

# FCC RF Test Report

**Applicant:** PORTMAN ELECTRONICS (DONGGUAN) CO., LTD.

**Address of Applicant:** NO#10 , Luyi 2 Road, Keyuancheng, Tangxia Town

**Equipment Under Test (EUT)**

Product Name: CAR ALARM

Model No.: 183BPTI, 183BPRTI

**FCC ID:** TBQT5-AM1WTI

**Applicable Standards:** FCC CFR Title 47 Part 15C (§15.231(a))


**Date of Sample Receipt:** 21 Mar., 2022

**Date of Test:** 22 Mar., to 12 May., 2022

**Date of Report Issue:** 19 May., 2022

**Test Result:** PASS

<b>Tested by:</b>	<u>Janet Wei</u>	<b>Date:</b>	<u>19 May., 2022</u>
<b>Reviewed by:</b>	<u>Winnier Zhang</u>	<b>Date:</b>	<u>19 May., 2022</u>
<b>Approved by:</b>	<u>Winnier Zhang</u>	<b>Date:</b>	<u>19 May., 2022</u>

  
Test Engineer  
Project Engineer  
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.

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	13 May., 2022	Original
01	19 May., 2022	<ol style="list-style-type: none"><li>1. Updated page 4/13/17/18/21/22</li><li>2. The EUT external photo remarks two models, the setup photos reflects two models, update section 6.4 and 6.5</li></ol>

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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
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.:	183BPTI, 183BPRTI
Operation Frequency:	433.92 MHz
Channel Numbers:	1
Modulation Type:	ASK
Antenna Type:	PCB Antenna
Antenna Gain:	-6 dBi
Power Supply:	DC 3V (CR2032 battery)
Test Sample Condition:	The test samples were provided in good working order with no visible defects.
Remark:	<ol style="list-style-type: none"> <li>1. Model No.:183BPTI, 183BPRTI The internal circuit design, layout, components used and internal wiring are all the same, the only difference is the model, appearance and material.</li> <li>2. So Field Strength of Fundamental and Field Strength of Spurious Emissions test two models.</li> </ol>

### 4.3 Test Mode and Environment

<b>Test Mode:</b>			
Transmitting mode:	Keep the EUT in transmitting mode with modulation		
The EUT was placed on three different polar directions tested: i.e. X axis, Y axis, Z axis. which was shown in this test report and defined as follows:			
Axis	X	Y	Z
Field Strength(dBuV/m)	86.94	85.20	84.23
According to ANSI C63.10 standards, the test results are both the "worst case" and "worst setup": Y axis (see the test setup photo).			
<b>Operating Environment:</b>			
Temperature:	15°C ~ 35°C		
Humidity:	20 % ~ 75 % RH		
Atmospheric Pressure:	1010 mbar		

### 4.4 Description of Support Units

Manufacturer	Description	Model	Serial Number	FCC ID/DoC
N/A				

### 4.5 Measurement Uncertainty

Parameter	Expanded Uncertainty (Confidence of 95%(U = 2Uc(y)))
Radiated Emission (9kHz ~ 30MHz) (3m SAC)	±3.13 dB
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
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### 4.7 Laboratory Facility

<p>The test facility is recognized, certified, or accredited by the following organizations:</p> <ul style="list-style-type: none"> <li>● <b>FCC - Designation No.: CN1211</b> 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.</li> <li>● <b>ISED – CAB identifier.: CN0021</b> 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.</li> <li>● <b>CNAS - Registration No.: CNAS L15527</b> 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.</li> <li>● <b>A2LA - Registration No.: 4346.01</b> 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: <a href="https://portal.a2la.org/scopepdf/4346-01.pdf">https://portal.a2la.org/scopepdf/4346-01.pdf</a></li> </ul>
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## 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	01-19-2021	01-18-2024
BiConiLog Antenna	Schwarzbeck	VULB9163	WXJ002	02-17-2022	02-16-2023
Biconical Antenna	Schwarzbeck	VUBA9117	WXJ002-1	06-20-2021	06-19-2022
Horn Antenna	Schwarzbeck	BBHA9120D	WXJ002-2	02-17-2022	02-16-2023
Horn Antenna	Schwarzbeck	BBHA9120D	WXJ002-3	06-18-2021	06-17-2022
Loop Antenna	Schwarzbeck	FMZB 1519 B	WXJ002-4	02-17-2022	02-16-2023
Pre-amplifier (30MHz ~ 1GHz)	Schwarzbeck	BBV9743B	WXG001-7	02-17-2022	02-16-2023
Pre-amplifier (1GHz ~ 18GHz)	SKET	LNPA_0118G-50	WXG001-3	02-17-2022	02-16-2023
Pre-amplifier (18GHz ~ 40GHz)	RF System	TRLA-180400G45B	WXG001-9	02-17-2022	02-16-2023
EMI Test Receiver	Rohde & Schwarz	ESRP7	WXJ003-1	02-17-2022	02-16-2023
Spectrum Analyzer	KEYSIGHT	N9010B	WXJ004-2	11-27-2021	11-26-2022
Band Reject Filter Group	Tonscend	JS0806-F	WXJ089	N/A	
Coaxial Cable (30MHz ~ 1GHz)	JYTSZ	JYT3M-1G-NN-8M	WXG001-4	02-17-2022	02-16-2023
Coaxial Cable (1GHz ~ 18GHz)	JYTSZ	JYT3M-18G-NN-8M	WXG001-5	02-17-2022	02-16-2023
Coaxial Cable (18GHz ~ 40GHz)	JYTSZ	JYT3M-40G-SS-8M	WXG001-7	02-17-2022	02-16-2023
Coaxial Cable (9kHz ~ 30MHz)	JYT	JYT3M-1G-BB-5M	WXG001-6	02-17-2022	02-16-2023
Test Software	Tonscend	TS+	Version: 3.0.0.1		

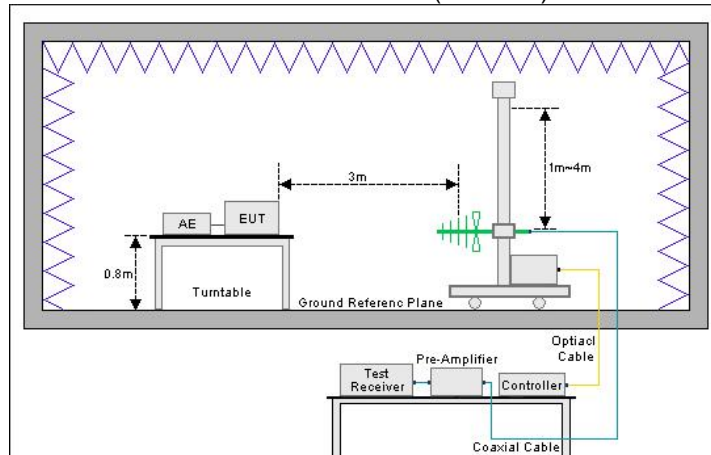
Conducted Method:					
Test Equipment	Manufacturer	Model No.	Manage No.	Cal. Date (mm-dd-yy)	Cal. Due date (mm-dd-yy)
EMI Test Receiver	Rohde & Schwarz	ESCI3	WXJ003	01-19-2022	01-18-2023

## 5 Measurement Setup and Procedure

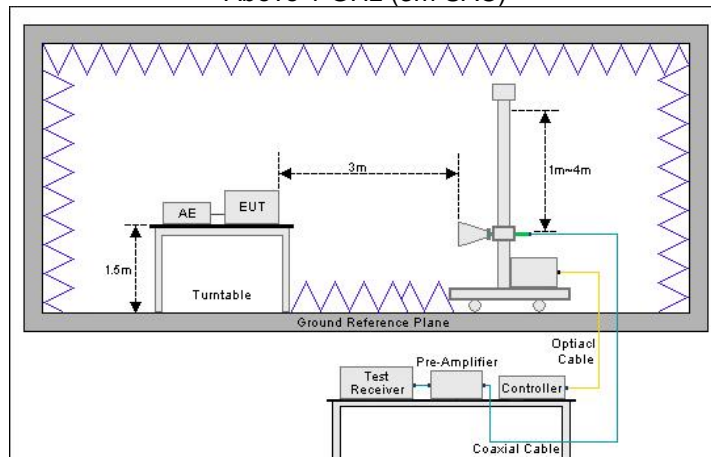
### 5.1 Test Setup

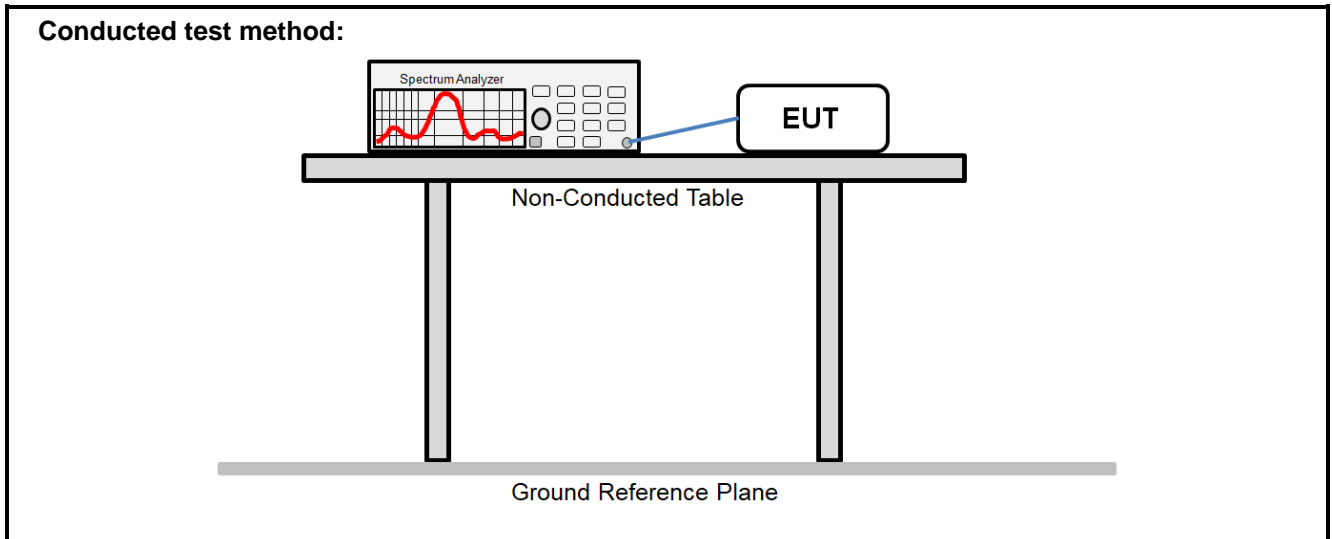
Radiated emission measurement:

30 MHz – 1000 MHz (3m SAC)



Above 1 GHz (3m SAC)





## 5.2 Test Procedure

Test method	Test step
Radiated emission	<ol style="list-style-type: none"> <li>1. 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>2. 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>3. 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>1. The antenna port of EUT was connected to the RF port of the spectrum analyzer through an RF cable.</li> <li>2. The EUT is keeping in continuous transmission mode and tested in all modulation modes.</li> <li>3. The test data is saved by the screenshot function of the spectrum analyzer.</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	See Section 6.2	Pass
AC Power Line Conducted Emission	15.207	N/A	N/A
20dB Bandwidth	15.231 (c)	See Section 6.3	Pass
Field Strength of Fundamental	15.231 (b)	See Section 6.4	Pass
Field Strength of Spurious Emissions	15.209 15.231 (b)	See Section 6.5	Pass
Duration Time	15.231 (a)(1)	See Section 6.6	Pass
<b>Remark:</b> 1. Pass: The EUT complies with the essential requirements in the standard. 2. N/A: Not Applicable. EUT power by DC 3V.			
<b>Test Method:</b>	ANSI C63.4-2014 ANSI C63.10-2013		

6.1.2 Test Limit

Test items	Limit																																												
20dB Bandwidth	The bandwidth of the emission shall be no wider than 0.25% of the center frequency for devices operating above 70 MHz and below 900 MHz. For devices operating above 900 MHz, the emission shall be no wider than 0.5% of the center frequency. Bandwidth is determined at the points 20 dB down from the modulated carrier.																																												
<p>Field Strength of Fundamental</p> <p>Field Strength of Spurious Emissions</p>	<table border="1" data-bbox="517 443 1450 712"> <thead> <tr> <th>Fundamental Frequency (MHz)</th> <th>Field strength of fundamental (microvolts/meter)</th> <th>Field strength of spurious emissions (microvolts/meter)</th> </tr> </thead> <tbody> <tr> <td>40.66 – 40.70</td> <td>2250</td> <td>225</td> </tr> <tr> <td>70.00 – 130.00</td> <td>1250</td> <td>125</td> </tr> <tr> <td>130.00 – 174.00</td> <td><sup>1</sup>1250 to 3750</td> <td><sup>1</sup>125 to 375</td> </tr> <tr> <td>174.00 – 260.00</td> <td>3750</td> <td>375</td> </tr> <tr> <td>260.00 – 470.00</td> <td><sup>1</sup>3750 to 12500</td> <td><sup>1</sup>375 to 1250</td> </tr> <tr> <td>Above 470.00</td> <td>12500</td> <td>1250</td> </tr> </tbody> </table> <p><sup>1</sup>Linear interpolations.</p> <p>(1) The above field strength limits are specified at a distance of 3 meters. The tighter limits apply at the band edges.</p> <p>(2) Intentional radiators operating under the provisions of this section shall demonstrate compliance with the limits on the field strength of emissions, as shown in the above table, based on the average value of the measured emissions. As an alternative, compliance with the limits in the above table may be based on the use of measurement instrumentation with a CISPR quasi-peak detector. The specific method of measurement employed shall be specified in the application for equipment authorization. If average emission measurements are employed, the provisions in § 15.35 for averaging pulsed emissions and for limiting peak emissions apply. Further, compliance with the provisions of § 15.205 shall be demonstrated using the measurement instrumentation specified in that section.</p> <p>(3) The limits on the field strength of the spurious emissions in the above table are based on the fundamental frequency of the intentional radiator. Spurious emissions shall be attenuated to the average (or, alternatively, CISPR quasi-peak) limits shown in this table or to the general limits shown in § 15.209, whichever limit permits a higher field strength:</p> <table border="1" data-bbox="584 1319 1385 1503"> <thead> <tr> <th>Frequency (MHz)</th> <th>Limit (dBµV/m) @ 3m</th> <th>Detector</th> </tr> </thead> <tbody> <tr> <td>30 – 88</td> <td>40.0</td> <td>Quasi-peak</td> </tr> <tr> <td>88 – 216</td> <td>43.5</td> <td>Quasi-peak</td> </tr> <tr> <td>216 – 960</td> <td>46.0</td> <td>Quasi-peak</td> </tr> <tr> <td>960 – 1000</td> <td>54.0</td> <td>Quasi-peak</td> </tr> </tbody> </table> <p>Note: The more stringent limit applies at transition frequencies.</p> <table border="1" data-bbox="584 1532 1385 1626"> <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>Note: The measurement bandwidth shall be 1 MHz or greater.</p>	Fundamental Frequency (MHz)	Field strength of fundamental (microvolts/meter)	Field strength of spurious emissions (microvolts/meter)	40.66 – 40.70	2250	225	70.00 – 130.00	1250	125	130.00 – 174.00	<sup>1</sup> 1250 to 3750	<sup>1</sup> 125 to 375	174.00 – 260.00	3750	375	260.00 – 470.00	<sup>1</sup> 3750 to 12500	<sup>1</sup> 375 to 1250	Above 470.00	12500	1250	Frequency (MHz)	Limit (dBµV/m) @ 3m	Detector	30 – 88	40.0	Quasi-peak	88 – 216	43.5	Quasi-peak	216 – 960	46.0	Quasi-peak	960 – 1000	54.0	Quasi-peak	Frequency	Limit (dBµV/m) @ 3m		Average	Peake	Above 1 GHz	54.0	74.0
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	Average	Peake																																											
Above 1 GHz	54.0	74.0																																											
Duration Time	A manually operated transmitter shall employ a switch that will automatically deactivate the transmitter within not more than 5 seconds of being released.																																												

## 6.2 Antenna Requirement

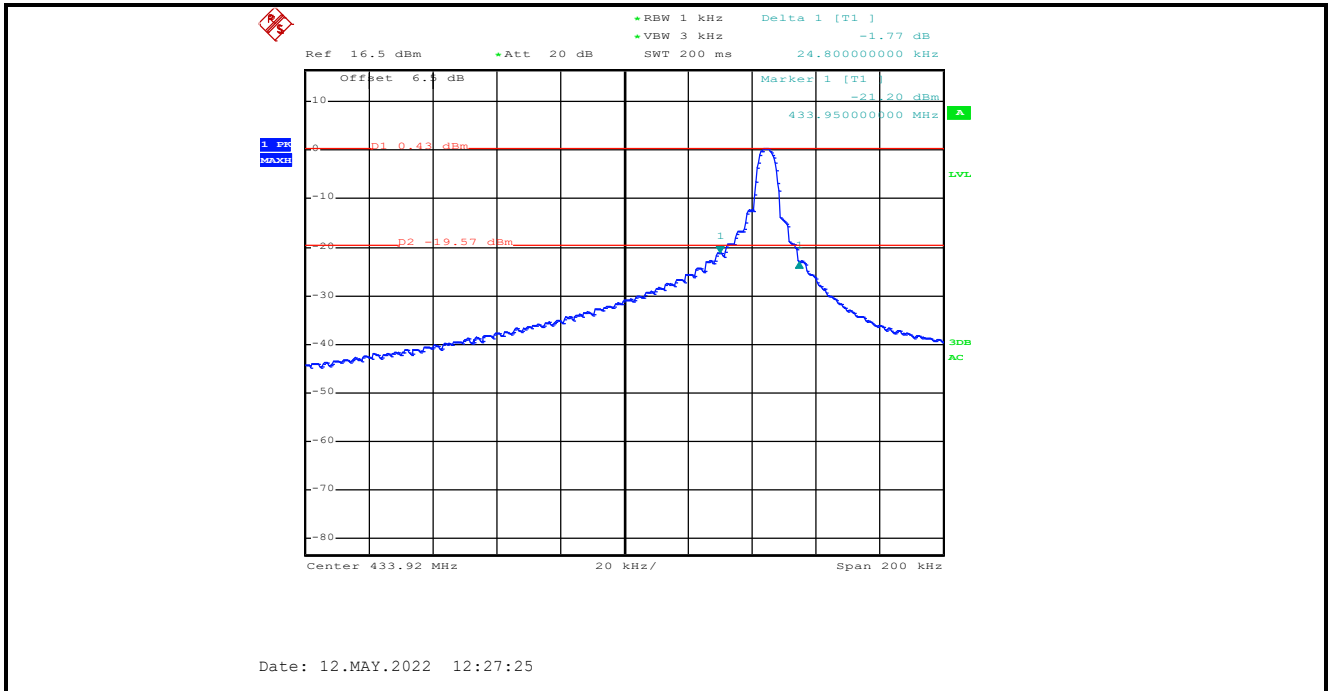
<b>Standard requirement:</b>	FCC Part15 C Section 15.203
<p><b>15.203 requirement:</b>            An intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. The use of a permanently attached antenna or of an antenna 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>	
<b>E.U.T Antenna:</b>	The EUT make use of a PCB antenna.

### 6.3 20dB Bandwidth

20dB bandwidth (MHz)	Limit (MHz)	Results
0.0248	1.0848	Passed

**Note:** Limit = Fundamental frequency $\times$ 0.25%=433.92 $\times$ 0.25%=1.0848MHz.

Test plot as follows:



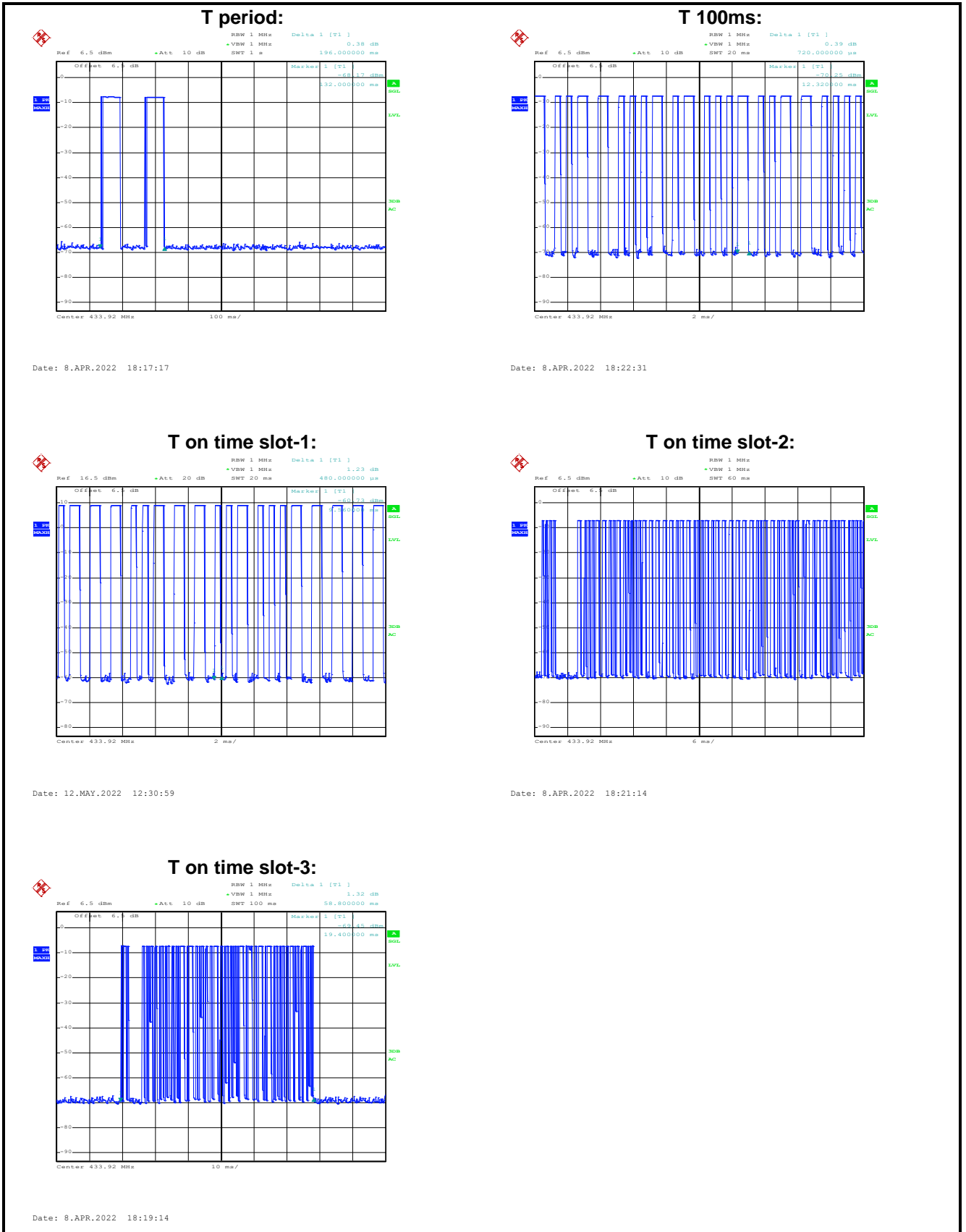
## 6.4 Field Strength of Fundamental

Model No.: 183BPTI

Peak value						
Frequency (MHz)	Read level (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Polarization
433.948	80.36	-11.64	68.72	100.82	32.10	Vertical
433.948	98.58	-11.64	86.94	100.82	13.88	Horizontal
867.969	38.49	-4.11	34.38	80.82	46.44	Vertical
867.969	52.58	-4.11	48.47	80.82	32.35	Horizontal
Average value						
Frequency (MHz)	Level (dBuV/m)	Duty cycle factor	Average value (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Polarization
433.948	68.72	-10.12	58.60	80.82	22.22	Vertical
433.948	86.94	-10.12	76.82	80.82	4.00	Horizontal
867.969	34.38	-10.12	24.26	60.82	36.56	Vertical
867.969	48.47	-10.12	38.35	60.82	22.47	Horizontal
Duty Cycle Factor Calculate Formula:	Average value = Peak value + Duty Cycle Factor					
	Duty cycle factor = 20log(Duty cycle)					
	Duty cycle = on time/100 milliseconds or period, whichever is less					
	T on time = (720*26+480*26)(ms)/1000 = 31.2(ms)					
	T period = 196(ms) > 100(ms)					
	Duty cycle = 31.2%					
Duty cycle factor = 20log(Duty cycle) = -10.12						

Model No.: 183BPRTI

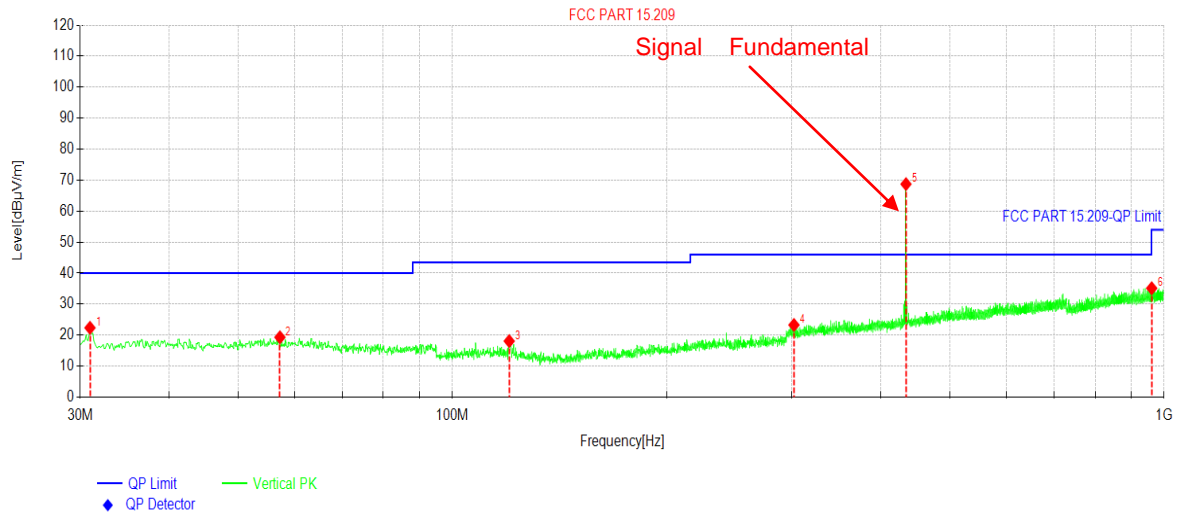
Peak value						
Frequency (MHz)	Read level (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Polarization
433.948	78.91	-11.64	67.27	100.82	33.55	Vertical
433.948	98.36	-11.64	86.72	100.82	14.10	Horizontal
867.969	34.53	-4.11	30.42	80.82	50.40	Vertical
867.969	52.09	-4.11	47.98	80.82	32.84	Horizontal
Average value						
Frequency (MHz)	Level (dBuV/m)	Duty cycle factor	Average value (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Polarization
433.948	67.27	-10.12	57.15	80.82	23.67	Vertical
433.948	86.72	-10.12	76.60	80.82	4.22	Horizontal
867.969	30.42	-10.12	20.30	60.82	40.52	Vertical
867.969	47.98	-10.12	37.86	60.82	22.96	Horizontal
Duty Cycle Factor Calculate Formula:	Average value = Peak value + Duty Cycle Factor					
	Duty cycle factor = 20log(Duty cycle)					
	Duty cycle = on time/100 milliseconds or period, whichever is less					
	T on time = (720*26+480*26)(ms)/1000 = 31.2(ms)					
	T period = 196(ms) > 100(ms)					
	Duty cycle = 31.2%					
Duty cycle factor = 20log(Duty cycle) = -10.12						



## 6.5 Field Strength of Spurious Emissions

Below 1GHz:

<b>Product Name:</b>	CAR ALARM	<b>Product Model:</b>	183BPTI
<b>Test By:</b>	Janet	<b>Test mode:</b>	Tx mode
<b>Test Frequency:</b>	30 MHz – 1000 MHz	<b>Polarization:</b>	Vertical
<b>Test Voltage:</b>	DC 3V		



### Suspected Data List

NO.	Freq. [MHz]	Reading[dBuV/m]	Level [dBuV/m]	Factor [dB]	Limit [dBuV/m]	Margin [dB]	Trace	Polarity
1	30.9701	40.60	22.36	-18.24	40.00	17.64	PK	Vertical
2	57.2597	36.36	19.30	-17.06	40.00	20.70	PK	Vertical
3	120.219	36.25	18.07	-18.18	43.50	25.43	PK	Vertical
4	302.015	37.38	23.28	-14.10	46.00	22.72	PK	Vertical
5	433.948	80.36	68.72	-11.64	100.82	32.10	PK	Vertical
6	867.969	38.49	35.13	-3.36	80.82	45.69	PK	Vertical

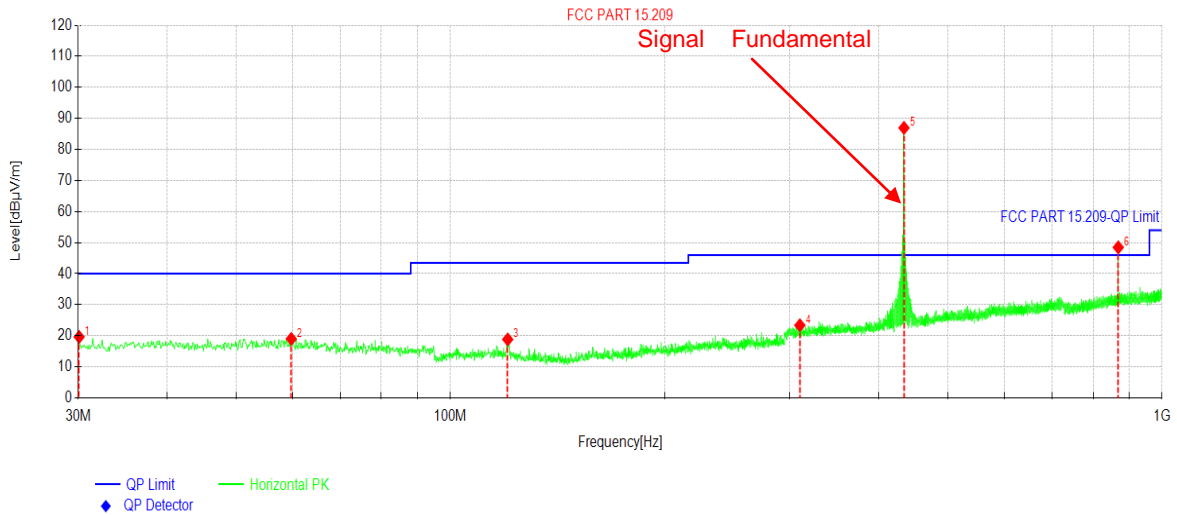
### Suspected Data List

NO.	Freq. [MHz]	Level (dBuV/m)	Duty cycle factor	Average value (dBuV/m)	Limit [dBuV/m]	Margin [dB]	Trace	Polarity
1	433.948	68.72	-10.12	58.60	80.82	22.22	Av	Vertical
2	867.969	35.13	-10.12	25.01	60.82	35.81	Av	Vertical

**Remark:**

1. Level = Read level + Factor.

<b>Product Name:</b>	CAR ALARM	<b>Product Model:</b>	183BPTI
<b>Test By:</b>	Janet	<b>Test mode:</b>	Tx mode
<b>Test Frequency:</b>	30 MHz – 1000 MHz	<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	30.0970	38.08	19.64	-18.44	40.00	20.36	PK	Horizontal
2	59.7820	36.20	18.99	-17.21	40.00	21.01	PK	Horizontal
3	120.413	37.02	18.82	-18.20	43.50	24.68	PK	Horizontal
4	309.873	37.37	23.38	-13.99	46.00	22.62	PK	Horizontal
5	433.948	98.58	86.94	-11.64	100.82	13.88	PK	Horizontal
6	867.969	52.58	48.47	-4.11	80.82	32.35	PK	Horizontal

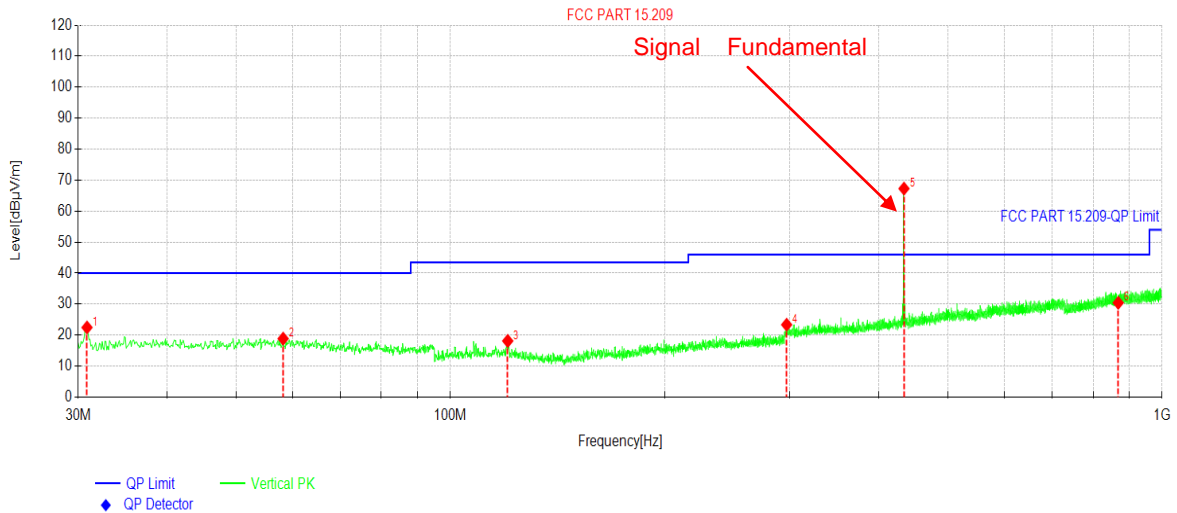
Suspected Data List								
NO.	Freq. [MHz]	Level (dBuV/m)	Duty cycle factor	Average value (dBuV/m)	Limit [dBµV/m]	Margin [dB]	Trace	Polarity
1	433.948	86.94	-10.12	76.82	80.82	4.00	Av	Horizontal
2	867.969	48.47	-10.12	38.35	60.82	22.47	Av	Horizontal

**Remark:**

1. Level = Read level + Factor.



<b>Product Name:</b>	CAR ALARM	<b>Product Model:</b>	183BPRTI
<b>Test By:</b>	Janet	<b>Test mode:</b>	Tx mode
<b>Test Frequency:</b>	30 MHz – 1000 MHz	<b>Polarization:</b>	Vertical
<b>Test Voltage:</b>	DC 3V		



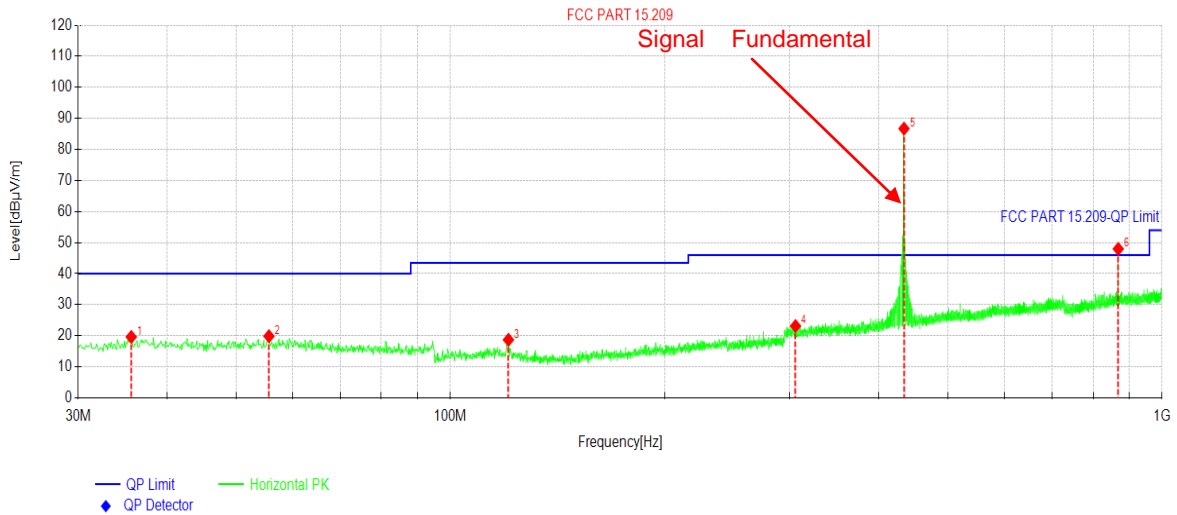
Suspected Data List								
NO.	Freq. [MHz]	Reading [dBµV/m]	Level [dBµV/m]	Factor [dB]	Limit [dBµV/m]	Margin [dB]	Trace	Polarity
1	30.8731	40.72	22.46	-18.26	40.00	17.54	PK	Vertical
2	58.2298	35.98	18.86	-17.12	40.00	21.14	PK	Vertical
3	120.413	36.32	18.12	-18.20	43.50	25.38	PK	Vertical
4	296.873	37.52	23.36	-14.16	46.00	22.64	PK	Vertical
5	433.948	78.91	67.27	-11.64	100.82	33.55	PK	Vertical
6	867.872	34.53	30.42	-4.11	80.82	50.40	PK	Vertical

Suspected Data List								
NO.	Freq. [MHz]	Level (dBuV/m)	Duty cycle factor	Average value (dBuV/m)	Limit [dBµV/m]	Margin [dB]	Trace	Polarity
1	433.94	67.27	-10.12	57.15	80.82	23.67	Av	Vertical
2	867.96	30.42	-10.12	20.30	60.82	40.52	Av	Vertical

**Remark:**

1. Level = Read level + Factor.

<b>Product Name:</b>	CAR ALARM	<b>Product Model:</b>	183BPRTI
<b>Test By:</b>	Janet	<b>Test mode:</b>	Tx mode
<b>Test Frequency:</b>	30 MHz – 1000 MHz	<b>Polarization:</b>	Horizontal
<b>Test Voltage:</b>	DC 3V		



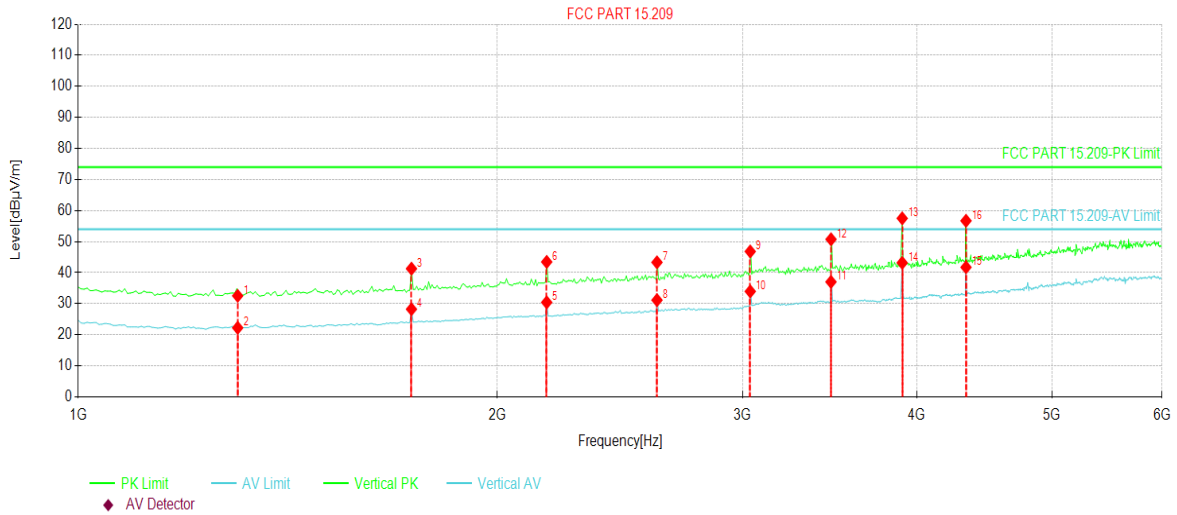
Suspected Data List								
NO.	Freq. [MHz]	Reading [dBµV/m]	Level [dBµV/m]	Factor [dB]	Limit [dBµV/m]	Margin [dB]	Trace	Polarity
1	35.6266	36.89	19.63	-17.26	40.00	20.37	PK	Horizontal
2	55.6106	36.83	19.87	-16.96	40.00	20.13	PK	Horizontal
3	120.704	36.95	18.71	-18.24	43.50	24.79	PK	Horizontal
4	305.507	37.20	23.15	-14.05	46.00	22.85	PK	Horizontal
5	433.948	98.36	86.72	-11.64	100.82	14.10	PK	Horizontal
6	867.969	52.09	47.98	-4.11	80.82	32.84	PK	Horizontal

Suspected Data List								
NO.	Freq. [MHz]	Level (dBuV/m)	Duty cycle factor	Average value (dBuV/m)	Limit [dBµV/m]	Margin [dB]	Trace	Polarity
1	433.94	86.72	-10.12	76.60	80.82	4.22	Av	Horizontal
2	867.96	47.98	-10.12	37.86	60.82	22.96	Av	Horizontal

**Remark:**

1. Level = Read level + Factor.

<b>Product Name:</b>	CAR ALARM	<b>Product Model:</b>	183BPTI
<b>Test By:</b>	Mike	<b>Test mode:</b>	Tx mode
<b>Test Frequency:</b>	1000 MHz – 6000 MHz	<b>Polarization:</b>	Vertical
<b>Test Voltage:</b>	DC 3V		

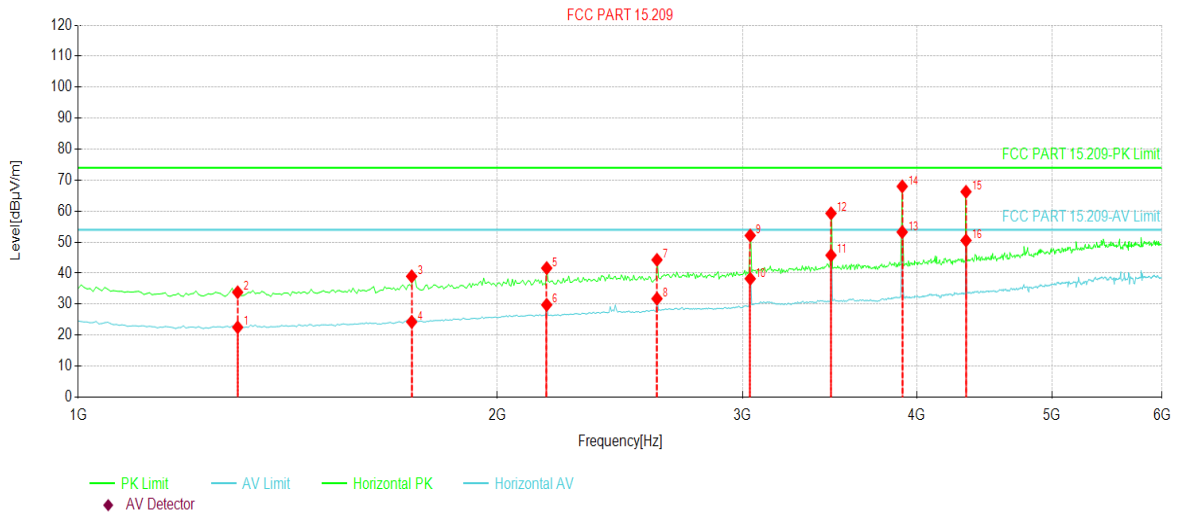


Suspected Data List								
NO.	Freq. [MHz]	Reading [dBµV/m]	Level [dBµV/m]	Factor [dB]	Limit [dBµV/m]	Margin [dB]	Trace	Polarity
1	1301.76	55.70	32.54	-23.16	74.00	41.46	PK	Vertical
2	1301.76	45.41	22.25	-23.16	54.00	31.75	AV	Vertical
3	1735.00	62.95	41.28	-21.67	74.00	32.72	PK	Vertical
4	1735.00	49.92	28.25	-21.67	54.00	25.75	AV	Vertical
5	2169.60	50.06	30.43	-19.63	54.00	23.57	AV	Vertical
6	2169.60	63.10	43.47	-19.63	74.00	30.53	PK	Vertical
7	2603.52	61.36	43.32	-18.04	74.00	30.68	PK	Vertical
8	2603.52	49.20	31.16	-18.04	54.00	22.84	AV	Vertical
9	3037.44	63.33	46.82	-16.51	74.00	27.18	PK	Vertical
10	3037.44	50.48	33.97	-16.51	54.00	20.03	AV	Vertical
11	3471.36	51.99	37.03	-14.96	54.00	16.97	AV	Vertical
12	3471.36	65.71	50.75	-14.96	74.00	23.25	PK	Vertical
13	3905.00	70.99	57.50	-13.49	74.00	16.50	PK	Vertical
14	3905.00	56.67	43.18	-13.49	54.00	10.82	AV	Vertical
15	4339.20	53.20	41.74	-11.46	54.00	12.26	AV	Vertical
16	4339.20	68.16	56.70	-11.46	74.00	17.30	PK	Vertical

**Remark:**

1. Level = Read level + Factor.

<b>Product Name:</b>	CAR ALARM	<b>Product Model:</b>	183BPTI
<b>Test By:</b>	Mike	<b>Test mode:</b>	Tx mode
<b>Test Frequency:</b>	1000 MHz – 6000 MHz	<b>Polarization:</b>	Horizontal
<b>Test Voltage:</b>	DC 3V		

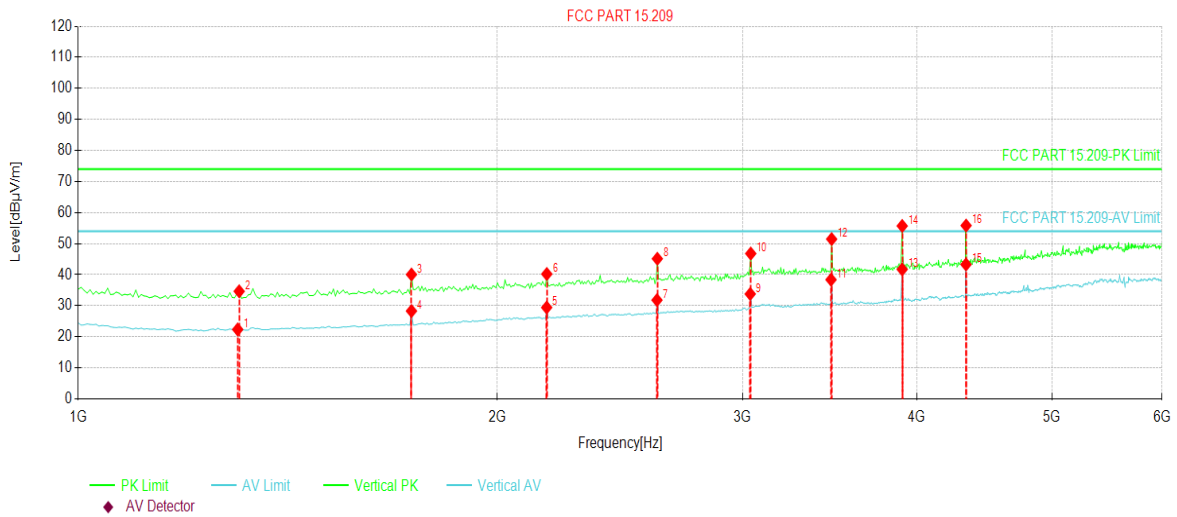


Suspected Data List								
NO.	Freq. [MHz]	Reading [dBµV/m]	Level [dBµV/m]	Factor [dB]	Limit [dBµV/m]	Margin [dB]	Trace	Polarity
1	1301.76	45.69	22.53	-23.16	54.00	31.47	AV	Horizontal
2	1301.76	57.00	33.84	-23.16	74.00	40.16	PK	Horizontal
3	1735.68	60.62	38.97	-21.65	74.00	35.03	PK	Horizontal
4	1735.68	45.92	24.27	-21.65	54.00	29.73	AV	Horizontal
5	2169.60	61.25	41.62	-19.63	74.00	32.38	PK	Horizontal
6	2169.60	49.41	29.78	-19.63	54.00	24.22	AV	Horizontal
7	2603.52	62.33	44.29	-18.04	74.00	29.71	PK	Horizontal
8	2603.52	49.80	31.76	-18.04	54.00	22.24	AV	Horizontal
9	3037.44	68.65	52.14	-16.51	74.00	21.86	PK	Horizontal
10	3037.44	54.70	38.19	-16.51	54.00	15.81	AV	Horizontal
11	3471.36	60.72	45.76	-14.96	54.00	8.24	AV	Horizontal
12	3471.36	74.25	59.29	-14.96	74.00	14.71	PK	Horizontal
13	3905.00	66.74	53.25	-13.49	54.00	0.75	AV	Horizontal
14	3905.00	81.47	67.98	-13.49	74.00	6.02	PK	Horizontal
15	4339.20	77.71	66.25	-11.46	74.00	7.75	PK	Horizontal
16	4339.20	62.00	50.54	-11.46	54.00	3.46	AV	Horizontal

**Remark:**

1. Level = Read level + Factor.

<b>Product Name:</b>	CAR ALARM	<b>Product Model:</b>	183BPRTI
<b>Test By:</b>	Mike	<b>Test mode:</b>	Tx mode
<b>Test Frequency:</b>	1000 MHz – 6000 MHz	<b>Polarization:</b>	Vertical
<b>Test Voltage:</b>	DC 3V		

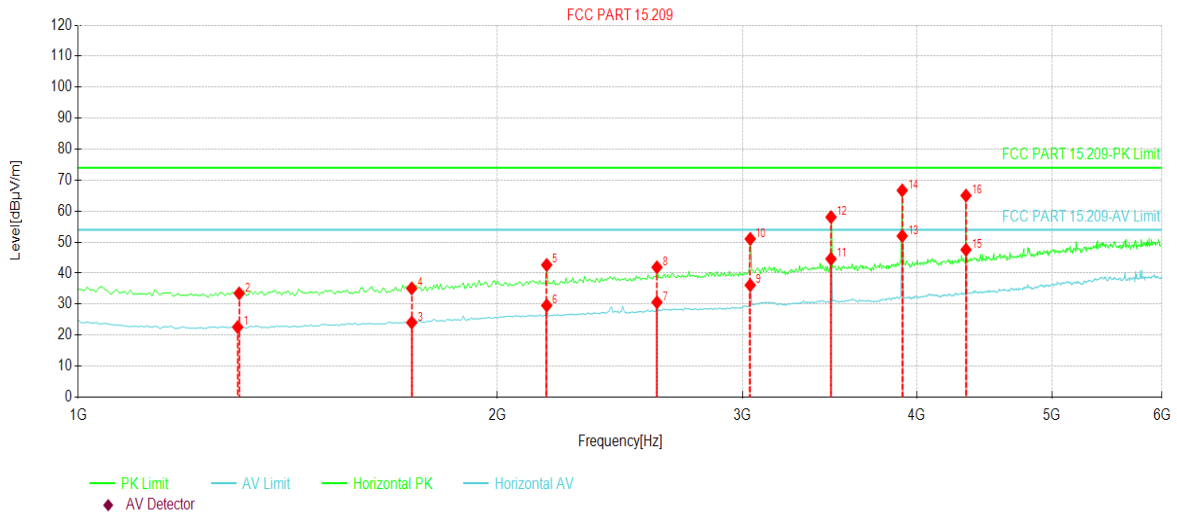


Suspected Data List								
NO.	Freq. [MHz]	Reading [dBµV/m]	Level [dBµV/m]	Factor [dB]	Limit [dBµV/m]	Margin [dB]	Trace	Polarity
1	1301.76	45.52	22.36	-23.16	54.00	31.64	AV	Vertical
2	1305.00	57.80	34.64	-23.16	74.00	39.36	PK	Vertical
3	1735.00	61.72	40.05	-21.67	74.00	33.95	PK	Vertical
4	1735.00	49.97	28.30	-21.67	54.00	25.70	AV	Vertical
5	2169.60	49.06	29.43	-19.63	54.00	24.57	AV	Vertical
6	2170.00	59.84	40.21	-19.63	74.00	33.79	PK	Vertical
7	2603.52	49.86	31.82	-18.04	54.00	22.18	AV	Vertical
8	2605.00	63.18	45.14	-18.04	74.00	28.86	PK	Vertical
9	3037.44	50.30	33.79	-16.51	54.00	20.21	AV	Vertical
10	3040.00	63.30	46.79	-16.51	74.00	27.21	PK	Vertical
11	3471.36	53.34	38.38	-14.96	54.00	15.62	AV	Vertical
12	3475.00	66.42	51.46	-14.96	74.00	22.54	PK	Vertical
13	3905.00	55.21	41.72	-13.49	54.00	12.28	AV	Vertical
14	3905.00	69.18	55.69	-13.49	74.00	18.31	PK	Vertical
15	4339.20	54.75	43.29	-11.46	54.00	10.71	AV	Vertical
16	4340.00	67.28	55.82	-11.46	74.00	18.18	PK	Vertical

**Remark:**

1. Level = Read level + Factor.

<b>Product Name:</b>	CAR ALARM	<b>Product Model:</b>	183BPRTI
<b>Test By:</b>	Mike	<b>Test mode:</b>	Tx mode
<b>Test Frequency:</b>	1000 MHz – 6000 MHz	<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	1301.76	45.76	22.60	-23.16	54.00	31.40	AV	Horizontal
2	1305.00	56.63	33.47	-23.16	74.00	40.53	PK	Horizontal
3	1735.68	45.71	24.06	-21.65	54.00	29.94	AV	Horizontal
4	1735.68	56.73	35.08	-21.65	74.00	38.92	PK	Horizontal
5	2169.60	62.27	42.64	-19.63	74.00	31.36	PK	Horizontal
6	2169.60	49.20	29.57	-19.63	54.00	24.43	AV	Horizontal
7	2603.52	48.63	30.59	-18.04	54.00	23.41	AV	Horizontal
8	2603.52	59.93	41.89	-18.04	74.00	32.11	PK	Horizontal
9	3037.44	52.62	36.11	-16.51	54.00	17.89	AV	Horizontal
10	3037.44	67.56	51.05	-16.51	74.00	22.95	PK	Horizontal
11	3471.36	59.56	44.60	-14.96	54.00	9.40	AV	Horizontal
12	3471.36	73.03	58.07	-14.96	74.00	15.93	PK	Horizontal
13	3905.00	65.48	51.99	-13.49	54.00	2.01	AV	Horizontal
14	3905.00	80.19	66.70	-13.49	74.00	7.30	PK	Horizontal
15	4339.20	59.01	47.55	-11.46	54.00	6.45	AV	Horizontal
16	4339.20	76.50	65.04	-11.46	74.00	8.96	PK	Horizontal

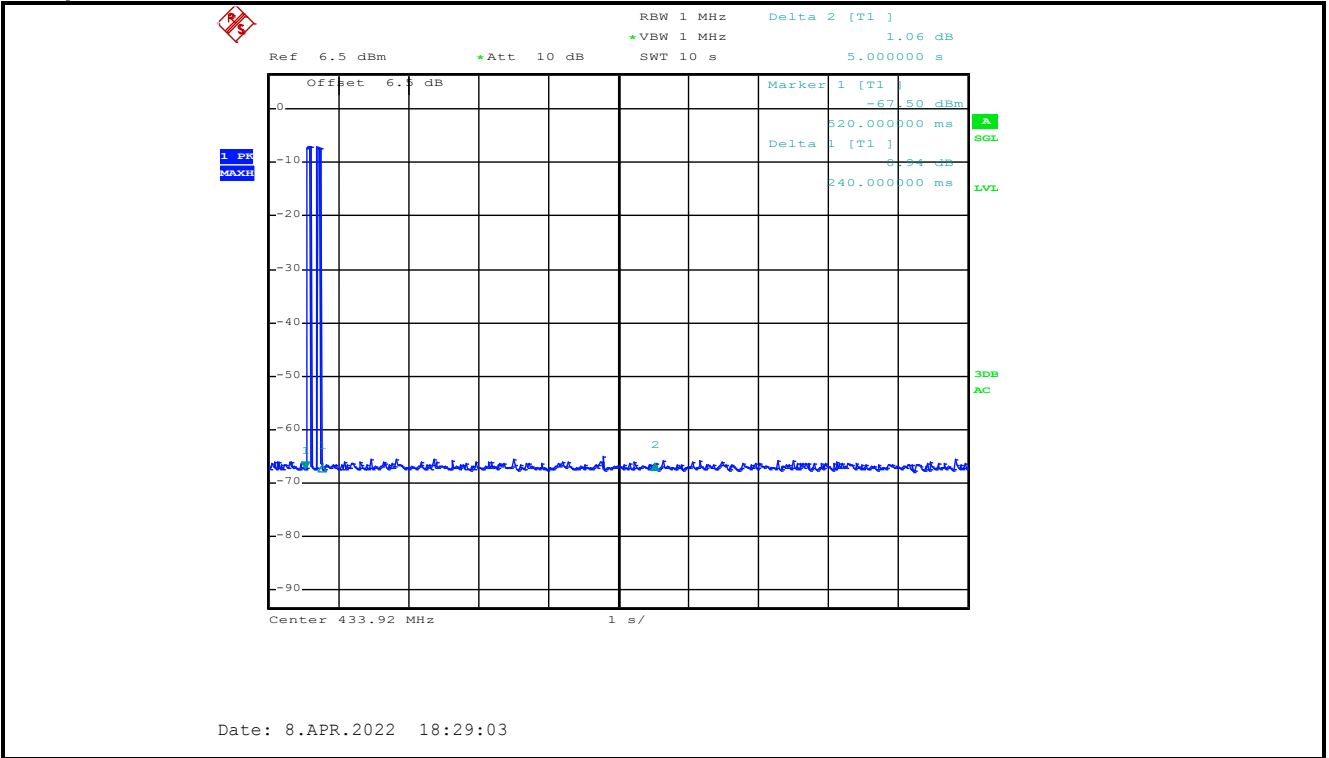
**Remark:**

1. Level = Read level + Factor.

### 6.6 Duration Time

Duration time (second)	Limit (second)	Result
0.24	<5.0	Pass

Test plot as follows:



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