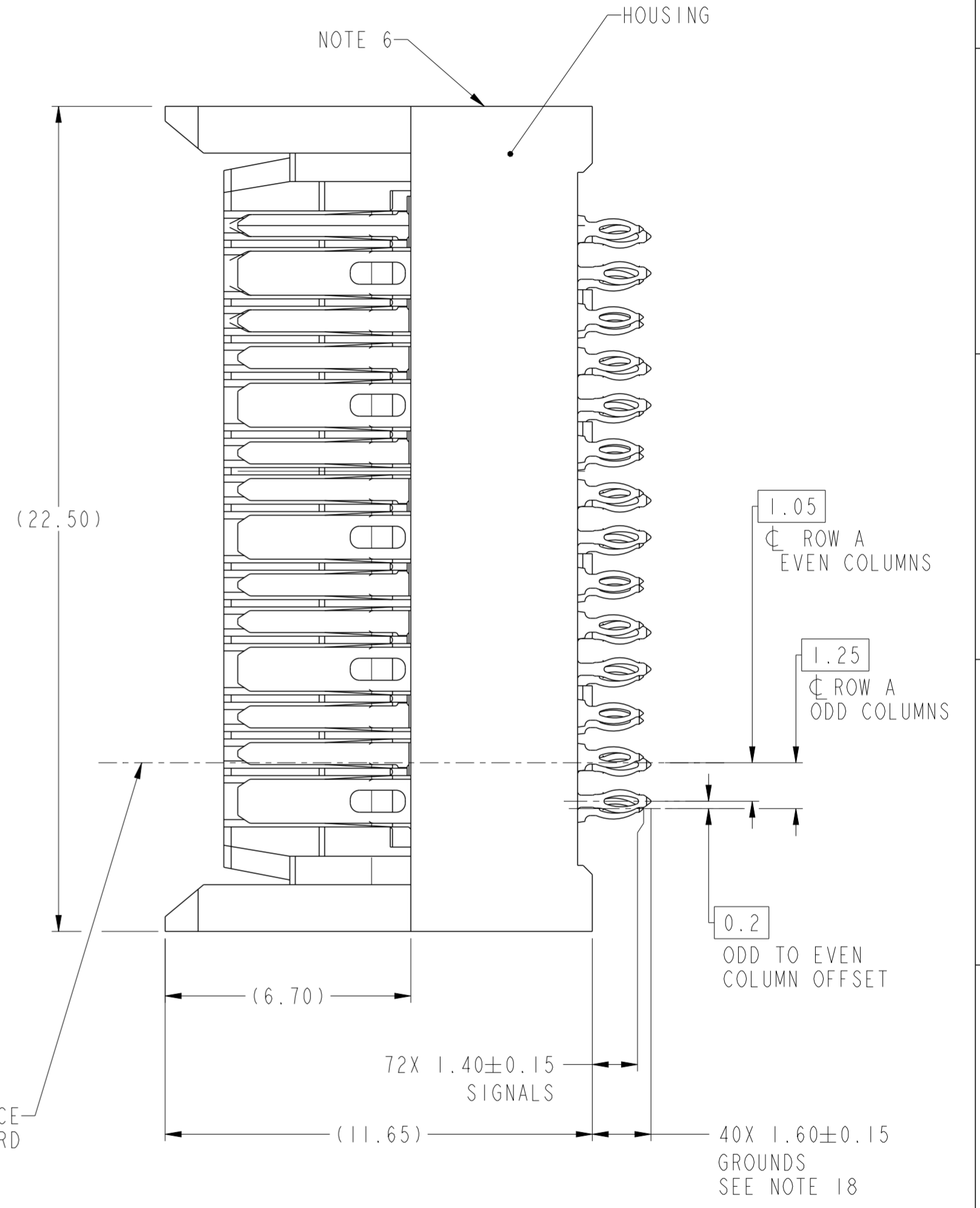
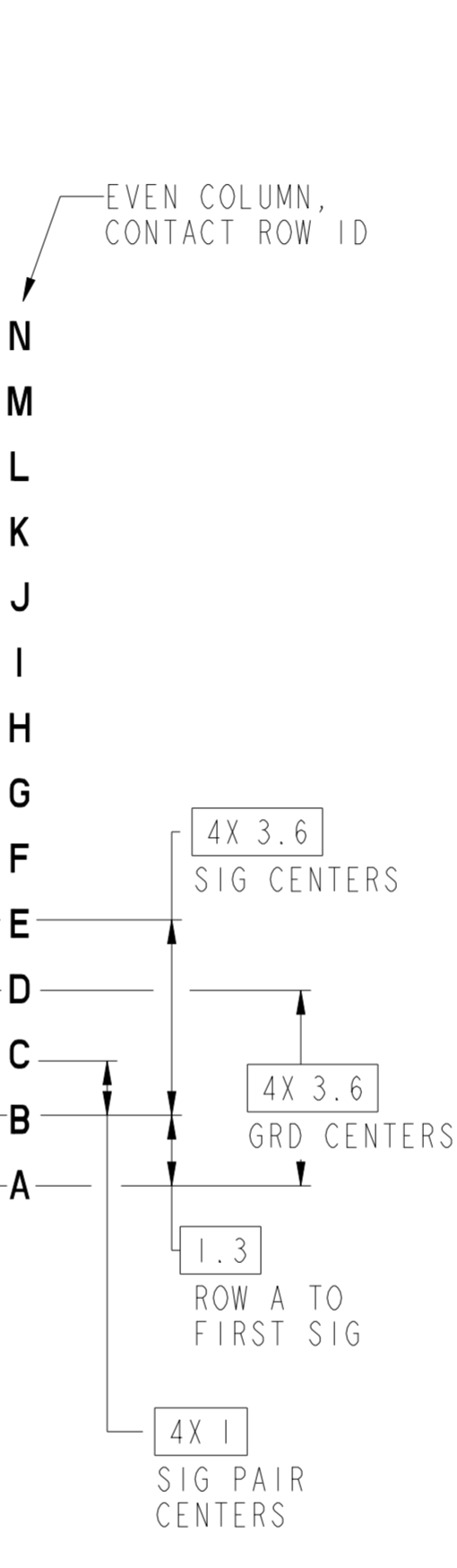
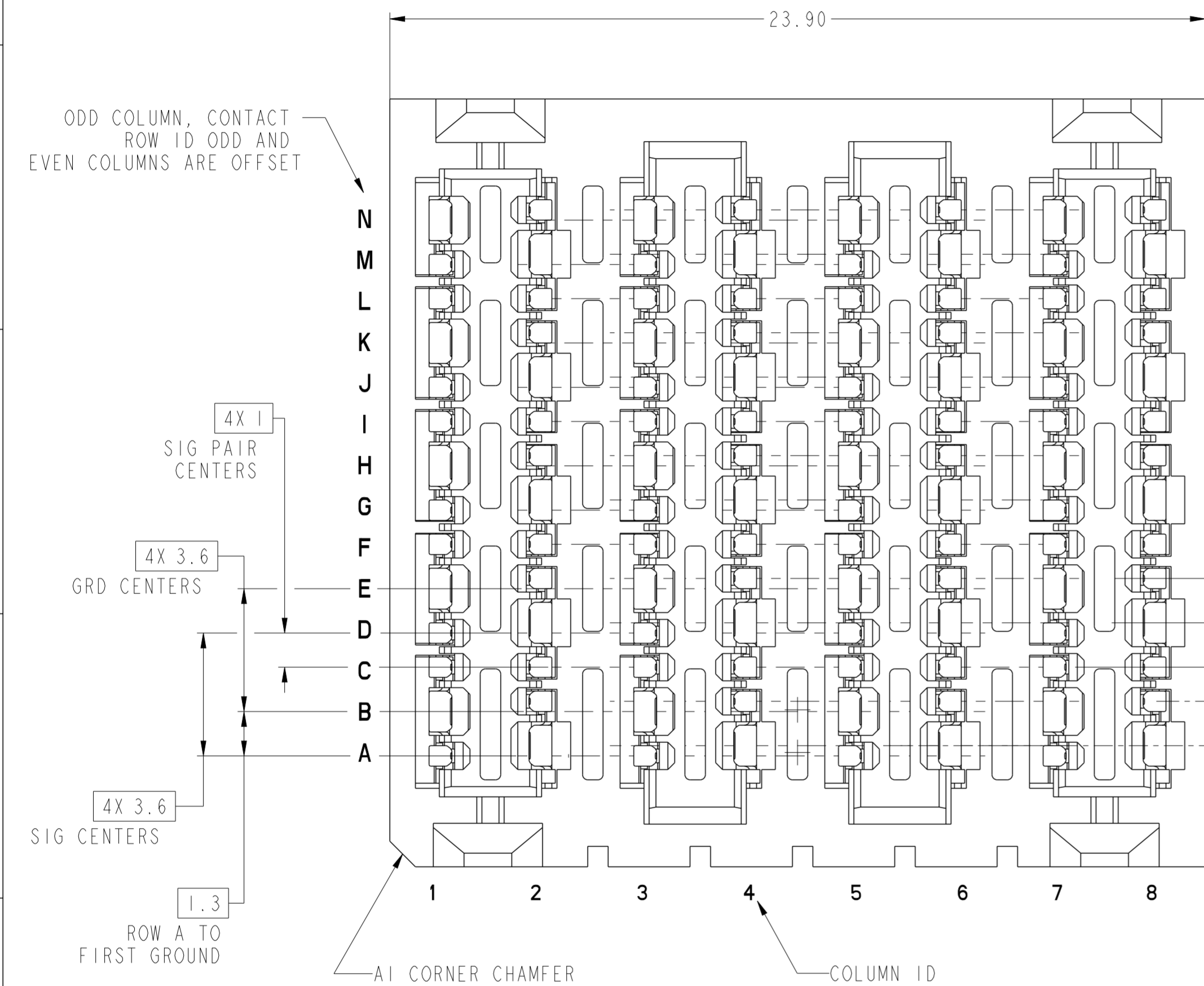


PRODUCT NUMBER
SEE SHEET 10

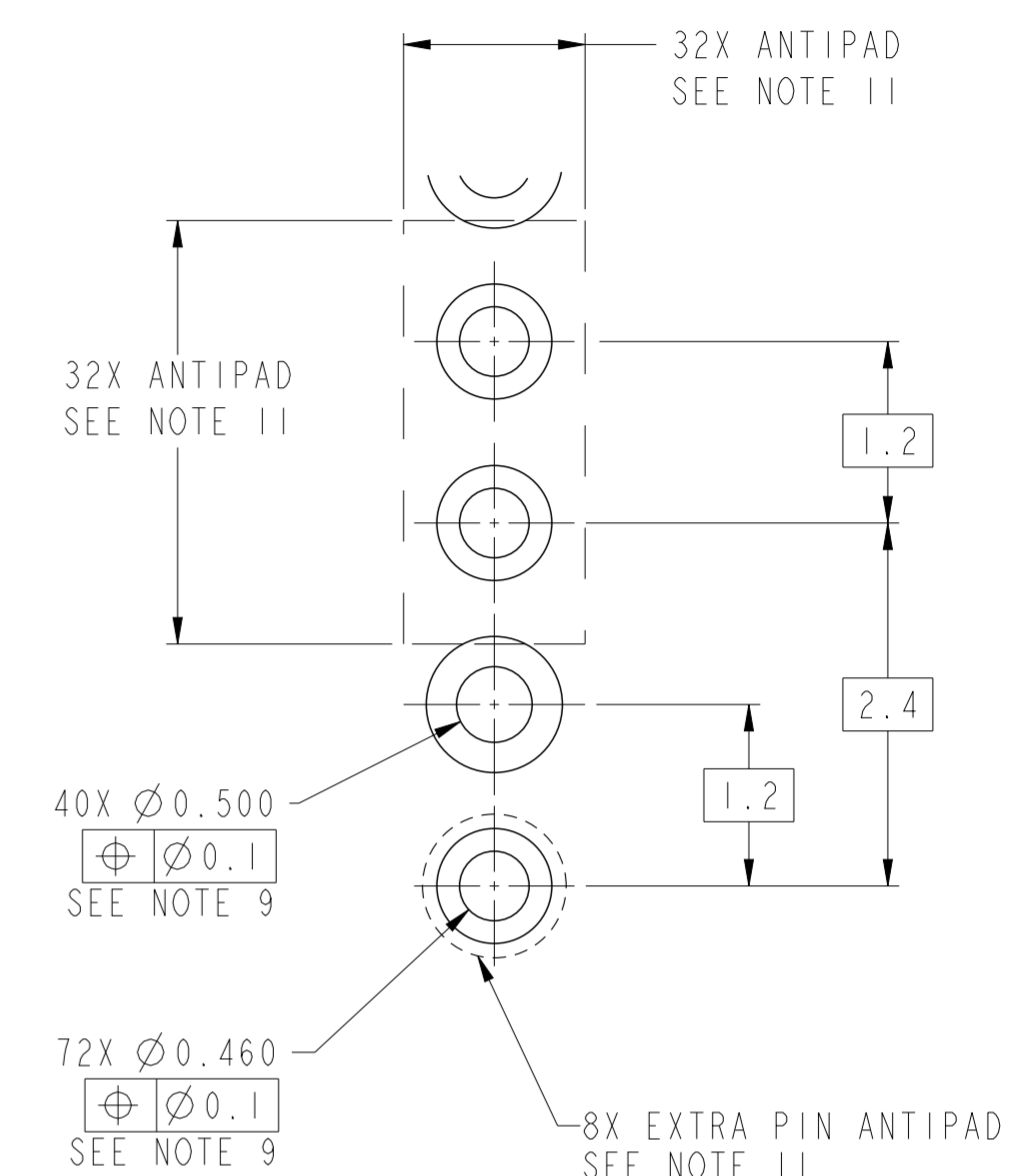
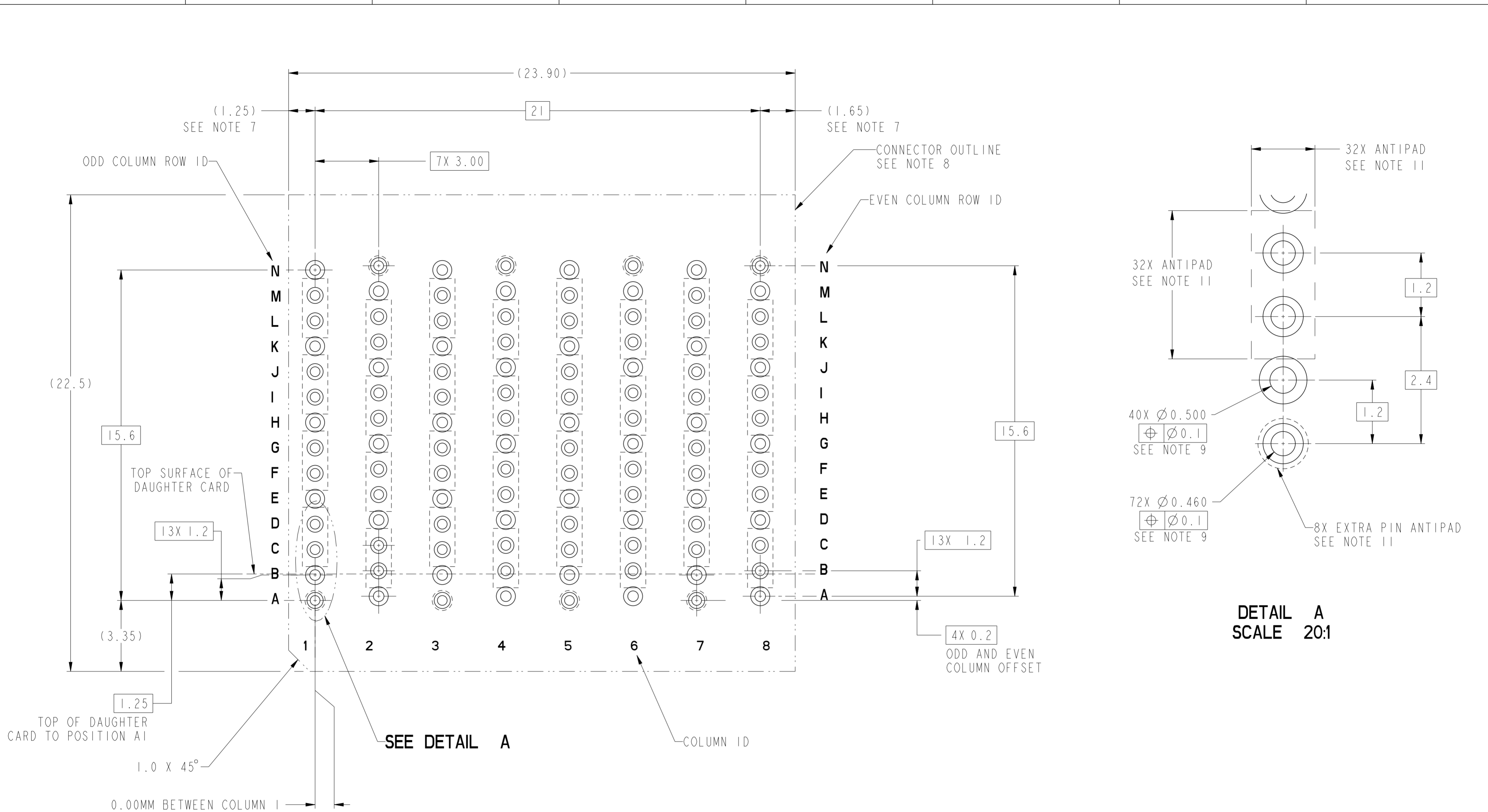


10130551-Y01LF
(10130551-101LF STANDARD MATE CONNECTOR SHOWN)

spec ref	SEE NOTES	dr	Jim Swain	2014/06/12	projection	MM	size	A2	scale	1:1
tolerance std	TOLERANCES UNLESS OTHERWISE SPECIFIED	eng	Peng-Bing Fu	2018/01/05			ecn no	-	rel level	Released
ASME Y14.5M		chr	-	app						
surface	linear	0.X	±.3		VERT HDR ASSY, 4 PR, 8 COL 112 POS, 0.46 SIG FH PCB, 3.0MM	cat. no. SEE TABLE	Product - Customer Drw	sheet 1 of 11	rev A	
		0.XX	±.10							
		0.XXX	±.050							
	angular	0°	±°							

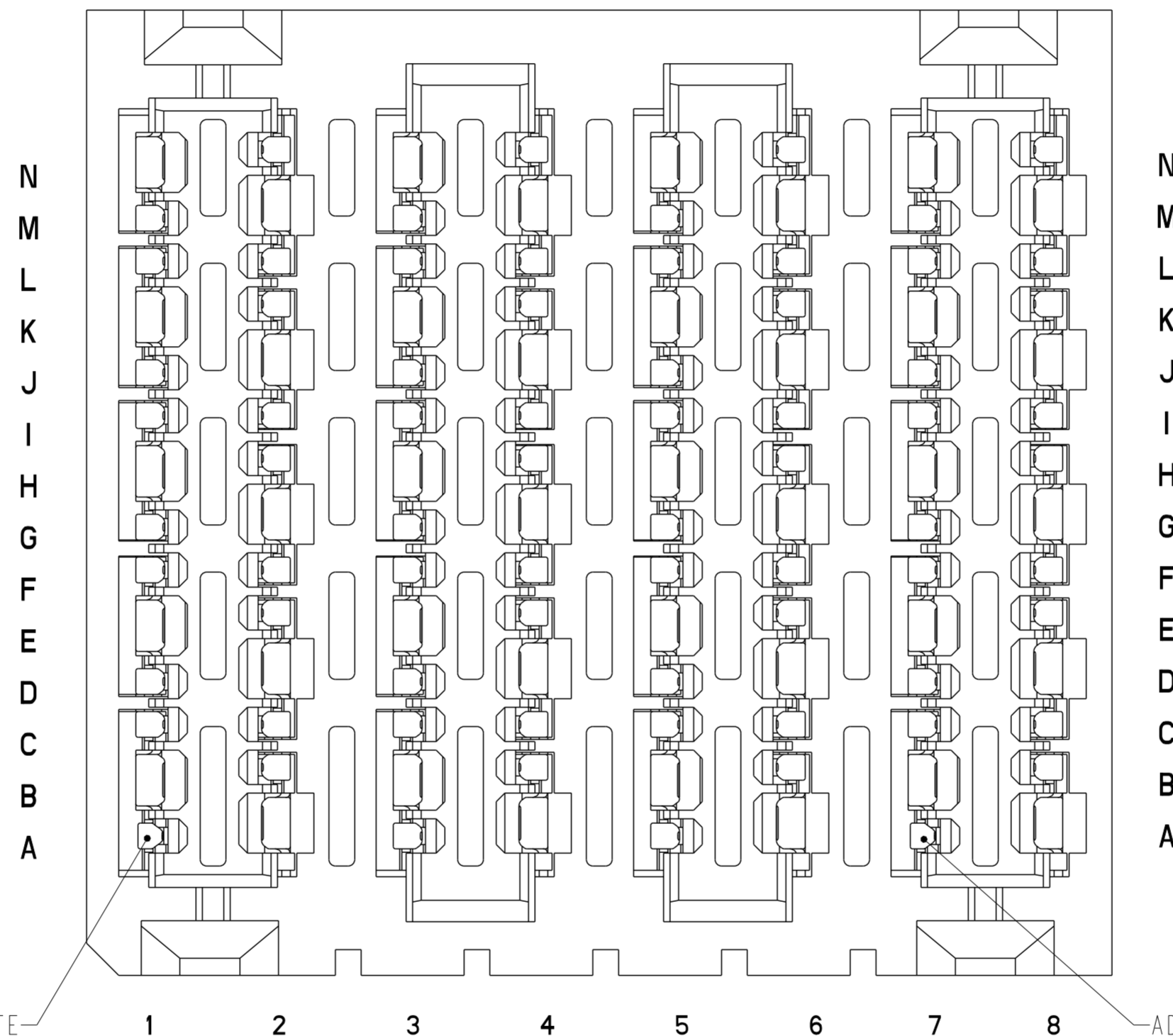
Amphenol
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**RECOMMENDED PCB LAYOUT FOR
10130551-Y01LF COMPONENT SIDE
NOTES 7, 8, 9, & 11**

spec ref	SEE NOTES	dr	Jim Swain	2014/06/12	projection	MM	size	A2	scale	1:1				
tolerance std	TOLERANCES UNLESS OTHERWISE SPECIFIED	eng	Peng-Bing Fu	2018/01/05			ecn no	-	rel level	Released				
ASME Y14.5M		chr	-	app							Heaven Cen	2018/01/05	product family	ExaMAX
surface	linear	0.X	±.3	Amphenol FCI							title	VERT HDR ASSY, 4 PR, 8 COL	dwg no	10130551
		0.XX	±.10				112 POS, 0.46 SIG FH PCB, 3.0MM							
		0.XXX	±.050											
	angular	0°	±°				cat. no.	SEE TABLE	Product - Customer Drw	sheet 2 of 11				



ADVANCED MATE
POSITION A1
SEE NOTE 13

ADVANCED MATE
POSITION A7
SEE NOTE 13

10130551-201LF
ADVANCED MATE CONNECTOR
 ADVANCED MATE POSITIONS ARE POSITIONS A1 AND A7 ONLY
 FOR ALL OTHER DIMENSIONS SEE SHEETS 1 & 2

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spec ref	SEE NOTES	dr	Jim Swain	2014/06/12	projection	MM	size	A2	scale	1:1						
tolerance std	TOLERANCES UNLESS OTHERWISE SPECIFIED	eng	Peng-Bing Fu	2018/01/05			ecn no	-	rel level	Released						
ASME Y14.5M		chr	-	appr			Heaven Cen	2018/01/05			product family	ExaMAX				
surface	<table border="1"> <tr> <td rowspan="3">linear</td> <td>0.X</td> <td>±.3</td> </tr> <tr> <td>0.XX</td> <td>±.10</td> </tr> <tr> <td>0.XXX</td> <td>±.050</td> </tr> <tr> <td>angular</td> <td>0°</td> <td>±°</td> </tr> </table>	linear	0.X	±.3	0.XX	±.10	0.XXX	±.050	angular	0°	±°		title VERT HDR ASSY, 4 PR, 8 COL 112 POS, 0.46 SIG FH PCB, 3.0MM	cat. no. SEE TABLE	Product - Customer Drw	sheet 3 of 11
linear	0.X		±.3													
	0.XX		±.10													
	0.XXX	±.050														
angular	0°	±°														

1 2 3 4 5 6 7 8

A

B

C

D

E

F

A

B

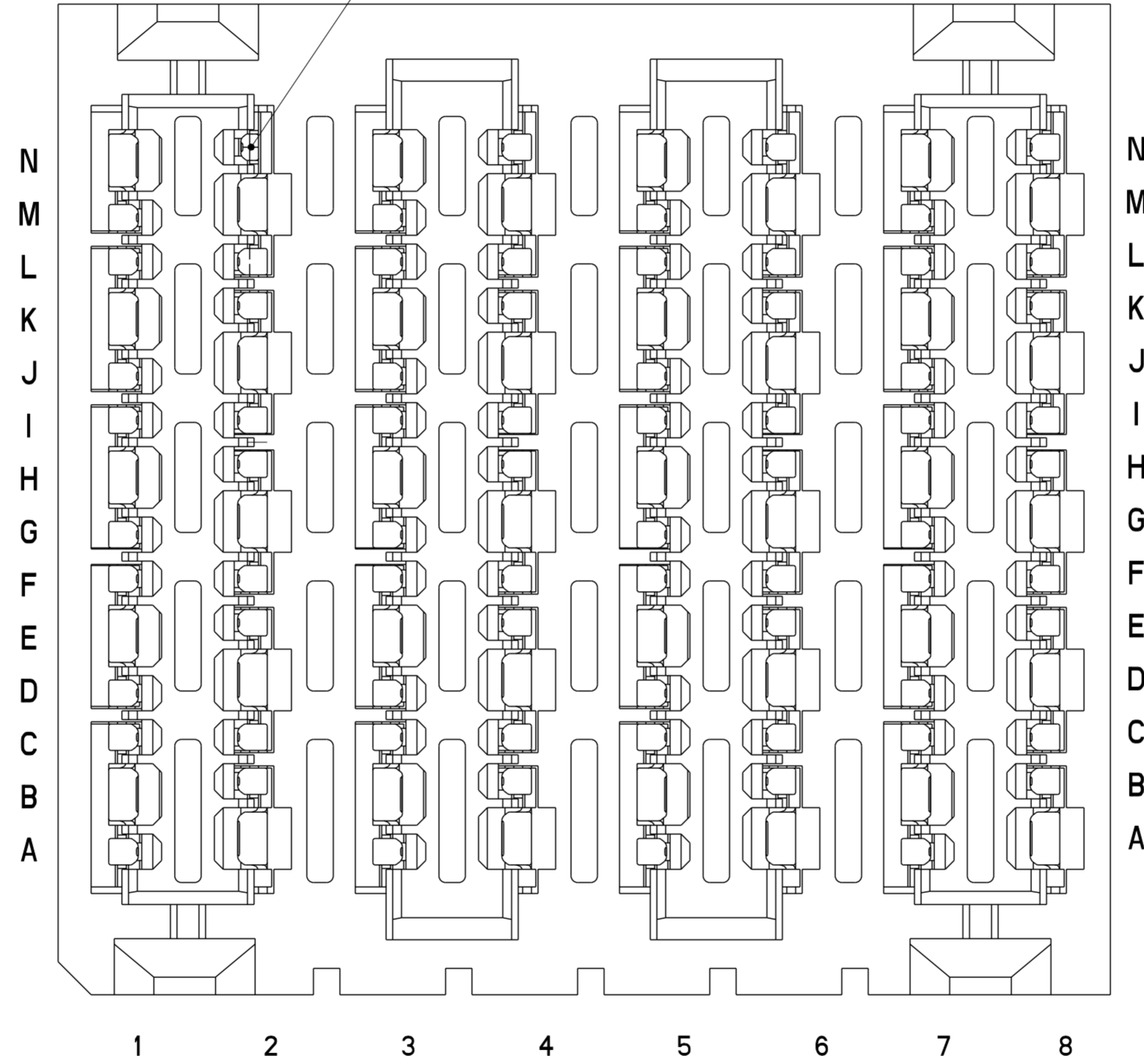
C

D

E

F

SHORT DETECT
POSITION N2
SEE NOTE 14



10130551-301LF
SHORT DETECT CONNECTOR
SHORT DETECT POSITION IS N2 ONLY
FOR ALL OTHER DIMENSIONS SEE SHEETS 1 & 2

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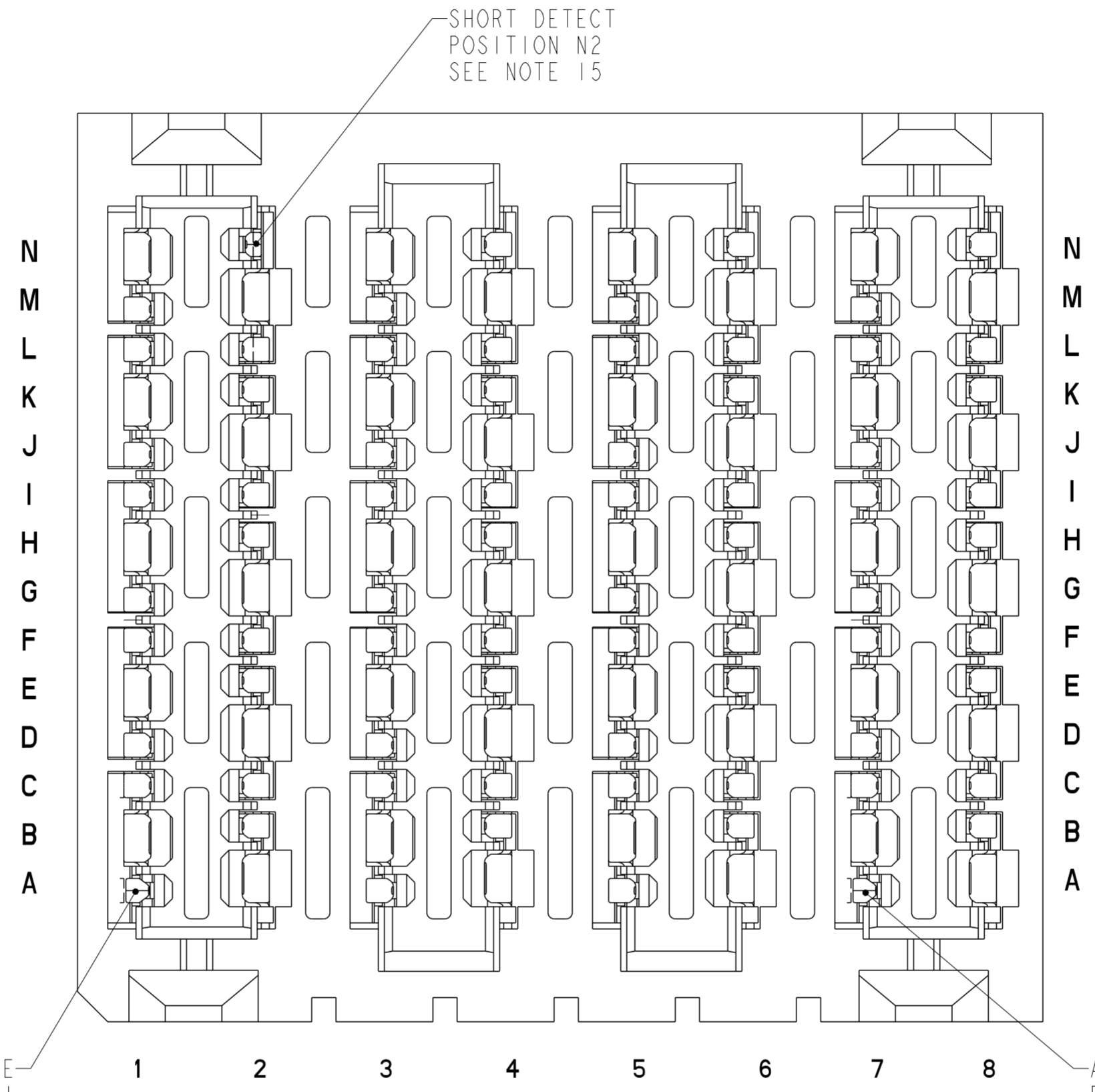
© 2016 AFci

spec ref	SEE NOTES	dr	Jim Swain	2014/06/12	projection	MM	size	A2	scale	1:1
tolerance std	TOLERANCES UNLESS OTHERWISE SPECIFIED	eng	Peng-Bing Fu	2018/01/05			ecn no	-	rel level	Released
ASME Y14.5M		chr	-	appr						
surface	-	linear	0.X	±.3		title VERT HDR ASSY, 4 PR, 8 COL 112 POS, 0.46 SIG FH PCB, 3.0MM	dwg no 10130551	rev A		
			0.XX	±.10						
			0.XXX	±.050						
		angular	0°	±°	cat. no.	SEE TABLE	Product - Customer Drw	sheet 4 of 11		

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STATUS:Released

Printed: Jan 06, 2018



ADVANCED MATE
POSITION A1
SEE NOTE 15

ADVANCED MATE
POSITION A7
SEE NOTE 15

10130551-401LF
ADVANCED MATE/SHORT DETECT CONNECTOR
 ADVANCED MATE POSITIONS ARE POSITIONS A1 AND A7 ONLY
 SHORT DETECT POSITION IS N2 ONLY
 FOR ALL OTHER DIMENSIONS SEE SHEETS 1 & 2

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spec ref	SEE NOTES	dr	Jim Swain	2014/06/12	projection	MM	size	A2	scale	1:1									
tolerance std	ASME Y14.5M	eng	Peng-Bing Fu	2018/01/05			ecn no	-	rel level	Released									
TOLERANCES UNLESS OTHERWISE SPECIFIED		chr	-	appr			Heaven Cen	2018/01/05		product family	ExaMAX								
surface	<table border="1"> <tr> <td>linear</td> <td>0.X</td> <td>±.3</td> </tr> <tr> <td></td> <td>0.XX</td> <td>±.10</td> </tr> <tr> <td></td> <td>0.XXX</td> <td>±.050</td> </tr> <tr> <td>angular</td> <td>0°</td> <td>±°</td> </tr> </table>	linear	0.X	±.3		0.XX	±.10		0.XXX	±.050	angular	0°	±°			title VERT HDR ASSY, 4 PR, 8 COL 112 POS, 0.46 SIG FH PCB, 3.0MM		dwg no 10130551	rev A
linear	0.X	±.3																	
	0.XX	±.10																	
	0.XXX	±.050																	
angular	0°	±°																	
		cat. no.	SEE TABLE	Product - Customer Drw	sheet 5 of 11														

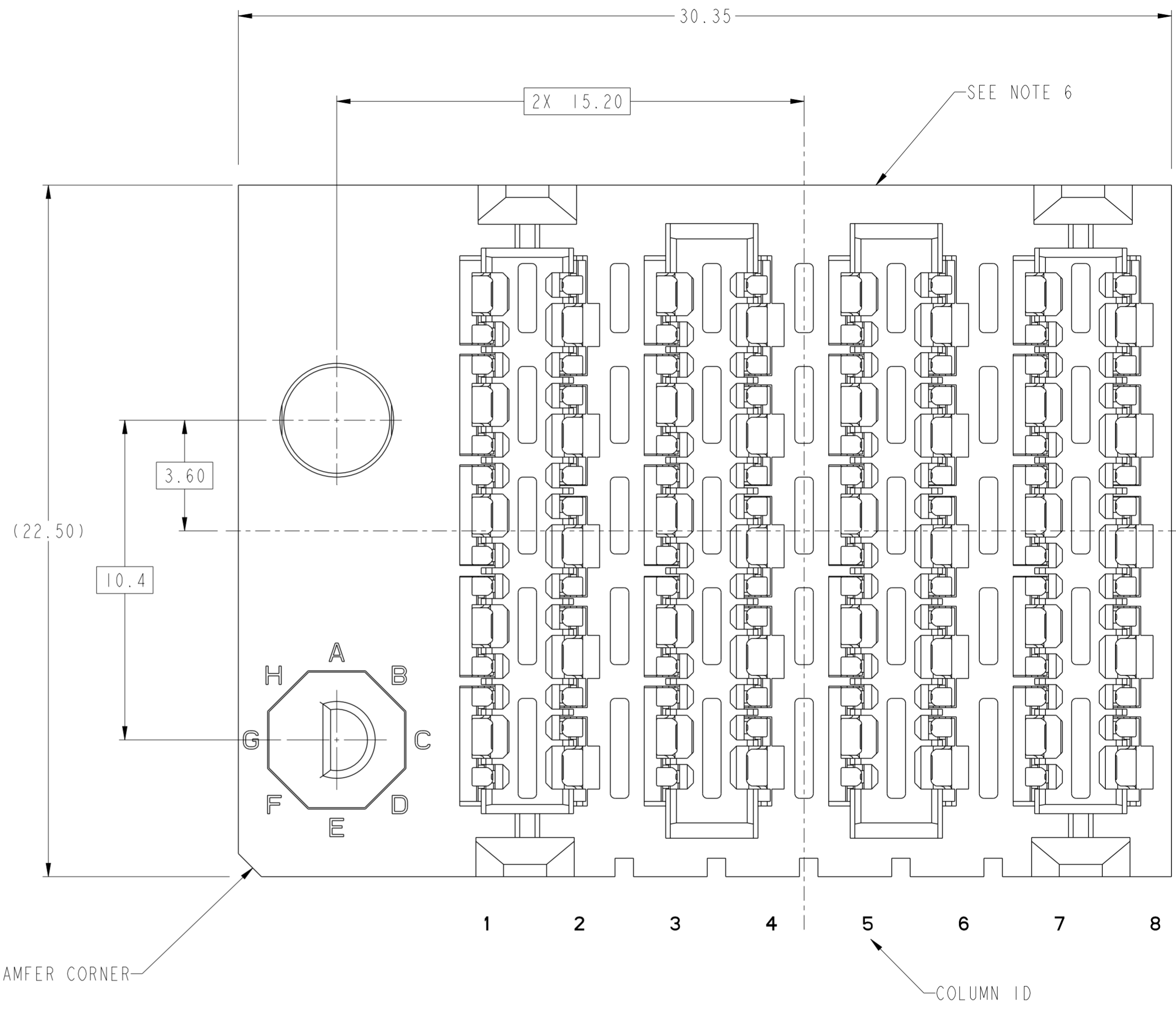
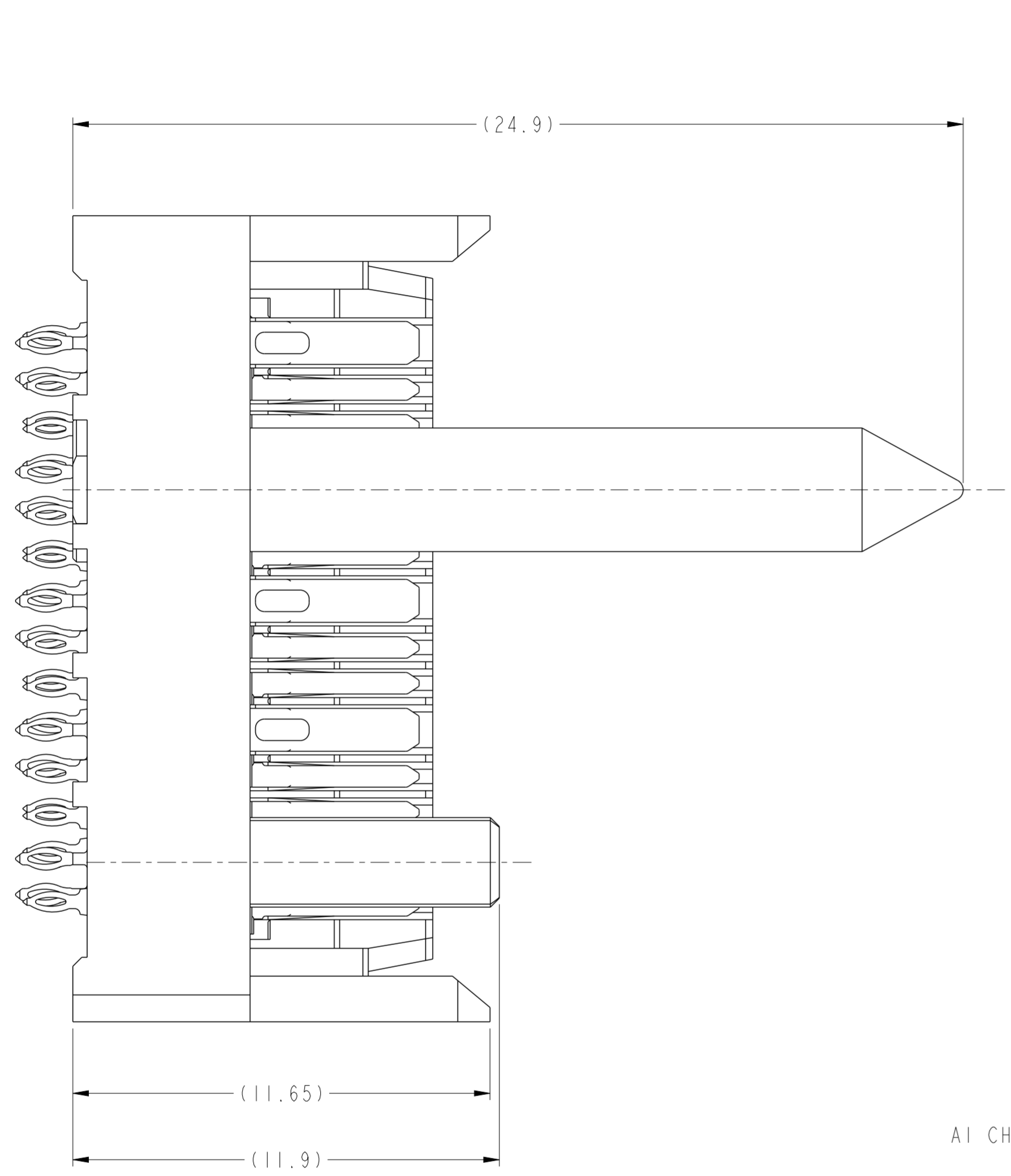
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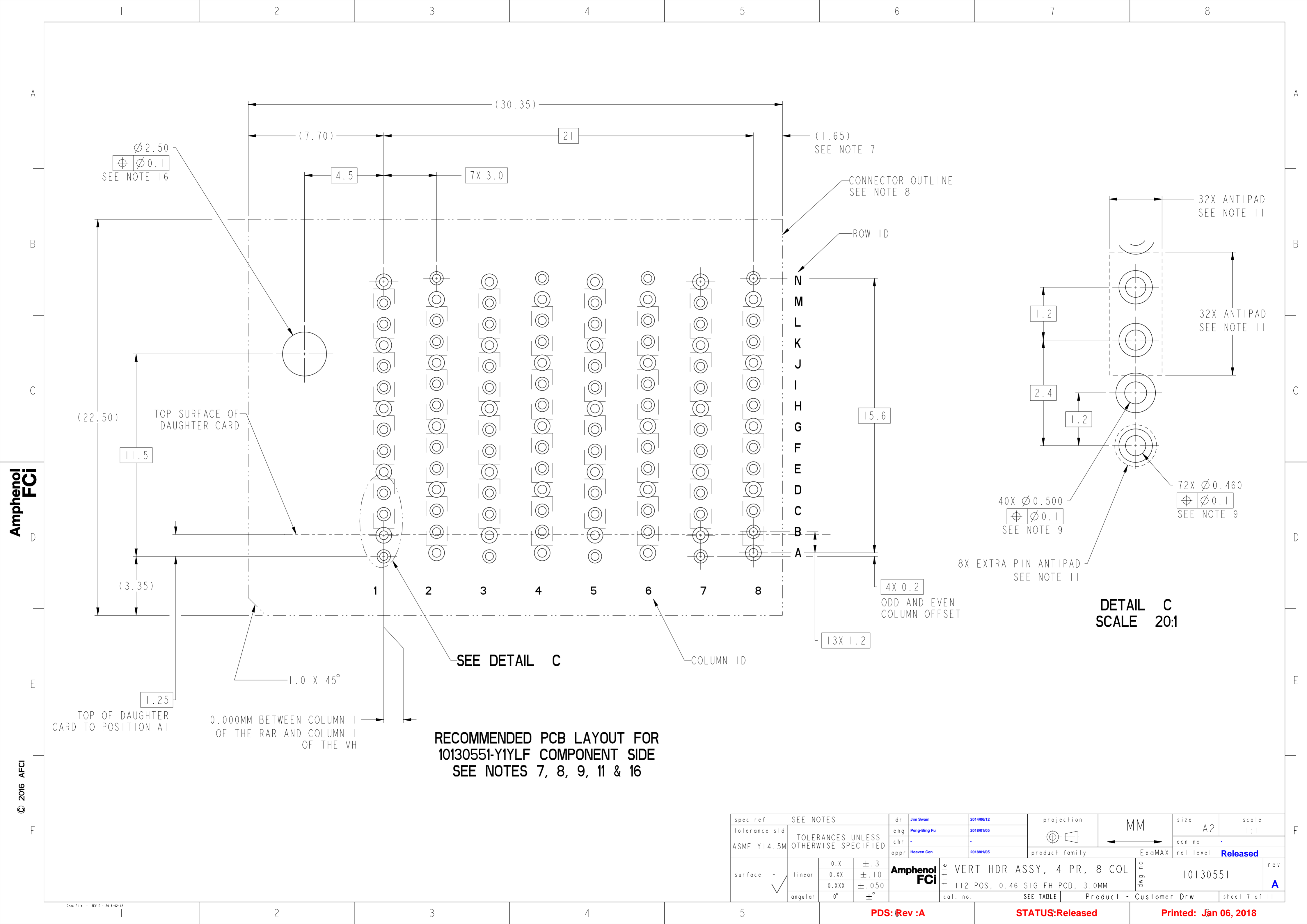
10130551-Y1ALF THRU -Y1JLF
RIGHT GUIDANCE CONNECTOR (SEE NOTE 17)
FOR ALL OTHER DIMENSIONS SEE SHEET 1

spec ref	SEE NOTES	dr	Jim Swain	2014/06/12	projection	MM	size	A2	scale	1:1		
tolerance std	TOLERANCES UNLESS OTHERWISE SPECIFIED	eng	Peng-Bing Fu	2018/01/05			ecn no	-	rel level	Released		
ASME Y14.5M		chr	-	2018/01/05			product family	ExaMAX				
surface	linear	0.X	±.3		title VERT HDR ASSY, 4 PR, 8 COL 112 POS, 0.46 SIG FH PCB, 3.0MM	cat. no. SEE TABLE	Product - Customer Drw	sheet 6 of 11	rel level	Released		
		0.XX	±.10						dwg no	10130551	rev	A
	angular	0°	±°									

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Printed: Jan 06, 2018



Ø 2.50
 ⊕ Ø 0.1
 SEE NOTE 16

(1.65)
 SEE NOTE 7

CONNECTOR OUTLINE
 SEE NOTE 8

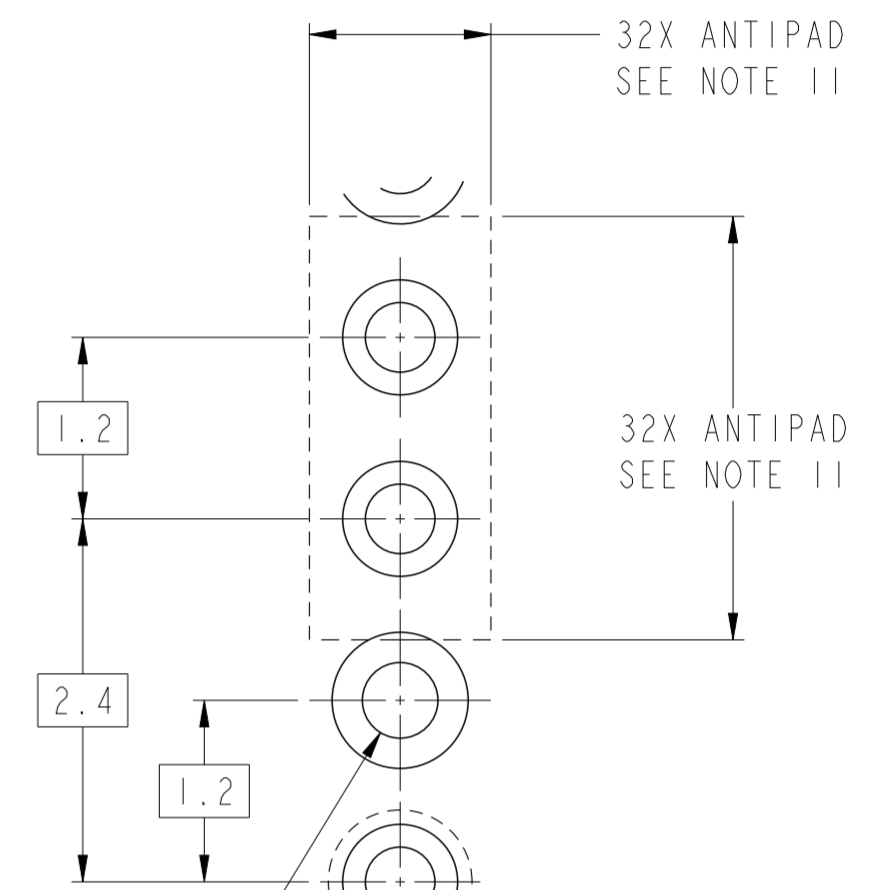
ROW ID

N
 M
 L
 K
 J
 I
 H
 G
 F
 E
 D
 C
 B
 A

15.6

4X 0.2
 ODD AND EVEN
 COLUMN OFFSET

13X 1.2



40X Ø 0.500
 ⊕ Ø 0.1
 SEE NOTE 9

72X Ø 0.460
 ⊕ Ø 0.1
 SEE NOTE 9

8X EXTRA PIN ANTIPAD
 SEE NOTE 11

DETAIL C
 SCALE 20:1

**RECOMMENDED PCB LAYOUT FOR
 10130551-Y1YLF COMPONENT SIDE
 SEE NOTES 7, 8, 9, 11 & 16**

SEE DETAIL C

COLUMN ID

0.000MM BETWEEN COLUMN 1
 OF THE RAR AND COLUMN 1
 OF THE VH

1.0 X 45°

TOP OF DAUGHTER
 CARD TO POSITION A1

1.25

(3.35)

11.5

(22.50)

TOP SURFACE OF
 DAUGHTER CARD

(7.70)

4.5

7X 3.0

21

(30.35)

Amphenol
 FCI

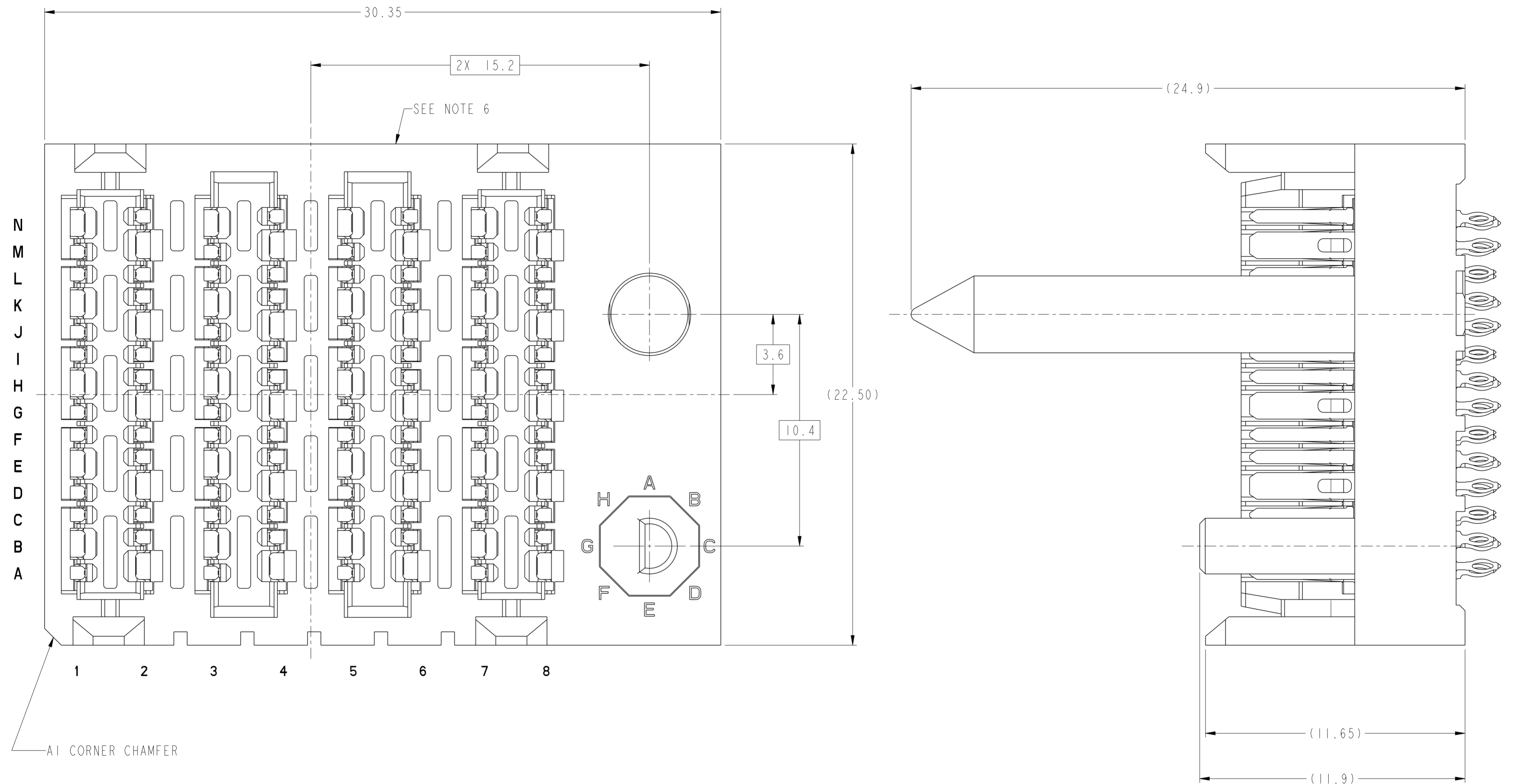
© 2016 AFci

spec ref	SEE NOTES	dr	Jim Swain	2014/06/12	projection	MM	size	A2	scale	1:1				
tolerance std	TOLERANCES UNLESS OTHERWISE SPECIFIED	eng	Peng-Bing Fu	2018/01/05			ecn no	-	rel level	Released				
ASME Y14.5M		chr	-	app							Heaven Cen	2018/01/05	product family	ExaMAX
surface	linear	0.X	±.3	Amphenol FCI							VERT HDR ASSY, 4 PR, 8 COL	10130551	rev	A
		0.XX	±.10	112 POS, 0.46 SIG FH PCB, 3.0MM		cat. no.	SEE TABLE	Product - Customer Drw	sheet 7 of 11					
	angular	0°	±°											

PDS: Rev :A

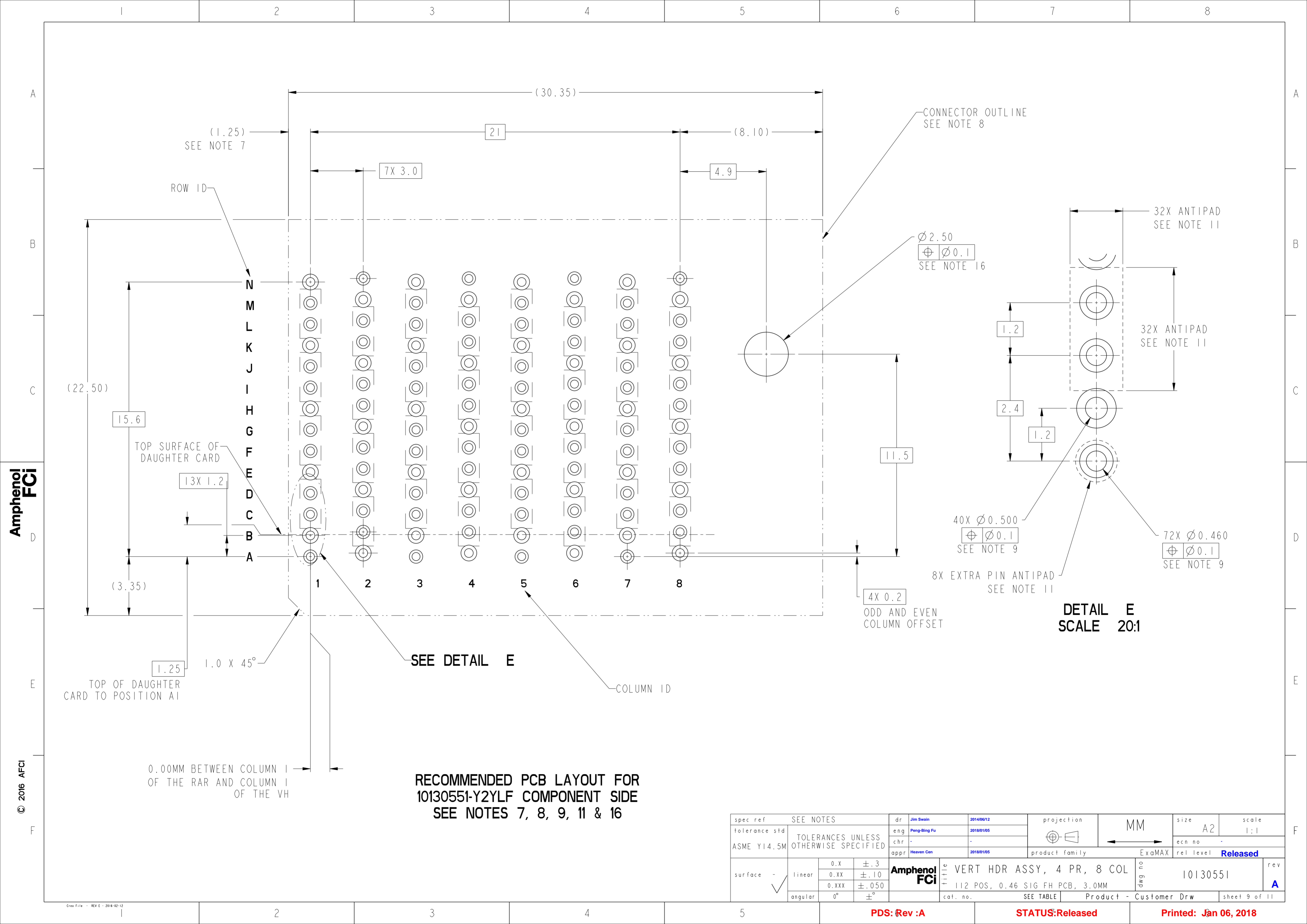
STATUS:Released

Printed: Jan 06, 2018



10130551-Y2ALF THRU -Y2JLF
LEFT GUIDANCE CONNECTOR (SEE NOTE 17)
FOR ALL OTHER DIMENSIONS SEE SHEET 1

spec ref	SEE NOTES	dr	Jim Swain	2014/06/12	projection	MM	size	A2	scale	1:1									
tolerance std	TOLERANCES UNLESS OTHERWISE SPECIFIED	eng	Peng-Bing Fu	2018/01/05			ecn no	-	rel level	Released									
ASME Y14.5M		chr	-	app							Heaven Cen	2018/01/05	product family	ExaMAX					
surface	<table border="1"> <tr> <td>linear</td> <td>0.X</td> <td>±.3</td> </tr> <tr> <td></td> <td>0.XX</td> <td>±.10</td> </tr> <tr> <td></td> <td>0.XXX</td> <td>±.050</td> </tr> <tr> <td>angular</td> <td>0°</td> <td>±°</td> </tr> </table>	linear	0.X	±.3		0.XX	±.10		0.XXX	±.050	angular	0°	±°			title VERT HDR ASSY, 4 PR, 8 COL 112 POS, 0.46 SIG FH PCB, 3.0MM		dwg no 10130551	rev A
linear	0.X	±.3																	
	0.XX	±.10																	
	0.XXX	±.050																	
angular	0°	±°																	
		cat. no.		SEE TABLE	Product - Customer Drw		sheet 8 of 11												



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**RECOMMENDED PCB LAYOUT FOR
10130551-Y2YLF COMPONENT SIDE
SEE NOTES 7, 8, 9, 11 & 16**

spec ref	SEE NOTES	dr	Jim Swain	2014/06/12	projection	MM	size	A2	scale	1:1										
tolerance std	TOLERANCES UNLESS OTHERWISE SPECIFIED	eng	Peng-Bing Fu	2018/01/05			ecn no	-	rel level	Released										
ASME Y14.5M		chr	-																	
		appr	Heaven Cen	2018/01/05							product family	ExaMAX								
surface	<table border="1"> <tr> <td>linear</td> <td>0.X</td> <td>±.3</td> </tr> <tr> <td></td> <td>0.XX</td> <td>±.10</td> </tr> <tr> <td></td> <td>0.XXX</td> <td>±.050</td> </tr> <tr> <td>angular</td> <td>0°</td> <td>±°</td> </tr> </table>	linear	0.X	±.3		0.XX	±.10		0.XXX	±.050	angular	0°	±°	Amphenol FCi	title	VERT HDR ASSY, 4 PR, 8 COL 112 POS, 0.46 SIG FH PCB, 3.0MM	dwg no	10130551	rev	A
linear	0.X	±.3																		
	0.XX	±.10																		
	0.XXX	±.050																		
angular	0°	±°																		
		cat. no.	SEE TABLE	Product - Customer Drw	sheet 9 of 11															

PDS: Rev :A

STATUS:Released

Printed: Jan 06, 2018

TOP OF DAUGHTER CARD TO POSITION A1

0.00MM BETWEEN COLUMN 1 OF THE RAR AND COLUMN 1 OF THE VH

TOP SURFACE OF DAUGHTER CARD

ROW ID

COLUMN ID

SEE DETAIL E

CONNECTOR OUTLINE SEE NOTE 8

Ø 2.50
± 0.1
SEE NOTE 16

40X Ø 0.500
± 0.1
SEE NOTE 9

72X Ø 0.460
± 0.1
SEE NOTE 9

8X EXTRA PIN ANTIPAD SEE NOTE 11

DETAIL E
SCALE 20:1

4X 0.2
ODD AND EVEN COLUMN OFFSET

32X ANTIPAD SEE NOTE 11

32X ANTIPAD SEE NOTE 11

(1.25) SEE NOTE 7

7X 3.0

4.9

21

(8.10)

(30.35)

15.6

(22.50)

13X 1.2

(3.35)

1.25

1.0 X 45°

11.5

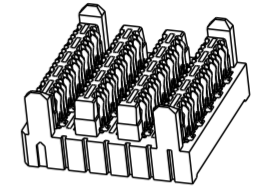
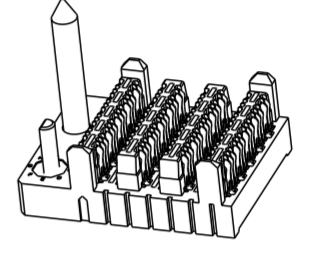
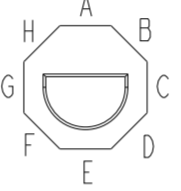
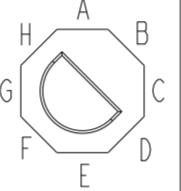
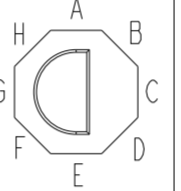
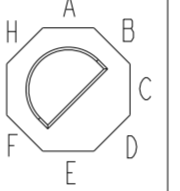
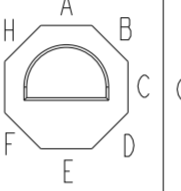
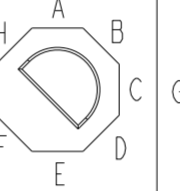
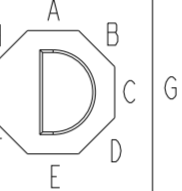
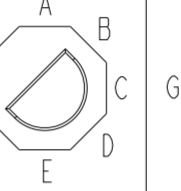
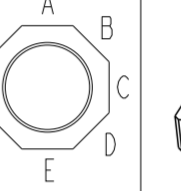
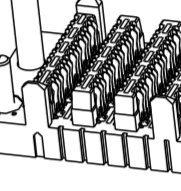
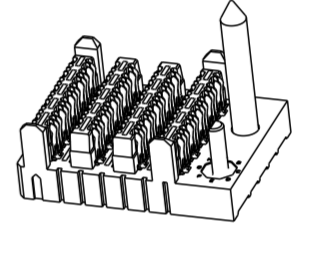
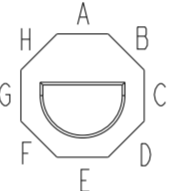
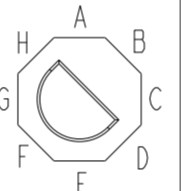
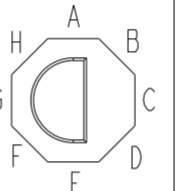
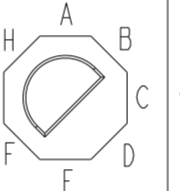
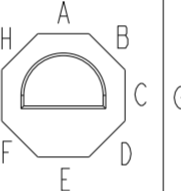
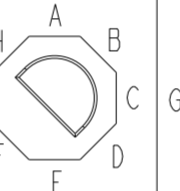
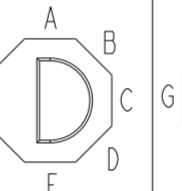
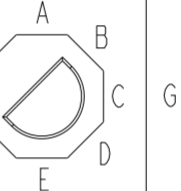
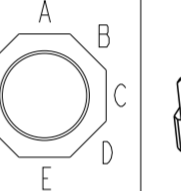
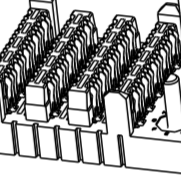
1.2

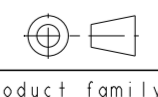
2.4

1.2

10130551 - Y Y Y L F

ASSEMBLY PART NUMBER	DESCRIPTION
10130551-1YYLF	STANDARD MATE
10130551-2YYLF	ADVANCED MATE
10130551-3YYLF	SHORT DETECT
10130551-4YYLF	ADVANCED MATE & SHORT DETECT

MODULE DESCRIPTION	DESIGNATION REPRESENTED IN DASH NUMBER										BASE MODULE
STANDARD NO GUIDANCE (SEE SHEET 1)	01										
RIGHT GUIDANCE MODULE (SEE SHEET 6)	1A	1B	1C	1D	1E	1F	1G	1H	1J (NO KEY)		
											
LEFT GUIDANCE MODULE (SEE SHEET 8)	2A	2B	2C	2D	2E	2F	2G	2H	2J (NO KEY)		
											

spec ref	SEE NOTES	dr	Jim Swain	2014/06/12	projection	MM	size	A2	scale	1:1	
tolerance std	TOLERANCES UNLESS OTHERWISE SPECIFIED	eng	Peng-Bing Fu	2018/01/05		← →	ecn no	-	rel level	Released	
ASME Y14.5M		chr	-	-							
surface		appr	Heaven Cen	2018/01/05							product family
linear	0.X	±.3	Amphenol FCI	title	VERT HDR ASSY, 4 PR, 8 COL	cat. no.	SEE TABLE	Product - Customer Drw	sheet 10 of 11	rev	A
	0.XX	±.10									
	0.XXX	±.050									
angular	0°	±°	112 POS, 0.46 SIG FH PCB, 3.0MM		dwg no	10130551					

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NOTES

- ①- CONNECTOR MATERIALS:
HOUSING: HIGH TEMP THERMOPLASTIC, BLACK, UL94-V0
IMLA PLASTIC: HIGH TEMP THERMOPLASTIC, BLACK, UL94-V0
CONTACT: COPPER ALLOY
GUIDE PIN AND KEY PIN: ZINC ALLOY
- 2 - CONTACT PLATING:
SEPARABLE INTERFACE:
PERFORMANCE-BASED PLATING, QUALIFIED TO MEET THE REQUIREMENTS OF FCI PRODUCT SPECIFICATION GS-12-1096 INCLUDING TELCORDIA GR-1217-CORE (NOVEMBER 1995) CENTRAL OFFICE TEST SEQUENCE

PRESS-FIT TAILS: TIN OVER NICKEL (LEAD FREE)
- 3 - PRODUCT SPECIFICATION: GS-12-1096
- 4 - APPLICATION SPECIFICATION: GS-20-0361
- 5 - PACKAGING MEETS GS-14-920 LEAD FREE LABELING SPECIFICATION.
- ⑥- PRODUCT MARKING, (PART NUMBER & LOT CODE), ON THIS SURFACE.
- ⑦- THE MINIMUM VIA SPACING BETWEEN STACKED CONNECTORS WILL BE 3.0 mm AS DEFINED BY NOTE 7 ON THE MATING RECEPTACLE CUSTOMER DRAWING. REFER TO THE APPLICATION SPECIFICATION FOR DETAILS.
- ⑧- CONNECTOR OUTLINE MAY BE SCREEN PRINTED ONTO CUSTOMER PCB TO BE USED AS A GUIDE FOR MANUAL CONNECTOR PLACEMENT.
- ⑨- REFER TO CUSTOMER DRAWING 10119933 FOR INFORMATION ON PCB HOLE DIAMETERS AND PLATING OPTIONS
- 10- THIS PRODUCT MEETS THE EUROPEAN UNION DIRECTIVES & OTHER COUNTRY REGULATIONS AS DESCRIBED IN GS-47-0004
- ⑪- REFER TO ROUTING GUIDE GS-20-0511 FOR RECOMMENDATIONS ON OPTIMIZATION OF FOOTPRINT AND TRACE ROUTING LAYOUT.
- 12- THE HOUSING WILL WITHSTAND EXPOSURE TO 260°C PEAK TEMPERATURE FOR 10-30 SECONDS IN A CONVECTION, INFRA-RED, OR VAPOR PHASE REFLOW OVEN.
- ⑬- THE ADVANCED MATE HEADER, 10130551-2YYLF, WHEN MATED WITH AN ADVANCED MATE RECEPTACLE, WILL PROVIDE 2 PAIRS OF MATING CONTACTS THAT MATE 0.75MM BEFORE THE REMAINDER OF THE SIGNAL AND GROUND CONTACTS.
- ⑭- THE SHORT DETECT HEADER, 10130551-3YYLF, WHEN MATED WITH A STANDARD MATE RECEPTACLE, WILL PROVIDE 1 PAIR OF MATING CONTACTS THAT MATE 1.00MM AFTER THE REMAINDER OF THE SIGNAL AND GROUND CONTACTS.
- ⑮- THE ADVANCED MATE/SHORT DETECT HEADER, 10130551-4YYLF, WHEN MATED WITH AN ADVANCED MATE RECEPTACLE, WILL PROVIDE 2 PAIRS OF MATING CONTACTS THAT MATE 0.75MM BEFORE THE REMAINDER OF THE SIGNAL AND GROUND CONTACTS, AND 1 PAIR OF MATING CONTACTS THAT MATE 1.00MM AFTER THE REMAINDER OF THE SIGNAL AND GROUND CONTACTS.
- ⑯- FOR CONNECTORS WITH EITHER A RIGHT OR LEFT GUIDE MODULE, ONE PHILLIPS PAN HEAD M2 HOLD DOWN SCREW MUST BE USED TO SECURE GUIDE PIN/CONNECTOR TO THE PCB. THE SCREW LENGTH SHALL BE 2.0 - 6.0mm PLUS THE THICKNESS OF THE BOARD. SCREW IS NOT PROVIDED WITH CONNECTOR.
- ⑰- LEFT / RIGHT INTEGRATED GUIDE ORIENTATION IS DETERMINED BY THE LOCATION OF THE GUIDE FEATURES WHEN LOOKING AT THE MATING FACE OF THE RIGHT ANGEL RECEPTACLE. THE LEFT / RIGHT DESIGNATION OF THE MATING HEADER IS DEFINED BY THE RIGHT ANGEL RECEPTACLE THAT IT MATES WITH (i. e. A RIGHT GUIDE VERTICAL HEADER MATES A RIGHT GUIDE RIGHT ANGEL RECEPTACLE.)
- ⑱- ALL GROUND CONTACTS WITHIN A COLUMN ARE COMMONED.

spec ref	SEE NOTES	dr	Jim Swain	2014/06/12	projection	MM	size	A2	scale	1:1	
tolerance std	TOLERANCES UNLESS OTHERWISE SPECIFIED	eng	Peng-Bing Fu	2018/01/05		← →	ecn no	-	rel level	Released	
ASME Y14.5M		chr	-	-							
surface	- ✓	linear	0.X	±.3	Amphenol FCi	title	VERT HDR ASSY, 4 PR, 8 COL	dwg no	10130551	rev	A
			0.XX	±.10							
			0.XXX	±.050							
		angular	0°	±°	cat. no.	SEE TABLE	Product - Customer Drw	sheet 11 of 11			