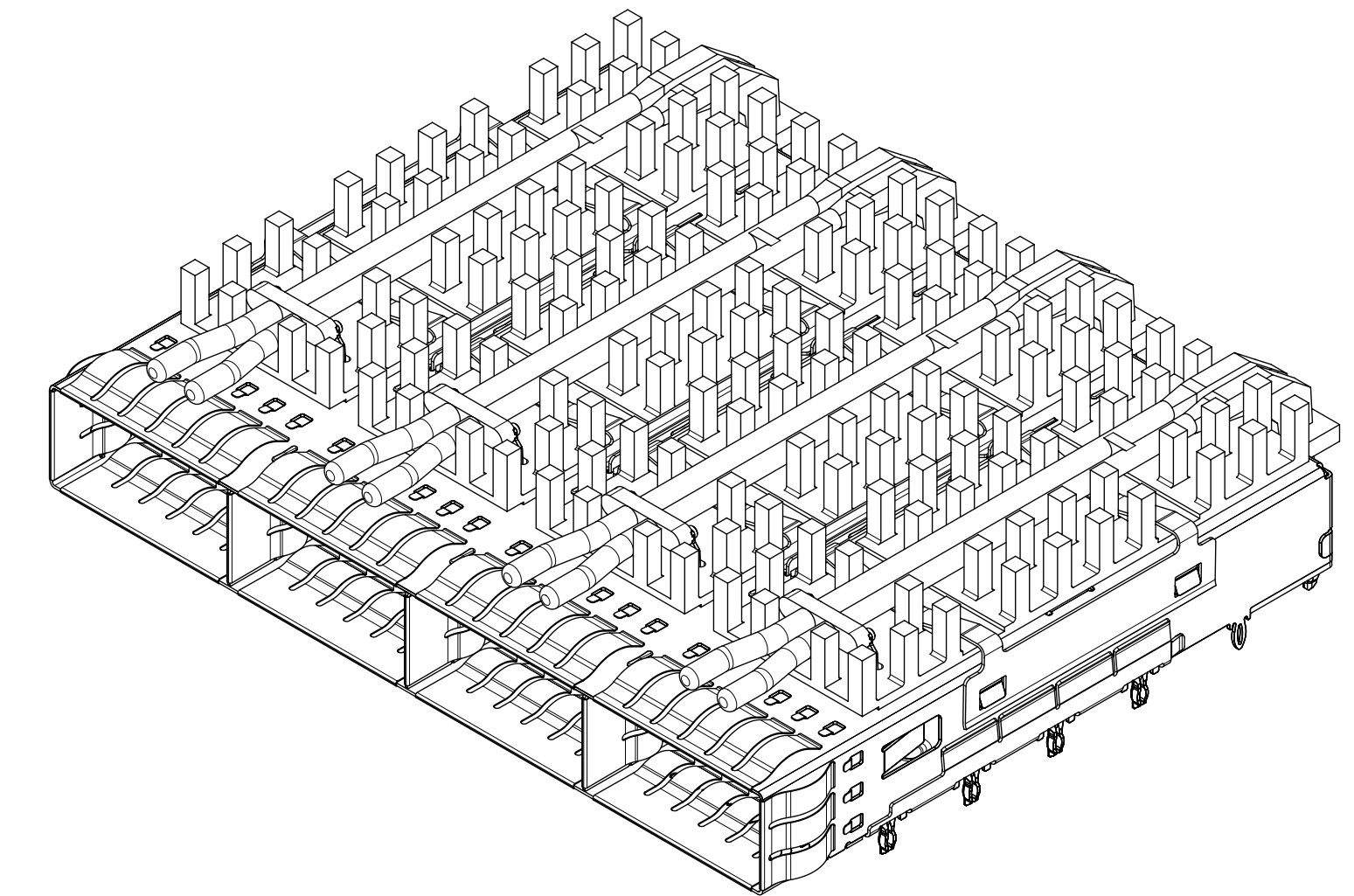
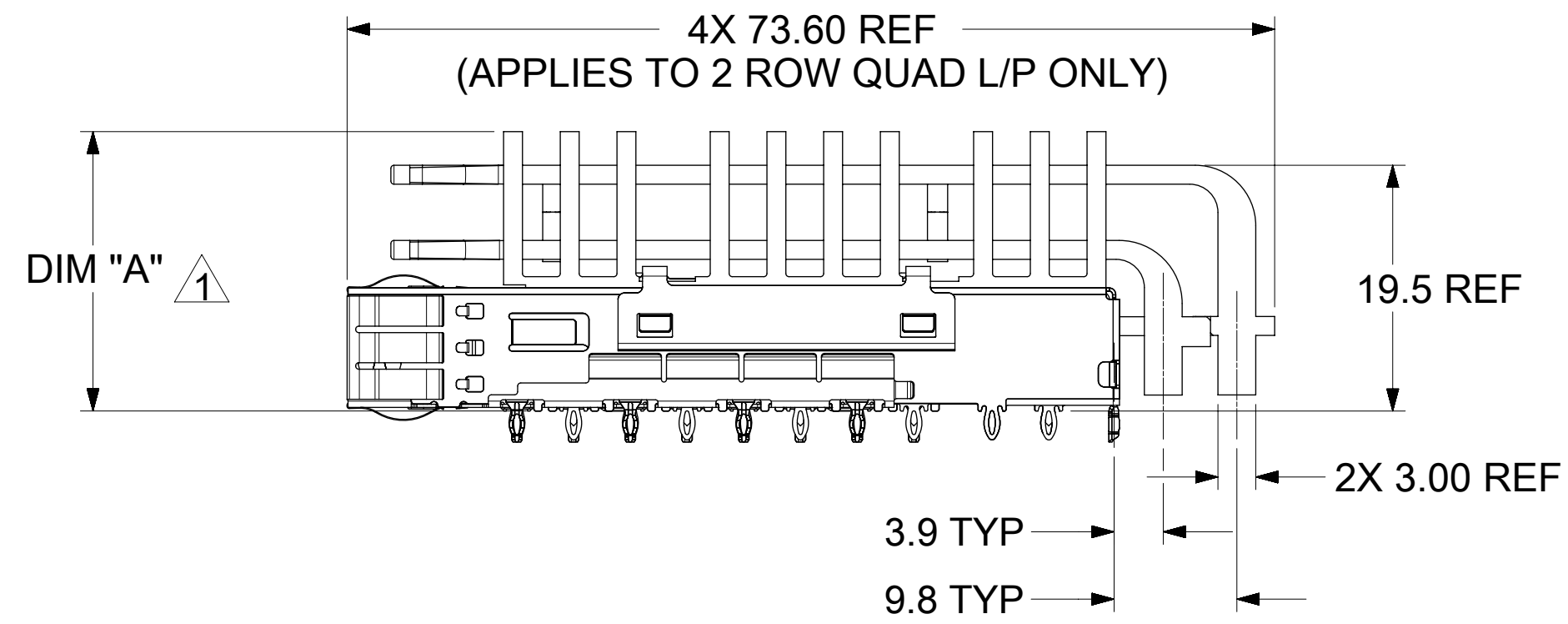
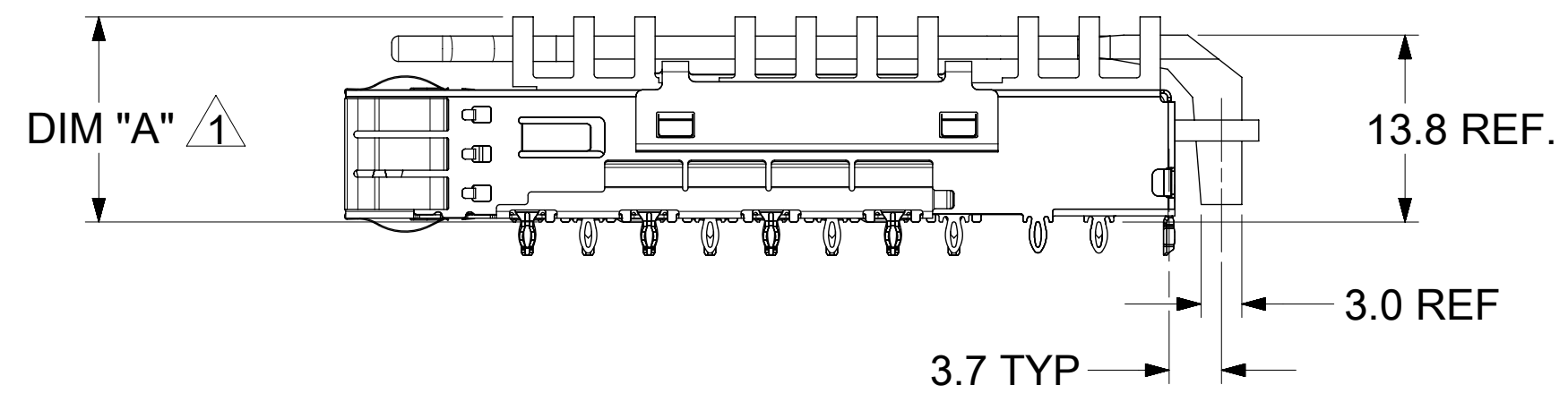
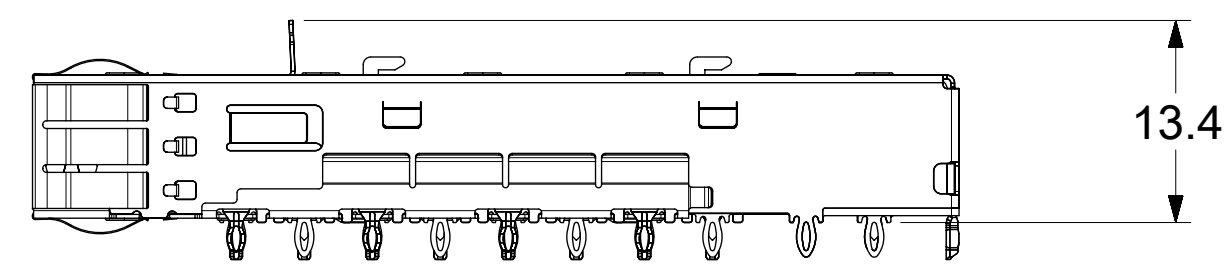
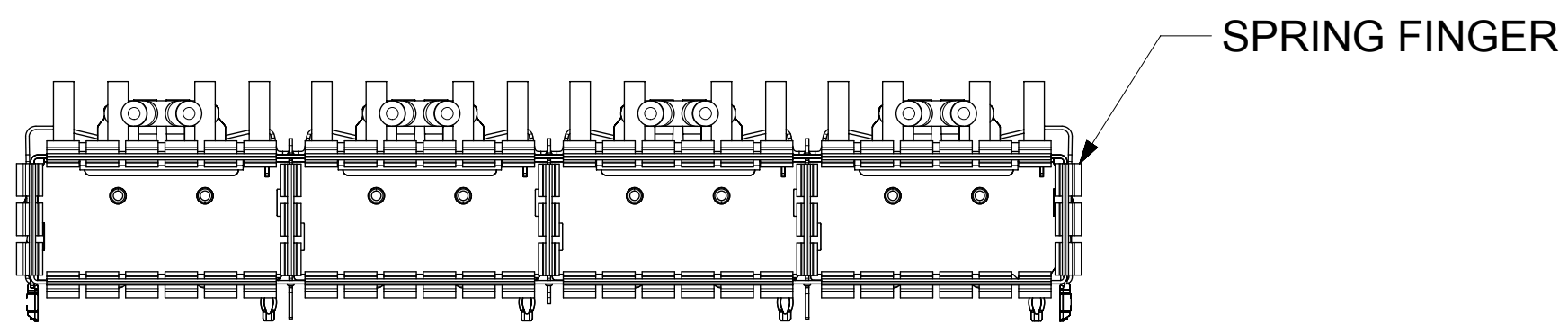
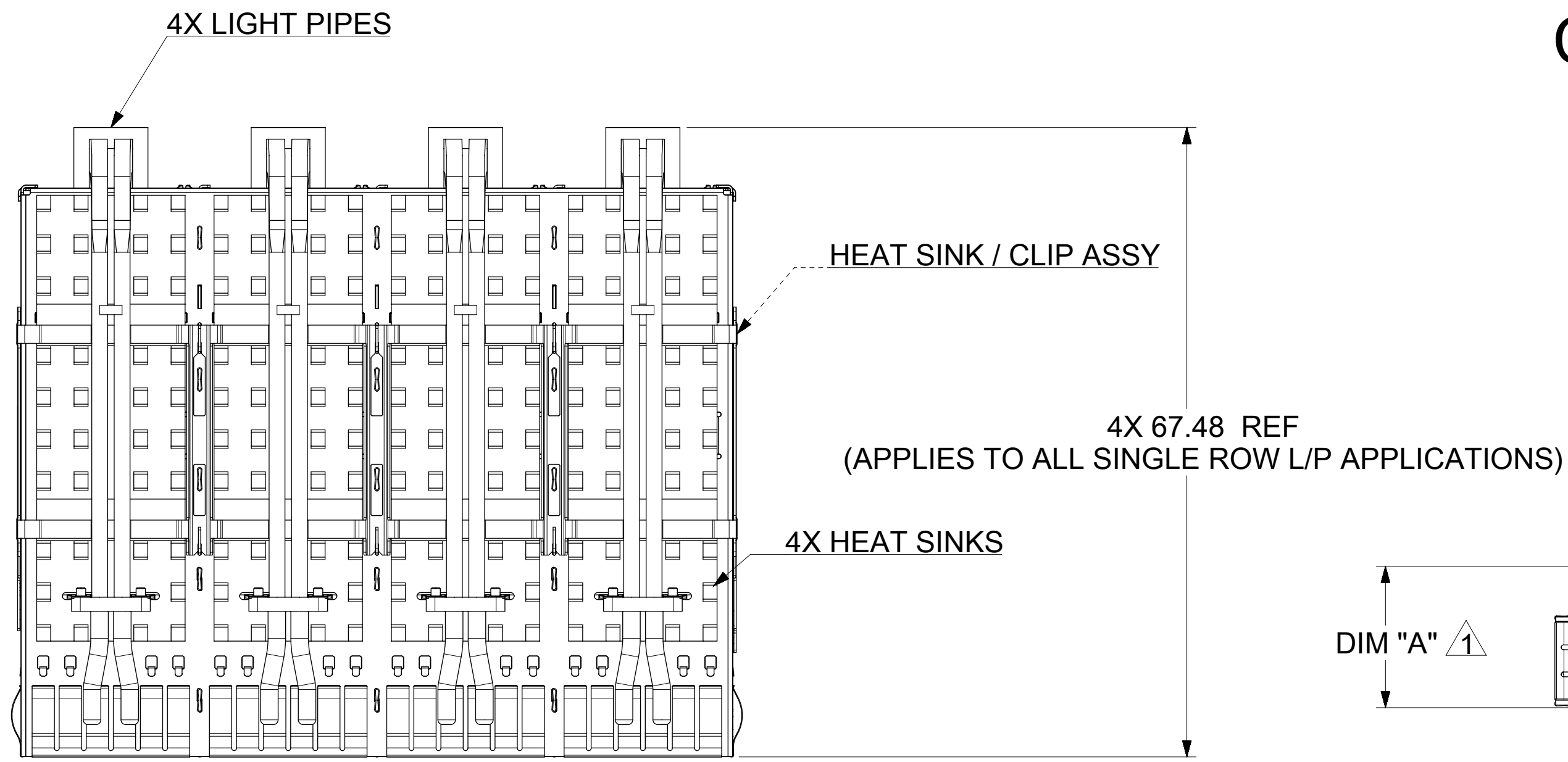




# CAGE ASSEMBLY OPTIONS

1000171544

SHOWN



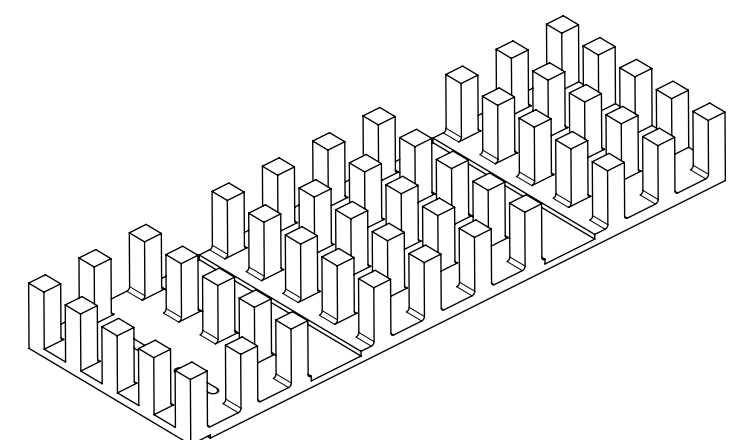
## HEATSINK HEIGHT OPTIONS

| OVERALL HEAT SINK HEIGHT | DIM "A"  |
|--------------------------|----------|
| PCI                      | 13.7 REF |
| SAN                      | 16.0 REF |
| NET                      | 23.0 REF |

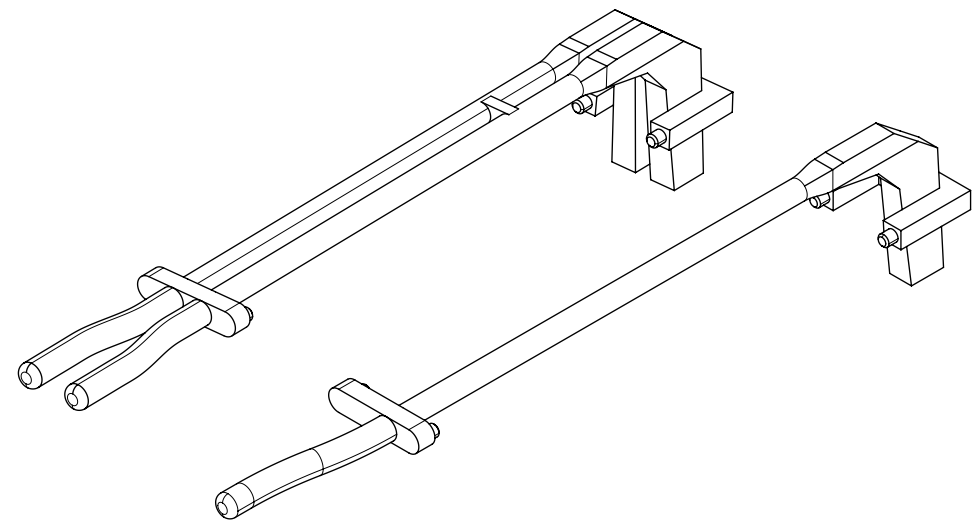
$\triangle$  HEIGHT OF HEAT SINK WITH MODULE INSERTED.  
DIMENSION MAY BE LESS DUE TO MODULE AND HEAT SINK VARIATIONS

## HEATSINK AND LIGHT PIPE COMBINATIONS

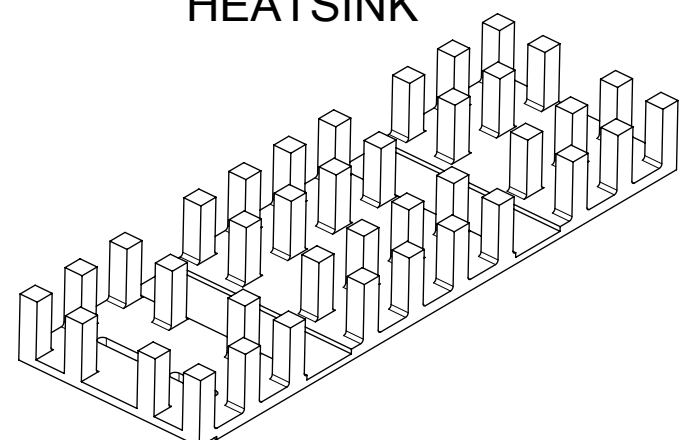
HEATSINK  
USED  
WITHOUT  
LIGHTPIPE



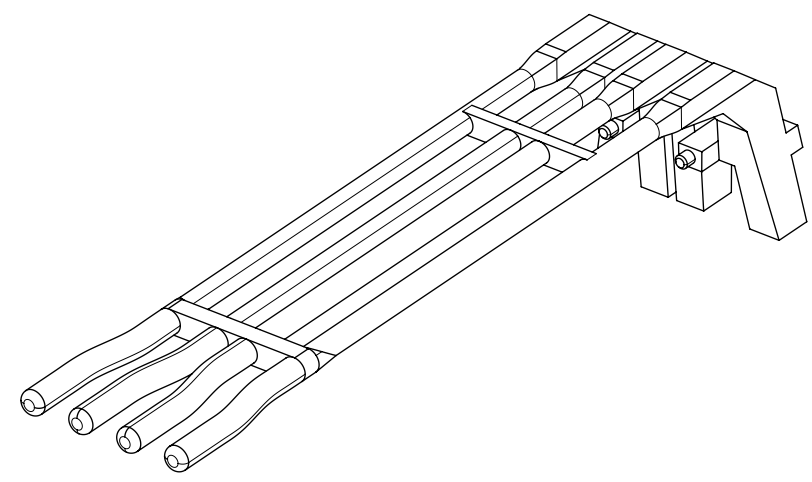
SINGLE / DUAL LIGHT PIPE



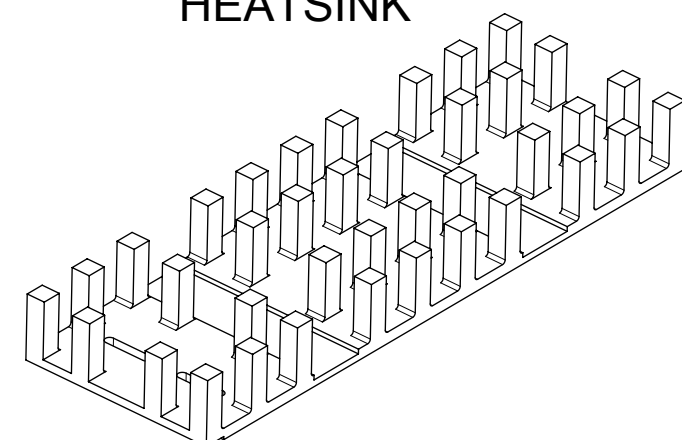
HEATSINK



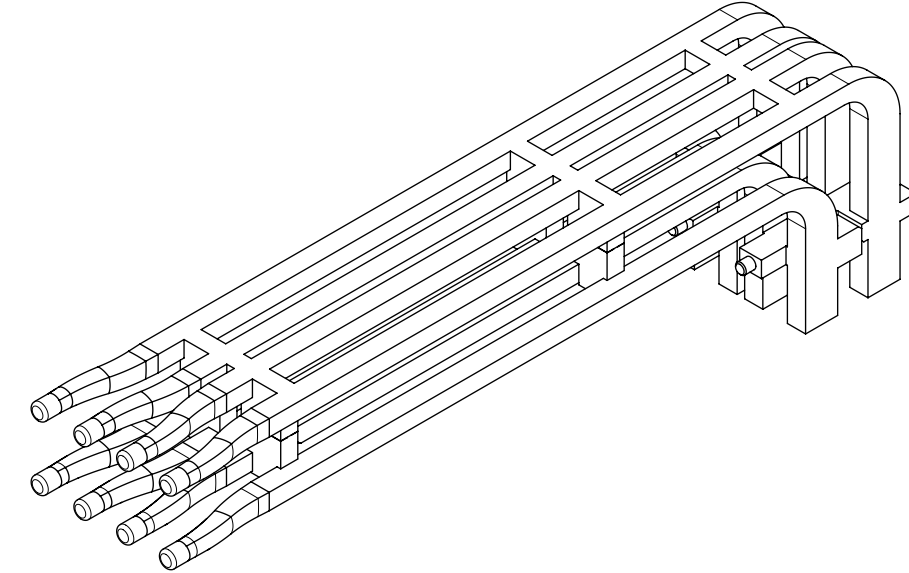
QUAD LIGHT PIPE



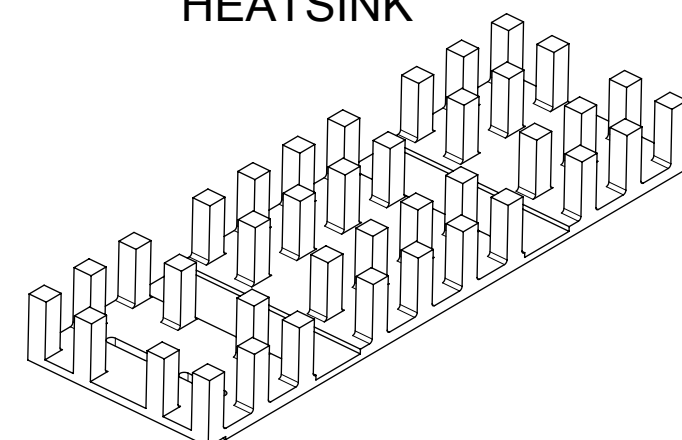
HEATSINK



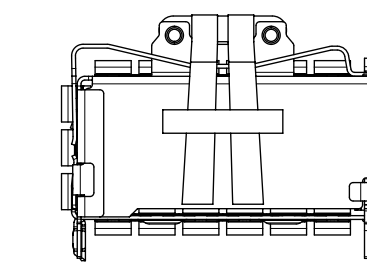
2 ROW QUAD LIGHT PIPE



HEATSINK

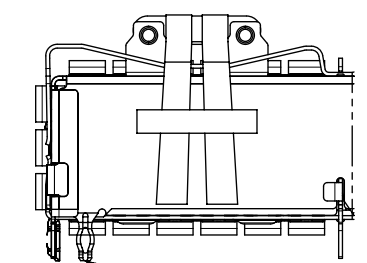


## REAR LEG OPTIONS



0 REAR LEGS

Partial1  
Scale 2.5:1



1 REAR LEGS

Partial2  
Scale 2.5:1

| SYMBOLS                                |  | THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX ELECTRONIC TECHNOLOGIES, LLC AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION |              |
|--|--|---|--------------|
| $\nabla = 0$                           | mm   | SCALE   | 2:1          |
| $\nabla = 0$                           | GENERAL TOLERANCES (UNLESS SPECIFIED)                |   |              |
| $\nabla = 0$                           | ANGULAR TOL $\pm 1.0^\circ$                          |   |              |
| $\nabla = 0$                           | 4 PLACES   | $\pm$   |              |
| $\nabla = 0$                           | 3 PLACES   | $\pm$   |              |
| $\nabla = 0$                           | 2 PLACES   | $\pm 0.13$  |              |
| $\nabla = 0$                           | 1 PLACE  | $\pm 0.25$  |              |
| $\nabla = 0$                           | 0 PLACES   | $\pm$   |              |
| $\nabla = 0$                           | DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS |   |              |
| $\nabla = 0$                           | THIRD ANGLE PROJECTION                               | DRAWING   | SERIES       |
| $\nabla = 0$                           |  | D-SIZE  | 100017       |
| CURRENT REV DESC: SEE REVISION HISTORY |  | EC NO: 601541   |              |
|  |  | DRWN: MKMEPEGOWDA   | 2017/06/07   |
|  |  | CHK'D: TKUMARKC   | 2018/07/17   |
|  |  | APPR: RCHEN08   | 2018/07/18   |
| INITIAL REVISION:                      |  | DRWN: KNAGANNA 2015/06/03   |              |
|  |  | APPR: RCHEN08 2016/01/11  |              |
| DOCUMENT NUMBER                        |  | DOC TYPE  | DOC PART     |
| 1000171200                             |  | PSD   | SD           |
| REVISION                               |  | K   |              |
| MATERIAL NUMBER                        |  | CUSTOMER  | SHEET NUMBER |
| SEE P/N TABLE                          |  | GENERAL MARKET  | 2 OF 9       |

**molex**

ZQSFP+ 1X4 GANGED CAGE  
ASSY'S (SPRING FINGER) WITH H/S & L/P OPTIONS

PRODUCT CUSTOMER DRAWING

DOCUMENT NUMBER

1000171200

DOC TYPE

PSD

DOC PART

SD

REVISION

K

MATERIAL NUMBER

SEE P/N TABLE

CUSTOMER

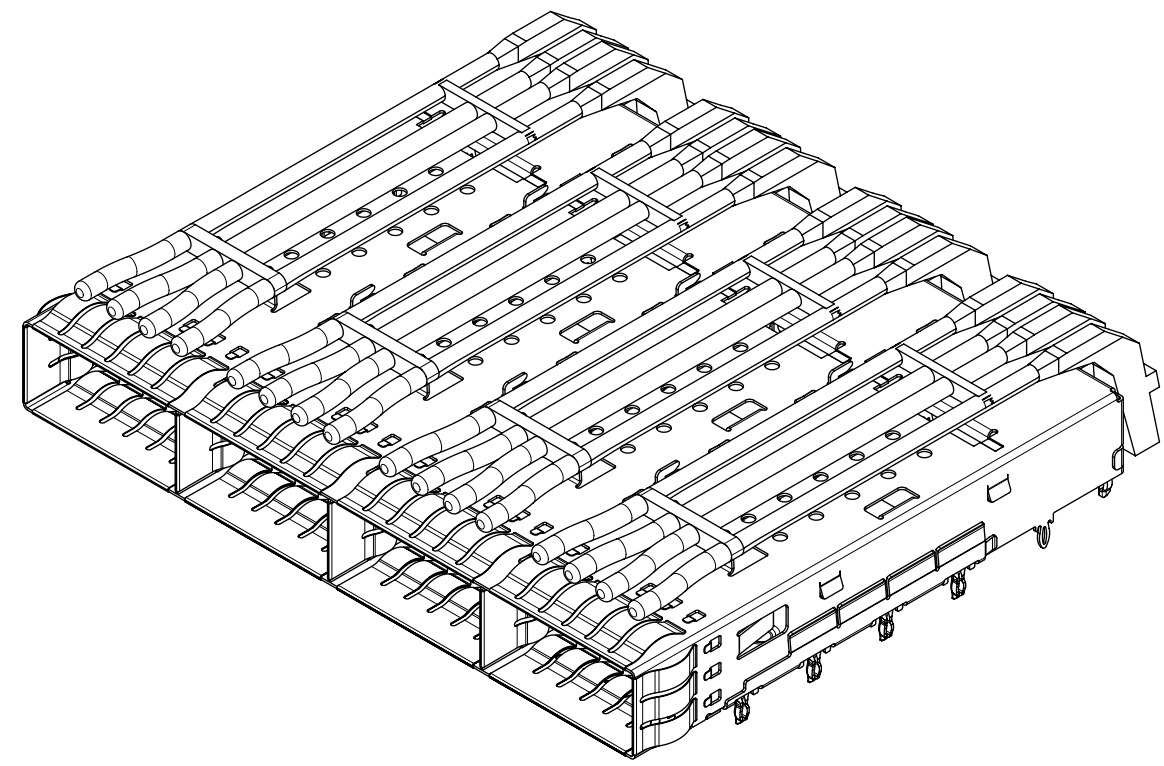
GENERAL MARKET

SHEET NUMBER

2 OF 9

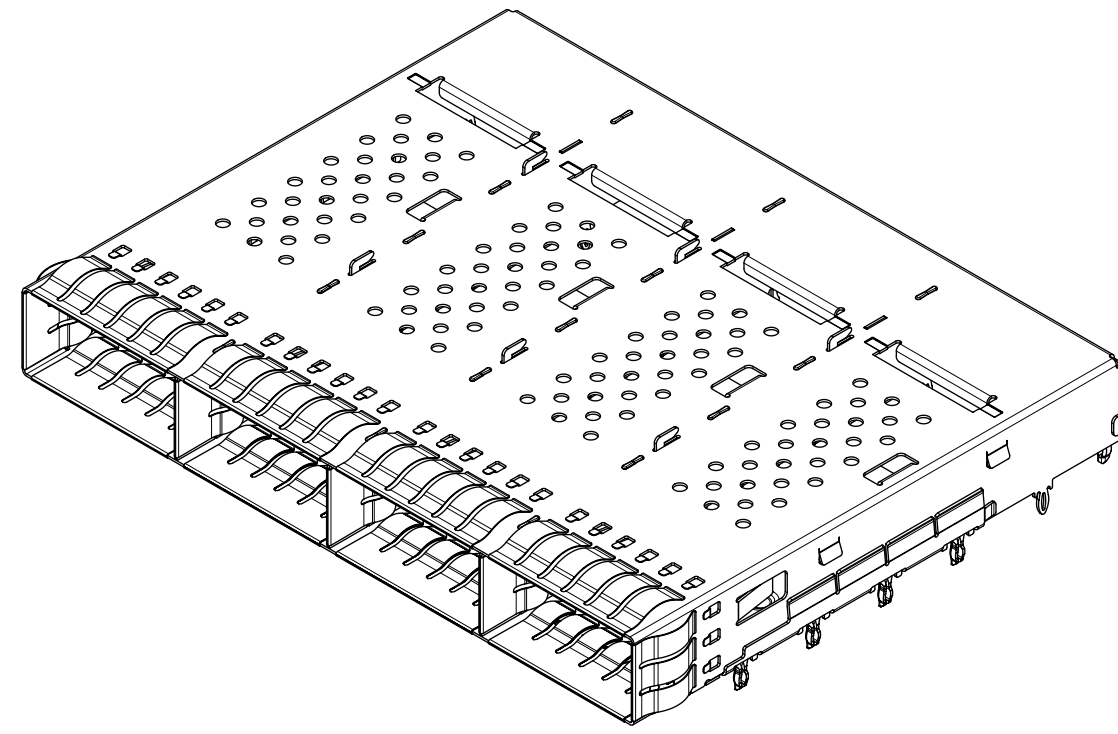
# PART NUMBER SELECTION

NO HEATSINKS  
WITH LIGHT PIPES  
CLOSED TOP



| MOLEX P/N  | LIGHT PIPES | #OF REAR LEGS PER PORT |
|------------|-------------|------------------------|
| 1000171231 | SINGLE      | 0                      |
| 1000171232 | SINGLE      | 1                      |
| 1000171233 | DUAL        | 0                      |
| 1000171234 | DUAL        | 1                      |
| 1000171235 | QUAD        | 0                      |
| 1000171236 | QUAD        | 1                      |

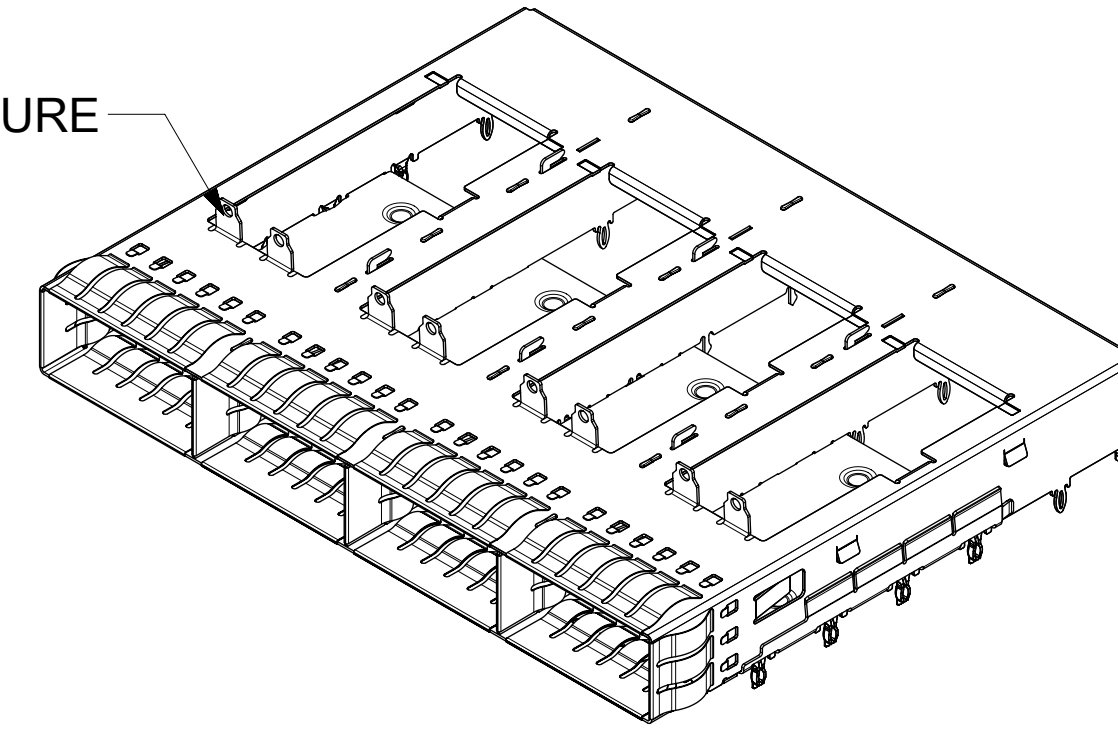
NO HEATSINKS  
NO LIGHT PIPES  
CLOSED TOP



| MOLEX P/N<br>W/ SPRING FINGERS | #OF REAR LEGS<br>PER PORT |
|--------------------------------|---------------------------|
| 1000171240                     | 0                         |
| 1000171242                     | 1                         |

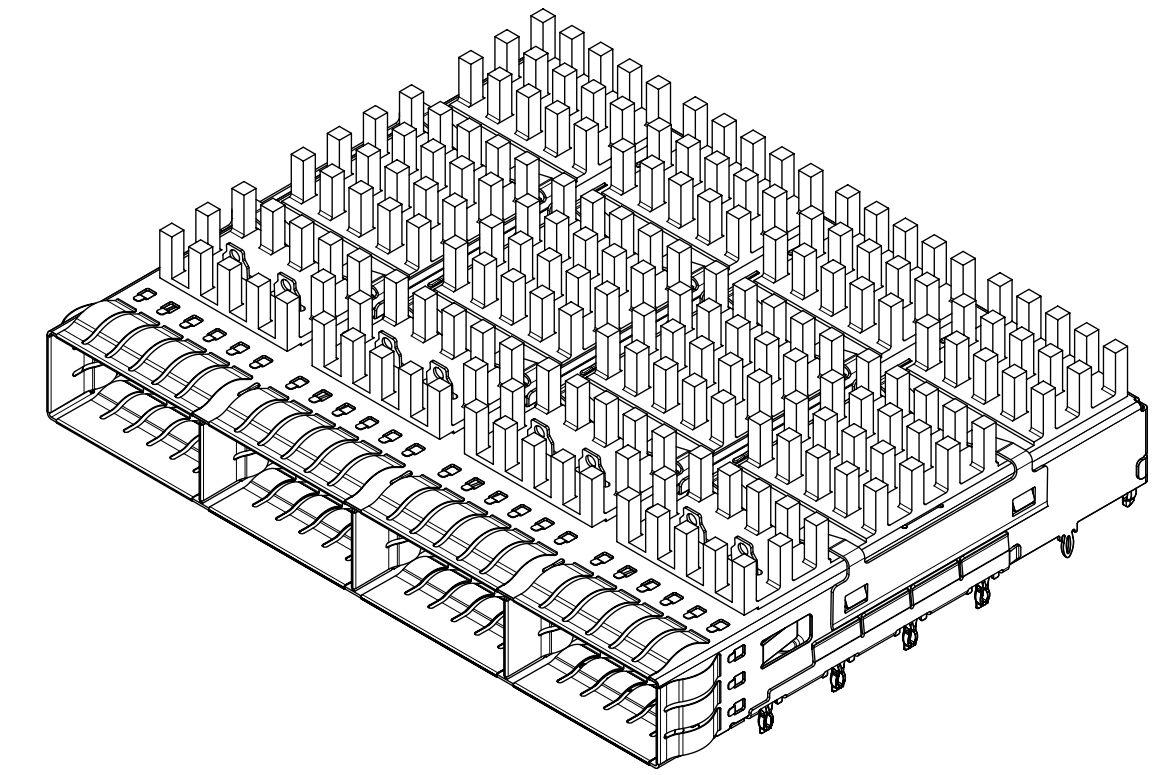
NO HEATSINKS  
NO LIGHT PIPES  
OPEN TOP

LIGHT PIPE FEATURE



| MOLEX P/N<br>W/ SPRING FINGERS | #OF REAR LEGS<br>PER PORT | LIGHT PIPE<br>FEATURE |
|--------------------------------|---------------------------|-----------------------|
| 1000171250                     | 0                         | YES                   |
| 1000171252                     | 1                         | YES                   |
| 1000171255                     | 1                         | NO                    |

WITH HEATSINKS  
NO LIGHT PIPES

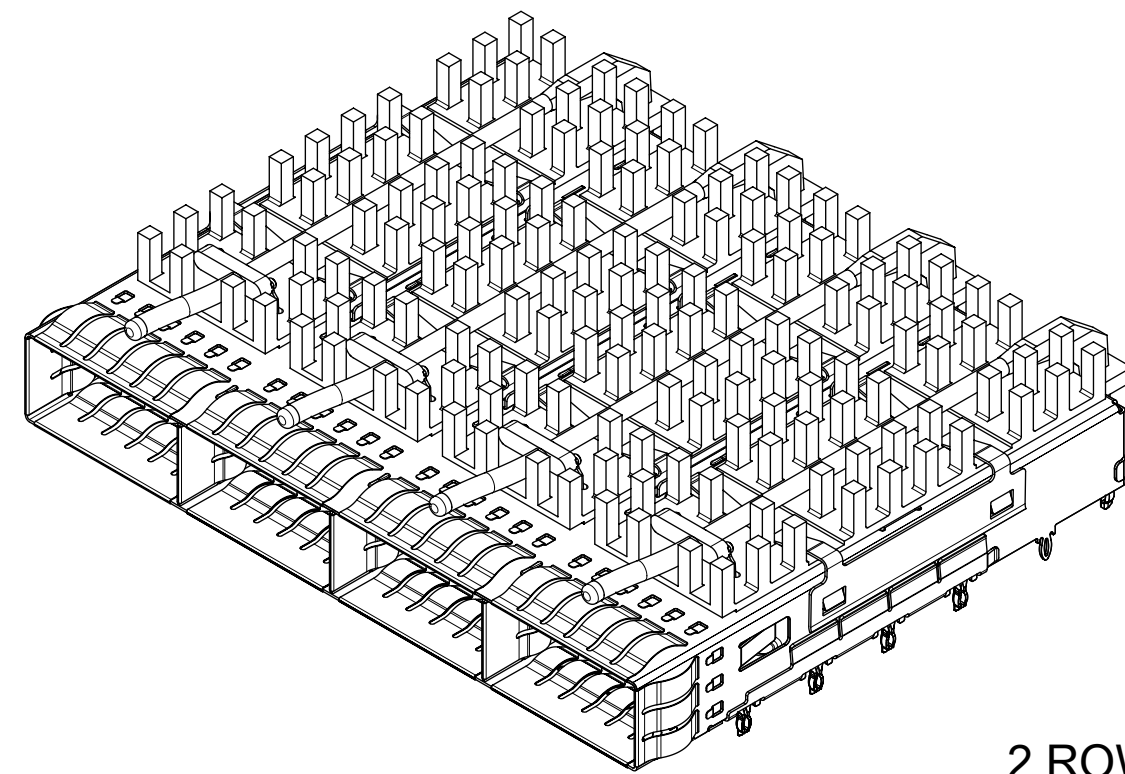


| MOLEX P/N  | HEATSINKS | #OF REAR LEGS<br>PER PORT |
|------------|-----------|---------------------------|
| 1000171340 | PCI       | 0                         |
| 1000171341 | SAN       | 0                         |
| 1000171342 | NET       | 0                         |
| 1000171343 | PCI       | 1                         |
| 1000171344 | SAN       | 1                         |
| 1000171345 | NET       | 1                         |

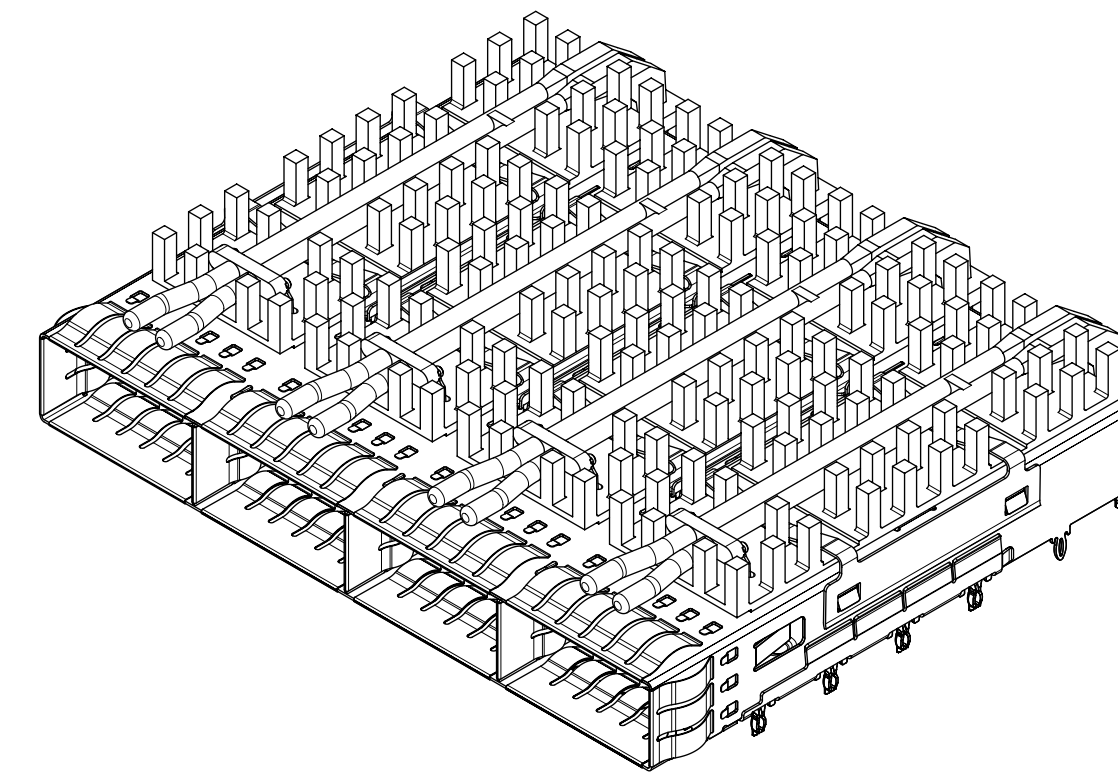
## WITH HEATSINKS AND LIGHT PIPES

| MOLEX P/N  | LIGHTPIPES | HEATSINKS              | #OF REAR LEGS<br>PER PORT |
|------------|------------|------------------------|---------------------------|
| 1000171440 | SINGLE     | PCI                    | 0                         |
| 1000171441 | SINGLE     | SAN                    | 0                         |
| 1000171442 | SINGLE     | NET                    | 0                         |
| 1000171443 | DUAL       | PCI                    | 0                         |
| 1000171444 | DUAL       | SAN                    | 0                         |
| 1000171445 | DUAL       | NET                    | 0                         |
| 1000171446 | QUAD       | PCI                    | 0                         |
| 1000171447 | QUAD       | SAN                    | 0                         |
| 1000171448 | QUAD       | NET                    | 0                         |
| 1000171540 | SINGLE     | PCI                    | 1                         |
| 1000171541 | SINGLE     | SAN                    | 1                         |
| 1000171542 | SINGLE     | NET                    | 1                         |
| 1000171543 | DUAL       | PCI                    | 1                         |
| 1000171544 | DUAL       | SAN                    | 1                         |
| 1000171545 | DUAL       | NET                    | 1                         |
| 1000171546 | QUAD       | PCI                    | 1                         |
| 1000171547 | QUAD       | SAN                    | 1                         |
| 1000171548 | QUAD       | NET                    | 1                         |
| 1000171647 | 2 ROW QUAD | SAN                    | 1                         |
| 1000171648 | 2 ROW QUAD | NET                    | 1                         |
| 1000171649 | 2 ROW QUAD | CUSTOM<br>(A=19.0 REF) | 1                         |

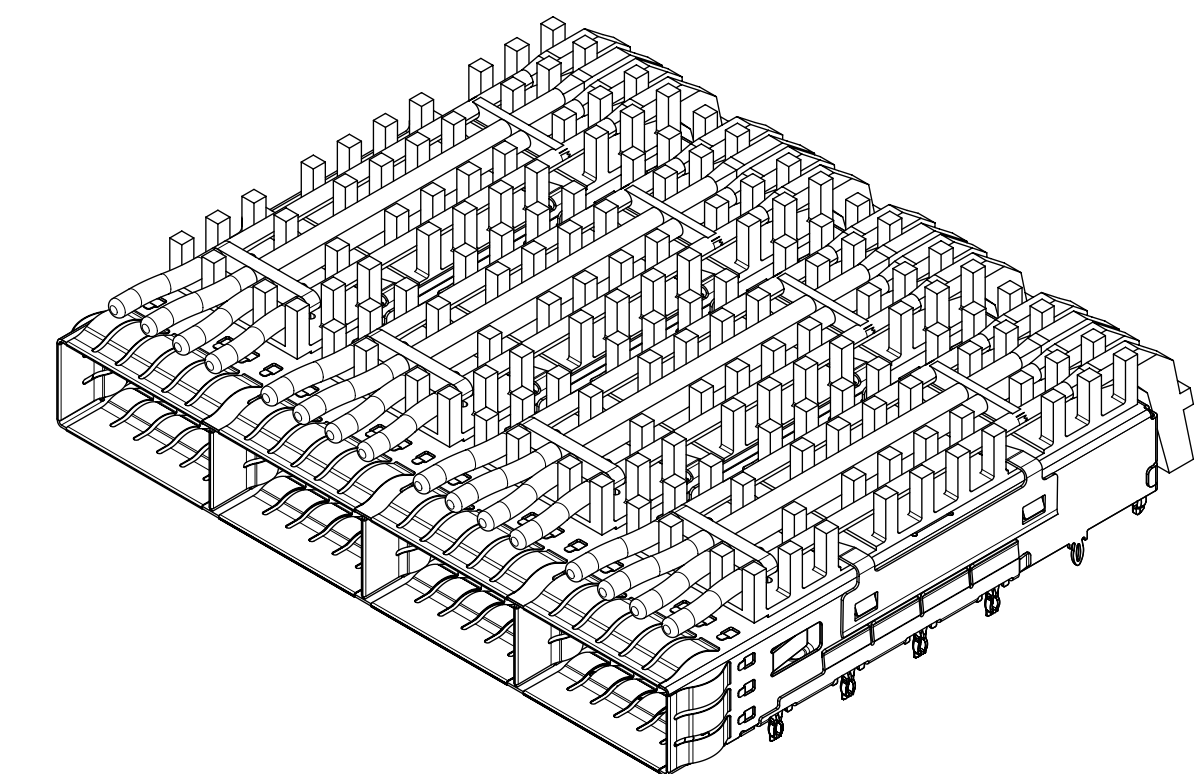
SINGLE LIGHT PIPE



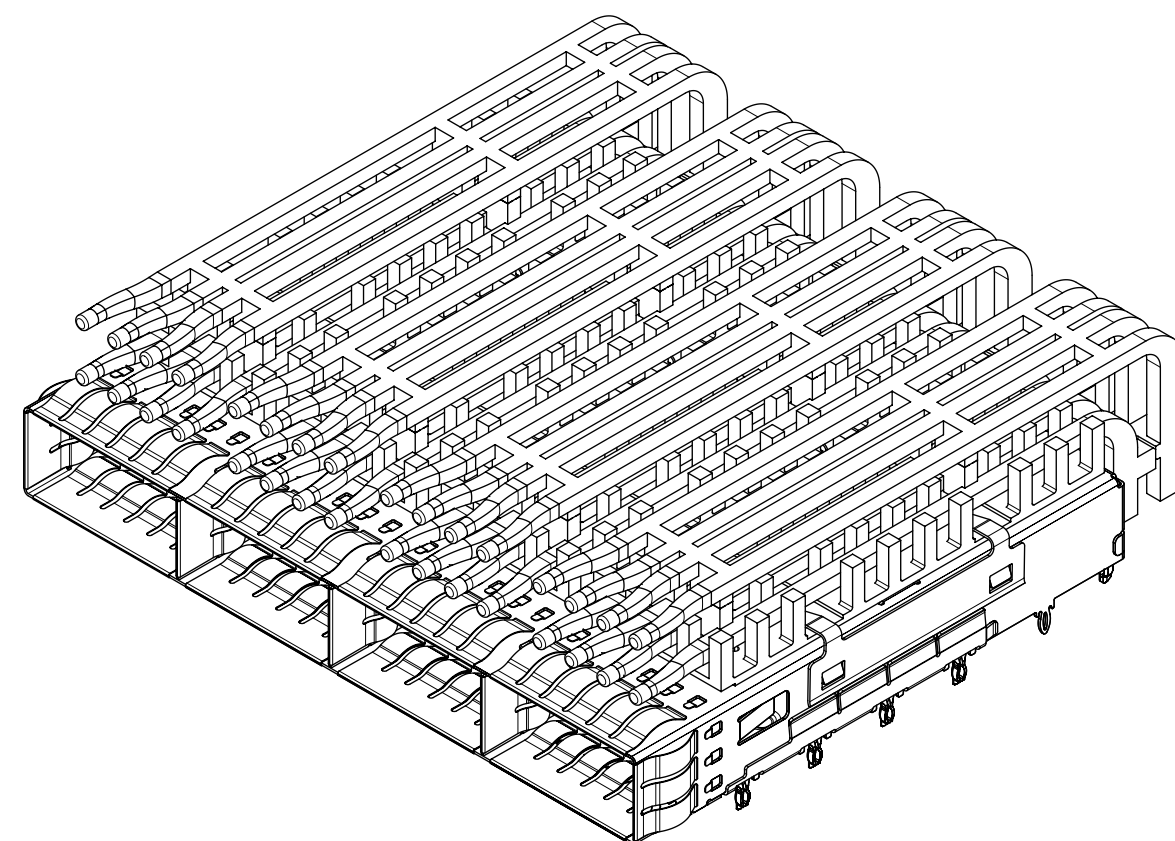
DUAL LIGHT PIPE



QUAD LIGHT PIPE

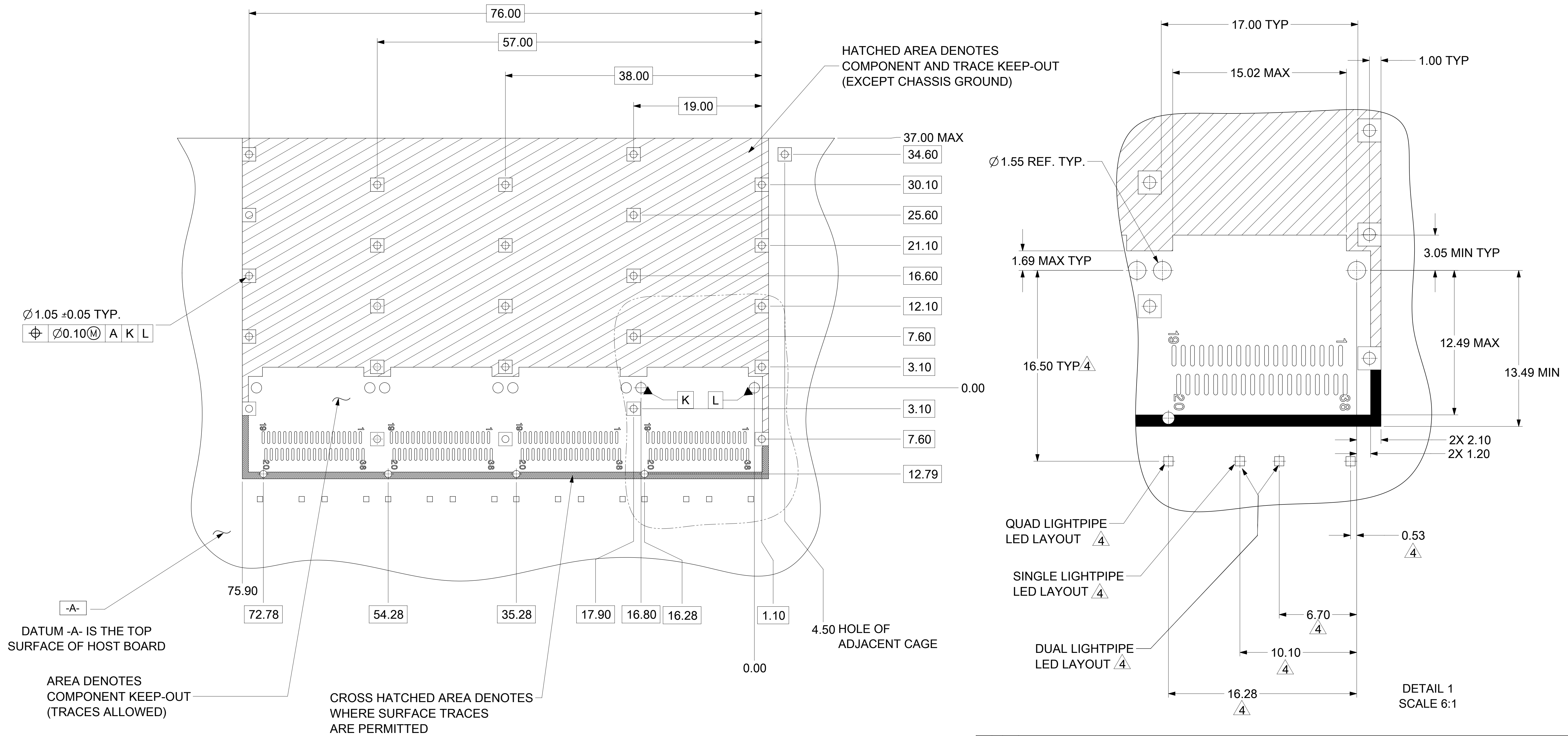


2 ROW QUAD LIGHT PIPE



|         |   |                 |  |                 |          |
|---------|---|-----------------|--|-----------------|----------|
| SYMBOLS | THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX ELECTRONIC TECHNOLOGIES, LLC AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION |                 | CURRENT REV DESC: SEE REVISION HISTORY |                 |          |
|         | DIMENSION UNITS   | SCALE           |  |                 |          |
| ▽ = 0   | mm  | 1.5:1           |  |                 |          |
| ▽ = 0   | GENERAL TOLERANCES (UNLESS SPECIFIED)   |                 |  |                 |          |
| ▽ = 0   | ANGULAR TOL ± 1.0°  |                 |  |                 |          |
| ▽ = 0   | 4 PLACES  | ±               | EC NO: 601541                          |                 |          |
| ▽ = 0   | 3 PLACES  | ±               | DRWN: MKEMPEGOWDA 2017/06/07           |                 |          |
| ▽ = 0   | 2 PLACES  | ± 0.13          | CHK'D: TKUMARKC 2018/07/17             |                 |          |
| ▽ = 0   | 1 PLACE   | ± 0.25          | APPR: RCHEN08 2018/07/18               |                 |          |
| ▽ = 0   | 0 PLACES  | ±               | INITIAL REVISION:                      |                 |          |
| □ = 0   | DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS  |                 | DRWN: KNAGANNA 2015/06/03              |                 |          |
| ▽ = 0   | THIRD ANGLE PROJECTION  |                 | APPR: RCHEN08 2016/01/11               |                 |          |
|         |   | DRAWING         | SERIES                                 | DOCUMENT NUMBER |          |
|         |   | D-SIZE          | 100017                                 | 1000171200      |          |
|         |   | MATERIAL NUMBER |  | DOC TYPE        | DOC PART |
|         |   | SEE P/N TABLE   |  | PSD             | SD       |
|         |   | GENERAL MARKET  |  | REVISION        | K        |
|         |   |                 |  | SHEET NUMBER    |          |
|         |   |                 |  | 3 OF 9          |          |

# PCB LAYOUT FOR SINGLE SIDED MOUNTING

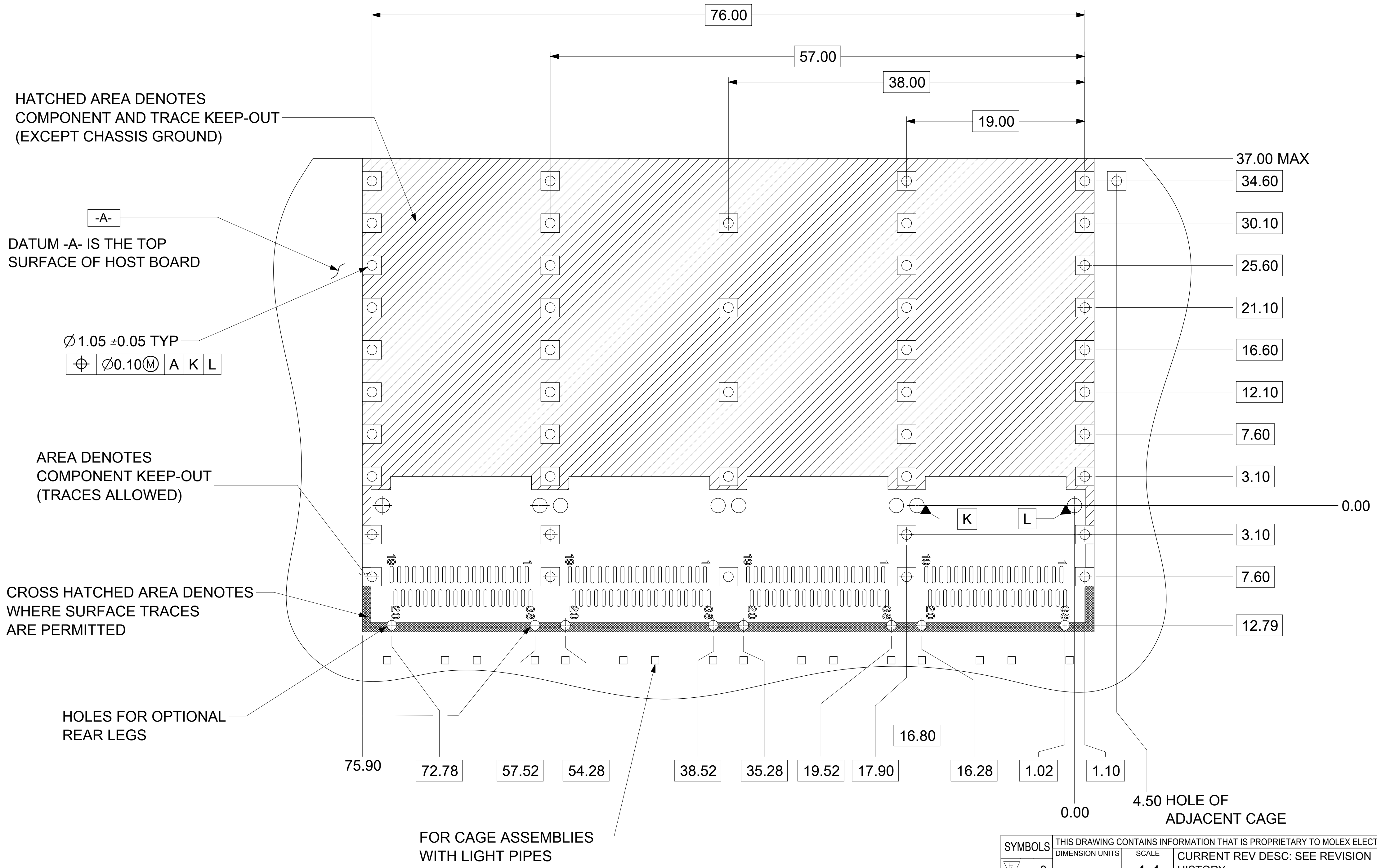


- NOTES:**
1. PADS AND VIAS GO TO CHASSIS GROUND. (RECOMMENDED PADS TO BE 2.00mm SQUARE.)
  2. RECOMMENDED THRU HOLE PLATING INCLUDES HASL, OSP, OR IMMERSION (GOLD, SILVER, OR TIN).
  3. CONNECTOR PAD LAYOUT PER SFF-8663 WILL ACCOMODATE MOLEX CONNECTOR SERIES 170432.
  4. NOTED DIMENSIONS ONLY APPLY TO CAGE ASSEMBLIES WITH LIGHT PIPES.

|                 |  |   |                        |  |          |
|-----------------|--|---|------------------------|--|----------|
| SYMBOLS         |  | THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX ELECTRONIC TECHNOLOGIES, LLC AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION |                        | CURRENT REV DESC: SEE REVISION HISTORY |          |
| ▽ = 0           | mm   | SCALE   | 3.5:1                  |  |          |
| ▽ = 0           | GENERAL TOLERANCES (UNLESS SPECIFIED)                |   |                        |  |          |
| ▽ = 0           | ANGULAR TOL  |   | ± 1.0°                 |  |          |
| ▽ = 0           | 4 PLACES   | ±   |                        |  |          |
| ▽ = 0           | 3 PLACES   | ±   |                        |  |          |
| ▽ = 0           | 2 PLACES   | ± 0.13  |                        |  |          |
| ▽ = 0           | 1 PLACE  | ± 0.25  |                        |  |          |
| ▽ = 0           | 0 PLACES   | ±   |                        |  |          |
| ▽ = 0           | DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS |   | THIRD ANGLE PROJECTION | DRAWING                                | SERIES   |
| ▽ = 0           |  |   | D-SIZE                 | 100017                                 |          |
| DOCUMENT STATUS |  | P1  | RELEASE DATE           | 2018/07/18                             | 01:27:46 |
|                 |  |   |                        |  |          |

|   |  |                |  |              |          |
|---|--|----------------|--|--------------|----------|
| <p><b>molex</b></p> <p>ZQSFP+ 1X4 GANGED CAGE ASSY'S (SPRING FINGER) WITH H/S &amp; L/P OPTIONS</p> <p>PRODUCT CUSTOMER DRAWING</p> |  |                |  |              |          |
| DOCUMENT NUMBER   |  | DOC TYPE       |  | DOC PART     | REVISION |
| 1000171200  |  | PSD            |  | SD           | K        |
| MATERIAL NUMBER   |  | CUSTOMER       |  | SHEET NUMBER |          |
| SEE P/N TABLE   |  | GENERAL MARKET |  | 4 OF 9       |          |

# PCB LAYOUT FOR BELLY TO BELLY MOUNTING



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

-A- DATUM -A- IS THE TOP SURFACE OF HOST BOARD

Ø 1.05 ± 0.05 TYP  
 Ø 0.10 M A K L

AREA DENOTES COMPONENT KEEP-OUT (TRACES ALLOWED)

CROSS HATCHED AREA DENOTES WHERE SURFACE TRACES ARE PERMITTED

HOLES FOR OPTIONAL REAR LEGS

FOR CAGE ASSEMBLIES WITH LIGHT PIPES

NOTE:  
 SEE SHEET 4 FOR HOST CONNECTOR DETAIL AND SINGLE ROW LED LOCATION DETAIL

SEE SHEET 6 FOR DUAL-QUAD LED LOCATION DETAIL

- NOTES:
1. PADS AND VIAS GO TO CHASSIS GROUND. (RECOMMENDED 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 SFF-8663 WILL ACCOMMODATE MOLEX CONNECTOR SERIES 170432.

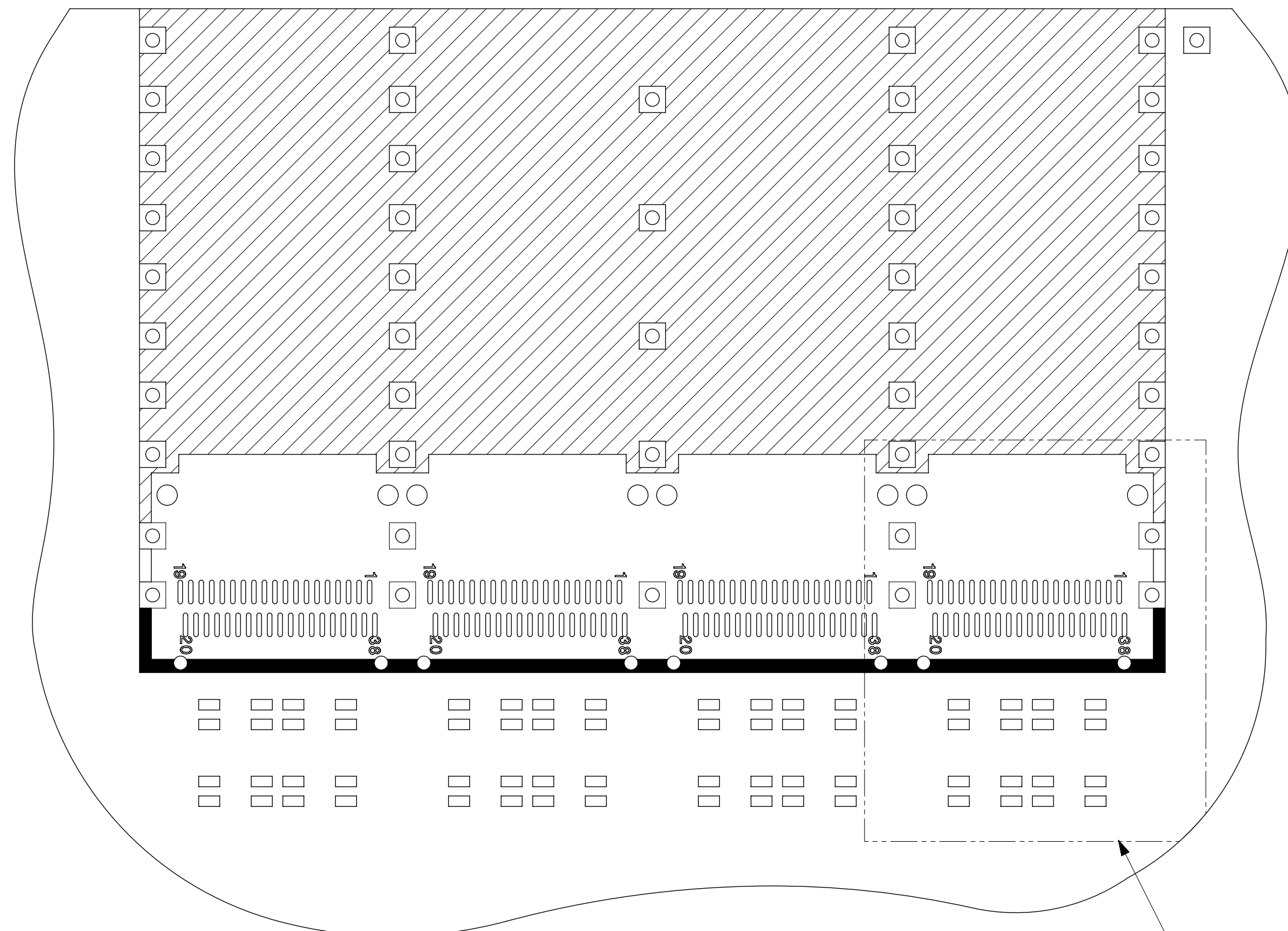
|                 |  |   |  |
|-----------------|--|---|--|
| SYMBOLS         |  | THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX ELECTRONIC TECHNOLOGIES, LLC AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION |  |
| ▽ = 0           | DIMENSION UNITS                                      | SCALE   | CURRENT REV DESC: SEE REVISION HISTORY |
| ▽ = 0           | mm   | 4:1   |  |
| ▽ = 0           | GENERAL TOLERANCES (UNLESS SPECIFIED)                |   |  |
| ▽ = 0           | ANGULAR TOL  | ± 1.0°  | EC NO: 601541                          |
| ▽ = 0           | 4 PLACES   | ±   | DRWN: MKEMPEGOWDA 2017/06/07           |
| ▽ = 0           | 3 PLACES   | ±   | CHK'D: TKUMARKC 2018/07/17             |
| ▽ = 0           | 2 PLACES   | ± 0.13  | APPR: RCHEN08 2018/07/18               |
| ▽ = 0           | 1 PLACE  | ± 0.25  | INITIAL REVISION:                      |
| ▽ = 0           | 0 PLACES   | ±   | DRWN: KNAGANNA 2015/06/03              |
| ▽ = 0           | DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS |   | APPR: RCHEN08 2016/01/11               |
| ▽ = 0           | THIRD ANGLE PROJECTION                               | DRAWING   | SERIES                                 |
|                 |  | D-SIZE  | 100017                                 |
| DOCUMENT STATUS |  | RELEASE DATE  | 2018/07/18 01:27:46                    |
| P1              |  |   |  |
| DOCUMENT NUMBER |  | DOC TYPE  | DOC PART                               |
| 1000171200      |  | PSD   | SD K                                   |
| MATERIAL NUMBER |  | CUSTOMER  | SHEET NUMBER                           |
| SEE P/N TABLE   |  | GENERAL MARKET  | 5 OF 9                                 |

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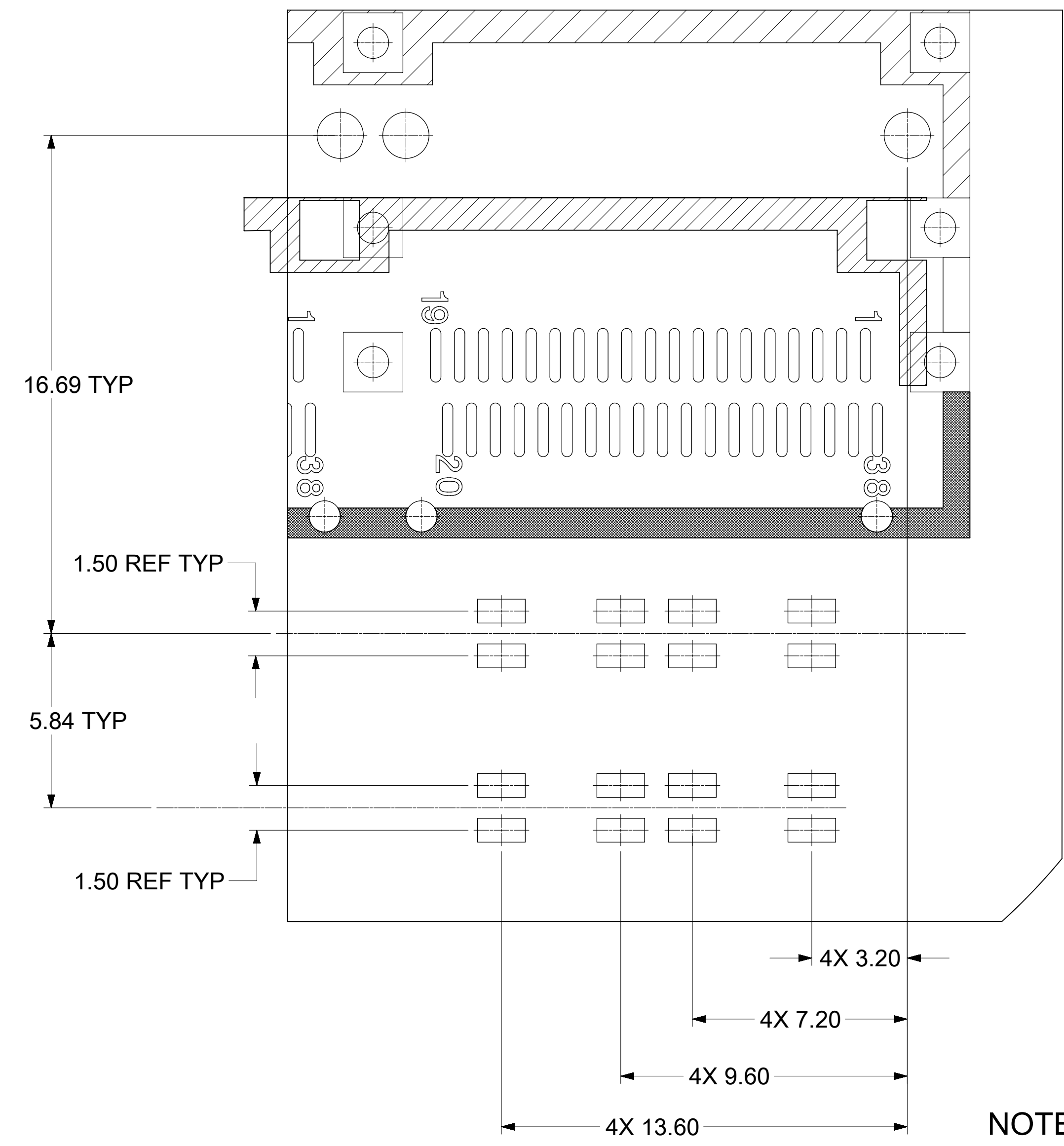
ZQSFP+ 1X4 GANGED CAGE ASSY'S (SPRING FINGER) WITH H/S & L/P OPTIONS

PRODUCT CUSTOMER DRAWING

# LED PLACEMENT FOR 2 ROW QUAD LIGHT PIPE



SEE Detail 1

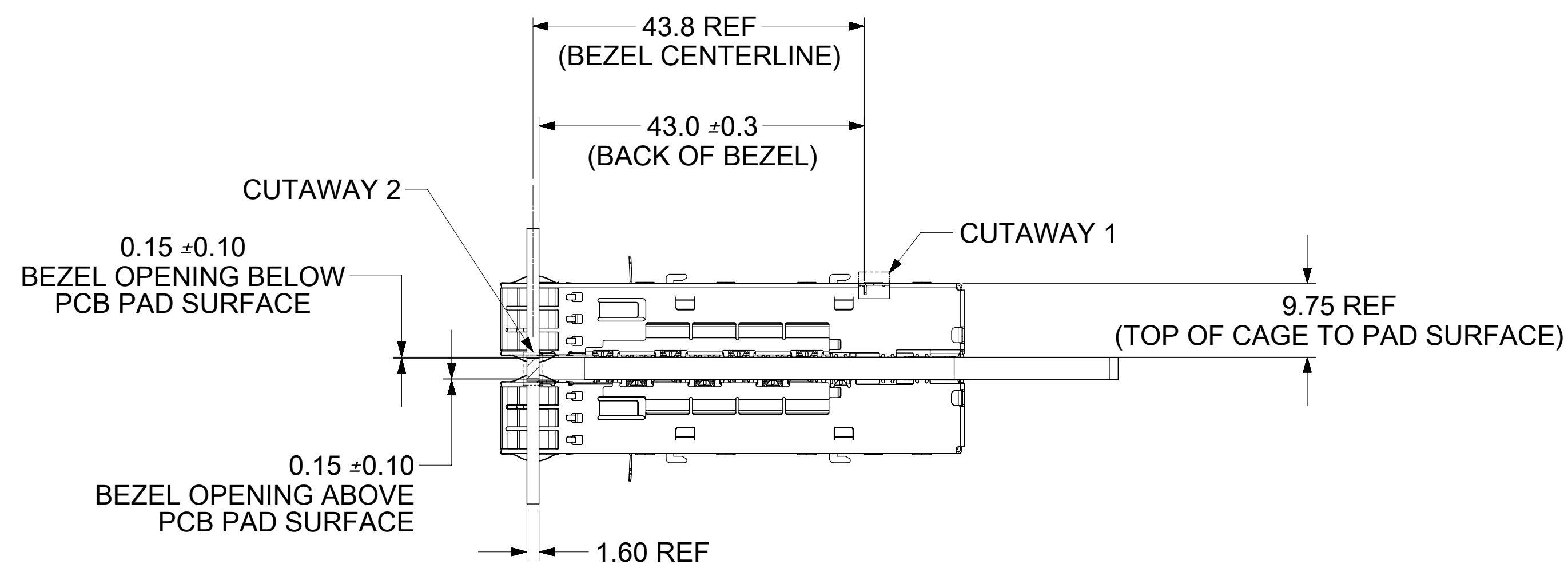
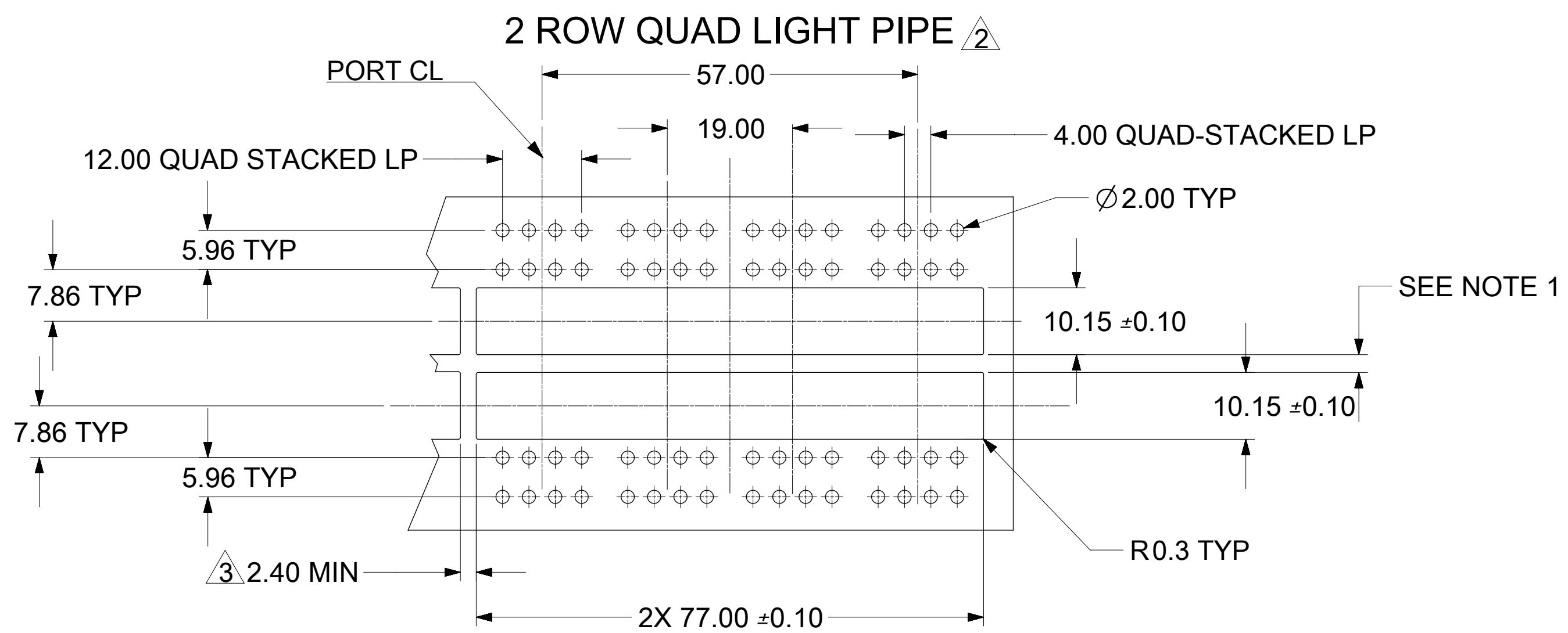
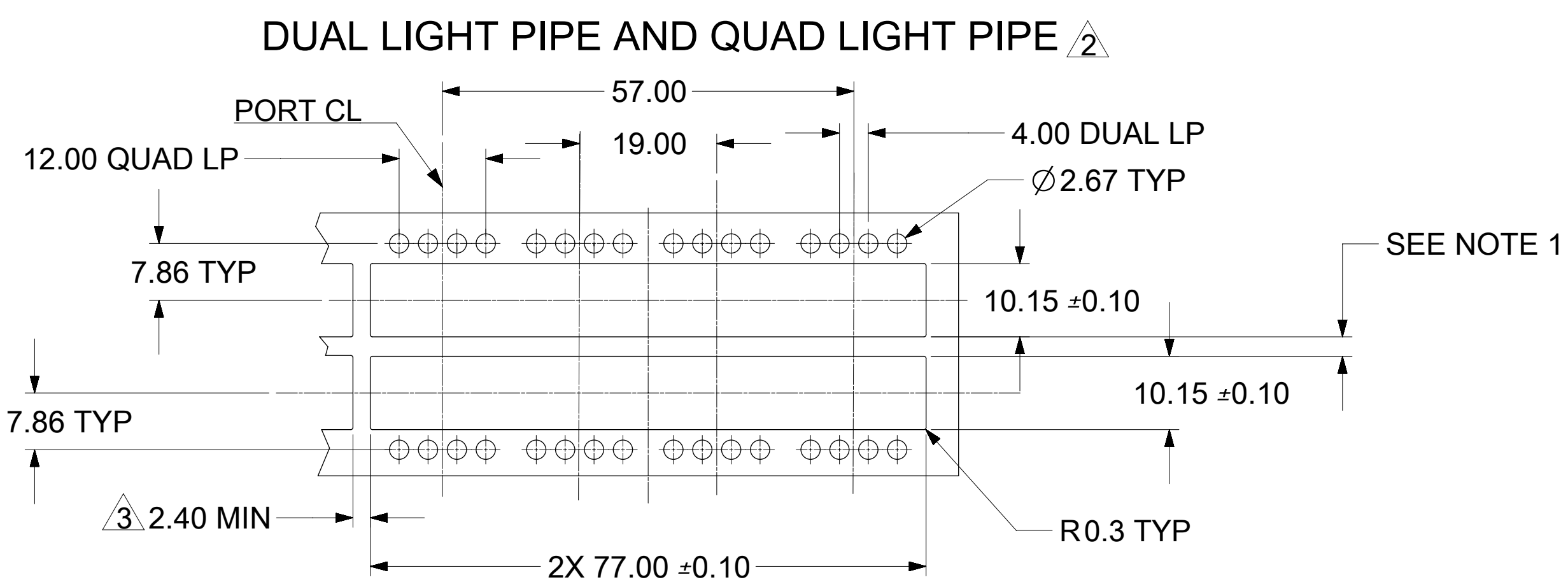
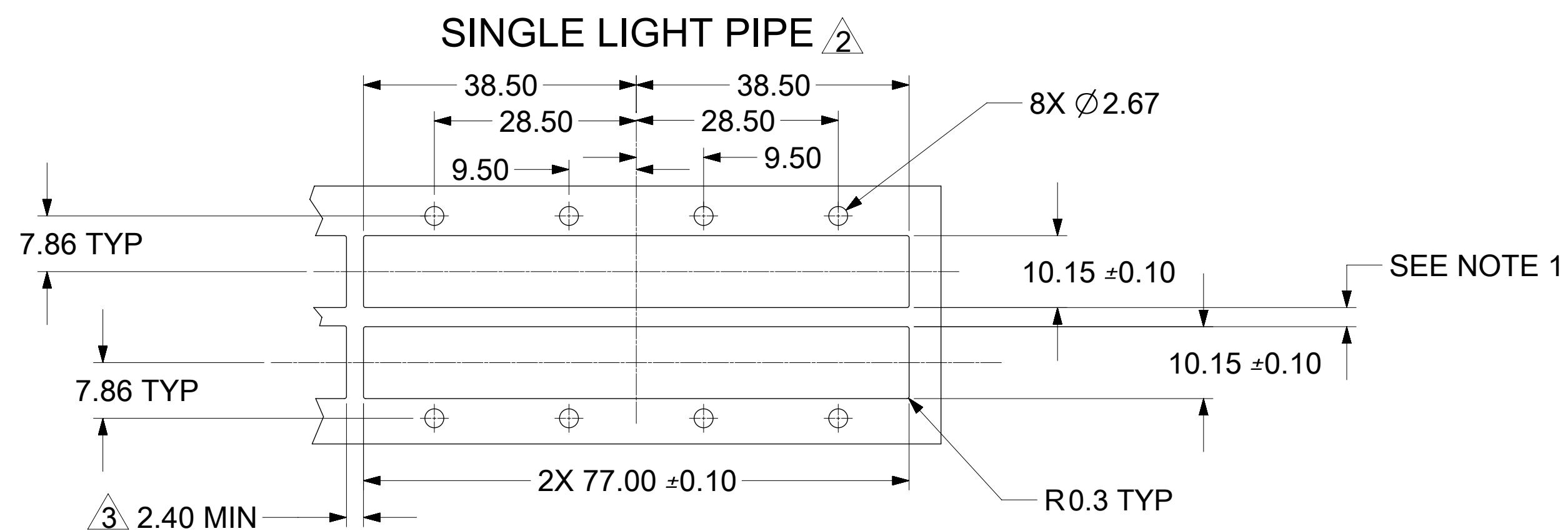


Detail 1  
Scale 8:1

NOTE:  
SEE SHEET 4 FOR HOST  
CONNECTOR DETAIL

|                 |   |                |  |
|-----------------|---|----------------|--|
| SYMBOLS         | THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX ELECTRONIC TECHNOLOGIES, LLC AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION |                |  |
|                 | DIMENSION UNITS   | SCALE          | CURRENT REV DESC: SEE REVISION HISTORY |
| ▽ = 0           | mm  | 3:1            |  |
| ▽ = 0           | GENERAL TOLERANCES (UNLESS SPECIFIED)   |                |  |
| ▽ = 0           | ANGULAR TOL   | ± 1.0°         |  |
| ▽ = 0           | 4 PLACES  | ±              | EC NO: 601541                          |
| ▽ = 0           | 3 PLACES  | ±              | DRWN: MKEMPEGOWDA 2017/06/07           |
| ▽ = 0           | 2 PLACES  | ± 0.13         | CHK'D: TKUMARKC 2018/07/17             |
| ▽ = 0           | 1 PLACE   | ± 0.25         | APPR: RCHEN08 2018/07/18               |
| ▽ = 0           | 0 PLACES  | ±              | INITIAL REVISION:                      |
| ▽ = 0           | DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS  |                |  |
| ▽ = 0           | THIRD ANGLE PROJECTION  | DRAWING        | SERIES                                 |
|                 |   | D-SIZE         | 100017                                 |
| DOCUMENT NUMBER |   | DOC TYPE       | DOC PART                               |
| 1000171200      |   | PSD            | SD                                     |
| MATERIAL NUMBER |   | CUSTOMER       | SHEET NUMBER                           |
| SEE P/N TABLE   |   | GENERAL MARKET | 6 OF 9                                 |

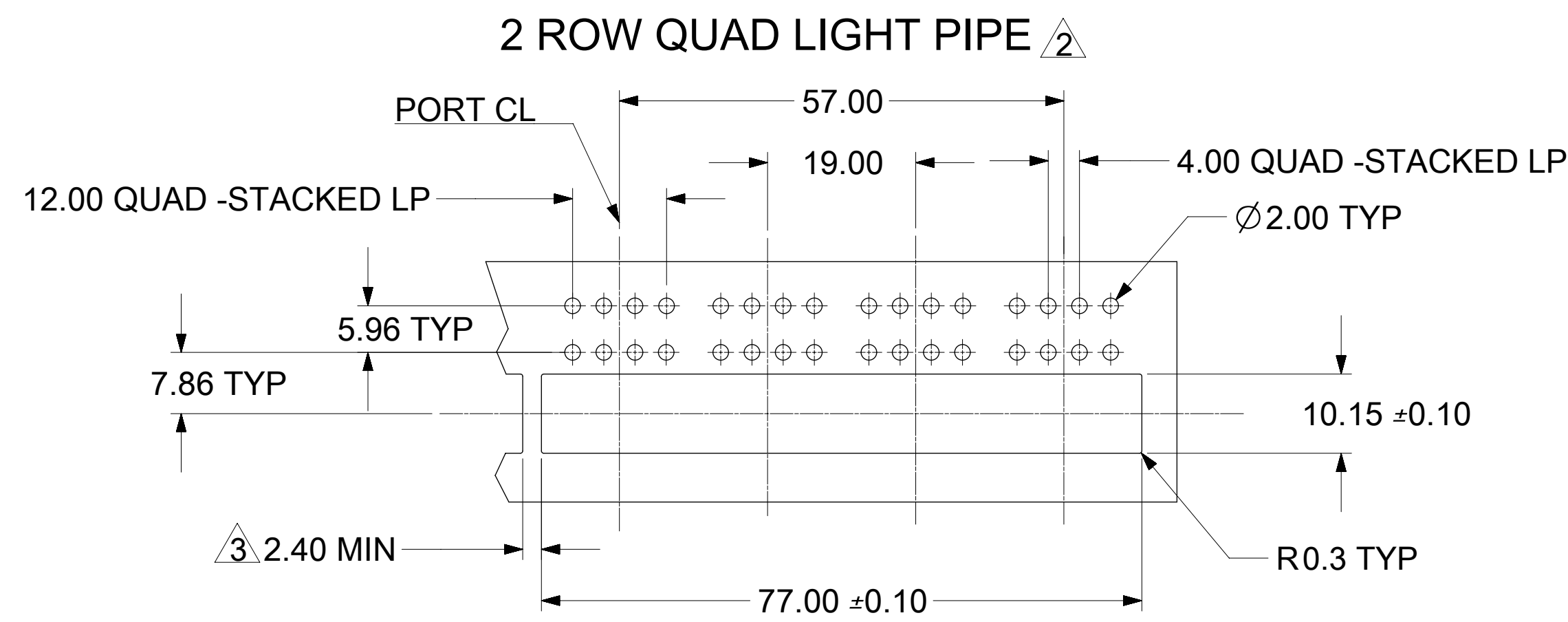
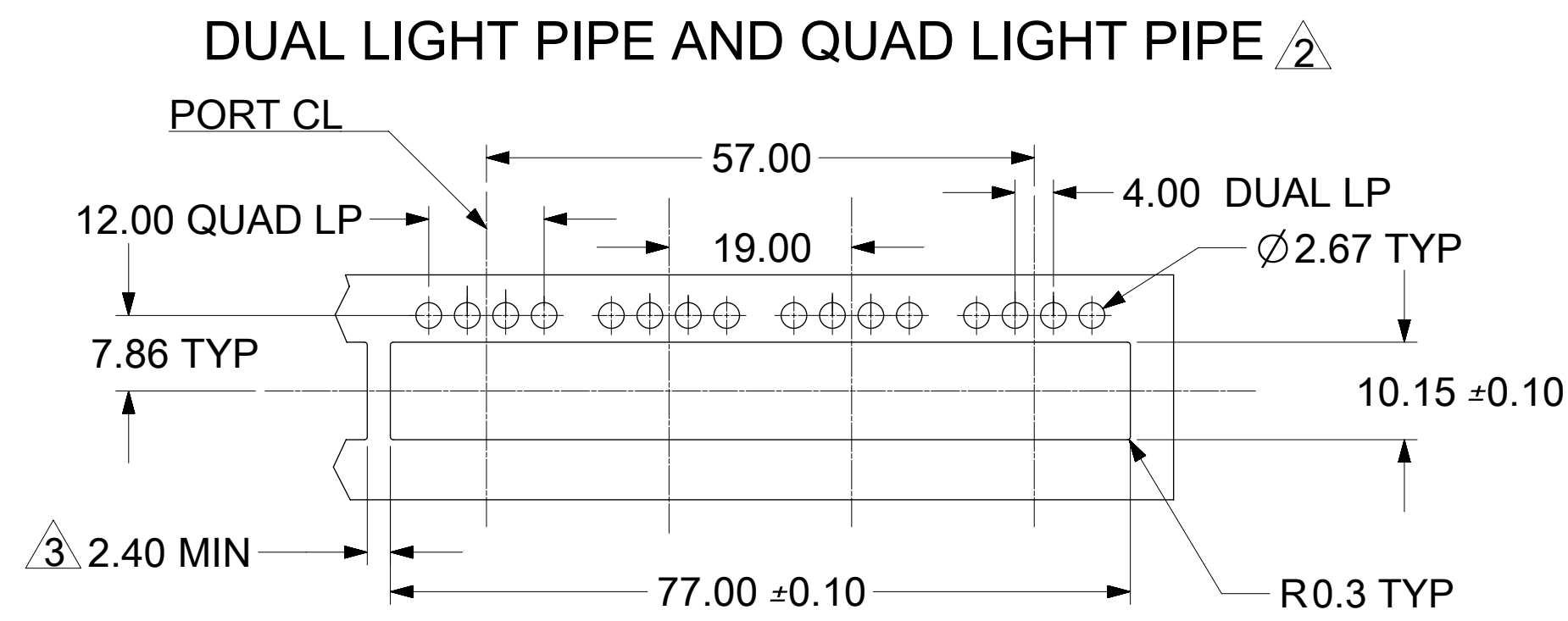
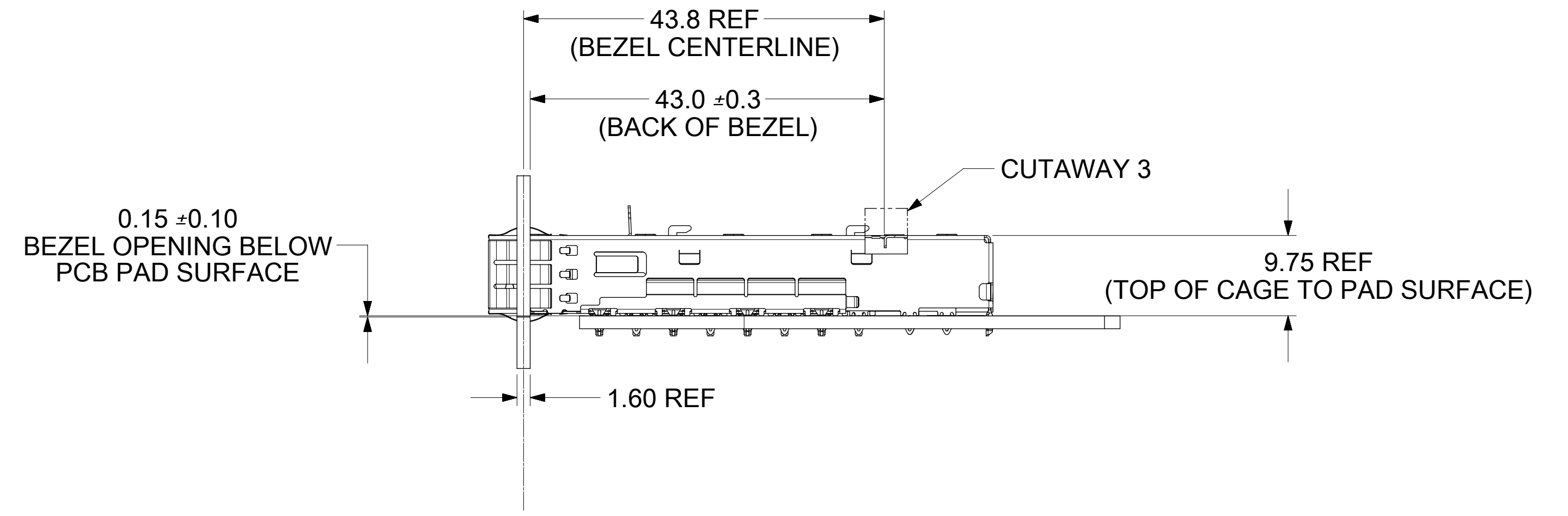
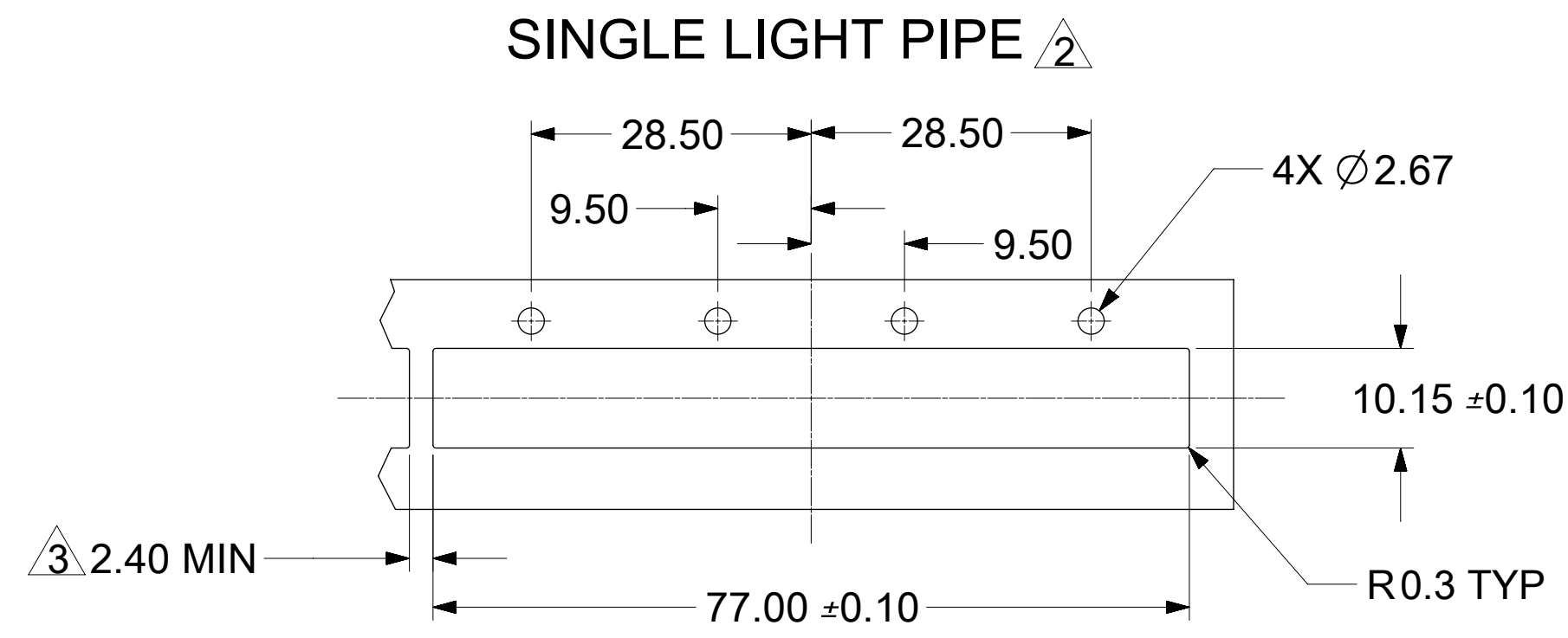
# BEZEL AND BOARD POSITION DIMENSIONS FOR BELLY TO BELLY MOUNTING



NOTE:  
 1. PCB THICKNESS VARIATION MUST BE CONSIDERED WHEN DETERMINING BEZEL OPENING LOCATION.  
 2. NOTED DIMENSIONS ONLY APPLY TO CAGE ASSEMBLIES WITH LIGHT PIPES.  
 3. THIS DIMENSION IS FOR REFERENCE ONLY. USER CAN MODIFY IT DEPENDS ON APPLICATION. (THIS DIMENSION VARIES BASED ON DISTANCE OF " HOLE OF ADJACENT CAGE" ON PCB LAYOUT.)

|                 |   |                |  |
|-----------------|---|----------------|--|
| SYMBOLS         | THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX ELECTRONIC TECHNOLOGIES, LLC AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION |                |  |
|                 | DIMENSION UNITS   | SCALE          | CURRENT REV DESC: SEE REVISION HISTORY |
| ▽ = 0           | mm  | 2.5:1          |  |
| ▽ = 0           | GENERAL TOLERANCES (UNLESS SPECIFIED)   |                |  |
| ▽ = 0           | ANGULAR TOL ± 1.0°  |                |  |
| ▽ = 0           | 4 PLACES  | ±              |  |
| ▽ = 0           | 3 PLACES  | ±              |  |
| ▽ = 0           | 2 PLACES  | ± 0.13         |  |
| ▽ = 0           | 1 PLACE   | ± 0.25         |  |
| ▽ = 0           | 0 PLACES  | ±              |  |
| ■ = 0           | DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS  |                |  |
| ▽ = 0           | THIRD ANGLE PROJECTION  | DRAWING        | SERIES                                 |
|                 |   | D-SIZE         | 100017                                 |
| DOCUMENT NUMBER |   | DOC TYPE       | DOC PART                               |
| 1000171200      |   | PSD            | SD                                     |
| REVISION        |   | K              |  |
| MATERIAL NUMBER |   | CUSTOMER       |  |
| SEE P/N TABLE   |   | GENERAL MARKET |  |
| SHEET NUMBER    |   | 7 OF 9         |  |

# BEZEL AND BOARD POSITION DIMENSIONS FOR SINGLE SIDE MOUNTING



**NOTE:**  
 1. PCB THICKNESS VARIATION MUST BE CONSIDERED WHEN DETERMINING BEZEL OPENING LOCATION.  
 2. NOTED DIMENSIONS ONLY APPLY TO CAGE ASSEMBLIES WITH LIGHT PIPES.  
 3. THIS DIMENSION IS FOR REFERENCE ONLY. USER CAN MODIFY IT DEPENDS ON APPLICATION. (THIS DIMENSION VARIES BASED ON DISTANCE OF " HOLE OF ADIACENT CAGE" ON PCB LAYOUT.)

|               |   |                 |  |
|---------------|---|-----------------|--|
| SYMBOLS       | THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX ELECTRONIC TECHNOLOGIES, LLC AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION |                 |  |
|               | DIMENSION UNITS   | SCALE           | CURRENT REV DESC: SEE REVISION HISTORY |
| $\nabla = 0$  | mm  | 1:1             |  |
| $\nabla = 0$  | GENERAL TOLERANCES (UNLESS SPECIFIED)   |                 |  |
| $\nabla = 0$  | ANGULAR TOL   | $\pm 1.0^\circ$ |  |
| $\nabla = 0$  | 4 PLACES  | $\pm$           | EC NO: 601541                          |
| $\nabla = 0$  | 3 PLACES  | $\pm$           | DRWN: MKEMPEGOWDA 2017/06/07           |
| $\nabla = 0$  | 2 PLACES  | $\pm 0.13$      | CHK'D: TKUMARKC 2018/07/17             |
| $\nabla = 0$  | 1 PLACE   | $\pm 0.25$      | APPR: RCHEN08 2018/07/18               |
| $\nabla = 0$  | 0 PLACES  | $\pm$           | INITIAL REVISION:                      |
| $\square = 0$ | DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS  |                 | DRWN: KNAGANNA 2015/06/03              |
| $\nabla = 0$  | THIRD ANGLE PROJECTION  | DRAWING         | APPR: RCHEN08 2016/01/11               |
|               |   | SERIES          |  |
|               |   | D-SIZE          | 100017                                 |
|               |   | MATERIAL NUMBER | 1000171200                             |
|               |   | CUSTOMER        | GENERAL MARKET                         |
|               |   | DOCUMENT NUMBER | 1000171200                             |
|               |   | DOC TYPE        | PSD                                    |
|               |   | DOC PART        | SD                                     |
|               |   | REVISION        | K                                      |
|               |   | SHEET NUMBER    | 8 OF 9                                 |

**molex**

ZQSFP+ 1X4 GANGED CAGE ASSY'S (SPRING FINGER) WITH H/S & L/P OPTIONS

PRODUCT CUSTOMER DRAWING

DOCUMENT NUMBER DOC TYPE DOC PART REVISION

1000171200 PSD SD K

SEE P/N TABLE GENERAL MARKET

8 OF 9

DOCUMENT STATUS P1 RELEASE DATE 2018/07/18 01:27:46



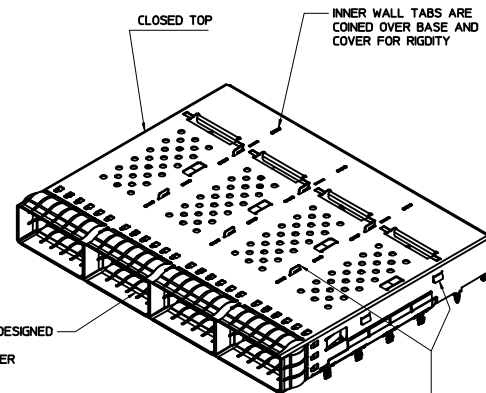
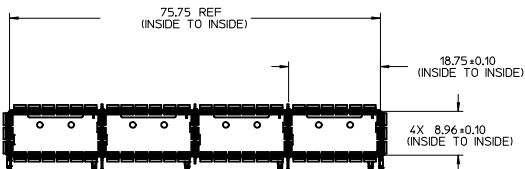
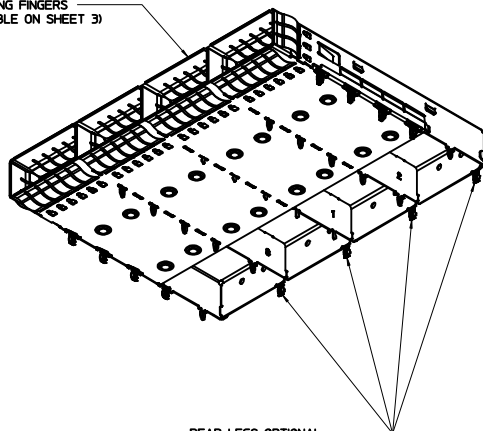
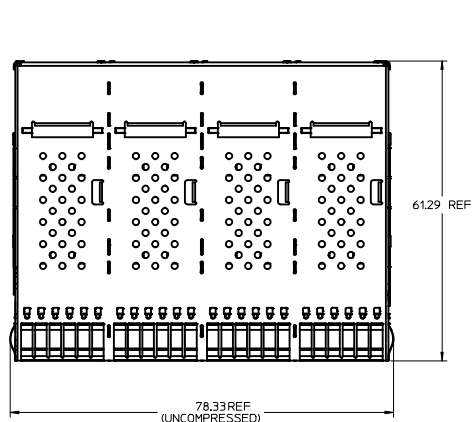
| REV | DATE       | DESCRIPTION  |
|-----|------------|--|
| A   | 03/29/2013 | RELEASE  |
| B   | 06/26/2013 | ADDED DIM 12.77 AT G-9 ON SHEET 4.   |
| C   | 02/05/2014 | SHEET 3: ADDED VIEW AND P/N TABLE FOR CLOSED TOP W/LP.<br>SHEET 4/5: EXPANDED ALLOWABLE AREA WHERE SURFACE TRACES ARE PERMITTED.<br>REMOVED "HOLE PATTERN REPEATS FOR EACH PORT." FROM NOTE 4  |
| D   | 07/15/2014 | SHEET 1: ADDED MATERIAL INFORMATION TO NOTES.<br>SHEET 2: MADE HEATSINK HEIGHT DIMENSIONS REF.<br>CHANGED REAR MOST LEG ON BOTH SIDES OF ALL CAGES FROM 3D PRESSFIT TO EYE-OF-THE-NEEDLE PRESSFIT LEG.   |
| E   | 10/6/2014  | ADDED 2 ROW QUAD LIGHT PIPE OPTION<br>SHEET 2: CHANGED HEATSINK HEIGHT DIMENSIONS TO REF<br>J14: DIM 67.48 CHANGED TO REF<br>SHEET 4: MOVED DATUMS "K" AND "L" TO CONNECTOR HOLES<br>REMOVED BASIC FROM "0.00" POSITIONS<br>SHEET 5: MOVED DATUMS "K" AND "L" TO CONNECTOR HOLES<br>REMOVED BASIC FROM "0.00" POSITIONS<br>H18: MADE HOLE DIAMETER DIMENSION TYP<br>SHEET 7: EDIT NOTE 1, REMOVED "SIZE"<br>REMOVED NOTE 1 FROM ALL "10.15" DIMENSIONS   |
| F   | 3/12/2015  | ADDED 1000171255 & LIGHT PIPE FEATURE IN COLUMN @ M10 ON SHEET3.   |
| G   | 04/14/2015 | SHEET 4: REVISED DIM "WAS" 12.77 "NOW" 12.79 @G9<br>REVISED FRAMED TEXT NUMBER 4 TRIANGLES TO FRAMED TEXT NUMBER 5 @D5, @E4, @E6, @F4, @F6, AND @H7<br>SHEET 5: REVISED DIM "WAS" 12.77 "NOW" 12.79 @F7<br>REMOVED NOTE 4 AND REVISED NOTE 5 TO NOTE 4<br>REMOVED NOTE 4 @A20<br>REMOVED SEE NOTE 4 AND ADDED DIMS @K11, K12, K13, AND @K14<br>SHEET 6: REVISED PORT CL "WAS" (4) "NOW" PORT CL @E7, D17, G17 AND @H7                                    |
| H   | 06/16/2015 | SHEET 1: C7: CHANGED YR FROM 12,13,14 ETC.(EXAMPLE: YEAR 2012=12) TO 15,16,17 ETC.(EXAMPLE: YEAR 2015=15)<br>SHEET 3: B18: ADDED PN 1000171649 CUSTOM H/S 19mm TO HEATSINK AND LIGHT PIPE TABLE<br>SHEET 6: CHANGED REVISION DESCRIPTION FROM ENTER DESCRIPTION TO SEE REVISION TABLE<br>CHANGED MATERIAL NO. FROM 9999999999 TO SEE DRAWING   |
| J   | 06/26/2015 | REMASTERED FROM SD-100017-1200_REV-H   |
| J1  | 01/04/2016 | UP-REVISIED TO CORRECT THE MODEL   |
| J2  | 01/07/2016 | CHANGED DOCUMENT FROM RSD TO SD  |
| J3  | 2016/01/15 | UPDATE DRAWING FORMAT TO NEW SIZE D<br>SHEET 7 & 8: ADDED NOTE: THIS DIMENSION IS FOR REFERENCE ONLY. USER CAN MODIFY IT DEPENDS ON APPLICATION. (THIS DIMENSION VARIES BASED ON DISTANCE OF " HOLE OF ADIACENT CAGE" ON PCB LAYOUT.)  |
| K   | 2017/06/07 | SHEET 4: ADDED PAD TO HOLES & UPDATED VIEWS TO AVOID CONFUSION<br>SHEET 5: ADDED PAD TO HOLES & UPDATED VIEWS TO AVOID CONFUSION<br>C05: ADDED BASIC DIM 19.52<br>C10: ADDED BASIC DIM 35.28 & 38.52<br>C12: ADDED BASIC DIM 54.28 & 57.52<br>C13: ADDED BASIC DIM 72.78<br>SHEET 6: ADDED PAD TO HOLES & UPDATED VIEWS TO AVOID CONFUSION<br>SHEET 7: J03: CHANGED DIM FROM 9.78 REF TO 9.75 REF<br>SHEET 8: J03: CHANGED DIM FROM 9.78 REF TO 9.75 REF |

|   |   |  |       |                        |  |         |  |        |  |  |  |  |  |  |
|---|---|--|-------|------------------------|--|---------|--|--------|--|--|--|--|--|--|
| <b>SYMBOLS</b><br>= 0<br>= 0<br>= 0<br>= 0<br>= 0<br>= 0<br>= 0<br>= 0<br>= 0 | THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX ELECTRONIC TECHNOLOGIES, LLC AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION |  |       |                        |  |         |  |        |  |  |  |  |  |  |
|   | DIMENSION UNITS   |  | SCALE |                        | CURRENT REV DESC: SEE REVISION HISTORY |         |  |        |  |  |  |  |  |  |
|   | mm  |  | 1:1   |                        |  |         |  |        |  |  |  |  |  |  |
|   | GENERAL TOLERANCES (UNLESS SPECIFIED)   |  |       |                        | EC NO: 601541                          |         |  |        |  |  | ZQSFP+ 1X4 GANGED CAGE ASSY'S (SPRING FINGER) WITH H/S & L/P OPTIONS<br>PRODUCT CUSTOMER DRAWING |  |  |  |
|   | ANGULAR TOL ± 1.0°  |  |       |                        | DRWN: MKEMPEGOWDA 2017/06/07           |         |  |        |  |  |  |  |  |  |
|   | 4 PLACES ±  |  |       |                        | CHK'D: TKUMARKC 2018/07/17             |         |  |        |  |  | DOCUMENT NUMBER: <b>1000171200</b>   DOC TYPE: PSD   DOC PART: SD   REVISION: K                  |  |  |  |
|   | 3 PLACES ±  |  |       |                        | APPR: RCHEN08 2018/07/18               |         |  |        |  |  |  |  |  |  |
|   | 2 PLACES ± 0.13   |  |       |                        | INITIAL REVISION:                      |         |  |        |  |  | MATERIAL NUMBER: 100017   CUSTOMER: GENERAL MARKET   SHEET NUMBER: 9 OF 9                        |  |  |  |
|   | 1 PLACE ± 0.25  |  |       |                        | DRWN: KNAGANNA 2015/06/03              |         |  |        |  |  |  |  |  |  |
|   | 0 PLACES ±  |  |       |                        | APPR: RCHEN08 2016/01/11               |         |  |        |  |  | SEE P/N TABLE  |  |  |  |
| DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS                          |   |  |       | THIRD ANGLE PROJECTION |  | DRAWING |  | SERIES |  |  |  |  |  |  |
|   |   |  |       |                        |  | D-SIZE  |  | 100017 |  |  |  |  |  |  |

# BASE CAGE DETAILS

**1000171242**

SHOWN



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



P/N AND WEEK/YEAR DATE CODE TO BE PRINTED ON BACK OF COMPLETED CAGE ASSEMBLY APPROXIMATELY AS SHOWN. SEE TABLE BELOW FOR DATE CODE INFORMATION.

**NOTES:**

- MATERIAL: CAGE: STAINLESS STEEL  
CENTER WALLS: STAINLESS STEEL  
SPRING FINGERS: BERYLLIUM COPPER, NICKEL PLATED  
HEAT SINKS: NICKEL PLATED ALUMINUM  
HEAT SINK CLIP: STAINLESS STEEL  
LIGHT PIPES: POLYCARBONATE (UL 94-V-0)
- DIMENSIONS MARKED  $\nabla$  ARE CRITICAL TO FUNCTION OF THE PART AND MUST BE INSPECTED
- DRAWING APPLIES TO ALL P/N'S SHOWN ON PAGE 3
- DURING INCOMING INSPECTION, CAGE LEG LOCATIONS AND STRAIGHTNESS MUST BE CHECKED USING APPROPRIATE GO - NO GAGE
- DURING INCOMING INSPECTION, CAGE MUST BE INSPECTED TO MAKE SURE LEG CONFIGURATIONS AND PART NUMBERS ARE CORRECT. USE SHEETS 3, 4 AND 5
- PARTS TO BE INSPECTED PER MOLEX COSMETIC SPEC W1-HP-7-2774 (CLASS B UNLESS OTHERWISE SPECIFIED)
- PRESS-FIT LEGS 2.44 [0.096] LONG -
  - 1.57 [0.062] MINIMUM PCB THICKNESS FOR SINGLE SIDED USE.
  - 3.00 [0.118] MINIMUM PCB THICKNESS FOR BELLY TO BELLY USE.
- NO RoHS EXEMPTIONS

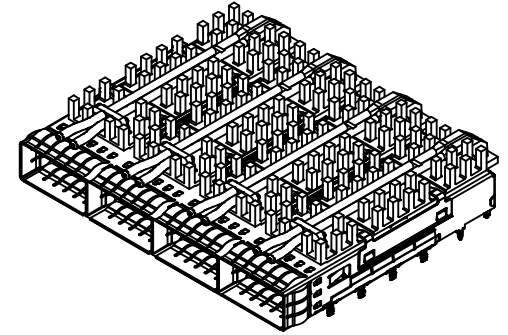
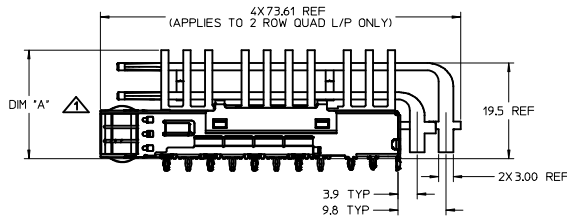
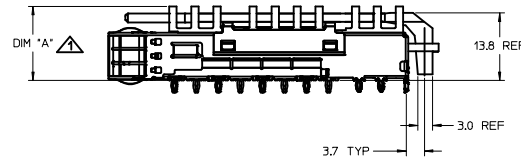
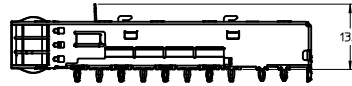
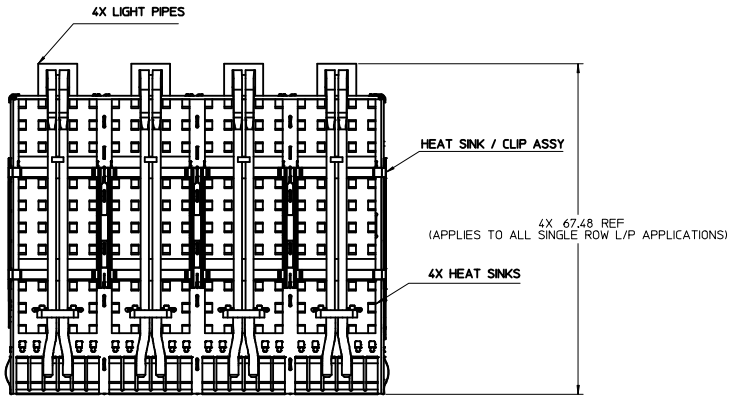
| WEEK/YEAR DATE CODE TABLE |  |
|---------------------------|--|
| WK                        | WEEK OF THE YEAR 01 THRU 52 (EXAMPLE: 01= FIRST WEEK OF YEAR 52= LAST WEEK OF YEAR 15, 16, 17 ETC.. (EXAMPLE: YEAR 2015= 15) |

| SEE REVISION TABLE<br>EC NO: CPG2015-6475<br>DRAWN: KUMAR C<br>CHKD: DASH<br>APP: RCHEN08<br>REV: 2015/06/24 | QUALITY SYMBOLS<br>$\nabla=0$<br>$\nabla=0$<br>$\nabla=0$ | GENERAL TOLERANCES (UNLESS SPECIFIED) |        | DIMENSION STYLE |   | SCALE      | DESIGN UNITS   | THIRD ANGLE PROJECTION |
|--|---|---------------------------------------|--------|-----------------|---|------------|--|------------------------|
|  |   | mm                                    | INCH   | MM ONLY         |   | 2:1        | METRIC   | $\odot \triangleleft$  |
|  |   | 4 PLACES                              | ± ---  | ± ---           | DRAWN BY  | DATE       | TITLE  |                        |
|  |   | 3 PLACES                              | ± ---  | ± ---           | BREED   | 2012/08/17 | ZQSFP+ 1X4 GANGED CAGE ASSY'S (SPRING FINGER) WITH H/S & L/P OPTIONS |                        |
|  |   | 2 PLACES                              | ± 0.13 | ± ---           | CHECKED BY  | DATE       |  |                        |
|  |   | 1 PLACE                               | ± 0.25 | ± ---           | TPRICE  | 2012/08/17 |  |                        |
|  |   | 0 PLACE                               | ± ---  | ± ---           | APPROVED BY   | DATE       |  |                        |
|  |   |                                       |        |                 | KLLOYD  | 2013/04/08 |  |                        |
|  |   |                                       |        |                 | MATERIAL NO. SEE DRAWING  |            | DOCUMENT NO. SD-100017-1200  | SHEET NO. 1 OF 8       |
|  |   |                                       |        |                 | THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION |            |  |                        |

# CAGE ASSEMBLY OPTIONS

**1000171544**

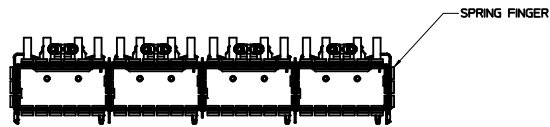
SHOWN



## HEATSINK HEIGHT OPTIONS

| OVERALL HEAT SINK HEIGHT | DIM 'A'  |
|--------------------------|----------|
| PC1                      | 13.7 REF |
| SAN                      | 16.0 REF |
| NET                      | 23.0 REF |

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



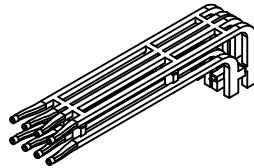
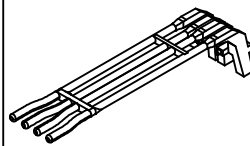
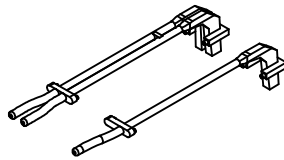
## HEATSINK AND LIGHT PIPE COMBINATIONS

HEATSINK USED WITHOUT LIGHTPIPE

SINGLE / DUAL LIGHT PIPE

QUAD LIGHT PIPE

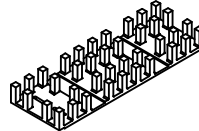
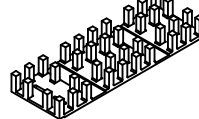
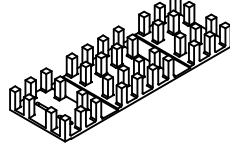
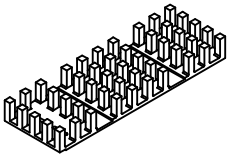
2 ROW QUAD LIGHT PIPE



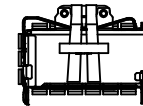
HEATSINK

HEATSINK

HEATSINK

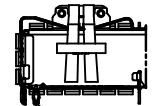


## REAR LEG OPTIONS



0 REAR LEGS

Partial1  
SCALE 2.5:1



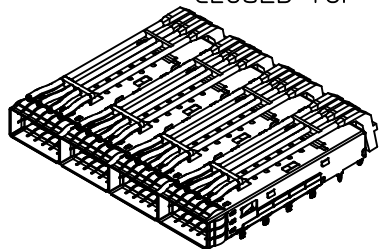
1 REAR LEG

Partial2  
SCALE 2.5:1

| SEE REVISION TABLE<br>EC NO: CPG2015-6475<br>DRAWN: KUMARK<br>CHKD: DASH<br>APPR: RCHEN08 | QUALITY SYMBOLS<br>▽=0<br>▽=0<br>▽=0 | GENERAL TOLERANCES (UNLESS SPECIFIED) |        | DIMENSION STYLE          | SCALE      | DESIGN UNITS  | THIRD ANGLE PROJECTION |
|---|--------------------------------------|---------------------------------------|--------|--------------------------|------------|---|------------------------|
|   |                                      | mm                                    | INCH   | MM ONLY                  | 2:1        | METRIC  | ☉                      |
|   |                                      | 4 PLACES                              | ± 0.13 | BREED                    | 2012/08/17 | TITLE   |                        |
|   |                                      | 3 PLACES                              | ± 0.25 | CHECKED BY               | 2012/08/17 | ZQSFP+ 1X4 GANGED CAGE ASSY'S (SPRING FINGER) WITH H/S & L/P OPTIONS  |                        |
|   |                                      | 2 PLACES                              | ± 0.25 | APPROVED BY              | 2013/04/08 | molex   |                        |
|   |                                      | 1 PLACE                               | ± 0.25 | DATE                     |            | DOCUMENT NO. SD-100017-1200   |                        |
|   |                                      | 0 PLACE                               | ± 0.25 |                          |            | SHEET NO. 2 OF 8  |                        |
| DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS                                      |                                      | ANGULAR ± 1°                          |        | MATERIAL NO. SEE DRAWING |            | THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION |                        |

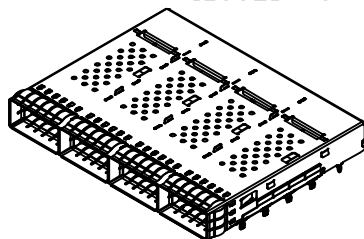
# PART NUMBER SELECTION

NO HEATSINKS  
WITH LIGHT PIPES  
CLOSED TOP



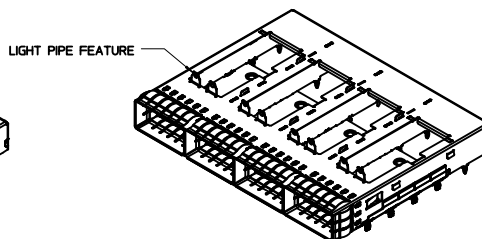
| MOLEX P/N  | LIGHTPIPES | #OF REAR LEGS PER PORT |
|------------|------------|------------------------|
| 1000171231 | SINGLE     | 0                      |
| 1000171232 | SINGLE     | 1                      |
| 1000171233 | DUAL       | 0                      |
| 1000171234 | DUAL       | 1                      |
| 1000171235 | QUAD       | 0                      |
| 1000171236 | QUAD       | 1                      |

NO HEATSINKS  
NO LIGHT PIPES  
CLOSED TOP



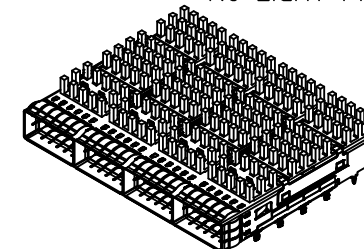
| MOLEX P/N<br>W/ SPRING FINGERS | # OF REAR LEGS<br>PER PORT |
|--------------------------------|----------------------------|
| 1000171240                     | 0                          |
| 1000171242                     | 1                          |

NO HEATSINKS  
NO LIGHT PIPES  
OPEN TOP



| MOLEX P/N<br>W/ SPRING FINGERS | # OF REAR LEGS<br>PER PORT | LIGHT PIPE<br>FEATURE |
|--------------------------------|----------------------------|-----------------------|
| 1000171250                     | 0                          | YES                   |
| 1000171252                     | 1                          | YES                   |
| 1000171255                     | 1                          | NO                    |

WITH HEATSINKS  
NO LIGHT PIPES

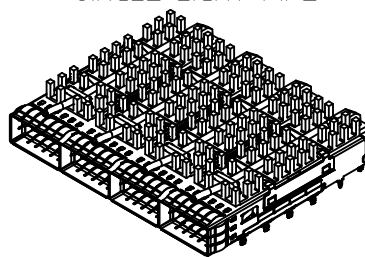


| MOLEX P/N  | HEATSINKS | #OF REAR LEGS PER PORT |
|------------|-----------|------------------------|
| 1000171340 | PCI       | 0                      |
| 1000171341 | SAN       | 0                      |
| 1000171342 | NET       | 0                      |
| 1000171343 | PCI       | 1                      |
| 1000171344 | SAN       | 1                      |
| 1000171345 | NET       | 1                      |

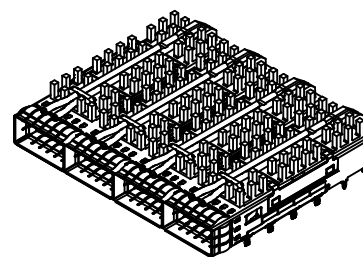
WITH HEATSINKS AND LIGHT PIPES

| MOLEX P/N  | LIGHTPIPES | HEATSINKS           | #OF REAR LEGS PER PORT |
|------------|------------|---------------------|------------------------|
| 1000171440 | SINGLE     | PCI                 | 0                      |
| 1000171441 | SINGLE     | SAN                 | 0                      |
| 1000171442 | SINGLE     | NET                 | 0                      |
| 1000171443 | DUAL       | PCI                 | 0                      |
| 1000171444 | DUAL       | SAN                 | 0                      |
| 1000171445 | DUAL       | NET                 | 0                      |
| 1000171446 | QUAD       | PCI                 | 0                      |
| 1000171447 | QUAD       | SAN                 | 0                      |
| 1000171448 | QUAD       | NET                 | 0                      |
| 1000171540 | SINGLE     | PCI                 | 1                      |
| 1000171541 | SINGLE     | SAN                 | 1                      |
| 1000171542 | SINGLE     | NET                 | 1                      |
| 1000171543 | DUAL       | PCI                 | 1                      |
| 1000171544 | DUAL       | SAN                 | 1                      |
| 1000171545 | DUAL       | NET                 | 1                      |
| 1000171546 | QUAD       | PCI                 | 1                      |
| 1000171547 | QUAD       | SAN                 | 1                      |
| 1000171548 | QUAD       | NET                 | 1                      |
| 1000171647 | 2 ROW QUAD | SAN                 | 1                      |
| 1000171648 | 2 ROW QUAD | NET                 | 1                      |
| 1000171649 | 2 ROW QUAD | CUSTOM (A-19_0 REF) | 1                      |

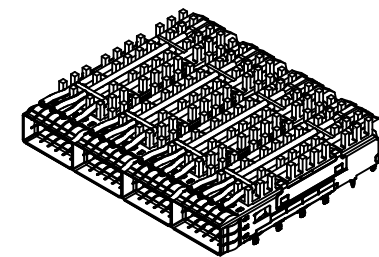
SINGLE LIGHT PIPE



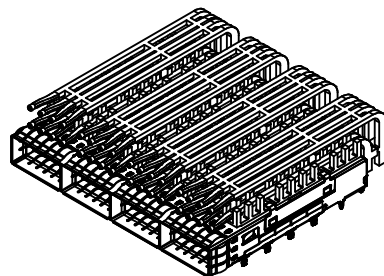
DUAL LIGHT PIPE



QUAD LIGHT PIPE

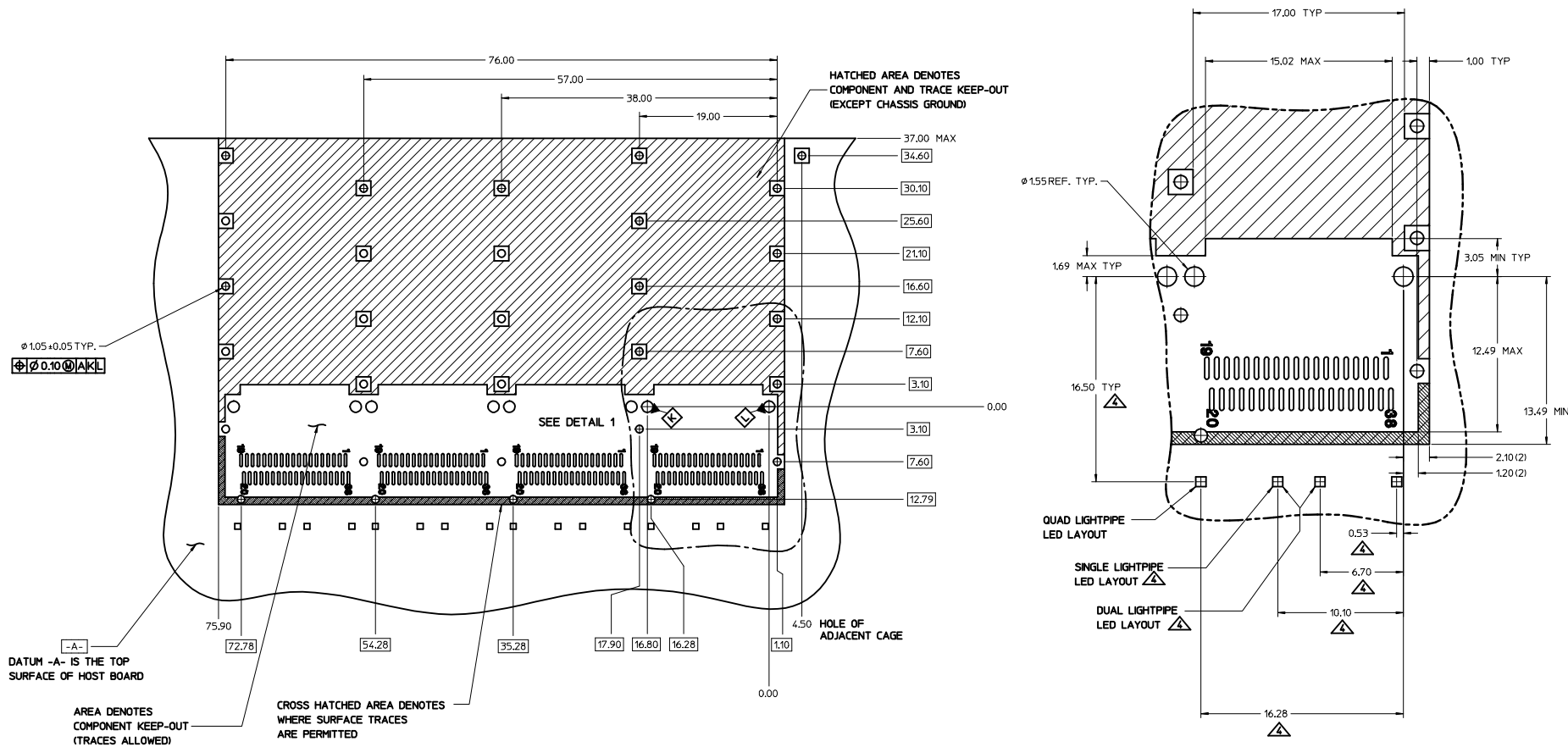


2 ROW QUAD LIGHT PIPE



| SEE REVISION TABLE<br>EC NO: CPG2015-6475<br>DRAWN: KOMARU<br>CHKD: DASH<br>APPR: RCHEN08 | QUALITY SYMBOLS<br>▽=0<br>▽=0<br>▽=0 | GENERAL TOLERANCES (UNLESS SPECIFIED)                |      | DIMENSION STYLE |            | SCALE | DESIGN UNITS | THIRD ANGLE PROJECTION |
|---|--------------------------------------|--|------|-----------------|------------|-------|--------------|------------------------|
|   |                                      | mm   | INCH | MM ONLY         | DATE       | 1.5:1 | METRIC       | ☉                      |
|   |                                      | 4 PLACES ±---  | ±--- | BREED           | 2012/08/17 |       |              |                        |
|   |                                      | 3 PLACES ±---  | ±--- | CHECKED BY      | DATE       |       |              |                        |
|   |                                      | 2 PLACES ±0.13                                       | ±--- | TPRICE          | 2012/08/17 |       |              |                        |
|   |                                      | 1 PLACE ±0.25  | ±--- | APPROVED BY     | DATE       |       |              |                        |
|   |                                      | 0 PLACE ±---   | ±--- | KLLOYD          | 2013/04/08 |       |              |                        |
|   |                                      | ANGULAR ± 1°   |      | MATERIAL NO.    |            |       |              |                        |
|   |                                      | DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS |      | SEE DRAWING     |            |       |              |                        |
|   |                                      |  |      | DOCUMENT NO.    |            |       |              |                        |
|   |                                      |  |      | SD-100017-1200  |            |       |              |                        |
|   |                                      |  |      | SHEET NO.       |            |       |              |                        |
|   |                                      |  |      | 3 OF 8          |            |       |              |                        |

# PCB LAYOUT FOR SINGLE SIDED MOUNTING

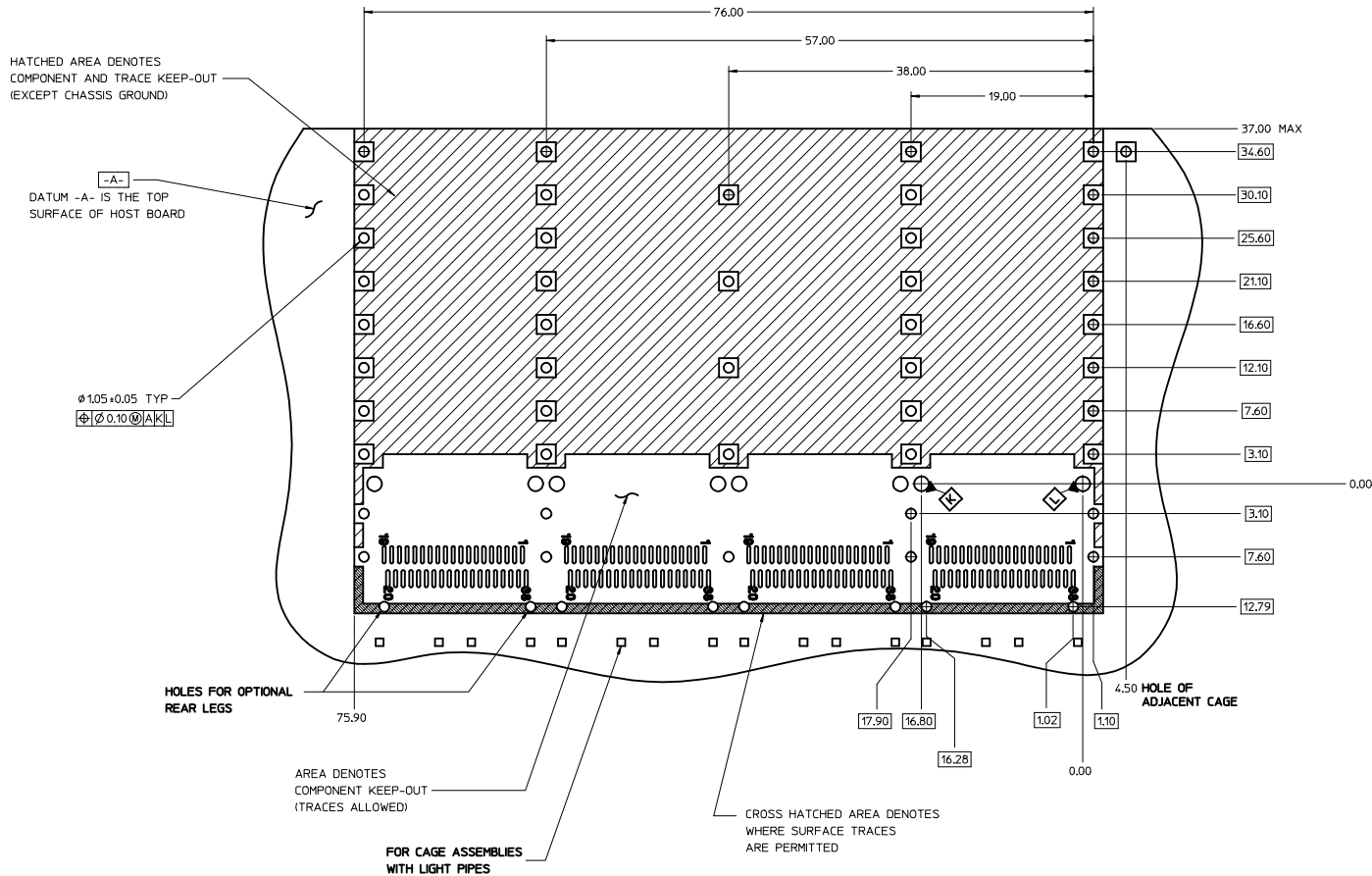


## NOTES:

1. PADS AND VIAS GO TO CHASSIS GROUND. (RECOMMENDED 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 SFF-8663 WILL ACCOMODATE MOLEX CONNECTOR SERIES 170432.
4. NOTED DIMENSIONS ONLY APPLY TO CAGE ASSEMBLIES WITH LIGHT PIPES.

| <b>SEE REVISION TABLE</b><br>IEC NO: CPG2015-6475<br>DRAWN BY: CHYKOBASH<br>APPR: RCHEN08                                     | 2015/06/16<br>2015/06/24<br>2015/06/24 | QUALITY SYMBOLS<br>▽=0<br>▽=0<br>▽=0 | GENERAL TOLERANCES (UNLESS SPECIFIED)<br><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 | ±--- | ±--- | DIMENSION STYLE<br><b>MM ONLY</b> | SCALE<br><b>3.5:1</b> | DESIGN UNITS<br><b>METRIC</b> | THIRD ANGLE PROJECTION |
|---|--|--------------------------------------|--|---------------------------------------|--|--|--|-------|------|----------|-------|------|----------|-------|------|---------|-------|------|---------|------|------|-----------------------------------|-----------------------|-------------------------------|------------------------|
|   |  | mm                                   | INCH   |                                       |  |  |  |       |      |          |       |      |          |       |      |         |       |      |         |      |      |                                   |                       |                               |                        |
|   | 4 PLACES                               | ±0.13                                | ±---   |                                       |  |  |  |       |      |          |       |      |          |       |      |         |       |      |         |      |      |                                   |                       |                               |                        |
|   | 3 PLACES                               | ±0.13                                | ±---   |                                       |  |  |  |       |      |          |       |      |          |       |      |         |       |      |         |      |      |                                   |                       |                               |                        |
| 2 PLACES  | ±0.25                                  | ±---                                 |  |                                       |  |  |  |       |      |          |       |      |          |       |      |         |       |      |         |      |      |                                   |                       |                               |                        |
| 1 PLACE   | ±0.25                                  | ±---                                 |  |                                       |  |  |  |       |      |          |       |      |          |       |      |         |       |      |         |      |      |                                   |                       |                               |                        |
| 0 PLACE   | ±---                                   | ±---                                 |  |                                       |  |  |  |       |      |          |       |      |          |       |      |         |       |      |         |      |      |                                   |                       |                               |                        |
| DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS  |  |                                      | ANGULAR ± 1°   | DRAWN BY: BREED<br>DATE: 2012/08/17   | CHECKED BY: TPRICE<br>DATE: 2012/08/17 | APPROVED BY: KLLLOYD<br>DATE: 2013/04/08 | TITLE<br><b>ZQSFP+ 1X4 GANGED CAGE ASSY'S (SPRING FINGER) WITH H/S &amp; L/P OPTIONS</b> |       |      |          |       |      |          |       |      |         |       |      |         |      |      |                                   |                       |                               |                        |
| MATERIAL NO.  |  |                                      | SEE DRAWING  | DOCUMENT NO.<br><b>SD-100017-1200</b> |  | SHEET NO.<br><b>4 OF 8</b>               |  |       |      |          |       |      |          |       |      |         |       |      |         |      |      |                                   |                       |                               |                        |
| 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



NOTE:  
SEE SHEET 4 FOR HOST  
CONNECTOR DETAIL  
AND SINGLE ROW LED  
LOCATION DETAIL

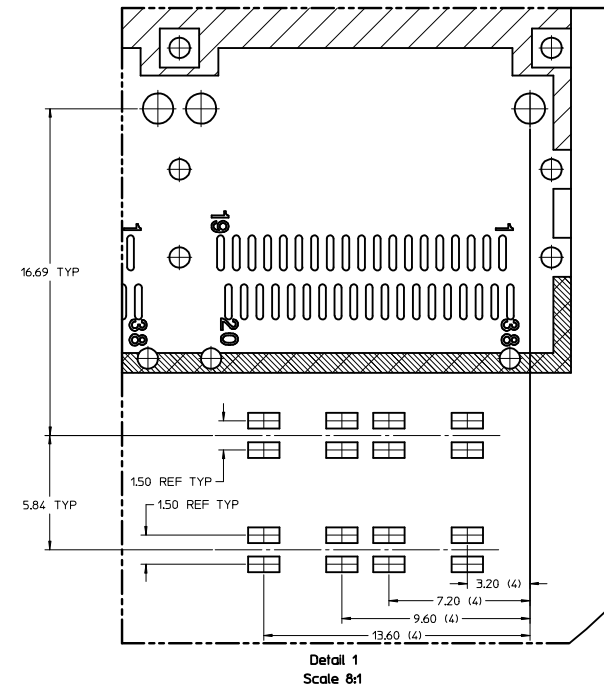
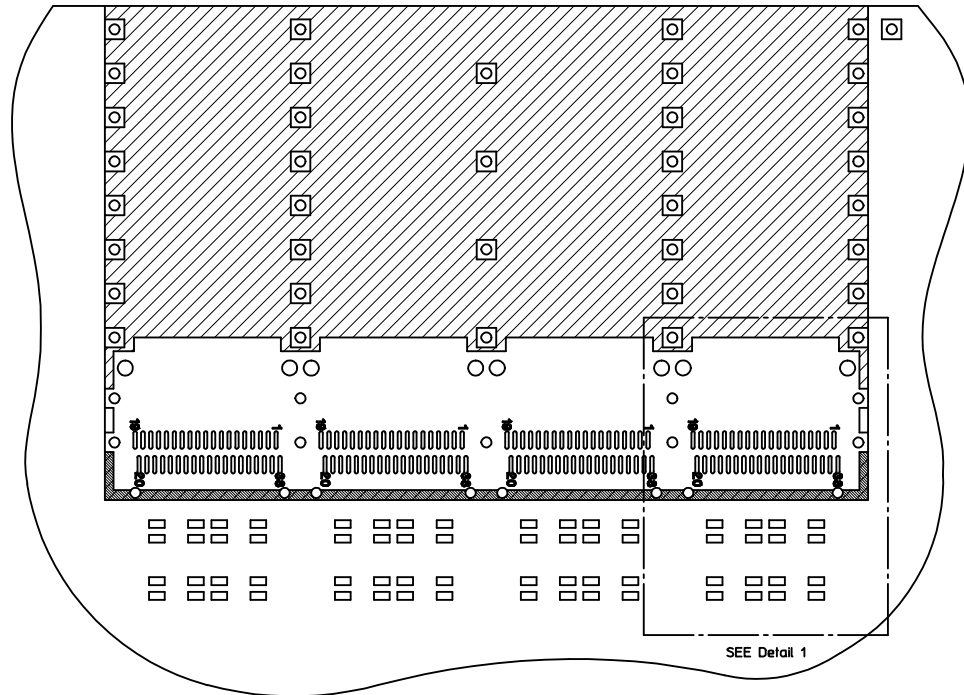
SEE SHEET 6 FOR DUAL-QUAD  
LED LOCATION DETAIL

## NOTES:

1. PADS AND VIAS GO TO CHASSIS GROUND. (RECOMMENDED 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 SFF-8663 WILL ACCOMODATE MOLEX CONNECTOR SERRIES 170432.

| SEE REVISION TABLE |                     | QUALITY SYMBOLS |     | GENERAL TOLERANCES (UNLESS SPECIFIED)                |       | DIMENSION STYLE   |  | SCALE       | DESIGN UNITS | THIRD ANGLE PROJECTION |  |
|--------------------|---------------------|-----------------|-----|--|-------|---|--|-------------|--------------|------------------------|--|
| REV                | DESCRIPTION         | ▽=0             | ▽=0 | mm   | INCH  | MM ONLY   |  | 4:1         | METRIC       | ⊙ □                    |  |
| 1                  | EC NO: CPG2015-6475 | ▽=0             | ▽=0 | 4 PLACES   | ±---  | DRAWN BY DATE   |  | BREED       | 2012/08/17   | TITLE                  |  |
| 2                  | DRWNG:KUMARC        | ▽=0             | ▽=0 | 3 PLACES   | ±---  | CHECKED BY DATE   |  |             |              | ZQSFP+ 1X4 GANGED CAGE |  |
| 3                  | CHKD:ASH            | ▽=0             | ▽=0 | 2 PLACES   | ±0.13 | APPROVED BY DATE  |  | TPRICE      | 2012/08/17   | ASSY'S (SPRING FINGER) |  |
| 4                  | APPR:RCHEN08        |                 |     | 1 PLACE  | ±0.25 | MATERIAL NO.  |  | KLLOYD      | 2013/04/08   | WITH H/S & L/P OPTIONS |  |
|                    |                     |                 |     | 0 PLACE  | ±---  | DRAWING NO.   |  | SEE DRAWING |              | DOCUMENT NO.           |  |
|                    |                     |                 |     | ANGULAR ± 1°   |       | SIZE  |  | D           |              | SD-100017-1200         |  |
|                    |                     |                 |     | DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS |       | SHEET NO.   |  |             |              | 5 OF 8                 |  |
|                    |                     |                 |     |  |       | THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION |  |             |              |                        |  |

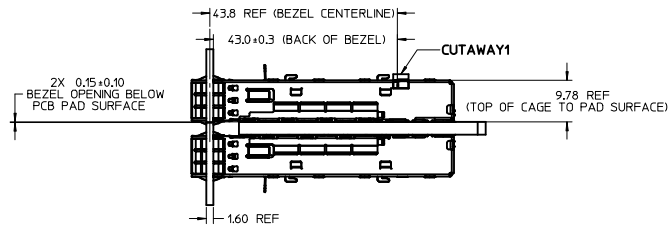
# LED PLACEMENT FOR 2 ROW QUAD LIGHT PIPE



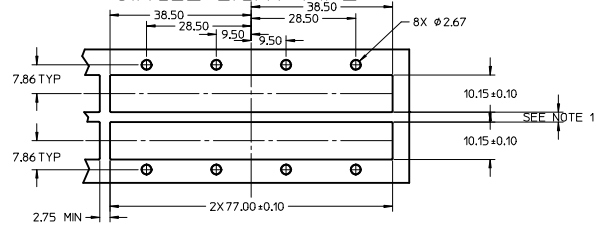
NOTE:  
SEE SHEET 4 FOR HOST  
CONNECTOR DETAIL

|  |  |                                       |              |                 |  |  |                        |
|--|--|---------------------------------------|--------------|-----------------|--|--|------------------------|
| <b>SEE REVISION TABLE</b><br>IEC NO: CPG2015-6475<br>DRAWN: KUMARK<br>CHYKOBASH<br>APPR: RCHENOB | 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  | 3 PLACES ±0.13                        | ±---         |                 |  |  |                        |
| ▽=0  | 2 PLACES ±0.25                                       | ±---                                  |              |                 |  |  |                        |
| ▽=0  | 1 PLACE ±---   | ±---                                  |              |                 |  |  |                        |
|  | 0 PLACE ±---   | ±---                                  |              |                 |  |  |                        |
|  | ANGULAR ± 1°   |                                       | DRAWN BY     |                 | DATE   | TITLE  |                        |
|  | DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS |                                       | BREED        |                 | 2012/08/17   | ZQSFP+ 1X4 GANGED CAGE ASSY'S (SPRING FINGER) WITH H/S & L/P OPTIONS |                        |
|  |  |                                       | CHECKED BY   |                 | DATE   | molex  |                        |
|  |  |                                       | TPRICE       |                 | 2012/08/17   | DOCUMENT NO. SD-100017-1200  |                        |
|  |  |                                       | APPROVED BY  |                 | DATE   | SHEET NO. 6 OF 8   |                        |
|  |  |                                       | KLLLOYD      |                 | 2013/04/08   |  |                        |
|  |  |                                       | MATERIAL NO. |                 | SIZE D THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION |  |                        |
|  |  |                                       | SEE DRAWING  |                 |  |  |                        |

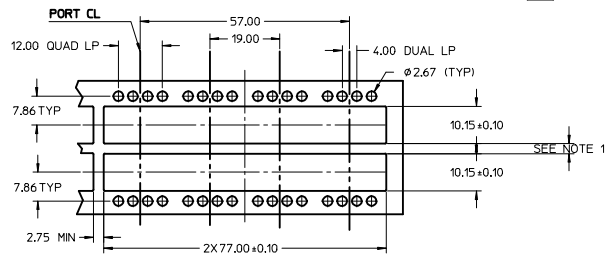
BEZEL AND BOARD POSITION DIMENSIONS  
FOR BELLY TO BELLY MOUNTING



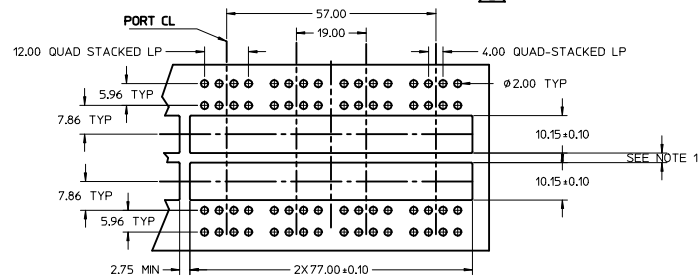
SINGLE LIGHT PIPE



DUAL LIGHT PIPE AND QUAD LIGHT PIPE

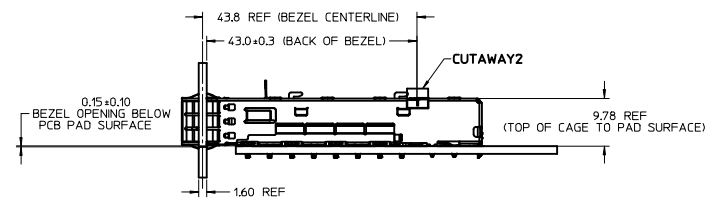


2 ROW QUAD LIGHT PIPE

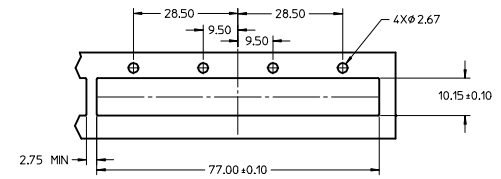


NOTE:  
1. PCB THICKNESS VARIATION MUST BE CONSIDERED WHEN DETERMINING BEZEL OPENING LOCATION.  
NOTED DIMENSIONS ONLY APPLY TO CAGE ASSEMBLIES WITH LIGHT PIPES.

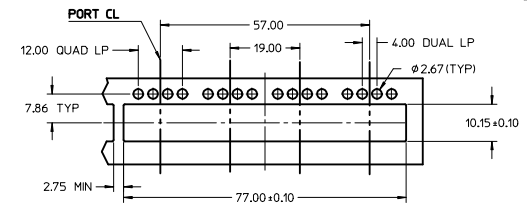
BEZEL AND BOARD POSITION DIMENSIONS  
FOR SINGLE SIDE MOUNTING



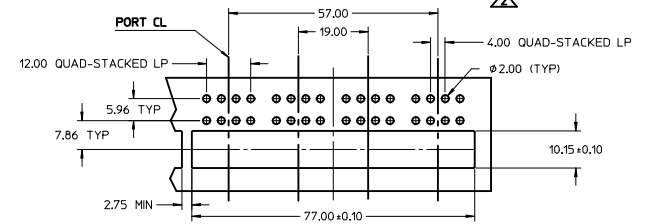
SINGLE LIGHT PIPE



DUAL LIGHT PIPE AND QUAD LIGHT PIPE



2 ROW QUAD LIGHT PIPE



|   |                 |  |   |                   |  |                        |
|---|-----------------|--|---|-------------------|--|------------------------|
| SEE REVISION TABLE<br>IEC NO: CPG2015-6475<br>DRAWN: KUMARK<br>CHYKODASH<br>APPROV: RCHEN08<br>2015/06/16<br>2015/06/24<br>2015/06/24 | 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   | BREED 2012/08/17  | TITLE  |                        |
|   | ▽=0             | 3 PLACES ± --- ± ---                                 | CHECKED BY DATE   | TPRICE 2012/08/17 | ZQSFP+ 1X4 GANGED CAGE ASSY'S (SPRING FINGER) WITH H/S & L/P OPTIONS |                        |
|   | ANGULAR ± 1°    | DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS | MATERIAL NO.  | DATE              | DOCUMENT NO.   | SHEET NO.              |
|   |                 |  | SEE DRAWING   | 2013/04/08        | SD-100017-1200   | 7 OF 8                 |
|   |                 |  | THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION |                   |  |                        |



| REV | DATE       | DESCRIPTION   |
|-----|------------|---|
| A   | 03/29/2013 | RELEASE   |
| B   | 06/26/2013 | ADDED DIM 12.77 AT G-9 ON SHEET 4.  |
| C   | 02/05/2014 | SHEET 3: ADDED VIEW AND P/N TABLE FOR CLOSED TOP W/LP.<br>SHEET 4/5: EXPANDED ALLOWABLE AREA WHERE SURFACE TRACES ARE PERMITTED.<br>REMOVED 'HOLE PATTERN REPEATS FOR EACH PORT.' FROM NOTE 4   |
| D   | 07/15/2014 | SHEET 1: ADDED MATERIAL INFORMATION TO NOTES.<br>SHEET 2: MADE HEATSINK HEIGHT DIMENSIONS REF.<br>CHANGED REARMOST LEG ON BOTH SIDES OF ALL CAGES FROM 3D PRESSFIT TO EYE-OF-THE-NEEDLE PRESSFIT LEG.   |
| E   | 10/06/2014 | ADDED 2 ROW QUAD LIGHT PIPE OPTION<br>SHEET 2: CHANGED HEATSINK HEIGHT DIMENSIONS TO REF J14: DIM 67.48 CHANGED TO REF<br>SHEET 4: MOVED DATUMS 'K' AND 'L' TO CONNECTOR HOLES<br>REMOVED BASIC FROM '0.00' POSITIONS<br>SHEET 5: MOVED DATUMS 'K' AND 'L' TO CONNECTOR HOLES<br>REMOVED BASIC FROM '0.00' POSITIONS<br>H18: MADE HOLE DIAMETER DIMENSION TYP<br>SHEET 7: EDIT NOTE 1. REMOVED 'SIZE'<br>REMOVED NOTE 1 FROM ALL '10.15' DIMENSIONS |
| F   | 03/12/2015 | ADDED 1000171255 & LIGHT PIPE FEATURE IN COLUMN M10 ON SHEETS.  |
| G   | 04/14/2015 | SHEET 4: REVISED DIM 'WAS' 12.77 'NOW' 12.79 ØG9<br>REVISED FRAMED TEXT NUMBER 4 TRIANGLES TO FRAMED TEXT NUMBER 5 ØD5, ØE4, ØE6, ØF4, ØF6, AND ØH7<br>SHEET 5: REVISED DIM 'WAS' 12.77 'NOW' 12.79 ØF7<br>REMOVED NOTE 4 AND REVISED NOTE 5 TO NOTE 4<br>REMOVED NOTE 4 ØA20<br>REMOVED SEE NOTE 4 AND ADDED DIMS ØK11, K12, K13, AND ØK14<br>SHEET 6: REVISED PORT CL 'WAS' (4) 'NOW' PORT CL ØE7, D17, G17 AND ØH7                               |
| H   | 06/16/2015 | SHEET 1: C7: CHANGED YR FROM 12,13,14 ETC.(EXAMPLE: YEAR 2012-12) TO 15,16,17 ETC.(EXAMPLE: YEAR 2015-15)<br>SHEET 3: B18: ADDED PN 1000171649 CUSTOM H/S 19mm TO HEATSINK AND LIGHT PIPE TABLE<br>SHEET 6: CHANGED REVISION DESCRIPTION FROM ENTER DESCRIPTION TO SEE REVISION TABLE<br>CHANGED MATERIAL NO. FROM 9999999999 TO SEE DRAWING  |
|     |            |   |
|     |            |   |
|     |            |   |
|     |            |   |
|     |            |   |
|     |            |   |
|     |            |   |
|     |            |   |

|  |   |   |  |                                       |   |                        |
|--|---|---|--|---------------------------------------|---|------------------------|
| <b>SEE REVISION TABLE</b><br>IEC NO: CPG2015-6475<br>H: DRWN:KUMARK 2015/06/16<br>CHYK:DASH 2015/06/14<br>APPR:RCHE08 2015/06/14<br>APPR:RCHE08 2015/06/14 | <b>QUALITY SYMBOLS</b><br>∇=0<br>∇=0<br>∇=0 | <b>GENERAL TOLERANCES (UNLESS SPECIFIED)</b>                          |  | <b>DIMENSION STYLE</b><br>MM ONLY     | SCALE<br>DESIGN UNITS<br>METRIC   | THIRD ANGLE PROJECTION |
|  |   |   |  | DRAWN BY DATE<br>BREED 2012/08/17     | TITLE<br>ZQSFP+ 1X4 GANGED CAGE ASSY'S (SPRING FINGER) WITH H/S & L/P OPTIONS<br><b>molex</b> |                        |
|  |   |   |  | CHECKED BY DATE<br>TPRICE 2012/08/17  |   |                        |
|  |   |   |  | APPROVED BY DATE<br>KLLOYD 2013/04/08 |   |                        |
|  |   | ANGULAR ± 1 °<br>DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS |  | MATERIAL NO.<br><b>SEE DRAWING</b>    | DOCUMENT NO.<br>SD-100017-1200  | SHEET NO.<br>8 OF 8    |
| THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION                              |   |   |  |                                       |   |                        |