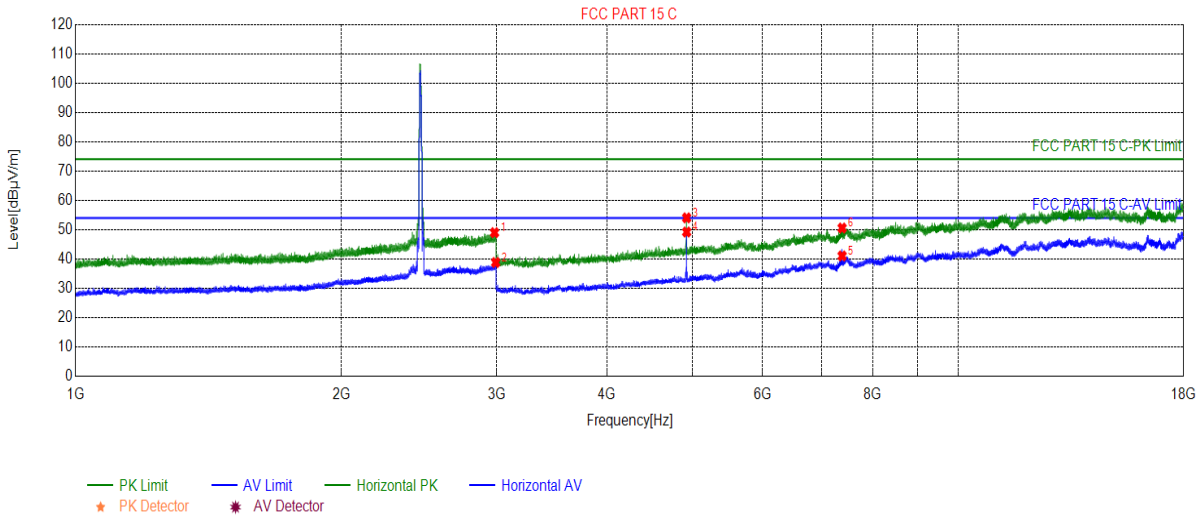
Suspected List

Suspected List								
NO.	Freq. [MHz]	Level [dBµV/m]	Factor [dB]	Limit [dBµV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	2987.49	49.23	10.50	74.00	24.77	263	250	Vertical
2	2995.59	38.40	10.67	54.00	15.60	296	9	Vertical
3	4874.00	52.63	-15.09	74.00	21.37	246	324	Vertical
4	4874.00	50.60	-15.09	54.00	3.40	251	333	Vertical
5	7311.00	38.33	-8.93	54.00	15.67	211	19	Vertical
6	7311.00	46.97	-8.93	74.00	27.03	203	211	Vertical

Final Data List

802.11B_Channel 11

Test Graph



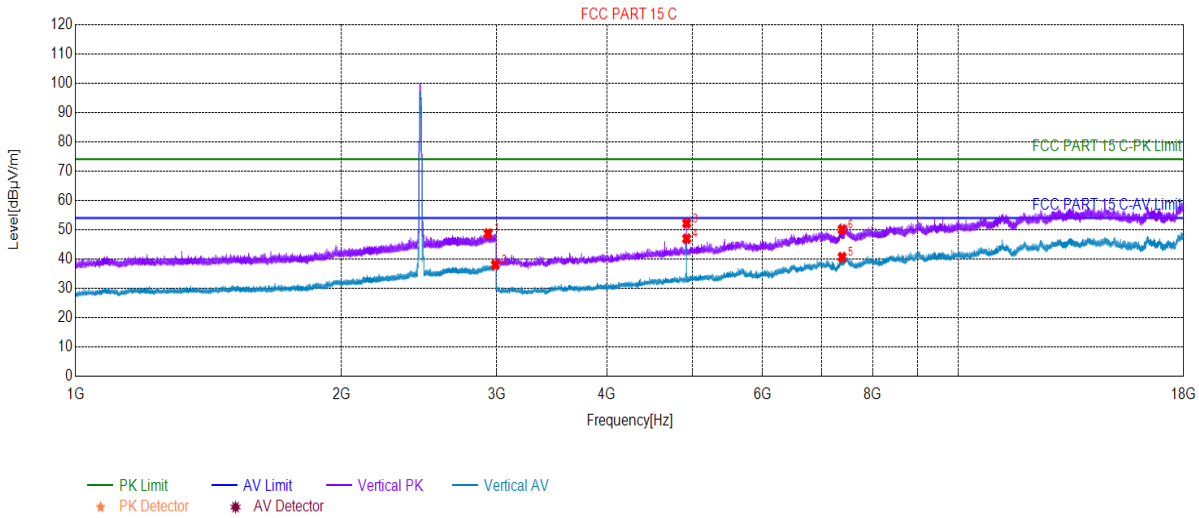
Suspected List

Suspected List								
NO.	Freq. [MHz]	Level [dBµV/m]	Factor [dB]	Limit [dBµV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	2983.09	48.97	10.53	74.00	25.03	169	145	Horizontal
2	2991.99	38.81	10.55	54.00	15.19	154	191	Horizontal
3	4924.00	54.03	-14.74	74.00	19.97	155	299	Horizontal
4	4924.00	49.20	-14.74	54.00	4.80	135	299	Horizontal
5	7386.00	41.04	-7.78	54.00	12.96	187	334	Horizontal
6	7386.00	50.56	-7.78	74.00	23.44	146	325	Horizontal

Final Data List

802.11B_Channel 11

Test Graph



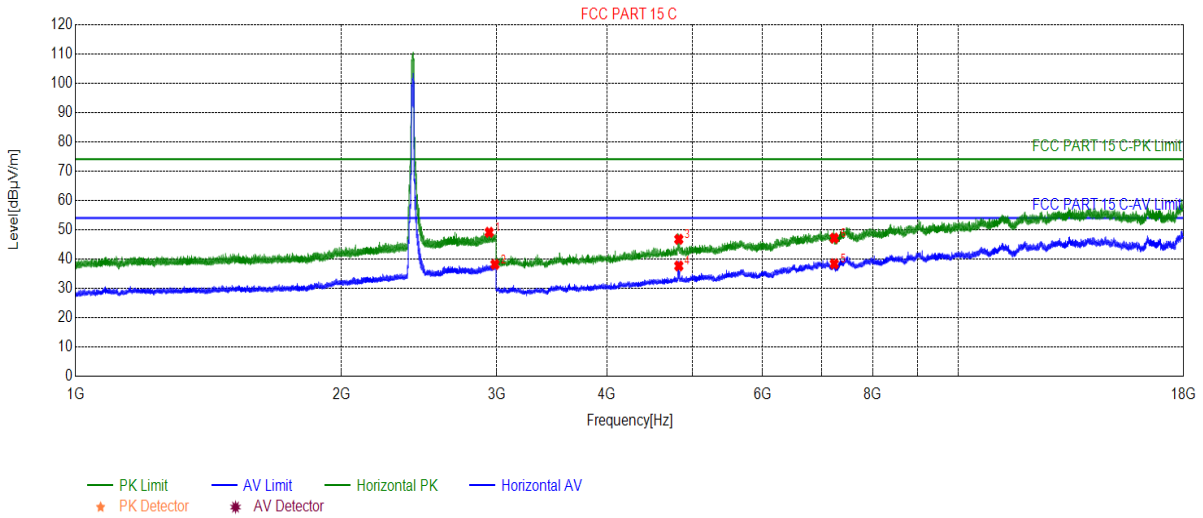
Suspected List

Suspected List								
NO.	Freq. [MHz]	Level [dBµV/m]	Factor [dB]	Limit [dBµV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	2933.39	48.67	10.54	74.00	25.33	236	236	Vertical
2	2989.49	38.03	10.49	54.00	15.97	245	2	Vertical
3	4924.00	52.16	-14.74	74.00	21.84	266	298	Vertical
4	4924.00	46.91	-14.74	54.00	7.09	295	333	Vertical
5	7386.00	40.63	-7.78	54.00	13.37	213	358	Vertical
6	7386.00	50.07	-7.78	74.00	23.93	201	3	Vertical

Final Data List

802.11G_Channel 1

Test Graph



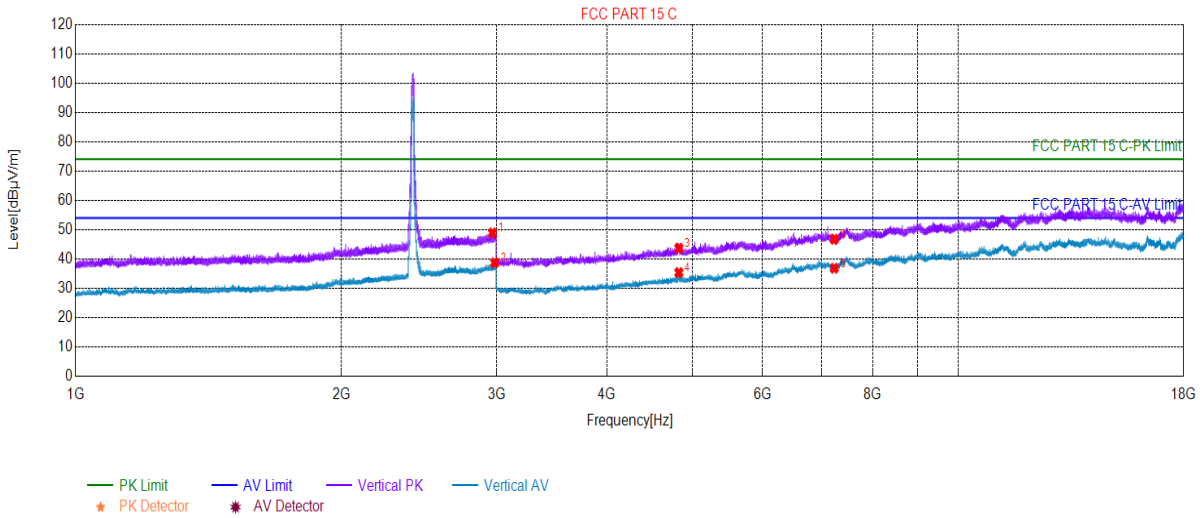
Suspected List

Suspected List								
NO.	Freq. [MHz]	Level [dBµV/m]	Factor [dB]	Limit [dBµV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	2941.99	49.09	10.52	74.00	24.91	156	205	Horizontal
2	2985.89	38.15	10.51	54.00	15.85	154	62	Horizontal
3	4824.00	46.72	-15.31	74.00	27.28	189	256	Horizontal
4	4824.00	37.63	-15.31	54.00	16.37	154	299	Horizontal
5	7236.00	38.34	-8.82	54.00	15.66	150	342	Horizontal
6	7236.00	47.11	-8.82	74.00	26.89	136	4	Horizontal

Final Data List

802.11G_Channel 1

Test Graph



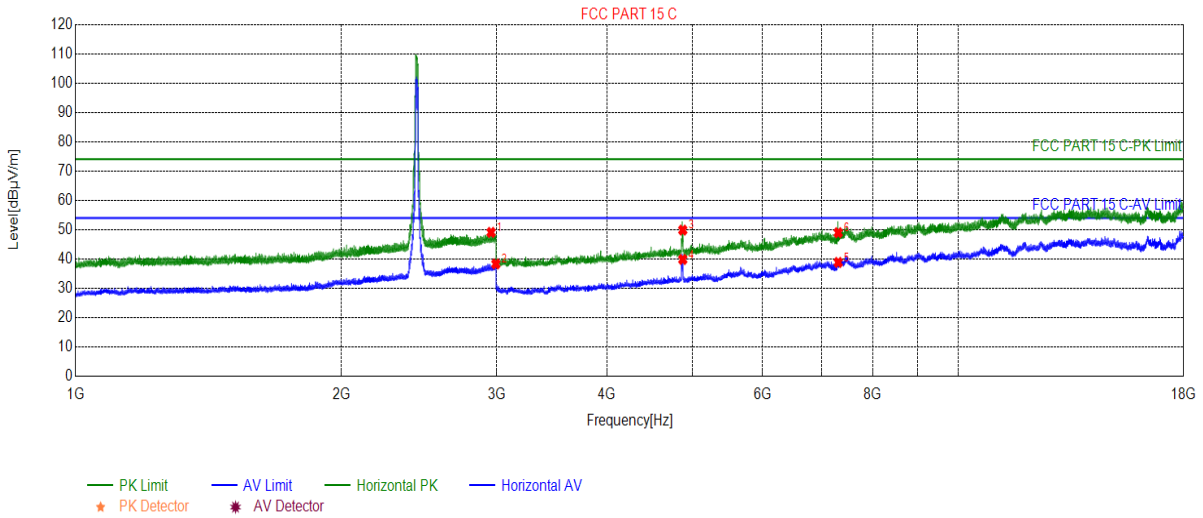
Suspected List

Suspected List								
NO.	Freq. [MHz]	Level [dBµV/m]	Factor [dB]	Limit [dBµV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	2966.89	48.89	10.39	74.00	25.11	263	213	Vertical
2	2983.59	38.70	10.53	54.00	15.30	245	289	Vertical
3	4824.00	43.68	-15.31	74.00	30.32	213	280	Vertical
4	4824.00	35.36	-15.31	54.00	18.64	298	0	Vertical
5	7236.00	36.85	-8.82	54.00	17.15	255	45	Vertical
6	7236.00	46.76	-8.82	74.00	27.24	210	37	Vertical

Final Data List

802.11G_Channel6

Test Graph



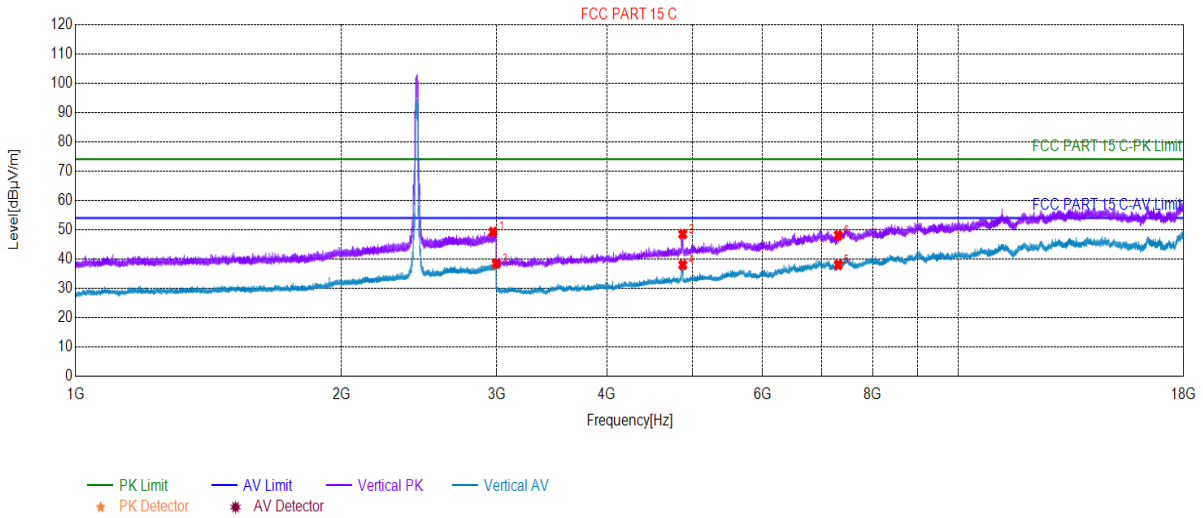
Suspected List

Suspected List								
NO.	Freq. [MHz]	Level [dBµV/m]	Factor [dB]	Limit [dBµV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	2956.29	49.07	10.53	74.00	24.93	163	282	Horizontal
2	2993.39	38.30	10.60	54.00	15.70	154	334	Horizontal
3	4874.00	49.85	-15.09	74.00	24.15	195	290	Horizontal
4	4874.00	39.83	-15.09	54.00	14.17	184	281	Horizontal
5	7311.00	38.83	-8.93	54.00	15.17	155	324	Horizontal
6	7311.00	48.96	-8.93	74.00	25.04	178	342	Horizontal

Final Data List

802.11G_Channel6

Test Graph



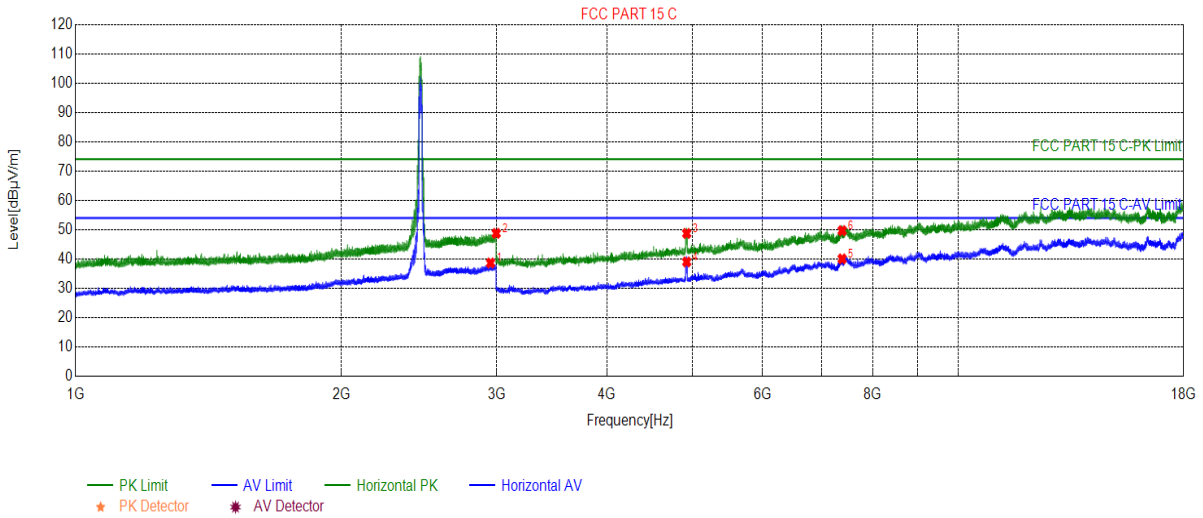
Suspected List

Suspected List								
NO.	Freq. [MHz]	Level [dBµV/m]	Factor [dB]	Limit [dBµV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	2970.59	49.22	10.34	74.00	24.78	269	229	Vertical
2	2996.09	38.39	10.68	54.00	15.61	246	115	Vertical
3	4874.00	48.47	-15.09	74.00	25.53	210	342	Vertical
4	4874.00	37.98	-15.09	54.00	16.02	235	316	Vertical
5	7311.00	38.02	-8.93	54.00	15.98	298	88	Vertical
6	7311.00	48.08	-8.93	74.00	25.92	277	342	Vertical

Final Data List

802.11G_Channel11

Test Graph



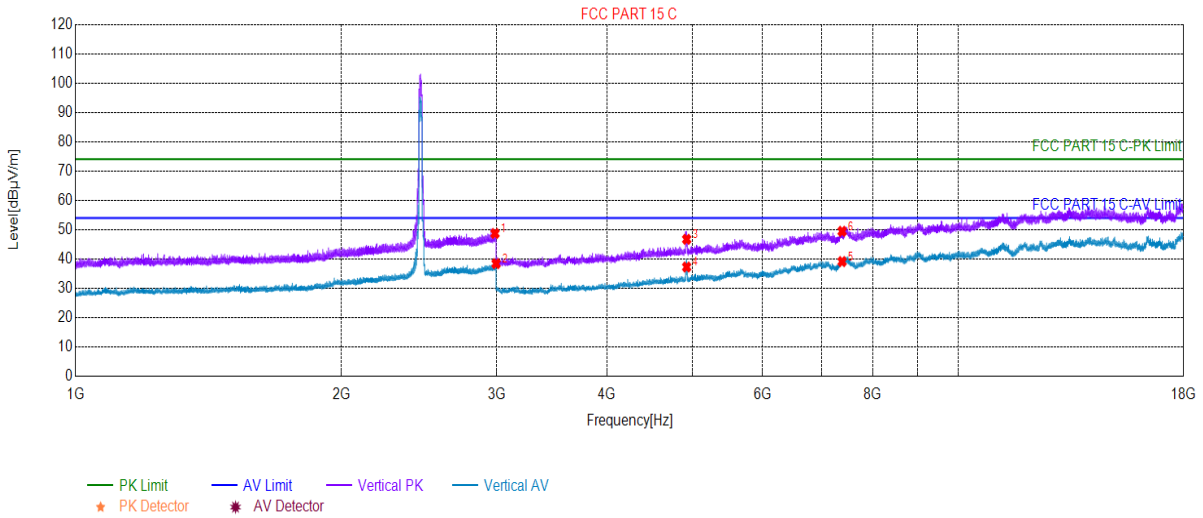
Suspected List

Suspected List								
NO.	Freq. [MHz]	Level [dBµV/m]	Factor [dB]	Limit [dBµV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	2951.99	38.63	10.56	54.00	15.37	169	143	Horizontal
2	2996.39	48.74	10.69	74.00	25.26	155	198	Horizontal
3	4924.00	48.71	-14.74	74.00	25.29	138	290	Horizontal
4	4924.00	39.01	-14.74	54.00	14.99	174	281	Horizontal
5	7386.00	40.05	-7.78	54.00	13.95	155	342	Horizontal
6	7386.00	49.65	-7.78	74.00	24.35	160	133	Horizontal

Final Data List

802.11G_Channel11

Test Graph



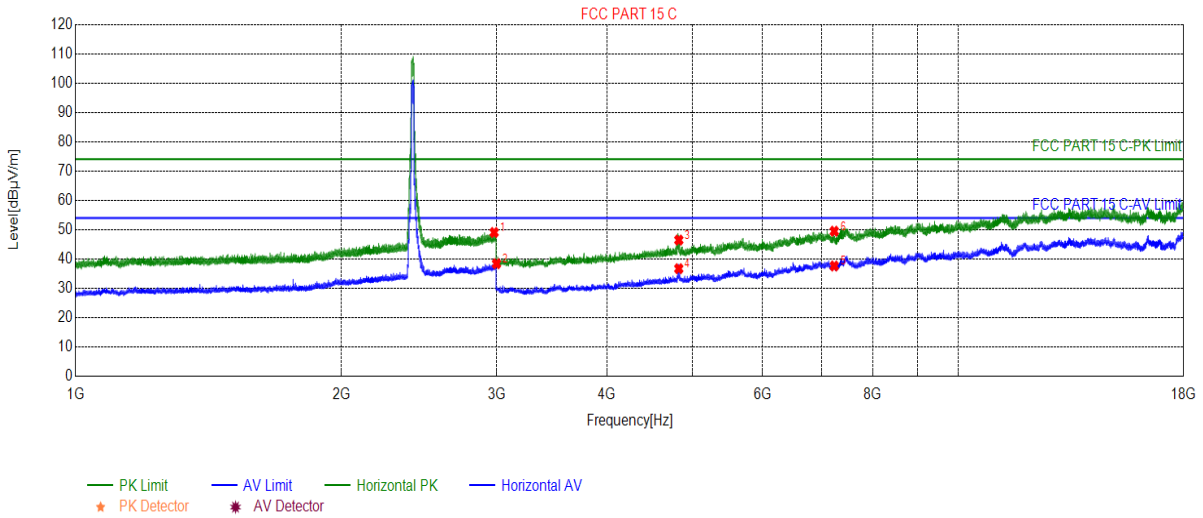
Suspected List

Suspected List								
NO.	Freq. [MHz]	Level [dBµV/m]	Factor [dB]	Limit [dBµV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	2986.59	48.70	10.51	74.00	25.30	263	151	Vertical
2	2994.89	38.41	10.65	54.00	15.59	254	166	Vertical
3	4924.00	46.72	-14.74	74.00	27.28	297	324	Vertical
4	4924.00	37.26	-14.74	54.00	16.74	256	289	Vertical
5	7386.00	39.12	-7.78	54.00	14.88	210	350	Vertical
6	7386.00	49.44	-7.78	74.00	24.56	233	203	Vertical

Final Data List

802.11N20_Channel1

Test Graph



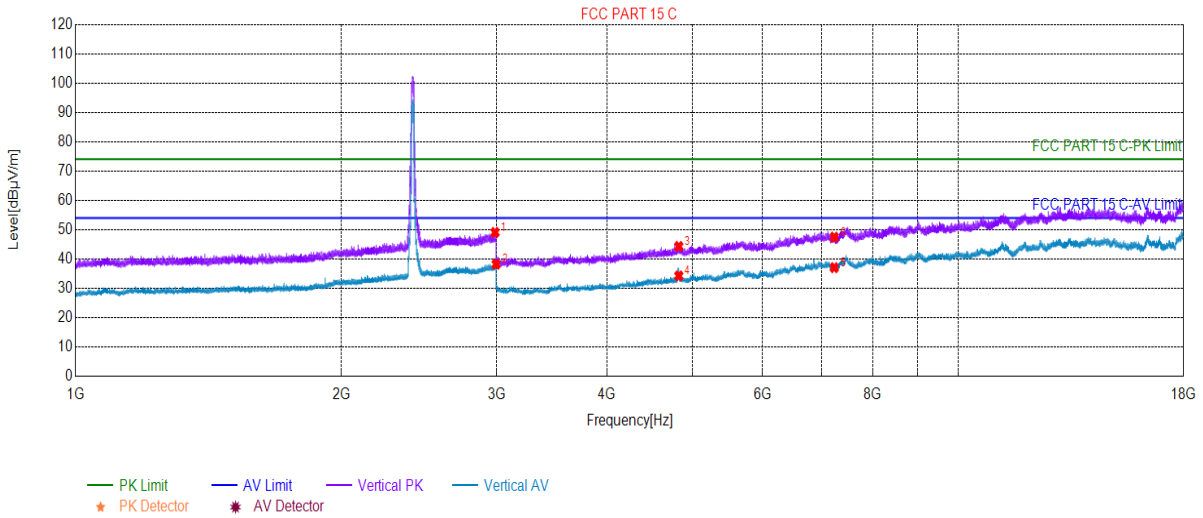
Suspected List

Suspected List								
NO.	Freq. [MHz]	Level [dBµV/m]	Factor [dB]	Limit [dBµV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	2980.09	49.04	10.55	74.00	24.96	154	214	Horizontal
2	2998.29	38.39	10.76	54.00	15.61	174	53	Horizontal
3	4824.00	46.46	-15.31	74.00	27.54	189	291	Horizontal
4	4824.00	36.70	-15.31	54.00	17.30	163	232	Horizontal
5	7236.00	37.62	-8.82	54.00	16.38	174	318	Horizontal
6	7236.00	49.47	-8.82	74.00	24.53	177	336	Horizontal

Final Data List

802.11N20_Channel1

Test Graph



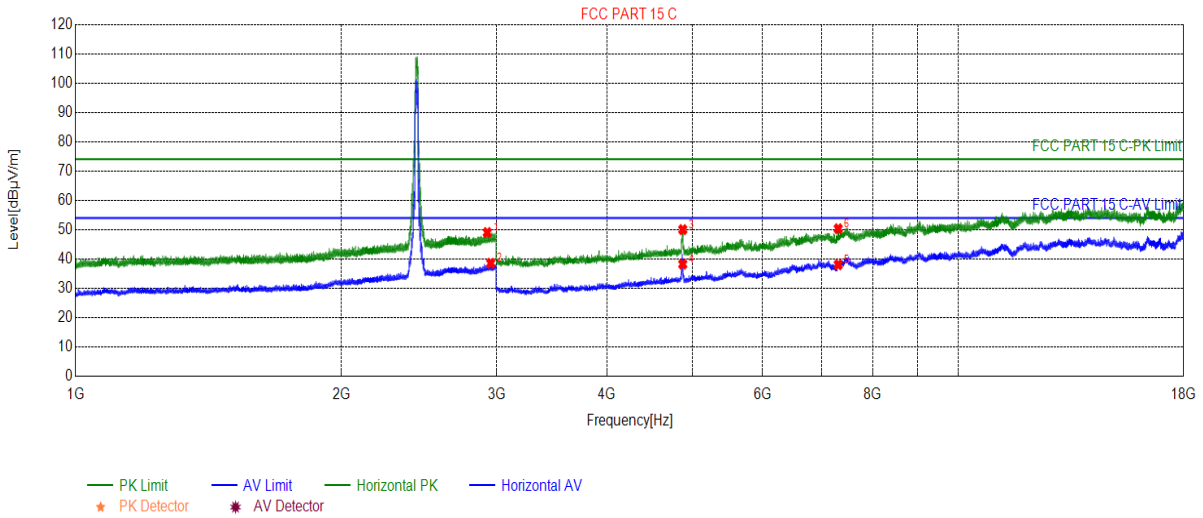
Suspected List

Suspected List								
NO.	Freq. [MHz]	Level [dBµV/m]	Factor [dB]	Limit [dBµV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	2987.09	49.06	10.51	74.00	24.94	221	205	Vertical
2	2995.29	38.22	10.66	54.00	15.78	241	250	Vertical
3	4824.00	44.29	-15.31	74.00	29.71	231	11	Vertical
4	4824.00	34.24	-15.31	54.00	19.76	241	153	Vertical
5	7236.00	37.05	-8.82	54.00	16.95	256	2	Vertical
6	7236.00	47.47	-8.82	74.00	26.53	222	192	Vertical

Final Data List

802.11N20_Channel6

Test Graph



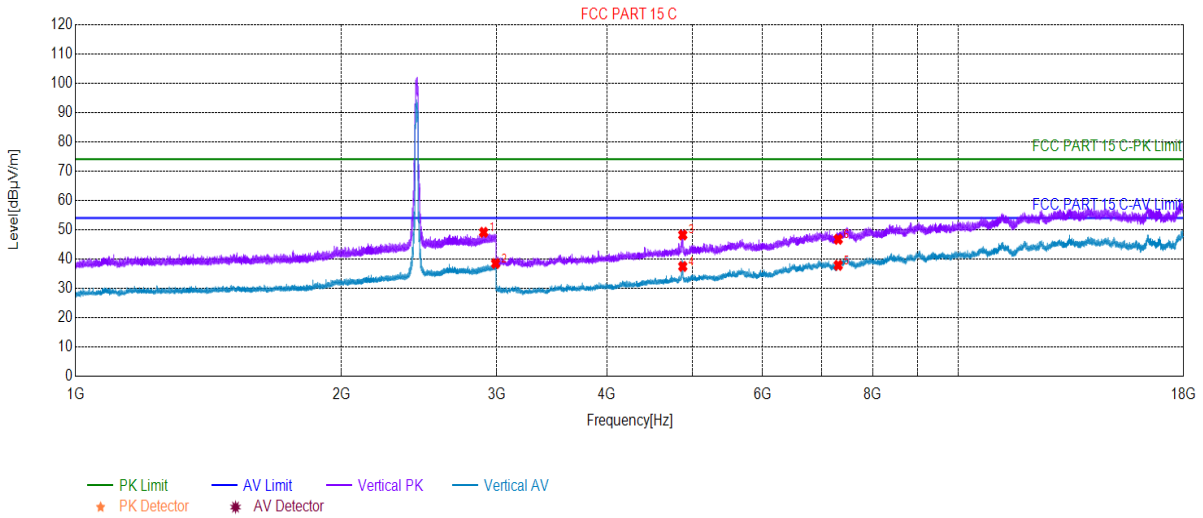
Suspected List

Suspected List								
NO.	Freq. [MHz]	Level [dBµV/m]	Factor [dB]	Limit [dBµV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	2927.09	49.04	10.50	74.00	24.96	154	243	Horizontal
2	2953.49	38.54	10.55	54.00	15.46	163	8	Horizontal
3	4874.00	50.02	-15.09	74.00	23.98	174	268	Horizontal
4	4874.00	38.24	-15.09	54.00	15.76	159	225	Horizontal
5	7311.00	38.03	-8.93	54.00	15.97	164	1	Horizontal
6	7311.00	50.32	-8.93	74.00	23.68	158	77	Horizontal

Final Data List

802.11N20_Channel6

Test Graph



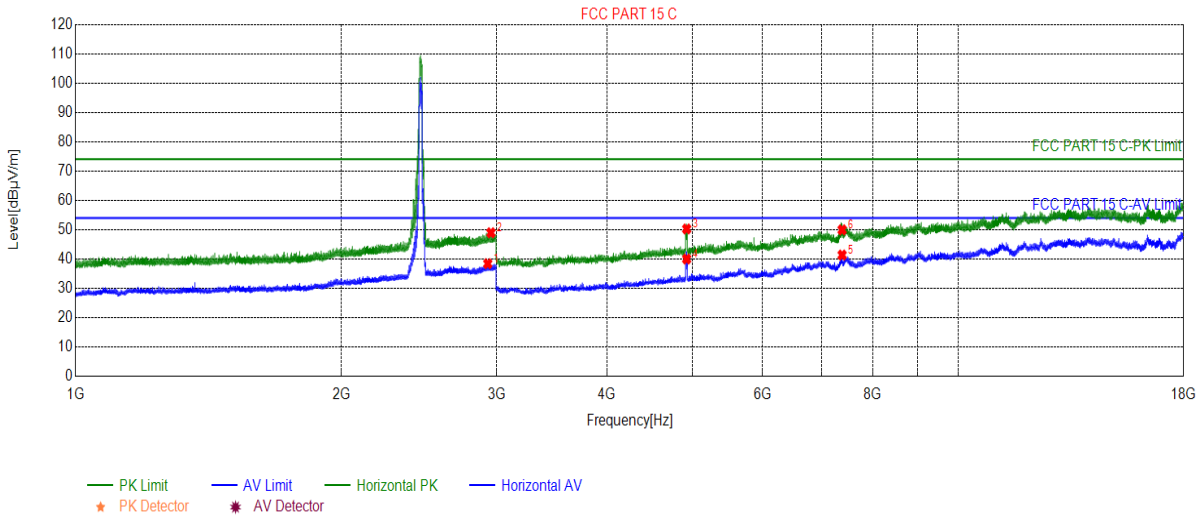
Suspected List

Suspected List								
NO.	Freq. [MHz]	Level [dBµV/m]	Factor [dB]	Limit [dBµV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	2899.29	49.09	10.15	74.00	24.91	222	360	Vertical
2	2991.29	38.45	10.53	54.00	15.55	241	100	Vertical
3	4874.00	48.19	-15.09	74.00	25.81	231	325	Vertical
4	4874.00	37.46	-15.09	54.00	16.54	227	289	Vertical
5	7311.00	37.85	-8.93	54.00	16.15	263	36	Vertical
6	7311.00	46.73	-8.93	74.00	27.27	274	342	Vertical

Final Data List

802.11N20_Channel11

Test Graph



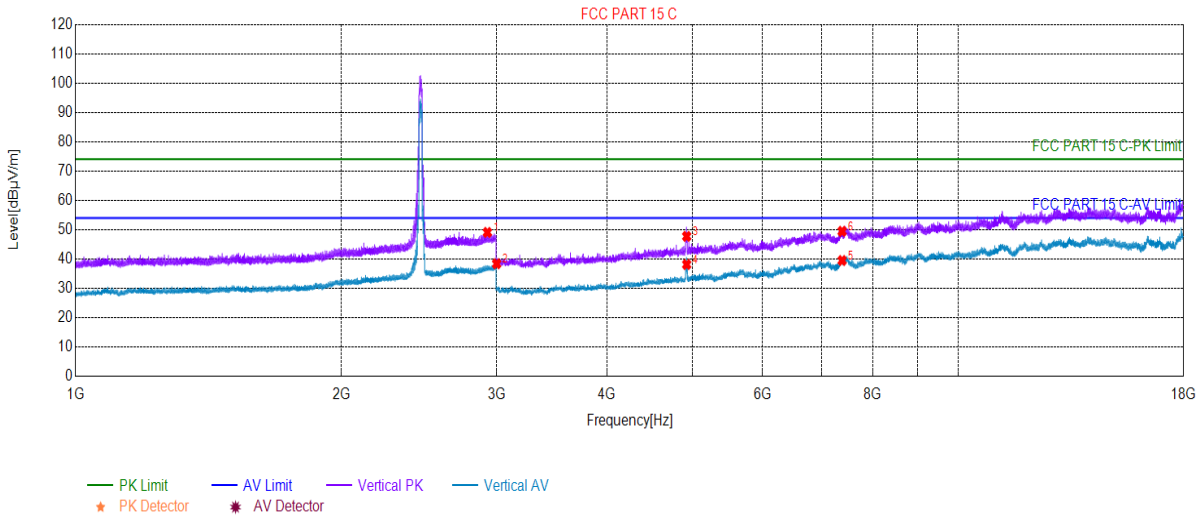
Suspected List

Suspected List								
NO.	Freq. [MHz]	Level [dBµV/m]	Factor [dB]	Limit [dBµV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	2930.89	38.40	10.55	54.00	15.60	174	334	Horizontal
2	2955.29	48.94	10.54	74.00	25.06	163	46	Horizontal
3	4924.00	50.24	-14.74	74.00	23.76	174	298	Horizontal
4	4924.00	39.99	-14.74	54.00	14.01	189	281	Horizontal
5	7386.00	41.35	-7.78	54.00	12.65	165	333	Horizontal
6	7386.00	49.94	-7.78	74.00	24.06	173	185	Horizontal

Final Data List

802.11N20_Channel11

Test Graph



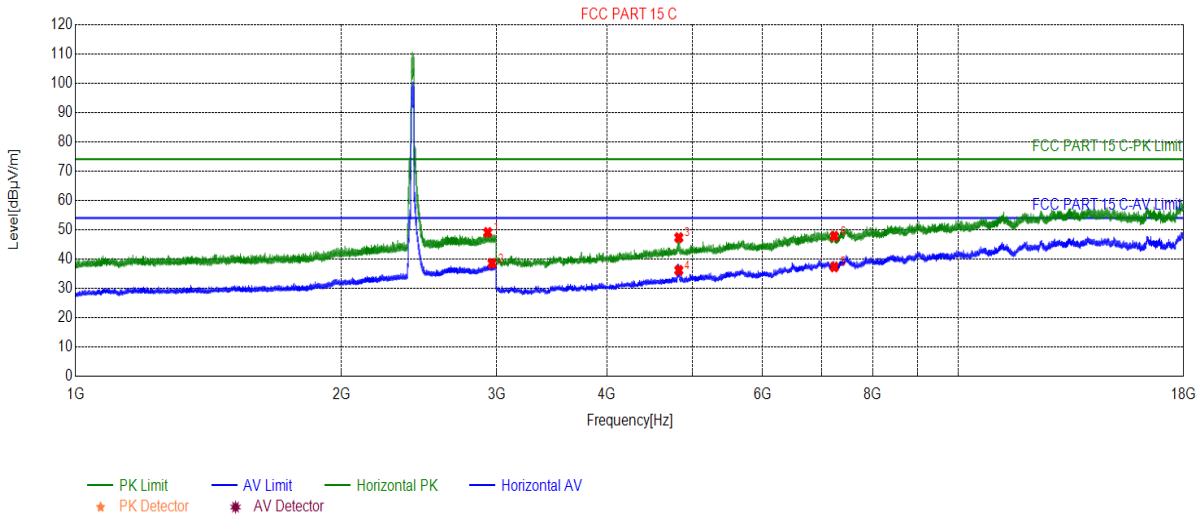
Suspected List

Suspected List								
NO.	Freq. [MHz]	Level [dBµV/m]	Factor [dB]	Limit [dBµV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	2927.69	49.07	10.51	74.00	24.93	225	319	Vertical
2	2999.50	38.37	10.79	54.00	15.63	274	83	Vertical
3	4924.00	47.71	-14.74	74.00	26.29	263	298	Vertical
4	4924.00	38.12	-14.74	54.00	15.88	271	316	Vertical
5	7386.00	39.48	-7.78	54.00	14.52	222	2	Vertical
6	7386.00	49.44	-7.78	74.00	24.56	277	10	Vertical

Final Data List

802.11AX20_Channel1

Test Graph



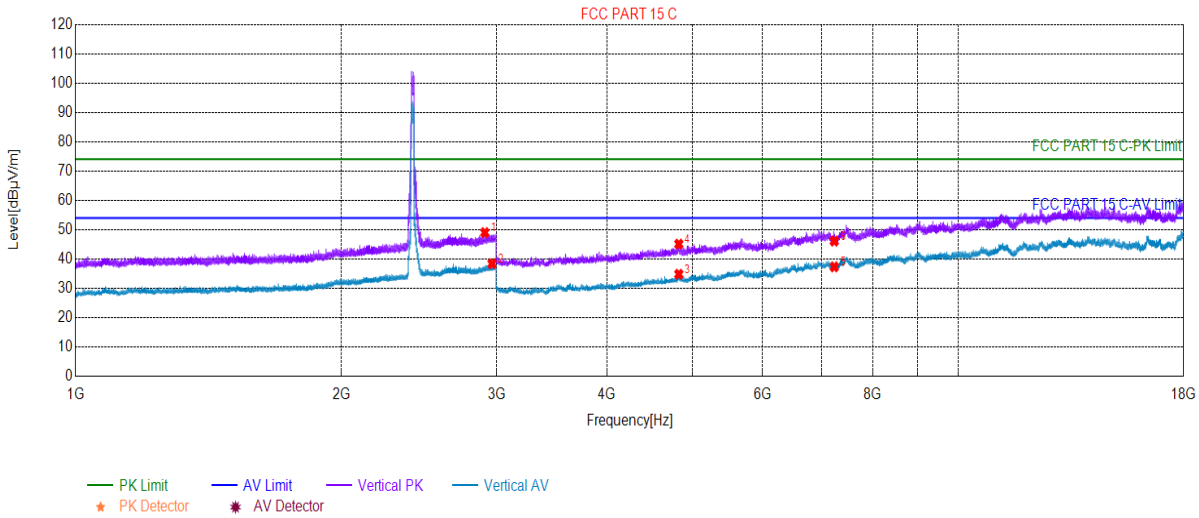
Suspected List

Suspected List								
NO.	Freq. [MHz]	Level [dBµV/m]	Factor [dB]	Limit [dBµV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	2930.49	49.06	10.55	74.00	24.94	124	47	Horizontal
2	2963.79	38.52	10.44	54.00	15.48	156	77	Horizontal
3	4824.00	47.30	-15.31	74.00	26.70	120	289	Horizontal
4	4824.00	36.15	-15.31	54.00	17.85	133	307	Horizontal
5	7236.00	37.30	-8.82	54.00	16.70	275	99	Horizontal
6	7236.00	47.78	-8.82	74.00	26.22	198	3	Horizontal

Final Data List

802.11AX20_Channel1

Test Graph



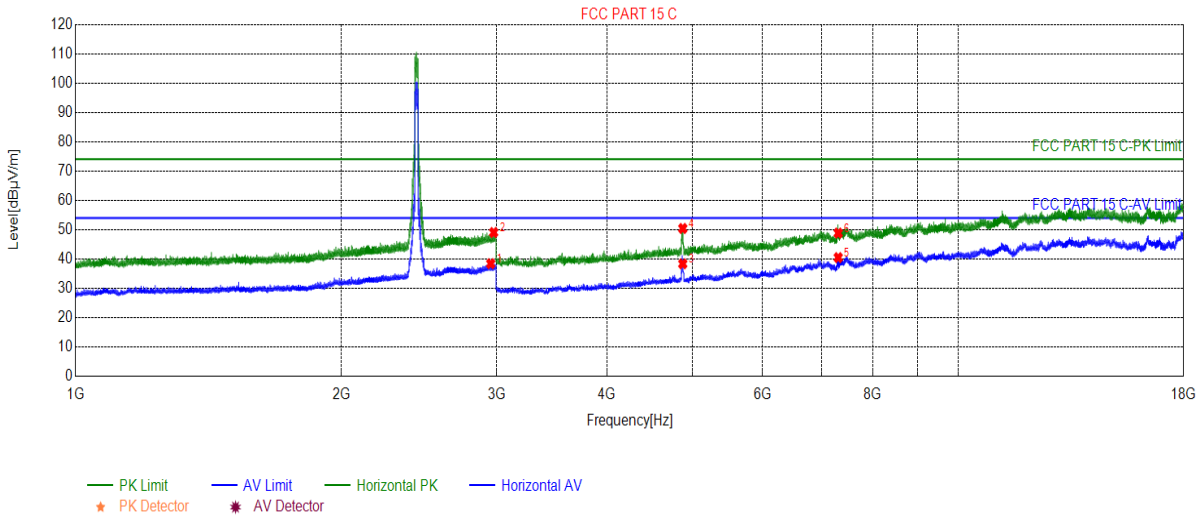
Suspected List

Suspected List								
NO.	Freq. [MHz]	Level [dBµV/m]	Factor [dB]	Limit [dBµV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	2908.39	49.00	10.22	74.00	25.00	227	175	Vertical
2	2963.39	38.40	10.45	54.00	15.60	241	62	Vertical
3	4824.00	34.81	-15.31	54.00	19.19	245	358	Vertical
4	4824.00	45.08	-15.31	74.00	28.92	261	333	Vertical
5	7236.00	37.32	-8.82	54.00	16.68	263	38	Vertical
6	7236.00	46.11	-8.82	74.00	27.89	225	184	Vertical

Final Data List

802.11AX20_Channel6

Test Graph



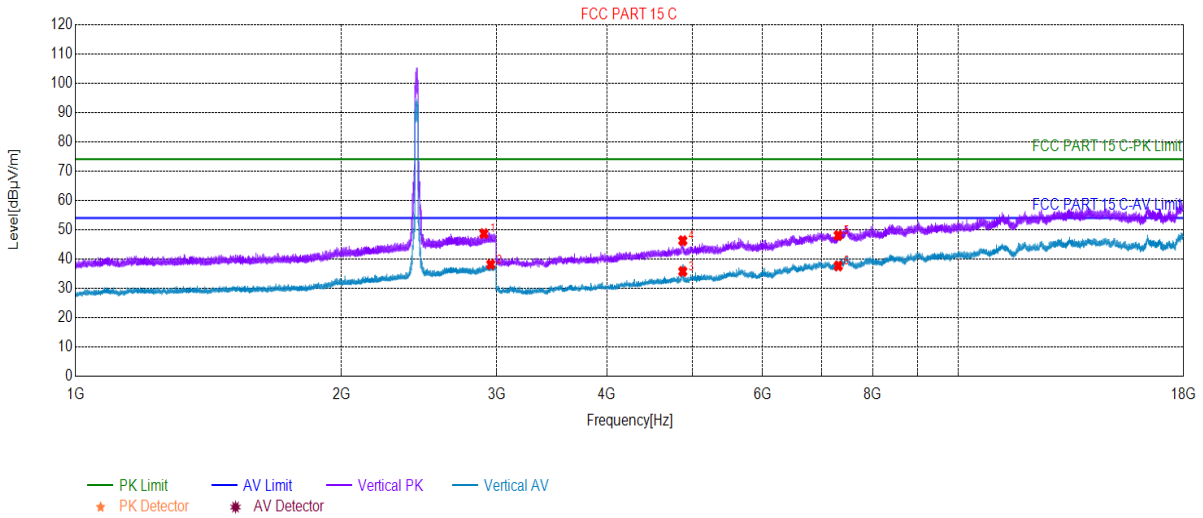
Suspected List

Suspected List								
NO.	Freq. [MHz]	Level [dBµV/m]	Factor [dB]	Limit [dBµV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	2953.39	38.40	10.55	54.00	15.60	154	144	Horizontal
2	2976.19	49.04	10.46	74.00	24.96	155	54	Horizontal
3	4874.00	38.36	-15.09	54.00	15.64	178	221	Horizontal
4	4874.00	50.41	-15.09	74.00	23.59	163	299	Horizontal
5	7311.00	40.49	-8.93	54.00	13.51	195	221	Horizontal
6	7311.00	48.84	-8.93	74.00	25.16	156	89	Horizontal

Final Data List

802.11AX20_Channel6

Test Graph



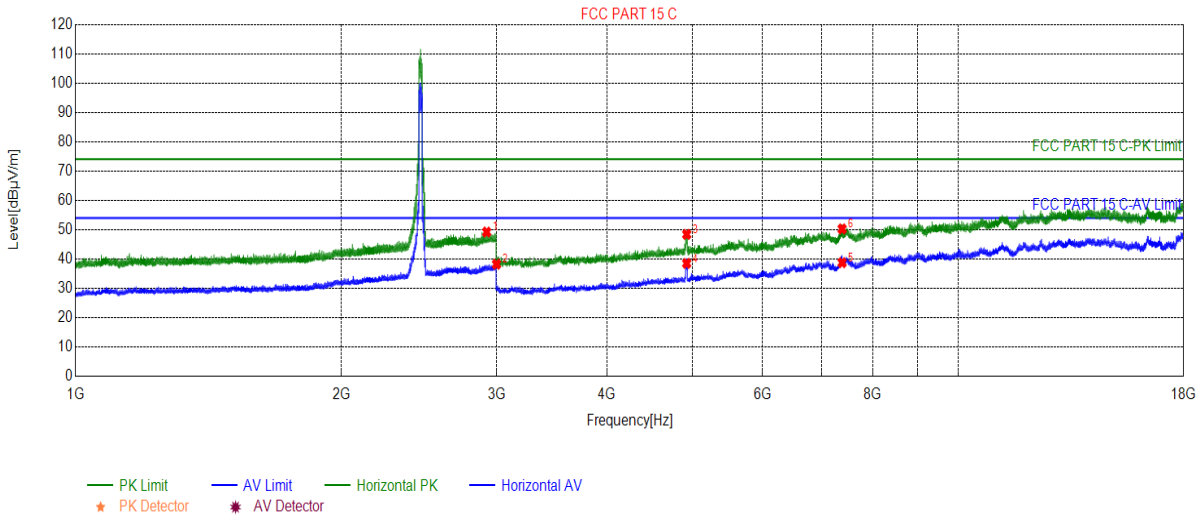
Suspected List

Suspected List								
NO.	Freq. [MHz]	Level [dBµV/m]	Factor [dB]	Limit [dBµV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	2901.69	48.66	10.17	74.00	25.34	222	267	Vertical
2	2953.89	38.13	10.55	54.00	15.87	241	203	Vertical
3	4874.00	35.75	-15.09	54.00	18.25	236	358	Vertical
4	4874.00	46.24	-15.09	74.00	27.76	274	98	Vertical
5	7311.00	48.03	-8.93	74.00	25.97	261	159	Vertical
6	7311.00	37.62	-8.93	54.00	16.38	231	176	Vertical

Final Data List

802.11AX20_Channel11

Test Graph



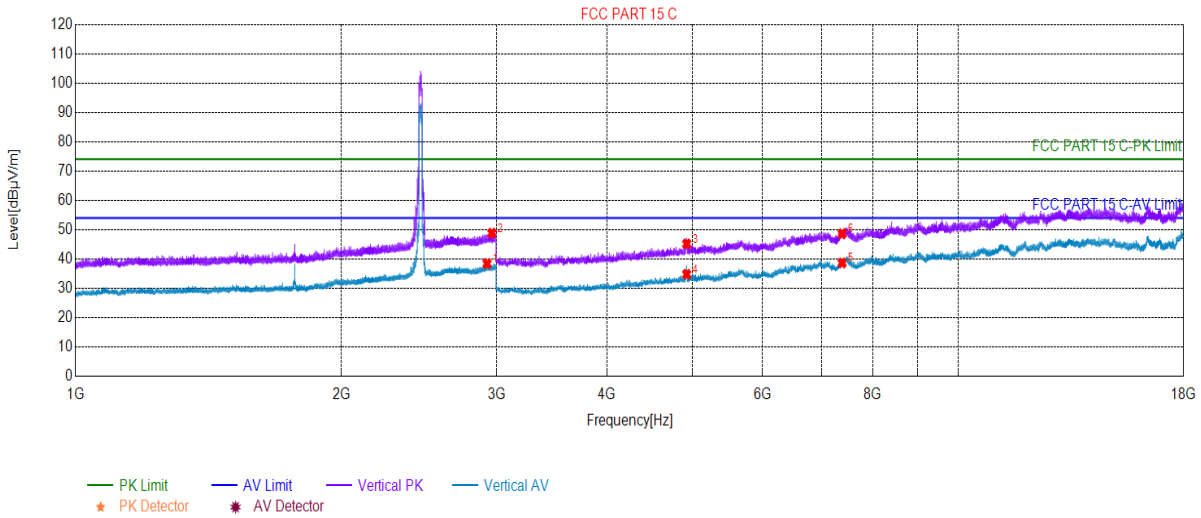
Suspected List

Suspected List								
NO.	Freq. [MHz]	Level [dBµV/m]	Factor [dB]	Limit [dBµV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	2922.29	49.20	10.42	74.00	24.80	145	296	Horizontal
2	2998.39	38.20	10.76	54.00	15.80	163	343	Horizontal
3	4924.00	48.39	-14.74	74.00	25.61	178	72	Horizontal
4	4924.00	38.50	-14.74	54.00	15.50	189	311	Horizontal
5	7386.00	38.74	-7.78	54.00	15.26	174	158	Horizontal
6	7386.00	50.25	-7.78	74.00	23.75	168	341	Horizontal

Final Data List

802.11AX20_Channel11

Test Graph



Suspected List

Suspected List								
NO.	Freq. [MHz]	Level [dBµV/m]	Factor [dB]	Limit [dBµV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	2925.19	38.41	10.47	54.00	15.59	225	198	Vertical
2	2962.19	48.81	10.47	74.00	25.19	241	92	Vertical
3	4924.00	45.16	-14.74	74.00	28.84	263	350	Vertical
4	4924.00	34.78	-14.74	54.00	19.22	278	332	Vertical
5	7386.00	38.63	-7.78	54.00	15.37	229	89	Vertical
6	7386.00	48.62	-7.78	74.00	25.38	214	63	Vertical

Final Data List

Remark:

1) The field strength is calculated by adding the Antenna Factor, Cable Factor & Preamplifier. The basic equation with a sample calculation is as follows:

   Final Test Level =Receiver Reading + Antenna Factor + Cable Factor – Preamplifier Factor

2) Scan from 9kHz to 25GHz, the disturbance between 9KHz to 30MHz and 18GHz to 25GHz was very low, and the above harmonics were the highest point could be found when testing, The amplitude of spurious emissions from the radiator which are attenuated more than 20dB below the limit need not be reported.

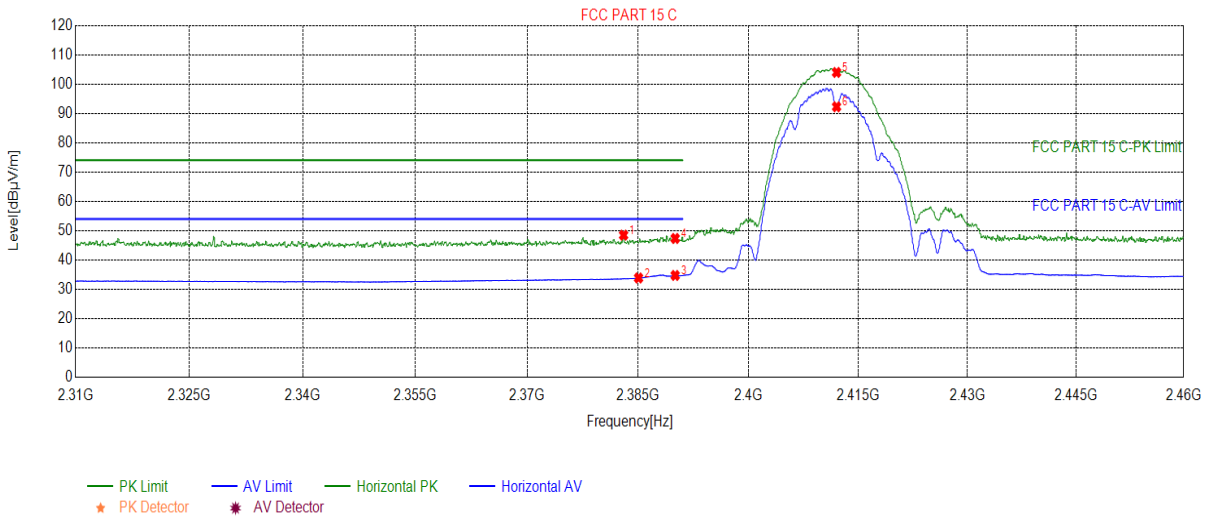
3）As shown in this section, for frequencies above 1GHz, the field strength limits are based on average limits. However, the peak field strength of any emission shall not exceed the maximum permitted average limits specified above by more than 20 dB under any condition of modulation. So, only the peak measurements were shown in the report.

4）All Modes have been tested, but only the worst case data displayed in this report.

Restricted bands around fundamental frequency

802.11B_Channel 1

Test Graph



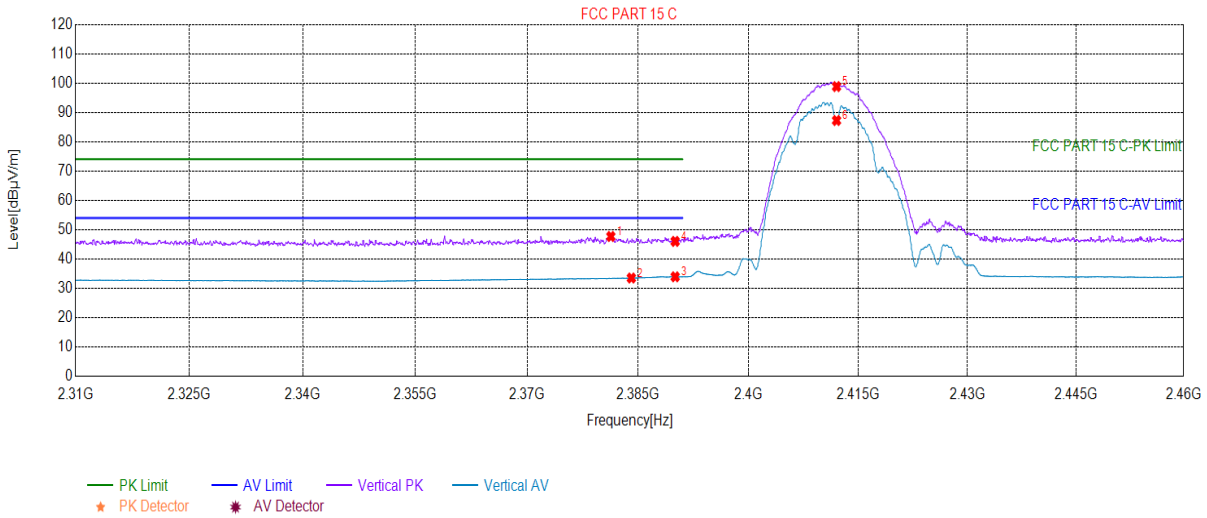
Suspected List

Suspected List								
NO.	Freq. [MHz]	Level [dBµV/m]	Factor [dB]	Limit [dBµV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	2383.01	48.47	9.41	74.00	25.53	195	169	Horizontal
2	2385.03	33.87	9.47	54.00	20.13	163	156	Horizontal
3	2390.00	34.74	9.60	54.00	19.26	184	230	Horizontal
4	2390.00	47.35	9.60	74.00	26.65	152	147	Horizontal
5	2412.00	103.96	9.85	0.00	-103.96	134	58	Horizontal
6	2412.00	92.24	9.85	0.00	-92.24	167	46	Horizontal

Final Data List

802.11B_Channel 1

Test Graph



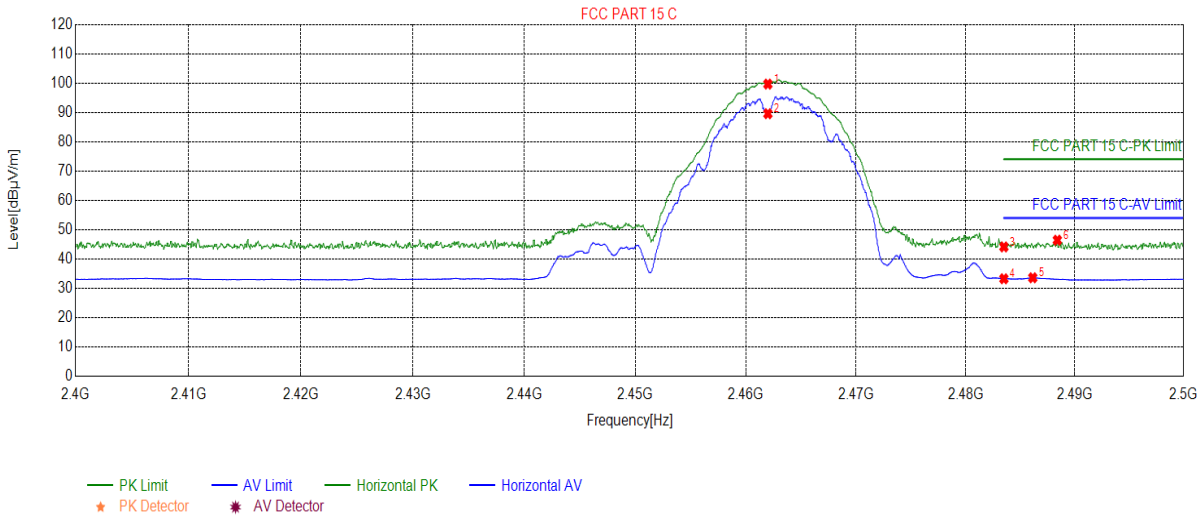
Suspected List

Suspected List								
NO.	Freq. [MHz]	Level [dBµV/m]	Factor [dB]	Limit [dBµV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	2381.28	47.68	9.37	74.00	26.32	269	96	Vertical
2	2384.06	33.51	9.44	54.00	20.49	263	58	Vertical
3	2390.00	33.93	9.60	54.00	20.07	201	213	Vertical
4	2390.00	46.01	9.60	74.00	27.99	245	201	Vertical
5	2412.00	98.80	9.85	0.00	-98.80	248	169	Vertical
6	2412.00	87.23	9.85	0.00	-87.23	294	102	Vertical

Final Data List

802.11B_Channel 11

Test Graph



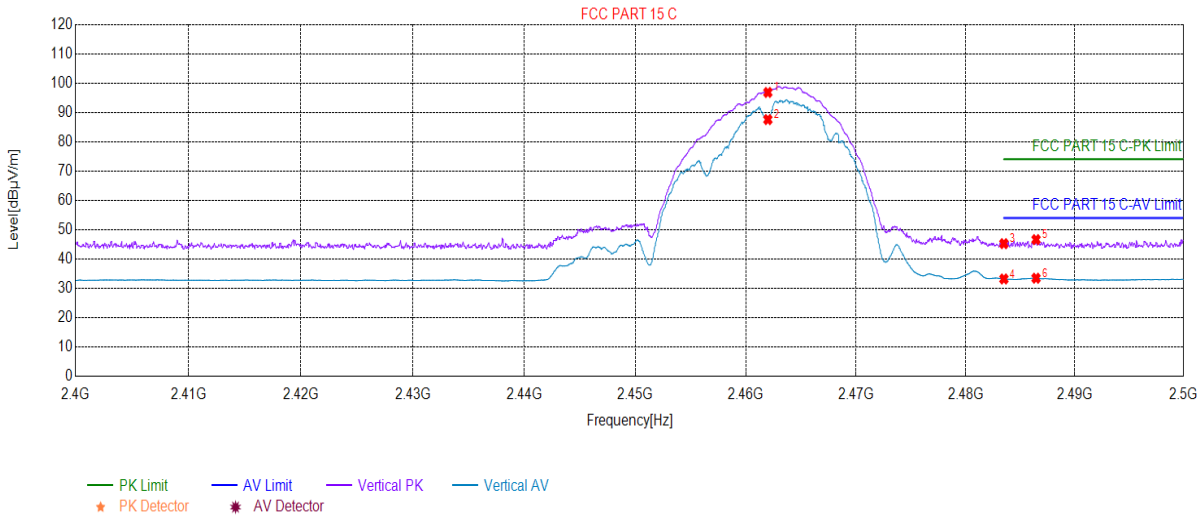
Suspected List

Suspected List								
NO.	Freq. [MHz]	Level [dBµV/m]	Factor [dB]	Limit [dBµV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	2462.00	99.65	8.25	0.00	-99.65	196	163	Horizontal
2	2462.00	89.54	8.25	0.00	-89.54	184	158	Horizontal
3	2483.50	44.13	8.48	74.00	29.87	165	162	Horizontal
4	2483.50	33.25	8.48	54.00	20.75	138	146	Horizontal
5	2486.14	33.60	8.49	54.00	20.40	177	259	Horizontal
6	2488.39	46.43	8.50	74.00	27.57	190	230	Horizontal

Final Data List

802.11B_Channel 11

Test Graph



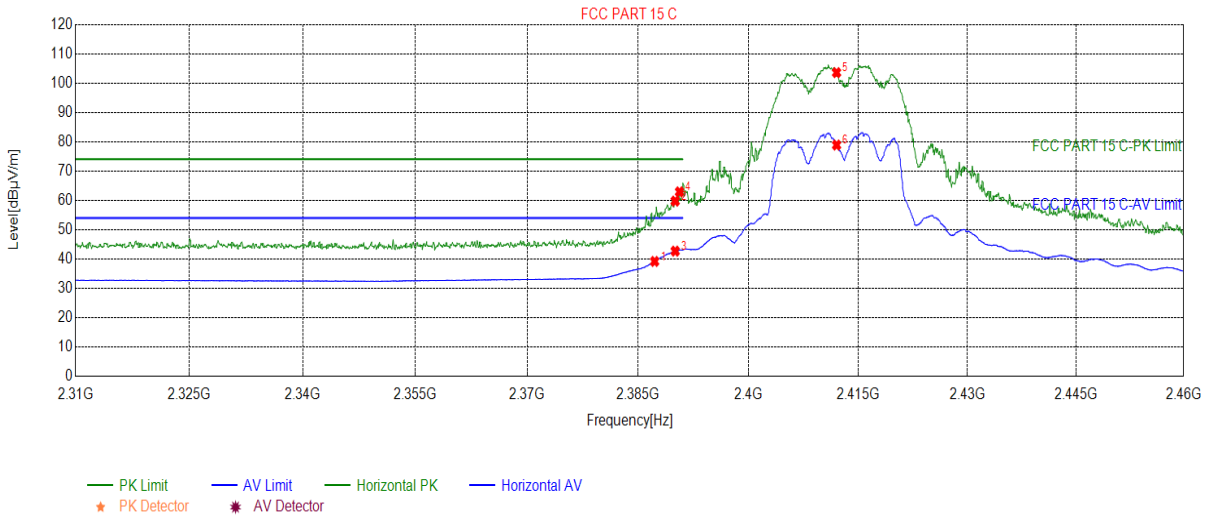
Suspected List

Suspected List								
NO.	Freq. [MHz]	Level [dBµV/m]	Factor [dB]	Limit [dBµV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	2462.00	96.80	8.25	0.00	-96.80	263	263	Vertical
2	2462.00	87.54	8.25	0.00	-87.54	210	36	Vertical
3	2483.50	45.24	8.48	74.00	28.76	233	310	Vertical
4	2483.50	33.19	8.48	54.00	20.81	254	215	Vertical
5	2486.44	46.62	8.49	74.00	27.38	218	294	Vertical
6	2486.44	33.45	8.49	54.00	20.55	296	243	Vertical

Final Data List

802.11G_Channel 1

Test Graph



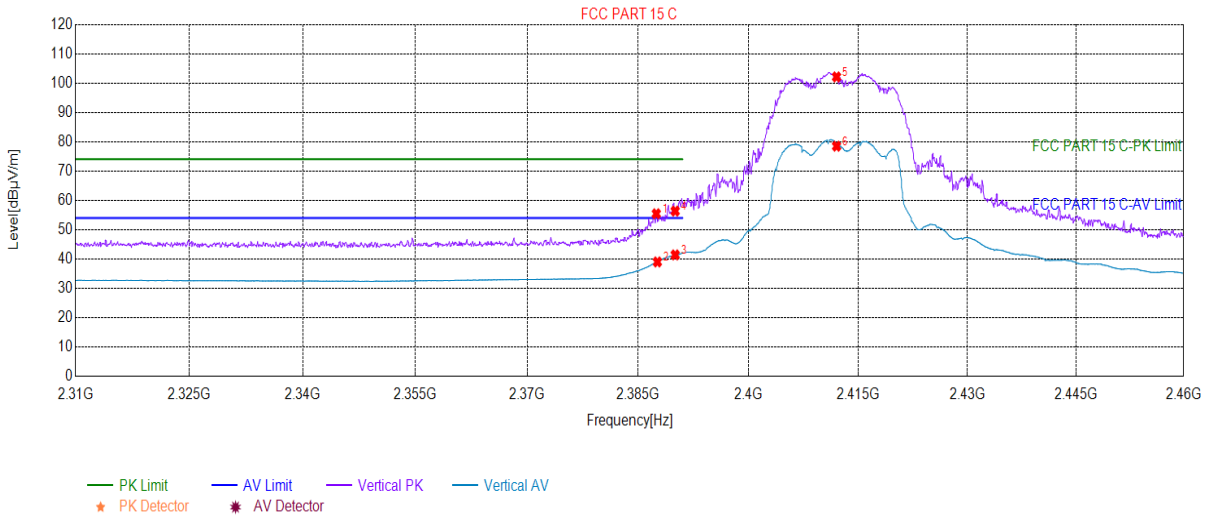
Suspected List

Suspected List								
NO.	Freq. [MHz]	Level [dBµV/m]	Factor [dB]	Limit [dBµV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	2387.21	39.18	9.53	54.00	14.82	169	269	Horizontal
2	2390.00	59.75	9.60	74.00	14.25	158	263	Horizontal
3	2390.00	42.69	9.60	54.00	11.31	147	210	Horizontal
4	2390.59	62.90	9.62	74.00	11.10	162	201	Horizontal
5	2412.00	103.55	9.85	0.00	-103.55	135	339	Horizontal
6	2412.00	78.85	9.85	0.00	-78.85	159	105	Horizontal

Final Data List

802.11G_Channel 1

Test Graph



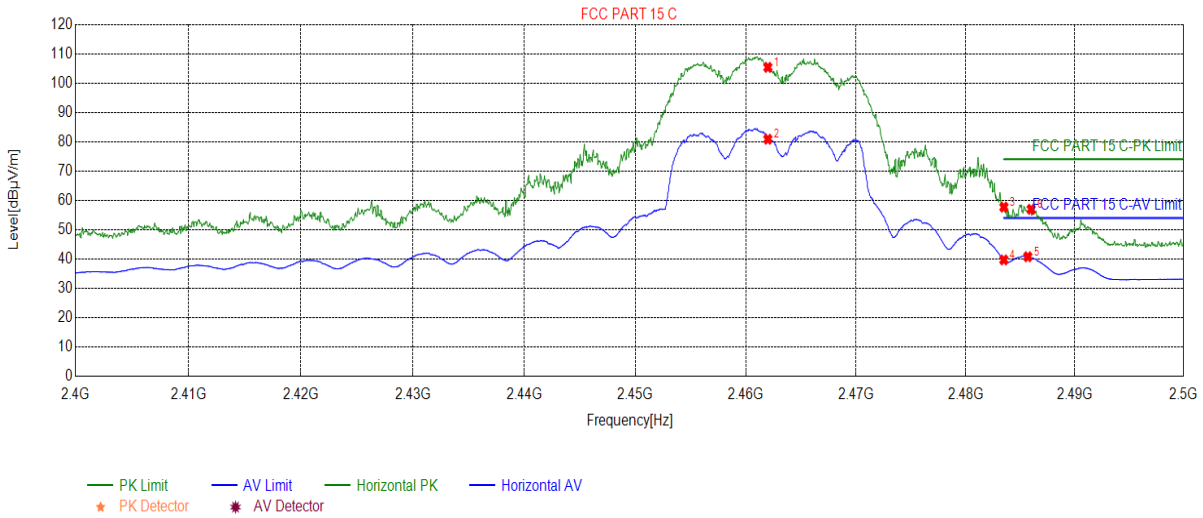
Suspected List

Suspected List								
NO.	Freq. [MHz]	Level [dBµV/m]	Factor [dB]	Limit [dBµV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	2387.43	55.44	9.53	74.00	18.56	269	163	Vertical
2	2387.58	39.00	9.54	54.00	15.00	235	152	Vertical
3	2390.00	41.40	9.60	54.00	12.60	210	201	Vertical
4	2390.00	56.34	9.60	74.00	17.66	268	158	Vertical
5	2412.00	102.09	9.85	0.00	-102.09	245	196	Vertical
6	2412.00	78.46	9.85	0.00	-78.46	210	301	Vertical

Final Data List

802.11G_Channel 11

Test Graph



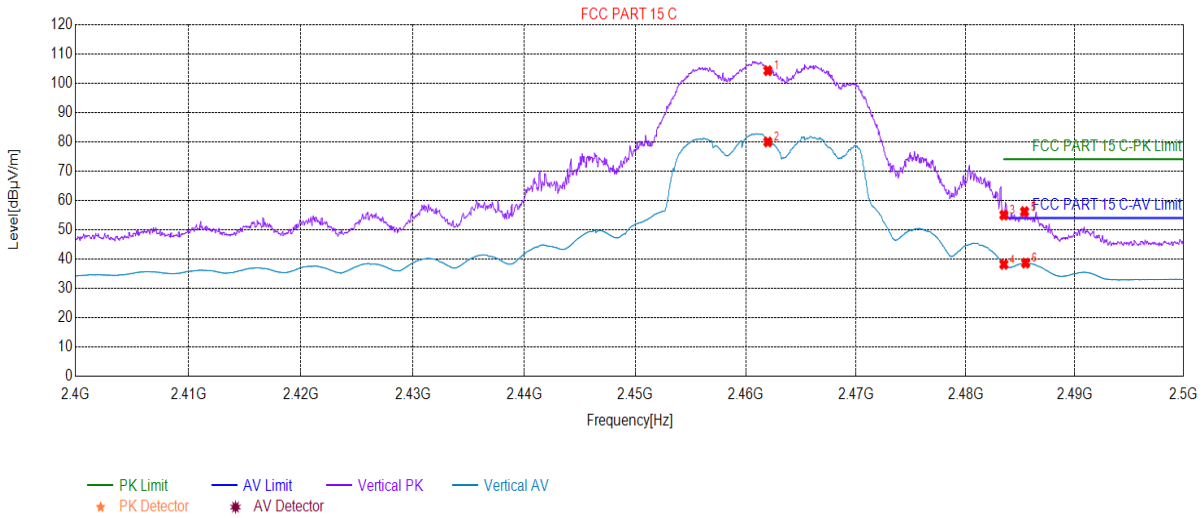
Suspected List

Suspected List								
NO.	Freq. [MHz]	Level [dBµV/m]	Factor [dB]	Limit [dBµV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	2462.00	105.35	8.25	0.00	-105.35	165	169	Horizontal
2	2462.00	80.84	8.25	0.00	-80.84	148	360	Horizontal
3	2483.50	57.68	8.48	74.00	16.32	152	159	Horizontal
4	2483.50	39.69	8.48	54.00	14.31	138	201	Horizontal
5	2485.69	40.77	8.49	54.00	13.23	174	269	Horizontal
6	2485.99	56.95	8.49	74.00	17.05	122	258	Horizontal

Final Data List

802.11G_Channel 11

Test Graph



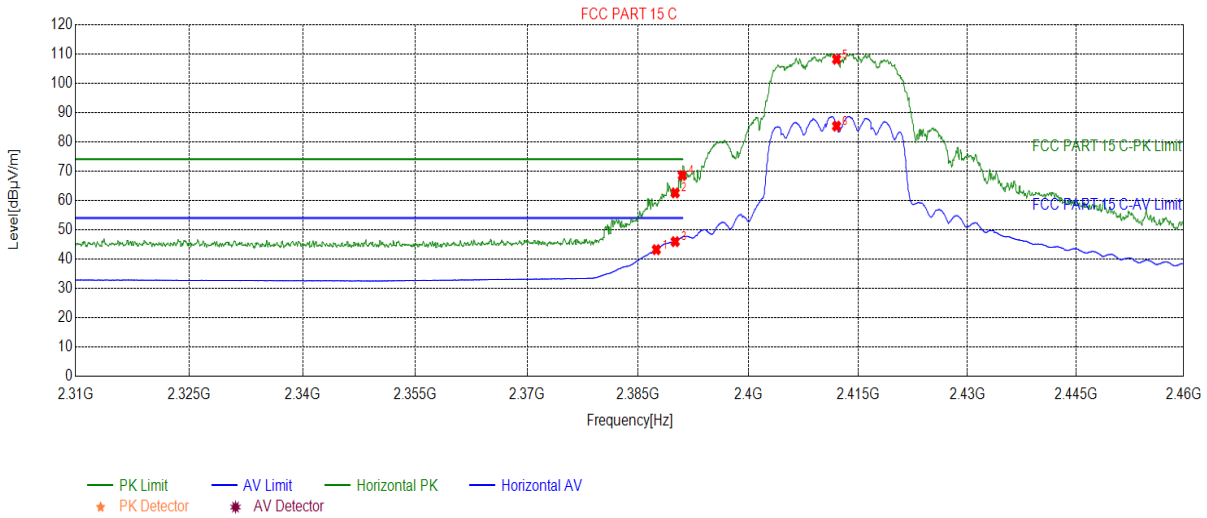
Suspected List

Suspected List								
NO.	Freq. [MHz]	Level [dBµV/m]	Factor [dB]	Limit [dBµV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	2462.00	104.22	8.25	0.00	-104.22	269	63	Vertical
2	2462.00	79.91	8.25	0.00	-79.91	263	54	Vertical
3	2483.50	55.00	8.48	74.00	19.00	201	21	Vertical
4	2483.50	38.18	8.48	54.00	15.82	245	87	Vertical
5	2485.39	56.16	8.49	74.00	17.84	213	219	Vertical
6	2485.49	38.60	8.49	54.00	15.40	222	69	Vertical

Final Data List

802.11N20_Channel 1

Test Graph



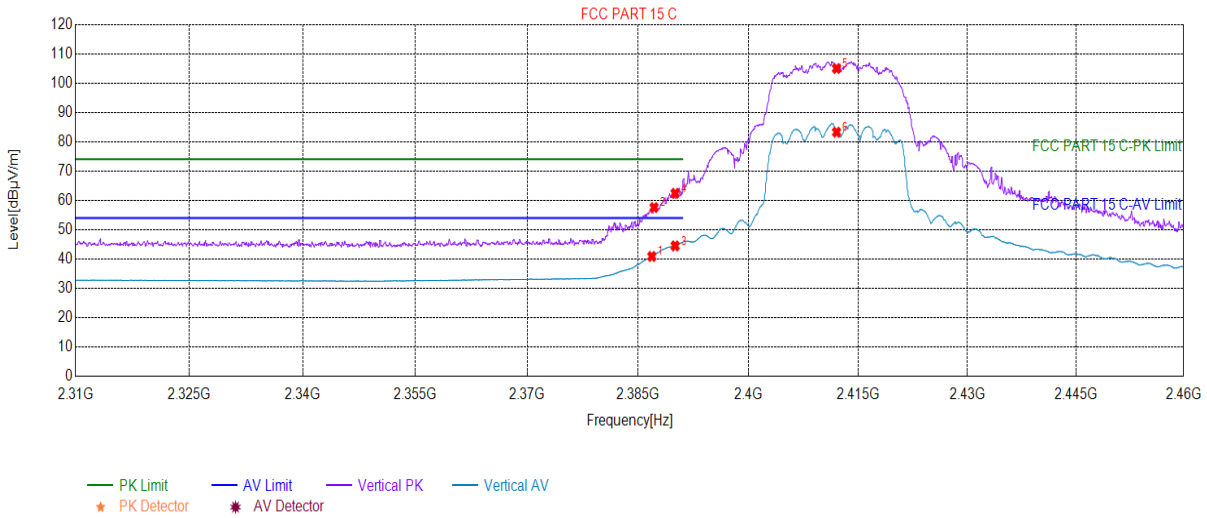
Suspected List

Suspected List								
NO.	Freq. [MHz]	Level [dBµV/m]	Factor [dB]	Limit [dBµV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	2387.43	43.19	9.53	54.00	10.81	169	169	Horizontal
2	2390.00	62.53	9.60	74.00	11.47	186	356	Horizontal
3	2390.00	45.92	9.60	54.00	8.08	174	249	Horizontal
4	2390.96	68.50	9.63	74.00	5.50	156	218	Horizontal
5	2412.00	108.10	9.85	0.00	-108.10	138	203	Horizontal
6	2412.00	85.31	9.85	0.00	-85.31	199	218	Horizontal

Final Data List

802.11N20_Channel 1

Test Graph



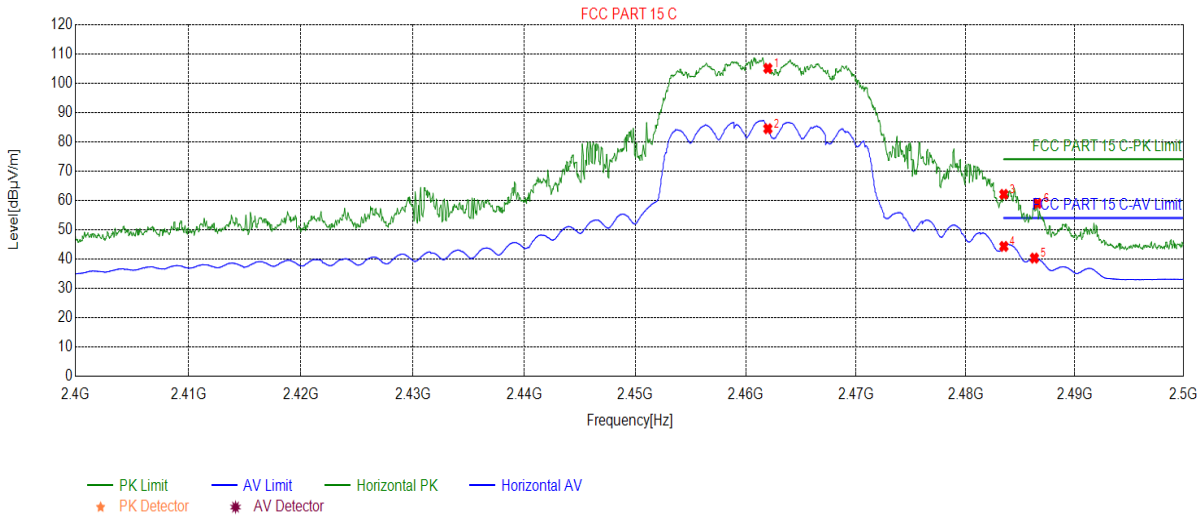
Suspected List

Suspected List								
NO.	Freq. [MHz]	Level [dBµV/m]	Factor [dB]	Limit [dBµV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	2386.83	40.87	9.52	54.00	13.13	296	169	Vertical
2	2387.13	57.55	9.52	74.00	16.45	254	158	Vertical
3	2390.00	44.47	9.60	54.00	9.53	231	165	Vertical
4	2390.00	62.38	9.60	74.00	11.62	288	148	Vertical
5	2412.00	104.96	9.85	0.00	-104.96	245	98	Vertical
6	2412.00	83.25	9.85	0.00	-83.25	221	64	Vertical

Final Data List

802.11N20_Channel 11

Test Graph



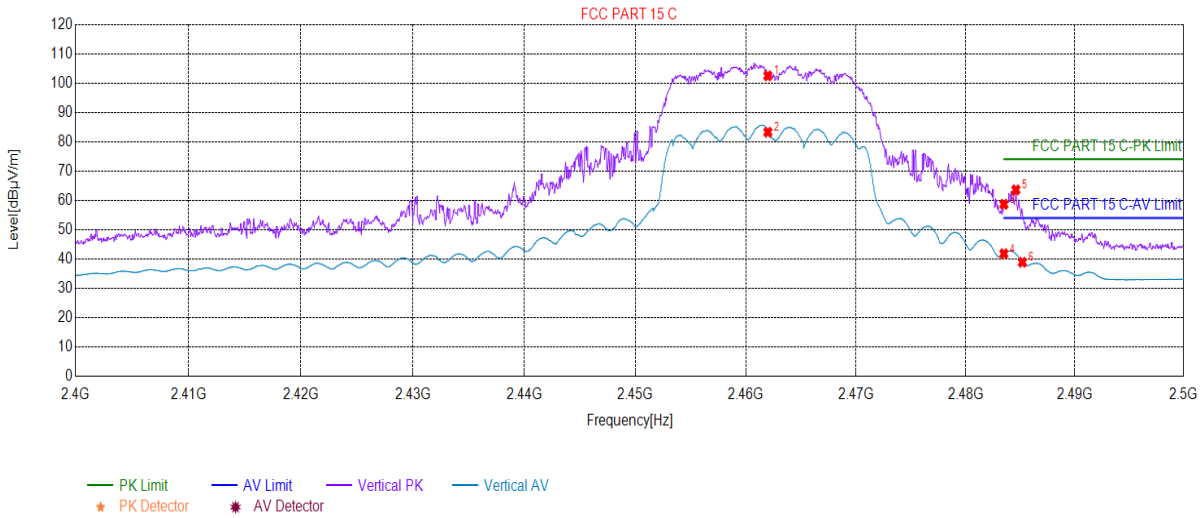
Suspected List

Suspected List								
NO.	Freq. [MHz]	Level [dBµV/m]	Factor [dB]	Limit [dBµV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	2462.00	105.01	8.25	0.00	-105.01	196	94	Horizontal
2	2462.00	84.41	8.25	0.00	-84.41	158	65	Horizontal
3	2483.50	62.04	8.48	74.00	11.96	124	87	Horizontal
4	2483.50	44.30	8.48	54.00	9.70	165	216	Horizontal
5	2486.29	40.31	8.49	54.00	13.69	138	258	Horizontal
6	2486.59	58.95	8.49	74.00	15.05	177	230	Horizontal

Final Data List

802.11N20_Channel 11

Test Graph



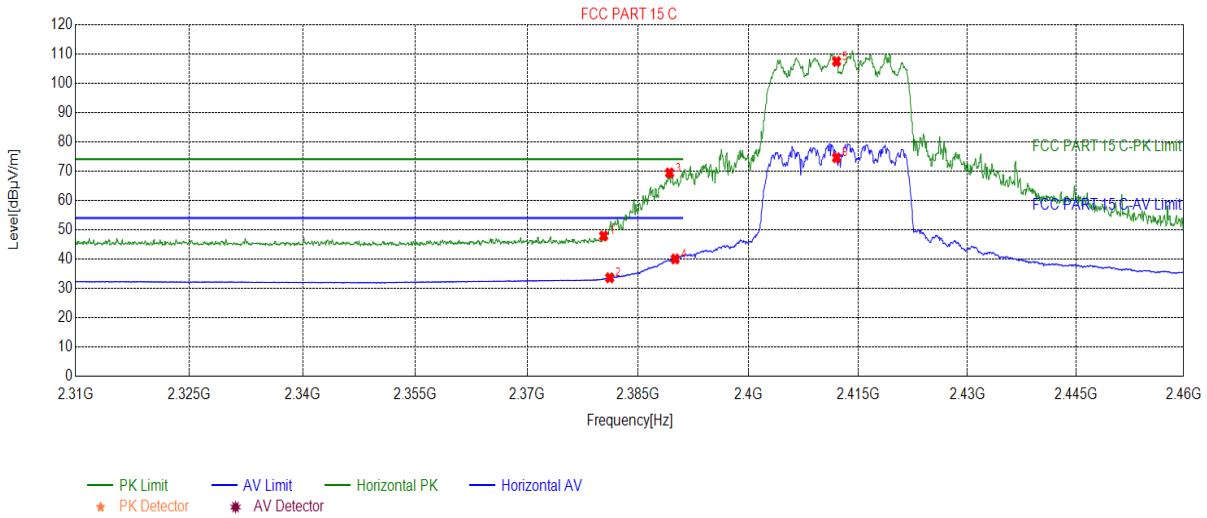
Suspected List

Suspected List								
NO.	Freq. [MHz]	Level [dBµV/m]	Factor [dB]	Limit [dBµV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	2462.00	102.45	8.25	0.00	-102.45	269	94	Vertical
2	2462.00	83.24	8.25	0.00	-83.24	254	58	Vertical
3	2483.50	58.66	8.48	74.00	15.34	213	219	Vertical
4	2483.50	41.81	8.48	54.00	12.19	201	269	Vertical
5	2484.59	63.58	8.49	74.00	10.42	245	287	Vertical
6	2485.19	38.90	8.49	54.00	15.10	213	236	Vertical

Final Data List

802.11AX20_Channel 1

Test Graph



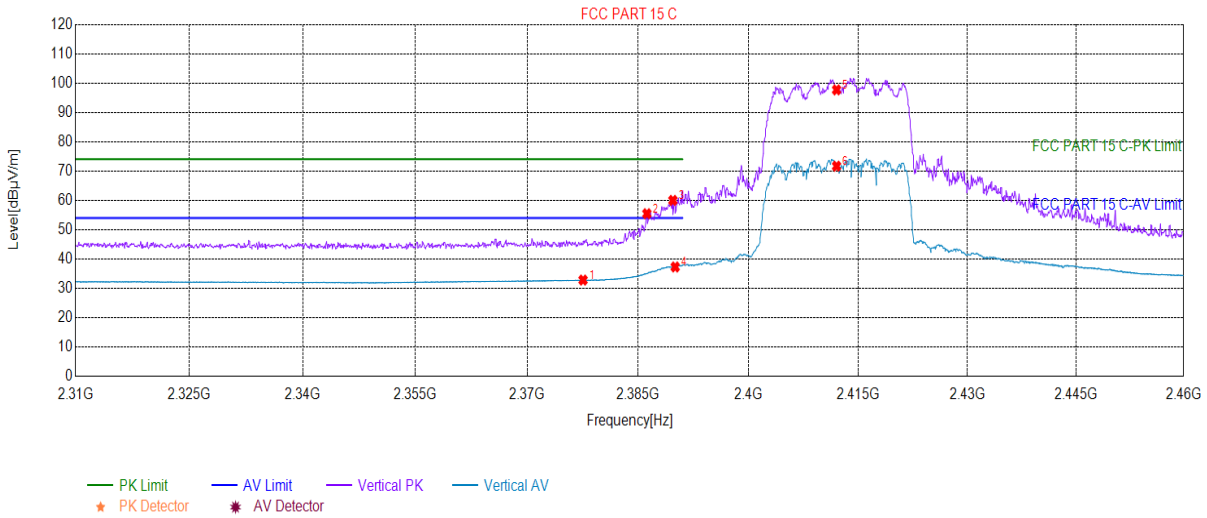
Suspected List

Suspected List								
NO.	Freq. [MHz]	Level [dBµV/m]	Factor [dB]	Limit [dBµV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	2380.31	47.87	9.34	74.00	26.13	287	201	Horizontal
2	2381.13	33.60	9.36	54.00	20.40	341	245	Horizontal
3	2389.23	69.34	9.58	74.00	4.66	149	164	Horizontal
4	2390.00	40.02	9.60	54.00	13.98	180	198	Horizontal
5	2412.00	107.36	9.85	0.00	-107.36	225	20	Horizontal
6	2412.00	74.51	9.85	0.00	-74.51	206	30.0	Horizontal

Final Data List

802.11AX20_Channel 1

Test Graph



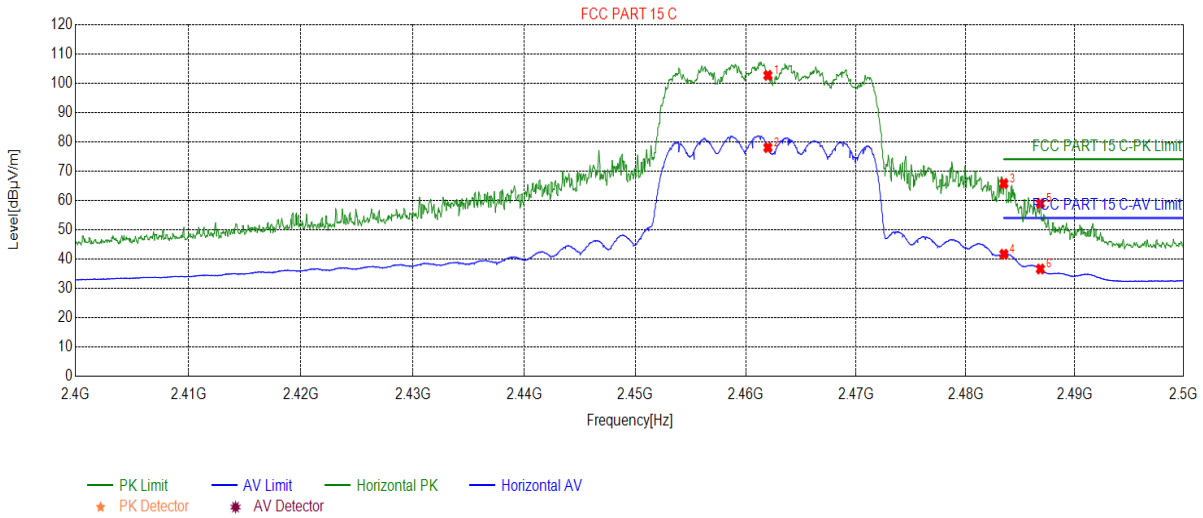
Suspected List

Suspected List								
NO.	Freq. [MHz]	Level [dBµV/m]	Factor [dB]	Limit [dBµV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	2377.53	32.82	9.27	54.00	21.18	250	30	Vertical
2	2386.16	55.46	9.50	74.00	18.54	240	289	Vertical
3	2389.68	59.99	9.59	74.00	14.01	109	240	Vertical
4	2390.00	37.28	9.60	54.00	16.72	155	12	Vertical
5	2412.00	97.67	9.85	0.00	-97.67	187	23	Vertical
6	2412.00	71.66	9.85	0.00	-71.66	304	350	Vertical

Final Data List

802.11AX20_Channel 11

Test Graph



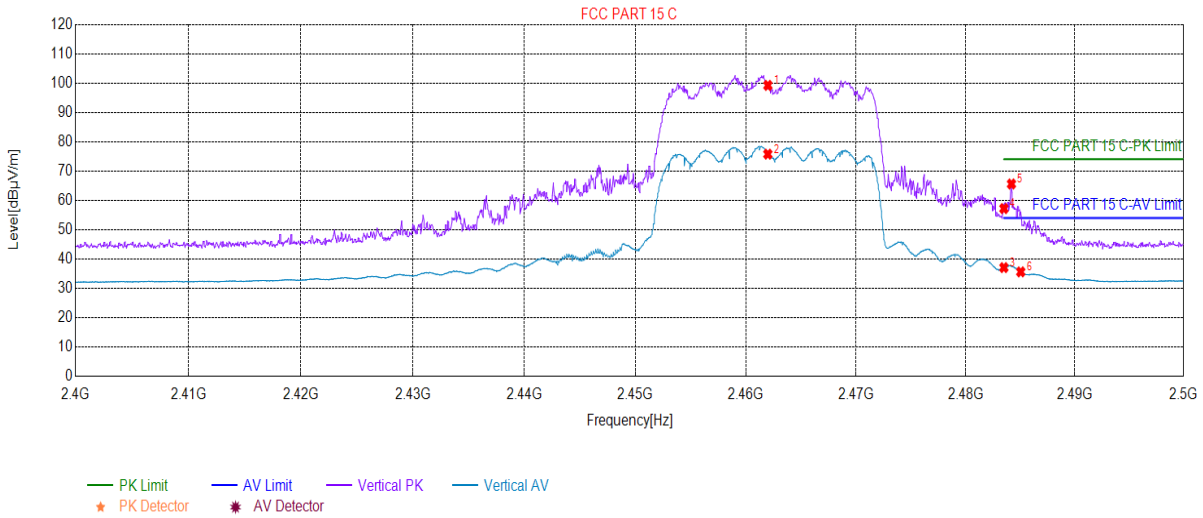
Suspected List

Suspected List								
NO.	Freq. [MHz]	Level [dBµV/m]	Factor [dB]	Limit [dBµV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	2462.00	102.60	8.25	0.00	-102.60	154	25	Horizontal
2	2462.00	77.97	8.25	0.00	-77.97	175	274	Horizontal
3	2483.50	65.74	8.48	74.00	8.26	248	163	Horizontal
4	2483.50	41.63	8.48	54.00	12.37	284	30	Horizontal
5	2486.84	58.91	8.49	74.00	15.09	16	245	Horizontal
6	2486.84	36.59	8.49	54.00	17.41	178	141	Horizontal

Final Data List

802.11AX20_Channel 11

Test Graph



Suspected List

Suspected List								
NO.	Freq. [MHz]	Level [dBµV/m]	Factor [dB]	Limit [dBµV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	2462.00	99.20	8.25	0.00	-99.20	225	154	Vertical
2	2462.00	75.75	8.25	0.00	-75.75	241	22	Vertical
3	2483.50	37.07	8.48	54.00	16.93	263	174	Vertical
4	2483.50	57.19	8.48	74.00	16.81	147	236	Vertical
5	2484.19	65.58	8.49	74.00	8.42	258	241	Vertical
6	2485.04	35.61	8.49	54.00	18.39	298	228	Vertical

Final Data List

Remark:
The field strength is calculated by adding the Antenna Factor, Cable Factor & Preamplifier. The basic equation with a sample calculation is as follows:
Final Test Level =Receiver Reading + Antenna Factor + Cable Factor – Preamplifier Factor
All Modes have been tested, but only the worst case data displayed in this report.

The End

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