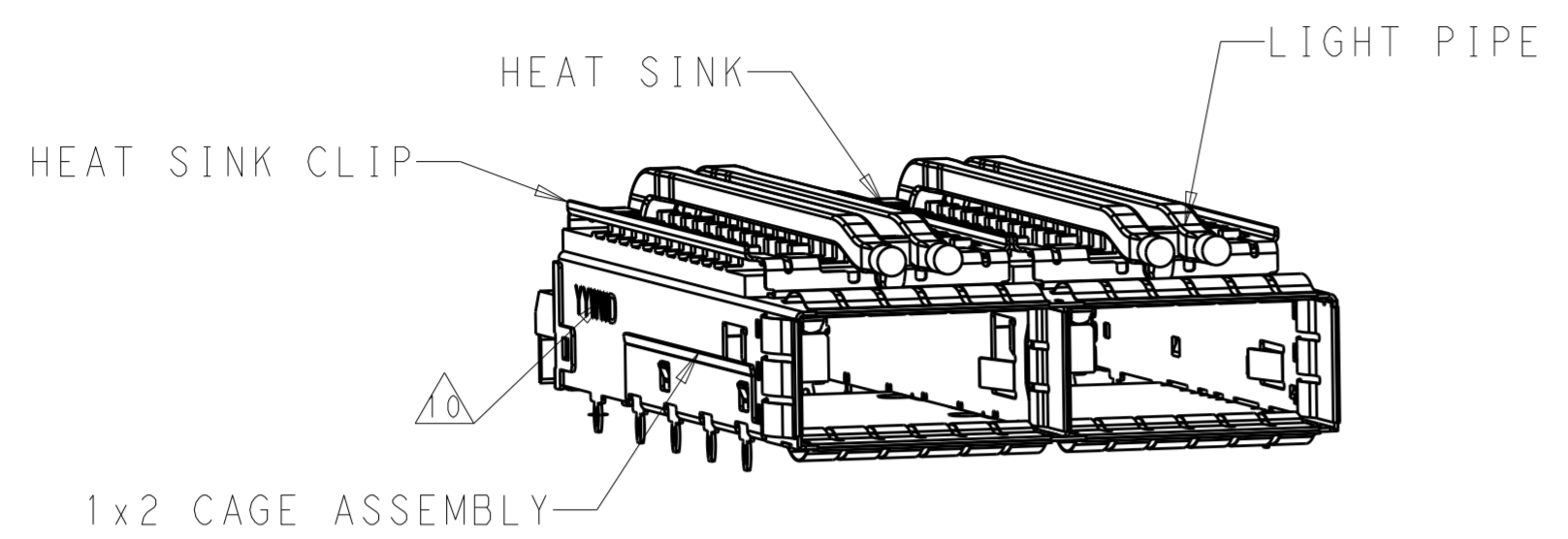


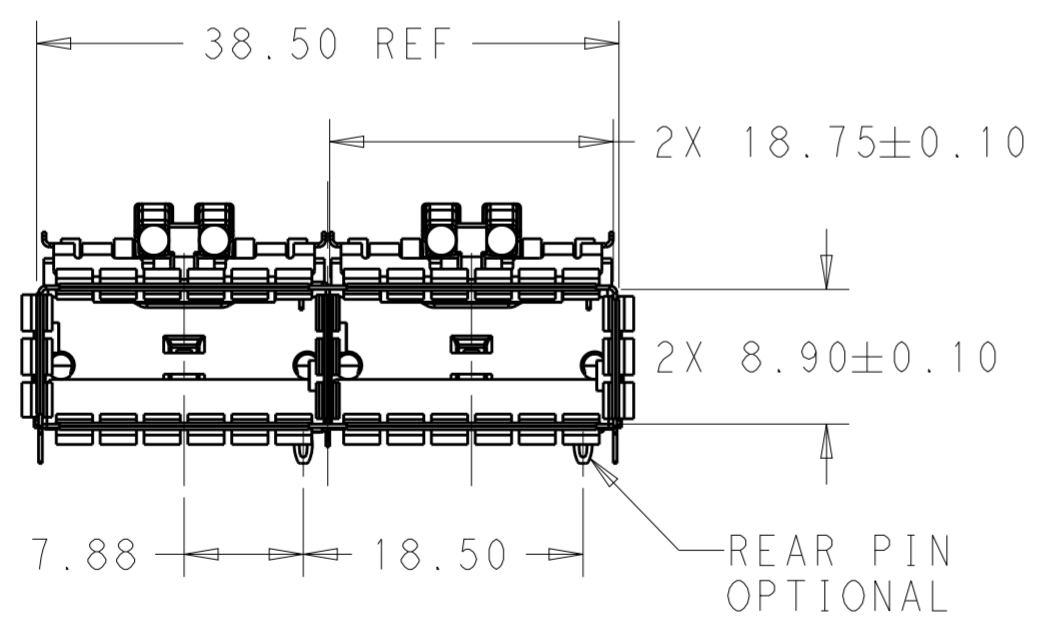
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| REVISIONS | | | | |
|-----------|-----|-------------|-----------|-------|
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| | A | RELEASE | 31OCT2016 | JY SH |
| | | | | |
| | | | | |

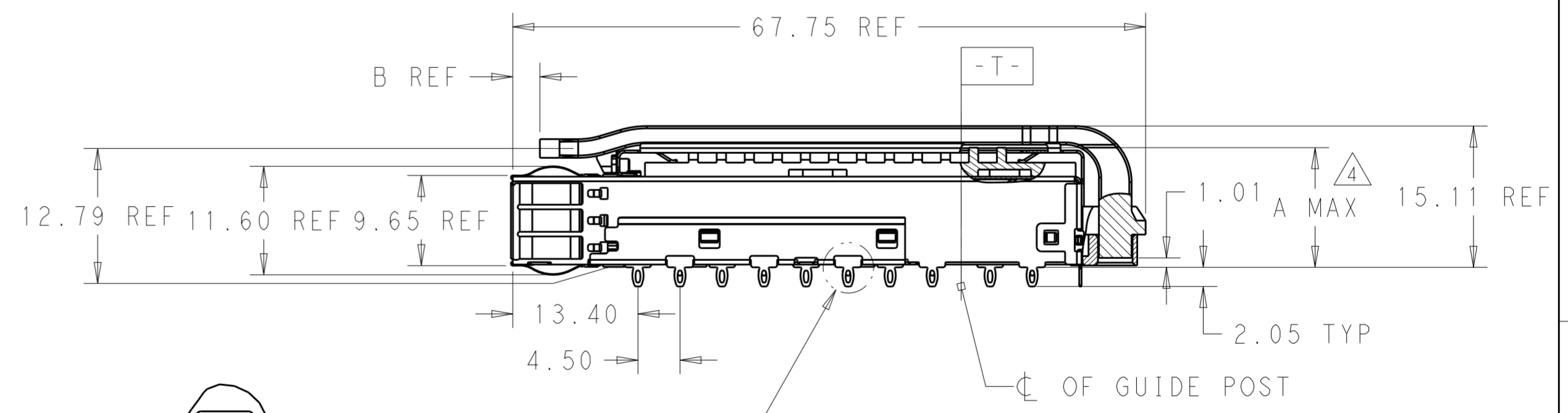


2-2170808-1 AS SHOWN
 SCALE 2:1

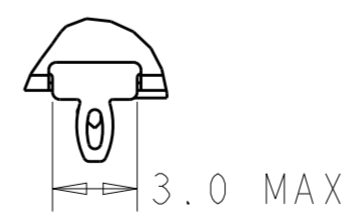
- COMPONENTS
 CAGE ASSEMBLY: NICKEL-SILVER ALLOY
 HEAT SINK: ALUMINUM/BLACK ANODIZE
 HEAT SINK CLIP: STAINLESS STEEL
 EMI SPRING: COPPER ALLOY/NICKEL PLATE
 LIGHT PIPE: CLEAR POLYCARBONATE
- REFERENCE APPLICATION SPECIFICATION 114-32023 FOR RECOMMENDED DRILL HOLE DIAMETER AND PLATING THICKNESS
- DATUM AND BASIC DIMENSION ESTABLISHED BY CUSTOMER
- DIMENSION APPLIES WITH MODULE INSERTED IN CAGE
- HEAT SINKS, HEAT SINK CLIPS AND LIGHT PIPES ARE SHIPPED ASSEMBLED ON CAGE
- MINIMUM PC BOARD THICKNESS: SINGLE SIDED: 1.57 MIN
 DOUBLE SIDED: 2.20 MIN
- DATUM **-A-** IS TOP SURFACE OF THE HOST BOARD.
- THESE HOLES ARE OPTIONAL WHEN THE REAR PINS ARE REMOVED.
- MATES WITH QSFP28 MSA COMPATIBLE TRANSCEIVER.
- DATE CODE (YYWWD) MARKED APPROXIMATELY AS SHOWN.
- NOTED DIMENSIONS ONLY APPLY TO CAGE ASSEMBLY WITH LIGHT PIPE.
- PRELIMINARY PART - NOT RELEASED FOR PRODUCTION.



SCALE 2:1



SECTION A-A
 D-D



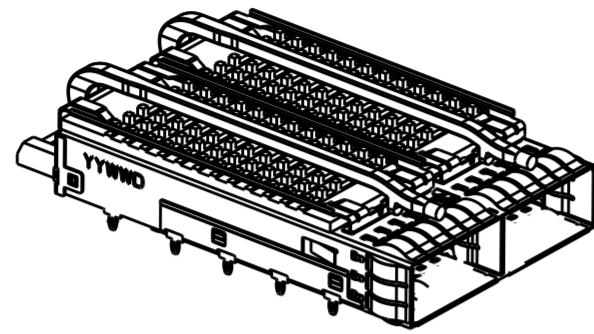
DETAIL E
 SCALE 4:1

| | | | | |
|--|--|---|--|------------------------|
| THIS DRAWING IS A CONTROLLED DOCUMENT. | | DWN BING LIU 16SEP2014 | STE TE Connectivity | |
| | | CHK JASON YANG 16SEP2014 | | |
| DIMENSIONS: mm | TOLERANCES UNLESS OTHERWISE SPECIFIED: 0 PLC ± 1 PLC ±0.25 2 PLC ±0.2 3 PLC ± 4 PLC ± ANGLES ± FINISH | APVD - | NAME RECEPTACLE CAGE ASSEMBLY 1X2, QSFP28, THRU BEZEL, SPRING WITH HEAT SINKS AND LIGHT PIPES | RESTRICTED TO |
| MATERIAL SEE NOTES | SEE NOTES | PRODUCT SPEC 108-19428 APPLICATION SPEC 114-32023 WEIGHT - | SIZE A200779 | CAGE CODE C-2170808 |
| | | CUSTOMER DRAWING | SCALE 1:1 | SHEET 1 OF 9 REV A |

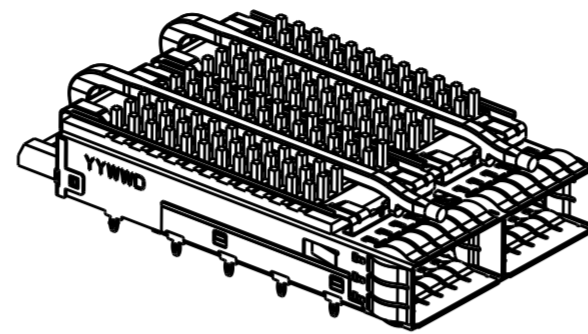
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|-----------|-----|-------------|------|------|
| P | LTR | DESCRIPTION | DATE | APVD |
| - | | SEE SHEET 1 | - | - |
| | | | | |
| | | | | |

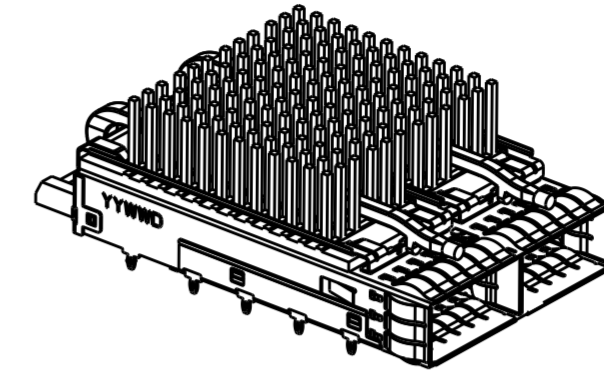
HEAT SINK OPTION



PCI HEAT SINK HEIGHT
SCALE 1:1

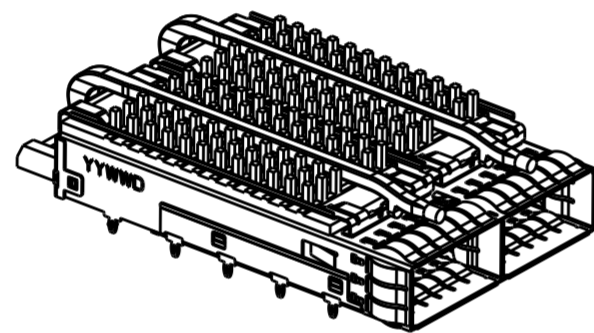


SAN HEAT SINK HEIGHT
SCALE 1:1

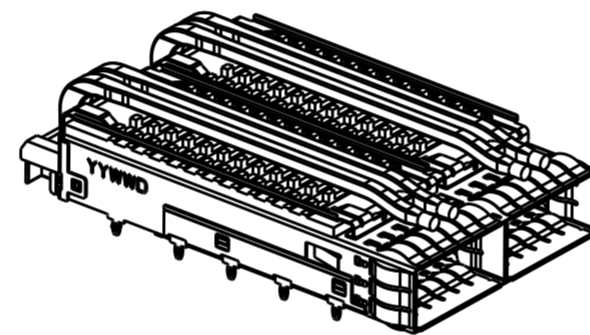


NETWORKING HEAT SINK HEIGHT
SCALE 1:1

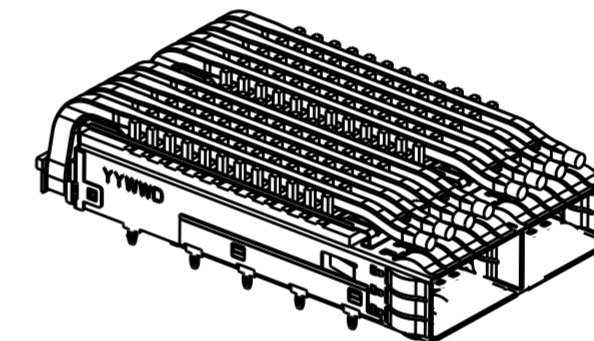
LIGHT PIPE OPTION



SINGLE LIGHT PIPE
SCALE 1:1

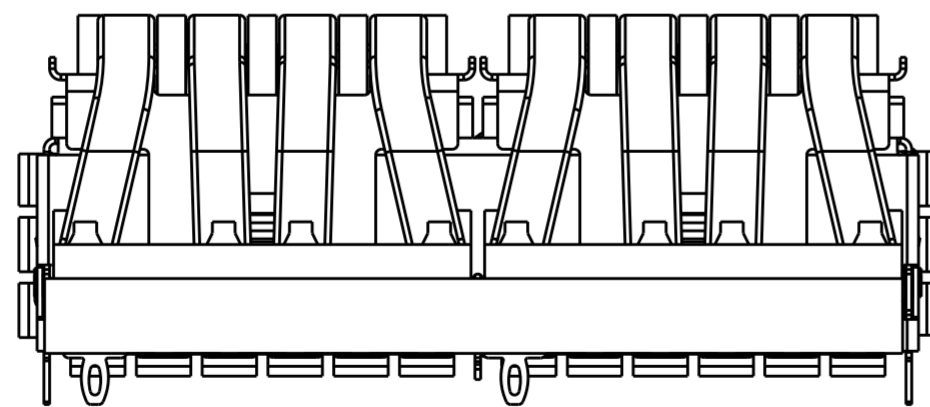


DUAL LIGHT PIPE
SCALE 1:1

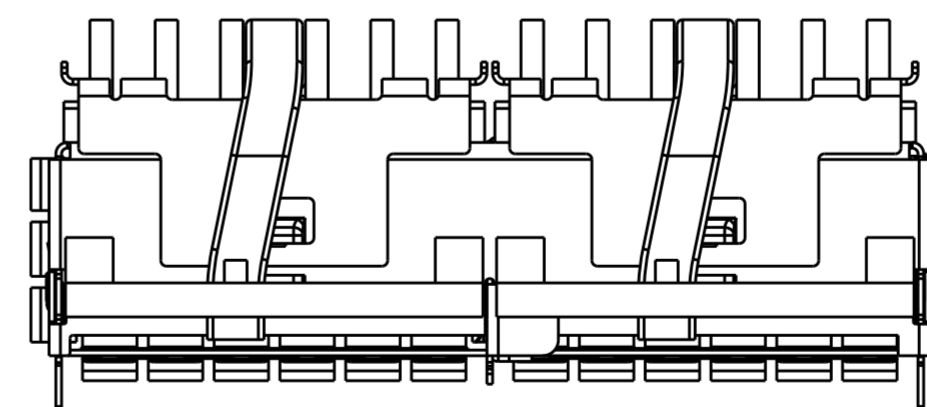


QUAD LIGHT PIPE
SCALE 1:1


OF REAR PIN OPTION



1 REAR PIN
SCALE 3:1



0 REAR PIN
SCALE 3:1


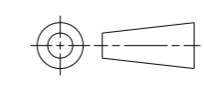
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| THIS DRAWING IS A CONTROLLED DOCUMENT. | | DWN BING LIU 16SEP2014 |  TE Connectivity | |
| | | CHK JASON YANG 16SEP2014 | | |
| DIMENSIONS: | TOLERANCES UNLESS OTHERWISE SPECIFIED: | APVD - | NAME | RESTRICTED TO |
| mm | 0 PLC ± 1 PLC ±0.25 2 PLC ±0.2 3 PLC ± 4 PLC ± ANGLES ± FINISH | PRODUCT SPEC 108-19428 | RECEPTACLE CAGE ASSEMBLY 1X2, QSFP28, THRU BEZEL, SPRING WITH HEAT SINKS AND LIGHT PIPES | - |
| MATERIAL SEE NOTES | SEE NOTES | APPLICATION SPEC 114-32023 | SIZE CAGE CODE DRAWING NO A200779 C-2170808 | - |
| | | WEIGHT - | CUSTOMER DRAWING | SCALE 1:1 SHEET 2 OF 9 REV A |

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| REVISIONS | | | | | |
|-----------|-----|-------------|------|-----|------|
| P | LTR | DESCRIPTION | DATE | DWN | APVD |
| - | | SEE SHEET 1 | - | - | - |
| | | | | | |
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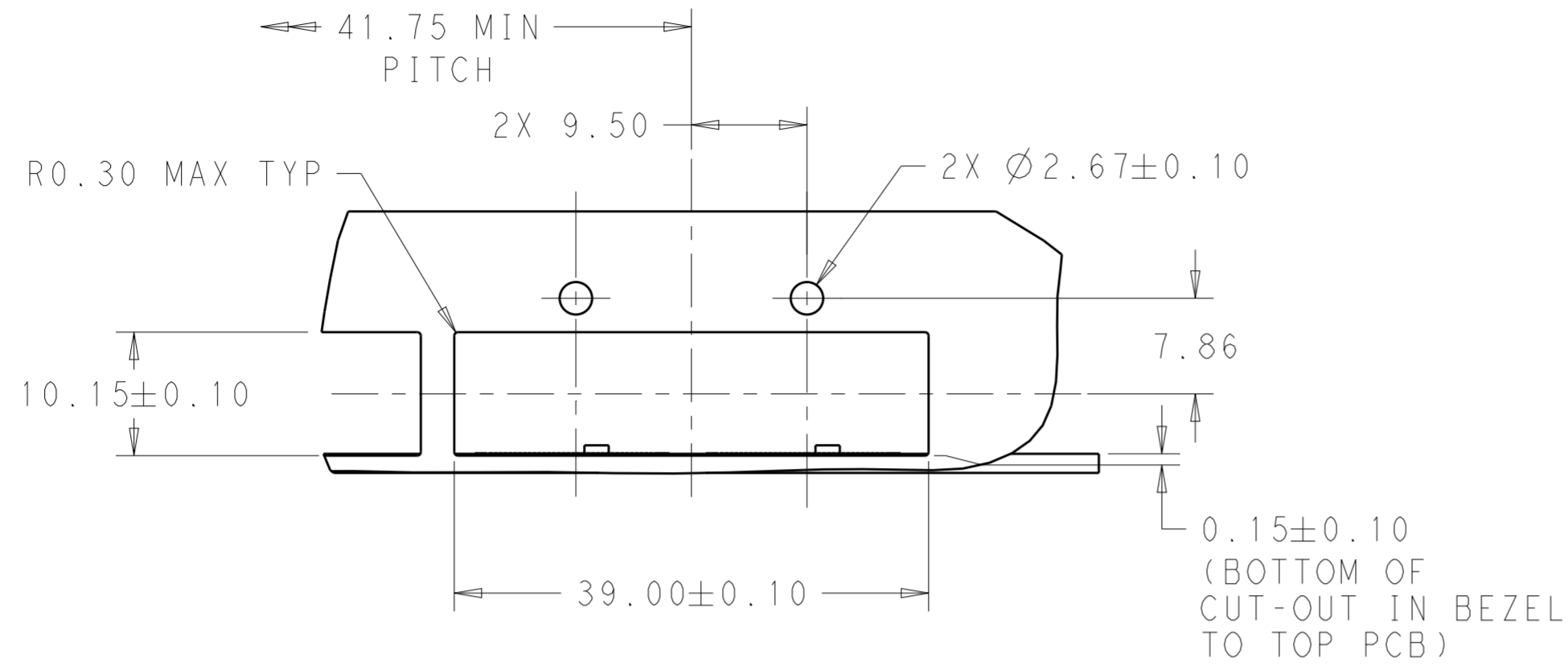
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| 0 | 2.9 | 23.0 | NETWORKING | QUAD LP | 4-2170808-6 |
| 0 | 2.9 | 16.0 | SAN | QUAD LP | 4-2170808-5 |
| 0 | 2.9 | 13.7 | PCI | QUAD LP | 4-2170808-4 |
| 1 | 2.9 | 23.0 | NETWORKING | QUAD LP | 4-2170808-3 |
| 1 | 2.9 | 16.0 | SAN | QUAD LP | 4-2170808-2 |
| 1 | 2.9 | 13.7 | PCI | QUAD LP | 4-2170808-1 |
| 1 | 4.5 | 13.7 | PCI | SHORTER, QUAD LP | 4-2170808-0 |
| 0 | 2.9 | 23.0 | NETWORKING | DUAL LP | 2-2170808-6 |
| 0 | 2.9 | 16.0 | SAN | DUAL LP | 2-2170808-5 |
| 0 | 2.9 | 13.7 | PCI | DUAL LP | 2-2170808-4 |
| 1 | 2.9 | 23.0 | NETWORKING | DUAL LP | 2-2170808-3 |
| 1 | 2.9 | 16.0 | SAN | DUAL LP | 2-2170808-2 |
| 1 | 2.9 | 13.7 | PCI | DUAL LP | 2-2170808-1 |
| 0 | 2.9 | 23.0 | NETWORKING | SINGLE LP | 2170808-6 |
| 0 | 2.9 | 16.0 | SAN | SINGLE LP | 2170808-5 |
| 0 | 2.9 | 13.7 | PCI | SINGLE LP | 2170808-4 |
| 1 | 2.9 | 23.0 | NETWORKING | SINGLE LP | 2170808-3 |
| 1 | 2.9 | 16.0 | SAN | SINGLE LP | 2170808-2 |
| 1 | 2.9 | 13.7 | PCI | SINGLE LP | 2170808-1 |
| # OF REAR PIN | DIM B (LP EXTRUDE) | DIM A (PRODUCT HEIGHT) | APPLICATION | LIGHT PIPE OPTION | PART NUMBER |



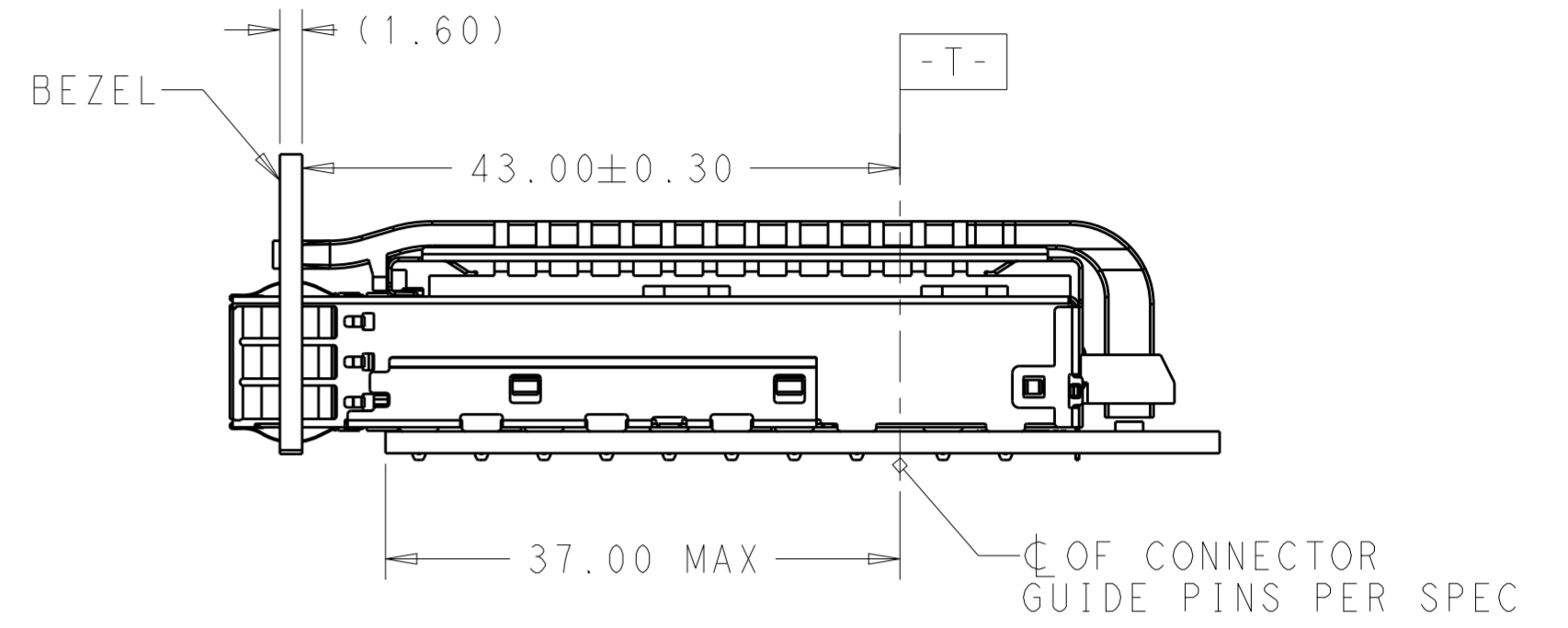
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| THIS DRAWING IS A CONTROLLED DOCUMENT. | | DWN BING LIU 16SEP2014 |  TE Connectivity | |
| | | CHK JASON YANG 16SEP2014 | | |
| DIMENSIONS: mm  | | TOLERANCES UNLESS OTHERWISE SPECIFIED: 0 PLC ± 1 PLC ±0.25 2 PLC ±0.2 3 PLC ± 4 PLC ± ANGLES ± FINISH | | NAME RECEPTACLE CAGE ASSEMBLY 1X2, QSFP28, THRU BEZEL, SPRING WITH HEAT SINKS AND LIGHT PIPES |
| MATERIAL SEE NOTES | | APVD - | PRODUCT SPEC 108-19428 | RESTRICTED TO - |
| | | APPLICATION SPEC 114-32023 | SIZE A200779 | DRAWING NO C-2170808 |
| | | WEIGHT - | SCALE 1:1 SHEET 3 OF 9 REV A | |
| | | CUSTOMER DRAWING | | |

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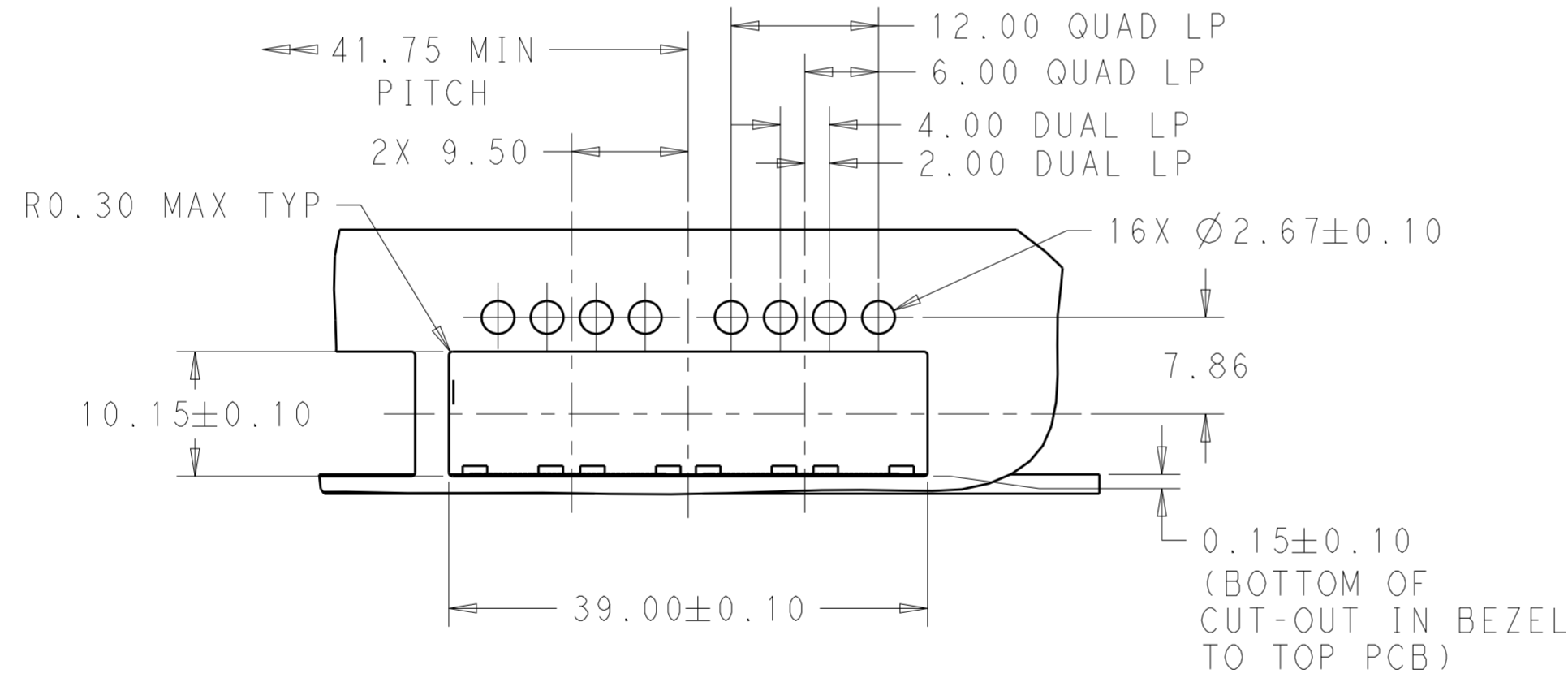
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| - | - | SEE SHEET 1 | - | - |
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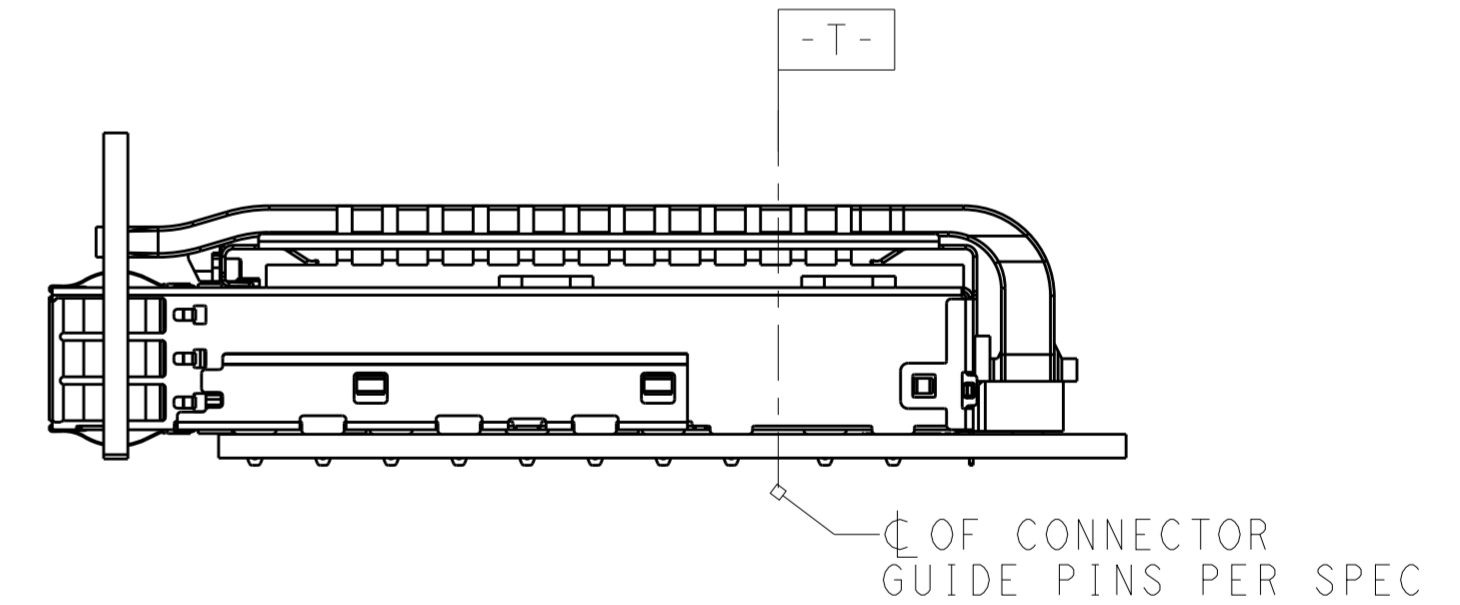
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SINGLE SIDE MOUNTING
SCALE 2:1



CAGE ASSEMBLY IS OMITED

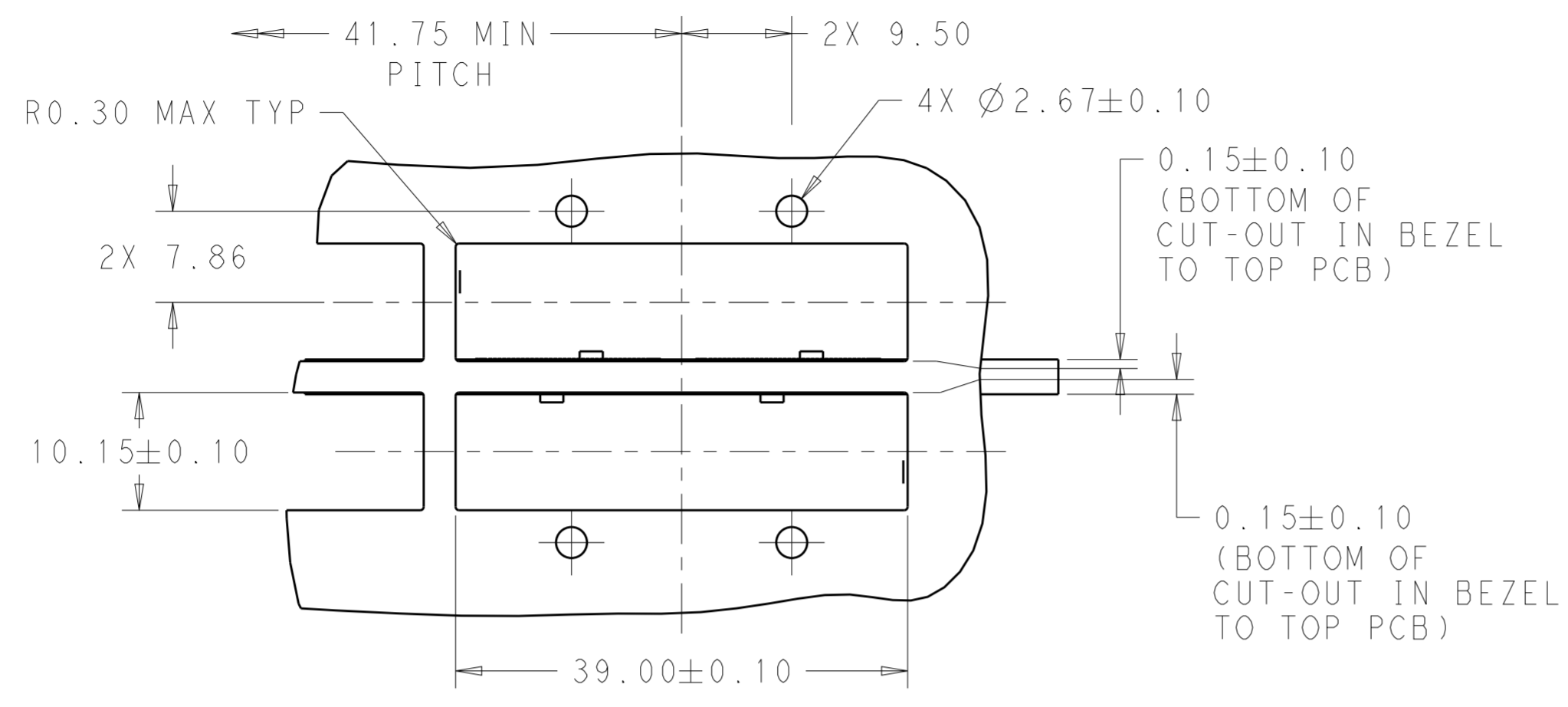


SINGLE SIDE MOUNTING
SCALE 2:1

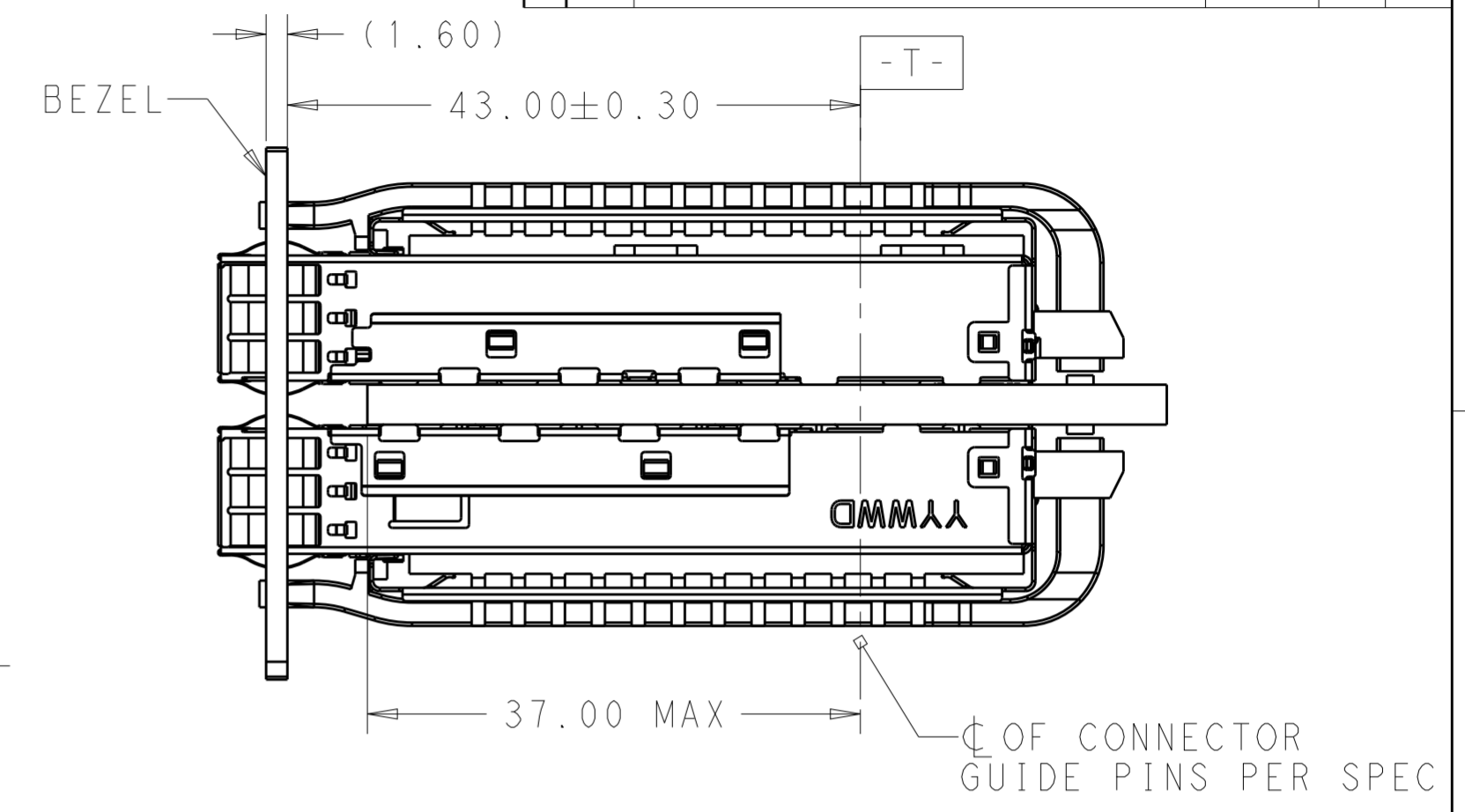
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|--|--|--------------------------------|--|---------------|
| THIS DRAWING IS A CONTROLLED DOCUMENT. | | DWN BING LIU 16SEP2014 | TE Connectivity | |
| | | CHK JASON YANG 16SEP2014 | | |
| DIMENSIONS: | TOLERANCES UNLESS OTHERWISE SPECIFIED: | APVD | NAME | |
| mm | 0 PLC ± 1 PLC ±0.25 2 PLC ±0.2 3 PLC ± 4 PLC ± ANGLES ± FINISH | - | RECEPTACLE CAGE ASSEMBLY 1X2, QSFP28, THRU BEZEL, SPRING WITH HEAT SINKS AND LIGHT PIPES | |
| MATERIAL | SEE NOTES | PRODUCT SPEC 108-19428 | SIZE | RESTRICTED TO |
| - | - | APPLICATION SPEC 114-32023 | A200779 | - |
| | | WEIGHT | C-2170808 | |
| | | CUSTOMER DRAWING | SCALE 1:1 | SHEET 4 OF 9 |
| | | | | REV A |

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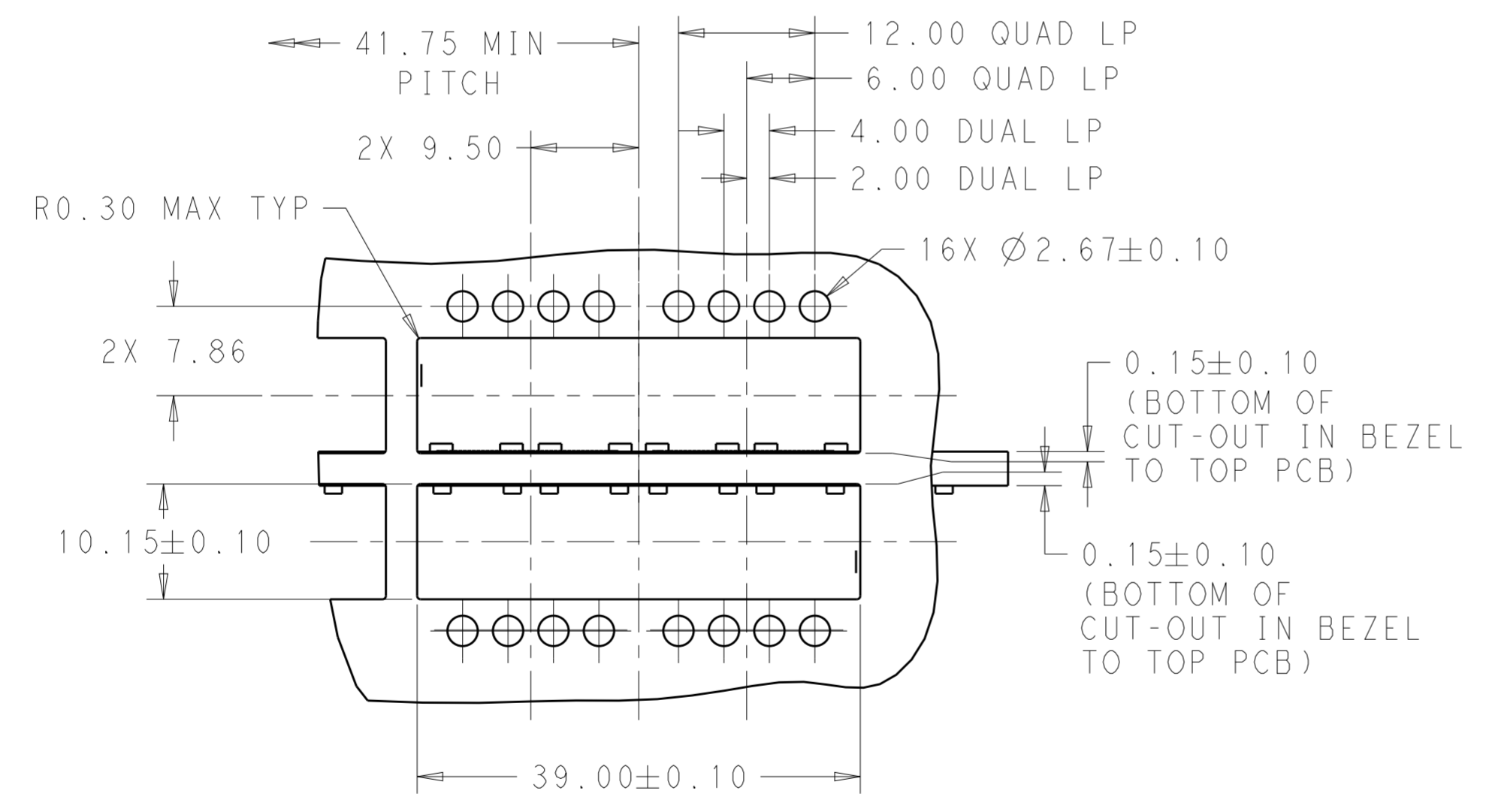
| REVISIONS | | | | |
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| P | LTR | DESCRIPTION | DATE | APVD |
| - | - | SEE SHEET 1 | - | - |
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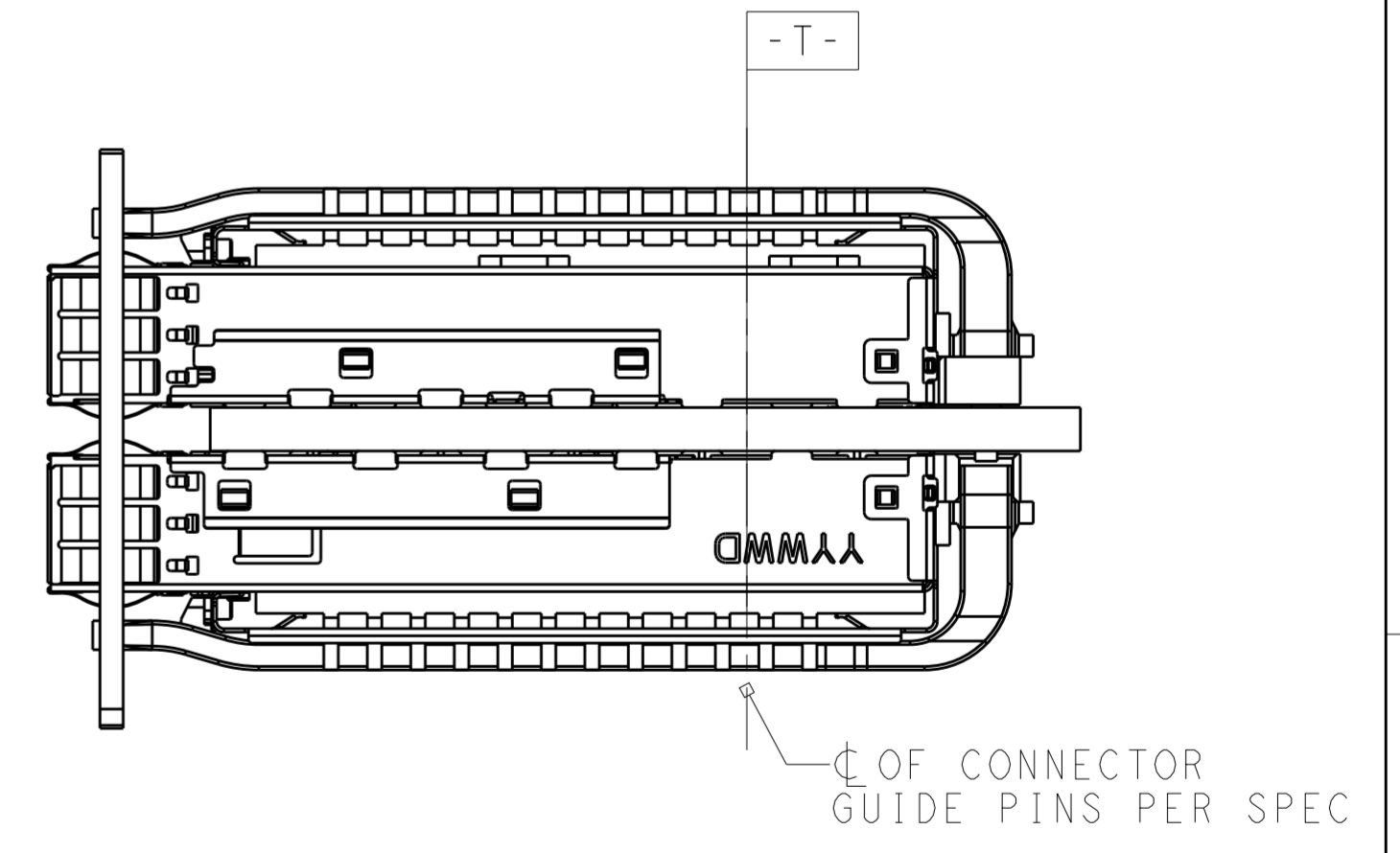
CAGE ASSEMBLY IS OMITED



BELLY TO BELLY MOUNTING
SCALE 2:1



CAGE ASSEMBLY IS OMITED

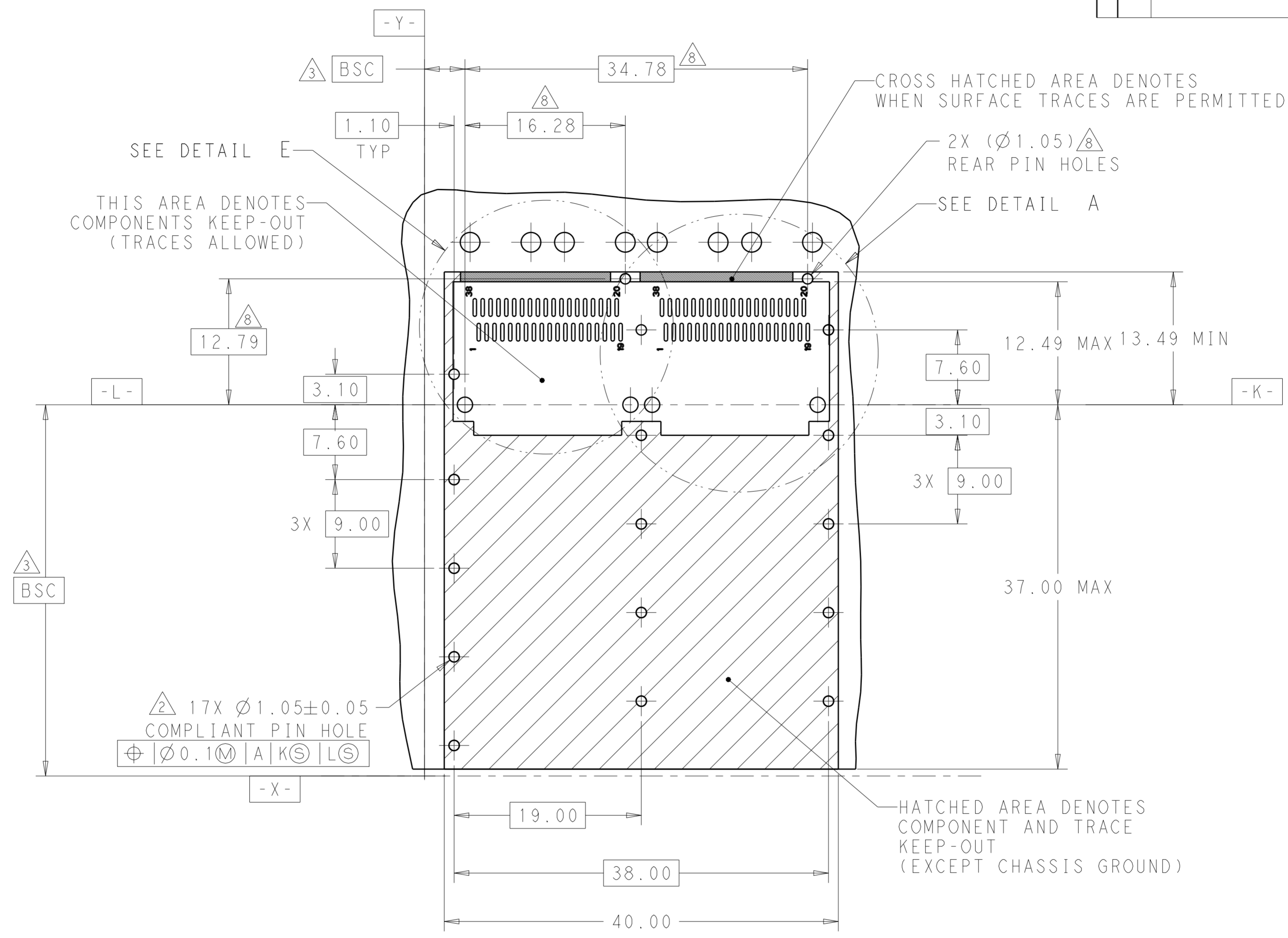


BELLY TO BELLY MOUNTING
SCALE 2:1


| | | | | |
|--|--|----------------------------|---|----------------------|
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| | | CHK JASON YANG 16SEP2014 | | |
| DIMENSIONS: mm | | APVD - | NAME RECEPTACLE CAGE ASSEMBLY | |
| TOLERANCES UNLESS OTHERWISE SPECIFIED: | | PRODUCT SPEC 108-19428 | 1X2, QSFP28, THRU BEZEL, SPRING WITH HEAT SINKS AND LIGHT PIPES | |
| 0 PLC ±- | | APPLICATION SPEC 114-32023 | SIZE A200779 | DRAWING NO C-2170808 |
| 1 PLC ±0.25 | | WEIGHT - | RESTRICTED TO - | |
| 2 PLC ±0.2 | | CUSTOMER DRAWING | SCALE 1:1 | SHEET 5 OF 9 |
| 3 PLC ±- | | | REV A | |
| 4 PLC ±- | | | | |
| ANGLES ±- | | | | |
| FINISH SEE NOTES | | | | |

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| - | - | SEE SHEET 1 | - | - |
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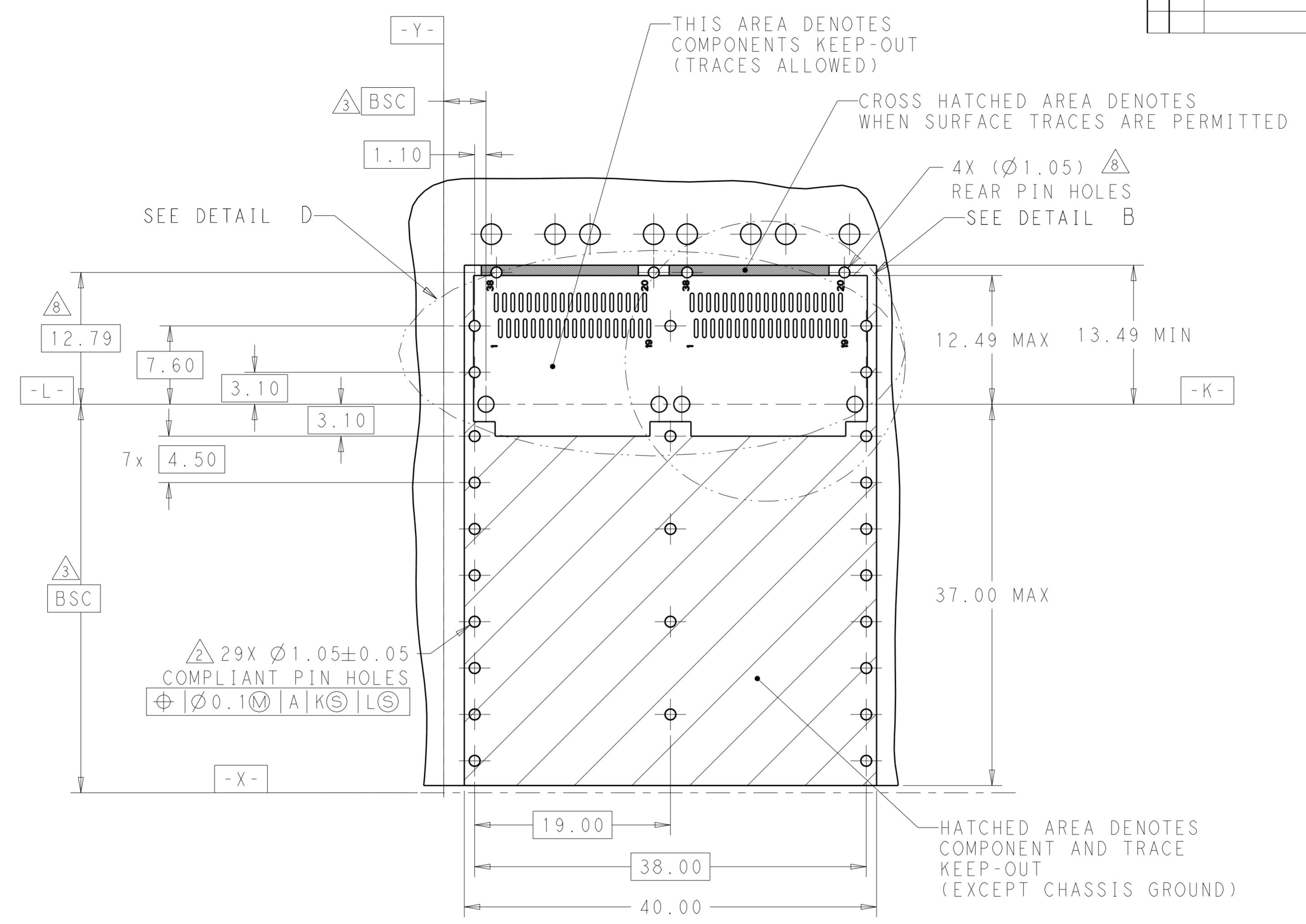


RECOMMENDED PCB LAYOUT
 SINGLE TYPE
 PCB TOLERANCE: ±0.05
 SCALE 3:1

| | | | | |
|--|--|--------------------------------|--|--|
| THIS DRAWING IS A CONTROLLED DOCUMENT. | | DWN BING LIU 16SEP2014 |  TE Connectivity | |
| DIMENSIONS: mm | | CHK JASON YANG 16SEP2014 | | |
| TOLERANCES UNLESS OTHERWISE SPECIFIED: | | APVD - | NAME RECEPTACLE CAGE ASSEMBLY 1X2, QSFP28, THRU BEZEL, SPRING WITH HEAT SINKS AND LIGHT PIPES | |
| 0 PLC ± 1 PLC ±0.25 2 PLC ±0.2 3 PLC ± 4 PLC ± | | PRODUCT SPEC 108-19428 | SIZE A200779 | |
| MATERIAL SEE NOTES | | APPLICATION SPEC 114-32023 | DRAWING NO C-2170808 | |
| FINISH SEE NOTES | | WEIGHT - | RESTRICTED TO - | |
| - | | CUSTOMER DRAWING | SCALE 1:1 SHEET 6 OF 9 REV A | |

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| P | LTR | DESCRIPTION | DATE | APVD |
| - | - | SEE SHEET 1 | - | - |
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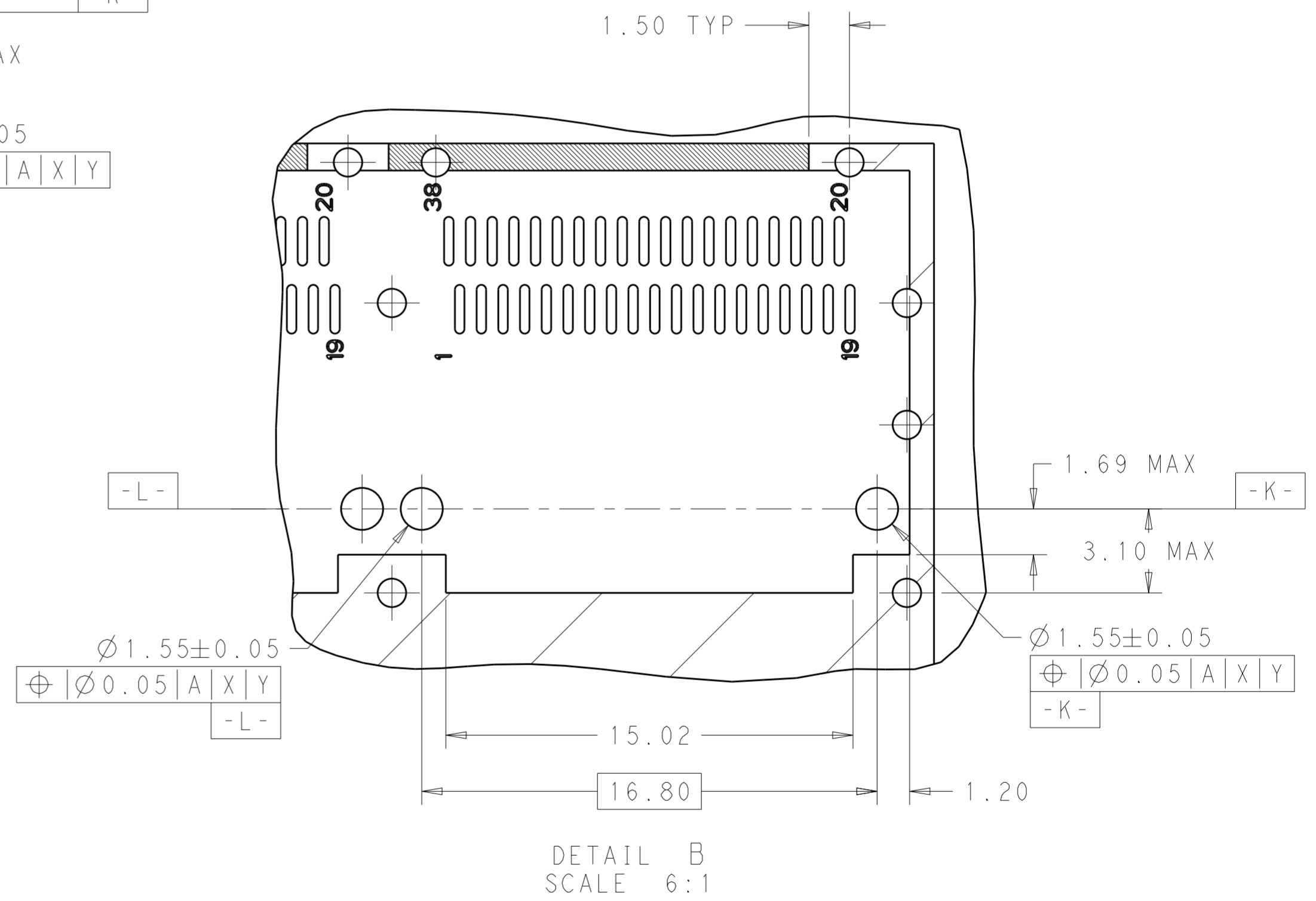
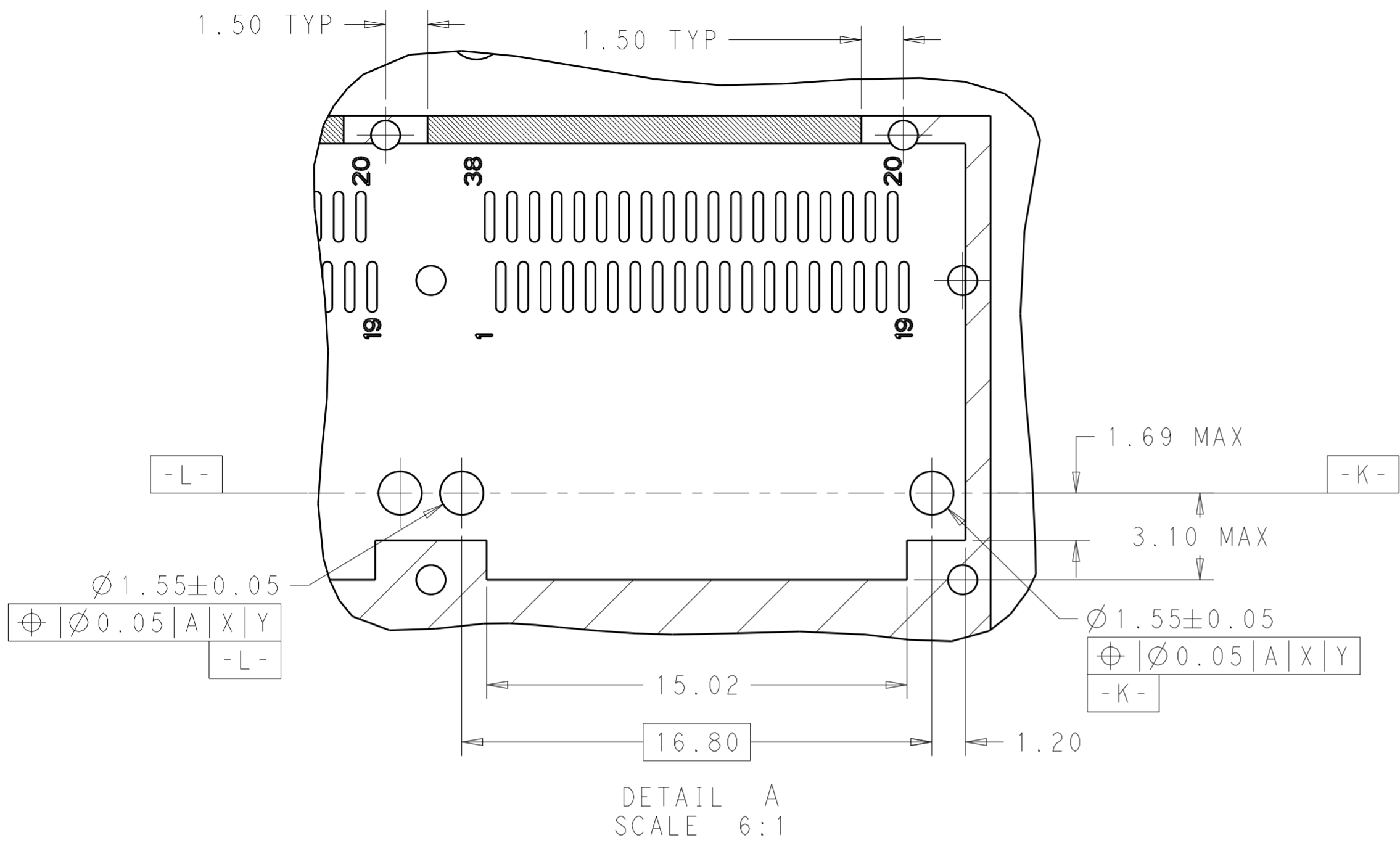
2 29X Ø1.05±0.05
 COMPLIANT PIN HOLES
 Ø0.1M | A | K | L | S

RECOMMENDED PCB LAYOUT
 BELLY TO BELLY TYPE
 PCB TOLERANCE: ±0.05
 SCALE 3:1

| | | | | |
|---|--|--------------------------------|--|--|
| THIS DRAWING IS A CONTROLLED DOCUMENT. | | DWN BING LIU 16SEP2014 | TE Connectivity | |
| | | CHK JASON YANG 16SEP2014 | | |
| DIMENSIONS: mm | | APVD - | NAME RECEPTACLE CAGE ASSEMBLY 1X2, QSFP28, THRU BEZEL, SPRING WITH HEAT SINKS AND LIGHT PIPES | |
| | | PRODUCT SPEC 108-19428 | SIZE A200779 | |
| TOLERANCES UNLESS OTHERWISE SPECIFIED: 0 PLC ±- 1 PLC ±0.25 2 PLC ±0.2 3 PLC ±- 4 PLC ±- ANGLES ±- FINISH ±- | | APPLICATION SPEC 114-32023 | DRAWING NO C-2170808 | |
| MATERIAL SEE NOTES | | WEIGHT - | RESTRICTED TO - | |
| | | CUSTOMER DRAWING | SCALE 1:1 SHEET 7 OF 9 REV A | |

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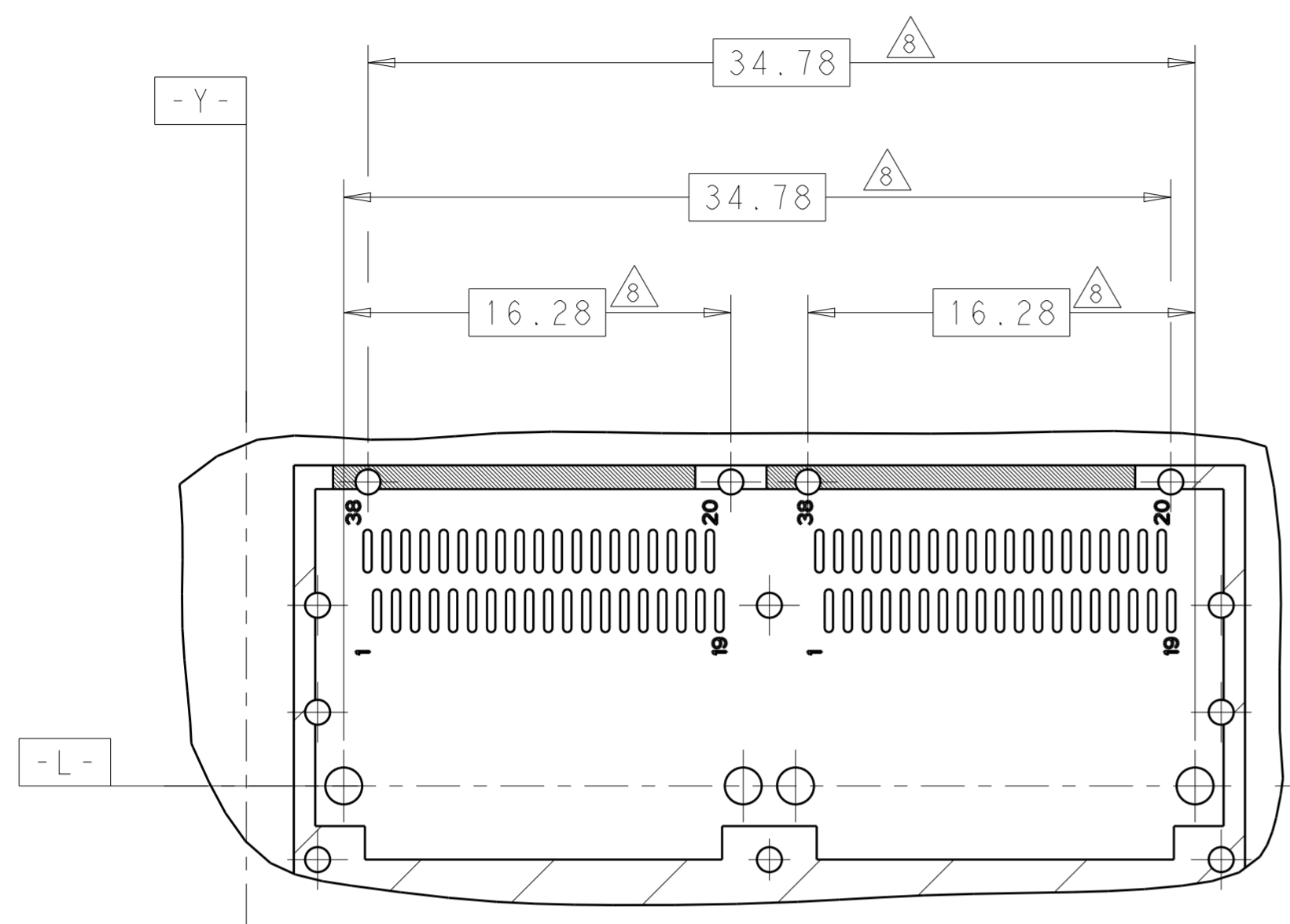
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| P | LTR | DESCRIPTION | DATE | APVD |
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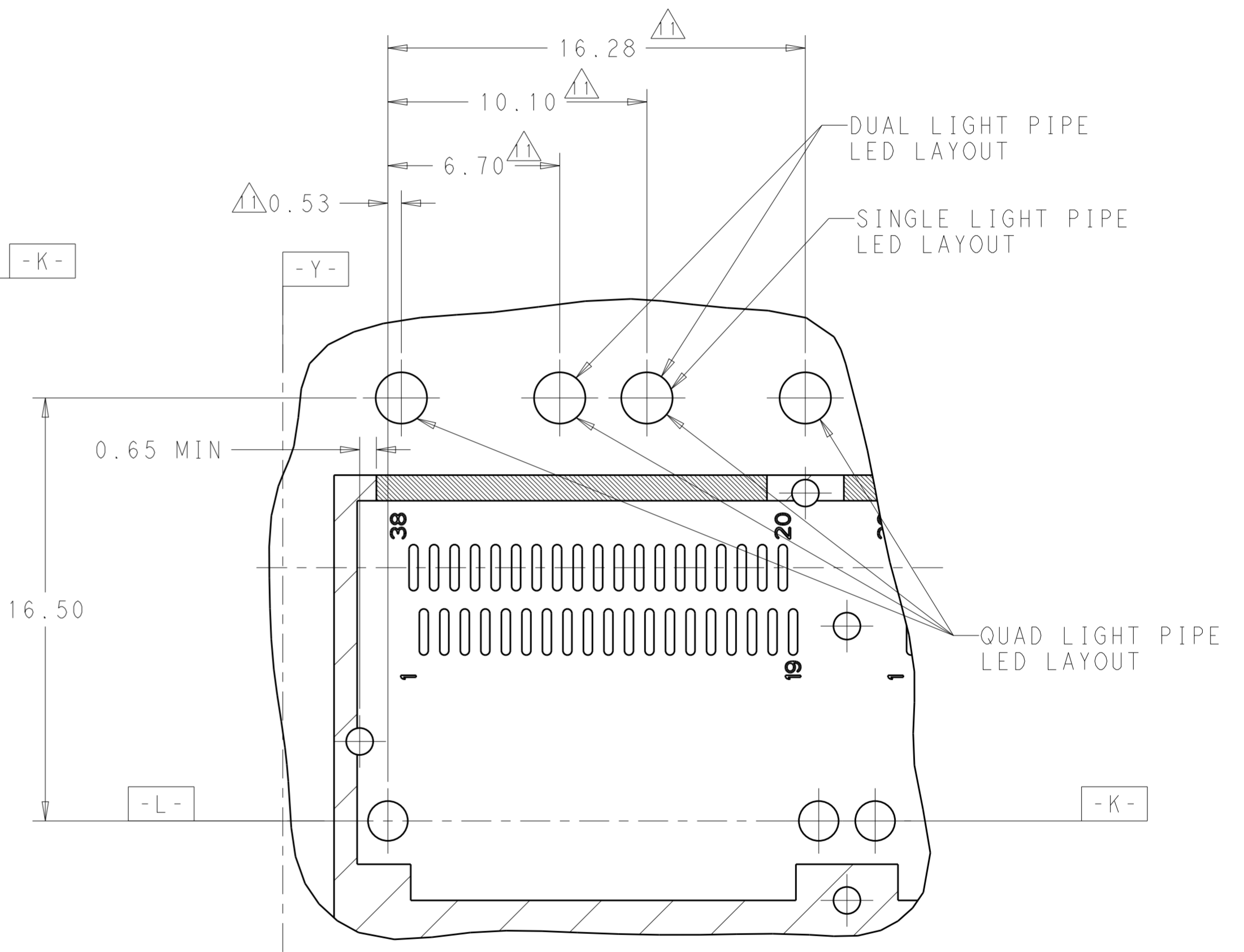
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| THIS DRAWING IS A CONTROLLED DOCUMENT. | | DWN BING LIU 16SEP2014 | STE TE Connectivity |
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| DIMENSIONS: mm | TOLERANCES UNLESS OTHERWISE SPECIFIED: | APVD - | NAME RECEPTACLE CAGE ASSEMBLY 1X2, QSFP28, THRU BEZEL, SPRING WITH HEAT SINKS AND LIGHT PIPES |
| 0 PLC ± | 1 PLC ±0.25 | PRODUCT SPEC 108-19428 | SIZE A200779 |
| 2 PLC ±0.2 | 3 PLC ± | APPLICATION SPEC 114-32023 | CAGE CODE C-2170808 |
| 4 PLC ± | ANGLES ± | WEIGHT - | DRAWING NO - |
| MATERIAL SEE NOTES | FINISH SEE NOTES | CUSTOMER DRAWING | RESTRICTED TO - |
| | | SCALE 1:1 | SHEET 8 OF 9 |
| | | REV A | |

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| P | LTR | DESCRIPTION | DATE | APVD |
| - | - | SEE SHEET 1 | - | - |
| | | | | |
| | | | | |



DETAIL D
SCALE 4:1



DETAIL E
SCALE 6:1

| | | | |
|--|--|--------------------------------|--|
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| | | CHK JASON YANG 16SEP2014 | |
| DIMENSIONS: mm | TOLERANCES UNLESS OTHERWISE SPECIFIED: | APVD - | NAME RECEPTACLE CAGE ASSEMBLY 1X2, QSFP28, THRU BEZEL, SPRING WITH HEAT SINKS AND LIGHT PIPES |
| 0 PLC ± | 1 PLC ±0.25 | PRODUCT SPEC 108-19428 | SIZE A200779 |
| 2 PLC ±0.2 | 3 PLC ± | APPLICATION SPEC 114-32023 | CAGE CODE C-2170808 |
| 4 PLC ± | ANGLES ± | WEIGHT - | DRAWING NO - |
| MATERIAL SEE NOTES | FINISH SEE NOTES | CUSTOMER DRAWING | RESTRICTED TO - |
| | | SCALE 1:1 | SHEET 9 OF 9 |
| | | REV A | |