



FCC RF Test Report

(FHSS)

Report No.: JYTSZ-R12-2301714
Applicant: Hangzhou Roombanker Technology Co., Ltd.
Address of Applicant: A#801 Wantong center, Hangzhou, China.

Equipment Under Test (EUT)

Product Name: Home Security Hub(Station)
Model No.: RBGW-202-915(US), RBGW-202-915(LA), RBGW-202-915(AU), RBGW-202-915(XX)/YYY:(X:0~9 or X:A~Z)/(Y:0~9 or Y:A~Z), RBGW-202-915(XX)/YYY:(X:0~9 or X:A~Z)/(Y:0~9 or Y:A~Z or blank)
Trade Mark: Roombanker
FCC ID: 2AUXBRBGW-202
Applicable Standards: FCC CFR Title 47 Part 15C (§15.247)
Date of Sample Receipt: 23 Nov., 2023
Date of Test: 24 Nov., 2023 to 19 Jan., 2024
Date of Report Issued: 29 Jan., 2024
Test Result: PASS

Project by:

Date:

29 Jan., 2024

Reviewed by:

Date:

29 Jan., 2024

Approved by:

Date:

29 Jan., 2024

Manager

This equipment has been shown to be capable of compliance with the applicable technical standards as indicated in the measurement report and was tested in accordance with the measurement procedures specified in above the application standard version. Test results reported herein relate only to the item(s) tested.

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1 Version

Version No.	Date	Description
00	22 Jan., 2024	Original
01	29 Jan., 2024	Updated pages 4,20 and 25 of the report

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3 General Information

3.1 Client Information

Applicant:	Hangzhou Roombanker Technology Co., Ltd.
Address:	A#801 Wantong center, Hangzhou, China.
Manufacturer/Factory:	Zhejiang dusun electron co., ltd.
Address:	No.640 Feng Qing St,DeQing Zhejiang China.

3.2 General Description of E.U.T.

Product Name:	Home Security Hub(Station)
Model No.:	RBGW-202-915(US), RBGW-202-915(LA), RBGW-202-915(AU), RBGW-202-915(XX)/YYY: (X:0~9 or X:A~Z)/(Y:0~9 or Y:A~Z), RBGW-202-915(XX)/YYY:(X:0~9 or X:A~Z)/(Y:0~9 or Y:A~Z or blank)
Operation Frequency:	903 MHz - 927MHz
Number of Channel:	240
Modulation Technology:	FSK
Antenna Type:	Internal Antenna
Antenna Gain:	ANT0: 0.54dBi (declare by applicant) ANT1: -0.46dBi (declare by applicant)
Antenna Transmit Mode:	SISO (1TX, 1RX) (with ANT 0 and ANT 1, and they stand alone to transmit)
Power Supply:	DC 5V
Test Sample Condition:	The test samples were provided in good working order with no visible defects.
Remark:	RBGW-202-915(US), RBGW-202-915(LA), RBGW-202-915(AU), RBGW-202-915(XX)/YYY: (X:0~9 or X:A~Z)/(Y:0~9 or Y:A~Z), RBGW-202-915(XX)/YYY:(X:0~9 or X:A~Z)/(Y:0~9 or Y:A~Z or blank) were identical inside, the electrical circuit design, layout, components used and internal wiring, with only difference being model name.

3.3 Test Mode and Test Environment

Test Modes:	
Non-hopping mode:	Keep the EUT in continuous transmitting mode.
Hopping mode:	Keep the EUT in hopping mode.
Remark: For spurious emission of below 1GHz, pre-scan lowest, middle and highest channel, found lowest channel was worse case mode. The report only reflects the test data of worst mode.	
Operating Environment:	
Temperature:	15°C ~ 35°C
Humidity:	20 % ~ 75 % RH
Atmospheric Pressure:	1008 mbar

3.4 Description of Test Auxiliary Equipment

The EUT has been tested as an independent unit.

3.5 Measurement Uncertainty

Parameter	Expanded Uncertainty (Confidence of 95%(U = 2Uc(y)))
Conducted Emission for LISN (9kHz ~ 150kHz)	3.57 dB
Conducted Emission for LISN (150kHz ~ 30MHz)	3.14 dB
Radiated Emission (30MHz ~ 200MHz) (10m SAC)	4.3 dB
Radiated Emission (200MHz ~ 1000MHz) (10m SAC)	4.3 dB
Radiated Emission (30MHz ~ 1GHz) (3m FAR)	3.43 dB
Radiated Emission (1GHz ~ 6GHz) (3m FAR)	4.95 dB
Radiated Emission (6GHz ~ 18GHz) (3m FAR)	5.23 dB
Radiated Emission (18GHz ~ 40GHz) (3m FAR)	5.32 dB
Note: All the measurement uncertainty value were shown with a coverage k=2 to indicate 95% level of confidence. The measurement data show herein meets or exceeds the CISPR measurement uncertainty values specified in CISPR 16-4-2 and can be compared directly to specified limit to determine compliance.	

3.6 Additions to, Deviations, or Exclusions From the Method

No

3.7 Laboratory Facility

The test facility is recognized, certified, or accredited by the following organizations: ● FCC - Designation No.: CN1211 JianYan Testing Group Shenzhen Co., Ltd. has been accredited as a testing laboratory by FCC(Federal Communications Commission). The test firm Registration No. is 727551. ● ISED – CAB identifier.: CN0021 The 3m Semi-anechoic chamber and 10m Semi-anechoic chamber of JianYan Testing Group Shenzhen Co., Ltd. has been Registered by Certification and Engineering Bureau of Industry Canada for radio equipment testing with Registration No.: 10106A-1. ● CNAS - Registration No.: CNAS L15527 JianYan Testing Group Shenzhen Co., Ltd. is accredited to ISO/IEC 17025:2017 General Requirements for the Competence of Testing and Calibration laboratories for the competence of testing. The Registration No. is CNAS L15527. ● A2LA - Registration No.: 4346.01 This laboratory is accredited in accordance with the recognized International Standard ISO/IEC 17025:2017 General requirements for the competence of testing and calibration laboratories. The test scope can be found as below link: https://portal.a2la.org/scopepdf/4346-01.pdf
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3.8 Laboratory Location

JianYan Testing Group Shenzhen Co., Ltd.

Address: No.101, Building 8, Innovation Wisdom Port, No.155 Hongtian Road, Huangpu Community, Xinqiao Street, Bao'an District, Shenzhen, Guangdong, People's Republic of China.

Tel: +86-755-23118282, Fax: +86-755-23116366

Email: info-JYTee@lets.com, Website: <http://jyt.lets.com>

3.9 Test Instruments List

Radiated Emission(3m FAR):					
Test Equipment	Manufacturer	Model No.	Manage No.	Cal. Date (mm-dd-yy)	Cal. Due date (mm-dd-yy)
3m FAR	YUNYI	9m*6m*6m	WXJ097	06-15-2023	06-14-2028
BiConiLog Antenna	Schwarzbeck	VULB9163	WXJ097-2	07-13-2023	07-12-2024
Biconical Antenna	Schwarzbeck	VUBA9117	WXJ002-1	07-02-2021	07-01-2024
Horn Antenna	Schwarzbeck	BBHA9120D	WXJ097-3	07-14-2023	07-13-2024
Horn Antenna	Schwarzbeck	BBHA9120D	WXJ002-3	01-09-2023	01-08-2024
				12-28-2023	12-27-2024
Horn Antenna	Schwarzbeck	BBHA9170	WXJ002-5	01-09-2023	01-08-2024
				12-28-2023	12-27-2024
Horn Antenna	Schwarzbeck	BBHA9170	WXJ002-6	01-09-2023	01-08-2024
				12-28-2023	12-27-2024
Pre-amplifier (30MHz ~ 1GHz)	YUNYI	PAM-310N	WXJ097-5	05-14-2023	05-13-2024
Pre-amplifier (1GHz ~ 18GHz)	YUNYI	PAM-118N	WXJ097-6	05-14-2023	05-13-2024
Pre-amplifier (18GHz ~ 40GHz)	RF System	TRLA-180400G45B	WXJ002-7	01-11-2023	01-10-2024
				12-27-2023	12-26-2024
EMI Test Receiver	Rohde & Schwarz	ESCI3	WXJ003	01-10-2023	01-09-2024
				12-27-2023	12-26-2024
Spectrum Analyzer	Rohde & Schwarz	FSP 30	WXJ004	01-10-2023	01-09-2024
				12-27-2023	12-26-2024
Spectrum Analyzer	KEYSIGHT	N9010B	WXJ081-1	06-13-2023	06-12-2024
Coaxial Cable (30MHz ~ 1GHz)	JYTSZ	JYT3M-1G-NN-13M	WXG097-1	08-01-2023	07-31-2024
Coaxial Cable (1GHz ~ 18GHz)	JYTSZ	JYT3M-18G-NN-8M	WXG097-2	08-01-2023	07-31-2024
Coaxial Cable (18GHz ~ 40GHz)	JYTSZ	JYT3M-40G-SS-8M	WXG097-3	08-01-2023	07-31-2024
High Band Reject Filter Group	Tonscend	JS0806-F	WXJ089	N/A	
Low Band Reject Filter Group	Tonscend	JS0806-F	WXJ097-4	N/A	
Test Software	Tonscend	TS+	Version: 5.0.0		

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Radiated Emission(10m SAC):					
Test Equipment	Manufacturer	Model No.	Manage No.	Cal. Date (mm-dd-yy)	Cal. Due date (mm-dd-yy)
10m SAC	ETS	RFSD-100-F/A	WXJ090	04-28-2021	04-27-2024
BiConiLog Antenna	SCHWARZBECK	VULB 9168	WXJ090-1	01-17-2023	01-16-2024
				12-28-2023	12-27-2024
BiConiLog Antenna	SCHWARZBECK	VULB 9168	WXJ090-2	01-10-2023	01-09-2024
				12-28-2023	12-27-2024
EMI Test Receiver	R&S	ESR 3	WXJ090-3	01-10-2023	01-09-2024
				12-27-2023	12-26-2024
EMI Test Receiver	R&S	ESR 3	WXJ090-4	01-11-2023	01-09-2024
				12-27-2023	12-26-2024
Low Pre-amplifier	Bost	LNA 0920N	WXJ090-6	01-10-2023	01-09-2024
				12-27-2023	12-26-2024
Low Pre-amplifier	Bost	LNA 0920N	WXJ090-7	01-10-2023	01-09-2024
				12-27-2023	12-26-2024
Cable	Bost	JYT10M-1G-NN-10M	WXG002-7	01-18-2023	01-17-2024
				01-17-2024	01-16-2025
Cable	Bost	JYT10M-1G-NN-10M	WXG002-8	01-18-2023	01-17-2024
				01-17-2024	01-16-2025
Test Software	R&S	EMC32	Version: 10.50.40		

Conducted Emission:					
Test Equipment	Manufacturer	Model No.	Manage No.	Cal. Date (mm-dd-yy)	Cal. Due date (mm-dd-yy)
EMI Test Receiver	Rohde & Schwarz	ESR3	WXJ003-2	07-05-2023	07-04-2024
LISN	Schwarzbeck	NSLK 8127	QCJ001-13	01-10-2023	01-09-2024
				12-27-2023	12-26-2024
LISN	Rohde & Schwarz	ESH3-Z5	WXJ005-1	01-11-2023	01-10-2024
				12-27-2023	12-26-2024
LISN Coaxial Cable (9kHz ~ 30MHz)	JYTSZ	JYTCE-1G-NN-2M	WXG003-1	02-22-2023	02-21-2024
RF Switch	TOP PRECISION	RSU0301	WXG003	N/A	
Test Software	AUDIX	E3	Version: 6.110919b		

Conducted Method:					
Test Equipment	Manufacturer	Model No.	Manage No.	Cal. Date (mm-dd-yy)	Cal. Due date (mm-dd-yy)
Spectrum Analyzer	Keysight	N9010B	WXJ004-3	11-01-2023	10-31-2024
Temperature Humidity Chamber	ZHONG ZHI	CZ-A-80D	WXJ032-3	01-09-2023	01-08-2025
Power Detector Box	MWRFTTEST	MW100-PSB	WXJ007-4	09-25-2023	09-24-2024
DC Power Supply	Keysight	E3642A	WXJ025-2	N/A	
RF Control Unit	MWRFTTEST	MW100-RFCB	WXG006	N/A	
Test Software	MWRFTTEST	MTS 8310	Version: 2.0.0.0		

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4 Measurement Setup and Procedure

4.1 Test Channel

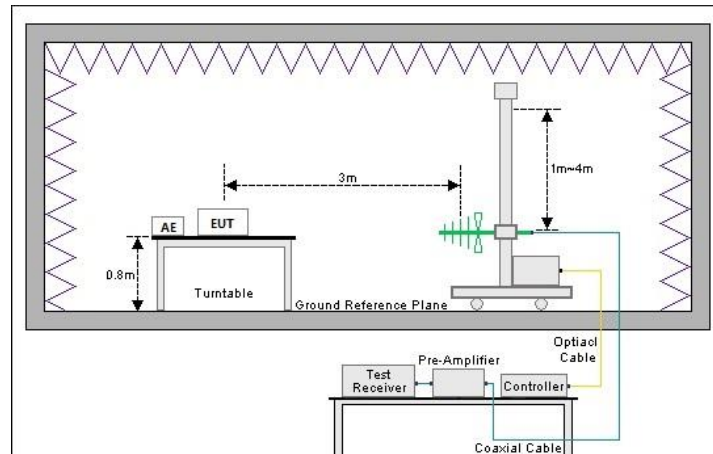
According to ANSI C63.10-2013 chapter 5.6.1 Table 4 requirement, select lowest channel, middle channel, and highest channel in the frequency range in which device operates for testing. The detailed frequency points are as follows:

Channel No.	Frequency (MHz)	Channel No.	Frequency (MHz)	Channel No.	Frequency (MHz)
0	903	110	914	220	925
1	903.1	111	914.1	221	925.1
2	903.2	112	914.2	222	925.2
3	903.3	113	914.3	223	925.3
4	903.4	114	914.4	224	925.4
5	903.5	115	914.5	225	925.5
6	903.6	116	914.6	226	925.6
7	903.7	117	914.7	227	925.7
8	903.8	118	914.8	228	925.8
9	903.9	119	914.9	229	925.9
10	904	120	915	230	926
11	904.1	121	915.1	231	926.1
12	904.2	122	915.2	232	926.2
13	904.3	123	915.3	233	926.3
14	904.4	124	915.4	234	926.4
15	904.5	125	915.5	235	926.5
16	904.6	126	915.6	236	926.6
17	904.7	127	915.7	237	926.7
18	904.8	128	915.8	238	926.8
19	904.9	129	915.9	239	926.9
20	905	130	916	240	927
...	...	...	...	/	/
Lowest channel		Middle channel		Highest channel	
Channel No.	Frequency (MHz)	Channel No.	Frequency (MHz)	Channel No.	Frequency (MHz)
0	903	120	915	240	927

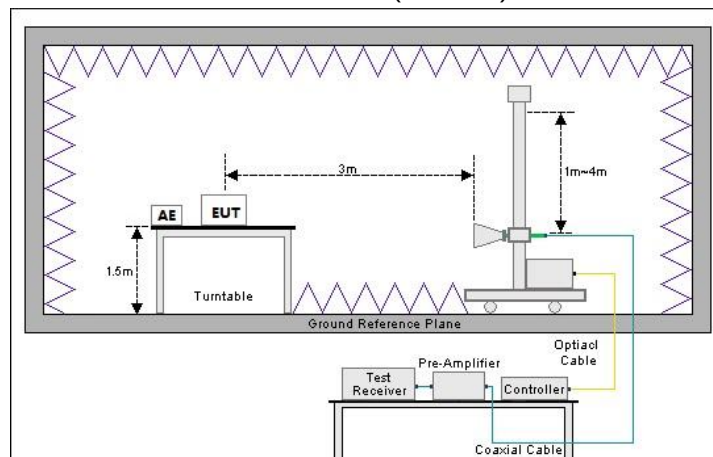
4.2 Test Setup

1) Radiated emission measurement:

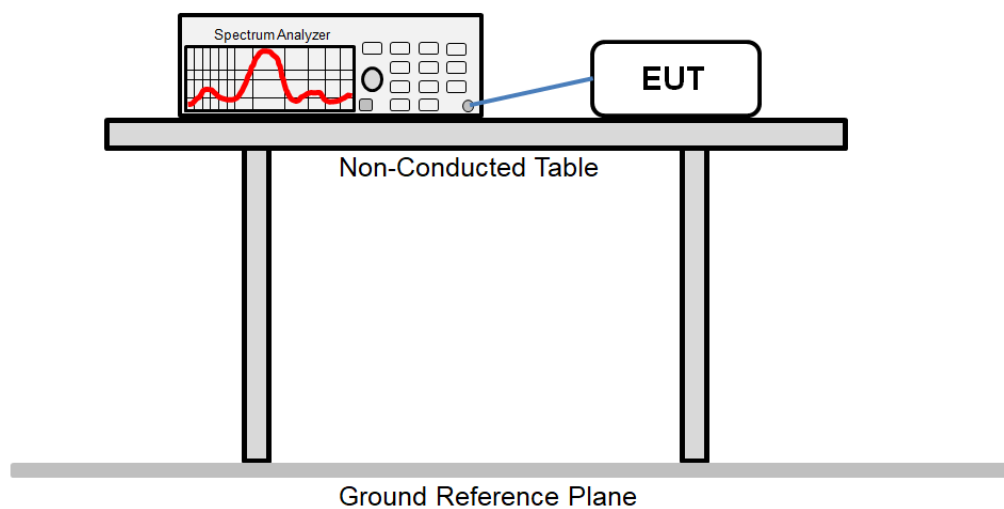
Below 1GHz (3m SAC)



Above 1GHz (3m SAC)



2) Conducted test method



4.3 Test Procedure

Test method	Test step
Radiated emission	For below 1GHz: - The EUT was placed on the tabletop of a rotating table 0.8 m the ground at a 10 m semi anechoic chamber. The measurement distance from the EUT to the receiving antenna is 10 m. - EUT works in each mode of operation that needs to be tested, and having the EUT continuously working, respectively on 3 axis (X, Y & Z) and considered typical configuration to obtain worst position. The highest signal levels relative to the limit shall be determined by rotating the EUT from 0° to 360° and with varying the measurement antenna height between 1 m and 4 m in vertical and horizontal polarizations. - Open the test software to control the test antenna and test turntable. Perform the test, save the test results, and export the test data. For above 1GHz: - The EUT was placed on the tabletop of a rotating table 1.5 m the ground at a 3 m fully anechoic room. The measurement distance from the EUT to the receiving antenna is 3 m. - EUT works in each mode of operation that needs to be tested, and having the EUT continuously working, respectively on 3 axis (X, Y & Z) and considered typical configuration to obtain worst position. The highest signal levels relative to the limit shall be determined by rotating the EUT from 0° to 360° and with varying the measurement antenna height between 1 m and 4 m in vertical and horizontal polarizations. - Open the test software to control the test antenna and test turntable. Perform the test, save the test results, and export the test data.
Conducted test method	- The antenna port of EUT was connected to the test port of the test system through an RF cable. - The EUT is keeping in continuous transmission mode and tested in all modulation modes. - Open the test software, prepare a test plan, and control the system through the software. After the test is completed, the test report is exported through the test software.

5 Test Results

5.1 Summary

5.1.1 Clause and data summary

Test items	Standard clause	Test data	Result
Antenna Requirement	15.203 15.247 (b)(4)	See Section 5.2	Pass
AC Power Line Conducted Emission	15.207	See Section 5.3	Pass
Conducted Output Power	15.247 (b)(2)	See Section 5.4	Pass
20dB Occupied Bandwidth	15.247 (a)(1)(i)	See Section 5.5	Pass
Carrier Frequencies Separation	15.247 (a)(1)	See Section 5.6	Pass
Hopping Channel Number	5.247 (a)(1)(i)	See Section 5.7	Pass
Dwell Time	15.247 (a)(1)(i)	See Section 5.8	Pass
Spurious Emission	15.205 15.209 15.247 (d)	See Section 5.9	Pass
Remark: 1. Pass: The EUT complies with the essential requirements in the standard. 2. N/A: Not Applicable. 3. The cable insertion loss used by "RF Output Power" and other conduction measurement items is 0.5dB (provided by the customer).			
Test Method:	ANSI C63.10-2013 KDB 558074 D01 15.247 Meas Guidance v05r02		

5.1.2 Test Limit

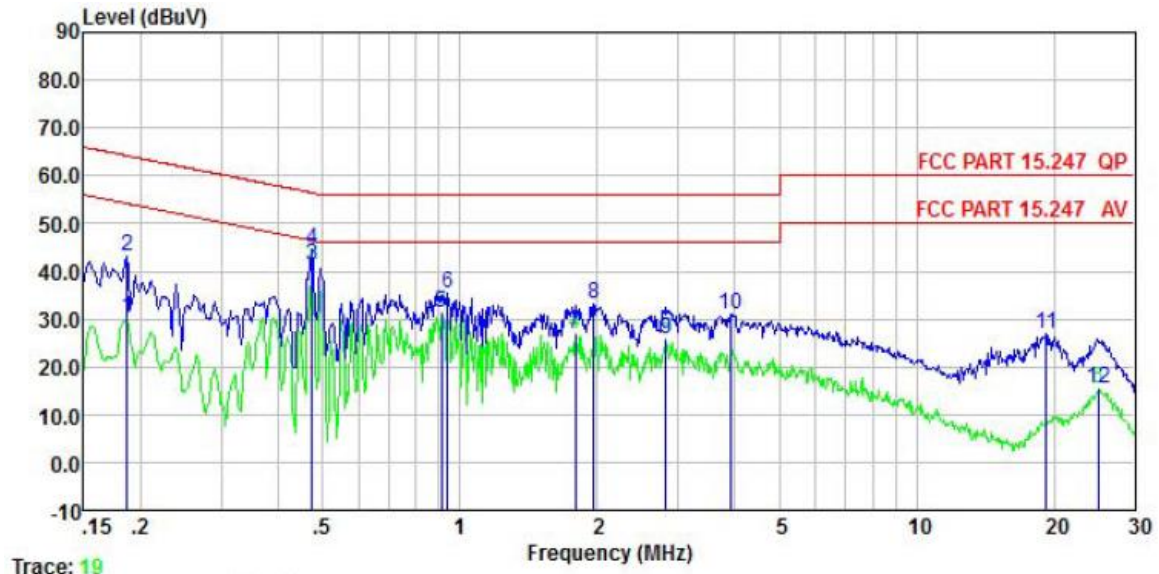
Test items	Limit																														
Conducted Output Power	For frequency hopping systems operating in the 902-928 MHz band: 1 watt for systems employing at least 50 hopping channels; and, 0.25 watts for systems employing less than 50 hopping channels, but at least 25 hopping channels, as permitted under paragraph (a)(1)(i) of this section.																														
20dB Occupied Bandwidth Hopping Channel Number Dwell Time	For frequency hopping systems operating in the 902-928 MHz band: if the 20 dB bandwidth of the hopping channel is less than 250 kHz, the system shall use at least 50 hopping frequencies and the average time of occupancy on any frequency shall not be greater than 0.4 seconds within a 20 second period; if the 20 dB bandwidth of the hopping channel is 250 kHz or greater, the system shall use at least 25 hopping frequencies and the average time of occupancy on any frequency shall not be greater than 0.4 seconds within a 10 second period. The maximum allowed 20 dB bandwidth of the hopping channel is 500 kHz.																														
Carrier Frequencies Separation	Frequency hopping systems shall have hopping channel carrier frequencies separated by a minimum of 25 kHz or the 20 dB bandwidth of the hopping channel, whichever is greater																														
Spurious Emission	In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated 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, provided the transmitter demonstrates compliance with the peak conducted power limits. If the transmitter complies with the conducted power limits based on the use of RMS averaging over a time interval, as permitted under paragraph (b)(3) of this section, the attenuation required under this paragraph shall be 30 dB instead of 20 dB. Attenuation below the general limits specified in §15.209(a) is not required. In addition, radiated emissions which fall in the restricted bands, as defined in §15.205(a), must also comply with the radiated emission limits specified in §15.209(a) (see §15.205(c)): <table><tr><th rowspan="2">Frequency (MHz)</th><th colspan="2">Limit (dBµV/m)</th><th rowspan="2">Detector</th></tr><tr><th>@ 3m</th><th>@ 10m</th></tr><tr><td>30 – 88</td><td>40.0</td><td>30.0</td><td>Quasi-peak</td></tr><tr><td>88 – 216</td><td>43.5</td><td>33.5</td><td>Quasi-peak</td></tr><tr><td>216 – 960</td><td>46.0</td><td>36.0</td><td>Quasi-peak</td></tr><tr><td>960 – 1000</td><td>54.0</td><td>44.0</td><td>Quasi-peak</td></tr></table> Note: The more stringent limit applies at transition frequencies. <table><tr><th rowspan="2">Frequency</th><th colspan="2">Limit (dBµV/m) @ 3m</th></tr><tr><th>Average</th><th>Peake</th></tr><tr><td>Above 1 GHz</td><td>54.0</td><td>74.0</td></tr></table> Note: The measurement bandwidth shall be 1 MHz or greater.	Frequency (MHz)	Limit (dBµV/m)		Detector	@ 3m	@ 10m	30 – 88	40.0	30.0	Quasi-peak	88 – 216	43.5	33.5	Quasi-peak	216 – 960	46.0	36.0	Quasi-peak	960 – 1000	54.0	44.0	Quasi-peak	Frequency	Limit (dBµV/m) @ 3m		Average	Peake	Above 1 GHz	54.0	74.0
Frequency (MHz)	Limit (dBµV/m)		Detector																												
	@ 3m	@ 10m																													
30 – 88	40.0	30.0	Quasi-peak																												
88 – 216	43.5	33.5	Quasi-peak																												
216 – 960	46.0	36.0	Quasi-peak																												
960 – 1000	54.0	44.0	Quasi-peak																												
Frequency	Limit (dBµV/m) @ 3m																														
	Average	Peake																													
Above 1 GHz	54.0	74.0																													

5.2 Antenna Requirement

Standard requirement:	FCC Part 15 C Section 15.203 & 247(b)
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: (4) 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.	
E.U.T Antenna:	
The EUT antenna is an Internal antenna which permanently attached, and the best case gain of the antenna 0 is 0.54 dBi and the best case gain of the antenna 1 is -0.46 dBi. See product internal photos for details.	

5.3 AC Power Line Conducted Emission

Product name:	Home Security Hub(Station)	Product model:	RBGW-202-915(US)
Test by:	Asher	Test mode:	Tx mode
Test frequency:	150 kHz ~ 30 MHz	Phase:	Line
Test voltage:	AC 120 V/60 Hz		

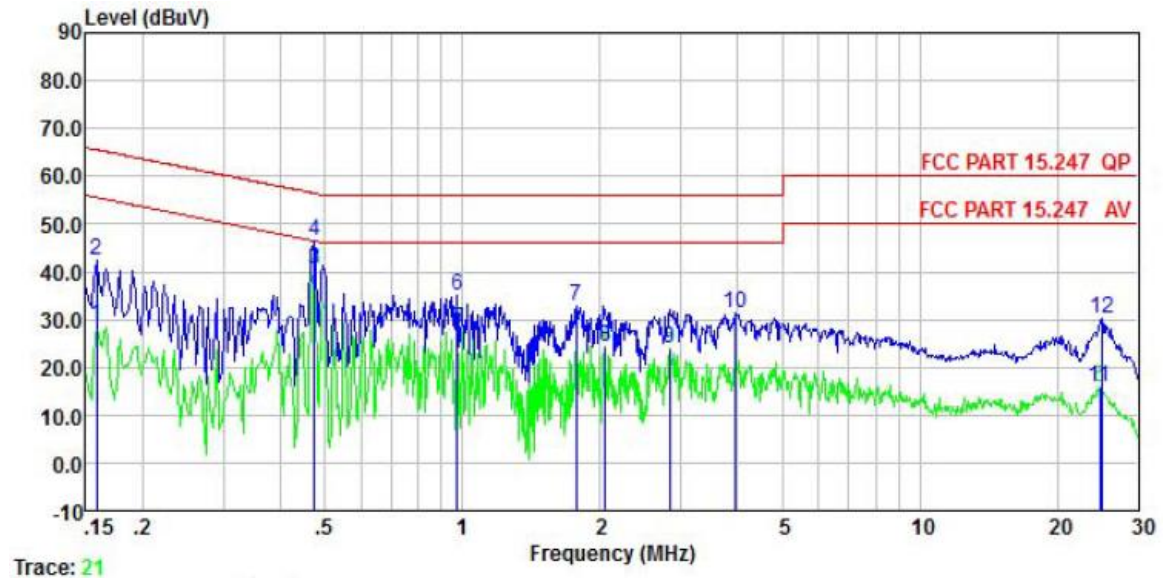


	Freq	Read Level	LISN Factor	Aux2 Factor	Cable Loss	Level	Limit Line	Over Limit	Remark
	MHz	dBuV	dB	dB	dB	dBuV	dBuV	dB	
1	0.186	19.38	0.20	10.50	0.02	30.10	54.20	-24.10	Average
2	0.186	32.50	0.20	10.50	0.02	43.22	64.20	-20.98	QP
3	0.474	30.67	0.20	10.50	0.03	41.40	46.45	-5.05	Average
4	0.474	33.81	0.20	10.50	0.03	44.54	56.45	-11.91	QP
5	0.909	20.60	0.20	10.50	0.04	31.34	46.00	-14.66	Average
6	0.938	24.71	0.20	10.50	0.04	35.45	56.00	-20.55	QP
7	1.790	15.83	0.20	10.50	0.19	26.72	46.00	-19.28	Average
8	1.959	22.28	0.20	10.50	0.21	33.19	56.00	-22.81	QP
9	2.824	15.13	0.20	10.50	0.09	25.92	46.00	-20.08	Average
10	3.901	20.20	0.20	10.50	0.08	30.98	56.00	-25.02	QP
11	19.224	15.80	0.29	10.50	0.15	26.74	60.00	-33.26	QP
12	24.922	4.63	0.30	10.50	0.19	15.62	50.00	-34.38	Average

Remark:

1. Level = Read level + LISN Factor + Cable Loss.

Product name:	Home Security Hub(Station)	Product model:	RBGW-202-915(US)
Test by:	Asher	Test mode:	Tx mode
Test frequency:	150 kHz ~ 30 MHz	Phase:	Neutral
Test voltage:	AC 120 V/60 Hz		



	Freq	Read Level	LISN Factor	Aux2 Factor	Cable Loss	Level	Limit Line	Over Limit	Remark
	MHz	dBuV	dB	dB	dB	dBuV	dBuV	dB	
1	0.158	18.16	0.20	10.50	0.01	28.87	55.56	-26.69	Average
2	0.158	31.52	0.20	10.50	0.01	42.23	65.56	-23.33	QP
3	0.474	29.81	0.20	10.50	0.03	40.54	46.45	-5.91	Average
4	0.474	35.60	0.20	10.50	0.03	46.33	56.45	-10.12	QP
5	0.974	17.32	0.20	10.50	0.05	28.07	46.00	-17.93	Average
6	0.974	24.40	0.20	10.50	0.05	35.15	56.00	-20.85	QP
7	1.772	22.01	0.28	10.50	0.18	32.97	56.00	-23.03	QP
8	2.055	13.25	0.30	10.50	0.20	24.25	46.00	-21.75	Average
9	2.839	12.97	0.30	10.50	0.09	23.86	46.00	-22.14	Average
10	3.943	20.32	0.30	10.50	0.08	31.20	56.00	-24.80	QP
11	24.790	4.86	0.35	10.50	0.19	15.90	50.00	-34.10	Average
12	24.922	19.21	0.35	10.50	0.19	30.25	60.00	-29.75	QP

Remark:

1. Level = Read level + LISN Factor + Cable Loss.

5.4 Conducted Output Power

ANT0:

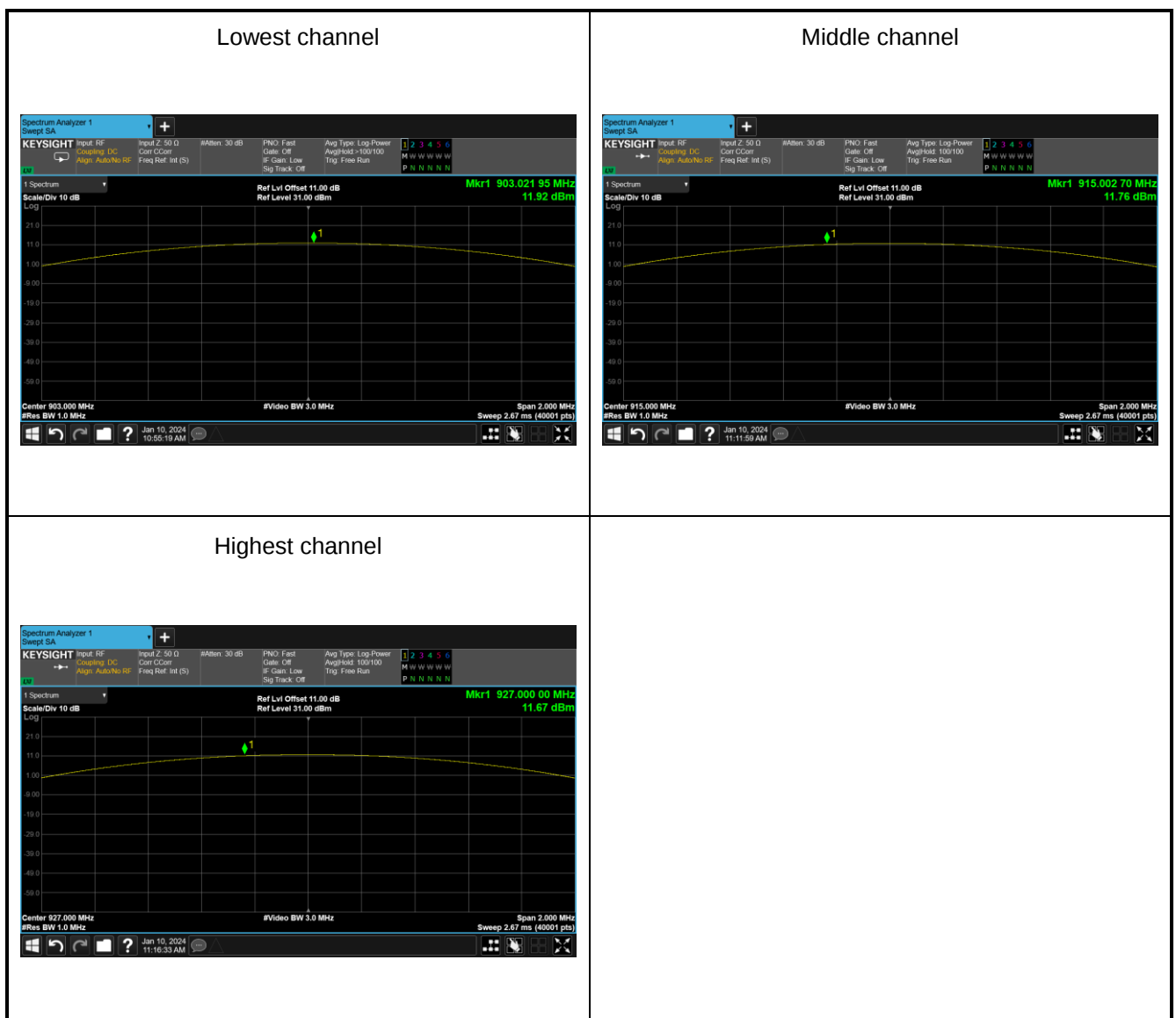
Test channel	Maximum Output Power (dBm)	Limit (dBm)	Result
Lowest channel	11.92	30.00	Pass
Middle channel	11.76	30.00	Pass
Highest channel	11.67	30.00	Pass

ANT1:

Test channel	Maximum Output Power (dBm)	Limit (dBm)	Result
Lowest channel	12.03	30.00	Pass
Middle channel	11.96	30.00	Pass
Highest channel	11.83	30.00	Pass

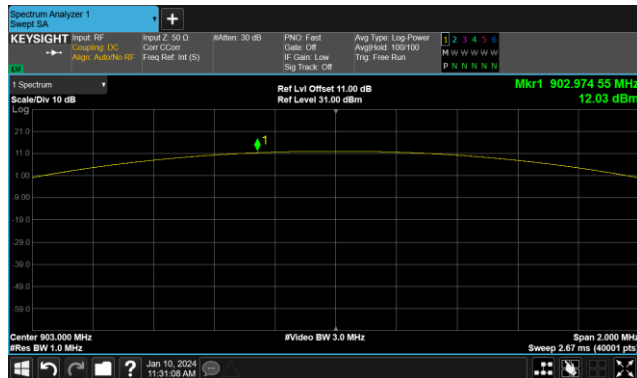
Test plot as follows:

ANT0:

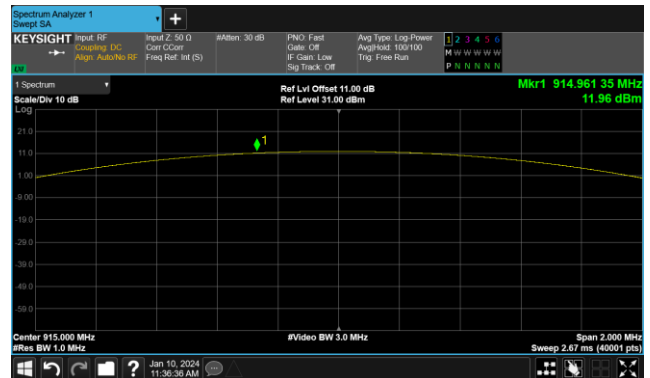


ANT1:

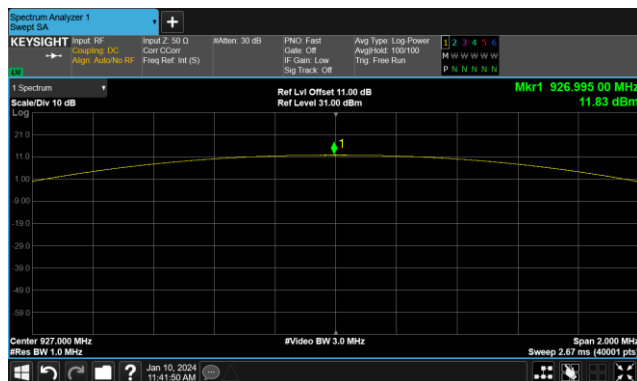
Lowest channel



Middle channel



Highest channel



5.5 20dB Occupied Bandwidth

ANT0:

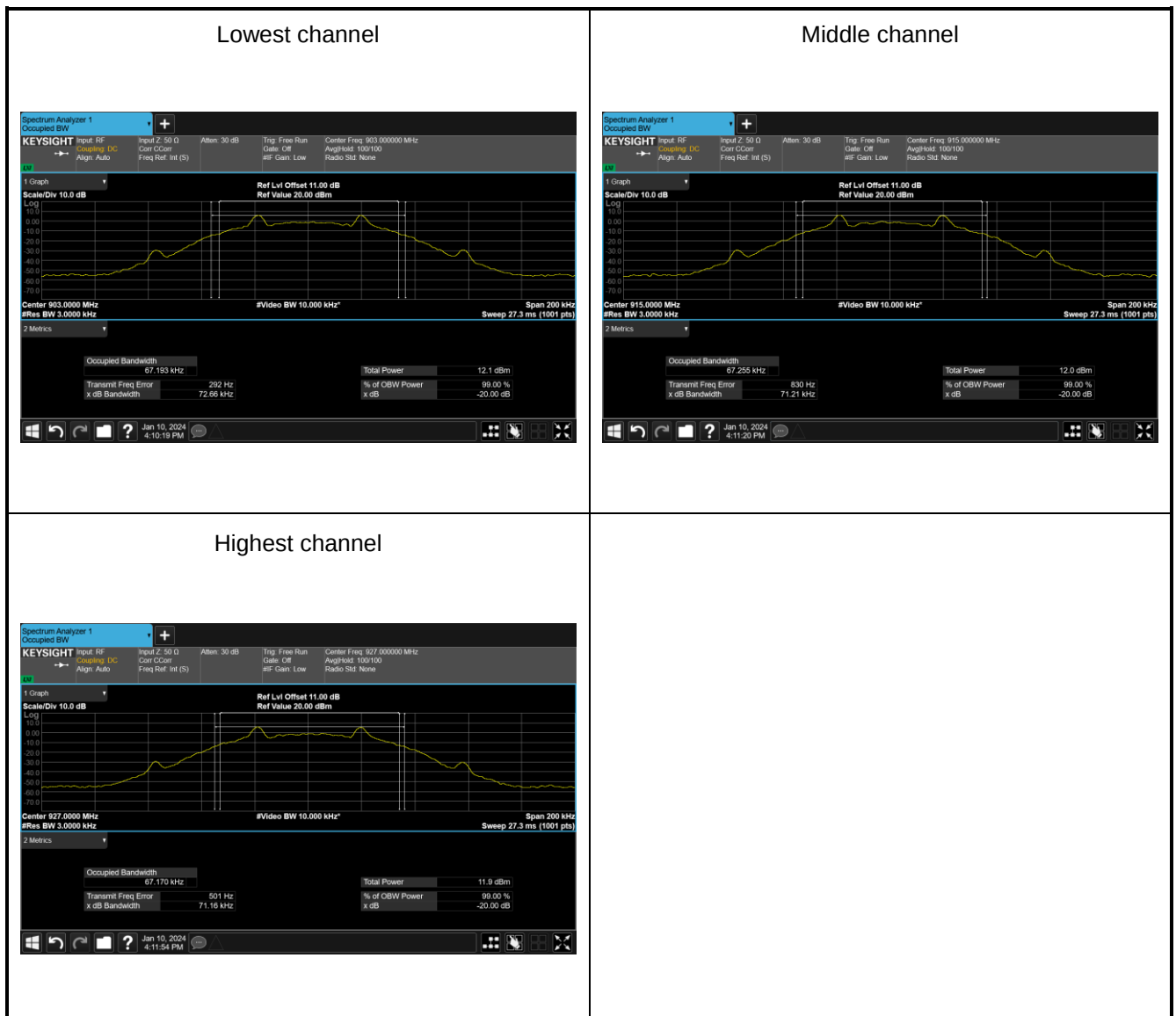
Test channel	20dB Occupy Bandwidth (kHz)
Lowest channel	72.66
Middle channel	71.21
Highest channel	71.16

ANT1:

Test channel	20dB Occupy Bandwidth (kHz)
Lowest channel	70.35
Middle channel	71.48
Highest channel	70.16

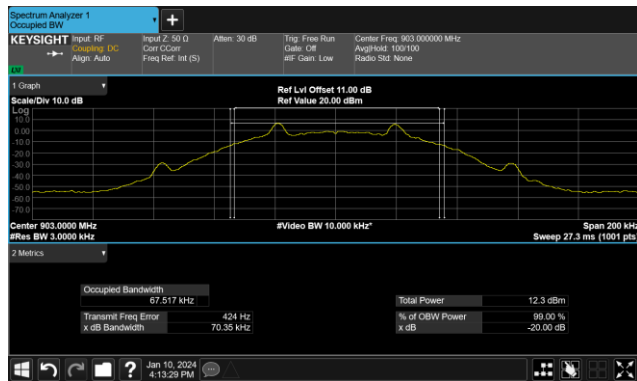
Test plot as follows:

ANT0:

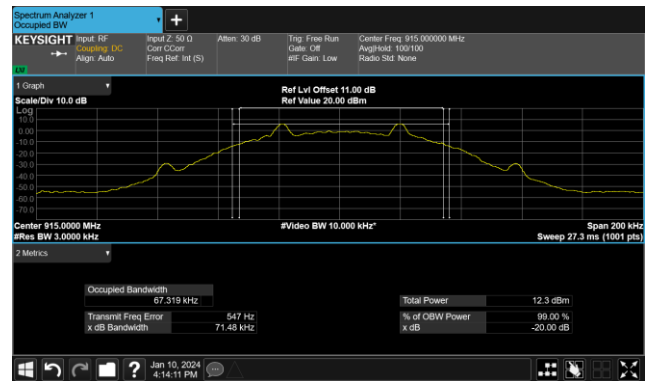


ANT1:

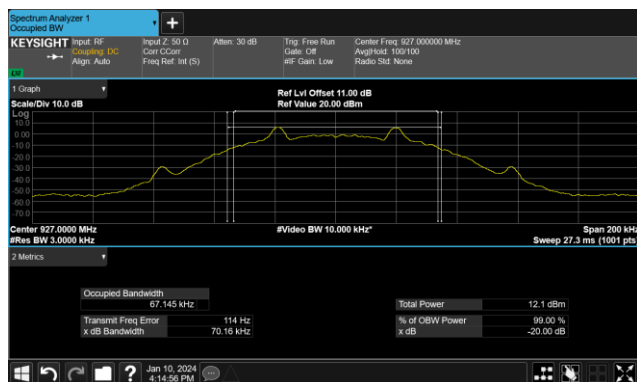
Lowest channel



Middle channel



Highest channel



5.6 Carrier Frequencies Separation

ANT0:

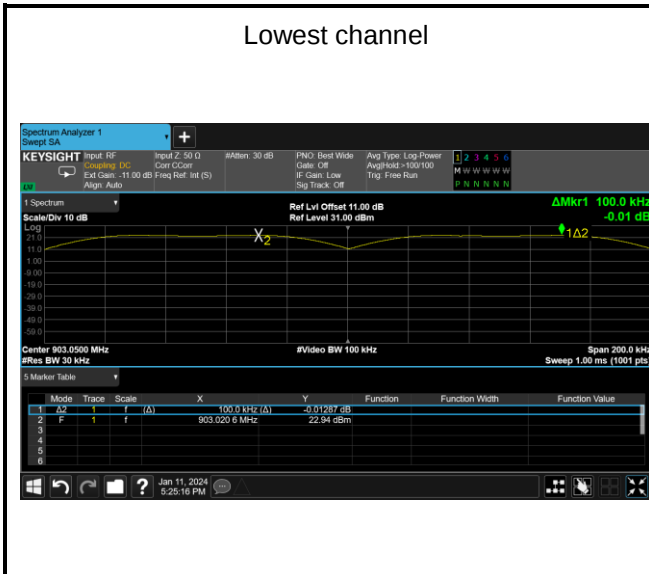
Test channel	Carrier Frequencies Separation (kHz)	Limit (kHz)	Result
Lowest channel	100.0	72.66	Pass
Middle channel	100.0	71.21	Pass
Highest channel	100.0	71.16	Pass

ANT1:

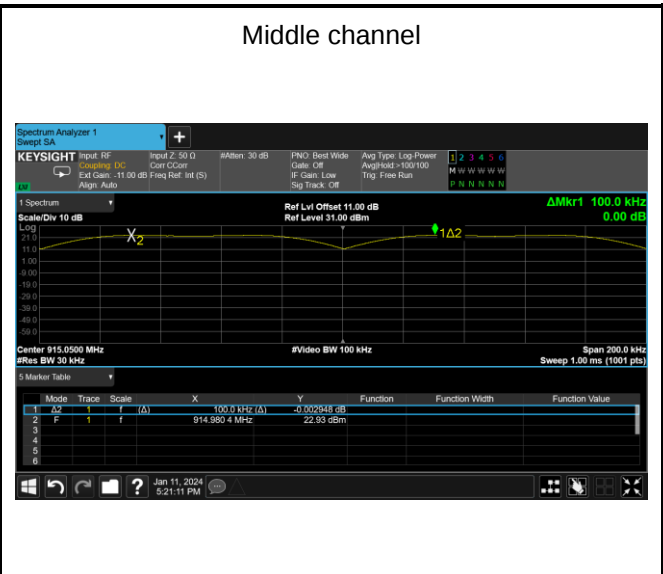
Test channel	Carrier Frequencies Separation (kHz)	Limit (kHz)	Result
Lowest channel	100.0	70.35	Pass
Middle channel	100.0	71.48	Pass
Highest channel	100.0	70.16	Pass

Test plot as follows:

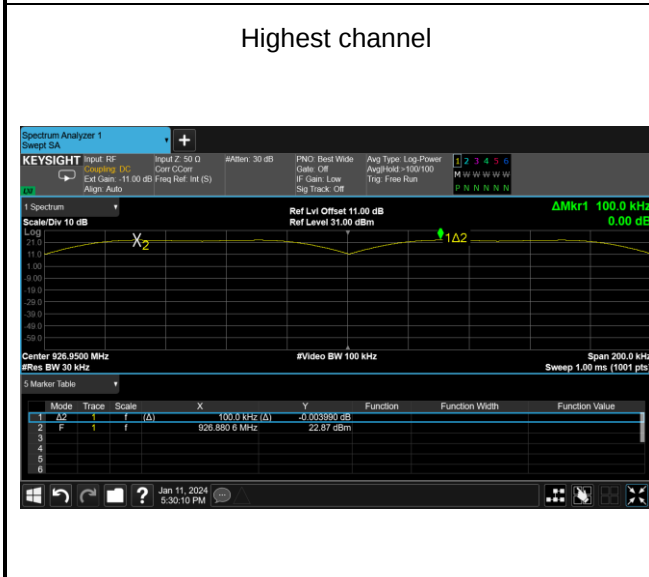
Lowest channel



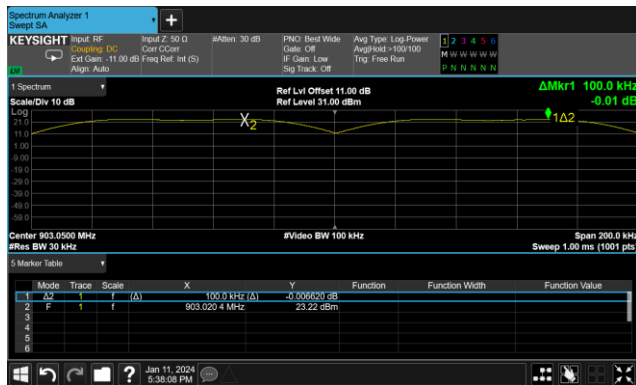
Middle channel



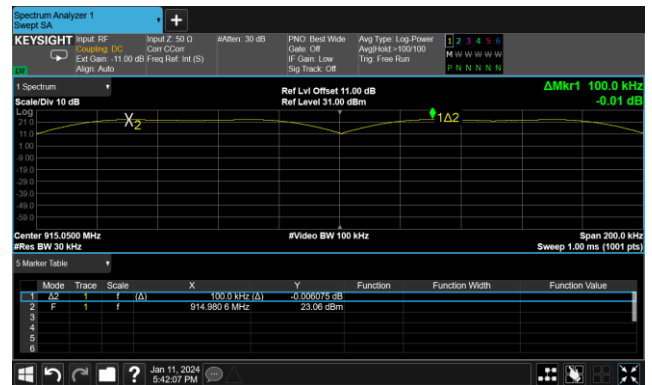
Highest channel



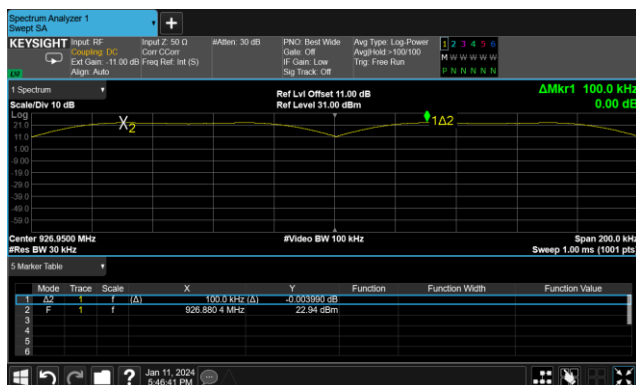
Lowest channel



Middle channel



Highest channel

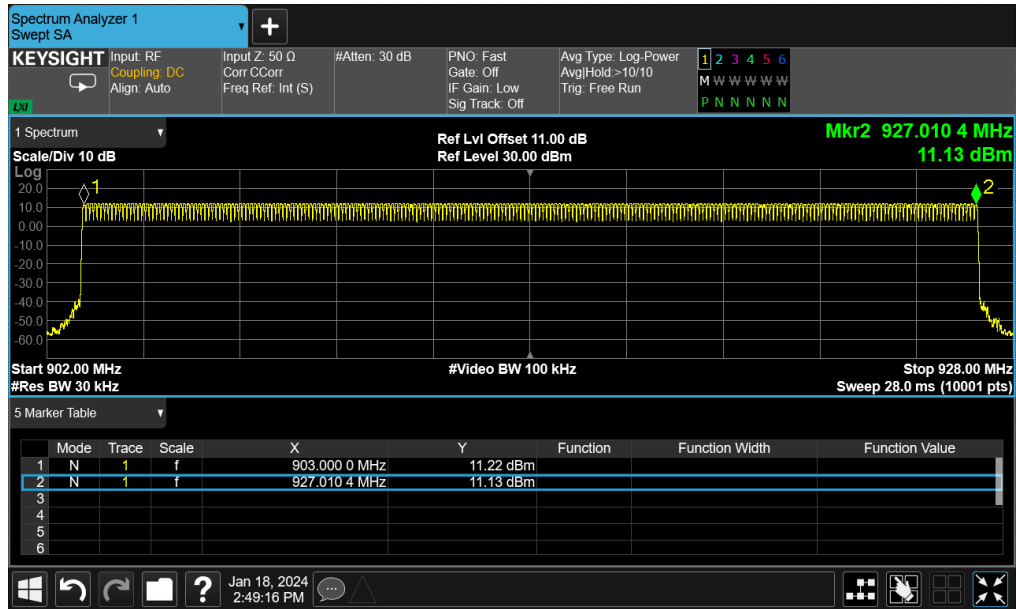


5.7 Hopping Channel Number

Hopping channel numbers	Limit	Result
240	$N_{ch} \geq 50$	Pass

Test plot as follows:

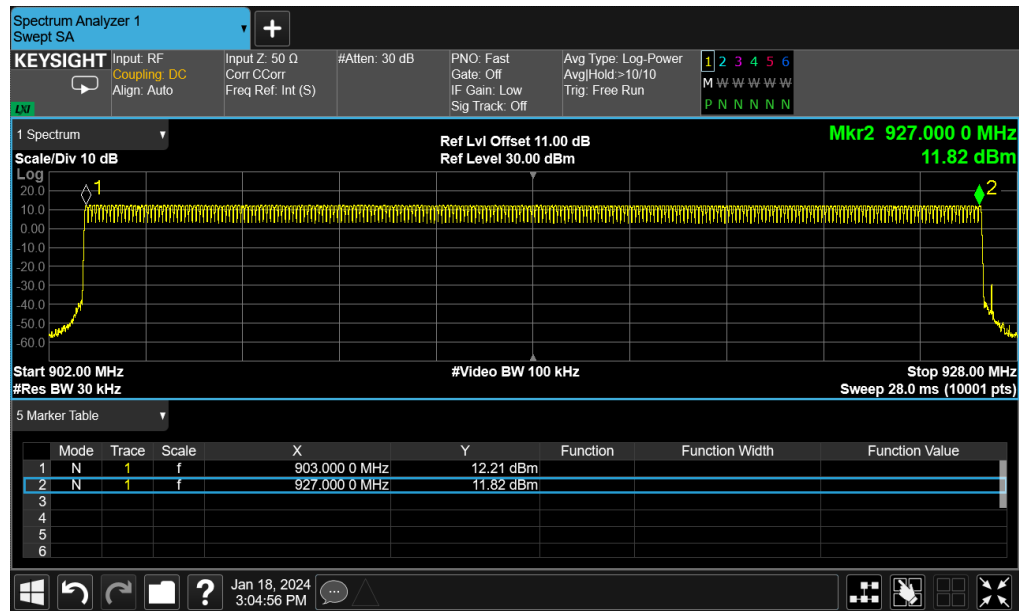
ANT0:



Hopping channel numbers	Limit	Result
240	$N_{ch} \geq 50$	Pass

Test plot as follows:

ANT1:



5.8 Dwell Time

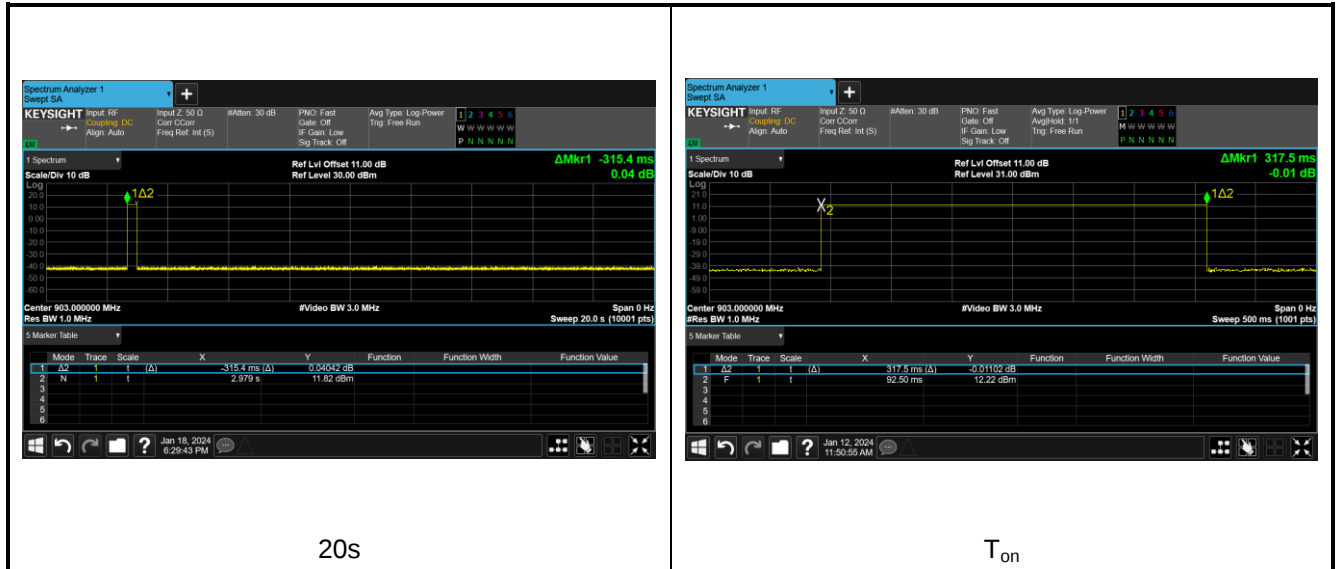
T_{on} (s)	Hopping numbers	Dwell time (s)	Limit (s)	Result
0.3175	1	0.3175	0.4	Pass

Note:

- T_{on} is time per hop.
- Dwell time = $T_{on} * \text{Hopping numbers}$.

Test plot as follows:

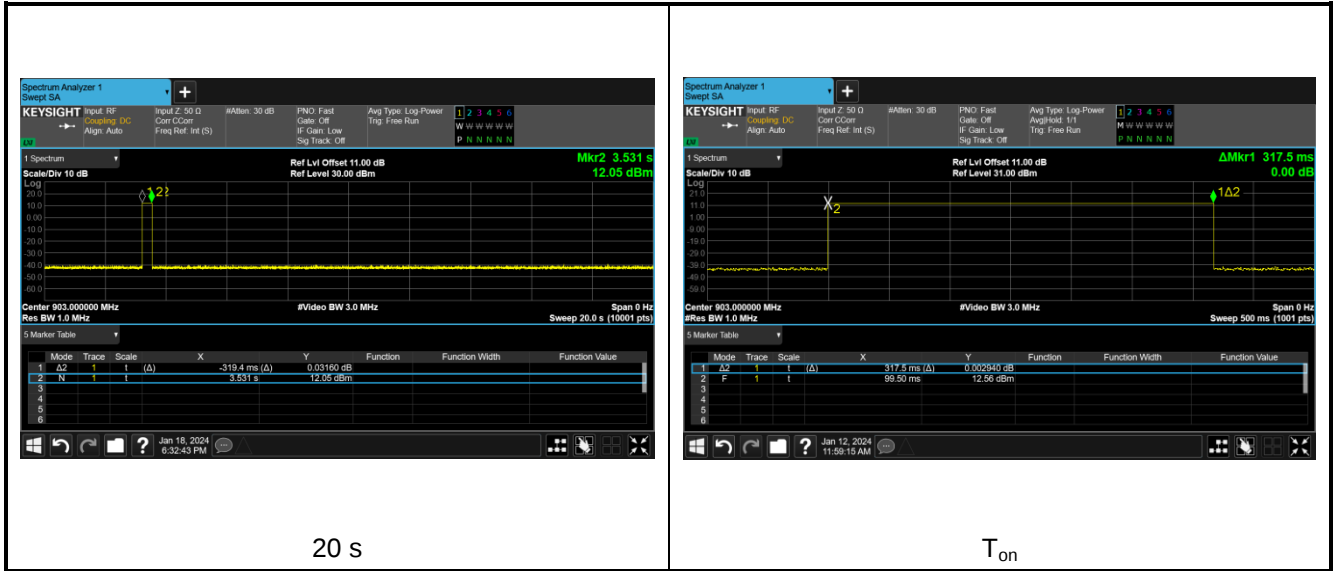
ANT0:



T_{on} (s)	Hopping numbers	Dwell time (s)	Limit (s)	Result
0.3175	1	0.3175	0.4	Pass
Note: 1. T_{on} is time per hop. 2. $Dwell\ time = T_{on} * Hopping\ numbers.$				

Test plot as follows:

ANT1:

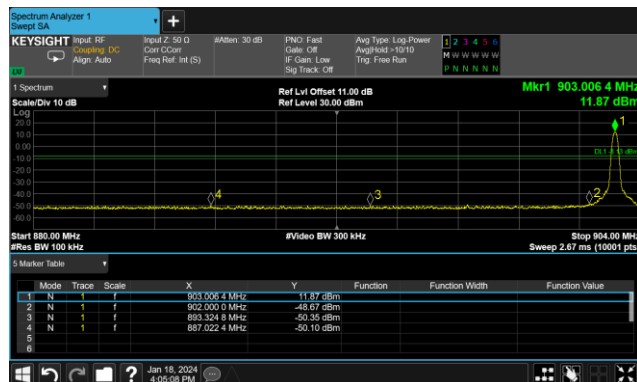


5.9 Spurious Emission

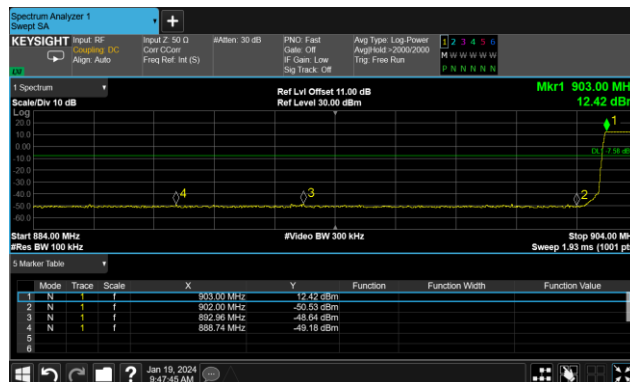
5.9.1 Band-edge Emission

ANT0:

Lowest Channel

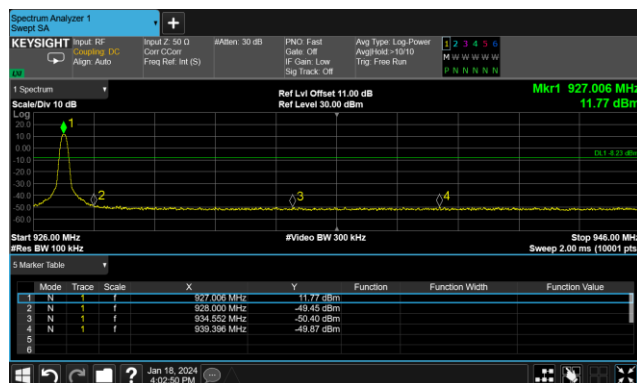


No-hopping mode

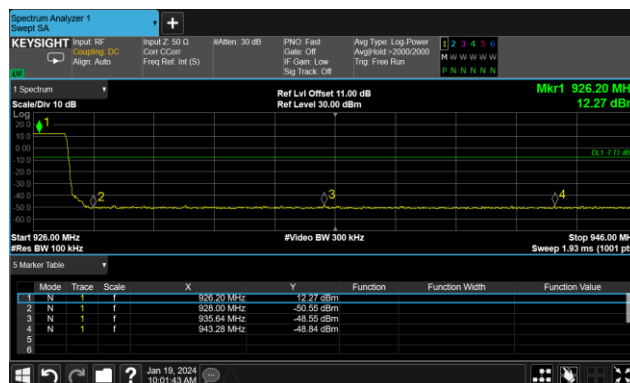


Hopping mode

Highest Channel



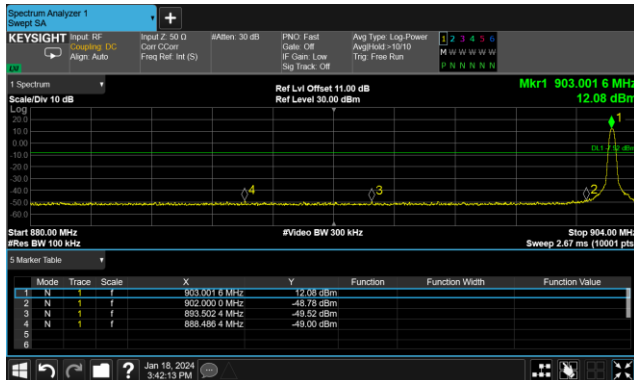
No-hopping mode



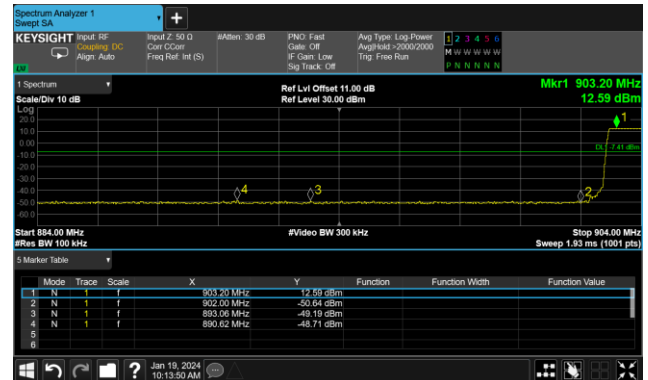
Hopping mode

ANT1:

Lowest Channel

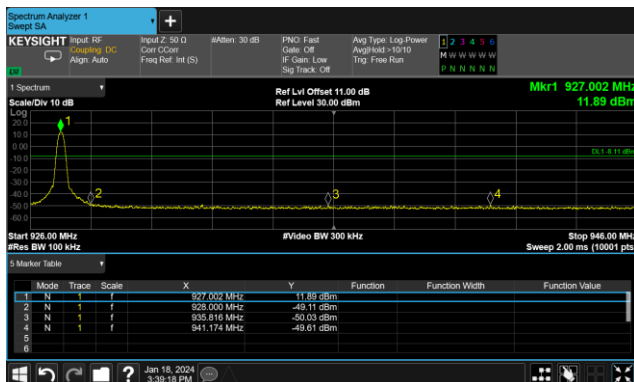


No-hopping mode

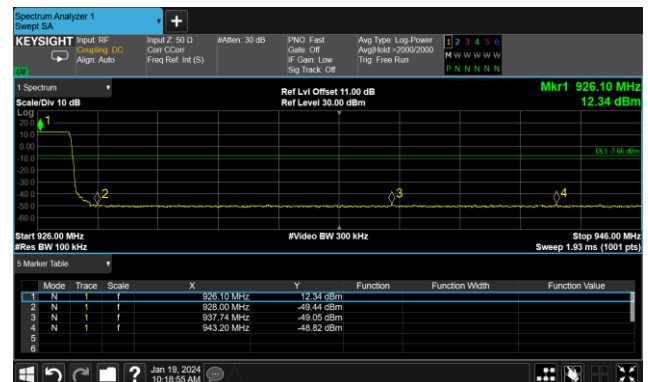


Hopping mode

Highest Channel



No-hopping mode



Hopping mode

5.9.2 Conducted Spurious Emission

ANT0:

Lowest channel



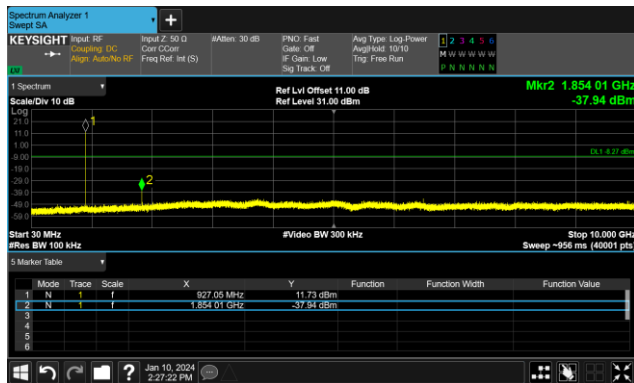
30MHz~10GHz

Middle channel



30MHz~10GHz

Highest channel



30MHz~10GHz

ANT1:

Lowest channel



30MHz~10GHz

Middle channel



30MHz~10GHz

Highest channel

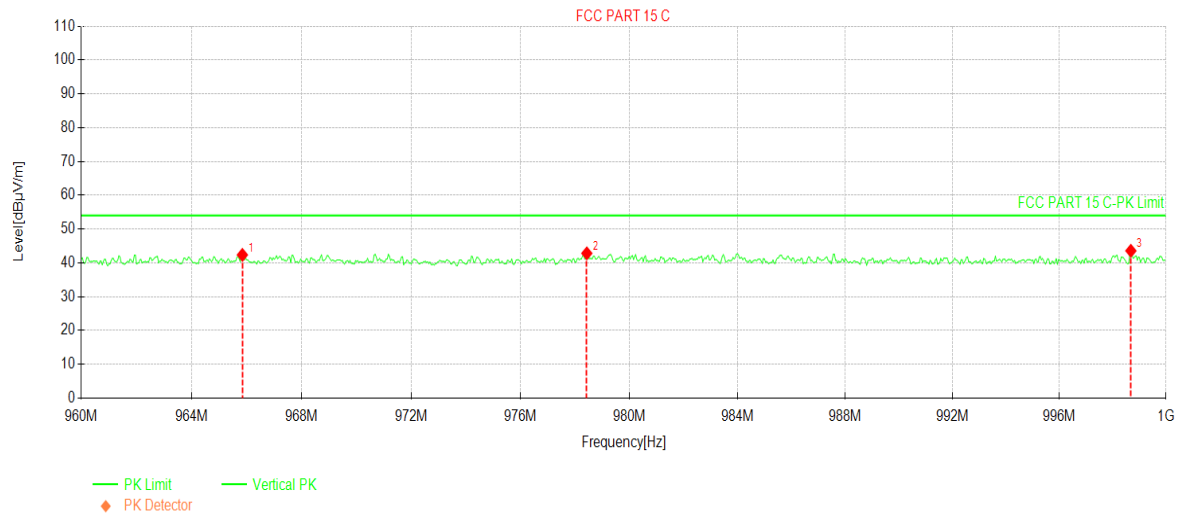


30MHz~10GHz

5.9.3 Emissions in Restricted Frequency Bands

ANT0:

Product Name:	Home Security Hub(Station)	Product Model:	RBGW-202-915(US)
Test By:	Kiran	Test mode:	Tx mode
Test Channel:	Lowest channel	Polarization:	Vertical
Test Voltage:	AC120V/60Hz		



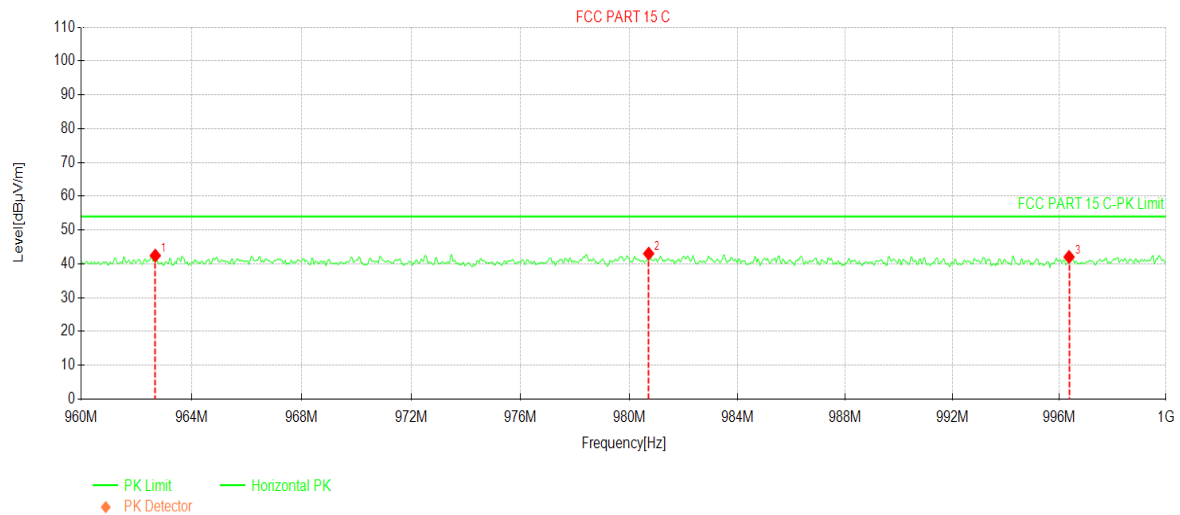
Suspected Data List

NO.	Freq. [MHz]	Reading [dBμV/m]	Factor [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Trace	Polarity
1	965.840	15.37	26.99	42.36	54.00	11.64	PK	Vertical
2	978.440	15.66	27.16	42.82	54.00	11.18	PK	Vertical
3	998.680	16.41	27.16	43.57	54.00	10.43	PK	Vertical

Remark:

1. Level = Reading + FactorAntenna Factor + Cable Loss – Preamplifier Factor).

Product Name:	Home Security Hub(Station)	Product Model:	RBGW-202-915(US)
Test By:	Kiran	Test mode:	Tx mode
Test Channel:	Lowest channel	Polarization:	Horizontal
Test Voltage:	AC120V/60Hz		



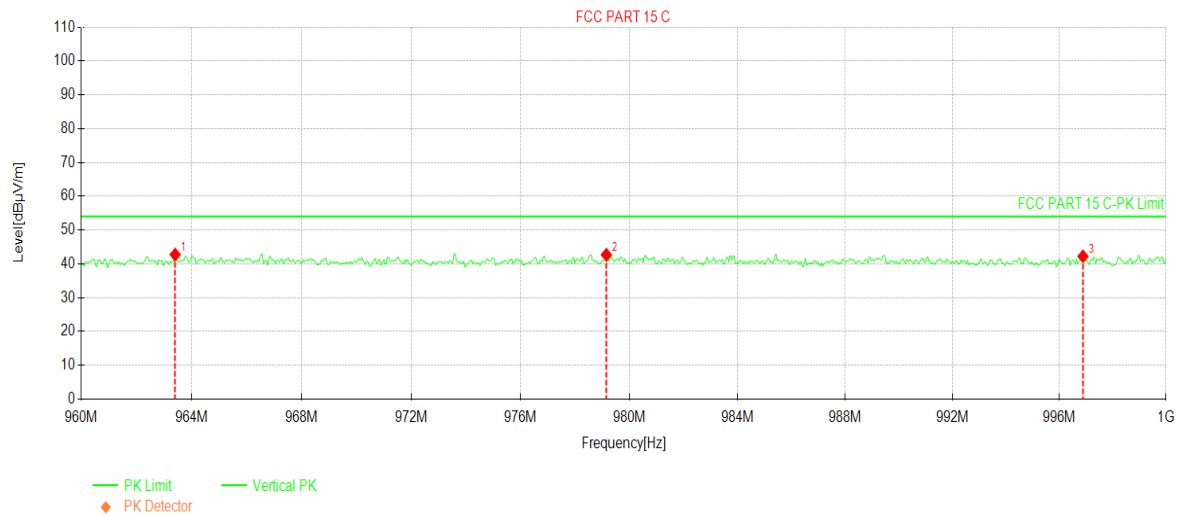
Suspected Data List

NO.	Freq. [MHz]	Reading [dBμV/m]	Factor [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Trace	Polarity
1	962.6800	15.51	26.94	42.45	54.00	11.55	PK	Horizontal
2	980.7200	15.85	27.18	43.03	54.00	10.97	PK	Horizontal
3	996.3600	14.87	27.19	42.06	54.00	11.94	PK	Horizontal

Remark:

1. Level = Reading + FactorAntenna Factor + Cable Loss – Preamplifier Factor).

Product Name:	Home Security Hub(Station)	Product Model:	RBGW-202-915(US)
Test By:	Kiran	Test mode:	Tx mode
Test Channel:	Lowest channel	Polarization:	Vertical
Test Voltage:	AC120V/60Hz		

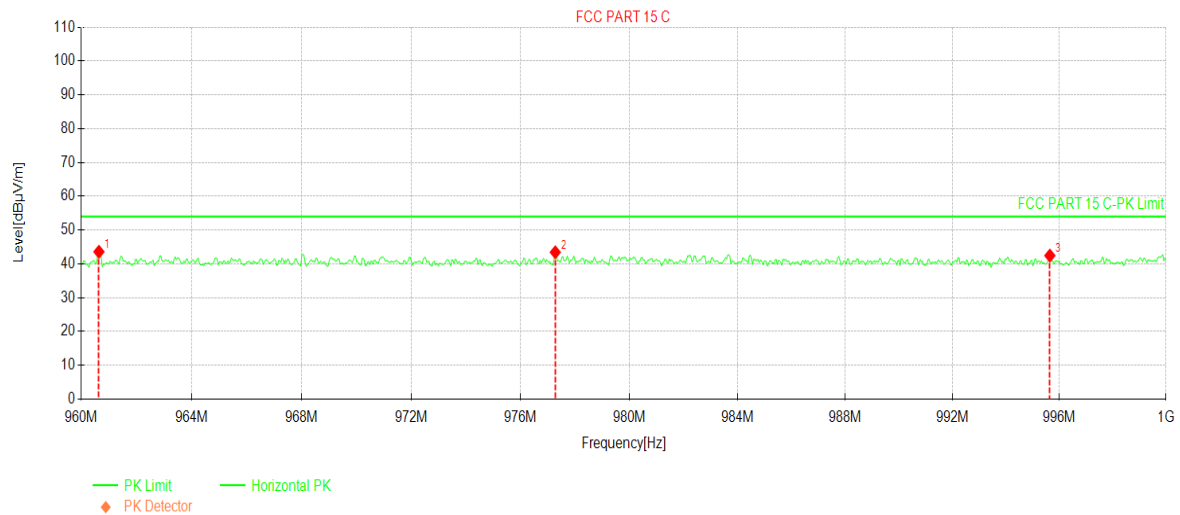


Suspected Data List								
NO.	Freq. [MHz]	Reading [dBμV/m]	Factor [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Trace	Polarity
1	963.400	15.78	26.95	42.73	54.00	11.27	PK	Vertical
2	979.160	15.52	27.17	42.69	54.00	11.31	PK	Vertical
3	996.880	15.04	27.19	42.23	54.00	11.77	PK	Vertical

Remark:

1. Level = Reading + FactorAntenna Factor + Cable Loss – Preamplifier Factor).

Product Name:	Home Security Hub(Station)	Product Model:	RBGW-202-915(US)
Test By:	Kiran	Test mode:	Tx mode
Test Channel:	Lowest channel	Polarization:	Horizontal
Test Voltage:	AC120V/60Hz		



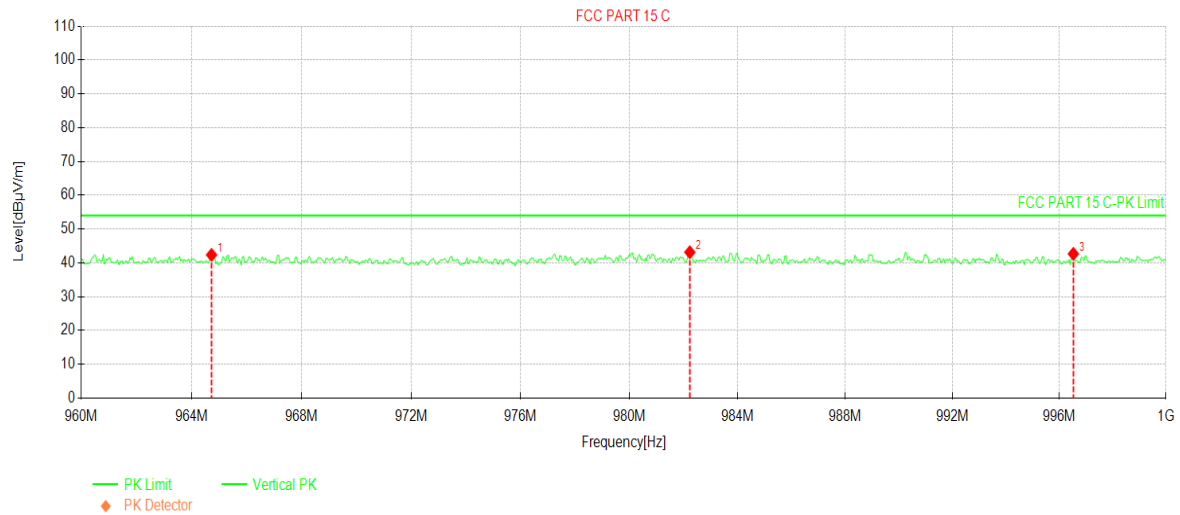
Suspected Data List

NO.	Freq. [MHz]	Reading [dBμV/m]	Factor [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Trace	Polarity
1	960.640	16.67	26.91	43.58	54.00	10.42	PK	Horizontal
2	977.280	16.30	27.14	43.44	54.00	10.56	PK	Horizontal
3	995.640	15.23	27.21	42.44	54.00	11.56	PK	Horizontal

Remark:

1. Level = Reading + FactorAntenna Factor + Cable Loss – Preamplifier Factor).

Product Name:	Home Security Hub(Station)	Product Model:	RBGW-202-915(US)
Test By:	Kiran	Test mode:	Tx mode
Test Channel:	Lowest channel	Polarization:	Vertical
Test Voltage:	AC120V/60Hz		



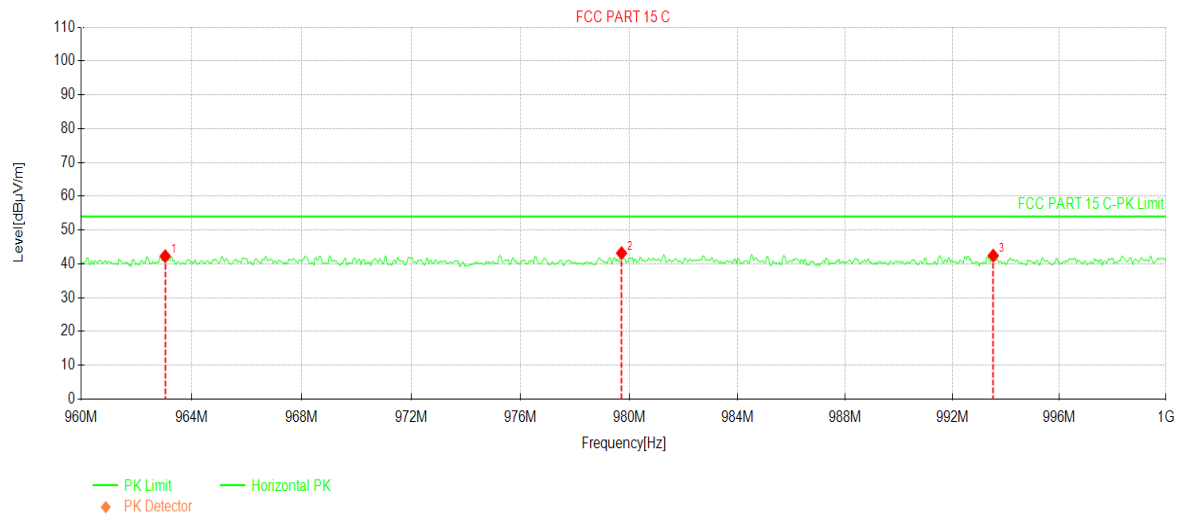
Suspected Data List

NO.	Freq. [MHz]	Reading [dBμV/m]	Factor [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Trace	Polarity
1	964.720	15.38	26.98	42.36	54.00	11.64	PK	Vertical
2	982.240	15.94	27.20	43.14	54.00	10.86	PK	Vertical
3	996.520	15.47	27.19	42.66	54.00	11.34	PK	Vertical

Remark:

1. Level = Reading + FactorAntenna Factor + Cable Loss – Preamplifier Factor).

Product Name:	Home Security Hub(Station)	Product Model:	RBGW-202-915(US)
Test By:	Kiran	Test mode:	Tx mode
Test Channel:	Lowest channel	Polarization:	Horizontal
Test Voltage:	AC120V/60Hz		



Suspected Data List

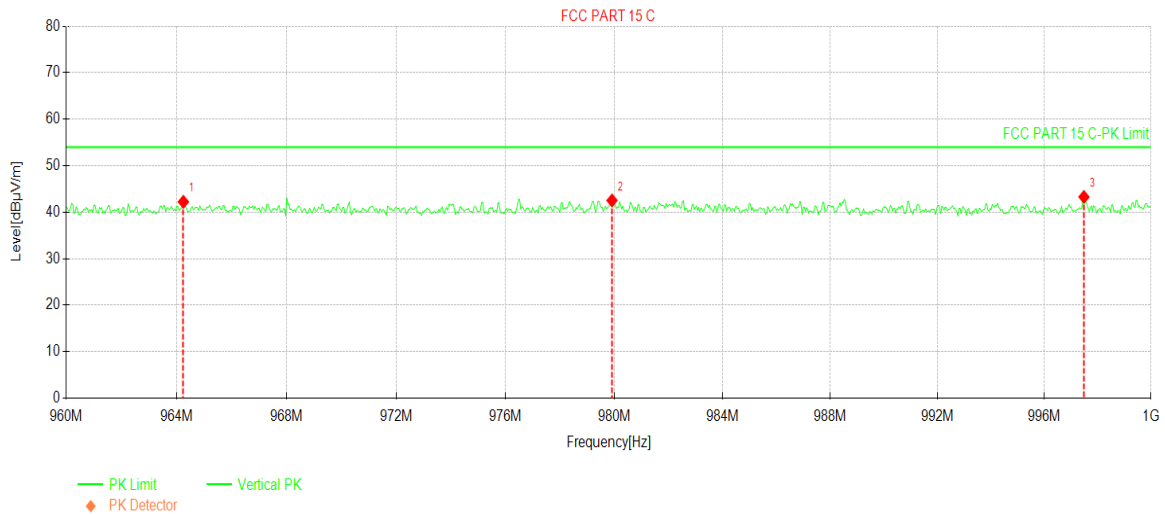
NO.	Freq. [MHz]	Reading [dBμV/m]	Factor [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Trace	Polarity
1	963.040	15.32	26.95	42.27	54.00	11.73	PK	Horizontal
2	979.720	16.01	27.17	43.18	54.00	10.82	PK	Horizontal
3	993.520	15.19	27.24	42.43	54.00	11.57	PK	Horizontal

Remark:

1. Level = Reading + FactorAntenna Factor + Cable Loss – Preamplifier Factor).

ANT1:

Product Name:	Home Security Hub(Station)	Product Model:	RBGW-202-915(US)
Test By:	Kiran	Test mode:	Tx mode
Test Channel:	Lowest channel	Polarization:	Vertical
Test Voltage:	AC120V/60Hz		

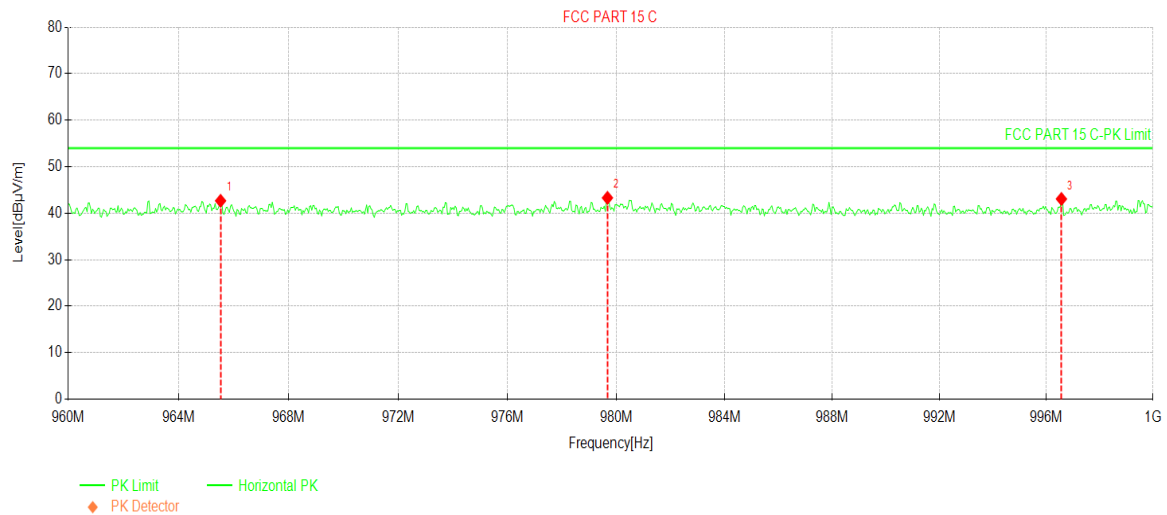

Suspected Data List

NO.	Freq. [MHz]	Reading [dBμV/m]	Factor [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Trace	Polarity
1	964.240	15.25	26.97	42.22	54.00	11.78	PK	Vertical
2	979.920	15.35	27.17	42.52	54.00	11.48	PK	Vertical
3	997.480	16.09	27.18	43.27	54.00	10.73	PK	Vertical

Remark:

1. Level = Reading + FactorAntenna Factor + Cable Loss – Preamplifier Factor).

Product Name:	Home Security Hub(Station)	Product Model:	RBGW-202-915(US)
Test By:	Kiran	Test mode:	Tx mode
Test Channel:	Lowest channel	Polarization:	Horizontal
Test Voltage:	AC120V/60Hz		

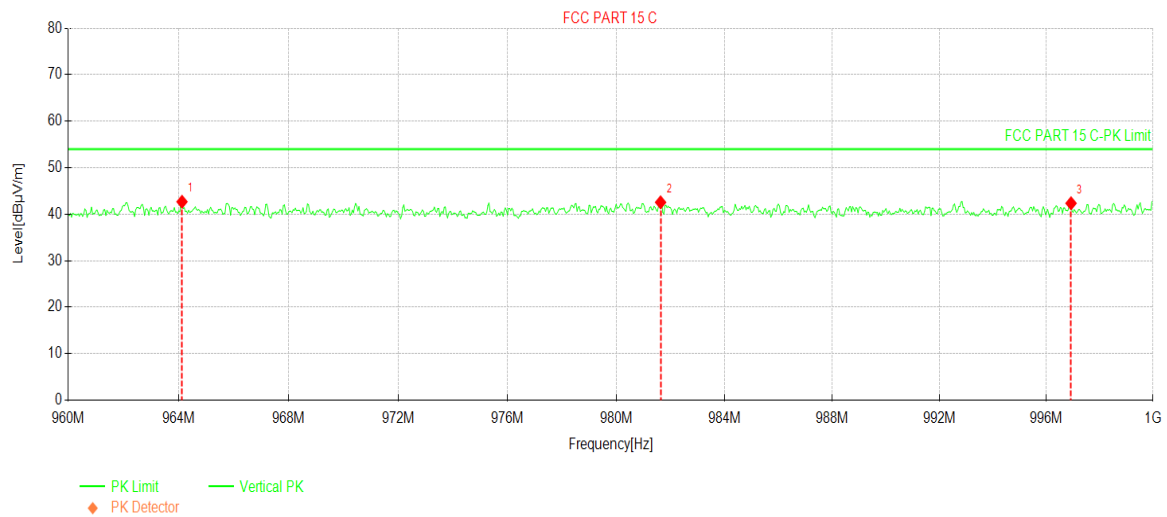


Suspected Data List								
NO.	Freq. [MHz]	Reading [dBμV/m]	Factor [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Trace	Polarity
1	965.520	15.66	26.99	42.65	54.00	11.35	PK	Horizontal
2	979.680	16.12	27.17	43.29	54.00	10.71	PK	Horizontal
3	996.560	15.86	27.19	43.05	54.00	10.95	PK	Horizontal

Remark:

1. Level = Reading + FactorAntenna Factor + Cable Loss – Preamplifier Factor).

Product Name:	Home Security Hub(Station)	Product Model:	RBGW-202-915(US)
Test By:	Kiran	Test mode:	Tx mode
Test Channel:	Lowest channel	Polarization:	Vertical
Test Voltage:	AC120V/60Hz		



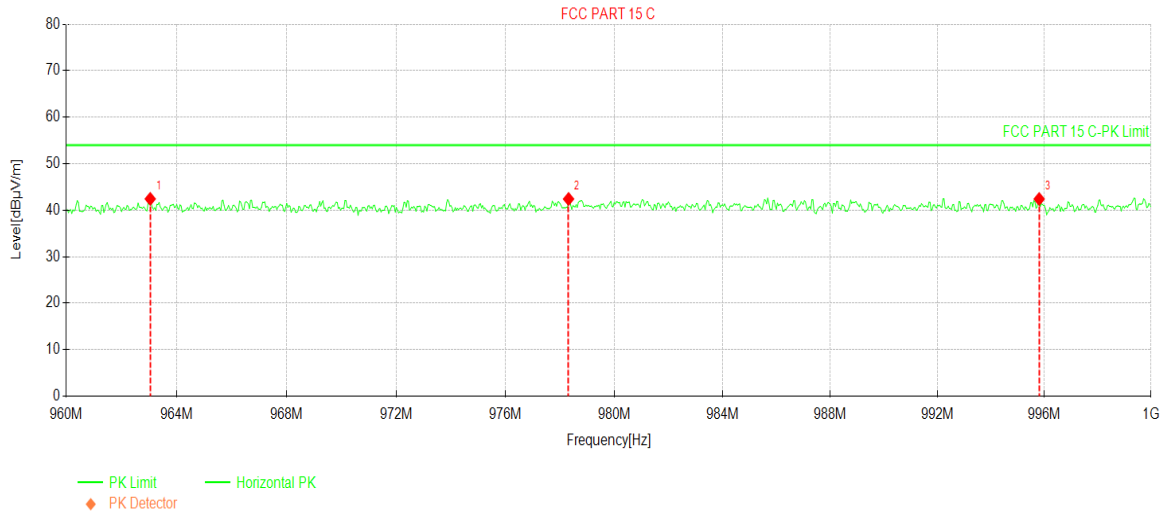
Suspected Data List

NO.	Freq. [MHz]	Reading [dBμV/m]	Factor [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Trace	Polarity
1	964.120	15.70	26.97	42.67	54.00	11.33	PK	Vertical
2	981.640	15.35	27.19	42.54	54.00	11.46	PK	Vertical
3	996.920	15.15	27.19	42.34	54.00	11.66	PK	Vertical

Remark:

1. Level = Reading + FactorAntenna Factor + Cable Loss – Preamplifier Factor).

Product Name:	Home Security Hub(Station)	Product Model:	RBGW-202-915(US)
Test By:	Kiran	Test mode:	Tx mode
Test Channel:	Lowest channel	Polarization:	Horizontal
Test Voltage:	AC120V/60Hz		

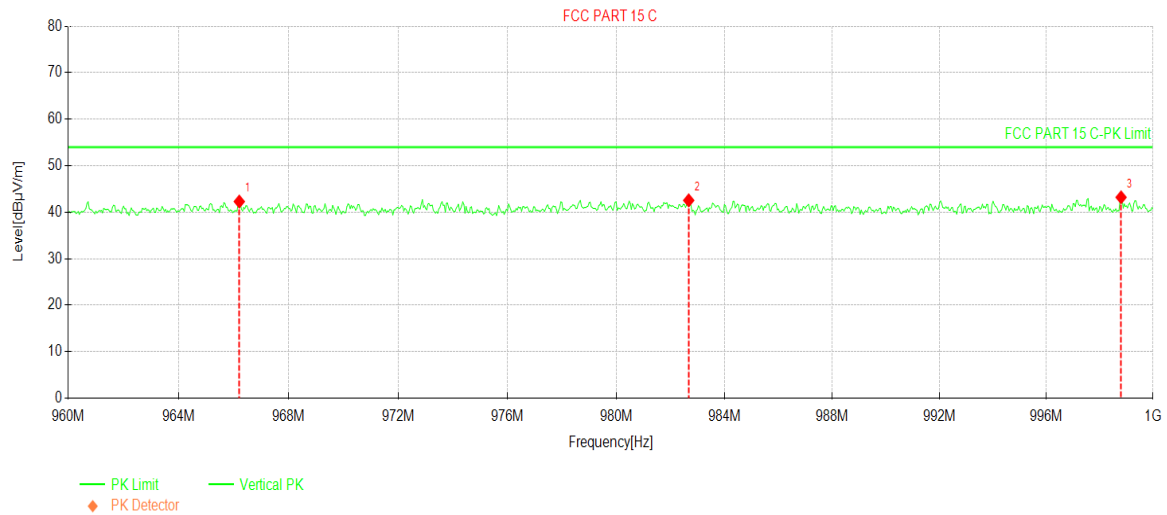


Suspected Data List								
NO.	Freq. [MHz]	Reading [dBμV/m]	Factor [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Trace	Polarity
1	963.040	15.47	26.95	42.42	54.00	11.58	PK	Horizontal
2	978.320	15.24	27.16	42.40	54.00	11.60	PK	Horizontal
3	995.800	15.19	27.20	42.39	54.00	11.61	PK	Horizontal

Remark:

1. Level = Reading + FactorAntenna Factor + Cable Loss – Preamplifier Factor).

Product Name:	Home Security Hub(Station)	Product Model:	RBGW-202-915(US)
Test By:	Kiran	Test mode:	Tx mode
Test Channel:	Lowest channel	Polarization:	Vertical
Test Voltage:	AC120V/60Hz		

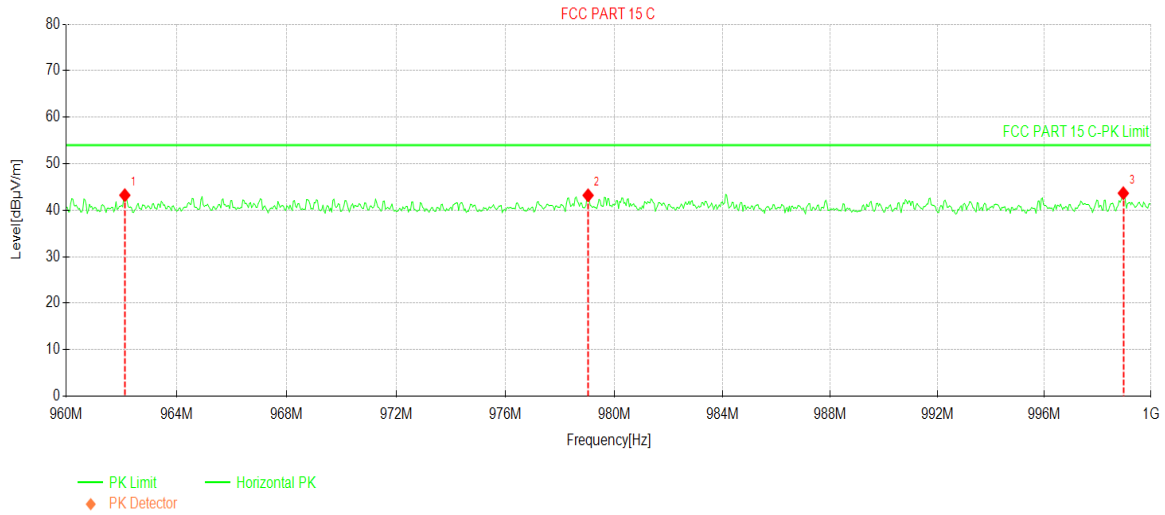


Suspected Data List								
NO.	Freq. [MHz]	Reading [dBμV/m]	Factor [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Trace	Polarity
1	966.200	15.28	27.00	42.28	54.00	11.72	PK	Vertical
2	982.680	15.33	27.21	42.54	54.00	11.46	PK	Vertical
3	998.800	16.03	27.16	43.19	54.00	10.81	PK	Vertical

Remark:

1. Level = Reading + FactorAntenna Factor + Cable Loss – Preamplifier Factor).

Product Name:	Home Security Hub(Station)	Product Model:	RBGW-202-915(US)
Test By:	Kiran	Test mode:	Tx mode
Test Channel:	Lowest channel	Polarization:	Horizontal
Test Voltage:	AC120V/60Hz		



Suspected Data List

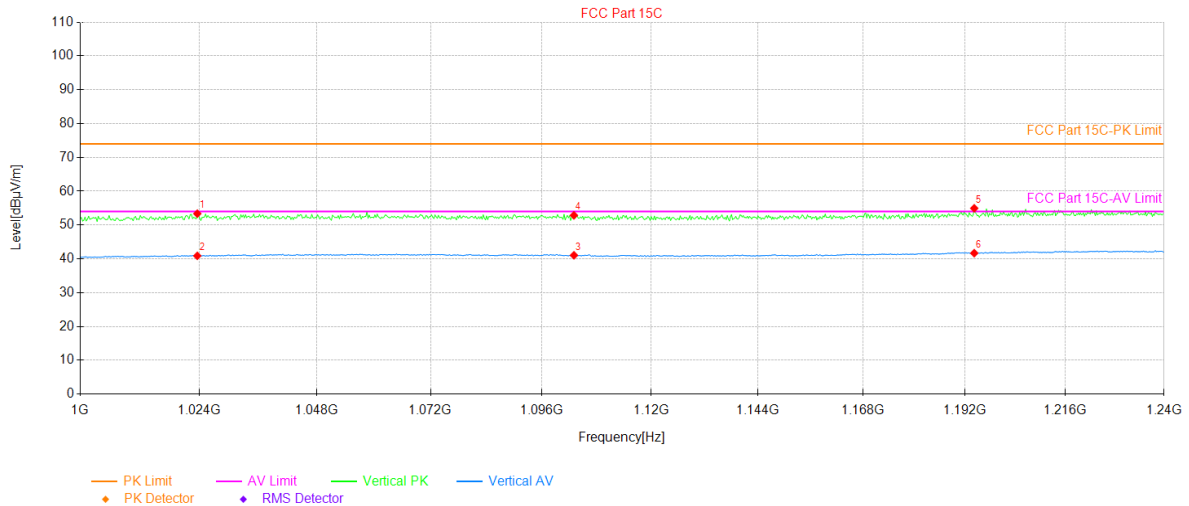
NO.	Freq. [MHz]	Reading [dBμV/m]	Factor [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Trace	Polarity
1	962.120	16.28	26.93	43.21	54.00	10.79	PK	Horizontal
2	979.040	16.02	27.16	43.18	54.00	10.82	PK	Horizontal
3	998.960	16.48	27.16	43.64	54.00	10.36	PK	Horizontal

Remark:

1. Level = Reading + FactorAntenna Factor + Cable Loss – Preamplifier Factor).

ANT0:

Product Name:	Home Security Hub(Station)	Product Model:	RBGW-202-915(US)
Test By:	Kiran	Test mode:	Tx mode
Test Channel:	Highest channel	Polarization:	Vertical
Test Voltage:	AC120V/60Hz		

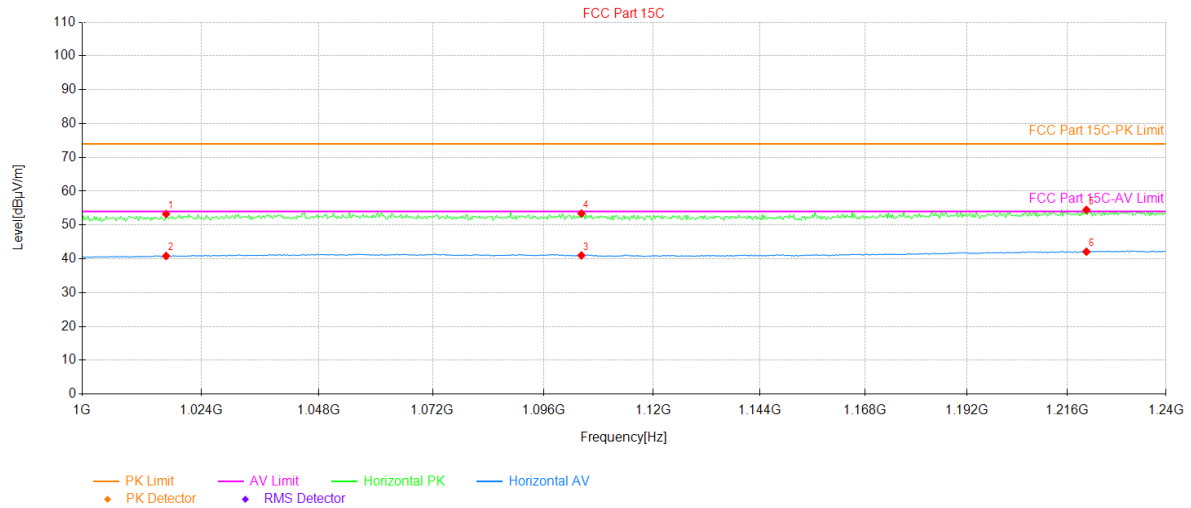

Suspected Data List

NO.	Freq. [MHz]	Reading [dBμV]	Factor [dB/m]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Angle [°]	Detector	Verdict	Polarity
1	1023.52	23.70	29.66	53.36	74.00	20.64	173	PK	PASS	Vertical
2	1023.52	11.24	29.66	40.90	54.00	13.10	145	AV	PASS	Vertical
3	1102.96	11.34	29.72	41.06	54.00	12.94	210	AV	PASS	Vertical
4	1102.96	23.15	29.72	52.87	74.00	21.13	23	PK	PASS	Vertical
5	1194.16	24.63	30.33	54.96	74.00	19.04	0	PK	PASS	Vertical
6	1194.16	11.35	30.33	41.68	54.00	12.32	55	AV	PASS	Vertical

Remark:

1. Level = Reading + FactorAntenna Factor + Cable Loss – Preamplifier Factor).

Product Name:	Home Security Hub(Station)	Product Model:	RBGW-202-915(US)
Test By:	Kiran	Test mode:	Tx mode
Test Channel:	Highest channel	Polarization:	Horizontal
Test Voltage:	AC120V/60Hz		



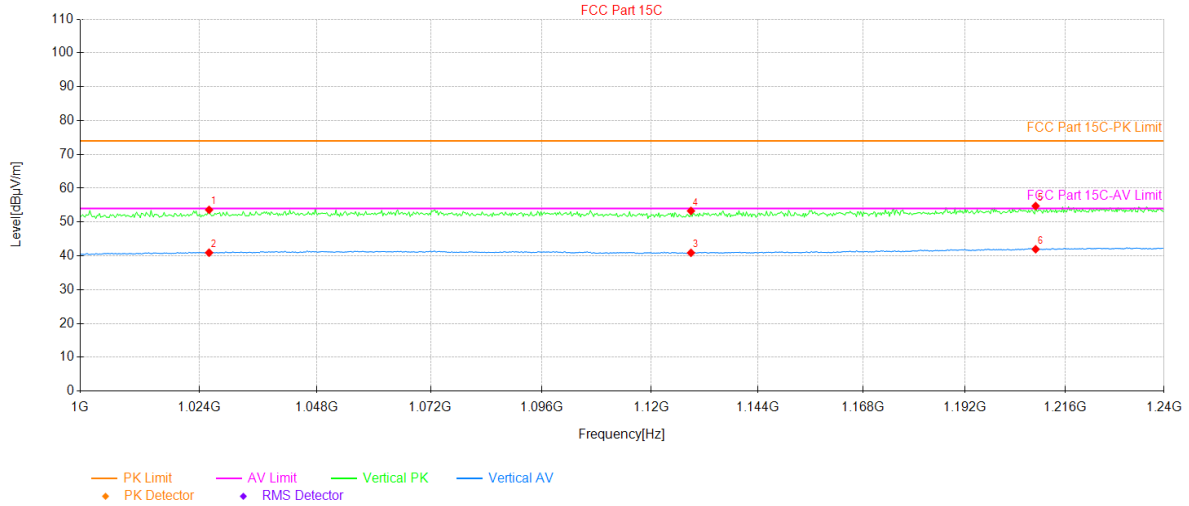
Suspected Data List

NO.	Freq. [MHz]	Reading [dBμV]	Factor [dB/m]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Angle [°]	Detector	Verdict	Polarity
1	1016.80	23.64	29.62	53.26	74.00	20.74	2	PK	PASS	Horizontal
2	1016.80	11.24	29.62	40.86	54.00	13.14	76	AV	PASS	Horizontal
3	1104.16	11.30	29.73	41.03	54.00	12.97	2	AV	PASS	Horizontal
4	1104.16	23.68	29.73	53.41	74.00	20.59	276	PK	PASS	Horizontal
5	1220.56	24.06	30.43	54.49	74.00	19.51	12	PK	PASS	Horizontal
6	1220.56	11.68	30.43	42.11	54.00	11.89	258	AV	PASS	Horizontal

Remark:

1. Level = Reading + FactorAntenna Factor + Cable Loss – Preamplifier Factor).

Product Name:	Home Security Hub(Station)	Product Model:	RBGW-202-915(US)
Test By:	Kiran	Test mode:	Tx mode
Test Channel:	Highest channel	Polarization:	Vertical
Test Voltage:	AC120V/60Hz		



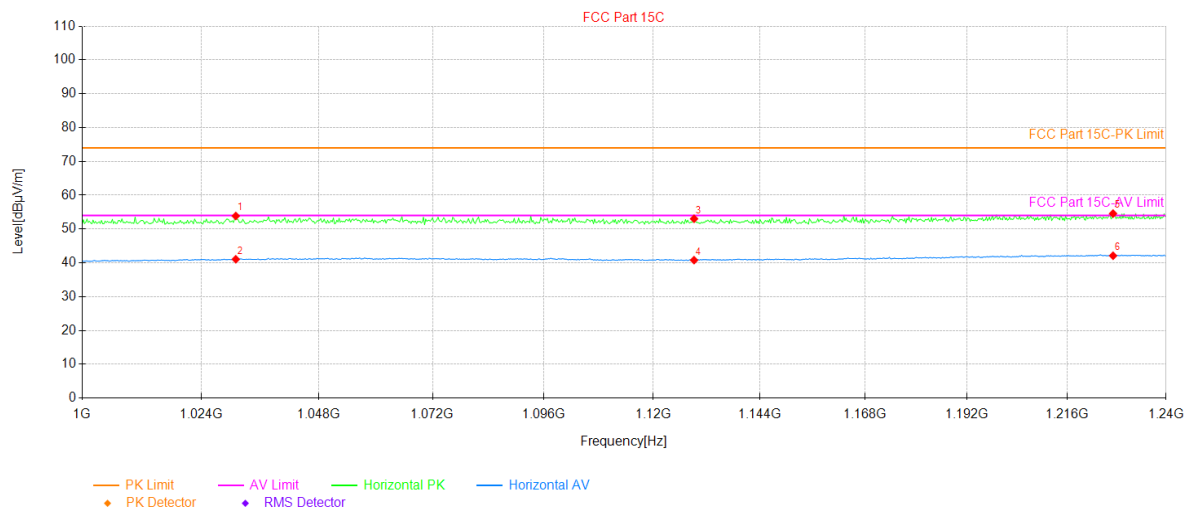
Suspected Data List

NO.	Freq. [MHz]	Reading [dBμV]	Factor [dB/m]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Angle [°]	Detector	Verdict	Polarity
1	1025.92	23.94	29.66	53.60	74.00	20.40	211	PK	PASS	Vertical
2	1025.92	11.28	29.66	40.94	54.00	13.06	220	AV	PASS	Vertical
3	1128.88	11.04	29.85	40.89	54.00	13.11	358	AV	PASS	Vertical
4	1128.88	23.44	29.85	53.29	74.00	20.71	46	PK	PASS	Vertical
5	1208.80	24.30	30.44	54.74	74.00	19.26	256	PK	PASS	Vertical
6	1208.80	11.52	30.44	41.96	54.00	12.04	211	AV	PASS	Vertical

Remark:

1. Level = Reading + FactorAntenna Factor + Cable Loss – Preamplifier Factor).

Product Name:	Home Security Hub(Station)	Product Model:	RBGW-202-915(US)
Test By:	Kiran	Test mode:	Tx mode
Test Channel:	Highest channel	Polarization:	Horizontal
Test Voltage:	AC120V/60Hz		



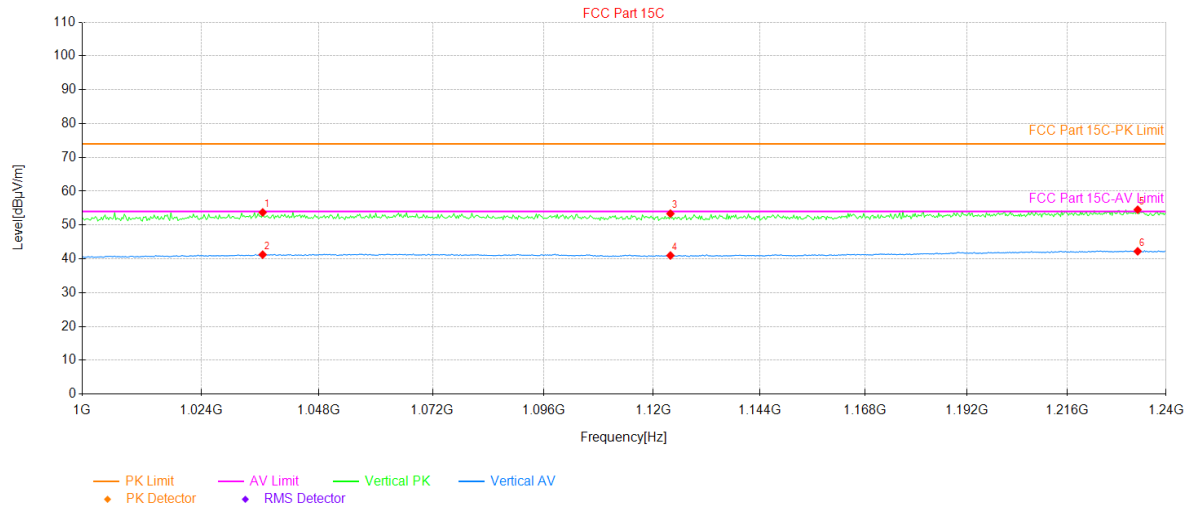
Suspected Data List

NO.	Freq. [MHz]	Reading [dBμV]	Factor [dB/m]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Angle [°]	Detector	Verdict	Polarity
1	1030.96	24.17	29.69	53.86	74.00	20.14	336	PK	PASS	Horizontal
2	1030.96	11.37	29.69	41.06	54.00	12.94	336	AV	PASS	Horizontal
3	1129.12	23.19	29.85	53.04	74.00	20.96	158	PK	PASS	Horizontal
4	1129.12	10.95	29.85	40.80	54.00	13.20	244	AV	PASS	Horizontal
5	1227.04	24.15	30.42	54.57	74.00	19.43	63	PK	PASS	Horizontal
6	1227.04	11.68	30.42	42.10	54.00	11.90	163	AV	PASS	Horizontal

Remark:

1. Level = Reading + FactorAntenna Factor + Cable Loss – Preamplifier Factor).

Product Name:	Home Security Hub(Station)	Product Model:	RBGW-202-915(US)
Test By:	Kiran	Test mode:	Tx mode
Test Channel:	Highest channel	Polarization:	Vertical
Test Voltage:	AC120V/60Hz		



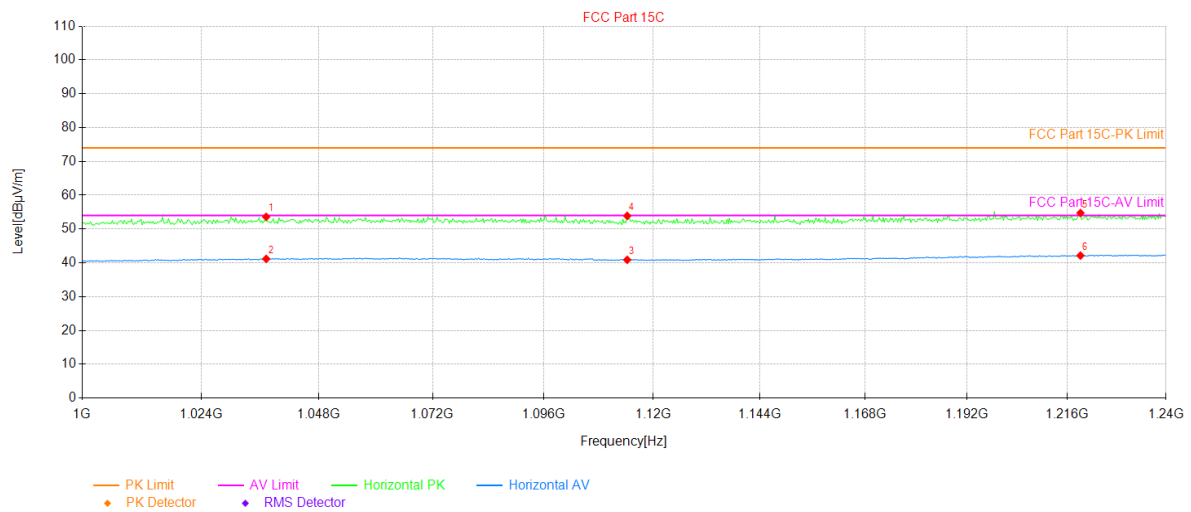
Suspected Data List

NO.	Freq. [MHz]	Reading [dBμV]	Factor [dB/m]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Angle [°]	Detector	Verdict	Polarity
1	1036.48	24.03	29.71	53.74	74.00	20.26	97	PK	PASS	Vertical
2	1036.48	11.53	29.71	41.24	54.00	12.76	142	AV	PASS	Vertical
3	1123.84	23.55	29.82	53.37	74.00	20.63	120	PK	PASS	Vertical
4	1123.84	11.17	29.82	40.99	54.00	13.01	11	AV	PASS	Vertical
5	1233.04	24.12	30.42	54.54	74.00	19.46	120	PK	PASS	Vertical
6	1233.04	11.82	30.42	42.24	54.00	11.76	165	AV	PASS	Vertical

Remark:

1. Level = Reading + FactorAntenna Factor + Cable Loss – Preamplifier Factor).

Product Name:	Home Security Hub(Station)	Product Model:	RBGW-202-915(US)
Test By:	Kiran	Test mode:	Tx mode
Test Channel:	Highest channel	Polarization:	Horizontal
Test Voltage:	AC120V/60Hz		



Suspected Data List

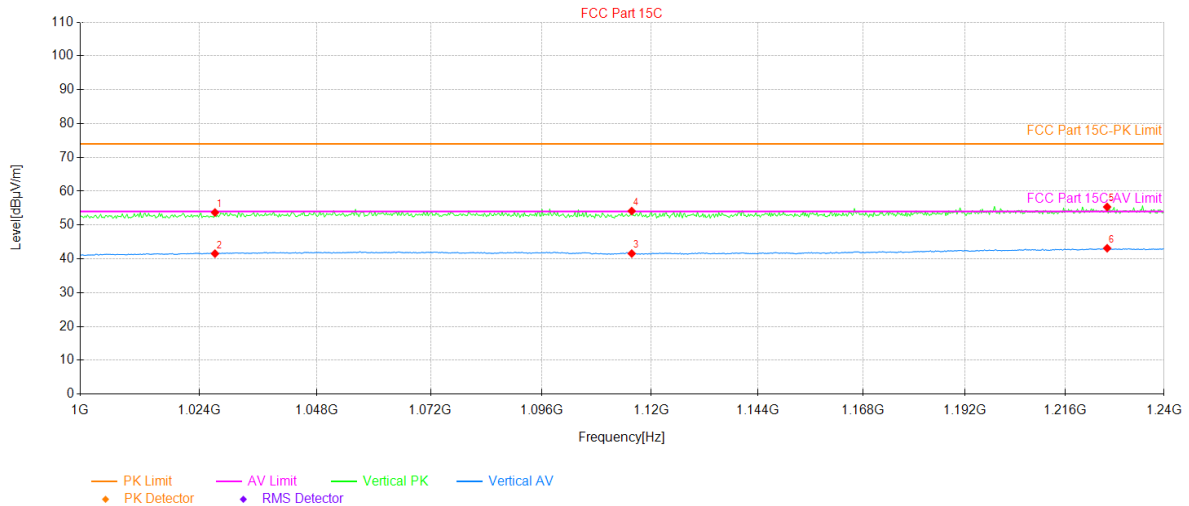
NO.	Freq. [MHz]	Reading [dBμV]	Factor [dB/m]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Angle [°]	Detector	Verdict	Polarity
1	1037.20	23.90	29.71	53.61	74.00	20.39	40	PK	PASS	Horizontal
2	1037.20	11.47	29.71	41.18	54.00	12.82	286	AV	PASS	Horizontal
3	1114.24	11.12	29.78	40.90	54.00	13.10	360	AV	PASS	Horizontal
4	1114.24	24.12	29.78	53.90	74.00	20.10	13	PK	PASS	Horizontal
5	1219.12	24.30	30.43	54.73	74.00	19.27	71	PK	PASS	Horizontal
6	1219.12	11.73	30.43	42.16	54.00	11.84	200	AV	PASS	Horizontal

Remark:

1. Level = Reading + FactorAntenna Factor + Cable Loss – Preamplifier Factor).

ANT1:

Product Name:	Home Security Hub(Station)	Product Model:	RBGW-202-915(US)
Test By:	Kiran	Test mode:	Tx mode
Test Channel:	Highest channel	Polarization:	Vertical
Test Voltage:	AC120V/60Hz		

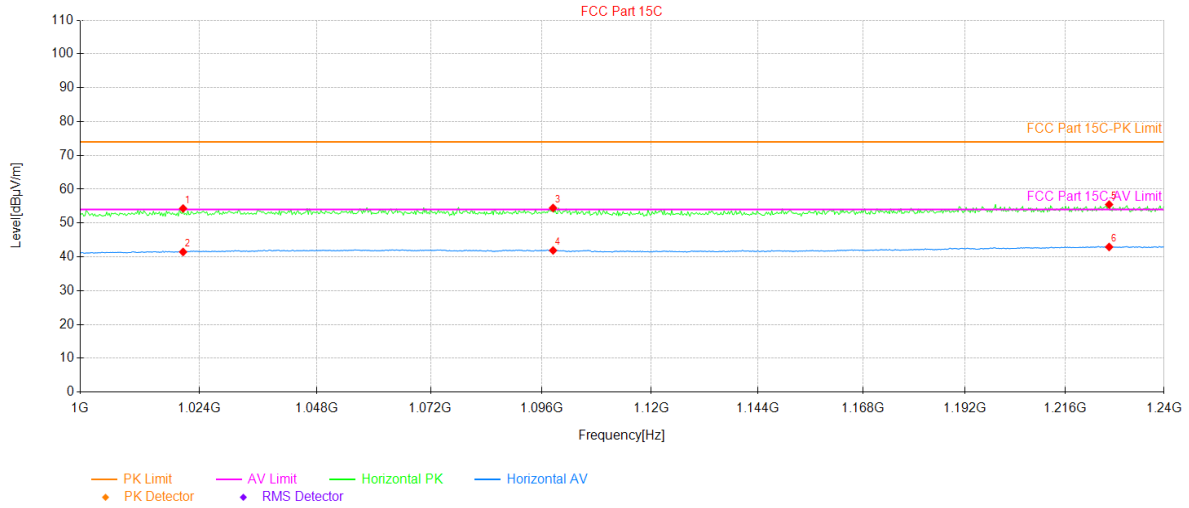

Suspected Data List

NO.	Freq. [MHz]	Reading [dBμV]	Factor [dB/m]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Angle [°]	Detector	Verdict	Polarity
1	1027.12	24.05	29.67	53.72	74.00	20.28	199	PK	PASS	Vertical
2	1027.12	11.87	29.67	41.54	54.00	12.46	299	AV	PASS	Vertical
3	1115.68	11.79	29.78	41.57	54.00	12.43	353	AV	PASS	Vertical
4	1115.68	24.35	29.78	54.13	74.00	19.87	108	PK	PASS	Vertical
5	1226.08	24.93	30.42	55.35	74.00	18.65	167	PK	PASS	Vertical
6	1226.08	12.72	30.42	43.14	54.00	10.86	154	AV	PASS	Vertical

Remark:

1. Level = Reading + FactorAntenna Factor + Cable Loss – Preamplifier Factor).

Product Name:	Home Security Hub(Station)	Product Model:	RBGW-202-915(US)
Test By:	Kiran	Test mode:	Tx mode
Test Channel:	Highest channel	Polarization:	Horizontal
Test Voltage:	AC120V/60Hz		



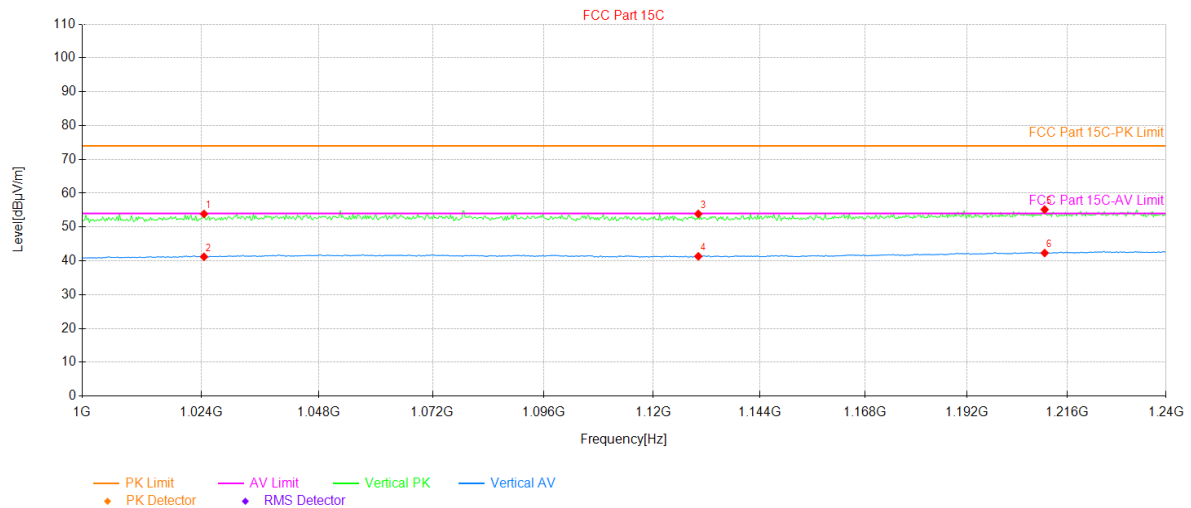
Suspected Data List

NO.	Freq. [MHz]	Reading [dBμV]	Factor [dB/m]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Angle [°]	Detector	Verdict	Polarity
1	1020.64	24.67	29.64	54.31	74.00	19.69	271	PK	PASS	Horizontal
2	1020.64	11.82	29.64	41.46	54.00	12.54	31	AV	PASS	Horizontal
3	1098.40	24.74	29.71	54.45	74.00	19.55	212	PK	PASS	Horizontal
4	1098.40	12.19	29.71	41.90	54.00	12.10	358	AV	PASS	Horizontal
5	1226.56	25.06	30.42	55.48	74.00	18.52	0	PK	PASS	Horizontal
6	1226.56	12.51	30.42	42.93	54.00	11.07	262	AV	PASS	Horizontal

Remark:

1. Level = Reading + FactorAntenna Factor + Cable Loss – Preamplifier Factor).

Product Name:	Home Security Hub(Station)	Product Model:	RBGW-202-915(US)
Test By:	Kiran	Test mode:	Tx mode
Test Channel:	Highest channel	Polarization:	Vertical
Test Voltage:	AC120V/60Hz		



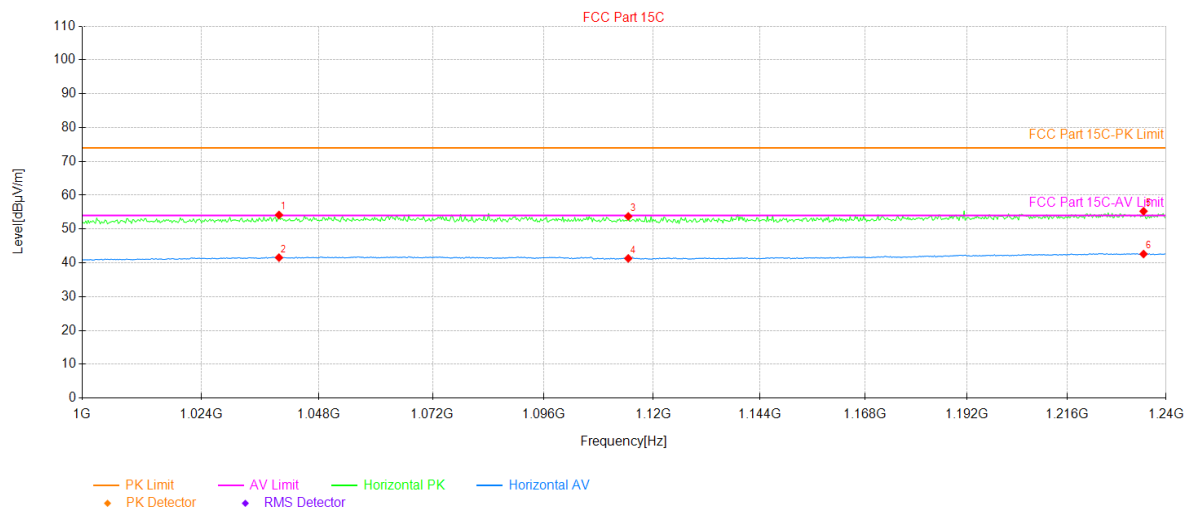
Suspected Data List

NO.	Freq. [MHz]	Reading [dBμV]	Factor [dB/m]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Angle [°]	Detector	Verdict	Polarity
1	1024.48	24.21	29.66	53.87	74.00	20.13	134	PK	PASS	Vertical
2	1024.48	11.54	29.66	41.20	54.00	12.80	31	AV	PASS	Vertical
3	1130.08	24.03	29.85	53.88	74.00	20.12	360	PK	PASS	Vertical
4	1130.08	11.48	29.85	41.33	54.00	12.67	360	AV	PASS	Vertical
5	1210.48	24.74	30.44	55.18	74.00	18.82	238	PK	PASS	Vertical
6	1210.48	11.88	30.44	42.32	54.00	11.68	247	AV	PASS	Vertical

Remark:

1. Level = Reading + FactorAntenna Factor + Cable Loss – Preamplifier Factor).

Product Name:	Home Security Hub(Station)	Product Model:	RBGW-202-915(US)
Test By:	Kiran	Test mode:	Tx mode
Test Channel:	Highest channel	Polarization:	Horizontal
Test Voltage:	AC120V/60Hz		



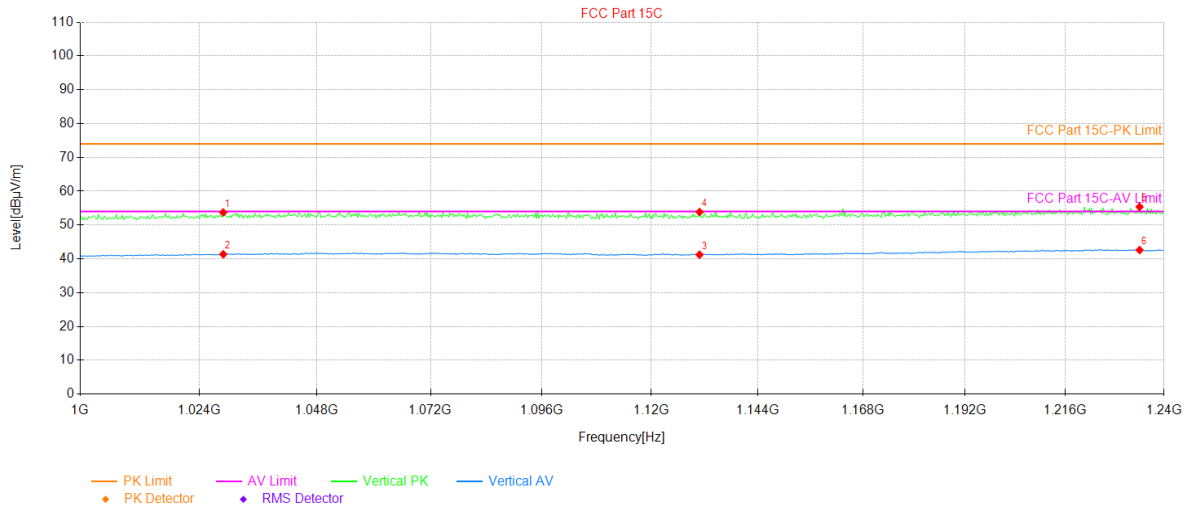
Suspected Data List

NO.	Freq. [MHz]	Reading [dBμV]	Factor [dB/m]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Angle [°]	Detector	Verdict	Polarity
1	1039.84	24.43	29.73	54.16	74.00	19.84	169	PK	PASS	Horizontal
2	1039.84	11.82	29.73	41.55	54.00	12.45	325	AV	PASS	Horizontal
3	1114.48	23.97	29.78	53.75	74.00	20.25	169	PK	PASS	Horizontal
4	1114.48	11.53	29.78	41.31	54.00	12.69	174	AV	PASS	Horizontal
5	1234.48	24.85	30.42	55.27	74.00	18.73	119	PK	PASS	Horizontal
6	1234.48	12.19	30.42	42.61	54.00	11.39	260	AV	PASS	Horizontal

Remark:

1. Level = Reading + FactorAntenna Factor + Cable Loss – Preamplifier Factor).

Product Name:	Home Security Hub(Station)	Product Model:	RBGW-202-915(US)
Test By:	Kiran	Test mode:	Tx mode
Test Channel:	Highest channel	Polarization:	Vertical
Test Voltage:	AC120V/60Hz		



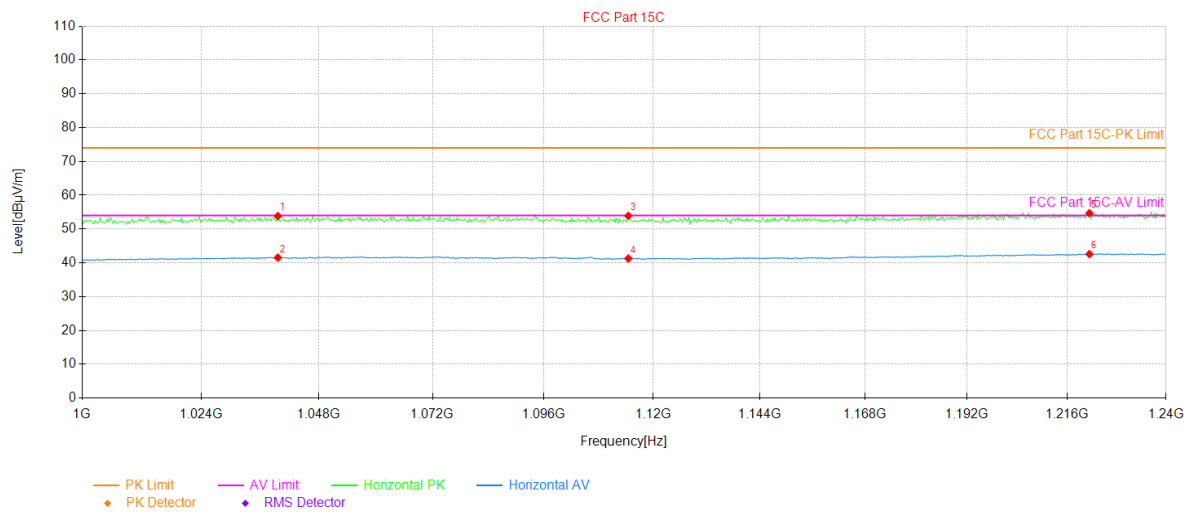
Suspected Data List

NO.	Freq. [MHz]	Reading [dBμV]	Factor [dB/m]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Angle [°]	Detector	Verdict	Polarity
1	1028.80	24.06	29.68	53.74	74.00	20.26	67	PK	PASS	Vertical
2	1028.80	11.67	29.68	41.35	54.00	12.65	144	AV	PASS	Vertical
3	1130.80	11.38	29.85	41.23	54.00	12.77	331	AV	PASS	Vertical
4	1130.80	24.01	29.85	53.86	74.00	20.14	359	PK	PASS	Vertical
5	1234.00	24.96	30.42	55.38	74.00	18.62	272	PK	PASS	Vertical
6	1234.00	12.18	30.42	42.60	54.00	11.40	359	AV	PASS	Vertical

Remark:

1. Level = Reading + FactorAntenna Factor + Cable Loss – Preamplifier Factor).

Product Name:	Home Security Hub(Station)	Product Model:	RBGW-202-915(US)
Test By:	Kiran	Test mode:	Tx mode
Test Channel:	Highest channel	Polarization:	Horizontal
Test Voltage:	AC120V/60Hz		



Suspected Data List

NO.	Freq. [MHz]	Reading [dBμV]	Factor [dB/m]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Angle [°]	Detector	Verdict	Polarity
1	1039.60	24.11	29.73	53.84	74.00	20.16	358	PK	PASS	Horizontal
2	1039.60	11.81	29.73	41.54	54.00	12.46	284	AV	PASS	Horizontal
3	1114.48	24.12	29.78	53.90	74.00	20.10	358	PK	PASS	Horizontal
4	1114.48	11.50	29.78	41.28	54.00	12.72	329	AV	PASS	Horizontal
5	1221.28	24.26	30.43	54.69	74.00	19.31	109	PK	PASS	Horizontal
6	1221.28	12.15	30.43	42.58	54.00	11.42	127	AV	PASS	Horizontal

Remark:

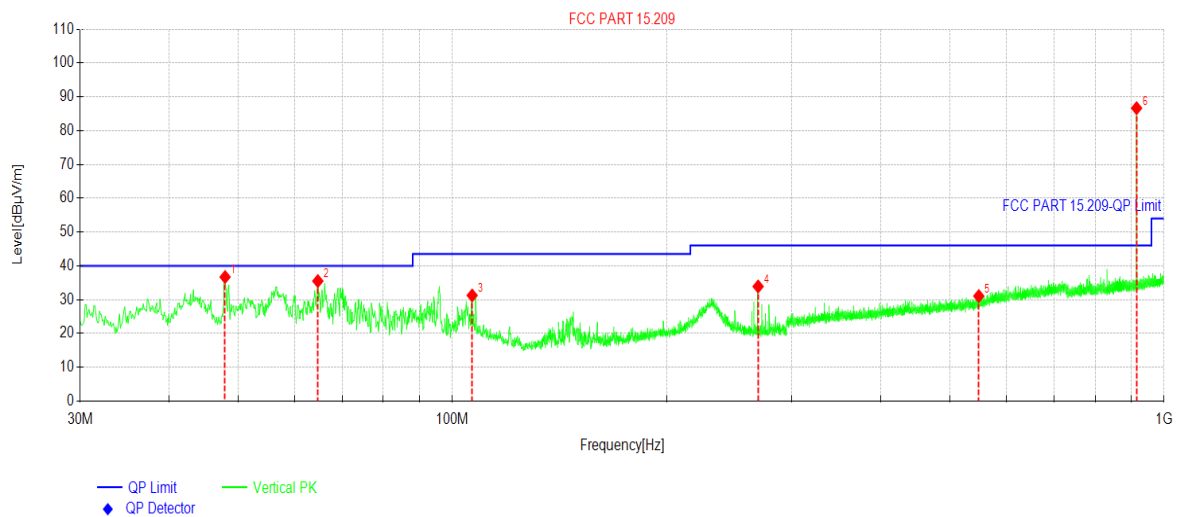
1. Level = Reading + FactorAntenna Factor + Cable Loss – Preamplifier Factor).

5.9.4 Emissions in Non-restricted Frequency Bands

Below 1GHz:

ANT0:

Product Name:	Home Security Hub(Station)	Product Model:	RBGW-202-915(US)
Test By:	Kiran	Test mode:	Tx mode
Test Frequency:	30 MHz ~ 1 GHz	Polarization:	Vertical
Test Voltage:	AC120V/60Hz		

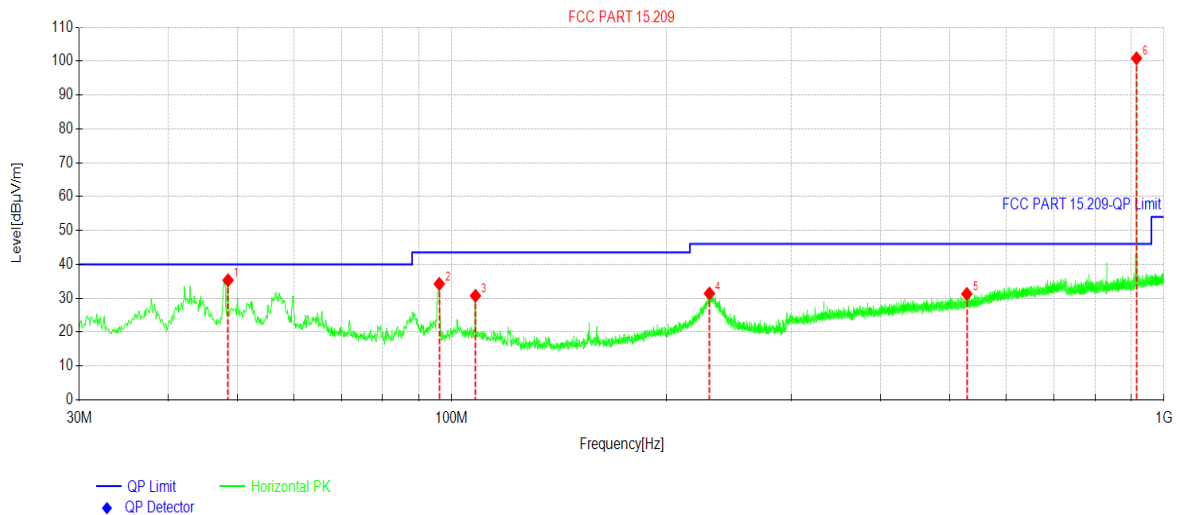


Suspected Data List								
NO.	Freq. [MHz]	Reading [dBμV/m]	Factor [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Trace	Polarity
1	47.9468	49.41	-12.70	36.71	40.00	3.29	PK	Vertical
2	64.7295	50.22	-14.71	35.51	40.00	4.49	PK	Vertical
3	106.637	45.71	-14.44	31.27	43.50	12.23	PK	Vertical
4	268.934	47.30	-13.39	33.91	46.00	12.09	PK	Vertical
5	549.195	39.35	-8.29	31.06	46.00	14.94	PK	Vertical
6	915.019	89.15	-2.51	86.64	46.00	-40.64	PK	Vertical

Remark:

1. Level = Reading + FactorAntenna Factor + Cable Loss – Preamplifier Factor).

Product Name:	Home Security Hub(Station)	Product Model:	RBGW-202-915(US)
Test By:	Kiran	Test mode:	Tx mode
Test Frequency:	30 MHz ~ 1 GHz	Polarization:	Horizontal
Test Voltage:	AC120V/60Hz		



Suspected Data List

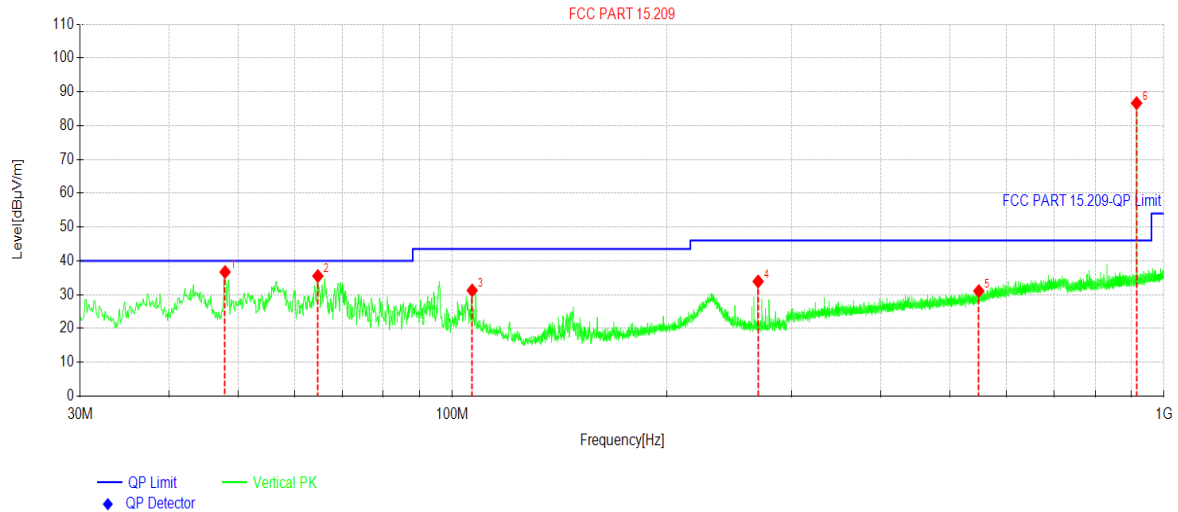
NO.	Freq. [MHz]	Reading [dBμV/m]	Factor [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Trace	Polarity
1	48.5289	47.99	-12.68	35.31	40.00	4.69	PK	Horizontal
2	96.0636	49.48	-15.23	34.25	43.50	9.25	PK	Horizontal
3	107.995	45.36	-14.64	30.72	43.50	12.78	PK	Horizontal
4	230.034	45.72	-14.33	31.39	46.00	14.61	PK	Horizontal
5	528.726	39.81	-8.53	31.28	46.00	14.72	PK	Horizontal
6	915.019	103.33	-2.51	100.82	46.00	-54.82	PK	Horizontal

Remark:

1. Level = Reading + FactorAntenna Factor + Cable Loss – Preamplifier Factor).

ANT1:

Product Name:	Home Security Hub(Station)	Product Model:	RBGW-202-915(US)
Test By:	Kiran	Test mode:	Tx mode
Test Frequency:	30 MHz ~ 1 GHz	Polarization:	Vertical
Test Voltage:	AC120V/60Hz		

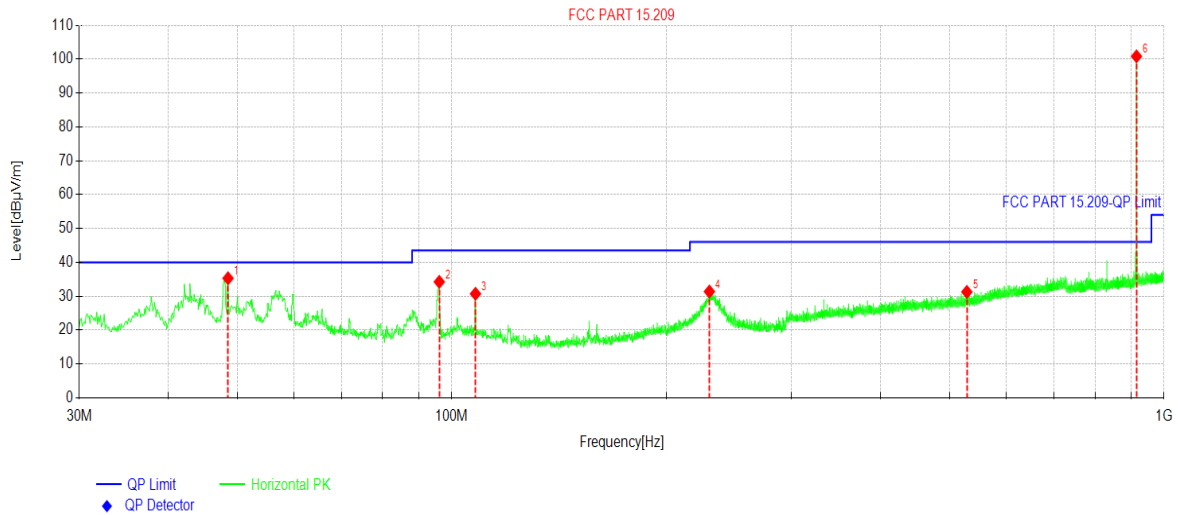

Suspected Data List

NO.	Freq. [MHz]	Reading [dBμV/m]	Factor [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Trace	Polarity
1	47.9468	49.41	-12.70	36.71	40.00	3.29	PK	Vertical
2	64.7295	50.22	-14.71	35.51	40.00	4.49	PK	Vertical
3	106.637	45.71	-14.44	31.27	43.50	12.23	PK	Vertical
4	268.934	47.30	-13.39	33.91	46.00	12.09	PK	Vertical
5	549.195	39.35	-8.29	31.06	46.00	14.94	PK	Vertical
6	915.019	89.15	-2.51	86.64	46.00	-40.64	PK	Vertical

Remark:

1. Level = Reading + FactorAntenna Factor + Cable Loss – Preamplifier Factor).

Product Name:	Home Security Hub(Station)	Product Model:	RBGW-202-915(US)
Test By:	Kiran	Test mode:	Tx mode
Test Frequency:	30 MHz ~ 1 GHz	Polarization:	Horizontal
Test Voltage:	AC120V/60Hz		



Suspected Data List

NO.	Freq. [MHz]	Reading [dBμV/m]	Factor [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Trace	Polarity
1	48.5289	47.99	-12.68	35.31	40.00	4.69	PK	Horizontal
2	96.0636	49.48	-15.23	34.25	43.50	9.25	PK	Horizontal
3	107.995	45.36	-14.64	30.72	43.50	12.78	PK	Horizontal
4	230.034	45.72	-14.33	31.39	46.00	14.61	PK	Horizontal
5	528.726	39.81	-8.53	31.28	46.00	14.72	PK	Horizontal
6	915.019	103.33	-2.51	100.82	46.00	-54.82	PK	Horizontal

Remark:

1. Level = Reading + FactorAntenna Factor + Cable Loss – Preamplifier Factor).

Above 1GHz:

ANT0:

Lowest channel						
Peak Value						
Frequency (MHz)	Read Level (dBuV)	Factor(dB)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Polarization
1806.00	68.17	-19.21	48.96	74.00	25.04	Vertical
1806.00	77.05	-19.21	57.84	74.00	16.16	Horizontal
Average Value						
Frequency (MHz)	Read Level (dBuV)	Factor(dB)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Polarization
1806.00	63.37	-19.21	44.16	54.00	9.84	Vertical
1806.00	71.40	-19.21	52.19	54.00	1.81	Horizontal
Middle channel						
Peak Value						
Frequency (MHz)	Read Level (dBuV)	Factor(dB)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Polarization
1830.00	68.20	-19.20	49.00	74.00	25.00	Vertical
1830.00	77.84	-19.20	58.64	74.00	15.36	Horizontal
Average Value						
Frequency (MHz)	Read Level (dBuV)	Factor(dB)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Polarization
1830.00	63.18	-19.20	43.98	54.00	10.02	Vertical
1830.00	71.53	-19.20	52.33	54.00	1.67	Horizontal
Highest channel						
Peak Value						
Frequency (MHz)	Read Level (dBuV)	Factor(dB)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Polarization
1854.00	63.55	-19.18	44.37	74.00	29.63	Vertical
1854.00	72.75	-19.18	53.57	74.00	20.43	Horizontal
Average Value						
Frequency (MHz)	Read Level (dBuV)	Factor(dB)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Polarization
1854.00	57.33	-19.18	38.15	54.00	15.85	Vertical
1854.00	67.73	-19.18	48.55	54.00	5.45	Horizontal
Remark:						
1. Level = Read level + Factor.						

ANT1:

Lowest channel						
Peak Value						
Frequency (MHz)	Read Level (dBuV)	Factor(dB)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Polarization
1806.00	63.52	-19.21	44.31	74.00	29.69	Vertical
1806.00	72.09	-19.21	52.88	74.00	21.12	Horizontal
Average Value						
Frequency (MHz)	Read Level (dBuV)	Factor(dB)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Polarization
1806.00	57.43	-19.21	38.22	54.00	15.78	Vertical
1806.00	67.84	-19.21	48.63	54.00	5.37	Horizontal
Middle channel						
Peak Value						
Frequency (MHz)	Read Level (dBuV)	Factor(dB)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Polarization
1830.00	64.08	-19.20	44.88	74.00	29.12	Vertical
1830.00	70.24	-19.20	51.04	74.00	22.96	Horizontal
Average Value						
Frequency (MHz)	Read Level (dBuV)	Factor(dB)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Polarization
1830.00	55.75	-19.20	36.55	54.00	17.45	Vertical
1830.00	65.03	-19.20	45.83	54.00	8.17	Horizontal
Highest channel						
Peak Value						
Frequency (MHz)	Read Level (dBuV)	Factor(dB)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Polarization
1854.00	62.21	-19.18	43.03	74.00	30.97	Vertical
1854.00	69.81	-19.18	50.63	74.00	23.37	Horizontal
Average Value						
Frequency (MHz)	Read Level (dBuV)	Factor(dB)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Polarization
1854.00	56.15	-19.18	36.97	54.00	17.03	Vertical
1854.00	64.78	-19.18	45.60	54.00	8.40	Horizontal
Remark:						
1. Level = Read level + Factor.						

-----End of report-----