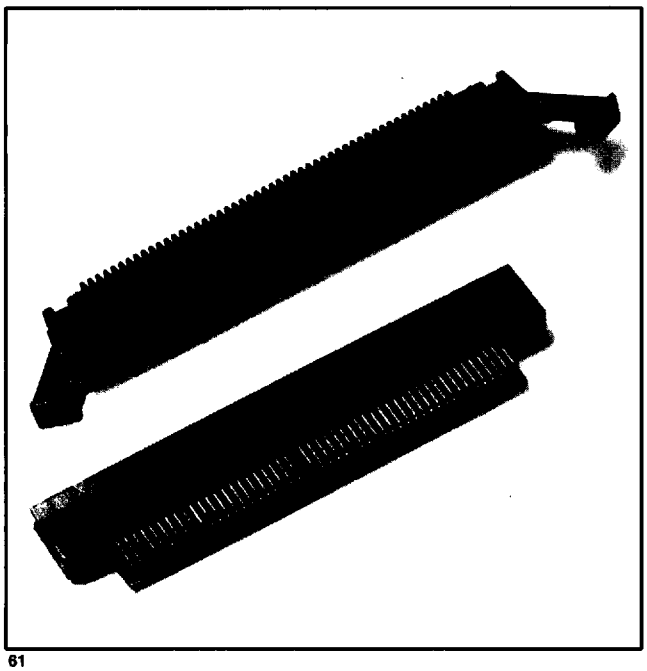
.050″ × .100″ Tripolarized, Latch/Ejector Header

Right Angle, 4 Wall, 2 Rows of Solder Tails — 810 Series



61

- Tripolarization to mini socket — high walls to protect pins
- 50 mil × 100 mil doubles board density
- Nine sizes (20–100 position)
- Latch and eject for rugged high performance applications
- Two row design saves board space
- High temperature dielectric

TS-0253-23
Sheet 1 of 3

Physical

Insulation	
Material:	High Temperature Plastic (LCP)
Flammability:	UL 94V-0
Color:	Ivory (Natural)
Marking:	3M Logo, Part Number Identification 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:	$> 1 \times 10^9$ Ω at 500 Vdc
Withstanding Voltage:	500 Vrms at Sea Level

Environmental

Temperature Rating:	–55°C to +105°C
Process Rating:	250°C @ 90 seconds – LCP

UL File No.: E68080

.050″ × .100″ Tripolarized, Latch/Ejector Header

Right Angle, 4 Wall, 2 Rows of Solder Tails

810 Series

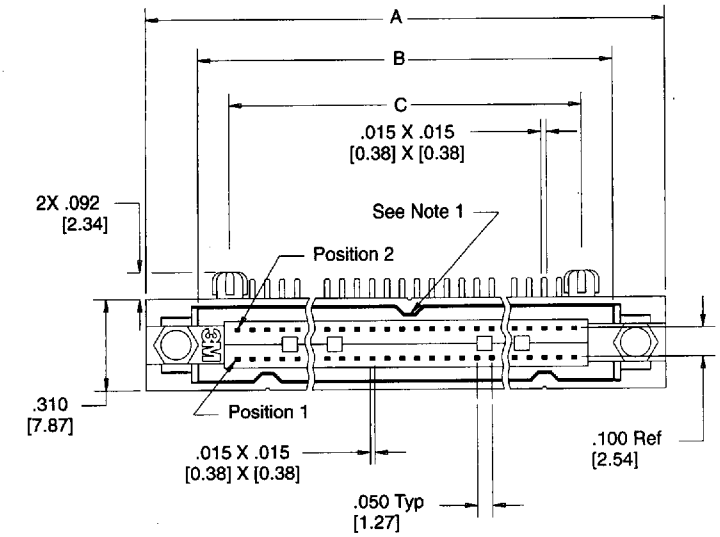
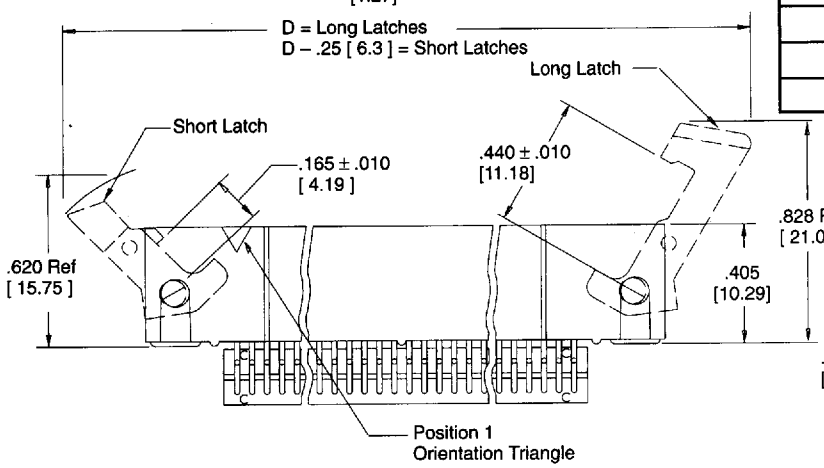
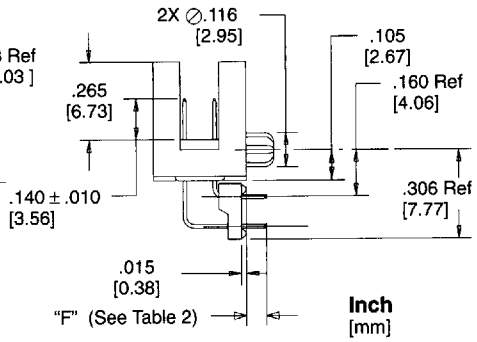


Table 1				
Contact Quantity	Dimensions			
	A	B	C	D Ref
020	1.060 [26.92]	.710 [18.03]	.500 [12.70]	1.92 [48.8]
026	1.210 [30.73]	.860 [21.84]	.850 [16.51]	2.07 [52.6]
036	1.460 [37.08]	1.110 [28.19]	.900 [22.86]	2.32 [58.9]
040	1.560 [39.62]	1.210 [30.73]	1.000 [25.40]	2.42 [61.5]
050	1.810 [45.97]	1.480 [37.08]	1.250 [31.75]	2.67 [67.8]
060	2.060 [52.32]	1.710 [43.43]	1.500 [38.10]	2.92 [74.2]
068	2.260 [57.04]	1.910 [48.51]	1.700 [43.18]	3.12 [79.2]
080	2.560 [65.02]	2.210 [56.13]	2.000 [50.80]	3.42 [86.9]
100	3.060 [77.72]	2.710 [68.83]	2.500 [63.50]	3.92 [99.6]

Table 2	
PCB Thickness	"F" Solder Tail Length ±.010
.062 [15.7]	.090 [2.29]
.094 [2.39]	.112 [2.79]
.125 [3.18]	.143 [3.63]





Inch
[mm]

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″ Wiremount Socket 82XXX Series.

Ordering Information

81XXX-5X0X03

- Contact Quantity (See Table 1)
- Ejector/Latch System:
  - 0 = None
  - 2 = With Ejector Latches Packaged Separately (For Strain Relief and or Non-Strain Relief Socket Versions)
  - 5 = With Short Ejector Latches Installed
  - 6 = With Ejector Latches Installed
- Contact Tail:
  - 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 (Short)

3505-28 (Long)

TS-0253-23
Sheet 2 of 3

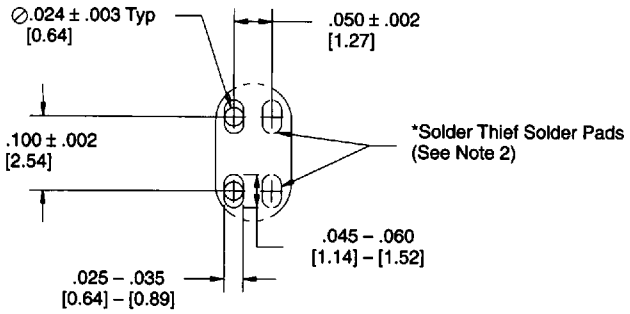
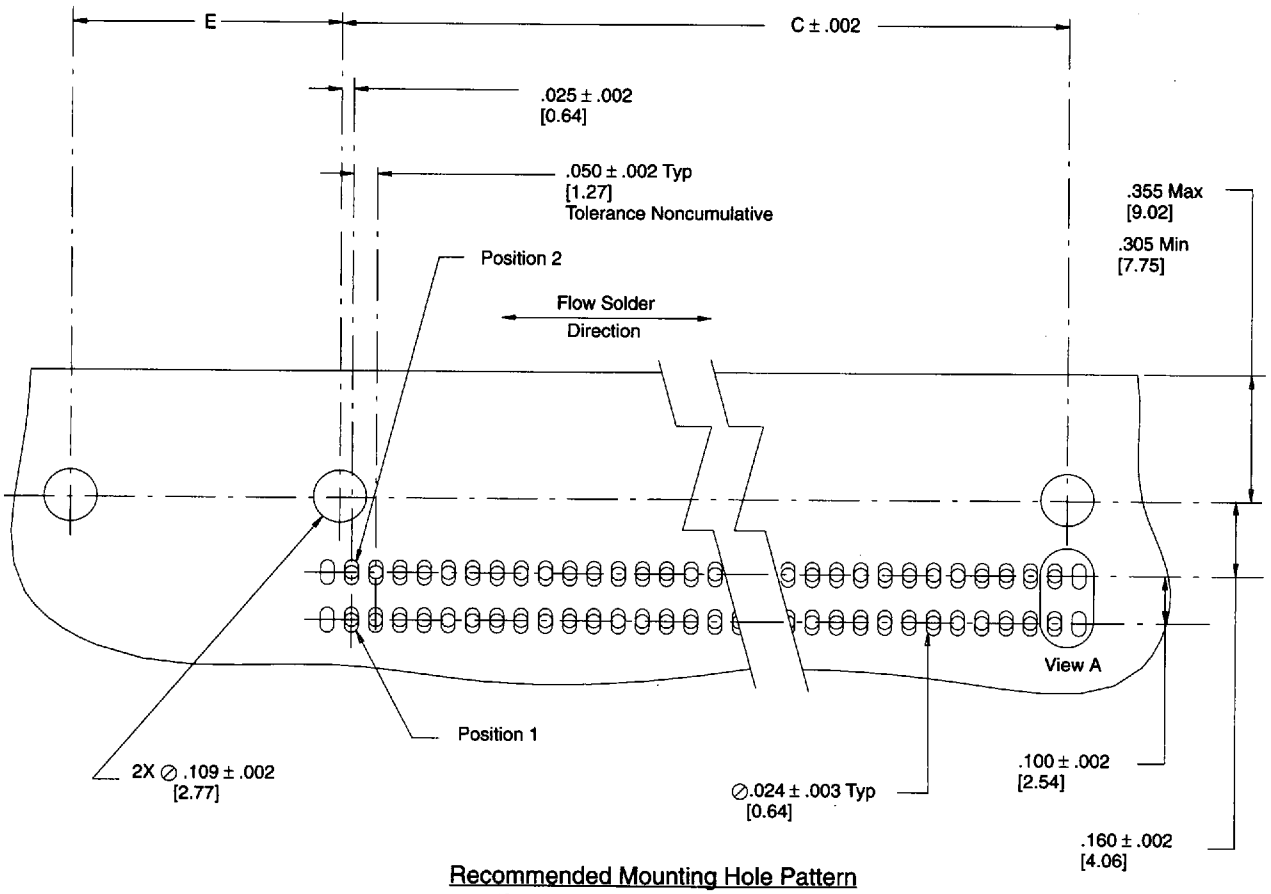


Table 3	
Ejector Latches	**Dimension E Min**
None	.575 [14.61]
Long	1.010 [25.65]
Short	.885 [22.48]

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

View A



Recommended Mounting Hole Pattern
(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 thiefs are only required on the end of the rows which leave the solder bath last.
3. In order to facilitate flow soldering. It is recommended that ejector latches be installed after the soldering process.

TS-0253-23
Sheet 3 of 3