

PLEASE CHECK WWW.MOLEX.COM FOR LATEST PART INFORMATION

Part Number: [0010883301](#)
Status: **Active**
Description: 2.54mm (.100") Pitch C-Grid® Breakaway Header, High Profile, Dual Row, Right Angle, 30 Circuits, 6.10mm (.240") Mating Pin Length, Tin (Sn) Plating

Documents:

| | |
|---|--|
| 3D Model | Product Specification PS-70216 (PDF) |
| Packaging Specification (PDF) | RoHS Certificate of Compliance (PDF) |
| Drawing (PDF) | |

Agency Certification

| | |
|-----|---------|
| CSA | LR19980 |
| UL | E29179 |

General

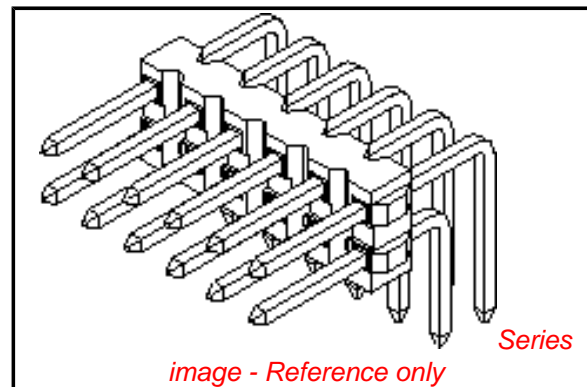
| | |
|----------------|-------------------------------|
| Product Family | PCB Headers |
| Series | 70216 |
| Application | Board-to-Board, Wire-to-Board |
| Product Name | C-Grid® |

Physical

| | |
|--------------------------------|------------------------|
| Breakaway | Yes |
| Circuits (Loaded) | 30 |
| Circuits (maximum) | 30 |
| Color - Resin | Black |
| Durability (mating cycles max) | 25 |
| Flammability | 94V-0 |
| Glow-Wire Compliant | No |
| Lock to Mating Part | None |
| Material - Metal | Brass, Phosphor Bronze |
| Material - Plating Mating | Tin |
| Material - Plating Termination | Tin |
| Material - Resin | Polyester |
| Number of Rows | 2 |
| Orientation | Right Angle |
| PC Tail Length (in) | 0.110 In |
| PC Tail Length (mm) | 2.79 mm |
| PCB Locator | No |
| PCB Retention | None |
| Packaging Type | Tube |
| Pitch - Mating Interface (in) | 0.100 In |
| Pitch - Mating Interface (mm) | 2.54 mm |
| Plating min: Mating (µin) | 150 |
| Plating min: Mating (µm) | 3.75 |
| Plating min: Termination (µin) | 150 |
| Plating min: Termination (µm) | 3.75 |
| Polarized to Mating Part | No |
| Polarized to PCB | No |
| Shrouded | No |
| Stackable | Yes |
| Temperature Range - Operating | -40°C to +105°C |
| Termination Interface: Style | Through Hole |

Electrical

| | |
|-------------------------------|------|
| Current - Maximum per Contact | 3A |
| Voltage - Maximum | 250V |



EU RoHS

ELV and RoHS Compliant
REACH SVHC Contains SVHC: No
Halogen-Free Status

China RoHS



Need more information on product environmental compliance?

Email productcompliance@molex.com
 For a multiple part number RoHS Certificate of Compliance, [click here](#)

Please visit the [Contact Us](#) section for any non-product compliance questions.

Search Parts in this Series
[70216Series](#)

Solder Process Data

| | |
|--|------------------------|
| Duration at Max. Process Temperature (seconds) | 5 |
| Lead-free Process Capability | Wave Capable (TH only) |
| Max. Cycles at Max. Process Temperature | 1 |
| Process Temperature max. C | 235 |

Material Info

| | |
|-----------------|------------|
| Old Part Number | 70216-0092 |
|-----------------|------------|

Reference - Drawing Numbers

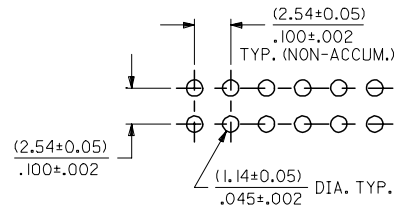
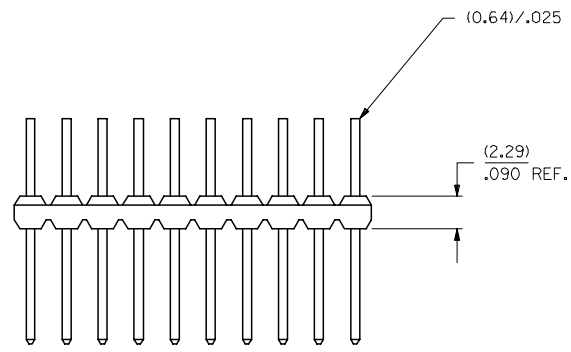
| | |
|-----------------------|--------------|
| Product Specification | PS-70216 |
| Sales Drawing | SD-70216-001 |

This document was generated on 03/29/2010

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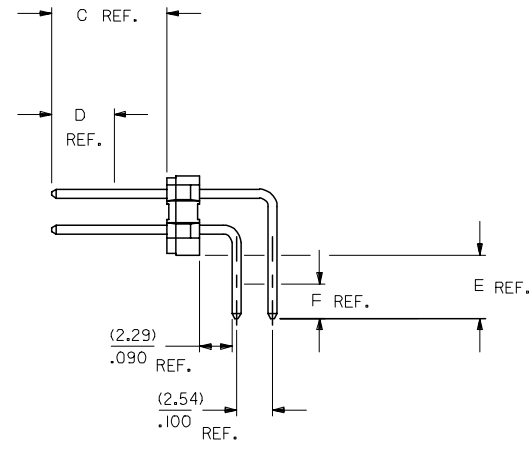
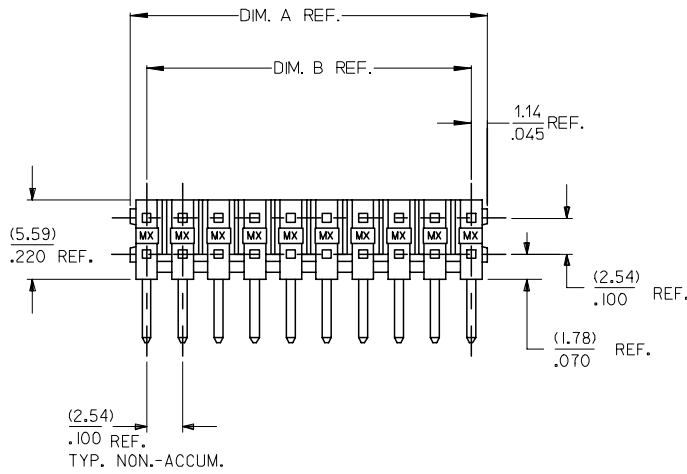
13 12 11 10 9 8 7 6 5 4 3 2 1

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RECOMMENDED P.C. BOARD HOLE LAYOUT

| CKT. SIZE | DIM. A | | DIM. B | |
|-----------|--------|-------|--------|-------|
| | MM | INCH | MM | INCH |
| 04 | 4.83 | .190 | 2.54 | .100 |
| 06 | 7.37 | .290 | 5.08 | .200 |
| 08 | 9.91 | .390 | 7.62 | .300 |
| 10 | 12.45 | .490 | 10.16 | .400 |
| 12 | 14.99 | .590 | 12.70 | .500 |
| 14 | 17.53 | .690 | 15.24 | .600 |
| 16 | 20.07 | .790 | 17.78 | .700 |
| 18 | 22.61 | .890 | 20.32 | .800 |
| 20 | 25.15 | .990 | 22.86 | .900 |
| 22 | 27.69 | 1.090 | 25.40 | 1.000 |
| 24 | 30.23 | 1.190 | 27.94 | 1.100 |
| 26 | 32.77 | 1.290 | 30.48 | 1.200 |
| 28 | 35.31 | 1.390 | 33.02 | 1.300 |
| 30 | 37.85 | 1.490 | 35.56 | 1.400 |



- NOTES:
- MATERIAL: WAFER - GLASS FILLED, POLYESTER, 94V-0, COLOR: BLACK, PINS - PHOS. BRONZE.
 - FINISH:
 - TIN - 0.00381/0.000150 MINIMUM TIN OVER 0.00127/0.000050 MINIMUM NICKEL OVERALL.
 - 15 GOLD - 0.00038/0.000015 MINIMUM GOLD PLATE IN SELECTED AREA AND 0.00191/0.000075 MINIMUM TIN IN SELECTED AREA OVER 0.00127/0.000050 MINIMUM NICKEL OVERALL.
 - 30 GOLD - 0.00076/0.000030 MINIMUM GOLD PLATE IN SELECTED AREA AND 0.00191/0.000075 MINIMUM TIN IN SELECTED AREA OVER 0.00121/0.000050 MINIMUM NICKEL OVERALL.
 - PRODUCT SPECIFICATION: PS-70216.
 - PACKAGING SPECIFICATION: FOR 4 THROUGH 8 CIRCUIT PARTS US PK-70873-0353, FOR 10 CIRCUITS AND OVER USE PK-70873-0075.
 - PIN PUSHOUT FORCE: 4 LBS. MINIMUM.
 - FOR ILLUSTRATION PURPOSES, 20 (DUAL 10) CIRCUIT SIZE WAFER IS SHOWN.
 - PINS MUST MEET SOLDERABILITY SPEC. NO. 152.
 - WAFER TO BE FLAT WITHIN (0.03 MM/CM) OR .003 IN./IN.
 - FOR ASSEMBLIES WITH VOIDED PINS, CONTACT MOLEX SALES REPRESENTATIVE.
 - THIS PART CONFORMS TO CLASS B REQUIREMENTS OF COSMETIC SPECIFICATION PS-45499-002.

| | |
|-----------|----|
| 2-- | A1 |
| 1 | A1 |
| SHT. REV. | |

| | | | | | | | | | | | |
|---|-------------------------------|---------------------------------------|---------|---|--------------------|---|----------------------|------------------------|--|--|--|
| ADD NOTE 10 EC NO: UCP2007-1509 DRAWN/PRD: DER CHKD: ADERR APPR: FSM TH 2006/12/19 2006/12/19 2006/12/20 | QUALITY SYMBOLS ▽=0 ▽=0 | GENERAL TOLERANCES (UNLESS SPECIFIED) | | DIMENSION STYLE MM/IN | | SCALE 4:1 | DESIGN UNITS INCH | THIRD ANGLE PROJECTION | | | |
| | | 4 PLACES ±--- ±--- | mm INCH | DRAWN BY RCB | DATE 1994/05/18 | TITLE RT. ANG. WAFER ASS'Y 2.54/.100 GRID, DUAL ROW BREAKAWAY 0.64/.025 PINS | | | | | |
| | | 3 PLACES ±--- ±.005 | | CHECKED BY DATE | | MATERIAL NO. SEE CHART | | | | | |
| | | 2 PLACES ±0.13 ±.01 | | APPROVED BY DATE | | DOCUMENT NO. SD-70216-001 | | | | | |
| 1 PLACE ±0.25 ±--- | | ANGULAR ±1/2° | | SHEET NO. 1 OF * | | MOLEX INCORPORATED | | | | | |
| DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS | | | | THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION | | | | | | | |

12 11 10 9 8 7 6 5 4 3 2 1

| ENG. NO: A-70216-0079/0092 | | | ENG. NO: A-70216-0118/0131 | | | ENG. NO: A-70216-0235/0248 | | |
|----------------------------|------------|----------------------|----------------------------|------------|----------------------|----------------------------|------------|----------------------|
| DIM. C | | (6.10)/.240 | DIM. C | | (8.13)/.320 | DIM. C | | (6.10)/.240 |
| DIM. E (REF.) | | (2.79)/.110 | DIM. E (REF.) | | (2.79)/.110 | DIM. E (REF.) | | (2.79)/.110 |
| FINISH | | TIN | FINISH | | TIN | FINISH | | 15 GOLD |
| CONNECTOR END PLATING | | TIN | CONNECTOR END PLATING | | TIN | CONNECTOR END PLATING | | GOLD |
| DIM. D (MEASURE PT.) | | (2.54)/.100 | DIM. D (MEASURE PT.) | | (4.57)/.180 | DIM. D (MEASURE PT.) | | (2.54)/.100 |
| P.C. BOARD END PLATING | | TIN | P.C. BOARD END PLATING | | TIN | P.C. BOARD END PLATING | | TIN |
| DIM. F (MEASURE PT.) | | (1.27)/.050 | DIM. F (MEASURE PT.) | | (1.27)/.050 | DIM. F (MEASURE PT.) | | (1.27)/.050 |
| PACKAGING | | SEE NOTE 4 ON SHT. 1 | PACKAGING | | SEE NOTE 4 ON SHT. 1 | PACKAGING | | SEE NOTE 4 ON SHT. 1 |
| CKTS | EDP NUMBER | ENG. NUMBER | CKTS | EDP NUMBER | ENG. NUMBER | CKTS | EDP NUMBER | ENG. NUMBER |
| 04 | 10-88-3041 | A-70216-0079 | 04 | 10-88-3042 | A-70216-0118 | 04 | 10-89-4042 | A-70216-0235 |
| 06 | 10-88-3061 | A-70216-0080 | 06 | 10-88-3062 | A-70216-0119 | 06 | 10-89-4062 | A-70216-0236 |
| 08 | 10-88-3081 | A-70216-0081 | 08 | 10-88-3082 | A-70216-0120 | 08 | 10-89-4082 | A-70216-0237 |
| 10 | 10-88-3101 | A-70216-0082 | 10 | 10-88-3102 | A-70216-0121 | 10 | 10-89-4102 | A-70216-0238 |
| 12 | 10-88-3121 | A-70216-0083 | 12 | 10-88-3122 | A-70216-0122 | 12 | 10-89-4122 | A-70216-0239 |
| 14 | 10-88-3141 | A-70216-0084 | 14 | 10-88-3142 | A-70216-0123 | 14 | 10-89-4142 | A-70216-0240 |
| 16 | 10-88-3161 | A-70216-0085 | 16 | 10-88-3162 | A-70216-0124 | 16 | 10-89-4162 | A-70216-0241 |
| 18 | 10-88-3181 | A-70216-0086 | 18 | 10-88-3182 | A-70216-0125 | 18 | 10-89-4182 | A-70216-0242 |
| 20 | 10-88-3201 | A-70216-0087 | 20 | 10-88-3202 | A-70216-0126 | 20 | 10-89-4202 | A-70216-0243 |
| 22 | 10-88-3221 | A-70216-0088 | 22 | 10-88-3222 | A-70216-0127 | 22 | 10-89-4222 | A-70216-0244 |
| 24 | 10-88-3241 | A-70216-0089 | 24 | 10-88-3242 | A-70216-0128 | 24 | 10-89-4242 | A-70216-0245 |
| 26 | 10-88-3261 | A-70216-0090 | 26 | 10-88-3262 | A-70216-0129 | 26 | 10-89-4262 | A-70216-0246 |
| 28 | 10-88-3281 | A-70216-0091 | 28 | 10-88-3282 | A-70216-0130 | 28 | 10-89-4282 | A-70216-0247 |
| 30 | 10-88-3301 | A-70216-0092 | 30 | 10-88-3302 | A-70216-0131 | 30 | 10-89-4302 | A-70216-0248 |
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|--|--|---|--------------------------------------|
| A1 | REV: <u>ECR/ECN INFORMATION</u> | TITLE: RT. ANG. WAFER ASS'Y 2.54/.100 GRID, DUAL ROW BREAKAWAY 0.64/.025 PINS | SHEET No. - 2 - |
| | EC No: UCP2007-1509 | | |
| | DATE: 2006-12-18 | | |
| DOCUMENT NUMBER: SD-70216-001 | CREATED / REVISED BY: PRIDDER | CHECKED BY: ADERR | APPROVED BY: FSMITH |

| ENG. NO: A-70216-0274/0287 | | | ENG. NO: A-70216-0391/0404 | | | ENG. NO: A-70216-0430/0443 | | |
|----------------------------|------------|----------------------|----------------------------|------------|----------------------|----------------------------|------------|----------------------|
| DIM. C | | (8.13)/.320 | DIM. C | | (6.10)/.240 | DIM. C | | (8.13)/.320 |
| DIM. E (REF.) | | (2.79)/.110 | DIM. E (REF.) | | (2.79)/.110 | DIM. E (REF.) | | (2.79)/.110 |
| FINISH | | 15 GOLD | FINISH | | 30 GOLD | FINISH | | 30 GOLD |
| CONNECTOR END PLATING | | GOLD | CONNECTOR END PLATING | | GOLD | CONNECTOR END PLATING | | GOLD |
| DIM. D (MEASURE PT.) | | (4.57)/.180 | DIM. D (MEASURE PT.) | | (2.54)/.100 | DIM. D (MEASURE PT.) | | (4.57)/.180 |
| P.C. BOARD END PLATING | | TIN | P.C. BOARD END PLATING | | TIN | P.C. BOARD END PLATING | | TIN |
| DIM. F (MEASURE PT.) | | (1.27)/.050 | DIM. F (MEASURE PT.) | | (1.27)/.050 | DIM. F (MEASURE PT.) | | (1.27)/.050 |
| PACKAGING | | SEE NOTE 4 ON SHT. 1 | PACKAGING | | SEE NOTE 4 ON SHT. 1 | PACKAGING | | SEE NOTE 4 ON SHT. 1 |
| CKTS | EDP NUMBER | ENG. NUMBER | CKTS | EDP NUMBER | ENG. NUMBER | CKTS | EDP NUMBER | ENG. NUMBER |
| 04 | 10-89-4043 | A-70216-0274 | 04 | 10-89-4046 | A-70216-0391 | 04 | 10-89-4047 | A-70216-0430 |
| 06 | 10-89-4063 | A-70216-0275 | 06 | 10-89-4066 | A-70216-0392 | 06 | 10-89-4067 | A-70216-0431 |
| 08 | 10-89-4083 | A-70216-0276 | 08 | 10-89-4086 | A-70216-0393 | 08 | 10-89-4087 | A-70216-0432 |
| 10 | 10-89-4103 | A-70216-0277 | 10 | 10-89-4106 | A-70216-0394 | 10 | 10-89-4107 | A-70216-0433 |
| 12 | 10-89-4123 | A-70216-0278 | 12 | 10-89-4126 | A-70216-0395 | 12 | 10-89-4127 | A-70216-0434 |
| 14 | 10-89-4143 | A-70216-0279 | 14 | 10-89-4146 | A-70216-0396 | 14 | 10-89-4147 | A-70216-0435 |
| 16 | 10-89-4163 | A-70216-0280 | 16 | 10-89-4166 | A-70216-0397 | 16 | 10-89-4167 | A-70216-0436 |
| 18 | 10-89-4183 | A-70216-0281 | 18 | 10-89-4186 | A-70216-0398 | 18 | 10-89-4187 | A-70216-0437 |
| 20 | 10-89-4203 | A-70216-0282 | 20 | 10-89-4206 | A-70216-0399 | 20 | 10-89-4207 | A-70216-0438 |
| 22 | 10-89-4223 | A-70216-0283 | 22 | 10-89-4226 | A-70216-0400 | 22 | 10-89-4227 | A-70216-0439 |
| 24 | 10-89-4243 | A-70216-0284 | 24 | 10-89-4246 | A-70216-0401 | 24 | 10-89-4247 | A-70216-0440 |
| 26 | 10-89-4263 | A-70216-0285 | 26 | 10-89-4266 | A-70216-0402 | 26 | 10-89-4267 | A-70216-0441 |
| 28 | 10-89-4283 | A-70216-0286 | 28 | 10-89-4286 | A-70216-0403 | 28 | 10-89-4287 | A-70216-0442 |
| 30 | 10-89-4303 | A-70216-0287 | 30 | 10-89-4306 | A-70216-0404 | 30 | 10-89-4307 | A-70216-0443 |
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|---|---|---|-------------------------------|
| REV: A1 | ECR/ECN INFORMATION | TITLE: RT. ANG. WAFER ASS'Y 2.54/.100 GRID, DUAL ROW BREAKAWAY 0.64/.025 PINS | SHEET No. - 3 - |
| | EC No: UCP2007-1509 DATE: 2006-12-18 | | |
| DOCUMENT NUMBER: SD-70216-001 | CREATED / REVISED BY: PRIDDER | CHECKED BY: ADERR | APPROVED BY: FSMITH |

| ENG. NO: A-70216-0313/0326 | | | ENG. NO: A-70216- | | | ENG. NO: A-70216- | | |
|----------------------------|----------------------|--------------|------------------------|------------|-------------|------------------------|------------|-------------|
| DIM. C | (6.10)/.240 | | DIM. C | | | DIM. C | | |
| DIM. E (REF.) | (4.19)/.165 | | DIM. E (REF.) | | | DIM. E (REF.) | | |
| FINISH | 15 GOLD | | FINISH | | | FINISH | | |
| CONNECTOR END PLATING | GOLD | | CONNECTOR END PLATING | | | CONNECTOR END PLATING | | |
| DIM. D (MEASURE PT.) | (4.57)/.180 | | DIM. D (MEASURE PT.) | | | DIM. D (MEASURE PT.) | | |
| P.C. BOARD END PLATING | TIN | | P.C. BOARD END PLATING | | | P.C. BOARD END PLATING | | |
| DIM. F (MEASURE PT.) | (1.27)/.050 | | DIM. F (MEASURE PT.) | | | DIM. F (MEASURE PT.) | | |
| PACKAGING | SEE NOTE 4 ON SHT. 1 | | PACKAGING | | | PACKAGING | | |
| CKTS | EDP NUMBER | ENG. NUMBER | CKTS | EDP NUMBER | ENG. NUMBER | CKTS | EDP NUMBER | ENG. NUMBER |
| 04 | | | 04 | | | 04 | | |
| 06 | | | 06 | | | 06 | | |
| 08 | | | 08 | | | 08 | | |
| 10 | | | 10 | | | 10 | | |
| 12 | | | 12 | | | 12 | | |
| 14 | | | 14 | | | 14 | | |
| 16 | | | 16 | | | 16 | | |
| 18 | | | 18 | | | 18 | | |
| 20 | | | 20 | | | 20 | | |
| 22 | | | 22 | | | 22 | | |
| 24 | | | 24 | | | 24 | | |
| 26 | | | 26 | | | 26 | | |
| 28 | | | 28 | | | 28 | | |
| 30 | 50-34-8535 | A-70216-0326 | 30 | | | 30 | | |
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|--|--|--|--------------------------------------|
| REV: A1 | <u>ECR/ECN INFORMATION</u> | <u>TITLE:</u> RT. ANG. WAFER ASS'Y 2.54/.100 GRID, DUAL ROW BREAKAWAY 0.64/.025 PINS | <u>SHEET No.</u> - 4 - |
| | <u>EC No:</u> UCP2007-1509 | | |
| | <u>DATE:</u> 2006-12-18 | | |
| <u>DOCUMENT NUMBER:</u> SD-70216-001 | <u>CREATED / REVISED BY:</u> PRIDDER | <u>CHECKED BY:</u> ADERR | <u>APPROVED BY:</u> FSMITH |