

3M™ 4-Wall Header

.100" × .100" Low Profile, SMT Straight, PTH 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
- Thru hole version suitable for "paste in hole" reflow soldering techniques
- Exposed solder tails (on right angle version) provide ease of cleaning and reduced repair costs
- RoHS* compliant
- Straight surface mount version available

Date Modified: June 21, 2006

TS-0770-17
Sheet 1 of 5

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)

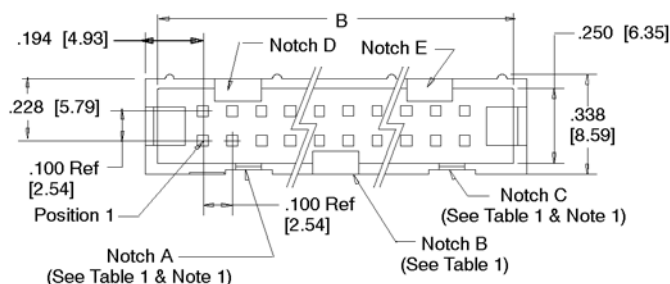
*RoHS = Directive 2002/95/EC, Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment
"RoHS compliant" means that the product or part does not contain any of the following substances in excess of the following maximum concentration values in any homogeneous material, 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.

UL File No.: E68080

3M™ 4-Wall Header

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

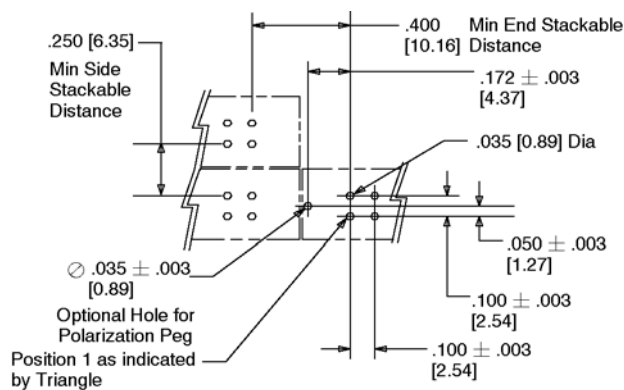
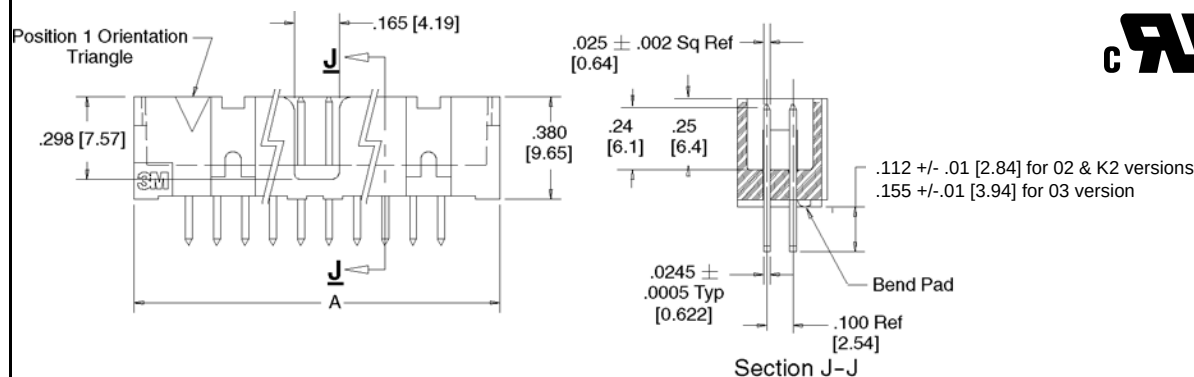
2500 Series



Straight

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

[] Dimensions for Reference only



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-0770-17
Sheet 2 of 5



Interconnect Solutions

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

3M is a trademark of 3M Company.

For technical, sales or ordering information call

800-225-5373

3M™ 4-Wall Header

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

2500 Series

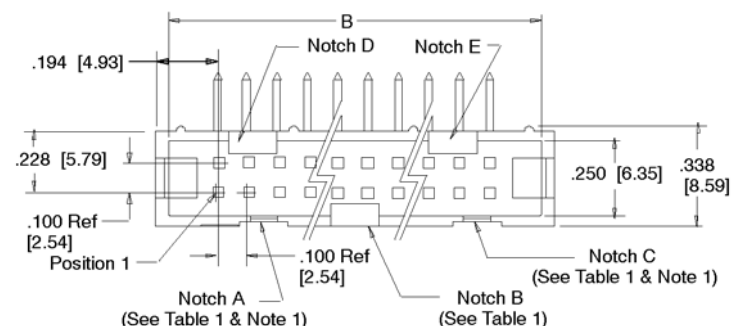
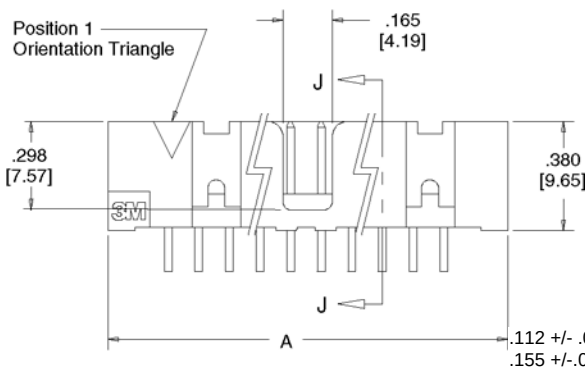
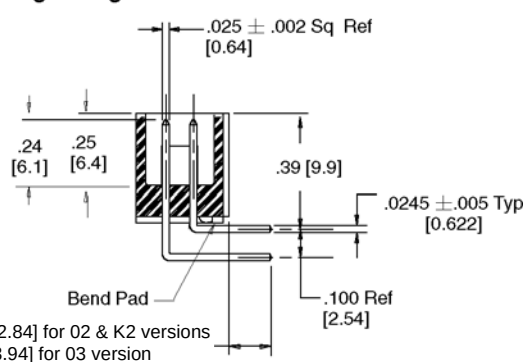


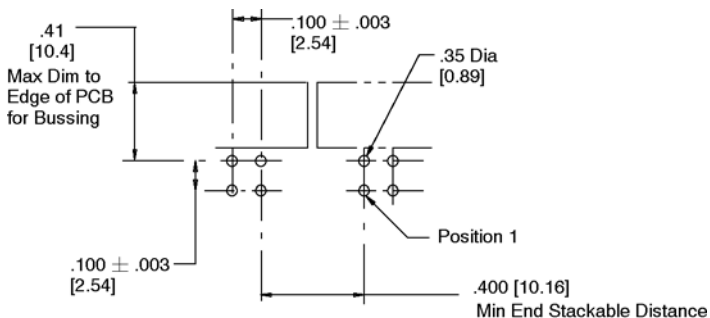
Table 1			
Pin Qty	Dimensions		Polarizing Notches
	A	B	
10	.788 [20.02]	.708 [17.98]	BC
14	.988 [25.10]	.908 [22.06]	B C D E
16	1.088 [27.64]	1.008 [25.60]	A B C D E
20	1.288 [32.72]	1.208 [30.68]	A B C D E
24	1.488 [37.80]	1.408 [35.76]	A B C D E
26	1.588 [40.34]	1.508 [38.30]	A B C D E
30	1.788 [45.42]	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



Right Angle



Section J-J



Recommended Mounting Hole Pattern

Notes:

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

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

[] Dimensions for Reference only



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-0770-17
Sheet 3 of 5



Interconnect Solutions

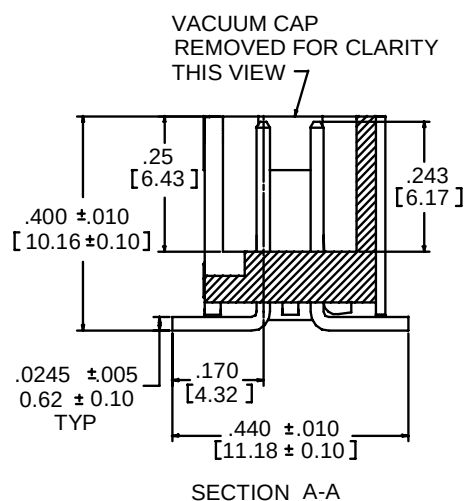
<http://www.3M.com/interconnects/>

3M is a trademark of 3M Company.

For technical, sales or ordering information call

800-225-5373

2500 Series



Pin Qty	Dimensions		Polarizing Notches	Tape & Reel Pkg Code
	A	B		
10	.788 [20.02]	.708 [17.98]	BC	WD (44 mm)
14	.988 [25.10]	.908 [22.06]	B C D E	WD (44 mm)
16	1.088 [27.64]	1.008 [25.60]	A B C D E	WE (56 mm)
20	1.288 [32.72]	1.208 [30.68]	A B C D E	WE (56 mm)
24	1.488 [37.80]	1.408 [35.76]	A B C D E	WE (56 mm)
26	1.588 [40.34]	1.508 [38.30]	A B C D E	WF (72 mm)
30	1.788 [45.42]	1.708 [43.38]	A B C D E	WF (72 mm)
34	1.988 [50.50]	1.908 [48.46]	A B C D E	WF (72 mm)
40	2.288 [58.12]	2.208 [56.08]	A B C D E	WH (120 mm)
50	2.788 [70.82]	2.708 [68.78]	A B C D E	WG (88 mm)
60	3.288 [83.52]	3.208 [81.48]	A B C D E	WH (120 mm)
64	3.488 [88.60]	3.408 [86.56]	A B C D E	WH (120 mm)

1. Notches A & C will accommodate 3M polarizing key N3518.
2. Vacuum cap will be centered on connectors with odd # of pins/row. It will be offset away from Pin 1 on connectors having an even # of pins per row (shown).
3. Coplanarity .004 for less than 30 position. .006 for 30 and above.

N25XX-6V0C-RB -XX

Packaging Options:
WX = tape & reel packaging (see table)

TS-0770-17
Sheet 4 of 5

3M™ 4-Wall Header

.100" × .100" Low Profile, SMT Straight, PTH Straight & Right Angle

2500 Series

2500 & 3000 Series Shrouded Header					
Total Number of Pins	Number of Tails Kinked	Positions Kinked			
		3	4	7	8
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.

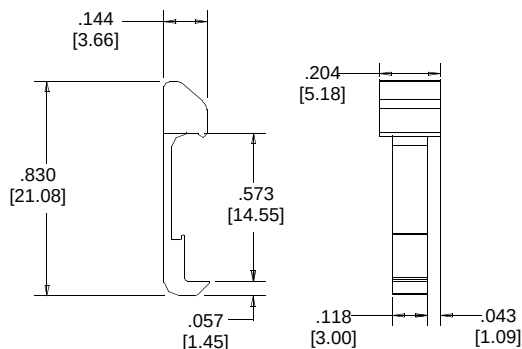
Connector Pin Qty	Dimension A
10	.81 [20.6]
14	1.02 [25.9]
16	1.12 [28.4]
20	1.32 [33.5]
24	1.52 [38.7]
26	1.63 [41.4]
30	1.83 [46.4]
34	2.03 [51.6]
40	2.33 [59.2]
50	2.83 [71.9]
60	3.33 [84.6]
64	3.53 [89.7]

3505-8XXX

Connector Pin Count:
(See Table)

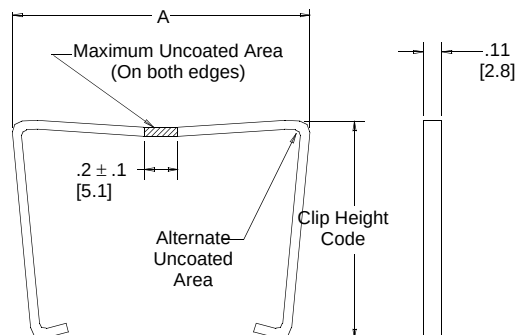
Clip Height Code
0 = .31 [7.9] for Sockets W/O
Strain Relief
1 = .53 [13.5] for Sockets with
Strain Relief

Part Number	Material	Color
3505-33B	Nylon	Black



Long Snap In Latch

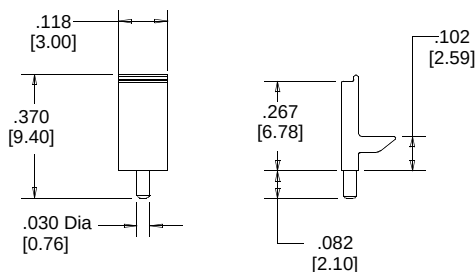
Note: Latches not compatible with reflow soldering. For reflow soldering, attach latches after soldering.



Short/Long Socket Retainer Clip

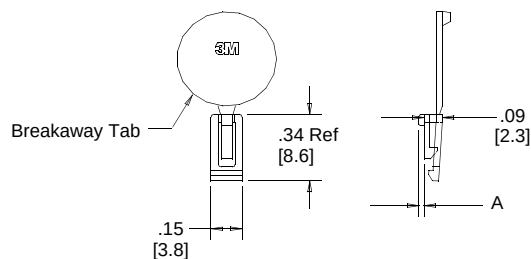
Note: Stainless steel with gray polyurethane coating.

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-0770-17
Sheet 5 of 5



Interconnect Solutions

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

3M is a trademark of 3M Company.

For technical, sales or ordering information call

800-225-5373

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
800/225-5373
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 2006