

# 3M™ 4-Wall, Tripolarized Header

.050" × .100" Latch/Ejector, Right Angle, 4 Rows of Solder Tails

810 Series



- Tripolarization to mating socket
- 50 mil × 100 mil halves the connector length
- Latch and eject for rugged high performance applications
- 4 row tail design
- High temperature plastic
- Four-wall shroud provides contact protection
- Contacts: 20, 26, 36, 40, 50, 60, 68, 80 and 100
- See the Regulatory Information Appendix (RIA) in the "RoHS compliance" section of [www.3Mconnector.com](http://www.3Mconnector.com) for compliance information

Date Modified: June 15, 2012

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## Physical

### Insulator:

Material: High Temperature Plastic (LCP)

Flammability: UL 94V-0

Color: Black (RB Plating only) or Natural

### Contact:

Material: Copper Alloy

### Plating:

Underplating: 100 μ" [2.54 mm] Nickel

Wiping Area: 30 μ" [0.76 mm] Gold

Solder Tails: See Ordering Information

Terminal Finish Indicator: e3 (ref JESD97)

Marking: 3M Logo, Part Number and Orientation Triangle

## Electrical

Current Rating: 0.5 A

Insulation Resistance:  $> 1 \times 10^9 \Omega$  at 500 V<sub>DC</sub>

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

## Environmental

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

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

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

UL File No.: E68080

**3M**

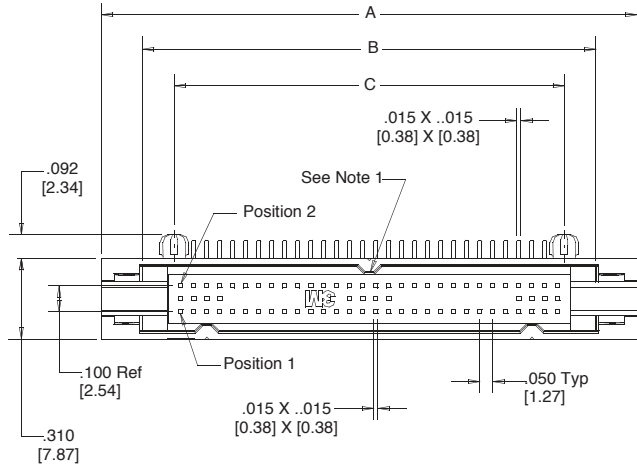
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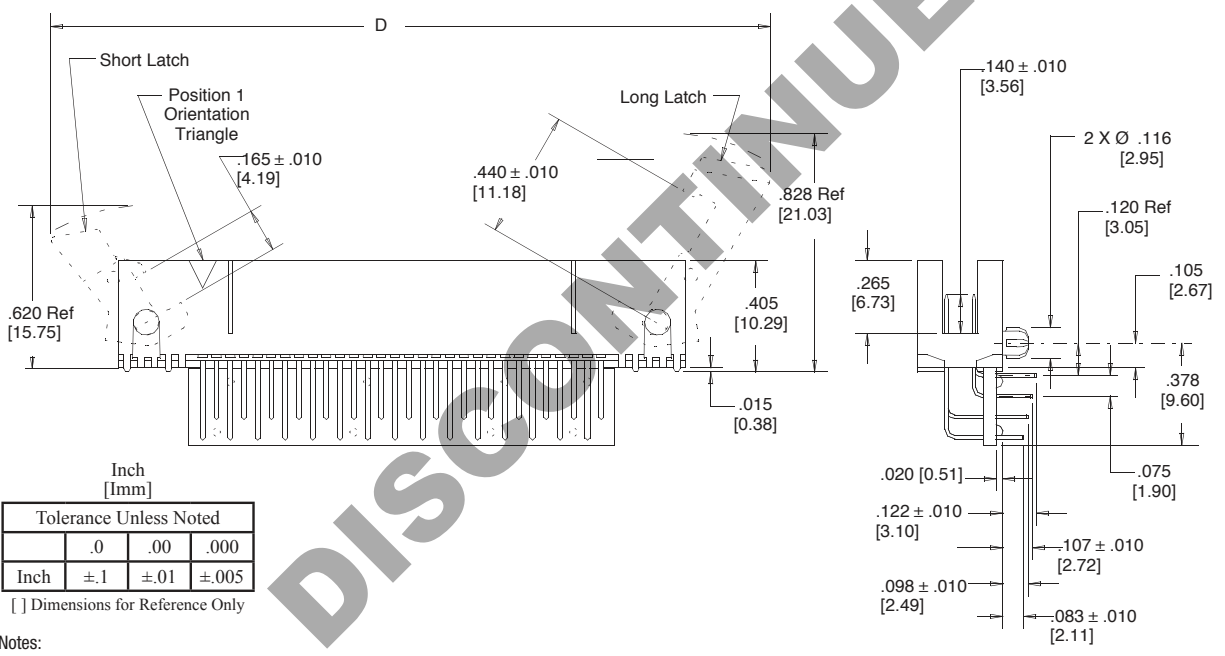
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Contact Quantity	Dimensions				
	A	B	C	D Short (Ref.)	D Long (Ref.)
020	1.060 [26.92]	0.722 [18.34]	0.500 [12.70]	1.671 [42.44]	1.842 [46.79]
026	1.210 [30.73]	0.872 [22.15]	0.650 [16.51]	1.821 [46.25]	1.992 [50.60]
036	1.460 [37.08]	1.122 [28.50]	0.900 [22.86]	2.071 [52.60]	2.242 [56.95]
040	1.560 [39.62]	1.222 [31.04]	1.000 [25.40]	2.171 [55.14]	2.342 [59.49]
050	1.810 [45.97]	1.472 [37.39]	1.250 [31.75]	2.421 [61.49]	2.592 [65.84]
060	2.060 [52.32]	1.722 [43.74]	1.500 [38.10]	2.671 [67.84]	2.842 [72.19]
068	2.260 [57.40]	1.922 [48.82]	1.700 [43.18]	2.871 [72.92]	3.042 [77.27]
080	2.560 [65.02]	2.222 [56.44]	2.000 [50.80]	3.171 [80.54]	3.342 [84.89]
100	3.060 [77.72]	2.722 [69.14]	2.500 [63.50]	3.671 [93.24]	3.842 [97.59]



Tolerance Unless Noted			
Inch	±.1	±.01	±.005
.0	.00	.000	

[ ] Dimensions for Reference Only

Notes:  
 1. This polarization bump does not exist on the 20 position header.  
 2. Recommended to be mated to the .050" X .100" Wiremount Socket 820 Series.

**Ordering Information**      **PTH Right Angle Header, 4 Rows of Solder Tails**  
**81XXX - MX0203 - XX**

Contact Quantity (See Table 1)      Ejector/Latch System:  
 0 = None  
 5 = With Short Ejectors Installed  
 6 = With Long Ejector Latches Installed

Plating suffix:  
 blank = Tin lead tails (RIA E3 & C2 apply)  
 RB = Matte tin tails (RIA E1 & C1 apply)

Ejector Latch  
 Long  
 3505-28 (natural)  
 3505-28B (black)  
 Short  
 3505-29 (natural)  
 3505-29B (black)

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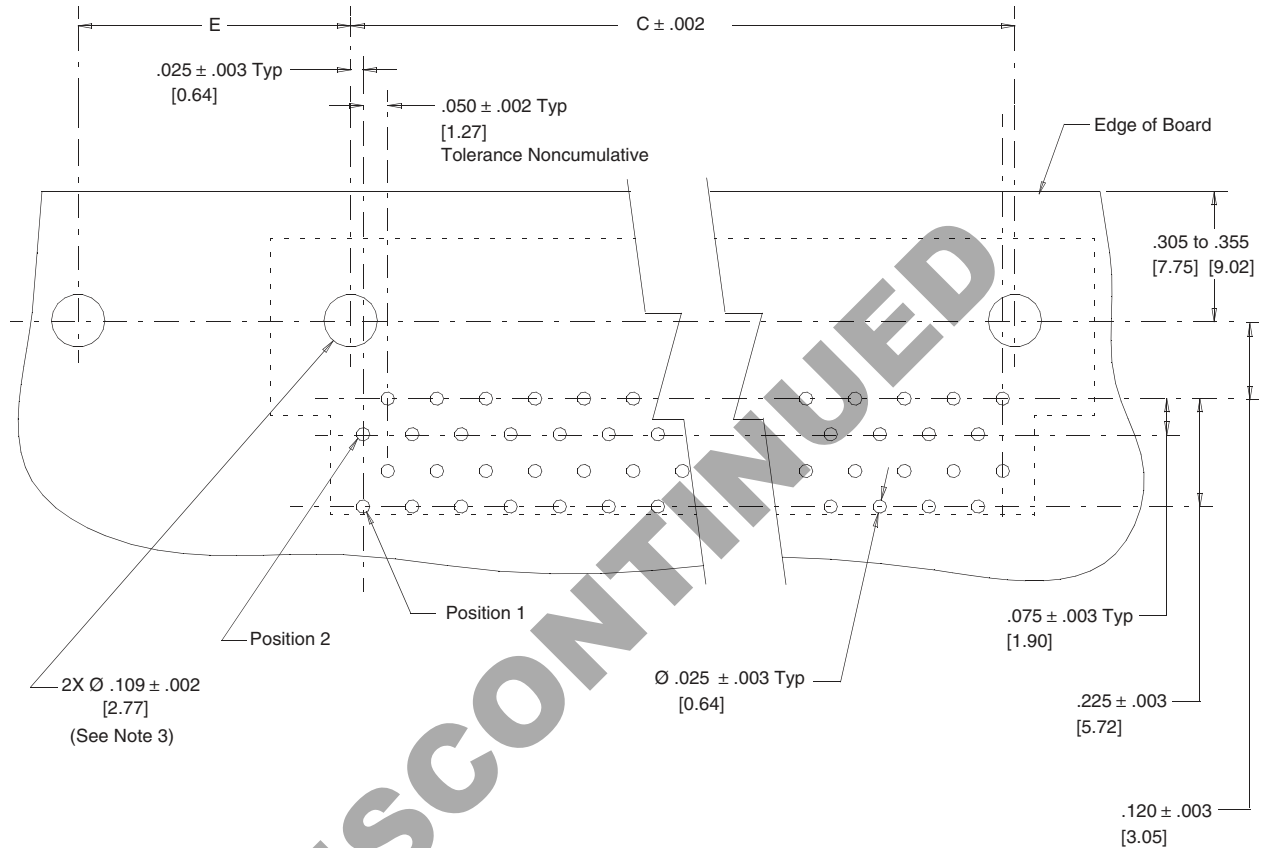
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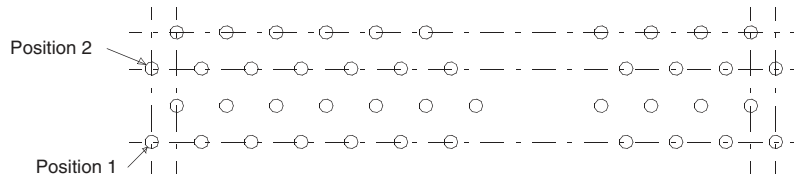
810 Series

Table 2	
Ejector Latches	Dimension E Min
None	.575 [14.61]
Long	1.010 [25.65]
Short	.885 [22.48]

## Recommended Mounting Hole Pattern for Even Number of Contacts/Rows (shown for mounting side of PC Board)



## Recommended Mounting Hole Pattern for Odd Number of Contacts/Row (Shown for mounting side of PC Board)



**Notes:**

1. In order to facilitate flow soldering, it is recommended that ejector latches be installed after the soldering process.

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DISCONTINUED

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