

Date: 2015/09/04

EMBEDIAN, INC. 4F-7, 432 KEELUNG RD., SEC.1, TAIPEI 11051, TAIWAN.

The following sample(s) was/were submitted and identified by/on behalf of the applicant as :

Sample Submitted By	:	EMBEDIAN, INC.
Sample Description	:	SMARC COMPUTER ON MODULE
Style/Item No.	:	SMARC-T335X-XXXXX(WHERE "X" MAY BE ANY ALPHANUMERIC CHARACTER, "I", "G" OR "-")
Sample Receiving Date	:	2015/08/21 and 2015/08/31
Testing Period	:	2015/08/21 to 2015/08/28 and 2015/08/31 to 2015/09/04

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

Conclusion : Based upon the performed tests on submitted samples, the test results comply with the limits of RoHS Directive 2011/65/EU.



1/10

This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at http://www.sgs.com/en/Terms-and-Conditions.aspx and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at http://www.sgs.com/en/Terms-and-Conditions.aspx and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at http://www.sgs.com/en/Terms-and-Conditions.aspx and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at http://www.sgs.com/en/Terms-and-Conditions.aspx and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at http://www.sgs.com/en/Terms-and-Conditions.aspx and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at http://www.sgs.com/en/Terms-and-Conditions.aspx and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at http://www.sgs.com/en/Terms-and-Conditions.aspx and, for electronic format document is document is document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Electronic format document to a transaction from exercising all their rights and obligations under the transaction documents. This document is unlawful and offenders may be prosecuted to the fullest extent of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the company. Any unauthorize



Test Report

Report No.: CX/2015/80136

Date: 2015/09/04

1. Material Fraction Composition

Table 1 The results of XRF screening and chemical test (Unit: mg/kg)

No.	Type of Components		Description	Figure	MDL Cotogony	X-ray S	creening	UV	ICP-AES	GC-MS	Note											
NO.	Type of Components		Description	Figure	MDL Category	Element	Data	Cr (VI)	Pb/Cd/Hg	PBB/PBDE	NOLE											
	PCBA					Pb																
				•		Cd				-												
					Composite Material	Hg																
		1.1	PCBA			Cr				Re	Refer to Table 2											
						Br																
						Cr(VI) PBB					-											
						PBDE																
	L Ball stresses														A REAL PROPERTY AND A REAL		Pb	n.d.				
					- Polymers	Cd	n.d.			1												
						Hg	n.d.															
1		1.2	BEIGE PLASTIC	Parallel		Cr	n.d.															
		1.2	HOUSING						V V	Folymers	Br	n.d.										
						Cr(VI)																
						PBB																
						PBDE																
						Pb Cd	n.d.			4												
						Hg	n.d. n.d.			-												
			SILVER COLORED	Kan		Cr	n.d.			4												
		1.3	METALLIC PIN	TUCO	Metals	Br	n.d.															
				1 per las		Cr(VI)			1													
						PBB	1		1		1											
						PBDE																

2/10

This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at http://www.sgs.com/en/Terms-and-Conditions.aspx and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at http://www.sgs.com/en/Terms-and-Conditions.aspx and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at http://www.sgs.com/en/Terms-and-Conditions.aspx and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at http://www.sgs.com/en/Terms-and-Conditions.aspx and, for electronic format document aspx, Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of client's instruction, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document is unlawful and offenders may be prosecuted to the fullest extent of the company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested.



Date: 2015/09/04

Table 2 The test results on the PCBA (CX/2015/80136-1.1, Top side and Bottom side) by point analysis (Unit: mg/kg)

Point Analysis		5. Figure	Material	X-ray Screening		
Foint Analysis	No.	Figure	Туре	Element	Data	Note
		HOL		Pb	n.d.	-
			O	Cd	n.d.	
87654321	1	P	Composite Material	Hg	n.d.	
		N.	Material	Cr	n.d.	
				Br	n.d.	
				Pb	n.d.	
		S44059 U6	Composite Material	Cd	n.d.	
	2			Hg	n.d.	
				Cr	n.d.	
				Br	n.d.	
		PS PS 52170 52170 626 94	Composite Material	Pb	n.d.	
				Cd	n.d.	
	3			Hg	n.d.	
				Cr	n.d.	_
				Br	n.d.	
				Pb	n.d.	
			Metals	Cd	n.d.	-
9 10 11 12	4			Hg	n.d.	
				Cr	n.d.	
				Br	n.d.	

This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at http://www.sgs.com/en/Terms-and-Conditions.aspx and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at http://www.sgs.com/en/Terms-and-Conditions.aspx and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at http://www.sgs.com/en/Terms-and-Conditions.aspx and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at http://www.sgs.com/en/Terms-and-Conditions.aspx and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at http://www.sgs.com/en/Terms-and-Conditions.aspx and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at http://www.sgs.com/en/Terms-and-Conditions.aspx and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at http://www.sgs.com/en/Terms-and-Conditions.aspx and, for electronic format document is advised that information contained hereon reflects the Company's side reports to a transaction only and within the limits of client's instruction, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction for the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in



Report No.: CX/2015/80136 Date: 2015/09/04 X-ray Screening Material Point Analysis Figure No. Type Element Data Note Pb n.d. Cd n.d. Composite Refer to 5 Hg n.d. Material No.1 in Table 3 8 6 7 5 Cr n.d. Br 310 Pb n.d. Cd n.d. 01000000 Composite 6 Hg n.d. Material Cr n.d. 152 Br Pb n.d. Cd n.d. Composite Refer to 7 Hg n.d. Material No.2 in Table 3 bedec Cr SMARC n.d. 1 10 Br 270 Pb n.d. Cd n.d. Composite 8 Hg n.d. 9 10 12 11 Material Cr n.d. Br n.d.

This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at http://www.sgs.com/en/Terms-and-Conditions.aspx and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at http://www.sgs.com/en/Terms-and-Conditions.aspx and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at http://www.sgs.com/en/Terms-and-Conditions.aspx and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at http://www.sgs.com/en/Terms-and-Conditions.aspx and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at http://www.sgs.com/en/Terms-and-Conditions.aspx and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at http://www.sgs.com/en/Terms-and-Conditions.aspx and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at http://www.sgs.com/en/Terms-and-Conditions.aspx and, for electronic format documents, subject to Terms and Conditions for Electronic format documents at http://www.sgs.com/en/Terms-and-Conditions.aspx and, for electronic format documents, subject to Terms and Conditions for Electronic format documents at http://www.sgs.com/en/Terms-and-Conditions.aspx at the time of its intervention only and within the limits of flectronic format document is subject to the transaction



Report No.: CX/2015/80136 Date: 2015/09/04 X-ray Screening Material **Point Analysis** Figure No. Type Element Data Note Pb n.d. Cd n.d. 0 Composite 9 Hg n.d. 8 5 2 Material 9 Cr n.d. 0 Br n.d. Pb n.d. ¥4 Cd n.d. Composite 10 Hg n.d. Material Cr 176 Br n.d. Pb n.d. Cd n.d. Composite 11 Hg bedaa n.d. Material SMARC Cr n.d. Br n.d. Pb n.d. Cd n.d. Composite 9 10 11 12 12 Hg n.d. Material Cr n.d. Br n.d.

This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at http://www.sgs.com/en/Terms-and-Conditions apx and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at http://www.sgs.com/en/Terms-and-Conditions apx and, for electronic format documents, subject to Terms and Conditions of liability, indemnification and jurisdiction issues additioned in the limitation contained herein. Any holder of this document is advised that information contained herein reflects the Company's findings at the time of its intervention only and within the limits of client's instruction, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document is unlawful and offenders may be prosecuted to the fullest extent of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the content or appearance of this document is unlawful



Report No.: CX/2015/80136 Date: 2015/09/04 X-ray Screening Material **Point Analysis** Figure No. Type Element Data Note Pb n.d. Cd n.d. Composite Refer to 13 Hg n.d. Material No.3 in Table 3 16 14 13 15 Cr n.d. Br 5670 Pb n.d. Cd n.d. Composite Refer to Hg 14 n.d. No.4 in Table 3 Material Cr n.d. 282 Br Pb n.d. Cd n.d. Composite 15 Hg n.d. Material Cr n.d. Br n.d. Pb n.d. Cd n.d. Composite 16 Hg n.d. Material 18 17 Cr n.d. Br n.d.

This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at http://www.sgs.com/en/Terms-and-Conditions.aspx and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at http://www.sgs.com/en/Terms-and-Conditions.aspx and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at http://www.sgs.com/en/Terms-and-Conditions.aspx and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at http://www.sgs.com/en/Terms-and-Conditions.aspx and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at http://www.sgs.com/en/Terms-and-Conditions.aspx and, for electronic format document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of client's instruction, if any. The Company's sole responsibility is to its Client and this document cannot be reproduced, except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested.



Test Report	Report No.: CX/	2015/80136			Dat	e: 2015/09/04
Point Analysis	No.	Figure	Material		X-ray Screening	I
Foint Analysis	NO.	Figure	Туре	Element	Data	Note
		107		Pb	n.d.	
				Cd	n.d.	
	17	02	Composite Material	Hg	n.d.	
				Cr	339	
				Br	n.d.	
				Pb	n.d.	
				Cd	n.d.	
	18		Composite Material	Hg	n.d.	
17 18			matorial	Cr	n.d.	
		The second second		Br	n.d.	

7/10

This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at http://www.sgs.com/en/Terms-and-Conditions.aspx and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at http://www.sgs.com/en/Terms-and-Conditions.aspx and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at http://www.sgs.com/en/Terms-and-Conditions.aspx and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at http://www.sgs.com/en/Terms-and-Conditions.aspx and, for electronic format documents, subject to Terms and Conditions for Electronic Document aspx, attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limitation of the Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document is unlawful and offenders may be prosecuted to the fullest extent of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested.



Test Report

Report No.: CX/2015/80136

Date: 2015/09/04

Table 3 The confirming test results for point analysis on PCBA (Unit: mg/kg)

Type of Components	Description		Figure	MDL Category	Substance	UV	ICP-AES	GC-MS	Note
Type of Components			rigure	MDL Category	Gubstanoe	Cr (VI)	Pb/Cd/Hg	PBB/PBDE	Note
					Pb				
					Cd				
					Hg				
	1	ELECTRONIC	CF425.	Component Material	Cr				
	•	1 COMPONENT	CF425		Br				
					Cr(VI)				-
					PBB			n.d.	
					PBDE			n.d.	
			3 5 00		Pb Cd				
				-					
					Hg Cr				
	2		Component N	Component Material	Br				
				-	Cr(VI)				
					PBB			n.d.	-
A REAL PROPERTY AND ADDRESS OF TAXABLE PROPERTY AD					PBDE			n.d.	
					Pb				
					Cd				
					Hg				
	2	ELECTRONIC	03	Component Material	Cr				
Ce and	3	COMPONENT		Component Material	Br				
•					Cr(VI)				
					PBB			n.d.	
					PBDE			n.d.	
					Pb			ļ	
					Cd				
					Hg				
	4	ELECTRONIC		Component Material	Cr				
		COMPONENT			Br				
					Cr(VI)				-
					PBB			n.d.	-
				PBDE			n.d.		

8/10

This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at http://www.sgs.com/en/Terms-and-Conditions.aspx and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at http://www.sgs.com/en/Terms-and-Conditions.aspx and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at http://www.sgs.com/en/Terms-and-Conditions.aspx and, for electronic format document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of client's instruction, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document is unlawful and offenders may be prosecuted to the fullest extent of the company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested.



Date: 2015/09/04

Test Item :		MDL (n	ng/kg)		XRF screening	Test method	Test Item (s):	Unit	Method	MDL
	Category Element	Polymers	Composite Material	Metals	threshold (mg/kg)		PBBs			(mg/kg)
XRF	Pb	50	100	100	500	With reference to	Monobromobiphenyl	mg/kg		5
(X-ray	Cd	50	50	50	50	IEC 62321-3-1: 2013	Dibromobiphenyl	mg/kg		5
fluorescence)	Hg	50	100	100	500		Tribromobiphenyl	mg/kg		5
	Cr	50	100	100	500		Tetrabromobiphenyl	mg/kg		5
	Br	r 50 100 n.a.	n.a.	250		Pentabromobiphenyl	mg/kg		5	
	•		•		•	·	Havebromebiphopul	malka		E

Test Item (s):	Item (s): Test method		Facilities
	With reference to IEC 62321: 2008 (For Polymers and Electronics)	2	UV
Cr(VI)	With reference to IEC 62321: 2008 (For Coatings on Metals)	_*	-
Pb/Cd	With reference to IEC 62321-5: 2013	2	ICP-AES
Hg	Hg With reference to IEC 62321-4: 2013		ICP-AES

	rest item (s).	Onit	Wethod	(mg/kg)
	PBBs			
to	Monobromobiphenyl	mg/kg		5
:	Dibromobiphenyl	mg/kg		5
	Tribromobiphenyl	mg/kg		5
	Tetrabromobiphenyl	mg/kg		5
	Pentabromobiphenyl	mg/kg		5
	Hexabromobiphenyl	mg/kg		5
	Heptabromobiphenyl	mg/kg		5
	Octabromobiphenyl	mg/kg		5
	Nonabromobiphenyl	mg/kg	With reference to IEC	5
	Decabromobiphenyl	mg/kg	62321-6: 2015.	5
	PBDEs		Determination of PBB	
	Monobromodiphenyl ether	mg/kg	and PBDE by GC/MS.	5
	Dibromodiphenyl ether	mg/kg		5
	Tribromodiphenyl ether	mg/kg		5
	Tetrabromodiphenyl ether	mg/kg		5
	Pentabromodiphenyl ether	mg/kg		5
	Hexabromodiphenyl ether	mg/kg		5
	Heptabromodiphenyl ether]	5
	Octabromodiphenyl ether]	5
	Nonabromodiphenyl ether	mg/kg		5
	Decabromodiphenyl ether	mg/kg		5

9/10

This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at http://www.sgs.com/en/Terms-and-Conditions.aspx and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at http://www.sgs.com/en/Terms-and-Conditions.aspx and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at http://www.sgs.com/en/Terms-and-Conditions.aspx and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at http://www.sgs.com/en/Terms-and-Conditions.aspx and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at http://www.sgs.com/en/Terms-and-Conditions.aspx and, for electronic format documents, subject to Terms and Conditions for Electronic Document and State the time of the intervention only and within the limits of client's instruction, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document is unlawful and offenders may be prosecuted to the fullest extent of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested.



Date: 2015/09/04

- 1. mg/kg = ppm
- 2. n.d. = not detected or lower than MDL
- 3. MDL = Method detection limit
- 4. "---" = not conducted
- 5. n.a. = not applicable

The XRF result of Br for metal sample is conducted from semi-quantitative method of polymer. If the Br result is shown as n.d., the reading will be less than 100ppm.

- 6. " " = Not Regulated
- 7. _*:

Spot-test:

Negative = Absence of Cr(VI) coating, Positive = Presence of Cr(VI) coating; (The tested sample should be further verified by boiling-water-extraction method if the spot test result cannot be confirmed.)

Boiling-water-extraction:

Negative = Absence of Cr(VI) coating Positive = Presence of Cr(VI) coating; the detected concentration in boiling-water-extraction solution is equal or greater than 0.02 mg/kg with 50 cm² sample surface area.

- 8. Magnetic samples can not be located on test position and there are breakdown risks on XRF equipment. Therefore, this kind of sample will be conducted chemical test directly.
- 9. If the test result by EDXRF analysis is greater than XRF screening threshold, the test sample should be further conducted by chemical test.

10/10

This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at http://www.sgs.com/en/Terms-and-Conditions.aspx and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at http://www.sgs.com/en/Terms-and-Conditions.aspx and, for electronic format documents, subject to Terms and Conditions for Electronic Company's findings at the time of its intervention only and within the limits of client's instruction, if any. The Company's sole responsibility is to its Client and this document does not exercising at the import in subject to the function only and within the import sinstruction, if any. The Company's sole responsibility is to its Client and this document does not exercising at the import in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this tested.