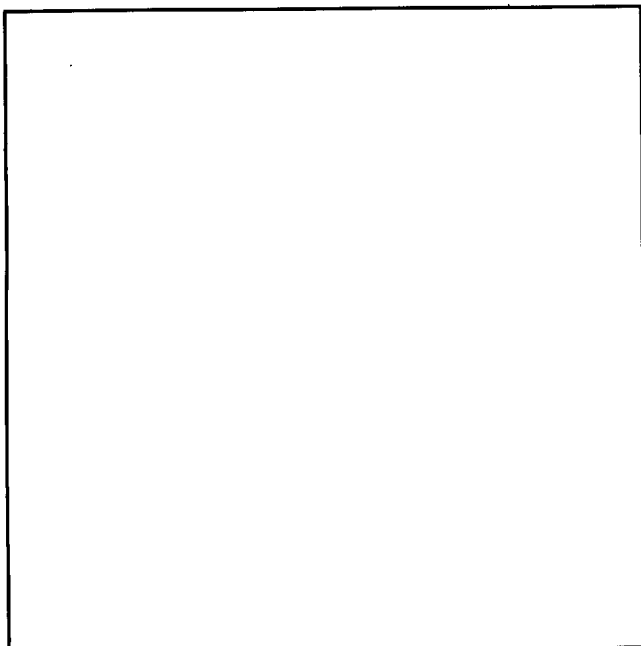


# 2mm × 2mm Pin Strip Header

Straight Solder Tail, Optional Second Insulator

1513 Series



- Industry standard compatible
- High temperature dielectric
- IR, vapor & wave solder compatible
- Unique lengths available
- Maximizes use of PC board space
- Mates with boardmount and wiremount products
- End stackable feature
- Side stackable feature
- Dual insulators

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## Physical

### Insulation

Material: High Temperature Plastic (LCP)  
Flammability: UL 94V-0  
Color: Black

### Contact

Material: Copper Alloy  
Plating  
Underplate: 100  $\mu$ " [ 2.54  $\mu$ m ] Nickel — QQ-N-290, Class 2  
Wiping Area: Gold — MIL-G-45204, Type II, Grade C  
Solder Tails: 200  $\mu$ " [ 5.08  $\mu$ m ] 90/10 Tin Lead, MIL-P-81728

Note: The location and thickness of the contact plating is determined by the part number. Refer to ordering information.

## Electrical

Current Rating: 1.5 A  
Insulation Resistance:  $> 5 \times 10^9 \Omega$  at 250 Vdc  
Withstanding Voltage: 500 Vdc at Sea Level

## Environmental

Temperature Rating:  $-55^\circ\text{C}$  to  $+105^\circ\text{C}$

UL File No.: E68080

3M Electronic Products Division

<http://www.3M.com/interconnects/>

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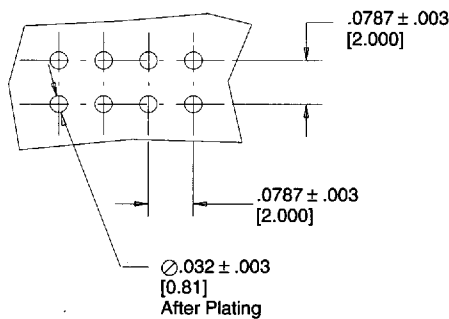
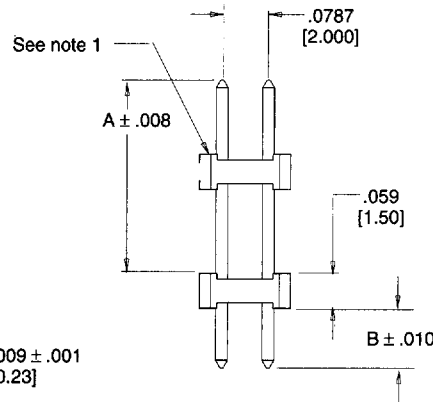
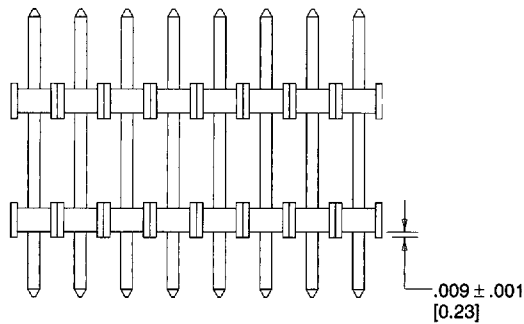
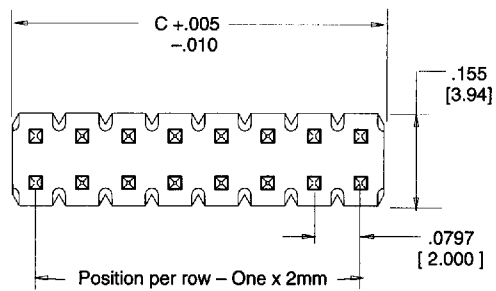
For technical, sales or ordering information call  
800-225-5373

D 19F ■ 9035312 0004384 278 ■

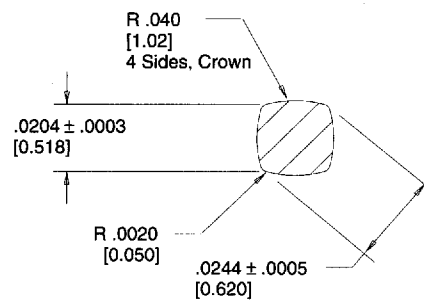
# 2mm × 2mm Pin Strip Header

## Straight Solder Tail, Optional Second Insulator

1513 Series



**Recommended Mounting Hole Pattern**



**Pin Cross Section**

Contact Quantity	Dimension C
04	.139 [3.5]
06	.217 [5.5]
08	.295 [7.5]
10	.374 [9.5]
12	.453 [11.5]
14	.531 [13.5]
16	.611 [15.5]
18	.689 [17.5]
20	.768 [19.5]
22	.847 [21.5]
24	.925 [23.5]
26	1.005 [25.5]
28	1.083 [27.5]
30	1.162 [29.5]
32	1.240 [31.5]
34	1.320 [33.5]
36	1.398 [35.5]
38	1.477 [37.5]
40	1.556 [39.5]
42	1.634 [41.5]
44	1.714 [43.5]
46	1.792 [45.5]
48	1.870 [47.5]
50	1.950 [49.5]
52	2.028 [51.5]
54	2.107 [53.5]
56	2.185 [55.5]
58	2.264 [57.5]
60	2.344 [59.5]

**Inch [mm]**

Tolerance Unless Noted			
	.0	.00	.000
Inch	± .1	± .01	± .005

[ ] Dimensions for Reference only

Note:  
1. Second insulator optional, contact 3M for additional information.

### Ordering Information

**1513XX-8XX2XX-XX**

Contact Quantity  
(See Table 1)

Pin Length  
Dim 'A'  
(See table 2)

Tail Length  
Dim 'B'  
(See table 3)

Plating  
TB = 30 μ" [ 0.76 μm ] Gold  
TH = 15 μ" [ 0.38 μm ] Gold

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**2mm × 2mm Pin Strip Header**  
**Straight Solder Tail, Optional Second Insulator**

1513 Series

**Table 2**

Number	Dimension A	Number	Dimension A	Number	Dimension A
02	.126 [ 3.20 ]	31	.299 [ 7.59 ]	60	.557 [ 14.15 ]
03	.135 [ 3.43 ]	32	.306 [ 7.77 ]	61	.573 [ 14.55 ]
04	.146 [ 3.71 ]	33	.310 [ 7.87 ]	62	.579 [ 14.71 ]
05	.148 [ 3.76 ]	34	.325 [ 8.26 ]	63	.596 [ 15.14 ]
06	.158 [ 4.01 ]	35	.332 [ 8.43 ]	64	.605 [ 15.37 ]
07	.162 [ 4.11 ]	36	.347 [ 8.81 ]	65	.629 [ 15.98 ]
08	.172 [ 4.37 ]	37	.353 [ 8.97 ]	66	.632 [ 16.05 ]
09	.178 [ 4.52 ]	38	.357 [ 9.53 ]	67	.647 [ 16.43 ]
10	.181 [ 4.60 ]	39	.369 [ 9.37 ]	68	.666 [ 16.92 ]
11	.188 [ 4.78 ]	40	.379 [ 9.63 ]	69	.679 [ 17.25 ]
12	.191 [ 4.85 ]	41	.386 [ 9.80 ]	70	.701 [ 17.81 ]
13	.200 [ 5.08 ]	42	.395 [ 10.03 ]	71	.795 [ 20.19 ]
14	.204 [ 5.18 ]	43	.401 [ 10.19 ]	72	.827 [ 21.01 ]
15	.212 [ 5.38 ]	44	.411 [ 10.44 ]	73	.832 [ 21.13 ]
16	.223 [ 5.66 ]	45	.427 [ 10.85 ]	74	.851 [ 21.62 ]
17	.226 [ 5.74 ]	46	.434 [ 11.02 ]	75	.869 [ 22.07 ]
18	.230 [ 5.84 ]	47	.443 [ 11.25 ]	76	.888 [ 22.56 ]
19	.236 [ 5.99 ]	48	.449 [ 11.40 ]	77	.901 [ 22.89 ]
20	.239 [ 6.07 ]	49	.459 [ 11.66 ]	78	.923 [ 23.44 ]
21	.245 [ 6.22 ]	50	.465 [ 11.81 ]	79	.993 [ 25.22 ]
22	.253 [ 6.43 ]	51	.471 [ 11.96 ]	80	1.025 [ 26.04 ]
23	.260 [ 6.60 ]	52	.474 [ 12.04 ]	81	1.049 [ 26.64 ]
24	.262 [ 6.65 ]	53	.481 [ 12.22 ]	82	1.067 [ 27.10 ]
25	.268 [ 6.81 ]	54	.488 [ 12.40 ]	83	1.086 [ 27.58 ]
26	.271 [ 6.88 ]	55	.496 [ 12.60 ]	84	1.099 [ 27.91 ]
27	.276 [ 7.01 ]	56	.503 [ 12.78 ]	85	1.121 [ 28.47 ]
28	.278 [ 7.06 ]	57	.510 [ 12.95 ]		
29	.284 [ 7.21 ]	58	.525 [ 13.34 ]		
30	.293 [ 7.44 ]	59	.544 [ 13.82 ]		

**Table 3**

Number	Dimension B	Application
01	.070 [ 1.78 ]	Solder side with .040 [ 1.02 ] P.C. Board
02	.092 [ 2.34 ]	Solder side with .062 [ 1.57 ] P.C. Board
03	.124 [ 3.15 ]	Solder side with .094 [ 2.39 ] P.C. Board
04	.125 [ 3.18 ]	In-Board mate with series 153 vertical socket
05	.139 [ 3.53 ]	Out-Board mate with series 153 vertical socket and .040 [ 1.02 ] P.C. Board
06	.161 [ 4.09 ]	Out-Board mate with series 153 vertical socket and .062 [ 1.57 ] P.C. Board
07	.093 [ 2.36 ]	In-Board mate with series 150 vertical socket
08	.144 [ 3.66 ]	Out-Board mate with series 153 surface mount socket and .040 [ 1.02 ] P.C. Board
09	.166 [ 4.22 ]	Out-Board mate with series 153 surface mount socket and .062 [ 1.57 ] P.C. Board
10	.198 [ 5.03 ]	Out-Board mate with series 153 surface mount socket and .094 [ 2.39 ] P.C. Board
11	.105 [ 2.67 ]	In-Board mate with series 156 surface mount socket
12	.120 [ 3.05 ]	Out-Board mate with series 156 surface mount socket and .040 [ 1.02 ] P.C. Board
13	.142 [ 3.61 ]	Out-Board mate with series 156 surface mount socket and .062 [ 1.57 ] P.C. Board

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