



# TEST REPORT

Applicant: Shenzhen Blue The Light Technology co., Ltd.  
Address: Floor 4, Building 2, Hongxing Industrial Park, Yuanling Village, Shiyao Town, Baoan District, Shenzhen  
Manufacturer: Shenzhen Blue The Light Technology co., Ltd.  
Address: Floor 4, Building 2, Hongxing Industrial Park, Yuanling Village, Shiyao Town, Baoan District, Shenzhen  
Product Name: Digital LED strip light  
Trade Mark: N/A  
Model Number: LG-5050-60L  
Series Model No.: LG-5050-30L, LG-5050-72L, LG-5050-84L, LG-5050-96L, LG-5050-120L, LG-2835-60L, LG-2835-90L, LG-2835-96L, LG-2835-108L, LG-2835-120L, LG-2835-140L, LG-2835-160L, LG-2835-240L  
Date of Receipt: May.08, 2023  
Date of Test: May.08, 2023 - May.12, 2023  
Date of Report: May.12, 2023  
Test Requested: With reference to RoHS Directive (EU) 2015/863 amending 2011/65/EU.  
Test Standard: Please refer to next page(s).  
Test Results: Please refer to next page(s).

## Conclusion:

As requested by applicant, the submitted sample was tested, with is listed as specimen description in the following page. the results of Lead, Mercury, Cadmium, Hexavalent chromium, Polybrominated biphenyls (PBBs), Polybrominated diphenyl ethers (PBDEs) and Phthalates such as Bis(2-ethylhexyl) phthalate (DEHP) , Butyl benzyl phthalate (BBP), Dibutyl phthalate (DBP), and Diisobutyl phthalate (DIBP) comply with the limits as set by RoHS Directive (EU) 2015/863 amending Annex II to Directive 2011/65/EU.

Prepared (Engineer): Cheney Wei

Approved (Manager): Xiaoshan Ni



*This test report is based on a single evaluation of one sample of above mentioned products. It is not permitted to be duplicated in extracts without written approval of Shenzhen DL Testing Technology Co., Ltd.*

**Version**

Version No.	Date	Description
00	May.12, 2023	Original

**Remark:**

- (1) There are the results on total Br while test items on restricted substances are PBBs and PBDEs. There are the results on total Cr while test items on restricted substances Cr(VI)
- (2) Results are obtained by EDXRF for primary screening, and further chemical testing by ICP-OES (for Cd, Pb, Hg),UV-Vis (for Cr(VI) and GC-MS (for PBBs,PBDEs) is recommended to be performed, if the concentration exceeds the below warning value according to IEC 62321-3-1:2013 (unit:mg/kg)

Element	Polymer Materials	Metal Materials	Composite Materials
Cd	$BL \leq 70 - 3\sigma < X < 130 + 3\sigma \leq OL$	$BL \leq 70 - 3\sigma < X < 130 + 3\sigma \leq OL$	$BL \leq 50 - 3\sigma < X < 150 + 3\sigma \leq OL$
Pb	$BL \leq 700 - 3\sigma < X < 1300 + 3\sigma \leq OL$	$BL \leq 700 - 3\sigma < X < 1300 + 3\sigma \leq OL$	$BL \leq 500 - 3\sigma < X < 1500 + 3\sigma \leq OL$
Hg	$BL \leq 700 - 3\sigma < X < 1300 + 3\sigma \leq OL$	$BL \leq 700 - 3\sigma < X < 1300 + 3\sigma \leq OL$	$BL \leq 500 - 3\sigma < X < 1500 + 3\sigma \leq OL$
Br	$BL \leq 300 - 3\sigma < X$	----	$BL \leq 250 - 3\sigma < X$
Cr	$BL \leq 700 - 3\sigma < X$	$BL \leq 700 - 3\sigma < X$	$BL \leq 500 - 3\sigma < X$

(a) BL=Below Limit,OL=Over Limit, X=Inconclusive, LOD=Limit of Detection,----=Not regulated.

(b)The XRF screening test for RoHS elements- the reading may be different to actual content in the sample be of non-uniformity composition

**(3) Chemical Method**

- ① With reference to IEC 62321-5:2013,determination of Cadmium,Lead by ICP-OES.
- ② With reference to IEC 62321-4:2013+AMD1:2017 CSV, determination of Mercury by ICP-OES.
- ③ With reference to IEC 62321-7-1:2015▼& IEC 62321-7-2:2017, determination of Hexavalent Chromium by Colorimetric method using UV-Vis.
- ④ With reference to IEC 62321-6:2015, determination of PBBs and PBDEs by GC-MS.
- ⑤ With reference to IEC 62321-8:2017, determination of Phthalates by GC-MS.

(4) (a) mg/kg=0.0001%,MDL=MDL=Method Detection Limit,(c)ND=Not Detected(<MDL),

----=Not Regulated

(b) Unit and MDL in wet chemical test

Test Item	Pb	Cd	Hg	DBP	BBP	DEHP	DIBP
Unit	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
MDL	10	10	10	100	100	100	100

The MDL for single compound of PBBs and PBDEs is 100 mg/kg

MDL of Cr(VI) for polymer and composite sample is 10 mg/kg

MDL of Cr(VI) for metal sample is 0.10ug/cm<sup>2</sup>

(c) ▼=Metal sample

- a. The sample is negative for Cr<sup>6+</sup> if Cr<sup>6+</sup> is N.D. (below the limit 0.10ug/cm<sup>2</sup>). The coating is considered a non Cr<sup>6+</sup> based coating.
- b. The sample positive for Cr<sup>6+</sup> if the Cr<sup>6+</sup> concentration is greater than 0.13ug/cm<sup>2</sup>. The sample coating is considered to contain Cr<sup>6+</sup>.
- c.The result between 0.10ug/cm<sup>2</sup> and 0.13ug/cm<sup>2</sup> is considered to be inconclusive unavoidable coating variations may influence the determination.

**Tested Sample/Part Description:**

Specimen No.	Component Description(s)	Style
01	Patch resistance	-
02	Patch LED	-
03	Yellow copper foil	-
04	IC	-
05	Patch capacitance	-
06	White tape	-
07	White rubber heat shrink tube	-
08	Silver solder	-
09	Black plastic terminal	-
10	White rubber wire leather	-
11	Green rubber wire leather	-
12	Red rubber wire leather	-
13	Silver metal conductor	-
14	Silver metal pin	-
15	Scotch tape	-

**Test Results:**

The results of XRF screening and chemical test (Unit: mg/kg)

Part No.	Element	X-ray Screening	Results of chemical test	Conclusion on RoHS EU	Sample Resubmitted
01	Pb	BL	---	Pass	/
	Cd	BL	---		
	Hg	BL	---		
	Cr(Cr <sup>6+</sup> )	BL	---		
	Br(PBBs&PBDEs)	BL	---		
	DBP,BBP,DEHP,DIBP	---	N.D.		
02	Pb	BL	---	Pass	/
	Cd	BL	---		
	Hg	BL	---		
	Cr(Cr <sup>6+</sup> )	BL	---		
	Br(PBBs&PBDEs)	BL	---		
	DBP,BBP,DEHP,DIBP	---	N.D.		
03	Pb	BL	---	Pass	/
	Cd	BL	---		
	Hg	BL	---		
	Cr(Cr <sup>6+</sup> )	BL	---		
	Br(PBBs&PBDEs)	---	---		
	DBP,BBP,DEHP,DIBP	---	---		
04	Pb	BL	---	Pass	/
	Cd	BL	---		
	Hg	BL	---		
	Cr(Cr <sup>6+</sup> )	BL	---		
	Br(PBBs&PBDEs)	BL	---		
	DBP,BBP,DEHP,DIBP	---	N.D.		
05	Pb	BL	---	Pass	/
	Cd	BL	---		
	Hg	BL	---		
	Cr(Cr <sup>6+</sup> )	BL	---		
	Br(PBBs&PBDEs)	BL	---		
	DBP,BBP,DEHP,DIBP	---	N.D.		
06	Pb	BL	---	Pass	/
	Cd	BL	---		
	Hg	BL	---		
	Cr(Cr <sup>6+</sup> )	BL	---		
	Br(PBBs&PBDEs)	BL	---		
	DBP,BBP,DEHP,DIBP	---	N.D.		
07	Pb	BL	---	Pass	/
	Cd	BL	---		
	Hg	BL	---		
	Cr(Cr <sup>6+</sup> )	BL	---		
	Br(PBBs&PBDEs)	BL	---		
	DBP,BBP,DEHP,DIBP	---	N.D.		

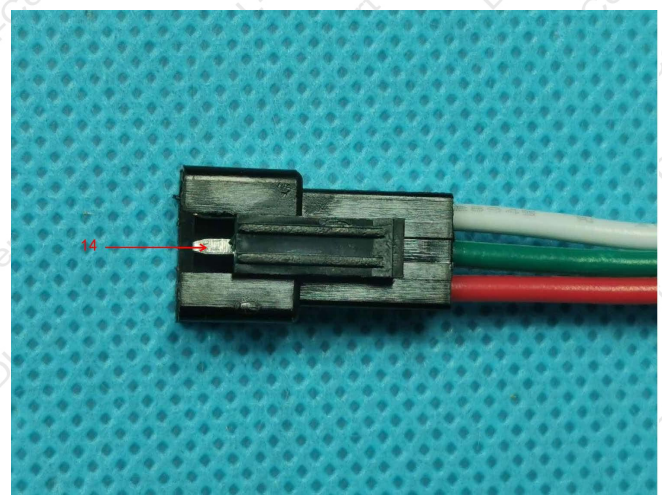
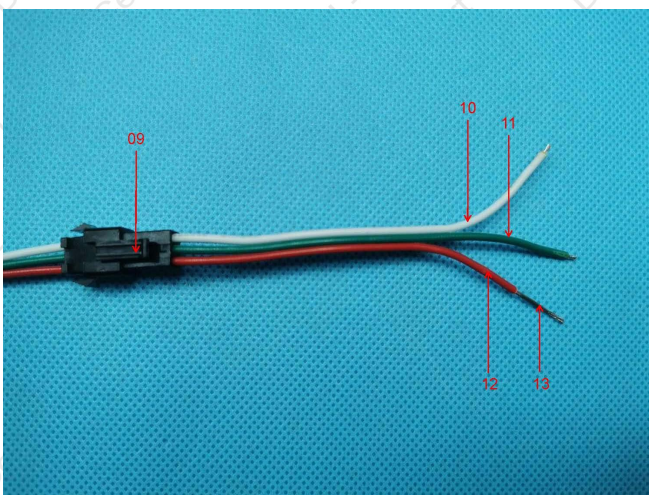
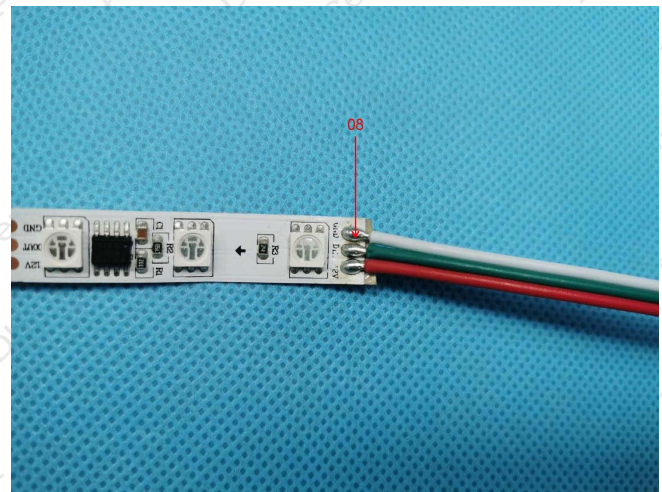
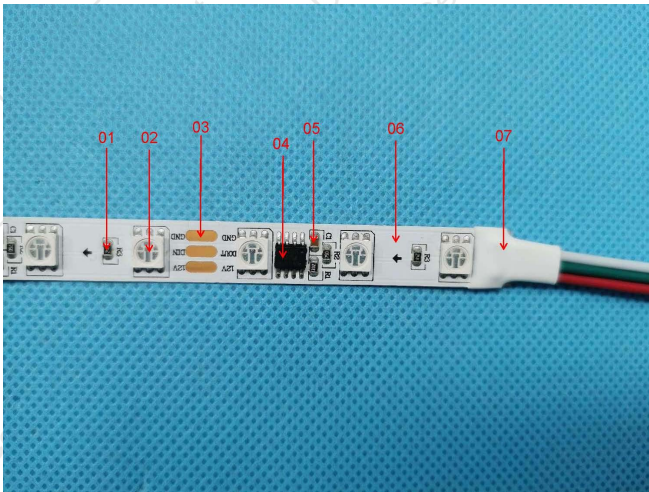


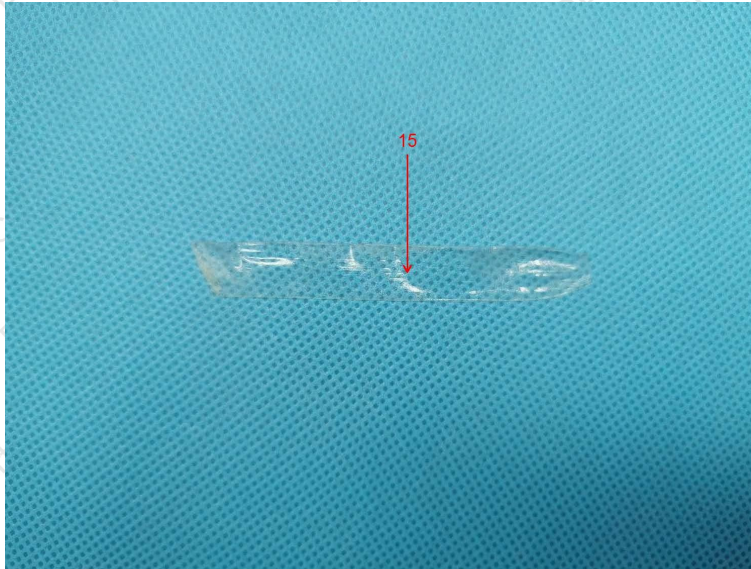
Part No.	Element	X-ray Screening	Results of chemical test	Conclusion on RoHS EU	Sample Resubmitted
08	Pb	BL	---	Pass	/
	Cd	BL	---		
	Hg	BL	---		
	Cr(Cr <sup>6+</sup> )	BL	---		
	Br(PBBs&PBDEs)	---	---		
	DBP,BBP,DEHP,DIBP	---	---		
09	Pb	BL	---	Pass	/
	Cd	BL	---		
	Hg	BL	---		
	Cr(Cr <sup>6+</sup> )	BL	---		
	Br(PBBs&PBDEs)	BL	---		
	DBP,BBP,DEHP,DIBP	---	N.D.		
10	Pb	BL	---	Pass	/
	Cd	BL	---		
	Hg	BL	---		
	Cr(Cr <sup>6+</sup> )	BL	---		
	Br(PBBs&PBDEs)	BL	---		
	DBP,BBP,DEHP,DIBP	---	N.D.		
11	Pb	BL	---	Pass	/
	Cd	BL	---		
	Hg	BL	---		
	Cr(Cr <sup>6+</sup> )	BL	---		
	Br(PBBs&PBDEs)	BL	---		
	DBP,BBP,DEHP,DIBP	---	N.D.		
12	Pb	BL	---	Pass	/
	Cd	BL	---		
	Hg	BL	---		
	Cr(Cr <sup>6+</sup> )	BL	---		
	Br(PBBs&PBDEs)	BL	---		
	DBP,BBP,DEHP,DIBP	---	N.D.		
13	Pb	BL	---	Pass	/
	Cd	BL	---		
	Hg	BL	---		
	Cr(Cr <sup>6+</sup> )	BL	---		
	Br(PBBs&PBDEs)	---	---		
	DBP,BBP,DEHP,DIBP	---	---		
14	Pb	BL	---	Pass	/
	Cd	BL	---		
	Hg	BL	---		
	Cr(Cr <sup>6+</sup> )	BL	---		
	Br(PBBs&PBDEs)	---	---		
	DBP,BBP,DEHP,DIBP	---	---		



Part No.	Element	X-ray Screening	Results of chemical test	Conclusion on RoHS EU	Sample Resubmitted
15	Pb	BL	---	Pass	/
	Cd	BL	---		
	Hg	BL	---		
	Cr(Cr <sup>6+</sup> )	BL	---		
	Br(PBBs&PBDEs)	BL	---		
	DBP,BBP,DEHP,DIBP	---	N.D.		

### EUT PHOTOGRAPHS





\*\*\*\*\* END OF REPORT \*\*\*\*\*