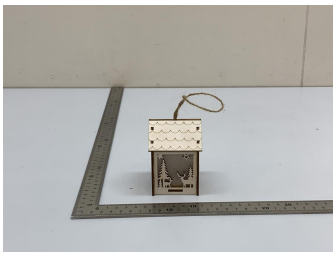
TEST REPORT

Test Report #	23D-000872(A1)	Date of Report Issue:	September 1, 2023
Date of Sample Received:	August 14, 2023	Pages:	Page 1 of 15

CLIENT INFORMATION:

Company:	Mid Ocean Brands B.V.
Company Address:	7/F, Kings Tower, 111 King Lam Street, Cheung Sha Wan, Kowloon, Hong Kong



SAMPLE INFORMATION:

Description:	MDF house with light and cord		
Assortment:	-	Purchase Order Number:	-
SKU/Style/UPC No.:	CX1463	Toy Co./Agency:	-
Factory/Supplier/Vendor:	-	Buyer:	-
Country of Origin:	-	Labeled Age Grade:	-
Country of Distribution:	Europe	Recommended Age Grade:	-
Quantity Submitted:	5 pcs	Tested Age Grade:	-
Testing Period:	08/14/2023 – 08/25/2023	Materials:	wood

OVERALL RESULT: **PASS**

Refer to page 2 for test result summary and appropriate notes.

QIMA Hansecontrol Testing Service (Dongguan) Co. Ltd.

Sikin Wang Xi Jian
Organic & Inorganic Leader, Chemical Laboratory

QIMA Hansecontrol Testing Service (Dongguan) Co. Ltd.

Joe Jiang Zhao
Supervisor, Hardline Laboratory

TEST RESULTS SUMMARY:

At the request of the client, the following tests were conducted:

CONCLUSION	TEST(S) CONDUCTED
PASS	Directive 2006/66/EC, Heavy Metals Content in Battery and Accumulator
PASS	Directive 2011/65/EU and its amendment Directive (EU) 2015/863, Restriction of the Use of Certain Hazardous Substances (RoHS), Phthalates Content (DBP, BBP, DEHP, DIBP)
PASS	Directive 2011/65/EU and amendments, Restriction of the Use of Certain Hazardous Substances in Electrical and electronic equipment (RoHS)
PASS	Regulation (EC) No. 2019/1021 Persistent Organic Pollutants, ANNEX I – Pentachlorophenol and its Salts and Esters Content
PASS	Client's Requirement, Formaldehyde Release in resin-bonded wood
PASS	EN 62471:2008 Photobioloical Safety of Lamps and Lamps systems$^{\phi}$
PASS	EN 55015 / EN 61547-Lighting Equipment (D.C.)-Electromagnetic Compatibility (EMC)$^{\phi}$

Appendix I attached.

DETAILED RESULTS:

Directive 2006/66/EC, Heavy Metals Content in Battery and Accumulator

Test Method: In-House Method
Analytical Method: Inductively Coupled Plasma-Optical Emission Spectrometry

Specimen No.	21	---	---	---	---	**Total Limit (% m/m)**
Test Item	Result (% m/m)	Result (% m/m)	Result (% m/m)	Result (% m/m)	Result (% m/m)	
Total Cadmium (Cd)	ND	---	---	---	---	**0.002**
Total Lead (Pb)	0.0016	---	---	---	---	**0.004[A]**
Total Mercury (Hg)	ND	---	---	---	---	**0.0005[B]**
Conclusion	PASS	---	---	---	---	

Note:
% m/m = Percent by mass
LT = Less than
ND = Not detected (Reporting Limit: 0.0005 % m/m)

Remark:
A = 0.004 % Lead was not limit of prohibitions in 2006/66/EC. Batteries, accumulators and button cells containing more than 0.004 % lead shall be marked with the chemical symbol.
B = the mercury limit is according to Directive 2013/56/EU (amending directive 2006/66/EC).

DETAILED RESULTS:

Directive 2011/65/EU and its amendment Directive (EU) 2015/863, Restriction of the Use of Certain Hazardous Substances (RoHS), Phthalates Content (DBP, BBP, DEHP, DIBP)

Test Method: IEC 62321-8:2017
Test Instrument: Gas Chromatography with Mass Spectrometry

Specimen No.		2	4+5+6	7+8+9	18	**Limit (% w/w)**
Test Item	CAS No.	Result (% w/w)	Result (% w/w)	Result (% w/w)	Result (% w/w)	
Dibutyl phthalate (DBP)	84-74-2	ND	ND	ND	ND	**0.1**
Benzyl butyl phthalate (BBP)	85-68-7	ND	ND	ND	ND	**0.1**
Di-(2-ethylhexyl) phthalate (DEHP)	117-81-7	ND	ND	ND	ND	**0.1**
Diisobutyl phthalate (DIBP)	84-69-5	ND	ND	ND	ND	**0.1**
	Conclusion	PASS	PASS	PASS	PASS	

Note:
% w/w = Percent by weight
LT = Less than
ND = Not detected (Reporting Limit = 0.015 % w/w)
Composite results are based on specimen of least mass resulting in highest potential concentration.

DETAILED RESULTS:

Directive 2011/65/EU and amendments, Restriction of the Use of Certain Hazardous Substances in Electrical and electronic equipment (RoHS)

Test Method:	IEC 62321-3-1:2013 for Cadmium, Lead, Mercury, Chromium and Bromine by XRF IEC 62321-5:2013 for Lead, Cadmium and Chromium by ICP-OES IEC 62321-6:2015 for PBBs and PBDEs by GC-MS IEC 62321-7-1:2015, IEC62321-7-2:2017 for Hexavalent Chromium by UV- Vis
Analytical Method:	X-ray Fluorescence Spectrometry Inductively Coupled Plasma-Optical Emission Spectrometry Gas Chromatography Mass Spectrometry UV-Visible Spectrophotometry

No.	Specimen Description	Test Item (mg/kg)						Conclusion
		Pb	Cd	Hg	CrVI	PBBs	PBDEs	
	Limit	1000	100	1000	1000	1000	1000	
	XRF RL	700	70	700	700	300	300	
1	Natural wood(Body)	BL	BL	BL	BL	BL	BL	PASS
2	White coating(On body)	BL	BL	BL	BL	BL	BL	PASS
3	Natural jute(String)	BL	BL	BL	BL	BL	BL	PASS
4	Clear soft plastic with glitter(Window)	BL	BL	BL	BL	BL	BL	PASS
5	White plastic(Battery box body)	BL	BL	BL	BL	BL	BL	PASS
6	Beige plastic(Battery box lid)	BL	BL	BL	BL	BL	BL	PASS
7	Black plastic(Switch)	BL	BL	BL	BL	BL	BL	PASS
8	Clear plastic(LED shell)	BL	BL	BL	ND*	BL	BL	PASS
9	Translucent glue(Body connect)	BL	BL	BL	BL	BL	BL	PASS
10	Silver metal(Screw)	BL	BL	BL	BL	NA	NA	PASS
11	Silver metal(Battery contact plate)	BL	BL	BL	BL	NA	NA	PASS
12	Silver metal(Battery contact spring)	BL	BL	BL	NE*	NA	NA	PASS
13	Silver solder(End of wire)	23*	ND*	BL	BL	NA	NA	PASS
14	Silver metal(LED wire)	BL	BL	BL	BL	NA	NA	PASS

No.	Specimen Description	Test Item (mg/kg)						Conclusion
		Pb	Cd	Hg	CrVI	PBBs	PBDEs	
	Limit	1000	100	1000	1000	1000	1000	
	XRF RL	700	70	700	700	300	300	
15	Gunmetal metal(Switch inner spring)	BL	BL	BL	BL	NA	NA	PASS
16	Silver metal(Switch inner U-ring)	BL	BL	BL	BL	NA	NA	PASS
17	Silver metal(Switch pin)	BL	BL	BL	BL	NA	NA	PASS
18	Brown plastic(Switch under board)	BL	BL	BL	BL	BL	BL	PASS
19	Black nickel metal(Switch under frame)	BL	BL	BL	BL	NA	NA	PASS
20	Yellow/white body(LED body)	BL	BL	BL	BL	ND*	ND*	PASS

Note:

mg/kg (Milligrams per kilogram) = ppm (Parts per million)

LT = Less than

NA = Not Regulated or Not Applicable

BL = Below Limit by XRF screening;

NE = Negative, Absence of Cr (VI), the concentration of Cr (VI) in sample solution is less than 0.10 μg/cm^2.

PO = Positive, Presence of Cr (VI), the concentration of Cr (VI) in sample solution is more than 0.13 μg/cm^2.

Total Chromium by XRF screening method is reported for Chromium (VI) unless specified.

Total Bromine by XRF screening method is reported for PBBs and PBDEs unless specified.

Remark:

*Result reported with wet chemical confirmation test with ICP-OES / GC-MS / UV-Vis.

ND = Not detected. Result value is less than below reporting limit (RL).

Test item	RL	
Lead	20	mg/kg
Cadmium	20	mg/kg
Chromium VI	20	mg/kg
PBBs	100	mg/kg
PBDEs	100	mg/kg

DETAILED RESULTS:

Regulation (EC) No. 2019/1021 Persistent Organic Pollutants, ANNEX I – Pentachlorophenol and its Salts and Esters Content

Test Method: With reference EN ISO 17070:2015
Analytical Method: Gas Chromatography with Mass Spectrometry

For material other than leather

Specimen No.	1	3	---	---	**Limit (mg/kg)**
Test Item	Result (mg/kg)	Result (mg/kg)	Result (mg/kg)	Result (mg/kg)	
Pentachlorophenol (PCP) and its Salts and Esters	ND	ND	---	---	**5**
Conclusion	PASS	PASS	---	---	

Note:
mg/kg = Milligrams per kilogram
LT = Less than
ND = Not detected (Reporting Limit = 1 mg/kg)

DETAILED RESULTS:

Client's Requirement, Formaldehyde Release in resin-bonded wood

Test Method: EN 717-3:1996
Analytical Method: Ultraviolet-Visible Spectrophotometry

Specimen No.		1	---	---	---	**Limit (mg/kg)**
Test Item	CAS No.	Result (mg/kg)	Result (mg/kg)	Result (mg/kg)	Result (mg/kg)	
Formaldehyde	50-00-0	18	---	---	---	**80**
Conclusion		PASS	---	---	---	

Note:
mg/kg = Milligrams per kilogram
NA = Not applicable
LT = Less than
ND = Not detected (Reporting Limit = 16 mg/kg)

DETAILED RESULTS:

EN 62471:2008 Photobioloical Safety of Lamps and Lamps systems$^{\phi}$

1.1 Test Data for Hazard of total irradiance

Hazard name: irradiance based values	Limit for Exempt level / low risk / mod risk	Measured value
E_{UVA}: Eye UV-A: 315-400nm (Near-UV hazard for eye) (W/ m²)	10 / 33 / 100	1.214e-6
E_S: Actinic UV skin & eye : 200-400nm (Actinic UV hazard for skin and eye) (W/ m²)	0.001 / 0.003 / 0.03	2.714e-7
E_B : Blue-light small source: 300-700nm (small source defined as one with α<0.011 radian) (W/ m²)	1.0	2.496e-3
E_{IR}: Retinal thermal hazard (W/ m²)	100	2.062e-4
E_H: Thermal hazard for the skin (W/ m²)	3560	3.839e-2
Distance (cm) for at 20 cm for non-GLS	-	20cm
Voltage (V)	-	4.5Vdc
Current(mA)	-	-
Wattage (W)	-	-

DETAILED RESULTS:

EN 62471:2008 Photobioloical Safety of Lamps and Lamps systems$^{\phi}$

1.2 Test Data for Hazard of spectral radiance of the source

Hazard name: radiance based values	Limit for Exempt level / low risk / mod risk	Measured value
LB: Blue light: 300-700nm (Near-UV hazard for eye) ($W.m^{-2}.sr^{-1}$)	100 / - / -	9.521e-2
LR: Retinal thermal 380 – 1400nm ($W\ m^{-2}.\ Sr^{-1}$)	$\frac{28000}{\alpha}$ / $\frac{28000}{\alpha}$ / $\frac{71000}{\alpha}$	4.563e0
Distance (cm) for lx = 500lux for GLS or 20 cm for non-GLS	-	20cm
D (mm)	-	200mm
αeff(radian)		0.0825
Voltage (V)	-	4.5Vdc
Current(mA)	-	-
Wattage (W)	-	-

Remark :
The α of these product samples are bigger than 0.011 radian, so the blue light small source limit is not applicable.

Ambient temperature: 25.3°C
Ambient Humidity: 65.0 %

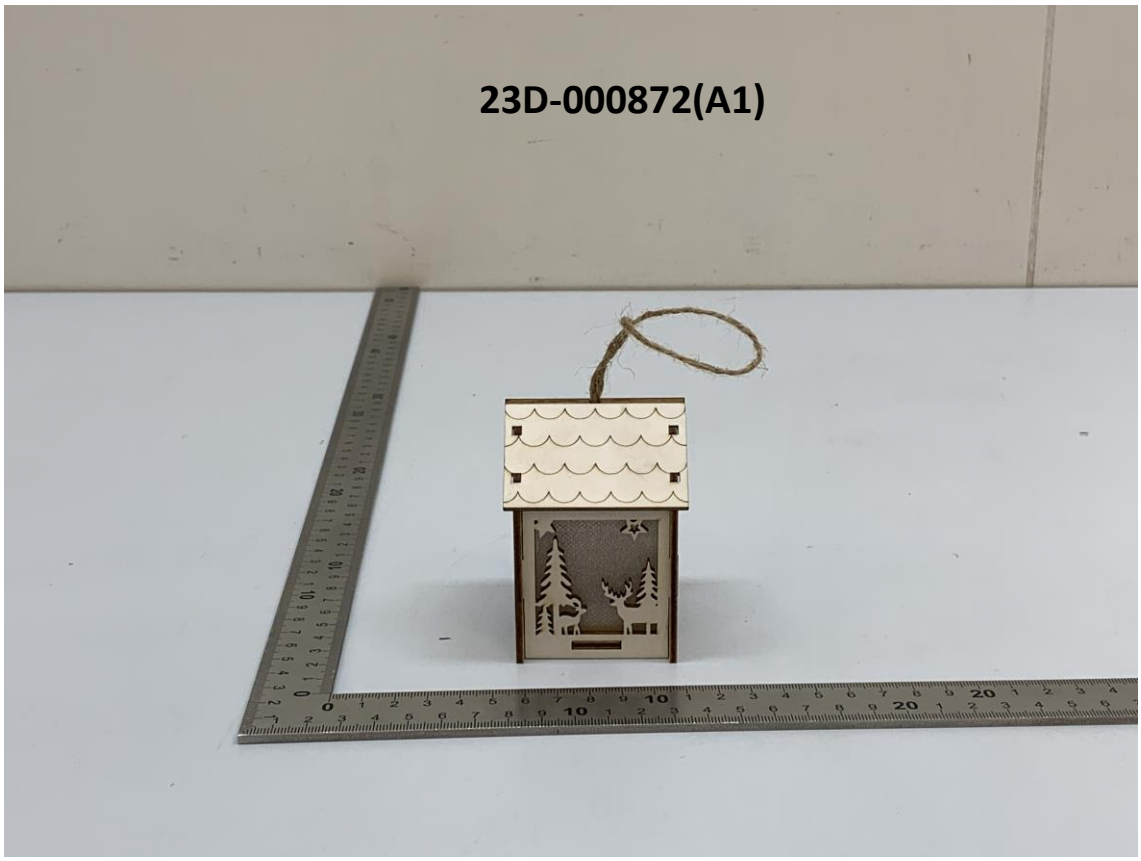
1.3 Result

According to the test result, this LED product can be assigned to Exempt Group

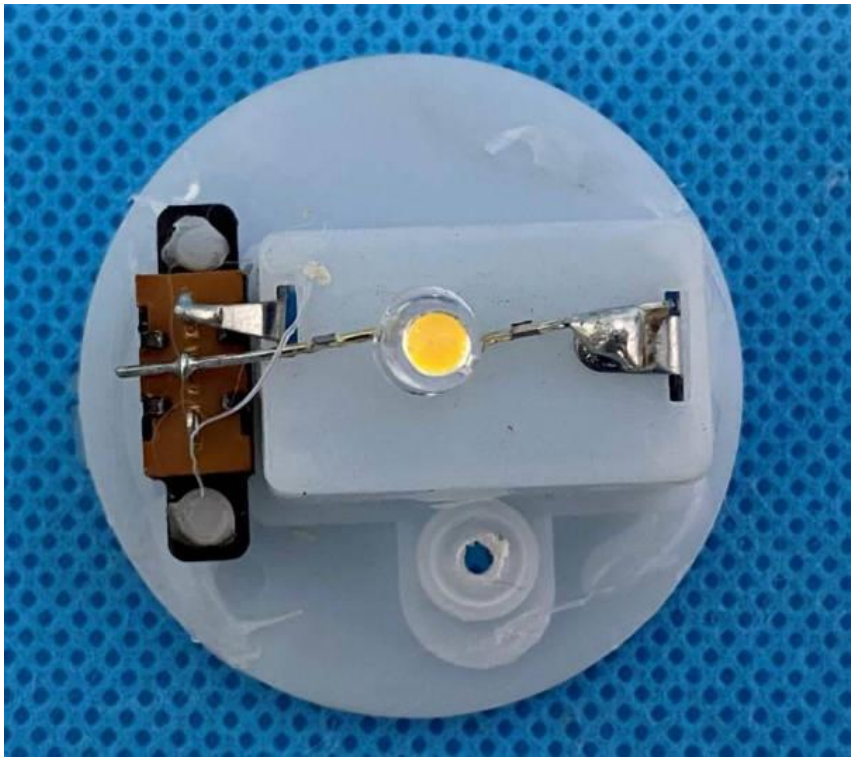
SPECIMEN DESCRIPTION:

Specimen No.	Specimen Description	Location
1	Natural wood	Body
2	White coating	On body
3	Natural jute	String
4	Clear soft plastic with glitter	Window
5	White plastic	Battery box body
6	Beige plastic	Battery box lid
7	Black plastic	Switch
8	Clear plastic	LED shell
9	Translucent glue	Body connect
10	Silver metal	Screw
11	Silver metal	Battery contact plate
12	Silver metal	Battery contact spring
13	Silver solder	End of wire
14	Silver metal	LED wire
15	Gunmetal metal	Switch inner spring
16	Silver metal	Switch inner U-ring
17	Silver metal	Switch pin
18	Brown plastic	Switch under board
19	Black nickel metal	Switch under frame
20	Yellow/white body	LED body
21	Silver button cell	Battery

SAMPLE PHOTO:



SAMPLE PHOTO:



SAMPLE PHOTO:

-End Report-

Appendix Ⅰ

The test was performed by Attestation of Global Compliance (Shenzhen) Co., Ltd.
Test Report No. AGC12364230806E2.
Test Report No. AGC12364230806EE01.

T: 0086-755-2523 4088
E-mail: agc@agccert.com
Web: Http://www.agccert.com
1-2/F, Building 19, Junfeng Industrial Park
Chongqing Road, Heping Community, Fuhai Street
Bao'an District, Shenzhen, Guangdong, China

Attestation of Conformity

Registration No.	AGC12364230806E2
Applicant	QIMA Hansecontrol Testing service (Dongguan) Co. Ltd. Room 101, Building 1, Changsheng Rd No. 6, Changkeng, Liaobu Town, Dongguan City·523400 Guangdong·P.R. China.
Product Designation	MDF house with light and cord
Brand Name	N/A
Model / Series Models	CX1463
Manufacturer	QIMA Hansecontrol Testing service (Dongguan) Co. Ltd. Room 101, Building 1, Changsheng Rd No. 6, Changkeng, Liaobu Town, Dongguan City·523400 Guangdong·P.R. China.

Requirement	Applied Standards	Document Evidence	Result
EMC Directive	EN IEC 55015:2019+A11:2020 EN 61547:2009	Test Report: AGC12364230806EE01	Conform

Signed by General Manager(King Zhang)

Issue Date: August 24, 2023

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

This Attestation of Conformity is recognized by Attestation of Global Compliance (Shenzhen) Co., Ltd. and made in accordance with the EMC Directive2014/30/EU. The attestation doesn't imply assessment of the production. The Applicant of this attestation is authorized to use this attestation in connection with EC declaration of conformity to the Directive. The attestation is only applicable to the equipments described above. This attestation shall not be re-produced except in full without the written approval of Attestation of Global Compliance (Shenzhen) Co., Ltd.

Note: This attestation is part of the full test report(s) and should be used in conjunction with it.

EMC Test Report

Report No.:AGC12364230806EE01

PRODUCT DESIGNATION	:	MDF house with light and cord
BRAND NAME	:	N/A
MODEL NAME	:	CX1463
APPLICANT	:	QIMA Hansecontrol Testing service (Dongguan) Co. Ltd.
DATE OF ISSUE	:	Aug. 22, 2023
STANDARD(S)	:	EN IEC 55015:2019+A11:2020 EN 61547:2009
REPORT VERSION	:	V1.0

Attestation of Global Compliance (Shenzhen) Co., Ltd

REPORT REVISE RECORD

Report Version	Revise Time	Issued Date	Valid Version	Notes
V1.0	/	Aug. 22, 2023	Valid	Initial release

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1. VERIFICATION OF CONFORMITY

Applicant	QIMA Hansecontrol Testing service (Dongguan) Co. Ltd.
Address	Room 101, Building 1, Changsheng Rd No. 6, Changkeng, Liaobu Town, Dongguan City • 523400 Guangdong • P.R. China.
Manufacturer	QIMA Hansecontrol Testing service (Dongguan) Co. Ltd.
Address	Room 101, Building 1, Changsheng Rd No. 6, Changkeng, Liaobu Town, Dongguan City • 523400 Guangdong • P.R. China.
Factory	N/A
Address	N/A
Product Designation	MDF house with light and cord
Brand Name	N/A
Test Model	CX1463
Date of receipt of test item	Aug. 16, 2023
Date of test	Aug. 16, 2023 to Aug. 22, 2023
Deviation	No deviation from the test method.
Condition of Test Sample	Normal
Test Result	Pass

The above equipment was tested by Attestation of Global Compliance (Shenzhen) Co., Ltd. for compliance with the requirements set forth in 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.

Prepared By	Jack Gui	
	Jack Gui (Project Engineer)	Aug. 22, 2023
Reviewed By	Calvin Liu	
	Calvin Liu (Reviewer)	Aug. 22, 2023
Approved By	Max Zhang	
	Max Zhang (Authorized Officer)	Aug. 22, 2023

2. SYSTEM DESCRIPTION

TEST MODE DESCRIPTION		
NO.	**TEST MODE DESCRIPTION**	**WORST**
1	Lighting on 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 Radiated Emission, Uc = ±3.9 dB

4. PRODUCT INFORMATION

Housing Type	Plastics and wood
EUT Input Rating	DC 3.0V by battery
Hardware Version	N/A
Software Version	N/A

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

I/O Port of EUT			
I/O Port Type	**Number**	**Cable Description**	**Tested With**
--	--	--	--

5. SUPPORT EQUIPMENT

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

Note: “-- “means no any support device during testing.

6. TEST FACILITY

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

7. TEST EQUIPMENT LIST

TEST EQUIPMENT OF RADIATED EMISSION TEST

Equipment	Manufacturer	Model	S/N	Cal. Date	Cal. Due
Test Receiver	R&S	ESCI	10096	Feb. 18, 2023	Feb. 17, 2024
Wideband Antenna	SCHWARZBECK	VULB9168	D69250	May 11, 2023	May 10, 2025
Test software	FARA	EZ-EMC	Ver.RA-03A	N/A	N/A

TEST EQUIPMENT OF RADIATED ELECTROMAGNETIC DISTURBANCE TEST

Equipment	Manufacturer	Model	S/N	Cal. Date	Cal. Due
Triple Loop Antenna	LAPLACE	RF300	9070	Jun. 03, 2023	Jun. 02, 2024
Test Receiver	R&S	ESCI	10096	Feb. 18, 2023	Feb. 17, 2024

TEST EQUIPMENT OF ESD TEST

Equipment	Manufacturer	Model	S/N	Cal. Date	Cal. Due
ESD Simulator	Schaffner	NSG 438	782	Dec. 30, 2022	Dec. 29, 2023

TEST EQUIPMENT OF RS IMMUNITY TEST

Description	Manufacturer	Model	S/N	Cal. Date	Cal. Due
Signal Generator	R&S	E4421B	MY43351603	Feb. 17, 2023	Feb. 16, 2024
Power Sensor	R&S	URV5-Z4	100124	Mar. 24, 2023	Mar. 23, 2025
Power Meter	R&S	NRVD	8323781027	Mar. 24, 2023	Mar. 23, 2025
Power Amplifier	KALMUS	7100LC	04-02/17-06-001	N/A	N/A
Power Amplifier	Milmega	AS0104-55_55	1004793	N/A	N/A
Wideband Antenna	SCHWARZBECK	VULB9168	D69250	May 11, 2023	May 10, 2025
Test software	Tonscend	2.0.1.8	N/A	N/A	N/A

TEST EQUIPMENT OF PFMF TEST

Description	Manufacturer	Model	Identifier	Cal. Date	Cal. Due
PFMF system	HTEC	HPFMF	161701	Jun. 01, 2023	May 31, 2024

8. TEST SUMMARY LIST

Test item	Test Requirement	Test Method	Class/Severity	Result
Conducted emission	EN IEC 55015	EN IEC 55015	0.009MHz -30MHz	N/A
Radiated emission	EN IEC 55015	EN IEC 55015	30MHz -1000MHz	Pass
Radiated electromagnetic disturbance	EN IEC 55015	EN IEC 55015	0.009MHz -30MHz	Pass
Harmonic current emission	EN IEC 61000-3-2	EN IEC 61000-3-2	Class C	N/A
Voltage fluctuations & flicker	EN 61000-3-3	EN 61000-3-3	§5 of EN 61000-3-3	N/A
Electrostatic discharge immunity	EN 61547	EN 61000-4-2	± 8.0 kV (Air Discharge) ± 4.0 kV (Contact Discharge) ± 4.0 kV (Indirect Discharge)	Pass
Radiated electromagnetic field immunity	EN 61547	EN 61000-4-3	3V/m with 80% AM. 1kHz Modulation.	Pass
Electrical fast transient/burst Immunity	EN 61547	EN 61000-4-4	+/- 1kV for Power Supply Lines	N/A
Surge immunity	EN 61547	EN 61000-4-5	>25W +/-1kV (Line to Line) +/-2kV (Line to Ground) <25W +/-0.5kV (Line to Line) +/-1kV (Line to Ground)	N/A
Immunity to Conducted Disturbances Induced by RF fields	EN 61547	EN 61000-4-6	3V with 80% AM. 1 kHz Modulation	N/A
Power frequency magnetic fields	EN 61547	EN 61000-4-8	50/60 Hz, 3A/m	Pass
Voltage dips and short interruptions immunity	EN 61547	EN 61000-4-11	PHASE ANGLE 0, 45, 90, 135, 180, 225, 270, 315 degrees	N/A

Note: N/A means not applicable.

9. EN IEC 55015 RADIATED EMISSION TEST

9.1. LIMITS OF RADIATED DISTURBANCES

AT 10M DISTANCES

Frequency (MHz)	Distance (m)	Maximum Field Strength Limit (dBuV/m Q.P.)
30-230	10	30.00
230-1000	10	37.00

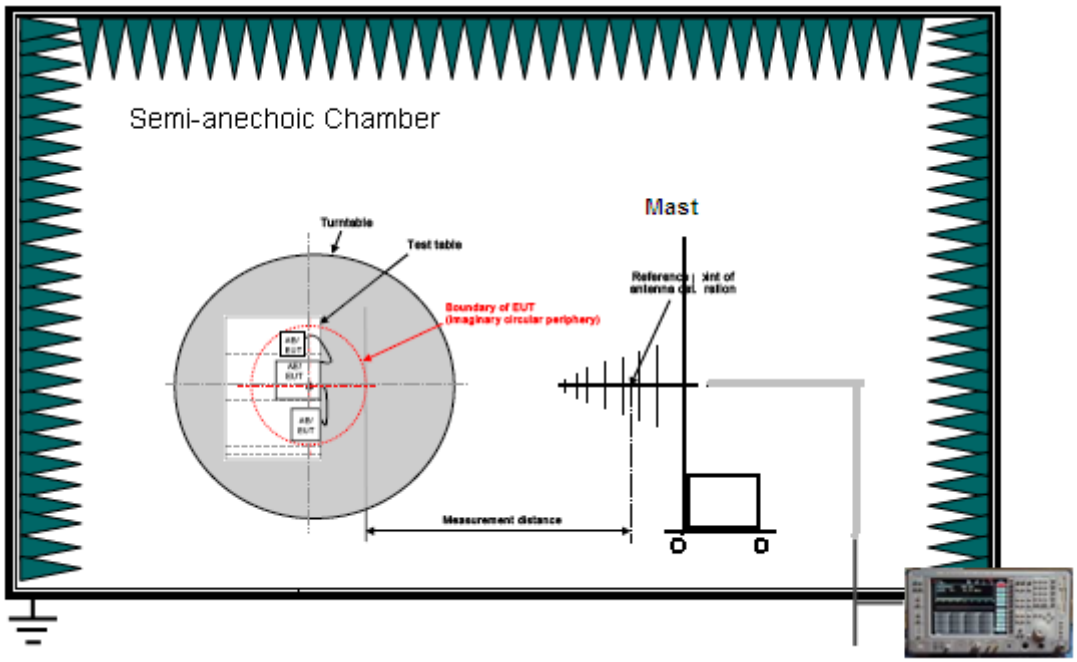
AT 3M DISTANCES

Frequency (MHz)	Distance (m)	Maximum Field Strength Limit (dBuV/m Q.P.)
30-230	3	40.00
230-1000	3	47.00

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

9.2. BLOCK DIAGRAM OF TEST SETUP

System Diagram of Connections between EUT and Simulators

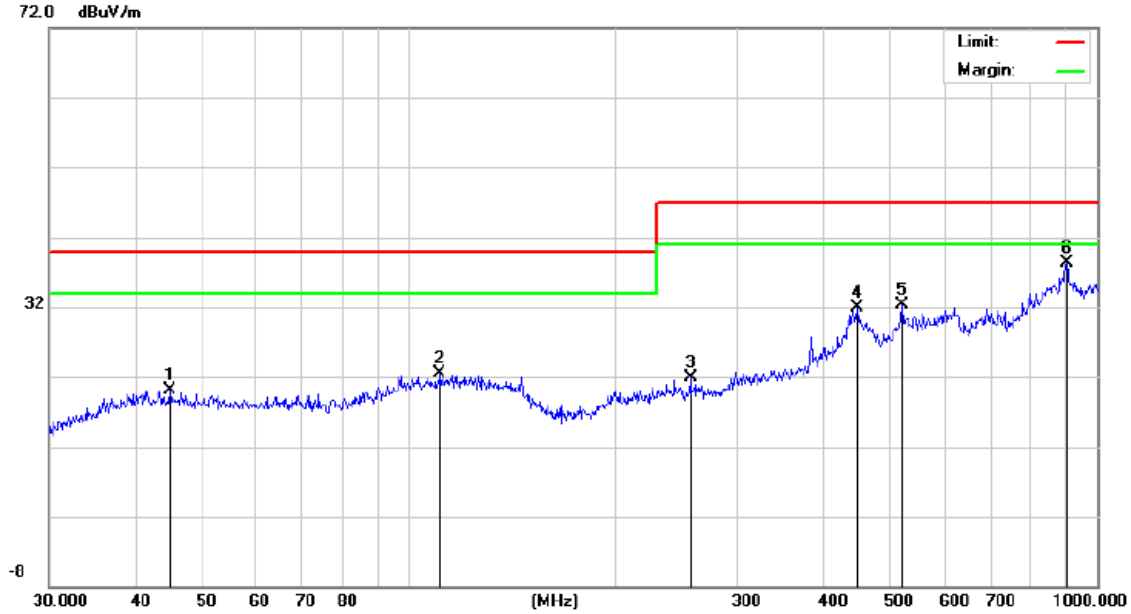


9.3. PROCEDURE OF RADIATED EMISSION TEST

(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 IEC 55015 (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 10cm non-conductive covering to insulate the EUT from the ground plane.
(2) Support equipment, if needed, was placed as per EN IEC 55015.
(3) All I/O cables were positioned to simulate typical actual usage as per EN IEC 55015.
(4) The EUT received power DC 4.5V by battery.
(5) The antenna was placed at 3 meters away from the EUT as stated in EN IEC 55015. 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.
(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.

9.4. TEST RESULT OF RADIATED EMISSION TEST

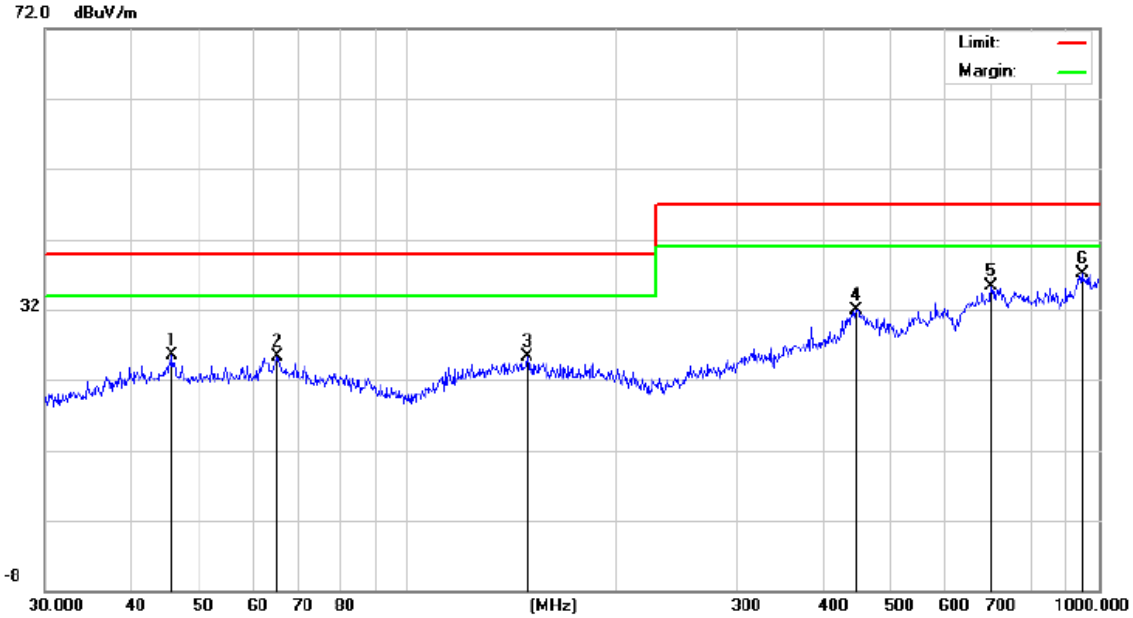
Radiated Emission Test at 3m Distance-Horizontal



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over	
		MHz	dBuV	dB	dBuV/m	dB/m	dB	Detector
1		44.9006	6.47	13.56	20.03	40.00	-19.97	peak
2		110.9571	6.16	16.31	22.47	40.00	-17.53	peak
3		256.5211	7.06	14.90	21.96	47.00	-25.04	peak
4		447.9822	7.12	24.82	31.94	47.00	-15.06	peak
5		520.8882	7.16	25.14	32.30	47.00	-14.70	peak
6	*	903.3094	7.02	31.34	38.36	47.00	-8.64	peak

RESULT: PASS

Radiated Emission Test at 3m Distance-Vertical



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over	
		MHz	dBuV	dB	dBuV/m	dB/m	dB	Detector
1		45.8553	8.46	16.96	25.42	40.00	-14.58	peak
2		64.8865	8.33	17.05	25.38	40.00	-14.62	peak
3		149.4857	7.19	18.20	25.39	40.00	-14.61	peak
4		446.4141	6.08	25.81	31.89	47.00	-15.11	peak
5		699.3046	7.12	28.09	35.21	47.00	-11.79	peak
6	*	945.4399	6.33	30.78	37.11	47.00	-9.89	peak

RESULT: PASS

Note：

Level(dBuV/m)=Reading(dBuV)+Factor(dB/m)

Factor(dB/m)=Antenna Factor(dB/m)+Cable loss(dB)+Attenuation(dB)for Attenuator

Over= Measurement- Limit

10. EN IEC 55015 RADIATED ELECTROMAGNETIC DISTURBANCE TEST

10.1. 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 * * *

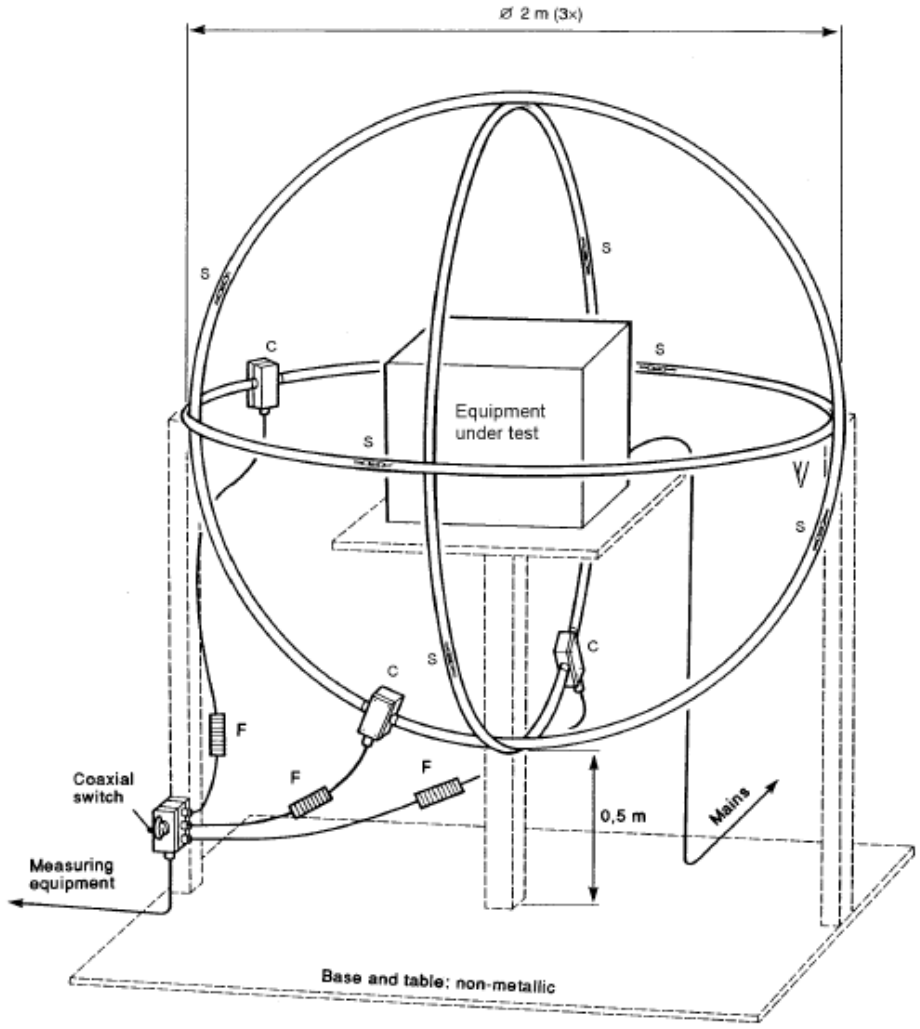
Note:

* At the transition frequency, the lower limit applies.

* * Decreasing linearly with the logarithm of the frequency. For electrode less 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.

10.2. BLOCK DIAGRAM OF TEST SETUP

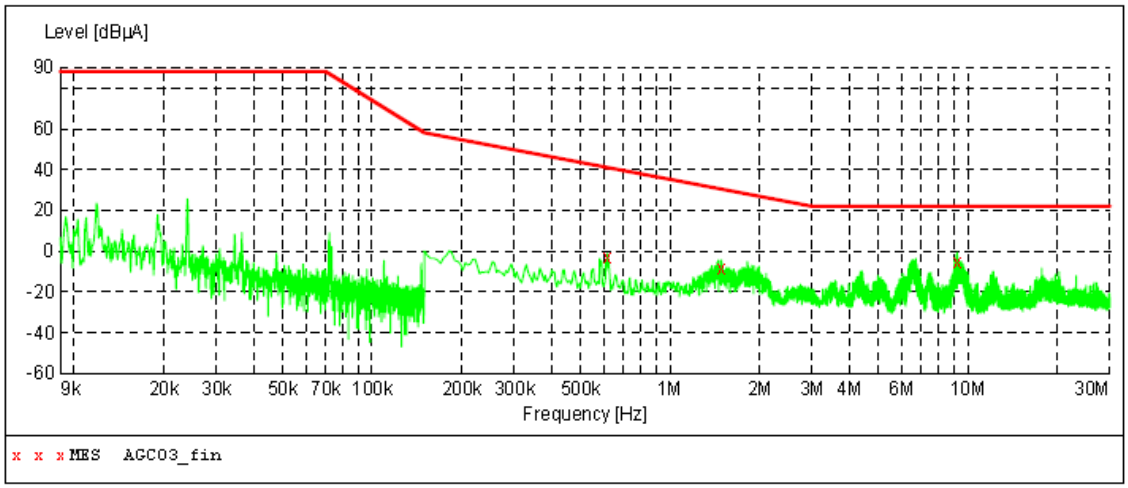


10.3. TEST PROCEDURE

The magnetic component shall be measured by means of a loop antenna as described in EN IEC 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.

10.4. TEST RESULTS OF RADIATED ELECTROMAGNETIC DISTURBANCE

X



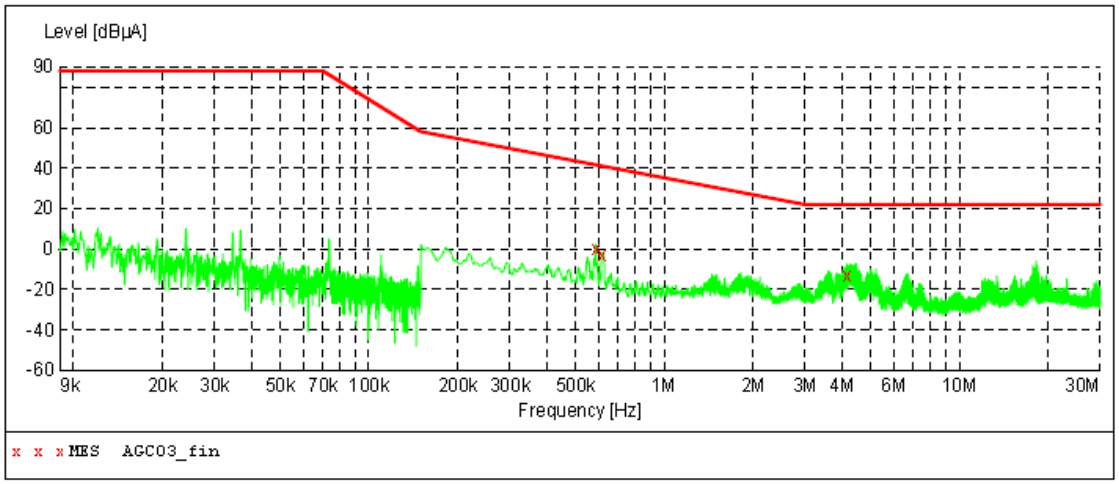
MEASUREMENT RESULT: "AGC03_fin"

2023/8/21 16:08

Frequency MHz	Level dBµA	Transd dB	Limit dBµA	Margin dB	Det.	Loop
0.618000	-3.10	-22.4	41	44.1	QP	X
1.490000	-8.60	-24.4	30	39.0	QP	X
9.218000	-5.40	-24.9	22	27.4	QP	X

RESULT: PASS

Y



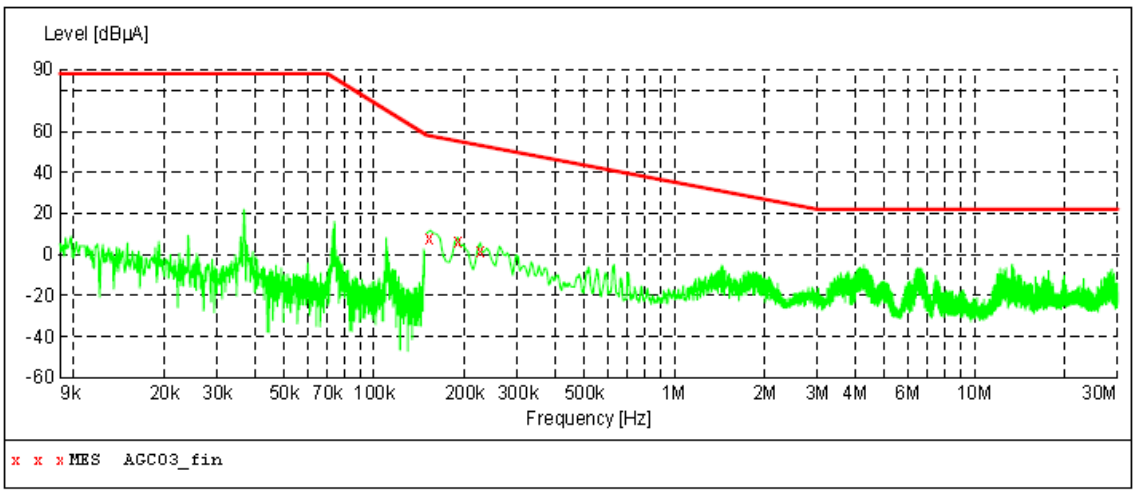
MEASUREMENT RESULT: "AGC03_fin"

2023/8/21 16:05

Frequency MHz	Level dBµA	Transd dB	Limit dBµA	Margin dB	Det.	Loop
0.586000	-0.10	-22.2	42	41.7	QP	Y
0.618000	-2.90	-22.4	41	43.9	QP	Y
4.170000	-13.30	-25.1	22	35.3	QP	Y

RESULT: PASS

Z



MEASUREMENT RESULT: "AGC03_fin"

2023/8/21 16:01

Frequency MHz	Level dBµA	Transd dB	Limit dBµA	Margin dB	Det.	Loop
0.154000	7.90	-13.1	58	49.8	QP	Z
0.190000	6.10	-14.9	55	49.1	QP	Z
0.226000	1.30	-16.2	53	51.8	QP	Z

RESULT: PASS

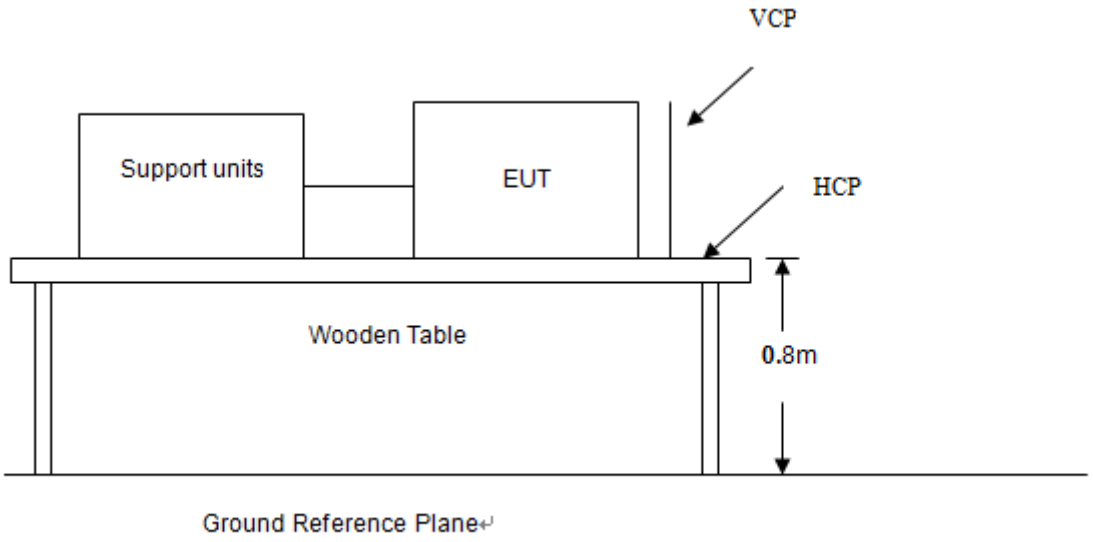
11. EN 61000-4-2 ESD IMMUNITY TEST

ELECTROSTATIC DISCHARGE (ESD) IMMUNITY TEST

Port	Enclosure
Basic Standard	EN 61000-4-2
Test Level	± 8.0 kV (Air Discharge) ± 4.0 kV (Contact Discharge) ± 4.0 kV (Indirect Discharge)
Standard require	B
Temperature	24°C
Humidity	44% RH

11.1. BLOCK DIAGRAM OF TEST SETUP

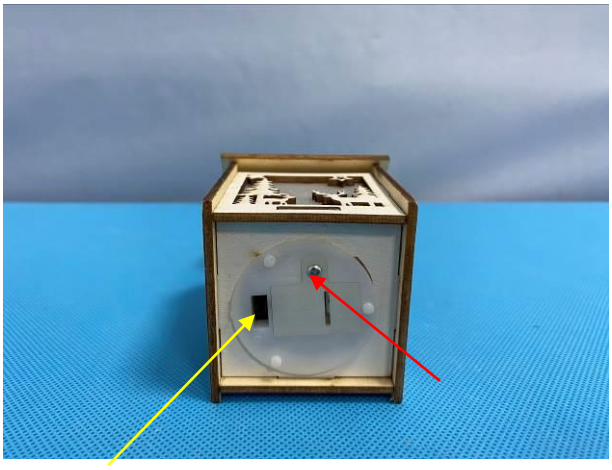
(The 470 k ohm resistors are installed per standard requirement)



ESD LOCATION:

Yellow line: Air discharge

Red line: Contact discharge



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.
Actives the communication function if the EUT with such port(s).
As per the requirement of EN 61547: Contact discharge is the preferred test method, twenty discharges (10 with positive and 10 with negative polarity) shall be applied on each accessible metallic part of the enclosure, terminals are excluded. Air discharges shall be used where contact discharges cannot be applied. Discharges shall be applied on the horizontal or vertical coupling planes as specified in EN 61000-4-2.
The following test condition was followed during the tests.

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

The electrostatic discharges were applied as follows:

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

11.3. 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.

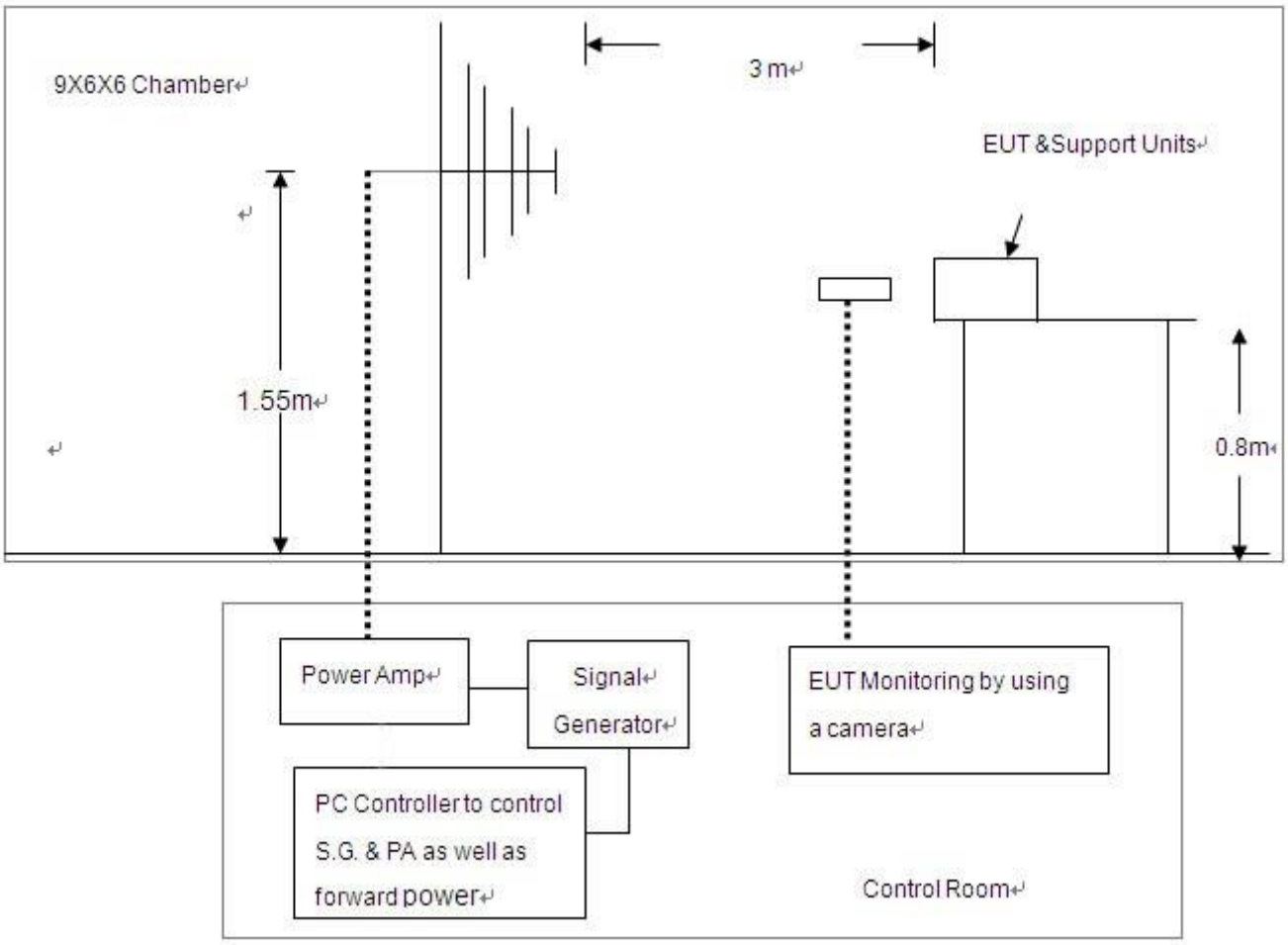
☒***PASS*** ☐***FAIL***

12. EN 61000-4-3 RS IMMUNITY TEST

RADIATED ELECTROMAGNETIC FIELD IMMUNITY TEST

Port	Enclosure
Basic Standard	EN 61000-4-3
Test Level:	3V/m with 80% AM. 1kHz Modulation.
Standard require	A
Temperature	25.4°C
Humidity	53.9% RH

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.
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

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

12.3. 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.

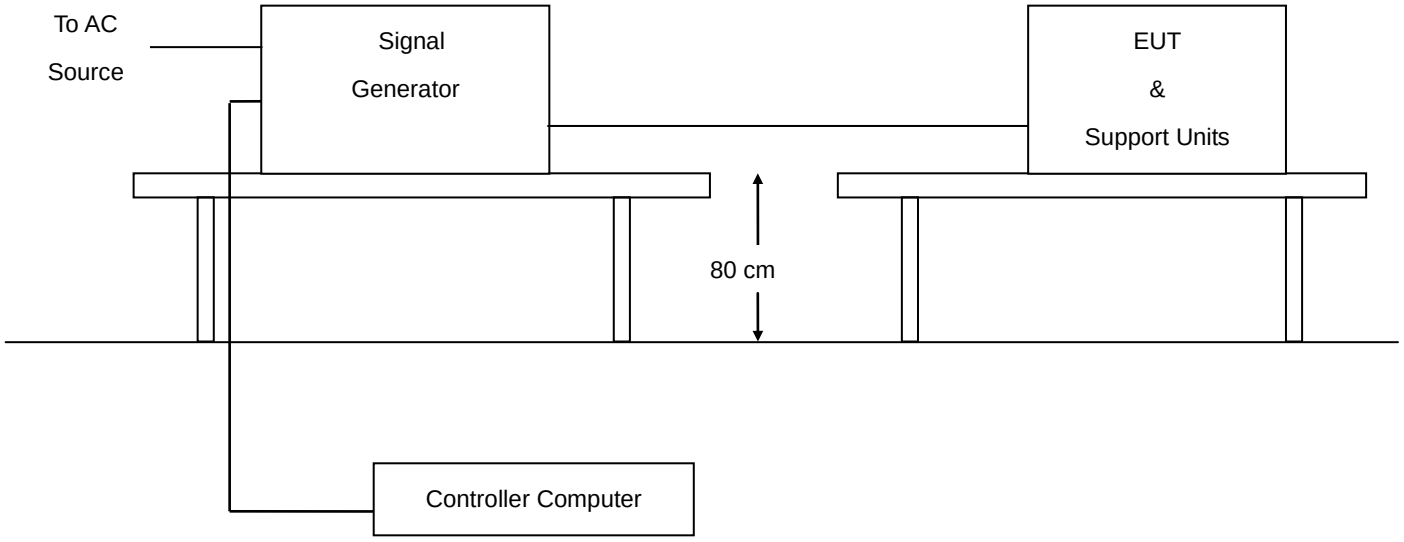
☒***PASS*** ☐***FAIL***

13. EN 61000-4-8 PFMF TEST

POWER FREQUENCY MAGNETIC FIELDS IMMUNITY TEST

Port	Enclosure
Basic Standard	EN 61000-4-8
Requirements	50/60 Hz, 3A/m
Standard require	A
Temperature	23°C
Humidity	51% RH

13.1. BLOCK DIAGRAM OF TEST SETUP



13.2. 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
50 Hz	X	3 A/m	No function loss	A
50 Hz	Y	3 A/m	No function loss	A
50 Hz	Z	3 A/m	No function loss	A

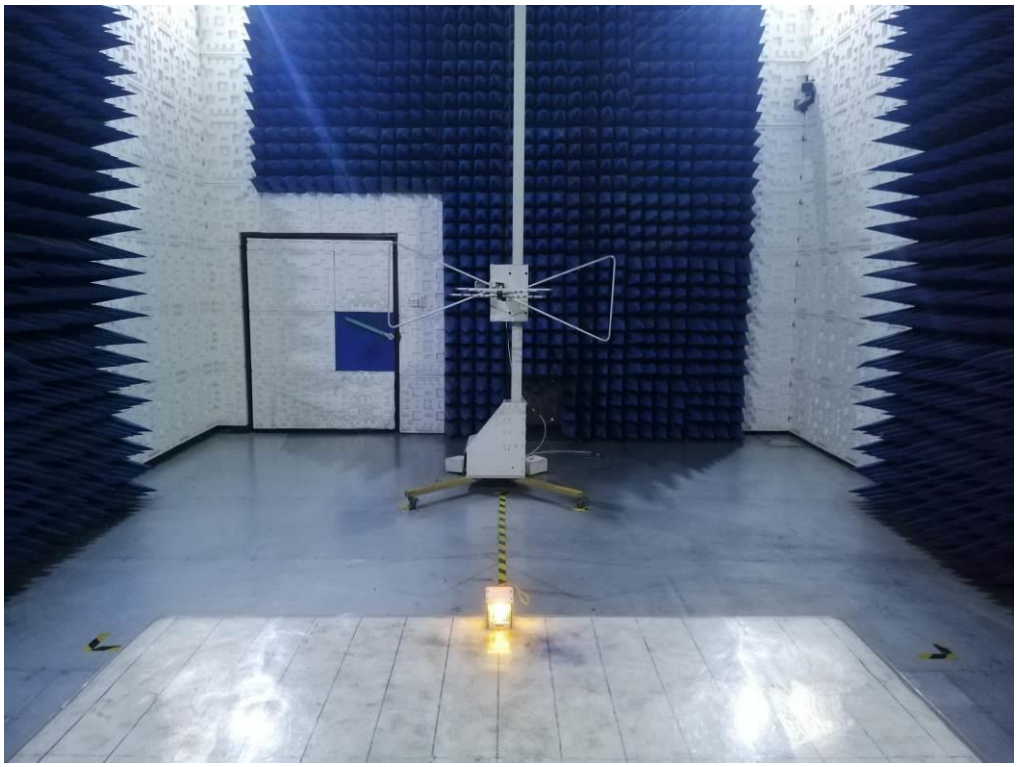
13.3. PERFORMANCE & RESULT

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 I: PHOTOGRAPHS OF TEST SETUP

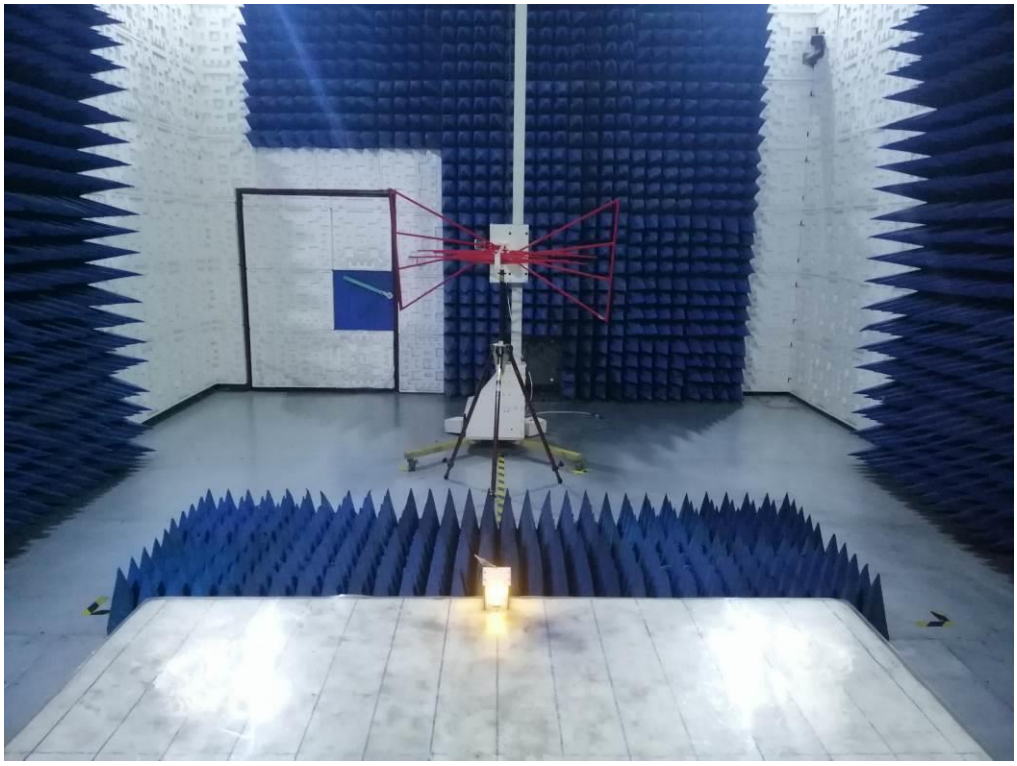
EN IEC 55015 RADIATED EMISSION TEST SETUP



EN IEC 55015 RADIATED ELECTROMAGNETIC DISTURBANCE TEST SETUP

EN 61000-4-2 ESD IMMUNITY TEST SETUP

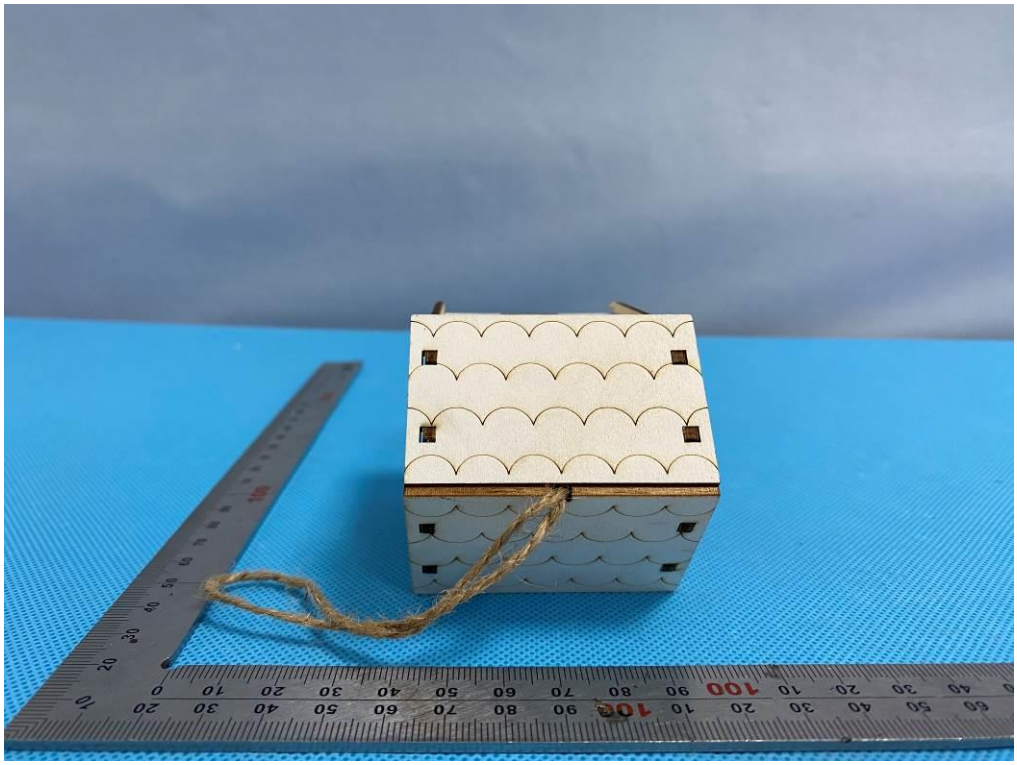
EN 61000-4-3 RS IMMUNITY TEST SETUP



EN 61000-4-8 PFMF TEST SETUP

APPENDIX II: PHOTOGRAPHS OF EUT

TOP VIEW OF EUT



BOTTOM VIEW OF EUT

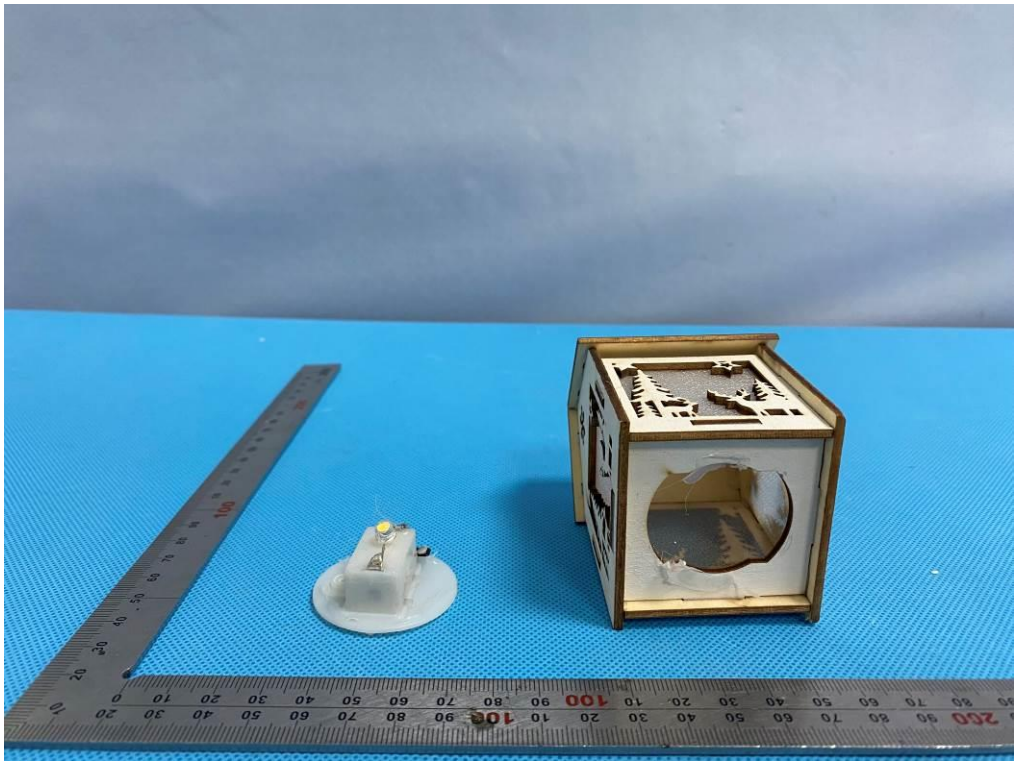
FRONT VIEW OF EUT

BACK VIEW OF EUT

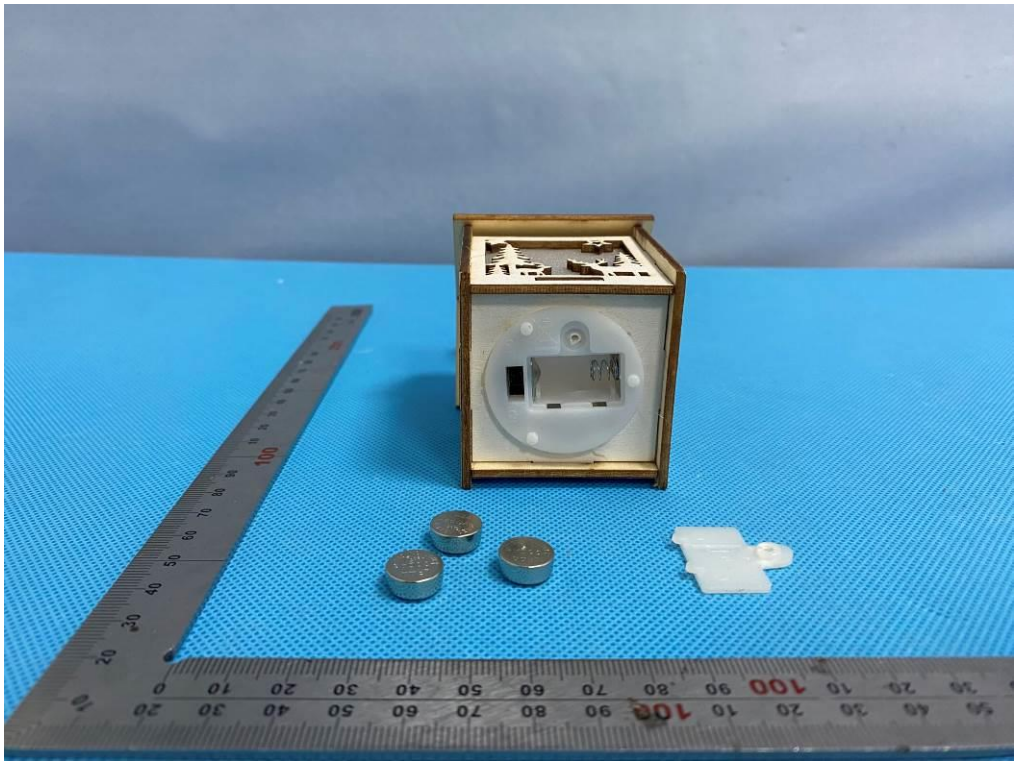
LEFT VIEW OF EUT

RIGHT VIEW OF EUT

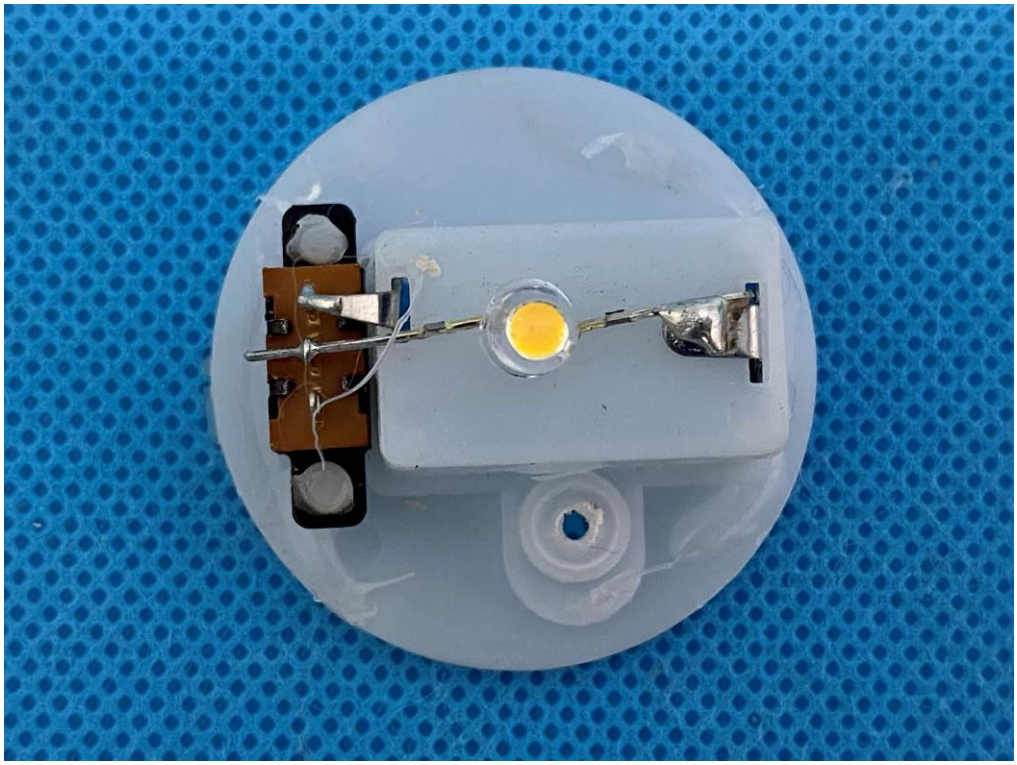
OPEN VIEW OF EUT-1



OPEN VIEW OF EUT-2



INTERNAL VIEW OF EUT



----END OF REPORT----

Conditions of Issuance of Test Reports

1. All samples and goods are accepted by the Attestation of Global Compliance (Shenzhen) Co., Ltd (the "Company") solely for testing and reporting in accordance with the following terms and conditions. The company provides its services on the basis that such terms and conditions constitute express agreement between the company and any person, firm or company requesting its services (the "Clients").

2. Any report issued by Company as a result of this application for testing services (the "Report") shall be issued in confidence to the Clients and the Report will be strictly treated as such by the Company. It may not be reproduced either in its entirety or in part and it may not be used for advertising or other unauthorized purposes without the written consent of the Company. The Clients to whom the Report is issued may, however, show or send it, or a certified copy thereof prepared by the Company to its customer, supplier or other persons directly concerned. The Company will not, without the consent of the Clients, enter into any discussion or correspondence with any third party concerning the contents of the Report, unless required by the relevant governmental authorities, laws or court orders.

3.The Company shall not be called or be liable to be called to give evidence or testimony on the Report in a court of law without its prior written consent, unless required by the relevant governmental authorities, laws or court orders.

4. In the event of the improper use of the report as determined by the Company, the Company reserves the right to withdraw it, and to adopt any other additional remedies which may be appropriate.

5. Samples submitted for testing are accepted on the understanding that the Report issued cannot form the basis of, or be the instrument for, any legal action against the Company.

6. The Company will not be liable for or accept responsibility for any loss or damage however arising from the use of information contained in any of its Reports or in any communication whatsoever about its said tests or investigations.

7.Clients wishing to use the Report in court proceedings or arbitration shall inform the Company to that effect prior to submitting the sample for testing.

8. The Company is not responsible for recalling the electronic version of the original report when any revision is made to them. The Client assumes the responsibility to providing the revised version to any interested party who uses them.

9. Subject to the variable length of retention time for test data and report stored hereinto as otherwise specifically required by individual accreditation authorities, the Company will only keep the supporting test data and information of the test report for a period of six years. The data and information will be disposed of after the aforementioned retention period has elapsed. Under no circumstances shall we provide any data and information which has been disposed of after retention period. Under no circumstances shall we be liable for damage of any kind, including (but not limited to) compensatory damages, lost profits, lost data, or any form of special, incidental, indirect, consequential or punitive damages of any kind, whether based on breach of contract of warranty, tort (including negligence), product liability or otherwise, even if we are informed in advance of the possibility of such damages.