

# 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

TS-1077-E  
Sheet 1 of 4

---

## 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

---

## 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

---

## Environmental

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

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

# 3M™ Pak 10 Socket

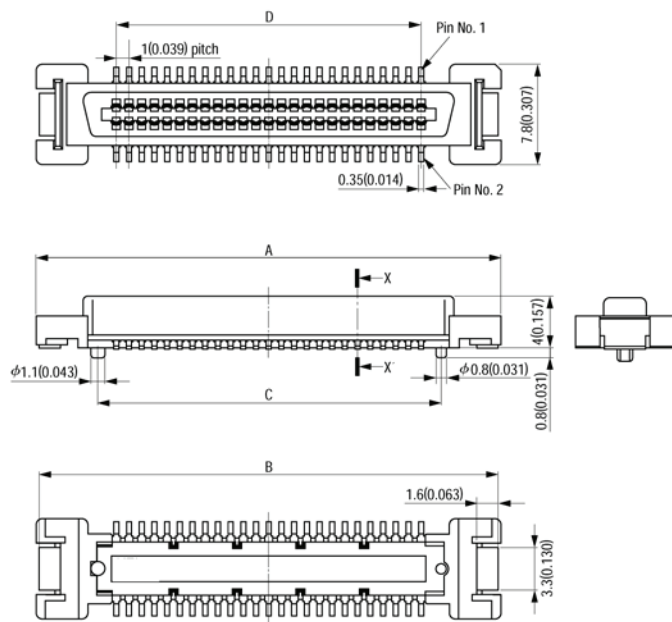
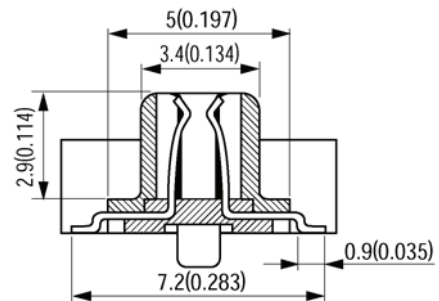
1 mm Straight and Right Angle, Surface Mount

PK10 Series

### Straight Surface Mount

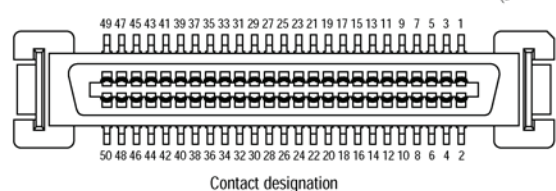
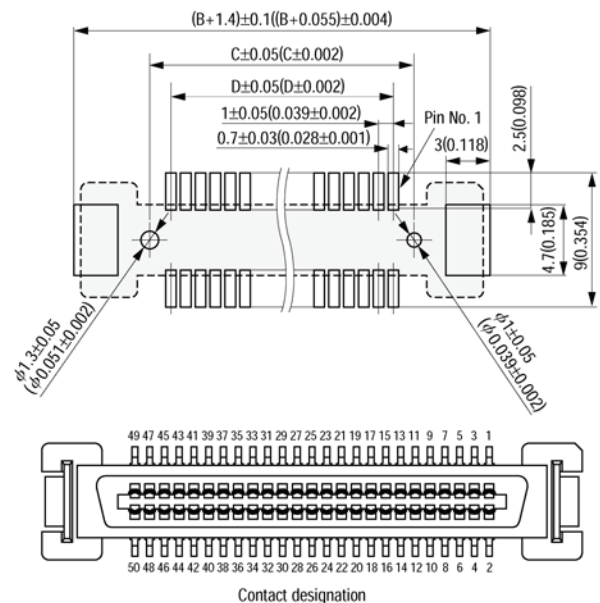
Contact Quantity	A	B	C	D
30	26.50 [1.043]	26.10 [1.028]	17.00 [0.669]	14.00 [0.551]
50	36.50 [1.437]	36.10 [1.421]	27.00 [1.063]	24.00 [0.945]
80	51.50 [2.028]	51.10 [2.012]	42.00 [1.654]	39.00 [1.535]
100	61.50 [2.421]	61.10 [2.406]	52.00 [2.047]	49.00 [1.929]

### 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

TS-1077-E  
Sheet 2 of 4

**3M**

Electronic Solutions Division  
Interconnect Solutions  
<http://www.3Mconnector.com>

3M is a trademark of 3M Company.  
For technical, sales or ordering information call  
**800-225-5373**

# 3M™ Pak 10 Socket

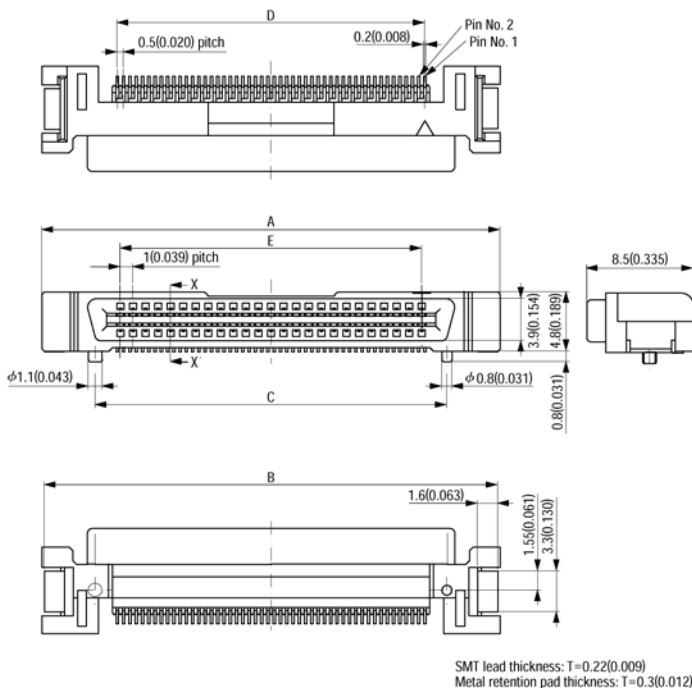
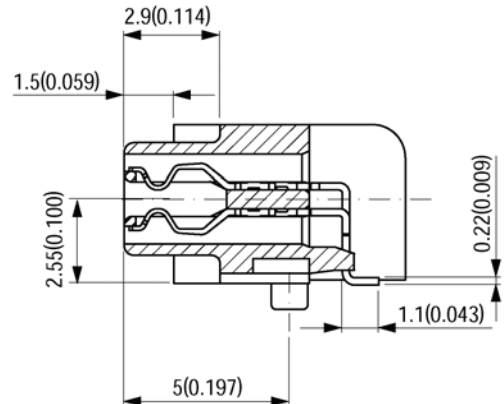
1 mm Straight and Right Angle, Surface Mount

PK10 Series

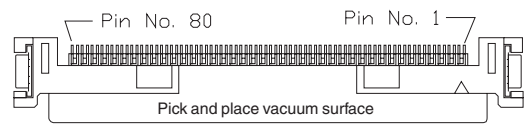
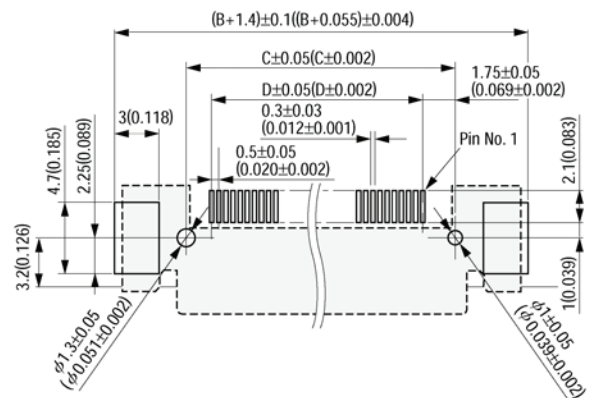
Right Angle Surface Mount mm [inch]

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

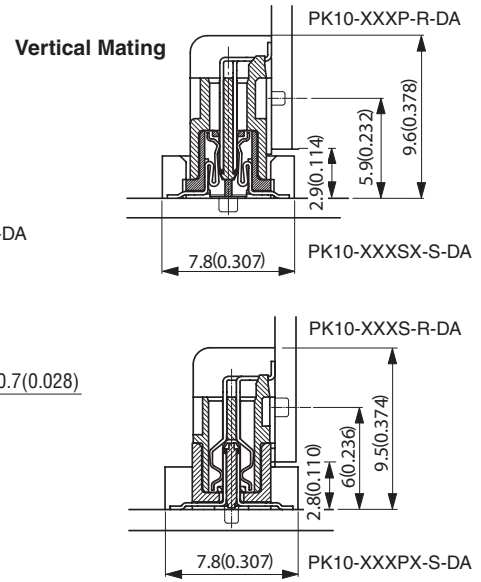
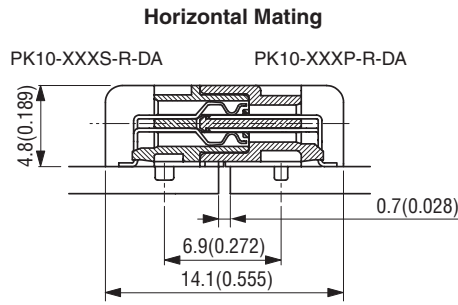
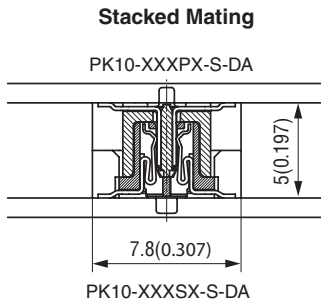
# 3M™ Pak 10 Socket

1 mm Straight and Right Angle, Surface Mount

PK10 Series

## Mating Variations

Unit: mm [inch]



TS-1077-E  
Sheet 4 of 4

### **Important Notice**

All statements, technical information, and recommendations related to 3M's products are based on information believed to be reliable, but the accuracy or completeness is not guaranteed. Before using this product, you must evaluate it and determine if it is suitable for your intended application. You assume all risks and liability associated with such use. Any statements related to the product which are not contained in 3M's current publications, or any contrary statements contained on your purchase order shall have no force or effect unless expressly agreed upon, in writing, by an authorized officer of 3M.

### **Warranty; Limited Remedy; Limited Liability.**

This product will be free from defects in material and manufacture for a period of one (1) year from the time of purchase. **3M MAKES NO OTHER WARRANTIES INCLUDING, BUT NOT LIMITED TO, ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.** If this product is defective within the warranty period stated above, your exclusive remedy shall be, at 3M's option, to replace or repair the 3M product or refund the purchase price of the 3M product. **Except where prohibited by law, 3M will not be liable for any indirect, special, incidental or consequential loss or damage arising from this 3M product, regardless of the legal theory asserted.**



### **3M Electronics Solutions Division**

6801 River Place Blvd.  
Austin, TX 78726-9000  
U.S.A.  
1-800-225-5373  
[www.3Mconnector.com](http://www.3Mconnector.com)

Please recycle. Printed in USA.  
© 3M 2010. All rights reserved.  
RIA-2217B-E

3M is a trademark of 3M Company.