

# 3M™ Four-Wall Header

.100" x .100" Low Profile, SMT Straight, Straight and Rt Angle Through-Hole

D2500 Series



- Low profile, space saving design
- Center slot polarization designed to prevent misinsertions and reduce insertion time
- Dual slot polarization means broader compatibility with competitive polarization designs (not 10 pos.)
- Optional retainer clip for locking sockets in place and increasing connection reliability in vibrationprone environments
- High temperature insulator suitable for “no lead” soldering operations
- High temperature insulator in through-hole version suitable for “paste in hole” reflow soldering
- Exposed solder tails (on right angle version) are designed to provide ease of cleaning and help reduce repair costs
- Straight surface mount version available
- See regulatory information appendix (RIA) for chemical compliance information

Date Modified: October 22, 2008

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## Physical

### Insulator

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

### Plating

Underplating: 50 - 100  $\mu$ " [ 1.25  $\mu$ m ] Ni  
Wiping Area: 10  $\mu$ " [ 0.25  $\mu$ m ] Gold  
Solder Tails: 40 - 120  $\mu$ " [ 1-3  $\mu$ m ] Matte Tin

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

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## Electrical

Current Rating: 2 A  
Insulation Resistance:  $>1 \times 10^9$  at 500 V<sub>DC</sub>  
Withstanding Voltage: 1,000 V<sub>RMS</sub> at Sea Level

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## Environmental

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

UL File No.: E68080



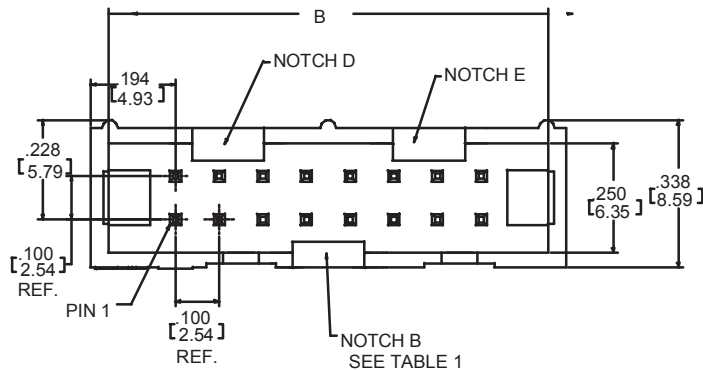
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# 3M™ Four-Wall Header

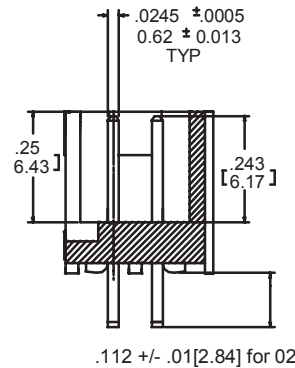
.100" x .100" Low Profile, Straight Through-Hole

D2500 Series

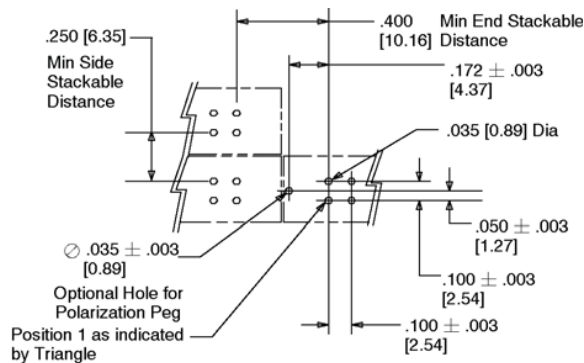
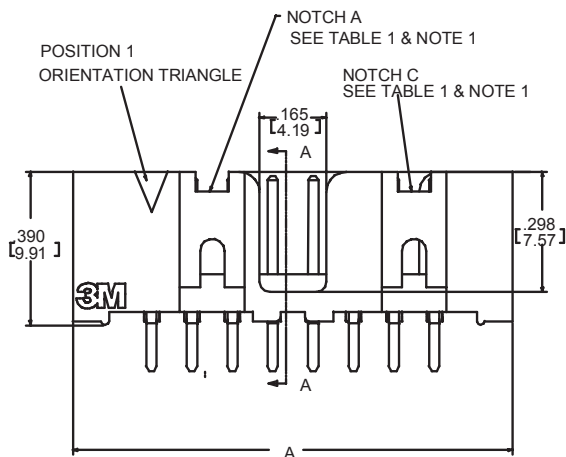


Tolerance Unless Noted			
Inch	.0	.00	.000
Inch	±.1	±.01	±.005

[ ] Dimensions for Reference only



SECTION A-A



**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)	BCDE
16	1.088	(27.64)	1.008	(25.60)	ABCDE
20	1.288	(32.72)	1.208	(30.68)	ABCDE
24	1.488	(37.80)	1.408	(35.76)	ABCDE
26	1.588	(40.34)	1.508	(38.30)	ABCDE
30	1.788	(45.42)	1.708	(43.38)	ABCDE
34	1.988	(50.50)	1.908	(48.46)	ABCDE
40	2.288	(58.12)	2.208	(56.08)	ABCDE
50	2.788	(70.82)	2.708	(68.78)	ABCDE
60	3.288	(83.52)	3.208	(81.48)	ABCDE
64	3.488	(88.60)	3.408	(86.56)	ABCDE

## Notes:

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

## Ordering Information

**D25XX-6002-AR**

Plating:  
AR = 10 μ" [0.25 μm] Gold (RIA E1 & C1 apply)

Solder Tail  
02 = for .062 [1.57] thick board  
Pin Quantity:  
(See Table 1)

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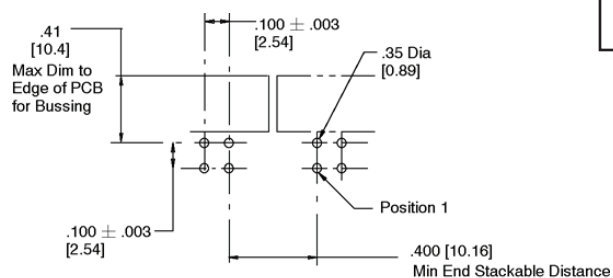
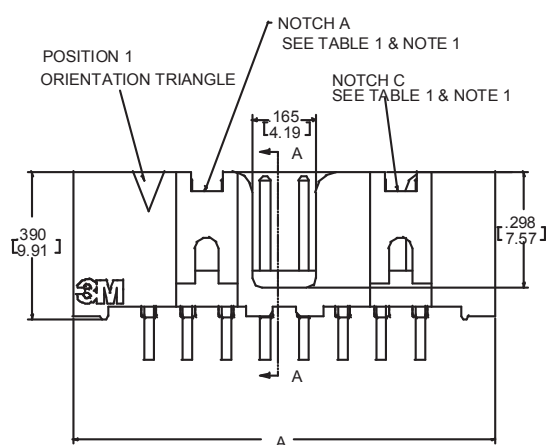
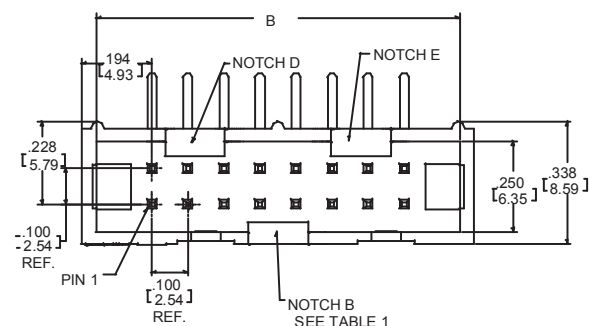
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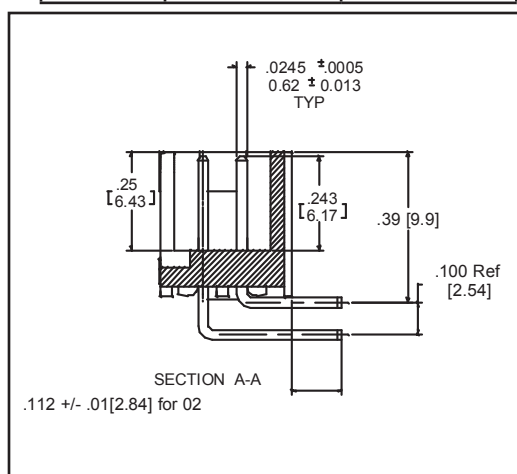
## .100" x .100" Low Profile, Right Angle Through-Hole

## D2500 Series



### Recommended Mounting Hole Pattern

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



Inch  
(mm)

Tolerance Unless Noted			
	.0	.00	.000
Inch	± .1	± .01	± .001

[ ] Dimensions for Reference only



Notes:

1. Notches A & C will accomodate 3M Polarizing Keys (3M Part N3518).
2. Contacts tails .0245 [0.622] wire with .0075 [0.191] corner radii & .028 [.071] diagonal.

## Ordering Information

**D25XX-5002-AR**

Plating:  
AR = 10  $\mu$ m [0.25  $\mu$ m] Gold (RIA E1 & C1 apply)

Pin Quantity:  
(See Table 1)

Solder Tail \_\_\_\_\_  
02 = for .062 [1.57] thick board

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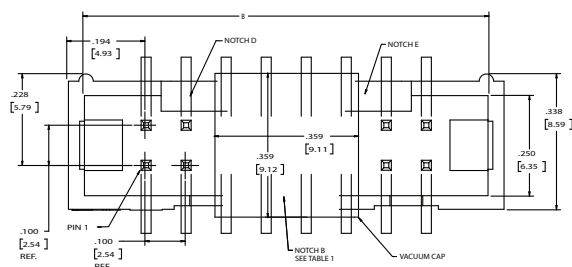
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## .100" x .100" Low Profile, Surface Mount Straight

## D2500 Series



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

[ ] Dimensions for Reference only

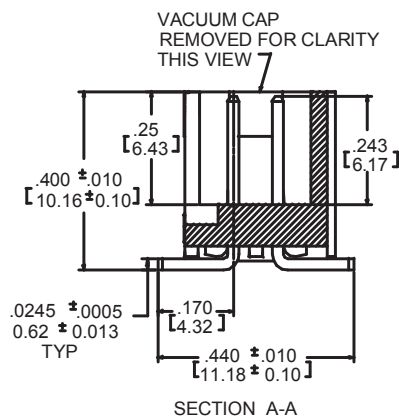
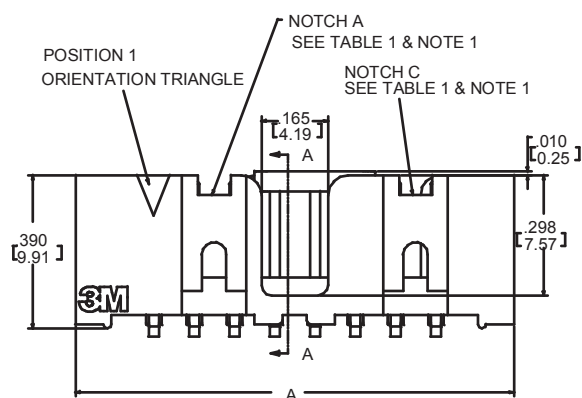
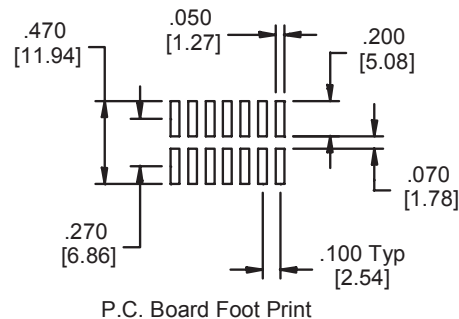


Table 1

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

Notes:

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.



## Ordering Information

**D25XX-6V0C-AR -XX**

—Packaging Options:  
WX = tape & reel packaging (see table 1)

Plating:  
AR = 10  $\mu\text{m}$  [0.25  $\mu\text{m}$ ] Gold (RIAE1 & C1)

Pin Quantity:  
(See Table)

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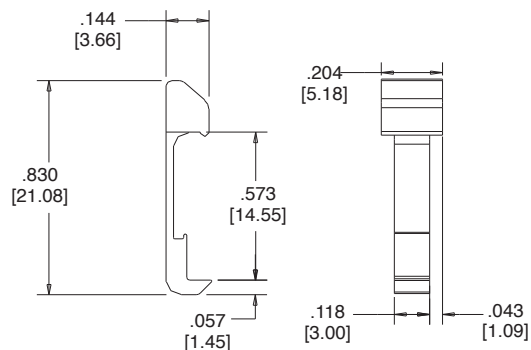
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# 3M™ Four-Wall Header

.100" x .100" Low Profile, Accessories

2500 Series

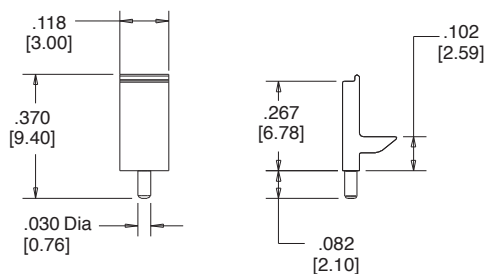
Part Number	Material	Color
3505-33B	Nylon	Black



Long Snap In Latch

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

Part Number	Material	Color
3201-3	PCT	Black

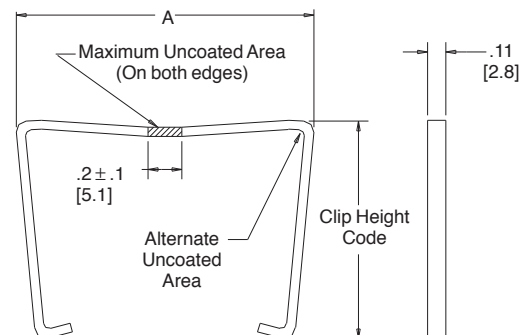


Polarizing Post

**3505-8XXX**

Connector Pin Count:  
(See Table)

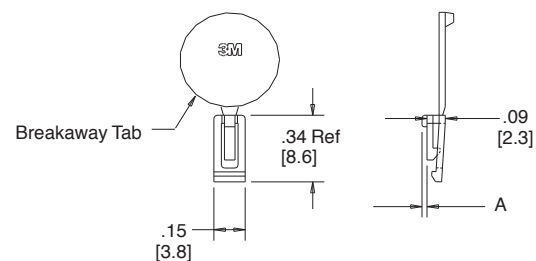
Clip Height Code  
0 = .31 [7.9] for Sockets W/O  
Strain Relief  
1 = .53 [13.5] for Sockets  
with Strain Relief



Short/Long Socket Retainer Clip

Note: Stainless steel with gray polyurethane coating.

Part Number	Material	Color	Dim A
N3518	LCP	Black	0.02



Note: 3M™ Scotch-Weld™ Epoxy Adhesive 2216 B/A

Polarizing Keys

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Sheet 5 of 5



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