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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

Documents:

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

Agency Certification

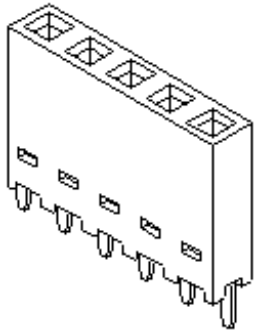
CSA LR19980
UL E29179

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



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
[90147Series](#)

Mates With
[90120](#) , [90121](#)

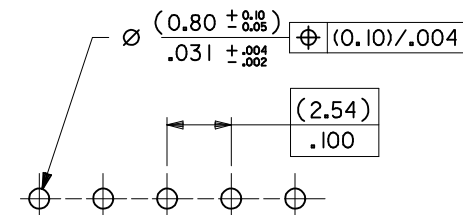
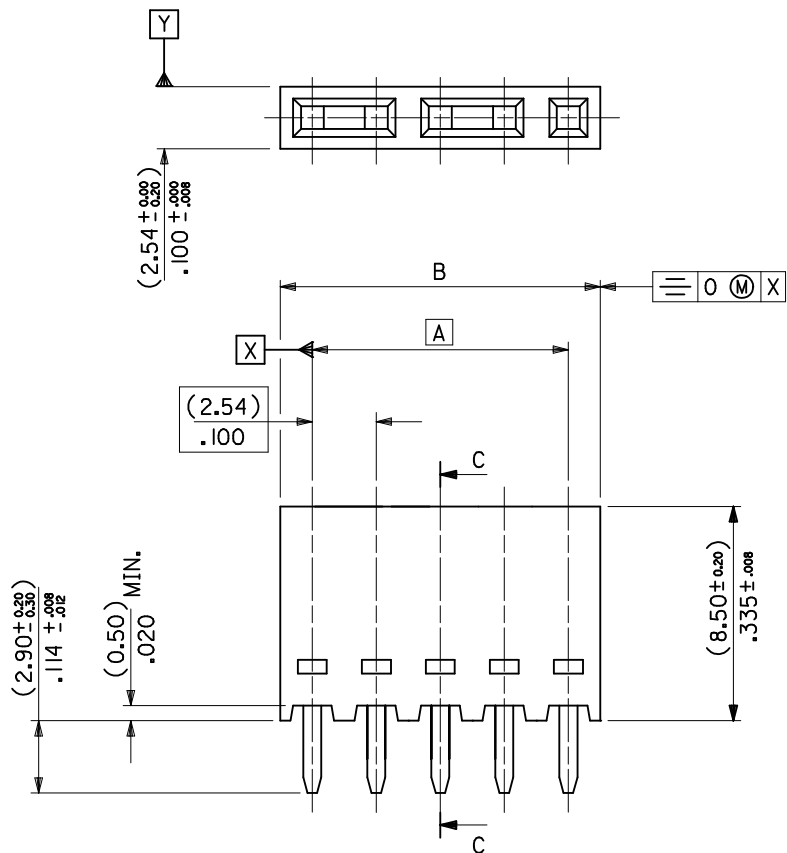
Use With
[90120](#) , [90121](#)

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

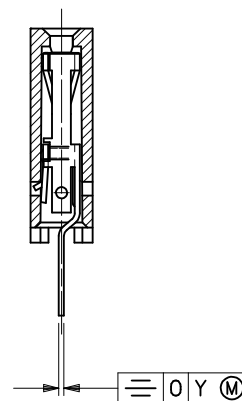
This document was generated on 05/22/2010

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10 9 8 7 6 5 4 3 2 1



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 CHKD: 2008/12/08 APPR:BMAGUIRE 2008/12/08 AC	QUALITY SYMBOLS ▽=0 C=0	DESCRIPTION	GENERAL TOLERANCES (UNLESS SPECIFIED)		DIMENSION STYLE MM/IN		SCALE 1:1	DESIGN UNITS METRIC	THIRD ANGLE PROJECTION
			mm	INCH	DRAWN BY DB	DATE 1987/07/14	TITLE C-GRID III, SINGLE ROW VERTICAL P.C. BOARD CONNECTOR ASSEMBLY.		
			4 PLACES ± ---	± ---	CHECKED BY JDENNEHY	DATE 2005/07/07			
			3 PLACES ± ---	± ---	APPROVED BY JDENNEHY	DATE 2005/07/07	MOLEX INCORPORATED		
			2 PLACES ± ---	± ---	MATERIAL NO. SEE SHEET 2				
			1 PLACE ± ---	± ---	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		
ANGULAR ± 2 °									

	10	9	8	7	6	5	4	3	2	1	
F	PART NO'S - STRAIGHT PINS		NO.OF CKTS	DIM." A"	DIM." B" (± 0.00) ± 0.02	QTY. PER TUBE	PLATING VERSION A				
	STANDARD	CUSTOMER SPECIFIC					PRE-PLATED HOT DIP TIN 1.0 TO 2.5 μ m (.000040" TO .000100").				
	90147-1X02		2	(2.54) .100	(5.08) .200	105	PLATING VERSION E				
	03		3	(5.08) .200	(7.62) .300	72	1.27 TO 1.78 μ m (.000050" TO .000070") NICKEL				
	04		4	(7.62) .300	(10.16) .400	52	OVERALL, 0.38 TO 0.64 μ m (.000015" TO .000025")				
	05	90147-9105	5	(10.16) .400	(12.70) .500	44	GOLD ON CONTACT AREA (OVER NICKEL).				
	06		6	(12.70) .500	(15.24) .600	36	3 TO 5 μ m (.000120" TO .000200") TIN				
	07		7	(15.24) .600	(17.78) .700	30	ON SOLDER TAILS (OVER NICKEL).				
	08		8	(17.78) .700	(20.32) .800	26	PLATING VERSION F.				
	09		9	(20.32) .800	(22.86) .900	22	1.27 TO 1.78 μ m (.000050" TO .000070") NICKEL				
	10		10	(22.86) .900	(25.40) 1.000	22	OVERALL, 0.76 TO 1.0 μ m (.000030" TO .000040")				
	11		11	(25.40) 1.000	(27.94) 1.100	20	GOLD ON CONTACT AREA (OVER NICKEL).				
	12		12	(27.94) 1.100	(30.48) 1.200	18	3 TO 5 μ m (.000120" TO .000200") TIN				
	13		13	(30.48) 1.200	(33.02) 1.300	16	ON SOLDER TAILS (OVER NICKEL).				
	14		14	(33.02) 1.300	(35.56) 1.400	14	PLATING VERSION N.				
	15		15	(35.56) 1.400	(38.10) 1.500	14	1.27 TO 1.78 μ m (.000050" TO .000070") NICKEL				
	16		16	(38.10) 1.500	(40.64) 1.600	13	OVERALL, 0.76 TO 2.6 μ m (.000030" TO .000100")				
	17		17	(40.64) 1.600	(43.18) 1.700	13	GOLD ON CONTACT AREA (OVER NICKEL).				
	18		18	(43.18) 1.700	(45.72) 1.800	12	4 μ m (.000120") MINIMUM TIN				
	19		19	(45.72) 1.800	(48.26) 1.900	12	ON SOLDER TAILS (OVER NICKEL).				
	20		20	(48.26) 1.900	(50.80) 2.000	11	PLATING CODE.				
	21		21	(50.80) 2.000	(53.34) 2.100	11	1 = VERSION A.				
	22		22	(53.34) 2.100	(55.88) 2.200	10	2 = VERSION E.				
	23		23	(55.88) 2.200	(58.42) 2.300	9	3 = VERSION F.				
	24		24	(58.42) 2.300	(60.96) 2.400	9	4 = VERSION N.				
	25		25	(60.96) 2.400	(63.50) 2.500	8	SEE CHART.				
	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					
	90147-1X 32		32	(78.74) 3.100	(81.28) 3.200	6					
B											
A	STANDARD PRODUCTS			REMOVE KINK OPT EC NO: E2007-0787 DRAWN: WASZKI LEWICZ 2007/04/25 CHKD: JONOR ARTY 2007/04/25 APPR: JDENNEHY 2007/04/27	QUALITY SYMBOLS =0 =0	GENERAL TOLERANCES (UNLESS SPECIFIED) mm INCH 4 PLACES $\pm$ --- $\pm$ --- 3 PLACES $\pm$ --- $\pm$ --- 2 PLACES $\pm$ --- $\pm$ --- 1 PLACE $\pm$ --- $\pm$ --- ANGULAR $\pm$ 2 ° DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS	DIMENSION STYLE MM/IN DRAWN BY DATE DB 1986/12/28 CHECKED BY DATE JDENNEHY 2005/07/07 APPROVED BY DATE JDENNEHY 2005/07/07 MATERIAL NO. SIZE A3	SCALE 5:1 TITLE C-GRID III SINGLE ROW VERTICAL P.C. BOARD CONNECTOR MOLEX INCORPORATED DOCUMENT NO. SDA-90147	DESIGN UNITS METRIC	THIRD ANGLE PROJECTION	SHEET NO. 2 OF 2
	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	