

**PLEASE CHECK WWW.MOLEX.COM FOR LATEST PART INFORMATION**

**Part Number:** [0901362206](#)  
**Status:** **Active**  
**Overview:** [cgrid\\_iii](#)  
**Description:** 2.54mm (.100") Pitch C-Grid III™ Header, Single Row, Right Angle, Shrouded, 6 Circuits, 0.38µm (15µ") Gold (Au) Selective Plating

**Documents:**

[3D Model](#) [RoHS Certificate of Compliance \(PDF\)](#)  
[Drawing \(PDF\)](#)

**General**

|                |                           |
|----------------|---------------------------|
| Product Family | PCB Headers               |
| Series         | <a href="#">90136</a>     |
| Application    | Wire-to-Board             |
| Overview       | <a href="#">cgrid_iii</a> |
| Product Name   | C-Grid III™               |

**Physical**

|                                |                 |
|--------------------------------|-----------------|
| Breakaway                      | No              |
| Circuits (Loaded)              | 6               |
| Circuits (maximum)             | 6               |
| Color - Resin                  | Black           |
| First Mate / Last Break        | No              |
| Glow-Wire Compliant            | No              |
| Guide to Mating Part           | No              |
| Keying to Mating Part          | None            |
| Lock to Mating Part            | Yes             |
| Material - Metal               | Brass           |
| Material - Plating Mating      | Gold            |
| Material - Plating Termination | Tin             |
| Material - Resin               | Polyester       |
| Number of Rows                 | 1               |
| Orientation                    | Right Angle     |
| PC Tail Length (in)            | 0.114 In        |
| PC Tail Length (mm)            | 2.90 mm         |
| PCB Locator                    | No              |
| PCB Retention                  | None            |
| PCB Thickness Recommended (in) | 0.062 In        |
| PCB Thickness Recommended (mm) | 1.60 mm         |
| Packaging Type                 | Tray            |
| Pitch - Mating Interface (in)  | 0.100 In        |
| Pitch - Mating Interface (mm)  | 2.54 mm         |
| Plating min: Mating (µin)      | 15.2            |
| Plating min: Mating (µm)       | 0.38            |
| Plating min: Termination (µin) | 120             |
| Plating min: Termination (µm)  | 3               |
| Polarized to PCB               | No              |
| Shrouded                       | Fully           |
| Stackable                      | No              |
| Temperature Range - Operating  | -55°C to +125°C |
| Termination Interface: Style   | Through Hole    |

**Electrical**

|                               |      |
|-------------------------------|------|
| Current - Maximum per Contact | 3A   |
| Voltage - Maximum             | 350V |



**EU RoHS**

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

**China RoHS**



**Not Reviewed**

**Need more information on product environmental compliance?**

Email [productcompliance@molex.com](mailto: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**

[90136Series](#)

**Mates With**

[90123 C-Grid III™ Modular Crimp Housing.](#)  
[90156 C-Grid III™ Crimp Housing](#)

**Solder Process Data**

Lead-free Process Capability

Wave Capable (TH only)

**Material Info****Reference - Drawing Numbers**

Packaging Specification

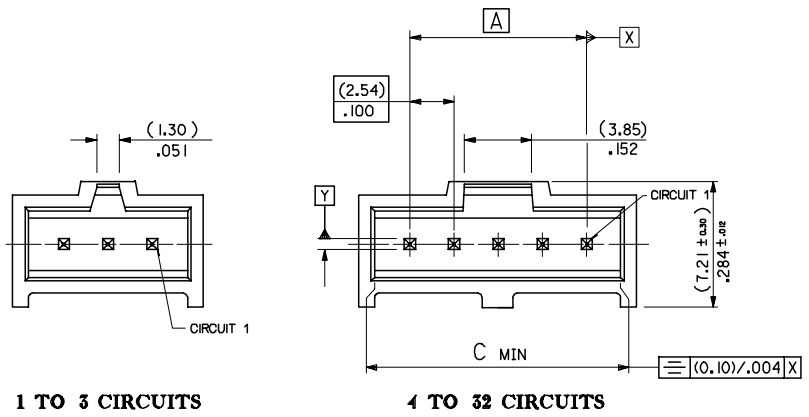
PK-90136-001

Sales Drawing

SDA-90136

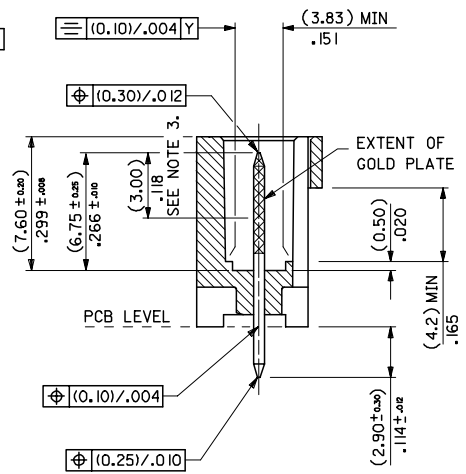
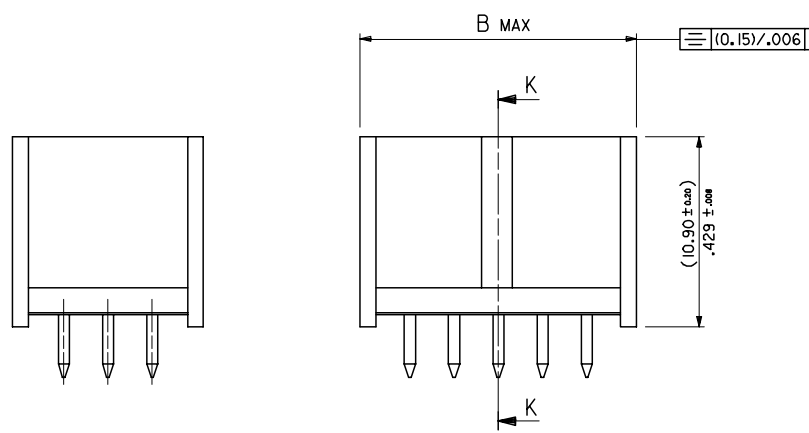
This document was generated on 05/26/2010

**PLEASE CHECK [WWW.MOLEX.COM](http://WWW.MOLEX.COM) FOR LATEST PART INFORMATION**



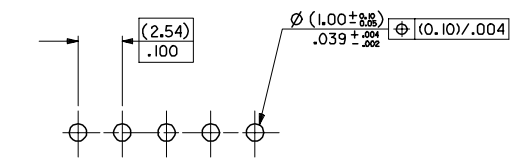
1 TO 3 CIRCUITS

4 TO 32 CIRCUITS



SECTION K-K

| No. OF CKTS | DIM A             | DIM B             | DIM C             |
|-------------|-------------------|-------------------|-------------------|
| 1           |                   | ( 5.89 ) / .232   | ( 4.06 ) / .160   |
| 2           | ( 2.54 ) / .100   | ( 8.43 ) / .332   | ( 6.60 ) / .260   |
| 3           | ( 5.08 ) / .200   | ( 10.97 ) / .432  | ( 9.14 ) / .360   |
| 4           | ( 7.62 ) / .300   | ( 13.51 ) / .532  | ( 11.68 ) / .460  |
| 5           | ( 10.16 ) / .400  | ( 16.05 ) / .632  | ( 14.22 ) / .560  |
| 6           | ( 12.70 ) / .500  | ( 18.59 ) / .732  | ( 16.76 ) / .660  |
| 7           | ( 15.24 ) / .600  | ( 21.13 ) / .832  | ( 19.30 ) / .760  |
| 8           | ( 17.78 ) / .700  | ( 23.67 ) / .932  | ( 21.84 ) / .860  |
| 9           | ( 20.32 ) / .800  | ( 26.21 ) / 1.032 | ( 24.38 ) / .960  |
| 10          | ( 22.86 ) / .900  | ( 28.75 ) / 1.132 | ( 26.92 ) / 1.060 |
| 11          | ( 25.40 ) / 1.000 | ( 31.29 ) / 1.232 | ( 29.46 ) / 1.160 |
| 12          | ( 27.94 ) / 1.100 | ( 33.83 ) / 1.332 | ( 32.00 ) / 1.260 |
| 13          | ( 30.48 ) / 1.200 | ( 36.37 ) / 1.432 | ( 34.54 ) / 1.360 |
| 14          | ( 33.02 ) / 1.300 | ( 38.91 ) / 1.532 | ( 37.08 ) / 1.460 |
| 15          | ( 35.56 ) / 1.400 | ( 41.45 ) / 1.632 | ( 39.62 ) / 1.560 |
| 16          | ( 38.10 ) / 1.500 | ( 43.99 ) / 1.732 | ( 42.16 ) / 1.660 |
| 17          | ( 40.64 ) / 1.600 | ( 46.53 ) / 1.832 | ( 44.70 ) / 1.760 |
| 18          | ( 43.18 ) / 1.700 | ( 49.07 ) / 1.932 | ( 47.24 ) / 1.860 |
| 19          | ( 45.72 ) / 1.800 | ( 51.61 ) / 2.032 | ( 49.78 ) / 1.960 |
| 20          | ( 48.26 ) / 1.900 | ( 54.15 ) / 2.132 | ( 52.32 ) / 2.060 |
| 21          | ( 50.80 ) / 2.000 | ( 56.69 ) / 2.232 | ( 54.86 ) / 2.160 |
| 22          | ( 53.34 ) / 2.100 | ( 59.23 ) / 2.332 | ( 57.40 ) / 2.260 |
| 23          | ( 55.88 ) / 2.200 | ( 61.77 ) / 2.432 | ( 59.94 ) / 2.360 |
| 24          | ( 58.42 ) / 2.300 | ( 64.31 ) / 2.532 | ( 62.48 ) / 2.460 |
| 25          | ( 60.96 ) / 2.400 | ( 66.85 ) / 2.632 | ( 65.02 ) / 2.560 |
| 26          | ( 63.50 ) / 2.500 | ( 69.39 ) / 2.732 | ( 67.56 ) / 2.660 |
| 27          | ( 66.04 ) / 2.600 | ( 71.93 ) / 2.832 | ( 70.10 ) / 2.760 |
| 28          | ( 68.58 ) / 2.700 | ( 74.47 ) / 2.932 | ( 72.64 ) / 2.860 |
| 29          | ( 71.12 ) / 2.800 | ( 77.01 ) / 3.032 | ( 75.18 ) / 2.960 |
| 30          | ( 73.66 ) / 2.900 | ( 79.55 ) / 3.132 | ( 77.72 ) / 3.060 |
| 31          | ( 76.20 ) / 3.000 | ( 82.09 ) / 3.232 | ( 80.26 ) / 3.160 |
| 32          | ( 78.74 ) / 3.100 | ( 84.63 ) / 3.332 | ( 82.80 ) / 3.260 |

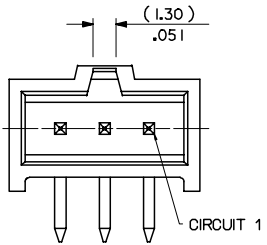


RECOMMENDED P.C. BOARD HOLE PATTERN

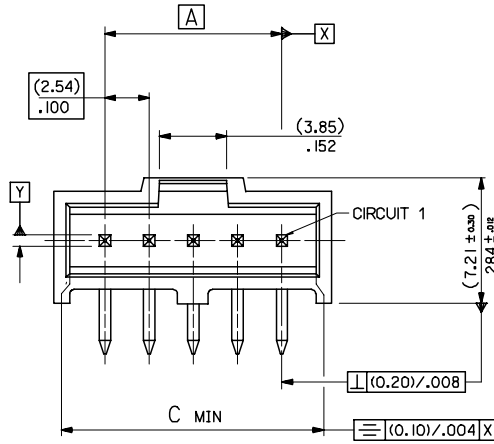
- NOTES
- MATERIAL:-
    - PIN:- (0.635) / .025 SQ.BRASS WIRE.
    - HOUSING:- 15% GLASS FILLED POLYESTER
    - UL 94 V-0 COLOUR BLACK
  - FOR PLATING VERSIONS SEE SHEET 2.
  - MEASUREMENT POINT FOR MINIMUM PLATING THICKNESS
  - PRODUCT SPEC: PS-99020-0001
  - RECOMMENDED PCB THICKNESS 1.6mm

|   |                               |   |   |                          |                    |   |                        |
|---|-------------------------------|---|---|--------------------------|--------------------|---|------------------------|
| ADDED CIRCUIT 1 INDICATOR<br>E.C. NO: E2008-0112<br>DRAWN: BIRNES<br>CHKD: 2007/09/10<br>APPR: WALLACE<br>2007/09/11          | QUALITY SYMBOLS<br>▽=0<br>▽=0 | GENERAL TOLERANCES (UNLESS SPECIFIED)   |   | DIMENSION STYLE<br>MM/IN | SCALE<br>5:1       | DESIGN UNITS<br>METRIC                                  | THIRD ANGLE PROJECTION |
|   |                               | 4 PLACES ± --- ± ---<br>3 PLACES ± --- ± .004<br>2 PLACES ± 0.10 ± ---<br>1 PLACE ± --- ± ---<br>ANGULAR ± 1/2° | mm INCH<br>± --- ± ---<br>± .004 ± ---<br>± 0.10 ± ---<br>± --- ± --- | DRAWN BY<br>KS           | DATE<br>1987/10/30 | TITLE<br>C-GRID III SINGLE ROW STRAIGHT SHROUDED HEADER |                        |
| DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS  |                               | SEE CHART   |   | APPROVED BY<br>DATE      |                    | MOLEX INCORPORATED                                      |                        |
| MATERIAL NO.  |                               | DOCUMENT NO.  |   | SDA-90136                |                    | SHEET NO.<br>1 OF 100                                   |                        |
| THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION |                               |   |   |                          |                    |   |                        |

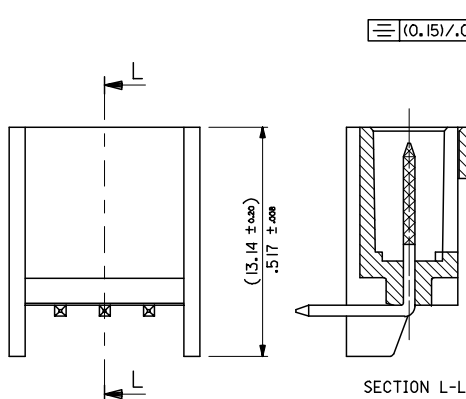
13 12 11 10 9 8 7 6 5 4 3 2 1



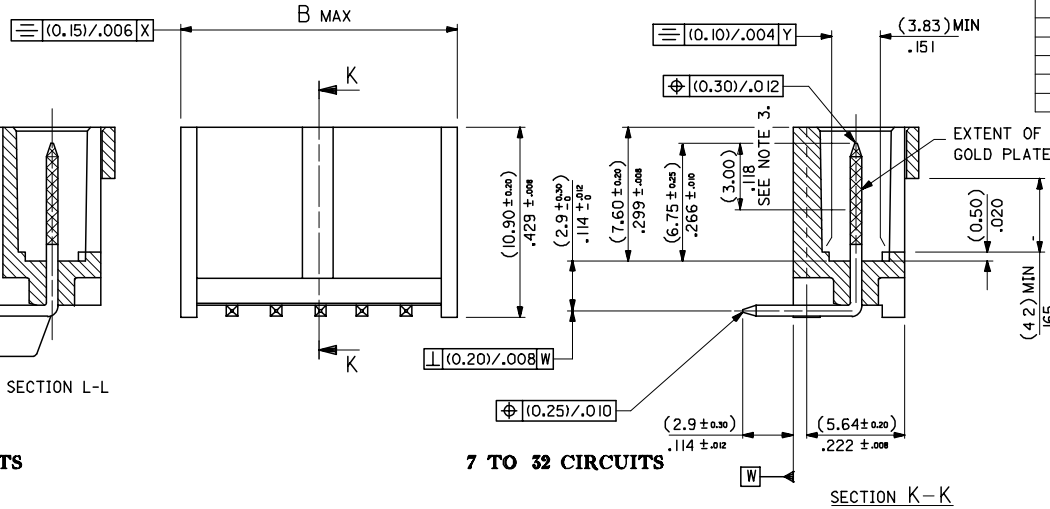
1 TO 3 CIRCUITS



4 TO 32 CIRCUITS

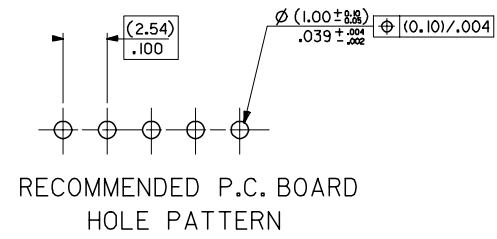


1 TO 6 CIRCUITS



7 TO 32 CIRCUITS

| No. OF CKTS | DIM A             | DIM B             | DIM C             |
|-------------|-------------------|-------------------|-------------------|
| 1           |                   | ( 5.89 ) / .232   | ( 4.06 ) / .160   |
| 2           | ( 2.54 ) / .100   | ( 8.43 ) / .332   | ( 6.60 ) / .260   |
| 3           | ( 5.08 ) / .200   | ( 10.97 ) / .432  | ( 9.14 ) / .360   |
| 4           | ( 7.62 ) / .300   | ( 13.51 ) / .532  | ( 11.68 ) / .460  |
| 5           | ( 10.16 ) / .400  | ( 16.05 ) / .632  | ( 14.22 ) / .560  |
| 6           | ( 12.70 ) / .500  | ( 18.59 ) / .732  | ( 16.76 ) / .660  |
| 7           | ( 15.24 ) / .600  | ( 21.13 ) / .832  | ( 19.30 ) / .760  |
| 8           | ( 17.78 ) / .700  | ( 23.67 ) / .932  | ( 21.84 ) / .860  |
| 9           | ( 20.32 ) / .800  | ( 26.21 ) / 1.032 | ( 24.38 ) / .960  |
| 10          | ( 22.86 ) / .900  | ( 28.75 ) / 1.132 | ( 26.92 ) / 1.060 |
| 11          | ( 25.4 ) / 1.000  | ( 31.29 ) / 1.232 | ( 29.46 ) / 1.160 |
| 12          | ( 27.94 ) / 1.100 | ( 33.83 ) / 1.332 | ( 32.00 ) / 1.260 |
| 13          | ( 30.48 ) / 1.200 | ( 36.37 ) / 1.432 | ( 34.54 ) / 1.360 |
| 14          | ( 33.02 ) / 1.300 | ( 38.91 ) / 1.532 | ( 37.08 ) / 1.460 |
| 15          | ( 35.56 ) / 1.400 | ( 41.45 ) / 1.632 | ( 39.62 ) / 1.560 |
| 16          | ( 38.10 ) / 1.500 | ( 43.99 ) / 1.732 | ( 42.16 ) / 1.660 |
| 17          | ( 40.64 ) / 1.600 | ( 46.53 ) / 1.832 | ( 44.70 ) / 1.760 |
| 18          | ( 43.18 ) / 1.700 | ( 49.07 ) / 1.932 | ( 47.24 ) / 1.860 |
| 19          | ( 45.72 ) / 1.800 | ( 51.61 ) / 2.032 | ( 49.78 ) / 1.960 |
| 20          | ( 48.26 ) / 1.900 | ( 54.15 ) / 2.132 | ( 52.32 ) / 2.060 |
| 21          | ( 50.80 ) / 2.000 | ( 56.69 ) / 2.232 | ( 54.86 ) / 2.160 |
| 22          | ( 53.34 ) / 2.100 | ( 59.23 ) / 2.332 | ( 57.40 ) / 2.260 |
| 23          | ( 55.88 ) / 2.200 | ( 61.77 ) / 2.432 | ( 59.94 ) / 2.360 |
| 24          | ( 58.42 ) / 2.300 | ( 64.31 ) / 2.532 | ( 62.48 ) / 2.460 |
| 25          | ( 60.96 ) / 2.400 | ( 66.85 ) / 2.632 | ( 65.02 ) / 2.560 |
| 26          | ( 63.50 ) / 2.500 | ( 69.39 ) / 2.732 | ( 67.56 ) / 2.660 |
| 27          | ( 66.04 ) / 2.600 | ( 71.93 ) / 2.832 | ( 70.10 ) / 2.760 |
| 28          | ( 68.58 ) / 2.700 | ( 74.47 ) / 2.932 | ( 72.64 ) / 2.860 |
| 29          | ( 71.12 ) / 2.800 | ( 77.01 ) / 3.032 | ( 75.18 ) / 2.960 |
| 30          | ( 73.66 ) / 2.900 | ( 79.55 ) / 3.132 | ( 77.72 ) / 3.060 |
| 31          | ( 76.20 ) / 3.000 | ( 82.09 ) / 3.232 | ( 80.26 ) / 3.160 |
| 32          | ( 78.74 ) / 3.100 | ( 84.63 ) / 3.332 | ( 82.80 ) / 3.260 |



RECOMMENDED P.C. BOARD HOLE PATTERN

NOTES

- MATERIAL:-  
 - PIN\*- (0.635) / .025 SQ. BRASS WIRE.  
 - HOUSING\*- 15% GLASS FILLED POLYESTER  
 - UL 94 V-0 COLOUR BLACK
2. FOR PLATING VERSIONS SEE SHEET 4.  
 3. MEASUREMENT FOR MINIMUM PLATING THICKNESS  
 4. PRODUCT SPEC: PS-99020-0001  
 5. RECOMMENDED PCB THICKNESS 1.6mm

|   |  |   |                           |                           |                       |   |
|---|--|---|---------------------------|---------------------------|-----------------------|---|
| CIRCUIT 1 IDENTIFIED<br>EC NO: E2008-0112<br>DRAWN BY: RIMES 2007/09/10<br>CHKD: 2007/09/10<br>APPR: WALLACE 2007/09/11<br>REV: | QUALITY SYMBOLS  | GENERAL TOLERANCES (UNLESS SPECIFIED)   | DIMENSION STYLE           | SCALE                     | DESIGN UNITS          | THIRD ANGLE PROJECTION  |
|   | $\nabla=0$<br>$\nabla=0$   | 4 PLACES ± --- ± ---<br>3 PLACES ± --- ± .004<br>2 PLACES ± 0.10 ± ---<br>1 PLACE ± --- ± ---<br>ANGULAR ± 1/2° | MM/IN                     | 5:1                       | METRIC                | C-GRID 111<br>SINGLE ROW RIGHT ANGLE<br>SHROUDED HEADER<br>MOLEX INCORPORATED   |
|   | DRAWN BY: RIMES 2007/09/10<br>CHKD: 2007/09/10<br>APPR: WALLACE 2007/09/11 | DRAWN BY: KS<br>DATE: 1987/09/29<br>CHECKED BY: DATE<br>APPROVED BY: DATE                                       | MATERIAL NO.<br>SEE CHART | DOCUMENT NO.<br>SDA-90136 | SHEET NO.<br>3 OF 100 |   |
|   | 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

| NO. OF CKTS | PART NUMBERS   |                |                |
|-------------|----------------|----------------|----------------|
|             | PLATING TYPE A | PLATING TYPE E | PLATING TYPE F |
| 1           | 90136-2101     | 90136-2201     | 90136-2301     |
| 2           | ▲ -2102        | ▲ -2202        | ▲ -2302        |
| 3           | -2103          | -2203          | -2303          |
| 4           | -2104          | -2204          | -2304          |
| 5           | -2105          | -2205          | -2305          |
| 6           | -2106          | -2206          | -2306          |
| 7           | -2107          | -2207          | -2307          |
| 8           | -2108          | -2208          | -2308          |
| 9           | -2109          | -2209          | -2309          |
| 10          | -2110          | -2210          | -2310          |
| 11          | -2111          | -2211          | -2311          |
| 12          | -2112          | -2212          | -2312          |
| 13          | -2113          | -2213          | -2313          |
| 14          | -2114          | -2214          | -2314          |
| 15          | -2115          | -2215          | -2315          |
| 16          | -2116          | -2216          | -2316          |
| 17          | -2117          | -2217          | -2317          |
| 18          | -2118          | -2218          | -2318          |
| 19          | -2119          | -2219          | -2319          |
| 20          | -2120          | -2220          | -2320          |
| 21          | -2121          | -2221          | -2321          |
| 22          | -2122          | -2222          | -2322          |
| 23          | -2123          | -2223          | -2323          |
| 24          | -2124          | -2224          | -2324          |
| 25          | -2125          | -2225          | -2325          |
| 26          | -2126          | -2226          | -2326          |
| 27          | -2127          | -2227          | -2327          |
| 28          | -2128          | -2228          | -2328          |
| 29          | -2129          | -2229          | -2329          |
| 30          | -2130          | -2230          | -2330          |
| 31          | ▼ -2131        | ▼ -2231        | ▼ -2331        |
| 32          | 90136-2132     | 90136-2232     | 90136-2332     |

NOTES  
 1.FOR ASSY SEE SHEET 3  
 2.FOR PLATING DETAILS SEE SDES 99000-0003

90136 - X X X X  
 INDICATES No. OF CIRCUITS  
 PLATING  
 1 - TYPE A  
 2 - TYPE E  
 3 - TYPE F  
 STYLE:- 2 - RIGHT ANGLE ASSY

| UPDATED TABLE<br>EC NO: E2007-1001<br>2007/06/07<br>DRWN:DBYRNES<br>2007/06/07<br>CHKD:<br>2007/06/07<br>APPR:EOMAHONY<br>2007/06/07 | QUALITY SYMBOLS<br>▼=0<br>◻=0 | GENERAL TOLERANCES (UNLESS SPECIFIED)<br><table border="1"> <tr><th></th><th>mm</th><th>INCH</th></tr> <tr><td>4 PLACES</td><td>±.004</td><td>±.0015</td></tr> <tr><td>3 PLACES</td><td>±.005</td><td>±.002</td></tr> <tr><td>2 PLACES</td><td>±.007</td><td>±.0025</td></tr> <tr><td>1 PLACE</td><td>±.010</td><td>±.0035</td></tr> <tr><td colspan="3">ANGULAR ±.005°</td></tr> </table> |   | mm | INCH | 4 PLACES | ±.004 | ±.0015 | 3 PLACES | ±.005 | ±.002 | 2 PLACES | ±.007 | ±.0025 | 1 PLACE | ±.010 | ±.0035 | ANGULAR ±.005° |  |  | DIMENSION STYLE<br>MM ONLY<br>DRAWN BY: KS DATE: 1987/09/28<br>CHECKED BY: RD DATE: 1991/10/16<br>APPROVED BY: NW DATE: 1991/10/17 | SCALE: ---<br>DESIGN UNITS: METRIC<br>THIRD ANGLE PROJECTION | TITLE: C-GRID SHRD HDR SR VT<br>MOLEX INCORPORATED<br>DOCUMENT NO. SDA-90136<br>SHEET NO. 4 OF 8 |
|--|-------------------------------|--|---|----|------|----------|-------|--------|----------|-------|-------|----------|-------|--------|---------|-------|--------|----------------|--|--|--|--|--|
|  |                               | mm   | INCH  |    |      |          |       |        |          |       |       |          |       |        |         |       |        |                |  |  |  |  |  |
|  | 4 PLACES                      | ±.004  | ±.0015  |    |      |          |       |        |          |       |       |          |       |        |         |       |        |                |  |  |  |  |  |
|  | 3 PLACES                      | ±.005  | ±.002   |    |      |          |       |        |          |       |       |          |       |        |         |       |        |                |  |  |  |  |  |
| 2 PLACES   | ±.007                         | ±.0025   |   |    |      |          |       |        |          |       |       |          |       |        |         |       |        |                |  |  |  |  |  |
| 1 PLACE  | ±.010                         | ±.0035   |   |    |      |          |       |        |          |       |       |          |       |        |         |       |        |                |  |  |  |  |  |
| ANGULAR ±.005°   |                               |  |   |    |      |          |       |        |          |       |       |          |       |        |         |       |        |                |  |  |  |  |  |
| DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS   |                               | SEE CHART  | THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION |    |      |          |       |        |          |       |       |          |       |        |         |       |        |                |  |  |  |  |  |