





Applicant: SHENZHEN IREADER OPTOELECTRONICS CO.,LTD

Address: Room 503, Building A, Ganghongji High tech Intelligent industrial Park, NO.1008 of Songbai Road,

Nanshan, District, Shenzhen, Guangdong, China

The following merchandise was (were) submitted and identified by client as:

Sample Name: 单相电测计量模块 Model No.: IM1275 系列

County of Origin: China

Manufacturer: SHENZHEN IREADER OPTOELECTRONICS CO.,LTD

Address: Room 503, Building A, Ganghongji High tech Intelligent industrial Park, NO.1008 of Songbai Road,

Nanshan, District, Shenzhen, Guangdong, China

Test Period: From August 17, 2023 to August 23, 2023

SUMMARY OF TEST RESULTS

TEST REQUESTED	CONCLUSION
Heavy Metals , Flame Retardants and Phthalates Content - European Council Directive 2011/65/EU on	
the Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment	PASS
(RoHS) with its Amendments Commission Delegated Directive (EU) 2015/863	St. St. St.

Test Result(s): Please refer to next page(s).

Signed for and on Behalf of SFT

Tom Yin / Technical Manager
Guangdong Safety Testing Co., Ltd.

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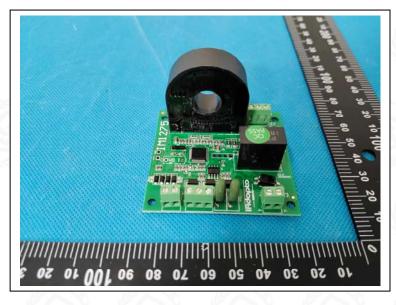
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Sample Photo

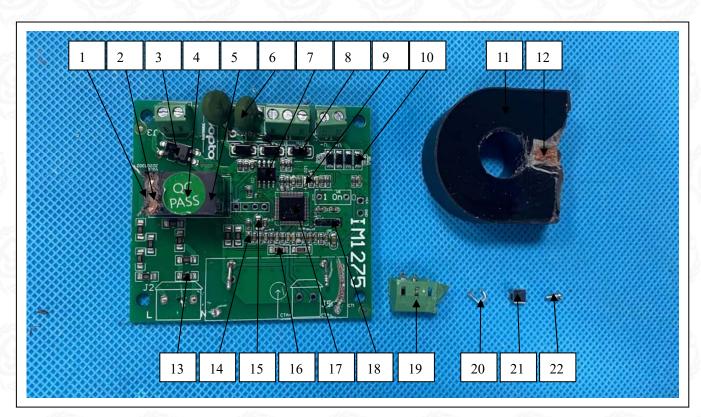


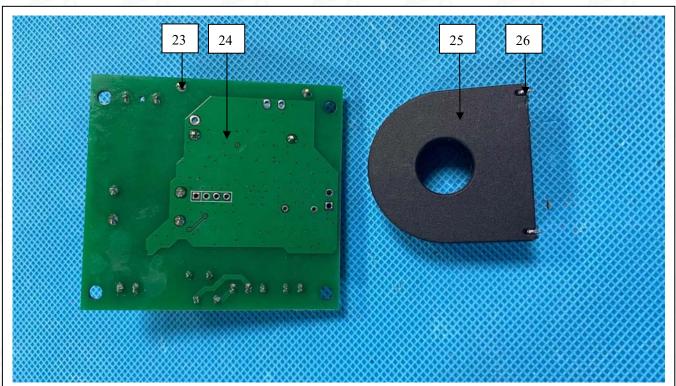












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Sample No.	Sample Description	Remark
	Black glue	(KAY) - (KAY)
2	Copper colored metal wire	
3	Optocoupler	-
4	Green sticker with white printing	to the
5	Black plastic	
6	Resistor	
7	IC	160
8	Diode	to to
9	LED	/K@\`J - VK@\`
10	Diode	
11	Black glue	1600
12	Copper colored metal wire	- //-
13	Resistor	50 - 50 C
14	Capacitor	
15	Capacitor	Tell - Tell
16	Resistor	-
17	IC	THE PROPERTY
18	Rectifier bridge	MADI AVEDI A
19	Green plastic	Telegraph Telegraph
20	Silver metal	-
21	Silver metal	F 8 - F 8
22	Silver metal screw	MENT REST
23	Silver solder tin	Teel Teel
24	PCB	-
25	Black plastic	tto tto
26	Silver metal pin	(A) - ((A)



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Date: August 24, 2023



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Verification Report

Test Result(s):

Heavy Metals, Flame Retardants Content - European Council Directive 2011/65/EU on the Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment (RoHS) with its Amendments Commission **Delegated Directive (EU) 2015/863**

Sample No.	mple No. Test Item XRF screening Result Result of Wet Chem (mg/kg)		Result of Wet Chemical Testing (mg/kg)	Conclusion	
	Pb	BL	to the	PASS	
	Cd	BL		PASS	
X (23.7)	Hg	BL		PASS	
New Merch	Cr (VI)	BL	all rule Vall	PASS	
	PBBs	IN	ND	PASS	
co	PBDEs	IN	ND	PASS	
C C	Pb	BL		PASS	
34 X D	Cd	BL	A CONTACTOR A	PASS	
2	Hg	BL		PASS	
2	Cr (VI)	BL	-	PASS	
	PBBs	NA	-	-	
0, 16	PBDEs	NA	the the	En H	
Y VI	Pb	BL	UKAY UKAY U	PASS	
> × (1	Cd	BL		PASS	
3	Hg	BL	Vest - Vest	PASS	
3	Cr (VI)	BL	-	PASS	
1111-	PBBs	BL	they	PASS	
6	PBDEs	BL		PASS	
A DECT	Pb	BL		PASS	
The state of the s	Cd	BL		PASS	
4	Hg	BL	e (é	PASS	
4	Cr (VI)	BL	Mar Mar.	PASS	
0 15	PBBs	BL		PASS	
NU VA	PBDEs	BL	VARIL VARIL VI	PASS	
The state	Pb	BL		PASS	
- 19	Cd	BL	166	PASS	
5	Hg	BL	-	PASS	
3	Cr (VI)	BL	150 - 150 N	PASS	
C F	PBBs	BL		PASS	
) Y ((PBDEs	BL		PASS	
1	Pb	BL	Teste - Teste	PASS	
	Cd	BL	-	PASS	
6	Hg	BL	- //- //-	PASS	
	Cr (VI)	IN	ND	PASS	
	PBBs	BL	EN VARIOUS VARI	PASS	
	PBDEs	BL		PASS	
1	Pb	BL		PASS	
_	Cd	BL	- H	PASS	
7	Hg	BL		PASS	
	Cr (VI)	BL	VACUL VACUL V	PASS	

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Sample No.	Test Item	XRF screening Result	Result of Wet Chemical Testing (mg/kg)	Conclusion
	PBBs	BL	Allera - Allera -	PASS
TO IF	PBDEs	BL		PASS
77 AV	Pb	BL	VARIU VARIU VI	PASS
	Cd	BL		PASS
o	Hg	BL	1/55	PASS
8	Cr (VI)	BL	-	PASS
15	PBBs	BL	TO PEON PEN	PASS
VASY	PBDEs	BL		PASS
	Pb	BL		PASS
New York	Cd	BL		PASS
9	Hg	BL	-	PASS
9	Cr (VI)	BL	15 c - 15 c 16	PASS
M VEA	PBBs	BL	KKAY KKAY U	PASS
	PBDEs	BL		PASS
	Pb	BL	Tell - Velle	PASS
	Cd	BL	-	PASS
10	Hg	BL	-	PASS
10	Cr (VI)	BL	15 4 - 15 4 B	PASS
N VA	PBBs	BL	U (C)	PASS
W XU	PBDEs	BL		PASS
	Pb	BL	Action News	PASS
	Cd	BL	-	PASS
11	Hg	BL	to the	PASS
11	Cr (VI)	BL		PASS
	PBBs	BL		PASS
To the	PBDEs	BL	all the said	PASS
	Pb	BL	-	PASS
2 16	Cd	BL //	115-x2 - 115-x2 11	PASS
12	Hg	BL		PASS
12	Cr (VI)	BL	A CON A CON AL	PASS
y 33	PBBs	NA		- N
	PBDEs	NA	-	-
	Pb	OL	2806#	EXEMPTED
d 15	Cd	BL	the thing the	PASS
13	Hg	BL	WKAY WKAY U	PASS
15	Cr (VI)	IN	ND	PASS
1	PBBs	BL	Neell Neell N	PASS
	PBDEs	BL	-	PASS
14	Pb	BL		PASS
	Cd	BL		PASS
	Hg	BL		PASS
14	Cr (VI)	BL		PASS
	PBBs	BL		PASS
. 16	PBDEs	BL	Mary Mary	PASS
15	Pb	BL		PASS

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Guangdong Safety Testing Co., Ltd.

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Sample No.	Test Item	XRF screening Result	Result of Wet Chemical Testing (mg/kg)	Conclusion
	Cd	BL	Man Man	PASS
S 15	Hg	BL		PASS
NI VA	Cr (VI)	BL	VARIL VARIL VI	PASS
	PBBs	BL		PASS
i N	PBDEs	BL		PASS
	Pb	BL	-	PASS
150	Cd	BL		PASS
16	Hg	BL	OVI WASVI WASV	PASS
16	Cr (VI)	BL		PASS
1	PBBs	BL		PASS
	PBDEs	BL	-	PASS
0, 16	Pb	BL	150 - 150 N	PASS
19 64	Cd	BL	WKAY WKAY U	PASS
17	Hg	BL	X (000) -X (000) -X (000)	PASS
17	Cr (VI)	BL	New - New 1	PASS
	PBBs	BL	-	PASS
	PBDEs	BL	-	PASS
Q B	Pb	OL	20554#	EXEMPTED
CH WA	Cd	BL	WANY WANY W	PASS
	Hg	BL		PASS
18	Cr (VI)	BL	Nell - Nelle N	PASS
	PBBs	BL	-	PASS
1111-8-	PBDEs	BL	the state of the s	PASS
R/AV	Pb	BL	20 6/20 6/20	PASS
VARAL	Cd	BL	331 V (331 V (33	PASS
	Hg	BL	11 X - 11 X - 11 X	PASS
19	Cr (VI)	BL		PASS
	PBBs	BL BL	116 116 11	PASS
80 B	PBDEs	BL		PASS
NU VI	Pb	BL	VERSU VERSU VI	PASS
	Cd	BL	-	PASS
1	Hg	BL	-	PASS
20	Cr (VI)	BL	_	PASS
cs	PBBs	NA NA	150 -150	-
C I	PBDEs	NA NA		
31 V (Pb	OL	24989#	EXEMPTED
A STATE OF THE STA	Cd	BL	-	PASS
21	Hg	BL	-	PASS
	Cr (VI)	BL		PASS
	PBBs	NA NA		PASS -
	PBDEs	NA NA		
	PBDES		20 / (E-2) / (E2)	- PASS
		BL	all Laille Dadle	
22	Cd	BL	-	PASS
S. 16	Hg	BL	16-1-1 - 16-1-1 - 1	PASS
V 181	Cr (VI)	BL		PASS

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Sample No. Test Item		XRF screening Result	Result of Wet Chemical Testing (mg/kg)	Conclusion
	PBBs	NA	- 16m	· .//
8 6	PBDEs	NA		NO - 57
NV V	Pb	BL	VARIL VARIL VA	PASS
Self Programme	Cd	BL		PASS
22	Hg	BL	1660 - 1660	PASS
23	Cr (VI)	BL	-	PASS
150	PBBs	NA		1500
V KAN'I	PBDEs	NA	ON VACY VACY	V KAN'I
Z CONT	Pb	BL		PASS
1	Cd	BL		PASS
24	Hg	BL	-	PASS
24	Cr (VI)	BL	150 - 150 B	PASS
	PBBs	IN	ND	PASS
	PBDEs	IN	ND	PASS
(T)	Pb	BL	New - New N	PASS
	Cd	BL	-	PASS
25	Hg	BL	-	PASS
25	Cr (VI)	BL	15 4 -15 4 15	PASS
17 61	PBBs	IN	ND	PASS
	PBDEs	IN	ND	PASS
The state of	Pb	BL	\@# - \@# N	PASS
26	Cd	BL	-	PASS
	Hg	BL	-0 15-0 15-0	PASS
	Cr (VI)	BL		PASS
V (22)	PBBs	NA		
-11	PBDEs	NA	11 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1-11/2

Phthalates Content - European Council Directive 2011/65/EU on the Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment (RoHS) with its Amendments Commission Delegated Directive (EU) 2015/863

Commis No		Result	(mg/kg)		Complemien
Sample No.	DBP	BBP	DEHP	DIBP	Conclusion
5+19+25	ND	ND	ND	ND	PASS
9+24	ND	ND	ND	ND	PASS

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Remark:

- It is the result on total Br while test item is PBBs/PBDEs. It is the result on total Cr while test item is Cr (VI).
- Results are obtained by EDXRF for primary screening, and further chemical testing by ICP(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 62321-3:2013 (unit: mg/kg).

Element	Polymer	Metal	Composite Materials
Pb	BL≤(700-3σ) <x<(1300+3σ)≤ol< td=""><td>BL≤(700-3σ)<x<(1300+3σ)≤ol< td=""><td>BL≤(500-3σ)<x<(1500+3σ)≤ol< td=""></x<(1500+3σ)≤ol<></td></x<(1300+3σ)≤ol<></td></x<(1300+3σ)≤ol<>	BL≤(700-3σ) <x<(1300+3σ)≤ol< td=""><td>BL≤(500-3σ)<x<(1500+3σ)≤ol< td=""></x<(1500+3σ)≤ol<></td></x<(1300+3σ)≤ol<>	BL≤(500-3σ) <x<(1500+3σ)≤ol< td=""></x<(1500+3σ)≤ol<>
Cd	BL \leq (70-3 σ) $<$ X $<$ (130+3 σ) \leq OL	BL \leq (70-3 σ) $<$ X $<$ (130+3 σ) \leq OL	LOD <x<(150+3σ)≤ol< td=""></x<(150+3σ)≤ol<>
Hg	BL≤(700-3σ) <x<(1300+3σ)≤ol< td=""><td>BL≤(700-3σ)<x<(1300+3σ)≤ol< td=""><td>BL≤(500-3σ)<x<(1500+3σ)≤ol< td=""></x<(1500+3σ)≤ol<></td></x<(1300+3σ)≤ol<></td></x<(1300+3σ)≤ol<>	BL≤(700-3σ) <x<(1300+3σ)≤ol< td=""><td>BL≤(500-3σ)<x<(1500+3σ)≤ol< td=""></x<(1500+3σ)≤ol<></td></x<(1300+3σ)≤ol<>	BL≤(500-3σ) <x<(1500+3σ)≤ol< td=""></x<(1500+3σ)≤ol<>
Cr	BL≤(700-3σ) <x< td=""><td>BL≤(700-3σ)<x< td=""><td>BL≤(500-3σ)<x< td=""></x<></td></x<></td></x<>	BL≤(700-3σ) <x< td=""><td>BL≤(500-3σ)<x< td=""></x<></td></x<>	BL≤(500-3σ) <x< td=""></x<>
Br	BL≤(300-3σ) <x< td=""><td></td><td>BL≤(250-3σ)<x< td=""></x<></td></x<>		BL≤(250-3σ) <x< td=""></x<>

- ND = Not Detected (<MDL)
- mg/kg = milligram(s) per kilogram = ppm = part(s) per million
- MDL = Method Detection Limit
- BL = Below Limit
- OL = Over Limit
- IN = Inconclusive
- NA= Not Applicable
- The XRF screening test for RoHS elements The reading may be different to the actual content in the sample be of non-uniformity composition.
- For Metal sample:
 - a. The sample is positive for CrVI if the CrVI concentration is greater than 0.13µg/cm². The sample coating is considered to contain CrVI.
 - b. The sample is negative for CrVI if CrVI is ND(concentration less than 0.10µg/cm²). The coating is considered a non-CrVI based coating.
 - c. The result between 0.10μg/cm² and 0.13μg/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.
- "#" According to the client's statement, Lead (Pb) in No.21 are exempted by EU ROHS Directive 2011/65/EU base on Annex III 6(c): Copper alloy containing up to 4%(40000 mg/kg) lead by weight.
- "#" According to the client's statement, Lead (Pb) in No.18 is exempted by EU ROHS Directive 2011/65/EU base on Annex III 7(a): Lead in high melting temperature type solders (i.e. lead-based alloys containing 85% by weight or more lead can be exempted.
- "#" According to the client's statement, Lead (Pb) in No.13 is exempted by EU ROHS Directive 2011/65/EU base on Annex III 7(c)-I: Electrical and electronic components containing lead in a glass or ceramic other than dielectric ceramic in capacitors, e.g. piezoelectronic devices, or in a glass or ceramic matrix compound.

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Test Items and their Test Methods, Equipments, Method Detection Limit and Limit [for European Council Directive 2011/65/EU&(EU)~2015/863]:

Test Items	Test Method	Equipment(s)	Method Detection Limit	Limit
Screening Test	IEC 62321-3-1:2013	XRF		<u> </u>
Pb	IEC 62321-5:2013	ICP-OES/AAS	10mg/kg	1000mg/kg
Cd	IEC 62321-5:2013	ICP-OES/AAS	10mg/kg	100mg/kg
Hg	IEC 62321-4:2013+AMD1:2017	ICP-OES	10mg/kg	1000mg/kg
Cr	IEC 62321-5:2013	ICP-OES	10mg/kg	<u> </u>
Cr (VI)	IEC 62321-7-2:2017	UV-VIS	10mg/kg	1000mg/kg
	IEC 62321-7-1:2015	UV-VIS	$0.10 \mu \text{g/cm}^2$	1000mg/kg
PBBs	IEC 62321-6:2015	GC-MS	50mg/kg	1000mg/kg
PBDEs	IEC 62321-6:2015	GC-MS	50mg/kg	1000mg/kg
DBP	IEC 62321-8:2017	GC-MS	100mg/kg	1000mg/kg
BBP	IEC 62321-8:2017	GC-MS	100mg/kg	1000mg/kg
DEHP	IEC 62321-8:2017	GC-MS	100mg/kg	1000mg/kg
DIBP	IEC 62321-8:2017	GC-MS	100mg/kg	1000mg/kg

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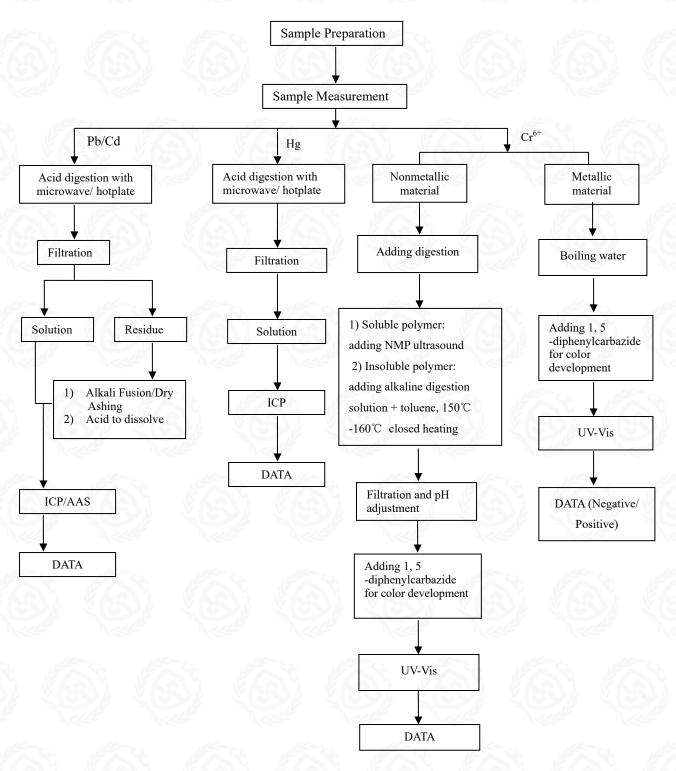
el:86-769-23105888 Fax: 86-769-22899858







Pb/Cd/Hg/Cr⁶⁺ Testing Flow Chart



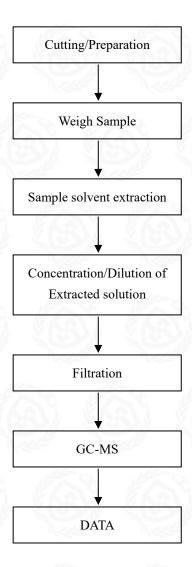
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PBBs/PBDEs Testing Flow Chart

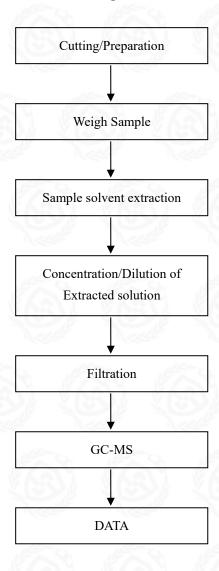








Phthalates Testing Flow Chart



End of Report

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