3M™ 4-Wall Header

.100” × .100” Low Profile, SMT Straight, PTH Straight and Right Angle 2500 Series

- Low profile, space saving design
- Center slot polarization prevents mis-insertions and reduces insertion time
- Dual slot polarization means broader compatibility with competitive polarization designs
- Optional retainer clip for locking sockets in place and increasing connection reliability in vibration-prone environments
- High temperature insulator suitable for “no lead” soldering operations
- Thru hole version suitable for "paste in hole" reflow soldering techniques
- Exposed solder tails (on right angle version) provide ease of cleaning and reduced repair costs
- RoHS* compliant
- Straight surface mount version available

Date Modified: June 21, 2006

Physical

Insulator
Material: Glass Filled Polyester (PCT)
Flammability: UL 94V-0
Color: Black
Contact
Material: Copper Alloy
Plating
Underplating: 100 μ” [2.54 μm] Nickel - Overall
Wiping Area: 30 μ” [0.76 μm] Gold
Solder Tails: 200 μ” [5.08 μm] Matte Tin
Terminal Finish Indicator: e3 (per JESD97)
Marking: 3M Logo, Part Identification Number and Orientation Triangle

Electrical

Current Rating: 2 A
Insulation Resistance: \( \geq 1 \times 10^9 \) Ω at 500 Vdc
Withstanding Voltage: 1000 Vrms at Sea Level

Environmental

Temperature Rating: -55°C to +105°C
Process Rating: Maximum 260°C, single pass, (profile per J-STD-020C)
Moisture Sensitivity Level: 1 (per J-STD-020C)

*RoHS = Directive 2002/95/EC, Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment
"RoHS compliant" means that the product or part does not contain any of the following substances in excess of the following concentration values in any homogeneous material, unless the substance is in an application that is exempt under RoHS: (a) 0.1% (by weight) for lead, mercury, hexavalent chromium, polybrominated biphenyls or polybrominated diphenyl ethers; or (b) 0.01% (by weight) for cadmium. Unless otherwise stated by 3M in writing, this information represents 3M's knowledge and belief based upon information provided by third party suppliers to 3M.

UL File No.: E68080
3M™ 4-Wall Header

.100” × .100” Low Profile, SMT Straight, PTH Straight and Right Angle

2500 Series

**Table 1**

<table>
<thead>
<tr>
<th>Pin Qty</th>
<th>Dimensions (Inch) A</th>
<th>Dimensions (Inch) B</th>
<th>Polarizing Notches</th>
</tr>
</thead>
<tbody>
<tr>
<td>10</td>
<td>.788 [20.02]</td>
<td>.708 [17.98]</td>
<td>BC</td>
</tr>
<tr>
<td>16</td>
<td>1.088 [27.64]</td>
<td>1.008 [25.60]</td>
<td>A B C D E</td>
</tr>
<tr>
<td>24</td>
<td>1.488 [37.80]</td>
<td>1.408 [35.76]</td>
<td>A B C D E</td>
</tr>
<tr>
<td>26</td>
<td>1.588 [40.34]</td>
<td>1.508 [38.30]</td>
<td>A B C D E</td>
</tr>
<tr>
<td>30</td>
<td>1.788 [45.42]</td>
<td>1.708 [43.38]</td>
<td>A B C D E</td>
</tr>
<tr>
<td>34</td>
<td>1.988 [50.50]</td>
<td>1.908 [48.46]</td>
<td>A B C D E</td>
</tr>
<tr>
<td>40</td>
<td>2.288 [58.12]</td>
<td>2.208 [56.08]</td>
<td>A B C D E</td>
</tr>
<tr>
<td>50</td>
<td>2.788 [70.82]</td>
<td>2.708 [68.78]</td>
<td>A B C D E</td>
</tr>
<tr>
<td>60</td>
<td>3.288 [83.52]</td>
<td>3.208 [81.48]</td>
<td>A B C D E</td>
</tr>
<tr>
<td>64</td>
<td>3.488 [88.60]</td>
<td>3.408 [86.56]</td>
<td>A B C D E</td>
</tr>
</tbody>
</table>

**Notes:**

1. Notches A & C will accommodate 3M Polarizing Keys (3M Part #N3518).
3. See page 4 for kink tail positions.
4. Solder stand offs facilitate .01 clearance above board for reflow soldering.

**Ordering Information**

N25XX-60XX-RB

Pin Quantity:

(See Table 1)
3M™ 4-Wall Header
.100" × .100" Low Profile, SMT Straight, PTH Straight and Right Angle

Table 1

<table>
<thead>
<tr>
<th>Pin Qty</th>
<th>Dimensions</th>
<th>Polarizing Notches</th>
</tr>
</thead>
<tbody>
<tr>
<td>10</td>
<td>.788 [.202]</td>
<td>.708 [.179]</td>
</tr>
<tr>
<td>14</td>
<td>.988 [.251]</td>
<td>.908 [.220]</td>
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<tr>
<td>16</td>
<td>1.088 [.276]</td>
<td>1.008 [.256]</td>
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<td>34</td>
<td>1.988 [.505]</td>
<td>1.908 [.484]</td>
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<tr>
<td>40</td>
<td>2.288 [.581]</td>
<td>2.208 [.561]</td>
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<tr>
<td>50</td>
<td>2.788 [.708]</td>
<td>2.708 [.688]</td>
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<tr>
<td>60</td>
<td>3.288 [.835]</td>
<td>3.208 [.815]</td>
</tr>
<tr>
<td>64</td>
<td>3.488 [.886]</td>
<td>3.408 [.866]</td>
</tr>
</tbody>
</table>

Notes:
1. Notches A & C will accommodate 3M Polarizing Keys (3M Part #N3518).
3. See page 4 for kink tail positions.

Ordering Information

N25XX-50XX-RB
Pin Quantity:
(See Table 1)

Tail
02 = for .062 [.157] thick board
03 = for .094 to .125 [.239 to .318] thick board
K2 = kinked for .062 [.157] thick board

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Sheet 3 of 5
3M™ 4-Wall Header

.100" × .100" Low Profile, SMT Straight, PTH Straight and Right Angle  2500 Series

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

Notes:
1. Notches A & C will accommodate 3M polarizing key N3518.
2. Vacuum cap will be centered on connectors with odd # of pins/row. It will be offset away from Pin 1 on connectors having an even # of pins per row (shown).
3. Coplanarity .004 for less than 30 position, .006 for 30 and above.

Ordering Information

N25XX-6V0C-RB -XX

Pin Quantity: (See Table)

Packaging Options:
WX = tape & reel packaging (see table)
3M™ 4-Wall Header
.100” × .100” Low Profile, SMT Straight, PTH Straight & Right Angle 2500 Series

2500 & 3000 Series Shrouded Header

<table>
<thead>
<tr>
<th>Total Number of Pins</th>
<th>Number of Tails Kinked</th>
<th>Positions Kinked</th>
</tr>
</thead>
<tbody>
<tr>
<td>10</td>
<td>4</td>
<td>3 4 7 8</td>
</tr>
<tr>
<td>14</td>
<td>4</td>
<td>3 4 11 12</td>
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<tr>
<td>16</td>
<td>4</td>
<td>3 4 13 14</td>
</tr>
<tr>
<td>20</td>
<td>4</td>
<td>3 4 17 18</td>
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<tr>
<td>24</td>
<td>4</td>
<td>3 4 21 22</td>
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<tr>
<td>26</td>
<td>4</td>
<td>3 4 23 24</td>
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<tr>
<td>30</td>
<td>4</td>
<td>5 6 25 26</td>
</tr>
<tr>
<td>34</td>
<td>4</td>
<td>7 8 27 28</td>
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<tr>
<td>36</td>
<td>4</td>
<td>7 8 27 28</td>
</tr>
<tr>
<td>40</td>
<td>4</td>
<td>7 8 33 34</td>
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<td>50</td>
<td>4</td>
<td>7 8 43 44</td>
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<tr>
<td>60</td>
<td>4</td>
<td>11 12 49 50</td>
</tr>
<tr>
<td>64</td>
<td>4</td>
<td>11 12 53 54</td>
</tr>
</tbody>
</table>

Kinked Tail Detail:
Kink is located .05” below bottom surface of plastic. External radius of kink toward part centerline.

Part Number | Material | Color
--- | --- | ---
3505-33B | Nylon | Black

Long Snap In Latch
Note: Latches not compatible with reflow soldering. For reflow soldering, attach latches after soldering.

Part Number | Material | Color
--- | --- | ---
3201-3 | PCT | Black

Polarizing Post

Part Number | Material | Color | Dim A
--- | --- | --- | ---
N3518 | LCP | Black | 0.02

Breakaway Tab
Note: #2216 B/A Scotchweld can be used to adhere keys.

Polarizing Keys

3505-8XXX
Connector Pin Count: (See Table)

Clip Height Code
0 = .31 [7.9] for Sockets W/O Strain Relief
1 = .53 [13.5] for Sockets with Strain Relief

Part Number | Material | Color
--- | --- | ---
3201-3 | PCT | Black

Note: Stainless steel with gray polyurethane coating.

Part Number | Material | Color | Dim A
--- | --- | --- | ---
3505-33B | Nylon | Black

Note: Stainless steel with gray polyurethane coating.

Part Number | Material | Color | Dim A
--- | --- | --- | ---
3505-8XXX | PCT | Black

Note: Stainless steel with gray polyurethane coating.

Part Number | Material | Color | Dim A
--- | --- | --- | ---
3201-3 | PCT | Black

Note: Stainless steel with gray polyurethane coating.

Part Number | Material | Color | Dim A
--- | --- | --- | ---
N3518 | LCP | Black | 0.02

Breakaway Tab
Note: #2216 B/A Scotchweld can be used to adhere keys.

Polarizing Keys

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Sheet 5 of 5
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