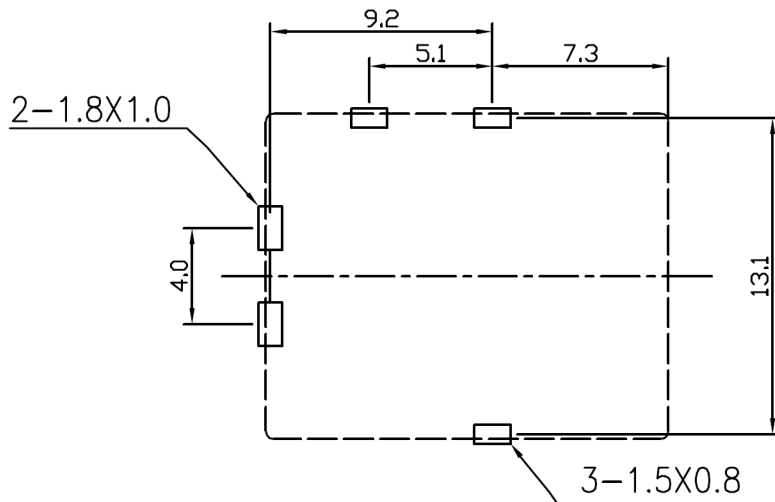
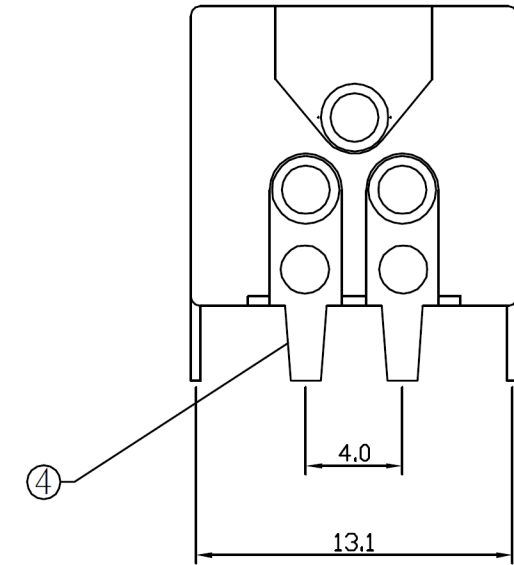
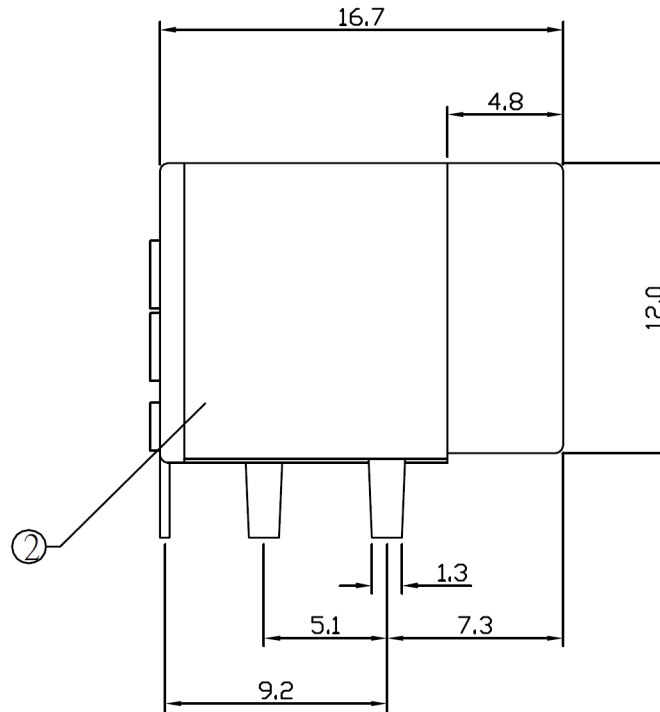
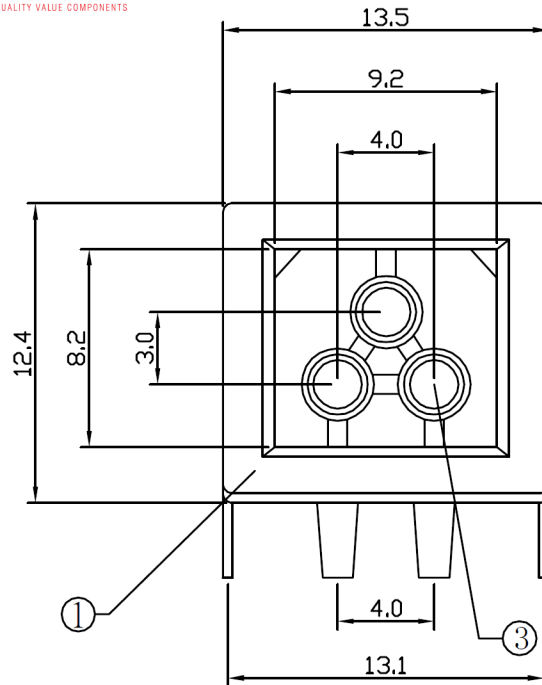


* REVISIONS				
LTR	DESCRIPTION	DATE	REVISED	APPROVED




T:1.6 Dimensions of PC board holes  
Tolerance :  $\pm 0.05$  (Printed-top view)

UNLESS OTHERWISE SPECIFIED, TOLERANCE ON DECIMAL:  $\pm 0.3$



LEAD FREE

4	PIN TERMINAL	2	BRASS	CT	PLATED
3	CENTER PIN	3	BRASS	Cu/Sn	PLATED
2	SHELL	1	BRASS	CT	PLATED
1	HOUSING	1	PBT 4815	UL-94V0(BLACK)	
LTR	PART NAME	QTY	MATERIAL	REMARK	
DWN	LILY	DATE	2013.10.31	3RD ANGLE PROJECTION	NAME XLR CONNECTOR
CHKD	ANDY	DATE	2013.10.31		CAT. NO.
APVD	JON	DATE	2013.10.31		UNIT: mm
the <b>vital</b> component					DWN.NO. AC-001-R
					
					001

# SPECIFICATION

<b>TITLE</b> POWER JACK QUICK LOCK	<b>SPC. NO.</b> AC-001-R	<b>PAGE :</b> 1 OF 3 <b>DATE:</b> 2013.10.31
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## 1. GENERAL

### SCOPE

THIS SPECIFICATION COVERS THE GENERAL REQUIREMENTS OF THE NON-SHIELDED POWER JACK OF QUICK LOCK TYPE APPLIED ON NOTE BOOK COMPUTER, AUDIO, VIDEO, COMMUNICATION SYSTEMS AND OTHER RELATED ELECTRONIC APPARATUS.

ESPECIALLY THIS SPECIFICATION APPLIED ON THE NORMAL PLASTIC FOR THE THROUGH HOLE SOLDERING PROCESS.

### MATED PLUG

THE MATED PLUG SHOULD COMPLIED 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 LOOSING OR BREAKDOWN, EXCEPT BENDING THE TERMINALS.

### 2b. INSERTION AND EXTRACTION FORCE INSERTION FORCE

CONDITIONS	VALUE OF SPEC.
INITIAL CONDITION	3.5 Kgs MAX.
AFTER LIFE TEST AFTER HUMIDITY TEST AFTER HEAT TEST AFTER COLD TEST AFTER RESISTANCE TO SOLDERING HEAT TEST	3.5 Kgs MAX.

### EXTRACTION FORCE

CONDITIONS	VALUE OF SPEC.
INITIAL CONDITION	0.5 Kgs MIN.
AFTER LIFE TEST AFTER HUMIDITY TEST AFTER HEAT TEST1 AFTER COLD TEST AFTER RESISTANCE TO SOLDERING HEAT TEST	0.4 Kgs MIN.

## 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 SPECIFIED )

ISSUE	DATE	WRTN	CHKD	APVD	DESCRIPTIONS
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# SPECIFICATION

**TITLE**  
POWER JACK QUICK LOCK

**SPC. NO.** AC-001-R

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**DATE :** 2013.10.31

CONDITIONs	VALUE OF SPEC.
INITIAL CONDITION AFTER LIFE TEST AFTER HEAT TEST AFTER COLD TEST AFTER RESISTANCE TO SOLDERING HEAT TEST	100 M MIN.
AFTER HUMIDITY TEST	50 M MIN.
NOTE : THE MATED PLUG USED TO THIS MEASUREMENT SHALL BE ALLOWED TO CLEAN AND 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 1.0 Amp. DC BY FOUR TERMINALs METHOD

CONDITIONs	VALUE OF SPEC.	
	PLUG TO CONTACTs	PLUG TO GROUND
INITIAL CONDITION AFTER HUMIDITY TEST AFTER HEAT TEST AFTER COLD TEST AFTER RESISTANCE TO SOLDERING HEAT TEST	50 mΩ MAX.	30 mΩ MAX.
AFTER DURABILITY TEST	100 mΩ MAX.	60 mΩ MAX.
NOTE : THE MATED PLUG USED TO THIS MEASUREMENT SHALL BE ALLOWED TO CLEAN AND REMOVE OXIDATION FILM ON THE SURFACE BEFORE TEST.		

## 4. ENDURANCE

### DURABILITY TEST

THE DURABILITY TEST SHALL CONSIST OF 5000 MATING CYCLEs OF INSERTION AND EXTRACTION WITH THE MATED PLUG OR THE GAUGE PLUG AT A RATE 10 ~ 20 CYCLEs PER MINUTE, NO LOAD CONDITION, WITH OR WITHOUT LUBRICANT WHICH SHOULD BE SPECIFIED THE DETAIL REQUIREMENT. THE PERFORMANCE OF THE JACK BEFORE AND AFTER THIS TEST SHOULD COMPLY WITH PARAGRAPHs 2b AN 3c.

### MEASURING CONDITION

ALL MEASUREMENTs AND TEST SHALL BE MADE AT A TEMPERATURE 100C TO 350C WITH A RELATIVE HUMIDITY OF 45%RH TO 85%RH UNDER STANDARD ATMOSPHERIC PRESSURE UNLESS OTHERWISE SPECIFIED CONDITIONs.

## 5. ENVIRONMENT

### 5a. HUMIDITY TEST

THE JACK SHALL BE PLACED IN THE TESTING CHAMBER AT THE CONDITION OF 40 OC ± 20C 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 SURFANCE OF JACK 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 3a AND 3b.

# ***SPECIFICATION***

<b>TITLE</b> POWER JACK QUICK LOCK	<b>SPC. NO.</b> AC-001-R	<b>PAGE :</b> 3 OF 3 <b>DATE:</b> 2013.10.31
<b>5b. HEAT TEST</b> THE JACK SHALL BE PLACED IN THE TESTING CHAMBER AT A TEMPERATURE OF 70 OC $\pm$ 2OC AND THE RELATIVE HUMIDITY OF LESS THAN 50%RH FOR 96 Hrs 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 3c.		
<b>5c. COLD TEST</b> THE JACK SHALL BE PLACED IN THE TESTING CHAMBER AT A TEMPERATURE OF -40 OC $\pm$ 2OC AND THE RELATIVE HUMIDITY OF LESS THAN 50%RH FOR 96 Hrs 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 3c.		
<b>6. SOLDERING TEST</b> <b>6a.SOLDERABILITY</b> THE TERMINAL OF JACK TESTED SHALL BE DIPPED INTO SOLDERING FLUX OR EQUIVALENT FOR A PERIOD OF 5 TO 10 SECONDS AND THEN IMMersed INTO MOLTEN SOLDER, Sn63, AT A CONTROLLED TEMPERATURE OF 240°C $\pm$ 5°C FOR 3 $\pm$ 0.5 SECONDS AFTER AGING. THE COVERAGE SHOULD MORE THAN 95% BY THE MICROSCOPE OF MORE THAN 10X.		
<b>6b.RESISTANCE TO SOLDERING HEAT</b> THE JACK MOUNTED ON PCB COMPLIED WITH ACTUAL APPLICATION. THEN ALL TERMINALs SHOULD BE IMMersed INTO MOLTEN SOLDER, Sn63, AT A CONTROLLED TEMPERATURE OF 260 °C $\pm$ 5°C FOR 5 $\pm$ 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.		
<b>7. OPERATING TEMPERATURE</b> THE RANGE : -25 TO +85 OC		
<b>8. RATING</b> RATED VOLTAGE : 20 VOLTs DC RATED CURRENT : 7.5 A DC		