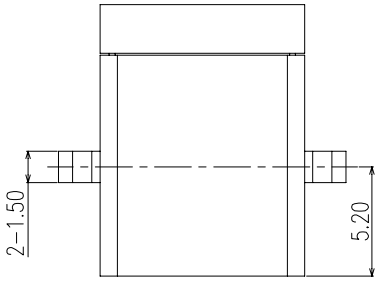
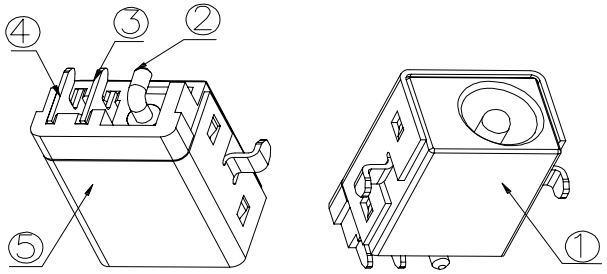
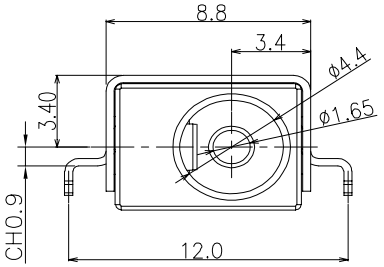
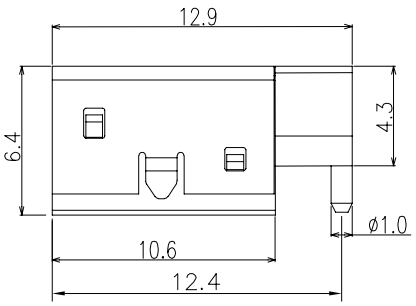
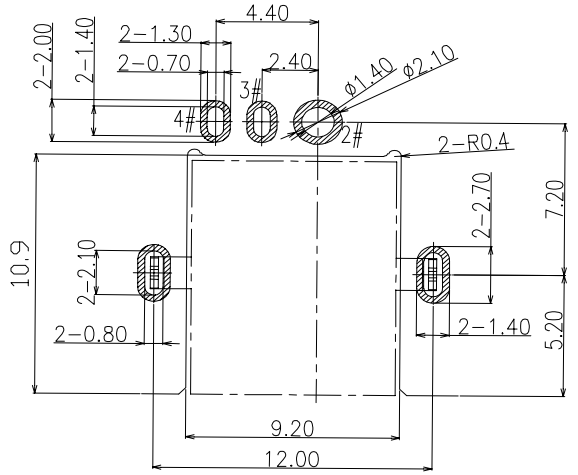




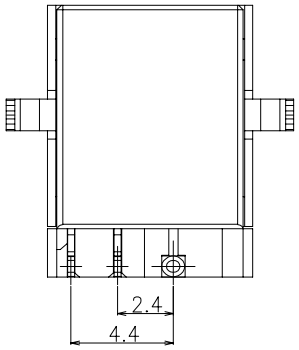
SPECIFICATION
RATING: DC 24V 3A
CONTACT RESISTANCE: 50mΩ Max.
INSULATION RESISTANCE: 100 MΩ Min.
DIELECTRIC WITHSTAND VOLTAGE: 500V AC
OPERATING FORCE: 3-30N
DURABILITY TEST: 5,000 CYCLES
TEMPERATRUE RANGE: -25°C TO +70°C
MATERIALS & PLATING: SEE THE TABLE BELOW

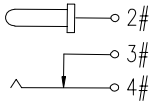






RECOMMENDED PCB LAYOUT
TOP VIEW TOLERANCE±0.05mm





CIRCUIT DIAGRAM

NO.	PART NAME	QT'Y	MATERIAL	REMARK
5	SHELL		BRASS	Ag plated
4	TIP SPRING		C5191	Ag plated
3	SHUNT TERMINAL	1	BRASS	Ag plated
2	PIN	1	H59	Ag plated
1	HOUSING	1	PPA	BLACK

1	PROPOSAL DRAWING	Jason	2020/08/06
REV.	REVISION RECORD	DRAW	DATE

TOLERANCE
X. ±0.50 X.XXX ±0.15
X.X ±0.35
X.XX ±0.25 Angular ±2°

UNIT mm

DWG TYPE. Customer Drawing

PART NO. ICTD-406C23D-001A

DRAWING NO. **********

深圳市文章济美科技有限公司

TITLE. DC POWER JACK

APPROVED BY	CHECKED BY	DRAWN BY	PAGE	REV.
Jason 2020/08/06	Eva 2020/08/06	Jack 2020/08/06	1 OF 1	1
			SCALE 1:1	

PRODUCT SPECIFICATION

Connector

Approved by	Check by	Prepare by

Revision History

Rev. No.	Rev. Date	Description
01	2017.05.16	Initial Release

TITLE	NUMBER	
DC POWER JACK	REVISION：01	AUTHORIZED BY：
	DATE：2017.05.16	CLASSIFICATION：UNRESTRICTED

SCOPE

This specification covers performance, tests and quality requirements for the DC POWER JACK connector.

1. PRODUCT DESCRIPTION

1.1 DIMENSIONS, MATERIALS, PLATINGS AND MARKINGS

See the appropriate sales drawing for information on dimensions, materials, plating and markings.

1.2 Product shall be of the design, construction and physical dimensions specified on the applicable product drawing. Solder components shall meet lead-free soldering requirements.

2. APPLICABLE DOCUMENTS AND SPECIFICATIONS

2.1 Please refer to the Sales Drawings, and other sections of this Specification for specific references to applicable documents and specifications. Unlessotherwise specified, the latest edition of the document applies. In cases where the Product Specification differs from the Sales Drawings, the Sales Drawing will take precedence.

2.2 Industry Standard:

EIA-364: Electrical Connector/Socket Test Procedures Including Environmental Classifications.

3. RATINGS

Voltage : DC 24V Current : 3A

Operating Temperature : -40℃ to +85℃

Storage Temperatur : -25℃ to +70℃

Humidity Range : 45% to 80% RH

Durability : 5000 Cycles

TITLE	NUMBER	
DC POWER JACK	REVISION：01	AUTHORIZED BY：
	DATE：2017.05.16	CLASSIFICATION：UNRESTRICTED

4. PERFORMANCEATINGS

Product is designed to meet the electrical, mechanical and environmental performance requirements specified. Unless otherwise specified, all tests shall be performed at ambient environmental conditions per EIA-364.

5. APPEARANCE REQUIREMENTS

ITEM	DESCRIPTION	TEST CONDITION	REQUIREMENT
5.1	Visual and dimensional inspections	Visual, dimensional and functional per applicable quality inspection plan. EIA 364-18	Meets requirements of product drawing. No physical damage.

6. ELECTRICAL PERFORMANCE

ITEM	DESCRIPTION	TEST CONDITION	REQUIREMENT
6.1	Contact resistance	Mated the pulg and receptacle connector together, with dry circuit of 20mv and a current of 100mA. Per EIA-364-23	Initial: 50mΩ Max. Final: 100mΩ Max.
6.2	Insulation resistance	Measurement shall be performed after 60 second from voltage application 250vdc between the contact Per EIA-364-21	Initial: 100MΩ Min. After test: 100MΩ Min.
6.3	Dielectric withstanding voltage	Apply 500V AC for 1 minute between adjacent terminals or terminal and ground. Per EIA-364-20	No voltage breakdown

7. ENVIRONMENTAL PERFORMANCE

ITEM	DESCRIPTION	TEST CONDITION	REQUIREMENT
7.1	Humidity Exposure	The Connector shall be mated and exposed to the condition of +40±2℃ RH 90~95% humidity for 96 hours. Recovery time 1~2 hours Per EIA-364-31	Appearance : no damage Contact resistance :100mΩ maximum; Insulation resistance: 100MΩ Min.
7.2	Thermal Shock	The Connector shall be mated and exposed to the following condition for 5 cycles. 1 cycle: a) -30±3℃ for 30 minutes b) +80±3℃ for 30 minutes Transit time shall be within 3 minutes, Recovery time 1~2 hours Per EIA-364-32	
7.3	Salt Spray Test	The Connector shall be mated and exposed to the following salt mist conditions. At the completion of the exposure period, salt deposits shall be removed by a	Appearance : no damage Contact resistance :100mΩ maximum;

TITLE	NUMBER	
DC POWER JACK	REVISION : 01	AUTHORIZED BY :
	DATE : 2017.05.16	CLASSIFICATION : UNRESTRICTED

		gentle wash or dip in running water, after which the specified measurements shall be performed. NaCl solution : Concentration : 5±1% Spray time : 12 hours Temperature : 35±2°C Per EIA-364-26 condition A	Insulation resistance: 100MΩ Min.
7.4	Solderability	Dip solder tails into the molten solder(held at 245±5℃) up to 0.5mm from the tip of tails for 3±0.5 seconds.	Contact solder Pad shall have a Min. 90% solder coverage

8. MECHANICAL PERFORMANCE

ITEM	DESCRIPTION	TEST CONDITION	REQUIREMENT
8.1	Total Insertion and Withdrawal Force	Operation Speed：25.4 mm/min.	Insertion and Withdrawal Force: 3~30N
8.2	Durability	5,000 cycles of operation at a rate of 20~30 cycles per minute with unloading. Per EIA-364-09C	(1). Contact resistance: 100mΩ Max. (2). Insertion and Withdrawal Force: 3~30N

9. PACKAGING

See packaging specification and pack assembly drawing. Parts shall be packaged to protect against damage during handing, transit and storage.

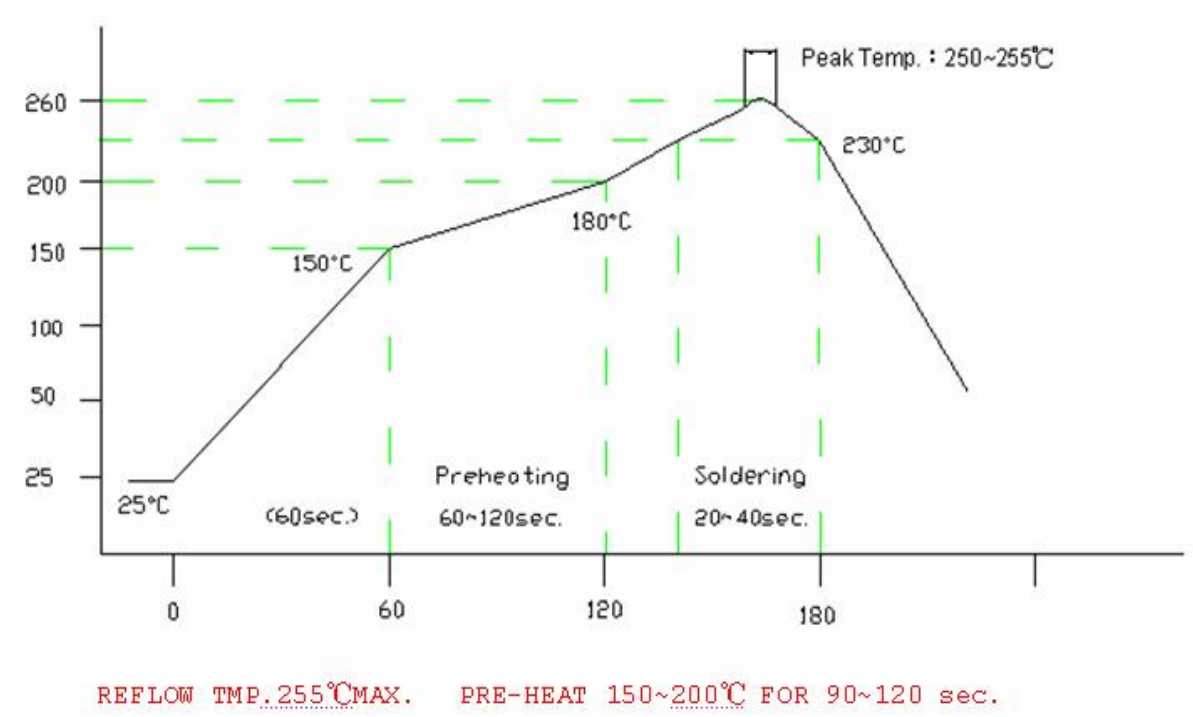
10. TEST SEQUENCES : (SAMPLE GROUP SIZE: 5PCS)

Test or Examination	Test group									
	A	B	C	D	E	F	G	H	I	
Number of sample	5	5	5	5	5	5				
Confirmation of sample	1,7	1,6	1,9	1,9	1,5	1,3				
Contact resistance (Low level)	2,6	2,5	2,6	2,6	2,4					
Insulation resistance			3,7	3,7						
Dielectric withstanding voltage			4,8	4,8						
Durability	4									
Total Insertion and Withdrawal Force	3,5									
Thermal Shock			5							
Humidity				5						
Salt Spray Test					3					
Solderability						2				

notes:(a)numbers indicate sequence in which tests are performed

TITLE	NUMBER	
DC POWER JACK	REVISION : 01	AUTHORIZED BY :
	DATE : 2017.05.16	CLASSIFICATION : UNRESTRICTED

11. RECOMMENDED TEMPERATURE PROFILE



REFLOW TMP. 255℃MAX. PRE-HEAT 150~200℃ FOR 90~120 sec.