

## FCC TEST REPORT

For

Num'axes

### INDOOR PET CONTROL

Model No.: PFBORREP001

Prepared for : Num'axes  
Address : 745 rue de la bergeresse - ZAC des Aulnaies 45160 OLIVET  
- France

Prepared by : Shenzhen LCS Compliance Testing Laboratory Ltd.  
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Date of receipt of test sample : February 03, 2015  
Number of tested samples : 1  
Serial number : Prototype  
Date of Test : February 03, 2015 - March 18, 2015  
Date of Report : March 18, 2015

**FCC TEST REPORT**  
**FCC CFR 47 PART 15 Subpart B: 2014**

**Report Reference No.** ..... : **LCS1502030067E**

**Date Of Issue** ..... : **March 18, 2015**

**Testing Laboratory Name** ..... : **Shenzhen LCS Compliance Testing Laboratory Ltd.**

**Address**..... : **1/F., Xingyuan Industrial Park, Tongda Road, Bao'an Avenue, Bao'an District, Shenzhen, Guangdong, China**

**Testing Location/ Procedure** ..... : **Full application of Harmonised standards**   
**Partial application of Harmonised standards**   
**Other standard testing method**

**Applicant's Name** ..... : **Num'axes**

**Address**..... : **745 rue de la bergeresse - ZAC des Aulnaies 45160 OLIVET - France**

**Test Specification**

**Standard**..... : **FCC CFR 47 PART 15 Subpart B: 2014, ANSI C63.4-2009**

**Test Report Form No.**..... : **LCSEMC-1.0**

**TRF Originator**..... : **Shenzhen LCS Compliance Testing Laboratory Ltd.**

**Master TRF** ..... : **Dated 2011-03**

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**Test Item Description**..... : **INDOOR PET CONTROL**

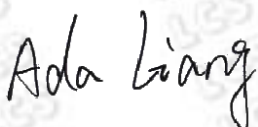
**Trade Mark**..... : **EYENIMAL**

**Model/ Type Reference** ..... : **PFBORREP001**

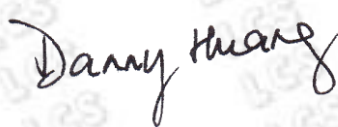
**Ratings**..... : **DC 6.0V**

**Result** ..... : **Positive**

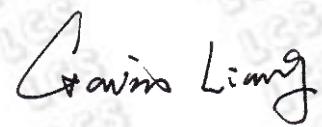
**Compiled by:**



**Supervised by:**



**Approved by:**



Ada Liang/ File administrators

Danny Huang/ Technique principal

Gavin Liang/ Manager

## FCC TEST REPORT

<b>Test Report No. : LCS1502030067E</b>	<u>March 18, 2015</u> Date of issue
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Type/ Model..... : PFBORREP001
EUT..... : INDOOR PET CONTROL
<b>Applicant..... : Num'axes</b> Address..... : 745 rue de la bergeresse - ZAC des Aulnaies 45160 OLIVET - France Telephone..... : / Fax..... : /
<b>Manufacturer..... : Num'axes</b> Address..... : 745 rue de la bergeresse - ZAC des Aulnaies 45160 OLIVET - France Telephone..... : / Fax..... : /
<b>Factory..... : Num'axes</b> Address..... : 745 rue de la bergeresse - ZAC des Aulnaies 45160 OLIVET - France Telephone..... : / Fax..... : /

<b>Test Result</b>	<b>Positive</b>
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The test report merely corresponds to the test sample.  
 It is not permitted to copy extracts of these test result without the written permission of the test laboratory.

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## 1. SUMMARY OF STANDARDS AND RESULTS

The EUT have been tested according to the applicable standards as referenced below.

EMISSION			
Description of Test Item	Standard	Limits	Results
Radiated disturbance	FCC CFR 47 PART 15 Subpart B: 2014	Class B	PASS
N/A is an abbreviation for Not Applicable.			

## 2. GENERAL INFORMATION

### 2.1. Description of Device (EUT)

EUT : INDOOR PET CONTROL  
 Test Model : PFBORREP001  
 Power Supply : DC 6.0V  
 Transmit Frequency : 433.8MHz (RX Only)  
 Number of Channels : 1  
 Modulation Type : OOK  
 Antenna Description : PCB Antenna

### 2.2. Support Equipment List

Manufacturer	Description	Model	Serial Number	Certificate
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### 2.3. External I/O Port

I/O Port Description	Quantity	Cable
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### 2.4. Description of Test Facility

Site Description  
 EMC Lab. : CNAS Registration Number. is L4595.  
 FCC Registration Number. is 899208.  
 Industry Canada Registration Number. is 9642A-1.  
 VCCI Registration Number. is C-4260 and R-3804.  
 ESMD Registration Number. is ARCB0108.  
 UL Registration Number. is 100571-492.  
 TUV SUD Registration Number. is SCN1081.  
 TUV RH Registration Number. is UA 50296516-001

### 2.5. Statement of the measurement uncertainty

The data and results referenced in this document are true and accurate. The reader is cautioned that there may be errors within the calibration limits of the equipment and facilities. The measurement uncertainty was calculated for all measurements listed in this test report acc. To CISPR 16 – 4 “Specification for radio disturbance and immunity measuring apparatus and methods – Part 4: Uncertainty in EMC Measurements” and is documented in the LCS quality system acc. To DIN EN ISO/IEC 17025. Furthermore, component and process variability of devices similar to that tested may result in additional deviation. The manufacturer has the sole responsibility of continued compliance of the device.

## 2.6.Measurement Uncertainty

Test Item	Frequency Range	Uncertainty	Note
Radiation Uncertainty :	30MHz~200MHz	2.96dB	(1)
	200MHz~1000MHz	3.10dB	(1)
	1GHz~26.5GHz	3.80dB	(1)
Conduction Uncertainty :	150kHz~30MHz	1.63dB	(1)
Power disturbance :	30MHz~300MHz	1.60dB	(1)

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

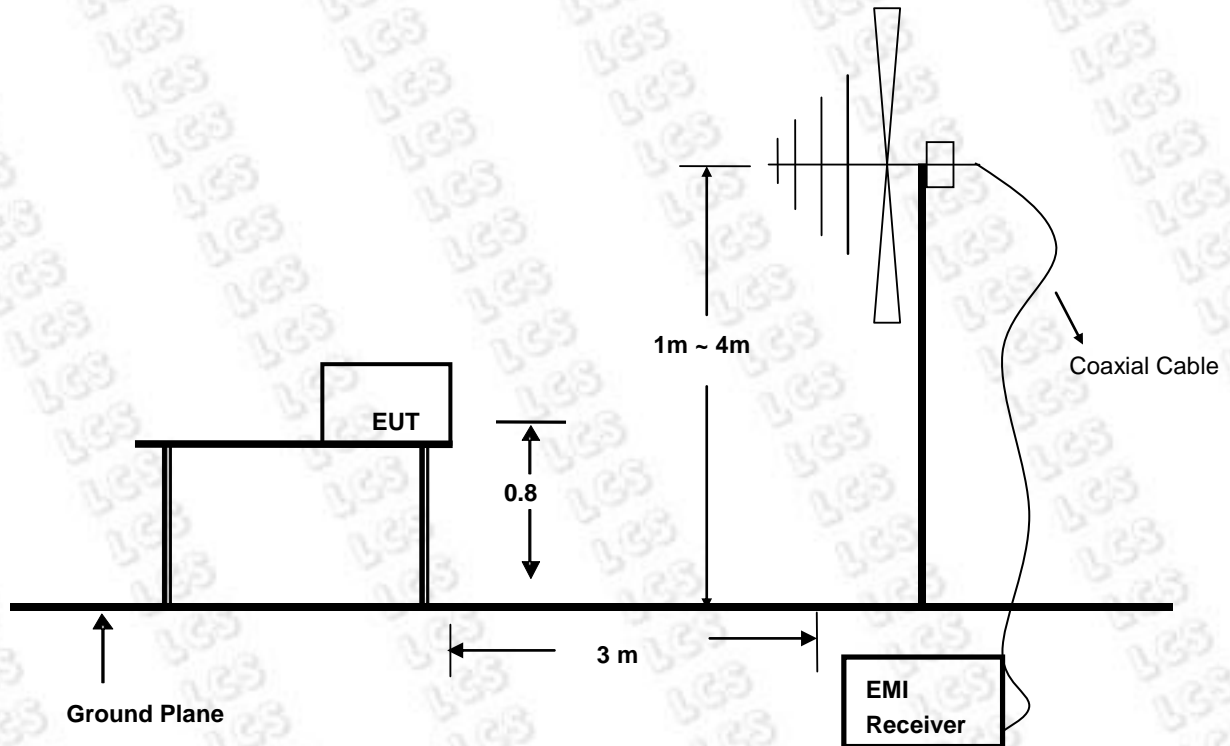
### 3. RADIATED EMISSION MEASUREMENT

#### 3.1. Test Equipment

The following test equipments are used during the radiated emission measurement:

Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Next Cal.
1	3m Semi Anechoic Chamber	SIDT FRANKONIA	SAC-3M	03CH03-HY	2014-06-18	2015-06-17
2	Amplifier	SCHAFFNER	COA9231A	18667	2014-06-18	2015-06-17
3	Amplifier	Agilent	8449B	3008A02120	2014-06-16	2015-06-15
4	Amplifier	MITEQ	AMF-6F-2604 00	9121372	2014-06-16	2015-06-15
5	Spectrum Analyzer	Agilent	E4407B	MY41440292	2014-06-16	2015-06-15
6	Signal analyzer	Agilent	E4448A(External mixers to 40GHz)	US44300469	2014-06-16	2015-06-15
7	Loop Antenna	R&S	HFH2-Z2	860004/001	2014-06-18	2015-06-17
8	By-log Antenna	SCHWARZBECK	VULB9163	9163-470	2014-06-10	2015-06-09
9	Horn Antenna	EMCO	3115	6741	2014-06-10	2015-06-09
10	Horn Antenna	SCHWARZBECK	BBHA9170	BBHA9170154	2014-06-10	2015-06-09
11	RF Cable-R03m	Jye Bao	RG142	CB021	2014-06-18	2015-06-17
12	RF Cable-HIGH	SUHNER	SUCOFLEX 106	03CH03-HY	2014-06-18	2015-06-17

#### 3.2. Block Diagram of Test Setup





### 3.3.Radiated Emission Limit (Class B)

FREQUENCY MHz	DISTANCE Meters	FIELD STRENGTHS LIMIT	
		μV/m	dB(μV)/m
30~88	3	100	40.0
88~216	3	150	43.5
216~960	3	200	46.0
960~1000	3	500	54.0

- Remark: (1) Emission level (dB)μV = 20 log Emission level μV/m  
 (2) The smaller limit shall apply at the cross point between two frequency bands.  
 (3) Distance is the distance in meters between the measuring instrument, antenna and the closest point of any part of the device or system

Limits for radiated disturbance Above 1GHz			
FREQUENCY (MHz)	DISTANCE (Meters)	FIELD STRENGTHS LIMIT	
		Average Limit (dBμV/m)	Peak Limit (dBμV/m)
1000-6000	3	54	74

Note: The lower limit applies at the transition frequency.

### 3.4.EUT Configuration on Measurement

The following equipment are installed on Radiated Emission Measurement to meet the commission requirements and operating regulations in a manner which tends to maximize its emission characteristics in normal application.

### 3.5.Operating Condition of EUT

- (1) Setup the EUT as shown in Section 4.2.
- (2) Let the EUT work in test mode (on) and measure it.

### 3.6.Test Procedure

1. Configure the EUT according to ANSI C63.4. The EUT was placed on the top of the turntable 0.8 meter above ground. The phase center of the receiving antenna mounted on the top of a height-variable antenna tower was placed 3 meters far away from the turntable.
2. Power on the EUT and all the supporting units. The turntable was rotated by 360 degrees to determine the position of the highest radiation.
3. The height of the broadband receiving antenna was varied between one meter and four meters above ground to find the maximum emissions field strength of both horizontal and vertical polarization.
4. For each suspected emissions, the antenna tower was scan (from 1 m to 4 m) and then the turntable was rotated (from 0 degree to 360 degrees) to find the maximum reading
5. Set the test-receiver system to Peak or CISPR quasi-peak Detect Function with specified bandwidth under Maximum Hold Mode.
6. For emissions above 1GHz, use 1MHz VBW and RBW for peak reading. Then 1MHz RBW and 10Hz VBW for average reading in spectrum analyzer.

7. When the radiated emissions limits are expressed in terms of the average value of the emissions, and pulsed operation is employed, the measurement field strength shall be determined by averaging over one complete pulse train, including blanking intervals, as long as the pulse train does not exceed 0.1 seconds. As an alternative (provided the transmitter operates for longer than 0.1 seconds) or in cases where the pulse train exceeds 0.1 seconds, the measured field strength shall be determined from the average absolute voltage during a 0.1 second interval during which the field strength is at its maximum value.

8. If the emissions level of the EUT in peak mode was 3 dB lower than the average limit specified, then testing will be stopped and peak values of EUT will be reported, otherwise, the emissions which do not have 3 dB margin will be repeated one by one using the quasi-peak method for below 1GHz.

9. For testing above 1GHz, the emissions level of the EUT in peak mode was lower than average limit (that means the emissions level in peak mode also complies with the limit in average mode), then testing will be stopped and peak values of EUT will be reported, otherwise, the emissions will be measured in average mode again and reported.

10. In case the emission is lower than 30MHz, loop antenna has to be used for measurement and the recorded data should be QP measured by receiver. High – Low scan is not required in this case.

EUT and its simulators are placed on a turntable, which is 0.8 meter high above ground. The turntable can rotate 360 degrees to determine the position of the maximum emission level. EUT is set 3.0 meters away from the receiving antenna, which is mounted on a antenna tower. The antenna can be moved up and down between 1.0 meter and 4 meters to find out the maximum emission level. Broadband antenna (calibrated by-log antenna) is used as receiving antenna. Both horizontal and vertical polarization of the antenna is set on measurement. In order to find the maximum emission levels, all of the interface cables must be manipulated according to ANSI C63.4-2014 on radiated emission measurement.

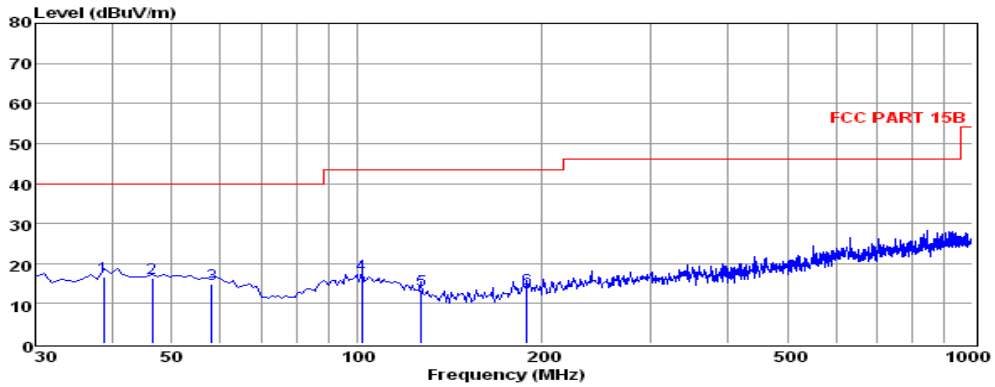
### 3.7. Test Results

**PASS.**

The test data please refer to following page.

Temperature	25°C	Humidity	60%
EUT	INDOOR PET CONTROL	Model Name	PFBORREP001

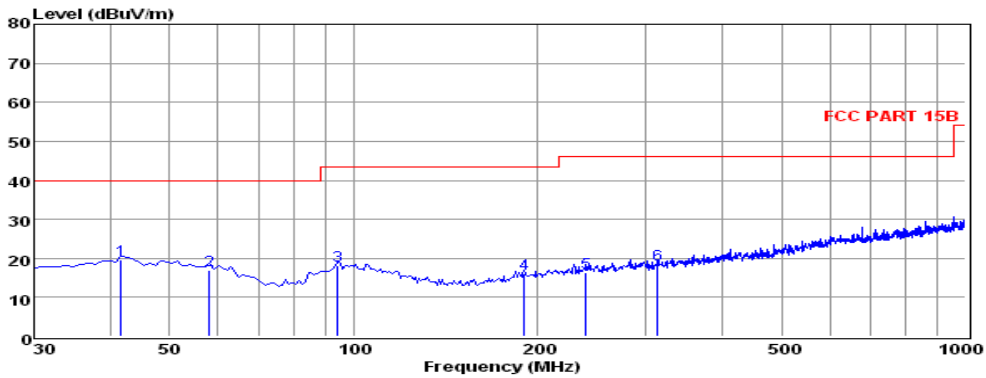
Below 1GHz:



Env./Ins: 24°C/56%  
 EUT: INDOOR PET CONTROL TRANSMITTER  
 M/N: PFBORREP001  
 Power Rating: DC 6V  
 Test Mode: ON  
 Operator: KEVIN  
 Memo:  
 pol: VERTICAL

	Freq MHz	Reading dBuV	CabLos dB	Antfac dB/m	Measured dBuV/m	Limit dBuV/m	Over dB	Remark
1	38.73	3.17	0.38	13.25	16.80	40.00	-23.20	QP
2	46.49	2.56	0.35	13.46	16.37	40.00	-23.63	QP
3	58.13	1.49	0.47	12.81	14.77	40.00	-25.23	QP
4	101.78	3.57	0.60	13.00	17.17	43.50	-26.33	QP
5	127.00	3.39	0.67	9.40	13.46	43.50	-30.04	QP
6	189.08	2.30	0.86	10.48	13.64	43.50	-29.86	QP

Note: 1. All readings are Quasi-peak values.  
 2. Measured= Reading + Antenna Factor + Cable Loss  
 3. The emission that ate 20db blow the official limit are not reported

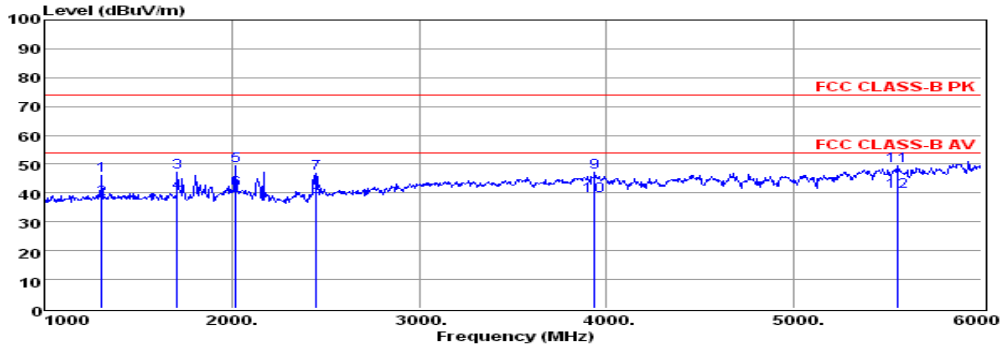


Env./Ins: 24°C/56%  
 EUT: INDOOR PET CONTROL TRANSMITTER  
 M/N: PFBORREP001  
 Power Rating: DC 6V  
 Test Mode: ON  
 Operator: KEVIN  
 Memo:  
 pol: HORIZONTAL

	Freq MHz	Reading dBuV	CabLos dB	Antfac dB/m	Measured dBuV/m	Limit dBuV/m	Over dB	Remark
1	41.64	5.47	0.50	13.57	19.54	40.00	-20.46	QP
2	58.13	3.60	0.47	12.81	16.88	40.00	-23.12	QP
3	94.02	4.77	0.58	12.66	18.01	43.50	-25.49	QP
4	190.05	4.61	0.86	10.56	16.03	43.50	-27.47	QP
5	239.52	3.34	1.01	12.07	16.42	46.00	-29.58	QP
6	314.21	4.15	1.09	13.25	18.49	46.00	-27.51	QP

Note: 1. All readings are Quasi-peak values.  
 2. Measured= Reading + Antenna Factor + Cable Loss  
 3. The emission that ate 20db blow the official limit are not reported

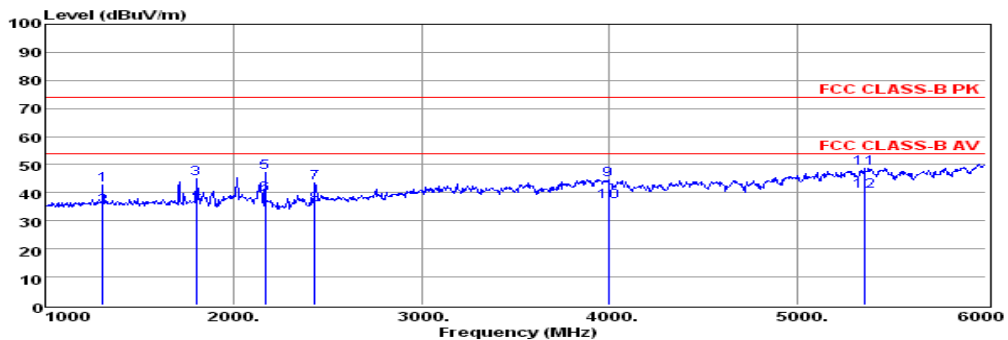
Above 1GHz:



Env./Ins: 24°C/56%  
 EUT: INDOOR PET CONTROL TRANSMITTER  
 M/N: PFBORREP001  
 Power Rating: DC 6V  
 Test Mode: RX  
 Operator: KEVIN  
 Memo:  
 pol: VERTICAL

	Freq	Reading	CabLos	Antfac	Measured	Limit	Over	Remark
	MHz	dBuV	dB	dB/m	dBuV/m	dBuV/m	dB	
1	1305.00	52.17	4.36	26.20	45.95	74.00	-28.05	Peak
2	1305.60	44.12	4.36	26.20	37.90	54.00	-16.10	Average
3	1710.00	53.24	4.44	26.41	47.09	74.00	-26.91	Peak
4	1710.30	46.25	4.44	26.41	40.10	54.00	-13.90	Average
5	2020.00	52.87	4.53	29.04	49.38	74.00	-24.62	Peak
6	2020.30	44.84	4.53	29.04	41.35	54.00	-12.65	Average
7	2450.00	50.97	5.13	27.75	46.75	74.00	-27.25	Peak
8	2450.90	42.90	5.13	27.75	38.68	54.00	-15.32	Average
9	3935.00	44.44	7.12	32.38	47.14	74.00	-26.86	Peak
10	3935.40	36.45	7.12	32.38	39.15	54.00	-14.85	Average
11	5550.00	42.46	8.40	35.17	49.34	74.00	-24.66	Peak
12	5550.10	33.47	8.41	35.18	40.37	54.00	-13.63	Average

Note: 1. All readings are Quasi-peak values.  
 2. Measured= Reading + Antenna Factor + Cable Loss  
 3. The emission that ate 20db blow the official limit are not reported



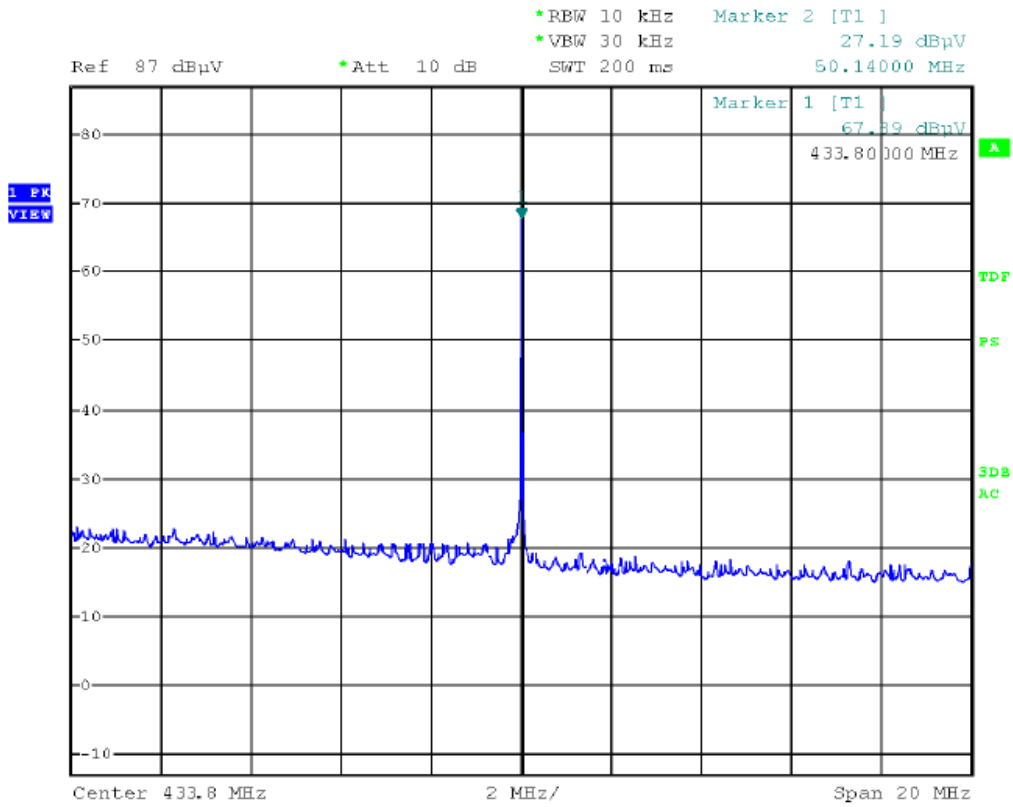
Env./Ins: 24°C/56%  
 EUT: INDOOR PET CONTROL TRANSMITTER  
 M/N: PFBORREP001  
 Power Rating: DC 6V  
 Test Mode: RX  
 Operator: KEVIN  
 Memo:  
 pol: HORIZONTAL

	Freq	Reading	CabLos	Antfac	Measured	Limit	Over	Remark
	MHz	dBuV	dB	dB/m	dBuV/m	dBuV/m	dB	
1	1305.00	49.11	4.36	26.20	42.89	74.00	-31.11	Peak
2	1305.30	41.15	4.36	26.20	34.93	54.00	-19.07	Average
3	1805.00	51.13	4.46	26.45	45.02	74.00	-28.98	Peak
4	1805.40	43.14	4.46	26.45	37.03	54.00	-16.97	Average
5	2170.00	50.91	4.74	28.59	47.17	74.00	-26.83	Peak
6	2170.80	42.97	4.74	28.59	39.23	54.00	-14.77	Average
7	2435.00	47.69	5.11	27.80	43.50	74.00	-30.50	Peak
8	2435.20	40.00	5.11	27.79	35.80	54.00	-18.20	Average
9	3995.00	41.88	7.19	32.58	44.77	74.00	-29.23	Peak
10	3995.40	33.84	7.19	32.58	36.73	54.00	-17.27	Average
11	5355.00	42.41	8.19	34.69	48.69	74.00	-25.31	Peak
12	5355.70	34.13	8.19	34.69	40.41	54.00	-13.59	Average

Note: 1. All readings are Quasi-peak values.  
 2. Measured= Reading + Antenna Factor + Cable Loss  
 3. The emission that ate 20db blow the official limit are not reported

Receiver Type:

The receiver not belongs to Super regenerative Receiver; please refer to following confirm plots.



-----THE END OF REPORT-----