

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

**Part Number:** [0741640018](#)  
**Status:** **Active**  
**Overview:** [cgrid\\_sl\\_products](#)  
**Description:** 2.54mm (.100") Pitch C-Grid® Receptacle, Right Angle, Through Hole, Dual Row, Shrouded with Pegs, Version A, High-Temperature, 18 Circuits, 0.4µm (15µ") Gold (Au)

**Documents:**

[3D Model](#) [Product Specification PS-74164-001 \(PDF\)](#)  
[Drawing \(PDF\)](#) [RoHS Certificate of Compliance \(PDF\)](#)

**Agency Certification**

UL E29179

**General**

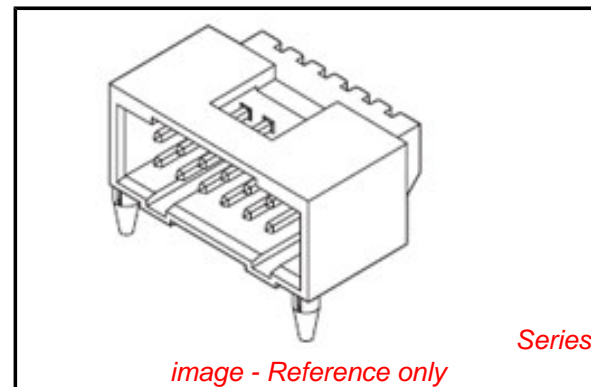
Product Family PCB Receptacles  
 Series [74164](#)  
 Application Board-to-Board  
 Overview [cgrid\\_sl\\_products](#)  
 Product Name C-Grid®

**Physical**

Circuits (Loaded) 18  
 Circuits (maximum) 18  
 Color - Resin Black  
 Durability (mating cycles max) 50  
 Flammability 94V-0  
 Glow-Wire Compliant No  
 Guide to Mating Part No  
 Keying to Mating Part None  
 Lock to Mating Part Yes  
 Material - Metal Phosphor Bronze  
 Material - Plating Mating Gold  
 Material - Plating Termination Tin  
 Material - Resin High Performance Thermoplastic  
 Number of Rows 2  
 Orientation Right Angle  
 PCB Locator Yes  
 PCB Retention None  
 Packaging Type Tube  
 Pitch - Mating Interface (in) 0.100 In  
 Pitch - Mating Interface (mm) 2.54 mm  
 Pitch - Term. Interface (in) 0.100 In  
 Pitch - Term. Interface (mm) 2.54 mm  
 Plating min: Mating (µin) 0.4  
 Plating min: Mating (µm) 15  
 Polarized to Mating Part No  
 Polarized to PCB No  
 Robotic Placement None  
 Stackable No  
 Surface Mount Compatible (SMC) No  
 Temperature Range - Operating -40°C to +105°C  
 Termination Interface: Style Through Hole

**Electrical**

Current - Maximum per Contact 2.5A  
 Grounding to PCB No



*image - Reference only*

**EU RoHS**

**ELV and RoHS  
 Compliant**  
**REACH SVHC  
 Contains SVHC: No**  
**Halogen-Free  
 Status  
 Not Reviewed**

**China RoHS**



**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**  
[74164Series](#)

Voltage - Maximum 250V

### **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                     | 260                    |

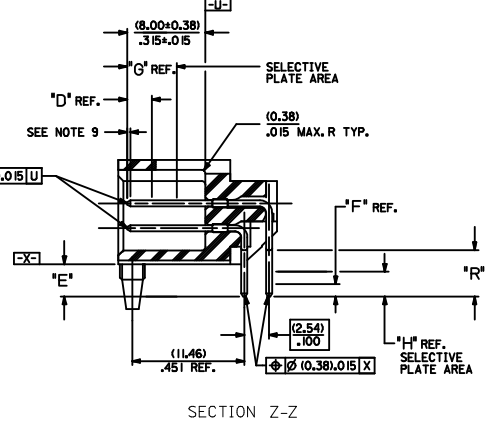
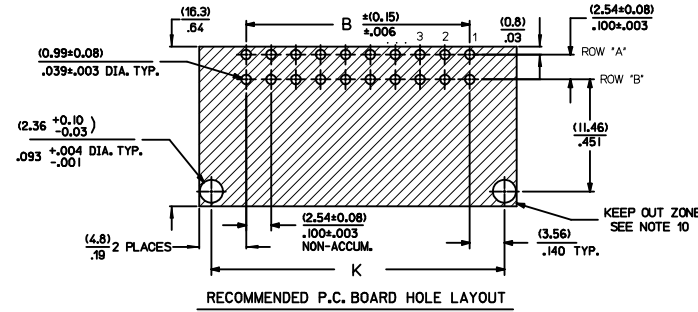
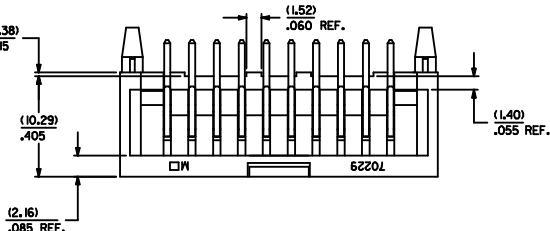
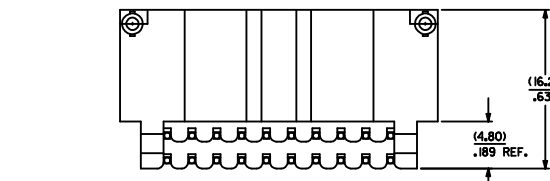
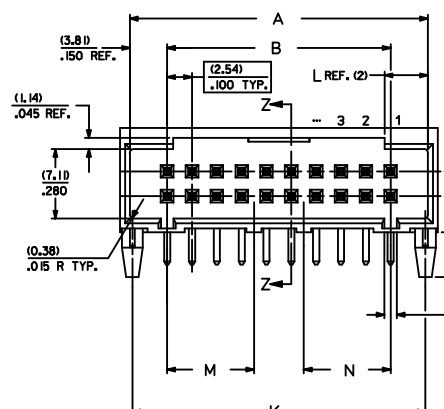
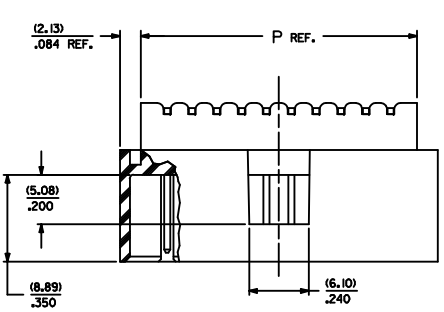
### **Material Info**

### **Reference - Drawing Numbers**

|                         |               |
|-------------------------|---------------|
| Packaging Specification | PK-70873-0019 |
| Product Specification   | PS-74164-001  |
| Sales Drawing           | SD-74164-001  |

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- NOTES
- MATERIAL: SHROUDED WAFER: GLASS FILLED, LIQUID CRYSTAL POLYMER, COLOR: BLACK, UL94V-0  
PINS: PHOSPHOR BRONZE
  - FINISH:  
TIN - 3.81 MICROMETERS/150 MICROINCHES MINIMUM TIN PLATE OVER NICKEL UNDERPLATE OVERALL  
15 GOLD - 0.38 MICROMETERS/15 MICROINCHES MINIMUM GOLD PLATE IN SELECT AREA  
191 MICROMETERS/75 MICROINCHES MINIMUM TIN PLATE IN SELECT AREA OVER NICKEL UNDERPLATE OVERALL  
30 GOLD - 0.76 MICROMETERS/30 MICROINCHES MINIMUM GOLD PLATE IN SELECT AREA  
191 MICROMETERS/75 MICROINCHES MINIMUM TIN PLATE IN SELECT AREA OVER NICKEL UNDERPLATE OVERALL  
50 GOLD - 1.27 MICROMETERS/50 MICROINCHES MINIMUM GOLD PLATE IN SELECT AREA  
191 MICROMETERS/75 MICROINCHES MINIMUM TIN PLATE IN SELECT AREA OVER NICKEL UNDERPLATE OVERALL
  - PRODUCT SPECIFICATION: PS-74164-0001
  - PACKAGING INFORMATION: SEE CHART
  - 20 CIRCUIT SIZE SHOWN FOR ILLUSTRATION PURPOSES.
  - PIN PUSHOUT FORCE: (17.79 N)/4 LBS.
  - PINS MUST MEET SOLDERABILITY SPEC. MIL-STD-202 METHOD 208B.
  - FOR CHARTED DIMENSIONS AND ASSEMBLY NO.S NOT SHOWN ON THIS SHEET - SEE SHEET 2.
  - ROW TO ROW PIN HEIGHT VARIATION MUST NOT EXCEED (0.25)/.010 IN.
  - NO FEATURES WHICH RISE ABOVE THE PCB SURFACE ALLOWED IN THIS AREA
  - THIS PART CONFORMS TO CLASS B REQUIREMENTS OF COSMETIC SPECIFICATION PS-45499-002.

| CKT. | DIM. 'A'      | DIM. 'B'      | DIM. 'K'      | DIM. 'L'    | DIM. 'M'     | DIM. 'N'     | DIM. 'P'      |
|------|---------------|---------------|---------------|-------------|--------------|--------------|---------------|
| 06   | (12.70) .500  | (5.08) .200   | (12.19) .480  | (3.30) .130 |              |              | (10.46) .412  |
| 08   | (15.24) .600  | (7.62) .300   | (14.73) .580  | (4.42) .174 |              |              | (13.00) .512  |
| 10   | (17.78) .700  | (10.16) .400  | (17.27) .680  | (4.42) .174 |              |              | (15.54) .612  |
| 12   | (20.32) .800  | (12.70) .500  | (19.81) .780  | (4.42) .174 |              |              | (18.08) .712  |
| 14   | (22.86) .900  | (15.24) .600  | (22.35) .880  | (4.42) .174 |              |              | (20.62) .812  |
| 16   | (25.40) 1.000 | (17.78) .700  | (24.89) .980  | (4.42) .174 |              |              | (23.16) .912  |
| 18   | (27.94) 1.100 | (20.32) .800  | (27.43) 1.080 | (4.42) .174 |              |              | (25.70) 1.012 |
| 20   | (30.48) 1.200 | (22.86) .900  | (29.97) 1.180 | (4.42) .174 |              |              | (28.24) 1.112 |
| 22   | (33.02) 1.300 | (25.40) 1.000 | (32.51) 1.280 | (4.42) .174 |              |              | (30.78) 1.212 |
| 24   | (35.56) 1.400 | (27.94) 1.100 | (35.05) 1.380 | (4.42) .174 | (16.64) .655 |              | (33.32) 1.312 |
| 26   | (38.10) 1.500 | (30.48) 1.200 | (37.59) 1.480 | (4.42) .174 | (16.64) .655 |              | (35.86) 1.412 |
| 28   | (40.64) 1.600 | (33.02) 1.300 | (40.13) 1.580 | (4.42) .174 | (16.64) .655 |              | (38.40) 1.512 |
| 30   | (43.18) 1.700 | (35.56) 1.400 | (42.67) 1.680 | (4.42) .174 | (16.64) .655 |              | (40.94) 1.612 |
| 32   | (45.72) 1.800 | (38.10) 1.500 | (45.21) 1.780 | (4.42) .174 | (16.64) .655 |              | (43.48) 1.712 |
| 34   | (48.26) 1.900 | (40.64) 1.600 | (47.75) 1.880 | (4.42) .174 | (16.64) .655 | (16.76) .660 | (46.02) 1.812 |
| 36   | (50.80) 2.000 | (43.18) 1.700 | (50.29) 1.980 | (4.42) .174 | (16.64) .655 | (16.76) .660 | (48.56) 1.912 |
| 38   | (53.34) 2.100 | (45.72) 1.800 | (52.83) 2.080 | (4.42) .174 | (16.64) .655 | (16.76) .660 | (51.10) 2.012 |
| 40   | (55.88) 2.200 | (48.26) 1.900 | (55.37) 2.180 | (4.42) .174 | (16.64) .655 | (16.76) .660 | (53.64) 2.112 |
| 42   | (58.42) 2.300 | (50.80) 2.000 | (57.91) 2.280 | (4.42) .174 | (16.64) .655 | (16.76) .660 | (56.18) 2.212 |
| 44   | (60.96) 2.400 | (53.34) 2.100 | (60.45) 2.380 | (4.42) .174 | (16.64) .655 | (16.76) .660 | (58.72) 2.312 |
| 46   | (63.50) 2.500 | (55.88) 2.200 | (62.99) 2.480 | (4.42) .174 | (16.64) .655 | (16.76) .660 | (61.26) 2.412 |
| 48   | (66.04) 2.600 | (58.42) 2.300 | (65.53) 2.580 | (4.42) .174 | (16.64) .655 | (16.76) .660 | (63.80) 2.512 |
| 50   | (68.58) 2.700 | (60.96) 2.400 | (68.07) 2.680 | (4.42) .174 | (16.64) .655 | (16.76) .660 | (66.34) 2.612 |
| 52   | (71.12) 2.800 | (63.50) 2.500 | (70.61) 2.780 | (4.42) .174 | (16.64) .655 | (16.76) .660 | (68.88) 2.712 |
| 54   | (73.66) 2.900 | (66.04) 2.600 | (73.15) 2.880 | (4.42) .174 | (16.64) .655 | (16.76) .660 | (71.42) 2.812 |
| 56   | (76.20) 3.000 | (68.58) 2.700 | (75.69) 2.980 | (4.42) .174 | (16.64) .655 | (16.76) .660 | (73.96) 2.912 |
| 58   | (78.74) 3.100 | (71.12) 2.800 | (78.23) 3.080 | (4.42) .174 | (16.64) .655 | (16.76) .660 | (76.50) 3.012 |
| 60   | (81.28) 3.200 | (73.66) 2.900 | (80.77) 3.180 | (4.42) .174 | (16.64) .655 | (16.76) .660 | (79.04) 3.112 |
| 62   | (83.82) 3.300 | (76.20) 3.000 | (83.31) 3.280 | (4.42) .174 | (16.64) .655 | (16.76) .660 | (81.58) 3.212 |
| 64   | (86.36) 3.400 | (78.74) 3.100 | (85.85) 3.380 | (4.42) .174 | (16.64) .655 | (16.76) .660 | (84.12) 3.312 |
| 66   | (88.90) 3.500 | (81.28) 3.200 | (88.39) 3.480 | (4.42) .174 | (16.64) .655 | (16.76) .660 | (86.66) 3.412 |
| 68   | (91.44) 3.600 | (83.82) 3.300 | (90.93) 3.580 | (4.42) .174 | (16.64) .655 | (16.76) .660 | (89.20) 3.512 |
| 70   | (93.98) 3.700 | (86.36) 3.400 | (93.47) 3.680 | (4.42) .174 | (16.64) .655 | (16.76) .660 | (91.74) 3.612 |
| 72   | (96.52) 3.800 | (88.90) 3.500 | (96.01) 3.780 | (4.42) .174 | (16.64) .655 | (16.76) .660 | (94.28) 3.712 |

|  |                               |  |  |                           |   |                        |
|--|-------------------------------|--|--|---------------------------|---|------------------------|
| INITIAL RELEASE<br>EC NO: UCP2009-1776<br>DRAWN BY: MIBARRA<br>CHKD BY: BBARKER<br>APPR: SMILLER<br>DATE: 2009/03/30<br>DATE: 2009/03/30<br>DATE: 2009/03/31 | QUALITY SYMBOLS<br>0=0<br>1=0 | GENERAL TOLERANCES (UNLESS SPECIFIED)<br>DIMENSIONS: mm INCH<br>4 PLACES ± --- ± ---<br>3 PLACES ± --- ± .010<br>2 PLACES ± 0.25 ± .014<br>1 PLACE ± 0.36 ± ---<br>ANGULAR ±1/2° | DIMENSION STYLE<br>MM/IN   | SCALE<br>INCH             | DESIGN UNITS<br>INCH  | THIRD ANGLE PROJECTION |
|  |                               | DRAFT WHERE APPLICABLE<br>MUST REMAIN WITHIN DIMENSIONS  | DRAWN BY: MIBARRA<br>CHECKED BY: BBARKER<br>APPROVED BY: SMILLER<br>DATE: 2009/03/30<br>DATE: 2009/03/30<br>DATE: 2009/03/30 | MATERIAL NO:<br>SEE TABLE | TITLE<br>SALES ASSEMBLY<br>RIGHT ANGLE SHROUDED<br>W/PC BOARD STAB PEGS | MOLEX INCORPORATED     |

| ITEM NUMBER<br>74164 | E<br>REF     | R<br>REF     | PLATING<br>FINISH | CONNECTOR END PLATING |              |              | PC BOARD END PLATING |             |              | INFORMATION<br>PK-70873 | VOIDED CIRCUITS |  |
|----------------------|--------------|--------------|-------------------|-----------------------|--------------|--------------|----------------------|-------------|--------------|-------------------------|-----------------|--|
|                      |              |              |                   | TYPE                  | G<br>LENGTH  | D<br>MEAS.   | TYPE                 | H<br>LENGTH | F<br>MEAS.   |                         |                 |  |
| -0006-0072           | 3.30<br>.130 | 4.75<br>.187 | 15 GOLD           | GOLD                  | 5.08<br>.200 | 2.54<br>.100 |                      | TIN         | 3.81<br>.150 | 2.54<br>.100            | 0019            |  |
| -0106-0172           | 3.30<br>.130 | 4.75<br>.187 | TIN               | TIN                   |              | 2.54<br>.100 |                      | TIN         |              | 2.54<br>.100            | 0019            |  |
| -0206-0272           | 3.30<br>.130 | 4.75<br>.187 | 50 GOLD           | GOLD                  | 5.08<br>.200 | 2.54<br>.100 |                      | TIN         | 3.81<br>.150 | 2.54<br>.100            | 0019            |  |
| -0306-0372           | 3.30<br>.130 | 4.75<br>.187 | 30 GOLD           | GOLD                  | 5.08<br>.200 | 2.54<br>.100 |                      | TIN         | 3.81<br>.150 | 2.54<br>.100            | 0019            |  |
| -3001                | 3.30<br>.130 | 4.75<br>.187 | 15 GOLD           | GOLD                  | 5.08<br>.200 | 2.54<br>.100 |                      | TIN         | 3.81<br>.150 | 2.54<br>.100            | 0019            | A14, A15, A16, A18, A19, A22, A23<br>B14, B15, B16, B18, B19, B22, B23 |
|                      |              |              |                   |                       |              |              |                      |             |              |                         |                 |  |
|                      |              |              |                   |                       |              |              |                      |             |              |                         |                 |  |

| NO. OF CKTS | ITEM NUMBER | ITEM NUMBER | ITEM NUMBER | ITEM NUMBER | ITEM NUMBER | ITEM NUMBER | ITEM NUMBER |
|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| 6           | 74164-0006  | 74164-0106  | 74164-0206  | 74164-0306  |             |             |             |
| 8           | 74164-0008  | 74164-0108  | 74164-0208  | 74164-0308  |             |             |             |
| 10          | 74164-0010  | 74164-0110  | 74164-0210  | 74164-0310  |             |             |             |
| 12          | 74164-0012  | 74164-0112  | 74164-0212  | 74164-0312  |             |             |             |
| 14          | 74164-0014  | 74164-0114  | 74164-0214  | 74164-0314  |             |             |             |
| 16          | 74164-0016  | 74164-0116  | 74164-0216  | 74164-0316  |             |             |             |
| 18          | 74164-0018  | 74164-0118  | 74164-0218  | 74164-0318  |             |             |             |
| 20          | 74164-0020  | 74164-0120  | 74164-0220  | 74164-0320  |             |             |             |
| 22          | 74164-0022  | 74164-0122  | 74164-0222  | 74164-0322  |             |             |             |
| 24          | 74164-0024  | 74164-0124  | 74164-0224  | 74164-0324  |             |             |             |
| 26          | 74164-0026  | 74164-0126  | 74164-0226  | 74164-0326  |             |             |             |
| 28          | 74164-0028  | 74164-0128  | 74164-0228  | 74164-0328  |             |             |             |
| 30          | 74164-0030  | 74164-0130  | 74164-0230  | 74164-0330  |             |             |             |
| 32          | 74164-0032  | 74164-0132  | 74164-0232  | 74164-0332  |             |             |             |
| 34          | 74164-0034  | 74164-0134  | 74164-0234  | 74164-0334  |             |             |             |
| 36          | 74164-0036  | 74164-0136  | 74164-0236  | 74164-0336  |             |             |             |
| 38          | 74164-0038  | 74164-0138  | 74164-0238  | 74164-0338  |             |             |             |
| 40          | 74164-0040  | 74164-0140  | 74164-0240  | 74164-0340  |             |             |             |
| 42          | 74164-0042  | 74164-0142  | 74164-0242  | 74164-0342  |             |             |             |
| 44          | 74164-0044  | 74164-0144  | 74164-0244  | 74164-0344  |             |             |             |
| 46          | 74164-0046  | 74164-0146  | 74164-0246  | 74164-0346  |             |             |             |
| 48          | 74164-0048  | 74164-0148  | 74164-0248  | 74164-0348  |             |             |             |
| 50          | 74164-0050  | 74164-0150  | 74164-0250  | 74164-0350  |             | 74164-3001  |             |
| 52          | 74164-0052  | 74164-0152  | 74164-0252  | 74164-0352  |             |             |             |
| 54          | 74164-0054  | 74164-0154  | 74164-0254  | 74164-0354  |             |             |             |
| 56          | 74164-0056  | 74164-0156  | 74164-0256  | 74164-0356  |             |             |             |
| 58          | 74164-0058  | 74164-0158  | 74164-0258  | 74164-0358  |             |             |             |
| 60          | 74164-0060  | 74164-0160  | 74164-0260  | 74164-0360  |             |             |             |
| 62          | 74164-0062  | 74164-0162  | 74164-0262  | 74164-0362  |             |             |             |
| 64          | 74164-0064  | 74164-0164  | 74164-0264  | 74164-0364  |             |             |             |
| 66          | 74164-0066  | 74164-0166  | 74164-0266  | 74164-0366  |             |             |             |
| 68          | 74164-0068  | 74164-0168  | 74164-0268  | 74164-0368  |             |             |             |
| 70          | 74164-0070  | 74164-0170  | 74164-0270  | 74164-0370  |             |             |             |
| 72          | 74164-0072  | 74164-0172  | 74164-0272  | 74164-0372  |             |             |             |

|   |  |  |                 |              |  |                        |   |
|---|--|--|-----------------|--------------|--|------------------------|---|
| <b>INITIAL RELEASE</b><br>EC NO: UCP2009-1776<br>DRAWN BY: MIBARRA 2009/03/30<br>CHECKED BY: BBARKER 2009/04/20<br>APPR: SMILLER 2009/04/21<br>REV: DESCRIPTION | QUALITY SYMBOLS                                      | GENERAL TOLERANCES (UNLESS SPECIFIED)  | DIMENSION STYLE | SCALE        | DESIGN UNITS   | THIRD ANGLE PROJECTION |   |
|   | $\nabla=0$<br>$\nabla=0$                             | 4 PLACES ±.005 ±.005<br>3 PLACES ±.010 ±.010<br>2 PLACES ±.025 ±.014<br>1 PLACE ±.036 ±.010<br>ANGULAR ±1/2° | MM/INCH         | MM/INCH      | INCH   | INCH                   | DRAWN BY: MIBARRA 2009/03/30<br>CHECKED BY: BBARKER 2009/03/30<br>APPROVED BY: SMILLER 2009/03/30 |
|   | DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS | SEE TABLE  | MATERIAL NO.    | DOCUMENT NO. | SALES ASSEMBLY<br>RIGHT ANGLE SHROUDED<br>W/PC BOARD STAB PEGS<br>MOLEX INCORPORATED |                        |   |
|   |  |  |                 |              |  |                        | SD-74164-001<br>SHEET NO. 2 OF 2  |