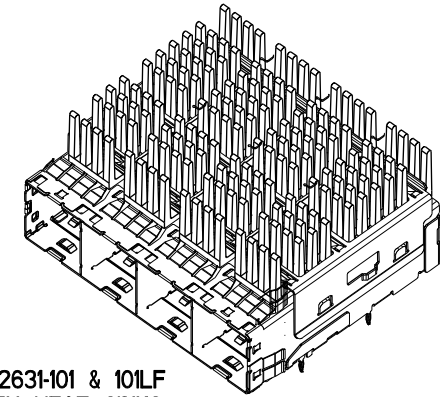
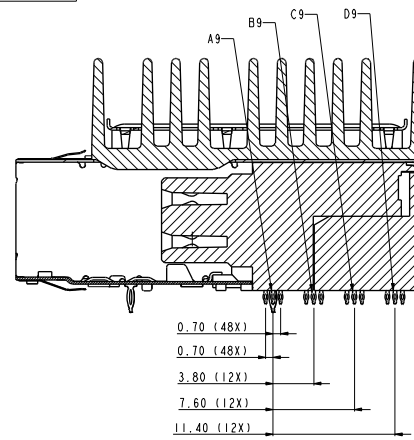
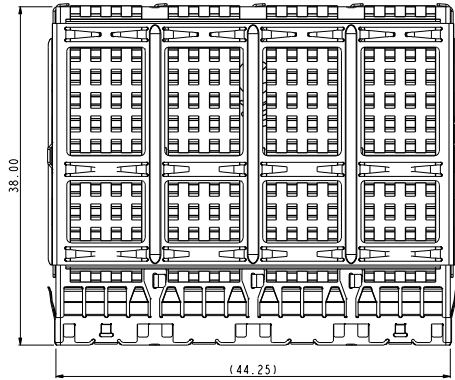
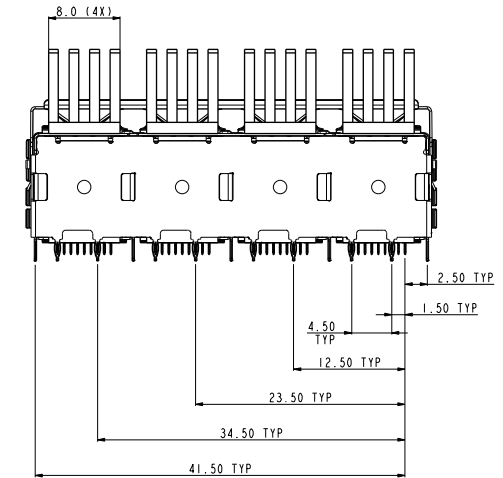
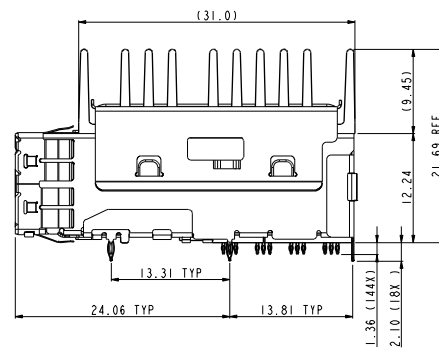
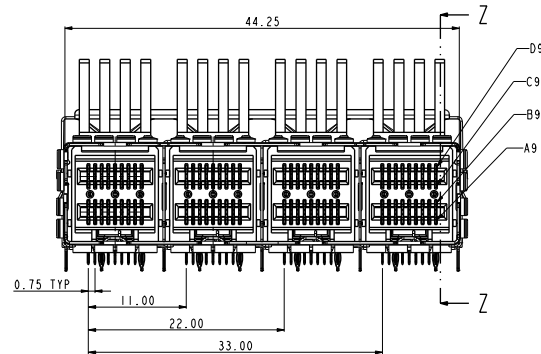


| | | | | | | | |
|----------------|---------------------------------|------------------------------------|------------------------------|----------------|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| PRODUCT NUMBER | TAIL PLATING OPTION, SEE NOTE 2 | 1X4 EXTERNAL ASSEMBLY WITH WINDOWS | HEAT SINK MOUNTING CLIP(1X4) | HEAT SINK | | | |
| 10112631-101 | OPTION 1 | 10112628-103 | 10112656-001LF | 10112655-001LF | | | |
| 10112631-101LF | OPTION 2 | 10112628-103LF | | | | | |



10112631-101 & 101LF WITH HEAT SINKS

SECTION Z-Z
SCALE 3.000



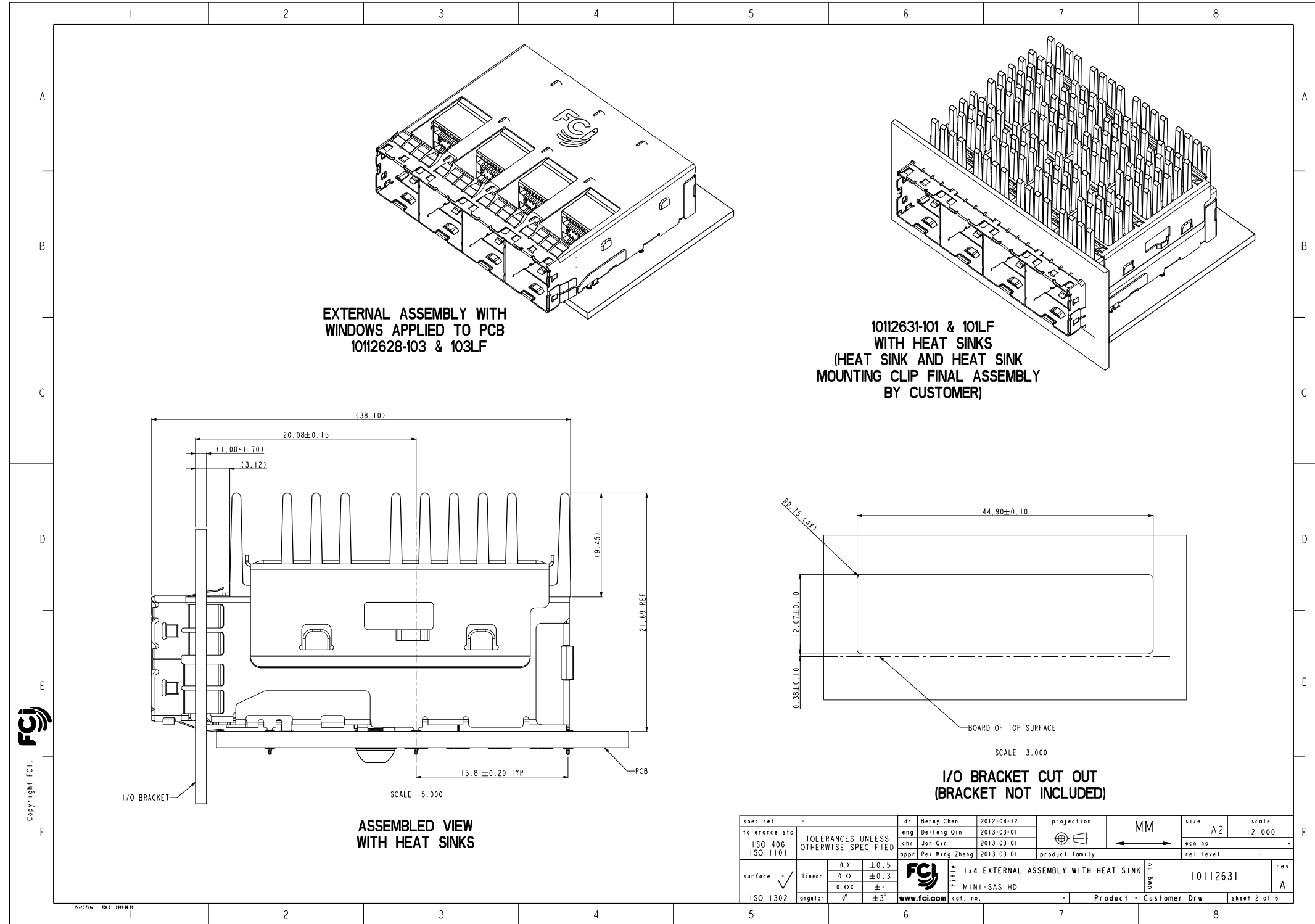
NOTES:

- MATERIALS:
CONNECTOR HOUSING: HIGH TEMPERATURE THERMOPLASTIC
GLASS FILLED, UL 94V-0
EMI CAGE: NICKEL SILVER ALLOY
EMI FINGERS: COPPER ALLOY
TERMINALS: COPPER ALLOY
HEAT SINK CLIP: STAINLESS STEEL
HEAT SINK: ALUMINIUM ALLOY
- FINISHES:
EMI FINGERS: 0.50um MIN NICKEL
CONTACT AREA: 0.16um MIN GOLD OVER 2.54um MIN NICKEL TAIL AREA:
OPTION 1: 0.16um - 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 WITH WINDOWS WILL BE IN ONE BOX.
HEAT SINK AND HEAT SINK MOUNTING CLIP WILL BE IN EACH ONE BOX.
TOTAL THREE 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).
4 REQUIRED PER ASSEMBLY.
MOUNTING HARDWARE NOT SUPPLIED.
- THIS CONNECTOR IS DESIGNED TO MEET THE REQUIREMENTS OF INDUSTRY SPECIFICATION SFF-8644.
- HEAT SINK AND HEAT SINK MOUNTING CLIP FINAL ASSEMBLY AFTER EXTERNAL ASSEMBLY WITH WINDOW APPLIED TO PCB.

| 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) | |

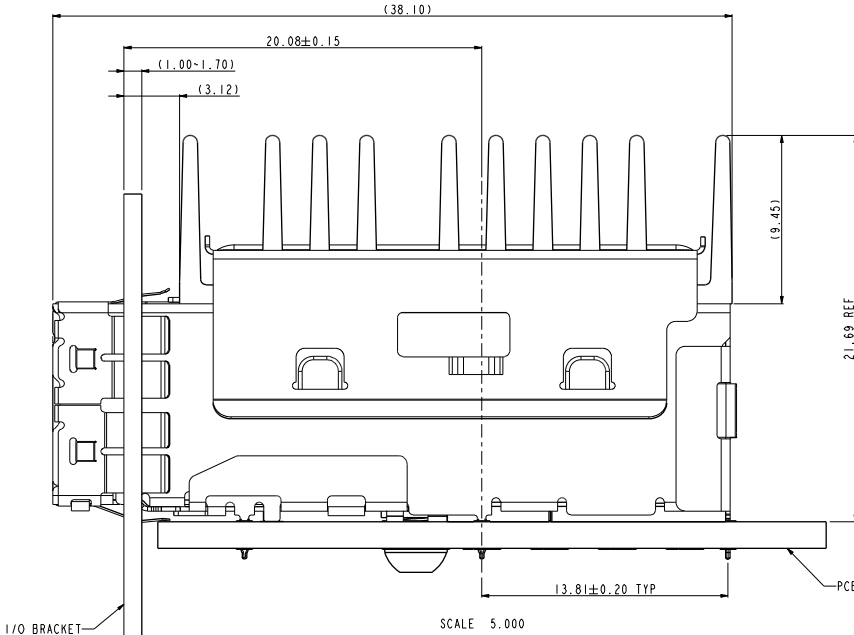
| | | | | | | | | | | | | | |
|---------------|---------------------|------|----------------|------------|---|----|----------------|--------------------|-----------|-------------------------------|--|--|--|
| spec ref | - | dr | Benny Chen | 2012-04-12 | projection | MM | size | A2 | scale | 4,000 | | | |
| tolerance std | ISO 406 ISO 1101 | eng | De-Feng Qin | 2013-03-01 | | | ecn no | - | rel level | - | | | |
| | | chr | Jon Qin | 2013-03-01 | | | product family | - | | | | | |
| | | appr | Pei-Ming Zheng | 2013-03-01 | | | cat. no. | 10112631 | rev | A | | | |
| surface | linear | 0.X | ±0.5 | | 1x4 EXTERNAL ASSEMBLY WITH HEAT SINK | | | MINI-SAS HD | | Product - Customer Drw | | | |
| | | 0.XX | ±0.3 | | | | | | | | | | |
| | angular | 0° | ±3° | | | | | | | | | | |

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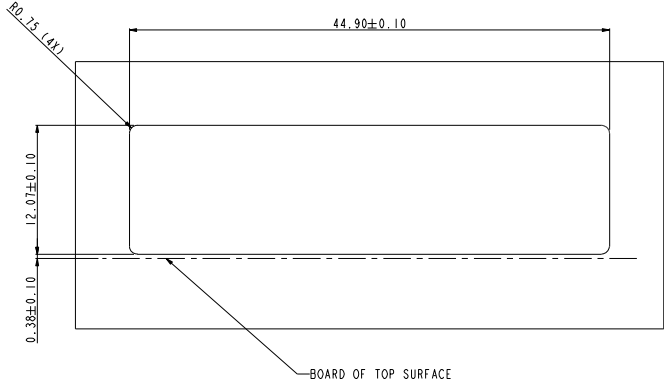


EXTERNAL ASSEMBLY WITH
WINDOWS APPLIED TO PCB
10112628-103 & 103LF

10112631-101 & 101LF
WITH HEAT SINKS
(HEAT SINK AND HEAT SINK
MOUNTING CLIP FINAL ASSEMBLY
BY CUSTOMER)



ASSEMBLED VIEW
WITH HEAT SINKS



I/O BRACKET CUT OUT
(BRACKET NOT INCLUDED)

| | | | | | | | | | | |
|---------------------------------------|---------------------|-------|-------------|-------------|--|--------------------|------------------------|--------------|-----------|--------|
| spec ref | - | dr | Benny Chen | 2012-04-12 | projection | MM | size | A2 | scale | 12.000 |
| tolerance std | ISO 406 ISO 1101 | eng | De-Feng Qin | 2013-03-01 | | | ecn no | - | rel level | - |
| TOLERANCES UNLESS OTHERWISE SPECIFIED | | chr | Jon Qin | 2013-03-01 | | | product family | - | rel level | - |
| surface | linear | 0.X | ±0.5 | | title 1x4 EXTERNAL ASSEMBLY WITH HEAT SINK MINI-SAS HD | dwg no 10112631 | rev A | | | |
| | | 0.XX | ±0.3 | | | | | | | |
| | angular | 0.XXX | ± | | | | | | | |
| ISO 1302 | | 0° | ±3° | www.fcj.com | cat. no. | - | Product - Customer Drw | sheet 2 of 6 | | |

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A

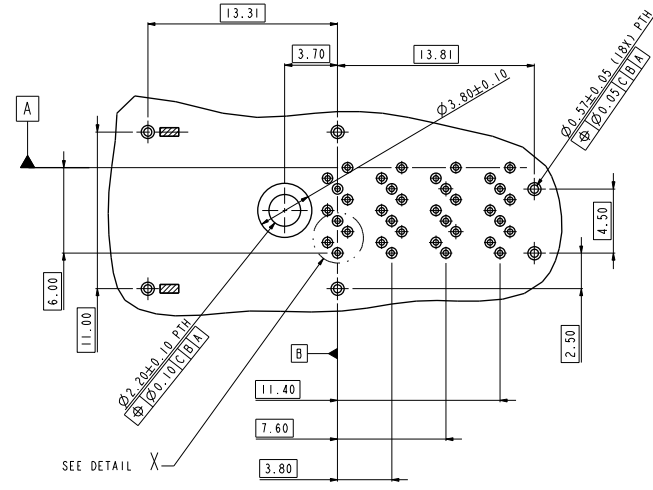
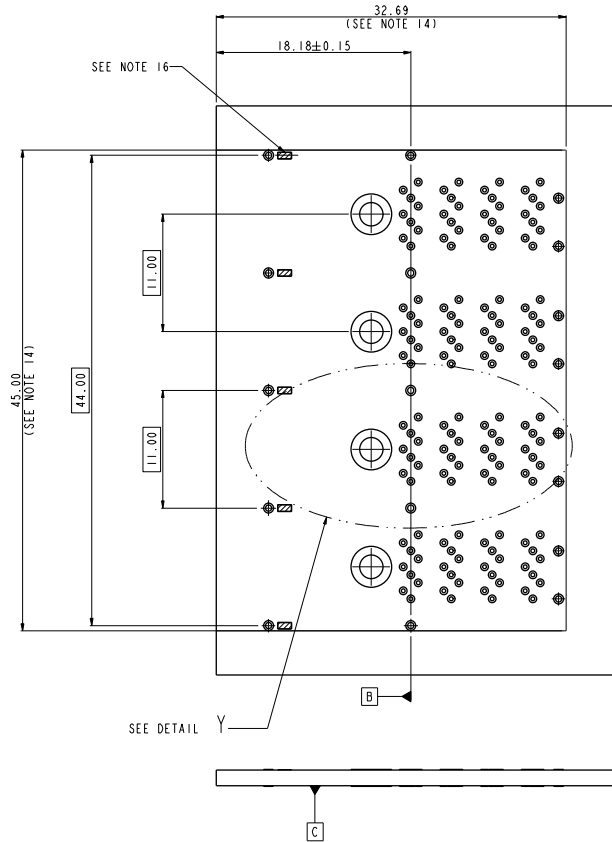
B

C

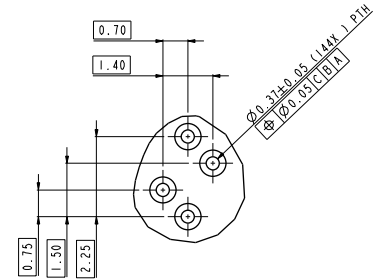
D

E

F



DETAIL Y
SCALE 4.000

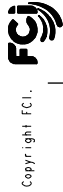


DETAIL X
SCALE 10.000

RECOMMENDED BOARD LAYOUT
SEE SFF-8644 FOR DETAIL

NOTES:

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

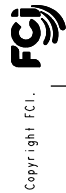
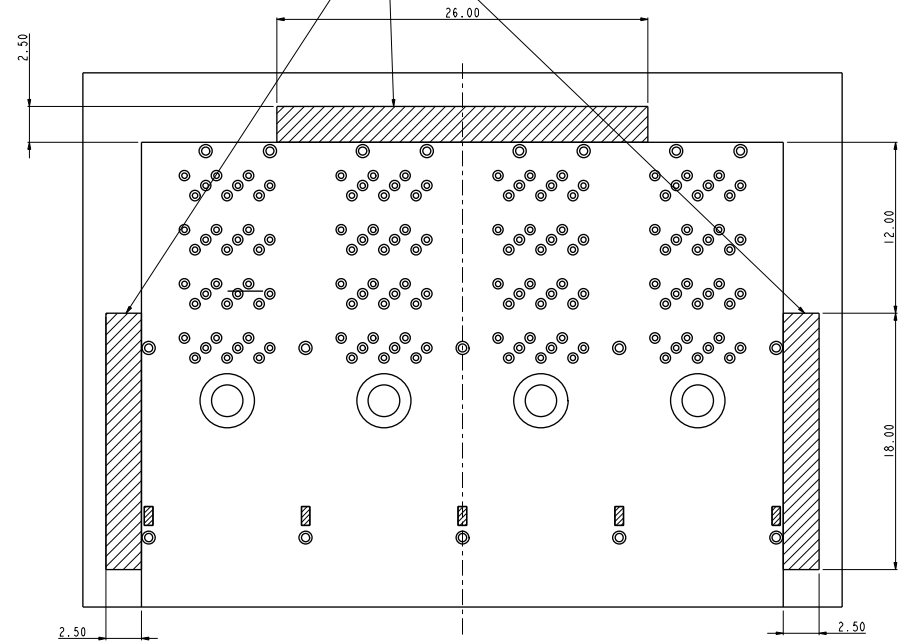
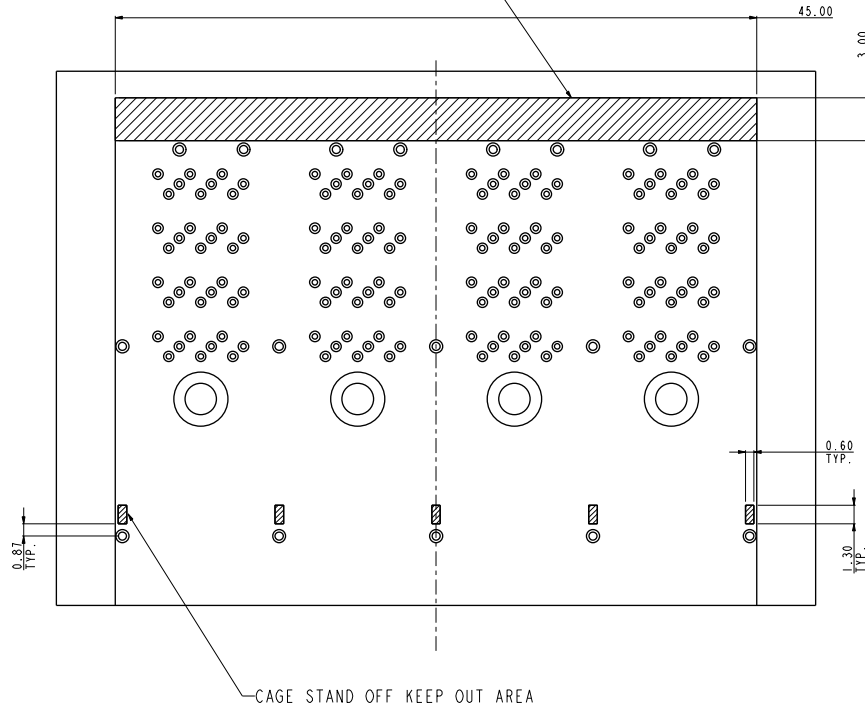


| | | | | | | | | | | | |
|---------------------------------------|---------------------|-------------|----------------|------------|------------|----|----------------|--------------------------------------|-----------|------------------------|--------------|
| spec ref | - | dr | Benny Chen | 2012-04-12 | projection | MM | size | A2 | scale | 12.000 | |
| tolerance std | ISO 406 ISO 1101 | eng | De-Feng Qin | 2013-03-01 | | | ecn no | - | rel level | - | |
| TOLERANCES UNLESS OTHERWISE SPECIFIED | | chr | Jon Qin | 2013-03-01 | | | product family | - | rel level | - | |
| surface | linear | appr | Pei-Ming Zheng | 2013-03-01 | | | title | 1x4 EXTERNAL ASSEMBLY WITH HEAT SINK | | rev | A |
| ISO 1302 | angular | www.fcj.com | | cat. no. | - | | cat. no. | - | | Product - Customer Drw | sheet 3 of 6 |

RECOMMENDED KEEP OUT AREAS

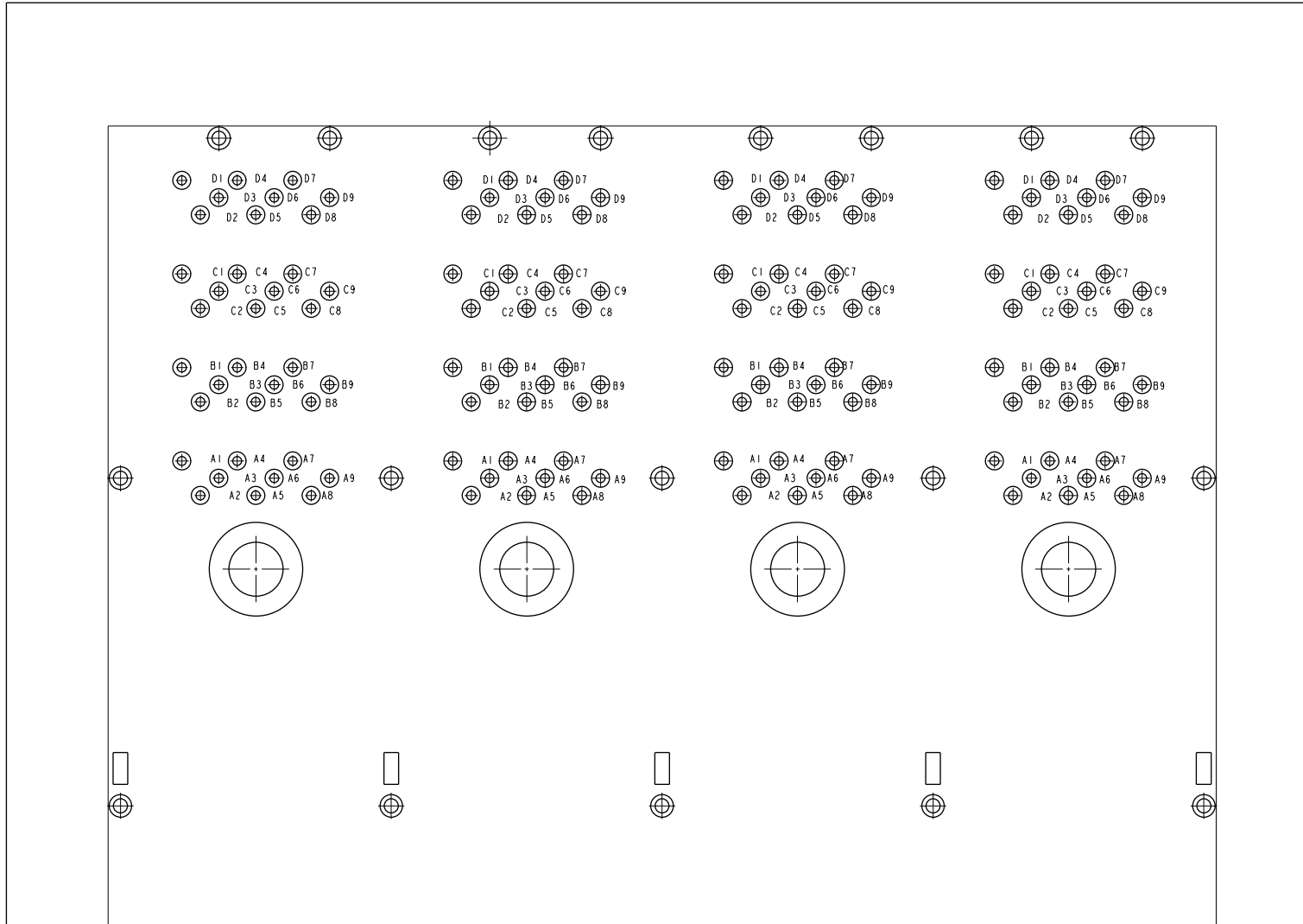
RECOMMENDED INSERTION TOOL
KEEP OUT AREA
NO COMPONENTS IN THIS AREA
MORE THAN 7.50mm TALL

RECOMMENDED EXTRACTION TOOL
KEEP OUT AREA
NO COMPONENTS IN THESE AREAS



| | | | | | | | | | | | | | | | | | | | | |
|---------------------------------------|---|-------------|-------------|------------|------------------------|--------------|----------------|----|-----------|--------|---------|----|-----|------|----------------|------------|--|--|--------------------|----------|
| spec ref | - | dr | Benny Chen | 2012-04-12 | projection | MM | size | A2 | scale | 12.000 | | | | | | | | | | |
| tolerance std | ISO 406 ISO 1101 | eng | De-Feng Qin | 2013-03-01 | | | ecn no | - | rel level | - | | | | | | | | | | |
| TOLERANCES UNLESS OTHERWISE SPECIFIED | | chr | Jon Qin | 2013-03-01 | | | product family | - | rel level | - | | | | | | | | | | |
| surface | <table border="1"> <tr> <td>linear</td> <td>0.X</td> <td>±0.5</td> </tr> <tr> <td></td> <td>0.XX</td> <td>±0.3</td> </tr> <tr> <td></td> <td>0.XXX</td> <td>±-</td> </tr> <tr> <td>angular</td> <td>0°</td> <td>±3°</td> </tr> </table> | linear | 0.X | ±0.5 | | 0.XX | ±0.3 | | 0.XXX | ±- | angular | 0° | ±3° | appr | Pei-Ming Zheng | 2013-03-01 | | title 1x4 EXTERNAL ASSEMBLY WITH HEAT SINK MINI-SAS HD | dwg no 10112631 | rev A |
| linear | 0.X | ±0.5 | | | | | | | | | | | | | | | | | | |
| | 0.XX | ±0.3 | | | | | | | | | | | | | | | | | | |
| | 0.XXX | ±- | | | | | | | | | | | | | | | | | | |
| angular | 0° | ±3° | | | | | | | | | | | | | | | | | | |
| ISO 1302 | | www.fcj.com | cat. no. | - | Product - Customer Drw | sheet 4 of 6 | | | | | | | | | | | | | | |

PIN OUT DESIGNATIONS



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| | | | | | | | | | | | | | | |
|---------------|---------------------|---------------------------------------|------------|------------|-------------|--------------------------------------|----------------|------------|----------------|------------------------|--------------|----------|-----|--------|
| spec ref | - | dr | Benny Chen | 2012-04-12 | projection | MM | size | A2 | scale | 12.000 | | | | |
| tolerance std | ISO 406 ISO 1101 | TOLERANCES UNLESS OTHERWISE SPECIFIED | | eng | De-Feng Qin | 2013-03-01 | chr | Jon Qin | 2013-03-01 | ecm no | - | | | |
| surface | ISO 1302 | linear | 0.X | ±0.5 | FCI | 1x4 EXTERNAL ASSEMBLY WITH HEAT SINK | MINI-SAS HD | cat. no. | - | Product - Customer Drw | sheet 5 of 6 | | | |
| | | 0.XX | ±0.3 | title | | | | | | | | 10112631 | rev | A |
| | | 0.XXX | ± | angular | | | | | | | | 0° | ±3° | ang no |
| | | angular | 0° | ±3° | www.fcicom | appr | Pei-Ming Zheng | 2013-03-01 | product family | - | rel level | - | | |

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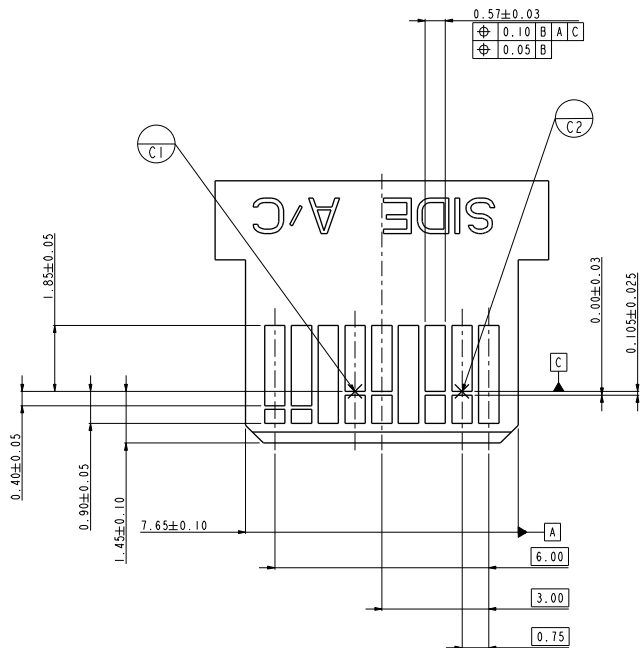
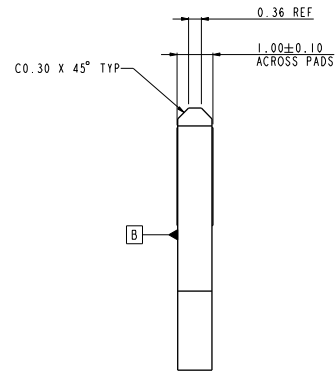
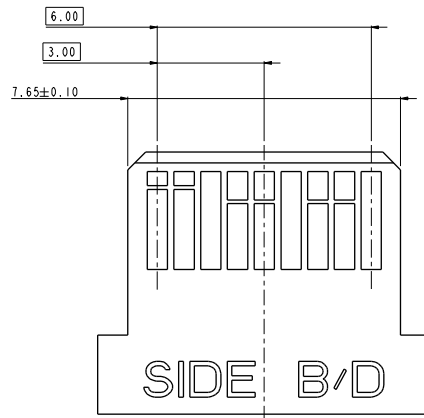
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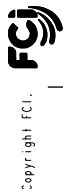
F



RECOMMENDED PLUG PADDLE CARD
SEE SFF-8644 FOR DETAIL

NOTES:

- 17. 0.05 MINIMUM KEEP OUT FOR SOLDER MASK AROUND ALL PADS.
- 18. DATUM C TARGETS ARE DEFINED BY THE RESPECTIVE PAD CENTER LINES AND THE LEADING EDGE OF THE TARGET PADS.



| | | | | | | | | | | |
|---------------------------------------|---------------------|------|-------------|-------------|--------------------------------------|----|----------|----------|------------------------|--------------|
| spec ref | - | dr | Benny Chen | 2012-04-12 | projection | MM | size | A2 | scale | 12.000 |
| tolerance std | ISO 406 ISO 1101 | eng | De-Feng Qin | 2013-03-01 | | | ecn no | - | rel level | - |
| TOLERANCES UNLESS OTHERWISE SPECIFIED | | chr | Jon Qin | 2013-03-01 | | | | | | |
| surface | linear | 0.X | ±0.5 | | 1x4 EXTERNAL ASSEMBLY WITH HEAT SINK | | 10112631 | rev A | | |
| | | 0.XX | ±0.3 | | MINI-SAS HD | | | | | |
| | angular | 0° | ±3° | | cat. no. | - | | | Product - Customer Drw | sheet 6 of 6 |
| ISO 1302 | | | | www.fcj.com | | | | | | |