TEST REPORT

Applicant : Mid Ocean Brands B.V.

Address: 7/F., Kings Tower, 111 King Lam Street, Cheung Sha Wan, Kowloon, Hong Kong

The following sample(s) and sample information was/were submitted and identified by client as:

Product Name: Rechargeable torch including hand strap

Model/Style/Item #: MO2137

Receiving Date: 26-Oct-2023

Test Period: From 26-Oct-2023 to 31-Oct-2023

Add Information: -

Report Summary

#	Test item(s)	Reference Standard/Method	Result
1	EMC test - The Council EMC directive 2014/30/EU	EN IEC 55015:2019+A11:2020, EN 61547:2009	**PASS**

**********Please refer to the following page for detailed results**********

Signed for and on behalf of STS

Mark Mai
(Technical Director)

GUANGZHOU DEPUHUA TEST SERVICES CO., LTD
TESTING SERVICES

Result：

1. GENERAL INFORMATION

1.1 Description of Device (EUT)

Description	:	Rechargeable torch including hand strap
Model Number	:	MO2137
Remark	:	N/A

1.2 Operational Mode(s) of EUT

Order Number	:	Test Mode(s)
1	:	ON
2		Charging
3		Charging+ON

1.3 Test Voltage(s) of EUT

Order Number	:	Test Voltage(s)
1	:	DC 3.7V by Battery
2		DC 5V by USB Port

2. DESCRIPTION OF TEST STANDARD

The intention of this publication is to establish uniform requirements for the radio disturbance level of the equipment contained in the scope, to fix limits of disturbance, to describe methods of measurement and to standardize operating conditions and interpretation of results.

The following referenced standard are indispensable for the application of this report.

Referenced Description below:

EN IEC 55015:2019+A11:2020
Limits and methods of measurement of radio disturbance characteristics of electrical Torching and similar equipment.

EN IEC 61000-3-2:2019+A1:2021
Limits for harmonic current emissions (equipment input current <= 16 A per phase). EN 61000-3-

EN 61000-3-3:2013+A1:2019+A2:2021
Limitation of voltage changes, voltage fluctuations and flicker in public low-voltage supply systems, for equipment with rated current <= 16 A per phase and not subject to conditional connection.

EN 61547:2009
Equipment for general Rechargeable torch including hand strap purposes - EMC immunity requirements.

3. SUMMARY OF TEST RESULTS

EMISSION			
Test Item	**Standard**	**Limits**	**Results**
Conducted disturbance at mains terminals	EN IEC 55015:2019+A11:2020	---	PASS
Magnetic test	EN IEC 55015:2019+A11:2020	---	PASS
Radiated disturbance	EN IEC 55015:2019+A11:2020	---	PASS
*Harmonic current emissions	EN IEC 61000-3-2:2019 +A1:2021	Class C	PASS
Voltage fluctuations & flicker	EN 61000-3-3:2013+A1:2019 +A2:2021	---	N/A
IMMUNITY (EN 61547:2009)			
Test Item	**Basic Standard**	**Performance Criteria**	**Results**
Electrostatic discharge (ESD)	EN 61000-4-2:2009	B	PASS
Radio-frequency, Continuous radiated disturbance	EN IEC 61000-4-3:2020	A	PASS
Electrical fast transient (EFT)	EN 61000-4-4:2012	B	PASS
Surge (Input a.c. power ports)	EN 61000-4-5:2014+A1:2017	B	PASS
Radio-frequency, Continuous conducted disturbance	EN 61000-4-6:2014	A	PASS
Power frequency magnetic field	EN 61000-4-8:2010	A	PASS
Voltage dips, 100% reduction	EN IEC 61000-4-11:2020	B	N/A
Voltage dips, 30% reduction		C	N/A
N/A is an abbreviation for Not Applicable.			

4. BLOCK DIAGRAM OF TEST SETUP

The equipments are installed test to meet EN 55014-1 requirement and operating in a manner which tends to maximize its emission characteristics in a normal application. EUT was tested in normal configuration (Please See following Block diagrams)

4.1 Block Diagram of connection between EUT and simulation-EMI

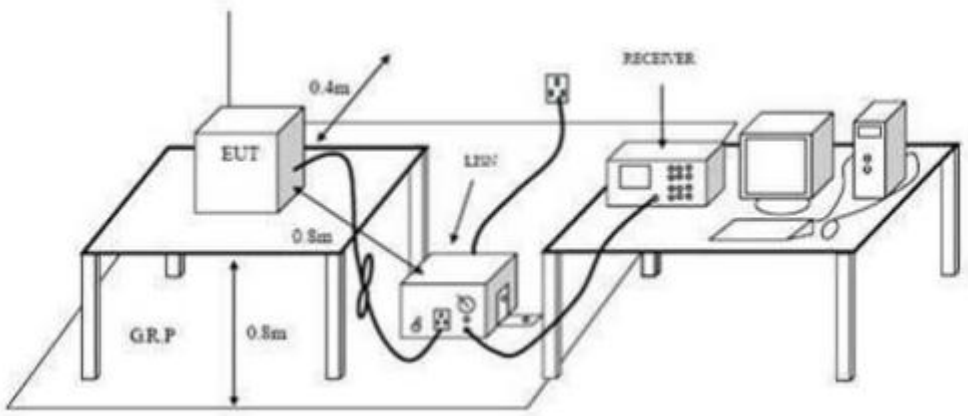
(EUT:Rechargeable torch including hand strap)

4.2 Block Diagram of connection between EUT and simulation-EMS

(EUT:Rechargeable torch including hand strap))

5. CONDUCTED DISTURBANCE AT MAINS TERMINALS TEST

5.1 Configuration of Test System



5.2 Test Standard

EN IEC 55015:2019+A11:2020

5.3 Power Line Conducted Disturbance at Mains Terminals Limit

Frequency (MHz)	Maximum RF Line Voltage	
	Quasi-Peak Level dB(μV)	Average Level dB(μV)
0.009 ~ 0.05	110	-
0.05 ~ 0.15	90 to 80*	-
0.15 ~ 0.50	66 to 56*	56 to 46*
0.50 ~ 5.00	56	46
5.00 ~ 30.00	60	50

Notes: 1. At the transition frequency, the lower limit applies.
2. *The limit decreases linearly with the logarithm of the frequency in the Frequency in the ranges 50KHz to 150KHz and 150KHz to 0.5MHz.

5.4 Test Procedure

The EUT was placed on a non-metallic table, 80cm above the ground plane. The EUT Power connected to the power mains through a line impedance stabilization network (L.I.S.N. 1#). This provided a 50-ohm coupling impedance for the EUT (Please refer to the block diagram of the test setup and photographs). The other peripheral devices power cord connected to the power mains through a line impedance stabilization network (L.I.S.N.#2). Both sides of power line were checked for maximum conducted interference. In order to find the maximum emission, the relative positions of equipments and all of the interface cables were changed according to EN IEC 55015 on conducted Disturbance test.

The bandwidth setting on the test receiver is 200Hz(frequency range from 9KHz to 150KHz) and 9KHz (frequency range from 150KHz to 30MHz)

The test result are reported on Section 5.5.

5.5.Conducted Disturbance at Mains Terminals Test Results

5.5.1.Test Results: **PASS**

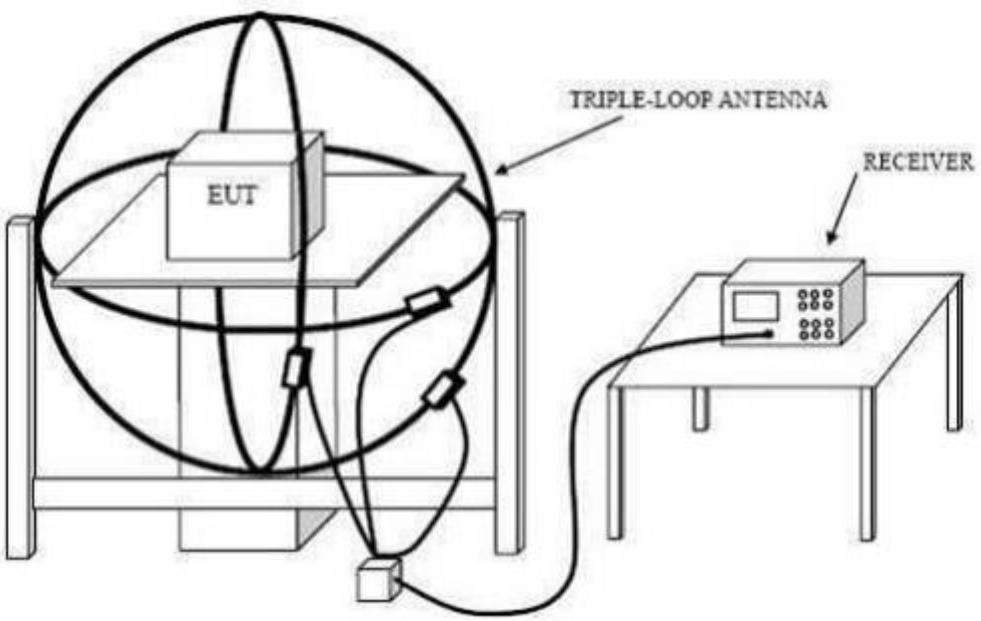
5.5.2.If the average limit is met when using a quasi-peak detector, the EUT shall be deemed to meet both limits and measurement with average detector is unnecessary.

5.5.3.Emission Level= Correct Factor + Reading Level.

5.5.4.The test data and the scanning waveform are attached within Appendix I.
Note : All test modes are performed, only the worst case is recorded in this report.

6. MAGNETIC TEST

6.1 Configuration of Test System



6.2 Test Standard

EN IEC 55015:2019+A11:2020

6.3 Radiated Disturbance Limit

Frequency (MHz)	Limits for loop diameter (dBuA)
	2m
0.009~0.07	88
0.07~0.15	88~58*
0.15~3.00	58~22*
3.00~30.0	22

Note: 1.At the transition frequency the lower limit applies.
2. *decreasing linearly with logarithm of the frequency.

6.4 Test Procedure

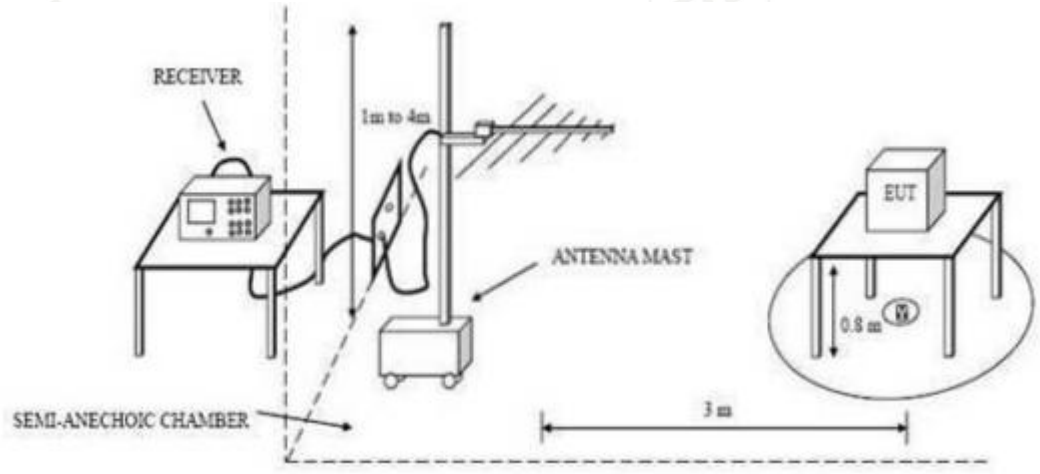
The EUT is placed on a wood table in the center of a loop antenna. The induced current in the loop antenna is measured by means of a current probe and the test receiver. Three field components are checked by means of a coax switch.
The frequency range from 9 KHz to 30MHz is investigated. The receiver is measured with the quasi-peak detector. For frequency band 9 KHz to 150 KHz, the bandwidth of the field strength meter (R&S test receiver ESCI) is set at 200Hz. For frequency band 150 KHz to 30MHz, the bandwidth is set at 9 KHz.

The test result are reported on Section 6.5.

6.5.Radiated Disturbance Test Results

6.5.1.Test Results: **PASS**

7. RADIATED DISTURBANCE TEST



7.2.Test Standard

EN IEC 55015:2019+A11:2020

7.3.Radiated Disturbance Limit

All emanations from devices or system, including any network of conductors and apparatus connected thereto, shall not exceed the level of field strengths specified below:

FREQUENCY (MHz)	DISTANCE (Meters)	FIELD STRENGTHS LIMITS (dBμV/m)
30 ~ 230	3	40
230 ~ 1000	3	47

Note: 1.The lower limit shall apply at the transition frequencies.
2. Distance refers to the distance in meters between the test antenna and the closed point of any part of the EUT.

7.4.Test Procedure

The EUT was placed on a non-metallic table, 80 cm above the ground plane inside a semi-anechoic chamber. An antenna was located 3m from the EUT on an adjustable mast. A pre-scan was first performed in order to find prominent radiated emissions. For final emissions measurements at each frequency of interest, the EUT were rotated and the antenna height was varied between 1m and 4m in order to maximize the emission. Measurements in both horizontal and vertical polarities were made and the data was recorded. In order to find the maximum emission, the relative positions of equipments and all of the interface cables were changed according to EN IEC 55015 on Radiated Disturbance test.

The bandwidth setting on the test receiver is 120 kHz.

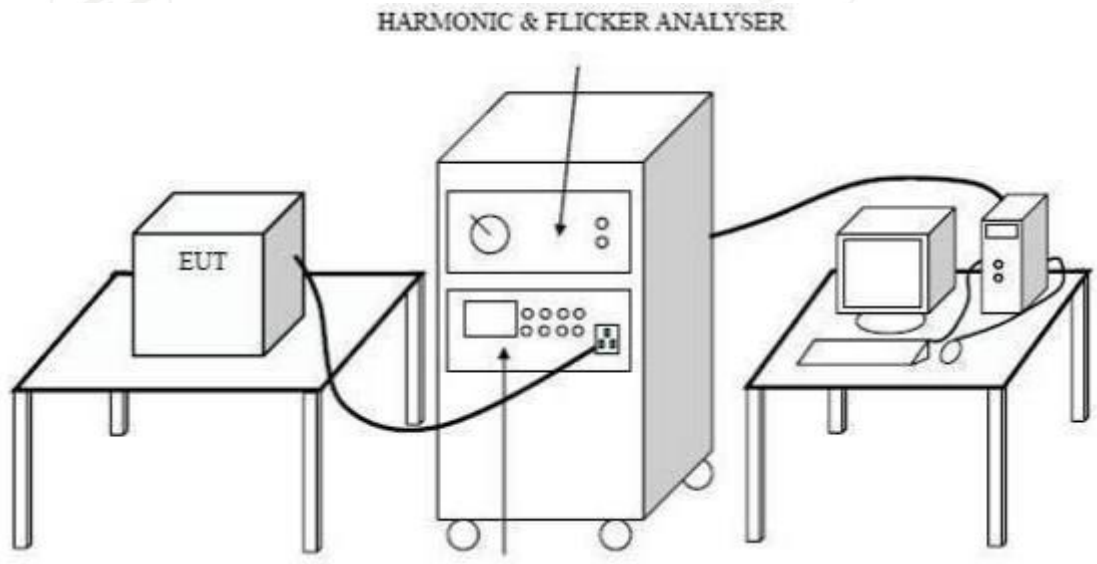
The frequency range from 30MHz to 1000MHz is checked. The test result are reported on Section 7.5.

7.5. Radiated Disturbance Test Results

7.5.1.Test Results: **PASS**
7.5.2.Emission Level= Correct Factor + Reading Level.
7.5.3.All reading are Quasi-Peak values.
7.5.4.The test data and the scanning waveform are attached within Appendix II.
Note : All test modes are performed, only the worst case is recorded in this report.

8. HARMONIC CURRENT TEST

8.1. Configuration of Test System



8.2.Test Standard

EN IEC 61000-3-2:2019+A1:2021; Class C

8.3.Test Limits

For Class C equipment, the hamonics of the input current shall not exceed the values given in below:

Harmonic order h	Maximum permissible harmonic currrent expressed as a percentage of the input current at the fundamental frequency %
2	2
3	30 · λ *
5	10
7	7
9	5
11 ≤ h ≤ 39 (odd harmonics only)	3
* λ is the circuit power factor	

8.4.Test Results

8.4.1.Test Results: N/A

9. VOLTAGE FLUCTUATIONS & FLICKER TEST

9.1.Configuration of Test System

Same as Section 8.1.

9.2.Test Standard

EN 61000-3-3:2013+A1:2019+A2:2021

9.3.Test Limits

The limits shall be applicable to voltage fluctuations and flicker ata the supply terminal s of the equipment under test, the followinglimites apply:
the value of Pst shall not be greater than 1.0;
the value of Plt shall not be greater than 0.65;
the value of d(t) during a voltage change shall not exceed 3.3% for more than 500ms;
the relative steady-state voltage change, dc, shall not exceed 3.3%;
the maximum relative voltage change dmax, shall not exceed
a) 4% without additional conditions;
b) 6% for equipment which is:
Switched manually, or
Swithced automatically more frequently than twice per day, and also has either a delayed restart(the delay being not less than a few thens of seconds), or manual restart, after a

power supply interruption.
c) 7%for equipment which is
Attended whilst in use (for example: hair dryers, vacuum cleaners, kitchen equipment such as mixers, garden equipment such as lawn mowers, portable tools such as electric drills), or switched on automatically, or is intended to be switched on manually, no more than twice per day, and also has either a delayed restart(the delay being not less than a few tens of seconds) or manual restart, after a power supply interruption.

9.4.Test Results: N/A

10. IMMUNITY PERFORMANCE CRITERIA

The test results shall be classified in terms of the loss of function or degradation of performance of the equipment under test, relative to a performance level by its manufacturer or the requestor of the test, or the agreed between the manufacturer and the purchaser of the product.

Definition related to the performance level:
Based on the used product standard
Based on the declaration of the manufacturer, requestor or purchaser

Criterion A:
During the test no change of the luminous intensity shall be observed and the regulating control, if any, shall operate during the test as intended.

Criterion B:
During the test the luminous intensity may change to any value. After the test the luminous intensity shall be restored to its initial value within 1 min.

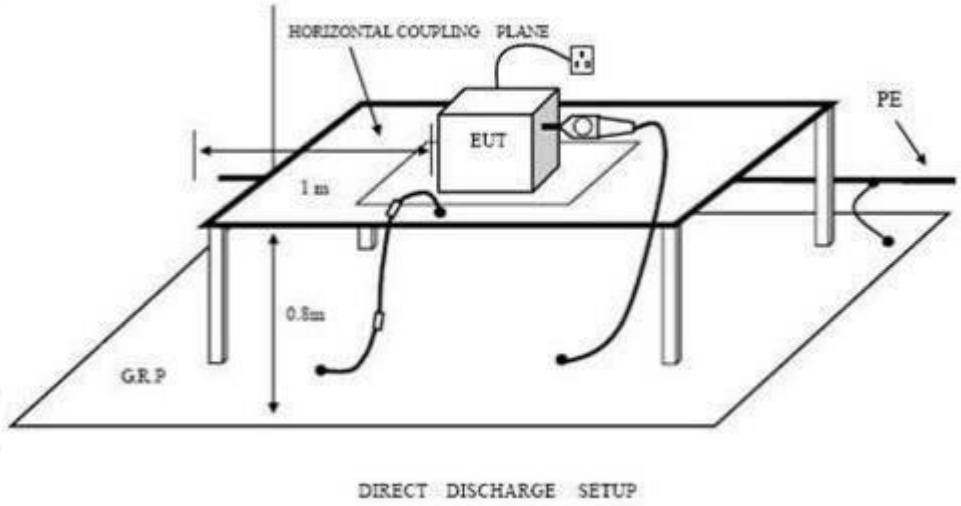
Regulating controls need not function during the test, but after the test the mode of the control shall be the same as before the test provided that during the test no mode changing commands were given.

Criterion C:
During and after the test any change of the luminous intensity is allowed and the lamp(s) may be extinguished. After the test, within 30 min, all functions shall return to normal if necessary by temporary interruption of the mains supply and/or operating the regulating control.

11. ELECTROSTATIC DISCHARGE IMMUNITY TEST

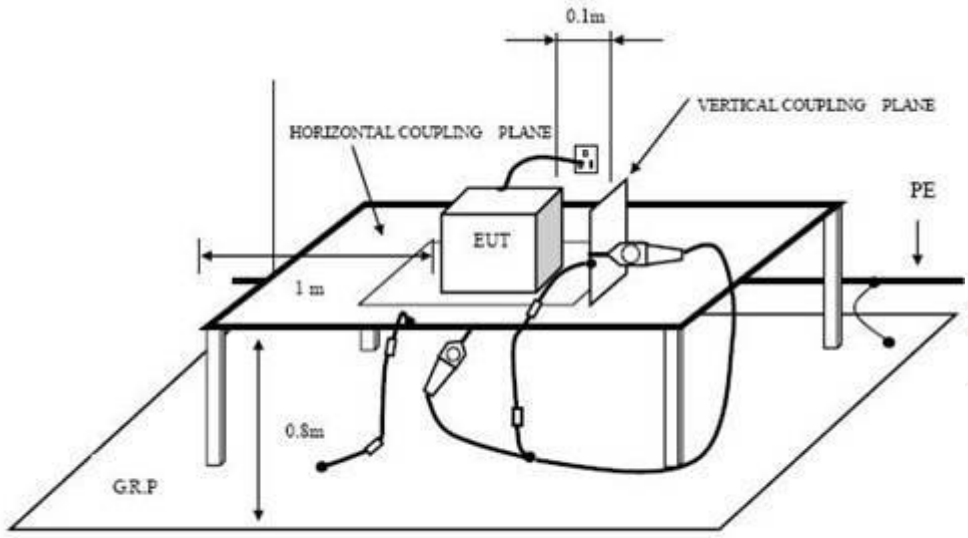
11.1 Configuration of Test System

11.1.1 Configuration of ESD Test System(Direct Discharge)



DIRECT DISCHARGE SETUP

11.1.2.Configuration of ESD Test System(Indirect Discharge)



INDIRECT DISCHARGE SETUP

11.2 Test Standard

EN61547:2009 (EN 61000-4-2)
(Severity Level 3 for Air Discharge at 8KV, Severity Level 2 for Contact Discharge at 4KV)

11.3 Severity Levels and Performance Criterion

11.3.1 Severity level

Level	Test Voltage Contact Discharge (KV)	Test Voltage Air Discharge (KV)
1.	2	2
2.	4	4
3.	6	8
4.	8	15
X	Special	Special

11.3.2 Performance criterion : **B**

11.4 Test Procedure

11.4.1.Air Discharge:

The test was applied on non-conductive surfaces of EUT. The round discharge tip of the discharge electrode was approached as fast as possible to touch the EUT. After each discharge, the discharge electrode was removed from the EUT. The generator was re-triggered for a new single discharge and repeated 20 times for each pre-selected test point. This procedure was repeated until all the air discharge completed

11.4.2.Contact Discharge:

All the procedure was same as Section 11.4.1. except that the tip of the discharge electrode shall touch the EUT before the discharge switch was operated.

11.4.3.Indirect discharge for horizontal coupling plane

At least 20 single discharges were applied to the horizontal coupling plane, at points on each side of the EUT. The discharge electrode positions vertically at a distance of 0.1m from the EUT and with the discharge electrode touching the coupling plane.

11.4.4.Indirect discharge for vertical coupling plane

At least 20 single discharge were applied to the center of one vertical edge of the coupling plane. The coupling plane, of dimensions 0.5m X 0.5m, was placed parallel to, and positioned at a distance of 0.1m from the EUT. Discharges were applied to the coupling plane, with this plane in sufficient different positions that the four faces of the EUT are completely illuminated.

11.5 Test Results

11.5.1 Test Results: **PASS**

11.5.2 Test data on the following pages.

Electrostatic Discharge Test Results

Test Voltage :	1&2	Test Date:	Oct.27,2023
Test Mode :	1&2&3	Criterion :	B
Temperature:	26.5℃	Humidity:	60%

Air Discharge: ±2,4 and 8KV # For Air Discharge each Point Positive 10 times and negative 10 times discharge.

Contact Discharge: ±4KV # For Contact Discharge each point positive 10 times and negative 10 times discharge

Test Results Description

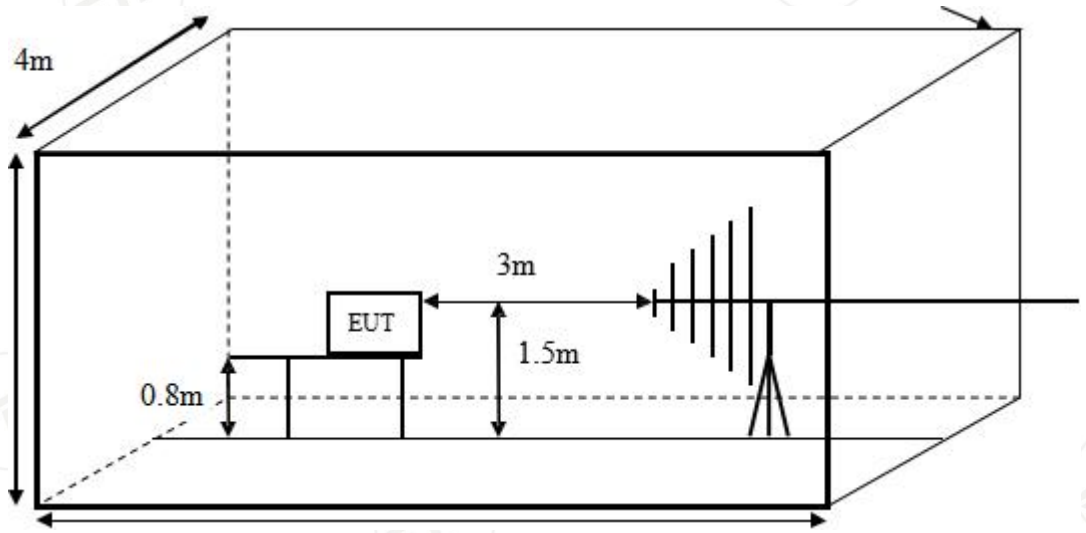
Location	Kind A-Air Discharge C-Contact Discharge	Result
Gaps	A	PASS
Switch	C	PASS
HCP	A	PASS
Port	C	PASS
VCP of Front	C	PASS
VCP of Rear	C	PASS
VCP of Left	C	PASS
VCP of Right	C	PASS

Remark :

Discharge was considered on Contact and Air and Horizontal Coupling Plane (HCP) and Vertical Coupling Plane (VCP).

12. RF FIELD STRENGTH SUSCEPTIBILITY TEST

12.1Configuration of Test System



7m

12.2 Test Standard

EN 61547:2009 (EN IEC 61000-4-3)
(Severity Level: 2 at 3V / m)

12.3 Severity Levels and Performance Criterion

12.3.1 Severity level

Level	Test Field Strength V/m
1.	1
2.	3
3.	10
X	Special

12.3.2 Performance criterion : **A**

12.4 Test Procedure

The EUT and its simulators are placed on a turn table which is 0.8 meter above the ground. The EUT is set 3 meters away from the transmitting antenna which is mounted on an antenna tower. Both horizontal and vertical polarization of the antenna is set on test. Each of the four sides of EUT must be faced this transmitting antenna and measured individually. In order to judge the EUT performance, a CCD camera is used to monitor the EUT.

All the scanning conditions are as follows :

Condition of Test	Remarks
1. Test Fielded Strength	3 V/m (Severity Level 2)
2. Radiated Signal	80% amplitude modulated with a 1kHz sine wave
3. Scanning Frequency	80 - 6000 MHz
4. Sweeping time of radiated	0.0015 decade/s
5. Dwell Time	1.5 Sec.

12.5 Test Results

12.5.1 Test Results: **PASS**

12.5.2 Test data on the following pages

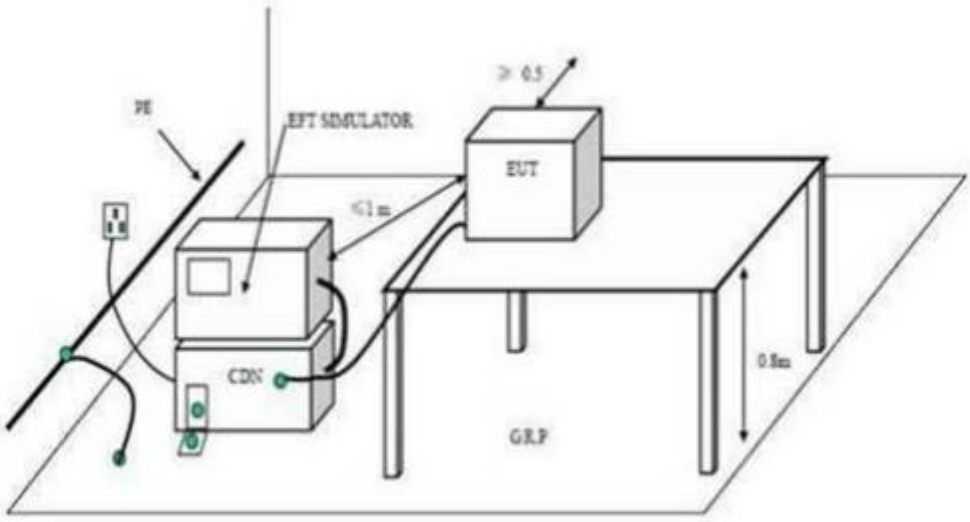
RF Field Strength Susceptibility Test Results

Test Voltage :	1&2	Test Date:	Oct.27,2023
Test Mode:	1&2&3	Frequency Range:	80-1000MHz
Field Strength :	3 V/m	Criterion :	A
Temperature:	26.5℃	Humidity:	60%
Modulation:	☑ AM ☐ Pulse ☐ none 1 kHz 80%		
Test Results Description			
Frequency Rang 1: 80MHz - 1000 MHz			
Steps	1%		1%
	Horizontal		Vertical
Front	PASS		PASS
Right	PASS		PASS
Rear	PASS		PASS
Left	PASS		PASS

Note: No function loss

13. ELECTRICAL FAST TRANSIENT/BURST IMMUNITY TEST

13.1 Configuration of Test System



13.2 Test Standard

EN 61547:2009 (EN 61000-4-4)
(Severity Level 2 at 1KV)

13.3 Severity Levels and Performance Criterion

13.3.1 Severity level

Open Circuit Output Test Voltage ±10%		
Level	On Power Supply Lines	On I/O (Input/Output) Signal data and control lines
1.	0.5 KV	0.25 KV
2.	1 KV	0.5 KV
3.	2 KV	1 KV
4.	4 KV	2 KV
X	Special	Special

13.3.2 Performance criterion : **B**

13.4 Test Procedure

The EUT and its simulators were placed on a the ground reference plane and were insulated from it by an wood support 0.1m + 0.01m thick. The ground reference plane was 1m*1m metallic sheet with 0.65mm minimum thickness. This reference ground plane was project beyond the EUT by at least 0.1m on all sides and the minimum distance between EUT and all other conductive structure, except the ground plane was more than 0.5m. All cables to
the EUT was placed on the wood support, cables not subject to EFT/B was routed as far as possible from the cable under test to minimize the coupling between the cables.

13.4.1.For input and AC power ports:
The EUT was connected to the power mains by using a coupling device which couples the EFT interference signal to AC power lines. Both positive transients and
negative transients of test voltage was applied during compliance test and the duration of the test can't less than 2mins.

13.4.2.For signal lines and control lines ports:
It's unnecessary to test.

13.4.3.For DC input and DC output power ports:
It's unnecessary to test.

13.5 Test Results

13.5.1 Test Results: **PASS**
13.5.2 Test data on the following pages.

Magnetic Field Immunity Test Results

Test Voltage :	2	Test Date:	Oct.27,2023
Test Mode :	2&3	Criterion :	B
Temperature:	26.5℃	Humidity:	60.0%

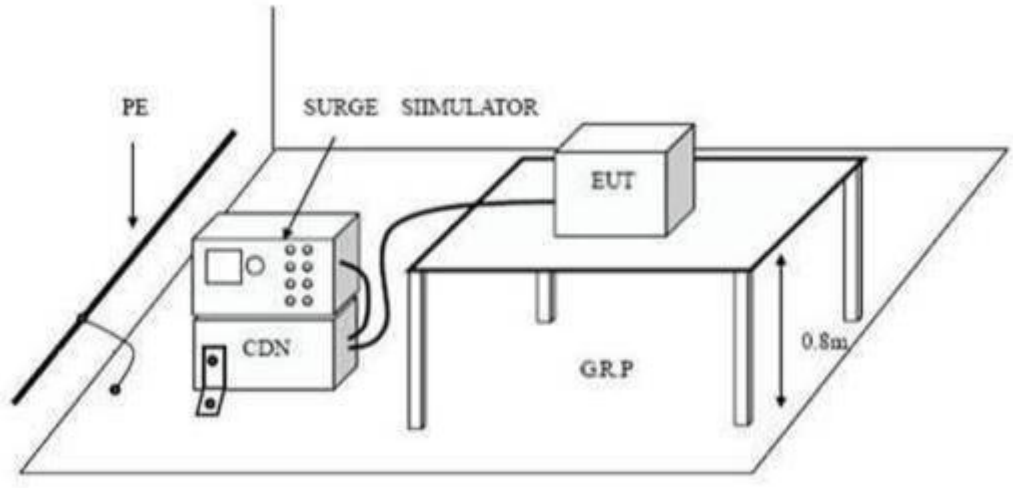
Test Results Description

Inject Line	Voltage KV	Inject Time(s)	Inject Method	Results	Inject Line	Voltage KV	Inject Time(s)	Inject Method	Results
L	±1	120	Direct	PASS					
N	±1	120	Direct	PASS					
L+N	±1	120	Direct	PASS					

Remark:

14. SURGE TEST

14.1.Configuration of Test System



14.2.Test Standard

EN 61547:2009 (EN 61000-4-5)
(Severity Level : Line to Line was Level 2 at 1KV
Line to PE was Level 3 at 2KV)

14.3.Severity Levels and Performance Criterion

14.3.1.Severity level

Severity Level	Open-Circuit Test Voltage KV
1	0.5
2	1.0
3	2.0
4	4.0
*	Special

14.3.2.Performance criterion : **C**

14.4.Test Procedure

14.4.1.Set up the EUT and test generator as shown on Section 16.1.

14.4.2.For line to line coupling mode, provide a 0.5KV 1.2/50us voltage surge (at open-circuit condition) and 8/20us current surge to EUT selected points, and for active line / neutral line to ground are same except test level is 1KV.

14.4.3.At least 5 positive and 5 negative (polarity) tests with a maximum 1/min repetition rate are applied during test.
14.4.4.Different phase angles are done individually.
14.4.5.Record the EUT operating situation during compliance test and decide the EUT immunity criterion for above each test.

14.5.Test Results

14.5.1.Test Results: **PASS**
14.5.2.Test data on the following pages.

Surge Immunity Test Results

Test Voltage :	2	Test Date :	Oct.27,2023
Test Mode :	2&3	Criterion :	C
Temperature:	26.5 ℃	Humidity:	60.0%

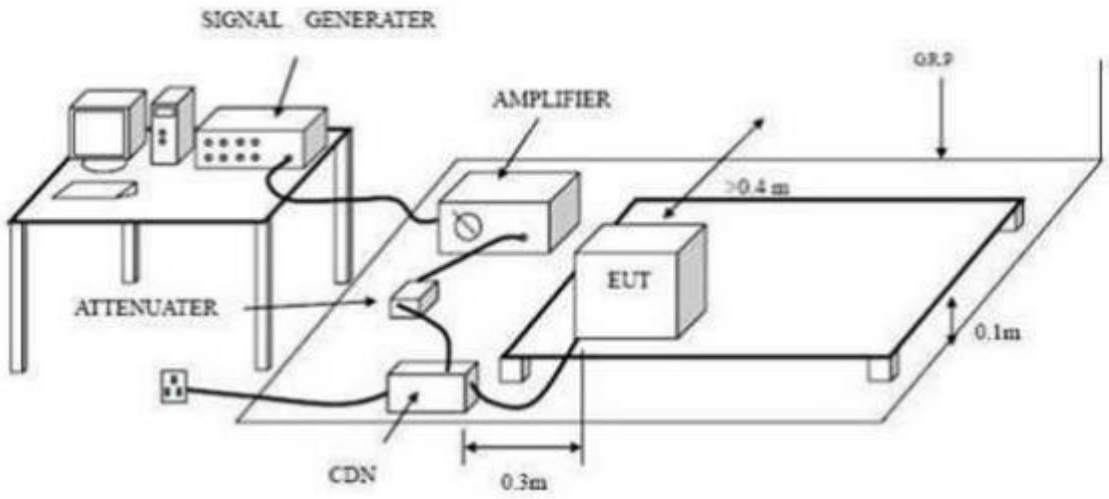
Test Results Description

Location	Polarity	Phase Angle	No of Pulse	Pulse Voltage (KV)	Result
L- N	+	90	5	1.0	PASS
	-	270	5	1.0	PASS

Remark:

15. INJECTED CURRENTS SUSCEPTIBILITY TEST

15.1.Configuration of Test System



15.2.Test Standard

EN 61547:2009 (EN 61000-4-6)

(Severity Level 2 at 3V (r.m.s.) and frequency is from 0.15MHz to 80MHz)

15.3. Severity Levels and Performance Criterion

15.3.1.Severity level

Level	Voltage Level (e.m.f.) V
1.	1
2.	3
3.	10
X	Special

15.3.2.Performance criterion: **A**

15.4.Test Procedure

15.4.1.Set up the EUT, CDN and test generators as shown on Section 17.1.

15.4.2.Let the EUT work in test mode and test it.

15.4.3.The EUT are placed on an insulating support 0.1m high above a ground reference plane. CDN (coupling and decoupling device) is placed on the ground plane about 0.3m from EUT. Cables between CDN and EUT are as short as possible, and their height above the ground reference plane shall be between 30 and 50 mm (where possible).

15.4.4.The disturbance signal description below is injected to EUT through CDN.

15.4.5.The EUT operates within its operational mode(s) under intended climatic conditions after power on.

15.4.6. The frequency range is swept from 0.15MHz to 80MHz using 3V signal level, and with the disturbance signal 80% amplitude modulated with a 1KHz sine wave.
15.4.7. The rate of sweep shall not exceed 1.5*10-3decades/s. Where the frequency is swept incrementally, the step size shall not exceed 1% of the start and thereafter 1% of the preceding frequency value.
15.4.8. Recording the EUT operating situation during compliance testing and decide the EUT immunity criterion.

15.5. Test Results

15.5.1. Test Results: **PASS**
15.5.2. Test data on the following pages.

Injected Currents Susceptibility Test Results

Power Supply :	*2*	*Test Date: :*	*Oct.27,2023*
Test Mode :	*2&3*	*Criterion: :*	*A*
Temperature:	*26.5 ℃*	*Humidity:*	*60.0%*

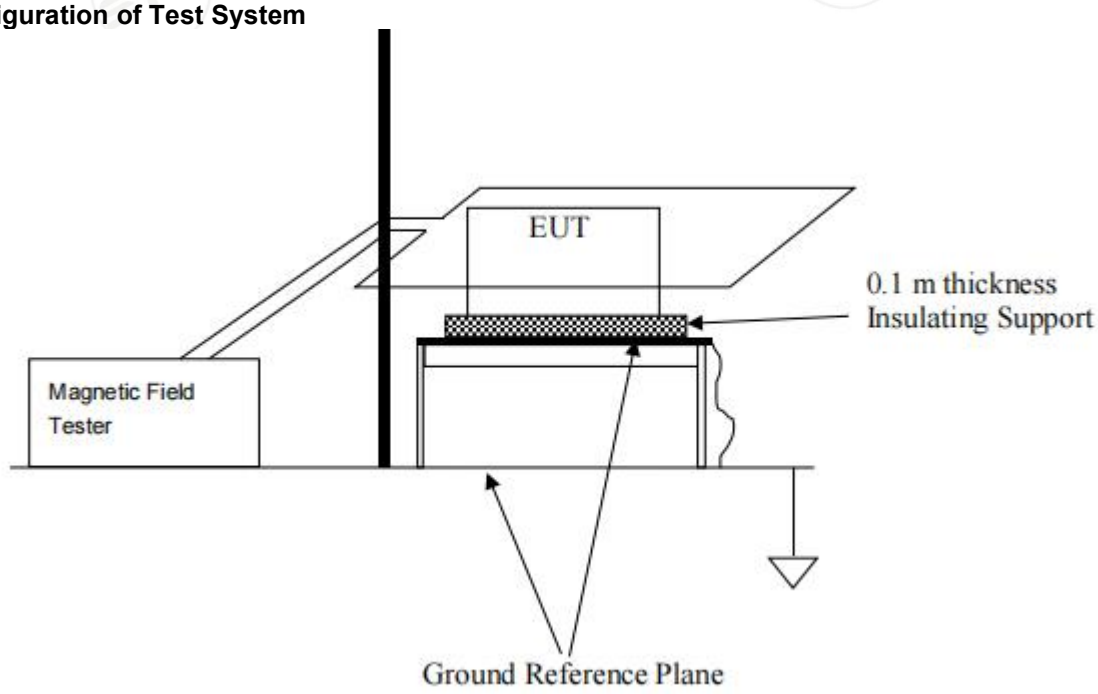
Test Results Description

Frequency Range (MHz)	*Injected Position*	*Voltage Level (e.m.f.)*	*Criterion*	*Result*
0.15 ~ 80	*AC Mains*	*3V(rms), Unmodulated*	*A*	*PASS*

Remark : No function loss

16. MAGNETIC FIELD IMMUNITY TEST

16.1.Configuration of Test System



16.2.Test Standard

EN 61547:2009 (EN 61000-4-8)
(Severity Level 2 at 3A/m)

16.3.Severity Levels and Performance Criterion

16.3.1.Severity level

Level	Magnetic Field Strength A/m
1.	1
2.	3
3.	10
4.	30
5.	100
X.	Special

16.3.2.Performance criterion : **A**

16.4.Test Procedure

The EUT was subjected to the test magnetic field by using the induction coil of standard dimensions (1m*1m) and shown in Section 18.1. The induction coil was then rotated by 90° in order to expose the EUT to the test field with different orientations.

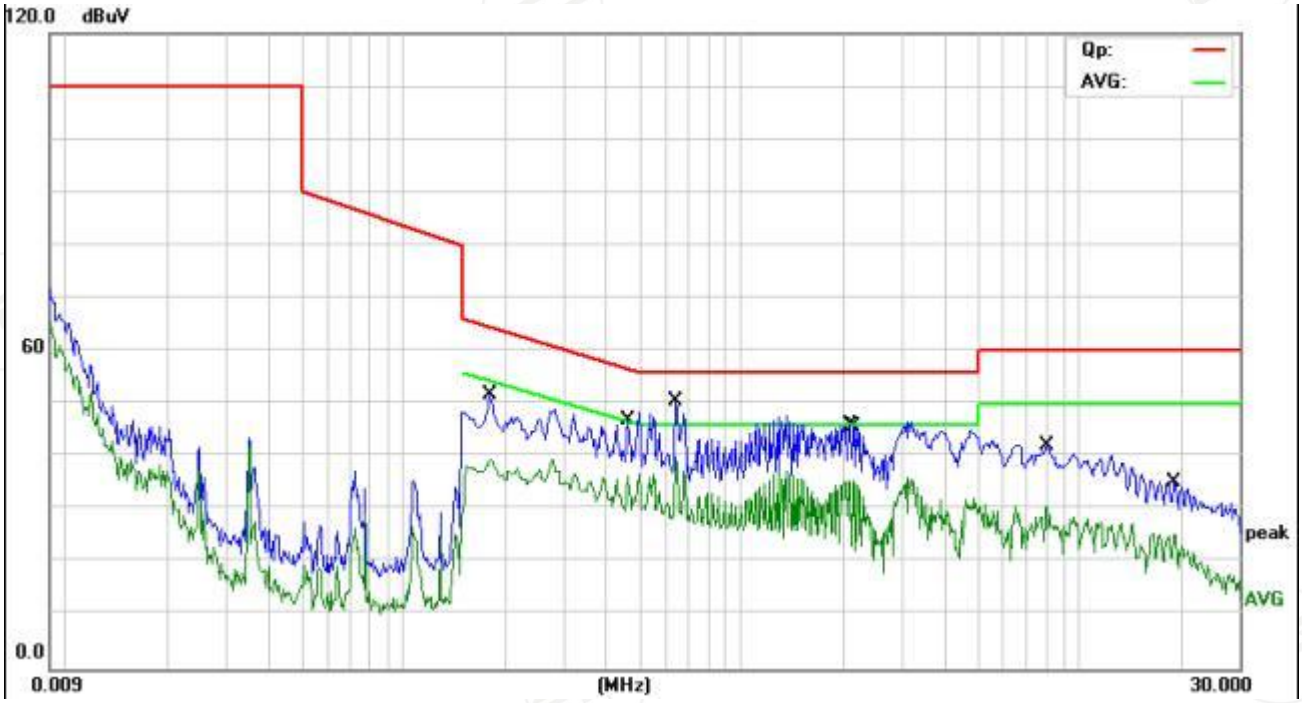
16.5.Test Results

16.5.1.Test Results: **PASS**

16.5.2.Test data on the following pages.

APPENDIX I

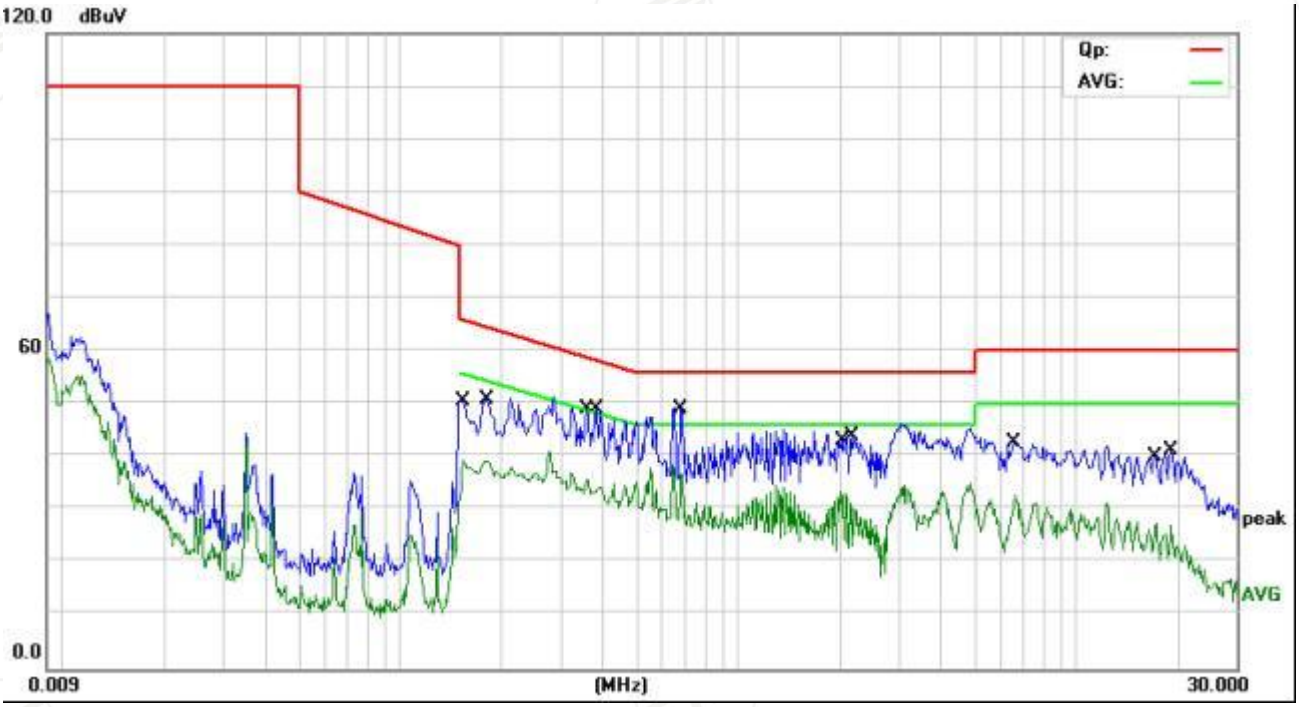
EUT:	**Rechargeable torch including hand strap**	**M/N:**	**MO2137**
Mode:	**Charging+ON**	**Polarization:**	**L**
Test by:	**Dawn**	**Power:**	**DC 5V by USB Port**
Temperature: / Humidity	**26.5℃/ 60.0%**	**Test date:**	**2023-10-27**



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
1		0.1820	42.12	9.61	51.73	64.39	-12.66	QP	
2		0.1820	29.95	9.61	39.56	54.39	-14.83	AVG	
3		0.4660	37.42	9.59	47.01	56.58	-9.57	QP	
4		0.4660	26.91	9.59	36.50	46.58	-10.08	AVG	
5	*	0.6500	39.31	9.60	48.91	56.00	-7.09	QP	
6		0.6500	28.95	9.60	38.55	46.00	-7.45	AVG	
7		2.1220	36.41	9.60	46.01	56.00	-9.99	QP	
8		2.1580	25.94	9.60	35.54	46.00	-10.46	AVG	
9		8.0780	32.47	9.66	42.13	60.00	-17.87	QP	
10		8.0780	20.99	9.66	30.65	50.00	-19.35	AVG	
11		19.1900	15.60	9.73	25.33	50.00	-24.67	AVG	
12		19.3380	25.60	9.73	35.33	60.00	-24.67	QP	

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

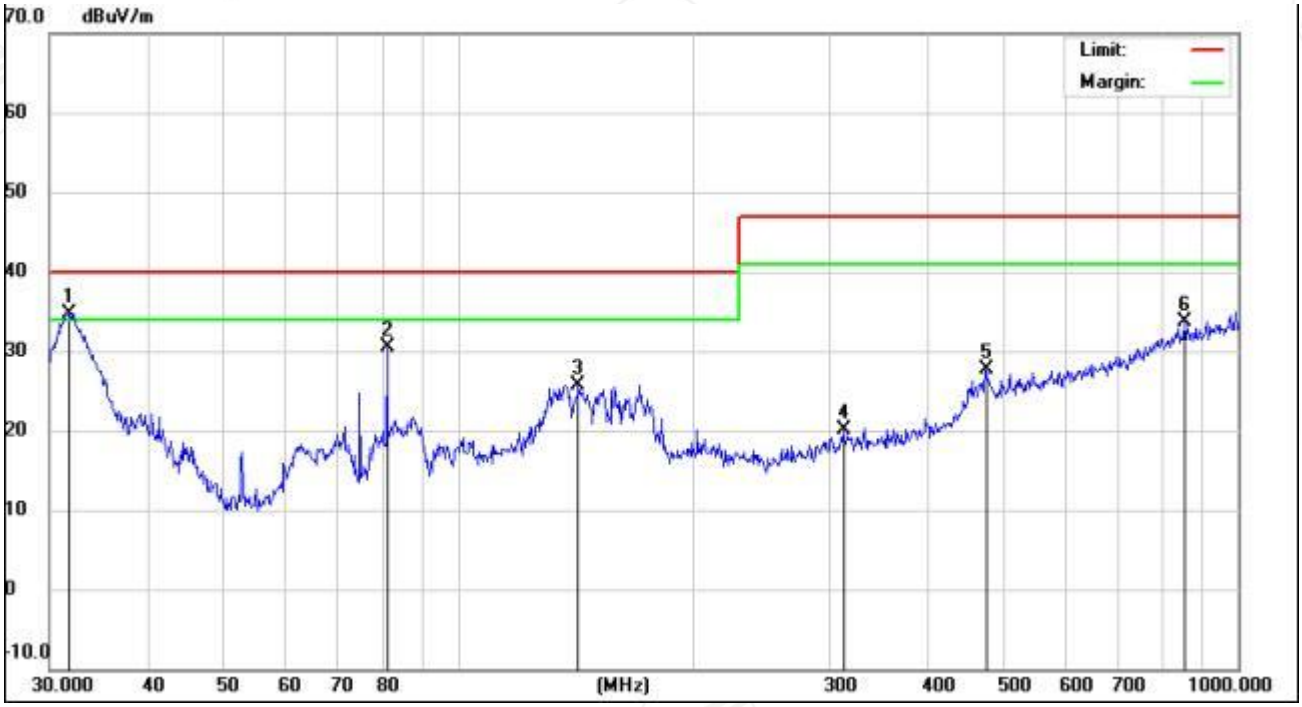
EUT:	**Rechargeable torch including hand strap**	**M/N:**	**MO2137**
Mode:	**Charging+ON**	**Polarization:**	**N**
Test by:	**Dawn**	**Power:**	**DC 5V by USB Port**
Temperature: / Humidity	**26.5℃/ 60.0%**	**Test date:**	**2023-10-27**



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
1		0.1540	29.75	9.60	39.35	55.78	-16.43	AVG	
2		0.1780	41.14	9.61	50.75	64.58	-13.83	QP	
3		0.3580	26.29	9.59	35.88	48.77	-12.89	AVG	
4		0.3820	39.53	9.59	49.12	58.24	-9.12	QP	
5	*	0.6780	39.51	9.60	49.11	56.00	-6.89	QP	
6		0.6820	27.23	9.60	36.83	46.00	-9.17	AVG	
7		2.0140	23.78	9.60	33.38	46.00	-12.62	AVG	
8		2.1940	34.25	9.60	43.85	56.00	-12.15	QP	
9		6.6140	33.21	9.65	42.86	60.00	-17.14	QP	
10		6.6860	23.14	9.65	32.79	50.00	-17.21	AVG	
11		17.3380	17.74	9.71	27.45	50.00	-22.55	AVG	
12		19.2020	31.65	9.73	41.38	60.00	-18.62	QP	

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

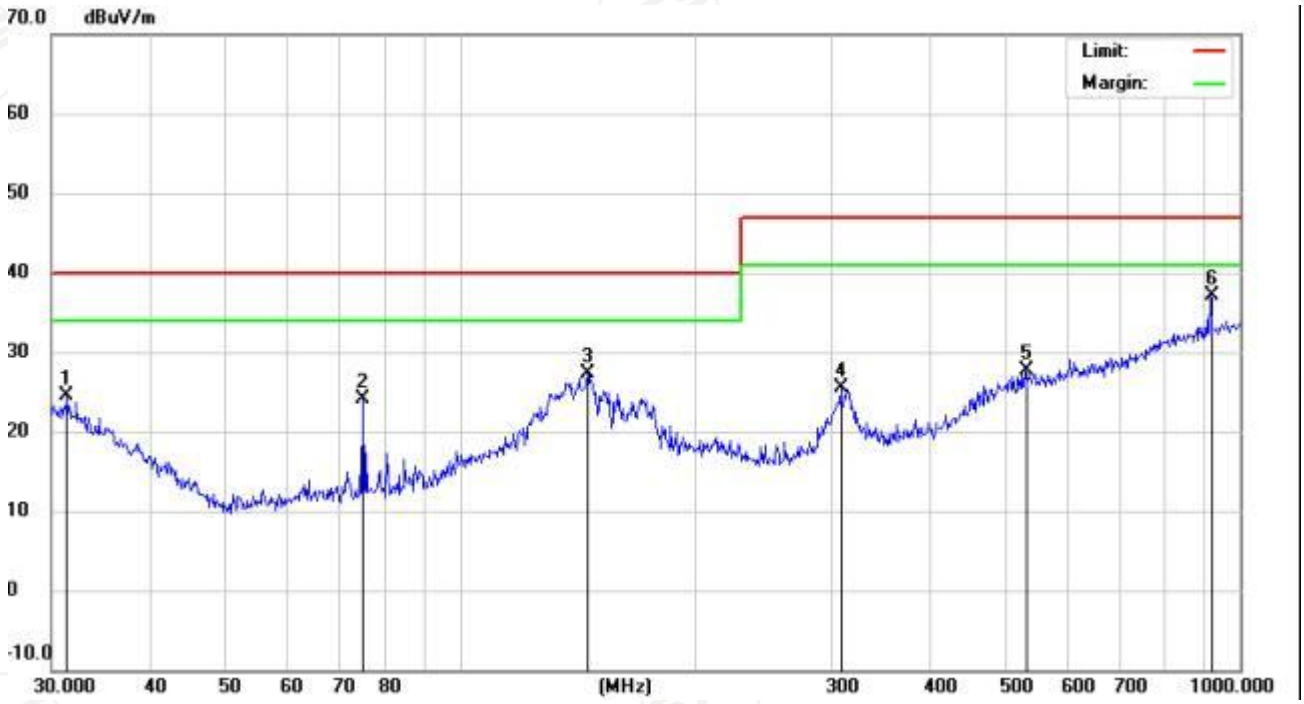
EUT:	**Rechargeable torch including hand strap**	**M/N:**	**MO2137**
Mode:	**Charging+ON**	**Polarization:**	**Vertical**
Test by:	**Dawn**	**Power:**	**DC 5V by USB Port**
Temperature: / Humidity	**26.5℃/ 60.0%**	**Test date:**	**2023-10-27**



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		Antenna Height	Table Degree	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	cm	degree	Comment
1	*	31.8427	15.13	19.65	34.78	40.00	-5.22	QP			
2		81.2117	20.49	10.08	30.57	40.00	-9.43	QP			
3		142.8243	9.00	16.77	25.77	40.00	-14.23	QP			
4		312.1794	4.46	15.73	20.19	47.00	-26.81	QP			
5		473.8347	6.32	21.31	27.63	47.00	-19.37	QP			
6		854.0247	5.14	28.49	33.63	47.00	-13.37	QP			

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

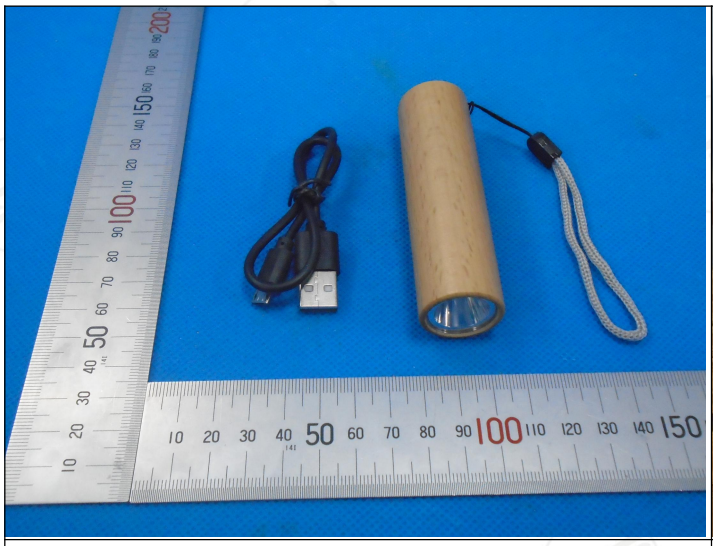
EUT:	**Rechargeable torch including hand strap**	**M/N:**	**MO2137**
Mode:	**Charging+ON**	**Polarization:**	**Horizontal**
Test by:	**Dawn**	**Power:**	**DC 5V by USB Port**
Temperature: / Humidity	**26.5℃/ 60.0%**	**Test date:**	**2023-10-27**



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		Antenna Height	Table Degree	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	cm	degree	Comment
1		31.3992	4.49	19.95	24.44	40.00	-15.56	QP			
2		75.1822	14.39	9.71	24.10	40.00	-15.90	QP			
3		145.8611	10.20	17.16	27.36	40.00	-12.64	QP			
4		307.8313	9.90	15.65	25.55	47.00	-21.45	QP			
5		530.1014	4.64	23.03	27.67	47.00	-19.33	QP			
6	*	916.0687	7.97	29.16	37.13	47.00	-9.87	QP			

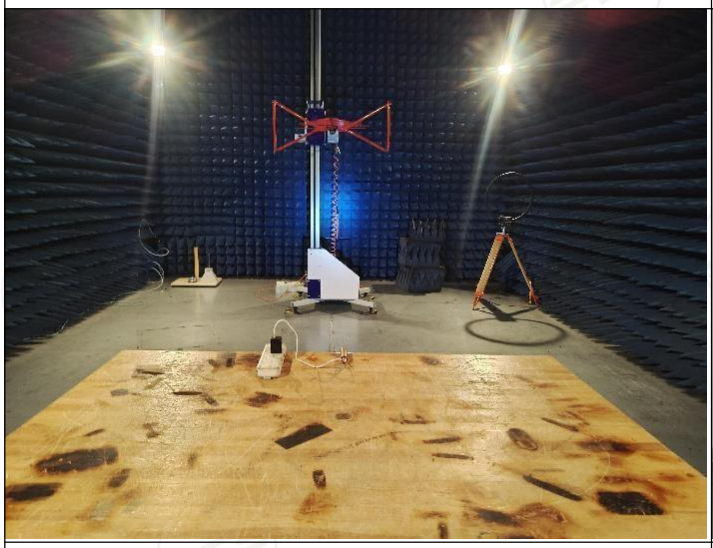
*:Maximum data x:Over limit !:over margin

Photo(s):



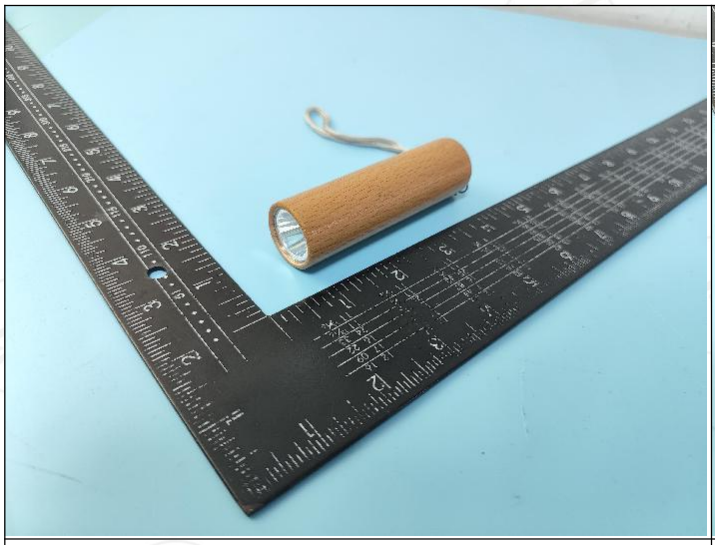
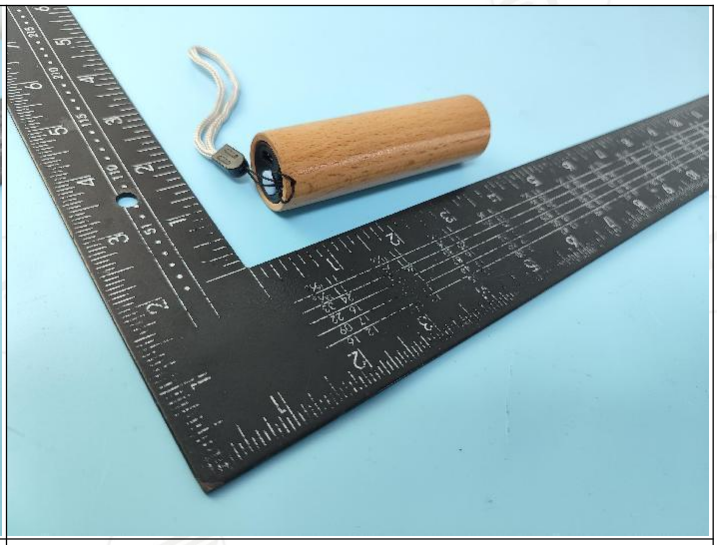
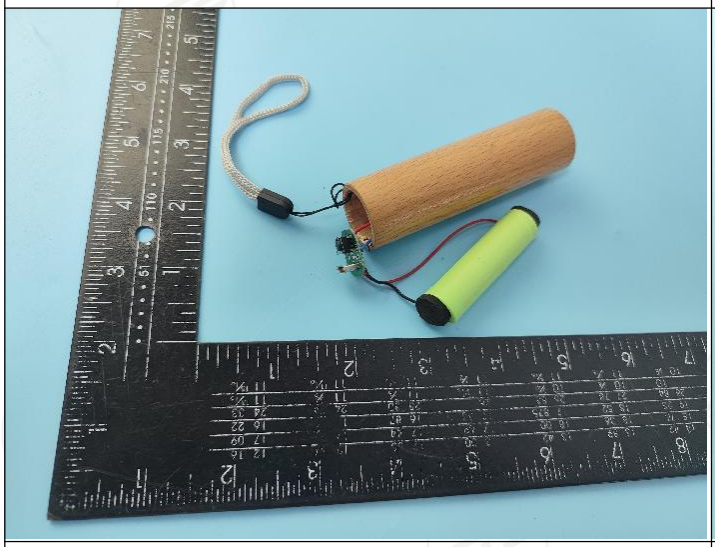
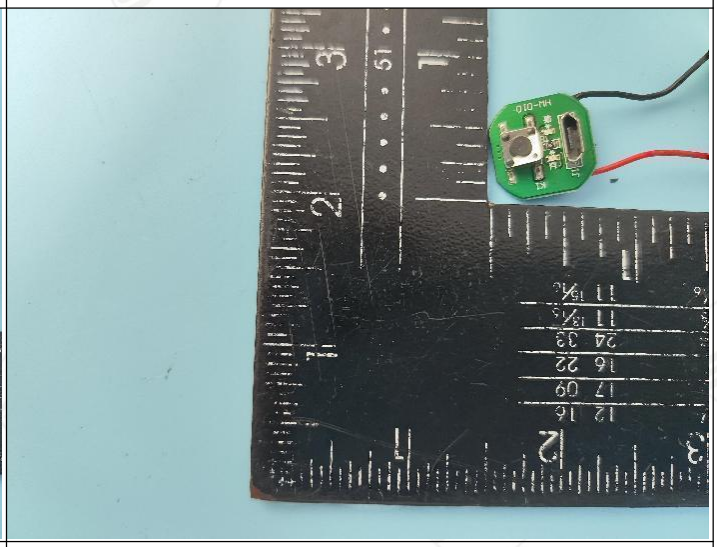
Test Sample Photo

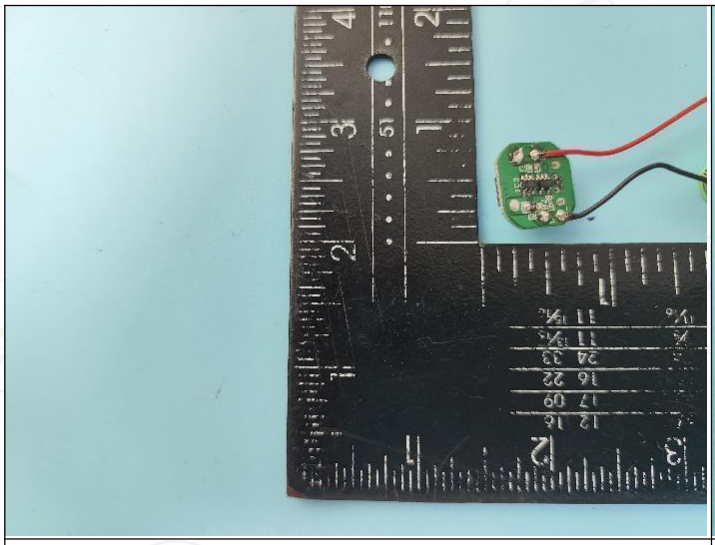
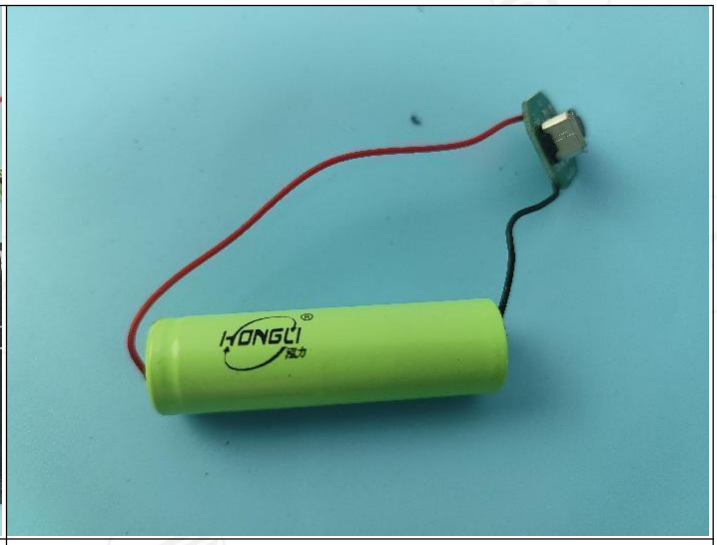
Conducted Test Setup Photograph



Radiated Test Setup Photograph

ESD Test Setup Photograph

	
General Appearance of the EUT	General Appearance of the EUT
	
Internal of the EUT	PCB of the EUT

	
PCB of the EUT	Battery of the EUT
Test Sample Photo	

<<< <<< END OF REPORT >>> >>>

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