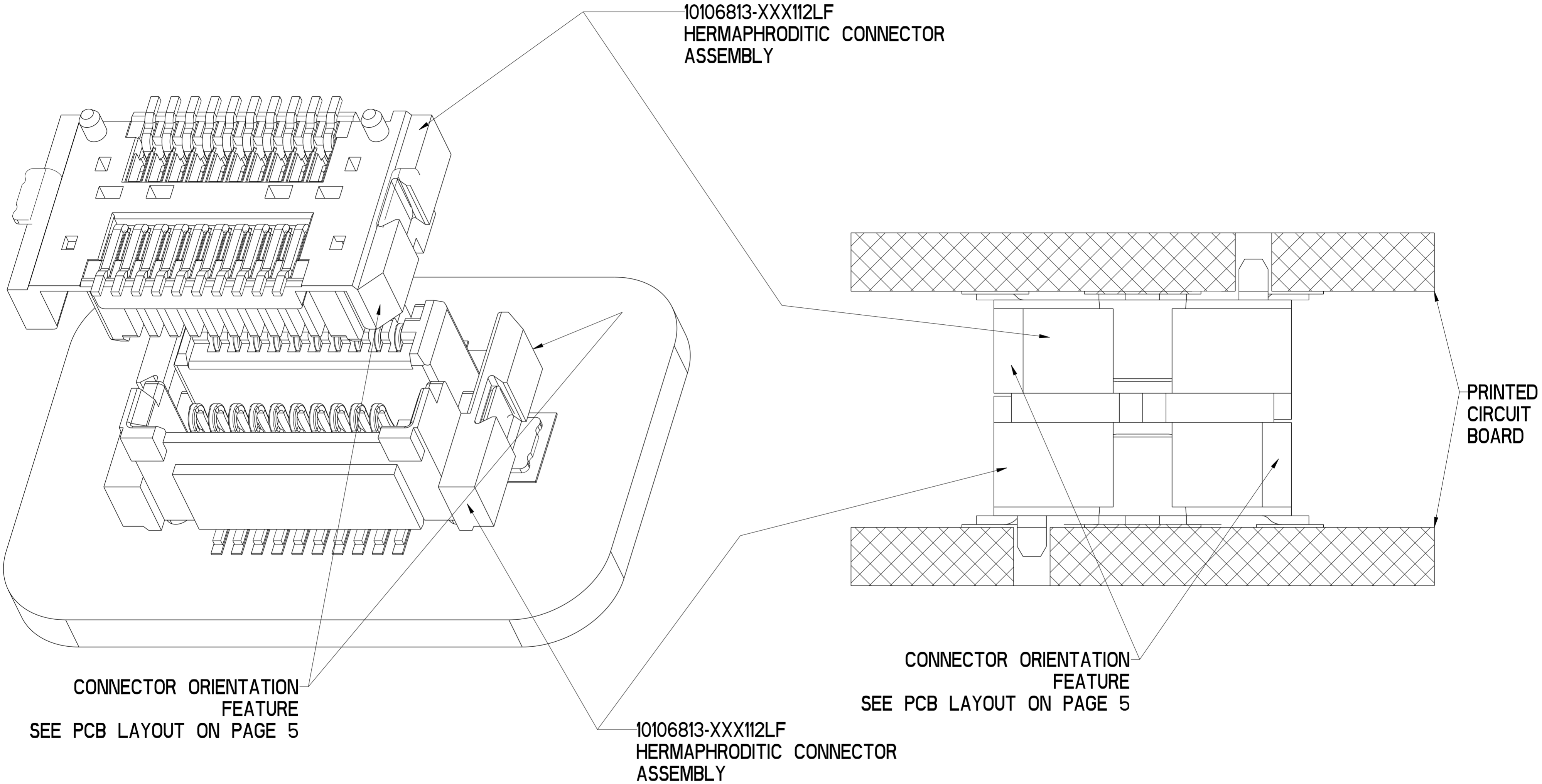


PRODUCT NUMBER  
10106813-XXX112LF



10106813-XXX112LF  
HERMAPHRODITIC CONNECTOR  
ASSEMBLY

PRINTED  
CIRCUIT  
BOARD

CONNECTOR ORIENTATION  
FEATURE  
SEE PCB LAYOUT ON PAGE 5

CONNECTOR ORIENTATION  
FEATURE  
SEE PCB LAYOUT ON PAGE 5

10106813-XXX112LF  
HERMAPHRODITIC CONNECTOR  
ASSEMBLY

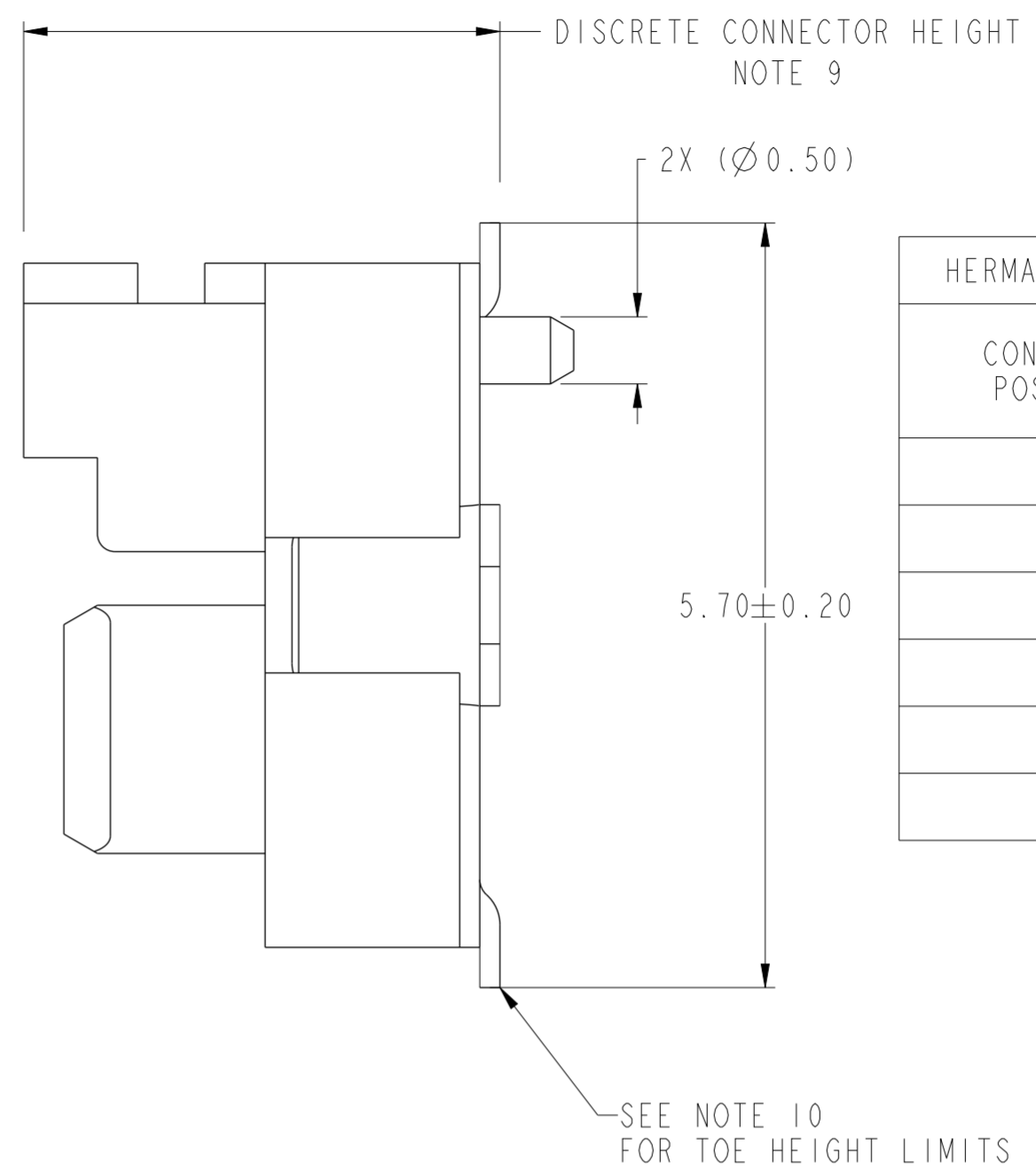
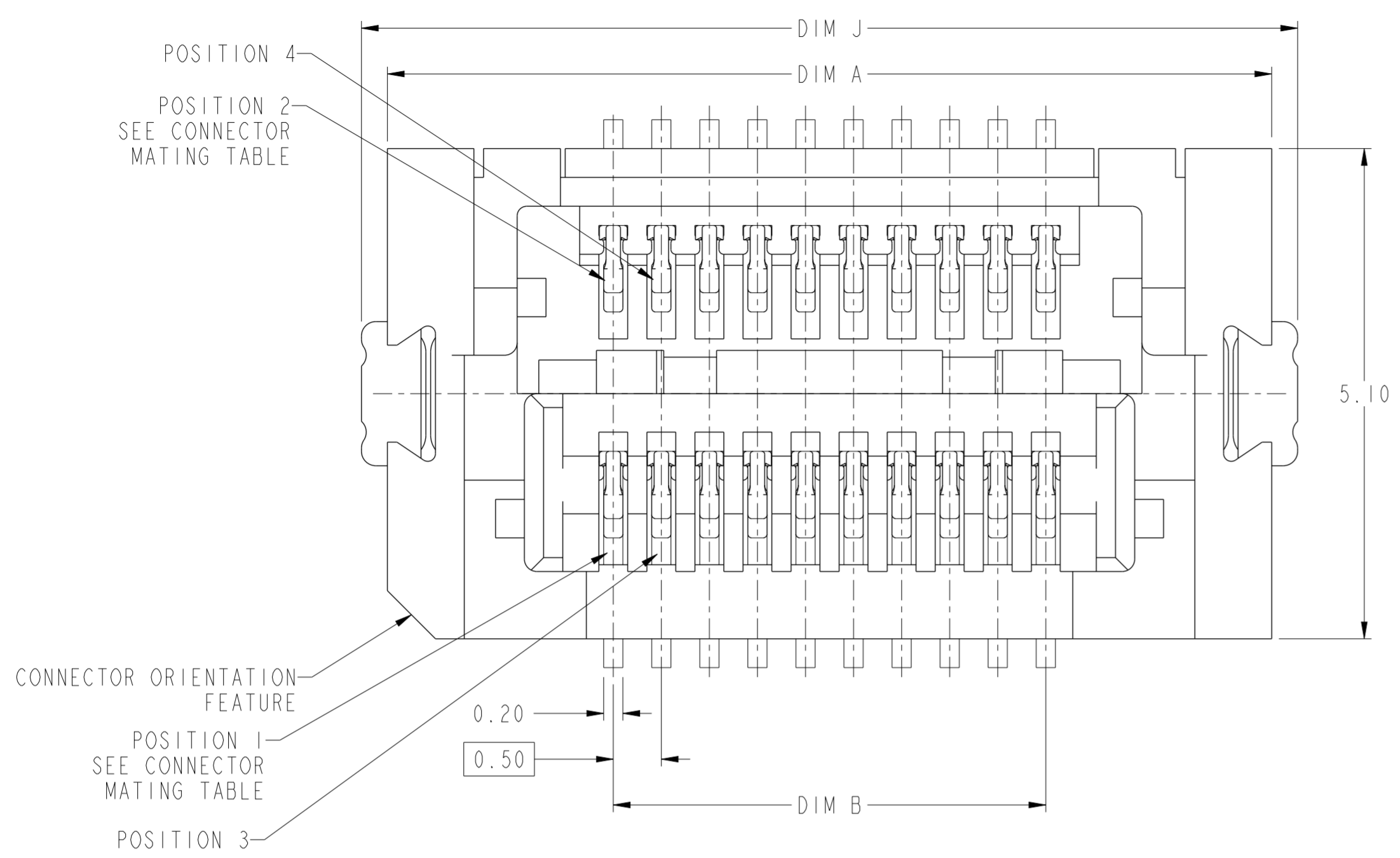
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spec ref	---	dr	Stu Stoner	2010/11/18	projection	mm	size	A2	scale	10:1													
tolerance std	---	eng	Sanford Lu	2024/03/13			ecn no	ELX-N-50880-1	rel level	Released													
---	TOLERANCES UNLESS OTHERWISE SPECIFIED	chr	-	product family			MezzoStak																
---		appr	Tim Yao	2024/03/14			rel level	Released															
surface	<table border="1"> <tr> <td>linear</td> <td>0.X</td> <td>±0.3</td> </tr> <tr> <td></td> <td>0.XX</td> <td>±0.10</td> </tr> <tr> <td></td> <td>0.XXX</td> <td>±0.05</td> </tr> <tr> <td>angular</td> <td>0°</td> <td>±2°</td> </tr> </table>	linear	0.X	±0.3		0.XX	±0.10		0.XXX	±0.05	angular	0°	±2°		<b>Amphenol FCI</b> HERMAPHRODITIC CONNECTOR, LONG STYLE 20-70 POS, 0.50 CTR, 4-7MM STACK HT www.fci.com	title 20-70 POS, 0.50 CTR, 4-7MM STACK HT cat. no.	product family MezzoStak	size A2	scale 10:1	ecn no ELX-N-50880-1	rel level Released	dwg no 10106813	rev J
linear	0.X	±0.3																					
	0.XX	±0.10																					
	0.XXX	±0.05																					
angular	0°	±2°																					
---					Product - Customer Drw	sheet 1 of 7																	

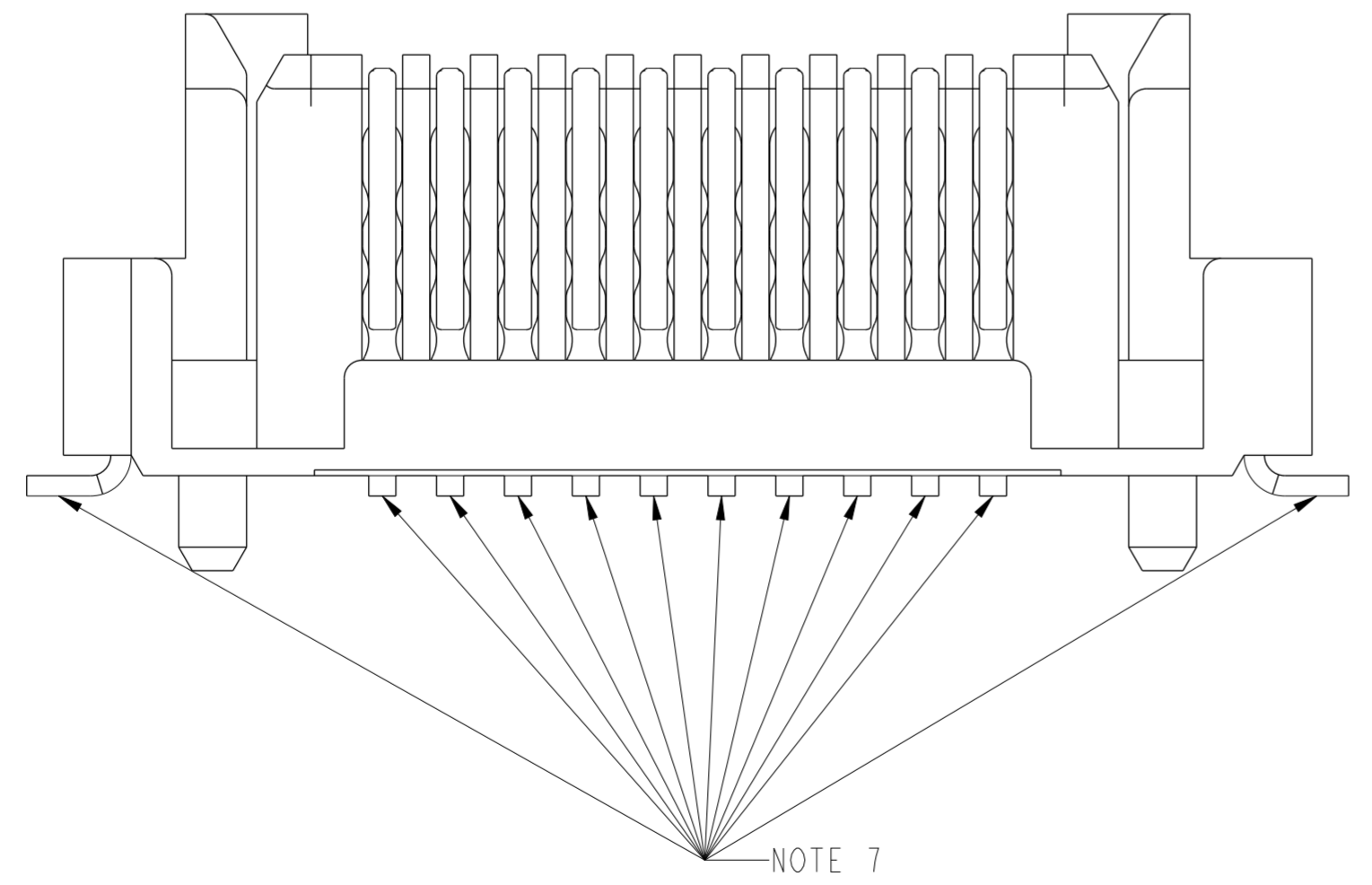
1 2 3 4 5 6 7 8

A B C D E F



HERMAPHRODITIC CONNECTOR MATING	
CONNECTOR POSITION	MATES WITH CONNECTOR POSITION
1	2
3	4
5	6
7	8
9	10
ETC.	

10106813-021112LF SHOWN WITHOUT STANDARD PICK-UP CAP



spec ref	---	dr	Stu Stoner	2010/11/18	projection	mm	size	A2	scale	10:1								
tolerance std	---	eng	Sanford Lu	2024/03/13			ecn no	ELX-N-50880-1	rel level	Released								
---	TOLERANCES UNLESS OTHERWISE SPECIFIED	chr	-															
---		appr	Tim Yao	2024/03/14							product family	MezzoStak						
surface	<table border="1"> <tr> <td>linear</td> <td>0.X</td> <td>±0.3</td> </tr> <tr> <td></td> <td>0.XX</td> <td>±0.10</td> </tr> <tr> <td></td> <td>0.XXX</td> <td>±0.05</td> </tr> <tr> <td>angular</td> <td>0°</td> <td>±2°</td> </tr> </table>	linear	0.X	±0.3		0.XX	±0.10		0.XXX	±0.05	angular	0°	±2°		<b>Amphenol FCI</b> title HERMAPHRODITIC CONNECTOR, LONG STYLE 20-70 POS, 0.50 CTR, 4-7MM STACK HT www.fci.com	cat. no. -	product - Customer Drw	sheet 2 of 7
linear	0.X	±0.3																
	0.XX	±0.10																
	0.XXX	±0.05																
angular	0°	±2°																

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1 2 3 4 5

PRODUCT NUMBER	NUMBER OF POSITIONS	DIM A	DIM B	DIM J	CONNECTOR LOCATING PEGS	CONNECTOR HOLD DOWNS	DISCRETE CONNECTOR HEIGHT NOTE 9	PRACTICAL CONNECTOR HEIGHT NOTE 8	DIM.E OVERALL HEIGHT (CAP IS INCULDED)	STATUS
10106813-021112LF	20	9.20	4.50	9.74	YES		3.55	2.00	4.05	RELEASED
10106813-031112LF	30	11.70	7.00	12.24						
10106813-131112LF	30	11.70	7.00	12.24	YES					
10106813-041112LF	40	14.20	9.50	14.74	YES					
10106813-1410121LF	40	14.20	9.50	14.74	NO					
10106813-051112LF	50	16.70	12.00	17.24	YES					
10106813-1510121LF	50	16.70	12.00	17.24	NO					
10106813-061112LF	60	19.20	14.50	19.74	YES					
10106813-071112LF	70	21.70	17.00	22.24						
10106813-171112LF	70	21.70	17.00	22.24	YES					
10106813-022112LF	20	9.20	4.50	9.74	YES	YES	4.05	2.50	4.55	UN-RELEASED
10106813-032112LF	30	11.70	7.00	12.24						
10106813-042112LF	40	14.20	9.50	14.74						
10106813-052112LF	50	16.70	12.00	17.24						
10106813-062112LF	60	19.20	14.50	19.74						
10106813-072112LF	70	21.70	17.00	22.24						
10106813-023112LF	20	9.20	4.50	9.74						
10106813-033112LF	30	11.70	7.00	12.24						
10106813-043112LF	40	14.20	9.50	14.74						
10106813-053112LF	50	16.70	12.00	17.24						
10106813-063112LF	60	19.20	14.50	19.74						
10106813-073112LF	70	21.70	17.00	22.24	YES					
10106813-173112LF	70	21.70	17.00	22.24	YES					
10106813-024112LF	20	9.20	4.50	9.74	YES					
10106813-034112LF	30	11.70	7.00	12.24	YES					
10106813-134112LF	30	11.70	7.00	12.24	YES					
10106813-04411XLF	40	14.20	9.50	14.74	YES		5.05	3.50	5.55	RELEASED
10106813-054112LF	50	16.70	12.00	17.24						
10106813-064112LF	60	19.20	14.50	19.74						
10106813-074112LF	70	21.70	17.00	22.24						
10106813-174112LF	70	21.70	17.00	22.24						

**0.5 BTB HERMAPHRODITIC CONNECTOR ASSEMBLY PART NUMBER SCHEME**  
**EXAMPLE: 10106813-X X X X X X X LF**

RIB OPTION  
0 = W/O RIB ON WELL SIDE WALL  
1 = WITH RIBS ON WELL SIDE WALL  
SEE BELOW PICTURES SHOWN

NUMBER OF POSITIONS	
2	= 20 POS
3	= 30 POS
4	= 40 POS
5	= 50 POS
6	= 60 POS
7	= 70 POS

LEAD FREE INDICATOR

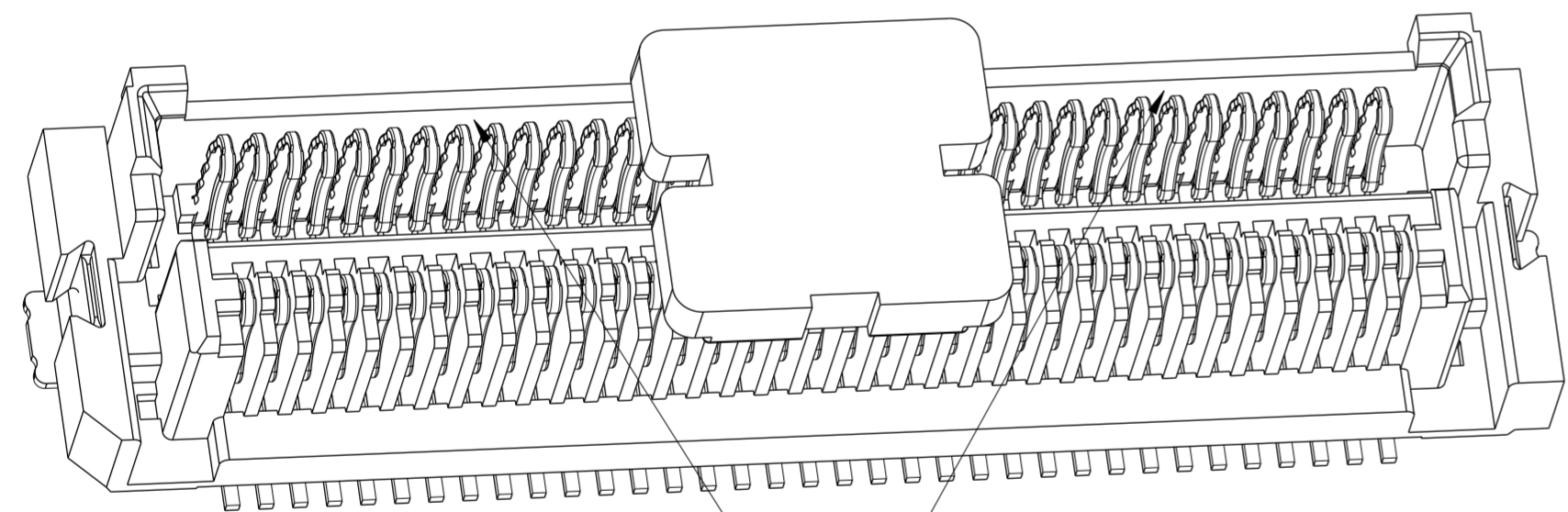
PLATING ON THE CONTACT AREA  
BLANK: 15u" GXT  
1: 30u" GXT

PACKAGING	
2	TAPE AND REEL WITH PICK-UP CAP
3	TAPE AND REEL W/O PICK-UP CAP

HOLD DOWN OPTION  
0= NO HOLD DOWNS  
1 = HOLD DOWNS

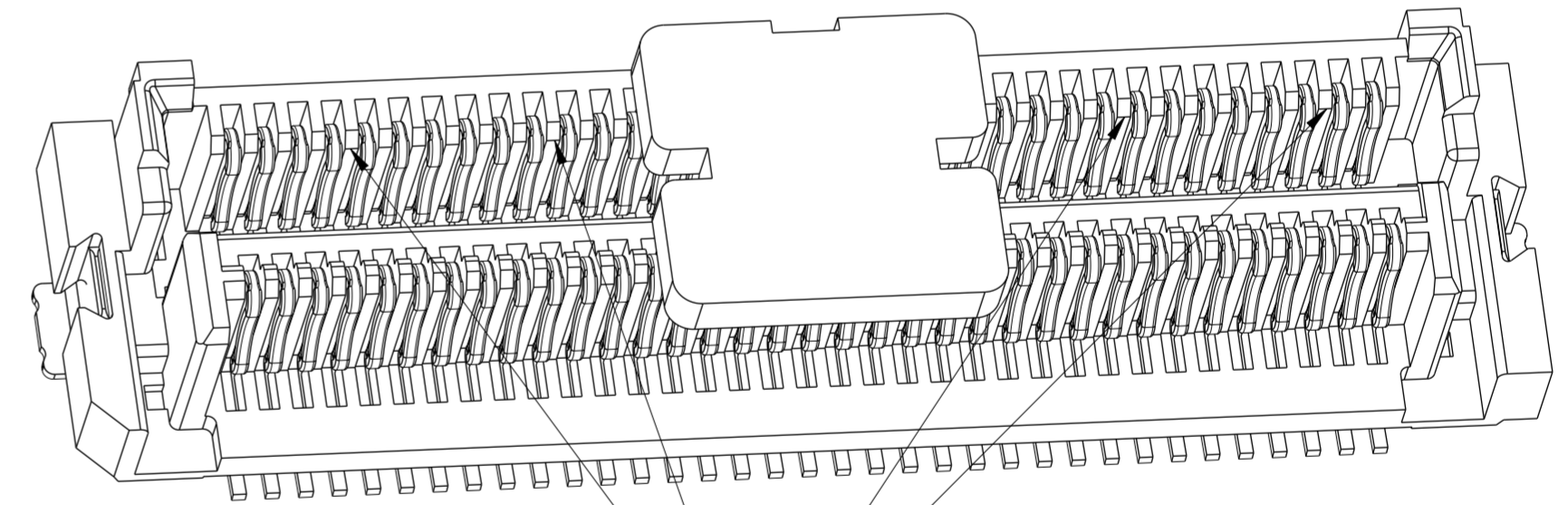
PEG OPTION  
0= NO PEGS  
1 = PEGS

PRACTICAL CONNECTOR HEIGHT NOTE 8	
1	= 2.0MM
2	= 2.5MM
3	= 3.0MM
4	= 3.5MM



SCALE 10:1

10106813-071112LF SHOWN WITHOUT RIB ON HOUSING WELL SIDE WALL



SCALE 10:1

10106813-171112LF SHOWN WITH RIBS ON HOUSING WELL SIDE WALL

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spec ref	---	dr	Stu Stoner	2010/11/18	projection	mm	size	A2	scale	10:1								
tolerance std	---	eng	Sanford Lu	2024/03/13		mm	ecn no	ELX-N-50880-1	rel level	Released								
---	TOLERANCES UNLESS OTHERWISE SPECIFIED	chr	-	appr							Tim Yao	2024/03/14	product family	MezzoStak				
surface	<table border="1"> <tr><td>linear</td><td>0.X</td><td>±0.3</td></tr> <tr><td></td><td>0.XX</td><td>±0.10</td></tr> <tr><td></td><td>0.XXX</td><td>±0.05</td></tr> <tr><td>angular</td><td>0°</td><td>±2°</td></tr> </table>	linear	0.X	±0.3		0.XX	±0.10		0.XXX	±0.05	angular	0°	±2°		<b>HERMAPHRODITIC CONNECTOR, LONG STYLE</b> 20-70 POS, 0.50 CTR, 4-7MM STACK HT		<b>10106813</b>	<b>J</b>
linear	0.X	±0.3																
	0.XX	±0.10																
	0.XXX	±0.05																
angular	0°	±2°																
---	www.fci.com	cat. no.	Product - Customer Draw		sheet 3 of 7													

PDS: Rev :J

STATUS:Released

Printed: Mar 28, 2024

1 2 3 4 5 6 7 8

A

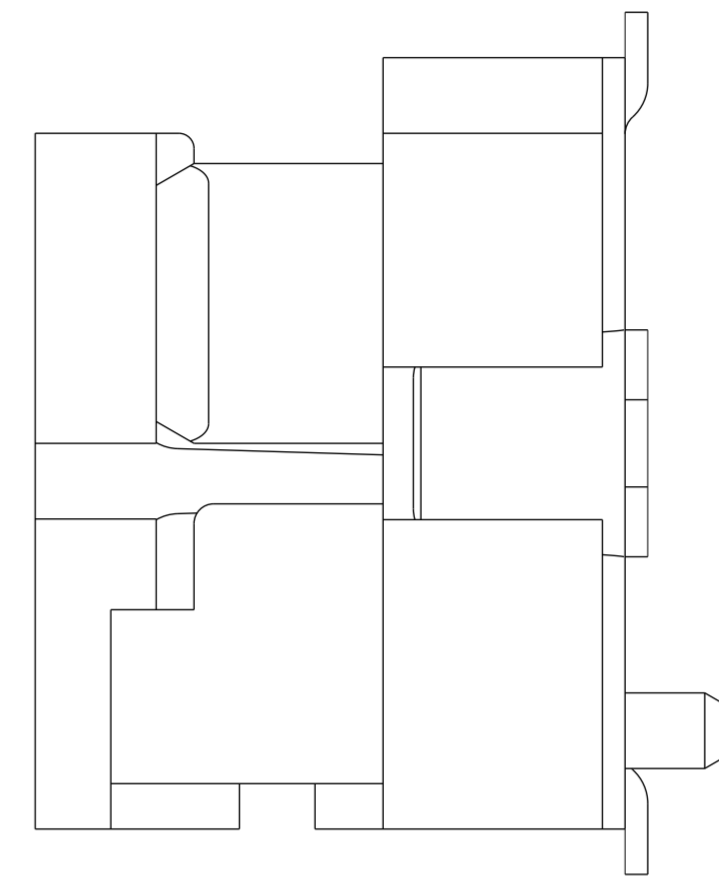
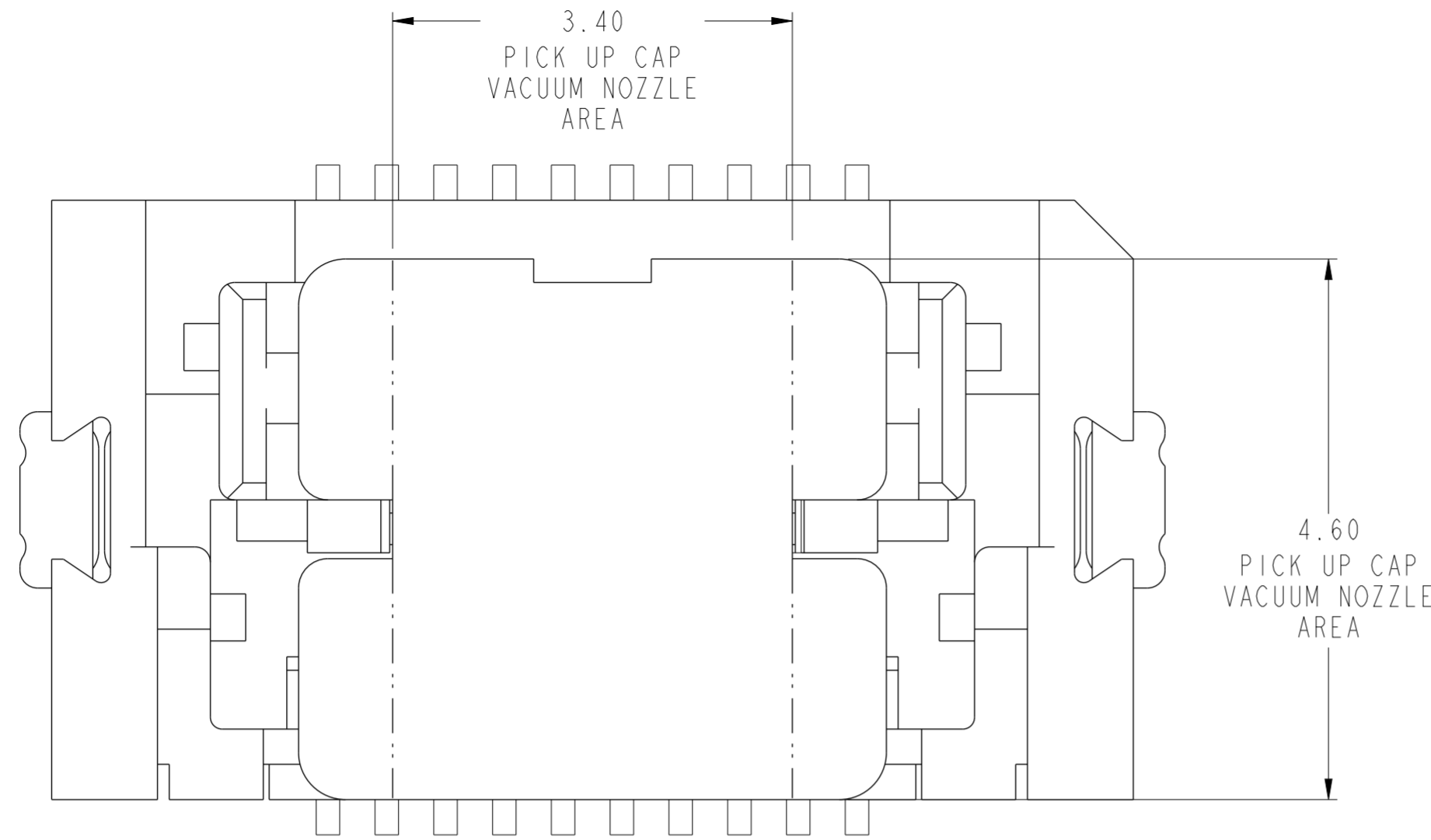
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C

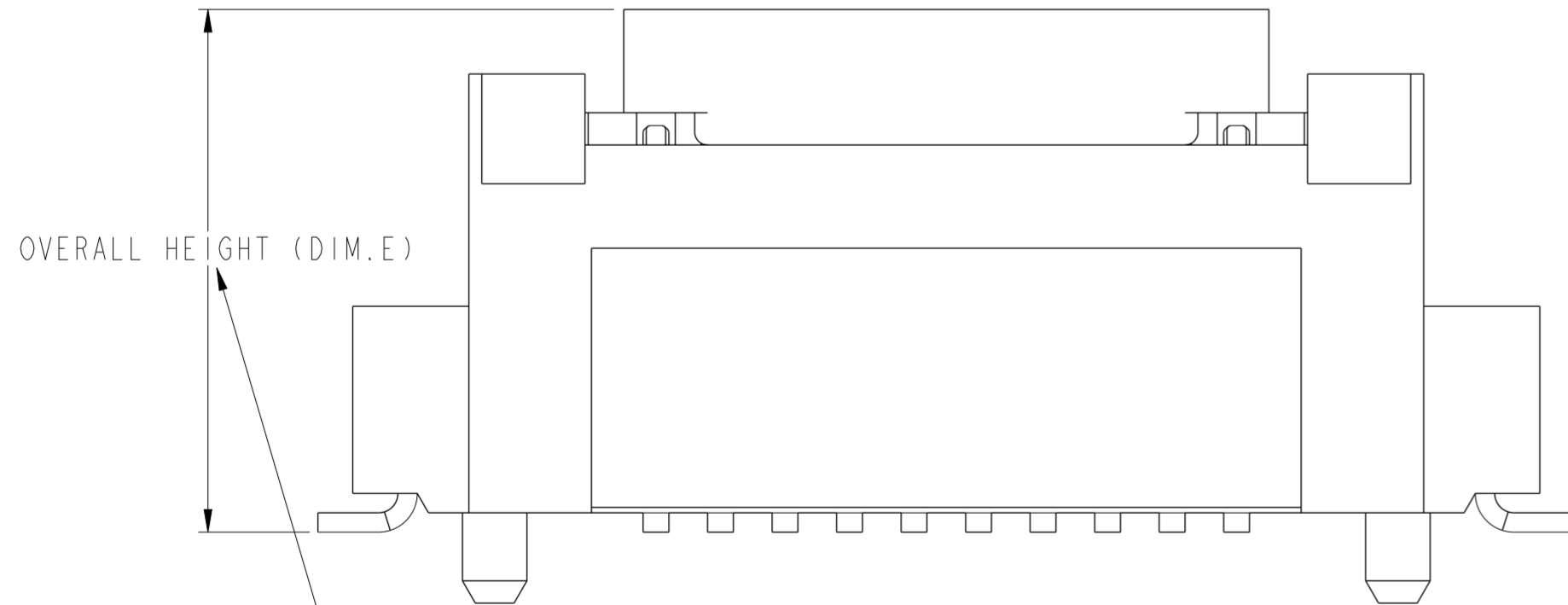
D

E

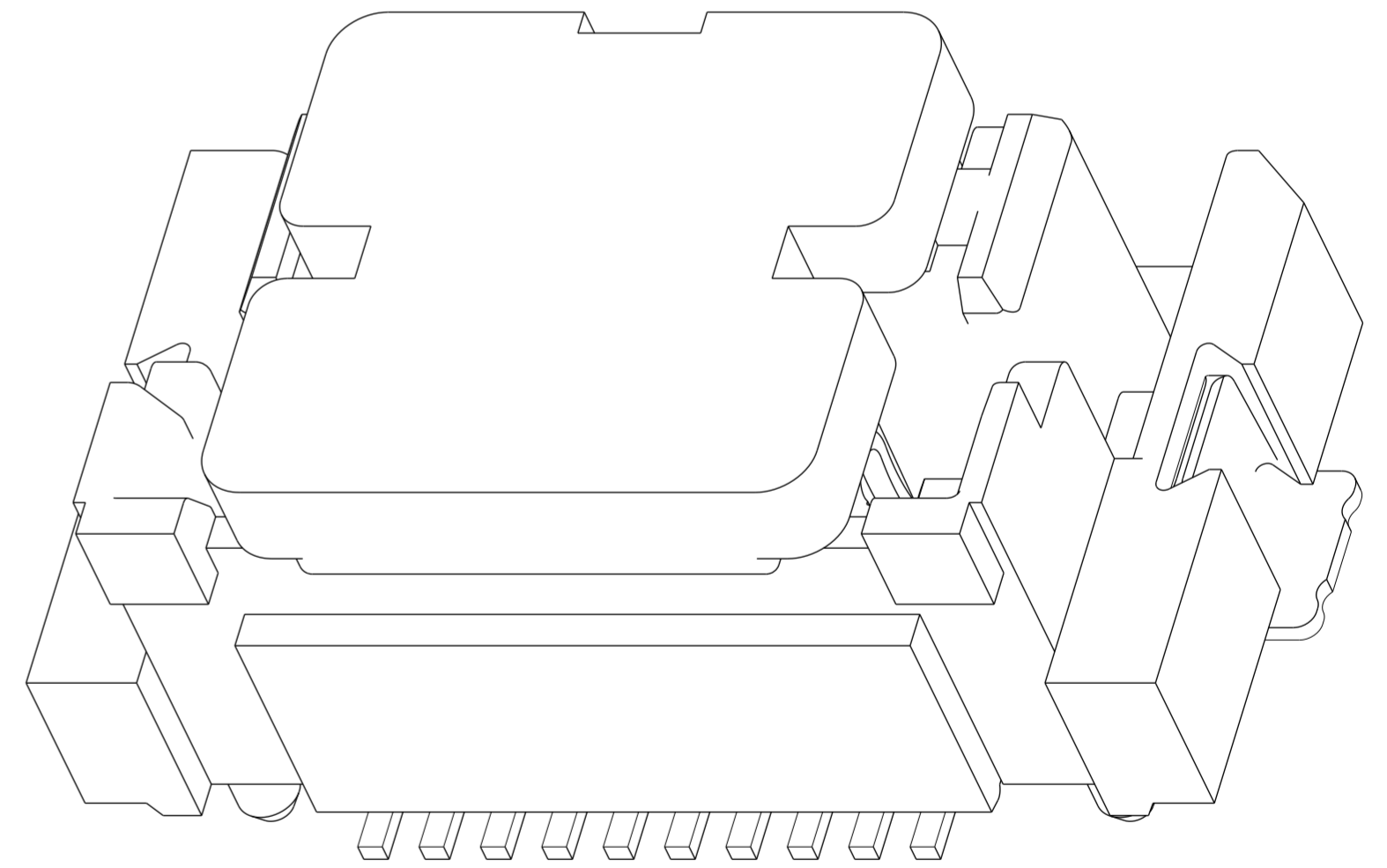
F



10106813-021112LF SHOWN  
WITH STANDARD PICK-UP CAP



PLEASE REFER PAGE 3 TO GET THE DETAILED DIMENSION VALUE OF DIM.E



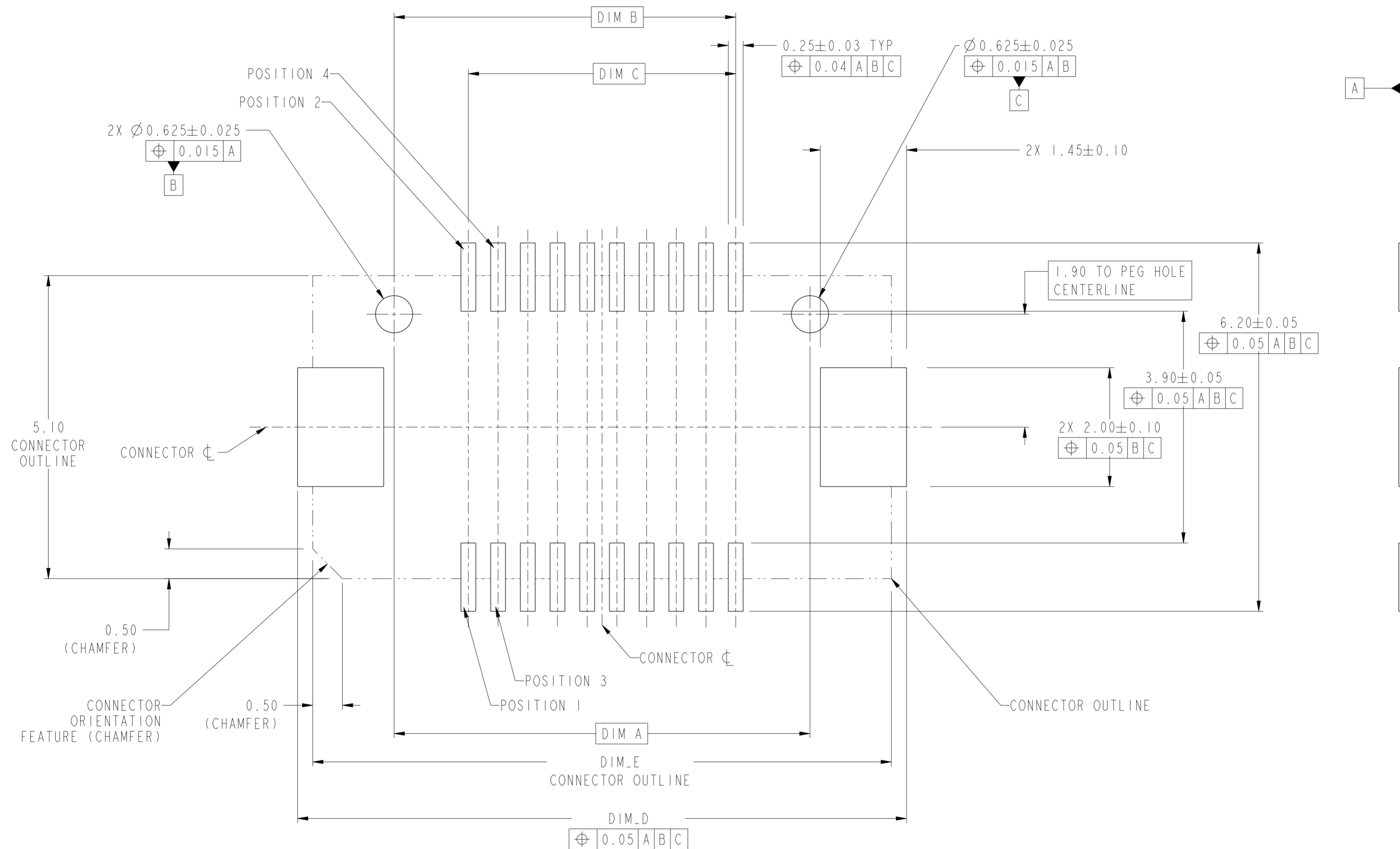
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spec ref	---	dr	Stu Stoner	2010/11/18	projection	mm	size	A2	scale	10:1								
tolerance std	---	eng	Sanford Lu	2024/03/13			ecn no	ELX-N-50880-1	rel level	Released								
---	TOLERANCES UNLESS OTHERWISE SPECIFIED	chr	-	appr							Tim Yao	2024/03/14	product family	MezzoStak				
surface	<table border="1"> <tr> <td>linear</td> <td>0.X</td> <td>±0.3</td> </tr> <tr> <td></td> <td>0.XX</td> <td>±0.10</td> </tr> <tr> <td></td> <td>0.XXX</td> <td>±0.05</td> </tr> <tr> <td>angular</td> <td>0°</td> <td>±2°</td> </tr> </table>	linear	0.X	±0.3		0.XX	±0.10		0.XXX	±0.05	angular	0°	±2°		title HERMAPHRODITIC CONNECTOR, LONG STYLE 20-70 POS, 0.50 CTR, 4-7MM STACK HT		divg no 10106813	rev J
linear	0.X	±0.3																
	0.XX	±0.10																
	0.XXX	±0.05																
angular	0°	±2°																
---	www.fci.com	cat. no.	-	Product - Customer Drw	sheet 4 of 7													

1 2 3 4 5 6 7 8

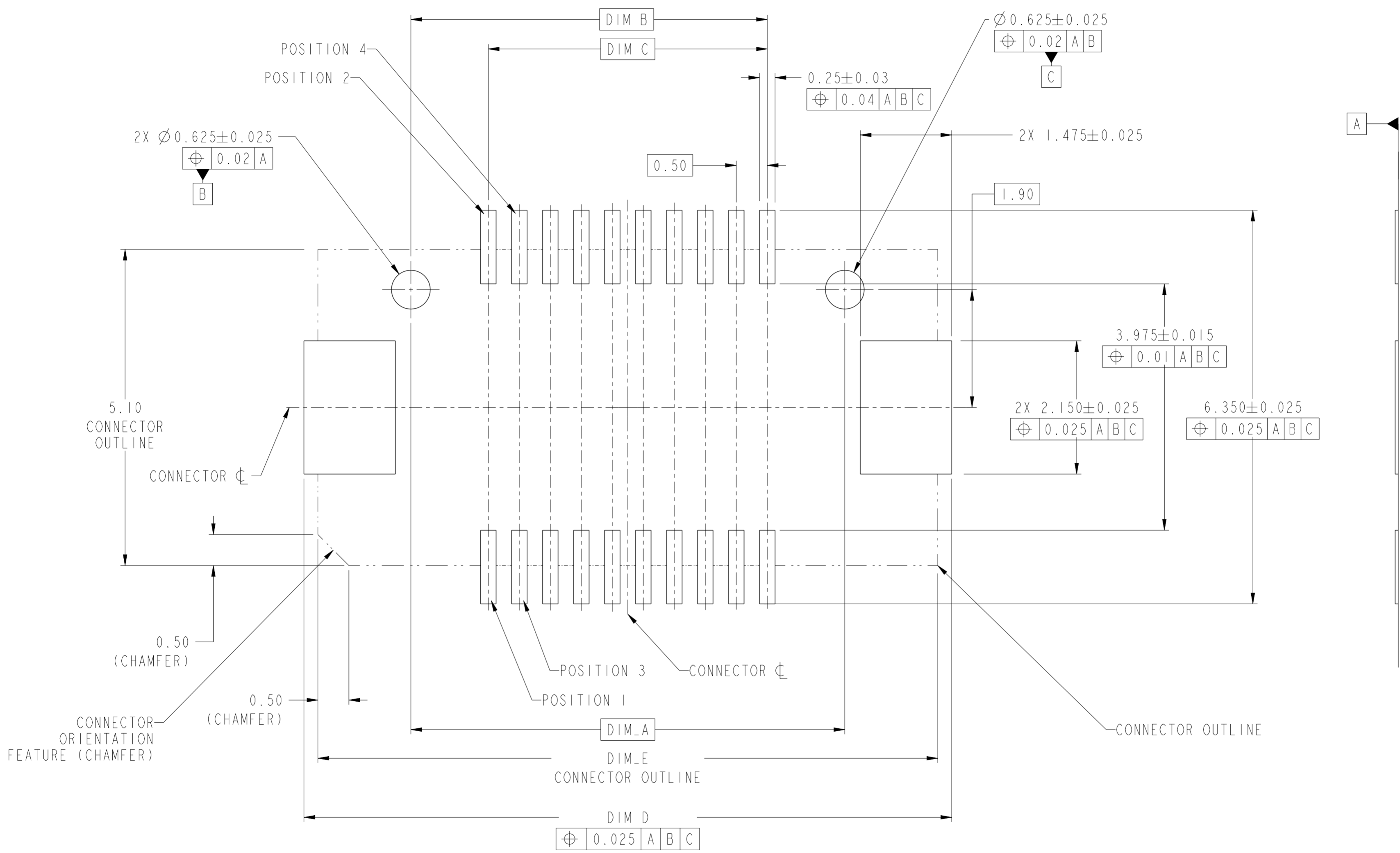
PRODUCT NUMBER	NUMBER OF POSITIONS	DIM A	DIM B	DIM C	DIM D±0.10	DIM E
10106813-X2XX1X(1)LF	20	7.00	5.75	4.50	10.25	9.74
10106813-X3XX1X(1)LF	30	9.50	8.25	7.00	12.75	12.24
10106813-X4XX1X(1)LF	40	12.00	10.75	9.50	15.25	14.74
10106813-X5XX1X(1)LF	50	14.50	13.25	12.00	17.75	17.24
10106813-X6XX1X(1)LF	60	17.00	15.75	14.50	20.25	19.74
10106813-X7XX1X(1)LF	70	19.50	18.25	17.00	22.75	22.24



OPTION 1 - SPACE OPTIMIZED FOOTPRINT  
 SEE TABLE FOR PCB LAYOUT DIMENSIONS  
 SEE NOTE 11 FOR STENCIL CREATION GUIDELINES

spec ref	---	dr	Stu Stoner	2010/11/18	projection	mm	size	A2	scale	10:1		
tolerance std	---	eng	Sanford Lu	2024/03/13		mm	ecn no	ELX-N-50880-1	rel level	Released		
---	TOLERANCES UNLESS OTHERWISE SPECIFIED	chr	-	product family							MezzoStack	
---		appr	Tim Yao	2024/03/14							rel level	Released
surface	✓	linear	0.X	±0.3		TITLE HERMAPHRODITIC CONNECTOR, LONG STYLE 20-70 POS, 0.50 CTR, 4-7MM STACK HT	divg no 10106813	rev J	cat. no. www.fci.com	Product - Customer Drw	sheet 5 of 7	
			0.XX	±0.10								
			0.XXX	±0.05								
		angular	0°	±2°								

PRODUCT NUMBER	NUMBER OF POSITIONS	DIM A	DIM B	DIM C	DIM D±0.025	DIM E
10106813-X2XX1X(1)LF	20	7.00	5.75	4.50	10.45	9.74
10106813-X3XX1X(1)LF	30	9.50	8.25	7.00	12.95	12.24
10106813-X4XX1X(1)LF	40	12.00	10.75	9.50	15.45	14.74
10106813-X5XX1X(1)LF	50	14.50	13.25	12.00	17.95	17.24
10106813-X6XX1X(1)LF	60	17.00	15.75	14.50	20.45	19.74
10106813-X7XX1X(1)LF	70	19.50	18.25	17.00	22.95	22.24



**OPTION 2 - FOOTPRINT**  
**SEE TABLE FOR PCB LAYOUT DIMENSIONS**  
**SEE NOTE 11 FOR STENCIL CREATION GUIDELINES**

spec ref	---	dr	Stu Stoner	2010/11/18	projection	mm	size	A2	scale	10:1
tolerance std	---	eng	Sanford Lu	2024/03/13	chr	-	ecn no	ELX-N-50880-1	rel level	Released
---	TOLERANCES UNLESS OTHERWISE SPECIFIED	appr	Tim Yao	2024/03/14	product family	MezzoStack	rel level	Released	divg no	10106813
surface	✓	linear	0.X	±0.3	Amphenol FCI	HERMAPHRODITIC CONNECTOR, LONG STYLE	divg no	10106813	rev	J
---	---	angular	0°	±2°	www.fci.com	20-70 POS, 0.50 CTR, 4-7MM STACK HT	cat. no.	-	Product - Customer Drw	sheet 6 of 7

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NOTES

1 - MATERIAL:  
 HOUSING - LCP, UL94-V0, COLOR: BLACK  
 CONTACTS:  
 CONTACT PLATING:  
 SEPARABLE INTERFACE: PERFORMANCE-BASED PLATING, QUALIFIED TO MEET THE REQUIREMENTS OF FCI PRODUCT SPECIFICATION GS-12-577.  
 SOLDER TAILS: GOLD FLASH  
 HOLD DOWNS: BRASS PLATED WITH 2.5um Sn OVER 1.27um UNDERPLATE.

2 - RECOMMENDED LEAD FREE SOLDER PASTE THICKNESS 150um.

3 - THE HOUSING WILL WITHSTAND EXPOSURE TO 260°C PEAK TEMPERATURE FOR 30 SECONDS IN A CONVECTION INFRA RED OR VAPOR PHASE REFLOW OVEN.

4 - THIS PRODUCT MEETS EUROPEAN UNION DIRECTIVES AND OTHER COUNTRY REGULATION AS DESCRIBED IN GS-22-008

5 - PACKAGING TAPE AND REEL. PACKAGING SPECIFICATION GS-14-1320

6 - PRODUCT SPECIFICATION GS-12-577

⑦ - LEAD CO-PLANARITY TO BE 0.08MM MAX.

⑧ - PRACTICAL CONNECTOR HEIGHT AS SPECIFIED IN THE TABLE IS NOT THE DIMENSIONAL HEIGHT OF THE CONNECTOR BUT THE HEIGHT AS IT PERTAINS TO TOTAL STACK HEIGHT. AN EXAMPLE IS A CONNECTOR WITH A 2.5MM PRACTICAL CONNECTOR HEIGHT AND WHEN MATED TO ITSELF WILL RESULT IN A BOARD TO BOARD STACK HEIGHT OF 5MM.

⑨ - DISCRETE CONNECTOR HEIGHT AS SHOWN IN THE TABLE IS THE ACTUAL DIMENSIONAL CONNECTOR HEIGHT. ALSO SEE INFORMATION ON PRACTICAL HEIGHT IN NOTE 8.

⑩ - THE TOE HEIGHT OF THE SOLDER TAIL SHALL BE MEASURED FROM THE LOWEST POINT OF THE 0.08 COPLANRITY PLANE. THIS MEASUREMENT SHALL NOT EXCEED A WINDOW OF 0.00 TO 0.10MM.

⑪ - REFER TO IPC 7525-A FOR STENCIL CREATION

spec ref	---	dr	Stu Stoner	2010/11/18	projection		mm	size	A2	scale	10:1								
tolerance std	---	eng	Sanford Lu	2024/03/13	chr	-		ecn no	ELX-N-50880-1										
---	TOLERANCES UNLESS OTHERWISE SPECIFIED	appr	Tim Yao	2024/03/14	product family	MezzoStak		rel level	Released										
surface	<table border="1"> <tr> <td rowspan="3"> </td> <td>linear</td> <td>0.X</td> <td>±0.3</td> </tr> <tr> <td></td> <td>0.XX</td> <td>±0.10</td> </tr> <tr> <td></td> <td>0.XXX</td> <td>±0.05</td> </tr> <tr> <td></td> <td>angular</td> <td>0°</td> <td>±2°</td> </tr> </table>		linear	0.X	±0.3		0.XX	±0.10		0.XXX	±0.05		angular	0°	±2°		title HERMAPHRODITIC CONNECTOR, LONG STYLE 20-70 POS, 0.50 CTR, 4-7MM STACK HT	divg no 10106813	rev J
	linear		0.X	±0.3															
			0.XX	±0.10															
		0.XXX	±0.05																
	angular	0°	±2°																
---		www.fci.com	cat. no.	-	Product - Customer Drw	sheet 7 of 7													