

PLEASE CHECK WWW.MOLEX.COM FOR LATEST PART INFORMATION

Part Number: [0459841171](#)
Status: **Active**
Overview: [extreme_lphpower](#)
Description: 1.27mm (.050"), 12.00mm (.472") Pitch, EXTreme LPHPower™ Receptacle Header, Right Angle, 10 Power Contacts, 36 Signal Contacts, Select Gold (Au) Plating, for 3.18mm (.125") Thick PC Board

Documents:

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

Agency Certification

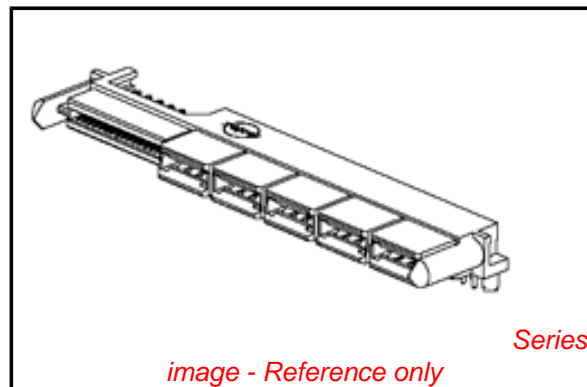
CSA LR 19980
 UL E29179

General

Product Family PCB Receptacles
 Series [45984](#)
 Application Board-to-Board
 Overview [extreme_lphpower](#)
 Product Name EXTreme LPHPower™

Physical

Circuits (Loaded) 46
 Circuits (maximum) 46
 Circuits Detail 10 Power, 36 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), Phosphor Bronze
 Material - Plating Mating Gold
 Material - Plating Termination Tin
 Material - Resin High Temperature Thermoplastic
 Number of Rows 2
 Orientation Right Angle
 PC Tail Length (in) 0.177 In
 PC Tail Length (mm) 4.50 mm
 PCB Locator No
 PCB Retention None
 PCB Thickness Recommended (in) 0.125 In
 PCB Thickness Recommended (mm) 3.18 mm
 Packaging Type Tray
 Pitch - Mating Interface (in) 0.050 In, 0.472 In
 Pitch - Mating Interface (mm) 1.27 mm, 12.00 mm
 Plating min: Mating (µin) 30
 Plating min: Mating (µm) 0.75
 Plating min: Termination (µin) 150, 75
 Plating min: Termination (µm) 1.875, 3.75
 Polarized to Mating Part Yes
 Polarized to PCB Yes
 Stackable No
 Surface Mount Compatible (SMC) Yes



EU RoHS

ELV and RoHS Compliant
REACH SVHC Contains SVHC: No
Halogen-Free Status

China RoHS



Halogen-Free

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

[45984Series](#)

Mates With

[45985](#) EXTreme LPHPower™ Headers, 1.57mm (.062") Card Edge

Temperature Range - Operating -40°C to +105°C
Termination Interface: Style Through Hole

Electrical

Current - Maximum per Contact 20A
Grounding to PCB No
Voltage - Maximum 250V AC (RMS)/DC

Solder Process Data

Duration at Max. Process Temperature (seconds) 20
Lead-free Process Capability Wave Capable (TH only)
Max. Cycles at Max. Process Temperature 3
Process Temperature max. C 260

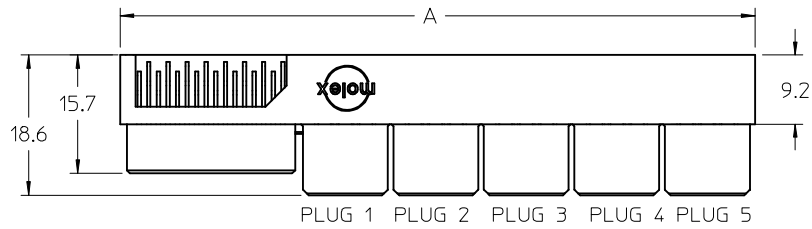
Material Info

Reference - Drawing Numbers

Packaging Specification PK-45984-001
Product Specification PS-45984-001
Sales Drawing SD-45984-100

This document was generated on 05/21/2010

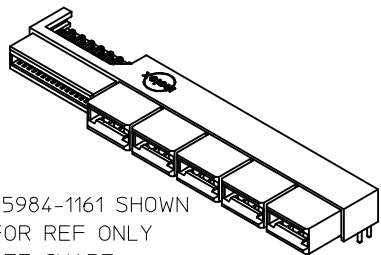
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NOTES:

1. MATERIAL HOUSING: LCP, 94V-0, COLOR-BLACK.
CONTACT: COPPER ALLOY.
2. FINISH: SELECT GOLD - .76 μ M/30 MI MIN. CONTACT.
SELECT TIN - 3.81 μ M/150 MI MIN. TAIL.
BOTH OVER NICKEL - 1.27 μ M/50 MI MIN.
3. POWER TERMINALS LUBRICATED IN CONTACT AREA.
4. PRODUCT SPECIFICATION: PS-45984-001.
5. PACKAGING: TRAY PER PK-45984-001.
6. SEE SHEET 5 FOR CKT IDENTIFICATION.
7. PARTS ARE RoHS COMPLIANT.
8. PEG HOLES ARE OPTIONAL
9. MATES TO 1571,062 CARD EDGE OR
MOLEX P/N 45985-1***

NO OF SIGNAL	MATERIAL NUMBER	DIM A	DIM P	PCB THK
12	45984-1111	71.5	4.50	3.18
16	45984-1121	74.0		
20	45984-1131	76.6		
24	45984-1141	79.1		
28	45984-1151	81.6		
32	45984-1161	84.2	3.60	2.36
36	45984-1171	86.7		
40	45984-1181	89.3		
12	45984-1112	71.5		
16	45984-1122	74.0		
20	45984-1132	76.6	2.90	1.57
24	45984-1142	79.1		
28	45984-1152	81.6		
32	45984-1162	84.2		
36	45984-1172	86.7		
40	45984-1182	89.3	2.90	1.57
12	45984-1113	71.5		
16	45984-1123	74.0		
20	45984-1133	76.6		
24	45984-1143	79.1		
28	45984-1153	81.6	2.90	1.57
32	45984-1163	84.2		
36	45984-1173	86.7		
40	45984-1183	89.3		



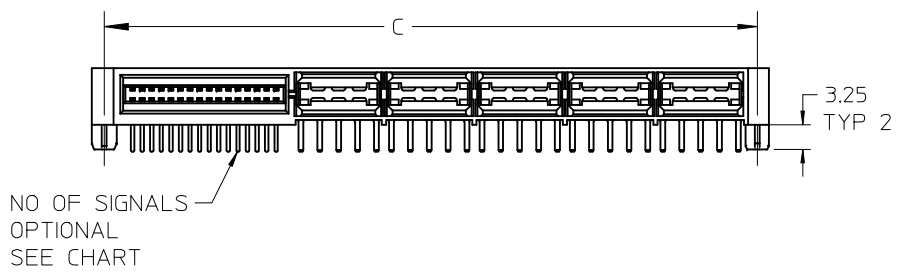
45984-1161 SHOWN FOR REF ONLY SEE CHART

REVISED	DESCRIPTION
EC NO: UCP2009-0971	
DRWN:MBANDURA	
CHKD:	
APPR:APATEL	
REV	

GENERAL TOLERANCES (UNLESS SPECIFIED)	
	mm INCH
4 PLACES	\pm --- \pm ---
3 PLACES	\pm --- \pm ---
2 PLACES	\pm 0.25 \pm ---
1 PLACE	\pm --- \pm ---
ANGULAR \pm 1/2°	
DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS	

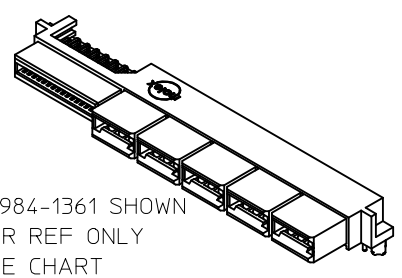
DIMENSION STYLE	
MM ONLY	
DRAWN BY	DATE
SAMIEC	2005/05/13
CHECKED BY	DATE
SAMIEC	2005/05/13
APPROVED BY	DATE
MARGULIS	2005/05/13
MATERIAL NO.	SEE CHART
SIZE	A

SCALE	DESIGN UNITS	THIRD ANGLE PROJECTION
1:1	METRIC	
TITLE		
LPH RECEPTACLE ASSEMBLY RT ANGLE 10 CIRCUIT POWER CONNECTOR		
MOLEX INCORPORATED		
DOCUMENT NO.	SHEET NO.	
SD-45984-100	1 OF 5	
THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION		



MOUNTING PEG OPTIONS

NO OF SIGNAL	MATERIAL NUMBER	DIM A	DIM C	DIM P	PCB THK
12	45984-1311	71.5	73.90	4.50	3.18
16	45984-1321	74.0	76.44		
20	45984-1331	76.6	78.98		
24	45984-1341	79.1	81.52		
28	45984-1351	81.6	84.06		
32	45984-1361	84.2	86.60		
36	45984-1371	86.7	89.14	3.60	2.36
40	45984-1381	89.3	91.68		
12	45984-1312	71.5	73.90		
16	45984-1322	74.0	76.44		
20	45984-1332	76.6	78.98		
24	45984-1342	79.1	81.52		
28	45984-1352	81.6	84.06	2.90	1.57
32	45984-1362	84.2	86.60		
36	45984-1372	86.7	89.14		
40	45984-1382	89.3	91.68		
12	45984-1313	71.5	73.90		
16	45984-1323	74.0	76.44		
20	45984-1333	76.6	78.98		
24	45984-1343	79.1	81.52		
28	45984-1353	81.6	84.06		
32	45984-1363	84.2	86.60		
36	45984-1373	86.7	89.14		
40	45984-1383	89.3	91.68		



45984-1361 SHOWN
FOR REF ONLY
SEE CHART

REVISED	EC NO: UCP2009-0971	2008/11/13	DRWN:MBANDURA	2008/11/14	CHKD:	2008/11/17	APPR:APATEL	2008/11/17
REV	DESCRIPTION							

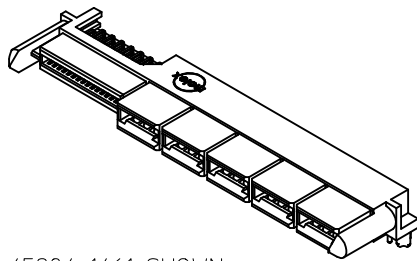
GENERAL TOLERANCES (UNLESS SPECIFIED)		
	mm	INCH
4 PLACES	± ---	± ---
3 PLACES	± ---	± ---
2 PLACES	± 0.25	± ---
1 PLACE	± ---	± ---
ANGULAR ±1/2°		
DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS		

DIMENSION STYLE		SCALE	DESIGN UNITS	THIRD ANGLE PROJECTION
MM ONLY		1:1	METRIC	
DRAWN BY	DATE	TITLE LPH RECEPTACLE ASSEMBLY RT ANGLE 10 CIRCUIT POWER CONNECTOR		
SAMIEC	2005/05/13			
CHECKED BY	DATE			
SAMIEC	2005/05/13	MOLEX INCORPORATED		
APPROVED BY	DATE			
MARGULIS	2005/05/13	DOCUMENT NO.	SHEET NO.	
MATERIAL NO.		SD-45984-100	3 OF 5	
SIZE	THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION			
A	SEE CHART			



GUIDE POST & MOUNTING PEG OPTIONS

NO OF SIGNAL	MATERIAL NUMBER	DIM A	DIM C	DIM P	PCB THK
12	45984-1411	71.5	73.90	4.50	3.18
16	45984-1421	74.0	76.44		
20	45984-1431	76.6	78.98		
24	45984-1441	79.1	81.52		
28	45984-1451	81.6	84.06		
32	45984-1461	84.2	86.60		
36	45984-1471	86.7	89.14	3.60	2.36
40	45984-1481	89.3	91.68		
12	45984-1412	71.5	73.90		
16	45984-1422	74.0	76.44		
20	45984-1432	76.6	78.98		
24	45984-1442	79.1	81.52		
28	45984-1452	81.6	84.06	2.90	1.57
32	45984-1462	84.2	86.60		
36	45984-1472	86.7	89.14		
40	45984-1482	89.3	91.68		
12	45984-1413	71.5	73.90		
16	45984-1423	74.0	76.44		
20	45984-1433	76.6	78.98	2.90	1.57
24	45984-1443	79.1	81.52		
28	45984-1453	81.6	84.06		
32	45984-1463	84.2	86.60		
36	45984-1473	86.7	89.14		
40	45984-1483	89.3	91.68		



45984-1461 SHOWN
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SEE CHART

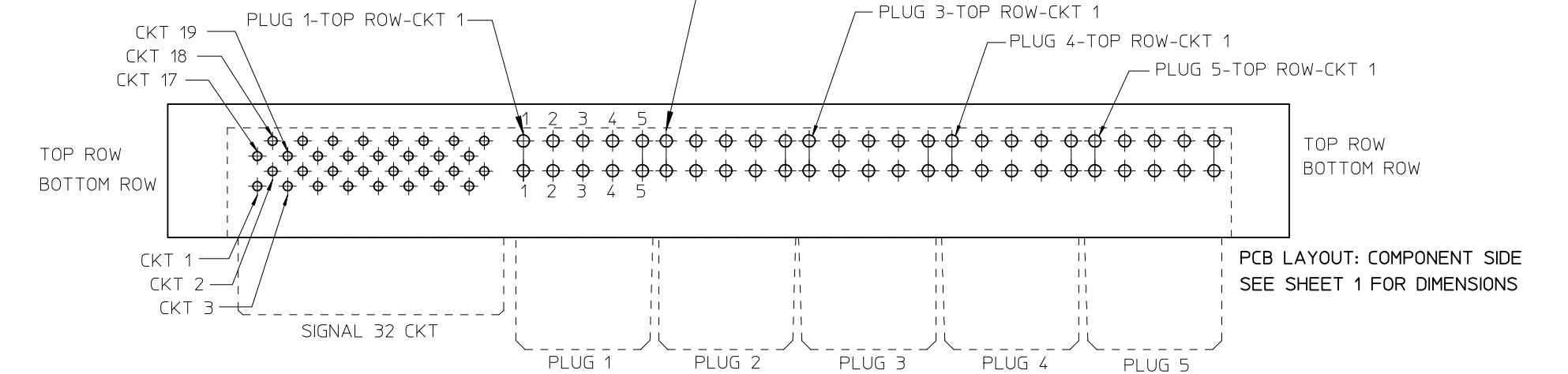
REVISED EC NO: UCP2009-0971 DRWN:MBANDURA 2008/11/13 CHKD: 2008/11/14 APPR:APATEL 2008/11/17 DESCRIPTION REV	GENERAL TOLERANCES (UNLESS SPECIFIED)		DIMENSION STYLE MM ONLY		SCALE 1:1	DESIGN UNITS METRIC	THIRD ANGLE PROJECTION		
		mm	INCH	DRAWN BY SAMIEC	DATE 2005/05/13	TITLE LPH RECEPTACLE ASSEMBLY RT ANGLE 10 CIRCUIT POWER CONNECTOR			
	4 PLACES	± ---	± ---	CHECKED BY SAMIEC	DATE 2005/05/13				
	3 PLACES	± ---	± ---	APPROVED BY MARGULIS	DATE 2005/05/13	MOLEX INCORPORATED DOCUMENT NO. SD-45984-100			
2 PLACES	± 0.25	± ---	MATERIAL NO. SEE CHART		SHEET NO. 4 OF 5				
1 PLACE	± ---	± ---	ANGULAR ±1/2°		THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION				
DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS			SIZE A						



NO. OF SIGNAL	DIM. D
12	8.00
16	10.54
20	13.08
24	15.62
28	18.16
32	20.70
36	23.24
40	25.78



RECOMMENDED
EDGE CARD LAYOUT
THICKNESS: 1.57/0.62



PCB LAYOUT: COMPONENT SIDE
SEE SHEET 1 FOR DIMENSIONS

REV	DESCRIPTION
5	REVISED EC NO: UCP2009-0971 2008/11/13 DRWN:MBANDURA 2008/11/14 CHKD: 2008/11/14 APPR:APATEL 2008/11/17

GENERAL TOLERANCES (UNLESS SPECIFIED)	
	mm
4 PLACES	± 0.25
3 PLACES	± 0.25
2 PLACES	± 0.25
1 PLACE	± 0.25
ANGULAR ± 1/2°	
DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS	

DIMENSION STYLE	
MM ONLY	
DRAWN BY	DATE
SAMIEC	2005/05/13
CHECKED BY	DATE
SAMIEC	2005/05/13
APPROVED BY	DATE
MARGULIS	2005/05/13
MATERIAL NO.	

SCALE	DESIGN UNITS	THIRD ANGLE PROJECTION
2:1	METRIC	
TITLE		
LPH RECEPTACLE ASSEMBLY RT ANGLE 10 CIRCUIT POWER CONNECTOR		
MOLEX INCORPORATED		
DOCUMENT NO.	SHEET NO.	
SD-45984-100	5 OF 5	