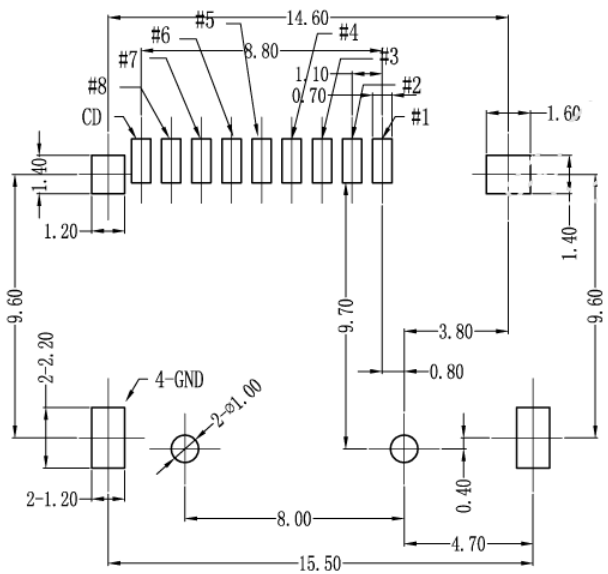
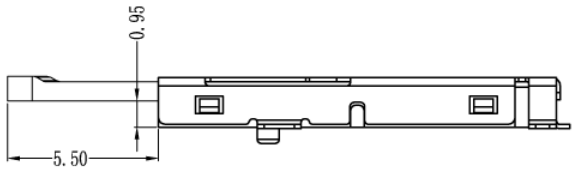
＊所有原料材质,生产制程,电镀必须符合ROHS要求

RECOMMEND PCB LAYOUT:

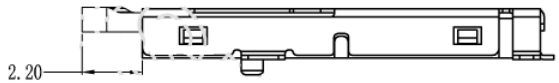
(Unit:mm .X ± 0.15 .XX ±0.05 .XXX ± 0.02)



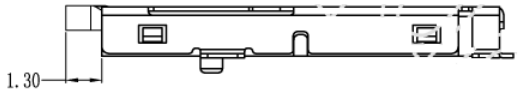
T-FLASH Card Insert Drawing:



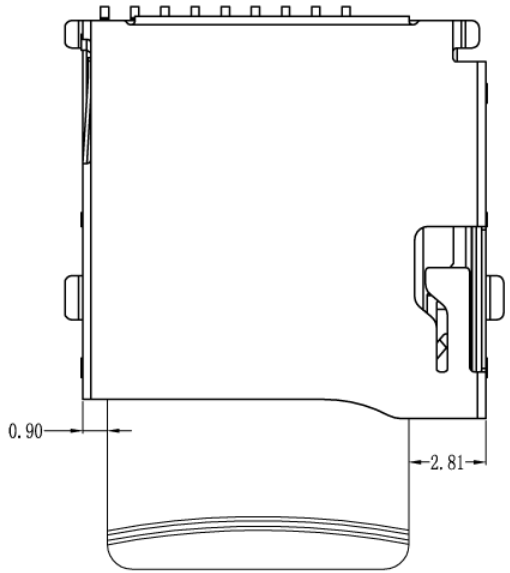
Micro SD Card -Un Lock



Micro SD Card -Lock



Micro SD Card -Push



PIN NO.	PIN ASSIGNMENT
1#	DAT2
2#	CD/DAT3
3#	CMD
4#	VDD
5#	CLK
6#	VSS
7#	DAT0
8#	DAT1

深圳市华宇创精密电子有限公司

REVISION NO.	ECR NO.	DESCRIPTION	MARK	DATE

DIMENSIONS INIT: mm
UNLESS OTHERWISE SPECIFIABLE

DIMENSION	TOLERANCE
X.X: ±	0.38
X.XX: ±	0.25
X.XXX: ±	0.10
ANGULAR: ±	1°

PRODUCT NAME : T-FLASH 卡座PUSH/PUSH	DRAWING: COCO	DATE: 2008/04/10	
PRODUCT NO. : 0011XAAX09X	CHECK: JANY	DATE: 2009/04/11	
DRAWING NO. : NT-001	APPROVED: JEFF	DATE: 2009/04/11	
	SCALE: 1:1	DWG ID: C D	REV.: A
			PAGE: 2 OF 2

1.0: SCOPE

This specification covers the requirements for product performance and test methods of the micro SD (push to push) connector. Product shall be of the design, construction and physical dimensions specified in the applicable product drawing

2.0: Rating:

2.1 Current rating: 0.5A AC/DC Min

2.2 Rated voltage: 100V RMS

2.3 Operating Temperature: -25ºC~+85ºC

Storage Temperature:-40ºC~+85ºC（500hours）

2.4 Relative humidity: 95%Maxmum (non-condensing)

3.0: Test Condition:

3.1 Temperature range: 20ºC±5ºC

3.2 Humidity range: 25%~85%

4.0: Test Methods and Requirements:

4.1 Examination of product:

Item	Test Description	Test Methods	Requirement
4.1.1	Examination of product	Shall be confirmed with eyes in accordance with each drawing.	Outward appearance shall be good without such injurious problem.

4.2 Electrical Performance:

Item	Test Description	Test Methods	Requirement
4.2.1	Contact Resistance	Mate card measured dry circuit, 20 m volts Max. 10mA Max	100 mΩ Max. Initial 100+/-40mΩ Max. Final
4.2.2	Insulation Resistance	Apply 500V DC between adjacent pins or pin and ground.	1000MΩ Min

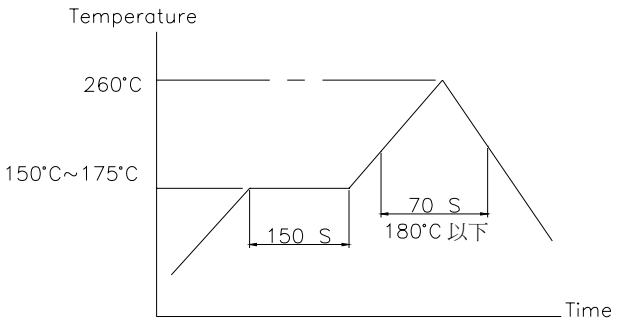
4.2.3	Dielectric Withstanding Voltage:	Apply 500V AC for 1 minute between adjacent terminals and ground.	No breakdown

4.3 Mechanical Performance

Item	Test Description	Test Methods	Requirement
4.3.1	Single Contact Force	Apply axial pull out force at the speed rate of 25±3mm/minute.	contact: 1N/PIN Min.
4.3.2	Insertion Force	Push the card in at the speed rate of 25±3mm/minute.	No damage
4.3.3	Withdrawal Force	Drag the card out at the speed rate of 25±3mm/minute.	1.96N Min
4.3.4	Durability	Insertion and extraction are repeated 10,000 cycles with the card at the speed rate of 400-600 cycles/hour.	Appearance no damage. After test contact resistance 100+/-40 mΩ Max.
4.3.5	Vibration	Mate card and subject to the following vibration conditions, for a period of 2 hours in each of 3 mutually perpendicular axes, passing DC 1mA during the test. Amplitude: 1.52mm p-p or 19.6m/s2 (2G) Frequency: 10-55-10Hz Shall be traversed in 1 minute.	Appearance no damage. After test contact resistance 100+/-40 mΩ MAX. Discontinuity 0.1microsec.Max.

4.3.6	Shock	Mate 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: 11ms	Appearance no damage. After test contact resistance 100+/-40 MAX. Discontinuity 0.1 microsec. Max.

4.4 Environmental performance and others

Item	Test Description	Test Methods	Requirement
4.4.1	Solderability	Temperature: 250 °C ±5°C Time: 3±0.5S	95% Min.of immersed area must show no voids.
4.4.2	Humidity	Temperature: 40±2 °C Humidity: 90%(RH) Period: 96 hours	Appearance no damage. After test contact resistance 100+/-40 MAX.
4.4.3	Resistance to soldering heat	 Solder time: 12±2s Solder temperature: 250 °C +5 °C	Appearance no damage

4.4.4	Salt spray	Mate card and exposed to the following salt mist conditions. Upon completion of the exposure period, salt deposits shall be removed by a gentle wash or dip in running water, after which the specified measurements shall be performed. NaCl solution: Concentration:31% Spray time: 24ours Ambient temperature: 35 °C ±2 °C	Appearance no damage. After test contact resistance 100+/-40 MAX.

5.0: Product Qualification and Requalification Test Sequence:

Test or Examination	Test Group								
	A	B	C	D	E	F	G	H	I
	Test Sequence (a)								
Examination of Product	1,5	1,5	1,6	1,8	1,5	1,3	1	1	1,5
Contact Resistance	2,4	2,4	2,5		2,4				2,4
Insulation Resistance				2,7					
Dielectric Withstanding Resistance				3,6					
Single Contact Force								2	
Insertion force							2		
Withdrawal force							3		
Durability		3							
Vibration	3								
Humidity			3	4					
Thermal Shock			4	5					
Resistance to soldering Heat					3				
Solderability						2			
Salt Spray									3
Quantity	2	2	2	2	2	2	2	2	2

NOTE：(a)Numbers indicate sequence in which tests are performed.

Test Report (SVHC) No.: GZ1104032105/CHEM Date: Feb 21, 2011 Page 1 of 5

DONGGUAN CITY GAOTE PLASTICS TECHNOLOGY CO., LTD
XIN' AN SECOND ROAD 338, VENTURE BUSINESS CENTER ROOM 601, CHANGAN TOWN, DONGGUAN CITY

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

SGS Job No.	: SZ11759307
SGS Internal Reference No.	: 2.1
Date of Sample Received	: Feb 16, 2011
Testing Period	: Feb 16, 2011 TO Feb 21, 2011

Test Requested : Fifteen (15) Substances of Very High Concern (SVHC) screening
Based on the SVHC candidate list published by European Chemicals Agency (ECHA) on 2008 October 28, regarding Regulation (EC) No 1907/2006 concerning REACH.

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

Summary : According to the specified scope and analytical technique, concentrations of all 15 SVHC are <0.1% in the submitted sample(s).

Signed for and on behalf of
SGS-CSTC Ltd.

Zhou Songying, David
Sr. Engineer

SGS-CSTC Standards Technical Services Co., Ltd. Guangzhou Customs Technical Center Chemical Laboratory
198 Kezhu Road,Scientech Park Guangzhou Economic & Technology Development District,Guangzhou,China 510663 t (86-20) 82155555 f (86-20) 82075125 www.cn.sgs.com
中国·广州·经济技术开发区科学城科珠路198号 邮编: 510663 t (86-20) 82155555 f (86-20) 82075125 e sgs.china@sgs.com

Test Sample:

Sample Description: Black plastic grains

Sample as received are classified as below categories :

Description
Polymers : (i.e. PVC, PET, ABS , Rubber)
Metals : (i.e. Alloy, Stainless, Aluminium)
PCBA / Composite : (i.e. PCB, IC)
Non-Metal and Non-Polymers : (i.e. Textile, Paper, Leather, Wood)
Glass / Ceramic
Others : (i.e. Chemical Substance or Preparation, Desiccant, Carbon/Ink in Cartridge)

Remark:

1. Definition of classification is listed in ***Appendix A*** of this report in accordance with 67/548/EEC and Regulation (EC) No 1907/2006.

Test Method:

SGS In-House method- RSTS-EE-SVHC-002, Analyzed by ICP/AES, GC/MS and GC/ECD.

Remarks:

1. The chemical analysis of 15 SVHC is performed by means of currently available analytical techniques against the SVHC candidate list published by ECHA on 2008 October 28, and shall refer to http://echa.europa.eu/chem_data/candidate_list_table_en.asp. This list is under evaluation by ECHA and may subject to change in the future.

2. In accordance with Regulation (EC) No 1907/2006, any producer or importer of articles shall notify ECHA, in accordance with paragraph 4 of Article 7, if a substance meets the criteria in Article 57 and is identified in accordance with Article 59(1) of the Regulation, if (a) the substance is present in those articles in quantities totaling over one tonne per producer or importer per year; and (b) the substance is present in those articles above a concentration of **0.1%** weight by weight (w/w).

3. Article 33 of Regulation (EC) No 1907/2006 requires supplier of an article containing a substance meeting the criteria in Article 57 and identified in accordance with Article 59(1) in a concentration above **0.1%** weight by weight (w/w) shall provide the recipient of the article with sufficient information, available to the supplier, to allow safe use of the article including, as a minimum, the name of that substance.

4. If a SVHC is found over the reporting limit, client is suggested to identify the component which contains the SVHC and the exact concentration of the SVHC by requesting further quantitative analysis from the laboratory.

SGS-CSTC Standards Technical Services Co., Ltd. Guangzhou Branch Chemical Laboratory
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Member of the SGS Group (SGS SA)

Test Result:

Substance Name	CAS number	EC number	Concentration (%)	Reporting Limit (%)	Classification
Alkanes, C10-13, chloro (Short Chain Chlorinated Paraffins)	85535-84-8	287-476-5	ND	0.01	PBT
Anthracene	120-12-7	204-371-1	ND	0.005	PBT
5-tert-butyl-2,4,6-trinitro-m-xylene (musk xylene)	81-15-2	201-329-4	ND	0.005	vPvB
Dibutyl phthalate (DBP)	84-74-2	201-557-4	ND	0.005	Toxic to Reproduction Category 2
4,4-Diaminodiphenylmethane	101-77-9	202-974-4	ND	0.005	Carcinogen Category 2
Benzyl butyl phthalate (BBP)	85-68-7	201-622-7	ND	0.005	Toxic to Reproduction Category 2
Bis (2-ethylhexylphthalate) (DEHP)	117-81-7	204-211-0	ND	0.005	Toxic to Reproduction Category 2
Hexabromocyclododecane (HBCDD) and all major diastereoisomers identified (α – HBCDD, β-HBCDD, γ-HBCDD)	25637-99-4 and 3194- 55-6 (134237-51-7, 134237-50-6, 134237- 52-8)	247-148-4 and 221-695-9	ND	0.005	PBT
Bis(tributyltin)oxide*	56-35-9	200-268-0	ND	0.005	PBT
Cobalt dichloride*	7646-79-9	231-589-4	ND	0.005	Carcinogen Category 2
Diarsenic pentaoxide*	1303-28-2	215-116-9	ND	0.005	Carcinogen Category 1
Diarsenic trioxide*	1327-53-3	215-481-4	ND	0.005	Carcinogen Category 1
Triethyl arsenate*	15606-95-8	427-700-2	ND	0.005	Carcinogen Category 1
Lead hydrogen arsenate*	7784-40-9	232-064-2	ND	0.005	Carcinogen Category 1; Toxic to Reproduction Category 1
Sodium dichromate*	10588-01-9	234-190-3	ND	0.005	Carcinogen Category 2; Mutagen Category 2; Toxic to Reproduction Category 2

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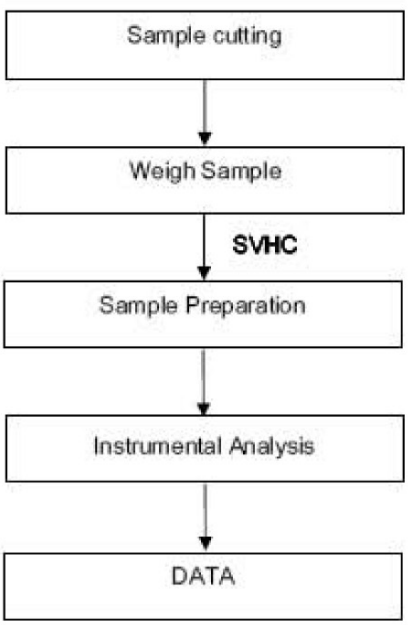
ATTACHMENTS

Testing Flow Chart

1) Name of the person who made measurement: Luke Xu / Yimin Fang
2) Name of the person in charge of measurement: Adams Yu / Tina Zhao



Sample photo :

SGS authenticate the photo on original report only

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Test Report

No. CANEC1103169302 Date: 22-Feb-2011 Page 1 of 3

DONGGUAN JINLE METALS MATERIAL CO.,LTD
NO.2,11TH BUILDING,THE SECOND INDUSTRY AREA,ZHEN KOU,HUMEN TOWN,DONGGUAN CITY
CHINA

The following sample(s) was/were submitted and identified on behalf of the clients as :
C5210

SGS Job No.	:	11200887 - GZ
SGS Internal Reference No.	:	4.2
Date of Sample Received	:	16-Feb-2011
Testing Period	:	16-Feb-2011 - 22-Feb-2011
Test Requested	:	Selected test(s) as requested by client.
Test Method	:	Please refer to next page(s).
Test Results	:	Please refer to next page(s).
Conclusion	:	Based on the performed tests on submitted sample(s), the results **comply with** the RoHS Directive 2002/95/EC and its subsequent amendments.

Signed for and on behalf of
SGS-CSTC Ltd.

Huang Fang, Sunny
Sr. Engineer

SGS-CSTC Standards Technical Services Co., Ltd.
Guangzhou Branch Electronic Technical Laboratory
198 Kezhu Road, Scientech Park Guangzhou Economic & Technology Development District, Guangzhou, China 510663 t (86-20)82155555 f (86-20)82075113 www.cn.sgs.com
中国·广州·经济技术开发区科学城科珠路198号 邮编: 510663 t (86-20)82155555 f (86-20)82075113 e sgs.china@sgs.com

Test Results:

ID for specimen 1 : CAN11-031693.002

Description for specimen 1 : Copper-colored metal

RoHS Directive 2002/95/EC

Test Item(s)	Unit	Test Method (Reference)	Result	MDL	Limit
Cadmium (Cd)	mg/kg	IEC 62321/2nd CDV (111/95/CDV), ICP-OES	N.D.	2	100
Lead (Pb)	mg/kg	IEC 62321/2nd CDV (111/95/CDV), ICP-OES	16	2	1000
Mercury (Hg)	mg/kg	IEC 62321/2nd CDV (111/95/CDV), ICP-OES	N.D.	2	1000
Hexavalent Chromium (CrVI) by boiling water extraction	-	IEC 62321/2nd CDV (111/95/CDV), UV-Vis	Negative	◇	#

Note:

1. mg/kg = ppm
2. N.D. = Not Detected (< MDL)
3. MDL = Method Detection Limit
4. ◇ = Spot-Test:
   Negative = Absence of CrVI coating, Positive = Presence of CrVI coating;
   (The tested sample should be further verified by boiling-water-extraction method if the spot test result is negative or cannot be confirmed.)
   Boiling-water-extraction:
   Negative = Absence of CrVI coating
   Positive = Presence of CrVI coating; the detected concentration in boiling-water-extraction solution is equal or greater than 0.02 mg/kg with 50 cm^2 sample surface area.
5. # = Positive indicates the presence of CrVI on the tested areas.
   Negative indicates the absence of CrVI on the tested areas.
6. "- " = Not regulated

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Sample photo:

CANEC1103169302

CAN11-031693.002

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*** End of Report ***