

XRF Screening And Chemical Confirmation Test Report

Number:

140314044GZU-001

Applicant:

GUANGDONG BE-TECH SECURITY SYSTEMS

LIMITED

No. 17, Keyuan 3 Road, Ronggui, Shunde High-Tech Zone, Foshan, Guangdong, P.R.China

Date: Jun 11, 2014

One(1) group of submitted samples said to be : Handheld Service Unit Item No. : RD-08

RD-08



Tests conducted:

As requested by the applicant, refer to attached page(s) for details.

Conclusion:

Tested Samples

Standard

Result

Screened components of submitted samples

Screening by XRF spectroscopy and chemical confirmation test for RoHS Directive (2011/65/EU)

Pass

Authorized by: For Intertek Testing Services Shenzhen Limited Guangzhou Branch

Jensen Xu

Technical Team Leader

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Screening Test by XRF Spectroscopy

Cadmium (Cd), Lead (Pb), Mercury (Hg), Chromium (Cr) and Bromine (Br) content were measured by XRF spectroscopy and chemical confirmation test for RoHS restricted substances.

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(A)Results:

Screened Components	x	RF Results	Chemical Confirmation Result
	Cd	ND	
	Pb	ND	
(1)	Hg	ND	NT
_	Cr	ND	
	Br	ND	
	Cd	ND	
	Pb	ND	
(2)	Hg	ND	NT
	Cr	ND	
	Br	ND	
	Cd	ND	
	Pb	ND	
(3)	Hg	ND	NT
	Cr	ND	
	Br	ND	
	Cd	ND	
	Pb	ND	
(4)	Hg	ND	NT
	Cr	ND	
	Br	ND	
_	Cd	ND	
	Pb	ND	
(5)	Hg	ND	NT
	Cr	ND	
	Br	ND	
	Cd	ND	
	Pb	ND	
(6)	Hg	ND	NT
	Cr	ND	
	Br	NT	



ducted			
	Cd	ND	
	Pb	ND	
(7)	Hg	ND	NT
	Cr	ND	
	Br	NT	
	Cd	ND	
	Pb	ND	
(8)	Hg	ND	NT
	Cr	ND	
	Br	NT	
	Cd	ND	
	Pb	ND	
(9)	Hg	ND	NT
	Cr	ND	
	Br	ND	
	Cd	ND	
	Pb	ND	
(10)	Hg	ND	NT
	Cr	ND	
	Br	ND	
	Cd	ND	
	Pb	ND	
(11)	Hg	ND	NT
	Cr	ND	
	Br	ND	
	Cd	ND	
	Pb	ND	
(12)	Hg	ND	NT
	Cr	ND	
	Br	Detected	
	Cd	ND	
	Pb	ND	
(13)	Hg	ND	NT
	Cr	ND	
	Br	NT	

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	0.4	ND	
	Cd	ND NB	
(14)	Pb	ND NB	PBBs : ND(<5mg/kg) PBDEs : ND(<5mg/kg)
(14)	Hg	ND ND	PBDEs : ND(<5mg/kg)
	Cr	ND 	
	Br	Inconclusive	
	Cd	ND	_
(15)	Pb	ND 	NT
(15)	Hg	ND 	
	Cr	ND	<u> </u>
	Br	ND	
	Cd	ND	_
(40-)	Pb	ND	
(16a)	Hg	ND	NT
	Cr	ND	
	Br	NT	
	Cd	ND	
	Pb	ND	
(16b)	Hg	ND	NT
	Cr	ND	_
	Br	Detected	
	Cd	ND	
	Pb	ND	
(16c)	Hg	ND	NT
	Cr	ND	
	Br	ND	
	Cd	ND	
	Pb	ND	
(16d)	Hg	ND	NT
	Cr	ND	
	Br	ND	
	Cd	ND	
	Pb	ND	
(16e)	Hg	ND	NT
	Cr	ND	
	Br	ND	

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	Cd	ND	
	Pb	ND	
(16f)	Hg	ND	NT
	Cr	ND	
	Br	ND	
	Cd	ND	
	Pb	ND	
(16g)	Hg	ND	NT
	Cr	ND	
	Br	NT	
	Cd	ND	
	Pb	ND	
(16h)	Hg	ND	NT
	Cr	ND	
	Br	NT	
	Cd	ND	
	Pb	ND	DDD: ND/45===/len/
(16i)	Hg	ND	PBBs : ND(<5mg/kg) PBDEs : ND(<5mg/kg)
	Cr	ND	
	Br	Inconclusive	
	Cd	ND	
	Pb	ND	
(16j)	Hg	ND	NT
	Cr	ND	
	Br	ND	
	Cd	ND	
	Pb	ND	
(16k)	Hg	ND	NT
	Cr	ND	
	Br	ND	
	Cd	ND	
	Pb	ND	
(17)	Hg	ND	NT
	Cr	ND	
	Br	ND	

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ucted			Number. 140314044G2C
	Cd	ND	
	Pb	>1500mg/kg ^{#2}	
(18)	Hg	ND	NT
	Cr	ND	
	Br	ND	
	Cd	ND	
	Pb	ND	
(19)	Hg	ND	NT
	Cr	ND	
	Br	ND	
	Cd	ND	
	Pb	ND	
(20)	Hg	ND	PBBs : ND(<5mg/kg) PBDEs : ND(<5mg/kg)
	Cr	ND	
	Br	Inconclusive	
	Cd	ND	
	Pb	ND	
(21)	Hg	ND	NT
	Cr	ND	
	Br	ND	
	Cd	ND	
	Pb	Detected	
(22)	Hg	ND	NT
	Cr	Detected	
	Br	ND	
	Cd	ND	
	Pb	ND	
(23)	Hg	ND	PBBs : ND(<5mg/kg) PBDEs : ND(<5mg/kg)
	Cr	ND	(- · · · · · · · · · · · · · · ·
	Br	Inconclusive	
	Cd	ND	
	Pb	ND	
(24)	Hg	ND	NT
	Cr	ND	
	Br	ND	

Number:



onducted	mical Confirmation	Number: 140314044GZ	
	Cd	ND	
	Pb	ND	
(25)	Hg	ND	NT
	Cr	ND	
	Br	ND	
	Cd	ND	
	Pb	>1500mg/kg ^{#2}	
(26)	Hg	ND	NT
	Cr	ND	
	Br	ND	
	Cd	ND	
	Pb	ND	
(27)	Hg	ND	NT
	Cr	ND	
	Br	ND	
	Cd	ND	
	Pb	ND	
(28)	Hg	ND	NT
	Cr	ND	
	Br	ND	
	Cd	ND	
	Pb	ND	DDD - ND / 15 //
(29)	Hg	ND	PBBs : ND(<5mg/kg PBDEs : ND(<5mg/kg
	Cr	ND	
	Br	Inconclusive	
	Cd	ND	
	Pb	ND	
(30a)	Hg	ND	NT
	Cr	ND	
	Br	ND	
	Cd	ND	
	Pb	ND	
(30b)	Hg	ND	NT
	Cr	ND	
	Br	ND	



	Cd	ND	
	Pb	>1300mg/kg	
(30c)	Hg	ND	Pb: 26700mg/kg ^{#1}
	Cr	ND	
	Br	NT	
	Cd	ND	
	Pb	ND	
(30d)	Hg	ND	NT
	Cr	ND	
	Br	ND	
	Cd	ND	
	Pb	ND	
(30e)	Hg	ND	NT
	Cr	ND	
	Br	NT	
	Cd	ND	
	Pb	ND	
(31)	Hg	ND	NT
	Cr	ND	
	Br	NT	
	Cd	ND	
	Pb	>1300mg/kg	
(32)	Hg	ND	Pb: 35900mg/kg ^{#1}
	Cr	ND	
	Br	NT	
	Cd	ND	
	Pb	ND	
(33)	Hg	ND	NT
	Cr	ND	
	Br	NT	
	Cd	ND	
	Pb	ND	
(34)	Hg	ND	NT
	Cr	ND	
	Br	ND	

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	nicai commination			
	Cd	ND		
	Pb	ND		
(35)	Hg	ND	NT	
	Cr	ND		
	Br	NT		
	Cd	ND		
	Pb	>1500mg/kg ^{#2}		
(36)	Hg	ND	NT	
	Cr	ND		
	Br	ND		
	Cd	ND		
	Pb	ND		
(37)	Hg	ND	NT	
	Cr	ND		
	Br	ND		
	Cd	ND		
	Pb	>1500mg/kg ^{#2}		
(38)	Hg	ND	NT	NT
	Cr	ND		
	Br	ND		
	Cd	ND		
	Pb	ND		
(39)	Hg	ND	NT	
	Cr	ND		
	Br	NT		
	Cd	ND		
	Pb	ND		
(40)	Hg	ND	NT	
	Cr	ND		
	Br	ND		
	Cd	ND		
	Pb	ND		
(41a)	Hg	ND	NT	
	Cr	ND		
	Br	NT		

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	Cd	ND	
	Pb	ND	
(41b)	Hg	ND	NT
	Cr	ND	
	Br	Detected	
	Cd	ND	
	Pb	ND	
(41c)	Hg	ND	NT
	Cr	ND	
	Br	NT	
	Cd	ND	
	Pb	ND	
(42a)	Hg	ND	NT
	Cr	ND	
	Br	ND	
	Cd	ND	
	Pb	ND	- 6+
(42b)	Hg	ND	Cr ⁶⁺ : Negative (<0.02 mg/kg with 50 cm ²
	Cr	Inconclusive	(croz mgmg mm co cm
	Br	NT	
	Cd	ND	
	Pb	ND	0.6+. N 4:
(42c)	Hg	ND	Cr ⁶⁺ : Negative (<0.02 mg/kg with 50 cm ²
	Cr	Inconclusive	
	Br	NT	
	Cd	ND	
	Pb	ND	
(42d)	Hg	ND	NT
	Cr	ND	
	Br	ND	
	Cd	ND	
	Pb	ND	Cr ⁶⁺ : Negative
(42e)	Hg	ND	Cr ⁶⁺ : Negative (<0.02 mg/kg with 50 cm ²
	Cr	Inconclusive	
	Br	NT	

Number:



	Cd	ND	
	Pb	ND	Cr ⁶⁺ . No gotive
(42f)	Hg	ND	Cr ⁶⁺ : Negative (<0.02 mg/kg with 50 cm ²
	Cr	Inconclusive	
	Br	NT	
	Cd	ND	
	Pb	ND	
(42g)	Hg	ND	NT
	Cr	ND	
	Br	Detected	
	Cd	ND	
	Pb	ND	DDD - ND/ (5 m = 1/1 m)
(42h)	Hg	ND	PBBs : ND(<5mg/kg) PBDEs : ND(<5mg/kg)
	Cr	ND	
	Br	Inconclusive	
	Cd	ND	
	Pb	ND	
(42i-1)	Hg	ND	NT
	Cr	ND	
	Br	NT	
	Cd	ND	
	Pb	ND	
(42i-2)	Hg	ND	NT
	Cr	ND	
	Br	NT	
	Cd	ND	
	Pb	ND	0 6+ N
(42j)	Hg	ND	Cr ⁶⁺ : Negative (<0.02 mg/kg with 50 cm ²
	Cr	Inconclusive	(1 3 3 1 1 1 1
	Br	NT	
	Cd	ND	
	Pb	ND	
(43)	Hg	ND	NT
	Cr	ND	
	Br	NT	

Number:



ucted			
	Cd	ND	
	Cd		_
(44)	Pb	ND ND	PBBs : ND(<5mg/kg)
(44)	Hg	ND NB	PBDEs : ND(<5mg/kg)
	Cr	ND	
	Br	Inconclusive	
	Cd	ND NB	
(45)	Pb	ND	NT
(45)	Hg	ND	
	Cr	ND	
	Br	NT	
	Cd	ND	
(40)	Pb	ND	NT
(46)	Hg	ND	NT
	Cr	ND	
	Br	ND	
	Cd	ND	
	Pb	ND	PBBs : ND(<5mg/kg)
(47a)	Hg	ND	PBDEs : ND(<5mg/kg)
	Cr	ND	
	Br	Inconclusive	
	Cd	ND	
	Pb	ND	
(47b)	Hg	ND	NT
	Cr	ND	
	Br	ND	
	Cd	ND	
	Pb	ND	
(47c)	Hg	ND	NT
	Cr	ND	
	Br	NT	
	Cd	ND	
	Pb	ND	
(47d)	Hg	ND	NT
	Cr	ND	
	Br	NT	

Number:



naucica	mical Confirmatio		
	Cd	ND	
	Pb	ND ND	
(47e)		ND ND	NT
(- /	Hg Cr	ND ND	
	Br	ND ND	
	Cd	ND	
	Pb	ND	
(47f)	Hg	ND	PBBs : ND(<5mg/k
, ,	Cr	ND	PBDEs : ND(<5mg/k
	Br	Inconclusive	
	Cd	ND	
	Pb	>1500mg/kg ^{#2}	
(47g)	Hg	ND	Cr ⁶⁺ : ND(<1 mg/kg
	Cr	Inconclusive	
	Br	ND	
	Cd	ND	
	Pb	ND	
(47h)	Hg	ND	NT
	Cr	ND	
	Br	ND	
	Cd	ND	
	Pb	ND	DDD - ND/45 //-
(47i)	Hg	ND	PBBs : ND(<5mg/k PBDEs : ND(<5mg/k
	Cr	ND	
	Br	Inconclusive	
	Cd	ND	
	Pb	ND	
(47j)	Hg	ND	NT
	Cr	ND	
	Br	NT	
	Cd	ND	
	Pb	ND	
(47k)	Hg	ND	NT
	Cr	ND	
	Br	NT	



	micai Commination		
	Cd	ND	
	Pb	ND	
(47I)	Hg	ND	NT
	Cr	ND	
	Br	NT	
	Cd	ND	
	Pb	ND	DDDs : ND(45 m m/lsm)
(48)	Hg	ND	PBBs : ND(<5mg/kg) PBDEs : ND(<5mg/kg)
	Cr	ND	
	Br	Inconclusive	
	Cd	ND	
	Pb	ND	
(49)	Hg	ND	NT
	Cr	ND	
	Br	NT	
	Cd	ND	
	Pb	ND	
(50a)	Hg	ND	NT
	Cr	ND	
	Br	Detected	
	Cd	ND	
	Pb	ND	
(50b)	Hg	ND	NT
	Cr	ND	
	Br	NT	
	Cd	ND	
	Pb	ND	
(50c)	Hg	ND	NT
	Cr	ND	
	Br	NT	
	Cd	ND	
	Pb	ND	
(50d)	Hg	ND	NT
	Cr	ND	
	Br	NT	

Number:



nducted			1 140014044020 0
	Cd	ND	
	Pb	ND	
(51)	Hg	ND	NT
	Cr	ND	
	Br	ND	
	Cd	ND	
	Pb	ND	
(52)	Hg	ND	NT
	Cr	ND	
	Br	ND	
,	Cd	ND	
	Pb	ND	
(53a)	Hg	ND	NT
	Cr	ND	
	Br	ND	
	Cd	ND	
	Pb	ND	
(53b)	Hg	ND	NT
	Cr	ND	
	Br	NT	
	Cd	ND	
	Pb	ND	
(53c)	Hg	ND	NT
	Cr	ND	
	Br	ND	
	Cd	ND	
	Pb	ND	
(53d)	Hg	ND	NT
	Cr	ND	
	Br	NT	
	Cd	ND	
	Pb	ND	- 6+
(53e)	Hg	ND	Cr ⁶⁺ : Negative (<0.02 mg/kg with 50 cm ²)
	Cr	Inconclusive	
	Br	NT	

Number:



	Cd	ND	
	Pb	ND	
(54)	Hg	ND	NT
	Cr	ND	
	Br	ND	
	Cd	ND	
	Pb	ND	
(55)	Hg	ND	NT
	Cr	ND	
	Br	NT	
	Cd	ND	
	Pb	ND	
(56)	Hg	ND	PBBs : ND(<5mg/kg) PBDEs : ND(<5mg/kg)
	Cr	ND	
	Br	Inconclusive	
	Cd	ND	
	Pb	ND	
(57)	Hg	ND	NT
	Cr	ND	
	Br	NT	
	Cd	ND	
	Pb	ND	
(58)	Hg	ND	NT
	Cr	ND	
	Br	Detected	
	Cd	ND	
	Pb	ND	
(59)	Hg	ND	NT
	Cr	ND	
	Br	ND	
	Cd	ND	
	Pb	ND	DDDs - ND/ «Ema = // · · · ·
(60)	Hg	ND	PBBs : ND(<5mg/kg) PBDEs : ND(<5mg/kg)
	Cr	ND	
	Br	Inconclusive	

Number:



ıcted			Number: 140314044G2
	Cd	ND	
	Pb	>1500mg/kg ^{#2}	
(61)	Hg	ND	Cr ⁶⁺ : ND(<1 mg/kg)
	Cr	Inconclusive	
	Br	ND	
	Cd	ND	
	Pb	ND	
(62)	Hg	ND	NT
	Cr	ND	
	Br	ND	
	Cd	ND	
	Pb	>1500mg/kg ^{#2}	
(63)	Hg	ND	NT
	Cr	ND	
	Br	ND	
	Cd	ND	
	Pb	ND	
(64)	Hg	ND	NT
	Cr	ND	
	Br	ND	
	Cd	ND	
	Pb	ND	
(65)	Hg	ND	NT
	Cr	ND	
	Br	ND	
	Cd	ND	
	Pb	ND	
(66)	Hg	ND	NT
	Cr	ND	
	Br	ND	
	Cd	ND	
	Pb	ND	
(67)	Hg	ND	NT
	Cr	ND	
	Br	ND	

Number:



	Cd	ND	
	Pb	>1500mg/kg ^{#3}	
(68)	Hg	ND	PBBs : ND(<5mg/kg) PBDEs : ND(<5mg/kg)
	Cr	ND	
	Br	Inconclusive	
	Cd	ND	
	Pb	>1500mg/kg ^{#2}	
(69)	Hg	ND	NT
	Cr	ND	
	Br	ND	
	Cd	ND	
	Pb	ND	
(70)	Hg	ND	NT
	Cr	ND	
	Br	ND	
	Cd	ND	
	Pb	ND	
(71)	Hg	ND	NT
	Cr	ND	
	Br	ND	
	Cd	ND	
	Pb	ND	
(72a)	Hg	ND	NT
	Cr	ND	
	Br	NT	
	Cd	ND	
	Pb	ND	
(72b)	Hg	ND	NT
	Cr	ND	
	Br	ND	
	Cd	ND	
	Pb	ND	
(72c)	Hg	ND	NT
	Cr	ND	
	Br	NT	

Number:



	Cd	ND	
	Pb	ND ND	
(73a)	Hg	ND ND	NT
,	Cr	ND ND	
	Br	NT	
	Cd	ND	
	Pb	ND ND	
(73b)		ND ND	PBBs : ND(<5mg/kg)
(. 55)	Hg Cr	ND ND	PBDEs : ND(<5mg/kg)
	Br		
	Cd	Inconclusive ND	
	Pb	ND ND	
(73c)		ND ND	NT
()	Hg Cr	ND ND	
	Br	NT	
	Cd	ND	
	Pb	ND ND	
(74)		ND ND	NT
()	Hg Cr	ND ND	
	Br	ND ND	
	Cd	ND ND	
	Pb	ND ND	
(75)	Hg	ND ND	PBBs : ND(<5mg/kg)
, ,	Cr	ND ND	PBDEs : ND(<5mg/kg)
	Br	Inconclusive	
	Cd	ND	
	Pb	ND	
(76)	Hg	ND	NT
	Cr ND		
	Br	ND	
	Cd	ND	
	Pb	ND	
(77a)	Hg	ND	NT
	Cr	ND	
	Br	NT	

Number:



uctea			
	Cd	ND	
,)	Pb	ND	
(77b)	Hg	ND	NT
	Cr	ND	
	Br	ND	
	Cd	ND	
	Pb	ND	
(77c)	Hg	ND	NT
	Cr	ND	
	Br	NT	
	Cd	ND	
	Pb	ND	
(78)	Hg	ND	NT
	Cr	ND	
	Br	ND	
	Cd	ND	
	Pb	ND	
(79)	Hg	ND	NT
	Cr	ND	
	Br	ND	
	Cd	ND	
	Pb	ND	
(80)	Hg	ND	NT
	Cr	ND	
	Br	ND	
	Cd	ND	
	Pb	ND	
(81)	Hg	ND	NT
	Cr	ND	
	Br	ND	
	Cd	ND	
	Pb	ND	
(82)	Hg	ND	NT
	Cr	ND	
	Br	ND	

Number:



	mical Commitmation		
	Cd	ND	
	Pb	ND	
(83)	Hg	ND	NT
	Cr	ND	
	Br	ND	
	Cd	ND	
	Pb	ND	
(84)	Hg	ND	NT
	Cr	Detected	
	Br	NT	
	Cd	ND	
	Pb	ND	
(85)	Hg	ND	NT
	Cr	ND	
	Br	ND	
	Cd	ND	
	Pb	ND	
(86a)	Hg	ND	NT
	Cr	ND	
	Br	NT	
	Cd	ND	
	Pb	ND	
(86b)	Hg	ND	NT
	Cr	ND	
	Br	Detected	
	Cd	ND	
	Pb	ND	
(86c)	Hg	ND	NT
	Cr	ND	
	Br	NT	
	Cd	ND	
	Pb	ND	
(87)	Hg	ND	NT
	Cr	ND	
	Br	ND	

Number:



	mical Commitmation 1			
	Cd	ND		
	Pb	ND		
(88)	Hg	ND	NT	
	Cr	ND		
	Br	NT		
	Cd	ND		
	Pb	ND		
(89)	Hg	ND	NT	
	Cr	ND		
	Br	ND		
	Cd	ND		
	Pb	ND		
(90)	Hg	ND	NT	
	Cr	ND		
	Br	ND		
	Cd	ND		
	Pb	ND		
(91)	Hg	ND	NT	NT
	Cr	ND		
	Br	ND		
	Cd	ND		
	Pb	ND		
(92)	Hg	ND	NT	
	Cr	ND		
	Br	NT		
	Cd	ND		
	Pb	ND		
(93)		NT		
Cr ND	ND			
	Br	NT		
	Cd	ND		
	Pb	ND		
(94)	Hg	ND	NT	
	Cr	ND		
	Br	NT		

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Tests Conducted

Conducted			
	Cd	ND	
	Pb	ND	
(95)	Hg	ND	NT
	Cr	ND	
	Br	NT	
	Cd	ND	
	Pb	ND	
(96)	Hg	ND	NT
	Cr	ND	
	Br	NT	

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Detected = Below the lower screening limit of table (B) and pass

ND = Not detected

NT = Not tested

mg/kg with 50cm² = milligram per kilogram with 50 square centimetre

Positive = A positive test result indicated the presence of Cr(VI) at the time of testing, equal to or greater than threshold of 1 mg/kg for spot test procedure or 0.02 mg/kg for boiling-water-extraction procedures with a sample surface area of 50cm² used. However, it shall not be interpreted as the Cr(VI) concentration in the coating layer of the sample and should not be used as a method detection limit for this qualitative test.

Negative = A negative test result indicated above positive observation was not found at the time of testing. When the spot-test showed a negative result, the boiling-water-extraction procedure shall be used to verify the result.

Remark:

(#1) = As claimed by the declaration submitted from the supplier of applicant, the Lead content of the component comes from Copper alloy only. According to EU RoHS Directive (2011/65/EU), Lead in Copper alloy containing up to 4% (40,000 mg/kg) Lead by weight can be exempted.

(#2) = As claimed by the declaration submitted from the supplier of applicant, the Lead content of the component comes from the constituent of glass used in cathode ray tubes / in electrical and electronic component only. According to EU RoHS Directive (2011/65/EU), Lead in glass of the component can be exempted.

(#3) = As claimed by the declaration submitted from the supplier of applicant, the Lead content of the component comes from the constituent of high melting temperature type solders (i.e. Lead-based alloys containing 85% by weight or more Lead) only. According to EU RoHS Directive (2011/65/EU), Lead in high melting temperature type solders of the component can be exempted.

(B) XRF Screening Limits in mg/kg for Regulated Elements in Various Matrices

Element	Polymer Materials	Metallic Materials	Composite Materials
Cd	P ≤70 < X < 130 ≤ F	P ≤ 70 < X < 130 ≤ F	P ≤ 70 < X < 150 ≤ F
Pb	P ≤ 700 < X < 1300≤ F	P ≤ 700 < X < 1300 ≤ F	P ≤ 500< X < 1500 ≤ F
Hg	P ≤ 700< X < 1300 ≤ F	P ≤ 700 < X < 1300 ≤ F	P ≤ 500 < X < 1500 ≤ F
Cr	P ≤ 700< X	P ≤ 700 < X	P ≤ 500 < X
Br	P ≤ 300< X	Not applicable	P ≤ 250 < X

Tel: 86 20 8213 9688 Fax: 86 20 3205 7538 www.intertek.com



P = Pass

X = Inconclusive result

F = Fail

mg/kg = milligram per kilogram = ppm

(C) Estimated Detection Limits in mg/kg for Regulated Elements in Various Matrices

Element	Polymer Materials	Metallic Materials	Composite Materials
Cd	50	70	70
Pb	100	200	200
Hg	100	200	200
Cr	100	200	200
Br	200	Not applicable	200

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Disclaimers:

This XRF Screening and Chemical Confirmation Test Report is for reference purposes only. The applicant shall make its/his/her own judgment as to whether the information provided in this XRF Screening and Chemical Confirmation Test Report is sufficient for its/his/her purposes.

The results shown in this XRF Screening and Chemical Confirmation Test Report will differ based on various factors, including but not limited to, the sample size, thickness, area, surface flatness, equipment parameters and matrix effect (e.g. plastic, rubber, metal, glass, ceramic etc.). Further wet chemical pre-treatment with relevant chemical equipment analysis is required to obtain quantitative data.

(D) Chemical Confirmation Test Methods:

Testing Item	Testing Method	Reporting Limit
Lead (Pb) Content	With reference to IEC 62321 Edition 1.0:2008, by acid digestion and determined by ICP - OES	2 mg/kg
Chromium (VI) (Cr ⁶⁺) Content	With reference to IEC 62321 Edition 1.0:2008, by alkaline digestion and determined by UV-VIS spectrophotometer	1 mg/kg
Chromium (VI) (Cr ⁶⁺) Content	With reference to IEC 62321 Edition 1.0:2008, by boiling water extraction and determined by UV-VIS spectrophotometer	Positive/Negative (Threshold of 0.02mg/kg with 50cm ²)
Polybrominated Biphenyls (PBBs) & Polybrominated Diphenyl Ethers (PBDEs)	With reference to IEC 62321 Edition 1.0:2008, by solvent extraction and determined by GC/MS and further HPLC confirmation when necessary	5 mg/kg

(E) RoHS Requirement:

Restricted Substances	Limits
Cadmium (Cd)	0.01% (100 mg/kg)
Lead (Pb)	0.1% (1000 mg/kg)
Mercury (Hg)	0.1% (1000 mg/kg)
Chromium (VI) (Cr ⁶⁺)	0.1% (1000 mg/kg)
Polybrominated Biphenyls (PBBs)	0.1% (1000 mg/kg)
Polybrominated Diphenyl Ethers (PBDEs)	0.1% (1000 mg/kg)

The above limits were quoted from 2011/65/EU for homogeneous material.



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Screened Components:

- 1 transparent plastic with black coating
- 2 transparent glue
- 3 yellow paper
- 4 grey plastic
- 5 white plastic label with black printing
- 6 silvery metal
- 7 silvery metal
- 8 silvery metal
- 9 transparent plastic with coatings (black, white, blue)
- 10 white double faced adhesive tape
- 11 transparent plastic
- 12 blue plastic
- 13 silvery metal wire
- 14 white plastic
- 15 yellow adhesive plastic
- 16 LCD display
 - (a) silvery metal with black coating
 - (b) white plastic
 - (c) transparent glass
 - (d) silvery/grey plastic sheet
 - (e) white plastic sheet
 - (f) semi-transparent plastic sheet
 - (g) silvery metal
 - (h) solder
 - (i) white "PCB"
 - (j) transparent plastic
 - (k) grey/black soft plastic
- 17 grey ceramic with silvery metal
- 18 white ceramic with black material & white printing & silvery metal
- 19 yellow plastic with brown printing & silvery metal
- 20 black plastic with silvery metal
- 21 white plastic label with black printing
- 22 white ceramic with black material & white printing & silvery metal
- 23 **PCB**
- 24 black plastic with silvery metal
- 25 black plastic with silvery metal



Screened Components:

26 white ceramic with black material & white printing & silvery metal

Number:

- 27 black plastic with silvery metal
- 28 brown ceramic with silvery metal
- 29 green 'PCB"
- 30 variable resistor
 - (a) blue plastic
 - (b) beige plastic
 - (c) golden metal
 - (d) white plastic with black coating
 - (e) silvery metal
- silvery metal 31
- 32 golden metal
- 33 solder
- 34 white plastic
- 35 silvery metal
- 36 transparent glass with inaccessible orange-red/black material & silvery metal
- 37 yellow plastic with brown printing & silvery metal
- 38 white ceramic with black material & white printing & silvery metal
- 39 silvery metal
- 40 black plastic
- 41 **USB** socket
 - (a) silvery metal
 - (b) white plastic
 - (c) silvery metal
- 42 information button
 - (a) black plastic
 - (b) silvery metal
 - (c) silvery metal
 - (d) black glue
 - (e) silvery metal
 - (f) silvery metal
 - (g) black plastic
 - (h) golden "PCB"
 - (i) crystal
 - (i-1) silvery metal & quartz & green material
 - (i-2) silvery metal



Screened Components:

- (j) silvery metal
- 43 silvery metal
- 44 black plastic
- 45 silvery metal
- 46 white plastic
- 47 buzzer
 - (a) black plastic
 - (b) black magnet
 - (c) silvery metal
 - (d) silvery metal
 - (e) black glue
 - (f) green "PCB"
 - (g) white ceramic with black material & white printing & silvery metal

Number:

- (h) white glue
- (i) black plastic with silvery metal
- (j) copper color metal wire with blue coating
- (k) silvery metal
- (I) silvery metal
- 48 green "PCB"
- 49 solder
- 50 socket
 - (a) white plastic
 - (b) silvery metal
 - (c) silvery metal
 - (d) silvery metal
- 51 transparent blue plastic with silvery printing
- 52 black plastic
- 53 switch
 - (a) black plastic
 - (b) silvery metal
 - (c) red plastic
 - (d) silvery metal
 - (e) silvery metal
- 54 black plastic with silvery metal
- 55 silvery metal
- 56 black plastic



81

82

83

black plastic

white plastic

green plastic

Screened Components:

0.000	
57	silvery metal
58	black plastic with silvery metal
59	black plastic with silvery metal
60	black plastic with silvery metal
61	white ceramic with black material & white printing & silvery metal
62	yellow plastic with brown printing & silvery metal
63	transparent glass with inaccessible orange-red/black material & silvery metal
64	grey ceramic with silvery metal
65	black plastic with silvery metal
66	black ceramic with silvery metal
67	brown ceramic with silvery metal
68	black plastic with silvery metal
69	transparent glass with inaccessible orange-red/black material & silvery metal
70	yellow plastic with brown printing & silvery metal
71	black plastic with silvery metal
72	USB plug
	(a) silvery metal
	(b) white plastic
	(c) silvery metal
73	mini USB plug
	(a) silvery metal
	(b) black plastic
	(c) silvery metal
74	black plastic
75	black plastic
76	black plastic with white printing
77	USB plug
	(a) silvery metal
	(b) white plastic
	(c) silvery metal
78	semi-transparent blue plastic
79	silvery plastic
80	red plastic

Number:



Screened Components:

84 silvery metal wire

85 black magnet

86 mini USB plug

(a) silvery metal

(b) white plastic

(c) silvery metal

87 silvery plastic

88 copper color metal wire

89 red plastic

90 black plastic

91 green plastic

92 copper color metal wire

93 white plastic

94 copper color metal wire

4

95 silvery metal

1

2

3

96 black treated metal

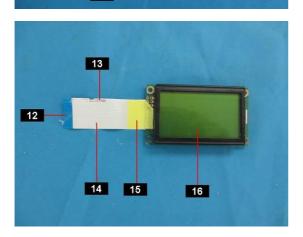
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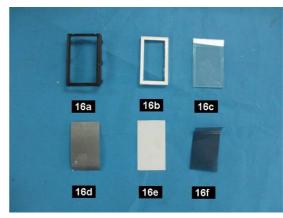
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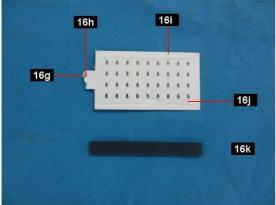


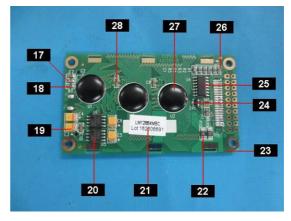
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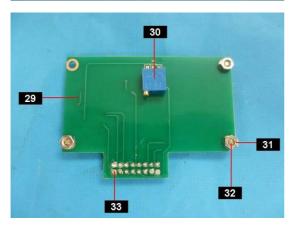


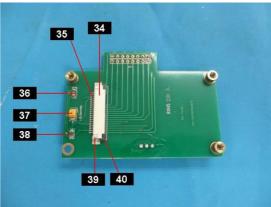


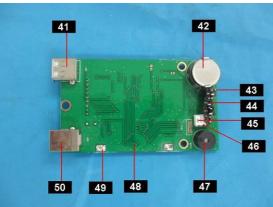


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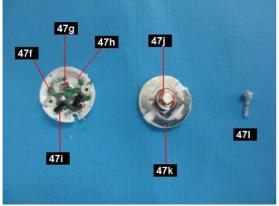


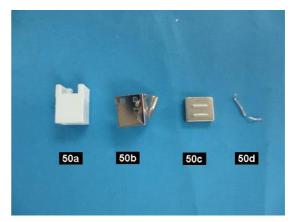




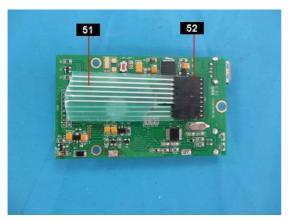
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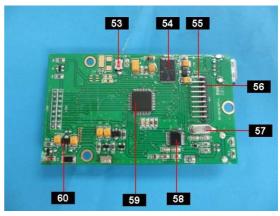


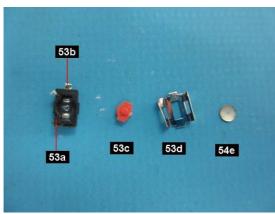


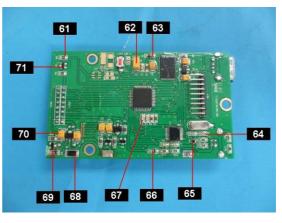


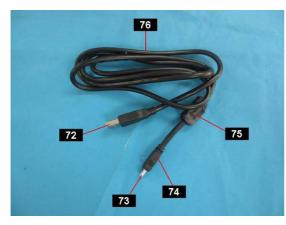
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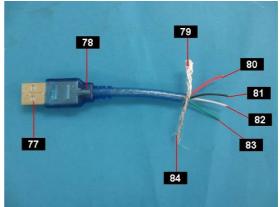










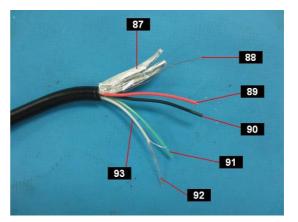




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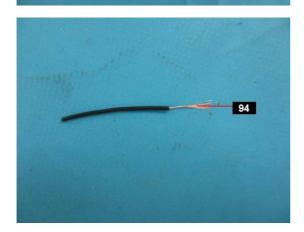
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Date sample received: Mar 18, 2014, Apr 08, 2014, Apr 18, 2014, May 14, 2014 & May 21, 2014 Testing period: Mar 18, 2014 to May 21, 2014

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End of report

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