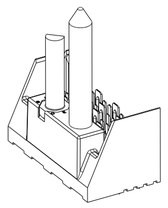
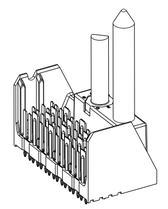
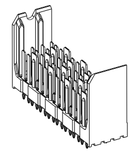
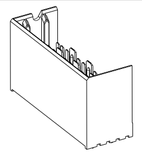
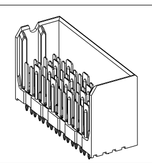
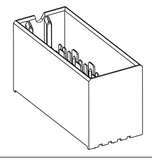
# 10091836 - X 0 J - X X X L F

- 4-COLUMN DIFFERENTIAL SIGNAL
- LEAD-FREE DESIGNATION ONLY WITH APPLICABLE PLATING CODES

| LETTER | PEFORMANCE-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, 31.6mm |
| 4 | STANDARD GUIDE PIN MACHINED, 25.7mm |

| MODULE DESCRIPTION | LETTER DESIGNATION REPRESENTED IN DASH NUMBER | | | | | | | | | BASE MODULE |
|---|---|---|---|---|---|---|---|---|---|---|
| LEFT POLARIZING GUIDANCE MODULE (SEE SHEET 3) | J | A | B | C | D | E | F | G | H |  |
| RIGHT POLARIZING GUIDANCE MODULE (SEE SHEET 4) | Y | P | Q | R | S | T | U | V | W |  |
| OPEN MODULE (TWO WALL) (SEE SHEET 2) | 0 (ZERO) | | | | | | | | |  |
| LEFT WALL MODULE (SEE SHEET 5) | L | | | | | | | | |  |
| RIGHT WALL MODULE (SEE SHEET 6) | M | | | | | | | | |  |
| FOUR WALL MODULE (SEE SHEET 7) | 1 | | | | | | | | |  |

| NUMBER | CONTACT MATING WIPE LENGTH | | COMPLIANT PIN DRILL SIZE |
|---|---|---|---|
| | SIGNAL | WIDE GROUND | |
| 1 | 2 | 4 | ∅0.55 [0.0217"] |
| 2 | 3 | 4 | ∅0.55 [0.0217"] |
| 3 | 2 | 4 | ∅0.45 [0.0177"] |
| 4 | 3 | 4 | ∅0.45 [0.0177"] |
| 5 | 2 | 3 | ∅0.55 [0.0217"] |
| 6 | 3 | 3 | ∅0.55 [0.0217"] |
| 7 | 2 | 3 | ∅0.45 [0.0177"] |
| 8 | 3 | 3 | ∅0.45 [0.0177"] |

TABLE 1: OPTIONAL PCB HOLE SIZE (SEE NOTE 11)

| | GROUNDED | UNGROUNDED |
|---|---|---|
| FINISHED | ∅2.35-2.55 | ∅2.35-2.55 |
| PAD | ∅5.50 | N/A |
| PLATED | YES | NO |
| DRILL (mm/in) | 2.58 /.1015 | 2.44 /.096 |

TABLE 2: OPTIONAL SCREW TYPE (SEE NOTE 10)

| 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 |

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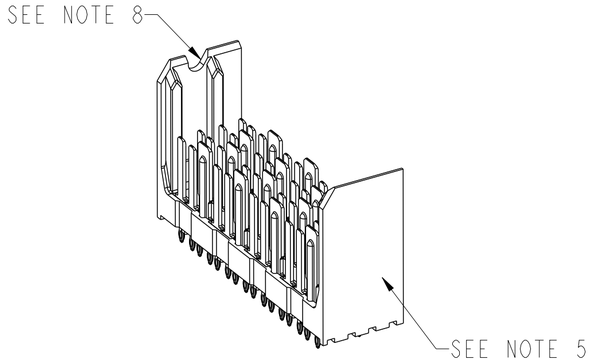
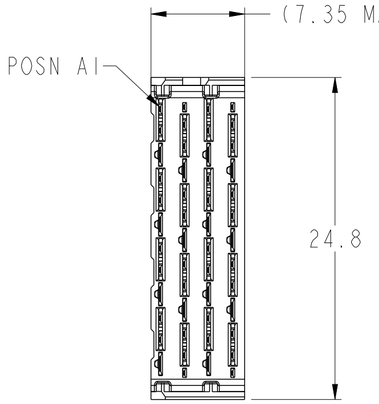
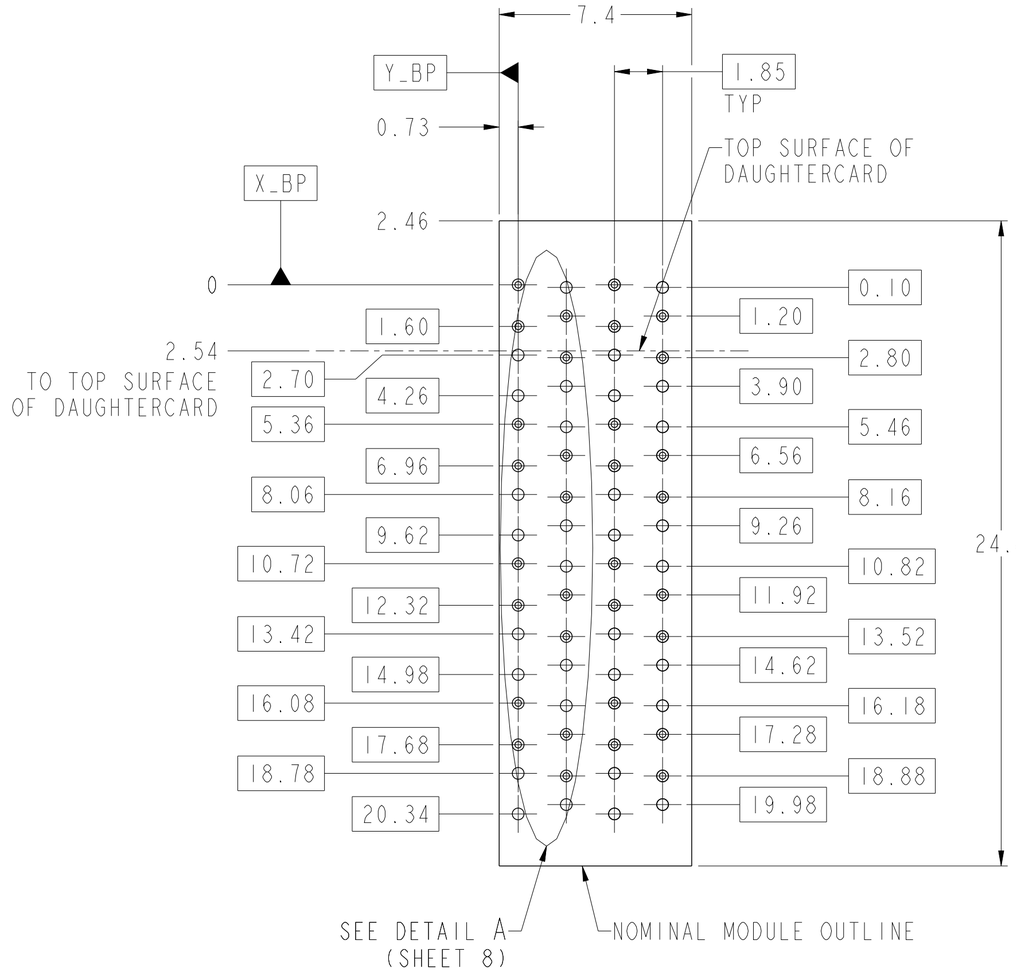
| | | | | | | | |
|---|---|---|---|---|---|---|---|
| spec ref | SEE NOTES | dr | Jim Swain | 2010/04/13 | projection | MM | size A2 / scale 4:1 |
| tolerance std ASME Y14.5 | TOLERANCES UNLESS OTHERWISE SPECIFIED | eng | Michael Song | 2016/06/06 | | | ecn no ELX-DG-24191-1 |
| | | chr | Heaven Cen | 2016/06/08 | | | |
| | | appr | Pei-Ming Zheng | 2016/06/15 | product family - | | rel level Released |
| surface - ASME Y14.5 | linear 0.X ±0.2 / 0.XX ±0.10 / 0.XXX ±0.050 / angular 0° ±-° | Amphenol FCI | title: MODULE ASSEMBLY, VERTICAL HEADER, 4-COLUMN, 4-PAIR | | cat. no. - | Product - Customer Drw | dwg no 10091836 / rev G / sheet 1 of 8 |

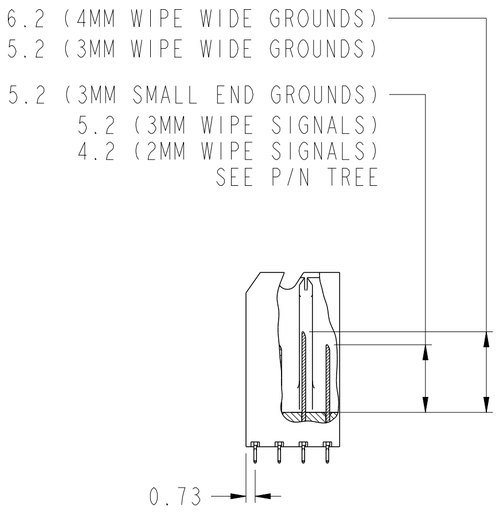
# OPEN (2-WALL) MODULE

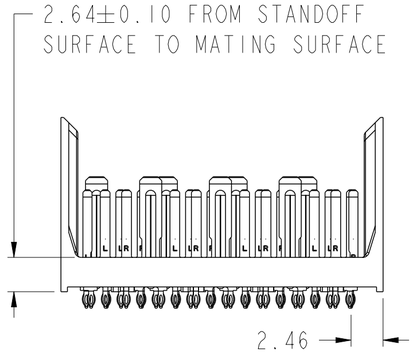


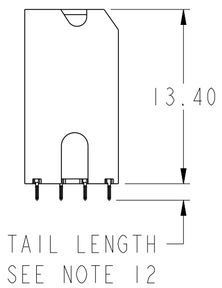




PCB HOLE PATTERN
COMPONENT SIDE
SCALE 6:1




| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| spec ref | SEE NOTES | | | dr | Jim Swain | 2010/04/13 | projection | MM | size A2 / scale 4:1 |
| tolerance std ASME Y14.5 | TOLERANCES UNLESS OTHERWISE SPECIFIED | | | eng | Michael Song | 2016/06/06 | | | |
| | | | | chr | Heaven Cen | 2016/06/08 | | | ecn no ELX-DG-24191-1 |
| | | | | appr | Pei-Ming Zheng | 2016/06/15 | product family - | | rel level Released |
| surface - ASME Y14.5 | linear | 0.X | ±0.2 | Amphenol FCi | title: MODULE ASSEMBLY<br>VERTICAL HEADER, 4-COLUMN, 4-PAIR | | dwg no 10091836 | | rev G |
| | | 0.XX | ±0.10 | | | | | | |
| | | 0.XXX | ±0.050 | | | | | | |
| | angular | 0° | ±-° | | cat. no. - | Product - Customer Drw | | | sheet 2 of 8 |

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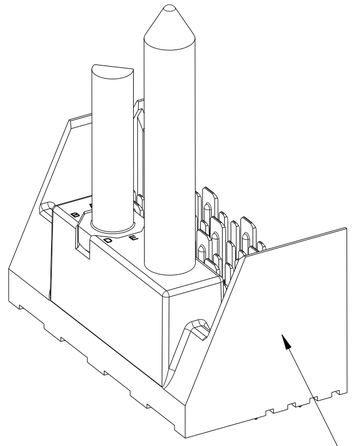
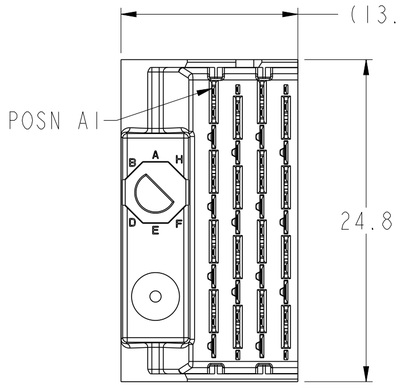
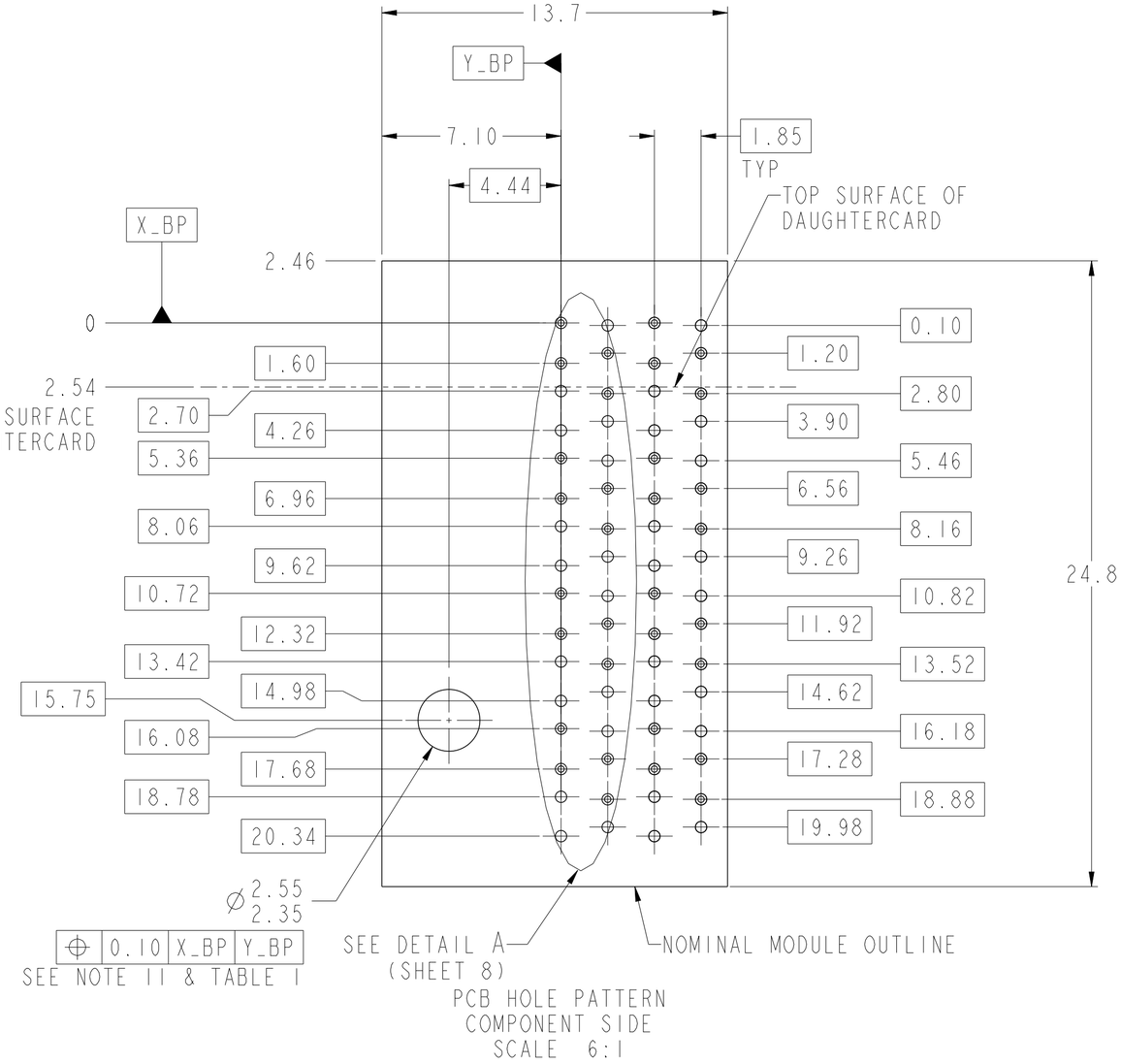
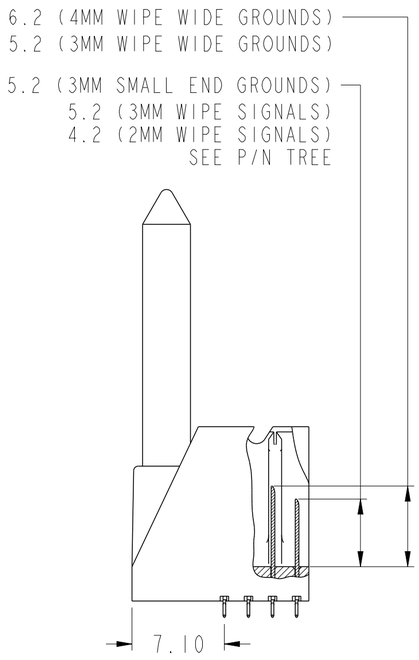
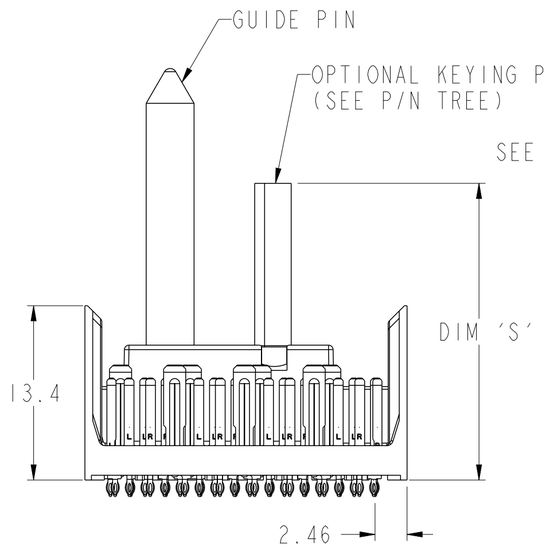
# LEFT POLARIZING/GUIDE MODULE

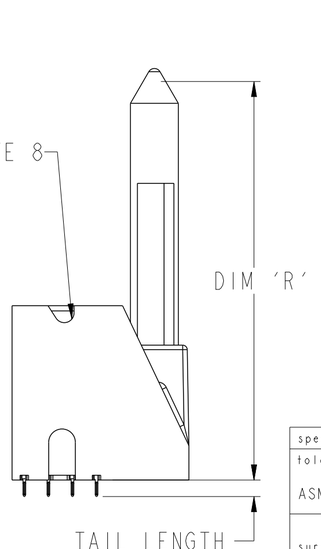



| ASSEMBLY BASE CONFIGURATION END DASH NO. | GUIDE PIN | POLARIZING KEY |
|---|---|---|
| | DIM 'R' | DIM 'S' |
| -X**0**X | 31.6mm | 22.8mm |
| -X**4**X | 25.7mm | 20.0mm |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| spec ref | SEE NOTES | | | dr | Jim Swain | 2010/04/13 | projection | MM | size A2 / scale 3:1 |
| tolerance std ASME Y14.5 | TOLERANCES UNLESS OTHERWISE SPECIFIED | | | eng | Michael Song | 2016/06/06 | | | |
| | | | | chr | Heaven Cen | 2016/06/08 | | | ecn no ELX-DG-24191-1 |
| | | | | appr | Pei-Ming Zheng | 2016/06/15 | product family XCede | | rel level **Released** |
| surface - ASME Y14.5 | linear | 0.X | ±0.2 | Amphenol FCi | title | MODULE ASSEMBLY | dwg no 10091836 | | rev G |
| | | 0.XX | ±0.10 | | | VERTICAL HEADER, 4-COLUMN, 4-PAIR | | | |
| | | 0.XXX | ±0.050 | | | | | | |
| | angular | 0° | ±-° | | cat. no. | SEE P/N TREE | Product - Customer Drw | | sheet 3 of 8 |

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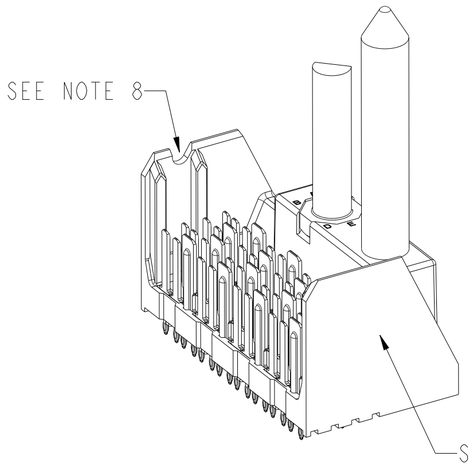
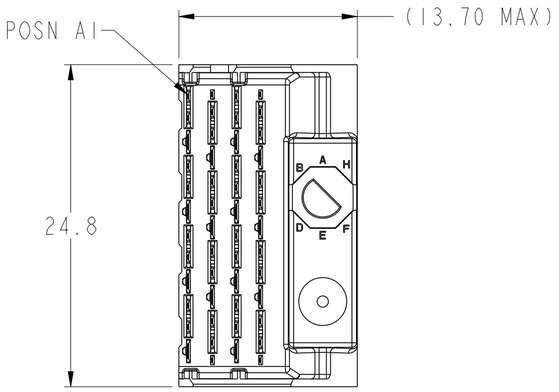
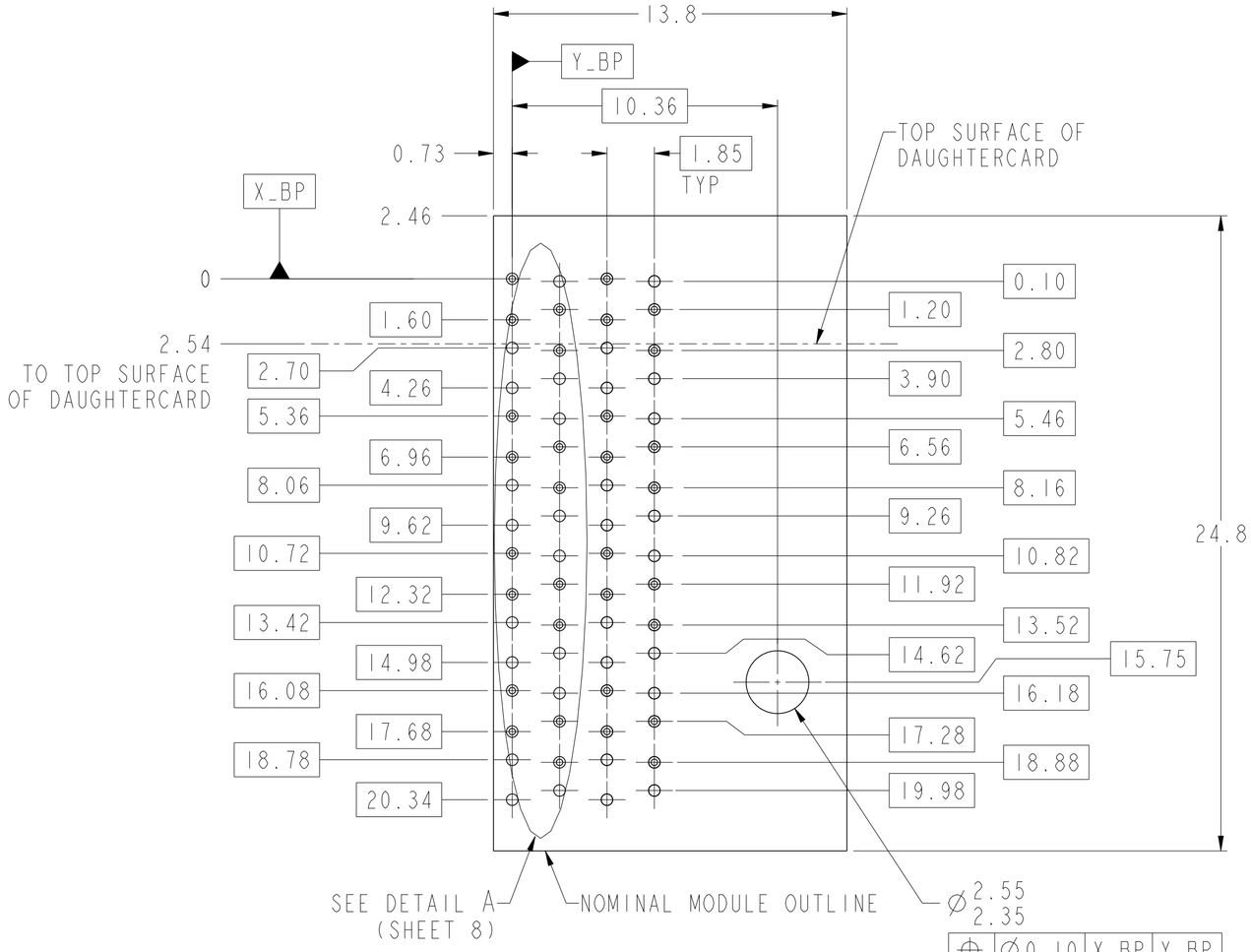
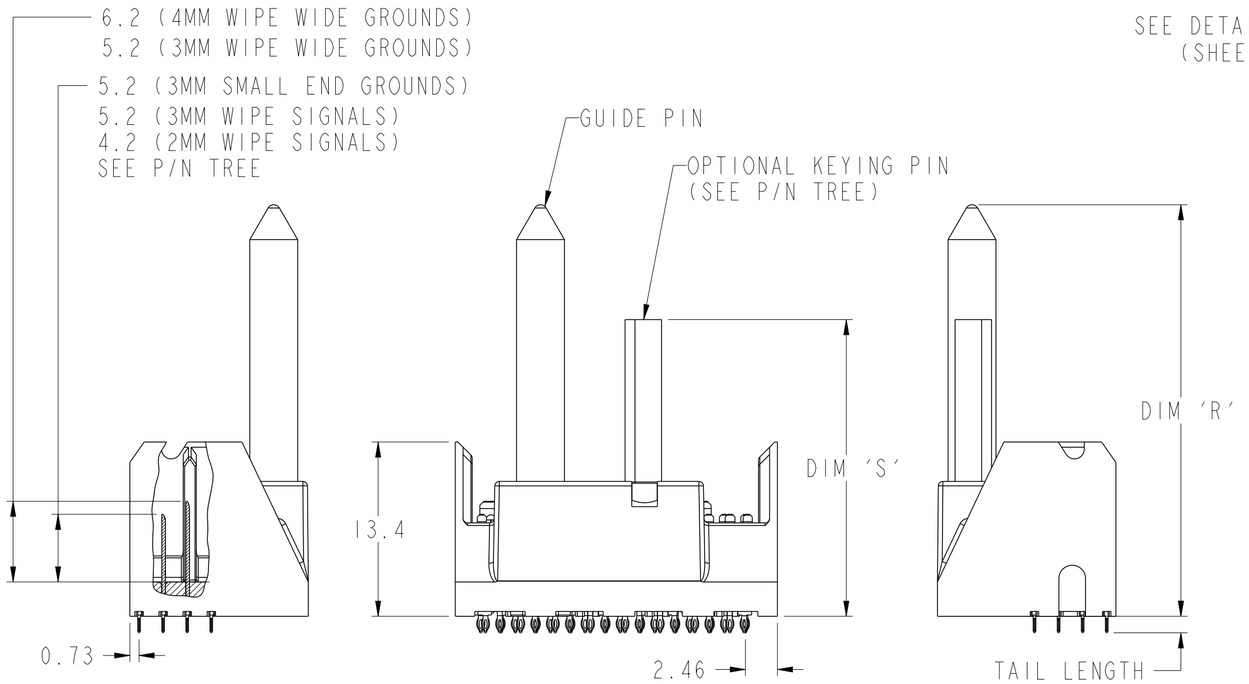
# RIGHT POLARIZING/GUIDE MODULE




| ASSEMBLY BASE CONFIGURATION END DASH NO. | GUIDE PIN | POLARIZING KEY |
|---|---|---|
| | DIM 'R' | DIM 'S' |
| -X**0**X | 31.6mm | 22.8mm |
| -X**4**X | 25.7mm | 20.0mm |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| spec ref | SEE NOTES | | dr | Jim Swain | 2010/04/13 | projection | MM | size A2 / scale 3:1 |
| tolerance std ASME Y14.5 | TOLERANCES UNLESS OTHERWISE SPECIFIED | | eng | Michael Song | 2016/06/06 | | | ecn no ELX-DG-24191-1 |
| | | | chr | Heaven Cen | 2016/06/08 | | | |
| | | | appr | Pei-Ming Zheng | 2016/06/15 | product family XCede | | rel level Released |
| surface ~ ASME Y14.5 | linear | 0.X ±0.2 | Amphenol FCi | title | MODULE ASSEMBLY VERTICAL HEADER, 4-COLUMN, 4-PAIR | | dwg no 10091836 | rev G |
| | | 0.XX ±0.10 | | | | | | |
| | | 0.XXX ±0.050 | | cat. no. | SEE P/N TREE | Product - Customer Drw | | sheet 4 of 8 |
| | angular | 0° ±-° | | | | | | |

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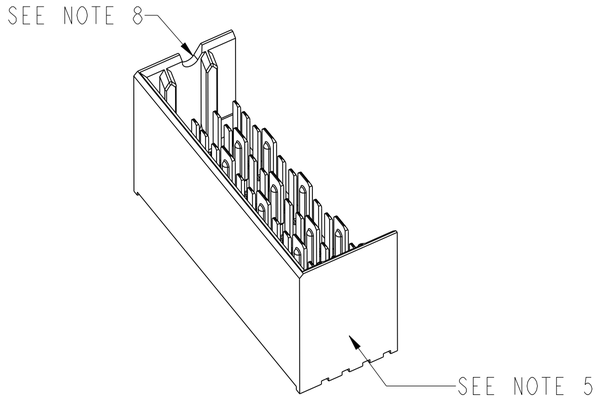
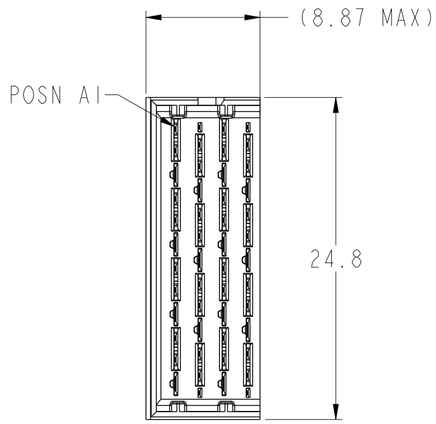
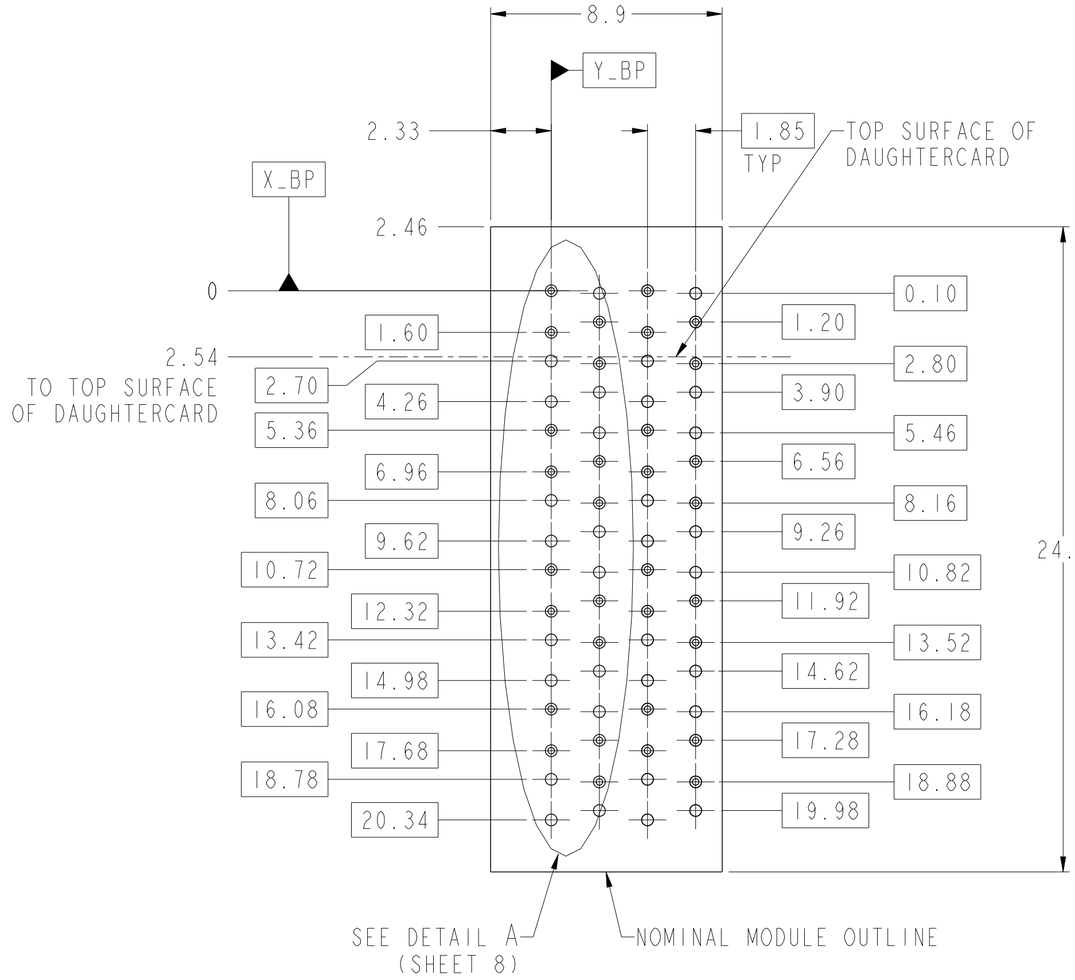
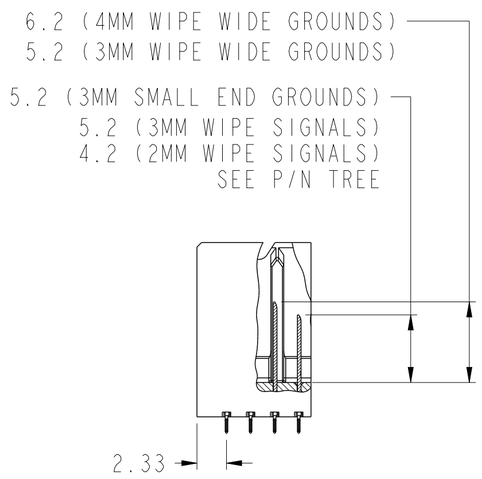
# LEFT WALL MODULE

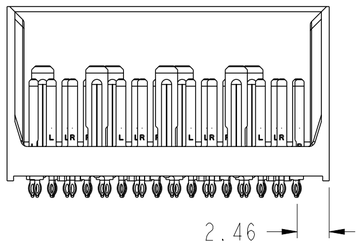


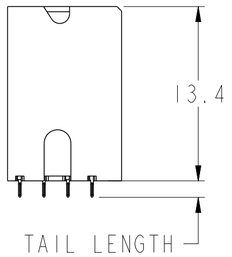




PCB HOLE PATTERN
COMPONENT SIDE
SCALE 6:1




| | | | | | | | |
|---|---|---|---|---|---|---|---|
| spec ref | SEE NOTES | | | dr | Jim Swain | 2010/04/13 | projection |
| tolerance std ASME Y14.5 | TOLERANCES UNLESS OTHERWISE SPECIFIED | | | eng | Michael Song | 2016/06/06 | MM |
| | | | | chr | Heaven Cen | 2016/06/08 | size A2 / scale 3:1 |
| | | | | appr | Pei-Ming Zheng | 2016/06/15 | ecn no ELX-DG-24191-1 |
| | | | | | | | product family XCede / rel level Released |
| surface - ASME Y14.5 | linear | 0.X | ±0.2 | Amphenol FCi | title: MODULE ASSEMBLY<br>VERTICAL HEADER, 4-COLUMN, 4-PAIR | | dwg no 10091836 / rev G |
| | | 0.XX | ±0.10 | | | | |
| | | 0.XXX | ±0.050 | | | | |
| | angular | 0° | ±-° | | cat. no. SEE P/N TREE | Product - Customer Drw | sheet 5 of 8 |

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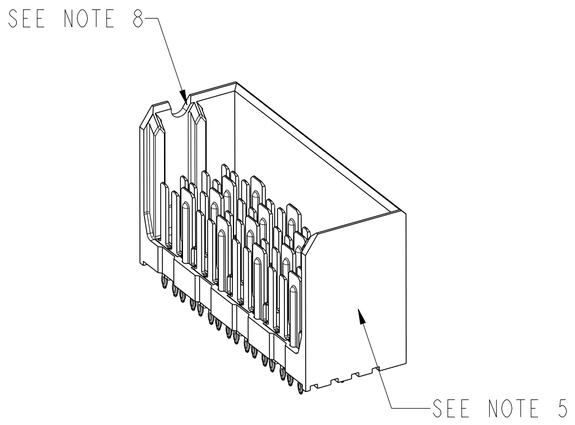
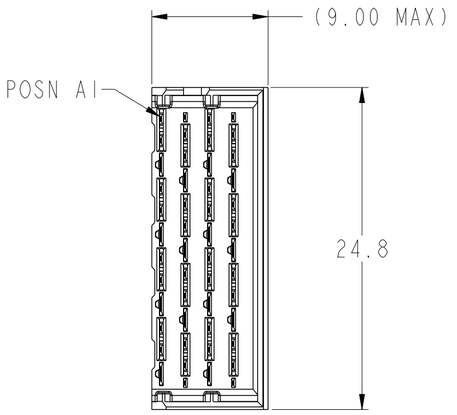
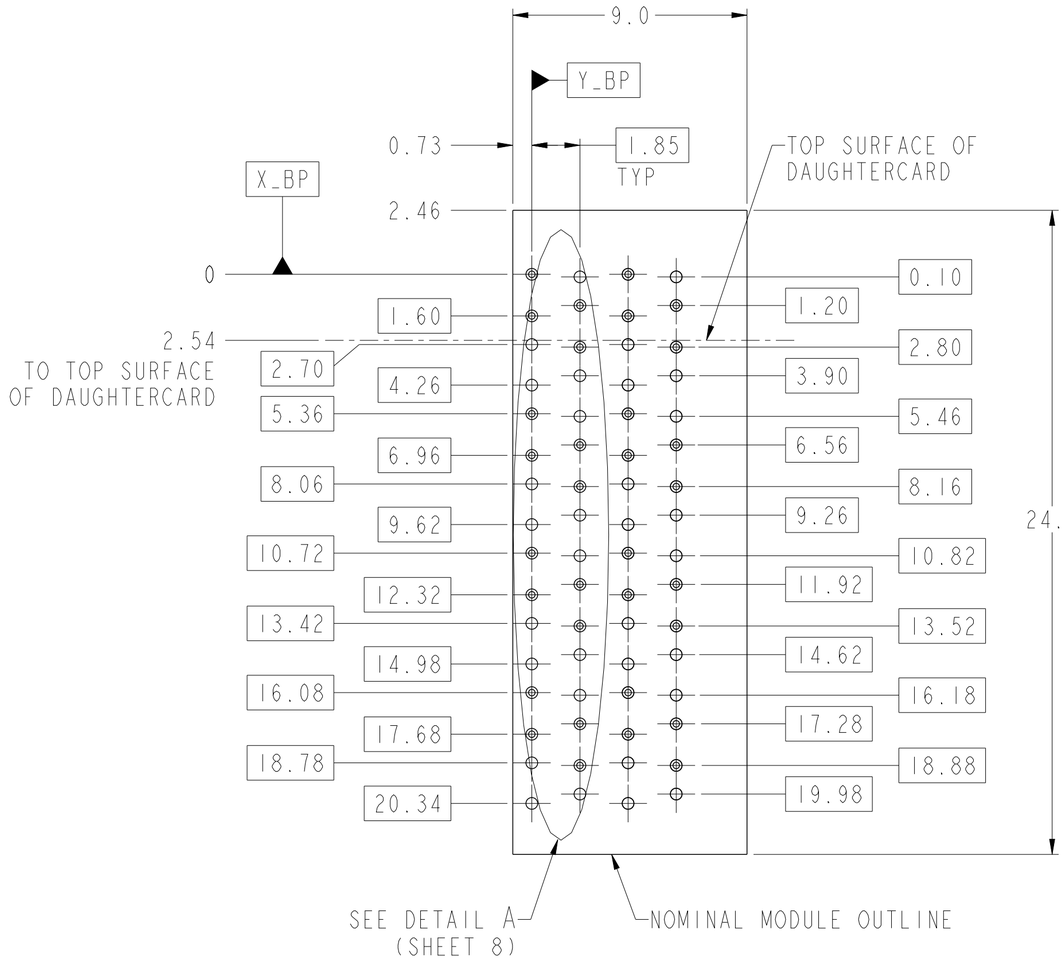
Creo File - REV E - 2016-02-12

PDS: Rev :G | STATUS: Released | Printed: Jun 15, 2016

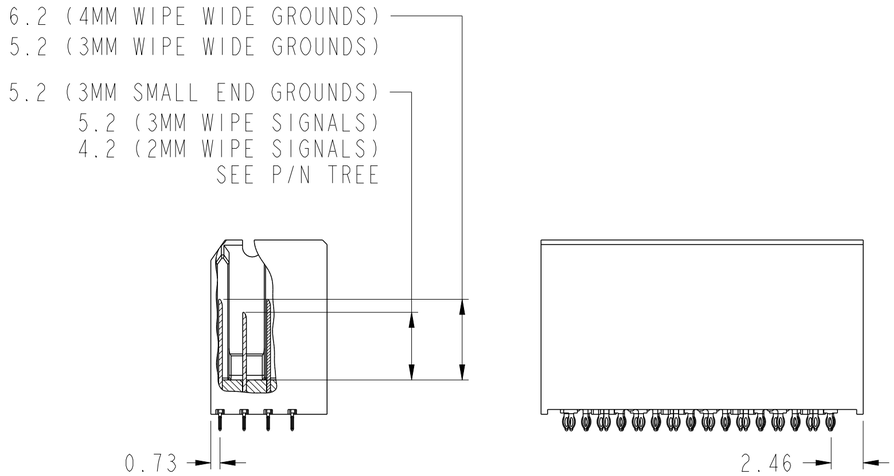
# RIGHT WALL MODULE




PCB HOLE PATTERN
COMPONENT SIDE
SCALE 6:1




| | | | | | | | |
|---|---|---|---|---|---|---|---|
| spec ref | SEE NOTES | | | dr | Jim Swain | 2010/04/13 | projection MM |
| tolerance std ASME Y14.5 | TOLERANCES UNLESS OTHERWISE SPECIFIED | | | eng | Michael Song | 2016/06/06 | size A2 scale 3:1 |
| | | | | chr | Heaven Cen | 2016/06/08 | ecn no ELX-DG-24191-1 |
| | | | | appr | Pei-Ming Zheng | 2016/06/15 | product family XCede rel level Released |
| surface - ASME Y14.5 | linear | 0.X | ±0.2 | Amphenol FCi | title MODULE ASSEMBLY VERTICAL HEADER, 4-COLUMN, 4-PAIR | | dwg no 10091836 rev G |
| | | 0.XX | ±0.10 | | | | |
| | | 0.XXX | ±0.050 | | | | |
| | angular | 0° | ±-° | | cat. no. SEE P/N TREE | Product - Customer Drw | sheet 6 of 8 |

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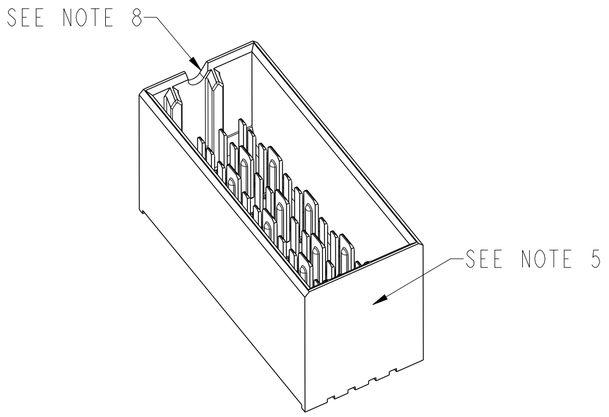
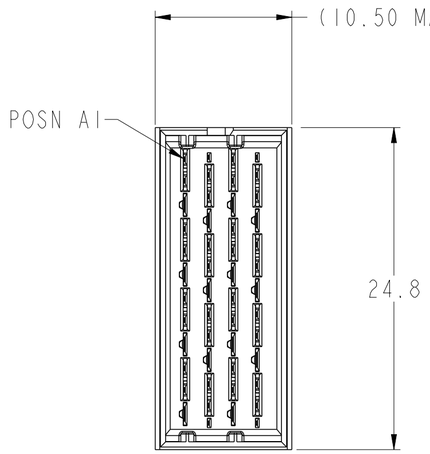
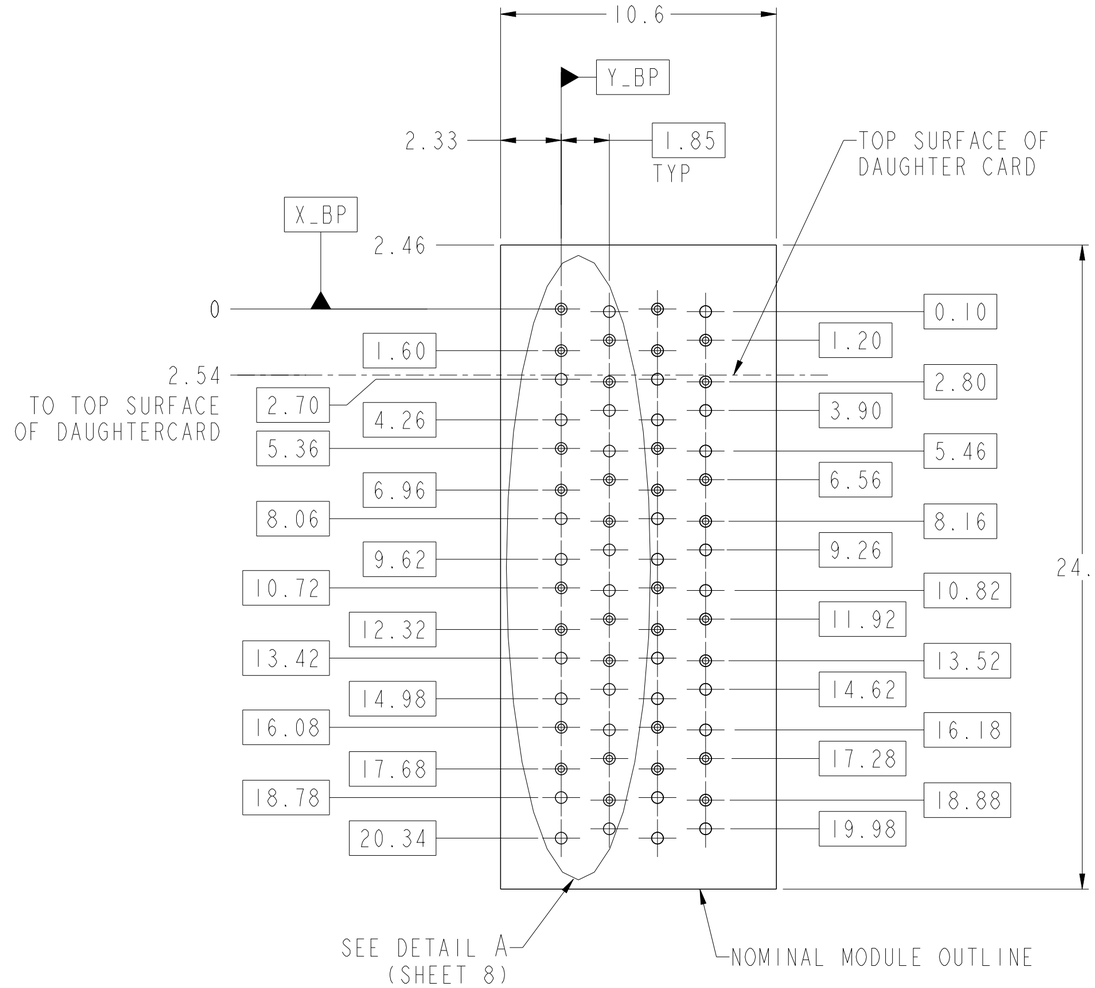
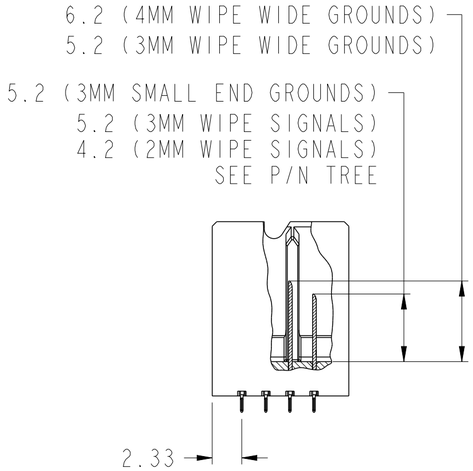
# 4-WALL MODULE

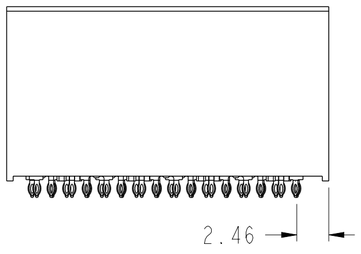


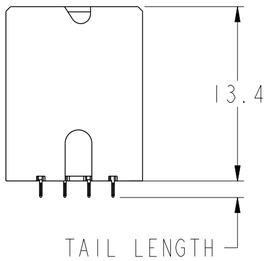




PCB HOLE PATTERN
COMPONENT SIDE
SCALE 6:1




| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| spec ref | SEE NOTES | | | dr | Jim Swain | 2010/04/13 | projection | MM | size A2 | scale 4:1 |
| tolerance std ASME Y14.5 | TOLERANCES UNLESS OTHERWISE SPECIFIED | | | eng | Michael Song | 2016/06/06 | | | | |
| | | | | chr | Heaven Cen | 2016/06/08 | | | ecn no | ELX-DG-24191-1 |
| | | | | appr | Pei-Ming Zheng | 2016/06/15 | product family - | | rel level | Released |
| surface - ASME Y14.5 | linear | 0.X | ±0.2 | Amphenol FCi | title | MODULE ASSEMBLY | dwg no | 10091836 | rev | G |
| | | 0.XX | ±0.10 | | | VERTICAL HEADER, 4-COLUMN, 4-PAIR | | | | |
| | | 0.XXX | ±0.050 | | | cat. no. - | Product - Customer Drw | | sheet 7 of 8 | |
| | angular | 0° | ±-° | | | | | | | |

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Creo File - REV E - 2016-02-12

PDS: Rev :G STATUS: Released Printed: Jun 15, 2016

NOTES:

1. CONNECTOR MATERIALS
   SHROUD: HIGH-TEMP THERMOPLASTIC, GRAY, UL94V-0
   CONTACTS: HIGH PERFORMANCE COPPER ALLOY

2. CONTACT PLATING:

   SEPARABLE INTERFACE: PERFORMANCE-BASED PLATING, QUALIFIED TO MEET THE REQUIREMENTS OF FCI PRODUCT SPECIFICATION GS-12-588, INCLUDING THE TELCORDIA GR-1217-CORE (NOVEMBER 1995) CENTRAL OFFICE (CO) OR UNCONTROLLED ENVIRONMENT (UE) TEST SEQUENCE AS NOTED IN P/N TREE.

   PRESS-FIT TAILS: TIN OVER NICKEL (LF), OR TIN-LEAD ALLOY OVER NICKEL (NON-LF). SEE P/N TREE.

3. PRODUCT SPECIFICATION: GS-12-588

4. APPLICATION SPECIFICATION: GS-20-121

5. PRODUCT MARKING (PART NUMBER AND LOT CODE) ON THESE SURFACES.

6. HOUSING MUST WITHSTAND EXPOSURE TO 260°C PEAK TEMPERATURE FOR 40 SECONDS IN A CONVECTION, INFRA-RED, OR VAPOR-PHASE REFLOW OVEN.

7. PACKAGING MEETS GS-14-920 LEAD-FREE LABELING SPECIFICATION.

8. NOTCH INDICATES "ROW A" SIDE OF CONNECTOR.

9. SEE APPLICATION SPECIFICATION FOR ROUTING GUIDELINES, ADDITIONAL PTH GUIDELINES, MATED DIMENSIONS, GUIDE PN SELECTION, ETC.

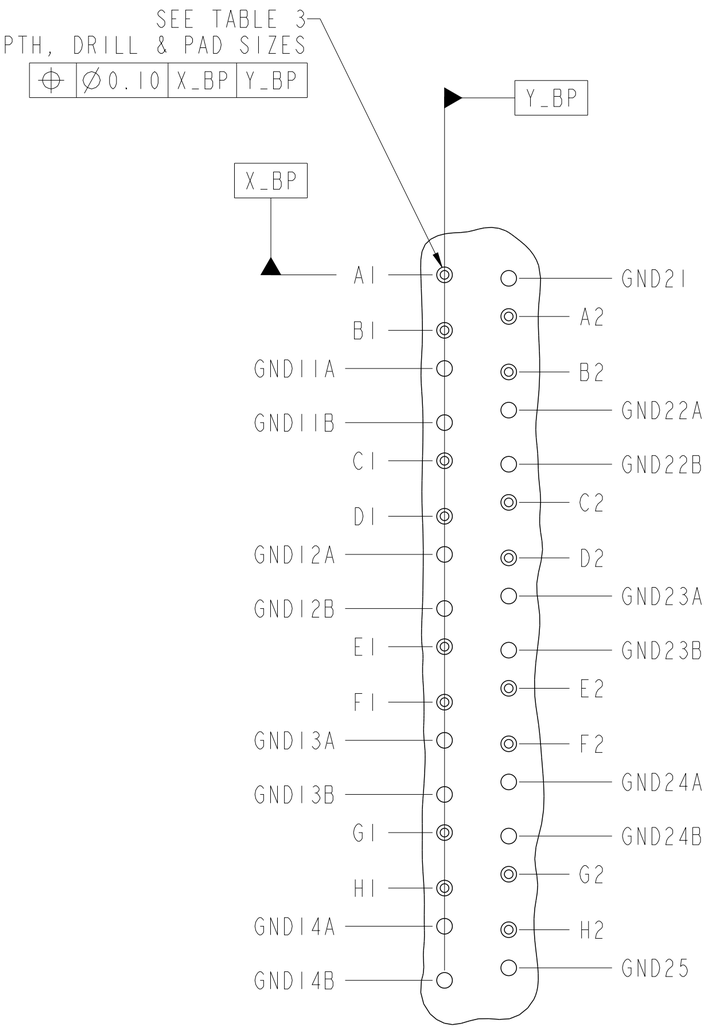
10. SCREW IS OPTIONAL AND ENGAGES WITH BOTTOM OF GUIDE-PIN FROM BENEATH THE PCB FOR ADDITIONAL GUIDE-PIN SUPPORT.

11. OPTIONAL HOLE LOCATION FOR GROUNDED PIN OR ADDITIONAL GUIDE-PIN SUPPORT. SEE TABLE 1 ON SHEET 1 FOR ADDITIONAL DETAILS.

12. TAIL LENGTH=1.3mm FOR ∅0.55[0.0217"]COMPLIANT PIN DRILL
    TAIL LENGTH=1.5mm FOR ∅0.45[0.0177"]COMPLIANT PIN DRILL

TABLE 3: PTH AND PAD SIZES WITH REFERENCE TO COMPLIANT PIN DRILL

| COMPLIANT PIN DRILL | PTH | PAD |
|---|---|---|
| ∅0.55 [0.0217"] | ∅0.45±0.05 | ∅0.85 |
| ∅0.45 [0.0177"] | ∅0.36±0.05 | ∅0.75 |




DETAIL A
SCALE 8:1

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| spec ref | SEE NOTES | | | dr | Jim Swain | 2010/04/13 | projection | MM | size A2 / scale 4:1 |
| tolerance std ASME Y14.5 | TOLERANCES UNLESS OTHERWISE SPECIFIED | | | eng | Michael Song | 2016/06/06 | | | |
| | | | | chr | Heaven Cen | 2016/06/08 | | | ecn no ELX-DG-24191-1 |
| | | | | appr | Pei-Ming Zheng | 2016/06/15 | product family - | | rel level Released |
| surface - ASME Y14.5 | linear | 0.X | ±0.2 | Amphenol FCi | title | MODULE ASSEMBLY | dwg no 10091836 | | rev G |
| | | 0.XX | ±0.10 | | | VERTICAL HEADER, 4-COLUMN, 4-PAIR | | | |
| | | 0.XXX | ±0.050 | | | | | | |
| | angular | 0° | ±-° | | cat. no. - | | Product - Customer Drw | | sheet 8 of 8 |

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