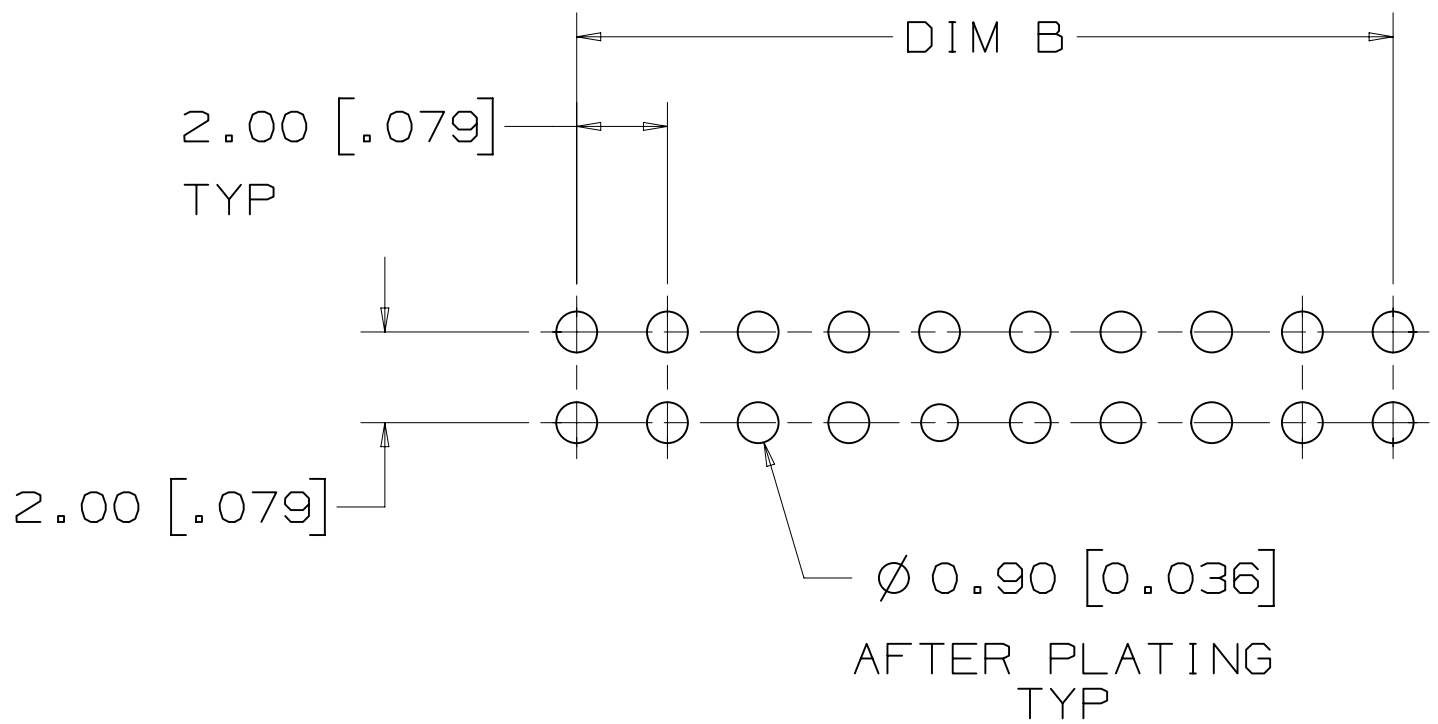
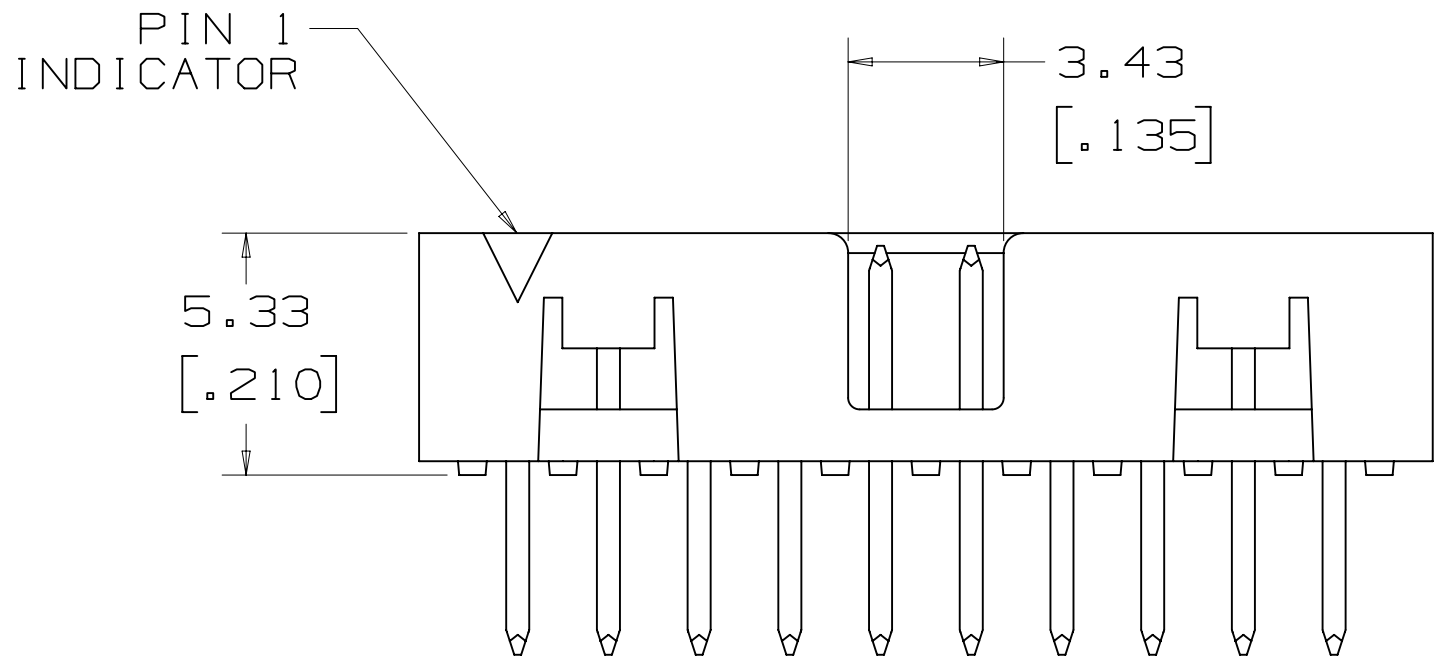
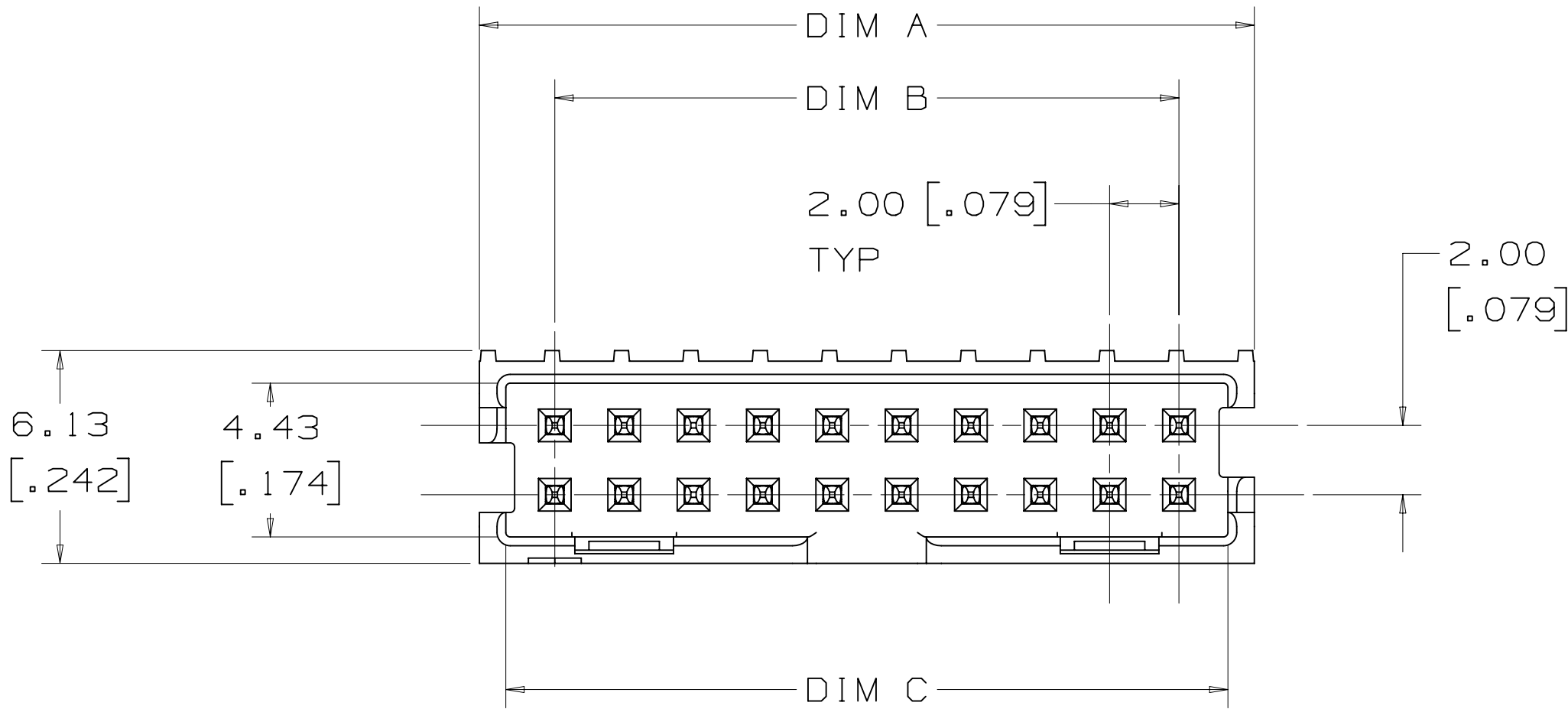
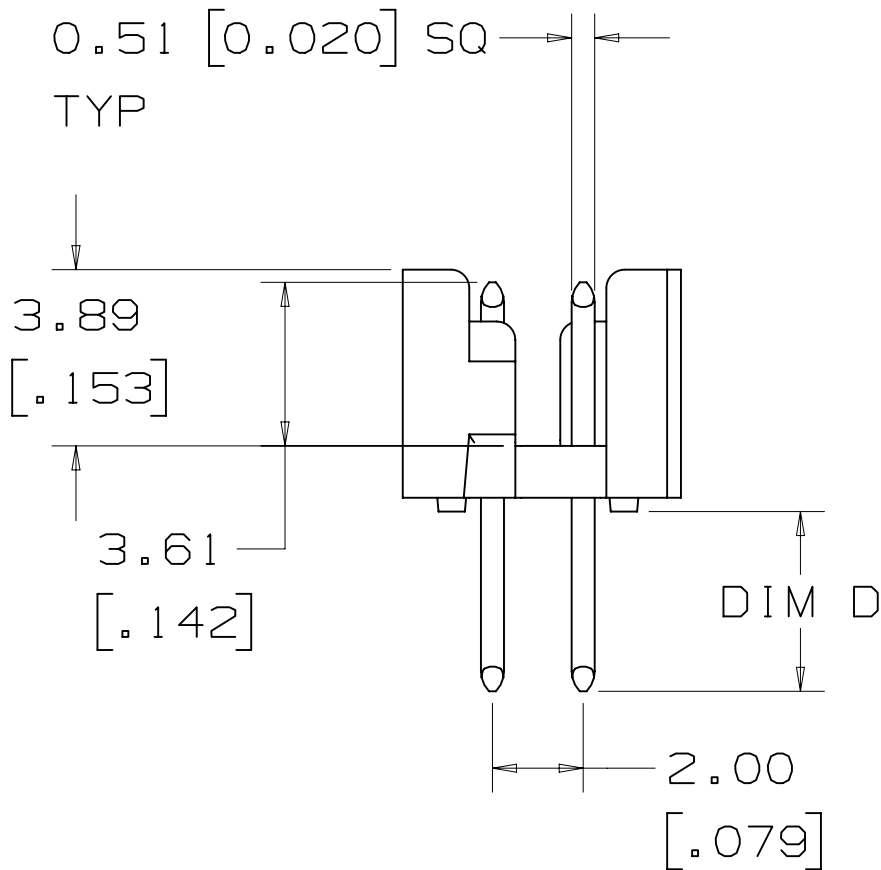
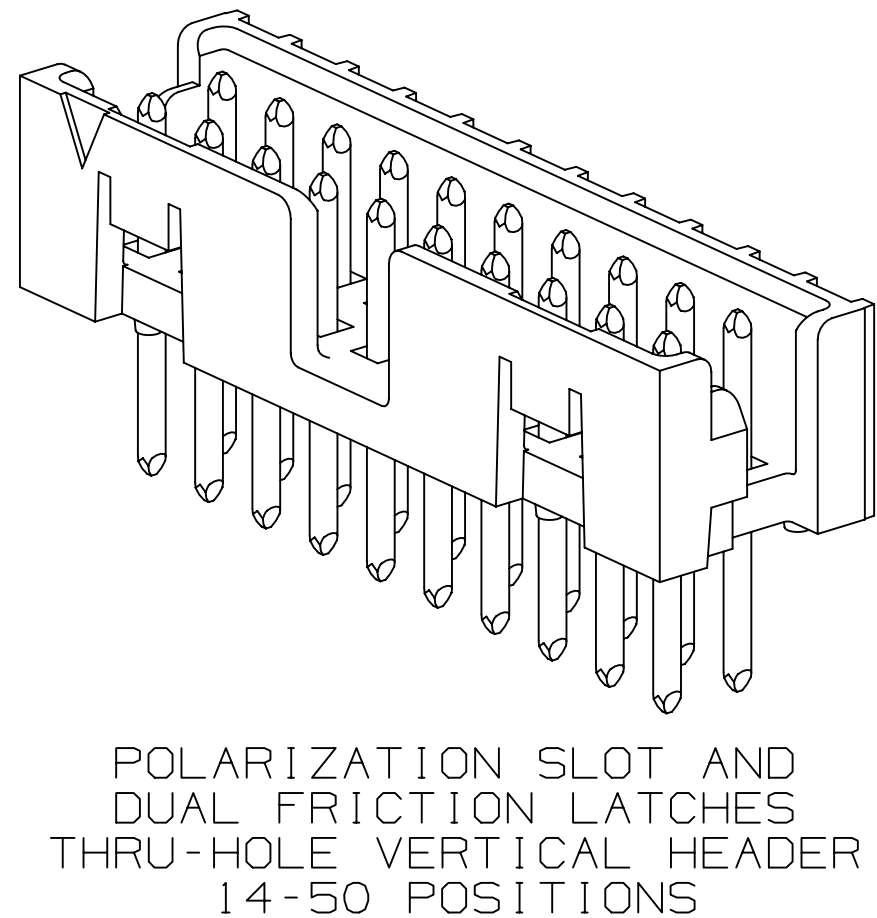
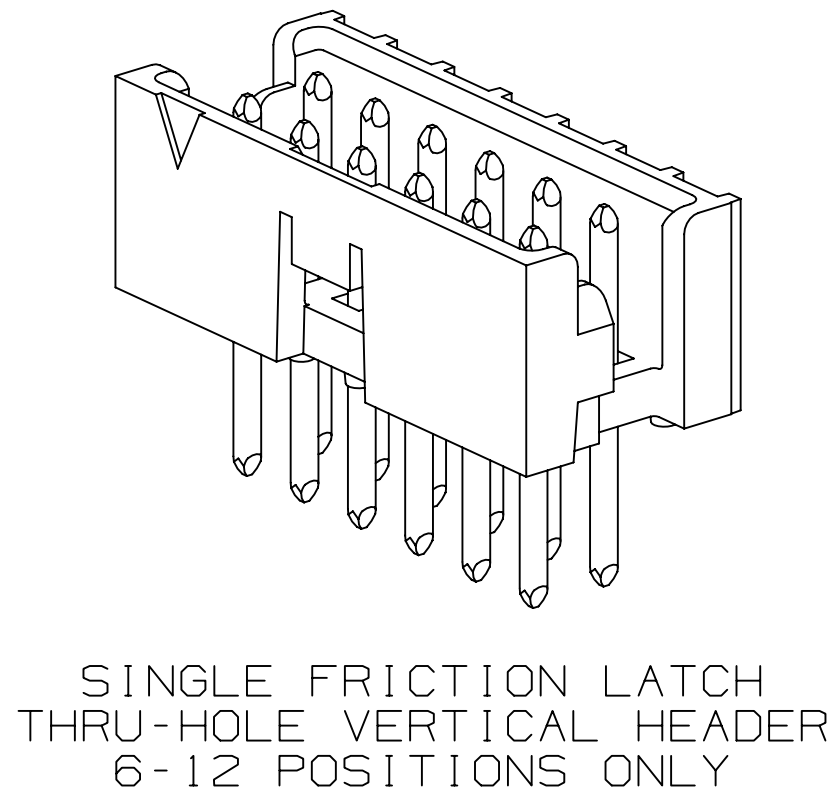
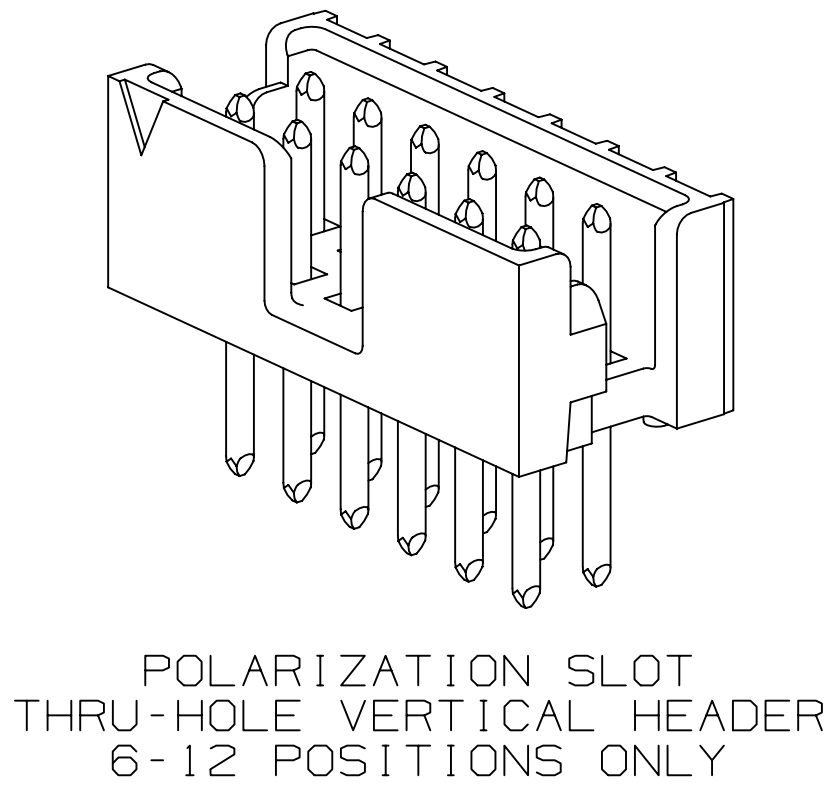


3M™ Shrouded Board Mount Header 2 mm X 2 mm Pitch 159 Series, Standard Length [3] and Extended Length [4]



RECOMMENDED PCB HOLE PATTERN
TOLERANCE = 0.05 [.002]



PERFORMANCE [5] [7]	
CURRENT:	1.25 A, ALL LINES ENERGIZED 2.75 A, 6 LINES ENERGIZED 4.75 A, 1 LINE 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 5
FOR AVAILABLE POSITIONS AND
SOLDER TAIL LENGTHS

METRIC [ENGLISH]

- NOTES
- 1

MATERIAL:
BODY: HIGH TEMPERATURE
GLASS FILLED LCP, BLACK
UL94V-0
CONTACTS: COPPER ALLOY
- 2

PLATING:
2.03-3.81 μ m [80-150 μ in]
NICKEL UNDERPLATE.
0.38 μ m [15 μ in] OR
0.76 μ m [30 μ in] AVG GOLD
ON WIPING AREA.
5.08 μ m [200 μ in] MIN
MATTE TIN ON SOLDER TAILS.
- 3

STANDARD LENGTH HEADERS
MATE WITH 3M™ SOCKETS,
158 SERIES (REFERENCE 3M
DRAWING 78-5100-2358-9).
- 4


EXTENDED LENGTH HEADERS
MATE WITH 3M™ SOCKETS,
870 SERIES.
- 5

FOR PRODUCT
SPECIFICATIONS AND
WARRANTY INFORMATION SEE
3M 78-5102-0078-1.
- 6

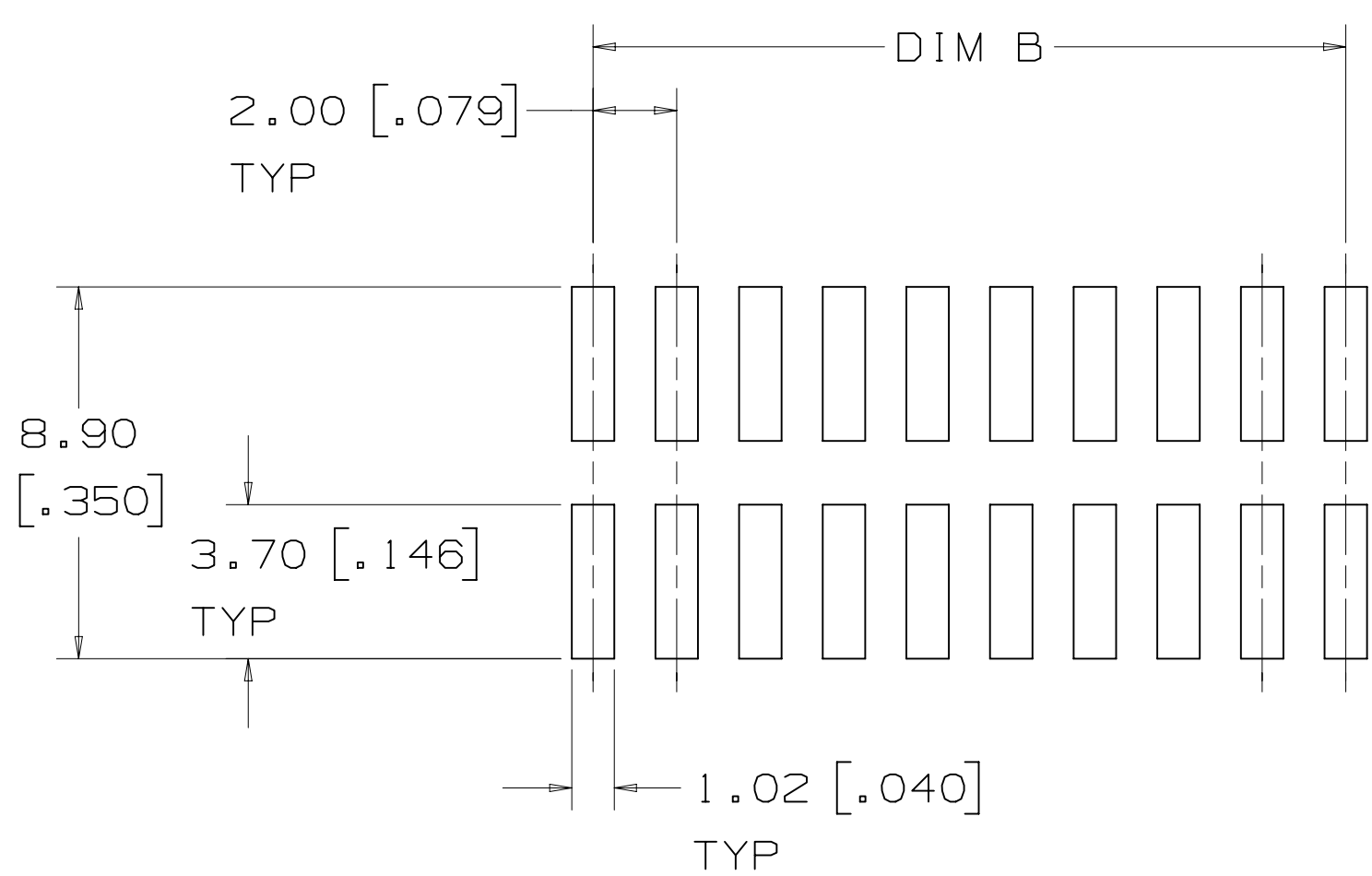
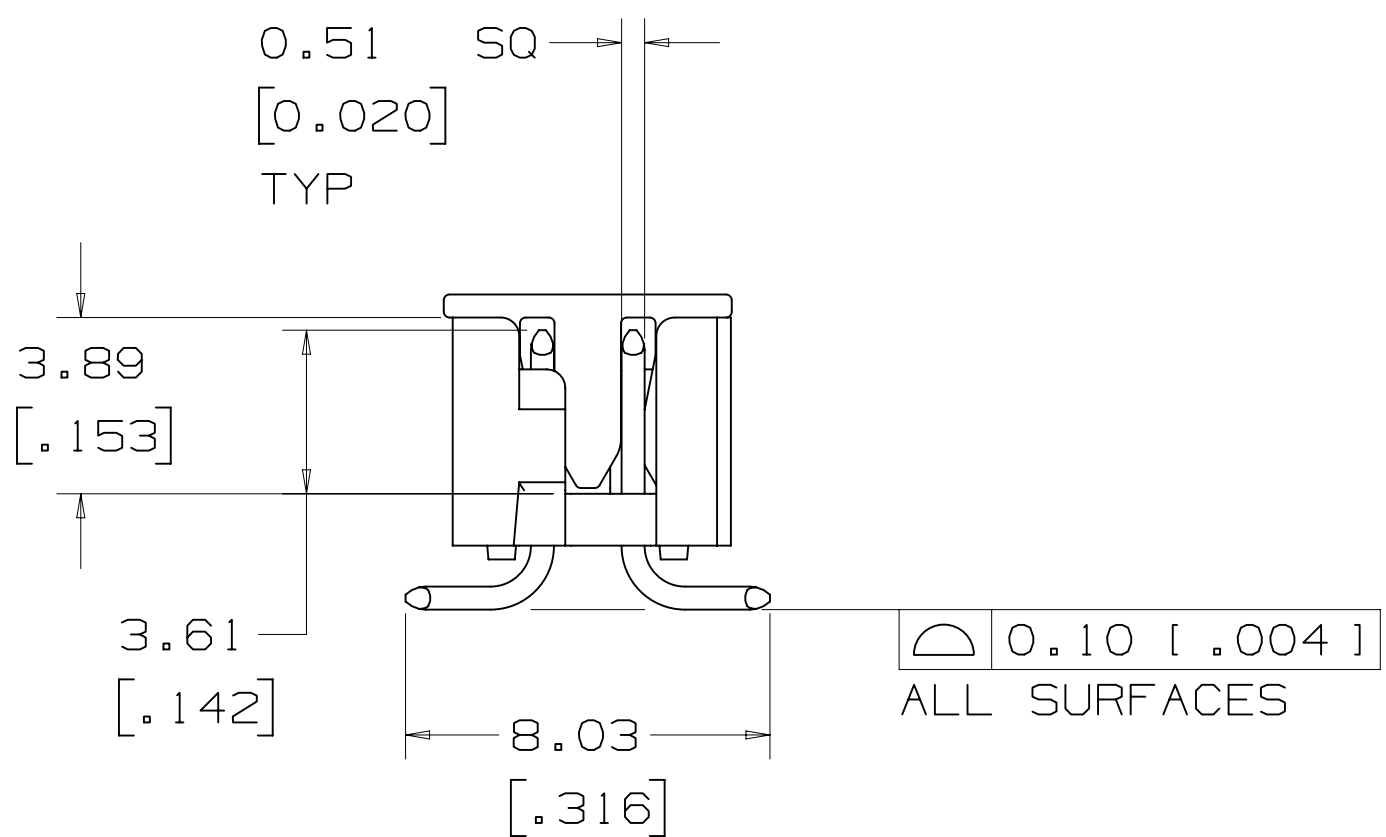
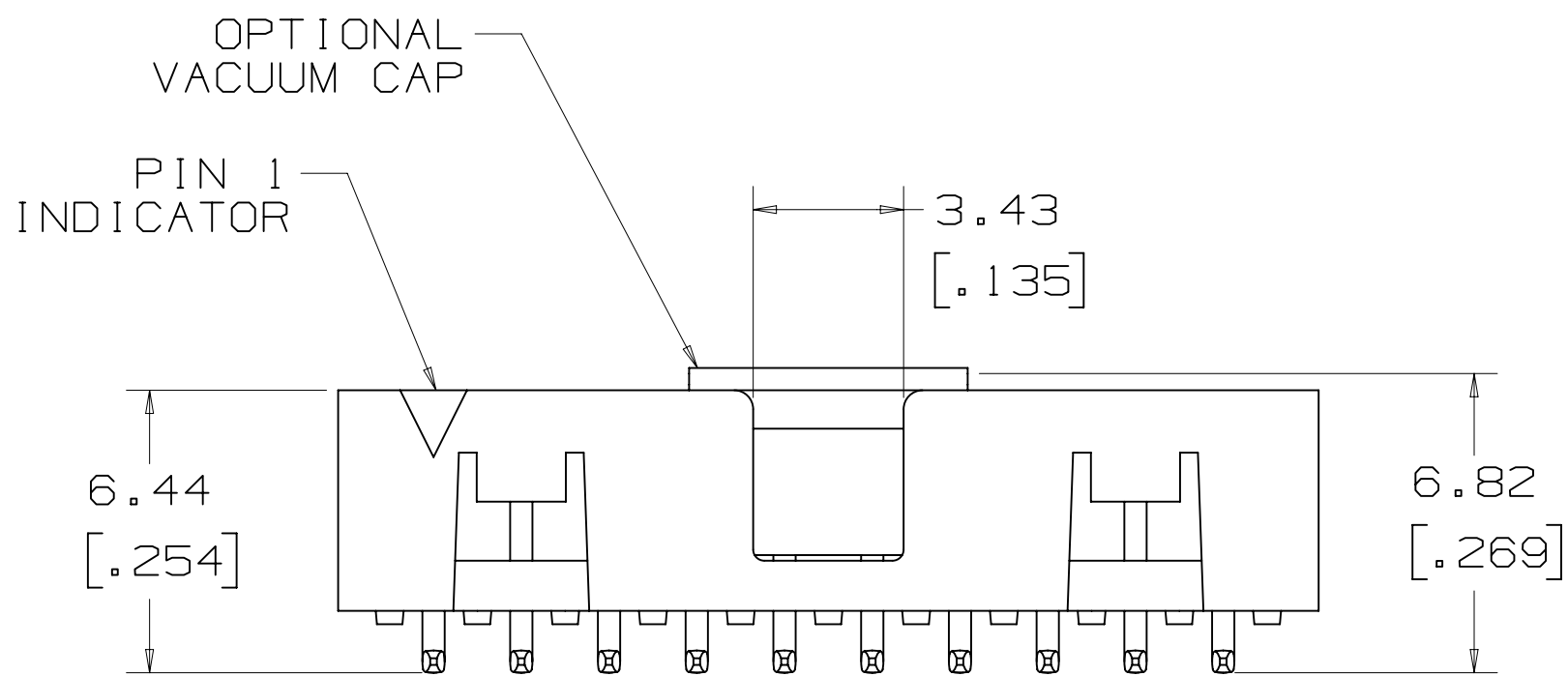
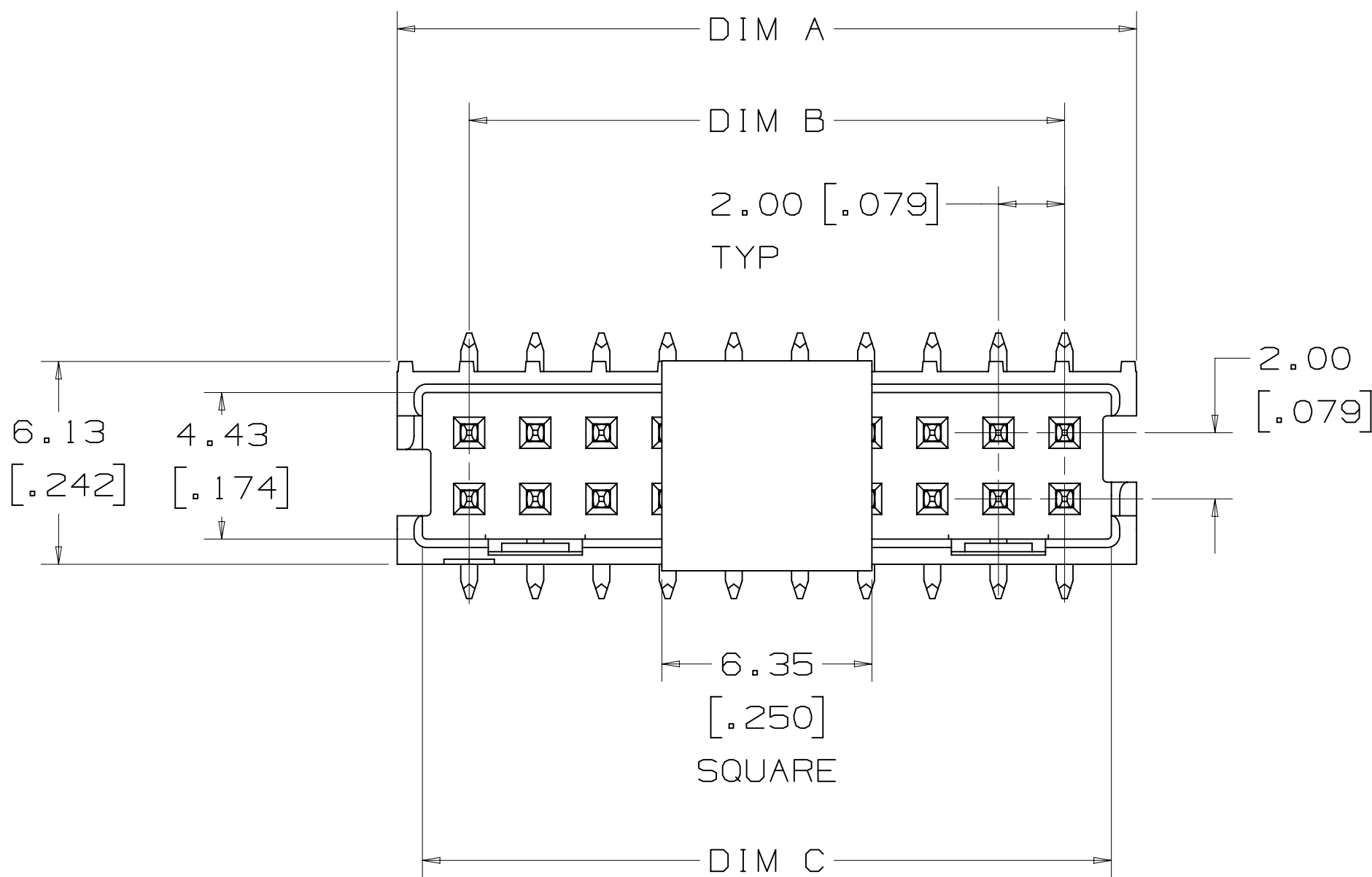
SEE THE REGULATORY
INFORMATION APPENDIX (RIA)
IN THE "RoHS COMPLIANCE"
SECTION OF
WWW.3MCONNECTOR.COM FOR
COMPLIANCE INFORMATION
(RIA E1 & C1 APPLY).
- 7

IN THE EVENT OF CONFLICT
BETWEEN THIS DATA AND
THAT CONTAINED IN THE
PRODUCT SPECIFICATION,
THE PRODUCT SPECIFICATION
TAKES PRECEDENT.

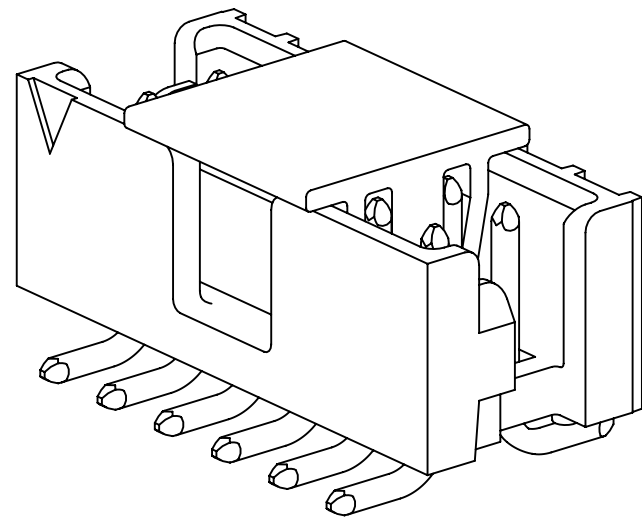
D	41488	JUN 20,2012 REVISED CURRENT RATING IN PERFORMANCE TABLE	LDS	SAN
C	39876	APR 18,2012 REMOVED 32 POS FROM TABLE ON SHT 5	LDS	SAN
B	34080	MAY 18,2011 ADDED 6.19 DIM ON SHT 2; REVISED & MOVED TABLE TO SHT 5	LDS	SF
A	30741	OCT 28,2010 INITIAL RELEASE	LDS	SF
REV	ECO	ISSUE DATE AND DESCRIPTION	DRFT	CHKD
DRP	L. SCHMIDT	DATE JUL 29,2010	MFG	DATE
CHKD		DATE	APPRV	DATE
			S FELDMAN	AUG 09,2010

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	TITLE 3M SHROUDED BOARD MOUNT HEADER 2 MM X 2 MM PITCH 159 SERIES				
	CAGE NUMBER	SIZE	DRAWING NO. 78-5100-2359-7		REV. D
	MODEL	DET. LISTS <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO SHT 1 OF 5			

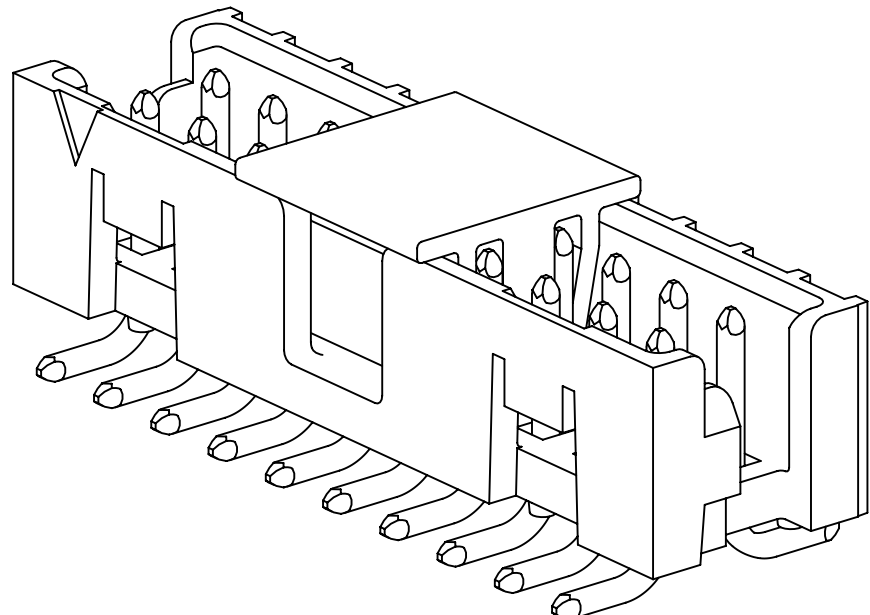
3M™ Shrouded Board Mount Header 2 mm X 2 mm Pitch 159 Series, Standard Length 3 and Extended Length 4



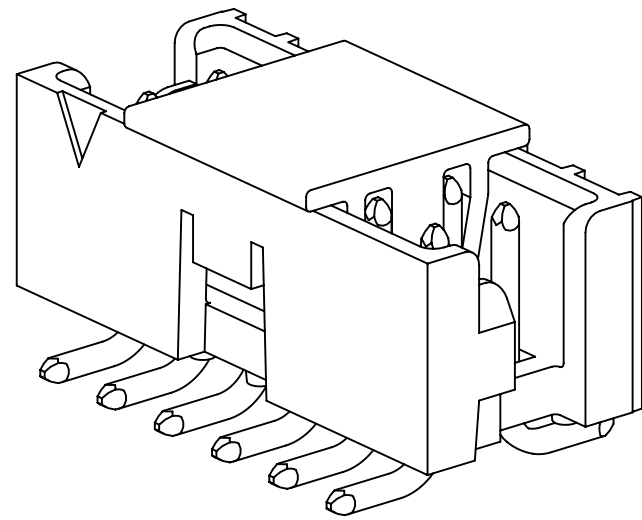
RECOMMENDED PCB PAD PATTERN
TOLERANCE = ±0.08 [0.003]



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

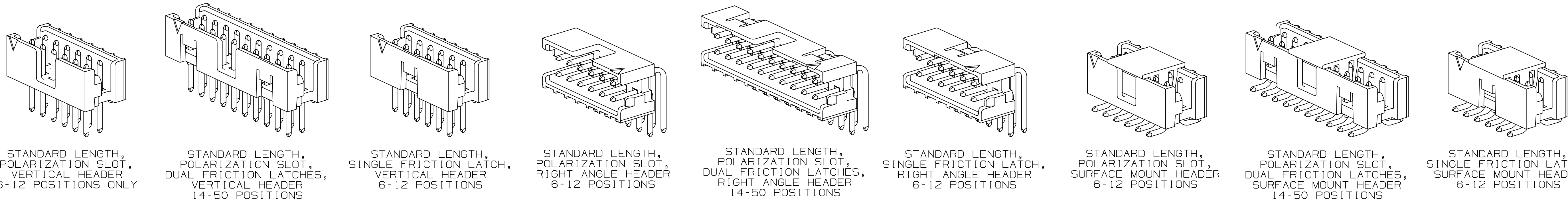
REFERENCE TABLE ON SHEET 5
FOR AVAILABLE POSITIONS

METRIC [ENGLISH]

DESIGN REFERENCE		NEXT ASSEMBLY		REV	ECO	ISSUE DATE AND DESCRIPTION		DRFT	CHKD
DIST. REF. CODES		DIST. REF. CODES		L. SCHMIDT		DATE	MFG	DATE	
DIVISION		DIVISION CODE		CHKD		DATE	APPR	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		ALL SURFACES		MARKED ONLY		ANGLES ±1°			
CAGE NUMBER		SIZE		DRAWING NO.		REV.			
125		D		78-5100-2359-7		SHT 3 OF 5			

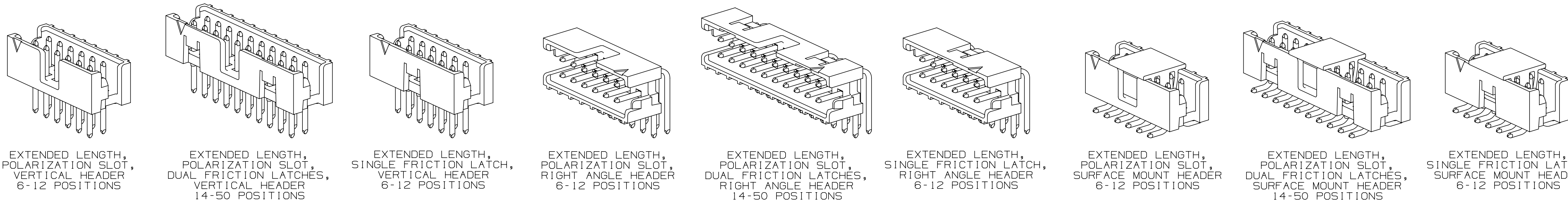
3M™ Shrouded Board Mount Header 2 mm X 2 mm Pitch 159 Series, Standard Length 3

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)

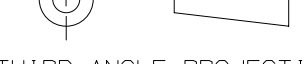
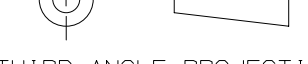
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(MATES TO 158 SERIES)
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(MATES TO 870 SERIES)

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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)

METRIC [ENGLISH]

DESIGN REFERENCE		NEXT ASSEMBLY		REV	ECO	ISSUE DATE AND DESCRIPTION		DRFT	CHKD
DISTRIBUTION CODES				DRFT	L. SCHMIDT	DATE	JUL 29, 2010	MFG	DATE
				CHKD		DATE		APPROV	DATE
								S. FELDMAN	AUG 09, 2010
DIVISION		DIVISION CODE		© 3M COPYRIGHT 2010					
DO NOT SCALE DRAWING		SCALE 4 1		TOLERANCES EXCEPT AS NOTED		This document and the information it contains are 3M property and may not be reproduced or further distributed without the express permission, or used or disclosed other than for 3M authorized purposes. All rights reserved.			
				INCHES +0.00 -0.00 +0.00 -0.00		TITLE 3M SHROUDED BOARD MOUNT HEADER 2 MM X 2 MM PITCH 159 SERIES			
THIRD ANGLE PROJECTION				MILLIMETERS +0.00 -0.00 +0.13 -0.00		CAGE NUMBER		DRAWING NO.	
INTERPRET PER ASME Y14.5 - 1994				ANGLES ± 1°		D 78-5100-2359-7		REV. D	
MAX SURFACE ROUGHNESS						MODEL		DET. LISTS	
125		<input type="checkbox"/> ALL SURFACES						<input checked="" type="checkbox"/> YES <input checked="" type="checkbox"/> NO	
<input checked="" type="checkbox"/> MARKED ONLY								SHT 4 OF 6	

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

3

 and Extended Length

4

SHROUDED BOX HEADER							
NUMBER OF POSITIONS	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	16.35 [.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]

D	41488	JUN 20,2012 REVISED CURRENT RATING IN PERFORMANCE TABLE	LDS	SAN
C	39876	APR 18,2012 REMOVED 32 POS FROM TABLE ON SHT 5	LDS	SAN
B	34080	MAY 18,2011 ADDED 6.19 DIM ON SHT 2; REVISED & MOVED TABLE TO SHT 5	LDS	SF
A	30741	OCT 28,2010 INITIAL RELEASE	LDS	SF
REV	ECO	ISSUE DATE AND DESCRIPTION	DRFT	CHKD
DRP	L. SCHMIDT	DATE JUL 29,2010	MFG	DATE
CHKD		DATE	APPRV	DATE
			S FELDMAN	AUG 09,2010
DIVISION		DIVISION CODE		
DO NOT SCALE DRAWING		SCALE 1 1		TOLERANCES EXCEPT AS NOTED
THIRD ANGLE PROJECTION		INCHES 0 ± .00 ± .002 ± .000		MILLIMETERS 0 ± .0 ± .00 ± .013
MAX SURFACE ROUGHNESS 125 ✓ □ ALL SURFACES ✗ MARKED ONLY		CAGE NUMBER D 78-5100-2359-7		REV. D
		MODEL		DET LISTS YES NO SHT 5 OF 5

3M

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St. Paul,
MN 55144

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