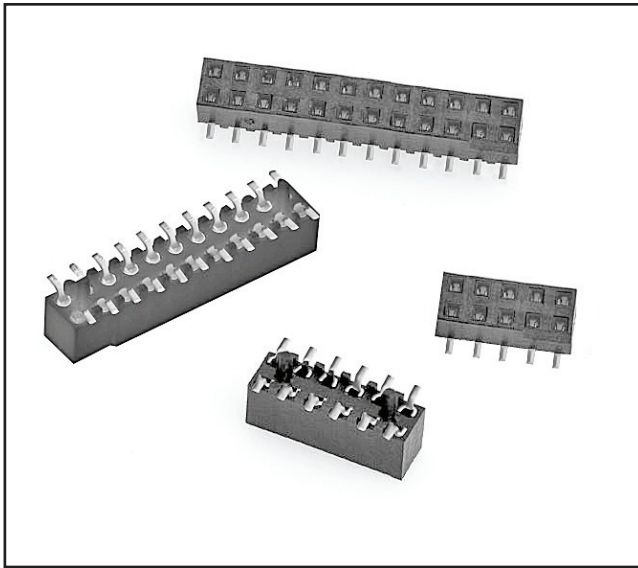


# 3M™ Boardmount Socket

2 mm x 2 mm Straight Surface Mount, Straight and Right Angle Plated Through-Hole 1502 Series



- High Temperature Insulator
- Reflow Solder Compatible
- Low height helps minimize PCB stack height
- End Stackable
- Thru-hole versions are side stackable
- SMT parts are available in tape and reel pack with vacuum cap for automated placement applications
- See the Regulatory Information Appendix (RIA) in the “RoHS compliance” section of [www.3mconnector.com](http://www.3mconnector.com) for compliance information (RIA E1 & C1 apply)

Date Modified: July 5, 2010

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## Physical

### Insulator:

Surface Mount: Glass Filled LCP  
Vertical Thru-Hole: Glass filled PCT  
Right Angle Thru-Hole: Glass filled PCT

### Contact:

Material: Copper alloy

### Plating:

Underplating: 1.27-3.81  $\mu\text{m}$  [ 50-150  $\mu\text{”}$  ] Nickel overall  
Wiping Area: 0.76  $\mu\text{m}$  [ 30  $\mu\text{”}$  ] Gold  
Solder Tails: 5.1  $\mu\text{m}$  [ 200  $\mu\text{”}$  ] Matte tin or tin-lead (refer to ordering information)

**Marking:** Orientation delta and 3M Logo (except surface mount)

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## Electrical

**Current Rating:** 1 A

**Insulation Resistance:**  $> 1 \times 10^9 \Omega$  at 250 V<sub>DC</sub>

**Withstanding Voltage:** 500 V<sub>DC</sub> at Sea Level

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## Environmental

**Temperature Rating:** -55°C to +105°C

**Process Rating:** Maximum 260°C, (per J-STD-020C)

**Moisture Sensitivity Level:** 1 (per J-STD-020C)

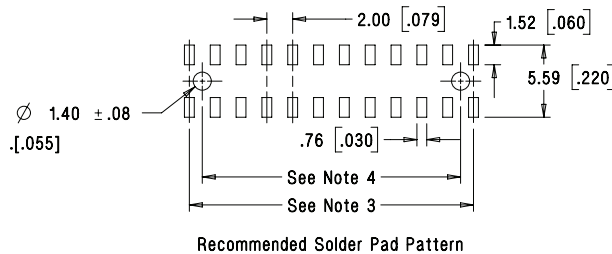
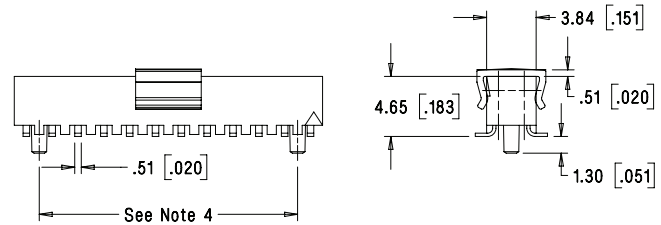
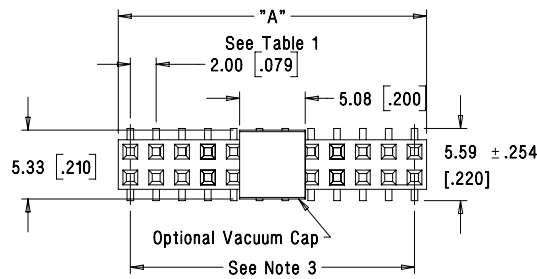
UL File No.: E68080

# 3M™ Boardmount Socket

2 mm x 2 mm Straight Surface Mount, Straight and Right Angle Plated Through-Hole 1502 Series

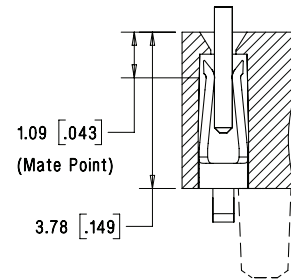


Table 1			
Contact Quantity	Dimension A	Tape Width	Order Code
04	3.96 [0.156]	n/a	n/a
06	5.87 [0.231]	n/a	n/a
08	7.87 [0.310]	24 mm	WB
10	9.88 [0.389]	24 mm	WB
12	11.86 [0.467]	24 mm	WB
14	13.87 [0.546]	24 mm	WB
16	15.88 [0.625]	24 mm	WB
18	17.88 [0.704]	44 mm	WD
20	19.86 [0.782]	44 mm	WD
22	21.87 [0.861]	44 mm	WD
24	23.88 [0.940]	44 mm	WD
26	25.88 [1.019]	44 mm	WD
28	27.86 [1.097]	44 mm	WD
30	29.87 [1.176]	44 mm	WD
32	31.88 [1.255]	56 mm	WE
34	33.88 [1.334]	56 mm	WE
36	35.86 [1.412]	56 mm	WE
38	37.87 [1.491]	56 mm	WE
40	39.88 [1.570]	56 mm	WE
42	41.88 [1.649]	56 mm	WE
44	43.87 [1.727]	72 mm	WF
46	45.87 [1.806]	72 mm	WF
48	47.88 [1.885]	72 mm	WF
50	49.89 [1.964]	72 mm	WF
52	51.87 [2.042]	72 mm	WF
54	53.87 [2.121]	72 mm	WF
56	55.88 [2.200]	72 mm	WF
58	57.86 [2.278]	88 mm	WG
60	59.87 [2.357]	88 mm	WG



Tolerance Unless Noted		
mm	[Inch]	
.0	.00	
± 2.54	±	± .127

[ ] Dimensions for Reference only



Note: Mate point same for all board mount types.

**Notes:**

1. Tape & reel include vacuum pick-up cap for pick 'n place handling equipment.
2. Parts in tray packaging are supplied without vacuum cap.
3. Positions per row, subtract 1, multiply by 2 mm spacing.
4. Optional locator posts: Positions per row, multiply by 2 mm, then subtract 4 mm.

\*\*Optional Locator Posts available for positions eight and greater.

## Ordering Information

**1502XX-20X0-XX-XX**

Number of positions  
(See Table 1)

Board Location Post  
0 = None (Standard)  
2 = With board location post  
(Special order)

Plating suffix:  
RB = 0.76 μm [30 μ"] Gold with matte tin solder tails (RIA E1 & C1 apply)  
TB = 0.76 μm [30 μ] Gold with tin-lead solder tails (RIA E3 & C2 apply)

Packaging style:  
Blank = tray packaging  
WX = tape & reel pkg (see Table 1 for ordering code)

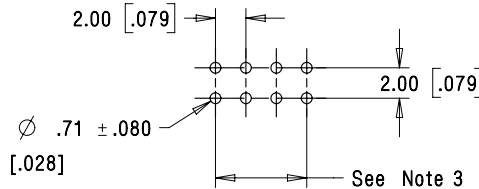
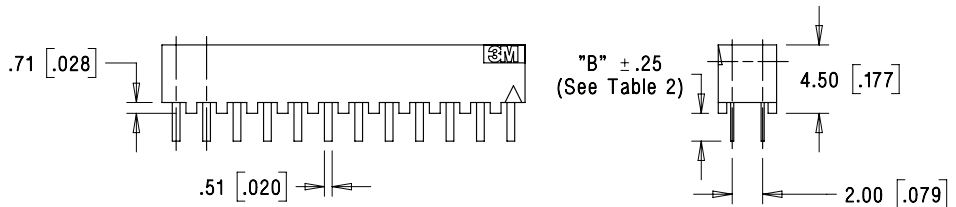
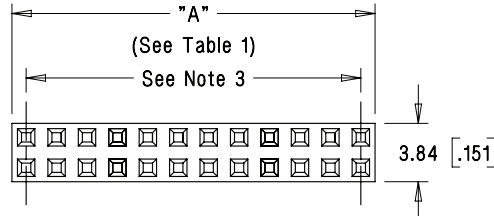
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# 3M™ Boardmount Socket

2 mm x 2 mm Straight Surface Mount, Straight and Right Angle Plated Through-Hole 1502 Series



Contact Quantity	Dimension A
04	3.96 [0.156]
06	5.87 [0.231]
08	7.87 [0.310]
10	9.88 [0.389]
12	11.86 [0.467]
14	13.87 [0.546]
16	15.88 [0.625]
18	17.88 [0.704]
20	19.86 [0.782]
22	21.87 [0.861]
24	23.88 [0.940]
26	25.88 [1.019]
28	27.86 [1.097]
30	29.87 [1.176]
32	31.88 [1.255]
34	33.88 [1.334]
36	35.86 [1.412]
38	37.87 [1.491]
40	39.88 [1.570]
42	41.88 [1.649]
44	43.87 [1.727]
46	45.87 [1.806]
48	47.88 [1.885]
50	49.89 [1.964]
52	51.87 [2.042]
54	53.87 [2.121]
56	55.88 [2.200]
58	57.86 [2.278]
60	59.87 [2.357]



### Recommended Hole Pattern

mm [Inch]			
Tolerance Unless Noted			
	.0	.00	.000
mm	± 2.54	± .254	±

[ ] Dimensions for Reference only

## Ordering Information

**1502XX-600X-XX**

Number of positions  
(See Table 1)

Solder Tail Length  
Dimension B  
1 = 1.4 mm (Special order)  
2 = 2.54 mm (Standard)

Plating suffix:  
RB = 0.76  $\mu\text{m}$  [30  $\mu\text{m}$ ] Gold with matte tin solder tails (RIA E1 & C1 apply)  
TB = 0.76  $\mu\text{m}$  [30  $\mu\text{m}$ ] Gold with tin-lead solder tails (RIA E3 & C2 apply)

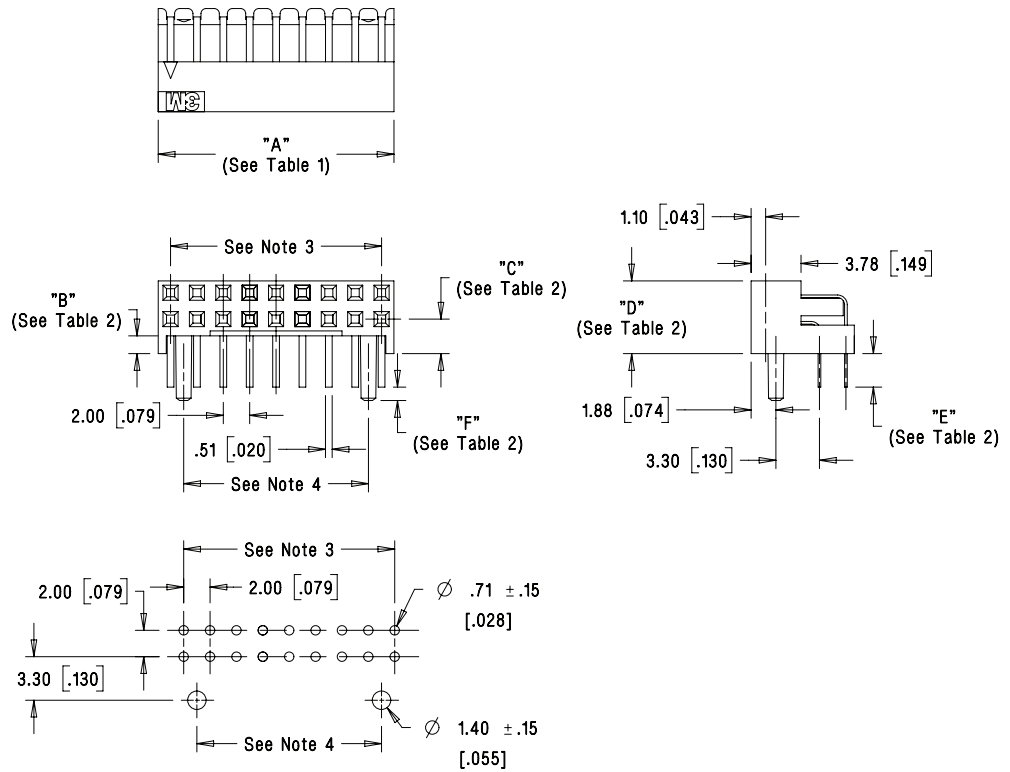
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Sheet 3 of 4

# 3M™ Boardmount Socket

2 mm x 2 mm Straight Surface Mount, Straight and Right Angle Plated Through-Hole 1502 Series



Contact Quantity	Dimension A
08	7.87 [0.310]
10	9.88 [0.389]
12	11.86 [0.467]
14	13.87 [0.546]
16	15.88 [0.625]
18	17.88 [0.704]
20	19.86 [0.782]
22	21.87 [0.861]
24	23.88 [0.940]
26	25.88 [1.019]
28	27.86 [1.097]
30	29.87 [1.176]
32	31.88 [1.255]
34	33.88 [1.334]
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50	49.89 [1.964]
52	51.87 [2.042]
54	53.87 [2.121]
56	55.88 [2.200]
58	57.86 [2.278]
60	59.87 [2.357]



Standoff Height Code	Dimensions				
	B	C	D	E	F
0	.015 [0.38]	.065 [1.65]	.179 [4.55]	.100 [2.54]	.040 [1.02]
1	.053 [1.35]	.103 [2.62]	.217 [5.51]	.100 [2.54]	.040 [1.02]
2	.028 [0.71]	.078 [1.98]	.192 [4.88]	.125 [3.18]	.015 [0.38]

mm [Inch]		
Tolerance Unless Noted		
	.0	.000
mm	$\pm 2.54$	$\pm .127$

[ ] Dimensions for Reference only

## Ordering Information

**1502XX-5XX2-XX**

Number of positions  
(See Table 1)

Standoff Height Code  
(see table 2, Dim B)  
0 = 0.38 mm (Standard)  
1 = 1.135 mm (Special order)  
2 = 0.71 mm (Special order -  
Avail. for 40, 44 and 50  
position only)

Plating suffix:

RB = 0.76  $\mu$ m [30  $\mu$ "] Gold with matte tin solder tails  
(RIA E1 & C1 apply)  
TB = 0.76  $\mu$ m [30  $\mu$ "] Gold with tin-lead solder tails  
(RIA E3 & C2 apply)

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