

# 承认书

SPECIFICATION FOR APPROVAL

Rev.A

FILE NO. AS-HP-31LT-EP

客户名称

CUSTOMER NAME.

客户料号

CUSTOMER PART NO.:

型 号

Model Type:

HIGH POWER CONNECTOR

制造者系列号

Maker Series No.:

HP SERIES

制造者料号

Maker Part No.:

HP-31LT-EP

日 期

DATE

2023.08.25

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工业园区幸福东路12815号  
No.1288-5,Xingfu East 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:	HIGH POWER CONNECTOR	Designed	Checked	Approved
Maker Series No.:	HP SEREIS	Linda.Chen	Paul.Weii	Paul.Weii
Maker Part No.:	HP-31LT-EP			
Customer Ref.:				

## 1. APPLICATION

This specification covers the requirements for HIGH POWER CONNECTOR

## 2. RATED

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

Humidity range: 85% RH.MAX

Rated voltage: 250V (INSULATION)

Rated current per contact: 30 A rms continuous

Rated current per contact: 40 A audiosignal, duty cycle 50 %

## 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 between mutually insulated terminals or metallic parts shall not less than 2 GΩ before test or initial, using a 500 volts DC insulation resistance meter.

TABLE 1:

Condition	Value
Initial	2 GΩ or more
After heat test	
After cold test	
After resistance to soldering heat test	
After life test	
After temperature cycling test	
After humidity test	1 GΩ or more

## Specifications

Model Type:	HIGH POWER CONNECTOR
Maker Series No.:	HP SEREIS
Maker Part No.:	HP-31LT-EP
Customer Ref.:	

### 4.1.2.Contact resistance

Contact resistance of between terminals of the connector to be made a closed circuit shall not exceed 10 milliohms before test or initial, and shall not exceed 20 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 10 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 20 milliohms

### 4.1.3.Withstand voltage

The connector shall withstanded 2.7kV between mutually insulated pin contacts for one minute,without breakdown.

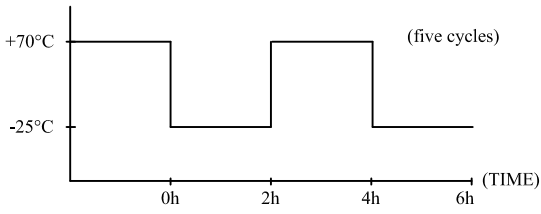
## 4.2. Mechanical

No.	Item	Test conditions	Requirement
4.2.1	Terminal strength	Every terminal shall capable of withstand a force of 20N for 10 seconds in any direction.	20N for 10 seconds without lossing and breakdown but deformation of terminal is accepted.
4.2.2	Loosen strength of contact	The connector shall capable of withstand a force of 40N, applied in direction of extraction of contact terminal for 10 seconds	40N for 10 seconds without lossing and breakdown
4.2.3	Life test	The life test shall consist of 5000 cycles of insertion and removal and extraction , at a rate of 20 to 30 cycles per minutes under no load.	comply with paragraphs 4.1 and 4.2

## Specifications

Model Type:	HIGH POWER CONNECTOR
Maker Series No.:	HP SEREIS
Maker Part No.:	HP-31LT-EP
Customer Ref.:	

### 4.3. Environmental

No.	Item	Test conditions	Requirement
4.3.1	Heat test	The connector 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.	<ul style="list-style-type: none"> <li>●Comply with 4.1, 4.2</li> <li>●No appearance defect occurred</li> </ul>
4.3.2	Cold test	The connector shall subjected to temperature of $-25\pm 2^{\circ}\text{C}$ for a period of 96 hours, then shall allowed to remain in room ambient conditions for 30 minutes.	
4.3.3	Humidity test	The connector shall 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 blown out and removed from it, after which it shall conditioned at room ambient conditions for 30 minutes.	
4.3.4	Change of temperature	<p>The product shall subjected to conditions as shown in below, and then shall returned and allowed to remain ambient condition for 30 minutes.</p> 	
4.3.5	Solderability test	<p>Temperature of solder: <math>245\pm 5^{\circ}\text{C}</math>.</p> <p>Time of dip: <math>3\pm 0.5</math> seconds.</p> <p>Length of dip: 2.5 mm (from top of terminal).</p>	Wetting must occur over at least 95% of the solder immersion surface.

## Specifications

Model Type:	HIGH POWER CONNECTOR
Maker Series No.:	HP SEREIS
Maker Part No.:	HP-31LT-EP
Customer Ref.:	

No.	Item	Test conditions	Requirement
4.3.6	Resistance to soldering heat test	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. Terminal for a lead wire: Temperature of solder: $380\text{-}420^{\circ}\text{C}$ Time: $\leq 4$ seconds	At the conclusion of the test, it shall 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 $35^{\circ}\text{C}\pm 2^{\circ}\text{C}$ in the ambient of the specimen during the test. 2、Spray apparatus: The apparatus shall capable of producing fine dense mist uniformly. 3、Salt water: The concentration of the salt water shall 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 left alone for 1 to 2 hours in a room ambient.	Appearance shall 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 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 made by the mutual consultation and agreement between manufacture and customer.

## Specifications

Model Type:	HIGH POWER CONNECTOR
Maker Series No.:	HP SEREIS
Maker Part No.:	HP-31LT-EP
Customer Ref.:	

## 7.WIRING:

Stereo(HIFI)	Amplifier: one HP socket left channel pins 1+/1- right channel pins 2+/2-
	Cable: HP on amplifier end,four conductor cable splits into two pairs with HP on each end.
	Speaker: one HP per speaker left speaker pins 1+/1- right speaker pins 2+/2-
Power(PA) Standard	Amplifier: three HP sockets "A"socket: left channel pins 1+/1- "B"socket: right channel pins 1+/1-
	Cable: a two-conductor cable for each channel with HP on both ends
	Speaker: HP pin 1+to speaker coil"+" HP pins 1- and 2+ to speaker coil"-"
Bridge mono	Amplifier: "M" socket: left channel pins 1+/1- right channel pins 2+/2-
	Cable: a special two-conductor cable,on both ends wired to pin 1+/2+ of HP
	Speaker: HP pin 1+to speaker coil"+" HP pins 1- and 2+ to speaker coil"-"
BI-Amp	Amplifier: one HP socket low frequency pins 1+/1-high frequency pins 2+/2-
	Cable: a four-conductor cable on both ends wired to pins 1+/1-,2+/2- of HP
	Speaker: one HP socket low frequency pins 1+/1- high frequency pins 2+/2-

