

TEST REPORT

Applicant: Primos Inc

Address of Applicant: 604 First Street Flora Mississippi United States 39071

Equipment Under Test (EUT)

Product Name: SPEAK EASY-DEER

Model No.: 7754

FCC ID: K2R-5500RX2

Applicable standards: FCC CFR Title 47 Part 15 Subpart B:2010

Date of sample receipt: Apr. 09, 2012

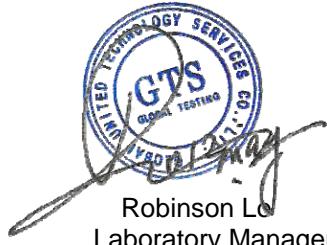
Date of Test: Apr. 10-May 04, 2012

Date of report issued: May 05, 2012

Test Result : PASS *

* In the configuration tested, the EUT complied with the standards specified above.

Authorized Signature:



Robinson Lc
Laboratory Manager

This report details the results of the testing carried out on one sample. The results contained in this test report do not relate to other samples of the same product and does not permit the use of the GTS product certification mark. The manufacturer should ensure that all products in series production are in conformity with the product sample detailed in this report.

This report may only be reproduced and distributed in full. If the product in this report is used in any configuration other than that detailed in the report, the manufacturer must ensure the new system complies with all relevant standards. Any mention of GTS International Electrical Approvals or testing done by GTS International Electrical Approvals in connection with, distribution or use of the product described in this report must be approved by GTS International Electrical Approvals in writing.

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2 Version

Version No.	Date	Description
00	May 05, 2012	Original

Prepared by:



Date:

May 05, 2012

Project Engineer

Reviewed by:



Date:

May 05, 2012

Reviewer

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4 Test Summary

Test Item	Section in CFR 47	Result
Conducted Emission	Part15.107	N/A
Radiated Emissions	Part15.109	PASS

PASS: *The EUT complies with the essential requirements in the standard.*

5 General Information

5.1 Client Information

Applicant:	Primos Inc
Address of Applicant:	604 First Street Flora Mississippi United States 39071
Manufacturer:	TAT MAN INVESTEMENT LIMITED
Address of Manufacturer:	Room 910, 9/F, Hang Bong Commercial Centre, 28 ShangHai Street, TsimShaTsui, HK
Factory:	YaoBiao Manufactory
Address of Factory:	C Tower, YaoBiao Factory, AoDing Village, GuangDong Community GuanLan Street, BaoAn County, SZ City, GuangDong, China

5.2 General Description of E.U.T.

Product Name:	SPEAK EASY-DEER
Model No.:	7754
Power supply:	DC 6.0V(4*1.5V for "AA" Size)

5.3 Test mode and voltage

Test mode:	
Receiving mode	Keep the receiver working in continuous receiving mode
Test voltage:	DC 6.0V

5.4 Test Facility

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

● **FCC —Registration No.: 600491**

Global United Technology Services Co., Ltd., Shenzhen EMC Laboratory has been registered and fully described in a report filed with the (FCC) Federal Communications Commission. The acceptance letter from the FCC is maintained in files. Registration 600491, July 20, 2010.

● **Industry Canada (IC)**

The 3m Semi-anechoic chamber of Global United Technology Services Co., Ltd. has been Registered by Certification and Engineering Bureau of Industry Canada for radio equipment testing with Registration No.: 9079A-1.

5.5 Test Location

All tests were performed at:

Global United Technology Services Co., Ltd.

Address: 2nd Floor, Block No.2, Laodong Industrial Zone, Xixiang Road Baoan District, Shenzhen, China

Tel: 0755-27798480

Fax: 0755-27798960

5.6 Description of Support Units

None.

5.7 Deviation from Standards

Biconical, log.per. antenna and horn antenna were used instead of dipole antenna.

Semi-anechoic Chamber was used as alternation of open air test sites, and all test suites were performed with radiated method in it.

5.8 Abnormalities from Standard Conditions

None.

5.9 Other Information Requested by the Customer

None.

6 Test Instruments list

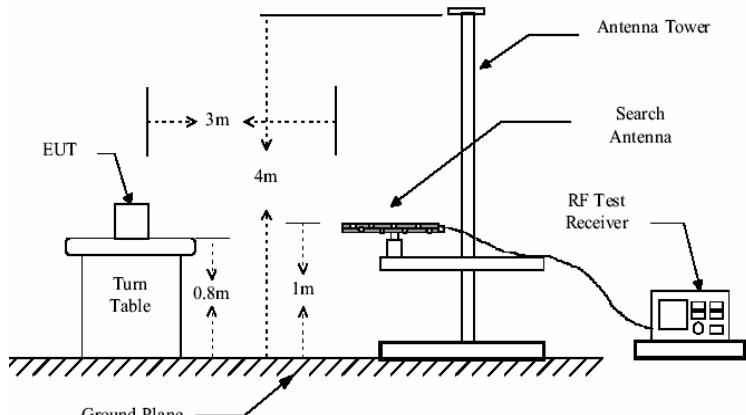
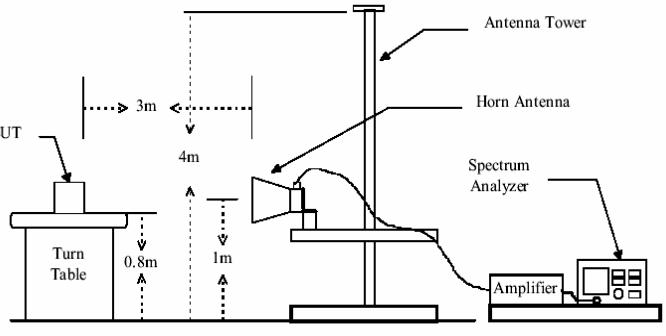
Radiated Emission:						
Item	Test Equipment	Manufacturer	Model No.	Inventory No.	Cal.Date (mm-dd-yy)	Cal.Due date (mm-dd-yy)
1	3m Semi- Anechoic Chamber	ZhongYu Electron	9.2(L)*6.2(W)* 6.4(H)	GTS250	Mar. 30 2011	Mar. 29 2013
2	Control Room	ZhongYu Electron	6.2(L)*2.5(W)* 2.4(H)	GTS251	N/A	N/A
3	EMI Test Receiver	Rohde & Schwarz	ESU26	GTS203	Jul. 04 2011	Jul. 03 2012
4	BiConiLog Antenna	SCHWARZBECK MESS-ELEKTRONIK	VULB9163	GTS214	Feb. 26 2012	Feb. 25 2013
5	Double -ridged waveguide horn	SCHWARZBECK MESS-ELEKTRONIK	9120D-829	GTS208	Mar. 10 2012	Mar. 09 2013
6	Amplifier(100kHz-3GHz)	HP	8347A	GTS204	Jul. 04 2011	Jul. 03 2012
7	Amplifier(2GHz-20GHz)	HP	8349B	GTS206	Jul. 04 2011	Jul. 03 2012
8	EMI Test Software	AUDIX	E3	N/A	N/A	N/A
9	Coaxial cable	GTS	N/A	GTS210	Jul. 04 2011	Jul. 03 2012
10	Coaxial Cable	GTS	N/A	GTS211	Jul. 04 2011	Jul. 03 2012
11	Thermo meter	KTJ	TA328	GTS256	Jul. 07 2011	Jul. 06 2012

General used equipment:						
Item	Test Equipment	Manufacturer	Model No.	Inventory No.	Cal.Date (dd-mm-yy)	Cal.Due date (dd-mm-yy)
1	Barometer	ChangChun	DYM3	GTS257	July 11 2011	July 10 2012

7 Test results and Measurement Data

7.1 Radiated Emission

Test Requirement:	FCC Part15 B Section 15.109																								
Test Method:	ANSI C63.4:2003																								
Test Frequency Range:	30MHz to 2000MHz																								
Test site:	Measurement Distance: 3m (Semi-Anechoic Chamber)																								
Receiver setup:	<table border="1"> <thead> <tr> <th>Frequency</th><th>Detector</th><th>RBW</th><th>VBW</th><th>Remark</th></tr> </thead> <tbody> <tr> <td>30MHz-1GHz</td><td>Quasi-peak</td><td>120kHz</td><td>300kHz</td><td>Quasi-peak Value</td></tr> <tr> <td rowspan="2">Above 1GHz</td><td>Peak</td><td>1MHz</td><td>3MHz</td><td>Peak Value</td></tr> <tr> <td>Peak</td><td>1MHz</td><td>3MHz</td><td>Average Value</td></tr> </tbody> </table>					Frequency	Detector	RBW	VBW	Remark	30MHz-1GHz	Quasi-peak	120kHz	300kHz	Quasi-peak Value	Above 1GHz	Peak	1MHz	3MHz	Peak Value	Peak	1MHz	3MHz	Average Value	
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Limit:	<table border="1"> <thead> <tr> <th>Frequency</th><th>Limit (dBuV/m @3m)</th><th>Remark</th></tr> </thead> <tbody> <tr> <td>30MHz-88MHz</td><td>40.0</td><td>Quasi-peak Value</td></tr> <tr> <td>88MHz-216MHz</td><td>43.5</td><td>Quasi-peak Value</td></tr> <tr> <td>216MHz-960MHz</td><td>46.0</td><td>Quasi-peak Value</td></tr> <tr> <td>960MHz-1GHz</td><td>54.0</td><td>Quasi-peak Value</td></tr> <tr> <td rowspan="2">Above 1GHz</td><td>54.0</td><td>Average Value</td></tr> <tr> <td>74.0</td><td>Peak Value</td></tr> </tbody> </table>					Frequency	Limit (dBuV/m @3m)	Remark	30MHz-88MHz	40.0	Quasi-peak Value	88MHz-216MHz	43.5	Quasi-peak Value	216MHz-960MHz	46.0	Quasi-peak Value	960MHz-1GHz	54.0	Quasi-peak Value	Above 1GHz	54.0	Average Value	74.0	Peak Value
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Above 1GHz	54.0	Average Value																							
	74.0	Peak Value																							
Test Procedure:	<ol style="list-style-type: none"> 1. The EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 meter camber. The table was rotated 360 degrees to determine the position of the highest radiation. 2. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower. 3. The antenna height is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement. 4. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters and the rota table was turned from 0 degrees to 360 degrees to find the maximum reading. 5. The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode. 6. If the emission level of the EUT in peak mode was 10dB lower than the limit specified, then testing could be stopped and the peak values of the EUT would be reported. Otherwise the emissions that did not have 10dB margin would be re-tested one by one using peak, quasi-peak or average method as specified and then reported in a data sheet. 																								
Test setup:	Below 1GHz																								

	 <p>Above 1GHz</p> 
Test environment:	Temp.: 25 °C Humid.: 52% Press.: 1 012mbar
Measurement Record:	Uncertainty: $\pm 4.5\text{dB}$
Test Instruments:	Refer to section 6 for details
Test mode:	Refer to section 5.3 for details
Test results:	Passed

Note:

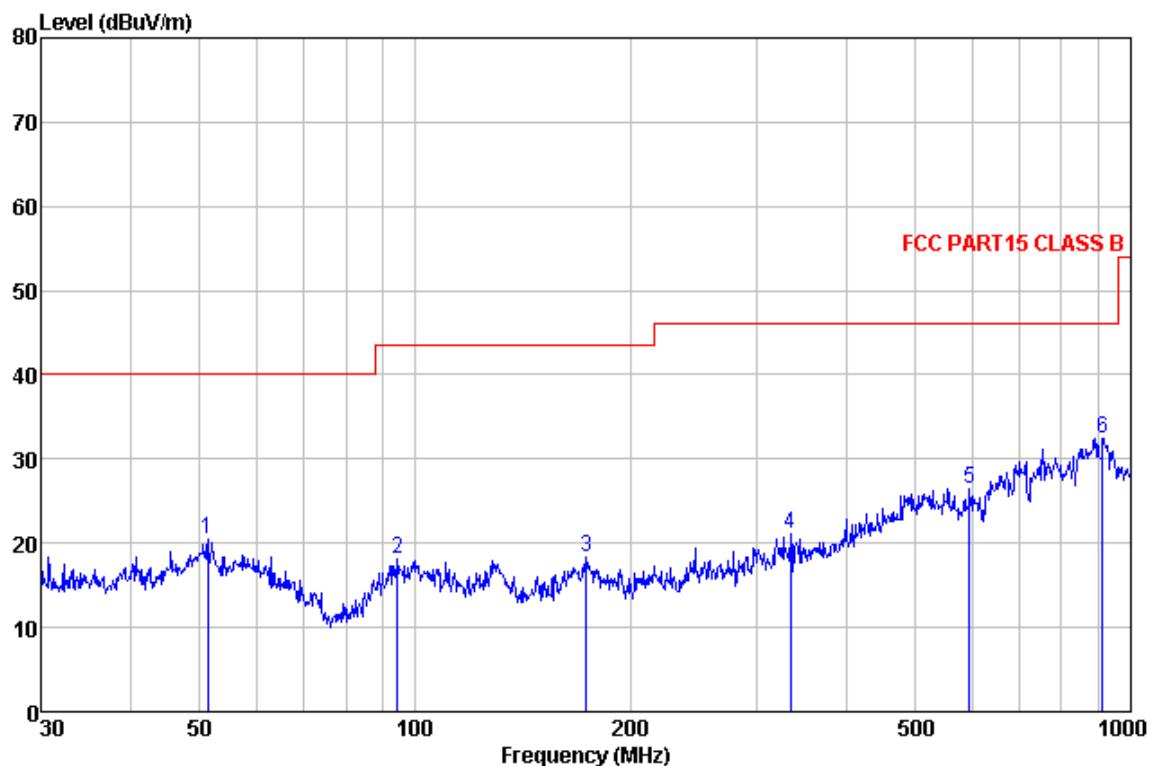
The field strength is calculated by adding the Antenna Factor, Cable Factor & Preamplifier. The basic equation with a sample calculation is as follows:

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

Measurement Data

Below 1GHz

Horizontal:

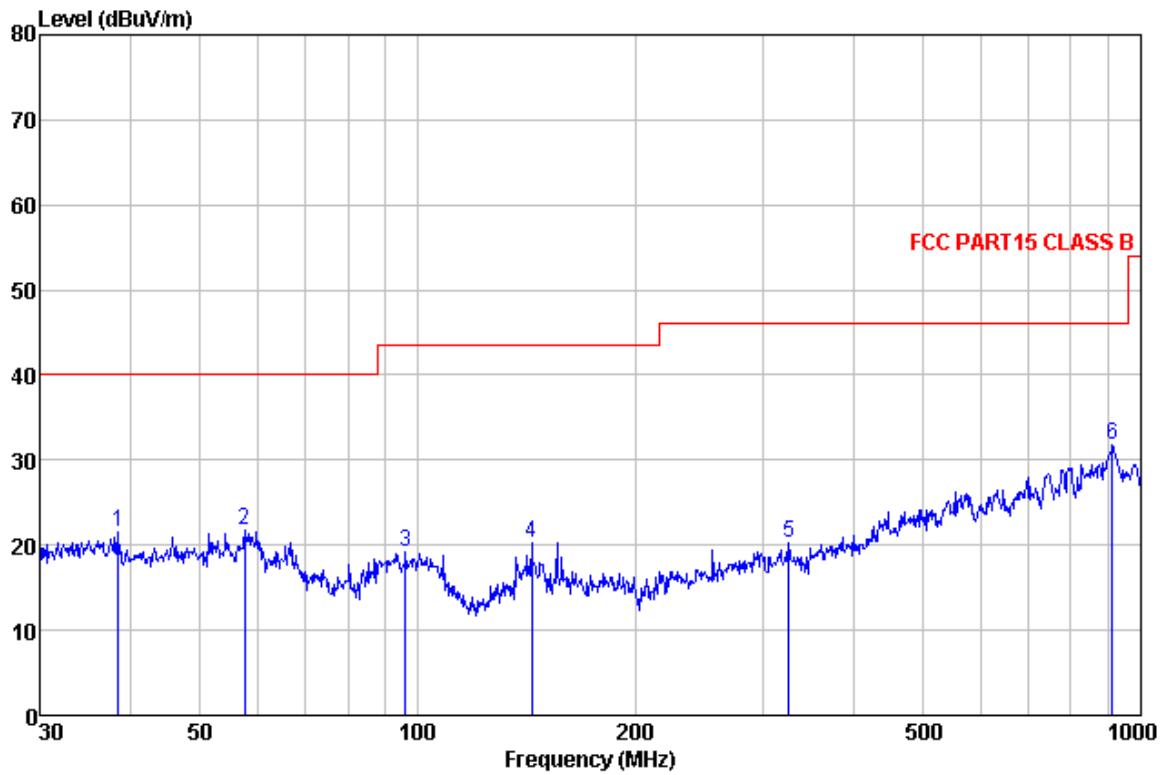


Site : 3m chamber
 Condition : FCC PART15 CLASS B 3m VULB9163-2012 HORIZONTAL
 Job No. : 293RF
 Test Mode : Receiving mode

Test Engineer: Oscar

	Read	Antenna	Cable	Preamp	Limit	Over	
Freq	Level	Factor	Loss	Factor	Level	Line	Remark
MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB
1	51.3	37.44	14.81	0.18	32.01	20.42	40.00 -19.58 QP
2	94.4	37.79	11.81	0.22	31.73	18.09	43.50 -25.41 QP
3	173.2	37.22	12.91	0.41	32.12	18.42	43.50 -25.08 QP
4	334.9	39.07	13.70	0.68	32.31	21.14	46.00 -24.86 QP
5	595.1	37.83	18.81	1.14	31.31	26.47	46.00 -19.53 QP
6	912.9	37.03	25.18	1.74	31.47	32.48	46.00 -13.52 QP

Vertical:



Site : 3m chamber

Condition : FCC PART15 CLASS B 3m VULB9163-2012 VERTICAL

Job No. : 293RF

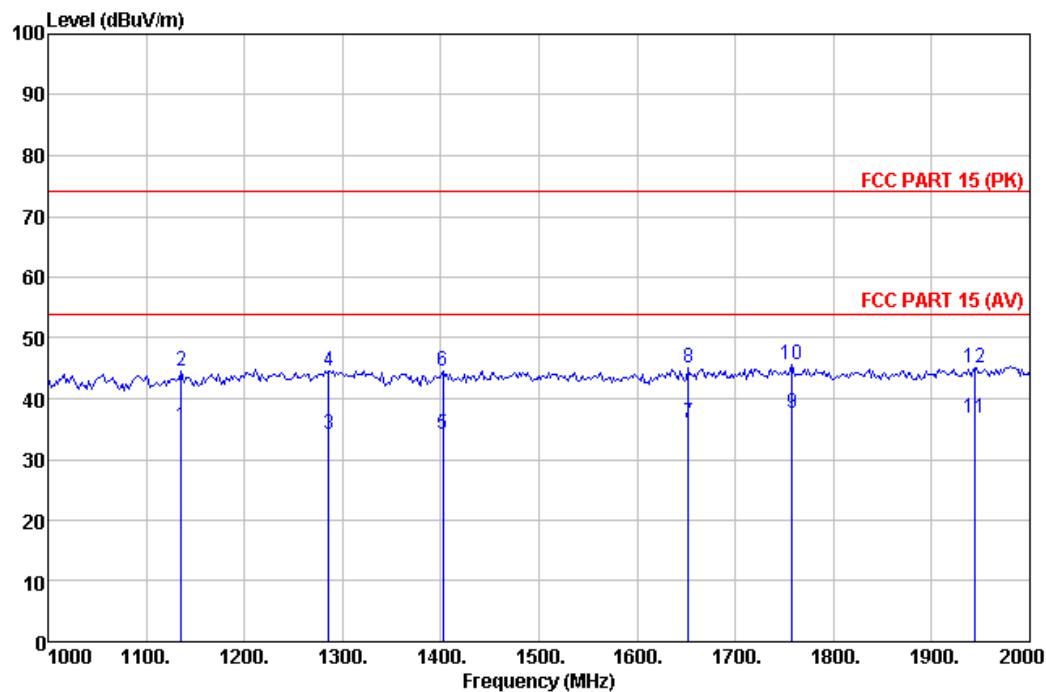
Test Mode : Receiving mode

Test Engineer: Osccar

Freq	ReadAntenna		Cable Preamp		Limit Level	Over Line	Over Limit	Remark
	Freq	Level	Antenna Factor	Cable Loss				
MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	
1	38.5	39.11	14.50	0.14	32.16	21.59	40.00	-18.41 QP
2	57.6	37.98	15.54	0.18	31.97	21.73	40.00	-18.27 QP
3	96.1	38.47	12.13	0.22	31.71	19.11	43.50	-24.39 QP
4	143.8	39.07	12.86	0.31	31.95	20.29	43.50	-23.21 QP
5	325.6	39.18	12.81	0.68	32.31	20.36	46.00	-25.64 QP
6	912.9	37.19	24.42	1.74	31.47	31.88	46.00	-14.12 QP

Above 1GHz

Horizontal:



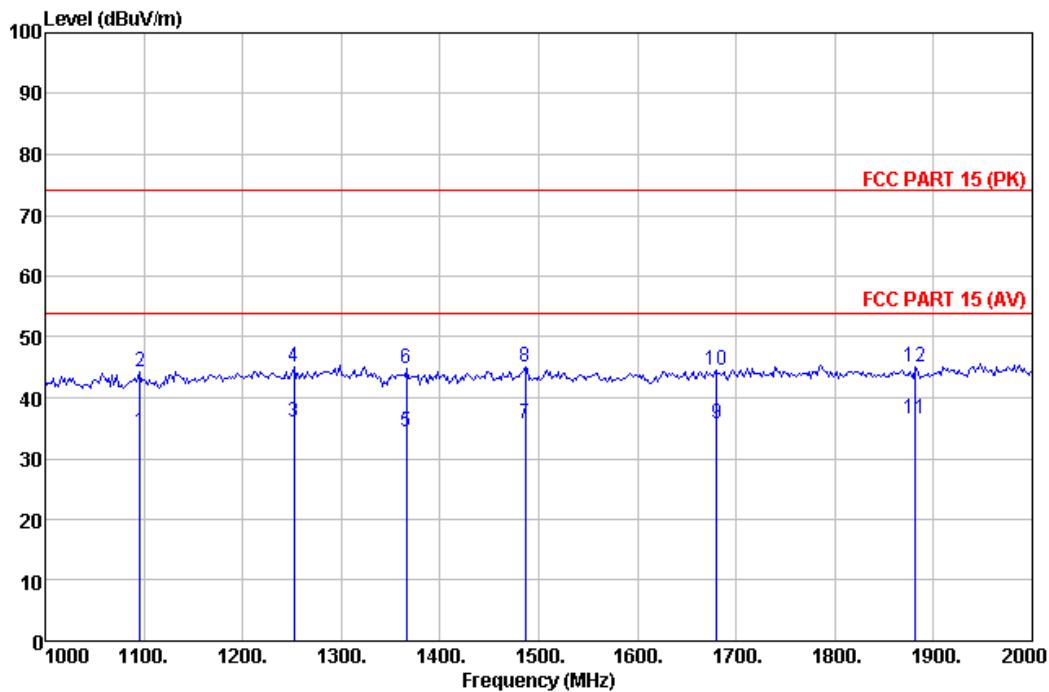
Site : 3m chamber
 Condition : FCC PART 15 (PK) 3m BBHA9120D ANT(>1GHZ) HORIZONTAL
 Job No. : 293RF

Test Mode : Receiving mode

Test Engineer: Osccar

Freq	ReadAntenna		Cable		Preamp	Limit	Over	Line	Limit	Remark
	Level	Factor	Loss	Factor						
MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	dB	dB	
1	1136.0	40.16	24.92	1.98	31.56	35.50	54.00	-18.50	Average	
2	1136.0	49.28	24.92	1.98	31.56	44.62	74.00	-29.38	Peak	
3	1286.0	38.20	25.60	2.08	31.73	34.15	54.00	-19.85	Average	
4	1286.0	48.62	25.60	2.08	31.73	44.57	74.00	-29.43	Peak	
5	1402.0	38.29	25.56	2.17	31.93	34.09	54.00	-19.91	Average	
6	1402.0	48.63	25.56	2.17	31.93	44.43	74.00	-29.57	Peak	
7	1652.0	40.31	24.86	2.33	31.52	35.98	54.00	-18.02	Average	
8	1652.0	49.28	24.86	2.33	31.52	44.95	74.00	-29.05	Peak	
9	1758.0	41.12	25.09	2.40	31.13	37.48	54.00	-16.52	Average	
10	1758.0	49.24	25.09	2.40	31.13	45.60	74.00	-28.40	Peak	
11	1944.0	39.15	25.91	2.52	30.81	36.77	54.00	-17.23	Average	
12	1944.0	47.46	25.91	2.52	30.81	45.08	74.00	-28.92	Peak	

Vertical:

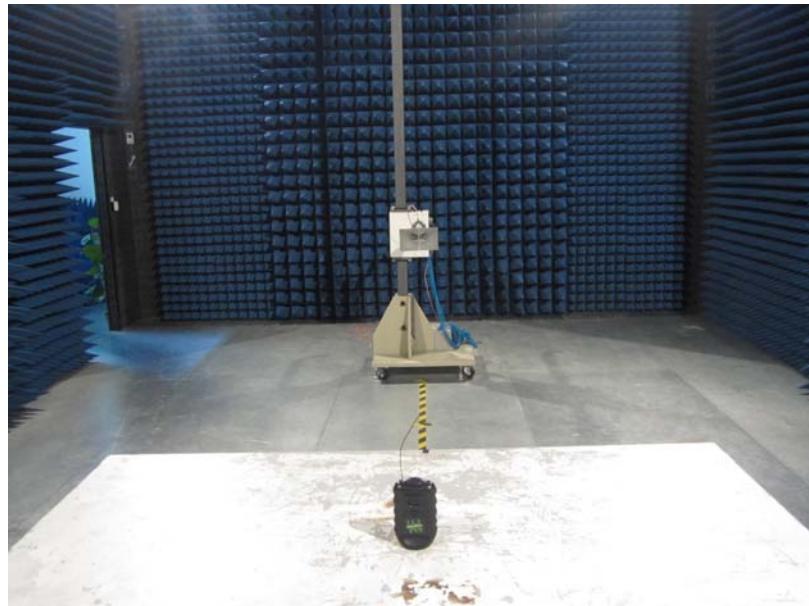
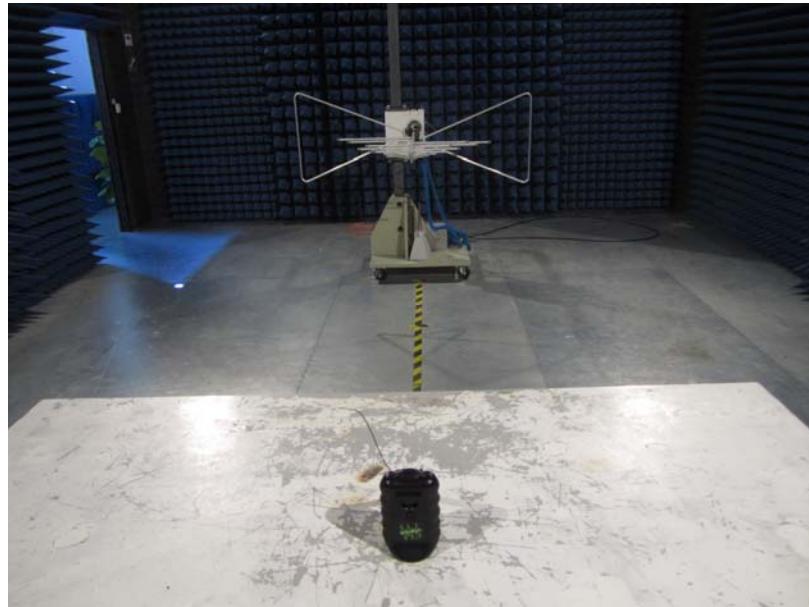


Site : 3m chamber
 Condition : FCC PART 15 (PK) 3m BBHA9120D ANT(>1GHZ) VERTICAL
 Job No. : 293RF
 Test Mode : Receiving mode
 Test Engineer: Oscar

Freq	Read	Antenna	Cable	Preamp	Limit Level	Over Line	Limit	Over Remark
	MHz	dBuV	dB/m	dB				
1	1096.0	39.23	24.75	1.95	31.55	34.38	54.00	-19.62 Average
2	1096.0	48.99	24.75	1.95	31.55	44.14	74.00	-29.86 Peak
3	1252.0	40.12	25.53	2.07	31.67	36.05	54.00	-17.95 Average
4	1252.0	49.21	25.53	2.07	31.67	45.14	74.00	-28.86 Peak
5	1366.0	38.38	25.67	2.13	31.87	34.31	54.00	-19.69 Average
6	1366.0	48.88	25.67	2.13	31.87	44.81	74.00	-29.19 Peak
7	1486.0	40.23	25.25	2.22	32.07	35.63	54.00	-18.37 Average
8	1486.0	49.57	25.25	2.22	32.07	44.97	74.00	-29.03 Peak
9	1680.0	39.78	24.93	2.35	31.42	35.64	54.00	-18.36 Average
10	1680.0	48.73	24.93	2.35	31.42	44.59	74.00	-29.41 Peak
11	1882.0	39.39	25.67	2.49	30.88	36.67	54.00	-17.33 Average
12	1882.0	47.88	25.67	2.49	30.88	45.16	74.00	-28.84 Peak

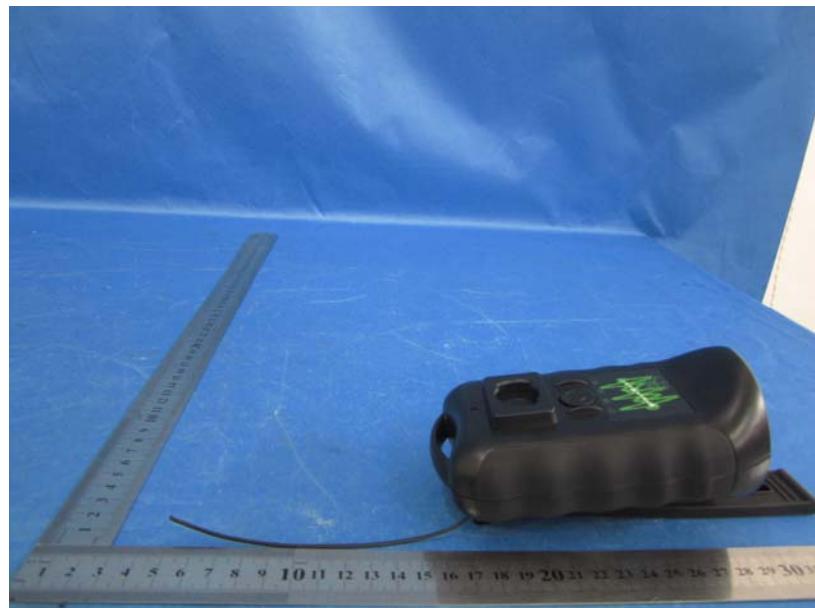
8 Test Setup Photo

Radiated Emission

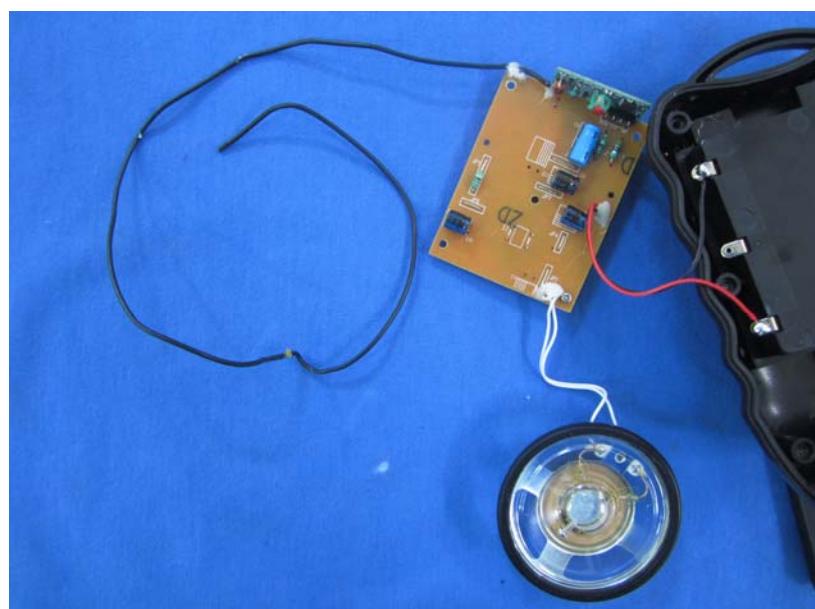
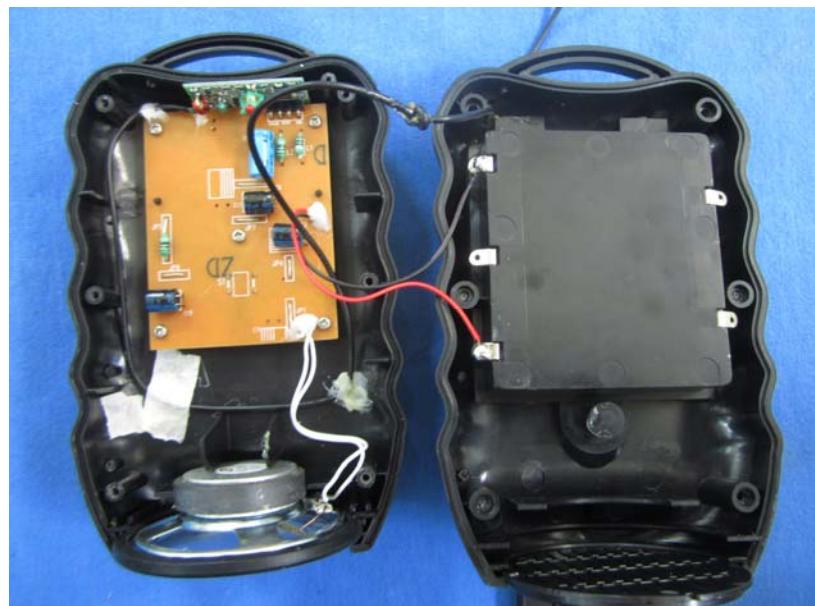


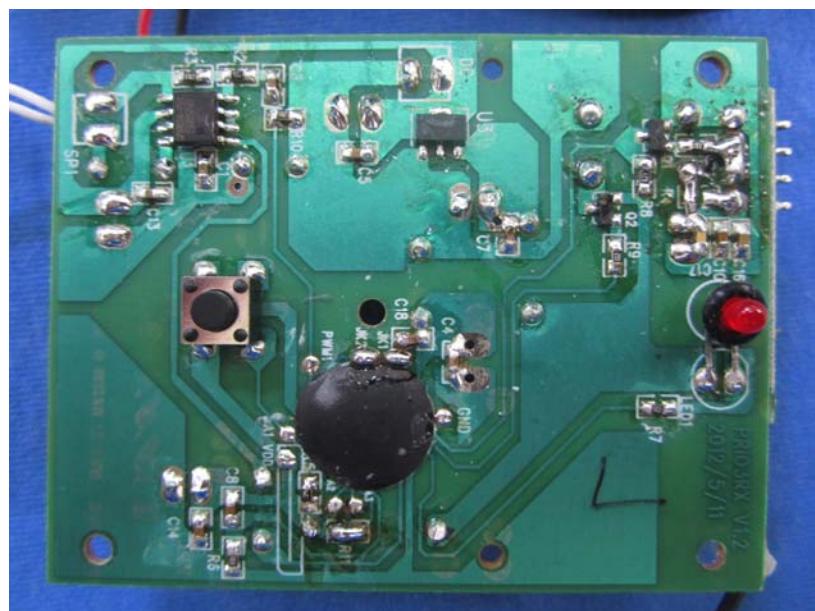
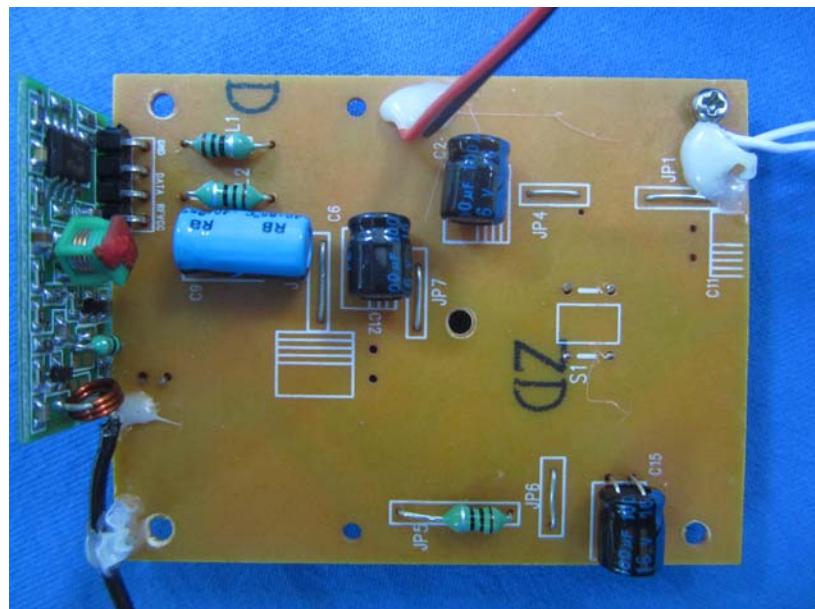
9 EUT Constructional Details

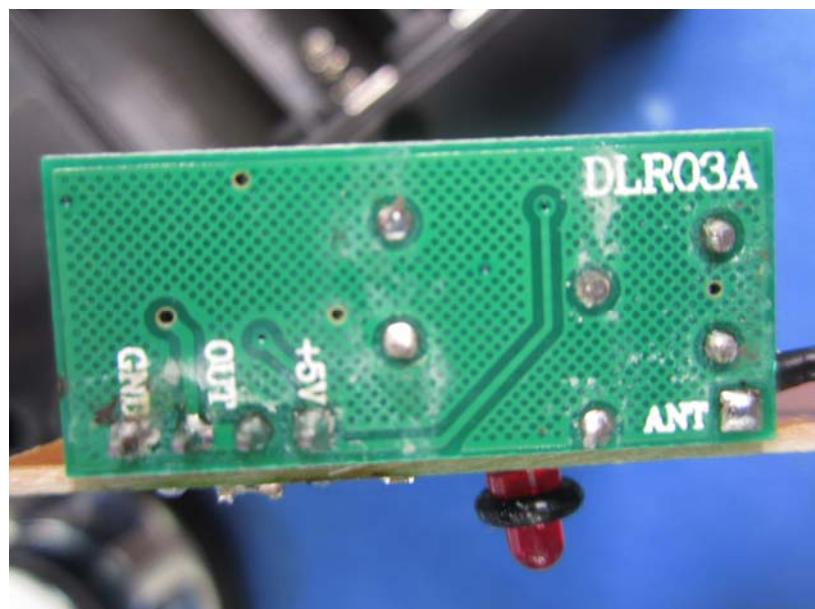
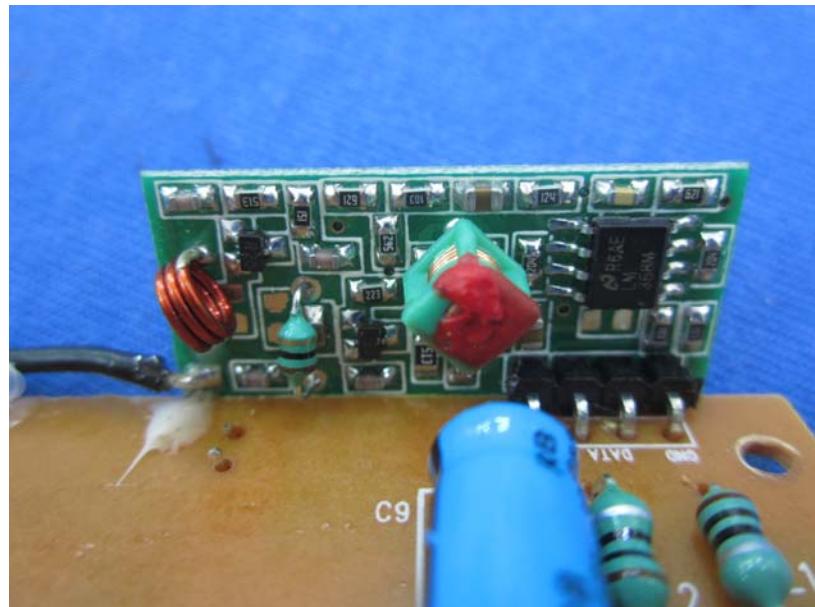












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