

TEST REPORT

CheckCode:091758
Report No. : C201802269007-19

Applicant: Shanghai SIMCom Wireless Solutions Ltd
Address: No.633 JinZhong Rd.,ChangNing District Shanghai,PR China

Report on the submitted sample(s) said to be:

Name: GSM/GPRS Wireless Module SIM800C
Material No.: -----
Product Series: -----
Supplier Code: -----
Manufacturer: -----

Date of Receipt: Mar.8, 2018 **Test period:** Mar.8, 2018 – Mar.14, 2018

Test Request: Please refer to following page(s).

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

Conclusion: Please refer to following page(s).

Edited by Zoe Tang Reviewed by Zhou Shilai Approved by Yoland Yan

Seal of:

GUANGZHOU GRG METROLOGY & TEST CO., LTD.

Issue date: Mar.14, 2018

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GUANGZHOU GRG METROLOGY & TEST CO., LTD.

Address: 163 Pingyun Road West of Huangpu Avenue Tianhe District Guangzhou City, 510656, P. R. China

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No.	Test Item	Client and Regulation Requirements	Conclusion
1	RoHS (2011/65/EU) and its amendment directives	Pb, Cd, Hg, Cr(VI), PBBs, PBDEs, DEHP, BBP, DBP, DIBP	Comply

RoHS

Test Methods:

Test Item(s)	Test method	Measuring instrument	MDL	Client's Limit
Pb, Cd, Hg, Total Cr, Total Br	IEC 62321-3-1:2013 Ed. 1.0	XRF	20 mg/kg	/
Lead (Pb)	IEC 62321-5:2013 Ed. 1.0	ICP-OES	2 mg/kg	600 mg/kg
Cadmium (Cd)	IEC 62321-5:2013 Ed. 1.0	ICP-OES	2 mg/kg	60mg/kg
Mercury (Hg)	IEC 62321-4:2013 Ed. 1.0	ICP-OES	2 mg/kg	600 mg/kg
Hexavalent Chromium [Cr(VI)]	IEC 62321-7-2:2017 Ed. 1.0	UV-VIS	10 mg/kg	600 mg/kg
	IEC 62321-7-1:2015 Ed. 1.0	UV-VIS	0.10 µg/cm ²	/
PBBs	IEC 62321-6:2015 Ed. 1.0	GC-MS	10 mg/kg	600 mg/kg
PBDEs	IEC 62321-6:2015 Ed. 1.0	GC-MS	10 mg/kg	600 mg/kg
Bis(2-ethylhexyl) phthalate (DEHP)	IEC 62321-8:2017 Ed. 1.0	GC-MS	50 mg/kg	600 mg/kg
Butyl benzyl phthalate (BBP)	IEC 62321-8:2017 Ed. 1.0	GC-MS	50 mg/kg	600 mg/kg
Dibutyl phthalate (DBP)	IEC 62321-8:2017 Ed. 1.0	GC-MS	50 mg/kg	600 mg/kg
Diisobutyl phthalate (DIBP)	IEC 62321-8:2017 Ed. 1.0	GC-MS	50 mg/kg	600 mg/kg

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No.	Sample Description	Restricted Substances	Results of XRF	Result of Wet Chemical Testing(mg/kg)	Conclusion
1	Green "PCB"	Pb	BL	/	Comply
		Cd	BL	/	Comply
		Hg	BL	/	Comply
		Cr(VI)	BL	/	Comply
		PBBs	BL	/	Comply
		PBDEs		/	Comply
		DEHP	/	N.D.	Comply
		BBP	/	N.D.	Comply
		DBP	/	N.D.	Comply
		DIBP	/	N.D.	Comply
2	Silvery metal shell (On No.1)	Pb	BL	/	Comply
		Cd	BL	/	Comply
		Hg	BL	/	Comply
		Cr(VI)	BL	/	Comply
		PBBs	/	/	/
		PBDEs	/	/	/
		DEHP	/	/	/
		BBP	/	/	/
		DBP	/	/	/
		DIBP	/	/	/
3	White adhesive plastic sheet with black & red printing (On No.2)	Pb	BL	/	Comply
		Cd	BL	/	Comply
		Hg	BL	/	Comply
		Cr(VI)	BL	/	Comply
		PBBs	BL	/	Comply
		PBDEs		/	Comply
		DEHP	/	N.D.	Comply
		BBP	/	N.D.	Comply
		DBP	/	N.D.	Comply
		DIBP	/	N.D.	Comply
4	Black body (On No.1)	Pb	BL	/	Comply
		Cd	BL	/	Comply
		Hg	BL	/	Comply
		Cr(VI)	BL	/	Comply
		PBBs	BL	/	Comply
		PBDEs		/	Comply
		DEHP	/	N.D.	Comply
		BBP	/	N.D.	Comply
		DBP	/	N.D.	Comply
		DIBP	/	N.D.	Comply

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5	Brown body (On No.1)	Pb	BL	/	Comply
		Cd	BL	/	Comply
		Hg	BL	/	Comply
		Cr(VI)	BL	/	Comply
		PBBs	BL	/	Comply
		PBDEs		/	Comply
		DEHP	/	N.D.	Comply
		BBP	/	N.D.	Comply
		DBP	/	N.D.	Comply
DIBP	/	N.D.	Comply		
6	Dk-grey body (On No.1)	Pb	BL	/	Comply
		Cd	BL	/	Comply
		Hg	BL	/	Comply
		Cr(VI)	BL	/	Comply
		PBBs	BL	/	Comply
		PBDEs		/	Comply
		DEHP	/	N.D.	Comply
		BBP	/	N.D.	Comply
		DBP	/	N.D.	Comply
DIBP	/	N.D.	Comply		
7	Black body (On No.1)	Pb	BL	/	Comply
		Cd	BL	/	Comply
		Hg	BL	/	Comply
		Cr(VI)	BL	/	Comply
		PBBs	BL	/	Comply
		PBDEs		/	Comply
		DEHP	/	N.D.	Comply
		BBP	/	N.D.	Comply
		DBP	/	N.D.	Comply
DIBP	/	N.D.	Comply		
8	Brown body (On No.1)	Pb	BL	/	Comply
		Cd	BL	/	Comply
		Hg	BL	/	Comply
		Cr(VI)	BL	/	Comply
		PBBs	BL	/	Comply
		PBDEs		/	Comply
		DEHP	/	N.D.	Comply
		BBP	/	N.D.	Comply
		DBP	/	N.D.	Comply
DIBP	/	N.D.	Comply		

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9	Black body (On No.1)	Pb	BL	/	Comply
		Cd	BL	/	Comply
		Hg	BL	/	Comply
		Cr(VI)	BL	/	Comply
		PBBs	BL	/	Comply
		PBDEs		/	Comply
		DEHP	/	N.D.	Comply
		BBP	/	N.D.	Comply
		DBP	/	N.D.	Comply
DIBP	/	N.D.	Comply		
10	Black body (small)(On No.1)	Pb	BL	/	Comply
		Cd	BL	/	Comply
		Hg	BL	/	Comply
		Cr(VI)	BL	/	Comply
		PBBs	BL	/	Comply
		PBDEs		/	Comply
		DEHP	/	N.D.	Comply
		BBP	/	N.D.	Comply
		DBP	/	N.D.	Comply
DIBP	/	N.D.	Comply		
11	Silvery body (On No.1)	Pb	BL	/	Comply
		Cd	BL	/	Comply
		Hg	BL	/	Comply
		Cr(VI)	BL	/	Comply
		PBBs	BL	/	Comply
		PBDEs		/	Comply
		DEHP	/	N.D.	Comply
		BBP	/	N.D.	Comply
		DBP	/	N.D.	Comply
DIBP	/	N.D.	Comply		
12	White body (On No.1)	Pb	BL	/	Comply
		Cd	BL	/	Comply
		Hg	BL	/	Comply
		Cr(VI)	BL	/	Comply
		PBBs	BL	/	Comply
		PBDEs		/	Comply
		DEHP	/	N.D.	Comply
		BBP	/	N.D.	Comply
		DBP	/	N.D.	Comply
DIBP	/	N.D.	Comply		

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13	Silvery metal solder (On No.1)	Pb	BL	/	Comply
		Cd	BL	/	Comply
		Hg	BL	/	Comply
		Cr(VI)	BL	/	Comply
		PBBs	/	/	/
		PBDEs	/	/	/
		DEHP	/	/	/
		BBP	/	/	/
		DBP	/	/	/
DIBP	/	/	/		

Remark:

- (1) XRF result is on total Br while test item on restricted substances is PBBs/PBDEs. XRF result is on total Cr while test item on restricted substances is Cr(VI).
- (2) The XRF result is 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 the client's limits (unit: mg/kg)

Element	Polymer	Metal	Composite Materials
Cd	$BL \leq (40-3\sigma) < X < (80+3\sigma) \leq OL$	$BL \leq (40-3\sigma) < X < (80+3\sigma) \leq OL$	$LOD < X < (90+3\sigma) \leq OL$
Pb	$BL \leq (420-3\sigma) < X < (780+3\sigma) \leq OL$	$BL \leq (420-3\sigma) < X < (780+3\sigma) \leq OL$	$BL \leq (300-3\sigma) < X < (900+3\sigma) \leq OL$
Hg	$BL \leq (420-3\sigma) < X < (780+3\sigma) \leq OL$	$BL \leq (420-3\sigma) < X < (780+3\sigma) \leq OL$	$BL \leq (300-3\sigma) < X < (900+3\sigma) \leq OL$
Br	$BL \leq (180-3\sigma) < X$	--	$BL \leq (150-3\sigma) < X$
Cr	$BL \leq (420-3\sigma) < X$	$BL \leq (420-3\sigma) < X$	$BL \leq (300-3\sigma) < X$

- (3) BL=Below limit ,IN = Inconclusive, OL=Over limit, LOD=Limit of Detection;
- (4) mg/kg = ppm = 0.0001%;
- (5) “/”= Not Conducted;
- (6) “N.D.”= Not Detected (Below Method Detection Limit);
- (7) For metal sample
- The sample is negative for Cr(VI) if Cr(VI) is N.D.(concentration less than $0.10 \mu\text{g}/\text{cm}^2$).The sample coating is considered a non- Cr(VI) based coating.
 - The sample is positive for Cr(VI) if the Cr(VI) concentration is greater than $0.13 \mu\text{g}/\text{cm}^2$.The sample coating is considered to contain Cr(VI).

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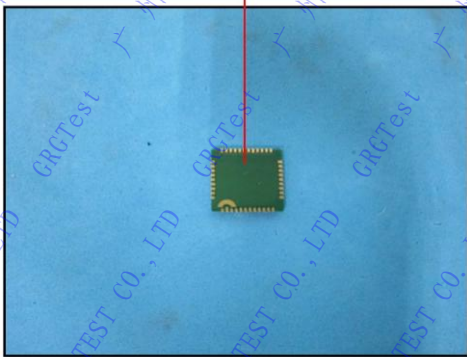
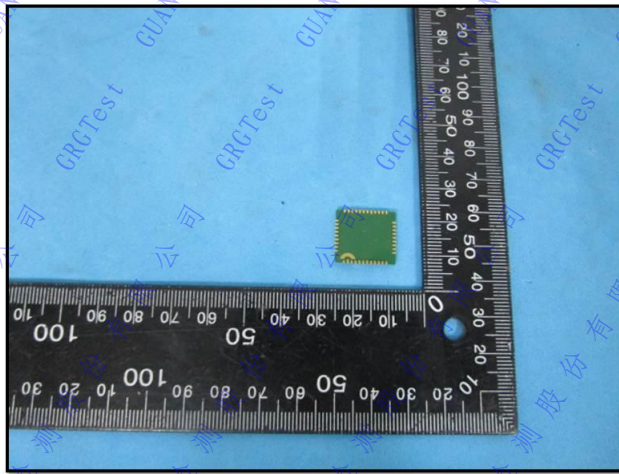
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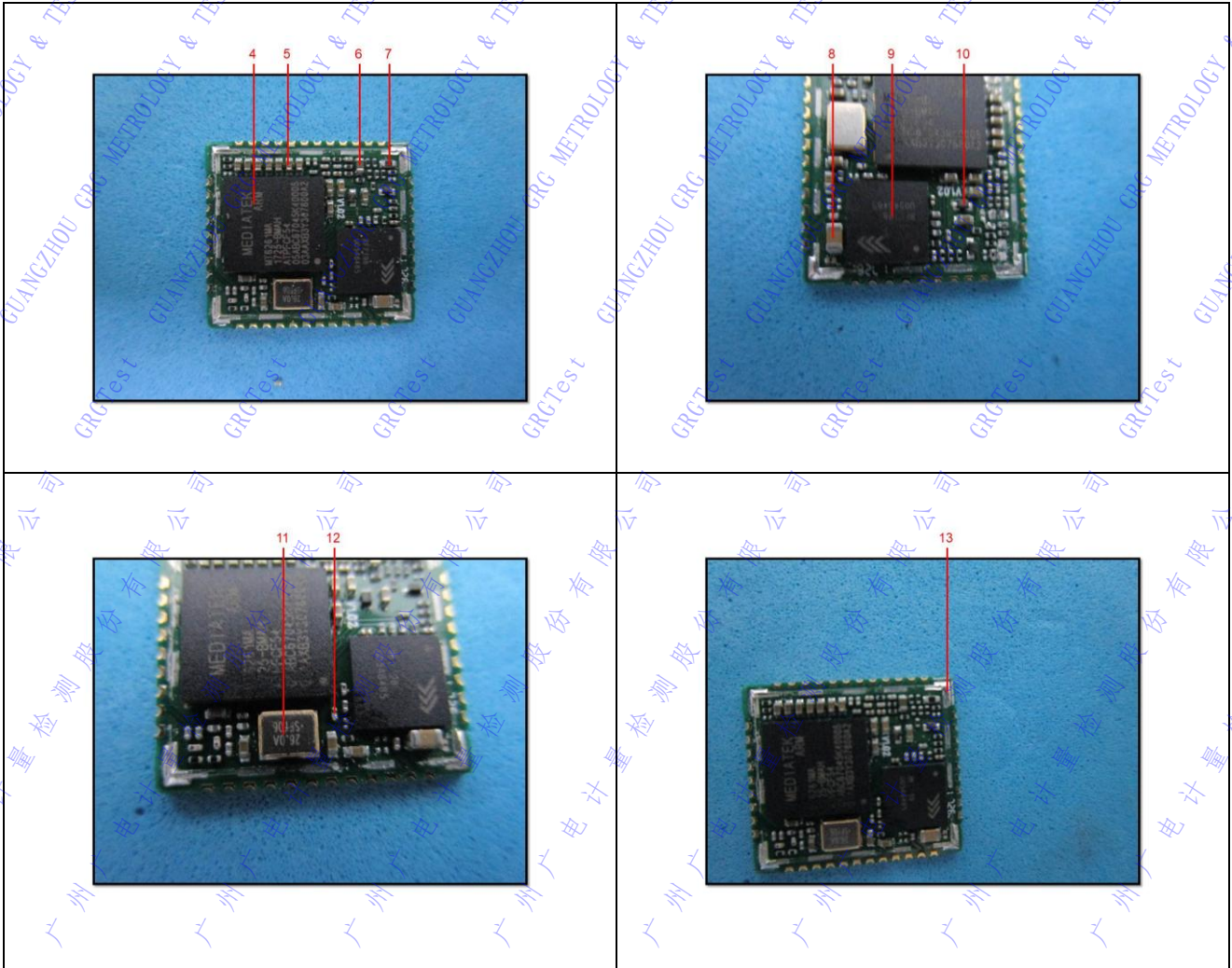
c. The result between $0.10 \mu\text{g}/\text{cm}^2$ and $0.13 \mu\text{g}/\text{cm}^2$ is considered to be inconclusive. unavoidable coating variations may influence the determination.

Photo of Sample



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-----End of Report-----