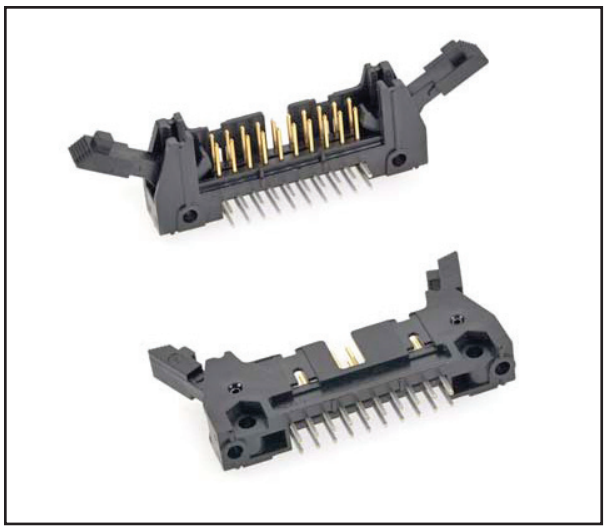
3M™ Three-Wall Header

.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

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:	$>1 \times 10^9$ Ω 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

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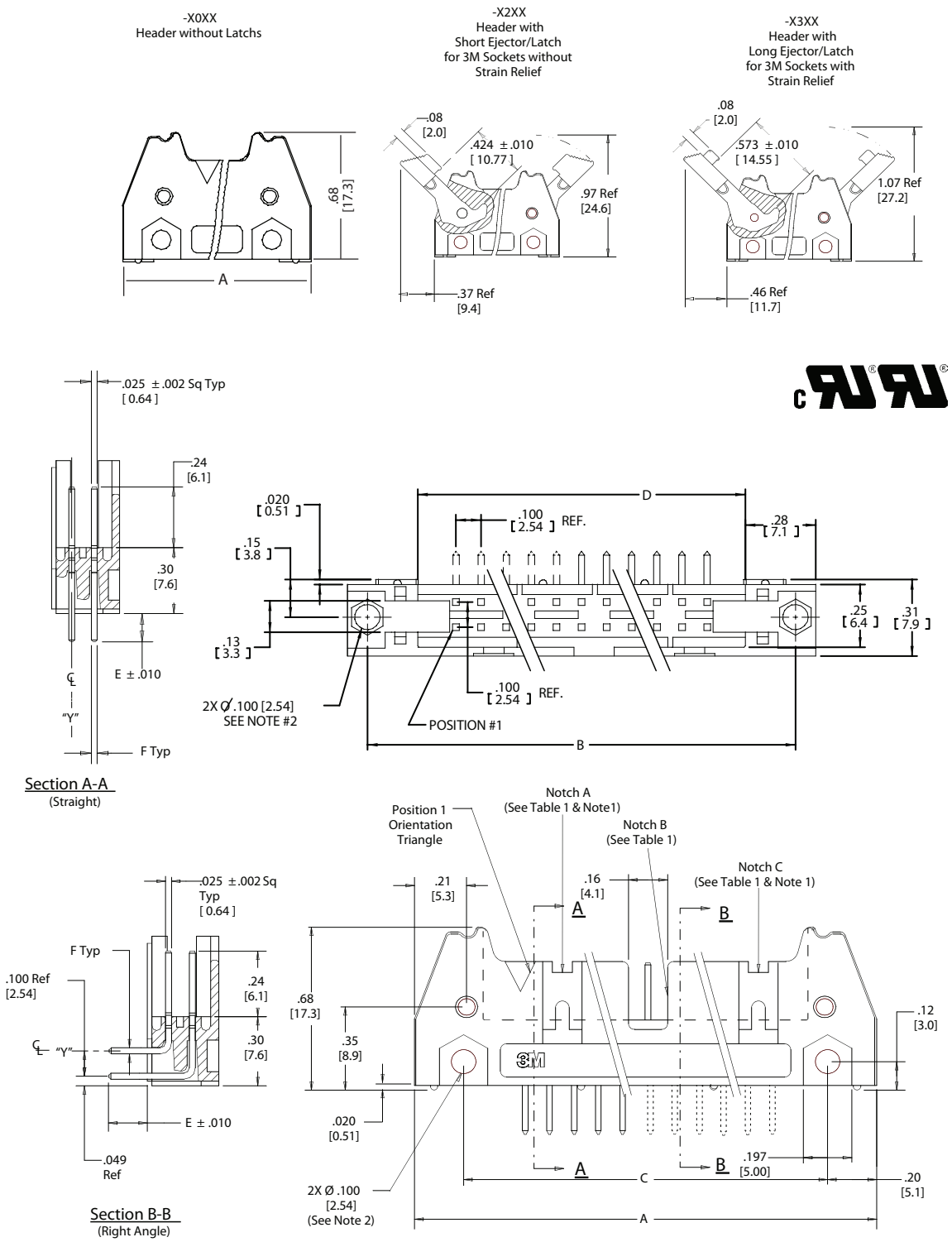


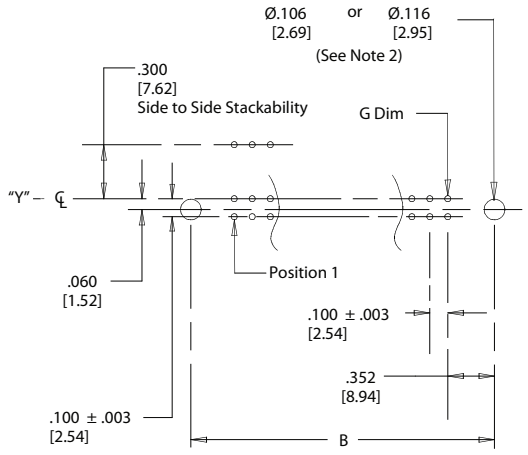
TS-0771-F
Sheet 2 of 5

3M™ Three-Wall Header

.100" × .100" Latch/Ejector, Straight and Right Angle — 3000 Series

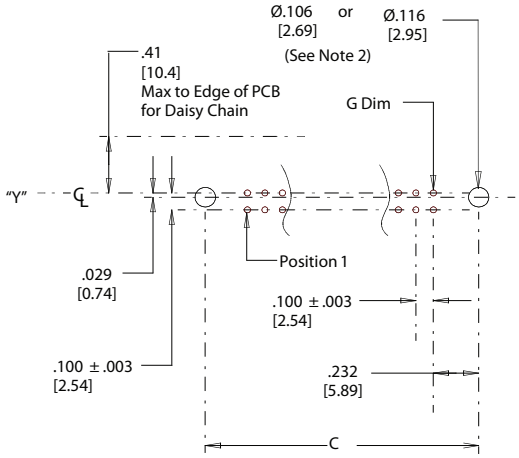
Table 1						
Pin Qty	3M Part Number	Dimensions				Polarizing Notches
		A	B	C	D	
10	3793	1.26 (32.1)	1.105 (28.07)	0.865 (21.97)	0.71 (18.0)	BC
14	3314	1.46 (37.2)	1.305 (33.15)	1.065 (27.05)	0.91 (23.1)	BC
16	3408	1.56 (39.7)	1.405 (35.69)	1.165 (29.59)	1.01 (25.6)	ABC
20	3428	1.76 (44.8)	1.605 (40.77)	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)



Recommended Mounting Hole Pattern

(Straight)



Recommended Mounting Hole Pattern

(Right Angle)

Inch (mm)

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

[ ] Dimensions for Reference only

Notes:
1. Notches A & C will accomodate 3M Polarizing Keys (3M Part #3518 or N3518).
2. 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.
3. 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

X3XXX - XXXX XX

- N = High Temp Black (PCT)/(RB Plating Req'd)
  Blank = Std. Temp Gray (PBT) /(Blank or UB Pltg. Req'd.)
- 3M Part Number (See Table 1)
- Shroud and Pin Configuration
  1 = 3 Wall, Right Angle Solder Tail
  2 = 3 Wall, Straight Solder Tail
- Latch/Ejector System
  0 = No Latch/Ejector
  2 = Short Roll PinLatch/Ejectors
  3 = Long Roll Pin Latch/Ejectors
- Tail
  02 = Solder Tail 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
- RB = 30 µ" Gold with Matte Tin Tails (App. E1 & C1 Apply)
  Blank or UB = 30 µ" Gold with Sn/Pb Tails (App. E3 & C2 Apply)

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 compatability)
- 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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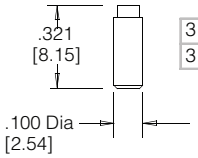
Polarizing Post

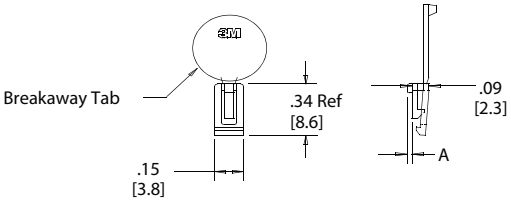


3201-3	PBT	Gray
3201-4	LCP	Black

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

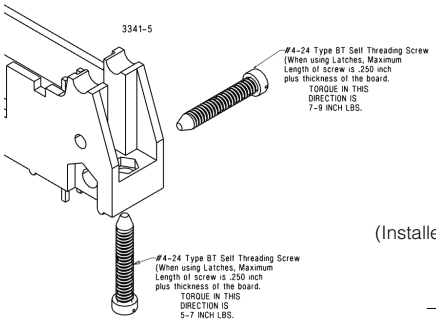
Polarizing Keys

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

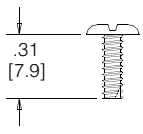


Note: #2216 B/A Scotchweld can be used to adhere keys.

Mounting Hardware

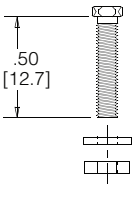


3341-5
(Installed from bottom of board)

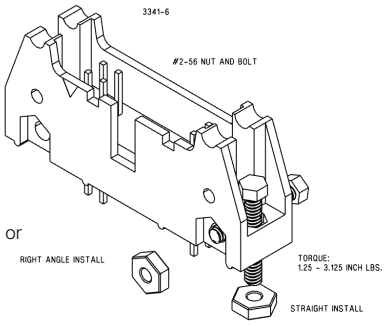


Panhead Thread Cutting Screw:
#4-24 X 5/16"
Type: USA Std BT, Federal BG

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

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