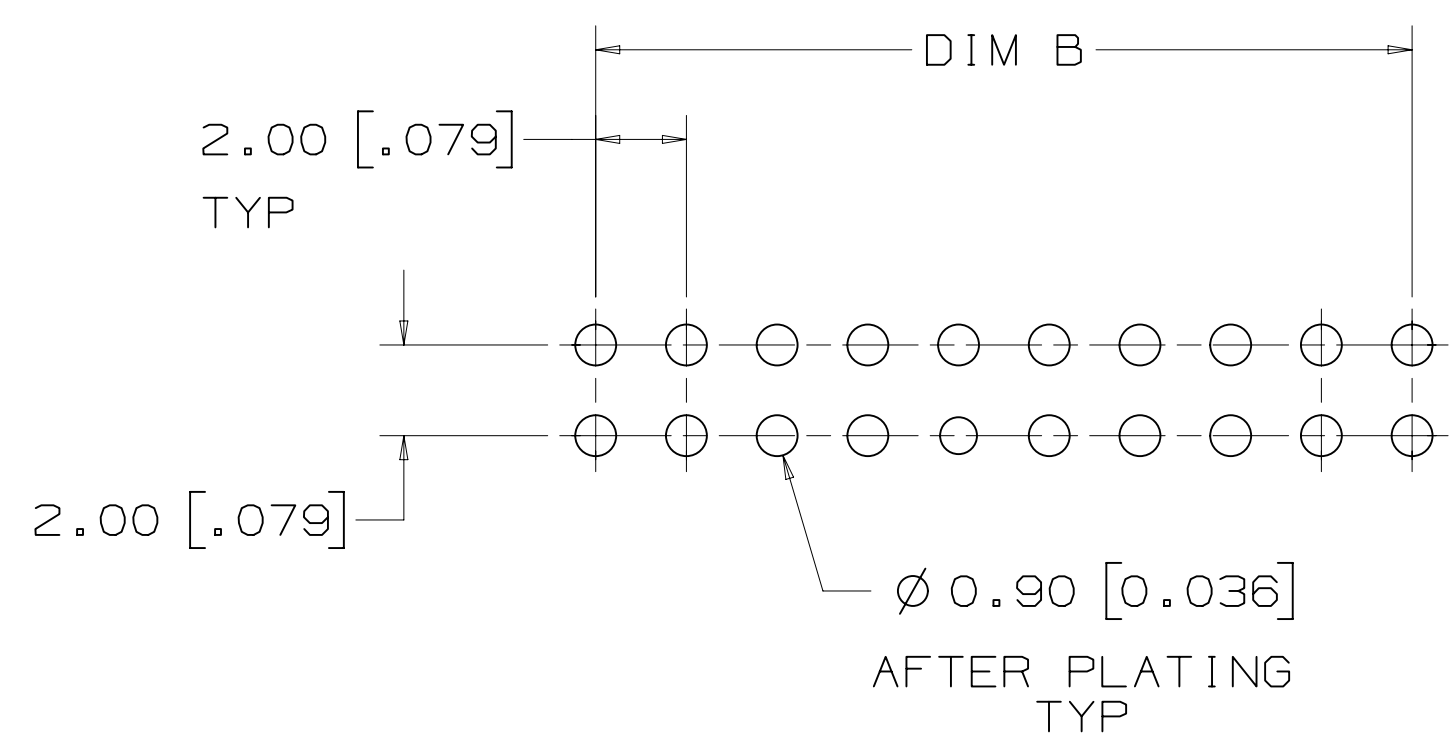
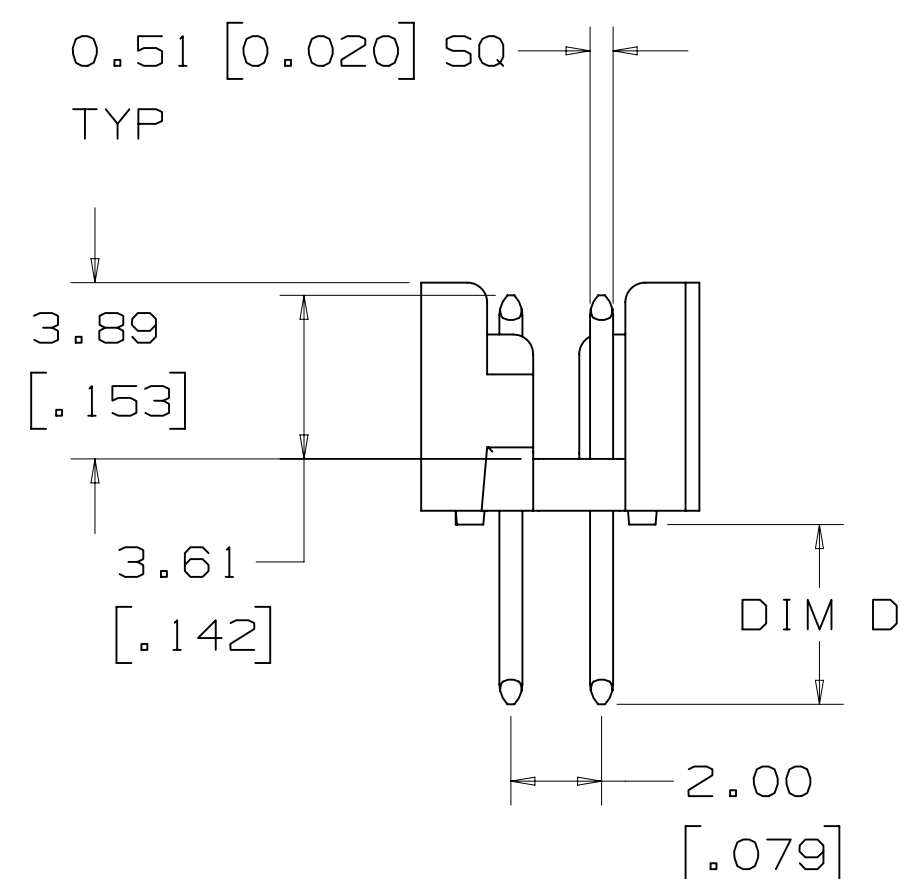


3M™ Shrouded Board Mount Header 2 mm X 2 mm Pitch 159 Series, Standard Length [3] and Extended Length [4]



RECOMMENDED PCB HOLE PATTERN  
TOLERANCE = 0.05 [ .002 ]



PERFORMANCE [5] [7]	
CURRENT:	1A, 6 LINES ENERGIZED
INSULATION RESISTANCE:	>1 X 10 <sup>9</sup> OHMS AT 500 VDC
WITHSTANDING VOLTAGE:	500 VACrms AT SEA LEVEL
TEMPERATURE RATING:	-55° C TO +105° C
SOLDER PROCESS TEMPERATURE:	260° C MAX PER IPC/JEDEC J-STD-020D

REFERENCE TABLE ON SHEET 4  
FOR AVAILABLE TAIL POSITIONS AND  
SOLDER TAIL LENGTHS

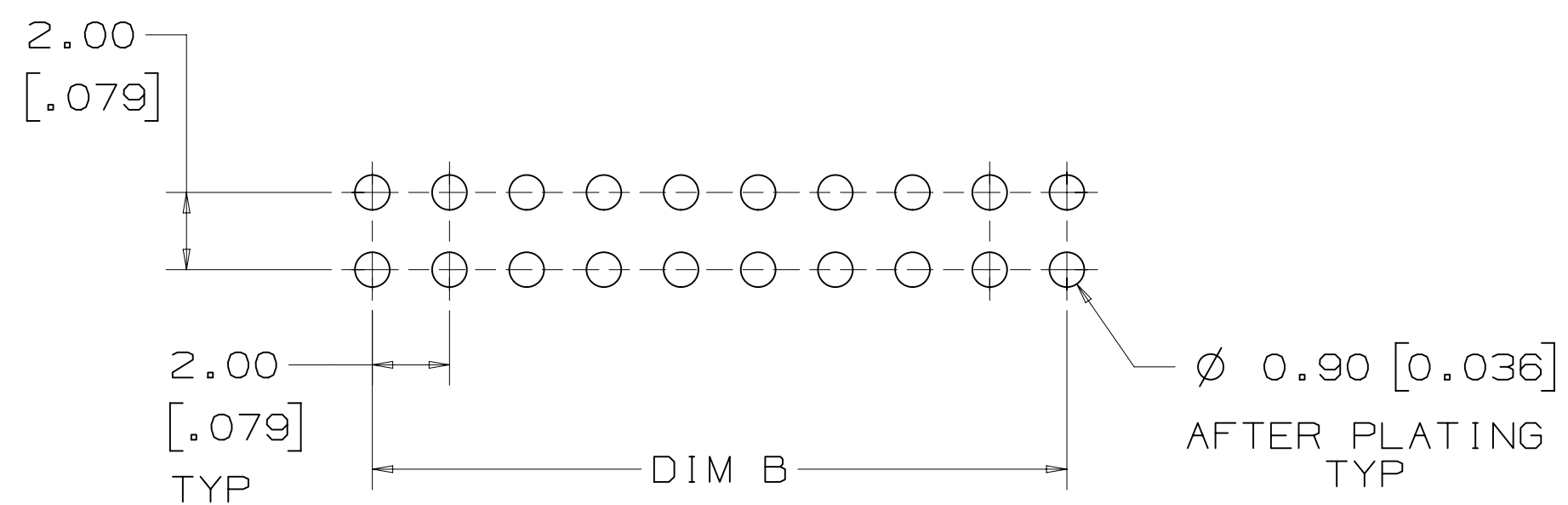
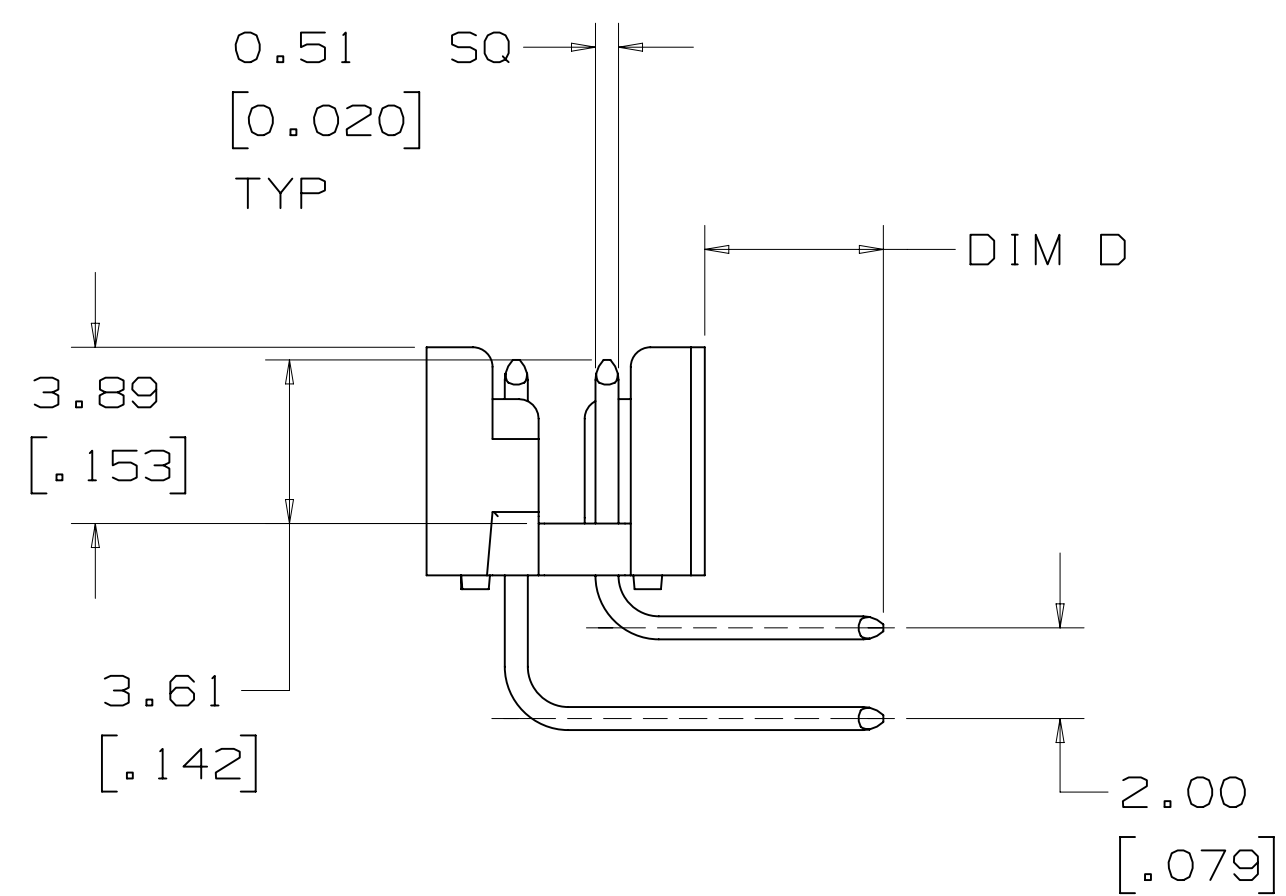
METRIC [ ENGLISH ]

NOTES

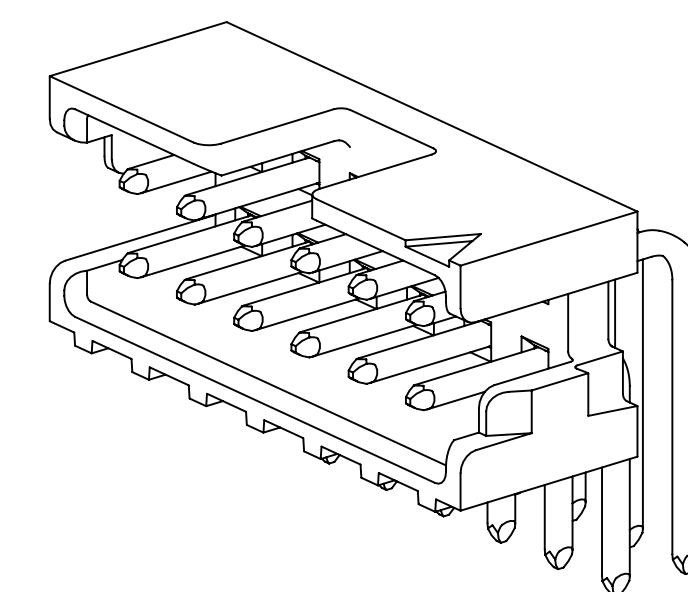
- MATERIAL:  
BODY: HIGH TEMPERATURE  
GLASS FILLED LCP, BLACK  
UL94V-0  
CONTACTS: COPPER ALLOY
- PLATING:  
2.03-3.81  $\mu\text{m}$  [80-150  $\mu\text{in}$ ]  
NICKEL UNDERPLATE.  
0.38  $\mu\text{m}$  [15  $\mu\text{in}$ ] OR  
0.76  $\mu\text{m}$  [30  $\mu\text{in}$ ] AVG GOLD  
ON WIPING AREA.  
5.08  $\mu\text{m}$  [200  $\mu\text{in}$ ] MIN  
MATTE TIN ON SOLDER TAILS.
- STANDARD LENGTH HEADERS  
MATE WITH 3M™ SOCKETS,  
158 SERIES (REFERENCE 3M  
DRAWING 78-5100-2358-9).
- EXTENDED LENGTH HEADERS  
MATE WITH 3M™ SOCKETS,  
870 SERIES.
- FOR PRODUCT  
SPECIFICATIONS AND  
WARRANTY INFORMATION SEE  
3M 78-5102-0078-1.
- SEE THE REGULATORY  
INFORMATION APPENDIX (RIA)  
IN THE "ROHS COMPLIANCE"  
SECTION OF  
WWW.3MCONNECTOR.COM FOR  
COMPLIANCE INFORMATION  
(RIA E1 & C1 APPLY).
- IN THE EVENT OF CONFLICT  
BETWEEN THIS DATA AND  
THAT CONTAINED IN THE  
PRODUCT SPECIFICATION,  
THE PRODUCT SPECIFICATION  
TAKES PRECEDENT.

DESIGN REFERENCE	NEXT ASSEMBLY	REV	ECO	ISSUE DATE AND DESCRIPTION	DRFT	CHKD
DIVISION		DIVISION CODE		DATE		
DO NOT SCALE DRAWING		SCALE 6/1		TOLERANCES EXCEPT AS NOTED		
THIRD ANGLE PROJECTION		INCHES		MILLIMETERS		
INTERPRET PER ASME Y14.5 - 1994		0 ±		0 ±		
MAX SURFACE ROUGHNESS		0.13		0.13		
125		ALL SURFACES		0.000 ±		
X MARKED ONLY		ANGLES ±1°		0.000 ±		
A 30741		OCT 28, 2010		LDS SF		
L. SCHMIDT		JUL 29, 2010		S FELDMAN		
3M		3M Center St. Paul, MN 55144		© 3M COPYR [GHT] 2010		
TITLE		3M SHROUDED BOARD MOUNT HEADER 2 MM X 2 MM PITCH 159 SERIES				
CAGE NUMBER		D 78-5100-2359-7		REV. A		
MODEL		SHT 1 OF 4				

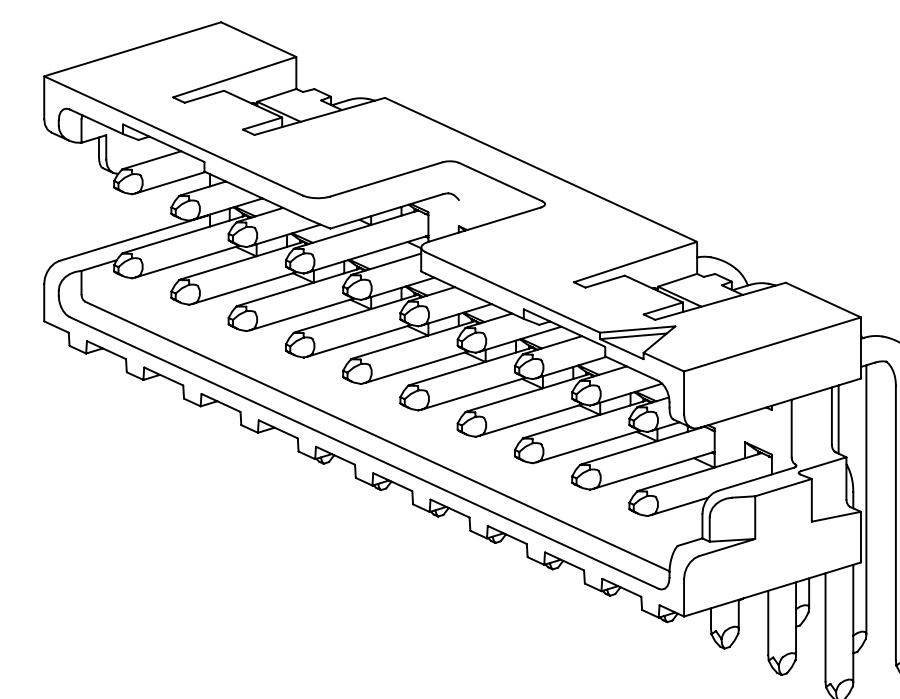
3M™ Shrouded Board Mount Header 2 mm X 2 mm Pitch 159 Series, Standard Length 3 and Extended Length 4



RECOMMENDED PCB HOLE PATTERN  
TOLERANCE = ±0.05 [ .002 ]



POLARIZATION SLOT  
RIGHT ANGLE HEADER  
6-12 POSITIONS ONLY



POLARIZATION SLOT AND  
DUAL FRICTION LATCHES  
RIGHT ANGLE HEADER  
14-50 POSITIONS



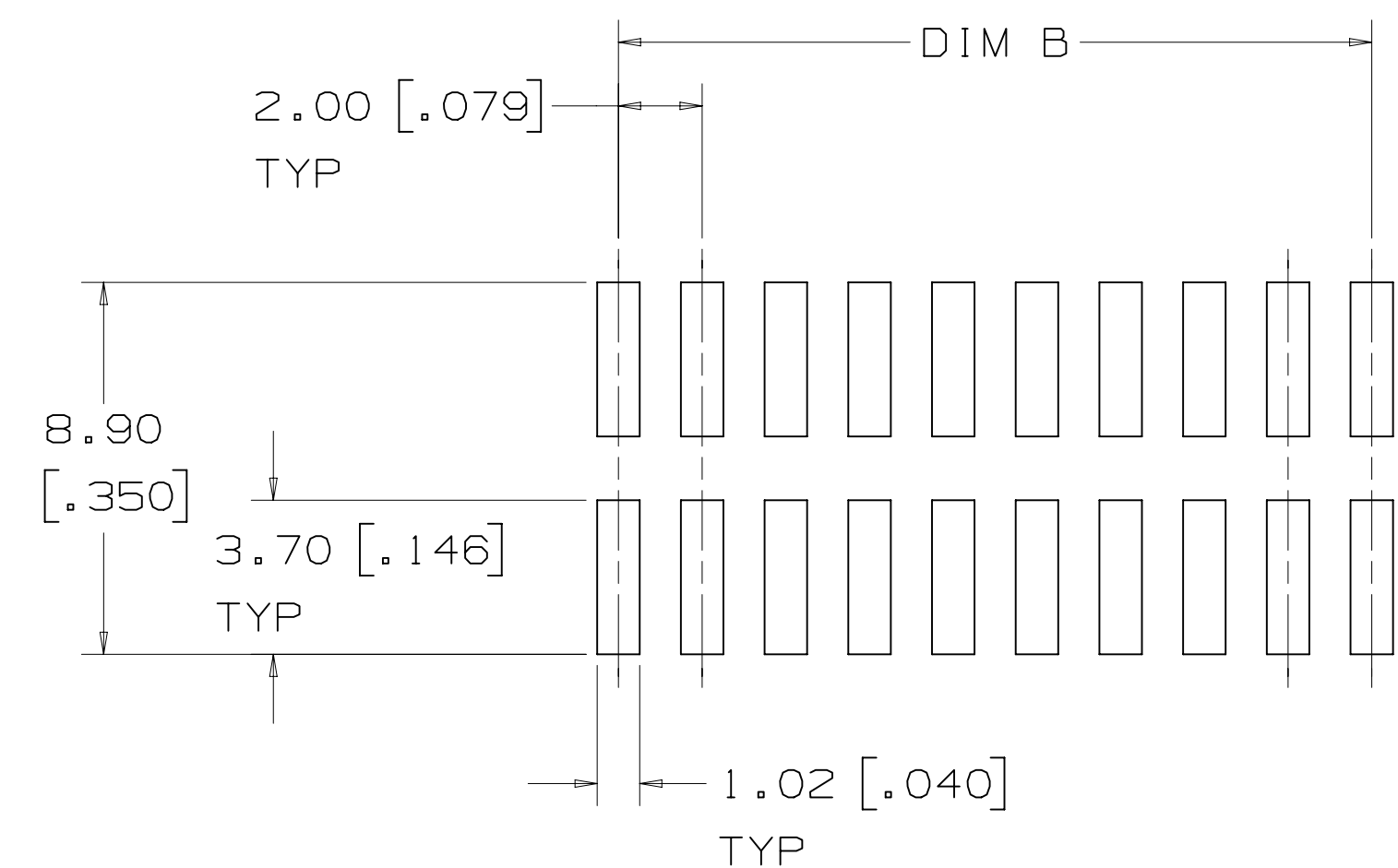
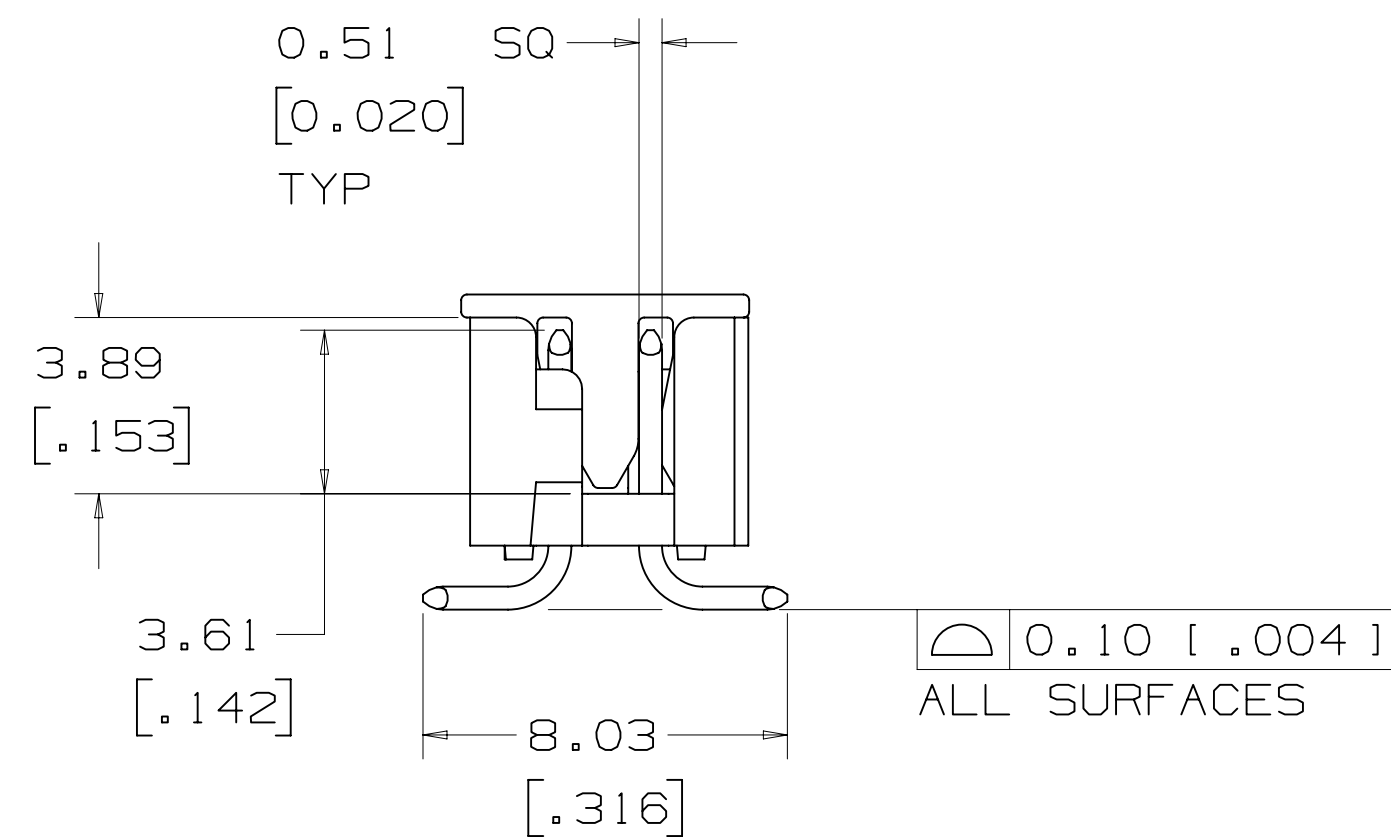
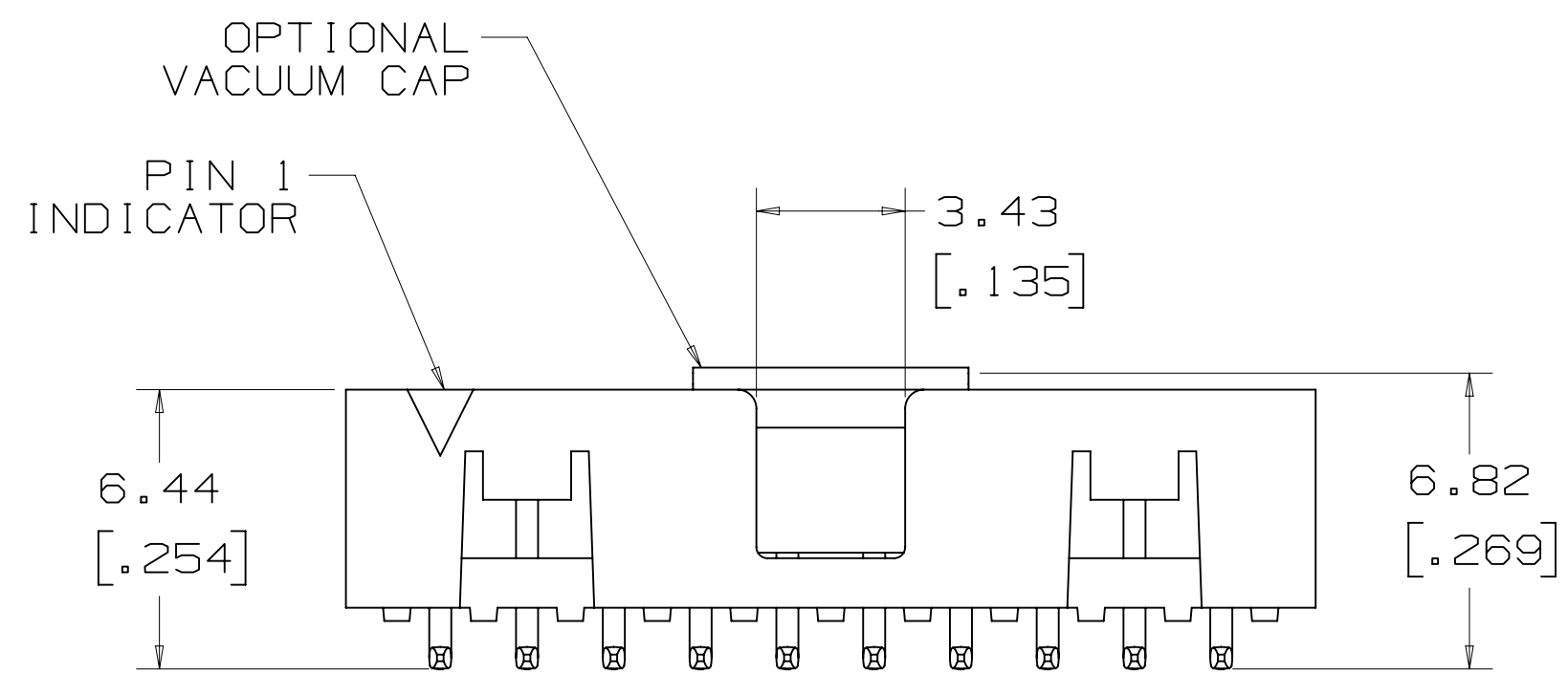
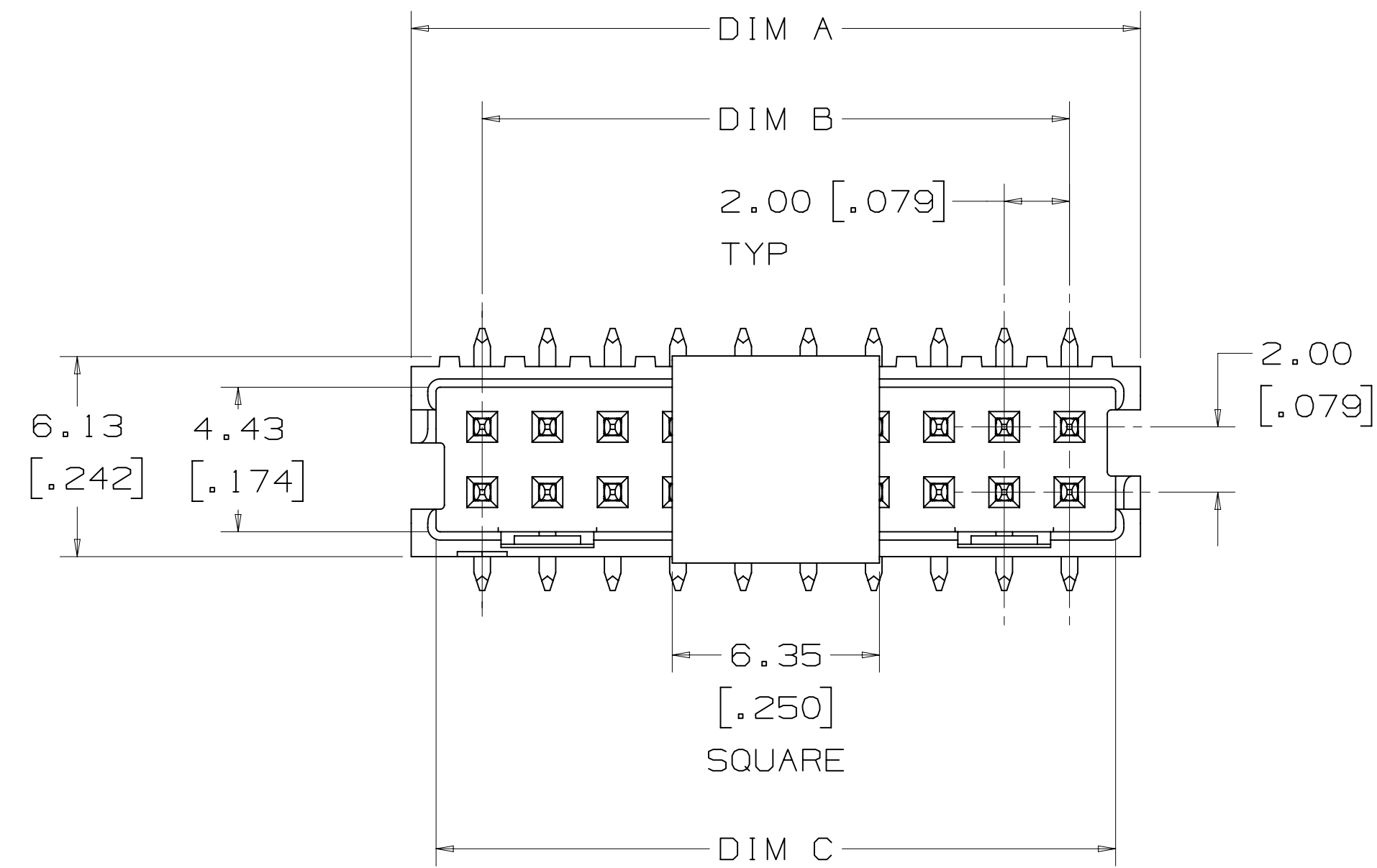
SINGLE FRICTION LATCH  
RIGHT ANGLE HEADER  
6-12 POSITIONS ONLY

REFERENCE TABLE ON SHEET 4  
FOR AVAILABLE POSITIONS AND  
SOLDER TAIL LENGTHS

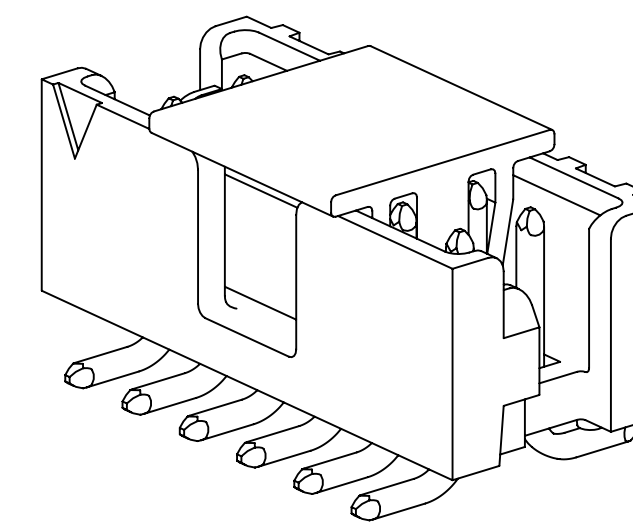
METRIC [ ENGLISH ]

DESIGN REFERENCE	NEXT ASSEMBLY	REV	ECO	ISSUE DATE AND DESCRIPTION	DRFT	CHKD
DIVISION		DIVISION CODE		DATE		
DO NOT SCALE DRAWING		SCALE	TOLERANCES EXCEPT AS NOTED		INCHES	
THIRD ANGLE PROJECTION		INTERPRET PER ASME Y14.5 - 1994		MILLIMETERS		
MAX SURFACE ROUGHNESS		125		ALL SURFACES		
		X MARKED ONLY		ANGLES ±1°		
A	30741	OCT 28, 2010		LDS	SF	
DRFT		DATE		DATE		
L. SCHMIDT		JUL 29, 2010		MFG		
CHKD		DATE		DATE		
		S FELDMAN		AUG 09, 2010		
3M		3M Center St. Paul, MN 55144		© 3M COPYRIGHT 2010		
TITLE		3M SHROUDED BOARD MOUNT HEADER 2 MM X 2 MM PITCH 159 SERIES				
CAGE NUMBER	SIZE	DRAWING NO.	REV.			
D		78-5100-2359-7	A			
MODEL	DEF		YES		NO	
		SHT 2 OF 4				

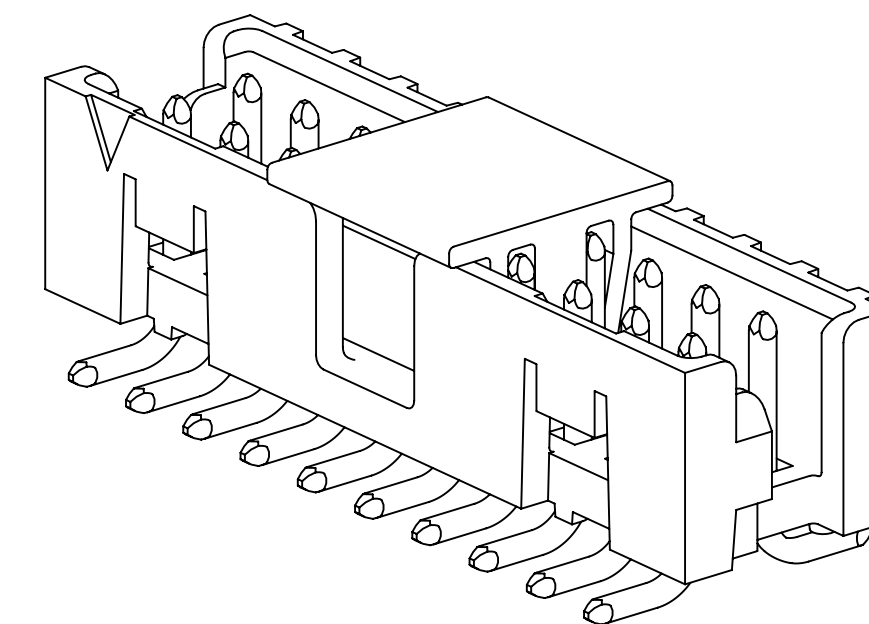
3M™ Shrouded Board Mount Header 2 mm X 2 mm Pitch 159 Series, Standard Length 3 and Extended Length 4



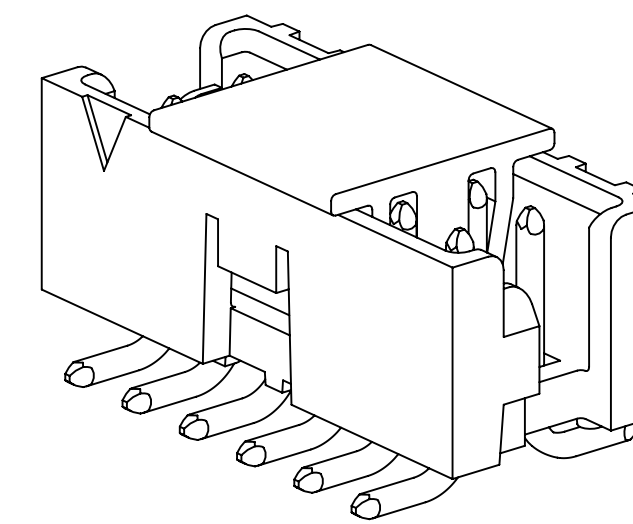
RECOMMENDED PCB PAD PATTERN  
TOLERANCE = ±0.08 [.003]



POLARIZATION SLOT  
SURFACE MOUNT HEADER  
6-12 POSITIONS ONLY



POLARIZATION SLOT AND  
DUAL FRICTION LATCHES  
SURFACE MOUNT HEADER  
14-50 POSITIONS



SINGLE FRICTION LATCH  
SURFACE MOUNT HEADER  
6-12 POSITIONS ONLY

REFERENCE TABLE ON SHEET 4  
FOR AVAILABLE POSITIONS

METRIC ( ENGLISH )

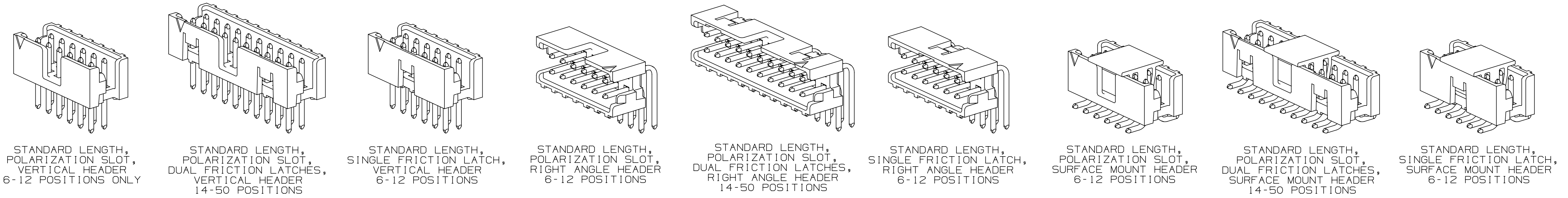
DESIGN REFERENCE	NEXT ASSEMBLY	REV	ECO	ISSUE DATE AND DESCRIPTION	DRFT	CHKD
DIVISION		DIVISION CODE		DATE		
DO NOT SCALE DRAWING		SCALE 4/1		TOLERANCES EXCEPT AS NOTED		
THIRD ANGLE PROJECTION		MILLIMETERS		INCHES		
INTERPRET PER ASME Y14.5 - 1994		0 ±		.00 ±		
MAX SURFACE ROUGHNESS 125		.00 ± 0.13		.000 ±		
ALL SURFACES MARKED ONLY		ANGLES ±1°		.0000 ±		
CAGE NUMBER		DRAWING NO.		REV.		
D78-5100-2359-7		A		A		
MODEL		SHT		3 OF 4		

DRAWING NUMBER 78-5100-2359-7

REVISION A

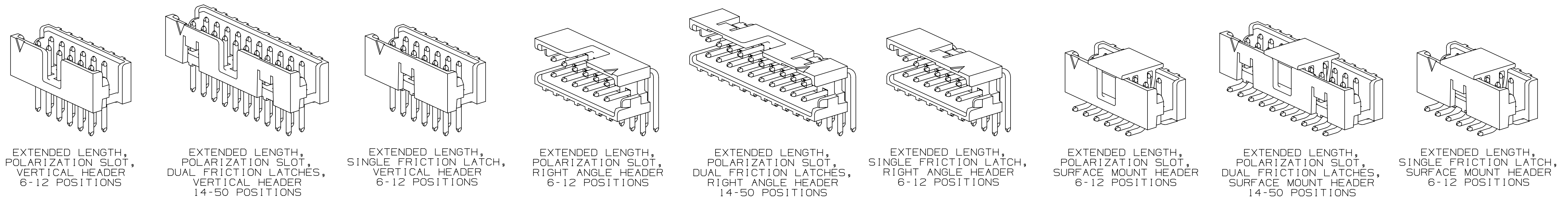
3M™ Shrouded Board Mount Header 2 mm X 2 mm Pitch 159 Series, Standard Length 3

STANDARD LENGTH HEADERS ARE AVAILABLE



3M™ Shrouded Board Mount Header 2 mm X 2 mm Pitch 159 Series, Extended Length 4

CALL 3M INTERCONNECT SOLUTIONS AT 800-225-5373 FOR AVAILABILITY OF EXTENDED LENGTH HEADERS



ORDERING INFORMATION

**TIER 1 - BEST**  
 1591XX-XXXX

TIER 1 = BEST 0.76 μm [30 μin] GOLD

CONTACT TAIL LENGTH  
 2 = 2.84 mm [.112]  
 3 = 3.94 mm [.155]

POSITION COUNT (SEE TABLE)

PART CONFIGURATION  
 2 = VERTICAL SMT  
 5 = RIGHT ANGLE THRU HOLE  
 6 = VERTICAL THRU HOLE

BODY LENGTH  
 0 = STANDARD LENGTH (MATES TO 158 SERIES)  
 1 = EXTENDED LENGTH (MATES TO 870 SERIES)

POLARIZATION/LATCHING  
 0 = POLARIZATION SLOT AND DUAL FRICTION LATCHES (14-50 POSITIONS ONLY)  
 1 = POLARIZATION SLOT (6-12 POSITIONS ONLY)  
 2 = SINGLE FRICTION LATCH (6-12 POSITIONS ONLY)

**TIER 2 - BETTER**  
 1592XX-XXXX

TIER 2 = BETTER 0.38 μm [15 μin] GOLD

CONTACT TAIL LENGTH  
 2 = 2.84 mm [.112]  
 3 = 3.94 mm [.155]

POSITION COUNT (SEE TABLE)

PART CONFIGURATION  
 2 = VERTICAL SMT  
 5 = RIGHT ANGLE THRU HOLE  
 6 = VERTICAL THRU HOLE

BODY LENGTH  
 0 = STANDARD LENGTH (MATES TO 158 SERIES)  
 1 = EXTENDED LENGTH (MATES TO 870 SERIES)

POLARIZATION/LATCHING  
 0 = POLARIZATION SLOT AND DUAL FRICTION LATCHES (14-50 POSITIONS ONLY)  
 1 = POLARIZATION SLOT (6-12 POSITIONS ONLY)  
 2 = SINGLE FRICTION LATCH (6-12 POSITIONS ONLY)

NUMBER OF POSITIONS	SHROUDED BOX HEADER						DIM D	
	DIM A		DIM B	DIM C				
	STANDARD	EXTENDED		STANDARD	EXTENDED			
6	8.35 [.329]	9.52 [.375]	4.00 [.157]	6.83 [.269]	7.99 [.315]	2.84 [.112]	3.94 [.155]	
8	10.35 [.407]	11.52 [.453]	6.00 [.236]	8.83 [.347]	9.99 [.393]	2.84 [.112]	3.94 [.155]	
10	12.35 [.486]	13.52 [.532]	8.00 [.315]	10.83 [.426]	11.99 [.472]	2.84 [.112]	3.94 [.155]	
12	14.35 [.565]	15.52 [.611]	10.00 [.394]	12.83 [.505]	13.99 [.551]	2.84 [.112]	3.94 [.155]	
14	16.35 [.644]	17.52 [.690]	12.00 [.472]	14.83 [.584]	15.99 [.630]	2.84 [.112]	3.94 [.155]	
16	18.35 [.722]	19.52 [.768]	14.00 [.551]	16.83 [.662]	17.99 [.708]	2.84 [.112]	3.94 [.155]	
20	22.35 [.880]	23.52 [.926]	18.00 [.709]	20.83 [.820]	21.99 [.866]	2.84 [.112]	3.94 [.155]	
22	24.35 [.959]	25.52 [1.005]	20.00 [.787]	22.83 [.899]	23.99 [.945]	2.84 [.112]	3.94 [.155]	
24	26.35 [1.037]	27.52 [1.083]	22.00 [.866]	24.83 [.977]	25.99 [1.023]	2.84 [.112]	3.94 [.155]	
26	28.35 [1.116]	29.52 [1.162]	24.00 [.945]	26.83 [1.056]	27.99 [1.102]	2.84 [.112]	3.94 [.155]	
30	32.35 [1.274]	33.52 [1.320]	28.00 [1.102]	30.83 [1.214]	31.99 [1.260]	2.84 [.112]	3.94 [.155]	
34	36.35 [1.431]	37.52 [1.477]	32.00 [1.260]	34.83 [1.371]	35.99 [1.417]	2.84 [.112]	3.94 [.155]	
40	42.35 [1.667]	43.52 [1.713]	38.00 [1.496]	40.83 [1.607]	41.99 [1.653]	2.84 [.112]	3.94 [.155]	
44	46.35 [1.825]	47.52 [1.871]	42.00 [1.654]	44.83 [1.765]	45.99 [1.811]	2.84 [.112]	3.94 [.155]	
50	52.35 [2.061]	53.52 [2.107]	48.00 [1.890]	50.83 [2.001]	51.99 [2.047]	2.84 [.112]	3.94 [.155]	

METRIC (ENGLISH)

DESIGN REFERENCE	NEXT ASSEMBLY	REV	ECO	ISSUE DATE AND DESCRIPTION	DRFT	CHKD
				INITIAL RELEASE	LDS	SF
DISTRICT CODES		DRFT		DATE		DATE
		L. SCHMIDT		JUL 29, 2010		
DIVISION	DIVISION CODE	CHKD		DATE		DATE
		S FELDMAN		AUG 09, 2010		
DO NOT SCALE DRAWING	SCALE 4/1	TOLERANCES EXCEPT AS NOTED		© 3M COPYRIGHT 2010 This document and the information it contains are 3M property and may not be reproduced or further distributed without 3M permission, or used or disclosed other than for 3M authorized purposes. All rights reserved.		
THIRD ANGLE PROJECTION	INTERPRET PER ASME Y14.5 - 1994	MILLIMETERS		TITLE 3M SHROUDED BOARD MOUNT HEADER 2 MM X 2 MM PITCH 159 SERIES		
MAX SURFACE ROUGHNESS 125	ALL SURFACES MARKED ONLY	INCHES		CAGE NUMBER D 78-5100-2359-7		
		ANGLES ±1°		DRAWING NO. 78-5100-2359-7		
				REV. A		
				MODEL SHT 4 OF 4		

# Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

3M:

<a href="#">159108-2022</a>	<a href="#">159120-5102</a>	<a href="#">159110-2022</a>	<a href="#">159106-2012</a>	<a href="#">159106-5012</a>	<a href="#">159106-6012</a>	<a href="#">159108-2012</a>	<a href="#">159108-5012</a>
<a href="#">159108-6012</a>	<a href="#">159110-2012</a>	<a href="#">159110-5012</a>	<a href="#">159110-6012</a>	<a href="#">159112-2012</a>	<a href="#">159112-6012</a>	<a href="#">159114-2002</a>	<a href="#">159114-5002</a>
<a href="#">159114-6002</a>	<a href="#">159116-2002</a>	<a href="#">159116-5002</a>	<a href="#">159116-6002</a>	<a href="#">159120-2002</a>	<a href="#">159120-5002</a>	<a href="#">159120-6002</a>	<a href="#">159122-2002</a>
<a href="#">159122-5002</a>	<a href="#">159122-6002</a>	<a href="#">159124-2002</a>	<a href="#">159124-5002</a>	<a href="#">159124-6002</a>	<a href="#">159126-2002</a>	<a href="#">159126-5002</a>	<a href="#">159126-6002</a>
<a href="#">159130-2002</a>	<a href="#">159130-5002</a>	<a href="#">159130-6002</a>	<a href="#">159134-2002</a>	<a href="#">159134-5002</a>	<a href="#">159134-6002</a>	<a href="#">159140-2002</a>	<a href="#">159140-5002</a>
<a href="#">159140-6002</a>	<a href="#">159144-2002</a>	<a href="#">159144-5002</a>	<a href="#">159144-6002</a>	<a href="#">159150-2002</a>	<a href="#">159150-5002</a>	<a href="#">159150-6002</a>	<a href="#">159206-2012</a>
<a href="#">159206-5012</a>	<a href="#">159206-6012</a>	<a href="#">159208-2012</a>	<a href="#">159208-5012</a>	<a href="#">159210-2012</a>	<a href="#">159210-5012</a>	<a href="#">159212-2012</a>	<a href="#">159212-6012</a>
<a href="#">159214-2002</a>	<a href="#">159214-5002</a>	<a href="#">159214-6002</a>	<a href="#">159216-2002</a>	<a href="#">159216-5002</a>	<a href="#">159216-6002</a>	<a href="#">159220-2002</a>	<a href="#">159220-5002</a>
<a href="#">159222-2002</a>	<a href="#">159222-5002</a>	<a href="#">159222-6002</a>	<a href="#">159224-2002</a>	<a href="#">159224-5002</a>	<a href="#">159224-6002</a>	<a href="#">159226-2002</a>	<a href="#">159226-5002</a>
<a href="#">159230-2002</a>	<a href="#">159230-5002</a>	<a href="#">159230-6002</a>	<a href="#">159234-2002</a>	<a href="#">159234-5002</a>	<a href="#">159234-6002</a>	<a href="#">159240-2002</a>	<a href="#">159240-5002</a>
<a href="#">159240-6002</a>	<a href="#">159244-2002</a>	<a href="#">159244-5002</a>	<a href="#">159244-6002</a>	<a href="#">159250-2002</a>	<a href="#">159250-5002</a>	<a href="#">159250-6002</a>	<a href="#">159120-6102</a>
<a href="#">159210-2112</a>	<a href="#">159212-2022</a>	<a href="#">159212-6022</a>	<a href="#">159216-2102</a>	<a href="#">159206-2022</a>	<a href="#">159206-5022</a>	<a href="#">159210-5122</a>	<a href="#">159220-5102</a>
<a href="#">159220-6102</a>	<a href="#">159230-6003</a>	<a href="#">159244-2003</a>					