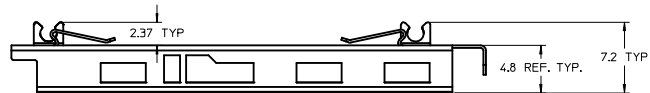
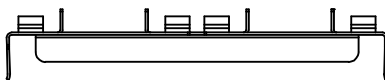
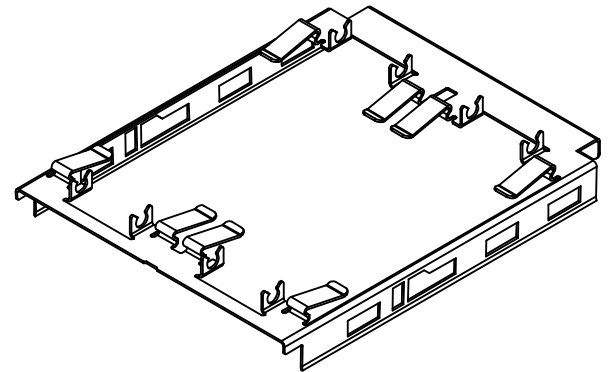
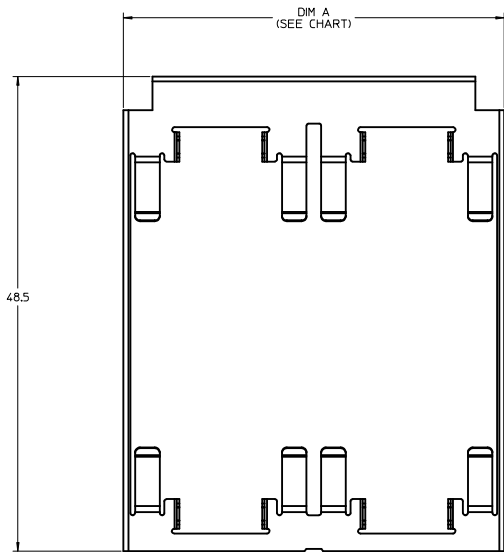


HEAT SINK CLIP W/OUT LIGHT PIPE(1X2 SHOWN)



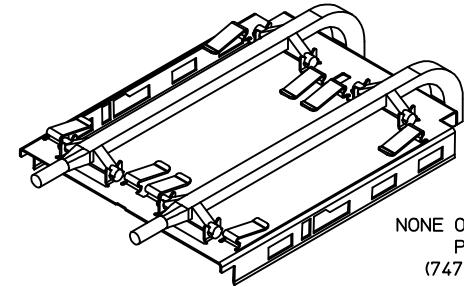
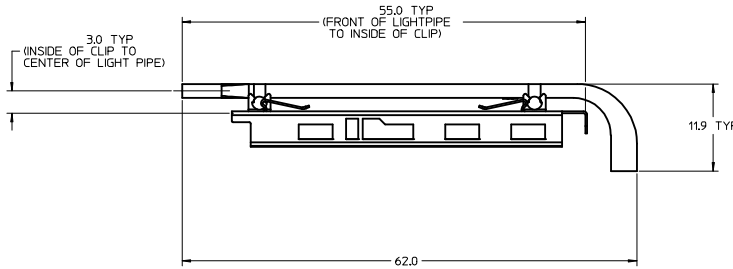
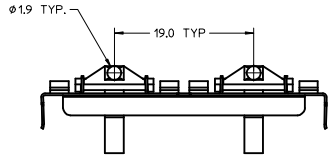
MOLEX P/N	PORT SIZE	DIM A
747830262	1x2	38.9
747830363	1x3	57.9
747830462	1x4	76.9
747830562	1x5	95.9
747830662	1x6	114.9

NOTES:

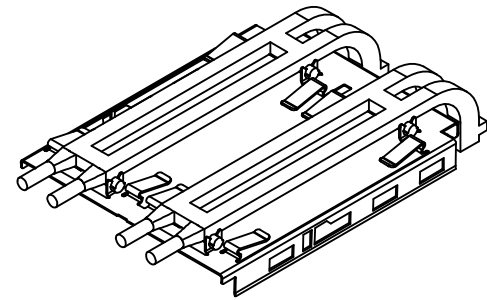
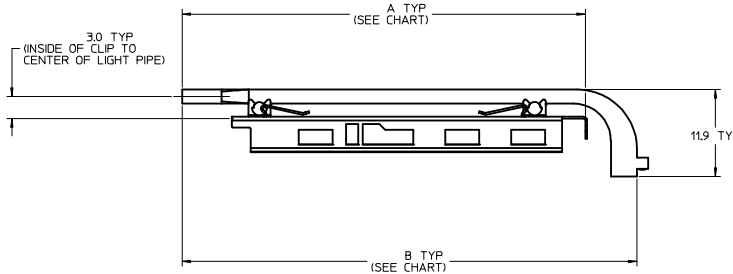
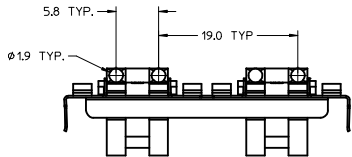
1. MATERIAL: STAINLESS STEEL
2. PACKAGING: TRAY
3. LEAD FREE, NO RoHS EXEMPTIONS.

ADDED 1X5 ASSY IEC NO: CPG2013-0096 D DRAWN/LSKANNER 2012/07/11 CHK/DAR/INKE 2012/07/11 APPR:KLLOYD 2012/07/17 REV DESCRIPTION	QUALITY SYMBOLS	GENERAL TOLERANCES (UNLESS SPECIFIED)	DIMENSION STYLE	SCALE	DESIGN UNITS	THIRD ANGLE PROJECTION	
	▽=0	mm INCH	MM ONLY	4:1	METRIC	☉	
	▽=0	4 PLACES ± --- ± ---	DRAWN BY DATE	BSWA JA 2012/02/09	TITLE	1X2, 1X3, 1X4, 1X5, 1X6 QSFP+ HEAT SINKS AND CLIP ASSEMBLIES	
	▽=0	3 PLACES ± --- ± ---	CHECKED BY DATE	KLLOYD 2012/07/11	APPROVED BY DATE	KLLOYD 2012/02/16	MOLEX INCORPORATED
	2 PLACES ± 0.15 ± ---	1 PLACE ± 0.25 ± ---	ANGULAR ±1/2°	DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS	MATERIAL NO.	DOCUMENT NO.	SHEET NO.
				SEE TABLE	SD-74767-0400	1 OF 4	
				THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION			

# HEAT SINK CLIP W/ LIGHT PIPE (1X2 SHOWN)



NONE OR SINGLE LIGHT PIPE  
PER PORT  
(747670403 SHOWN)



DUAL LIGHT PIPES  
PER PORT  
(747670404 SHOWN)

**NOTES:**

1. MATERIALS:  
LIGHT PIPE CLIP: STAINLESS STEEL  
LIGHT PIPE: POLYCARBONATE (94-V0 RATED)
2. PACKAGE: TRAY
3. RECOMMENDED LED'S INCLUDE THE FOLLOWING MANUFACTURES:  
DIALIGHT: 597-77X1-5XX SERIES  
CHICAGO MINIATURE: 7016 SERIES  
KINGBRIGHT: APBL3025 SERIES (BICOLOR)  
APL3015 SERIES (SINGLE COLOR)
4. LEAD FREE, NO RoHS EXEMPTIONS.

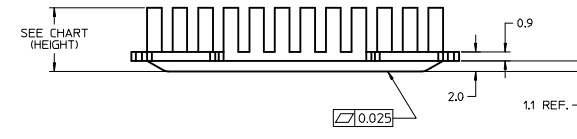
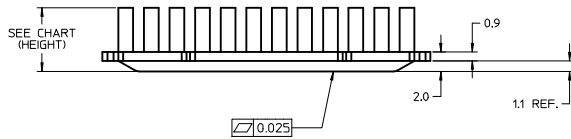
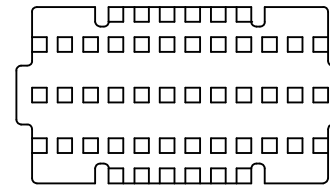
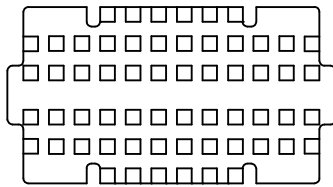
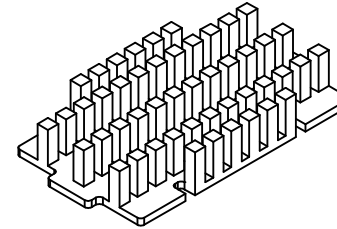
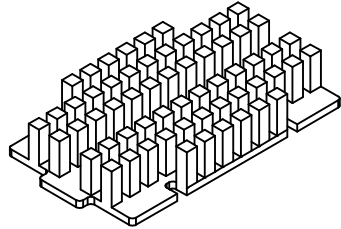
MOLEX PN (CLIP & LP ASSEMBLY)					DIM A	DIM B	LIGHT PIPES PER PORT
1x2	1x3	1x4	1x5	1x6			
747670403	747680403	747690403	747700403	747710403	55.0	62.0	NONE OR SINGLE
747670404	747680404	747690404	747700404	747710404	55.0	62.0	DUAL
747670405	N/A	N/A	N/A	N/A	53.2	63.0	

ADDED 1X5 ASSY EEC NO: CPG2013-0096 DRAWN BY: BSWA CHECKED BY: KLOYD APPROVED BY: KLOYD	DESCRIPTION 2012/07/11 2012/07/11 2012/07/17	QUALITY SYMBOLS ∇=0 ∇=0 ∇=0	GENERAL TOLERANCES (UNLESS SPECIFIED)		DIMENSION STYLE <b>MM ONLY</b>	SCALE <b>3:1</b>	DESIGN UNITS <b>METRIC</b>	THIRD ANGLE PROJECTION		
			mm	INCH	DRAWN BY BSWA JA	DATE 2012/02/09	TITLE <b>1X2, 1X3, 1X4, 1X5, 1X6 QSPF+ HEAT SINKS AND CLIP ASSEMBLIES</b>			
			DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS		CHECKED BY KLOYD	DATE 2012/07/11				
			SEE TABLE		APPROVED BY KLOYD	DATE 2012/02/16	MATERIAL NO. <b>SD-74767-0400</b>		DOCUMENT NO. <b>MOLEX INCORPORATED</b>	

NONE OR SINGLE LIGHT PIPE  
PER PORT  
(SAN HEIGHT - 747500307 SHOWN)

**HEAT SINK**

DUAL LIGHT PIPES  
PER PORT  
(SAN HEIGHT - 747500308 SHOWN)



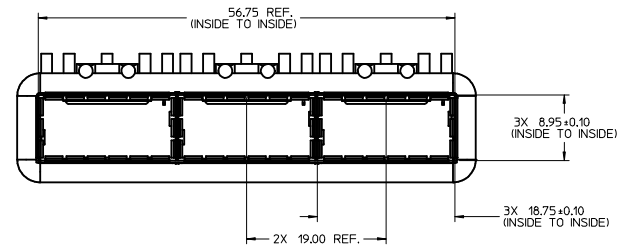
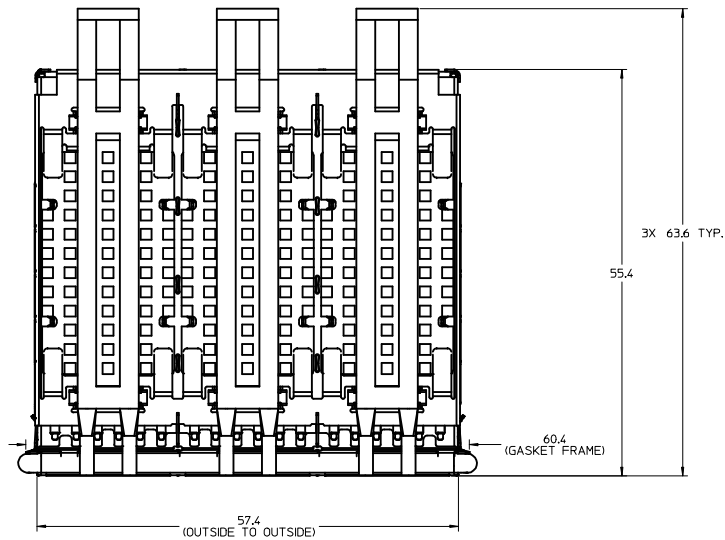
MOLEX P/N			
NONE OR SINGLE LIGHT PIPE PER PORT	DUAL LIGHT PIPES PER PORT	SYSTEM TYPE	HEIGHT (mm)
747500314	747500315	PCI	4.2
747500307	747500308	SAN	6.5
747500317	747500318	NET	13.5

NOTES:

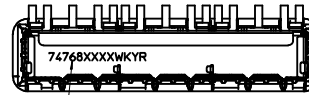
- MATERIAL:  
HEAT SINKS: BLACK ANNOXIDIZED ALUMINUM
- PACKAGE: TRAY
- CUSTOM HEATSINKS AVAILABLE UPON REQUEST.
- LEAD FREE, NO RoHS EXEMPTIONS.

ADDED 1X5 ASSY EC NO: CPG2013-0096 DRAWN BY SKINNER 2012/07/11 CHECKED BY CHYKORAIKE 2012/07/11 APPR: KLOYD 2012/07/17	QUALITY SYMBOLS ∇=0 ∇=0 ∇=0	GENERAL TOLERANCES (UNLESS SPECIFIED)		DIMENSION STYLE <b>MM ONLY</b>	SCALE <b>4:1</b>	DESIGN UNITS <b>METRIC</b>	THIRD ANGLE PROJECTION
		mm      INCH	DRAWN BY BSWA JA	DATE 2012/02/09	TITLE <b>1X2, 1X3, 1X4, 1X5, 1X6          QSFP+ HEAT SINKS          AND CLIP ASSEMBLIES</b>		
		4 PLACES ± --- ± --- 3 PLACES ± --- ± --- 2 PLACES ± 0.15 ± --- 1 PLACE ± 0.25 ± ---	CHECKED BY KLOYD	DATE 2012/07/11	MOLEX INCORPORATED		
		ANGULAR ±1/2°	APPROVED BY KLOYD	DATE 2012/02/16	MATERIAL NO. <b>SEE TABLE</b>	DOCUMENT NO. <b>SD-74767-0400</b>	
DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS		SIZE <b>D</b>		THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION			



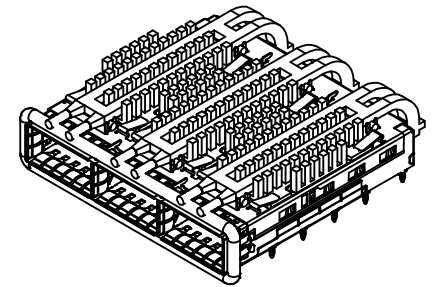


LIGHT PIPE IS REMOVED FOR CLARITY

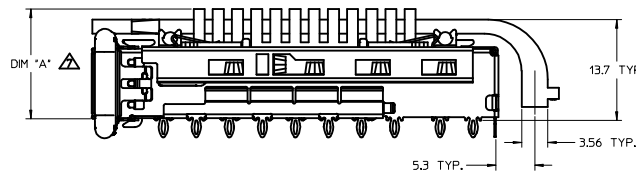


PART NO. AND WEEK/YEAR DATE CODE TO BE PRINTED ON BACK OF COMPLETED CAGE ASSEMBLY APPROXIMATELY AS SHOWN. SEE TABLE BELOW FOR DATE CODE INFORMATION.

WEEK/YEAR DATE CODE TABLE	
WEEK	01 THRU 52 EXAPLES: 01 = FIRST WEEK OF YEAR 52 = LAST WEEK OF YEAR
YEAR	10, 11, 12 ETC. EXAMPLE: YEAR 2010 = 10



CAGE ASSEMBLY WITH SAN HEATSINK AND DUAL LIGHT PIPE



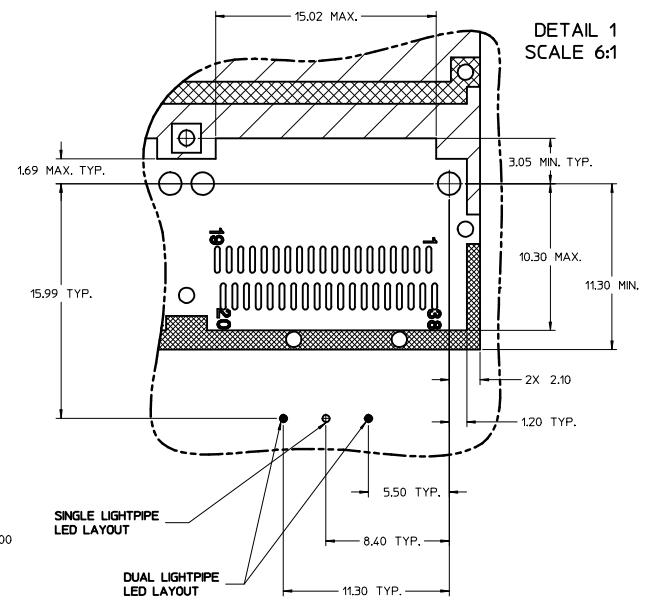
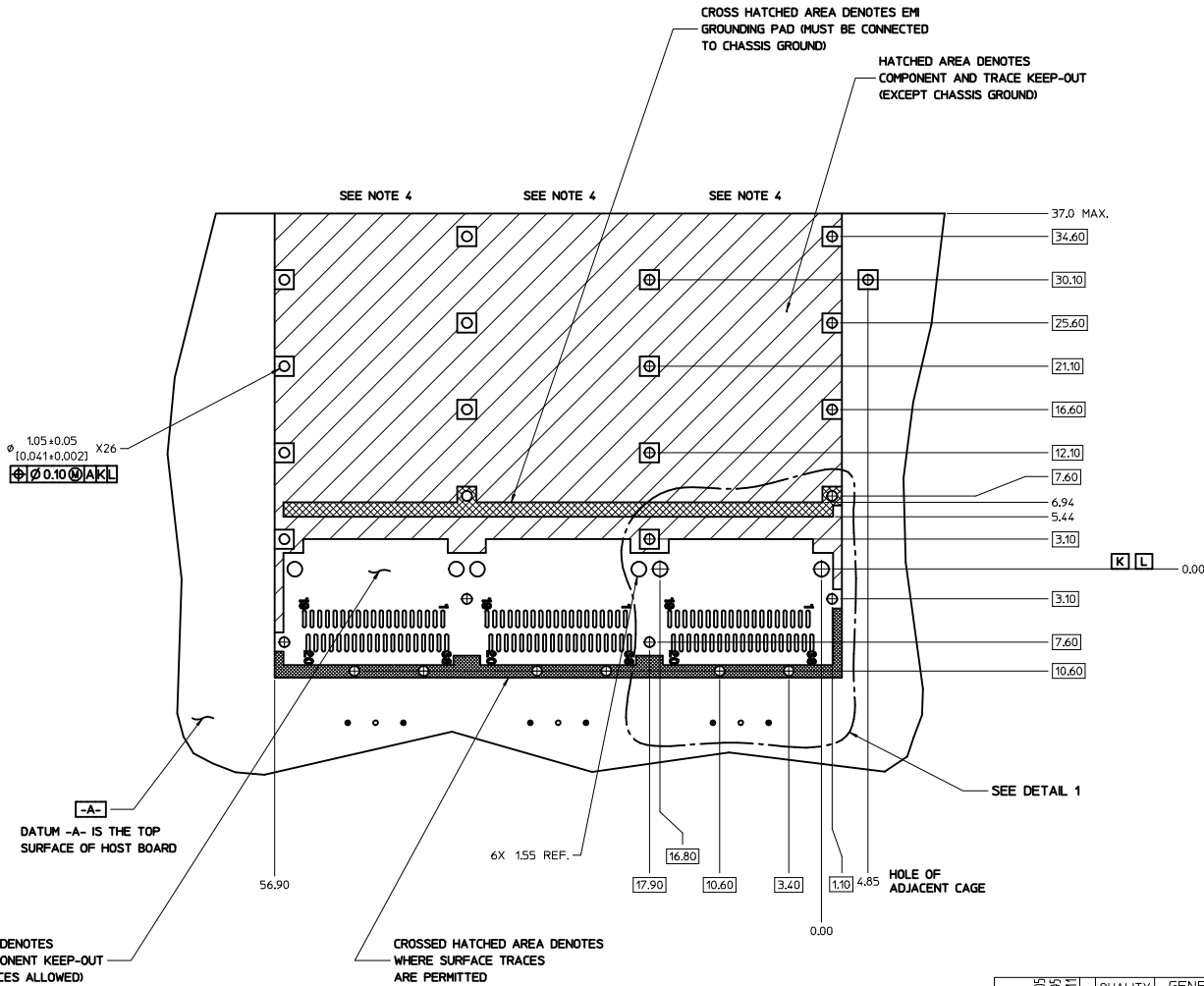
OVERALL HEATSINK HEIGHT	DIM 'A'
PCI	13.7
SAN	16.0
NET	23.0

MOLEX P/N	DESCRIPTION	LP	HS	#OF REAR LEGS PER PORT
747680501	1X3 QSFP+ CAGE W/ HEATSINK & LIGHTPIPE ASSEMBLY	SINGLE	SAN	2
747680502	1X3 QSFP+ CAGE W/ HEATSINK & LIGHTPIPE ASSEMBLY	SINGLE	NET	2
747680503	1X3 QSFP+ CAGE W/ HEATSINK & LIGHTPIPE ASSEMBLY	DUAL	SAN	2
747680504	1X3 QSFP+ CAGE W/ HEATSINK & LIGHTPIPE ASSEMBLY	DUAL	NET	2
747680505	1X3 QSFP+ CAGE W/ HEATSINK ASSEMBLY	N/A	PCI	2
747680506	1X3 QSFP+ CAGE W/ HEATSINK ASSEMBLY	N/A	SAN	2
747680507	1X3 QSFP+ CAGE W/ HEATSINK ASSEMBLY	N/A	NET	2
747680508	1X3 QSFP+ CAGE W/ HEATSINK, LIGHTPIPE & GASKET	QUAD	CUSTOM	2
747680511	1X3 QSFP+ CAGE W/ HEATSINK & LIGHTPIPE ASSEMBLY	DUAL	PCI	2
747680512	1X3 QSFP+ CAGE W/ HEATSINK & LIGHTPIPE ASSEMBLY	SINGLE	PCI	2
747680601	1X3 QSFP+ CAGE W/ HEATSINK & LIGHTPIPE ASSEMBLY	SINGLE	SAN	0
747680602	1X3 QSFP+ CAGE W/ HEATSINK & LIGHTPIPE ASSEMBLY	SINGLE	NET	0
747680603	1X3 QSFP+ CAGE W/ HEATSINK & LIGHTPIPE ASSEMBLY	DUAL	SAN	0
747680604	1X3 QSFP+ CAGE W/ HEATSINK & LIGHTPIPE ASSEMBLY	DUAL	NET	0
747680605	1X3 QSFP+ CAGE W/ HEATSINK ASSEMBLY	N/A	PCI	0
747680606	1X3 QSFP+ CAGE W/ HEATSINK ASSEMBLY	N/A	SAN	0
747680607	1X3 QSFP+ CAGE W/ HEATSINK ASSEMBLY	N/A	NET	0

- NOTES:
- QSFP+ ASSEMBLES ALSO AVAILABLE AND 1X2 (74767 SERIES) AND 1X4 (74769 SERIES) CONFIGURATIONS.
  - MATERIAL:
    - COVER/CLIP: STAINLESS STEEL
    - LIGHT PIPES: POLYCARBONATE (94-V0 RATED)
    - HEAT SINKS: ALUMINUM
    - CAGE: COPPER ALLOY
  - FOR CAGE DETAIL, SEE MOLEX DRAWINGS SD-74768-0212
  - PCI OPTION - NOT AVAILABLE WITH LIGHTPIPES AND HEATSINKS INSTALLED. LIGHTPIPE CLIP AND HEATSINKS MUST BE INSTALLED AFTER CAGE INSTALLATION.
  - NO RoHS EXEMPTIONS
  - CUSTOM HEATSINKS AVAILABLE UPON REQUEST
- ▲ HEIGHT OF HEATSINK WITH MODULE INSERTED. DIMENSION MAY BE LESS DUE TO MODULE AND HEATSINK VARIATIONS.

<b>SEE REV HISTORY</b> EC NO: CPG2014-1327 T: DRWNS: WALLACE01 2013/11/05 CHKD: JERWIN 2013/11/05 APPR: K LLOYD 2013/11/11	<b>QUALITY SYMBOLS</b> ∇=0 ∇=0 ∇=0	GENERAL TOLERANCES (UNLESS SPECIFIED) mm INCH		DIMENSION STYLE <b>MM ONLY</b>	SCALE <b>2:1</b>	DESIGN UNITS <b>METRIC</b>	THIRD ANGLE PROJECTION
		4 PLACES ± --- ± --- 3 PLACES ± --- ± --- 2 PLACES ± 0.15 ± --- 1 PLACE ± 0.25 ± --- 0 PLACE ± --- ± ---	DRAWN BY JERWIN	DATE 2011/05/11	TITLE <b>QSFP+ 1X3 GANGED CAGE FULLY ASSEMBLED</b>		
		ANGULAR ± 1 ° DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS	MATERIAL NO. <b>SEE CHART</b>	DATE 2011/05/11	APPROVED BY <b>molex</b>		
		SIZE D	DOCUMENT NO. <b>SD-74768-0501</b>	DATE	SHEET NO. <b>1 OF 5</b>	THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION	

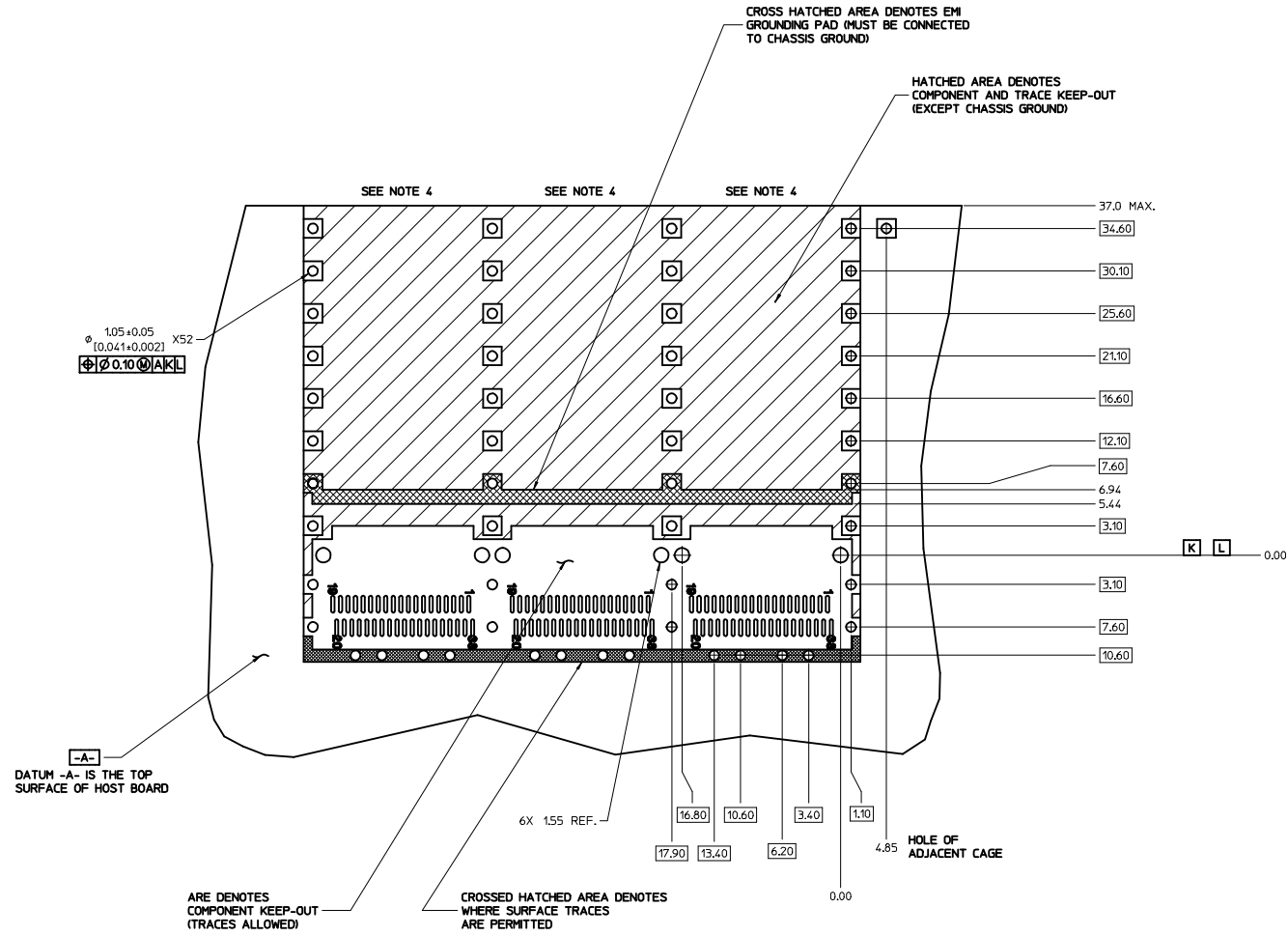
# PCB LAYOUT FOR SINGLE SIDED MOUNTING



- NOTES:**
1. PADS AND VIAS CONNECT TO CHASSIS GROUND (RECOMMEND PADS TO BE 2.00mm SQUARE)
  2. RECOMMENDED THRU HOLE PLATING INCLUDES HASL, OSP, OR IMMERSION (GOLD, SILVER, OR TIN).
  3. CONNECTOR PAD LAYOUT PER QSFP MSA WILL ACCOMODATE MOLEX CONNECTOR 75586-0010 OR 75586-0011.
  4. HOLE PATTERN REPEATS FOR EACH PORT. SPACING BETWEEN PORTS IS 19.00 [0.748].
  5. LED SHOULD BE PLACED RELATIVE TO THE QSFP CONNECTOR POST HOLES

<b>SEE REV HISTORY</b> IEC NO: CPG2014-1327 TDRWNS:WALLACE01 2013/11/05 CHYD:JERWIN 2013/11/05 APPR:KLLOYD 2013/11/11	QUALITY SYMBOLS	GENERAL TOLERANCES (UNLESS SPECIFIED)	DIMENSION STYLE	SCALE	DESIGN UNITS	THIRD ANGLE PROJECTION
	▽=0	mm INCH	MM ONLY	4:1	METRIC	☉
	▽=0	4 PLACES ± 0.15				
	▽=0	3 PLACES ± 0.25				
	ANGULAR ± 1°	DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS	MATERIAL NO.	DOCUMENT NO.	QSFP+ 1X3 GANGED CAGE FULLY ASSEMBLED <b>molex</b> SD-74768-0501	
			SEE CHART			SHEET NO. 2 OF 5

# PCB LAYOUT FOR BELLY TO BELLY MOUNTING

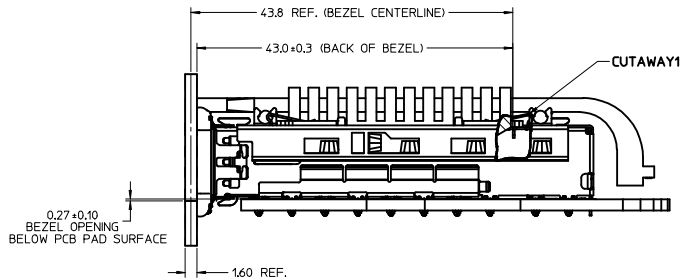


NOTE:  
SEE SHEET 2 FOR  
HOST CONNECTOR AND  
LED LOCATION DETAILS

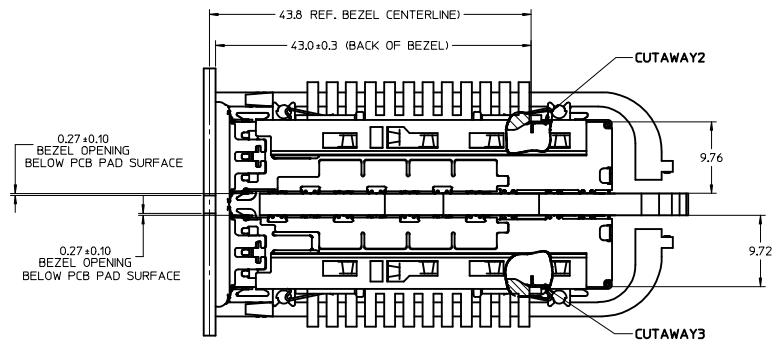
- NOTES:
1. PADS AND VIAS CONNECT TO CHASSIS GROUND (RECOMMEND PADS TO BE 2.00mm SQUARE)
  2. RECOMMENDED THRU HOLE PLATING INCLUDES HASL, OSP, OR IMMERSION (GOLD, SILVER, OR TIN).
  3. CONNECTOR PAD LAYOUT PER QSFP MSA WILL ACCOMMODATE MOLEX CONNECTOR 75586-0010 OR 75586-0011.
  4. HOLE PATTERN REPEATS FOR EACH PORT. SPACING BETWEEN PORTS IS 19.00 [0.748].

<b>SEE REV HISTORY</b> EEC NO: CPG2014-1327 TDRWNS:WALLACE01 2013/11/05 CHYD:JERWIN 2013/11/05 APPR:KLLOYD 2013/11/11	<b>QUALITY SYMBOLS</b> ∇=0 ∇=0 ∇=0	<b>GENERAL TOLERANCES (UNLESS SPECIFIED)</b>		DIMENSION STYLE <b>MM ONLY</b>	SCALE 4:1	DESIGN UNITS METRIC	THIRD ANGLE PROJECTION	
		4 PLACES ± mm INCH 3 PLACES ± --- ± --- 2 PLACES ± 0.15 ± --- 1 PLACE ± 0.25 ± --- 0 PLACE ± --- ± ---	DATE 2011/05/11		TITLE QSFP+ 1X3 GANGED CAGE FULLY ASSEMBLED			
		ANGULAR ± 1 ° DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS		MATERIAL NO. SEE CHART		DOCUMENT NO. SD-74768-0501		SHEET NO. 3 OF 5
		THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION						

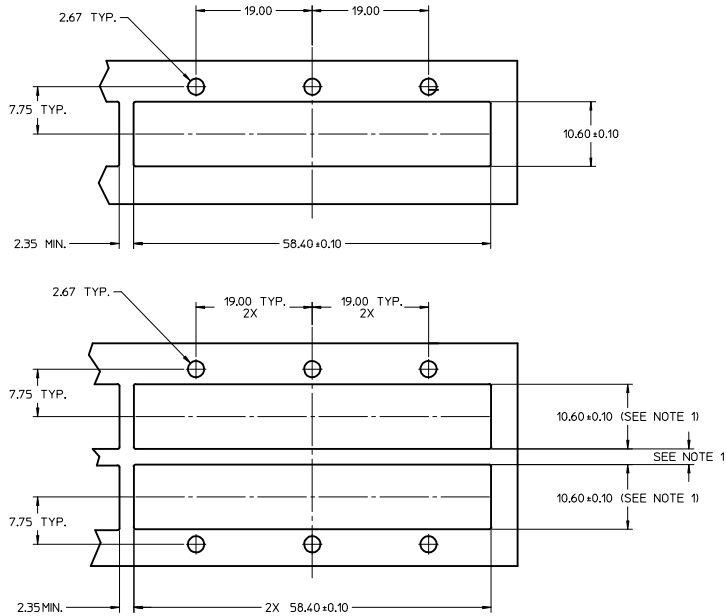
BEZEL AND BOARD POSITION DIMENSIONS FOR SINGLE SIDE MOUNTING



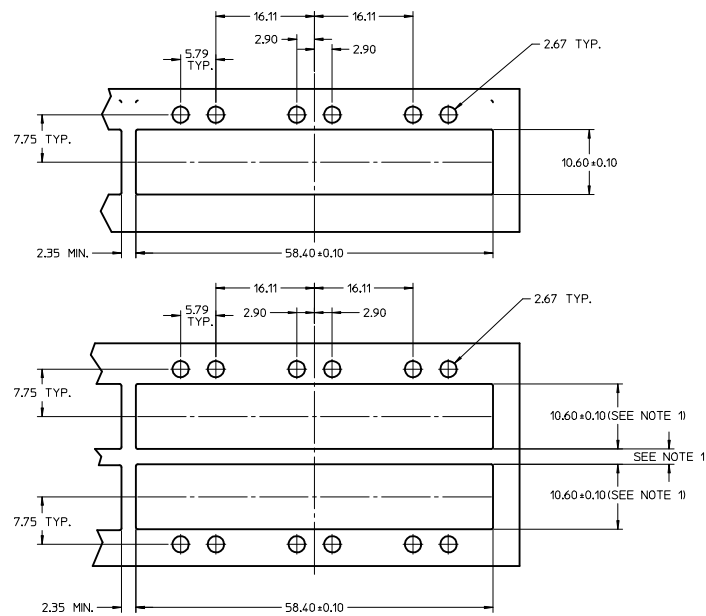
BEZEL AND BOARD POSITION DIMENSIONS FOR BELLY TO BELLY MOUNTING



SINGLE LIGHT PIPE



DUAL LIGHT PIPE



NOTES:  
1. PCB THICKNESS VARIATION MUST BE CONSIDERED WHEN DETERMINING BEZEL OPENING, SIZE, AND LOCATION

<b>SEE REV HISTORY</b> IEC NO: CPG2014-1327 DRAWN: WALLACE01 2013/11/05 CHKD: JERWIN 2013/11/05 APPR: K LLOYD 2013/11/11	QUALITY SYMBOLS ∇=0 ∇=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>± .15</td> <td>± .005</td> </tr> <tr> <td>3 PLACES</td> <td>± .25</td> <td>± .010</td> </tr> <tr> <td>2 PLACES</td> <td>± 0.15</td> <td>± .005</td> </tr> <tr> <td>1 PLACE</td> <td>± 0.25</td> <td>± .010</td> </tr> <tr> <td>0 PLACE</td> <td>± .15</td> <td>± .005</td> </tr> </table> ANGULAR ± 1 ° DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS		mm	INCH	4 PLACES	± .15	± .005	3 PLACES	± .25	± .010	2 PLACES	± 0.15	± .005	1 PLACE	± 0.25	± .010	0 PLACE	± .15	± .005	DIMENSION STYLE <b>MM ONLY</b>	SCALE <b>2.5:1</b>	DESIGN UNITS <b>METRIC</b>	THIRD ANGLE PROJECTION
		mm	INCH																					
	4 PLACES	± .15	± .005																					
	3 PLACES	± .25	± .010																					
2 PLACES	± 0.15	± .005																						
1 PLACE	± 0.25	± .010																						
0 PLACE	± .15	± .005																						
DRAWN BY JERWIN	DATE 2011/05/11	TITLE <b>QSFP+ 1X3 GANGED CAGE FULLY ASSEMBLED</b>	MATERIAL NO. <b>SEE CHART</b>	DOCUMENT NO. <b>SD-74768-0501</b>	SHEET NO. <b>4 OF 5</b>	THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION																		
CHECKED BY CHIRSCHY	DATE 2011/05/11	APPROVED BY DATE																						



