



TEST REPORT

Report No.: SZ10060006R01
Sample Name: GSM&GPRS module
Mark & type: SIM340Z
Test Item: Cd、Pb、Hg、Cr⁶⁺、PBB、PBDE
Date: 2010-06-09

prepared for

Shanghai Simcom Limited
Building A, SIM Technology Building, No.633, Jinzhong Road, Changning District,
Shanghai P.R. China

prepared by

Shenzhen Morlab Communications Technology Co., Ltd.
Morlab Laboratory
3/F, Electronic Testing Building, Shahe Road, Xili,
Nanshan District, Shenzhen, 518055 P. R. China
Tel: +86 755 86130398
Fax: +86 755 86130218

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Sample Name: GSM&GPRS module

Sample Received Date: 2010-06-01

Testing Date: 2010-06-01~2010-06-07

Test Method:

Test item	Procedure	Apparatus
Cd, Pb, Hg, Cr, Br	With reference to IEC 62321: 2008	XRF
Cd, Pb, Hg	With reference to IEC 62321: 2008	ICP-AES or AAS
Cr ⁶⁺	With reference to IEC 62321: 2008	UV-VIS
PBB&PBDE	With reference to IEC 62321: 2008	GC-MS

Test Result: The delivery sample complied with RoHS directive 2002/95/EC

Checked by:

Approved by:



**Tested components**

No.	SAMPLE No.	COMPONENTS	MATERIAL OR COLOR	REMARK
1	A-1	SIM300Z_PCB_V7.03	MIXED	SEE THE PHOTO
2	A-2	IC MERO 32M FLASH+8M SRAM 8MM*10MM RO	MIXED	SEE THE PHOTO
3	A-3	IND HIGH 56NH +/-5% CH0402 RO	MIXED	SEE THE PHOTO
4	A-4	CAP COG 16PF +/-5% 50V CH0402 RO	MIXED	SEE THE PHOTO
5	A-5	PMIC LDO 2.8V/2.8V USP-6B RO	MIXED	SEE THE PHOTO
6	A-6	COVER SIM300 SHIELDING RO	MIXED	SEE THE PHOTO
7	A-7	CAP X5R 10UF +/-20% 6.3V CH0603 RO	MIXED	SEE THE PHOTO
8	A-8	CAP STA 68UF 20% 6.3V PD1.4MM CH1206 RO	MIXED	SEE THE PHOTO
9	A-9	CAP COG 1PF +/-0.25PF 50V CH0402 RO	MIXED	SEE THE PHOTO
10	A-10	EMI FILTER RO	MIXED	SEE THE PHOTO
11	A-11	RES MF 2.2KR +/-5% 1/16W CH 0402 RO	MIXED	SEE THE PHOTO
12	A-12	RES NTC 10KR +/-1% 1/10W CH 0402 RO	MIXED	SEE THE PHOTO
13	A-13	CAP,Z,10UF,16V,CH0805 RO	MIXED	SEE THE PHOTO
14	A-14	26MHZ CRYSTAL OSCILLATOR	MIXED	SEE THE PHOTO
15	A-15	CAP X5R 1UF +/-10% 6.3V CH0402 RO	MIXED	SEE THE PHOTO
16	A-16	CAP COG 100PF +/-5% 50V CH0402 RO	MIXED	SEE THE PHOTO
17	A-17	CAP X7R 10NF +/-10% 25V CH0402 RO	MIXED	SEE THE PHOTO
18	A-18	CAP STA 68UF 20% 6.3V PD1.2MM CH1206 RO	MIXED	SEE THE PHOTO
19	A-19	BEAD 120 OHM +/-25% 500MA CH0402 RO	MIXED	SEE THE PHOTO
20	A-20	26MHZ VCTCXO RO	MIXED	SEE THE PHOTO
21	A-21	CRY 32.768KHZ 12.5PF +/-	MIXED	SEE THE PHOTO



		20PPM RO		
22	A-22	FRAME SIM300 SHIELDING RO	MIXED	SEE THE PHOTO
23	A-23	LDO 1.6-6V 2.8V/2.8V 250MA SON-6 RO	MIXED	SEE THE PHOTO
24	A-24	BASEBAND CHIP	MIXED	SEE THE PHOTO
25	A-25	RF TRANSCIEVER IC RO	MIXED	SEE THE PHOTO
26	A-26	RF TRANSCIEVER IC RO	MIXED	SEE THE PHOTO
27	A-27	FRONT END MODULE RO	/	SEE THE PHOTO
28	A-27-1	SILVERY METAL	SILVERY METAL	SEE THE PHOTO
29	A-27-2	PCB	MIXED	SEE THE PHOTO
30	A-28	BTB CON 0.5PITCH 2.0H 60PIN FEMA RO	/	SEE THE PHOTO
31	A-28-1	BLACK PLASTIC	BLACK PLASTIC	SEE THE PHOTO
32	A-28-2	BROWN PLASTIC	BROWN PLASTIC	SEE THE PHOTO
33	A-28-3	YELLOW METAL	YELLOW METAL	SEE THE PHOTO
34	A-29	BTB-0.5PITCH-60PIN-0.2H RO	/	SEE THE PHOTO
35	A-29-1	BLACK PLASTIC	BLACK PLASTIC	SEE THE PHOTO
36	A-29-2	BROWN PLASTIC	BROWN PLASTIC	SEE THE PHOTO
37	A-29-3	YELLOW METAL	YELLOW METAL	SEE THE PHOTO
38	A-30	RF CONNECTORS	/	SEE THE PHOTO
39	A-30-1	BLACK PLASTIC	BLACK PLASTIC	SEE THE PHOTO
40	A-30-2	SILVERY METAL	SILVERY METAL	SEE THE PHOTO
41	A-30-3	YELLOW METAL	YELLOW METAL	SEE THE PHOTO
42	A-31	ESDA6V1-5W6(E)	MIXED	SEE THE PHOTO
43	A-32	ESDA6V1-5W6-6/TR	MIXED	SEE THE PHOTO

Test result:

No.	Item	Results of EDXRF (P/F/D)	Results of Testing (mg/kg)	Chemical testing limit (mg/kg)	Conclusion (P/F)
A-1	Cd	P	/	<100	P
	Cr(VI)	P	/	<1000	P
	Hg	P	/	<1000	P
	Pb	P	/	<1000	P
	PBBs	P	/	<1000	P
	PBDEs	P	/	<1000	P
A-2	Cd	P	/	<100	P
	Cr(VI)	P	/	<1000	P
	Hg	P	/	<1000	P
	Pb	P	/	<1000	P
	PBBs	P	/	<1000	P
	PBDEs	P	/	<1000	P
A-3	Cd	P	/	<100	P
	Cr(VI)	P	/	<1000	P
	Hg	P	/	<1000	P
	Pb	P	/	<1000	P
	PBBs	P	/	<1000	P
	PBDEs	P	/	<1000	P
A-4	Cd	P	/	<100	P
	Cr(VI)	P	/	<1000	P
	Hg	P	/	<1000	P
	Pb	P	/	<1000	P
	PBBs	P	/	<1000	P
	PBDEs	P	/	<1000	P
A-5	Cd	P	/	<100	P
	Cr(VI)	P	/	<1000	P
	Hg	P	/	<1000	P
	Pb	P	/	<1000	P
	PBBs	D	N.D.	<1000	P
	PBDEs	D	N.D.	<1000	P
A-6	Cd	P	/	<100	P
	Cr(VI)	D	Negative	See remark(5)	P
	Hg	P	/	<1000	P
	Pb	P	/	<1000	P
	PBBs	/	/	<1000	P



	PBDEs	/	/	<1000	P
A-7	Cd	P	/	<100	P
	Cr(VI)	P	/	<1000	P
	Hg	P	/	<1000	P
	Pb	P	/	<1000	P
	PBBs	P	/	<1000	P
	PBDEs	P	/	<1000	P
A-8	Cd	P	/	<100	P
	Cr(VI)	P	/	<1000	P
	Hg	P	/	<1000	P
	Pb	P	/	<1000	P
	PBBs	P	/	<1000	P
	PBDEs	P	/	<1000	P
A-9	Cd	P	/	<100	P
	Cr(VI)	P	/	<1000	P
	Hg	P	/	<1000	P
	Pb	P	/	<1000	P
	PBBs	P	/	<1000	P
	PBDEs	P	/	<1000	P
A-10	Cd	P	/	<100	P
	Cr(VI)	P	/	<1000	P
	Hg	P	/	<1000	P
	Pb	P	/	<1000	P
	PBBs	P	/	<1000	P
	PBDEs	P	/	<1000	P
A-11	Cd	P	/	<100	P
	Cr(VI)	D	N.D.	<1000	P
	Hg	P	/	<1000	P
	Pb	P	/	<1000	P
	PBBs	P	/	<1000	P
	PBDEs	P	/	<1000	P
A-12	Cd	P	/	<100	P
	Cr(VI)	P	/	<1000	P
	Hg	P	/	<1000	P
	Pb	P	/	<1000	P
	PBBs	P	/	<1000	P
	PBDEs	P	/	<1000	P



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A-13	Cd	P	/	<100	P
	Cr(VI)	P	/	<1000	P
	Hg	P	/	<1000	P
	Pb	P	/	<1000	P
	PBBs	P	/	<1000	P
	PBDEs	P	/	<1000	P
A-14	Cd	P	/	<100	P
	Cr(VI)	P	/	<1000	P
	Hg	P	/	<1000	P
	Pb	P	/	<1000	P
	PBBs	P	/	<1000	P
	PBDEs	P	/	<1000	P
A-15	Cd	P	/	<100	P
	Cr(VI)	P	/	<1000	P
	Hg	P	/	<1000	P
	Pb	P	/	<1000	P
	PBBs	P	/	<1000	P
	PBDEs	P	/	<1000	P
A-16	Cd	P	/	<100	P
	Cr(VI)	P	/	<1000	P
	Hg	P	/	<1000	P
	Pb	P	/	<1000	P
	PBBs	P	/	<1000	P
	PBDEs	P	/	<1000	P
A-17	Cd	P	/	<100	P
	Cr(VI)	P	/	<1000	P
	Hg	P	/	<1000	P
	Pb	P	/	<1000	P
	PBBs	P	/	<1000	P
	PBDEs	P	/	<1000	P
A-18	Cd	P	/	<100	P
	Cr(VI)	P	/	<1000	P
	Hg	P	/	<1000	P
	Pb	P	/	<1000	P
	PBBs	P	/	<1000	P
	PBDEs	P	/	<1000	P
A-19	Cd	P	/	<100	P
	Cr(VI)	P	/	<1000	P



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	Hg	P	/	<1000	P
	Pb	P	/	<1000	P
	PBBs	P	/	<1000	P
	PBDEs	P	/	<1000	P
A-20	Cd	P	/	<100	P
	Cr(VI)	P	/	<1000	P
	Hg	P	/	<1000	P
	Pb	P	/	<1000	P
	PBBs	P	/	<1000	P
	PBDEs	P	/	<1000	P
A-21	Cd	P	/	<100	P
	Cr(VI)	P	/	<1000	P
	Hg	P	/	<1000	P
	Pb	D	$*2.16 \times 10^4$	<1000	P
	PBBs	P	/	<1000	P
	PBDEs	P	/	<1000	P
A-22	Cd	P	/	<100	P
	Cr(VI)	P	/	<1000	P
	Hg	P	/	<1000	P
	Pb	P	/	<1000	P
	PBBs	/	/	<1000	P
	PBDEs	/	/	<1000	P
A-23	Cd	P	/	<100	P
	Cr(VI)	P	/	<1000	P
	Hg	P	/	<1000	P
	Pb	P	/	<1000	P
	PBBs	P	/	<1000	P
	PBDEs	P	/	<1000	P
A-24	Cd	P	/	<100	P
	Cr(VI)	P	/	<1000	P
	Hg	P	/	<1000	P
	Pb	P	/	<1000	P
	PBBs	D	N.D.	<1000	P
	PBDEs	D	N.D.	<1000	P
A-25	Cd	P	/	<100	P
	Cr(VI)	P	/	<1000	P
	Hg	P	/	<1000	P
	Pb	P	/	<1000	P



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	PBBs	P	/	<1000	P
	PBDEs	P	/	<1000	P
A-26	Cd	P	/	<100	P
	Cr(VI)	P	/	<1000	P
	Hg	P	/	<1000	P
	Pb	P	/	<1000	P
	PBBs	D	N.D.	<1000	P
	PBDEs	D	N.D.	<1000	P
A-27-1	Cd	P	/	<100	P
	Cr(VI)	P	/	<1000	P
	Hg	P	/	<1000	P
	Pb	P	/	<1000	P
	PBBs	/	/	<1000	P
	PBDEs	/	/	<1000	P
A-27-2	Cd	P	/	<100	P
	Cr(VI)	P	/	<1000	P
	Hg	P	/	<1000	P
	Pb	P	/	<1000	P
	PBBs	D	N.D.	<1000	P
	PBDEs	D	N.D.	<1000	P
A-28-1	Cd	P	/	<100	P
	Cr(VI)	P	/	<1000	P
	Hg	P	/	<1000	P
	Pb	P	/	<1000	P
	PBBs	P	/	<1000	P
	PBDEs	P	/	<1000	P
A-28-2	Cd	P	/	<100	P
	Cr(VI)	P	/	<1000	P
	Hg	P	/	<1000	P
	Pb	P	/	<1000	P
	PBBs	P	/	<1000	P
	PBDEs	P	/	<1000	P
A-28-3	Cd	P	/	<100	P
	Cr(VI)	P	/	<1000	P
	Hg	P	/	<1000	P
	Pb	P	/	<1000	P
	PBBs	/	/	<1000	P
	PBDEs	/	/	<1000	P



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A-29-1	Cd	P	/	<100	P
	Cr(VI)	P	/	<1000	P
	Hg	P	/	<1000	P
	Pb	P	/	<1000	P
	PBBs	D	N.D.	<1000	P
	PBDEs	D	N.D.	<1000	P
A-29-2	Cd	P	/	<100	P
	Cr(VI)	P	/	<1000	P
	Hg	P	/	<1000	P
	Pb	P	/	<1000	P
	PBBs	D	N.D.	<1000	P
	PBDEs	D	N.D.	<1000	P
A-29-3	Cd	P	/	<100	P
	Cr(VI)	P	/	<1000	P
	Hg	P	/	<1000	P
	Pb	P	/	<1000	P
	PBBs	/	/	<1000	P
	PBDEs	/	/	<1000	P
A-30-1	Cd	P	/	<100	P
	Cr(VI)	P	/	<1000	P
	Hg	P	/	<1000	P
	Pb	P	/	<1000	P
	PBBs	P	/	<1000	P
	PBDEs	P	/	<1000	P
A-30-2	Cd	P	/	<100	P
	Cr(VI)	P	/	<1000	P
	Hg	P	/	<1000	P
	Pb	P	/	<1000	P
	PBBs	/	/	<1000	P
	PBDEs	/	/	<1000	P
A-30-3	Cd	P	/	<100	P
	Cr(VI)	P	/	<1000	P
	Hg	P	/	<1000	P
	Pb	P	/	<1000	P
	PBBs	/	/	<1000	P
	PBDEs	/	/	<1000	P
A-31	Cd	P	/	<100	P
	Cr(VI)	P	/	<1000	P



	Hg	P	/	<1000	P
	Pb	P	/	<1000	P
	PBBs	P	/	<1000	P
	PBDEs	P	/	<1000	P
A-32	Cd	P	/	<100	P
	Cr(VI)	P	/	<1000	P
	Hg	P	/	<1000	P
	Pb	P	/	<1000	P
	PBBs	P	/	<1000	P
	PBDEs	P	/	<1000	P

Remark:

- (1) It is the result on total Br while test PBBs and PBDEs by EDXRF. It is the result on total Cr while test Hexavalent Chromium by EDXRF.
- (2) Results are obtained by EDXRF for primary screening, and chemical testing by ICP (for Cd, Pb, Hg), UV-VIS (Cr(VI)) and GCMS (for PBBs, PBDEs) is recommended to be performed, if the concentration exceeds the below warning value according to IEC 62321:2008 (unit:mg/kg)

Element	Polymer	Metal	Composite Materials
Cd	$P \leq 70-3 \sigma < D < 130+3 \sigma \leq F$	$P \leq 70-3 \sigma < D < 130+3 \sigma \leq F$	$P \leq 50-3 \sigma < D < 150+3 \sigma \leq F$
Pb	$P \leq 700-3 \sigma < D < 1300+3 \sigma \leq F$	$P \leq 700-3 \sigma < D < 1300+3 \sigma \leq F$	$P \leq 500-3 \sigma < D < 1500+3 \sigma \leq F$
Hg	$P \leq 700-3 \sigma < D < 1300+3 \sigma \leq F$	$P \leq 700-3 \sigma < D < 1300+3 \sigma \leq F$	$P \leq 500-3 \sigma < D < 1500+3 \sigma \leq F$
Br	$P \leq 300-3 \sigma < D$	----	$P \leq 250-3 \sigma < D$
Cr	$P \leq 700-3 \sigma < D$	$P \leq 700-3 \sigma < D$	$P \leq 500-3 \sigma < D$

P = PASS; F = FAIL; D = DETECTED;

- (3) mg/kg = ppm; N.D. = NOT DETECTED (<MDL) Pb, Cd, Hg, Cr(VI): 2mg/kg; PBBs, PBDEs: 5mg/kg
- (4) *= Lead in High-temperature solder is exempted. The item is exempted from the requirements of Article 4, Item 1, (Directive 2002/95/EC).
- (5) Positive indicates the presence of Cr(VI) on the tested areas and result be regarded as not compliance with RoHS requirement. Negative indicates the absence of Cr(VI) on the tested areas and result be regarded as compliance with RoHS requirement.
- (6) According to IEC 62321:2008, result on Cr(VI) for metal sample is shown as Positive/Negative. Positive = Presence of Cr(VI) coating, Negative = Absence of Cr(VI) coating

—End of Report—

Annex: Photo of Sample



