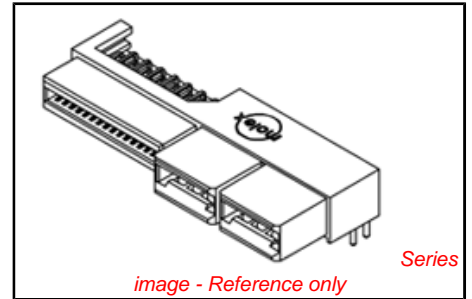


PLEASE CHECK WWW.MOLEX.COM FOR LATEST PART INFORMATION

Part Number: [0459844183](#)
Status: **Active**
Overview: [extreme_lphpower](#)
Description: 1.27mm (.050"), 12.00mm (.472") Pitch, EXTreme LPHPower™ Receptacle Header, Right Angle, 4 Power Contacts, 40 Signal Contacts, Select Gold (Au) Plating, for 1.57mm (.062") 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
 Overview [extreme_lphpower](#)
 Product Name EXTreme LPHPower™

Physical

Circuits (Loaded)	44
Circuits (maximum)	44
Circuits Detail	4 Power, 40 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)	0.114 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)	1.57 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 **China RoHS**

ELV and RoHS Compliant
REACH SVHC
Contains SVHC: No
Halogen-Free Status
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 30A
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

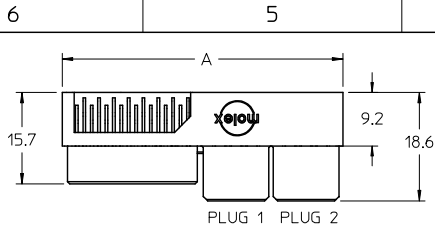
Material Info

Reference - Drawing Numbers

Packaging Specification PK-45984-001
Product Specification PS-45984-001
Sales Drawing SD-45984-400

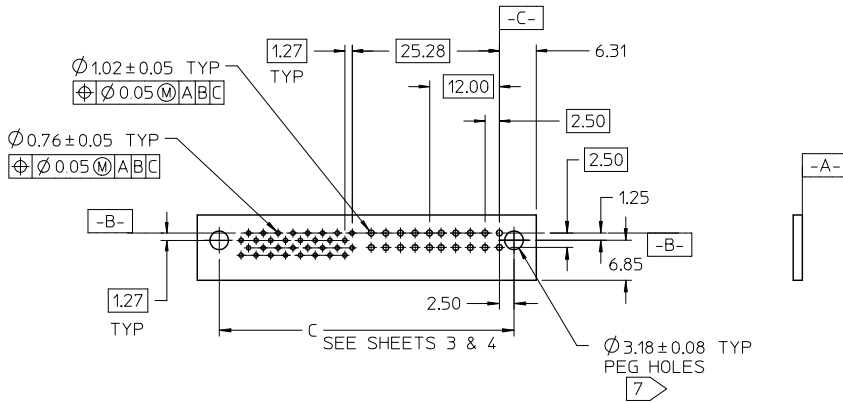
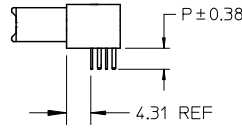
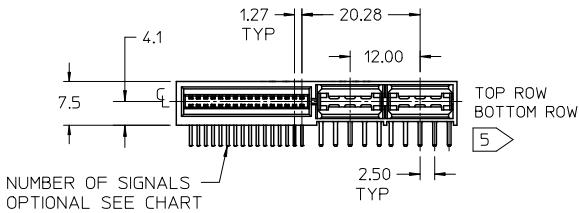
This document was generated on 05/21/2010

PLEASE CHECK WWW.MOLEX.COM FOR LATEST PART INFORMATION

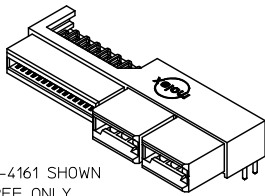


- NOTES:
1. MATERIAL HOUSING: LCP, 94V-0, COLOR-BLACK.
CONTACT: COPPER ALLOY.
 2. FINISH: SELECT GOLD - .76 μ M/30 MI MIN. CONTACT AREA.
SELECT TIN - 3.81 μ M/150 MI MIN. TAIL AREA.
BOTH OVER NICKEL - 1.27 μ M/50 MI MIN.
 3. POWER TERMINALS ARE LUBRICATED IN CONTACT AREA.
 4. PRODUCT SPECIFICATION: PS-45984-001.
 5. SEE SHEET 5 FOR CKT IDENTIFICATION.
 6. PARTS ARE RoHS COMPLIANT.
 7. PEG HOLES ARE OPTIONAL SEE SHEET 3 AND 4.
 8. MATES TO 1.57/.062 CARD EDGE OR MOLEX P/N 45985-4****.

NO OF SIGNAL	MATERIAL NUMBER	DIM A REF	DIM P	PCB THK
12	45984-4111	35.5	4.50	3.18
16	45984-4121	38.0		
20	45984-4131	40.6		
24	45984-4141	43.1		
28	45984-4151	45.6		
32	45984-4161	48.2	3.60	2.36
36	45984-4171	50.7		
40	45984-4181	53.3		
12	45984-4112	35.5		
16	45984-4122	38.0		
20	45984-4132	40.6		
24	45984-4142	43.1		
28	45984-4152	45.6		
32	45984-4162	48.2		
36	45984-4172	50.7		
40	45984-4182	53.3		
12	45984-4113	35.5	2.90	1.57
16	45984-4123	38.0		
20	45984-4133	40.6		
24	45984-4143	43.1		
28	45984-4153	45.6		
32	45984-4163	48.2		
36	45984-4173	50.7		
40	45984-4183	53.3		



RECOMMENDED PCB LAYOUT: COMPONENT SIDE
PEG HOLES OPTIONAL



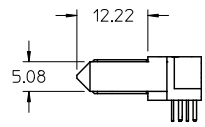
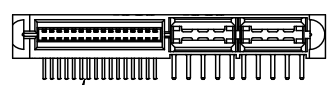
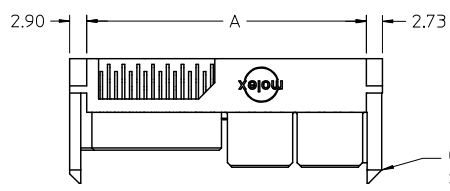
45984-4161 SHOWN
FOR REF ONLY
SEE CHART

REVISED EC NO: UCP2009-0971 DRWN:MBANDURA CHKD: APPR:APATEL 2008/11/13 2008/11/14 2008/11/17	DESCRIPTION LPH RECEPTACLE ASSEMBLY RT ANGLE 4 CIRCUIT POWER CONNECTOR	GENERAL TOLERANCES (UNLESS SPECIFIED)		DIMENSION STYLE MM ONLY		SCALE 1:1	DESIGN UNITS METRIC	THIRD ANGLE PROJECTION		
		4 PLACES ± --- ± ---	3 PLACES ± --- ± ---	2 PLACES ± 0.25 ± ---	1 PLACE ± --- ± ---	DRAWN BY SAMIEC	DATE 2005/05/13	TITLE LPH RECEPTACLE ASSEMBLY RT ANGLE 4 CIRCUIT POWER CONNECTOR		
		ANGULAR ± 1/2°		DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS		CHECKED BY SAMIEC	DATE 2005/05/13	MOLEX MOLEX INCORPORATED		
		MATERIAL NO.		DOCUMENT NO. SD-45984-400		APPROVED BY MARGULIS		DATE 2005/05/13	SHEET NO. 1 OF 5	

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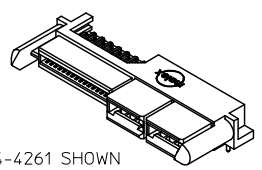
THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION

NO OF SIGNAL	MATERIAL NUMBER	DIM A	DIM P	PCB THK
12	45984-4211	35.5	4.50	3.18
16	45984-4221	38.0		
20	45984-4231	40.6		
24	45984-4241	43.1		
28	45984-4251	45.6		
32	45984-4261	48.2		
36	45984-4271	50.7	3.60	2.36
40	45984-4281	53.3		
12	45984-4212	35.5		
16	45984-4222	38.0		
20	45984-4232	40.6		
24	45984-4242	43.1		
28	45984-4252	45.6	2.90	1.57
32	45984-4262	48.2		
36	45984-4272	50.7		
40	45984-4282	53.3		
12	45984-4213	35.5		
16	45984-4223	38.0		
20	45984-4233	40.6		
24	45984-4243	43.1		
28	45984-4253	45.6		
32	45984-4263	48.2		
36	45984-4273	50.7		
40	45984-4283	53.3		



NO OF SIGNALS
OPTIONAL
SEE CHART

GUIDE POST OPTIONS



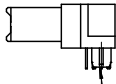
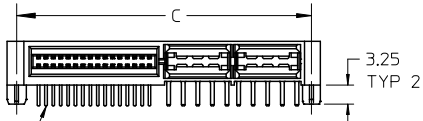
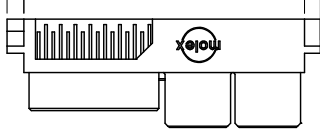
45984-4261 SHOWN
FOR REF ONLY
SEE CHART

REVISED IEC NO: UCP2009-0971 DRW: NMBANDURA 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	
		4 PLACES	± ---	± ---	DRAWN BY	DATE	TITLE LPH RECEPTACLE ASSEMBLY RT ANGLE 4 CIRCUIT POWER CONNECTOR		
		3 PLACES	± ---	± ---	SAMIEC	2005/05/13			
		2 PLACES	± 0.25	± ---	CHECKED BY	DATE	MOLEX INCORPORATED		
1 PLACE	± ---	± ---	SAMIEC	2005/05/13					
		ANGULAR ±1/2°		APPROVED BY	DATE	DOCUMENT NO. SD-45984-400			
				MARGULIS	2005/05/13				
		DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS		MATERIAL NO.		SHEET NO.			
				SIZE A		2 OF 5			

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Rev. D 2004/06/28

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2.90 A 2.73

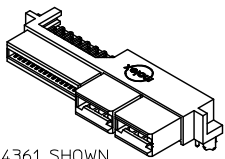


NO OF SIGNALS
OPTIONAL
SEE CHART

OPTIONAL PEGS

MOUNTING PEG OPTIONS

NO OF SIGNAL	MATERIAL NUMBER	DIM A	DIM C	DIM P	PCB THK
12	45984-4311	35.5	37.90	4.50	3.18
16	45984-4321	38.0	40.44		
20	45984-4331	40.6	42.98		
24	45984-4341	43.1	45.52		
28	45984-4351	45.6	48.06		
32	45984-4361	48.2	50.60		
36	45984-4371	50.7	53.14	3.60	2.36
40	45984-4381	53.3	55.68		
12	45984-4312	35.5	37.90		
16	45984-4322	38.0	40.44		
20	45984-4332	40.6	42.98		
24	45984-4342	43.1	45.52		
28	45984-4352	45.6	48.06	2.90	1.57
32	45984-4362	48.2	50.60		
36	45984-4372	50.7	53.14		
40	45984-4382	53.3	55.68		
12	45984-4313	35.5	37.90		
16	45984-4323	38.0	40.44		
20	45984-4333	40.6	42.98	2.90	1.57
24	45984-4343	43.1	45.52		
28	45984-4353	45.6	48.06		
32	45984-4363	48.2	50.60		
36	45984-4373	50.7	53.14	2.90	1.57
40	45984-4383	53.3	55.68		



45984-4361 SHOWN
FOR REF ONLY
SEE CHART

REVISED EC NO: UCP2009-0971 DRWN:MBANDURA CHKD: APPR:APATEL 2008/11/13 2008/11/14 2008/11/17	DESCRIPTION REV	GENERAL TOLERANCES (UNLESS SPECIFIED)		DIMENSION STYLE MM ONLY		SCALE 1:1	DESIGN UNITS METRIC	THIRD ANGLE PROJECTION
		4 PLACES ± --- ± ---	DRAWN BY SAMIEC	DATE 2005/05/13	TITLE LPH RECEPTACLE ASSEMBLY RT ANGLE 4 CIRCUIT POWER CONNECTOR			
		3 PLACES ± --- ± ---	CHECKED BY SAMIEC	DATE 2005/05/13	MOLEX INCORPORATED			
		2 PLACES ± 0.25 ± ---	APPROVED BY MARGULIS	DATE 2005/05/13	DOCUMENT NO. SD-45984-400	SHEET NO. 3 OF 5		
		1 PLACE ± --- ± ---	MATERIAL NO.		THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION			
		ANGULAR ± 1/2°		DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS				

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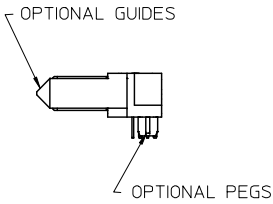
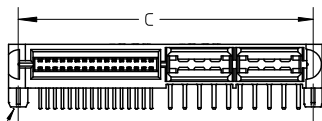
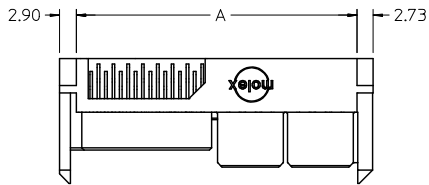
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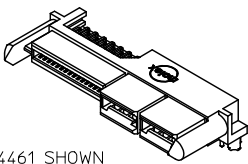
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NO OF SIGNALS
OPTIONAL
SEE CHART

GUIDE POST & MOUNTING PEG OPTIONS

NO OF SIGNAL	MATERIAL NUMBER	DIM A	DIM C	DIM P	PCB THK
12	45984-4411	35.5	37.90	4.50	3.18
16	45984-4421	38.0	40.44		
20	45984-4431	40.6	42.98		
24	45984-4441	43.1	45.52		
28	45984-4451	45.6	48.06		
32	45984-4461	48.2	50.60		
36	45984-4471	50.7	53.14	3.60	2.36
40	45984-4481	53.3	55.68		
12	45984-4412	35.5	37.90		
16	45984-4422	38.0	40.44		
20	45984-4432	40.6	42.98		
24	45984-4442	43.1	45.52		
28	45984-4452	45.6	48.06		
32	45984-4462	48.2	50.60		
36	45984-4472	50.7	53.14	2.90	1.57
40	45984-4482	53.3	55.68		
12	45984-4413	35.5	37.90		
16	45984-4423	38.0	40.44		
20	45984-4433	40.6	42.98		
24	45984-4443	43.1	45.52		
28	45984-4453	45.6	48.06		
32	45984-4463	48.2	50.60		
36	45984-4473	50.7	53.14		
40	45984-4483	53.3	55.68		

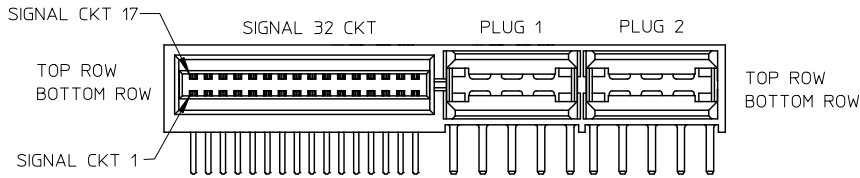


45984-4461 SHOWN
FOR REF ONLY
SEE CHART

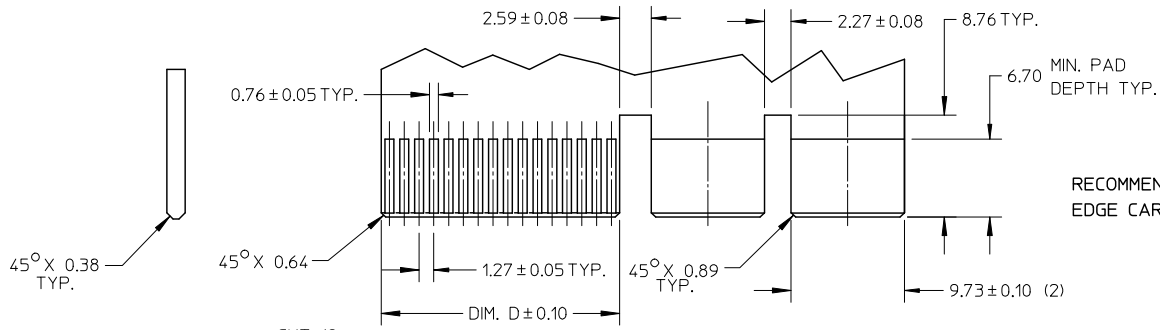
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		4 PLACES ± --- ± ---	3 PLACES ± --- ± ---	2 PLACES ± 0.25 ± ---	1 PLACE ± --- ± ---	ANGULAR ± 1/2°	DRAWN BY DATE SAMI EC 2005/05/13	
DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS		APPROVED BY DATE MARGULIS 2005/05/13		MATERIAL NO.		DOCUMENT NO. SD-45984-400		SHEET NO. 4 OF 5
SIZE A		THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION						

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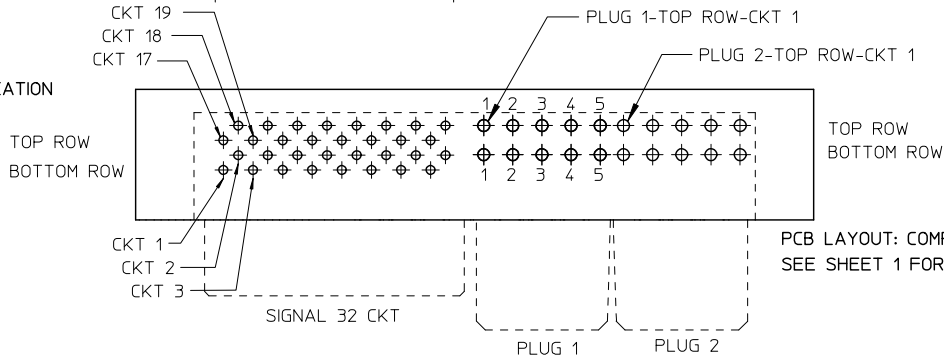


NO. OF SIGNAL	DIM. D
12	8.00
16	10.54
20	13.08
24	15.62
28	18.16
32	20.70
36	23.24
40	25.78



RECOMMENDED EDGE CARD LAYOUT
EDGE CARD THICKNESS: 1.57/062

CIRCUIT IDENTIFICATION



PCB LAYOUT: COMPONENT SIDE
SEE SHEET 1 FOR DIMENSIONS

REVISED EC NO: UCP2009-0971 DRWN:MBANDURA CHKD: APPR:APATEL 2008/11/13 2008/11/14 2008/11/17 DESCRIPTION	GENERAL TOLERANCES (UNLESS SPECIFIED)		DIMENSION STYLE MM ONLY		SCALE 2:1	DESIGN UNITS METRIC	THIRD ANGLE PROJECTION
	4 PLACES	± ---	± ---	DRAWN BY SAMIEC	DATE 2005/05/13	TITLE LPH RECEPTACLE ASSEMBLY RT ANGLE 4 CIRCUIT POWER CONNECTOR	
	3 PLACES	± ---	± ---	CHECKED BY	DATE 2005/05/13		
	2 PLACES	± 0.25	± ---	APPROVED BY MARGULIS	DATE 2005/05/13		
	1 PLACE	± ---	± ---	MATERIAL NO.		DOCUMENT NO. SD-45984-400	SHEET NO. 5 OF 5
DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS		ANGULAR ±1/2°		MOLEX INCORPORATED THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION			

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