

# **TEST REPORT**

APPLICANT	:	Suzhou HCTech Technology Co., Ltd
ADDRESS	:	1402, No.1699, Zuchongzhi Road 215300 Kunshan Jiangsu, China
SAMPLE DESCRIPTION	:	RFID UHF IC
ITEM NO.	:	SWP-U1/U1M
COUNTRY OF ORIGIN	:	Switzerland
SAMPLE RECEIVED DATE	:	01-Jun-2021
TURN AROUND TIME	:	01-Jun-2021 to 16-Jun-2021
TEST SPECIFICATION	:	Total concentration of Lead, Cadmium, Mercury, Chromium VI, Polybrominated Biphenyls (PBBs), Polybrominated Diphenyl Ethers (PBDEs), Bis(2-ethylhexyl) phthalate (DEHP), Butyl benzyl phthalate (BBP), Dibutyl phthalate (DBP) and Diisobutyl phthalate (DIBP) in accordance with EC Directive 2011/65/EU and its amendment Directive (EU) 2015/863 (RoHS)
CONCLUSION	:	Based on the analysis on the submitted sample(s), the test results do comply with the concentration limits as specified in Annex II to Directive 2011/65/EU and its amendment Directive (EU) 2015/863.

The following test item(s) was/were performed on submitted sample(s) and/or component(s) appointed by applicant.

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\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\* FOR FURTHER DETAILS, PLEASE REFER TO THE FOLLOWING PAGE(S) \*

Signed for and on behalf of Eurofins Product Testing Service (Shanghai) Co., Ltd. Hangzhou Branch

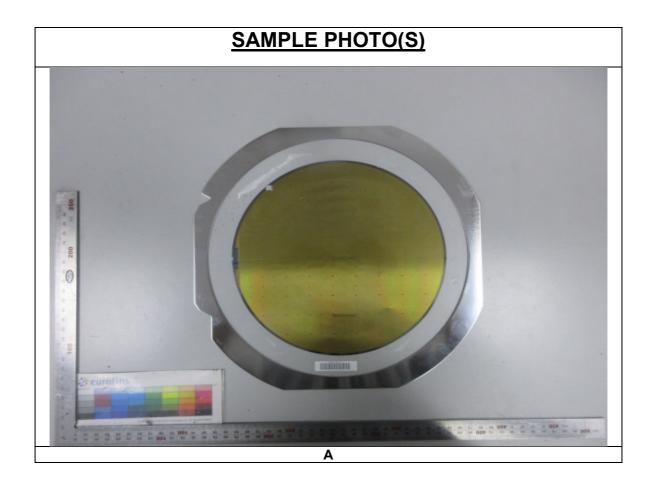
Lincoln Shi Assistant Lab Manager of HZ Chemical Laboratory

Samples are obtained by express delivery, Results obtained refer only to samples, products or material received in Laboratory, as described in point related to sample description, and tested in conditions shown in present report. Eurofins Product Testing Service (Shanghai) Co., Ltd ensures that this job has been performed according to our Quality System and complying contract and legal conditions. If you happen to have any comments, please do it by sending email to <u>info.hz@eurofins.com</u> and referring to this report number. Reproduction of this document is only valid if it is done completely and under the written permission of Eurofins Product Testing Service (Shanghai) Co., Ltd. If you happen to have any complaints, please do it by sending email to <u>chinacomplaint@eurofins.com</u> and referring to this report number.

Eurofins Product Testing Service (Shanghai) Co., Ltd. Hangzhou Branch Room 301-307,3/F., Room 417-422,4/F., NO.1 Building 1, No.1180, Bin'an Road, Binjiang District, Hangzhou, Zhejiang, China



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\*\*\*TO BE CONTINUED\*\*\*



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## **COMPONENT PHOTO(S)**



\*\*\*TO BE CONTINUED\*\*\*



# TEST RESULT

### <u>Part 1</u>

### A. Screening Test by XRF Spectroscopy

As specified by client, to analyze the contents of Lead, Cadmium, Mercury, Chromium, Bromine in the submitted sample by XRF. Screening limits in mg/kg for regulated elements in various matrices according to IEC 62321-3-1:2013

		Test Results (mg/kg)					
		Cd	Pb	Hg	Cr	Br	
No.	Component	Limit (mg/kg)					
		100	1000	1000	Cr(VI):	PBB:1000	
					1000	PBDE:1000	
1	Clear plastic film with gold coating	BL	BL	BL	BL	BL	

Abbreviation:	Pb	denotes Lead
	Cd	denotes Cadmium
	Hg	denotes Mercury
	Cr	denotes Chromium
	Cr(VI)	denotes Chromium(VI)
	Br	denotes Bromine
	PBBs	denotes Total Polybrominated Biphenyls
	PBDEs	denotes Total Polybrominated Diphenyl Ethers
	NA	denotes Not Applicable
	NC	denotes Not Conclusive
	BL	denotes Below limit

XRF Screening limits for different materials:

Element	Polymers	Metals	Composite Material
Cd	BL ≤(70-3σ) <x (130+3σ)<br="" <="">≤ OL</x>	BL ≤ (70-3σ) < X < (130+3σ) ≤OL	LOD <x< (150+3σ)="" td="" ≤ol<=""></x<>
Pb	BL ≤ (700-3σ) <x <<br="">(1300+3σ) ≤OL</x>	BL ≤ (700-3σ) < X < (1300+3σ) ≤ OL	BL ≤ (500-3σ) < X < (1500+3σ) ≤ OL
Hg	BL ≤ (700-3σ) < X < (1300+3σ) ≤ OL	BL ≤ (700-3σ) < X < (1300+3σ) ≤ OL	BL ≤ (500-3σ) <x <<br="">(1500+3σ) ≤OL</x>
Br	BL ≤(300-3σ) < X	/	BL ≤ (250-3σ) < X
Cr	BL ≤ (700-3σ) <x< td=""><td>BL ≤ (700-3σ)  <i>≤</i>X</td><td>BL≤(500-3σ) <x< td=""></x<></td></x<>	BL ≤ (700-3σ) <i>≤</i> X	BL≤(500-3σ) <x< td=""></x<>

#### Note:

**BL= Below limit** 

X = The region where further investigation is necessary

OL = Over limit

 $3\sigma$  = The repeatability of the analyzer at the action level

LOD = Limit of detection

XRF testing results are only used for reference.

#### \*\*\*TO BE CONTINUED\*\*\*

Eurofins Product Testing Service (Shanghai) Co., Ltd. Hangzhou Branch

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## **TEST RESULT**

### Part 2

Diisobutyl phthalate (DIBP), Bis (2- ethylhexyl) phthalate (DEHP), Butyl benzyl phthalate (BBP) and Dibutyl phthalate (DBP)

Test specification : Total concentration of Bis(2-ethylhexyl) phthalate (DEHP) , Butyl benzyl phthalate (BBP) , Dibutyl phthalate (DBP) and Diisobutyl phthalate (DIBP) in accordance with EC Directive 2011/65/EU and its amendment Directive (EU) 2015/863 (RoHS)

Test method : IEC 62321-8:2017

Limit : Annex II to Directive 2011/65/EU and its amendment Directive (EU) 2015/863

	Test Results (%)					
Component	DIBP	DEHP	BBP	DBP		
	Limit (%)					
	0.1%	0.1%	0.1%	0.1%		
1	ND	ND	ND	ND		

#### Note:

ND = Not Detected (<0.005%) 0.1% equals to 1000 mg/kg

#### \*\*\*END OF THE REPORT\*\*\*