EMTEK (Shenzhen) Co., Ltd.
Bldg 69, Majialong Industry Zone, Nanshan District, Shenzhen, Guangdong, China
www.emtek.com.cn Tel:+86-755-2695 4280 Fax:+86-755-2695 4282

Verification of Conformity

NO.: ES170913009E

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Applicant	:	HYSO LLC
Address	:	746 Gotham Parkway | Carlstadt, NJ 07072 USA
Manufacturer	:	Hana Electronic Ltd
Address	:	17/F Concord Commercial Bldg, 155-157 King's Rd, Hong Kong
EUT	:	Electronic Fragrance dispenser
Trademark	:	N/A
M/N	:	Stealth
Test Standard	:	FCC Part15, Subpart B, Class B ANSI C63.4-2014
Date of test	:	August 25, 2017 to August 30, 2017
Issue Date	:	August 31, 2017

The above equipment was tested by EMTEK (SHENZHEN) CO., LTD. The method of testing was in accordance to the most accurate measurement standards possible, and that all necessary steps have been enforced to assure that all production units of the same equipment will continue to comply with the Federal Communications Commission's requirements.

Authorized Signatory

Ver.1.0

Verification of Conformity

On Behalf Of

HYSO LLC

Electronic Fragrance dispenser

Model No.: Stealth

Prepared for	:	HYSO LLC
Address	:	746 Gotham Parkway | Carlstadt, NJ 07072 USA
Prepared by	:	EMTEK(SHENZHEN)CO., LTD.
Address	:	Bldg 69, Majialong Industry Zone, Nanshan District, Shenzhen, Guangdong, China
		Tel: (0755) 26954280 Fax: (0755) 26954282

Report Number	:	ES170913009E
Date of Test	:	August 25, 2017 to August 30, 2017
Date of Report	:	August 31, 2017

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APPENDIX (Photos of EUT) (4 Pages)

TEST REPORT DESCRIPTION

Applicant	:	HYSO LLC
Manufacturer	:	Hana Electronic Ltd
EUT	:	Electronic Fragrance dispenser
Model No.	:	Stealth
Input Rating	:	DC 15V from adapter

Measurement Procedure Used:

FCC Rules and Regulations Part 15 Subpart B Class B October 2016 & FCC / ANSI C63.4-2014

The device described above is tested by EMTEK(SHENZHEN)CO., LTD. to determine the maximum emission levels emanating from the device. The maximum emission levels are compared to the FCC Part 15 Subpart Class B limits both radiated and conducted emissions.
The measurement results are contained in this test report and EMTEK(SHENZHEN)CO., LTD. is assumed full responsibility for the accuracy and completeness of these measurements. Also, this report shows that the Equipment Under Test (EUT) is to be technically compliant with the FCC requirements.

This report applies to above tested sample only. This report shall not be reproduced in part without written approval of EMTEK(SHENZHEN)CO., LTD.

Date of Test : August 25, 2017 to August 30, 2017

Prepared by : Bunny zhang
Editor

Reviewer : Jessie Hu
Supervisor

Approved & Authorized Signer :
Manager

Modified Information

Version	Summary	Revision Date	Report No.
Ver.1.0	Original Report	/	ES170913009E

1. DESCRIPTION OF STANDARDS AND RESULTS

EMISSION			
Description of Test Item	Standard	Limits	Results
Conducted Disturbance at Mains Terminals	FCC Part15, Subpart B, Class B ANSI C63.4-2014	§ 15.107(a)	Pass
Radiated Disturbance	FCC Part15, Subpart B, Class B ANSI C63.4-2014	§ 15.109(a)	Pass
Note: N/A is an abbreviation for Not Applicable.			

2. GENERAL INFORMATION

2.1. Description of Device (EUT)

EUT	: Electronic Fragrance dispenser
Model Number	: Stealth
Trade Mark	: N/A
Power Supply for Test	: AC 120V/60Hz for adapter
Adapter	: Model: XY24S-1501500Q-UW Input: 100-240VAC, 0.5A Max 50/60Hz Output: 15V ⎓ 1.5A
Operate Mode	: ON
Applicant	: HYSO LLC
Address	: 746 Gotham Parkway | Carlstadt, NJ 07072 USA
Manufacturer	: Hana Electronic Ltd
Address	: 17/F Concord Commercial Bldg, 155-157 King's Rd, Hong Kong
Date of sample receiver	: August 25, 2017
Date of Test	: August 25, 2017 to August 30, 2017

2.2. Test Facility

Site Description

EMC Lab. : Accredited by CNAS, 2016.10.24
The certificate is valid until 2022.10.28
The Laboratory has been assessed and proved to be in compliance with CNAS-CL01:2006 (identical to ISO/IEC 17025:2005)
The Certificate Registration Number is L2291.

Accredited by TUV Rheinland Shenzhen 2016.5.19
The Laboratory has been assessed according to the requirements ISO/IEC 17025.

Accredited by FCC, August 03, 2017
Designation Number: CN1204
Test Firm Registration Number: 882943

Accredited by Industry Canada, November 24, 2015
The Certificate Registration Number is 4480A.

Accredited by A2LA, July 31, 2017
The Certificate Number is 4321.01.

Name of Firm : EMTEK(SHENZHEN)CO., LTD.

Site Location : Bldg 69, Majialong Industry Zone, Nanshan District, Shenzhen, Guangdong, China

2.3. Measurement Uncertainty

Test Item		Uncertainty
Conducted Emission Uncertainty	:	2.08dB (9K-150KHz) 1# 2.40dB(150KHz-30MHz) 1#
Radiated Emission Uncertainty (3m Chamber)	:	2.23dB (30M~1GHz Polarize: H) 1# 2.52dB (30M~1GHz Polarize: V) 1#
Uncertainty for test site temperature and humidity	:	0.6℃ 4%

3. POWER LINE CONDUCTED MEASUREMENT

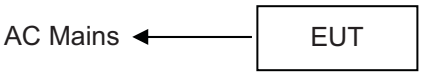
3.1. Test Equipment

The following test equipments are used during the power line conducted measurement:

Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1	Test Receiver	Rohde & Schwarz	ESCI	100137	May 16, 2017	1 Year
2	L.I.S.N	Rohde & Schwarz	ENV216	100017	May 16, 2017	1 Year
3	50Ω Coaxial Switch	Anritsu	MP59B	6100214550	May 16, 2017	N/A

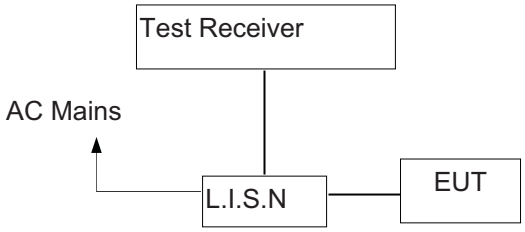
3.2. Block Diagram of Test Setup

3.2.1.Block diagram of connection between the EUT and simulators



(EUT: Electronic Fragrance dispenser)

3.2.2.Block diagram of test setup



(EUT: Electronic Fragrance dispenser)

3.2.3.Power Line Conducted Emission Measurement Limits (Class B)

Frequency MHz	Limits dB(μV)	
	Quasi-peak Level	Average Level
0.15 ~ 0.50	66.0 ~ 56.0*	56.0 ~ 46.0*
0.50 ~ 5.00	56.0	46.0
5.00 ~ 30.00	60.0	50.0
NOTE1-The lower limit shall apply at the transition frequencies. NOTE2-The limit decreases linearly with the logarithm of the frequency in the range 0.15MHz to 0.50MHz.		

3.3. Configuration of EUT on Measurement

The following equipments are installed on Power Line Conducted Emission Measurement to meet the commission requirement and operating regulations in a manner which tends to maximize its emission characteristics in a normal application.

EUT	:	Electronic Fragrance dispenser
Model Number	:	Stealth

3.4. Operating Condition of EUT

3.4.1.Setup the EUT and simulator as shown as Section 3.2.

3.4.2.Turn on the power of all equipment.

3.4.3.Let the EUT work in test mode (ON) and measure it.

3.5. Test Procedure

The EUT system is connected to the power mains through a line impedance stabilization network (L.I.S.N.). This provides a 50ohm coupling impedance for the EUT system. Please refer the block diagram of the test setup and photographs. Both sides of AC line are checked to find out the maximum conducted emission. In order to find the maximum emission levels, the relative positions of equipment and all of the interface cables shall be changed according to FCC ANSI C63.4-2014 on Conducted Emission Measurement.

The bandwidth of test receiver (R&S ESCI) is set at 9KHz.

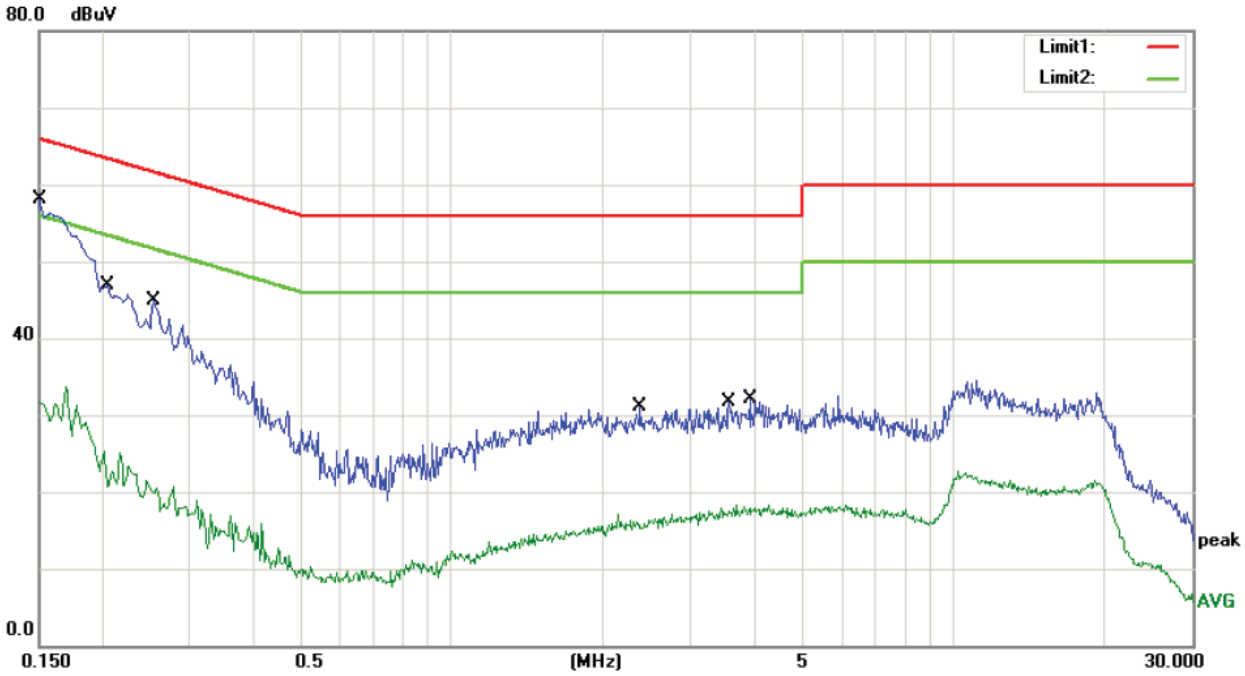
The frequency range from 150kHz to 30MHz is investigated.

The scanning waveforms are below the following pages.

3.6. Power Line Conducted Emission Measurement Results

PASS

Please see the attached pages.



Site site #1 Phase: L1 Temperature: 24

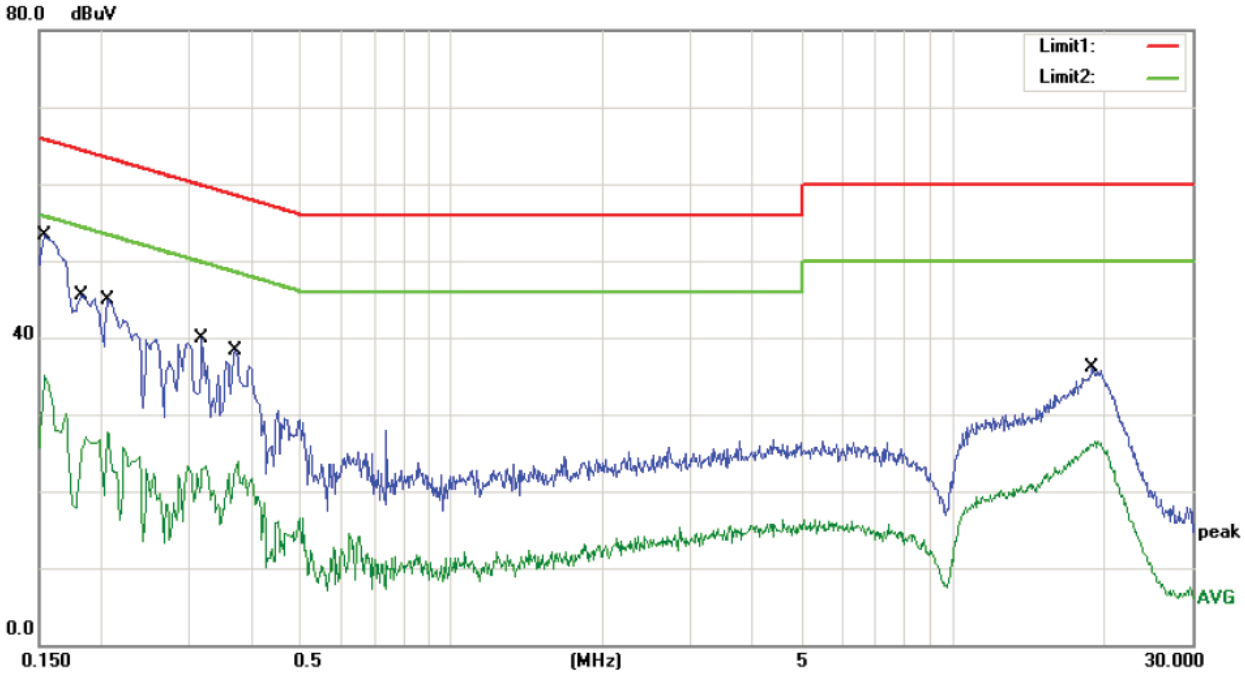
Limit: (CE)FCC PART 15 B_QP Power: AC 120V/60Hz Humidity: 55 %

Mode: ON

Note:

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
1	*	0.1516	42.54	9.78	52.32	65.91	-13.59	QP	
2		0.1516	21.66	9.78	31.44	55.91	-24.47	AVG	
3		0.2060	33.71	9.79	43.50	63.37	-19.87	QP	
4		0.2060	10.97	9.79	20.76	53.37	-32.61	AVG	
5		0.2540	31.52	9.80	41.32	61.63	-20.31	QP	
6		0.2540	10.07	9.80	19.87	51.63	-31.76	AVG	
7		2.3740	18.81	9.84	28.65	56.00	-27.35	QP	
8		2.3740	5.90	9.84	15.74	46.00	-30.26	AVG	
9		3.5820	18.75	9.85	28.60	56.00	-27.40	QP	
10		3.5820	7.56	9.85	17.41	46.00	-28.59	AVG	
11		3.9300	20.15	9.85	30.00	56.00	-26.00	QP	
12		3.9300	7.70	9.85	17.55	46.00	-28.45	AVG	

*:Maximum data x:Over limit !:over margin Comment: Factor build in receiver. Operator: washington



Site site #1 Phase: N Temperature: 24

Limit: (CE)FCC PART 15 B_QP Power: AC 120V/60Hz Humidity: 55 %

Mode: ON

Note:

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
1	*	0.1540	39.87	9.78	49.65	65.78	-16.13	QP	
2		0.1540	25.39	9.78	35.17	55.78	-20.61	AVG	
3		0.1820	32.31	9.79	42.10	64.39	-22.29	QP	
4		0.1820	12.68	9.79	22.47	54.39	-31.92	AVG	
5		0.2060	32.01	9.79	41.80	63.37	-21.57	QP	
6		0.2060	17.91	9.79	27.70	53.37	-25.67	AVG	
7		0.3180	25.79	9.81	35.60	59.76	-24.16	QP	
8		0.3180	10.12	9.81	19.93	49.76	-29.83	AVG	
9		0.3700	25.28	9.82	35.10	58.50	-23.40	QP	
10		0.3700	12.96	9.82	22.78	48.50	-25.72	AVG	
11		18.9340	21.89	10.21	32.10	60.00	-27.90	QP	
12		18.9340	15.74	10.21	25.95	50.00	-24.05	AVG	

*:Maximum data x:Over limit !:over margin Comment: Factor build in receiver. Operator: washington

4. RADIATED EMISSION MEASUREMENT

4.1. Test Equipment

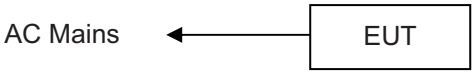
The following test equipments are used during the radiated emission measurement:

4.1.1.For Anechoic Chamber

Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1.	Test Receiver	Rohde & Schwarz	ESCI	1166.5950.03	May 16, 2017	1 Year
2.	Bilog Antenna	Schwarzbeck	VULB9163	000141	May 16, 2017	1 Year
3.	Power Amplifier	CDS	RSU-M352	818	May 16, 2017	1 Year
4.	Power Amplifier	HP	8447F	OPT H64	May 16, 2017	1 Year
5.	Color Monitor	SUNSPO	SP-140A	N/A	May 16, 2017	1 Year
6.	Single Line Filter	JIANLI	XL-3	N/A	May 16, 2017	1 Year
7.	Single Phase Power Line Filter	JIANLI	DL-2X100B	N/A	May 16, 2017	1 Year
8.	3 Phase Power Line Filter	JIANLI	DL-4X100B	N/A	May 16, 2017	1 Year
9.	DC Power Filter	JIANLI	DL-2X50B	N/A	May 16, 2017	1 Year
10.	Cable	Schwarzbeck	PLF-100	549489	May 16, 2017	1 Year
11.	Cable	Rosenberger	CIL02	A0783566	May 16, 2017	1 Year
12.	Cable	Rosenberger	RG 233/U	525178	May 16, 2017	1 Year

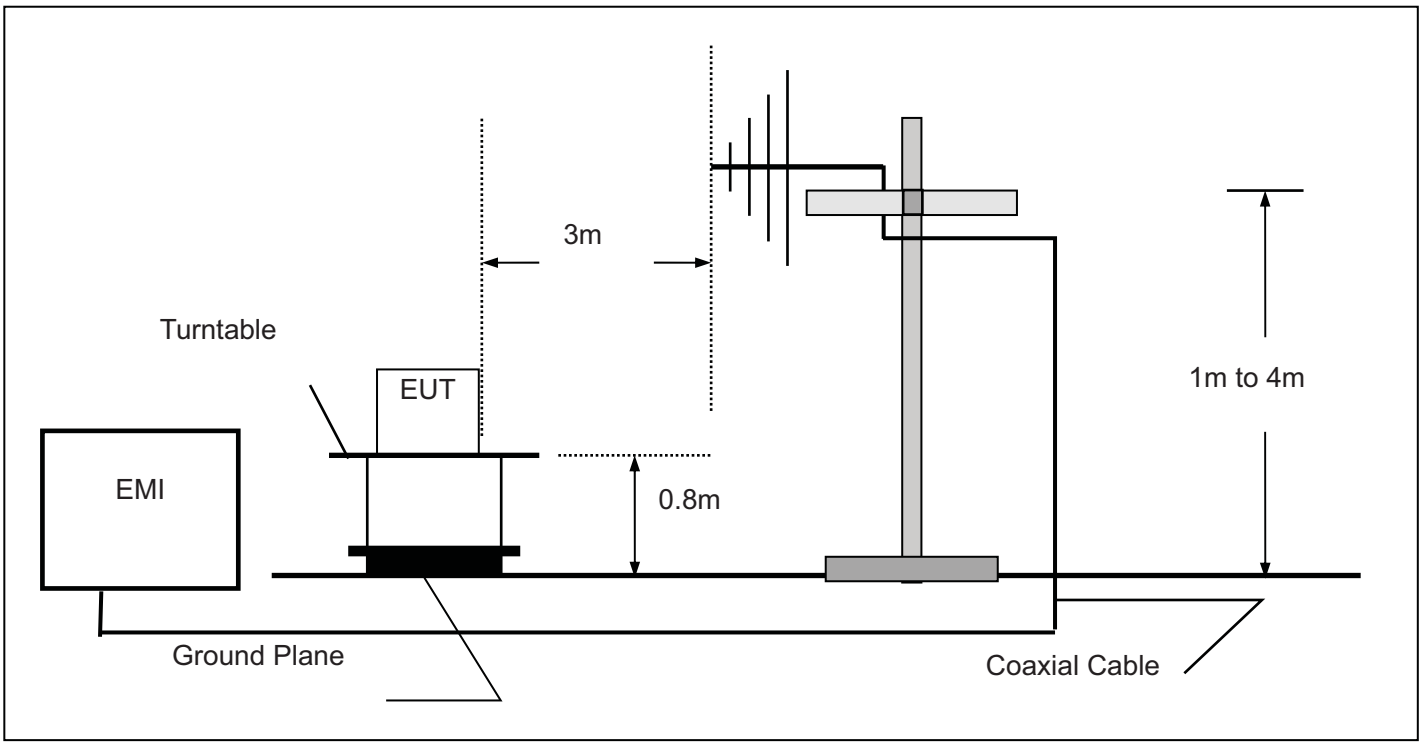
4.2. Block Diagram of Test Setup

4.2.1.Block diagram of connection between the EUT and simulators



(EUT: Electronic Fragrance dispenser)

4.2.2.Anechoic Chamber Test Setup Diagram



(EUT: Electronic Fragrance dispenser)

4.3. Radiated Emission Limit (Class B)

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

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

4.4. EUT Configuration on Measurement

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

EUT : Electronic Fragrance dispenser
Model Number : Stealth

4.5. Operating Condition of EUT

4.5.1.Setup the EUT as shown in Section 4.2.

4.5.2.Turn on the power of all equipment.

4.5.3.Let the EUT work in test mode (ON) and measure it.

4.6. Test Procedure

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

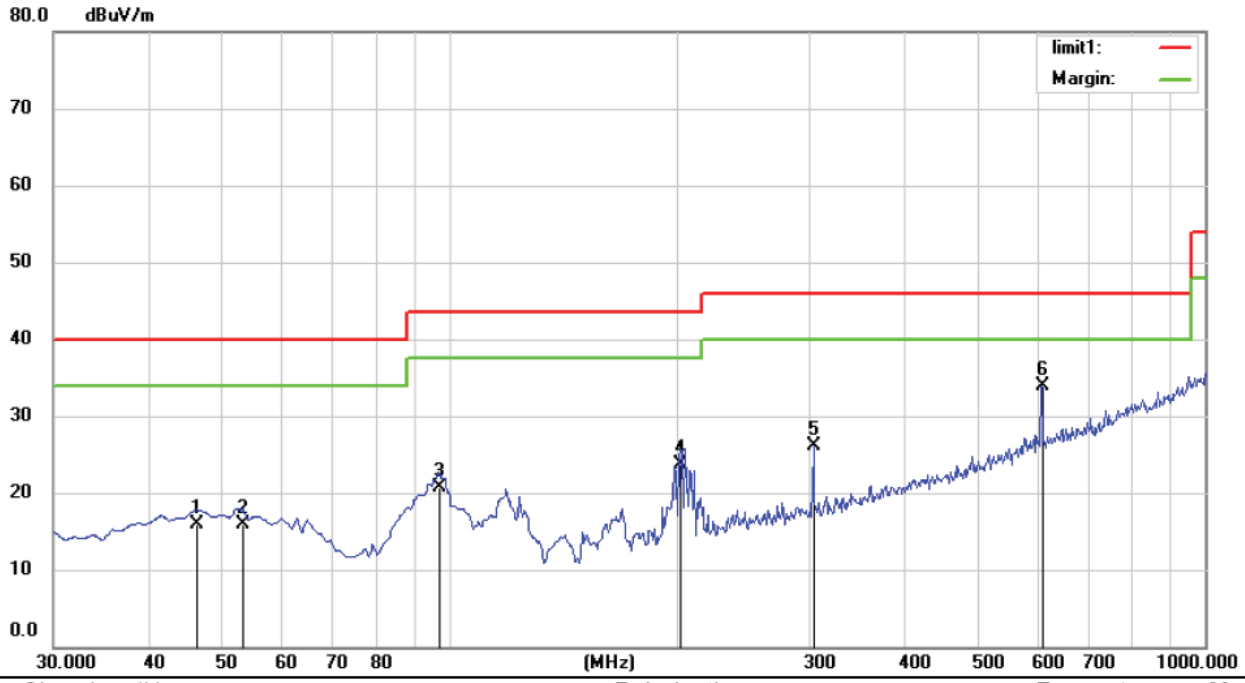
The bandwidth of the EMI test receiver (R&S ESCI) is set at 120KHz.

The scanning curves in below a few pages.

4.7. Radiated Emission Measurement Result

PASS.

The frequency range from 30MHz to 1000MHz is investigated.
Please see the attached pages.



Site Chamber #1
Limit: (RE)FCC PART 15 B 3m
Mode:ON
Note:

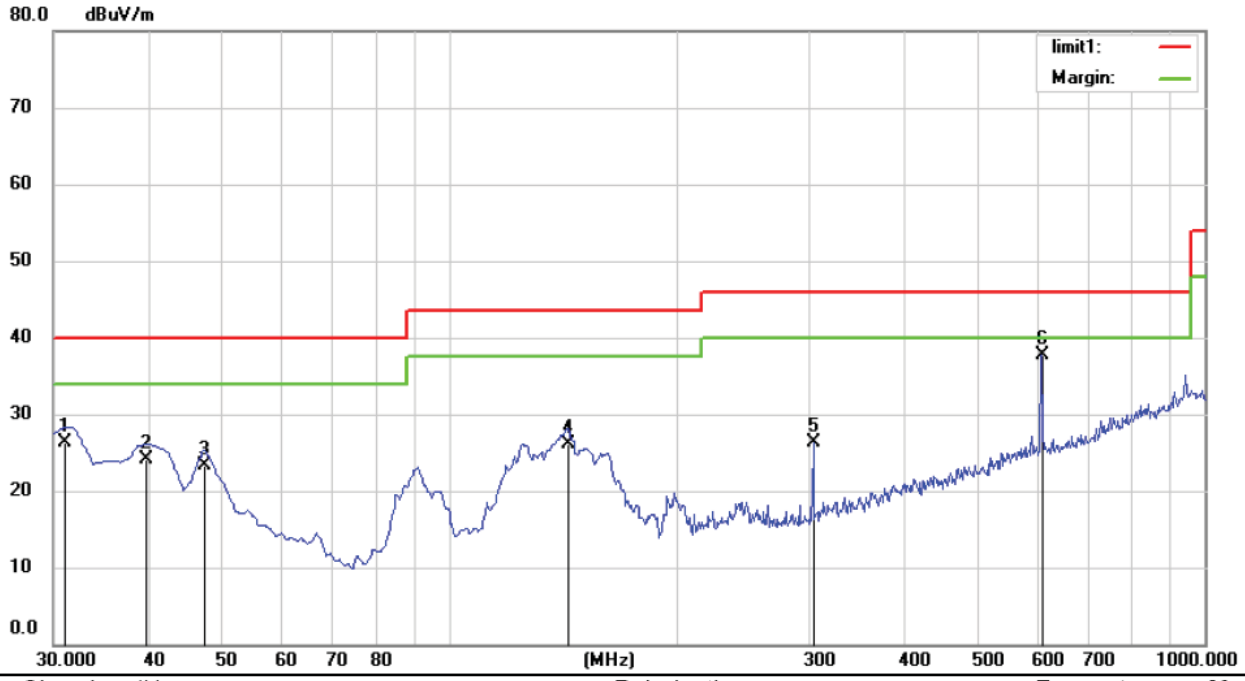
Polarization: *Horizontal*
Power: AC 120V/60Hz

Temperature: 26
Humidity: 55 %

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		Antenna Height	Table Degree	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	cm	degree	Comment
1		46.5030	31.54	-15.71	15.83	40.00	-24.17	QP			
2		53.2800	31.62	-15.73	15.89	40.00	-24.11	QP			
3		96.9300	39.50	-18.85	20.65	43.50	-22.85	QP			
4		202.6600	40.97	-17.27	23.70	43.50	-19.80	QP			
5		304.5100	40.00	-13.86	26.14	46.00	-19.86	QP			
6	*	609.0900	39.88	-6.04	33.84	46.00	-12.16	QP			

*:Maximum data x:Over limit !:over margin

Operator: Lin



Site Chamber #1 Polarization: *Vertical* Temperature: 26

Limit: (RE)FCC PART 15 B 3m Power: AC 120V/60Hz Humidity: 55 %

Mode:ON

Note:

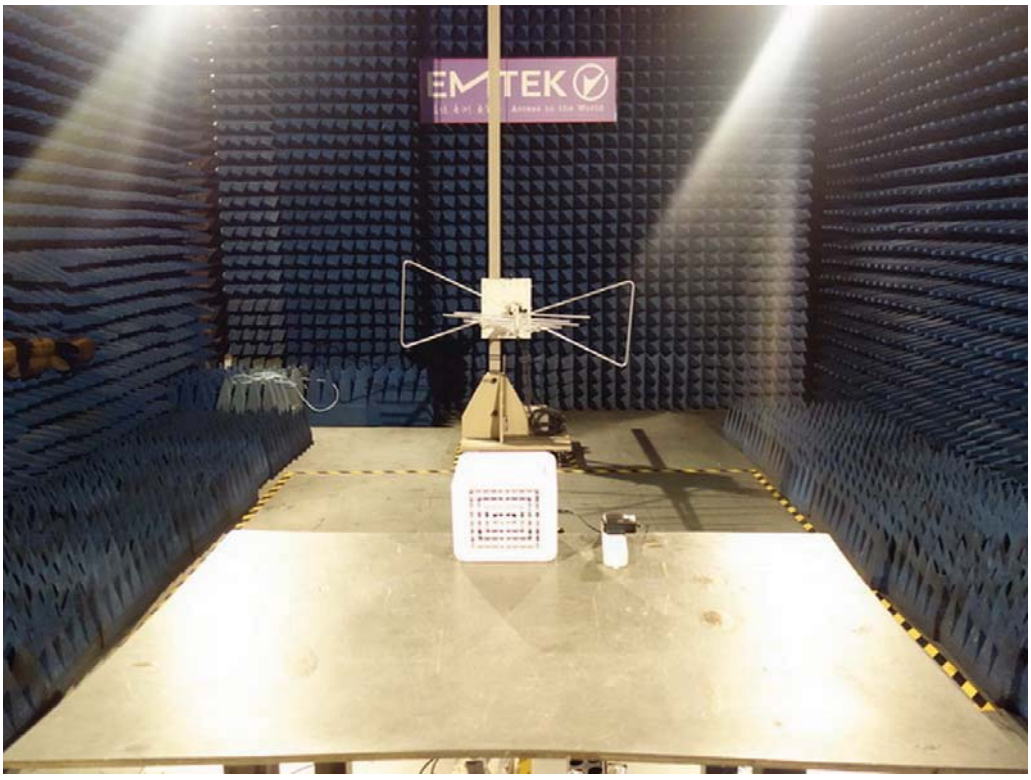
No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		Antenna Height	Table Degree	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	cm	degree	Comment
1		30.9700	41.48	-15.14	26.34	40.00	-13.66	QP			
2		39.7146	37.92	-13.80	24.12	40.00	-15.88	QP			
3		47.4600	38.12	-14.84	23.28	40.00	-16.72	QP			
4		143.4900	44.54	-18.35	26.19	43.50	-17.31	QP			
5		304.5100	41.05	-14.72	26.33	46.00	-19.67	QP			
6	*	609.0900	45.01	-7.28	37.73	46.00	-8.27	QP			

*:Maximum data x:Over limit !:over margin Operator: Lin

5. PHOTOGRAPH

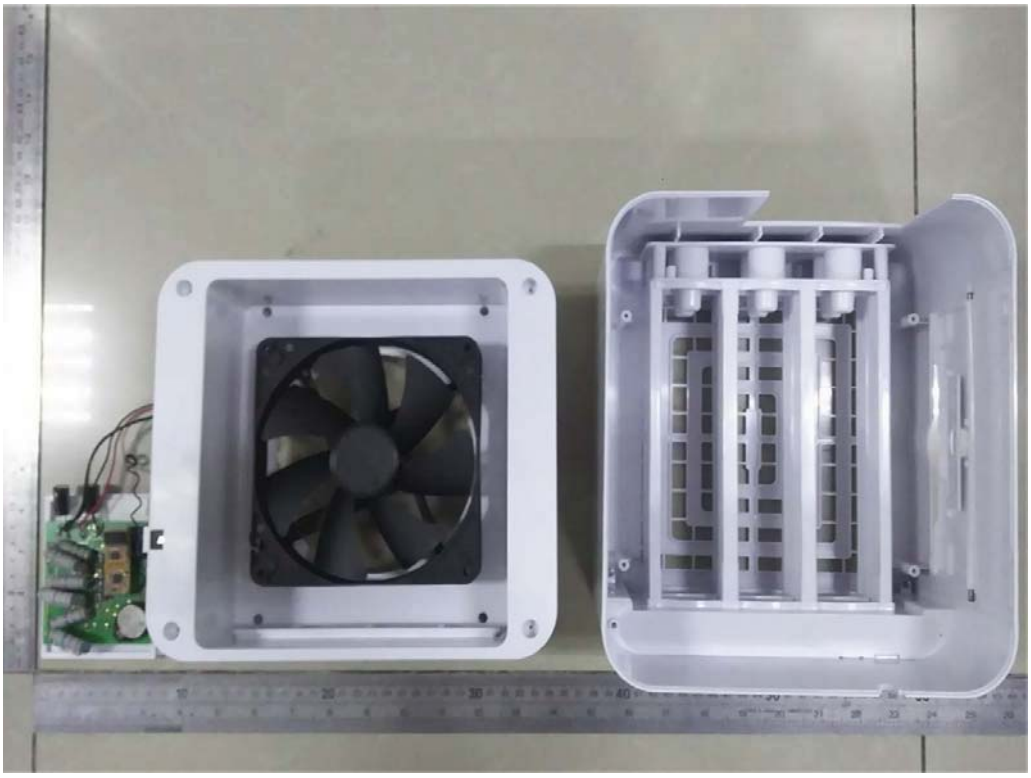
5.1. Photos of Conducted Emission Measurement

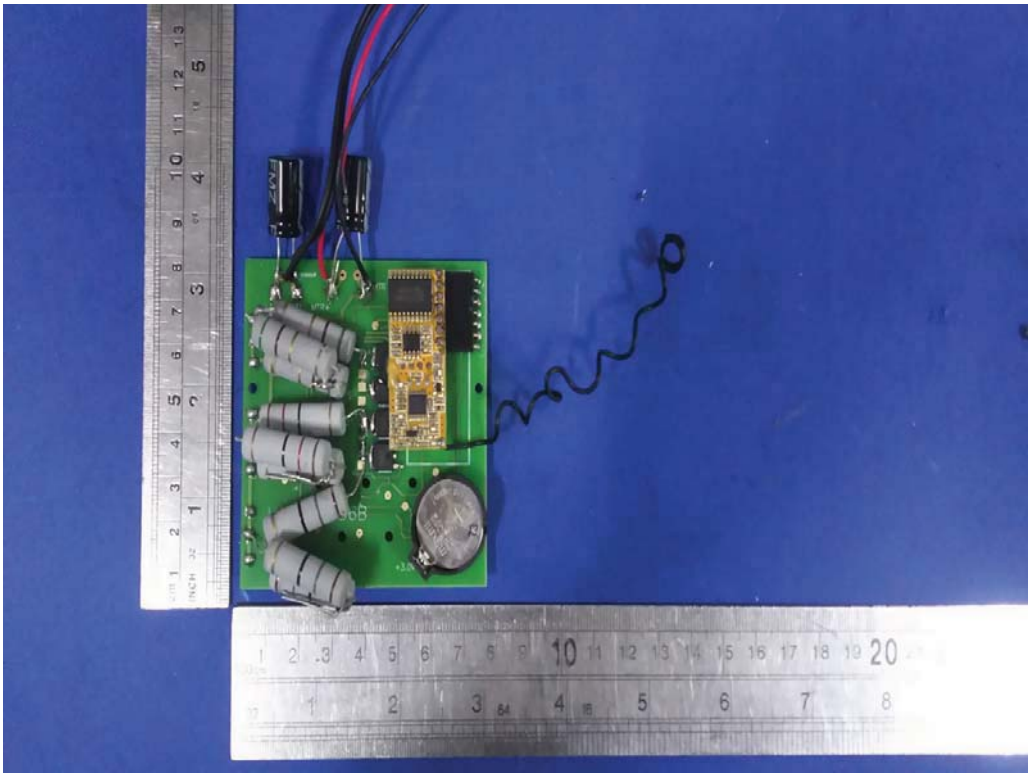
5.2. Photo of Radiated Measurement

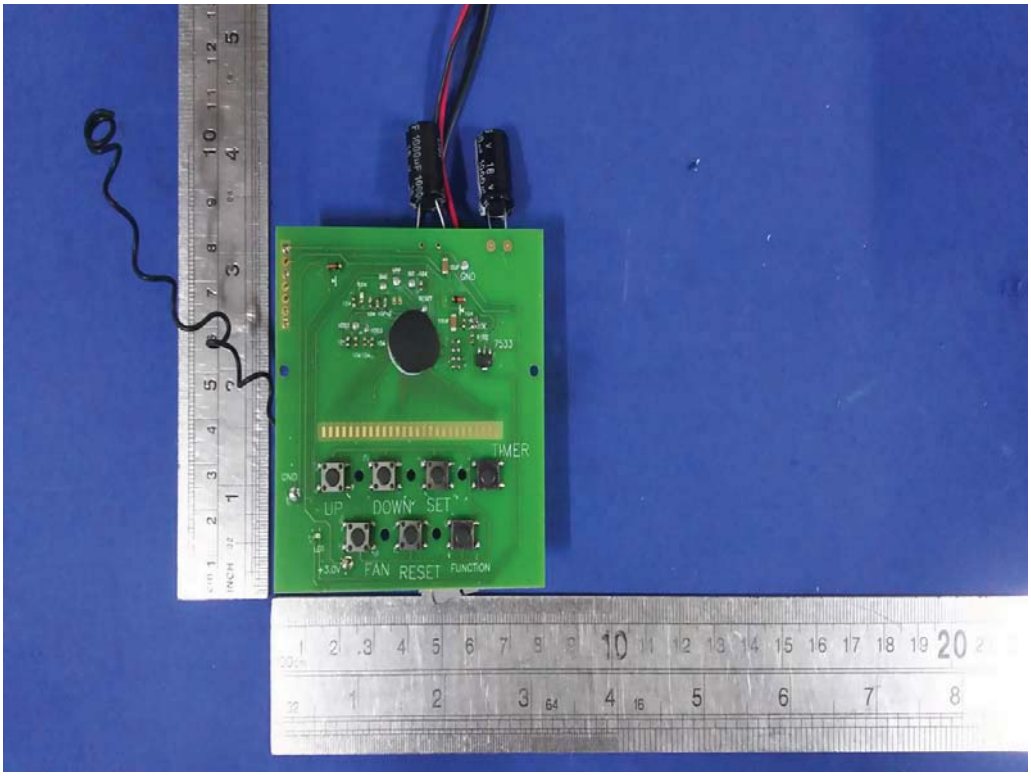


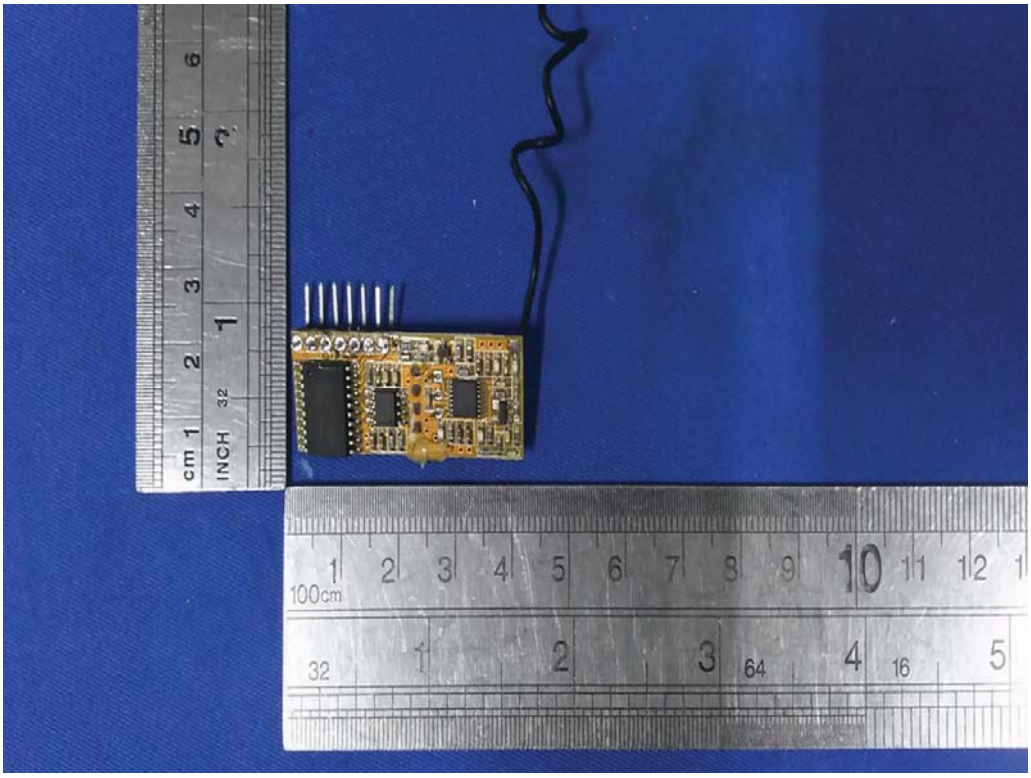
APPENDIX
(Photos of EUT)

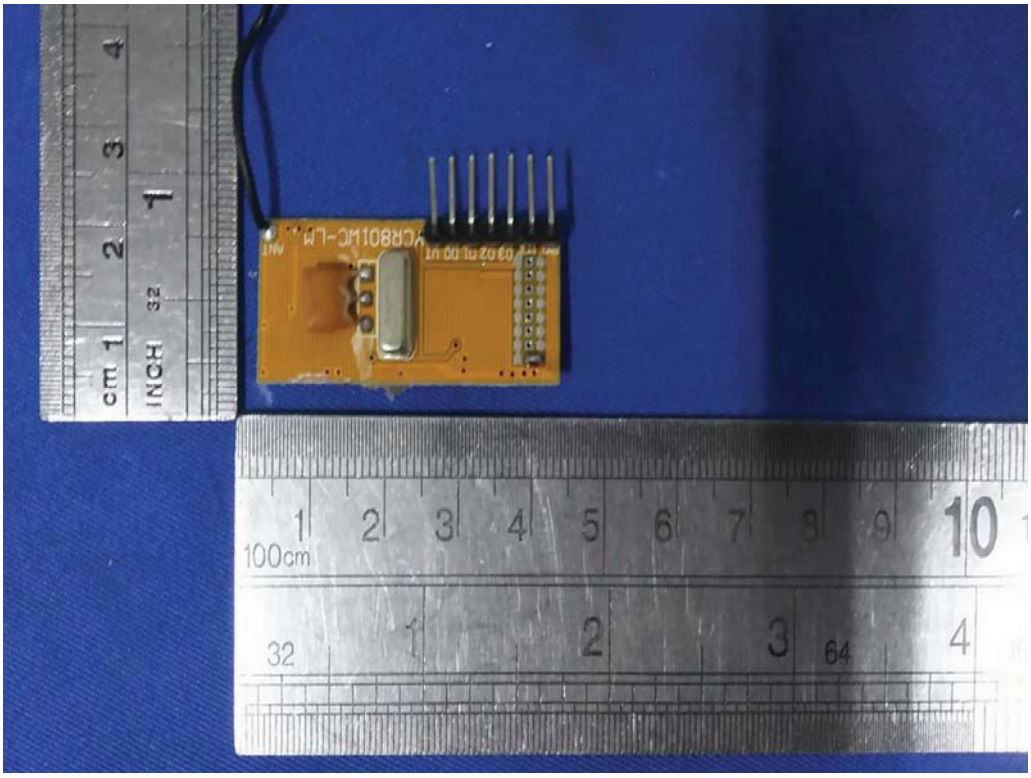

XING YUAN ELECTRONICS CO.,LTD.
NAME : CLASS 2 POWER UNITS
MODEL NO : XY24S-1501500Q-UW
INPUT : 100-240VAC, 0.5A Max 50/60Hz
OUTPUT: 15V ⎓ 1.5A
MADE IN CHINA 1726






TIMER
UP
DOWN
SET
FAN
RESET
FUNCTION


cm 1
INCH
100cm


cm 1
INCH
100cm