

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

**Part Number:** [0459844921](#)  
**Status:** **Active**  
**Overview:** [extreme\\_lphpower](#)  
**Description:** EXTreme LPHPower™ Receptacle Header, Right Angle, 4 Power Contacts, Select Gold (Au) Plating, for 2.36mm (.093") Thick PC Board

**Documents:**

[3D Model](#) [Product Specification PS-45984-001 \(PDF\)](#)  
[Drawing \(PDF\)](#) [RoHS Certificate of Compliance \(PDF\)](#)

**Agency Certification**

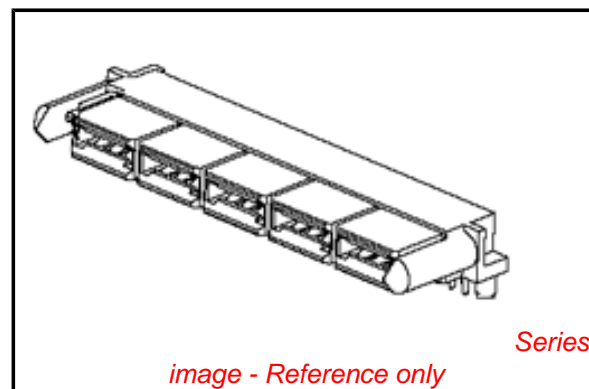
CSA LR19980  
 UL E29179

**General**

Product Family PCB Receptacles  
 Series [45984](#)  
 Application Board-to-Board  
 Comments 4 Power Blades  
 Overview [extreme\\_lphpower](#)  
 Product Name EXTreme LPHPower™

**Physical**

Circuits (Loaded) 4  
 Circuits (maximum) 4  
 Circuits Detail 4 Power, No Signal  
 Color - Resin Black  
 Durability (mating cycles max) 250  
 Flammability 94V-0  
 Glow-Wire Compliant No  
 Guide to Mating Part No  
 Keying to Mating Part Yes  
 Lock to Mating Part No  
 Material - Metal High Performance Alloy (HPA)  
 Material - Plating Mating Gold  
 Material - Plating Termination Tin  
 Material - Resin High Temperature Thermoplastic  
 Number of Rows 2  
 Orientation Right Angle  
 PC Tail Length (in) 0.142 In  
 PC Tail Length (mm) 3.60 mm  
 PCB Locator No  
 PCB Retention None  
 PCB Thickness Recommended (in) 0.093 In  
 PCB Thickness Recommended (mm) 2.36 mm  
 Packaging Type Tray  
 Pitch - Mating Interface (in) 0.472 In  
 Pitch - Mating Interface (mm) 12.00 mm  
 Pitch - Term. Interface (in) 0.079 In, 0.098 In  
 Pitch - Term. Interface (mm) 2.00 mm, 2.50 mm  
 Plating min: Mating (µin) 30  
 Plating min: Mating (µm) 0.75  
 Plating min: Termination (µin) 150  
 Plating min: Termination (µm) 3.75  
 Polarized to Mating Part Yes  
 Polarized to PCB No



**EU RoHS**

**ELV and RoHS Compliant**  
**REACH SVHC**  
 Not Reviewed  
**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**

[45984Series](#)

**Mates With**

[45985 EXTreme LPHPower™ Headers](#)

Stackable	No
Surface Mount Compatible (SMC)	Yes
Temperature Range - Operating	-40°C to +105°C
Termination Interface: Style	Through Hole

### **Electrical**

Current - Maximum per Contact	30A
Grounding to PCB	No
Voltage - Maximum	250V AC (RMS)/DC

### **Solder Process Data**

Duration at Max. Process Temperature (seconds)	15
Lead-free Process Capability	SMC & Wave Capable (TH only)
Max. Cycles at Max. Process Temperature	3
Process Temperature max. C	230

### **Material Info**

#### **Reference - Drawing Numbers**

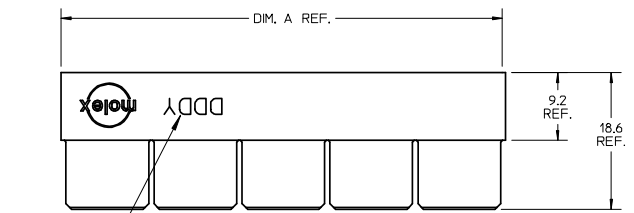
Packaging Specification	PK-45984-001
Product Specification	PS-45984-001
Sales Drawing	SD-45984-102

This document was generated on 05/31/2010

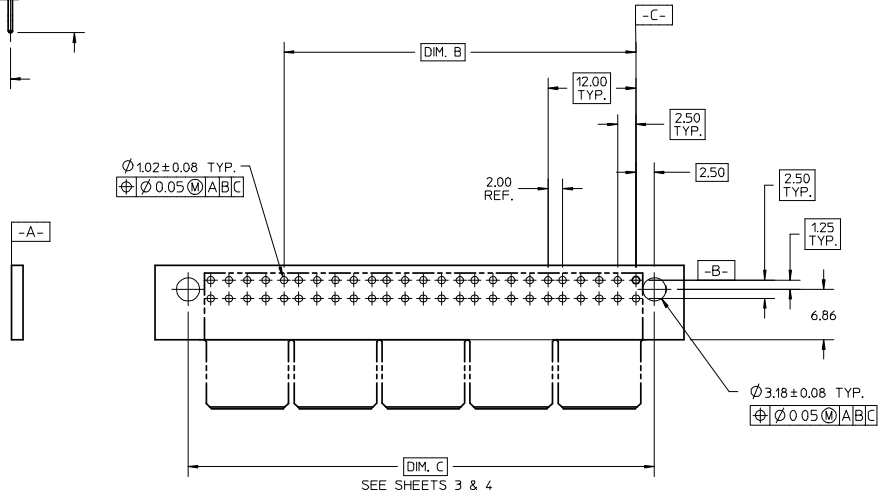
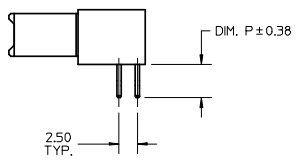
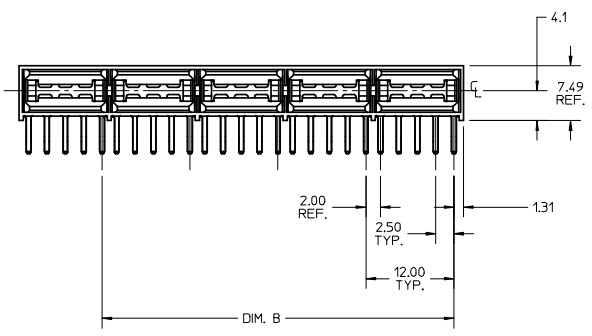
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10 9 8 7 6 5 4 3 2 1

CKT SIZE	MATERIAL NUMBER	DIM. A REF	DIM B	DIM P
4	45984-4911	24.60	12.00	4.50
6	45984-6911	36.60	24.00	
8	45984-8911	48.60	36.00	
10	45984-1911	60.60	48.00	
4	45984-4921	24.60	12.00	3.60
6	45984-6921	36.60	24.00	
8	45984-8921	48.60	36.00	
10	45984-1921	60.60	48.00	2.90
4	45984-4931	24.60	12.00	
6	45984-6931	36.60	24.00	
8	45984-8931	48.60	36.00	
10	45984-1931	60.60	48.00	



SEE NOTE 10



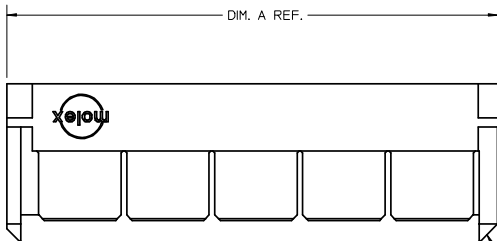
PCB LAYOUT: COMPONENT SIDE  
(PEG HOLES OPTIONAL)

- NOTES:
1. MATERIAL - HOUSING: LCP, 94V-0, BLACK  
MATERIAL - POWER CONTACT: COPPER ALLOY
  2. FINISH: SELECT GOLD (WITH EB-1: 0.76 μM/30 MI MIN. IN CONTACT AREA  
SELECT TIN: 3.81 μM/150 MI MIN. IN PC TAIL AREA  
BOTH OVER NICKEL: 1.27 μM/50 MI MIN. PER ES-88-229.  
TERMINALS ARE LUBRICATED WITH EB-1 LUBRICANT.
  3. PRODUCT SPECIFICATION: PS-45984-001
  4. PACKAGING SPECIFICATION: TRAY PER PK-45984-001
  5. SEE SHEET 5 FOR CKT IDENTIFICATION
  6. PARTS ARE RoHS COMPLIANT.
  7. PEG HOLES ARE OPTIONAL. SEE SHEET 3 & 4.
  8. MATES TO .1571,062 CARD EDGE OR MOLEX SERIES 45985.
  9. PARTS CONFORM TO CLASS B REQUIREMENTS OF COSMETIC SPECIFICATION PS-45499-002.
  10. DATE CODE (3-DIGIT DAY, 1-DIGIT YEAR) TO BE PRINTED AND LOCATED AS SHOWN.

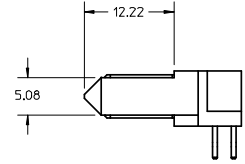
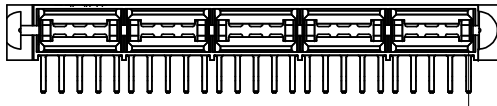
RELEASED EC NO: UCP2007-3140 DRW: BANDURA 2008/03/03 CHKD: 2008/03/04 APPR: APATEL 2008/03/06	DESCRIPTION LPH RECEPTACLE ASSEMBLY RIGHT ANGLE POWER CONNECTOR	QUALITY SYMBOLS	GENERAL TOLERANCES (UNLESS SPECIFIED)	DIMENSION STYLE	SCALE	DESIGN UNITS	THIRD ANGLE PROJECTION	
		$\nabla=0$ $\sphericalangle=0$	mm INCH	MM ONLY	1:1	METRIC		
			4 PLACES ± --- ± ---	DRAWN BY DATE	TITLE			
			3 PLACES ± --- ± ---	CHECKED BY DATE	LPH RECEPTACLE ASSEMBLY RIGHT ANGLE POWER CONNECTOR			
	2 PLACES ± 0.25 ± ---	BANDURA 5/16/2006	MOLEX INCORPORATED					
	1 PLACE ± --- ± ---	APPROVED BY DATE	DOCUMENT NO.					
	ANGULAR ± 1/2°	PATEL	SD-45984-102					
		MATERIAL NO.	SHEET NO.					
		SEE CHART	1 OF 5					
		SIZE B	THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION					

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OPTIONAL GUIDES

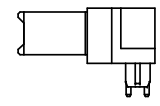
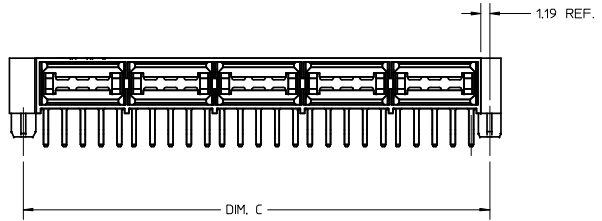
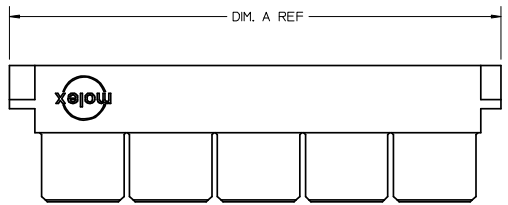


CKT SIZE	MATERIAL NUMBER	DIM. A REF	DIM B	DIM P
4	45984-4912	31.01	12.00	4.50
6	45984-6912	43.01	24.00	
8	45984-8912	55.01	36.00	
10	45984-1912	67.01	48.00	3.60
4	45984-4922	31.01	12.00	
6	45984-6922	43.01	24.00	
8	45984-8922	55.01	36.00	2.90
10	45984-1922	67.01	48.00	
4	45984-4932	31.01	12.00	
6	45984-6932	43.01	24.00	
8	45984-8932	55.01	36.00	
10	45984-1932	67.01	48.00	

RELEASED EC NO: UCP2007-3140 DRWN: BANDURA 2008/03/03 CHKD: BANDURA 2008/03/04 APPR: APATEL 2008/03/06	DESCRIPTION REV	QUALITY SYMBOLS	GENERAL TOLERANCES (UNLESS SPECIFIED)	DIMENSION STYLE	SCALE	DESIGN UNITS	THIRD ANGLE PROJECTION
		$\nabla=0$ $\nabla=0$	mm      INCH 4 PLACES ± --- ± --- 3 PLACES ± --- ± --- 2 PLACES ± 0.25 ± --- 1 PLACE ± --- ± ---	MM ONLY	1:1	METRIC	LPH RECEPTACLE ASSEMBLY RIGHT ANGLE POWER CONNECTOR
		ANGULAR ±1/2°	DRAWN BY      DATE BANDURA      5/16/2006 CHECKED BY      DATE BANDURA      5/16/2006 APPROVED BY      DATE PATEL	MATERIAL NO. SEE CHART	DOCUMENT NO. SD-45984-102	SHEET NO. 2 OF 5	
		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		MOLEX INCORPORATED	

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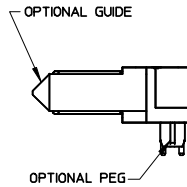
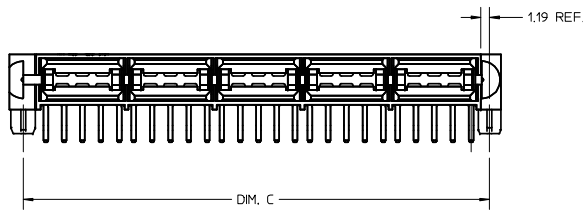
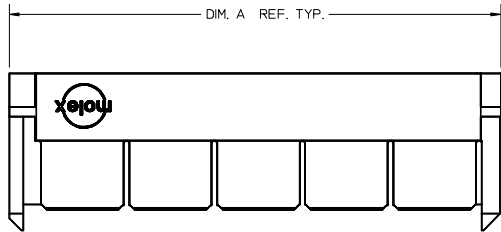


CKT SIZE	MATERIAL NUMBER	DIM. A REF	DIM B	DIM C	DIM P
4	45984-4913	31.01	12.00	27.60	4.50
6	45984-6913	43.01	24.00	39.60	
8	45984-8913	55.01	36.00	51.60	
10	45984-1913	67.01	48.00	63.60	3.60
4	45984-4923	31.01	12.00	27.60	
6	45984-6923	43.01	24.00	39.60	
8	45984-8923	55.01	36.00	51.60	2.90
10	45984-1923	67.01	48.00	63.60	
4	45984-4933	31.01	12.00	27.60	
6	45984-6933	43.01	24.00	39.60	
8	45984-8933	55.01	36.00	51.60	
10	45984-1933	67.01	48.00	63.60	

RELEASED EC NO: UCP2007-3140 DRAWN: BANDURA 2008/03/03 CHKD: 2008/03/04 APPR: APATEL 2008/03/06	DESCRIPTION REV	QUALITY SYMBOLS	GENERAL TOLERANCES (UNLESS SPECIFIED)	DIMENSION STYLE	SCALE	DESIGN UNITS	THIRD ANGLE PROJECTION
		$\nabla=0$ $\sphericalangle=0$	mm INCH	MM ONLY	1:1	METRIC	LPH RECEPTACLE ASSEMBLY RIGHT ANGLE POWER CONNECTOR
		4 PLACES ± --- ± --- 3 PLACES ± --- ± --- 2 PLACES ± 0.25 ± --- 1 PLACE ± --- ± ---	DRAWN BY DATE BANDURA 5/16/2006 CHECKED BY DATE BANDURA 5/16/2006 APPROVED BY DATE PATEL	MATERIAL NO. SEE CHART	DOCUMENT NO. SD-45984-102	SHEET NO. 3 OF 5	
		DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS		ANGULAR ±1/2°		MOLEX INCORPORATED	
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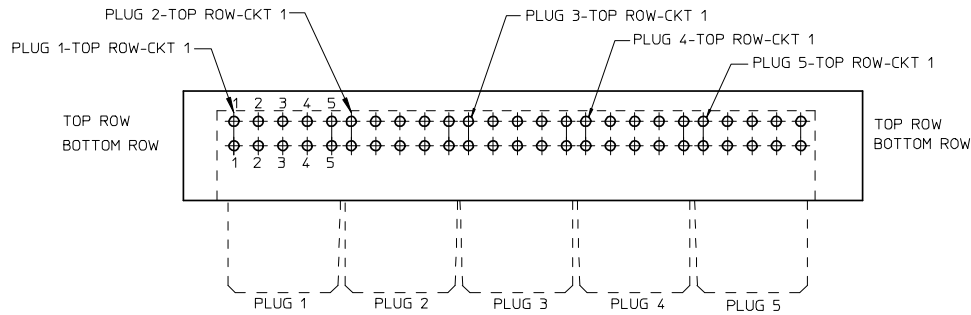
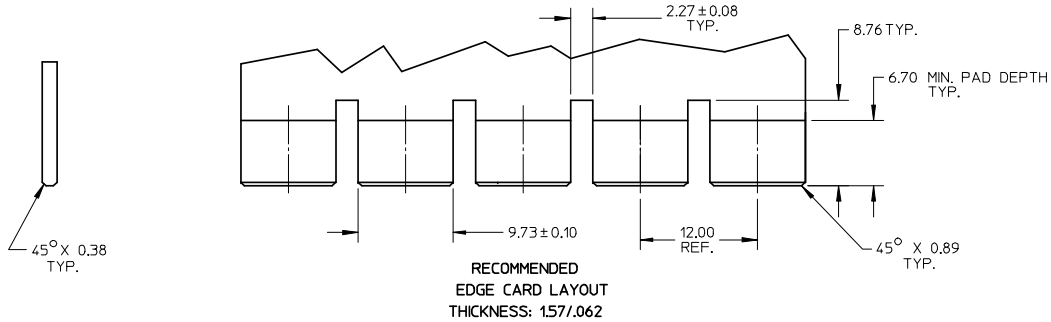
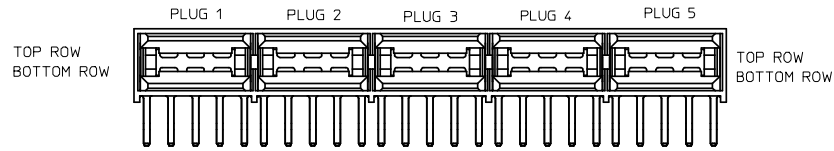
10 9 8 7 6 5 4 3 2 1



CKT SIZE	MATERIAL NUMBER	DIM. A REF	DIM B	DIM C	DIM P
4	45984-4914	31.01	12.00	27.60	4.50
6	45984-6914	43.01	24.00	39.60	
8	45984-8914	55.01	36.00	51.60	
10	45984-1914	67.01	48.00	63.60	3.60
4	45984-4924	31.01	12.00	27.60	
6	45984-6924	43.01	24.00	39.60	
8	45984-8924	55.01	36.00	51.60	2.90
10	45984-1924	67.01	48.00	63.60	
4	45984-4934	31.01	12.00	27.60	
6	45984-6934	43.01	24.00	39.60	
8	45984-8934	55.01	36.00	51.60	
10	45984-1934	67.01	48.00	63.60	

<b>RELEASED</b> EC NO: UCP2007-3140 DRAWN: BANDURA 2008/03/03 CHKD: 2008/03/04 APPR: APATEL 2008/03/06	QUALITY SYMBOLS ▽=0 ▽=0	GENERAL TOLERANCES (UNLESS SPECIFIED)		DIMENSION STYLE <b>MM ONLY</b>		SCALE 1:1	DESIGN UNITS METRIC	THIRD ANGLE PROJECTION		
			mm	INCH	DRAWN BY	DATE	TITLE <b>LPH RECEPTACLE ASSEMBLY                  RIGHT ANGLE                  POWER CONNECTOR</b>			
		4 PLACES	±---	±---	BANDURA	5/16/2006				
		3 PLACES	±---	±---	CHECKED BY	DATE	MOLEX INCORPORATED			
2 PLACES	±0.25	±---	BANDURA	5/16/2006						
1 PLACE	±---	±---	APPROVED BY	DATE	DOCUMENT NO. <b>SD-45984-102</b>					
ANGULAR ±1/2°			PATEL							
DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS		MATERIAL NO. <b>SEE CHART</b>		SHEET NO. 4 OF 5		THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION				

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PCB LAYOUT: COMPONENT SIDE  
SEE SHEET 1 FOR DIMENSIONS

RELEASED EC NO: UCP2007-3140 DRWN: BANDURA 2008/03/03 CHKD: 2008/03/04 APPR: APATEL 2008/03/06	DESCRIPTION REV B	QUALITY SYMBOLS	GENERAL TOLERANCES (UNLESS SPECIFIED)	DIMENSION STYLE		SCALE	DESIGN UNITS	THIRD ANGLE PROJECTION		
		▼=0 ▽=0	mm INCH 4 PLACES ± --- ± --- 3 PLACES ± --- ± --- 2 PLACES ± 0.25 ± --- 1 PLACE ± --- ± --- ANGULAR ± 1/2°	MM ONLY		1:1	METRIC	BANDURA 5/16/2006 BANDURA 5/16/2006 PATEL		
		DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS		DRAWN BY DATE		TITLE		MATERIAL NO.		MOLEX INCORPORATED DOCUMENT NO. SD-45984-102 SHEET NO. 5 OF 5
				SEE CHART		LPH RECEPTACLE ASSEMBLY RIGHT ANGLE POWER CONNECTOR				