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Customer : Address :

#### Sample Information:

Sample Name : Charging Cable

Sample Description : Please refer to the following page(s).

Model/Style : MC09

Lot No. : /
Material : /
Buyer : /
Supplier : /
Manufacturer : /

Received Date : Dec.28, 2017

Test Period : Dec.28, 2017~Jan.16, 2018

Test Requested : As specified by customer, to screen Pb, Cd, Hg, Cr, Br content by XRF and

test its accurate content with Chemical method.

#### **Test Method:**

Test Item(s)	Test Method	Equipment	MDL
Pb, Cd, Hg, Cr, Br	IEC 62321-3-1:2013	XRF	5mg/kg
Pb, Cd	IEC 62321-5:2013	ICP-OES	2mg/kg
Hg	IEC 62321-4;2013	ICP-OES	2mg/kg
Cr6+ STING Cr6+	IEC 62321-7-1:2015	UV-Vis	0.10 μg/cm <sup>2</sup>
PBBs, PBDEs	IEC 62321-6:2015	GC-MS	5mg/kg

Note: /

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

Test Conclusion: To test according to the requirements of the customer, the test results of the sample shown

in this report do not exceed the required limit of EU RoHS 2011/65/F

Edited by:

Audited by:

Jennz

Approved by:



### **Test Report**

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#### Test Result(s):

No.	Sample Description	Test Items	Results of XRF (P/F/D)	Results of testing (mg/kg)	Limit (mg/kg)	Unit	Conclusion (P/F)
00 163	WO 202 803	Pb	P	/	≤1000	mg/kg	P 3
863 (4	ESTING 863	S Cd G	Po' No	86° KE 114°	≤100	mg/kg	P ST
.C 96 <sup>3</sup>	Silver metal	Hg M	P (E	6 88 / 3 KE ST	<u>≤1000</u>	mg/kg	P
No.1	ring (	Cr <sup>6+</sup>	P 6	5/11 NO / 863 X	15 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	µg/cm <sup>2</sup>	THO P 863
TEST STIME	10 863 5163 EZIM	PBBs	(S) (MC) 863	TEST TIME 863	≤1000	mg/kg	ESTING S
263 KES	111 8 863 LE	PBDEs	3 5 5 6 8	STES STING	<u>≤</u> 1000	mg/kg	165/ 5/1HG
6 863	(ES) CHINC 86,	Pb	Seg. Legith	863 / XEST / KE	≤1000	mg/kg	80 P (5)
1710 OF	863 TESTIM INC ST	863 Cd And	Porte	40 30° 16°	≤100	mg/kg	o P
STING	863 3 TEST STING	Hg	P 863	ESTINATION SESTINATION OF THE PROPERTY OF THE	≤1000	mg/kg	STIME P SEE
No.2	Silver magnet	Cr <sup>6+</sup>	TEST TIPE SES	6 5 7 6	LIP OTHER	µg/cm <sup>2</sup>	TEST PAGE
863 JAK	51, TIMC 863 14	PBBs	STE STIME	13 1 15 15 15 15 15 15 15 15 15 15 15 15 1	≤1000	mg/kg	STING
√0 °06	TESTING 86 SE	PBDEs	863 KE KIN	16° 13 E STIM	≤1000	mg/kg	867 165
TIME	963 27ES TING	863 Pb STIM	P	TIL 10 1 863 146	≤1000	mg/kg	P <sup>©</sup>
ES, SIMO	10 863 TE3 ESTING	S Cd Cd	P	15 (112) 863	≤100	mg/kg	esting B
6 TEST	USB white	Hg A	P	STEET STEET	≤1000	mg/kg	PIN PIN
No.3	plastic case	Cr <sup>6+</sup> *	P	863 YES TIME	≤1000	mg/kg	P STIN
20 e	3 TEL THE STIME 80 8	PBBs	PIES STI	0 80° / 63 TEST	≤1000	mg/kg	° P
TING -	863 STES STING	PBDEs	Po	211 MG / 863	≤1000	mg/kg	P P So
TES ESTING	NO 863 1 1871	Pb	P 96°	The STIME SO	≤1000	mg/kg	ASTIN PS
863 T 1EST	THE SESSION	Cd	o Track	363 TE THE TIME	≤100	mg/kg	STES PSTING
3 NI 465	USB Golden	Hg	963 PSTING	6 863 KES, STIME	≤1000	mg/kg	S P AST
No.4	touch point	Cr <sup>6+</sup> *	Potest	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	14C - 86	μg/cm <sup>2</sup>	P
STING		PBBs	1 863 X	EST 1140 / 863	≤1000	mg/kg	STIER NO 80 80
TESTING		PBDEs	ESTING 86°	37 1511 NO 80	≤1000	mg/kg	TEST /ING
863 YE	STING 863 53 TE	Pb.	ST ST THE	N.D.	≤1000	mg/kg	Pestin
<i>°∂</i> 6° €∂3, ⊝	Silver solder	Cd	863 PES STIME	6 86 STE ESTIM	≤100	mg/kg	86P <65
TING T		Hg KING	Po Po	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	≤1000	mg/kg	P <sup>6</sup>
No.5		Cr <sup>6+</sup>	III P 863	(ES, ELING ) 869	TES ESTING IG	μg/cm <sup>2</sup>	esting P
3 TESTIN		PBBs	TES STIPS IS SO	363 TESTY 116	≤1000	mg/kg	TEST AIMS
363 × (69)		PBDEs	863 TE / 114C	863 XS SING	≤1000	mg/kg	0 003 TE / 155 THA
<sup>2</sup> C 869	Copper metal line	Pb	963 PES STIM	16 18 18 185TH	≤1000	mg/kg	°P «
ETING G		es Cd result	NO POOT	11170 \ 863 TE	≤100	mg/kg	The Paris
CO THE		Hg	P 863	(ES STIM) 10 86 06	≤1000	mg/kg	(ESTITUTE )
No.6		Cr <sup>6+</sup> *	TE LET P. NO.	863 TEST 1150	863 - (ES)	μg/cm <sup>2</sup>	Paris Barre
963 K		PBBs	863 THE	6 863 3/ES STING	≤1000	mg/kg	863 / 1851
140 8		PBDEs	6 80° 67° (511	10 80 /63 TE /65T	≤1000	mg/kg	99



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No.	Sample Description	Test Items	Results of XRF (P/F/D)	Results of testing (mg/kg)	Limit (mg/kg)	Unit	Conclusion (P/F)
No.7	863 JES	Pb	P	/	≤1000	mg/kg	P %
	140 863 TE	Cd	P	/	≤100	mg/kg	P 🦻
	C THE SES	Hg	P P	66° /E° 114°	≤1000 <	mg/kg	v- P 11111
	Green metal line	Cr <sup>6+</sup> *	P (EST)	6 887 3 TES 51		μg/cm <sup>2</sup>	P LE
STIFF	863 TESTING	PBBs	TO STATES	STING 80 863 TV	≤1000	mg/kg	11HG 1 863
TEST STIME	O SES TESTIM	PBDEs	ESTIT 146/ " 863)	TEST 1118 863	≤1000	mg/kg	ESTING 80
863 XE	11 14C 863 16	Pb 863	3 (65) Pro 6	STES THE NO.	≤1000	mg/kg	TEP THE
	KEST STING 863	Cd C	Beath Beath	663 / 765 1	≤100	mg/kg	P EST
NIC O	Dlug motel line	863 Hg	P C C	4 6 36 13 TES	≤1000	mg/kg	so Box
No.8	Blue metal line	Cr <sup>6+</sup> *	P SO TE	ESTINATION OF BEST	Con The	μg/cm <sup>2</sup>	STING P SO
3 TES 15	WC 363 1E311	PBBs	(F2) (114) 863	C. A. C.	≤1000	mg/kg	TESTIN ING
863 J. K	21 TING 863 TE	PBDEs	63 TE 6 11 11 11 11 11 11 11 11 11 11 11 11 1	A STATE OF THE SECOND	≤1000	mg/kg	3 TES STING
,0 %	TESTING 865 SE	Pb	863 Per Th	163 Y E2 21142	≤1000	mg/kg	P KEST
IL INC S	863 TEST TIME	863 Cd TH	P	THE SOUTH	≤100	mg/kg	NG PG
KS THE	Red metal line	Hg	P	13 1111 863	≤1000	mg/kg	E STIME B
No.9		Cr <sup>6+</sup>	P	Sales Andrews	883 TESTIM	μg/cm <sup>2</sup>	TEST PING
46°	ES, 21140 863	PBBs	1 B 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	863 KEST TIME	≤1000	mg/kg	863 TE ESTIM
, 40 80 A	63 TE TESTIMO 80°	PBDEs	863 JES STI	5 56° / 55° / 55°	≤1000	mg/kg	887 KE
TING -	86° 55 (E) 51HG	Pb	P	211 MG / 863	≤1000	mg/kg	(II <sup>10</sup> 10 P 963 63
LES, ESTING	10 863 TE THE THE	Cd	P 66°	TES STIPS G 86°	≤100	mg/kg	LESTIN PO
% 10ts	The sea of	Hg	s Te get P no st	363 TH TESTING	≤1000	mg/kg	STES PSTING
No.10	Gray wire	Cr <sup>6+</sup>	863 PE THE	6 863 KES, STIMO	≤1000	mg/kg	B P LEST
TING		PBBs	C 800 P. TEST	" " " " " " " " " " " " " " " " " " "	≤1000	mg/kg	e p
STING		PBDEs	THE P SE	EST 1140 / 863	≤1000	mg/kg	SILL P 88
STESTIN	1140 863 (ES)	Pb <sup>®</sup>	E STIMP O	37 ESTIP NO 80	≤1000	mg/kg	TEST PAGE
863 K	Black transistor	Cd Cd	ST THE THE	863 TA STING	≤100	mg/kg	as TP perin
		Hg	86° PES STIME	10 80 00 TESTIN	≤1000	mg/kg	86°P (65°
No.11		Cr <sup>6+</sup>	S Pos RE	1140 /863 TE	≤1000	mg/kg	P S
ESTING TESTING		PBBs	Line B ag	TES ESTING TO BE SES	≤1000	mg/kg	estil in P
63 7 (65/11)		PBDEs	EST P.S	863 TEST THE	≤1000	mg/kg	Price C
140 863 16	Yellow PCB	Pb.	863 KP THY	803 E3 E3 INC	≤1000	mg/kg	SE PESTI
		Cd	BO PIESTIN	No 10 1051	≤100	mg/kg	<sup>6</sup> P. √ <sup>€</sup>
1/1/20		Hg	PS C	. THO 1 863 WE	≤1000	mg/kg	P 863
No.12		Cr <sup>6+</sup>	ELING B 803	TESTING OF SE	≤1000	mg/kg	(E) SIP G
963 (ESIN		PBBs	TEST DING	N.D.	≤1000	mg/kg	PINE COLUMN
		PBDEs	SES J D STIME	o N.D. estima	≤1000	mg/kg	865 P 485



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No.	Sample Description	Test Items	Results of XRF (P/F/D)	Results of testing (mg/kg)	Limit (mg/kg)	Unit	Conclusion (P/F)
TESTING .	E 863 TESTE	Pb	P	/	≤1000	mg/kg	P 86
	14C 863 TE	Cd	P	/	≤100	mg/kg	P 🦻
N- 12 a	(ST. 0) 140 863	Hg	Ps No	86, 18, 14,	≤1000 <	mg/kg	o- P STIM
No.13	Silver pins	Cr <sup>6+</sup>	P (EST)	10 863/37E3.	70 — 96,	μg/cm <sup>2</sup>	o <sup>®</sup> P ~
STIP	863 TESTING	PBBs	TO SO LES	51 NO 1 863 TV	≤1000	mg/kg	TIME / 863
TES STING	LC 863 (E3 TESTE	PBDEs	ESTI 1146/ 863	(EST. 1118) 863	≤1000	mg/kg	TESTING 80
863 (45	TING 863 76	Pb 863	P P C	S TES LINE NO	≤1000	mg/kg	TEP TIME
. රි <sub>දිව</sub>	ESTING 863	Cd	863 T RESTITUTE	863 / KEST KG	≤100	mg/kg	865 063 P LEST
N# 14	ob The state of the second	863 Hg	P	The Solidary Control	≤1000	mg/kg	P <sup>3</sup> <
No.14	Chip resistors	Cr <sup>6+</sup>	The P 863 T	EST THE SES	≤1000	mg/kg	STIME TO BE SEE
63 TESTIN	TIME SO SESTE TESTI	PBBs	TES STIP SOS	CHE C	≤1000	mg/kg	Phi Phi
863 S	STIME 863 53	PBDEs	P. P.	Part of the same	≤1000	mg/kg	Perin
70 %	TESTING 80 80	Pb	Ses De II	G G G ESTIN	≤1000	mg/kg	% P KES
TING	863 3 TES STING	663 Cd STIM	P	July 1 363 16	≤100	mg/kg	P <sup>o</sup>
NESTING	USB silver	Hg	P &	1 5 1 1 C 860	≤1000	mg/kg	estine P
No.15	metal de	Cr <sup>6+</sup>	D2	N.D.	863 - KSTII	µg/cm <sup>2</sup>	AES BUMO
100 863 155 THE TIME 86	ESTINO 86 863	PBBs	882 1	863 YES, ELIMO	≤1000	mg/kg	863 TESTIM
	3 TESTINE	PBDEs	6 863 JYES STIT	S NO SO LEST	≤1000	mg/kg	
TING 86 STE STILL	Pb	Position	5TH 110 / 863 3	≤1000	mg/kg	P Book	
TESTING	NC 863 1181	Cd	P. 869	TES ESTING SO	≤100	mg/kg	(ESTINATE OF
No.16	USB Black	Hg	STEST NEW STEEL	863 TEST TIME	≤1000	mg/kg	PSTIME IN
No.16	plastic	Cr <sup>6+</sup> *	Se Se Sting	10 96° 5/1E° ESTINO	≤1000	mg/kg	963 P 4857
ETING SO STATE THE	Total !	PBBs	N BULLEY	1140 , 182 LES	≤1000	mg/kg	P
	E The State of the	PBDEs	P %	ES 21140 6 863 631	≤1000	mg/kg	STILL P 86
3 TESTING 185 THE TIME	140 863 TES	Pb Pb	P.S. S.	37 TESTITUDE 8	≤1000	mg/kg	BAC BAC
	USB White plastic	Cd Cd	SO THE THE	863 318 18 18 18 18 18 18 18 18 18 18 18 18 1	≤100	mg/kg	os Pesting
Ca Car		Hg	No PESTIN	NO SE STATESTIN	≤1000	mg/kg	86P 467
No.17		Cr <sup>6+</sup> *	ne Poblike	6/863 STE	≤1000	mg/kg	NO P SO
TESTIM IN		PBBs	P 860 and	LESTIN TO 80 BES	≤1000	mg/kg	EST THE
3 TEST T		PBDEs	TE TEST PLO	863 KS / SIM	≤1000	mg/kg	o Test Pine

#### Remark:

- (1) It is the result on total Br while test PBBs and PBDEs by XRF. It is the result on total Cr while test Hexavalent Chromium by XRF.
- (2) Results are obtained by XRF for primary screening, and chemical testing by ICP-OES (for Pb, Cd, Hg), UV-Vis (for Cr<sup>6+</sup>) and GC-MS (for PBBs, PBDEs) is recommended to be performed, if the concentration



#### **Test Report**

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exceeds the below warning value according to IEC 62321:2008 (unit: mg/kg).

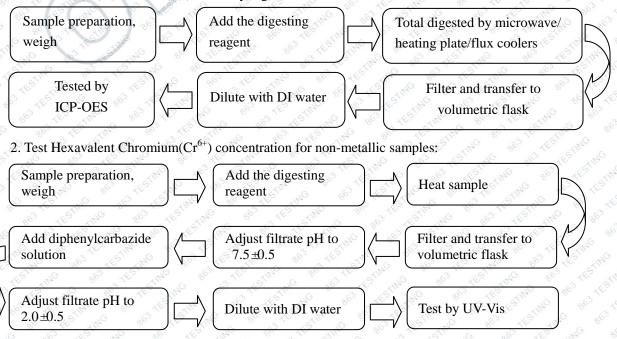
Element Polymer		Metal	Composite Materials		
Pb	P≤700-3σ <d<1300+3σ≤f< td=""><td>P≤700-3σ<d<1300+3σ≤f< td=""><td><math>P \le 500-3\sigma &lt; D &lt; 1500+3\sigma \le F</math></td></d<1300+3σ≤f<></td></d<1300+3σ≤f<>	P≤700-3σ <d<1300+3σ≤f< td=""><td><math>P \le 500-3\sigma &lt; D &lt; 1500+3\sigma \le F</math></td></d<1300+3σ≤f<>	$P \le 500-3\sigma < D < 1500+3\sigma \le F$		
Cd	P≤70-3σ <d<130+3σ≤f< td=""><td>P≤70-3σ<d<130+3σ≤f< td=""><td>P≤50-3σ<d<150+3σ≤f< td=""></d<150+3σ≤f<></td></d<130+3σ≤f<></td></d<130+3σ≤f<>	P≤70-3σ <d<130+3σ≤f< td=""><td>P≤50-3σ<d<150+3σ≤f< td=""></d<150+3σ≤f<></td></d<130+3σ≤f<>	P≤50-3σ <d<150+3σ≤f< td=""></d<150+3σ≤f<>		
% Hg	P≤700-3σ <d<1300+3σ≤f< td=""><td>P≤700-3σ<d<1300+3σ≤f< td=""><td><math>P \le 500-3\sigma \le D \le 1500+3\sigma \le F</math></td></d<1300+3σ≤f<></td></d<1300+3σ≤f<>	P≤700-3σ <d<1300+3σ≤f< td=""><td><math>P \le 500-3\sigma \le D \le 1500+3\sigma \le F</math></td></d<1300+3σ≤f<>	$P \le 500-3\sigma \le D \le 1500+3\sigma \le F$		
© Cr &	P≤700-3σ <d< td=""><td>P≤700-3σ<d< td=""><td>P≤500-3σ<d< td=""></d<></td></d<></td></d<>	P≤700-3σ <d< td=""><td>P≤500-3σ<d< td=""></d<></td></d<>	P≤500-3σ <d< td=""></d<>		
Br	P≤300-3σ <d< td=""><td>THE 863 45 THE 863</td><td>P≤250-3σ<d< td=""></d<></td></d<>	THE 863 45 THE 863	P≤250-3σ <d< td=""></d<>		

P = PASS, F = FAIL, D = DETECTED

- (3) mg/kg = ppm, N.D. = Not Detected (<MDL), MDL=method detection limit
- (4) \*=a. The sample is positive for  $Cr^{6+}$  if the  $Cr^{6+}$  concentration is greater than  $0.13\,\mu\text{g/cm}^2$ , The sample coating is considered to contain  $Cr^{6+}$ .
  - b. The sample is negative for  $Cr^{6+}$  if the  $Cr^{6+}$  is N.D. (concentration less than  $0.10\,\mu\text{g/cm}^2$ ), The coating is considered a non- $Cr^{6+}$  based coating.
  - c. The result between  $0.10\,\mu\text{g/cm}^2$  and  $0.13\,\mu\text{g/cm}^2$  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  $\text{Cr}^{6+}$  results represent status of the sample at the time of testing.

#### **Test Process:**

1. Test Lead(Pb), Cadmium(Cd), Mercury(Hg) concentration:





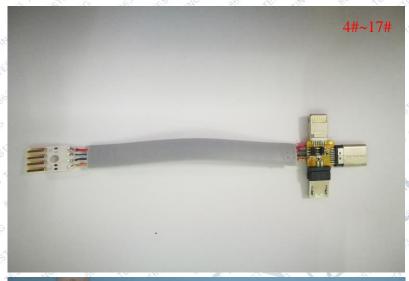
Date: Jan. 16, 2018 Report No.: SAC2017-08395E-R1 Page 6 of 7 3. Test Hexavalent Chromium(Cr<sup>6+</sup>) concentration for metallic samples: Leach in boiling DI Surface area of Filtration, wash and cool  $50\pm5$ cm<sup>2</sup> water Addition of color agents Color and volume Test by UV-Vis and the buffer solution adjustment 4. Test PBBs, PBDEs concentration: Sample preparation, Extracted by soxhlet Add extraction reagent weigh extractors Tested by GC-MS Washing and transfer Volumetric by reagent to volumetric flask

### Photo of the sample





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\*\*\* End of report \*\*\*

This report is invalid without the Special Seal of our Center. This report shall not be altered, increased or deleted. The results shown in this report refer only to the sample(s) tested.

Authenticity query URL of report: www.szsac.com Anti-counterfeiting code: 8rjr31

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