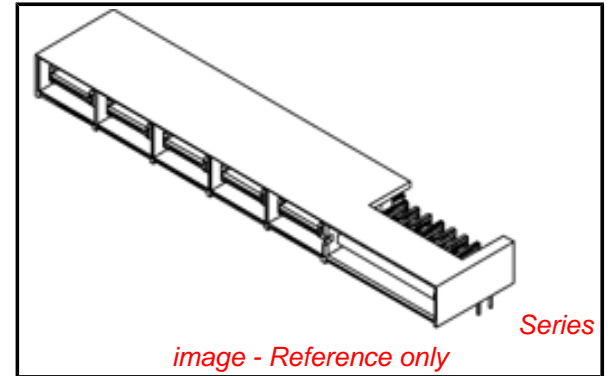


PLEASE CHECK WWW.MOLEX.COM FOR LATEST PART INFORMATION

Part Number: [0459856132](#)
Status: **Active**
Overview: [extreme_lphpower](#)
Description: 1.27mm (.050"), 12.00mm (.472") Pitch, EXTreme LPHPower™ Header, Right Angle, 6 Power Contacts, 20 Signal 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 |
| TUV | 30683046 |
| UL | E29179 |

General

| | |
|----------------|----------------------------------|
| Product Family | PCB Headers |
| Series | 45985 |
| Application | Board-to-Board |
| Overview | extreme_lphpower |
| Product Name | EXTreme LPHPower™ |

Physical

| | |
|--------------------------------|-------------------------------------|
| Breakaway | No |
| Circuits (Loaded) | 26 |
| Circuits (maximum) | 26 |
| Circuits Detail | 6 Power, 20 Signal |
| Color - Resin | Black |
| Durability (mating cycles max) | 250 |
| First Mate / Last Break | Yes |
| Flammability | 94V-0 |
| Glow-Wire Compliant | No |
| Guide to Mating Part | No |
| Keying to Mating Part | None |
| Lock to Mating Part | No |
| Material - Metal | Brass, 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) | 0.050 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, 50 |
| Plating min: Termination (µm) | 1.25, 3.75 |
| Polarized to Mating Part | Yes |

EU 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.

China RoHS



Search Parts in this Series

[45985Series](#)

Mates With

[45984](#) EXTreme LPHPower™ PCB Receptacles

| | |
|--------------------------------|-----------------|
| Polarized to PCB | Yes |
| Shrouded | Fully |
| 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 | 27A |
| 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-45985-600 |

This document was generated on 05/25/2010

PLEASE CHECK WWW.MOLEX.COM FOR LATEST PART INFORMATION



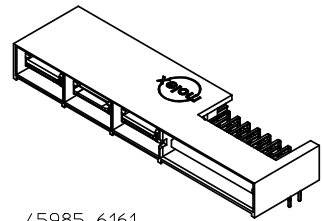
NOTES:

1. MATERIAL: LCP, 94V-0, BLACK
POWER CONTACT: COPPER ALLOY
SIGNAL CONTACT: PHOSPHOR BRONZE
2. FINISH: SELECT GOLD 0.76µM/30 MI MIN, IN CONTACT AREA
SELECT TIN 3.81µM/100 MI MIN, IN PC TAIL AREA
BOTH OVER NICKEL 1.27µM/50 MI MIN.
3. PRODUCT SPECIFICATION: PS-45984-001
4. PACKAGING SPECIFICATION: TRAY PER PK-45984-001
5. SEE SHEET 5 FOR CIRCUIT IDENTIFICATION.
6. PARTS ARE RoHS COMPLIANT.
7. PEG HOLES ARE OPTIONAL PCB FEATURES AND ARE REQUIRED ONLY WITH THE PEGGED HOUSING OPTIONS.
8. MATES WITH MOLEX RECEPTACLE SERIES 45984-6***.

| NO OF SIGNAL | MATERIAL NUMBER | DIM A REF | DIM P | PCB THK |
|--------------|-----------------|-----------|-------|---------|
| 12 | 45985-6111 | 48.16 | 4.50 | 3.18 |
| 16 | 45985-6121 | 50.70 | | |
| 20 | 45985-6131 | 53.24 | | |
| 24 | 45985-6141 | 55.78 | | |
| 28 | 45985-6151 | 58.32 | | |
| 32 | 45985-6161 | 60.86 | | |
| 36 | 45985-6171 | 63.40 | 3.90 | 2.36 |
| 40 | 45985-6181 | 65.94 | | |
| 12 | 45985-6112 | 48.16 | | |
| 16 | 45985-6122 | 50.70 | | |
| 20 | 45985-6132 | 53.24 | | |
| 24 | 45985-6142 | 55.78 | | |
| 28 | 45985-6152 | 58.32 | 2.90 | 1.57 |
| 32 | 45985-6162 | 60.86 | | |
| 36 | 45985-6172 | 63.40 | | |
| 40 | 45985-6182 | 65.94 | | |
| 12 | 45985-6113 | 48.16 | | |
| 16 | 45985-6123 | 50.70 | | |
| 20 | 45985-6133 | 53.24 | 2.90 | 1.57 |
| 24 | 45985-6143 | 55.78 | | |
| 28 | 45985-6153 | 58.32 | | |
| 32 | 45985-6163 | 60.86 | | |
| 36 | 45985-6173 | 63.40 | | |
| 40 | 45985-6183 | 65.94 | | |



PCB LAYOUT: COMPONENT SIDE
THKNESS: SEE CHART



45985-6161
(SHOWN FOR REFERENCE)
SEE CHART

| | |
|---------------------|-------------|
| REVISED | DESCRIPTION |
| EC NO: UCP2007-3140 | 2008/03/03 |
| DRWN:MBANDURA | 2008/03/04 |
| CHKD: | 2008/03/04 |
| APPR:APATEL | 2008/03/06 |
| C | REV |

| | |
|--|--------------|
| 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 | |
| MM/IN | |
| DRAWN BY | DATE |
| JSCHAFFER | 6-9-05 |
| CHECKED BY | DATE |
| YMARGULIS | 6-14-05 |
| APPROVED BY | DATE |
| YMARGULIS | 6-15-05 |
| MATERIAL NO. | |
| SEE CHART | |
| SIZE | |
| A | |

| | | |
|---|--------------|------------------------|
| SCALE | DESIGN UNITS | THIRD ANGLE PROJECTION |
| 1:1 | METRIC | |
| TITLE | | |
| LPH PLUG ASSEMBLY RT ANGLE 6 CIRCUIT POWER CONNECTOR | | |
| MOLEX INCORPORATED | | |
| DOCUMENT NO. | | SHEET NO. |
| SD-45985-600 | | 1 OF 5 |
| THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION | | |



GUIDE OPTIONS

| NO OF SIGNAL | MATERIAL NUMBER | DIM A REF | DIM P | PCB THK |
|--------------|-----------------|-----------|-------|---------|
| 12 | 45985-6211 | 55.66 | 4.50 | 3.18 |
| 16 | 45985-6221 | 58.20 | | |
| 20 | 45985-6231 | 60.74 | | |
| 24 | 45985-6241 | 63.28 | | |
| 28 | 45985-6251 | 65.82 | | |
| 32 | 45985-6261 | 68.36 | 3.90 | 2.36 |
| 36 | 45985-6271 | 70.90 | | |
| 40 | 45985-6281 | 73.44 | | |
| 12 | 45985-6212 | 55.66 | | |
| 16 | 45985-6222 | 58.20 | | |
| 20 | 45985-6232 | 60.74 | 2.90 | 1.57 |
| 24 | 45985-6242 | 63.28 | | |
| 28 | 45985-6252 | 65.82 | | |
| 32 | 45985-6262 | 68.36 | | |
| 36 | 45985-6272 | 70.90 | | |
| 40 | 45985-6282 | 73.44 | 2.90 | 1.57 |
| 12 | 45985-6213 | 55.66 | | |
| 16 | 45985-6223 | 58.20 | | |
| 20 | 45985-6233 | 60.74 | | |
| 24 | 45985-6243 | 63.28 | | |
| 28 | 45985-6253 | 65.82 | | |
| 32 | 45985-6263 | 68.36 | | |
| 36 | 45985-6273 | 70.90 | | |
| 40 | 45985-6283 | 73.44 | | |

NOTE:
1. SEE SHEET 1 FOR DIMENSIONS NOT SHOWN.



45985-6261
(SHOWN FOR REFERENCE)
SEE CHART

| | |
|---------------------|-------------|
| REVISED | DESCRIPTION |
| EC NO: UCP2007-3140 | |
| DRWN:MBANDURA | |
| CHKD: | |
| APPR:APATEL | |
| REV | |

| | | |
|--|--------|-------|
| 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 | |
| MM/IN | |
| DRAWN BY | DATE |
| JSCHAFFER | 6-9-05 |
| CHECKED BY | DATE |
| YMARGULIS | 6-14-05 |
| APPROVED BY | DATE |
| YMARGULIS | 6-15-05 |
| MATERIAL NO. | |
| SEE CHART | |

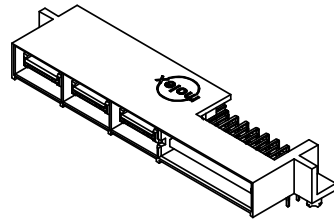
| | | |
|---|--------------|------------------------|
| SCALE | DESIGN UNITS | THIRD ANGLE PROJECTION |
| 1:1 | METRIC | |
| TITLE | | |
| LPH PLUG ASSEMBLY RT ANGLE 6 CIRCUIT POWER CONNECTOR | | |
| MOLEX INCORPORATED | | |
| MATERIAL NO. | DOCUMENT NO. | SHEET NO. |
| SEE CHART | SD-45985-600 | 2 OF 5 |
| THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION | | |



MOUNTING PEG OPTIONS

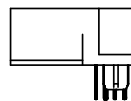
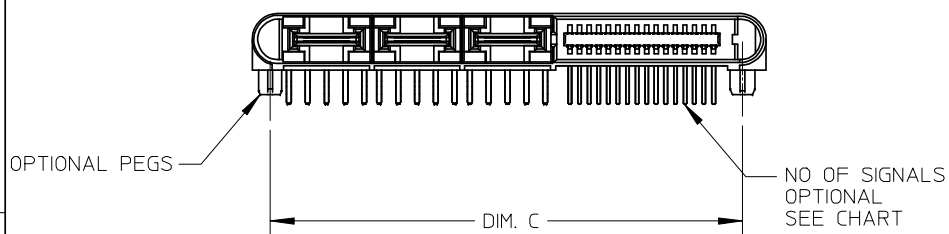
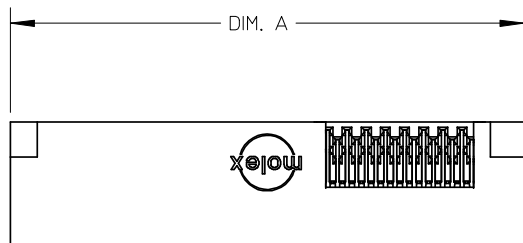
| NO OF SIGNAL | MATERIAL NUMBER | DIM A REF | DIM C | DIM P | PCB THK |
|--------------|-----------------|-----------|-------|-------|---------|
| 12 | 45985-6311 | 55.66 | 49.98 | 4.50 | 3.18 |
| 16 | 45985-6321 | 58.20 | 52.52 | | |
| 20 | 45985-6331 | 60.74 | 55.06 | | |
| 24 | 45985-6341 | 63.28 | 57.60 | | |
| 28 | 45985-6351 | 65.82 | 60.14 | | |
| 32 | 45985-6361 | 68.36 | 62.68 | | |
| 36 | 45985-6371 | 70.90 | 65.22 | 3.90 | 2.36 |
| 40 | 45985-6381 | 73.44 | 67.76 | | |
| 12 | 45985-6312 | 55.66 | 49.98 | | |
| 16 | 45985-6322 | 58.20 | 52.52 | | |
| 20 | 45985-6332 | 60.74 | 55.06 | | |
| 24 | 45985-6342 | 63.28 | 57.60 | | |
| 28 | 45985-6352 | 65.82 | 60.14 | | |
| 32 | 45985-6362 | 68.36 | 62.68 | | |
| 36 | 45985-6372 | 70.90 | 65.22 | | |
| 40 | 45985-6382 | 73.44 | 67.76 | 2.90 | 1.57 |
| 12 | 45985-6313 | 55.66 | 49.98 | | |
| 16 | 45985-6323 | 58.20 | 52.52 | | |
| 20 | 45985-6333 | 60.74 | 55.06 | | |
| 24 | 45985-6343 | 63.28 | 57.60 | | |
| 28 | 45985-6353 | 65.82 | 60.14 | | |
| 32 | 45985-6363 | 68.36 | 62.68 | | |
| 36 | 45985-6373 | 70.90 | 65.22 | | |
| 40 | 45985-6383 | 73.44 | 67.76 | | |

NOTE:
1. SEE SHEET 1 FOR DIMENSIONS NOT SHOWN.



45985-6361
(SHOWN FOR REFERENCE)
SEE CHART

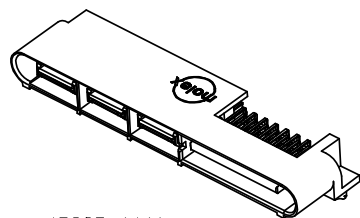
| | | | | | | | | | |
|--|--|---------------|--|---------------------------|---------------------|---|---------------------------|--|--|
| REVISED EC NO: UCP2007-3140 DRWN:MBANDURA 2008/03/03 CHKD: 2008/03/04 APPR:APATEL 2008/03/06 DESCRIPTION REV | GENERAL TOLERANCES (UNLESS SPECIFIED) | | DIMENSION STYLE MM/IN | | SCALE 1:1 | DESIGN UNITS METRIC | THIRD ANGLE PROJECTION | | |
| | | mm | INCH | DRAWN BY JSCHAFFER | DATE 6-9-05 | TITLE LPH PLUG ASSEMBLY RT ANGLE 6 CIRCUIT POWER CONNECTOR | | | |
| | 4 PLACES | ± --- | ± --- | CHECKED BY YMARGUL IS | DATE 6-14-05 | | | | |
| | 3 PLACES | ± --- | ± --- | APPROVED BY YMARGUL IS | DATE 6-15-05 | MOLEX INCORPORATED DOCUMENT NO. SD-45985-600 | | | |
| 2 PLACES | ± 0.25 | ± --- | MATERIAL NO. SEE CHART | | SHEET NO. 3 OF 5 | | | | |
| 1 PLACE | ± --- | ± --- | 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 |
| | | ANGULAR ±1/2° | | | | | | | |



GUIDE & MOUNTING PEG OPTIONS

| NO OF SIGNAL | MATERIAL NUMBER | DIM A REF | DIM C | DIM P | PCB THK |
|--------------|-----------------|-----------|-------|-------|---------|
| 12 | 45985-6411 | 55.66 | 49.98 | 4.50 | 3.18 |
| 16 | 45985-6421 | 58.20 | 52.52 | | |
| 20 | 45985-6431 | 60.74 | 55.06 | | |
| 24 | 45985-6441 | 63.28 | 57.60 | | |
| 28 | 45985-6451 | 65.82 | 60.14 | | |
| 32 | 45985-6461 | 68.36 | 62.68 | | |
| 36 | 45985-6471 | 70.90 | 65.22 | 3.90 | 2.36 |
| 40 | 45985-6481 | 73.44 | 67.76 | | |
| 12 | 45985-6412 | 55.66 | 49.98 | | |
| 16 | 45985-6422 | 58.20 | 52.52 | | |
| 20 | 45985-6432 | 60.74 | 55.06 | | |
| 24 | 45985-6442 | 63.28 | 57.60 | | |
| 28 | 45985-6452 | 65.82 | 60.14 | | |
| 32 | 45985-6462 | 68.36 | 62.68 | | |
| 36 | 45985-6472 | 70.90 | 65.22 | | |
| 40 | 45985-6482 | 73.44 | 67.76 | | |
| 12 | 45985-6413 | 55.66 | 49.98 | 2.90 | 1.57 |
| 16 | 45985-6423 | 58.20 | 52.52 | | |
| 20 | 45985-6433 | 60.74 | 55.06 | | |
| 24 | 45985-6443 | 63.28 | 57.60 | | |
| 28 | 45985-6453 | 65.82 | 60.14 | | |
| 32 | 45985-6463 | 68.36 | 62.68 | | |
| 36 | 45985-6473 | 70.90 | 65.22 | | |
| 40 | 45985-6483 | 73.44 | 67.76 | | |

NOTE:
1. SEE SHEET 1 FOR ALL DIMENSIONS NOT SHOWN.



45985-6461
(SHOWN FOR REFERENCE)
SEE CHART

| | |
|--------------------------|-------------|
| REVISED | DESCRIPTION |
| EC NO: UCP2007-3140 | |
| DRWN:MBANDURA 2008/03/03 | |
| CHKD: 2008/03/04 | |
| APPR:APATEL 2008/03/06 | |
| REV | |

| 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 | |
|-----------------|---------|
| MM/IN | |
| DRAWN BY | DATE |
| JSCHAFFER | 6-9-05 |
| CHECKED BY | DATE |
| YMARGULIS | 6-14-05 |
| APPROVED BY | DATE |
| YMARGULIS | 6-15-05 |
| MATERIAL NO. | |
| SEE CHART | |
| SIZE | |
| A | |

| | | |
|---|--------------|------------------------|
| SCALE | DESIGN UNITS | THIRD ANGLE PROJECTION |
| 1:1 | METRIC | |
| TITLE | | |
| LPH PLUG ASSEMBLY RT ANGLE 6 CIRCUIT POWER CONNECTOR | | |
| MOLEX INCORPORATED | | |
| DOCUMENT NO. | | SHEET NO. |
| SD-45985-600 | | 4 OF 5 |
| THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION | | |

CIRCUIT IDENTIFICATION



PCB LAYOUT: COMPONENT SIDE

| | | | | | | | | |
|---|---------------------------------------|--------|--|---------------------------|-----------------|---|------------------------|--|
| REVISED EC NO: UCP2007-3140 DRWN:MBANDURA 2008/03/03 CHKD: 2008/03/04 APPR:APATEL 2008/03/06 DESCRIPTION | GENERAL TOLERANCES (UNLESS SPECIFIED) | | DIMENSION STYLE MM/IN | | SCALE 2:1 | DESIGN UNITS METRIC | THIRD ANGLE PROJECTION | |
| | | mm | INCH | DRAWN BY JSCHAFFER | DATE 6-9-05 | TITLE LPH PLUG ASSEMBLY RT ANGLE 6 CIRCUIT POWER CONNECTOR | | |
| | 4 PLACES | ± --- | ± --- | CHECKED BY YMARGUL IS | DATE 6-14-05 | | | |
| | 3 PLACES | ± --- | ± --- | APPROVED BY YMARGUL IS | DATE 6-15-05 | MOLEX INCORPORATED DOCUMENT NO. SD-45985-600 SHEET NO. 5 OF 5 | | |
| | 2 PLACES | ± 0.25 | ± --- | MATERIAL NO. | | | | |
| 1 PLACE | ± --- | ± --- | DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS | | SEE CHARTS | | | |