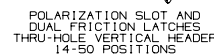
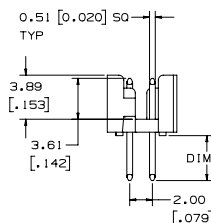
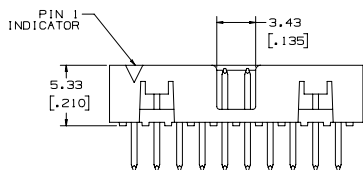
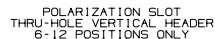
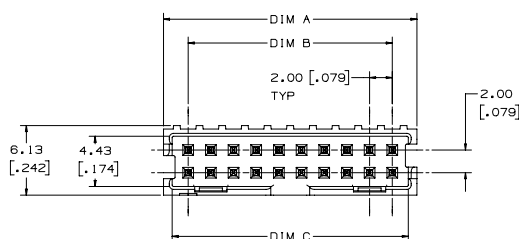


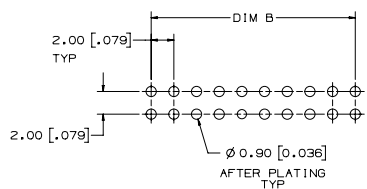
## NOTES

- 1 MATERIAL:  
BODY: HIGH TEMPERATURE  
GLASS FILLED LCP, BLACK  
UL94V-0  
CONTACTS: COPPER ALLOY
- 2 PLATING:  
2.0, 3.81, 5.08, 7.62, 10.16, 12.7, 15.24, 17.78, 20.32, 22.86, 25.4, 27.94, 30.48, 33.02, 35.56, 38.1, 40.64, 43.18, 45.72, 48.26, 50.8, 53.34, 55.88, 58.42, 60.96, 63.5, 66.04, 68.58, 71.12, 73.66, 76.2, 78.74, 81.28, 83.82, 86.36, 88.9, 91.44, 93.98, 96.52, 99.06, 101.6, 104.14, 106.68, 109.22, 111.76, 114.3, 116.84, 119.38, 121.92, 124.46, 127, 129.54, 132.08, 134.62, 137.16, 139.7, 142.24, 144.78, 147.32, 149.86, 152.4, 154.94, 157.48, 160.02, 162.56, 165.1, 167.64, 170.18, 172.72, 175.26, 177.8, 180.34, 182.88, 185.42, 187.96, 190.5, 193.04, 195.58, 198.12, 200.66, 203.2, 205.74, 208.28, 210.82, 213.36, 215.9, 218.44, 220.98, 223.52, 226.06, 228.6, 231.14, 233.68, 236.22, 238.76, 241.3, 243.84, 246.38, 248.92, 251.46, 254, 256.54, 259.08, 261.62, 264.16, 266.7, 269.24, 271.78, 274.32, 276.86, 279.4, 281.94, 284.48, 287.02, 289.56, 292.1, 294.64, 297.18, 299.72, 302.26, 304.8, 307.34, 309.88, 312.42, 314.96, 317.5, 320.04, 322.58, 325.12, 327.66, 330.2, 332.74, 335.28, 337.82, 340.36, 342.9, 345.44, 347.98, 350.52, 353.06, 355.6, 358.14, 360.68, 363.22, 365.76, 368.3, 370.84, 373.38, 375.92, 378.46, 381, 383.54, 386.08, 388.62, 391.16, 393.7, 396.24, 398.78, 401.32, 403.86, 406.4, 408.94, 411.48, 414.02, 416.56, 419.1, 421.64, 424.18, 426.72, 429.26, 431.8, 434.34, 436.88, 439.42, 441.96, 444.5, 447.04, 449.58, 452.12, 454.66, 457.2, 459.74, 462.28, 464.82, 467.36, 469.9, 472.44, 474.98, 477.52, 480.06, 482.6, 485.14, 487.68, 490.22, 492.76, 495.3, 497.84, 500.38, 502.92, 505.46, 508, 510.54, 513.08, 515.62, 518.16, 520.7, 523.24, 525.78, 528.32, 530.86, 533.4, 535.94, 538.48, 541.02, 543.56, 546.1, 548.64, 551.18, 553.72, 556.26, 558.8, 561.34, 563.88, 566.42, 568.96, 571.5, 574.04, 576.58, 579.12, 581.66, 584.2, 586.74, 589.28, 591.82, 594.36, 596.9, 599.44, 601.98, 604.52, 607.06, 609.6, 612.14, 614.68, 617.22, 619.76, 622.3, 624.84, 627.38, 629.92, 632.46, 635, 637.54, 640.08, 642.62, 645.16, 647.7, 650.24, 652.78, 655.32, 657.86, 660.4, 662.94, 665.48, 668.02, 670.56, 673.1, 675.64, 678.18, 680.72, 683.26, 685.8, 688.34, 690.88, 693.42, 695.96, 698.5, 701.04, 703.58, 706.12, 708.66, 711.2, 713.74, 716.28, 718.82, 721.36, 723.9, 726.44, 728.98, 731.52, 734.06, 736.6, 739.14, 741.68, 744.22, 746.76, 749.3, 751.84, 754.38, 756.92, 759.46, 762, 764.54, 767.08, 769.62, 772.16, 774.7, 777.24, 779.78, 782.32, 784.86, 787.4, 789.94, 792.48, 795.02, 797.56, 800.1, 802.64, 805.18, 807.72, 810.26, 812.8, 815.34, 817.88, 820.42, 822.96, 825.5, 828.04, 830.58, 833.12, 835.66, 838.2, 840.74, 843.28, 845.82, 848.36, 850.9, 853.44, 855.98, 858.52, 861.06, 863.6, 866.14, 868.68, 871.22, 873.76, 876.3, 878.84, 881.38, 883.92, 886.46, 889, 891.54, 894.08, 896.62, 899.16, 901.7, 904.24, 906.78, 909.32, 911.86, 914.4, 916.94, 919.48, 922.02, 924.56, 927.1, 929.64, 932.18, 934.72, 937.26, 939.8, 942.34, 944.88, 947.42, 949.96, 952.5, 955.04, 957.58, 960.12, 962.66, 965.2, 967.74, 970.28, 972.82, 975.36, 977.9, 980.44, 982.98, 985.52, 988.06, 990.6, 993.14, 995.68, 998.22, 1000.76, 1003.3, 1005.84, 1008.38, 1010.92, 1013.46, 1016, 1018.54, 1021.08, 1023.62, 1026.16, 1028.7, 1031.24, 1033.78, 1036.32, 1038.86, 1041.4, 1043.94, 1046.48, 1049.02, 1051.56, 1054.1, 1056.64, 1059.18, 1061.72, 1064.26, 1066.8, 1069.34, 1071.88, 1074.42, 1076.96, 1079.5, 1082.04, 1084.58, 1087.12, 1089.66, 1092.2, 1094.74, 1097.28, 1099.82, 1102.36, 1104.9, 1107.44, 1109.98, 1112.52, 1115.06, 1117.6, 1120.14, 1122.68, 1125.22, 1127.76, 1130.3, 1132.84, 1135.38, 1137.92, 1140.46, 1143, 1145.54, 1148.08, 1150.62, 1153.16, 1155.7, 1158.24, 1160.78, 1163.32, 1165.86, 1168.4, 1170.94, 1173.48, 1176.02, 1178.56, 1181.1, 1183.64, 1186.18, 1188.72, 1191.26, 1193.8, 1196.34, 1198.88, 1201.42, 1203.96, 1206.5, 1209.04, 1211.58, 1214.12, 1216.66, 1219.2, 1221.74, 1224.28, 1226.82, 1229.36, 1231.9, 1234.44, 1236.98, 1239.52, 1242.06, 1244.6, 1247.14, 1249.68, 1252.22, 1254.76, 1257.3, 1259.84, 1262.38, 1264.92, 1267.46, 1270, 1272.54, 1275.08, 1277.62, 1280.16, 1282.7, 1285.24, 1287.78, 1290.32, 1292.86, 1295.4



PERFORMANCE 57	
CURRENT:	1A, 6 LINES ENERGIZED
INSULATION RESISTANCE:	>1 X 10 <sup>9</sup> OHMS AT 500 VDC
WITHSTANDING VOLTAGE:	500 VAC <sub>rms</sub> 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

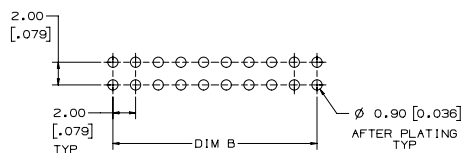
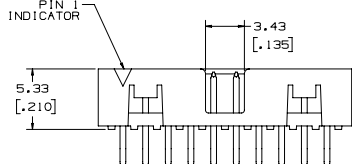


RECOMMENDED PCB HOLE PATTERN  
TOLERANCE = 0.05 ( .002 )

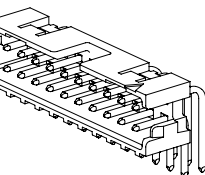
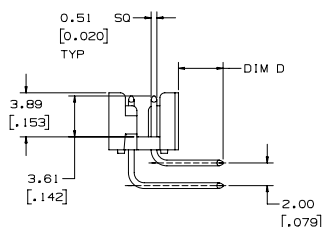
METRIC ( ENGLISH )

[illegible]

RECOMMENDED PCB HOLE PATTERN  
TOLERANCE =  $\pm 0.05$  ( .002 )



RECOMMENDED PCB HOLE PATTERN  
TOLERANCE =  $\pm 0.05$  ( .002 )



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



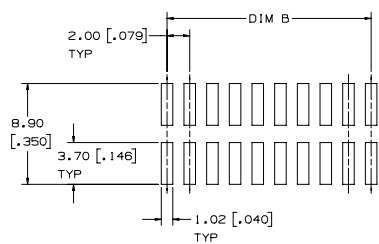
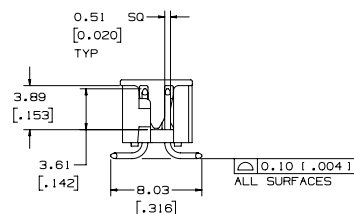
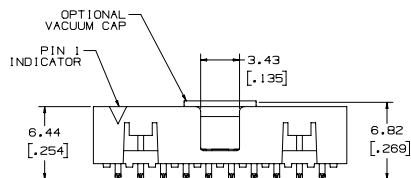
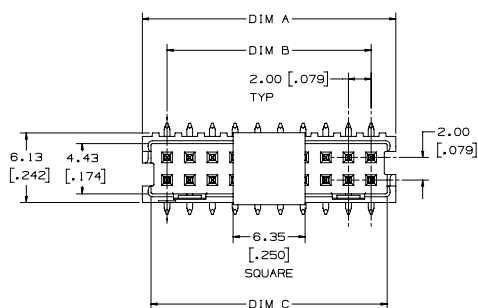
SINGLE FRICTION LATCH  
RIGHT ANGLE HEADER  
6-12 POSITIONS ONLY

DES 11  
31779  
00000

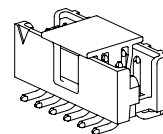
METRIC [ ENGLISH ]

[illegible]

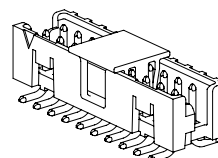
3M™ Shrouded Board Mount Header 2 mm X 2 mm Pitch 159 Series, Standard Length [3] and Extended Length [4]



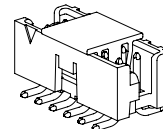
RECOMMENDED PCB PAD PATTERN  
TOLERANCE =  $\pm 0.08$  [ .003 ]



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

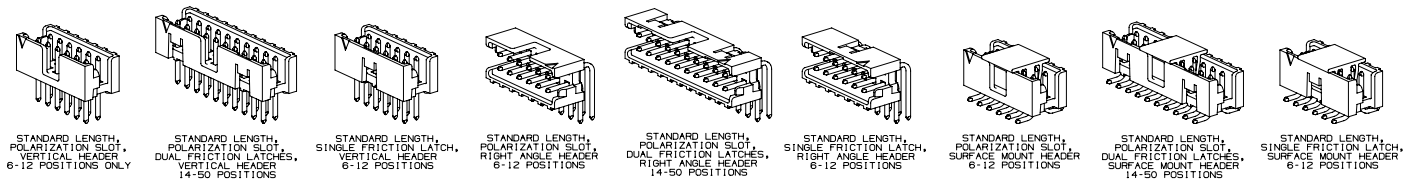
REFERENCE TABLE ON SHEET 4  
FOR AVAILABLE POSITIONS

METRIC ( ENGLISH )

[illegible]

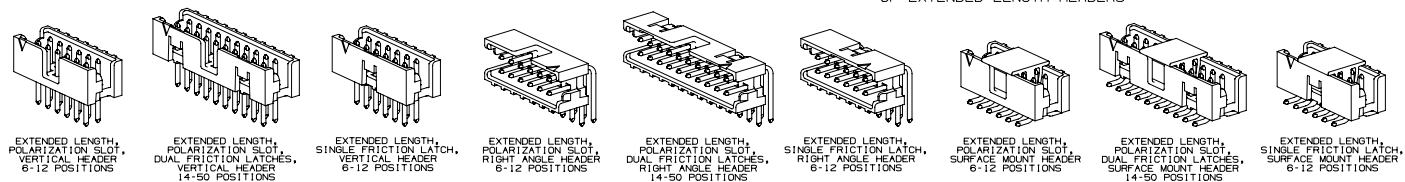
# 3M™ Shrouded Board Mount Header 2 mm X 2 mm Pitch 159 Series, Standard Length 3

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		TIER 2 - BETTER	
159JXX-XXXX		1592XX-XXXX	
TIER 1 = BEST 0.76 $\mu$ m (30 $\mu$ in) GOLD	CONTACT TAIL LENGTH 2 = 2.84 mm (.112) 3 = 3.94 mm (.155)	TIER 2 = BETTER 0.38 $\mu$ m (15 $\mu$ in) GOLD	CONTACT TAIL LENGTH 2 = 2.84 mm (.112) 3 = 3.94 mm (.155)
POSITION COUNT (SEE TABLE)	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)	POSITION COUNT (SEE TABLE)	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)
PART CONFIGURATION 2 = VERTICAL SMT 5 = RIGHT ANGLE THRU HOLE 6 = VERTICAL THRU HOLE		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)		BODY LENGTH 0 = STANDARD LENGTH (MATES TO 158 SERIES) 1 = EXTENDED LENGTH (MATES TO 870 SERIES)	

NUMBER OF POSITIONS	DIM A		SHROUDED BOX HEADER		DIM B		DIM C		DIM D	
	STANDARD	EXTENDED	STANDARD	EXTENDED	STANDARD	EXTENDED	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	REV	DATE	ISSUE DATE AND DESCRIPTION	DRFT	CHG
3M	001	09/20/2010	INITIAL RELEASE		
SCALE	1:1				
UNIT	MM				
DATE	09/20/2010				
BY	001				
CHKD	001				
APPD	001				
DATE	09/20/2010				
BY	001				
CHKD	001				
APPD	001				
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