

# 3M™ Pak 10 Socket

1 mm Straight and Right Angle, Surface Mount

PK10 Series



- 1 mm pitch connector system
- Stacked, Horizontal or Vertical Mating
- Low profile 5 mm mated height
- Surface mount retention clips reduce stress on surface mount leads
- Keyed design helps prevent mating misalignment
- Hard Tray and Vacuum pickup for automated assembly placement
- RoHS Compliant. See the Regulatory Information Appendix (RIA) in the “RoHS Compliance” section of [www.3Mconnector.com](http://www.3Mconnector.com) for compliance information (RIA E1 and C1 apply)

Date Modified: August 27, 2010

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## Physical

### Insulation:

Material: Glass Filled LCP  
Flammability: UL 94V-0  
Color: White

### Materials:

Contact: Copper Alloy  
Retention Clips: Copper Alloy

### Contact Plating:

Underplating: 120 μ” [ 3.0 μm ] Nickel  
Wiping Area: 2 μ” [ 0.05 μm ] min. Gold  
Solder Tails: Gold Flash

**Retention Clip Plating:** Gold Flash over 120 μ” [ 3.0 μm ] Nickel

Marking: Orientation Triangle

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## Electrical

**Current Rating:** 0.5 A

**Contact Resistance:** 50 mΩ max

**Insulation Resistance:** 1 × 10<sup>3</sup> MΩ min at 500 V<sub>DC</sub>

**Dielectric withstanding Voltage:** 315 V<sub>AC</sub> for 1 minute

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## Environmental

**Temperature Rating:** -55°C to +85°C

**Process Rating:** 260°C per J-STD-020C



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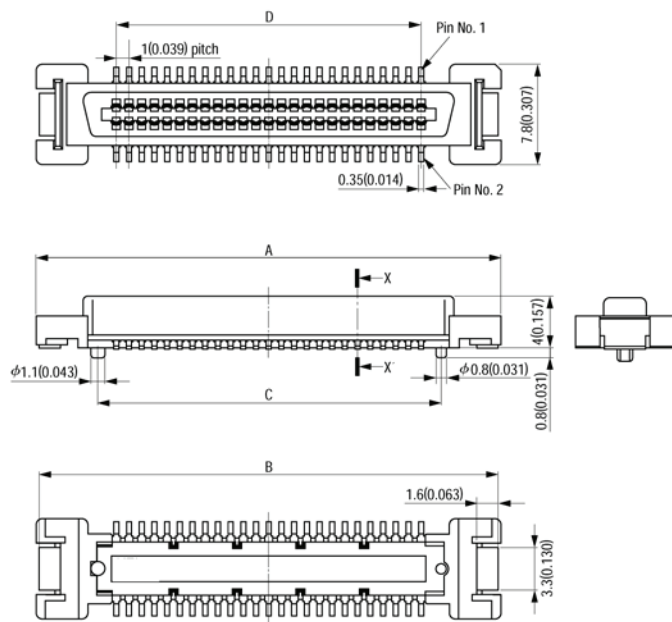
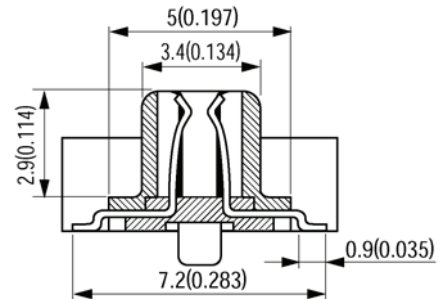
1 mm Straight and Right Angle, Surface Mount

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## Straight Surface Mount

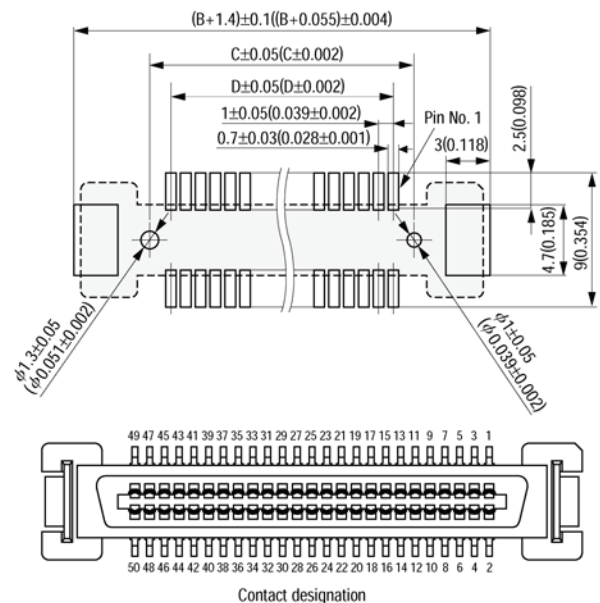
Contact Quantity	A	B	C	D
30	26.50 [1.043]	26.10 [1.028]	17.00 [0.669]	14.00 [0.551]
50	36.50 [1.437]	36.10 [1.421]	27.00 [1.063]	24.00 [0.945]
80	51.50 [2.028]	51.10 [2.012]	42.00 [1.654]	39.00 [1.535]
100	61.50 [2.421]	61.10 [2.406]	52.00 [2.047]	49.00 [1.929]

## X-X' Cross Section



SMT lead thickness: T=0.2(0.008)  
Metal retention pad thickness: T=0.3(0.012)

## Printed Circuit Board Layout (Component Side View)



### Automated Assembly:

- Packaged in Hard Trays
- Allows chucking type pick and place
- Molded vacuum suction cover is optional

## Ordering Information

**PK10 - XXXSX - X - DA** (RIA E1 & C1 apply)

Contact Quantity  
See Table

Vacuum Suction Cover:

Blank = None

M = Molded Suction Cover

Note: M only available for Solder Tail Option S

Solder Tail Options:

S = Vertical

R = Right Angle

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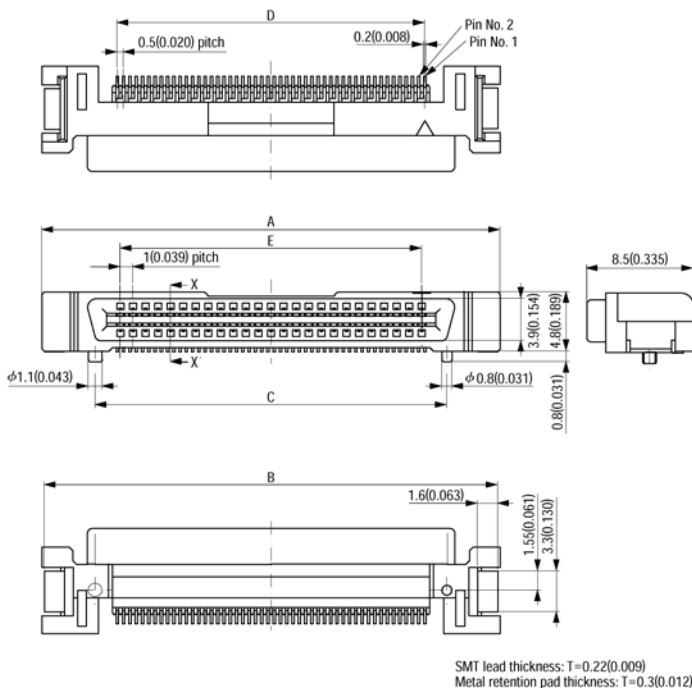
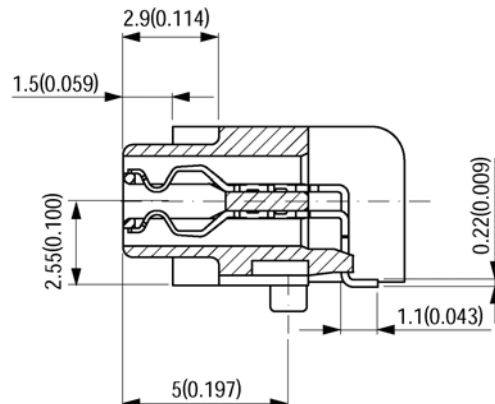
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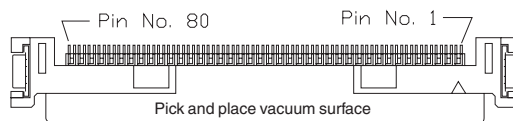
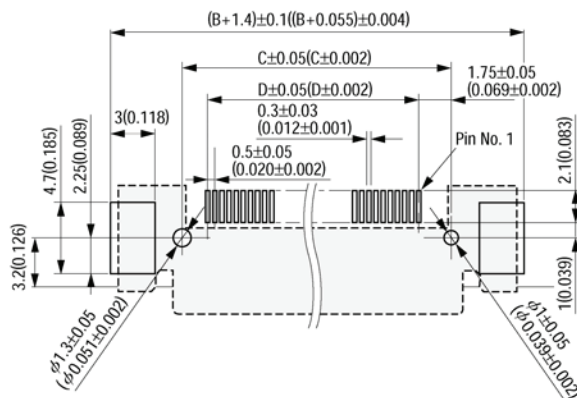
Right Angle Surface Mount mm [inch]

Contact Quantity	A	B	C	D	E
30	26.50	26.10	17.00	14.50	14.00
	[1.043]	[1.028]	[0.669]	[0.571]	[0.551]
50	36.50	36.10	27.00	24.50	24.00
	[1.437]	[1.421]	[1.063]	[0.965]	[0.945]
80	51.50	51.10	42.00	39.50	39.00
	[2.028]	[2.012]	[1.654]	[1.555]	[1.535]
100	61.50	61.10	52.00	49.50	49.00
	[2.421]	[2.406]	[2.047]	[1.949]	[1.929]
120	71.5	71.1	63.0	60.00	59.0
	[2.815]	[2.799]	[2.480]	[2.362]	[2.323]

X-X' Cross Section



Printed Circuit Board Layout (Component Side View)



Contact designation

Automated Assembly:

- Packaged in Hard Trays
- Flat surface allows vacuum pick and place

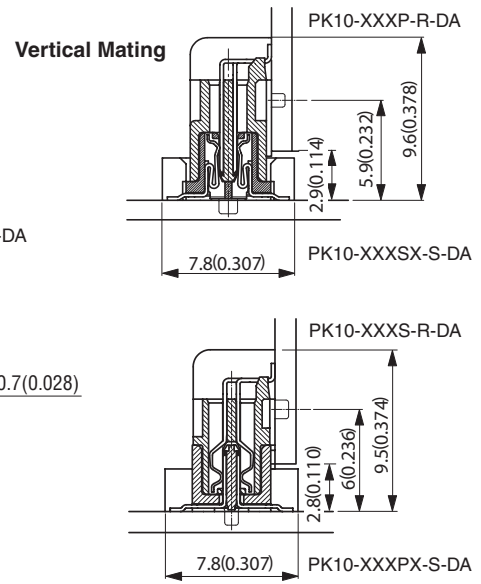
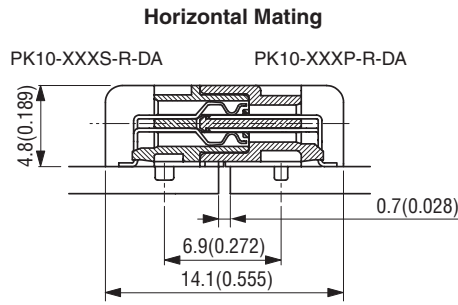
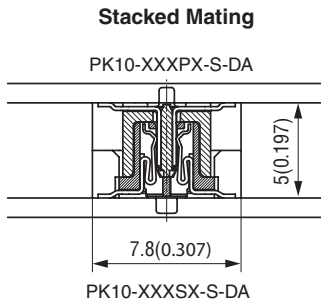
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## Mating Variations

Unit: mm [inch]



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**3M Electronics Solutions Division**

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