

PRODUCT NUMBER  
SEE SHEET 10

ODD COLUMN,  
CONTACT ROW ID  
ODD AND EVEN COLUMNS  
ARE OFFSET

EVEN COLUMN,  
CONTACT ROW ID

CONNECTOR MATING FACE

SEE NOTE 6

IMLA

HOUSING  
ORGANIZER

4X 1  
SIGNAL PAIR  
CENTERS

4X 3.6  
GROUND CENTERS

4X 3.6  
SIGNAL CENTERS

4X 3.6  
GROUND CENTERS

1.3  
ROW A TO  
FIRST SIGNAL

1.3  
ROW A TO  
FIRST GROUND

4X 1  
SIGNAL PAIR  
CENTERS

4X 3.6  
SIGNAL CENTERS

(17.90)

(4.60)

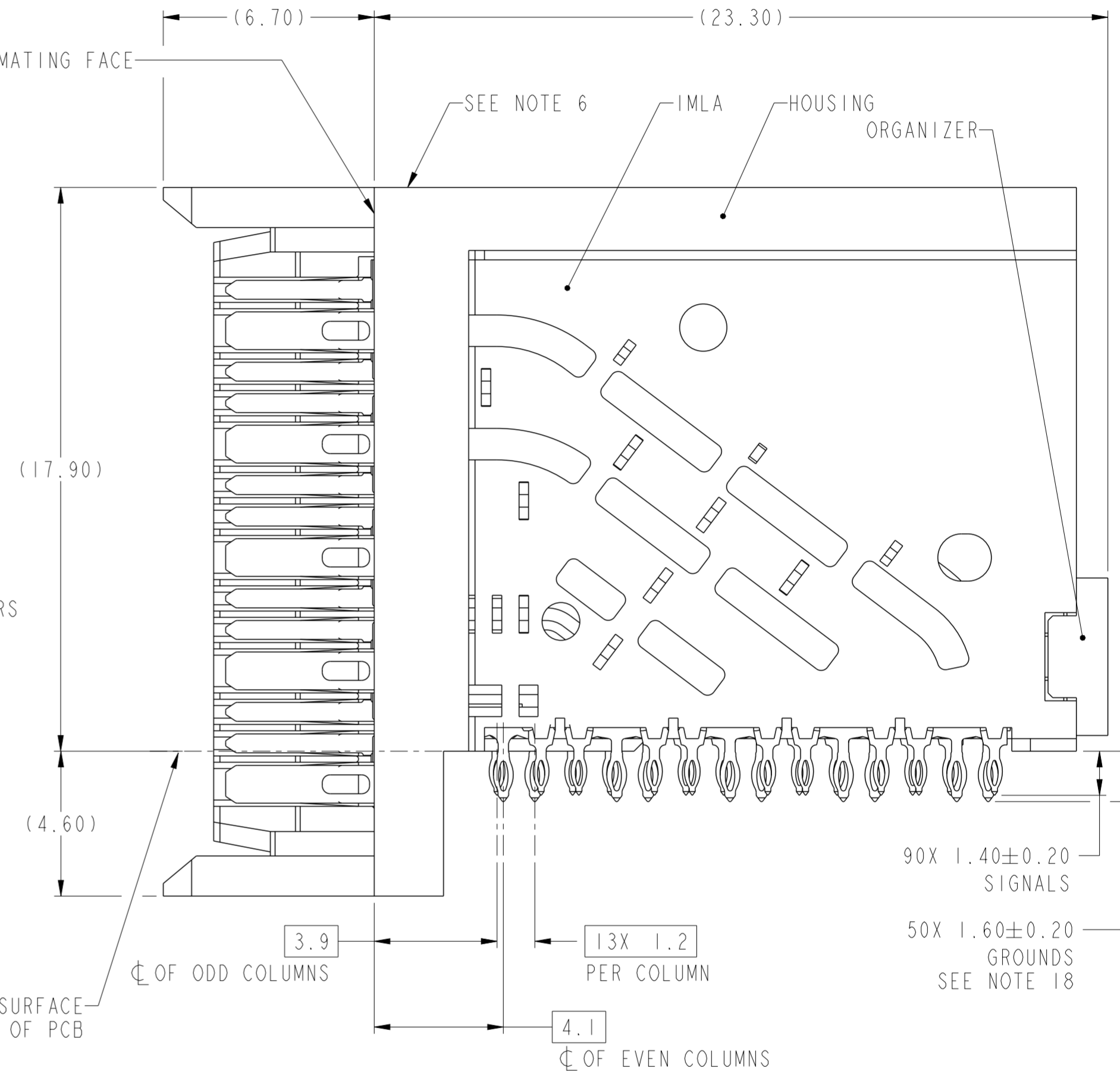
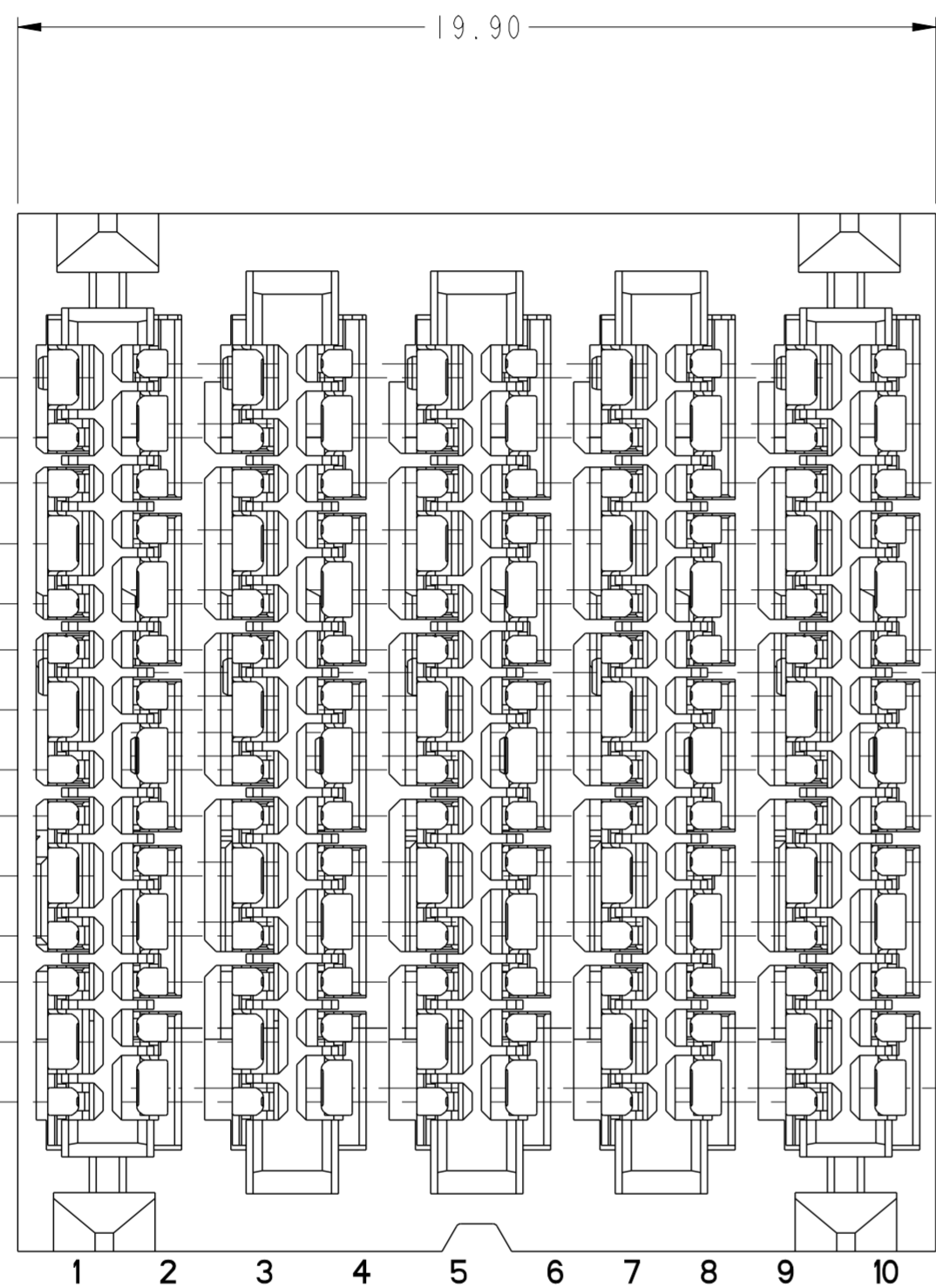
3.9  
Ø OF ODD COLUMNS

13X 1.2  
PER COLUMN

4.1  
Ø OF EVEN COLUMNS

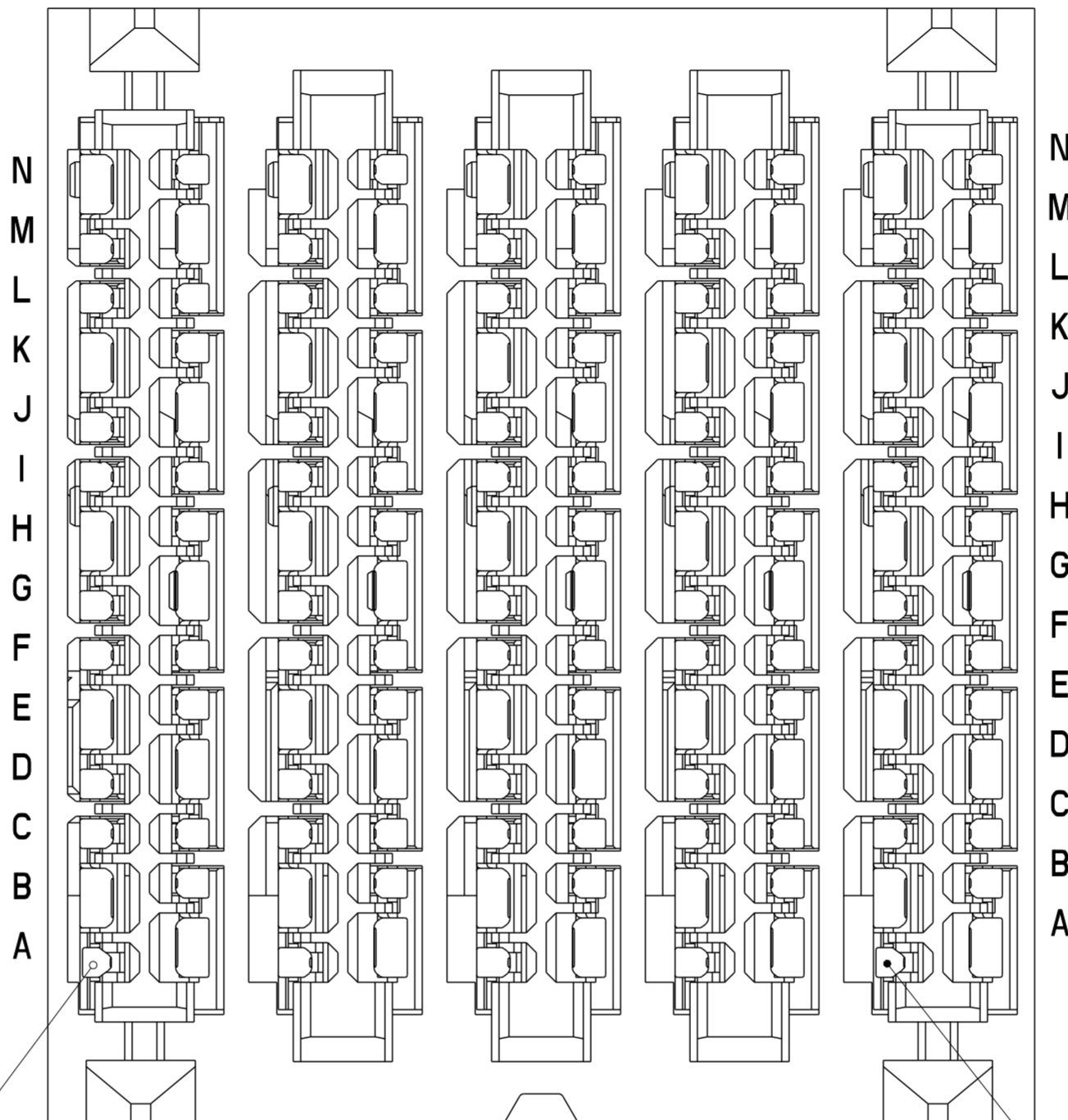
90X 1.40±0.20  
SIGNALS

50X 1.60±0.20  
GROUNDS  
SEE NOTE 18



10128421-101YLF  
STANDARD MATE CONNECTOR

spec ref	SEE NOTES	dr	Stu Stoner	2014/02/13	projection	MM	size	A2	scale	7:1										
tolerance std	TOLERANCES UNLESS OTHERWISE SPECIFIED	eng	Peng-Bing Fu	2020/02/25			ecn no	ELX-DG-36098-1	rel level	Released										
ASME Y14.5M		chr	-	2020/05/04			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 ExaMAX RIGHT-ANGLE HDR ASSY 4 PR, 140 POS, 10 IMLA, 2MM		dwg no	10128421	rev	C
linear	0.X	±.3																		
	0.XX	±.10																		
	0.XXX	±.050																		
angular	0°	±°																		
		appr	Heaven Cen	2020/05/04	cat. no.	SEE TABLE	Product - Customer Drw	sheet 1 of 11												



ADVANCED MATE  
POSITION A1  
SEE NOTE 13

ADVANCED MATE  
POSITION A9  
SEE NOTE 13

**10128421-201YLF**  
**ADVANCED MATE CONNECTOR**  
**ADVANCED MATE POSITIONS ARE POSITIONS A1 AND A9 ONLY**  
**FOR ALL DIMENSIONS SEE 10128421-101YLF ON SHEET 1**

Amphenol  
FCi

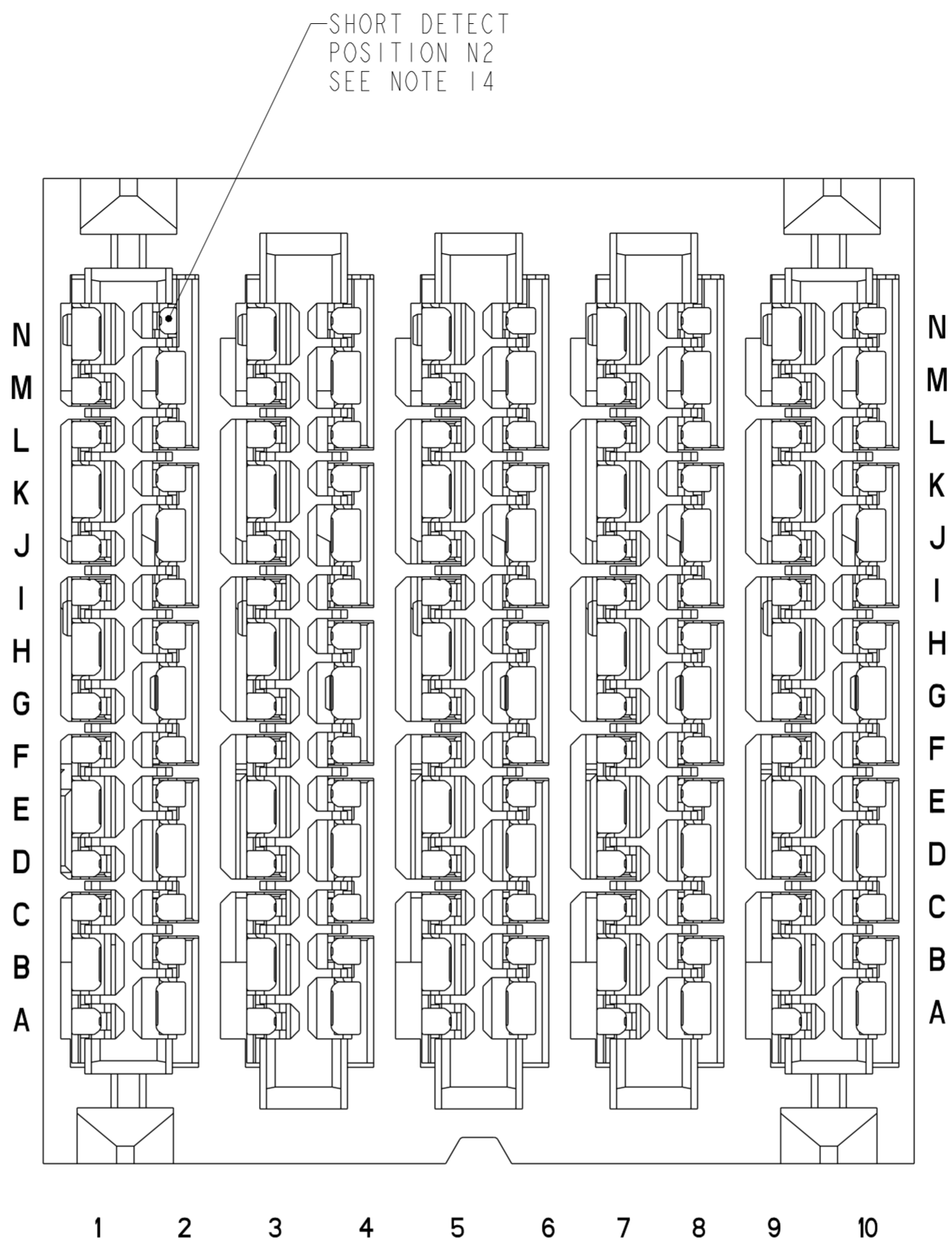
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spec ref	SEE NOTES	dr	Stu Stoner	2014/02/13	projection	MM	size	A2	scale	6:1		
tolerance std	ASME Y14.5M	eng	Peng-Bing Fu	2020/02/25			ecn no	ELX-DG-36098-1				
TOLERANCES UNLESS OTHERWISE SPECIFIED		chr	-	appr			Heaven Cen	2020/05/04	product family	ExaMAX	rel level	Released
surface	-	linear	0.X	±.3		title ExaMAX RIGHT-ANGLE HDR ASSY 4 PR, 140 POS, 10 IMLA, 2MM	dwg no 10128421	rev C	cat. no.		SEE TABLE	
			0.XX	±.10					Product - Customer Drw		sheet 2 of 11	
		angular	0°	±°								

PDS: Rev :C

STATUS:Released

Printed: May 05, 2020



10128421-301YLF  
 SHORT DETECT CONNECTOR  
 SHORT DETECT POSITION IS N2 ONLY  
 FOR ALL DIMENSIONS SEE 10128421-101YLF ON SHEET 1

Amphenol  
**FCi**

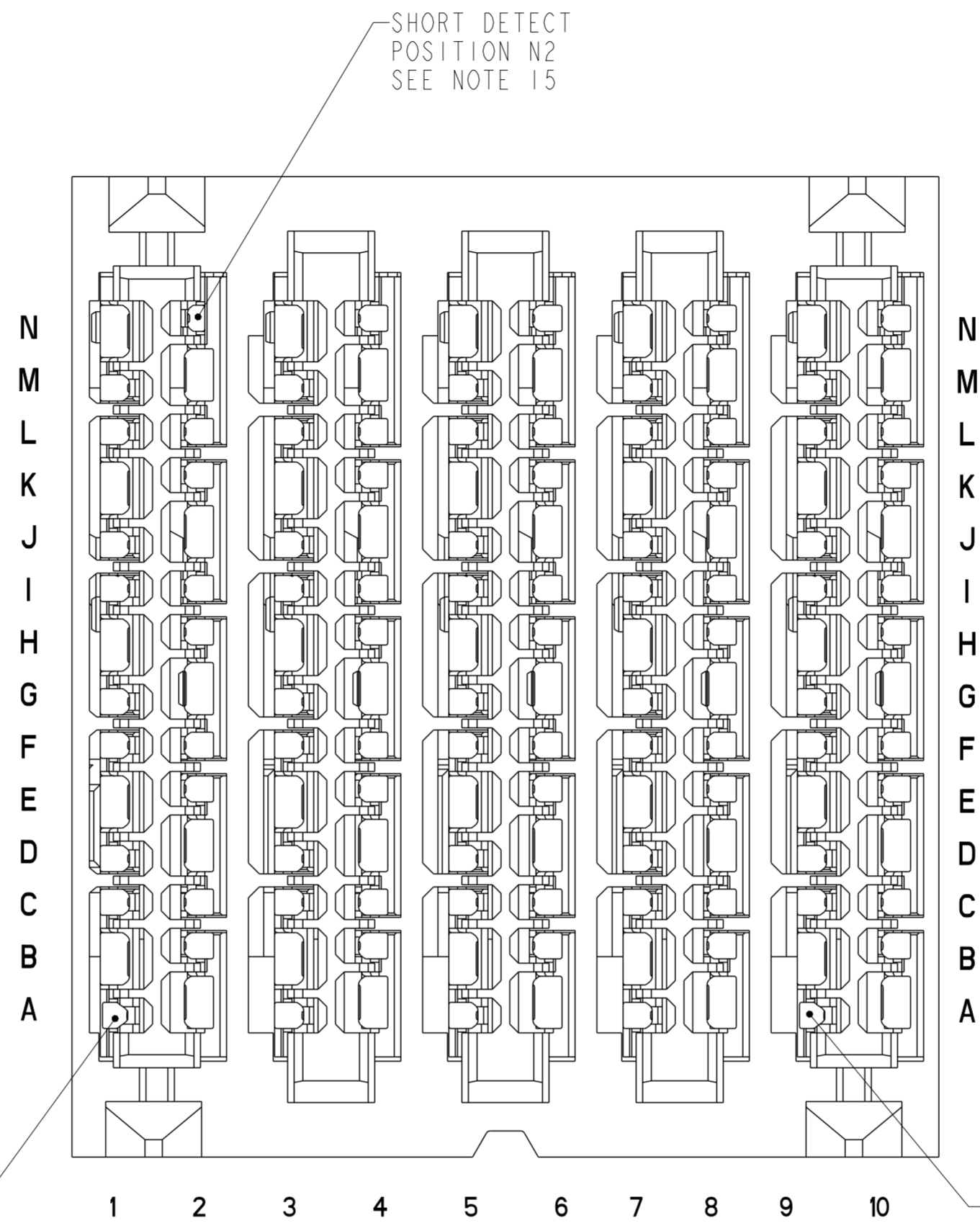
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spec ref	SEE NOTES	dr	Stu Stoner	2014/02/13	projection	MM	size	A2	scale	6:1
tolerance std	ASME Y14.5M	eng	Peng-Bing Fu	2020/02/25			ecn no	ELX-DG-36098-1		
TOLERANCES UNLESS OTHERWISE SPECIFIED		chr	-				rel level	Released		
surface	-	appr	Heaven Cen		product family	ExaMAX		cat. no.	SEE TABLE	
linear angular	0.X	±.3	<b>Amphenol                  FCI</b>	title ExaMAX RIGHT-ANGLE HDR ASSY 4 PR, 140 POS, 10 IMLA, 2MM		dwg no 10128421	rev C	Product - Customer Drw sheet 3 of 11		
	0.XX	±.10								
	0.XXX	±.050								
	0°	±°								

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STATUS:Released

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ADVANCED MATE  
POSITION A1  
SEE NOTE 15

SHORT DETECT  
POSITION N2  
SEE NOTE 15

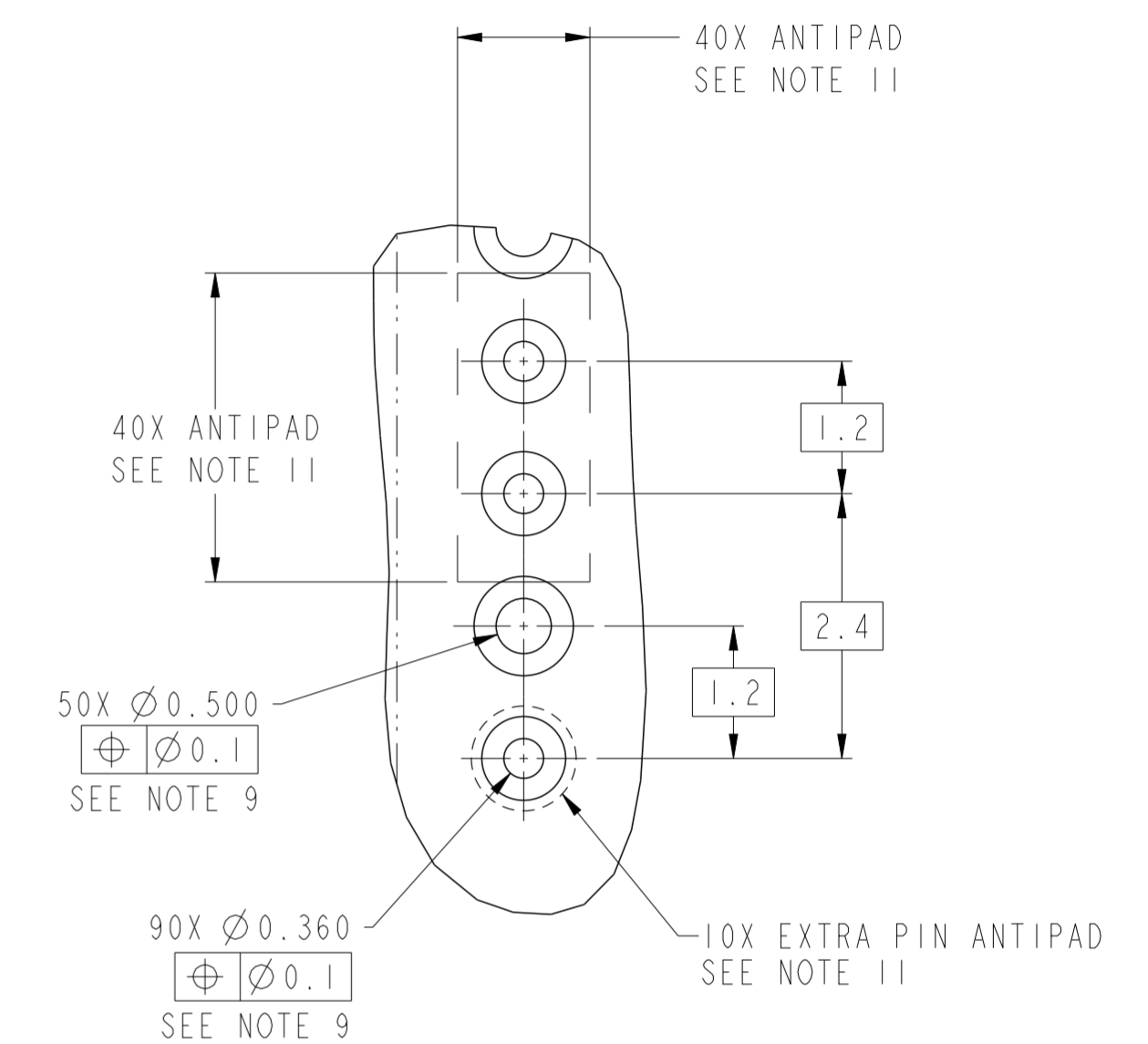
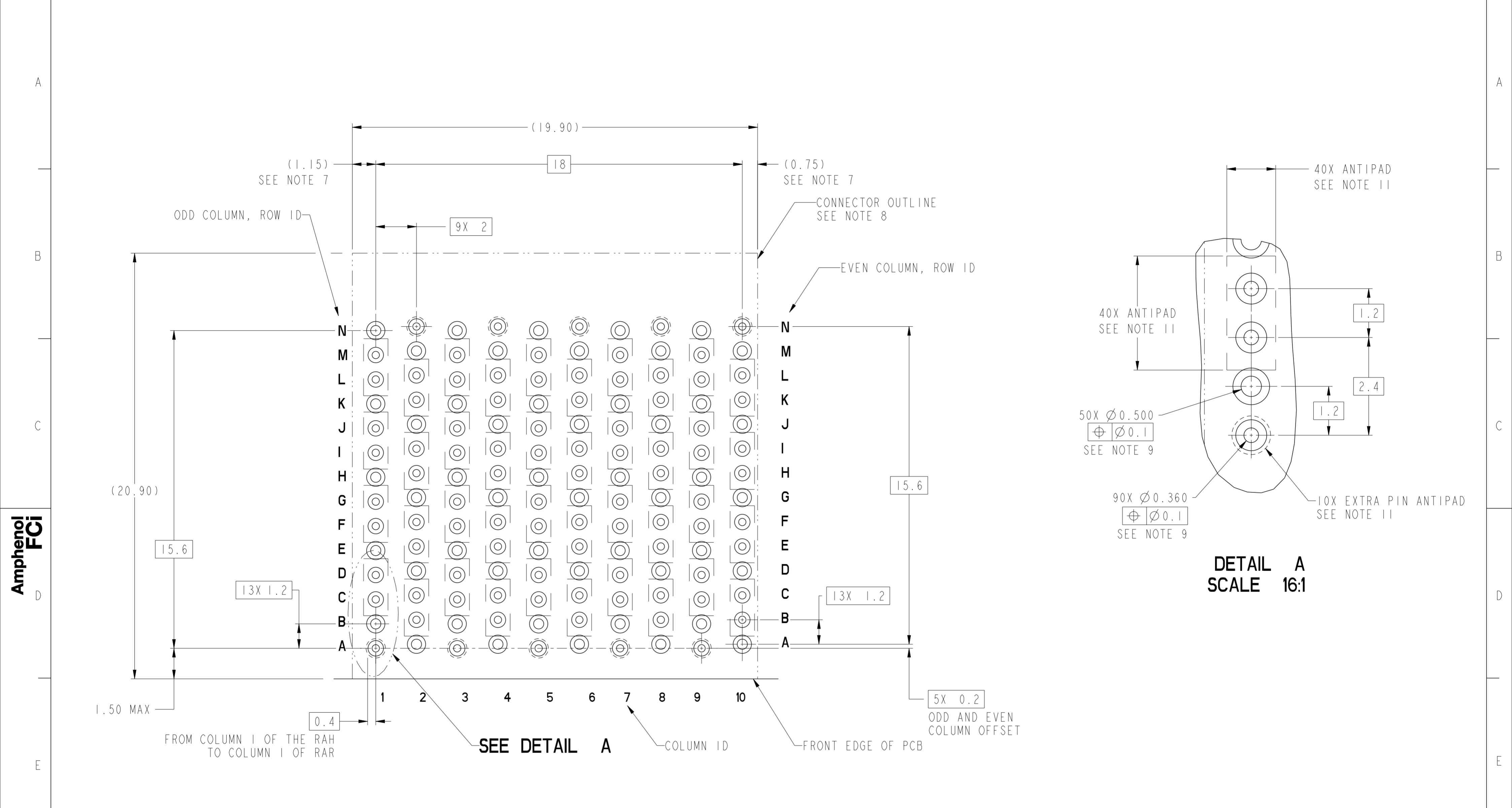
ADVANCED MATE  
POSITION A9  
SEE NOTE 15

**10128421-401YLF**  
**ADVANCED MATE/SHORT DETECT CONNECTOR**  
 ADVANCED MATE POSITIONS ARE POSITIONS A1 AND A9 ONLY  
 SHORT DETECT POSITION IS N2 ONLY  
 FOR ALL DIMENSIONS SEE 10128421-101YLF ON SHEET 1

Amphenol  
FCi

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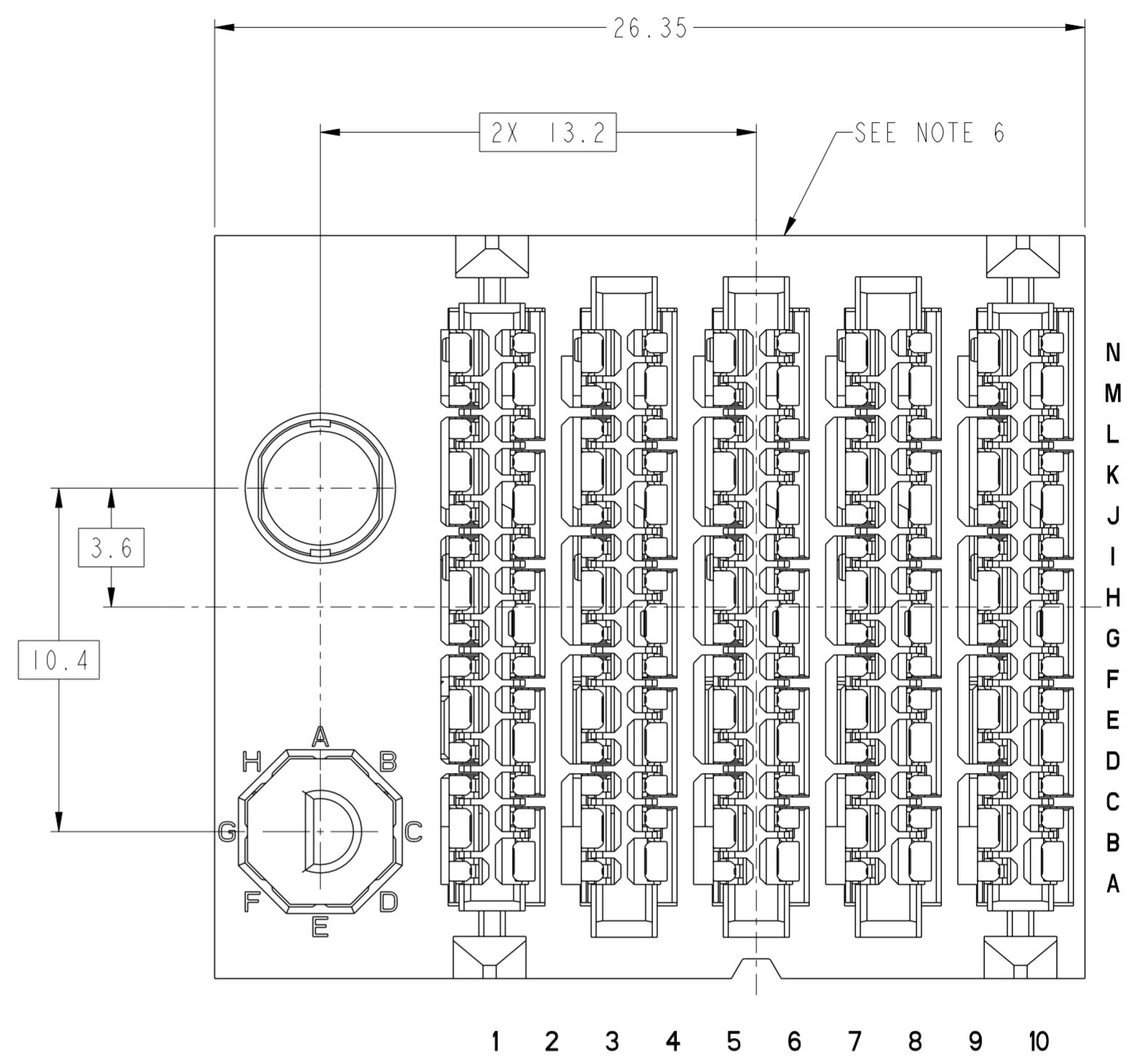
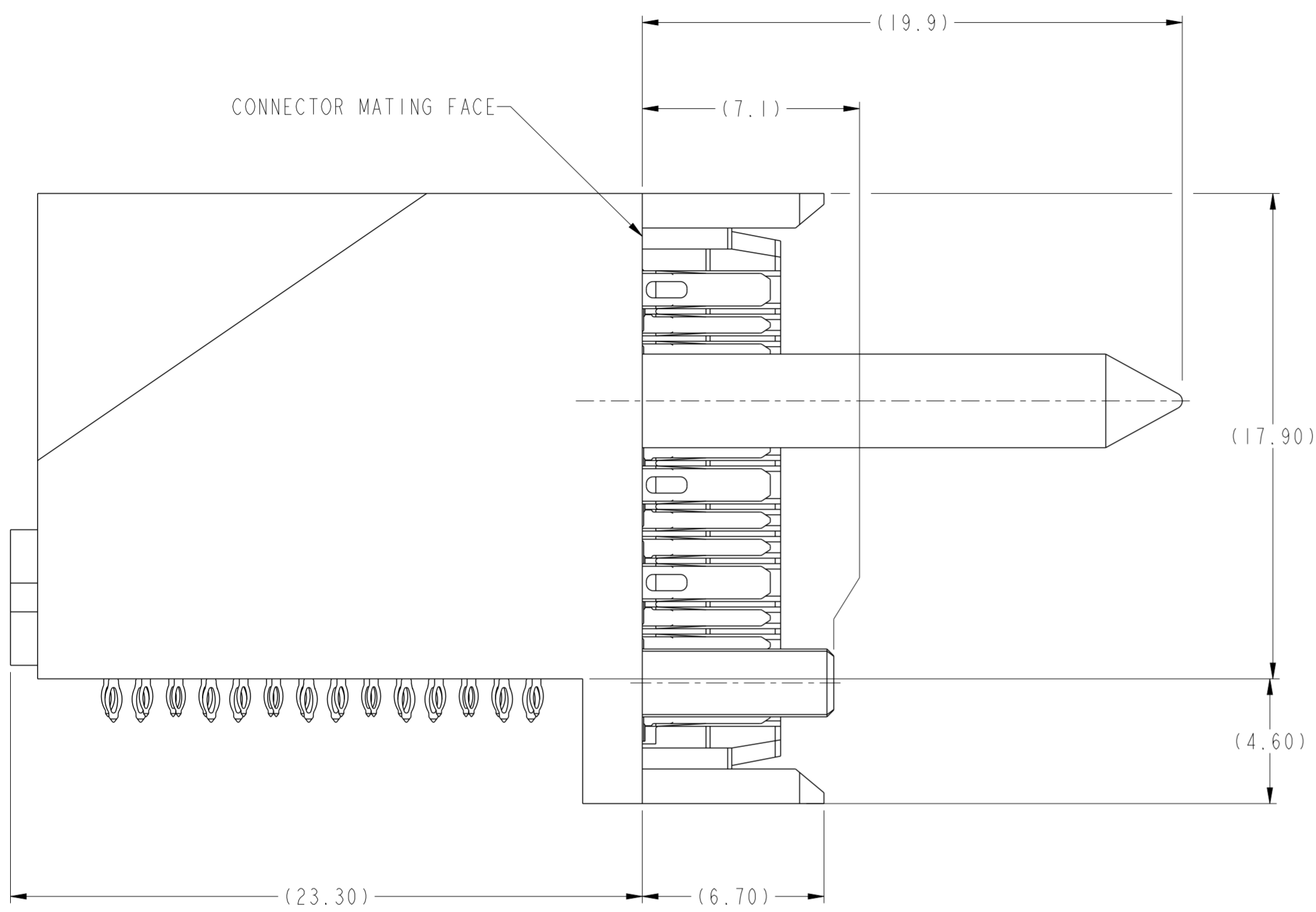
spec ref	SEE NOTES	dr	Stu Stoner	2014/02/13	projection	MM	size	A2	scale	1:1
tolerance std	TOLERANCES UNLESS OTHERWISE SPECIFIED	eng	Peng-Bing Fu	2020/02/25			ecn no	ELX-DG-36098-1		
ASME Y14.5M		chr	-	appr			Heaven Cen	2020/05/04	product family	ExaMAX
surface	- ✓	linear	0.X	±.3		title ExaMAX RIGHT-ANGLE HDR ASSY 4 PR, 140 POS, 10 IMLA, 2MM	dwg no 10128421	rev C		
			0.XX	±.10						
			0.XXX	±.050						
		angular	0°	±°	cat. no.	SEE TABLE	Product - Customer Drw	sheet 4 of 11		



**DETAIL A**  
SCALE 16:1

**RECOMMENDED PCB LAYOUT FOR  
10128421-Y01YLF COMPONENT SIDE  
SEE NOTES 7, 8, 9, & 11**

spec ref	SEE NOTES	dr	Stu Stoner	2014/02/13	projection	MM	size	A2	scale	3:1	
tolerance std	TOLERANCES UNLESS OTHERWISE SPECIFIED	eng	Peng-Bing Fu	2020/02/25			ecn no	ELX-DG-36098-1			
ASME Y14.5M		chr	-	appr			Heaven Cen	2020/05/04	product family	ExaMAX	rel level
surface	linear	0.X	±.3		<b>Amphenol FCI</b>		title	ExaMAX RIGHT-ANGLE HDR			
		0.XX	±.10		assy	ASSY 4 PR, 140 POS, 10 IMLA, 2MM		cat. no.	SEE TABLE	Product - Customer Drw	sheet 5 of 11
	angular	0°	±°		dwg no	10128421		rev	C		



10128421-Y1AYLF THRU -Y1JYLF  
 RIGHT GUIDANCE CONNECTOR (SEE NOTE 17)  
 FOR ALL OTHER DIMENSIONS SEE SHEET 1

Amphenol  
 FCI

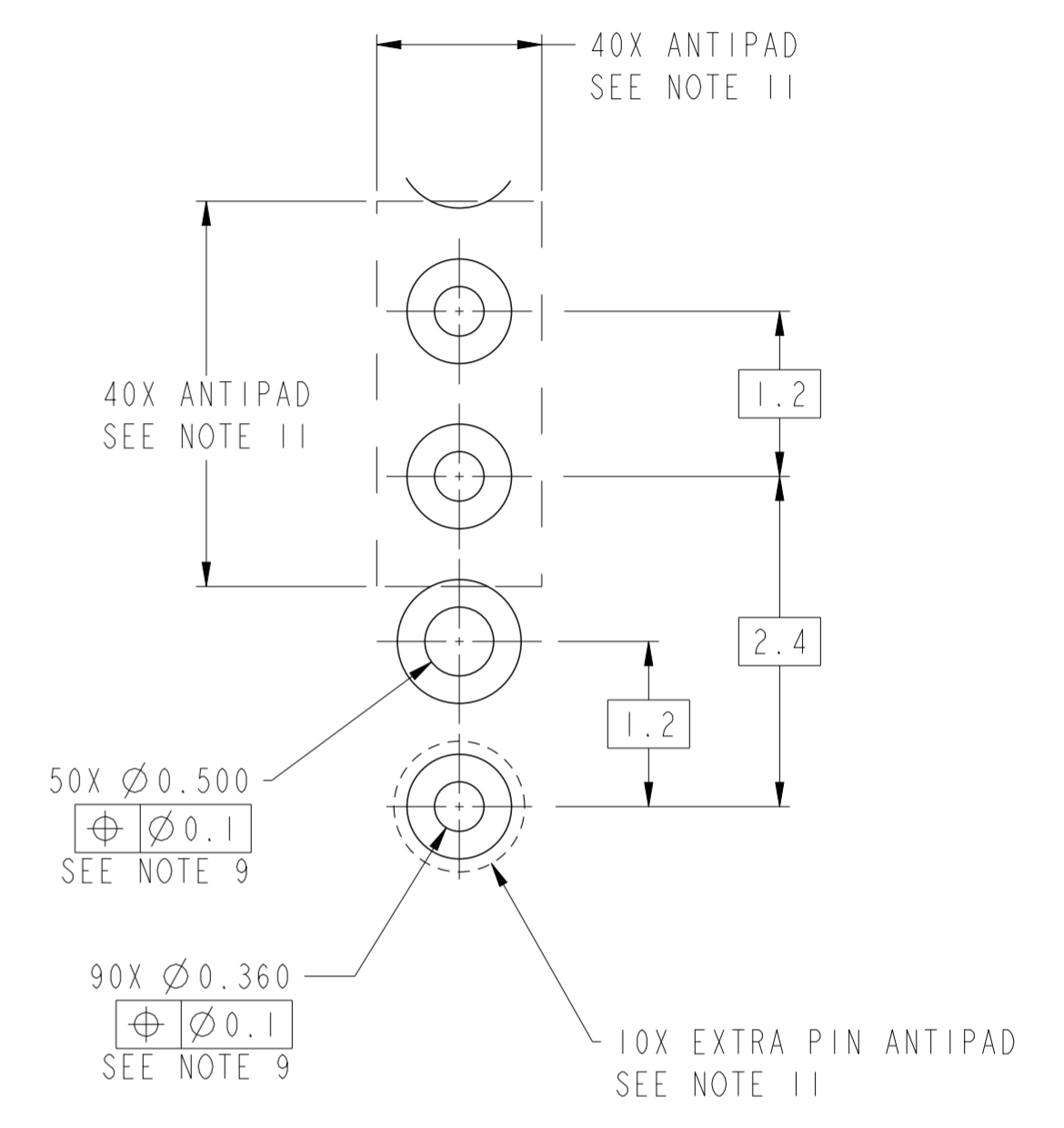
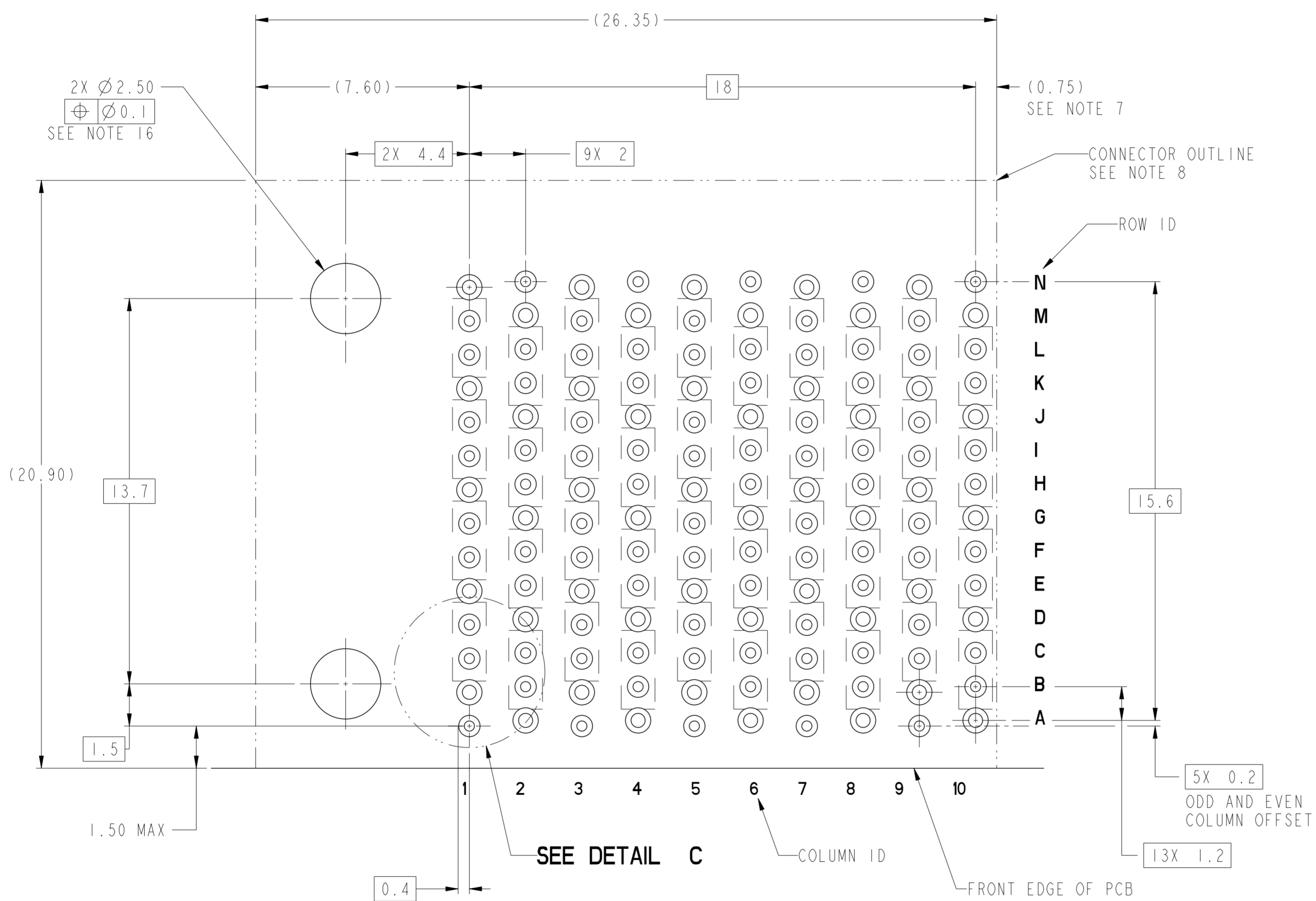
© 2016 AFCI

spec ref	SEE NOTES	dr	Siu Stoner	2014/02/13	projection	MM	size	A2	scale	6:1												
tolerance std	TOLERANCES UNLESS OTHERWISE SPECIFIED	eng	Peng-Bing Fu	2020/02/25			ecn no	ELX-DG-36098-1														
ASME Y14.5M		chr	-	2020/05/04			product family	ExaMAX	rel level	Released												
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 ExaMAX RIGHT-ANGLE HDR ASSY 4 PR, 140 POS, 10 IMLA, 2MM		cat. no.	SEE TABLE	Product - Customer Drw	sheet 6 of 11	rev	C
linear	0.X	±.3																				
	0.XX	±.10																				
	0.XXX	±.050																				
angular	0°	±°																				

PDS: Rev :C

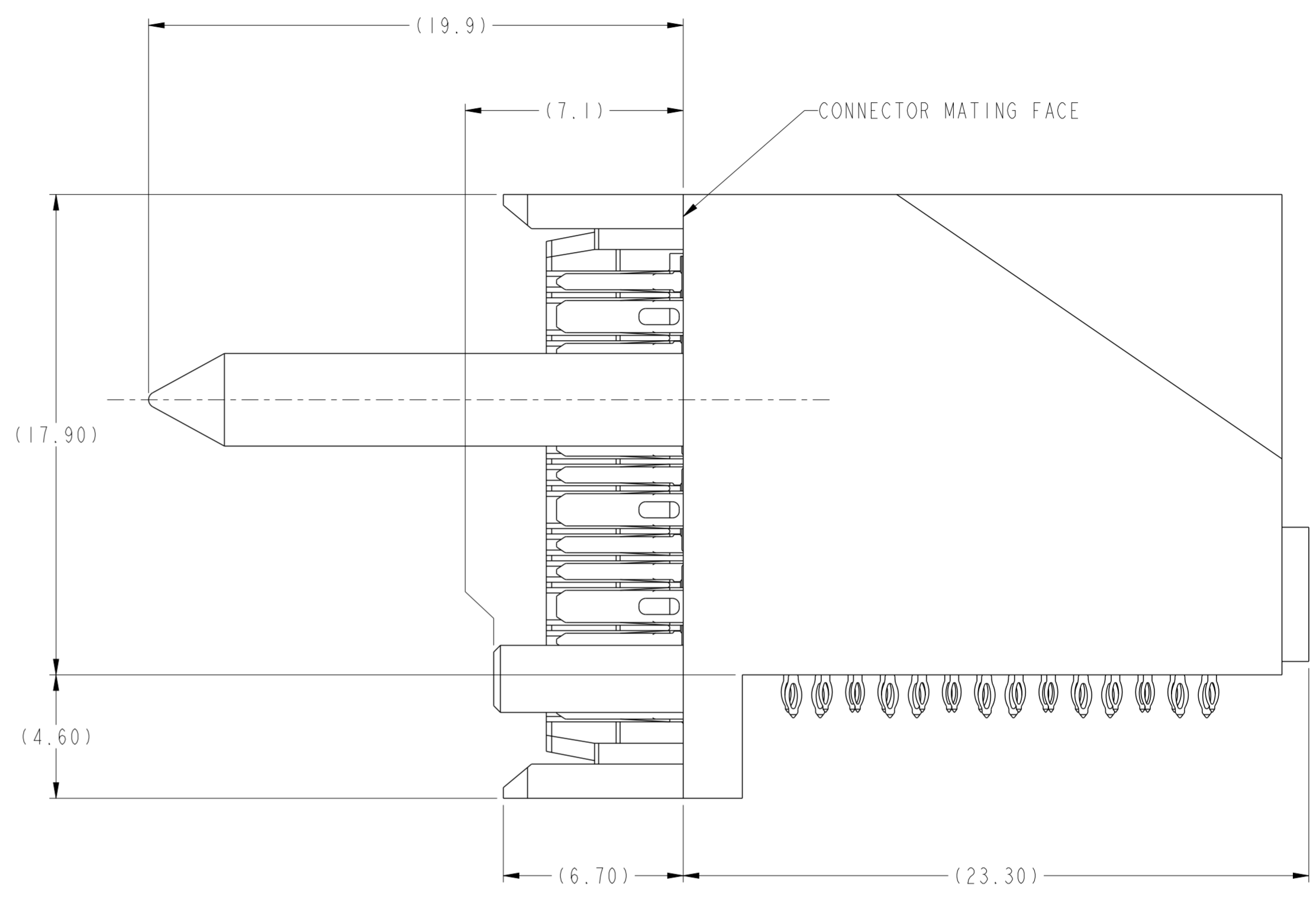
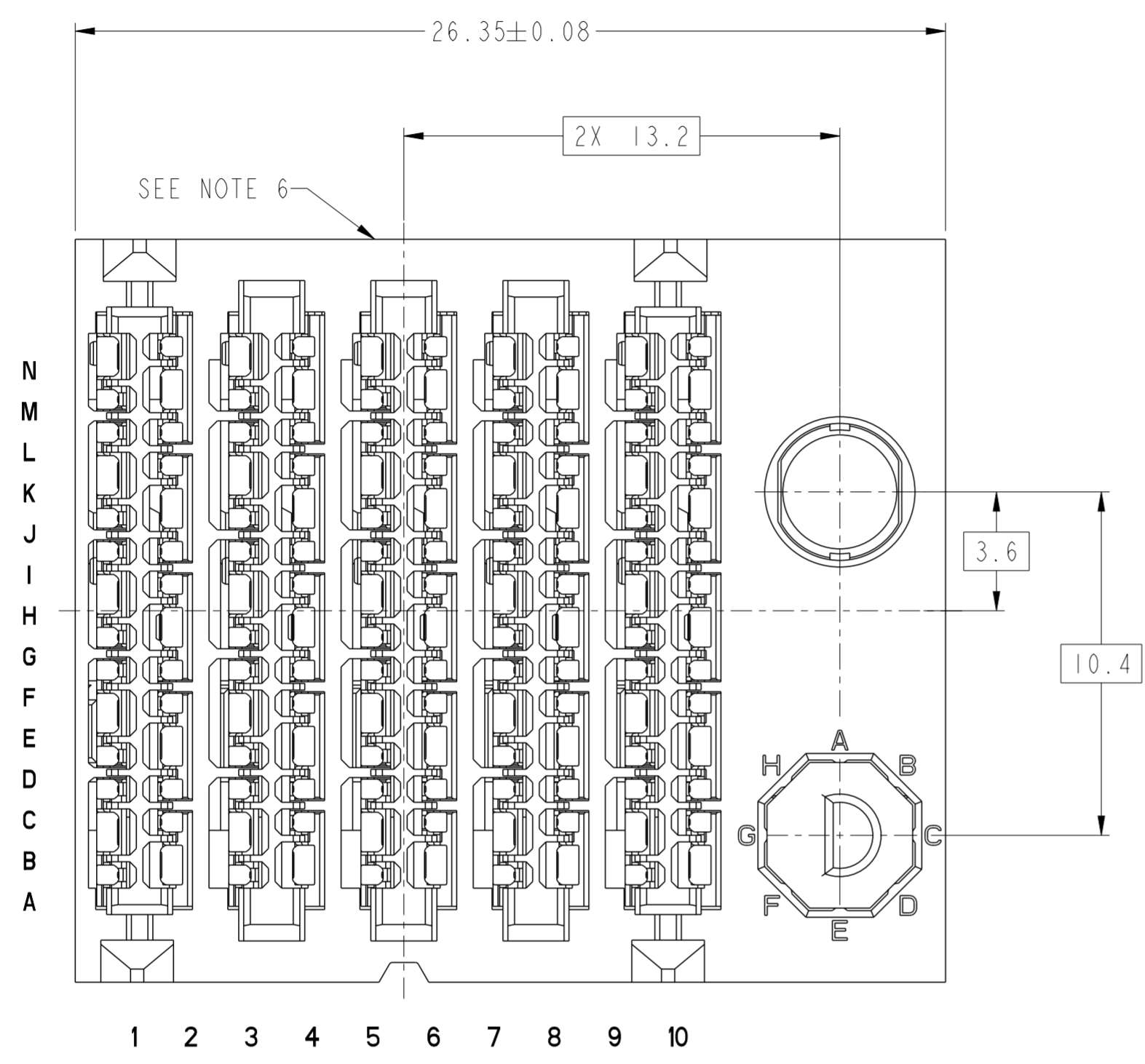
STATUS:Released

Printed: May 05, 2020



**RECOMMENDED PCB LAYOUT FOR  
10128421-Y1AYLF THRU -Y1JYLF  
w/RIGHT GUIDANCE  
COMPONENT SIDE  
SEE NOTES 7, 8, 9, 11, & 16**

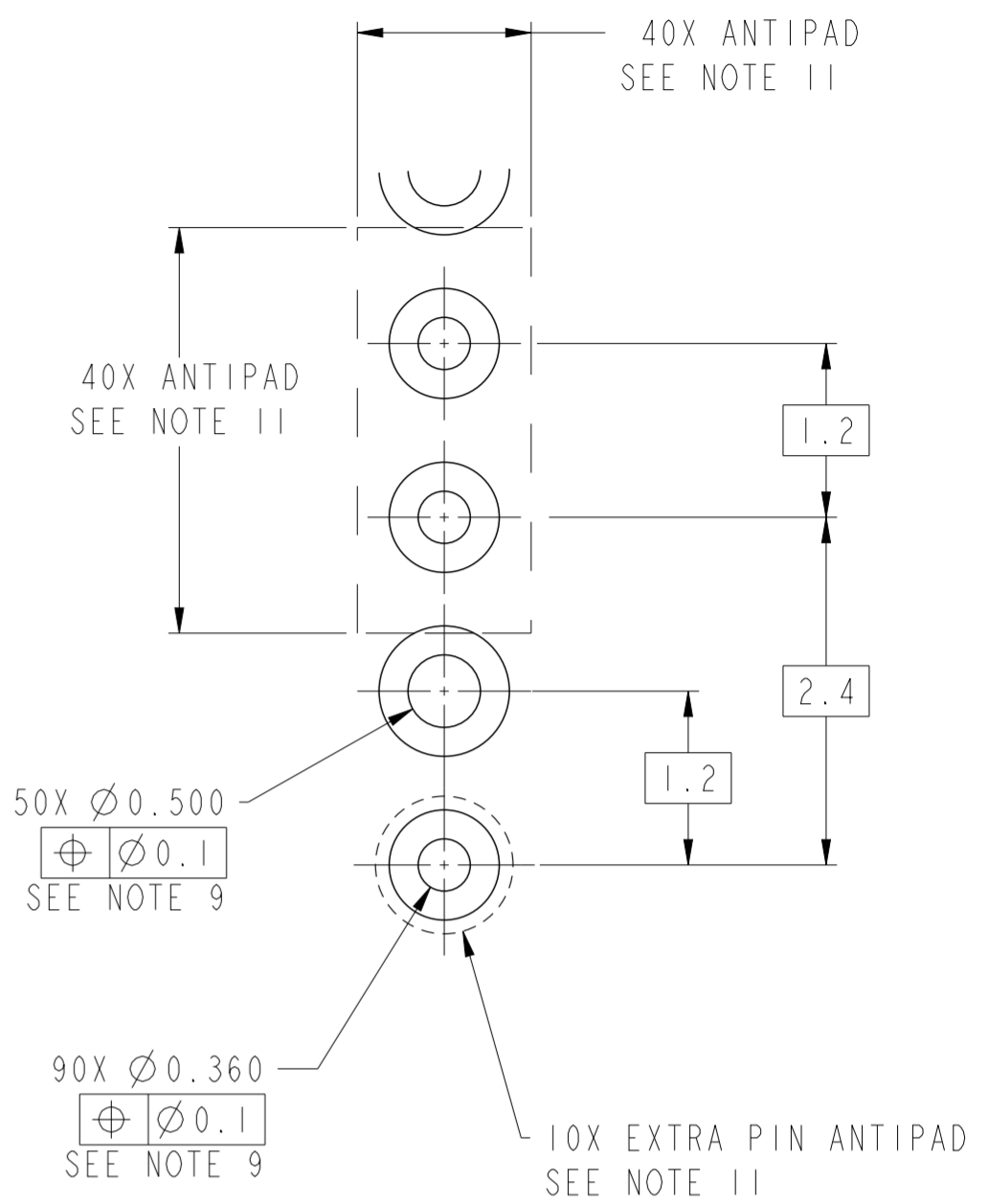
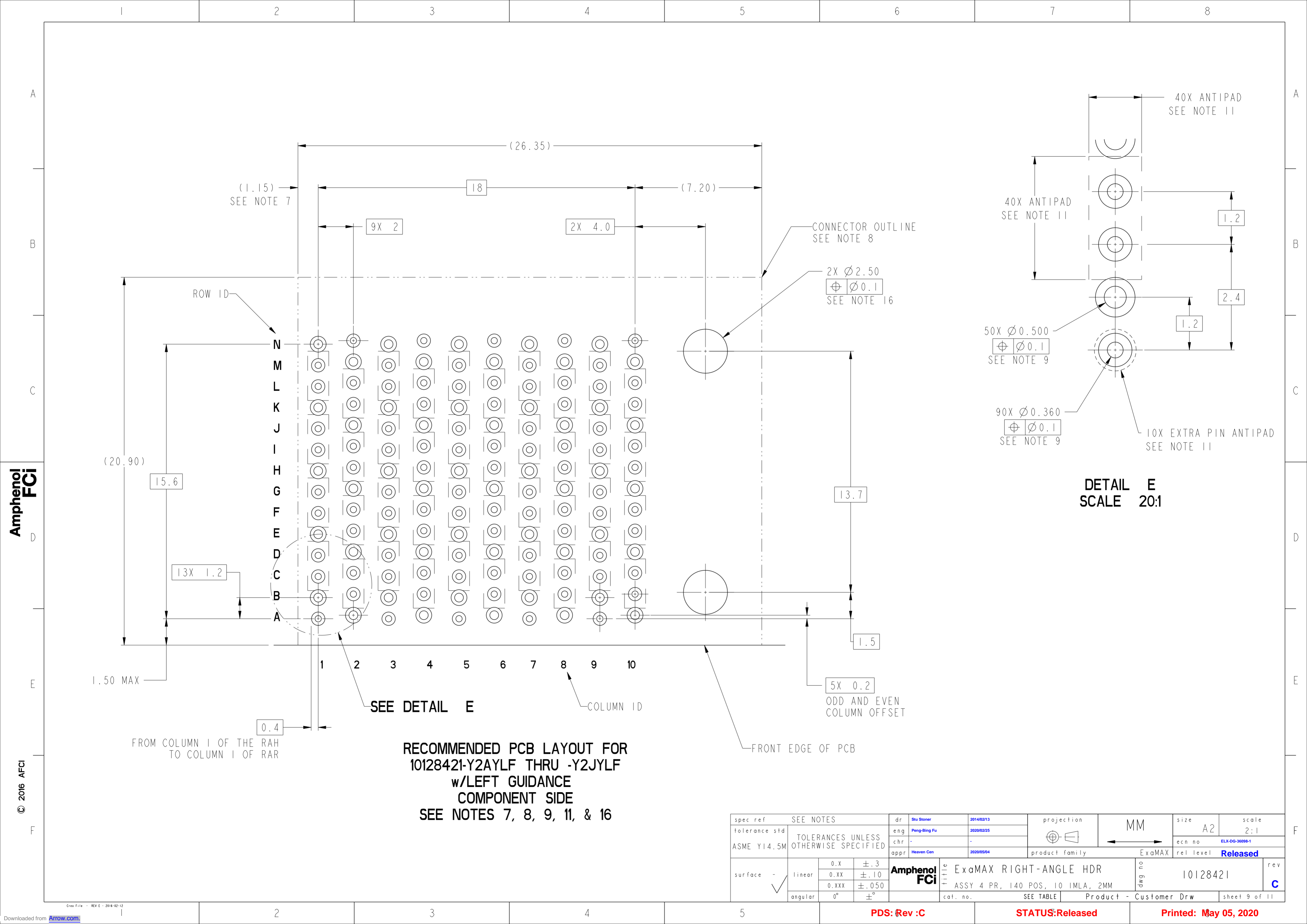
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tolerance std	TOLERANCES UNLESS OTHERWISE SPECIFIED	eng	Peng-Bing Fu	2020/02/25			ecn no	ELX-DG-36098-1	rel level	Released	
ASME Y14.5M		chr	-	appr			Heaven Cen	2020/05/04		product family	ExaMAX
surface	linear	0.X	±.3		<b>Amphenol FCI</b>		title	ExaMAX RIGHT-ANGLE HDR		rev	C
		0.XX	±.10		assy	ASSY 4 PR, 140 POS, 10 IMLA, 2MM		cat. no.	SEE TABLE	Product - Customer Drw	sheet 7 of 11
	angular	0°	±°								



10128421-Y2AYLF THRU -Y2JYLF  
LEFT GUIDANCE CONNECTOR (SEE NOTE 17)  
FOR ALL OTHER DIMENSIONS SEE SHEET 1

spec ref	SEE NOTES	dr	Stu Stoner	2014/02/13	projection	MM	size	A2	scale	6:1											
tolerance std	TOLERANCES UNLESS OTHERWISE SPECIFIED	eng	Peng-Bing Fu	2020/02/25			ecn no	ELX-DG-36098-1	rel level	Released											
ASME Y14.5M		chr	-	app			Heaven Cen	2020/05/04			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 ExaMAX RIGHT-ANGLE HDR ASSY 4 PR, 140 POS, 10 IMLA, 2MM			dwg no	10128421	rev	C
linear	0.X	±.3																			
	0.XX	±.10																			
	0.XXX	±.050																			
angular	0°	±°																			
		cat. no.		SEE TABLE	Product - Customer Drw		sheet 8 of 11														





**RECOMMENDED PCB LAYOUT FOR  
10128421-Y2AYLF THRU -Y2JYLF  
w/LEFT GUIDANCE  
COMPONENT SIDE  
SEE NOTES 7, 8, 9, 11, & 16**

spec ref	SEE NOTES	dr	Stu Stoner	2014/02/13	projection	MM	size	A2	scale	2:1		
tolerance std	TOLERANCES UNLESS OTHERWISE SPECIFIED	eng	Peng-Bing Fu	2020/02/25			ecn no	ELX-DG-3698-1	rel level <b>Released</b>	rev <b>C</b>		
ASME Y14.5M		chr	-	appr			Heaven Cen	2020/05/04			product family	ExdMAX
surface	linear: 0.X ±.3, 0.XX ±.10, 0.XXX ±.050 angular: 0° ±°	<b>Amphenol FCI</b>		title: ExdMAX RIGHT-ANGLE HDR ASSY 4 PR, 140 POS, 10 IMLA, 2MM			cat. no.: SEE TABLE	Product - Customer Drw			sheet 9 of 11	

PDS: Rev :C

STATUS:Released

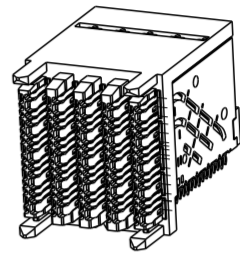
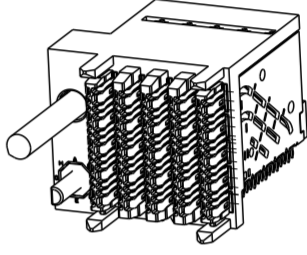
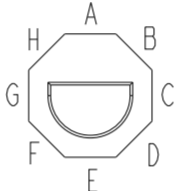
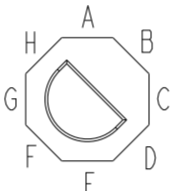
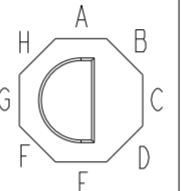
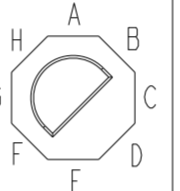
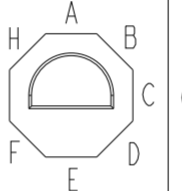
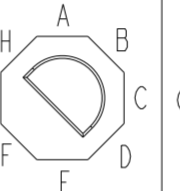
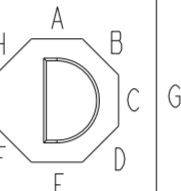
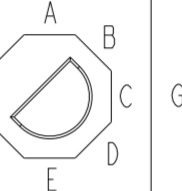
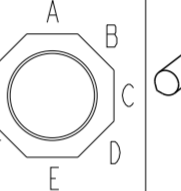
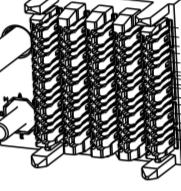
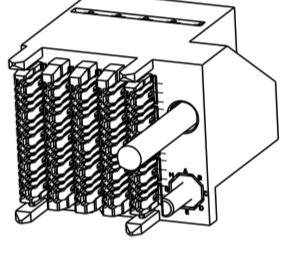
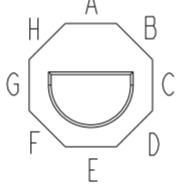
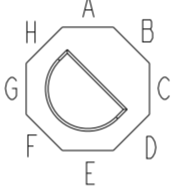
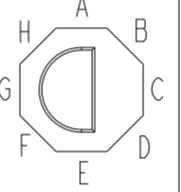
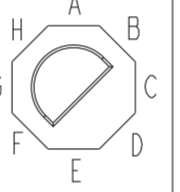
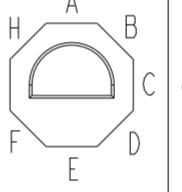
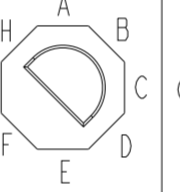
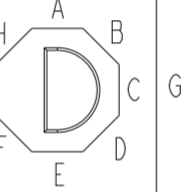
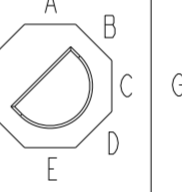
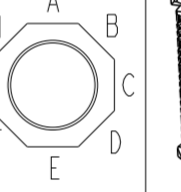
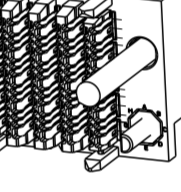
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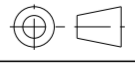
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10128421 - Y Y Y Y L F

PLATING  
SEE NOTE 2

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

ASSEMBLY PART NUMBER	DESCRIPTION
10128421-1YYYYLF	STANDARD MATE
10128421-2YYYYLF	ADVANCED MATE
10128421-3YYYYLF	SHORT DETECT
10128421-4YYYYLF	ADVANCED MATE & SHORT DETECT

spec ref	SEE NOTES	dr	Stu Stoner	2014/02/13	projection	MM	size	A2	scale	1:1
tolerance std	ASME Y14.5M	eng	Peng-Bing Fu	2020/02/25		← →	ecn no	ELX-DG-36098-1		
TOLERANCES UNLESS OTHERWISE SPECIFIED		chr	-	appr			Heaven Cen	2020/05/04	product family	ExaMAX
surface	-	linear	0.X	±.3	Amphenol FCI		title	ExaMAX RIGHT-ANGLE HDR		
			0.XX	±.10			assy	ASSY 4 PR, 140 POS, 10 IMLA, 2MM		
			0.XXX	±.050			cat. no.	SEE TABLE	Product - Customer Drw	sheet 10 of 11
		angular	0°	±°			rev	C		

NOTES

- ① - CONNECTOR MATERIALS:  
HOUSING: HIGH TEMP THERMOPLASTIC, BLACK, UL94-V0  
IMLA PLASTIC: HIGH TEMP THERMOPLASTIC, BLACK, UL94-V0  
CONTACT: COPPER ALLOY  
ORGANIZER: HIGH TEMP THERMOPLASTIC, BLACK, UL94-V0
- 2 - CONTACT PLATING:  
SEPARABLE INTERFACE:  
-YYYYLF: 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.  
-YYY2LF: GXT+ OVER NICKEL  
-YYY9LF: GXT OVER NICKEL  
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 2.0 mm OR 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, 10128421-2YYYYLF, 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, 10128421-3YYYYLF, WHEN MATED WITH A STANDARD MATE RECEPTACLE WILL PROVIDE 1 PAIR OF MATING CONTACTS THAT MATE 1.00 MM AFTER THE REMAINDER OF THE SIGNAL AND GROUND CONTACTS.
- ⑮ - THE ADVANCED MATE/SHORT DETECT HEADER, 10128421-4YYYYLF, WHEN MATED WITH AN ADVANCED MATE RECEPTACLE WILL PROVIDE 2 PAIRS OF MATING CONTACTS THAT MATE 0.75 MM BEFORE THE REMAINDER OF THE SIGNAL AND GROUND CONTACTS AND 1 PAIR OF MATING CONTACTS THAT MATE 1.00 MM AFTER THE REMAINDER OF THE SIGNAL AND GROUND CONTACTS.
- ⑯ - FOR CONNECTORS WITH EITHER A RIGHT OR LEFT GUIDE MODULE, TWO PHILLIPS PAN HEAD M2 HOLD-DOWN SCREWS MUST BE USED TO SECURE THE CONNECTOR TO THE PCB. THE SCREW LENGTH SHALL BE 2.0-6.0mm PLUS THE THICKNESS OF THE PCB BOARD. SCREWS ARE NOT PROVIDED WITH THE CONNECTOR.
- ⑰ - LEFT / RIGHT INTEGRATED GUIDE ORIENTATION IS DETERMINED BY THE LOCATION OF THE GUIDE FEATURE WHEN LOOKING AT THE MATING FACE OF THE RIGHT ANGLE RECEPTACLE THAT IT MATES WITH ( i. e. A RIGHT GUIDE RIGHT ANGLE HEADER MATES WITH A RIGHT GUIDE RIGHT ANGLE RECEPTACLE.)
- ⑱ - ALL GROUND CONTACTS WITHIN A COLUMN ARE COMMONED.

spec ref	SEE NOTES	dr	Stu Stoner	2014/02/13	projection	MM	size	A2	scale	2:1		
tolerance std	TOLERANCES UNLESS OTHERWISE SPECIFIED	eng	Peng-Bing Fu	2020/02/25		← →	ecn no	ELX-DG-36098-1				
ASME Y14.5M		chr	-	app			Heaven Cen	2020/05/04	product family	ExaMAX	rel level	Released
surface	linear	0.X	±.3	<b>Amphenol FCI</b>	title		ExaMAX RIGHT-ANGLE HDR		cat. no.	SEE TABLE	Product - Customer Drw	sheet 11 of 11
✓		0.XX	±.10		title		ASSY 4 PR, 140 POS, 10 IMLA, 2MM					
		0.XXX	±.050		angular	0°	±°	rel level				

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