

# TEST REPORT

**Applicant:** Shenzhen Macross Industrial Co., Ltd.

**Address of Applicant:** 3rd floor,#5 Building,Jianghao Technology Park #430 Jihua Rd.Bantian St.Longgang District Shenzhen, Guangdong,China

**Manufacturer/Factory:** Shenzhen Macross Industrial Co., Ltd.

**Address of Manufacturer/Factory:** 3rd floor,#5 Building,Jianghao Technology Park #430 Jihua Rd.Bantian St.Longgang District Shenzhen, Guangdong,China

**Equipment Under Test (EUT)**

**Product Name:** Wireless Solar Driveway Alarm

**Model No.:** Receiver: MC-004A

Transmitter: MC-004B

**Trade Mark:** eMACROS

**FCC ID:** 2AJEM-MC004

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

**Date of sample receipt:** January 13, 2020

**Date of Test:** January 14, 2020-March 12, 2020

**Date of report issued:** March 13, 2020

**Test Result :** PASS \*

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

Authorized Signature:

  
A handwritten signature in black ink, appearing to read "Robinson Lo". To the left of the signature is a circular blue stamp with the text "GTS" in the center, surrounded by "GLOBAL TECHNOLOGY SERVICES" and "TESTING". Below the stamp, the date "2020" and the name "Robinson Lo" are handwritten.

**Robinson Lo**  
**Laboratory Manager**

This results shown in this test report refer only to the sample(s) tested, this test report cannot be reproduced, except in full, without prior written permission of the company. The report would be invalid without specific stamp of test institute and the signatures of compiler and approver.

## 2 Version

Version No.	Date	Description
00	March 13, 2020	Original

Prepared By:

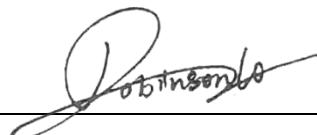


Date:

March 13, 2020

Project Engineer

Check By:



Date:

March 13, 2020

Reviewer

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## 4 Test Summary

Test Item	Section in CFR 47	Result
Antenna requirement	15.203	Pass
Conduction Emission	15.207	Pass
Field strength of the fundamental signal	15.231(e)	Pass
Spurious emissions	15.231(e) &15.209	Pass
20dB Bandwidth	15.231(c)	Pass
Dwell time	15.231(e)	Pass

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

### 4.1 Measurement Uncertainty

Test Item	Frequency Range	Measurement Uncertainty	Notes
Radiated Emission	30MHz-200MHz	3.8039dB	(1)
Radiated Emission	200MHz-1GHz	3.9679dB	(1)
Radiated Emission	1GHz-18GHz	4.29dB	(1)
Radiated Emission	18GHz-40GHz	3.30dB	(1)
AC Power Line Conducted Emission	0.15MHz ~ 30MHz	3.44dB	(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:	Wireless Solar Driveway Alarm
Model No.:	Receiver: MC-004A Transmitter: MC-004B
Serial No.:	N/A
Test sample(s) ID:	GTS202001000057-1
Sample(s) Status	Engineer sample
Operation Frequency:	433.92MHz
Number of Channels:	1
Modulation type:	FSK
Antenna Type:	Integral Antenna
Antenna gain:	0dBi(Max)
Power supply:	TX battery: DC 3.7V, 2000mAh, 7.4Wh or adapter RX battery: DC 6V(4*1.5V AA size battery) or adapter AC/DC ADAPTER: Model: JHD-AP006U-050100BB-2 Input: AC100-240V, 50-60Hz, 0.2A Output: DC 5V, 1000mA

## 5.2 Test mode

Transmitting mode	Keep the EUT in transmitting mode.
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### 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:

433.92MHz	Axis	X	Y	Z
	Field Strength(dBuV/m)	68.34	69.87	67.21

### Final Test Mode:

According to ANSI C63.10 standards, the test results are both the “worst case” and “worst setup”: Y axis (see the test setup photo)

## 5.3 Test Facility

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

- **FCC —Registration No.: 381383**

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 381383.

- **IC —Registration No.: 9079A**

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

- **NVLAP (LAB CODE:600179-0)**

Global United Technology Services Co., Ltd., is accredited by the National Voluntary Laboratory Accreditation Program (NVLAP). LAB CODE:600179-0

## 5.4 Test Location

All tests were performed at:

Global United Technology Services Co., Ltd.  
No. 123- 128, Tower A, Jinyuan Business Building, No.2, Laodong Industrial Zone,  
Xixiang Road, Baoan District, Shenzhen, Guangdong, China 518102  
Tel: 0755-27798480  
Fax: 0755-27798960

## 5.5 Description of Support Units

None.

## 5.6 Deviation from Standards

None.

## 5.7 Abnormalities from Standard Conditions

None.

## 5.8 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	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	EMI Test Receiver	Rohde & Schwarz	ESU26	GTS203	June. 26 2019	June. 25 2020
4	BiConiLog Antenna	SCHWARZBECK MESS-ELEKTRONIK	VULB9163	GTS214	June. 26 2019	June. 25 2020
5	Double -ridged waveguide horn	SCHWARZBECK MESS-ELEKTRONIK	BBHA 9120 D	GTS208	June. 26 2019	June. 25 2020
6	Horn Antenna	ETS-LINDGREN	3160	GTS217	June. 26 2019	June. 25 2020
7	EMI Test Software	AUDIX	E3	N/A	N/A	N/A
8	Coaxial Cable	GTS	N/A	GTS213	June. 26 2019	June. 25 2020
9	Coaxial Cable	GTS	N/A	GTS211	June. 26 2019	June. 25 2020
10	Coaxial cable	GTS	N/A	GTS210	June. 26 2019	June. 25 2020
11	Coaxial Cable	GTS	N/A	GTS212	June. 26 2019	June. 25 2020
12	Amplifier(100kHz-3GHz)	HP	8347A	GTS204	June. 26 2019	June. 25 2020
13	Amplifier(2GHz-20GHz)	HP	84722A	GTS206	June. 26 2019	June. 25 2020
14	Amplifier (18-26GHz)	Rohde & Schwarz	AFS33-18002 650-30-8P-44	GTS218	June. 26 2019	June. 25 2020
15	Band filter	Amindeon	82346	GTS219	June. 26 2019	June. 25 2020
16	Power Meter	Anritsu	ML2495A	GTS540	June. 26 2019	June. 25 2020
17	Power Sensor	Anritsu	MA2411B	GTS541	June. 26 2019	June. 25 2020
18	Wideband Radio Communication Tester	Rohde & Schwarz	CMW500	GTS575	June. 26 2019	June. 25 2020
19	Splitter	Agilent	11636B	GTS237	June. 26 2019	June. 25 2020
20	Loop Antenna	ZHINAN	ZN30900A	GTS534	June. 26 2019	June. 25 2020
21	Breitband hornantenne	SCHWARZBECK	BBHA 9170	GTS579	Oct. 19 2019	Oct. 18 2020
22	Amplifier	TDK	PA-02-02	GTS574	Oct. 19 2019	Oct. 18 2020
23	Amplifier	TDK	PA-02-03	GTS576	Oct. 19 2019	Oct. 18 2020
24	PSA Series Spectrum Analyzer	Rohde & Schwarz	FSP	GTS578	June. 26 2019	June. 25 2020

Conducted Emission						
Item	Test Equipment	Manufacturer	Model No.	Inventory No.	Cal.Date (mm-dd-yy)	Cal.Due date (mm-dd-yy)
1	Shielding Room	ZhongYu Electron	7.3(L)x3.1(W)x2.9(H)	GTS252	May.15 2019	May.14 2022
2	EMI Test Receiver	R&S	ESCI 7	GTS552	June. 26 2019	June. 25 2020
3	Coaxial Switch	ANRITSU CORP	MP59B	GTS225	June. 26 2019	June. 25 2020
4	Artificial Mains Network	SCHWARZBECK MESS	NSLK8127	GTS226	June. 26 2019	June. 25 2020
5	Coaxial Cable	GTS	N/A	GTS227	N/A	N/A
6	EMI Test Software	AUDIX	E3	N/A	N/A	N/A
7	Thermo meter	KTJ	TA328	GTS233	June. 26 2019	June. 25 2020
8	Absorbing clamp	Elektronik-Feinmechanik	MDS21	GTS229	June. 26 2019	June. 25 2020
9	ISN	SCHWARZBECK	NTFM 8158	GTD565	June. 26 2019	June. 25 2020

RF Conducted Test:						
Item	Test Equipment	Manufacturer	Model No.	Serial No.	Cal.Date (mm-dd-yy)	Cal.Due date (mm-dd-yy)
1	MXA Signal Analyzer	Agilent	N9020A	GTS566	June. 26 2019	June. 25 2020
2	EMI Test Receiver	R&S	ESCI 7	GTS552	June. 26 2019	June. 25 2020
3	Spectrum Analyzer	Agilent	E4440A	GTS533	June. 26 2019	June. 25 2020
4	MXG vector Signal Generator	Agilent	N5182A	GTS567	June. 26 2019	June. 25 2020
5	ESG Analog Signal Generator	Agilent	E4428C	GTS568	June. 26 2019	June. 25 2020
6	USB RF Power Sensor	DARE	RPR3006W	GTS569	June. 26 2019	June. 25 2020
7	RF Switch Box	Shongyi	RFSW3003328	GTS571	June. 26 2019	June. 25 2020
8	Programmable Constant Temp & Humi Test Chamber	WEWON	WHTH-150L-40-880	GTS572	June. 26 2019	June. 25 2020

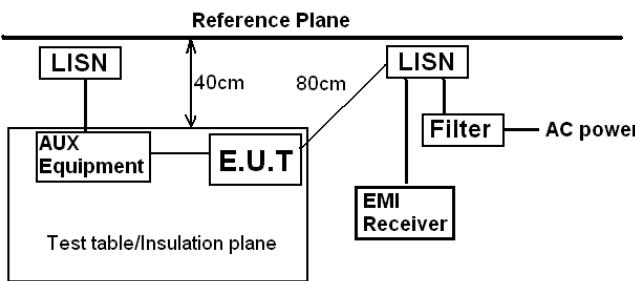
General used equipment:						
Item	Test Equipment	Manufacturer	Model No.	Inventory No.	Cal.Date (mm-dd-yy)	Cal.Due date (mm-dd-yy)
1	Humidity/ Temperature Indicator	KTJ	TA328	GTS243	June. 26 2019	June. 25 2020
2	Barometer	ChangChun	DYM3	GTS255	June. 26 2019	June. 25 2020

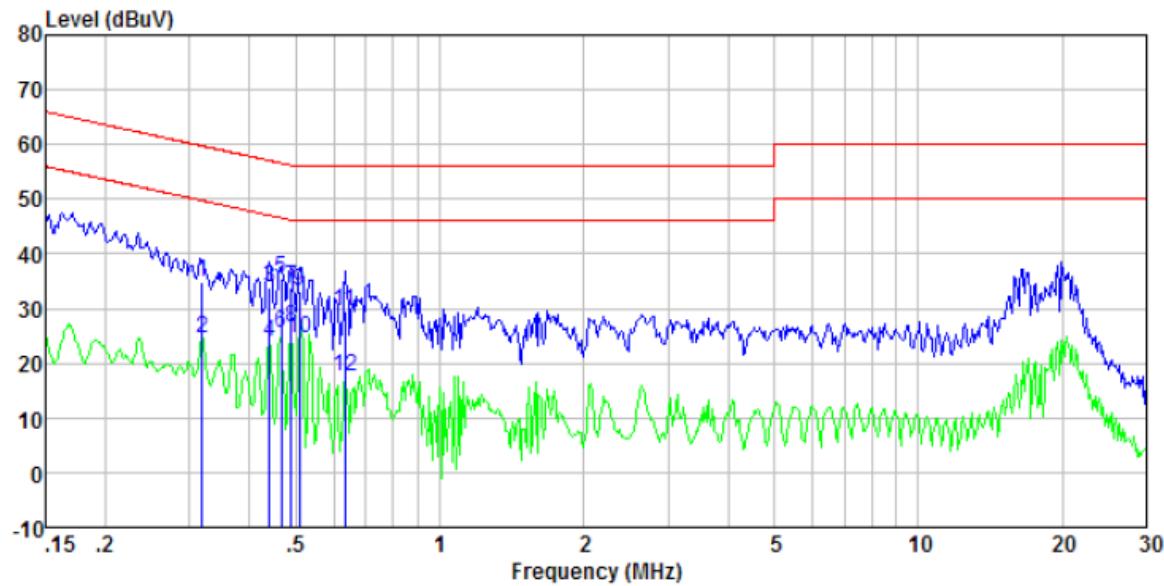
## 7 Test results and Measurement Data

### 7.1 Antenna requirement

<b>Standard requirement:</b>	FCC Part15 C Section 15.203
<b>15.203 requirement:</b>	
An intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator, the manufacturer may design the unit so that a broken antenna can be replaced by the user, but the use of a standard antenna jack or electrical connector is prohibited.	
<b>EUT Antenna:</b>	
The antenna is Integral antenna, the best case gain of the antenna is 0dBi, reference to the appendix II for details.	

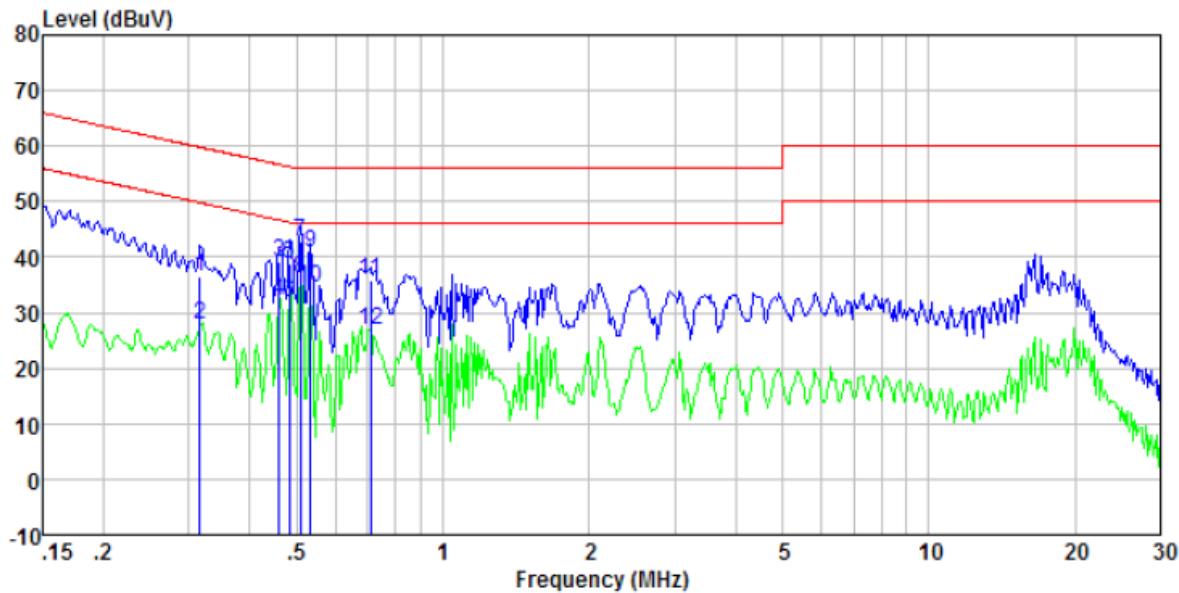
## 7.2 Conducted Emissions

Test Requirement:	FCC Part15 C Section 15.207																
Test Method:	ANSI C63.10:2013																
Test Frequency Range:	150KHz to 30MHz																
Class / Severity:	Class B																
Receiver setup:	RBW=9KHz, VBW=30KHz, Sweep time=auto																
Limit:	<table border="1"> <thead> <tr> <th rowspan="2">Frequency range (MHz)</th> <th colspan="2">Limit (dBuV)</th> </tr> <tr> <th>Quasi-peak</th> <th>Average</th> </tr> </thead> <tbody> <tr> <td>0.15-0.5</td> <td>66 to 56*</td> <td>56 to 46*</td> </tr> <tr> <td>0.5-5</td> <td>56</td> <td>46</td> </tr> <tr> <td>5-30</td> <td>60</td> <td>50</td> </tr> </tbody> </table>			Frequency range (MHz)	Limit (dBuV)		Quasi-peak	Average	0.15-0.5	66 to 56*	56 to 46*	0.5-5	56	46	5-30	60	50
Frequency range (MHz)	Limit (dBuV)																
	Quasi-peak	Average															
0.15-0.5	66 to 56*	56 to 46*															
0.5-5	56	46															
5-30	60	50															
	<small>* Decreases with the logarithm of the frequency.</small>																
Test setup:	 <p>Reference Plane</p> <p>LISN</p> <p>AUX Equipment</p> <p>E.U.T.</p> <p>Test table/Insulation plane</p> <p>EMI Receiver</p> <p>AC power</p> <p>Filter</p> <p>40cm</p> <p>80cm</p> <p>Remark: E.U.T: Equipment Under Test LISN: Line Impedance Stabilization Network Test table height=0.8m</p>																
Test procedure:	<ol style="list-style-type: none"> <li>1. The E.U.T and simulators are connected to the main power through a line impedance stabilization network (L.I.S.N.). This provides a 50ohm/50uH coupling impedance for the measuring equipment.</li> <li>2. The peripheral devices are also connected to the main power through a LISN that provides a 50ohm/50uH coupling impedance with 50ohm termination. (Please refer to the block diagram of the test setup and photographs).</li> <li>3. Both sides of A.C. line are checked for maximum conducted interference. In order to find the maximum emission, the relative positions of equipment and all of the interface cables must be changed according to ANSI C63.10:2013 on conducted measurement.</li> </ol>																
Test Instruments:	Refer to section 6.0 for details																
Test mode:	Refer to section 5.2 for details																
Test environment:	Temp.:	25 °C	Humid.:	50%	Press.:	1 010mbar											
Test voltage:	AC 120V																
Test results:	Pass																

**Measurement data:**
**Line:**


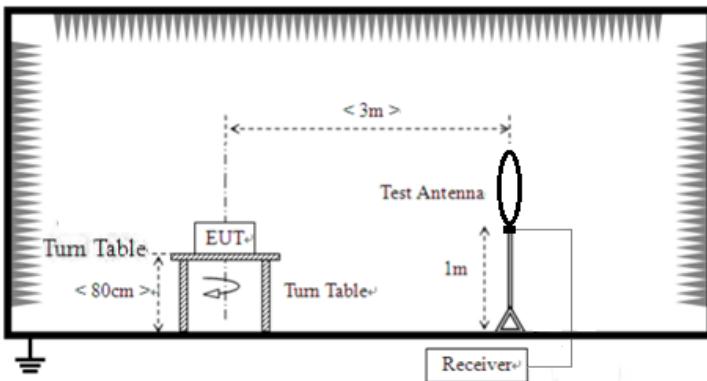
Freq MHz	Reading level dBuV	LISN/ISN factor dB/m	Cable loss dB	Level dBuV	Limit level dBuV	Over limit dB	Remark
0.32	34.34	0.39	0.10	34.83	59.75	-24.92	QP
0.32	23.98	0.39	0.10	24.47	49.75	-25.28	Average
0.44	33.45	0.34	0.11	33.90	57.07	-23.17	QP
0.44	23.30	0.34	0.11	23.75	47.07	-23.32	Average
0.47	35.18	0.33	0.11	35.62	56.58	-20.96	QP
0.47	25.22	0.33	0.11	25.66	46.58	-20.92	Average
0.49	33.54	0.32	0.11	33.97	56.19	-22.22	QP
0.49	26.08	0.32	0.11	26.51	46.19	-19.68	Average
0.51	32.81	0.31	0.11	33.23	56.00	-22.77	QP
0.51	24.27	0.31	0.11	24.69	46.00	-21.31	Average
0.63	29.22	0.28	0.12	29.62	56.00	-26.38	QP
0.63	17.02	0.28	0.12	17.42	46.00	-28.58	Average

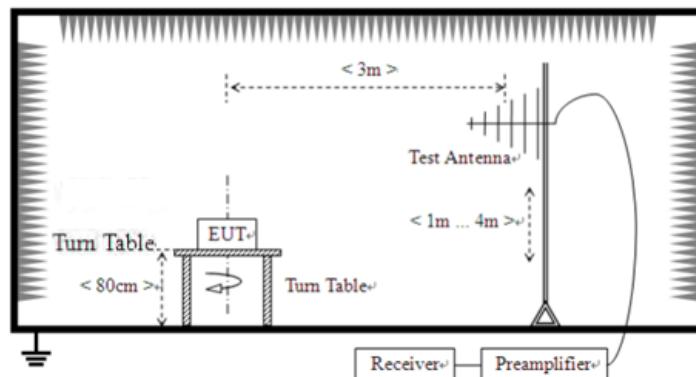
**Neutral:**



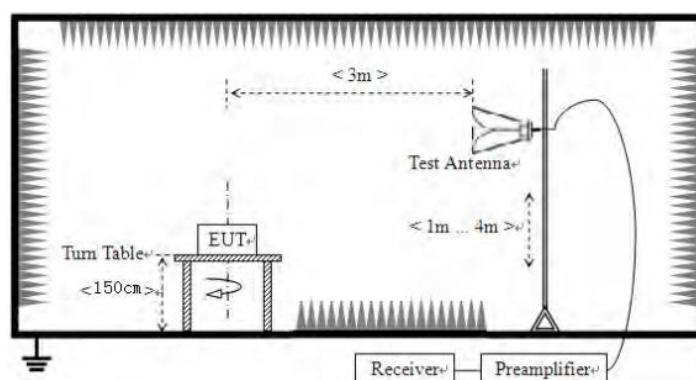
Freq MHz	Reading dBuV	LISN/ISN factor dB/m	Cable loss dB	Level dBuV	Limit level dBuV	Over limit dB	Remark
0.32	36.15	0.39	0.10	36.64	59.80	-23.16	QP
0.32	27.24	0.39	0.10	27.73	49.80	-22.07	Average
0.46	38.57	0.33	0.11	39.01	56.67	-17.66	QP
0.46	31.62	0.33	0.11	32.06	46.67	-14.61	Average
0.48	38.51	0.32	0.11	38.94	56.27	-17.33	QP
0.48	31.37	0.32	0.11	31.80	46.27	-14.47	Average
0.51	42.45	0.31	0.11	42.87	56.00	-13.13	QP
0.51	35.85	0.31	0.11	36.27	46.00	-9.73	Average
0.53	40.56	0.30	0.11	40.97	56.00	-15.03	QP
0.53	33.93	0.30	0.11	34.34	46.00	-11.66	Average
0.71	35.57	0.26	0.13	35.96	56.00	-20.04	QP
0.71	26.47	0.26	0.13	26.86	46.00	-19.14	Average

### 7.3 Radiated Emission Method

Test Requirement:	FCC Part15 C Section 15.209						
Test Method:	ANSI C63.10:2013						
Test Frequency Range:	9kHz to 6000MHz						
Test site:	Measurement Distance: 3m						
Receiver setup:	Frequency	Detector	RBW	VBW	Value		
	9KHz-150KHz	Quasi-peak	200Hz	600Hz	Quasi-peak		
	150KHz-30MHz	Quasi-peak	9KHz	30KHz	Quasi-peak		
	30MHz-1GHz	Quasi-peak	120KHz	300KHz	Quasi-peak		
	Above 1GHz	Peak	1MHz	3MHz	Peak		
	Above 1GHz	Peak	1MHz	10Hz	Average		
Limit: (Field strength of the fundamental signal)	Frequency	Limit (dBuV/m @3m)		Remark			
	433.92MHz	72.87		Average Value			
		92.87		Peak Value			
Limit: (Spurious Emissions)	Frequency	Limit (uV/m)	Value	Measurement Distance 3m			
	0.009MHz-0.490MHz	2400/F(KHz)	QP				
	0.490MHz-1.705MHz	24000/F(KHz)	QP				
	1.705MHz-30MHz	30	QP				
	30MHz-88MHz	100	QP				
	88MHz-216MHz	150	QP				
	216MHz-960MHz	200	QP				
	960MHz-1GHz	500	QP				
	Above 1GHz	500	Average				
		5000	Peak				
Or The maximum permitted unwanted emission level is 20 dB below the maximum permitted fundamental level whichever limit permits a higher field strength.							
Test setup:	Below 30MHz  Below 1GHz						



Above 1GHz


**Test Procedure:**

1. The EUT was placed on the top of a rotating table (0.8 meters for below 1GHz and 1.5 meters for above 1GHz) above the ground at a 3 meter chamber. 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 Instruments:**

Refer to section 6.0 for details

**Test mode:**

Refer to section 5.2 for details

**Test environment:**

Temp.:	25 °C	Humid.:	50%	Press.:	1 010mbar
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Test voltage:	AC 120V
Test results:	Pass

Measurement data:

### 7.3.1 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
433.92	86.52	16.03	3.02	37.52	68.05	72.87	-4.82	Horizontal
433.92	88.34	16.03	3.02	37.52	69.87	72.87	-3.00	Vertical

Remarks:

1. Final Level = Receiver Read level + Antenna Factor + Cable Loss – Preamplifier Factor
2. PK Value under PK limit more than 20db, then pass for AV value.

### 7.3.2 Spurious emissions

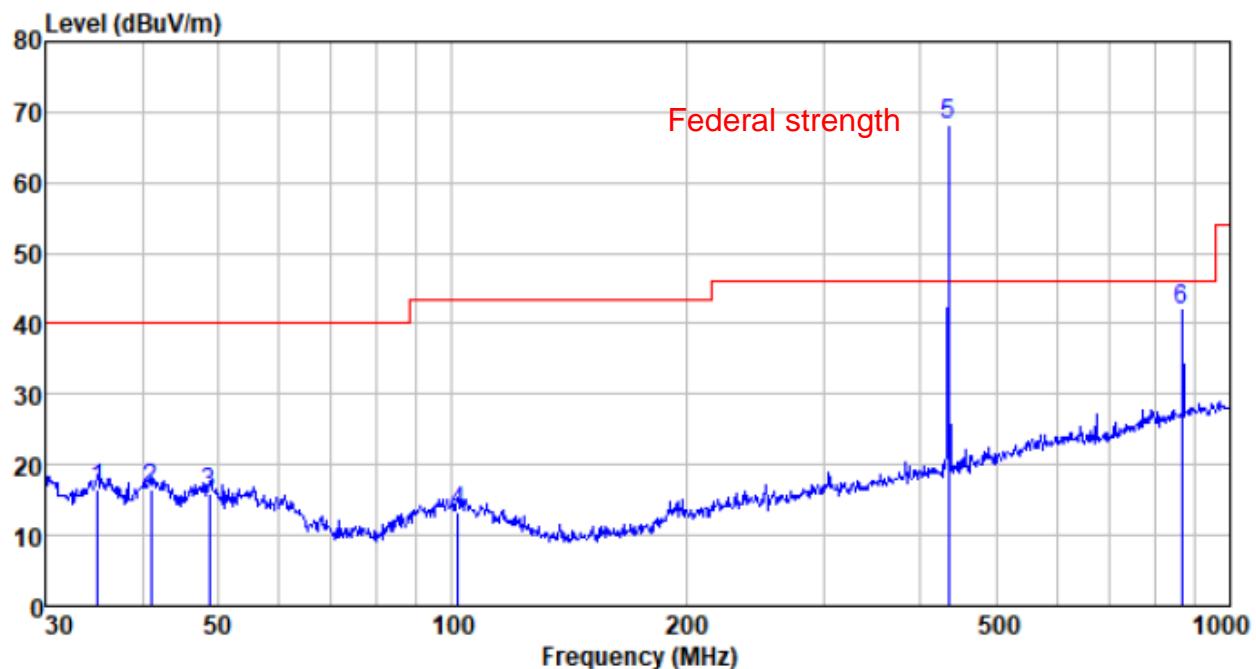
#### Measurement data:

##### 9 kHz ~ 30 MHz

The low frequency, which started from 9 kHz to 30 MHz, was pre-scanned and the result which was 20 dB lower than the limit line per 15.31(o) was not reported.

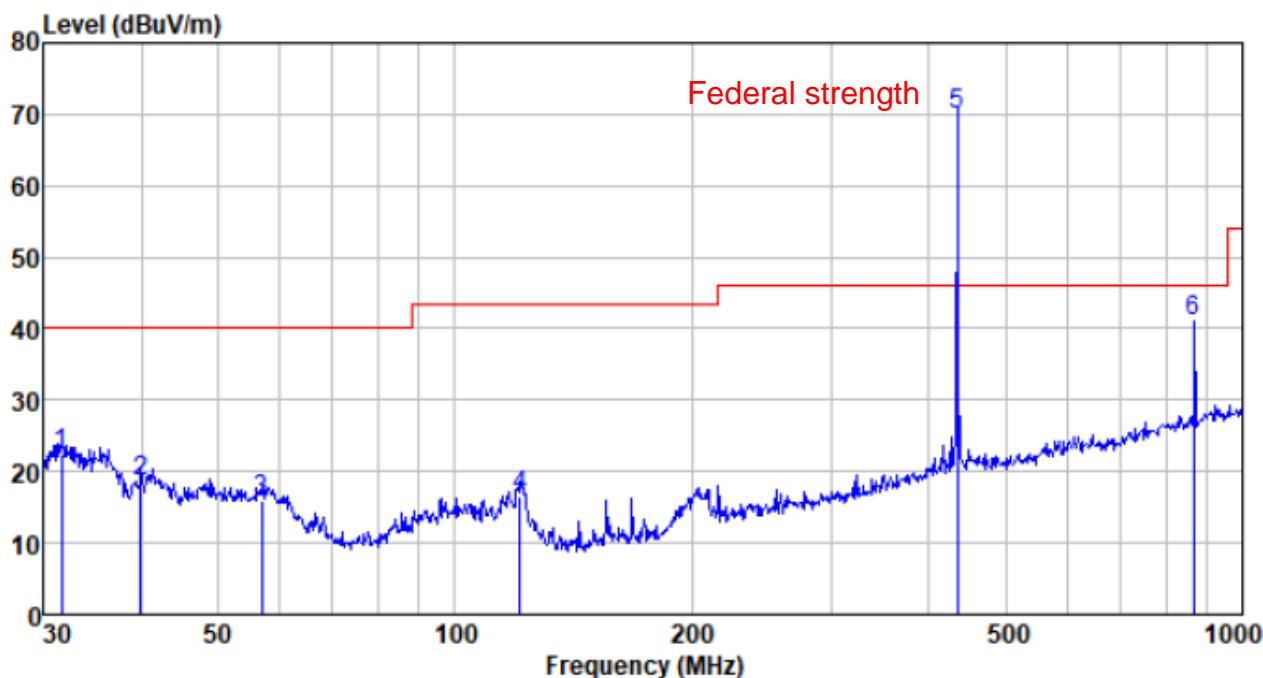
#### Below 1GHz:

Mode:	Transmitting mode	Polarization:	Horizontal
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Freq MHz	Reading level dBuV	Antenna factor dB/m	Cable loss dB	Preamp factor dB	level dBuV	Limit level dBuV/m	Over limit dB	Remark
35.005	40.08	11.33	0.61	35.36	16.66	40.00	-23.34	QP
40.988	39.24	12.21	0.67	35.72	16.40	40.00	-23.60	QP
48.672	38.87	12.29	0.76	36.12	15.80	40.00	-24.20	QP
101.644	36.75	11.99	1.21	36.73	13.22	43.50	-30.28	QP
<b>433.920</b>	<b>86.52</b>	<b>16.03</b>	<b>3.02</b>	<b>37.52</b>	<b>68.05</b>	<b>46.00</b>	<b>22.05</b>	<b>Peak</b>
867.840	52.65	22.02	4.73	37.61	41.79	46.00	-4.21	Peak

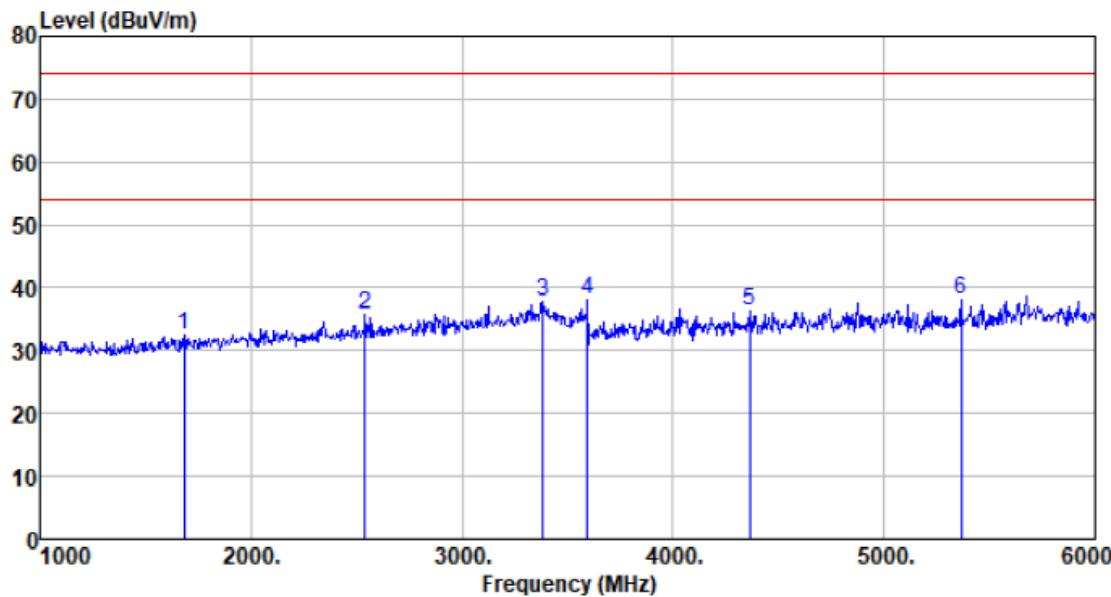
Mode:	Transmitting mode	Polarization:	Vertical
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Freq MHz	Reading level dBuV	Antenna factor dB/m	Cable loss dB	Preamp factor dB	level dBuV	Limit level dBuV/m	Over limit dB	Remark
31.620	45.62	11.23	0.57	35.12	22.30	40.00	-17.70	QP
39.854	41.29	12.20	0.66	35.66	18.49	40.00	-21.51	QP
56.792	39.77	11.60	0.83	36.28	15.92	40.00	-24.08	QP
121.123	42.63	9.35	1.37	36.89	16.46	43.50	-27.04	QP
<b>433.920</b>	<b>88.34</b>	<b>16.03</b>	<b>3.02</b>	<b>37.52</b>	<b>69.87</b>	<b>46.00</b>	<b>23.87</b>	<b>Peak</b>
867.840	51.97	22.02	4.73	37.61	41.11	46.00	-4.89	Peak

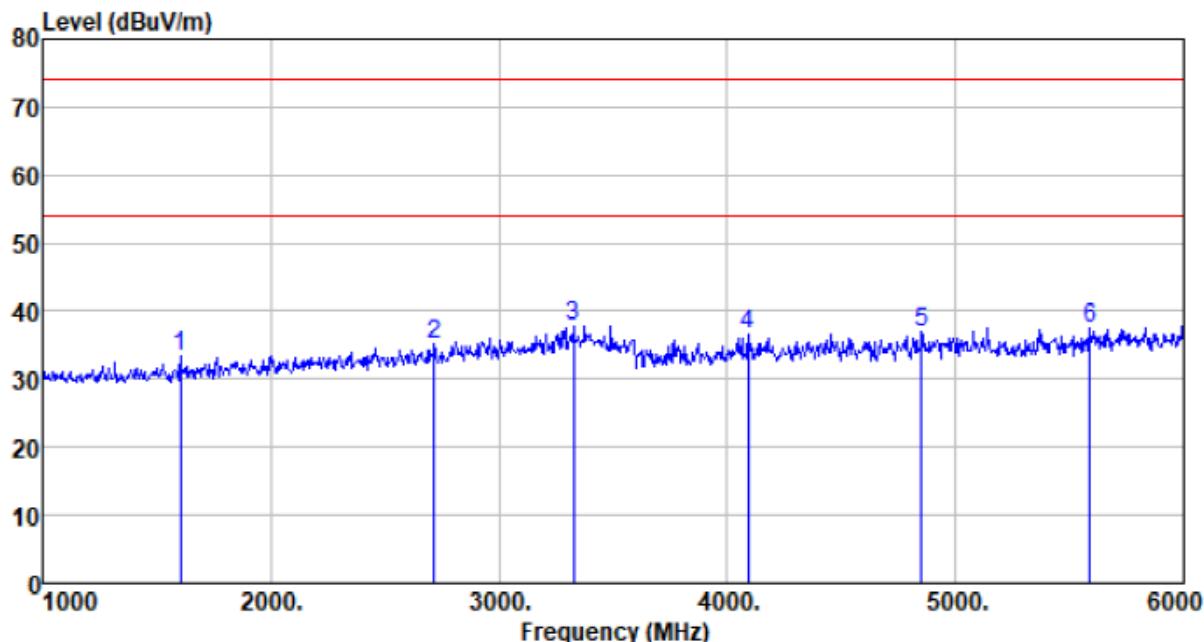
**Above 1G:**

<b>Mode:</b>	<b>Transmitting mode</b>	<b>Polarization:</b>	<b>Horizontal</b>
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Freq MHz	Reading dBuV	Antenna factor dB/m	Cable loss dB	Preamp factor dB	Level dBuV/m	Limit level dBuV/m	Over limit dB	Remark
1685.000	37.67	25.83	5.25	36.30	32.45	74.00	-41.55	Peak
2540.000	38.42	27.77	6.53	36.97	35.75	74.00	-38.25	Peak
3385.000	39.06	28.37	7.81	37.34	37.90	74.00	-36.10	Peak
3595.000	38.71	28.55	8.13	37.36	38.03	74.00	-35.97	Peak
4365.000	34.39	30.48	9.02	37.56	36.33	74.00	-37.67	Peak
5365.000	34.02	31.63	9.79	37.27	38.17	74.00	-35.83	Peak

Mode:	Transmitting mode	Polarization:	Vertical
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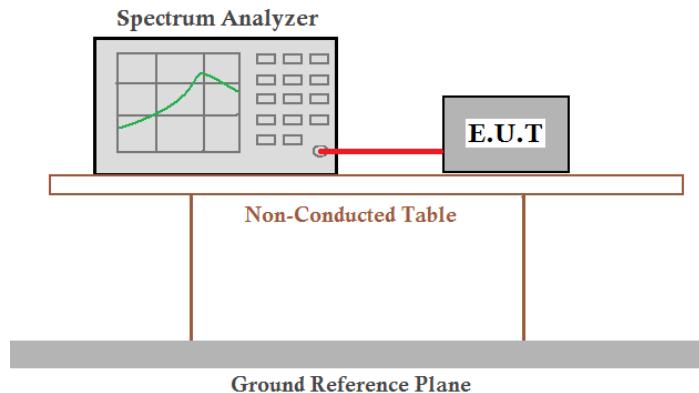


Freq MHz	Reading level dBuV	Antenna factor dB/m	Cable loss dB	Preamp factor dB	level dBuV/m	Limit level dBuV/m	Over limit dB	Remark
1605.000	38.75	25.69	5.12	36.25	33.31	74.00	-40.69	Peak
2715.000	37.28	28.09	6.79	37.11	35.05	74.00	-38.95	Peak
3325.000	39.15	28.40	7.72	37.34	37.93	74.00	-36.07	Peak
4090.000	35.28	29.82	8.81	37.44	36.47	74.00	-37.53	Peak
4850.000	33.82	31.43	9.40	37.74	36.91	74.00	-37.09	Peak
5590.000	32.81	31.82	9.97	36.96	37.64	74.00	-36.36	Peak

Remarks:

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

## 7.4 20dB Occupy Bandwidth

Test Requirement:	FCC Part15 C Section 15.231 (c)
Test Method:	ANSI C63.10:2013
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 900MHz. 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

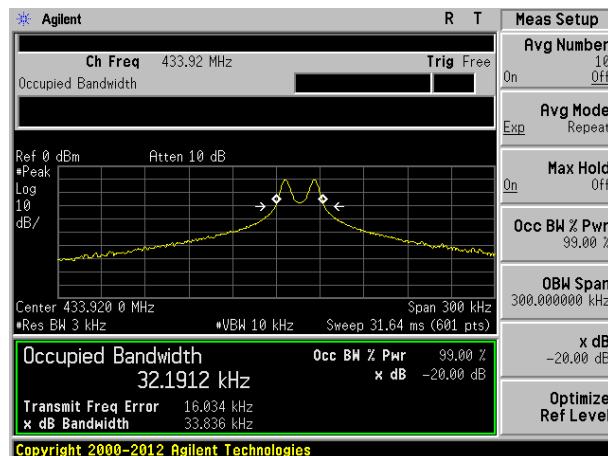
### Measurement Data

Test Frequency (MHz)	20dB bandwidth (MHz)	Limit (MHz)	Result
433.92	0.0338	1.0848	Pass

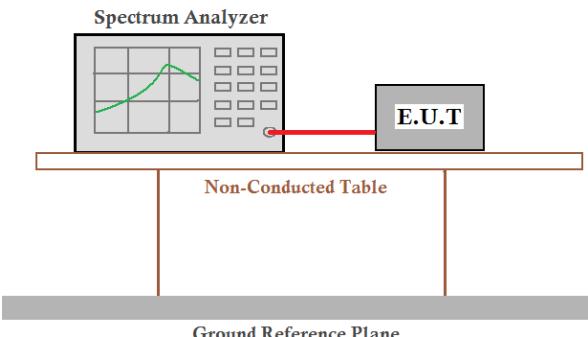
Note: Limit(433.92MHz)= Fundamental frequency $\times$ 0.25%=433.92 $\times$ 0.25%=1.0848MHz

Test plot as follows:

Test plot as follows:



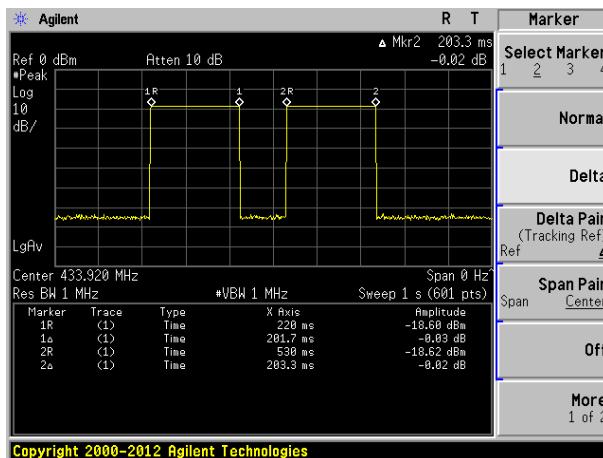
## 7.5 Dwell time

Test Requirement:	FCC Part15 C Section 15.231 (e)
Test Method:	ANSI C63.10:2013
Receiver setup:	RBW=1MHz, VBW=1MHz, span=0Hz, detector: Peak
Limit:	Not more than 1 seconds
Test setup:	<p style="text-align: center;"><b>Spectrum Analyzer</b></p>  <p style="text-align: center;">Non-Conducted Table</p> <p style="text-align: center;">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

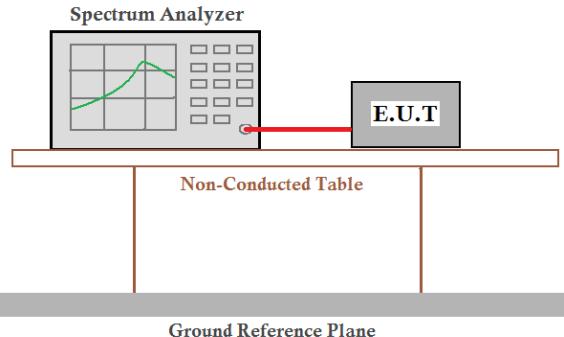
### Measurement data:

Test Frequency (MHz)	Duration of each TX (second)	Limit (second)	Result
433.92	0.405	<1.0	Pass

Test plot as follows:



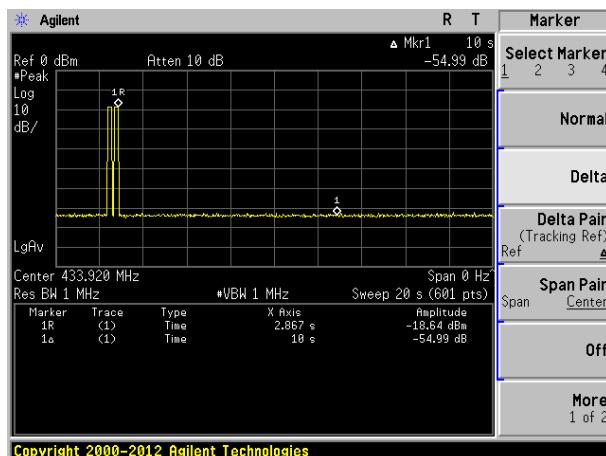
## 7.6 Silent period

Test Requirement:	FCC Part15 C Section 15.231 (e)
Test Method:	ANSI C63.10:2013
Receiver setup:	RBW=1MHz, VBW=1MHz, span=0Hz, detector: Peak
Limit:	at least 30 times the duration of the transmission or more than 10 seconds
Test Procedure:	<ol style="list-style-type: none"> <li>1. According to the follow Test-setup, keep the relative position between the artificial antenna and the EUT.</li> <li>2. Set the EUT to proper test channel.</li> <li>3. Single scan the transmit, and read the transmission time.</li> </ol>
Test setup:	
Test Instruments:	Refer to section 6.0 for details
Test mode:	Refer to section 5.2 for details
Test results:	Pass

### Measurement data:

Test Frequency (MHz)	Silent period (second)	Limit (second)	Result
433.92	>10	>10	Pass
Remark	The manufacturer declared that the silent time is 1 minutes in normal working condition.		

Test plot as follows:



## 8 Test Setup Photo

Reference to the **appendix I** for details.

## 9 EUT Constructional Details

Reference to the **appendix II** for details

----- End -----