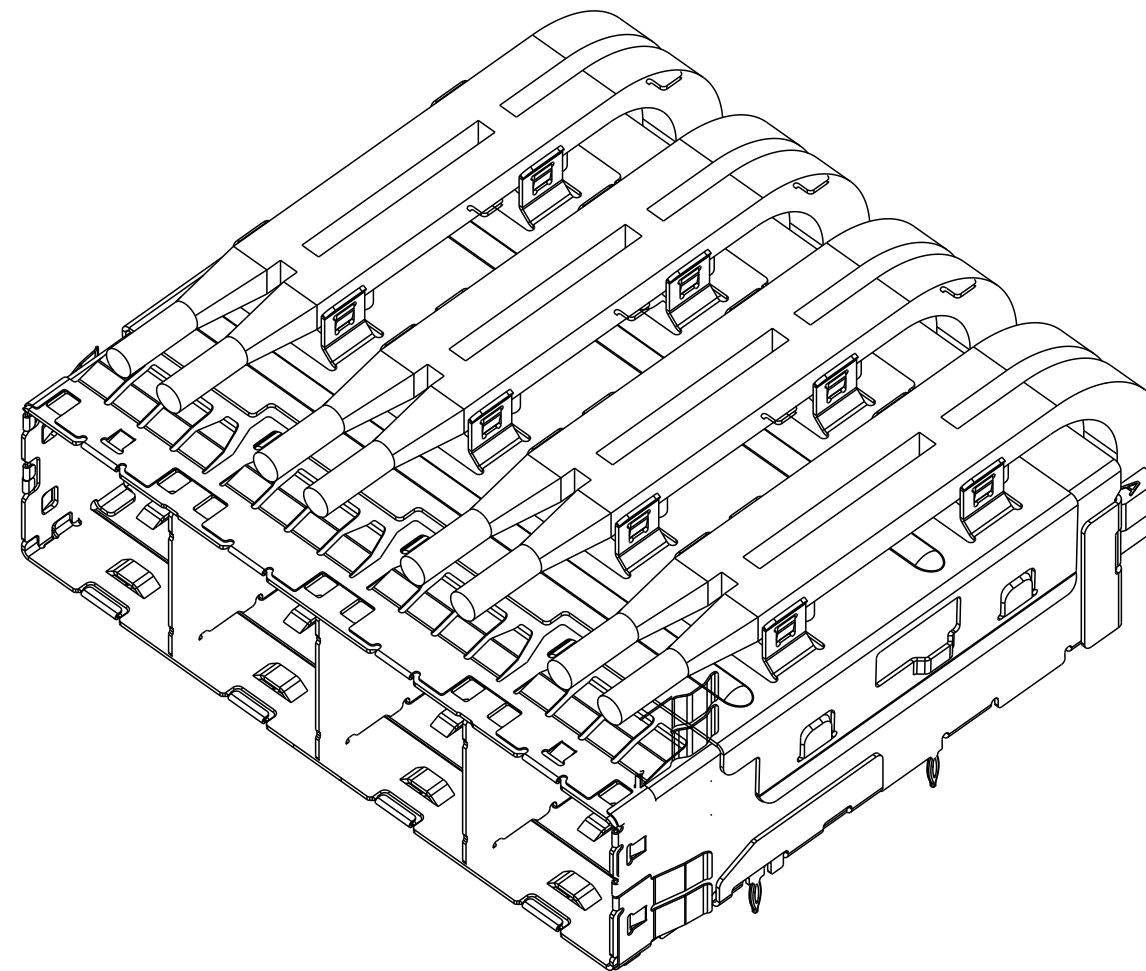
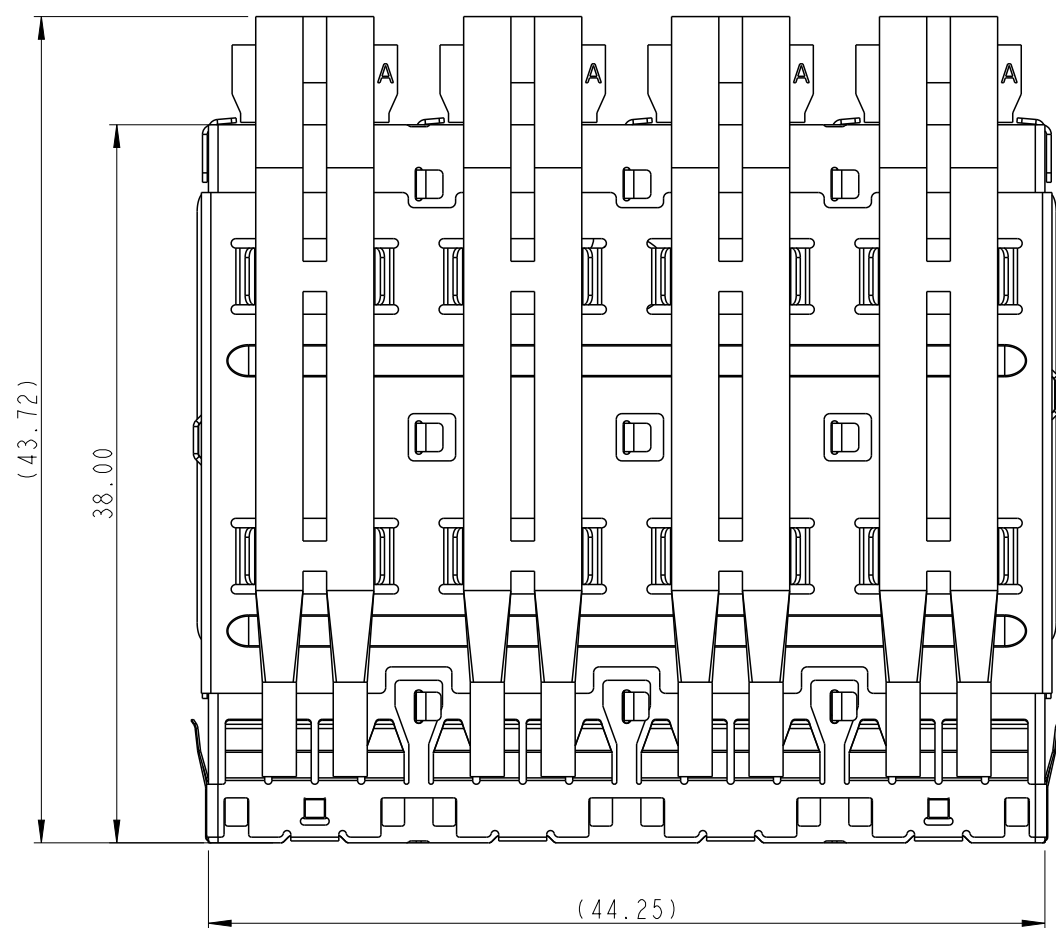


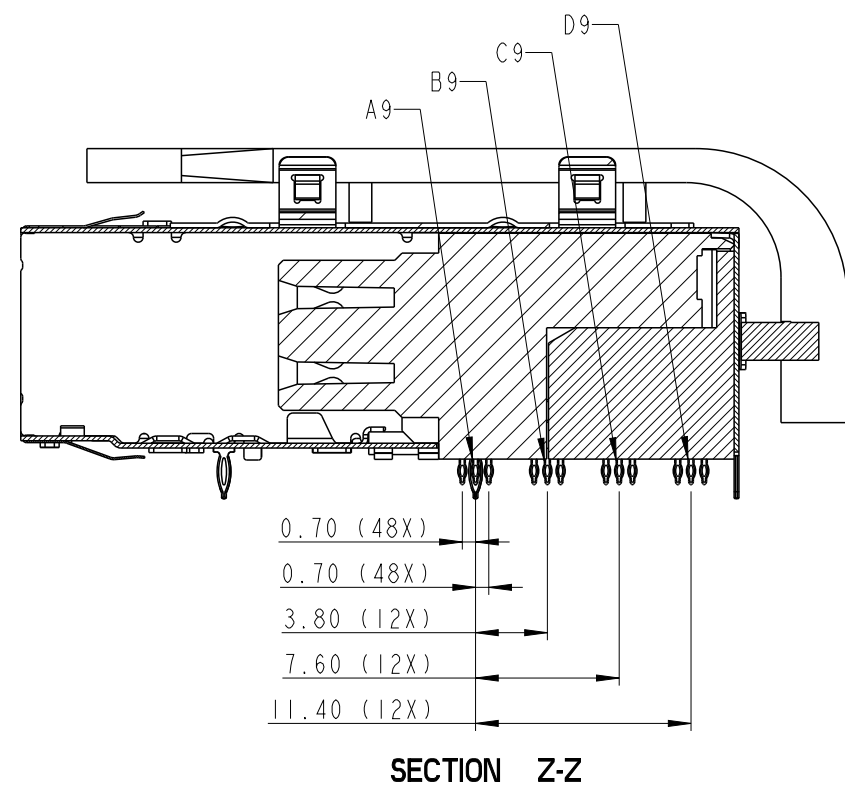
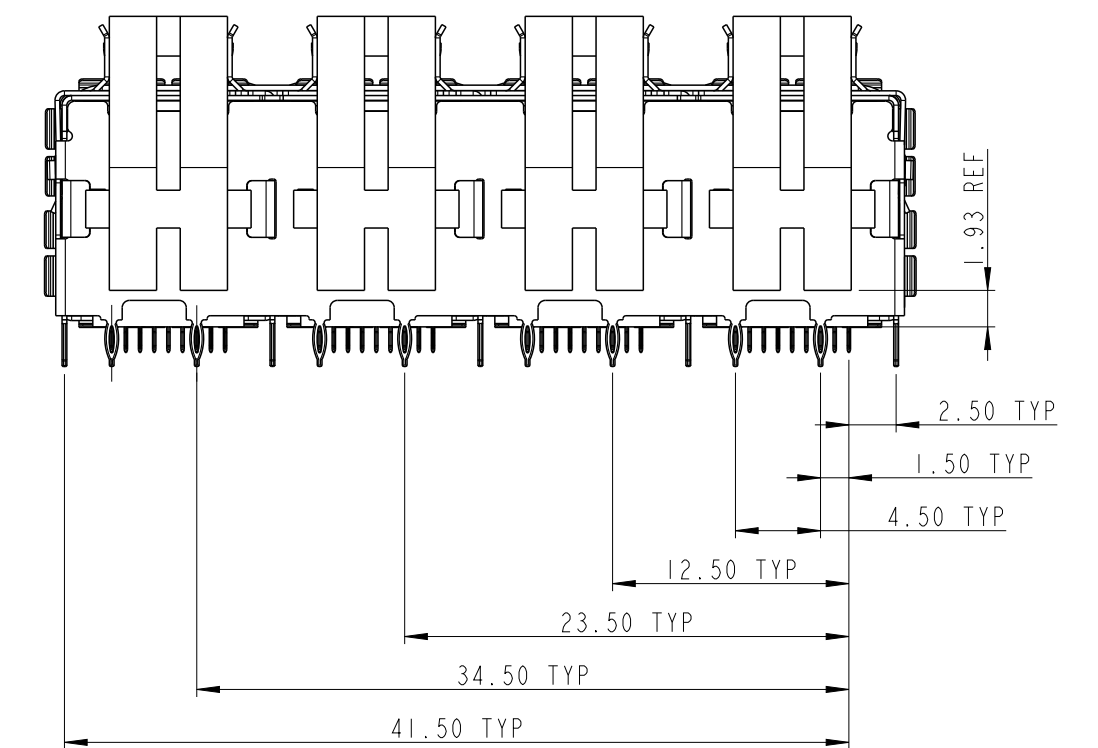
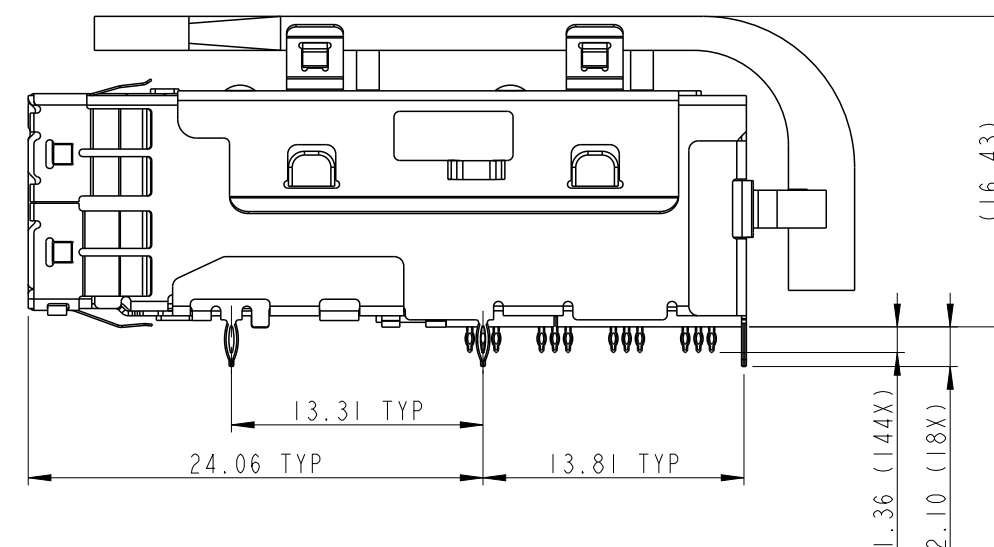
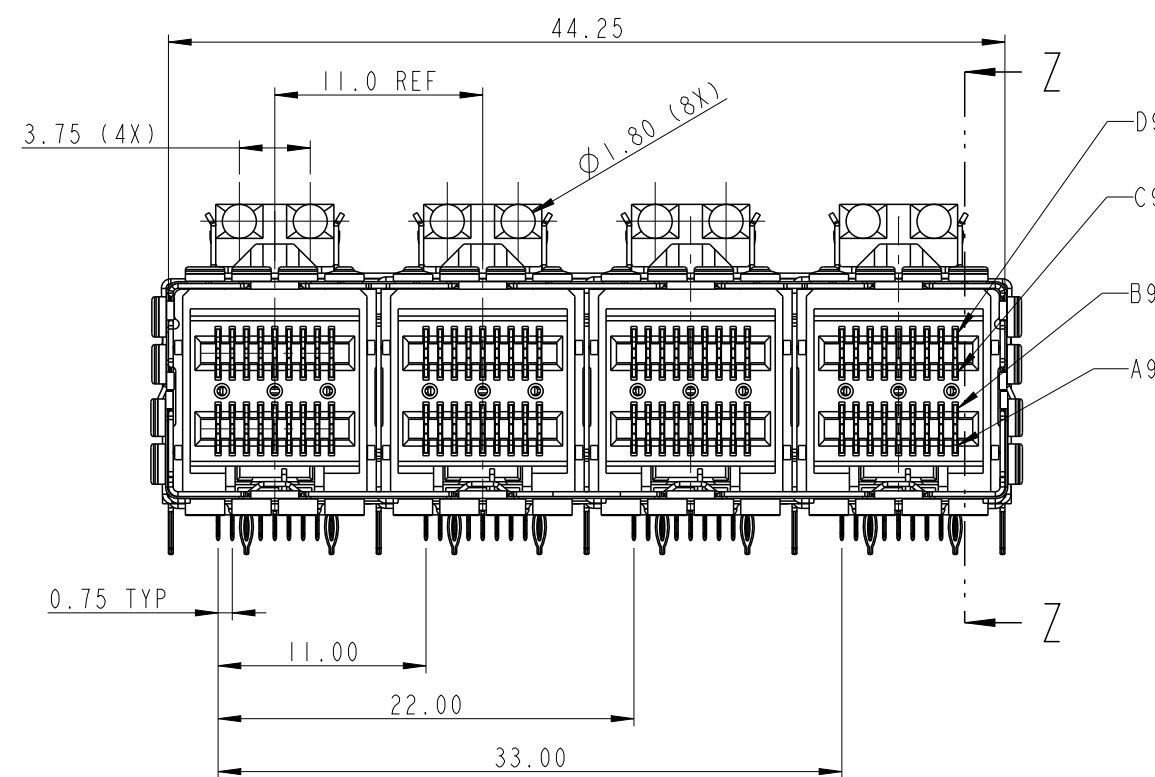
| PRODUCT NUMBER | TAIL PLATING OPTION, SEE NOTE 2 | 1X4 EXTERNAL ASSEMBLY | 1X4 LIGHT PIPE SUB-ASSEMBLY WITH MOUNTING CLIP | DESCRIPTION |
|----------------|---------------------------------|-----------------------|--|-----------------------------------|
| 10120728-101 | OPTION 1 | 10112628-101 | 10121256-001LF | WITH SAME LENGTH LIGHT PIPES |
| 10120728-101LF | OPTION 2 | 10112628-101LF | | |
| 10120728-102LF | OPTION 2 | 10112628-101LF | 10121256-002LF | WITH DIFFERENT LENGTH LIGHT PIPES |

NOTES:

- MATERIALS:
CONNECTOR HOUSING: HIGH TEMPERATURE THERMOPLASTIC
GLASS FILLED, UL 94V-0
EMI CAGE: NICKEL SILVER ALLOY
EMI FINGERS: COPPER ALLOY
TERMINALS: COPPER ALLOY
LIGHT PIPE CLIP: STAINLESS STEEL
LIGHT PIPE: POLYCARBONATE
- FINISHES:
EMI FINGERS: 0.50um MIN NICKEL
CONTACT AREA: 0.76um MIN GOLD OVER 2.54um MIN NICKEL
TAIL AREA:
OPTION 1: 0.76um - 1.52um TIN/LEAD (90/10) OVER 2.54um MIN NICKEL
OPTION 2: 0.76um - 1.52um TIN (LEAD FREE) OVER 2.54um MIN NICKEL
- PRODUCT SPECIFICATION: GS-12-651
- PRODUCT PACKING SPECIFICATION: GS-14-1490
EXTERNAL ASSEMBLY WILL BE IN ONE BOX.
LIGHT PIPE SUB-ASSEMBLY WITH MOUNTING CLIP WILL BE IN ONE BOX.
BOTH BOXES WILL BE IN A MASTER CARTON.
- APPLICATION SPECIFICATION: GS-20-0327
- MOUNTING HARDWARE: M2X0.4 BUTTON HEAD SCREW
MOUNTING SCREW LENGTH: BOARD THICKNESS + 1.4mm MAX (0.9mm MIN).
2 REQUIRED PER ASSEMBLY.
MOUNTING HARDWARE NOT SUPPLIED.
- THIS CONNECTOR IS DESIGNED TO MEET THE REQUIREMENTS OF INDUSTRY SPECIFICATION SFF-8644.
- LIGHT PIPE SUB-ASSEMBLY WITH MOUNTING CLIP FINAL ASSEMBLY AFTER EXTERNAL ASSEMBLY APPLIED TO PCB.
- A \triangle SYMBOL WILL BE NEXT TO ANY DIMENSION, VIEW, OR NOTE THAT HAS BEEN MODIFIED WITH THE CURRENT DRAWING REVISION.



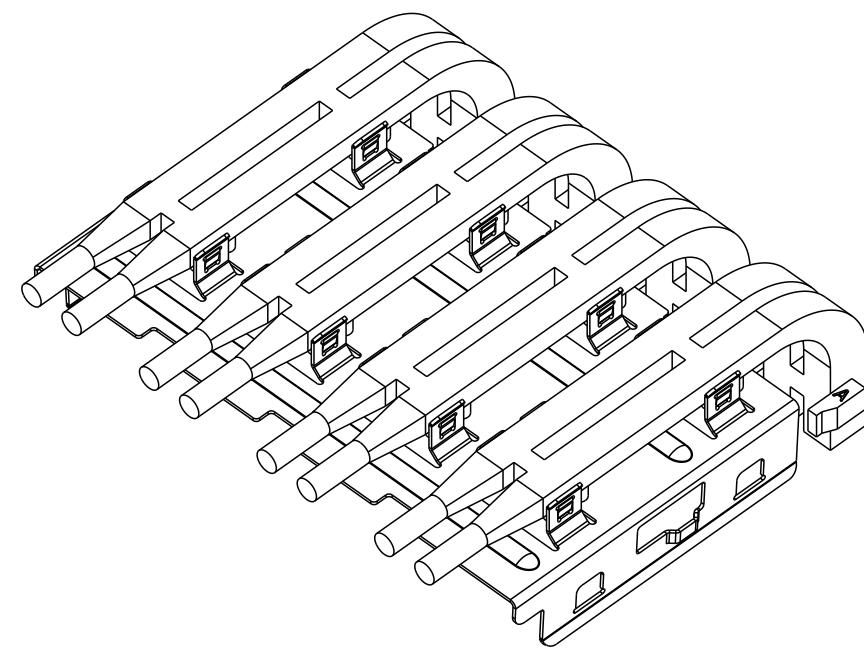
10120728-101 & 101LF SHOWN WITH SAME LENGTH LIGHT PIPES SCALE 2.500



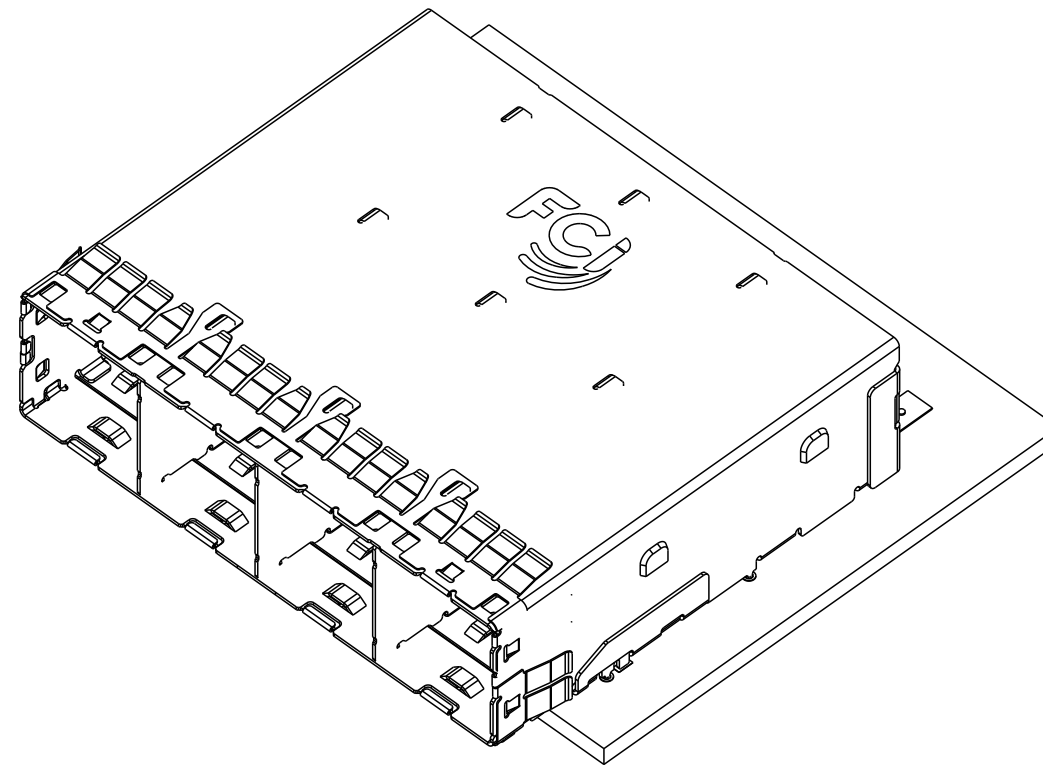
MATES WITH MINI-SAS HD ENDS IN:

| |
|----------------------|
| 10112041 SERIES (4X) |
| 10117771 SERIES (4X) |
| 10117946 SERIES (4X) |
| 10117949 SERIES (4X) |
| 10117947 SERIES (8X) |
| 10112359 SERIES (8X) |
| 10117950 SERIES (8X) |
| 10117948 SERIES (8X) |

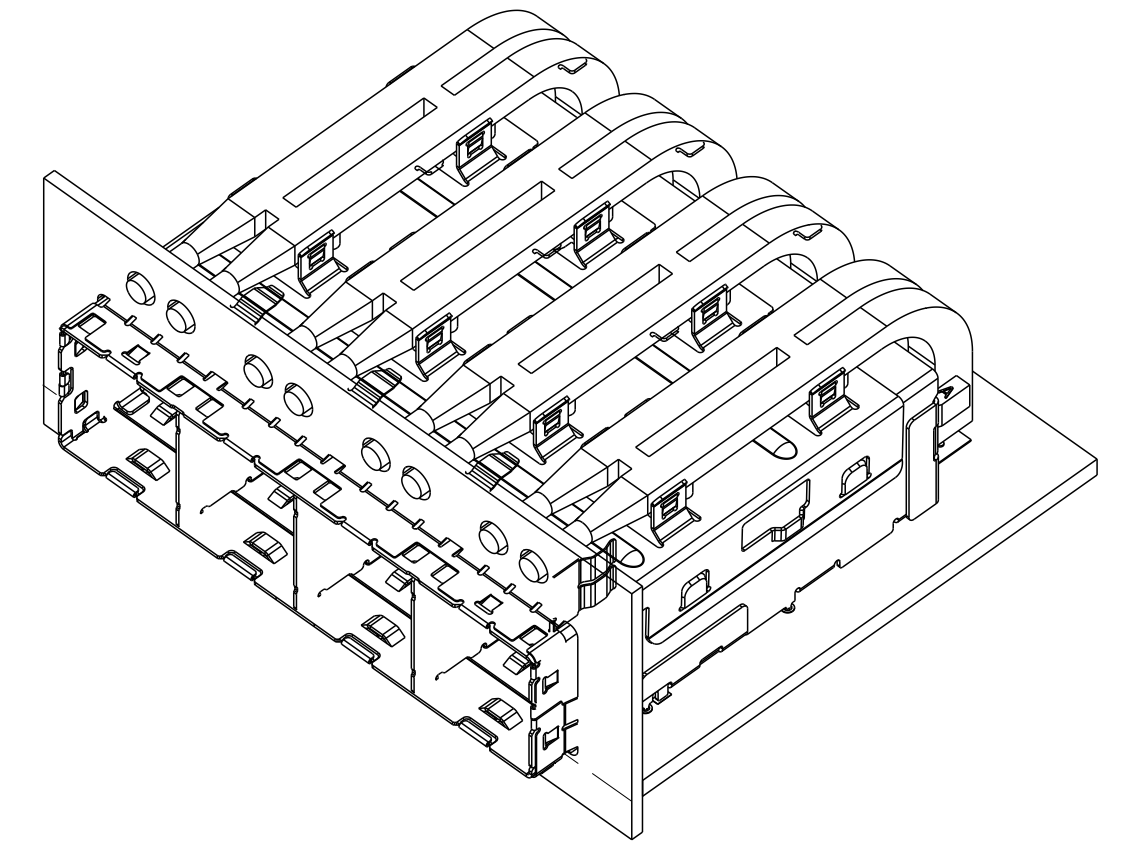
| | | | | | | | | | | |
|---------------|---------------------|------|-------------|------------|--------------|----|---------------------------------------|----------------|------------------------|--------------|
| spec ref | - | dr | Qin De-Feng | 2012/1/21 | projection | MM | size | A2 | scale | 2.500 |
| tolerance std | ISO 406 ISO 1101 | eng | Jerry Zhang | 2018/01/15 | | | ecn no | ELX-DG-28824-1 | rel level | Released |
| surface | - | chr | Stone Li | 2018/01/15 | | | | | | |
| | | appr | Heaven Cen | 2018/01/18 | Amphenol FCI | | 1x4 EXTERNAL ASSEMBLY WITH LIGHT PIPE | | cat. no. | 10120728 |
| | | | | | www.fci.com | | MINI-SAS HD | | Product - Customer Drw | sheet 1 of 7 |



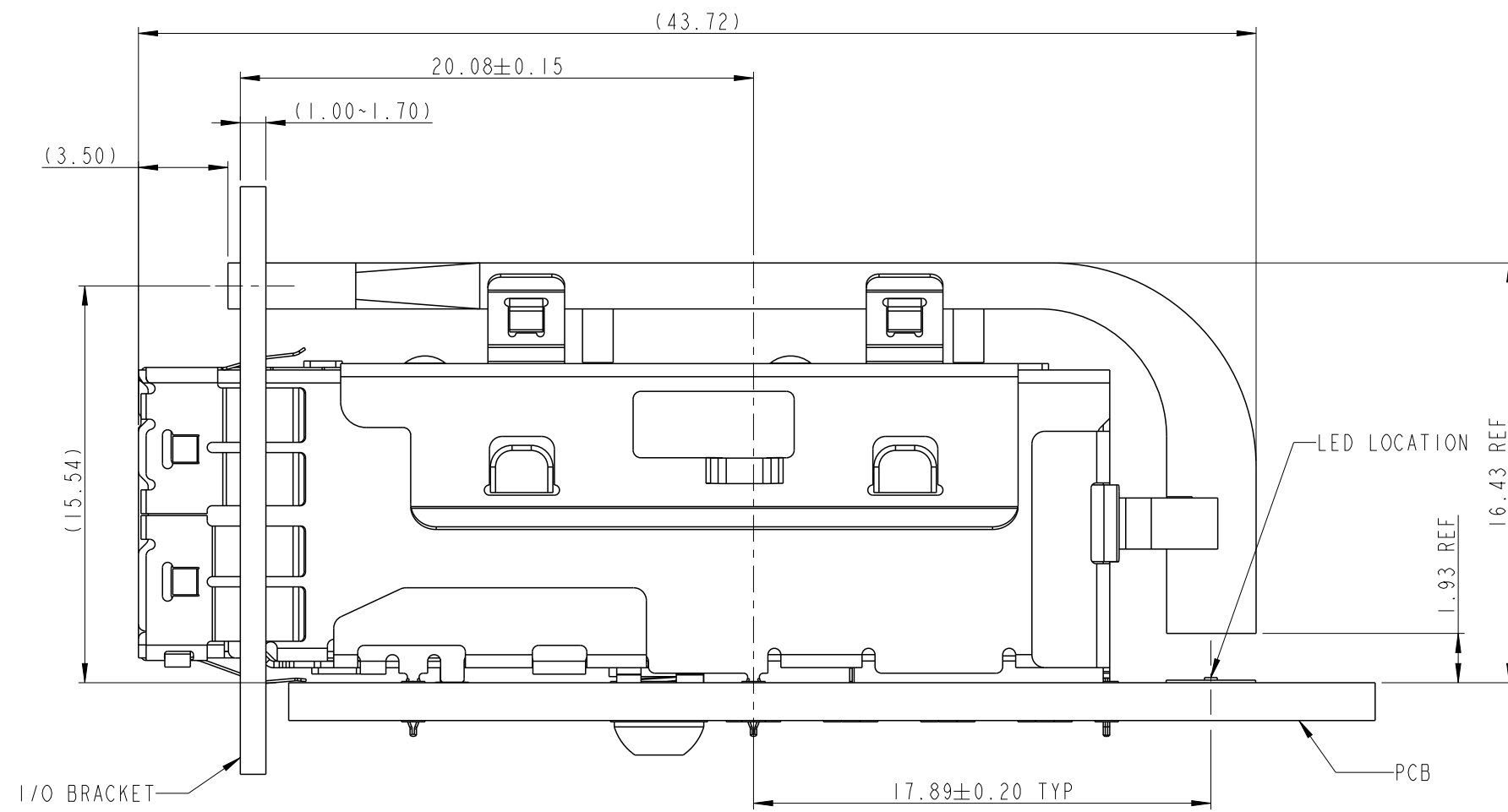
1X4 LIGHT PIPE SUB-ASSEMBLY
WITH MOUNTING CLIP
10121256-001LF SHOWN



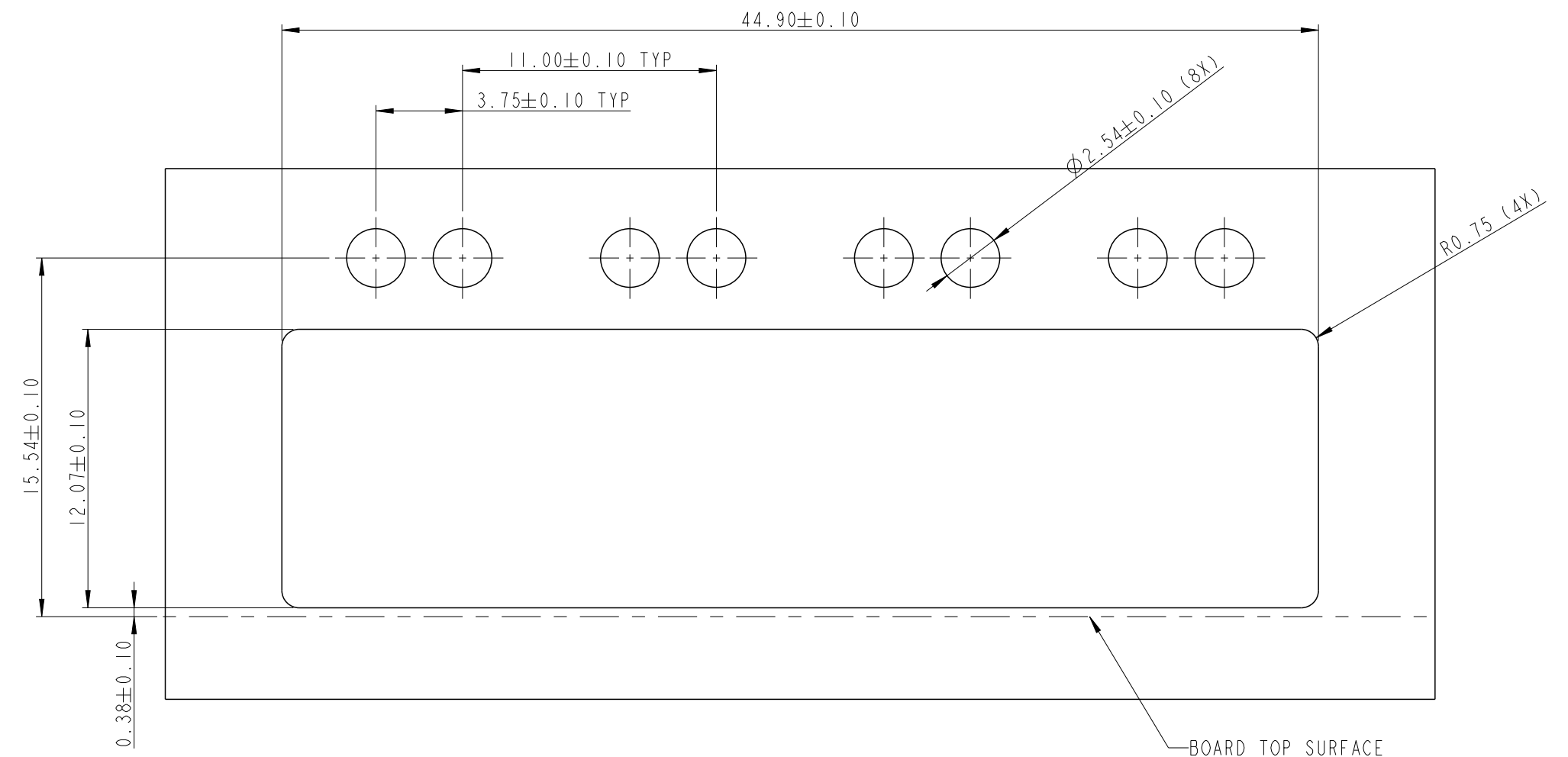
1X4 EXTERNAL ASSEMBLY
APPLIED TO PCB
10112628-101 & 101LF SHOWN



1X4 LIGHT PIPE SUB-ASSEMBLY
APPLIED TO CONNECTOR
10120728-101 & 101LF SHOWN
(LIGHT PIPE SUB-ASSEMBLY
FINAL ASSEMBLY BY CUSTOMER)

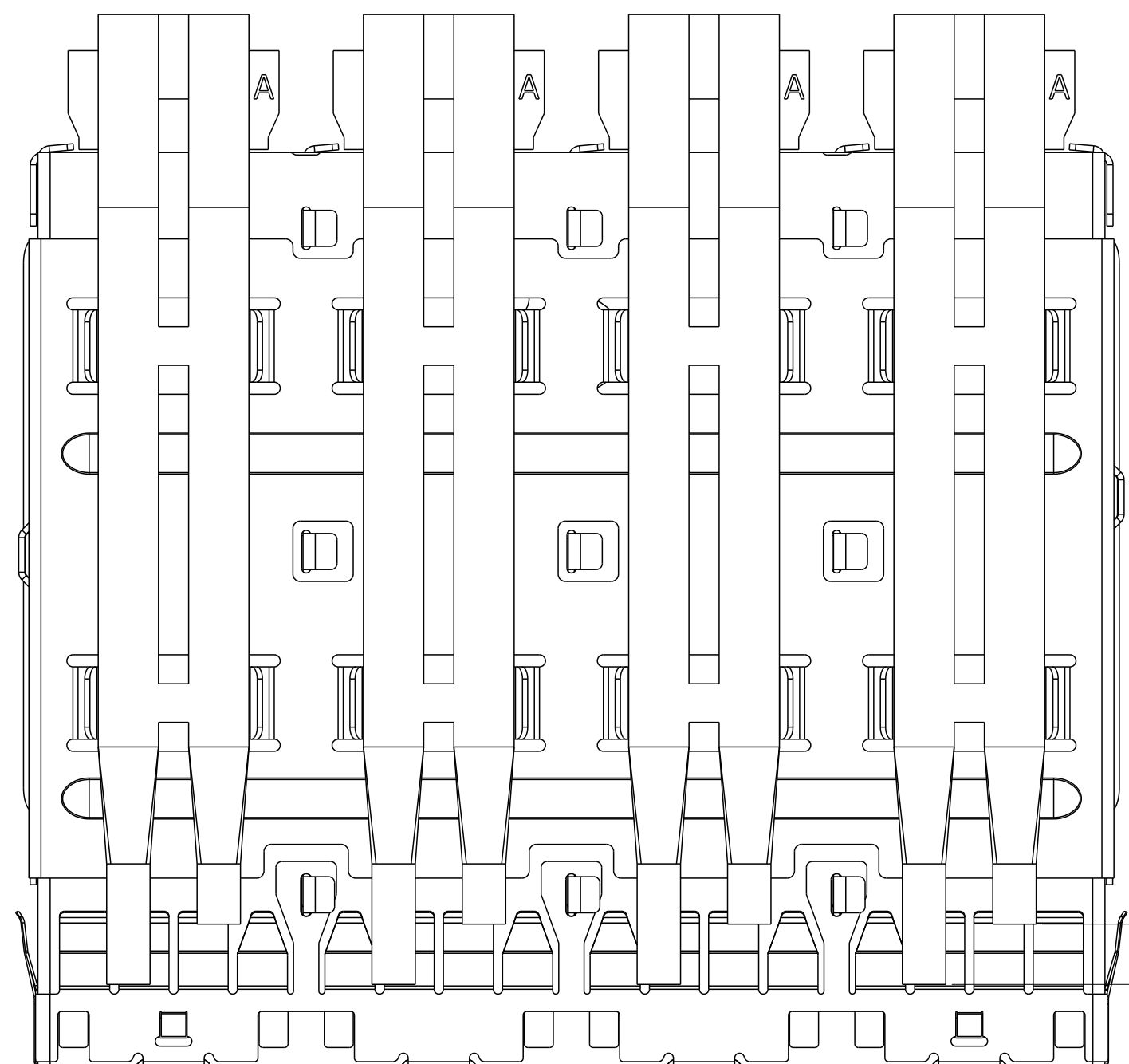


10120728-101 & 101LF ASSEMBLED VIEW
WITH SAME LENGTH LIGHT PIPES
SCALE 4.000

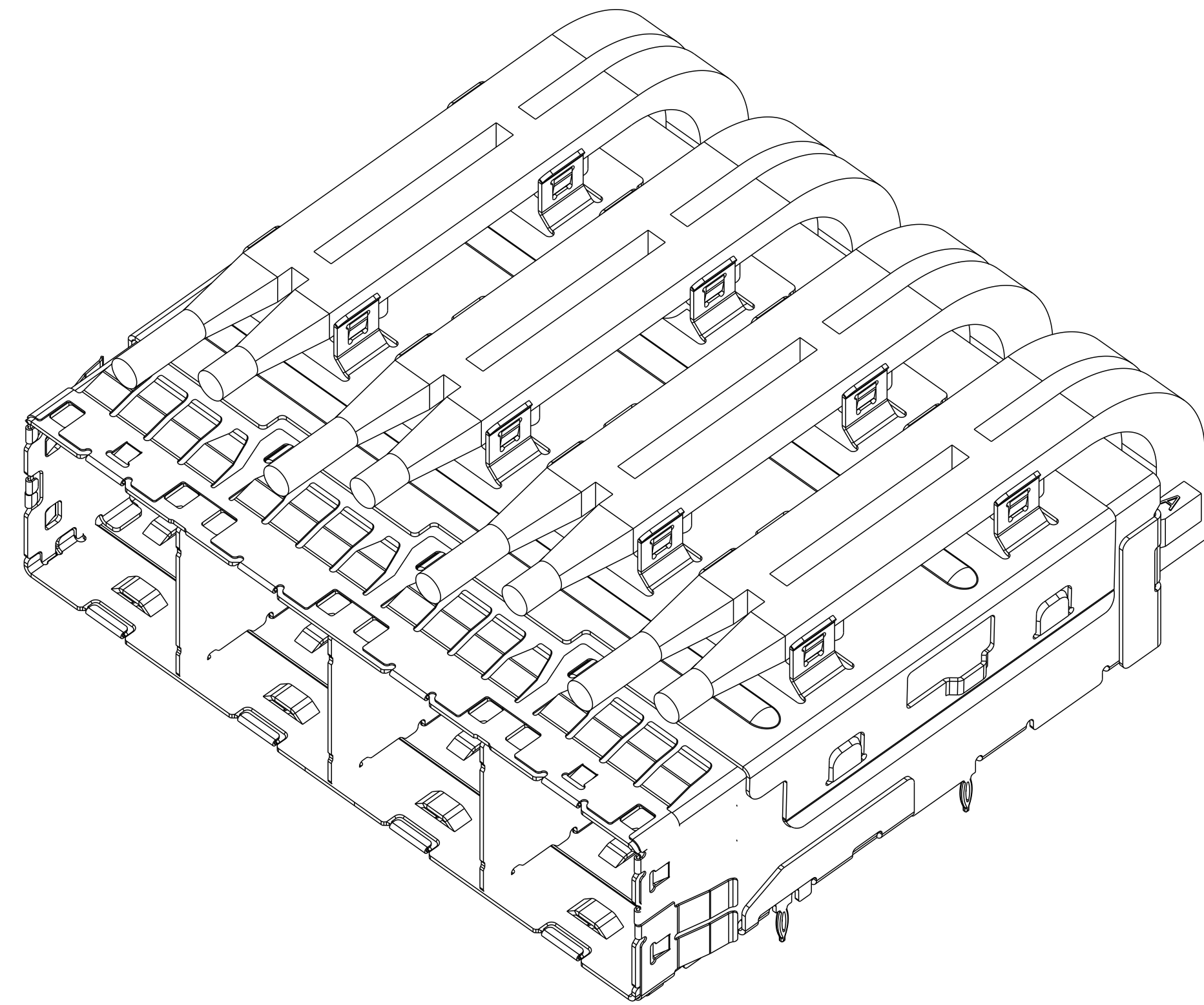


I/O BRACKET CUT OUT
(BRACKET NOT SUPPLIED)
SCALE 4.000

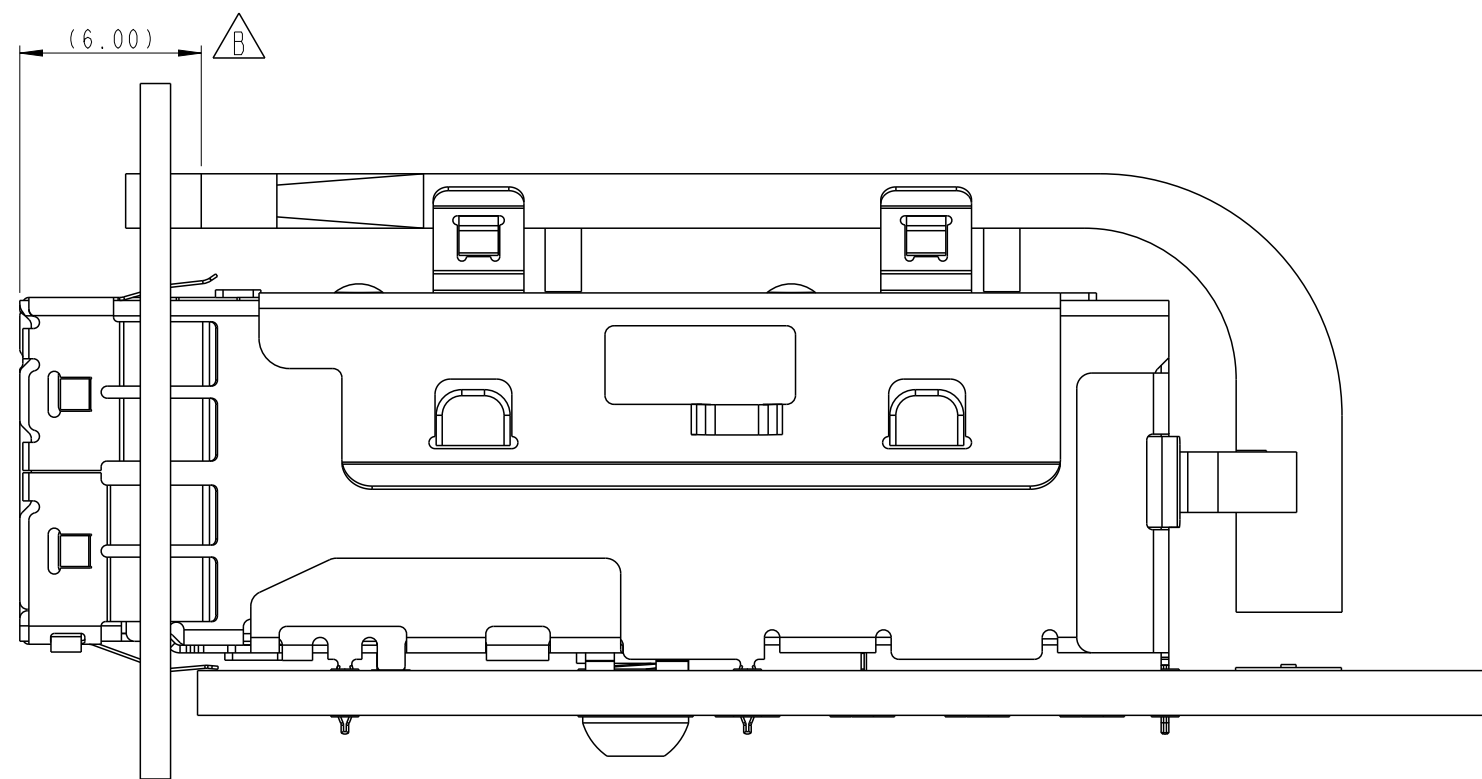
| | | | | | | | | | | |
|---------------------------------------|-----------------------------------|--------------|-------------|------------|----------------|---------------------------------------|-----------|------------------------|--------------|-------|
| spec ref | - | dr | Qin De-Feng | 2012/11/21 | projection | MM | size | A2 | scale | 2.500 |
| tolerance std | ISO 406 ISO 1101 | eng | Jerry Zhang | 2018/01/15 | | | ecn no | ELX-DG-28824-1 | | |
| TOLERANCES UNLESS OTHERWISE SPECIFIED | | chr | Stone Li | 2018/01/15 | | | rel level | Released | | |
| surface | - | appr | Heaven Cen | 2018/01/18 | product family | - | rel level | Released | | |
| linear | 0.X ±0.5 0.XX ±0.3 0.XXX ±- | Amphenol FCI | | title | | 1x4 EXTERNAL ASSEMBLY WITH LIGHT PIPE | | dwg no | 10120728 | |
| angular | 0° ±3° | www.fci.com | | cat. no. | | - | | Product - Customer Drw | sheet 2 of 7 | |
| | | | | rev | | B | | | | |



(2.50) THE DISTANCE OF TWO SURFACES.



10120728-102LF SHOWN WITH DIFFERENT LENGTH LIGHT PIPES SCALE 4.000



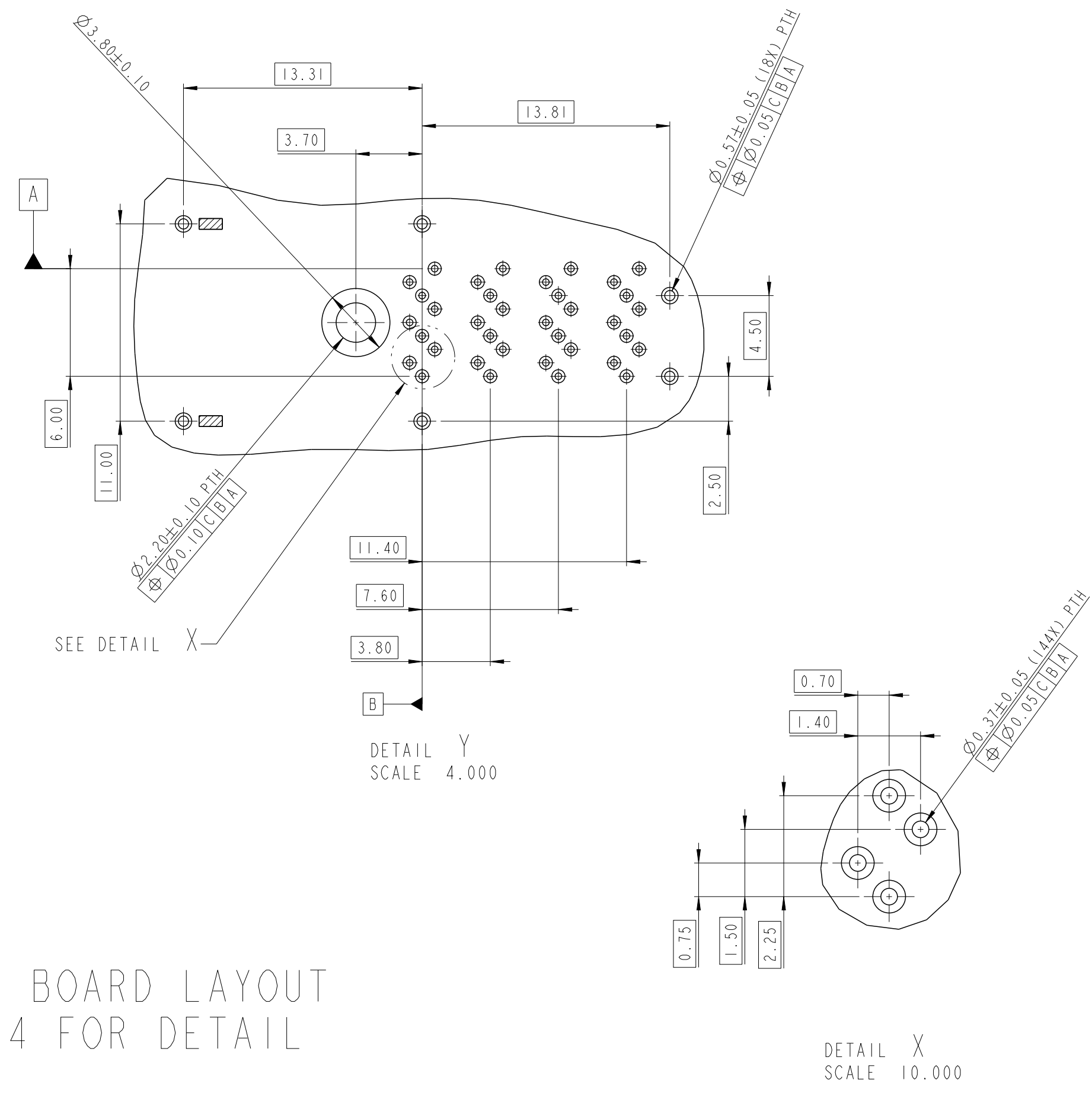
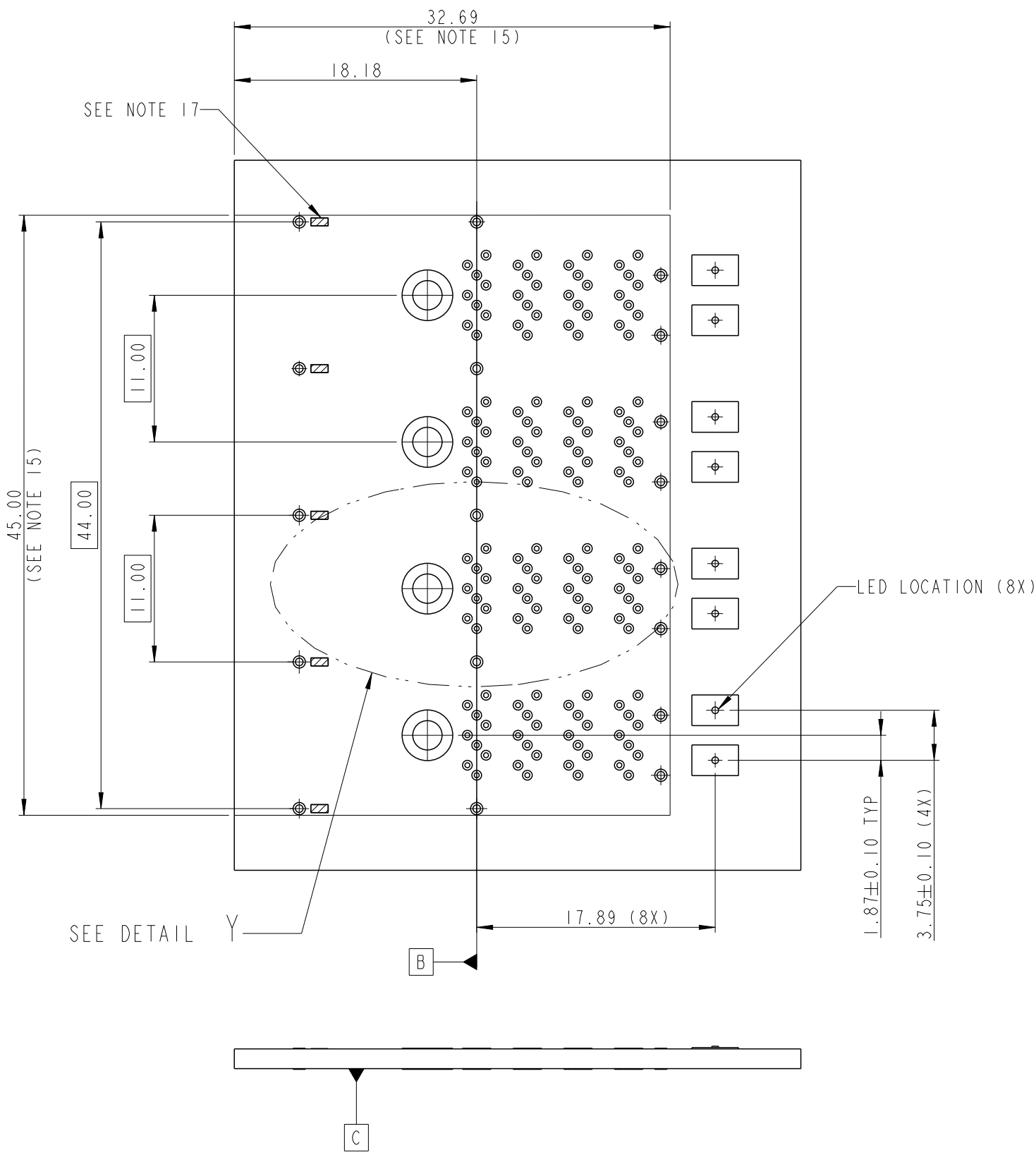
10120728-102LF ASSEMBLED VIEW WITH DIFFERENT LENGTH LIGHT PIPES SCALE 4.000

ALL DIMENSIONS ARE SAME AS 10120728-101LF EXCEPT AS SHOWN.

Amphenol FCI

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| | | | | | | | | | | |
|---------------------------------------|---------------------|------|-------------|------------------------------------|----------------|------------------------|---------------------------------------|----------------|--------------|-------|
| spec ref | - | dr | Qin De-Feng | 2012/11/21 | projection | MM | size | A2 | scale | 4.000 |
| tolerance std | ISO 406 ISO 1101 | eng | Jerry Zhang | 2018/01/15 | | ← MM → | ecn no | ELX-DG-28824-1 | | |
| TOLERANCES UNLESS OTHERWISE SPECIFIED | | chr | Stone Li | 2018/01/15 | | | rel level | Released | | |
| surface | - | appr | Heaven Cen | 2018/01/18 | product family | MINI-SAS HD | rel level | Released | | |
| ISO 1302 | linear | 0.X | ±0.5 | Amphenol FCI www.fci.com | title | | 1x4 EXTERNAL ASSEMBLY WITH LIGHT PIPE | dwg no | 10120728 | |
| | | 0.XX | ±0.3 | | MINI-SAS HD | | rev | | B | |
| | angular | 0° | ±3° | | cat. no. | Product - Customer Drw | | | sheet 3 of 7 | |



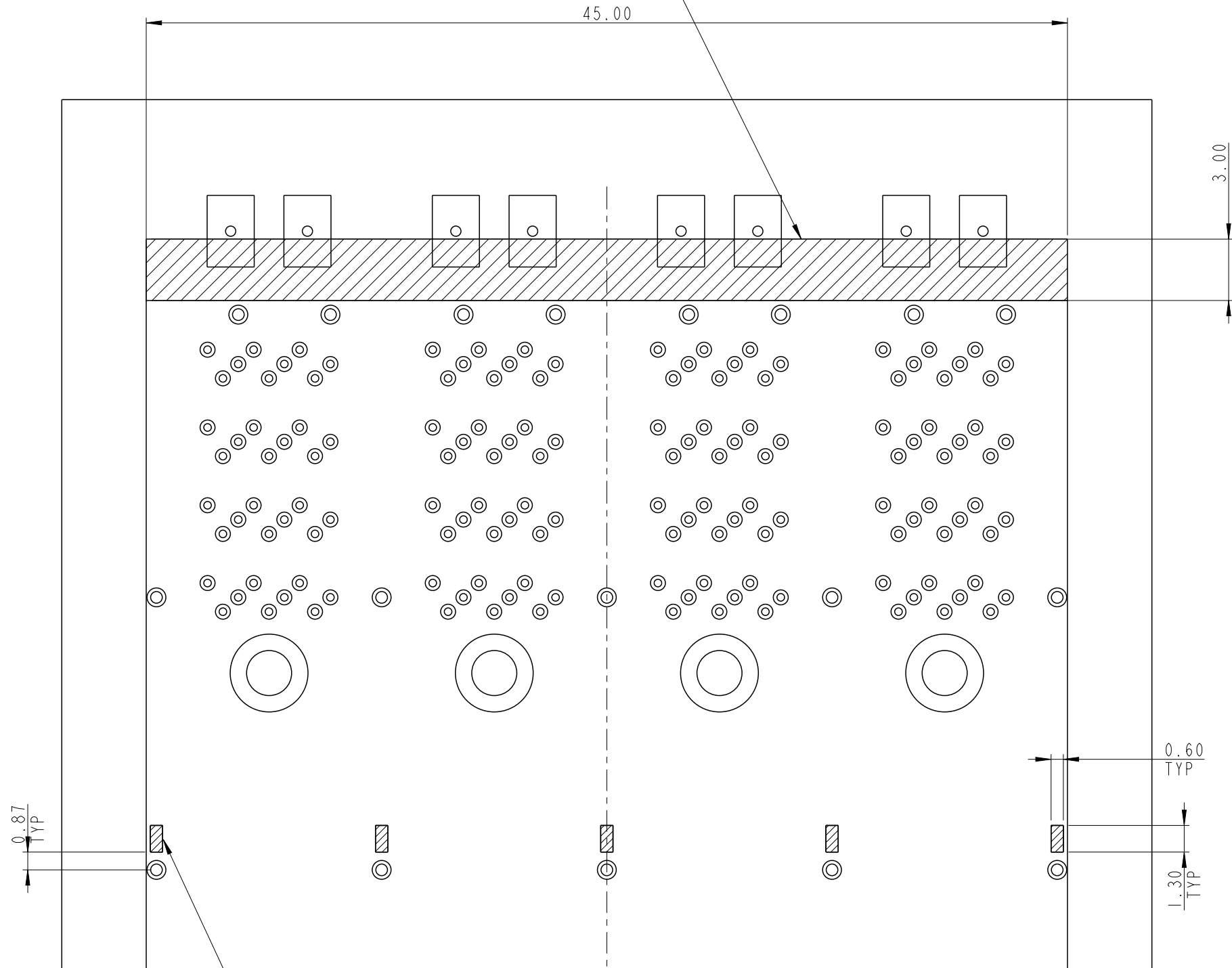
RECOMMENDED BOARD LAYOUT
SEE SFF-8644 FOR DETAIL

- NOTES:
10. RECOMMENDED DRILL SIZE FOR $\varnothing 0.37$ FINISHED PTH IS $\varnothing 0.457$.
 11. RECOMMENDED ANNULAR RING AROUND $\varnothing 0.37$ FINISHED PTH IS $\varnothing 0.73$.
 12. RECOMMENDED DRILL SIZE FOR $\varnothing 0.57$ FINISHED PTH IS $\varnothing 0.68$.
 13. RECOMMENDED ANNULAR RING AROUND $\varnothing 0.57$ FINISHED PTH IS $\varnothing 0.93$.
 14. MINIMUM RECOMMENDED CENTER TO CENTER SPACING BETWEEN ADJACENT CONNECTORS: 47.00mm.
 15. CONNECTOR KEEP OUT AREA.
 16. MINIMUM PCB THICKNESS: 1.57mm.
 17. CAGE STAND OFF AREA, NO TRACES ON SURFACE OF PCB IN THE AREAS.

| | | | | | | | | | | |
|---------------------------------------|---------------------|------|-------------|------------|---------------------------------------|----|--------------|----------------|-----------|----------|
| spec ref | - | dr | Qin De-Feng | 2012/1/21 | projection | MM | size | A2 | scale | 2.500 |
| tolerance std | ISO 406 ISO 1101 | eng | Jerry Zhang | 2018/01/15 | | | ecn no | ELX-DG-28824-1 | rel level | Released |
| TOLERANCES UNLESS OTHERWISE SPECIFIED | | chr | Stone Li | 2018/01/15 | | | | | | |
| surface | - | appr | Heaven Cen | 2018/01/18 | product family | - | rel level | Released | dwg no | 10120728 |
| | linear | 0.X | ±0.5 | | 1x4 EXTERNAL ASSEMBLY WITH LIGHT PIPE | | | | rev | B |
| | | 0.XX | ±0.3 | | MINI-SAS HD | | | | | |
| | angular | 0° | ±3° | | www.fci.com cat. no. | | | | | |
| | | | | | Product - Customer Drw | | sheet 4 of 7 | | | |

RECOMMENDED KEEP OUT AREAS

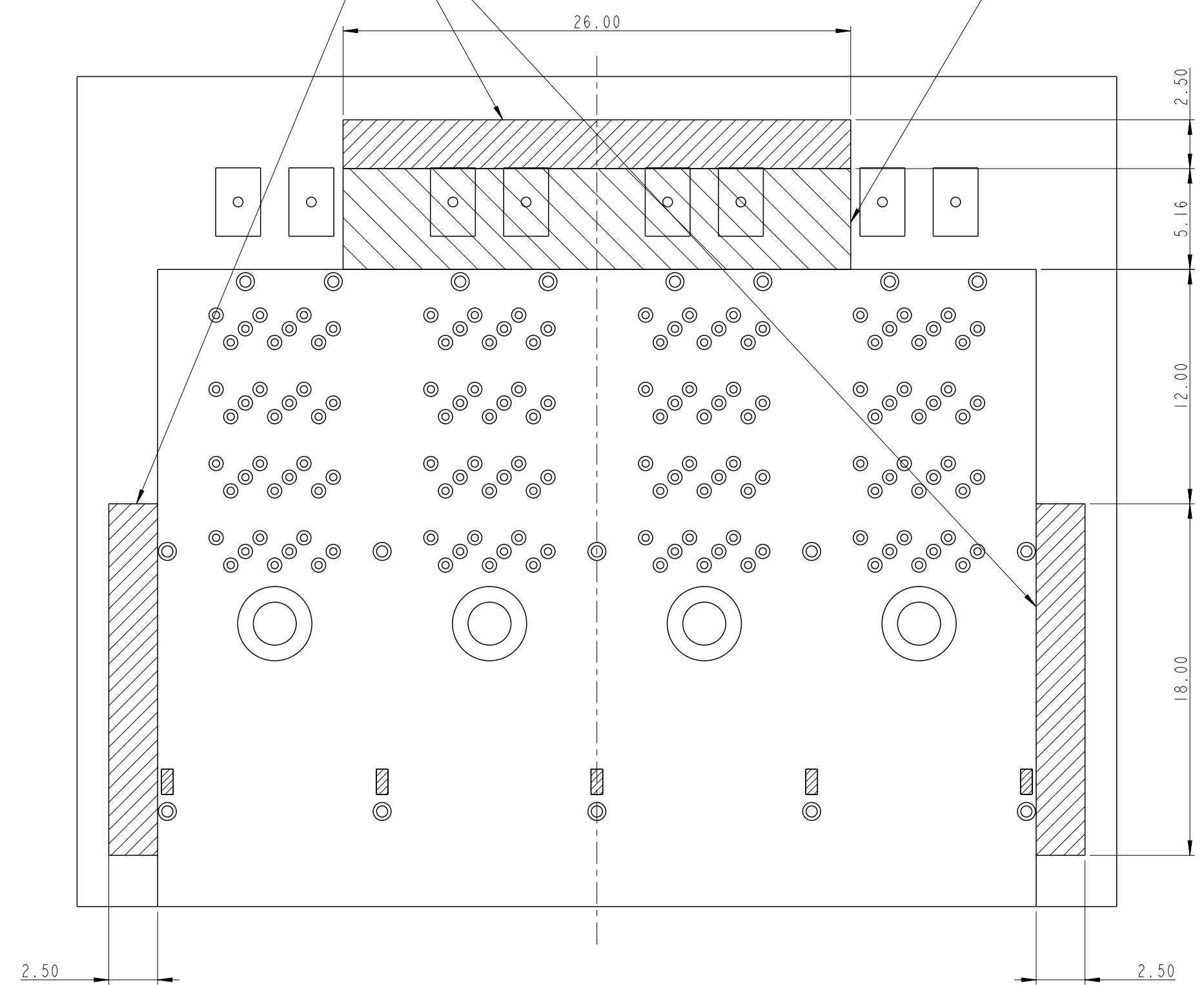
RECOMMENDED INSERTION TOOL
KEEP OUT AREA
NO COMPONENTS IN THIS AREA
MORE THAN 7.50mm TALL



CAGE STAND OFF KEEP OUT AREA

RECOMMENDED EXTRACTION TOOL
KEEP OUT AREA
NO COMPONENTS IN THESE AREAS

RECOMMENDED EXTRACTION TOOL
KEEP OUT AREA
NO COMPONENTS IN THESE AREAS



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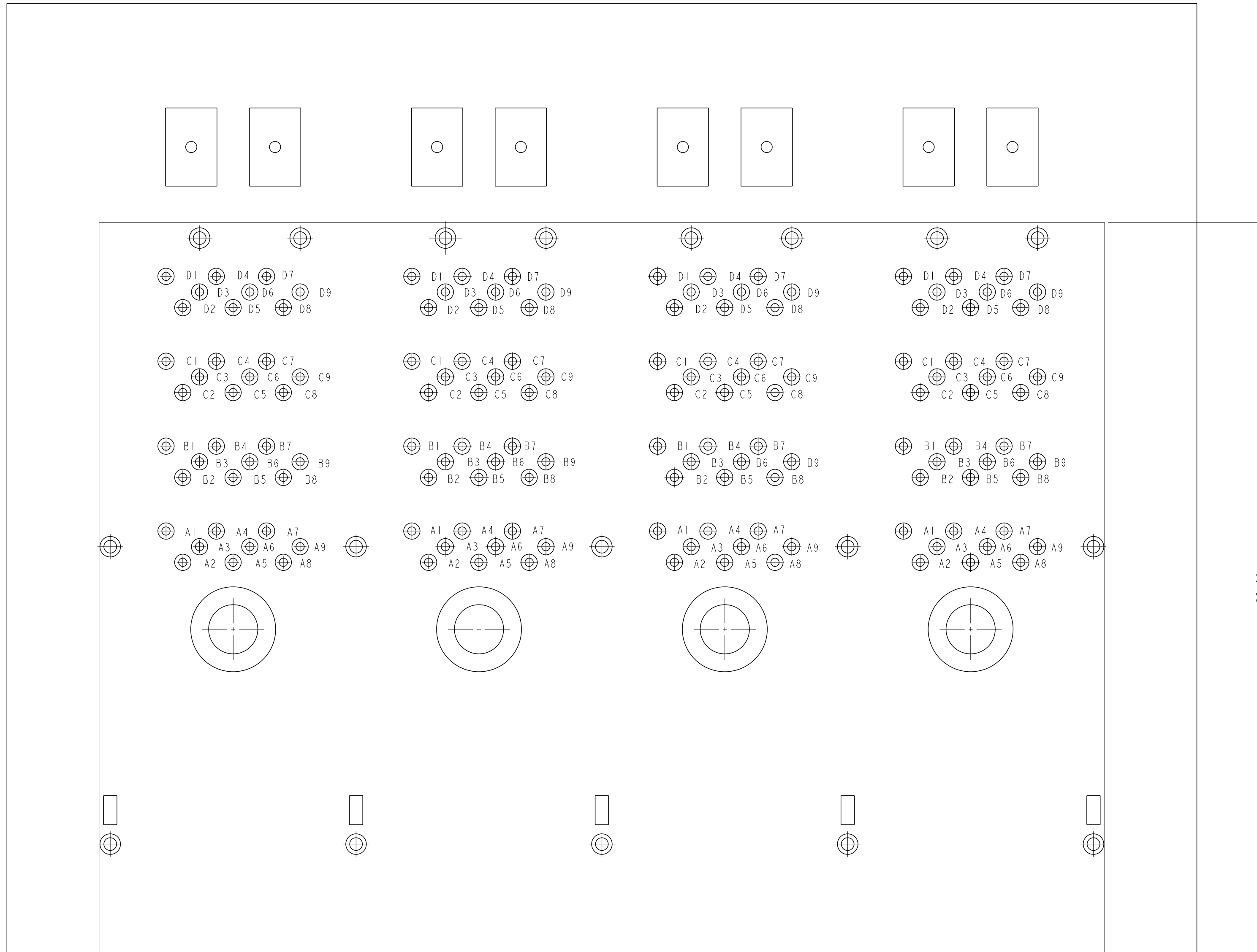
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|---------------------------------------|---------------------|------|-------------|------------|------------------------|----|--|--------------------|----------|------------|
| spec ref | - | dr | Qin De-Feng | 2012/1/21 | projection | MM | size | A2 | scale | 4.000 |
| tolerance std | ISO 406 ISO 1101 | eng | Jerry Zhang | 2018/01/15 | | | ecn no | ELX-DG-28824-1 | | |
| TOLERANCES UNLESS OTHERWISE SPECIFIED | | chr | Stone Li | 2018/01/15 | | | | rel level | Released | |
| surface | - | appr | Heaven Cen | 2018/01/18 | product family | - | rel level | Released | | |
| ISO 1302 | linear | 0.X | ±0.5 | | title | | 1x4 EXTERNAL ASSEMBLY WITH LIGHT PIPE MINI-SAS HD | dwg no 10120728 | rev B | |
| | | 0.XX | ±0.3 | | www.fci.com | | | | | cat. no. - |
| | angular | 0° | ±3° | | Product - Customer Drw | | | | | |

PDS: Rev :B

STATUS:Released

Printed: Jan 18, 2018

PIN OUT DESIGNATIONS



32.69

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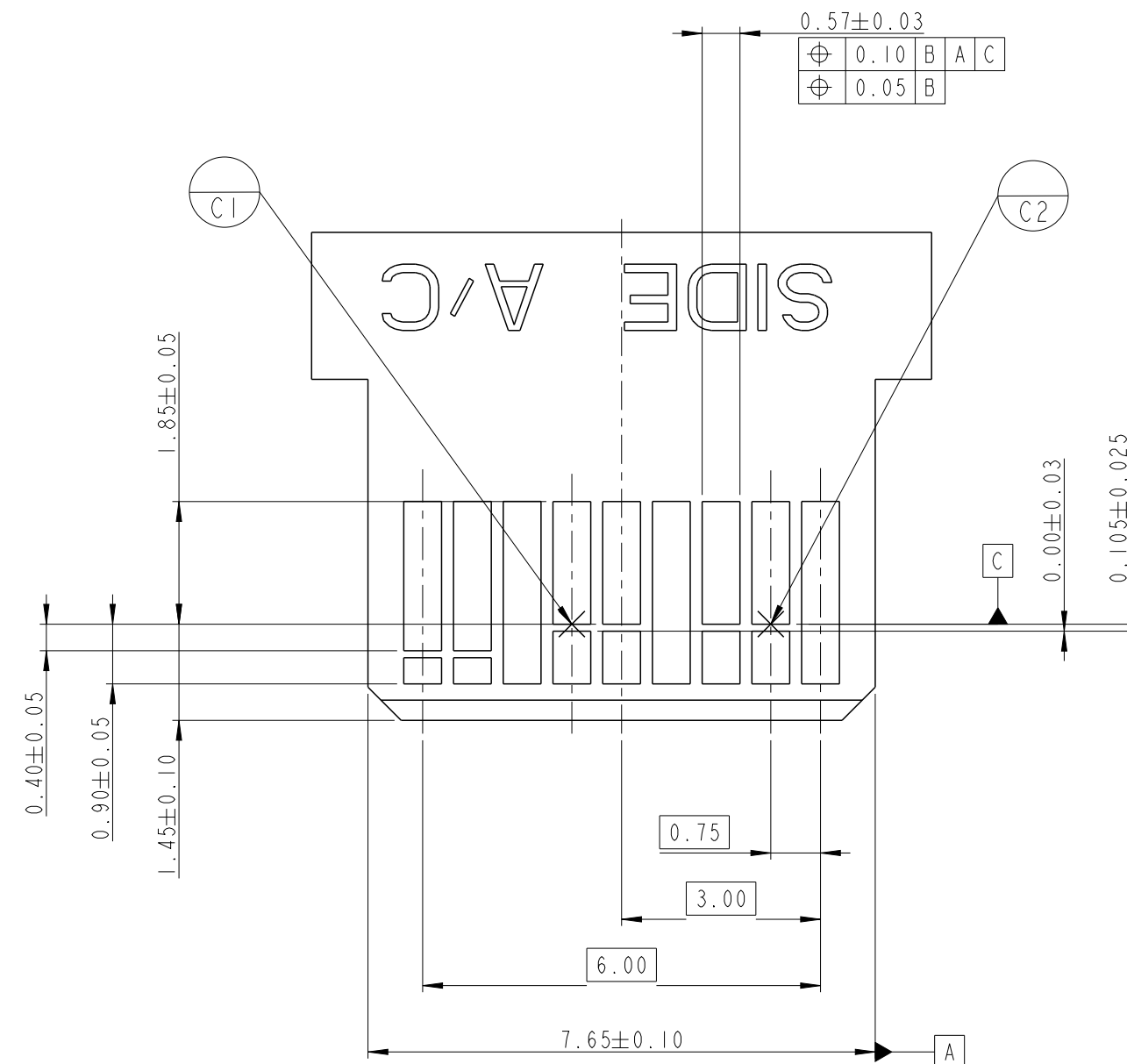
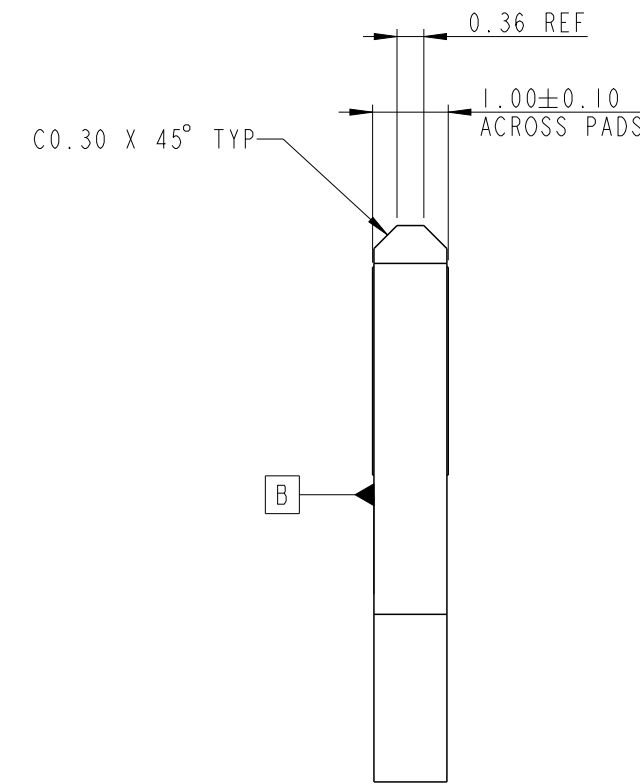
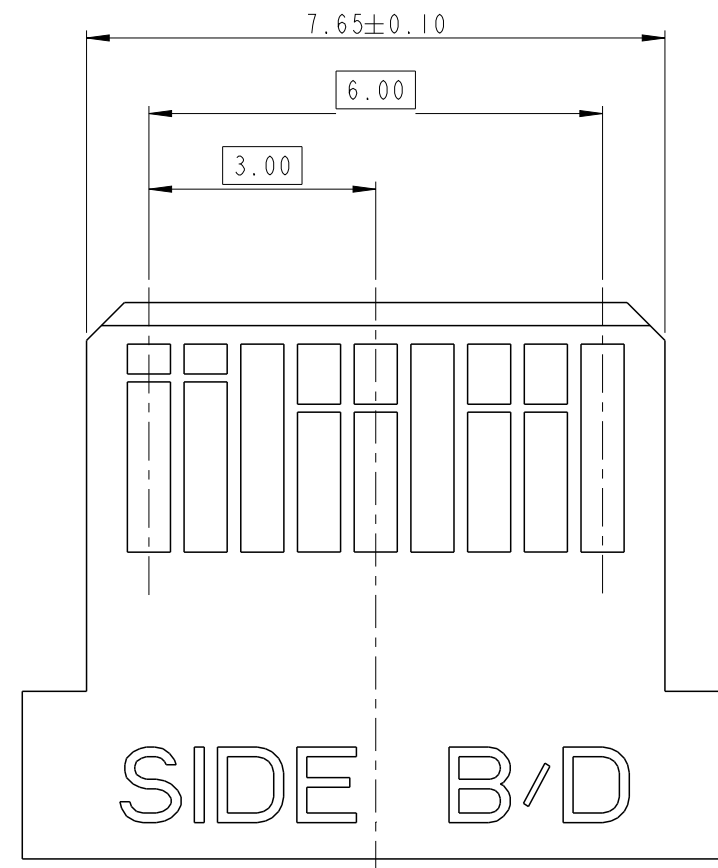
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| | | | | | | | | | | | | | |
|---------------------------------------|---------------------|---------|-------------|------------|--|----|----------------|---------------------------------------|------------------------|--------------|----------|-----|---|
| spec ref | - | dr | Qin De-Feng | 2012/1/21 | projection | MM | size | A2 | scale | 7.000 | | | |
| tolerance std | ISO 406 ISO 1101 | eng | Jerry Zhang | 2018/01/15 | | | ecn no | ELX-DG-28824-1 | | | | | |
| TOLERANCES UNLESS OTHERWISE SPECIFIED | | chr | Stone Li | 2018/01/15 | | | rel level | Released | | | | | |
| surface | ISO 1302 | appr | Heaven Cen | 2018/01/18 | | | product family | - | rel level | Released | | | |
| | | linear | 0.X | ±0.5 | | | title | 1x4 EXTERNAL ASSEMBLY WITH LIGHT PIPE | | dwg no | 10120728 | rev | B |
| | | | 0.XX | ±0.3 | www.fci.com | | cat. no. | - | Product - Customer Drw | sheet 6 of 7 | | | |
| | | angular | 0° | ±3° | | | | | | | | | |

PDS: Rev :B

STATUS:Released

Printed: Jan 18, 2018



RECOMMENDED PLUG PADDLE CARD
SEE SFF-8644 FOR DETAIL

- NOTES:
- 18. 0.05 MINIMUM KEEP OUT FOR SOLDER MASK AROUND ALL PADS.
 - 19. DATUM C TARGETS ARE DEFINED BY THE RESPECTIVE PAD CENTER LINES AND THE LEADING EDGE OF THE TARGET PADS.

| | | | | | | | | | | |
|---------------------------------------|-----------------------------------|-------------|-------------|---|------------------------|--------------------|-----------|----------------|-------|--------|
| spec ref | - | dr | Qin De-Feng | 2012/1/21 | projection | MM | size | A2 | scale | 10.000 |
| tolerance std | ISO 406 ISO 1101 | eng | Jerry Zhang | 2018/01/15 | | | ecn no | ELX-DG-28824-1 | | |
| TOLERANCES UNLESS OTHERWISE SPECIFIED | | chr | Stone Li | 2018/01/15 | | | rel level | Released | | |
| surface | - | appr | Heaven Cen | 2018/01/18 | product family | - | rel level | Released | | |
| linear | 0.X ±0.5 0.XX ±0.3 0.XXX ±- | | | title 1x4 EXTERNAL ASSEMBLY WITH LIGHT PIPE MINI-SAS HD | | dwg no 10120728 | rev B | | | |
| angular | 0° ±3° | www.fci.com | | cat. no. | Product - Customer Drw | sheet 7 of 7 | | | | |