Tripolarized, Latch/Ejector Header
Straight, 4 Wall
810 Series

- Tripolarization to mini socket — high walls to protect pins
- 50 mil x 100 mil doubles board density
- Nine sizes (20–100 position)
- Latch and eject for rugged high performance applications
- Post mount option facilitates soldering process
- Two row design saves board space

Physical

**Insulation**
- Material: High Temperature Plastic (LCP)
- Flammability: UL 94V-0
- Color: Ivory (Natural) – LCP
- Marking: 3M Logo, Part Number and Orientation Triangle

**Contact**
- Material: Copper Alloy
- Plating
  - Underplate: 100 µ" [ 2.54 µm ] Nickel — QQ-N-290, Class 2
  - Wiping Area: 30 µ" [ 0.76 µm ] Gold — MIL-G-45204, Type II, Grade C
  - Solder Tails: 100 µ" [ 2.54 µm ] 90/10 Tin Lead

Electrical

**Current Rating:** 0.5 A
**Insulation Resistance:** > 1 x 10⁹ Ω at 500 Vdc
**Withstanding Voltage:** 500 Vrms at Sea Level

Environmental

**Operating Temperature Rating:** –55°C to +105°C
**Process Temperature Rating:** 250°C @ 90 Seconds Max

UL File No.: E68080

3M Electronic Products Division
6801 River Place Blvd.
Austin, TX 78726-9000

For technical, sales or ordering information call
800-225-5373
Table 1

<table>
<thead>
<tr>
<th>Contact Quantity</th>
<th>Dimensions</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D Ref</th>
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</thead>
<tbody>
<tr>
<td>020</td>
<td>1.060</td>
<td>.860</td>
<td>.710</td>
<td>1.92</td>
<td>[48.8]</td>
</tr>
<tr>
<td>026</td>
<td>1.210</td>
<td>.860</td>
<td>2.07</td>
<td>[52.6]</td>
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<tr>
<td>036</td>
<td>1.460</td>
<td>1.110</td>
<td>2.32</td>
<td>[58.9]</td>
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<tr>
<td>040</td>
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<td>1.210</td>
<td>2.42</td>
<td>[61.5]</td>
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<tr>
<td>050</td>
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<td>[67.8]</td>
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<tr>
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<td>2.060</td>
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<td>[74.2]</td>
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<tr>
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<td>3.12</td>
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<td>080</td>
<td>2.560</td>
<td>2.210</td>
<td>3.42</td>
<td>[86.9]</td>
<td></td>
</tr>
<tr>
<td>100</td>
<td>3.060</td>
<td>2.710</td>
<td>3.92</td>
<td>[99.6]</td>
<td></td>
</tr>
</tbody>
</table>

Table 2

<table>
<thead>
<tr>
<th>PCB Thickness</th>
<th>&quot;F&quot; Solder Tail Length ± .010</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>.112 [2.79]</td>
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</tbody>
</table>

Notes:
1. This polarization bump does not exist on the 20 position header.
2. Accepts the following mounting hole hardware: 3M Part #3341-6, # 2-56 machine screw and nut.
3. Recommended to be mated to the .050" x .100" 82XXX Series Socket.

Ordering Information

Header
81XXX-6X0X0X

Contact Quantity
(See Table 1)

<table>
<thead>
<tr>
<th>Ejector/Latch System:</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 = None</td>
</tr>
<tr>
<td>1 = Short (Packaged Separately)</td>
</tr>
<tr>
<td>2 = Long (Packaged Separately)</td>
</tr>
<tr>
<td>5 = Short (Installed)</td>
</tr>
<tr>
<td>6 = Long (Installed)</td>
</tr>
</tbody>
</table>

Board Mounting Options:

0 = Mount screw holes
1 = None
3 = Press fit posts both ends

Contact Tail:
(See Table 2)

2 = Solder Tail for .062 [1.57] PC Board
3 = Solder Tail for .094 [2.39] PC Board
4 = Solder Tail for .125 [.318] PC Board

Ejector / Latch

3505-29
Ejector (Short)

3505-28
Ejector/latch (Long)

For technical, sales or ordering information call 800-225-5373
.050” × .100” Tripolarized, Latch/Ejector Header
Straight, 4 Wall
810 Series

Table 3

<table>
<thead>
<tr>
<th>Ejector/Latches</th>
<th>Dimension E (Min)</th>
</tr>
</thead>
<tbody>
<tr>
<td>None</td>
<td>.215 [5.46]</td>
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<tr>
<td>Long</td>
<td>.650 [16.51]</td>
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<tr>
<td>Short</td>
<td>.525 [13.34]</td>
</tr>
</tbody>
</table>

Notes:
1. Recommended to process PC Boards through the solder bath such that the connector enters end first (two solder tails at a time). This will help prevent solder bridging.
2. A Solder Thief Solder Pad (Dummy Pad) at the end of each row is recommended on the bottom or solder side of the PC Board in order to help prevent solder bridging on the end solder tails. The Solder Thiefs are only required on the end of the rows which leave the solder bath last.

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