

PLEASE CHECK WWW.MOLEX.COM FOR LATEST PART INFORMATION

Part Number: [0901481102](#)
Status: **Active**
Overview: [cgrid_sl_products](#)
Description: 2.54mm (.100") Pitch C-Grid® PC Board Connector, Single Row, Right Angle, 1.0µm (40µ") Tin (Sn), 2 Circuits

Documents:

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

Agency Certification

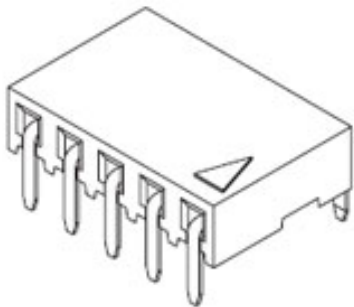
CSA LR19980
UL E29179

General

Product Family PCB Receptacles
Series [90148](#)
Application Board-to-Board
Overview [cgrid_sl_products](#)
Product Name C-Grid®

Physical

Circuits (Loaded) 2
Circuits (maximum) 2
Color - Resin Black
Durability (mating cycles max) 30
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 Tin
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 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) 40
Plating min: Mating (µm) 1.00
Plating min: Termination (µin) 40
Plating min: Termination (µm) 1.00
Polarized to Mating Part Yes
Polarized to PCB No
Stackable No
Surface Mount Compatible (SMC) No



Series

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
For a multiple part number RoHS Certificate of
Compliance, [click here](#)

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

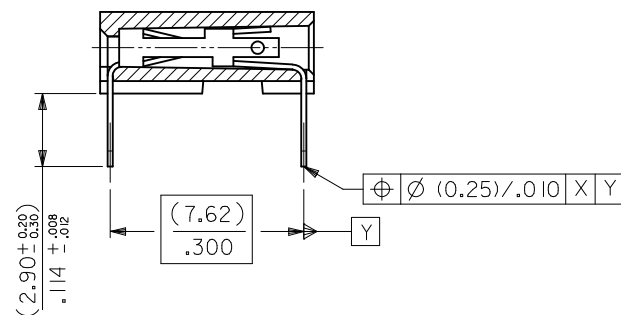
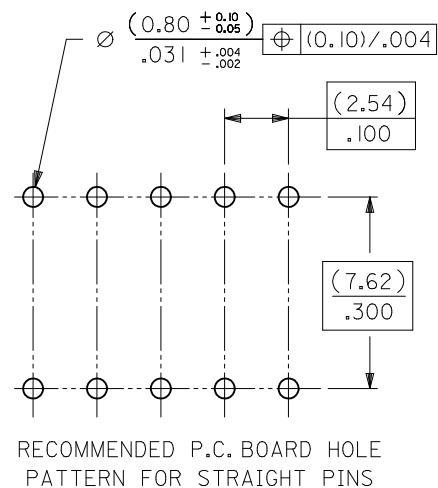
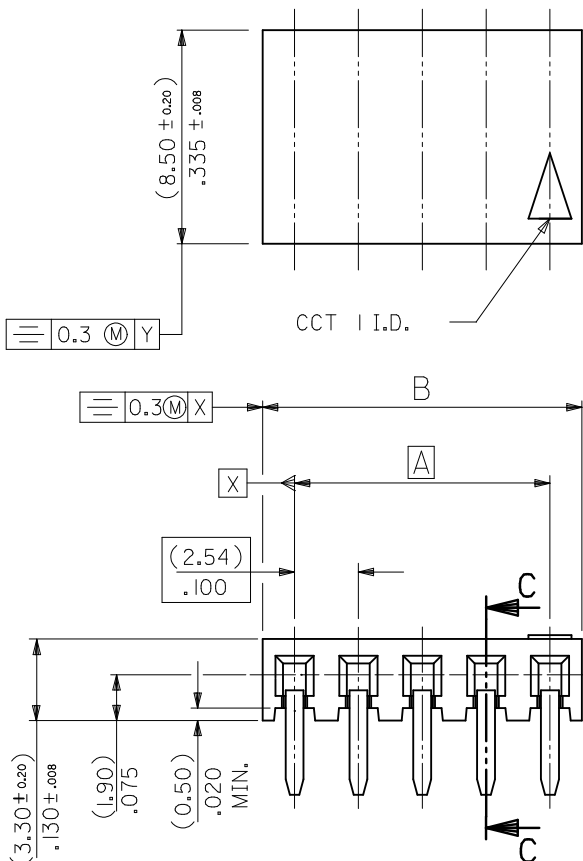
Search Parts in this Series
[90148Series](#)

Mates With
C-Grid III™ Header [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)
Process Temperature max. C	260
Material Info	
Reference - Drawing Numbers	
Sales Drawing	SDA-90148

This document was generated on 05/22/2010

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SECTION C-C SHOWING
STRAIGHT PINS

NOTES

- CONTACT-PLATED PHOSPHOR BRONZE.
(SEE SHEET 2)
- HOUSING
POLYESTER (PBT), 15% GLASS FILL, UL94-V0.
COLOR: BLACK.
ALSO
POLYAMIDE (PA4/6), 30% GLASS FILL, UL94-V0.
COLOR: NATURAL.
- 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.
- PRODUCT SPECIFICATION: PS-99020-0001
- PCB THICKNESS 1.6MM

UPDATE TOL. SYMMETRY	EC NO: S2010-0968	2010/05/26	2010/06/04	2010/06/05
AK	DRWN:SKANG	CHKD:ATSEE	APPR:MLONG	REV

QUALITY SYMBOLS	DESCRIPTION
$F_A=0$	
$F_B=0$	
$F_P=0$	

GENERAL TOLERANCES (UNLESS SPECIFIED)	mm	INCH
4 PLACES	± ---	± ---
3 PLACES	± ---	± ---
2 PLACES	± 0.15	± ---
1 PLACE	± ---	± ---
ANGULAR	± 2 °	
DRAFT WHERE APPLICABLE	MUST REMAIN WITHIN DIMENSIONS	

DIMENSION STYLE	SCALE	DESIGN UNITS	THIRD ANGLE PROJECTION
MM ONLY	NTS	METRIC	
DRAWN BY	DATE	TITLE	
DB	1987/07/14	C-GRID III SINGLE ROW	
CHECKED BY	DATE	HORIZONTAL	
D. MORIARTY	2005/03/02	P.C BOARD CONN.	
APPROVED BY	DATE		
J. DENNEHY	2010/06/04		
MATERIAL NO.			
SEE TABLE			

SCALE	DESIGN UNITS	THIRD ANGLE PROJECTION
NTS	METRIC	
DRAWN BY	DATE	TITLE
DB	1987/07/14	C-GRID III SINGLE ROW
CHECKED BY	DATE	HORIZONTAL
D. MORIARTY	2005/03/02	P.C BOARD CONN.
APPROVED BY	DATE	
J. DENNEHY	2010/06/04	
MATERIAL NO.		
SEE TABLE		
SIZE	THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION	
A3		

F

E

D

C

B

A

PART NO's - STRAIGHT PINS		PART NO.	NO OF CKTS.	DIM. A	DIM. B ^(+0.30) _{-0.02}	NO. PER TUBE
STANDARD	CUSTOMER SPECIFIC					
90148-1X02		90148-4X02	2	(2.54) .100	(5.08) .200	105
↑ 03	↑	↑ 03	3	(5.08) .200	(7.62) .300	72
04	↓	04	4	(7.62) .300	(10.16) .400	52
05		05	5	(10.16) .400	(12.70) .500	44
06	90148-9X06	06	6	(12.70) .500	(15.24) .600	36
07	↑	07	7	(15.24) .600	(17.78) .700	30
08		08	8	(17.78) .700	(20.32) .800	26
09		09	9	(20.32) .800	(22.86) .900	24
10		10	10	(22.86) .900	(25.40) 1.000	22
11		11	11	(25.40) 1.000	(27.94) 1.100	18
12		12	12	(27.94) 1.100	(30.48) 1.200	18
13		13	13			16
14		14	14	(33.02) 1.300	(35.56) 1.400	14
15		15	15	(35.56) 1.400	(38.10) 1.500	14
16		16	16			13
17		17	17			12
18		18	18	(43.18) 1.700	(45.72) 1.800	12
19		19	19	(45.72) 1.800	(48.26) 1.900	12
20		20	20	(48.26) 1.900	(50.80) 2.000	11
21		21	21			10
22		22	22			10
23		23	23			10
24		24	24			9
25		25	25	(60.96) 2.400	(63.50) 2.500	8
26		26	26	(63.50) 2.500	(66.04) 2.600	8
27		27	27			8
28		28	28			7
29		29	29			7
30		30	30	(73.66) 2.900	(76.20) 3.000	7
↓ 31	↓	↓ 31	31			7
90148-1X32		90148-4X32	32	(78.74) 3.100	(81.28) 3.200	6

PLATING VERSION A

PRE-PLATED HOT DIP TIN
1.0 TO 2.5 microns (.00004" TO .00010").

PLATING VERSION E

1.27 TO 1.78 microns (.00005" TO .00007") NICKEL
OVERALL, 0.38 TO 0.64 microns (.000015" TO .000025")
GOLD ON CONTACT AREA (OVER NICKEL).
3 TO 5 microns (.00012" TO .00020") TIN
ON SOLDER TAILS (OVER NICKEL).

PLATING VERSION F.

1.27 TO 1.78 microns (.00005" TO .00007") NICKEL
OVERALL, 0.76 TO 1.0 microns (.00003" TO .00004")
GOLD ON CONTACT AREA (OVER NICKEL).
3 TO 5 microns (.00012" TO .00020") TIN
ON SOLDER TAILS (OVER NICKEL).

90148-XXYY

INDICATES NO. OF CIRCUITS

PLATING CODE
1 = VERSION A
2 = VERSION E
3 = VERSION F

1 = STRAIGHT PINS POLYESTER
9 = STRAIGHT PINS POLYESTER

4 = STRAIGHT PINS NYLON 46

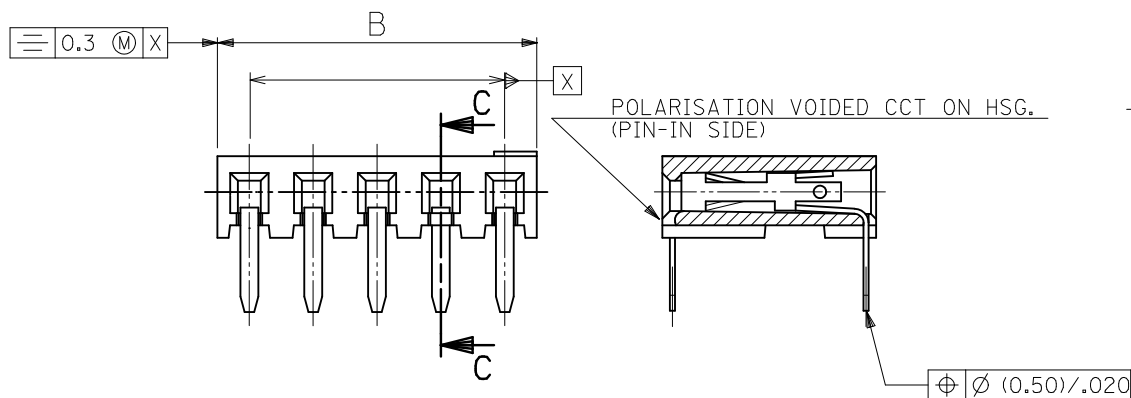
UPDATE TOL.SYMMETRY EC NO: S2010-0968 2010/05/26 DRWN:SKANG CHKD:ATSEE 2010/06/04 APPR:MLONG 2010/06/05	DESCRIPTION REV	QUALITY SYMBOLS F_A=0 F_G=0 F_P=0	GENERAL TOLERANCES (UNLESS SPECIFIED)		DIMENSION STYLE MM ONLY		SCALE NTS	DESIGN UNITS METRIC	THIRD ANGLE PROJECTION				
			AK	mm	INCH	DRAWN BY DB	DATE 1987/07/14	C-GRID III SINGLE ROW HORIZONTAL P.C BOARD CONN. MOLEX INCORPORATED					
				4 PLACES ± ---	± ---	CHECKED BY D.MORIARTY	DATE 2005/03/02						
				3 PLACES ± ---	± ---	APPROVED BY J.DENNEHY	DATE 2010/06/04						
				2 PLACES ± 0.15	± ---	MATERIAL NO. SEE TABLE		DOCUMENT NO. SDA-90148		SHEET NO. 2 OF 3			
				1 PLACE ± ---	± ---								
				ANGULAR ± 2 °									
				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											

10 9 8 7 6 5 4 3 2 1

PART NO.	POLARISED CCT NO.	NO. OF CKTS.	DIM. A	DIM. B	$\left(\begin{smallmatrix} +0.30 \\ -0.12 \end{smallmatrix} \right)$	NO. PER TUBE
90148-3X01	2	3	(5.08) .200	(7.62) .300		72

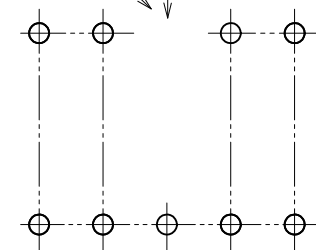
NON-STANDARD PRODUCTS

90148-XXXX
OPTION NUMBER
(NOT RELATING TO CCT SIZE OR OTHERWISE)
PLATING CODE (SEE SHEET 2)
3 = STRAIGHT PINS POLYESTER, POLARISED



SECTION C-C SHOWING
POLARISED CCT

POLARISATION VOIDED
CCT ON P.C.B.
(PIN-IN SIDE)
PIN INSERTION TO HOUSING
FROM THIS SIDE



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

NOTES

- 1) SEE SHEET 1 FOR ALL UNSPECIFIED DIMENSIONS AND NOTES.
- 2) PARTS NOT STACKABLE.

UPDATE TOL. SYMMETRY EC NO: S2010-0968 DRWN:SKANG CHKD:ATSEE APPR:MLONG	2010/05/26 2010/06/04 2010/06/05	DESCRIPTION	QUALITY SYMBOLS FA=0 FB=0 FC=0	GENERAL TOLERANCES (UNLESS SPECIFIED)		DIMENSION STYLE MM ONLY		SCALE NTS	DESIGN UNITS METRIC	THIRD ANGLE PROJECTION	TITLE C-GRID III SINGLE ROW HORIZONTAL P.C BOARD CONN. MOLEX INCORPORATED	
					mm	INCH	DRAWN BY DB		DATE 1987/07/14			
				4 PLACES	± ---	± ---	CHECKED BY D.MORIARTY		DATE 2005/03/02			
				3 PLACES	± ---	± ---	APPROVED BY J.DENNEHY		DATE 2010/06/04			
				2 PLACES	± 0.15	± ---	MATERIAL NO.		DOCUMENT NO.			
				1 PLACE	± ---	± ---	SEE TABLE		SDA-90148			
				ANGULAR ± 2 °								SHEET NO. 3 OF 3
AK	REV	DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS	SIZE A3	THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION								

9 8 7 6 5 4 3 2 1

PART NO's - STRAIGHT PINS		PART NO.	NO OF CKTS.	DIM. A	DIM. B $(\pm \frac{.030}{.012})$	NO. PER TUBE
STANDARD	CUSTOMER SPECIFIC					
90148-1X02		90148-4X02	2	(2.54) .100	(5.08) .200	105
↑ 03	↑	↑ 03	3	(5.08) .200	(7.62) .300	72
04	↓	04	4	(7.62) .300	(10.16) .400	52
05		05	5	(10.16) .400	(12.70) .500	44
06	90148-9X06	06	6	(12.70) .500	(15.24) .600	36
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14		14	14	(33.02) 1.300	(35.56) 1.400	14
15		15	15	(35.56) 1.400	(38.10) 1.500	14
16		16	16			13
17		17	17			12
18		18	18	(43.18) 1.700	(45.72) 1.800	12
19		19	19	(45.72) 1.800	(48.26) 1.900	12
20		20	20	(48.26) 1.900	(50.80) 2.000	11
21		21	21			10
22		22	22			10
23		23	23			10
24		24	24			9
25		25	25	(60.96) 2.400	(63.50) 2.500	8
26		26	26	(63.50) 2.500	(66.04) 2.600	8
27		27	27			8
28		28	28			7
29		29	29			7
30		30	30	(73.66) 2.900	(76.20) 3.000	7
↓ 31	↓	↓ 31	31			7
90148-1X32		90148-4X32	32	(78.74) 3.100	(81.28) 3.200	6

PLATING VERSION A

PRE-PLATED HOT DIP TIN
1.0 TO 2.5 microns (.00004" TO .00010").

PLATING VERSION E

1.27 TO 1.78 microns (.00005" TO .00007") NICKEL
OVERALL, 0.38 TO 0.64 microns (.000015" TO .000025")
GOLD ON CONTACT AREA (OVER NICKEL).
3 TO 5 microns (.00012" TO .00020") TIN
ON SOLDER TAILS (OVER NICKEL).

PLATING VERSION F.

1.27 TO 1.78 microns (.00005" TO .00007") NICKEL
OVERALL, 0.76 TO 1.0 microns (.00003" TO .00004")
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3 TO 5 microns (.00012" TO .00020") TIN
ON SOLDER TAILS (OVER NICKEL).

90148-XXXX

INDICATES NO. OF CIRCUITS

PLATING CODE

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3 = VERSION F

1 = STRAIGHT PINS POLYESTER
9 = STRAIGHT PINS POLYESTER

4 = STRAIGHT PINS NYLON 46

ADD NEW P/N EC NO: E2007-0823 DRWN:DBYRNES CHKD: APPR:EOMAHONY 2007/03/29 2007/03/29 2007/04/04	QUALITY SYMBOLS ▽=0 ▽=0	GENERAL TOLERANCES (UNLESS SPECIFIED)		DIMENSION STYLE MM ONLY		SCALE ---	DESIGN UNITS METRIC	THIRD ANGLE PROJECTION			
		4 PLACES	± ---	INCH	± ---	DRAWN BY DB	DATE 1987/07/14	C-GRID III SINGLE ROW HORIZONTAL P.C. BOARD CONNECTOR			
		3 PLACES	± ---	± ---	± ---	CHECKED BY D.MORIARTY	DATE				
		2 PLACES	± ---	± ---	± ---	APPROVED BY J.DENNEHY	DATE	MOLEX INCORPORATED			
		1 PLACE	± ---	± ---	± ---	MATERIAL NO.		DOCUMENT NO.		SHEET NO.	
		ANGULAR ± ---°		DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS		SEE CHART		SDA-90148		2 OF 3	
						THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION					