

3M™ 4-Wall, Tripolarized Header

.050" × .100" Latch/Ejector, PTH & SMT Straight, PTH Right Angle

810 Series



Inch
[mm]

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

[] Dimensions for Reference Only

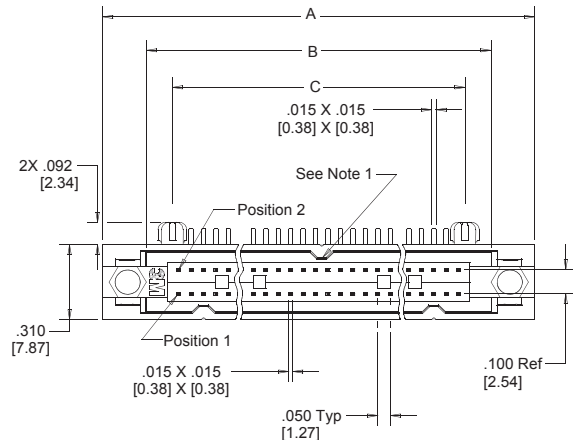
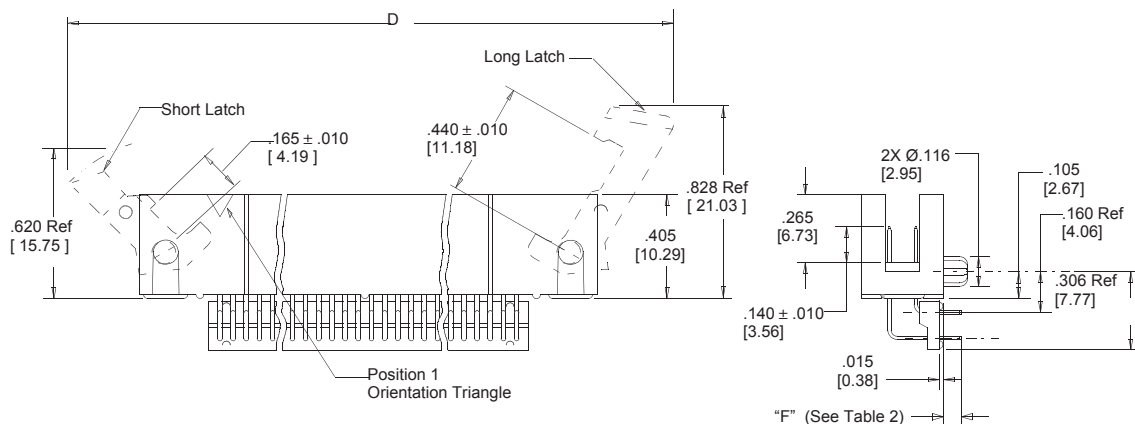


Table 1					
Contact Quantity	Dimensions				
	A	B	C	D Short (Ref.)	D Long (Ref.)
020	1.060 [26.92]	0.722 [18.34]	0.500 [12.70]	1.671 [42.44]	1.842 [46.79]
026	1.210 [30.73]	0.872 [22.15]	0.650 [16.51]	1.821 [46.25]	1.992 [50.60]
036	1.460 [37.08]	1.122 [28.50]	0.900 [22.86]	2.071 [52.60]	2.242 [56.95]
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]

Table 2	
PCB Thickness	"F" Solder Tail Length ± .010
.062 [1.57]	.090 [2.29]
.094 [2.39]	.112 [2.84]
.125 [3.18]	.143 [3.63]



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

81XXX - 5X0X03 - XX

Ejector Latches (If Ordered Separately)

Long Latches
3505-28B (black)

Short Latches
3505-29B (black)

Contact Quantity
(See Table 1)

Ejector/Latch System:

- 0 = None (Special Order)
- 5 = With Short Ejectors Installed (Special Order)
- 6 = With Long Ejector Latches Installed (Standard)

Contact Tail:

- 2 = Solder Tail for .062 [1.57] PC Board (Standard)
- 3 = Solder Tail for .094 [2.39] PC Board (Special Order)
- 4 = Solder Tail for .125 [3.18] PC Board (Special Order)

Plating suffix:

- blank = 125 μ" tin lead tails (RIA E3 & C2 apply)
- RB = 250 μ" matte tin tails (RIA E1 & C1 apply)

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.050" × .100" Latch/Ejector, PTH & SMT Straight, PTH Right Angle

810 Series

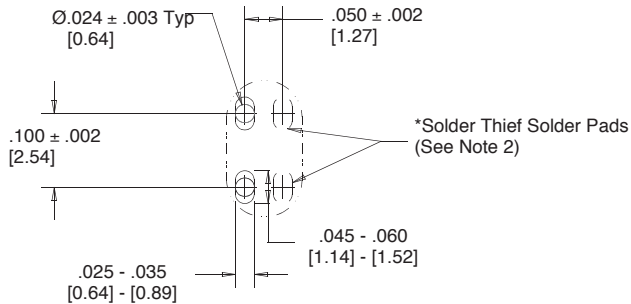
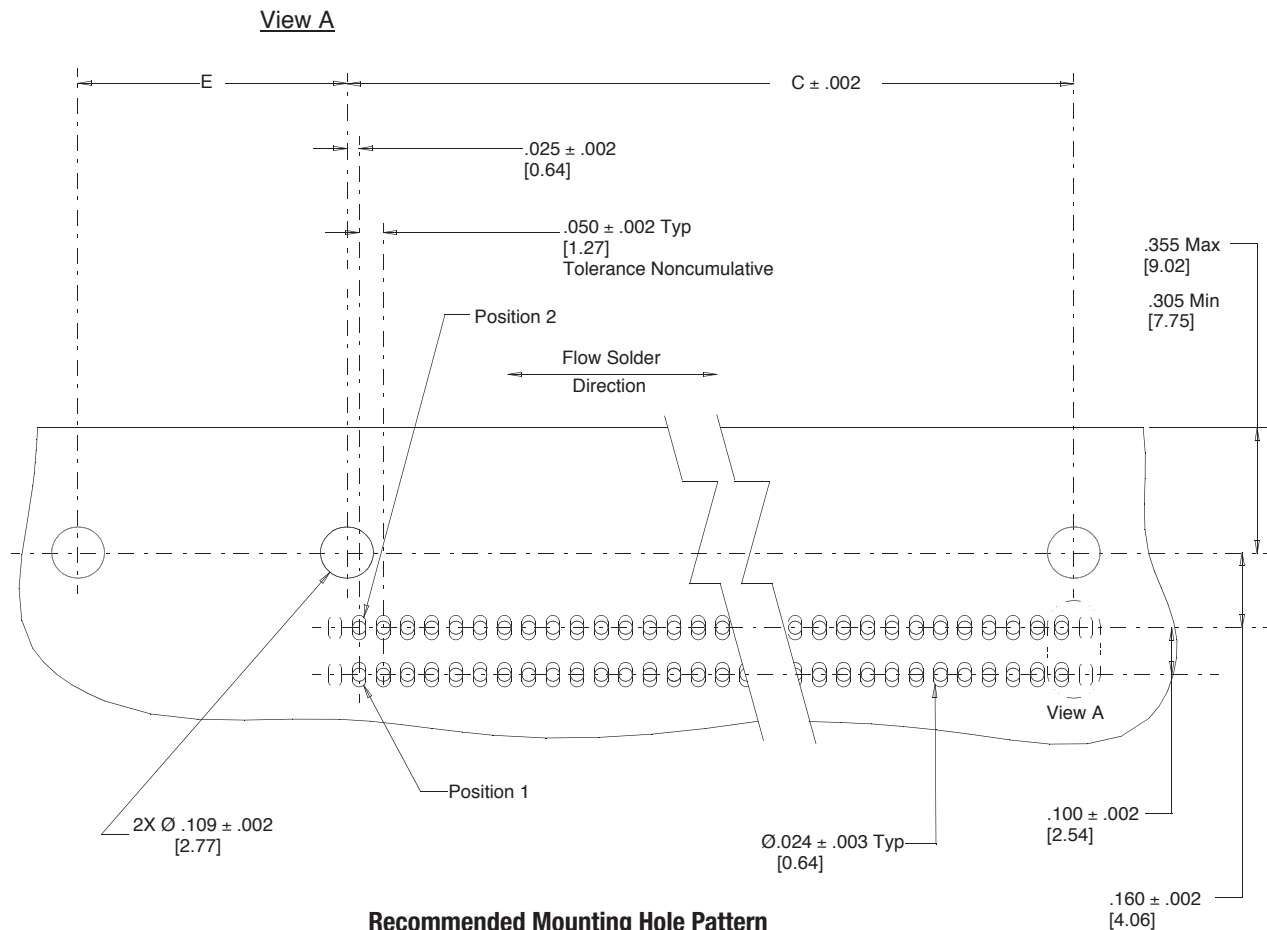


Table 3	
Ejector Latches	Dimension E Min
None	.575 [14.61]
Long	1.010 [25.65]
Short	.885 [22.48]

*Solder Thief Solder Pads required only on Solder side of PC Board.



Recommended Mounting Hole Pattern
PTH Right Angle Header
 (shown for mounting side of PC Board)

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 Dummy or Solder Thief Solder 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 thieves are only required on the end of the rows which leave the solder bath last.
3. In order to facilitate soldering it is recommended that ejector latches be installed after the soldering process.

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810 Series



Table 4					
Contact Quantity	Dimensions				
	A	B	C Short (Ref.)	C Long (Ref.)	D
020	1.060 [26.92]	0.722 [18.34]	1.671 [42.44]	1.842 [46.79]	0.860 [21.84]
026	1.210 [30.73]	0.872 [22.15]	1.821 [46.25]	1.992 [50.60]	1.010 [25.65]
036	1.460 [37.08]	1.122 [28.50]	2.071 [52.60]	2.242 [56.95]	1.260 [32.00]
040	1.560 [39.62]	1.222 [31.04]	2.171 [55.14]	2.342 [59.49]	1.360 [34.54]
050	1.810 [45.97]	1.472 [37.39]	2.421 [61.49]	2.592 [65.84]	1.610 [40.89]
060	2.060 [52.32]	1.722 [43.74]	2.671 [67.84]	2.842 [72.19]	1.860 [47.24]
068	2.260 [57.40]	1.922 [48.82]	2.871 [72.92]	3.042 [77.27]	2.060 [52.32]
080	2.560 [65.02]	2.222 [56.44]	3.171 [80.54]	3.342 [84.89]	2.360 [59.94]
100	3.060 [77.72]	2.722 [69.14]	3.671 [93.24]	3.842 [97.59]	2.860 [72.64]

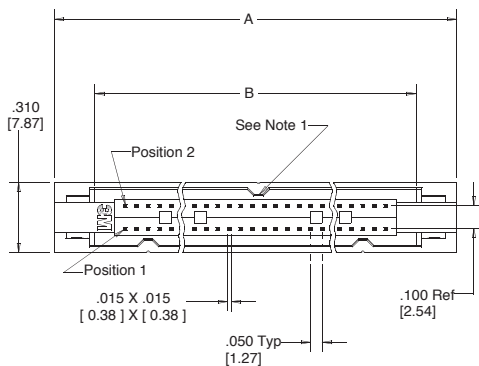
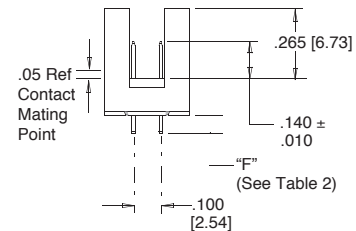
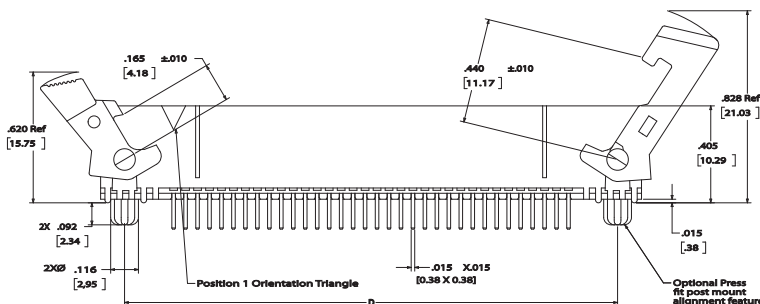


Table 5	
PCB Thickness	"F" Solder Tail Length ± .010
.062 [1.57]	.092 [2.34]
.094 [2.39]	.110 [2.79]



Notes:

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

Ordering Information

PTH Straight Header

81XXX - 6X0X0X - XX

Ejector Latches

(If Ordered Separately)

Long Latches

3505-28B (black)

Short Latches

3505-29B (black)

Contact Quantity
(See Table 4)

Ejector/Latch System:

- 0 = None (Special Order)
- 5 = With Short Ejectors Installed (Special Order)
- 6 = With Long Ejector Latches Installed (Standard)

Plating suffix:

- blank = 125 μ" tin lead tails (RIA E3 & C2 apply)
- RB = 250 μ" matte tin tails (RIA E1 & C1 apply)

Board Mounting Options:

- 1 = None (Special Order)
- 3 = Press fit posts both ends (Standard)

Contact Tail:

- 2 = Solder Tail for .062 [1.57] PC Board (Standard)
- 3 = Solder Tail for .094 [2.39] PC Board (Special Order)
- 4 = Solder Tail for .125 [3.18] PC Board (Special Order)

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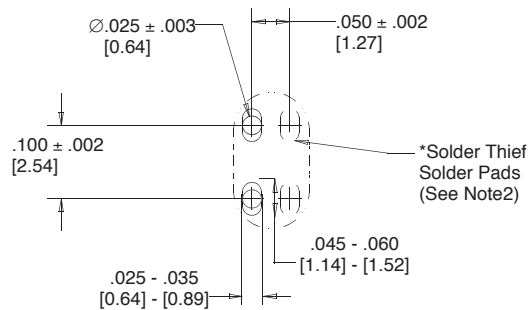
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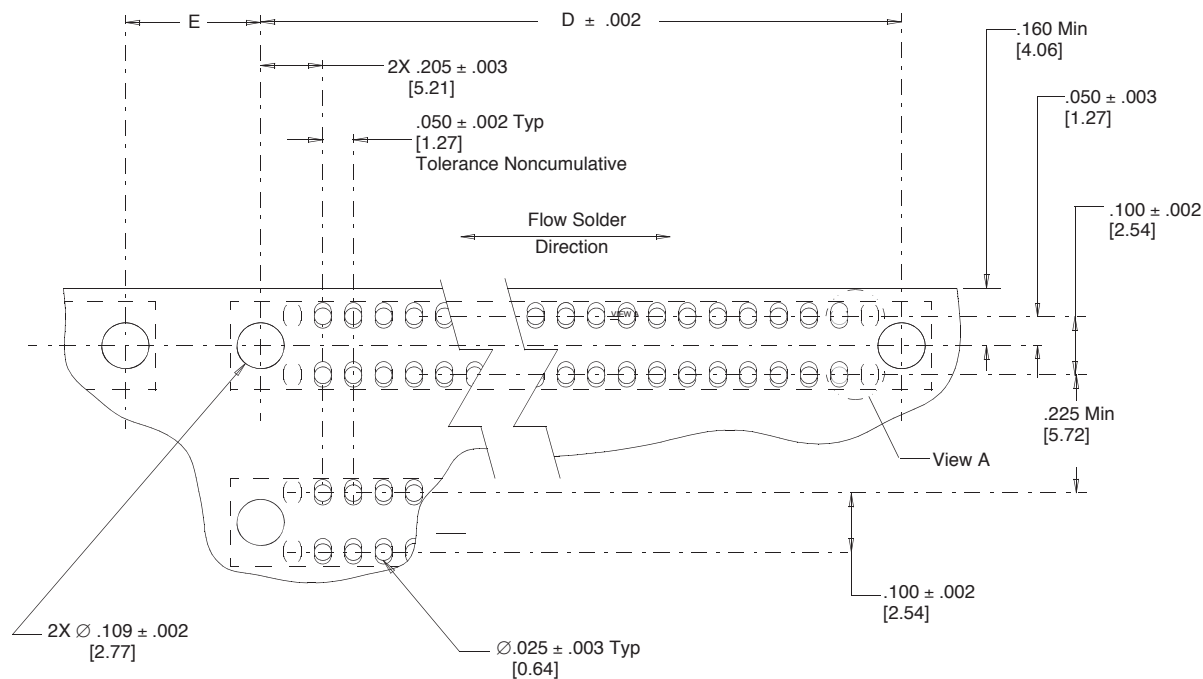
810 Series



*Solder Thief Solder Pads required only on Solder side of PC Board.

View A

Table 6	
Ejector/Latches	Dimension E (Min)
None	.215 [5.46]
Long	.650 [16.51]
Short	.525 [13.34]



Recommended Mounting Hole Pattern
PTH Vertical Header
(shown for mounting side of PC Board)

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

[] Dimensions for Reference Only

Note:

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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810 Series

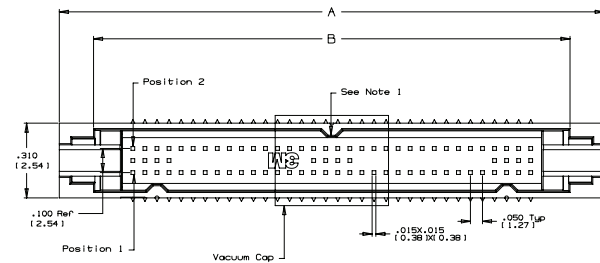
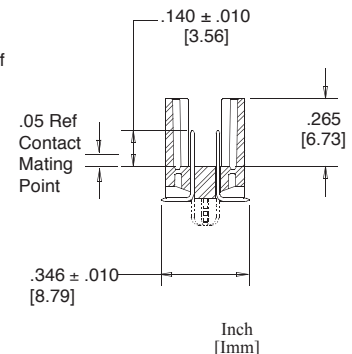
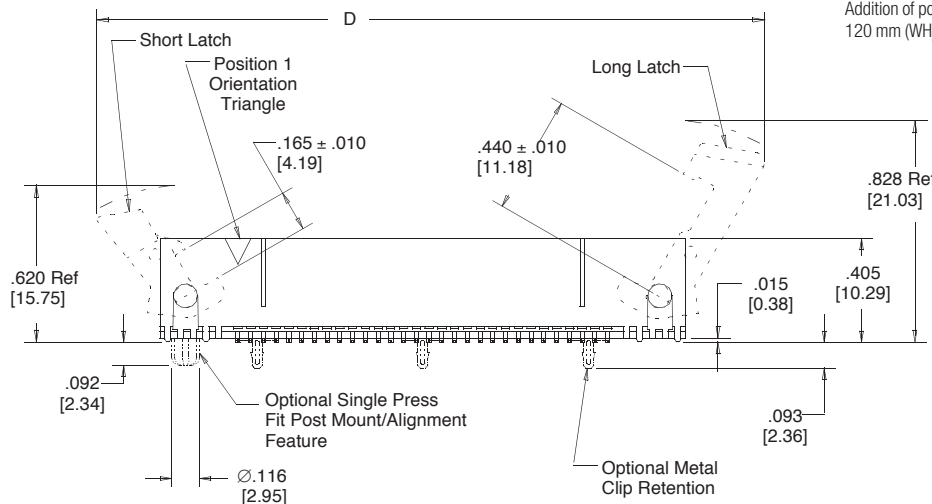


Table 7					
Contact Quantity	Dimensions				
	A	B	D Short (Ref.)	D Long (Ref.)	Tape & Reel Suffix
020	1.060 [26.92]	0.722 [18.34]	1.671 [42.44]	1.842 [46.79]	WF
026	1.210 [30.73]	0.872 [22.15]	1.821 [46.25]	1.992 [50.60]	WF
036	1.460 [37.08]	1.122 [28.50]	2.071 [52.60]	2.242 [56.95]	WG
040	1.560 [39.62]	1.222 [31.04]	2.171 [55.14]	2.342 [59.49]	WG
050	1.810 [45.97]	1.472 [37.39]	2.421 [61.49]	2.592 [65.84]	WG
060	2.060 [52.32]	1.722 [43.74]	2.671 [67.84]	2.842 [72.19]	WG
068	2.260 [57.40]	1.922 [48.82]	2.871 [72.92]	3.042 [77.27]	WH
080	2.560 [65.02]	2.222 [56.44]	3.171 [80.54]	3.342 [84.89]	WH
100	3.060 [77.72]	2.722 [69.14]	3.671 [93.24]	3.842 [97.59]	WH

Notes: Latches supplied in the "open" position unless specified otherwise
 Suffix determined with no posts or clips.
 Addition of posts or clips may increase suffix.
 120 mm (WH) is the maximum width of pocket tape.



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

[] 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" 820 Series Wiremount Socket.

Ordering Information

SMT Straight Header

81XXX - 6X0C0X - XX - XX

Contact Quantity
(See Table 7)

Ejector/Latch System:

- 0 = None (Special Order)
- 5 = With Short Ejectors Installed (Special Order)
- 6 = With Long Ejector Latches Installed (Standard)

Board Mounting Options:

- 1 = None
- 4 = Press Fit Post Mount at Position 1 end
- 7 = Metal retention clips
- 8 = #1 end press fit post & metal retention clips (Special Order)

Packaging Options:

- Blank = Trays
- WX = Tape & Reel Package (see table)

Plating suffix:

- blank = 125 μ" tin lead tails (RIA E3 & C2 apply)
- RB = 250 μ" matte tin tails (RIA E1 & C1 apply)

Ejector Latches

(If Ordered Separately)

Long Latches
3505-28B (black)

Short Latches
3505-29B (black)

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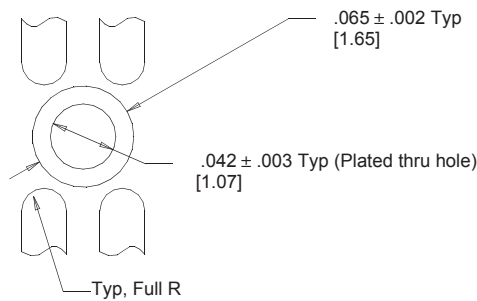
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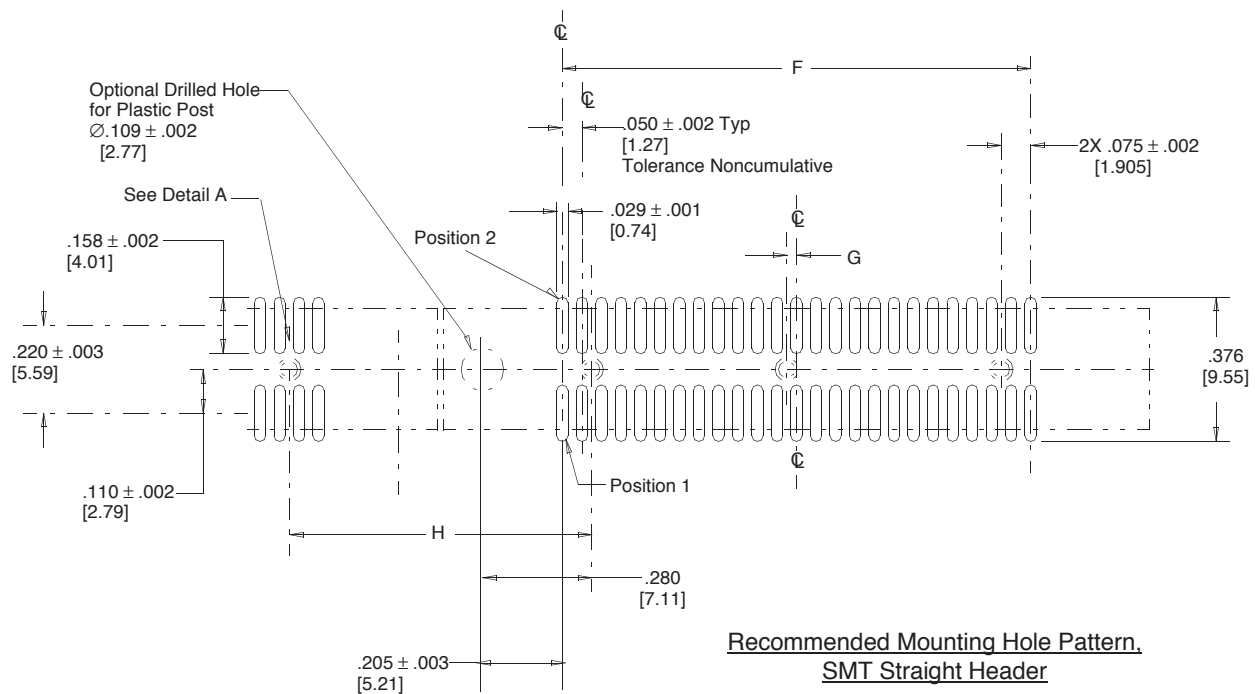


Detail A

Optional plated thru hole
for metal clip retention

Ejector Latches	Dimensions
	H Min
None	.775 [19.69]
Long	1.085 [27.56]
Short	1.21 [30.73]

No. of Positions	Dimensions	
	F	G
20	.450 [11.43]	N/A
26	.600 [15.24]	.025 [0.64]
36	.850 [21.59]	N/A
40	.950 [24.13]	N/A
50	1.200 [30.48]	.025 [.64]
60	1.450 [36.83]	0.000
68	1.650 [41.91]	0.000
80	1.950 [49.53]	0.000
100	2.450 [62.23]	0.000



Recommended Mounting Hole Pattern, SMT Straight Header

(Shown for mounting side of PC Board)

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