This document was generated on 05/25/2010

PLEASE CHECK WWW.MOLEX.COM FOR LATEST PART INFORMATION

Part Number: 0459858333
Status: Active
Overview: extreme_lphpower
Description: 1.27mm (.050"), 12.00mm (.472") Pitch, EXTreme LPHPower™ Header, Right Angle, 8 Power Contacts, 20 Signal Contacts, Select Gold (Au) Plating, for 1.57mm (.062") Thick PC Board, with Press-fit Plastic Pegs

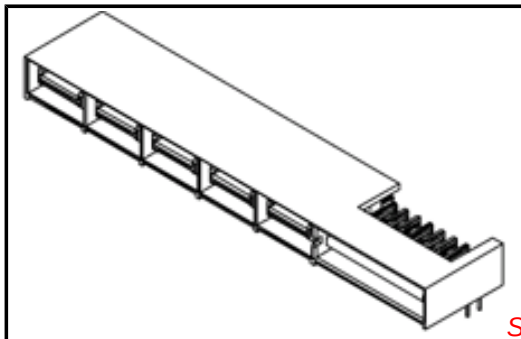


image - Reference only

Documents:

3D Model
Drawing (PDF)
Product Specification PS-45984-001 (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)	28
Circuits (maximum)	28
Circuits Detail	8 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)	0.114 In
PC Tail Length (mm)	2.90 mm
PCB Locator	Yes
PCB Retention	Yes
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, 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

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
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	23A
Voltage - Maximum	250V AC (RMS)/DC

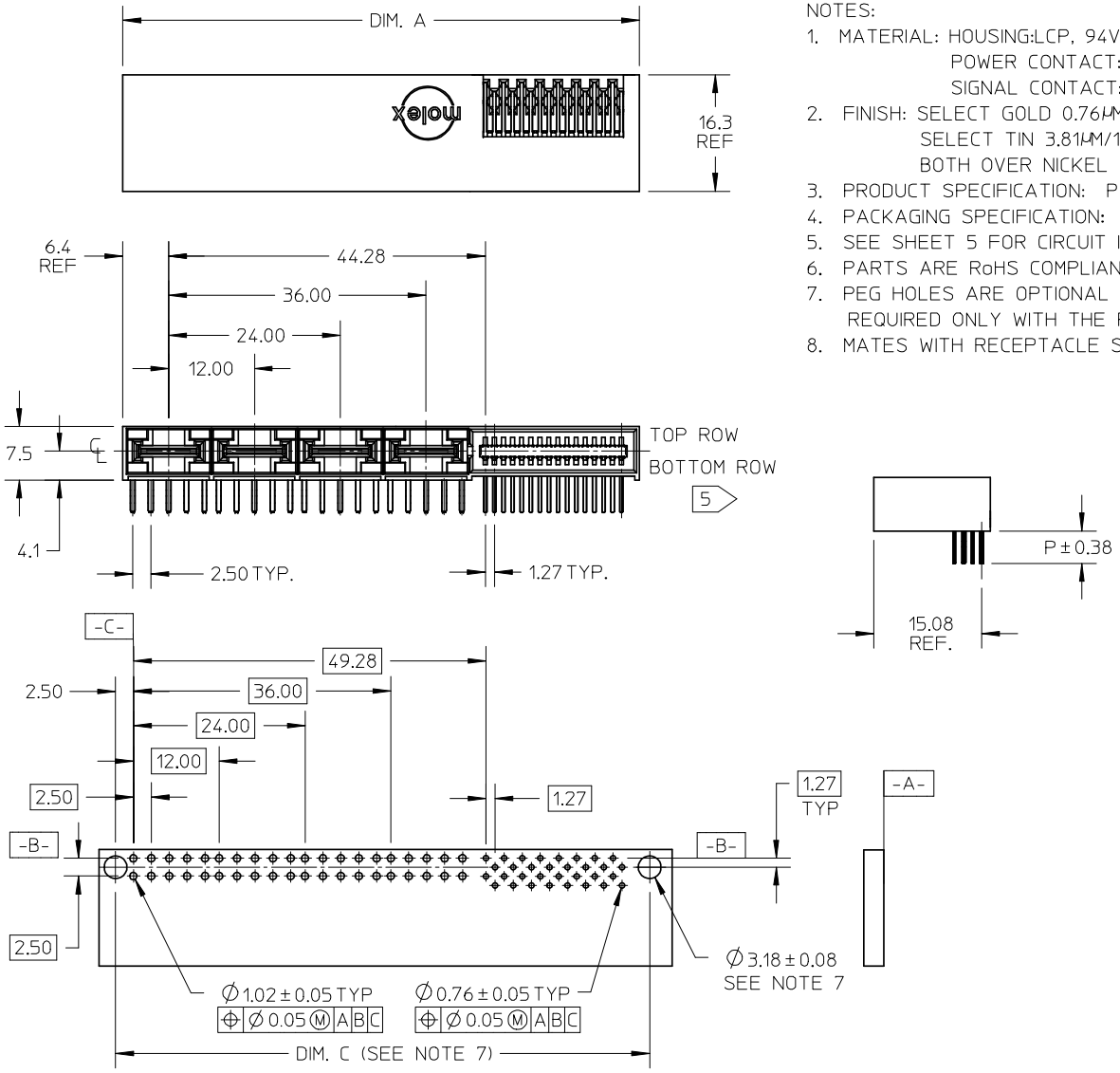
Solder Process Data

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-45985-800

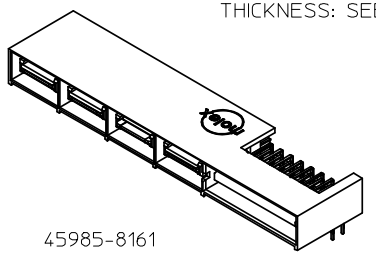


PCB LAYOUT: COMPONENT SIDE
THICKNESS: SEE CHART

NOTES:

1. MATERIAL: HOUSING:LCP, 94V-0,COLOR-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/150 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 RECEPTACLE SERIES 45984-8***.

NO OF SIGNAL	MATERIAL NUMBER	DIM A REF	DIM P	PCB THK
12	45985-8111	60.16	4.50	3.18
16	45985-8121	62.70		
20	45985-8131	65.24		
24	45985-8141	67.78		
28	45985-8151	70.32		
32	45985-8161	72.86		
36	45985-8171	75.40		
40	45985-8181	77.94		
12	45985-8112	60.16	3.90	2.36
16	45985-8122	62.70		
20	45985-8132	65.24		
24	45985-8142	67.78		
28	45985-8152	70.32		
32	45985-8162	72.86		
36	45985-8172	75.40		
40	45985-8182	77.94		
12	45985-8113	60.16	2.90	1.57
16	45985-8123	62.70		
20	45985-8133	65.24		
24	45985-8143	67.78		
28	45985-8153	70.32		
32	45985-8163	72.86		
36	45985-8173	75.40		
40	45985-8183	77.94		



45985-8161
(SHOWN FOR REFERENCE)
SEE CHART

REVISED
EC NO: UCP2007-3140 2008/03/03
DRWN:MBANDURA 2008/03/04
CH'KD: APPR:APATEL 2008/03/06
DESCRIPTION
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 ONLY
SCALE: 1:1
DESIGN UNITS: METRIC
THIRD ANGLE PROJECTION

DRAWN BY: SCHAFER DATE: 2005/05/17
CHECKED BY: SAMIEC DATE: 2005/05/17
APPROVED BY: MARGULIS DATE: 2005/05/18

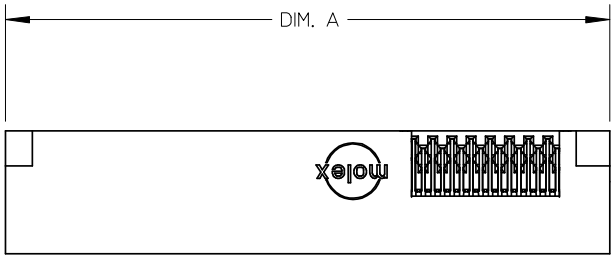
TITLE: LPH PLUG ASSEMBLY
RT ANGLE 8 CIRCUIT
POWER CONNECTOR

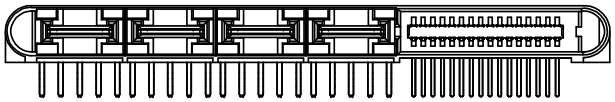
MOLEX INCORPORATED

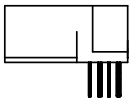
MATERIAL NO.: SEE CHART
DOCUMENT NO.: SD-45985-800
SHEET NO.: 1 OF 5

SIZE A

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



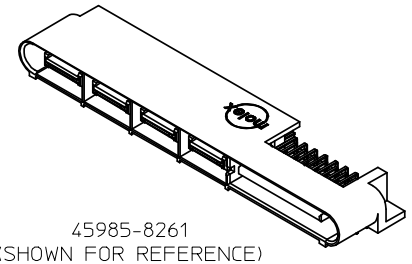




NO OF SIGNAL	MATERIAL NUMBER	DIM A REF	DIM P	PCB THK
12	45985-8211	67.66	4.50	3.18
16	45985-8221	70.20		
20	45985-8231	72.74		
24	45985-8241	75.28		
28	45985-8251	77.82		
32	45985-8261	80.36		
36	45985-8271	82.90		
40	45985-8281	85.44		
12	45985-8212	67.26	3.90	2.36
16	45985-8222	70.20		
20	45985-8232	72.74		
24	45985-8242	75.28		
28	45985-8252	77.82		
32	45985-8262	80.36		
36	45985-8272	82.90		
40	45985-8282	85.44		
12	45985-8213	67.66	2.90	1.57
16	45985-8223	70.20		
20	45985-8233	72.74		
24	45985-8243	75.28		
28	45985-8253	77.82		
32	45985-8263	80.36		
36	45985-8273	82.90		
40	45985-8283	85.44		

GUIDE OPTIONS

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



45985-8261
(SHOWN FOR REFERENCE)
SEE CHART

REVISED
EC NO: UCP2007-3140 2008/03/03
DRWN:MBANDURA 2008/03/04
CH'KD:
APPR:APATEL 2008/03/06
DESCRIPTION
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 ONLY
SCALE: 1:1
DESIGN UNITS: METRIC
THIRD ANGLE PROJECTION

DRAWN BY: SCHAFER DATE: 2005/05/17
CHECKED BY: SAMIEC DATE: 2005/05/17
APPROVED BY: MARGULIS DATE: 2005/05/18

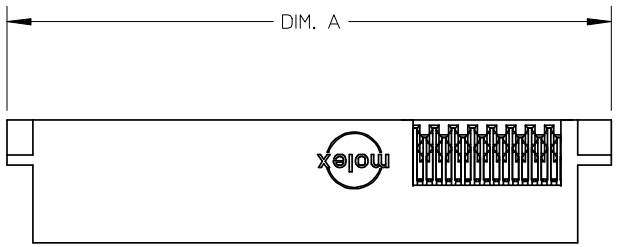
TITLE: LPH PLUG ASSEMBLY RT ANGLE 8 CIRCUIT POWER CONNECTOR

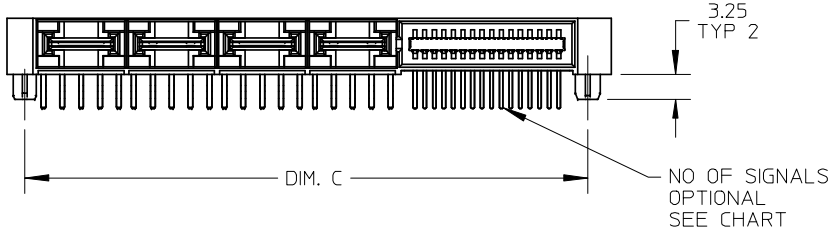
MOLEX INCORPORATED

MATERIAL NO.: SEE CHART
DOCUMENT NO.: SD-45985-800
SHEET NO.: 2 OF 5

SIZE A

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

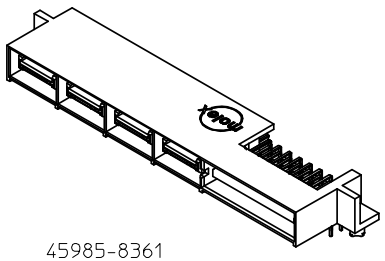




NO OF SIGNAL	MATERIAL NUMBER	DIM A REF	DIM C	DIM P	PCB THK
12	45985-8311	67.66	61.98	4.50	3.18
16	45985-8321	70.20	64.52		
20	45985-8331	72.74	67.06		
24	45985-8341	75.28	69.60		
28	45985-8351	77.82	72.14		
32	45985-8361	80.36	74.68		
36	45985-8371	82.90	77.22		
40	45985-8381	85.44	79.76		
12	45985-8312	67.66	61.98	3.90	2.36
16	45985-8322	70.20	64.52		
20	45985-8332	72.74	67.06		
24	45985-8342	75.28	69.60		
28	45985-8352	77.82	72.14		
32	45985-8362	80.36	74.68		
36	45985-8372	82.90	77.22		
40	45985-8382	85.44	79.76		
12	45985-8313	67.66	61.98	2.90	1.57
16	45985-8323	70.20	64.52		
20	45985-8333	72.74	67.06		
24	45985-8343	75.28	69.60		
28	45985-8353	77.82	72.14		
32	45985-8363	80.36	74.68		
36	45985-8373	82.90	77.22		
40	45985-8383	85.44	79.76		

MOUNTING PEG OPTIONS

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



45985-8361
(SHOWN FOR REFERENCE)
SEE CHART

REVISED
EC NO: UCP2007-3140
DRWN:MBANDURA 2008/03/03
CH'KD: 2008/03/04
APPR:APATEL 2008/03/06

REV	DESCRIPTION
C	

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 ONLY
SCALE: 1:1
DESIGN UNITS: METRIC
THIRD ANGLE PROJECTION

DRAWN BY: SCHAFER DATE: 2005/05/17
CHECKED BY: SAMIEC DATE: 2005/05/17
APPROVED BY: MARGULIS DATE: 2005/05/18

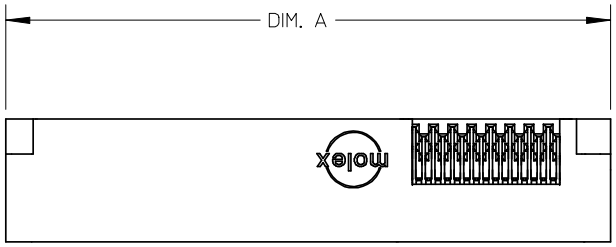
TITLE: LPH PLUG ASSEMBLY
RT ANGLE 8 CIRCUIT
POWER CONNECTOR

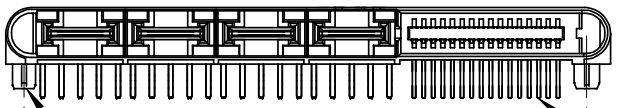
MOLEX INCORPORATED

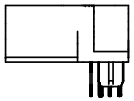
MATERIAL NO.: SEE CHART
DOCUMENT NO.: SD-45985-800
SHEET NO.: 3 OF 5

SIZE: A

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



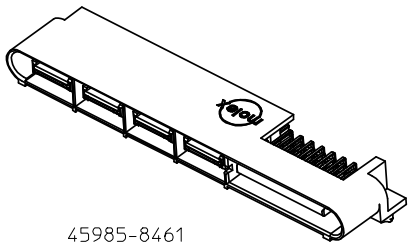




NO OF SIGNAL	MATERIAL NUMBER	DIM A REF	DIM C	DIM P	PCB THK
12	45985-8411	67.66	61.98	4.50	3.18
16	45985-8421	70.20	64.52		
20	45985-8431	72.74	67.06		
24	45985-8441	75.28	69.60		
28	45985-8451	77.82	72.14		
32	45985-8461	80.36	74.68		
36	45985-8471	82.90	77.22		
40	45985-8481	85.44	79.76		
12	45985-8412	67.66	61.98	3.90	2.36
16	45985-8422	70.20	64.52		
20	45985-8432	72.74	67.06		
24	45985-8442	75.28	69.60		
28	45985-8452	77.82	72.14		
32	45985-8462	80.36	74.68		
36	45985-8472	82.90	77.22		
40	45985-8482	85.44	79.76		
12	45985-8413	67.66	61.98	2.90	1.57
16	45985-8423	70.20	64.52		
20	45985-8433	72.74	67.06		
24	45985-8443	75.28	69.60		
28	45985-8453	77.82	72.14		
32	45985-8463	80.36	74.68		
36	45985-8473	82.90	77.22		
40	45985-8483	85.44	79.76		

GUIDE & MOUNTING PEG OPTIONS

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



45985-8461
(SHOWN FOR REFERENCE)
SEE CHART

REVISED
EC NO: UCP2007-3140 2008/03/03
DRWN:MBANDURA 2008/03/04
CH'KD: APPR:APATEL 2008/03/06

REV	DESCRIPTION
C	

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 ONLY
SCALE: 1:1
DESIGN UNITS: METRIC
THIRD ANGLE PROJECTION

DRAWN BY: SCHAFER DATE: 2005/05/17
CHECKED BY: SAMIEC DATE: 2005/05/17
APPROVED BY: MARGULIS DATE: 2005/05/18

TITLE: LPH PLUG ASSEMBLY RT ANGLE 8 CIRCUIT POWER CONNECTOR

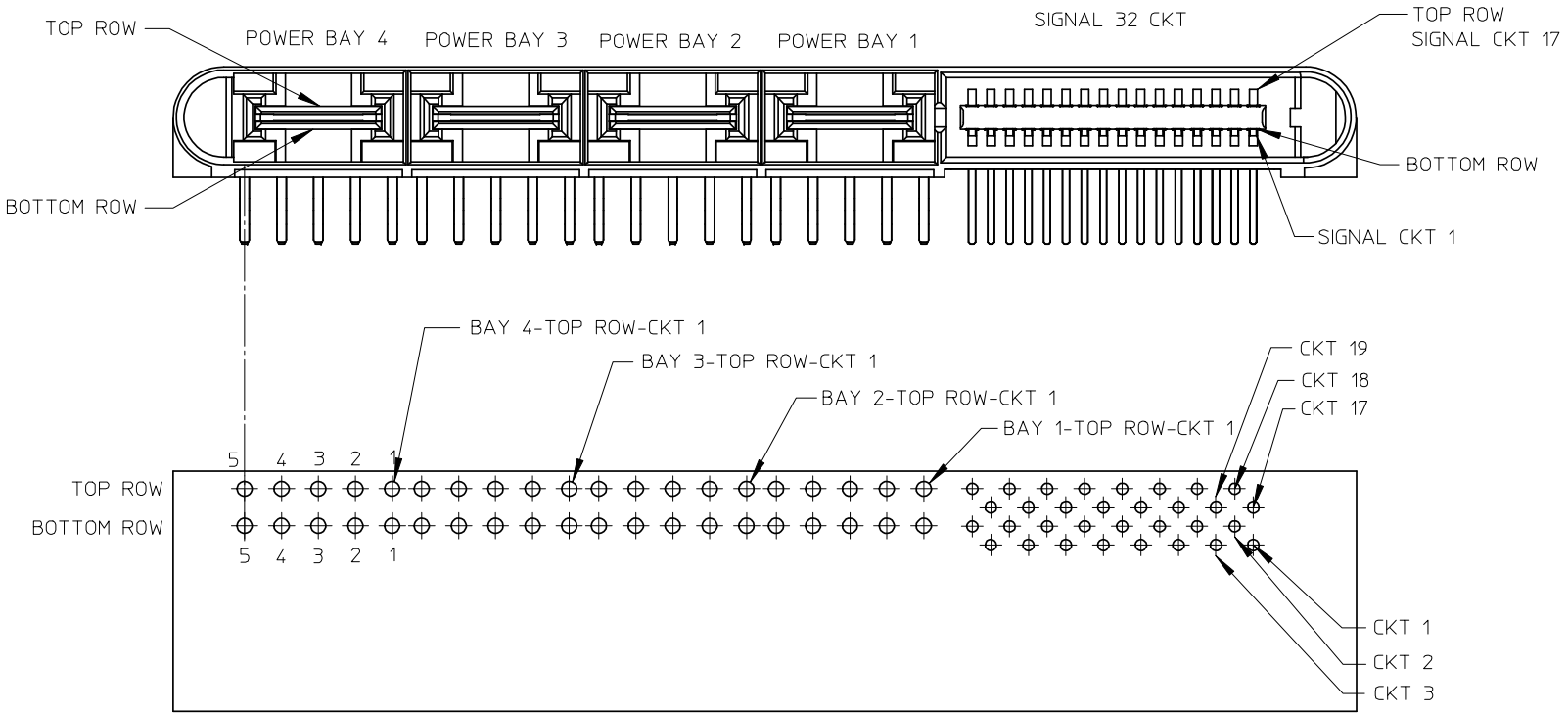
MOLEX INCORPORATED

MATERIAL NO.: SEE CHART
DOCUMENT NO.: SD-45985-800
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

CIRCUIT IDENTIFICATION



PCB LAYOUT: COMPONENT SIDE

REVISED			
EC NO: UCP2007-3140	DRWN:MBANDURA	CH'KD:	APPR:APATEL
2008/03/03	2008/03/04		2008/03/06
DESCRIPTION			
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 ONLY	SCALE: 1:1	DESIGN UNITS: METRIC	THIRD ANGLE PROJECTION
DRAWN BY: SCHAFER	DATE: 2005/05/17	TITLE: LPH PLUG ASSEMBLY RT ANGLE 8 CIRCUIT POWER CONNECTOR	
CHECKED BY: SAMIEC	DATE: 2005/05/17		
APPROVED BY: MARGULIS	DATE: 2005/05/18	MOLEX INCORPORATED	
MATERIAL NO.: SEE CHARTS		DOCUMENT NO.: SD-45985-800	SHEET NO.: 5 OF 5
SIZE: A	THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION		