

PRODUCT NUMBER
SEE TABLE

EVEN COLUMN
CONTACT ROW ID

ODD COLUMN
CONTACT ROW ID
ODD & EVEN COLUMNS
ARE OFFSET

6X 3.6
SIGNAL
CENTERS

6X 1
SIG PAIR
CENTERS

6X 3.6
GROUND
CENTERS

1.3
ROW A TO
FIRST SIG

COLUMN ID

6X 1
SIG PAIR
CENTERS

6X 3.6
GROUND
CENTERS

6X 3.6
SIGNAL
CENTERS

1.3

ROW A TO
FIRST GND

10123159-101LF
STANDARD MATE RECEPTACLE
SCALE 6:1

(25.10)

(4.60)

TOP SURFACE
OF DCARD

(35.60)

HOUSING

SEE NOTE 6

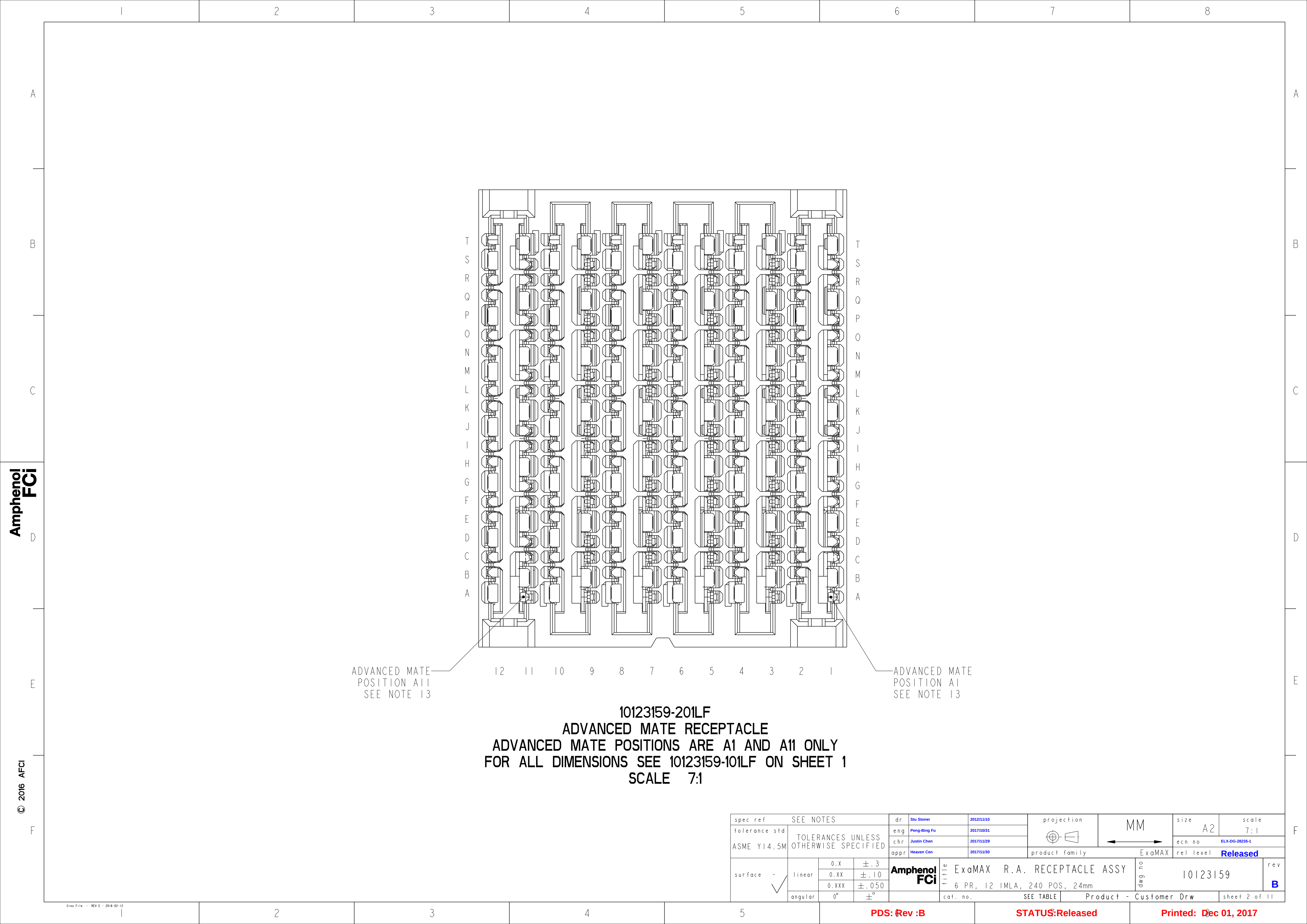
IMLA

ORGANIZER

156X 1.40±0.20
SIGNALS

84X 1.60±0.20
GROUNDS
SEE NOTE 18

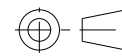
spec ref		SEE NOTES		dr	Stu Stoner	2012/11/10	projection		MM	size	A2	scale	6:1	
tolerance std		TOLERANCES UNLESS OTHERWISE SPECIFIED		eng	Peng-Bing Fu	2017/10/31				ecn no	ELX-DG-28235-1			
ASME Y14.5M				chr	Justin Chen	2017/11/29	product family	ExaMAX		rel level	Released			
		appr	Heaven Cen	2017/11/30										
surface - 	linear	0.X	±.3	Amphenol FCi	title	ExaMAX R.A. RECEPTACLE ASSY				dwg no	10123159		rev	B
		0.XX	±.10											
		0.XXX	±.050											
	angular	0°	±°		cat. no.	SEE TABLE	Product - Customer Drw				sheet 1 of 11			



Amphenol
FCi

© 2016 AFci

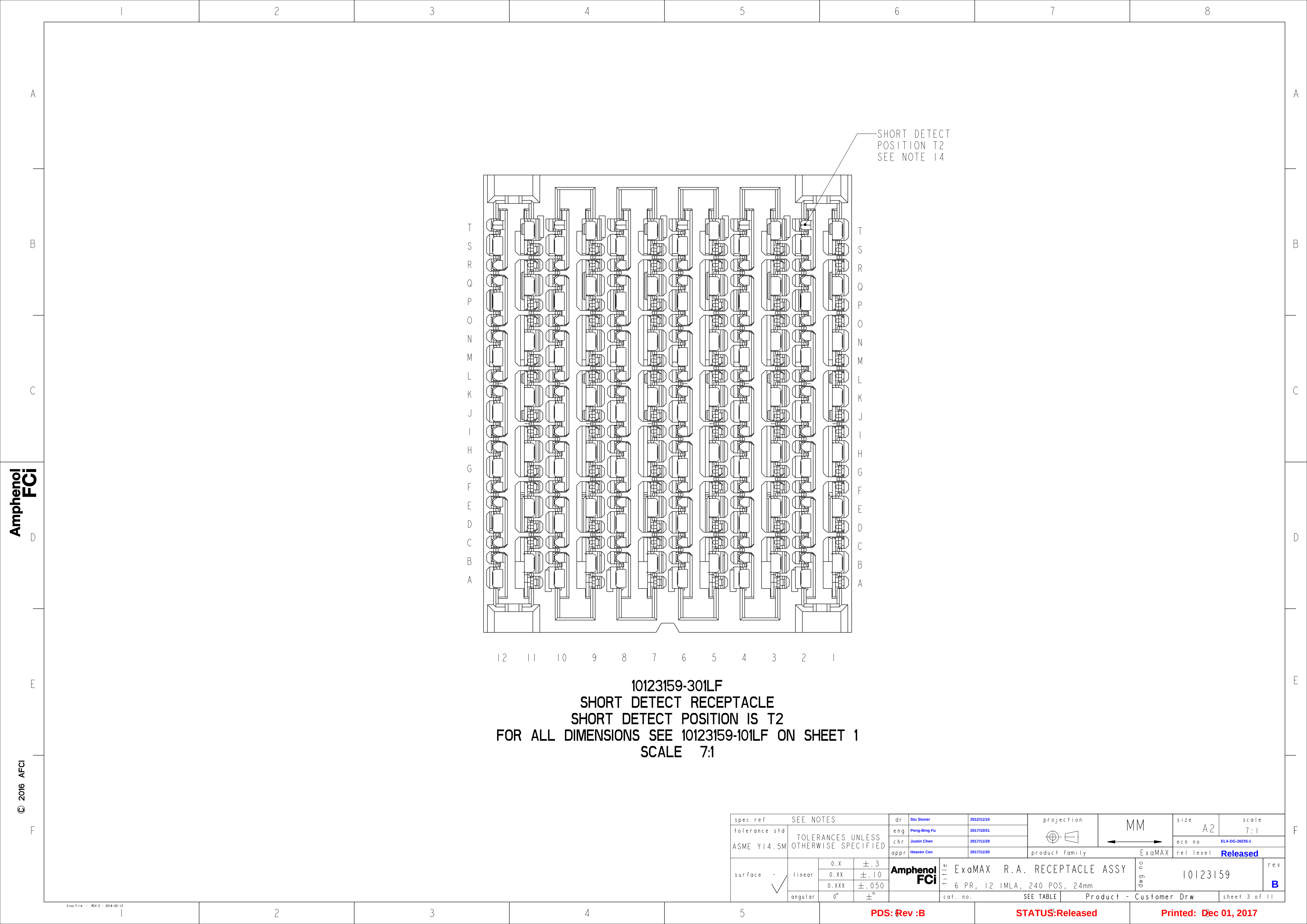
10123159-201LF
ADVANCED MATE RECEPTACLE
ADVANCED MATE POSITIONS ARE A1 AND A11 ONLY
FOR ALL DIMENSIONS SEE 10123159-101LF ON SHEET 1
SCALE 7:1

spec ref	SEE NOTES			dr	Stu Stoner	2012/11/10	projection  MM	size	A2	scale	7:1				
tolerance std	TOLERANCES UNLESS OTHERWISE SPECIFIED			eng	Peng-Bing Fu	2017/10/31		ecn no	ELX-DG-28235-1						
ASME Y14.5M				chr	Justin Chen	2017/11/29									
				appr	Heaven Cen	2017/11/30						product family		ExaMAX	
surface	-	linear 0° angular	0.X 0.XX 0.XXX	±.3 ±.10 ±.050	Amphenol FCi	title		ExaMAX R.A. RECEPTACLE ASSY			dwg no	10123159		rev	B
				cat. no.		SEE TABLE		Product - Customer Drw				sheet 2 of 11			

PDS: Rev :B

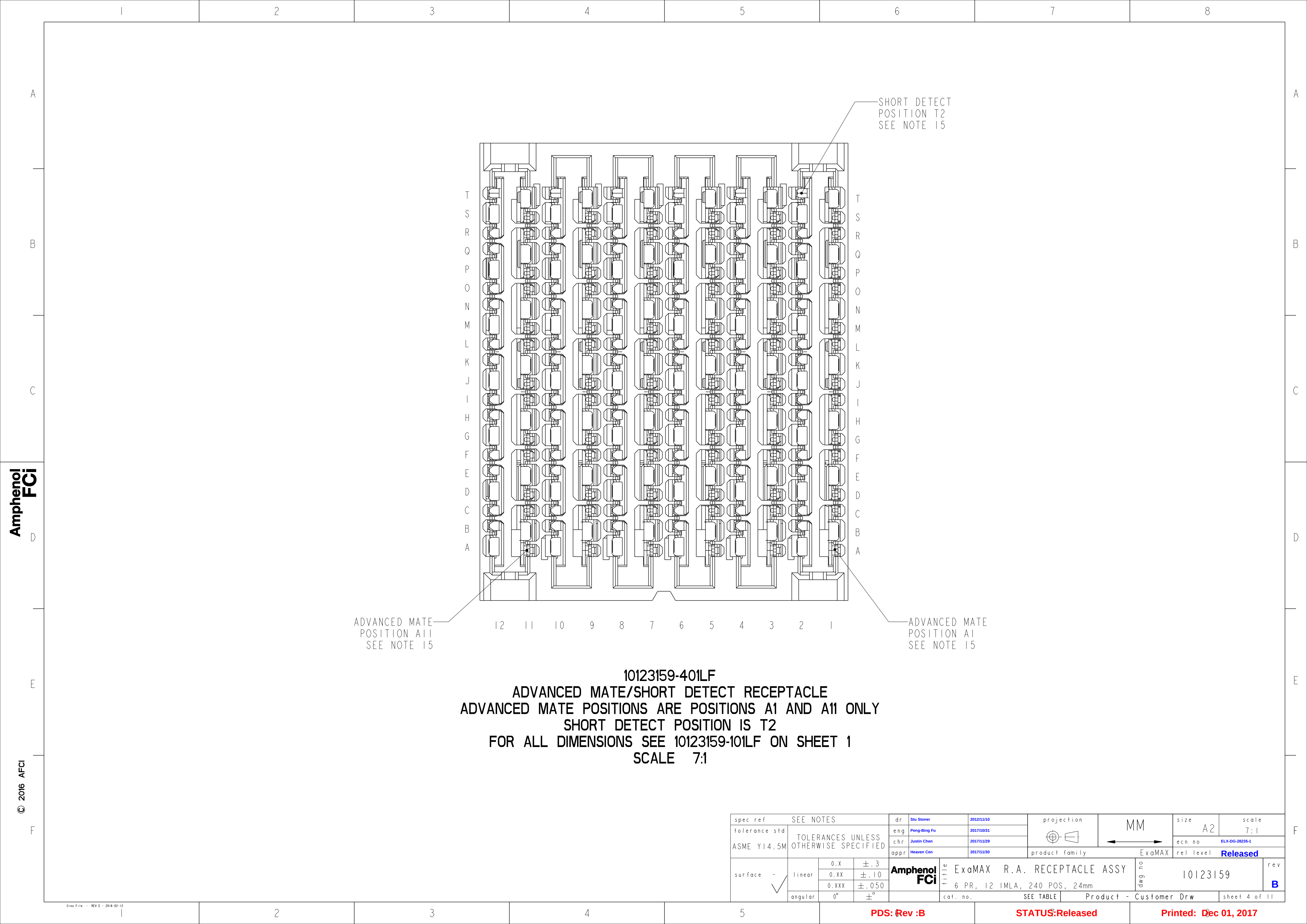
STATUS:Released

Printed: Dec 01, 2017



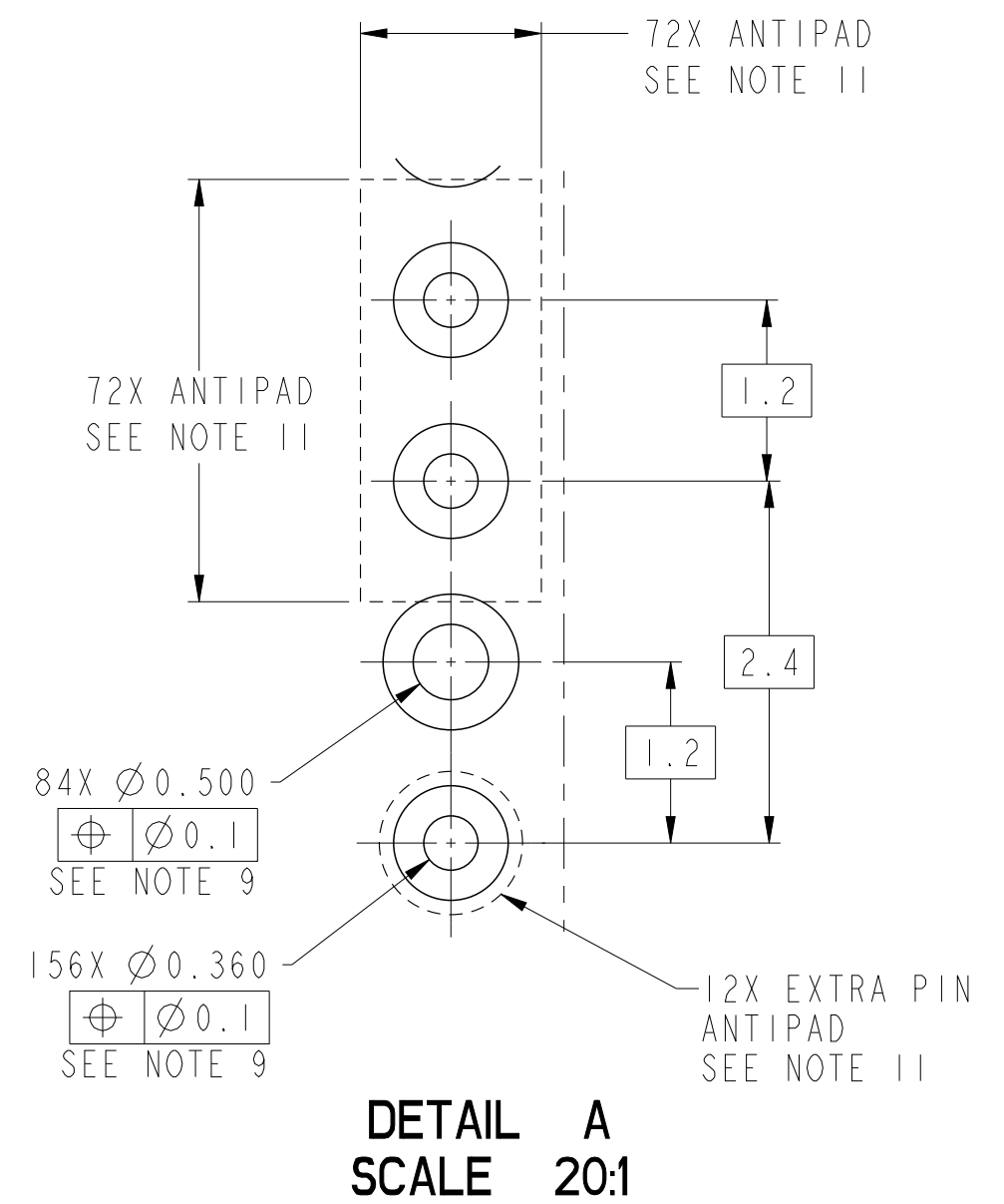
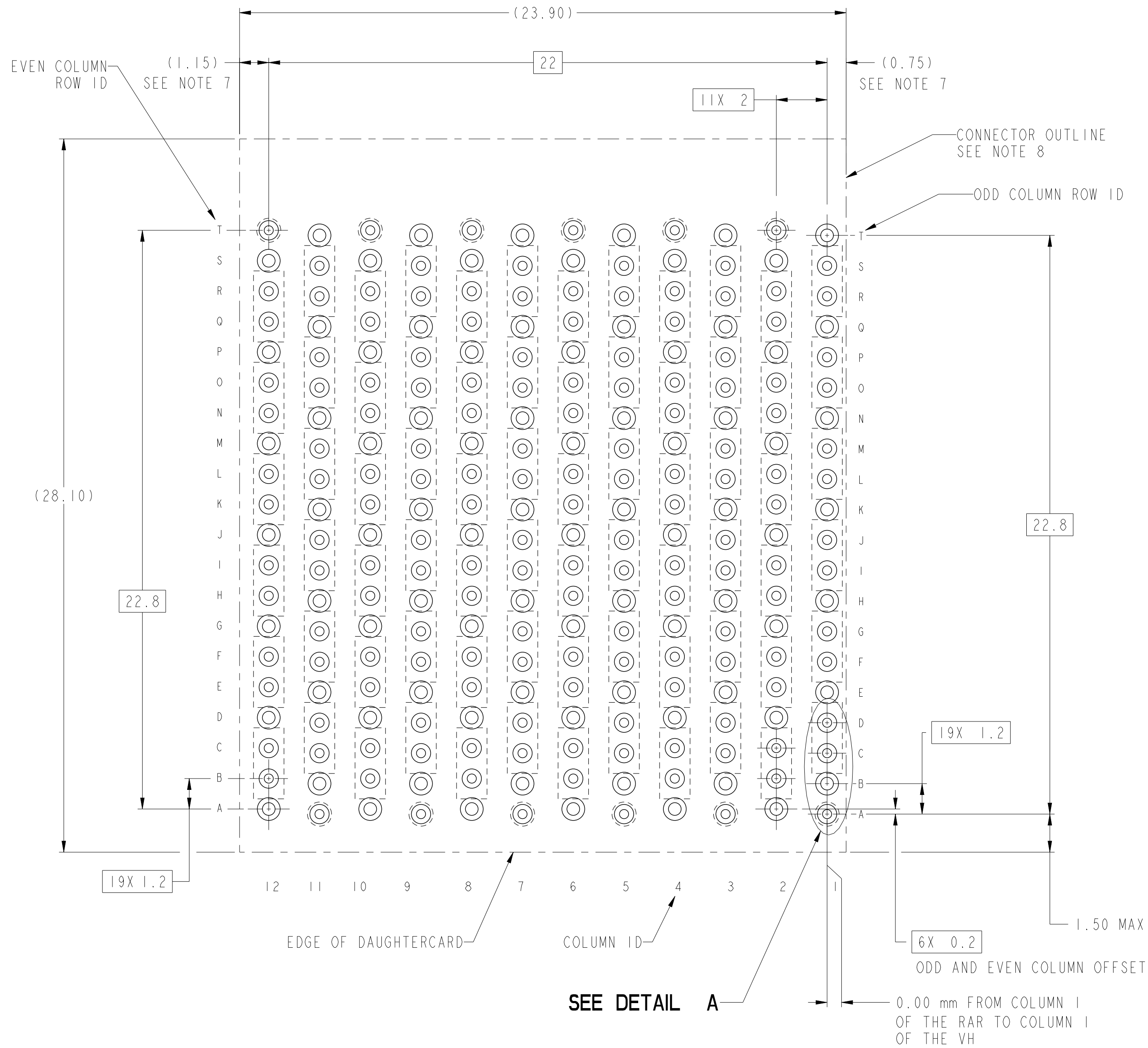
10123159-301LF
SHORT DETECT RECEPTACLE
SHORT DETECT POSITION IS T2
FOR ALL DIMENSIONS SEE 10123159-101LF ON SHEET 1
SCALE 7:1

spec ref	SEE NOTES			dr	Stu Stoner	2012/11/10	projection MM	size	A2	scale	7:1			
tolerance std	TOLERANCES UNLESS OTHERWISE SPECIFIED			eng	Peng-Bing Fu	2017/10/31		ecn no	ELX-DG-28235-1					
ASME Y14.5M				chr	Justin Chen	2017/11/29								
				appr	Heaven Cen	2017/11/30					product family		ExaMAX	
								rel level		Released				
surface - ✓	linear	0.X	±.3	Amphenol FCI	title	ExaMAX R.A. RECEPTACLE ASSY				dwg no	10123159		rev	B
		0.XX	±.10											
		0.XXX	±.050											
	angular	0°	±°			cat. no.		SEE TABLE	Product - Customer Drw					sheet 3 of 11

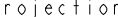


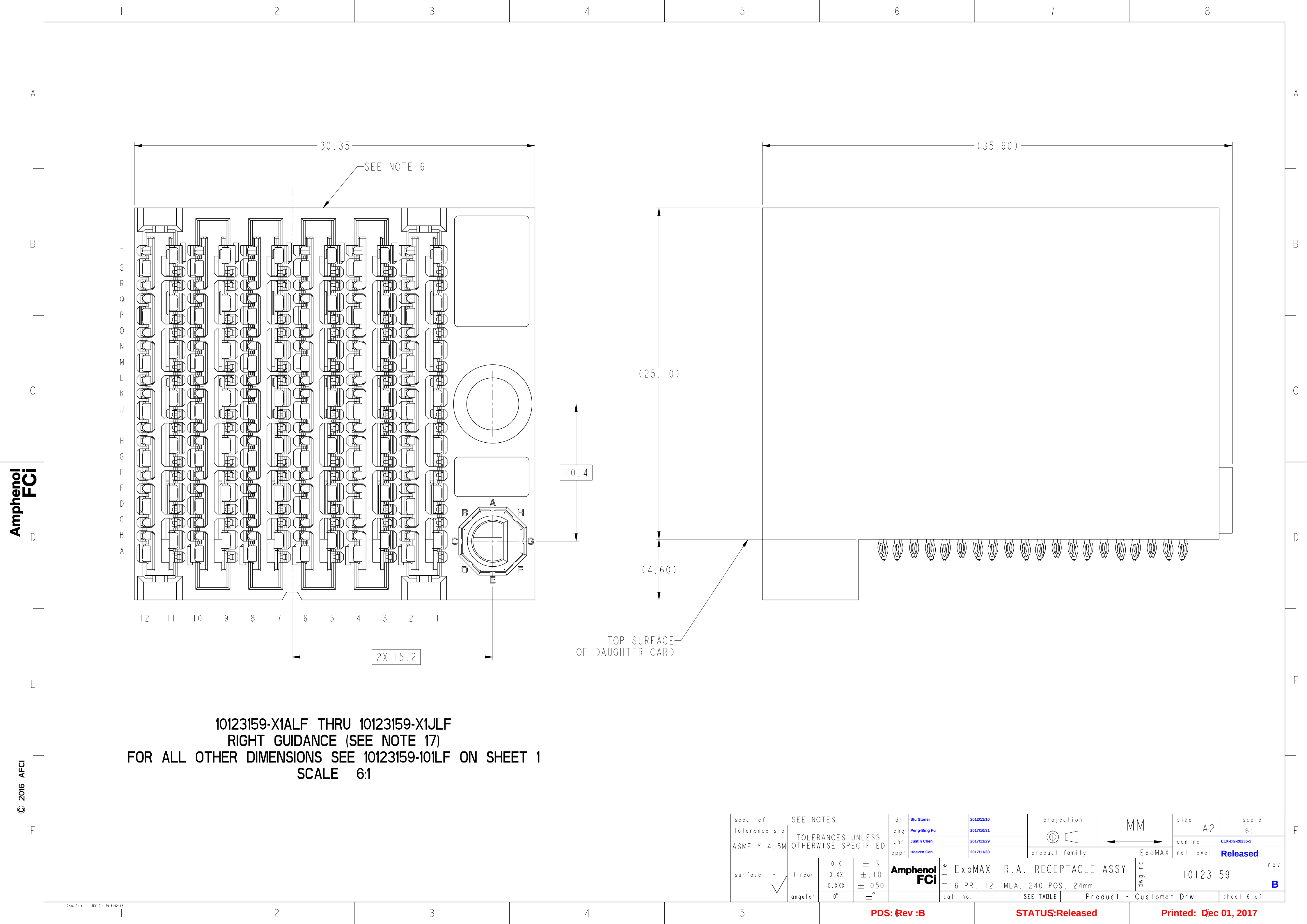
10123159-401LF
ADVANCED MATE/SHORT DETECT RECEPTACLE
ADVANCED MATE POSITIONS ARE POSITIONS A1 AND A11 ONLY
SHORT DETECT POSITION IS T2
FOR ALL DIMENSIONS SEE 10123159-101LF ON SHEET 1
SCALE 7:1

spec ref	SEE NOTES			dr	Stu Stoner	2012/11/10	projection MM	size	A2	scale	7:1		
tolerance std	TOLERANCES UNLESS OTHERWISE SPECIFIED			eng	Peng-Bing Fu	2017/10/31		ecn no	ELX-DG-28235-1				
ASME Y14.5M				chr	Justin Chen	2017/11/29							
				appr	Heaven Cen	2017/11/30						product family	
surface - ✓	linear	0.X	±.3	Amphenol FCI	title	ExaMAX R.A. RECEPTACLE ASSY			dwg no	10123159		rev	B
		0.XX	±.10										
		0.XXX	±.050										
	angular	0°	±°		cat. no.	SEE TABLE	Product - Customer Drw			sheet 4 of 11			



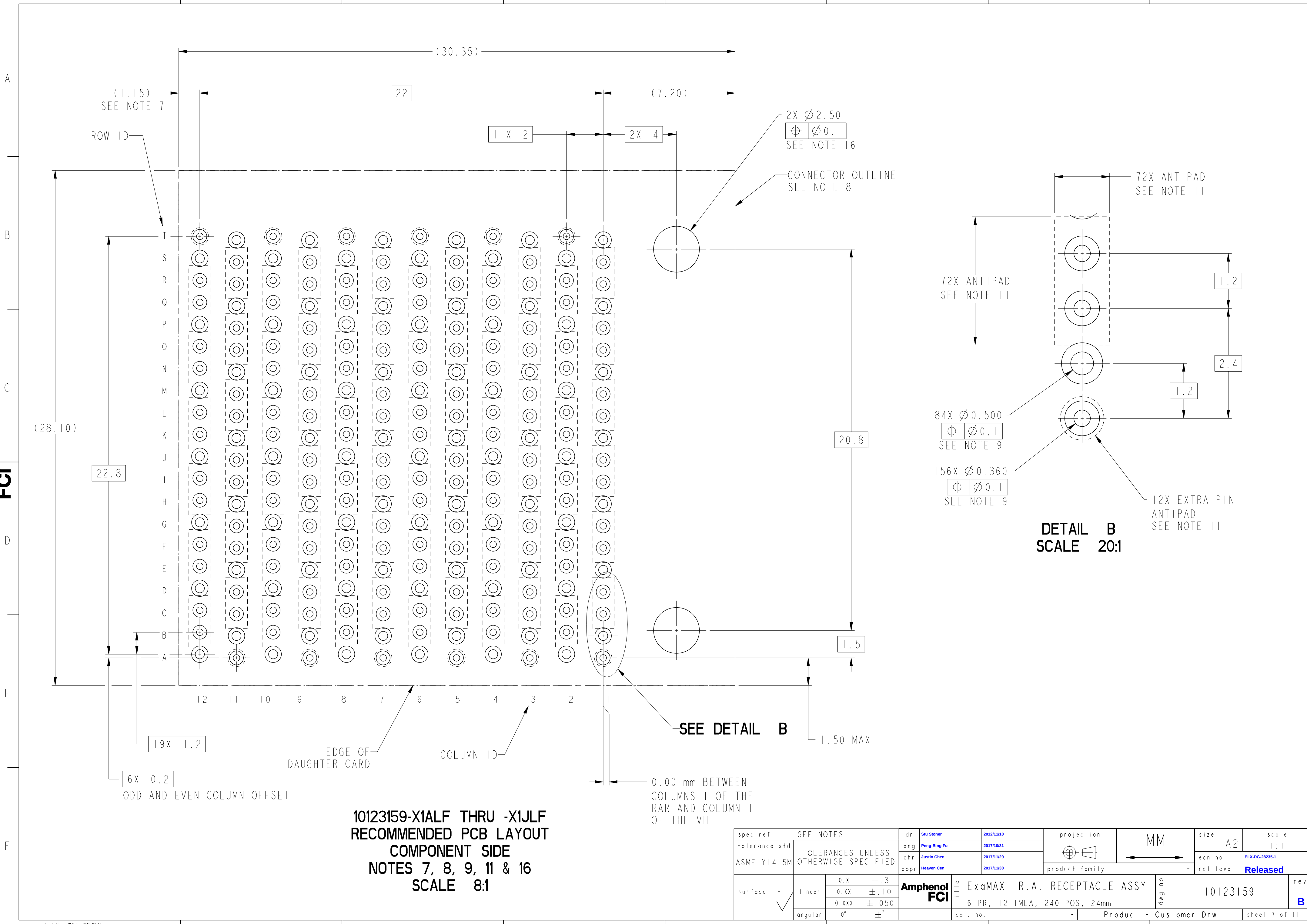
10123159-X01
RECOMMENDED PCB LAYOUT
COMPONENT SIDE
NOTES 7, 8, 9, & 11
SCALE 8:1

spec ref		SEE NOTES		dr		Stu Stoner		2012/11/10		projection		size		scale					
tolerance std		TOLERANCES UNLESS OTHERWISE SPECIFIED		eng		Peng-Bing Fu		2017/10/01				A2		8:1					
ASME Y14.5M				chr		Justin Chen		2017/11/29				ecn no		ELX-DG-28235-1					
				appr		Heaven Cen		2017/11/30		product family		-		rel level		Released			
surface - 		linear		0.X ±.3 0.XX ±.10 0.XXX ±.050		Amphenol FCI		Title		ExaMAX R.A. RECEPTACLE ASSY 6 PR, 12 IMLA, 240 POS, 24mm		dwg no		10123159		rev		B	
		angular		0° ±				cat. no.		-		Product-Customer Drw		sheet 5 of 11					



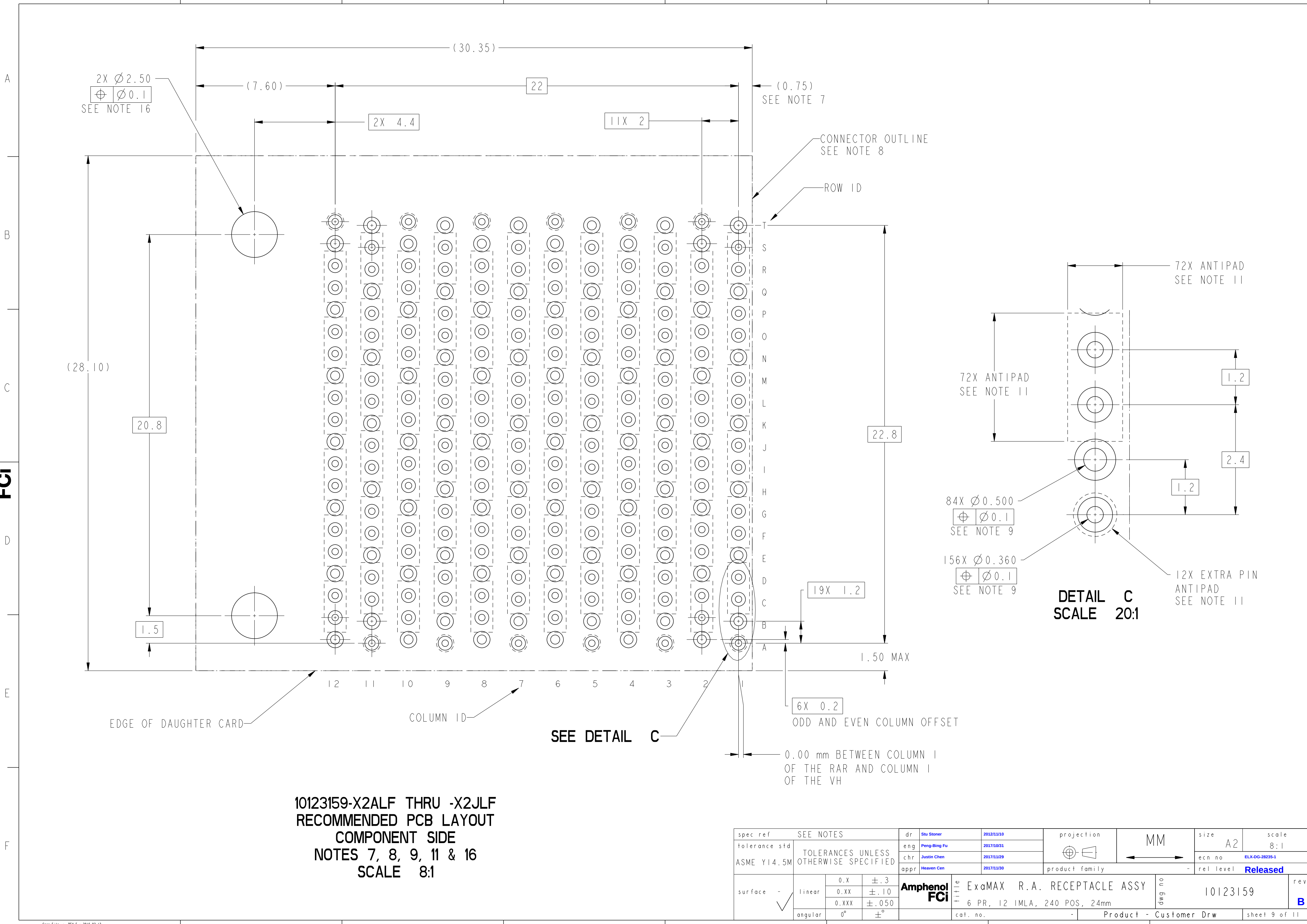
10123159-X1ALF THRU 10123159-X1JLF
RIGHT GUIDANCE (SEE NOTE 17)
FOR ALL OTHER DIMENSIONS SEE 10123159-101LF ON SHEET 1
SCALE 6:1

spec ref		SEE NOTES			dr		Stu Stoner		2012/11/10		projection		MM		size		A2		scale		6:1		
tolerance std		TOLERANCES UNLESS OTHERWISE SPECIFIED			eng		Peng-Bing Fu		2017/10/31						ecn no		ELX-DG-28235-1						
ASME Y14.5M					chr		Justin Chen		2017/11/29						rel level		Released						
					appr		Heaven Cen		2017/11/30						product family		ExaMAX						
surface - ✓		linear		0.X		±.3		Amphenol FCI		title		ExaMAX R.A. RECEPTACLE ASSY		6 PR, 12 IMLA, 240 POS, 24mm		dwg no		10123159		rev		B	
				0.XX		±.10																	
				0.XXX		±.050																	
		angular		0°		±°		cat. no.		SEE TABLE		Product - Customer Drw		sheet 6 of 11									



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		2012/11/10		projection		MM		size		A2		scale		1:1		
tolerance std		TOLERANCES UNLESS OTHERWISE SPECIFIED			eng		Peng-Bing Fu		2017/10/31						ecn no		ELX-DG-28235-1						
ASME Y14.5M					chr		Justin Chen		2017/11/29						rel level		Released						
					appr		Heaven Cen		2017/11/30						product family								
surface		- 		linear		0.X		±.3		Amphenol FCI		title		ExaMAX R.A. RECEPTACLE ASSY		dwg no		10123159		rev		B	
				0.XX		±.10																	
				0.XXX		±.050																	
		angular		0°		±°						cat. no.		-		Product - Customer Drw				sheet 7 of 11			

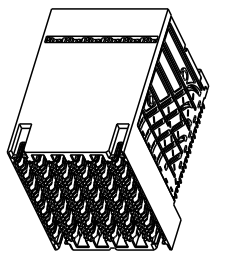
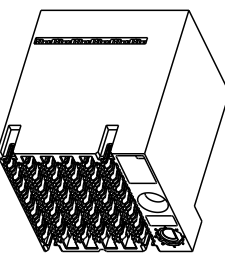
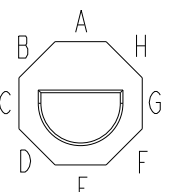
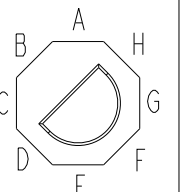
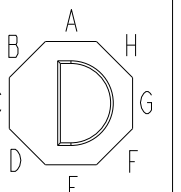
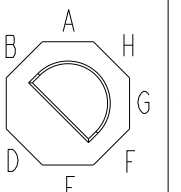
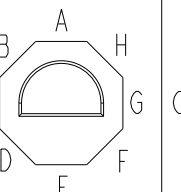
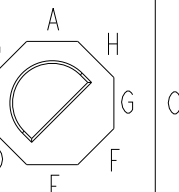
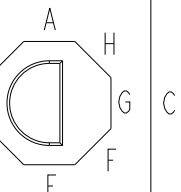
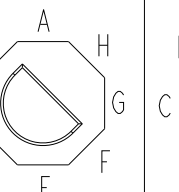
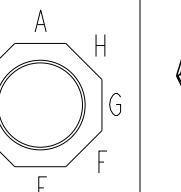
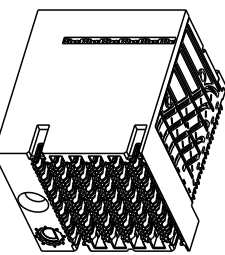
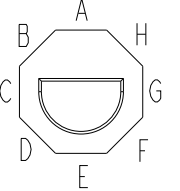
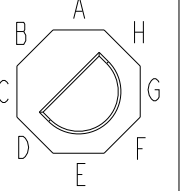
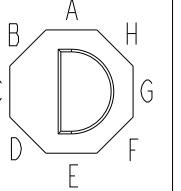
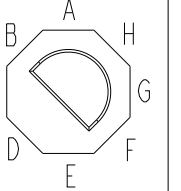
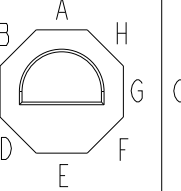
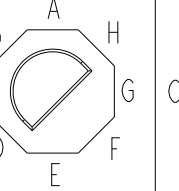
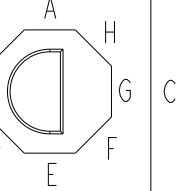
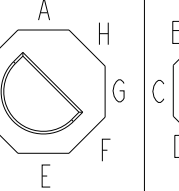
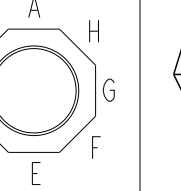


10123159-X2ALF THRU -X2JLF
RECOMMENDED PCB LAYOUT
COMPONENT SIDE
NOTES 7, 8, 9, 11 & 16
SCALE 8:1

spec ref		SEE NOTES			dr		Stu Stoner		2012/11/10		projection		MM		size		A2		scale		8:1		
tolerance std		TOLERANCES UNLESS OTHERWISE SPECIFIED			eng		Peng-Bing Fu		2017/10/31						ecn no		ELX-DG-28235-1						
ASME Y14.5M					chr		Justin Chen		2017/11/29						rel level		Released						
					appr		Heaven Cen		2017/11/30						product family		-						
surface		-		linear		0.X		±.3		Amphenol FCI		title		ExaMAX R.A. RECEPTACLE ASSY		dwg no		10123159		rev		B	
				0.XX		±.10																	
				0.XXX		±.050																	
		angular		0°		±°						cat. no.		-		Product - Customer Drw				sheet 9 of 11			

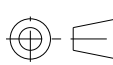
10123159 - Y Y Y L F

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
WITHOUT END GUIDES MODULE (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)	
										

Amphenol
FCi

© 2016 AFCi

spec ref	SEE NOTES			dr	Stu Stoner	2012/11/10		MM ←————→	size	A2	scale	1:1
tolerance std	TOLERANCES UNLESS OTHERWISE SPECIFIED			eng	Peng-Bing Fu	2017/10/31			ecn no	ELX-DG-28235-1		
ASME Y14.5M				chr	Justin Chen	2017/11/29						
				appr	Heaven Cen	2017/11/30						
surface - ✓	linear	0.X	±.3	Amphenol FCi	title ExaMAX R.A. RECEPTACLE ASSY 6 PR, 12 IMLA, 240 POS, 24mm	dwg no	10123159			rev	B	
		0.XX	±.10									
		0.XXX	±.050									
	angular	0°	±°									cat. no.

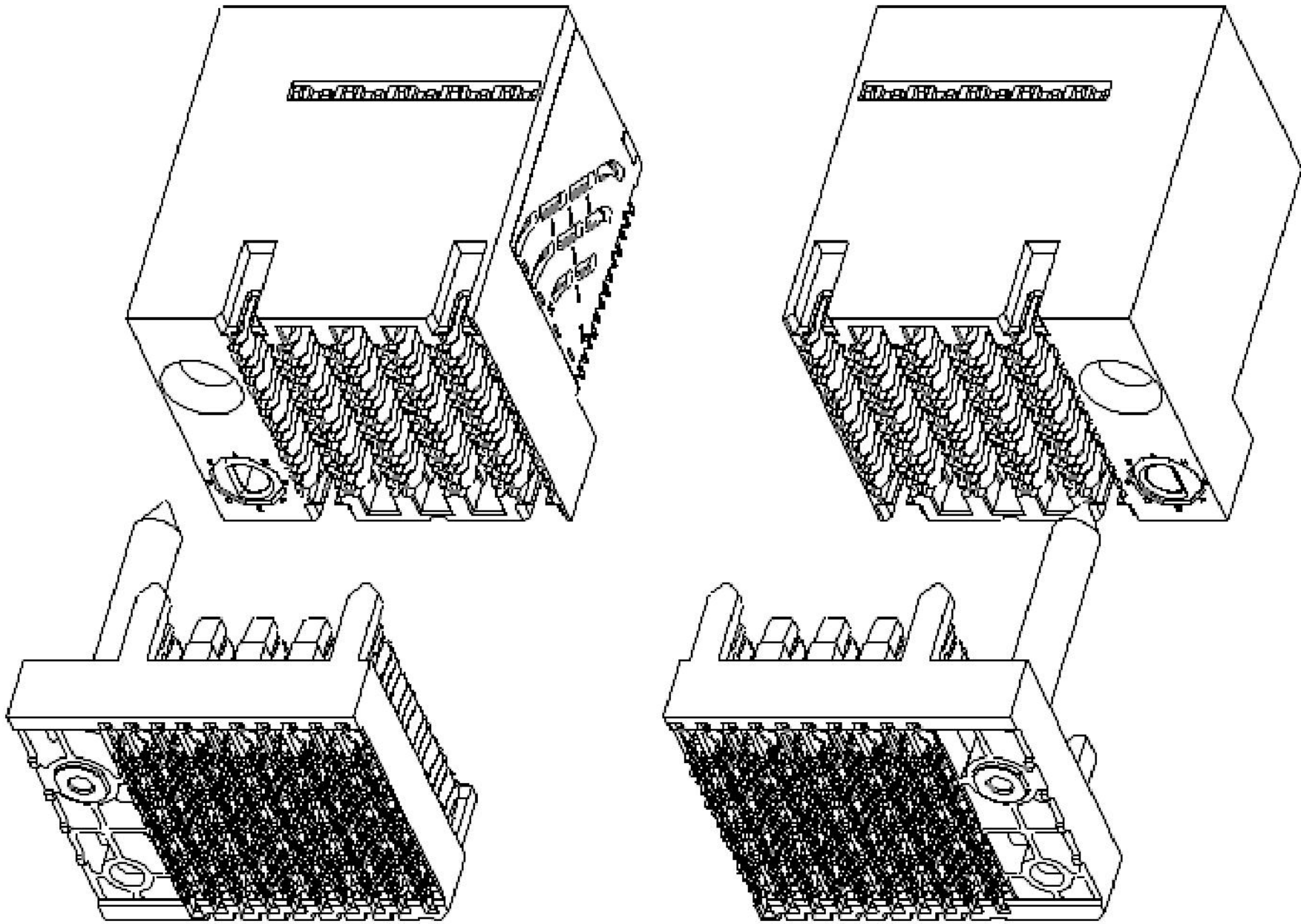
PDS: Rev :B

STATUS:Released

Printed: Dec 01, 2017

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 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 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	2012/11/10			size	A2	scale	6:1
tolerance std	TOLERANCES UNLESS OTHERWISE SPECIFIED			eng	Peng-Bing Fu	2017/10/31			ecn no	ELX-DG-28235-1		
ASME Y14.5M				chr	Justin Chen	2017/11/29			rel level	Released		
				appr	Heaven Cen	2017/11/30			product family		ExaMAX	
surface - 	linear	0.X	±.3	Amphenol FCi	title	ExaMAX R.A. RECEPTACLE ASSY 6 PR, 12 IMLA, 240 POS, 24mm			dwg no	10123159		rev B
		0.XX	±.10									
		0.XXX	±.050									
	angular	0°	±°		cat. no.	SEE TABLE	Product - Customer Drw			sheet 11 of 11		