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ELECTRONICS

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Jameco Part Number 1300021

Features and Benefits

- Meets UL 1086 Section 8 Electrical Probe and UL 1863 Section 20 Childs Finger Test
- No exposed leads to meet British Telecom 4000V test
- Contact tips guided within FCC-specified target zone—Positive alignment prevents shorting
- 100% tested for hi-pot and continuity
- .500" height is industry lowest

Reference Information

Product Specification: PS-42410

Packaging: Tray

UL File No.: E107635

CSA File No.: LR19980

Mates With: WE Co. and FCC 68 plugs

Designed In: Inches

Electrical

Voltage: 125V

Current: 1.5A

Contact Resistance: 10mΩ max.

Dielectric Withstanding Voltage: 1000V AC rms

Insulation Resistance: 500 MΩ min.

Mechanical

Durability: 500 cycles min.

Physical

Housing: Black glass-filled polyester, UL 94V-0

Contact: Phosphor Bronze

Plating: 1.27 μ m (50 μ ") min. Gold in contact area and

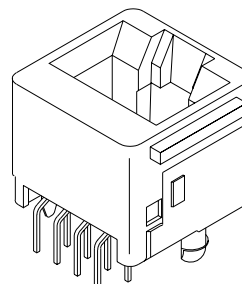
1.27 μ m (50 μ "") Tin/Lead on solder tails both

over Nickel overall

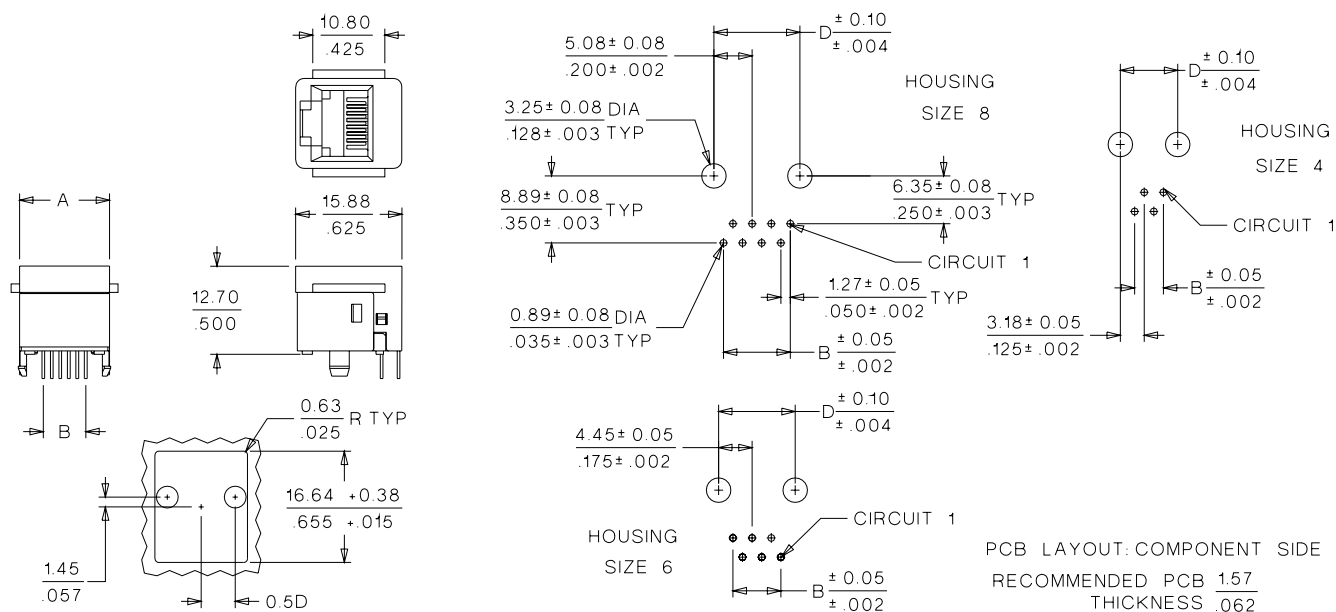
Operating Temperature: -40 to +80°C

42878

Vertical, Low Profile For .062 and .125" PCB



CATALOG DRAWING (FOR REFERENCE ONLY)



ORDERING INFORMATION AND DIMENSIONS

Circuits	Loaded Contacts	Order No.				Dimension		
		.062" PCB		.125" PCB				
		Flush Mount	Flangeless	Flush Mount	Flangeless	A	B	D
4	2	42878-4360	42878-4362	42878-4408	42878-4410	11.43 (.450)	1.27 (.050)	7.62 (.300)
4	4	42878-4216	42878-4218	42878-4264	42878-4266	11.43 (.450)	3.81 (.150)	7.62 (.300)
6	2	42878-6504	42878-6506	42878-6552	42878-6554	13.20 (.520)	1.27 (.050)	10.16 (.400)
6	4	42878-6360	42878-6362	42878-6408	42878-6410	13.20 (.520)	3.81 (.150)	10.16 (.400)
6	6	42878-6216	42878-6218	42878-6264	42878-6266	13.20 (.520)	6.35 (.250)	10.16 (.400)
8	2	42878-9272	42878-9274	42878-9368	42878-9370	15.20 (.600)	1.27 (.050)	11.43 (.450)
8	4	42878-8984	42878-8986	42878-9080	42878-9082	15.20 (.600)	3.81 (.150)	11.43 (.450)
8	6	42878-8696	42878-8698	42878-8792	42878-8794	15.20 (.600)	6.35 (.250)	11.43 (.450)
8	8	42878-8408	42878-8410	42878-8504	42878-8506	15.20 (.600)	8.89 (.350)	11.43 (.450)

Note: Contact Molex for keying order numbers RJ-45 only



PRODUCT SPECIFICATION

LOW PROFILE VERTICAL 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-lead plating.

2.0 PRODUCT DESCRIPTION

2.1 PRODUCT NAME AND SERIES NUMBER(S)

Low Profile Vertical Modular Jacks 42878, 43090

2.2 DIMENSIONS, MATERIALS, PLATINGS AND MARKINGS

See the appropriate sales drawings (SDA-42878-****, SDA-43090-****) for information on dimensions, materials, plating and markings.

2.3 SAFETY AGENCY APPROVALS

UL File Number.....E107635

CSA File Number.....LR19980

3.0 APPLICABLE DOCUMENTS AND SPECIFICATIONS

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_{RMS} AC (Ringing voltage only)

4.2 CURRENT

1.5 Amps @ 25°C

4.3 TEMPERATURE

Operating: - 40°C to + 70°C

REVISION:	ECR/ECN INFORMATION:	TITLE:	SHEET No.
B	EC No: UCR2002-0267 DATE: 2001 / 09/19	PRODUCT SPECIFICATION LOW PROFILE VERTICAL MODULAR JACKS	1 of 5
DOCUMENT NUMBER:	CREATED / REVISED BY:	CHECKED BY:	APPROVED BY:
PS-42878	MKAMAR 01/09/19	MKAMAR 01/09/19	BWIRKUS 01/09/19

TEMPLATE FILENAME: PRODUCT_SPEC[SIZE_A](V.1).DOC



PRODUCT SPECIFICATION

5.0 PERFORMANCE

5.1 ELECTRICAL REQUIREMENTS

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

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PRODUCT SPECIFICATION

5.2 MECHANICAL REQUIREMENTS

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

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PRODUCT SPECIFICATION

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: <table><tr><td><u>Temperature °C</u></td><td><u>Duration (Minutes)</u></td></tr><tr><td>30 to 5</td><td>120</td></tr><tr><td>5 to 30</td><td>120</td></tr><tr><td>Hold at 30</td><td>240</td></tr><tr><td>30 to 5</td><td>180</td></tr><tr><td>Hold at 5</td><td>180</td></tr></table>	<u>Temperature °C</u>	<u>Duration (Minutes)</u>	30 to 5	120	5 to 30	120	Hold at 30	240	30 to 5	180	Hold at 5	180	10 milliohms MAXIMUM (change from initial) & Dielectric Withstanding Voltage: No Breakdown at 500 VAC & Insulation Resistance: 500 Megohms MINIMUM & Visual: No Damage
<u>Temperature °C</u>	<u>Duration (Minutes)</u>														
30 to 5	120														
5 to 30	120														
Hold at 30	240														
30 to 5	180														
Hold at 5	180														

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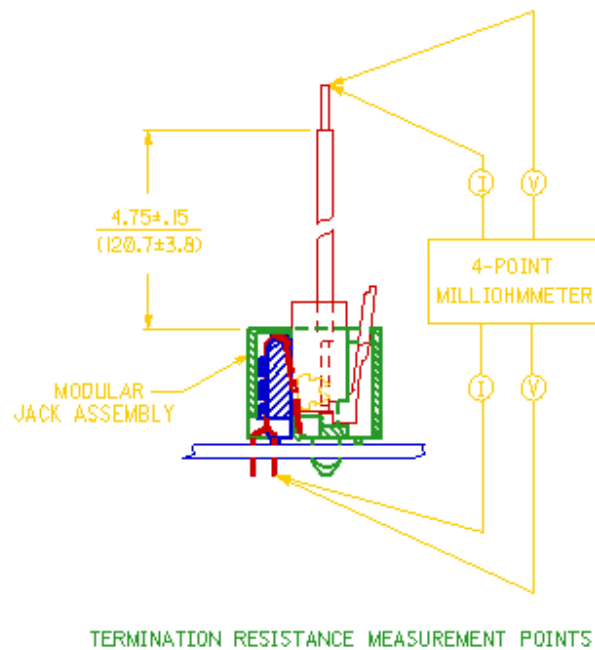


PRODUCT SPECIFICATION

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



8.0 OTHER INFORMATION

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