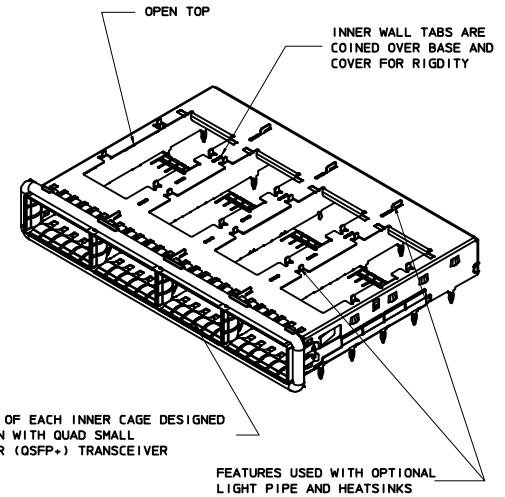
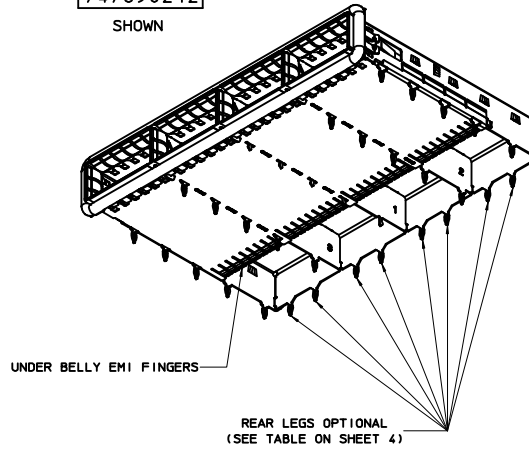
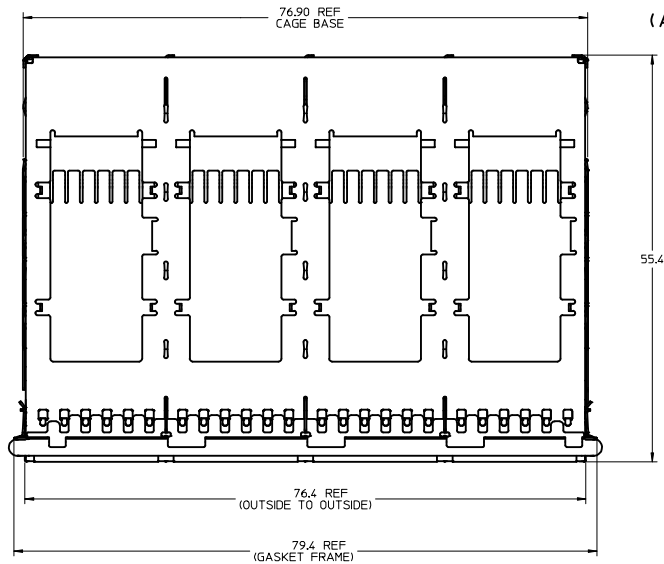


BASE CAGE DETAILS

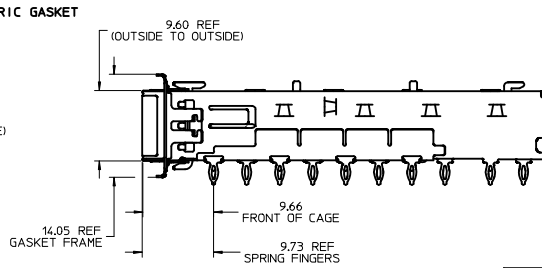
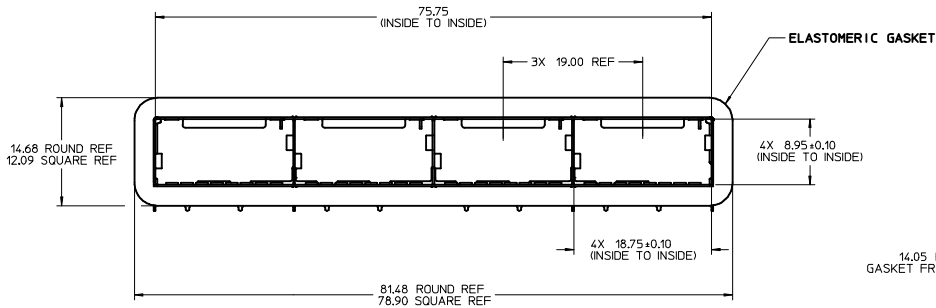
(APPLIES TO ALL CAGES IN THIS DRAWING)

747690212

SHOWN



DIMENSIONS OF EACH INNER CAGE DESIGNED TO FUNCTION WITH QUAD SMALL FORM-FACTOR (QSFP+) TRANSCEIVER



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.

NOTE:
ELASTOMER GASKET REMOVED FOR CLARITY.

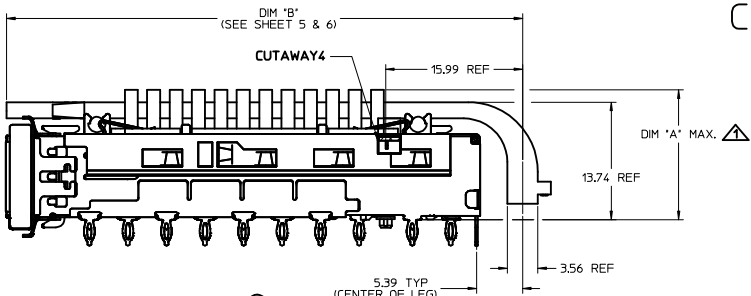
WEEK/YEAR DATE CODE TABLE	
WW	01 THRU 52 OR 53 EXAMPLE: 01 = FIRST WEEK OF YEAR 52 = LAST WEEK OF YEAR
YY	12, 13, 14 ETC. EXAMPLE: YEAR 2014 = 14

NOTE:
INNER SPRING FINGERS HAVE BEEN REMOVED FOR CLARITY

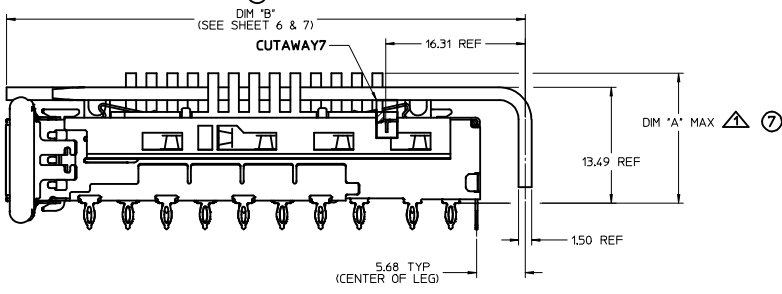
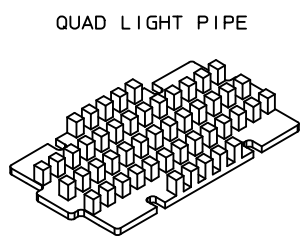
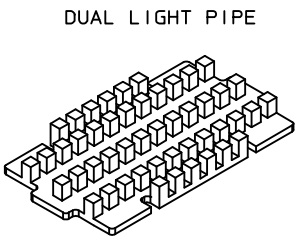
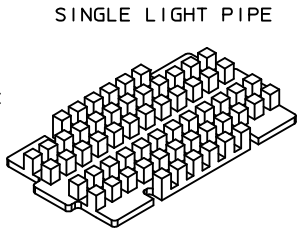
- NOTES:
1. QSFP+ ASSEMBLES ALSO AVAILABLE AND 1X1 (74750 SERIES), 1X2 (74767 SERIES), 1X3 (74768 SERIES), AND 1X6 (74771 SERIES) CONFIGURATIONS.
 2. MATERIAL:
LIGHT PIPE/HEATSINK CLIP: STAINLESS STEEL
LIGHT PIPES: POLYCARBONATE (94-V0 RATED)
HEAT SINKS: ANNOXIDIZED ALUMINUM
CAGE: NICKEL COPPER ALLOY
 3. NO RoHS EXEMPTIONS
 4. CUSTOM HEATSINKS AVAILABLE UPON REQUEST

SEE REV HISTORY EC NO: CPG2015-0311 M DRAWN: WALLACE01 2015/03/04 CHKD: JERWIN 2015/07/01 APPR: K LLOYD 2015/07/01	QUALITY SYMBOLS ▽=0 ▽=0 ▽=0	GENERAL TOLERANCES (UNLESS SPECIFIED)		DIMENSION STYLE		SCALE 2:1	DESIGN UNITS METRIC	THIRD ANGLE PROJECTION
		mm	INCH	MM ONLY	DATE			
		4 PLACES	±.005	±.005				
		3 PLACES	±.015	±.015				
		2 PLACES	±.025	±.025				
		1 PLACE	±.050	±.050				
		0 PLACE	±.100	±.100				
		ANGULAR ± 1°		DRAWN BY JERWIN		DATE 2011/05/03	TITLE QSFP+ 1X4 GANGED CAGE ASSEMBLIES WITH ELASTOMER GASKET	
		DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS		CHECKED BY CHIRSCHY		DATE 2011/05/03	DOCUMENT NO. SD-74769-0501	
				APPROVED BY RAHMOOD		DATE 2011/06/10	SHEET NO. 1 OF 14	
				MATERIAL NO. SHT 5, 6, & 7		THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION		

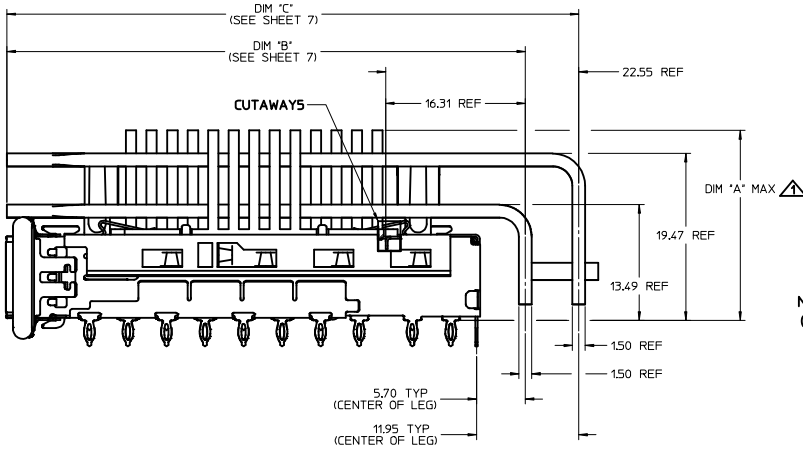
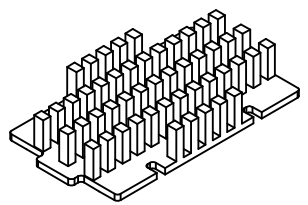
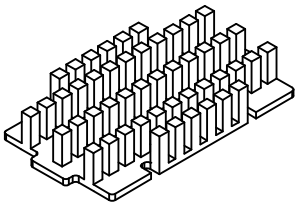
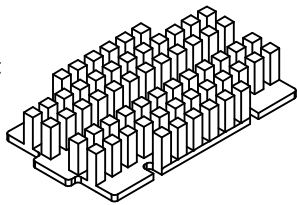
CAGE ASSEMBLY OPTIONS



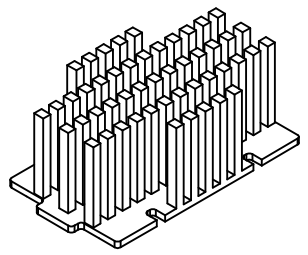
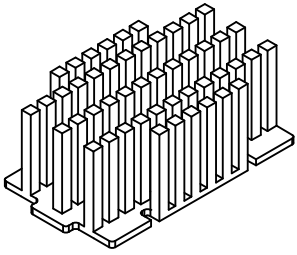
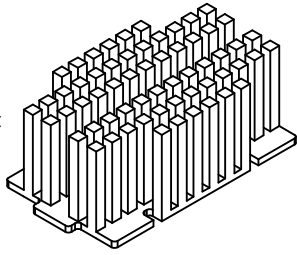
PCI HEATSINK (PIN STYLE)



SAN HEATSINK (PIN STYLE)



NET HEATSINK (PIN STYLE)



HEATSINK HEIGHT OPTIONS

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

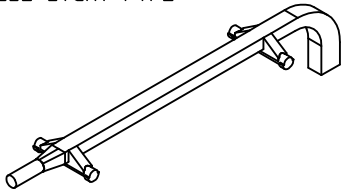
HEIGHT OF HEATSINK WITH MODULE INSERTED. DIMENSION MAY BE LESS DUE TO MODULE AND HEATSINK VARIATIONS.

NOTE:
1) FOR LIGHT PIPE OPTIONS SEE SHEET 3.

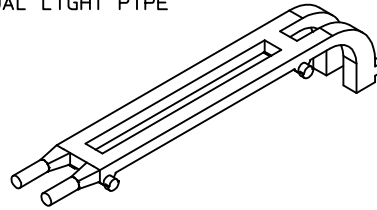
SEE REV HISTORY IEC NO: CPG2015-0311 DRAWN: WALLACE01 CHKD: JERWIN APPR: KLOYD	2015/03/04 2015/07/01 2015/07/01	QUALITY SYMBOLS ∇=0 ∇=0 ∇=0	GENERAL TOLERANCES (UNLESS SPECIFIED) mm INCH 4 PLACES ± --- ± --- 3 PLACES ± --- ± --- 2 PLACES ± 0.15 ± --- 1 PLACE ± 0.25 ± --- 0 PLACE ± --- ± ---	DIMENSION STYLE MM ONLY SCALE 3.5:1 DESIGN UNITS METRIC THIRD ANGLE PROJECTION	DRAWN BY JERWIN DATE 2011/05/03 CHECKED BY CHIRSCHY DATE 2011/05/03 APPROVED BY RMAHMOOD DATE 2011/06/10	TITLE QSFP+ 1X4 GANGED CAGE ASSEMBLIES WITH ELASTOMER GASKET molex	MATERIAL NO. SHT 5, 6, & 7	DOCUMENT NO. SD-74769-0501	SHEET NO. 2 OF 14
	DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS								
	ANGULAR ± 1°								
	THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION								

CAGE ASSEMBLY OPTIONS (CONT.)

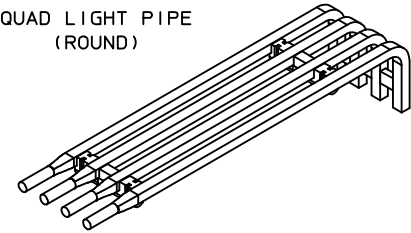
SINGLE LIGHT PIPE



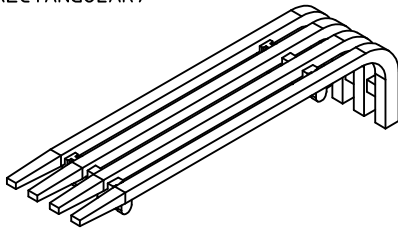
DUAL LIGHT PIPE



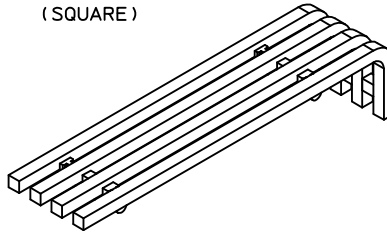
QUAD LIGHT PIPE
(ROUND)



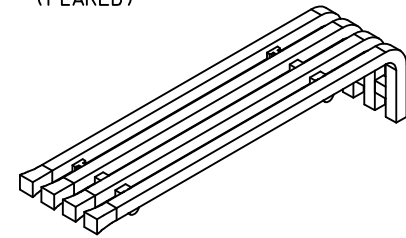
QUAD LIGHT PIPE
(RECTANGULAR)



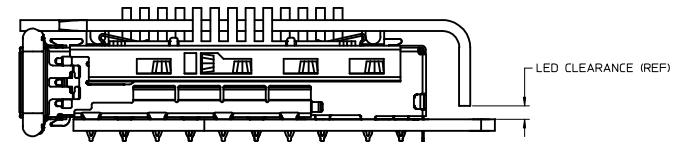
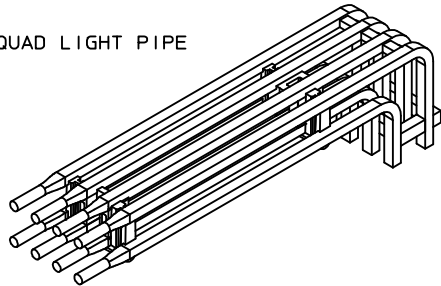
QUAD LIGHT PIPE
(SQUARE)



QUAD LIGHT PIPE
(FLARED)



2 ROW QUAD LIGHT PIPE

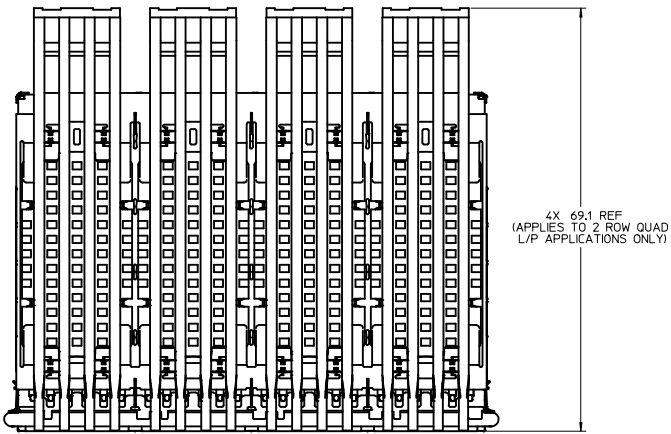
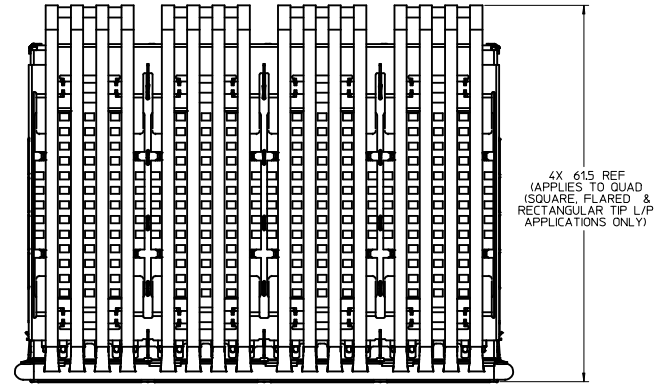
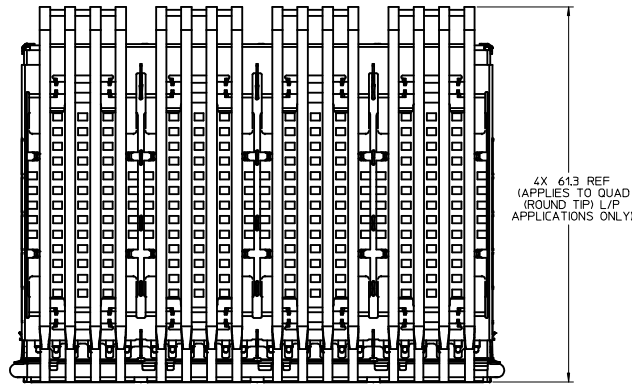
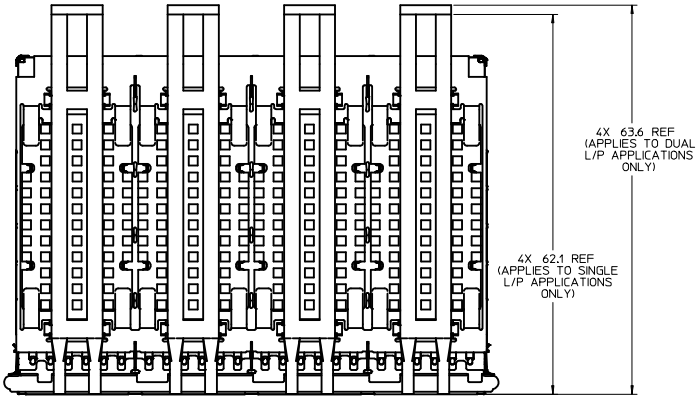


NOTE:
1) FOR HEATSINK OPTIONS SEE SHEET 2.

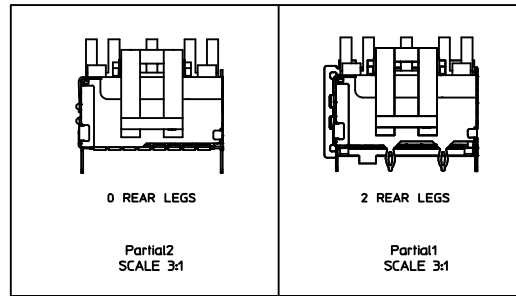
LIGHT PIPE	LED CLEARANCE (REF)
SINGLE	1.875
DUAL	1.875
QUAD (ROUND TIP)	1.875
QUAD (RECTANGLE TIP)	0.931
QUAD (SQUARE TIP)	1.875
QUAD (FLARED TIP)	1.725
QUAD (2 ROW)	1.875

SEE REV HISTORY IEC NO: CPG2015-0311 DRAWN: WALLACE01 2015/03/04 CHECKED: JERWIN 2015/07/01 APPR: KLOYD 2015/07/01	QUALITY SYMBOLS ∇=0 ∇=0 ∇=0	GENERAL TOLERANCES (UNLESS SPECIFIED)		DIMENSION STYLE MM ONLY	SCALE 3:1	DESIGN UNITS METRIC	THIRD ANGLE PROJECTION	
		4 PLACES ± mm ± INCH	DRAWN BY JERWIN	DATE 2011/05/03	TITLE QSFP+ 1X4 GANGED CAGE ASSEMBLIES WITH ELASTOMER GASKET molex MATERIAL NO. SHT 5, 6, & 7 DOCUMENT NO. SD-74769-0501			
		3 PLACES ± 0.15 ± 0.006	CHECKED BY CHIRSCHY	DATE 2011/05/03				
		2 PLACES ± 0.25 ± 0.010	APPROVED BY RMAHMOOD	DATE 2011/06/10				
1 PLACE ± 0.50 ± 0.020								
		ANGULAR ± 1°		DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS		SHEET NO. 3 OF 14		

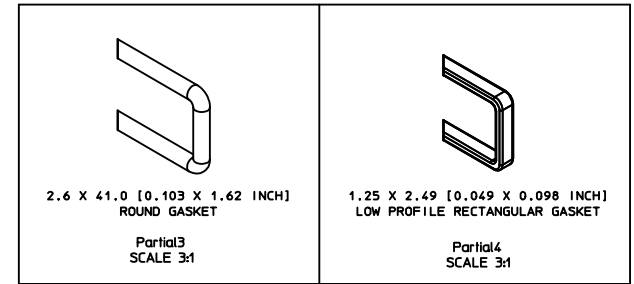
CAGE ASSEMBLY OPTIONS (CONT.)



REAR LEG OPTIONS



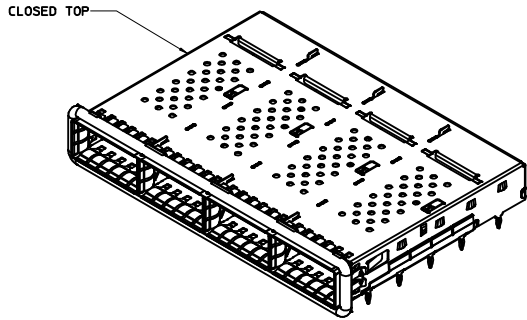
ELASTOMERIC GASKET OPTIONS



SEE REV HISTORY IEC NO: CPG2015-0311 DRAWN: WALLACE01 CHKD: JERWIN APPR: KLOYD	2015/03/04 2015/07/01 2015/07/01	DESCRIPTION REV 1	QUALITY SYMBOLS ▽=0 ▽=0 ▽=0	GENERAL TOLERANCES (UNLESS SPECIFIED) mm INCH 4 PLACES ± --- ± --- 3 PLACES ± --- ± --- 2 PLACES ± 0.15 ± --- 1 PLACE ± 0.25 ± --- 0 PLACE ± --- ± ---	DIMENSION STYLE MM ONLY	SCALE 3:1	DESIGN UNITS METRIC	THIRD ANGLE PROJECTION	
	DRAWN BY JERWIN	DATE 2011/05/03	CHECKED BY CHIRSCHY	DATE 2011/05/03	APPROVED BY RMAHMOOD	DATE 2011/06/10	TITLE QSFP+ 1X4 GANGED CAGE ASSEMBLIES WITH ELASTOMER GASKET		
	MATERIAL NO. SHT 5, 6, & 7			DOCUMENT NO. SD-74769-0501			SHEET NO. 4 OF 14		
	THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION								

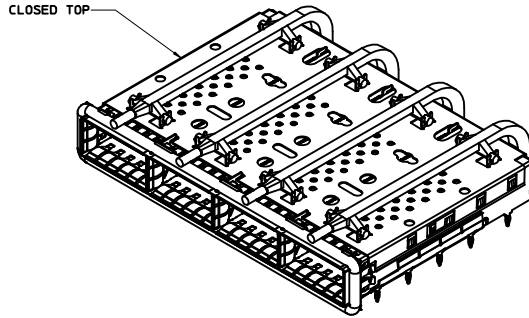
PART NUMBER SELECTION

NO HEATSINKS
NO LIGHT PIPES



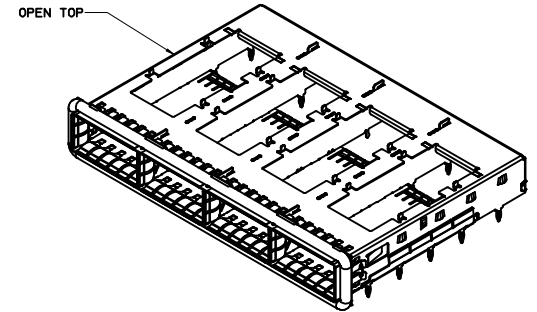
MOLEX P/N	# OF REAR LEGS PER PORT
747690223	2
747690226	0

NO HEATSINKS
WITH SINGLE LIGHT PIPES



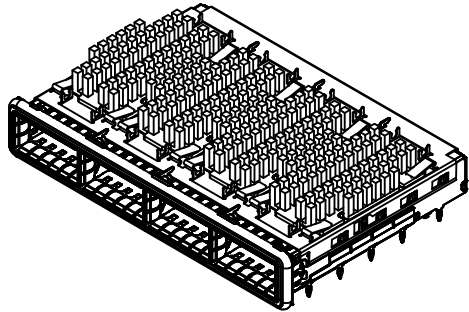
MOLEX P/N	GASKET STYLE	# OF REAR LEGS PER PORT
747690229	ROUND	2
747690230	ROUND	0

NO HEATSINKS
NO LIGHT PIPES



MOLEX P/N	GASKET STYLE	# OF REAR LEGS PER PORT
747690204	SQUARE	0
747690205	SQUARE	2
747690206	ROUND	0
747690207	ROUND	2
747690208	SQUARE	2
747690209	SQUARE	0
747690210	ROUND	0
747690212	ROUND	2
747690217	SQUARE	2

WITH HEATSINKS
NO LIGHT PIPES



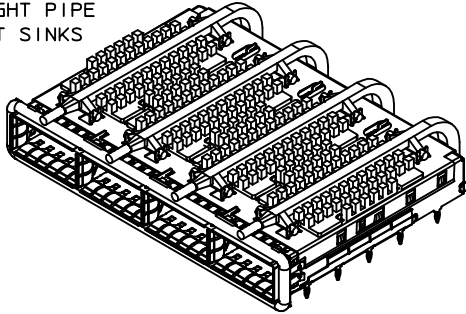
MOLEX P/N	GASKET STYLE	HS	# OF REAR LEGS PER PORT
747690505	ROUND	PCI	2
747690506	ROUND	SAN	2
747690507	ROUND	NET	2
747690508*	ROUND	PCI	2
747690509*	ROUND	NET	2
747690514	ROUND	PCI	2
747690516	SQUARE	PCI	2
747690605	ROUND	PCI	0
747690606	ROUND	SAN	0
747690607	ROUND	NET	0

* EMI GASKET SEAM PLACED ON LEFT SIDE VIEWING INTO PORT

SEE REV HISTORY IEC NO: CPG2015-0311 DRAWN: WALLACE01 2015/03/04 CHYK: ERWIN 2015/07/01 APPR: KLOYD 2015/07/01	QUALITY SYMBOLS ∇=0 ∇=0 ∇=0	GENERAL TOLERANCES (UNLESS SPECIFIED)		DIMENSION STYLE MM ONLY	SCALE 2:1	DESIGN UNITS METRIC	THIRD ANGLE PROJECTION		
		4 PLACES ± mm INCH 3 PLACES ± --- ± ---	2 PLACES ± 0.15 ± ---	1 PLACE ± 0.25 ± ---	0 PLACE ± --- ± ---	DRAWN BY JERWIN 2011/05/03	CHECKED BY CHIRSCHY 2011/05/03	TITLE QSFP+ 1X4 GANGED CAGE ASSEMBLIES WITH ELASTOMER GASKET	
		ANGULAR ± 1°		DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS		APPROVED BY RMAHMOOD 2011/06/10	MATERIAL NO. SEE TABLE DOCUMENT NO. SD-74769-0501		
		SHEET NO. 5 OF 14		THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION					

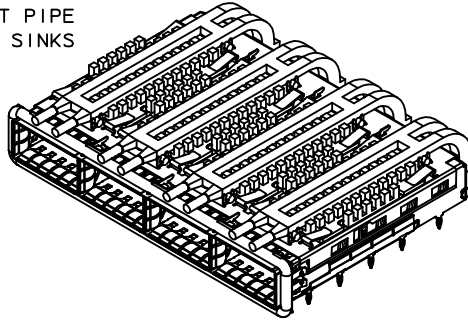
PART NUMBER SELECTION (CONT.)

SINGLE LIGHT PIPE WITH HEAT SINKS



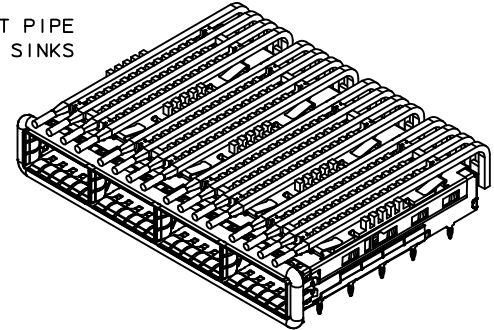
MOLEX P/N	LP	TIP STYLE	HS	# OF REAR LEGS PER PORT	DIM "B"
747690501	SINGLE	ROUND	SAN	2	60.25
747690502	SINGLE	ROUND	NET	2	60.25
747690513	SINGLE	ROUND	PCI	2	60.25
747690601	SINGLE	ROUND	SAN	0	60.25
747690602	SINGLE	ROUND	NET	0	60.25
747690612	SINGLE	ROUND	PCI	0	60.25

DUAL LIGHT PIPE WITH HEAT SINKS



MOLEX P/N	LP	TIP STYLE	GASKET STYLE	HS	# OF REAR LEGS PER PORT	DIM "B"
747690503	DUAL	ROUND	ROUND	SAN	2	60.25
747690504	DUAL	ROUND	ROUND	NET	2	60.25
747690511	DUAL	ROUND	ROUND	PCI	2	60.25
747690512	DUAL	ROUND	ROUND	NET	2	60.25
747690551	DUAL	ROUND	SQUARE	PCI	2	58.63
747690603	DUAL	ROUND	ROUND	SAN	0	60.25
747690604	DUAL	ROUND	ROUND	NET	0	60.25
747690611	DUAL	ROUND	ROUND	PCI	0	60.25

QUAD LIGHT PIPE WITH HEAT SINKS

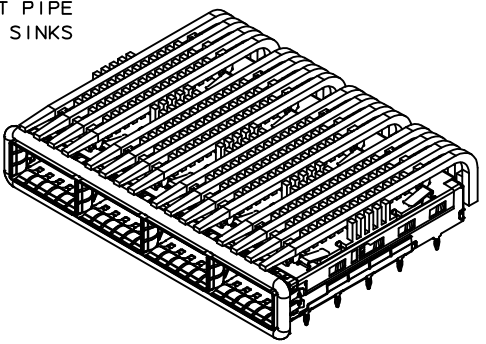


MOLEX P/N	LP	TIP STYLE	GASKET STYLE	HS	# OF REAR LEGS PER PORT	DIM "B"
747690517	QUAD	ROUND	ROUND	PCI	2	60.54
747690518	QUAD	ROUND	ROUND	SAN	2	60.54
747690519	QUAD	ROUND	ROUND	NET	2	60.54
747690520	QUAD	ROUND	ROUND	PCI	0	60.54
747690521	QUAD	ROUND	ROUND	SAN	0	60.54
747690522	QUAD	ROUND	ROUND	NET	0	60.54
747690537	QUAD	ROUND	SQUARE	PCI	2	60.54
747690538	QUAD	ROUND	SQUARE	SAN	2	60.54
747690539	QUAD	ROUND	SQUARE	NET	2	60.54
747690540	QUAD	ROUND	SQUARE	PCI	0	60.54
747690541	QUAD	ROUND	SQUARE	SAN	0	60.54
747690542	QUAD	ROUND	SQUARE	NET	0	60.54

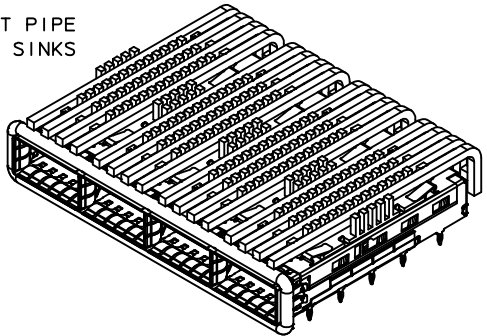
SEE REV HISTORY IEC NO: CPG2015-0311 DRAWN: WALLACE01 CHYK: JERWIN APPR: K LLOYD	2015/03/04 2015/07/01 2015/07/01	DESCRIPTION M	QUALITY SYMBOLS ▽=0 ▽=0 ▽=0	GENERAL TOLERANCES (UNLESS SPECIFIED) mm INCH 4 PLACES ± --- ± --- 3 PLACES ± --- ± --- 2 PLACES ± 0.15 ± --- 1 PLACE ± 0.25 ± --- 0 PLACE ± --- ± ---	DIMENSION STYLE MM ONLY SCALE 2:1 DESIGN UNITS METRIC THIRD ANGLE PROJECTION	DRAWN BY DATE JERWIN 2011/05/03 CHECKED BY DATE CHIRSCHY 2011/05/03 APPROVED BY DATE RMAHMOOD 2011/06/10	TITLE QSFP+ 1X4 GANGED CAGE ASSEMBLIES WITH ELASTOMER GASKET molex MATERIAL NO. SD-74769-0501 DOCUMENT NO. SD-74769-0501	SHEET NO. 6 OF 14	
	ANGULAR ± 1 ° DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS			SEE TABLE		THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION			
	SIZE D								
	SEE TABLE								

PART NUMBER SELECTION (CONT.)

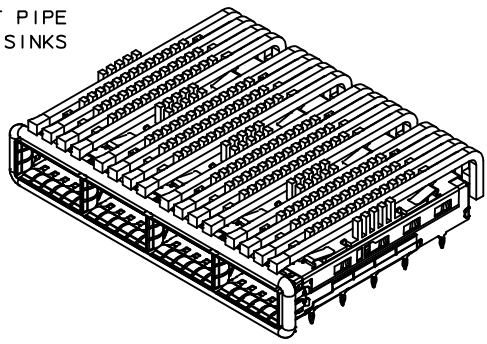
QUAD LIGHT PIPE
WITH HEAT SINKS



QUAD LIGHT PIPE
WITH HEAT SINKS



QUAD LIGHT PIPE
WITH HEAT SINKS

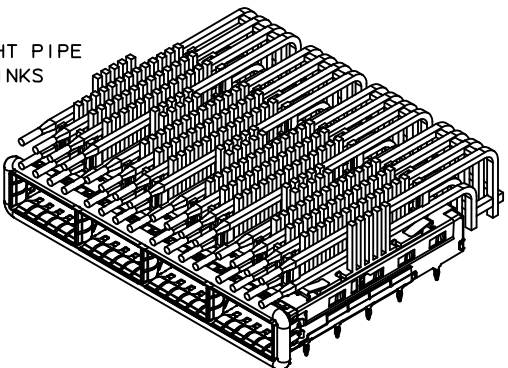


MOLEX P/N	LP	TIP STYLE	HS	# OF REAR LEGS PER PORT	DIM 'B'
747690561	QUAD	RECTANGULAR	SAN	0	59.96

MOLEX P/N	LP	TIP STYLE	HS	# OF REAR LEGS PER PORT	DIM 'B'
747690531	QUAD	SQUARE	PCI	2	60.54
747690532	QUAD	SQUARE	SAN	2	60.54
747690533	QUAD	SQUARE	NET	2	60.54
747690534	QUAD	SQUARE	PCI	0	60.54
747690535	QUAD	SQUARE	SAN	0	60.54
747690536	QUAD	SQUARE	NET	0	60.54

MOLEX P/N	LP	TIP STYLE	GASKET STYLE	HS	# OF REAR LEGS PER PORT	DIM 'B'
747690523	QUAD	FLARED	ROUND	PCI	2	60.54
747690524	QUAD	FLARED	ROUND	SAN	2	60.54
747690525	QUAD	FLARED	ROUND	NET	2	60.54
747690526	QUAD	FLARED	ROUND	PCI	0	60.54
747690527	QUAD	FLARED	ROUND	SAN	0	60.54
747690528	QUAD	FLARED	ROUND	NET	0	60.54
747690543	QUAD	FLARED	SQUARE	PCI	2	60.54
747690544	QUAD	FLARED	SQUARE	SAN	2	60.54
747690545	QUAD	FLARED	SQUARE	NET	2	60.54
747690546	QUAD	FLARED	SQUARE	PCI	0	60.54
747690547	QUAD	FLARED	SQUARE	SAN	0	60.54
747690548	QUAD	FLARED	SQUARE	NET	0	60.54

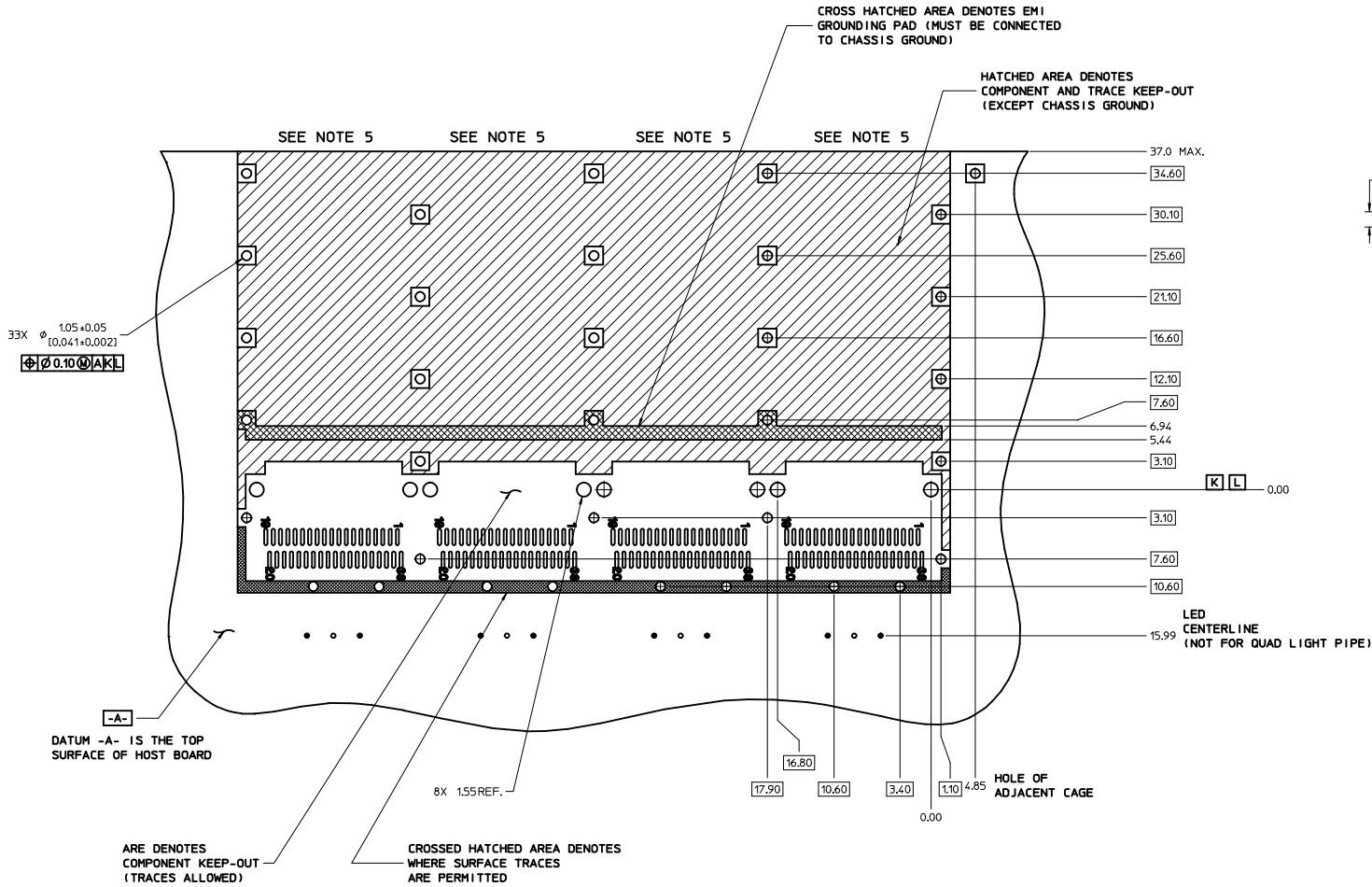
2 ROW QUAD LIGHT PIPE
WITH HEAT SINKS



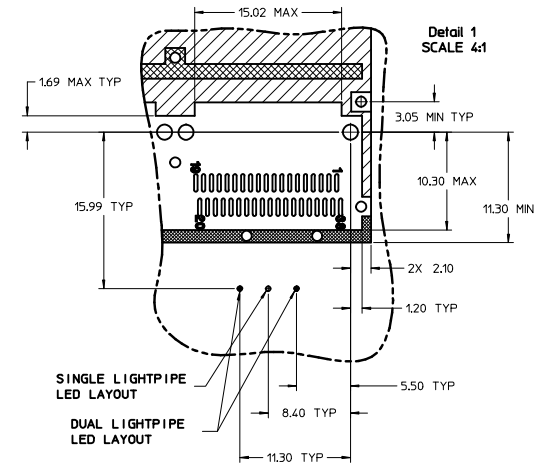
MOLEX P/N	LP	TIP STYLE	GASKET STYLE	HS	# OF REAR LEGS PER PORT	DIM 'B'	DIM 'C'
747690529	2 ROW QUAD	ROUND	ROUND	NET	0	60.54	66.78
747690530	2 ROW QUAD	ROUND	ROUND	NET	2	60.54	66.78
747690549	2 ROW QUAD	ROUND	SQUARE	NET	0	60.54	66.78
747690550	2 ROW QUAD	ROUND	SQUARE	NET	2	60.54	66.78

SEE REV HISTORY IEC NO: CPG2015-0311 DRAWN: WALLACE01 2015/03/04 CHECKED: ERWIN 2015/07/01 APPR: KLOYD 2015/07/01	QUALITY SYMBOLS ∇=0 ∇=0 ∇=0	GENERAL TOLERANCES (UNLESS SPECIFIED) <table border="1" style="font-size: small;"> <thead> <tr> <th></th> <th>mm</th> <th>INCH</th> </tr> </thead> <tbody> <tr> <td>4 PLACES</td> <td>± 0.15</td> <td>± 0.005</td> </tr> <tr> <td>3 PLACES</td> <td>± 0.25</td> <td>± 0.010</td> </tr> <tr> <td>2 PLACES</td> <td>± 0.38</td> <td>± 0.015</td> </tr> <tr> <td>1 PLACE</td> <td>± 0.51</td> <td>± 0.020</td> </tr> <tr> <td>0 PLACE</td> <td>± 0.64</td> <td>± 0.025</td> </tr> </tbody> </table> ANGULAR ± 1° DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS		mm	INCH	4 PLACES	± 0.15	± 0.005	3 PLACES	± 0.25	± 0.010	2 PLACES	± 0.38	± 0.015	1 PLACE	± 0.51	± 0.020	0 PLACE	± 0.64	± 0.025	DIMENSION STYLE MM ONLY	SCALE 2:1 DESIGN UNITS METRIC THIRD ANGLE PROJECTION	DRAWN BY JERWIN DATE 2011/05/03 CHECKED BY CHIRSCHY DATE 2011/05/03 APPROVED BY RMAHMOOD DATE 2011/06/10 MATERIAL NO. SEE TABLE DOCUMENT NO. SD-74769-0501
		mm	INCH																				
	4 PLACES	± 0.15	± 0.005																				
	3 PLACES	± 0.25	± 0.010																				
2 PLACES	± 0.38	± 0.015																					
1 PLACE	± 0.51	± 0.020																					
0 PLACE	± 0.64	± 0.025																					
OSFP+ 1X4 GANGED CAGE ASSEMBLIES WITH ELASTOMER GASKET																							
THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION																							

PCB LAYOUT FOR SINGLE SIDED MOUNTING



HOST CONNECTOR DETAIL



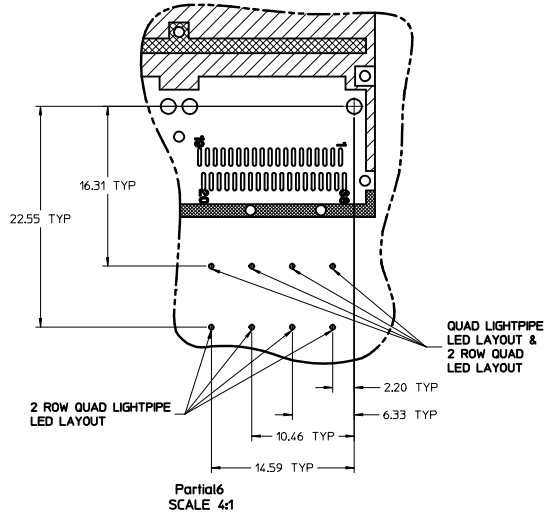
NOTES:

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. SINGLE SIDED BOARD THICKNESS:
NONIMAL: 1.60 [0.062"]
MINIMUM: 1.44 [0.057"]
5. SPACING BETWEEN PORTS IS 19.00 [0.748"].
6. LED SHOULD BE PLACED RELATIVE TO THE QSFP CONNECTOR POST HOLES

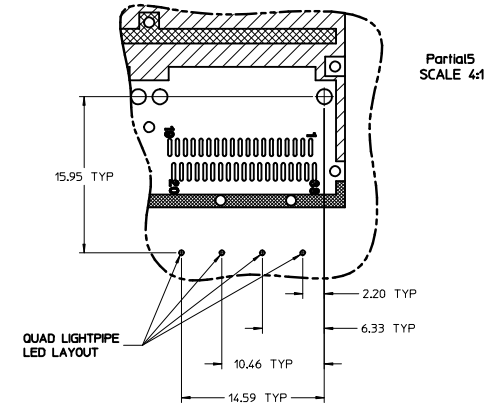
SEE REV HISTORY IEC NO: CPG2015-0311 DRAWN: WALLACE01 2015/03/04 CHECKED: JERWIN 2015/07/01 APPR: KLOYD 2015/07/01	QUALITY SYMBOLS ∇=0 ∇=0 ∇=0	GENERAL TOLERANCES (UNLESS SPECIFIED)		DIMENSION STYLE MM ONLY	SCALE 4:1	DESIGN UNITS METRIC	THIRD ANGLE PROJECTION
		4 PLACES ± mm ± INCH 3 PLACES ± --- ± --- 2 PLACES ± 0.15 ± --- 1 PLACE ± 0.25 ± --- 0 PLACE ± --- ± ---	ANGLUAR ± 1 ° DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS	DRAWN BY: JERWIN DATE: 2011/05/03 CHECKED BY: CHIRSCHY DATE: 2011/05/03 APPROVED BY: RMAHMOOD DATE: 2011/06/10	TITLE: QSFP+ 1X4 GANGED CAGE ASSEMBLIES WITH ELASTOMER GASKET molex MATERIAL NO: SHT 5, 6, & 7 DOCUMENT NO: SD-74769-0501	SHEET NO: 8 OF 14	

PCB LAYOUT FOR SINGLE SIDED MOUNTING (CON'T)

FOR QUAD & 2 ROW QUAD LIGHT PIPE ONLY

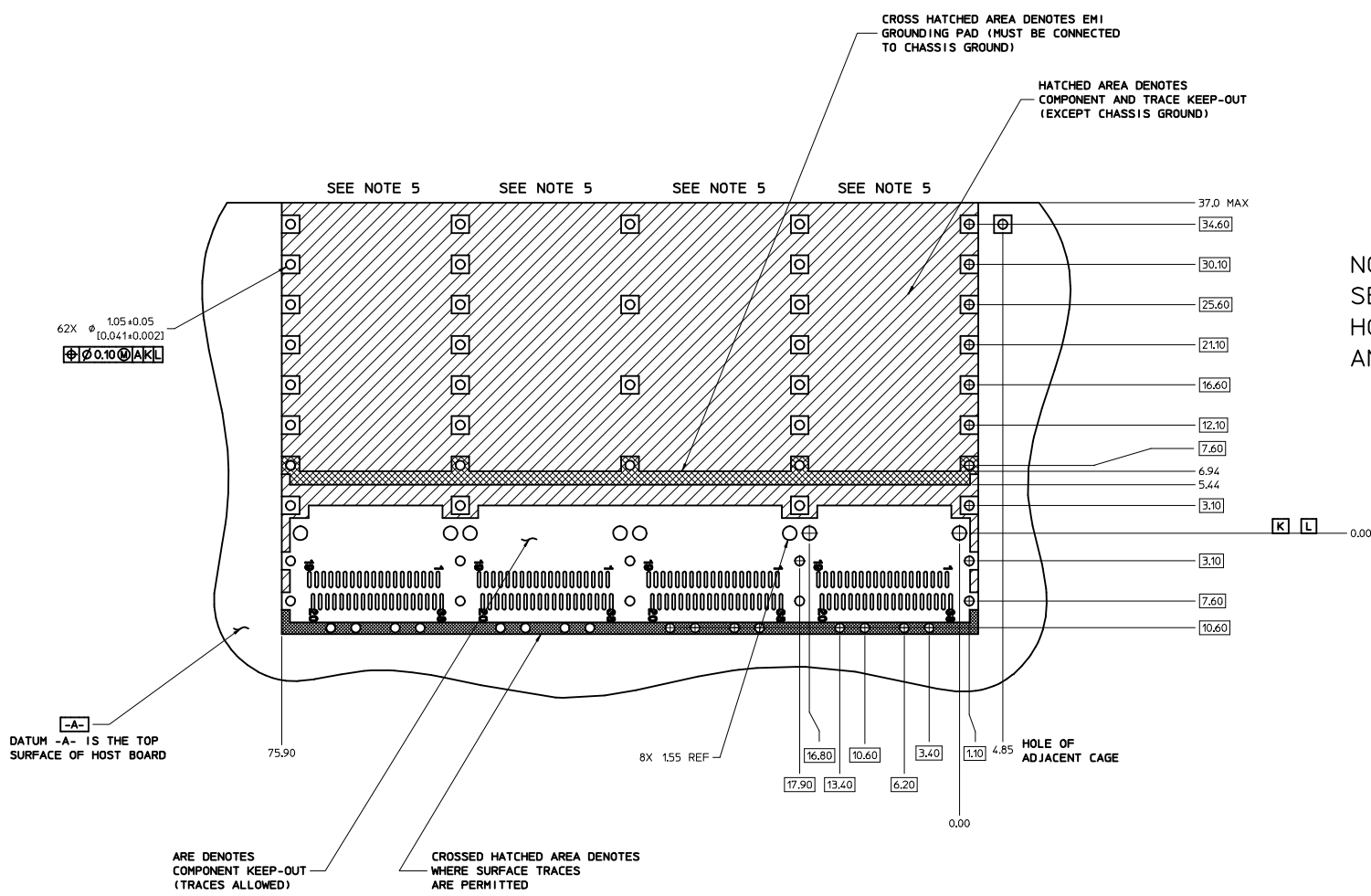


FOR QUAD 747500422 LIGHT PIPE ONLY



SEE REV HISTORY IEC NO: CPG2015-0311 DRAWN: WALLACE01 2015/03/04 CHECKED: JERWIN 2015/07/01 APPR: K LLOYD 2015/07/01	QUALITY SYMBOLS ▽=0 ▽=0 ▽=0	GENERAL TOLERANCES (UNLESS SPECIFIED)		DIMENSION STYLE MM ONLY		SCALE 3:1	DESIGN UNITS METRIC	THIRD ANGLE PROJECTION	
		mm	INCH	DRAWN BY JERWIN		DATE 2011/05/03		TITLE QSFP+ 1X4 GANGED CAGE ASSEMBLIES WITH ELASTOMER GASKET molex DOCUMENT NO. SD-74769-0501	
		4 PLACES ± ---		CHECKED BY CHIRSCHY		DATE 2011/05/03			
		3 PLACES ± ---		APPROVED BY RMAHMOOD		DATE 2011/06/10			
2 PLACES ± 0.15		MATERIAL NO. SHT 5, 6 & 7		SIZE D					
1 PLACE ± 0.25		ANGULAR ± 1°		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		SHEET NO. 9 OF 14	
0 PLACE ± ---								1	

PCB LAYOUT FOR BELLY TO BELLY MOUNTING

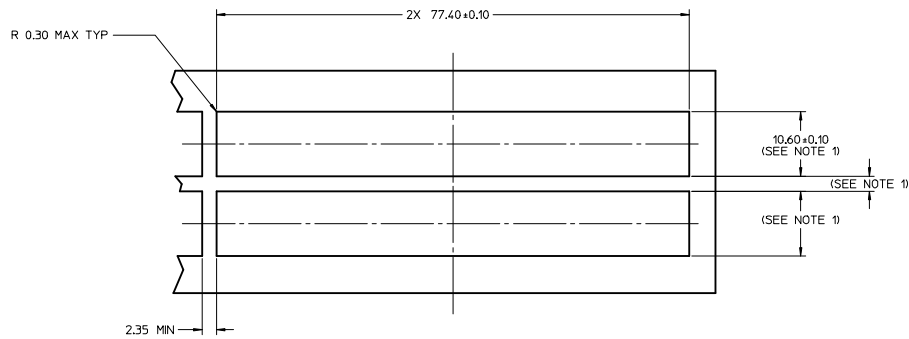
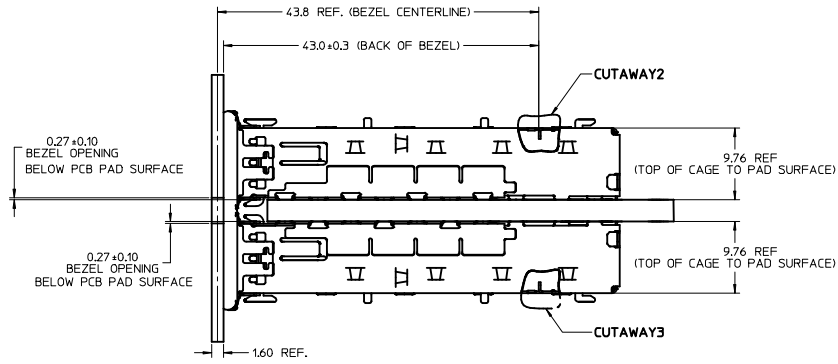


NOTE:
SEE SHEET 8 & 9 FOR
HOST CONNECTOR DETAIL
AND LED LOCATION DETAILS

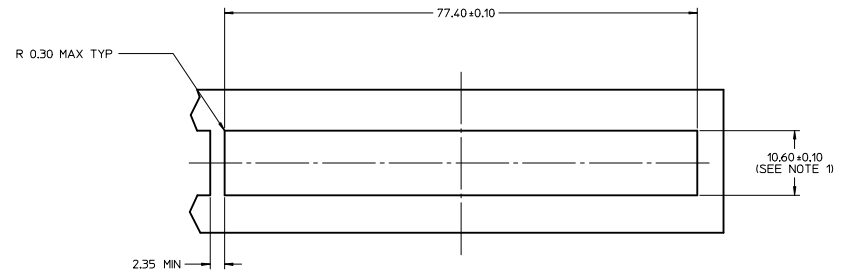
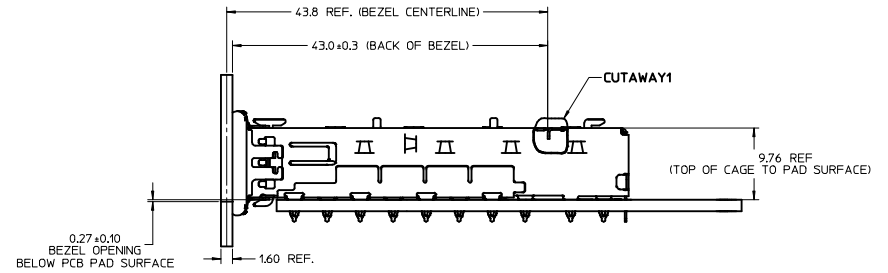
- NOTES:**
1. PADS AND VIAS CONNECT TO CHASSIS GROUND (RECOMMEND PADS TO BE 2.00mm SQUARE)
 2. RECOMMENDED THRU HOLE PLATING INCLUDES HASL, OSP, OR IMMERSION (GOLD, SILVER, OR TIN).
 3. CONNECTOR PAD LAYOUT PER QSFP MSA WILL ACCOMMODATE MOLEX CONNECTOR 75586-0010 OR 75586-0011.
 4. BELLY TO BELLY BOARD THICKNESS:
NOMINAL: 2.90 [0.114"]
MINIMUM: 2.48 [0.098"]
 5. SPACING BETWEEN PORTS IS 19.00 [0.748"].

SEE REV HISTORY EC NO: CPG2015-0311 DRWNS: WALLACE01 2015/03/04 CHKD: JERWIN 2015/07/01 APPR: K LLOYD 2015/07/01	QUALITY SYMBOLS ▽=0 ▽=0 ▽=0	GENERAL TOLERANCES (UNLESS SPECIFIED) <table border="1"> <thead> <tr> <th></th> <th>mm</th> <th>INCH</th> </tr> </thead> <tbody> <tr> <td>4 PLACES</td> <td>±0.15</td> <td>±0.006</td> </tr> <tr> <td>3 PLACES</td> <td>±0.25</td> <td>±0.010</td> </tr> <tr> <td>2 PLACES</td> <td>±0.38</td> <td>±0.015</td> </tr> <tr> <td>1 PLACE</td> <td>±0.51</td> <td>±0.020</td> </tr> <tr> <td>0 PLACE</td> <td>±0.64</td> <td>±0.025</td> </tr> </tbody> </table> ANGULAR ± 1° DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS		mm	INCH	4 PLACES	±0.15	±0.006	3 PLACES	±0.25	±0.010	2 PLACES	±0.38	±0.015	1 PLACE	±0.51	±0.020	0 PLACE	±0.64	±0.025	DIMENSION STYLE MM ONLY	SCALE 4:1	DESIGN UNITS METRIC	THIRD ANGLE PROJECTION
		mm	INCH																					
	4 PLACES	±0.15	±0.006																					
	3 PLACES	±0.25	±0.010																					
2 PLACES	±0.38	±0.015																						
1 PLACE	±0.51	±0.020																						
0 PLACE	±0.64	±0.025																						
DRAWN BY JERWIN	DATE 2011/05/03	CHECKED BY DATE	TITLE QSFP+ 1X4 GANGED CAGE ASSEMBLIES WITH ELASTOMER GASKET	MATERIAL NO. SHT 5, 6, & 7			DOCUMENT NO. SD-74769-0501																	
APPROVED BY DATE			THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION																					
WATER NO. SHT 5, 6, & 7			SHEET NO. 10 OF 14																					

BOARD POSITION AND BEZEL DIMENSIONS FOR BELLY TO BELLY MOUNTING



BOARD POSITION AND BEZEL DIMENSIONS FOR SINGLE SIDE MOUNTING



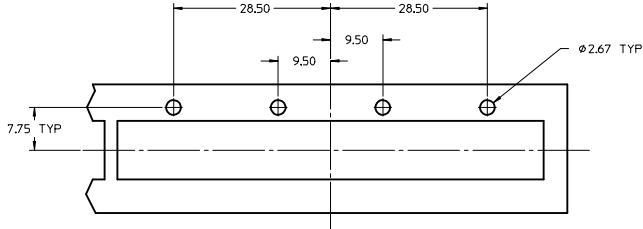
NOTES:
 1. PCB THICKNESS VARIATION MUST BE CONSIDERED WHEN DETERMINING BEZEL OPENING, SIZE, AND LOCATION

SEE REV HISTORY EIC NO: CPG2015-0311 DRAWN: WALLACE01 2015/03/04 CHKD: JERWIN 2015/07/01 APPR: KLLOYD 2015/07/01	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	
	▽=0	3 PLACES ±0.15 ±---	JERWIN	2011/05/03	QSFP+ 1X4 GANGED CAGE ASSEMBLIES WITH ELASTOMER GASKET	
	2 PLACES ±0.25 ±---	CHECKED BY	DATE			
	1 PLACE ±--- ±---	CHIRSCHY	2011/05/03			
	0 PLACE ±--- ±---	APPROVED BY	DATE			
		RAHMOOD	2011/06/10			
	ANGULAR ± 1 °	DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS	MATERIAL NO.	DOCUMENT NO.		
			SHT 5, 6, & 7	SD-74769-0501		
			SIZE D	THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION		

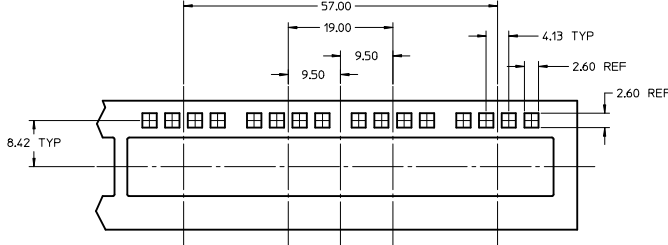
SHEET NO. 11 OF 14

LIGHTPIPE CUTOUT DIMENSIONS

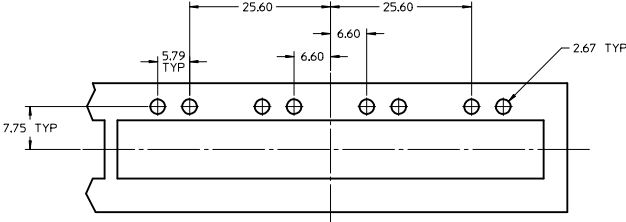
SINGLE LIGHT PIPE



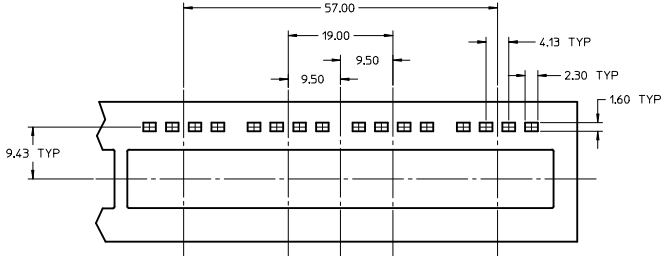
QUAD LIGHT PIPE (SQUARE)



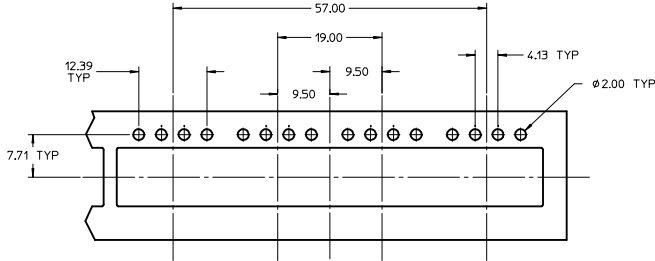
DUAL LIGHT PIPE



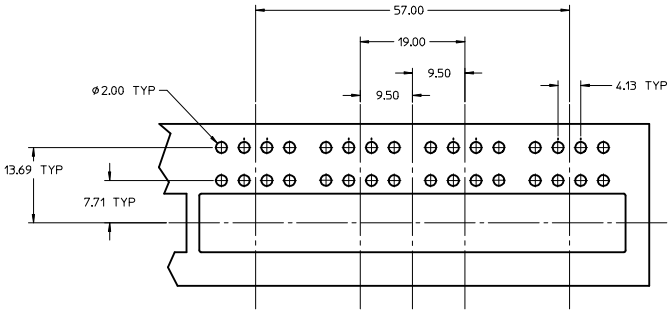
QUAD LIGHT PIPE (RECTANGULAR)



QUAD LIGHT PIPE (ROUND)



2 ROW QUAD LIGHT PIPE



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

SEE REV HISTORY IEC NO: CPG2015-0311 DRAWN: WALLACE01 2015/03/04 CHECKED: JERWIN 2015/07/01 APPR: KLOYD 2015/07/01	QUALITY SYMBOLS	GENERAL TOLERANCES (UNLESS SPECIFIED)	DIMENSION STYLE	SCALE	DESIGN UNITS	THIRD ANGLE PROJECTION
	▽=0	mm INCH	MM ONLY	2.25:1	METRIC	☉
	▽=0	4 PLACES ± 0.15				
	▽=0	2 PLACES ± 0.25				
		ANGULAR ± 1°	DRAWN BY	DATE	TITLE	
		DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS	JERWIN	2011/05/03	QSFP+ 1X4 GANGED CAGE ASSEMBLIES WITH ELASTOMER GASKET	
			CHECKED BY	DATE	molex MATERIAL NO. SHT 5, 6, & 7 DOCUMENT NO. SD-74769-0501	
			APPROVED BY	DATE		
			RM AHMOOD	2011/06/10	SHEET NO. 12 OF 14	
					THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION	

DATE	REV	DESCRIPTION
2011/05/03	A	1) INITIAL RELEASE
2012/11/21	B	SHT1: ADDED P/N 747690514 AND 747690515 TO CHART. SHT1: ADDED DIM 'B' IN.
2013/06/03	C	SHT1: CHANGED 5.39 TYP TO, 5.39 REF (TO CENTER OF LEG). SHT1: ADDED P/N'S 747690508, 747690509 AND 747690516 TO CHART. SHT2: MOVED DIM 15.99 FROM DETAIL 1 TO MAIN BOARD VIEW. SHT1: REARRANGED VIEWS AND MANAGED OUT PARTS TO ADD CAGES WITHOUT HEATSINKS AND LIGHT PIPES. MOVED LIGHT PIPE DIMENSIONS FROM FRONT VIEW TO SHT 3. ADDED ISO VIEW TO SHOW UNDERBELLY EMI FINGERS AND REAR LEGS. ADDED SHEET TITLE 'CAGE DETAILS' WITH P/N SHOWN. MOVED P/N TABLE TO SHT 4. MOVED HEATSINK HEIGHT TABLE TO SHT 2. ADDED DIMS FOR GASKET FRAME. REMOVED NOTES 3, 4, AND 7. CHANGED NOTE 1 TO READ QSPF+ ASSEMBLES ALSO AVAILABLE AND 1X1 (74750 SERIES), 1X2 (74767 SERIES), 1X3 (74768 SERIES), AND 1X6 (74771 SERIES) CONFIGURATIONS. ADDED NICKEL TO CAGE MATERIAL NOTE. SHT2: MOVED ALL VIEWS AND NOTES TO SHT 5. ADDED RIGHT SIDE VIEW AND VIEWS OF SINGLE AND DUAL HEATSINKS. ADDED TOL TO TABLE. SHT3: MOVED SHT 3 TO NEW SHT 6. ADDED TOP VIEW AND VIEWS OF SINGLE AND DUAL LIGHT PIPES. ADDED BACK VIEWS TO SHOW REAR LEG OPTIONS. ADDED ISO VIEWS TO SHOW ELASTOMERIC OPTIONS. SHT4: MOVED SHT 3 TO NEW SHT 7. ADDED ISO VIEWS TO SHOW CAGE ASSEMBLY OPTIONS. CHANGED THE P/N TABLE TO INDIVIDUAL TABLES SHOWING OPTIONS FOR NO HEATSINK AND LIGHT PIPES. NO LIGHT PIPES, AND HEATSINKS AND LIGHT PIPES. SHT5: MOVED REV HISTORY TO NEW SHT 9. SHT7: ADDED THE WORD 'PAD' TO NOTE 'BELOW PCB SURFACE' @I18, J18, AND 18. REMOVED DIM 10.60 +/- 0.10 @E12. SHT8: ADDED SHT 8 WITH BEZEL LIGHTPIPE CUTOUT POSITIONS DIMENSIONS. REMOVED DIM 10.60 +/- 0.10 D12 AND I12.
2013/08/08	D	SHT1: CHANGED FIXED TEXT @F20 & E16 TO READ RECTANGULAR INSTEAD OF SQUARE. SHT3: CORRECTED DIMENSIONS LISTED FOR THE ELASTOMER GASKETS. SHT4: ADDED P/N 747690217 TO TABLE @H11. ADDED NOTE 'USES LOW PROFILE RECTANGULAR GASKET' @H11 & C17. ALIGNED THE ISO VIEWS AND TABLES. SHT5: ALIGNED TEXT 'HOLE OF ADJACENT CAGE' TO CORRESPONDING DIM 4.85. ADDED TEXT HOST CONNECTOR DETAIL @C3. SHT7: ADDED REF & 'TOP OF CAGE TO PAD SURFACE TO DIMS 9.76 @J12, I12, & J2. SHT8: REMOVED MULTIPLIER FROM DIM 5.79 AND MADE IT TYP @F17.
2013/08/09	E	SHT4: REMOVED LIGHTPIPE OPTION FROM P/N'S 747690514 & 747690516. MOVED P/N'S TO TABLE WITH HEATSINK NO LIGHTPIPE.
2013/09/02	F	SHT1: CHANGED TITLE TO READ 'BASE CAGE DETAILS' @M10. REMOVED P/N AND 'SHOWN' FROM TITLE. REMOVED NOTE LIGHT PIPE REMOVED FOR CLARITY @F4. ADDED NOTE 'INNER SPRING FINGERS HAVE BEEN REMOVED FOR CLARITY' @D16. SHT2: DIM 16.0 REF WAS BROUGHT OUT TO TWO DECIMAL PLACES AND IS NOW 15.99 REF @L15. SHT3: REMOVED P/N AND 'SHOWN' FROM TITLE @L10. SHT4: HEATSINK AND LIGHT PIPE CLIP WERE MISSING FROM VIEWS @K4 & E4 AND WERE MANAGED INTO THE VIEWS. SHT5: CHANGED MULTIPLIER FOR DIAMETER DIM 1.05 +/-0.05 FROM X34 TO X33 @H20. SHT6: CHANGED MULTIPLIER FOR DIAMETER DIM 1.05 +/-0.05 FROM X68 TO X62 @I18.
2013/12/19	G	SHT2: ADDED PCI, SAN AND NET HEATINKS FOR QUAD LIGHT PIPES. SHT3: ADDED QUAD LIGHT PIPE. SHT4: ADDED ISO VIEW OF QUAD LIGHT PIPE ASSEMBLY AND P/N'S 747680517 THRU 0522 TO CHART. SHT5: ADDED VIEW OF QUAD LIGHT PIPE LED LAYOUT. SHT8: ADDED VIEWS FOR SINGLE AND BELLY TO BELLY BEZEL FOR QUAD LIGHT PIPES.
2014/02/11	H	SHT1: CORRECTED GASKET DIMENSIONS FOR FRONT VIEW. SHT2: CHANGED NOTE: 1) FOR LIGHT PIPE OPTIONS SEE SHEET 3 TO, 1) FOR LIGHT PIPE OPTIONS SEE SHEET 4. REMOVED DIMENSIONS DIM 'B' (SEE SHEET 6) CHANGED DIMENSION 22.55 REF TO, 22.55 +/-0.25 AND 16.31 REF TO, 16.31 +/-0.25. REMOVED TOLERANCE COLUMN FROM HEATSINK HEIGHT OPTIONS CHART AND CHANGED DIM 'A' TO, DIM 'A' MAX. SHT3: ADDED QUAD LIGHT PIPE (WITH SQUARE TIPS), QUAD LIGHT PIPE (WITH FLARED TIPS) AND 2 ROW LIGHT PIPE (ROUND TIPS). MOVED ALL OTHER VIEWS, LEG OPTIONS AND GASKET OPTIONS AND NOTE: 1 TO SHEET 4. SHT7: REMOVED DIM 'B' COLUMN FROM P/N'S 747690529 & 0530 AND ADDED P/N'S 747690429 & 0550. ADDED VIEWS AND PART NUMBERS FOR QUAD ASSEMBLIES WITH SQUARE, FLARED TIP OR 2 ROW QUAD LIGHT PIPES SHT8: CHANGED TEXT LED CENTERLINE TO, LED CENTERLINE (NOT FOR QUAD LIGHT PIPES). ADDED LED LOCATIONS FOR THE 2 ROW QUAD TO VIEW PARTIAL 6. ADDED NEW NOTE 4 AND CHANGED HOLE PATTERN NOTE FROM 'HOLE PATTERN REPEATS FOR EACH PORT. SPACING BETWEEN PORTS IS 19.00 [0.748] TO, SPACING BETWEEN PORTS IS 19.00 [0.748]. SHT9: ADDED NEW NOTE 4 AND CHANGED HOLE PATTERN NOTE FROM 'HOLE PATTERN REPEATS FOR EACH PORT. SPACING BETWEEN PORTS IS 19.00 [0.748] TO, SPACING BETWEEN PORTS IS 19.00 [0.748]. SHT10: REMOVED NOTE 2. SHT11: REMOVED NOTE 2 AND ALL BELLY TO BELLY BEZELS. ADDED SQUARE AND 2 ROW BEZELS.
2014/07/22	I	SHT3: UPDATED 2 ROW QUAD LIGHT PIPE VIEW. SHT4: UPDATED 2 ROW QUAD TOP VIEW AND ADDED CUTAWAY VIEW. SHT5: ADDED ISO OF CLOSED TOP WITH SINGLE LP AND ASSOCIATED PART NUMBERS. ADDED P/N'S 747680204, 0205, 0206 & 0207 TO NO HEATSINKS/ NO LIGHT PIPES CHART. SHT7: UPDATED 2 ROW QUAD LIGHT PIPE WITH HEATSINKS VIEW.
2014/09/10	J	SHT2: REVISED DIM 'B'(SEE SHEET 6) TO: DIM 'B'(SEE SHEET 5, 6 & 7) SHT3: ADDED ISO VIEW OF QUAD LIGHT PIPE WITH RECTANGULAR TIP. SHT4: UPDATED DIM 4X 62.9 REF (APPLIES TO SINGLE QUAD L/P APPLICATIONS ONLY) TO, 4X 62.9 REF (APPLIES TO SINGLE QUAD L/P APPLICATIONS ONLY) (EXCEPT 747690561). CORRECTED TEXT FROM 2.6 X 41.0 [.0103 X 1.62 INCH] ROUND GASKET TO, 2.6 X 41.0 [.0103 X 1.62 INCH] ROUND GASKET SHT7: ADDED ISO VIEW AND P/N WITH DESCRIPTION FOR 747690561. SHT9: MOVED DETAIL VIEW FOR QUAD & 2 ROW QUAD LIGHT PIPES FROM SHT 8 TO, SHT 9. ADDED DETAIL VIEW FOR PCB USING 747500422 LIGHT PIPE. SHT12: ADDED BEZEL VIEW FOR QUAD LIGHT PIPE WITH RECTANGULAR TIP LED HOLES.

SEE REV HISTORY EC NO: CPG2015-0311 DRAWN: WALLACE01 CHKD: JERWIN APPR: KLOYD 2015/03/04 2015/07/01 2015/07/01	QUALITY SYMBOLS	GENERAL TOLERANCES (UNLESS SPECIFIED)	DIMENSION STYLE	SCALE	DESIGN UNITS	THIRD ANGLE PROJECTION
	▽=0	4 PLACES ±--- INCH	MM ONLY	1:1	METRIC	
	▽=0	3 PLACES ±--- INCH				
	▽=0	2 PLACES ±0.15 INCH				
		1 PLACE ±0.25 INCH				
		0 PLACE ±--- INCH				
		ANGULAR ± 1 °				
		DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS				
			MATERIAL NO.	DOCUMENT NO.		SHEET NO.
			SHT 5, 6, & 7	SD-74769-0501		13 OF 14
			THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION			

DATE	REV	DESCRIPTION
2014/11/14	K	SHT2: ADDED VIEW FOR ASSEMBLY W/ SINGLE QUAD LIGHT PIPE. REVISED DIM 'B' (SEE SHEET 5, 6 & 7) TO, DIM 'B' (SEE SHEET 5 & 6) ØM18. SHT3: ADDED VIEW AND CHART FOR LED CLEARANCE. SHT4: ADDED VIEWS FOR ASSEMBLIES USING ROUND TIP QUAD LIGHT PIPE AND SQUARE/ FLARED/ RECTANGULAR TIP LIGHT PIPES. SHT7: ADDED DIM 'B' & 'C' COLUMNS TO CHART FOR 2 ROW QUAD LIGHT PIPE WITH HEAT SINKS ASSEMBLIES. SHT10: CHANGED NOTE: SEE PREVIOUS SHEET FOR HOST CONNECTOR DETAIL AND LED LOCATION DETAILS TO, NOTE: SEE SHEET 8 & 9 FOR HOST CONNECTOR DETAIL AND LED LOCATION DETAILS
2014/12/18	L	SHT6: ADDED P/N 747690551 TO CHART.
2015/07/01	M	SHT6: ADDED GASKET STYLE COLUMN AND REVISED TIP STYLE COLUMN NOTE: 'WAS' SQUARE. 'NOW READS' ROUND ØH11.

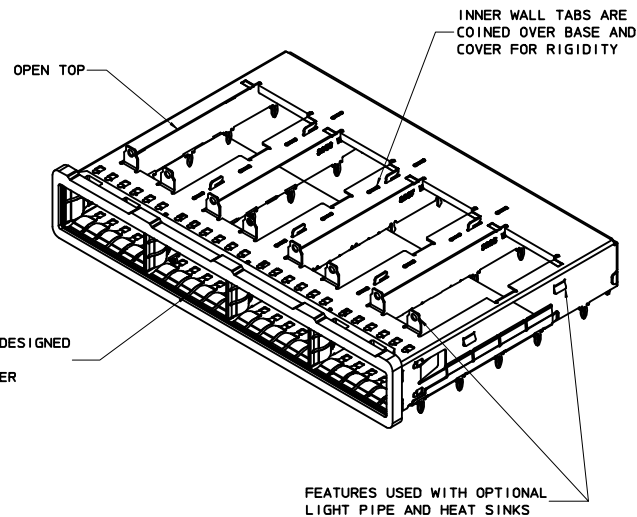
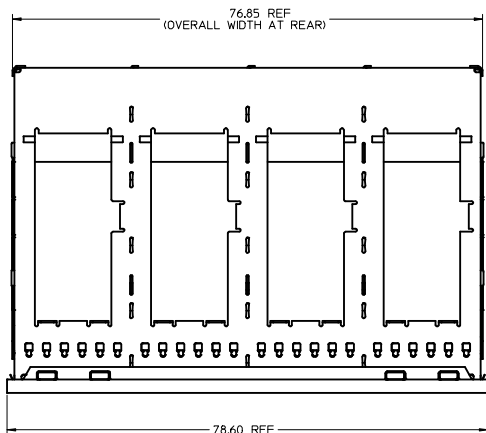
SEE REV HISTORY IEC NO: CPG2015-0311 DRAWN: WALLACE01 2015/03/04 CHECKED: JERWIN 2015/07/01 APPROV: K LLOYD 2015/07/01 M	QUALITY SYMBOLS	GENERAL TOLERANCES (UNLESS SPECIFIED)	DIMENSION STYLE	SCALE	DESIGN UNITS	THIRD ANGLE PROJECTION
	▽=0	4 PLACES ± mm INCH	MM ONLY	3:1	METRIC	☉
	▽=0	3 PLACES ± 0.15				
	▽=0	2 PLACES ± 0.25				
		ANGULAR ± 1°	DRAWN BY	DATE	TITLE	
		DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS	JERWIN	2011/05/03	QSFP+ 1X4 GANGED CAGE ASSEMBLIES WITH ELASTOMER GASKET	
			CHECKED BY	DATE	molex	
			CHIRSCHY	2011/05/03		
			APPROVED BY	DATE	DOCUMENT NO.	
			RAHMOOD	2011/06/10	SD-74769-0501	
			MATERIAL NO.	SHEET NO.		
			SHT 5, 6 & 7	14 OF 14		
			SIZE	THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION		
			D			

CAGE DETAILS

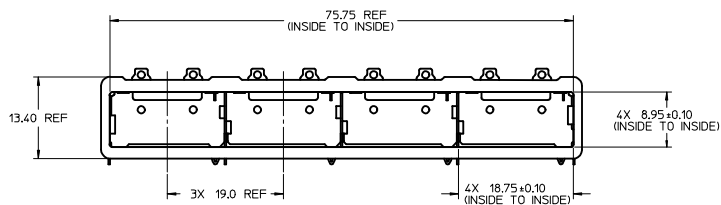
(APPLIES TO ALL CAGES IN THIS DRAWING)

747692212

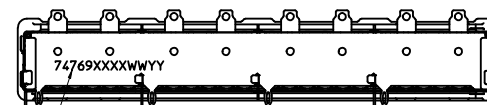
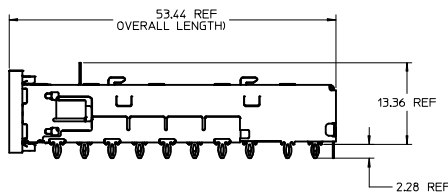
SHOWN



DIMENSION OF EACH INNER CAGE DESIGNED TO FUNCTION WITH QUAD SMALL FORM-FACTOR (QSFP+) TRANSCEIVER



INNER SPRING FINGERS HAVE BEEN REMOVED FOR CLARITY



PART NO. AND WEEK/YEAR DATE CODE TO BE PRINTED ON BACK OF COMPLETED CAGE ASSEMBLY AS SHOWN.

WEEK/YEAR DATE CODE TABLE	
WW	01 THRU 52 (EXAMPLE: 01 - FIRST WEEK OF YEAR 52 - LAST WEEK OF YEAR)
YY	11, 12, 13 ETC. EXAMPLE: YEAR 2013 = 13

NOTES:

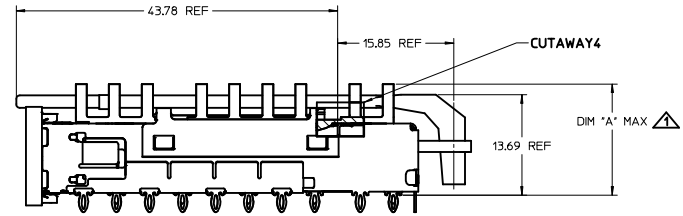
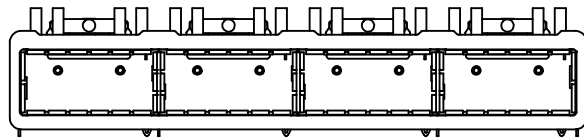
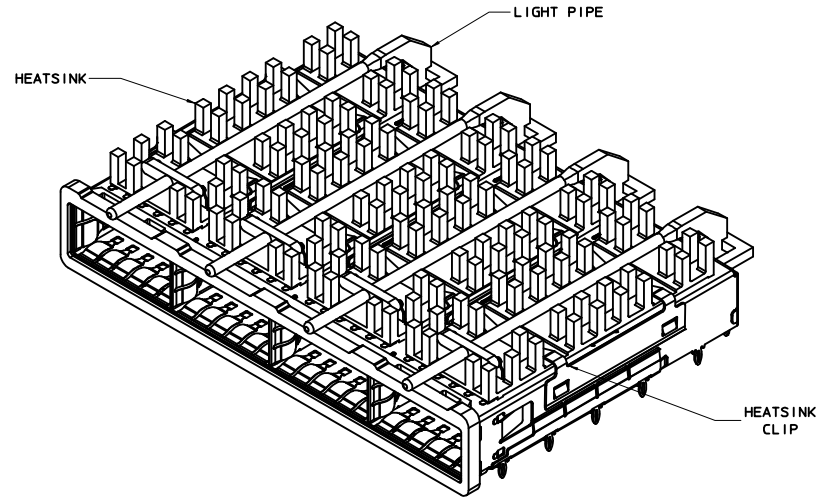
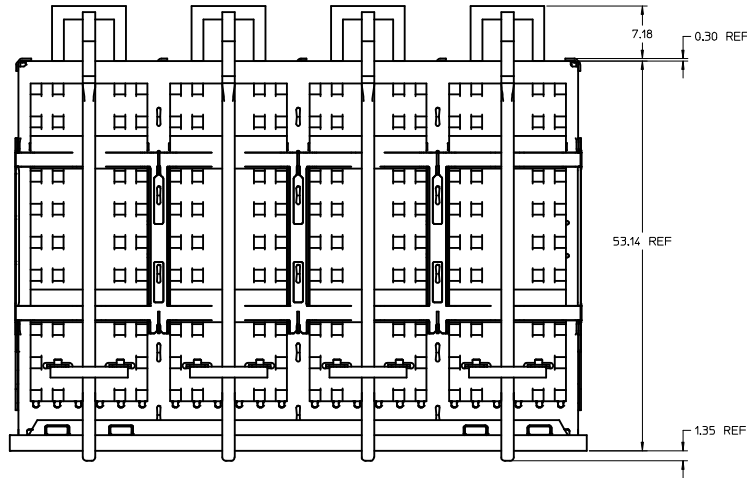
- MATERIAL:**
 CAGE: NICKEL PLATED COPPER ALLOY, THICKNESS 0.25MM
 SPRING FINGER: NICKEL PLATED COPPER ALLOY
 FRONT FLANGE: ZINC ALLOY
- LIGHT PIPE AND HEAT SINK ASSEMBLIES AVAILABLE
- RoHS NO EXEMPTIONS

SEE REVISION CHART EEC NO: CPG2015-2180 DRAWN: JERWIN 2014/07/21 CHECKED: CHYKOSBARIELLA 2014/10/24 APPROVED: APPR: BREED 2014/10/27	QUALITY SYMBOLS	GENERAL TOLERANCES (UNLESS SPECIFIED)	DIMENSION STYLE	SCALE	DESIGN UNITS	THIRD ANGLE PROJECTION	
	∇=0 ∇=0 ∇=0	4 PLACES ± --- ± --- 3 PLACES ± --- ± --- 2 PLACES ± 0.13 ± --- 1 PLACE ± 0.25 ± --- 0 PLACE ± --- ± ---	MM ONLY 2.5:1 METRIC	DRAWN BY: JERWIN CHECKED BY: TPRICE APPROVED BY: K LLOYD	DATE: 2013/01/24 DATE: 2013/01/24 DATE: 2013/02/25	TITLE: QSFP+ 1X4 BEHIND THE BEZEL ASSEMBLY	MATERIAL NO. SEE CHART DOCUMENT NO. SD-74769-2200
	DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS	ANGULAR ± 1 °	SIZE D	THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION			
				SHEET NO. 1 OF 10			

CAGE ASSEMBLY OPTIONS

747692521

SHOWN

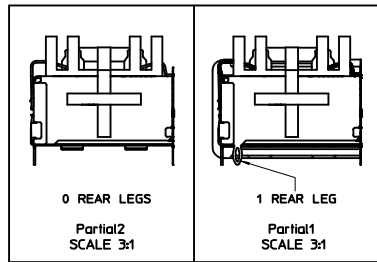


HEATSINK HEIGHT OPTIONS

OVERALL HEATSINK HEIGHT	DIM 'A'
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.

REAR LEG OPTIONS

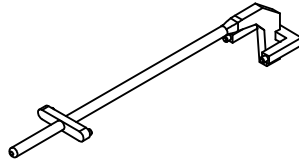


NOTES:
 MATERIAL:
 LIGHTPIPES: POLYCARBONATE (UL94-V0)
 HEATSINKS: (ANODIZED OR NICKEL PLATED)

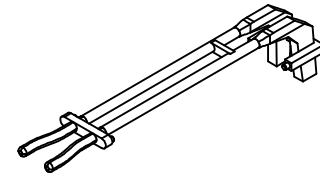
SEE REVISION CHART IEC NO: CPG2015-2180 DRAWN: JERWIN 2014/07/21 CHECKED: GARDELLA 2014/10/24 APPR: BREED 2014/10/27	QUALITY SYMBOLS	GENERAL TOLERANCES (UNLESS SPECIFIED)	DIMENSION STYLE	SCALE	DESIGN UNITS	THIRD ANGLE PROJECTION
	▽=0	mm INCH	MM ONLY	3:1	METRIC	☉
	▽=0	4 PLACES ± --- ± ---	DRAWN BY DATE	TITLE		
	▽=0	3 PLACES ± 0.13 ± ---	JERWIN 2013/01/24	QSFP+ 1X4 BEHIND THE BEZEL ASSEMBLY		
▽=0	2 PLACES ± 0.25 ± ---	CHECKED BY DATE	MATERIAL NO. DOCUMENT NO.			
	1 PLACE ± --- ± ---	TPRICE 2013/01/24	SEE CHART		SD-74769-2200	
	0 PLACE ± --- ± ---	APPROVED BY DATE	SHEET NO.			
		KLLOYD 2013/02/25	2 OF 10			
			THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION			

HEATSINK AND LIGHT PIPE OPTIONS

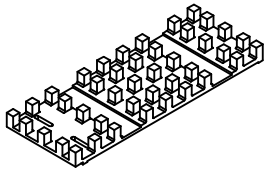
SINGLE LIGHT PIPE



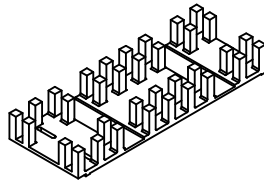
DUAL LIGHT PIPE



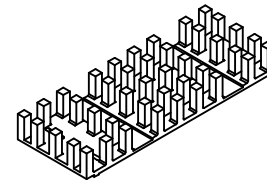
PIN FIELD HEATSINK FOR NO LIGHT PIPE



PIN FIELD HEATSINK FOR SINGLE LIGHT PIPE

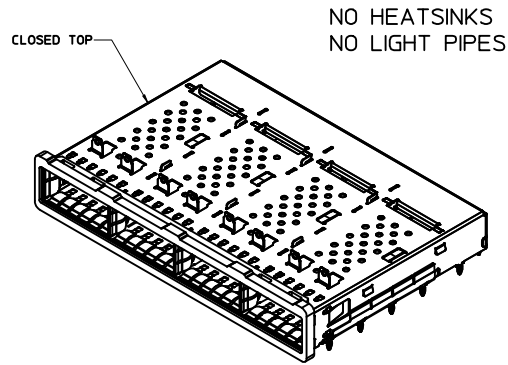


PIN FIELD HEATSINK FOR DUAL LIGHT PIPE

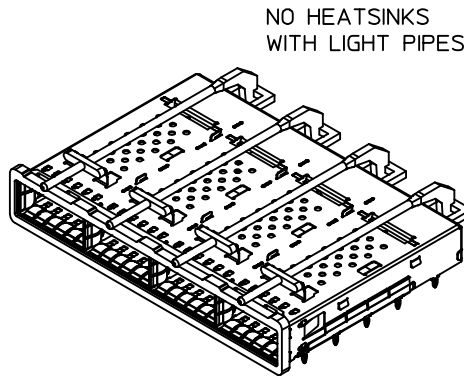


SEE REVISION CHART IEC NO: CPG2015-2180 DRAWN BY: JERWIN 2014/07/21 CHECKED BY: CHYK-GARDELLA 2014/10/24 APPR: BREED 2014/10/27	QUALITY SYMBOLS	GENERAL TOLERANCES (UNLESS SPECIFIED)	DIMENSION STYLE	SCALE	DESIGN UNITS	THIRD ANGLE PROJECTION	
	∇=0 ∇=0 ∇=0	mm INCH 4 PLACES ± --- ± --- 3 PLACES ± --- ± --- 2 PLACES ± 0.13 ± --- 1 PLACE ± 0.25 ± --- 0 PLACE ± --- ± ---	MM ONLY	2.5:1	METRIC	☉ □ THIRD ANGLE PROJECTION	
	ANGLAR ± 1 ° DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS	DRAWN BY: JERWIN 2013/01/24 CHECKED BY: TPRICE 2013/01/24 APPROVED BY: KLLLOYD 2013/02/25	TITLE: QSFP+ 1X4 BEHIND THE BEZEL ASSEMBLY		MATERIAL NO. SEE CHART		DOCUMENT NO. SD-74769-2200
	SIZE: D	THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION					SHEET NO. 3 OF 10

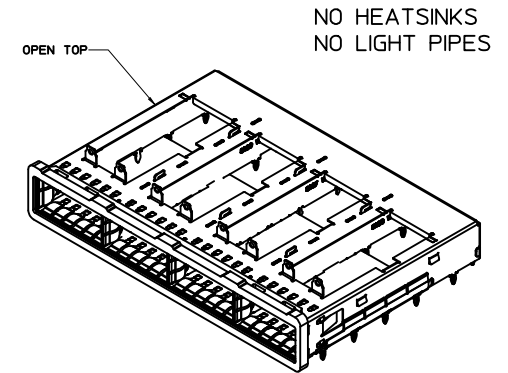
PART NUMBER SELECTION



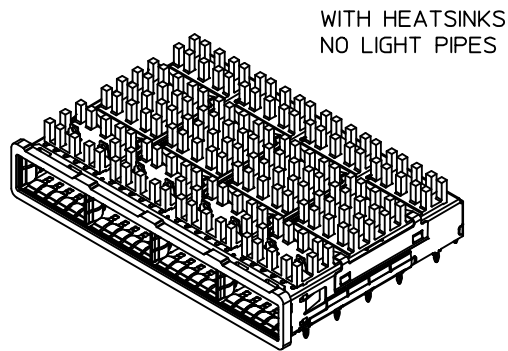
MOLEX P/N	# OF REAR LEGS PER PORT
747692202	0
747692203	1



MOLEX P/N	LIGHTPIPE	BELLY GASKET	# OF REAR LEGS PER PORT
747692600	SINGLE	NO	0
747692601	SINGLE	NO	1
747692602	DUAL	NO	0
747692603	DUAL	NO	1
747692604	SINGLE	YES	0
747692605	SINGLE	YES	1
747692606	DUAL	YES	0
747692607	DUAL	YES	1



MOLEX P/N	# OF REAR LEGS PER PORT
747692210	0
747692212	1



MOLEX P/N	HEATSINK	HEATSINK PLATING	#OF REAR LEGS PER PORT
747692300	PCI	ANODIZED	0
747692301	SAN	ANODIZED	0
747692302	NET	ANODIZED	0
747692303	PCI	ANODIZED	1
747692304	SAN	ANODIZED	1
747692305	NET	ANODIZED	1

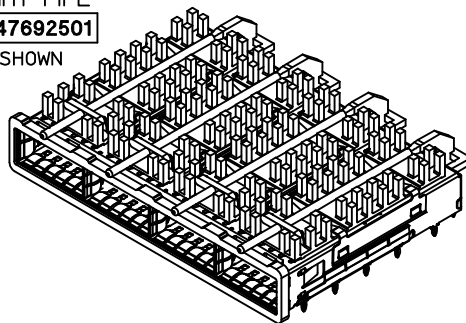
SEE REVISION CHART IEC NO: CPG2015-2180 DRAWN: JERWIN 2014/07/21 CHECKED: GARDELLA 2014/10/24 APPR: BREED 2014/10/27	QUALITY SYMBOLS ▽=0 ▽=0 ▽=0	GENERAL TOLERANCES (UNLESS SPECIFIED)		DIMENSION STYLE MM ONLY	SCALE 2:1	DESIGN UNITS METRIC	THIRD ANGLE PROJECTION		
		4 PLACES ± 0.13 ± 0.005 3 PLACES ± 0.25 ± 0.010 2 PLACES ± 0.50 ± 0.020 1 PLACE ± 1.00 ± 0.050 0 PLACE ± 1.50 ± 0.075		ANGLULAR ± 1°		DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS		MATERIAL NO. SEE CHART	
		DRAWN BY JERWIN		DATE 2013/01/24		CHECKED BY TPRICE		DATE 2013/01/24	
		APPROVED BY K LLOYD		DATE 2013/02/25		TITLE QSFP+ 1X4 BEHIND THE BEZEL ASSEMBLY		DOCUMENT NO. SD-74769-2200	
SHEET NO. 4 OF 10						SHEET NO. 4 OF 10			

PART NUMBER SELECTION

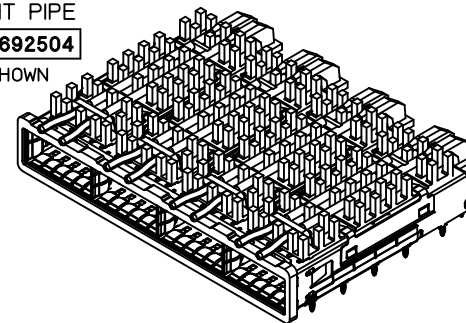
WITH HEATSINKS AND LIGHT PIPES

MOLEX P/N	LIGHTPIPE	HEATSINK	HEATSINK PLATING	#OF REAR LEGS PER PORT
747692400	SINGLE	PCI	ANODIZED	0
747692401	SINGLE	SAN	ANODIZED	0
747692402	SINGLE	NET	ANODIZED	0
747692403	DUAL	PCI	ANODIZED	0
747692404	DUAL	SAN	ANODIZED	0
747692505	DUAL	NET	ANODIZED	0
747692500	SINGLE	PCI	ANODIZED	1
747692501	SINGLE	SAN	ANODIZED	1
747692502	SINGLE	NET	ANODIZED	1
747692503	DUAL	PCI	ANODIZED	1
747692504	DUAL	SAN	ANODIZED	1
747692505	DUAL	NET	ANODIZED	1
747692521	SINGLE	SAN	NICKEL	1
747692522	SINGLE	PCI	NICKEL	1

SINGLE LIGHT PIPE
747692501
SHOWN

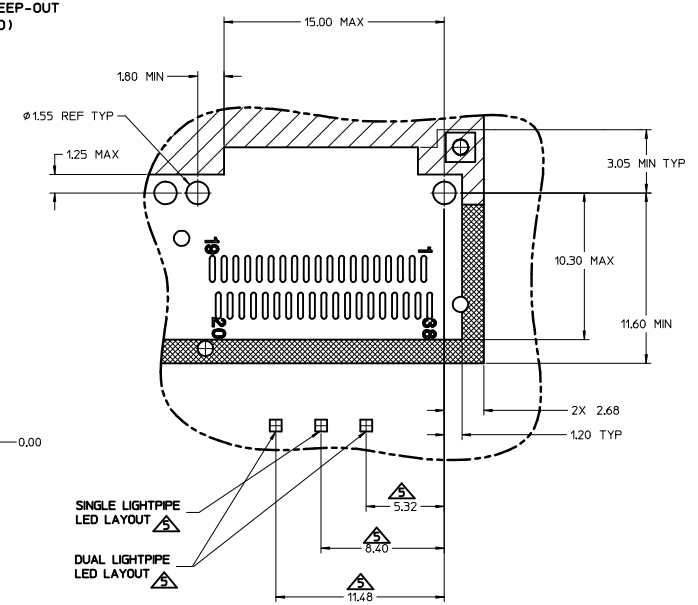
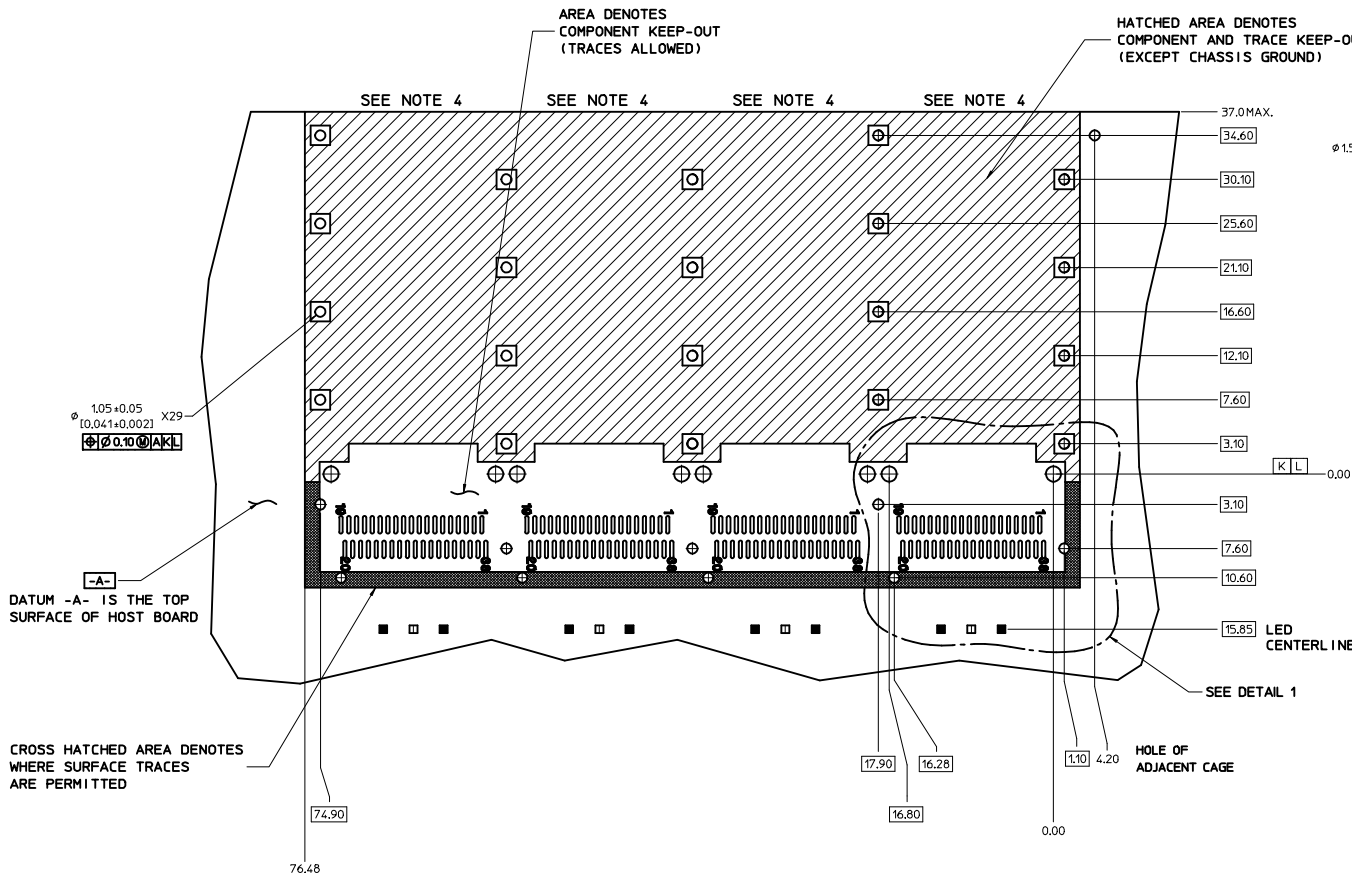


DUAL LIGHT PIPE
747692504
SHOWN



SEE REVISION CHART IEC NO: CPG2015-2180 DRAWN: JERWIN 2014/07/21 CHECKED: GARDELLA 2014/10/24 APPR: BREED 2014/10/27	QUALITY SYMBOLS	GENERAL TOLERANCES (UNLESS SPECIFIED)	DIMENSION STYLE	SCALE	DESIGN UNITS	THIRD ANGLE PROJECTION
	▽=0	mm INCH	MM ONLY	3:1	METRIC	☉
	▽=0	4 PLACES ± 0.13	DRAWN BY DATE	TITLE		
	▽=0	3 PLACES ± 0.25	JERWIN 2013/01/24	QSFP+ 1X4 BEHIND THE BEZEL ASSEMBLY		
REV	DESCRIPTION	1 PLACE ± 0.25	CHECKED BY DATE	MATERIAL NO.		
		0 PLACE ± 0.25	TPRICE 2013/01/24	SEE CHART		
		ANGULAR ± 1°	APPROVED BY DATE	DOCUMENT NO.		
		DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS	KLLOYD 2013/02/25	SD-74769-2200		
				SHEET NO. 5 OF 10		
				THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION		

PCB LAYOUT FOR SINGLE SIDED MOUNTING



HOST CONNECTOR DETAIL
DETAIL 1
SCALE 6:1

- NOTES:**
1. PADS AND VIAS GO TO CHASSIS GROUND.
 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. PRESS-FIT LEGS 2.28 [0.090] LONG - 1.57 [0.062] MINIMUM PCB THICKNESS FOR SINGLE SIDED USE.
- △ SPACING BETWEEN PORTS IS 19.00 [0.748].
NOTED DIMENSIONS ONLY APPLY TO CAGE ASSEMBLIES WITH LIGHT PIPES.

SEE REVISION CHART IEC NO: CPG2015-2180 DRAWN BY: JERWIN CHECKED BY: CHYONGBARELLA APPROVED BY: APPRE-BREED DATE: 2014/07/21 DATE: 2014/10/24 DATE: 2014/10/27	QUALITY SYMBOLS ∇=0 ∇=0 ∇=0	GENERAL TOLERANCES (UNLESS SPECIFIED)		DIMENSION STYLE MM ONLY		SCALE 4:1	DESIGN UNITS METRIC	THIRD ANGLE PROJECTION		
		4 PLACES ±--- ±--- 3 PLACES ±--- ±--- 2 PLACES ±0.13 ±--- 1 PLACE ±0.25 ±--- 0 PLACE ±--- ±---	mm INCH	DRAWN BY JERWIN DATE 2013/01/24	TITLE QSFP+ 1X4 BEHIND THE BEZEL ASSEMBLY	MATERIAL NO. SEE CHART DOCUMENT NO. SD-74769-2200				
		ANGULAR ± 1 ° DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS		CHECKED BY TPRICE DATE 2013/01/24	APPROVED BY KLOYD DATE 2013/02/25					
		THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION								

PCB LAYOUT FOR BELLY TO BELLY MOUNTING

AREA DENOTES
COMPONENT KEEP-OUT
(TRACES ALLOWED)

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

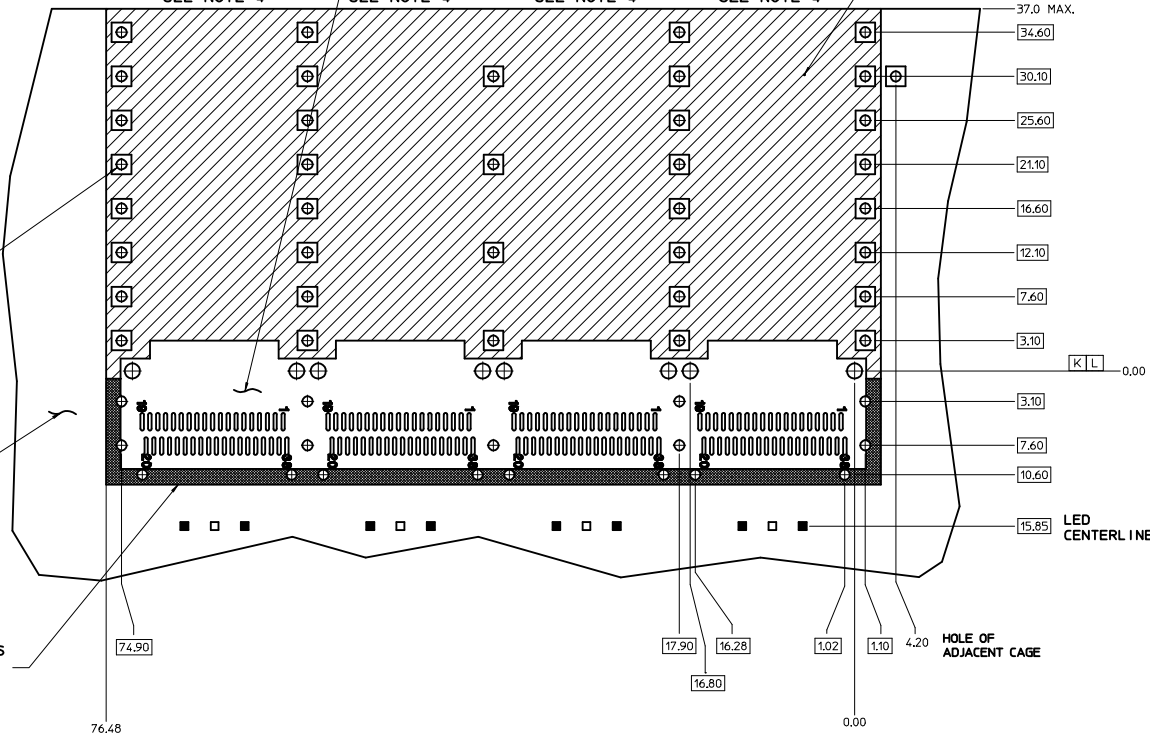
SEE NOTE 4 SEE NOTE 4 SEE NOTE 4 SEE NOTE 4

$\phi 1.05 \pm 0.05$
 $\phi 10.041 \pm 0.0021$ X53
K L

DATUM -A- IS THE TOP
SURFACE OF HOST BOARD

CROSS HATCHED AREA DENOTES
WHERE SURFACE TRACES
ARE PERMITTED

NOTE:
SEE PREVIOUS SHEET FOR
HOST CONNECTOR DETAIL
AND LED LOCATION DETAILS

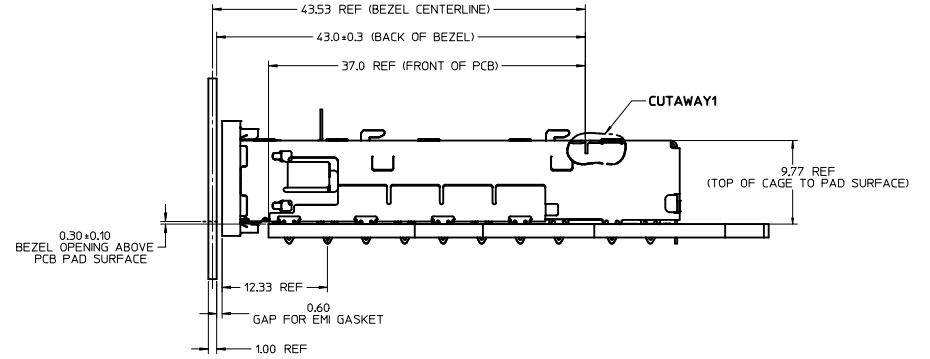
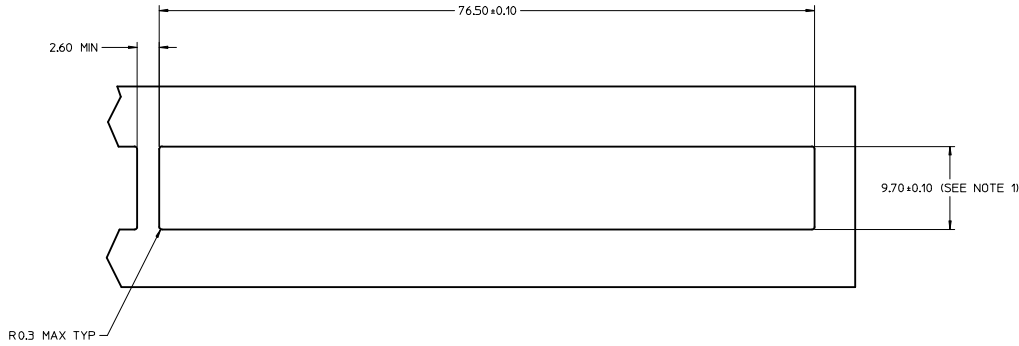


NOTES:

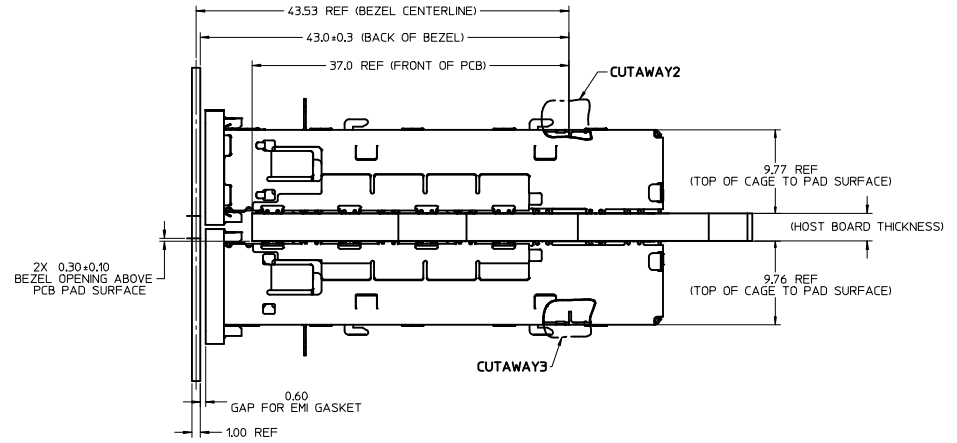
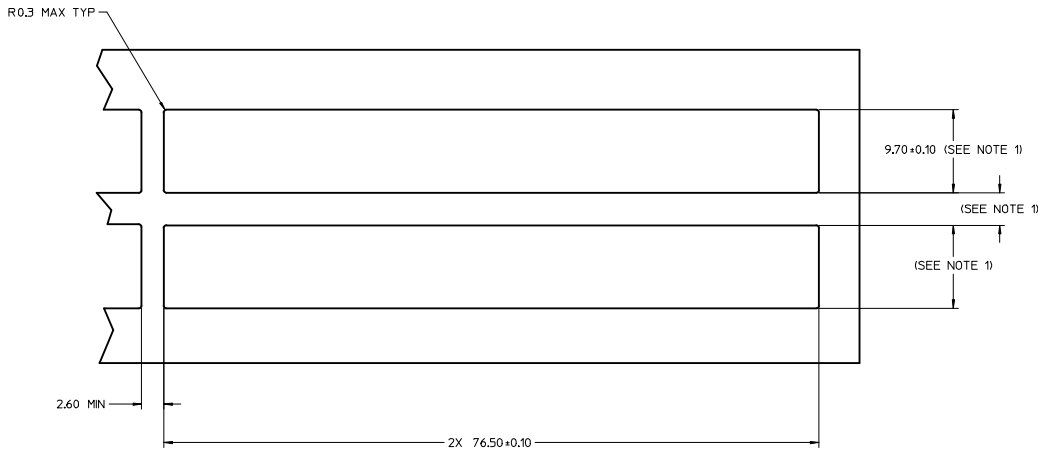
1. PADS AND VIAS GO TO CHASSIS GROUND.
2. RECOMMENDED THRU HOLE PLATING INCLUDES HASL, OSP, OR IMMERSION (GOLD, SILVER, OR TIN).
3. CONNECTOR PAD LAYOUT PER QSFP MSA WILL ACCOMMODATE MOLEX CONNECTOR 75586-0010 OR 75586-0011.
4. PRESS-FIT LEGS 2.28 [0.090] LONG -
3.00 [0.118] MINIMUM PCB THICKNESS FOR BELLY TO BELLY USE
5. SPACING BETWEEN PORTS IS 19.00 [0.748].

SEE REVISION CHART EC NO: CPG2015-2180 DRAWN: JERWIN 2014/07/21 CHKD: GABRIELLA 2014/10/24 APPR: BREED 2014/10/27	QUALITY SYMBOLS $\nabla=0$ $\nabla=0$ $\nabla=0$	GENERAL TOLERANCES (UNLESS SPECIFIED)		DIMENSION STYLE MM ONLY	SCALE 4:1	DESIGN UNITS METRIC	THIRD ANGLE PROJECTION		
		4 PLACES \pm --- INCH 3 PLACES \pm --- INCH 2 PLACES ± 0.13 INCH 1 PLACE ± 0.25 INCH 0 PLACE \pm --- INCH	4 PLACES \pm --- MM 3 PLACES \pm --- MM 2 PLACES ± 0.13 MM 1 PLACE ± 0.25 MM 0 PLACE \pm --- MM	DRAWN BY JERWIN	DATE 2013/01/24	TITLE QSFP+ 1X4 BEHIND THE BEZEL ASSEMBLY	APPROVED BY K LLOYD	DATE 2013/02/25	MATERIAL NO. SEE CHART

BEZEL AND BOARD POSITION DIMENSIONS FOR SINGLE SIDE MOUNTING



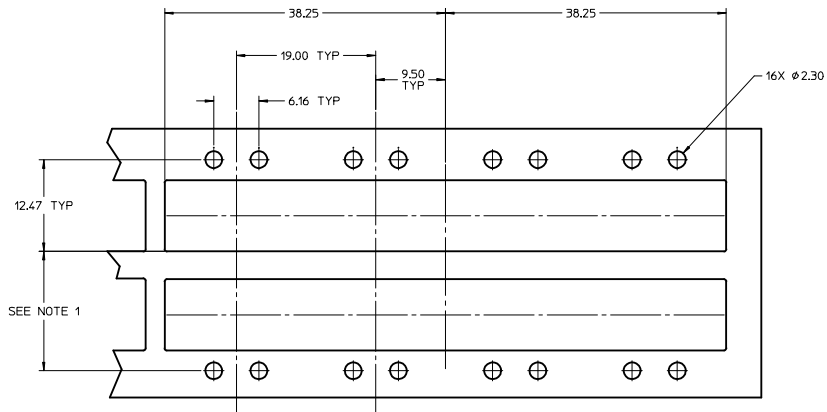
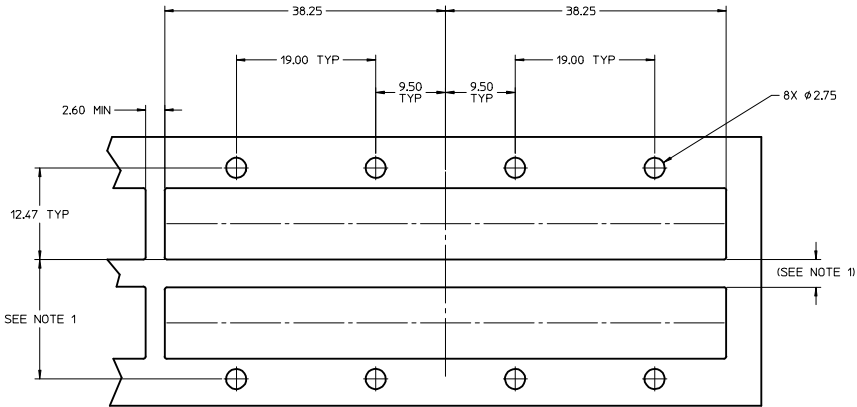
BEZEL AND BOARD POSITION DIMENSIONS FOR BELLY TO BELLY MOUNTING



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

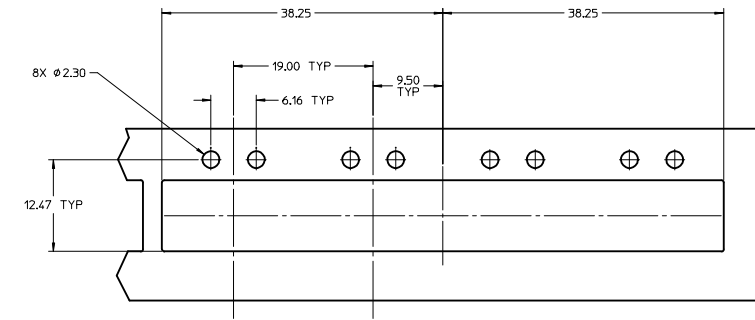
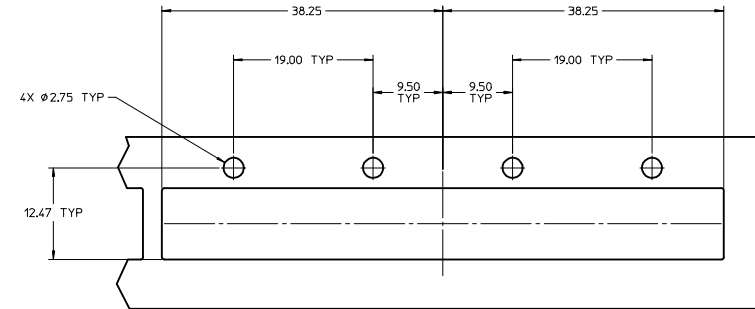
SEE REVISION CHART IEC NO: CPG2015-2180 DRAWN BY: JERWIN 2014/07/21 CHECKED BY: CHYO/GARDELLA 2014/10/24 APPR: BREED 2014/10/27	QUALITY SYMBOLS ∇=0 ∇=0 ∇=0	GENERAL TOLERANCES (UNLESS SPECIFIED)		DIMENSION STYLE MM ONLY	SCALE 3.5:1	DESIGN UNITS METRIC	THIRD ANGLE PROJECTION
		4 PLACES ± mm ± INCH	DRAWN BY: JERWIN DATE: 2013/01/24	QSF+ 1X4 BEHIND THE BEZEL ASSEMBLY 			
		3 PLACES ± 0.13 ± INCH	CHECKED BY: TPRICE DATE: 2013/01/24				
		2 PLACES ± 0.25 ± INCH	APPROVED BY: KLLLOYD DATE: 2013/02/25				
1 PLACE ± 0.25 ± INCH	0 PLACE ± 0.25 ± INCH						
ANGULAR ± 1°		DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS		MATERIAL NO: SEE CHART	DOCUMENT NO: SD-74769-2200	SHEET NO: 8 OF 10	
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 BELLY TO BELLY MOUNTING



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

BEZEL LIGHT PIPE CUTOUT POSITION DIMENSIONS FOR SINGLE SIDED MOUNTING



SEE REVISION CHART IEC NO: CPG2015-2180 DRAWN: JERWIN 2014/07/21 CHECKED: GARIBELLA 2014/10/24 APPR: BREED 2014/10/27	QUALITY SYMBOLS	GENERAL TOLERANCES (UNLESS SPECIFIED)	DIMENSION STYLE	SCALE	DESIGN UNITS	THIRD ANGLE PROJECTION
	▽=0	mm INCH	MM ONLY	3:1	METRIC	☉
	▽=0	4 PLACES ± --- ± ---	DRAWN BY DATE	TITLE		
	▽=0	3 PLACES ± --- ± ---	JERWIN 2013/01/24	QSF+ 1X4 BEHIND THE BEZEL ASSEMBLY		
	2 PLACES ± 0.13 ± ---	CHECKED BY DATE	MATERIAL NO.			SHEET NO.
	1 PLACE ± 0.25 ± ---	APPROVED BY DATE	SEE CHART			9 OF 10
	0 PLACE ± --- ± ---	KLLOYD 2013/02/25	DOCUMENT NO.			
	ANGULAR ± 1°		SD-74769-2200			
	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			

