

# 3M™ Four-Wall Header

.100" × .100" Latch/Ejector, Straight, Compliant Pin

3000 Series



- Military (with 3M's 3518 and N3518 polarizing key) and centerbump polarization
- Optional ejector latches
- Optional polarizing posts
- Mounting holes for securing header to board
- Dependable eye-of-the-needle pin design
- Optional high-temperature insulator
- See Regulatory Information Appendix (RIA) for chemical compliance information

Date Modified: April 30, 2008

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## Physical

### Insulation:

Material: Glass Filled Polyester (PBT) Glass Filled Polyester (PCT)

Flammability: UL 94V-0

Color: Gray (PBT), Black (PCT)

### Contact:

Material: Copper Alloy

### Plating:

Underplating: 100 μ" [ 2.54 μm ] Nickel

Wiping Area: 30 μ" [ 0.76 μm ] Gold

Solder Tails: 100 μ" [ 2.54 μm ] Tin Lead or 300u" [ 7.62 μm ] Matte Tin (See Ordering Information)

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

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## Electrical

**Current Rating:** 1 A

**Insulation Resistance:**  $>1 \times 10^9 \Omega$  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

UL File No.: E68080

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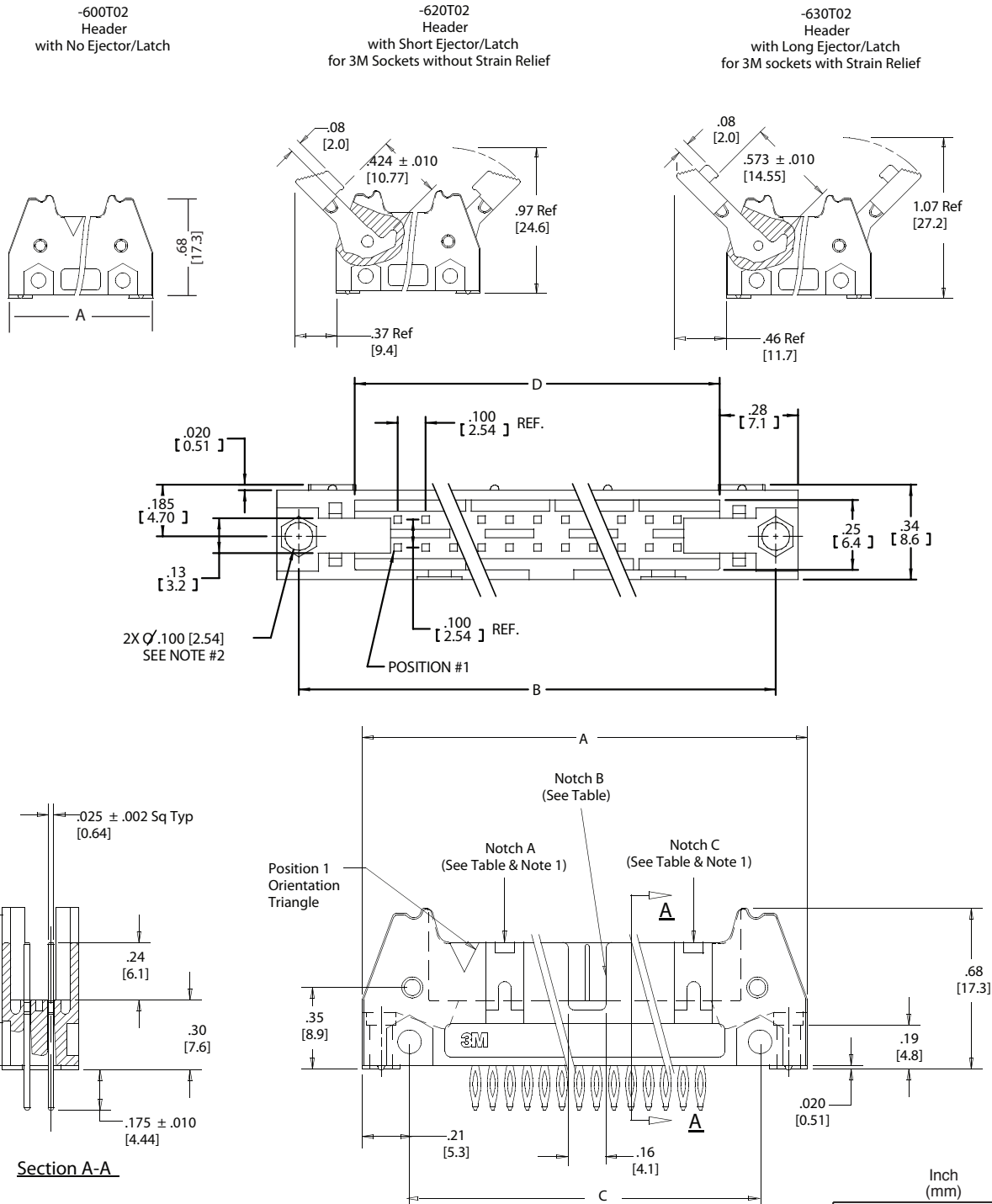
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**Notes:**

- Notches A & C will accommodate 3M Polarizing Keys 3518 or N3518.
- Accepts Rear and Front entry 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): #2-56 Bolt and Nut  
 3M Part # 3341-6 (.106 [2.69] dia. mounting hole).

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

[ ] Dimensions for Reference only



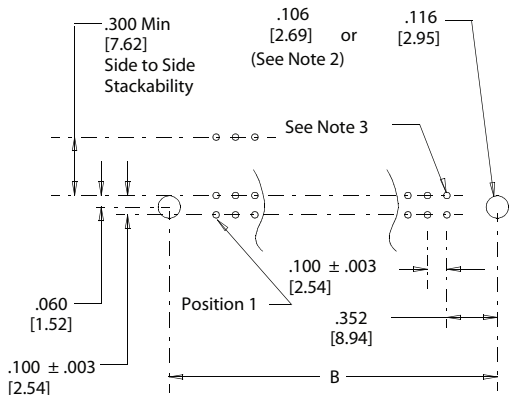
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# 3M™ Four-Wall Header

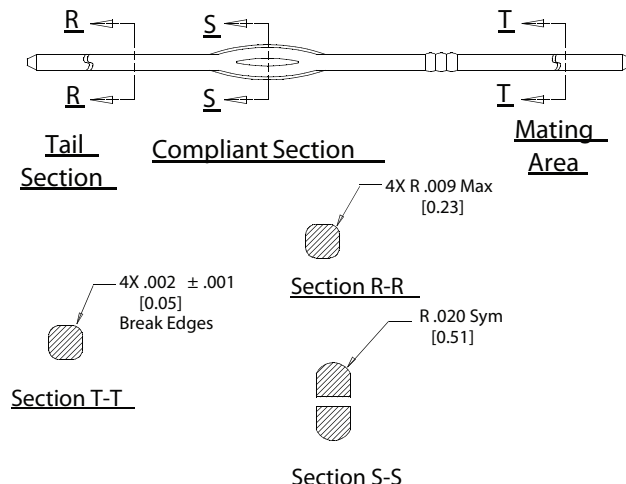
.100" × .100" Latch/Ejector, Straight, Compliant Pin

3000 Series

Pin Qty	3M Part Number	Dimensions				Polarizing Notches Provided	Insertion platen 3442-00XX
		A	B	C	D		
10	3793	1.26 (32.1)	1.105 (28.07)	0.865 (21.97)	0.71 (18.0)	BC	3442-0048
14	3314	1.46 (37.2)	1.305 (33.15)	1.065 (27.05)	0.91 (23.1)	BC	3442-0049
16	3408	1.56 (39.7)	1.405 (35.69)	1.165 (29.59)	1.01 (25.6)	ABC	3442-0050
20	3428	1.76 (44.8)	1.605 (40.77)	1.365 (34.67)	1.21 (30.7)	ABC	3442-0051
24	3627	1.96 (49.9)	1.805 (45.85)	1.565 (39.75)	1.41 (35.8)	ABC	3442-0052
26	3429	2.06 (52.4)	1.905 (48.39)	1.665 (42.29)	1.51 (38.3)	ABC	3442-0053
30	3440	2.26 (57.5)	2.105 (53.47)	1.865 (47.37)	1.71 (43.4)	ABC	3442-0054
34	3431	2.46 (62.6)	2.305 (58.55)	2.065 (52.45)	1.91 (48.5)	ABC	3442-0055
40	3432	2.76 (70.2)	2.605 (66.17)	2.365 (60.07)	2.21 (56.1)	ABC	3442-0056
50	3433	3.26 (82.9)	3.105 (78.87)	2.865 (72.77)	2.71 (68.8)	ABC	3442-0057
60	3372	3.76 (95.6)	3.605 (91.57)	3.365 (85.47)	3.21 (81.5)	ABC	3442-0058
64	3764	3.96 (100.7)	3.805 (96.65)	3.565 (90.55)	3.41 (86.6)	ABC	3442-0059



Recommended Mounting Hole Pattern



Note:

- Listed below are the PCB hole sizes and tolerances recommended for use with 3M's compliant pin header. The insertion force is designed not to exceed 40 pounds per pin and the withdrawal force is not less than 10 pounds per pin.
- Use of snap-in latch/ejectors in either short (N3XXX-650T02XX) or long (N3XXX-660T02XX) styles, installed or shipped separately. (-5 & -6 snap-in latches are dimensionally and functionally equivalent to -2 & -3 roll pin latches)

If ordering Snap-In style latches separately, please use the chart below

	Short Latch	Long Latch	Color
High Temp (PPA)	3505-30	3505-31	Gray
High Temp (PPA)	N3505-30B	N3505-31B	Black

### Pin Cross Sections

Hole Size for:  
 Preferred Drilled -  $\phi$ .0453 ± .0005  
 Acceptable Drilled -  $\phi$ .0453 + .0005 - .0010  
 After Etchback -  $\phi$ .0460 Max  
 After Plating -  $\phi$ .040 ± .003  
 Board thickness - .093 to .150  
 Plating:  
 .001 Minimum Copper plating thickness  
 .0003 Min Tin plating

## Ordering Information

Prefix:  
 Blank = Std. Temp Gray (PBT): (TC Plating Req'd)  
 N = High Temp Black (PCT) (RB Plating Req'd)

**X XXXX - 6X0T02XX**

3M Part Number

Latch/Ejector System:  
 0 = No latch/ejectors  
 2 = Short latch/ejectors  
 3 = Long latch/ejectors  
 5 = Short, Snap-In Latch/Ejectors  
 6 = Long, Snap-In Latch/Ejectors

Plating suffix:  
 TC = 30 μ" Gold w/Tin-Lead Tails (App. E2 & C2 Apply)  
 RB = 30 μ" Gold w/Matte Tin Tails (App. E1 & C1 Apply)

Assembly Equipment: Use 3442-00XX platen (see chart above) and appropriate commercial arbor press to press header into pc board.

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# Regulatory Information Appendix

## 3M Electronic Solutions Division/Interconnect

### EUROPE

#### Appendix E1: European Union RoHS

Directive 2002/95/EC, Restriction of the Use of Certain Hazardous Substances in Electrical & Electronic Equipment, as amended by EU Commission Decision 2005/618/EC.

**This product is RoHS Compliant 2005/95/EC.**

“RoHS Compliant 2005/95/EC” means that the product or part (“Product”) does not contain any of the substances in excess of the maximum concentration values in EU Directive 2002/95/EC, as amended by Commission Decision 2005/618/EC, unless the substance is in an application that is exempt under EU RoHS. Unless otherwise stated by 3M in writing, this information represents 3M’s best knowledge and belief based upon information provided by third party suppliers to 3M.

In the event any product is proven not to conform with 3M’s Regulatory Information Appendix, then 3M’s entire liability and Buyer’s exclusive remedy will be in accordance with the Warranty stated below.

#### Appendix E2: European Union RoHS

Directive 2002/95/EC, Restriction of the Use of Certain Hazardous Substances in Electrical & Electronic Equipment, as amended by EU Commission Decision 2005/618/EC.

**This product contains lead in the compliant pin area in excess of the maximum concentration value allowed but is compliant by exemption under EU Commission Decision 2005/747/EC.**

“RoHS Compliant 2005/95/EC” means that the product or part (“Product”) does not contain any of the substances in excess of the maximum concentration values in EU Directive 2002/95/EC, as amended by Commission Decision 2005/618/EC, unless the substance is in an application that is exempt under EU RoHS. Unless otherwise stated by 3M in writing, this information represents 3M’s best knowledge and belief based upon information provided by third party suppliers to 3M.

In the event any product is proven not to conform with 3M’s Regulatory Information Appendix, then 3M’s entire liability and Buyer’s exclusive remedy will be in accordance with the Warranty stated below.

#### Appendix E3: European Union RoHS

Directive 2002/95/EC, Restriction of the Use of Certain Hazardous Substances in Electrical & Electronic Equipment as amended by Commission Decision 2005/618/EC.

**This product contains lead in the solder tail area in excess of the maximum concentration value allowed.**

Unless otherwise stated by 3M in writing, this information represents 3M’s best knowledge and belief based upon information provided by third party suppliers to 3M.

In the event any product is proven not to conform with 3M’s Regulatory Information Appendix, then 3M’s entire liability and Buyer’s exclusive remedy will be in accordance with the Warranty stated below.

#### Appendix E4: European Union RoHS

Directive 2002/95/EC, Restriction of the Use of Certain Hazardous Substances in Electrical & Electronic Equipment, as amended by EU Commission Decision 2005/618/EC.

**This product contains decaBDE in the insulating material in excess of the maximum concentration value allowed but is compliant by exemption under EU Commission Decision 2005/717/EC.**

“RoHS Compliant 2005/95/EC” means that the product or part (“Product”) does not contain any of the substances in excess of the maximum concentration values in EU Directive 2002/95/EC, as amended by Commission Decision 2005/618/EC, unless the substance is in an application that is exempt under EU RoHS. Unless otherwise stated by 3M in writing, this information represents 3M’s best knowledge and belief based upon information provided by third party suppliers to 3M.

In the event any product is proven not to conform with 3M’s Regulatory Information Appendix, then 3M’s entire liability and Buyer’s exclusive remedy will be in accordance with the Warranty stated below.

# Appendix E5: European Union RoHS

Directive 2002/95/EC, Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment, as amended by EU Commission Decision 2005/618/EC.

**This product contains lead in excess of the maximum concentration value allowed but is compliant by exemption under Item 6 of the Annex to the Directive.**

“RoHS Compliant 2005/95/EC” means that the product or part (“Product”) does not contain any of the substances in excess of the maximum concentration values in EU Directive 2002/95/EC, as amended by Commission Decision 2005/618/EC, unless the substance is in an application that is exempt under EU RoHS. Unless otherwise stated by 3M in writing, this information represents 3M’s best knowledge and belief based upon information provided by third party suppliers to 3M.

In the event any product is proven not to conform with 3M’s Regulatory Information Appendix, then 3M’s entire liability and Buyer’s exclusive remedy will be in accordance with the Warranty stated below.

## CHINA

### Appendix C1: China RoHS

Electronic Industry Standard of the People’s Republic of China, SJ/T11363-2006, Requirements for Concentration Limits for Certain Hazardous Substances in Electronic Information Products.

This symbol, per Marking for the Control of Pollution Caused by Electronic Information Products, SJ/T11364-2006, 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: (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 best knowledge and belief based upon information provided by third party suppliers to 3M.

In the event any product is proven not to conform with 3M’s Regulatory Information Appendix, then 3M’s entire liability and Buyer’s exclusive remedy will be in accordance with the Warranty stated below.

### Appendix C2: China RoHS

Electronic Industry Standard of the People’s Republic of China, SJ/T11363-2006, Requirements for Concentration Limits for Certain Hazardous Substances in Electronic Information Products.

This symbol, per Marking for the Control of Pollution Caused by Electronic Information Products, SJ/T11364-2006, means that the product or part **does** contain a substance, as detailed in the chart below, in excess of the following maximum concentration values in any homogeneous material: (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 best knowledge and belief based upon information provided by third party suppliers to 3M.

The numerical reference in the symbol above should not be construed as a representation regarding the product’s life or an extension of a product warranty. The product warranty is stated below. In the event any product is proven not to conform with 3M’s Regulatory Information Appendix, then 3M’s entire liability and Buyer’s exclusive remedy will be in accordance with the product Warranty stated below.

产品中有毒有害物质或元素的名称及含量 Name and Content of Hazardous Substances or Elements

部件名称 (Part or Component Name)	有毒有害物质或元素 (Hazardous Substances or Elements)					
	铅 (Pb)	汞 (Hg)	镉 (Cd)	六价铬 (Cr(VI))	多溴联苯 (PBB)	多溴二苯醚 (PBDE)
端子镀层 (contact plating)	×	○	○	○	○	○
○: 表示该有毒有害物质在该部件所有均质材料中的含量均在SJ/T11363-2006 标准规定的限量要求以下。(Indicates that this hazardous substance contained in all of the homogeneous materials for this part is below the limit requirement in SJ/T11363-2006.)						
×: 表示该有毒有害物质至少在在该部件的某一均质材料中的含量超出SJ/T11363-2006 标准规定的限量要求。(Indicates that this hazardous substance contained in at least one of the homogeneous materials used for this part is above the limit requirement in SJ/T11363-2006.)						

# Appendix C3: China RoHS

Electronic Industry Standard of the People's Republic of China, SJ/T11363-2006, Requirements for Concentration Limits for Certain Hazardous Substances in Electronic Information Products.

This symbol, per Marking for the Control of Pollution Caused by Electronic Information Products, SJ/T11364-2006, means that the product or part **does** contain a substance, as detailed in the chart below, in excess of the following maximum concentration values in any homogeneous material: (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 best knowledge and belief based upon information provided by third party suppliers to 3M.

The numerical reference in the symbol above should not be construed as a representation regarding the product's life or an extension of a product warranty. The product warranty is stated below. In the event any product is proven not to conform with 3M's Regulatory Information Appendix, then 3M's entire liability and Buyer's exclusive remedy will be in accordance with the product Warranty stated below.

产品中有毒有害物质或元素的名称及含量 Name and Content of Hazardous Substances or Elements

部件名称 (Part or Component Name)	有毒有害物质或元素 (Hazardous Substances or Elements)					
	铅(Pb)	汞(Hg)	镉(Cd)	六价铬(Cr(VI))	多溴联苯(PBB)	多溴二苯醚(PBDE)
合金(Metal alloy)	×	○	○	○	○	○
<p>○: 表示该有毒有害物质在该部件所有均质材料中的含量均在SJ/T11363-2006 标准规定的限量要求以下。(Indicates that this hazardous substance contained in all of the homogeneous materials for this part is below the limit requirement in SJ/T11363-2006.)</p> <p>×: 表示该有毒有害物质至少在该部件的某一均质材料中的含量超出SJ/T11363-2006 标准规定的限量要求。(Indicates that this hazardous substance contained in at least one of the homogeneous materials used for this part is above the limit requirement in SJ/T11363-2006.)</p>						

### 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.

### 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.**



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