ELECTROMAGNETIC COMPLIANCE TEST REPORT

For

Professional Blue Teeth Whitening LED Accelerator Light

Model: L-X1704

Brand Name: Easywhite

Report No.: ENC180104GZ13E1

Date of Issue: Jan. 4, 2018

Prepared For

Easy Beauty Group Limited

Unit 1318-1319, Mong Kok Hollywood Plaza, 610 Nathan Road, Kowloon, Hong Kong

Prepared By

East Notice Certification Service Co., Ltd.

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1. VERIFICATION OF CONFORMITY

Equipment Under Test:	Professional Blue Teeth Whitening LED Accelerator Light
Model:	L-X1704
Model Difference:	N/A
Brand:	Easywhite
Applicant:	Easy Beauty Group Limited
	Unit 1318-1319, Mong Kok Hollywood Plaza, 610 Nathan Road, Kowloon, Hong Kong
Manufacturer:	Easy Beauty Group Limited
	No.6, Yangqi Road, Jinshan Industrial Zone, Cangshan District, Fuzhou, Fujian 350008,China
Type of Test:	EMC Directive 2014/30/EU for CE Marking
Technical Standards:	EN 55015:2013+A1:2015 EN 61547:2009 (IEC 61000-4-2:2008; IEC 61000-4-3:2010)
File Number:	ENC180104GZ13E1
Date of test:	Dec. 26, 2017 - Jan. 4, 2018
Deviation:	None
Condition of Test Sample:	Normal

The above equipment was tested by East Notice Certification Service Co., Ltd. for compliance with the requirements set forth in EMC Directive 2014/30/EU and the Technical Standards mentioned above. This said equipment in the configuration described in this report shows the maximum emission levels emanating from equipment and the level of the immunity endurance of the equipment are within the compliance requirements. Should any objections to the test reports occurred, should submit it to the company within ten days since the issuing of the report, Fail to accept.
The test results of this report relate only to the tested Sample identified in this report.

Checked By _____ Yemig

Yemig Jan. 4, 2018

Authorized By _____ Ray Zhou

Ray Zhou Jan. 4, 2018

2. SYSTEM DESCRIPTION

EUT Test Procedure:

1. Connect EUT and peripheral devices if need.
2. Power on the EUT, the EUT begins to work.
3. Make sure the EUT operates normally during the test.

3. PRODUCT INFORMATION

Housing Type: Metal

Rating Voltage: DC 3.0V for Button Battery

I/O Port Information (☒Applicable ☐Not Applicable)

I/O Port of EUT			
I/O Port Type	**Q'TY**	**Cable**	**Tested with**
DC INPUT PORT	1	--	--

4. SUPPORT EQUIPMENT

Device Type	Manufacturer	Model Name	Serial No.	Data Cable	Power Cable
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***Note:** All the above equipment/cables were placed in worse case positions to maximize emission signals during emission test.

Grounding: Grounding was in accordance with the manufacturer's requirements and conditions for the intended use.

5. TEST FACILITY

Location: 1/F, Haohui Commercial Building, Zhuji Street, Dongpu Town, Tianhe District, Guangzhou City, China

Description: There is one 3m semi-anechoic an area test sites and two line conducted labs for final test. The Open Area Test Sites and the Line Conducted labs are constructed and calibrated to meet the FCC requirements in documents ANSI C63.4 and CISPR 15/EN 55015 requirements.

Site Filing: The site description is on file with the Federal Communications Commission, 7435 Oakland Mills Road, Columbia, MD 21046.

Instrument Tolerance: All measuring equipment is in accord with ANSI C63.4 and CISPR 22 requirements that meet industry regulatory agency and accreditation agency requirement.

6. EN 55015 RADIATED ELECTROMAGNETIC DISTURBANCE TEST

6.1. TEST EQUIPMENT OF RADIATED ELECTROMAGNETIC DISTURBANCE TEST

Description	Manufacturer	Model	Identifier	Cal. Date	Cal. Due
Spectrum Analyzer	Aeroflex	2399A	N/A	03/20/2017	03/19/2018
Biconilog Antenna	ETS	3142C	N/A	03/20/2017	03/19/2018
Multi-device Controller	ETS	2090	N/A	03/20/2017	03/19/2018

6.2. LIMITS OF RADIATED ELECTROMAGNETIC DISTURBANCE IN THE RANGE 9 KHz to 30 MHz

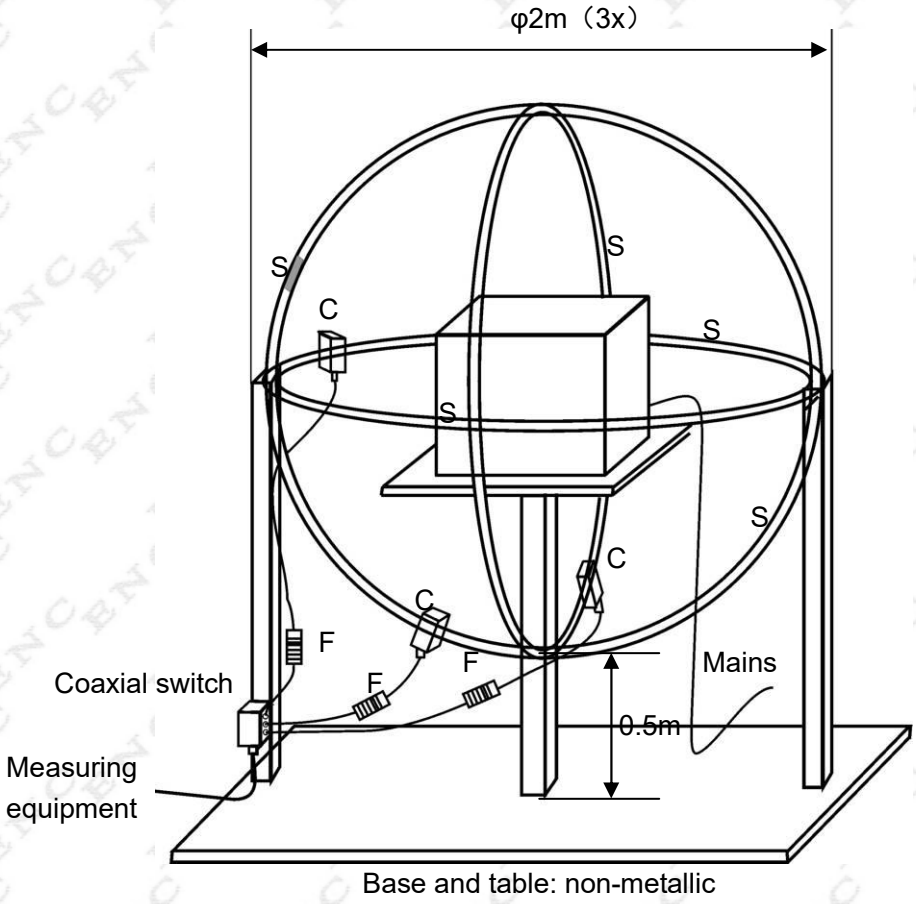
Frequency Range	Limits for Loop Diameter dB(uA) *		
	2m	3m	4m
9 KHz-70 KHz	88	81	75
70 KHz-150 KHz	88 to 58 * *	81 to 51 * *	75 to 45 * *
150 kHz-3.0 MHz	58 to 22 * *	51 to 15 * *	45 to 9 * *
3.0 MHz-30 MHz	22	15 to 16 * * *	9 to 12 * * *

Note: * *At the transition frequency, the lower limit applies.*

* * Decreasing *linearly with the logarithm of the frequency. For electrodeless lamps and luminaries, the limit in the frequency range of 2.2 MHz to 3.0 MHz is 58 dB(uA) for 2m, 51 dB(uA) for 3m and 45 dB(uA) for 4m loop diameter.*

* * * *Increasing linearly with the logarithm of the frequency.*

6.3. BLOCK DIAGRAM OF TEST SETUP



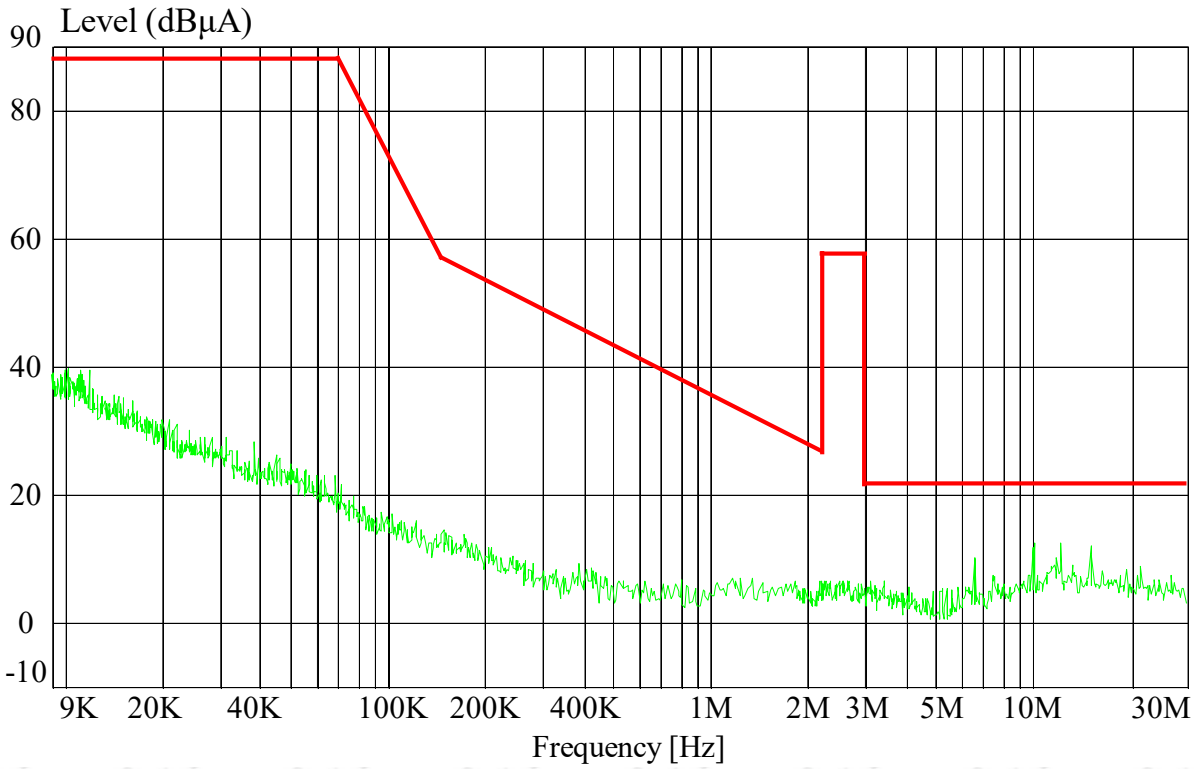
6.4. TEST PROCEDURE

The magnetic component shall be measured by means of a loop antenna as described in EN 55015. The lighting equipment shall be placed in the centre of the antenna, and the position is not critical.

The test object was operated at its upper limit of its rated voltage and its rated frequency. The induced current in the loop antenna is measured by means of a current probe (1V/A) and the CISPR measuring receiver. By means of a coaxial switch the three field directions can be measured in sequence. Each value shall fulfill the requirements given.

6.5. TEST RESULTS OF RADIATED ELECTROMAGNETIC DISTURBANCE

Radiated Electromagnetic Disturbance Measurement



Site: #1 Phase: *L1* Temperature: 25℃

Limit: EN55015 Magnetic Test Power: DC 3V Humidity: 56%

EUT: Professional Blue Teeth Whitening LED Accelerator Light

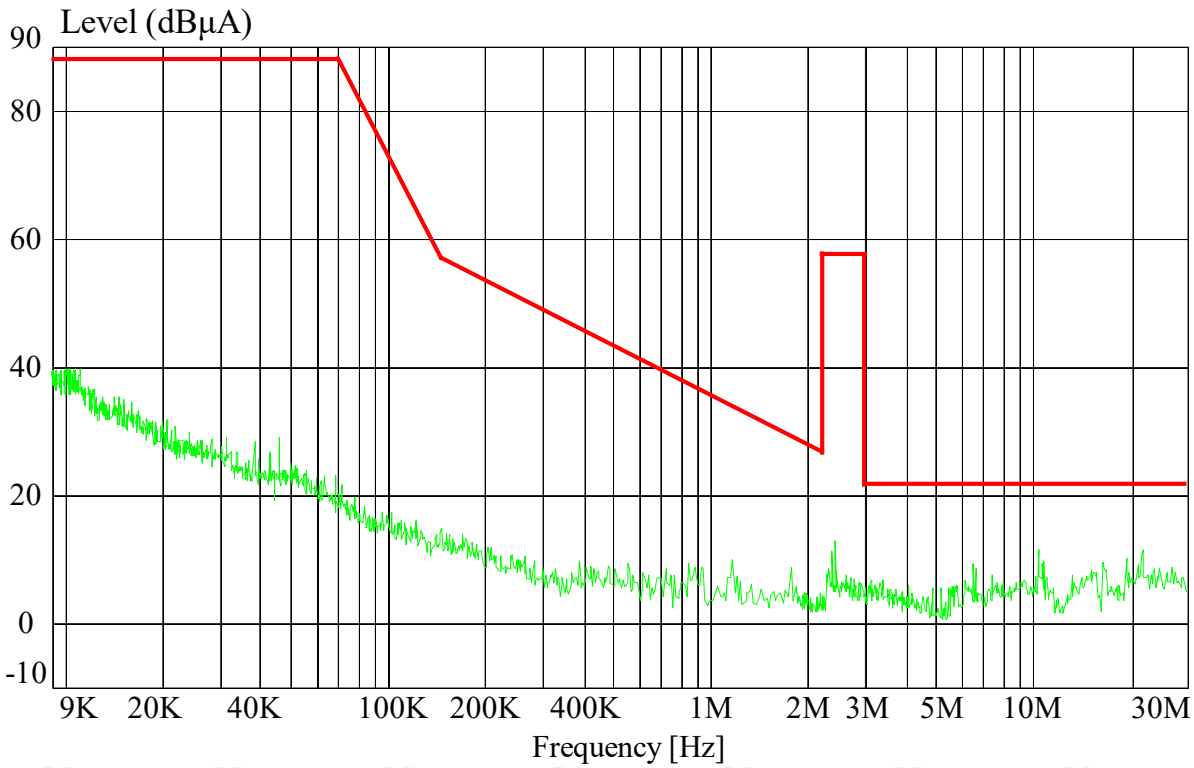
M/N: L-X1704

Mode: Lighting

Note:

No. MK	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		
	MHz	dBuA	dB	dBuA	dBuA	dB	Detector	Comment
1	6.577	10.98	1.08	9.90	22.00	-9.38	QP	
2	7.493	8.34	1.16	7.18	22.00	-12.08	QP	
3	9.943	13.13	1.32	11.81	22.00	-6.90	QP	
4*	13.002	14.02	1.47	12.55	22.00	-5.83	QP	
5	14.901	9.27	1.55	7.72	22.00	-10.73	QP	
6	16.834	12.79	1.62	11.17	22.00	-6.96	QP	

Radiated Electromagnetic Disturbance Measurement



Site: #1 Phase: *L2* Temperature: 25℃

Limit: EN55015 Magnetic Test Power: DC 3V Humidity: 56%

EUT: Professional Blue Teeth Whitening LED Accelerator Light

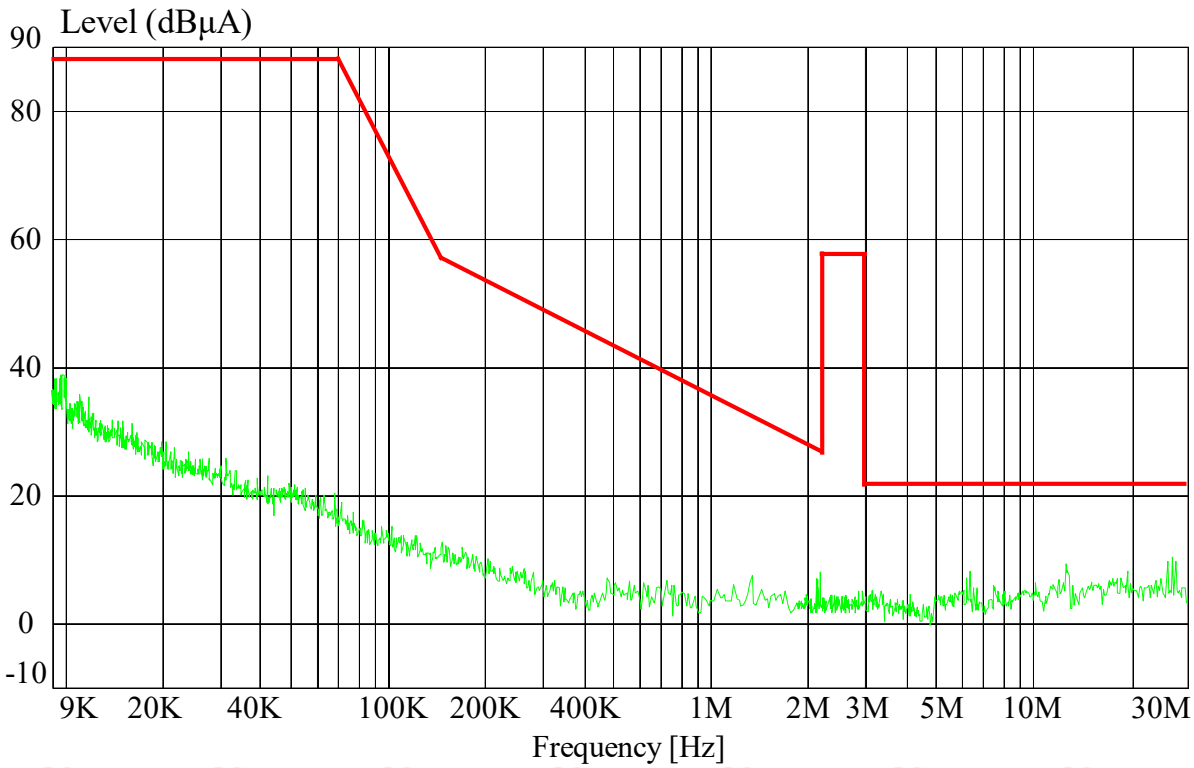
M/N: L-X1704

Mode: Lighting

Note:

No. MK	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		
	MHz	dBuA	dB	dBuA	dBuA	dB	Detector	Comment
1	6.538	7.43	1.08	6.35	22.00	-13.13	QP	
2	7.470	4.86	1.16	3.70	22.00	-15.75	QP	
3	10.165	12.96	1.33	11.63	22.00	-7.08	QP	
4	16.508	11.07	1.61	9.46	22.00	-8.77	QP	
5	19.645	12.21	1.71	10.50	22.00	-7.49	QP	
6*	22.422	13.09	1.79	11.30	22.00	-6.49	QP	

Radiated Electromagnetic Disturbance Measurement



Site: #1 Phase: *L3* Temperature: 25℃

Limit: EN55015 Magnetic Test Power: DC 3V Humidity: 56%

EUT: Professional Blue Teeth Whitening LED Accelerator Light

M/N: L-X1704

Mode: Lighting

Note:

No. MK	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		
	MHz	dBuA	dB	dBuA	dBuA	dB	Detector	Comment
1	6.294	9.06	1.06	8.00	22.00	-11.45	QP	
2	7.584	5.68	1.16	4.52	22.00	-14.88	QP	
3	10.102	5.81	1.33	4.48	22.00	-14.58	QP	
4	13.514	10.57	1.50	9.07	22.00	-9.43	QP	
5	20.099	9.80	1.72	8.08	22.00	-10.00	QP	
6*	27.750	10.60	1.91	8.69	22.00	-8.97	QP	

7. IEC 61000-4-2 ESD IMMUNITY TEST

ELECTROSTATIC DISCHARGE (ESD) IMMUNITY TEST

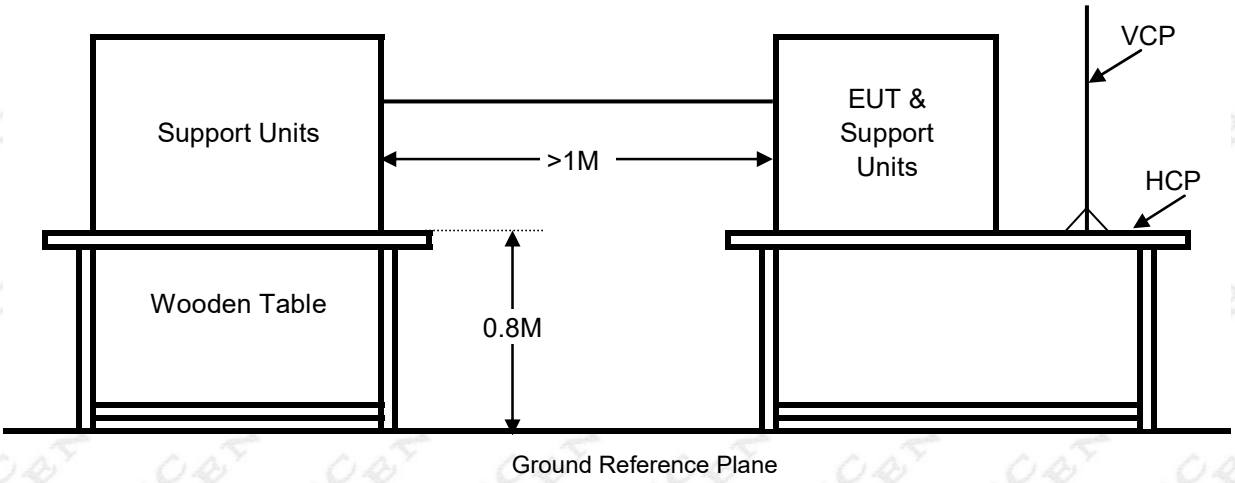
Port	:	Enclosure
Basic Standard	:	IEC 61000-4-2:2008
Test Level	:	±8 kV (Air Discharge) ±4 kV (Contact Discharge) ±4 kV (Indirect Discharge)
Standard require	:	B
Tester	:	Sam Liu
Temperature	:	25℃
Humidity	:	56%

7.1. TEST EQUIPMENT OF ESD TEST

Description	Manufacturer	Model	Identifier	Cal. Date	Cal. Due
ESD Simulator	EM-Test	EST883	N/A	03/20/2017	03/19/2018

7.2. BLOCK DIAGRAM OF TEST SETUP

(The 470 k ohm resistors are installed per standard requirement)



7.3. TEST PROCEDURE

The EUT was located 0.1 m minimum from all side of the HCP.

The support units were located 1 m minimum away from the EUT.

EUT worked with resistance load, and make sure EUT worked normally.

Actives the communication function if the EUT with such port(s).

As per the requirement of EN 55015: Contact discharge is the preferred test method. 20 discharges (10 with positive and 10 negative polarity) shall be applied on each accessible metal part of the enclosure. In case of a non-conductive enclosure, discharges shall be applied on the horizontal or vertical coupling planes as specified in IEC 61000-4-2.

Air discharges shall be used where contact discharges cannot be applied.

The following test condition was followed during the tests.

Note: *As per the A2 to IEC 61000-4-2, a bleed resistor cable is connected between the EUT and HCP during the test.*

The electrostatic discharges were applied as follows:

Amount of Discharges	Voltage	Coupling	Result (Pass/Fail)
Mini 20 /Point	±2kV; ±4kV	Contact Discharge	Pass
Mini 10 /Point	±2kV; ±4kV	Indirect Discharge HCP (Front)	Pass
Mini 10 /Point	±2kV; ±4kV	Indirect Discharge VCP (Left)	Pass
Mini 10 /Point	±2kV; ±4kV	Indirect Discharge VCP (Back)	Pass
Mini 10 /Point	±2kV; ±4kV	Indirect Discharge VCP (Right)	Pass
Mini 10 /Point	±2kV; ±4kV;±8kV;	Air Discharge	Pass

7.4. PERFORMANCE & RESULT

☐ CLASS A: Criteria A: The apparatus continues to operate as intended. No degradation of performance or loss of function is allowed below a performance level specified by the manufacturer, when the apparatus is used as intended. In some cases the performance level may be replaced by a permissible loss of performance.

☒Criteria B: The apparatus continues to operate as intended after the test. No degradation of performance or loss of function is allowed below a performance level specified by the manufacturer, when the apparatus is used as intended. In some cases the performance level may be replaced by a permissible loss of performance. During the test, degradation of performance is however allowed.

☐ Criteria C: Temporary loss of function is allowed, provided the functions self recoverable or can be restored by the operation of controls.

☒***PASS*** ☐ ***FAIL***

8. IEC 61000-4-3 TEST

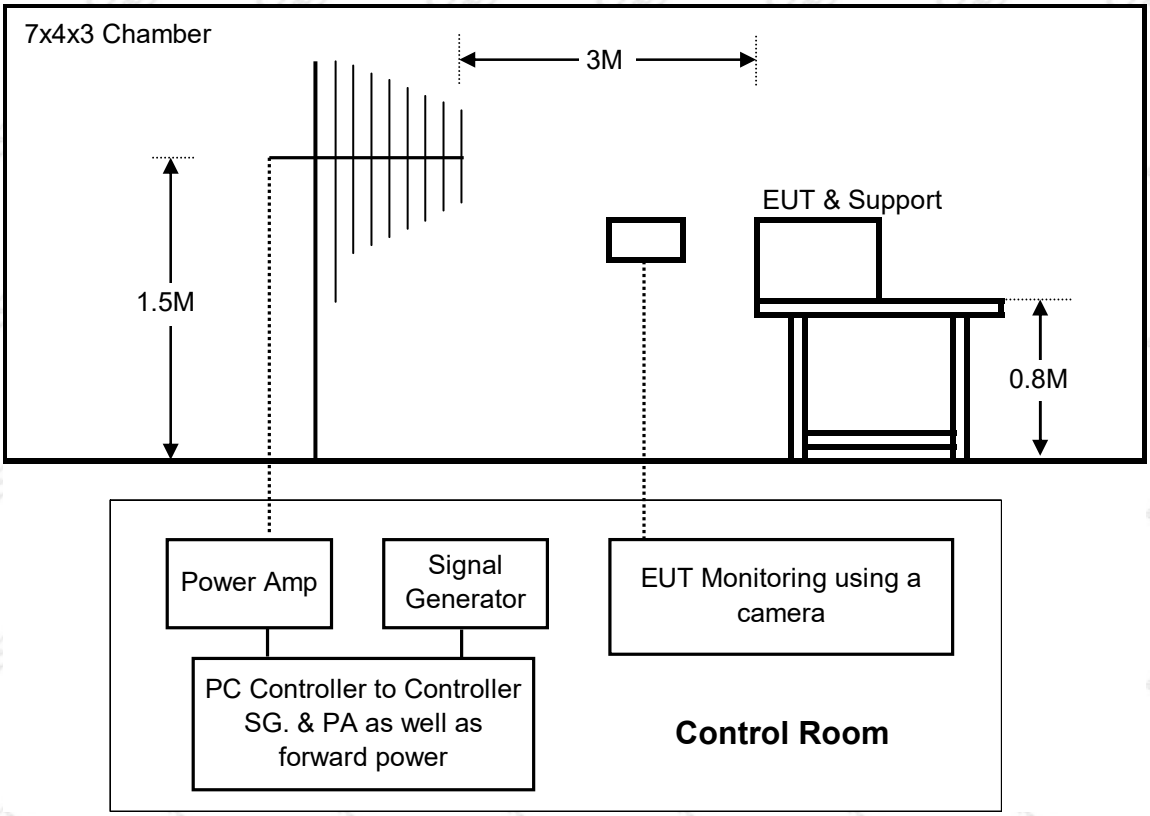
RADIATED ELECTROMAGNETIC FIELD IMMUNITY TEST

Port : Enclosure
Basic Standard : IEC 61000-4-3:2010
Test Level : 3V/m with 80% AM. 1kHz Modulation.
Standard require : A
Tester : Sam Liu
Temperature : 25℃
Humidity : 56%

8.1. TEST EQUIPMENT

Description	Manufacturer	Model	Identifier	Cal. Date	Cal. Due
Signal Generator	IFA	2023B	N/A	03/20/2017	03/19/2018
Power Amplifier	AR	150W1000	N/A	03/20/2017	03/19/2018
Power Antenna	AR	25S1G4A	N/A	03/20/2017	03/19/2018

8.2. BLOCK DIAGRAM OF TEST SETUP



8.3. TEST PROCEDURE

The EUT was located at the edge of supporting table keep 3 meter away from transmitting antenna, it just the calibrated square area of field uniformity. The support units were located outside of the uniformity area, but the cable(s) connected with EUT were exposed to the calibrated field as per IEC 61000-4-3.

EUT worked with resistance load, and make sure EUT worked normally.

Setting the testing parameters of RS test software per IEC 61000-4-3.

Performing the test at each side of with specified level (3V/m) at 1% steps and test frequency from 80MHz to 1000MHz

Recording the test result in following table.

It is not necessary to perform test as per annex A of EN 55014 if the EUT doesn¡¯t belong to TTE product.

IEC 61000-4-3 Final test conditions:

Test level : 3V/m

Steps : 1 % of fundamental

Dwell Time : 1 sec

Range (MHz)	Field	Modulation	Polarity	Position	Result (Pass/Fail)
80-1000	3V/m	AM	H	Front	Pass
80-1000	3V/m	AM	H	Left	Pass
80-1000	3V/m	AM	H	Back	Pass
80-1000	3V/m	AM	H	Right	Pass
80-1000	3V/m	AM	V	Front	Pass
80-1000	3V/m	AM	V	Left	Pass
80-1000	3V/m	AM	V	Back	Pass
80-1000	3V/m	AM	V	Right	Pass

8.4. PERFORMANCE & RESULT

☒ Criteria A: The apparatus continues to operate as intended. No degradation of performance or loss of function is allowed below a performance level specified by the manufacturer, when the apparatus is used as intended. In some cases the performance level may be replaced by a permissible loss of performance.

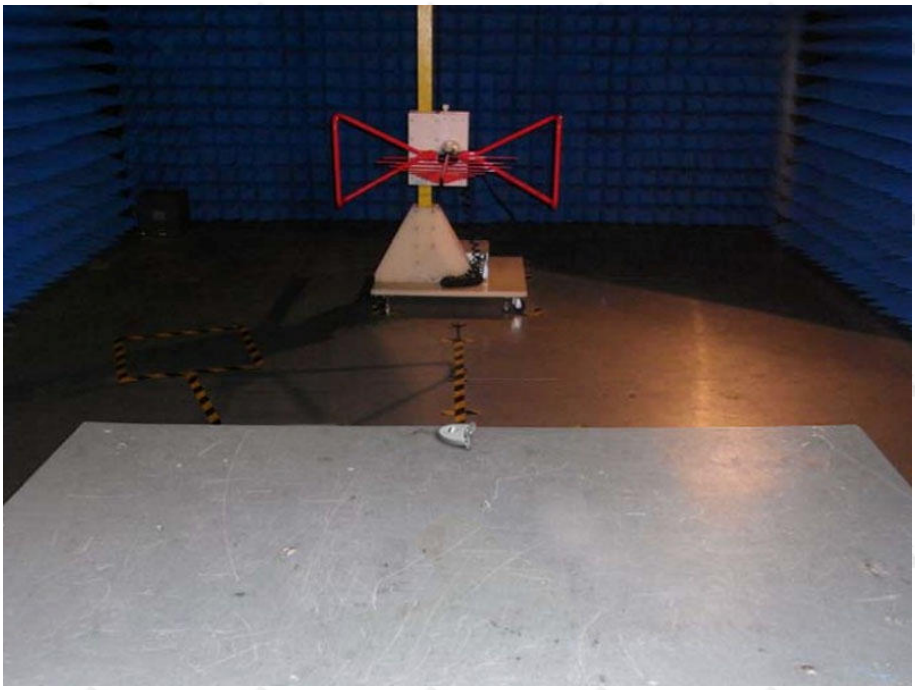
☐Criteria B: The apparatus continues to operate as intended after the test. No degradation of performance or loss of function is allowed below a performance level specified by the manufacturer, when the apparatus is used as intended. In some cases the performance level may be replaced by a permissible loss of performance. During the test, degradation of performance is however allowed.

☐Criteria C: Temporary loss of function is allowed, provided the functions self recoverable or can be restored by the operation of controls.

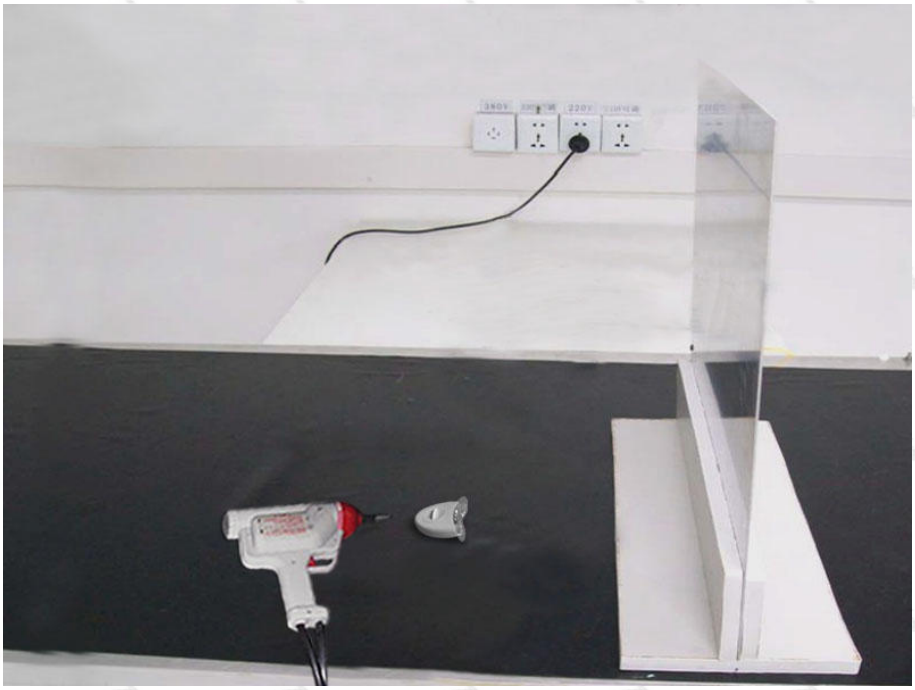
☒ ***PASS*** ☐***FAIL***

APPENDIX 1
PHOTOGRAPHS OF TEST SETUP

RADIATED EMISSION TEST SETUP



ELECTROSTATIC DISCHARGE TEST SETUP



APPENDIX 2
PHOTOGRAPHS OF EUT

Front View of EUT

Back View of EUT

----END OF REPORT----