



Shenzhen EBO Technology Co., Ltd.

1-4F, Huafeng Science Park, Xin'an Sixth Road, 82th District, Bao'an,
Shenzhen, China.
Telephone: +86-755-29451282,
Fax: +86-755-22639141

Report No.: EBO1412093-E412
Page 1 of 17

FCC REPORT

Applicant: SHENZHEN DINSAFE INTELLIGENCE TECHNOLOGY
CO., LTD

Address of Applicant: Room 721, Zone A Of Hua Mei Ju, Xin Hu Rd., Baoan Dist.,
Shenzhen, China

Equipment Under Test (EUT)

Product Name: MATIGARD SMART ALARM SYSTEM

Brand Name: MatiGard

Model No.: G-1-ACC, G2-1-ACC, G3-1-ACC, Gfence-ACC, Mini-1-ACC,
AirX-ACC, I-ACC, X-1-ACC, X2-1-ACC

FCC ID: 2ADXQMTGACS

Applicable standards: FCC CFR Title 47 Part 15 Subpart C Section 15.231:2013

Date of sample receipt: February 27, 2015

Date of Test: February 27, 2015 To March 05, 2015

Date of report issue: March 05, 2015

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."



1 Version

Version No.	Date	Description
00	March 05, 2015	Original

Prepared by:

Date:

March 05, 2015

Project Engineer

Reviewed by:

Date:

March 05, 2015

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.ebotech.cn> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.ebotech.cn>. 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."



2 Contents

Page

1	VERSION	2
2	CONTENTS	3
3	TEST SUMMARY	4
4	GENERAL INFORMATION	5
4.1	CLIENT INFORMATION	5
4.2	GENERAL DESCRIPTION OF EUT	5
4.3	TEST MODE	5
4.4	DESCRIPTION OF SUPPORT UNITS	6
4.5	TEST FACILITY	6
4.6	TEST LOCATION	6
5	TEST INSTRUMENTS LIST	7
6	TEST RESULTS AND MEASUREMENT DATA	8
6.1	ANTENNA REQUIREMENT:	8
6.2	RADIATED EMISSION	9
6.2.1	Field Strength Of The Fundamental Signal	11
6.2.2	Spurious Emissions	12
6.3	20dB BANDWIDTH	15
6.4	RELEASE TIME	16
7	TEST SETUP PHOTO	17
8	EUT CONSTRUCTIONAL DETAILS	17

This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.ebotech.cn> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.ebotech.cn>. 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."



3 Test Summary

Test Item	Section in CFR 47	Result
Antenna requirement	15.203	Pass
Field strength of the fundamental signal	15.231 (b)	Pass
Spurious emissions	15.231 (b)/15.209	Pass
20Db Bandwidth	15.231 ©	Pass
Release time	15.231 (a)(2)	Pass
Silent Period	15.231 (e)	N/A

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



4 General Information

4.1 Client Information

Applicant:	SHENZHEN DINSAFE INTELLIGENCE TECHNOLOGY CO., LTD
Address of Applicant:	Room 721, Zone A Of Hua Mei Ju, Xin Hu Rd., Baoan Dist., Shenzhen, China
Manufacturer:	SHENZHEN DINSAFE INTELLIGENCE TECHNOLOGY CO., LTD
Address of Manufacturer:	Room 721, Zone A Of Hua Mei Ju, Xin Hu Rd., Baoan Dist., Shenzhen, China
Factory:	SHENZHEN DINSAFE INTELLIGENCE TECHNOLOGY CO., LTD
Address of Factory:	Room 721, Zone A Of Hua Mei Ju, Xin Hu Rd., Baoan Dist., Shenzhen, China

4.2 General Description of EUT

Product Name:	MATIGARD SMART ALARM SYSTEM
Brand Name:	MatiGard
Model No.:	G-1-ACC, G2-1-ACC, G3-1-ACC, Gfence-ACC, Mini-1-ACC, AirX-ACC, I-ACC, X-1-ACC, X2-1-ACC
Test Model No.:	AirX
Operation Frequency:	433.93MHz
Modulation type:	ASK
Antenna Type:	integral antenna
Antenna gain:	0dBi
Power supply:	TX: DC 1.5V ("AAA" battery)

4.3 Test mode

Transmitting mode:	Keep the EUT in transmitting mode.
Remark:	During the test, the new batteries were used.

Per-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)	80.63	83.49	81.15

We have verified the construction and function in typical operation. All the test modes were carried out with the EUT in transmitting operation, which was shown in this test report and defined as follows:

Per-scan all kind of data encoding and found the data encoding in CH4 is the worst case.

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)

This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.eботek.cn> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.eботek.cn>. 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."



4.4 Description of Support Units

None.

4.5 Test Facility

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

- **CNAS —Registration No.: CNAS L5775**

CNAS has accredited Global United Technology Services Co., Ltd. to ISO/IEC 17025 General Requirements for the competence of testing and calibration laboratories (CNAS-CL01 Accreditation Criteria for the Competence of Testing and Calibration Laboratories) for the competence in the field of testing.

- **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 28, 2013.

- **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, June 26, 2013

4.6 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



5 Test Instruments list

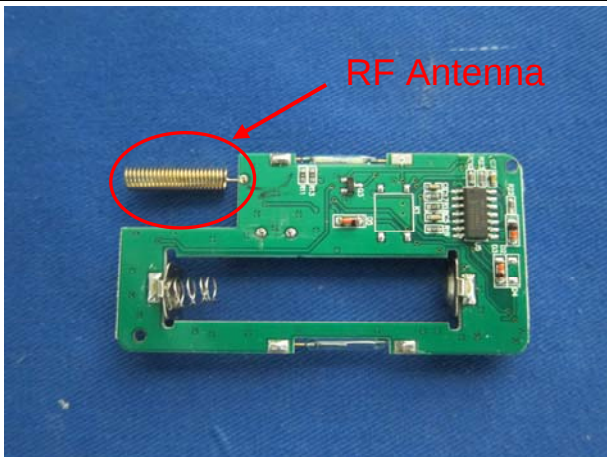
Radiated Emission:						
Item	Test Equipment	Manufacturer	Model No.	Inventory No.	Cal.Date (mm-dd-yy)	Cal.Due date (mm-dd-yy)
1	3m Semi- Anechoic Chamber	ZhongYu Electron	9.2(L)*6.2(W)*6.4(H)	GTS250	Mar. 29 2014	Mar. 28 2015
2	Control Room	ZhongYu Electron	6.2(L)*2.5(W)*2.4(H)	GTS251	N/A	N/A
3	Spectrum Analyzer	Agilent	E4440A	GTS533	Jul. 01 2014	Jun 30 2015
4	EMI Test Receiver	Rohde & Schwarz	ESU26	GTS203	Jul. 01 2014	Jun 30 2015
5	BiConiLog Antenna	SCHWARZBECK MESS- ELEKTRONIK	VULB9163	GTS214	Jul. 01 2014	Jun 30 2015
6	Double -ridged waveguide horn	SCHWARZBECK MESS- ELEKTRONIK	9120D-829	GTS208	June 27 2014	June 26 2015
7	Horn Antenna	ETS-LINDGREN	3160	GTS217	Mar. 28 2014	Mar. 27 2015
8	EMI Test Software	AUDIX	E3	N/A	N/A	N/A
9	Coaxial Cable	GTS	N/A	GTS213	Mar. 29 2014	Mar. 28 2015
10	Coaxial Cable	GTS	N/A	GTS211	Mar. 29 2014	Mar. 28 2015
11	Coaxial cable	GTS	N/A	GTS210	Mar. 29 2014	Mar. 28 2015
12	Coaxial Cable	GTS	N/A	GTS212	Mar. 29 2014	Mar. 28 2015
13	Amplifier(100kHz-3GHz)	HP	8347A	GTS204	Jul. 01 2014	Jun. 30, 2015
14	Amplifier(2GHz-20GHz)	HP	8349B	GTS206	Jul. 01 2014	Jun. 30, 2015
15	Amplifier (18-26GHz)	Rohde & Schwarz	AFS33-18002 650-30-8P-44	GTS218	June 27 2014	June 26 2015
16	Band filter	Amindeon	82346	GTS219	Mar. 29 2014	Mar. 28 2015
17	Power Meter	Anritsu	ML2495A	GTS540	July 01 2014	June 30 2015
18	Power Sensor	Anritsu	MA2411B	GTS541	July 01 2014	June 30 2015

This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.ebotech.cn> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.ebotech.cn>. 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."



6 Test results and Measurement Data

6.1 Antenna requirement:

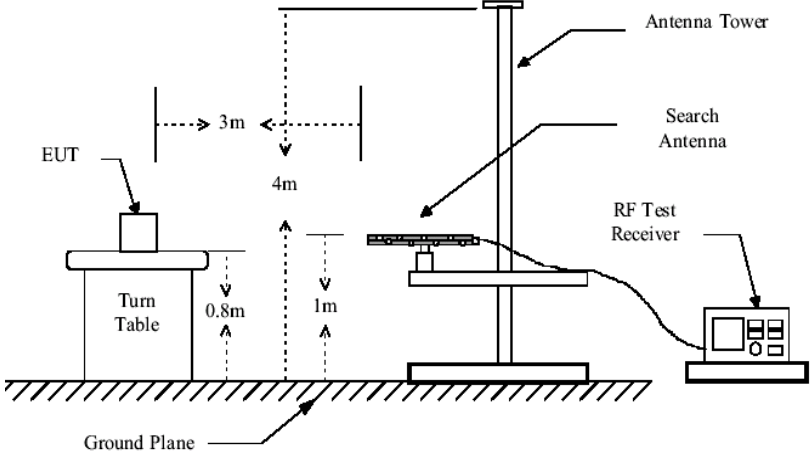
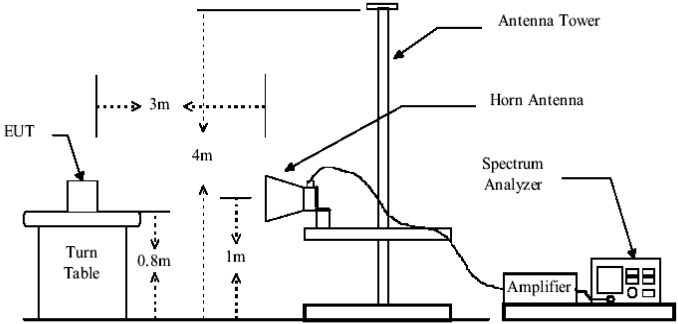
Standard requirement:	FCC Part15 C Section 15.203
15.203 requirement: An intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. The use of a permanently attached antenna or of an antenna that uses a unique coupling 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.	
E.U.T Antenna:	
The EUT make use of an integral antenna, The antenna gain is 0dBi.	
	



6.2 Radiated Emission

Test Requirement:	FCC Part15 C Section 15.231(b) and 15.209																														
Test Method:	ANSI C63.4:2009																														
Test Frequency Range:	30MHz to 5000MHz																														
Test site:	Measurement Distance: 3m (Semi-Anechoic Chamber)																														
Receiver setup:	<table><tr><td>Frequency</td><td>Detector</td><td>RBW</td><td>VBW</td><td>Remark</td></tr><tr><td>30MHz-1GHz</td><td>Quasi-peak</td><td>120KHz</td><td>300KHz</td><td>Quasi-peak Value</td></tr><tr><td>Above 1GHz</td><td>Peak</td><td>1MHz</td><td>3MHz</td><td>Peak Value</td></tr></table>					Frequency	Detector	RBW	VBW	Remark	30MHz-1GHz	Quasi-peak	120KHz	300KHz	Quasi-peak Value	Above 1GHz	Peak	1MHz	3MHz	Peak Value											
Frequency	Detector	RBW	VBW	Remark																											
30MHz-1GHz	Quasi-peak	120KHz	300KHz	Quasi-peak Value																											
Above 1GHz	Peak	1MHz	3MHz	Peak Value																											
Limit: (Field strength of the fundamental signal)	<table><tr><td colspan="2">Frequency</td><td>Limit (dBuV/m @3m)</td><td>Remark</td></tr><tr><td colspan="2" rowspan="2">433.93 MHz</td><td>80.80</td><td>Average Value</td></tr><tr><td>100.80</td><td>Peak Value</td></tr></table>					Frequency		Limit (dBuV/m @3m)	Remark	433.93 MHz		80.80	Average Value	100.80	Peak Value																
Frequency		Limit (dBuV/m @3m)	Remark																												
433.93 MHz		80.80	Average Value																												
		100.80	Peak Value																												
Limit: (Spurious Emissions)	<table><tr><td colspan="2">Frequency</td><td>Limit (dBuV/m @3m)</td><td>Remark</td></tr><tr><td colspan="2">30MHz-88MHz</td><td>40.0</td><td>Quasi-peak Value</td></tr><tr><td colspan="2">88MHz-216MHz</td><td>43.5</td><td>Quasi-peak Value</td></tr><tr><td colspan="2">216MHz-960MHz</td><td>46.0</td><td>Quasi-peak Value</td></tr><tr><td colspan="2">960MHz-1GHz</td><td>54.0</td><td>Quasi-peak Value</td></tr><tr><td colspan="2" rowspan="2">Above 1GHz</td><td>54.0</td><td>Average Value</td></tr><tr><td>74.0</td><td>Peak Value</td></tr></table> Or The maximum permitted unwanted emission level is 20 dB below the maximum permitted fundamental level whichever limit permits a higher field strength.					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
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																												
Test Procedure:	a. The EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 meter semi-anechoic camber. The table was rotated 360 degrees to determine the position of the highest radiation. b. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower. c. 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. d. 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 rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading. e. The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode. f. 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																														

This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.ebotech.cn> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.ebotech.cn>. 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."

Test setup:	sheet. Below 1GHz  Above 1GHz 
Test Instruments:	Refer to section 6.0 for details
Test mode:	Refer to section 5.3 for details
Test results:	Pass

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.ebotech.cn> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.ebotech.cn>. 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."



6.2.1 Field Strength Of The Fundamental Signal

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
433.93	88.36	17.53	3.02	31.77	77.14	100.80	-23.66	Horizontal
433.93	94.71	17.53	3.02	31.77	83.49	100.80	-17.31	Vertical

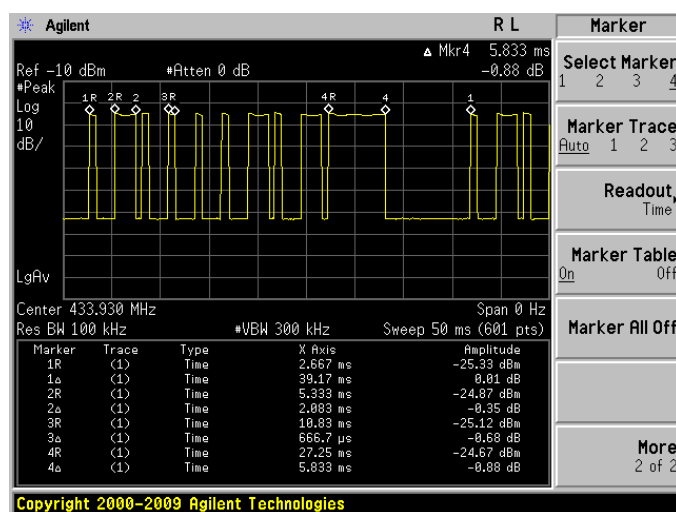
Average value:

Frequency (MHz)	Peak Value (dBuV/m)	Duty cycle factor	Average value (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
433.93	77.14	-7.73	69.41	80.80	-11.39	Horizontal
433.93	83.49	-7.73	75.76	80.80	-5.04	Vertical

Average value=Peak Value + Duty cycle factor

Duty cycle factor	
Calculate Formula:	Duty cycle factor=20 log(Duty cycle) Duty cycle= T on time / T period
Test data:	Ton time = 3*2.083ms+6*0.667ms+5.833ms=16.08ms
	T period =39.17ms
	Duty cycle= 41.06%
	duty cycle factor= -7.73

Test plot as follows:



This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.ebotech.cn> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.ebotech.cn>. 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."



6.2.2 Spurious Emissions

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
33.52	41.13	14.32	0.58	32.06	23.97	40.00	-16.03	Vertical
58.92	41.28	14.73	0.86	31.94	24.93	40.00	-15.07	Vertical
96.99	40.44	14.90	1.16	31.74	24.76	43.50	-18.74	Vertical
155.18	44.84	10.51	1.60	32.00	24.95	43.50	-18.55	Vertical
45.20	39.37	15.56	0.71	32.02	23.62	40.00	-16.38	Horizontal
57.47	40.02	14.80	0.84	31.94	23.72	40.00	-16.28	Horizontal
111.80	40.53	14.15	1.28	31.81	24.15	43.50	-19.35	Horizontal
198.56	40.03	12.57	1.84	32.14	22.30	43.50	-21.20	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.ebotech.cn> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.ebotech.cn>. 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."



Harmonic emissions

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
867.86	59.08	22.78	4.74	31.22	55.38	80.80	-25.42	Vertical
1301.79	61.80	25.63	4.54	33.27	58.70	74.00	-15.30	Vertical
1735.72	48.63	25.05	4.82	34.00	44.50	80.80	-36.30	Vertical
2169.65	58.54	27.67	5.15	34.27	57.09	80.80	-23.71	Vertical
2603.58	49.63	27.82	5.58	33.78	49.25	80.80	-31.55	Vertical
3037.51	50.91	28.61	6.02	33.28	52.26	80.80	-28.54	Vertical
3471.44	43.44	28.90	6.91	32.79	46.46	80.80	-34.34	Vertical
3905.37	47.31	29.52	7.71	32.29	52.25	74.00	-21.75	Vertical
4339.30	40.12	30.88	8.19	31.86	47.33	74.00	-26.67	Vertical
867.86	53.98	22.78	4.74	31.22	50.28	80.80	-30.52	Horizontal
1301.79	46.94	25.63	4.54	33.27	43.84	74.00	-30.16	Horizontal
1735.72	43.20	25.05	4.82	34.00	39.07	80.80	-41.73	Horizontal
2169.65	48.62	27.67	5.15	34.27	47.17	80.80	-33.63	Horizontal
2603.58	44.69	27.82	5.58	33.78	44.31	80.80	-36.49	Horizontal
3037.51	50.15	28.61	6.02	33.28	51.50	80.80	-29.30	Horizontal
3471.44	42.67	28.90	6.91	32.79	45.69	80.80	-35.11	Horizontal
3905.37	47.12	29.52	7.71	32.29	52.06	74.00	-21.94	Horizontal
4339.30	40.97	30.88	8.19	31.86	48.18	74.00	-25.82	Horizontal



Average value:

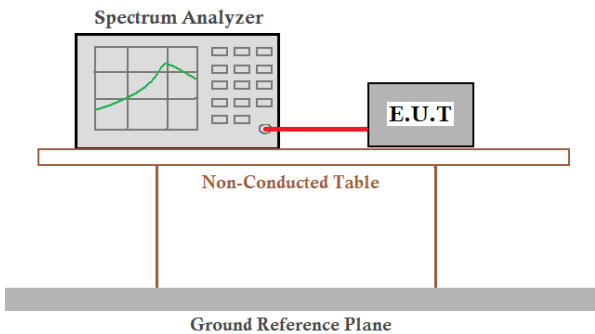
Frequency (MHz)	Level (dBuV/m)	Duty cycle factor	Average value (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
867.86	55.38	-7.73	47.65	60.80	-13.15	Vertical
1301.79	58.70	-7.73	50.97	54.00	-3.03	Vertical
1735.72	44.50	-7.73	36.77	60.80	-24.03	Vertical
2169.65	57.09	-7.73	49.36	60.80	-11.44	Vertical
2603.58	49.25	-7.73	41.52	60.80	-19.28	Vertical
3037.51	52.26	-7.73	44.53	60.80	-16.27	Vertical
3471.44	46.46	-7.73	38.73	60.80	-22.07	Vertical
3905.37	52.25	-7.73	44.52	54.00	-9.48	Vertical
4339.30	47.33	-7.73	39.60	54.00	-14.40	Vertical
867.86	50.28	-7.73	42.55	60.80	-18.25	Horizontal
1301.79	43.84	-7.73	36.11	54.00	-17.89	Horizontal
1735.72	39.07	-7.73	31.34	60.80	-29.46	Horizontal
2169.65	47.17	-7.73	39.44	60.80	-21.36	Horizontal
2603.58	44.31	-7.73	36.58	60.80	-24.22	Horizontal
3037.51	51.50	-7.73	43.77	60.80	-17.03	Horizontal
3471.44	45.69	-7.73	37.96	60.80	-22.84	Horizontal
3905.37	52.06	-7.73	44.33	54.00	-9.67	Horizontal
4339.30	48.18	-7.73	40.45	54.00	-13.55	Horizontal

Remark:

1. *Final Level = Receiver Read level + Antenna Factor + Cable Loss – Preamplifier Factor*
2. *Average value = Peak value + Duty cycle factor*



6.3 20dB Bandwidth

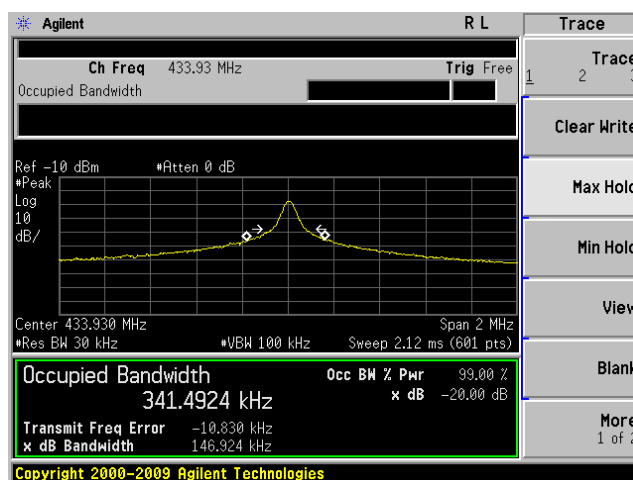
Test Requirement:	FCC Part15 C Section 15.231 (c)
Test Method:	ANSI C63.4:2009
Limit:	The bandwidth of the emission shall be no wider than 0.25% of the center frequency for devices operating above 70 MHz and below 900 MHz For devices operating above 900 MHz, the emission shall be no wider than 0.5% of the center frequency. Bandwidth is determined at the points 20 dB down from the modulated carrier.
Test setup:	
Test Instruments:	Refer to section 6.0 for details
Test mode:	Refer to section 5.3 for details
Test results:	Pass

Measurement Data

Test Frequency (MHz)	20dB bandwidth (MHz)	Limit (MHz)	Result
433.93	0.147	1.08MHz	Pass

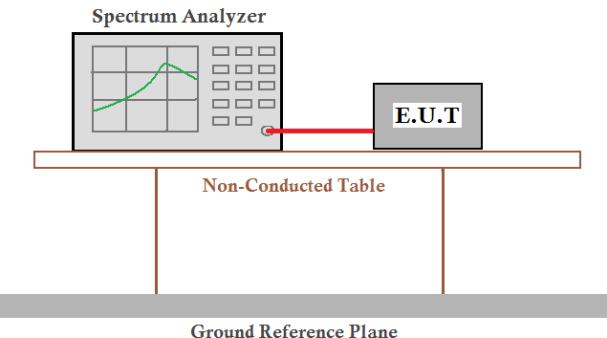
Note: Limit= Fundamental frequency $\times$ 0.25%=433.93 $\times$ 0.25%=1.08MHz

Test plot as follows:



This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.ebotech.cn> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.ebotech.cn>. 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."

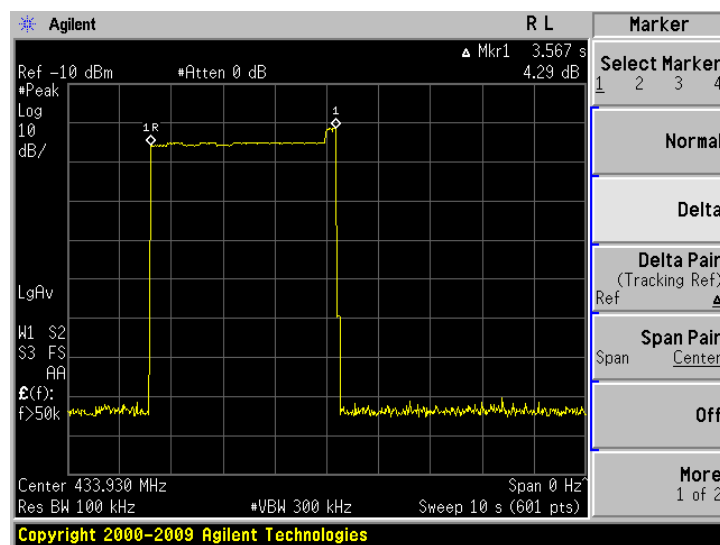
6.4 Release time

Test Requirement:	FCC Part15 C Section 15.231 (a)(2)
Test Method:	ANSI C63.4:2009
Receiver setup:	RBW=100KHz, VBW=300KHz, span=0Hz, detector: Peak
Limit:	Not more than 5 seconds
Test setup:	 The diagram illustrates the test setup. A Spectrum Analyzer is connected via a red cable to an Equipment Under Test (E.U.T.). Both are placed on a Non-Conducted Table. Below the table is a Ground Reference Plane. The Spectrum Analyzer's screen shows a green curve on a grid.
Test Instruments:	Refer to section 6.0 for details
Test mode:	Refer to section 5.3 for details
Test results:	Pass

Measurement data:

Dwell time (second)	Limit (second)	Result
3.567	<5.0	Pass

Test plot as follows:



This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.ebotech.cn> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.ebotech.cn>. 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 Setup Photo

Refer to test setup photos.

8 EUT Constructional Details

Refer to EUT external and internal photos.

-----End-----