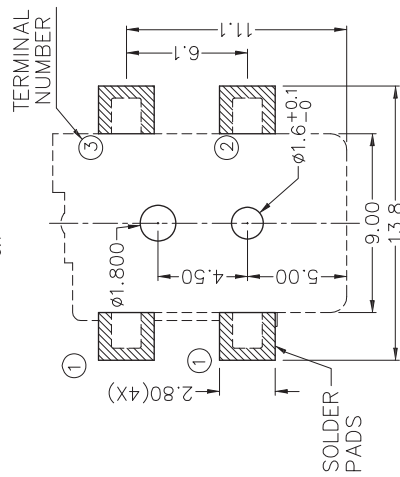
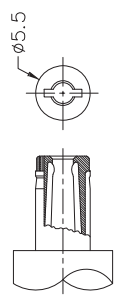
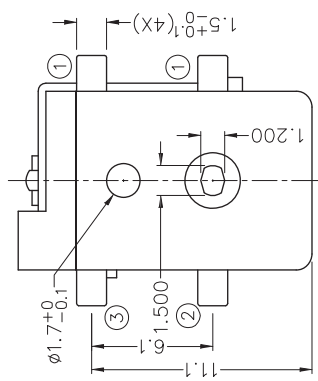


\*MATERIAL:  
 CENTRE PIN: COPPER  
 TERMINAL 1: BRASS  
 TERMINAL 2: COPPER ALLOY  
 TERMINAL 3: BRASS  
 COVER : PA6T  
 HOUSING : PA6T



MODEL NO.	TDC-016H
SCHEMATIC	
CENTER PIN	ø2mm ø2.5mm

A DETAIL COPLANARITY



DC MATE PLUG

NOTE: ALL DIMS ARE GIVEN IN mm

PROJECTION



Research Develop Innovate

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TITLE	DC POWER JACK, TYPE C		
DR.	ø2.0/ø2.45 CLASS 4, WITH POST-ROHS COMPLIANT	REF.	
DATE	1/23/02	PRE-CHK.	RDJ-0210X-CSMT-NL
JOEY	S.L.	JK	SIZE
			F
DRAWING NO.	0616	REV.	C

ECN#	DATE	SYM	AUTH	BY
11-043	03/29/11	C	GM	AL
06-051	01/25/06	B	VF	JY
02-037	2/21/02	A	BM	JY
ECN#	DATE	SYM	AUTH	BY

CHANGE THE DRAWING TO NEW PRINT  
 CHANGED THE PART TO ROHS COMPLIANT  
 ADDED A DWG FOR SOP OF TAPE AND REEL PACKAGE  
 REVISION RECORD

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# SPECIFICATION

TITLE	STATUS	SPEC. NO.	DATE	PAGE
DC POWER JACK, TYPE C Ø 2.0/Ø 2.45 CLASS 4, WITH POST-ROHS COMPLIANT	GENERAL	RDJ-0210X-CSMT-NL	1/23/02	1

1. GENERAL SCOPE  
 THIS SPECIFICATION COVERS THE GENERAL REQUIREMENTS OF THE DC POWER JACK, CLASS 4, USED ON AUDIO SYSTEMS AND OTHER RELATED ELECTRONIC APPARATUS.  
 THIS SPECIFICATION APPLIES TO THE NORMAL PLASTIC FOR REFLOW SOLDERING PROCESS.

MATING PLUG  
 THE MATING PLUG SHOULD COMPLY WITH STANDARD PLUG AS SHOWN IN THE DRAWING ATTACHED.

2. MECHANICAL  
 2a. TERMINAL STRENGTH  
 THE TERMINALS SHALL BE CAPABLE OF WITHSTANDING A FORCE OF 500 GRAMS APPLIED IN ANY DIRECTION FOR 10 SECONDS WITHOUT LOOSENING OR BREAKDOWN, EXCEPT BENDING OF THE TERMINALS.

2b. INSERTION AND EXTRACTION FORCE  
 INSERTION FORCE

CONDITIONS	VALUE OF SPEC.
INITIAL CONDITION	0.3 Kgs TO 2.0 Kgs
AFTER LIFE TEST	
AFTER HUMIDITY TEST	
AFTER HEAT TEST	0.2 Kgs TO 2.0 Kgs
AFTER COLD TEST	
AFTER RESISTANCE TO SOLDERING HEAT TEST	

EXTRACTION FORCE

CONDITIONS	VALUE OF SPEC.
INITIAL CONDITION	0.3 Kgs TO 2.0 Kgs
AFTER LIFE TEST	
AFTER HUMIDITY TEST	
AFTER HEAT TEST	0.2 Kgs TO 2.0 Kgs
AFTER COLD TEST	
AFTER RESISTANCE TO SOLDERING HEAT TEST	

3. ELECTRICAL  
 3a. WITHSTAND VOLTAGE TEST  
 500 VOLTS AC/RMS OF COMMERCIAL FREQUENCY 50 TO 60 Hz APPLIED BETWEEN ADJACENT OPEN TERMINALS FOR 1 MINUTE WITHOUT BREAKDOWN.

3b. INSULATION RESISTANCE  
 THE INSULATION RESISTANCE BETWEEN MUTUAL INSULATED CONTACTS SHOULD COMPLIED WITH FOLLOWING SPECIFICATION UNDER 500 VOLTS DC (METHOD C UNLESS OTHERWISE SPECID)

ECN#	DATE	SYM	REVISION RECORD	AUTH	BY
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06-051	01/25/06	B	CHANGED THE PART TO ROHS COMPLIANT	VF	JY
02-037	2/21/02	A	ADDED A DWG FOR SOP OF TAPE AND REEL PACKAGE	BM	JY

CONDITION	VALUE OF SPEC.
INITIAL CONDITION	
AFTER LIFE TEST	
AFTER HEAT TEST	100 M Ohm MIN.
AFTER COLD TEST	
AFTER RESISTANCE TO SOLDERING HEAT TEST	
AFTER HUMIDITY TEST	50 M Ohm MIN.

NOTE: THE MATED PLUG USED FOR THIS MEASUREMENT SHALL BE CLEANED TO REMOVE OXIDATION FILM ON THE SURFACE BEFORE TEST.

3c. CONTACT RESISTANCE  
 CONTACT RESISTANCE OF JACK SHALL NOT EXCEED THE VALUE DEFINED IN THE TABLE LISTED AT A CURRENT LESS THAN 1.0amp. DC BY FOUR TERMINALS METHOD.

CONDITIONS	VALUE OF SPEC.	
	PLUG TO CONTACTS	PLUG TO SHUNT
INITIAL CONDITION		
AFTER HUMIDITY TEST		
AFTER HEAT TEST	50 m Ohm MAX.	30 m Ohm MAX.
AFTER COLD TEST		
AFTER RESISTANCE TO SOLDERING HEAT TEST		
AFTER DURABILITY TEST	100 m Ohm MAX.	60 m Ohm MAX.

NOTE: THE MATED PLUG USED TO THIS MEASUREMENT SHALL BE CLEANED TO REMOVE OXIDATION FILM ON THE SURFACE BEFORE TEST.

4. ENDURANCE  
 DURABILITY TEST  
 THE DURABILITY TEST SHALL CONSIST OF 5000 INSERTION & EXTRACTION MATING CYCLES WITH THE MATING PLUG OR THE GAUGE PLUG AT A RATE 10-20 CYCLES PER MINUTE, NO LOAD CONDITION, WITH OR WITHOUT LUBRICANT WHICH SHOULD BE SPECIFIED IN THE DETAIL REQUIREMENT. THE PERFORMANCE OF THE JACK BEFORE AND AFTER THIS TEST SHOULD COMPLY WITH PARAGRAPHS 2b AND 3c.

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 STANDARD ATMOSPHERIC PRESSURE UNLESS OTHERWISE SPECIFIED CONDITIONS.

- NOTES:  
 (1) FOR DC POWER JACK SEE SHEET 1 OF 4  
 (2) FOR PAGE 2 OF SPECS. SEE SHEET 3 OF 4  
 (3) FOR PACKING SEE SHEET 4 OF 4

SCALE	N/A	TOLERANCE EXCEPT AS NOTED	N/A
DEC. INCHES	N/A	DEC. MILLIMETERS	N/A
ANG.	N/A	ANG.	N/A

DR.	DATE	REF.	DC POWER JACK, TYPE C
JOEY	1/23/02	RDJ-0210X-CSMT-NL	COMPLIANT SHEET 2 OF 4
CK.	PRE-CHK	DRAWING NO.	SIZE
S.L.	JK	0616	REV. C

		<b>Research Develop Innovate</b>	
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# SPECIFICATION

TITLE	STATUS	SPEC. NO:	DATE	PAGE
DC POWER JACK, TYPE C Ø 2.0/Ø 2.45 CLASS 4, WITH POST-ROHS COMPLIANT	GENERAL	RDJ-0210X-CSMT-NL	1/23/02	1

- ENVIRONMENT
  - HUMIDITY TEST  
THE JACK SHALL BE PLACED IN THE TESTING CHAMBER AT THE CONDITION OF 40°C±2°C AND THE RELATIVE HUMIDITY OF 90% TO 95% RH FOR 96 HRS, THE DEW DROPS ON THE SURFACE OF JACK SHALL BE BLOWN OFF AND REMOVED FROM THE SURFACE OF JACK AND THEN PLACED IN AMBIENT TEMPERATURE FOR MORE THAN A 30 MINUTES, RECOVERY PERIOD. THE RELATIVE TEST BEFORE AND AFTER THIS TEST SHOULD COMPLY WITH PARAGRAPH 3a AND 3b.
  - HEAT TEST  
THE JACK SHALL BE PLACED IN THE TESTING CHAMBER AT A TEMPERATURE OF 70°C±2°C AND A RELATIVE HUMIDITY OF LESS THAN 50%RH FOR 96 HRS, AND THEN PLACED IN AMBIENT TEMPERATURE FOR MORE THAN A 30 MINUTES, RECOVERY PERIOD. THE RELATIVE TEST BEFORE AND AFTER THIS TEST SHOULD COMPLY WITH PARAGRAPH 3c.
  - COLD TEST  
THE JACK SHALL BE PLACED IN THE TESTING CHAMBER AT A TEMPERATURE OF -40°C±2°C AND A RELATIVE HUMIDITY OF LESS THAN 50%RH FOR 96 HRS, AND THEN PLACED IN AMBIENT TEMPERATURE FOR MORE THAN A 30 MINUTES, RECOVERY PERIOD. THE RELATIVE TEST BEFORE AND AFTER THIS SHOULD COMPLY WITH PARAGRAPHS 2b AND 3c.

- SOLDERING TEST
  - SOLDER ABILITY  
THE TERMINAL OF JACK TESTED SHALL BE DIPPED INTO SOLDERING FLUX OR EQUIVALENT FOR A PERIOD OF 5 TO 10 SECTIONS AND THEN IMMERSED INTO MOLTEN SOLDER Sn63, AT A CONTROLLED TEMPERATURE OF 240°C±5°C FOR 3 ± 0.5 SECTIONS AFTER AGING THE COVERAGE SHOULD MORE THAN 95% BY THE MICROSCOPE OF MORE THAN 10X.
  - RESISTANCE TO SOLDERING HEAT  
THE JACK SHOULD BE IMMERSED INTO MOLTEN SOLDER, Sn63, AT A CONTROLLED TEMPERATURE OF 240°C±5°C FOR 30 ± 1 SECONDS, THE RELATIVE TEST AFTER THIS TEST SHOULD COMPLIED WITH PARAGRAPH 2b AND 3c. THE OUTLOOK OF THE JACK SHOULD HAVE NO REMARKABLE DETERIORATION.



- OPERATING TEMPERATURE  
THE RANGE: -25 °C TO +85 °C
- RATING  
RATED VOLTAGE: 24 VOLTS DC  
RATED CURRENT: 3.5 AMPERE DC  
14.0 AMPERE DC

9. MATERIAL AND FINISH

ITEM	MATERIAL	COLOR	PLATING	REMARK
PLASTIC HOUSING<P1>	POLYAMIDE	BLACK		UL94V-0
PLASTIC COVER <P2>	POLYAMIDE	BLACK		UL94V-0
SPRING CONTACT<M1>	PBS		Ag	30T
SHUNT TERMINAL<M2>	BRASS		Ag	40T
PIN CONTACT<M3>	BRASS		Ag	30T
CENTER PIN<M4>	COPPER ALLOY		NICKEL	Ø2.0 / Ø2.5

10. PART NUMBER:  
WITH TWO POSTS (TYPE "C")  
CENTER PIN<2.00Ø>: RDJ-0210A-CMST  
CENTER PIN<2.45Ø>: RDJ-0210B-CMST

REMARK  
THIS SPECIFICATION CHANGE TO TIN PLATING ON ALL TERMINALS BASED ON CUSTOMER'S INQUIRY TO HAVE BETTER SOLDERING PERFORMANCE, WAS SILVER.

			
SCALE	N/A	TITLE	DC POWER JACK, TYPE C
TOLERANCE EXCEPT AS NOTED	N/A	DR. REF.	Ø2.0/Ø2.45 CLASS 4, WITH POST-ROHS COMPLIANT
DEC. INCHES	N/A	DATE	1/23/02
DEC. MILLIMETERS	N/A	PRE-CHK.	JK
ANG.	N/A	DRAWING NO.	0616
		SIZE	F
		REV.	C



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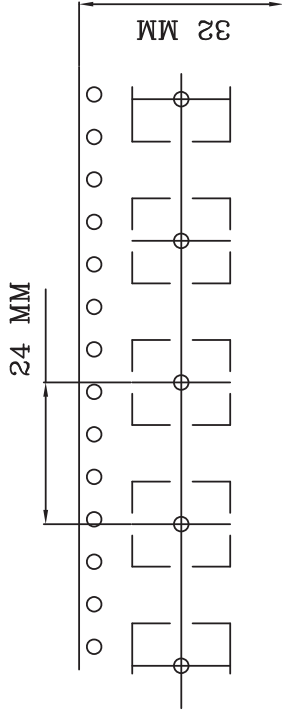
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06-051	01/25/06	B	CHANGED THE PART TO ROHS COMPLIANT	VF	JY
02-037	2/21/02	A	ADDED A DWG FOR SOP OF TAPE AND REEL PACKAGE	BM	JY

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DWG. NO. JK-0616-F REV. "C" PART NO.: RDJ-0210X-CSMT-NL

**A: CARRIER SIZE**



- 1) DETAIL SIZES REFERENCE: EIA-481.
- 2) SPEC: 32 MM + 24 MM.
- 3) COVER TAPE: SPEC. ATTACHED(CONDUCTIVE)

**B: REEL SIZE**

- 1) REFERENCE: EIA-481

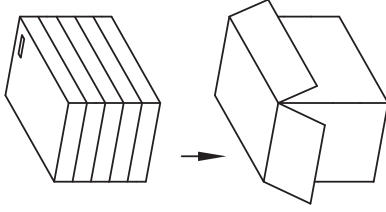


**2) LABELING**

CUSTOMER
PART NUMBER
QUANTITY
DATE CODE

- 3) QUANTITY: 250 PCS/REEL
- 4) MAT'L: POLYMER

**D: CARTON**



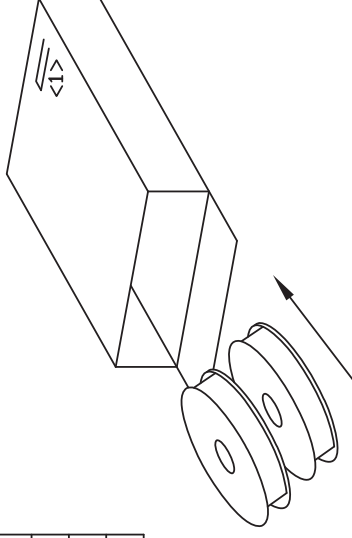
- 1) SHIPPING MARK
- 2) 5 INNER BOXES/CATON

**C: INNER BOX**

**1) LABELING**

CUSTOMER
PART NUMBER
QUANTITY
DATE CODE

2) 2 REELS/INNER BOX



**NOTE:**

FOR DC POWER JACK, TYPE C SEE SHEET 1/4.

PROJECTION	
SCALE	N/A
TOLERANCE EXCEPT AS NOTED	N/A
DEC. INCHES	N/A
DEC. MILLIMETERS	N/A
ANG.	N/A

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RDI, Inc. 333 North Bedford Road, Suite 135, Mount Kisco, NY 10549	
TITLE	DC POWER JACK, TYPE C
DR. REF.	Ø2.0/Ø2.45 CLASS 4, WITH POST-ROHS COMPLIANT SHEET
DATE	JOEY 1/23/02
PRE-CHK.	S.L. JK
DRAWING NO.	RDJ-0210X-CSMT-NL
SIZE	2 DF 4
REV.	F C

11-043	03/29/11	C	CHANGE THE DRAWING TO NEW PRINT	GM	AL
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