

# 3M™ 4-Wall Header

.100" × .100" Low Profile, Straight and Right Angle

2500 Series



- Low profile, space saving design
- Center slot polarization prevents mis-insertions and reduces insertion time
- Dual slot polarization means broader compatibility with competitive polarization designs
- Optional retainer clip for locking sockets in place and increasing connection reliability in vibration-prone environments
- High temperature insulator suitable for “no lead” soldering operations
- Suitable for reflow soldering using “paste in hole” techniques
- Exposed solder tails (on right angle version) provide ease of cleaning and reduced repair costs
- RoHS\* compliant

Date Modified: August 25, 2005

TS-0770-15  
Sheet 1 of 4

---

## Physical

### Insulator

Material: Glass Filled Polyester (PCT)  
Flammability: UL 94V-0  
Color: Black

### Contact

Material: Copper Alloy

### Plating

Underplating: 100 μ" [ 2.54 μm ] Nickel - Overall  
Wiping Area: 30 μ" [ 0.76 μm ] Gold  
Solder Tails: 200 μ" [ 5.08 μm ] Matte Tin  
Terminal Finish Indicator: e3 (per JESD97)

**Marking:** 3M Logo, Part Identification Number and Orientation Triangle

---

## Electrical

**Current Rating:** 2 A  
**Insulation Resistance:**  $>1 \times 10^9 \Omega$  at 500 Vdc  
**Withstanding Voltage:** 1000 Vrms at Sea Level

---

## Environmental

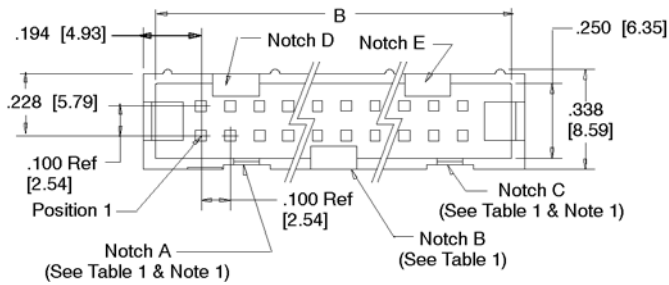
**Temperature Rating:** -55°C to +105°C  
**Process Rating:** Maximum 260°C, single pass, (profile per J-STD-020C)  
**Moisture Sensitivity Level:** 1 (per J-STD-020C)

\*RoHS = Directive 2002/95/EC, Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment  
"RoHS compliant" means that the product or part does not contain any of the following substances in excess of the following maximum concentration values in any homogeneous material, unless the substance is in an application that is exempt under RoHS: (a) 0.1% (by weight) for lead, mercury, hexavalent chromium, polybrominated biphenyls or polybrominated diphenyl ethers; or (b) 0.01% (by weight) for cadmium. Unless otherwise stated by 3M in writing, this information represents 3M's knowledge and belief based upon information provided by third party suppliers to 3M.

# 3M™ 4-Wall Header

.100" × .100" Low Profile, Straight and Right Angle

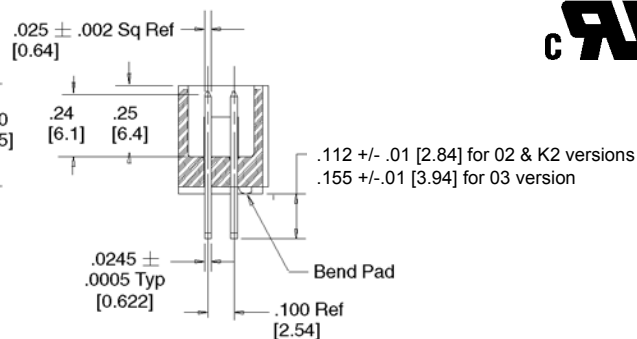
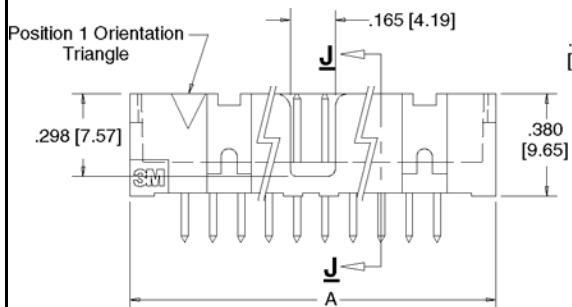
2500 Series



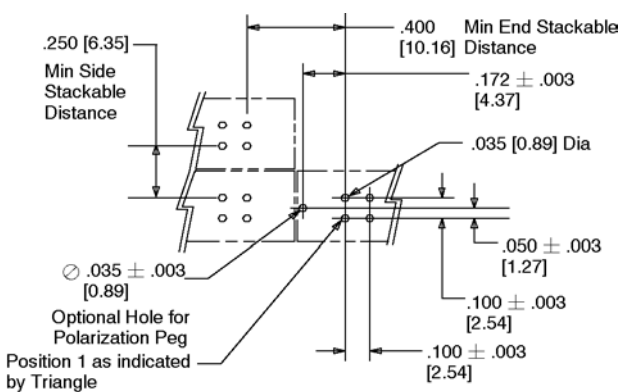
Tolerance Unless Noted			
	Inch	[mm]	
	.0	.00	.000
Inch	± .1	± .01	± .005

[ ] Dimensions for Reference only

**Straight**



**Section J-J**



**Recommended P.C. Board Hole Pattern**  
(Shown for mounting side of board.)

Table 1			
Pin Qty	Dimensions		Polarizing Notches
	A	B	
10	.788 [20.02]	.708 [17.98]	BC
14	.988 [25.10]	.908 [22.06]	B C D E
16	1.088 [27.64]	1.008 [25.60]	A B C D E
20	1.288 [32.72]	1.208 [30.68]	A B C D E
24	1.488 [37.80]	1.408 [35.76]	A B C D E
26	1.588 [40.34]	1.508 [38.30]	A B C D E
30	1.788 [45.42]	1.708 [43.38]	A B C D E
34	1.988 [50.50]	1.908 [48.46]	A B C D E
40	2.288 [58.12]	2.208 [56.08]	A B C D E
50	2.788 [70.82]	2.708 [68.78]	A B C D E
60	3.288 [83.52]	3.208 [81.48]	A B C D E
64	3.488 [88.60]	3.408 [86.56]	A B C D E

**Notes:**

- Notches A & C will accommodate 3M Polarizing Keys (3M Part #N3518).
- Contact tails .0245 [0.622] crowned wire with .0075 [0.191] corner radii & .028 [0.72] diagonal.
- See page 4 for kink tail positions.
- Solder stand offs facilitate .01 clearance above board for reflow soldering.

**Ordering Information**

**N25XX-60XX-RB**

Pin Quantity: \_\_\_\_\_  
(See Table 1)

Tail  
02 = for .062 [1.57] thick board  
03 = for .094 to .125 [2.39 to 3.18] thick board  
K2 = kinked for .062 [1.57] thick board

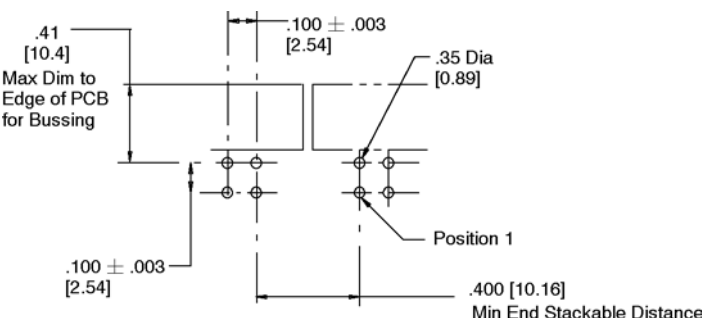
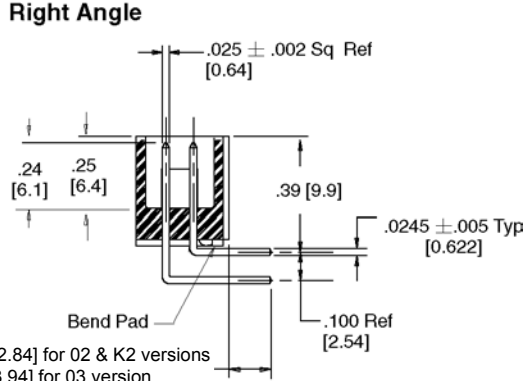
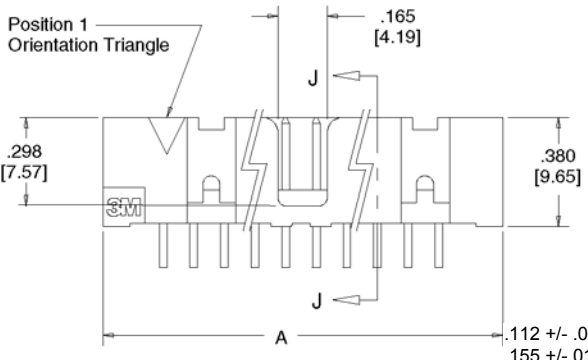
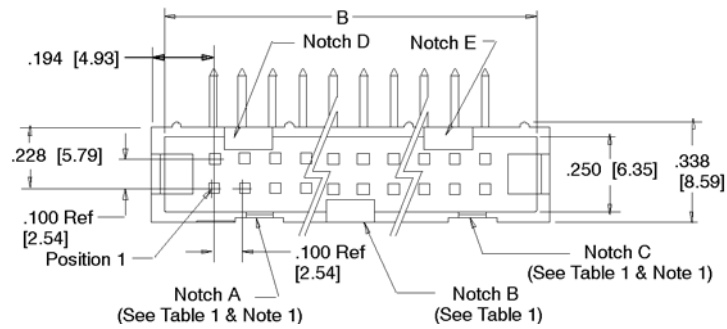
TS-0770-15  
Sheet 2 of 4

# 3M™ 4-Wall Header

.100" × .100" Low Profile, Straight and Right Angle

2500 Series

Pin Qty	Dimensions		Polarizing Notches
	A	B	
10	.788 [20.02]	.708 [17.98]	BC
14	.988 [25.10]	.908 [22.06]	B C D E
16	1.088 [27.64]	1.008 [25.60]	A B C D E
20	1.288 [32.72]	1.208 [30.68]	A B C D E
24	1.488 [37.80]	1.408 [35.76]	A B C D E
26	1.588 [40.34]	1.508 [38.30]	A B C D E
30	1.788 [45.42]	1.708 [43.38]	A B C D E
34	1.988 [50.50]	1.908 [48.46]	A B C D E
40	2.288 [58.12]	2.208 [56.08]	A B C D E
50	2.788 [70.82]	2.708 [68.78]	A B C D E
60	3.288 [83.52]	3.208 [81.48]	A B C D E
64	3.488 [88.60]	3.408 [86.56]	A B C D E



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

[ ] Dimensions for Reference only



**Notes:**

1. Notches A & C will accommodate 3M Polarizing Keys (3M Part #N3518).
2. Contacts tails .0245 [0.622] crowned wire with .0075 [0.191] corner radii & .028 [0.72] diagonal.
3. See page 4 for kink tail positions.

## Ordering Information

**N25XX-50XX-RB**

Pin Quantity: (See Table 1)

Tail  
 02 = for .062 [1.57] thick board  
 03 = for .094 to .125 [2.39 to 3.18] thick board  
 K2 = kinked for .062 [1.57] thick board

TS-0770-15  
 Sheet 3 of 4

# 3M™ 4-Wall Header

.100" × .100" Low Profile, Straight and Right Angle, Accessories

2500 Series

2500 & 3000 Series Shrouded Header					
Total Number of Pins	Number of Tails Kinked	Positions Kinked			
10	4	3	4	7	8
14	4	3	4	11	12
16	4	3	4	13	14
20	4	3	4	17	18
24	4	3	4	21	22
26	4	3	4	23	24
30	4	5	6	25	26
34	4	7	8	27	28
36	4	7	8	27	28
40	4	7	8	33	34
50	4	7	8	43	44
60	4	11	12	49	50
64	4	11	12	53	54

Kinked Tail Detail:  
Kink is located .05" below bottom surface of plastic.  
External radius of kink toward part centerline.

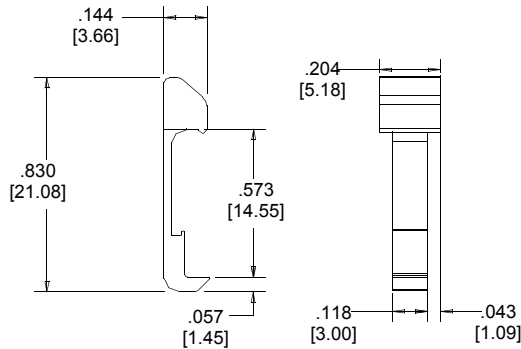
Connector Pin Qty	Dimension A
10	.81 [20.6]
14	1.02 [25.9]
16	1.12 [28.4]
20	1.32 [33.5]
24	1.52 [38.7]
26	1.63 [41.4]
30	1.83 [46.4]
34	2.03 [51.6]
40	2.33 [59.2]
50	2.83 [71.9]
60	3.33 [84.6]
64	3.53 [89.7]

**3505-8XXX**

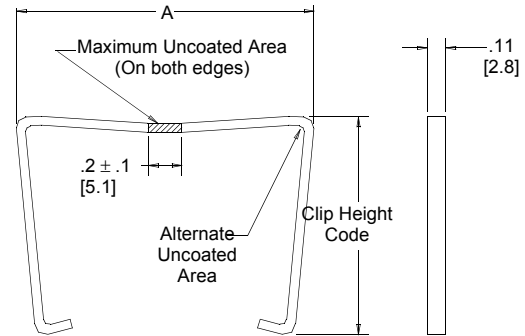
Connector Pin Count:  
(See Table)

Clip Height Code  
0 = .31 [7.9] for Sockets W/O Strain Relief  
1 = .53 [13.5] for Sockets with Strain Relief

Part Number	Material	Color
3505-33	Nylon	Black



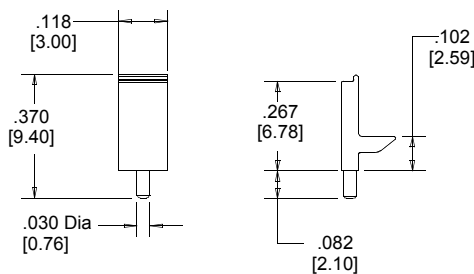
Long Snap In Latch



Short/Long Socket Retainer Clip

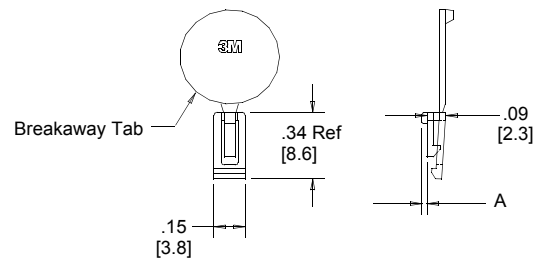
Note: Stainless steel with polyurethane coating.

Part Number	Material	Color
3201-3	PCT	Black



Polarizing Post

Part Number	Material	Color	Dim A
N3518	LCP	Black	0.02



Note: #2216 B/A Scotchweld can be used to adhere keys.

Polarizing Keys

TS-0770-15  
Sheet 4 of 4

## Important Notice

All statements, technical information, and recommendations related to 3M's products are based on information believed to be reliable, but the accuracy or completeness is not guaranteed. Before using this product, you must evaluate it and determine if it is suitable for your intended application. You assume all risks and liability associated with such use. Any statements related to the product which are not contained in 3M's current publications, or any contrary statements contained on your purchase order shall have no force or effect unless expressly agreed upon, in writing, by an authorized officer of 3M.

# 3M

## Electronics

6801 River Place Blvd.  
Austin, TX 78726-9000  
800/328-1368  
[www.3M.com/electronics](http://www.3M.com/electronics)

## Warranty; Limited Remedy; Limited Liability.

This product will be free from defects in material and manufacture for a period of 90 days from the time of purchase. **3M MAKES NO OTHER WARRANTIES INCLUDING, BUT NOT LIMITED TO, ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.** If this product is defective within the warranty period stated above, your exclusive remedy shall be, at 3M's option, to replace or repair the 3M product or refund the purchase price of the 3M product. **Except where prohibited by law, 3M will not be liable for any indirect, special, incidental or consequential loss or damage arising from this 3M product, regardless of the legal theory asserted.**



Minimum 10%  
Post-Consumer Fiber

Printed in USA.

© 3M 2005