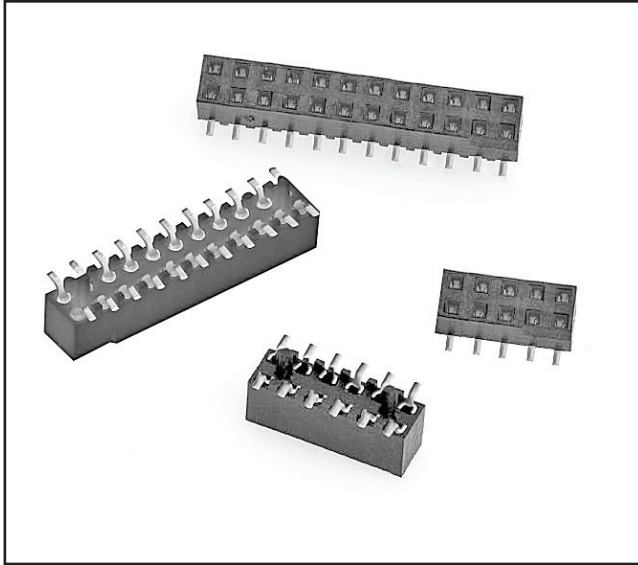


# 3M™ Boardmount Socket

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

TS-0519-G  
Sheet 1 of 4

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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: 1.27-3.8  $\mu\text{m}$  [ 50-150  $\mu''$  ] Nickel overall

Wiping Area: 0.76  $\mu\text{m}$  [ 30  $\mu''$  ] Gold

Solder Tails: 5.1  $\mu\text{m}$  [ 200  $\mu''$  ] 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



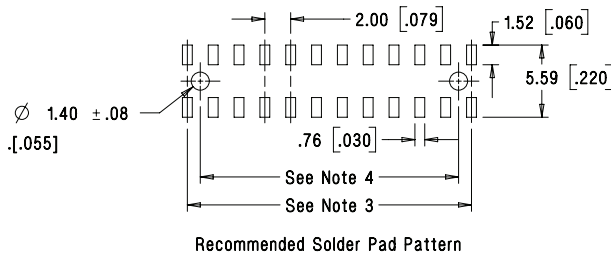
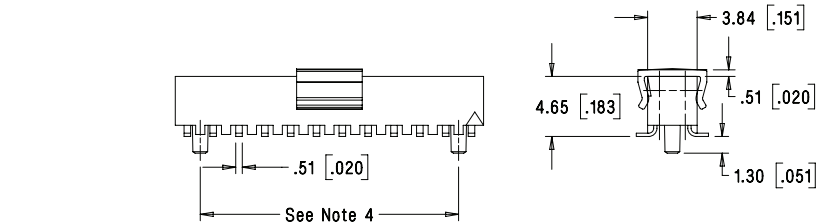
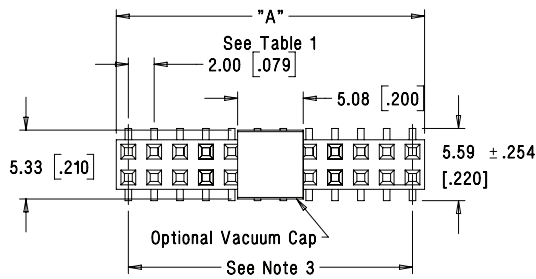
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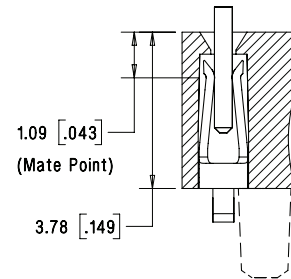
# 3M™ Boardmount Socket

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         |



| mm<br>[Inch]                      |        |
|-----------------------------------|--------|
| Tolerance Unless Noted            |        |
| .0                                | .00    |
| mm ± 2.54                         | ± .127 |
| [ ] Dimensions for Reference only |        |



## 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.

Note: Mate point same for all board mount types.

\*\*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)

TS-0519-G  
Sheet 2 of 4



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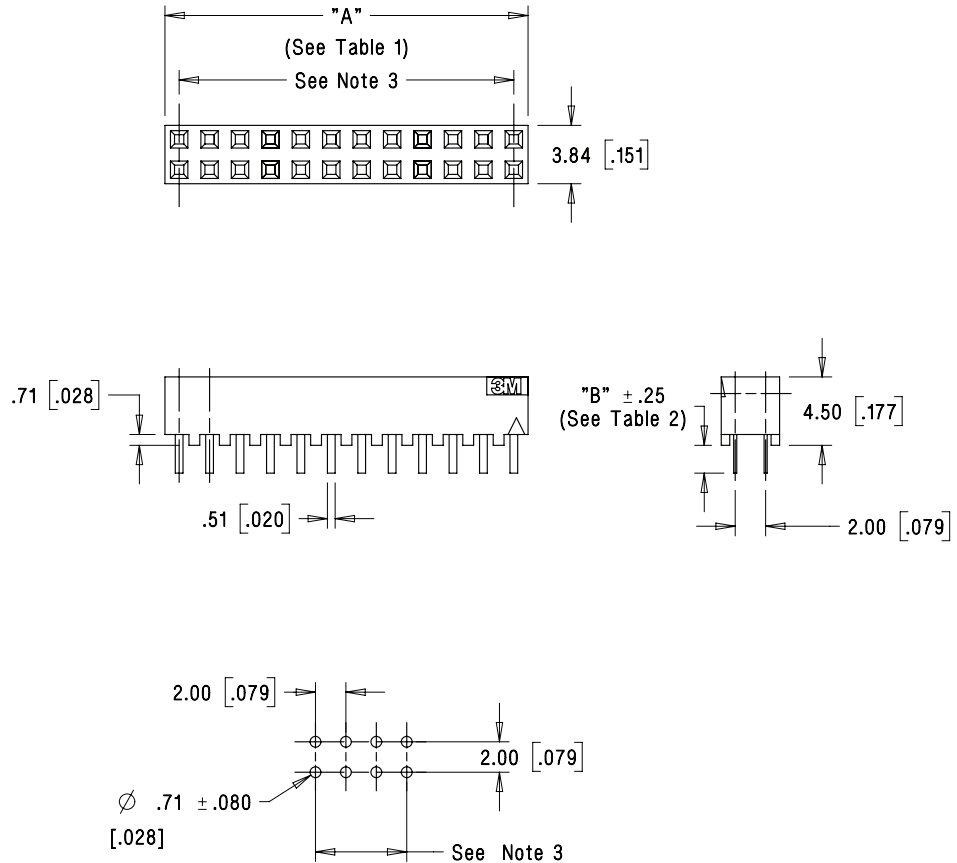
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# 3M™ Boardmount Socket

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



| Table 1          |               |
|------------------|---------------|
| Contact Quantity | Dimension A   |
| 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] |



| mm<br>[Inch]           |        |        |      |
|------------------------|--------|--------|------|
| Tolerance Unless Noted |        |        |      |
|                        | .0     | .00    | .000 |
| mm                     | ± 2.54 | ± .254 | ±    |

[ ] Dimensions for Reference only

## Recommended Hole Pattern

## Ordering Information

**1502XX-600X-XX**

Number of positions  
(See Table 1)

Solder Tail Length  
Dimension B  
1 = .14 mm (Special order)  
2 = 2.54 mm (Standard)

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

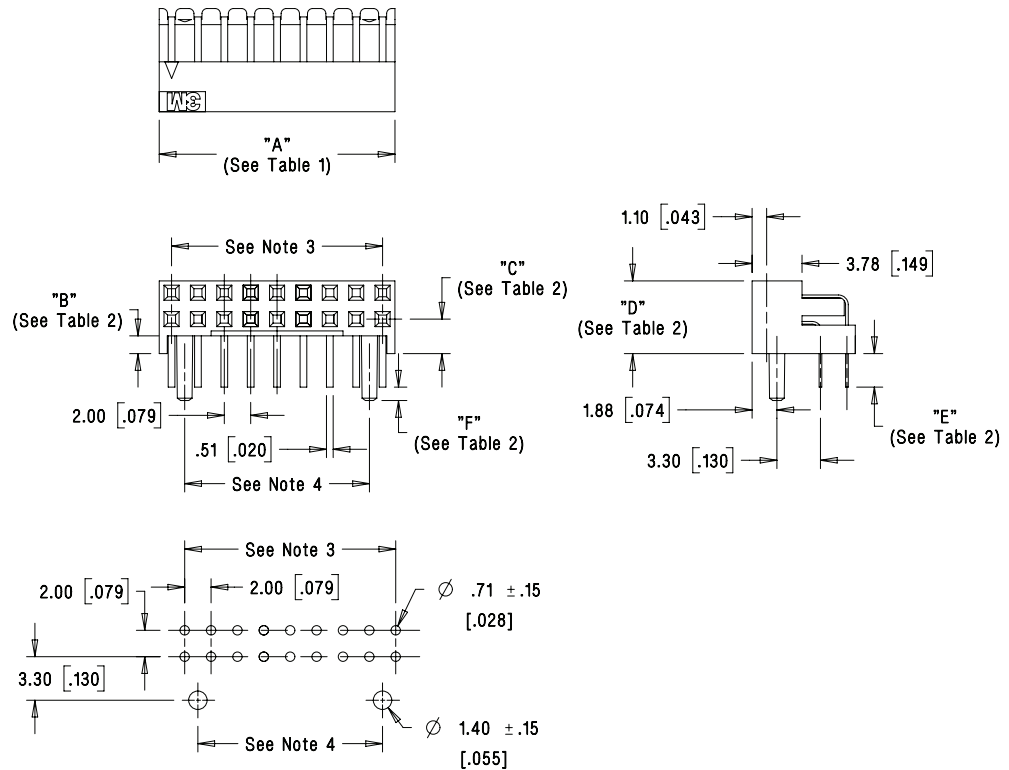
TS-0519-G  
Sheet 3 of 4

# 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   |
| 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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| 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

| Table 2              |             |             |             |             |             |
|----------------------|-------------|-------------|-------------|-------------|-------------|
| 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<br>[Inch]           |        |        |        |
|------------------------|--------|--------|--------|
| Tolerance Unless Noted |        |        |        |
|                        | .0     | .00    | .000   |
| mm                     | ± 2.54 | ± .254 | ± .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 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)

TS-0519-G  
Sheet 4 of 4



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