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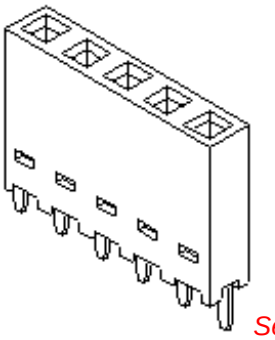
# PLEASE CHECK WWW.MOLEX.COM FOR LATEST PART INFORMATION

**Part Number:** 0901471220
**Status:** Active
**Overview:** cgrid__sl_products
**Description:** 2.54mm (.100") Pitch C-Grid® PC Board Connector, Single Row, Vertical, 20 Circuits, Tin (Sn) Plating



*Series image - Reference only*

**Documents:**
3D Model
Drawing (PDF)
RoHS Certificate of Compliance (PDF)

## Agency Certification

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

## General

| | |
|---|---|
| Product Family | PCB Receptacles |
| Series | 90147 |
| Application | Board-to-Board |
| Overview | cgrid__sl_products |
| Product Name | C-Grid® |

## Physical

| | |
|---|---|
| Circuits (Loaded) | 20 |
| Circuits (maximum) | 20 |
| Color - Resin | Black |
| Durability (mating cycles max) | 100 |
| Flammability | 94V-0 |
| Glow-Wire Compliant | No |
| Guide to Mating Part | No |
| Keying to Mating Part | None |
| Lock to Mating Part | No |
| Material - Metal | Phosphor Bronze |
| Material - Plating Mating | Gold |
| Material - Plating Termination | Tin |
| Material - Resin | Polyester |
| Number of Rows | 1 |
| Orientation | Vertical |
| PC Tail Length (in) | 0.114 In |
| PC Tail Length (mm) | 2.90 mm |
| PCB Locator | No |
| PCB Retention | Yes |
| PCB Thickness Recommended (in) | 0.063 In |
| PCB Thickness Recommended (mm) | 1.60 mm |
| 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) | 15.2 |
| Plating min: Mating (µm) | 0.38 |
| Plating min: Termination (µin) | 120 |
| Plating min: Termination (µm) | 3 |
| Polarized to Mating Part | No |
| Polarized to PCB | No |
| Stackable | No |
| Surface Mount Compatible (SMC) | No |

**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
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**
90147Series

**Mates With**
90120 , 90121

**Use With**
90120 , 90121

| | |
|---|---|
| Temperature Range - Operating | -55°C to +125°C |
| Termination Interface: Style | Through Hole |

## Electrical

| | |
|---|---|
| Current - Maximum per Contact | 3A |
| Grounding to PCB | No |
| Voltage - Maximum | 350V AC/DC |

## Solder Process Data

| | |
|---|---|
| Lead-free Process Capability | Wave Capable (TH only) |

## Material Info

## Reference - Drawing Numbers

| | |
|---|---|
| Sales Drawing | SDA-90147 |

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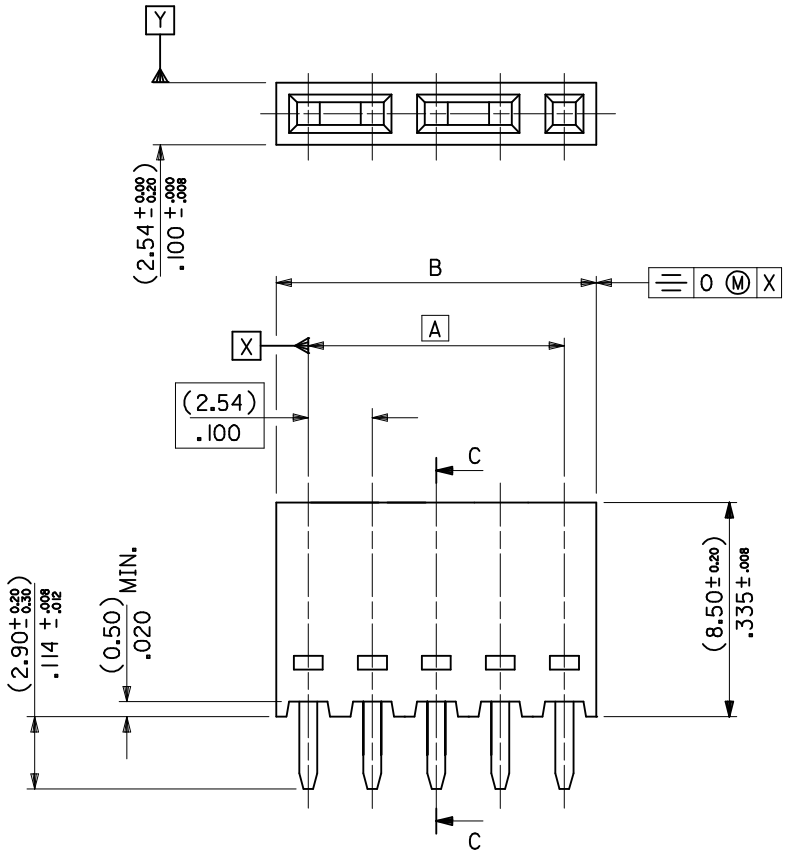
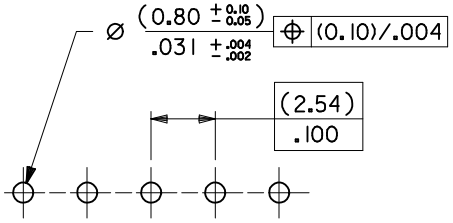
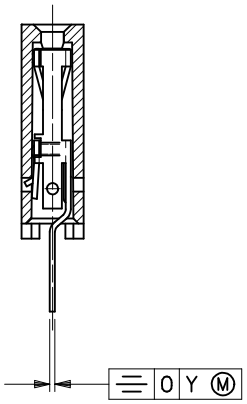



RECOMMENDED P.C. BOARD
HOLE PATTERN
FOR STRAIGHT PINS.




SECTION C-C SHOWING
STRAIGHT PINS.

NOTES:

1) CONTACT-PLATED PHOSPHOR BRONZE.

2) HOUSING-15% GLASS FILLED POLYESTER.
COLOUR: BLACK.

3) FOR (0.635)/.025 SQ. MALE PINS THE LENGTH MUST BE (5.65)/.222 MIN & (7.00)/.276 MAX. TO ENSURE GOOD CONNECTION WITH CONTACT.

4) PRODUCT SPECIFICATION: PS-99020-0001
5) PCB THICKNESS 1.6MM

ADDED GATE AREA
EC NO: E2009-0250 2008/12/08
DRWN:BMAGUIRE 2008/12/08
CH'KD: 2008/12/08
APPR:BMAGUIRE 2008/12/08
DESCRIPTION
AC
REV

QUALITY SYMBOLS
▼=0
Ⓒ=0

GENERAL TOLERANCES (UNLESS SPECIFIED)

| | mm | INCH |
|---|---|---|
| 4 PLACES | ± --- | ± --- |
| 3 PLACES | ± --- | ± --- |
| 2 PLACES | ± --- | ± --- |
| 1 PLACE | ± --- | ± --- |
| ANGULAR ± 2 ° | | |

DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS

DIMENSION STYLE: MM/IN
SCALE: 1:1
DESIGN UNITS: METRIC
THIRD ANGLE PROJECTION

DRAWN BY: DB DATE: 1987/07/14
CHECKED BY: JDENNEHY DATE: 2005/07/07
APPROVED BY: JDENNEHY DATE: 2005/07/07
MATERIAL NO.: SEE SHEET 2

TITLE: C-GRID III, SINGLE ROW VERTICAL P.C. BOARD CONNECTOR ASSEMBLY.

MOLEX INCORPORATED

DOCUMENT NO.: SDA-90147
SHEET NO.: 1 OF 2
SIZE: A3

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| PART NO'S - STRAIGHT PINS | | NO. OF CKTS | DIM. "A" | DIM. "B" $(^{+.80}_{-.30})^{+.000}_{-.012}$ | QTY. PER TUBE |
|---|---|---|---|---|---|
| STANDARD | CUSTOMER SPECIFIC | | | | |
| 90147-1X02 | | 2 | ( 2.54) .100 | ( 5.08) .200 | 105 |
| 03 | | 3 | ( 5.08) .200 | ( 7.62) .300 | 72 |
| 04 | | 4 | ( 7.62) .300 | (10.16) .400 | 52 |
| 05 | 90147-9105 | 5 | (10.16) .400 | (12.70) .500 | 44 |
| 06 | | 6 | (12.70) .500 | (15.24) .600 | 36 |
| 07 | | 7 | (15.24) .600 | (17.78) .700 | 30 |
| 08 | | 8 | (17.78) .700 | (20.32) .800 | 26 |
| 09 | | 9 | (20.32) .800 | (22.86) .900 | 22 |
| 10 | | 10 | (22.86) .900 | (25.40)1.000 | 22 |
| 11 | | 11 | (25.40)1.000 | (27.94)1.100 | 20 |
| 12 | | 12 | (27.94)1.100 | (30.48)1.200 | 18 |
| 13 | | 13 | (30.48)1.200 | (33.02)1.300 | 16 |
| 14 | | 14 | (33.02)1.300 | (35.56)1.400 | 14 |
| 15 | | 15 | (35.56)1.400 | (38.10)1.500 | 14 |
| 16 | | 16 | (38.10)1.500 | (40.64)1.600 | 13 |
| 17 | | 17 | (40.64)1.600 | (43.18)1.700 | 13 |
| 18 | | 18 | (43.18)1.700 | (45.72)1.800 | 12 |
| 19 | | 19 | (45.72)1.800 | (48.26)1.900 | 12 |
| 20 | | 20 | (48.26)1.900 | (50.80)2.000 | 11 |
| 21 | | 21 | (50.80)2.000 | (53.34)2.100 | 11 |
| 22 | | 22 | (53.34)2.100 | (55.88)2.200 | 10 |
| 23 | | 23 | (55.88)2.200 | (58.42)2.300 | 9 |
| 24 | | 24 | (58.42)2.300 | (60.96)2.400 | 9 |
| 25 | | 25 | (60.96)2.400 | (63.50)2.500 | 8 |
| 26 | | 26 | (63.50)2.500 | (66.04)2.600 | 8 |
| 27 | | 27 | (66.04)2.600 | (68.58)2.700 | 8 |
| 28 | | 28 | (68.58)2.700 | (71.12)2.800 | 7 |
| 29 | | 29 | (71.12)2.800 | (73.66)2.900 | 7 |
| 30 | | 30 | (73.66)2.900 | (76.20)3.000 | 7 |
| 31 | | 31 | (76.20)3.000 | (78.74)3.100 | 7 |
| 90147-1X32 | | 32 | (78.74)3.100 | (81.28)3.200 | 6 |

PLATING VERSION A

PRE-PLATED HOT DIP TIN
1.0 TO 2.5 um (.000040" TO .000100").

PLATING VERSION E

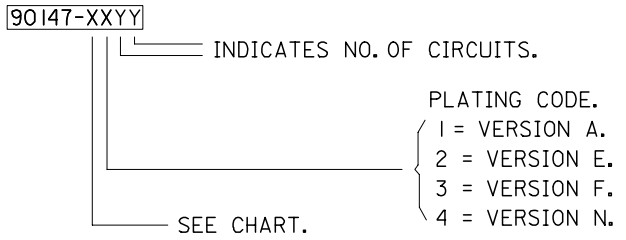
1.27 TO 1.78 um (.000050" TO .000070") NICKEL
OVERALL, 0.38 TO 0.64 um (.000015" TO .000025")
GOLD ON CONTACT AREA (OVER NICKEL).
3 TO 5 um (.000120" TO .000200") TIN
ON SOLDER TAILS (OVER NICKEL).

PLATING VERSION F.

1.27 TO 1.78 um (.000050" TO .000070") NICKEL
OVERALL, 0.76 TO 1.0 um (.000030" TO .000040")
GOLD ON CONTACT AREA (OVER NICKEL).
3 TO 5 um (.000120" TO .000200") TIN
ON SOLDER TAILS (OVER NICKEL).

PLATING VERSION N.

1.27 TO 1.78 um (.000050" TO .000070") NICKEL
OVERALL, 0.76 TO 2.6 um (.000030" TO .000100")
GOLD ON CONTACT AREA (OVER NICKEL).
4 um (.000120") MINIMUM TIN
ON SOLDER TAILS (OVER NICKEL).




**STANDARD PRODUCTS**

REMOVE KINK OPT
EC NO: E2007-0787
DRWN:DWASZKIEWI(CZ)2007/04/25
CHKD:DMORIARTY 2007/04/25
APPR: JDENNEHY 2007/04/27
DESCRIPTION
AA
REV

QUALITY SYMBOLS
▼=0
▽=0

GENERAL TOLERANCES (UNLESS SPECIFIED)

| | mm | INCH |
|---|---|---|
| 4 PLACES | ± --- | ± --- |
| 3 PLACES | ± --- | ± --- |
| 2 PLACES | ± --- | ± --- |
| 1 PLACE | ± --- | ± --- |
| ANGULAR ± 2 ° | | |

DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS

DIMENSION STYLE: MM/IN
SCALE: 5:1
DESIGN UNITS: METRIC
THIRD ANGLE PROJECTION

DRAWN BY: DB DATE: 1986/12/28
CHECKED BY: JDENNEHY DATE: 2005/07/07
APPROVED BY: JDENNEHY DATE: 2005/07/07
MATERIAL NO.: SEE CHART

TITLE: C-GRID III SINGLE ROW VERTICAL P.C. BOARD CONNECTOR

MOLEX INCORPORATED

DOCUMENT NO.: SDA-90147
SHEET NO.: 2 OF 2

SIZE A3

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