

# FCC RF Test Report

## (FHSS)

**Applicant:** PORTMAN ELECTRONICS (DONGGUAN) CO., LTD.  
**Address of Applicant:** NO#10, Luyi 2 Road, Keyuancheng, Tangxia Town,  
DONGGUAN CITY, GUANGDONG PROVINCE CHINA  
523718

**Equipment Under Test (EUT)**

Product Name: CAR ALARM  
Model No.: JS7J-15K601-AB  
FCC ID: TBQT68  
Applicable Standards: FCC CFR Title 47 Part 15C (§15.247)  
Date of Sample Receipt: 01 Jun., 2022  
Date of Test: 02 Jun., to 28 Jun., 2022  
Date of Report Issued: 29 Jun., 2022  
Test Result: PASS

**Tested by:** \_\_\_\_\_

*Mike DU*  
Test Engineer

**Date:** \_\_\_\_\_

29 Jun., 2022

**Reviewed by:** \_\_\_\_\_

*Wenwen Zhang*  
Project Engineer

**Date:** \_\_\_\_\_

29 Jun., 2022

**Approved by:** \_\_\_\_\_

*Wenwen Zhang*  
Manager

**Date:** \_\_\_\_\_

29 Jun., 2022

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.

This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only.

## 2 Version

Version No.	Date	Description
00	29 Jun., 2022	Original

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## 4 General Information

### 4.1 Client Information

Applicant:	PORTMAN ELECTRONICS (DONGGUAN) CO., LTD.
Address:	NO#10, Luyi 2 Road, Keyuancheng, Tangxia Town, DONGGUAN CITY, GUANGDONG PROVINCE CHINA 523718
Manufacturer/Factory:	DONGGUAN PORTMAN ELECTRONIC SCIENCE AND TECHNOLOGY CO., LTD.
Address:	NO.10, LUYI 2 ROAD, TANGXIA TOWN, DONGGUAN CITY GUANGDONG PROVINCE

### 4.2 General Description of E.U.T.

Product Name:	CAR ALARM
Model No.:	JS7J-15K601-AB
Operation Frequency:	904 MHz ~ 923.6 MHz
Number of Channel:	50
Modulation Technology:	FSK
Antenna Type:	Helix Antenna
Antenna Gain:	-1.2 dBi (declare by applicant)
Power Supply:	DC 3V(CR2032 battery)
Test Sample Condition:	The test samples were provided in good working order with no visible defects.

### 4.3 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.
<i>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.</i>	
Operating Environment:	
Temperature:	15°C ~ 35°C
Humidity:	20 % ~ 75 % RH
Atmospheric Pressure:	1010 mbar

### 4.4 Description of Test Auxiliary Equipment

The EUT has been tested as an independent unit.

### 4.5 Measurement Uncertainty

Parameter	Expanded Uncertainty (Confidence of 95%(U = 2Uc(y)))
Radiated Emission (30MHz ~ 1GHz) (3m SAC)	±4.45 dB
Radiated Emission (1GHz ~ 18GHz) (3m SAC)	±5.34 dB
Radiated Emission (18GHz ~ 40GHz) (3m SAC)	±5.34 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.*

### 4.6 Additions to, Deviations, or Exclusions From the Method

No

### 4.7 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>

### 4.8 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>

## 4.9 Test Instruments List

Radiated Emission(3m SAC):					
Test Equipment	Manufacturer	Model No.	Manage No.	Cal. Date (mm-dd-yy)	Cal. Due date (mm-dd-yy)
3m SAC	ETS	9m*6m*6m	WXJ001-1	04-14-2021	04-13-2024
Loop Antenna	Schwarzbeck	FMZB 1519 B	WXJ002-4	03-07-2022	03-06-2023
BiConiLog Antenna	Schwarzbeck	VULB9163	WXJ002	03-08-2022	03-07-2023
Horn Antenna	Schwarzbeck	BBHA9120D	WXJ002-2	03-08-2022	03-07-2023
Horn Antenna	Schwarzbeck	BBHA9170	WXJ002-5	04-07-2022	04-06-2023
Pre-amplifier (30MHz ~ 1GHz)	Schwarzbeck	BBV9743B	WXJ001-2	01-20-2022	01-19-2023
Pre-amplifier (1GHz ~ 18GHz)	SKET	LNPA_0118G-50	WXJ001-3	01-20-2022	01-19-2023
Pre-amplifier (18GHz ~ 40GHz)	RF System	TRLA-180400G45B	WXJ002-7	03-30-2022	03-29-2023
EMI Test Receiver	Rohde & Schwarz	ESRP7	WXJ003-1	03-05-2022	03-04-2023
Spectrum Analyzer	Rohde & Schwarz	FSP 30	WXJ004	01-20-2022	01-19-2023
Spectrum Analyzer	KEYSIGHT	N9010B	WXJ004-2	10-27-2021	10-26-2022
Coaxial Cable (30MHz ~ 1GHz)	JYTSZ	JYT3M-1G-NN-8M	WXG001-4	01-20-2022	01-19-2023
Coaxial Cable (1GHz ~ 18GHz)	JYTSZ	JYT3M-18G-NN-8M	WXG001-5	01-20-2022	01-19-2023
Coaxial Cable (18GHz ~ 40GHz)	JYTSZ	JYT3M-40G-SS-8M	WXG001-7	01-20-2022	01-19-2023
Band Reject Filter Group	Tonscend	JS0806-F	WXJ089	N/A	
Test Software	Tonscend	TS+	Version: 3.0.0.1		
EMI 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	Rohde & Schwarz	FSP 30	WXJ004	01-20-2022	01-20-2023
EMI Test Receiver	Rohde & Schwarz	ESCI3	WXJ003	01-19-2022	01-18-2023

## 5 Measurement Setup and Procedure

### 5.1 Test Channel

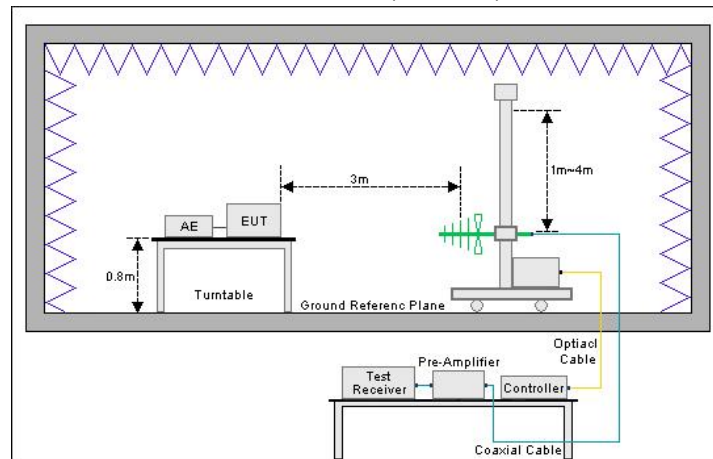
According to ANSI C63.10-2013 chapter 5.6.1 Table 4 requirement, select lowest channel, middle channel, and highest channel in the frequency range in which device operates for testing. The detailed frequency points are as follows:

Lowest channel		Middle channel		Highest channel	
Channel No.	Frequency (MHz)	Channel No.	Frequency (MHz)	Channel No.	Frequency (MHz)
1	904.0	26	914.0	50	923.6

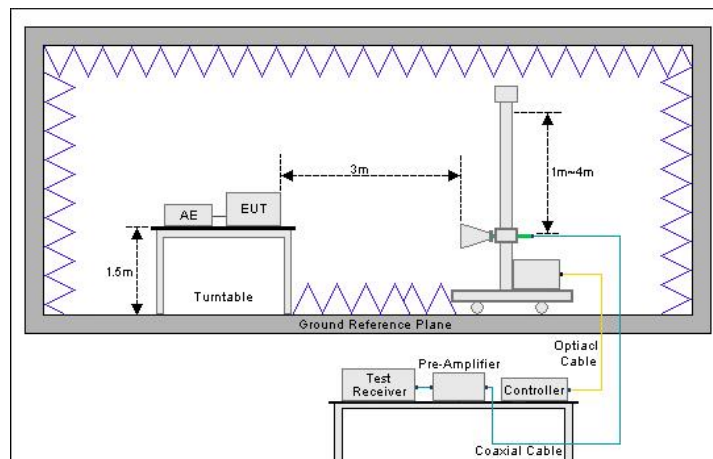
### 5.2 Test Setup

#### 1) Radiated emission measurement:

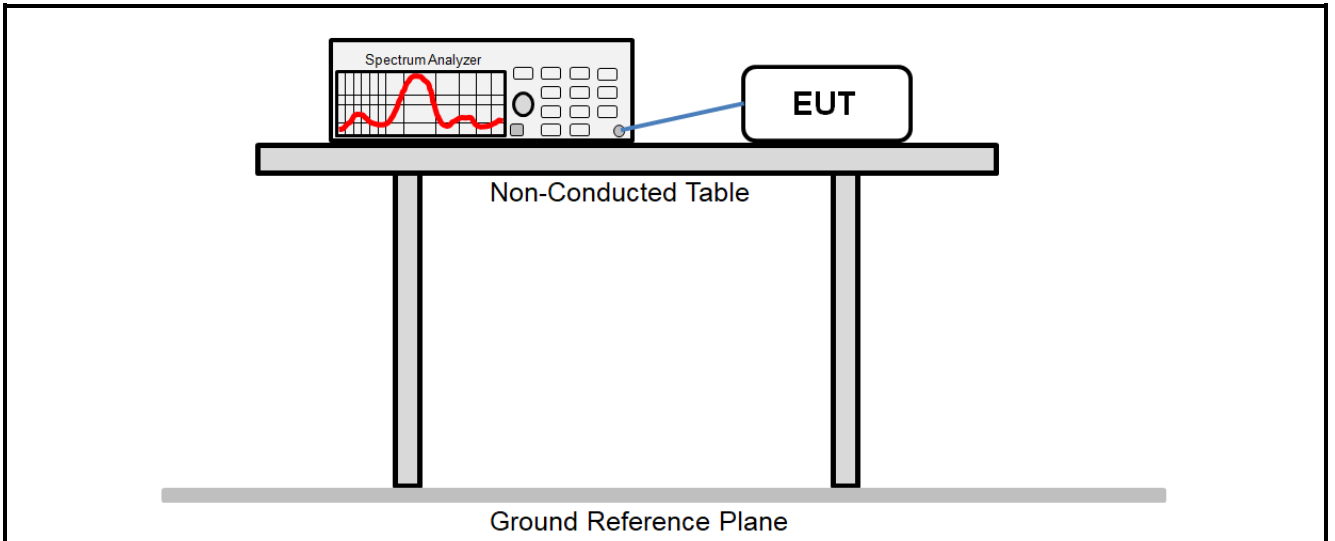
Below 1GHz (3m SAC)



Above 1GHz (3m SAC)



#### 2) Conducted test method





### 5.3 Test Procedure

Test method	Test step
Radiated emission	<p><b>For below 1GHz:</b></p> <ol style="list-style-type: none"> <li>The EUT was placed on the tabletop of a rotating table 0.8 m the ground at a 3 m semi anechoic chamber. The measurement distance from the EUT to the receiving antenna is 3 m.</li> <li>EUT works in each mode of operation that needs to be tested, and having the EUT continuously working, respectively on 3 axis (X, Y &amp; 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.</li> <li>Open the test software to control the test antenna and test turntable. Perform the test, save the test results, and export the test data.</li> </ol> <p><b>For above 1GHz:</b></p> <ol style="list-style-type: none"> <li>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.</li> <li>EUT works in each mode of operation that needs to be tested, and having the EUT continuously working, respectively on 3 axis (X, Y &amp; 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.</li> <li>Open the test software to control the test antenna and test turntable. Perform the test, save the test results, and export the test data.</li> </ol>
Conducted test method	<ol style="list-style-type: none"> <li>The antenna port of EUT was connected to the test port of the test system through an RF cable.</li> <li>The EUT is keeping in continuous transmission mode and tested in all modulation modes.</li> <li>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.</li> </ol>

## 6 Test Results

### 6.1 Summary

#### 6.1.1 Clause and data summary

Test items	Standard clause	Test data	Result
Antenna Requirement	15.203 15.247 (b)(4)	See Section 6.2	Pass
AC Power Line Conducted Emission	15.207	See Section 6.3	N/A
Conducted Output Power	15.247 (b)(2)	See Section 6.4	Pass
20dB Occupied Bandwidth	15.247 (a)(1)(i)	See Section 6.5	Pass
Carrier Frequencies Separation	15.247 (a)(1)	See Section 6.6	Pass
Hopping Channel Number	5.247 (a)(1)(i)	See Section 6.7	Pass
Dwell Time	15.247 (a)(1)(i)	See Section 6.8	Pass
Spurious Emission	15.205 15.209 15.247 (d)	See Section 6.9	Pass
<b>Remark:</b> 1. Pass: The EUT complies with the essential requirements in the standard. 2. N/A: Not Applicable, The EUT is powered by DC 3V. 3. The cable insertion loss used by "RF Output Power" and other conduction measurement items is 0.5dB (provided by the customer).			
<b>Test Method:</b>	ANSI C63.10-2013 KDB 558074 D01 15.247 Meas Guidance v05r02		

**6.1.2 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	<p>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)):</p> <table border="1" data-bbox="555 1249 1433 1444"> <thead> <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> </thead> <tbody> <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> </tbody> </table> <p><b>Note:</b> The more stringent limit applies at transition frequencies.</p> <table border="1" data-bbox="555 1473 1433 1579"> <thead> <tr> <th rowspan="2">Frequency</th> <th colspan="2">Limit (dBµV/m) @ 3m</th> </tr> <tr> <th>Average</th> <th>Peake</th> </tr> </thead> <tbody> <tr> <td>Above 1 GHz</td> <td>54.0</td> <td>74.0</td> </tr> </tbody> </table> <p><b>Note:</b> The measurement bandwidth shall be 1 MHz or greater.</p>	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																												
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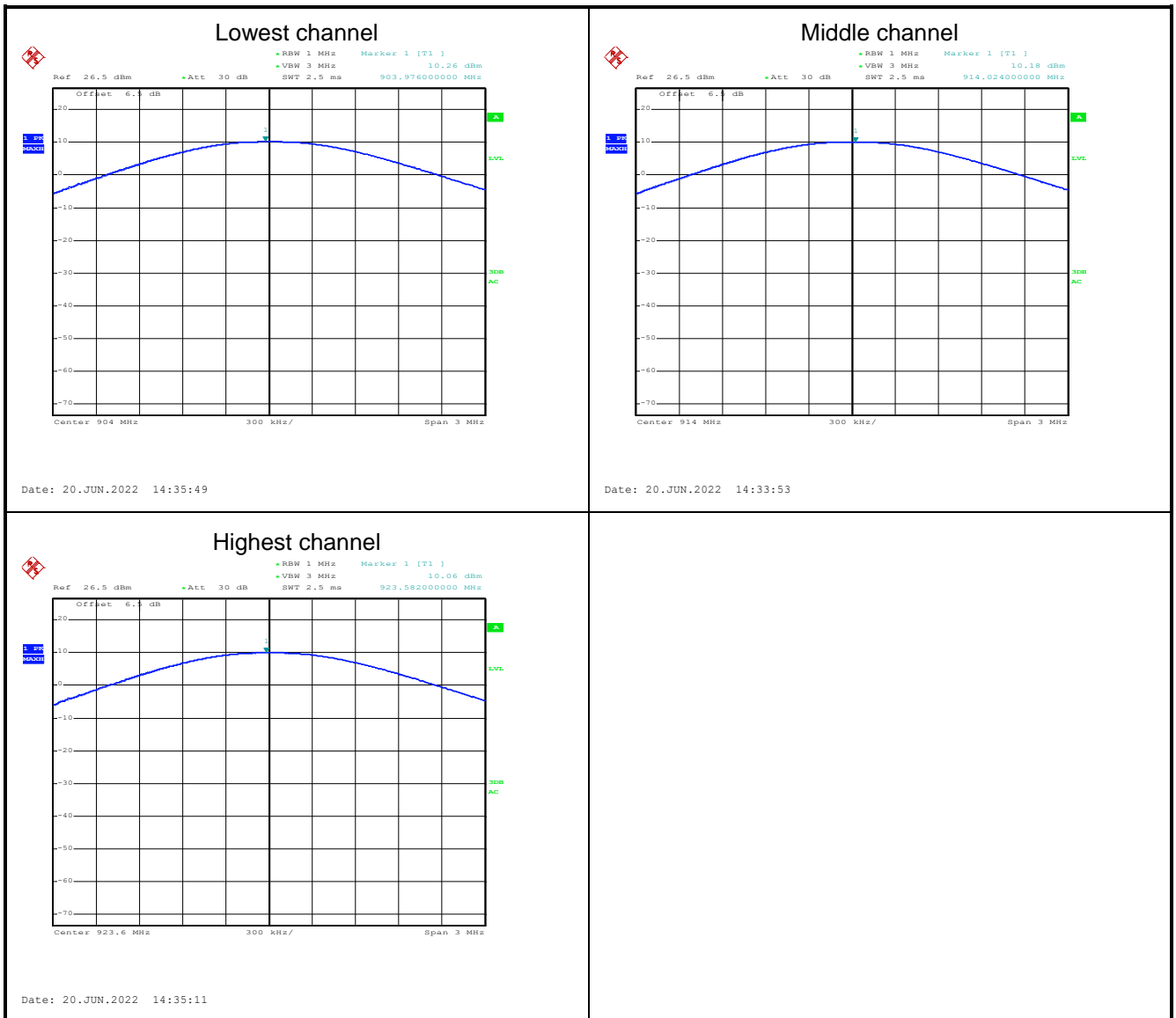
## 6.2 Antenna Requirement

<b>Standard requirement:</b>	FCC Part 15 C Section 15.203 & 247(b)
<p>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.</p> <p>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.</p>	
<b>E.U.T Antenna:</b>	
<p>The EUT antenna is an Helix antenna which permanently attached, and the best case gain of the antenna is -1.2 dBi. See product internal photos for details.</p>	

### 6.3 Conducted Output Power

Test channel	Maximum Output Power (dBm)	Limit (dBm)	Result
Lowest channel	10.26	30.00	Pass
Middle channel	10.18	30.00	Pass
Highest channel	10.06	30.00	Pass

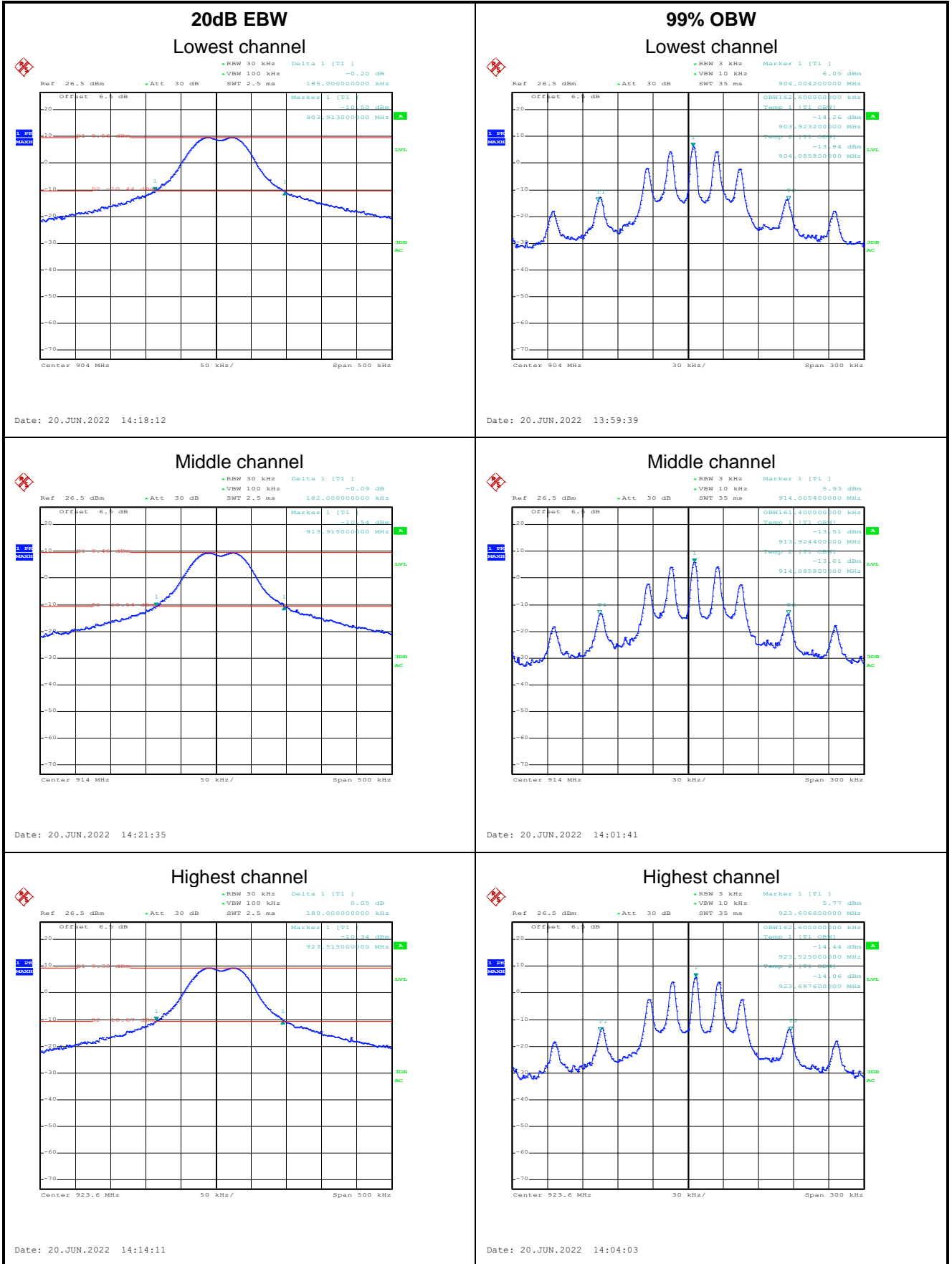
Test plot as follows:



### 6.4 20dB Occupied Bandwidth

Test Channel	20dB Emission Bandwidth (KHz)	Limit (KHz)	Result
Lowest channel	185	BW20dB ≤ 250	Pass
Middle channel	182		
Highest channel	180		
Test Channel	99% Occupy Bandwidth (KHz)	Limit (KHz)	Result
Lowest channel	162.6	N/A	N/A
Middle channel	161.4		
Highest channel	162.6		

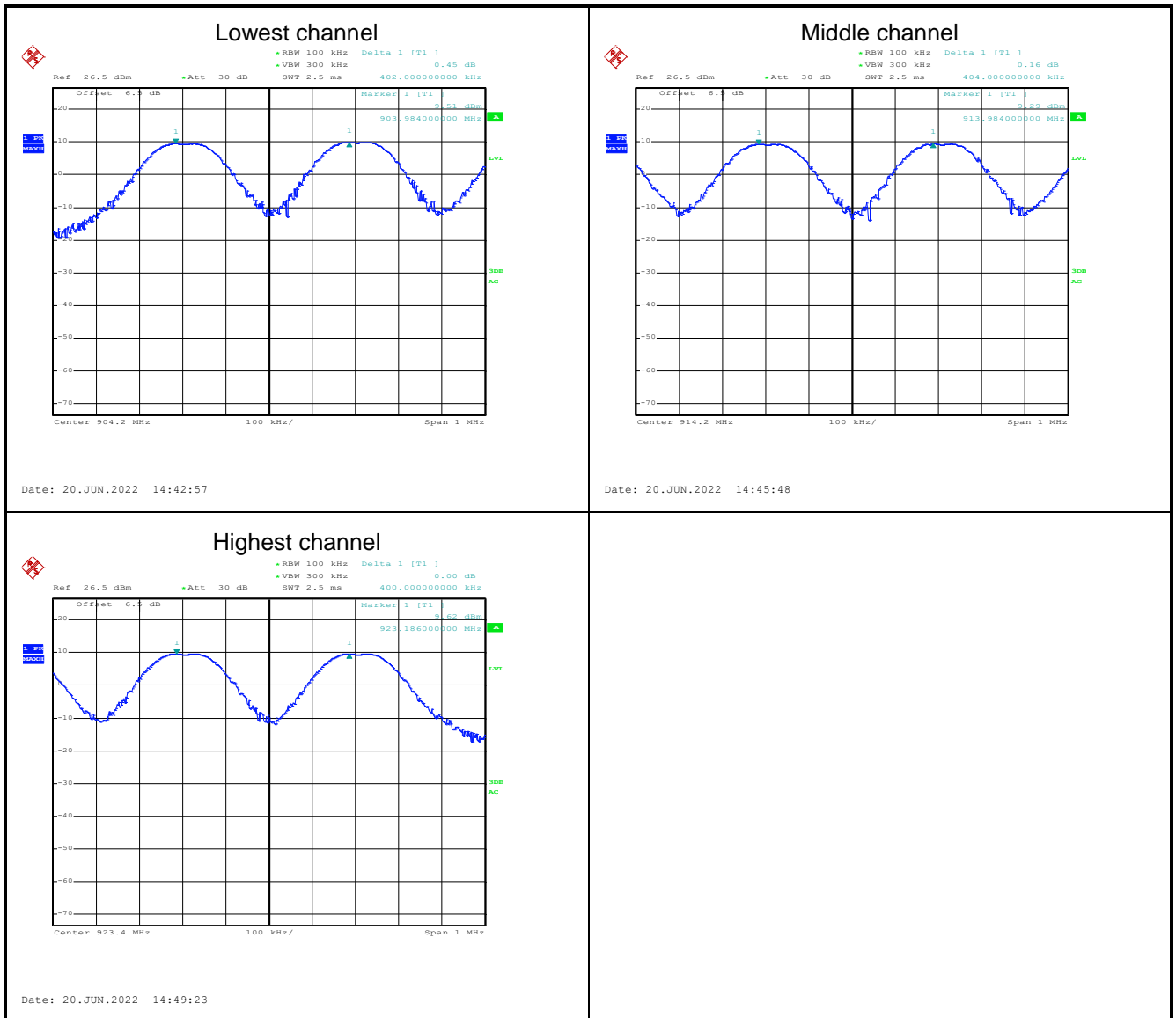
Test plot as follows:



### 6.5 Carrier Frequencies Separation

Test channel	Carrier Frequencies Separation (kHz)	Limit (kHz)	Result
Lowest channel	402	185	Pass
Middle channel	404	182	Pass
Highest channel	400	180	Pass

Test plot as follows:

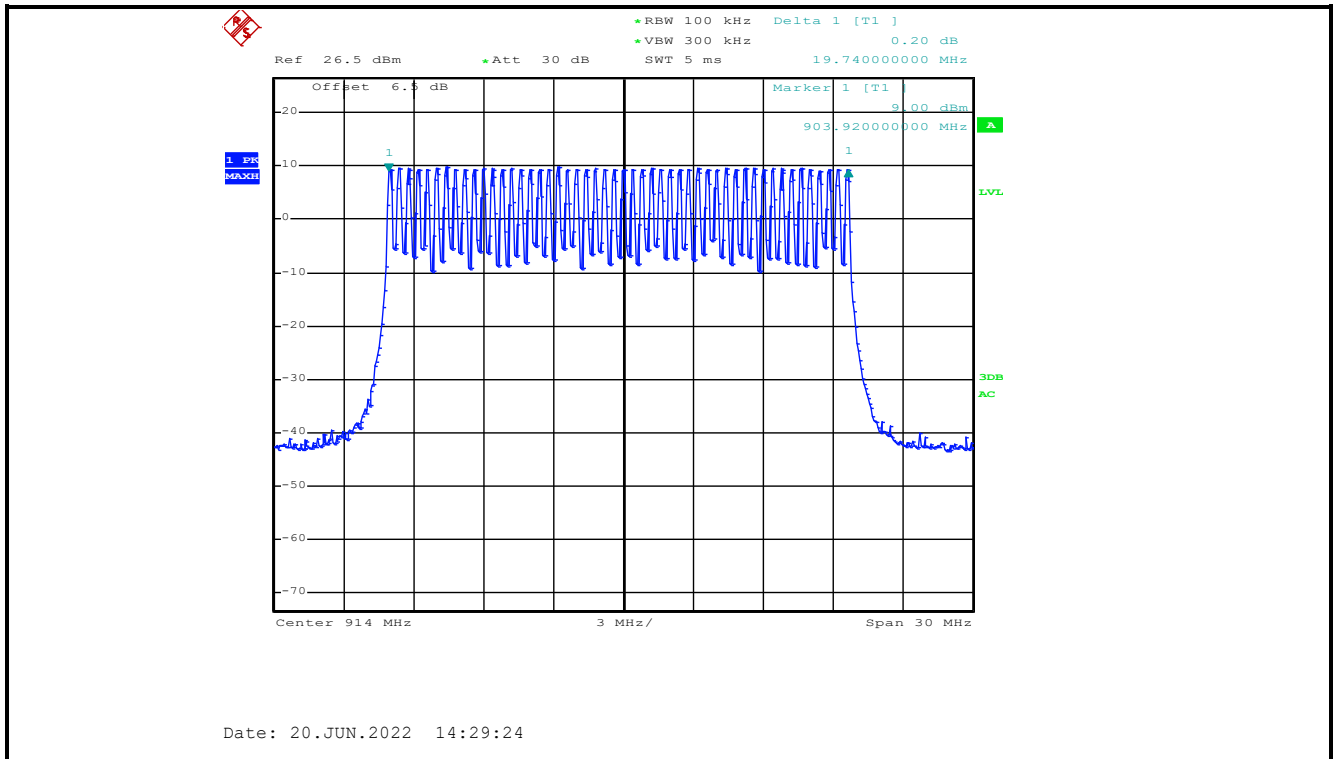




### 6.6 Hopping Channel Number

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

Test plot as follows:



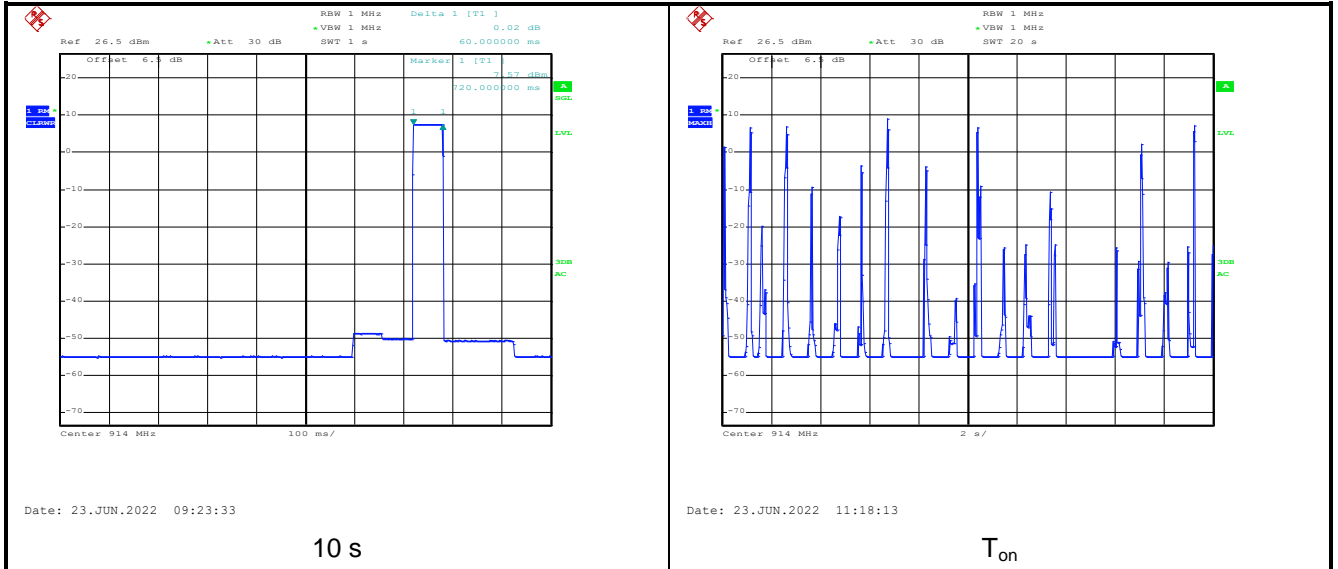
### 6.7 Dwell Time

$T_{on}$ (s)	Hopping numbers (20 s period)	Dwell time (s)	Limit (s)	Result
0.06	5	0.3	0.4	Pass

**Note:**

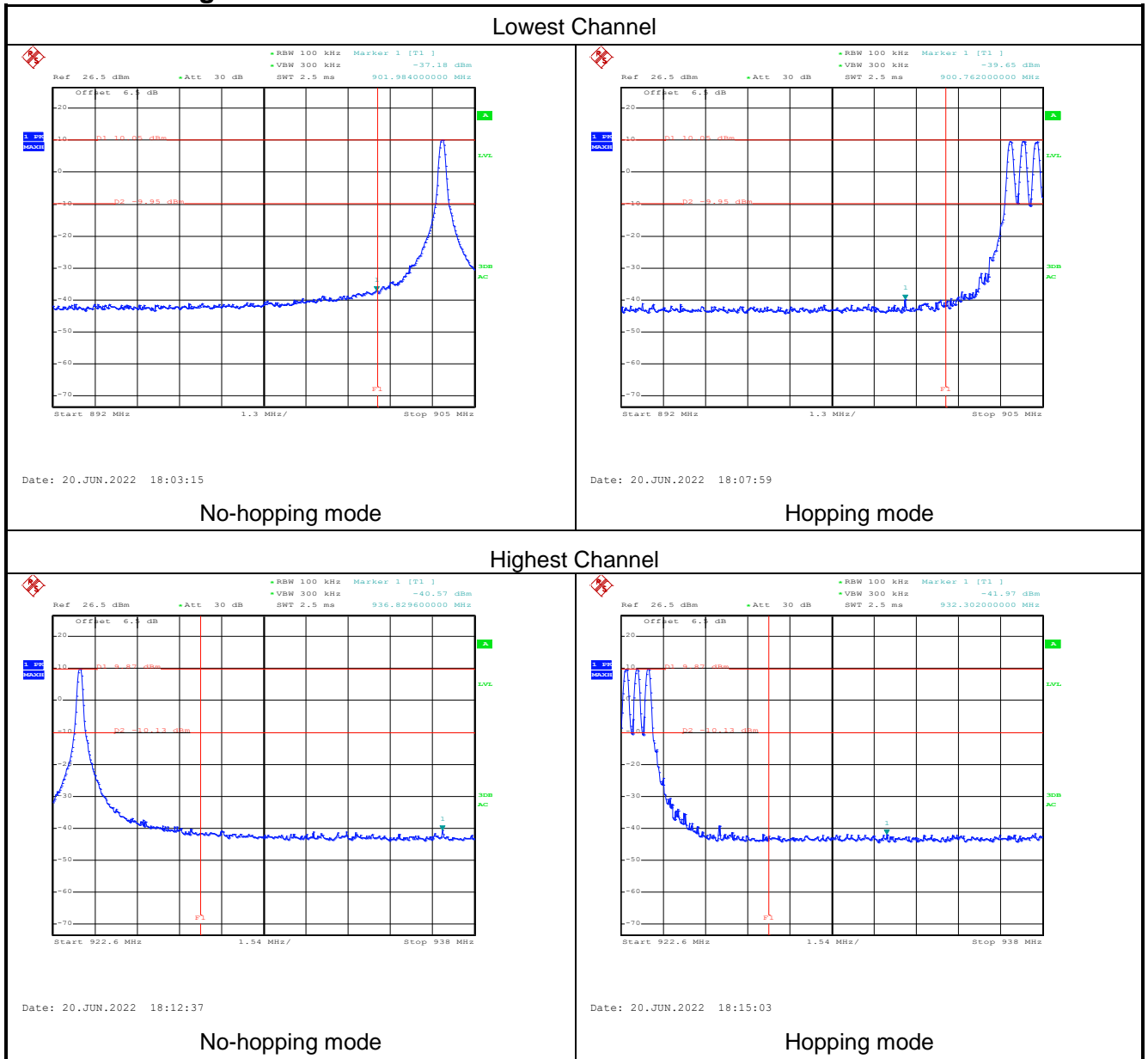
- $T_{on}$  is time per hop.
- Dwell time =  $T_{on}$  \* Hopping numbers.

Test plot as follows:

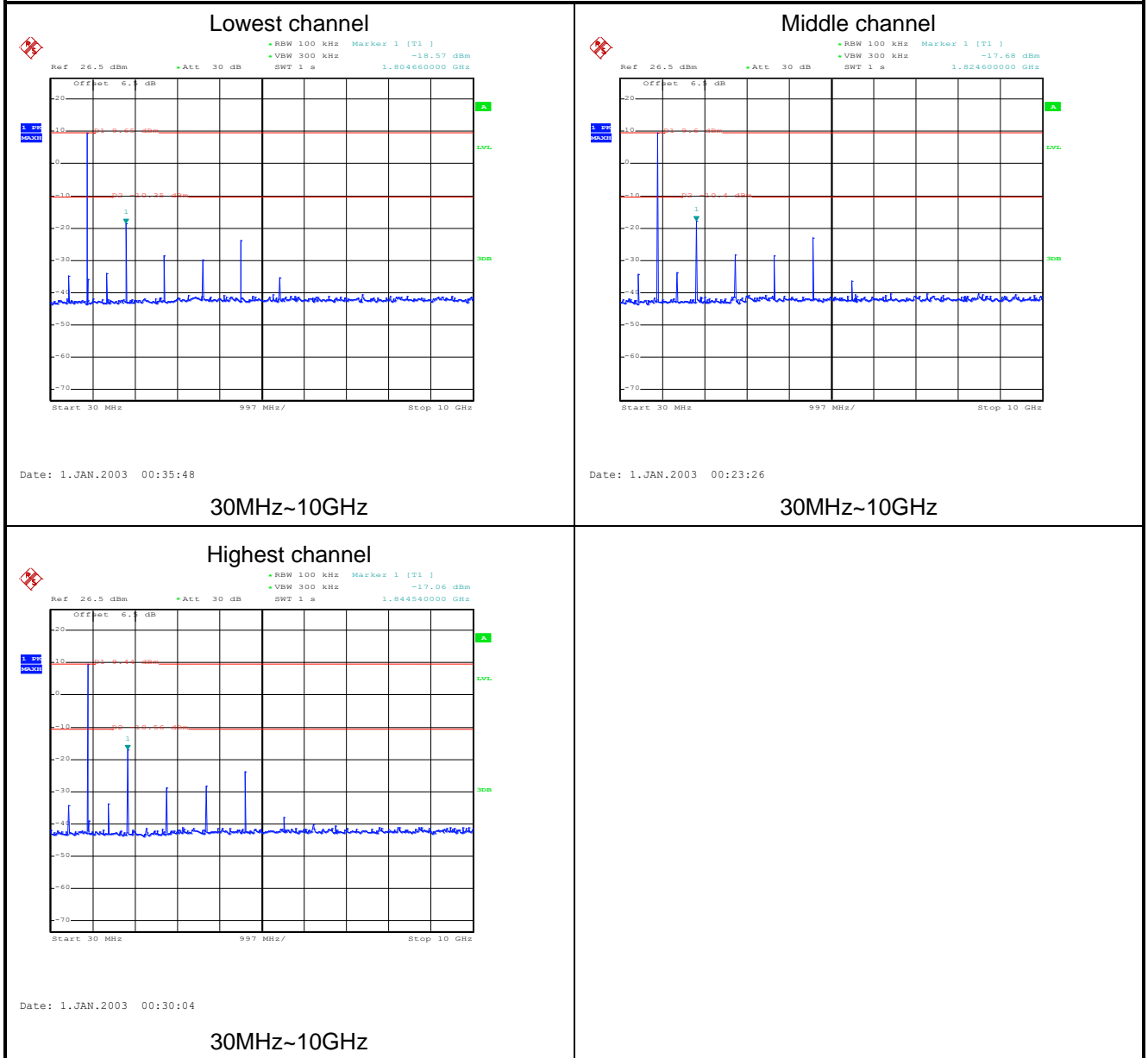


## 6.8 Spurious Emission

### 6.8.1 Band-edge Emission

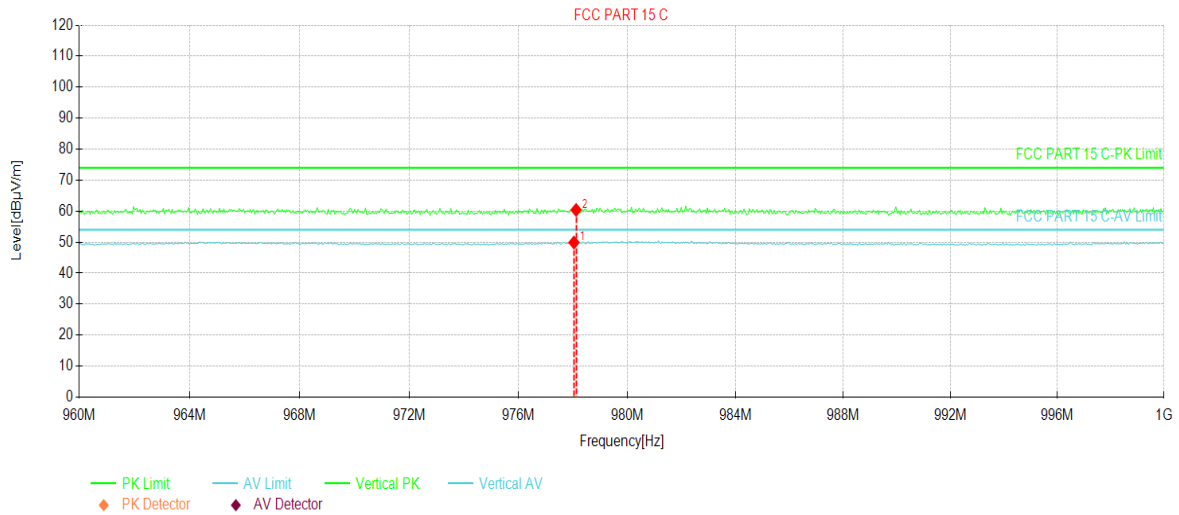


## 6.8.2 Conducted Spurious Emission



### 6.8.3 Emissions in Restricted Frequency Bands

<b>Product Name:</b>	CAR ALARM	<b>Product Model:</b>	JS7J-15K601-AB
<b>Test By:</b>	Mike	<b>Test mode:</b>	Tx mode
<b>Test Channel:</b>	960-1000MHz	<b>Polarization:</b>	Vertical
<b>Test Voltage:</b>	DC 3V		

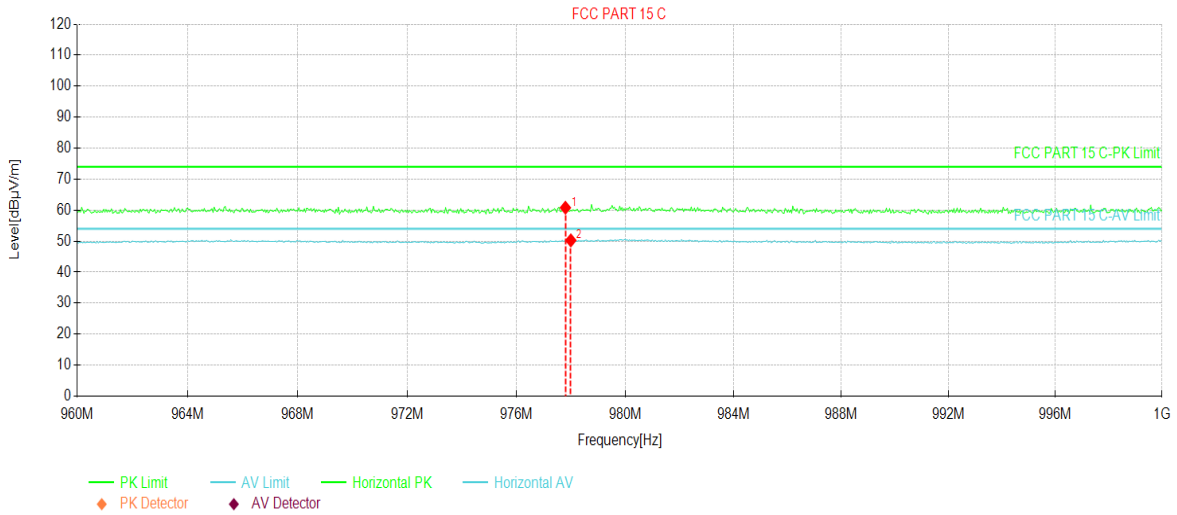


Suspected Data List								
NO.	Freq. [MHz]	Reading [dBµV/m]	Level [dBµV/m]	Factor [dB]	Limit [dBµV/m]	Margin [dB]	Trace	Polarity
1	978.040	23.13	49.89	26.76	54.00	4.11	AV	Vertical
2	978.120	33.64	60.40	26.76	74.00	13.60	PK	Vertical

**Remark:**

1. Level = Read level + Factor(Antenna Factor + Cable Loss – Preamplifier Factor).

<b>Product Name:</b>	CAR ALARM	<b>Product Model:</b>	JS7J-15K601-AB
<b>Test By:</b>	Mike	<b>Test mode:</b>	Tx mode
<b>Test Channel:</b>	960-1000MHz	<b>Polarization:</b>	Horizontal
<b>Test Voltage:</b>	DC 3V		

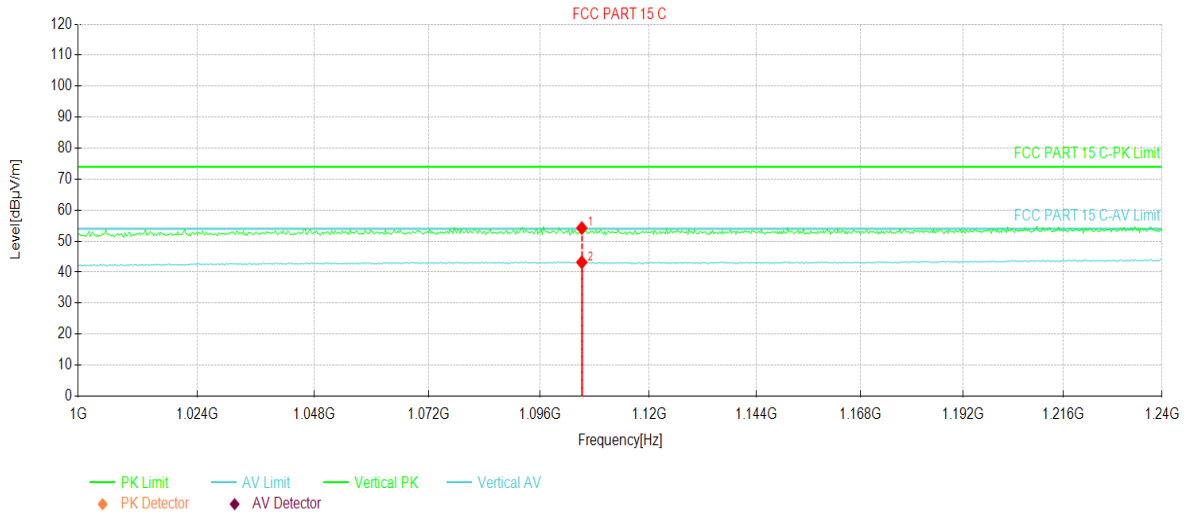


Suspected Data List								
NO.	Freq. [MHz]	Reading [dBµV/m]	Level [dBµV/m]	Factor [dB]	Limit [dBµV/m]	Margin [dB]	Trace	Polarity
1	977.800	34.03	60.79	26.76	74.00	13.21	PK	Horizontal
2	978.000	23.49	50.25	26.76	54.00	3.75	AV	Horizontal

**Remark:**

1. Level = Read level + Factor(Antenna Factor + Cable Loss – Preamplifier Factor).

<b>Product Name:</b>	CAR ALARM	<b>Product Model:</b>	JS7J-15K601-AB
<b>Test By:</b>	Mike	<b>Test mode:</b>	Tx mode
<b>Test Channel:</b>	1000~1240MHz	<b>Polarization:</b>	Vertical
<b>Test Voltage:</b>	DC 3V		

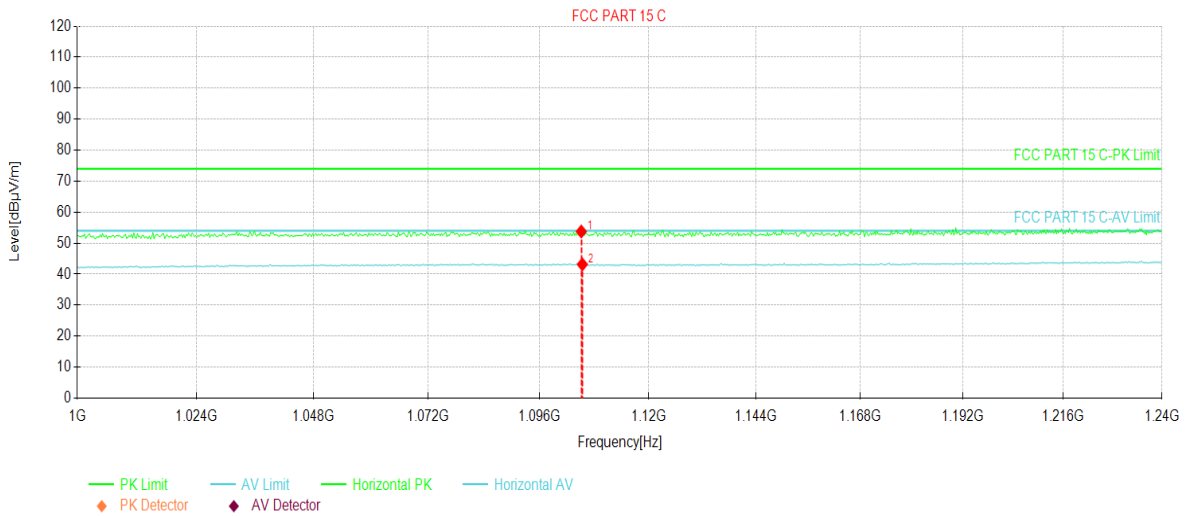


Suspected Data List								
NO.	Freq. [MHz]	Reading [dBµV/m]	Level [dBµV/m]	Factor [dB]	Limit [dBµV/m]	Margin [dB]	Trace	Polarity
1	1105.12	23.71	54.24	30.53	74.00	19.76	PK	Vertical
2	1105.12	12.66	43.19	30.53	54.00	10.81	AV	Vertical

**Remark:**

1. Level = Read level + Factor(Antenna Factor + Cable Loss – Pre-amplifier Factor).

<b>Product Name:</b>	CAR ALARM	<b>Product Model:</b>	JS7J-15K601-AB
<b>Test By:</b>	Mike	<b>Test mode:</b>	Tx mode
<b>Test Channel:</b>	1000~1240MHz	<b>Polarization:</b>	Horizontal
<b>Test Voltage:</b>	DC 3V		



Suspected Data List								
NO.	Freq. [MHz]	Reading [dBµV/m]	Level [dBµV/m]	Factor [dB]	Limit [dBµV/m]	Margin [dB]	Trace	Polarity
1	1105.12	23.24	53.77	30.53	74.00	20.23	PK	Horizontal
2	1105.36	12.61	43.14	30.53	54.00	10.86	AV	Horizontal

**Remark:**

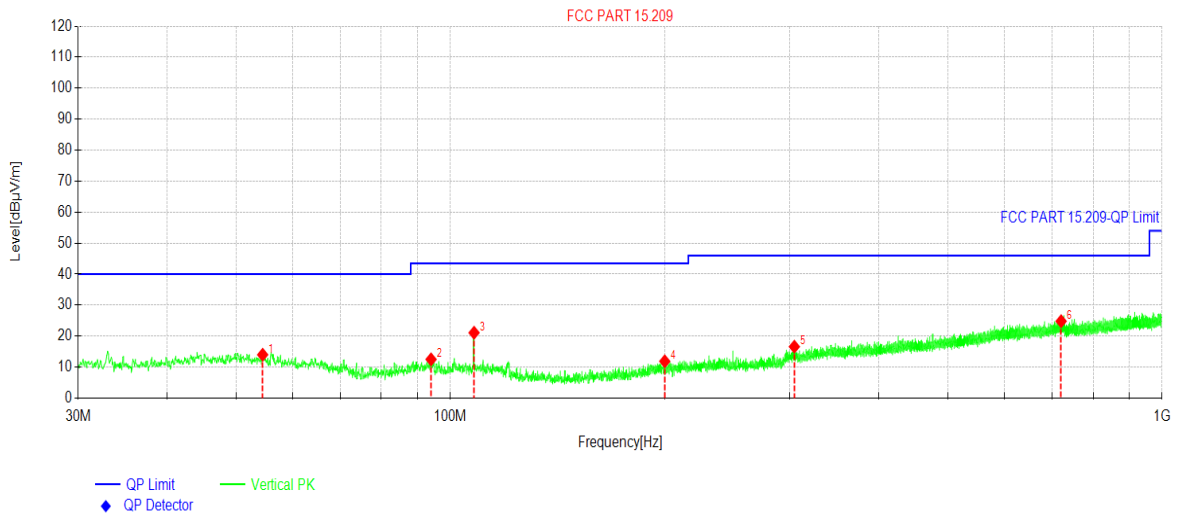
1. Level = Read level + Factor(Antenna Factor + Cable Loss – Pre-amplifier Factor).



### 6.8.4 Emissions in Non-restricted Frequency Bands

Below 1GHz:

<b>Product Name:</b>	CAR ALARM	<b>Product Model:</b>	JS7J-15K601-AB
<b>Test By:</b>	Mike	<b>Test mode:</b>	Tx mode
<b>Test Frequency:</b>	30 MHz ~ 1 GHz	<b>Polarization:</b>	Vertical
<b>Test Voltage:</b>	DC 3V		

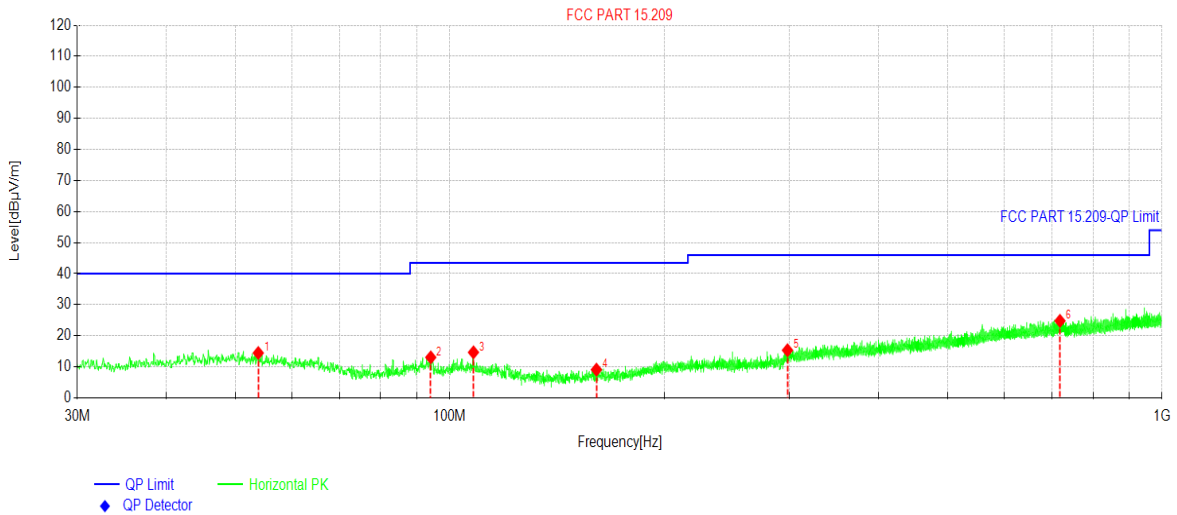


Suspected Data List								
NO.	Freq. [MHz]	Reading [dBµV/m]	Level [dBµV/m]	Factor [dB]	Limit [dBµV/m]	Margin [dB]	Trace	Polarity
1	54.4925	27.15	14.00	-13.15	40.00	26.00	PK	Vertical
2	93.9715	28.04	12.51	-15.53	43.50	30.99	PK	Vertical
3	107.988	35.83	21.10	-14.73	43.50	22.40	PK	Vertical
4	200.138	26.97	11.87	-15.10	43.50	31.63	PK	Vertical
5	304.364	29.52	16.60	-12.92	46.00	29.40	PK	Vertical
6	721.464	29.85	24.82	-5.03	46.00	21.18	PK	Vertical

**Remark:**

1. Level = Read level + Factor(Antenna Factor + Cable Loss – Preamplifier Factor).

<b>Product Name:</b>	CAR ALARM	<b>Product Model:</b>	JS7J-15K601-AB
<b>Test By:</b>	Mike	<b>Test mode:</b>	Tx mode
<b>Test Frequency:</b>	30 MHz ~ 1 GHz	<b>Polarization:</b>	Horizontal
<b>Test Voltage:</b>	DC 3V		



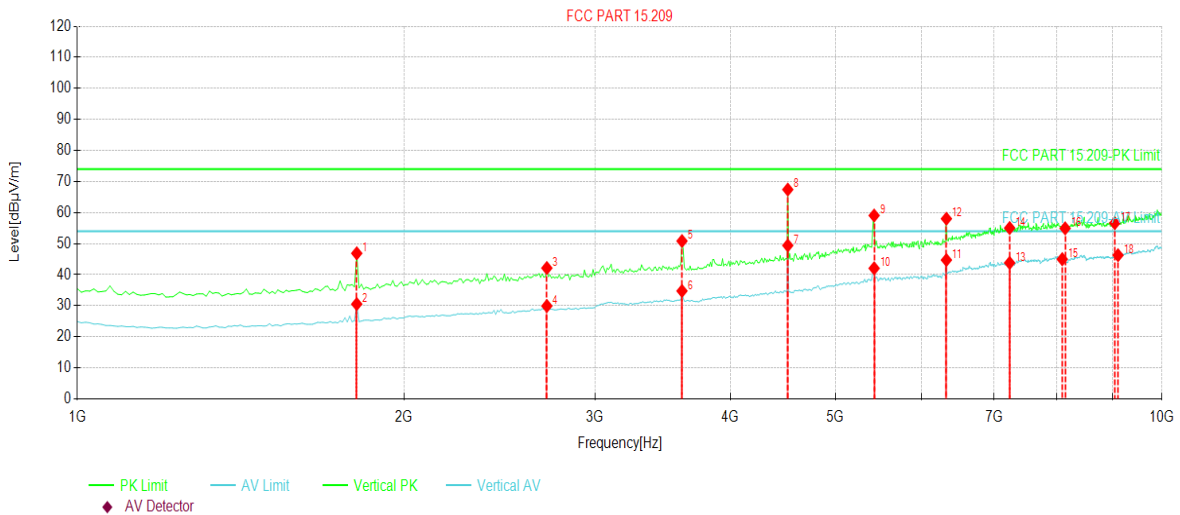
Suspected Data List								
NO.	Freq. [MHz]	Reading [dBµV/m]	Level [dBµV/m]	Factor [dB]	Limit [dBµV/m]	Margin [dB]	Trace	Polarity
1	53.8620	27.56	14.46	-13.10	40.00	25.54	PK	Horizontal
2	94.0685	28.55	13.04	-15.51	43.50	30.46	PK	Horizontal
3	107.988	29.39	14.66	-14.73	43.50	28.84	PK	Horizontal
4	160.707	26.93	9.08	-17.85	43.50	34.42	PK	Horizontal
5	298.011	28.44	15.34	-13.10	46.00	30.66	PK	Horizontal
6	719.088	29.88	24.80	-5.08	46.00	21.20	PK	Horizontal

**Remark:**

1. Level = Read level + Factor(Antenna Factor + Cable Loss – Pre-amplifier Factor).

**Above 1GHz:**

<b>Product Name:</b>	CAR ALARM	<b>Product Model:</b>	JS7J-15K601-AB
<b>Test By:</b>	Mike	<b>Test mode:</b>	904MHz Tx mode
<b>Test Frequency:</b>	1 GHz ~ 10 GHz	<b>Polarization:</b>	Vertical
<b>Test Voltage:</b>	DC 3V		

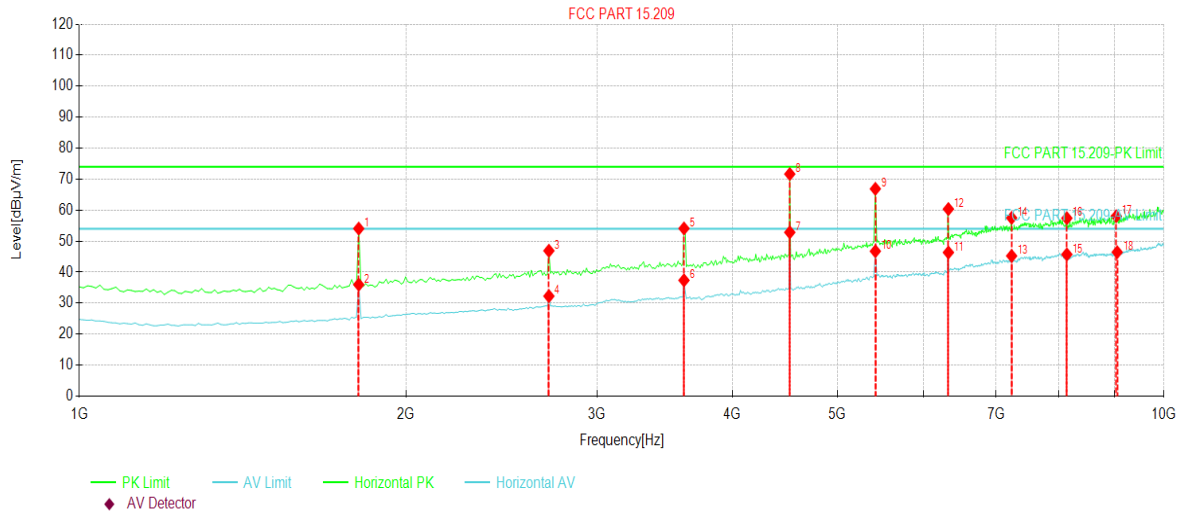


Suspected Data List								
NO.	Freq. [MHz]	Reading [dBµV/m]	Level [dBµV/m]	Factor [dB]	Limit [dBµV/m]	Margin [dB]	Trace	Polarity
1	1810.00	68.22	46.87	-21.35	74.00	27.13	PK	Vertical
2	1810.00	51.88	30.53	-21.35	54.00	23.47	AV	Vertical
3	2710.00	59.72	42.13	-17.59	74.00	31.87	PK	Vertical
4	2710.00	47.51	29.92	-17.59	54.00	24.08	AV	Vertical
5	3610.00	65.70	50.83	-14.87	74.00	23.17	PK	Vertical
6	3610.00	49.62	34.75	-14.87	54.00	19.25	AV	Vertical
7	4519.00	60.12	49.40	-10.72	54.00	4.60	AV	Vertical
8	4519.00	78.13	67.41	-10.72	74.00	6.59	PK	Vertical
9	5428.00	65.02	59.05	-5.97	74.00	14.95	PK	Vertical
10	5428.00	48.03	42.06	-5.97	54.00	11.94	AV	Vertical
11	6328.00	48.45	44.72	-3.73	54.00	9.28	AV	Vertical
12	6328.00	61.74	58.01	-3.73	74.00	15.99	PK	Vertical
13	7237.00	43.84	43.79	-0.05	54.00	10.21	AV	Vertical
14	7237.00	55.07	55.02	-0.05	74.00	18.98	PK	Vertical
15	8092.00	44.13	45.00	0.87	54.00	9.00	AV	Vertical
16	8141.40	54.06	54.91	0.85	74.00	19.09	PK	Vertical
17	9046.00	54.80	56.60	1.80	74.00	17.40	PK	Vertical
18	9109.00	44.23	46.28	2.05	54.00	7.72	AV	Vertical

**Remark:**

1. Level = Read level + Factor.

<b>Product Name:</b>	CAR ALARM	<b>Product Model:</b>	JS7J-15K601-AB
<b>Test By:</b>	Mike	<b>Test mode:</b>	904MHz Tx mode
<b>Test Frequency:</b>	1 GHz ~ 10 GHz	<b>Polarization:</b>	Horizontal
<b>Test Voltage:</b>	DC 3V		

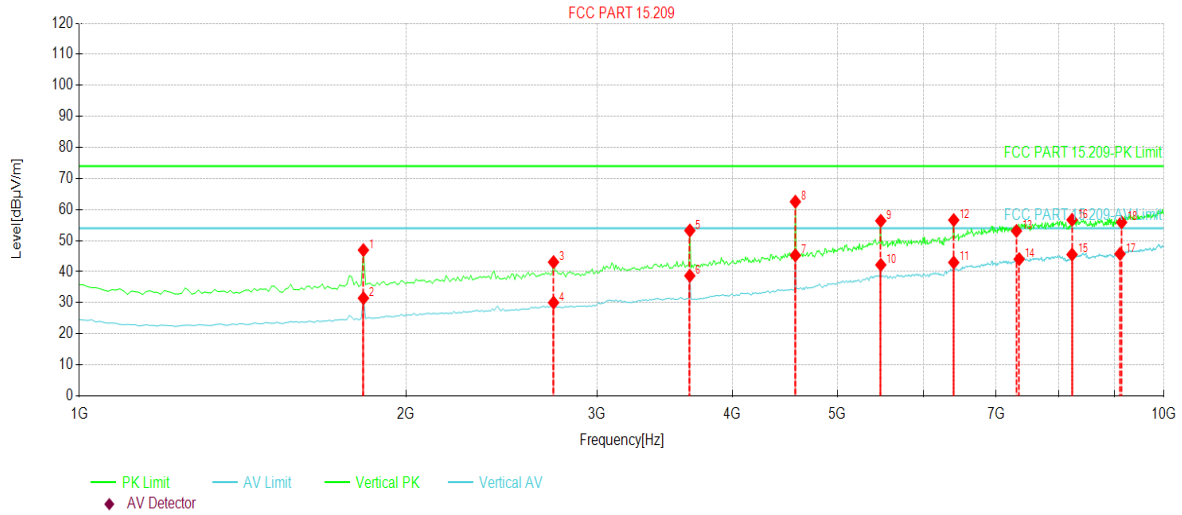


Suspected Data List								
NO.	Freq. [MHz]	Reading [dBμV/m]	Level [dBμV/m]	Factor [dB]	Limit [dBμV/m]	Margin [dB]	Trace	Polarity
1	1810.00	75.39	54.04	-21.35	74.00	19.96	PK	Horizontal
2	1810.00	57.31	35.96	-21.35	54.00	18.04	AV	Horizontal
3	2710.00	64.48	46.89	-17.59	74.00	27.11	PK	Horizontal
4	2710.00	49.85	32.26	-17.59	54.00	21.74	AV	Horizontal
5	3610.00	68.97	54.10	-14.87	74.00	19.90	PK	Horizontal
6	3610.00	52.23	37.36	-14.87	54.00	16.64	AV	Horizontal
7	4519.00	63.56	52.84	-10.72	54.00	1.16	AV	Horizontal
8	4519.00	82.36	71.64	-10.72	74.00	2.36	PK	Horizontal
9	5419.00	72.83	66.87	-5.96	74.00	7.13	PK	Horizontal
10	5419.00	52.71	46.75	-5.96	54.00	7.25	AV	Horizontal
11	6328.00	50.08	46.35	-3.73	54.00	7.65	AV	Horizontal
12	6328.00	64.08	60.35	-3.73	74.00	13.65	PK	Horizontal
13	7237.00	45.29	45.24	-0.05	54.00	8.76	AV	Horizontal
14	7237.00	57.55	57.50	-0.05	74.00	16.50	PK	Horizontal
15	8137.00	44.86	45.71	0.85	54.00	8.29	AV	Horizontal
16	8137.00	56.55	57.40	0.85	74.00	16.60	PK	Horizontal
17	9037.00	56.29	58.05	1.76	74.00	15.95	PK	Horizontal
18	9055.00	44.61	46.44	1.83	54.00	7.56	AV	Horizontal

**Remark:**

1. Level = Read level + Factor.

<b>Product Name:</b>	CAR ALARM	<b>Product Model:</b>	JS7J-15K601-AB
<b>Test By:</b>	Mike	<b>Test mode:</b>	914MHz Tx mode
<b>Test Frequency:</b>	1 GHz ~ 10 GHz	<b>Polarization:</b>	Vertical
<b>Test Voltage:</b>	DC 3V		

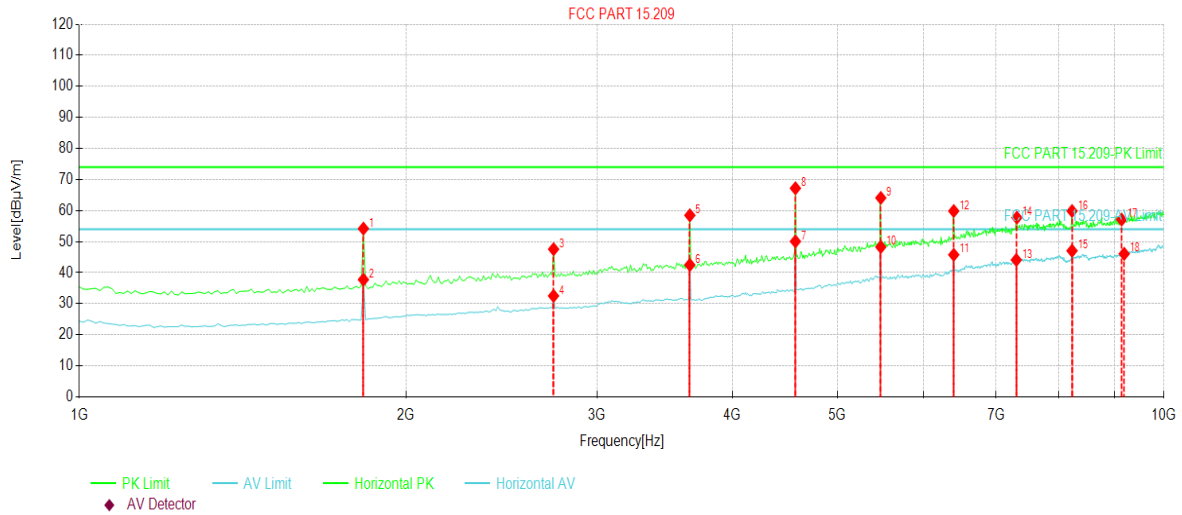


Suspected Data List								
NO.	Freq. [MHz]	Reading [dBµV/m]	Level [dBµV/m]	Factor [dB]	Limit [dBµV/m]	Margin [dB]	Trace	Polarity
1	1828.00	68.21	46.95	-21.26	74.00	27.05	PK	Vertical
2	1828.00	52.72	31.46	-21.26	54.00	22.54	AV	Vertical
3	2737.00	60.65	43.07	-17.58	74.00	30.93	PK	Vertical
4	2737.00	47.61	30.03	-17.58	54.00	23.97	AV	Vertical
5	3655.00	67.92	53.25	-14.67	74.00	20.75	PK	Vertical
6	3655.00	53.36	38.69	-14.67	54.00	15.31	AV	Vertical
7	4573.00	55.75	45.27	-10.48	54.00	8.73	AV	Vertical
8	4573.00	73.01	62.53	-10.48	74.00	11.47	PK	Vertical
9	5482.00	62.41	56.36	-6.05	74.00	17.64	PK	Vertical
10	5482.00	48.24	42.19	-6.05	54.00	11.81	AV	Vertical
11	6400.00	45.71	42.96	-2.75	54.00	11.04	AV	Vertical
12	6400.00	59.37	56.62	-2.75	74.00	17.38	PK	Vertical
13	7312.00	53.14	53.14	0.00	74.00	20.86	PK	Vertical
14	7354.00	43.85	44.04	0.19	54.00	9.96	AV	Vertical
15	8227.00	44.47	45.53	1.06	54.00	8.47	AV	Vertical
16	8227.00	55.65	56.71	1.06	74.00	17.29	PK	Vertical
17	9109.00	43.68	45.73	2.05	54.00	8.27	AV	Vertical
18	9140.00	53.69	55.88	2.19	74.00	18.12	PK	Vertical

**Remark:**

1. Level = Read level + Factor.

<b>Product Name:</b>	CAR ALARM	<b>Product Model:</b>	JS7J-15K601-AB
<b>Test By:</b>	Mike	<b>Test mode:</b>	914MHz Tx mode
<b>Test Frequency:</b>	1 GHz ~ 10 GHz	<b>Polarization:</b>	Horizontal
<b>Test Voltage:</b>	DC 3V		



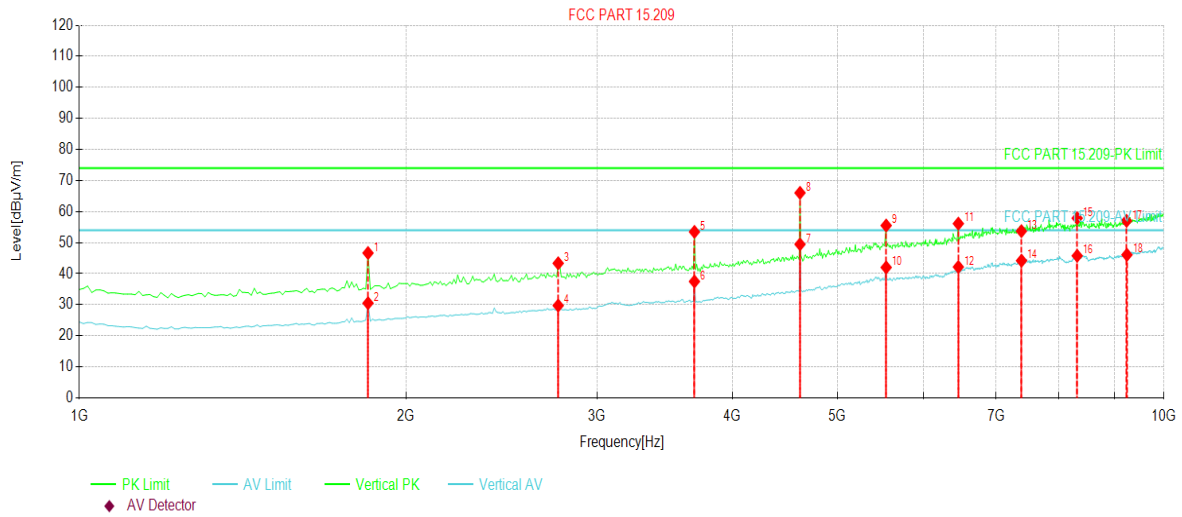
**Suspected Data List**

NO.	Freq. [MHz]	Reading [dBµV/m]	Level [dBµV/m]	Factor [dB]	Limit [dBµV/m]	Margin [dB]	Trace	Polarity
1	1828.00	75.44	54.18	-21.26	74.00	19.82	PK	Horizontal
2	1828.00	59.03	37.77	-21.26	54.00	16.23	AV	Horizontal
3	2737.00	65.15	47.57	-17.58	74.00	26.43	PK	Horizontal
4	2737.00	50.10	32.52	-17.58	54.00	21.48	AV	Horizontal
5	3655.00	73.14	58.47	-14.67	74.00	15.53	PK	Horizontal
6	3655.00	57.16	42.49	-14.67	54.00	11.51	AV	Horizontal
7	4573.00	60.56	50.08	-10.48	54.00	3.92	AV	Horizontal
8	4573.00	77.66	67.18	-10.48	74.00	6.82	PK	Horizontal
9	5482.00	70.13	64.08	-6.05	74.00	9.92	PK	Horizontal
10	5482.00	54.32	48.27	-6.05	54.00	5.73	AV	Horizontal
11	6400.00	48.52	45.77	-2.75	54.00	8.23	AV	Horizontal
12	6400.00	62.60	59.85	-2.75	74.00	14.15	PK	Horizontal
13	7309.00	44.14	44.10	-0.04	54.00	9.90	AV	Horizontal
14	7318.00	57.72	57.72	0.00	74.00	16.28	PK	Horizontal
15	8227.00	46.00	47.06	1.06	54.00	6.94	AV	Horizontal
16	8227.00	58.80	59.86	1.06	74.00	14.14	PK	Horizontal
17	9140.00	54.91	57.10	2.19	74.00	16.90	PK	Horizontal
18	9190.00	43.71	46.07	2.36	54.00	7.93	AV	Horizontal

**Remark:**

1. Level = Read level + Factor.

<b>Product Name:</b>	CAR ALARM	<b>Product Model:</b>	JS7J-15K601-AB
<b>Test By:</b>	Mike	<b>Test mode:</b>	923.6MHz Tx mode
<b>Test Frequency:</b>	1 GHz ~ 10 GHz	<b>Polarization:</b>	Vertical
<b>Test Voltage:</b>	DC 3V		

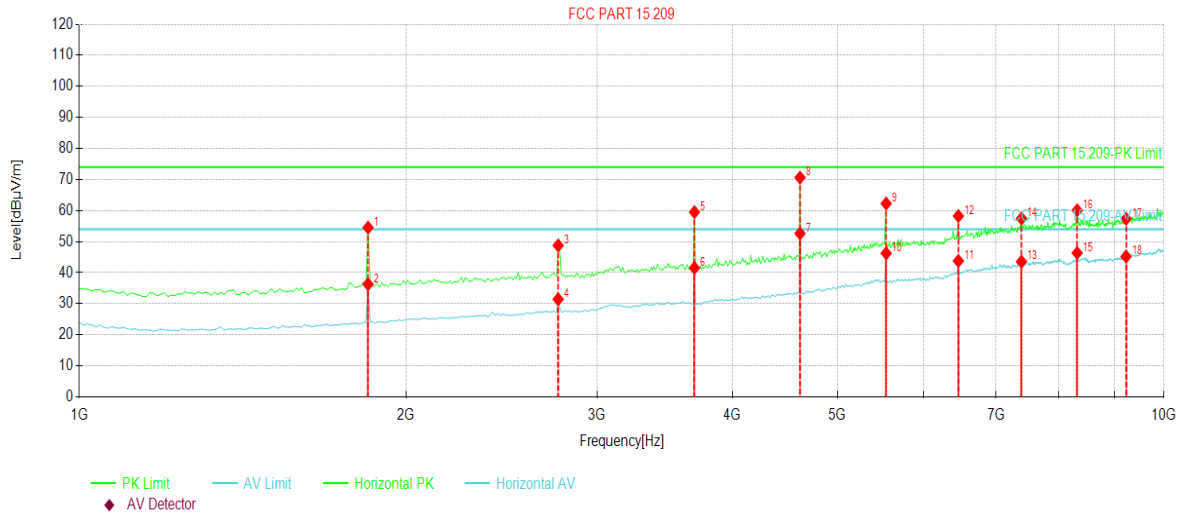


Suspected Data List								
NO.	Freq. [MHz]	Reading [dBµV/m]	Level [dBµV/m]	Factor [dB]	Limit [dBµV/m]	Margin [dB]	Trace	Polarity
1	1846.00	67.82	46.65	-21.17	74.00	27.35	PK	Vertical
2	1846.00	51.68	30.51	-21.17	54.00	23.49	AV	Vertical
3	2764.00	60.90	43.34	-17.56	74.00	30.66	PK	Vertical
4	2764.00	47.30	29.74	-17.56	54.00	24.26	AV	Vertical
5	3691.00	67.99	53.47	-14.52	74.00	20.53	PK	Vertical
6	3691.00	52.01	37.49	-14.52	54.00	16.51	AV	Vertical
7	4618.00	59.70	49.46	-10.24	54.00	4.54	AV	Vertical
8	4618.00	76.27	66.03	-10.24	74.00	7.97	PK	Vertical
9	5545.00	61.58	55.50	-6.08	74.00	18.50	PK	Vertical
10	5545.00	48.09	42.01	-6.08	54.00	11.99	AV	Vertical
11	6463.00	58.74	56.11	-2.63	74.00	17.89	AV	Vertical
12	6463.00	44.80	42.17	-2.63	54.00	11.83	PK	Vertical
13	7388.80	53.33	53.71	0.38	74.00	20.29	AV	Vertical
14	7390.00	43.81	44.19	0.38	54.00	9.81	PK	Vertical
15	8317.00	56.19	57.88	1.69	74.00	16.12	AV	Vertical
16	8317.00	44.06	45.75	1.69	54.00	8.25	PK	Vertical
17	9236.00	54.29	57.00	2.71	74.00	17.00	PK	Vertical
18	9244.00	43.37	46.08	2.71	54.00	7.92	AV	Vertical

**Remark:**

1. Level = Read level + Factor.

<b>Product Name:</b>	CAR ALARM	<b>Product Model:</b>	JS7J-15K601-AB
<b>Test By:</b>	Mike	<b>Test mode:</b>	923.6MHz Tx mode
<b>Test Frequency:</b>	1 GHz ~ 10 GHz	<b>Polarization:</b>	Horizontal
<b>Test Voltage:</b>	DC 3V		


**Suspected Data List**

NO.	Freq. [MHz]	Reading [dBµV/m]	Level [dBµV/m]	Factor [dB]	Limit [dBµV/m]	Margin [dB]	Trace	Polarity
1	1846.00	75.69	54.52	-21.17	74.00	19.48	PK	Horizontal
2	1846.00	57.42	36.25	-21.17	54.00	17.75	AV	Horizontal
3	2764.00	66.33	48.77	-17.56	74.00	25.23	PK	Horizontal
4	2764.00	49.00	31.44	-17.56	54.00	22.56	AV	Horizontal
5	3691.00	74.03	59.51	-14.52	74.00	14.49	PK	Horizontal
6	3691.00	56.05	41.53	-14.52	54.00	12.47	AV	Horizontal
7	4618.00	62.88	52.64	-10.24	54.00	1.36	AV	Horizontal
8	4618.00	80.86	70.62	-10.24	74.00	3.38	PK	Horizontal
9	5545.00	68.36	62.28	-6.08	74.00	11.72	PK	Horizontal
10	5545.00	52.32	46.24	-6.08	54.00	7.76	AV	Horizontal
11	6463.00	46.43	43.80	-2.63	54.00	10.20	AV	Horizontal
12	6463.00	60.88	58.25	-2.63	74.00	15.75	PK	Horizontal
13	7390.00	43.17	43.55	0.38	54.00	10.45	AV	Horizontal
14	7390.00	57.06	57.44	0.38	74.00	16.56	PK	Horizontal
15	8317.00	44.66	46.35	1.69	54.00	7.65	AV	Horizontal
16	8317.00	58.41	60.10	1.69	74.00	13.90	PK	Horizontal
17	9226.00	54.76	57.34	2.58	74.00	16.66	PK	Horizontal
18	9226.00	42.61	45.19	2.58	54.00	8.81	AV	Horizontal

**Remark:**

1. Level = Read level + Factor.

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