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Part Number: [0459840382](#)
Status: **Active**
Overview: [extreme_lphpower](#)
Description: 1.27mm (.050") Pitch, EXTreme LPHPower™ Receptacle Header with Pegs, Right Angle, 40 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

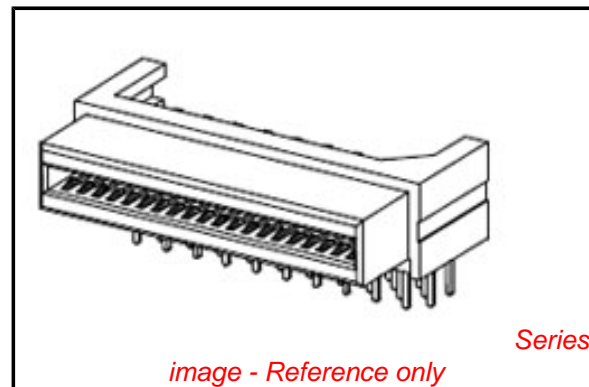
CSA LR19980
 UL E29179

General

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

Physical

Circuits (Loaded) 40
 Circuits (maximum) 40
 Circuits Detail 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 None
 Lock to Mating Part No
 Material - Metal Copper Alloy
 Material - Plating Mating Gold over Nickel
 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) 0.093 In
 PCB Thickness Recommended (mm) 2.36 mm
 Packaging Type Tray
 Pitch - Mating Interface (in) 0.050 In
 Pitch - Mating Interface (mm) 1.27 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
 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
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

[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 1A
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

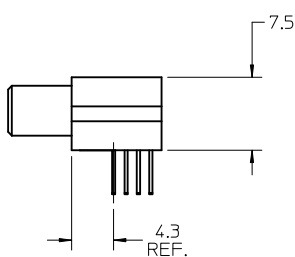
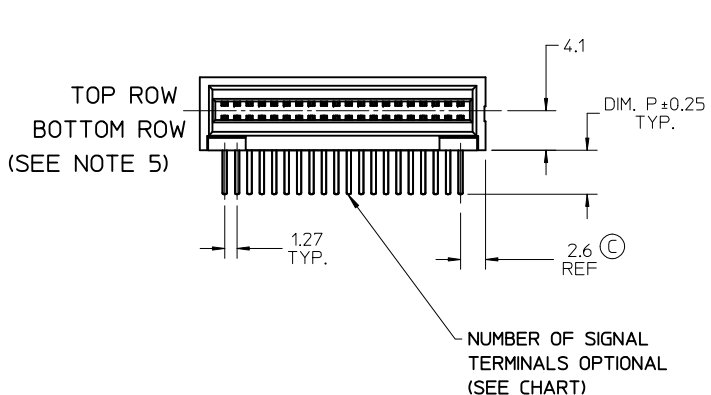
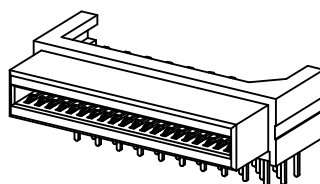
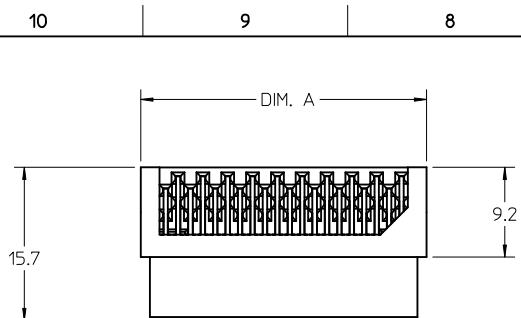
Material Info

Reference - Drawing Numbers

Packaging Specification PK-45984-001
Product Specification PS-45984-001
Sales Drawing SD-45984-483

This document was generated on 06/07/2010

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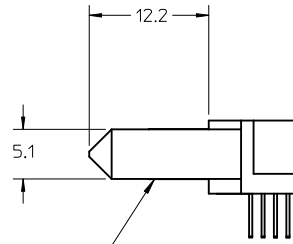
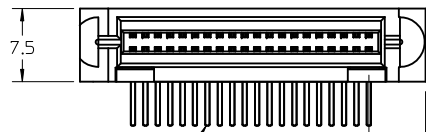
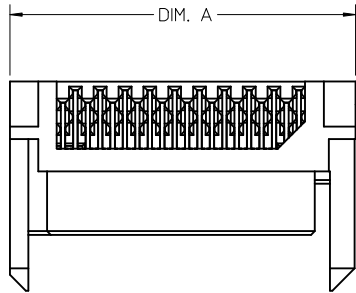
NO OF SIGNAL	MATERIAL NUMBER	DIM A	DIM P	PCB THK
12	45984-0111	11.5	4.50	3.18
16	45984-0121	14.0		
20	45984-0131	16.5		
24	45984-0141	19.1		
28	45984-0151	21.6		
32	45984-0161	24.2	3.60	2.36
36	45984-0171	26.7		
40	45984-0181	29.2		
12	45984-0112	11.5		
16	45984-0122	14.0		
20	45984-0132	16.5	2.90	1.57
24	45984-0142	19.1		
28	45984-0152	21.6		
32	45984-0162	24.2		
36	45984-0172	26.7		
40	45984-0182	29.2	2.90	1.57
12	45984-0113	11.5		
16	45984-0123	14.0		
20	45984-0133	16.5		
24	45984-0143	19.1	2.90	1.57
28	45984-0153	21.6		
32	45984-0163	24.2		
36	45984-0173	26.7		
40	45984-0183	29.2		

NOTES:

- MATERIAL: HOUSING - 30% GLASS FILLED LCP.
UL 94V-0, COLOR: BLACK
TERMINALS - COPPER ALLOY
- PLATING: 0.76 MICROMETER/(30 MI) MIN. SELECT GOLD
3.81 MICROMETER (150 MI) MIN. TIN, BOTH OVER
1.27 MICROMETER/(50 MI) MIN. NICKEL OVERALL.
- PRODUCT SPECIFICATION: PS-45984-001.
- PACKAGING SPECIFICATION: 45984-02** AND 45984-04** TRAY PACK PER PK-45984-001. 45984-01** AND 45984-03** TRAY PACK PER PK-45984-002.
- SEE SHEET 5 FOR CIRCUIT IDENTIFICATION
- MATES WITH 45985 SERIES PLUG ASSEMBLY OR 1.57/0.62 CARD EDGE.
- PARTS ARE RoHS COMPLIANT.

REVISED EC NO: UCP2010-1874 DRW:MBANDURA 2010/02/03 CHKD:MBANDURA 2010/03/10 APPR:APATEL 2010/03/10	DESCRIPTION QUALITY SYMBOLS ▽=0 ▽=0	GENERAL TOLERANCES (UNLESS SPECIFIED)		DIMENSION STYLE MM ONLY		SCALE 1:1	DESIGN UNITS METRIC	THIRD ANGLE PROJECTION		
			mm	INCH	DRAWN BY BANDURA	DATE 2006/04/24	TITLE LPH RECEPTACLE ASSEMBLY SIGNAL CONNECTOR			
		4 PLACES	±---	±---	CHECKED BY BANDURA	DATE 2006/04/24				
		3 PLACES	±---	±---	APPROVED BY PATEL	DATE 2006/04/28	MATERIAL NO. SD-45984-483 DOCUMENT NO. SD-45984-483 SHEET NO. 1 OF 5			
2 PLACES	±0.25	±---	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					
1 PLACE	±---	±---	ANGULAR ±1/2°							

10 9 8 7 6 5 4 3 2 1



NUMBER OF SIGNAL
TERMINALS OPTIONAL
(SEE CHART)

5.8
REF

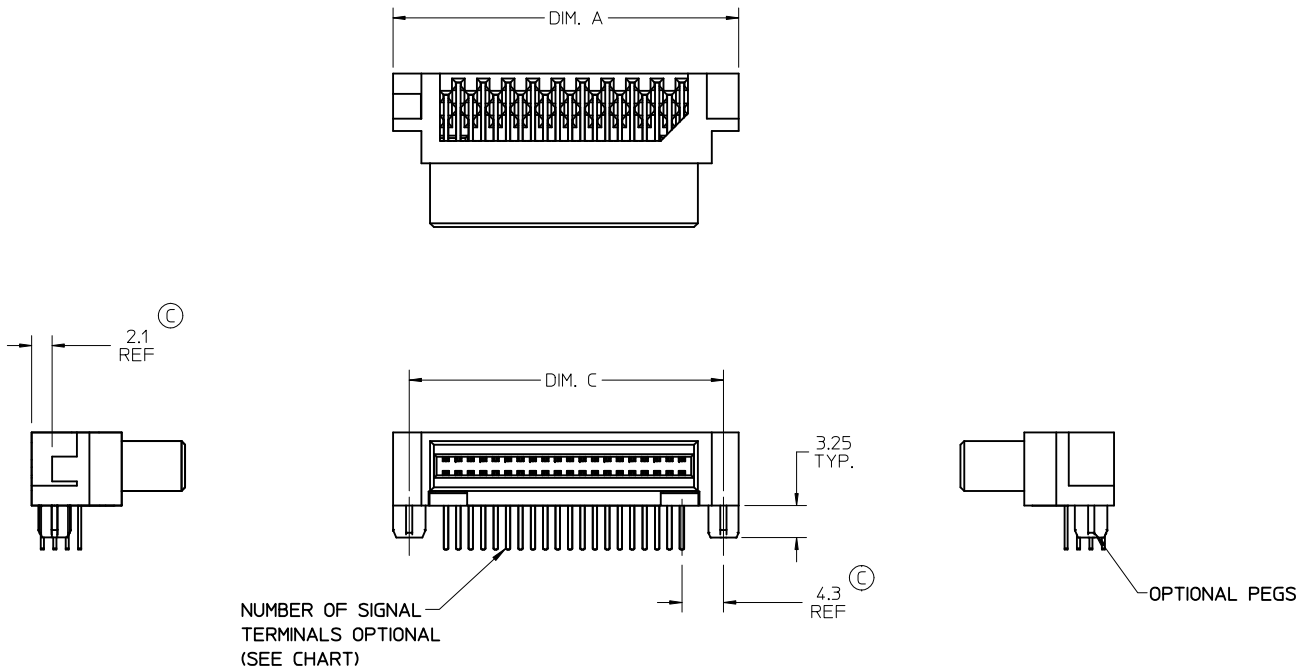
OPTIONAL GUIDES

NO OF SIGNAL	MATERIAL NUMBER	DIM A	DIM P	PCB THK
12	45984-0211	17.6	4.50	3.18
16	45984-0221	20.1		
20	45984-0231	22.6		
24	45984-0241	25.2		
28	45984-0251	27.7		
32	45984-0261	30.3		
36	45984-0271	32.8	3.60	2.36
40	45984-0281	35.4		
12	45984-0212	17.6		
16	45984-0222	20.1		
20	45984-0232	22.6		
24	45984-0242	25.2		
28	45984-0252	27.7	2.90	1.57
32	45984-0262	30.3		
36	45984-0272	32.8		
40	45984-0282	35.4		
12	45984-0213	17.6		
16	45984-0223	20.1		
20	45984-0233	22.6	2.90	1.57
24	45984-0243	25.2		
28	45984-0253	27.7		
32	45984-0263	30.3		
36	45984-0273	32.8	2.90	1.57
40	45984-0283	35.4		

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	▽=0	mm	INCH	DRAWN BY	DATE	TITLE LPH RECEPTACLE ASSEMBLY SIGNAL CONNECTOR			
	▽=0	4 PLACES ±---	±---	BANDURA	2006/04/24				
		3 PLACES ±---	±---	CHECKED BY	DATE	MOLEX INCORPORATED			
		2 PLACES ±0.25	±---	BANDURA	2006/04/24				
	1 PLACE ±---	±---	APPROVED BY	DATE	DOCUMENT NO. SD-45984-483		SHEET NO. 2 OF 5		
		ANGULAR ±1/2°		MATERIAL NO. SEE CHART		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							

9 8 7 6 5 4 3 2 1

10 9 8 7 6 5 4 3 2 1

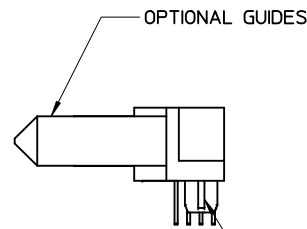
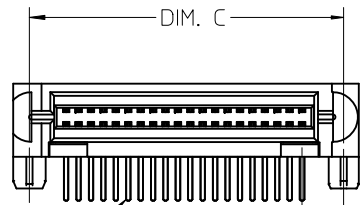
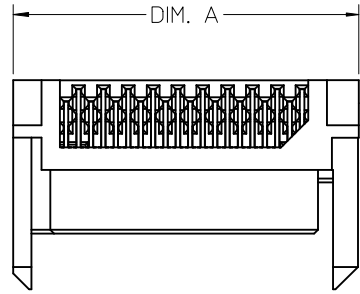


NO OF SIGNAL	MATERIAL NUMBER	DIM A	DIM C	DIM P	PCB THK
12	45984-0311	17.6	14.37	4.50	3.18
16	45984-0321	20.1	16.91		
20	45984-0331	22.6	19.45		
24	45984-0341	25.2	21.99		
28	45984-0351	27.7	24.53		
32	45984-0361	30.3	27.07	3.60	2.36
36	45984-0371	32.8	29.61		
40	45984-0381	35.4	32.15		
12	45984-0312	17.6	14.37		
16	45984-0322	20.1	16.91		
20	45984-0332	22.6	19.45	2.90	1.57
24	45984-0342	25.2	21.99		
28	45984-0352	27.7	24.53		
32	45984-0362	30.3	27.07		
36	45984-0372	32.8	29.61		
40	45984-0382	35.4	32.15	2.90	1.57
12	45984-0313	17.6	14.37		
16	45984-0323	20.1	16.91		
20	45984-0333	22.6	19.45		
24	45984-0343	25.2	21.99		
28	45984-0353	27.7	24.53		
32	45984-0363	30.3	27.07		
36	45984-0373	32.8	29.61		
40	45984-0383	35.4	32.15		

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	▼=0 ▽=0	mm INCH 4 PLACES ± --- ± --- 3 PLACES ± --- ± --- 2 PLACES ± 0.25 ± --- 1 PLACE ± --- ± --- ANGULAR ± 1/2°	MM ONLY	2:1	METRIC	
	DESCRIPTION	DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS	DRAWN BY	DATE	TITLE	
	REV		BANDURA	2006/04/24	LPH RECEPTACLE ASSEMBLY SIGNAL CONNECTOR	
			CHECKED BY	DATE	MATERIAL NO.	
		BANDURA	2006/04/24	SD-45984-483		
		APPROVED BY	DATE	DOCUMENT NO.		
		PATEL	2006/04/28	SD-45984-483		
				SHEET NO.		
				3 OF 5		

9 8 7 6 5 4 3 2 1

10 9 8 7 6 5 4 3 2 1



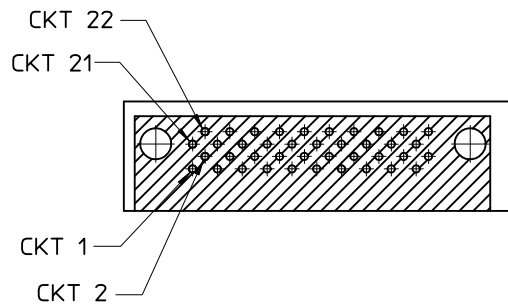
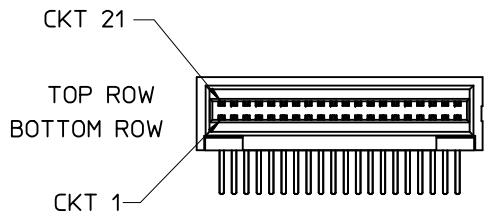
NUMBER OF SIGNAL
TERMINALS OPTIONAL
(SEE CHART)

4.3
REF

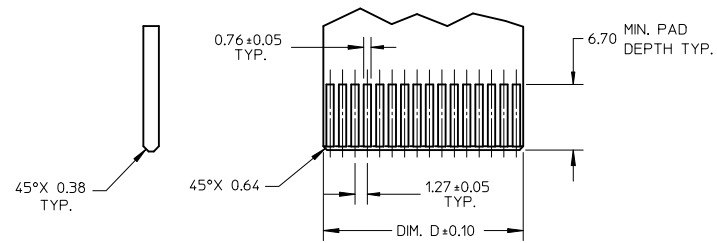
NO OF SIGNAL	MATERIAL NUMBER	DIM A	DIM C	DIM P	PCB THK
12	45984-0411	17.6	14.37	4.50	3.18
16	45984-0421	20.1	16.91		
20	45984-0431	22.6	19.45		
24	45984-0441	25.2	21.99		
28	45984-0451	27.7	24.53		
32	45984-0461	30.3	27.07		
36	45984-0471	32.8	29.61	3.60	2.36
40	45984-0481	35.4	32.15		
12	45984-0412	17.6	14.37		
16	45984-0422	20.1	16.91		
20	45984-0432	22.6	19.45		
24	45984-0442	25.2	21.99		
28	45984-0452	27.7	24.53	2.90	1.57
32	45984-0462	30.3	27.07		
36	45984-0472	32.8	29.61		
40	45984-0482	35.4	32.15		
12	45984-0413	17.6	14.37		
16	45984-0423	20.1	16.91		
20	45984-0433	22.6	19.45		
24	45984-0443	25.2	21.99		
28	45984-0453	27.7	24.53		
32	45984-0463	30.3	27.07		
36	45984-0473	32.8	29.61		
40	45984-0483	35.4	32.15		

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		▼=0 ∇=0	mm INCH 4 PLACES ± --- ± --- 3 PLACES ± --- ± --- 2 PLACES ± 0.25 ± --- 1 PLACE ± --- ± --- ANGULAR ±1/2°	MM ONLY	1:1	METRIC	DRAWN BY DATE BANDURA 2006/04/24 CHECKED BY DATE BANDURA 2006/04/24 APPROVED BY DATE PATEL 2006/04/28	TITLE LPH RECEPTACLE ASSEMBLY SIGNAL CONNECTOR
		DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS		MATERIAL NO.	DOCUMENT NO.	SHEET NO.		
		SEE CHART		SD-45984-483	4 OF 5			
		THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION						

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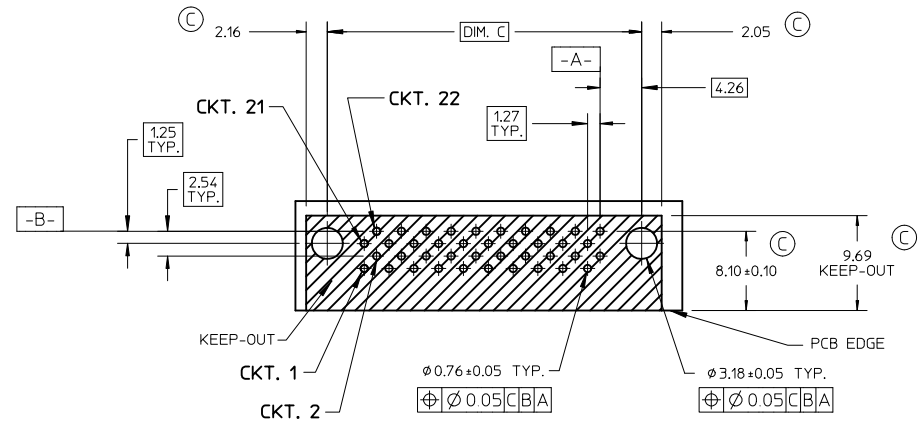


CIRCUIT IDENTIFICATION
(40 CIRCUIT SHOWN)



RECOMMENDED CARD EDGE LAYOUT
CARD EDGE THICKNESS: 1.57 ± 0.15

NO. OF SIGNAL	DIM. C	DIM. D
12	14.37	8.00
16	16.91	10.44
20	19.45	13.08
24	21.99	15.62
28	24.53	18.16
32	27.07	20.70
36	29.61	23.24
40	32.15	25.78



RECOMMENDED PCB LAYOUT
SHOWN FROM COMPONENT SIDE

REVISED EC NO: UCP2010-1874 DRWN:MBANDURA 2010/02/03 CHKD:MBANDURA 2010/03/10 APPR:APATEL 2010/03/10	DESCRIPTION REV	QUALITY SYMBOLS	GENERAL TOLERANCES (UNLESS SPECIFIED)	DIMENSION STYLE	SCALE	DESIGN UNITS	THIRD ANGLE PROJECTION															
		$\nabla=0$ $\nabla=0$	<table border="1"> <thead> <tr> <th></th> <th>mm</th> <th>INCH</th> </tr> </thead> <tbody> <tr> <td>4 PLACES</td> <td>± ---</td> <td>± ---</td> </tr> <tr> <td>3 PLACES</td> <td>± ---</td> <td>± ---</td> </tr> <tr> <td>2 PLACES</td> <td>± 0.25</td> <td>± ---</td> </tr> <tr> <td>1 PLACE</td> <td>± ---</td> <td>± ---</td> </tr> </tbody> </table>		mm	INCH	4 PLACES	± ---	± ---	3 PLACES	± ---	± ---	2 PLACES	± 0.25	± ---	1 PLACE	± ---	± ---	MM ONLY	1:1	METRIC	
			mm	INCH																		
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3 PLACES	± ---	± ---																				
2 PLACES	± 0.25	± ---																				
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	CHECKED BY BANDURA	DATE 2006/04/24																				
		APPROVED BY PATEL	DATE 2006/04/28	MOLEX INCORPORATED																		
		MATERIAL NO.		DOCUMENT NO. SD-45984-483	SHEET NO. 5 OF 5																	
				THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION																		