



# EMC VERIFICATION SUMMARY

Report No.: SZHH01091849-001

Toy

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Others

Model: BL-20585 Additional models: BL-10895, BL-21585, BL-22585  Product Description: SPARK Sample Receipt Date: 13 September 2016	Applicant: DONGGUAN LIYANG TOYS LTD. Floor 3, Building 2, Daxingwei Industry Xianxi, Wusha, Changan Town, Dongguan City, Guangdong Province  Test Conducted Date: 13 September 2016 to 27 September 2016		
<input checked="" type="checkbox"/> 1st TEST <input type="checkbox"/> 2nd TEST	ALL TESTS WERE CONDUCTED IN ACCORDANCE WITH: *EN 55014-1: 2006 + A1: 2009 + A2: 2011 *EN 55014-2: 1997 + A1: 2001 + A2: 2008		
Test Site and Location:	Intertek Testing Services Shenzhen Ltd. Kejiyuan Branch 6/F., Block D, Huahan Building, Langshan Road, Nanshan District, Shenzhen, China		
Test Result	OK	Not OK	Remark (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**

**Vanessa Deng**  
Assistant Engineer  
Intertek

**Jimmy Wen**  
Assistant Supervisor  
Intertek

**Date: 27 September 2016**

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TRF No.: EN55014-1/2\_b

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## EMC Results Conclusion (with Justification)

RE: EMC Testing Pursuant to EMC Directive 2014/30/EU Performed On the  
SPARK,  
Model: BL-20585

We tested the SPARK, Model: BL-20585 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 as received.

The Models: BL-10895, BL-21585, BL-22585 are the same as the Model: BL-20585 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>	SPARK
<b>Model:</b>	BL-20585
<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 1.5V ( 1 x 1.5V AAA Battery)



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Applicant: DONGGUAN LIYANG TOYS LTD.  
Model: BL-20585  
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	23-Jan-16	23-Jan-17
SZ061-12	Biconilog Antenna	ETS	3142E	9-Sep-16	9-Sep-17
SZ188-01	Anechoic Chamber	ETS	RFD-F/A-100	16-Apr-16	16-Apr-18

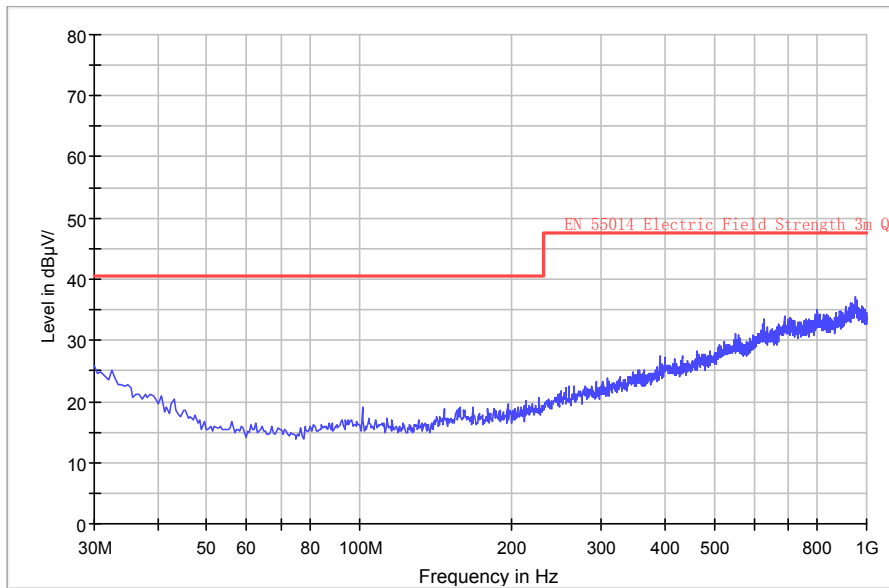
- Notes:
1. Peak detector quick scan is showed on the graph and final quasi-peak detector data is measured corresponding to relevant limit and recorded in the data table.
  2. Frequency range scanned: 30MHz to 1000MHz.
  3. Only emissions significantly above equipment noise floor are reported.
  4. Uncertainty: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

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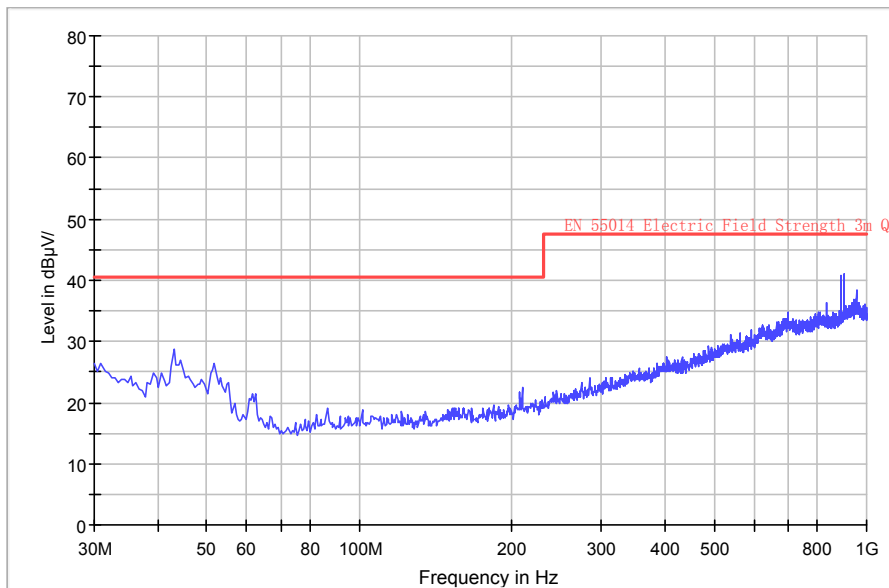
### Graphic

#### 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)
/	/	/	/	/	/

No emissions significantly above equipment noise floor.

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**External Photo**





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





Applicant: DONGGUAN LIYANG TOYS LTD.  
Model: BL-20585

**Internal Photo**



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