

EMC Test Report

Report No.: AGC02862190602EE03

PRODUCT DESIGNATION : Portable CD Player
BRAND NAME : LEXIBOOK
MODEL NAME : RCD108
APPLICANT : LEXIBOOK LIMITED
DATE OF ISSUE : Jul. 08, 2019
STANDARD(S) : EN 55032:2015/AC: 2016
EN 61000-3-2:2014
EN 61000-3-3:2013
EN 55035:2017
REPORT VERSION : V1.0

Attestation of Global Compliance (Shenzhen) Co., Ltd

CAUTION:

This report shall not be reproduced except in full without the written permission of the test laboratory and shall not be quoted out of context.



Attestation of Global Compliance(Shenzhen)Co.,Ltd.

Add: 2/F., Building 2, No.1-4, Chaxi Sanwei Technial Industrial Park, Gushu,
Xixiang, Bao'an District, Shenzhen, Guangdong, China

Tel: +86-755 2523 4088

E-mail: agc@agc-cert.com

Service Hotline:400 089 2118

Report Revise Record

Report Version	Revise Time	Issued Date	Valid Version	Notes
V1.0	/	Jul. 08, 2019	Valid	Initial Release



Attestation of Global Compliance(Shenzhen)Co.,Ltd.

Add: 2/F., Building 2, No.1-4, Chaxi Sanwei Technial Industrial Park, Gushu,
Xixiang, Bao'an District, Shenzhen, Guangdong, China

Tel: +86-755 2523 4088

E-mail: agc@agc-cert.com

Service Hotline:400 089 2118

TABLE OF CONTENTS

1. VERIFICATION OF CONFORMITY	5
2. SYSTEM DESCRIPTION	6
3. MEASUREMENT UNCERTAINTY	6
4. PRODUCT INFORMATION	7
5. SUPPORT EQUIPMENT	8
6. TEST FACILITY	9
7. EN 55032 LINE CONDUCTED EMISSION TEST	11
7.1. LIMITS OF LINE CONDUCTED EMISSION TEST	11
7.2. BLOCK DIAGRAM OF TEST SETUP	11
7.3. PROCEDURE OF LINE CONDUCTED EMISSION TEST	12
7.4. TEST RESULT OF LINE CONDUCTED EMISSION TEST	13
8. EN 55032 RADIATED EMISSION TEST	17
8.1. LIMITS OF RADIATED DISTURBANCES	17
8.2. BLOCK DIAGRAM OF TEST SETUP	18
8.3. PROCEDURE OF RADIATED EMISSION TEST	19
8.4. TEST RESULT OF RADIATED EMISSION TEST	20
9. EN 61000-3-2 POWER HARMONICS TEST	24
9.1. BLOCK DIAGRAM OF TEST SETUP	24
9.2. RESULT	24
10. EN 61000-3-3 VOLTAGE FLUCTUATION / FLICKER TEST	25
10.1. LIMITS OF VOLTAGE FLUCTUATION AND FLICKER	25
10.2. TEST PROCEDURE	25
10.3. EUT OPERATING CONDITION	25
10.4. BLOCK DIAGRAM OF TEST SETUP	25
10.5. THE RESULT	26
11. EN 61000-4-2 ESD IMMUNITY TEST	27
11.1. BLOCK DIAGRAM OF TEST SETUP	27
11.2. TEST PROCEDURE	28
11.3. PERFORMANCE	29
12. EN 61000-4-3 RS IMMUNITY TEST	30
12.1. BLOCK DIAGRAM OF TEST SETUP	30
12.2. TEST PROCEDURE	31
12.3. PERFORMANCE	33
13. EN 61000-4-4 EFT IMMUNITY TEST	34
13.1. BLOCK DIAGRAM OF TEST SETUP	34
13.2. TEST PROCEDURE	35



Attestation of Global Compliance(Shenzhen)Co.,Ltd.

Add: 2/F., Building 2, No.1-4, Chaxi Sanwei Technial Industrial Park, Gushu,
Xixiang, Bao'an District, Shenzhen, Guangdong, China

Tel: +86-755 2523 4088

E-mail: agc@agc-cert.com

Service Hotline:400 089 2118

13.3. PERFORMANCE	35
14. EN 61000-4-5 SURGE IMMUNITY TEST	36
14.1. BLOCK DIAGRAM OF TEST SETUP	36
14.2. TEST PROCEDURE	37
14.3. PERFORMANCE	38
15. EN 61000-4-6 CS IMMUNITY TEST	39
15.1. BLOCK DIAGRAM OF TEST SETUP	39
15.2. TEST PROCEDURE	40
15.3. PERFORMANCE	41
16. EN 61000-4-8 PFMF TEST	42
16.1. BLOCK DIAGRAM OF TEST SETUP	42
16.2. TEST PROCEDURE	43
17. EN 61000-4-11 DIPS IMMUNITY TEST	44
17.1. BLOCK DIAGRAM OF TEST SETUP	44
17.2. TEST PROCEDURE	45
17.3. INTERPRETATION	46
APPENDIX A: PHOTOGRAPHS OF TEST SETUP	47
APPENDIX B: PHOTOGRAPHS OF EUT	51



Attestation of Global Compliance(Shenzhen)Co.,Ltd.

Add: 2/F., Building 2, No.1-4, Chaxi Sanwei Technial Industrial Park, Gushu,
Xixiang, Bao'an District, Shenzhen, Guangdong, China

Tel: +86-755 2523 4088

E-mail: agc@agc-cert.com

Service Hotline:400 089 2118

1. VERIFICATION OF CONFORMITY

Applicant	LEXIBOOK LIMITED
Address	Unit 8-9, 4th Floor, Kenning Industrial Building, 19 Wang Hoi Road, Kowloon Bay, Kowloon, Hong Kong
manufacturer	LEXIBOOK LIMITED
Address	Unit 8-9, 4th Floor, Kenning Industrial Building, 19 Wang Hoi Road, Kowloon Bay, Kowloon, Hong Kong
Factory	LEXIBOOK LIMITED
Address	Unit 8-9, 4th Floor, Kenning Industrial Building, 19 Wang Hoi Road, Kowloon Bay, Kowloon, Hong Kong
Product Designation	Portable CD Player
Brand Name	LEXIBOOK
Test Model	RCD108
Date of test	Jun. 28, 2019 to Jul. 05, 2019
Deviation	None
Test Result	Pass
Report Template	AGCRT-EC-IT/AC

The above equipment was tested by Attestation of Global Compliance (Shenzhen) Co., Ltd. for compliance with the requirements set forth in EU Directive 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. The test results of this report relate only to the tested sample identified in this report.

Tested By



Draven Li(Li Ming Liang)

Jul. 05, 2019

Reviewed By



Max Zhang(Zhang Yi)

Jul. 08, 2019

Approved By



Forrest Lei(Lei Yonggang)
Authorized Officer

Jul. 08, 2019



Attestation of Global Compliance(Shenzhen)Co.,Ltd.

Add: 2/F., Building 2, No.1-4, Chaxi Sanwei Technial Industrial Park, Gushu, Xixiang, Bao'an District, Shenzhen, Guangdong, China

Tel: +86-755 2523 4088

E-mail: agc@agc-cert.com

Service Hotline:400 089 2118

2. SYSTEM DESCRIPTION

TEST MODE DESCRIPTION		
NO.	TEST MODE DESCRIPTION	WORST
1	CD mode	V
2	AUX mode	--
3	MIC mode	--
Note: V means EMI worst mode		

3. MEASUREMENT UNCERTAINTY

The uncertainty is calculated using the methods suggested in the "Guide to the Expression of Uncertainty in measurement" (GUM) published by ISO.

- Uncertainty of Conducted Emission, $U_c = \pm 3.2$ dB
- Uncertainty of Radiated Emission below 1GHz, $U_c = \pm 3.9$ dB
- Uncertainty of Radiated Emission above 1GHz, $U_c = \pm 4.8$ dB



Attestation of Global Compliance(Shenzhen)Co.,Ltd.

Add: 2/F., Building 2, No.1-4, Chaxi Sanwei Technial Industrial Park, Gushu,
Xixiang, Bao'an District, Shenzhen, Guangdong, China

Tel: +86-755 2523 4088

E-mail: agc@agc-cert.com

Service Hotline:400 089 2118

4. PRODUCT INFORMATION

Power Supply	DC 9V by battery(6*1.5V) or AC 230V/50Hz
--------------	--

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

I/O Port of EUT			
I/O Port Type	Number	Cable Description	Tested With
AUX In	1	--	1
AC In	1	--	1
MIC In	1	--	1



Attestation of Global Compliance(Shenzhen)Co.,Ltd.

Add: 2/F., Building 2, No.1-4, Chaxi Sanwei Technial Industrial Park, Gushu,
Xixiang, Bao'an District, Shenzhen, Guangdong, China

Tel: +86-755 2523 4088

E-mail: agc@agc-cert.com

Service Hotline:400 089 2118

5. SUPPORT EQUIPMENT

Device Type	Manufacturer	Model Name	Serial No.	Data Cable	Power Cable
Smartphone	Xiaomi	MI6	--	--	--



Attestation of Global Compliance(Shenzhen)Co.,Ltd.

Add: 2/F., Building 2, No.1-4, Chaxi Sanwei Technial Industrial Park, Gushu,
Xixiang, Bao'an District, Shenzhen, Guangdong, China

Tel: +86-755 2523 4088

E-mail: agc@agc-cert.com

Service Hotline:400 089 2118

6. TEST FACILITY

Test Site	Attestation of Global Compliance (Shenzhen) Co., Ltd
Location	1-2/F, Building 19, Junfeng Industrial Park, Chongqing Road, Heping Community, Fuhai Street, Bao'an District, Shenzhen, Guangdong, China
Description	There is one 3m semi-anechoic an area test sites and two line conducted labs for final test. The chamber and the Line Conducted labs are constructed and calibrated to meet the FCC requirements in documents ANSI C63.4 and CISPR 32/EN 55032 requirements.

TEST EQUIPMENT OF CONDUCTED EMISSION TEST

Equipment	Manufacturer	Model	S/N	Cal. Date	Cal. Due
TEST RECEIVER	R&S	ESPI	101206	Jun.13, 2019	Jun.12, 2020
LISN	R&S	ESH2-Z5	100086	Jun.13, 2019	Jun.12, 2020

TEST EQUIPMENT OF RADIATED EMISSION TEST

Equipment	Manufacturer	Model	S/N	Cal. Date	Cal. Due
TEST RECEIVER	R&S	ESCI	10096	Jun.13, 2019	Jun.12, 2020
ANTENNA	SCHWARZBECK	VULB9168	D69250	Mar.01, 2018	Feb.28, 2020
Double-Ridged Waveguide Horn	ETS	3117	00034609	Mar.01, 2018	Feb.28, 2020
Broadband Preamplifier	SCHWARZBECK	VULB9168	D69250	Jun.13, 2019	Jun.12, 2020

TEST EQUIPMENT OF POWER HARMONICS / VOLTAGE FLUCTUATION / FLICKER TEST

Equipment	Manufacturer	Model	S/N	Cal. Date	Cal. Due
Signal Conditioning Unit	Schaffner	CCN1000-1	72431	Aug.19, 2018	Aug.18, 2019
AC Source	Schaffner	NSG1007	56825	Aug.19, 2018	Aug.18, 2019

TEST EQUIPMENT OF SURGE/EFT/DIPSTEST

Description	Manufacturer	Model	S/N	Cal. Date	Cal. Due
EFT、Surge Generator	Schaffner	Modula 6150	34437	Aug.19, 2018	Aug.18, 2019

TEST EQUIPMENT OF ESD TEST

Equipment	Manufacturer	Model	S/N	Cal. Date	Cal. Due
ESD Simulator	TESEQ	NSG 438	1509	Jun.13, 2019	Jun.12, 2020



Attestation of Global Compliance(Shenzhen)Co.,Ltd.

Add: 2/F., Building 2, No.1-4, Chaxi Sanwei Technial Industrial Park, Gushu, Xixiang, Bao'an District, Shenzhen, Guangdong, China

Tel: +86-755 2523 4088

E-mail: agc@agc-cert.com

Service Hotline:400 089 2118

TEST EQUIPMENT OF RS IMMUNITY TEST

Description	Manufacturer	Model	S/N	Cal. Date	Cal. Due
SIGNAL GENERATOR	R&S	E4421B	MY43351603	May.13, 2019	May.12, 2020
POWER SENSOR	R&S	URV5-Z4	100124	May.13, 2019	May.12, 2020
POWER METER	R&S	NRVD	832378/027	Jun.13, 2019	Jun.12, 2020
POWER AMPLIFIER	KALMUS	7100LC	04-02/17-06-001	Jun.13, 2019	Jun.12, 2020
RF AMPLIFIER	Milmega	AS0104-55_55	1004793	Jun.13, 2019	Jun.12, 2020
Double-Ridged Waveguide Horn	ETS	3117	00034609	May.16, 2019	May.15, 2021
Broadband Preamplifier	SCHWARZBEC K	VULB9168	D69250	Mar.01, 2018	Feb.28, 2020

TEST EQUIPMENT OF CS IMMUNITY TEST

Description	Manufacturer	Model	S/N	Cal. Date	Cal. Due
Power Amplifier	AR	75A250	18464	Jun.10, 2019	Jun.09, 2020
CDN	Schaffner	M016	21614	Aug.19, 2018	Aug.18, 2019
6dB attenuator	JWF	50FHC-006-50	N/A	Jun.10, 2019	Jun.09, 2020
Electromagnetic Injection Clamp	Luthi	EM101	35773	Aug.19, 2018	Aug.18, 2019
Power Sensor	R&S	URV5-Z4	100124	May.13, 2019	May.12, 2020
Power Meter	R&S	NRVD	8323781027	Jun.10, 2019	Jun.09, 2020
SIGNAL GENERATOR	R&S	E4421B	MY43351603	May.13, 2019	May.12, 2020



Attestation of Global Compliance(Shenzhen)Co.,Ltd.

Add: 2/F., Building 2, No.1-4, Chaxi Sanwei Technial Industrial Park, Gushu, Xixiang, Bao'an District, Shenzhen, Guangdong, China

Tel: +86-755 2523 4088

E-mail: agc@agc-cert.com

Service Hotline:400 089 2118

7. EN 55032 LINE CONDUCTED EMISSION TEST

7.1. LIMITS OF LINE CONDUCTED EMISSION TEST

EN 55032 Table clause	Frequency range (MHz)	Coupling device	Detector type / bandwidth	Class B limits (dBuV)
A10.1	0.15 - 0.5	AMN/LISN	Quasi-peak / 9kHz	66 - 56
	0.5 - 5			56
	5 - 30.0			60
A10.1	0.15 - 0.5		Average / 9kHz	56 - 46
	0.5 - 5			46
	5 - 30.0			50

Note:

1. The lower limit shall apply at the transition frequency.
2. The limit decreases linearly with the logarithm of the frequency in the range 0.15 MHz to 0.50MHz.

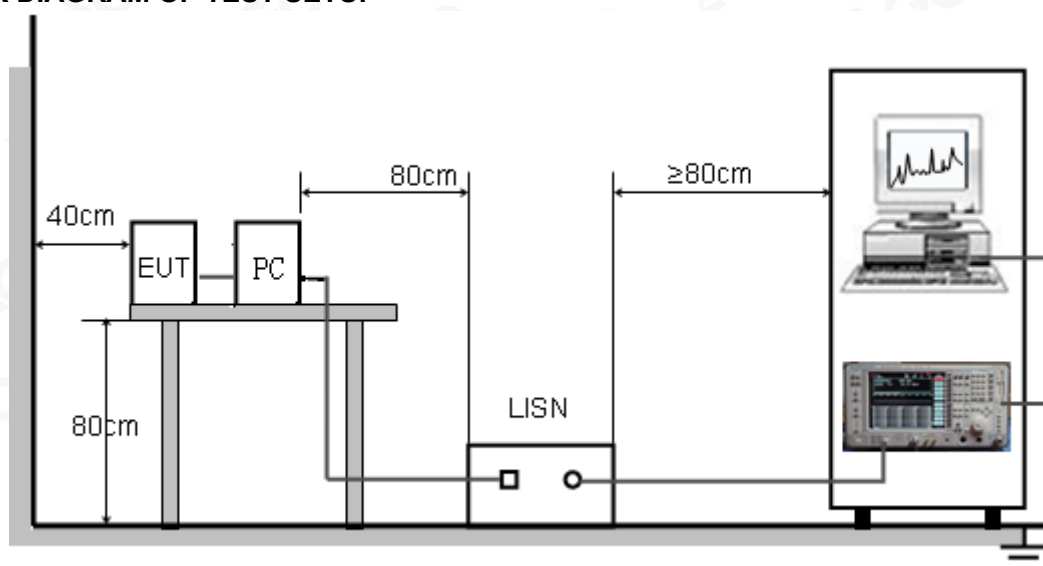
AT TELECOMMUNICATION PORT

Frequency	Maximum RF Line Voltage	
	Q.P.(dBuV)	Average(dBuV)
150kHz-500kHz	84-74	74-64
500kHz-30MHz	74	64

NOTE 1 The limits decrease linearly with the logarithm of the frequency in the range 0,15 MHz to 0,5 MHz.

NOTE 2 The current and voltage disturbance limits are derived for use with an impedance stabilization network (ISN) which presents a common mode (asymmetric mode) impedance of 150 Ω to the telecommunication port under test (conversion factor is $20 \log_{10} 150 / I = 44$ dB).

7.2. BLOCK DIAGRAM OF TEST SETUP



7.3. PROCEDURE OF LINE CONDUCTED EMISSION TEST

- (1) The equipment was set up as per the test configuration to simulate typical actual usage per the user's manual. When the EUT is a tabletop system, a wooden table with a height of 0.8 meters is used and is placed on the ground plane as per EN55032 (see Test Facility for the dimensions of the ground plane used). When the EUT is a floor-standing equipment, it is placed on the ground plane which has a 3-12 mm non-conductive covering to insulate the EUT from the ground plane.
- (2) Support equipment, if needed, was placed as per EN55032.
- (3) All I/O cables were positioned to simulate typical actual usage as per EN55032.
- (4) The EUT received AC230V/50Hz power through a Line Impedance Stabilization Network (LISN/AMN) which supplied power source and was grounded to the ground plane.
- (5) All support equipments received power from a second LISN supplying power of AC 230V/50Hz, if any.
- (6) The EUT test program was started. Emissions were measured on each current carrying line of the EUT using a spectrum Analyzer / Receiver connected to the LISN powering the EUT. The LISN has two monitoring points: Line 1 (Hot Side) and Line 2 (Neutral Side). Two scans were taken: one with Line 1 connected to Analyzer / Receiver and Line 2 connected to a 50 ohm load; the second scan had Line 1 connected to a 50 ohm load and Line 2 connected to the Analyzer / Receiver.
- (7) Analyzer / Receiver scanned from 150 kHz to 30 MHz for emissions in each of the test modes.
- (8) During the above scans, the emissions were maximized by cable manipulation.
- (9) A scan was taken on both power lines, Line 1 and Line 2, recording at least the six highest emissions.
- (10) Emission frequency and amplitude were recorded into a computer in which correction factors were used to calculate the emission level and compare reading to the applicable limit. If EUT emission level was less -2dB to the A.V. limit in Peak mode, then the emission signal was re-checked using Q.P and Average detector.

Note: The test modes were carried out for all operation modes
The worst case (Mode 1) was showed as the follow:



Attestation of Global Compliance(Shenzhen)Co.,Ltd.

Add: 2/F., Building 2, No.1-4, Chaxi Sanwei Technial Industrial Park, Gushu,
Xixiang, Bao'an District, Shenzhen, Guangdong, China

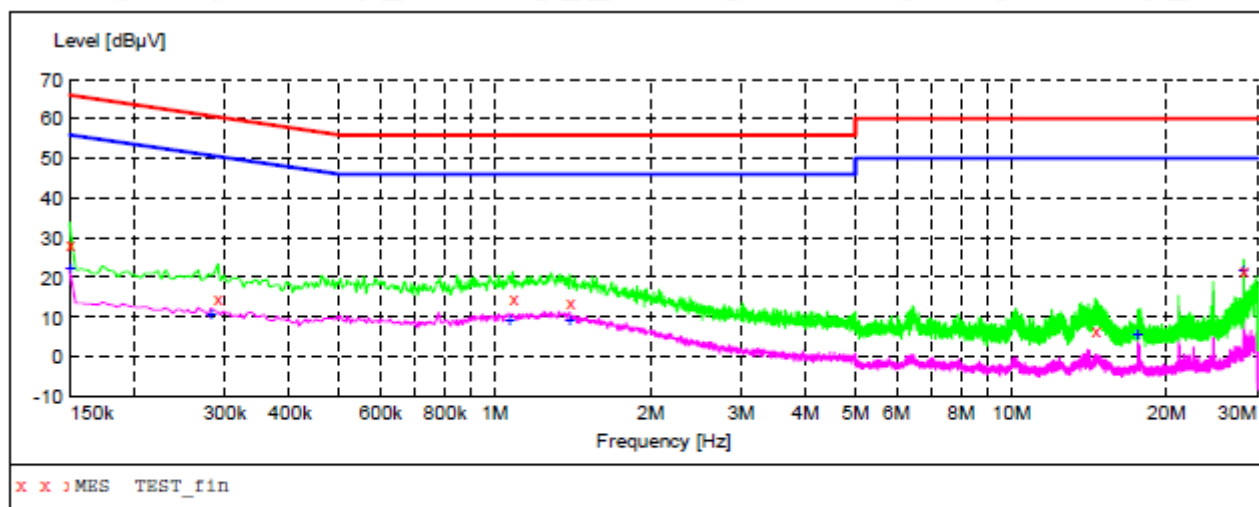
Tel: +86-755 2523 4088

E-mail: agc@agc-cert.com

Service Hotline:400 089 2118

7.4. TEST RESULT OF LINE CONDUCTED EMISSION TEST

LINE CONDUCTED EMISSION TEST-L



MEASUREMENT RESULT: "TEST_fin"

6/21/2019 9:42PM

Frequency MHz	Level dBμV	Transd dB	Limit dBμV	Margin dB	Detector	Line	PE
0.150000	28.30	10.8	66	37.7	QP	L1	FLO
0.290000	15.20	10.9	61	45.3	QP	L1	FLO
1.082000	14.60	11.4	56	41.4	QP	L1	FLO
1.394000	14.10	11.5	56	41.9	QP	L1	FLO
14.558000	6.90	12.1	60	53.1	QP	L1	FLO
28.226000	22.10	12.8	60	37.9	QP	L1	FLO

MEASUREMENT RESULT: "TEST_fin2"

6/21/2019 9:42PM

Frequency MHz	Level dBμV	Transd dB	Limit dBμV	Margin dB	Detector	Line	PE
0.150000	22.60	10.8	56	33.4	AV	L1	FLO
0.282000	10.80	10.9	51	40.0	AV	L1	FLO
1.066000	9.40	11.4	46	36.6	AV	L1	FLO
1.394000	9.00	11.5	46	37.0	AV	L1	FLO
17.594000	5.50	12.3	50	44.5	AV	L1	FLO
28.226000	21.90	12.8	50	28.1	AV	L1	FLO

RESULT: PASS


Attestation of Global Compliance(Shenzhen)Co.,Ltd.

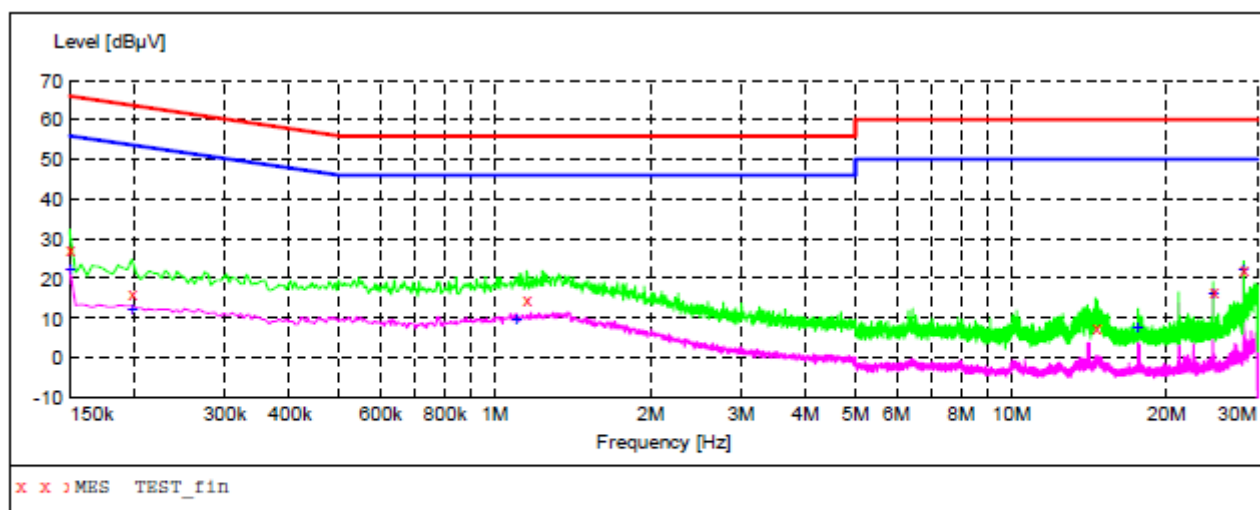
Add: 2/F., Building 2, No.1-4, Chaxi Sanwei Technial Industrial Park, Gushu,
Xixiang, Bao'an District, Shenzhen, Guangdong, China

Tel: +86-755 2523 4088

E-mail: agc@agc-cert.com

Service Hotline:400 089 2118

LINE CONDUCTED EMISSION TEST-N



MEASUREMENT RESULT: "TEST_fin"

6/21/2019 9:46PM

Frequency MHz	Level dBμV	Transd dB	Limit dBμV	Margin dB	Detector	Line	PE
0.150000	27.80	10.8	66	38.2	QP	N	FLO
0.198000	16.50	10.9	64	47.2	QP	N	FLO
1.154000	14.70	11.5	56	41.3	QP	N	FLO
14.590000	7.80	12.1	60	52.2	QP	N	FLO
24.682000	16.90	12.7	60	43.1	QP	N	FLO
28.226000	22.40	12.8	60	37.6	QP	N	FLO

MEASUREMENT RESULT: "TEST_fin2"

6/21/2019 9:46PM

Frequency MHz	Level dBμV	Transd dB	Limit dBμV	Margin dB	Detector	Line	PE
0.150000	22.40	10.8	56	33.6	AV	N	FLO
0.198000	12.40	10.9	54	41.3	AV	N	FLO
1.102000	9.60	11.5	46	36.4	AV	N	FLO
17.590000	7.60	12.3	50	42.4	AV	N	FLO
24.682000	16.40	12.7	50	33.6	AV	N	FLO
28.226000	22.20	12.8	50	27.8	AV	N	FLO

RESULT: PASS


Attestation of Global Compliance(Shenzhen)Co.,Ltd.

Add: 2/F., Building 2, No.1-4, Chaxi Sanwei Technial Industrial Park, Gushu,
Xixiang, Bao'an District, Shenzhen, Guangdong, China

Tel: +86-755 2523 4088

E-mail: agc@agc-cert.com

Service Hotline:400 089 2118

8. EN 55032 RADIATED EMISSION TEST

8.1. LIMITS OF RADIATED DISTURBANCES

Radiated Emission at Frequencies up to 1GHz

For Class B Equipment SAC/OATS

EN 55032 Table clause	Frequency range (MHz)	Distance (m)	Detector type	Limits (dBuV/m)
A4.1	30 - 230	10	Quasi Peak	30
	230 - 1000			37
A4.2	30 - 230	3	Quasi Peak	40
	230 - 1000			47

Radiated Emission at Frequencies above 1GHz

For Class B Equipment FSOATS

EN 55032 Table clause	Frequency range (MHz)	Distance (m)	Detector type	Limits (dBuV/m)
A5.1	1000 - 3000	3	Average	50
	3000 - 6000			54
A5.2	1000 - 3000		Peak	70
	3000 - 6000			74

Note: The lower limit shall apply at the transition frequency.

Required highest frequency for radiated measurement

EN 55032 Table clause	Highest internal frequency (Fx)	Highest measured frequency
1	$F_x \leq 108 \text{ MHz}$	1 GHz
	$108 \text{ MHz} < F_x \leq 500 \text{ MHz}$	2 GHz
	$500 \text{ MHz} < F_x \leq 1 \text{ GHz}$	5 GHz
	$F_x > 1$	5 x Fx up to a maximum of 6 GHz

NOTE 1 For TV and FM broadcast receivers, Fx is determined from the highest frequency generated or used excluding the local oscillator and tuned frequencies.

NOTE 2 Fx is highest fundamental frequency generated or used within the EUT or highest frequency at which it operates.

Where Fx is unknown, the radiated emission measurements shall be performed up to 6 GHz.



Attestation of Global Compliance(Shenzhen)Co.,Ltd.

Add: 2/F., Building 2, No.1-4, Chaxi Sanwei Technial Industrial Park, Gushu,
Xixiang, Bao'an District, Shenzhen, Guangdong, China

Tel: +86-755 2523 4088

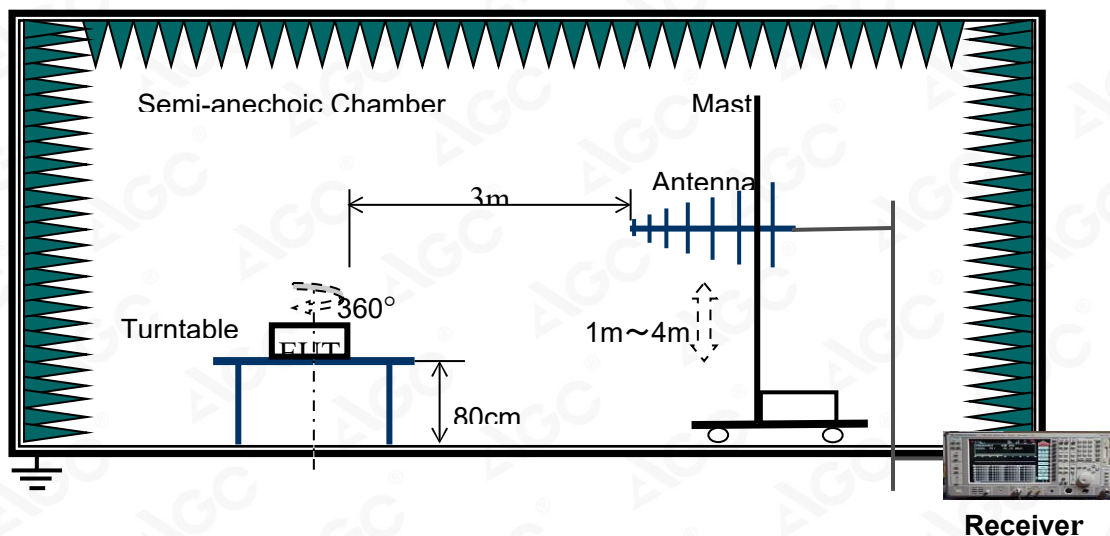
E-mail: agc@agc-cert.com

Service Hotline:400 089 2118

8.2. BLOCK DIAGRAM OF TEST SETUP

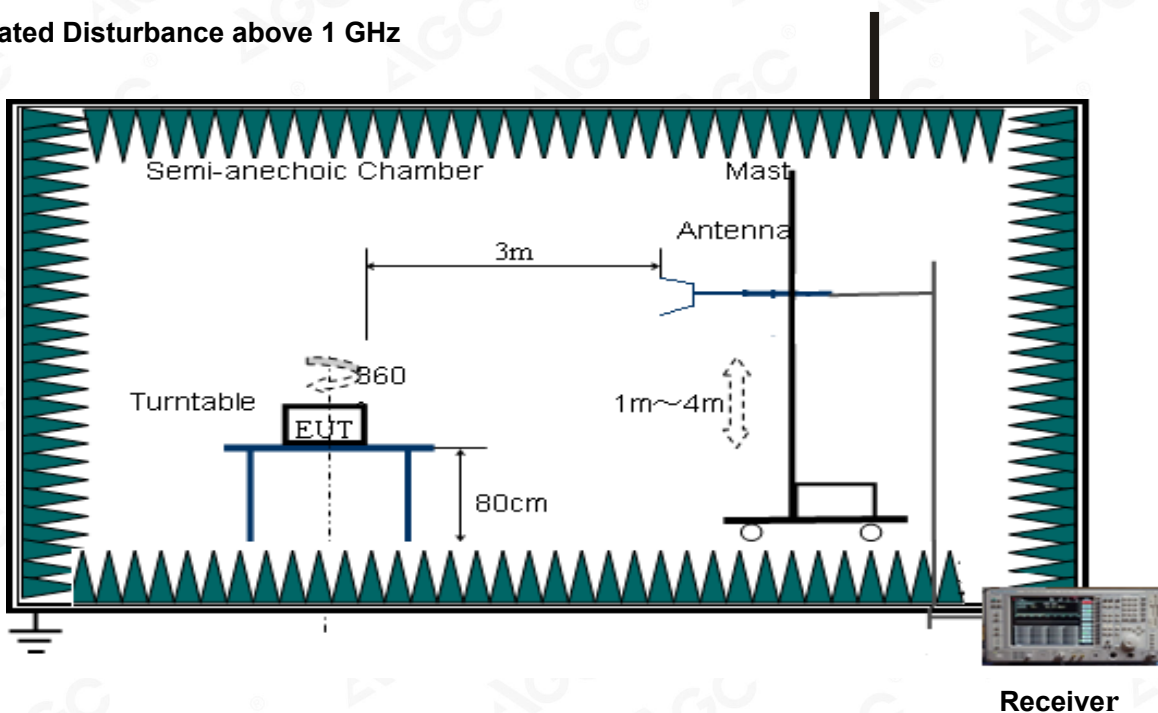
System Diagram of Connections between EUT and Simulators

Radiated Disturbance 30M to1 GHz



Note: The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 120kHz for quasi-peak detection (QP) at frequency up to 1GHz.

Radiated Disturbance above 1 GHz



Note: The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3MHz for Peak detection (PK) at frequency above 1GHz. The resolution bandwidth of test receiver/spectrum analyzer is 1 MHz for Average detection (AV) at frequency above 1GHz.

For the actual test configuration, please refer to the related item – Photographs of the Test Configuration.

8.3. PROCEDURE OF RADIATED EMISSION TEST

- (1) The equipment was set up as per the test configuration to simulate typical actual usage per the user's manual. When the EUT is a tabletop system, a wooden turntable with a height of 0.8 meters is used which is placed on the ground plane as per EN 55032 (see Test Facility for the dimensions of the ground plane used). When the EUT is a floor-standing equipment, it is placed on the ground plane which has a 3-12 mm non-conductive covering to insulate the EUT from the ground plane.
- (2) Support equipment, if needed, was placed as per EN 55032.
- (3) All I/O cables were positioned to simulate typical actual usage as per EN 55032.
- (4) The EUT received AC230V/50Hz power through the outlet socket under the turntable. All support equipments received AC230V/50Hz power from socket under the turntable, if any.
- (5) The antenna was placed at 3 meter away from the EUT as stated in EN 55032. The antenna connected to the Analyzer via a cable and at times a pre-amplifier would be used.
- (6) The Analyzer / Receiver quickly scanned from 30MHz to 1000MHz. The EUT test program was started. Emissions were scanned and measured rotating the EUT to 360 degrees and positioning the antenna 1 to 4 meters above the ground plane, in both the vertical and the horizontal polarization, to maximize the emission reading level.
- (6) The Analyzer / Receiver quickly scanned from 1GHz to 6000MHz. The EUT test program was started.
- (7) The test mode(s) were scanned during the test:
- (8) Recorded at least the six highest emissions. Emission frequency, amplitude, antenna position, polarization and turntable position were recorded into a computer in which correction factors were used to calculate the emission level and compare reading to the applicable limit and Q.P./Peak reading is presented.

Note: The test modes were carried out for all operation modes

The worst case (Mode 1) was showed as the follow:



Attestation of Global Compliance(Shenzhen)Co.,Ltd.

Add: 2/F., Building 2, No.1-4, Chaxi Sanwei Technial Industrial Park, Gushu,
Xixiang, Bao'an District, Shenzhen, Guangdong, China

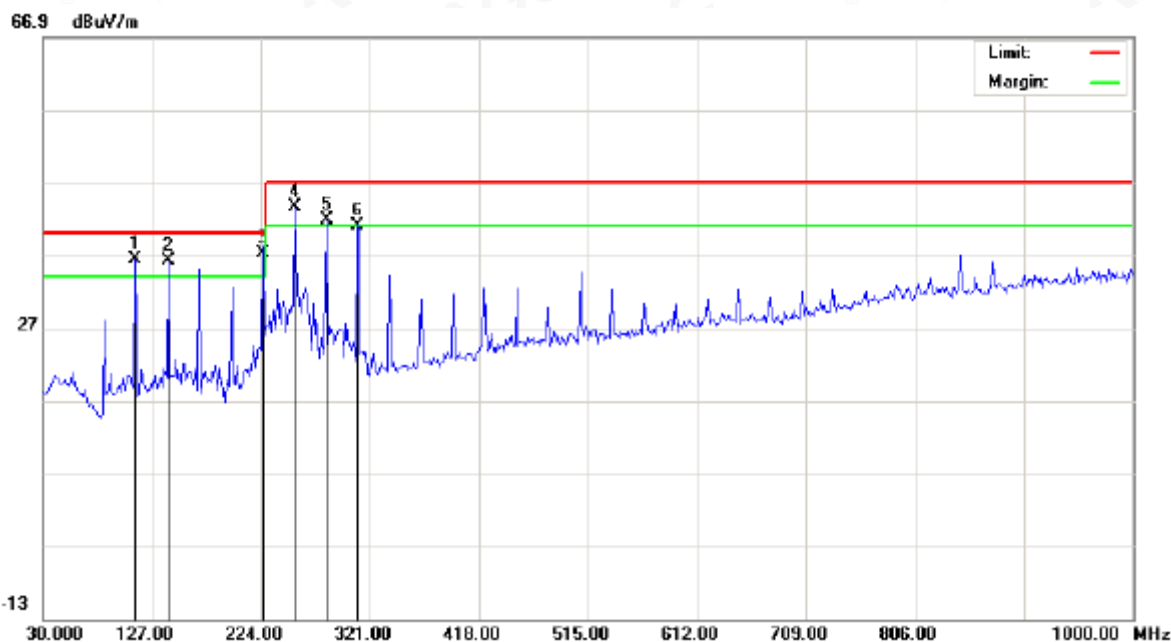
Tel: +86-755 2523 4088

E-mail: agc@agc-cert.com

Service Hotline:400 089 2118

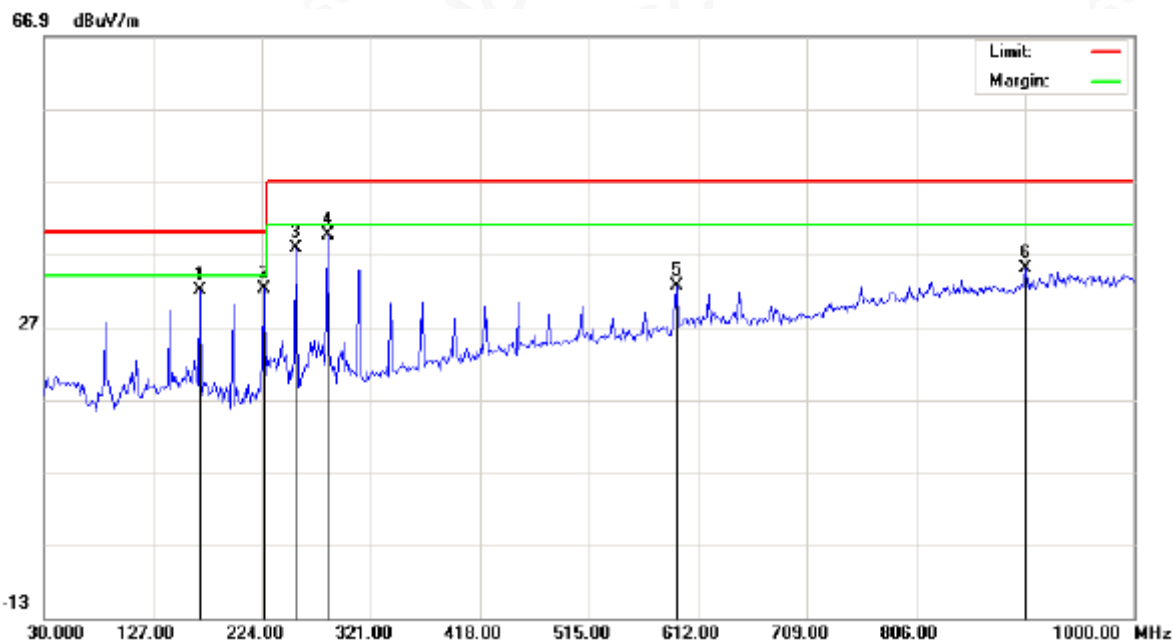
8.4. TEST RESULT OF RADIATED EMISSION TEST

RADIATED EMISSION BELOW 1GHZ- HORIZONTAL



No.	Mk	Freq.	Reading	Factor	Measurement	Limit	Over	Detector	Antenna Height	Table Degree	Comment
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB		cm	degree	
1	!	112.4500	19.14	17.23	36.37	40.00	-3.63	peak			
2	!	141.5500	16.95	19.23	36.18	40.00	-3.82	peak			
3	*	225.8043	19.60	17.65	37.25	40.00	-2.75	QP			
4	!	254.7167	25.23	18.40	43.63	47.00	-3.37	peak			
5	!	282.2000	21.99	19.89	41.88	47.00	-5.12	peak			
6	!	309.6833	21.25	19.81	41.06	47.00	-5.94	peak			

RADIATED EMISSION BELOW 1GHZ- VERTICAL



No.	Mk	Freq.	Reading	Factor	Measurement	Limit	Over	Detector	Antenna Height	Table Degree	Comment
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB		cm	degree	
1		169.0333	13.67	18.26	31.93	40.00	-8.07	peak			
2		225.6167	14.57	17.64	32.21	40.00	-7.79	peak			
3		254.7167	19.32	18.40	37.72	47.00	-9.28	peak			
4	*	282.2000	19.64	19.89	39.53	47.00	-7.47	peak			
5		592.6000	5.85	26.80	32.65	47.00	-14.35	peak			
6		903.0000	3.35	31.73	35.08	47.00	-11.92	peak			

RESULT: PASS

Remark: which above 1GHz are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.



Attestation of Global Compliance (Shenzhen) Co., Ltd.

Add: 2/F., Building 2, No.1-4, Chaxi Sanwei Technial Industrial Park, Gushu,
Xixiang, Bao'an District, Shenzhen, Guangdong, China

Tel: +86-755 2523 4088

E-mail: agc@agc-cert.com

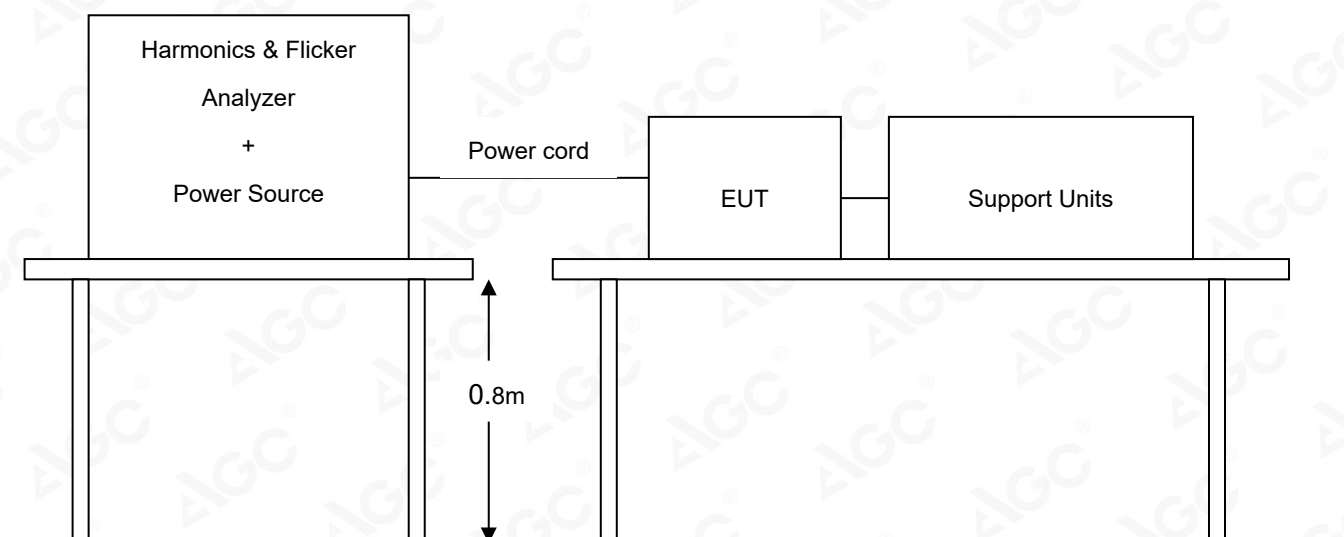
Service Hotline: 400 089 2118

9. EN 61000-3-2 POWER HARMONICS TEST

POWER HARMONICS MEASUREMENT

Port	AC mains
Basic Standard	EN 61000-3-2
Product Standard	EN 55035
Limits	<input checked="" type="checkbox"/> CLASS A ; <input type="checkbox"/> CLASS B ; <input type="checkbox"/> CLASS C ; <input type="checkbox"/> CLASS D
Tester	Max
Temperature	25.0°C
Humidity	55.0%

9.1. BLOCK DIAGRAM OF TEST SETUP



9.2. RESULT

Note: Owing to the power of EUT is less than 75W, so test is not applicable.

10. EN 61000-3-3 VOLTAGE FLUCTUATION / FLICKER TEST

VOLTAGE FLUCTUATION/FLICKER MEASUREMENT

Port	AC mains
Basic Standard	EN 61000-3-3
Product Standard	EN 55035
Limits	§5 of EN 61000-3-3
Tester:	Max
Temperature	25.0°C
Humidity	55.0%

10.1. LIMITS OF VOLTAGE FLUCTUATION AND FLICKER

Tests	Limits		Descriptions
	IEC555-3	IEC/EN 61000-3-3	
Pst	≤ 1.0 , Tp= 10 min.	≤ 1.0 , Tp= 10 min.	Short Term Flicker Indicator
Plt	N/A	≤ 0.65 , Tp=2 hr.	Long Term Flicker Indicator
dc	$\leq 3\%$	$\leq 3.3\%$	Relative Steady-State V-Chang
dmax	$\leq 4\%$	$\leq 4\%$	Maximum Relative V-change
d (t)	N/A	$\leq 3.3\%$ for > 500 ms	Relative V-change characteristic

10.2. TEST PROCEDURE

a. Harmonic Current Test:

Test was performed according to the procedures specified in Clause 5.0 of IEC555-2 and/or Sub-clause 6.2 of IEC/EN 61000-3-2 depend on which standard adopted for compliance measurement.

b. Fluctuation and Flickers Test:

Tests was performed according to the Test Conditions/Assessment of Voltage Fluctuations specified in Clause 5.0/6.0 of IEC555-3 and/or Clause 6.0/4.0 of IEC/EN 61000-3-3 depend on which standard adopted for compliance measurement.

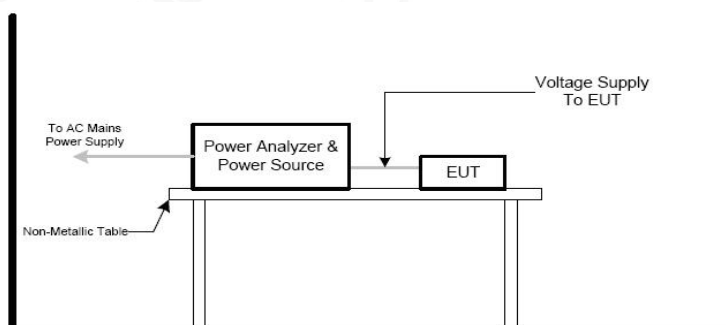
c. All types of harmonic current and/or voltage fluctuation in this report are assessed by direct measurement using flicker-meter.

d. For the actual test configuration, please refer to the related Item –EUT Test Photos.

10.3. EUT OPERATING CONDITION

The EUT tested system was configured as the statements of 2.2 Unless otherwise a special operating condition is specified in the follows during the testing.

10.4. BLOCK DIAGRAM OF TEST SETUP



10.5. THE RESULT

Note: The test modes were carried out for all operation modes

The worst case _ MODE 1(By Adapter Charging) was showed as the follow:

Flicker Test Summary per EN/EN 61000-3-3 (Run time)

Parameter values recorded during the test:

Test Parameter	Measurement Value	Limit	Remarks
P_{st}	0.79	1.0	Pass
P_{lt}	0.47	0.65	Pass
$T_{dt(s)}$	0.33	0.5	Pass
$d_{max}(\%)$	2.889%	4%	Pass
$d_c(\%)$	1.341%	3.3%	Pass



Attestation of Global Compliance(Shenzhen)Co.,Ltd.

Add: 2/F., Building 2, No.1-4, Chaxi Sanwei Technial Industrial Park, Gushu,
Xixiang, Bao'an District, Shenzhen, Guangdong, China

Tel: +86-755 2523 4088

E-mail: agc@agc-cert.com

Service Hotline:400 089 2118

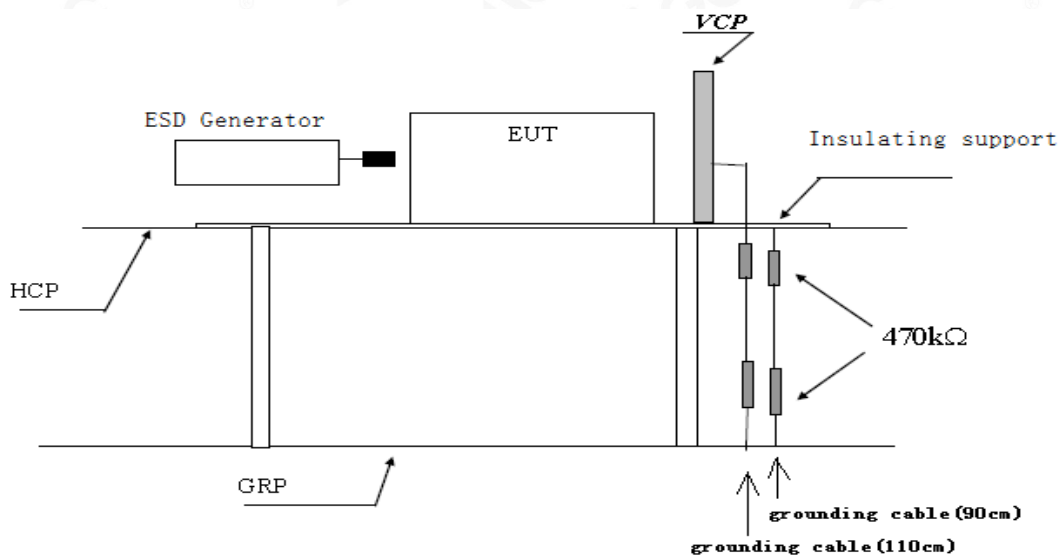
11. EN 61000-4-2 ESD IMMUNITY TEST

ELECTROSTATIC DISCHARGE (ESD) IMMUNITY TEST

Port	Enclosure
Basic Standard	EN 61000-4-2
Product Standard	EN 55035
Test Level	± 8.0 kV (Air Discharge) ± 4.0 kV (Contact Discharge) ± 4.0 kV (Indirect Discharge)
Standard require	B
Tester	Max
Temperature	25.0C
Humidity	55.0%

11.1. BLOCK DIAGRAM OF TEST SETUP

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



11.2. 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.

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

As per the requirement of EN 55035; applying direct contact discharge at the sides other than front of EUT at minimum 50 discharges (25 positive and 25 negative) if applicable, can't be applied direct contact discharge side of EUT then the indirect discharge shall be applied. One of the test points shall be subjected to at least 50 indirect discharge (contact) to the front edge of horizontal coupling plane.

Other parts of EUT where it is not possible to perform contact discharge then selecting appropriate points of EUT for air discharge, a minimum of 10 single air discharges shall be applied.

The application of ESD to the contact of open connectors is not required.

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

TEST RESULT:

Note: The test modes were carried out for all operation modes

The worst case _Mode 1 (by adapter charging) was showed as the follow:

The electrostatic discharges were applied as follows:

Voltage	Coupling	Test Performance	Performance Result	Result (Pass/Fail)
±2kV; ±4kV	Contact Discharge	No function loss	A	Pass
±2kV; ±4kV	Indirect Discharge HCP (Front)	No function loss	A	Pass
±2kV; ±4kV	Indirect Discharge HCP (Left)	No function loss	A	Pass
±2kV; ±4kV	Indirect Discharge HCP (Back)	No function loss	A	Pass
±2kV; ±4kV	Indirect Discharge HCP (Right)	No function loss	A	Pass
±2kV; ±4kV	Indirect Discharge VCP (Front)	No function loss	A	Pass
±2kV; ±4kV	Indirect Discharge VCP (Left)	No function loss	A	Pass
±2kV; ±4kV	Indirect Discharge VCP (Back)	No function loss	A	Pass
±2kV; ±4kV	Indirect Discharge VCP (Right)	No function loss	A	Pass
±2kV; ±4kV; ±8kV	Air Discharge	No function loss	A	Pass



Attestation of Global Compliance(Shenzhen)Co.,Ltd.

Add: 2/F., Building 2, No.1-4, Chaxi Sanwei Technial Industrial Park, Gushu,
Xixiang, Bao'an District, Shenzhen, Guangdong, China

Tel: +86-755 2523 4088

E-mail: agc@agc-cert.com

Service Hotline:400 089 2118

11.3. PERFORMANCE

<input checked="" type="checkbox"/> 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.
<input type="checkbox"/> 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.
<input type="checkbox"/> Criteria C:	Temporary loss of function is allowed, provided the functions self recoverable or can be restored by the operation of controls.
<input checked="" type="checkbox"/> PASS <input type="checkbox"/> FAIL	



Attestation of Global Compliance(Shenzhen)Co.,Ltd.

Add: 2/F., Building 2, No.1-4, Chaxi Sanwei Technial Industrial Park, Gushu,
Xixiang, Bao'an District, Shenzhen, Guangdong, China

Tel: +86-755 2523 4088

E-mail: agc@agc-cert.com

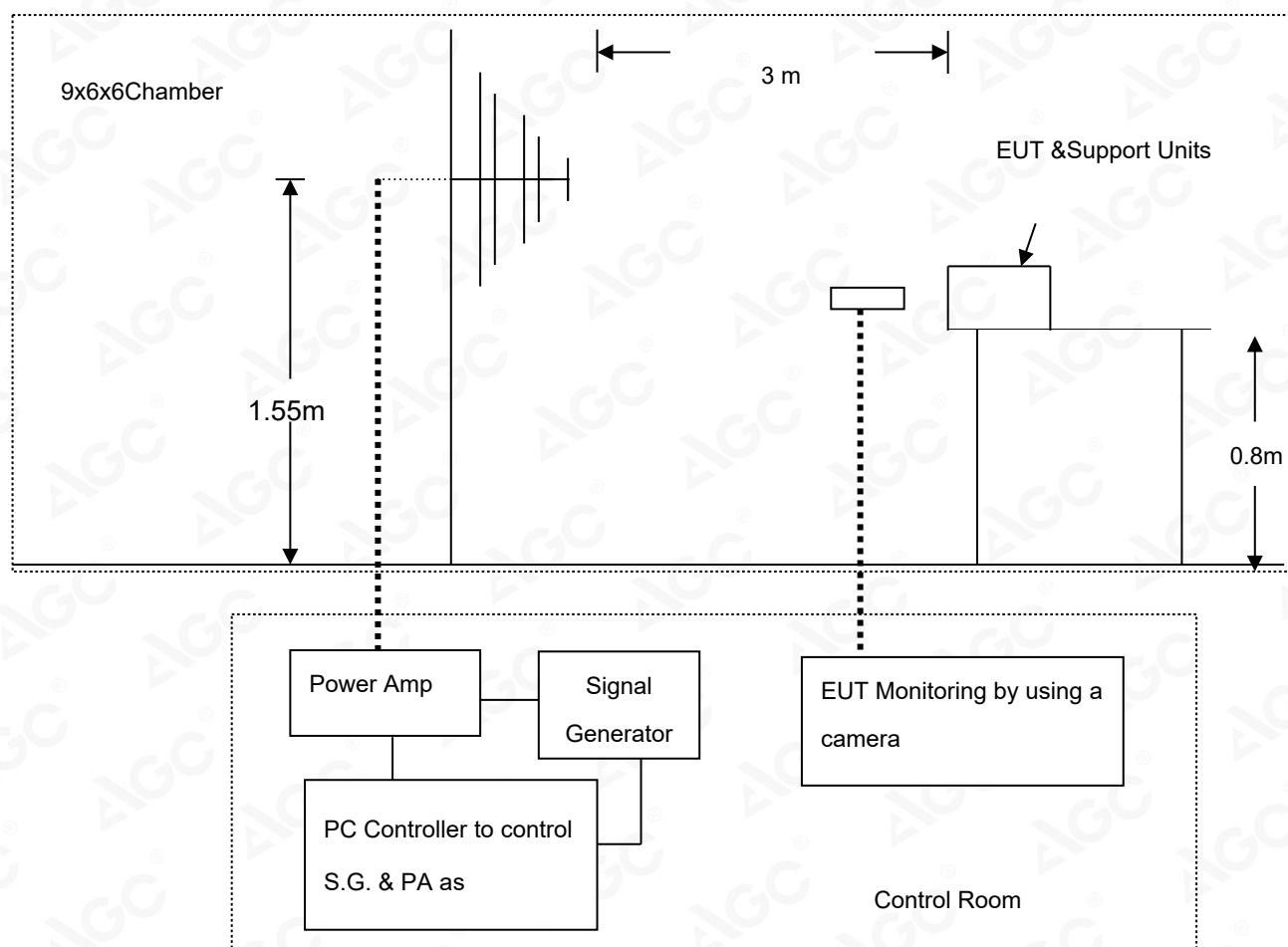
Service Hotline:400 089 2118

12. EN 61000-4-3 RS IMMUNITY TEST

RADIATED ELECTROMAGNETIC FIELD IMMUNITY TEST

Port	Enclosure
Basic Standard	EN 61000-4-3
Product Standard	EN 55035
Test Level:	3V/m with 80% AM. 1kHz Modulation.
Standard require	A
Tester	Max
Temperature	25.0°C
Humidity	55.0%

12.1. BLOCK DIAGRAM OF TEST SETUP



12.2. 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 EN 61000-4-3.

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

Setting the testing parameters of RS test software per EN 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, 1,8 GHz, 2,6 GHz, 3,5 GHz, 5 GHz.

Recording the test result in following table.

EN 61000-4-3 Final test conditions:

Test level: 3V/m

Steps: 1 % of fundamental

Dwell Time: 1 sec

TEST RESULT:

Note: The test modes were carried out for all operation modes

The worst case _ Mode 1 (by adapter charging) was showed as the follow:

Range (MHz)	Field	Modulation	Polarity	Position	Test Performance	Performance Result	Result (Pass/Fail)
80-1000	3V/m	AM	H	Front	No function loss	A	Pass
80-1000	3V/m	AM	H	Left	No function loss	A	Pass
80-1000	3V/m	AM	H	Back	No function loss	A	Pass
80-1000	3V/m	AM	H	Right	No function loss	A	Pass
80-1000	3V/m	AM	V	Front	No function loss	A	Pass
80-1000	3V/m	AM	V	Left	No function loss	A	Pass
80-1000	3V/m	AM	V	Back	No function loss	A	Pass
80-1000	3V/m	AM	V	Right	No function loss	A	Pass
1800	3V/m	AM	H	Front	No function loss	A	Pass
1800	3V/m	AM	H	Left	No function loss	A	Pass
1800	3V/m	AM	H	Back	No function loss	A	Pass
1800	3V/m	AM	H	Right	No function loss	A	Pass
1800	3V/m	AM	V	Front	No function loss	A	Pass
1800	3V/m	AM	V	Left	No function loss	A	Pass
1800	3V/m	AM	V	Back	No function loss	A	Pass
1800	3V/m	AM	V	Right	No function loss	A	Pass
2600	3V/m	AM	H	Front	No function loss	A	Pass
2600	3V/m	AM	H	Left	No function loss	A	Pass



Attestation of Global Compliance (Shenzhen) Co., Ltd.

Add: 2/F., Building 2, No.1-4, Chaxi Sanwei Technial Industrial Park, Gushu, Xixiang, Bao'an District, Shenzhen, Guangdong, China

Tel: +86-755 2523 4088

E-mail: agc@agc-cert.com

Service Hotline: 400 089 2118

2600	3V/m	AM	H	Back	No function loss	A	Pass
2600	3V/m	AM	H	Right	No function loss	A	Pass
2600	3V/m	AM	V	Front	No function loss	A	Pass
2600	3V/m	AM	V	Left	No function loss	A	Pass
2600	3V/m	AM	V	Back	No function loss	A	Pass
2600	3V/m	AM	V	Right	No function loss	A	Pass
3500	3V/m	AM	H	Front	No function loss	A	Pass
3500	3V/m	AM	H	Left	No function loss	A	Pass
3500	3V/m	AM	H	Back	No function loss	A	Pass
3500	3V/m	AM	H	Right	No function loss	A	Pass
3500	3V/m	AM	V	Front	No function loss	A	Pass
3500	3V/m	AM	V	Left	No function loss	A	Pass
3500	3V/m	AM	V	Back	No function loss	A	Pass
3500	3V/m	AM	V	Right	No function loss	A	Pass
5000	3V/m	AM	H	Front	No function loss	A	Pass
5000	3V/m	AM	H	Left	No function loss	A	Pass
5000	3V/m	AM	H	Back	No function loss	A	Pass
5000	3V/m	AM	H	Right	No function loss	A	Pass
5000	3V/m	AM	V	Front	No function loss	A	Pass
5000	3V/m	AM	V	Left	No function loss	A	Pass
5000	3V/m	AM	V	Back	No function loss	A	Pass
5000	3V/m	AM	V	Right	No function loss	A	Pass



Attestation of Global Compliance(Shenzhen)Co.,Ltd.

Add: 2/F., Building 2, No.1-4, Chaxi Sanwei Technial Industrial Park, Gushu,
Xixiang, Bao'an District, Shenzhen, Guangdong, China

Tel: +86-755 2523 4088

E-mail: agc@agc-cert.com

Service Hotline:400 089 2118

12.3. PERFORMANCE

<input checked="" type="checkbox"/> 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.
<input type="checkbox"/> 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.
<input type="checkbox"/> Criteria C:	Temporary loss of function is allowed, provided the functions self recoverable or can be restored by the operation of controls.

☒ **PASS**

☐ **FAIL**



Attestation of Global Compliance(Shenzhen)Co.,Ltd.

Add: 2/F., Building 2, No.1-4, Chaxi Sanwei Technial Industrial Park, Gushu,
Xixiang, Bao'an District, Shenzhen, Guangdong, China

Tel: +86-755 2523 4088

E-mail: agc@agc-cert.com

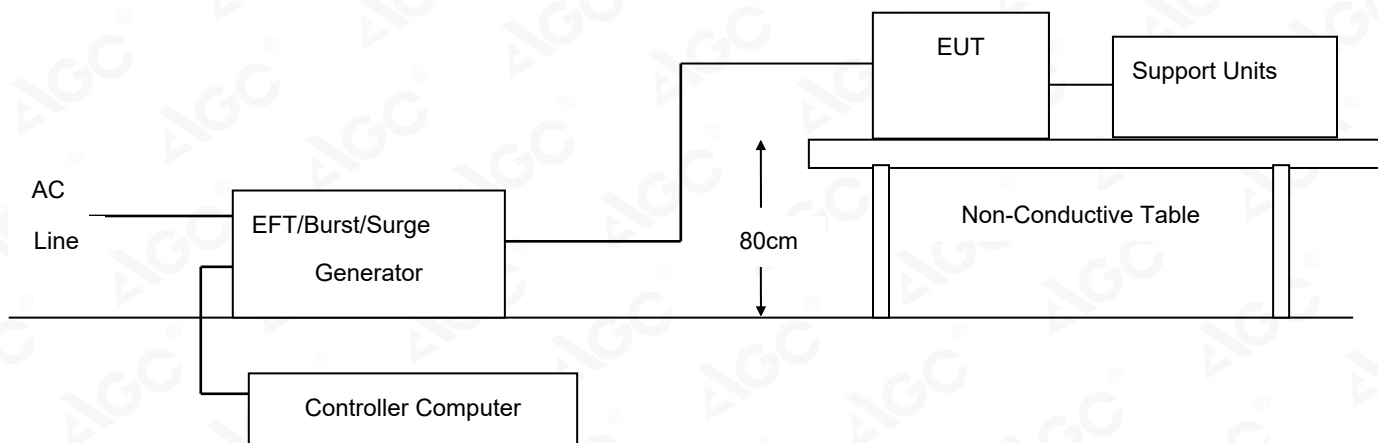
Service Hotline:400 089 2118

13. EN 61000-4-4 EFT IMMUNITY TEST

ELECTRICAL FAST TRANSIENTS/BURST IMMUNITY TEST

Port	On Power Supply Lines ; On Telecommunication Port
Basic Standard	EN 61000-4-4
Product Standard	EN 55035
Test Level	+/- 1kV for Power Supply Lines; +/- 0.5kV for LAN Lines;
Standard require	B
Tester	Max
Temperature	25.0C
Humidity	55.0%

13.1. BLOCK DIAGRAM OF TEST SETUP



13.2. TEST PROCEDURE

The EUT and support units were located on a wooden table 0.8m away from ground reference plane.

A 1.0 meter long power cord was attached to EUT during the test.

The length of communication cable between communication port and clamp was keeping within 1 meter.

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

Related peripherals work during the test.

Recording the test result as shown in following table.

Test conditions:

Impulse Frequency: 5 kHz

Tr/Th: 5/50ns

Burst Duration: 15ms

Burst Period: 300ms

TEST RESULT:

Note: The test modes were carried out for all operation modes

The worst case Mode 1(By Adapter Charging) was showed as the follow:

Inject Line	Voltage kV	Inject Method	Test Performance	Performance Result	Result (Pass/Fail)
a.c. port, L	+/- 1	Direct	No function loss	A	Pass
a.c. port, N	+/- 1	Direct	No function loss	A	Pass
a.c. port, L-N	+/- 1	Direct	No function loss	A	Pass
a.c. port, PE	+/- 1	Direct	No function loss	A	Pass
a.c. port, L-PE	+/- 1	Direct	No function loss	A	Pass
a.c. port, N-PE	+/- 1	Direct	No function loss	A	Pass
a.c. port, L-N-PE	+/- 1	Direct	No function loss	A	Pass

13.3. PERFORMANCE

<input checked="" type="checkbox"/> 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.
<input type="checkbox"/> 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.
<input type="checkbox"/> Criteria C:	Temporary loss of function is allowed, provided the functions self recoverable or can be restored by the operation of controls.

<input checked="" type="checkbox"/> PASS	<input type="checkbox"/> FAIL
---	--------------------------------------



Attestation of Global Compliance(Shenzhen)Co.,Ltd.

Add: 2/F., Building 2, No.1-4, Chaxi Sanwei Technial Industrial Park, Gushu,
Xixiang, Bao'an District, Shenzhen, Guangdong, China

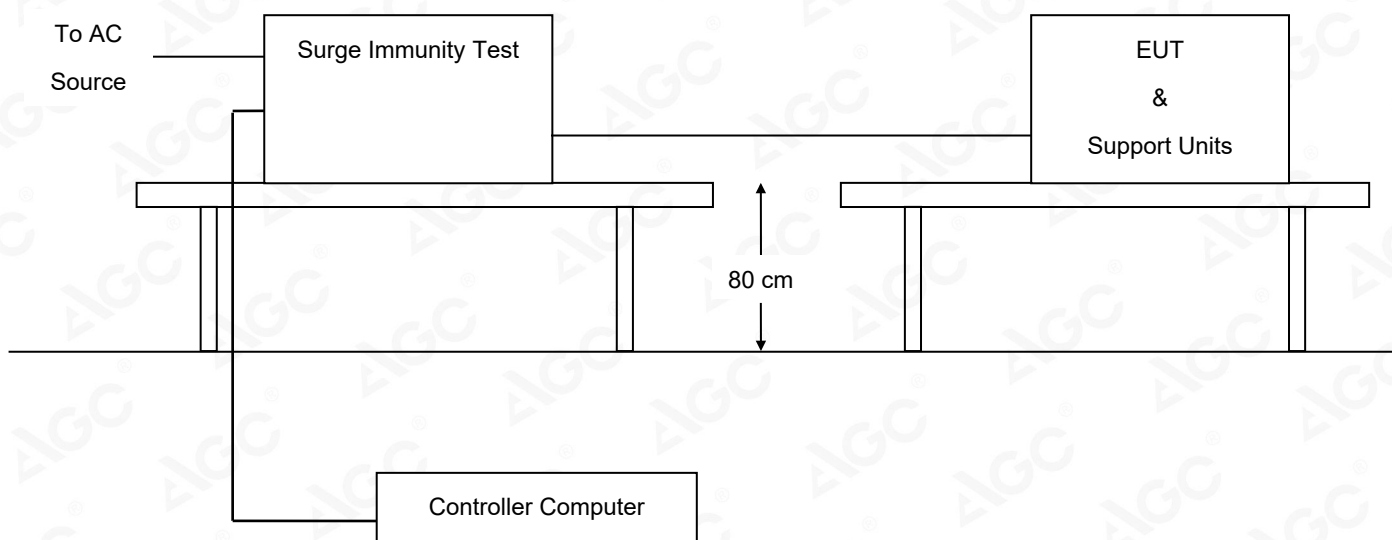
Tel: +86-755 2523 4088 E-mail: agc@agc-cert.com Service Hotline:400 089 2118

14. EN 61000-4-5 SURGE IMMUNITY TEST

SURGE IMMUNITY TEST

Port	On Power Supply Lines ; On Telecommunication Port
Basic Standard	EN 61000-4-5
Product Standard	EN 55035
Requirements	+/- 1kV (Line to Line) On Power Supply Lines +/- 1kV (Line to Line) On LAN Lines
Standard require	B
Tester	Max
Temperature	25.0°C
Humidity	55.0%

14.1. BLOCK DIAGRAM OF TEST SETUP



14.2. TEST PROCEDURE

The EUT and support units were located on a wooden table 0.8 m away from ground floor.

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

Recording the test result as shown in following table.

Test conditions:

Voltage Waveform	1.2/50 μ s
Current Waveform	8/20 μ s
Polarity	Positive/Negative
Phase angle	0°, 180°, 90°, 270°
Number of Test	5

TEST RESULT:

Note: The test modes were carried out for all operation modes

The worst case _ Mode 1(By Adapter Charging) was showed as the follow:

Coupling Line	Voltage (kV)	Polarity	Coupling Method	Test Performance	Performance Result	Result (Pass/Fail)
a.c. power, L-N	1	Positive/Negative	Capacitive	No function loss	A	Pass
a.c. power, L-PE	2	Positive/Negative	Capacitive	No function loss	A	Pass
a.c. power, N-PE	2	Positive/Negative	Capacitive	No function loss	A	Pass



Attestation of Global Compliance(Shenzhen)Co.,Ltd.

Add: 2/F., Building 2, No.1-4, Chaxi Sanwei Technial Industrial Park, Gushu,
Xixiang, Bao'an District, Shenzhen, Guangdong, China

Tel: +86-755 2523 4088

E-mail: agc@agc-cert.com

Service Hotline:400 089 2118

14.3. PERFORMANCE

<input checked="" type="checkbox"/> 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.
<input type="checkbox"/> 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.
<input type="checkbox"/> Criteria C:	Temporary loss of function is allowed, provided the functions self recoverable or can be restored by the operation of controls.

☒ **PASS**

☐ **FAIL**



Attestation of Global Compliance(Shenzhen)Co.,Ltd.

Add: 2/F., Building 2, No.1-4, Chaxi Sanwei Technial Industrial Park, Gushu,
Xixiang, Bao'an District, Shenzhen, Guangdong, China

Tel: +86-755 2523 4088

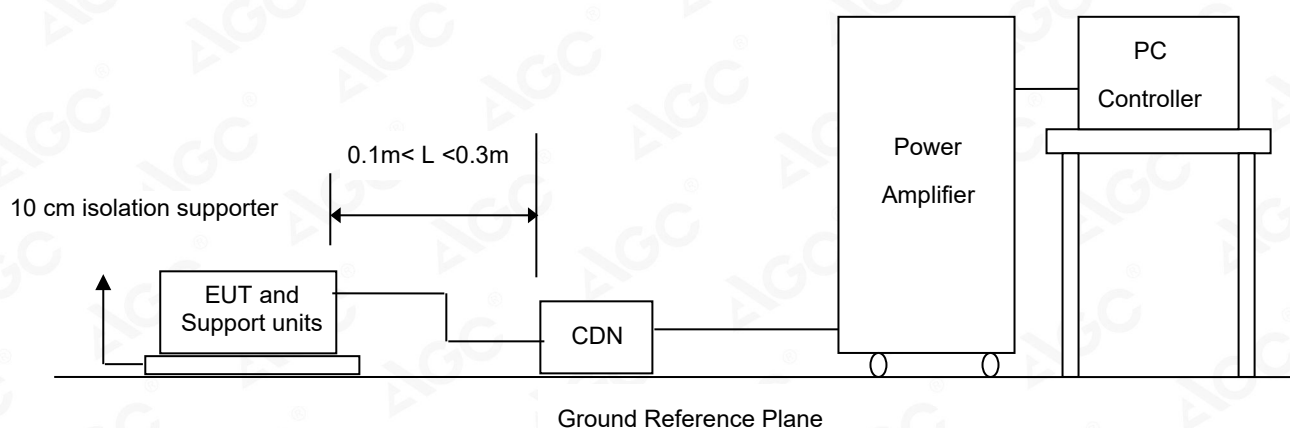
E-mail: agc@agc-cert.com

Service Hotline:400 089 2118

15. EN 61000-4-6 CS IMMUNITY TEST

Port	On Power Supply Lines ; On Telecommunication Port
Basic Standard	EN 61000-4-6
Product Standard	EN 55035
Requirements	0.15 MHz ~10MHz 3V with 80% AM. 1 kHz Modulation 10 MHz ~30MHz 3V to 1V with 80% AM. 1 kHz Modulation 30 MHz ~80MHz 1V with 80% AM. 1 kHz Modulation
Standard require	A
Tester	Max
Temperature	25.0°C
Humidity	55.0%

15.1. BLOCK DIAGRAM OF TEST SETUP



15.2. TEST PROCEDURE

The EUT and support units were located at a ground reference plane with the interposition of a 0.1 m thickness insulating support and the CDN was located on GRP directly.

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

Related peripherals work during the test.

Setting the testing parameters of CS test software per EN 61000-4-6.

Recording the test result in following table.

Test conditions:

Frequency Range	0.15MHz-80MHz
Frequency Step	1% of fundamental
Dwell Time	1 sec

TEST RESULT:

Note: The test modes were carried out for all operation modes

The worst case _ MODE 1(By Adapter Charging) was showed as the follow:

Range (MHz)	Strength	Modulation	Performance Result	Result (Pass/Fail)
0.15-10	3V	AM	A	Pass
10-30	3V to 1V	AM	A	Pass
30-80	1V	AM	A	Pass



Attestation of Global Compliance(Shenzhen)Co.,Ltd.

Add: 2/F., Building 2, No.1-4, Chaxi Sanwei Technial Industrial Park, Gushu,
Xixiang, Bao'an District, Shenzhen, Guangdong, China

Tel: +86-755 2523 4088

E-mail: agc@agc-cert.com

Service Hotline:400 089 2118

15.3. PERFORMANCE

<input checked="" type="checkbox"/> 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.
<input type="checkbox"/> 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.
<input type="checkbox"/> Criteria C:	Temporary loss of function is allowed, provided the functions self recoverable or can be restored by the operation of controls.

☒ **PASS**

☐ **FAIL**



Attestation of Global Compliance(Shenzhen)Co.,Ltd.

Add: 2/F., Building 2, No.1-4, Chaxi Sanwei Technial Industrial Park, Gushu,
Xixiang, Bao'an District, Shenzhen, Guangdong, China

Tel: +86-755 2523 4088

E-mail: agc@agc-cert.com

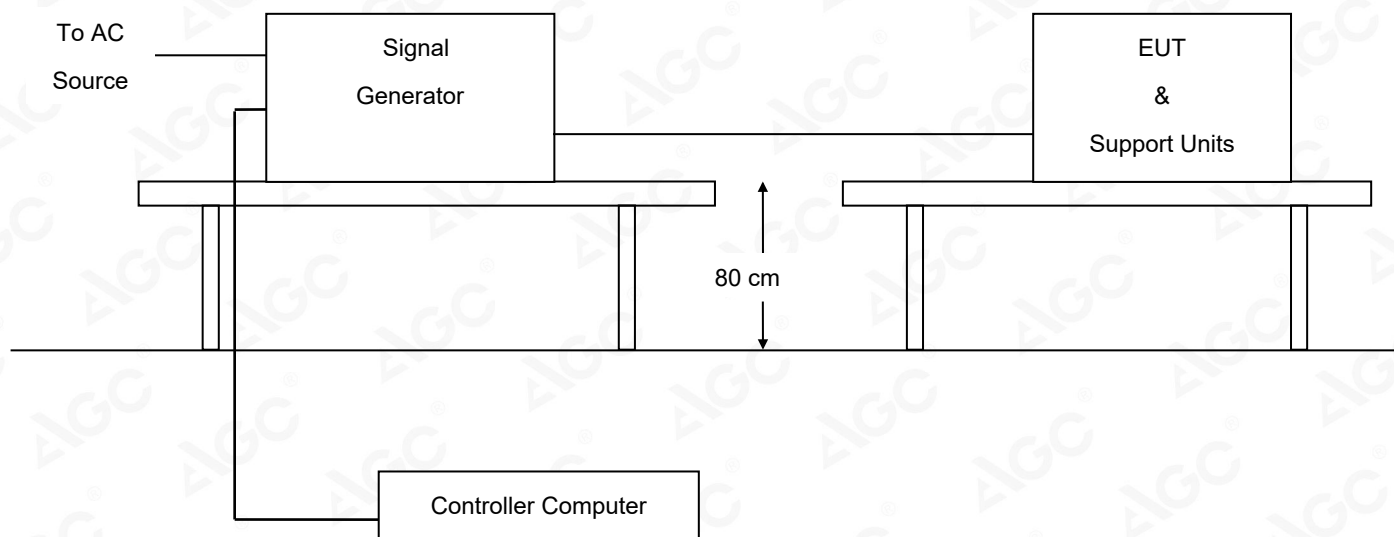
Service Hotline:400 089 2118

16. EN 61000-4-8 PFMF TEST

POWER FREQUENCY MAGNETIC FIELDS IMMUNITY TEST

Port	Enclosure
Basic Standard	EN 61000-4-8
Product Standard	EN 55035
Requirements	50/60 Hz, 1A/m
Standard require	A
Tester	Max
Temperature	25 °C
Humidity	55%

16.1. BLOCK DIAGRAM OF TEST SETUP



16.2. TEST PROCEDURE

The EUT shall be subjected to the test magnetic field by using the induction coil of standard dimensions (1m × 1m). The induction coil shall then be rotated by 90° in order to expose the EUT to the test field with different orientations.

Test Conditions:

Frequency	Polarity	Level	Test Performance	Performance Result	Result
50 Hz	X	1 A/m	No function loss	/	N/A
50 Hz	Y	1 A/m	No function loss	/	N/A
50 Hz	Z	1 A/m	No function loss	/	N/A

TEST RESULT:

N/A

Note: Owing to the EUT has no sensitive devices to PFMF, so it's not applicable.



Attestation of Global Compliance(Shenzhen)Co.,Ltd.

Add: 2/F., Building 2, No.1-4, Chaxi Sanwei Technial Industrial Park, Gushu,
Xixiang, Bao'an District, Shenzhen, Guangdong, China

Tel: +86-755 2523 4088

E-mail: agc@agc-cert.com

Service Hotline:400 089 2118

17. EN 61000-4-11 DIPS IMMUNITY TEST

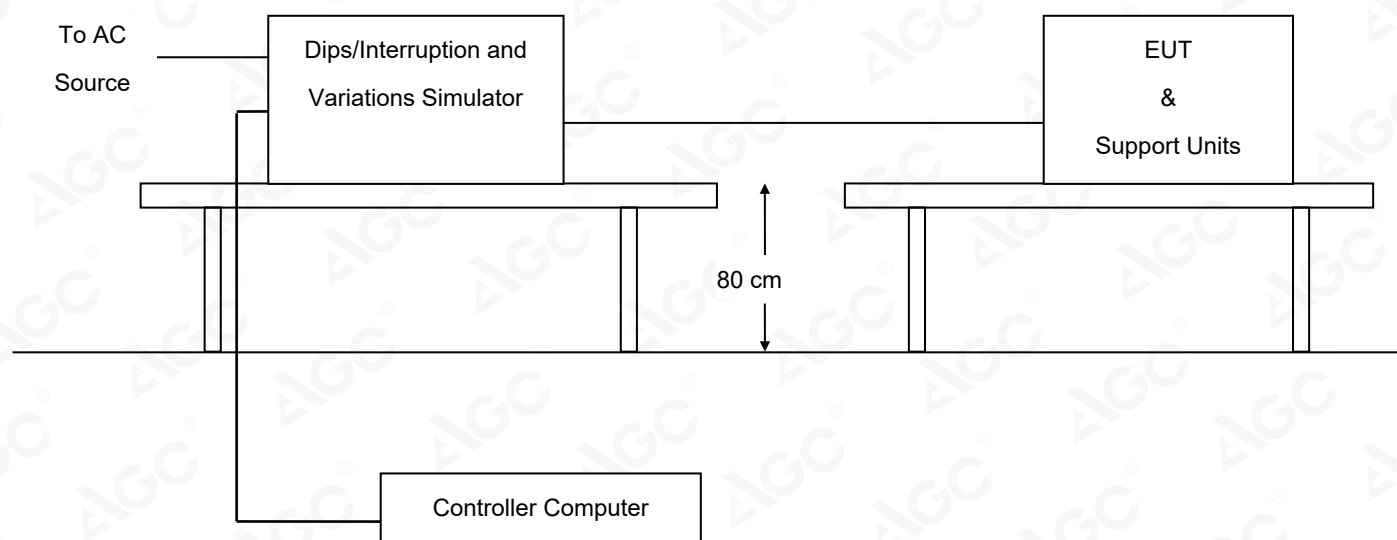
VOLTAGE DIPS, SHORT INTERRUPTIONS AND VOLTAGE VARIATIONS IMMUNITY TEST

Port	On Power Supply Lines
Basic Standard	EN 61000-4-11
Product Standard	EN 55035
Requirements	0, 45, 90, 135, 180, 225, 270, 315 degrees
Test Interval	Min. 10 sec.
Tester	Max
Temperature	25.0°C
Humidity	55.0%

Voltage Dips	Test Level % U_T	Reduction (%)	Duration (periods)	Performance Criteria
	<5	>95	0.5	B
	70	30	25	C

Voltage Interruptions	Test Level % U_T	Reduction (%)	Duration (periods)	Performance Criteria
	<5	>95	250	C

17.1. BLOCK DIAGRAM OF TEST SETUP



17.2. TEST PROCEDURE

The EUT and support units were located on a wooden table, 0.8 m away from ground floor.

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

Setting the parameter of tests and then perform the test software of test simulator.

Conditions changes to occur at 0 degree crossover point of the voltage waveform.

Recording the test result in test record form.

Test conditions:

The duration with a sequence of three dips/interruptions with interval of 10 s minimum
(Between each test event)

TEST RESULT:

Note: The test modes were carried out for all operation modes

The worst case _ MODE 1(By Adapter Charging) was showed as the follow:

Voltage Dips:

Test Level % U_T	Reduction (%)	Duration (periods)	Observation	Performance Result	Result (Pass/Fail)
<5	>95	0.5	Normal	A	Pass
70	30	25	Normal	A	Pass

Voltage Interruptions:

Test Level % U_T	Reduction (%)	Duration (periods)	Observation	Performance Result	Result (Pass/Fail)
<5	>95	250	Stop charging	B	Pass



Attestation of Global Compliance(Shenzhen)Co.,Ltd.

Add: 2/F., Building 2, No.1-4, Chaxi Sanwei Technial Industrial Park, Gushu,
Xixiang, Bao'an District, Shenzhen, Guangdong, China

Tel: +86-755 2523 4088

E-mail: agc@agc-cert.com

Service Hotline:400 089 2118

17.3. INTERPRETATION

<input checked="" type="checkbox"/> 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.
<input checked="" type="checkbox"/> 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.
<input type="checkbox"/> Criteria C:	Temporary loss of function is allowed, provided the functions self recoverable or can be restored by the operation of controls.

☒ **PASS**
☐ **FAIL**



Attestation of Global Compliance(Shenzhen)Co.,Ltd.

Add: 2/F., Building 2, No.1-4, Chaxi Sanwei Technial Industrial Park, Gushu,
Xixiang, Bao'an District, Shenzhen, Guangdong, China

Tel: +86-755 2523 4088

E-mail: agc@agc-cert.com

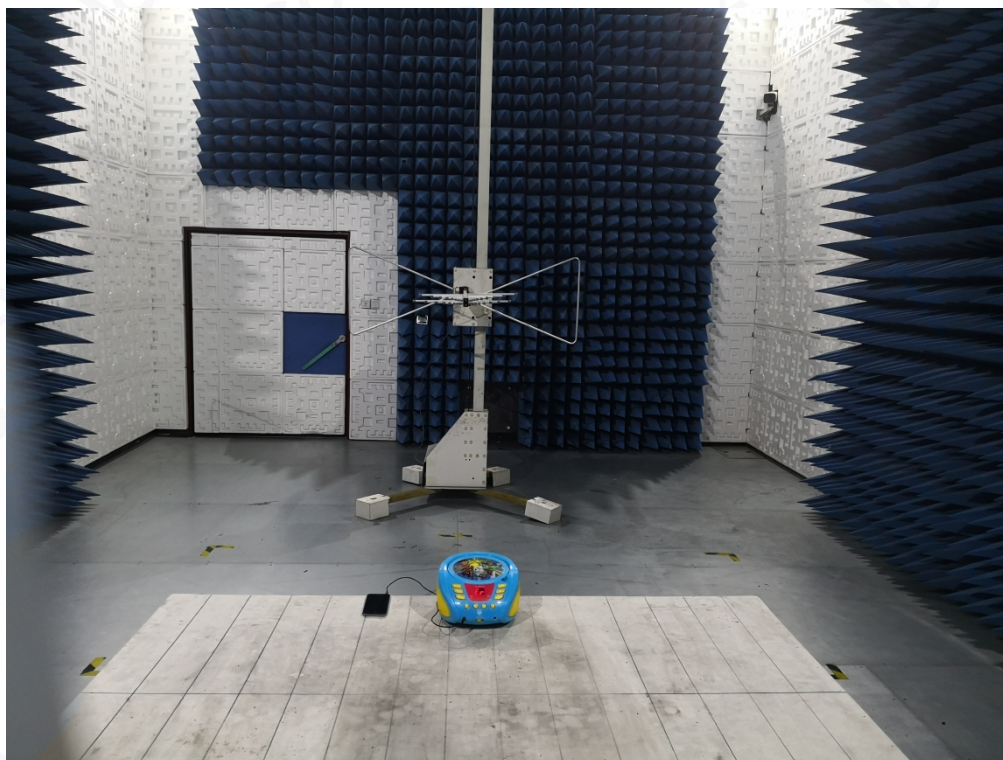
Service Hotline:400 089 2118

APPENDIX A: PHOTOGRAPHS OF TEST SETUP

LINE CONDUCTED EMISSION TEST SETUP



RADIATED EMISSION TEST SETUP



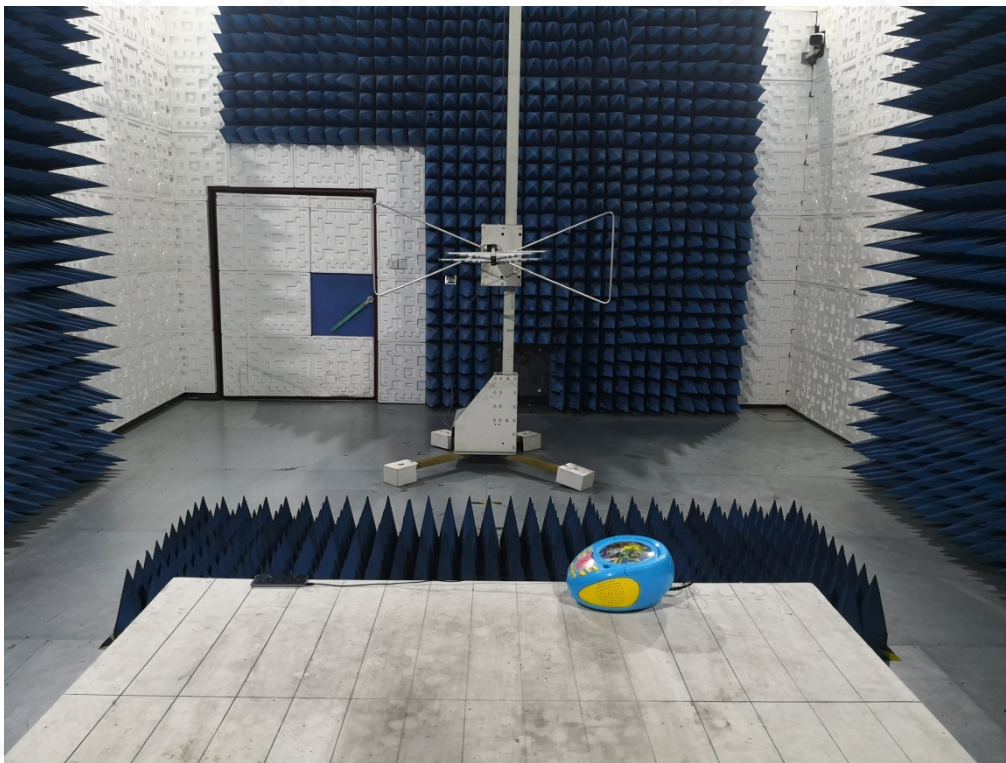
EN 61000-4-2 ESD TEST SETUP



EN61000-3-3 VOLTAGE FLUCTUATION / FLICKER TEST SETUP



EN 61000-4-3 RS TEST SETUP



EN 61000-4-6 CS IMMUNITY TEST SETUP



EN 61000-4-4/-5/-11 EFT/SURGE/DIPS TEST SETUP



----END OF REPORT----



Attestation of Global Compliance(Shenzhen)Co.,Ltd.

Add: 2/F., Building 2, No.1-4, Chaxi Sanwei Technial Industrial Park, Gushu,
Xixiang, Bao'an District, Shenzhen, Guangdong, China

Tel: +86-755 2523 4088

E-mail: agc@agc-cert.com

Service Hotline:400 089 2118

APPENDIX B: PHOTOGRAPHS OF EUT

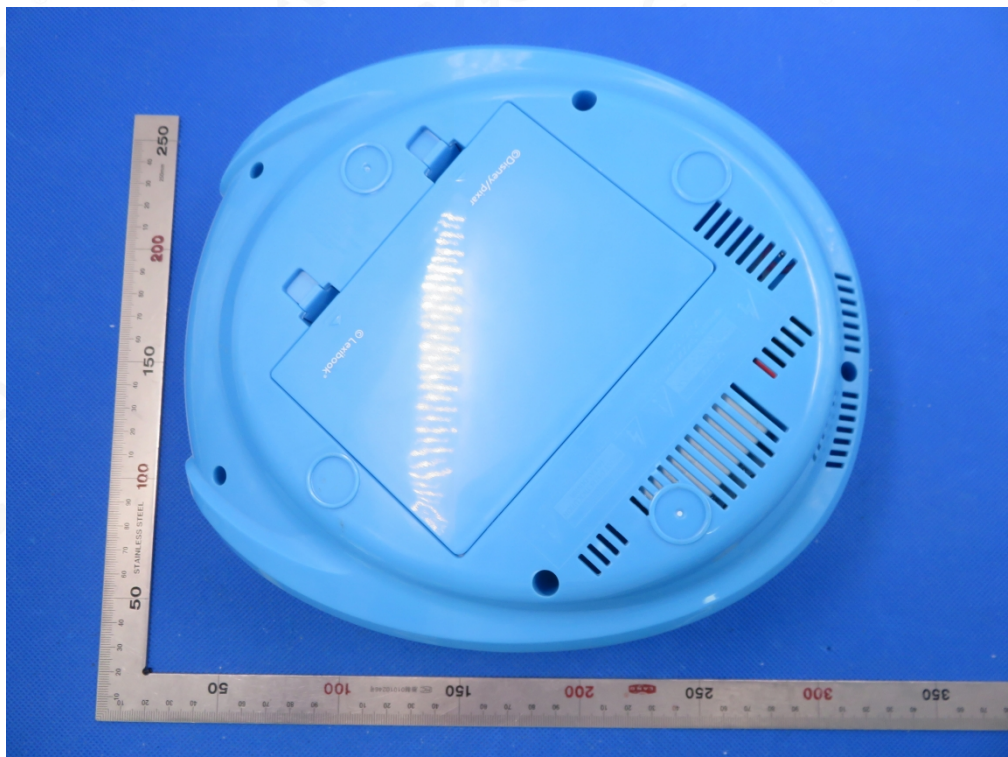
ALL VIEW OF EUT



TOP VIEW OF EUT



BOTTOM VIEW OF EUT



FRONT VIEW OF EUT



BACK VIEW OF EUT



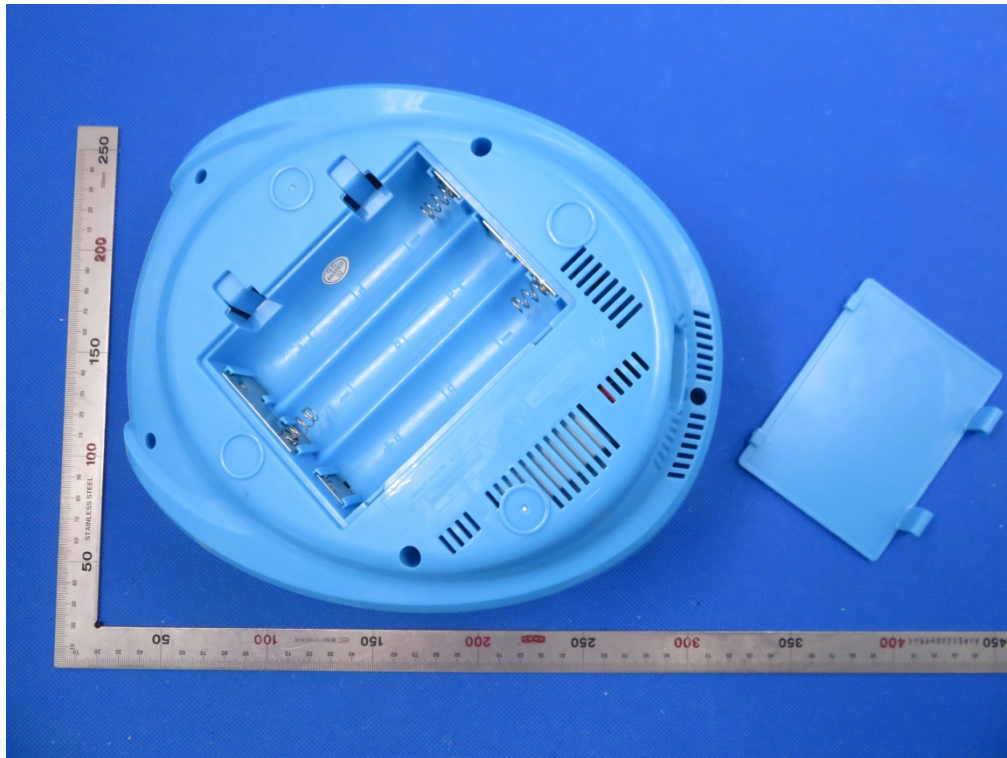
LEFT VIEW OF EUT



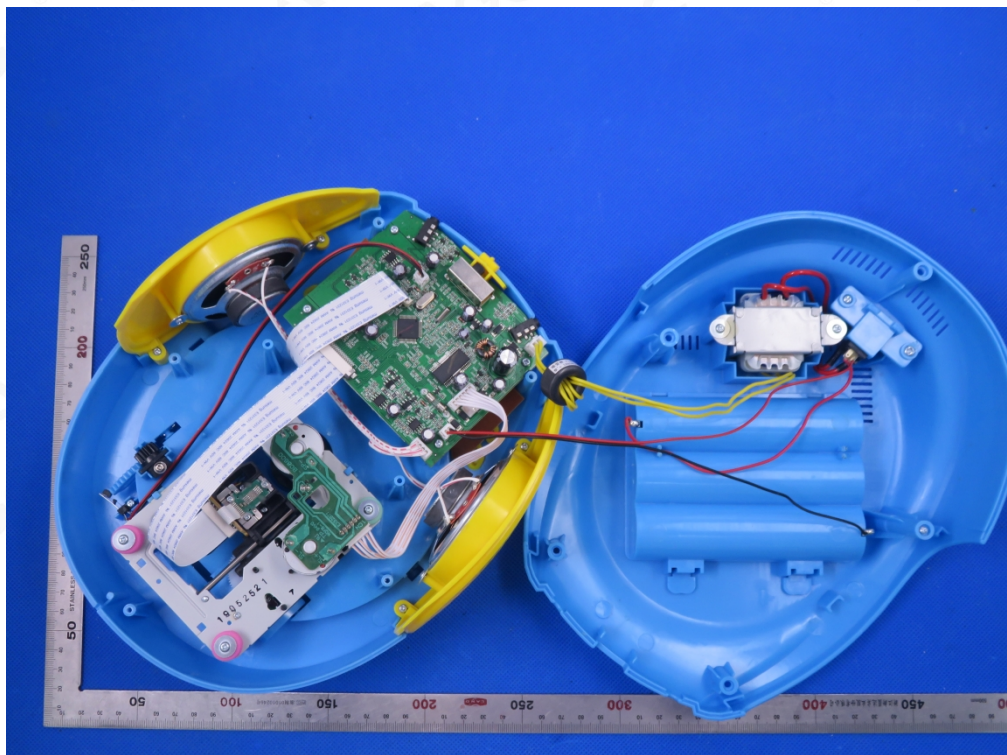
RIGHT VIEW OF EUT



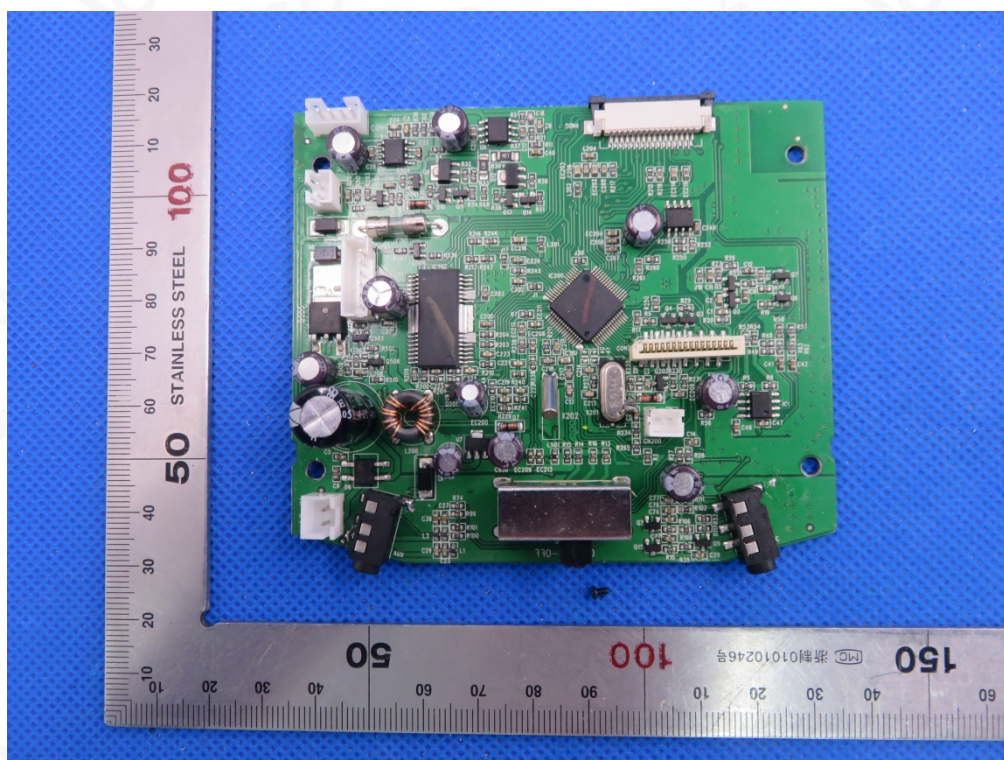
OPEN VIEW OF EUT-1



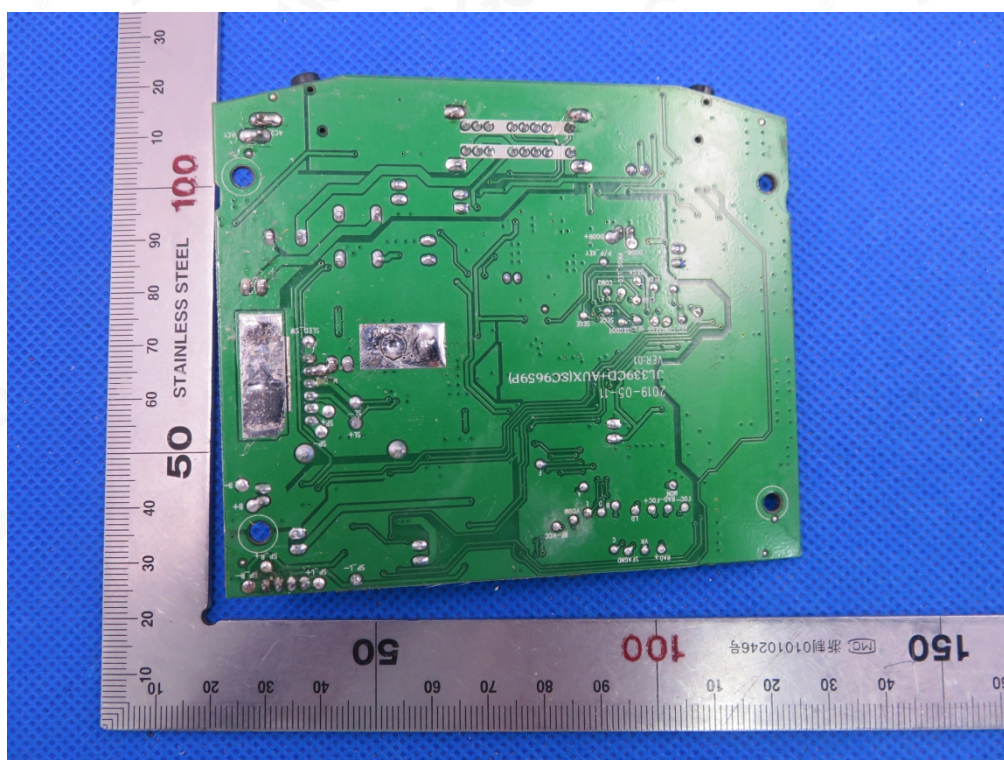
OPEN VIEW OF EUT-2



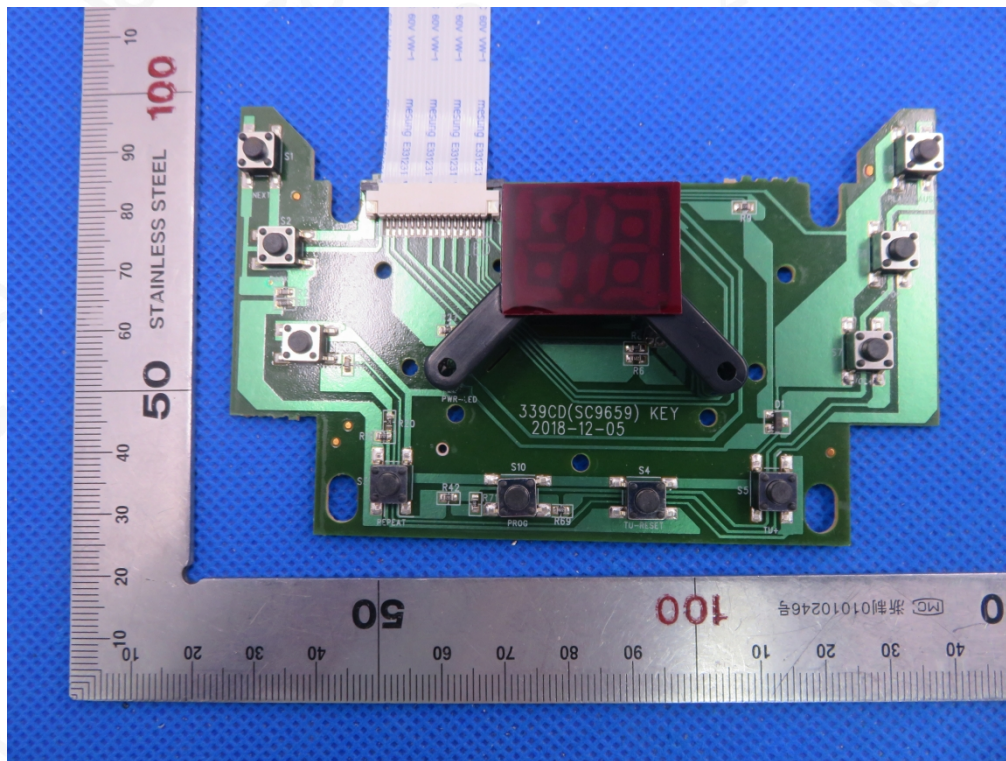
INTERNAL VIEW OF EUT-1



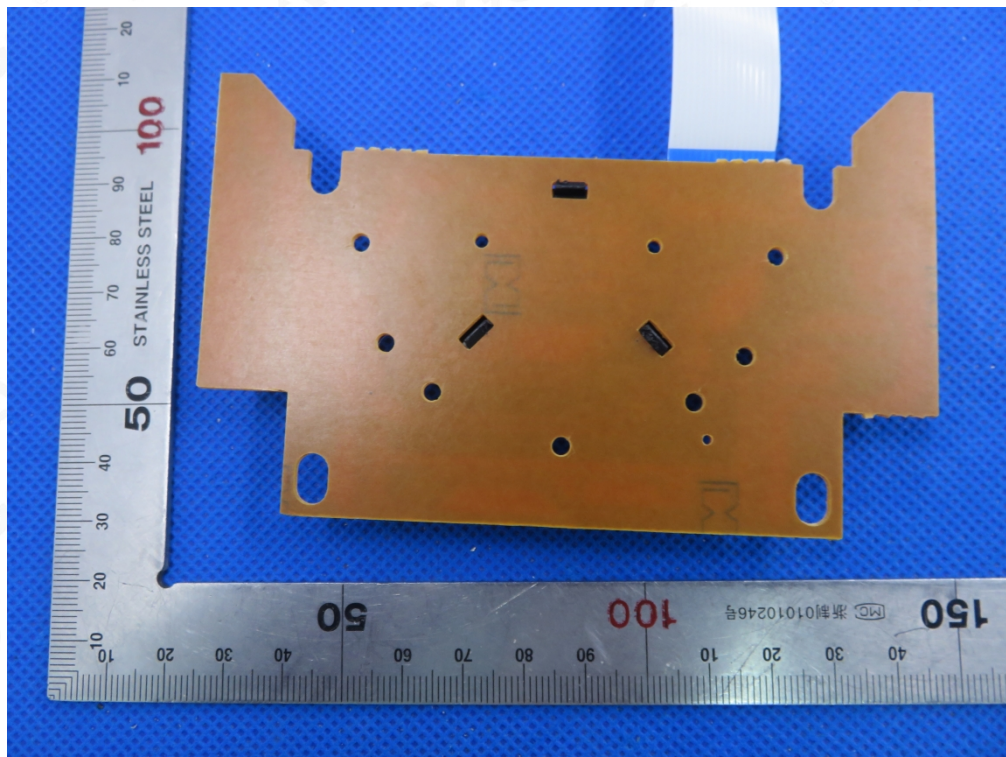
INTERNAL VIEW OF EUT-2



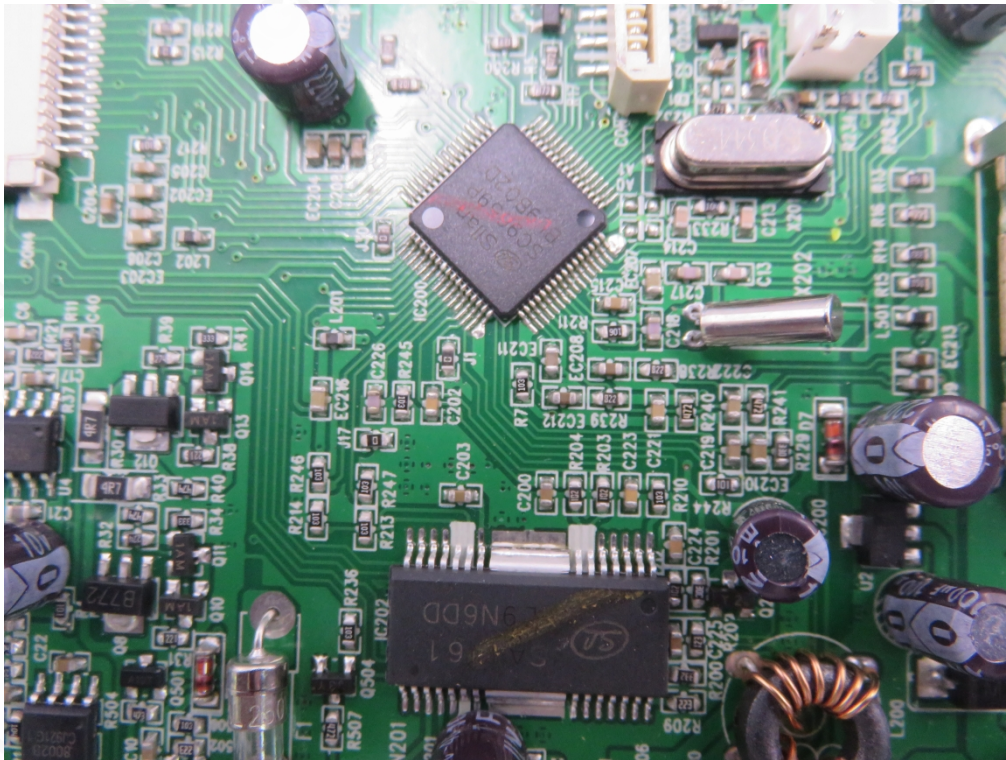
INTERNAL VIEW OF EUT-3



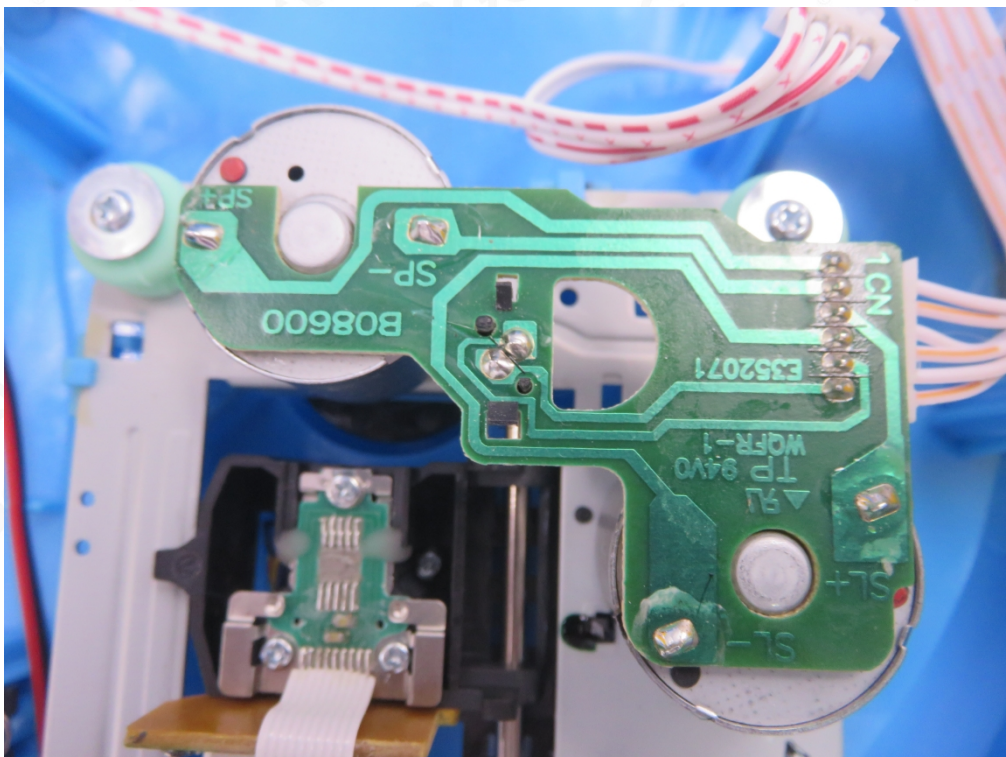
INTERNAL VIEW OF EUT-4



INTERNAL VIEW OF EUT-5



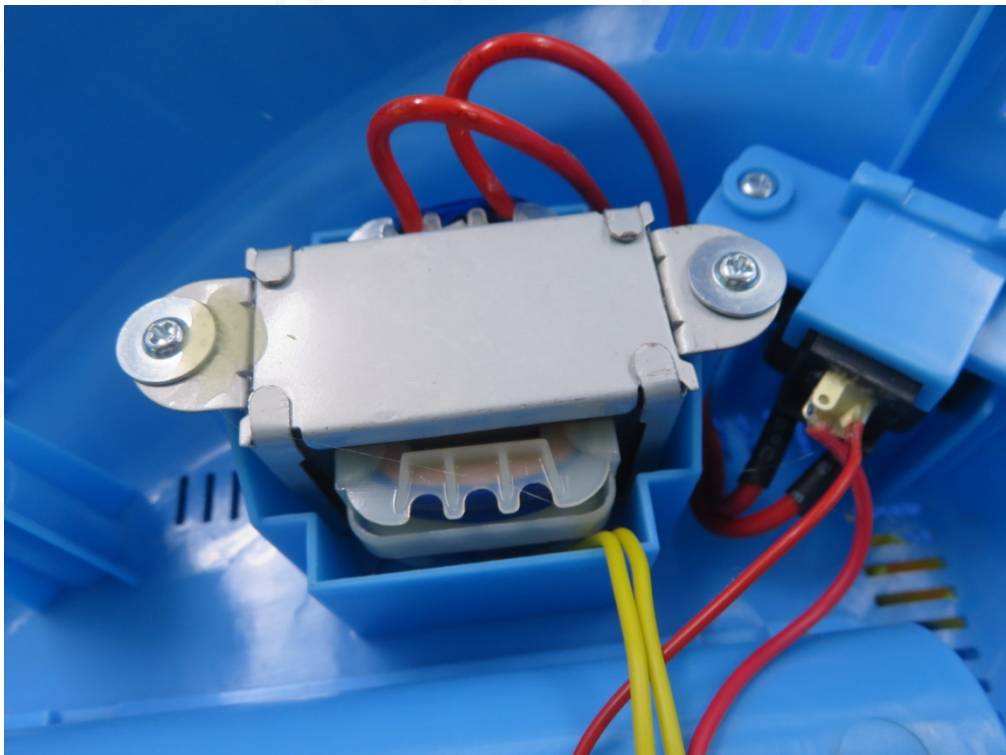
INTERNAL VIEW OF EUT-6



INTERNAL VIEW OF EUT-7



INTERNAL VIEW OF EUT-8



----END OF REPORT----