Econn Electro Industry Corp.

APPROVAL SHEET

CUSTOMER : **A0037**

DATE : **2012-02-25**

PART NO : **CAT08U-B18-C**

CUST.P/N :

SPECIFIC : **TF CARD 外焊**

APPROVE NO：**YQ120202501**

YOUR CONFIRMATION:

SALES BY：	APPROVED BY：	CHECKED BY：	DESIGNED BY：
张华			胡丹

Econn Electro Industry Corp

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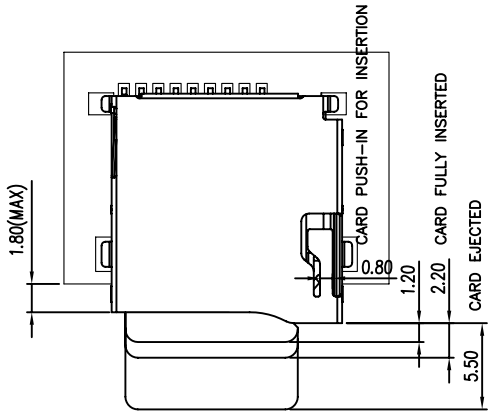
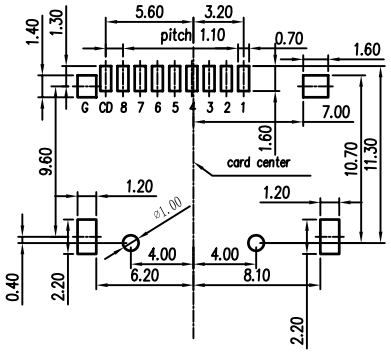
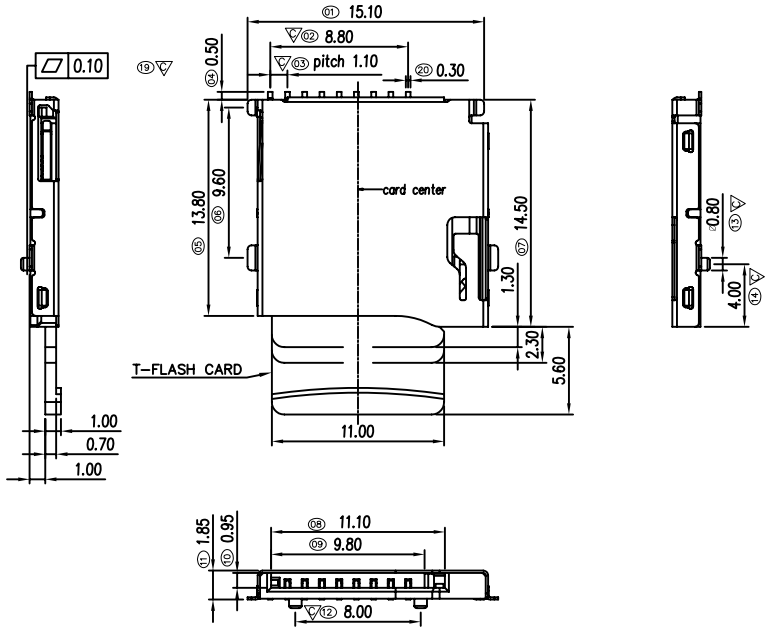
G159

REV	ECN NO.





PCB LAYOUT TOP VIEW
(TOLERANCE: ±0.05)



Pin No.	Pin assigenment	Pin No.	Pin assigenment
1	DAT2	6	VSS
2	CD/DAT3	7	DAT0
3	CMD	8	DAT1
4	VDD	Cd	CARD DETECTION
5	CLK	G	GROUND

MATERIAL SPECIFICATION:
1. HOUSING: HIGH TEMP. PLASTIC(UL94V-0)
2. CONTACT: COPPER ALLOY
3. SHELL: SUS ALLOY

ELECTRICAL PERFORMANCE
1. RATED VOLTAGE(MAX.): 100V AC/DC
2. RATED CURRENT(MAX.): 0.5A AC/DC
3. DIELECTRIC STRENGTH: 500V AC FOR 1 MINUTE BETWEEN ADJACENT TERMINAL, NO BREAKDOWN
4. INSULATION RESISTANCE: 1000 MEGOHMS MIN. 500V DC FOR 1 MINUTE BETWEEN ADJACENT TERMINAL
5. CONTACT RESISTANCE: 80 MILLIOHM MAX.
6. OPERATING TEMPERATURE: −25° to +85°

ORDERING INFORMATION

CA T 08 U − X X 8 − C
(1) (2)(3) (4)(5)(6)

1. CARD TYPE SERIES
   T: TF CARD CONNECTOR
2. NUMBER OF PIN
   08: 08 POSITIONS
3. TAIL CONSTRUCTION TYPE
   U: TRTMINAL: SMD TYPE
      SHELL: SMD TYPE
4. HOUSING COLOR CODE AND MATERIAL
   A: COLOR: BLACK AND MATERIAL: PPS
   B: COLOR: BLACK AND MATERIAL: LCP
   C: COLOR: BLACK AND MATERIAL: PA9T
   D: COLOR: BROWN AND MATERIAL: PPS
   E: COLOR: WHITE AND MATERIAL: LCP
5. CONTACT PLATING
   1: GOLD FLASH OVER NICKEL ON CONTACT AREA AND 100u" MIN. TIN PLATING OVER NICKEL ON SOLDER TAILS
   2: 15u"GOLD PLATING OVER NICKEL ON CONTACT AREA AND 100u" MIN. TIN PLATING OVER NICKEL ON SOLDER TAILS
   3: 30u"GOLD PLATING OVER NICKEL ON CONTACT AREA AND 100u" MIN. TIN PLATING OVER NICKEL ON SOLDER TAILS
6. CARD SORT
   8: TRANS FLASH PUSH TYPE

NO.	DATE	DESCRIPTION	APPROVAL
5			
4			
3			
2			
1			

DRAWING: 万 军
CHECKED: 杨朝阳
APPROVAL:

GENERAL TOLERANCE
.X: =±0.38 .X°: =±2°
.XX: =±0.25 .XX°: =±1°
.XXX: =±0.100 .XXX°: =±0.5°

UNIT: MM
PROJECTION:
SCALE: 1/1
SHEET: 1/1

Econn
Electro Industry Corp

DESCRIPTION: T FLASH MEMORY CARD CONNECTOR
PART NO: CAT08U-XX8-C REV: 1.0
DRAWING NO: P1CAT08U-XX8-C-01 SIZE: A4

1 Revision History

Rev.	ECN #	Revision Description	Approved	Date
1	EC20110222007	NEW	杨朝阳	2011-2-22

2 SCOPE

This specification covers performance, tests and quality requirements for TFR MEMORY CARD CONNECTOR

3 APPLICABLE DOCUMENTS

JIS C5402 MIL-STD-202

4 REQUIREMENTS

4.1 Design and Construction

Product shall be of design, construction and physical dimensions specified on applicable product drawing.

4.2 Materials and Finish

4.2.1 Contact: High performance copper alloy
Finish: SEE ORDER INFORMATION
4.2.2 Housing: Thermoplastic, high temp. UL94V-0
4.2.3 Shell : Stainless steel
4.2.4 Nail: High performance copper alloy
Finish: SEE ORDER INFORMATION

4.3 Ratings

4.3.1 Voltage: 100Volts AC
4.3.2 Current: 0.5Amperes
4.3.3 Operating Temperature : -25℃ to +85℃

5 Performance

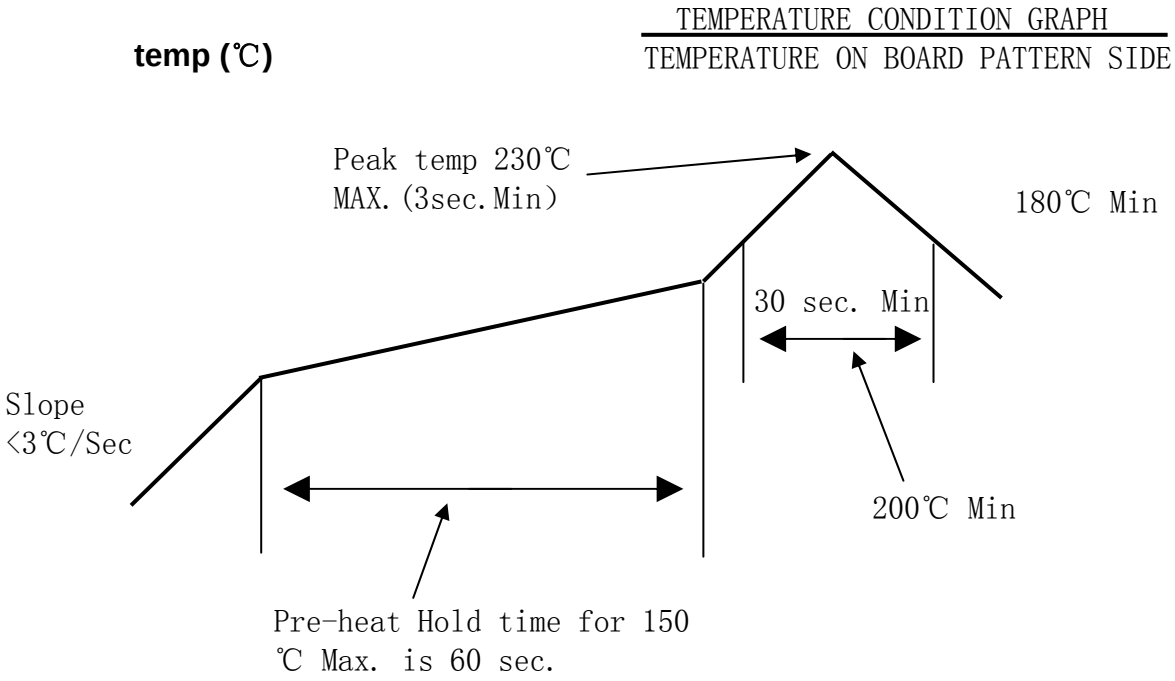
Item	Requirement	Standard
Examination of Product	Product shall meet requirements of applicable product drawing and specification.	Visual, dimensional and functional per applicable quality inspection plan.
ELECTRICAL		
Low-signal Level Contact Resistance	80 m Ω Max.(initial)per contact	Mate dummy card, measure by dry circuit, 20mV MAX., 10mA MAX. (JIS C5402 5.4)
Insulation Resistance	1000 M Ω Min.	Apply 500V DC between adjacent pins or pin and ground. (JIS C5402 5.2/MIL-STD-202 Method 302)
Dielectric Withstanding Voltage	No breakdown.	Apply 500V AC for 1 minute between adjacent terminals and ground. (JIS C5402 5.1/MIL-STD-202 Method 301)
Temperature rise	30℃ Max. Change allowed	All crimp-style terminal shall be connected in a direct series by minimum AWG. The temperature rise shall be measured by thermocouple when the terminal reaches terminal equilibrium under rated voltage / rated current. (However with resistive load)
MECHANICAL		
Repeated mate / un-mate	100 milliohms MAX.	Insertion and extraction are repeated 1,000 cycles with the actually card at the speed rate of 400 - 600 cycles / hour.
Terminal & Nail Retention Force	0.98 N MIN. / PIN {0.1 kgf MIN. / PIN}	Apply axial pull out force at the speed rate of 25±3 mm / minute.

Item	Requirement	Standard
Vibration	No Damage 100mΩ MAX 1 u sec Max.	Mate dummy card and subject to the following vibration conditions, for a period of 2 hours in each of 3 mutually perpendicular axes, passing DC 1 mA during the test. Amplitude: 1.52 mm P-P Frequency: 10-55-10 Hz Shall be traversed in 1 minute. (MIL STD-202 Method 201)
Shock (Mechanical)	No Damage 100mΩ MAX 1 u sec Max.	Mate dummy card and subject to the following shock conditions. 3 shocks shall be applied along 3 mutually perpendicular axes, passing DC 1mA current during the test. (Total of 18 Shocks) Test pulse: Half Sine Peak value: 490m / s2 Duration: 11 ms (JIS C60068-2-27 / MIL-STD-202 Method 213)
ENVIRONMENTAL		
Heat Resistance	No Damage 100mΩ MAX	Mate dummy card and exposed to 85± 2°C for 96 hours. Upon completion of the exposure period, the test specimens shall be conditions at ambient room conditions for 1 to 2 hours, after which the specified measurements shall be performed. (JIS C60068-2-2 / MIL-STD-202 Method 108)
Cold Resistance	No Damage 100mΩ MAX	Mate connectors and expose to -25±3 ℃ for 96 hours. Upon completion of the exposure period, the test specimens shall be conditioned at ambient room conditions for 1 hour, after which the specified measurements shall be performed. (JIS C60068-2-1)

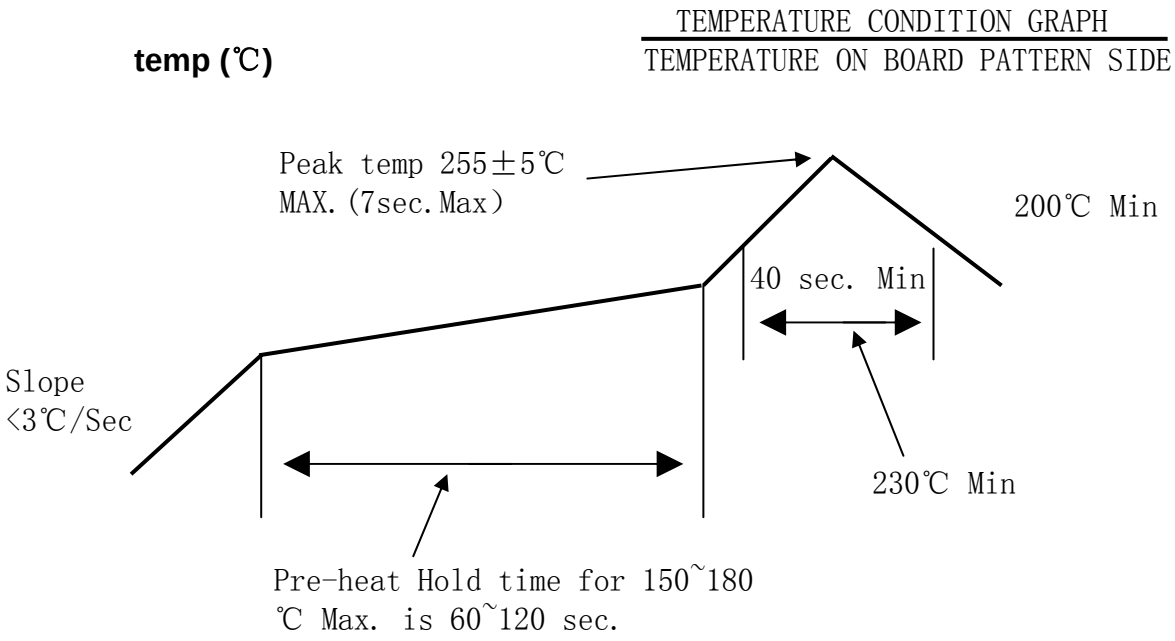
Item	Requirement	Standard
Humidity	No Damage 100mΩ MAX 1000MΩ Min.	Mate dummy card and subject to the conditions specified on per. [6] for 9 cycles. The test specimens shall be exposed to STEP 7a during only 5 out of 9 cycles. A 10th cycles consisting of only step 1 through 6 is then performed, after which the test specimens shall be conditioned at ambient room conditions of 24 hours. (MIL-STD-202 Method 106)
Temperature Cycling	No Damage 100mΩ MAX	Mate connectors and subject to the following conditions for 5 cycles. Upon completion of the exposure period, the test specimens shall be conditioned at ambient room conditions for 1 to 2hours, after which the specified measurements shall be performed. 5 cycles of : a) – 25±3°C 30 minutes b) + 85±2°C 30 minutes (JIS C0025)
SO2 Gas	No Damage 100mΩ MAX	Mate applicable FPC and expose them to the following SO2 gas atmosphere. Temperature 40±2°C Gas Density 50±5 ppm Duration 24 hours
Salt Spray	No Damage 100mΩ MAX	Subject mated/unmated connectors to 5% salt-solution concentration, 35℃ for 48 hours.
Resistance to Soldering Heat	No Damage	wave soldering method : Temperature: 260 ±5 °C Time :10 +2/ -0 Sec Reflow soldering method : Reference reflow condition at 6 clause. Soldering iron method : Temperature : 350±10°C Soldering Time :3～4 seconds MAX.
Solderability	Solder able area shall have minimum of 95% solder coverage.	Subject the test area of contacts into the flux for 5-10 sec. And then into solder bath, Temperature at 245 ±5℃, for 4-5 sec.

6 INFRARED REFLOW CONDITION

6.1. General Process : DURATION = 2 TIMES



6.2. Lead-free Process : DURATION = 2 TIMES



7 PRODUCT QUALIFICATION AND TEST SEQUENCE

Test or Examination	Test Group								
	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**
	Test Sequence								
Examination of Product				1,7	1,6	1,4	1,3		1
Low-signal Level Contact Resistance		1,5	1,4	2,10	2,9	2,5			3
Insulation Resistance				3,9	3,8				
Dielectric Withstanding Voltage				4,8	4,7				
Temperature rise	1								
Repeated mate / un-mate		2,4							
Durability		3							
Vibration			2						
Shock (Mechanical)			3						
Thermal Shock				5					
Humidity				6					
Temperature Cycling					5				
Salt Spray						3			
Solder ability							2		
Terminal & Nail Retention Force								1	
Resistance to Soldering Heat									2
Sample Size	2	4	4	4	4	4	2	4	4

Test Report

Report No.:RLSZD00113230 Page 1 of 6

Applicant :CHIN-BAN ELECTRONICS(HONG KONG)CO.,LIMITED
Address :91、92 BUILDING,FIFTH INDUSTRIAL,MASHANTOU VILLAGE,GONGMING TOWN,SHENZHEN

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

No.	Sample Name	Sample Description
1	Card Connector	Black plastic
2		The mixture of metal with silver color plating and metal with silver/golden color plating

Sample Received Date :Dec. 28, 2011
Testing Period :Dec. 28, 2011 to Dec. 31, 2011

Test Requested :1.As specified by client, to determine the Lead, Cadmium, Mercury, Hexavalent Chromium, PBBs&PBDEs content in the submitted sample.
2.As specified by client, to identify if there is the Hexavalent Chromium in the submitted sample.

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

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

Tested by _____ Inspected by Vargas

Approved by _____ Date Dec. 31, 2011
Technical Manager

No. 11361487

Test Report

Test Method:

Tested Item(s)	Test Method	Measured Equipment(s)	MDL
Lead (Pb)	IEC 62321:2008 Ed.1 Sec.8	ICP-OES	2 mg/kg
	IEC 62321:2008 Ed.1 Sec.9		
Cadmium (Cd)	IEC 62321:2008 Ed.1 Sec.8	ICP-OES	2 mg/kg
	IEC 62321:2008 Ed.1 Sec.9		
Mercury (Hg)	IEC 62321:2008 Ed.1 Sec.7	ICP-OES	2 mg/kg
Hexavalent Chromium (Cr(VI))	IEC 62321:2008 Ed.1 Annex B	UV-Vis	/
	IEC 62321:2008 Ed.1 Annex C		2 mg/kg
Polybrominated Biphenyls (PBBs)	IEC 62321:2008 Ed.1 Annex A	GC-MS	5 mg/kg
Polybrominated Diphenyl Ethers (PBDEs)	IEC 62321:2008 Ed.1 Annex A	GC-MS	5 mg/kg

Test Result(s):

Tested Item(s)	**Content**	
	Sample No.1	**Sample No.2**
Lead (Pb)	N.D.	N.D.
Cadmium (Cd)	N.D.	N.D.
Mercury (Hg)	N.D.	N.D.
Hexavalent Chromium (Cr(VI))	N.D.	/

Tested Item(s)	**Conclusion**
	Sample No.2
Hexavalent Chromium (Cr(VI))	Negative

Test Report

Test Result(s):

Tested Item(s)	Content
	Sample No.1
Polybrominated Biphenyls(PBBs)	
Monobromobiphenyl	N.D.
Dibromobiphenyl	N.D.
Tribromobiphenyl	N.D.
Tetrabromobiphenyl	N.D.
Pentabromobiphenyl	N.D.
Hexabromobiphenyl	N.D.
Heptabromobiphenyl	N.D.
Octabromobiphenyl	N.D.
Nonabromobiphenyl	N.D.
Decabromobiphenyl	N.D.
Polybrominated Diphenyl Ethers(PBDEs)	
Monobromodiphenyl ether	N.D.
Dibromodiphenyl ether	N.D.
Tribromodiphenyl ether	N.D.
Tetrabromodiphenyl ether	N.D.
Pentabromodiphenyl ether	N.D.
Hexabromodiphenyl ether	N.D.
Heptabromodiphenyl ether	N.D.
Octabromodiphenyl ether	N.D.
Nonabromodiphenyl ether	N.D.
Decabromodiphenyl ether	N.D.

Note: **The samples had been dissolved totally tested for Lead, Cadmium, Mercury.**

-MDL = Method Detection Limit

-N.D. = Not Detected (<MDL)

-mg/kg = ppm = parts per million

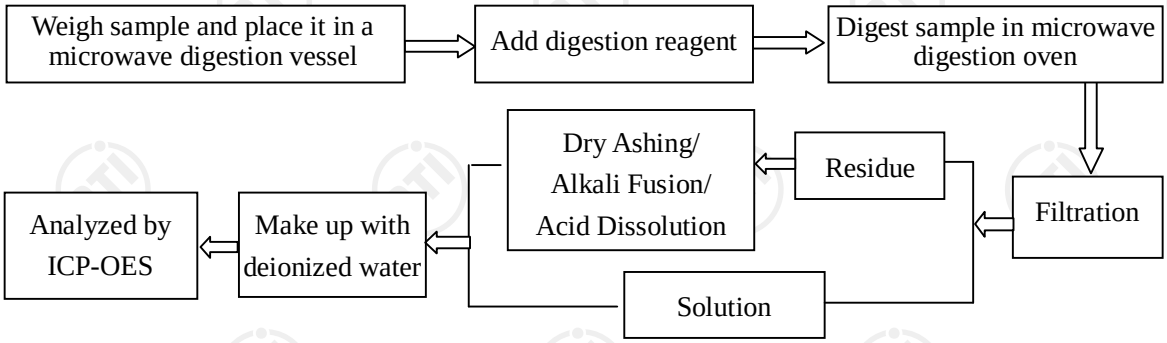
-Negative = Absence of Cr(VI) , the detected Cr(VI) concentration in the boiling water extraction solution is less than 0.02 mg/kg with 50cm^2 sample surface area used.

Test Report

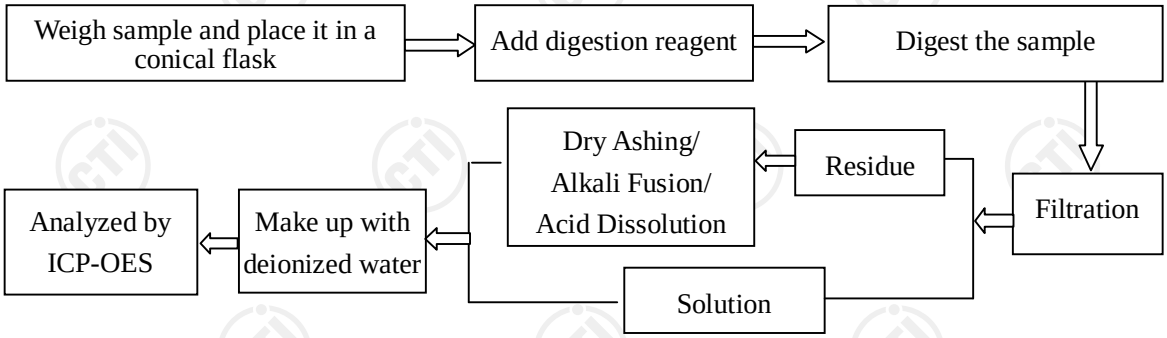
Test Process :

1. Test for Pb/Cd Content

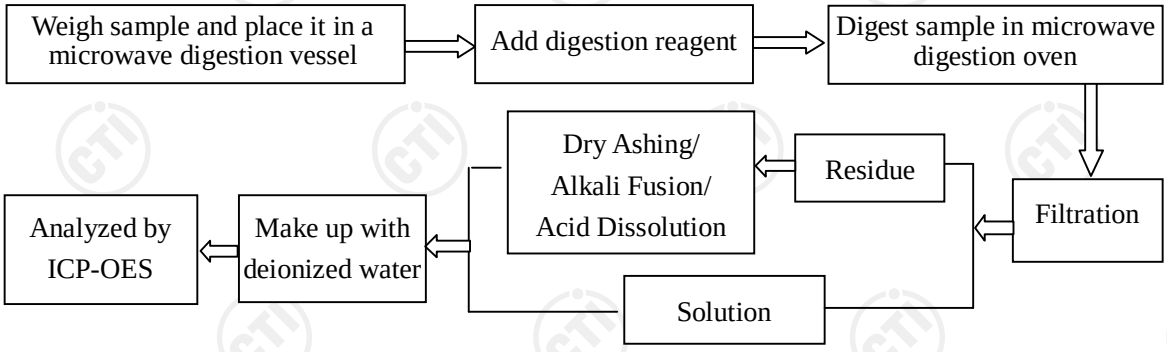
(1)IEC 62321:2008 Ed.1 Sec.8



(2)IEC 62321:2008 Ed.1 Sec.9



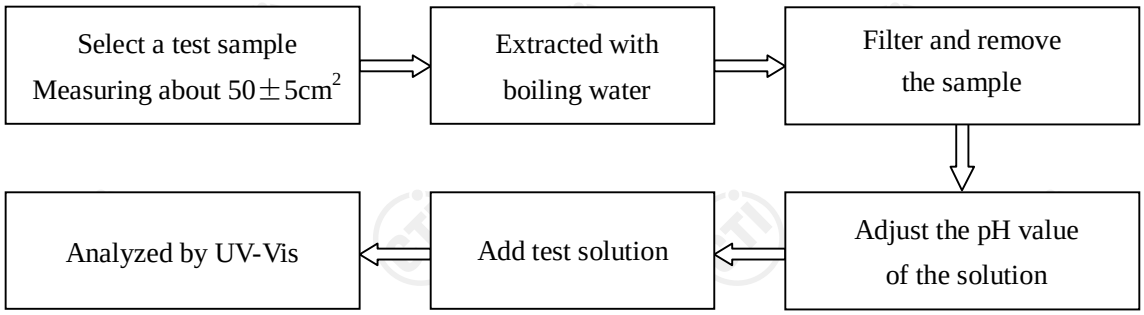
2. Test for Hg Content



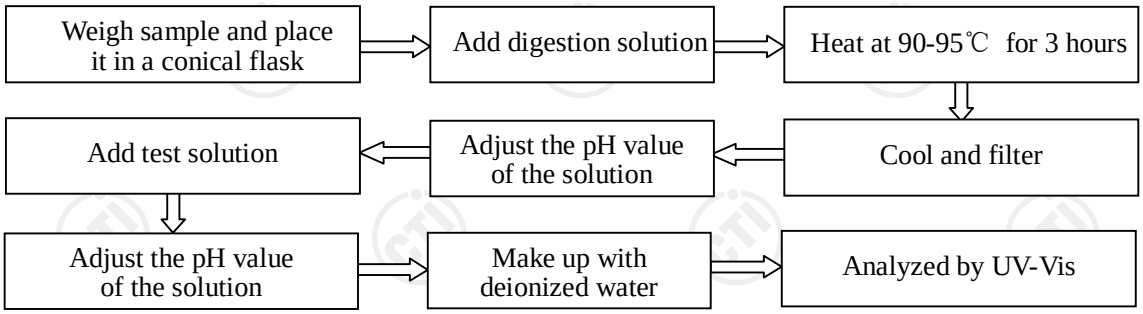
Test Report

3. Test for Chromium(Ⅵ) Content

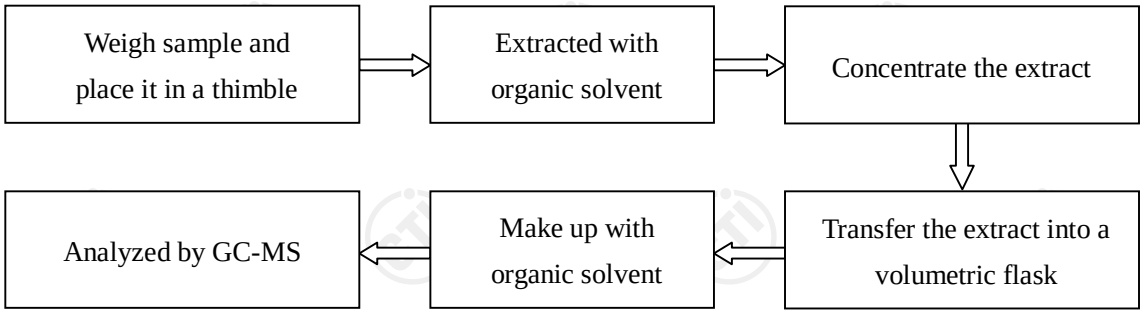
(1)IEC 62321:2008 Ed.1 Annex B



(2)IEC 62321:2008 Ed.1 Annex C



4. Test for PBBs/PBDEs Content

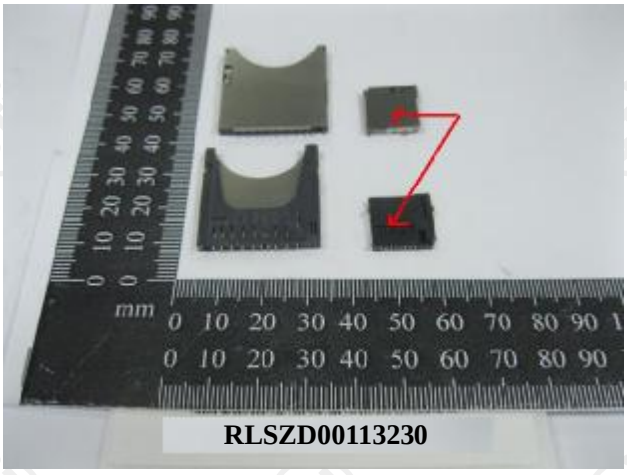


Test Report

Photo(s) of the sample(s)

Sample No.1

Sample No.2



*** End of report ***