



Test Report

Report No: BSTDG220521840301CR

Date: Jun. 02, 2022

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Applicant : Shenzhen GCL Electronics Co.,LTD
Address : Building 2, Jingding Industrial Park , No. 2 Jinlong Road, Baolong Community, Baolong Street, Longgang District, Shenzhen, China
Applicant : Shenzhen GCL Electronics Co.,LTD
Address : Building 2, Jingding Industrial Park , No. 2 Jinlong Road, Baolong Community, Baolong Street, Longgang District, Shenzhen, China

The following sample(s) was /were submitted and identified on behalf of the clients as:

Sample Name : LED MODULE
Trade Name : GCL
Sample Model : GC-IFS-P3.91, GC-IFS-P0.7, GC-IFS-P0.8, GC-IFS-P0.9, GC-IFS-P1.0, GC-IFS-P1.2, GC-IFS-P1.25, GC-IFS-P1.26, GC-IFS-P1.X, GC-IFS-P1.3, GC-IFS-P1.35, GC-IFS-P1.38, GC-IFS-P1.4, GC-IFS-P1.48, GC-IFS-P1.5, GC-IFS-P1.56, GC-IFS-P1.5625, GC-IFS-P1.583, GC-IFS-P1.6, GC-IFS-P1.667, GC-IFS-P1.8, GC-IFS-P1.875, GC-IFS-P1.9, GC-IFS-P1.923, GC-IFS-P2.0, GC-IFS-P2.5, GC-IFS-P2.6, GC-IFS-P2.9, GC-IFS-P2.976, GC-IFS-P3, GC-IFS-P3.07, GC-IFS-P3.81, GC-IFS-P3.91, GC-IFS-P4, GC-IFS-P4.81, GC-IFS-P5, GC-IFS-P5.9, GC-IFS-P6, GC-IFS-P6.25, GC-IFS-P7.62, GC-IFS-P8, GC-IFS-P10, GC-IFS-P12, GC-IFS-P16, GC-IFS-P20, GC-IFS-P22, GC-IFS-P24, GC-IFS-P25, GC-IFS-P30, GC-IFS-P31.25, GC-IFS-P50, GC-IFS-PS1, GC-IFS-P100
Sample Received Date : May. 25, 2022
Testing Period : May. 25, 2022 To Jun. 02, 2022
Test Requested : Selected test (s) in the selected parts as requested by client with the RoHS 2 Directive 2011/65/EU Annex II (EU) 2015/863 as last amended by Directive (EU) 2017/2102.
Test Method : Please refer to next page(s).
Test Result : Please refer to next page(s).

Signed for and on behalf of



Dilys Xu/Approved Signatory

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Tel: 400-8829628/ 800-9990305
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Test Content:

Test Item(s)	Test Method	Reference	Unit	Limit	MDL
Cadmium(Cd)	IEC 62321-5:2013	ICP-OES	mg/kg	100	2
Lead(Pb)	IEC 62321-5:2013	ICP-OES	mg/kg	1000	2
Mercury(Hg)	IEC 62321-4:2013+AMD1:2017	ICP-OES	mg/kg	1000	2
Hexavalent Chromium(CrVI) (Metal)	IEC 62321-7-1:2015	UV-Vis	µg/cm ²	0.13	0.1
Hexavalent Chromium(CrVI) (Nonmetal)	IEC 62321-7-2:2017	UV-Vis	mg/kg	1000	8
PBBs (Next form)	IEC 62321-6:2015	GC-MS	mg/kg	1000	5
PBDEs (Next form)	IEC 62321-6:2015	GC-MS	mg/kg	1000	5
Dibutyl Phthalate(DBP)	IEC 62321-8:2017	GC-MS	mg/kg	1000	30
Butyl benzyl phthalate (BBP)	IEC 62321-8:2017	GC-MS	mg/kg	1000	30
Di-(2-ethylhexyl) Phthalate(DEHP)	IEC 62321-8:2017	GC-MS	mg/kg	1000	30
Diisobutyl phthalate (DIBP)	IEC 62321-8:2017	GC-MS	mg/kg	1000	30

PBBs		PBDEs	
Monobromobiphenyl	Hexabromobiphenyl	Monobromodiphenyl ether	Hexabromodiphenyl ether
Dibromobiphenyl	Heptabromobiphenyl	Dibromodiphenyl ether	Heptabromodiphenyl ether
Tribromobiphenyl	Octabromobiphenyl	Tribromodiphenyl ether	Octabromodiphenyl ether
Tetrabromobiphenyl	Nonabromobiphenyl	Tetrabromodiphenyl ether	Nonabromodiphenyl ether
Pentabromobiphenyl	Decabromobiphenyl	Pentabromodiphenyl ether	Decabromodiphenyl ether

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Sample Description:

No.	Description	Name
1	LED	LED
2	metal	Black metal casing
3	metal	screw
4	plastic	Black button
5	Conveyor belt	Conveyor belt
6	plastic	The black line skin
7	metal	Wire core
8	plastic	Red exterior leather
9	plastic	Grey outside leather
10	PCB	PCB
11	plastic	Blue plastic jack
12	plastic	Grey plastic
13	resistance	resistance
14	capacitance	capacitance
15	diode	diode
16	triode	triode
17	metal	Cable jack
18	ink	labeling
19	IC	IC
20	metal	Silver metal
21	plastic	Orange plastics
22	plastic	Blue outer leather
23	plastic	Yellow outer leather

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24	plastic	Brown outside leather
25	Metal	Metal power box
26	transformer	transformer
27	Metal	Copper wire
28	Adhesive tape	Adhesive tape
29	plastic	Blue interior leather
30	Metal	Wire core
31	Metal	copper
32	Metal	Silver metal needle
33	plastic	USB transparent plastic

Test Result:

Test Item(s)	No.1	No.2	No.3	No.4	No.5
Cadmium (Cd)	N.D.	N.D.	N.D.	N.D.	N.D.
Lead (Pb)	N.D.	N.D.	N.D.	N.D.	N.D.
Mercury (Hg)	N.D.	N.D.	N.D.	N.D.	N.D.
Hexavalent Chromium (CrVI)	N.D.	N.D.	N.D.	N.D.	N.D.
PBBs	N.D.	--	--	N.D.	N.D.
PBDEs	N.D.	--	--	N.D.	N.D.
Dibutyl Phthalate (DBP)	N.D.	--	--	N.D.	N.D.
Butyl benzyl phthalate (BBP)	N.D.	--	--	N.D.	N.D.
Di-(2-ethylhexyl) Phthalate(DEHP)	N.D.	--	--	N.D.	N.D.
Diisobutyl phthalate (DIBP)	N.D.	--	--	N.D.	N.D.

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Test Item(s)	No.6	No.7	No.8	No.9	No.10
Cadmium (Cd)	N.D.	N.D.	N.D.	N.D.	N.D.
Lead (Pb)	N.D.	N.D.	N.D.	N.D.	N.D.
Mercury (Hg)	N.D.	N.D.	N.D.	N.D.	N.D.
Hexavalent Chromium (CrVI)	N.D.	N.D.	N.D.	N.D.	N.D.
PBBs	N.D.	--	N.D.	N.D.	N.D.
PBDEs	N.D.	--	N.D.	N.D.	N.D.
Dibutyl Phthalate (DBP)	N.D.	--	N.D.	N.D.	N.D.
Butyl benzyl phthalate (BBP)	N.D.	--	N.D.	N.D.	N.D.
Di-(2-ethylhexyl) Phthalate(DEHP)	N.D.	--	N.D.	N.D.	N.D.
Diisobutyl phthalate (DIBP)	N.D.	--	N.D.	N.D.	N.D.
Test Item(s)	No.11	No.12	No.13	No.14	No.15
Cadmium (Cd)	N.D.	N.D.	N.D.	N.D.	N.D.
Lead (Pb)	N.D.	N.D.	N.D.	N.D.	N.D.
Mercury (Hg)	N.D.	N.D.	N.D.	N.D.	N.D.
Hexavalent Chromium (CrVI)	N.D.	N.D.	N.D.	N.D.	N.D.
PBBs	N.D.	N.D.	N.D.	N.D.	N.D.
PBDEs	N.D.	N.D.	N.D.	N.D.	N.D.
Dibutyl Phthalate (DBP)	N.D.	N.D.	N.D.	N.D.	N.D.
Butyl benzyl phthalate (BBP)	N.D.	N.D.	N.D.	N.D.	N.D.
Di-(2-ethylhexyl) Phthalate(DEHP)	N.D.	N.D.	N.D.	N.D.	N.D.
Diisobutyl phthalate (DIBP)	N.D.	N.D.	N.D.	N.D.	N.D.

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Test Item(s)	No.16	No.17	No.18	No.19	No.20
Cadmium (Cd)	N.D.	N.D.	N.D.	N.D.	N.D.
Lead (Pb)	N.D.	N.D.	N.D.	N.D.	N.D.
Mercury (Hg)	N.D.	N.D.	N.D.	N.D.	N.D.
Hexavalent Chromium (CrVI)	N.D.	N.D.	N.D.	N.D.	N.D.
PBBs	N.D.	--	N.D.	N.D.	--
PBDEs	N.D.	--	N.D.	N.D.	--
Dibutyl Phthalate (DBP)	N.D.	--	N.D.	N.D.	--
Butyl benzyl phthalate (BBP)	N.D.	--	N.D.	N.D.	--
Di-(2-ethylhexyl) Phthalate(DEHP)	N.D.	--	N.D.	N.D.	--
Diisobutyl phthalate (DIBP)	N.D.	--	N.D.	N.D.	--
Test Item(s)	No.21	No.22	No.23	No.24	No.25
Cadmium (Cd)	N.D.	N.D.	N.D.	N.D.	N.D.
Lead (Pb)	N.D.	N.D.	N.D.	N.D.	N.D.
Mercury (Hg)	N.D.	N.D.	N.D.	N.D.	N.D.
Hexavalent Chromium (CrVI)	N.D.	N.D.	N.D.	N.D.	N.D.
PBBs	N.D.	N.D.	N.D.	N.D.	--
PBDEs	N.D.	N.D.	N.D.	N.D.	--
Dibutyl Phthalate (DBP)	N.D.	N.D.	N.D.	N.D.	--
Butyl benzyl phthalate (BBP)	N.D.	N.D.	N.D.	N.D.	--
Di-(2-ethylhexyl) Phthalate(DEHP)	N.D.	N.D.	N.D.	N.D.	--
Diisobutyl phthalate (DIBP)	N.D.	N.D.	N.D.	N.D.	--

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Test Item(s)	No.26	No.27	No.28	No.29	No.30
Cadmium (Cd)	N.D.	N.D.	N.D.	N.D.	N.D.
Lead (Pb)	N.D.	N.D.	N.D.	N.D.	N.D.
Mercury (Hg)	N.D.	N.D.	N.D.	N.D.	N.D.
Hexavalent Chromium (CrVI)	N.D.	N.D.	N.D.	N.D.	N.D.
PBBs	N.D.	--	N.D.	N.D.	--
PBDEs	N.D.	--	N.D.	N.D.	--
Dibutyl Phthalate (DBP)	N.D.	--	N.D.	N.D.	--
Butyl benzyl phthalate (BBP)	N.D.	--	N.D.	N.D.	--
Di-(2-ethylhexyl) Phthalate(DEHP)	N.D.	--	N.D.	N.D.	--
Diisobutyl phthalate (DIBP)	N.D.	--	N.D.	N.D.	--
Test Item(s)	No.31	No.32	No.33		
Cadmium (Cd)	N.D.	N.D.	N.D.		
Lead (Pb)	N.D.	N.D.	N.D.		
Mercury (Hg)	N.D.	N.D.	N.D.		
Hexavalent Chromium (CrVI)	N.D.	N.D.	N.D.		
PBBs	--	--	N.D.		
PBDEs	--	--	N.D.		
Dibutyl Phthalate (DBP)	--	--	N.D.		
Butyl benzyl phthalate (BBP)	--	--	N.D.		
Di-(2-ethylhexyl) Phthalate(DEHP)	--	--	N.D.		
Diisobutyl phthalate (DIBP)	--	--	N.D.		

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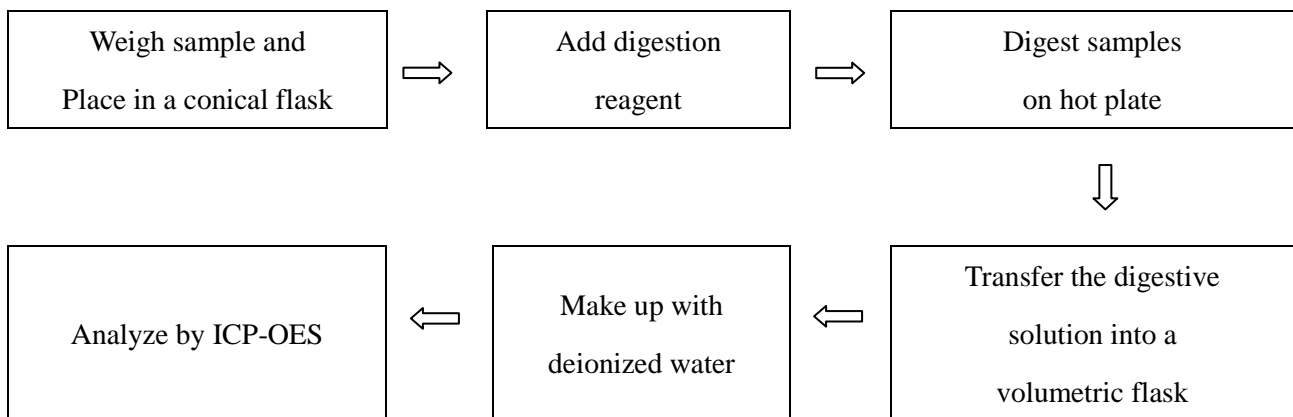
Date: Jun. 02, 2022

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- Note:**
1. mg/kg= ppm
 2. N.D.= Not Detected(<MDL)
 3. MDL = Method Detection Limit
 4. -- = No Testing
 5. when Cr(VI) in a sample is detected below the $0.10 \mu\text{g}/\text{cm}^2$ LOQ (limit of quantification), the sample is considered to be negative for Cr(VI). Since Cr(VI) may not be uniformly distributed in the coating even within the same sample batch, a "grey zone" between $0.10 \mu\text{g}/\text{cm}^2$ and $0.13 \mu\text{g}/\text{cm}^2$ has been established as "inconclusive" to reduce inconsistent results due to unavoidable coating variations. In this case, additional testing may be necessary to confirm the presence of Cr(VI). When Cr(VI) is detected above $0.13 \mu\text{g}/\text{cm}^2$, the sample is considered to be positive for the presence of Cr(VI) in the coating layer. 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.

Test Process:

1. Test for Cd/Pb Content



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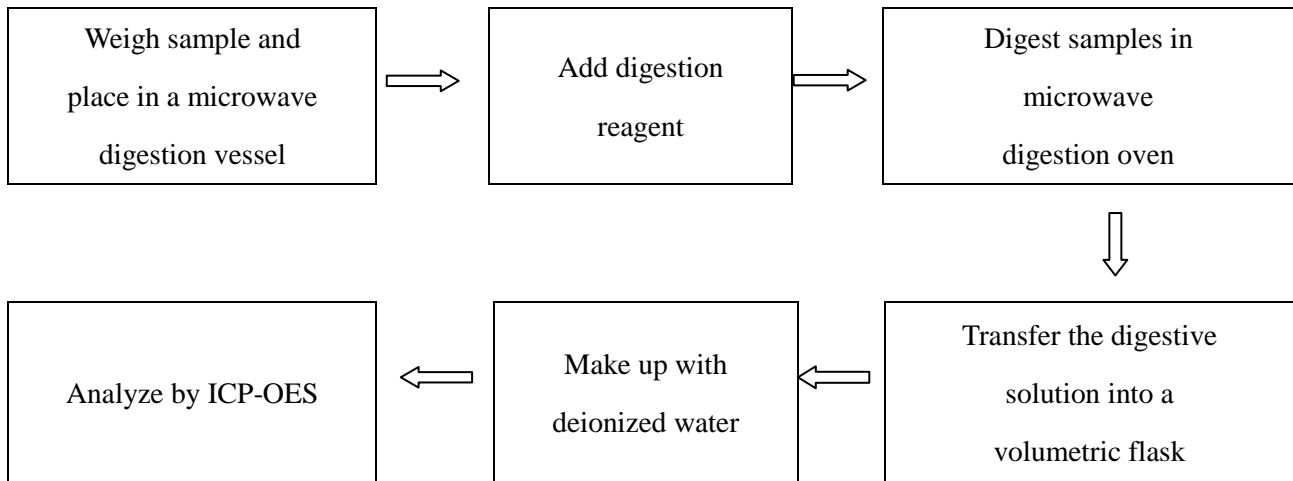
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2. Test for Hg Content



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Test Report

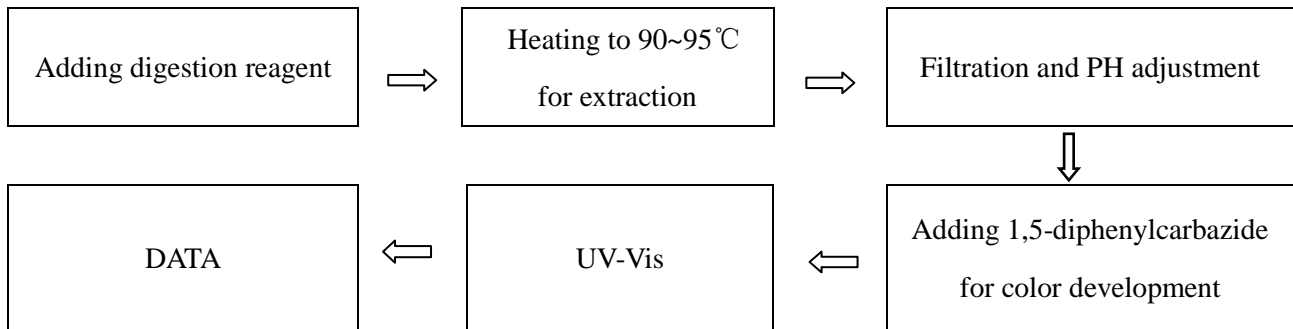
Report No: BSTDG220521840301CR

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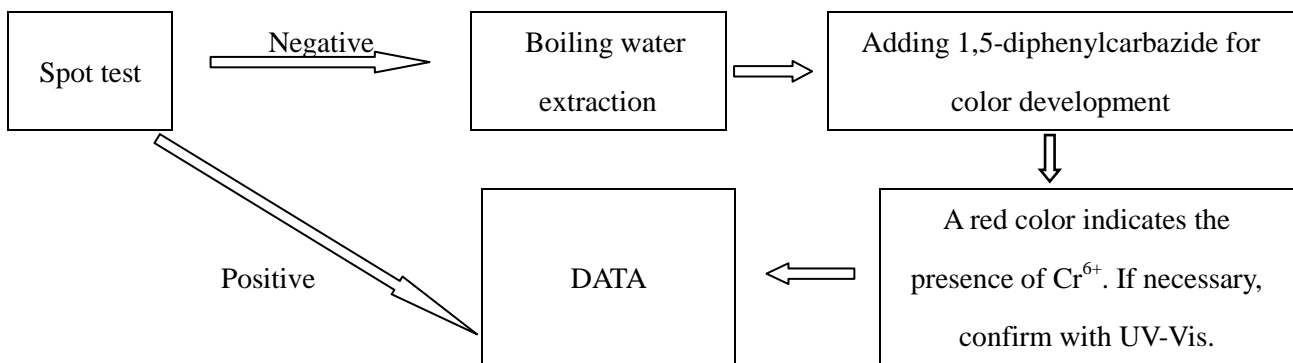
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3. Test for Chromium (VI) Content

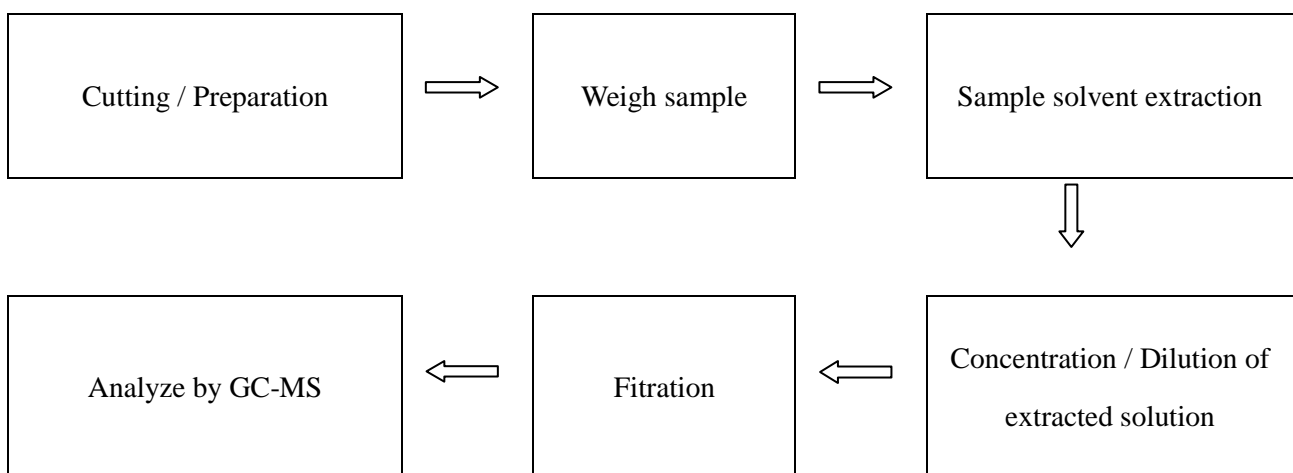
Nonmetal material



Metal material



4. Test for DBP, BBP, DEHP, DIBP, PBB, PBDE Content



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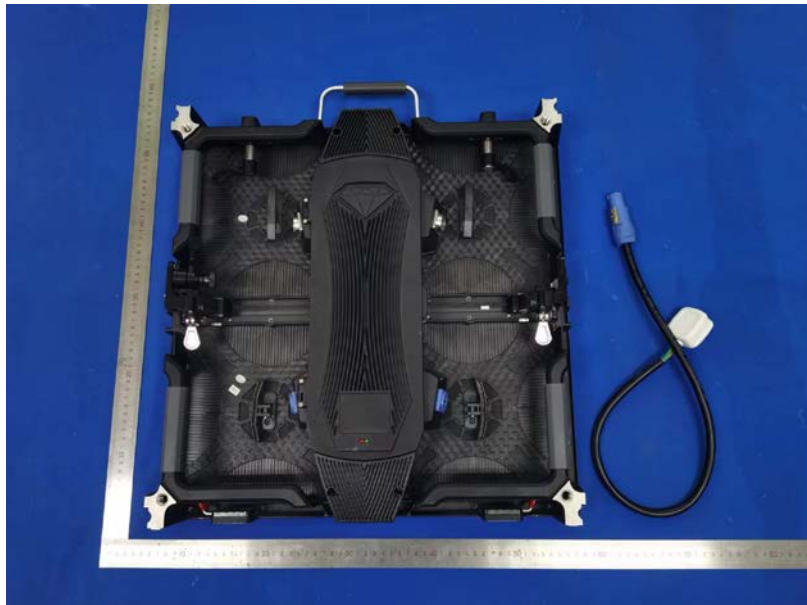
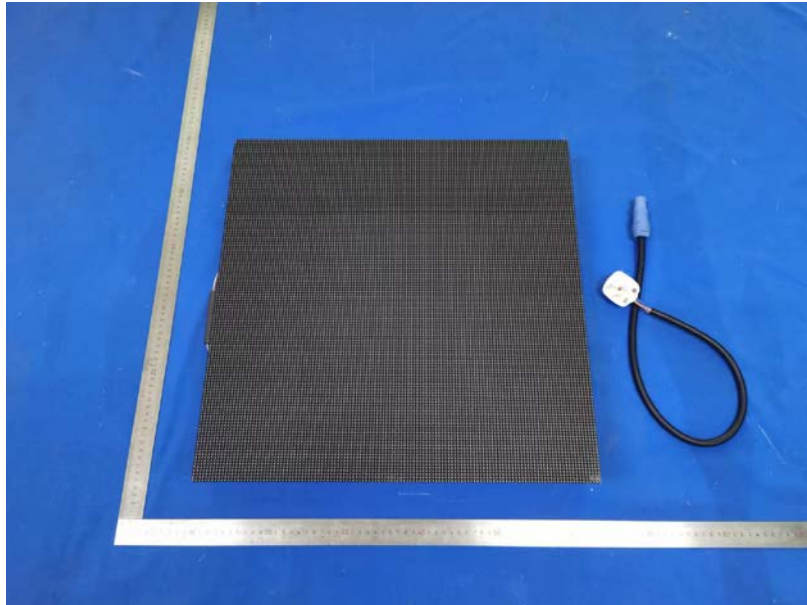
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Sample Photo:



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E-mail: christina@bst-lab.com

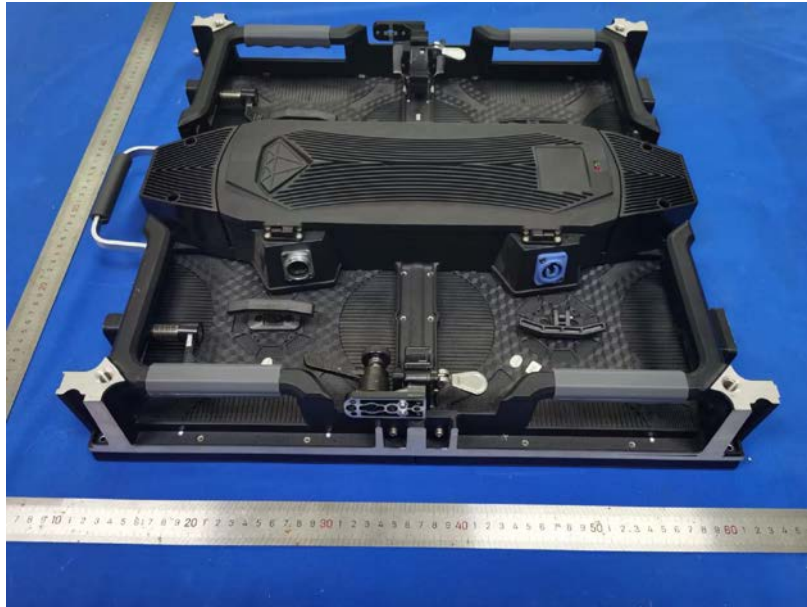


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