



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



## Contact us

Tel: +86-755-8981 8866 Fax: +86-755-8427 6832

Email & Skype: info@chipsmall.com Web: www.chipsmall.com

Address: A1208, Overseas Decoration Building, #122 Zhenhua RD., Futian, Shenzhen, China



10114868 - X0J - X0XL F

4-COLUMN  
DIFFERENTIAL  
SIGNAL

LEAD-FREE DESIGNATION  
ONLY WITH APPLICABLE  
PLATING CODES

| LETTER | PERFORMANCE-BASED PLATING (SEE NOTE 2) |                |
|--------|--|----------------|
|        | TARGET APPLICATION                     | LEAD FREE (LF) |
| B      | TELCORDIA CO                           | NO             |
| C      | TELCORDIA UE                           | NO             |
| D      | TELCORDIA CO                           | YES            |
| E      | TELCORDIA UE                           | YES            |

| NUMBER | PIN STYLE, HEIGHT                   |
|--------|-------------------------------------|
| 0      | STANDARD GUIDE PIN MACHINED, 25.7mm |

| MODULE DESCRIPTION                             | LETTER DESIGNATION REPRESENTED IN DASH NUMBER |   |   |   |   |   |   |   |   |  | BASE MODULE |
|--|---|---|---|---|---|---|---|---|---|--|-------------|
|  | J   | A | B | C | D | E | F | G | H |  |             |
| LEFT POLARIZING GUIDANCE MODULE (SEE SHEET 3)  |   |   |   |   |   |   |   |   |   |  |             |
|  |   |   |   |   |   |   |   |   |   |  |             |
| RIGHT POLARIZING GUIDANCE MODULE (SEE SHEET 4) |   |   |   |   |   |   |   |   |   |  |             |
|  |   |   |   |   |   |   |   |   |   |  |             |
| OPEN MODULE (TWO WALL) (SEE SHEET 2)           | <b>0 (ZERO)</b>                               |   |   |   |   |   |   |   |   |  |             |
| LEFT WALL MODULE (SEE SHEET 5)                 | <b>L</b>                                      |   |   |   |   |   |   |   |   |  |             |
| RIGHT WALL MODULE (SEE SHEET 6)                | <b>M</b>                                      |   |   |   |   |   |   |   |   |  |             |
| FOUR WALL MODULE (SEE SHEET 7)                 | <b>1</b>                                      |   |   |   |   |   |   |   |   |  |             |

| NUMBER | CONTACT MATING WIPE LENGTH |             | COMPLIANT PIN DRILL SIZE |
|--------|----------------------------|-------------|--------------------------|
|        | SIGNAL                     | WIDE GROUND |                          |
| 1      | 2                          | 4           | Ø0.55 [0.0217"]          |
| 2      | 3                          | 4           | Ø0.55 [0.0217"]          |
| 3      | 2                          | 4           | Ø0.45 [0.0177"]          |
| 4      | 3                          | 4           | Ø0.45 [0.0177"]          |
| 5      | 2                          | 3           | Ø0.55 [0.0217"]          |
| 6      | 3                          | 3           | Ø0.55 [0.0217"]          |
| 7      | 2                          | 3           | Ø0.45 [0.0177"]          |
| 8      | 3                          | 3           | Ø0.45 [0.0177"]          |

|               | GROUNDED     | UNGROUNDED  |
|---------------|--------------|-------------|
| FINISHED      | Ø2.35-2.55   | Ø2.35-2.55  |
| PAD           | Ø5.50        | N/A         |
| PLATED        | YES          | NO          |
| DRILL (mm/in) | 2.58 / .1015 | 2.44 / .096 |

| SCREW P/N      | DESCRIPTION  | BOARD THICKNESS |
|----------------|--|-----------------|
| 10091790-002LF | #2-56 X .375" PHILLIPS PANHEAD W/SQ CONICAL WASHER | 1.60 - 5.00     |
| 10091790-003LF | #2-56 X .500" PHILLIPS PANHEAD W/SQ CONICAL WASHER | 5.00 - 10.00    |

|               |            |      |                |            |                |            |          |                |                        |              |
|---------------|------------|------|----------------|------------|----------------|------------|----------|----------------|------------------------|--------------|
| spec ref      | SEE NOTES  | dr   | Kok-Hoe Lee    | 2010/06/25 | projection     | MM         | size     | A2             | scale                  | 3:1          |
| tolerance std | ASME Y14.5 | eng  | Michael Song   | 2016/06/03 | chr            | Heaven Cen | ecn no   | ELX-DG-24191-1 | rel level              | Released     |
| surface       | linear     | appr | Pai-Ming Zheng | 2016/06/15 | product family |            | cat. no. | SEE P/N TREE   | Product - Customer Drw | sheet 1 of 8 |
| ASME Y14.5    | angular    | 0°   | ±°             |            |                |            |          |                |                        |              |

Amphenol FCI  
TOLERANCES UNLESS OTHERWISE SPECIFIED  
0.X ±0.2  
0.XX ±0.10  
0.XXX ±0.050

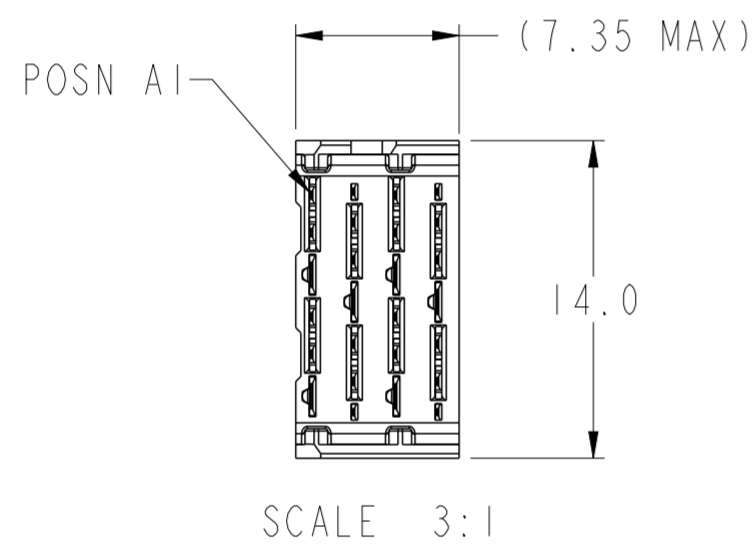
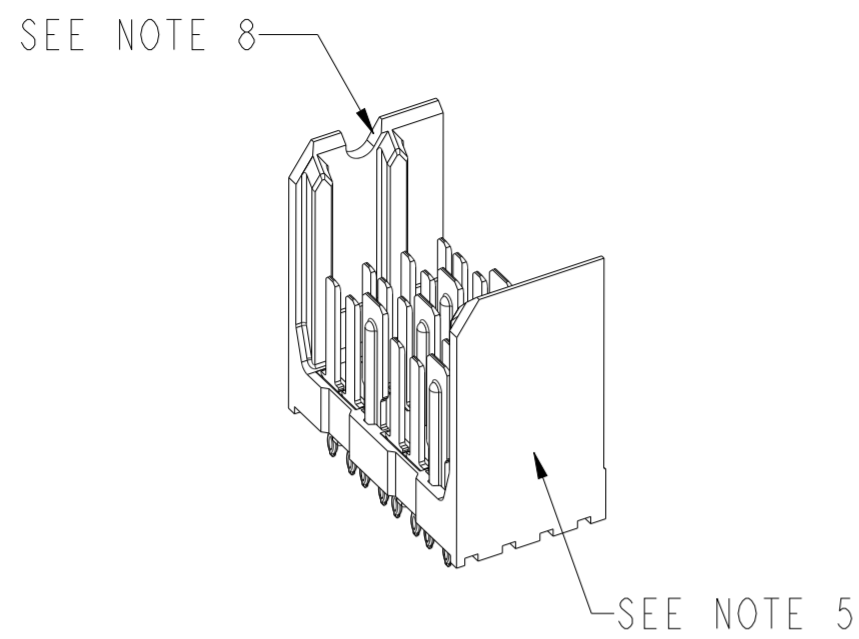
MODULE ASSEMBLY  
VERTICAL HEADER, 4-COLUMN, 2-PAIR

10114868  
F

Amphenol FCI

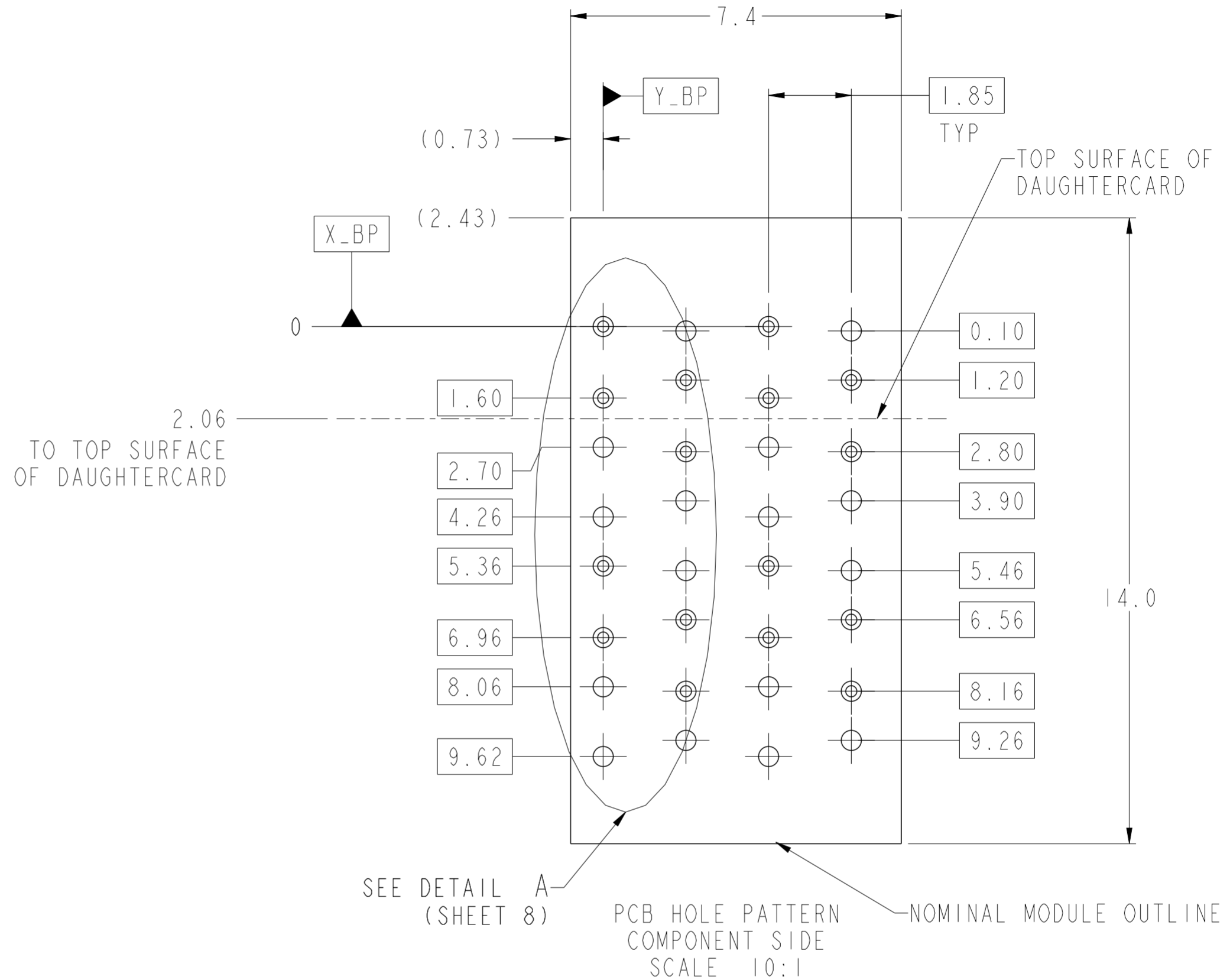
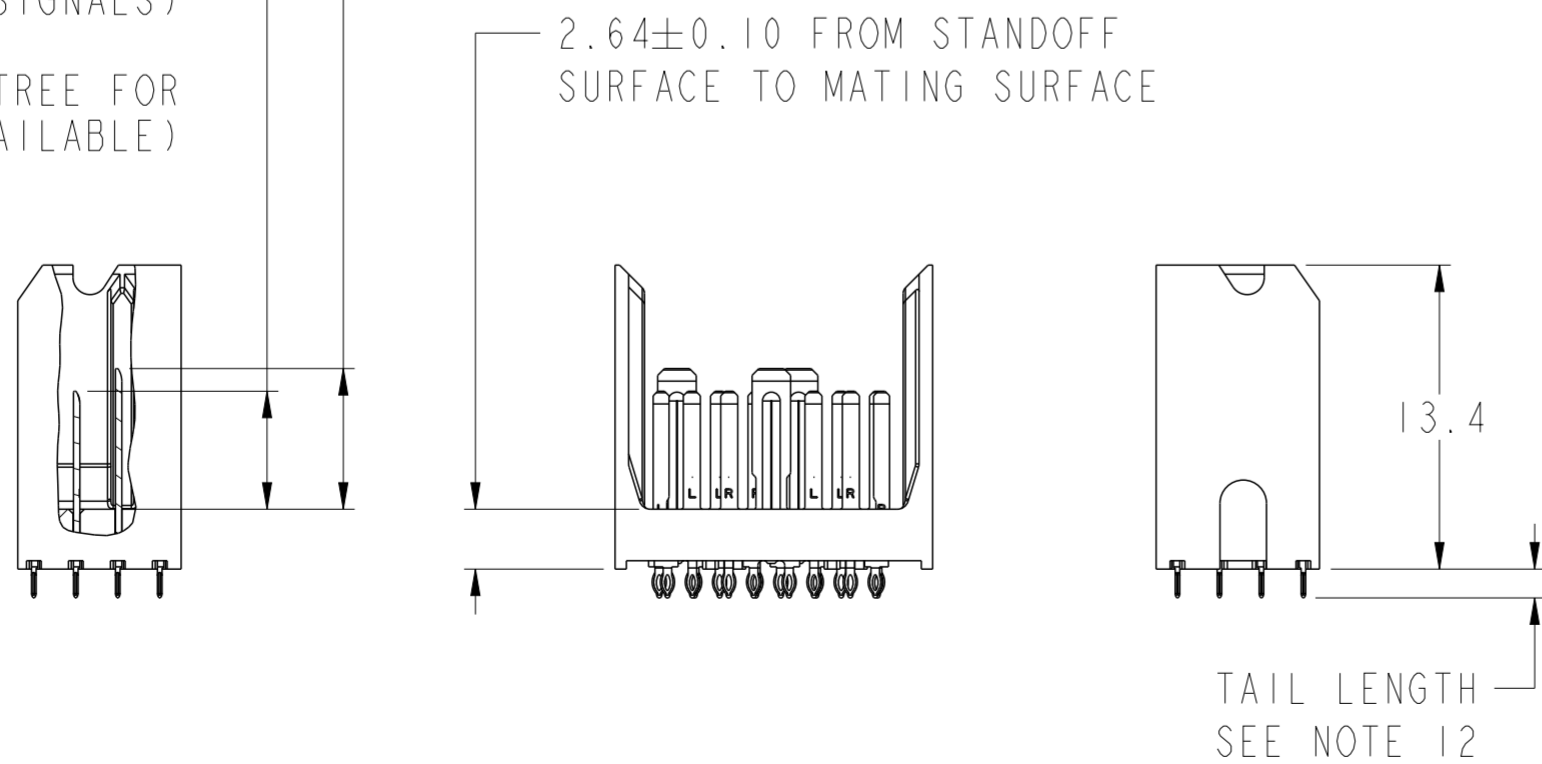
© 2016 AFCI

# OPEN (2-WALL) MODULE



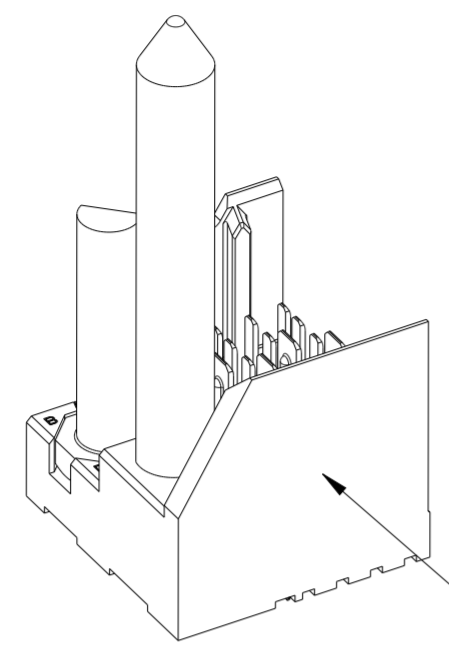
6.2 (4MM WIPE WIDE GROUNDS)  
 5.2 (3MM WIPE WIDE GROUNDS)  
 5.2 (3MM SMALL END GROUNDS)  
 5.2 (3MM WIPE SIGNALS)  
 4.2 (2MM WIPE SIGNALS)

(SEE P/N TREE FOR ALL COMBINATIONS AVAILABLE)

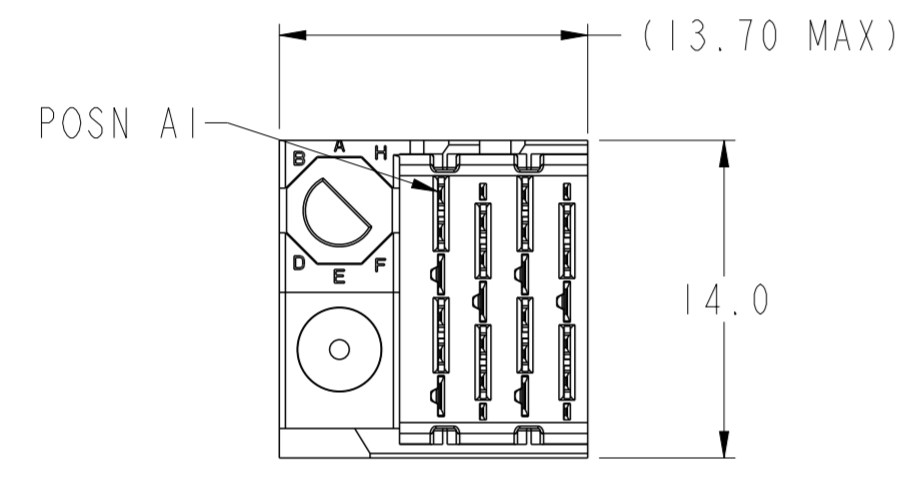


|               |                                       |      |                |                     |  |              |                        |                |                 |     |
|---------------|---------------------------------------|------|----------------|---------------------|--|--------------|------------------------|----------------|-----------------|-----|
| spec ref      | SEE NOTES                             | dr   | Kok-Hoe Lee    | 2010/06/25          | projection   | MM           | size                   | A2             | scale           | 3:1 |
| tolerance std | TOLERANCES UNLESS OTHERWISE SPECIFIED | eng  | Michael Song   | 2016/06/03          |  |              | ecn no                 | ELX-DG-24191-1 | rev<br><b>F</b> |     |
| ASME Y14.5    |                                       | chr  | Heaven Cen     | 2016/06/08          |  |              | rel level              | Released       |                 |     |
|               |                                       | appr | Pai-Ming Zheng | 2016/06/15          |  |              | product family         |                |                 |     |
| surface       | linear                                | 0.X  | ±0.2           | <b>Amphenol FCI</b> | MODULE ASSEMBLY<br>VERTICAL HEADER, 4-COLUMN, 2-PAIR |              | dwg no                 | 10114868       |                 |     |
|               |                                       | 0.XX | ±0.10          |                     | cat. no.   | SEE P/N TREE | Product - Customer Drw | sheet 2 of 8   |                 |     |
| ASME Y14.5    | angular                               | 0°   | ±°             |                     |  |              |                        |                |                 |     |

# LEFT POLARIZING/GUIDE MODULE

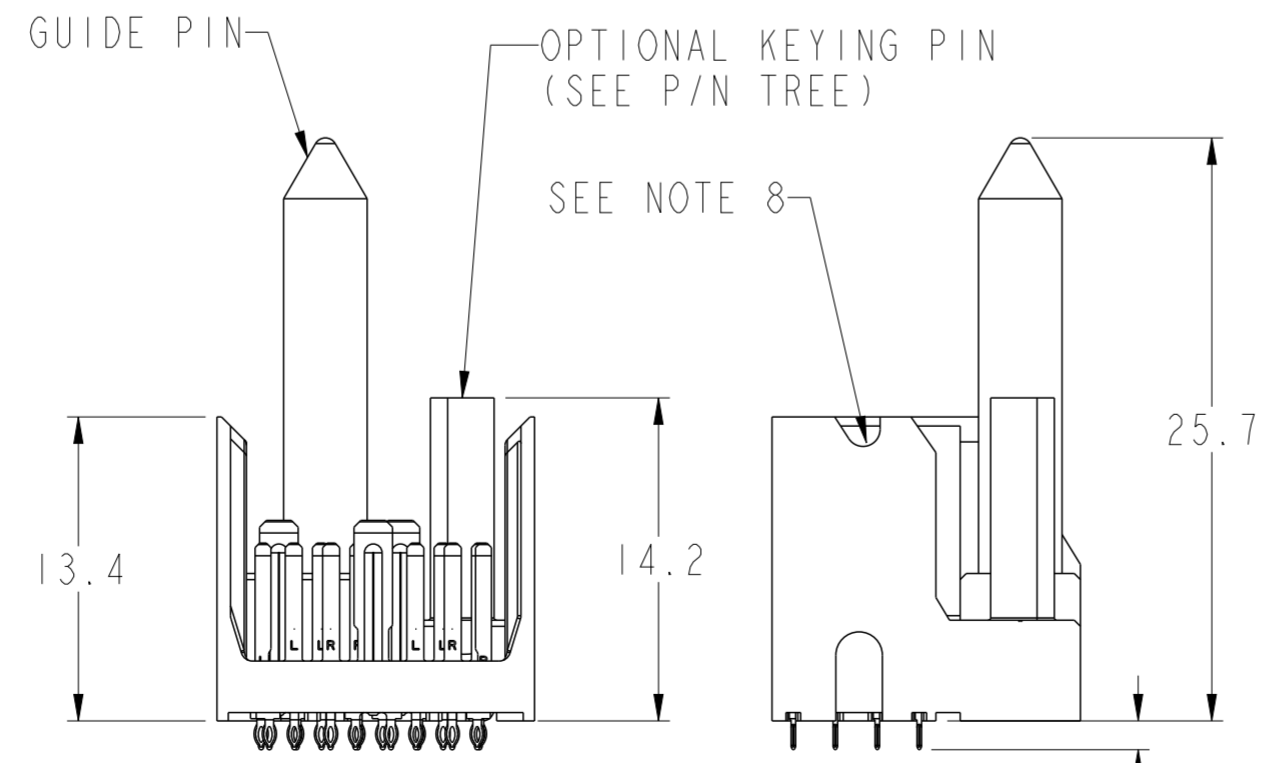
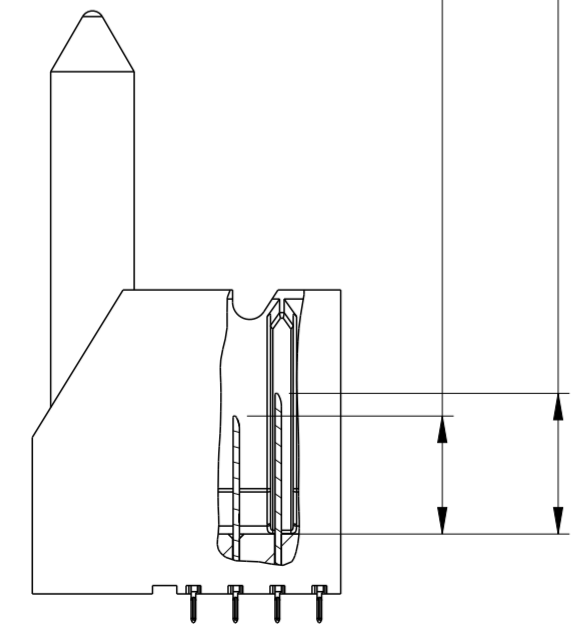


SEE NOTE 5

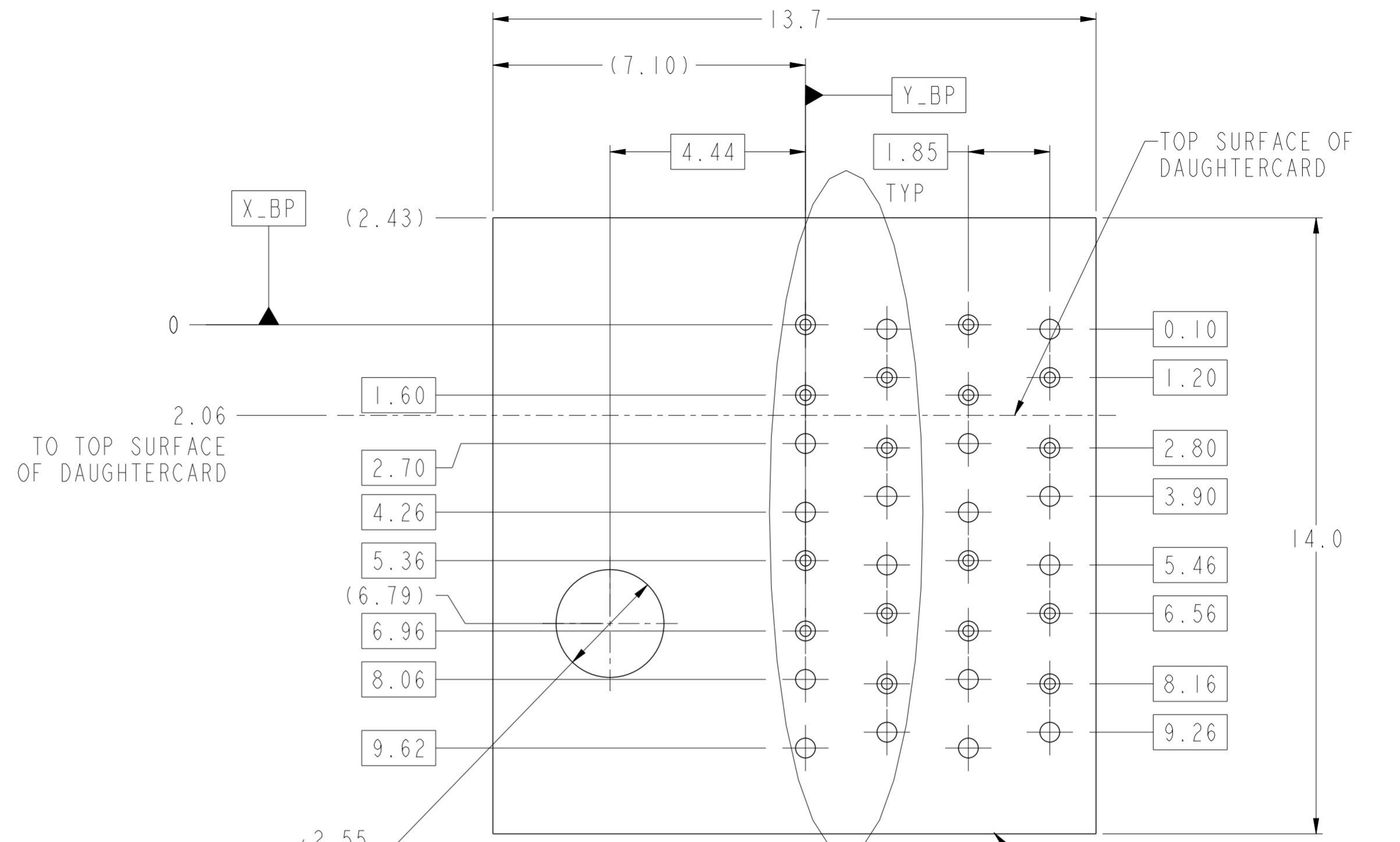


SCALE 3:1

- 6.2 (4MM WIPE WIDE GROUNDS)
  - 5.2 (3MM WIPE WIDE GROUNDS)
  - 5.2 (3MM SMALL END GROUNDS)
  - 5.2 (3MM WIPE SIGNALS)
  - 4.2 (2MM WIPE SIGNALS)
- (SEE P/N TREE FOR ALL COMBINATIONS AVAILABLE)



TAIL LENGTH  
SEE NOTE 12



|          |                    |      |      |
|----------|--------------------|------|------|
| $\oplus$ | $\varnothing 0.10$ | X_BP | Y_BP |
|----------|--------------------|------|------|

SEE NOTE 11 & TABLE 1

SEE DETAIL A  
(SHEET 8)

PCB HOLE PATTERN  
COMPONENT SIDE  
SCALE 10:1

NOMINAL MODULE OUTLINE

|                                       |            |       |              |                     |                 |                                   |          |                |                        |              |
|---------------------------------------|------------|-------|--------------|---------------------|-----------------|-----------------------------------|----------|----------------|------------------------|--------------|
| spec ref                              | SEE NOTES  | dr    | Kok-Hoe Lee  | 2010/06/25          | projection      | MM                                | size     | A2             | scale                  | 3:1          |
| tolerance std                         | ASME Y14.5 | eng   | Michael Song | 2016/06/03          |                 | ←                                 | ecn no   | ELX-DG-24191-1 | rel level              | Released     |
| TOLERANCES UNLESS OTHERWISE SPECIFIED |            | chr   | Heaven Cen   | 2016/06/08          |                 |                                   |          |                |                        |              |
| surface                               | linear     | 0.X   | ±0.2         | <b>Amphenol FCI</b> | MODULE ASSEMBLY |                                   | cat. no. | SEE P/N TREE   | Product - Customer Drw | sheet 3 of 8 |
|                                       |            | 0.XX  | ±0.10        |                     | TITLE           | VERTICAL HEADER, 4-COLUMN, 2-PAIR |          |                |                        |              |
|                                       | angular    | 0.XXX | ±0.050       |                     |                 |                                   |          |                |                        |              |
| ASME Y14.5                            |            | 0°    | ±°           | dwg no              | 10114868        | rev                               | F        |                |                        |              |

PDS: Rev :F

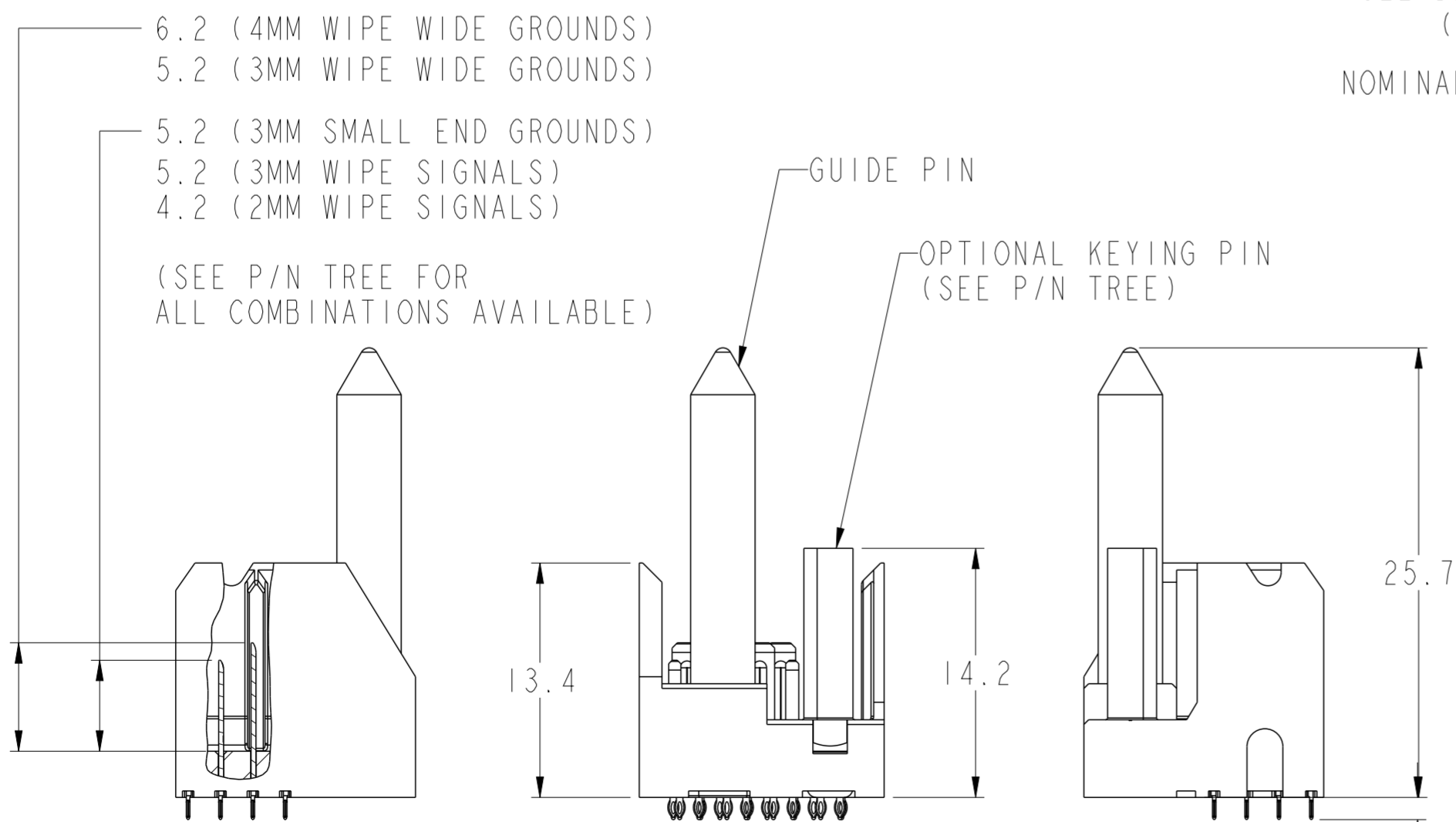
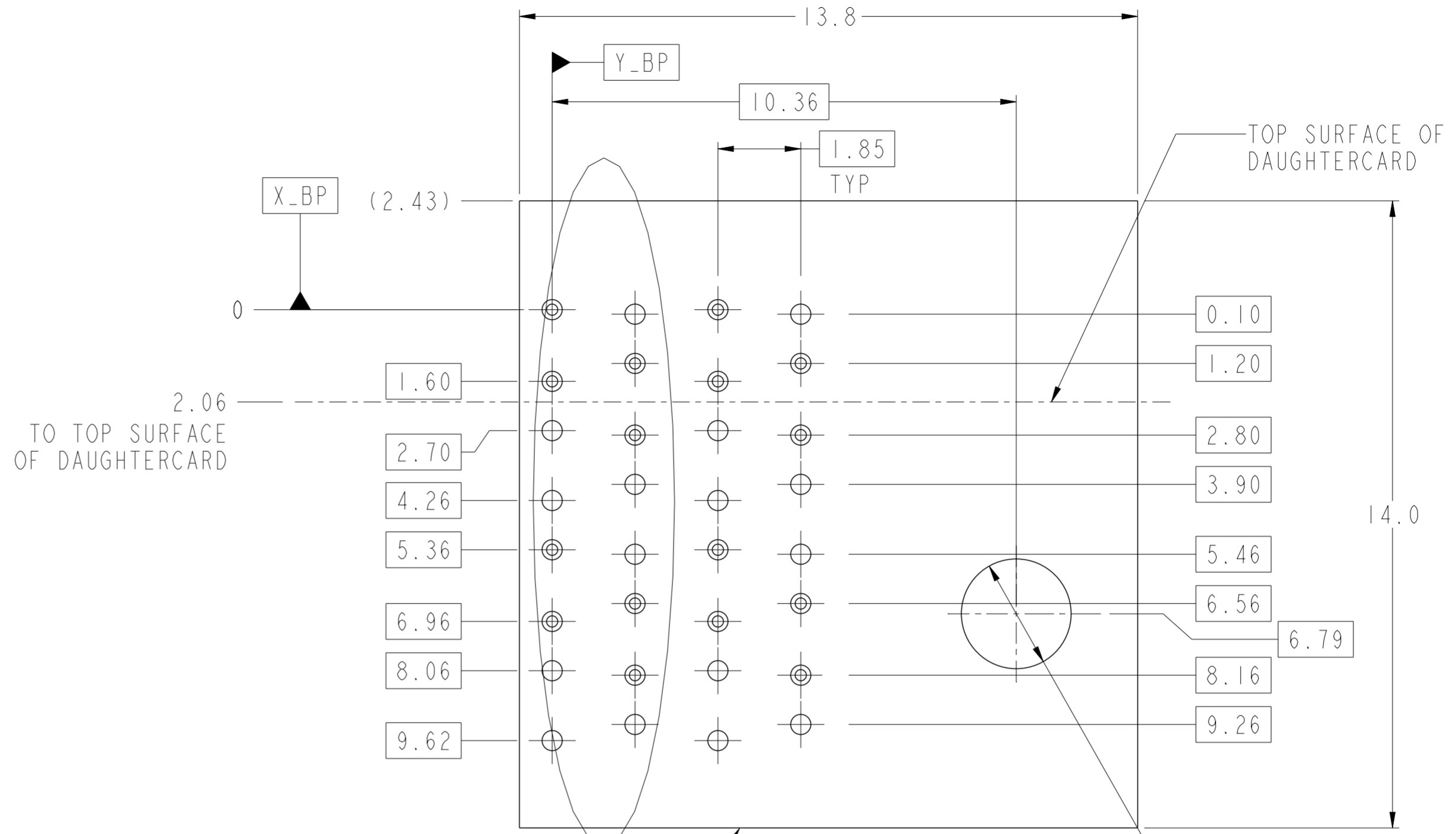
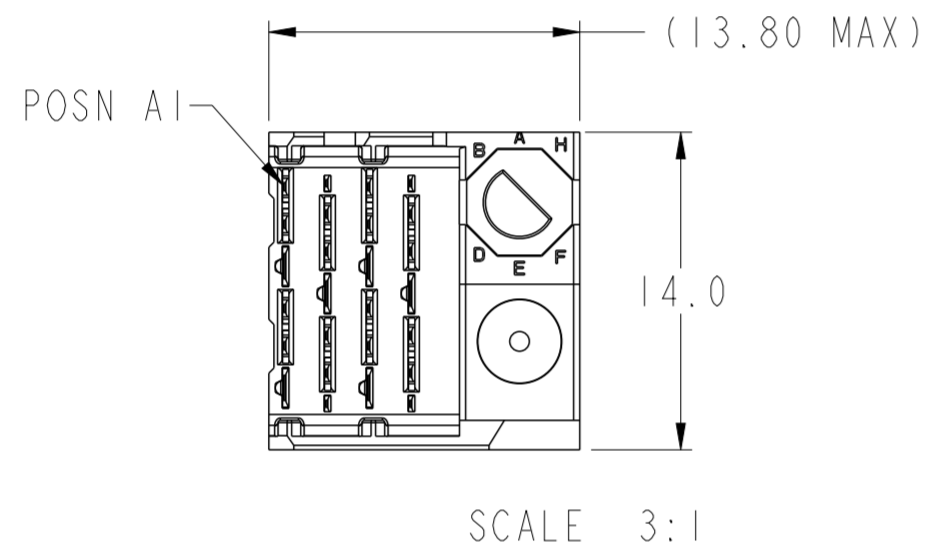
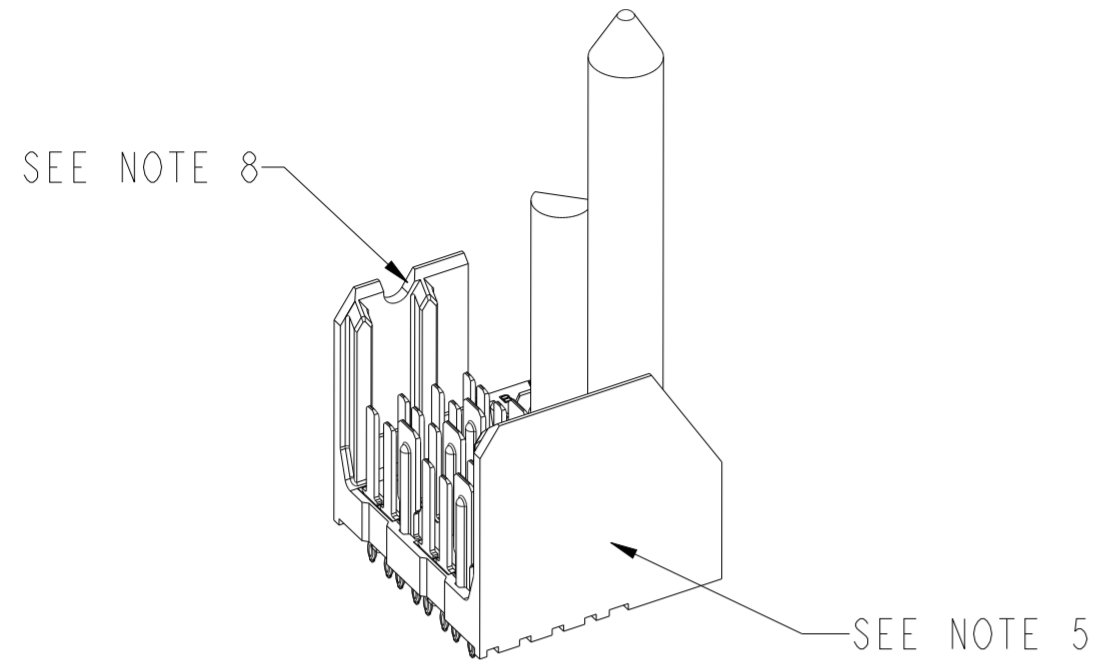
STATUS:Released

Printed: Jun 15, 2016

Amphenol FCI

© 2016 AFCI

# RIGHT POLARIZING/GUIDE MODULE



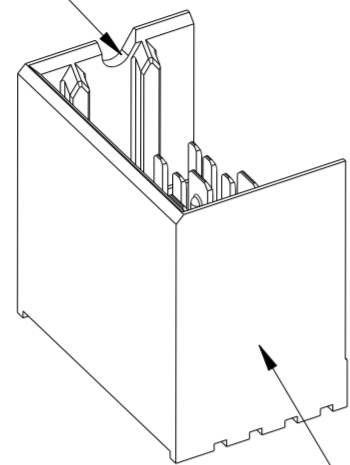
|                                       |  |                       |                |            |  |    |        |                    |                        |     |  |
|---------------------------------------|--|-----------------------|----------------|------------|--|----|--------|--------------------|------------------------|-----|--|
| spec ref                              | SEE NOTES  | dr                    | Kok-Hoe Lee    | 2010/06/25 | projection   | MM | size   | A2                 | scale                  | 3:1 |  |
| tolerance std                         | ASME Y14.5                                       | eng                   | Michael Song   | 2016/06/03 |  |    | ecn no | ELX-DG-24191-1     |                        |     |  |
| surface                               | linear<br>0.X ±0.2<br>0.XX ±0.10<br>0.XXX ±0.050 | chr                   | Heaven Cen     | 2016/06/08 |  |    |        | rel level          | Released               |     |  |
|                                       |  | appr                  | Pei-Ming Zheng | 2016/06/15 |  |    |        |                    | Product - Customer Drw |     |  |
| TOLERANCES UNLESS OTHERWISE SPECIFIED |  | <b>Amphenol FCI</b>   |                |            | MODULE ASSEMBLY<br>VERTICAL HEADER, 4-COLUMN, 2-PAIR |    |        | dwg no<br>10114868 | rev<br>F               |     |  |
| ASME Y14.5<br>angular<br>0° ±°        |  | cat. no. SEE P/N TREE |                |            | Product - Customer Drw                               |    |        | sheet 4 of 8       |                        |     |  |

Amphenol FCI

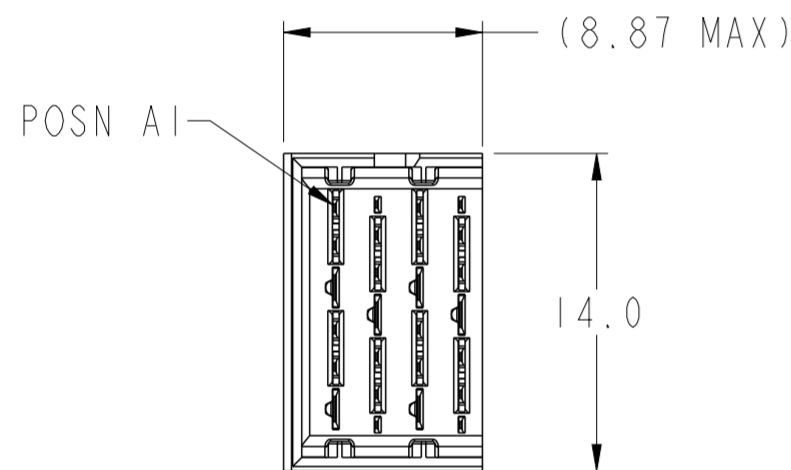
© 2016 AFCI

# LEFT WALL MODULE

SEE NOTE 8



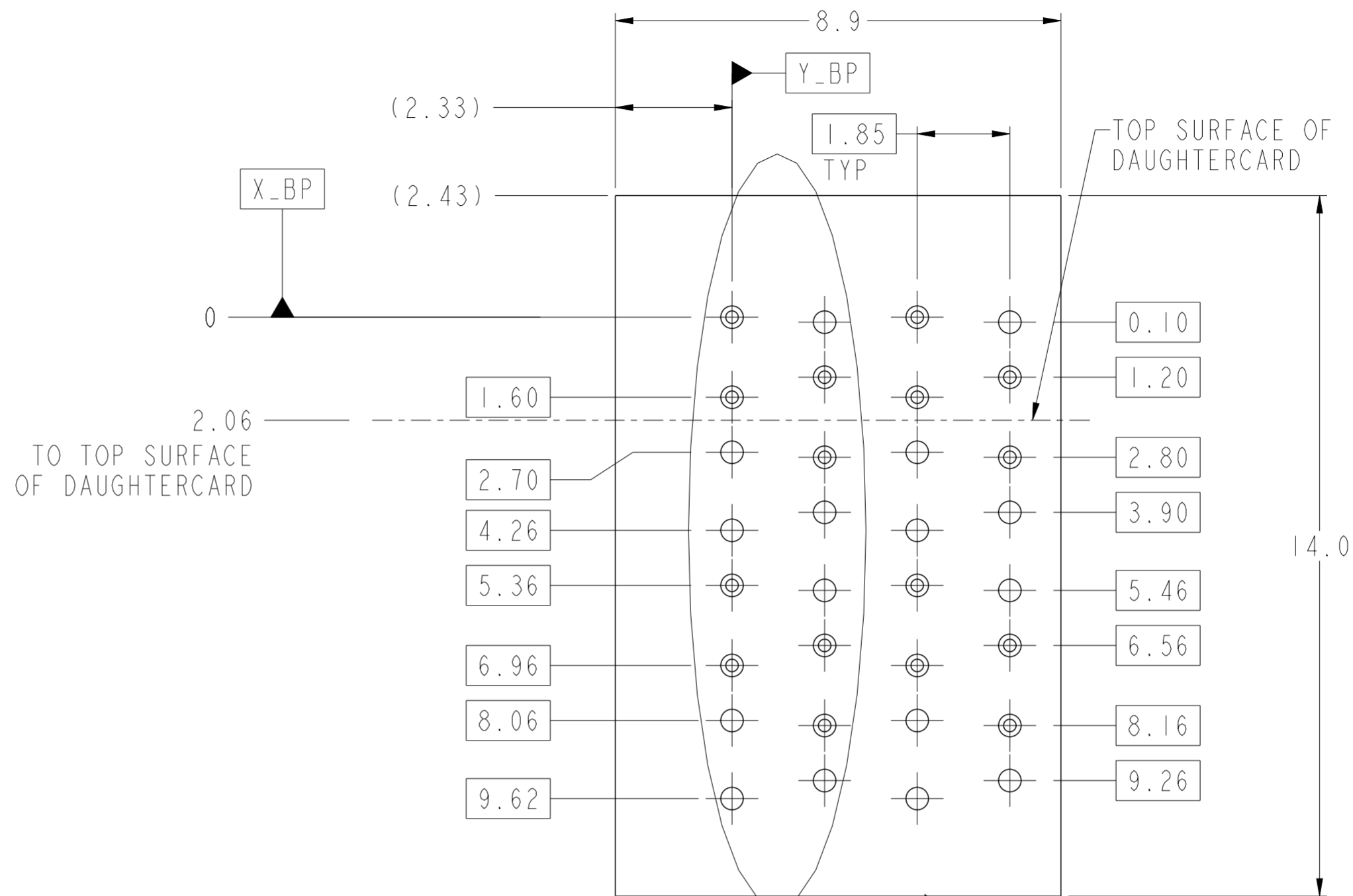
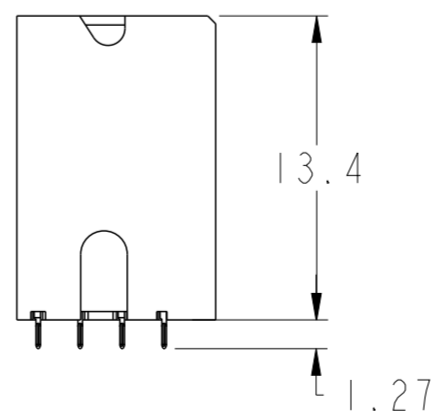
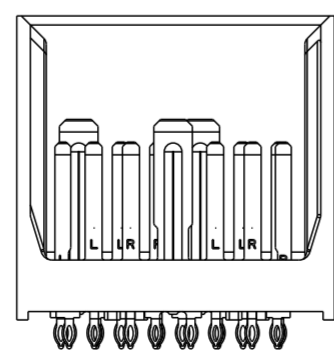
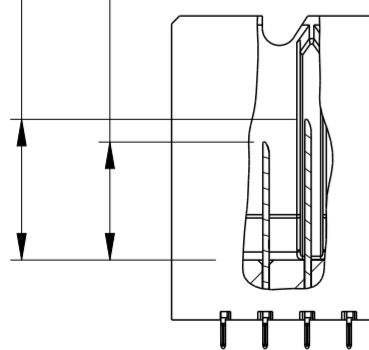
SEE NOTE 5



SCALE 3:1

- 6.2 (4MM WIPE WIDE GROUNDS)
- 5.2 (3MM WIPE WIDE GROUNDS)
- 5.2 (3MM SMALL END GROUNDS)
- 5.2 (3MM WIPE SIGNALS)
- 4.2 (2MM WIPE SIGNALS)

(SEE P/N TREE FOR ALL COMBINATIONS AVAILABLE)



SEE DETAIL A (SHEET 8)

PCB HOLE PATTERN COMPONENT SIDE SCALE 10:1

NOMINAL MODULE OUTLINE

|                                       |            |       |              |  |                                   |                    |   |                |                 |     |
|---------------------------------------|------------|-------|--------------|--|-----------------------------------|--------------------|---|----------------|-----------------|-----|
| spec ref                              | SEE NOTES  | dr    | Kok-Hoe Lee  | 2010/06/25                             | projection                        | MM                 | size  | A2             | scale           | 3:1 |
| tolerance std                         | ASME Y14.5 | eng   | Michael Song | 2016/06/03                             |                                   |                    | ecn no  | ELX-DG-24191-1 |                 |     |
| TOLERANCES UNLESS OTHERWISE SPECIFIED |            | chr   | Heaven Cen   | 2016/06/08                             |                                   |                    |   | rel level      | Released        |     |
| surface                               | linear     | 0.X   | ±0.2         |  | product family                    |                    | cat. no. SEE P/N TREE<br>Product - Customer Drw | sheet 5 of 8   | rev<br><b>F</b> |     |
|                                       |            | 0.XX  | ±0.10        |  | MODULE ASSEMBLY                   |                    |   |                |                 |     |
|                                       |            | 0.XXX | ±0.050       |  | VERTICAL HEADER, 4-COLUMN, 2-PAIR |                    |   |                |                 |     |
|                                       | angular    | 0°    | ±°           | SEE P/N TREE<br>Product - Customer Drw |                                   | dwg no<br>10114868 |   |                |                 |     |

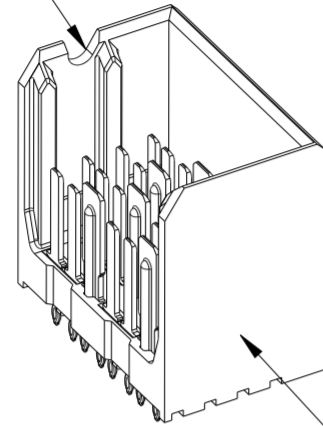
PDS: Rev :F

STATUS:Released

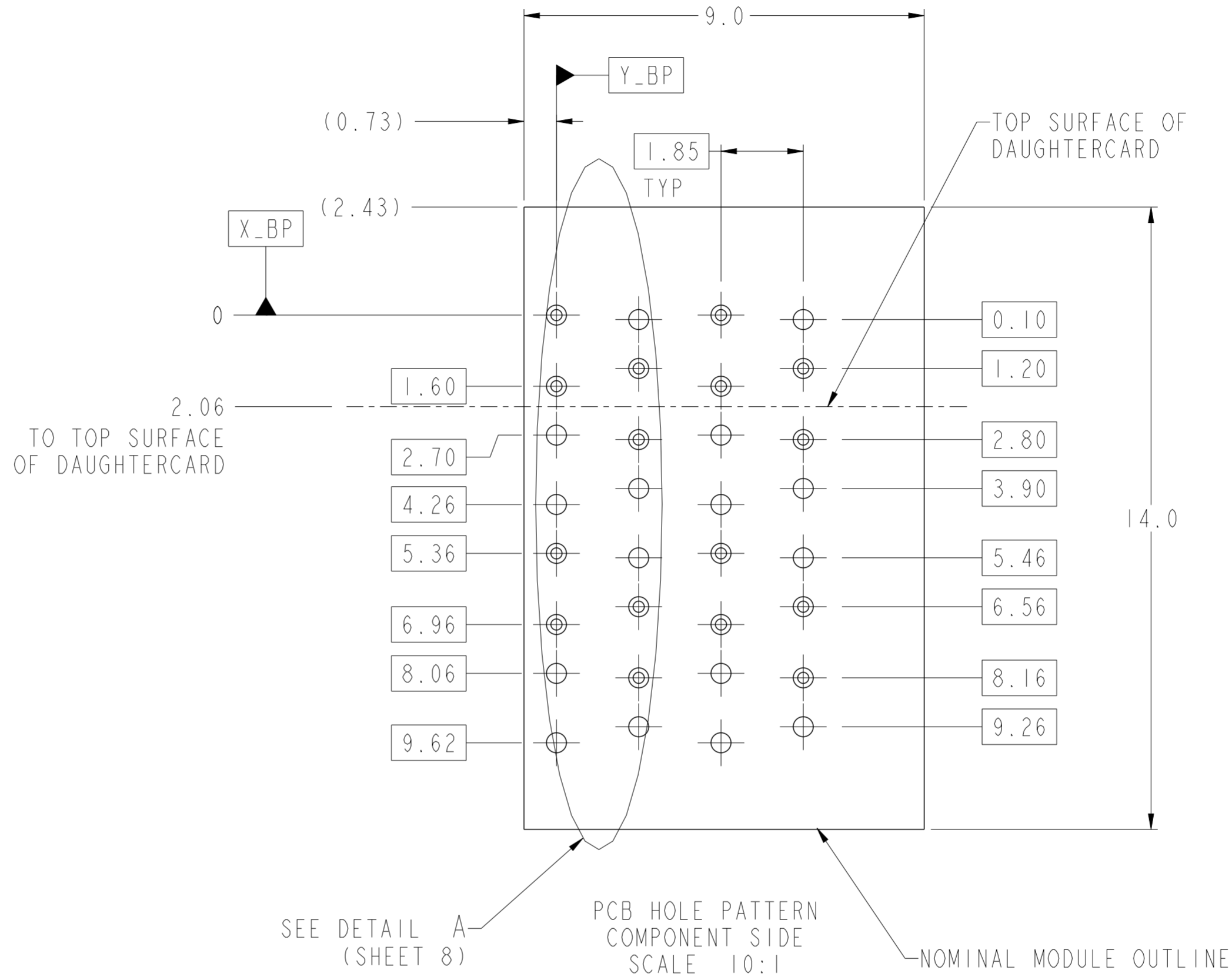
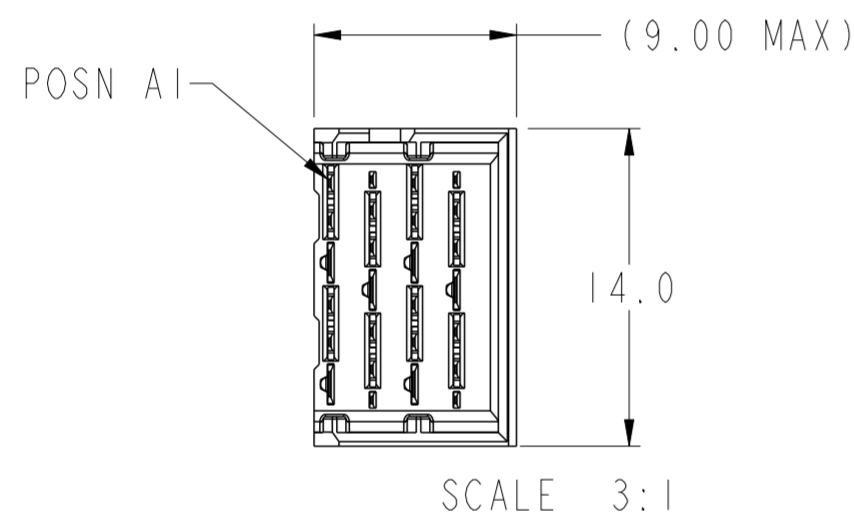
Printed: Jun 15, 2016

# RIGHT WALL MODULE

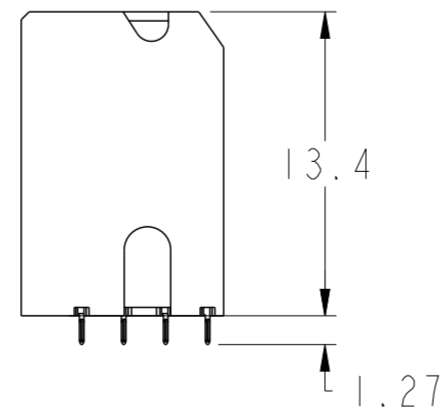
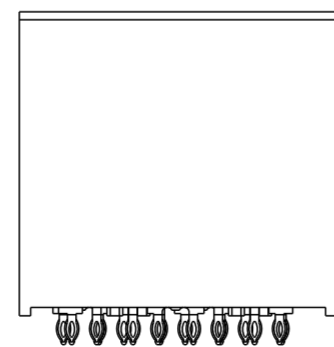
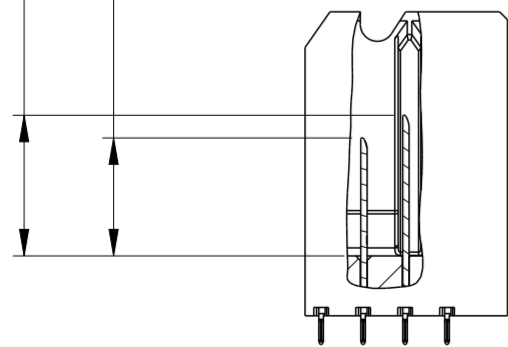
SEE NOTE 8



SEE NOTE 5



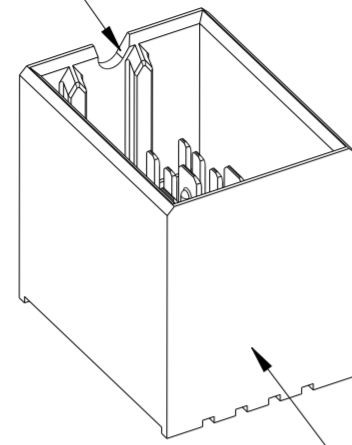
- 6.2 (4MM WIPE WIDE GROUNDS)
  - 5.2 (3MM WIPE WIDE GROUNDS)
  - 5.2 (3MM SMALL END GROUNDS)
  - 5.2 (3MM WIPE SIGNALS)
  - 4.2 (2MM WIPE SIGNALS)
- (SEE P/N TREE FOR ALL COMBINATIONS AVAILABLE)



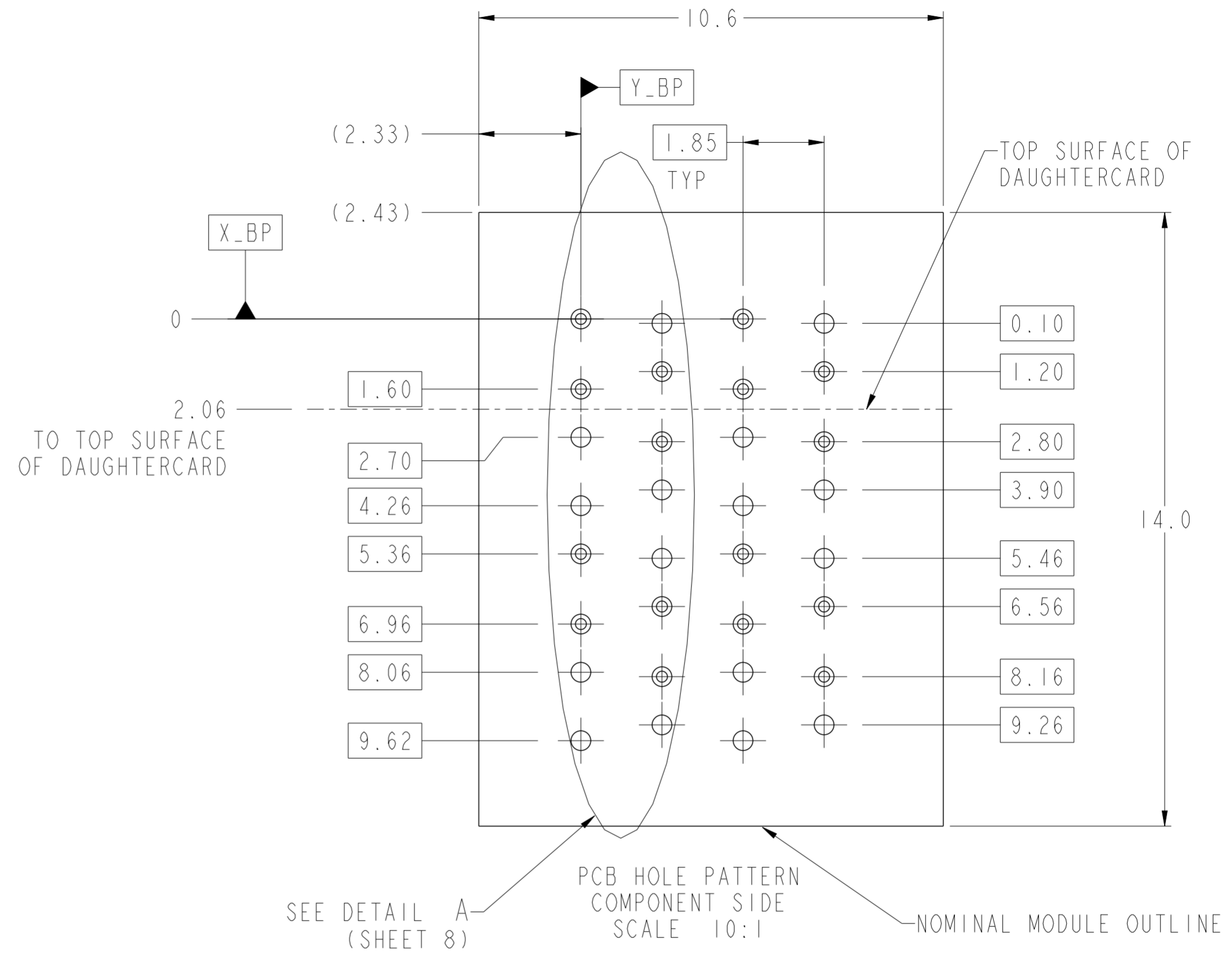
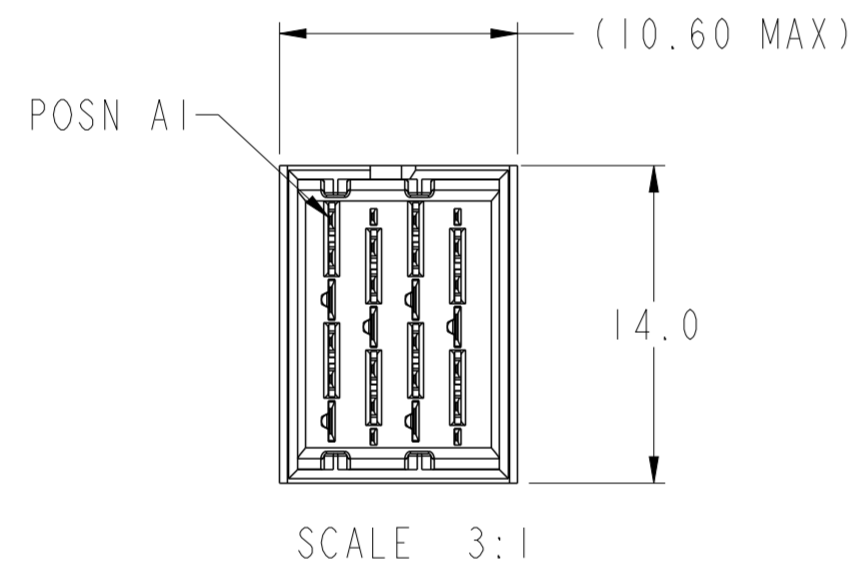
|                                       |            |      |                |            |            |  |                |                |              |                        |     |   |
|---------------------------------------|------------|------|----------------|------------|------------|--|----------------|----------------|--------------|------------------------|-----|---|
| spec ref                              | SEE NOTES  | dr   | Kok-Hoe Lee    | 2010/06/25 | projection | MM   | size           | A2             | scale        | 3:1                    |     |   |
| tolerance std                         | ASME Y14.5 | eng  | Michael Song   | 2016/06/03 |            |  | ecn no         | ELX-DG-24191-1 |              |                        |     |   |
| TOLERANCES UNLESS OTHERWISE SPECIFIED |            | chr  | Heaven Cen     | 2016/06/08 |            |  | rel level      | Released       |              |                        |     |   |
|                                       |            | appr | Pai-Ming Zheng | 2016/06/15 |            |  | product family |                |              |                        |     |   |
| surface                               | linear     | 0.X  | ±0.2           |            |            | MODULE ASSEMBLY<br>VERTICAL HEADER, 4-COLUMN, 2-PAIR |                | cat. no.       | SEE P/N TREE | Product - Customer Drw |     |   |
|                                       |            | 0.XX | ±0.10          |            |            |  |                | dwg no         | 10114868     |                        | rev | F |
|                                       | angular    | 0°   | ±°             |            |            |  |                | sheet          | 6 of 8       |                        |     |   |

# FOUR WALL MODULE

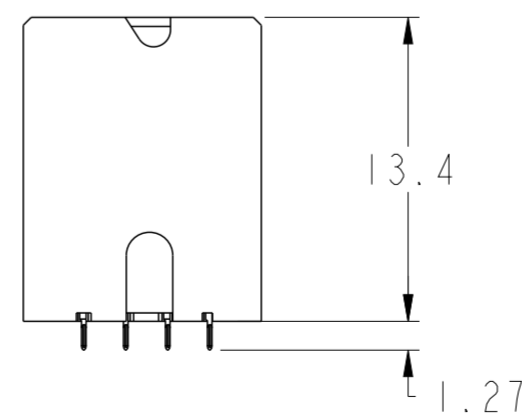
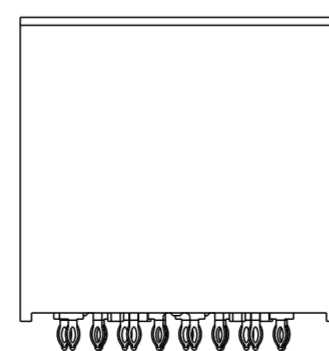
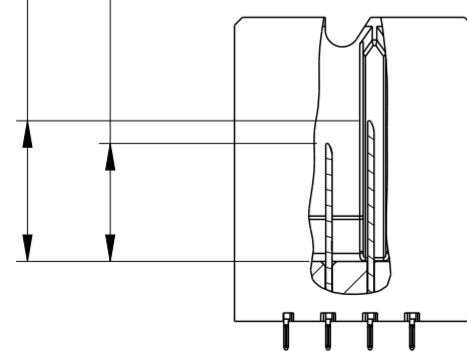
SEE NOTE 8



SEE NOTE 5



- 6.2 (4MM WIPE WIDE GROUNDS)
  - 5.2 (3MM WIPE WIDE GROUNDS)
  - 5.2 (3MM SMALL END GROUNDS)
  - 5.2 (3MM WIPE SIGNALS)
  - 4.2 (2MM WIPE SIGNALS)
- (SEE P/N TREE FOR ALL COMBINATIONS AVAILABLE)



|                                       |            |         |                |            |            |    |   |                |          |          |              |                        |  |              |  |
|---------------------------------------|------------|---------|----------------|------------|------------|----|---|----------------|----------|----------|--------------|------------------------|--|--------------|--|
| spec ref                              | SEE NOTES  | dr      | Kok-Hoe Lee    | 2010/06/25 | projection | MM | size  | A2             | scale    | 3:1      |              |                        |  |              |  |
| tolerance std                         | ASME Y14.5 | eng     | Michael Song   | 2016/06/03 |            |    | ecn no  | ELX-DG-24191-1 |          |          |              |                        |  |              |  |
| TOLERANCES UNLESS OTHERWISE SPECIFIED |            | chr     | Heaven Cen     | 2016/06/08 |            |    | rel level   | Released       |          |          |              |                        |  |              |  |
|                                       |            | appr    | Pai-Ming Zheng | 2016/06/15 |            |    | product family  |                |          |          |              |                        |  |              |  |
| surface                               | ASME Y14.5 | linear  | 0.X            | ±0.2       |            |    | <b>MODULE ASSEMBLY</b><br>VERTICAL HEADER, 4-COLUMN, 2-PAIR |                | dwg no   | 10114868 | rev          | F                      |  |              |  |
|                                       |            | angular | 0°             | ±°         |            |    |   |                | cat. no. |          | SEE P/N TREE | Product - Customer Drw |  | sheet 7 of 8 |  |
|                                       |            |         |                |            |            |    |   |                |          |          |              |                        |  |              |  |

PDS: Rev :F

STATUS:Released

Printed: Jun 15, 2016

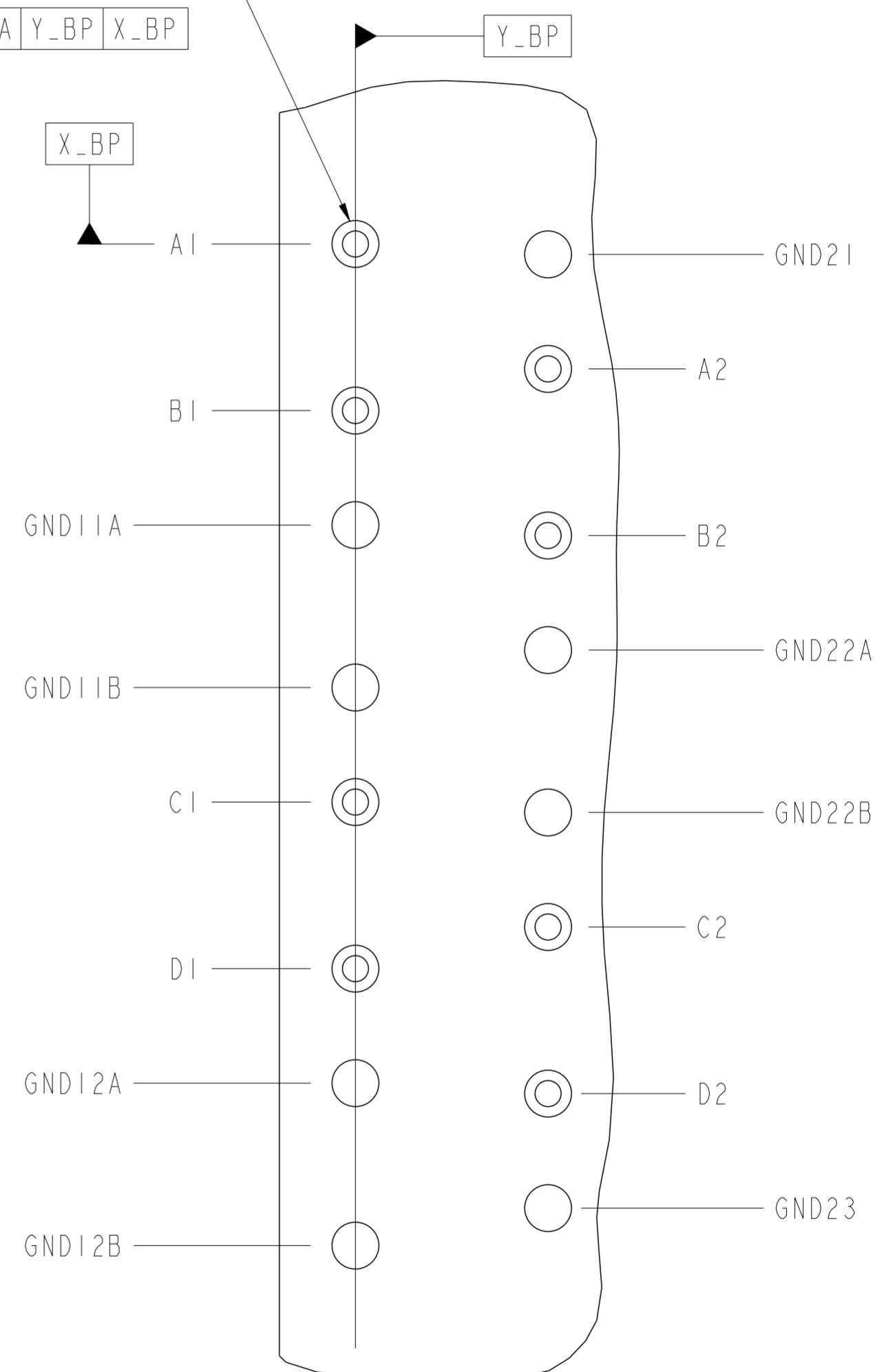


| TABLE 3: PTH AND PAD SIZES WITH REFERENCE TO COMPLIANT PIN DRILL |            |       |
|--|------------|-------|
| COMPLIANT PIN DRILL  | PTH        | PAD   |
| Ø0.55 [0.0217"]  | Ø0.45±0.05 | Ø0.85 |
| Ø0.45 [0.0177"]  | Ø0.36±0.05 | Ø0.75 |

NOTES:

- CONNECTOR MATERIALS  
SHROUD: HIGH-TEMP THERMOPLASTIC, GRAY, UL94V-0  
CONTACTS: HIGH PERFORMANCE COPPER ALLOY
- CONTACT PLATING:  
SEPARABLE INTERFACE: PERFORMANCE-BASED PLATING, QUALIFIED TO MEET THE REQUIREMENTS OF FCI PRODUCT SPECIFICATION GS-12-588, INCLUDING TELCORDIA GR-1217-CORE (NOVEMBER 1995) CENTRAL OFFICE TEST (CO) OR UNCONTROLLED ENVIRONMENT TEST SEQUENCE AS NOTED IN P/N TREE.  
PRESS-FIT TAILS: TIN OVER NICKEL, OR TIN-LEAD ALLOY OVER NICKEL. SEE P/N TREE.
- PRODUCT SPECIFICATION: GS-12-588
- APPLICATION SPECIFICATION: GS-20-121
- PRODUCT MARKING (PART NUMBER AND LOT CODE) ON THESE SURFACES.
- HOUSING MUST WITHSTAND EXPOSURE TO 260°C PEAK TEMPERATURE FOR 40 SECONDS IN A CONVECTION, INFRA-RED, OR VAPOR-PHASE REFLOW OVEN.
- PACKAGING MEETS GS-14-920 LEAD-FREE LABELING SPECIFICATION.
- NOTCH INDICATES "ROW A" SIDE OF CONNECTOR.
- SEE APPLICATION SPECIFICATION FOR ROUTING GUIDELINES, ADDITIONAL PTH GUIDELINES, MATED DIMENSIONS, GUIDE PN SELECTION, ETC.
- SCREW IS OPTIONAL AND ENGAGES WITH BOTTOM OF GUIDE-PIN FROM BENEATH THE PCB FOR ADDITIONAL GUIDE-PIN SUPPORT.
- OPTIONAL HOLE LOCATION FOR GROUNDED PIN OR ADDITIONAL GUIDE-PIN SUPPORT. SEE TABLE 1 ON SHEET 1 FOR ADDITIONAL DETAILS.

REFER TABLE 3 FOR PTH, DRILL & PAD SIZES



DETAIL A  
SCALE 20:1

|               |                                       |       |                |            |                                   |    |                |                        |          |              |     |   |
|---------------|---------------------------------------|-------|----------------|------------|-----------------------------------|----|----------------|------------------------|----------|--------------|-----|---|
| spec ref      | SEE NOTES                             | dr    | Kok-Hoe Lee    | 2010/06/25 | projection                        | MM | size           | A2                     | scale    | 3:1          |     |   |
| tolerance std | TOLERANCES UNLESS OTHERWISE SPECIFIED | eng   | Michael Song   | 2016/06/03 |                                   |    | ecn no         | ELX-DG-24191-1         |          |              |     |   |
| ASME Y14.5    |                                       | chr   | Heaven Cen     | 2016/06/08 |                                   |    | rel level      | Released               |          |              |     |   |
|               |                                       | appr  | Pai-Ming Zheng | 2016/06/15 |                                   |    | product family |                        |          |              |     |   |
| surface       | linear                                | 0.X   | ±0.2           |            | MODULE ASSEMBLY                   |    |                | diag no                | 10114868 |              | rev | F |
|               |                                       | 0.XX  | ±0.10          |            | VERTICAL HEADER, 4-COLUMN, 2-PAIR |    |                |                        |          |              |     |   |
|               |                                       | 0.XXX | ±0.050         |            | SEE P/N TREE                      |    |                | Product - Customer Drw |          | sheet 8 of 8 |     |   |
| ASME Y14.5    | angular                               | 0°    | ±°             |            |                                   |    |                |                        |          |              |     |   |