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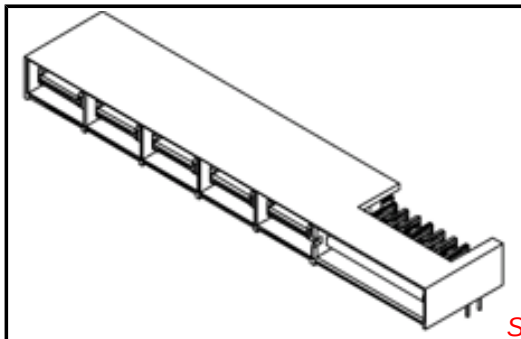
Part Number: 0459851431
Status: Active
Overview: extreme_lphpower
Description: 1.27mm (.050"), 12.00mm (.472") Pitch, EXTreme LPHPower™ Header, Right Angle, 10 Power Contacts, 20 Signal Contacts, Select Gold (Au) Plating, for 3.18mm (.125") Thick PC Board, with Guide Pockets, with Press-fit Plastic Pegs



Series 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)	30
Circuits (maximum)	30
Circuits Detail	10 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	Yes
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)	0.177 In
PC Tail Length (mm)	4.50 mm
PCB Locator	Yes
PCB Retention	Yes
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, 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	20A
Voltage - Maximum	250V AC (RMS)/DC

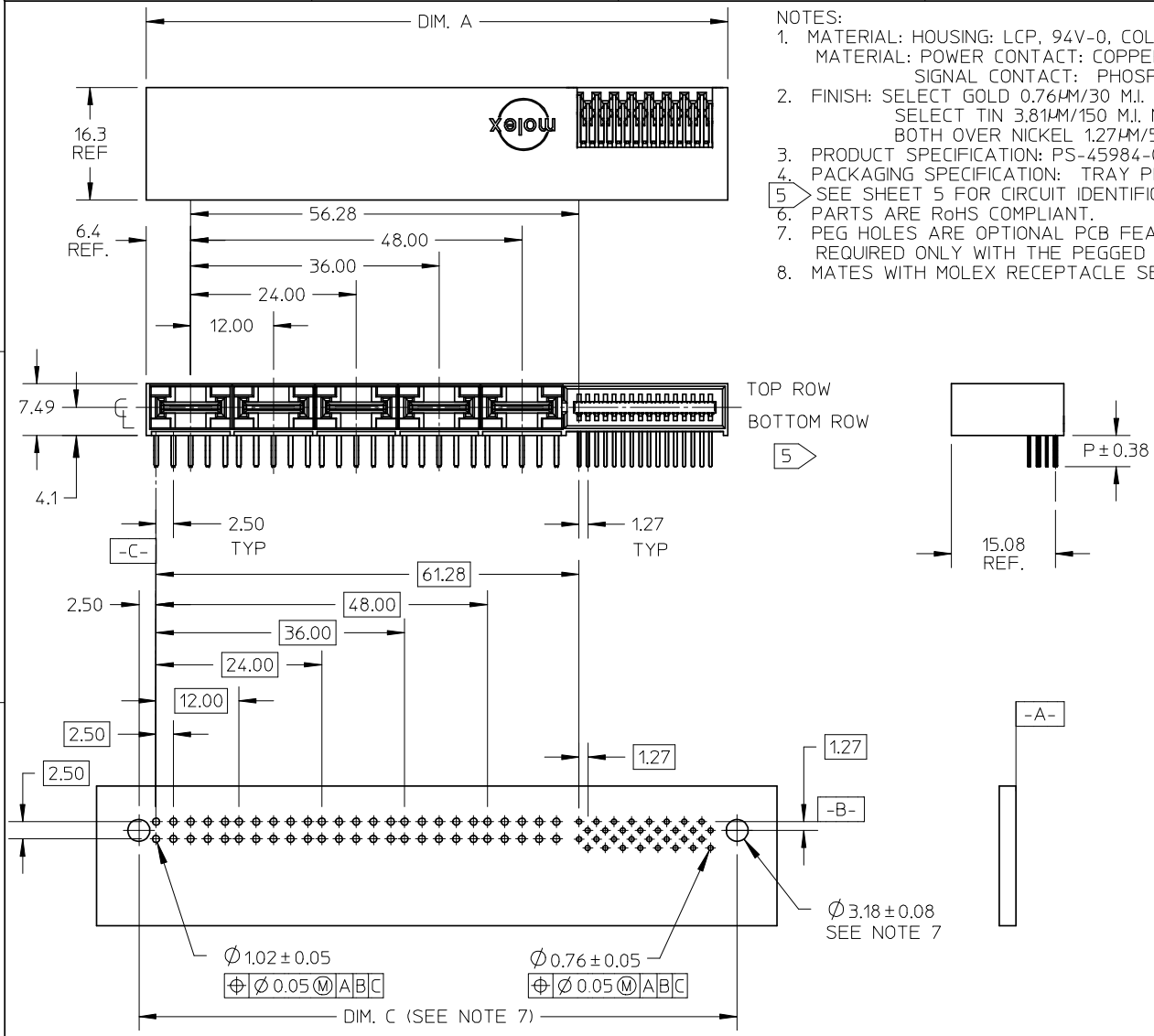
Solder Process Data

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

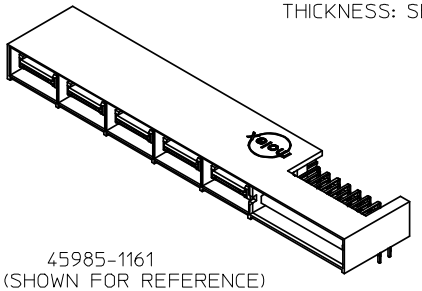
Packaging Specification	PK-45984-001
Product Specification	PS-45984-001
Sales Drawing	SD-45985-100



PCB LAYOUT: COMPONENT SIDE
THICKNESS: SEE CHART

NOTES:
1. MATERIAL: HOUSING: LCP, 94V-0, COLOR: BLACK
   MATERIAL: POWER CONTACT: COPPER ALLOY
   SIGNAL CONTACT: PHOSPHOR BRONZE
2. FINISH: SELECT GOLD 0.76µM/30 M.I. MIN. IN CONTACT AREA.
   SELECT TIN 3.81µM/150 M.I. MIN. IN PC TAIL AREA.
   BOTH OVER NICKEL 1.27µM/50 M.I. 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 45984-1***.

NO OF SIGNAL	MATERIAL NUMBER	DIM A REF	DIM P	PCB THK
12	45985-1111	72.16	4.50	3.18
16	45985-1121	74.70		
20	45985-1131	77.24		
24	45985-1141	79.78		
28	45985-1151	82.32		
32	45985-1161	84.86		
36	45985-1171	87.40		
40	45985-1181	89.94		
12	45985-1112	72.16	3.90	2.36
16	45985-1122	74.70		
20	45985-1132	77.24		
24	45985-1142	79.78		
28	45985-1152	82.32		
32	45985-1162	84.86		
36	45985-1172	87.40		
40	45985-1182	89.94		
12	45985-1113	72.16	2.90	1.57
16	45985-1123	74.70		
20	45985-1133	77.24		
24	45985-1143	79.78		
28	45985-1153	82.32		
32	45985-1163	84.86		
36	45985-1173	87.40		
40	45985-1183	89.94		



45985-1161
(SHOWN FOR REFERENCE)
SEE CHART

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

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

		DATE
DRAWN BY	SCHAFER	2005/06/20
CHECKED BY	SAMIEC	2005/06/21
APPROVED BY	MARGULIS	2005/06/22

TITLE: LPH PLUG ASSEMBLY RT ANGLE 10 CIRCUIT POWER CONNECTOR

MOLEX INCORPORATED

MATERIAL NO.: SEE CHARTS
DOCUMENT NO.: SD-45985-100
SHEET NO.: 1 OF 5

SIZE: A

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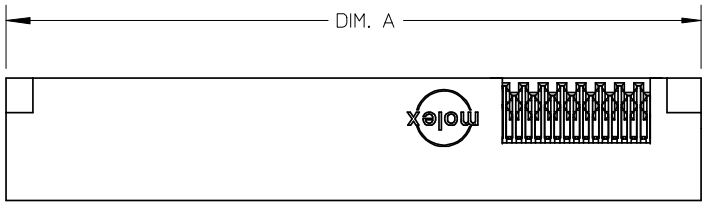
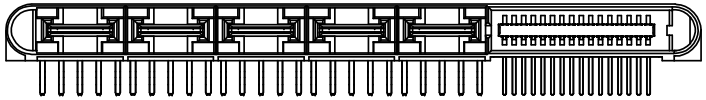
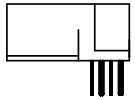


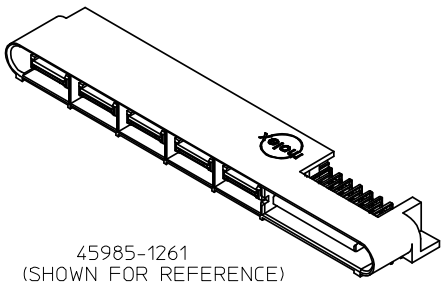




NO OF SIGNAL	MATERIAL NUMBER	DIM A REF	DIM P	PCB THK
12	45985-1211	79.66	4.50	3.18
16	45985-1221	82.20		
20	45985-1231	84.74		
24	45985-1241	87.28		
28	45985-1251	89.82		
32	45985-1261	92.36		
36	45985-1271	94.90		
40	45985-1281	97.44		
12	45985-1212	79.66	3.90	2.36
16	45985-1222	82.20		
20	45985-1232	84.74		
24	45985-1242	87.28		
28	45985-1252	89.82		
32	45985-1262	92.36		
36	45985-1272	94.90		
40	45985-1282	97.44		
12	45985-1213	79.66	2.90	1.57
16	45985-1223	82.20		
20	45985-1233	84.74		
24	45985-1243	87.28		
28	45985-1253	89.82		
32	45985-1263	92.36		
36	45985-1273	94.90		
40	45985-1283	97.44		

GUIDE OPTIONS

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



45985-1261
(SHOWN FOR REFERENCE)
SEE CHART

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

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: 2005/06/20
CHECKED BY: SAMIEC DATE: 2005/06/21
APPROVED BY: MARGULIS DATE: 2005/06/22

TITLE: LPH PLUG ASSEMBLY RT ANGLE 10 CIRCUIT POWER CONNECTOR

MOLEX INCORPORATED

MATERIAL NO.: SEE CHART
DOCUMENT NO.: SD-45985-100
SHEET NO.: 2 OF 5

SIZE: A

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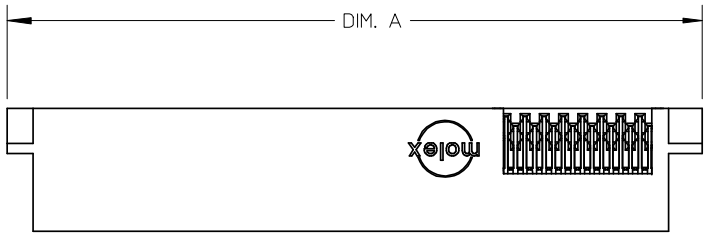
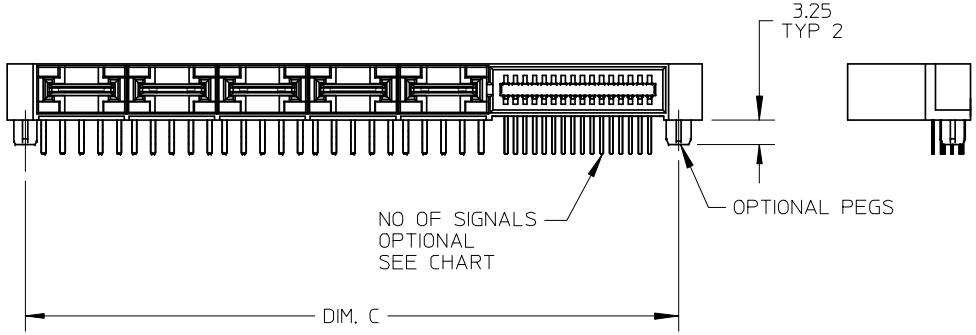
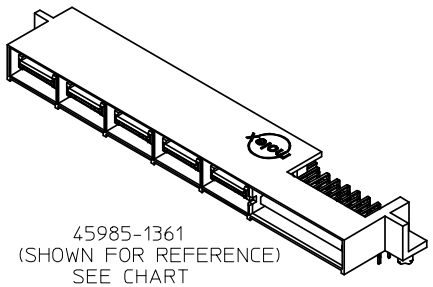




NO OF SIGNAL	MATERIAL NUMBER	DIM A REF	DIM C	DIM P	PCB THK
12	45985-1311	79.66	73.98	4.50	3.18
16	45985-1321	82.20	76.52		
20	45985-1331	84.74	79.06		
24	45985-1341	87.28	81.60		
28	45985-1351	89.82	84.14		
32	45985-1361	92.36	86.68		
36	45985-1371	94.90	89.22		
40	45985-1381	97.44	91.76		
12	45985-1312	79.66	73.98	3.90	2.36
16	45985-1322	82.20	76.52		
20	45985-1332	84.74	79.06		
24	45985-1342	87.28	81.60		
28	45985-1352	89.82	84.14		
32	45985-1362	92.36	86.68		
36	45985-1372	94.90	89.22		
40	45985-1382	97.44	91.76		
12	45985-1313	79.66	73.98	2.90	1.57
16	45985-1323	82.20	76.52		
20	45985-1333	84.74	79.06		
24	45985-1343	87.28	81.60		
28	45985-1353	89.82	84.14		
32	45985-1363	92.36	86.68		
36	45985-1373	94.90	89.22		
40	45985-1383	97.44	91.76		

MOUNTING PEG OPTIONS

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



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

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

		DATE
DRAWN BY	SCHAFER	2005/06/20
CHECKED BY	SAMIEC	2005/06/21
APPROVED BY	MARGULIS	2005/06/22

TITLE: LPH PLUG ASSEMBLY RT ANGLE 10 CIRCUIT POWER CONNECTOR

MOLEX INCORPORATED

MATERIAL NO.: SEE CHART
DOCUMENT NO.: SD-45985-100
SHEET NO.: 3 OF 5

SIZE: A

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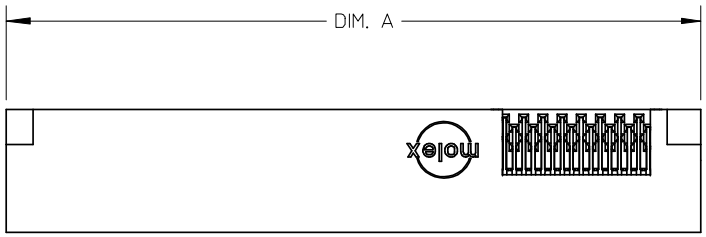
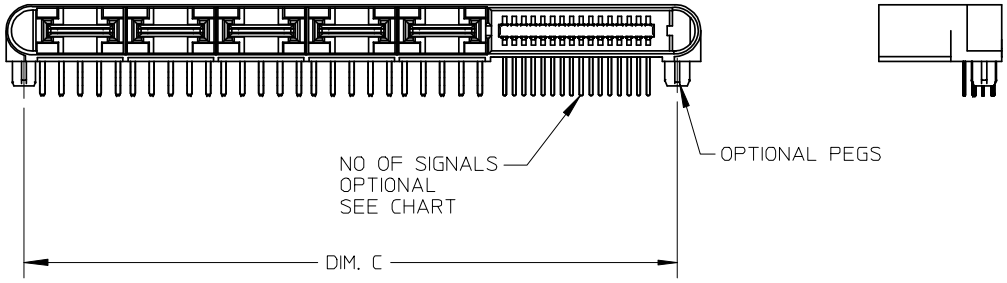
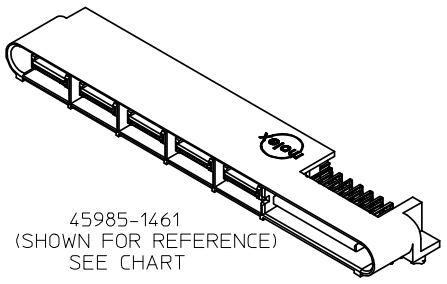




NO OF SIGNAL	MATERIAL NUMBER	DIM A REF	DIM C	DIM P	PCB THK
12	45985-1411	79.66	73.98	4.50	3.18
16	45985-1421	82.20	76.52		
20	45985-1431	84.74	79.06		
24	45985-1441	87.28	81.60		
28	45985-1451	89.82	84.14		
32	45985-1461	92.36	86.68		
36	45985-1471	94.90	89.22		
40	45985-1481	97.44	91.76		
12	45985-1412	79.66	73.98	3.90	2.36
16	45985-1422	82.20	76.52		
20	45985-1432	84.74	79.06		
24	45985-1442	87.28	81.60		
28	45985-1452	89.82	84.14		
32	45985-1462	92.36	86.68		
36	45985-1472	94.90	89.22		
40	45985-1482	97.44	91.76		
12	45985-1413	79.66	73.98	2.90	1.57
16	45985-1423	82.20	76.52		
20	45985-1433	84.74	79.06		
24	45985-1443	87.28	81.60		
28	45985-1453	89.82	84.14		
32	45985-1463	92.36	86.68		
36	45985-1473	94.90	89.22		
40	45985-1483	97.44	91.76		

GUIDE & MOUNTING PEG OPTIONS

NOTE:
1. SEE SHEET 1 FOR ALL OTHER DIMENSIONS.



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

REV: 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: 2005/06/20	TITLE: LPH PLUG ASSEMBLY RT ANGLE 10 CIRCUIT POWER CONNECTOR	
CHECKED BY: SAMIEC	DATE: 2005/06/21		
APPROVED BY: MARGULIS	DATE: 2005/06/22	MOLEX INCORPORATED	
MATERIAL NO.: SEE CHART		DOCUMENT NO.: SD-45985-100	SHEET NO.: 4 OF 5

SIZE: A

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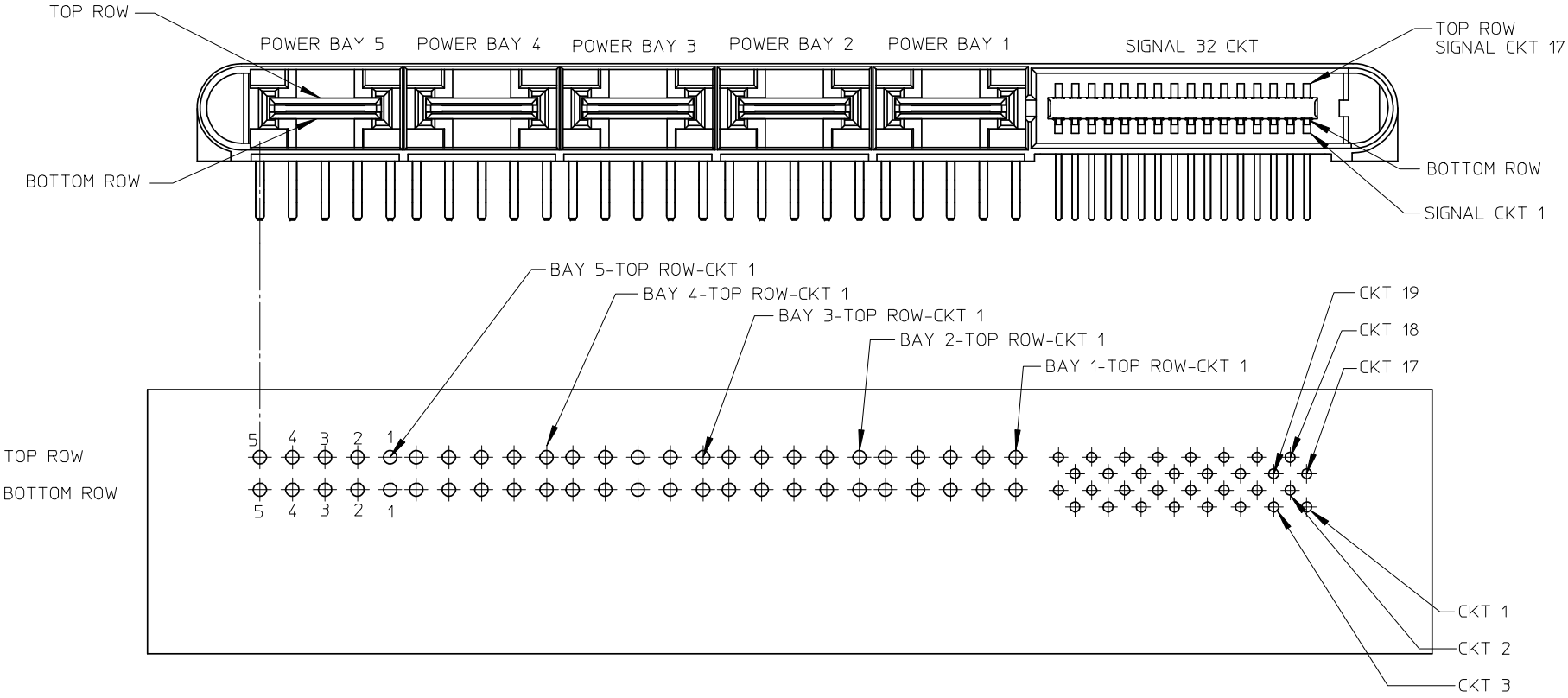

PCB LAYOUT: COMPONENT SIDE

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: 2005/06/20	TITLE: LPH PLUG ASSEMBLY RT ANGLE 10 CIRCUIT POWER CONNECTOR			
CHECKED BY: SAMIEC	DATE: 2005/06/21				
APPROVED BY: MARGULIS	DATE: 2005/06/22	molex MOLEX INCORPORATED			
MATERIAL NO.: SEE CHART		DOCUMENT NO.: SD-45985-100		SHEET NO.: 5 OF 5	

SIZE A

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