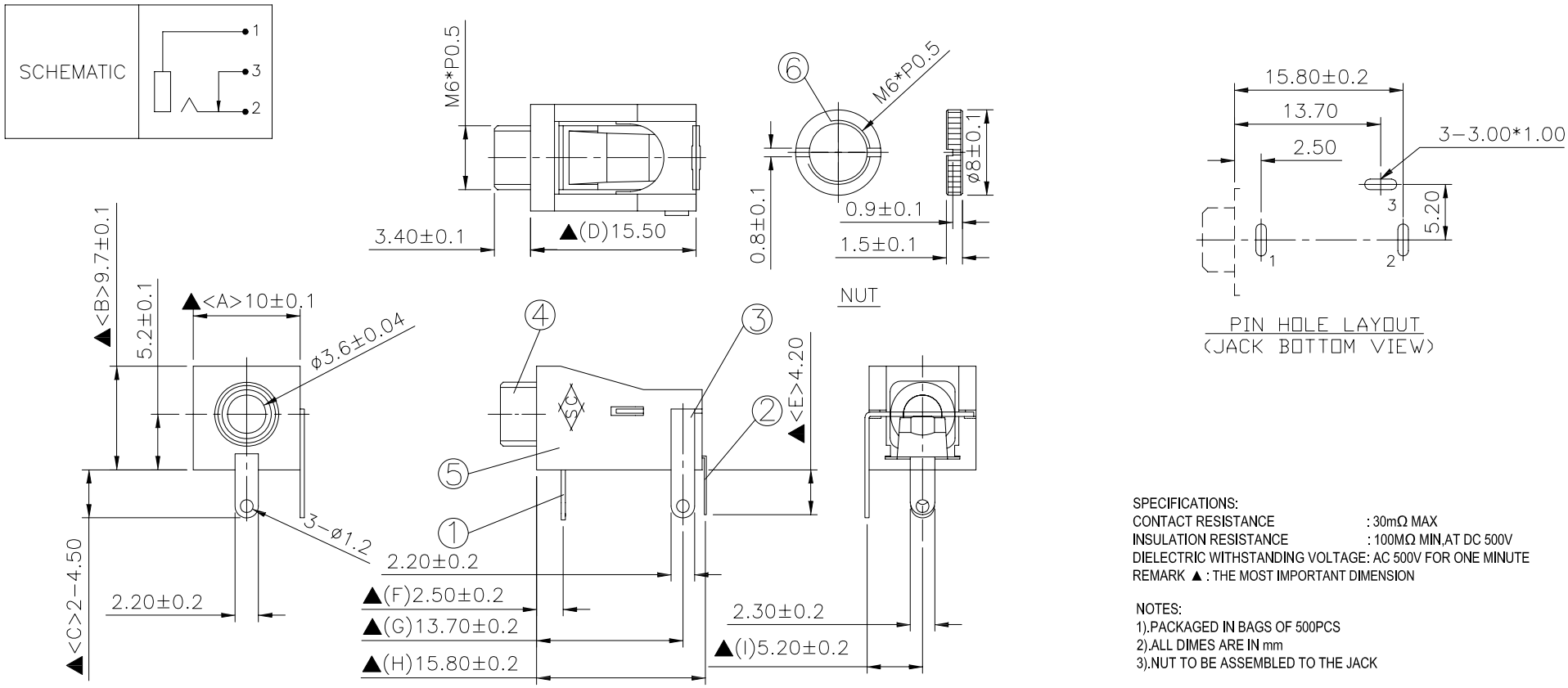
DWG. NO. JK-4036-F REV. "B"

PART NO. RSJ-3582-NL



SPECIFICATIONS:
CONTACT RESISTANCE : 30mΩ MAX
INSULATION RESISTANCE : 100MΩ MIN,AT DC 500V
DIELECTRIC WITHSTANDING VOLTAGE: AC 500V FOR ONE MINUTE
REMARK ▲ : THE MOST IMPORTANT DIMENSION

NOTES:
1).PACKAGED IN BAGS OF 500PCS
2).ALL DIMES ARE IN mm
3).NUT TO BE ASSEMBLED TO THE JACK

JACK SPECIFICATION

1 . GENERAL	
1.1	SCOPE OF APPLICATION THE SPECIFICATION COVERS REQUIREMENTS FOR 3.5 Ø PHONE JACKS INTENDED FOR AUDIO SYSTEMS AND SIMILAR ELECTRONIC APPARATUSES
1.2	COMPLIANCE WITH SPECIFICATION THE SPECIFICATION SHALL BE READ IN CONJUNCTION WITH THE APPLICABLE PART DRAWING AND INDIVIDUAL SPRCIFICATION,IF ANY. WHENEVER THIS SPECIFICATION CONFLICTS WITH THE APPLICABLE PART DRAWING AND/OR THE INDIVIDUAL SPECIFICATION, THE LATTER SHALL GOVERN.
1.3	MATING PLUG THE MATE PLUG SHALL BE AS SHOWN IN APPENDIX Fig.1 OR EQUIVALENT.
1.4	GAUGE PLUG THE GAUGE PLUG SHALL BE AS SHOWN IN APPENDIX Fig.1 OR EQUIVALENT.

NO	Description	Material	O'TY	Finish
6.	NUT	1.5T Brass	1	Nickel Plated
5.	Housing	POM	1	Black Color
4.	Barrel	Brass	1	Nickel Plated
3.	Break Terminal	0.4T Brass	1	Silver Plated
2.	Tip Spring	0.2T Phosphor Bronze	1	Silver Plated
1.	Earth Terminal	0.4T Brass	1	Silver Plated

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PROJECTION

SCALE N/A

TOLERANCE EXCEPT AS NOTED

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TITLE 3.5ø THREADED BUSHING PHONE JACK-RoHS COMPLIANT

DR.	DATE	REF.	SHEET
Aris	1/25/2011	P/N: RSJ-3582-NL	1 OF 3

CK.	PRE-	DRAWING NO.	REV.
Bill	JK	4036 — F	B

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2. CONSTRUCTION

2.1 DESIGN AND CONSTRUCTION

THE 3.5Ø PHONE JACK SHALL BE THE DESIGN, CONSTRUCTION AND DIMENSIONS AS SHOWN IN THE APPLICABLE PART DRAWING.

2.2 COMPONENTS AND MATERIALS

COMPONENTS AND MATERIALS SHALL BE USED AS SPECIFIED IN THE APPLICABLE PART DRAWING.

3. MECHANICAL

3.1 INSERTION AND EXTRACTION FORCE

INSERTION AND EXTRACTION FORCE OF THE JACK SHALL BE MEASURED WITH A LOAD CELL OR EQUIVALENT THE GAUGE PLUG SHALL BE INSERTED INTO THE JACK AND EXTRACTED FROM THE JACK SLOWLY. INSERTION AND EXTRACTION FORCE SHALL BE A VALUE AS SPECIFIED IN ITEMS(1) AND (2) BELOW

ITEM	CONDITION	RESULT/VALUE
INSERTION FORCE	BEFORE TEST OR INITIAL	0.4KG TO 2.0KG
	AFTER LIFE TEST	0.3KG TO 2.0KG
	AFTER HUMIDITY	0.3KG TO 2.0KG
	AFTER HEAT TEST	0.3KG TO 2.0KG
	AFTER COLD TEST	0.3KG TO 2.0KG
	AFTER RESISTANCE TO SOLDERING HEAT TEST	0.3KG TO 2.0KG
EXTRACTION FORCE	BEFORE TEST OR INITIAL	0.4KG TO 2.0KG
	AFTER LIFE TEST	0.3KG TO 2.0KG
	AFTER HUMIDITY	0.3KG TO 2.0KG
	AFTER HEAT TEST	0.3KG TO 2.0KG
	AFTER COLD TEST	0.3KG TO 2.0KG
	AFTER RESISTANCE TO SOLDERING HEAT TEST	0.3KG TO 2.0KG

3.2 TERMINAL STRENGTH

A FORCE OF 500GRAMS SHALL BE APPLIED AT A TIP OF THE TERMINAL IN EVERY DIRECTION OF VERTICAL AND HORIZONTAL TO THE AXIS OF THE TERMINAL FOR A PERIOD OF 10 SECONDS. THE JACK SHALL SHOW NO EVIDENCE OF MECHANICAL DAMAGE OR BREAKDOWN, AND NO LOOSING THE TERMINAL EXCEPT BENDING THE TERMINAL, CAUSING ELECTRICAL FAILURE OR DAMAGE TO THE EXTENT OF PRACTICAL.

4. ELECTRICAL

4.1 DIELECTRIC STRENGTH

THE JACK SHALL WITHSTAND ALTERNATING CURRENT OF 500 VOLTS AT A COMMERCIAL FREQUENCY OF 50Hz OR 60 Hz FOR A PERIOD OF ON MINUTE. A POTENTIAL SHALL BE APPLIED BETWEEN MUTUALLY INSULATED TERMINALS, SHALL BE INCREASED TO SPECIFIED VOLTAGE AT A RATE OF 400 TO 600 VOLTS PER SECOND.

ITEM	CONDITION	VALUE
INSULATION RESISTANCE	500VDC applied between mutually insulated terminals or metal parts	
	1. BEFORE TEST OR INITIAL	>=100MΩ
	2. AFTER HUMIDITY	>=50MΩ
	3. AFTER HEAT TEST	>=50MΩ
	4. AFTER COLD TEST	>=50MΩ
	5. AFTER RESISTANCE TO SOLDERING HEAT TEST	>=50MΩ
CONTACT RESISTANCE	At a current of below 100ma and at a frequency of 1 khz by the voltage drop method or four terminal method to measure between terminals of jack to be made a closed circuit shall not exceed a value as specified below.	
	1. BEFORE TEST OR INITIAL	
	2. AFTER HUMIDITY	<=30mΩ
	3. AFTER LIFE TEST	<=60mΩ
	4. AFTER HEAT TEST	<=50mΩ
	5. AFTER COLD TEST	<=50mΩ
	6. AFTER RESISTANCE TO SOLDERING HEAT TEST	<=50mΩ

5. PHYSICAL

5.1 RESISTANCE TO SOLDERING HEAT

THE JACK SHALL BE TESTED UNDER CONDITION AS SPECIFIED IN ITEMS(1) OR (2) BELOW, SHALL NOT OCCUR REMARKABLE DETERIORATION OF THE PART CONTRACTED AND ELECTRICAL DAMAGE OR FAILURE TO THE EXTENT OF PRACTICAL USE, SHALL COMPLY WITH PARAGRAPHS 3,3.3,4,AND 4.1.

(1) CONDITION OF THE JACK FOR PRINTED CIRCUIT BOARD : THE JACK SHALL BE MOUNTED OR PLANT TO 1.6 MILI-METERS THICKNESS COPPER COIL LAMINATED BOARD WITH A SUITABLE HOLE LAYOUT TO MEET TERMINAL ARRANGEMENT OF THE JACK TESTED, THE AREA TO BE SOLDERED OF THE TERMINAL SHALL IMMERSED INTO MOLTEN SOLDER AT A TEMPERATURE OF 165°C FOR 5±1 SECONDS.

(2) CONDITION OF THE JACK FOR HAND SOLDERING : THE JACK SHALL BE HEATED TO 1.5 MILI-METERS OVER FROM THE WIRING HOLE OR SLIT OF THE TERMINAL BY A SOLDERING IRON TO HAVE A CAPACITY OF 60 WATTS CONSUMPTION AT A TEMPERATURE CONTROLLED OF 350°C±1 0°C FOR A Q PERIOD OF 3±0.5 SECONDS.

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3.5Ø PHONE JACK ACCESSORIES

5.2	SOLDERING TEST THE TERMINAL OF JACK TESTED SHALL BE DIPPED INTO SOLDERING FLUX OF GX-7(ASAHI CHEMICAL) OR EQUIVALENT FOR A PERIOD OF 5 TO 10 SECONDS TO PER-FLUX AND SHALL BE IMMERSED INTO MOLTEN SOLDER OF LEAD FREE (Sn 97% AND Ag 3%) OR EQUIVALENT TO 2±0.5 MILLIMETERS FROM A TIP OF THE TERMINAL FOR A DWELL TIME OF 3±0.5 SECONDS. AT THE CONCLUSION OF THIS TEST,THE TESTED AREA SHALL BE COVERED MORE THAN THREE QUARTERS OF IMMERSED AREA WITH FRESH SOLDER.
6.	ENVIRONMENTAL
6.1	HUMIDITY TEST THE JACK SHALL BE EXPOSED IN A HUMIDITY CHAMBER AT A TEMPERATURE OF 40°±2°C AND AT A RELATIVE HUMIDITY OF 90 TO 95% FOR A PERIOD OF 96 HOURS, THEN SHALL BE RETURNED TO A ROOM AMBIENT, DEWDROPS ON THE SURFACE OF JACK SHALL BE BLOWN OFF, THEREAFTER, THE JACK SHALL BE ALLOWED TO REMAIN IN A ROOM AMBIENT FOR 30 MINUTES TO STABILIZE MEASUREMENT. AT THE CONCLUSION OF THIS TEST, THE JACK SHALL COMPLY WITH PARAGRAPHS 3,3.1,4, AND 4.1.
6.2	HEAT TEST THE JACK SHALL BE EXPOSED IN A HEAT CHAMBER AT A TEMPERATURE OF 70°±2°C FOR A PERIOD OF 96 HOURS, THEREAFTER, THE JACK SHALL BE RETURNED AND ALLOWED TO REMAIN IN A ROOM AMBIENT FOR 30 MINUTES. AT THE CONCLUSION OF THIS TEST, THE JACK SHALL COMPLY WITH PARAGRAPHS 3,3.1,4, AND 4.1.
6.3	COLD TEST THE JACK SHALL BE EXPOSED IN A COLD CHAMBER AT A TEMPERATURE OF -40°±2°C FOR A PERIOD OF 96 HOURS, THEREAFTER, THE JACK SHALL BE RETURNED AND ALLOWED TO REMAIN IN A ROOM AMBIENT FOR 30 MINUTES,BEFORE MEASUREMENT,THE DEWDROP ON JACK SHALL BE BLOWN OFF TO STABILIZE MEASUREMENT. AT THE CONCLUSION OF THIS TEST, THE JACK SHALL COMPLY WITH PARAGRAPHS 3,3.1,4, AND 4.1.
7.	ENDURANCE
7.1	LIFE TEST
	THE LIFE TEST SHALL CONSIST 5,000 CYCLES OF INSERTION AND EXTRACTION WITH THE MATE PLUG OR GUGE PLUG AT A RATE OF 20 TO 30 CYCLES PER MINUTE NO LOAD, DURING THE TEST, THE PLUG SHOULD BE LUBRICATED WITH A BIT OF LUBRICANT GREASE TO PREVENT EXCESSIVE MECHANICAL WEAR SUCH AS MECHANICAL BURNING FROM FRICTION BETWEEN THE PLUG AND MOVABLE SPRING OR MOVABLE ELEMENTS OF THE JACK TESTED. AT THE CONCLUSION OF THIS TEST,THE JACK SHALL COMPLY WITH 3,3.1,4, AND 4.1.
7.2	MEASURING CONDITION UNLESS OTHERWISE SPECIFIED HEREIN, ALL MEASUREMENTS AND TESTS SHALL BE MADE AT A TEMPERATURE OF 5°C TO 30°C AND A RELATIVE HUMIDITY OF 40 TO 85%.

Fig. 1) Matching Plug and Gauge Plug Unit : m/m

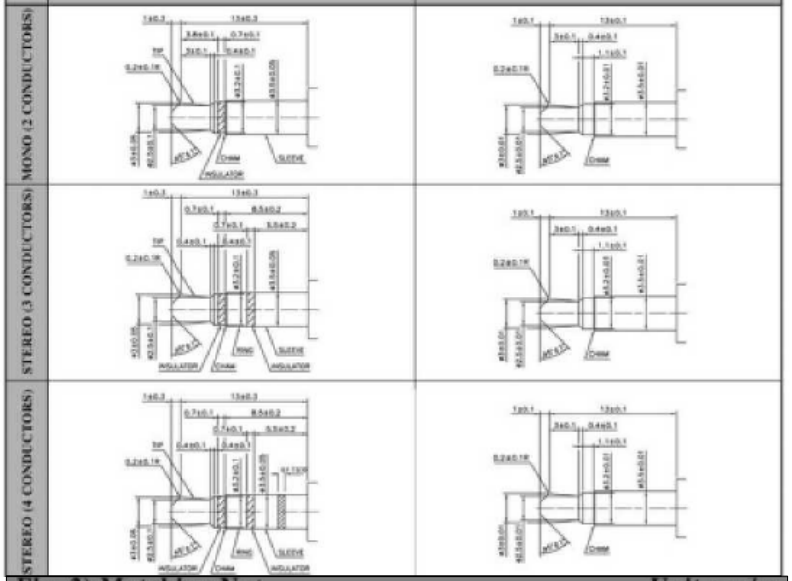
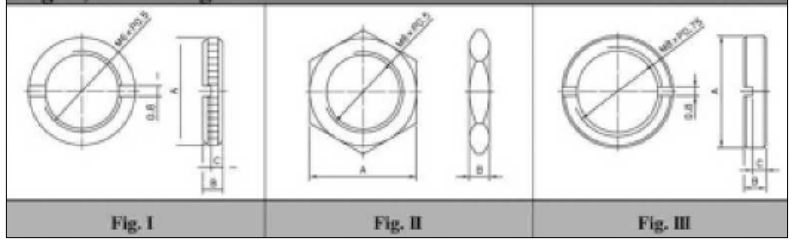


Fig. 2) Matching Nut Unit : m/m



Order Code No.	Fig.	Shape	Description			Dimension		
			Thread	Material	Finish	Dia. A	Dim. B	Dim. C
1	Fig. I	Round	M6×P0.5	Brass	Nickel	Ø8.0	1.5	0.9
2	Fig. II	Hexagonal	M6×P0.5	Brass	Nickel	8.0	1.5	-
3	Fig. III	Round	M8×P0.75	Brass	Nickel	Ø10.0	2.0	1.2

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