# imall

Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from, Europe, America and south Asia, supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of "Quality Parts, Customers Priority, Honest Operation, and Considerate Service", our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip, ALPS, ROHM, Xilinx, Pulse, ON, Everlight and Freescale. Main products comprise IC, Modules, Potentiometer, IC Socket, Relay, Connector. Our parts cover such applications as commercial, industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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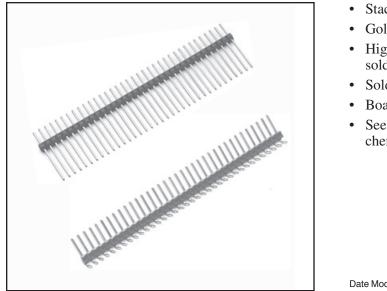
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# $3M^{TM}$ Pin Strip Header Single and Dual Row

.100", .235"/.318" Mating Length, Straight & Right Angle, Solder Tails

929 Series



- Stackable
- Gold, Matte Sn, or Tin-Lead plating options
- High Temperature (PCT) plastic for Wave or IR soldering
- Solder stand-off for wave soldering
- Board pin retention feature option
- See Regulatory Information Appendix (RIA) for chemical compliance information

Date Modified: November 6, 2008

TS-0769-E Sheet 1 of 4

### **Physical**

Insulation:	
Material:	Glass Filled Polyester (PBT) or High Temperature (PCT)
Flammability:	UL 94V-0
Color:	Black
Contact:	
Material:	Copper Alloy
Plating:	
Underplating:	50 μ" [1.27 μm] Nickel
gArea and Solder Tails:	See ordering information (Gold, Matte Tin, Tin-Lead options)
Marking:	None

## Electrical

Wiping

Current Rating: 2.5 A

Insulation Resistance:  $> 5 \times 10^{9} \Omega$  at  $500 V_{DC}$ Withstanding Voltage:  $1500 V_{RMS}$  at Sea Level

### Environmental

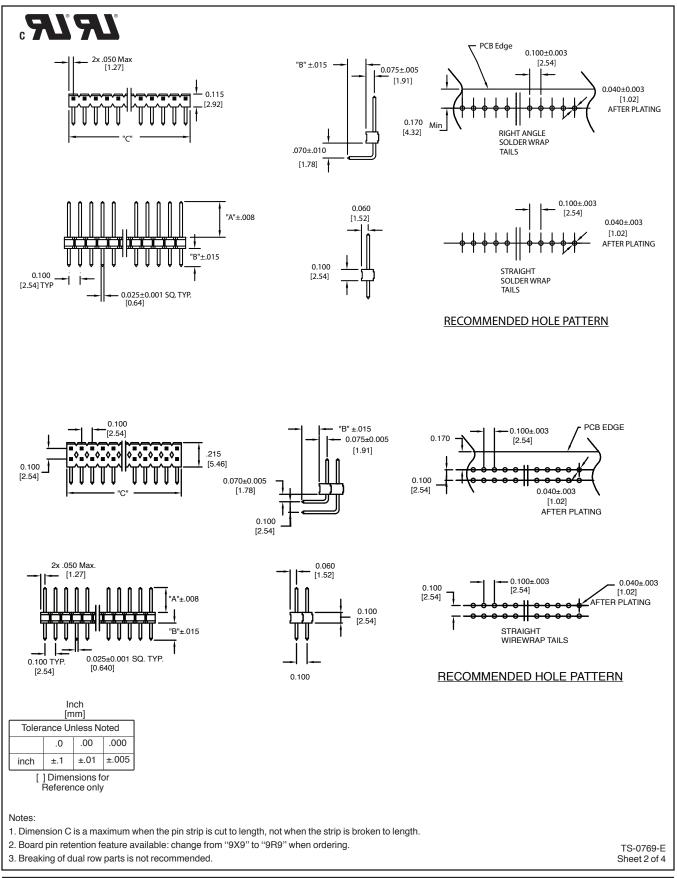
Temperature Rating:-40°C to +105°CProcess Rating:260°C (per J-STD-020C) for PCT parts only<br/>(PBT insulator version), maximum insulator temperature 191°C<br/>(Solder Wave Process Only)Moisture Sensitivity Level:Level 1 (per J-STD-020C) for PCT parts

UL File No.: E68080

# $3M^{TM}$ Pin Strip Header Single and Dual Row

.100", .235"/.318" Mating Length, Straight & Right Angle, Solder Tails

929 Series



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# 3M<sup>TM</sup> Pin Strip Header Single and Dual Row .100", .235"/.318" Mating Length, Straight & Right Angle, Solder Tails

929 Series

	Sing	le Row Tail	Length Code		Т	able 2				
		Table	Pin Quantity	Dimension C						
	3M Part	Tail	Dime	ensions	Per Row	(see note 1)	_			
Plating	9 Number	Length Code	А	В	01	0.10 [2.5] 0.20 [5.1]	_			
		01		0.110 [2.79]	02	0.30 [7.6]	_			
		-	4		04	0.40 [10.2]	_			
		09	0.235 [5.97]	0.145 [3.68]	05	0.50 [12.7]	-			
	929647	02		0.210 [5.33]	06	0.60 [15.2]				
	Straight	03		0.410 [10.41]	07	0.70 [17.8]				
		04		0.510 [12.95]	08	0.80 [20.3]				
		05		0.610 [15.49]	09	0.90 [22.9]				
Gold		07	1	0.910 [23.11]	10	1.00 [25.4]	_			
	929648				11	1.10 [27.9]	_			
	Right Angle	01	0.235 [5.97]	0.110 [2.79]	12	1.20 [30.5] 1.30 [33.0]				
		01		0.110 [2.79]	13	1.40 [35.6]				
	929705	11		0.125 [3.18]	15	1.50 [38.1]				
	Straight	09	0.318 [8.08]	0.145 [3.68]	16	1.60 [40.6]				
	-	06	1	0.710 [18.03]	17	1.70 [43.2]				
					18	1.80 [45.7]				
		01		0.110 [2.79]	19	1.90 [48.3]				
		02		0.210 [5.33]	20	2.00 [50.8]				
	929834	03	0.235 [5.97]	0.410 [10.41]	21	2.10 [53.3]				
	Straight	04	0.235 [5.97]	0.510 [12.95]	22	2.20 [55.9] 2.30 [58.4]	_			
		05		0.610 [15.49]	23	2.40 [61.0]				
		07		0.910 [23.11]	25	2.50 [63.5]				
Tin	929835		0.235 [5.97]		26	2.60 [66.0]				
	Right Angle	01		0.110 [2.79]	27	2.70 [68.6]				
		01		0.110 [2.79]	28	2.80 [71.1]				
	929700 Straight	11	0.318 [8.08]	0.125 [3.18]	29	2.90 [73.7]				
	Straight	06		0.710 [18.03]	30	3.00 [76.2]	_			
	929730				31	3.10 [78.7]				
	Right Angle	01	0.318 [8.08]	0.110 [2.79]	32	3.20 [81.3]				
					33	3.30 [83.8] 3.40 [86.4]	_			
					35	3.50 [88.9]				
					36	3.60 [91.4]				
Single Ro	ow Ordering	Informa		<u>Gold</u> (X-XX-XX-X	Y					
	2 = No Pin				Gold Plating Suffix					
	R = Pin Re	lention			Location & Thickness (se					
3M Part Number (select from Table 1 based I = 10 μ" [0.25 μm] all over, PBT insulator on Dim A and plating)										
(see table 1) $EU = 10 \mu^{"} [0.25 \mu m]$ all over, PCT insulator										
Iail Length Code (RIA E1 & C1 apply)										
		(0	,	<u>Tin</u> (X-XX-XX-X	X					
	2 = No Pin R = Pin Rei				Plating Suffix:					
	3M Part Number (select from Table 1 blank = 100 µ" [2.54 µm] tin-lead, PBT insulator (RIA E3 & C2 apply)									
	based on Dim A and plating) (see table 1) (see table 1) Tail Length Code (see table 2) Fin Quantity Per Row (see table 2)									

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# 3M<sup>TM</sup> Pin Strip Header Single and Dual Row .100", .235"/.318" Mating Length, Straight & Right Angle, Solder Tails

929 Series

	Du	al Row Tail L	ength Code				Table 4	
	,	Table	-			uantity Row	Pin Quantity Total Dual Row	Dimension C (see note 1)
Plating	3M Part	Tail Length	Dim	nensions		)1	02	0.10 [2.5]
· · ··································	Number	Code	А	В		)2	04	0.20 [5.1]
		01		0.110 [2.79]		)3	06	0.30 [7.6]
		09		0.145 [3.68]		)4	08	0.40 [10.2]
		02	0.235 [5.97]	0.210 [5.33]		)5	10	0.50 [12.7]
	929665	08		0.310 [7.87]		)6	12	0.60 [15.2]
	Straight	03		0.410 [10.41]		)7	14	0.70 [17.8]
		04		0.510 [12.95]		)8	16	0.80 [20.3]
		05		0.610 [15.49]		)9	18	0.90 [22.9]
		01		0.110 [2.79]		0	20	1.00 [25.4]
Gold		11		0.125 [3.18]		1	22	1.10 [27.9]
	929715 Straight	10	0.318 [8.08]	0.175 [4.45]		2	24	1.20 [30.5]
	e l'algin	03		0.410 [10.41]		3	26	1.30 [33.0]
		06		0.710 [18.03]		4	28	1.40 [35.6]
	000007	01	0.235 [5.97]	0.110 [2.79]		5	30	1.50 [38.1]
	929667 Right Angle	04		0.145 [3.68]		6	32	1.60 [40.6]
		02		0.405 [10.29]		7	34	1.70 [43.2]
	929745	01	0.318 [8.08]	0.110 [2.79]		8	36	1.80 [45.7]
	Right	02	0.010 [0.00]	0.405 [10.29]		9	38	1.90 [48.3]
	Ļ	01		0.110 [2.79]		20	40	2.00 [50.8]
		09		0.145 [3.68]		21	40	2.10 [53.3]
	929836	02		0.210 [5.33]		22	44	2.20 [55.9]
	929836 Straight	08	0.235 [5.97]	0.310 [7.87]		23	46	2.30 [58.4]
		03		0.410 [10.41]		24	48	2.40 [61.0]
		04		0.510 [12.95]		25	50	2.50 [63.5]
		05		0.610 [15.49]		26	52	2.60 [66.0]
Tin		01	0.318 [8.08]	0.110 [2.79]		27	54	2.70 [68.6]
		11		0.125 [3.18]		28	56	2.80 [71.1]
	929710 Straight	09		0.145 [3.68]		29	58	2.90 [73.7]
	Ottaight	10 03		0.175 [4.45]		30	60	3.00 [76.2]
		06		0.410 [10.41]	3	31	62	3.10 [78.7]
				0.710 [18.03]		32	64	3.20 [81.3]
	929838	01		0.110 [2.79]		33	66	3.30 [83.8]
	Right Angle	04	0.235 [5.97]	0.145 [3.68]		34	68	3.40 [86.4]
		02		0.405 [10.29]		35	70	3.50 [88.9]
						36	72	3.60 [91.4]
							1	
ual Ro	w Orderin	•	9X	<u>Gold</u> 9XXX-XX-X	X-XX			
		No Pin Retentio Pin Retention	n			ating Suf	fix	
							ness (see table 1)	
	rt Number (select f				(BIA E1	‴ [0.25 μr I & C1 ap	n] all over, PBT insula plv)	ator
(see ta	on Dim A and plati ble 3)		ا ail Length Code	Pin Quantity Pe (see table 4	PROW FIL-1		μm] all over, PCT ins	ulator
	,		see table 3)	`	(RIAE1	& C1 ap	ply)	
				<u>Tin</u>				
		Dotontica	9 <u>X</u> 9 <u>XX</u>	<u> </u>	X			
	2 = No Pin I R = Pin Rete				- Plating Suffix:			
	3M Part Number (		le 3		blank = $100 \mu^{\circ}$	[2.54 µm	] tin-lead, PBT	
	based on Dim A ar		····		insulator (RIA I	- E3 & C2 a	apply)	
		-	1		DK - 200" [5	uml mot	tin PCT	
	(see table 3)	Tail I	Length Code	Pin Quantity Per Row (see table 4)	insulator (RIA I	µmjmau =1 8.01 -		TS-0

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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, as amended by EU Commission Decision 2005/717/EC, as amended by EU Court of Justice Decision 2008/C 116/04

This product contains decaBDE in the insulating material in excess of the maximum concentration allowed for finished products subject to EU RoHS that are placed on the EU market after June 30, 2008.

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.product 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 (excluding decaBDE); 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 (excluding decaBDE); 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	有毒有害物质或元素 (Hazardous Substances or Elements)							
(Part or Component Name)	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)	×	0	0	0	0	0		

O: 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 (excluding decaBDE); 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	有毒有害物质或元素 (Hazardous Substances or Elements)						
(Part or Component Name)	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)	×	0	0	0	0	0	

O: 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.)

#### **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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