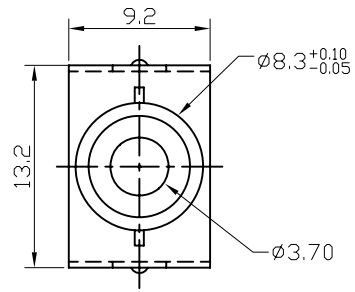
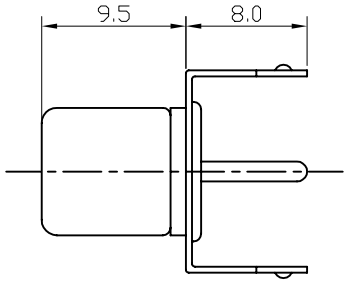
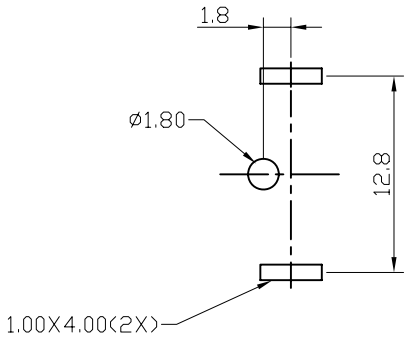
DWG. NO. JK-2019-F REV. "C"

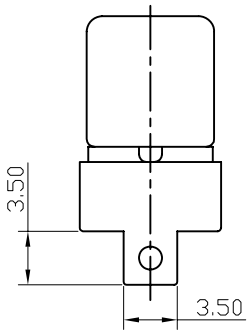
PART NO. RJ-1004-30X-NL







PCB LAYOUT
(BOTTOM VIEW)



COLOR CHART:

MODEL No.	RJ-1004-30B-NL	RJ-1004-30W-NL	RJ-1004-30Y-NL	RJ-1004-30R-NL	RJ-1004-30U-NL	RJ-1004-30O-NL
COLOR	BLACK	WHITE	YELLOW	RED	BLUE	ORANGE

SPECIFICATIONS

1. INSULATION RESISTANCE OF ADJACENT OPEN TERMINALS SHALL NOT BE LESS THAN 50 MEGOHMS WHEN MEASURED WITH 500 VOLTS RESISTANCE METER.
2. CONNECTOR SHALL WITHSTAND 500 VOLTS (RMS) BETWEEN ADJACENT OPEN TERMINAL FOR ONE MINUTE.
3. CONTACT RESISTANCE OF NORMALLY CLOSED TERMINALS SHALL NOT EXCEED 0.03 OHMS WHEN MEASURED AT A CURRENT OF ONE AMPERE BY VOLTAGE DROP METHOD.
4. CONNECTOR SHALL WITHSTAND 5,000 CYCLES OF INSERTIONS AND WITHDRAWAL WITH TESTING PLUG,CONTACT RESISTANCE SHALL NOT EXCEED 0.1 OHM.

ALL DIMS ARE GIVEN IN mm

ECN#	DATE	SYM	REVISION RECORD	AUTH	BY
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09-018	02/23/09	B	ADD PART NUMBER RJ-1004-30U-NL "BLUE"	BM	JY
07-131	03/06/07	A	CHANGED THE PART TO NEW PRINT & CHANGED THE PART TO RoHS COMPLIANT	VF	JY

PROJECTION

SCALE N/A

TOLERANCE EXCEPT AS NOTED
DEC. INCHES N/A
DEC. MILLIMETERS ±0.02
ANG. ±3°

RDI Research Develop Innovate

RDI, Inc. 400 Columbus Avenue Valhalla, NY 10595

TITLE: RCA JACK-RoHS COMPLIANT

DR.	DATE	REF.	SHEET
LUCIA	07/29/04	P/N: RJ-1004-30X-NL	1 OF 3

CK.	PRE-	DRAWING NO.	SIZE	REV.
SL	JK	2019	F	C

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DWG. NO. JK-2019-F REV. "C"

PART NO. RJ-1004-30X-NL

SPECIFICATION AND TESTING REPORT

A. GENERAL SCOPE:

THIS SPECIFICATION COVERS THE REQUIREMENTS FOR DIRECT CIRCUIT POWER SUPPLY FOR ALL AUDIO SYSTEMS AND SIMILAR EQUIPMENT

B. MATED PLUG

THE MATING PLUG SHALL BE IN 3.2± 0.005mm DIAMETER.

C. COMPONENTS AND MATERIALS:

SHELL : BRASS,NICKEL PLATED
BRACKET: C.R. STEEL,NICKEL PLATED
CENTRE CONTACT: BRASS,NICKEL PLATED
INSULATION WASHER: PBT

D. ELECTRICAL REQUIREMENTS:

1. DIELECTRIC STRENGTH: THE SOCKET SHALL WITHSTAND WITHOUT FAILURE,A POTENTIAL OF 500 VOLTS r.m.s. 50/60 Hz APPLIED BETWEEN MUTUALLY INSULATED METAL PARTS FOR ONE MINUTE
2. INSULATION RESISTANCE: INSULATION RESISTANCE BETWEEN INSULATED METAL PARTS SHALL BE 100 MEGOHMS 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
3. 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 BETWEEN TERMINAL OF THE SOCKET IN A CLOSED CIRCUITED,WHEN MEASURED AT A CURRENT OF LESS THAN 100 MILLIAMPERE 1 KHz. THE MATING PLUG USED SHALL BE CLEANED AND FREE FROM OXIDATION FILM OF THE SURFACE.
4. RATING: 1A/12V DC MAX

E. MECHANICAL REQUIREMENT:

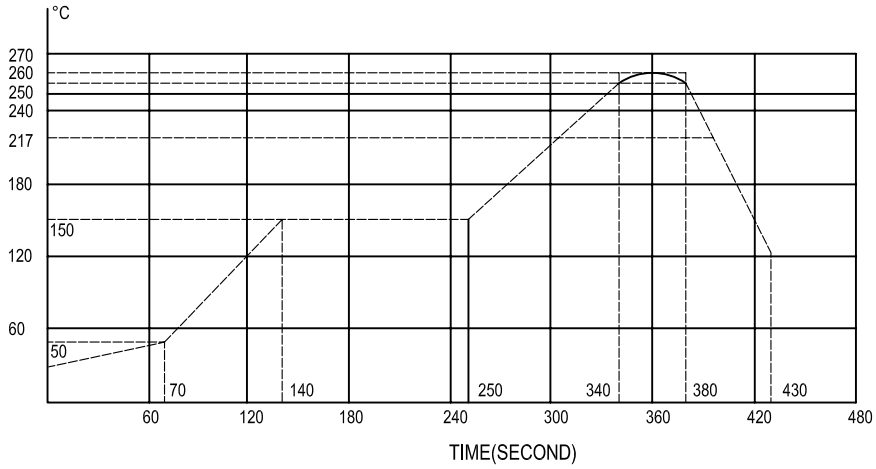
1. INSERTION AND WITHDRAWAL FORCE: THE INSERTION FORCE AND WITHDRAWAL FORCE SHALL BE 0.3-3 Kgs AT INITIAL AND 0.1-2 Kgs AFTER LIFE TEST WITH THE GAUGE PLUG
2. TERMINAL STRENGTH: THE TERMINAL SHALL BE CAPABLE OF WITHSTANDING A FORCE OF 500 GRAM APPLIED IN ANY DIRECTIONS FOR 10 SECOND WITHOUT LOOSING AND BREAKDOWN

F. SOLDERING TEST:

1. SOLDERABILITY TEST: a) TEST CONDITION:
   SOLDER TIME: 2 SECONDSINS
   SOLDER TEMP: 255°C± 5°C
   FLUX: NEUTRAL FLUX
   b) REQUIREMENT: 95% COVERAGE OF SOLDER ON LEAD

2. RESISTANCE TO SOLDERING HEAT TEST:
   a) WAVE SOLDERING(FOR SMD TYPE PRODUCTS)
   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 BE SHOWN REMARKABLE FAILURE

   b) REFLOW SOLDERING(FOR SMD TYPE PRODUCTS)
   THE SOCKET SHALL BE PLACED IN A REFLOW SOLDER FURNACE WITH THE TEMPERATURE STARTING FROM THE NORMAL ROOM TEMPERATURE AT AROUND 25°C AND UP TO 260°C± 5° OVER 360 SECOND.THE DETAILS ARE SHOWN AS THE FOLLOWING FLOW CHART.



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PROJECTION

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TOLERANCE EXCEPT AS NOTED
DEC. INCHES N/A
DEC. MILLIMETERS ±0.02
ANG. ±3°

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CK.	PRE-	DRAWING NO.	SIZE	REV.
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G. ENDURANCE:

LIFE TEST: THE LIFE TEST SHALL BE CONSIST 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:

1. HEAT TEST: THE SOCKET SHALL BE 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 THIS TEST SHOULD COMPLIED WITH PARAGRAPH D.2.
2. COLD TEST: THE SOCKET SHALL BE PLACED IN THE TESTING CHAMBER AT A TEMPERATURE OF -35°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 THIS TEST SHOULD COMPLIED WITH PARAGRAPH D.2.
3. HUMIDITY TEST: THE SOCKET SHALL BE PLACED IN THE TESTING CHAMBER AT A CONDITION 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 AND PLACED IN AMBIENT TEMPERATURE FOR MORE 30 MINUTES RECOVERY PERIOD. THE RELATIVE TEST BEFORE AND AFTER THIS TEST SHOULD COMPLIED WITH PARAGRAPH D.2.

I. MEASURING CONDITION:

ALL MEASUREMENTS AND TEST SHALL BE MADE AT A TEMPERATURE 10°C TO 35°C WITH A RELATIVE HUMIDITY 45%RH TO 85%RH UNDER STANDARD ATMOSPHERIC PRESSURE UNLESS OTHERWISE SPECIFIED CONDITIONS

J. OPERATING TEMP:

-25°C TO +85°C

K. AMENDMENT:

THE MANUFACTURE RESERVE THE RIGHT TO ADJUST OR MODIFY TO THE PRODUCTS AND THE CONTENTS OF THIS SPECIFICATION WHENEVER IT IS NECESSARY FOR ANY IMPROVEMENT

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PROJECTION

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TOLERANCE EXCEPT AS NOTED

DEC. INCHES N/A

DEC. MILLIMETERS ±0.02

ANG. ±3°

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