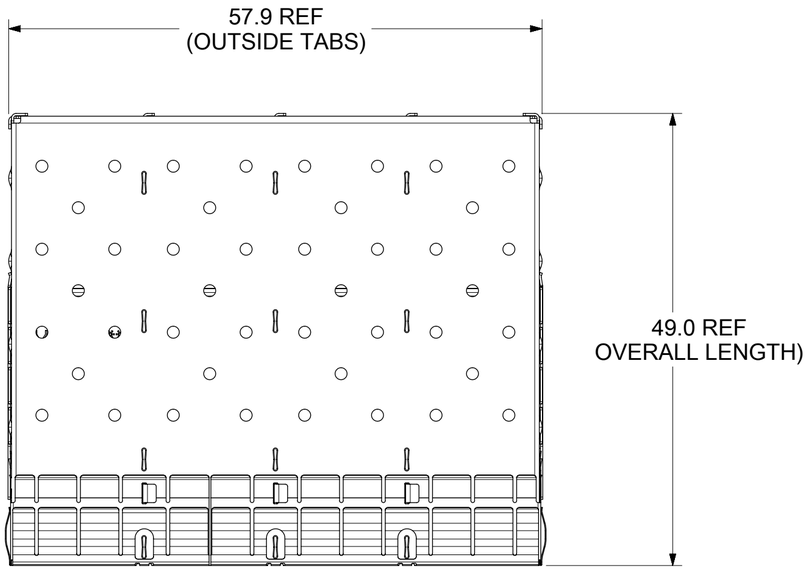
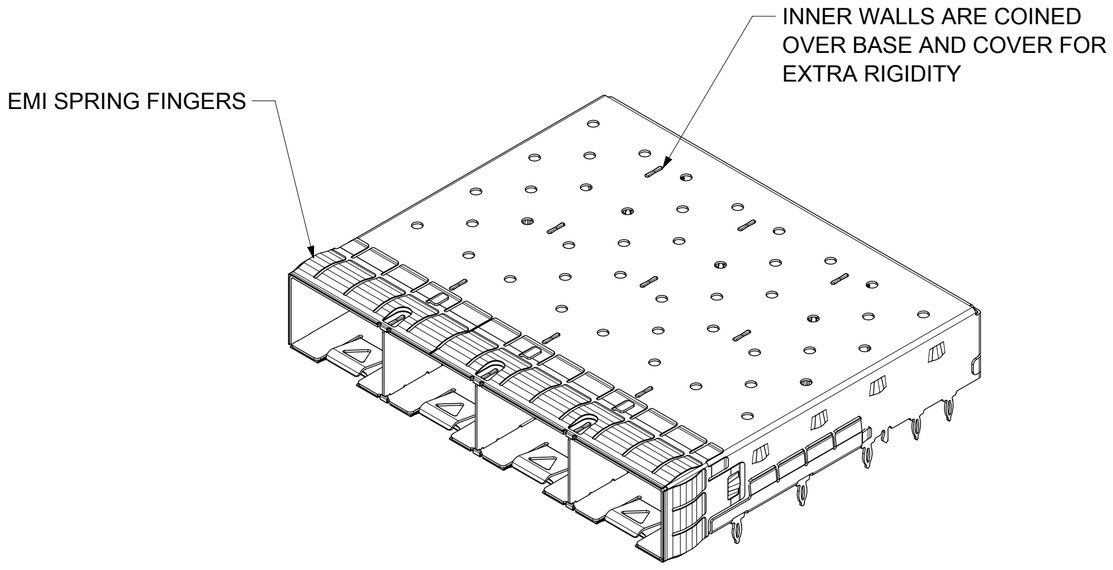
# BASE CAGE DETAILS

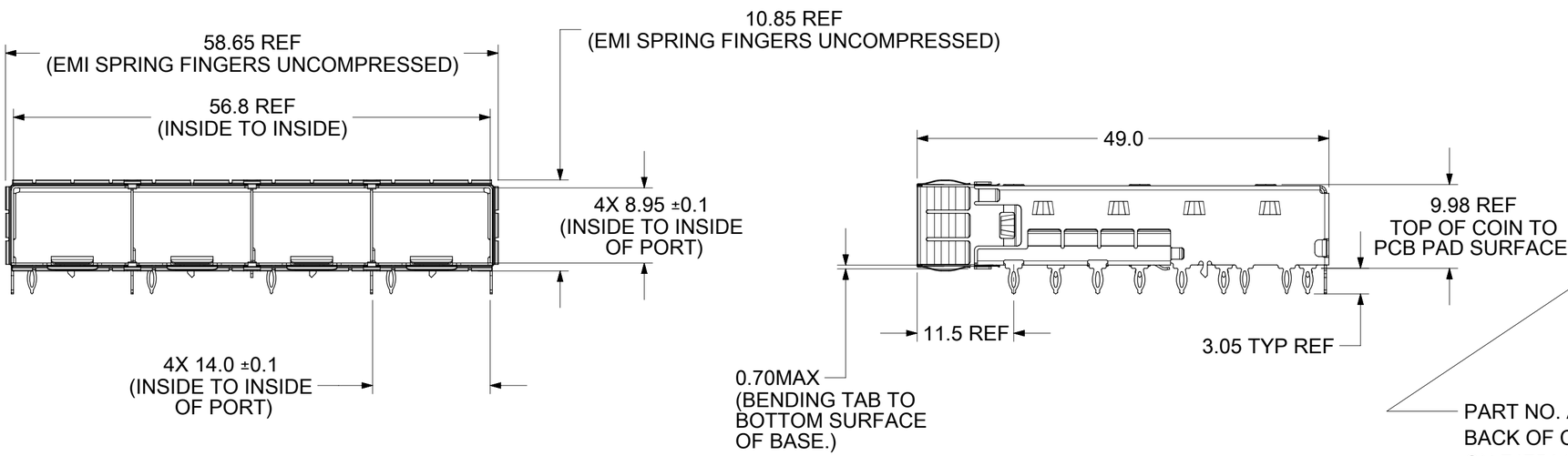
(APPLIES TO ALL CAGES IN THIS DRAWING)

747548420

SHOWN




NOTES:

1. MATERIAL:
   CAGE: 0.25mm THICK COPPER ALLOY, NICKEL PLATED.
   SPRING FINGERS: STAINLESS STEEL
   HEATSINK: ALUMINUM, NICKEL PLATED.
   HEATSINK SPRING CLIP: STAINLESS STEEL.
2. PRESS FIT LEGS 3.05mm LONG:
3. PORTS ARE DESIGNED FOR SFP+ TRANSCEIVERS AND ARE COMPATIBLE WITH SFP TRANSCEIVERS.
   THE TOP SURFACE OF THE MODULE MUST BE FLAT (NO PRODUCT LABEL RECESS)
   AND THERMALLY CONDUCTIVE TO FUNCTION OPTIMALLY.
4. WELD SPOT MAY SHOW SLIGHT MATERIAL DISCOLORATION.
5. NO RoHS EXEMPTIONS.
6. CUSTOM HEATSINKS AVAILABLE UPON REQUEST.

| | WEEK/YEAR DATE CODE TABLE |
|---|---|
| WW | 01 THRU 52 OR 53 EXAMPLE: 01 = FIRST WEEK OF YEAR 52 = LAST WEEK OF YEAR |
| YY | 22, 23, 24,,, ETC. EXAMPLE: YEAR 2022 = 22 |

| | | | |
|---|---|---|---|
| DOCUMENT STATUS | P1 | RELEASE DATE | 2022/05/19 07:40:31 |

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FUNCTIONAL SYMBOLS: FA = 0; FC = 0; FD = 0

DIVISIONAL SYMBOLS

DIMENSION UNITS: mm | SCALE: 2:1

GENERAL TOLERANCES (UNLESS SPECIFIED)

| | |
|---|---|
| ANGULAR TOL | ± 1.0 ° |
| 4 PLACES | ± |
| 3 PLACES | ± |
| 2 PLACES | ± 0.15 |
| 1 PLACE | ± 0.25 |
| 0 PLACES | ± |

DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS

CURRENT REV DESC: SEE REVISION TABLE

EC NO: 706897

| | | |
|---|---|---|
| DRWN: | ABHILT2 | 2022/05/04 |
| CHK'D: | TKUMARKC | 2022/05/16 |
| APPR: | SCHIEN | 2022/05/19 |

INITIAL REVISION:

| | | |
|---|---|---|
| DRWN: | ABHILT2 | 2022/05/04 |
| APPR: | SCHIEN | 2022/05/19 |

molex

SFP+ 1X4 SF CAGE ASSY'S PRESS FIT,
HEAT SINKS, WITH SUS EMI SPRING FINGERS

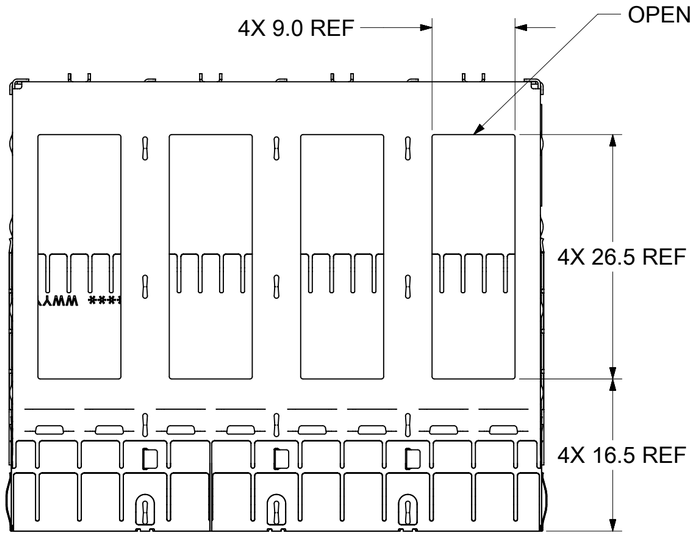
PRODUCT CUSTOMER DRAWING

| DOCUMENT NUMBER | DOC TYPE | DOC PART | REVISION |
|---|---|---|---|
| 1111128320 | PSD | ASY | A |

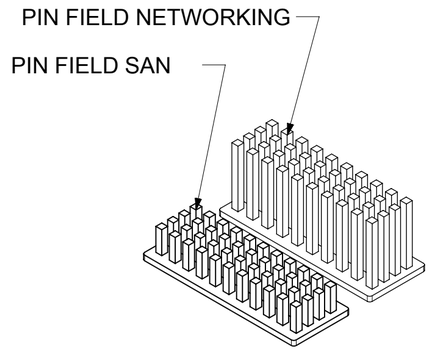
| THIRD ANGLE PROJECTION | DRAWING | SERIES | MATERIAL NUMBER | CUSTOMER | SHEET NUMBER |
|---|---|---|---|---|---|
| | C-SIZE | 111112 | SEE SHEET 3 | | 1 OF 7 |

FORMAT: master-tb-prod-C
REVISION: J1
DATE: 2021/05/01

# CAGE ASSEMBLY OPTIONS




HEATSINK OPTIONS

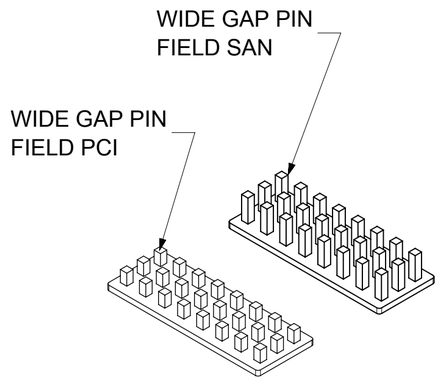



OVERALL HEATSINK HEIGHT

| APPLICATION | DIM 'A' |
|---|---|
| SAN | 16.6 |
| NETWORKING | 23.6 |

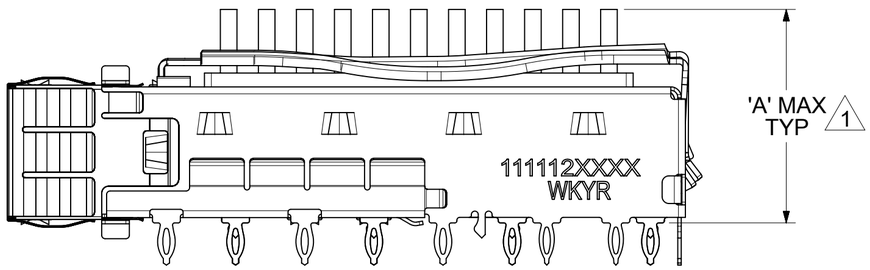
NOTE: PCI-13ROWS
SAN-11ROWS
NETWORKING-10ROWS

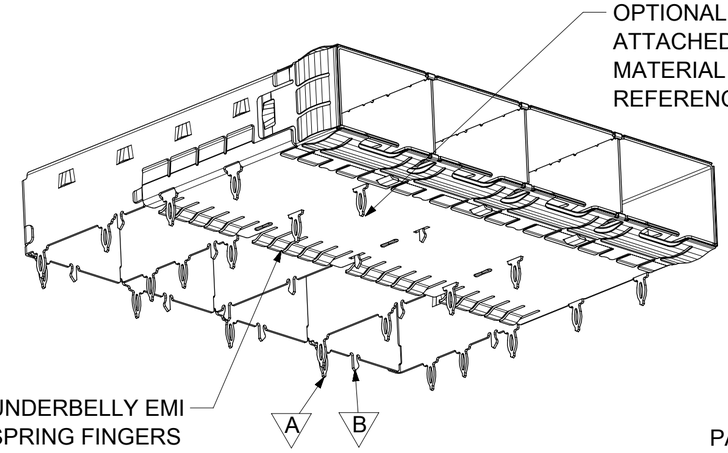
HEATSINK OPTIONS

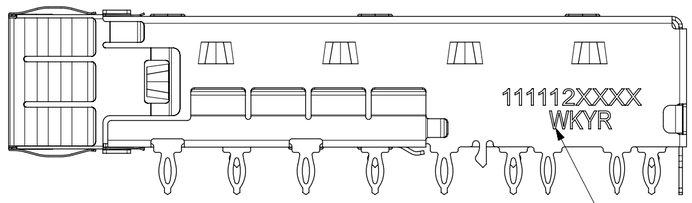



OVERALL HEATSINK HEIGHT

| APPLICATION | DIM 'A' |
|---|---|
| PCI | 14.3 |
| SAN | 16.6 |




PART NO. AND WEEK/YEAR DATE CODE TO BE PRINTED ON THE SIDE OF COMPLETED CAGE ASSEMBLY APPROXIMATELY AS SHOWN FOR 111112 SERIES CAGE ASSEMBLIES.

NOTES:
1. HEIGHT OF HEATSINK WITH MODULE INSERTED.
DIMENSION MAY BE LESS DUE TO MODULE AND HEATSINK VARIATIONS.

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DIVISIONAL SYMBOLS

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DIMENSION UNITS: mm
SCALE: 2:1

GENERAL TOLERANCES (UNLESS SPECIFIED)

| | |
|---|---|
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| 4 PLACES | ± |
| 3 PLACES | ± |
| 2 PLACES | ± 0.15 |
| 1 PLACE | ± 0.25 |
| 0 PLACES | ± |

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APPR: SCHIEN 2022/05/19

INITIAL REVISION:
DRWN: ABHILT2 2022/05/04
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molex

SFP+ 1X4 SF CAGE ASSY'S PRESS FIT, HEAT SINKS, WITH SUS EMI SPRING FINGERS

PRODUCT CUSTOMER DRAWING

| DOCUMENT NUMBER | DOC TYPE | DOC PART | REVISION |
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| 1111128320 | PSD | ASY | A |

| THIRD ANGLE PROJECTION | DRAWING | SERIES | MATERIAL NUMBER | CUSTOMER | SHEET NUMBER |
|---|---|---|---|---|---|
| | C-SIZE | 111112 | SEE SHEET 3 | | 2 OF 7 |

| DOCUMENT STATUS | P1 | RELEASE DATE | 2022/05/19 07:40:31 |
|---|---|---|---|

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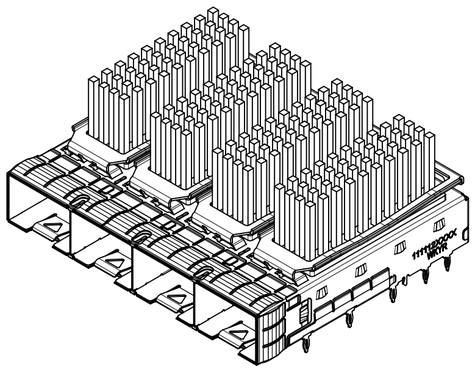
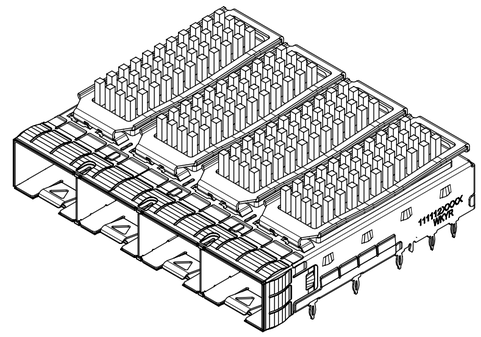
DATE: 2021/05/01

# PART NUMBER SELECTION



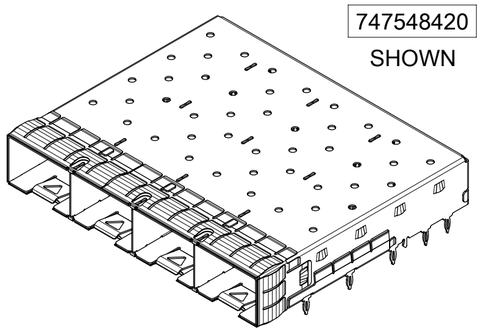
| SFP+ PIN FIELD HEATSINK OPTION | | | |
|---|---|---|---|
| PART NO. | POLYIMIDE INSULATOR | HEAT SINK | # OF REAR LEGS PER PORT |
| 1111128320 | --- | SAN | 1A, 1B |
| 1111123820 | --- | NET | 1A, 1B |
| 1111124860 | YES | NET | 1A, 1B |

NOTE: PCI-13ROWS
SAN-11ROWS
NET-10ROWS



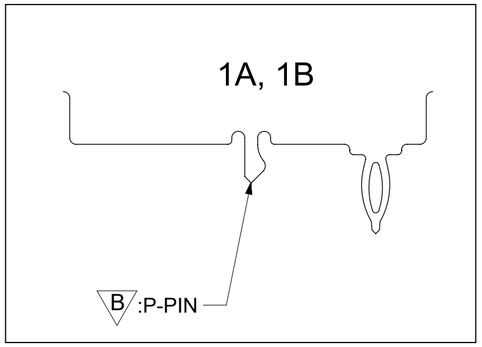
| SFP+ WIDE GAP PIN FIELD HEATSINK OPTION | | | |
|---|---|---|---|
| PART NO. | POLYIMIDE INSULATOR | HEAT SINK | # OF REAR LEGS PER PORT |
| 1111121820 | --- | PCI | 1A, 1B |
| 1111129421 | --- | CUSTOM | 1A, 1B |

747548420
SHOWN



| SFP+ OPEN TOP BASE CAGE FOR HEATSINK | | | | |
|---|---|---|---|---|
| PART NO. | POLYIMIDE INSULATOR | WELD POINT QUANTITY | # OF REAR LEGS PER PORT | PLATING |
| 747548420 | --- | 6 | 1A, 1B | ----- |
| 747548427 | YES<br><br>(15mm MAX PITCH BETWEEN ANY 2 WELD POINTS) | 6 | 1A, 1B | ----- |

# REAR LEG OPTIONS
(PER PORT)

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FUNCTIONAL SYMBOLS
FA = 0
FC = 0
FB = 0

DIVISIONAL SYMBOLS

DIMENSION UNITS: mm
SCALE: 4:3

GENERAL TOLERANCES (UNLESS SPECIFIED)

| | |
|---|---|
| ANGULAR TOL | ± 1.0 ° |
| 4 PLACES | ± |
| 3 PLACES | ± |
| 2 PLACES | ± 0.15 |
| 1 PLACE | ± 0.25 |
| 0 PLACES | ± |

DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS

CURRENT REV DESC: SEE REVISION TABLE

EC NO: 706897
DRWN: ABHILT2 2022/05/04
CHK'D: TKUMARKC 2022/05/16
APPR: SCHIEN 2022/05/19

INITIAL REVISION:
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APPR: SCHIEN 2022/05/19

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SFP+ 1X4 SF CAGE ASSY'S PRESS FIT, HEAT SINKS, WITH SUS EMI SPRING FINGERS

PRODUCT CUSTOMER DRAWING

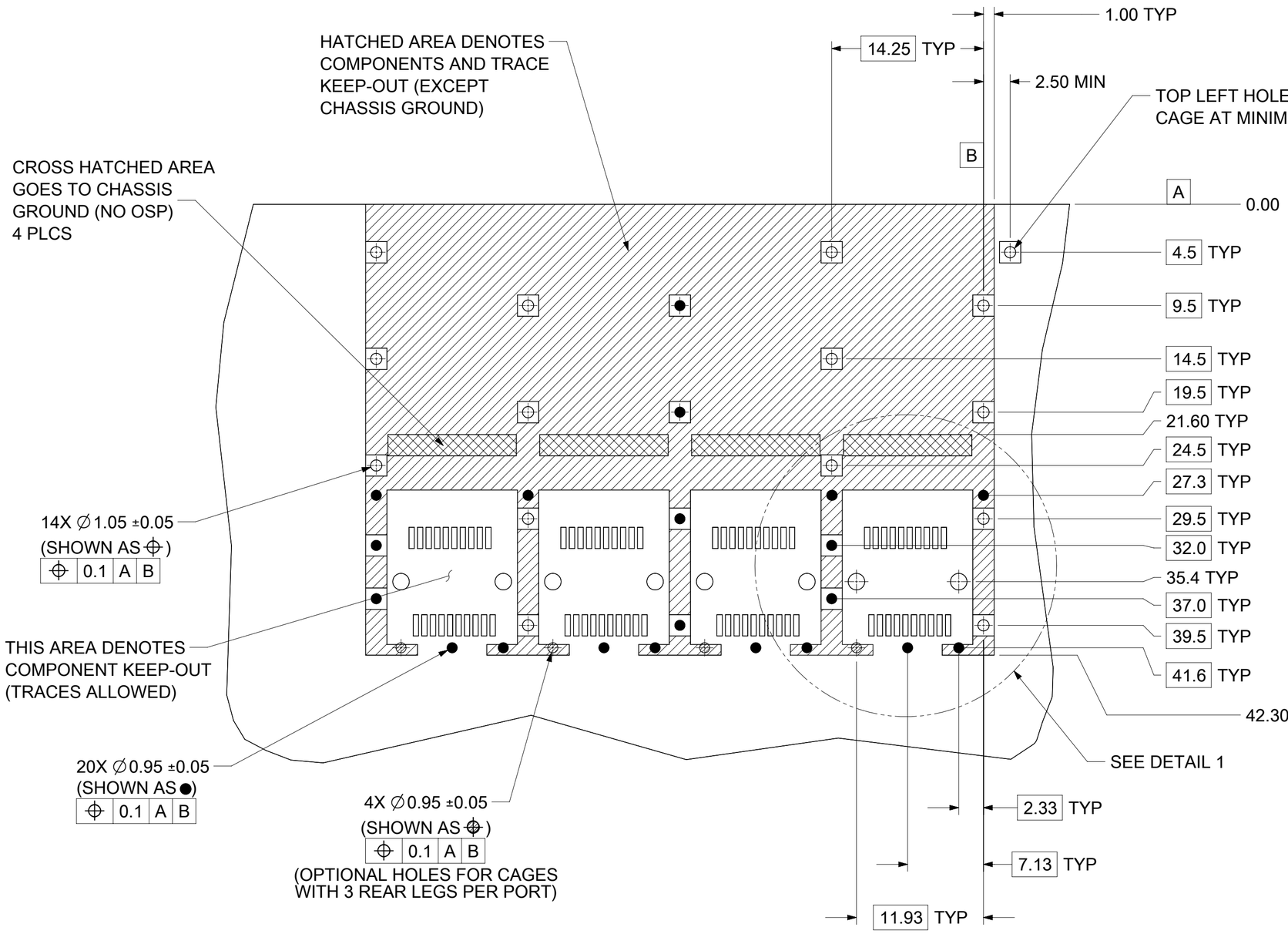
| DOCUMENT NUMBER | DOC TYPE | DOC PART | REVISION |
|---|---|---|---|
| 1111128320 | PSD | ASY | A |

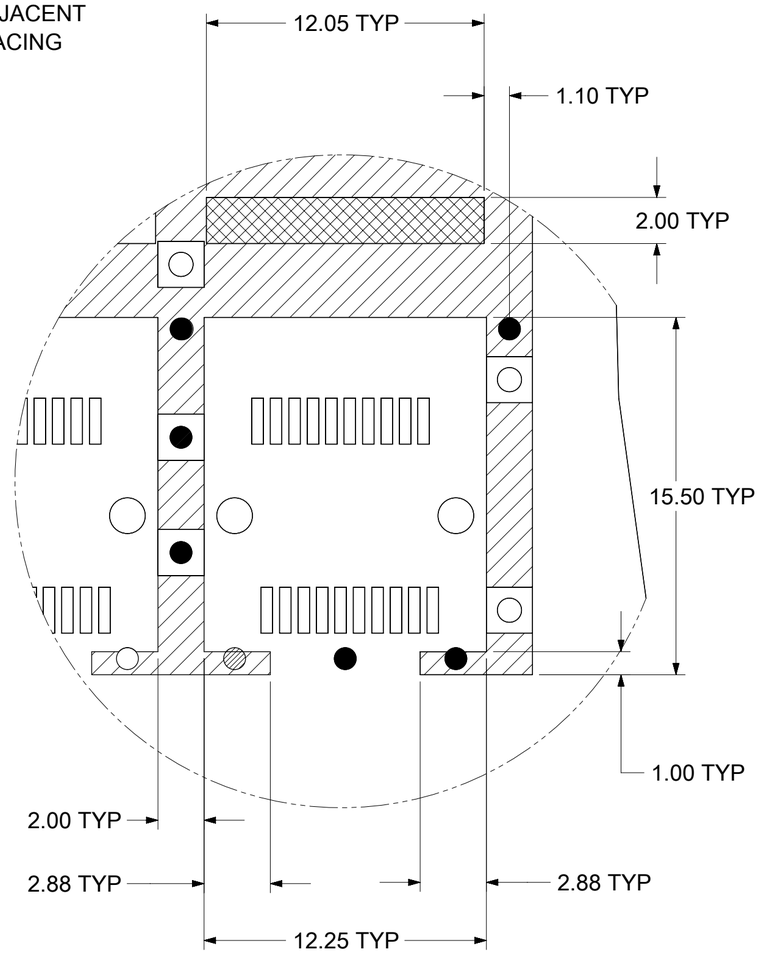
THIRD ANGLE PROJECTION | DRAWING: C-SIZE | SERIES: 111112 | MATERIAL NUMBER: SEE SHEET 3 | CUSTOMER | SHEET NUMBER: 3 OF 7

| DOCUMENT STATUS | P1 | RELEASE DATE | 2022/05/19 07:40:31 |
|---|---|---|---|

FORMAT: master-tb-prod-C
REVISION: J1
DATE: 2021/05/01

# PCB LAYOUT FOR SINGLE SIDE MOUNT




DETAIL 1
SCALE 8:1

NOTES:
1. PADS AND VIAS CONNECT 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 SFP+ MSA WILL ACCOMMODATE MOLEX CONNECTOR SERIES 74441 OR EQUIVALENT
4. HOLE PATTERN REPEATS FOR EACH PORT, SPACING BETWEEN PORTS IS 14.25mm
5. MINIMUM PCB THICKNESS FOR SINGLE SIDED USE 1.57mm.

| DOCUMENT STATUS | P1 | RELEASE DATE | 2022/05/19 07:40:31 |
|---|---|---|---|

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FUNCTIONAL SYMBOLS: FA = 0; FC = 0; FP = 0

DIVISIONAL SYMBOLS

| DIMENSION UNITS | SCALE |
|---|---|
| mm | 3:1 |

GENERAL TOLERANCES (UNLESS SPECIFIED)

| | | |
|---|---|---|
| ANGULAR TOL | ± | 1.0 ° |
| 4 PLACES | ± | |
| 3 PLACES | ± | |
| 2 PLACES | ± | 0.15 |
| 1 PLACE | ± | 0.25 |
| 0 PLACES | ± | |

DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS

CURRENT REV DESC: SEE REVISION TABLE

EC NO: 706897
DRWN: ABHILT2 2022/05/04
CHK'D: TKUMARKC 2022/05/16
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INITIAL REVISION:
DRWN: ABHILT2 2022/05/04
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molex

SFP+ 1X4 SF CAGE ASSY'S PRESS FIT, HEAT SINKS, WITH SUS EMI SPRING FINGERS

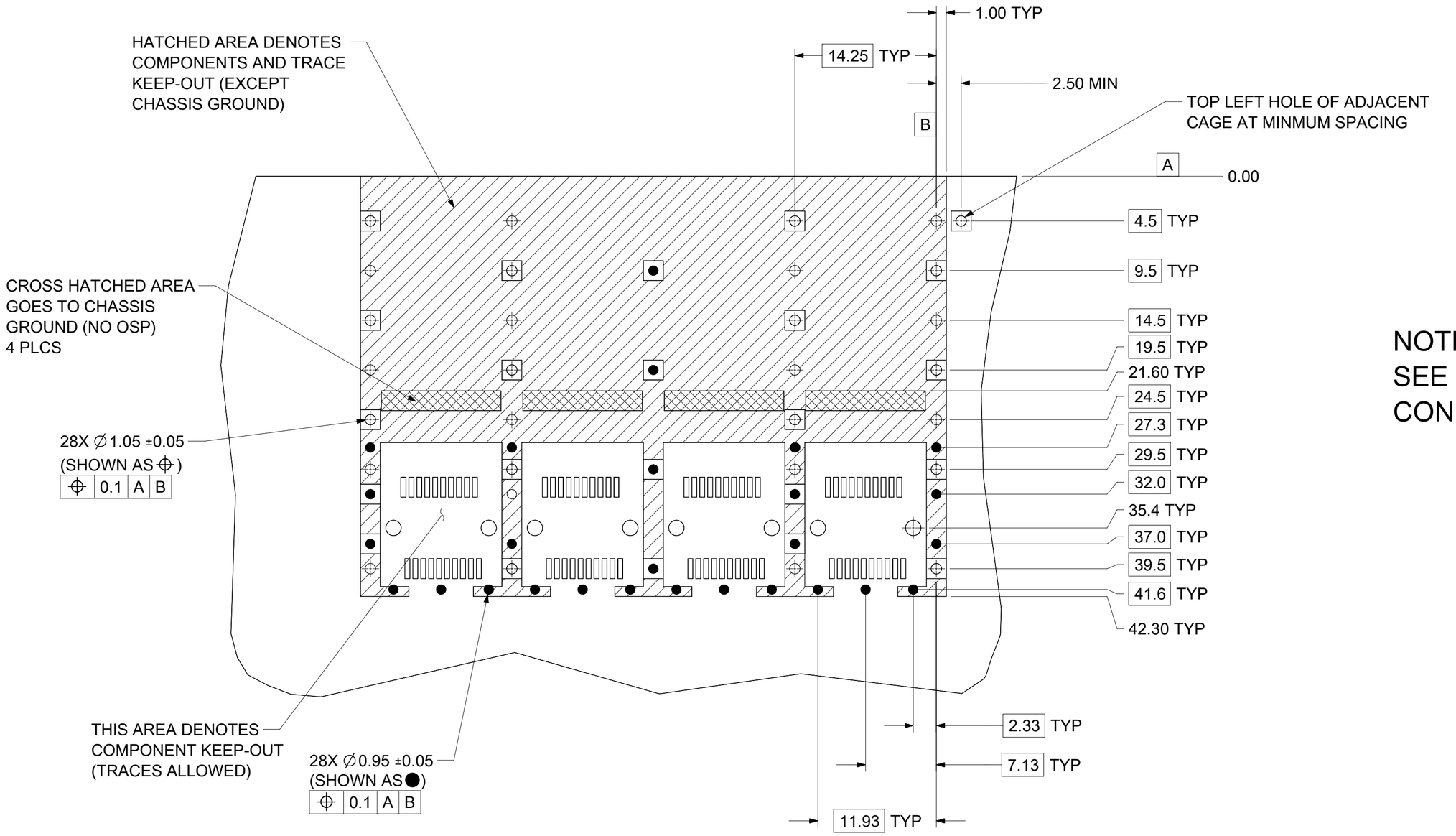
PRODUCT CUSTOMER DRAWING

| DOCUMENT NUMBER | DOC TYPE | DOC PART | REVISION |
|---|---|---|---|
| 1111128320 | PSD | ASY | A |

| THIRD ANGLE PROJECTION | DRAWING | SERIES | MATERIAL NUMBER | CUSTOMER | SHEET NUMBER |
|---|---|---|---|---|---|
| | C-SIZE | 111112 | SEE SHEET 3 | | 4 OF 7 |

FORMAT: master-tb-prod-C
REVISION: J1
DATE: 2021/05/01

# PCB LAYOUT FOR BELLY TO BELLY MOUNTING




NOTE:
SEE SHEET 4 FOR HOST CONNECTOR DETAIL

NOTES:
1. PADS AND VIAS CONNECT 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 SFP+ MSA WILL ACCOMMODATE MOLEX CONNECTOR SERIES 74441 OR EQUIVALENT
4. HOLE PATTERN REPEATS FOR EACH PORT, SPACING BETWEEN PORTS IS 14.25mm
5. MINIMUM PCB THICKNESS FOR BELLY TO BELLY USE 3.00mm.

| DOCUMENT STATUS | P1 | RELEASE DATE | 2022/05/19 07:40:31 |
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FUNCTIONAL SYMBOLS
FA = 0
FC = 0
FP = 0
DIVISIONAL SYMBOLS

DIMENSION UNITS: mm
SCALE: 3:1

GENERAL TOLERANCES (UNLESS SPECIFIED)

| | | |
|---|---|---|
| ANGULAR TOL | ± | 1.0 ° |
| 4 PLACES | ± | |
| 3 PLACES | ± | |
| 2 PLACES | ± | 0.15 |
| 1 PLACE | ± | 0.25 |
| 0 PLACES | ± | |

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INITIAL REVISION:
DRWN: ABHILT2 2022/05/04
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THIRD ANGLE PROJECTION | DRAWING: C-SIZE | SERIES: 111112

molex

SFP+ 1X4 SF CAGE ASSY'S PRESS FIT, HEAT SINKS, WITH SUS EMI SPRING FINGERS

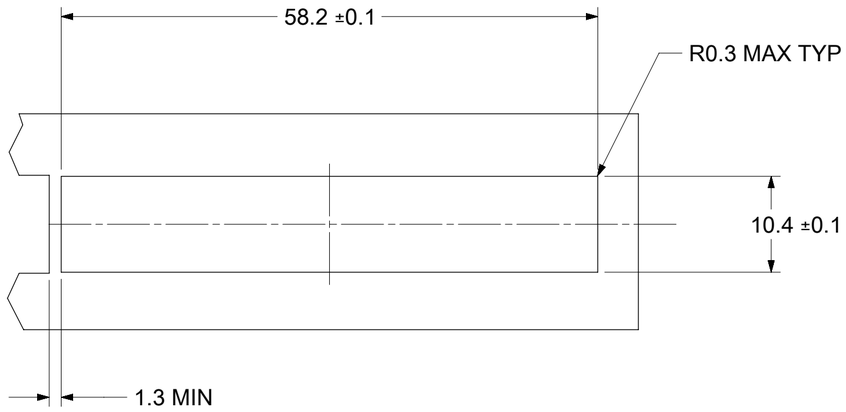
PRODUCT CUSTOMER DRAWING

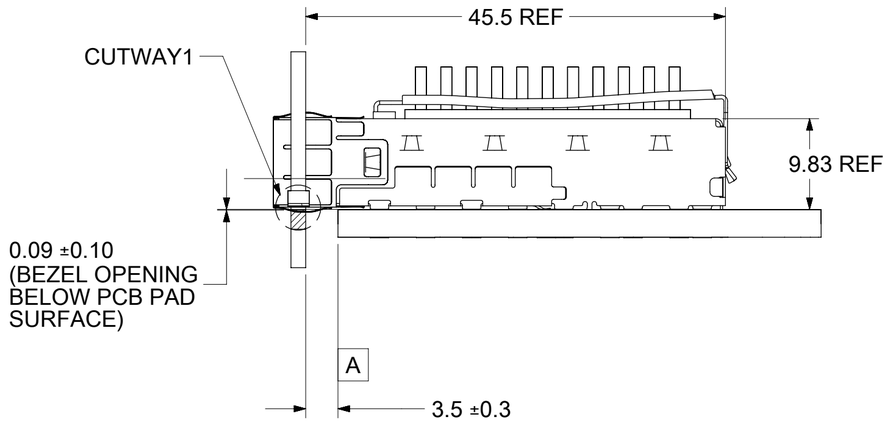
| DOCUMENT NUMBER | DOC TYPE | DOC PART | REVISION |
|---|---|---|---|
| 1111128320 | PSD | ASY | A |

| MATERIAL NUMBER | CUSTOMER | SHEET NUMBER |
|---|---|---|
| SEE SHEET 3 | | 5 OF 7 |

FORMAT: master-tb-prod-C
REVISION: J1
DATE: 2021/05/01

# BEZEL AND BOARD POSITION DIMENSIONS FOR SINGLE SIDE MOUNTING (SPRING FINGER)

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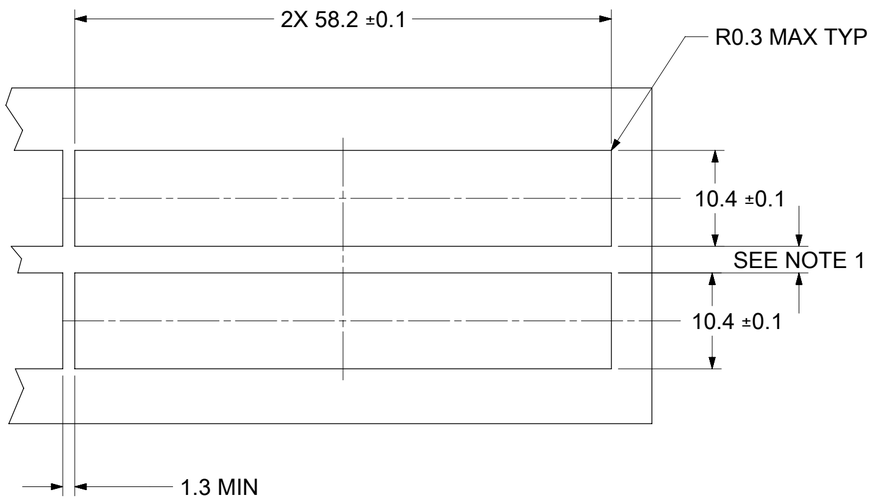


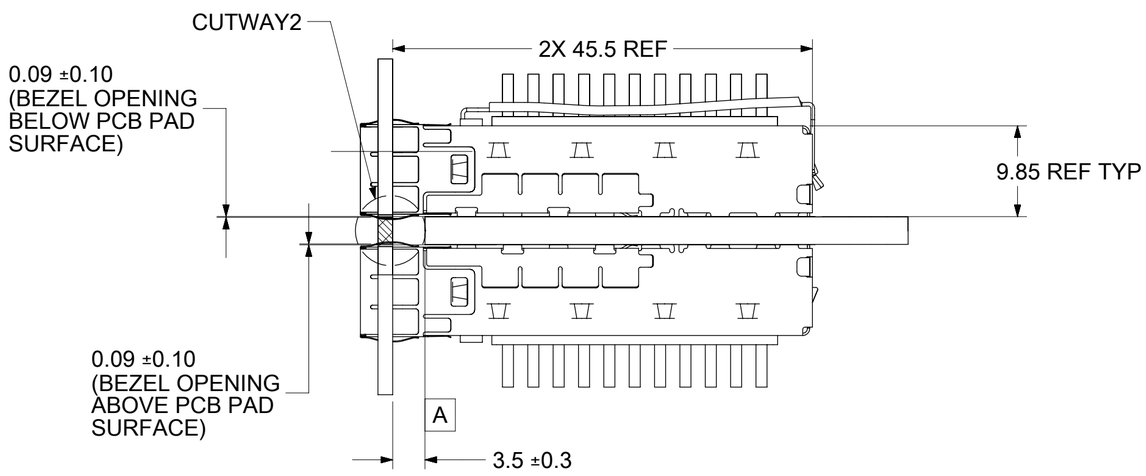


NOTE:
1. PCB THICKNESS VARIATION MUST BE CONSIDERED WHEN DETERMINING BEZEL OPENING LOCATION.
2. CAGE LEG STANDOFF WILL PIERCE BELLY GASKET WHEN PROPERLY PRESSED INTO PCB.

| | | | |
|---|---|---|---|
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THIRD ANGLE PROJECTION | DRAWING: C-SIZE | SERIES: 111112

molex

SFP+ 1X4 SF CAGE ASSY'S PRESS FIT, HEAT SINKS, WITH SUS EMI SPRING FINGERS

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| MATERIAL NUMBER | CUSTOMER | SHEET NUMBER |
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| SEE SHEET 3 | | 6 OF 7 |

FORMAT: master-tb-prod-C
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| REV | DATE | DESCRIPTION |
|---|---|---|
| A | 2022/05/04 | INITIAL RELEASE |
| | | |
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| | | | |
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DRAWING: C-SIZE
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molex

SFP+ 1X4 SF CAGE ASSY'S PRESS FIT, HEAT SINKS, WITH SUS EMI SPRING FINGERS

PRODUCT CUSTOMER DRAWING

| DOCUMENT NUMBER | DOC TYPE | DOC PART | REVISION |
|---|---|---|---|
| 1111128320 | PSD | ASY | A |

| MATERIAL NUMBER | CUSTOMER | SHEET NUMBER |
|---|---|---|
| SEE SHEET 3 | | 7 OF 7 |