

承认书

SPECIFICATION FOR APPROVAL

Rev.A

FILE NO. AS-PJ-394G2-HF

客户名称

CUSTOMER NAME.

客户料号

CUSTOMER PART NO.:

型 号

Model Type:

PHONE JACK

制造者系列号

Maker Series No.:

PJ SERIES

制造者料号

Maker Part No.:

PJ-394G2-HF

日 期

DATE

2021.03.06

Approved by Customer:



香港春生实业有限公司

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Specifications

Model Type:	EARPHONE JACK	Designed	Checked	Approved
Maker Series No.:	PJ SERIES	Linda. Chen	Paul. Wei	Paul. Wei
Maker Part No.:	PJ-394G2-HF			
Customer Ref.:				

1. APPLICATION

This specification covers the requirements for earphone jacks used for radios, radio cassettes, cassette tape recorders, TV'S, video cassette recorders, video disk units, etc.

2. RATED

2.1. Practical temperature range: -25° C to +70° C

Humidity range: 85% RH.MAX.

2.2. Rated voltage: 30V DC

2.3. Rated current: 0.3A

3. CONSTRUCTION

3.1. Outline And Dimension

Outline and dimension of the jack shown be as attached part drawing.

3.2. Part And Material

The parts and materials shown be in material identification sheet and certification of material.

4. REQUIREMENTS

4.1. Electrical

4.1.1. Insulation resistance

Insulation resistance of the jack between mutually insulated terminals or metalic parts shall be not less than 100 megohms before test or initial, using a 500 volts DC insulation resistance meter.

TABLE 1:

Condition	Value
Initial	100 megohms or more
After heat test	
After cold test	
After resistance to soldering heat test	
After life test	
After temperature cycling test	
After humidity test	50 megohms or more

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4.1.2.Contact resistance

Contact resistance of the jack between terminals to be made a closed circuit shall be not exceed 30 milliohms before test or initial, and shall be not exceed 100 milliohms after life test, At a current of below 1 kHz by the voltage drop method or four terminals method.

TABLE 2:

Condition	Value
Initial	less than 30 milliohms
After heat test	
After cold test	
After resistance to soldering heat test	
After temperature cycling test	
After humidity test	less than 100 milliohms
After life test	

4.1.3.Withstand voltage

The Jack shall be withstood 500V (AC 50/60Hz RMS) between mutually insulated pin contacts for one minute, without breakdown.

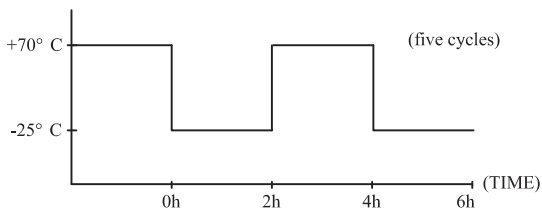
4.2. Mechanical

No.	Item	Test conditions	Requirement
4.2.1	Insertion and extraction force	Insertion and extraction force of jack shall be measured with a load cell or equivalent. The matching plug shall be inserted into the jack and extracted from the jack slowly.	3N to 30N
4.2.2	Terminal strength	Every terminal shall be capable of withstand a force of 5N for 10 seconds in any direction.	5N for 10 seconds without lossing and breakdown but deformation of terminal is accepted.
4.2.3	Loosen strength of contact	The jack shall capable of withstand a force of 5N, applied in direction of extraction of contact terminal for 10 seconds	5N for 10 seconds without lossing and breakdown
4.2.4	Life test	The life test shall consist of 7000 cycles of insertion and extraction with gauge plug covered with a thin coat of grease in order to prevent from heating and wearing, at a rate of 20 to 30 cycles per minutes under no load.	comply with paragraphs 4.1 and 4.2

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4.3. Environmental

No.	Item	Test conditions	Requirement
4.3.1	Heat test	The jack shall subjected to temperature of $70^{\circ}\text{C} \pm 2^{\circ}\text{C}$ for a period of 96 hours, then shall allowed to remain in room ambient conditions for 30 minutes.	●Comply with 4.1, 4.2 ●No appearance defect occurred
4.3.2	Cold test	The jack shall be subjected to temperature of $-25 \pm 2^{\circ}\text{C}$ for a period of 96 hours, then shall be allowed to remain in room ambient conditions for 30 minutes.	
4.3.3	Humidity test	The jack shall be subjected to temperature of $40^{\circ}\text{C} \pm 2^{\circ}\text{C}$ and relative humidity of 90% to 95% for a period of 96 hours. Upon completion of the exposure, dew drops shall be blown out and removed from it, after which it shall be conditioned at room ambient conditions for 30 minutes.	
4.3.4	Change of temperature	The product shall be subjected to conditions as shown in below, and then shall returned and allowed to remain ambient condition for 30 minutes. 	
4.3.5	Solderability test	Temperature of solder: $245 \pm 5^{\circ}\text{C}$. Time of dip: 3 ± 0.5 seconds. Length of dip: 2.5 mm (from top of terminal).	Wetting must occur over at least 95% of the solder immersion surface.

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4.4. Environmental

No.	Item	Test conditions	Requirement
4.3.6	Resistance to soldering heat test	1. Reflow solder: Temperature of solder: $260^{\circ}\text{C} \pm 5^{\circ}\text{C}$ Time: 10 seconds Max.; 2. Terminal for a lead wire: Temperature of solder: $360^{\circ}\text{C} \pm 5^{\circ}\text{C}$ Time: ≤ 4seconds	At the conclusion of the test, it shall be comply with paragraphs 4.1 and 4.2, and not show remarkable failure.
4.3.7	Salt mist test	1、 Testing bath: The temperature shall be $35^{\circ}\text{C} \pm 2^{\circ}\text{C}$ in the ambient of the specimen during the test. 2、 Spray apparatus: The apparatus shall be capable of producing fine dense mist uniformly. 3、 Salt water: The concentration of the salt water shall be adjusted at $5 \pm 1\%$ weight ratio at $35^{\circ}\text{C} \pm 2^{\circ}\text{C}$. 4、 Testing time: 8hours. After washed in water. the sample shall be left alone for 1 to 2 hours in a room ambient.	Appearance shall be not extremely rust, and contacting portions should such that they will work without hindrance for practical use.

5. TEST CONDITION

Unless otherwise specified herein, all measurements and tests shall be made at temperature of 5°C to 35°C and relative humidity of 45% to 85%.

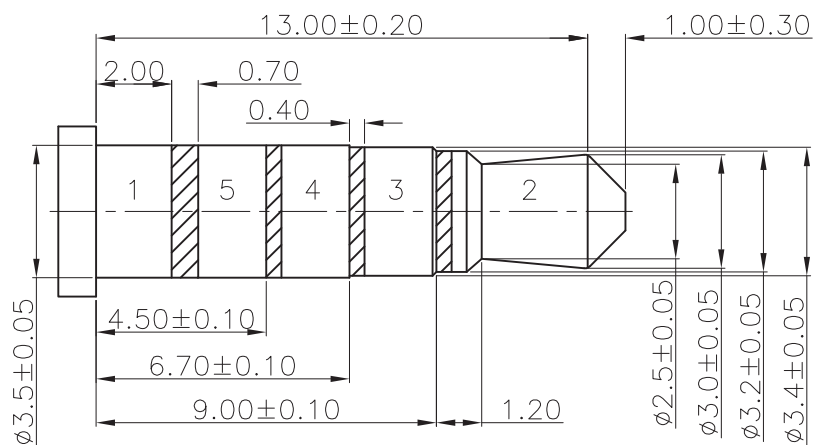
6. AMENDMENT

When the amendment of this specification comes into necessity, it shall be made by the mutual consultation and agreement between manufacture and customer.

Specifications

Description	EARPHONE JACK
Maker Model No.	PJ SERIES
Maker Part No.	PJ-394G2-HF
Customer Ref	

EARPHONE JACK GAUGE PLUG



REF. $\phi 3.5$ mm 5POLE PLUG

Surface roughness: Peak-to valley height of 0.20
micro MAX.

For insertion and extraction force:

Material: T10A

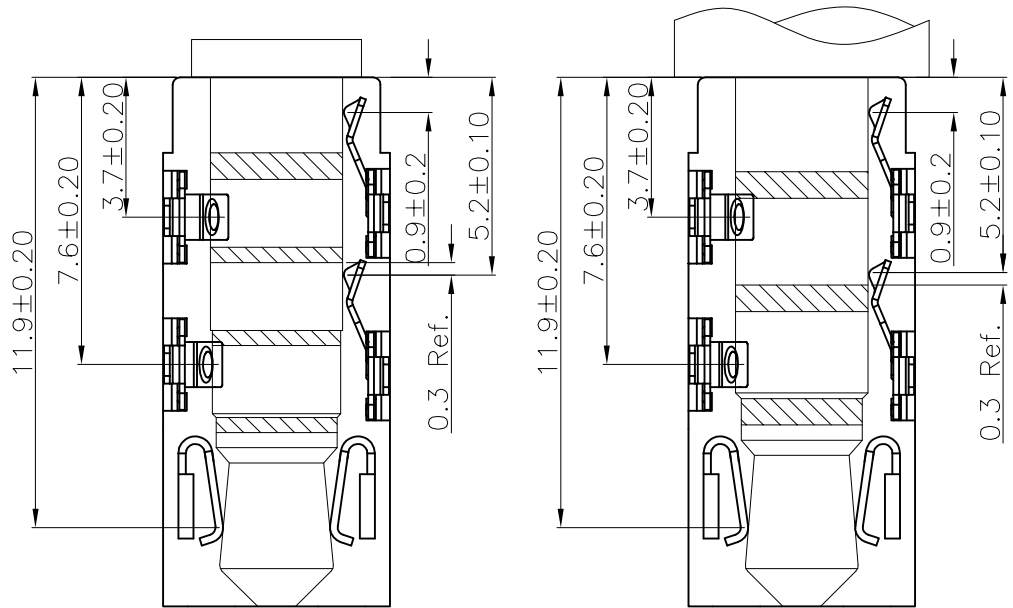
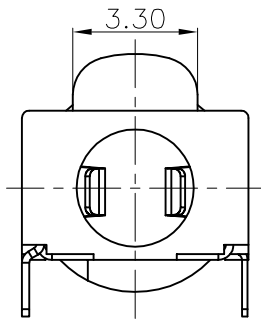
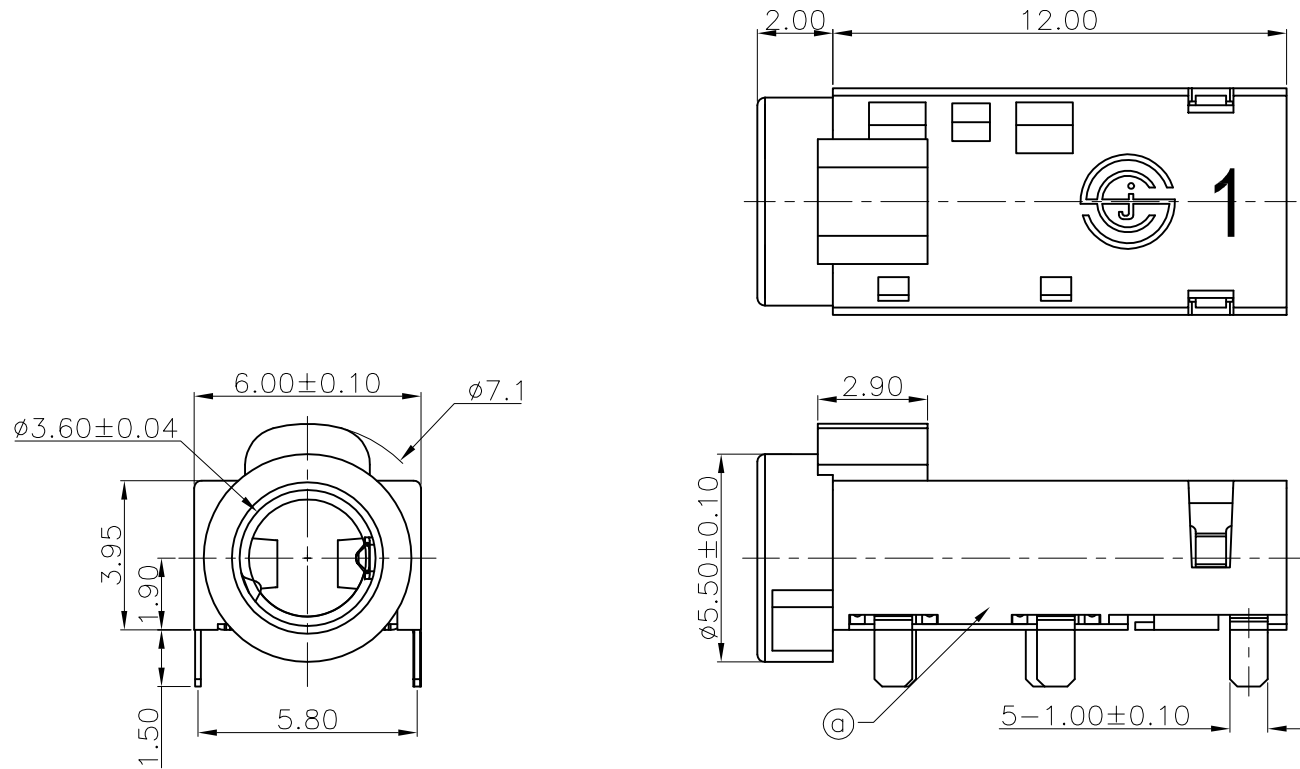
Hardness: HRC56-62

For contact resistance:

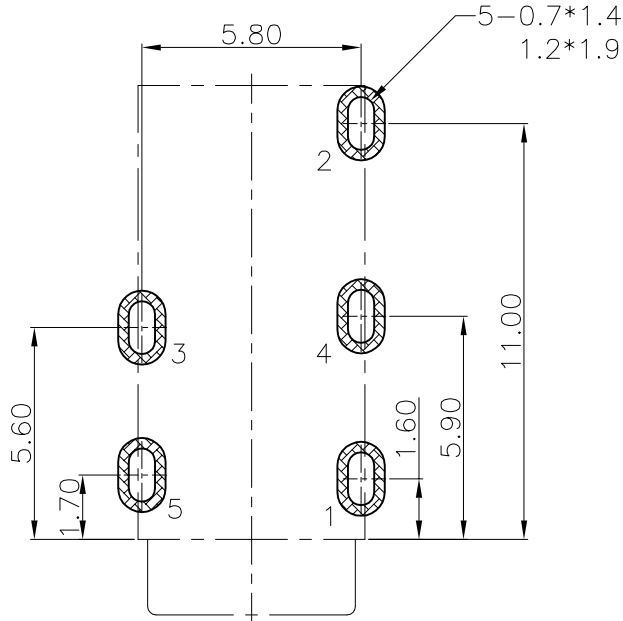
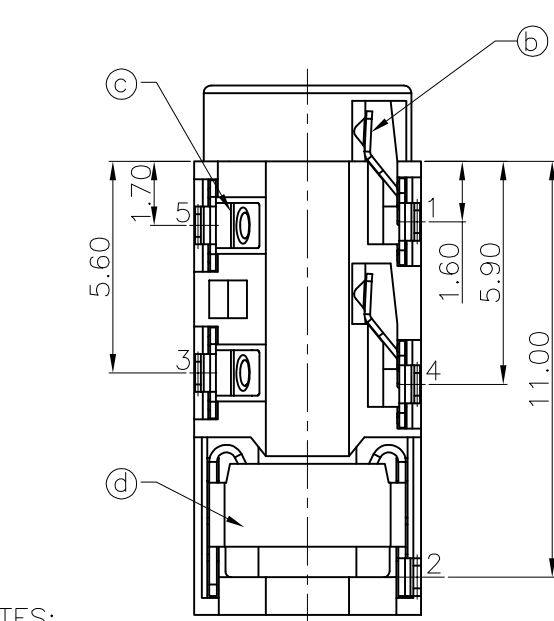
Material: Brass.

Finish: Silver plated.

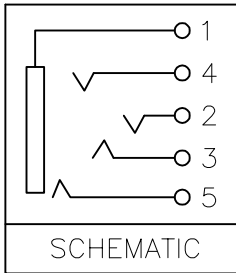
REV.	ECN NO.	MODIFIED MARK	APPROVED
A	JC-1904018	初版发行	Frank.Lei



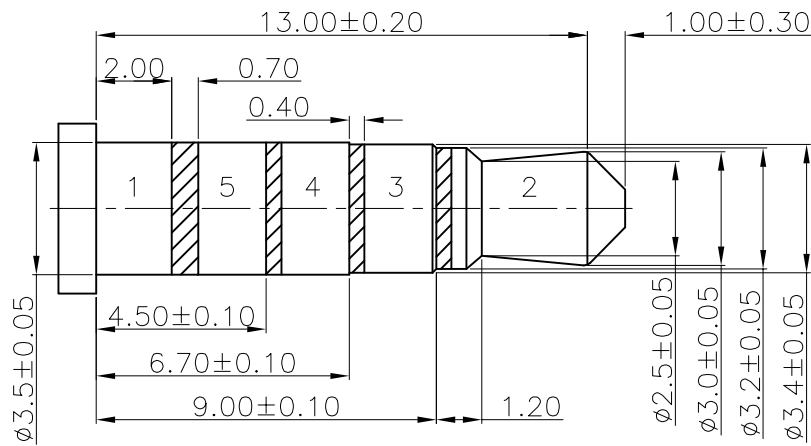
模拟5极插头接触状态 模拟4极插头接触状态



RECOMMENDED PCB LAYOUT
(TOP VIEW) TOLERANCE:±0.05



SCHEMATIC



REF. Ø3.5mm 5POLE PLUG

NOTES:
ELECTRICAL:
1:RATED CURRENT: 0.3A Max.
2:RATED VOLTAGE: 30V DC(RMS).
3:CONTACT RESISTANCE: 30 MILLIOHMS Max.
AFTER TESTING:100 MILLIOHMS Max.
4:INSULATION RESISTANCE: 100 MEGAOHMS Min.
5:DIELECTRIC WITHSTANDING VOLTAGE: 500 VAC Min.
MECHANICAL:
1:INSERTION FORCE: 30N Max..
2:WITHDRAWAL FORCE: 3N Min..
3:DURRABILITY: 7000 CYCLES.
ENVIRONMENTAL:
TEMPERATURE RANGE: -25°C TO 70°C.



①	CONTACT-3		2	1	BERYLLIUM BRONZE,T=0.2mm	Ag-PLATED		HF COMPLIANT		
②	CONTACT-2		3、5	2	PHOSPHOR BRONZE,T=0.15mm	Au G.F-PLATED				
③	CONTACT-1		1、4	2	PHOSPHOR BRONZE,T=0.15mm					
④	HOUSING			1	PA6T UL94 V-0	BLACK				
NO.	PART NAME		TER'NO.	Q'TY	MATERIAL	FINISH/COLOR			REMARK	
X.	±0.38	X.* ±5°	MODEL NAME: PJ-394G2-HF (PART NO.) 706-1002-0665			 浙江春生电子有限公司 Zhejiang Chunsheng Electronics Co., Ltd.				
.X	±0.30	.X.* ±3°								
.XX	±0.20	.XX* ±2°	MAT'L: See table		DESIGN: Z.E.Wu 4/11'19	TITLE: PJ-394G2-HF (CUSTOMER)				
TOL TABLE:			FINISH: See table		CHECKED: P.F.Wei 4/11'19	DWG NO.: 706-1000-0665			REV.: A	
THIS DOCUMENT IS THE PROPERTY OF CHUNSHENG ELECTRONICS CO.,LTD.,NO PART THEREOF MAY BE REPRODUCED AND USED WITHOUT THE PRIOR WRITTEN CONSENT OF THE OWNER			Q'TY: /		APPROVED: Frank.Lei 4/11'19	UNIT: mm	VIEW: 	SCALE: 8:1	SHEET: 1/1	SIZE: A3