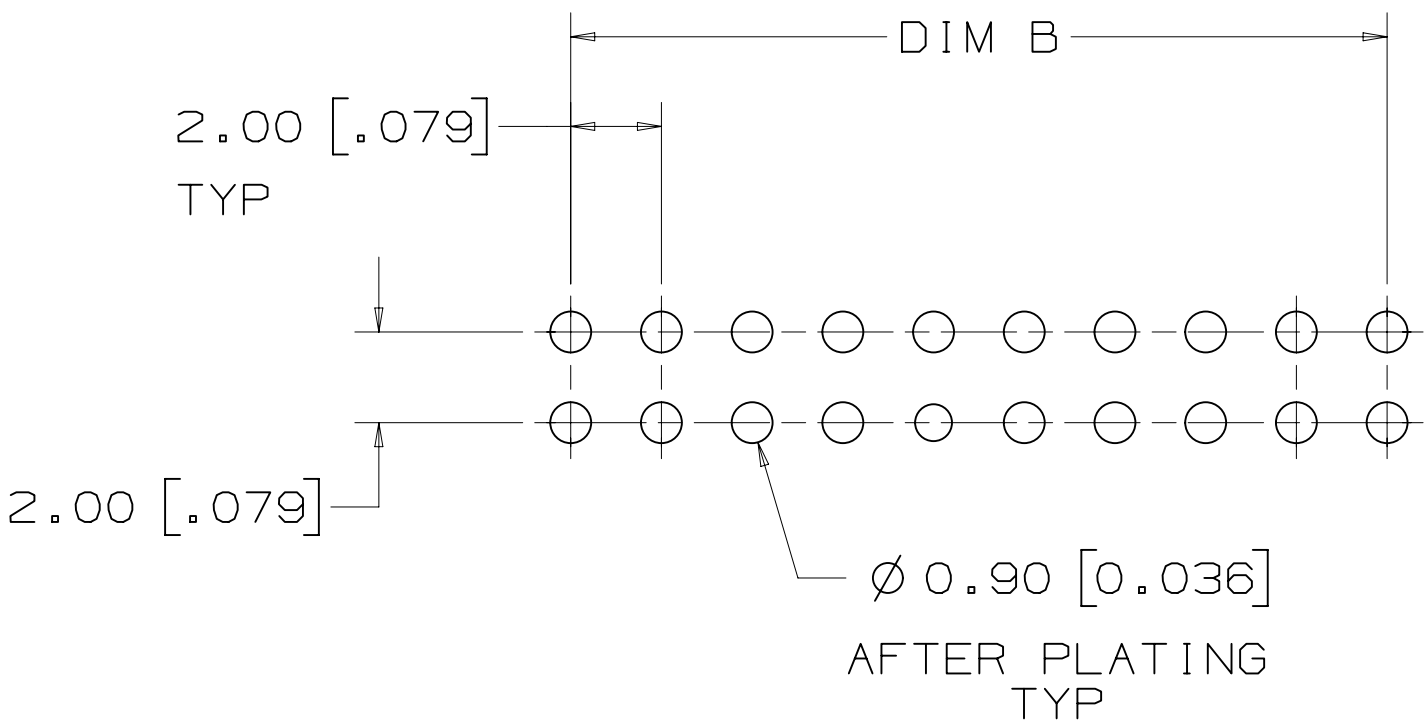
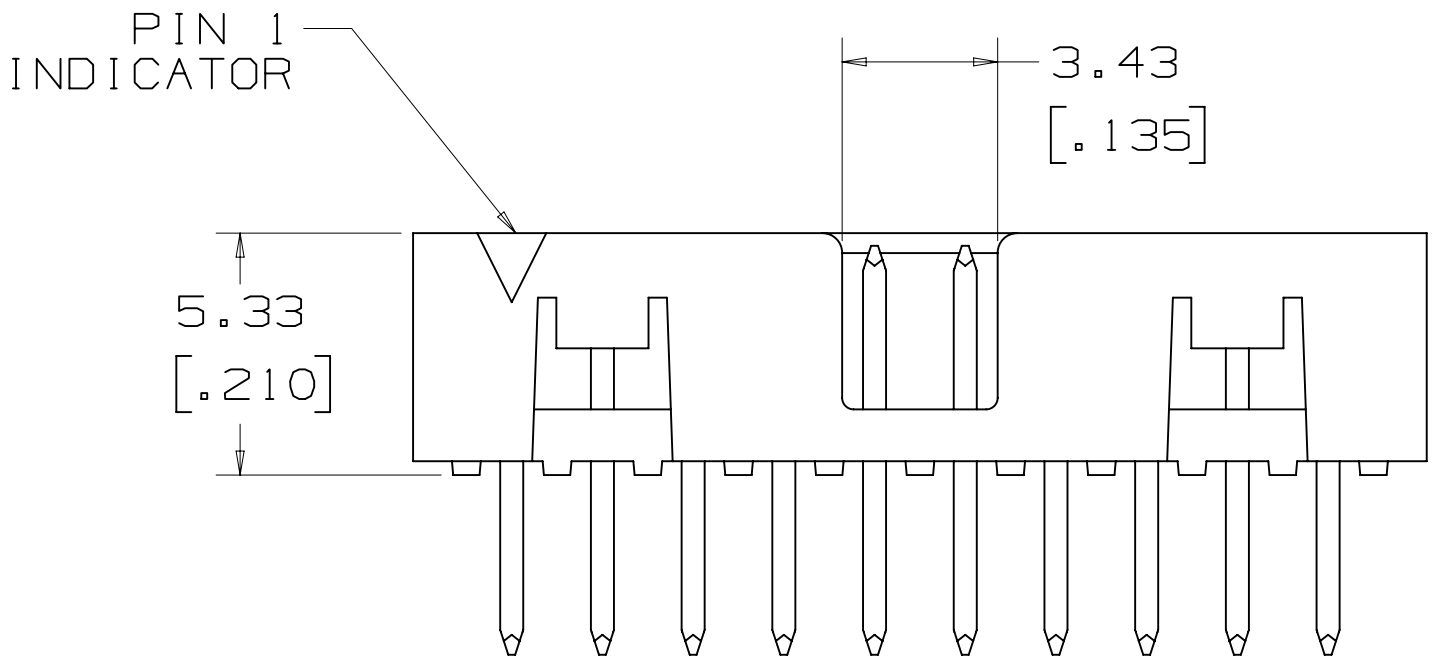
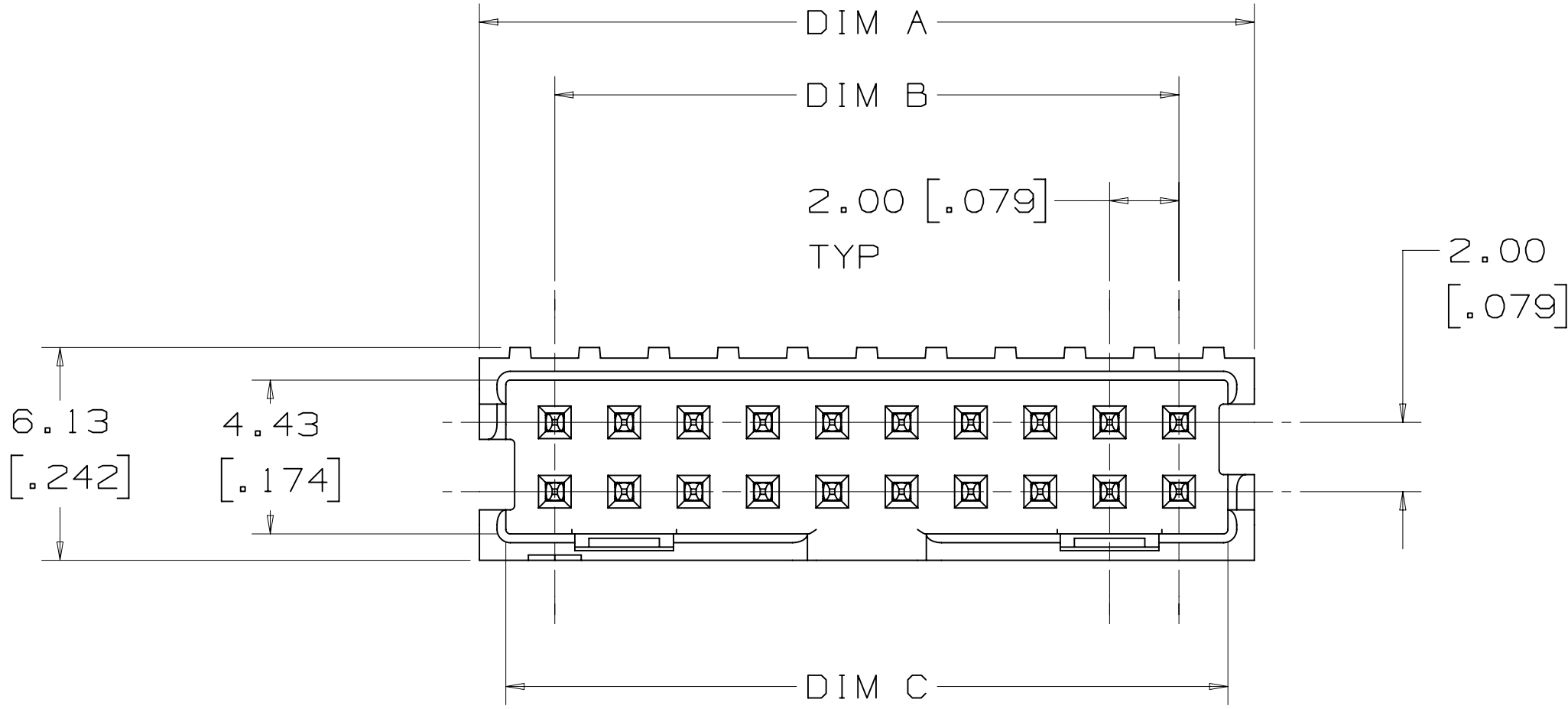
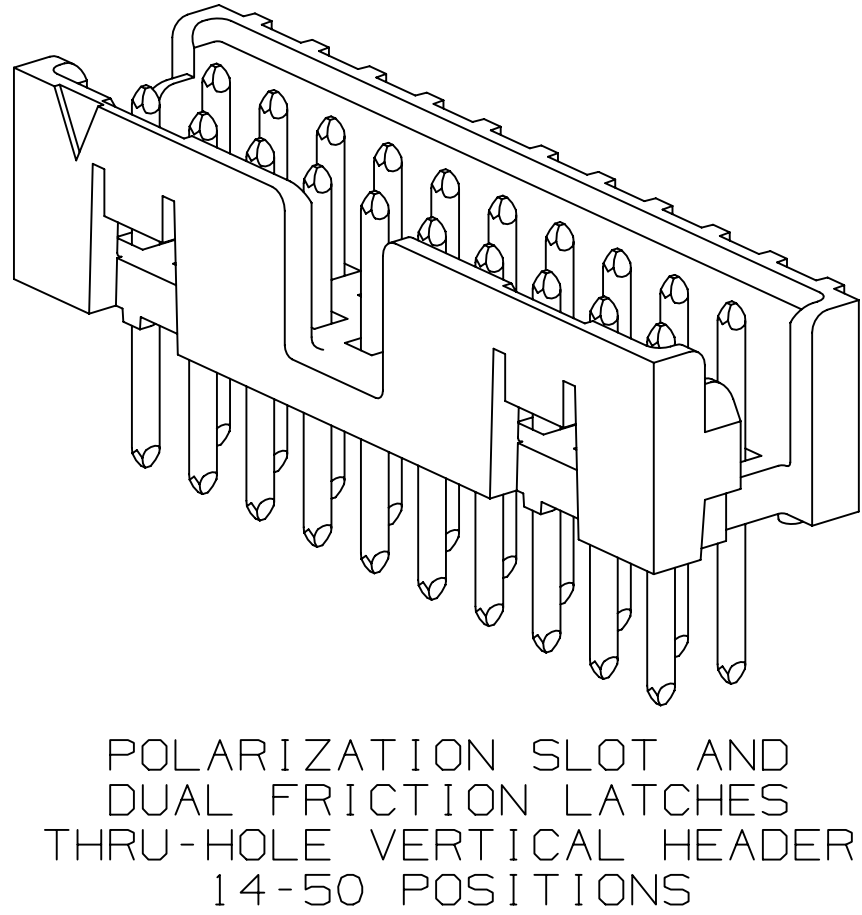
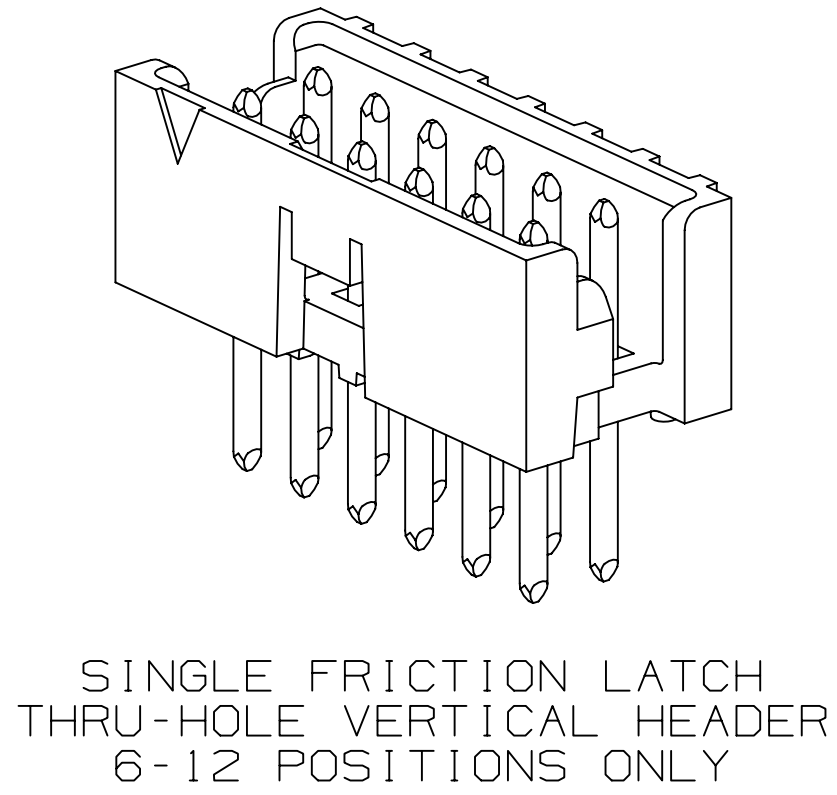
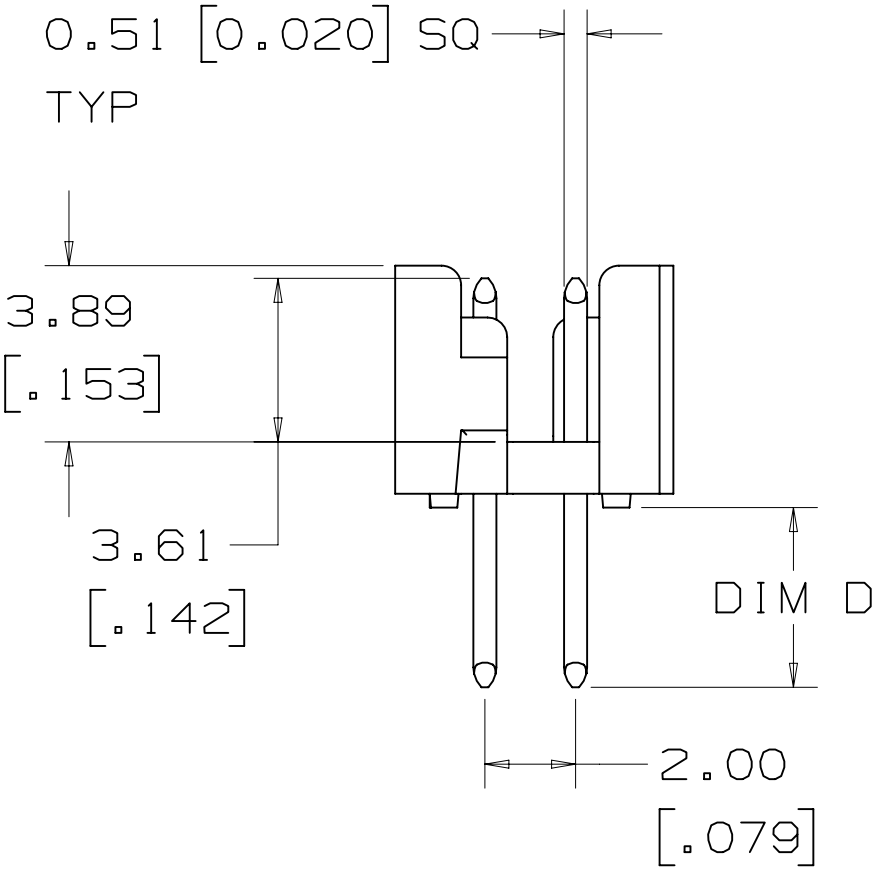
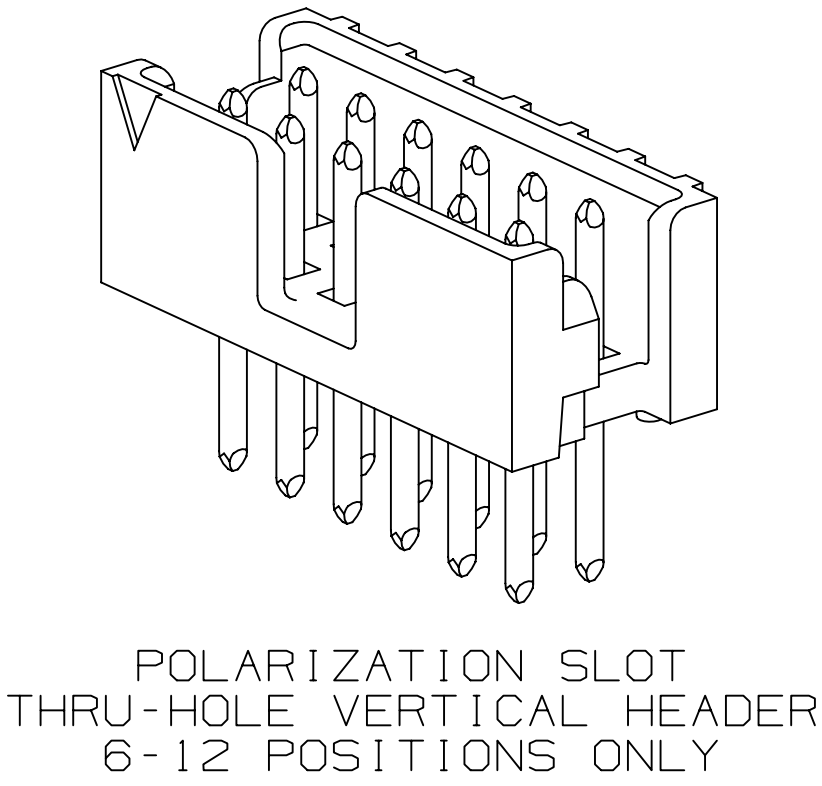


3M™ Shrouded Board Mount Header 2 mm X 2 mm Pitch 159 Series, Standard Length [3] and Extended Length [4]



RECOMMENDED PCB HOLE PATTERN
TOLERANCE = 0.05 [.002]



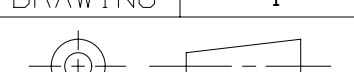
PERFORMANCE [5] [7]

CURRENT:	1A, 6 LINES ENERGIZED
INSULATION RESISTANCE:	>1 X 10 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

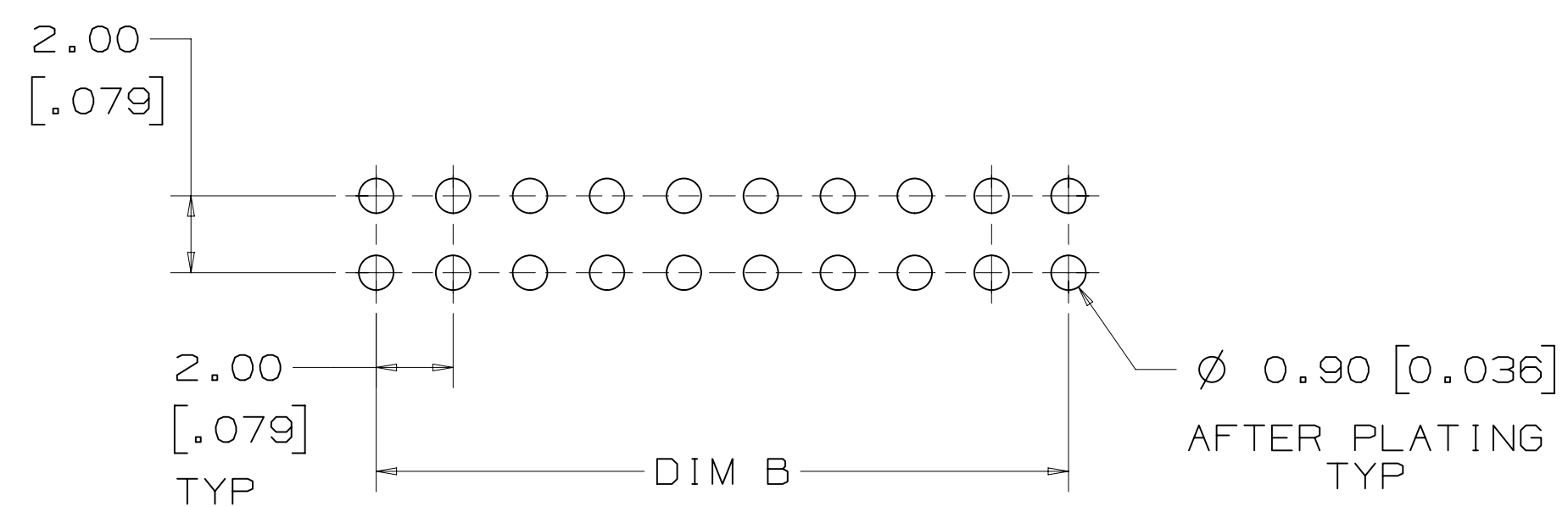
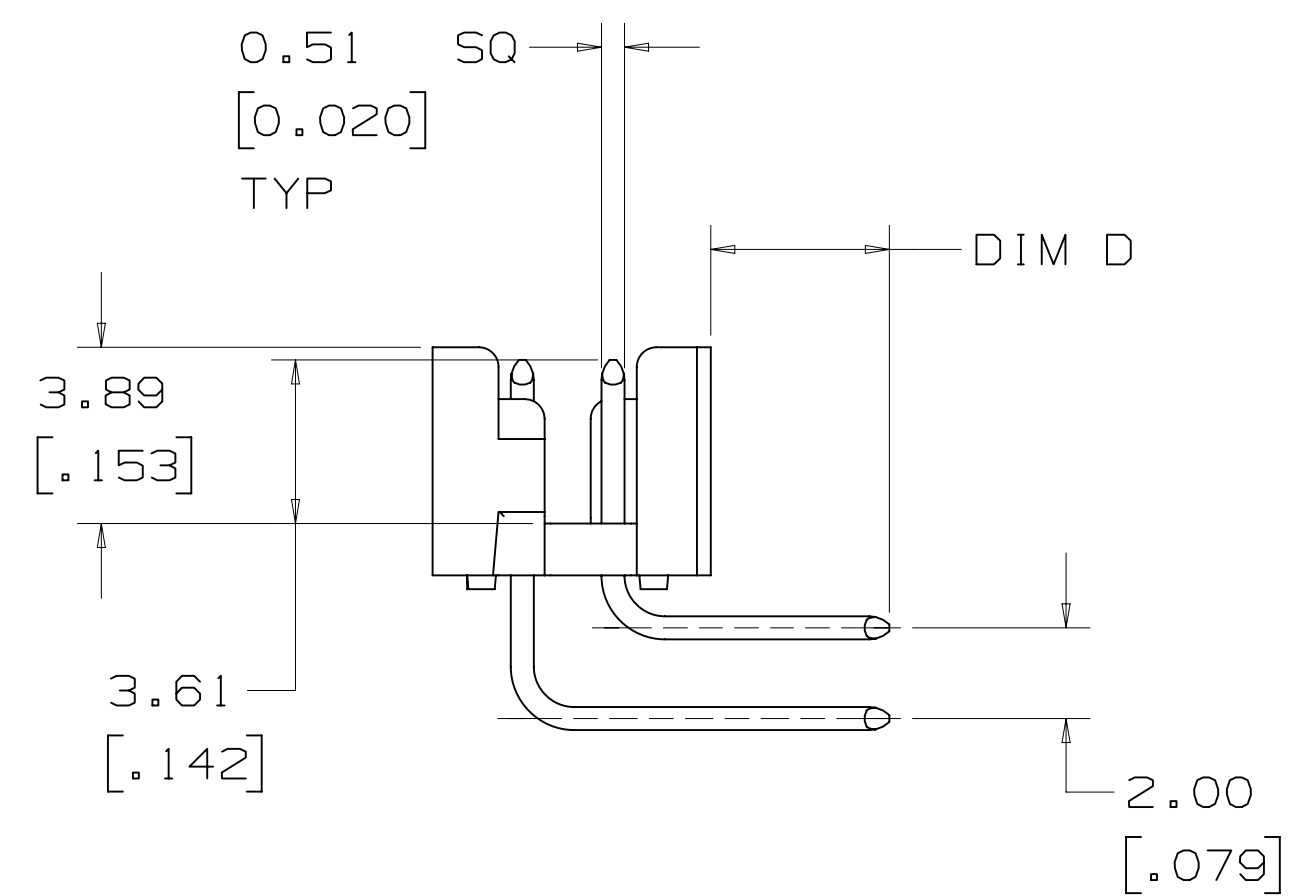
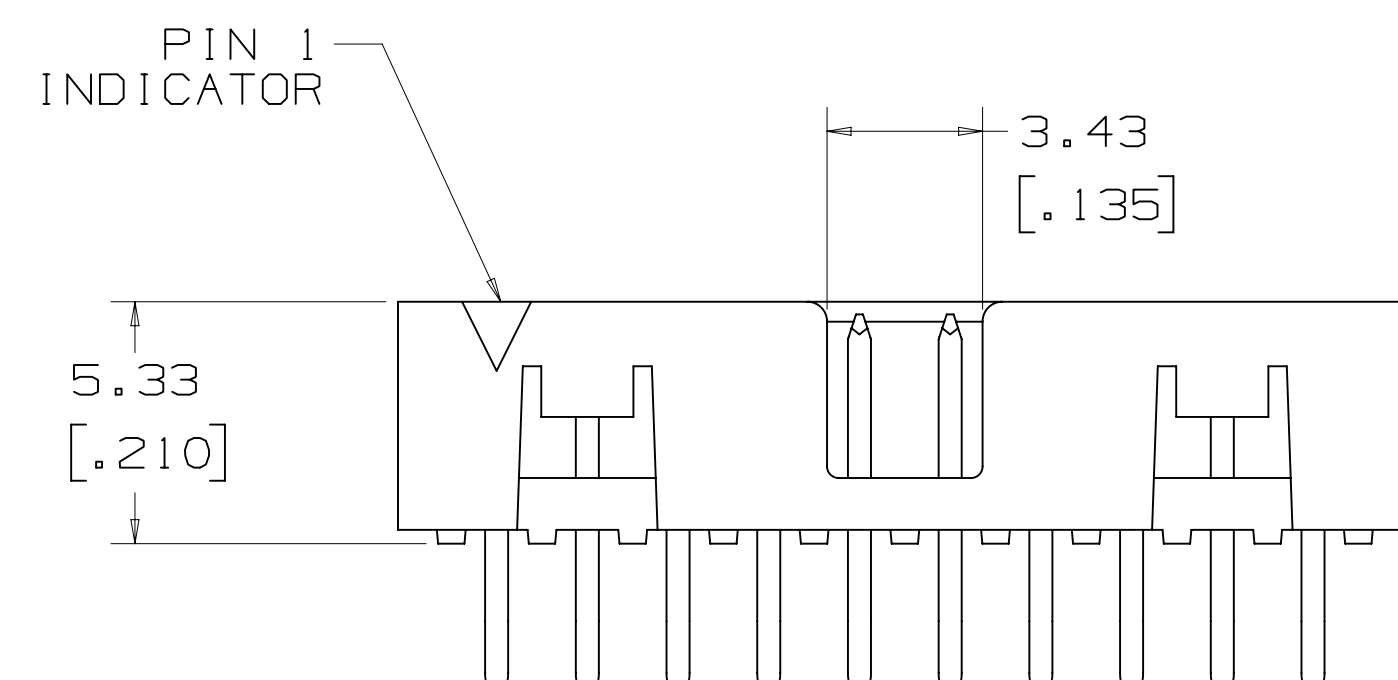
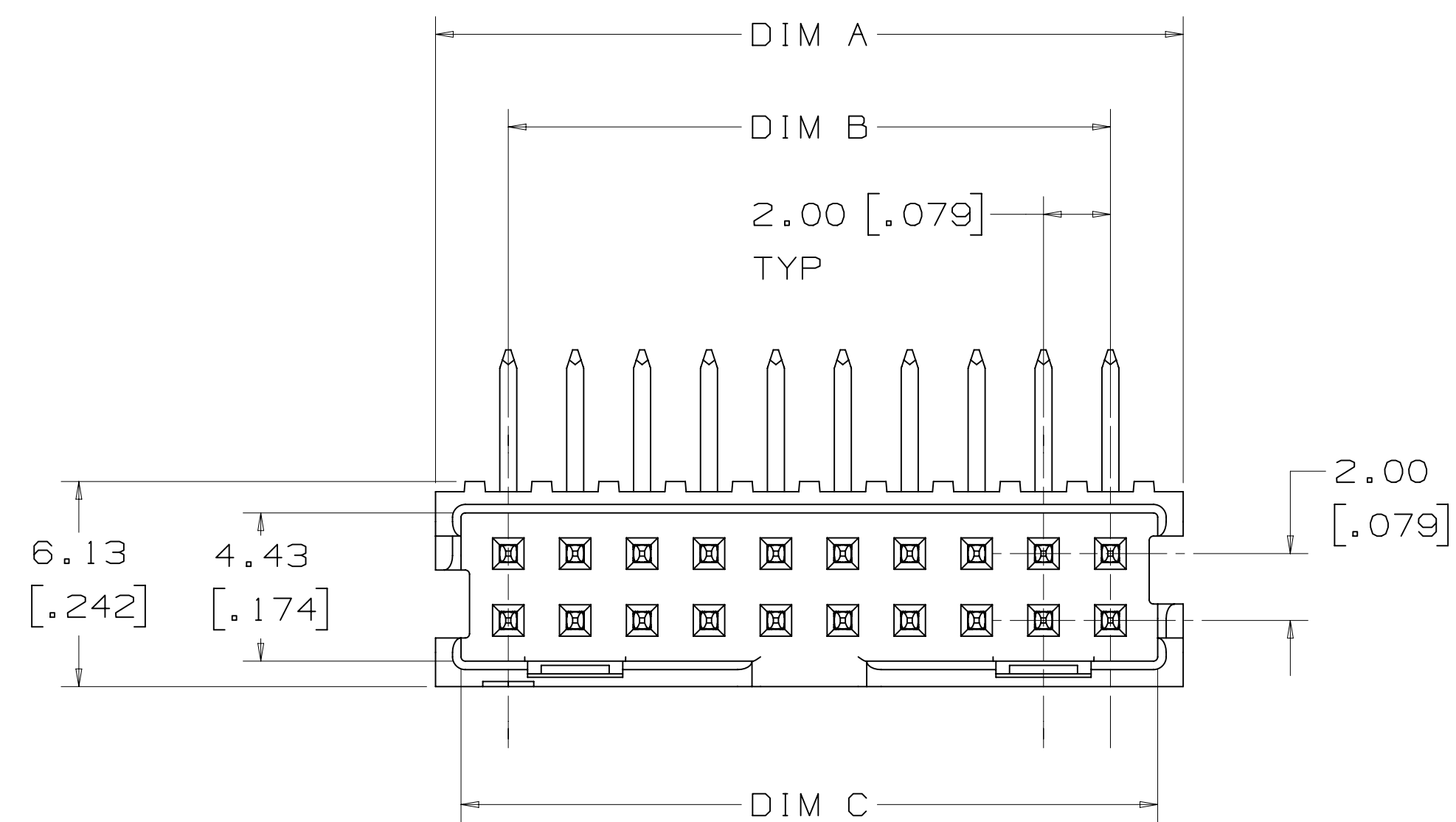
REFERENCE TABLE ON SHEET 4
FOR AVAILABLE POSITIONS AND
SOLDER TAIL LENGTHS

METRIC [ENGLISH]

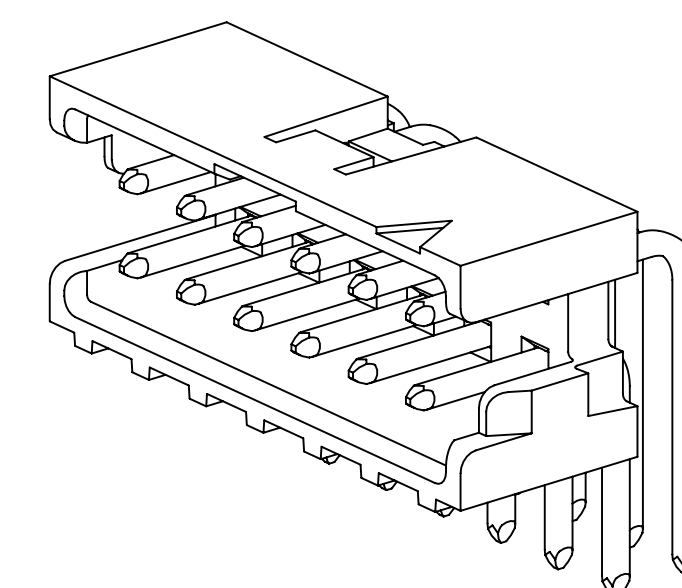
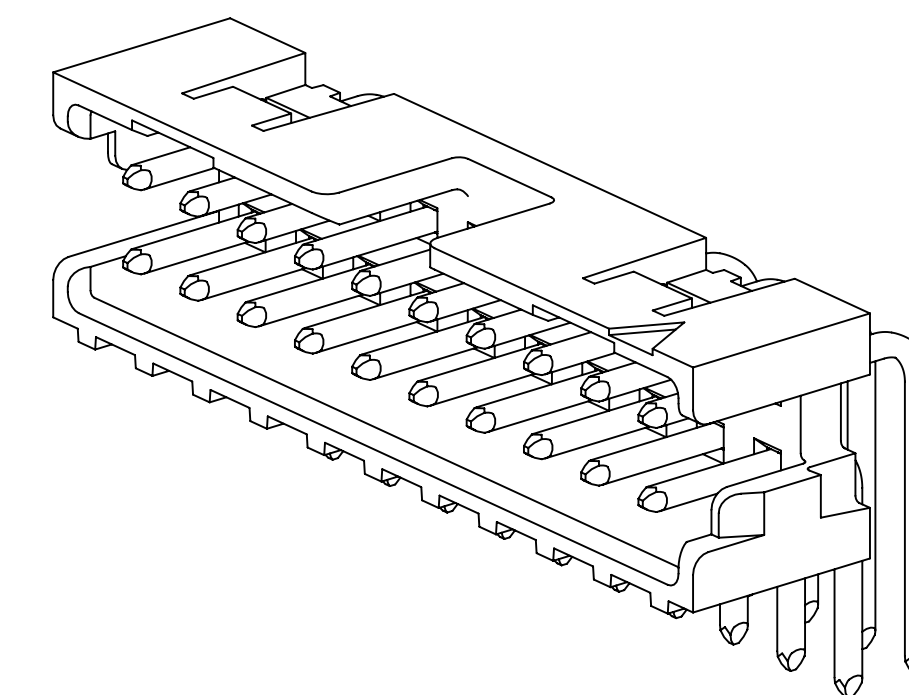
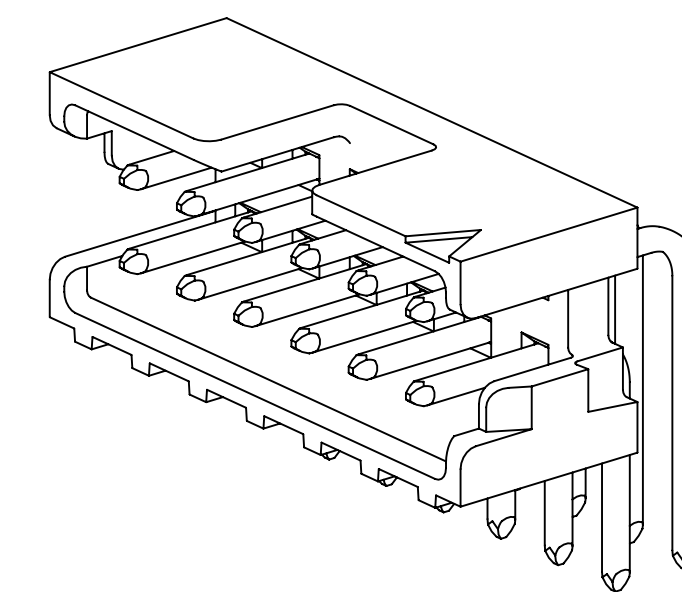
- NOTES
- MATERIAL:
BODY: HIGH TEMPERATURE
GLASS FILLED LCP, BLACK
UL94V-0
CONTACTS: COPPER ALLOY
 - PLATING:
2.03-3.81 μ m [80-150 μ in]
NICKEL UNDERPLATE.
0.38 μ m [15 μ in] OR
0.76 μ m [30 μ in] AVG GOLD
ON WIPING AREA.
5.08 μ m [200 μ in] MIN
MATTE TIN ON SOLDER TAILS.
 - STANDARD LENGTH HEADERS
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.

A				30741		OCT 28, 2010				LDS		SF					
DESIGN REFERENCE						NEXT ASSEMBLY						INITIAL RELEASE					
REV				ECO		ISSUE DATE AND DESCRIPTION						DRFT		CHKD			
DRFT				L. SCHMIDT		DATE				JUL 29, 2010		MFG		DATE			
CHKD						DATE						APPR		DATE			
												S FELDMAN		AUG 09, 2010			
DIVISION				DIVISION CODE		© 3M COPYRIGHT 2010				3M Center St. Paul, MN 55144				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 sales purposes. All rights reserved.			
DO NOT SCALE DRAWING				SCALE 6 1		TOLERANCES EXCEPT AS NOTED				TITLE				3M SHROUDED BOARD MOUNT HEADER 2 MM X 2 MM PITCH 159 SERIES			
				INCHES ±.0005		THIRD ANGLE PROJECTION				CAGE NUMBER				SIZE			
INTERPRET PER ASME Y14.5 - 1994				MILLIMETERS ±.002		MAX SURFACE ROUGHNESS 125 / ALL SURFACES MARKED ONLY				DRAWING NO.				REV.			
MAX SURFACE ROUGHNESS 125 / ALL SURFACES MARKED ONLY				±.002		±.002				D78-5100-2359-7				A			
ANGLES ±1°										DET.				LISTS			
										YES				NO			
										SHT				1 OF			

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

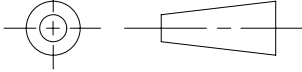
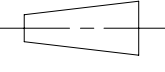


RECOMMENDED PCB HOLE PATTERN
TOLERANCE = ± 0.05 [.002]

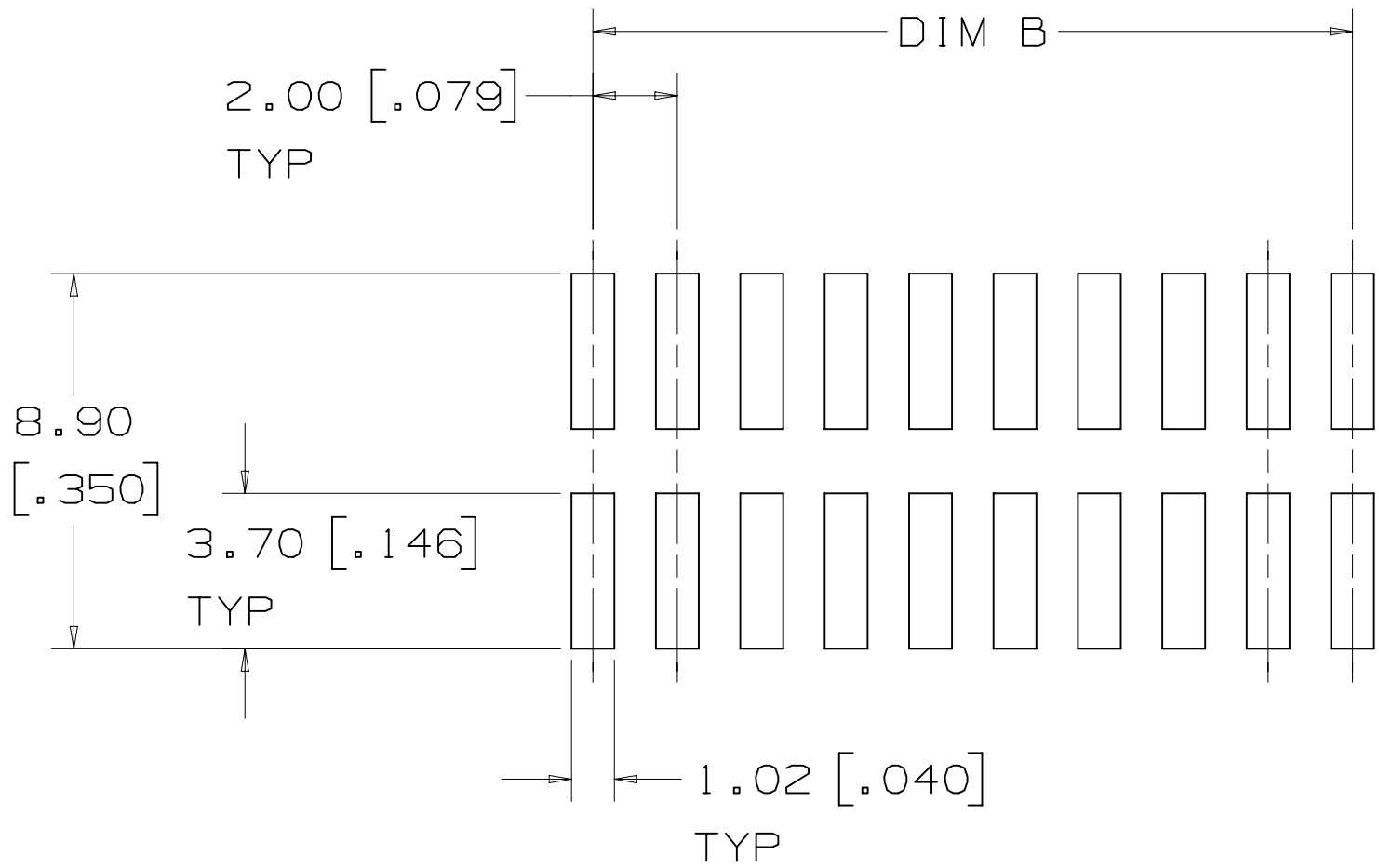
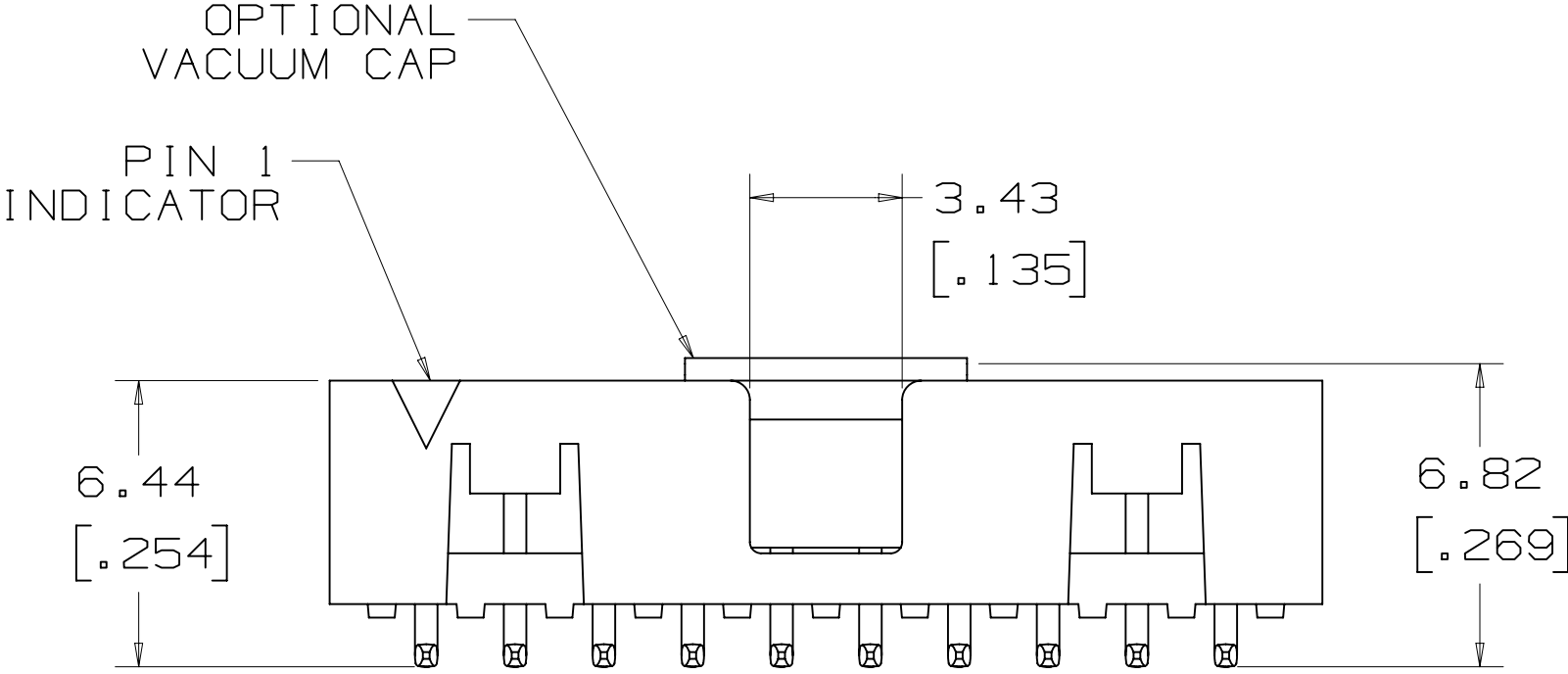
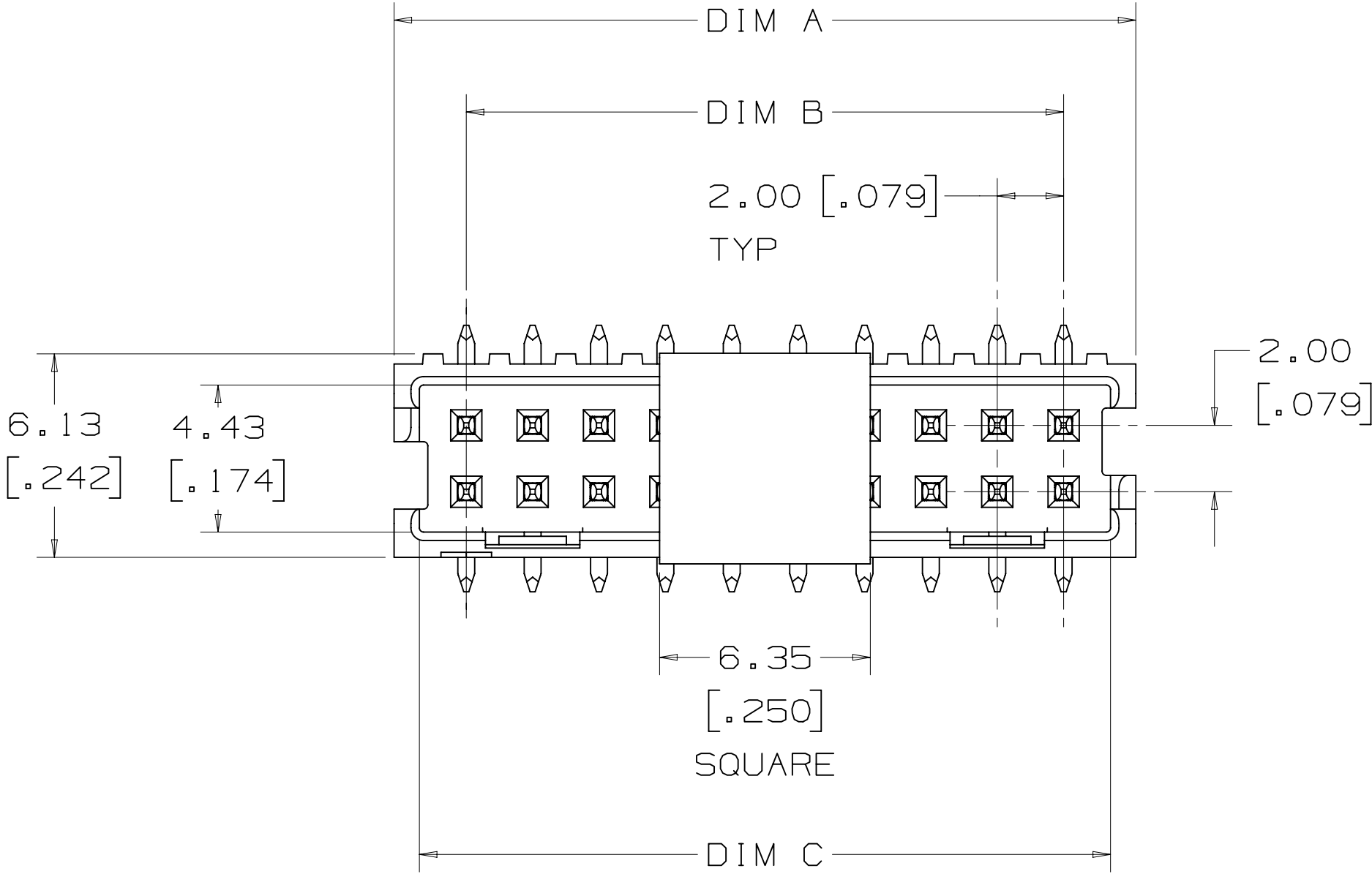


REFERENCE TABLE ON SHEET 4
FOR AVAILABLE POSITIONS AND
SOLDER TAIL LENGTHS

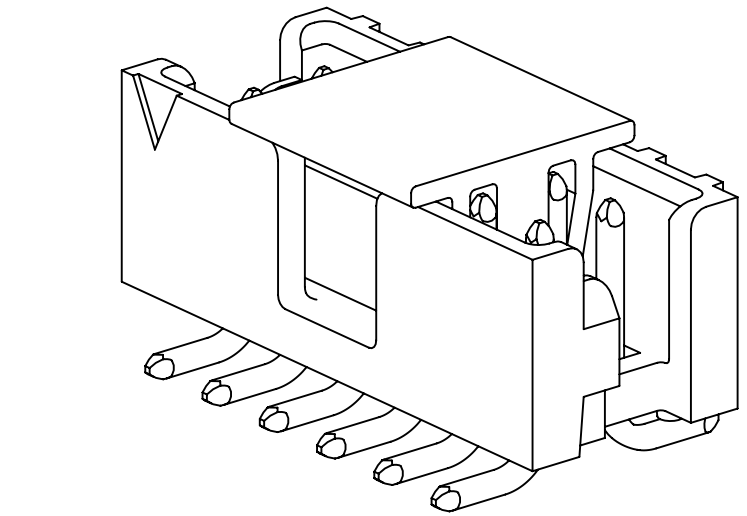
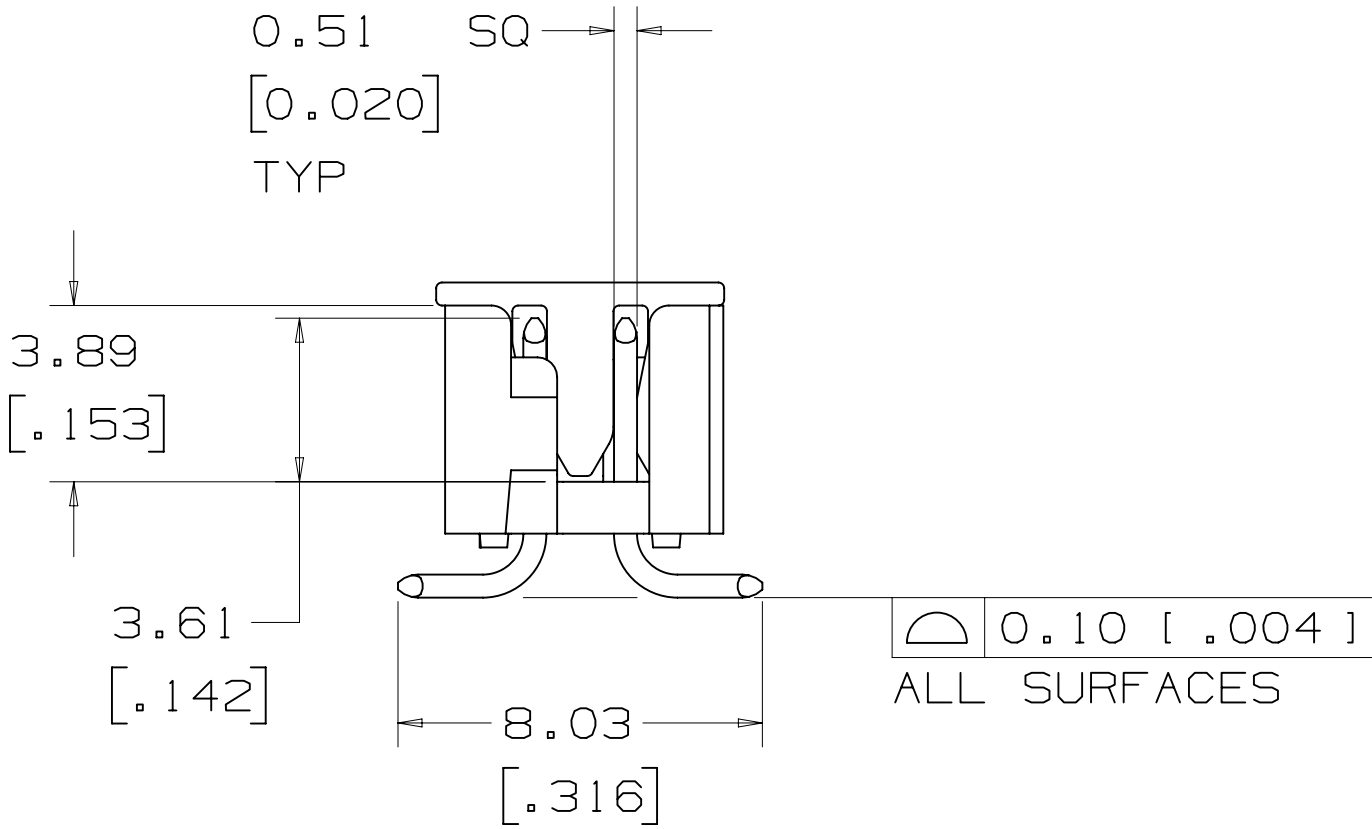
METRIC [ENGLISH]

				A 30741		OCT 28, 2010				LDS		SF			
INITIAL RELEASE															
PART REFERENCE				NEXT ASSEMBLY				ISSUE DATE AND DESCRIPTION				DRFT		CHKD	
REV				ECO				DATE				MFG		DATE	
BTRM-11-1				SCHMIDT				JUL 29, 2010							
CHRD								DATE				APPROV		DATE	
												5 FELDMAN		AUG 09, 2010	
DIVISION				DIVISION CODE				© 3M COPYRIGHT 2010 3M Center St. Paul, MN 55144 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.							
DO NOT SCALE DRAWING				SCALE 4 1											
								INCHES .0 ± .00 ± .0009 ± .0000 ±				TITLE 3M SHROUDED BOARD MOUNT HEADER 2 MM X 2 MM PITCH 159 SERIES			
THIRD ANGLE PROJECTION INTERPRET PER ASME Y14.5 - 1994				MILLIMETERS 0 ± 0.00 ± 0.000 ± 0.000 ±				CASE NUMBER SIZE D 78-5100-2359-7				DRAWING NO.			
MAX SURFACE ROUGHNESS 125 ☐ ALL SURFACES ☒ MARKED ONLY				ANGLES ± 1°				MODEL				DET. LISTS YES ☐ NO ☒			
												SHT 2 OF 4			

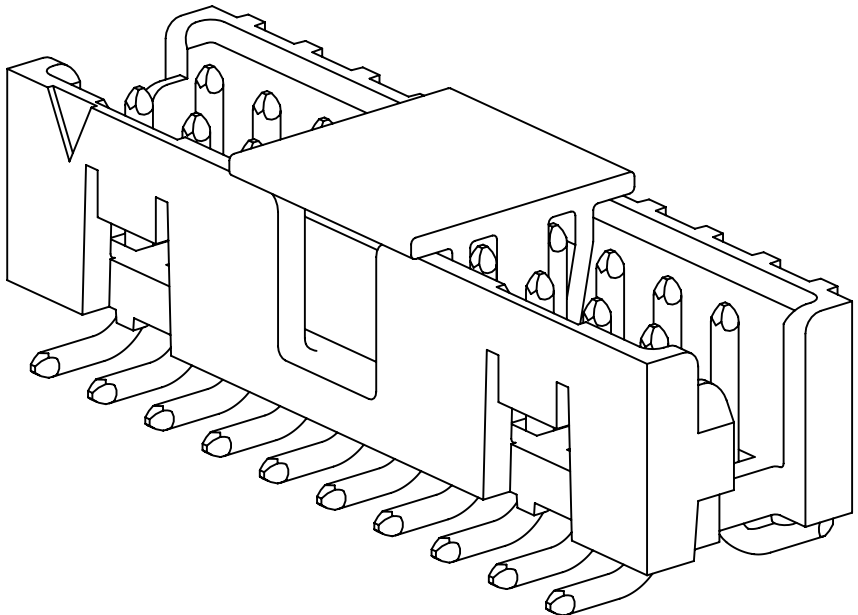
3M™ Shrouded Board Mount Header 2 mm X 2 mm Pitch 159 Series, Standard Length [3] and Extended Length [4]



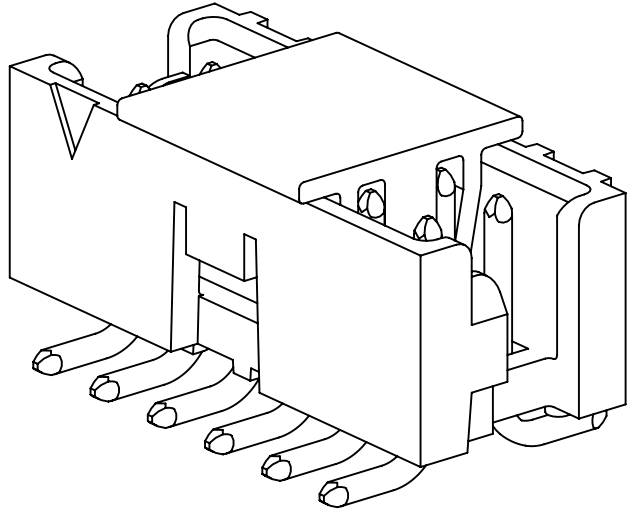
RECOMMENDED PCB PAD PATTERN
TOLERANCE = ±0.08 [0.003]



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

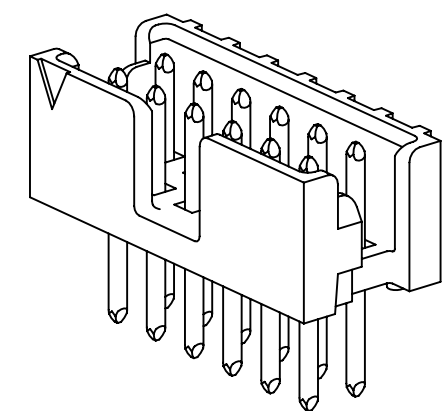
REFERENCE TABLE ON SHEET 4
FOR AVAILABLE POSITIONS

METRIC [ENGLISH]

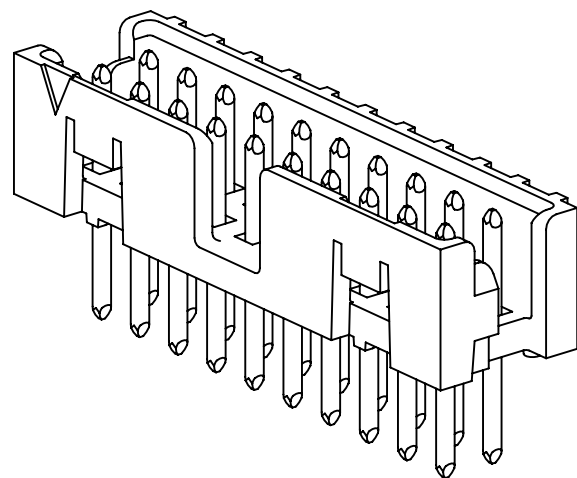
A		30741		OCT 28, 2010		LDS		SF					
				INITIAL RELEASE									
DESIGN REFERENCE		NEXT ASSEMBLY		REV		ECO		ISSUE DATE AND DESCRIPTION		DRFT		CHKD	
DIST		MFG		DATE		DATE		DATE		DATE		DATE	
L. SCHMIDT		JUL 29, 2010		S. FELDMAN		AUG 09, 2010							
DIVISION		DIVISION CODE											
DO NOT SCALE DRAWING		SCALE 4 1		TOLERANCES EXCEPT AS NOTED									
		INCHES 0.000 ±		MILLIMETERS 0.00 ± 0.13									
THIRD ANGLE PROJECTION		ASME Y14.5 - 1994		MARKED ONLY									
MAX SURFACE ROUGHNESS 125		ALL SURFACES		ANGLES ± 1°									

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

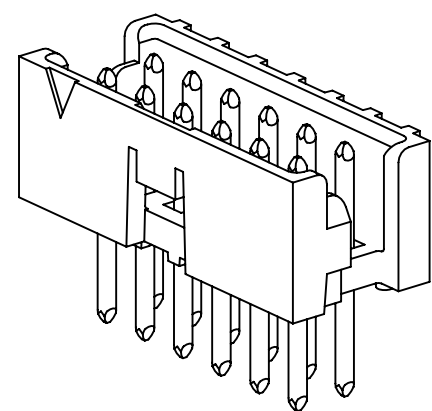
STANDARD LENGTH HEADERS
ARE AVAILABLE



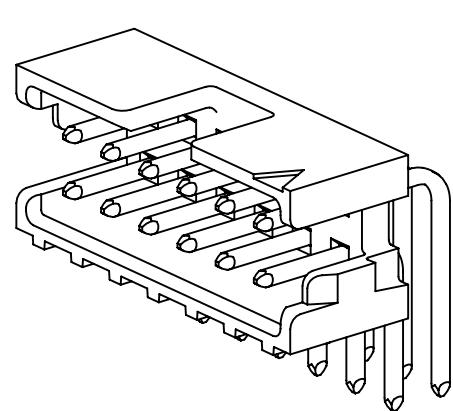
STANDARD LENGTH,
POLARIZATION SLOT,
VERTICAL HEADER
6-12 POSITIONS ONLY



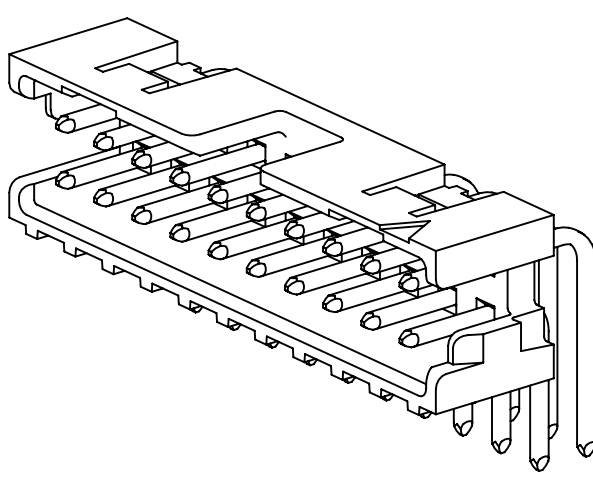
STANDARD LENGTH,
POLARIZATION SLOT,
DUAL FRICTION LATCHES,
VERTICAL HEADER
14-50 POSITIONS



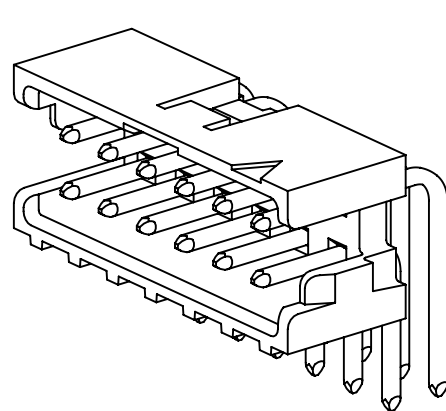
STANDARD LENGTH,
SINGLE FRICTION LATCH,
VERTICAL HEADER
6-12 POSITIONS



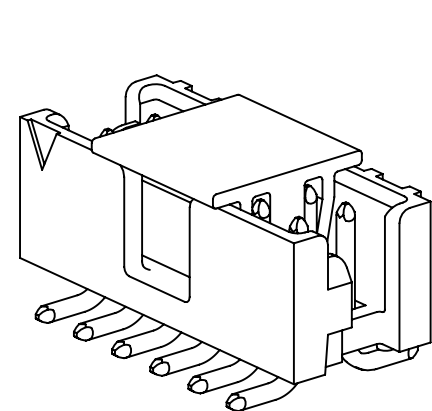
STANDARD LENGTH,
POLARIZATION SLOT,
RIGHT ANGLE HEADER
6-12 POSITIONS



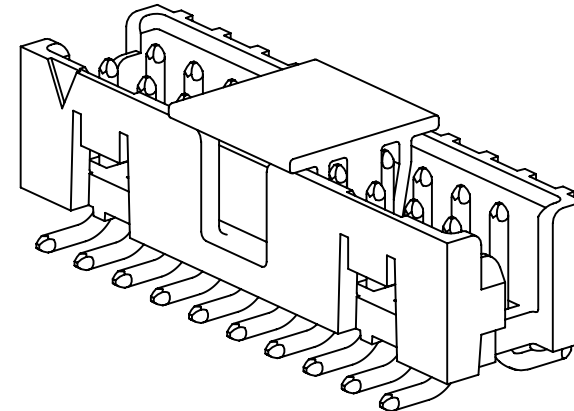
STANDARD LENGTH,
POLARIZATION SLOT,
DUAL FRICTION LATCHES,
RIGHT ANGLE HEADER
14-50 POSITIONS



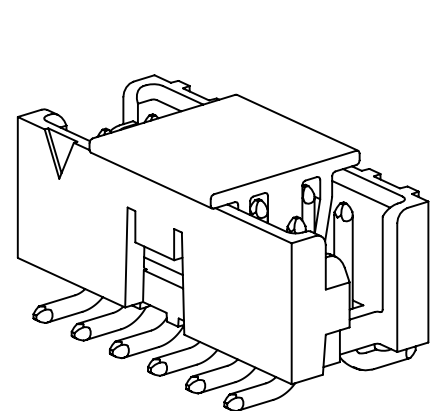
STANDARD LENGTH,
SINGLE FRICTION LATCH,
RIGHT ANGLE HEADER
6-12 POSITIONS



STANDARD LENGTH,
POLARIZATION SLOT,
SURFACE MOUNT HEADER
6-12 POSITIONS



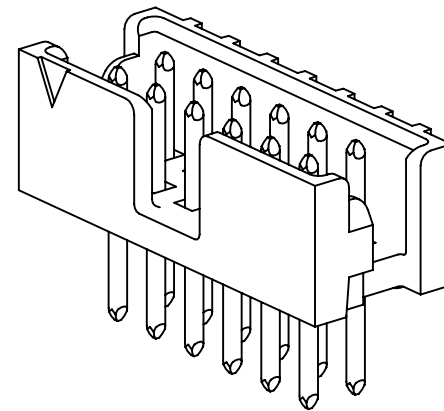
STANDARD LENGTH,
POLARIZATION SLOT,
DUAL FRICTION LATCHES,
SURFACE MOUNT HEADER
14-50 POSITIONS



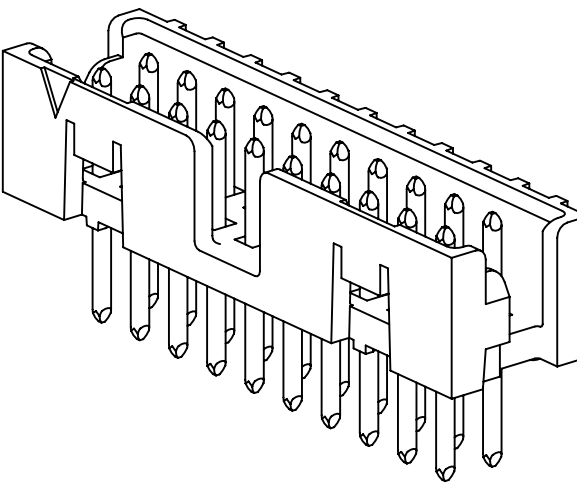
STANDARD LENGTH,
SINGLE FRICTION LATCH,
SURFACE MOUNT HEADER
6-12 POSITIONS

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

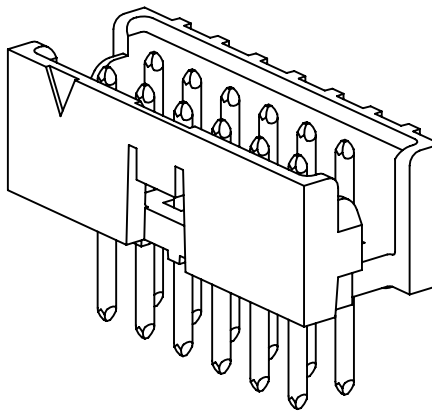
CALL 3M INTERCONNECT SOLUTIONS
AT 800-225-5373 FOR AVAILABILITY
OF EXTENDED LENGTH HEADERS



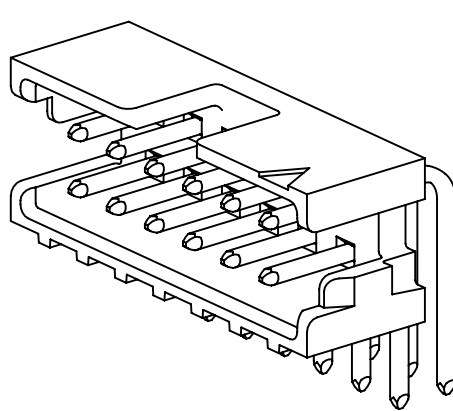
EXTENDED LENGTH,
POLARIZATION SLOT,
VERTICAL HEADER
6-12 POSITIONS



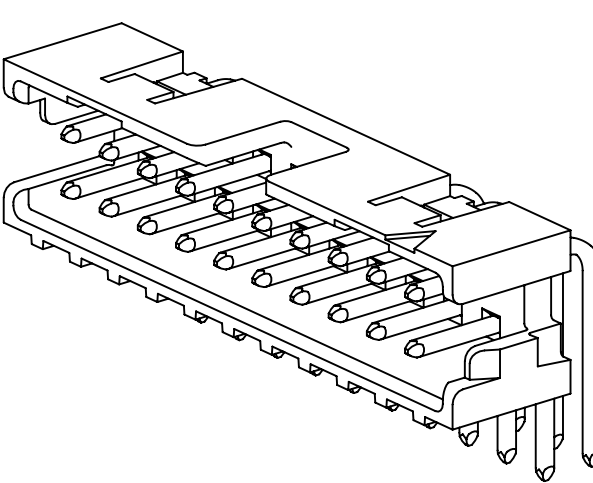
EXTENDED LENGTH,
POLARIZATION SLOT,
DUAL FRICTION LATCHES,
VERTICAL HEADER
14-50 POSITIONS



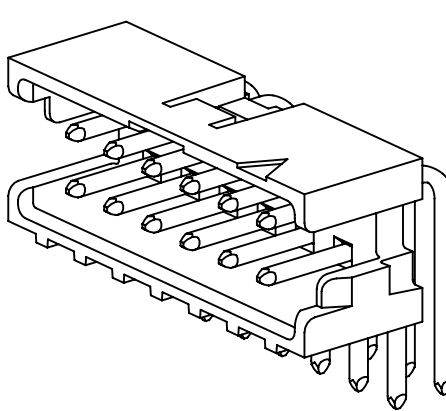
EXTENDED LENGTH,
SINGLE FRICTION LATCH,
VERTICAL HEADER
6-12 POSITIONS



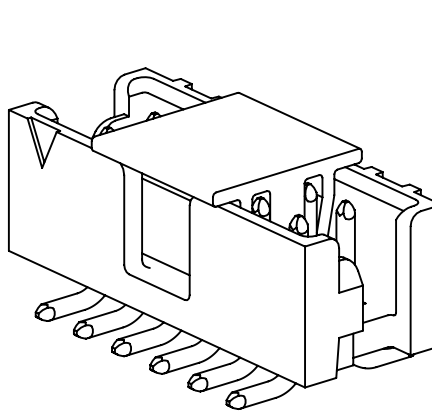
EXTENDED LENGTH,
POLARIZATION SLOT,
RIGHT ANGLE HEADER
6-12 POSITIONS



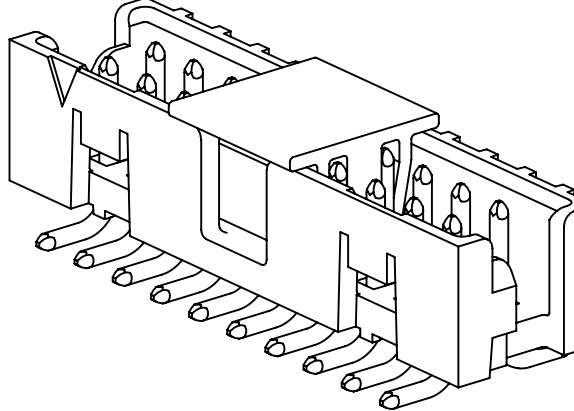
EXTENDED LENGTH,
POLARIZATION SLOT,
DUAL FRICTION LATCHES,
RIGHT ANGLE HEADER
14-50 POSITIONS



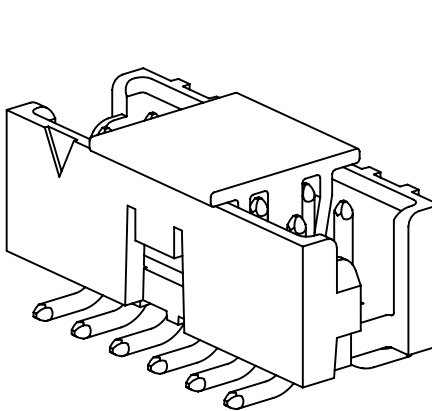
EXTENDED LENGTH,
SINGLE FRICTION LATCH,
RIGHT ANGLE HEADER
6-12 POSITIONS



EXTENDED LENGTH,
POLARIZATION SLOT,
SURFACE MOUNT HEADER
6-12 POSITIONS



EXTENDED LENGTH,
POLARIZATION SLOT,
DUAL FRICTION LATCHES,
SURFACE MOUNT HEADER
14-50 POSITIONS



EXTENDED LENGTH,
SINGLE FRICTION LATCH,
SURFACE MOUNT HEADER
6-12 POSITIONS

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	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		.00 ±			
MAX SURFACE ROUGHNESS 125		ALL SURFACES		.00 ±		.00 ±			
✓		X MARKED ONLY		ANGLES ±1°		.000 ±			
A 30741		OCT 28, 2010		LDS		SF		INITIAL RELEASE	
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		DRAWING NO.		REV.	
125		D 78-5100-2359-7		A		MODEL		LISTS	
YES		NO		SHT		4 OF 4			