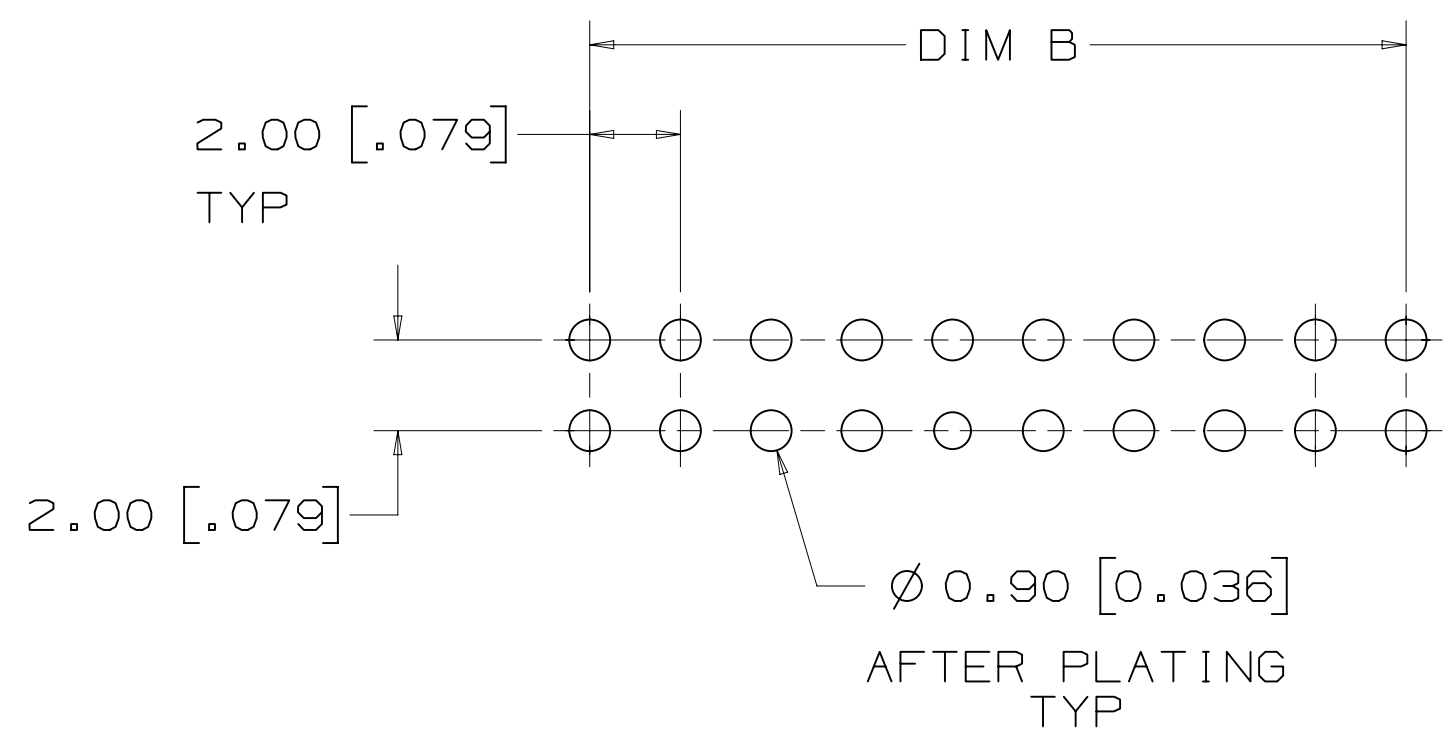
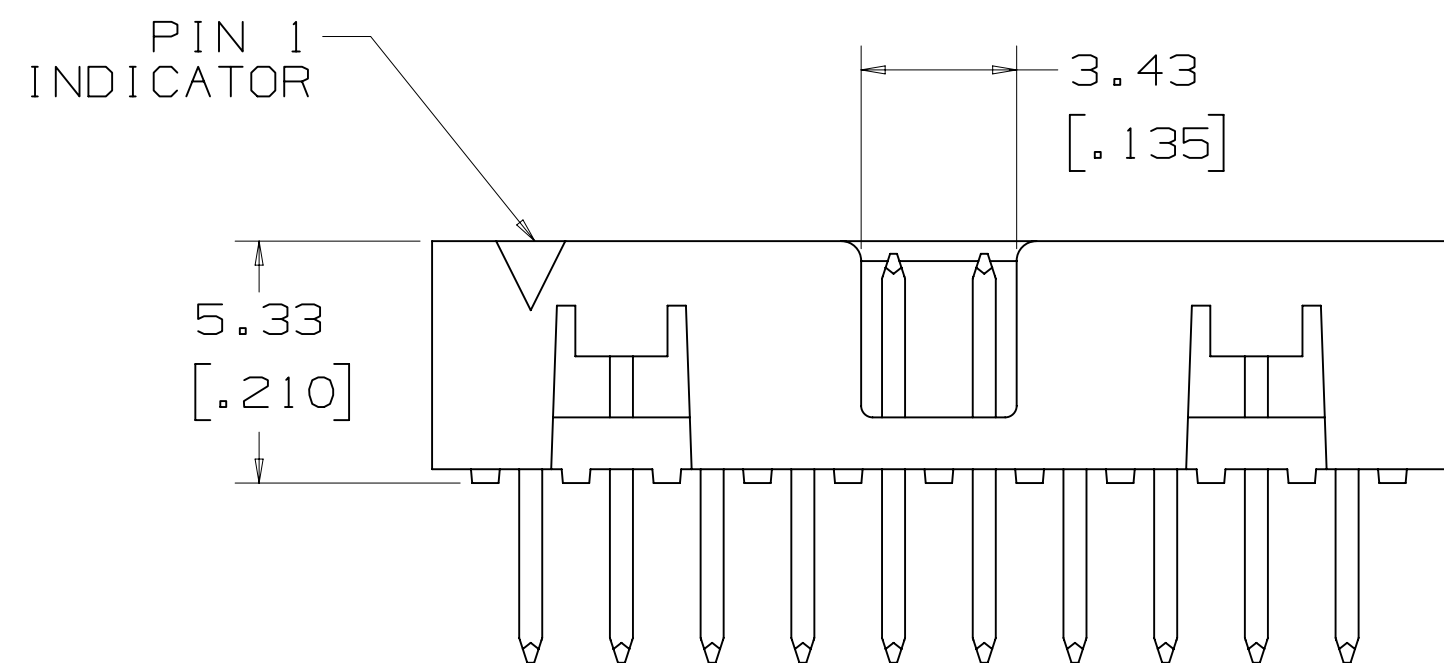
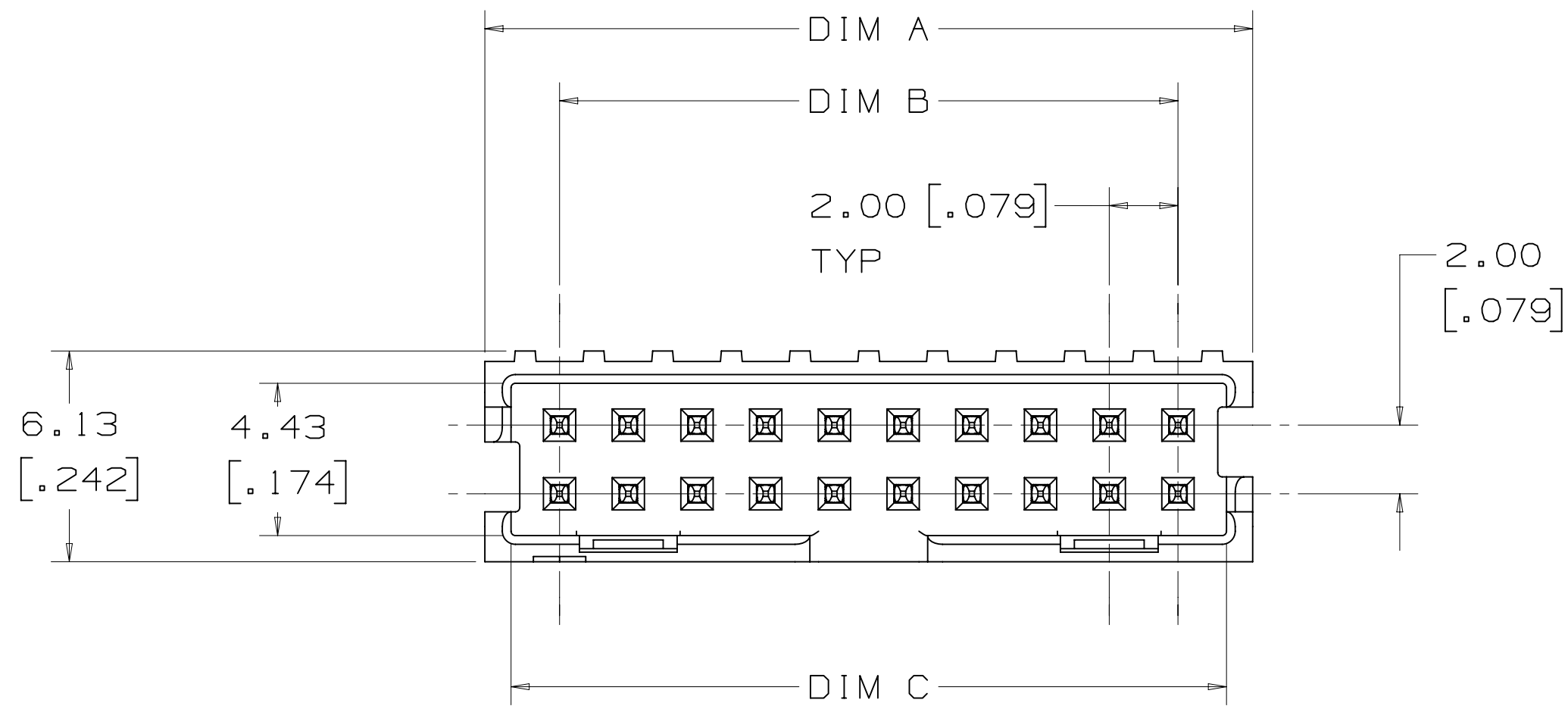
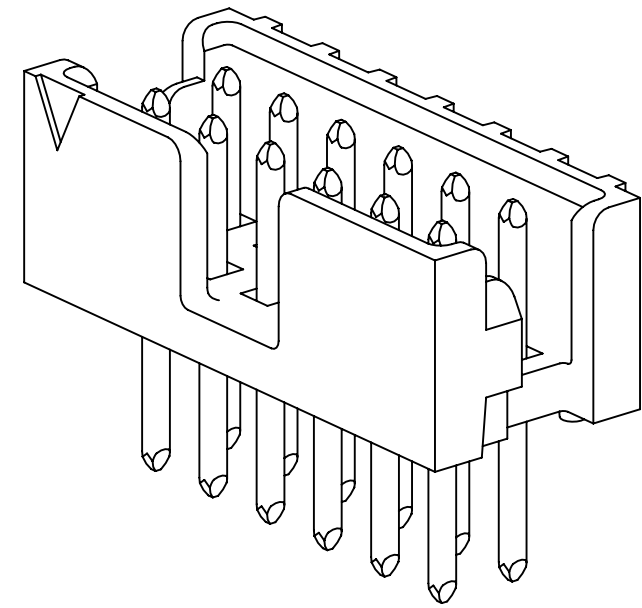


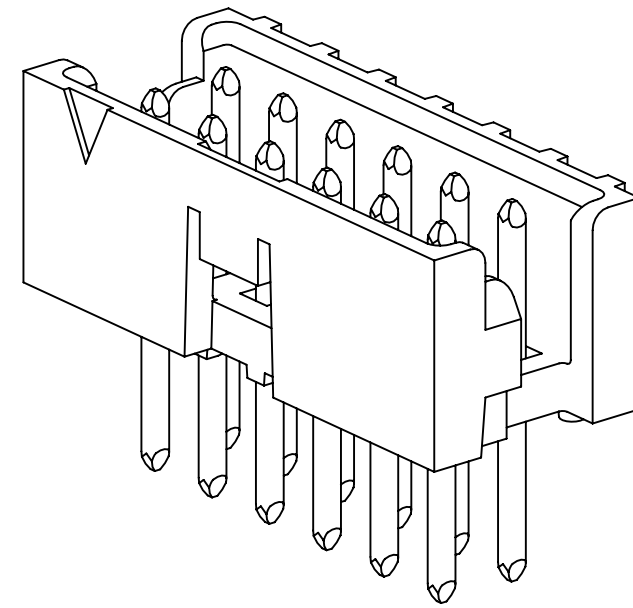
3M™ Shrouded Board Mount Header 2 mm X 2 mm Pitch 159 Series, Standard Length and Extended Length



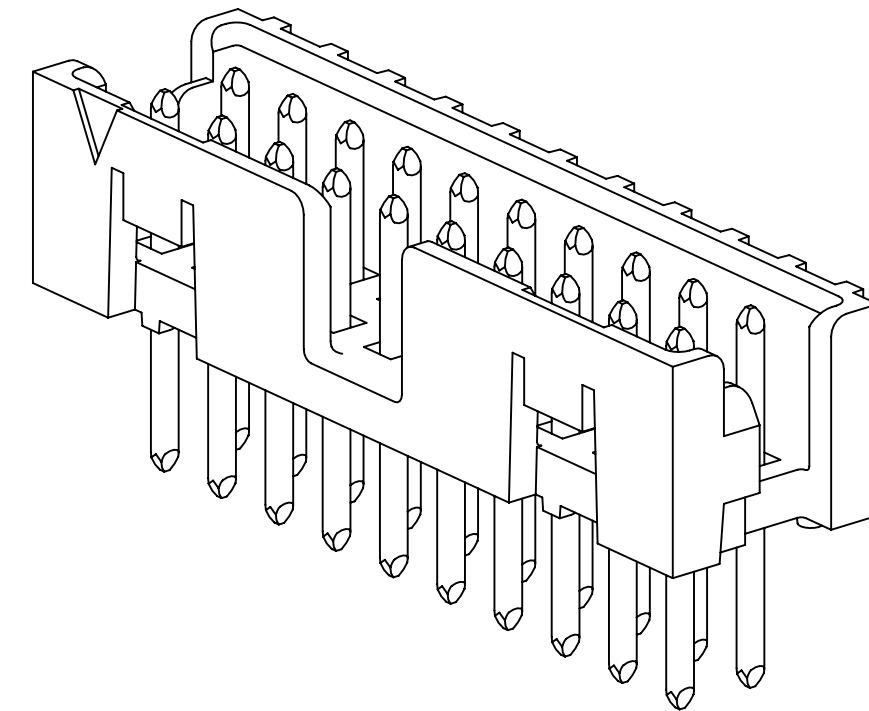
RECOMMENDED PCB HOLE PATTERN
TOLERANCE = 0.05 [.002]



POLARIZATION SLOT
THRU-HOLE VERTICAL HEADER
6-12 POSITIONS ONLY



SINGLE FRICTION LATCH
THRU-HOLE VERTICAL HEADER
6-12 POSITIONS ONLY



POLARIZATION SLOT AND
DUAL FRICTION LATCHES
THRU-HOLE VERTICAL HEADER
14-50 POSITIONS

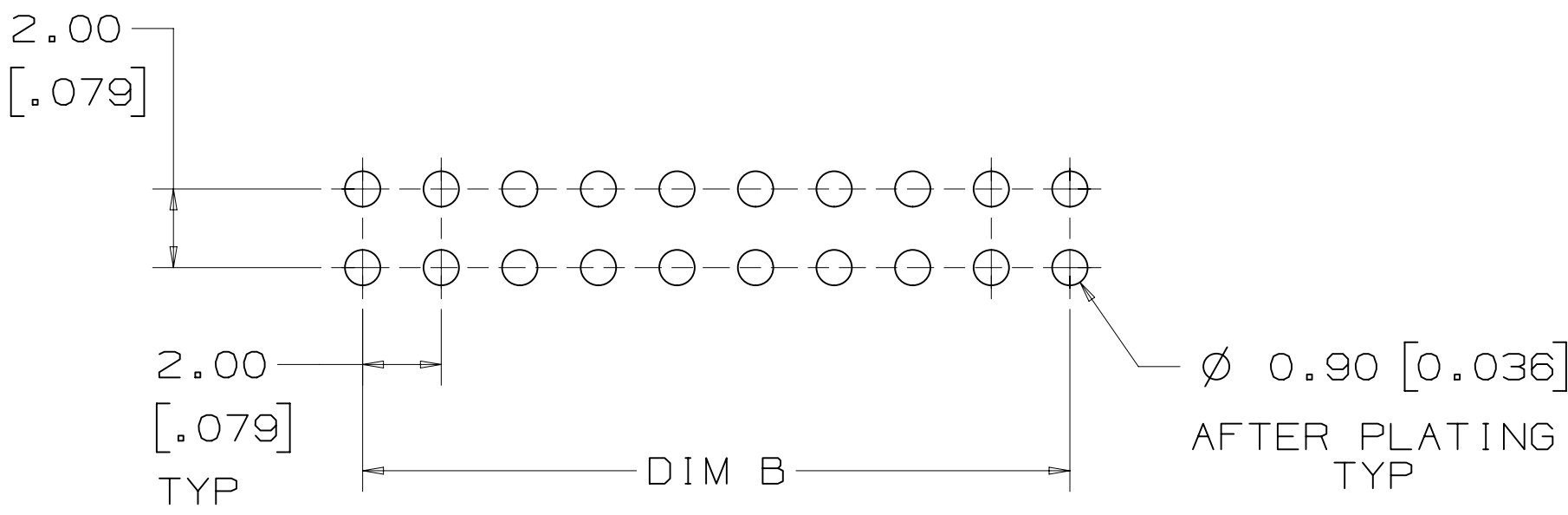
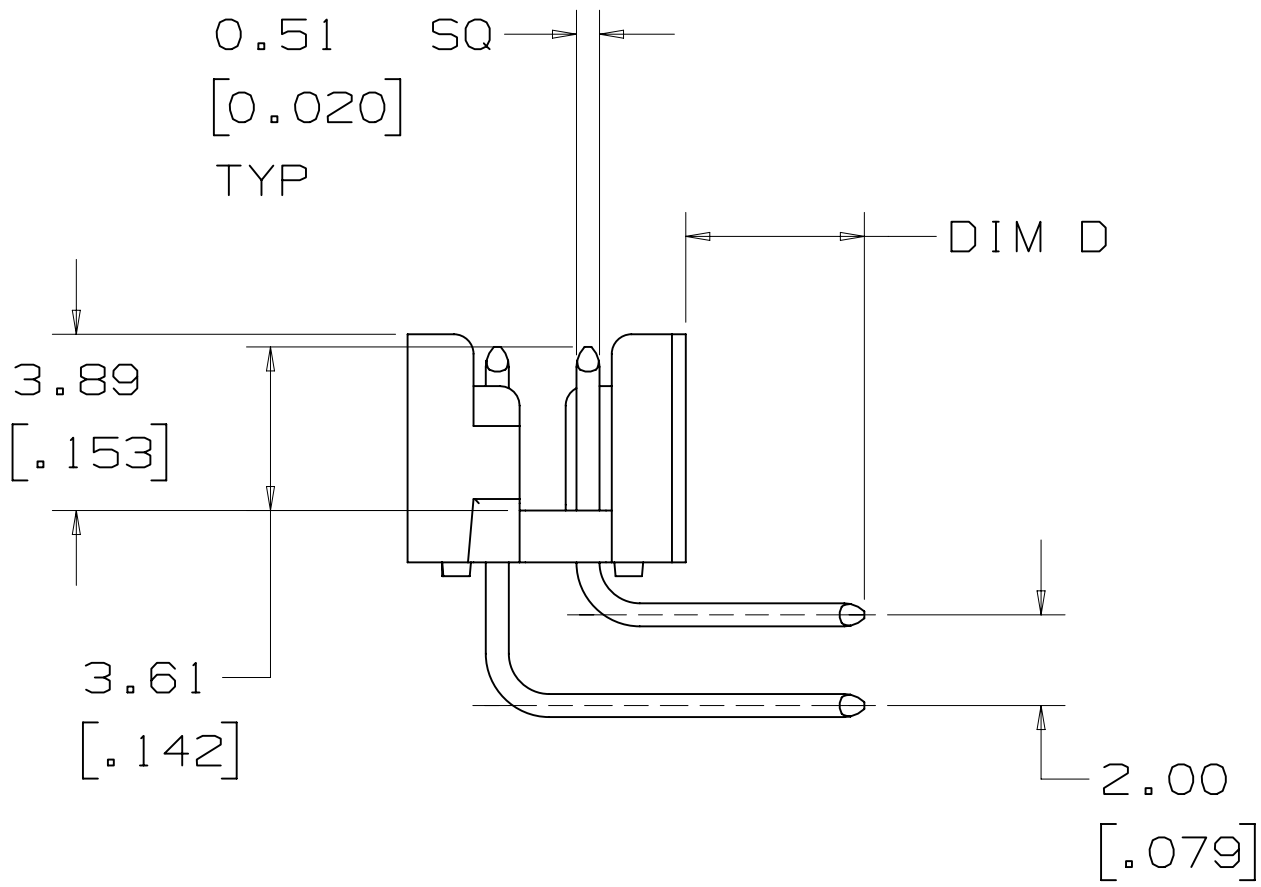
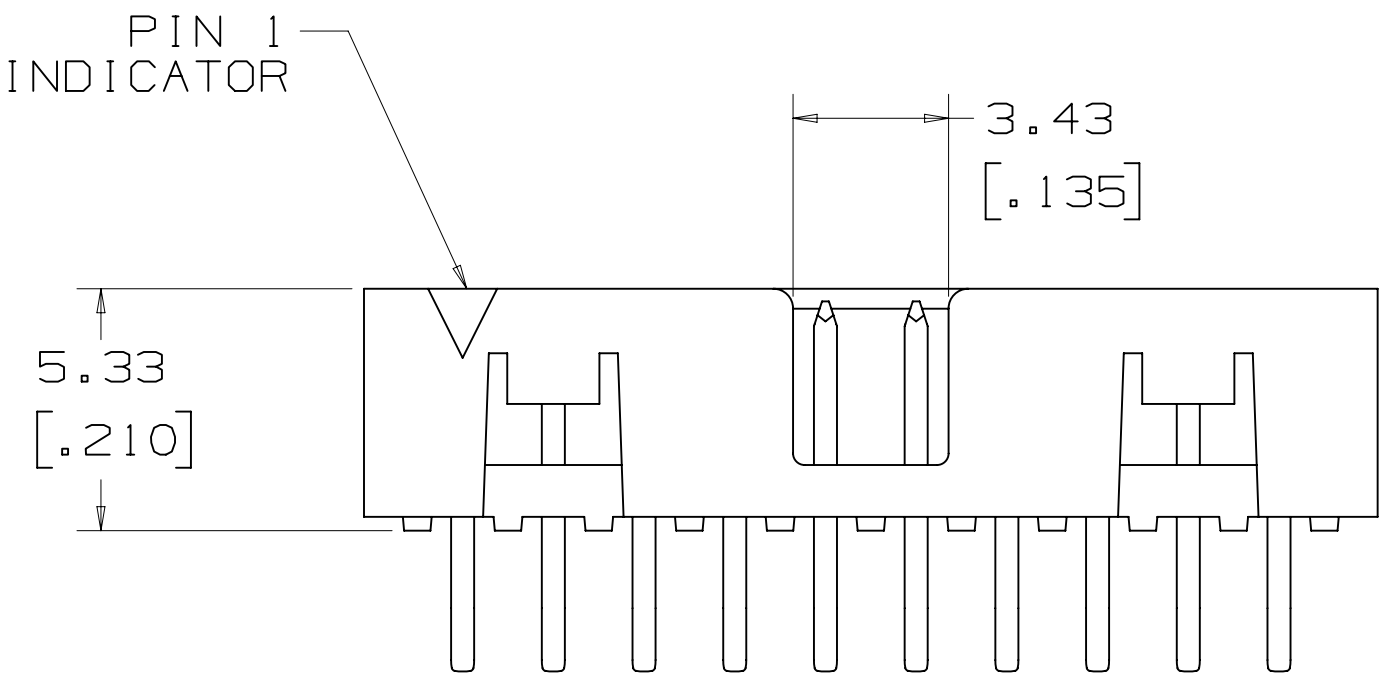
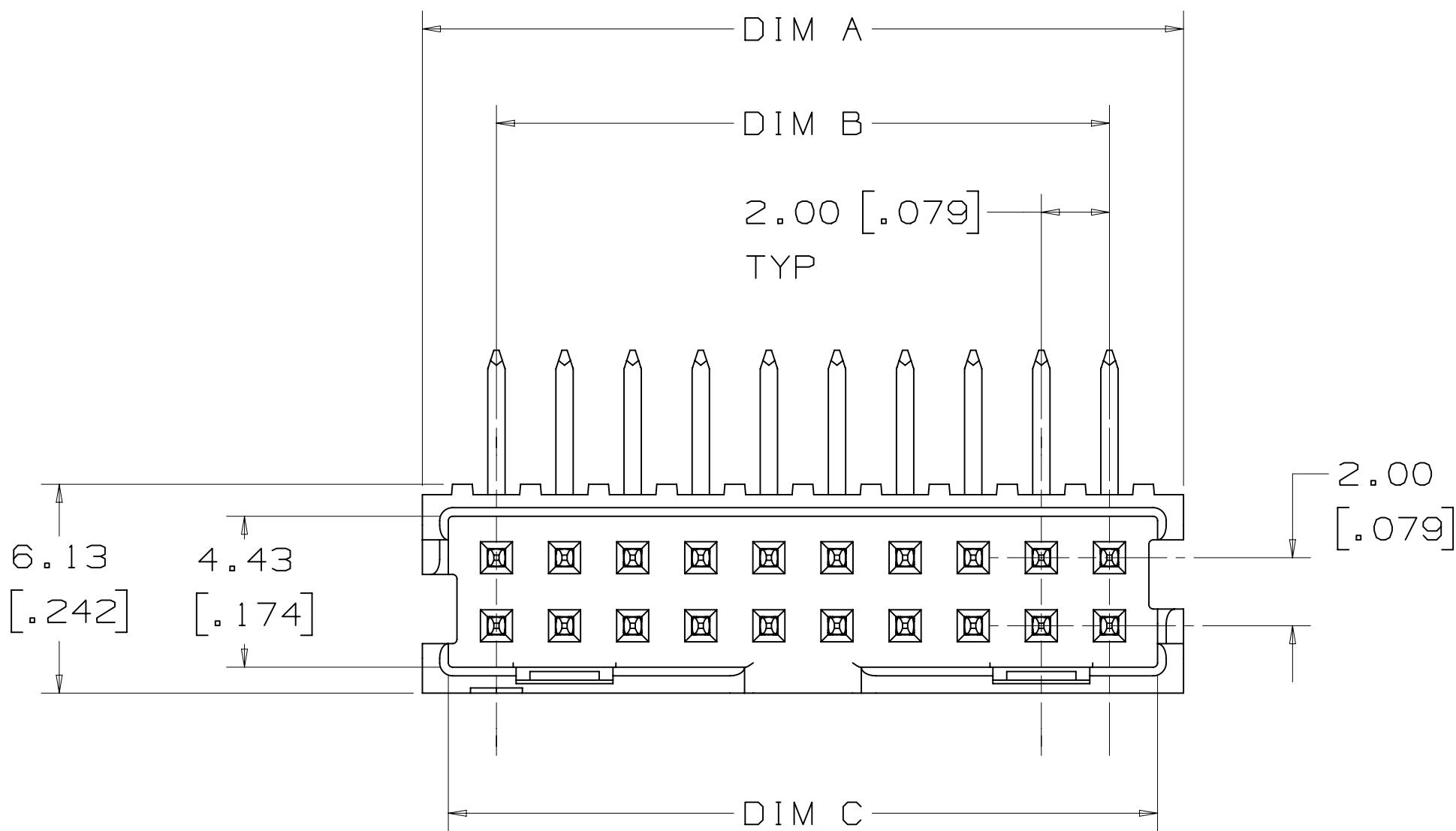
PERFORMANCE [5][7]	
CURRENT:	1A, 6 LINES ENERGIZED
INSULATION RESISTANCE:	>1 X 10 ⁹ OHMS AT 500 VDC
WITHSTANDING VOLTAGE:	500 VACrms AT SEA LEVEL
TEMPERATURE RATING:	-55°C TO +105°C
SOLDER PROCESS TEMPERATURE:	260°C MAX PER IPC/JEDEC J-STD-020D

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

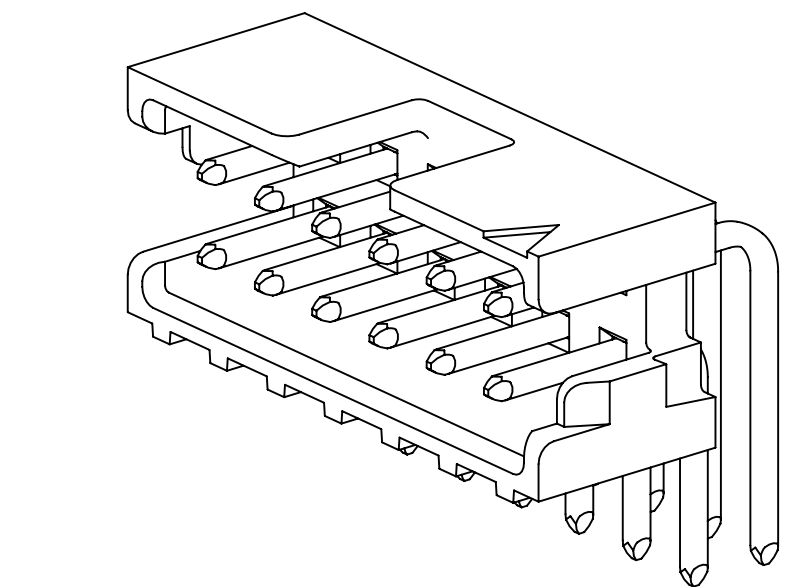
METRIC [ENGLISH]

A		30741		OCT 28, 2010				LDS		SF	
INITIAL RELEASE											
REV		ECO		ISSUE DATE AND DESCRIPTION				DRFT		CHKD	
DRFT		L		JUL 29, 2010				MFG		DATE	
CHKD		SCHMIDT		DATE				APPROV		DATE	
								S FELDMAN		AUG 09, 2010	
DIVISION				DIVISION CODE							
DO NOT SCALE DRAWING				SCALE 6 1		TOLERANCES EXCEPT AS NOTED					
				INCHES 0.0 0.00 0.000 0.0000							
THIRD ANGLE PROJECTION				MILLIMETERS 0 0.0 0.00 0.000		© 3M COPYRIGHT 2010 This document and the information it contains are 3M property and may not be reproduced or further distributed without the written permission of or disclosed other than for 3M authorized purposes. All rights reserved.					
INTERPRET PER ASME Y14.5 - 1994				MAXIMUM SURFACE ROUGHNESS 125		3M SHROUDED BOARD MOUNT HEADER 2 MM X 2 MM PITCH 159 SERIES					
☒ ALL SURFACES ☐ MARKED ONLY				ANGLES ± 1°		CASE NUMBER D		SIZE 78-5100-2359-7		REV. A	
MODEL				DET LISTS		☐ YES ☒ NO		SHT 1 OF 4			

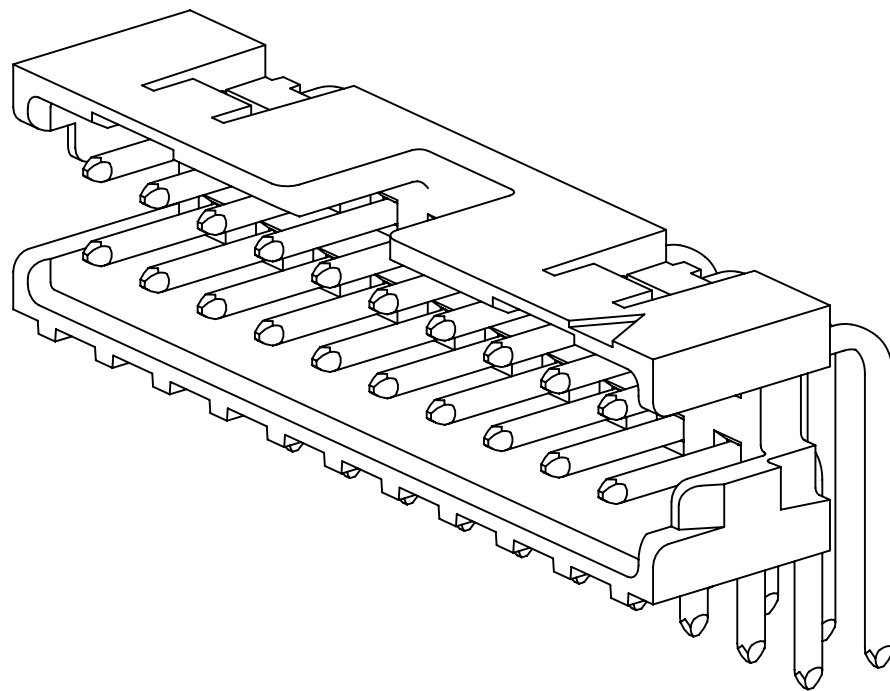
3M™ Shrouded Board Mount Header 2 mm X 2 mm Pitch 159 Series, Standard Length [3] and Extended Length [4]



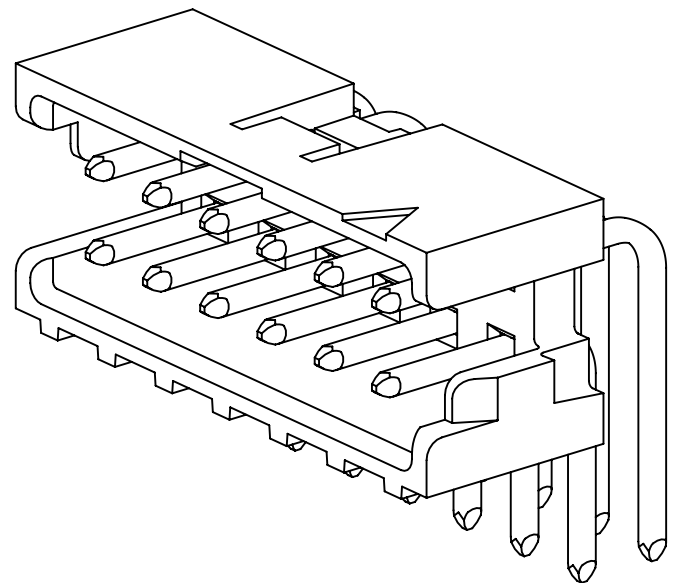
RECOMMENDED PCB HOLE PATTERN
TOLERANCE = ±0.05 [.002]



POLARIZATION SLOT
RIGHT ANGLE HEADER
6-12 POSITIONS ONLY



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



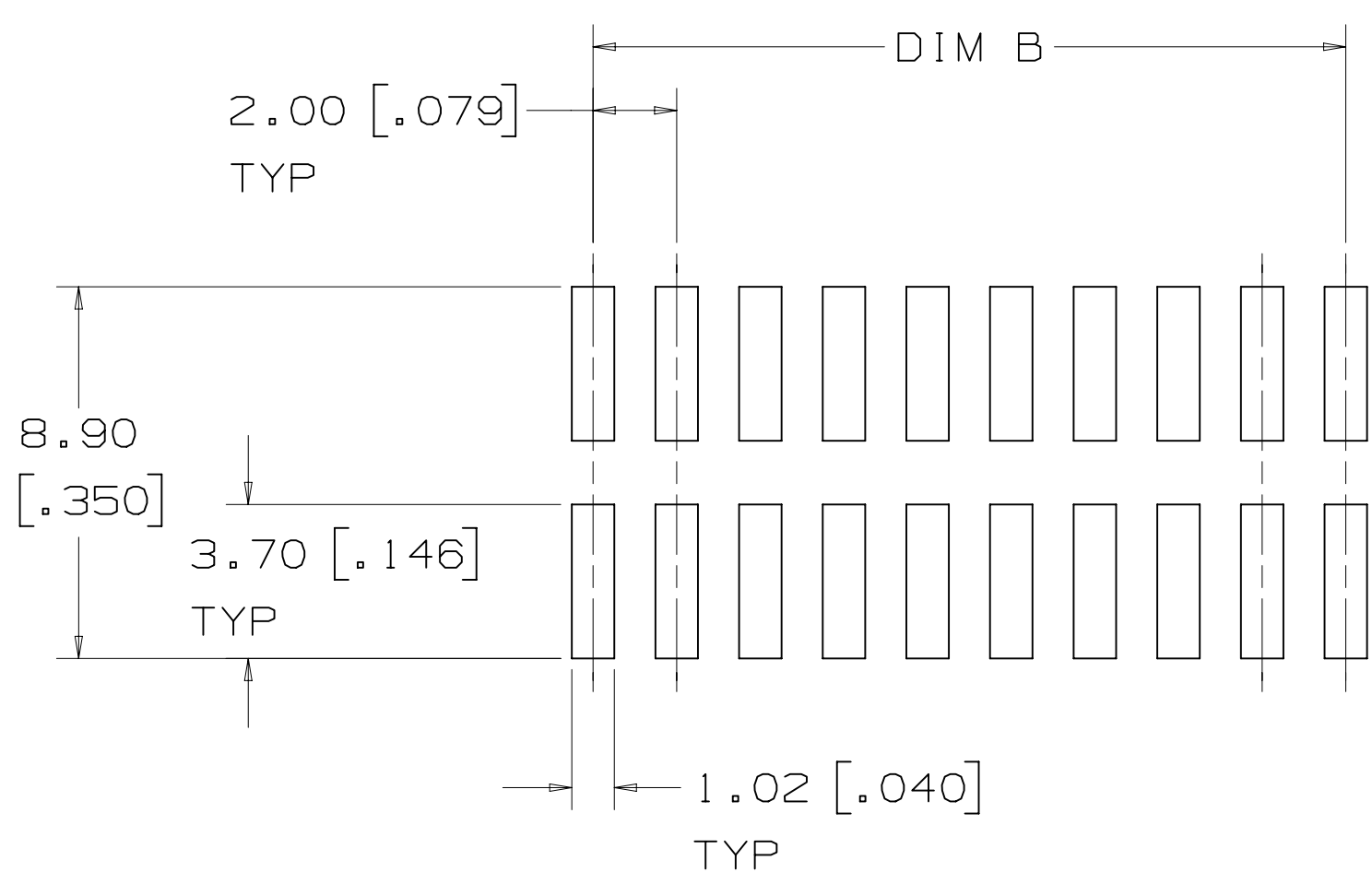
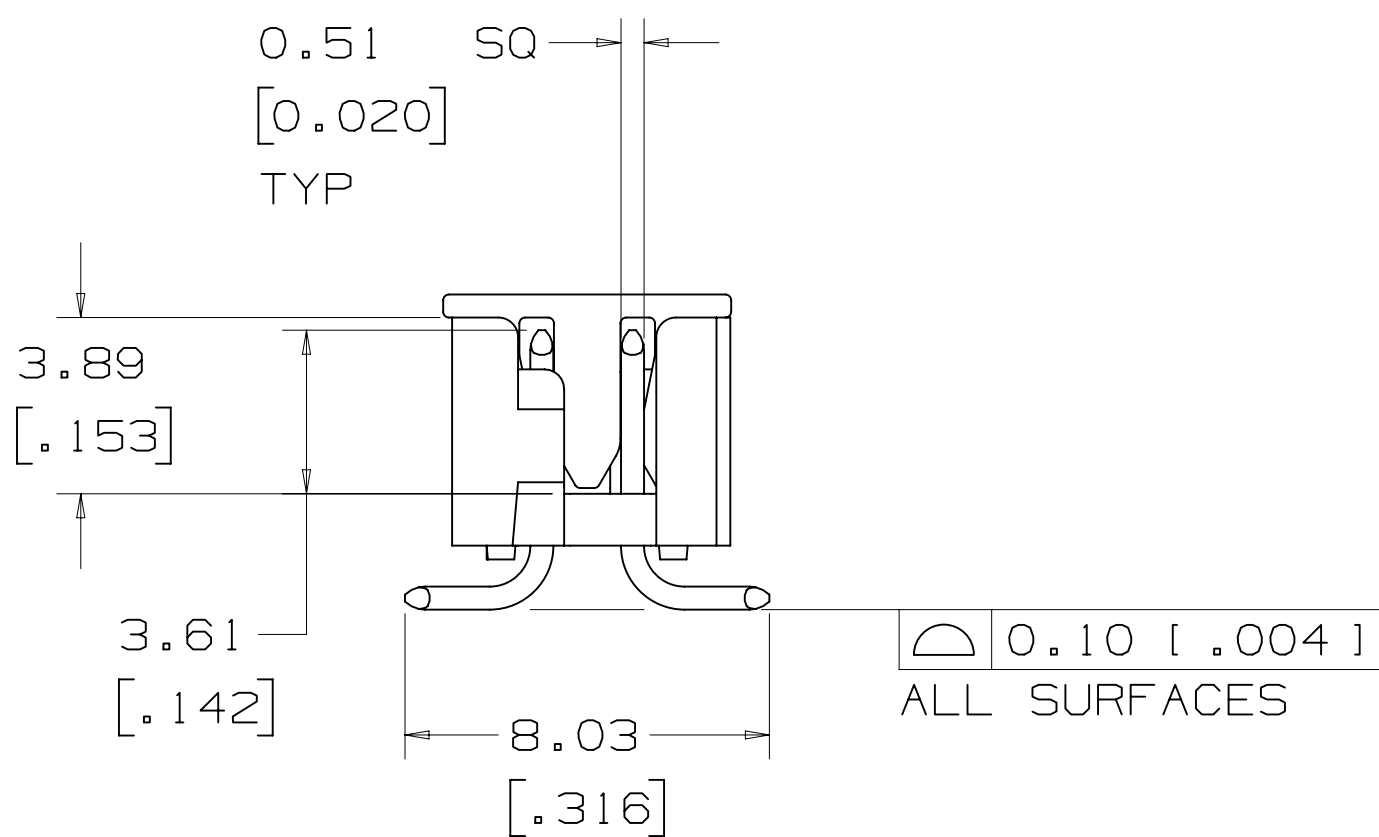
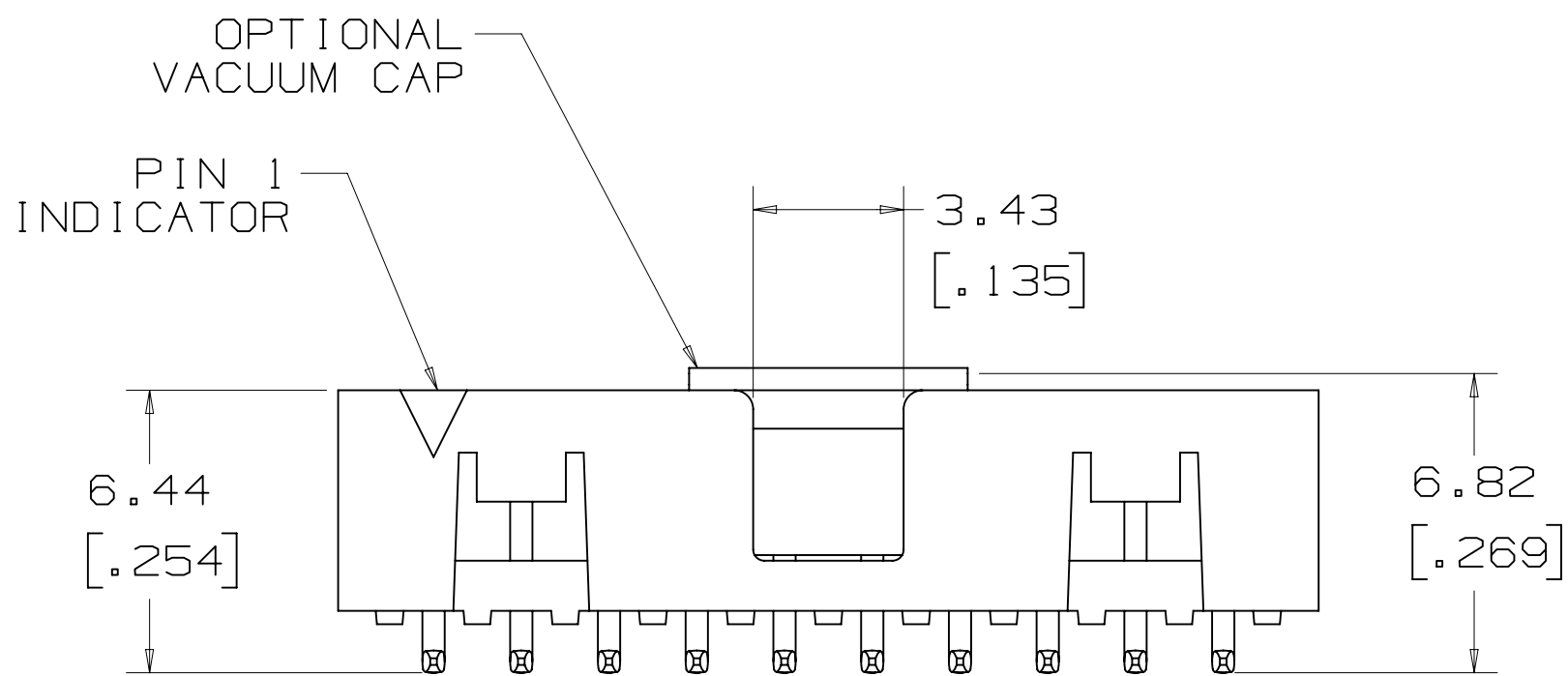
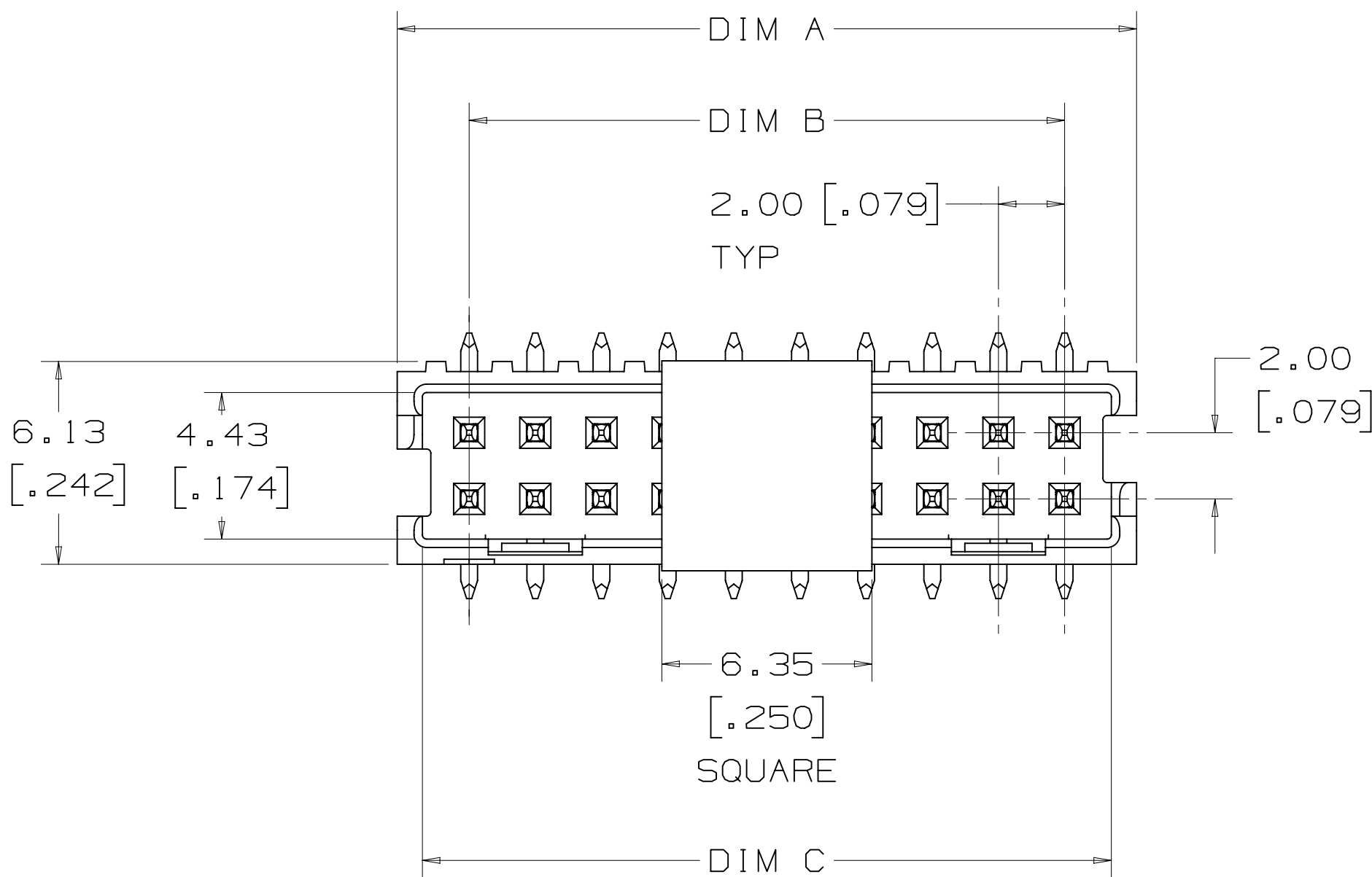
SINGLE FRICTION LATCH
RIGHT ANGLE HEADER
6-12 POSITIONS ONLY

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

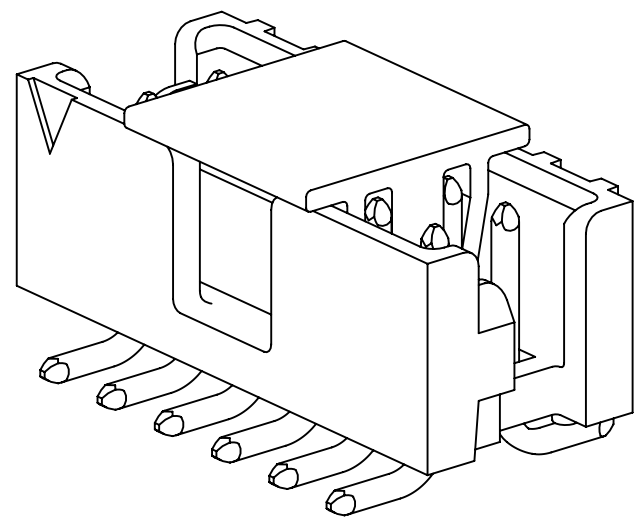
METRIC [ENGLISH]

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

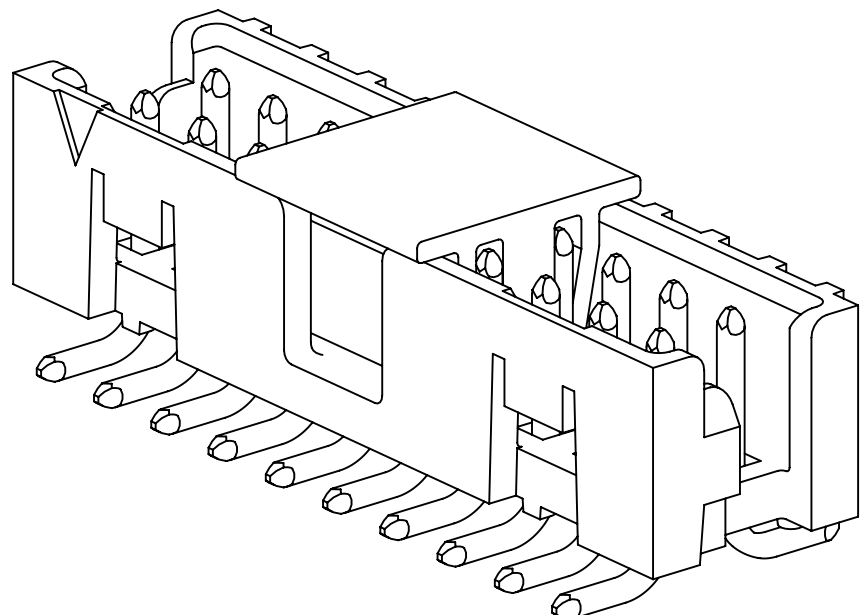
3M™ Shrouded Board Mount Header 2 mm X 2 mm Pitch 159 Series, Standard Length [3] and Extended Length [4]



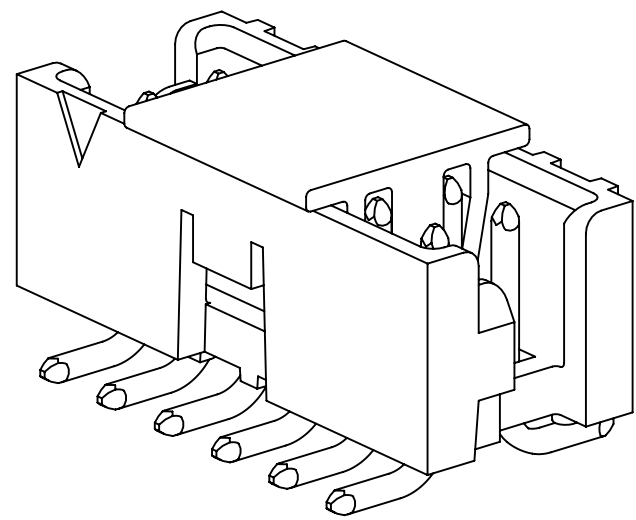
RECOMMENDED PCB PAD PATTERN
TOLERANCE = ±0.08 [0.003]



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	
DISTANCE		SCALE		L. SCHMIDT		DATE		JUL 29, 2010		MFG		DATE	
DIVISION		DIVISION CODE		APPROV		S. FELDMAN		DATE		AUG 09, 2010		REV.	
DO NOT SCALE DRAWING		SCALE 4/1		TOLERANCES EXCEPT AS NOTED		INCHES		MILLIMETERS		0 ±		0 ±	
THIRD ANGLE PROJECTION		INTERPRET PER ASME Y14.5 - 1994		MAX SURFACE ROUGHNESS		0.00 ±		0.00 ±		0.00 ±		0.00 ±	
125/		ALL SURFACES		ANGLES ±1°		CAGE NUMBER		DRAWING NO.		REV.		SHT 3 OF 4	
125/		MARKED ONLY		MODEL		DET		YES		NO		SHT 3 OF 4	

A 30741

OCT 28, 2010

INITIAL RELEASE

LDS SF

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St. Paul,
MN 55144

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TITLE

3M SHROUDED BOARD
MOUNT HEADER 2 MM X 2
MM PITCH 159 SERIES

CAGE NUMBER

D 78-5100-2359-7

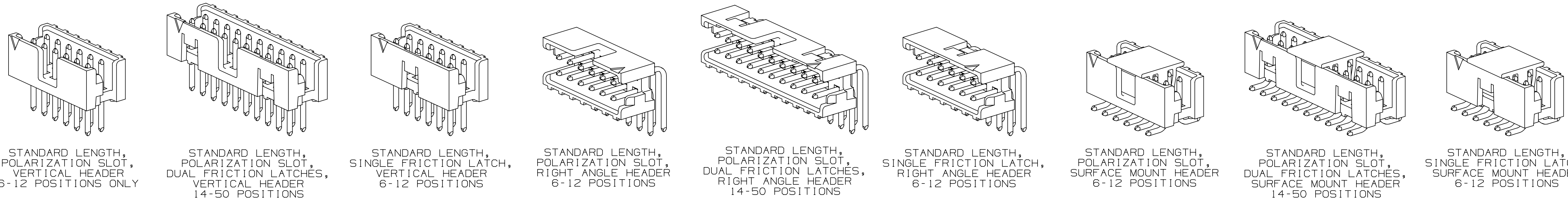
DRAWING NO.

REV.

A

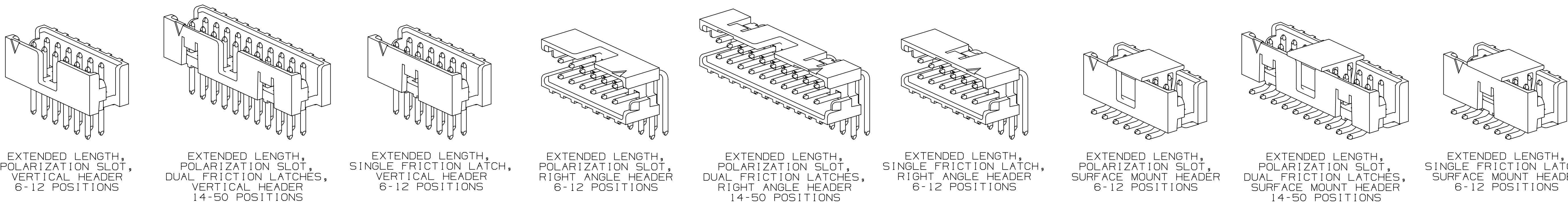
3M™ Shrouded Board Mount Header 2 mm X 2 mm Pitch 159 Series, Standard Length 3

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 μ m
[30 μ in] GOLD

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)

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

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 μ m
[15 μ in] GOLD

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)

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

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 A		DIM B	DIM C		DIM D	
	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	16.36 [.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
101		102		L. SCHMIDT		DATE	JUL 29, 2010	DATE	
DIVISION		DIVISION CODE		CHKD		DATE		DATE	
DO NOT SCALE DRAWING		SCALE 4/1		TOLERANCES EXCEPT AS NOTED		INCHES			
THIRD ANGLE PROJECTION		INTERPRET PER ASME Y14.5 - 1994		MILLIMETERS		MILLIMETERS			
MAX SURFACE ROUGHNESS 125/		ALL SURFACES		MARKED ONLY		ANGLES $\pm$ 1°			
A 30741		OCT 28, 2010		LDS		SF			
INITIAL RELEASE		DATE		DATE		DATE			
L. SCHMIDT		JUL 29, 2010		S. FELDMAN		AUG 09, 2010			
3M		3M Center St. Paul, MN 55144		© 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.					
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		A		A			
MODEL		LISTS		YES		NO		SHT 4 OF 4	

Mouser Electronics

Authorized Distributor

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3M:

<u>159108-2022</u>	<u>159120-5102</u>	<u>159110-2022</u>	<u>159106-2012</u>	<u>159106-5012</u>	<u>159106-6012</u>	<u>159108-2012</u>	<u>159108-5012</u>
<u>159108-6012</u>	<u>159110-2012</u>	<u>159110-5012</u>	<u>159110-6012</u>	<u>159112-2012</u>	<u>159112-5012</u>	<u>159112-6012</u>	<u>159114-2002</u>
<u>159114-5002</u>	<u>159114-6002</u>	<u>159116-2002</u>	<u>159116-5002</u>	<u>159116-6002</u>	<u>159120-2002</u>	<u>159120-5002</u>	<u>159120-6002</u>
<u>159122-2002</u>	<u>159122-5002</u>	<u>159122-6002</u>	<u>159124-2002</u>	<u>159124-5002</u>	<u>159124-6002</u>	<u>159126-2002</u>	<u>159126-5002</u>
<u>159126-6002</u>	<u>159130-2002</u>	<u>159130-5002</u>	<u>159130-6002</u>	<u>159134-2002</u>	<u>159134-5002</u>	<u>159134-6002</u>	<u>159140-2002</u>
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<u>159206-2012</u>	<u>159206-5012</u>	<u>159206-6012</u>	<u>159208-2012</u>	<u>159208-5012</u>	<u>159208-6012</u>	<u>159210-2012</u>	<u>159210-5012</u>
<u>159210-6012</u>	<u>159212-2012</u>	<u>159212-5012</u>	<u>159212-6012</u>	<u>159214-2002</u>	<u>159214-5002</u>	<u>159214-6002</u>	<u>159216-2002</u>
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<u>159230-6002</u>	<u>159234-2002</u>	<u>159234-5002</u>	<u>159234-6002</u>	<u>159240-2002</u>	<u>159240-5002</u>	<u>159240-6002</u>	<u>159244-2002</u>
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<u>159212-6022</u>	<u>159216-2102</u>	<u>159206-2022</u>	<u>159206-5022</u>				