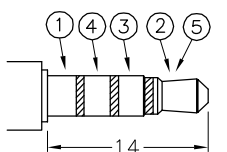
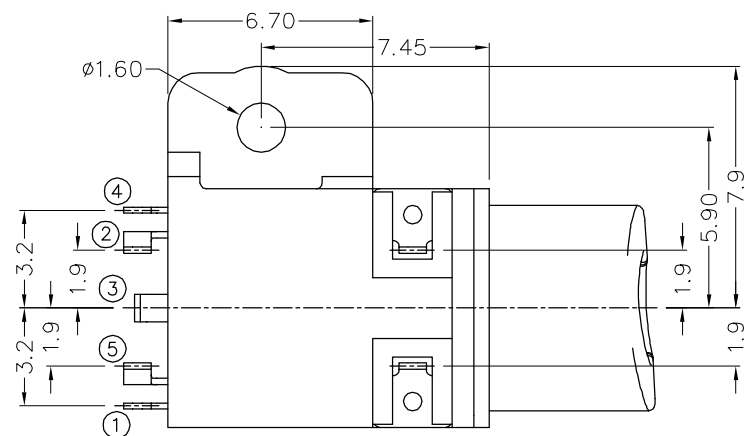
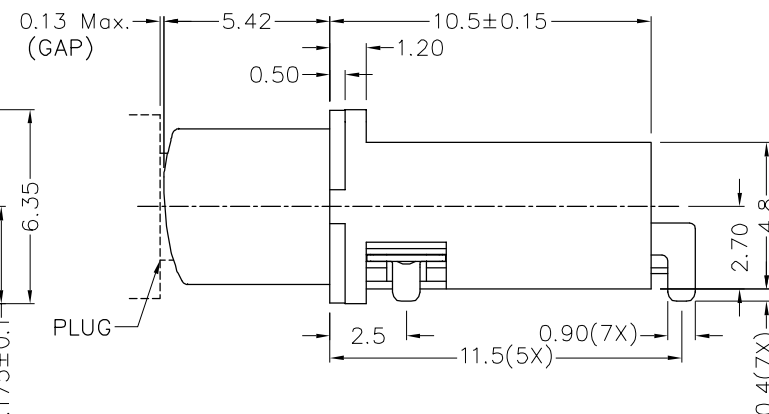
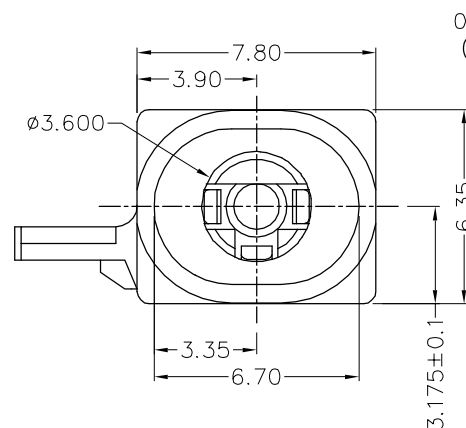
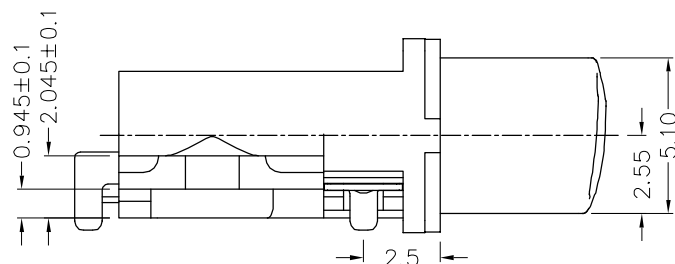


RoHS
Compliant

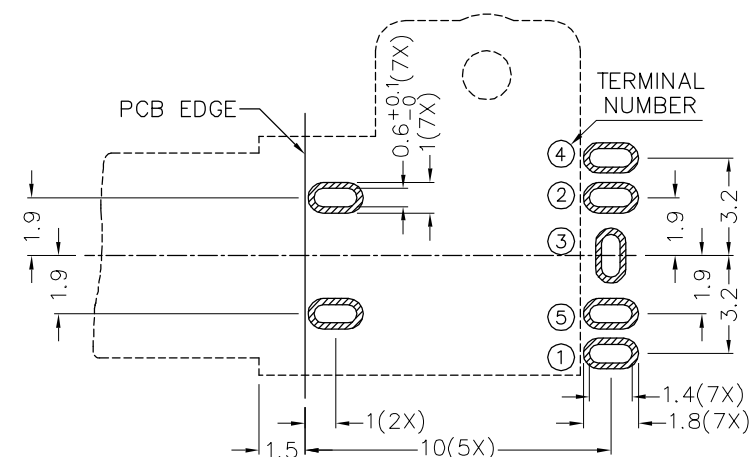
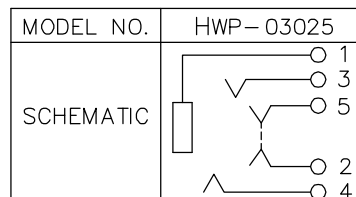
ZONE	SYMBOL	REVISION	APPROVAL	DATE
		ADD DUSTPROOF LOGO	J.X.KUANG	6-11-2017



ø3.5 MATE PLUG

* MATERIAL

TERMINAL 1 : COPPER ALLOY
 TERMINAL 2 : COPPER ALLOY
 TERMINAL 3 : COPPER ALLOY
 TERMINAL 4 : COPPER ALLOY
 TERMINAL 5 : COPPER ALLOY
 SUPPORT : BRASS
 HOUSING : THERMOPLASTIC
 COVER : THERMOPLASTIC




RECOMMENDED PCB LAYOUT
 TOLERANCE: ±0.05
 (TOP VIEW)

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PART NAME	3.5mm WATERPROOF/DUSTPROOF STEREO JACK	TOLERANCE UNLESS	0.0±0.2 0.00±0.1	UNIT:	mm	DESIGN	H.L.TAN	DATE	4-6-2012	SCALE	4:1
PART NO.	HWP-0302	OTHERWISE SPECIFIED:	0.000±0.05			DRAWING	Y.J.GUO	DATE	6-11-2017	MATERIAL	*
						CHECK	T.Y.LI	DATE	6-11-2017	DWG. NO.	TZ\WP0302-B/2.0
						APPROVAL		DATE	6-11-2017	SHEET	

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Revision Control

Written	T.Y.LI	Date	18-3-2019	File Number	Y-HWP-0302-PA66
Approved		Date	18-3-2019	Rev.	1.1

Data Specification

Item Number : HWP-0302 series
Description : 3.5mm Waterproof/Dustproof Stereo Jack

A. General Scope

This specification covers the requirement for the direct circuit power supply for all audio systems and similar equipments.

B. Mating Plug

The Mating plug shall be in 3.5mm diameter.

C. Components and Materials

Plastic : PA66
Terminal 1 : Copper Alloy, Gold Plated(3 μ " Min.)
Terminal 2 : Copper Alloy, Gold Plated(3 μ " Min.)
Terminal 3 : Copper Alloy, Gold Plated(3 μ " Min.)
Terminal 4 : Copper Alloy, Gold Plated(3 μ " Min.)
Terminal 5 : Copper Alloy, Gold Plated(3 μ " Min.)
Support : Brass, Silver Plated

D. Electrical Requirements

Dielectric Strength

The socket shall withstand without failure, a potential of 500 volts r.m.s. 50/60Hz and 0.5mA applied between mutually insulated metal parts for one minute.

Insulation Resistance

Insulation resistance between insulated metal parts shall be 100 Megohm or more at initial and 50 Megohm or more after cold test, hot test, and humidity test when measured with a 500 volts D. C. insulation resistance meter.

Contact Resistance

Contact resistance shall be less than 50 Milliohms at initial and 100 Milliohms after life test between a terminal of the socket and that of the mating plug; less than 30 Milliohms at initial and 60 Milliohms after life test between terminal of the socket in a closed circuited, when measured at a current of less than 100 Milliampere 1 KHz. The Mating plug use shall be cleaned and free from oxidation film of the surface.

Rating

1A/12V DC Max.

E. Mechanical Requirement

Insertion and Withdrawal Force

The insertion and withdrawal force shall be 0.3 – 3Kgs at initial and 0.2 – 2Kgs after life test with the gauge plug.

F. Soldering Test

Solderability Test

a) Test Condition

Solder Time	:	2 Sec
Solder Temperature	:	255°C +/- 5°C
Flux	:	Neutral flux

b) Requirement : 95% coverage of solder on lead

Resistance to Soldering Heat Test

Wave Soldering (For Reference Only)

The Terminal of the socket shall be dipped in Molten solder for 5 +/- 0.5 second at temperature of 260°C +/- 5°C between the tip of the terminal and the copper surface of 0.8 Millimeter thickness PC Board used. At the conclusion of this test, the socket shall not shown remarkable failure.

G. Endurance

Life Test

The Life Test shall be consisted of 5,000 cycles of insertion and withdrawal with the mating plug covered with a thin coat of grease in order to prevent from heating of wearing, at a rate of 24 cycles per minutes under no or rated load.

H. Environmental

Heat Test

The socket shall be placed in the testing chamber at a temperature of 85°C +/- 2°C and the relative humidity of less than 50% RH for 96 hours and then placed in ambient temperature for more than 30 minutes recovery period. The relative test before and after test should be complied with Insulation Resistance shown on Paragraph (D.1~D.3).

Cold Test

The socket shall be placed in the testing chamber at a temperature of -40°C +/- 2°C for 96 hours and then placed in ambient temperature for more than 30 minutes recovery period. The relative test before and after test should be complied with Insulation Resistance shown on Paragraph (D.1~D.3).

Humidity Test

The socket shall be placed in the testing chamber at a temperature of 40°C +/- 2°C and the relative humidity of 90% to 95% RH for 96 hours the dew drops on the surface of socket shall be blown off and removed from the surface of the socket and then placed in ambient temperature for more than 30 minutes recovery period. The relative test before and after this test should be complied with Insulation Resistance shown on Paragraph (D.1~D.3).

I. Measuring Condition

All measurements and test shall be made at a temperature 10°C to 35 °C with a relative humidity of 45% RH to 85% RH under the standard atmospheric pressure unless the specified conditions.

J. Operating Temperature

-25°C to +85°C

K. Warranty period/Storage condition/Moisture sensitivity rating

Warranty period : 6 months after shipment

Storage condition : 0°C to 40°C, less than 80%RH without direct rays.

L. Waterproof/Dustproof

The jack shall be stored for 30 minutes in 1m of water. And totally protected against dust (Refer to JIS standard IP67.).The socket need to match the O-Ring, O-Ring need to exert pressure to achieve a certain amount of interference.

F		E		D		C		B		A	
<div>RoHS Compliant</div>						ZONE	SYMBOL	REVISION		APPROVAL	DATE
								VERSION FORMAT CHANGED FROM		J.X.KUANG	17-3-2017
								ALPHABET TO NUMERIC			
1											1
2											2
3											3
4											4

Technical drawing of an O-ring. The top view shows two concentric circles with diameters labeled as $\varnothing 6.20$ (outer) and $\varnothing 4.20$ (inner). The side view shows a vertical cross-section of the ring with a diameter labeled as $\varnothing 1.00$.

MATERIAL
M1.MATERIAL: Silicone,94V-0
M2.HARDNESS: 70°

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						DRAWING	H.Q.ZHOU	DATE	17-3-2017	MATERIAL		
PART NAME	O-RING		TOLERANCE UNLESS		0.0±0.2	UNIT: mm	CHECK	T.Y.LI	DATE	17-3-2017	DWG. NO.	DZ\O-RING-3/1.0
PART NO.	O-RING-3		OTHERWISE SPECIFIED:		0.00±0.1							
						APPROVAL		DATE	17-3-2017	SHEET		

F		E		D		C		B		A	
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