# mail

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# LOW PROFILE RIGHT ANGLE MODULAR JACKS

#### 1.0 SCOPE

This Product Specification covers the 1.27 mm (.050 inch) centerline (pitch) printed circuit board (PCB) modular jack connector series with selective gold and tin plating.

### 2.0 PRODUCT DESCRIPTION

#### 2.1 PRODUCT NAME AND SERIES NUMBER(S) Low Profile Right Angle Modular Jacks 43249

#### 2.2 DIMENSIONS, MATERIALS, PLATINGS AND MARKINGS

See the appropriate sales drawings (SDA-43249) for information on dimensions, materials, plating and markings.

### 2.3 SAFETY AGENCY APPROVALS

UL File Number.....E107635 CSA File Number.....LR19980

### 3.0 REFERENCE DOCUMENTS

FCC Rules and Regulations, Part 68, Subpart F REA Bulletin 345-81, PE-76; Specification for modular telephone set hardware ANSI/EIA/TIA-568 IEC-60603-7 UL 1863 MIL-STD-202; General requirements for test specifications

#### 4.0 RATINGS

### 4.1 VOLTAGE

56.5 V DC 150 V <sub>RMS</sub> AC (Ringing voltage only)

#### 4.2 CURRENT

1.5 Amps @ 25°C

### 4.3 TEMPERATURE

Operating: - 40°C to + 85°C Nonoperating:\* - 40°C to + 85°C \*Packaging materials should not exceed + 50°C

<b>REVISION:</b>	ECR/ECN INFORMATION:	TITLE: PRODI	JCT SPECIFICATI	ON	SHEET No.
8	EC No: UCP2008-0143	LOW PF	<b>ROFILE RIGHT AN</b>	GLE	<b>1</b> of <b>5</b>
	<u>DATE:</u> 7/23/2007	М	MODULAR JACKS		
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<b>PSX-43249</b>		<b>JBELL 7/23/2007</b>	LSCHMIDT 7/24/2007	FSMITH 7	7/25/2007
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## 5.0 PERFORMANCE

## 5.1 ELECTRICAL REQUIREMENTS

DESCRIPTION	TEST CONDITION	REQUIREMENT
Contact Resistance (Low Level)	Mate connectors: apply a maximum voltage of <b>20</b> mV and a current of <b>15</b> mA. (Measurement locations in Section 7.0)	<b>10</b> milliohms MAXIMUM [initial]
Insulation Resistance	Unmated connector, mounted to a PCB: apply a voltage of <b>500</b> VDC between adjacent terminals and between terminals to ground.	<b>500</b> Megohms MINIMUM
Dielectric Withstanding Voltage	Mate connectors: apply a voltage of <b>1000</b> VAC for <b>1</b> minute between adjacent terminals and between terminals to ground.	No breakdown; current leakage < <b>5</b> mA
Temperature Rise	Mate connectors: measure the temperature rise at the rated current after: <b>96</b> hours	Temperature rise; +30°C MAXIMUM

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# 5.2 MECHANICAL REQUIREMENTS

DESCRIPTION	TEST CONDITION	REQUIREMENT
Connector Mate Force	Mate connector at a rate of <b>25 ± 6</b> mm ( <b>1 ±</b> $\frac{1}{4}$ inch) per minute. (Gage dimensions in Section 7.0)	22 N (5 lbf) MAXIMUM insertion force
Durability	Mate connectors up to <b>500</b> cycles at a maximum rate of <b>20</b> cycles per minute prior to Environmental Tests.	<b>10</b> milliohms MAXIMUM (change from initial)
Vibration (Random)	Mate connectors and vibrate per MIL-STD-202	<b>10</b> milliohms MAXIMUM (change from initial) & Discontinuity < <b>1</b> microsecond
Plug Retention Force	Apply an axial pullout force on the plug at a rate of $25 \pm 6$ mm ( $1 \pm \frac{1}{4}$ inch) per minute.	89 N (20 lbf) MINIMUM retention force
PCB Separation Forces	Apply a perpendicular load on the plug at a rate of <b>25 ± 6</b> mm ( <b>1 ±</b> ¼ inch) per minute.	<ul> <li>4.5 N (1 lbf)</li> <li>MINIMUM withdrawal force before solder reflow</li> <li>89 N (20 lbf)</li> <li>MINIMUM withdrawal force after solder reflow</li> </ul>

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# 5.3 ENVIRONMENTAL REQUIREMENTS

DESCRIPTION	TEST CONDITION	REQUIREMENT
Thermal (Cycling)	Connectors to be placed in 95% relative humidity. Maximum temperature change is 15°C/hour. Cycle linearly per chart below. Mate connectors; expose to 10 cycles of: 	10 milliohms MAXIMUM (change from initial) & Dielectric Withstanding Voltage: No Breakdown at 500 VAC & Insulation Resistance: 500 Megohms MINIMUM & Visual: No Damage
Solderability	Dip solder tails in flux and immerse in solder bath at <b>260±5</b> °C for <b>5±0.5</b> seconds.	Solder Wetting Visual: <b>95%</b> of immersed area must show no voids, pin holes

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### 6.0 PACKAGING

Parts shall be packaged to protect against damage during handling, transit and storage. See appropriate sales drawings on Sheet 1 for packaging descriptions.

### 7.0 GAGES AND FIXTURES



#### TERMINATION RESISTANCE MEASUREMENT POINTS

8.0 OTHER INFORMATION

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