

PLEASE CHECK WWW.MOLEX.COM FOR LATEST PART INFORMATION

Part Number: [0901481220](#)
Status: **Active**
Overview: [cgrid_sl_products](#)
Description: 2.54mm (.100") Pitch C-Grid® PC Board Connector, Single Row, Right Angle, 0.38µm (15µ") Gold (Au) Selective, 20 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) 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 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) 0.063 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 Yes
 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

[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)

Material Info

Reference - Drawing Numbers

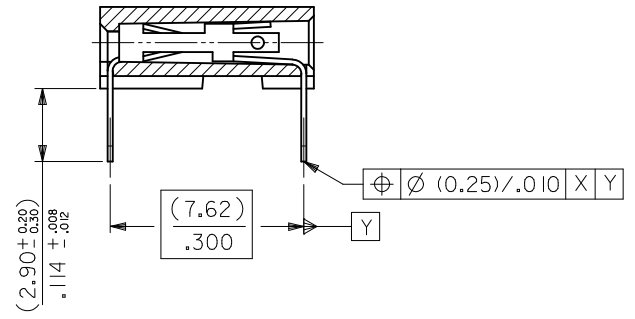
Sales Drawing SDA-90148

This document was generated on 05/24/2010

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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. (SEE SHEET 2)
- 2) HOUSING
POLYESTER (PBT), 15% GLASS FILL, UL94-V0.
COLOR: BLACK.
ALSO
POLYAMIDE (PA4/6), 30% GLASS FILL, UL94-V0.
COLOR: NATURAL.
- 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

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

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

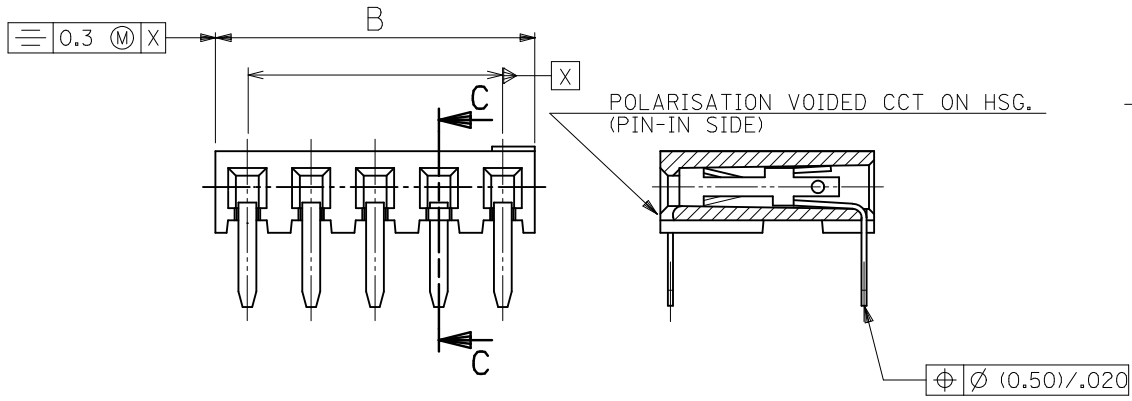
4 = STRAIGHT PINS NYLON 46

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

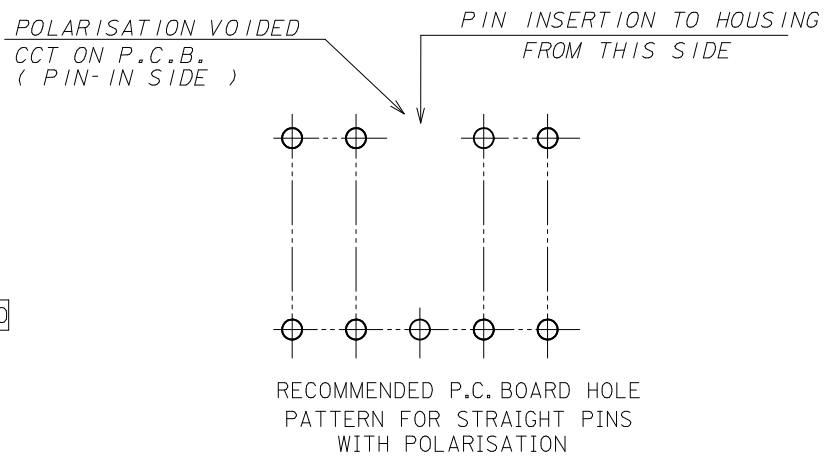
PART NO.	POLARISED CCT NO.	NO. OF CKTS.	DIM. A	DIM. B (± 0.30) (± 0.012)	NO. PER TUBE
90148-3X01	2	3	(5.08) .200	(7.62) .300	72

NON-STANDARD PRODUCTS

90148-XXYY
 ——— 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



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: SZ010-0968 DRWN: SKANG CHKD: ATSEE APPR: MLONG 2010/05/26 2010/06/04 2010/06/05	QUALITY SYMBOLS $\nabla = 0$ $\nabla = 0$ $\nabla = 0$	GENERAL TOLERANCES (UNLESS SPECIFIED) mm INCH 4 PLACES \pm --- \pm --- 3 PLACES \pm --- \pm --- 2 PLACES ± 0.15 \pm --- 1 PLACE \pm --- \pm --- ANGULAR $\pm 2^\circ$	DIMENSION STYLE MM ONLY DRAWN BY: DB DATE: 1987/07/14 CHECKED BY: D. MORIARTY DATE: 2005/03/02 APPROVED BY: J. DENNEHY DATE: 2010/06/04 MATERIAL NO.: SEE TABLE	SCALE NTS DESIGN UNITS METRIC THIRD ANGLE PROJECTION	TITLE C-GRID III SINGLE ROW HORIZONTAL P.C. BOARD CONN. MOLEX INCORPORATED SDA-90148 SHEET NO. 3 OF 3	
	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				
	REV AK	DESCRIPTION REV	DIMENSION STYLE MM ONLY	SCALE NTS	DESIGN UNITS METRIC	TITLE C-GRID III SINGLE ROW HORIZONTAL P.C. BOARD CONN.
	EC NO: SZ010-0968	DRWN: SKANG CHKD: ATSEE APPR: MLONG	2010/05/26 2010/06/04 2010/06/05	DRAWN BY: DB DATE: 1987/07/14 CHECKED BY: D. MORIARTY DATE: 2005/03/02 APPROVED BY: J. DENNEHY DATE: 2010/06/04	SCALE NTS	TITLE C-GRID III SINGLE ROW HORIZONTAL P.C. BOARD CONN.
	QUALITY SYMBOLS $\nabla = 0$ $\nabla = 0$ $\nabla = 0$	GENERAL TOLERANCES (UNLESS SPECIFIED) mm INCH 4 PLACES \pm --- \pm --- 3 PLACES \pm --- \pm --- 2 PLACES ± 0.15 \pm --- 1 PLACE \pm --- \pm --- ANGULAR $\pm 2^\circ$	DIMENSION STYLE MM ONLY	SCALE NTS	DESIGN UNITS METRIC	TITLE C-GRID III SINGLE ROW HORIZONTAL P.C. BOARD CONN.

PART NO's - STRAIGHT PINS		PART NO.	NO OF CKTS.	DIM. A	DIM. B $(\pm \frac{0.30}{.32})$	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
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15		15	15	(35.56) 1.400	(38.10) 1.500	14
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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

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1.0 TO 2.5 microns (.00004" TO .00010").

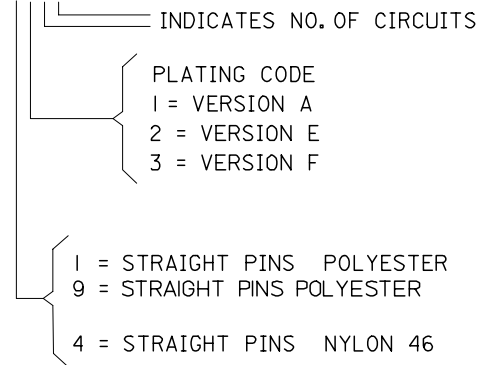
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3 TO 5 microns (.00012" TO .00020") TIN
ON SOLDER TAILS (OVER NICKEL).

90148-XXXX



ADD NEW P/N EC NO: E2007-0823 DRWN:DBYRNES CHKD: APPR:EDMAMONY 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		
				mm	INCH	DRAWN BY DB	DATE 1987/07/14	TITLE C-GRID III SINGLE ROW HORIZONTAL P.C. BOARD CONNECTOR		
		4 PLACES ±---		±---	±---	CHECKED BY D.MORIARTY	DATE	MOLEX MOLEX INCORPORATED		
		3 PLACES ±---		±---	±---	APPROVED BY J.DENNEHY	DATE	MATERIAL NO. DOCUMENT NO. SHEET NO. SDA-90148 2 OF 3		
2 PLACES ±---		±---	±---	DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS		SEE CHART				
1 PLACE ±---		±---	±---							
ANGULAR ±---°										