

# .100" × .100" Low Profile Header

Straight & Right Angle, 4 Wall, High Temp Option

2500 Series



81

## IMPORTANT NOTICE TO PURCHASER

ALL STATEMENTS, TECHNICAL INFORMATION AND RECOMMENDATIONS CONTAINED HEREIN ARE BASED ON TESTS WE BELIEVE TO BE RELIABLE, BUT THE ACCURACY OR COMPLETENESS THEREOF IS NOT GUARANTEED, AND THE FOLLOWING IS MADE IN LIEU OF ALL WARRANTIES, EXPRESSED OR IMPLIED:

SELLER'S AND MANUFACTURER'S ONLY OBLIGATION SHALL BE TO REPLACE SUCH QUANTITY OF THE PRODUCT PROVED TO BE DEFECTIVE. NEITHER SELLER NOR MANUFACTURER SHALL BE LIABLE FOR ANY INJURY, LOSS OR DAMAGE, DIRECT OR CONSEQUENTIAL, ARISING OUT OF THE USE OF OR THE INABILITY TO USE THE PRODUCT. BEFORE USING, USER SHALL DETERMINE THE SUITABILITY OF THE PRODUCT FOR HIS INTENDED USE, AND USER ASSUMES ALL RISK AND LIABILITY WHATSOEVER IN CONNECTION THEREWITH. NO STATEMENT OR RECOMMENDATION NOT CONTAINED HEREIN SHALL HAVE ANY FORCE OR EFFECT UNLESS IN AN AGREEMENT SIGNED BY OFFICERS OR SELLER AND MANUFACTURER.

Date Issued: January 20, 1998

TS-0770-03  
Sheet 1 of 3

## Physical

### Insulation

Material: Glass Filled Polyester (PBT)  
Glass Filled Polyester (PCT — High Temp Option)

Flammability: UL 94V-0

Color: Gray  
Beige (High Temp Option)

Marking: 3M Logo, and Orientation Triangle

### 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 ] 60/40 Tin Lead — MIL-P-81728

Wrap Tails: Gold Flash (Standard Only)

## 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:**  $-55^\circ\text{C}$  to  $+105^\circ\text{C}$

Processing: Maximum  $235^\circ\text{C}$ , with 90 seconds over  $215^\circ\text{C}$  (High Temp Option)

UL File No.: E68080

### 3M Electronic Products Division

6801 River Place Blvd.  
Austin, TX 78726-9000

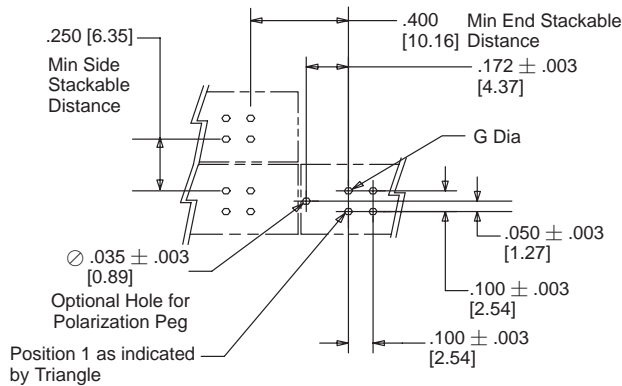
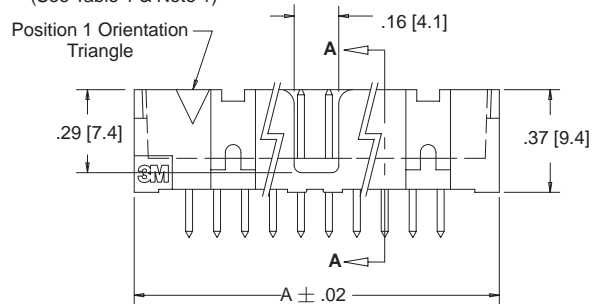
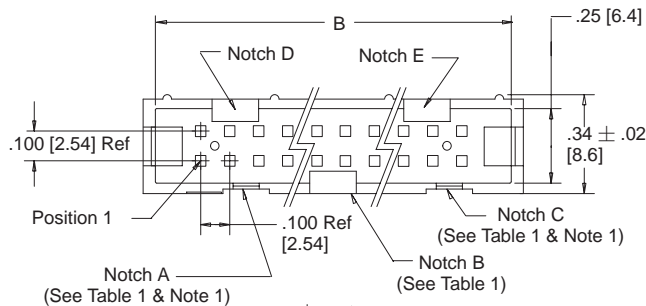
For technical, sales or ordering information call  
**800-225-5373**

# .100" × .100" Low Profile Header Straight & Right Angle, 4 Wall, High Temp Option

2500 Series

Tail	Dim E	Pin Cross Section			Dim G ± .003
		Dimension F	Diagonals	Corner Radii	
X2	.112 [ 2.84]	0.0245 ± .0005 [0.622]	0.028 ± .001 [0.71]	0.0075 Ref [0.191]	.035 [0.89] (See Note 2)
03	.155 [ 3.94]	0.0245 ± .0005 [0.622]	0.028 ± .001 [0.71]	0.0075 Ref [0.191]	.035 [0.89]
05	.61 Ref [15.5]	0.0250 ± .002 [0.635]	0.035 ± .003 [0.90]	0.003 Max [0.08]	.045 [1.14]

Pin Qty	Dimensions		Polarizing Notches
	A	B	
10	0.79 [20.0]	0.70 [17.8]	B C
14	0.99 [25.1]	0.90 [22.8]	B C D E
16	1.09 [27.6]	1.00 [25.4]	A B C D E
20	1.29 [32.7]	1.20 [30.4]	A B C D E
24	1.49 [37.8]	1.40 [35.5]	A B C D E
26	1.59 [40.3]	1.50 [38.1]	A B C D E
30	1.79 [45.4]	1.70 [43.2]	A B C D E
34	1.99 [50.5]	1.90 [48.2]	A B C D E
40	2.29 [58.1]	2.20 [55.9]	A B C D E
50	2.79 [70.8]	2.70 [68.6]	A B C D E
60	3.29 [83.5]	3.20 [ 81.3]	A B C D E
64	3.49 [88.6]	3.40 [86.4]	A B C D E

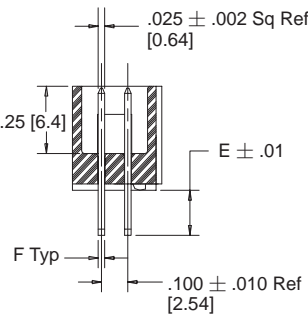


**Recommended P.C. Board Hole Pattern**  
(Shown for mounting side of board.)

**Notes:**

- Notches "A" and "C" will accommodate 3M Polarizing Keys 3518.
- The recommended PCB hole size for the kinked tail positions on the .112" solder tail connector is .035" ± .002.

**Straight**



**Section A-A**



**Inch**  
[mm]

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

[ ] Dimensions for Reference Only

## Ordering Information

**X25XX-X0XXXX**

Blank = Standard  
N = High Temperature

Pin Quantity:  
(See Table 1)

Product Material:  
6 = Standard Product  
7 = High temperature  
(Bond pad not available)

Tail  
02 = Solder Tails for .062 [ 1.57 ] Thick Board.  
K2 = Kinked Solder Tails for .062 [ 1.57 ] Thick Board.  
03 = Solder Tails for .094 to .125 [ 2.39 to 3.18 ] Thick Board.  
05 = Wrap Tails for up to 3 Levels of Wire Wrap.  
(Standard Only)

Mating Plating Thickness:  
For Solder Tail Versions  
UG = 15 μ" [ 0.38 μm ]  
UB = 30 μ" [ 0.76 μm ]  
For Wrap Tail Versions  
EB = 30 μ" [ 0.76 μm ]  
(Standard Only)

TS-0770-03  
Sheet 2 of 3

## 3M Electronic Products Division

6801 River Place Blvd.  
Austin, TX 78726-9000

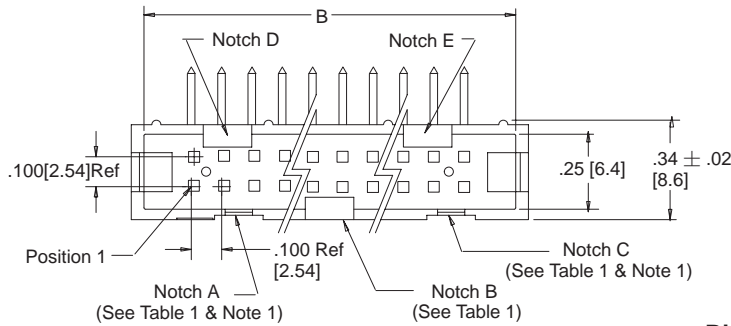
For technical, sales or ordering information call  
**800-225-5373**

# .100" × .100" Low Profile Header Straight & Right Angle, 4 Wall, High Temp Option

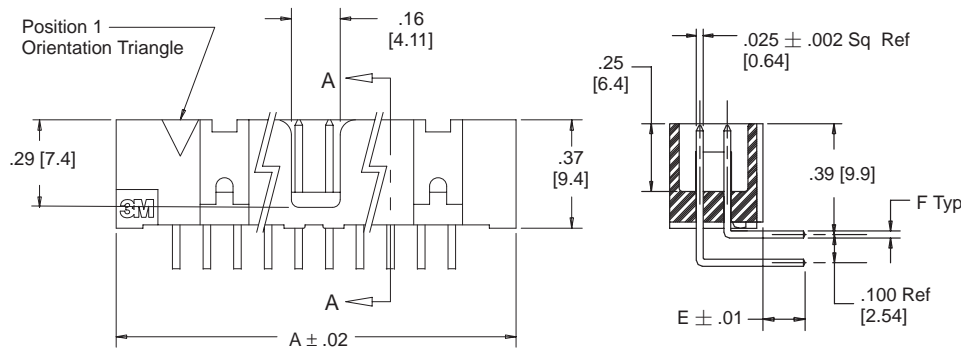
2500 Series

Table 2					
Tail	Dim E	Pin Cross Section			Dim G ± .003
		Dimension F	Diagonals	Corner Radii	
X2	.112 [ 2.84]	0.0245 ± .0005 [0.622]	0.028 ± .001 [0.71]	0.0075 Ref [0.191]	.035 [0.89] (See Note 2)
03	.155 [ 3.94]	0.0245 ± .0005 [0.622]	0.028 ± .001 [0.71]	0.0075 Ref [0.191]	.035 [0.89]
05	.61 Ref [15.5]	0.0250 ± .002 [0.635]	0.035 ± .003 [0.90]	0.003 Max [0.08]	.045 [1.14]

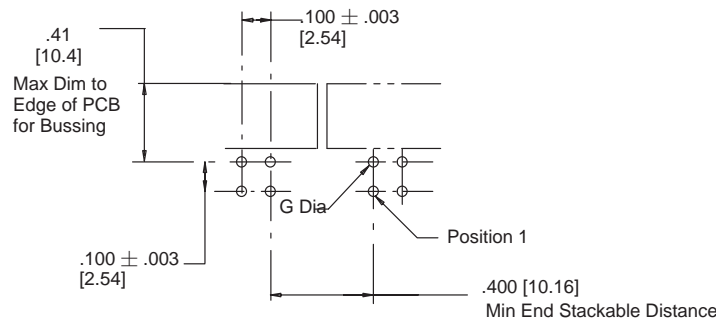
Table 1			
Pin Qty	Dimensions		Polarizing Notches
	A	B	
10	0.79 [20.0]	0.70 [17.8]	B C
14	0.99 [25.1]	0.90 [22.8]	B C D E
16	1.09 [27.6]	1.00 [25.4]	A B C D E
20	1.29 [32.7]	1.20 [30.4]	A B C D E
24	1.49 [37.8]	1.40 [35.5]	A B C D E
26	1.59 [40.3]	1.50 [38.1]	A B C D E
30	1.79 [45.4]	1.70 [43.2]	A B C D E
34	1.99 [50.5]	1.90 [48.2]	A B C D E
40	2.29 [58.1]	2.20 [55.9]	A B C D E
50	2.79 [70.8]	2.70 [68.6]	A B C D E
60	3.29 [83.5]	3.20 [ 81.3]	A B C D E
64	3.49 [88.6]	3.40 [86.4]	A B C D E



### Right Angle



### Section A-A



### Recommended Mounting Hole Pattern

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

[ ] Dimensions for Reference Only

#### Notes:

- Notches "A" and "C" will accommodate 3M Polarizing Keys 3518.
- The recommended PCB hole size for the kinked tail positions on the .112" solder tail connector is .035" ± .002.

## Ordering Information

### X25XX-50XXXX

Blank = Standard  
N = High Temperature

Pin Quantity:  
(See Table 1)

Tail  
02 = Solder Tails for .062 [ 1.57 ] Thick Board.  
K2 = Kinked Solder Tails for .062 [ 1.57 ] Thick Board.  
03 = Solder Tails for .094 to .125 [ 2.39 to 3.18 ] Thick Board.  
05 = Wrap Tails for up to 3 Levels of Wire Wrap.  
(Standard Only)

Mating Plating Thickness:  
For Solder Tail Versions  
UG = 15 μ" [ 0.38 μm ]  
UB = 30 μ" [ 0.76 μm ]  
For Wrap Tail Versions  
EB = 30 μ" [ 0.76 μm ]  
(Standard Only)

TS-0770-03  
Sheet 3 of 3

## 3M Electronic Products Division

6801 River Place Blvd.  
Austin, TX 78726-9000

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