



Shenzhen EBO Testing Center

A506, Financial port building, Xin'an Sixth Road, 82th District, Bao'an,
Shenzhen, China.
Telephone: +86-755-33126608,
Email: ebo@ebotest.com

Report No.: EBO1708138-E256
Page 1 of 23

FCC REPORT

Applicant: SHANTOU CITY PAIERGE TOYS
Address of Applicant: CHENGHAI DISTRICT, SHANTOU CITY, GUANGDONG
PROVINCE, CHINA

Equipment Under Test (EUT)

Product Name: REMOTE CONTROL CAR
Model No.: PEG-88
FCC ID: 2ANMKPEG-88
Applicable standards: FCC CFR Title 47 Part 15 Subpart C Section 15.249:2017
Date of sample receipt: August 1, 2017
Date of Test: August 1, 2017 to August 13, 2017
Date of report issued: August 13, 2017
Test Result : PASS *

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

Authorized Signature:

Kevin Yu
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 EBO 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 EBO International Electrical Approvals or testing done by EBO International Electrical Approvals in connection with, distribution or use of the product described in this report must be approved by EBO International Electrical Approvals in writing.
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."



Shenzhen EBO Testing Center

Report No.: EBO1708138-E256
Page 2 of 23

2 Version

Version No.	Date	Description
00	August 13, 2017	Original

Prepared By:

Date:

August 13, 2017

Project Engineer

Check By:

Date:

August 13, 2017

Reviewer

"This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.ebotest.com> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.ebotest.com>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. 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."



Shenzhen EBO Testing Center

Report No.: EBO1708138-E256

Page 3 of 23

3 Contents

	Page
1 COVER PAGE.....	1
2 VERSION	2
3 CONTENTS	3
4 TEST SUMMARY	4
4.1 MEASUREMENT UNCERTAINTY	4
5 GENERAL INFORMATION	5
5.1 GENERAL DESCRIPTION OF EUT	5
5.2 TEST MODE	6
5.3 DESCRIPTION OF SUPPORT UNITS	6
5.4 TEST FACILITY.....	6
5.5 TEST LOCATION	6
5.6 OTHER INFORMATION REQUESTED BY THE CUSTOMER	6
6 TEST INSTRUMENTS LIST	7
7 TEST RESULTS AND MEASUREMENT DATA.....	8
7.1 ANTENNA REQUIREMENT	8
7.2 RADIATED EMISSION METHOD	9
7.2.1 Field Strength of The Fundamental Signal	11
7.2.2 Spurious emissions.....	12
7.2.3 Bandedge emissions.....	16
7.3 20dB OCCUPY BANDWIDTH	17
8 TEST SETUP PHOTO	19
9 EUT CONSTRUCTIONAL DETAILS	20

"This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.ebotest.com> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.ebotest.com> Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. 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."



Shenzhen EBO Testing Center

Report No.: EBO1708138-E256
Page 4 of 23

4 Test Summary

Test Item	Section in CFR 47	Result
Antenna requirement	15.203	Pass
AC Power Line Conducted Emission	15.207	N/A
Field strength of the fundamental signal	15.249 (a)	Pass
Spurious emissions	15.249 (a) (d)/15.209	Pass
Band edge	15.249 (d)/15.205	Pass
20dB Occupied Bandwidth	15.215 (c)	Pass

Pass: The EUT complies with the essential requirements in the standard.

Remark: Test according to ANSI C63.4:2014 and ANSI C63.10:2013.

4.1 Measurement Uncertainty

Test Item	Frequency Range	Measurement Uncertainty	Notes
Radiated Emission	9kHz ~ 30MHz	$\pm 4.34\text{dB}$	(1)
Radiated Emission	30MHz ~ 1000MHz	$\pm 4.24\text{dB}$	(1)
Radiated Emission	1GHz ~ 26.5GHz	$\pm 4.68\text{dB}$	(1)
AC Power Line Conducted Emission	0.15MHz ~ 30MHz	$\pm 3.45\text{dB}$	(1)

Note (1): The measurement uncertainty is for coverage factor of $k=2$ and a level of confidence of 95%.



5 General Information

5.1 General Description of EUT

Product Name:	REMOTE CONTROL CAR
Model No.:	PEG-88
Operation Frequency:	2402MHz~2480MHz
Channel numbers:	17
Modulation type:	FM
Antenna Type:	Integrated antenna
Antenna gain:	0dBi
Power supply:	Remote control: DC 3.0V (2*1.5V AAA Battery)

Channel List(MHz):

2402	2425	2450	2475
2405	2430	2455	2480
2410	2435	2460	
2415	2440	2465	
2420	2445	2470	

Note:

In section 15.31(m), regards to the operating frequency range over 10 MHz, the Lowest frequency, the middle frequency, and the highest frequency of channel were selected to perform the test, and the selected channel see below:

Channel	Frequency
The lowest channel	2402MHz
The middle channel	2440MHz
The Highest channel	2480MHz



Shenzhen EBO Testing Center

Report No.: EBO1708138-E256
Page 6 of 23

5.2 Test mode

Transmitting mode	Keep the EUT in continuously transmitting mode
<i>Remark: New battery is used during all test.</i>	

Pre-test mode.

We have verified the construction and function in typical operation, The EUT was placed on three different polar directions; 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)	88.08	89.23	88.74

Final Test Mode:

According to ANSI C63.4 standards, the test results are both the “worst case” and “worst setup”:
Y axis (see the test setup photo)

5.3 Description of Support Units

None

5.4 Test Facility

<p>The test facility is recognized, certified, or accredited by the following organizations:</p> <ul style="list-style-type: none">● 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, June 22, 2016.● Industry Canada (IC) —Registration No.: 9079A-2 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-2, August 15, 2016

5.5 Test Location

All tests were performed at:
Global United Technology Services Co., Ltd. No. 301-309, 3/F., Jinyuan Business Building, No.2, Laodong Industrial Zone, Xixiang Road, Baoan District, Shenzhen, Guangdong, China 518102

5.6 Other Information Requested by the Customer

None.

“This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.ebotest.com> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.ebotest.com> Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. 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.”



Shenzhen EBO Testing Center

Report No.: EBO1708138-E256
Page 7 of 23

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	July 03 2015	July 02 2020
2	Control Room	ZhongYu Electron	6.2(L)*2.5(W)* 2.4(H)	GTS251	N/A	N/A
3	Spectrum Analyzer	Agilent	E4440A	GTS533	June 28 2017	June 27 2018
4	EMI Test Receiver	Rohde & Schwarz	ESU26	GTS203	June 28 2017	June 27 2018
5	BiConiLog Antenna	SCHWARZBECK MESS-ELEKTRONIK	VULB9163	GTS214	June 28 2017	June 27 2018
6	Double -ridged waveguide horn	SCHWARZBECK MESS-ELEKTRONIK	9120D-829	GTS208	June 28 2017	June 27 2018
7	Horn Antenna	ETS-LINDGREN	3160	GTS217	June 28 2017	June 27 2018
8	EMI Test Software	AUDIX	E3	N/A	N/A	N/A
9	Coaxial Cable	GTS	N/A	GTS213	June 28 2017	June 27 2018
10	Coaxial Cable	GTS	N/A	GTS211	June 28 2017	June 27 2018
11	Coaxial cable	GTS	N/A	GTS210	June 28 2017	June 27 2018
12	Coaxial Cable	GTS	N/A	GTS212	June 28 2017	June 27 2018
13	Amplifier(100kHz-3GHz)	HP	8347A	GTS204	June 28 2017	June 27 2018
14	Amplifier(2GHz-20GHz)	HP	8349B	GTS206	June 28 2017	June 27 2018
15	Amplifier (18-26GHz)	Rohde & Schwarz	AFS33-18002 650-30-8P-44	GTS218	June 28 2017	June 27 2018
16	Band filter	Amindeon	82346	GTS219	June 28 2017	June 27 2018
17	Power Meter	Anritsu	ML2495A	GTS540	June 28 2017	June 27 2018
18	Power Sensor	Anritsu	MA2411B	GTS541	June 28 2017	June 27 2018

"This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.ebotest.com> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.ebotest.com> Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. 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."

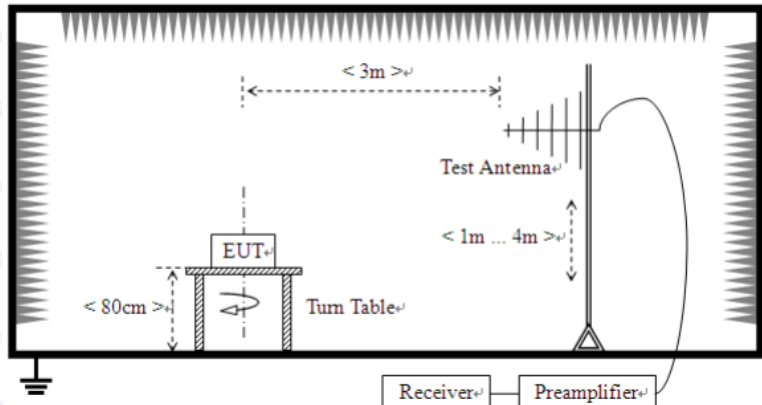


7 Test results and Measurement Data

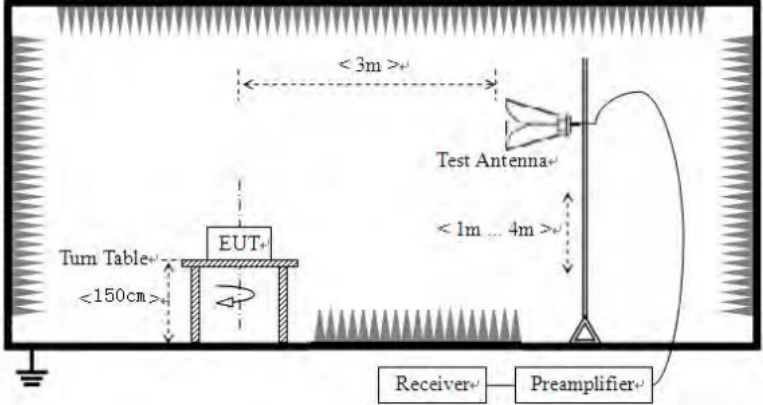
7.1 Antenna requirement

Standard requirement:	FCC Part15 C Section 15.203
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.	
EUT Antenna:	
<i>The antenna is Integrated antenna, the best case gain of the antenna is 0 dBi</i>	

7.2 Radiated Emission Method

Test Requirement:	FCC Part15 C Section 15.209				
Test Method:	ANSI C63.10:2013				
Test Frequency Range:	30MHz to 25GHz				
Test site:	Measurement Distance: 3m				
Receiver setup:	Frequency	Detector	RBW	VBW	Remark
	30MHz-1GHz	Quasi-peak	120KHz	300KHz	Quasi-peak Value
	Above 1GHz	Peak	1MHz	3MHz	Peak Value
		Peak	1MHz	10Hz	Average Value
Limit: (Field strength of the fundamental signal)	Frequency		Limit (dBuV/m @3m)		Remark
	2400MHz-2483.5MHz		94.00		Average Value
			114.00		Peak Value
Limit: (Spurious Emissions)	Frequency		Limit (dBuV/m @3m)		Remark
	30MHz-88MHz		40.00		Quasi-peak Value
	88MHz-216MHz		43.50		Quasi-peak Value
	216MHz-960MHz		46.00		Quasi-peak Value
	960MHz-1GHz		54.00		Quasi-peak Value
	Above 1GHz		54.00		Average Value
			74.00		Peak Value
Limit: (band edge)	Emissions radiated outside of the specified frequency bands, except for harmonics, shall be attenuated by at least 50 dB below the level of the fundamental or to the general radiated emission limits in Section 15.209, whichever is the lesser attenuation.				
Test setup:	Below 1GHz				
	<div></div>				
Test setup:	Above 1GHz				

"This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.ebotest.com> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.ebotest.com>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. 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."

	
<p>Test Procedure:</p>	<ol style="list-style-type: none"> 1. The EUT was placed on the top of a rotating table (0.8m for below 1G and 1.5m for above 1G) 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.
<p>Test Instruments:</p>	<p>Refer to section 6.0 for details</p>
<p>Test mode:</p>	<p>Refer to section 5.2 for details</p>
<p>Test results:</p>	<p>Pass</p>

Measurement data:

"This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.ebotest.com> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.ebotest.com>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. 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."



Shenzhen EBO Testing Center

Report No.: EBO1708138-E256
Page 11 of 23

7.2.1 Field Strength of The Fundamental Signal

Peak value:

Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamplifier Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
2402.00	89.97	27.58	5.39	34.01	88.93	114.00	-25.07	Vertical
2402.00	85.01	27.58	5.39	34.01	83.97	114.00	-30.03	Horizontal
2440.00	90.28	27.48	5.43	33.96	89.23	114.00	-24.77	Vertical
2440.00	84.39	27.48	5.43	33.96	83.34	114.00	-30.66	Horizontal
2480.00	89.42	27.52	5.47	33.92	88.49	114.00	-25.51	Vertical
2480.00	83.67	27.52	5.47	33.92	82.74	114.00	-31.26	Horizontal

Average value:

Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamplifier Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
2402.00	80.33	27.58	5.39	34.01	79.29	94.00	-14.71	Vertical
2402.00	75.33	27.58	5.39	34.01	74.29	94.00	-19.71	Horizontal
2440.00	80.30	27.48	5.43	33.96	79.25	94.00	-14.76	Vertical
2440.00	73.79	27.48	5.43	33.96	72.74	94.00	-21.26	Horizontal
2480.00	79.31	27.52	5.47	33.92	78.38	94.00	-15.62	Vertical
2480.00	73.95	27.52	5.47	33.92	73.02	94.00	-20.98	Horizontal

NOTE: RBW 4MHz VBW 4MHz Peak detector is for PK value , RMS detector is for AV value

"This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.ebotest.com> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.ebotest.com> Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. 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."



Shenzhen EBO Testing Center

Report No.: EBO1708138-E256

Page 12 of 23

7.2.2 Spurious emissions

■ Below 1GHz

Frequency (MHz)	Read Level (dBUV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamplifier Factor (dB)	Level (dBUV/m)	Limit Line (dBUV/m)	Over Limit (dB)	polarization
32.75	24.52	11.25	0.58	30.08	6.27	40.00	-33.73	Vertical
64.21	26.46	8.73	0.90	29.89	6.20	40.00	-33.80	Vertical
92.14	25.59	10.98	1.13	29.74	7.96	40.00	-32.04	Vertical
123.70	30.92	8.75	1.39	29.55	11.51	40.00	-28.49	Vertical
219.08	30.13	10.88	1.95	29.38	13.58	40.00	-26.42	Vertical
457.51	24.65	16.65	3.12	29.38	15.04	47.00	-31.96	Vertical
35.38	26.15	11.20	0.61	30.07	7.89	40.00	-32.11	Horizontal
59.23	26.97	11.40	0.85	29.93	9.29	40.00	-30.71	Horizontal
89.91	27.45	10.60	1.11	29.75	9.41	40.00	-30.59	Horizontal
131.76	31.49	8.10	1.45	29.50	11.54	40.00	-28.46	Horizontal
243.38	33.22	11.66	2.09	29.59	17.38	47.00	-29.62	Horizontal
477.17	24.85	17.08	3.21	29.34	15.80	47.00	-31.20	Horizontal

"This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.ebotest.com> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.ebotest.com>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. 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."



Shenzhen EBO Testing Center

Report No.: EBO1708138-E256

Page 13 of 23

■ Above 1GHz

Test channel:	Lowest channel
---------------	----------------

Peak value:

Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
4804.00	36.10	31.78	8.60	32.09	44.39	74.00	-29.61	Vertical
7206.00	31.03	36.15	11.65	32.00	46.83	74.00	-27.17	Vertical
9608.00	30.76	37.95	14.14	31.62	51.23	74.00	-22.77	Vertical
12010.00	*					74.00		Vertical
14412.00	*					74.00		Vertical
4804.00	40.15	31.78	8.60	32.09	48.44	74.00	-25.56	Horizontal
7206.00	32.68	36.15	11.65	32.00	48.48	74.00	-25.52	Horizontal
9608.00	30.07	37.95	14.14	31.62	50.54	74.00	-23.46	Horizontal
12010.00	*					74.00		Horizontal
14412.00	*					74.00		Horizontal

Average value:

Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
4804.00	25.15	31.78	8.60	32.09	33.44	54.00	-20.56	Vertical
7206.00	19.86	36.15	11.65	32.00	35.66	54.00	-18.34	Vertical
9608.00	19.01	37.95	14.14	31.62	39.48	54.00	-14.52	Vertical
12010.00	*					54.00		Vertical
14412.00	*					54.00		Vertical
4804.00	29.24	31.78	8.60	32.09	37.53	54.00	-16.47	Horizontal
7206.00	21.95	36.15	11.65	32.00	37.75	54.00	-16.25	Horizontal
9608.00	18.64	37.95	14.14	31.62	39.11	54.00	-14.89	Horizontal
12010.00	*					54.00		Horizontal
14412.00	*					54.00		Horizontal

Remark:

1. *Final Level = Receiver Read level + Antenna Factor + Cable Loss – Preamplifier Factor*
2. *The emission levels of other frequencies are very lower than the limit and not show in test report.*
3. *“*” means this data is too weak instrument of signal is unable to test.*

"This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.ebotest.com> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.ebotest.com> Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. 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."



Shenzhen EBO Testing Center

Report No.: EBO1708138-E256

Page 14 of 23

Test channel:	Middle channel
---------------	----------------

Peak value:

Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamplifier Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
4880.00	36.64	31.85	8.67	32.12	45.04	74.00	-28.96	Vertical
7320.00	31.39	36.37	11.72	31.89	47.59	74.00	-26.41	Vertical
9760.00	31.08	38.35	14.25	31.62	52.06	74.00	-21.94	Vertical
12200.00	*					74.00		Vertical
14640.00	*					74.00		Vertical
4880.00	40.79	31.85	8.67	32.12	49.19	74.00	-24.81	Horizontal
7320.00	33.09	36.37	11.72	31.89	49.29	74.00	-24.71	Horizontal
9760.00	30.44	38.35	14.25	31.62	51.42	74.00	-22.58	Horizontal
12200.00	*					74.00		Horizontal
14640.00	*					74.00		Horizontal

Average value:

Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamplifier Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
4880.00	25.59	31.85	8.67	32.12	33.99	54.00	-20.01	Vertical
7320.00	20.16	36.37	11.72	31.89	36.36	54.00	-17.64	Vertical
9760.00	19.28	38.35	14.25	31.62	40.26	54.00	-13.74	Vertical
12200.00	*					54.00		Vertical
14640.00	*					54.00		Vertical
4880.00	29.75	31.85	8.67	32.12	38.15	54.00	-15.85	Horizontal
7320.00	22.29	36.37	11.72	31.89	38.49	54.00	-15.51	Horizontal
9760.00	18.95	38.35	14.25	31.62	39.93	54.00	-14.07	Horizontal
12200.00	*					54.00		Horizontal
14640.00	*					54.00		Horizontal

Remark:

1. *Final Level = Receiver Read level + Antenna Factor + Cable Loss – Preamplifier Factor*
2. *The emission levels of other frequencies are very lower than the limit and not show in test report.*
3. *“*” means this data is too weak instrument of signal is unable to test.*

"This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.ebotest.com> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.ebotest.com> Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. 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."



Shenzhen EBO Testing Center

Report No.: EBO1708138-E256

Page 15 of 23

Test channel:	Highest channel
---------------	-----------------

Peak value:

Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamplifier Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
4960.00	36.78	31.93	8.73	32.16	45.28	74.00	-28.72	Vertical
7440.00	31.48	36.59	11.79	31.78	48.08	74.00	-25.92	Vertical
9920.00	31.16	38.81	14.38	31.88	52.47	74.00	-21.53	Vertical
12400.00	*					74.00		Vertical
14880.00	*					74.00		Vertical
4960.00	40.95	31.93	8.73	32.16	49.45	74.00	-24.55	Horizontal
7440.00	33.19	36.59	11.79	31.78	49.79	74.00	-24.21	Horizontal
9920.00	30.53	38.81	14.38	31.88	51.84	74.00	-22.16	Horizontal
12400.00	*					74.00		Horizontal
14880.00	*					74.00		Horizontal

Average value:

Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamplifier Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
4960.00	25.76	31.93	8.73	32.16	34.26	54.00	-19.74	Vertical
7440.00	20.27	36.59	11.79	31.78	36.87	54.00	-17.13	Vertical
9920.00	19.38	38.81	14.38	31.88	40.69	54.00	-13.31	Vertical
12400.00	*					54.00		Vertical
14880.00	*					54.00		Vertical
4960.00	29.94	31.93	8.73	32.16	38.44	54.00	-15.56	Horizontal
7440.00	22.42	36.59	11.79	31.78	39.02	54.00	-14.98	Horizontal
9920.00	19.07	38.81	14.38	31.88	40.38	54.00	-13.62	Horizontal
12400.00	*					54.00		Horizontal
14880.00	*					54.00		Horizontal

Remark:

1. *Final Level = Receiver Read level + Antenna Factor + Cable Loss – Preamplifier Factor*
2. *The emission levels of other frequencies are very lower than the limit and not show in test report.*
3. *“*” means this data is too weak instrument of signal is unable to test.*

"This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.ebotest.com> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.ebotest.com> Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. 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."



Shenzhen EBO Testing Center

Report No.: EBO1708138-E256

Page 16 of 23

7.2.3 Bandedge emissions

All of the restriction bands were tested, and only the data of worst case was exhibited.

Test channel:	Lowest channel
---------------	----------------

Peak value:

Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamplifier Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
2390.00	41.03	27.59	5.38	30.18	43.82	74.00	-30.18	Horizontal
2400.00	47.55	27.58	5.39	30.18	50.34	74.00	-23.66	Horizontal
2390.00	41.40	27.59	5.38	30.18	44.19	74.00	-29.81	Vertical
2400.00	48.39	27.58	5.39	30.18	51.18	74.00	-22.82	Vertical

Average value:

Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamplifier Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
2390.00	31.99	27.59	5.38	30.18	34.78	54.00	-19.22	Horizontal
2400.00	33.12	27.58	5.39	30.18	35.91	54.00	-18.09	Horizontal
2390.00	31.81	27.59	5.38	30.18	34.60	54.00	-19.40	Vertical
2400.00	33.59	27.58	5.39	30.18	36.38	54.00	-17.62	Vertical

Test channel:	Highest channel
---------------	-----------------

Peak value:

Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamplifier Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
2483.50	42.91	27.53	5.47	29.93	45.98	74.00	-28.02	Horizontal
2500.00	42.43	27.55	5.49	29.93	45.54	74.00	-28.46	Horizontal
2483.50	43.44	27.53	5.47	29.93	46.51	74.00	-27.49	Vertical
2500.00	43.26	27.55	5.49	29.93	46.37	74.00	-27.63	Vertical

Average value:

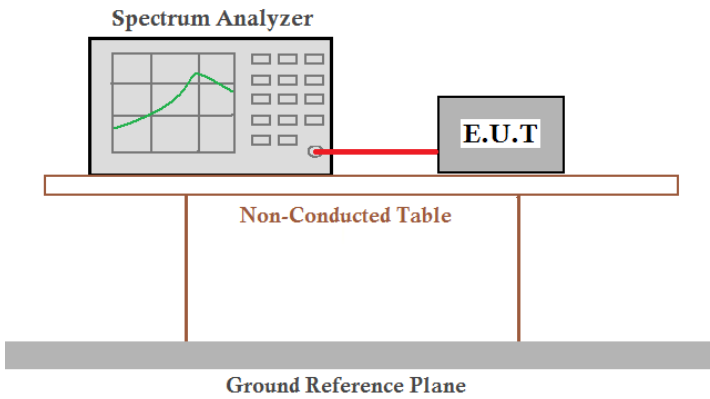
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamplifier Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
2483.50	34.80	27.53	5.47	29.93	37.87	54.00	-16.13	Horizontal
2500.00	33.07	27.55	5.49	29.93	36.18	54.00	-17.82	Horizontal
2483.50	35.86	27.53	5.47	29.93	38.93	54.00	-15.07	Vertical
2500.00	32.83	27.55	5.49	29.93	35.94	54.00	-18.06	Vertical

Remark:

1. *Final Level = Receiver Read level + Antenna Factor + Cable Loss – Preamplifier Factor*

"This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.ebotest.com> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.ebotest.com>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. 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."

7.3 20dB Occupy Bandwidth

Test Requirement:	FCC Part15 C Section 15.249/15.215
Test Method:	ANSI C63.10:2013
Limit:	Operation Frequency range 2400MHz~2483.5MHz
Test setup:	 <p>The diagram illustrates the test setup. A Spectrum Analyzer is connected via a red cable to an E.U.T. (Equipment Under Test). Both are placed on a Non-Conducted Table. Below the table is a Ground Reference Plane.</p>
Test Instruments:	Refer to section 6.0 for details
Test mode:	Refer to section 5.2 for details
Test results:	Pass

Measurement Data

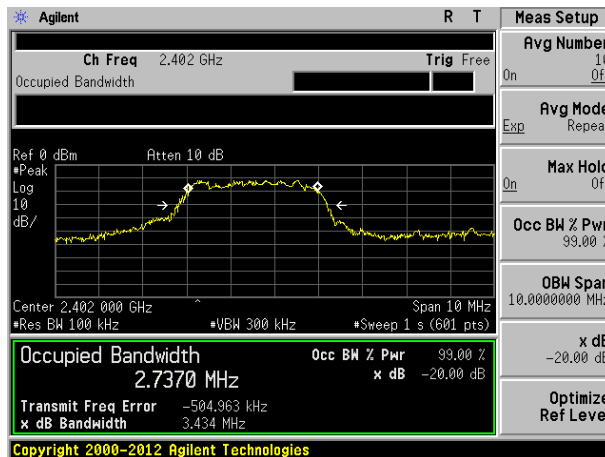
Test channel	20dB bandwidth(MHz)	Result
Lowest	3.434	Pass
Middle	3.493	Pass
Highest	3.202	Pass

Test plot as follows:

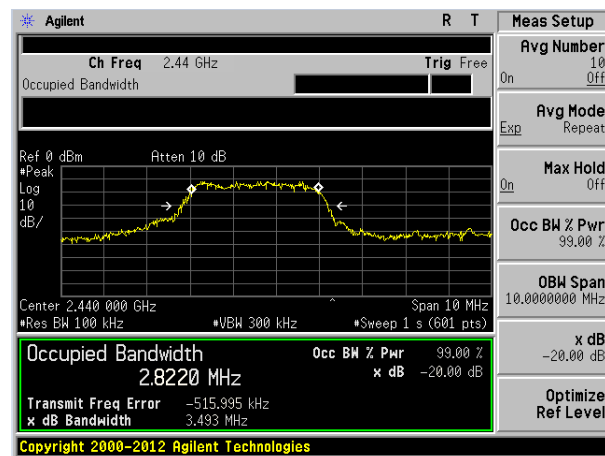


Shenzhen EBO Testing Center

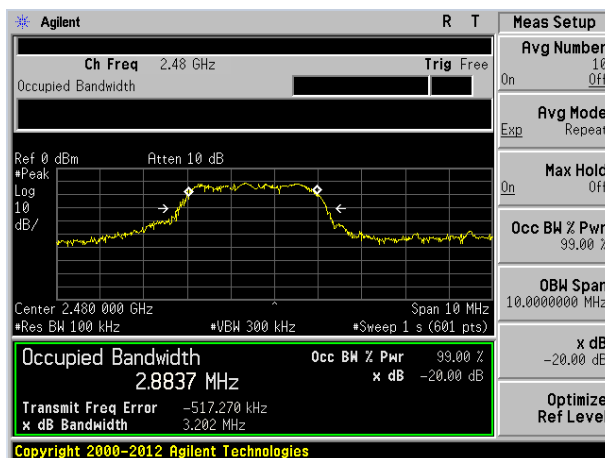
Report No.: EBO1708138-E256
Page 18 of 23



Lowest channel



Middle channel

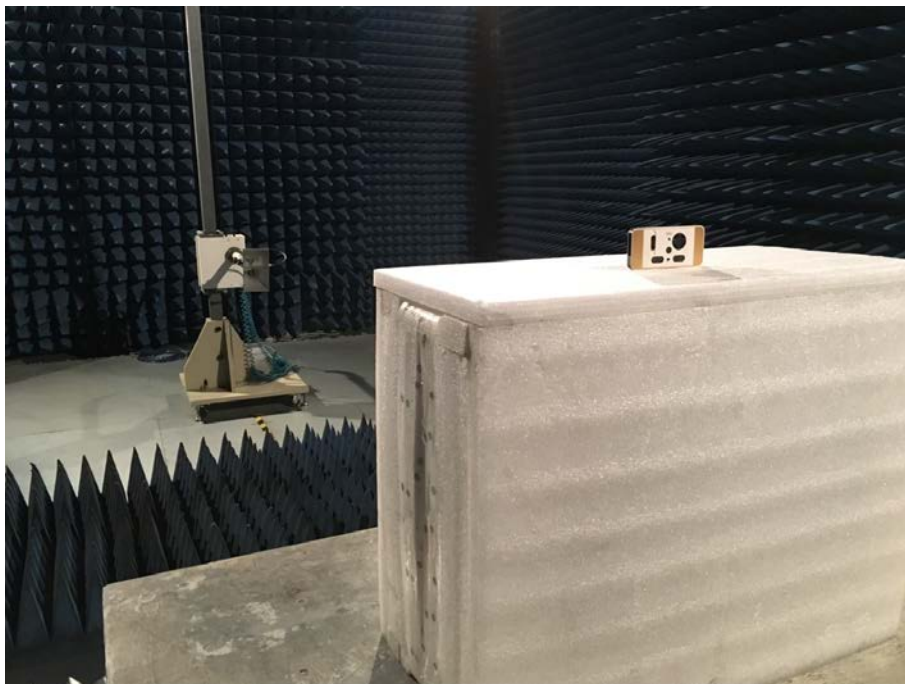


Highest channel

"This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.ebotest.com> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.ebotest.com>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. 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."

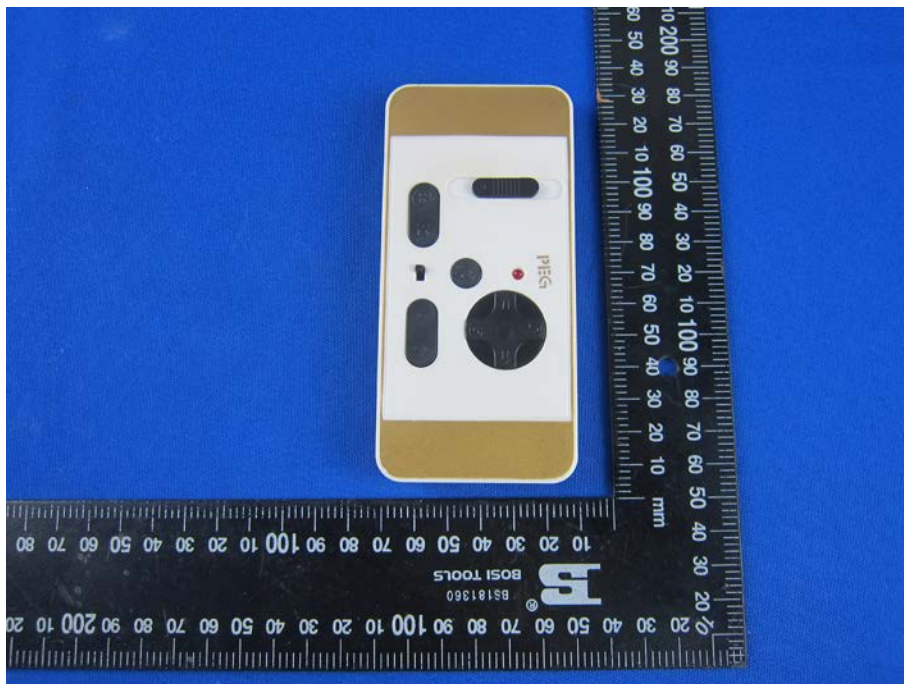
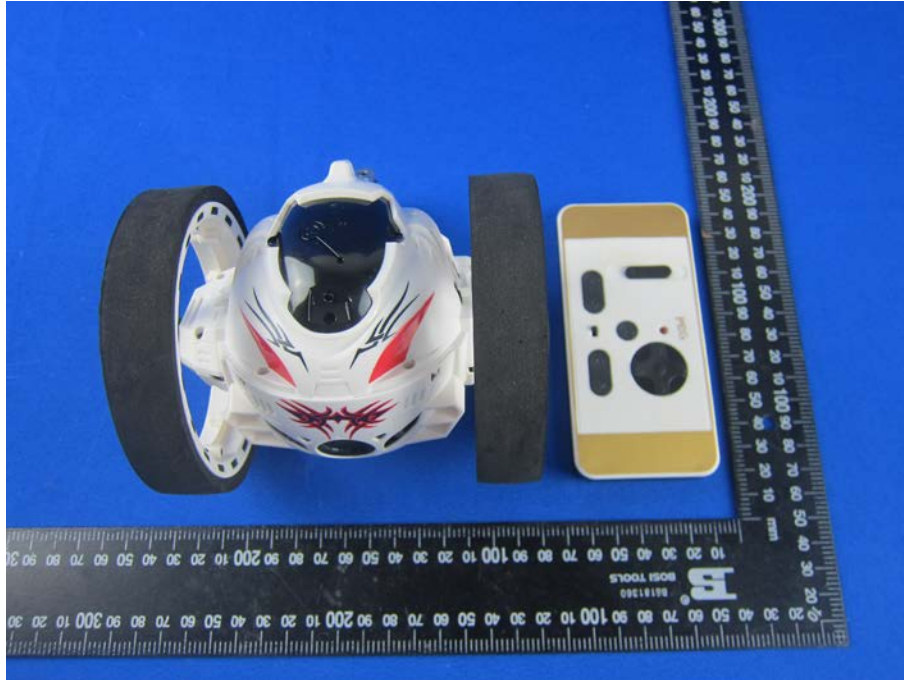
8 Test Setup Photo

Radiated Emission



"This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.ebotest.com> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.ebotest.com> Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. 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."

9 EUT Constructional Details



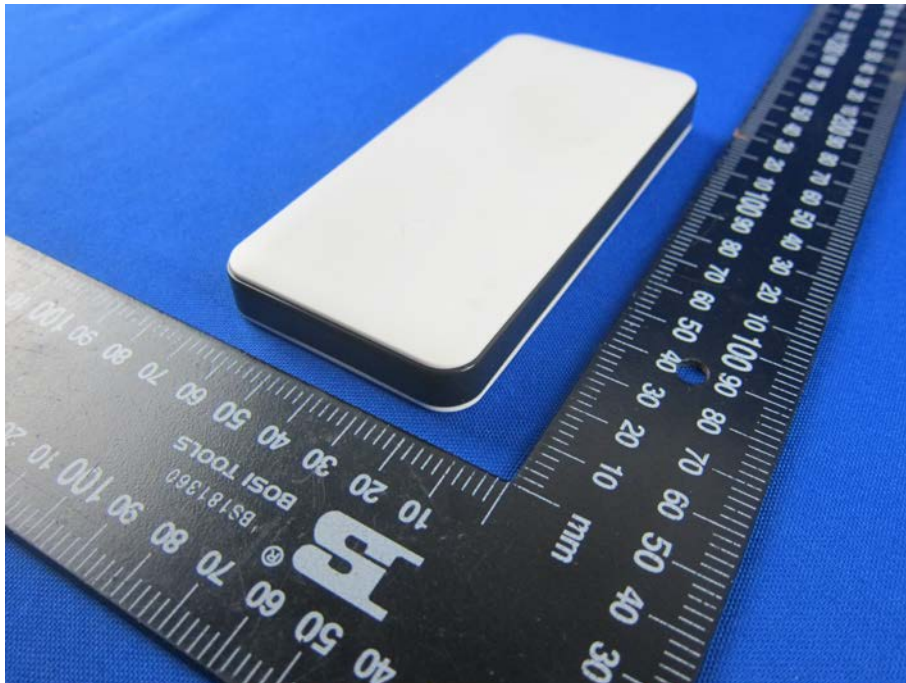
"This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.ebotest.com> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.ebotest.com>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. 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."



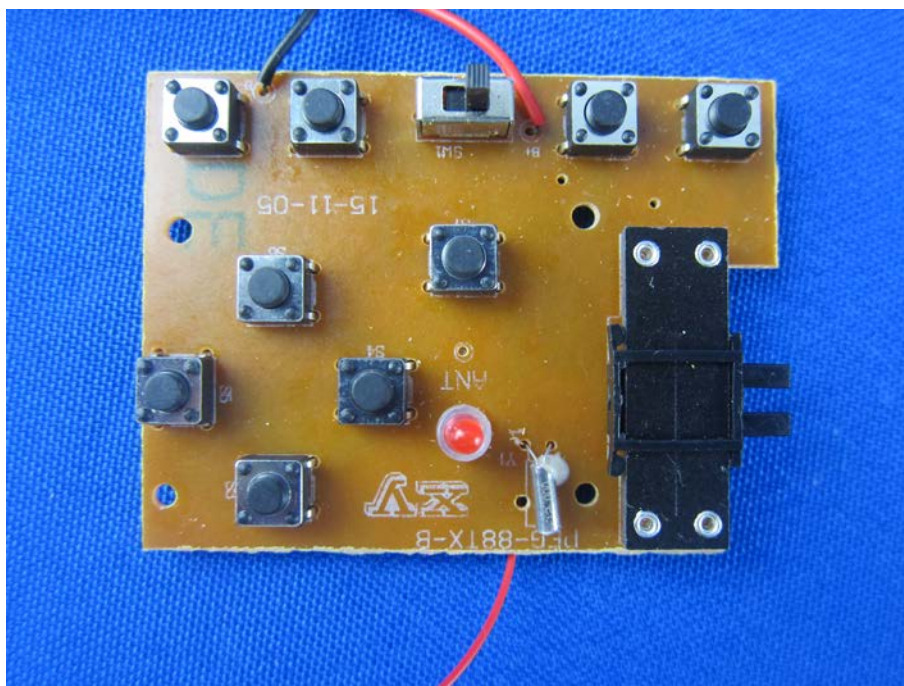
Shenzhen EBO Testing Center

Report No.: EBO1708138-E256

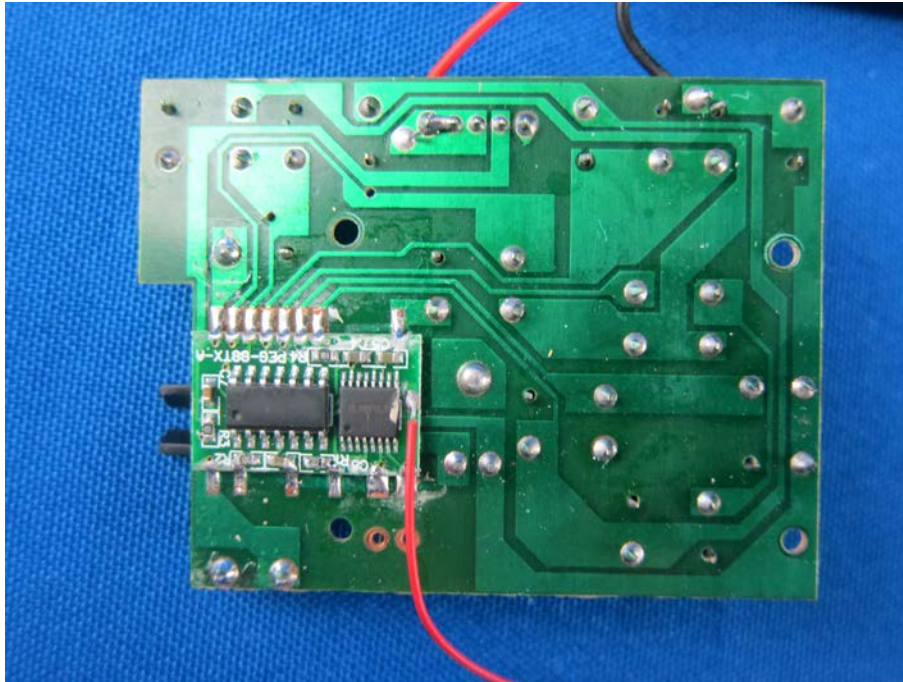
Page 21 of 23



"This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.ebotest.com> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.ebotest.com> Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. 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."



"This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.ebotest.com> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.ebotest.com>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. 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."



-----End-----