

Number:

210200323HZH-002

Date:

2021-04-20

Supplier: Bower Products Ltd.

Sample Description:

One (1) piece of submitted sample

said to be

Item Name Fluorescent lamp

**Testing Models** T4 2∏ Brand name Excellight

T5,T8,T9,PLS,PLL,FUL Reference Models



Tests Conducted:

As Requested By The Applicant, For Details Refer To Attached Page(S)

Conclusion:

Tested sample

Tested component of

Submitted sample

Standard

Screening by XRF spectroscopy and chemical confirmation test for RoHS Directive 2011/65/EU and

amendment (EU)2015/863

Result

**Pass** 

To be continued

Authorized By:

For Intertek Testing Services Ltd., Shanghai, Hangzhou Branch

Patrick Chen Manager





**Tests Conducted** 

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Cadmium (Cd), Lead (Pb), Mercury (Hg), Chromium (Cr) and bromine (Br) content were measured with reference to IEC 62321-3-1 Edition 1.0:2013 by XRF spectroscopy and chemical confirmation test for RoHS restricted substances. And Polybrominated Biphenyls (PBBs), Polybrominated Diphenyl Ethers (PBDEs) and Phthalates content were determined by Gas Chromatographic-Mass Spectrometric (GC-MS).

#### (A) Results:

Part No.	Tested Components	Refer information	Restricted Substance	XRF Result	Screened Results (BLphthalate s)	Chemical Confirmation Result	Conclusion on RoHS	
			Cd	Р		1		
			Pb	Р	] [	1	]	
			Hg	Р	NA [	1	]	
	SCREW		Cr	Р		1		
1	(SILVER	/	Br	NA		1	PASS	
	METAL)		DEHP	NA	NA	1	1	
			BBP	NA	NA	1	1	
			DBP	NA	NA	1	1	
			DIBP	NA	NA	1		
			Cd	Р		1		
			Pb	Р	] [	1	]	
	HOLDER		Hg	Р	NA [	1	]	
		HOLDED	HOLDER		Cr	Р	] "" [	1
2	(WHITE PLASTIC)	HITE /	Br	х		PBBs=ND PBDEs=ND	PASS	
	T LAGITO)		DEHP	NA	BL	1		
			BBP	NA	BL	1		
			DBP	NA	BL	1		
			DIBP	NA	BL	1		
			Cd	Р		1		
			Pb	Р		1		
			Hg	Р	NA	1		
	FILLET OF		Cr	Р		I		
3	SCREW (SILVER	/	Br	NA		I	PASS	
	METAL)		DEHP	NA	NA	1		
			BBP	NA	NA	1		
	COVER (WHITE PLASTIC)		DBP	NA	NA	1		
			DIBP	NA	NA	1		
			Cd	Р		1		
			Pb	Р		1	]	
4		/	Hg	Р	NA	1	PASS	
			Cr	Р	[	1	]	
			Br	х		PBBs=ND PBDE=245ppm		



Number:

Part No.	Tested Components	Refer information	Restricted Substance	XRF Result	Screened Results (BLphthalate s)	Chemical Confirmation Result	Conclusion on RoHS
			DEHP	NA	BL	1	
			BBP	NA	BL	1	
			DBP	NA	BL	1	1
			DIBP	NA	BL	1	]
5	RESISTOR						
			Cd	Р		1	
			Pb	Р		1	
			Hg	Р	NA NA	1	
	LEAD SKIN		Cr	Р		1	]
5-1	(BLACK	/	Br	Р		1	PASS
	NONMETAL)		DEHP	NA	BL	1	]
			BBP	NA	BL	1	]
			DBP	NA	BL	1	1
			DIBP	NA	BL	1	]
			Cd	Р		1	
			Pb	Р		1	]
			Hg	Р	NA NA	1	]
			Cr	Р		1	]
5-2	RESISTOR	RESISTOR /	Br	Р		1	PASS
			DEHP	NA	BL	1	
			BBP	NA	BL	1	]
			DBP	NA	BL	1	]
			DIBP	NA	BL	1	
6	WIRE						
			Cd	Р		1	
			Pb	Р		1	
			Hg	Р	NA	1	
	LEAD SKIN		Cr	Р		1	
6-1	(WHITE	/	Br	Р		1	PASS
	NONMETAL)		DEHP	NA	Х	147ppm	
			BBP	NA	BL	1	
	MIDE		DBP	NA	BL	1	]
			DIBP	NA	BL	1	
			Cd	Р		1	
			Pb	Р	]	1	]
6-2	WIRE	,	Hg	Р	NA NA	1	DAGG
0-2	6-2 (SILVER METAL)	'	Cr	Р	]	1	PASS
			Br	NA		1	
			DEHP	NA	NA	1	



Number:

Part No.	Tested Components	Refer information	Restricted Substance	XRF Result	Screened Results (BLphthalate s)	Chemical Confirmation Result	Conclusion on RoHS
			BBP	NA	NA	1	
			DBP	NA	NA	1	
			DIBP	NA	NA	1	
7	PCB						
			Cd	Р		1	
			Pb	Р		1	
			Hg	Р	NA	1	]
	LEAD		Cr	Р	] [	1	]
7-1	(GUN-METAL SILVER	/	Br	NA	] [	1	PASS
	METAL)		DEHP	NA	NA	1	
	,		BBP	NA	NA	1	
			DBP	NA	NA	1	
			DIBP	NA	NA	1	
			Cd	Р		1	
			Pb	Р		1	
			Hg	Р	NA	1	
			Cr	Р		1	_
7-2	CAPACITOR	/	Br	Р		1	PASS
			DEHP	NA	BL	1	
			BBP	NA	BL	1	1
			DBP	NA	BL	1	_
			DIBP	NA	BL	1	1
			Cd	Р		1	
			Pb	Р		1	
			Hg	Р	NA	1	_
			Cr	Р		1	
7-3	CAPACITOR	/	Br	Р		1	PASS
			DEHP	NA	BL	1	1
			BBP	NA	BL	1	1
			DBP	NA	BL	1	1
			DIBP	NA	BL	1	1
			Cd	Р		1	
			Pb	Р	1 1	1	1
			Hg	P	NA	1	1
			Cr	Р	1 1	1	1
7-4	CAPACITOR	/	Br	Р	1 1	1	PASS
			DEHP	NA	BL	1	1
			BBP	NA	BL	1	1
			DBP	NA	BL	1	1



Scree	ning and Chemic	al Confirmation	Test Report		N	umber: 21020	0323HZH-002		
Part No.	Tested Components	Refer information	Restricted Substance	XRF Result	Screened Results (BLphthalate s)	Chemical Confirmation Result	Conclusion on RoHS		
			DIBP	NA	BL	1			
			Cd	Р		1			
			Pb	Р	] [	1			
			Hg	Р	NA	1	1		
	LEAD SKIN		Cr	Р		1	1		
7-5	(WHITE	/	Br	Р		1	PASS		
	NONMETAL)		DEHP	NA	BL	1	1		
			BBP	NA	BL	1	1		
			DBP	NA	BL	1	7		
			DIBP	NA	BL	1	1		
7-6	INDUCTOR	•	•				•		
			Cd	Р		1			
			Pb	Р		1	7		
			Hg	Р	NA	1	1		
			Cr	Р		1	1		
7-6-1	WIRE	/	Br	NA		1	PASS		
	(RED METAL)	(RED METAL)	(RED WETAL)		DEHP	NA	NA	1	1
			BBP	NA	NA	1	1		
			DBP	NA	NA	1	1		
			DIBP	NA	NA	1	-		
			Cd	Р		1			
			Pb	Р		1	- - -		
			Hg	Р	NA	1			
	WIRE		Cr	Р		1			
7-6-2	(COPPER	/	Br	NA		1	PASS		
	METAL)		DEHP	NA	NA	1	1		
			BBP	NA	NA	1	1		
			DBP	NA	NA	1	-		
			DIBP	NA	NA	1	1		
			Cd	Р		1			
			Pb	Р	1	1	1		
	IRON CORE		Hg	Р	NA	1	1		
			Cr	Р		1	1		
7-6-3	(BLUE	,	Br	NA.		1	PASS		
	METAL)		DEHP	NA	NA	1	1		
			BBP	NA	NA NA	1	1		
			DBP	NA	NA NA	1	1		
			DIBP	NA NA	NA NA	· /	1		
7-7	TRIODE	1	Cd	P	NA NA	<del>,</del>	PASS		



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F Scree	ning and Chemica	al Confirmation	Test Report	T		umber: 21020	0323HZH-002
Part No.	Tested Components	Refer information	Restricted Substance	XRF Result	Screened Results (BLphthalate s)	Chemical Confirmation Result	Conclusion on RoHS
			Pb	Р		1	
			Hg	Р		1	]
			Cr	Р		1	
			Br	x		PBBs=ND PBDEs=ND	
			DEHP	NA	BL	1	
			BBP	NA	BL	1	
			DBP	NA	BL	1	]
			DIBP	NA	BL	1	]
7-8	COIL						
			Cd	Р		1	
			Pb	Р	]	1	1
			Hg	Р	NA	1	1
	COVERING		Cr	Р		1	1
7-8-1	(BLACK	1	Br	Р		1	PASS
	NONMETAL)		DEHP	NA	BL	1	1
			BBP	NA	BL	1	1
			DBP	NA	BL	1	1
			DIBP	NA	BL	1	1
			Cd	Р		1	
			Pb	Р		1	1
			Hg	Р	NA	1	1
	WIRE		Cr	Р		1	1
7-8-2	(COPPER	,	Br	NA		1	PASS
	METAL)		DEHP	NA	NA	1	1
			BBP	NA	NA	1	1
			DBP	NA	NA	1	1
			DIBP	NA	NA	1	1
			Cd	Р		1	
			Pb	Р	1	1	1
			Hg	Р	NA	1	1
	IRON CORE		Cr	Р		1	1
7-8-3	(BLACK	/	Br	NA		1	PASS
	METAL)		DEHP	NA	NA	1	1
			BBP	NA	NA	1	1
			DBP	NA	NA	1	1
			DIBP	NA	NA	1	1
7-9	INDUCTOR						
		_	Cd	Р		1	
7-9-1		/	Pb	Р	NA	1	PASS



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Part No.	Tested Components	Refer information	Restricted Substance	XRF Result	Screened Results (BLphthalate s)	Chemical Confirmation Result	Conclusion on RoHS
			Hg	Р		1	
			Cr	Р		1	
	TAPE		Br	Р		1	
	(RED		DEHP	NA	BL	1	
	NONMETAL)		BBP	NA	BL	1	
			DBP	NA	BL	1	
			DIBP	NA	BL	1	
			Cd	Р		1	
			Pb	Р		1	]
			Hg	Р	NA	1	
	IRON CORE		Cr	Р		1	
7-9-2	(BLACK	/	Br	NA	]	1	PASS
	METAL)		DEHP	NA	NA	1	
			BBP	NA	NA	1	
			DBP	NA	NA	1	
			DIBP	NA	NA	1	
			Cd	Р		1	
			Pb	Р		1	
		VIRE DPPER / ETAL)	Hg	Р	NA	1	
	WIRE		Cr	Р		1	
7-9-3	(COPPER		Br	NA		1	PASS
	METAL)		DEHP	NA	NA	1	
			BBP	NA	NA	1	
			DBP	NA	NA	1	
			DIBP	NA	NA	1	
			Cd	Р		1	
			Pb	Р		1	
			Hg	Р	NA	1	
	HOLDER		Cr	Р	]	1	
7-9-4	(BLACK	/	Br	Р	]	1	PASS
	PLASTIC)		DEHP	NA	BL	1	
			BBP	NA	BL	1	
			DBP	NA	BL	1	
			DIBP	NA	BL	1	
			Cd	Р		1	
			Pb	Р		1	
7-10	TRIODE	,	Hg	Р	NA D	1	PASS
' '	INIODE	TRIODE /	Cr	Р		1	
			Br	х		PBBs=ND PBDEs=ND	



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7-11 PLODE    DEHP NA BL	Part No.	Tested Components	Refer information	Restricted Substance	XRF Result	Screened Results (BLphthalate s)	Chemical Confirmation Result	Conclusion on RoHS
DBP				DEHP	NA	BL	1	
7-11 DIODE    DIBP   NA   BL				BBP	NA	BL	1	
7-11 PIODE    Cd   P   P				DBP	NA	BL	1	
7-11 DIODE    Pb				DIBP	NA	BL	1	
7-11 DIODE    Hg				Cd	Р		1	
7-11 DIODE    Cr   P				Pb	Р		1	
7-11 DIODE    Br   P				Hg	Р	NA	1	
DEHP				Cr	Р		1	
BBP	7-11	DIODE	/	Br	Р		1	PASS
DBP				DEHP	NA	BL	1	
DIBP   NA   BL				BBP	NA	BL	1	
7-12 RESISTOR				DBP	NA	BL	1	
7-12 RESISTOR				DIBP	NA	BL	1	
7-12 RESISTOR				Cd	Р		1	
7-12 RESISTOR				Pb	Р		1	
7-12 RESISTOR				Hg	Р	NA	1	
7-14 PCB    DEHP   NA   BL   /				Cr	Р		1	
BBP	7-12	RESISTOR	/	Br	Р		1	PASS
DBP				DEHP	NA	BL	1	
7-14 PCB    DIBP   NA   BL				BBP	NA	BL	1	
7-14 PCB    Cd   P   Pb   P				DBP	NA	BL	1	
7-13   SOLDER (SILVER METAL)				DIBP	NA	BL	1	
7-13   SOLDER (SILVER (SILVER METAL)				Cd	Р		1	
7-13   SOLDER (SILVER METAL)				Pb	Р		1	
7-13 (SILVER METAL)    Br NA NA				Hg	Р	NA	1	1
7-13 (SILVER METAL)    Br   NA		SOLDER		Cr	Р		1	
BBP   NA   NA   /	7-13	(SILVER	/	Br	NA		1	PASS
DBP   NA   NA   /		METAL)		DEHP	NA	NA	1	
DIBP   NA   NA   /				BBP	NA	NA	1	
7-14 PCB				DBP	NA	NA	1	
7-14 PCB				DIBP	NA	NA	1	
7-14 PCB				Cd	Р		1	
7-14 PCB / Cr P / PBBs=ND PASS  DEHP NA BL / BBP NA BL /				Pb	Р	]	1	
7-14 PCB / Br X PBBs=ND PASS  DEHP NA BL / BBP NA BL /				Hg	Р	NA	1	
Br         X         PBDEs=ND           DEHP         NA         BL         /           BBP         NA         BL         /				Cr	Р	18/4	1	
BBP NA BL /	7-14	РСВ	DB /	Br	х	PBBs=ND	PASS	
				DEHP	NA	BL	1	
						BL	1	
							1	



Number:

Part No.	Tested Components	Refer information	Restricted Substance	XRF Result	Screened Results (BLphthalate s)	Chemical Confirmation Result	Conclusion on RoHS
			DIBP	NA	BL	1	
			Cd	Р		1	
			Pb	Р		1	
			Hg	Р	NA	1	]
	00//50		Cr	Р		1	
8	COVER (WHITE PLASTIC)	WHITE /	Br	х		PBBs=ND PBDEs=ND	PASS
	1 Existing)		DEHP	NA	BL	1	
			BBP	NA	BL	1	]
			DBP	NA	BL	1	]
			DIBP	NA	BL	1	]
			Cd	Р		1	
			Pb	Р		1	
			Hg	Р	NA	1	]
	GLUE		Cr	Р		1	
9	(WHITE	/	Br	Р		1	PASS
	NONMETAL)		DEHP	NA	BL	1	]
			BBP	NA	BL	1	
			DBP	NA	BL	1	
			DIBP	NA	BL	1	
10	LAMP						
			Cd	Р		1	
			Pb	Р		1	
			Hg	Р	NA NA	1	]
	LAMP		Cr	Р		1	
10-1	(WHITE	/	Br	Р		1	PASS
	NONMETAL)		DEHP	NA	BL	1	]
			BBP	NA	BL	1	]
			DBP	NA	BL	1	]
			DIBP	NA	BL	1	
			Cd	Р		1	
			Pb	Р		1	
			Hg	Р	NA	1	]
	WIRE		Cr	Р	]	1	1
10-2	SLEEVE (WHITE	/	Br	Р		1	PASS
	NONMETAL)		DEHP	NA	BL	1	]
			BBP	NA	BL	1	]
			DBP	NA	BL	1	]
			DIBP	NA	BL	1	
10-3		1	Cd	Р	NA	1	PASS



Number:

Part No.	Tested Components	Refer information	Restricted Substance	XRF Result	Screened Results (BLphthalate s)	Chemical Confirmation Result	Conclusion on RoHS
			Pb	Р	,	1	
			Hg	Р		1	
			Cr	Р		1	
	WIRE		Br	NA		1	
	(COPPER METAL)		DEHP	NA	NA	1	
	WIE IAE)		BBP	NA	NA	1	
			DBP	NA	NA	1	
			DIBP	NA	NA	1	
			Cd	Р		1	
			Pb	Р		1	
			Hg	Р	NA NA	1	
	WIRE		Cr	Р		1	
10-4	(SILVER	/	Br	NA		1	PASS
	METAL)		DEHP	NA	NA	1	
			BBP	NA	NA	1	
			DBP	NA	NA	1	
			DIBP	NA	NA	1	
D1	END COVER	1			•		
			Cd	Р		1	
			Pb	Р		1	
			Hg	Р	NA NA	1	
	END COVER		Cr	Р		1	
D1-1	(SILVER	/	Br	NA		1	PASS
	METAL)		DEHP	NA	NA	1	
			BBP	NA	NA	1	
			DBP	NA	NA	1	
			DIBP	NA	NA	1	
			Cd	Р		1	
			Pb	Х		Pb=26140ppm #3	
			Hg	Р	NA	1	
	PLUG PIN		Cr	Р		1	
D1-2	1-2 (GOLD	,	Br	NA		1	PASS
	METAL)		DEHP	NA	NA	1	
			BBP	NA	NA	1	
			DBP	NA	NA	1	
			DIBP	NA	NA	1	
	INSULANT		Cd	Р		1	
D1-3	(BLACK	(BLACK /	Pb	Р		1	PASS
	PLASTIC)		Hg	Р		1	



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Part No.	Tested Components	Refer information	Restricted Substance	XRF Result	Screened Results (BLphthalate s)	Chemical Confirmation Result	Conclusion on RoHS
			Cr	Р	,	1	
			Br	Р		1	
			DEHP	NA	BL	1	
			BBP	NA	BL	1	
			DBP	NA	BL	1	
			DIBP	NA	BL	1	
			Cd	Р		1	
			Pb	Р		1	
			Hg	Р	NA NA	1	
	INSULANT		Cr	Р		1	
D1-4	(YELLOW	/	Br	Р		1	PASS
	NONMETAL)		DEHP	NA	BL	1	
			BBP	NA	BL	1	
			DBP	NA	BL	1	
			DIBP	NA	BL	1	
			Cd	Р		1	
			Pb	Р		1	
			Hg	Р	NA NA	1	
			Cr	Р	NA NA	1	
D2	COVER (WHITE PLASTIC)	/	Br	х		PBBs=ND PBDEs=ND	PASS
	PLASTIC)		DEHP	NA	BL	1	
			BBP	NA	BL	1	
			DBP	NA	BL	1	
			DIBP	NA	BL	1	
D3	END COVER	•	•				
			Cd	Р		1	
			Pb	Р		1	
			Hg	Р	NA NA	1	
			Cr	Р		1	
D3-1	COVER (WHITE PLASTIC)	/	Br	х		PBBs=ND PBDEs=ND	PASS
	I EAGTIO)		DEHP	NA	BL	1	
			BBP	NA	BL	1	
			DBP	NA	BL	1	
			DIBP	NA	BL	1	
			Cd	Р		1	
D0 0	PLUG PIN		Pb	Х		Pb=25580ppm #3	3
D3-2	(SILVER METAL)	/	Hg	Р	NA	1	PASS
	METAL)		Cr	Р	1	1	

Cr

Р



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Part No.	Tested Components	Refer information	Restricted Substance	XRF Result	Screened Results (BLphthalate s)	Chemical Confirmation Result	Conclusion on RoHS
			Br	NA		1	
			DEHP	NA	NA	1	
			BBP	NA	NA	1	
			DBP	NA	NA	1	
			DIBP	NA	NA	1	
D4	SHELL						
			Cd	Р		1	
			Pb	Р		1	
			Hg	Р	NA	I	
	OUELL		Cr	Р	]	1	]
D4-1	SHELL (WHITE PLASTIC)	/	Br	x		PBBs=ND PBDEs=ND	PASS
	1 2 10 110)		DEHP	NA	BL	1	
			BBP	NA	BL	1	]
			DBP	NA	BL	1	
			DIBP	NA	BL	1	
			Cd	Р		1	
			Pb	Р		1	
			Hg	Р	NA	1	
	SVREW		Cr	Р		1	
D4-2	(SILVER	/	Br	NA		1	PASS
	METAL)		DEHP	NA	NA	1	
			BBP	NA	NA	1	
			DBP	NA	NA	1	]
			DIBP	NA	NA	I	
			Cd	Р	_	1	]
			Pb	Р		1	]
			Hg	Р	NA [	1	
	COVERING		Cr	Р		1	
D5	(SILVER	/	Br	NA		1	PASS
	METAL)		DEHP	NA	NA	1	
			BBP	NA	NA	1	
			DBP	NA	NA	1	
			DIBP	NA	NA	1	
D6	LAMP TUBE						
			Cd	Р	] [	1	]
D6-1	END COVER (WHITE	,	Pb	Р		1	PASS
DU-1	PLASTIC)	/ <u> </u>	Hg	Р		1	1 700
	1	İ	Cr	Ь	ı	,	

Cr



Part No.	Tested Components	Refer information	Restricted Substance	XRF Result	Screened Results (BLphthalate s)	Chemical Confirmation Result	Conclusion on RoHS
			Br	х		PBBs=ND PBDEs=ND	
			DEHP	NA	BL	1	
			BBP	NA	BL	1	
			DBP	NA	BL	1	
			DIBP	NA	BL	1	
			Cd	Р		1	
			Pb	Р		1	
			Hg	Р	NA	1	
	LAMP TUBE		Cr	Р		1	
D6-2	(CLEAR	CLEAR /	Br	Р		1	PASS
	NONMETAL)		DEHP	NA	BL	1	
			BBP	NA	BL	1	
			DBP	NA	BL	1	
			DIBP	NA	BL	1	

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Remark: P = Pass (Below the lower screening limit of table (B1))

X = Inconclusive result (Further chemical test was suggested (see table (B1).)

BL=Below the lower screening limit of table (B2) and pass

NA = Not applicable

ND = Not detected

ppm = Parts per million = mg/kg

= Failed item

Cr<sup>6+</sup>=Negative=The Cr (VI) concentration is less than 0.10 μg/cm2.The sample is Cr<sup>6+</sup>=Negative for Cr (VI).

Inconclusive = The Cr (VI) concentration is between 0.10 µg/cm2 and 0.13 µg/cm2. The result is considered to be inconclusive. Unavoidable coating variations may influence the determination.

Positive = The sample is positive for Cr (VI) is based on visual comparison only. Sample solution is significantly more intense than the 0.13 µg/cm2 equivalent comparison standard. No Colourimetric measurement was performed.

- (#1) = The screened result was found in the region of inconclusive and further chemical test was suggested (see table A).
- (#2) = Cr was detected above the screening limits and further chemical test was suggested (see table A).
- (#3) = As claimed by the declaration submitted from the applicant, the Lead content of the component comes from Copper alloy only. According to EU RoHS Directive (2011/65/EU), Lead in Copper alloy containing up to 4% (40,000 mg/kg) Lead by weight can be exempted.

To be continued





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(B)

(B1) XRF Screening Limits in mg/kg for Regulated Elements in Various Matrices.

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Element	Polymer materials	Metallic materials	Composite materials
Cd	P ≤70 < X < 130 ≤ F	P ≤ 70 < X < 130 ≤ F	P ≤ 70 < X < 150 ≤ F
Pb	P ≤ 700 < X < 1300≤ F	P ≤ 700 < X < 1300 ≤ F	P ≤ 500< X < 1500 ≤ F
Hg	P ≤ 700< X < 1300 ≤ F	P ≤ 700 < X < 1300 ≤ F	P ≤ 500 < X < 1500 ≤ F
Cr	P ≤ 700< X	P ≤ 700 < F	P ≤ 500 < X
Br	P ≤ 300< X	Not applicable	P ≤ 250 < X

(B2) Preliminary screening test will used for phthalates, if the results exceed the warning area in the following table, further chemical methods will conduct to confirm the exact content by GC/MS.

Phthalates	Polymer
Bis(2-ethylhexyl)phthalate(DEHP)	BL ≤600 <x< td=""></x<>
Butyl benzyl phthalate(BBP)	BL ≤600 <x< td=""></x<>
Dibutyl phthalate(DBP)	BL ≤600 <x< td=""></x<>
Diisobutyl phthalate(DIBP)	BL ≤600 <x< td=""></x<>

(C) Estimated detection limits in mg/kg for regulated elements in various matrices.

Element	Polymer materials	Metallic materials	Composite materials
Cd	50	70	70
Pb	100	200	200
Hg	100	200	200
Cr	100	200	200
Br	200	Not applicable	200

#### Disclaimers:

This XRF Screening and Chemical Confirmation Test Report is for reference purposes only. The applicant shall make its/his/her own judgment as to whether the information provided in this XRF Screening and Chemical Confirmation Test Report is sufficient for its/his/her purposes.

The results shown in this XRF Screening and Chemical Confirmation Test Report will differ based on various factors, including but not limited to, the sample size, thickness, area, surface flatness, equipment parameters and matrix effect (e.g. plastic, rubber, metal, glass, ceramic etc.). Further wet chemical pre-treatment with relevant chemical equipment analysis is required to obtain quantitative data.

To be continued





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(D) Chemical confirmation test methods:

Testing Item	Testing Method	Reporting Limit
Cadmium (Cd) Content	With reference to IEC 62321-5 Edition 1.0 : 2013, by acid digestion and determined by ICP - OES	2 mg/kg
Lead (Pb) Content	With reference to IEC 62321-5 Edition 1.0 : 2013, by acid digestion and determined by ICP - OES	2 mg/kg
Mercury (Hg) Content	With reference to IEC 62321-4 Edition 1.0 : 2013, by acid digestion and determined by ICP - OES	2 mg/kg
Chromium (VI) (Cr <sup>6+</sup> ) content (for non-metal)	With reference to IEC 62321-7-2 Edition 1.0 : 2017, by organic solvent dissolution or swell the sample matrix, followed by alkaline digestion and determined by UV-VIS Spectrophotometer.	10mg/kg
Chromium (VI) (Cr <sup>6+</sup> ) content (for metal)	With reference to IEC 62321-7-1 Edition 1.0: 2015, by boiling water extraction and determined by UV-VIS Spectrophotometer.	Positive(>0.13 μg/m²)/ Cr <sup>6+</sup> =Negative(<0.10 μg/m²) Inconclusive(0.10 0.13 μg/m²)
Polybrominated Biphenyls (PBBs) & Polybrominated Diphenyl Ethers (PBDEs) Content	With reference to IEC 62321-6 edition 1.0:2015, by solvent extraction and determined by GC/MS and further HPLC confirmation when necessary	
Phthalates(DEHP,BBP,DB P,DIBP) Content	With reference to IEC62321-8 : 2017, by solvent extraction and determined by GC/MS	100mg/kg

## (E) RoHS requirement

Restricted substances	Limits
Cadmium (Cd)	0.01% (100 ppm)
Lead (Pb)	0.1% (1000 ppm)
Mercury (Hg)	0.1% (1000 ppm)
Chromium (VI) (Cr6+)	0.1% (1000 ppm)
Polybrominated biphenyls (PBBs)	0.1% (1000 ppm)
Polybrominated diphenyl ethers (PBDEs)	0.1% (1000 ppm)
Phthalates(DEHP, BBP, DBP, DIBP)	0.1% (1000 ppm)

The above limits were quoted from 2011/65/EU and (EU) 2015/863 for homogeneous material.

Date sample received: 2021-03-12 Testing period: 2021-03-12 to 2021-03-29

1 esuiig period. 202 1-03-12 to 202 1-03-29

To be continued

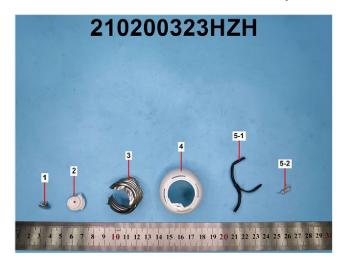


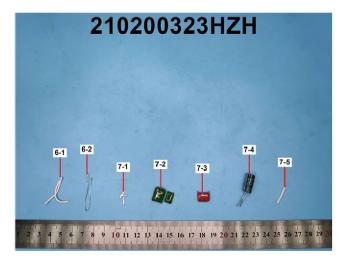


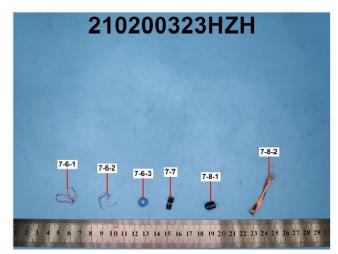
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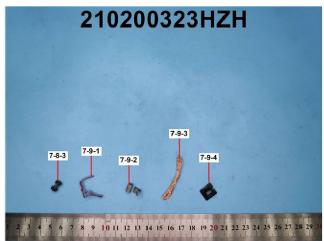
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Sample disassembling Photo(s)

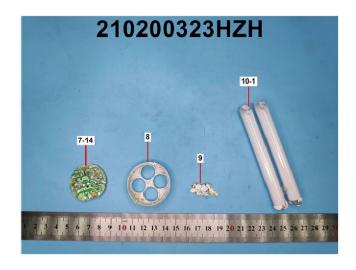






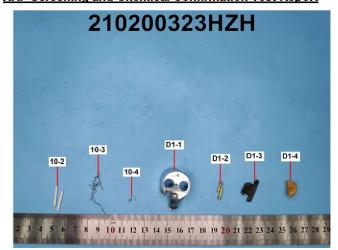


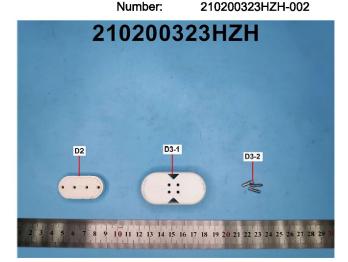


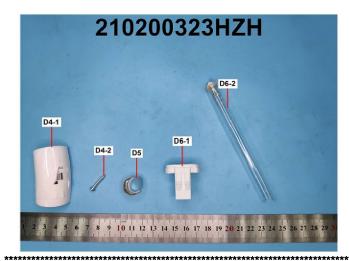














End of this report

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