# TEST REPORT

Applicant: VTECH ELECTRONICS LIMITED
23/F BLK 1 TAI PING IND CTR
57 TING KOK RD
TAI PO NT
HK

Attn: R.Y. LI / LEDA YANG

Number: HKGH02979271

Date: May 12, 2023

Sample and Information provided by customer :

| | | |
|---|---|---|
| Item Name | : | **KIDIZOOM DUO FX,WITH HEADPHONE,BLUE,VTFR** |
| Style No | : | **80-519905/80-519989/80-519901/80-519902/80-519903/80-519904/80-519900/80-519906/80-519907/80-519918/80-519919/80-519922/80-519923/80-519924/80-519925/80-519939/80-519949/80-519952/80-519953/80-519954/80-519955/80-519957/80-519961/80-519962/80-519963/80-519964/80-519965/80-519966/80-519967/80-519968/80-519969/80-519970/80-519959/80-5199XX** |
| Quantity | : | 6 sets |
| Labelled Age Group | : | 4-10 Years |
| Appropriate age grade | : | Ages over 3 years |
| Packaging Provided | : | Yes |
| Date Code | : | VT23091F |


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For and on behalf of :
Intertek Testing Services HK Ltd.

Cindy I.K. Chan
Vice President



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# TEST REPORT

Number : HKGH02979271

Conclusion:
The submitted sample was tested under the following requirements requested by the applicant, subject to the information stated in the remark and attached page(s) for details :

| | Requirement | Result |
|---|---|---|
| (1) | The measured emission level of the apparatus did not exceed the accessible emission level of class 1 according to IEC 60825-1: 1993 + A1: 1997 + A2: 2001 and the apparatus was classified as “Class 1 LED Product”. | |
| (2) | EN 62115 : 2005 + A12 : 2015 Safety of electric toys | Pass (Subjected to remark enclosed) |
| (3) | EN IEC 62115 : 2020 + A11 : 2020 on Safety of electric toys | Pass (Subjected to remark enclosed) |
| (4) | The measured emission level of the apparatus did not exceed the accessible emission limit according to EN IEC 62115: 2020 + A11: 2020, Annex E | |
| (5) | AS/NZS 62115 : 2018 + A1 : 2021 Safety of electric toys | Pass (Subjected to remark enclosed) |
| (6) | The measured emission level of the apparatus did not exceed the accessible emission limit according to AS/NZS 62115:2018+A1:2021 , Annex E | |
| (7) | IEC 62115:2017+Cor1:2019 Safety of electric toys | Pass (Subjected to remark enclosed) |
| (8) | The measured emission level of the apparatus did not exceed the accessible emission limit according to IEC 62115: 2017+Cor1:2019 , Annex E | |
| (9) | The measured emission level of the apparatus did not exceed the accessible emission limit according to IEC 62115: 2017+Cor1:2019 , Annex E | |

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Decision Rule(s):
When a statement of conformity to a specification or standard is provided on test report, the decision rule shall be applied. For details, please refer to Intertek’s “Decision Rule Document” and is available on Intertek's website. https://intertekhk.grd.by/decision-rule-doc..
If decision rule already inhered in the requested specification or standard, Intertek’s “Decision Rule Document” is not applicable and indication of “∞” was shown as above table.
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# TEST REPORT

Number : HKGH02979271

(1) Lasers and light-emitting diodes radiation

Test Standard : IEC 60825-1: 1993 + A1: 1997 + A2: 2001 Safety of laser products - Part 1: Equipment classification, requirements and user's guide

| Clause | Title/Description | Result |
|---|---|---|
| 1 | Scope and object | — |
| 2 | Normative references | — |
| 3 | Definitions | — |
| 4 | Engineering specifications | Not Applicable |
| 5 | Labelling | Not Applicable |
| 6 | Other informational requirements | Not Applicable |
| 7 | Additional requirements for specific laser products | Not Applicable |
| 8 | Classification | Complied |
| 9 | Measurement for classification | Complied |



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# TEST REPORT

Number : HKGH02979271

Table of measuring data

For White LED wavelength at first peak used in monitor unit (yellow diffused)

| Condition | Measured Wavelength | Measured Angular Subtense | Thermal Hazard | | | Photochemical Hazard | | |
|---|---|---|---|---|---|---|---|---|
| | | | Measuring Distance | Measured Power | Limit for Class 1 | Measuring Distance | Measured Energy | Limit for Class 1 |
| Normal (without cover) | 459nm | 4.01mrad | 21.1mm | 19.2μW | 1.0mW | 36.5mm | 218.0μJ | 5.9mJ |
| Fault (without cover) | 459nm | 4.01mrad | 21.1mm | 22.5μW | 1.0mW | 36.5mm | 176.5μJ | 5.9mJ |

For White LED wavelength at second peak used in monitor unit (yellow diffused)

| Condition | Measured Wavelength | Measured Angular Subtense | Thermal Hazard | | | Photochemical Hazard | | |
|---|---|---|---|---|---|---|---|---|
| | | | Measuring Distance | Measured Power | Limit for Class 1 | Measuring Distance | Measured Energy | Limit for Class 1 |
| Normal (without cover) | 563nm | 4.01mrad | 21.1mm | 15.5μW | 1.0mW | 36.5mm | 132.4μJ | 709.7mJ |
| Fault (without cover) | 563nm | 4.01mrad | 21.1mm | 18.4μW | 1.0mW | 36.5mm | 163.0μJ | 709.7mJ |

For White LED wavelength at first peak used in flash light (white diffused)

| Condition | Measured Wavelength | Measured Angular Subtense | Thermal Hazard | | | Photochemical Hazard | | |
|---|---|---|---|---|---|---|---|---|
| | | | Measuring Distance | Measured Power | Limit for Class 1 | Measuring Distance | Measured Energy | Limit for Class 1 |
| Normal (without cover) | 452nm | 22.02mrad | 47.4mm | 290.3μW | 5.1mW | 100.0mm | 404.2μJ | 4.3mJ |
| Fault (without cover) | 452nm | 22.02mrad | 47.4mm | 1.3mW | 5.1mW | 100.0mm | 2.2mJ | 4.3mJ |



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# TEST REPORT

Number : HKGH02979271

| For White LED wavelength at second peak used in flash light (white diffused) | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Condition | Measured Wavelength | Measured Angular Subtense | Thermal Hazard | | | Photochemical Hazard | | |
| | | | Measuring Distance | Measured Power | Limit for Class 1 | Measuring Distance | Measured Energy | Limit for Class 1 |
| Normal (without cover) | 528nm | 22.02mrad | 47.4mm | 209.4μW | 5.1mW | 100.0mm | 264.6μJ | 141.6mJ |
| Fault (without cover) | 528nm | 22.02mrad | 47.4mm | 915.4μW | 5.1mW | 100.0mm | 1.6mJ | 141.6mJ |

Remark:

1. When determining the test conclusion, the Measurement Uncertainty of test has been considered. The decision rules are based on IEC Guide 115 with complying the relevant requirements of environment and equipment.
2. The apparatus was also complied with standard EN 60825-1: 1994 + A1 + A2 due to similarity between these standard.
3. The requirement of EN 62115 (Annex E) and the French regulation published on 11th Mar 2008 for LED product were included in this test report.
4. The test was conducted by operating the apparatus at rated voltage 6.0VDC.
5. 3 pcs. SMD yellow diffused White LEDs used in the Monitor unit of apparatus are identical to each other.
6. 1 pc. SMD white diffused White LED is used in the apparatus.

Date sample received : Mar 07, 2023
Testing period : Mar 07, 2023 to Mar 16, 2023



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# TEST REPORT

Number : HKGH02979271

(2) Safety of Electric Toys

Test Standard : European Standard EN 62115 : 2005 + A12 : 2015 on Safety of electric toys.

Age group for testing : For Ages Over 3 Years

Power source: 6V, LR6 size x 4 pcs

Included battery: Yes (R6P size x 4 pcs)

Operated function : sound, light and LCD display

| Clause | Requirement | Assessment |
|---|---|---|
| 1 | Scope | -- |
| 2 | Normative reference | -- |
| 3 | Definitions | -- |
| 4 | General requirement | -- |
| 5.13 | Battery polarity reversed test | P |
| 6 | Criteria for reduced testing | -- |
| 7 | Marking and instructions | P#1 |
| 8 | Power input | NA |
| 9 | Heating and abnormal operation | P |
| 10 | Electric strength at operating temperature | P |
| 11 | Moisture resistance | P |
| 12 | Electric strength at room temperature | P |
| 13 | Mechanical strength | P |
| 14 | Construction | P |
| 15 | Protection of cords and wires | P |
| 16 | Components | P |
| 17 | Screws and connections | P |
| 18 | Clearances and creepage distances | P |
| 19 | Resistance to heat and fire | P |
| 20 | Toxicity and similar hazards | #2 |
| | Radiation hazard - Annex E Toys incorporating laser / light-emitting diodes (LED) | #3 |
| | Toys with an integrated field source - Annex ZC Toys generating Electromagnetic Fields (EMF) | NA |
| Annex A | Experimental sets | NA |
| Annex B | Needle flame test | NA |
| Annex C | Automatic controls and switches | NA |
| Annex D | Sequence of the tests of Clause 19 | -- |
| Annex ZB | Toys with protective electronic circuit influence from electromagnetic phenomena (EMP). | NA |

Abbreviation : P = Pass NA = Not Applicable



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# TEST REPORT

Number : HKGH02979271

Remark(s):

#1 = 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.

#2 = This report does not include test result of toxicity and similar hazard.

#3 = Referred to test result of IEC 60825-1 class 1 for the lasers / light emitting diodes (LEDs).

Date sample received : Mar 07, 2023
Test Period : Mar 07, 2023 to Mar 29, 2023



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# TEST REPORT

Number : HKGH02979271

(3) Safety of Electric Toys

Test Standard : European Standard EN IEC 62115 : 2020 + A11 : 2020 on Safety of electric toys

Age group for testing : For Ages Over 3 Years

Power source: 6V, LR6 size x 4 pcs

Included battery: Yes (R6P size x 4 pcs)

Operated function : sound, light and LCD display

| Clause | Requirement | Assessment |
|---|---|---|
| 1 | Scope | -- |
| 2 | Normative reference | -- |
| 3 | Term and definitions | -- |
| 4 | General requirement | -- |
| 5 | General conditions for test | -- |
| 5.2 | Preconditioning | A |
| 5.7.2 | Carried out with one or more batteries reversed | P |
| 6 | Criteria for reduced testing | NA |
| 6.1 | General | -- |
| 6.2 | Short-circuit resistance | NA |
| 6.3 | Low power electric toys | NA |
| 6.4 | Battery circuits | NA |
| 7 | Marking and instructions | P |
| 7.1 | General | P#1 |
| 7.2 | Markings on electric toys | P#2 |
| 7.3 | Instructions and markings on packaging | P |
| 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 |
| 8 | Power input | NA |
| 9 | Heating and abnormal operation | P |
| 9.1 | General | P |
| 9.2 | Testing condition | -- |
| 9.3 | Normal operation | P |
| 9.4 | Normal operation with insulation short-circuited | P |
| 9.5 | Abnormal operation with temperature controls made inoperable | NA |
| 9.6 | Electric toys with accessible moving parts locked | NA |



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# TEST REPORT

Number : HKGH02979271

| Clause | Requirement | Assessment |
|---|---|---|
| 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 | P |
| 9.10 | Compliance criteria | P |
| 10 | Electric strength | P |
| 10.1 | Electric strength at operating temperature | P |
| 10.2 | Electric strength under humid conditions | P |
| 11 | Electric toys used in water, electric toys used with liquid and electric toys cleaned with liquid | NA |
| | To be used with liquid and electric toys intended to filled from a tap | NA |
| | To be cleaned with liquid | NA |
| | To be used in water | NA |
| 12 | Mechanical strength | P |
| 12.1 | Enclosures | P |
| 12.2 | Attachment strength | NA |
| 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 |
| 13.5 | 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 | P |
| 13.10 | Speed limitation of ride-on electric toys | NA |
| 14 | Protection of cords and wires | P |
| 14.1 | Edges and moving parts | P |
| 14.2 | Fixed parts | P |
| 15 | Components | P |
| 15.1.1 | General | P |
| 15.1.2 | Switches and automatic controls | NA |
| 15.1.3 | Other components | P |
| 15.2 | Prohibited components | P |
| 15.3 | Transformers and power supplies | NA |
| 15.4 | Battery chargers | NA |
| 15.5 | Batteries | -- |
| | Supplied primary batteries comply with the relevant parts of the IEC 60086 series | NC#3 |
| | Supplied secondary batteries comply with IEC 62133 | NA |
| 16 | Screws and connections | P |



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# TEST REPORT

Number : HKGH02979271

| Clause | Requirement | Assessment |
|---|---|---|
| 16.1 | Fixings | P |
| 16.2 | Connections | NA |
| 17 | Clearances and creepage distances | P |
| 18 | Resistance to heat and fire | P |
| 18.1 | Resistance to heat | NA |
| 18.2 | Resistance to fire | P |
| 19 | Radiation and similar hazards | -- |
| 19.1 | General | -- |
| 19.2 | Optical radiation (In Annex E) | -- |
| 19.3 | Other electromagnetic radiation (In Annex I) | -- |
| Annex A | Experimental sets | NA |
| Annex B | Needle flame test | NA |
| Annex C | Automatic controls and switches | NA |
| C.1 | Automatic controls | NA |
| C.2 | Switches | NA |
| Annex D | Electric toys with protective electronic circuits | NA |
| D.1 | General | NA |
| D.2 | Dangerous malfunction | NA |
| D.2.1 | General | NA |
| D.2.2 | Electrostatic discharges | NA |
| D.2.3 | Radiated fields | NA |
| D.2.4 | Transient bursts | NA |
| D.2.5 | Voltage surges | NA |
| D.2.6 | Injected current | NA |
| D.2.7 | Voltage dips and interruptions | NA |
| D.2.8 | Mains signals | NA |
| Annex E | Safety of electric toys incorporating optical radiation sources | -- |
| | 19.E.2 - 19.E.4 Radiation Hazard | #4 |
| | 19.E.5 Modulated accessible emission warning | |
| Annex F | Flowcharts showing the assessment of optical radiation safety of LEDs in electric toys | -- |
| Annex G | Examples of calculations on LEDs | -- |
| Annex H | Explanation of the principles used for the requirements of Annex E | -- |
| Annex I | Electric toys generating electromagnetic fields (EMF) | NA |
| Annex J | Safety of remote controls for electric ride-on toys | NA |
| Annex K | Flow charts showing the application of Clause 9 | -- |

Abbreviation : P = Pass NA = Not Applicable NC = Not Conducted A = Applicable



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# TEST REPORT

Number : HKGH02979271

Remark(s):

#1 = 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.

#2 = Clause 7.2.1 Below are additional information according to the requirement in Toy Safety Directive 2009/48/EC relating to marking of toys and do not constitute requirements of this European Standard:
The manufacturer's and importer's name, registered trade name or registered trade mark, the address and type, batch, serial or model number or other element allowing their identification shall be indicated on the toy or, where that is not possible, on its packaging or in a document accompanying the toy.

#3 = Clause 15.5 Batteries
Primary batteries supplied with electric toys complied with the relevant parts of the IEC 60086 series.
Received test report: BAT180417N067-R1 and BAT180417N067-1-R1 from the applicant.
Intertek HK did not perform actual test for the standard.

#4 = Referred to test result in Annex E Clause 19.E.2-19.E.4.

Date sample received : Mar 07, 2023
Test Period : Mar 07, 2023 to Mar 29, 2023



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# TEST REPORT

Number : HKGH02979271

(4) Optical Radiation

Test Standard : European Standard EN IEC 62115: 2020 + A11: 2020 on Safety of electric toys, Annex E

| Clause | Title/Description | Result |
|---|---|---|
| 19.E.2 | Light-emitting diodes (LEDs) | Pass |
| 19.E.3 | Lasers (IEC 60825-1: 2014) | Not Applicable |
| 19.E.4 | UV-emitting lamps | Not Applicable |

Table of measuring data

For White LED used in monitor unit (yellow diffused)

| Condition | Measured Wavelength | Spectral Emission Bandwidth | Measuring Distance | Measured Radiant Intensity | Limit |
|---|---|---|---|---|---|
| Normal (with cover) | 459nm (first peak)<br>563nm (second peak) | 20.2nm | 200mm | 0.73mW/sr | 0.13W/sr |
| Fault (with cover) | 459nm (first peak)<br>563nm (second peak) | 20.2nm | 200mm | 0.76mW/sr | 0.13W/sr |



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# TEST REPORT

Number : HKGH02979271

| For White LED used in flash light (white diffused) | | | | | |
|---|---|---|---|---|---|
| Condition | Measured Wavelength | Spectral Emission Bandwidth | Measuring Distance | Measured Radiant Intensity | Limit |
| Normal (without cover) | 452nm (first peak)<br>528nm (second peak) | 17.6nm | 200mm | 4.94mW/sr | 0.13W/sr |
| Fault (without cover) | 452nm (first peak)<br>528nm (second peak) | 17.6nm | 200mm | 43.6mW/sr | 0.13W/sr |

Remark:

1. When determining the test conclusion, the Measurement Uncertainty of test has been considered. The decision rules are based on IEC Guide 115 with complying the relevant requirements of environment and equipment.
2. The test was conducted by operating the apparatus at rated voltage 6.0VDC.
3. 3 pcs. SMD yellow diffused White LEDs used in the Monitor unit of apparatus are identical to each other.
4. 1 pc. SMD white diffused White LED is used in the apparatus.
5. For white LEDs comprising a blue emitter and a phosphor coating, a peak wavelength of 500 nm shall be used as an approximation of the actual spectrum.

Date sample received : Mar 07, 2023
Testing period : Mar 07, 2023 to Mar 16, 2023



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# TEST REPORT

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(5) Safety of Electric Toys

Test Standard : Australian / New Zealand Standard AS/NZS 62115 : 2018 + A1 : 2021 on Safety of electric toys

Age group for testing : For Ages Over 3 Years

Power source: 6V, LR6 size x 4 pcs

Included battery: Yes (R6P size x 4 pcs)

Operated function : sound, light and LCD display

| Clause | Requirement | Assessment |
|---|---|---|
| 1 | Scope | -- |
| 2 | Normative reference | -- |
| 3 | Term and definitions | -- |
| 4 | General requirement | -- |
| 5 | General conditions for test | -- |
| 5.2 | Preconditioning | A |
| 5.7.2 | Carried out with one or more batteries reversed | P |
| 6 | Criteria for reduced testing | NA |
| 6.1 | General | -- |
| 6.2 | Short-circuit resistance | NA |
| 6.3 | Low power electric toys | NA |
| 6.4 | Battery circuits | NA |
| 7 | Marking and instructions | P |
| 7.1 | General | P |
| 7.2 | Markings on electric toys | P |
| 7.3 | Instructions and markings on packaging | P |
| 7.4 | Instructions for electric toys that can be connected to class I equipment | P |
| 7.5 | Instructions for ride-on electric toys | NA |
| 7.6 | Temperature warnings | NA |
| 8 | Power input | NA |
| 9 | Heating and abnormal operation | P |
| 9.1 | General | P |
| 9.2 | Testing condition | -- |
| 9.3 | Normal operation | P |
| 9.4 | Normal operation with insulation short-circuited | P |
| 9.5 | Abnormal operation with temperature controls made inoperable | NA |
| 9.6 | Electric toys with accessible moving parts locked | NA |



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| Clause | Requirement | Assessment |
|---|---|---|
| 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 | P |
| 9.10 | Compliance criteria | P |
| 10 | Electric strength | P |
| 10.1 | Electric strength at operating temperature | P |
| 10.2 | Electric strength under humid conditions | P |
| 11 | Electric toys used in water, electric toys used with liquid and electric toys cleaned with liquid | NA |
| | To be used with liquid and electric toys intended to filled from a tap | NA |
| | To be cleaned with liquid | NA |
| | To be used in water | NA |
| 12 | Mechanical strength | P |
| 12.1 | Enclosures | P |
| 12.2 | Attachment strength | NA |
| 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 |
| 13.5 | Plug and sockets | P |
| 13.6 | Charging batteries | P |
| 13.7 | Series motors | NA |
| 13.8 | Working voltage | NA |
| 13.9 | Electric toys connecting to other equipment | P |
| 13.10 | Speed limitation of ride-on electric toys | NA |
| 14 | Protection of cords and wires | P |
| 14.1 | Edges and moving parts | P |
| 14.2 | Fixed parts | P |
| 15 | Components | P |
| 15.1.1 | General | P |
| 15.1.2 | Switches and automatic controls | NA |
| 15.1.3 | Other components | P |
| 15.2 | Prohibited components | P |
| 15.3 | Transformers and power supplies | NA |
| 15.4 | Battery chargers | NA |
| 15.5 | Batteries | -- |
| | Supplied primary batteries comply with the relevant parts of the IEC 60086 series | #1 |
| | Supplied secondary batteries comply with IEC 62133 | NA |
| 16 | Screws and connections | P |



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# TEST REPORT

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| Clause | Requirement | Assessment |
|---|---|---|
| 16.1 | Fixings | P |
| 16.2 | Connections | NA |
| 17 | Clearances and creepage distances | P |
| 18 | Resistance to heat and fire | P |
| 18.1 | Resistance to heat | NA |
| 18.2 | Resistance to fire | P |
| 19 | Radiation and similar hazards | -- |
| 19.1 | General | -- |
| 19.2 | Optical radiation (In Annex E) | -- |
| 19.3 | Other electromagnetic radiation (In Annex I) | -- |
| Annex A | Experimental sets | NA |
| Annex B | Needle flame test | NA |
| Annex C | Automatic controls and switches | NA |
| C.1 | Automatic controls | NA |
| C.2 | Switches | NA |
| Annex D | Electric toys with protective electronic circuits | NA |
| D.1 | General | NA |
| D.2 | Dangerous malfunction | NA |
| D.2.1 | General | NA |
| D.2.2 | Electrostatic discharges | NA |
| D.2.3 | Radiated fields | NA |
| D.2.4 | Transient bursts | NA |
| D.2.5 | Voltage surges | NA |
| D.2.6 | Injected current | NA |
| D.2.7 | Voltage dips and interruptions | NA |
| D.2.8 | Mains signals | NA |
| Annex E | Safety of electric toys incorporating optical radiation sources | -- |
| | 19.E.2 - 19.E.4 Radiation Hazard | #2 |
| | 19.E.5 Modulated accessible emission warning | NA |
| Annex F | Flowcharts showing the assessment of optical radiation safety of LEDs in electric toys | -- |
| Annex G | Examples of calculations on LEDs | -- |
| Annex H | Explanation of the principles used for the requirements of Annex E | -- |
| Annex I | Electric toys generating electromagnetic fields (EMF) | NA |
| Annex J | Safety of remote controls for electric ride-on toys | NA |
| Annex K | Flow charts showing the application of Clause 9 | -- |

Abbreviation : P = Pass NA = Not Applicable A = Applicable



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# TEST REPORT

Number : HKGH02979271

Remark(s):

#1 = Clause 15.5 Batteries Primary batteries supplied with electric toys complied with the relevant parts of the IEC 60086 series.
Received test report: BAT180417N067-R1 and BAT180417N067-1-R1 from the applicant.
Intertek HK did not perform actual test for the standard.

#2 = Referred to test result in Annex E Clause 19.E.2-19.E.4.

Date sample received : Mar 07, 2023
Test Period : Mar 07, 2023 to Mar 29, 2023



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# TEST REPORT

Number : HKGH02979271

(6) Optical Radiation

Test Standard : Australian/New Zealand Standard AS/NZS 62115:2018+A1:2021 Safety of electric toys, Annex E

| Clause | Title/Description | Result |
|---|---|---|
| 19.E.2 | Light-emitting diodes (LEDs) | Pass |
| 19.E.3 | Lasers (IEC 60825-1: 2014) | Not Applicable |
| 19.E.4 | UV-emitting lamps | Not Applicable |

Table of measuring data

For White LED used in monitor unit (yellow diffused)

| Condition | Measured Wavelength | Spectral Emission Bandwidth | Measuring Distance | Measured Radiant Intensity | Limit |
|---|---|---|---|---|---|
| Normal (with cover) | 459nm (first peak)<br>563nm (second peak) | 20.2nm | 200mm | 0.73mW/sr | 0.13W/sr |
| Fault (with cover) | 459nm (first peak)<br>563nm (second peak) | 20.2nm | 200mm | 0.76mW/sr | 0.13W/sr |



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# TEST REPORT

Number : HKGH02979271

| For White LED used in flash light (white diffused) | | | | | |
|---|---|---|---|---|---|
| Condition | Measured Wavelength | Spectral Emission Bandwidth | Measuring Distance | Measured Radiant Intensity | Limit |
| Normal (without cover) | 452nm (first peak)<br>528nm (second peak) | 17.6nm | 200mm | 4.94mW/sr | 0.13W/sr |
| Fault (without cover) | 452nm (first peak)<br>528nm (second peak) | 17.6nm | 200mm | 43.6mW/sr | 0.13W/sr |

Remark:

1. When determining the test conclusion, the Measurement Uncertainty of test has been considered. The decision rules are based on IEC Guide 115 with complying the relevant requirements of environment and equipment.
2. The test was conducted by operating the apparatus at rated voltage 6.0VDC.
3. 3 pcs. SMD yellow diffused White LEDs used in the Monitor unit of apparatus are identical to each other.
4. 1 pc. SMD white diffused White LED is used in the apparatus.
5. For white LEDs comprising a blue emitter and a phosphor coating, a peak wavelength of 500 nm shall be used as an approximation of the actual spectrum.

Date sample received : Mar 07, 2023
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# TEST REPORT

Number : HKGH02979271

(7) Safety of Electric Toys

Test Standard : International Standard IEC 62115:2017+Cor1:2019 on Safety of electric toys

Age group for testing : For Ages Over 3 Years

Power source: 6V, LR6 size x 4 pcs

Included battery: Yes (R6P size x 4 pcs)

Operated function : sound, light and LCD display

| Clause | Requirement | Assessment |
|---|---|---|
| 1 | Scope | -- |
| 2 | Normative reference | -- |
| 3 | Term and definitions | -- |
| 4 | General requirement | -- |
| 5 | General conditions for test | -- |
| 5.2 | Preconditioning | A |
| 5.7.2 | Carried out with one or more batteries reversed | P |
| 6 | Criteria for reduced testing | NA |
| 6.1 | General | -- |
| 6.2 | Short-circuit resistance | NA |
| 6.3 | Low power electric toys | NA |
| 6.4 | Battery circuits | NA |
| 7 | Marking and instructions | P |
| 7.1 | General | P#1 |
| 7.2 | Markings on electric toys | P |
| 7.3 | Instructions and markings on packaging | P |
| 7.4 | Instructions for electric toys that can be connected to class I equipment | P |
| 7.5 | Instructions for ride-on electric toys | NA |
| 7.6 | Temperature warnings | NA |
| 8 | Power input | NA |
| 9 | Heating and abnormal operation | P |
| 9.1 | General | P |
| 9.2 | Testing condition | -- |
| 9.3 | Normal operation | P |
| 9.4 | Normal operation with insulation short-circuited | P |
| 9.5 | Abnormal operation with temperature controls made inoperable | NA |
| 9.6 | Electric toys with accessible moving parts locked | NA |



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| Clause | Requirement | Assessment |
|---|---|---|
| 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 | P |
| 9.10 | Compliance criteria | P |
| 10 | Electric strength | P |
| 10.1 | Electric strength at operating temperature | P |
| 10.2 | Electric strength under humid conditions | P |
| 11 | Electric toys used in water, electric toys used with liquid and electric toys cleaned with liquid | NA |
| | To be used with liquid and electric toys intended to filled from a tap | NA |
| | To be cleaned with liquid | NA |
| | To be used in water | NA |
| 12 | Mechanical strength | P |
| 12.1 | Enclosures | P |
| 12.2 | Attachment strength | NA |
| 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 |
| 13.5 | Plug and sockets | P |
| 13.6 | Charging batteries | P |
| 13.7 | Series motors | NA |
| 13.8 | Working voltage | NA |
| 13.9 | Electric toys connecting to other equipment | P |
| 13.10 | Speed limitation of ride-on electric toys | NA |
| 14 | Protection of cords and wires | P |
| 14.1 | Edges and moving parts | P |
| 14.2 | Fixed parts | P |
| 15 | Components | P |
| 15.1.1 | General | P |
| 15.1.2 | Switches and automatic controls | NA |
| 15.1.3 | Other components | P |
| 15.2 | Prohibited components | P |
| 15.3 | Transformers and power supplies | NA |
| 15.4 | Battery chargers | NA |
| 15.5 | Batteries | -- |
| | Supplied primary batteries comply with the relevant parts of the IEC 60086 series | #2 |
| | Supplied secondary batteries comply with IEC 62133 | NA |
| 16 | Screws and connections | P |



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| Clause | Requirement | Assessment |
|---|---|---|
| 16.1 | Fixings | P |
| 16.2 | Connections | NA |
| 17 | Clearances and creepage distances | P |
| 18 | Resistance to heat and fire | P |
| 18.1 | Resistance to heat | NA |
| 18.2 | Resistance to fire | P |
| 19 | Radiation and similar hazards | -- |
| 19.1 | General | -- |
| 19.2 | Optical radiation (In Annex E) | -- |
| 19.3 | Other electromagnetic radiation (In Annex I) | -- |
| Annex A | Experimental sets | NA |
| Annex B | Needle flame test | NA |
| Annex C | Automatic controls and switches | NA |
| C.1 | Automatic controls | NA |
| C.2 | Switches | NA |
| Annex D | Electric toys with protective electronic circuits | NA |
| D.1 | General | NA |
| D.2 | Dangerous malfunction | NA |
| D.2.1 | General | NA |
| D.2.2 | Electrostatic discharges | NA |
| D.2.3 | Radiated fields | NA |
| D.2.4 | Transient bursts | NA |
| D.2.5 | Voltage surges | NA |
| D.2.6 | Injected current | NA |
| D.2.7 | Voltage dips and interruptions | NA |
| D.2.8 | Mains signals | NA |
| Annex E | Safety of electric toys incorporating optical radiation sources | -- |
| | 19.E.2 - 19.E.4 Radiation Hazard | #3 |
| | 19.E.5 Modulated accessible emission warning | |
| Annex F | Flowcharts showing the assessment of optical radiation safety of LEDs in electric toys | -- |
| Annex G | Examples of calculations on LEDs | -- |
| Annex H | Explanation of the principles used for the requirements of Annex E | -- |
| Annex I | Electric toys generating electromagnetic fields (EMF) | NA |
| Annex J | Safety of remote controls for electric ride-on toys | NA |
| Annex K | Flow charts showing the application of Clause 9 | -- |

Abbreviation : P = Pass NA = Not Applicable A = Applicable



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Remark(s):

#1 = 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.

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(8) Optical Radiation

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(9) Optical Radiation

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End of report





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