

**LAB LOCATION:**  
**REPORT NUMBER:****SHANGHAI**  
**64323-040551 B****ISSUE DATE:**  
**PAGE:****27-Jul-2023**  
**1 of 32**

**Applicant** : Koopman International B.V.  
**Contact Person** : Antoine Verkooijen  
**Sample Description** : YOYO with light  
**Style Number** : DL9200230  
**Purchase Order Number** : HK083936  
**Supplier Item Number** : TS23-2023  
**Buyer** : Koopman International B.V.  
**Manufacturer** : /  
**Manufacturer's Address** : /  
**Country of Origin** : China  
**Country of Destination** : Rotterdam  
**Date of Submission** : April 20, 2023  
**Test Performance Dates** : April 20, 2023 – July 27, 2023

**Photo of Submitted Sample**

For and on behalf of  
Eurofins MTS Consumer Product Testing (Shanghai) Co. Ltd.



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**Gao Jian** David  
Senior Manager Toy Division

**LAB LOCATION:**  
**REPORT NUMBER:****SHANGHAI**  
**64323-040551 B****ISSUE DATE:**  
**PAGE:****27-Jul-2023**  
**2 of 32****TEST RESULT SUMMARY**

<b>Test Requested</b>	<b>Results</b>
EN71-1:2014+A1:2018 "Safety of toys – Part 1: Mechanical and physical properties"	PASS (See Remark)
EN71-2:2020 "Safety of toys – Part 2: Flammability"	PASS
Migration of Certain Elements – EN 71-3:2019+A1: 2021	PASS
EN IEC 55014-1:2021	PASS
EN IEC 62115:2020+A11:2020 Safety of Electric Toy	PASS
EN IEC 62115:2020+A11:2020 ANNEX E	PASS

**LAB LOCATION:**  
**REPORT NUMBER:****SHANGHAI**  
**64323-040551 B****ISSUE DATE:**  
**PAGE:****27-Jul-2023**  
**3 of 32****COMPONENT BREAKDOWN LIST:**

Test Item	Component Description
A	YOYO with light
A1	Transparent plastic(body)
A2	Grey plastic(body)
A3	Black plastic(body)
A4	White fabric(cord)

LAB LOCATION:  
REPORT NUMBER:

SHANGHAI  
64323-040551 B

ISSUE DATE:  
PAGE:

27-Jul-2023  
4 of 32

**TEST SUMMARY:**

**EN71 Part 1: 2014+A1:2018 “Safety of toys – Mechanical and physical properties”**

**AGE GRADE EVALUATION:**

Labeled age grade: Not Declared  
Appropriate age grade: Ages over 6 years  
Age grade for testing: Ages over 6 years

**RESULT:**

<b><u>SUBCLAUSE</u></b>	<b><u>REQUIREMENT</u></b>	<b><u>RESULT</u></b>
<b>4</b>	<b><u>GENERAL REQUIREMENTS</u></b>	<b><u>P</u></b>
4.1	Material cleanliness	P
4.2	Assembly	NA
4.3	Flexible plastic sheeting	NA
4.4	Toy Bags	NA
4.5	Glass	NA
4.6	Expanding materials	NA
4.7	Edges	P
4.8	Points and metallic wires	P
4.9	Protruding parts	NA
4.10	Parts moving against each other	NA
4.11	Mouth-actuated toys and other toys intended to be put in the mouth	NA
4.12	Balloons	NA
4.13	Cords of toy kites and other flying toys	NA
4.14	Enclosures	NA
4.15	Toys intended to bear the mass of a child	NA
4.16	Heavy immobile toys	NA
4.17	Projectile toys	NA
4.18	Aquatic toys and inflatable toys	NA
4.19	Percussion caps specifically designed for use in toys and toys using percussion caps	NA
4.20	Acoustics	NA
4.21	Toys containing a non-electrical heat source	NA
4.22	Small balls	NA
4.23	Magnets	NA
4.24	Yo-yo balls	NA
4.25	Toys attached to food	NA
4.26	Toy Disguise Costumes	NA
4.27	Flying toys	NA
<b>5</b>	<b><u>TOYS INTENDED FOR CHILDREN UNDER 36 MONTHS</u></b>	<b><u>NA</u></b>
5.1	General requirements	NA
5.2	Soft-filled toys and soft-filled parts of a toy	NA
5.3	Plastic sheeting	NA
5.4	Cords, chains and electrical cables in toys	NA
5.5	Liquid-filled toys	NA
5.6	Speed limitation of electrically-driven ride-on toys	NA
5.7	Glass and porcelain	NA
5.8	Shape and size of certain toys	NA

LAB LOCATION:  
REPORT NUMBER:

SHANGHAI  
64323-040551 B

ISSUE DATE:  
PAGE:

27-Jul-2023  
5 of 32

<u>SUBCLAUSE</u>	<u>REQUIREMENT</u>	<u>RESULT</u>
5.9	Toys comprising monofilament fibres	NA
5.10	Small balls	NA
5.11	Play figures	NA
5.12	Hemispheric-shaped toys	NA
5.13	Suction cup	NA
5.14	Straps intended to be worn fully or partially around the neck	NA
5.15	Sledges with cords for pulling	NA
<b>6</b>	<b><u>PACKAGING</u></b>	<b><u>NA</u></b>
<b>7</b>	<b><u>WARNING MARKINGS AND INSTRUCTIONS FOR USE</u></b>	<b><u>NR</u></b> <b>(See Remark)</b>
7.1	General	NR
7.2	Toys not intended for children under 36 months	NR
7.3	Latex balloons	NR
7.4	Aquatic toys	NR
7.5	Functional toys	NR
7.6	Hazardous sharp functional edges and points	NR
7.7	Projectile toys	NR
7.8	Imitation protective masks and helmets	NR
7.9	Toy kites	NR
7.10	Roller skates, inline skates, skateboards and certain other ride-on toys	NR
7.11	Toys otherwise intended to be strung across a cradle, cot, or perambulator	NR
7.12	Liquid-filled teethers	NR
7.13	Percussion caps specifically designed for use in toys	NR
7.14	Acoustics	NR
7.15	Toy bicycles	NR
7.16	Toys intended to bear the mass of a child	NR
7.17	Toys comprising monofilament fibres	NR
7.18	Toy Scooters	NR
7.19	Rocking horse and similar toys	NR
7.20	Magnetic/electrical experimental sets	NR
7.21	Toys with electrical cables exceeding 300 mm in length	NR
7.22	Toys with cords or chains intended for children of 18 months and over but under 36 months	NR
7.23	Toys intended to be attached to a cradle, cot or perambulator	NR
7.24	Sledges with cords for pulling	NR
7.25	Flying toys	NR
7.26	Improvised projectiles	NR

Note: P = Pass      F = Fail      NA = Not Applicable      NR = Not Requested

Remark: No actual packaging was provided with the submitted sample(s). Consequently, evaluation of the applicable labeling requirement and size measurement was not conducted.

**LAB LOCATION:**  
**REPORT NUMBER:****SHANGHAI**  
**64323-040551 B****ISSUE DATE:**  
**PAGE:****27-Jul-2023**  
**6 of 32****TEST SUMMARY:****EN71 Part 2: 2020 – Flammability”****RESULTS:**

<b><u>SUBCLAUSE</u></b>	<b><u>REQUIREMENT</u></b>	<b><u>RESULT</u></b>
<b><u>4</u></b>	<b><u>REQUIREMENTS</u></b>	<b><u>P</u></b>
4.1	General requirements	P
4.2	Toys to be worn on the head	NA
4.3	Toy disguise costumes and toys intended to be worn by a child in play	NA
4.4	Toys intended to be entered by a child	NA
4.5	Soft-filled toys	NA

Note: P = Pass      F = Fail      NA = Not applicable      NR = Not Requested

**LAB LOCATION:**  
**REPORT NUMBER:**
**SHANGHAI**  
**64323-040551 B**
**ISSUE DATE:**  
**PAGE:**
**27-Jul-2023**  
**7 of 32**
**TEST SUMMARY:**
**Migration of Certain Elements – EN 71-3:2019+A1: 2021**
**Category III: Scraped-off materials**

Extractable Elements	Result (mg/kg)				Migration Limit (mg/kg)
	A1	A2	A3	A4	
<b>Test Item</b>	A1	A2	A3	A4	-
<b>Mass of Trace Amount (mg)</b>	NA	NA	NA	NA	-
Aluminum (Al)	18	67	48	25	28130
Antimony (Sb)	<10	<10	<10	<10	560
Arsenic (As)	<10	<10	<10	<10	47
Barium (Ba)	<10	<10	<10	<10	18750
Boron (B)	<100	<100	<100	<100	15000
Cadmium (Cd)	<5	<5	<5	<5	17
Chromium (III) (Cr III)	<10	<10	<10	<10	460
Chromium (VI) (Cr VI)	<0.04	<0.04	<0.04	<0.04	0.053
Cobalt (Co)	<10	<10	<10	<10	130
Copper (Cu)	<10	<10	<10	<10	7700
Lead (Pb)	<10	<10	<10	<10	23
Manganese (Mn)	<10	<10	<10	<10	15000
Mercury (Hg)	<10	<10	<10	<10	94
Nickel (Ni)	<10	<10	<10	<10	930
Selenium (Se)	<10	<10	<10	<10	460
Strontium (Sr)	<10	<10	<10	<10	56000
Tin (Sn)	<0.8	<0.8	<0.8	<0.8	180000
Organic Tin	<3	<3	<3	<3	12
Zinc (Zn)	<10	<10	<10	<10	46000
<b>Conclusion</b>	PASS	PASS	PASS	PASS	-

Method: With reference to EN 71-3:2019+A1: 2021 The heavy metals content was determined by Inductively Coupled Plasma Mass Spectrophotometer (ICP-MS).

For samples of migrated chromium content lower than migration limit of Chromium (VI), no speciation test for Chromium (III) and chromium (VI) were conducted. The results were derived from that of total chromium.

For samples of migrated tin content calculated as tributyl tin lower than migration limit of organic tin, no organic tin test was conducted. The results were derived from that of Tin.

**LAB LOCATION:**  
**REPORT NUMBER:**

**SHANGHAI**  
**64323-040551 B**

**ISSUE DATE:**  
**PAGE:**

**27-Jul-2023**  
**8 of 32**

Remark: 1. The material categories of tested item(s) are classified as below per clause 4.1 of this standard.

<b>Category I: Dry, brittle, powder like or pliable materials</b>
Compressed paint tablets, materials intended to leave a trace or similar materials in solid form appearing as such in the toy (e.g. the cores of colouring pencils, chalk, crayons)
Pliable modelling materials, including modelling clays and plaster
<b>Category II: Liquid or sticky materials</b>
Liquid paints, including finger paints, varnishes, lacquers, liquid ink in pens and similar materials in liquid form appearing as such in the toy (e.g. slimes, bubble solution)
Glue sticks
<b>Category III: Scraped-off materials</b>
Coatings of paints, varnishes, lacquers, printing inks, polymers, foams and similar coatings
Polymeric and similar materials, including laminates, whether textile reinforced or not, but excluding other textiles
Paper and paper board
Textiles, whether natural or synthetic
Glass, ceramic, metallic materials
Other materials whether mass coloured or not (e.g. wood, fibre board, hard board, bone and leather)

2. Result(s) of organic tin reported was / were the sum of Methyltin (MeT), Butyltin (BuT), Dibutyltin (DBT), Tributyltin (TBT), Tetrabutyltin (TeBT), Mono-octyltin (MOT), Di-n-octyltin (DOT), Di-n-propyltin (DProT), Diphenyltin (DPHT), Triphenyltin (TPhT) and Dimethyltin (DMT) expressed as TBT.
3. The accessibility of the submitted sample is verified according to EN71-1 before and after abuse.
4. The received sample(s) contained component(s) of less than 10mg on one single sample, therefore such component(s) was not tested for extractable heavy metals content as specified in clause 7.1 of this standard.

Note: mg/kg = milligram per kilogram  
 mg = milligram  
 "<" = less than  
 NA = Not applicable

Remark: No surface coating was found on the submitted sample.



**LAB LOCATION:**  
**REPORT NUMBER:****SHANGHAI**  
**64323-040551 B****ISSUE DATE:**  
**PAGE:****27-Jul-2023**  
**9 of 32****NOTE:**

Test uncertainties not reported are at client's disposal, for those in which it is possible to evaluate or estimate the test uncertainty. The statement of conformity is based on a 95% coverage probability for the expanded uncertainty of the measured result (guard band):

Rule 1:

For any requirement state to be "Maximum"

PASS - The measured result is below a specification limit minus guard band.

INCONCLUSIVE - The measured result is inside the guard band and below the specification limit and the measured result is above the specification limit but below the specification limit added to the guard band.

FAIL - The measured result is above a specification limit added to the guard band.

DATA - There is no specification limit required which is not possible to state the conformity.

Rule 2:

For any requirement state to be "Minimum"

PASS - The measured result is above a specification limit plus guard band.

INCONCLUSIVE - The measured result is inside the guard band and above the specification limit and the measured result is below the specification limit but above the specification limit added to the guard band.

FAIL - The measured result is below a specification limit minus guard band.

DATA - There is no specification limit required which is not possible to state the conformity.

Rule 3:

For any requirement state to be "a range (Between Upper to Lower specification limit)"

PASS - The measured result is within a range of upper and lower acceptance limit.

INCONCLUSIVE - The measured result is inside the guard band at either side of specification limits

FAIL - The measured result is outside a specification limit minus/added to the guard band.

DATA - There is no specification limit required which is not possible to state the conformity.

Rule 4:

For any test based on subjective grading of results by using 9-point scale

PASS - The measured result is above specification limit.

FAIL - The measured result is below a specification limit.

DATA - There is no specification limit required which is not possible to state the conformity.

LAB LOCATION:  
REPORT NUMBER:

SHANGHAI  
64323-040551 B

ISSUE DATE:  
PAGE:

27-Jul-2023  
10 of 32

## 1. Description of standards and results

<b>EMISSION</b>			
Description of Test Item	Standard	Limits	Results
Conducted Disturbances at the AC mains port	EN IEC 55014-1: 2021	Table 5	N/A
Discontinuous Disturbance (Click)	EN IEC 55014-1: 2021	Clause 4.4	N/A
Disturbance Power (30 MHz to 300 MHz )	EN IEC 55014-1: 2021	Table 7, Table 8	N/A
Radiated Emission (30 MHz to 1000 MHz)	EN IEC 55014-1: 2021	Table 9	Pass
Radiated Emission (1 GHz to 6 GHz)	EN IEC 55014-1: 2021	Table 11	N/A
<b>IMMUNITY</b>			
Description of Test Item	Basic Standard	Performance Criteria	Results
Electrostatic Discharge (ESD)	IEC 61000-4-2:2008	B	N/A
Radio frequency electromagnetic fields	IEC 61000-4-3:2020	A	N/A
Fast Transients (EFT)	IEC 61000-4-4:2012	B	N/A
Surges	IEC 61000-4-5: 2014+AMD1:2017	B	N/A
Injected Currents	IEC 61000-4-6:2013/COR1:2015	A	N/A
Voltage Dips, 100%	IEC 61000-4-11: 2020	C	N/A
Voltage Dips, 60%		C	N/A
Voltage Dips, 30%		C	N/A
Note: N/A is an abbreviation for Not Applicable. Category I equipment is deemed to comply with the immunity requirements of this document without testing.			

**LAB LOCATION:**  
**REPORT NUMBER:****SHANGHAI**  
**64323-040551 B****ISSUE DATE:**  
**PAGE:****27-Jul-2023**  
**11 of 32**

### 1.1 Description of Test Facility

EUT : YOYO with light  
Test Voltage : DC 4.5V  
Highest Frequency : Below 15 MHz

### 1.1. Description of Support Device

The EUT was tested together with the following accessories:

Kind of Equipment	Manufacturer	Type	SN
/	/	/	/

### 1.2. Measurement Uncertainty

Test Item	Uncertainty
Conducted Emission	: 2.08dB(9k~150kHz Conduction 1#) 2.42dB(150k-30MHz Conduction 1#)
Radiated Emission (3m Chamber)	: 3.32dB (30M~1GHz Polarize: H) 3.34dB (30M~1GHz Polarize: V)
Uncertainty for Flicker test	: 0.07%
Uncertainty for Harmonic test	: 1.8%
Uncertainty for test site temperature and humidity	: 0.6°C 4%

**LAB LOCATION:**  
**REPORT NUMBER:****SHANGHAI**  
**64323-040551 B****ISSUE DATE:**  
**PAGE:****27-Jul-2023**  
**12 of 32**

## 2. measuring Devices and test equipment

### 2.1. For Radiated Emission

Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1.	EMI Test Receiver	Rohde&Schwarz	ESCI	101415	2023/5/11	1 Year
2.	Bi-log Hybrid Antenna	Schwarzbeck	VULB9163	141	2023/5/15	1 Year
3.	Pre-Amplifie	HP	8447F	OPTH64	2023/5/11	1 Year
4.	Signal Analyzer	R&S	FSV30	103039	2023/5/11	1 Year
5.	Horn Antenna	Schwarzbeck	BBHA9120D	1272	2023/5/15	1 Year
6.	Pre-Amplifie	LUNAR EM	PM1-18-40	J101000000 81	2023/5/11	1 Year

LAB LOCATION:  
REPORT NUMBER:

SHANGHAI  
64323-040551 B

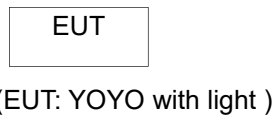
ISSUE DATE:  
PAGE:

27-Jul-2023  
13 of 32

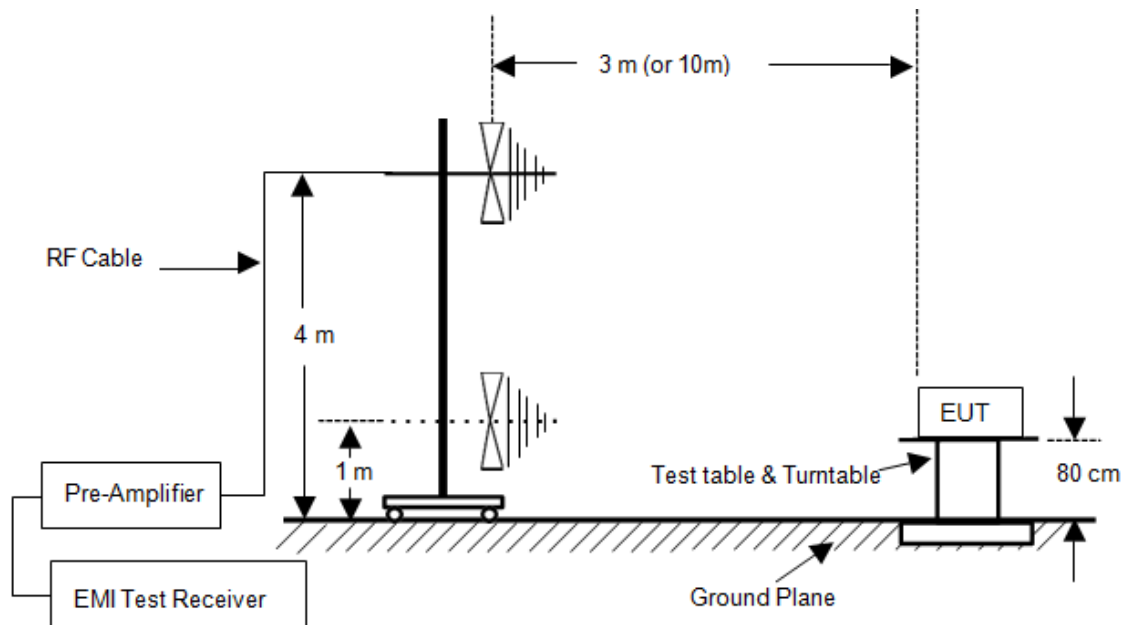
### 3. Radiated Emission (up to 1GHz)

#### 3.1. Block Diagram of Test

3.1.1. Block diagram of connection between the EUT and simulators



3.1.2. Block diagram of test setup (In chamber)



(EUT: YOYO with light )

#### 3.2. Measurement Standard and limit

3.2.1. Test Standard

EN IEC 55014-1: 2021

3.2.2. Test Limits

All emanations from a device or system shall not exceed the level of field strengths specified below:

Table 9

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

Note: (1) The smaller limit shall apply at the combination point between two frequency bands.  
(2) Distance refers to the distance in meters between the measuring instrument antenna and the closed point of any part of the EUT.

**LAB LOCATION:**  
**REPORT NUMBER:****SHANGHAI**  
**64323-040551 B****ISSUE DATE:**  
**PAGE:****27-Jul-2023**  
**14 of 32**

### 3.3. EUT Configuration on Test

The EN IEC 55014 regulations test method must be used to find the maximum emission during Radiated Emission measurement.

EUT : YOYO with light  
/ : /

### 3.4. Operating Condition of EUT

Step 1: Turn on the power.

Step 2: Let the EUT work in test mode (ON) and measure it.

### 3.5. Test Procedure

The EUT is placed on a turn table which is 0.8 meter high above the ground. The turn table can rotate 360 degrees to determine the position of the maximum emission level. The EUT is set 3 meters away from the receiving antenna which is mounted on a antenna tower. The antenna can be moved up and down from 1 to 4 meter to find out the maximum emission level. Bilog antenna (calibrated by Dipole Antenna) is used as a receiving antenna. Both horizontal and vertical polarizations of the antenna are set on test.

The bandwidth of the Receiver (ESCI) is set at 120kHz.

### 3.6. Test Results

**Pass.**

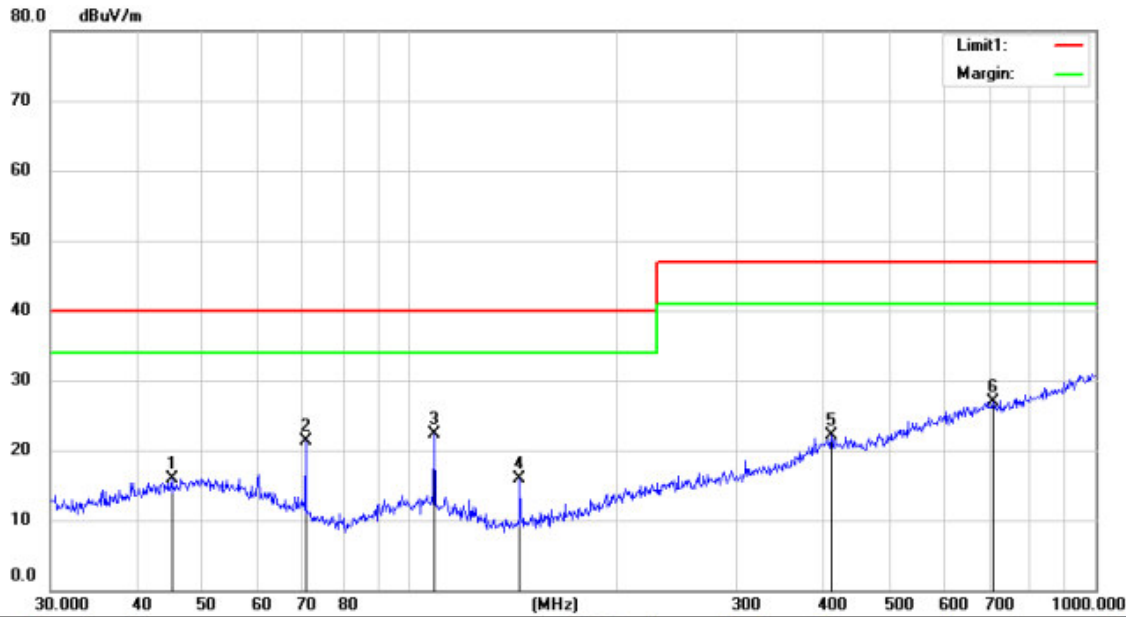
The test data are attach on follow page.

LAB LOCATION:  
REPORT NUMBER:

SHANGHAI  
64323-040551 B

ISSUE DATE:  
PAGE:

27-Jul-2023  
15 of 32



Site Chamber #1  
Limit: EN IEC 55014-1\_3m(RE)  
Mode: ON  
Note:

Polarization: **Horizontal**  
Power: DC 3V

Temperature: 23.9 C  
Humidity: 67 %

No.	Mk.	Freq.	Reading Level	Ant. Factor	Pre Amp Gain	Cable loss	Measurement	Limit	Over	HI	Degree	
		MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	Detector	cm	deg.
												Comment
1		45.0583	31.94	13.8	30.5	0.7	15.94	40.00	-24.06	QP		
2		70.5836	41.03	9.74	30.56	1.11	21.32	40.00	-18.68	QP		
3	*	108.6470	40.45	11.5	30.84	1.14	22.25	40.00	-17.75	QP		
4		144.8418	36.67	8.39	30.65	1.4	15.81	40.00	-24.19	QP		
5		411.8240	31.95	16.44	29.82	3.46	22.03	47.00	-24.97	QP		
6		709.1823	31.96	21.6	30.12	3.54	26.98	47.00	-20.02	QP		

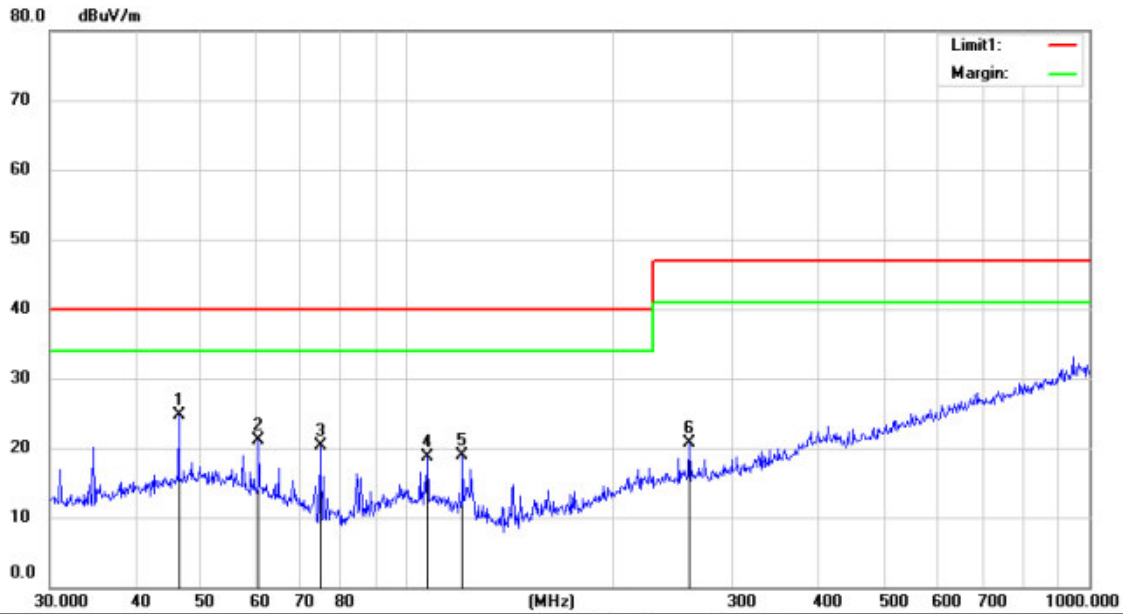
\*:Maximum data x:Over limit !:over margin

Operator: Ccyf

Remark:

1. Measurement (dBμV/m) = Antenna Factor(dB) -Amp Factor(dB) +Cable Loss(dB) + Reading(dBμV/m)

2. Over (dB) = Measurement (dBμV/m) - Limit (dBμV/m)

**LAB LOCATION:**  
**REPORT NUMBER:**
**SHANGHAI**  
**64323-040551 B**
**ISSUE DATE:**  
**PAGE:**
**27-Jul-2023**  
**16 of 32**

 Site Chamber #1      Polarization: **Vertical**      Temperature: 23.9 C  
 Limit: EN IEC 55014-1\_3m(RE)      Power: DC 3V      Humidity: 67 %

Mode: ON

Note:

No.	Mk.	Freq.	Reading	Ant.	Pre Amp	Cable	Measure-	Limit	Over	HI	Degree	
		MHz	Level	Factor	Gain	loss	ment			Detector	cm	deg.
			dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB			Comment
1	*	46.3402	40.54	13.85	30.5	0.72	24.61	40.00	-15.39	QP		
2		60.7044	38.53	12.1	30.52	1.05	21.16	40.00	-18.84	QP		
3		74.6570	41.16	8.6	30.57	1.08	20.27	40.00	-19.73	QP		
4		107.1337	36.96	11.5	30.85	1.13	18.74	40.00	-21.26	QP		
5		120.6991	38.85	9.7	30.78	1.23	19.00	40.00	-21.00	QP		
6		259.2338	35.36	13.17	30.05	2.14	20.62	47.00	-26.38	QP		

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

Operator: Ccyf

Remark:

1. Measurement (dBμV/m) = Antenna Factor(dB) -Amp Factor(dB) +Cable Loss(dB) + Reading(dBμV/m)

2. Over (dB) = Measurement (dBμV/m) - Limit (dBμV/m)



LAB LOCATION:  
REPORT NUMBER:

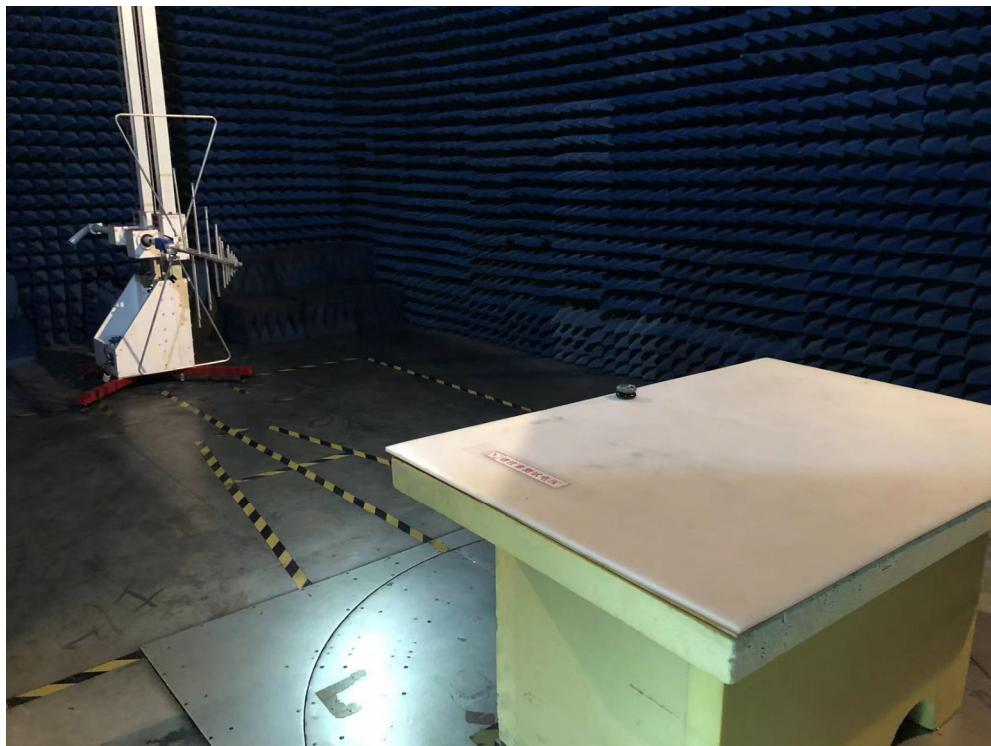
SHANGHAI  
64323-040551 B

ISSUE DATE:  
PAGE:

27-Jul-2023  
17 of 32

## 4. photograph

### 4.1. Photo of Radiated Emission



LAB LOCATION:  
REPORT NUMBER:

SHANGHAI  
64323-040551 B

ISSUE DATE:  
PAGE:

27-Jul-2023  
18 of 32

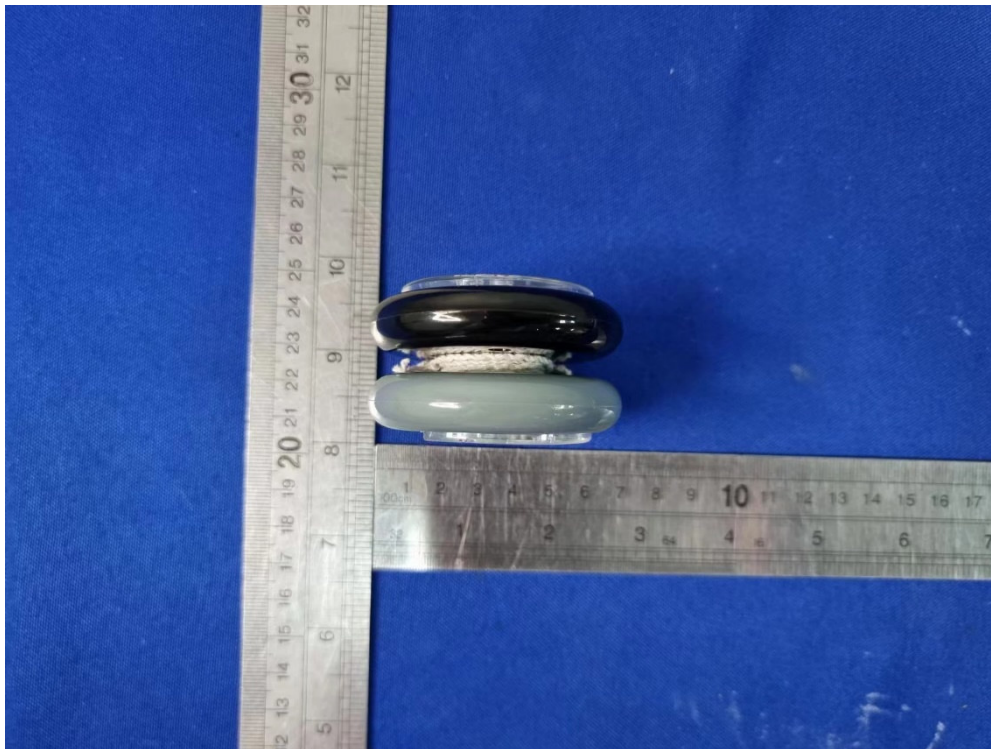
APPENDIX  
(Photos of EUT)

LAB LOCATION:  
REPORT NUMBER:

SHANGHAI  
64323-040551 B

ISSUE DATE:  
PAGE:

27-Jul-2023  
19 of 32



LAB LOCATION:  
REPORT NUMBER:

SHANGHAI  
64323-040551 B

ISSUE DATE:  
PAGE:

27-Jul-2023  
20 of 32



**Test Results:**

As per European Standard EN IEC 62115:2020+A11:2020 on Safety of Electric Toys.

Power input: 3.0VDC (2× LR41 type batteries) for electric toy.

Electric Operated Function are powered by batteries.

**LAB LOCATION:**  
**REPORT NUMBER:**

**SHANGHAI**  
**64323-040551 B**

**ISSUE DATE:**  
**PAGE:**

**27-Jul-2023**  
**21 of 32**

Clause	Testing Items	Assessment
1.	Scope	--
2.	Normative references	--
3.	Terms and definitions	--
4.	General requirement	--
5.	General conditions for tests	--
6.	Criteria for reduced testing	P
6.1	General	P
6.2	Short-circuit resistance	NA
6.3	Low power electric toys	NA
6.4	Battery circuits	P
7.	Marking and instructions	NR
7.1	General	P (See Remark 1)
7.2	Markings on electric toys	P
7.2.1	Identification	P
7.2.2	Electric toys with replaceable batteries	NA
7.2.3	Transformer toys and power supply toys	NA
7.2.4	Electric toys with more than one power supply	NA
7.2.5	Electric toys with detachable lamps	NA
7.2.6	Symbols	P
7.2.7	Durability	P
7.3	Instructions and markings on packaging	TBD
7.3.1	General	TBD
7.3.2	Transformer toys and power supply toys	NA
7.3.3	Electric toys that are used with replaceable batteries	NA
7.3.3.1	General	NA
7.3.3.2	Coin batteries	NA
7.3.3.3	Button batteries	NA
7.4	Instructions for electric toys that can be connected to class I equipment	NA
7.5	Instructions for ride-on electric toys	NA
7.6	Temperature warnings	NA

**LAB LOCATION:**  
**REPORT NUMBER:**

**SHANGHAI**  
**64323-040551 B**

**ISSUE DATE:**  
**PAGE:**

**27-Jul-2023**  
**22 of 32**

Clause	Testing Items	Assessment
8.	Power input	NA
9.	Heating and abnormal operation	P (See Remark 2)
9.1	General	NA
9.2	Testing condition	--
9.3	Normal operation	NA
9.4	Normal operation with insulation short-circuited	NA
9.5	Abnormal operation with temperature controls made inoperable	NA
9.6	Electric toys with accessible moving parts locked	NA
9.7	Additional transformers and power supplies	NA
9.8	Abnormal supply to electric toys via a USB connection	NA
9.9	Fault condition in electronic circuits	NA
9.10	Compliance criteria	NA
10.	Electric strength	P (See Remark 2)
10.1	Electric strength at operating temperature	NA
10.2	Electric strength under humid conditions	NA
11.	Electric toys used in water, electric toys used with liquid and electric toys cleaned with liquid	NA
12.	Mechanical strength	P (See table 1)
12.1	Enclosures	P
12.2	Attachment strength	P
13.	Construction	P
13.1	Nominal supply voltage	P
13.2	Transformers, power supplies and battery chargers	NA
13.3	Thermal cut-outs	NA
13.4	Batteries	P
13.4.1	Small batteries	P
13.4.2	Other batteries	NA
13.4.3	Electrolyte leakage	NA
13.4.4	Electric toys placed above a child	NA
13.4.5	Parallel connection of batteries	NA
13.4.6	Battery compartment fasteners	NA
13.5	Plug and sockets	NA
13.6	Charging batteries	NA
13.7	Series motors	NA
13.8	Working voltage	NA
13.9	Electric toys connecting to other equipment	NA
13.10	Speed limitation of ride-on electric toys	NA
14.	Protection of cords and wires	NA
14.1	Edges and moving parts	NA
14.2	Fixed parts	NA

Clause	Testing Items	Assessment
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**LAB LOCATION:**  
**REPORT NUMBER:**
**SHANGHAI**  
**64323-040551 B**
**ISSUE DATE:**  
**PAGE:**
**27-Jul-2023**  
**23 of 32**

15.	Components	P
15.1.1	General	P
15.1.2	Switches and automatic controls	P
15.1.3	Other components	P
15.2	Prohibited components	NA
15.3	Transformers and power supplies	NA
15.4	Battery chargers	NA
15.5	Batteries	P (See Remark 3)
16.	Screws and connections	P
16.1	Fixings	P (See table 2)
16.2	Connections	NA
17.	Clearances and creepage distances	P (See Remark 2)
18.	Resistance to heat and fire	P (See Remark 2)
18.1	Resistance to heat	NA
18.2	Resistance to fire	NA
18.2.1	General	NA
18.2.2	Non-metallic parts	NA
18.2.3	Insulating material	NA
19.	Radiation and similar hazards	--
19.1	General	See Remark 4
19.2	Optical radiation Electric toys incorporating lasers and or light emitting diodes (LED) or UV emitting lamps shall comply with Annex E. Electric toys incorporating LEDs shall comply with 19.E.2. Electric toys incorporating lasers shall comply with 19.E.3. Electric toys incorporating UV-emitting lamps shall comply with 19.E.4.	P See Annex E
19.3	Other electromagnetic radiation Measurements methods for electric toys with an integrated field source that may produce harmful electromagnetic radiation are given in Annex I.	NA
Annex D	Electric toys with protective electronic circuits D.1 General During the tests of 9.9 an electronic circuit prevents the hazardous conditions listed in 9.10 D.2 Dangerous malfunction D.2.1 General The electric toy causes an unintended operation that may impair safety or present a dangerous malfunction due to influence from electromagnetic phenomena (EMP). D.2.2 Electrostatic discharge In accordance with IEC 61000-4-2:2008, test level 4 D.2.3 Radiated fields In accordance with IEC 61000-4-3:2006+A1:2007+A2:2010, test level 3, cover 80 MHz to 1000 MHz and 1,4 GHz to 2,0 GHz. D.2.4 Transient bursts In accordance with IEC 61000-4-4:2012. -Test level 3 with a repetition rate of 5 kHz is applicable for signal and control lines. -Test level 4 with a repetition rate of 5 kHz is applicable for the power supply lines. D.2.5 Voltage surges	NA

**LAB LOCATION:**  
**REPORT NUMBER:**

**SHANGHAI**  
**64323-040551 B**

**ISSUE DATE:**  
**PAGE:**

**27-Jul-2023**  
**24 of 32**

	<p>In accordance with IEC 61000-4-5:2014, -Test level 4 is applicable for the line-to-line coupling mode, a generator having a source impedance of 2Ωbeing used. - Test level 4 is applicable for the line-to-earth coupling mode, a generator having a source impedance of 12Ωbeing used. D.2.6 Injected current In accordance with IEC 61000-4-6:2013 test level 3 being applicable. During the test, all frequencies between 0,15 MHz to 80 MHz are covered. D.2.7 Voltage dips and interruptions Class 3 voltage dips and interruptions in accordance with IEC 61000-4-11:2004. D.2.8 Mains signals In accordance with IEC 61000-4-13:2002/AMD2:2015, Table 11 with test level class 2 using the frequency steps according to Table 10.</p>	
Annex J	Safety of remote controls for electric ride-on toys	NA

Remark: P = Pass                      NA= Not applicable                      NC=Test object does not considered by applicant  
TBD=To Be Determined

- Remark:
- Only the English version of the marking and instructions were assessed. According to the standard, instruction sheets and other texts required by the standard shall be written in the official language of the country in which the product is to be sold.
  - According to the requirements of clause 6.4, the battery circuits where the only power source comprises three batteries or less (2x "LR41") are considered to comply with the requirements of Clause 9, 10, 11, 17 and 18.
  - Applicant needs to ensure that the primary batteries supplied with electric toy shall comply with the relevant parts of the IEC 60086 series.
  - This report only covers the essential safety requirements concerning electrical properties on the safety of toys and in order to comply with EN IEC 62115:2020+A11:2020, electrical toys also have to comply with EN71-3 for the toxicological hazards.

Table 1:  
Mechanical strength

Testing Location	Impact Energy ( J )	Test times	Result
Enclosure	0.5	3	No defect

Table 2:  
Threaded Part Torque Test

Threaded part identification	Diameter of thread (mm)	Column number ( I or II)	Applied torque (Nm)
Screw fixed for enclosure	2.16	II	0.4



LAB LOCATION:  
REPORT NUMBER:

SHANGHAI  
64323-040551 B

ISSUE DATE:  
PAGE:

27-Jul-2023  
25 of 32

Annex E:

<b>19</b>	<b>Radiation, toxicity and similar hazards</b>		<b>P</b>
19.2a	Electric toys incorporating LEDs shall comply with 19.E.2.		P
19.2b	Electric toys incorporating lasers shall comply with 19.E.3.		NA
19.2c	Electric toys incorporating UV-emitting lamps shall comply with 19.E.4.		NA
19.2d	All electric toys incorporating optical radiation sources shall comply with 19.E.5.		NA
19.E.2	Light-emitting diodes (LEDs)		P
	0,01 W/m <sup>2</sup> when assessed at 10 mm from the LED front for accessible emissions with wavelengths of < 315 nm		NA
	0,01 W/sr or 0,25 W/m <sup>2</sup> when assessed at 200 mm, for accessible emissions with wavelengths of 315nm ≤λ< 400 nm		NA
	0,04 W/sr or the AEL specified in Tables E.2 or E.3 assessed at 200 mm for accessible emissions with wavelengths of 400nm ≤λ<780 nm		P
	0,64 W/sr or 16 W/m <sup>2</sup> when assessed at 200 mm for accessible emissions with wavelengths of 780nm ≤λ< 1 000 nm;		NA
	0,32 W/sr or 8 W/m <sup>2</sup> when assessed at 200 mm for accessible emissions with wavelengths of 1000nm ≤λ< 3 000 nm.		NA
<b>19.E.2.1</b>	<b>Measurement of emission from electric toys</b>		<b>P</b>
	The measurement is taken after steady state conditions have been reached for a minimum of 60 s.		P
	the driving current for the LED is that measured under normal conditions or the fault conditions of 9.9.		--
	Should the accessible emissions of the LED not exceed the requirements of 19.E.2		P
<b>19.E.2.2</b>	<b>Use of LED data sheets</b>		<b>NA</b>
	the luminous intensity in candela or radiant intensity in Watts per steradian as a function of forward current		NA
	the angle		NA

LAB LOCATION:  
REPORT NUMBER:

SHANGHAI  
64323-040551 B

ISSUE DATE:  
PAGE:

27-Jul-2023  
26 of 32

	the peak wavelength		NA
	the spectral emission bandwidth		NA
	the date of issue and the revision number		NA
<b>19.E.2.2.1</b>	<b>UVB and UVC AEL</b>		<b>NA</b>
	Ultraviolet radiation emissions with wavelengths $< 315 \text{ nm}$ shall not exceed an AEL of $0,01 \text{ Wm}^{-2}$		NA
<b>19.E.2.2.2</b>	<b>UVA AEL</b>		<b>NA</b>
	The output of ultraviolet radiation with a wavelength $315 \text{ nm} \leq \lambda < 400 \text{ nm}$ (UVA) from LEDs shall not exceed the AEL as calculated using $0,01 \times C/A \text{ [Wsr}^{-1}\text{]}$		NA
<b>19.E.2.3</b>	<b>Visible light AEL</b>	See test data 1-3	<b>P</b>
a)	The output of visible optical radiation with a wavelength $400 \text{ nm} \leq \lambda < 780 \text{ nm}$ from LEDs		P
b)	a spectral emission bandwidth with emission $< 400 \text{ nm}$ ,		NA
c)	For white LEDs comprising a blue emitter and a phosphor coating, a peak wavelength of $500 \text{ nm}$ shall be used as an approximation of the actual spectrum		NA
	Where the output is given in Watts per steradian, the most restrictive limit is used		NA
d)	For combination colour LEDs (such as a rose colour LED consisting of a blue emitter and a deep red emitter)		NA
	each peak wavelength used shall be assessed separately		NA
	Each colour shall be assigned a proportion of its AEL		NA
	The sum of the ratios shall not exceed 1,0.		NA
<b>19.E.2.4</b>	<b>Infrared AEL</b>		<b>NA</b>
	For a peak emission wavelength $780 \text{ nm} \leq \lambda < 1000 \text{ nm}$ , an AEL of $0,64 \text{ Wsr}^{-1}$		NA
	For a peak emission wavelength $1000 \text{ nm} \leq \lambda < 3000 \text{ nm}$ , an AEL of $0,32 \text{ Wsr}^{-1}$		NA

**LAB LOCATION:**  
**REPORT NUMBER:**
**SHANGHAI**  
**64323-040551 B**
**ISSUE DATE:**  
**PAGE:**
**27-Jul-2023**  
**27 of 32**

<b>19.E.2.5</b>	<b>Groups of LEDs</b>		<b>NA</b>
	less than or equal to 280 mm, when measured centre to centre, for LEDs having emission with wavelengths < 400 nm		NA
	less than or equal to 40 mm, when measured centre to centre, for LEDs having emission i. with wavelength $\geq 400\text{nm}$		NA
<b>19.E.3</b>	<b>Lasers</b>		<b>NA</b>
	Lasers in electric toys shall not exceed the AEL for class 1 laser products when measured in accordance with Clause 4 and 5 of IEC 60825-1:2014 using measurement conditions in IEC TR 60825-13 where appropriate.		NA
<b>19.E.4</b>	<b>UV-emitting lamps</b>		<b>NA</b>
<b>19.E.5</b>	<b>Modulated accessible emission</b>		<b>NA</b>
	The packaging or instructions for electric toys with modulated output from visible optical radiation sources with a frequency of modulation between 4 Hz and 60 Hz	3.676Hz	NA
	WARNING: This toy produces flashes that may trigger epilepsy in sensitized individuals		NA

LAB LOCATION:  
REPORT NUMBER:SHANGHAI  
64323-040551 BISSUE DATE:  
PAGE:27-Jul-2023  
28 of 32**Remark:**

Age correction factor C=1.0

**Test data 1:**

Test Type	Peak wavelength (nm)	Spectral emission bandwidth(nm)	Driving current (mA)	Measured intensity (cd)	AEL (cd)	Verdict
Blue light	462	19.0	/	0.46236	3	Pass

**Test data 2:**

Test Type	Peak wavelength (nm)	Spectral emission bandwidth(nm)	Driving current (mA)	Measured intensity (cd)	AEL (cd)	Verdict
Green light	512	29.0	/	1.17608	38.4	Pass

**Test data 3:**

Test Type	Peak wavelength (nm)	Spectral emission bandwidth(nm)	Driving current (mA)	Measured intensity (cd)	AEL (cd)	Verdict
Red light	630	13.2	/	0.02388	38.4	Pass

LAB LOCATION:  
REPORT NUMBER:

SHANGHAI  
64323-040551 B

ISSUE DATE:  
PAGE:

27-Jul-2023  
29 of 32

Picture

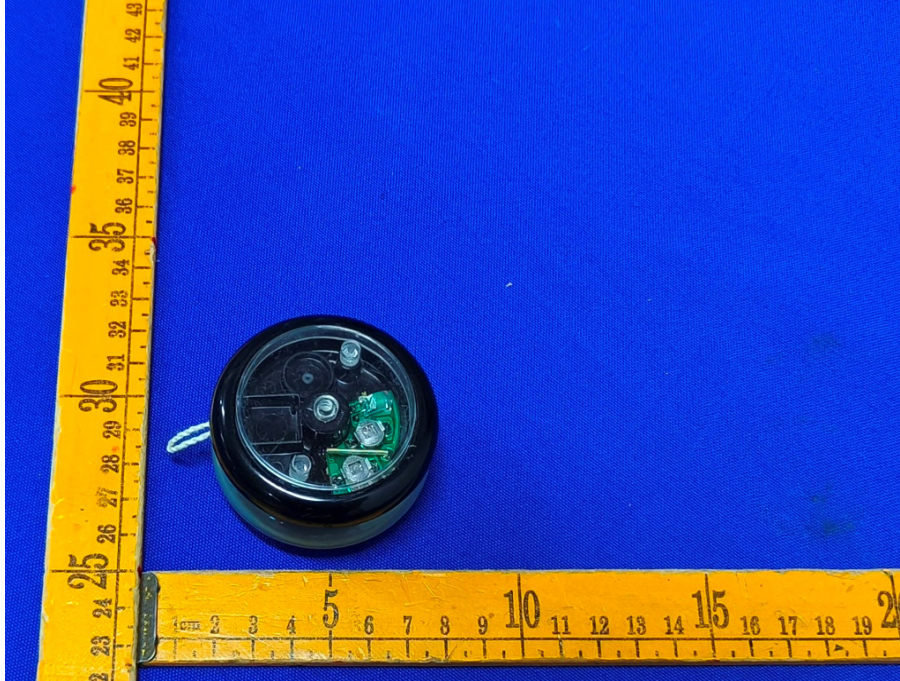


Figure 1: Overview

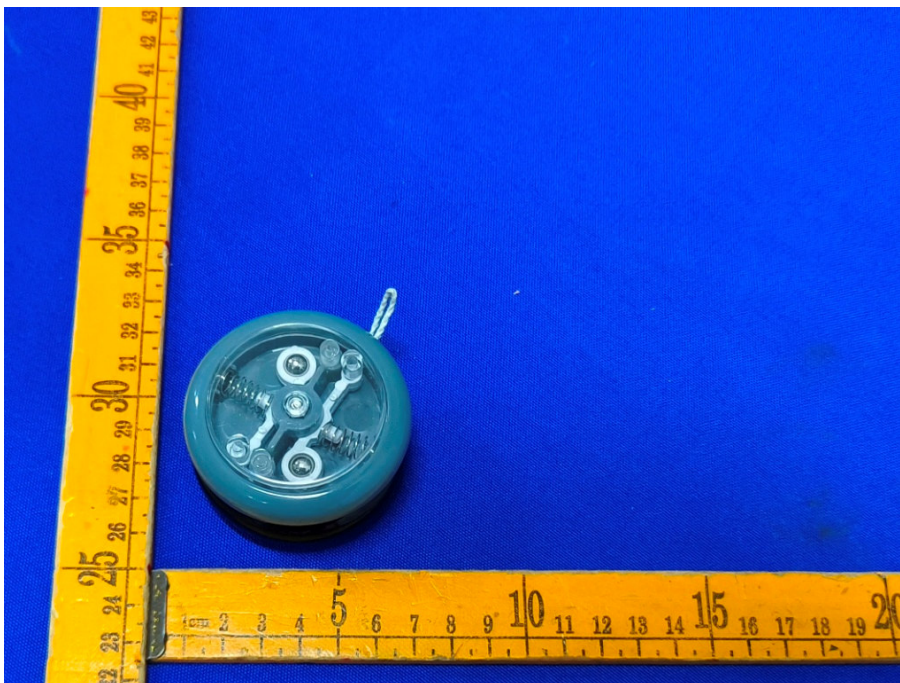


Figure 2: Overview

LAB LOCATION:  
REPORT NUMBER:

SHANGHAI  
64323-040551 B

ISSUE DATE:  
PAGE:

27-Jul-2023  
30 of 32

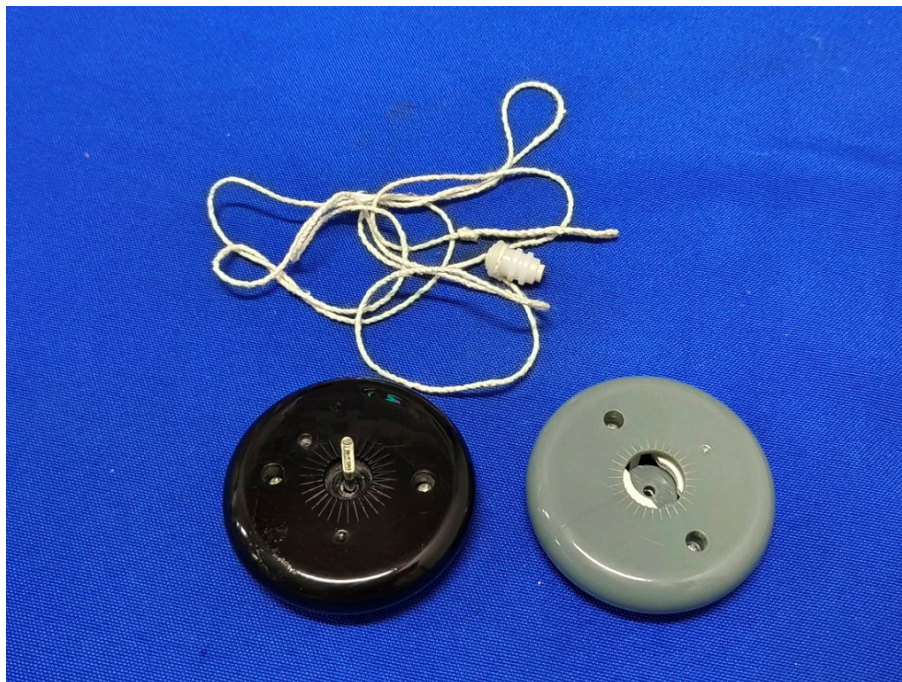


Figure 3: Internal view



Figure 4: Internal view

LAB LOCATION:  
REPORT NUMBER:

SHANGHAI  
64323-040551 B

ISSUE DATE:  
PAGE:

27-Jul-2023  
31 of 32

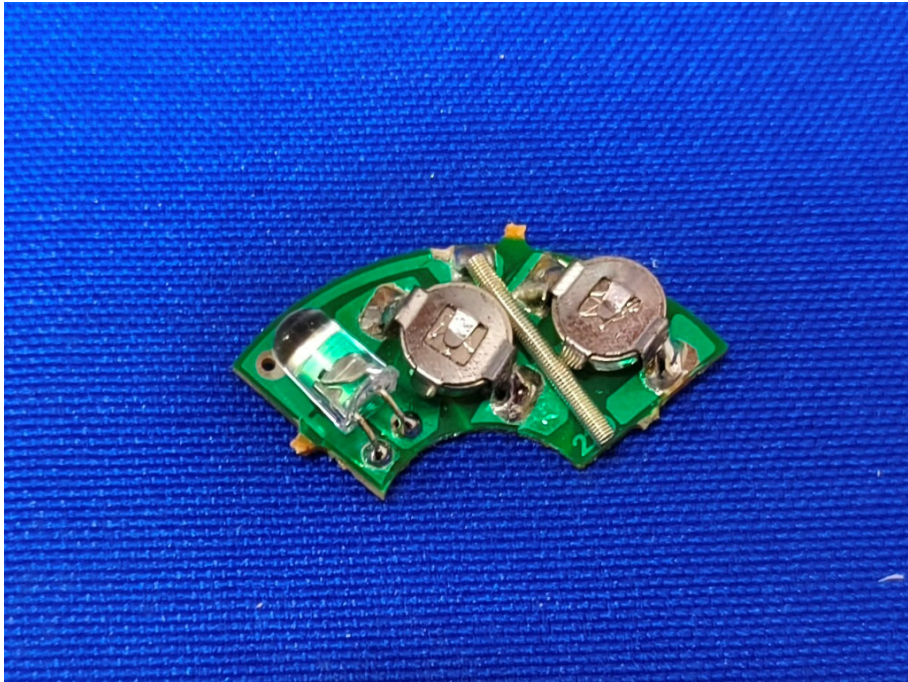


Figure 5: Internal view



Figure 6: Batteries view

**LAB LOCATION:**  
**REPORT NUMBER:****SHANGHAI**  
**64323-040551 B****ISSUE DATE:**  
**PAGE:****27-Jul-2023**  
**32 of 32****NOTE:**

If there is question or concern regarding the above results please contact us via email [vivi.shi@cpt.eurofinscn.com](mailto:vivi.shi@cpt.eurofinscn.com)

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