

1

2

3

4

5

6

7

8

10114508 - X 0 J - X 0 X L 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, 31.6mm

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

A

B

C

D

E

F

H

NO KEY

A

B

C

D

E

F

H

A

B

C

D

E

F

H

A

B

C

D

E

F

H

A

B

C

D

E

F

H

A

B

C

D

E

F

H

A

B

C

D

E

F

H

A

B

C

D

E

F

H

A

B

C

D

E

F

H

A

B

C

D

E

F

H

RIGHT POLARIZING GUIDANCE MODULE (SEE SHEET 4)

Y P Q R S T U V W

A

B

C

D

E

F

H

NO KEY

A

B

C

D

E

F

H

A

B

C

D

E

F

H

A

B

C

D

E

F

H

A

B

C

D

E

F

H

A

B

C

D

E

F

H

A

B

C

D

E

F

H

A

B

C

D

E

F

H

A

B

C

D

E

F

H

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

SIGNAL

WIDE GROUND

COMPLIANT PIN DRILL SIZE

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"]

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

GROUND

UNGROUND

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

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

spec ref

SEE NOTES

dr

Kok-Hoe Lee

2010/06/23

eng

Michael Song

2016/06/03

chr

Heaven Cen

2016/06/08

appr

Pei-Ming Zheng

2016/06/15

projection

MM

size

A2

scale

4:1

ecn no

ELX-DG-24191-1

rel level

Released

surface

linear

0.X

±0.2

0.XX

±0.10

0.XXX

±0.050

angular

0°

±°

Amphenol FCI

MODULE ASSEMBLY

VERTICAL HEADER, 4-COLUMN, 6-PAIR

cat. no.

SEE P/N TREE

Product - Customer Drw

sheet 1 of 8

rev

G

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Creo File - REV E - 2016-02-12

1

2

3

4

5

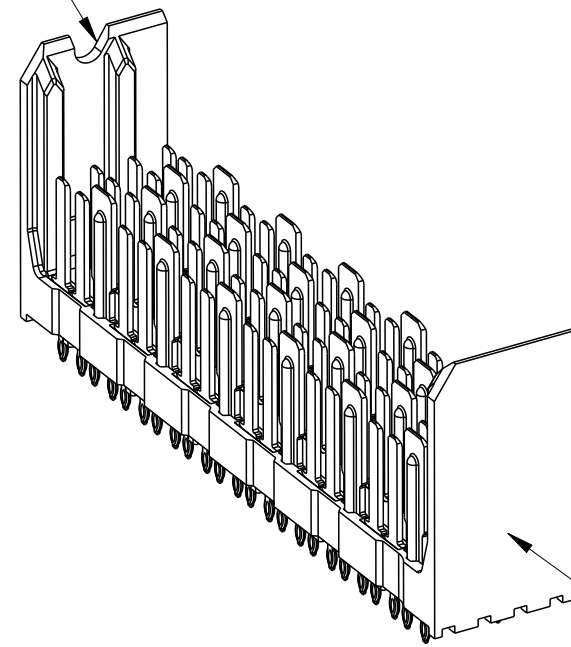
PDS: Rev :G

STATUS:Released

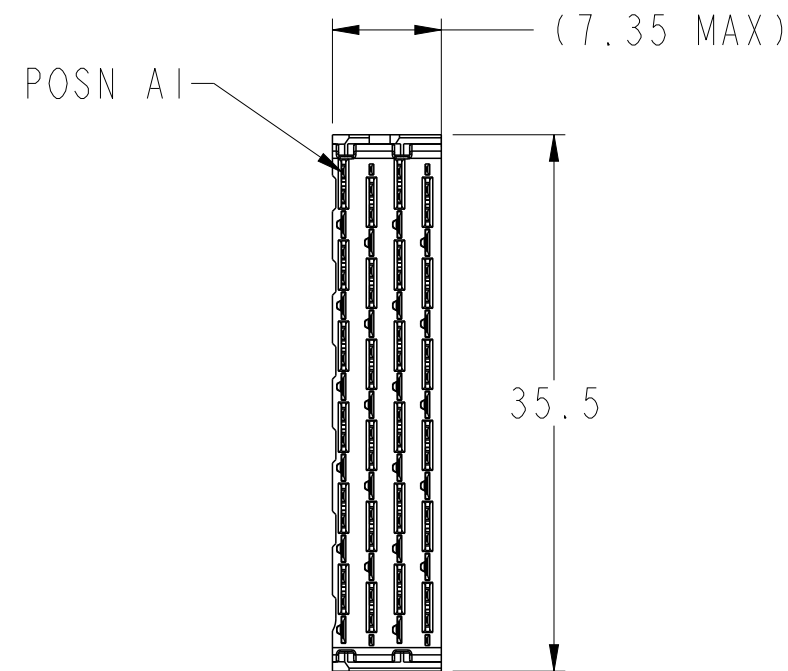
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OPEN (2-WALL) MODULE

SEE NOTE 8



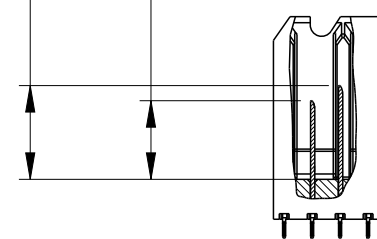
SEE NOTE 5



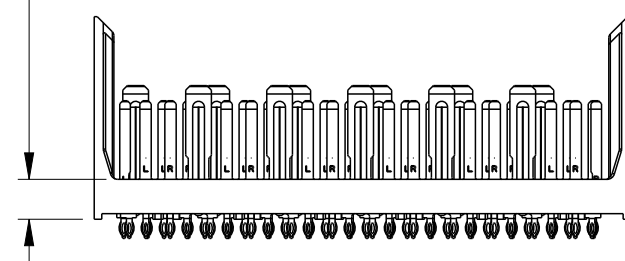
6.2 (4MM WIPE WIDE GROUNDS)
5.2 (3MM WIPE WIDE GROUNDS)

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

(SEE P/N TREE FOR
ALL COMBINATIONS AVAILABLE)



2.64±0.10 FROM STANDOFF
SURFACE TO MATING SURFACE



2.54
TO TOP SURFACE
OF DAUGHTERCARD

X_BP

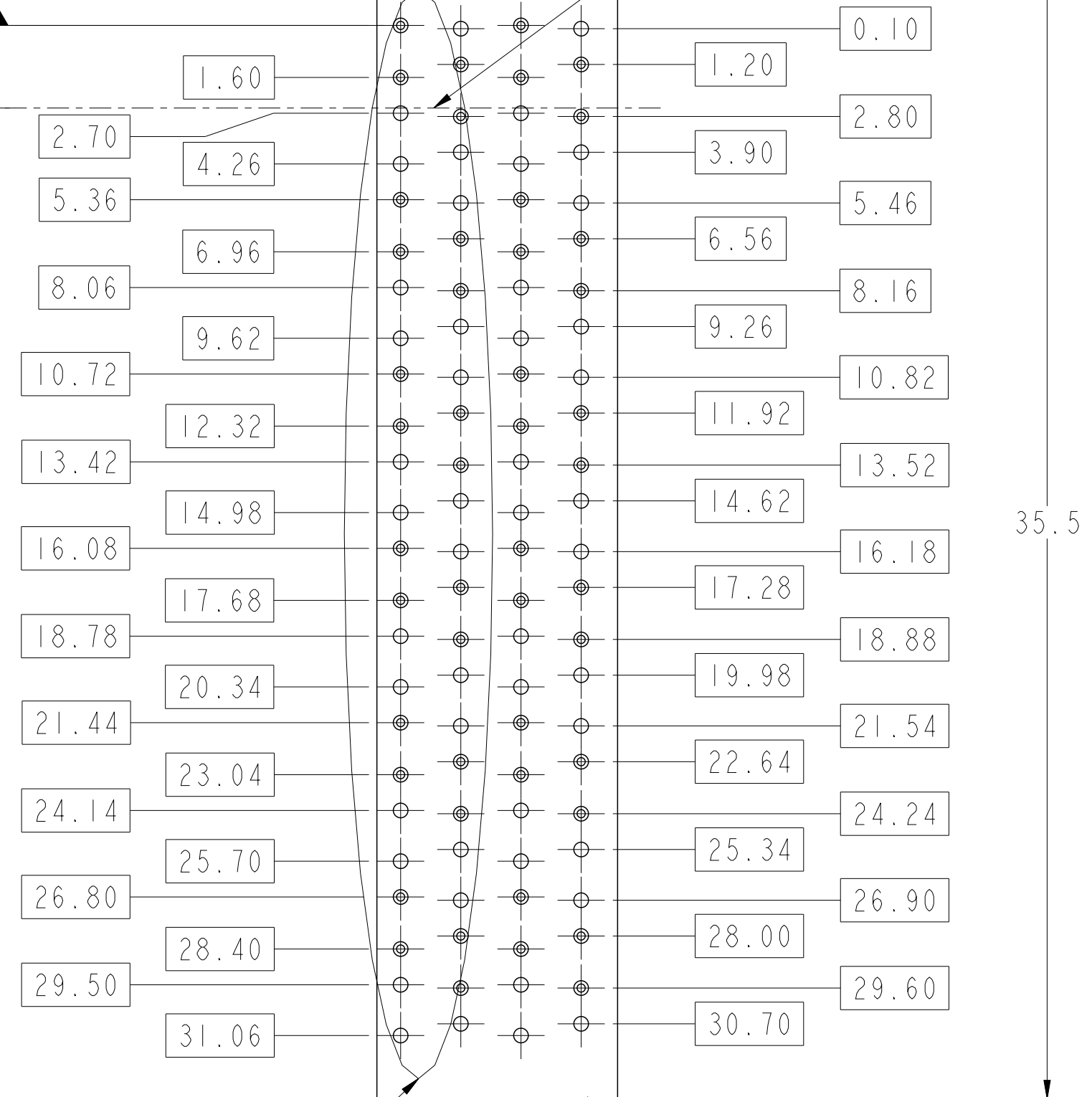
(0.73)

(2.46)

Y_BP

1.85
TYP

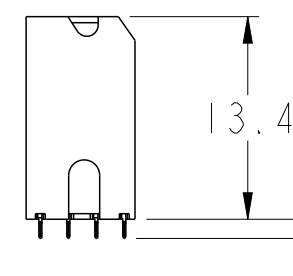
TOP SURFACE OF
DAUGHTERCARD



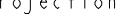
SEE DETAIL A
(SHEET 8)

PCB HOLE PATTERN
COMPONENT SIDE
SCALE 6:1

NOMINAL MODULE OUTLINE



TAIL LENGTH
SEE NOTE 12

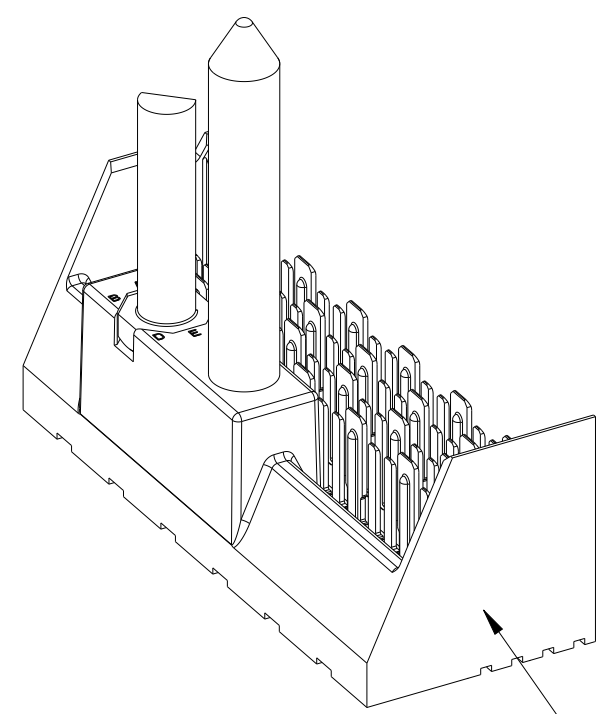
spec ref		SEE NOTES		dr		Kok-Hoe Lee		2010/06/23		projection		size		scale	
tolerance std		TOLERANCES UNLESS OTHERWISE SPECIFIED		eng		Michael Song		2016/06/03				MM		A2 4:1	
ASME Y14.5				chr		Heaven Cen		2016/06/08							
				appr		Pei-Ming Zheng		2016/06/15		product family		- ecn no		ELX-DG-24191-1	
												rel level		Released	
surface		linear		Amphenol FCi		title		MODULE ASSEMBLY VERTICAL HEADER, 4-COLUMN, 6-PAIR		dwg no		10114508		rev G	
		0.X ±0.2													
		0.XX ±0.10													
ASME Y14.5		angular													
		0° ±													

PDS: Rev: G

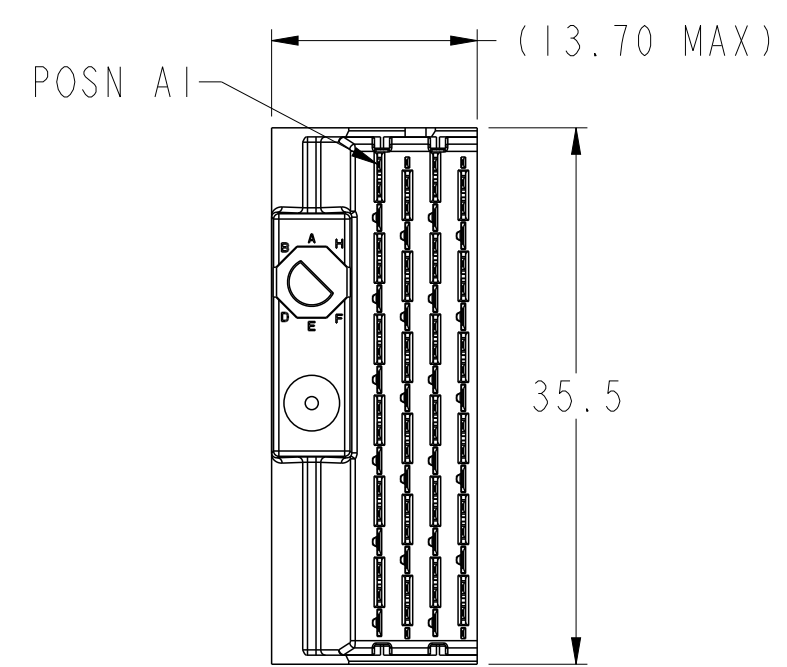
STATUS: Released

Printed: Jun 15, 2016

LEFT POLARIZING/GUIDE MODULE

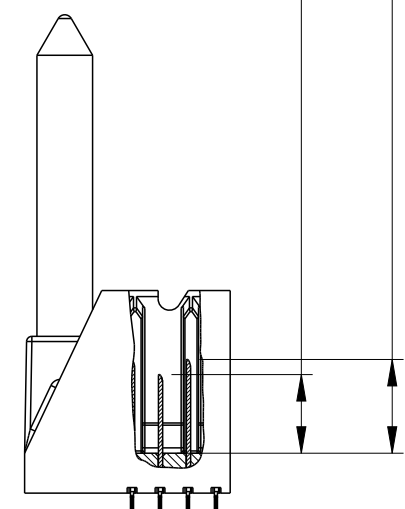


SEE NOTE 5



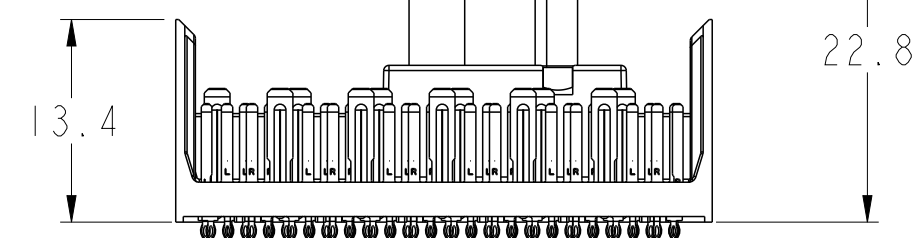
- 6.2 (4MM WIPE WIDE GROUNDS)
- 5.2 (3MM WIPE WIDE GROUNDS)
- 5.2 (3MM SMALL END GROUNDS)
- 5.2 (3MM WIPE SIGNALS)
- 4.2 (2MM WIPE SIGNALS)

(SEE P/N TREE FOR ALL COMBINATIONS AVAILABLE)

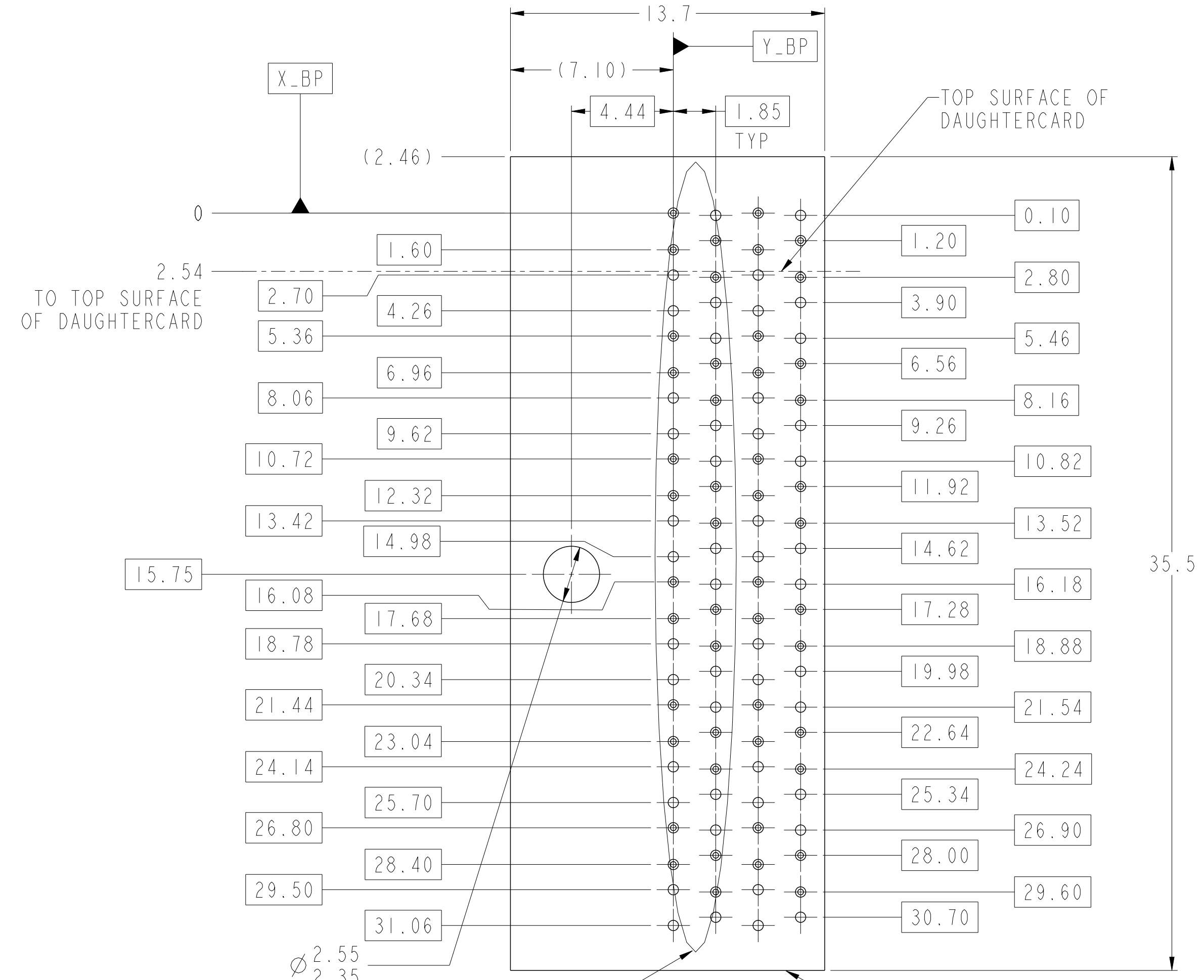
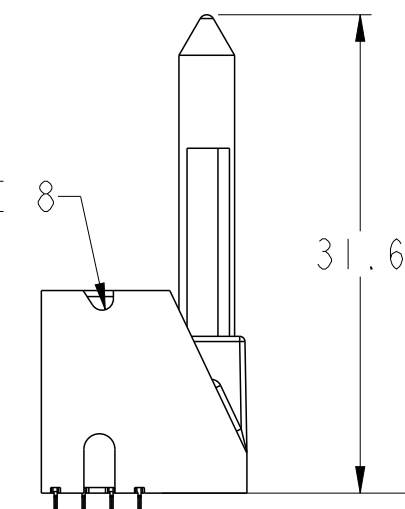


GUIDE PIN

OPTIONAL KEYING PIN
(SEE P/N TREE)



SEE NOTE 8



SEE DETAIL A
(SHEET 8)

PCB HOLE PATTERN
COMPONENT SIDE
SCALE 6:1

NOMINAL MODULE OUTLINE

spec ref		SEE NOTES		dr	Kok-Hoe Lee	2010/06/23	projection 	MM 	size	A2	scale	8:1		
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								
				appr	Pei-Ming Zheng	2016/06/15	product family		-	rel level		Released		
surface	- 	linear	0.X	±0.2	Amphenol FCI	title	MODULE ASSEMBLY VERTICAL HEADER, 4-COLUMN, 6-PAIR			dwg no	10114508		rev	G
			0.XX	±0.10										
			0.XXX	±0.050										
ASME Y14.5	angular	0°	±°		cat. no.		SEE P/N TREE	Product - Customer Drw			sheet 3 of 8			

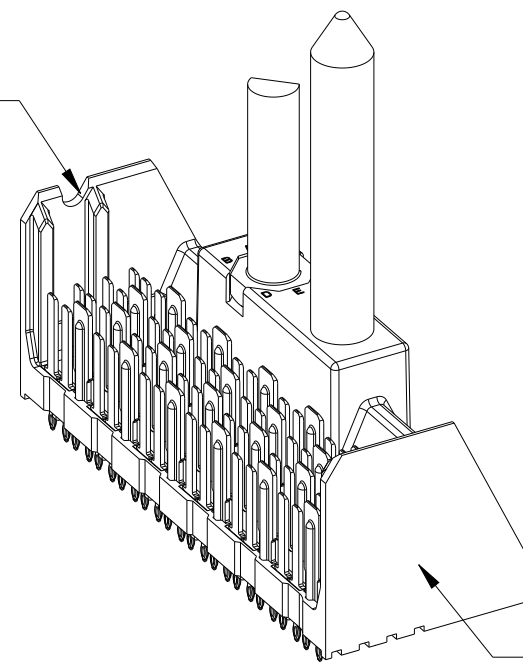
PDS: Rev:G

STATUS:Released

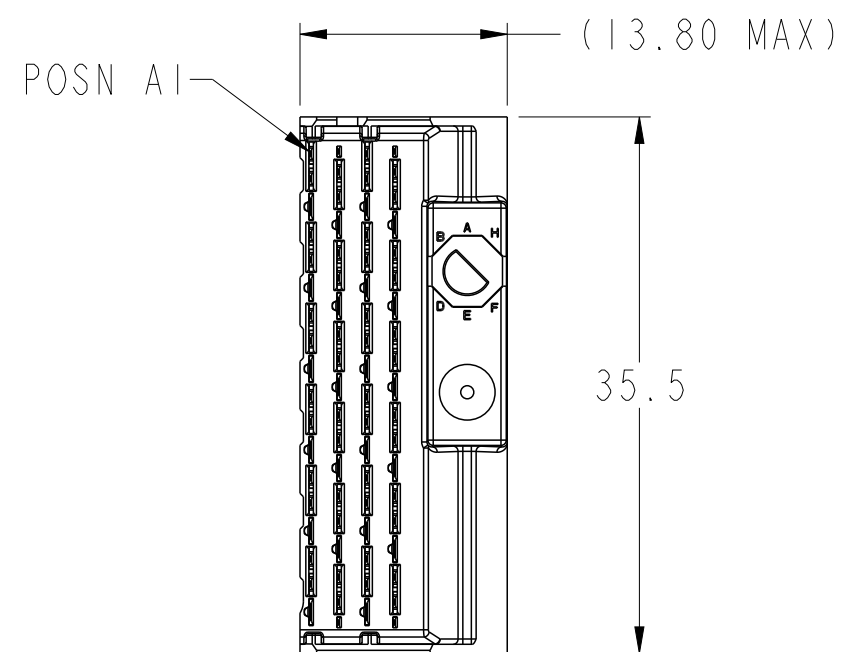
Printed: Jun 15, 2016

RIGHT POLARIZING/GUIDE MODULE

SEE NOTE 8



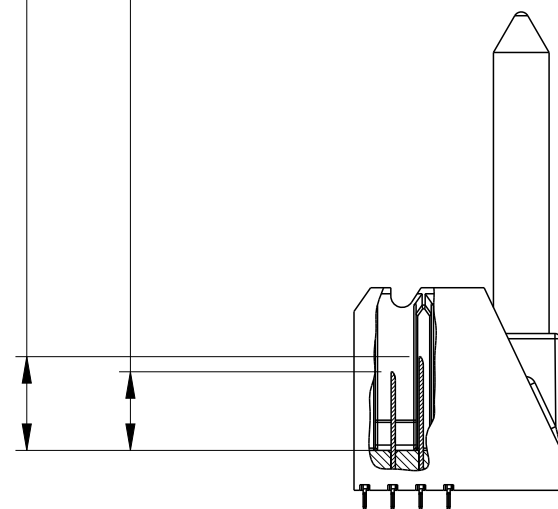
SEE NOTE 5



6.2 (4MM WIPE WIDE GROUNDS)
5.2 (3MM WIPE WIDE GROUNDS)

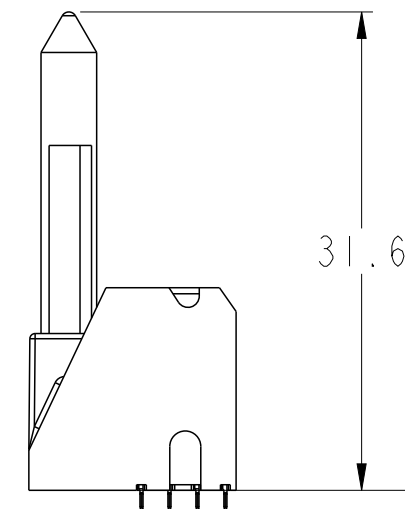
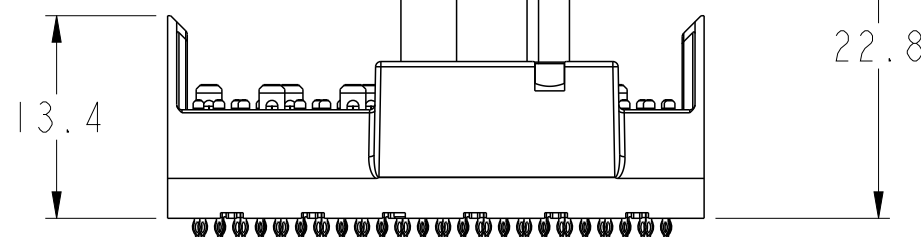
5.2 (3MM SMALL END GROUNDS)
5.2 (3MM WIPE SIGNALS)
4.2 (2MM WIPE SIGNALS)

(SEE P/N TREE FOR
ALL COMBINATIONS AVAILABLE)



GUIDE PIN

OPTIONAL KEYING PIN
(SEE P/N TREE)



SEE DETAIL A
(SHEET 8)

NOMINAL MODULE OUTLINE

PCB HOLE PATTERN
COMPONENT SIDE
SCALE 6:1

Ø 2.55
2.35

⊕ 0.10 X_BP Y_BP
SEE NOTE 11 & TABLE 1

(0.73)
(2.46)

X_BP

Y_BP

1.85 TYP

10.36

TOP SURFACE OF
DAUGHTERCARD

2.54
TO TOP SURFACE
OF DAUGHTERCARD

2.70

1.60

5.36

4.26

8.06

6.96

10.72

9.62

13.42

12.32

16.08

14.98

18.78

17.68

21.44

20.34

24.14

23.04

26.80

25.70

29.50

28.40

31.06

0.10

1.20

2.80

3.90

5.46

6.56

8.16

9.26

10.82

11.92

13.52

14.62

15.75

16.18

17.28

18.88

19.98

21.54

22.64

24.24

25.34

26.90

28.00

29.60

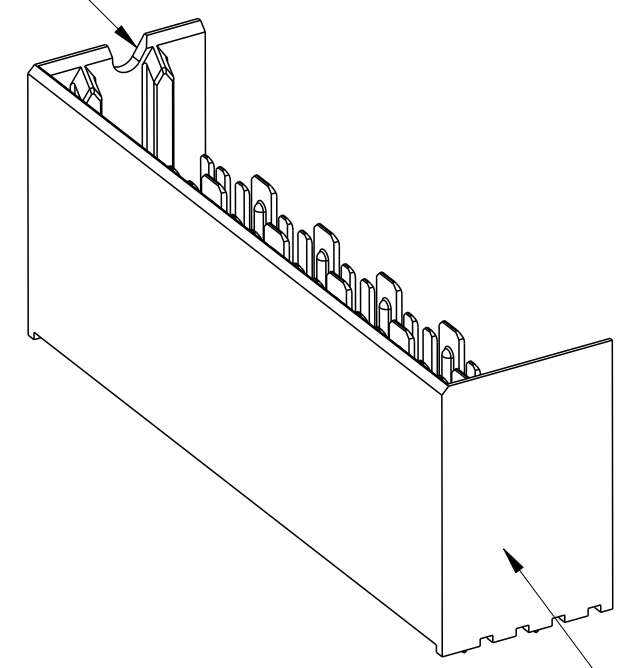
30.70

35.5

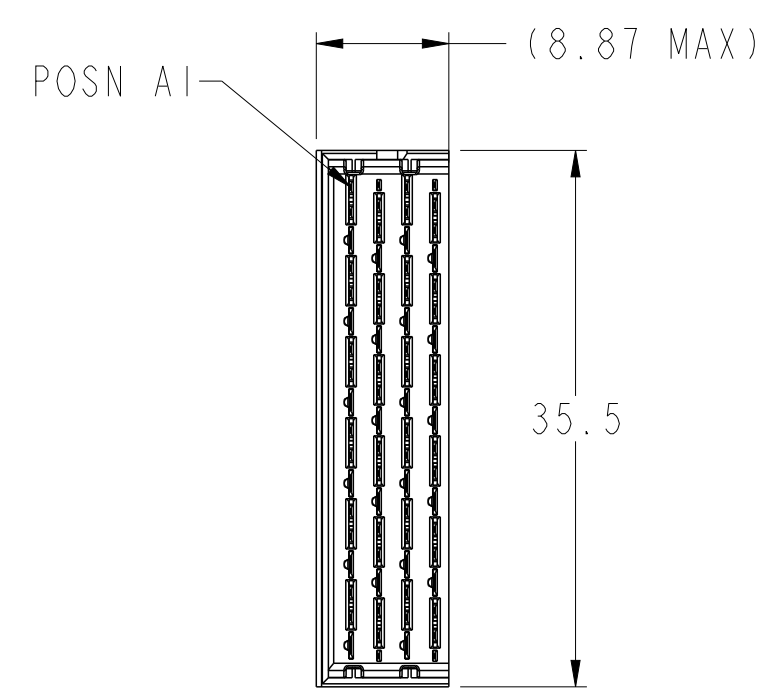
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tolerance std		TOLERANCES UNLESS OTHERWISE SPECIFIED		eng		Michael Song		2016/06/03						A2		5:1		
ASME Y14.5				chr		Heaven Cen		2016/06/08						ecn no		ELX-DG-24191-1		
		appr		Pei-Ming Zheng		2016/06/15		product family								rel level		Released
surface		linear	0.X		±0.2				title		MODULE ASSEMBLY		dwg no		10114508		rev	
			0.XX		±0.10													
			0.XXX		±0.050													
ASME Y14.5		angular	0°		±°						cat. no.		SEE P/N TREE		Product - Customer Drw		sheet 4 of 8	

LEFT WALL MODULE

SEE NOTE 8



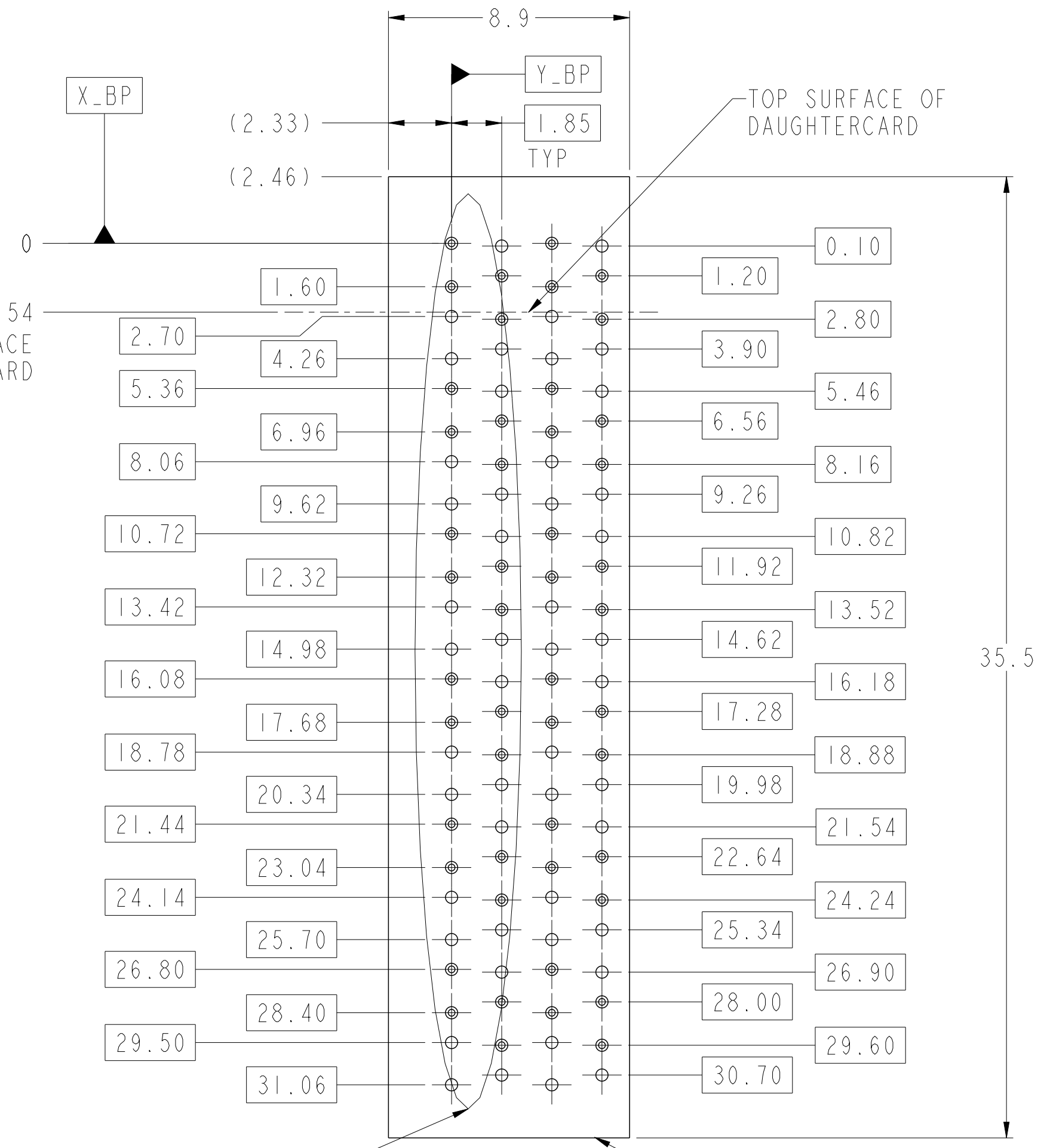
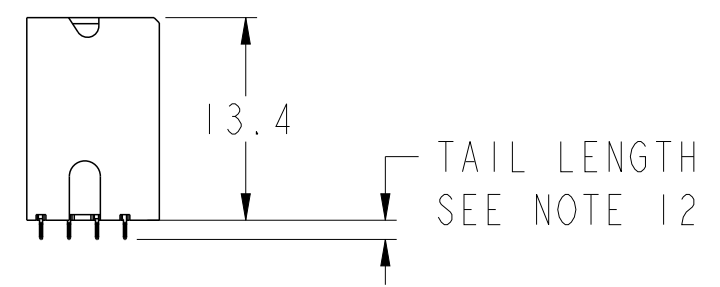
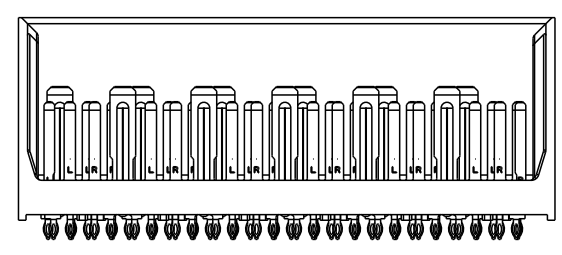
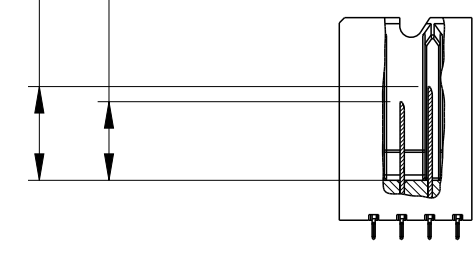
SEE NOTE 5



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)



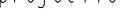
SEE DETAIL A
(SHEET 8)

PCB HOLE PATTERN
COMPONENT SIDE
SCALE 6:1

NOMINAL MODULE OUTLINE

Amphenol
FCI

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spec ref		SEE NOTES			dr		Kok-Hoe Lee		2010/06/23		projection		MM		size		A2		scale		6:1	
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					
ASME Y14.5					appr		Pei-Ming Zheng		2016/06/15						product family							
surface					linear		Amphenol FCI		title						MODULE ASSEMBLY		dwg no		10114508		rev	
ASME Y14.5		0.X		±0.2																		
ASME Y14.5		0.XX		±0.10																		
ASME Y14.5		0.XXX		±0.050		cat. no.		SEE P/N TREE		Product - Customer Drw		sheet 5 of 8										

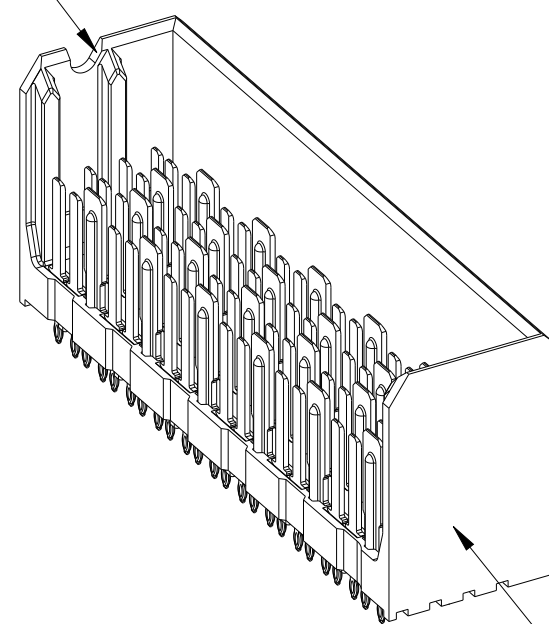
PDS: Rev :G

STATUS:Released

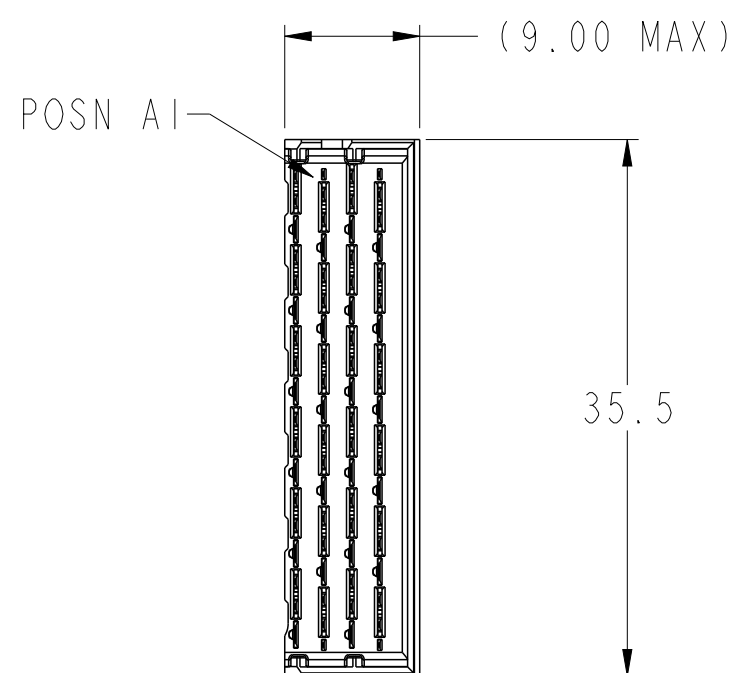
Printed: Jun 15, 2016

RIGHT WALL MODULE

SEE NOTE 8

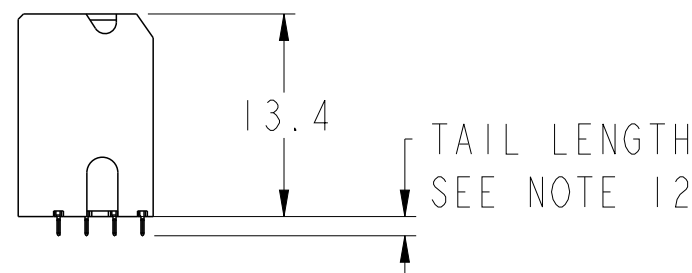
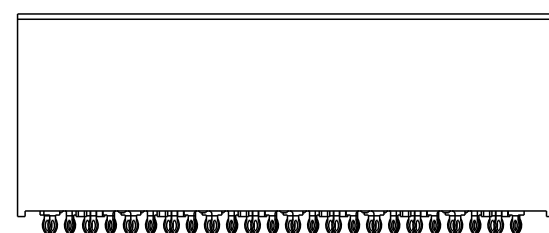
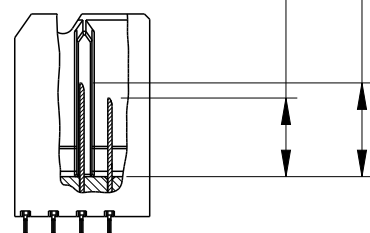


SEE NOTE 5



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)

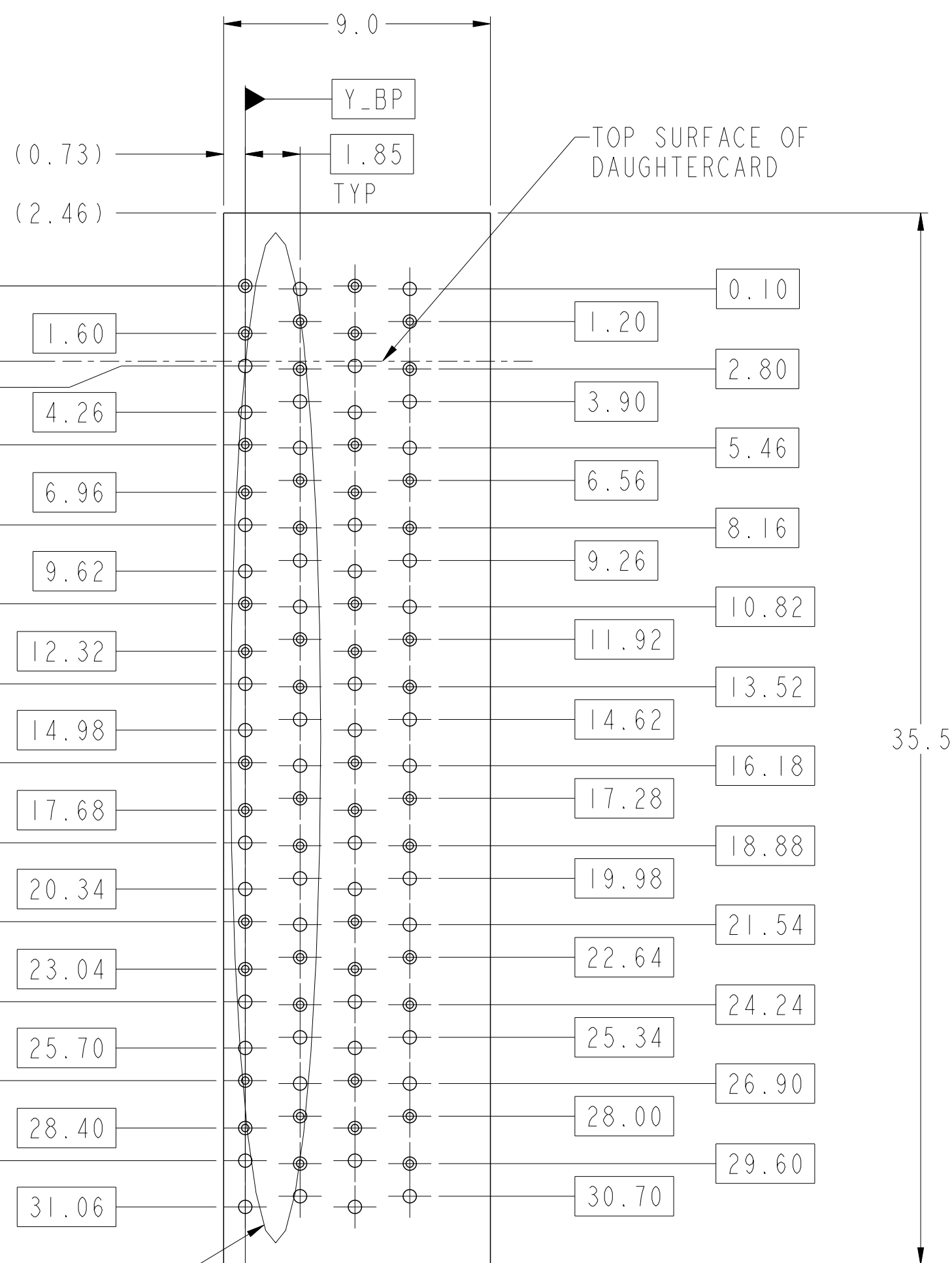


2.54
TO TOP SURFACE
OF DAUGHTERCARD

SEE DETAIL A
(SHEET 8)

PCB HOLE PATTERN
COMPONENT SIDE
SCALE 6:1

NOMINAL MODULE OUTLINE



spec ref	SEE NOTES	dr	Kok-Hoe Lee	2010/06/23	projection	MM	size	A2	scale	4:1
tolerance std	TOLERANCES UNLESS OTHERWISE SPECIFIED	eng	Michael Song	2016/06/03	chr	Heaven Cen	ecn no	ELX-DG-24191-1	rel level	Released
ASME Y14.5		appr	Pei-Ming Zheng	2016/06/15	product family		cat. no.	SEE P/N TREE	Product - Customer Drw	sheet 6 of 8
surface	linear	0.X	±0.2	0.XX	±0.10	0.XXX	±0.050	angular	0°	±°
ASME Y14.5										
Amphenol FCI					MODULE ASSEMBLY					rev
					VERTICAL HEADER, 4-COLUMN, 6-PAIR					G
					10114508					

PDS: Rev :G

STATUS:Released

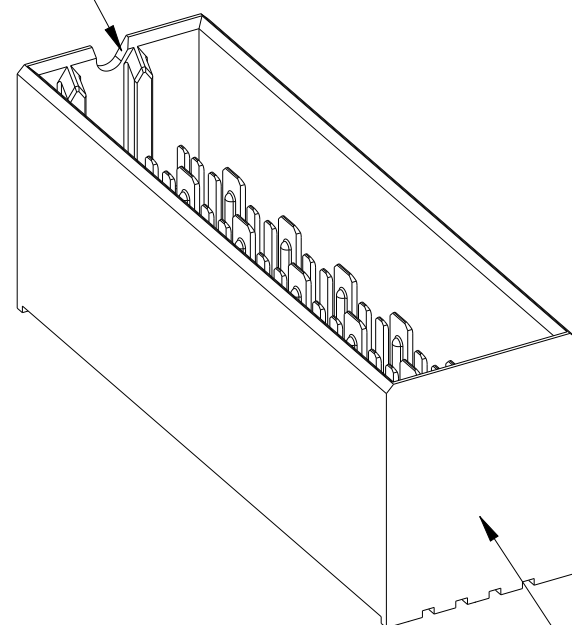
Printed: Jun 15, 2016

Amphenol
FCI

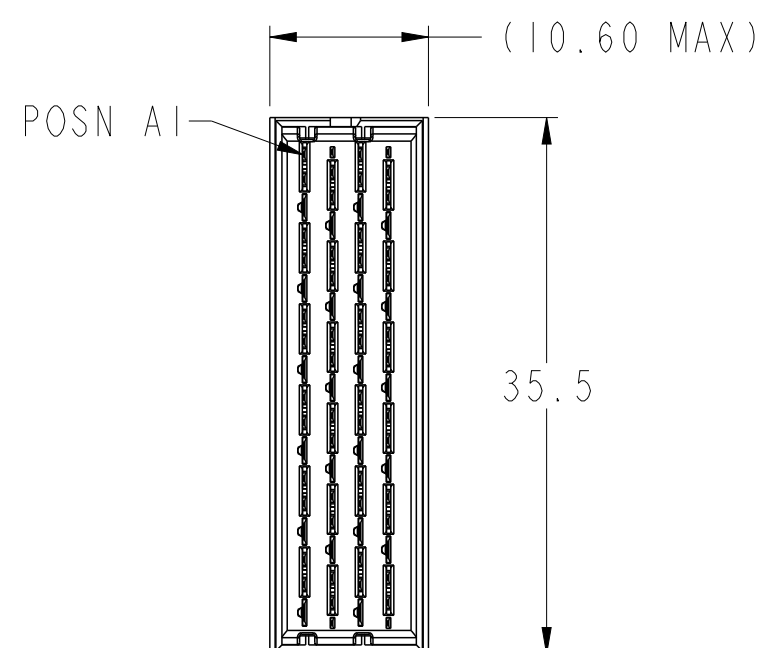
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FOUR WALL MODULE

SEE NOTE 8

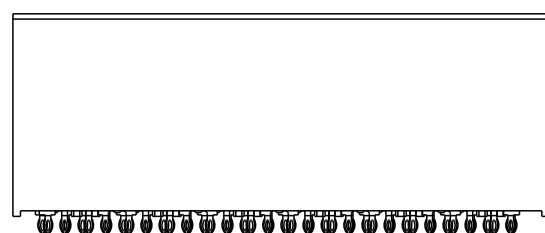
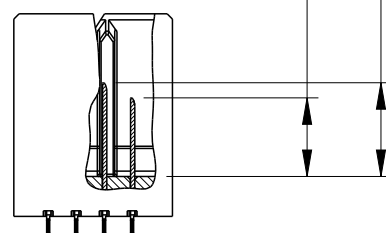


SEE NOTE 5



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)



X_BP

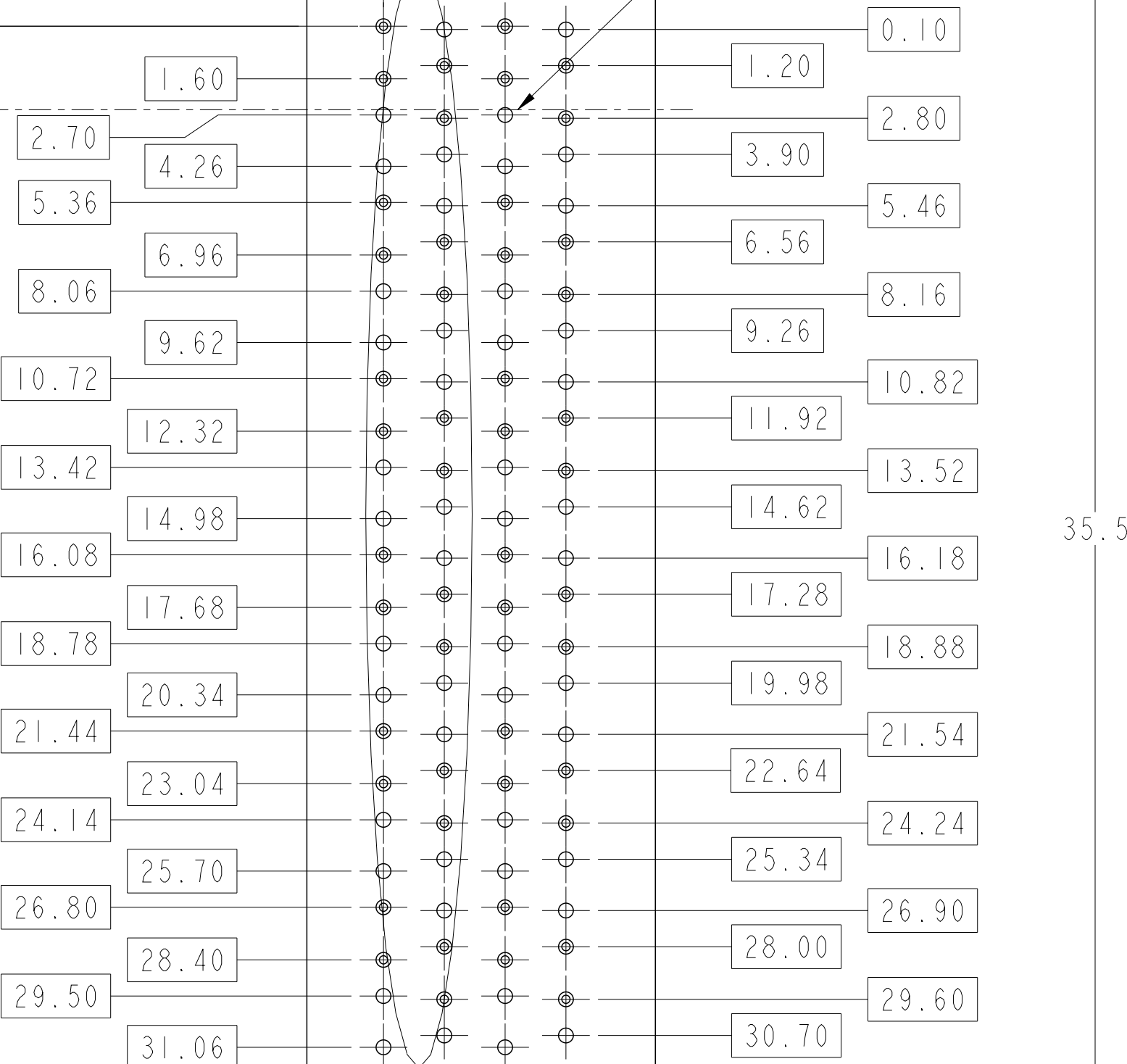
Y_BP

1.85

TYP

TOP SURFACE OF
DAUGHTERCARD

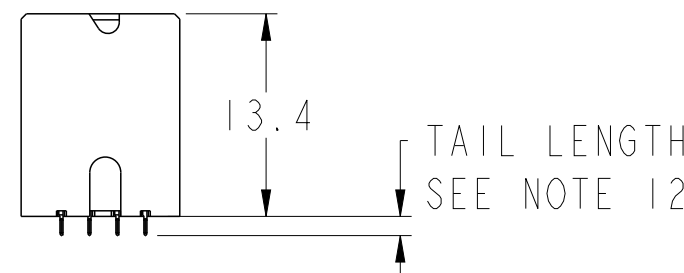
2.54
TO TOP SURFACE
OF DAUGHTERCARD



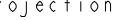
SEE DETAIL A
(SHEET 8)

PCB HOLE PATTERN
COMPONENT SIDE
SCALE 6:1

NOMINAL MODULE OUTLINE



TAIL LENGTH
SEE NOTE 12

spec ref	SEE NOTES		dr	Kok-Hoe Lee	2010/06/23			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	Pei-Ming Zheng	2016/06/15	product family		-					
surface		linear	0.X	±0.2	Amphenol FCI	title	MODULE ASSEMBLY VERTICAL HEADER, 4-COLUMN, 6-PAIR			dwg no	10114508	rev	G
			0.XX	±0.10									
			0.XXX	±0.050									
ASME Y14.5		angular	0°	±0°		cat. no.	SEE P/N TREE	Product - Customer Drw			sheet 7 of 8		

PDS: Rev :G

STATUS:Released

Printed: Jun 15, 2016

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 (CO) OR UNCONTROLLED ENVIRONMENT (UE) TEST SEQUENCE AS NOTED IN P/N TREE.

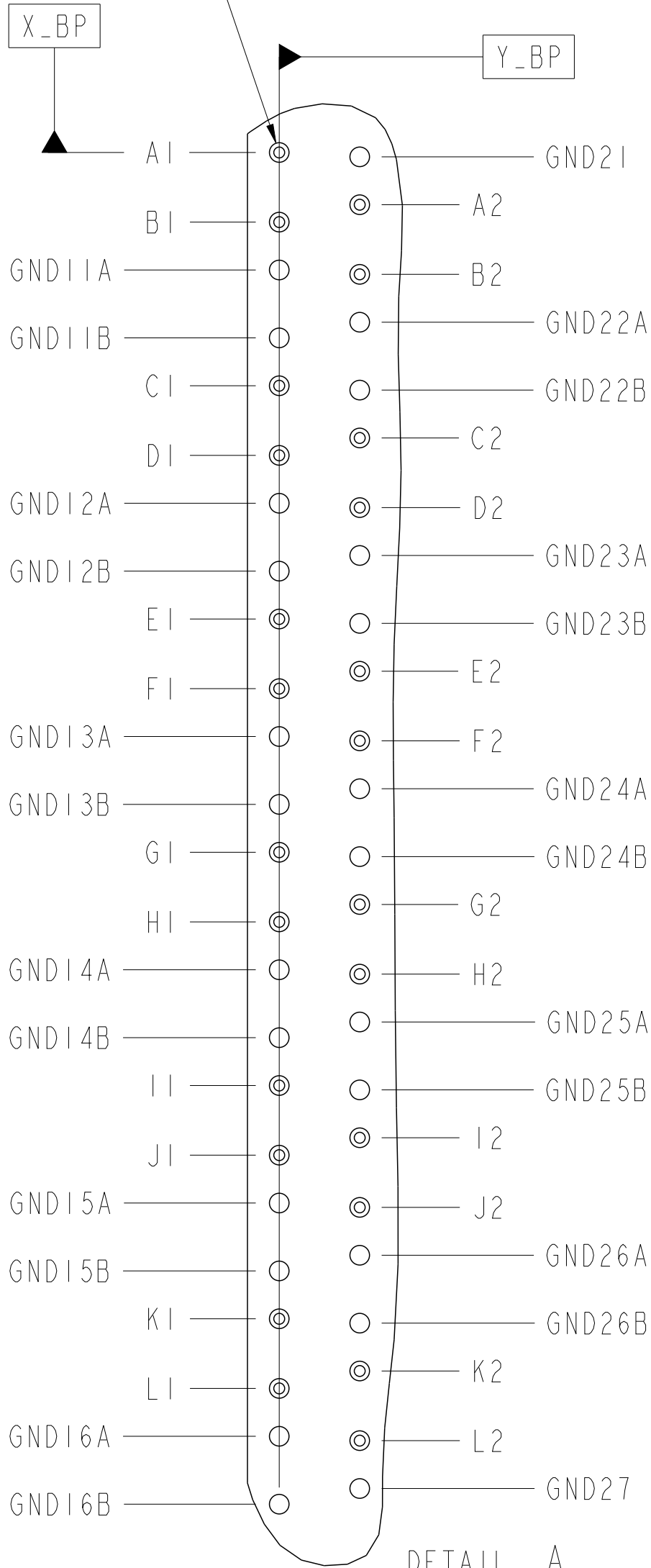
PRESS-FIT TAILS: TIN OVER NICKEL, OR TIN-LEAD ALLOY OVER NICKEL. SEE P/N TREE.
- PRODUCT SPECIFICATION: GS-12-588
- APPLICATION SPECIFICATION: GS-20-121
- PRODUCT MARKING (PART NUMBER AND LOT CODE) ON THESE SURFACES.
- HOUSING MUST WITHSTAND EXPOSURE TO 260°C PEAK TEMPERATURE FOR 40 SECONDS IN A CONVECTION, 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.
- TAIL LENGTH=1.3mm FOR Ø0.55[0.0217"]COMPLIANT PIN DRILL
TAIL LENGTH=1.5mm FOR Ø0.45[0.0177"]COMPLIANT PIN DRILL

REFER TABLE 3
FOR PTH, DRILL & PAD SIZES

$\varnothing$	0.10	X_BP	Y_BP
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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



DETAIL A
SCALE 8:1

spec ref	SEE NOTES			dr	Kok-Hoe Lee	2010/06/23	projection		MM		size	A2	scale	4:1	
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									
				appr	Pei-Ming Zheng	2016/06/15	product family		-	rel level	Released				
surface	linear	0.X	±0.2	Amphenol FCI	title	MODULE ASSEMBLY VERTICAL HEADER, 4-COLUMN, 6-PAIR					dwg no	10114508		rev	G
		0.XX	±0.10												
		0.XXX	±0.050												
ASME Y14.5	angular	0°	±°		cat. no.	SEE P/N TREE	Product - Customer Drw					sheet 8 of 8			