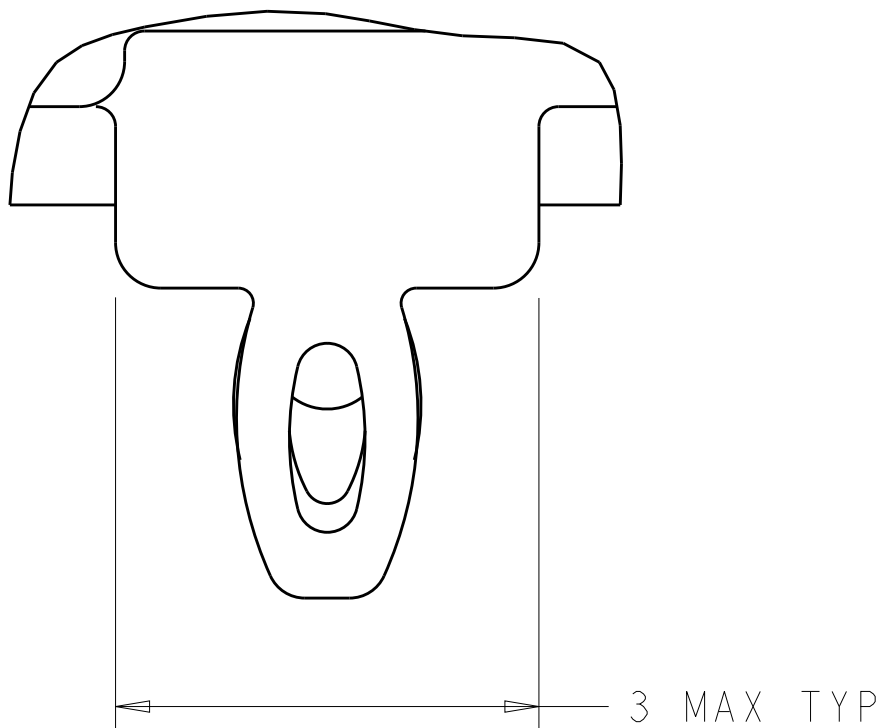


| LOC | DIST | REVISIONS | | | | | | |
|-----|------|-----------|-----|---------------------------|-----------|-----|------|--|
| GP | 00 | P | LTR | DESCRIPTION | DATE | DWN | APVD | |
| | | | 6 | REVISED PER ECO-12-003841 | 14MAR2012 | TY | KS | |
| | | | 7 | REVISED PER ECO-12-005533 | 05APR2012 | JY | AC | |
| | | | A | REVISED PER ECR-13-019963 | 5NOV2013 | RG | MC | |
| | | | B | REVISED PER ECO-14-016878 | 30EC2014 | RG | MC | |



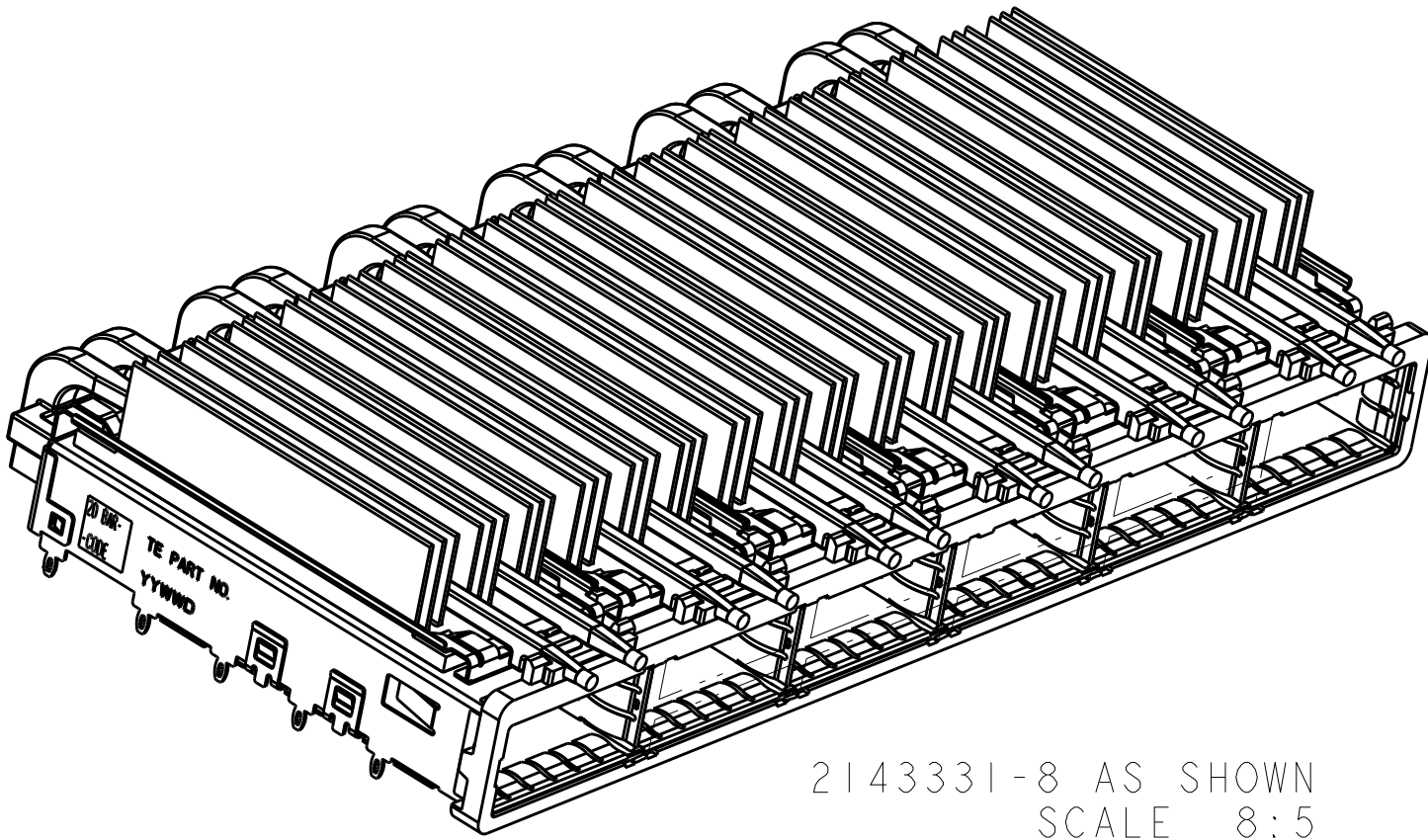
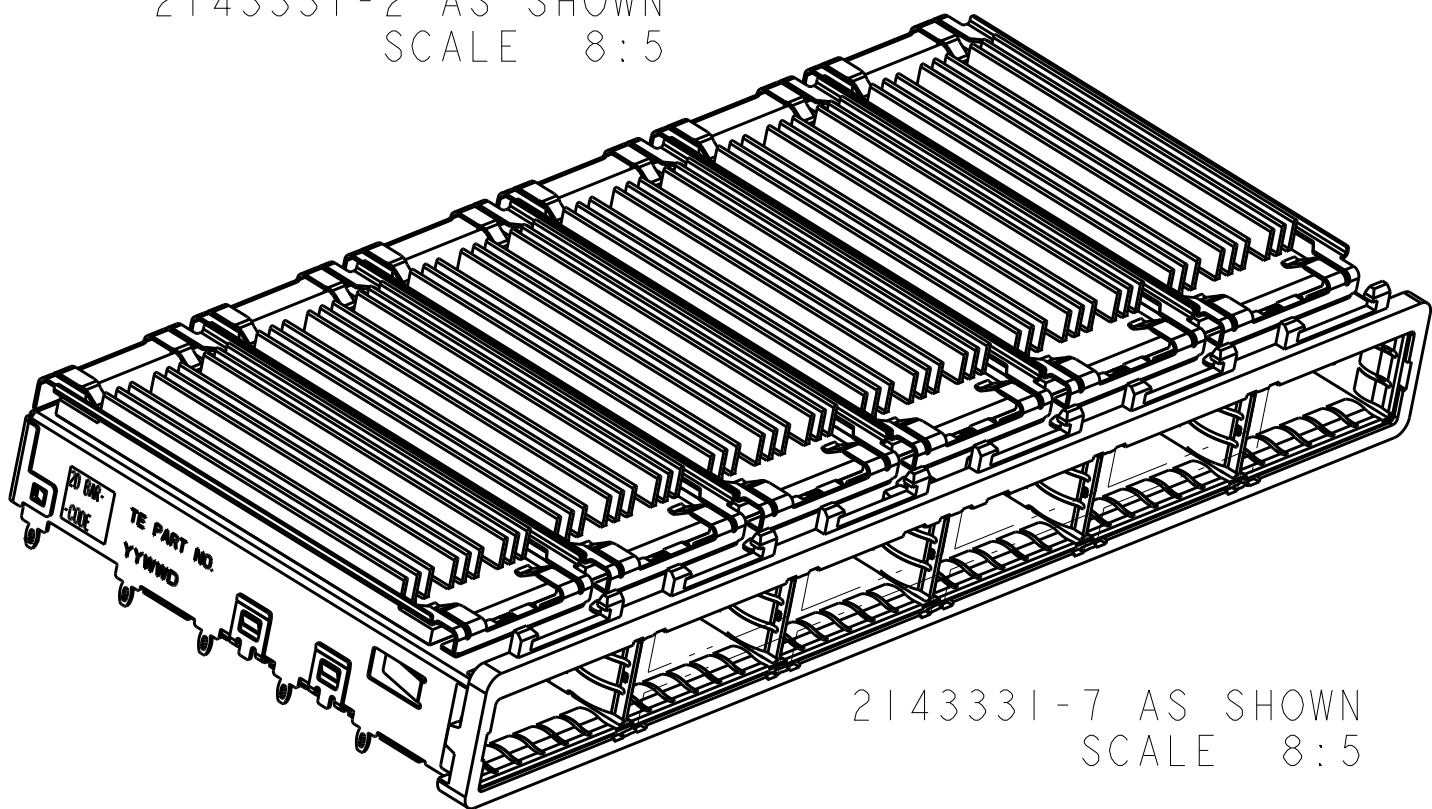
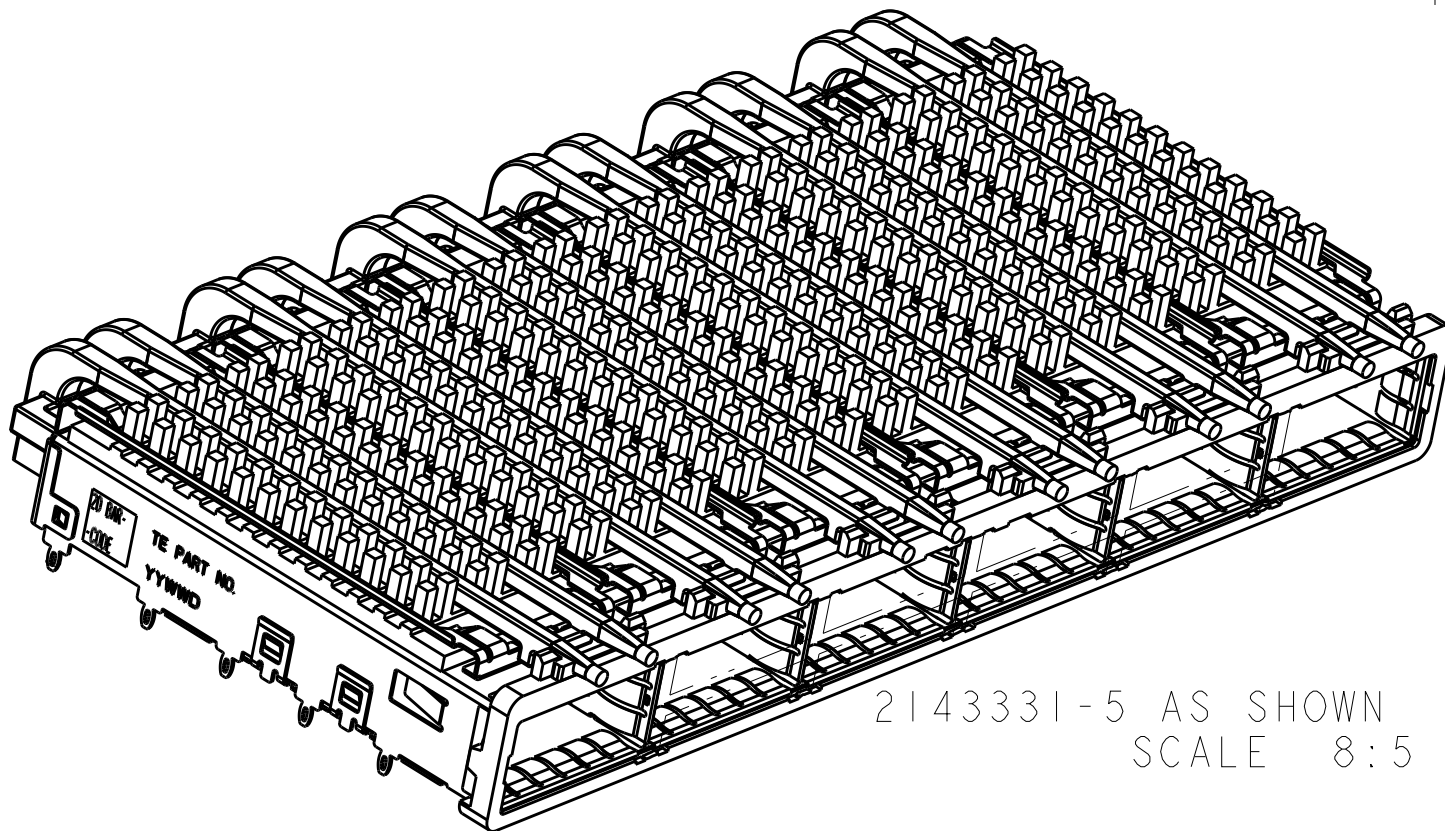
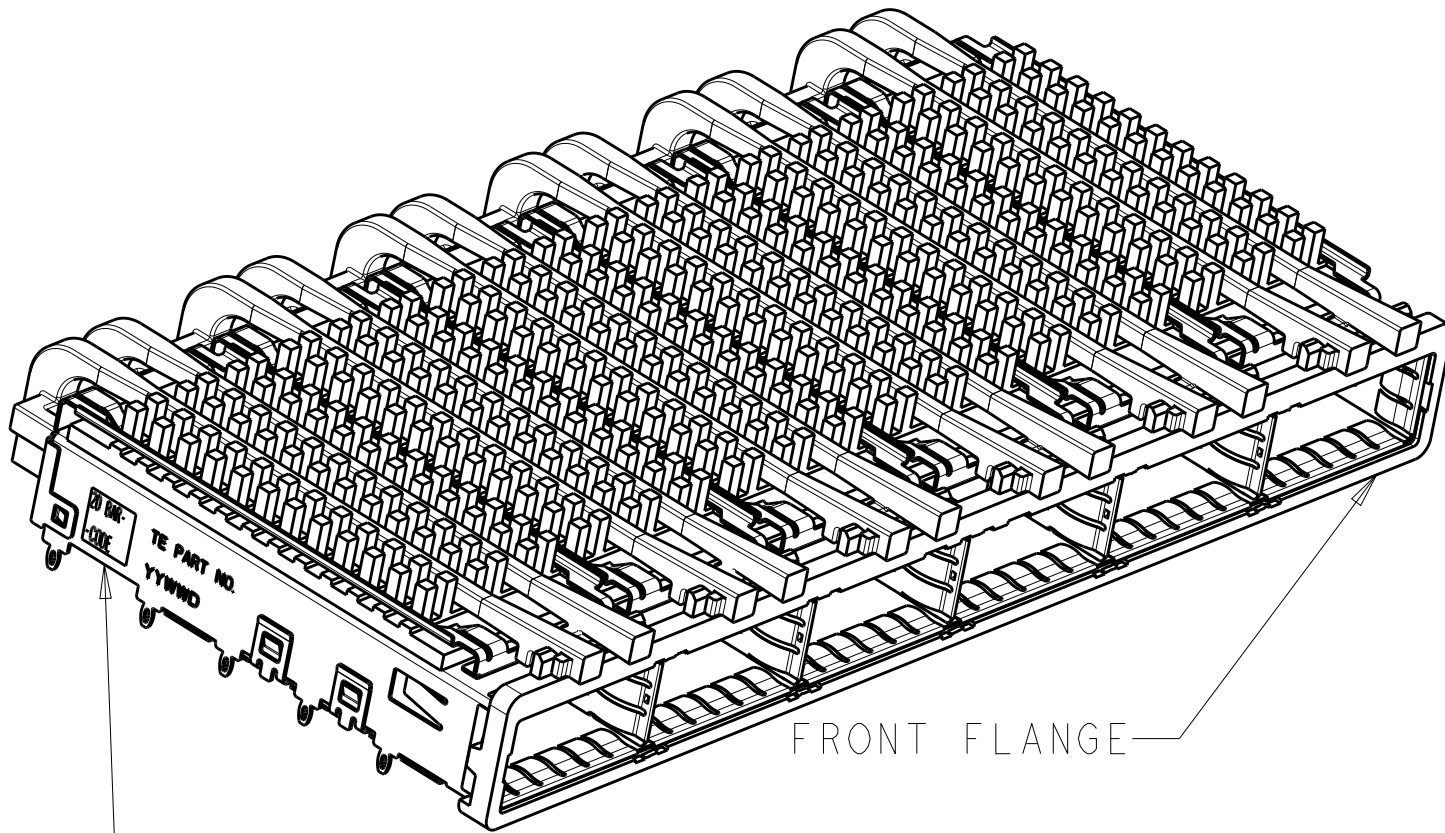
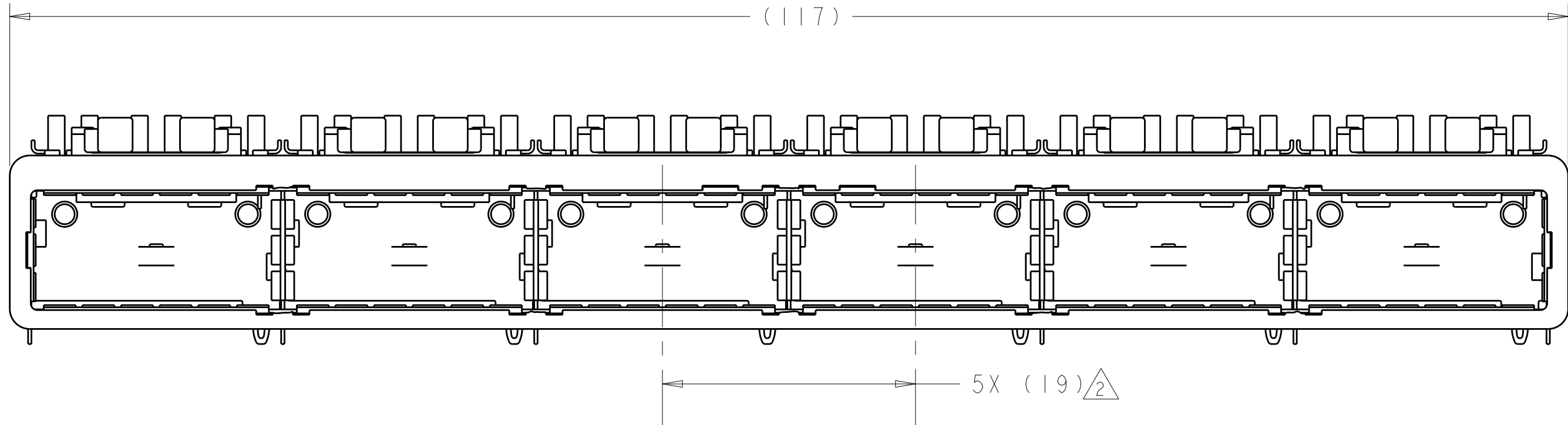
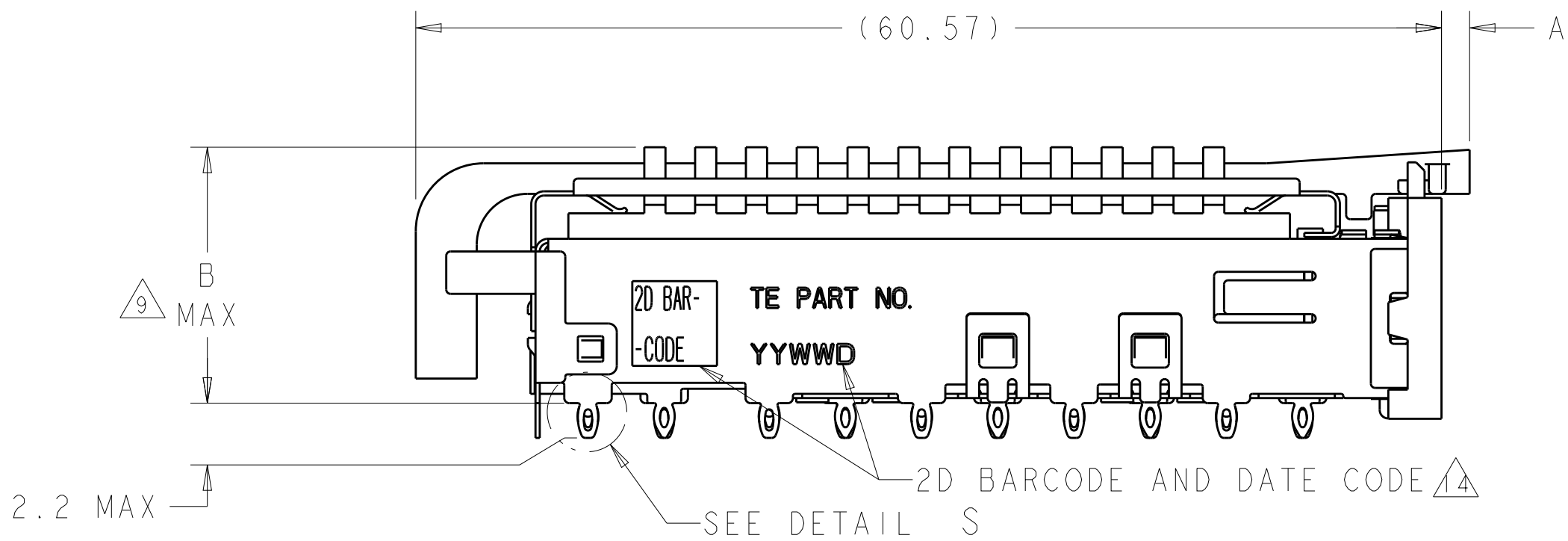
DETAIL S
SCALE 20:1



- 1 CAGE ASSEMBLY MATERIAL: NICKEL SILVER, 0.25 THICK
HEAT SINK MATERIAL: ALUMINUM
HEAT SINK CLIP MATERIAL: STAINLESS STEEL
EMI SPRING MATERIAL: COPPER ALLOY
FRONT FLANGE MATERIAL: ZINC ALLOY
LIGHT PIPE MATERIAL: CLEAR POLYCARBONATE
- 2 PITCH BETWEEN PORTS OF ONE 1X6 CAGE ASSEMBLY.
- 3 SPACING BETWEEN CAGES ON THE SAME PC BOARD, TO BE SPECIFIED BY CUSTOMER, MUST COMPLY WITH MINIMUM DIMENSIONS SHOWN.
- 4 REFERENCE APPLICATION SPEC 114-13218 FOR RECOMMENDED DRILL HOLE DIAMETER AND PLATING THICKNESS.
- 5 DATUMS AND BASIC DIMENSIONS ESTABLISHED BY CUSTOMER.
- 6 DIMENSION F IS THE NOMINAL THICKNESS OF CUSTOMER SUPPLIED PC BOARD,
SINGLE SIDED PC BOARD MINIMUM THICKNESS = 1.45mm
DOUBLE SIDED PC BOARD MINIMUM THICKNESS = 2.2mm PER QSFP.
- 7 HEAT SINKS, LIGHT PIPES, AND HEAT SINK CLIPS SHIPPED ASSEMBLED TO CAGE ASSEMBLY. CAGE ASSEMBLY MAY BE PRESSED INTO THE PCB AS SHIPPED.
- 8 DATUM A IS TOP SURFACE OF PC BOARD.
- 9 DIMENSION APPLIES WITH MODULE INSERTED IN CAGE.
- 10 UNPLATED THRU HOLE.

11. MATES WITH QSFP MSA COMPATIBLE TRANSCEIVER.
- 12 SURFACE TRACES PERMITTED WITHIN THIS AREA EXCEPT WHERE CAGE STANDOFFS, SHOWN IN DETAIL S, CONTACT PC BOARD.
- 13 BASELINE FOR THESE DIMENSIONS IS THE CENTER OF COMPLIANT PIN HOLE.
- 14 2D BARCODE AND DATE CODE (YYWWDD) MARKED ON SIDE OF CAGE ASSEMBLY.

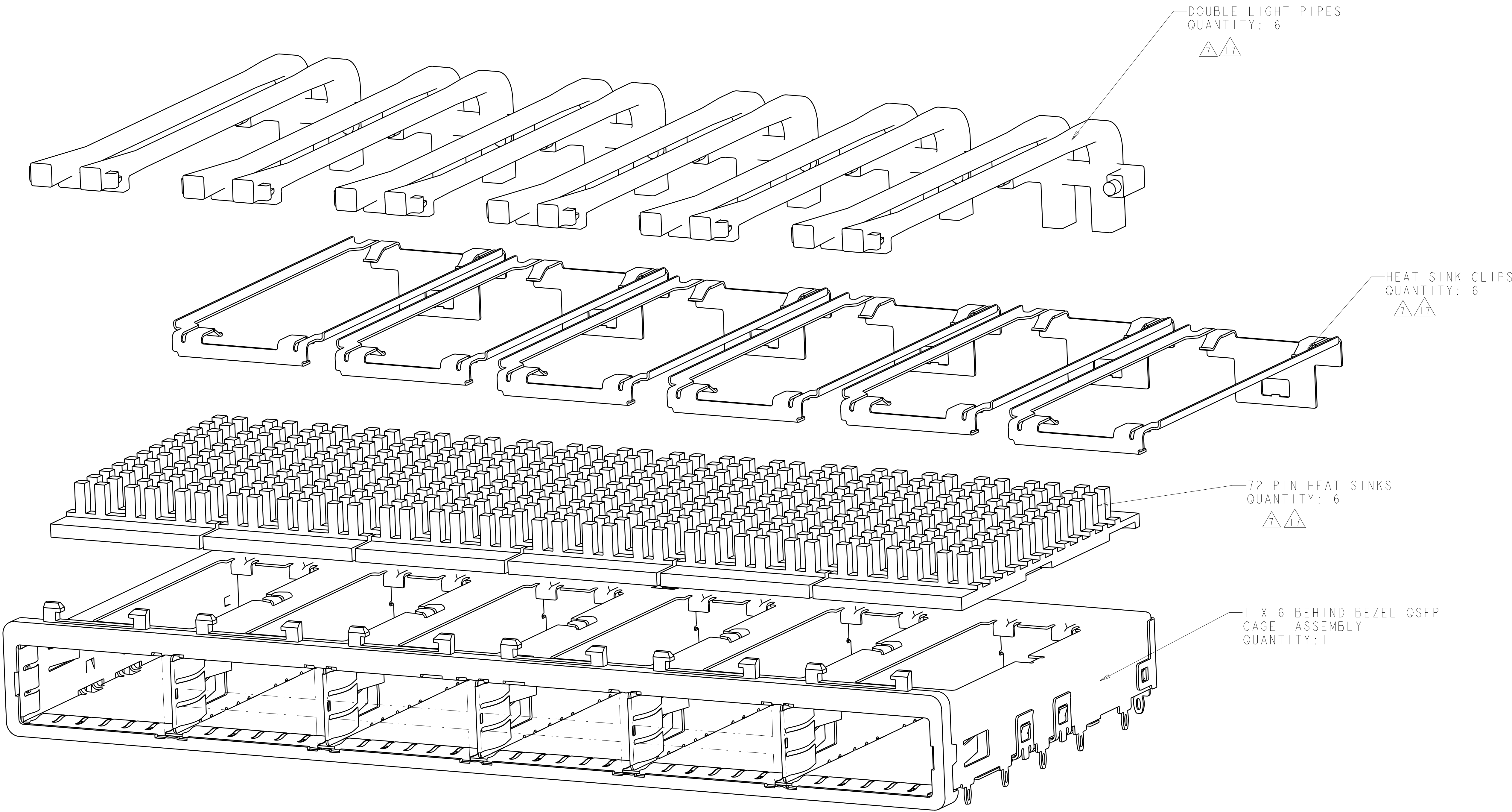
- 15 REFERENCE APP SPEC 114-13218 FOR GASKET THICKNESS CALCULATION.
- 16 EMI SPRING FINISH: 2um MINIMUM TIN
FRONT FLANGE FINISH: 3um MINIMUM TIN OVER 1.27um MINIMUM NICKEL OVER 5.08um MINIMUM COPPER.
HEAT SINK FINISH: BLACK ANODIZED
- 17 HEAT SINKS AND CLIPS SHIPPED ASSEMBLED TO CAGE ASSEMBLY. CAGE ASSEMBLY MAY BE PRESSED INTO THE PCB AS SHIPPED. LIGHT PIPES, SHIPPED UNATTACHED, MUST BE ASSEMBLED BY CUSTOMER AFTER THE CAGE IS SEATED IN THE PCB.
- 18 ROUND LIGHT PIPES PLEASE SEE SHEET 4/6




| | | | | | |
|----|--------------------|------|------|-------------------|-------------|
| 18 | ROUND LIGHT PIPE | 2.00 | 21.0 | FIN TYPE | 2143331-8 |
| | N/A | N/A | 15.0 | FIN TYPE | 2143331-7 |
| 18 | ROUND LIGHT PIPES | 1.66 | 23.0 | NETWORKING | 2143331-6 |
| | | | 16.0 | SAN | 2143331-5 |
| | | | 13.7 | PCI | 2143331-4 |
| 17 | SQUARE LIGHT PIPES | 1.66 | 23.0 | NETWORKING | 2143331-3 |
| | | | 16.0 | SAN | 2143331-2 |
| | | | 13.7 | PCI | 2143331-1 |
| 17 | LIGHT PIPE TYPE | A | B | HEAT SINK PROFILE | PART NUMBER |
| | | | | | |

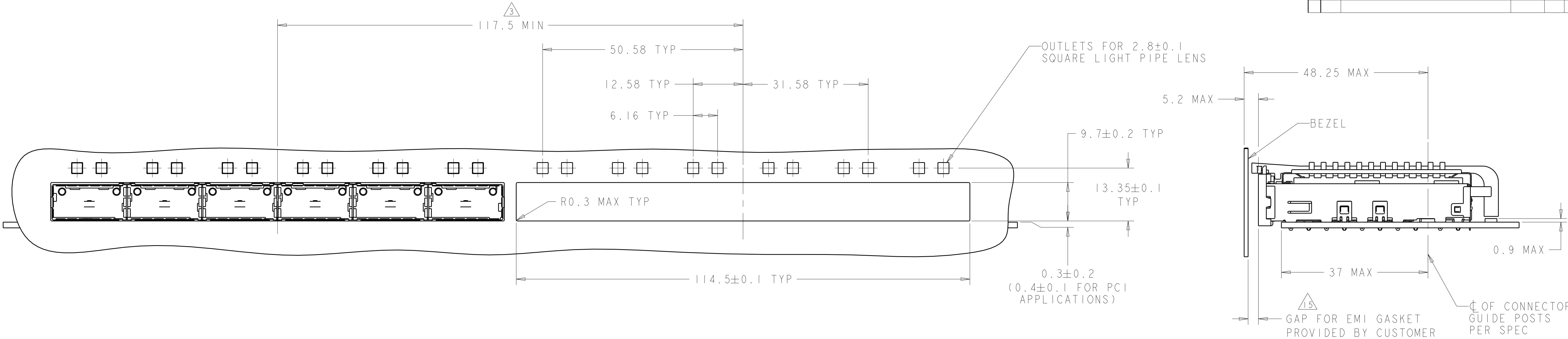
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|--|--|---|-------------------------------------|------------------|--|
| THIS DRAWING IS A CONTROLLED DOCUMENT. | | DWN C. VALENTINE CHK J. PETERSON APVD J. PETERSON | 18MAR2010 18MAR2010 18MAR2010 | TE Connectivity | |
| DIMENSIONS: | | TOLERANCES UNLESS OTHERWISE SPECIFIED: | | NAME | |
| mm | | 0 PLC ±.20 1 PLC ±0.20 2 PLC ±0.15 3 PLC ±. 4 PLC ±. ANGLES ±. | | PRODUCT SPEC | |
| | | | | APPLICATION SPEC | |
| MATERIAL | | FINISH | | SIZE | |
| 1 | | 16 | | 114-13218 | |
| | | | | WEIGHT | |
| | | | | Customer Drawing | |
| | | | | SCALE 3:1 | |
| | | | | SHEET 1 OF 6 | |
| | | | | REV B | |

| LOC | DIST | REVISIONS | | | | | |
|-----|------|-----------|-----|-------------|------|-----|------|
| | | P | LTR | DESCRIPTION | DATE | DWN | APVD |
| GP | 00 | - | - | SEE SHEET 1 | - | - | - |
| | | | | | | | |
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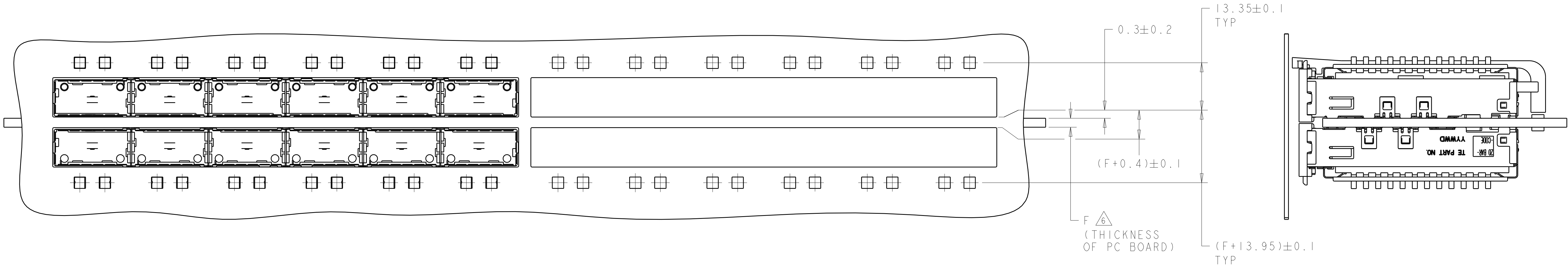


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|--|--|------------------|--------------|-----------|---|--|
| THIS DRAWING IS A CONTROLLED DOCUMENT. | | DWN | C. VALENTINE | 18MAR2010 |  TE Connectivity | |
| | | CHK | J. PETERSON | 18MAR2010 | | |
| | | APVD | J. PETERSON | 18MAR2010 | NAME | |
| | | PRODUCT SPEC | | | 1X6 CAGE ASSEMBLY, BEHIND BEZEL, | |
| | | APPLICATION SPEC | | | W/ SOR LIGHT PIPES AND HEAT SINKS, | |
| | | WEIGHT | | | QSFP | |
| | | Customer Drawing | | | RESTRICTED TO | |
| | | | | | SCALE | |
| | | | | | 4:1 | |
| | | | | | SHEET | |
| | | | | | 2 | |
| | | | | | OF | |
| | | | | | 6 | |
| | | | | | REV | |
| | | | | | B | |



| LOC | | DIST | | REVISONS | | | |
|-----|--|------|--|----------|-----|-------------|------|
| GP | | 00 | | P | LTR | DESCRIPTION | DATE |
| | | | | - | - | SEE SHEET 1 | - |
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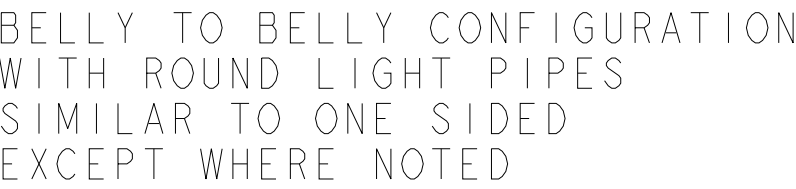
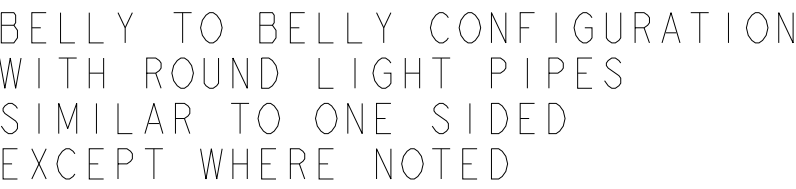


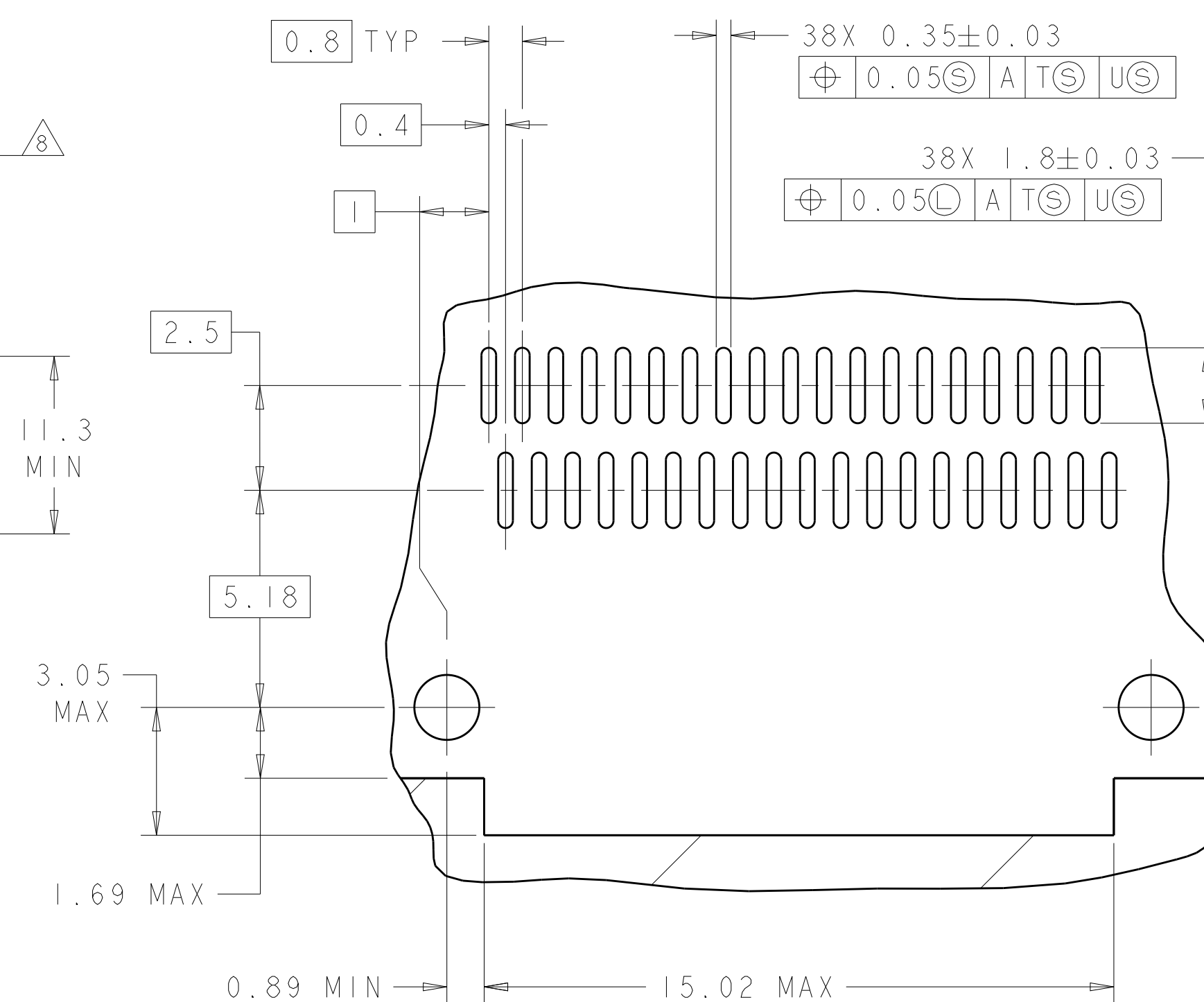
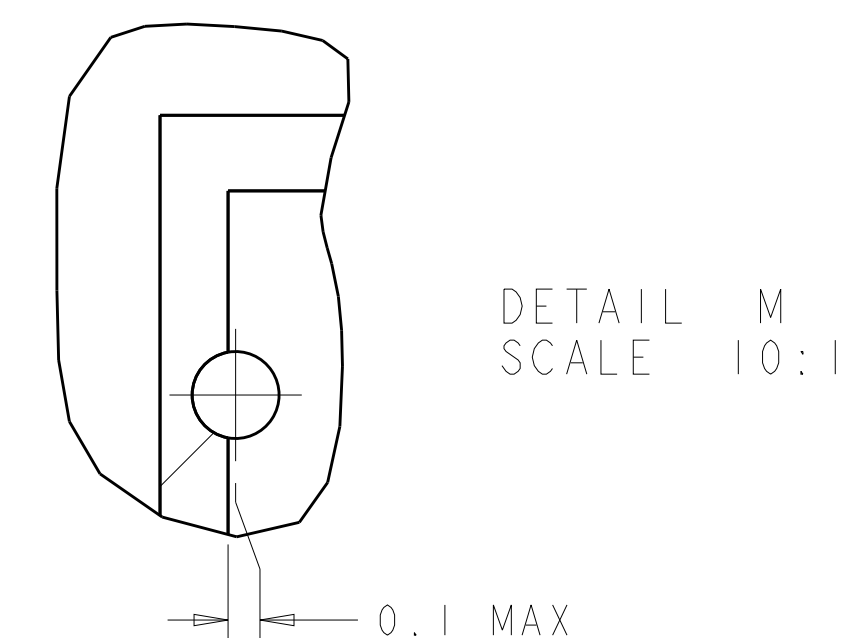
ONE SIDED CONFIGURATION
WITH SQUARE LIGHT PIPES
SCALE 2:1



BELLY TO BELLY CONFIGURATION
WITH SQUARE LIGHT PIPES
SIMILAR TO ONE SIDED
EXCEPT WHERE NOTED
SCALE 2:1


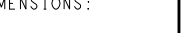
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| THIS DRAWING IS A CONTROLLED DOCUMENT. | | DWN C. VALENTINE 18MAR2010 |  TE Connectivity | | NAME 1X6 CAGE ASSEMBLY, BEHIND BEZEL, W/ SQR LIGHT PIPES AND HEAT SINKS, QSFP |
| DIMENSIONS: | | CHK J. PETERSON 18MAR2010 | | | |
| mm | TOLERANCES UNLESS OTHERWISE SPECIFIED: | APVD J. PETERSON 18MAR2010 | PRODUCT SPEC | | |
|  | 0 PLC ± 1 PLC ±0.1 2 PLC ±0.1 3 PLC ± 4 PLC ± ANGLES ± FINISH | 108-2286 | APPLICATION SPEC | | |
| MATERIAL | - | 114-13218 | WEIGHT | | |
| - | - | - | A 00779 © = 2143331 | | |
| Customer Drawing | | | SCALE 4:1 | SHEET 3 OF 6 | REV B |

4805 (3/11)

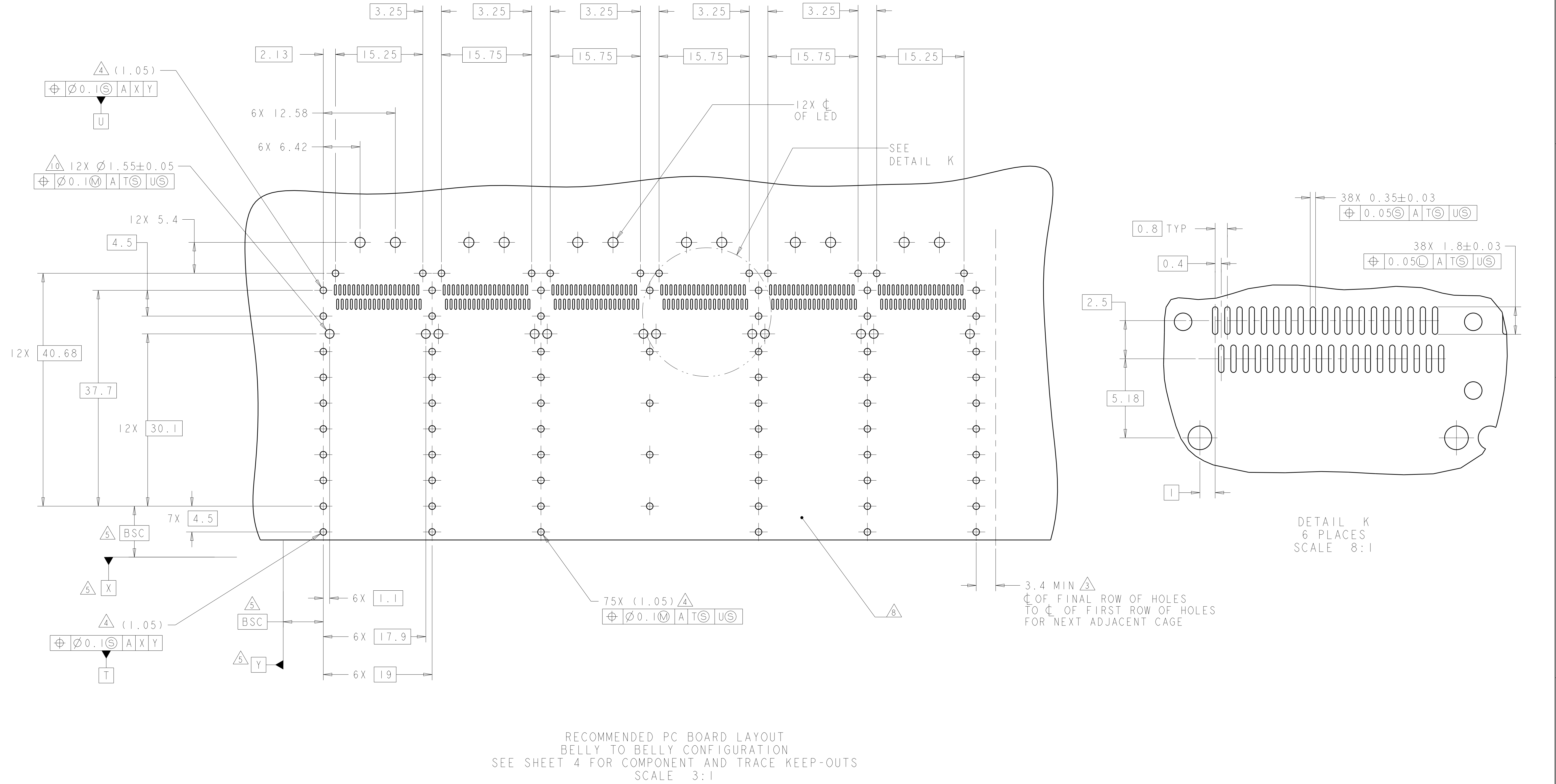


DETAIL J
6 PLACES
SCALE 8:1

RECOMMENDED PC BOARD LAYOUT
SINGLE SIDE MOUNT CONFIGURATION
SCALE 3:1

| | | | | | | |
|---|--|--|-----------|--|---|--|
| THIS DRAWING IS A CONTROLLED DOCUMENT. | | OWN C VALENTINE | 18MAR2010 | |  TE Connectivity | |
| | | CHK J PETERSON | 18MAR2010 | | | |
| | | APVD J PETERSON | 18MAR2010 | | | |
| DIMENSIONS: | | TOLERANCES UNLESS OTHERWISE SPECIFIED: | | NAME | | |
| mm | | 0 PLC ±.1 1 PLC ±0.1 2 PLC ±.1 3 PLC ±.1 4 PLC ±.1 | | 1X6 CAGE ASSEMBLY, BEHIND BEZEL, W/ SQR LIGHT PIPES AND HEAT SINKS, QSPF | | |
|  | | ANGLES | | PRODUCT SPEC | | |
| | | | | 108-2286 | | |
| | | | | APPLICATION SPEC | | |
| | | | | 114-13218 | | |
| MATERIAL | | FINISH | | SIZE | | |
| - | | - | | CAGE CODE | | |
| | | | | DRAWING NO | | |
| | | | | RESTRICTED TO | | |
| | | | | A1 00779 ©=2143331 | | |
| | | | | WEIGHT | | |
| | | | | - | | |
| | | | | Customer Drawing | | |
| | | | | SCALE | | |
| | | | | A:1 | | |
| | | | | SHEET | | |
| | | | | 5 of 6 | | |
| | | | | REV A | | |

| LOC | DIST | REVISIONS | | | | | |
|-----|------|-----------|-----|-------------|------|-----|------|
| | | P | LTR | DESCRIPTION | DATE | OWN | APVD |
| GP | 00 | - | - | SEE SHEET 1 | - | - | - |
| | | | | | | | |
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| | | | | | |
|--|--|--|-----------------------------------|--|--|
| THIS DRAWING IS A CONTROLLED DOCUMENT. | | DWN C. VALENTINE CHK J. PETERSON APVD J. PETERSON | 18MAR2010 8MAR2010 8MAR2010 | TE Connectivity | |
| DIMENSIONS: mm | | TOLERANCES UNLESS OTHERWISE SPECIFIED: 0 PLC $\pm .1$ 1 PLC ± 0.1 2 PLC $\pm .1$ 3 PLC $\pm .1$ 4 PLC $\pm .1$ ANGLES $\pm .1$ FINISH | | NAME 1X6 CAGE ASSEMBLY, BEHIND BEZEL, W/ SOR LIGHT PIPES AND HEAT SINKS, QSFP | |
| MATERIAL - | | PRODUCT SPEC 108-2286 APPLICATION SPEC 114-13218 WEIGHT - | | SIZE A100779 | |
| Customer Drawing | | DRAWING NO C=2143331 | | RESTRICTED TO - | |
| SCALE 4:1 | | SHEET 6 | | REV B | |