

**NOTES:**

1. THIS LIGHT PIPE ASSEMBLY TO BE USED WITH THE FOLLOWING 1X4 SFP CAGE ASSEMBLIES:

747280411 - 1X4 SFP CAGE ASSEMBLY W/ PRESS FIT PINS, W/ 0.090 GASKET, F/ LIGHT PIPES (REFER TO DOCUMENT SD-74728-411)

747280412 - 1X4 SFP CAGE ASSEMBLY W/ SOLDER POSTS, W/ 0.103 GASKET, F/ LIGHT PIPES (REFER TO DOCUMENT SD-74728-412)

747280415 - 1X4 SFP CAGE ASSEMBLY W/ PRESS FIT PINS, W/ 0.0103 GASKET, F/ LIGHT PIPES (REFER TO DOCUMENT SD-74728-415)

2. IT IS RECOMMENDED THAT THE CAGE ASSEMBLY BE PRESSED INTO OR SOLDERED TO THE PCB PRIOR TO ASSEMBLING THE LIGHT PIPE ASSEMBLY.

3. LED'S TO HAVE A MAXIMUM HEIGHT OF 1.4mm AND A MINIMUM HEIGHT OF 0.7mm

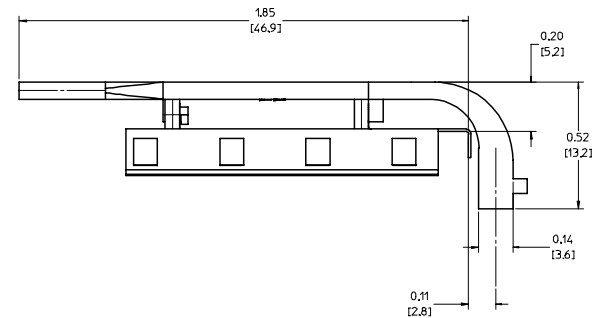
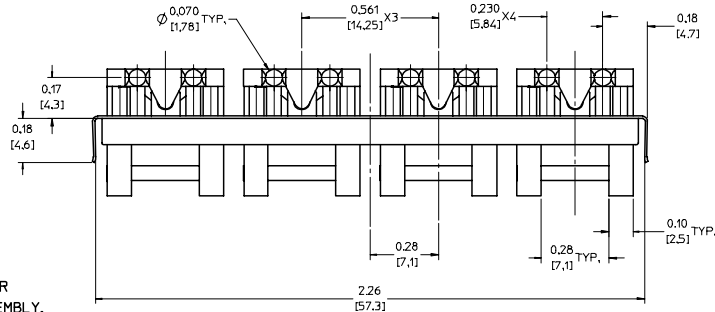
4. RECOMMENDED LED'S INCLUDE THE FOLLOWING MANUFACTURES:

DIALIGHT: 597-77x1-5xx SERIES

CHICAGO MINIATURE: 7016 SERIES

KINGBRIGHT: APBL3025 SERIES (BICOLOR)  
APL3015 SERIES (SINGLE COLOR)

5. THIS PART MEETS THE RESTRICTION OF HAZARDOUS SUBSTANCES IN ELECTRICAL AND ELECTRONIC EQUIPMENT (ROHS) DIRECTIVE (2002/95/EC).



<b>ENTER DESCRIPTION</b> EC NO: UST2006-0008 DRAWN BY: DRWNKSI MONSON 2005/07/15 CHECKED BY: CHKCBRUSSELL 2005/07/15 APPR: BRUSSELL 2005/07/25 DESCRIPTION	QUALITY SYMBOLS	GENERAL TOLERANCES (UNLESS SPECIFIED)	DIMENSION STYLE	SCALE	DESIGN UNITS	THIRD ANGLE PROJECTION																		
	$\nabla=0$ $\nabla=0$	<table border="1"> <tr> <th></th> <th>mm</th> <th>INCH</th> </tr> <tr> <td>4 PLACES</td> <td>± .005</td> <td>± .0005</td> </tr> <tr> <td>3 PLACES</td> <td>± .01</td> <td>± .001</td> </tr> <tr> <td>2 PLACES</td> <td>± 0.13</td> <td>± .01</td> </tr> <tr> <td>1 PLACE</td> <td>± 0.25</td> <td>± .01</td> </tr> <tr> <td colspan="3">ANGULAR ± 1 °</td> </tr> </table>		mm	INCH	4 PLACES	± .005	± .0005	3 PLACES	± .01	± .001	2 PLACES	± 0.13	± .01	1 PLACE	± 0.25	± .01	ANGULAR ± 1 °			IN/MM DRAWN BY: KS IMONSO CHECKED BY: BRUSSELL APPROVED BY: BRUSSELL DATE: 2004/07/08 DATE: 2004/07/08 DATE: 2004/07/08	4:1	METRIC	
		mm	INCH																					
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1 PLACE	± 0.25	± .01																						
ANGULAR ± 1 °																								
DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS		MATERIAL NO: 747280001	TITLE: 1X4 SFP LIGHT PIPE ASSEMBLY, BACK-TOP		MOLEX INCORPORATED																			
		SIZE: D	DOCUMENT NO: SD-74728-001		SHEET NO: 1 OF 5																			

# PCB LAYOUT FOR BELLY TO BELLY MOUNTING

## HOST CONNECTOR DETAIL

CROSS-HATCHED AREA DENOTES COMPONENT AND TRACE KEEP-OUT (EXCEPT CHASSIS GROUND)

SEE NOTE 3

SEE NOTE 3

SEE NOTE 3

TOP LEFT HOLE OF ADJACENT CAGE

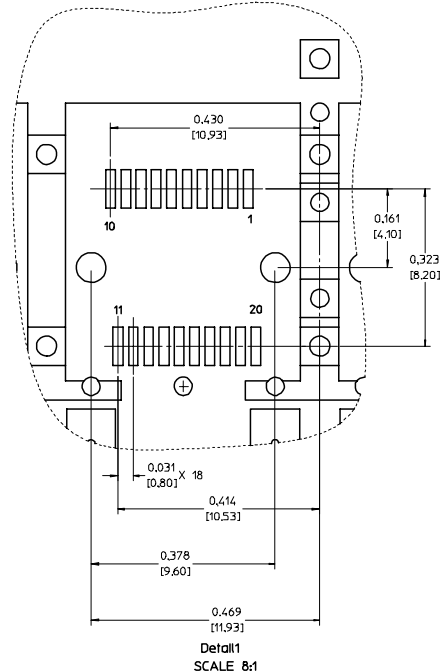
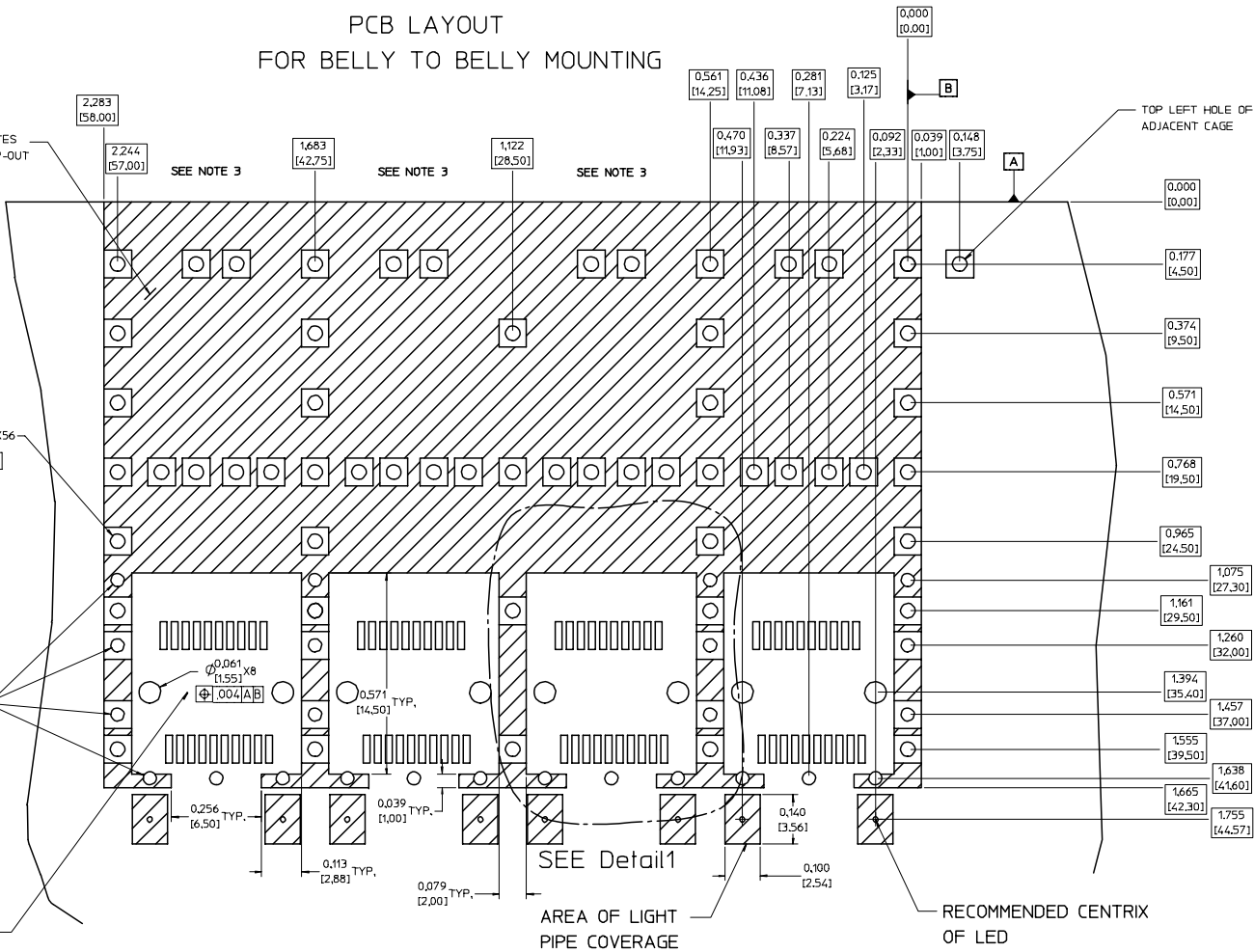
$\phi 0.041 \pm 0.002$   
[1.05 ± 0.05]  
[0.04] [A] [B]

$\phi 0.037 \pm 0.002$   
 $\phi 0.95 \pm 0.03$   
[0.04] [A] [B]  
SMALLER HOLE ON THESE FOUR ROWS ONLY

THIS AREA DENOTES COMPONENT KEEP-OUT (TRACES ALLOWED)

**NOTES:**

1. PADS AND VIAS GO TO CHASSIS GROUND. (64 PLACES), RECOMMENDED PADS TO BE 2mm SQUARE.
2. PLATING OPTIONAL FOR THROUGH HOLES. (16 PLACES).
3. RECOMMENDED PLATING INCLUDES HASL, IMMERSION (GOLD OR SILVER), AND OSP.
4. HOLE PATTERN REPEATS FOR EACH PORT. SPACING BETWEEN PORTS IS 5.61 [14.25].



SEE Detail 1  
AREA OF LIGHT PIPE COVERAGE

RECOMMENDED CENTRIX OF LED

Detail 1  
SCALE 8:1

<b>ENTER DESCRIPTION</b> EC NO: UST2006-0008 DRINKS/MONSON 2005/07/15 CHIKO/RUSSELL 2005/07/15 APPR:BRUSSELL 2005/07/25	QUALITY SYMBOLS ▽=0 ▽=0	GENERAL TOLERANCES (UNLESS SPECIFIED) mm ± --- ± --- INCH ± --- ± --- 4 PLACES ± --- ± --- 3 PLACES ± --- ± .005 2 PLACES ± 0.13 ± .01 1 PLACE ± 0.25 ± --- ANGULAR ± 1 °	DIMENSION STYLE IN/MM	SCALE 6:1	DESIGN UNITS METRIC	THIRD ANGLE PROJECTION	
	DRAWN BY KS IMONSO	DATE 2004/07/08	CHECKED BY BRUSSELL	DATE 2004/07/08	APPROVED BY BRUSSELL	DATE 2004/07/08	TITLE 1X4 SFP LIGHT PIPE ASSEMBLY, BACK-TOP
	MATERIAL NO. 747280001	DOCUMENT NO. SD-74728-001	MOLEX INCORPORATED				
	DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS	SIZE D	THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION				

SHEET NO.  
2 OF 5

# PCB LAYOUT FOR SINGLE SIDE MOUNTING

CROSS-HATCHED AREA DENOTES  
COMPONENT AND TRACE KEEP-OUT  
(EXCEPT CHASSIS GROUND)

$\varnothing 0.037 \pm 0.002$   
 $10.95 \pm 0.03$   
 $\Phi 0.004 [A/B]$   
SMALLER HOLE ON  
THESE FOUR ROWS ONLY

THIS AREA DENOTES  
COMPONENT KEEP-OUT  
(TRACES ALLOWED)

$\varnothing 0.041 \pm 0.002$   
 $11.05 \pm 0.03$   
 $\Phi 0.004 [A/B]$   
X30

SEE NOTE 3

SEE NOTE 3

SEE NOTE 3

RECOMMENDED CENTRIX  
OF LED

AREA OF LIGHT  
PIPE COVERAGE

## NOTES:

1. PADS AND VIAS GO TO CHASSIS GROUND. (34 PLACES). RECOMMENDED PADS TO BE 2mm SQUARE.
2. PLATING OPTIONAL FOR THROUGH HOLES. (12 PLACES).
3. RECOMMENDED PLATING INCLUDES HASL, IMMERSION (GOLD OR SILVER), AND OSP.
4. HOLE PATTERN REPEATS FOR EACH PORT. SPACING BETWEEN PORTS IS 5.61 [14.25].

<b>ENTER DESCRIPTION</b> EC NO: UST2006-0008 DRINKS:IMONSON 2005/07/15 CHK:BRUSSELL 2005/07/15 APPR:BRUSSELL 2005/07/25	QUALITY SYMBOLS	GENERAL TOLERANCES (UNLESS SPECIFIED)	DIMENSION STYLE	SCALE	DESIGN UNITS	THIRD ANGLE PROJECTION
	$\nabla=0$ $\nabla=0$	mm INCH 4 PLACES ± --- ± --- 3 PLACES ± --- ± .005 2 PLACES ± 0.13 ± .01 1 PLACE ± 0.25 ± --- ANGULAR ± 1 °	IN/MM	6:1	METRIC	
			DRAWN BY DATE			TITLE
			CHECKED BY DATE			
		APPROVED BY DATE				
			MATERIAL NO:		DOCUMENT NO.	SHEET NO.
		DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS	747280001		SD-74728-001	3 OF 5
			THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION			

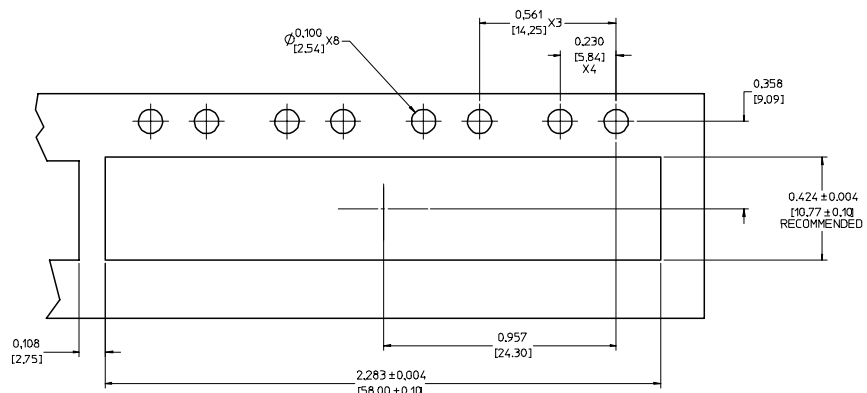
1X4 SFP LIGHT PIPE  
ASSEMBLY, BACK-TOP

MOLEX INCORPORATED

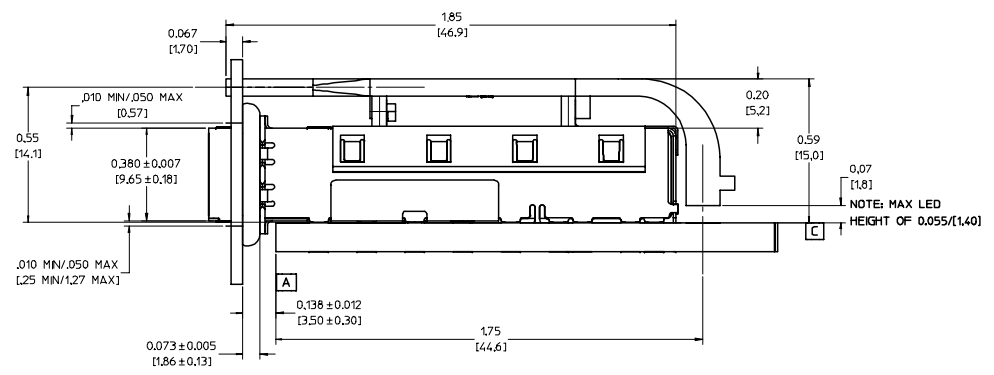
20 19 18 17 16 15 14 13 12 11 10 9 8 7 6 5 4 3 2 1

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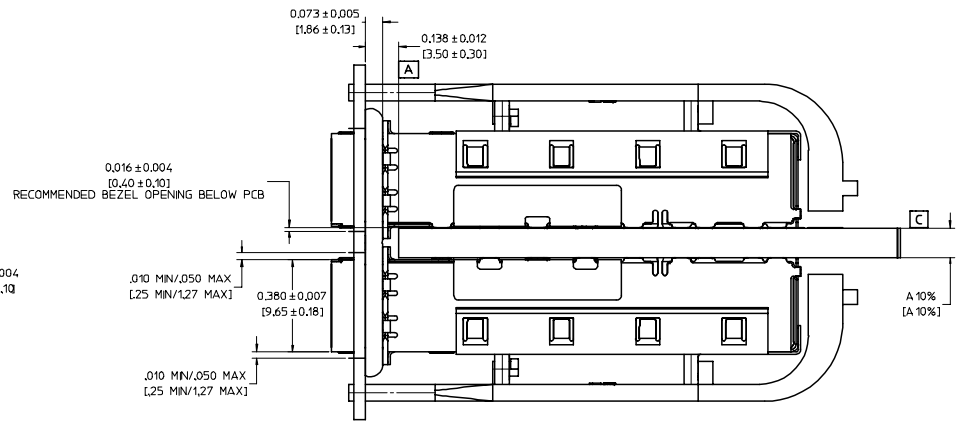
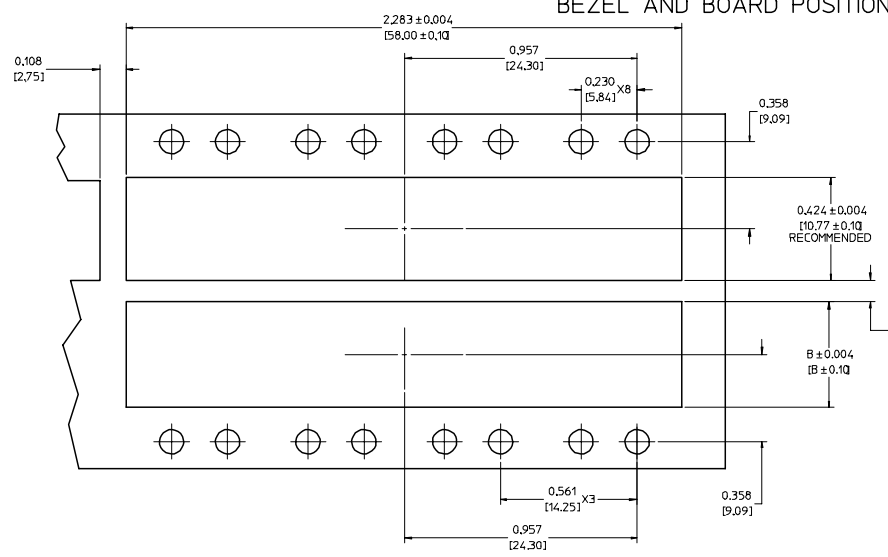
M  
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BEZEL AND BOARD POSITION DIMENSIONS FOR SINGLE SIDE MOUNTING



BEZEL AND BOARD POSITION DIMENSIONS FOR BELLY TO BELLY MOUNTING



NOTE: FOR A GIVEN BOARD THICKNESS (A), DIMENSIONS (B) AND (C) ARE DIRECTLY AFFECTED.

USE RECOMMENDED DIMENSIONS AND TOLERANCES TO AID IN DEVELOPING BEZEL OPENING.

FOR EXAMPLE USING A BOARD THICKNESS OF .125" THE RECOMMENDED VALUES WOULD BE:

- A = .125/3.18 ± 10%
- B = .434/11.03 ± .004
- C = .088/2.23 ± .004

<b>ENTER DESCRIPTION</b> EC NO: UST2006-0008 DR: WINKS MONSON 2005/07/15 CHKD: BRUSSELL 2005/07/15 APPR: BRUSSELL 2005/07/25	QUALITY SYMBOLS ▽=0 ▽=0	GENERAL TOLERANCES (UNLESS SPECIFIED) mm INCH 4 PLACES ± --- ± --- 3 PLACES ± --- ± .005 2 PLACES ± 0.13 ± .01 1 PLACE ± 0.25 ± --- ANGULAR ± 1°	DIMENSION STYLE IN/MM	SCALE 4:1	DESIGN UNITS METRIC	THIRD ANGLE PROJECTION	
	DRAWN BY KS IMONSO	DATE 2004/07/08	CHECKED BY BRUSSELL	DATE 2004/07/08	TITLE 1X4 SFP LIGHT PIPE ASSEMBLY, BACK-TOP		
	APPROVED BY BRUSSELL	DATE 2004/07/08	MATERIAL NO. 747280001			DOCUMENT NO. SD-74728-001	SHEET NO. 4 OF 5
	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			

19 18 17 16 15 14 13 12 11 10 9 8 7 6 5 4 3 2 1

20 19 18 17 16 15 14 13 12 11 10 9 8 7 6 5 4 3 2 1

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DATE	REV	CHANGES	COMMENTS
2004/01/15	1	PRELIMINARY DOCUMENT	N/A
2004/07/08	A	INITIAL RELEASE	N/A
2004/12/02	B	UPDATED VIEWS	DOCUMENT CHANGE ONLY
2005/06/03	C	CORRECTED P/N FOR DIALIGHT LED	DOCUMENT CHANGE ONLY
2005/06/10	D	UPDATED VIEWS TO SHOW CLEARANCE HOLES ADDED TO THE COVER.	N/A

<b>ENTER DESCRIPTION</b> EC NO: UST2006-0008 D DRWNSKIMONSON 2005/07/15 CHK:CBRUSSELL 2005/07/15 APPR:BRUSSELL 2005/07/25 REV DESCRIPTION	QUALITY SYMBOLS ▽=0 ▽=0	GENERAL TOLERANCES (UNLESS SPECIFIED) <table border="1"> <tr> <th></th> <th>mm</th> <th>INCH</th> </tr> <tr> <td>4 PLACES ±</td> <td>---</td> <td>---</td> </tr> <tr> <td>3 PLACES ±</td> <td>---</td> <td>±.005</td> </tr> <tr> <td>2 PLACES ±</td> <td>0.13</td> <td>±.01</td> </tr> <tr> <td>1 PLACE ±</td> <td>0.25</td> <td>---</td> </tr> <tr> <td>ANGULAR ±</td> <td colspan="2">1°</td> </tr> </table>		mm	INCH	4 PLACES ±	---	---	3 PLACES ±	---	±.005	2 PLACES ±	0.13	±.01	1 PLACE ±	0.25	---	ANGULAR ±	1°		DIMENSION STYLE IN/MM	SCALE 1:1	DESIGN UNITS METRIC	THIRD ANGLE PROJECTION
		mm	INCH																					
	4 PLACES ±	---	---																					
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		DRAWN BY KSIMONSO	DATE 2004/07/08	TITLE 1X4 SFP LIGHT PIPE ASSEMBLY, BACK-TOP																				
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		APPROVED BY BRUSSELL	DATE 2004/07/08	MATERIAL NO. 747280001	DOCUMENT NO. SD-74728-001	SHEET NO. 5 OF 5																		

DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS

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

19 18 17 16 15 14 13 12 11 10 9 8 7 6 5 4 3 2 1