

3M™ Three-Wall Header

.100" × .100" Latch/Ejector, Straight and Right Angle

3000 Series



- Military (with 3M's 3518 or N3518 polarizing key) and center bump polarization
- Low profile
- Optional ejector latches
- Mounting holes for securing header to board
- Three wall shroud provides design flexibility
- Solder tail and wrap tail options
- Optional polarizing posts available
- Optional high temperature insulator suitable for "no lead" soldering operations
- High temperature option is suitable for reflow soldering using "paste in hole" techniques
- See the Regulatory Information Appendix (RIA) in the "RoHS compliance" section of www.3Mconnectors.com for compliance information

Date Modified: May 21, 2012

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Physical

Insulator:

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

Flammability: UL 94V-0

Color: Gray (PBT), Black (PCT)

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] Tin Lead or Matte Tin (See Ordering Information)

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

Electrical

Current Rating: 5.00 A, 1 Contact Powered
3.00 A, 6 Contacts Powered
1.75 A, All Contacts Powered
Rating Conditions: EIA-364-070 Method 2, 30°C maximum temperature rise, 20% derated. Reference appropriate 3M Product Specification for detailed current derating curves.

Insulation Resistance: $>1 \times 10^9 \Omega$ at 500 V_{DC}

Withstanding Voltage: 1000 V_{RMS} at Sea Level

Environmental

Temperature Rating: -55°C to +105°C

Process Rating: High Temp PCT insulator version: 260°C, per J-STD-020C, single pass
PBT insulator version: 191°C, maximum insulator temperature, solder wave process only

Moisture Sensitivity Level: 1 (per J-STD-020C) High Temp. (PCT) versions only

UL File No.: E68080

3M

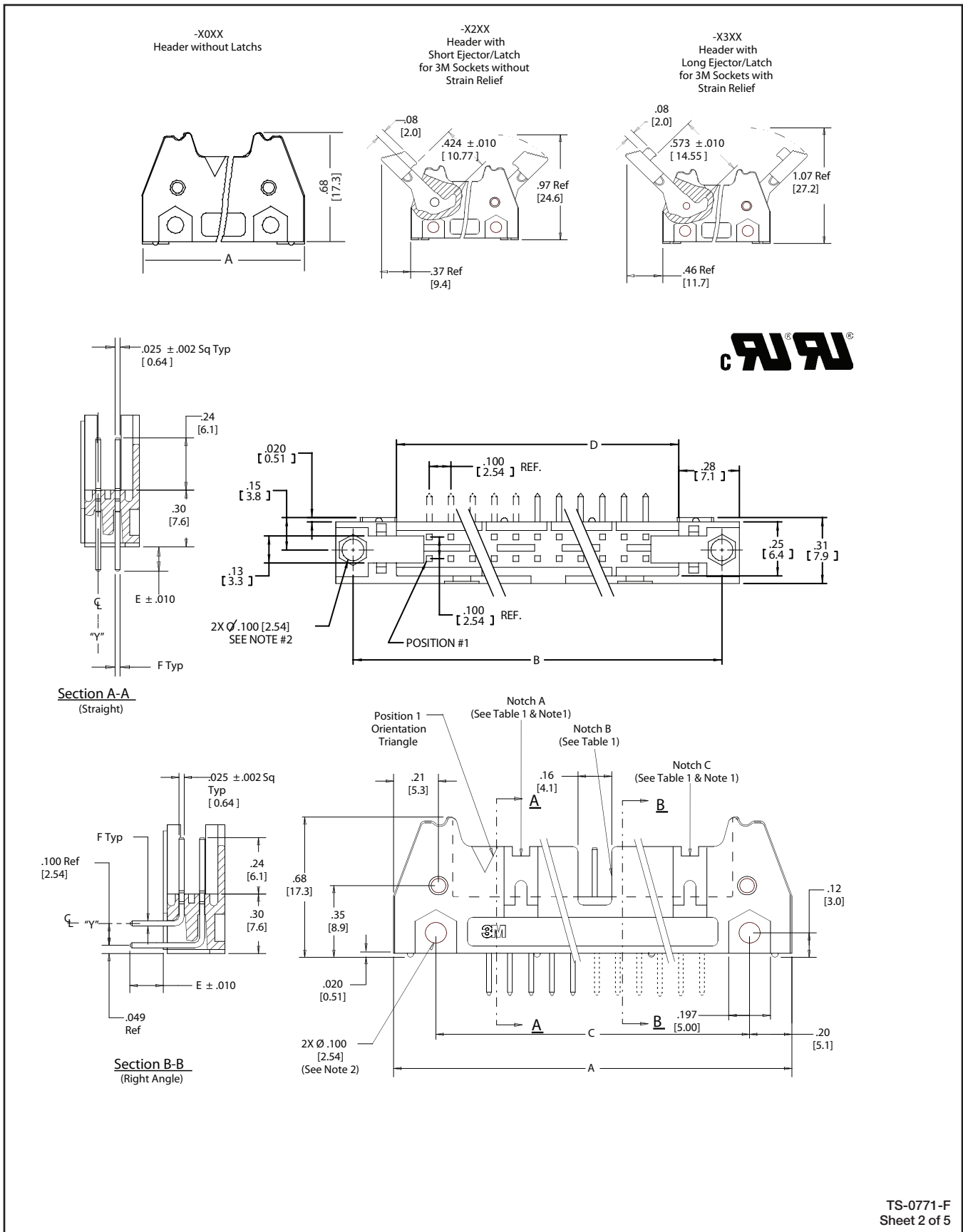
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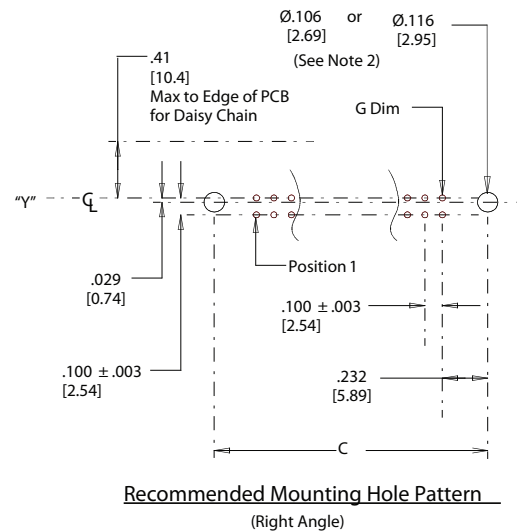
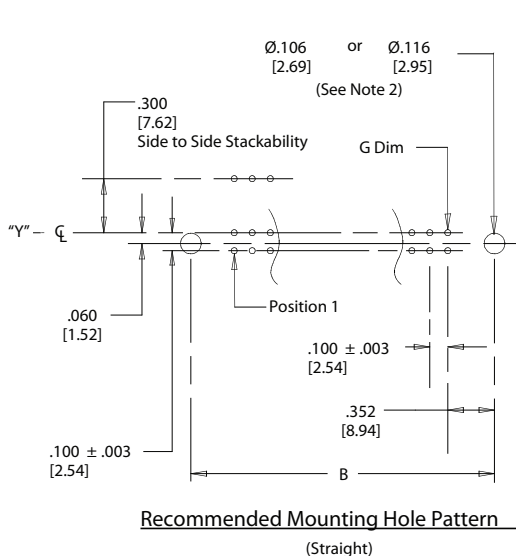
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| Table 1 | | | | | | |
|---------|----------------|--------------|---------------|---------------|-------------|--------------------|
| Pin Qty | 3M Part Number | Dimensions | | | | Polarizing Notches |
| | | A | B | C | D | |
| 10 | 3793 | 1.26 (32.1) | 1.105 (28.07) | 0.865 (21.97) | 0.71 (18.0) | BC |
| 14 | 3314 | 1.46 (37.2) | 1.305 (33.15) | 1.065 (27.05) | 0.91 (23.1) | BC |
| 16 | 3408 | 1.56 (39.7) | 1.405 (35.69) | 1.165 (29.59) | 1.01 (25.6) | ABC |
| 20 | 3428 | 1.76 (44.8) | 1.605 (40.77) | 1.365 (34.67) | 1.21 (30.7) | ABC |
| 26 | 3429 | 2.06 (52.4) | 1.905 (48.39) | 1.665 (42.29) | 1.51 (38.3) | ABC |
| 34 | 3431 | 2.46 (62.6) | 2.305 (58.55) | 2.065 (52.45) | 1.91 (48.5) | ABC |
| 40 | 3432 | 2.76 (70.2) | 2.605 (66.17) | 2.365 (60.07) | 2.21 (56.1) | ABC |
| 50 | 3433 | 3.26 (82.9) | 3.105 (78.87) | 2.865 (72.77) | 2.71 (68.8) | ABC |
| 60 | 3372 | 3.76 (95.6) | 3.605 (91.57) | 3.365 (85.47) | 3.21 (81.5) | ABC |
| 64 | 3764 | 3.96 (100.7) | 3.805 (96.65) | 3.565 (90.55) | 3.41 (86.6) | ABC |

| Table 2 | | | | | | |
|-----------------------|--|----------------|--------------------------|-----------------------|----------------------|-------------------------------------|
| 3M Part Number Suffix | Contact Tail | Dimension E | Pin Cross Section | | | Dimension G |
| | | | Dimension F | Diagonals | Corner Radii | |
| -1XX2 -2XX2 | Solder Tail for .062 (1.57) Thick PC Board | .112 (2.84) | .0245 ± .0005 (0.622) | .028 ± .001 (0.71) | .0075 Ref (0.191) | 0.035 ± .003 (0.89) (See Note 3) |
| -1X03 -2X03 | Solder Tail for 0.94 (2.39) to .125 (3.18) Thick PC Board | .155 (3.94) | .0245 ± .0005 (0.622) | .028 ± .001 (0.71) | .0075 Ref (0.191) | 0.035 ± .003 (0.89) |



| Inch (mm) | | | |
|------------------------|------|-------|--------|
| Tolerance Unless Noted | | | |
| | .0 | .00 | .000 |
| Inch | ± .1 | ± .01 | ± .005 |

[] Dimensions for Reference only

Notes:

- Notches A & C will accommodate 3M Polarizing Keys (3M Part #3518 or N3518).
- Accepts Rear and Front mounting hardware:
Rear Entry: #4-24 thread cutting screw, 3M Part #3341-5, .116 [2.95] dia mounting hole
Front Entry: (Prior to installation of latch on Straight Versions) #2-56 bolt and nut, 3M Part #3341-6, .106 [2.69] dia mounting hole. See illustrations on page 5.
- The recommended PCB hole size for the kinked tail positions on the .112 solder tail connector is .035 ± .002. Kink is located .05" below bottom surface of plastic. External radius of kink toward part centerline

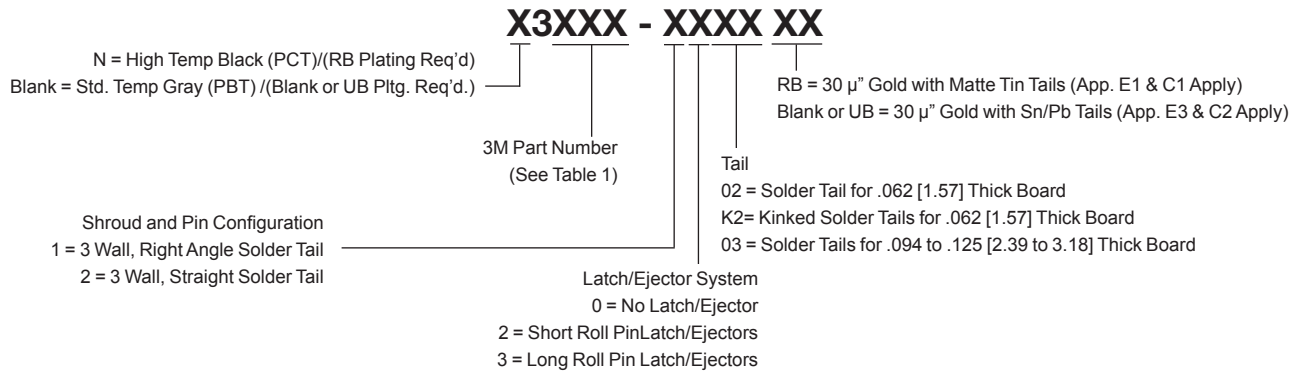
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Ordering Information



Part Customization

This spec sheet details our standard offering.

3M has several capabilities that can provide a part tailored to your specific needs. Ask your 3M sales representative or customer service for more details.

Use of snap-in style latch/ejectors in either short (N3XXX X5XX) or long (N3XXX-X6XX) styles, installed or shipped separately (the -5 & -6 snap-in latches are dimensional and functional equivalents to the -2 & -3 roll pin latches) which are also available separately with roll pins included. Refer to chart below.

If ordering snap-in or roll pin style latches separately, please use the below chart

| | Short Latch | Long Latch | Latch Style | Color |
|----------------------------|-------------|------------|-------------|-------|
| Standard Temperature (PBT) | 3505-2 | 3505-3 | Roll Pin | Gray |
| High Temperature (PCT) | N3505-2B | N3505-3B | Roll Pin | Black |
| High Temperature (PBT) | 3505-30 | 3505-31 | Snap-In | Gray |
| High Temperature (PPA) | N3505-30B | N3505-31B | Snap-In | Black |

- Selective pin removal (ATA or other compatibility)
- Wire wrap tails styles

Kinked Tail (K2 option) positions:

| 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.

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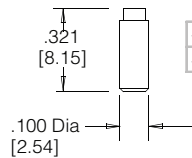
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Polarizing Post

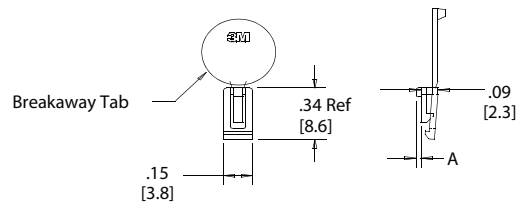


| | | |
|--------|-----|-------|
| 3201-3 | PBT | Gray |
| 3201-4 | LCP | Black |

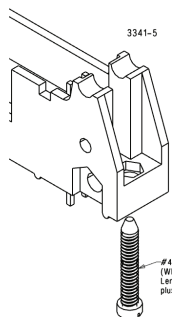
Note: Insert Post into one mounting hardware hole on bottom of header. Set post to protrude .115" [2.92]

Polarizing Keys

| | | | Dim A |
|-------|-----|-------|-------|
| N3518 | LCP | Black | .02 |
| 3518 | PBT | Gray | .02 |



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

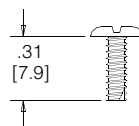


#4-24 Type BT Self Threading Screw
(When using Latches, Maximum Length of screw is .250 inch plus thickness of the board.
TORQUE IN THIS DIRECTION IS 7-9 INCH LBS.

#4-24 Type BT Self Threading Screw
(When using Latches, Maximum Length of screw is .250 inch plus thickness of the board.
TORQUE IN THIS DIRECTION IS 5-7 INCH LBS.

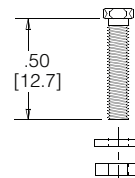
Mounting Hardware

3341-5
(Installed from bottom of board)



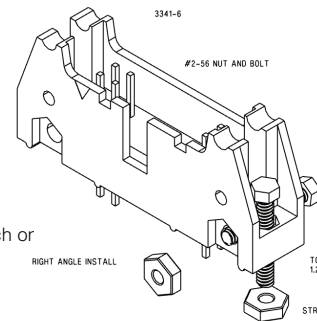
Panhead Thread Cutting Screw:
#4-24 X 5/16"
Type: USA Std BT, Federal BG

3341-6
(Must be inserted prior to latch or vertical headers)



Hex Head Bolt, Nut and Was
Bolt - #2-56 X 1/2"

3341-5 & 6
Material - Stainless Steel



TORQUE:
1.25 - 3.125 INCH LBS.

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