



# EMC VERIFICATION SUMMARY

Report No.: SZHH01091844-001

Toy

ITE

Others

|  |   |                          |                                     |
|--|---|--------------------------|-------------------------------------|
| Model: BL-16893<br>Additional Models:<br>BL-17583, BL-25863<br><br>Product Description: LOVERBOY<br><br>Sample Receipt Date: 25 January 2017 | Applicant: DONGGUAN LIYANG TOYS LTD<br>Floor 3, Building 2, Daxingwei Industry<br>Xianxi, Wusha, Changan Town,<br>Dongguan City, Guangdong Province |                          |                                     |
| <input type="checkbox"/> 1st TEST<br><input checked="" type="checkbox"/> 2nd TEST  | Test Conducted Date: 25 January 2017 to 13 February 2017  |                          |                                     |
|  | ALL TESTS WERE CONDUCTED IN ACCORDANCE WITH:<br><br>*EN 55014-1: 2006 + A1: 2009 + A2: 2011<br>*EN 55014-2: 1997 + A1: 2001 + A2: 2008              |                          |                                     |
| Test Site and Location:  | Intertek Testing Services Shenzhen Ltd. Guangzhou Branch<br>Room102/104, No 203, KeZhu Road, Science City, GETDD<br>Guangzhou, China                |                          |                                     |
| Test Result  | OK  | Not OK                   | Remark<br>(See Page 2)              |
| *EN 55014-1: 2006 + A1: 2009 + A2: 2011  | <input checked="" type="checkbox"/>   | <input type="checkbox"/> | <input type="checkbox"/>            |
| *EN 55014-2: 1997 + A1: 2001 + A2: 2008  | <input checked="" type="checkbox"/>   | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| When determining the test conclusion, the Measurement Uncertainty of test has been considered.   |   |                          |                                     |

**Prepared and Checked By:**

**Approved By:**

**Sign On File**

**Tom Li**  
**Engineer**  
**Intertek**

**Jimmy Wen**  
**Assistant Supervisor**  
**Intertek**  
**Date: 13 February 2017**

- This summary is part of the full report and should be read in conjunction with it.
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## EMC Results Conclusion (with Justification)

RE: EMC Testing Pursuant to EMC Directive 2014/30/EU Performed On the  
LOVERBOY,  
Model: BL-16893.

We tested the LOVERBOY, Model: BL-16893. to determine if it was in compliance with the relevant EN standards as marked on the EMC Verification Summary. We found that the unit met the requirement of EN 55014-1, EN55014-2 standards when tested after modified.

The Models: BL-17583, BL-25863 are the same as the Model: BL-16893 in hardware aspect. The difference in model number serves as marketing strategy.

The production units are required to conform to the initial sample as received when the units are placed on the market.

Remark; Standards against which no testing has been conducted of the captioned model and the engineering judgement is stated as follows:

EN 55014-2: 1997 + A1: 2001 + A2: 2008

This product not contains electronic control circuitry. It is classified to Category I of the standard and therefore deemed to fulfil the relevant immunity requirements without testing.

## LABORATORY MEASUREMENTS

### Configuration Information

|                                    |                                 |
|------------------------------------|---------------------------------|
| <b>Equipment Under Test (EUT):</b> | LOVERBOY                        |
| <b>Model:</b>                      | BL-16893                        |
| <b>Serial No.:</b>                 | Not Labelled                    |
| <b>Support Equipment:</b>          | N/A                             |
| <b>Cables &amp; Others:</b>        | N/A                             |
| <b>Adapter:</b>                    | N/A                             |
| <b>Rating Voltage:</b>             | DC 3.0V (2 x 1.5V AA batteries) |

Applicant: DONGGUAN LIYANG TOYS LTD  
Model: BL-16893  
Worst Case Operating Mode: Motor

## EN 55014-1 Radiated Scan

### Used Test Equipment

| Equipment No. | Equipment         | Manufacturer | Model No.   | Cal. Date | Due Date  |
|---------------|-------------------|--------------|-------------|-----------|-----------|
| SZ185-01      | EMI Receiver      | R & S        | ESCI        | 20-Jan-17 | 20-Jan-18 |
| SZ061-12      | Biconilog Antenna | ETS          | 3142E       | 09-Sep-16 | 09-Sep-17 |
| SZ188-01      | Anechoic Chamber  | ETS          | RFD-F/A-100 | 16-Apr-16 | 16-Apr-18 |

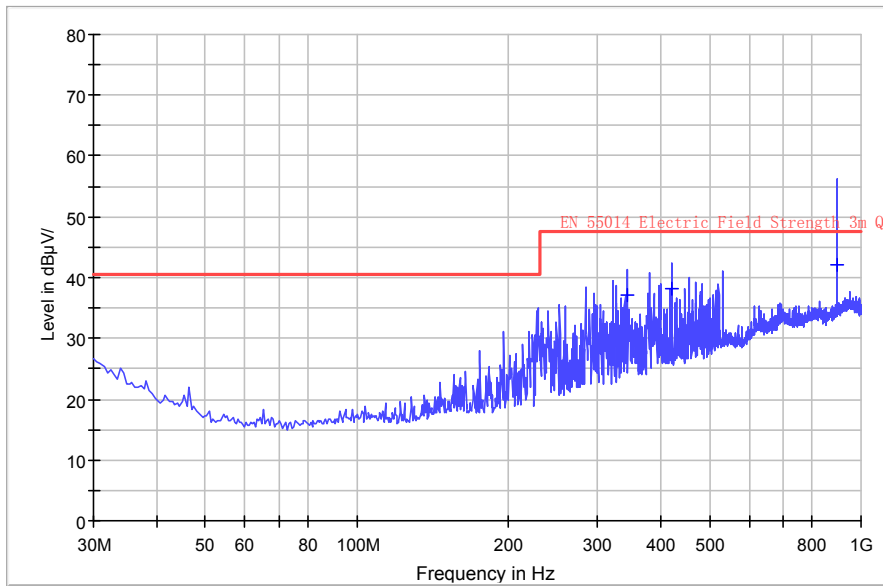
- Notes:
1. Peak detector quick scan is showed on the graph and final quasi-peak detector data is measured corresponding to relevant limit and recorded in the data table.
  2. Negative sign (-) in the margin column signify levels below the limit.
  3. Frequency range scanned: 30MHz to 1000MHz.
  4. Only emissions significantly above equipment noise floor are reported.
  5. Uncertainty:  $\pm 4.8\text{dB}$  at a level of confidence of 95%.

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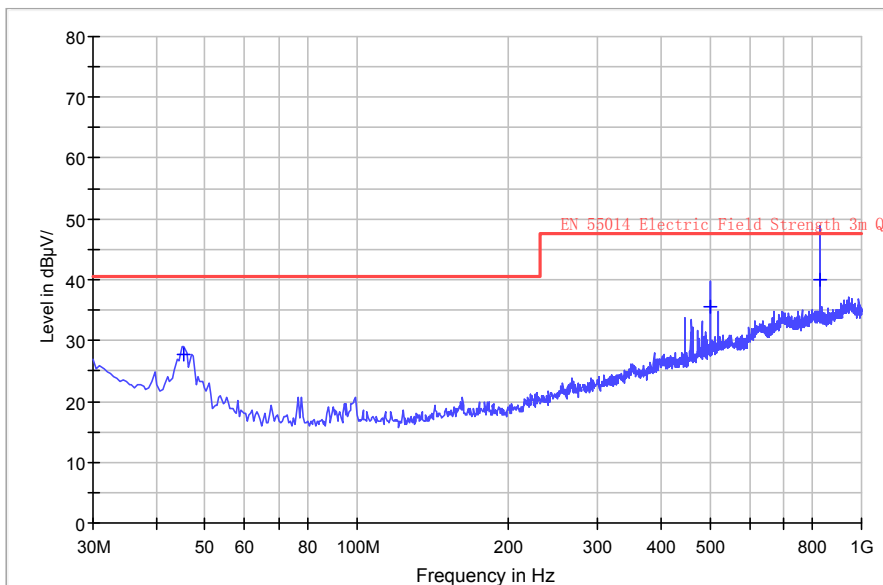
### Graphic

#### Radiated Emissions Pursuant to EN55014-1: Emissions Requirement

##### Horizontal



##### Vertical



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### Data Table

#### Radiated Emissions Pursuant to EN55014-1: Emissions Requirement

| Polarization | Frequency (MHz) | Net at 3m (dB $\mu$ V/m) | Calculated Net at 10m (dB $\mu$ V/m) | Limit at 10m (dB $\mu$ V/m) | Margin (dB) |
|--------------|-----------------|--------------------------|--------------------------------------|-----------------------------|-------------|
| H            | 343.320         | 37.2                     | 26.7                                 | 37.0                        | -10.3       |
| H            | 422.340         | 38.1                     | 27.6                                 | 37.0                        | -9.4        |
| H            | 897.180         | 42.2                     | 31.7                                 | 37.0                        | -5.3        |
| V            | 45.520          | 27.7                     | 17.2                                 | 30.0                        | -12.8       |
| V            | 501.905         | 35.5                     | 25.0                                 | 37.0                        | -12.0       |
| V            | 827.825         | 40.1                     | 29.6                                 | 37.0                        | -7.4        |

No emissions significantly above equipment noise floor.

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**External Photo**



Applicant: DONGGUAN LIYANG TOYS LTD  
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**Internal Photo**



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