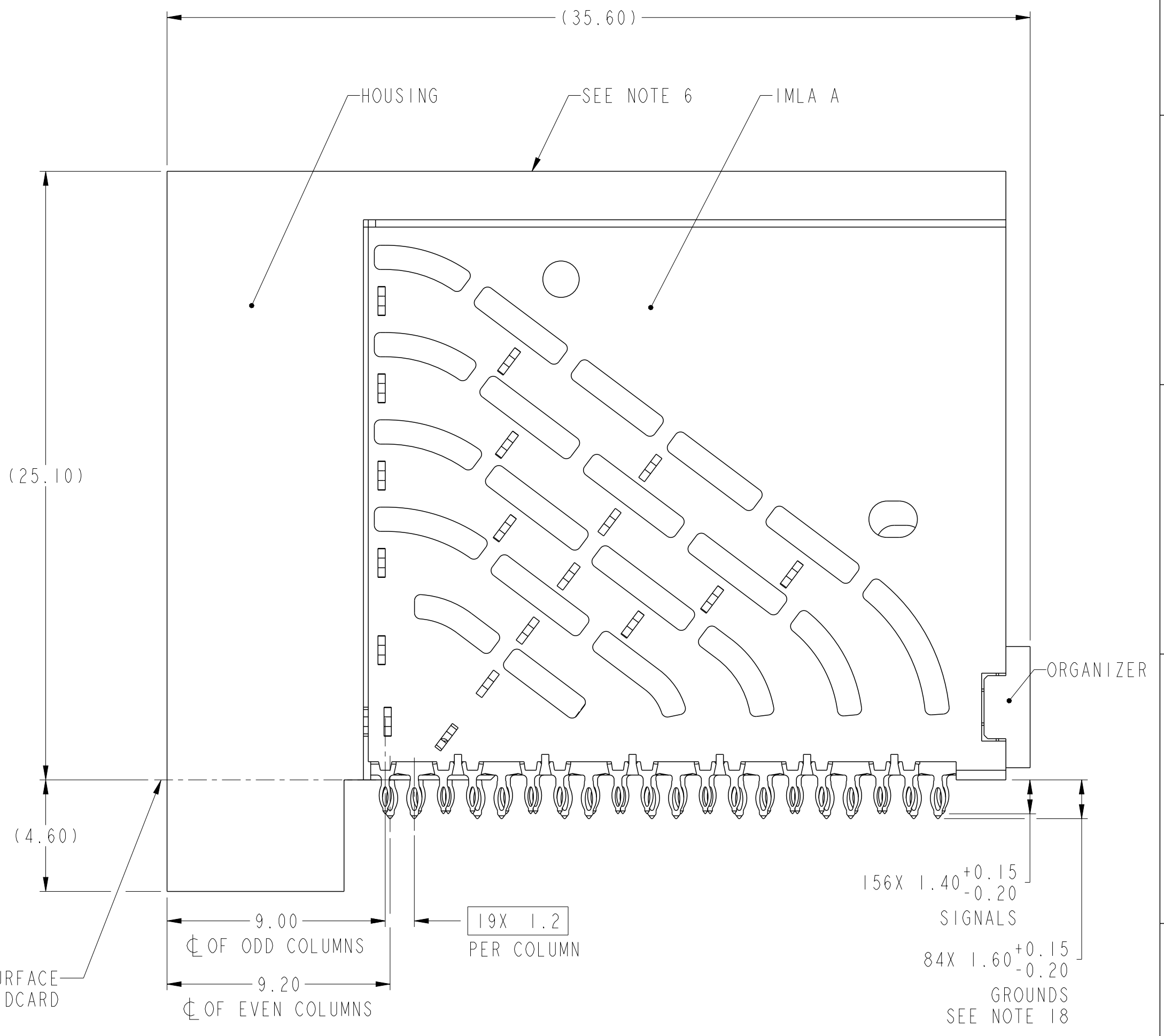
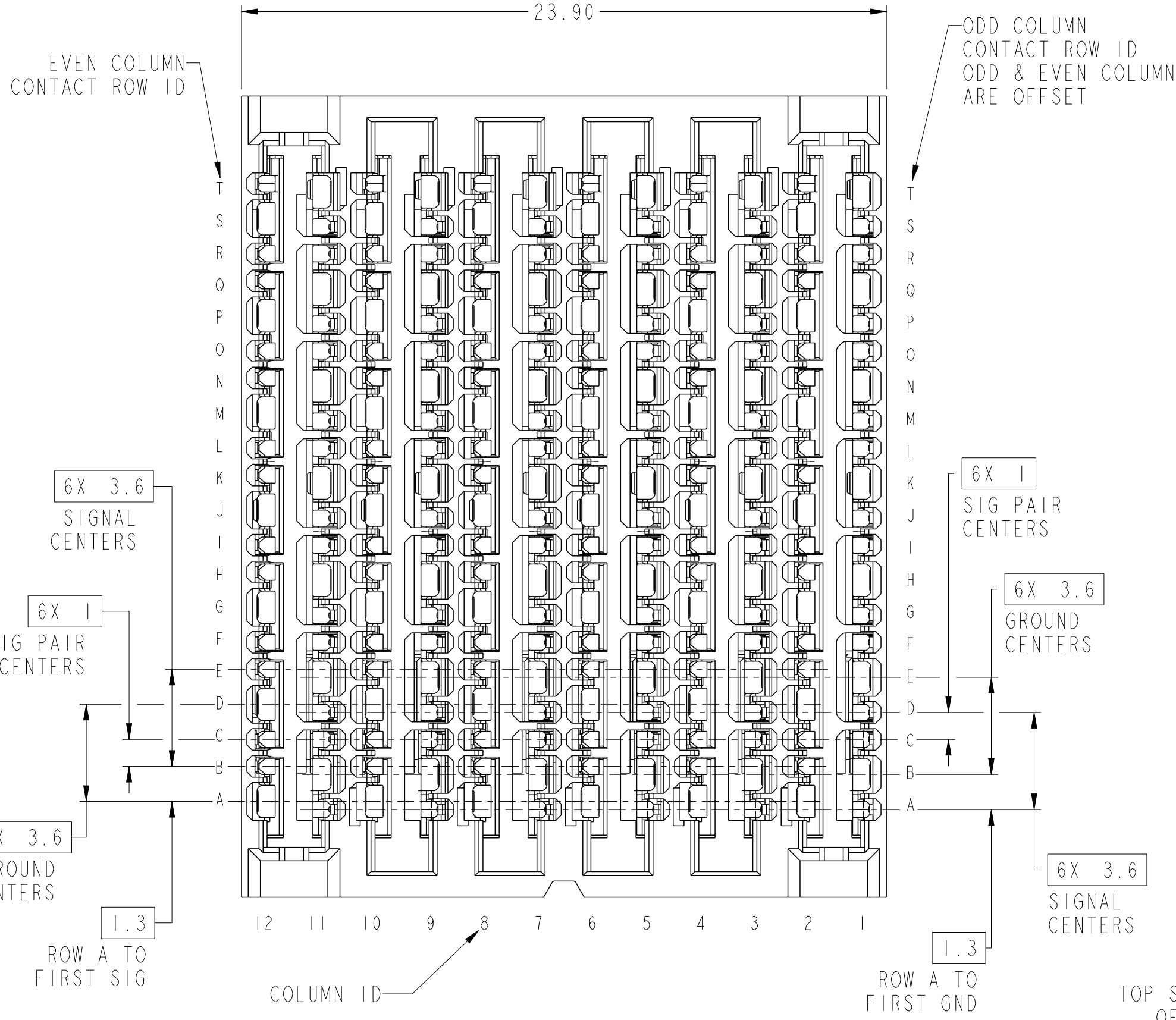


PRODUCT NUMBER
SEE TABLE



10123159-101LF
STANDARD MATE RECEPTACLE
SCALE 6:1

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FCI

spec ref	SEE NOTES	dr	Stu Stoner	2012/1/09	projection	MM	size	A2	scale	6:1									
tolerance std	TOLERANCES UNLESS OTHERWISE SPECIFIED	eng	D Johnescu	2015/09/23			ecn no	-	rel level	Released									
ASME Y14.5M		chr	-																
		appr	Jim Swain	2015/09/22							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 ExaMAX R.A. RECEPTACLE ASSY 6 PR, 12 IMLA, 240 POS, 24mm		dwg no 10123159	rev A
linear	0.X	±.3																	
	0.XX	±.10																	
	0.XXX	±.050																	
angular	0°	±°																	
		www.fci.com		cat. no. SEE TABLE	Product - Customer Drw		sheet 1 of 11												

PDS: Rev :A

STATUS:Released

Printed: Sep 23, 2015

1 2 3 4 5 6 7 8

A

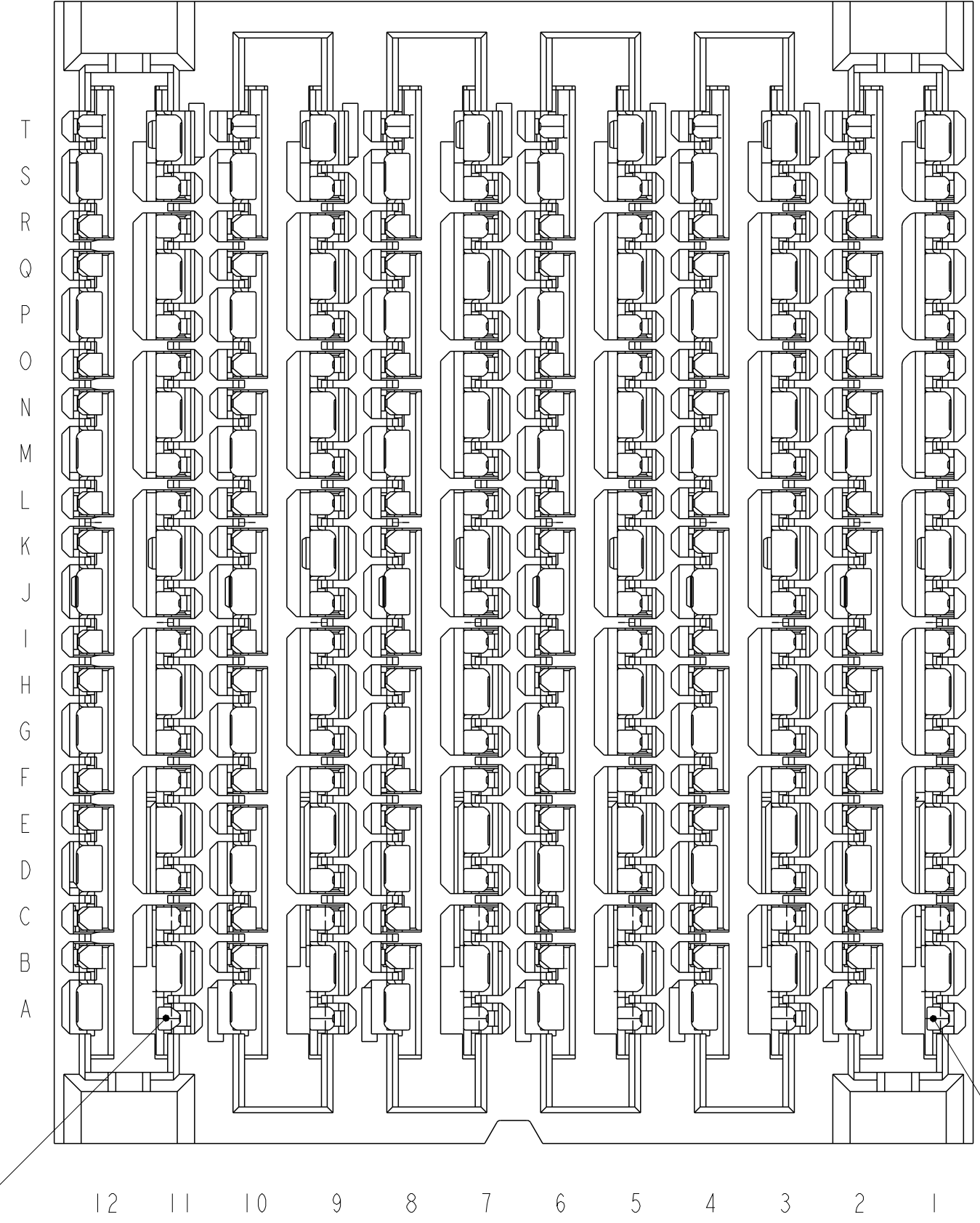
B

C

D

E

F



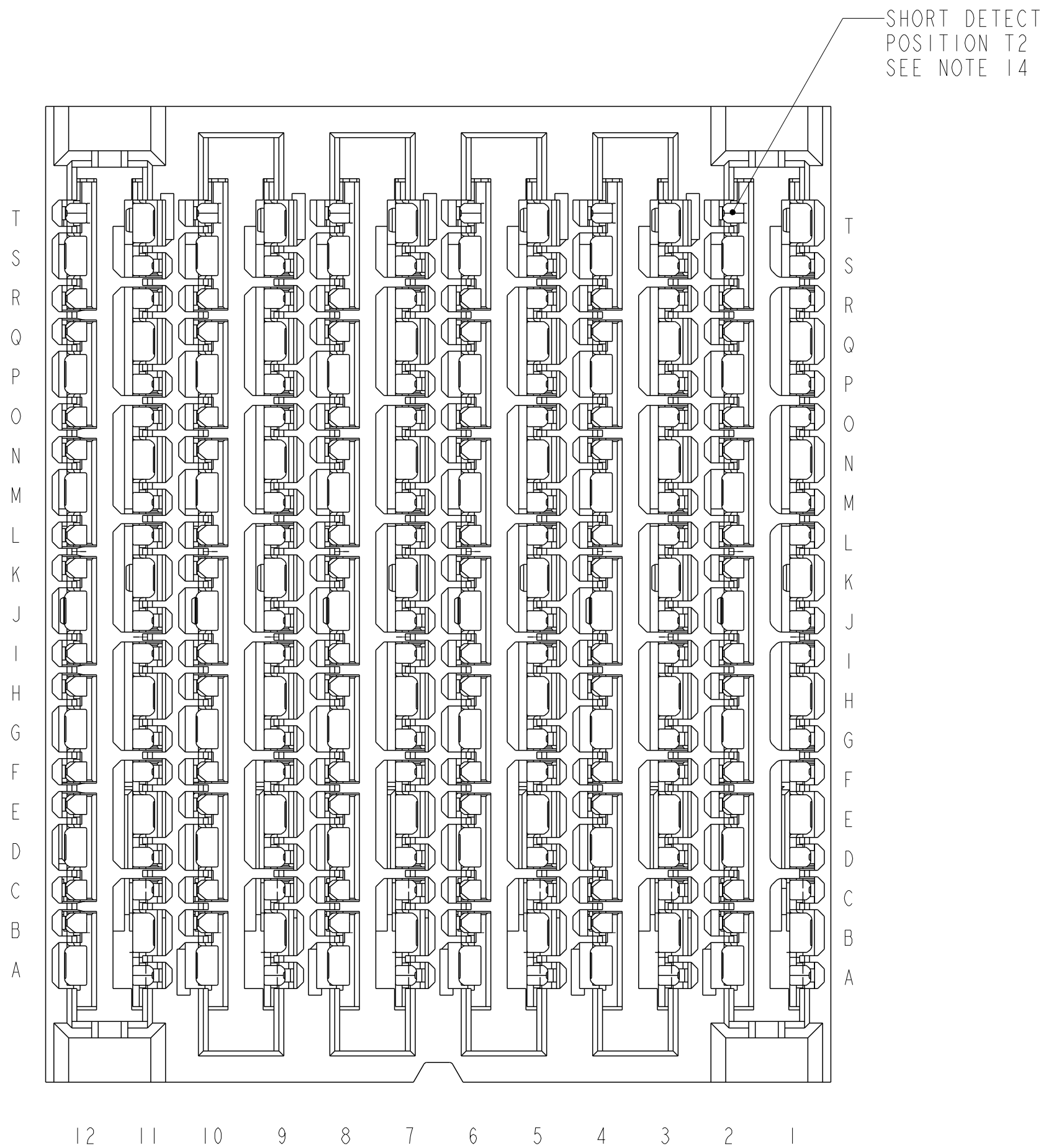
ADVANCED MATE POSITION A11 SEE NOTE 13

ADVANCED MATE POSITION A1 SEE NOTE 13

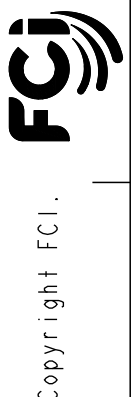
10123159-201LF
ADVANCED MATE RECEPTACLE
ADVANCED MATE POSITIONS ARE A1 AND A11 ONLY
FOR ALL DIMENSIONS SEE 10123159-101LF ON SHEET 1
SCALE 7:1

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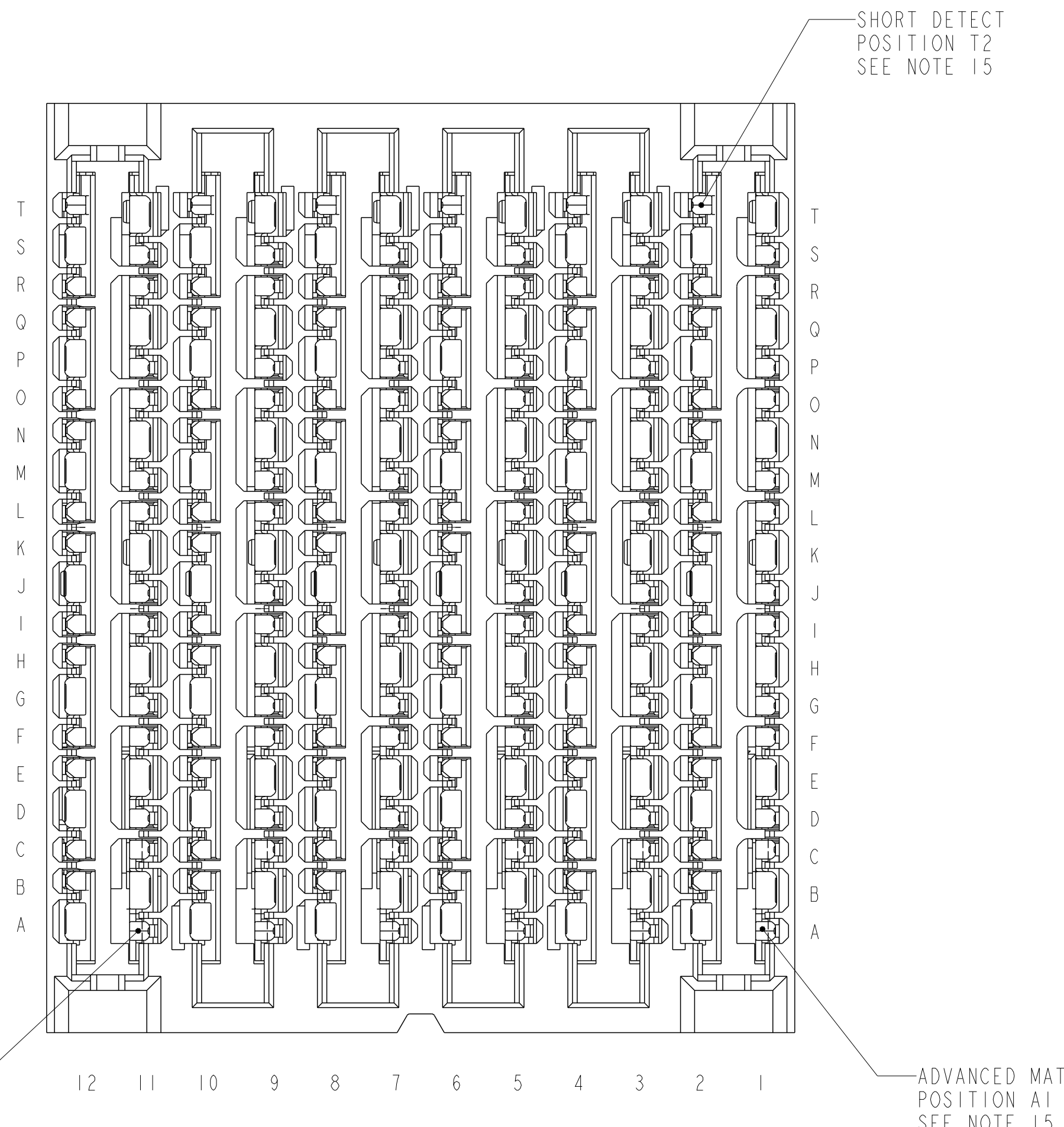
spec ref	SEE NOTES	dr	Stu Stoner	2012/1/09	projection	MM	size	A2	scale	7:1														
tolerance std	TOLERANCES UNLESS OTHERWISE SPECIFIED	eng	D Johnescu	2015/09/23			ecn no	-																
ASME Y14.5M		chr	-	2015/09/22			product family	ExaMAX	rel level	Released														
surface	<table border="1"> <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°	±°	appr	Jim Swain	2015/09/22			title	ExaMAX R.A. RECEPTACLE ASSY	dwg no	10123159	rev	A
linear	0.X	±.3																						
	0.XX	±.10																						
	0.XXX	±.050																						
angular	0°	±°																						
		www.fci.com		cat. no.	SEE TABLE	Product - Customer Drw		sheet 2 of 11																



10123159-301LF
 SHORT DETECT RECEPTACLE
 SHORT DETECT POSITION IS T2
 FOR ALL DIMENSIONS SEE 10123159-101LF ON SHEET 1
 SCALE 7:1



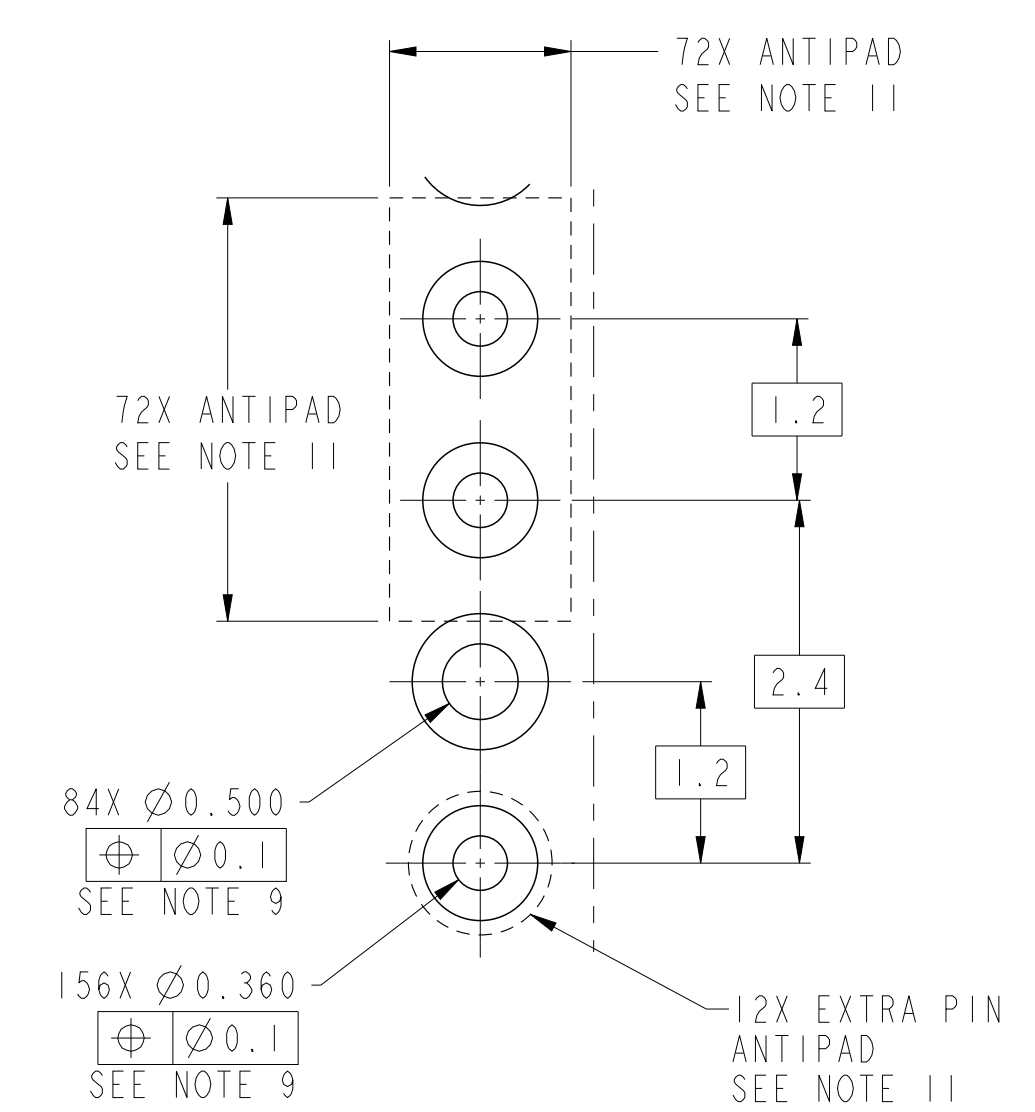
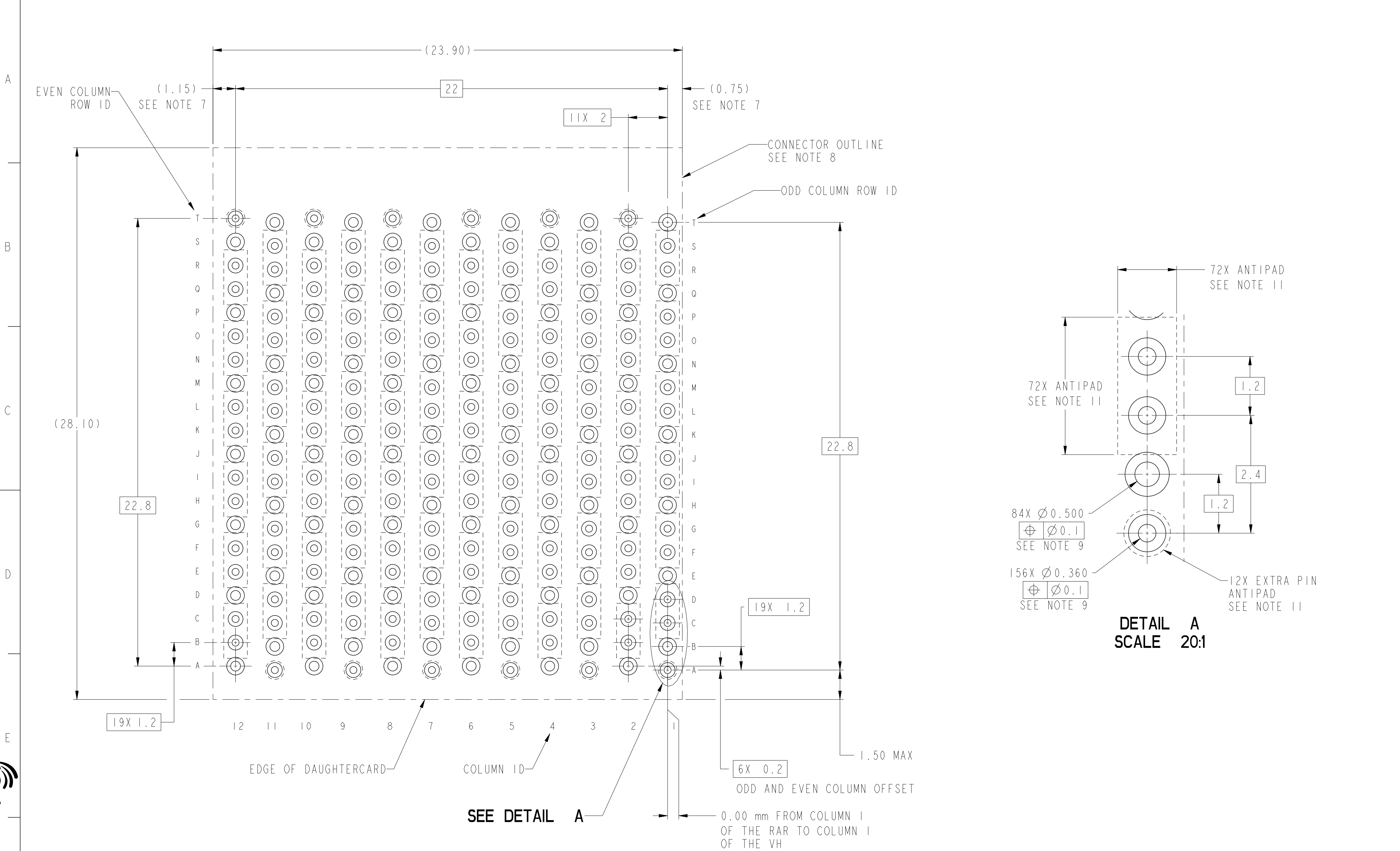
spec ref	SEE NOTES	dr	Stu Stoner	2012/1/09	projection	MM	size	A2	scale	7:1														
tolerance std	TOLERANCES UNLESS OTHERWISE SPECIFIED	eng	D Johnescu	2015/09/23			ecn no	-																
ASME Y14.5M		chr	-	2015/09/22			product family	ExaMAX	rel level	Released														
surface	<table border="1"> <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°	±°	appr	Jim Swain	2015/09/22			title	ExaMAX R.A. RECEPTACLE ASSY	dwg no	10123159	rev	A
linear	0.X	±.3																						
	0.XX	±.10																						
	0.XXX	±.050																						
angular	0°	±°																						
		www.fci.com		cat. no.	SEE TABLE	Product - Customer Drw	sheet 3 of 11																	



10123159-401LF
ADVANCED MATE/SHORT DETECT RECEPTACLE
ADVANCED MATE POSITIONS ARE POSITIONS A1 AND A11 ONLY
SHORT DETECT POSITION IS T2
FOR ALL DIMENSIONS SEE 10123159-101LF ON SHEET 1
SCALE 7:1



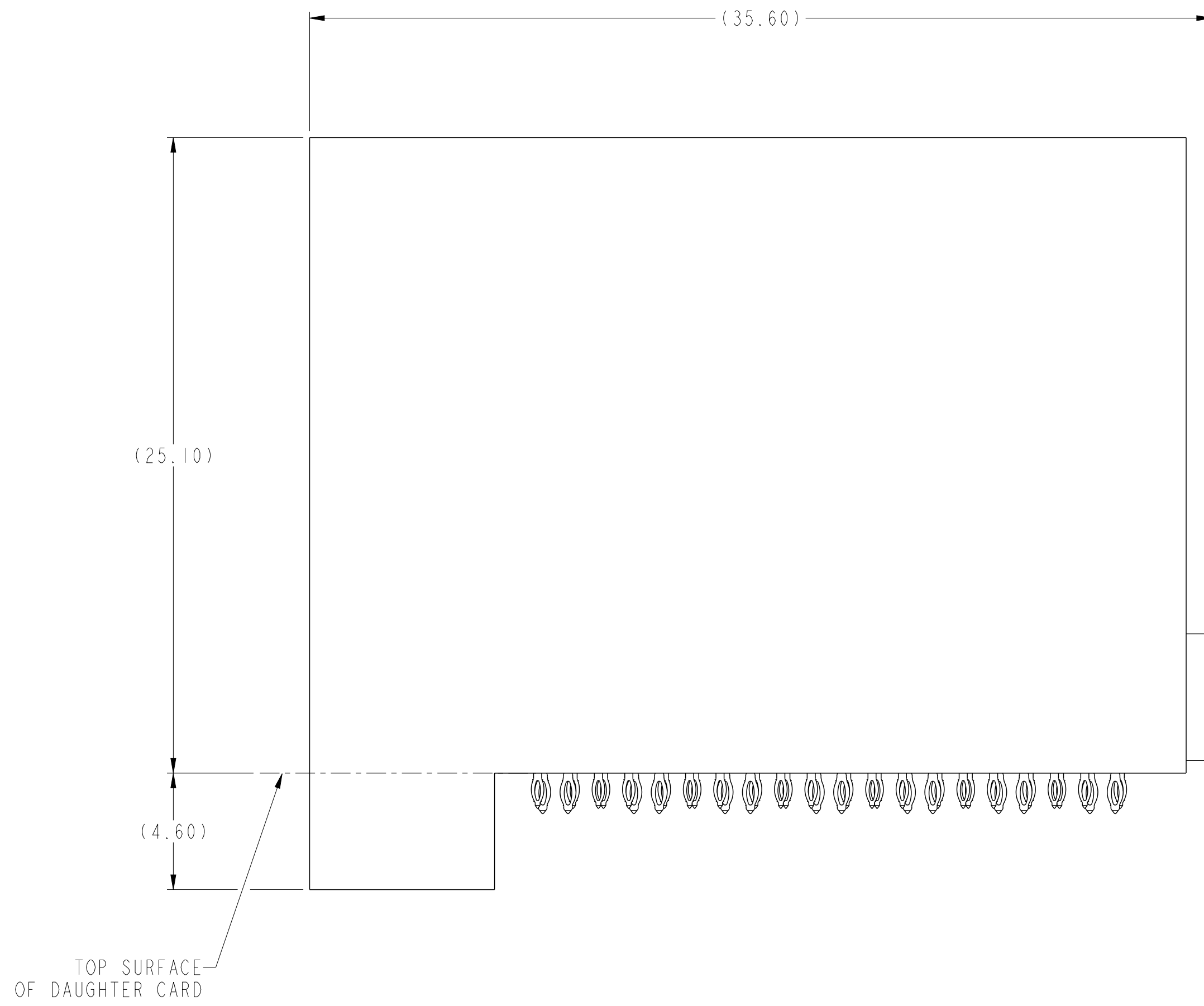
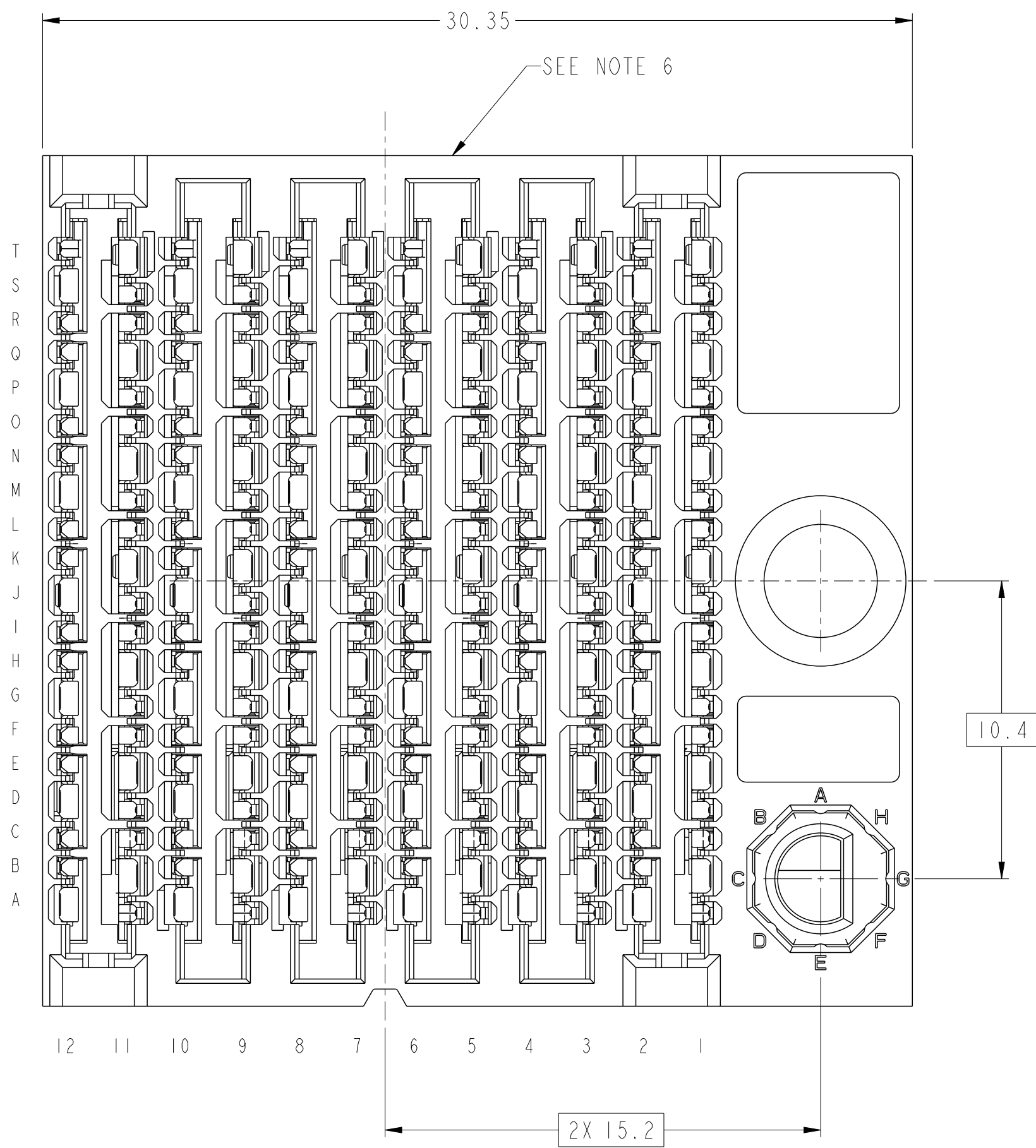
spec ref	SEE NOTES	dr	Stu Stoner	2012/1/09	projection	MM	size	A2	scale	7:1	
tolerance std	TOLERANCES UNLESS OTHERWISE SPECIFIED	eng	D Johnescu	2015/09/23			ecn no	-	rel level	Released	
ASME Y14.5M		chr	-	-			product family	ExaMAX			
surface		linear	0.X	±.3		title ExaMAX R.A. RECEPTACLE ASSY 6 PR, 12 IMLA, 240 POS, 24mm	dwg no 10123159	rev A	cat. no. SEE TABLE	Product - Customer Drw	sheet 4 of 11
			0.XX	±.10							
			0.XXX	±.050							
		angular	0°	±°	www.fci.com						



10123159-X01
RECOMMENDED PCB LAYOUT
COMPONENT SIDE
NOTES 7, 8, 9, & 11
SCALE 8:1

spec ref	SEE NOTES	dr	Stu Stoner	2012/1/09	projection	MM	size	A2	scale	8:1									
tolerance std	TOLERANCES UNLESS OTHERWISE SPECIFIED	eng	D Johnescu	2015/09/23			ecn no	-	rel level	Released									
ASME Y14.5M		chr	-	app							Jim Swain	2015/09/22							
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 ExaMAX R.A. RECEPTACLE ASSY 6 PR, 12 IMLA, 240 POS, 24mm		dwg no 10123159	rev A
linear	0.X	±.3																	
	0.XX	±.10																	
	0.XXX	±.050																	
angular	0°	±°																	
		www.fci.com		cat. no.	Product - Customer Drw		sheet 5 of 11												

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10123159-X1ALF THRU 10123159-X1JLF
 RIGHT GUIDANCE (SEE NOTE 17)
 FOR ALL OTHER DIMENSIONS SEE 10123159-101LF ON SHEET 1
 SCALE 6:1

spec ref	SEE NOTES	dr	Stu Stoner	2012/1/09	projection	MM	size	A2	scale	6:1									
tolerance std	TOLERANCES UNLESS OTHERWISE SPECIFIED	eng	D Johnescu	2015/09/23			ecn no	-	rel level	Released									
ASME Y14.5M		chr	-	appr							Jim Swain	2015/09/22							
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 ExaMAX R.A. RECEPTACLE ASSY 6 PR, 12 IMLA, 240 POS, 24mm		dwg no 10123159	rev A
linear	0.X	±.3																	
	0.XX	±.10																	
	0.XXX	±.050																	
angular	0°	±°																	
		www.fci.com		cat. no.	SEE TABLE	Product - Customer Drw	sheet 6 of 11												

(1.15)
SEE NOTE 7

ROW ID

(30.35)

22

(7.20)

11X 2

2X 4

2X $\varnothing 2.50$
 $\varnothing 0.1$
SEE NOTE 16

CONNECTOR OUTLINE
SEE NOTE 8

72X ANTIPAD
SEE NOTE 11

72X ANTIPAD
SEE NOTE 11

1.2

2.4

1.2

84X $\varnothing 0.500$
 $\varnothing 0.1$
SEE NOTE 9

156X $\varnothing 0.360$
 $\varnothing 0.1$
SEE NOTE 9

12X EXTRA PIN
ANTIPAD
SEE NOTE 11

DETAIL B
SCALE 20:1

(28.10)

22.8

20.8

1.5

1.50 MAX

SEE DETAIL B

0.00 mm BETWEEN
COLUMNS 1 OF THE
RAR AND COLUMN 1
OF THE VH

EDGE OF
DAUGHTER CARD

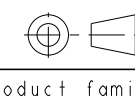
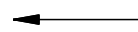

COLUMN ID

19X 1.2

6X 0.2

ODD AND EVEN COLUMN OFFSET

10123159-X1ALF THRU -X1JLF
RECOMMENDED PCB LAYOUT
COMPONENT SIDE
NOTES 7, 8, 9, 11 & 16
SCALE 8:1

spec ref	SEE NOTES	dr	Stu Stoner	2012/1/09	projection	MM	size	A2	scale	1:1									
tolerance std	TOLERANCES UNLESS OTHERWISE SPECIFIED	eng	D Johnescu	2015/09/23			ecn no	-	rel level	Released									
ASME Y14.5M		chr	-	app							Jim Swain	2015/09/22							
surface	<table border="1"> <tr> <td>linear</td> <td>0.X</td> <td>$\pm .3$</td> </tr> <tr> <td></td> <td>0.XX</td> <td>$\pm .10$</td> </tr> <tr> <td></td> <td>0.XXX</td> <td>$\pm .050$</td> </tr> <tr> <td>angular</td> <td>0°</td> <td>\pm</td> </tr> </table>	linear	0.X	$\pm .3$		0.XX	$\pm .10$		0.XXX	$\pm .050$	angular	0°	\pm			title ExaMAX R.A. RECEPTACLE ASSY 6 PR, 12 IMLA, 240 POS, 24mm		dwg no 10123159	rev A
linear	0.X	$\pm .3$																	
	0.XX	$\pm .10$																	
	0.XXX	$\pm .050$																	
angular	0°	\pm																	
		www.fci.com		cat. no.	Product - Customer Drw		sheet 7 of 11												

PDS: Rev :A

STATUS:Released

Printed: Sep 23, 2015

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1 2 3 4 5 6 7 8

A

B

C

D

E

F

A

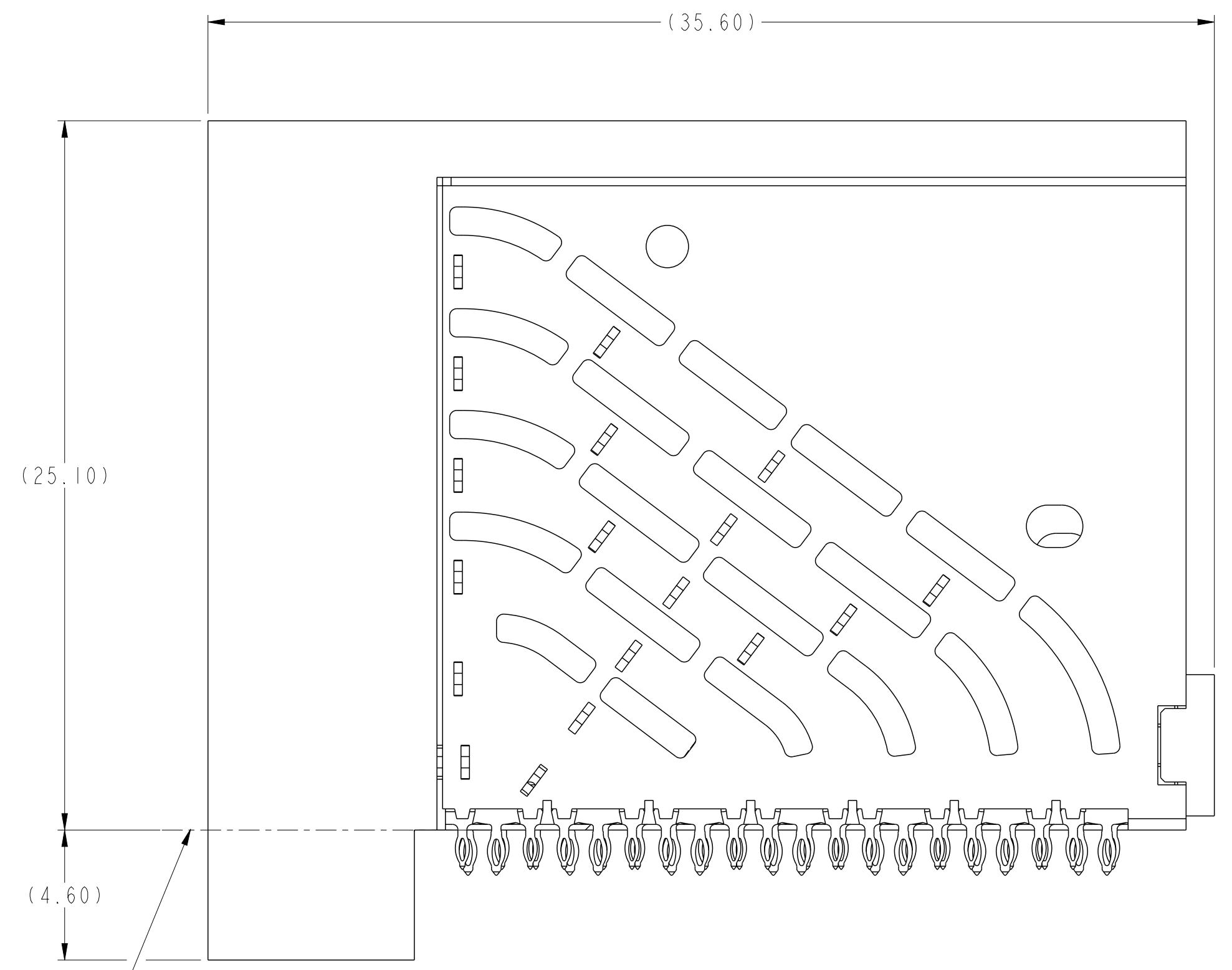
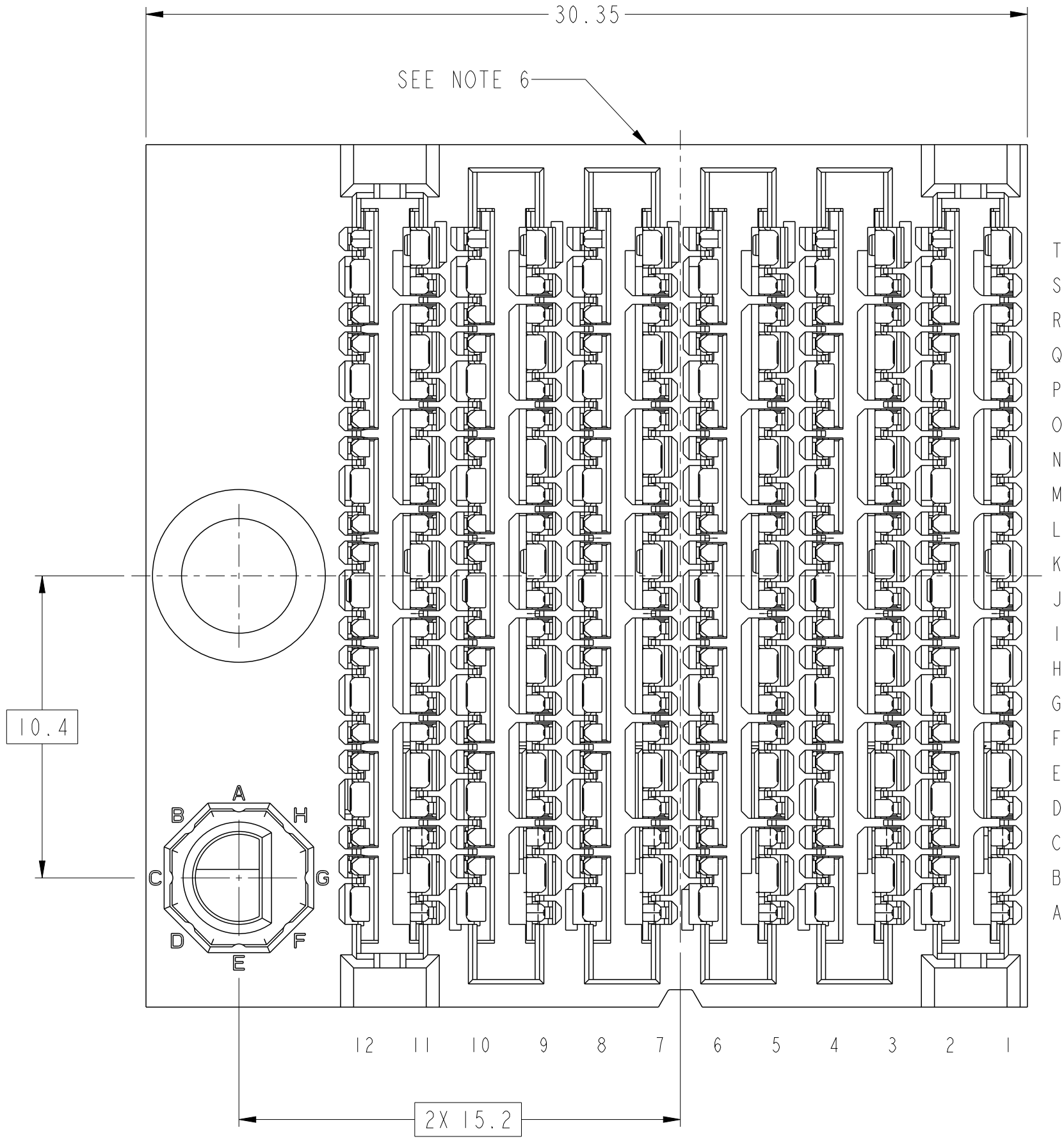
B

C

D

E

F



TOP SURFACE OF DAUGHTER CARD

10123159-X2ALF THRU 10123159-X2JLF
 LEFT GUIDANCE (SEE NOTE 17)
 FOR ALL OTHER DIMENSIONS SEE 10123159-101LF ON SHEET 1
 SCALE 6:1

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spec ref	SEE NOTES	dr	Stu Stoner	2012/1/09	projection	MM	size	A2	scale	6:1							
tolerance std	TOLERANCES UNLESS OTHERWISE SPECIFIED	eng	D Johnescu	2015/09/23			ecn no	-	rel level	Released							
ASME Y14.5M		chr	-	appr							Jim Swain	2015/09/22	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 ExaMAX R.A. RECEPTACLE ASSY 6 PR, 12 IMLA, 240 POS, 24mm	dwg no 10123159	rev A
linear	0.X	±.3															
	0.XX	±.10															
	0.XXX	±.050															
angular	0°	±°															
		www.fci.com	cat. no.	SEE TABLE	Product - Customer Drw	sheet 8 of 11											

PDS: Rev :A

STATUS:Released

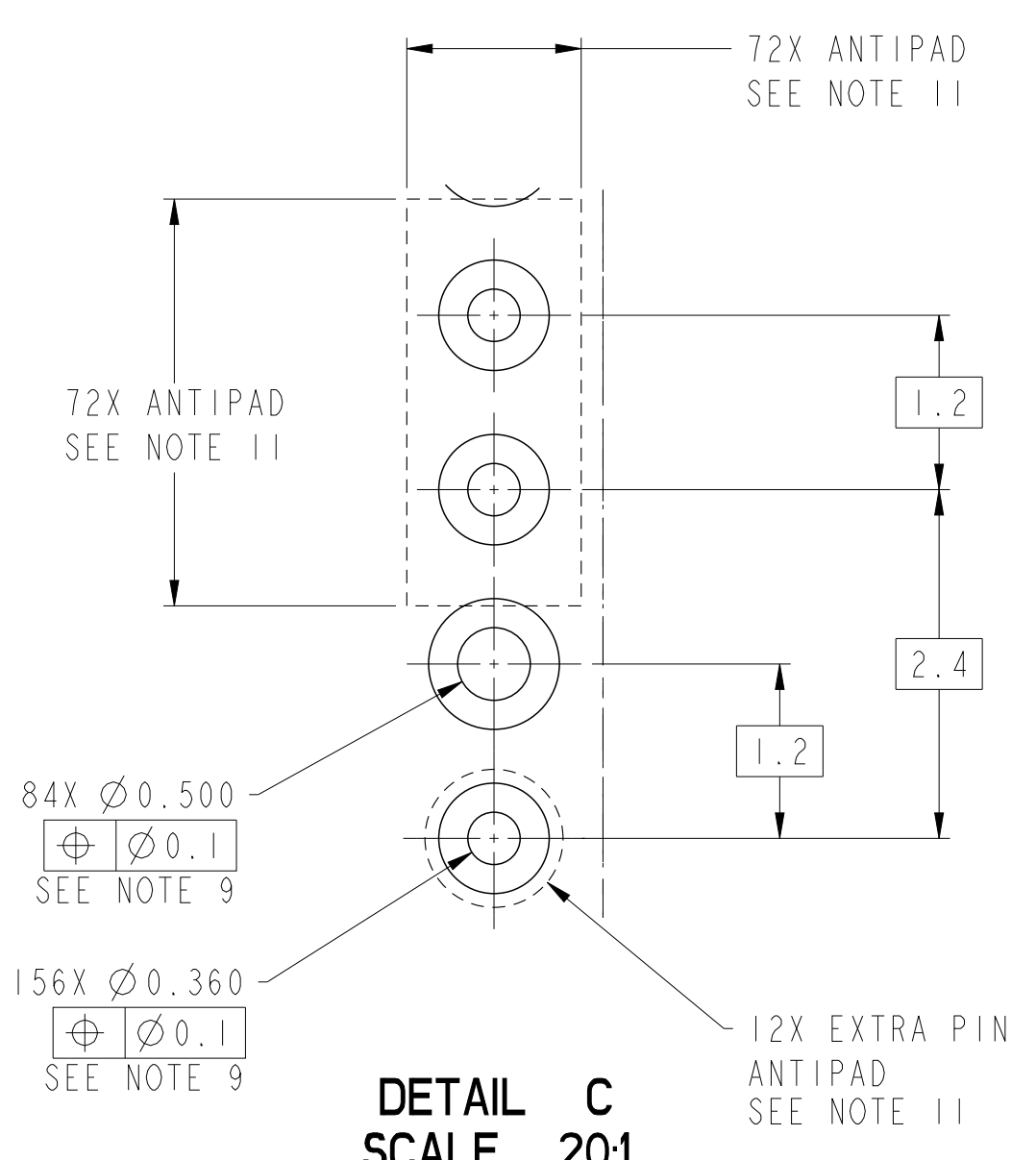
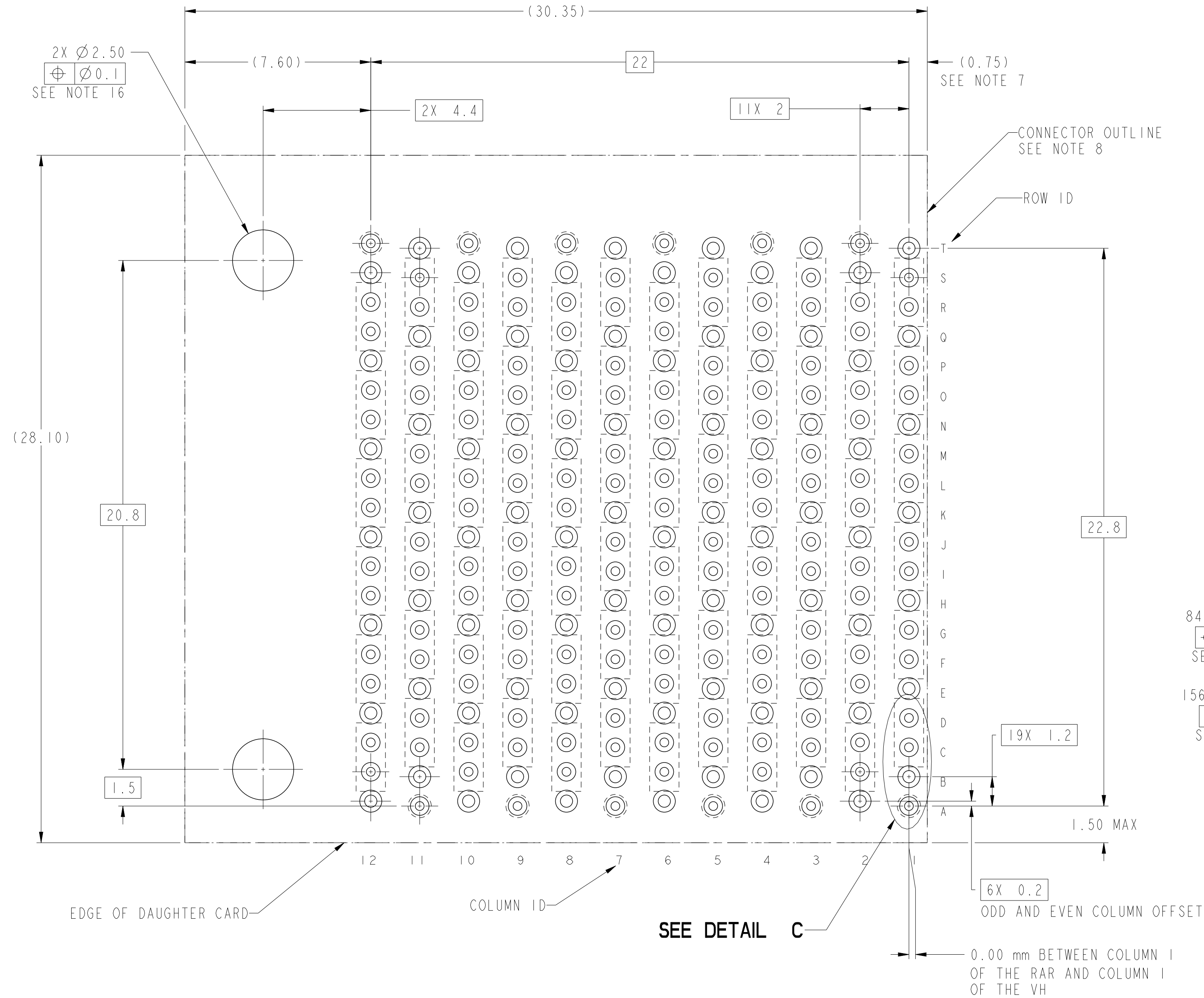
Printed: Sep 23, 2015

2

3

4

5

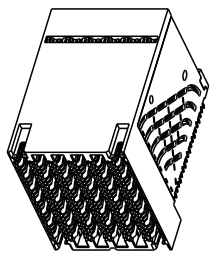
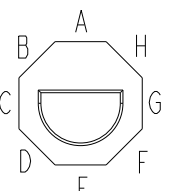
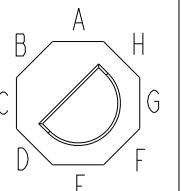
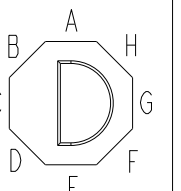
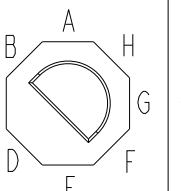
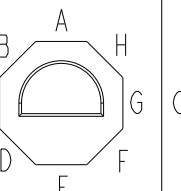
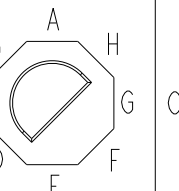
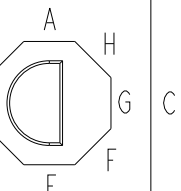
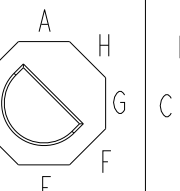
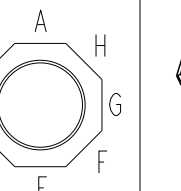
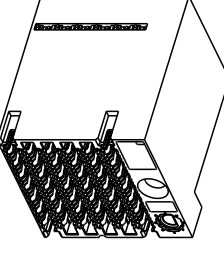
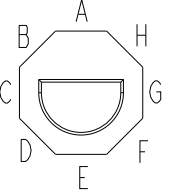
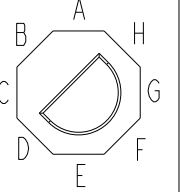
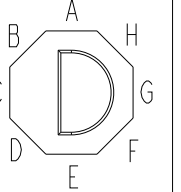
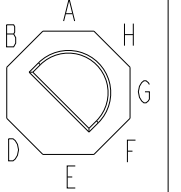
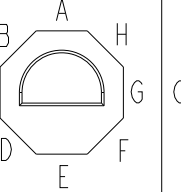
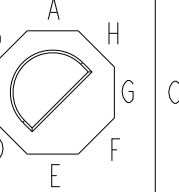
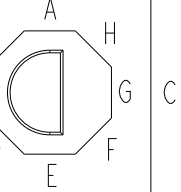
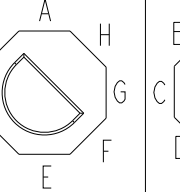
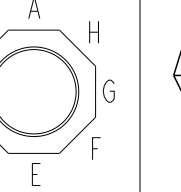
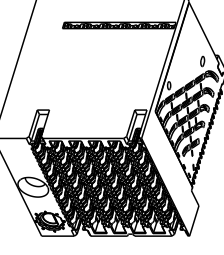


**10123159-X2ALF THRU -X2JLF
RECOMMENDED PCB LAYOUT
COMPONENT SIDE
NOTES 7, 8, 9, 11 & 16
SCALE 8:1**

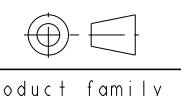

spec ref	SEE NOTES	dr	Stu Stoner	2012/1/09	projection	MM	size	A2	scale	8:1									
tolerance std	TOLERANCES UNLESS OTHERWISE SPECIFIED	eng	D Johnescu	2015/09/23			ecn no	-	rel level	Released									
ASME Y14.5M		chr	-	appr							Jim Swain	2015/09/22							
surface	<table border="1"> <tr> <td>linear</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 ExaMAX R.A. RECEPTACLE ASSY 6 PR, 12 IMLA, 240 POS, 24mm		dwg no 10123159	rev A
linear	0.X	±.3																	
	0.XX	±.10																	
	0.XXX	±.050																	
angular	0°	±°																	
		www.fci.com		cat. no.	Product - Customer Drw		sheet 9 of 11												

1 0 | 2 3 | 5 9 - Y Y Y L F

ASSEMBLY PART NUMBER	DESCRIPTION
10123159-1YYLF	STANDARD MATE
10123159-2YYLF	ADVANCED MATE
10123159-3YYLF	SHORT DETECT
10123159-4YYLF	ADVANCED MATE & SHORT DETECT

MODULE DESCRIPTION	DESIGNATION REPRESENTED IN DASH NUMBER									BASE MODEL
	1A	1B	1C	1D	1E	1F	1G	1H	1J (NO KEY)	
WITHOUT END GUIDES MODULE (SEE SHEET 1)	01									
RIGHT GUIDANCE MODULE (SEE SHEET 6)										
										
LEFT GUIDANCE MODULE (SEE SHEET 8)										

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spec ref	SEE NOTES	dr	Stu Stoner	2012/1/09	projection	MM	size	A2	scale	1:1
tolerance std	TOLERANCES UNLESS OTHERWISE SPECIFIED	eng	D Johnescu	2015/09/23		←→	ecn no	-	rel level	Released
ASME Y14.5M		chr	-	-						
surface	linear	0.X	±.3		title	ExaMAX R.A. RECEPTACLE ASSY	dwg no	10123159	rev	A
		0.XX	±.10							
		0.XXX	±.050							
	angular	0°	±°	www.fci.com	cat. no.	-	Product - Customer Drw	sheet 10 of 11		

PDS: Rev :A

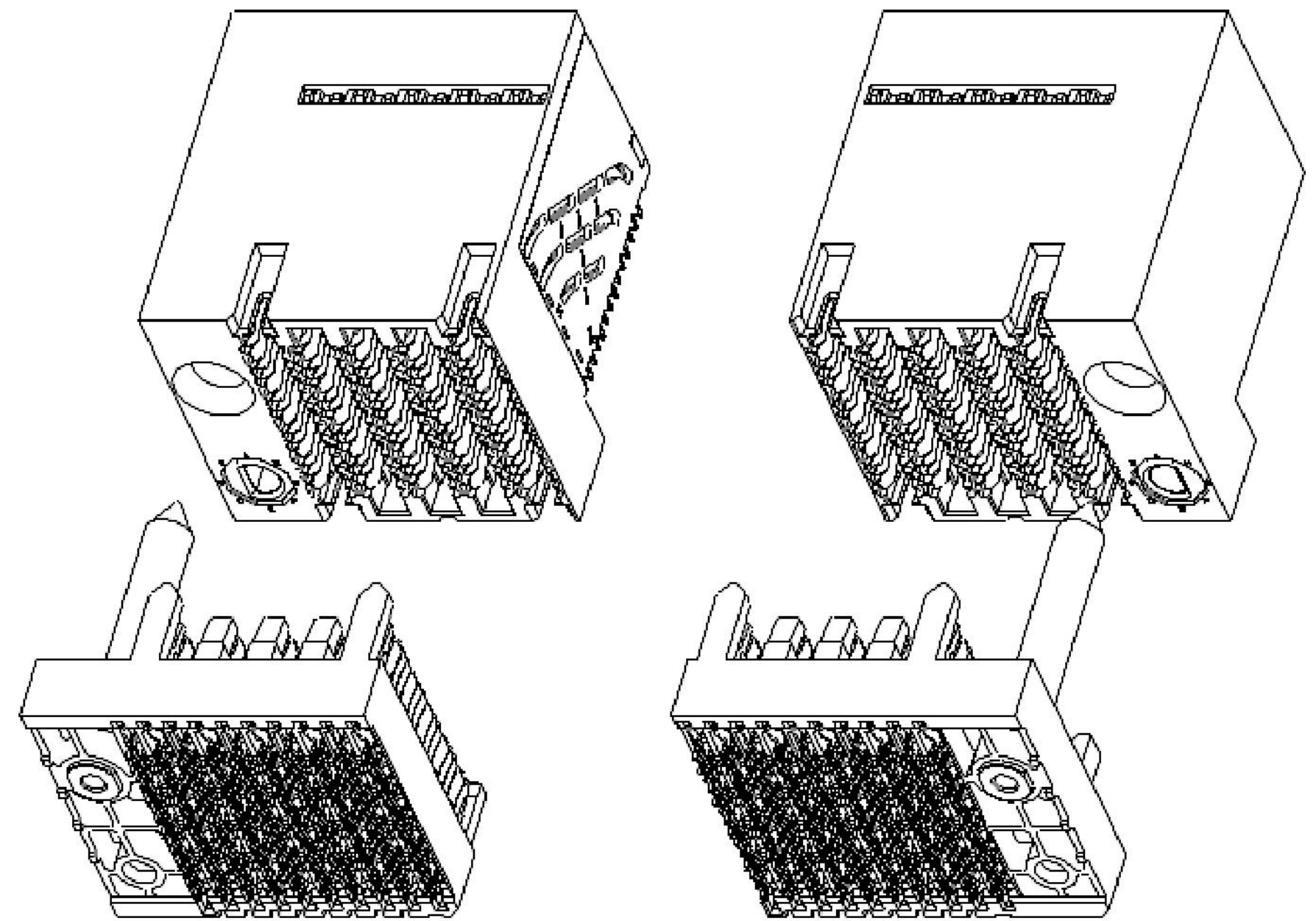
STATUS:Released

Printed: Sep 23, 2015

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, UL94-V0
- 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 IS 2.0 mm FOR THIS RAR AND THE MATING HEADER. 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 APPLICATION SPECIFICATION FOR TRACE ROUTING EXAMPLES THAT INCLUDE DIMENSIONS FOR ANTI-PADS, TRACE WIDTH, TRACE SPACING, ETC.
- 12 - THE HOUSING WILL WITHSTAND EXPOSURE TO 260° C FOR 10-30 SECONDS IN A CONVECTION, INFRA-RED OR VAPOR PHASE REFLOW OVEN.
- ⑬ - THE ADVANCED MATE RECEPTACLE, 10123159-2XXLF, WHEN MATED WITH AN ADVANCED MATE VERTICAL HEADER OR AN ADVANCED MATE RIGHT-ANGLE HEADER WILL PROVIDE 2 PAIRS OF MATING CONTACTS THAT MATE 0.75mm BEFORE THE REMAINDER OF THE SIGNAL AND GROUND CONTACTS.
- ⑭ - THE SHORT DETECT RECEPTACLE, 10123159-3XXLF, WHEN MATED WITH A STANDARD MATE VERTICAL HEADER OR A STANDARD MATE RIGHT-ANGLE HEADER WILL PROVIDE 1 PAIR OF MATING CONTACTS THAT MATE 1.00mm AFTER THE REMAINDER OF THE SIGNAL AND GROUND CONTACTS.
- ⑮ - THE ADVANCE MATE/SHORT DETECT RECEPTACLE, 10123159-4XXLF, WHEN MATED WITH AN ADVANCED MATE VERTICAL HEADER OR AN ADVANCED MATE RIGHT-ANGLE HEADER 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 1.00mm 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 BOARD. SCREWS ARE 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 ANGLE RECEPTACLE. THE LEFT / RIGHT DESIGNATION OF THE MATING HEADER IS DEFINED BY THE RIGHT ANGLE RECEPTACLE THAT IT MATES WITH (i.e. A RIGHT GUIDE VERTICAL HEADER MATES WITH A RIGHT GUIDE RIGHT ANGLE RECEPTACLE.)
- ⑱ - ALL GROUND CONTACTS WITHIN A COLUMN ARE COMMONED.



LEFT GUIDE

RIGHT GUIDE

**ExaMAX INTEGRATED GUIDE ORIENTATION
4 PAIR 10 IMLA CONNECTORS SHOWN FOR REFERENCE ONLY
SEE NOTE 17**

spec ref	SEE NOTES	dr	Stu Stoner	2012/1/09	projection	MM	size	A2	scale	6:1										
tolerance std	TOLERANCES UNLESS OTHERWISE SPECIFIED	eng	D Johnescu	2015/09/23		MM	ecn no	-	rel level	Released										
ASME Y14.5M		chr	-	app							Jim Swain	2015/09/22	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 ExaMAX R.A. RECEPTACLE ASSY 6 PR, 12 IMLA, 240 POS, 24mm		cat. no. SEE TABLE	Product - Customer Drw	sheet 11 of 11
linear	0.X	±.3																		
	0.XX	±.10																		
	0.XXX	±.050																		
angular	0°	±°																		



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