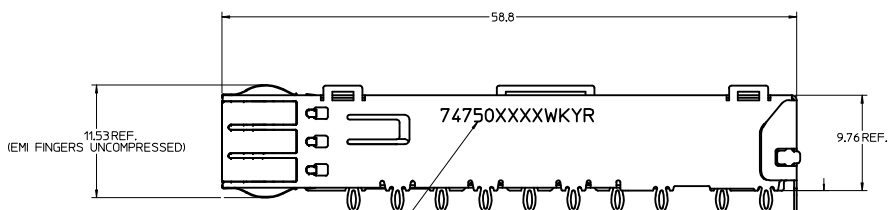
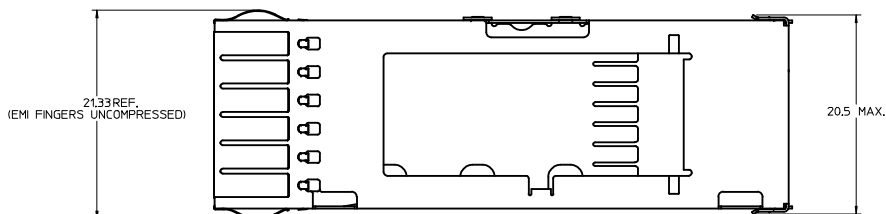


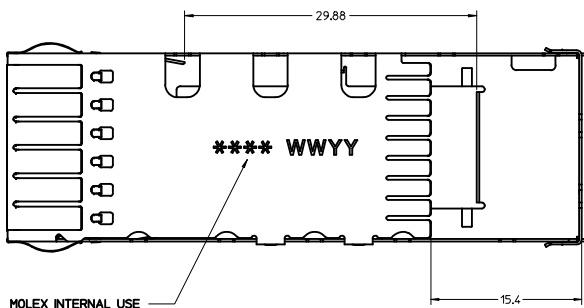
CAGE DETAILS



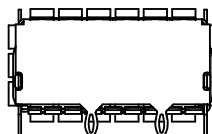
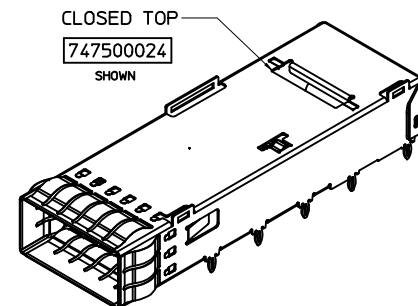
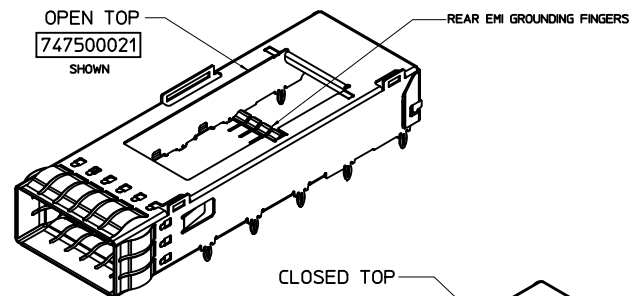
DIM A TYP.
(SEE SHEET 3)

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

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



MOLEX INTERNAL USE

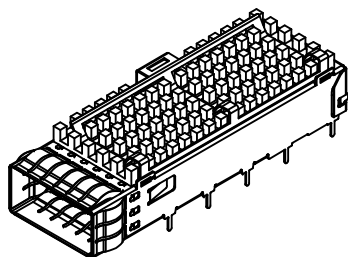
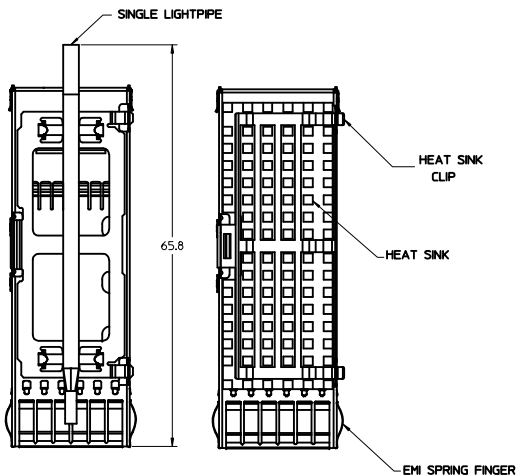


NOTES:

- PRESS FIT LEGS 2.28 / 3.05 mm LONG
- SOLDER POST LEGS 1.90 / 2.90 mm LONG
- SINGLE SIDED BOARD THICKNESS
NOMINAL: 1.60
MINIMUM: 1.44
BELLY TO BELLY BOARD THICKNESS
NOMINAL: 2.30
MINIMUM: 2.07
- MATERIAL: COPPER ALLOY (PLATED PRIOR TO CUTTING AND FORMING)
CAGE: 0.25 mm THICK COPPER ALLOY, NICKEL PLATED OR TIN
SPRING FINGER: 0.08 mm THICK COPPER ALLOY, NICKEL PLATED
HEAT SINK CLIP: STAINLESS STEEL
LIGHT PIPES: POLYCARBONATE (UL 94-V0 RATED)
HEATSINKS: ANNOXIDIZED ALUMINUM
- REFERENCE DOCUMENTS: PRODUCT SPECIFICATION: QSFP MSA
- CUSTOM HEATSINKS AVAILABLE UPON REQUEST
- QSFP+ ASSEMBLES ALSO AVAILABLE IN 1X2 (74767 SERIES),
1X3 (74768 SERIES), 1X4 (74769 SERIES) AND 1X6 (74771 SERIES).
- PACKAGED IN TRAY.
- NO RoHS EXEMPTIONS.

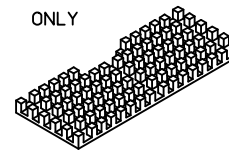
SEE REVISION TABLE EC NO: CPG2013-1899 DRAWN: CHEN08 CHKD: APPR: K LLOYD	QUALITY SYMBOLS	GENERAL TOLERANCES (UNLESS SPECIFIED)		DIMENSION STYLE		SCALE 4:1	DESIGN UNITS METRIC	THIRD ANGLE PROJECTION
		mm	INCH	MM ONLY	DATE			
▽=0	4 PLACES	±	---	---	---	---	---	QSFP+ CAGE ASSEMBLY WITH SPRING FINGERS molex MATERIAL NO. DOCUMENT NO. SD-74750-0021 SHEET NO. 1 OF 8
▽=0	3 PLACES	±	---	---	---	---		
▽=0	2 PLACES	±	0.13	---	---	---		
▽=0	1 PLACE	±	0.25	---	---	---		
▽=0	0 PLACE	±	---	---	---	---	---	
DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS		ANGULAR ± 1 °		SEE SHEET 3				

CAGE ASSEMBLY OPTIONS

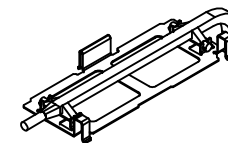


HEATSHINK AND LIGHT PIPE OPTIONS

HEAT SINK ONLY

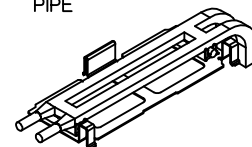


SINGLE LIGHT PIPE



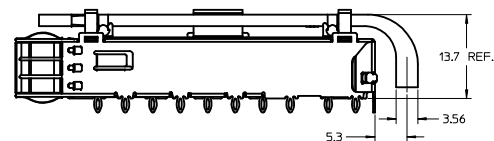
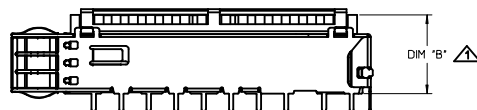
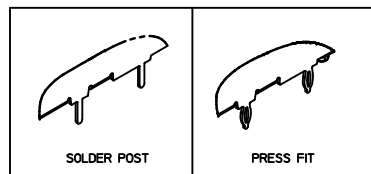
MOLEX P/N: 747500030

DUAL LIGHT PIPE

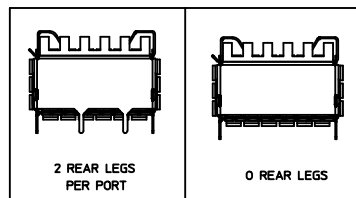


MOLEX P/N: 747500031

PIN TYPE OPTIONS



REAR LEG OPTIONS



HEATSINK HEIGHT OPTIONS

OVERALL HEATSINK HEIGHT	DIM B
PCI	13.7
SAN	16.0
NET	23.0

HEIGHT OF HEATSINK WITH MODULE INSERTED.
DIMENSION MAY BE LESS DUE TO MODULE AND HEATSINK VARIATIONS.

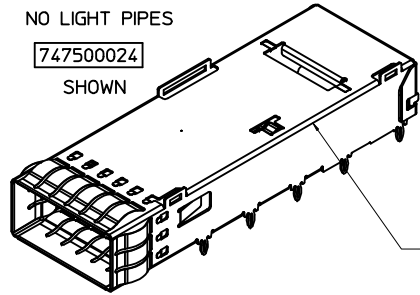
SEE REVISION TABLE EC NO: CPG2013-1899 DRAWN BY: DRWNRCHEN08 CHKD: J APPR: K LLOYD	DESCRIPTION 2013/01/11	QUALITY SYMBOLS ▽=0 ▽=0 ▽=0	GENERAL TOLERANCES (UNLESS SPECIFIED)		DIMENSION STYLE MM ONLY		SCALE 2.5:1	DESIGN UNITS METRIC	THIRD ANGLE PROJECTION
			mm	INCH	DRAWN BY	DATE			
			4 PLACES ± .005	± .005	CHIRSCHY	2007/07/23			QSFP+ CAGE ASSEMBLY WITH SPRING FINGERS molex MATERIAL NO. _____ DOCUMENT NO. SD-74750-0021 SHEET NO. 2 OF 8
			3 PLACES ± .005	± .005	CHECKED BY	DATE			
			2 PLACES ± 0.13	± .005	BRUSSELL	2007/07/23			
			1 PLACE ± 0.25	± .005	APPROVED BY	DATE			
			0 PLACE ± .005	± .005	RAHMOOD	2010/11/01			
DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS			ANGULAR ± 1°		SEE SHEET 3				

PART NUMBER SELECTION

NO HEATSINKS
NO LIGHT PIPES

747500024

SHOWN

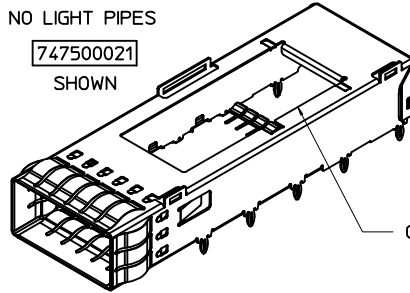


CLOSED TOP

NO HEATSINKS
NO LIGHT PIPES

747500021

SHOWN

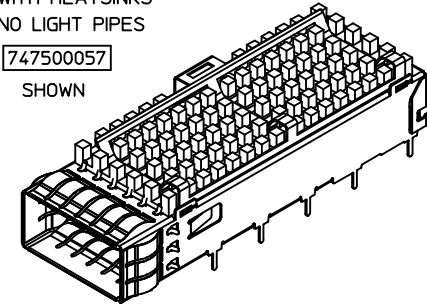


OPEN TOP

WITH HEATSINKS
NO LIGHT PIPES

747500057

SHOWN



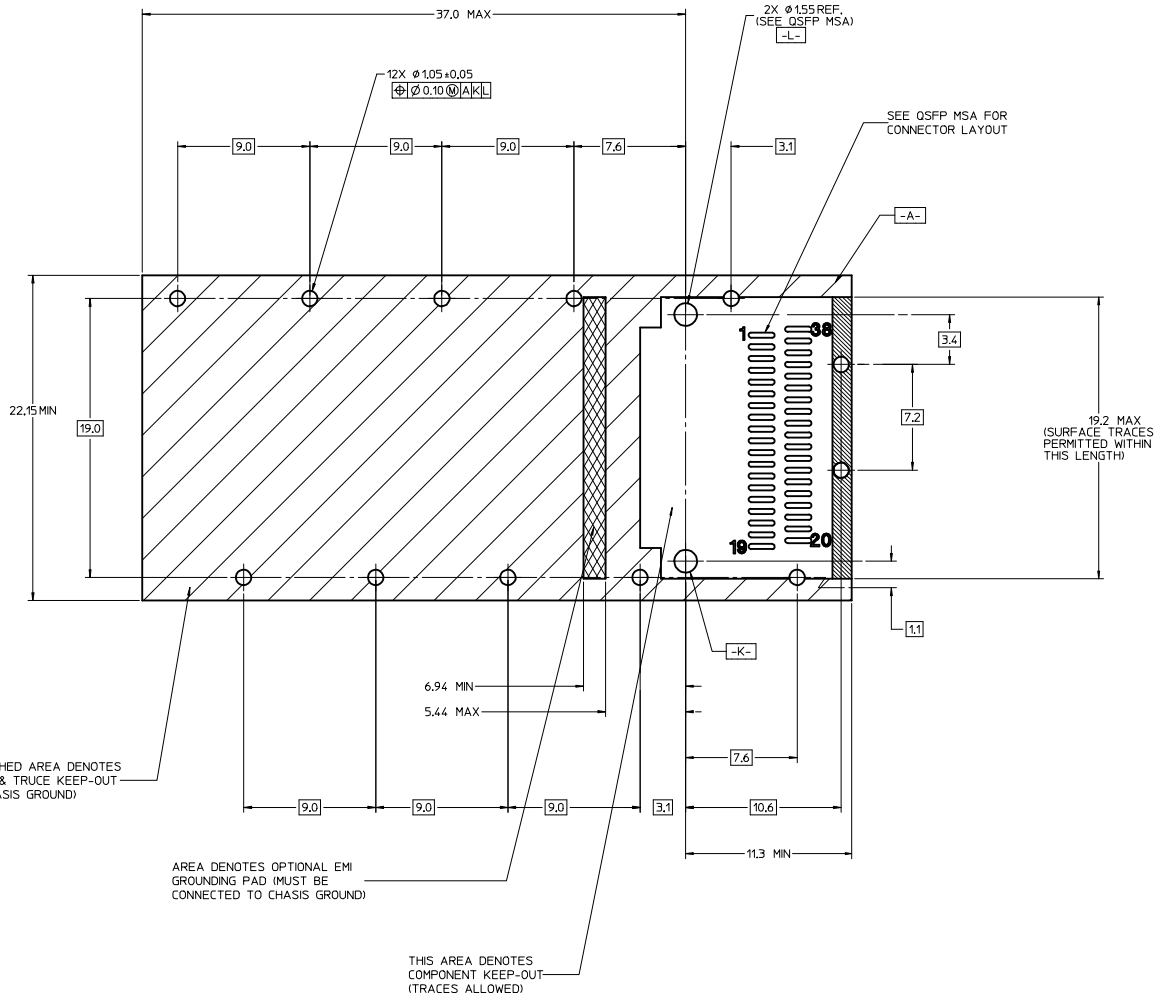
MOLEX P/N		# OF REAR LEGS PER PORT	DIM A	PLATING
PIN TYPE PRESS FIT	PIN TYPE SOLDER POST			
747500024	---	2	2.28	NICKEL
---	747500051	2	1.9	NICKEL
---	747500053	2	1.9	MATTE TIN
---	747500056	2	1.9	BRIGHT TIN

MOLEX P/N		# OF REAR LEGS PER PORT	DIM A	PLATING
PIN TYPE PRESS FIT	PIN TYPE SOLDER POST			
747500012	---	2	3.05	NICKEL
747500021	---	2	2.28	NICKEL
747500023	---	0	2.28	NICKEL
---	747500058	2	2.90	NICKEL

MOLEX P/N		# OF REAR LEGS PER PORT	DIM A	DIM B	PLATING
PIN TYPE PRESS FIT	PIN TYPE SOLDER POST				
---	747500057	2	2.9	13.7	NICKEL
747500040	---	2	2.28	16.0	NICKEL
747500042	---	0	2.28	16.0	NICKEL
747500044	---	2	2.28	13.7	NICKEL
747500046	---	2	2.28	23.0	NICKEL

SEE REVISION TABLE IEC NO: CPG2013-1899 J DRAWN: CHEN08 2010/10/25 CHYK: APPR: KLOYD 2013/01/11 REV DESCRIPTION	QUALITY SYMBOLS	GENERAL TOLERANCES (UNLESS SPECIFIED)	DIMENSION STYLE	SCALE	DESIGN UNITS	THIRD ANGLE PROJECTION	
	▽=0	mm INCH	MM ONLY	2.5:1	METRIC	☉	
	▽=0	4 PLACES ± --- ± ---	DRAWN BY DATE	TITLE QSFP+ CAGE ASSEMBLY WITH SPRING FINGERS			
	▽=0	3 PLACES ± --- ± ---	CHIRSCHY 2007/07/23				
	2 PLACES ± 0.13 ± ---	CHECKED BY DATE	MATERIAL NO. DOCUMENT NO. SHEET NO. SEE SHEET 3 SD-74750-0021 3 OF 8				
	1 PLACE ± 0.25 ± ---	BRUSSELL 2007/07/23					
	0 PLACE ± --- ± ---	APPROVED BY DATE	SIZE D THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION				
		RAHMOOD 2010/11/01					

PCB LAYOUT FOR SINGLE SIDED APPLICATIONS



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

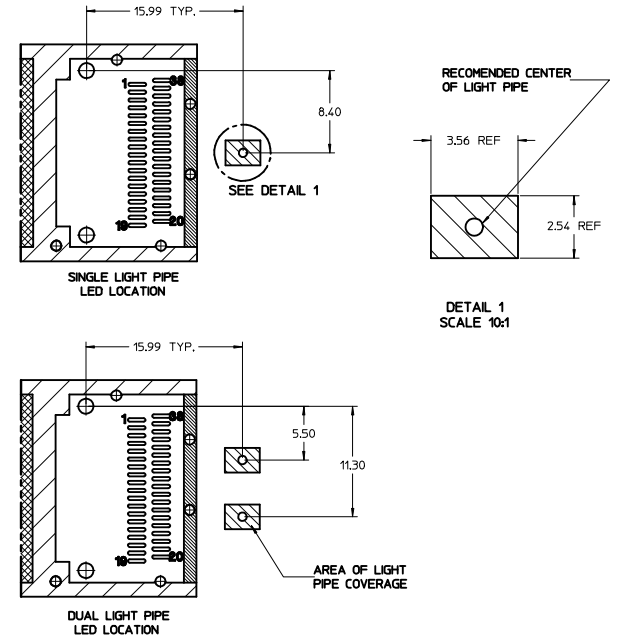
AREA DENOTES OPTIONAL EMI GROUNDING PAD (MUST BE CONNECTED TO CHASSIS GROUND)

THIS AREA DENOTES COMPONENT KEEP-OUT (TRACES ALLOWED)

NOTES:

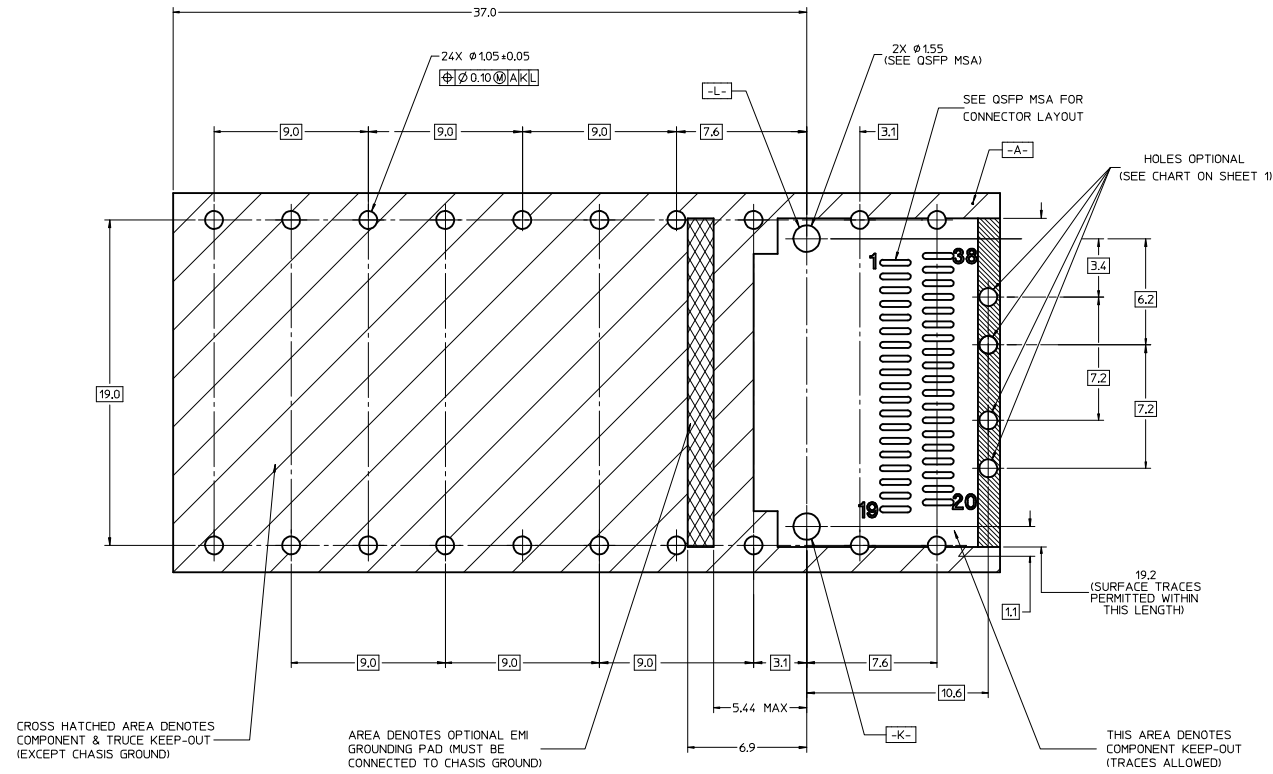
1. DATUM -A- IS TOP SURFACE OF HOST BOARD PER MSA
2. FINISHED HOLE SIZE (AFTER PLATING)
3. DATUM -K- IS HOST BOARD THRU HOLE #1 TO ACCEPT CONNECTOR GUIDE POST PER MSA
4. DATUM -L- IS HOST BOARD THRU HOLE #2 TO ACCEPT CONNECTOR GUIDE POST PER MSA

FOR CAGE ASSEMBLIES WITH LIGHT PIPES



<p>SEE REVISION TABLE EC NO: CPG2013-1899 DRAWN BY: J. DRWARCHENOK CHYK: APPR: K. LLOYD DATE: 2012/10/25 DESCRIPTION: 2013/01/11</p>	<p>QUALITY SYMBOLS</p> <p>▽=0 ▽=0 ▽=0</p>		<p>GENERAL TOLERANCES (UNLESS SPECIFIED)</p> <table border="1"> <tr> <th></th> <th>mm</th> <th>INCH</th> </tr> <tr> <td>4 PLACES</td> <td>±0.13</td> <td>±---</td> </tr> <tr> <td>3 PLACES</td> <td>±0.13</td> <td>±---</td> </tr> <tr> <td>2 PLACES</td> <td>±0.25</td> <td>±---</td> </tr> <tr> <td>1 PLACE</td> <td>±0.25</td> <td>±---</td> </tr> <tr> <td>0 PLACE</td> <td>±---</td> <td>±---</td> </tr> </table>			mm	INCH	4 PLACES	±0.13	±---	3 PLACES	±0.13	±---	2 PLACES	±0.25	±---	1 PLACE	±0.25	±---	0 PLACE	±---	±---	<p>DIMENSION STYLE</p> <p>MM ONLY</p>		<p>SCALE</p> <p>1:1</p>		<p>DESIGN UNITS</p> <p>METRIC</p>		<p>THIRD ANGLE PROJECTION</p>	
		mm	INCH																											
	4 PLACES	±0.13	±---																											
	3 PLACES	±0.13	±---																											
2 PLACES	±0.25	±---																												
1 PLACE	±0.25	±---																												
0 PLACE	±---	±---																												
<p>DRAWN BY: CHIRSCHY DATE: 2007/07/23</p>		<p>CHECKED BY: BRUSSELL DATE: 2007/07/23</p>		<p>APPROVED BY: MAHMOOD DATE: 2010/11/01</p>		<p>TITLE</p> <p>QSFP+ CAGE ASSEMBLY WITH SPRING FINGERS</p>		<p>molex</p>		<p>SHEET NO. 4 OF 8</p>																				
<p>DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS</p>		<p>ANGULAR ± 1 °</p>		<p>SEE SHEET 3</p>		<p>DOCUMENT NO. SD-74750-0021</p>		<p>THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION</p>		<p>DATE: 2012/01/11</p>																				

PCB LAYOUT FOR BELLY-TO-BELLY APPLICATIONS



NOE:
FOR RECOMENDED CENTER
OF LIGHT PIPES,
SEE SHEET 4

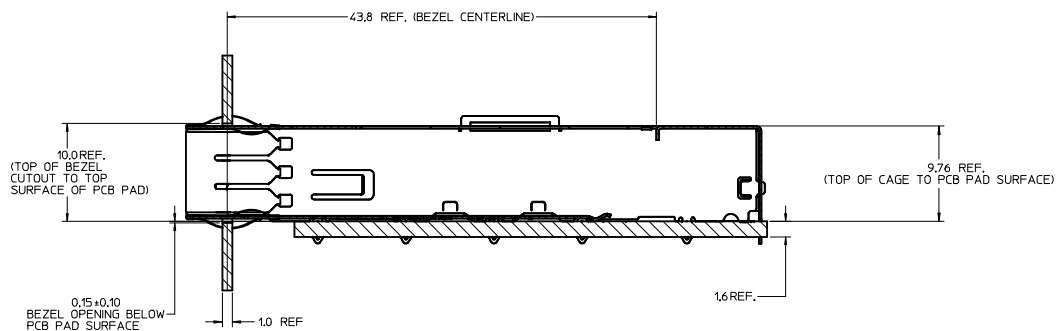
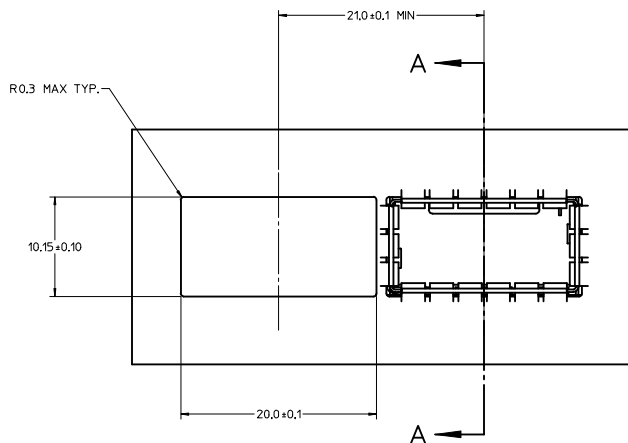
NOTES:

1. DATUM -A- IS TOP SURFACE OF HOST BOARD PER MSA.
2. FINISHED HOLE SIZE (AFTER PLATING).
3. DATUM -K- IS HOST BOARD THRU HOLE #1 TO ACCEPT CONNECTOR GUIDE POST PER MSA.
4. DATUM -L- IS HOST BOARD THRU HOLE #2 TO ACCEPT CONNECTOR GUIDE POST PER MSA.

SEE REVISION TABLE EC NO: CPG2013-899 DRAWN BY: DRWARCHEN08 CHKD: APPR:KLLOYD DATE: 2010/10/25 DESCRIPTION: 2010/10/11	QUALITY SYMBOLS	GENERAL TOLERANCES (UNLESS SPECIFIED)	DIMENSION STYLE	SCALE	DESIGN UNITS	THIRD ANGLE PROJECTION
	∇=0 ∇=0 ∇=0	mm INCH 4 PLACES ± --- ± --- 3 PLACES ± --- ± --- 2 PLACES ± 0.13 ± --- 1 PLACE ± 0.25 ± --- 0 PLACE ± --- ± ---	MM ONLY DATE CHIRSCHY 2007/07/23 DATE BRUSSELL 2007/07/23 DATE APPROVED BY RMAMMOOD 2010/11/01	1:1	METRIC	TITLE QSFPP+ CAGE ASSEMBLY WITH SPRING FINGERS
ANGULAR ± 1 ° DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS	MATERIAL NO. SEE SHEET 3	DOCUMENT NO. SD-74750-0021	SHEET NO. 5 OF 8			

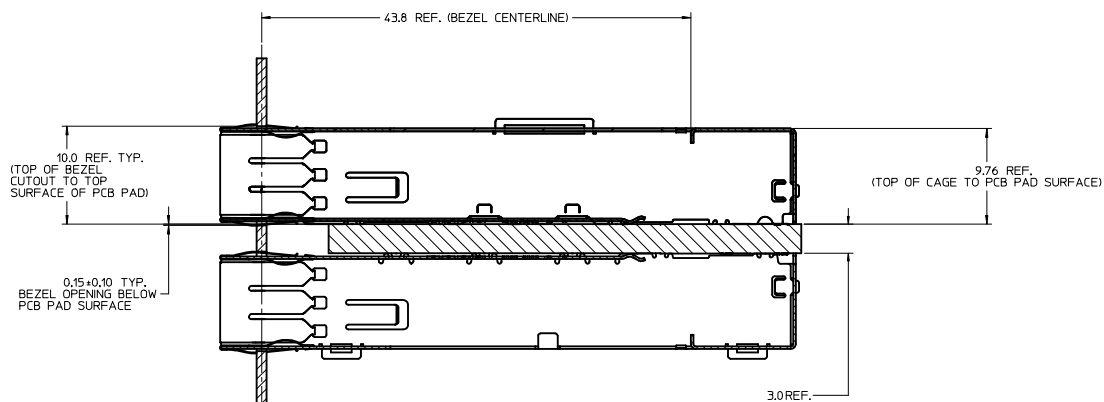
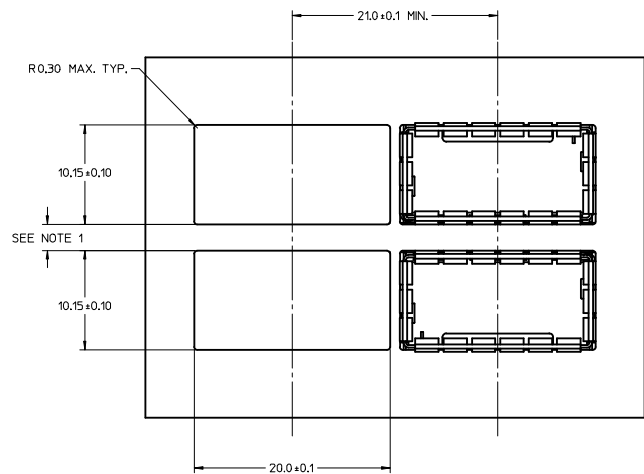
THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION

BEZEL AND BOARD POSITION DIMENSIONS
FOR SINGLE SIDE MOUNTING



SECTION A-A
Scale 4:1

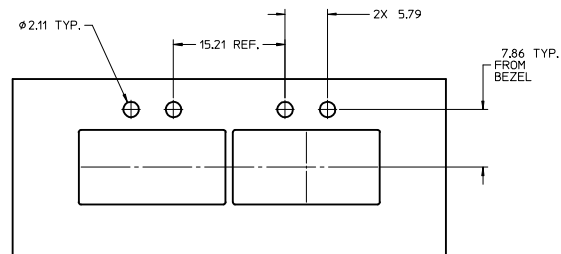
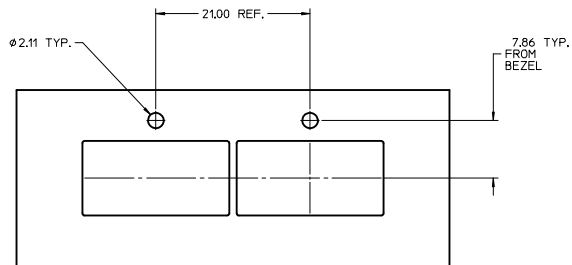
BEZEL AND BOARD POSITION DIMENSIONS
FOR BELLY-TO-BELLY MOUNTING



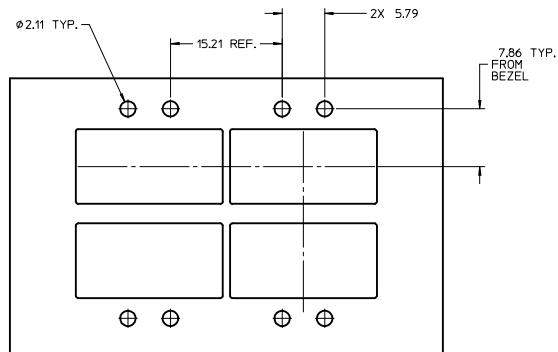
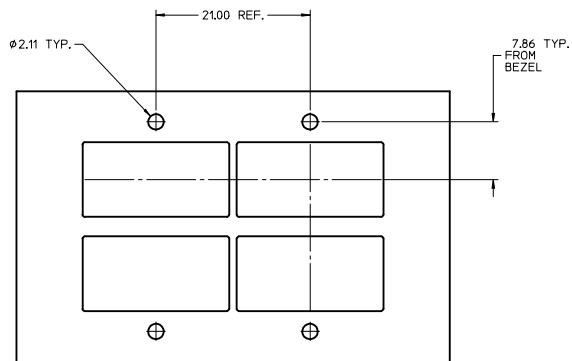
NOTE:
1. SEE QSFP MSA SPECIFICATION FOR BEZEL LOCATION TOLERANCE.
2. PCB THICKNESS VARIATION MUST BE CONSIDERED WHEN DETERMINING BEZEL OPENING, SIZE, AND LOCATION.

SEE REVISION TABLE EC NO: CPG2013-1899 DRAWN BY: J CHKD: J APPR: KLOYD	QUALITY SYMBOLS	GENERAL TOLERANCES (UNLESS SPECIFIED)	DIMENSION STYLE	SCALE	DESIGN UNITS	THIRD ANGLE PROJECTION
	▽=0	4 PLACES ± mm ± INCH	MM ONLY	1:1	METRIC	☉
	▽=0	3 PLACES ± 0.13	DRAWN BY: CHIRSCHY CHECKED BY: BRUSSELL	DATE: 2007/07/23	TITLE: QSFP+ CAGE ASSEMBLY WITH SPRING FINGERS	
	▽=0	1 PLACE ± 0.25 0 PLACE ±	APPROVED BY: MAHMOOD DATE: 2010/11/01	DATE: 2007/07/23		
	ANGULAR ± 1°	DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS	MATERIAL NO.	DOCUMENT NO.		SHEET NO.
			SEE SHEET 3	SD-74750-0021		6 OF 8
			THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION			

BEZEL LIGHT PIPE CUTOUT POSITION DIMENSIONS
FOR SINGLE SIDE MOUNTING



BEZEL LIGHT PIPE CUTOUT POSITION DIMENSIONS
FOR BELLY-TO-BELLY MOUNTING



SEE REVISION TABLE IEC NO: CPG2013-1899 DRAWN BY: CHYK CHECKED BY: APPR: K LLOYD DATE: 2010/11/01 DESCRIPTION:	QUALITY SYMBOLS	GENERAL TOLERANCES (UNLESS SPECIFIED)	DIMENSION STYLE	SCALE	DESIGN UNITS	THIRD ANGLE PROJECTION	
	$\nabla=0$ $\nabla=0$ $\nabla=0$	mm INCH	MM ONLY 3:1	METRIC	DRAWN BY: CHIRSCHY DATE: 2007/07/23 CHECKED BY: BRUSSELL DATE: 2007/07/23 APPROVED BY: MAHMOOD DATE: 2010/11/01	TITLE: QSPF+ CAGE ASSEMBLY WITH SPRING FINGERS MATERIAL NO.: DOCUMENT NO.: SD-74750-0021	SHEET NO.: 7 OF 8
	ANGULAR $\pm 1^\circ$ DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS	SEE SHEET 3	THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION				

DATE	REV	DESCRIPTION
2007/07/23	A	INITAL RELEASE
2007/08/06	B	CHANGED ALL TANGENT LINES FROM DASHED LINES TO SOLID LINES
2007/08/10	C	1. ADDED COMPONENT P/N COLUMN TO TABLE 2. ADDED 'COMPONENT' TO NOTE IN BOTTOM VIEW ON SHEET 1 3. CHANGED TEXT IN MATERIAL NO. SECTION OF TITLE BLOCK TO READ 'SEE TABLE'
2008/07/10	D	1. REMOVED COMMENTS FROM TABLE ON SHEET 1 2. ADDED 'HOLES OPTIONAL' NOTE TO PCB LAYOUT ON SHEET 2 AND SHEET 3 3. ADDED 747500024 TO TABLE ON SHEET 1 AS WELL AS ISO VIEW 4. UPDATED 'COMPONENT PART NUMBER AND DATE CODE' NOTE ON SHEET 1
2008/12/16	E	1. 20.4 DIMENSION WAS 20.38 REF. 2. 58.8 DIMENSION WAS 58.80 REF. 3. 2.28 TYP. DIMENSION WAS 2.28 REF. 4. 15.4 DIMENSION WAS 15.40 REF.
2009/04/13	F	1. REVISED COMPONENT P/N FOR MOLEX P/N 747500024 (CHANGED FROM 747540104 TO 747500104)
2010/10/29	G	1. 20.5 MAX DIMENSION WAS 20.4 2. 19.2 MAX DIMENSION WAS 16.2 MAX
2011/04/05	H	1. ADDED PRINTED DATE CODE TO LEFT SIDE OF CAGE AND ASSOCIATED NOTES. 2. ADDED CUTAWAY 1 AND CRITICAL TO FUNCTION DIMENSION 29.88 ±0.15, SHEET 1. 3. REMOVED 74750 FROM BOTTOM OF CAGE, SHEET 1. 4. UPDATED RoHS NOTE (NOTE 5) TO 'LEAD FREE, NO RoHS EXEMPTIONS' ON SHEET 1. 5. ADDED END VIEW, SHEET 1.
2012/04/13	I	1. ADDED 747500012 TO P/N TABLE, SHEET 1. 2. UPDATED BELLY-TO-BELLY CAGE VIEW, SHEET 3. 3. ADDED BELLY-TO-BELLY BEZEL AND DIMENSIONS, SHEET 3.
2013/01/10	J	1. ADDED 747500057 AND 747500058 INTO P/N TABLE, SHEET 3. 2. REARRANGE EACH SHEET

SEE REVISION TABLE EC NO: CPG2013-899 2012/12/25 J DRWNRCHEN08 CHKD: APPR:KLLOYD 2013/01/11	QUALITY SYMBOLS ∇=0 ∇=0 ∇=0	GENERAL TOLERANCES (UNLESS SPECIFIED)		DIMENSION STYLE MM ONLY	SCALE 1:1	DESIGN UNITS METRIC	THIRD ANGLE PROJECTION		
		4 PLACES ±--- ±--- 3 PLACES ±--- ±--- 2 PLACES ±0.13 ±--- 1 PLACE ±0.25 ±--- 0 PLACE ±--- ±---	mm INCH	DRAWN BY CHIRSCHY	DATE 2007/07/23	TITLE QSFP+ CAGE ASSEMBLY WITH SPRING FINGERS			
		ANGULAR ± 1 ° DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS		CHECKED BY BRUSSELL	DATE 2007/07/23	APPROVED BY RMAHMOOD			
		MATERIAL NO. SEE SHEET 3		DATE 2010/11/01	DOCUMENT NO. SD-74750-0021		SHEET NO. 8 OF 8		



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