

Client Name: SHENZHEN CHENGXING ELECTRONIC TECHNOLOGY CO LTD
 Client Address: 1405-07, BLOCK A, JIAHE BUILDING, SHENNAN MIDDLE ROAD, HUAQIANGBEI STREET, FUTIAN DISTRICT, SHENZHEN

Sample Name: RGB LED STRIP LIGHTS
 Tested Basic Model No.: RGB LED STRIP LIGHTS
 Client Ref. Information: See attachment
 Manufacturer: STELLAR FIRE
 Supplier: STELLAR FIRE

The above sample(s) and information were provided by the client.

THIS REPORT IS TO SUPERSEDE TEST REPORT NO.CANEC25003070201, DATE: Mar 21, 2025.

SGS Job No.: GZP25-003530
 Sample Receiving Date: Feb 21, 2025
 Verification Period: Feb 21, 2025 ~ Mar 21, 2025
 Verification Requested: With reference to RoHS Directive (EU) 2015/863 amending 2011/65/EU.
 Verification Method(s): Please refer to next page(s).
 Verification Result(s): Please refer to next page(s).

Test Result Summary:

Test Items	Conclusion
EU RoHS Directive (EU) 2015/863 amending Annex II to Directive 2011/65/EU - Lead, Mercury, Cadmium, Hexavalent chromium, Polybrominated biphenyls (PBB), Polybrominated diphenyl ethers (PBDE), Bis(2-ethylhexyl) phthalate (DEHP), Butyl benzyl phthalate (BBP), Dibutyl phthalate (DBP) and Diisobutyl phthalate (DIBP)	Pass

Signed for and on behalf of
 SGS-CSTC Standards Technical Services Co., Ltd. Guangzhou Branch

Tyler Zhang

Tyler-Y Zhang
 Approved Signatory

Scan to see the report



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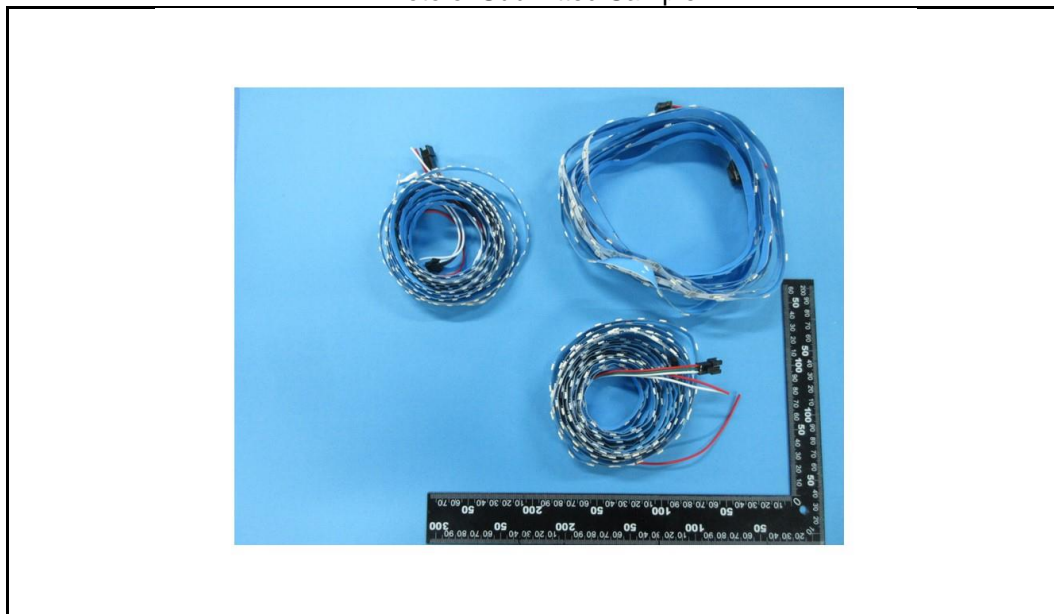
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Photo of Submitted Sample



Verification Method(s):

1. With reference to IEC 62321-2:2021, disassembly and disjointment were performed for the submitted samples.
2. With reference to IEC 62321-1:2013, tests were performed for the samples indicated by the photos in this report.
 - (1) With reference to IEC 62321-3-1:2013, screening by EDXRF spectroscopy.
 - (2) Wet chemical test method: With reference to IEC 62321-4:2013+A1:2017, IEC62321-5:2013, IEC 62321-7-1:2015, IEC 62321-7-2:2017, IEC 62321-12:2023, IEC 62321-6:2015 and IEC62321-8:2017 , analyzed by ICP-OES,UV-Vis and GC-MS.



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Verification Part Description:

SN ID	Sample No.	SGS Sample ID	Description
SN1	A2	CAN25-0030702-0001.C002	Black plastic part
SN2	A3	CAN25-0030702-0001.C003	Black plastic part
SN3	A4	CAN25-0030702-0001.C004	White plastic (heat shrinkable tube) with black printing
SN4	A5	CAN25-0030702-0001.C005	Silvery metal terminal
SN5	A6	CAN25-0030702-0001.C006	Silvery metal terminal
SN6	A7	CAN25-0030702-0001.C007	White plastic (wire insulation)
SN7	A8	CAN25-0030702-0001.C008	Green plastic (wire insulation)
SN8	A9	CAN25-0030702-0001.C009	Red plastic (wire insulation)
SN9	A10	CAN25-0030702-0001.C010	Silvery metal wire
SN10	A11	CAN25-0030702-0001.C011	White adhesive "FPC"
SN11	A12	CAN25-0030702-0001.C012	White body (LED)
SN12	A13	CAN25-0030702-0001.C013.C002	Silvery metal wire (solder)
SN13	A14	CAN25-0030702-0001.C014	White adhesive plastic sheet
SN14	A15	CAN25-0030702-0001.C015	White "FPC"
SN15	A16	CAN25-0030702-0001.C016	White body (LED)
SN16	A17#	CAN25-0030702-0001.C017.C002	Silvery metal wire (solder)
SN17	A18	CAN25-0030702-0001.C018	White "FPC"
SN18	A19	CAN25-0030702-0001.C019	White body (LED)
SN19	A20#	CAN25-0030702-0001.C020.C002	Silvery metal wire (solder)



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Verification Result(s):

In accordance with the result of material risk assessment, the following disjointed parts in the submitted sample have been verified. (Unless otherwise specified, the unit is mg/kg).

Test Item(s)	A2	A3	A4	A5	A6	A7	A8	A9
Pb	BL	BL	BL	BL	BL	BL	BL	BL
Hg	BL	BL	BL	BL	BL	BL	BL	BL
Cd	BL	BL	BL	BL	BL	BL	BL	BL
Cr(VI)▼	BL	BL	BL	BL	BL	BL	BL	BL
PBB	ND	ND	BL	---	---	BL	BL	BL
PBDE	ND	ND	BL	---	---	BL	BL	BL
DEHP	ND	ND	BL	---	---	BL	BL	BL
BBP	ND	ND	BL	---	---	BL	BL	BL
DBP	ND	ND	BL	---	---	BL	BL	BL
DIBP	ND	ND	BL	---	---	BL	BL	BL
Conclusion	PASS	PASS	PASS	PASS	PASS	PASS	PASS	PASS

Test Item(s)	A10	A11	A12	A13	A14	A15	A16	A17#
Pb	BL	BL	BL	BL	BL	BL	BL	BL
Hg	BL	BL	BL	BL	BL	BL	BL	BL
Cd	BL	BL	BL	BL	BL	BL	BL	BL
Cr(VI)▼	BL	BL	BL	BL	BL	BL	BL	BL
PBB	---	BL	BL	---	BL	BL	BL	---
PBDE	---	BL	BL	---	BL	BL	BL	---
DEHP	---	BL	BL	---	BL	BL	BL	---
BBP	---	BL	BL	---	BL	BL	BL	---
DBP	---	BL	BL	---	BL	BL	BL	---
DIBP	---	BL	BL	---	BL	BL	BL	---
Conclusion	PASS	PASS	PASS	PASS	PASS	PASS	PASS	PASS

Test Item(s)	A18	A19	A20#
Pb	BL	BL	BL
Hg	BL	BL	BL
Cd	BL	BL	BL
Cr(VI)▼	BL	BL	BL
PBB	BL	BL	---
PBDE	BL	BL	---
DEHP	BL	BL	---
BBP	BL	BL	---
DBP	BL	BL	---
DIBP	BL	BL	---
Conclusion	PASS	PASS	PASS



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Notes:

(1) Interpretation of screening results by X-ray fluorescence spectrometry (XRF):

(a) Screening limits in mg/kg for regulated elements in various matrices according to IEC 62321-3-1:2013 Annex A as below table.

Element	Polymers	Metals	Composite Materials
Cd	$BL \leq (70-3\sigma) < X < (130+3\sigma) \leq OL$	$BL \leq (70-3\sigma) < X < (130+3\sigma) \leq OL$	$LOD < X < (150+3\sigma) \leq OL$
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	$BL \leq (300-3\sigma) < X$	Not applicable	$BL \leq (250-3\sigma) < X$
Cr	$BL \leq (700-3\sigma) < X$	$BL \leq (700-3\sigma) < X$	$BL \leq (500-3\sigma) < X$

(b) If the maximum allowed level restricts PBB/PBDE and Cr(VI) rather than Br and Cr, the exceptions are the XRF determinations of Br and Cr. If the quantitative results for the elements Br and/or Cr are higher than the limit (for Br calculated based on the stoichiometry of Br in the most common congeners of PBB/PBDE), the sample is "inconclusive".

(c) Results are obtained by EDXRF for primary screening, LOD = Limit of Detection, BL = Below Limit, OL = Over Limit, IN (The symbol X marks the region) = Inconclusive, where further investigation is necessary, and further chemical testing by ICP-OES (for Cd, Pb, Hg), UV-Vis (for Cr(VI)) and GC-MS (for PBB/PBDE) are recommended to be performed.

(d) The EDXRF screening test for elements – The reading may be different to the actual content in the sample be of non-uniformity composition.

(2) Screening results of Phthalates (PTH) below the limits are shown as "BL". Further chemical testing by GC-MS is to be performed if the results exceed limits.

Test Items	CAS No.
Bis(2-ethylhexyl) phthalate (DEHP)	117-81-7
Butyl benzyl phthalate (BBP)	85-68-7
Dibutyl phthalate (DBP)	84-74-2
Diisobutyl phthalate (DIBP)	84-69-5

(3) Interpretation of results by chemical tests:

(a) mg/kg = 0.0001%, MDL = Method detection Limit, ND = Not Detected (<MDL), --- = Not Applicable.

(b) Unit and MDL in wet chemical test

Test Items	Pb	Hg	Cd	DEHP	BBP	DBP	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 PBB and PBDE is 100 mg/kg,

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

MDL of Cr(VI) for metal sample is 0.10 µg/cm².

(c) ▼ = Metal sample

a. The sample is positive for Cr(VI) if the Cr(VI) concentration is greater than 0.13 µg/cm². The sample coating is considered to contain Cr(VI).

b. The sample is negative for Cr(VI) if Cr(VI) is ND (concentration less than 0.10 µg/cm²). The coating is considered a non-Cr(VI) based coating

c. The result between 0.10 µg/cm² and 0.13 µg/cm² is considered to be inconclusive-unavoidable coating variations may influence the determination



Information on storage conditions and production date of the tested sample is unavailable and thus Cr(VI) results represent status of the sample at the time of testing.

(4) Restricted substances and maximum concentration values tolerated by weight in homogeneous materials under RoHS Directive: Cd: 0.01%, Pb/Hg/Cr(VI)/PBB/PBDE/DEHP/BBP/DBP/DIBP: 0.1%. The limit is quoted from RoHS Directive (EU) 2015/863.

(5) IEC 62321 series is equivalent to EN 62321 series.

(6) #=According to the declaration from applicant, the materials of No.A17, No.A20 are the same as those in No.A13, and its results for support the results of No.A17, No.A20. The applicant will take the responsibility of all discrepancy and risk.

The location of performance of the laboratory activities: A. No.198, Kezhu Road, Science City, Economic & Technological Development Area, Guangzhou, Guangdong; B. Room 101, Building 3, No.1501, Kaichuang Avenue, Huangpu District, Guangzhou, Guangdong
This report updates Client Ref. Information.

Unless otherwise stated, the decision rule for conformity reporting is based on Binary Statement for Simple Acceptance Rule ($w=0$) stated in ILAC-G8:09/2019.



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Attachment:

SF-30D5050RGB-WS2812B-IP20, SF-30D5050RGB-WS2812B-IP65,
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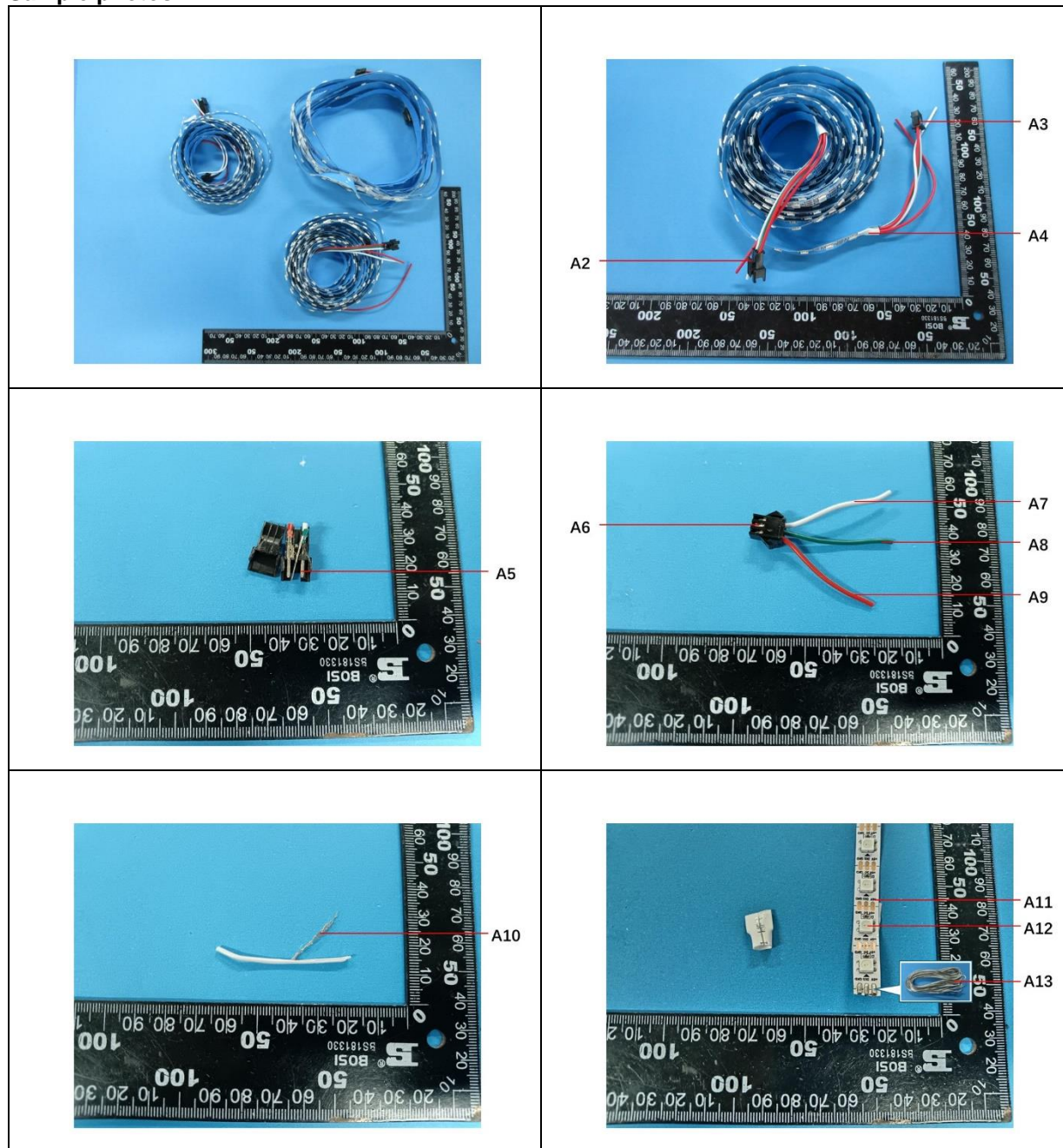
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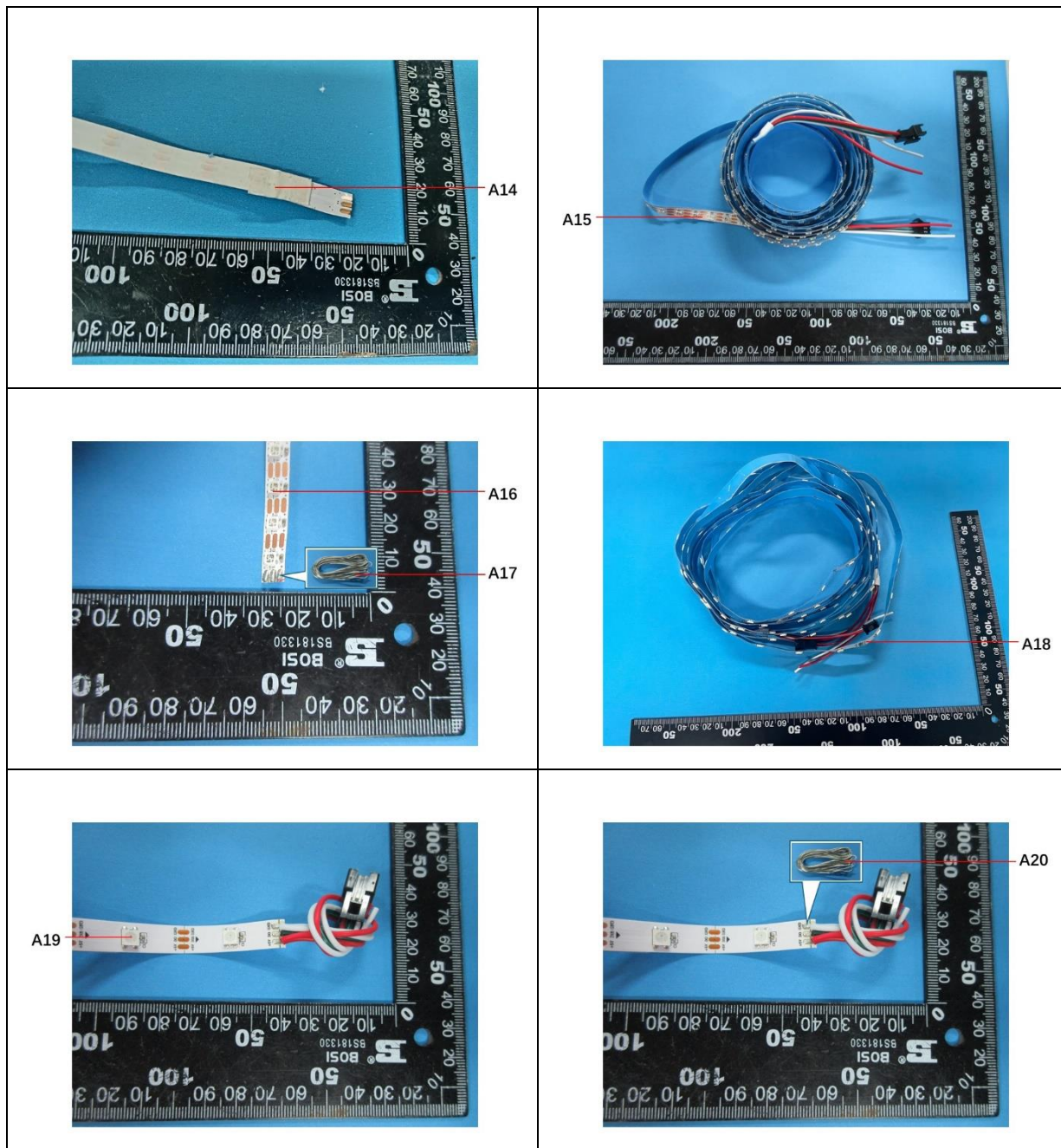
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Sample photos:





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