

# 承认书

SPECIFICATION FOR APPROVAL

Rev.A

FILE NO. \_\_\_\_\_

客户名称

CUSTOMER NAME.

客户料号

CUSTOMER PART NO.:

型 号

Model Type:

DIN SOCKET

制造者系列号

Maker Series No.:

DIN SERIES

制造者料号

Maker Part No.:

DIN-536A-EP

日 期

DATE

2019.05.31

Approved by Customer:



香港春生实业有限公司

浙江春生电子有限公司

中国浙江省乐清市虹桥镇东工业区幸福路1288-5号

No.1288-5,Xinfu Road,East Industrial Zone,Hongqiao

Town,Yueqing City,Zhejiang,P.R.China

TEL:86-577-57578000

FAX:86-577-57575773

E-mail:saler@chunsheng.com

工程 部



## Specifications

Model Type:	DIN SOCKET	Designed	Checked	Approved
Maker Series No.:	DIN SERIES	Alice.Fu	Paofeng.Wei	Frank.Wei
Maker Part No.:	DIN-536A-EP			
Customer Ref.:				

### 1. GENERAL

This specification covers the requirements for DIN socket used for Radios, Radio Cassettes, Cassette Tape Recorders, TV'S, Video Cassette Recorders, Video Disk Units, etc.

### 2. RATED

2.1. Practical temperature range:  $-25^{\circ}\text{C}$  to  $+70^{\circ}\text{C}$

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 socket between mutually insulated terminals or metallic 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	50 megohms or more
After humidity test	

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### 4.1.2.Contact resistance

Contact resistance of terminal of the socket and the pin of matching plug to be made a closed circuit shall be not exceed 30 milliohms before test or initial, and shall be not exceed 60 milliohms after life test. At a current of below 1kHz 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	
After life test	less than 60 milliohms

### 4.1.3.Withstand voltage

The socket shall withstand 500V (AC 50/60Hz RMS) between mutually insulated contacts for one minute, without breakdown.

### 4.2.Mechanical

#### 4.2.1.Insertion and extraction force

Insertion and extraction force of the socket shall be measured with a load cell or equivalent. the matching plug shall be inserted into it and extracted from it slowly.

TABLE 3:

Condition	Value
Initial	4N to 40N(for switch)
After heat test	
After cold test	
After resistance to soldering heat test	
After temperature cycling test	3N to 30N(for NO switch)
After humidity test	
After life test	

#### 4.2.2.Terminal strength

Every terminal shall be capable of withstand a force of 5N for 10 seconds without lossing and breakdown, but deformation of terminal is accepted.

### 4.3.Environmental

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### 4.3.1.Life test

The life test shall consist of 5000 cycles of insertion and extraction with gauge plug covered with a thin coat of grease in order to prevent from heating or wearing, at a rate of 20 to 30 cycles per minutes under no load, At the conclusion of the test.

The socket shall comply with paragraphs 4.1 and 4.2, and be in operating condition.

### 4.3.2.Humidity test

The socket 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.

At the conclusion of the test, it shall be comply with paragraphs 4.1 and 4.2.

### 4.3.3.Heat test

The socket shall be subjected to temperature of  $70^{\circ}\text{C} \pm 2^{\circ}\text{C}$  for a period of 96 hours, then shall be allowed to remain in room ambient conditions for 30 minutes.

At conclusion of the test, it shall be comply with paragraphs 4.1 and 4.2.

### 4.3.4.Cold test

The socket 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.

At the conclusion of the test, it shall be comply with paragraphs 4.1 and 4.2.

### 4.3.5.Resistance to soldering heat test

The socket terminal shall be dipped in solder under the condition as specified below:

1. Wave solder: Terminal for a printed circuit board(PCB),

Temperature of solder:  $260^{\circ}\text{C} \pm 5^{\circ}\text{C}$

Dip time: 3-5 seconds

2. SMT Reflow solder: (only applying to smt parts)

Temperature of solder:  $235^{\circ}\text{C}$ - $250^{\circ}\text{C}$

Dip time: 15-60 seconds

3. Terminal for a lead wire:

Temperature of solder:  $380$ - $420^{\circ}\text{C}$

Time:  $\leq 4$ seconds

At the conclusion of the test, it shall be comply with paragraphs 4.1 and 4.2, and not show remarkable failure.

### 4.3.6.Soldering test

Areas of soldering shall be capable of 3/4 or more of dip terminal area.

Condition: Temperature of solder:  $245 \pm 5^{\circ}\text{C}$ .

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Time of dip:  $3 \pm 0.5$  seconds.

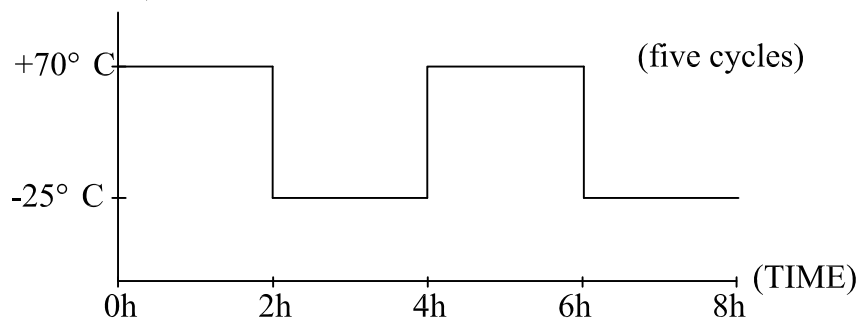
Length of dip: 2.5 mm (from top of terminal).

### 4.3.7. Temperature cycling test

The socket shall be subjected to conditions as shown in below (five cycling), and then shall be returned and allowed to remain in ambient condition for 30 minutes.

At the conclusion of the test, it shall comply with paragraphs 4.1 and 4.2.

(TEMPERATURE)



### 4.3.8. Salt mist test

Testing bath:

The temperature shall be  $35^{\circ}\text{C} \pm 2^{\circ}\text{C}$  in the ambient of the test specimen during the test.

Spray apparatus:

The apparatus shall be capable of producing fine dense mist uniformly.

Salt water:

The concentration of the salt water shall be adjusted at  $5 \pm 1\%$  weight ratio at  $35^{\circ}\text{C} \pm 2^{\circ}\text{C}$ .

Testing time:  $8 \pm 0.5$  hours.

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 be 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  $5^{\circ}\text{C}$  to  $35^{\circ}\text{C}$  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.

REV.	ECN NO.	MODIFIED MARK	APPROVED
A		FIRST RELEASE	Tony.Liao
B	JC-1407027	尺寸10.2更改10.3±0.15	Xian.Wei



#### ELECTRICAL:

##### 电气性能

RATED CURRENT: 0.3 A MAX.

额定电流: 0.3 A MAX.

RATED VOLTAGE: 30 V DC.

额定电压: 30 V DC.

CONTACT RESISTANCE: 30 MILLIOHMS MAX.

接触电阻: 30 MILLIOHMS MAX.

INSULATION RESISTANCE: 100 MEGAOHMS MIN.

绝缘电阻: 100 MEGAOHMS MIN.

DIELECTRIC WITHSTANDING VOLTAGE: 500 VAC MIN.

耐电压: 500 VAC MIN.

#### MECHANICAL:

##### 机械性能

Withdrawl force(for no switch): 3~30N

插拔力(不带开关): 3~30N

Withdrawl force(for switch): 4~40N

插拔力(带开关): 4~40N

DURRABILITY: 5000 CYCLES MIN.

耐久性: 5000 CYCLES MIN.

#### ENVIRONMENTAL:

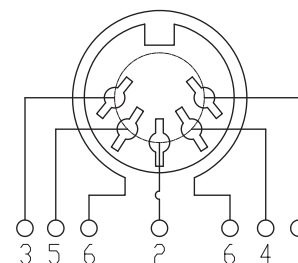
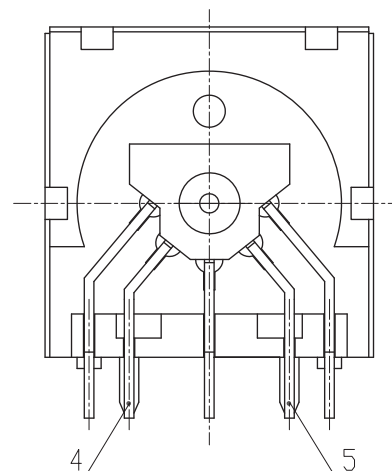
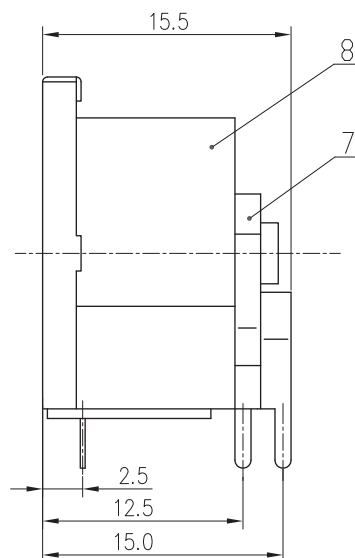
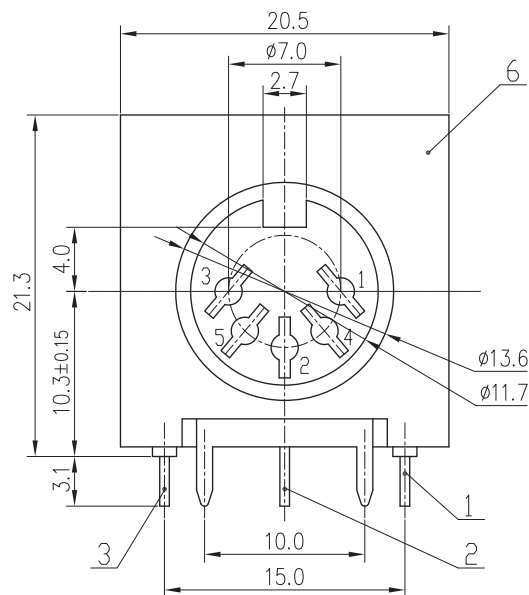
##### 环境性能

TEMPERATURE RANGE: -25°C TO 70°C.

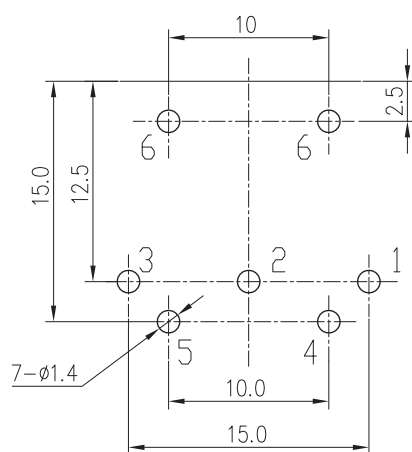
温度范围: -25°C TO 70°C.

The Part is ROHS Compliant

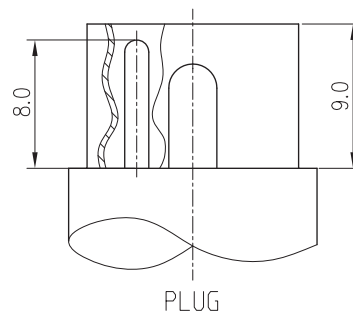
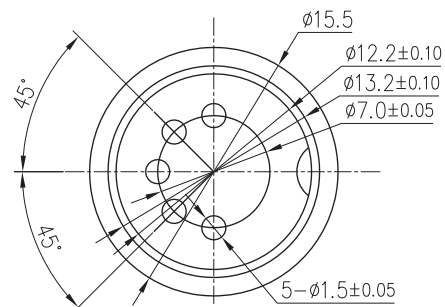
此产品符合ROHS环保要求



CIRCUIT DIAGRAM



PCB MOUNTING HOLES  
BOTTOM VIEW



PLUG

8	HOUSING	1	ABS 94HB	BLACK	
7	PLASTIC COVER	1	ABS 94HB	BLACK	
6	SHIELD	1	Brass	CuSn-PLATED	
5	5# TERMINAL	1	Brass	CuSn-PLATED	
4	4# TERMINAL	1	Brass	CuSn-PLATED	
3	3# TERMINAL	1	Brass	CuSn-PLATED	
2	2# TERMINAL	1	Brass	CuSn-PLATED	
1	1# TERMINAL	1	Brass	CuSn-PLATED	
No.	P/N	Q'TY	Material	FINISH/COLOR	Remarkd
L≤1	±0.15	X" ±2'	MODEL NAME:	DIN-536A-EP	
1<L≤8	±0.20	X" ±1'	(PART NO.)	(708-0001-0019)	
8<L≤23	±0.25	.XX" ±0.5"	MAT'L:	DESIGN:	TITLE:
23<L≤50	±0.30	TOL TABLE:		Long.Zhao 2014.07.14	DIN-536A-EP 客户图
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				Paofeng.Wei 2014.07.14	708-1000-0019
			Q'TY	APPROVED:	UNIT:
				Xian.Wei 2014.07.14	MM
					VIEW:
					SCALE:
					3:1
					SHEET:
					1/1
					SIZE:
					A3



浙江春生电子有限公司  
Zhejiang Chunsheng Electronics Co., Ltd.