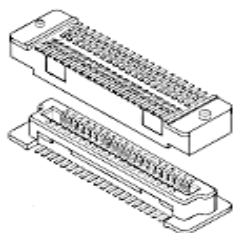


**61082-121400LF - Bergstak®
: 120 Positions, Dual Row,
BTB Vertical Receptacle**



www.fci.com

Mating Half

- 61083-121400LF
- 61083-121402LF
- 61083-122400LF
- 61083-122402LF
- 61083-123400LF

Specifications

General	
Gender	Receptacle
Number of contacts (Total)	120
Mating half	Mates with all 120 Positions Bergstak® Plugs Base P/N 61083
Dimensional	
Height (Mated)	8 mm(0.315 in.) 6 mm(0.236 in.) 7 mm(0.276 in.) 5 mm(0.197 in.)
Dim A (in)	1.858 in.
Dim A (mm)	47.2 mm
Dim B (in)	2.118 in.
Dim B (mm)	53.8 mm
Dim C (in)	2.055 in.
Dim C (mm)	52.2 mm
Electrical	
Current rating	0.8 amps max
Resistance (Contact)	30 M-ohms max. (Initial), 50 M-ohms max. (After Test)
Resistance (Insulation)	1000 M-ohms min. (Initial), 100 M-ohms min. (After Test)
Voltage rating	100 volts AC
Mechanical	
Durability (Mating cycles)	100
Insertion force	90 grams per Contact max.
Withdrawal Force	10 grams per Contact min.

Mounting

Polarization pegs (Board)	Yes
Retention feature (Board)	No
Solder process	IR and Vapor-Phase Reflow

Physical

Material (Contact)	Copper Alloy
Material (Housing)	LCP
Plating (Contact area)	0.2 μm (8 $\mu\text{in.}$) Gold
Plating (Tail)	Matte-Tin
Underplating (Contact)	1.27 μm (50 $\mu\text{in.}$) Nickel
Resistance to Solder Heat	240°C for 30 sec
Temperature (Range)	-40°C to +125°C

Approvals / Certifications

UL File Number	E66906
CSA File Number	LR46923
Approvals / Certifications	UL and CSA Approved

Other Features

Popular Configuration (Customer Prototyping)	Yes
Most Popular Configuration	Yes
Packaging (Type)	Tube, without vacuum pickup caps
Vacuum Pick-up Cap	No
Literature	950547-001

61082-AA B C D E FF

AA	POSITION
04	2X20
06	2X30
08	2X40
10	2X50
12	2X60
14	2X70
16	2X80
18	2X90
20	2X100

B	FOR PLUG, SEE DWG. NO. 61083			
COMBINATION OF MATED HEIGHT	Plug 1	Plug 2	Plug 3	Plug 4
Recep 1				
Recep 2				
Recep 3				

E	PACKAGING
0	TUBE WITHOUT METAL CAP
2	T&R WITH METAL CAP
9	TUBE WITH METAL CAP
6	T&R WITHOUT METAL CAP (WITH KAPTON TAPE)

D	POLARIZATION PEG	HOLD DOWN
0	YES	NO
2	NO	NO

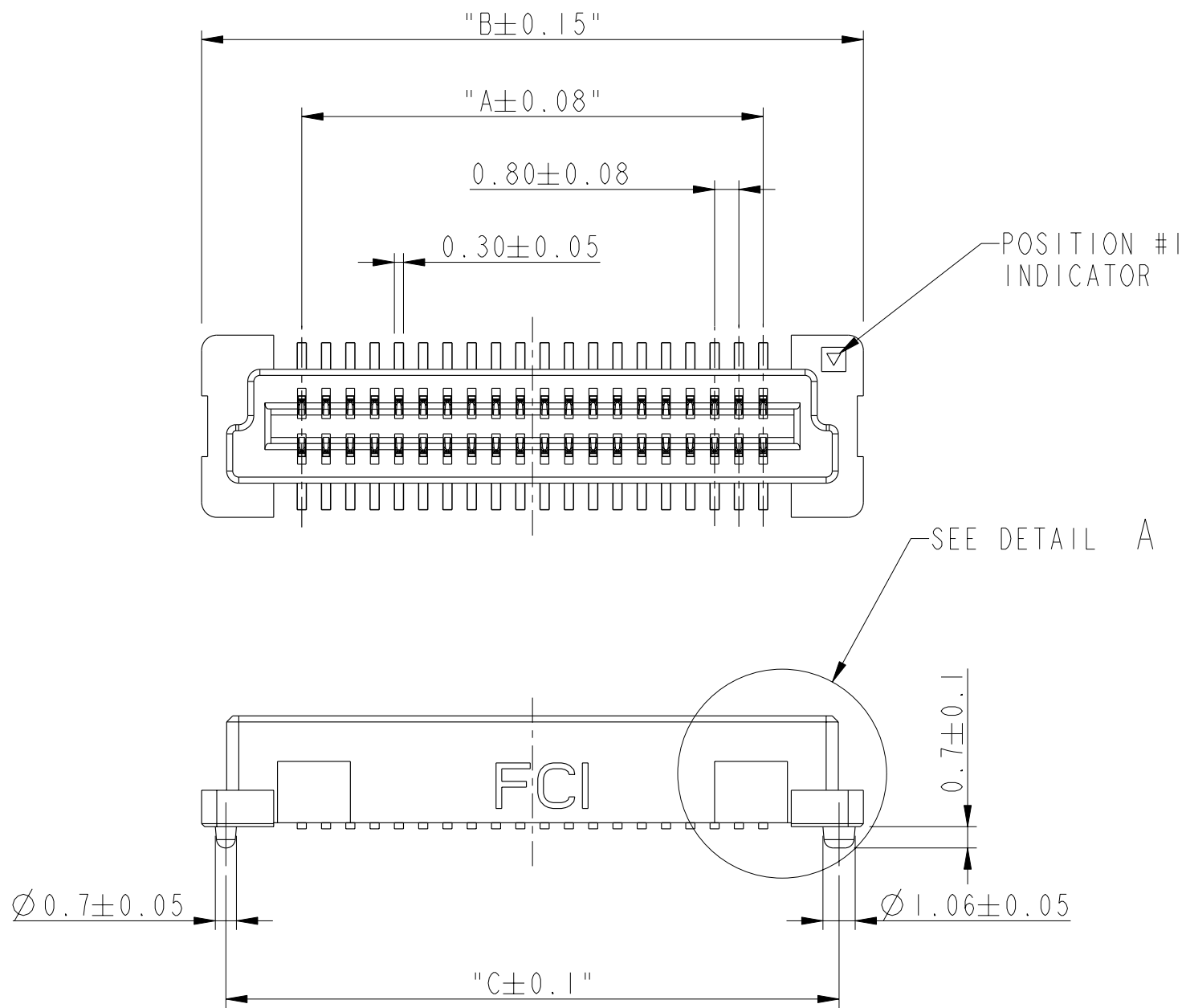
C	PLATING ON CONTACT AREA	FF
0	GOLD 0.2um MIN / TIN LEAD NICKEL UNDERPLATE OVERALL 1.27um MIN	NONE
1	GOLD FLASH (0.1um MIN) OVER PALLADIUM-NICKEL 0.76um MIN / TIN LEAD NICKEL UNDERPLATE OVERALL 1.27um MIN	NONE
4	GOLD 0.2um MIN / PURE TIN 2um MIN (LEAD FREE) NICKEL UNDERPLATE OVERALL 1.27um MIN	LF
5	GOLD 0.38um MIN / PURE TIN 2um MIN (LEAD FREE) NICKEL UNDERPLATE OVERALL 1.27um MIN	LF
6	GOLD FLASH (0.1um MIN) OVER PALLADIUM-NICKEL 0.76um MIN / PURE TIN 2um MIN (LEAD FREE) NICKEL UNDERPLATE OVERALL 1.27um MIN	LF

- NOTES:
- MATERIAL
HOUSING: LCP UL 94V-0
TERMINAL: BERYLLIUM COPPER
 - PLATING
AS SHOWN IN TABLE.
 - SEE GS-12-547 FOR PRODUCT SPEC.
 - SEE GS-15-551 AND GS-14-816 FOR THE DETAILS OF PACKAGING.
PRODUCT WILL BE PACKED IN ACCORDANCE TO GLOBAL PROCEDURE GS-14-920.
 - PACKAGING OPTION 2: "NOT ALL SIZES AVAILABLE; CHECK WITH FACTORY".
 - THIS PRODUCT MEETS THE EUROPEAN UNION DIRECTIVES AND OTHER COUNTRY REGULATIONS AS DESCRIBED IN GS-22-008.
 - THE HOUSING WITH WITHSTAND EXPOSURE UP TO 260° PEAK TEMPERATURE FOR 30 SECONDS IN A CONVECTION, INFRA-RED OR VAPOR REFLOW OVEN.
 - PLATING OPTION "4" IS LEADFREE ALTERNATIVE FOR OPTION "0", AND OPTION "6" IS LEADFREE ALTERNATIVE FOR OPTION "1".
 - HIGH PRECISION COPLANARITY IS AVAILABLE FOR 2X80 TO 2X100 POS, ALL HEIGHTS. PLS REFER TO PRINT 10069524.
 - A SYMBOL WILL BE NEXT TO ANY DIMENSION, VIEW OR NOTE WHICH HAS BEEN MODIFIED WITH THE CURRENT DRAWING REVISION.

rev	ecn no	dr	date
W	S07-0166	MCH	2007-05-16
X	S07-0416	MCH	2007-11-22
Y	S08-0330	MCH	2008-10-08
AA	S09-0311	MCH	2009-10-06
T	S04-0133	MW	2004-06-23
U	S04-0167	CH	2004-07-30
V	S04-0098	CH	2005-03-31

www.fciconnect.com			surface ISO 1302	tolerance std ISO 406 ISO 1101	projection 	MM
			TOLERANCES UNLESS OTHERWISE SPECIFIED			
Dr	M. Cheong	2009-06-01	ANGULAR 0° ±2°	0.X	±0.20	size A3
Eng	M. Cheong	2009-06-01		0.XX	±0.15	
Chr	M. Cheong	2009-06-01		0.XXX	±0.10	
Appr	Joey Ng	2009-10-06	Product family		BERGSTAK	Spec ref
			title			Rev.
			BERGSTAK 0.8MM			AA
			RECEPTACLE ASSY			
			catalog no			
			CUSTOMER			sheet 1 of 6

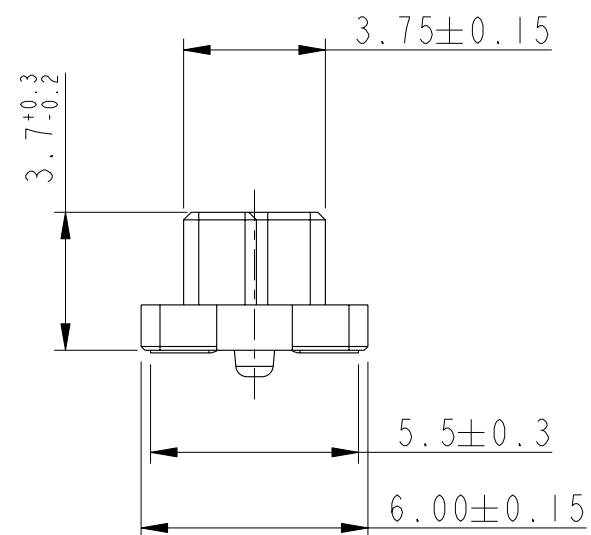
PRODUCT NO.	NUMBER OF POSITIONS	DIMENSION		
		A	B	C
61082-041***	2X20	15.2	21.8	20.2
61082-061***	2X30	23.2	29.8	28.2
61082-081***	2X40	31.2	37.8	36.2
61082-101***	2X50	39.2	45.8	44.2
61082-121***	2X60	47.2	53.8	52.2
61082-141***	2X70	55.2	61.8	60.2
61082-161***	2X80	63.2	69.8	68.2
61082-181***	2X90	71.2	77.8	76.2
61082-201***	2X100	79.2	85.8	84.2



COPLANARITY OF TAIL:
0.1 MAX. APPLIED TO 2X20 TO 2X70 POS.
0.13 MAX APPLIED TO 2X80 TO 2X100 POS.

HIGH PRECISION COPLANARITY IS AVAILABLE
FOR 2X80 TO 2X100 POS.
PLS REFER TO PRINT 10069524.

DETAIL A
SCALE 10:1



RECEPTACLE 1



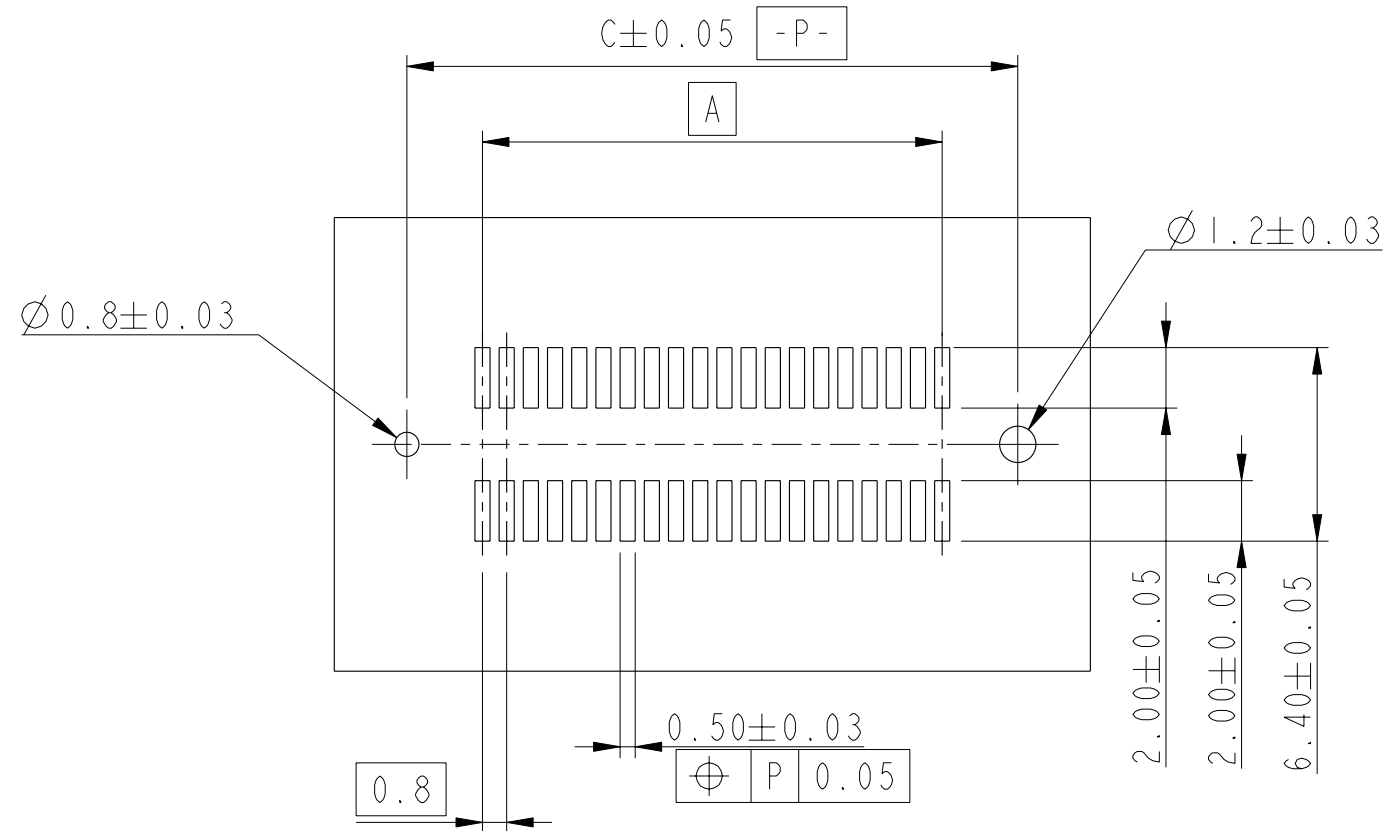
title BERGSTAK 0.8MM
RECEPTACLE ASSY
catalog no

dwg no 61082

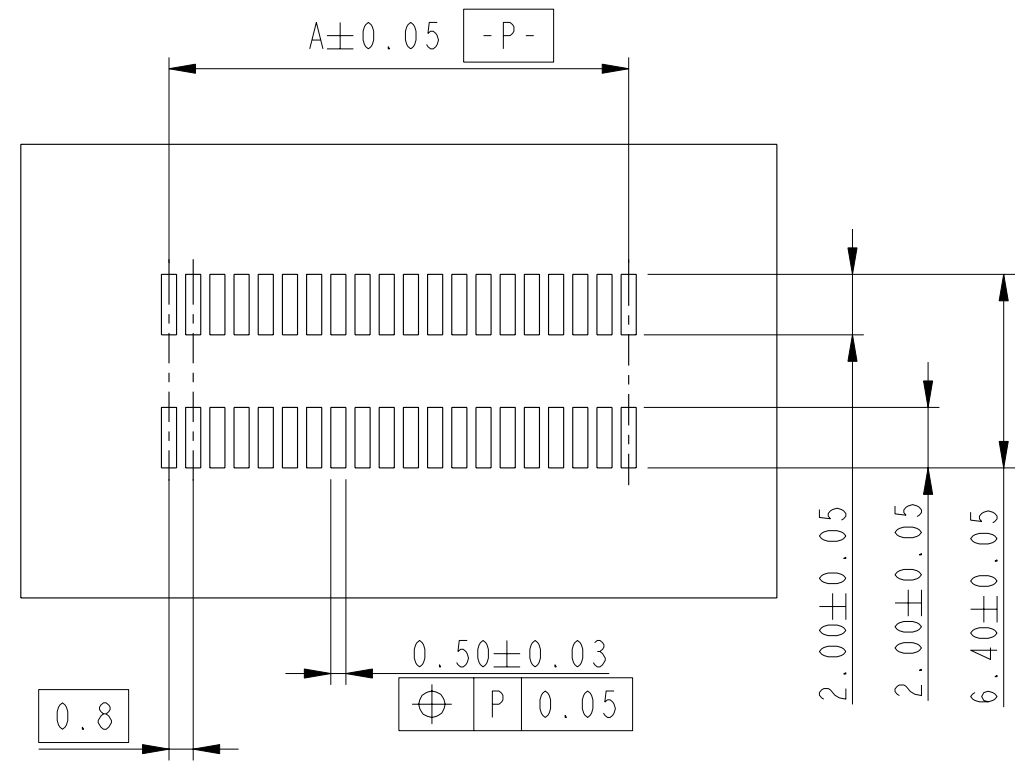
Rev. AA

CUSTOMER sheet 2 of 6

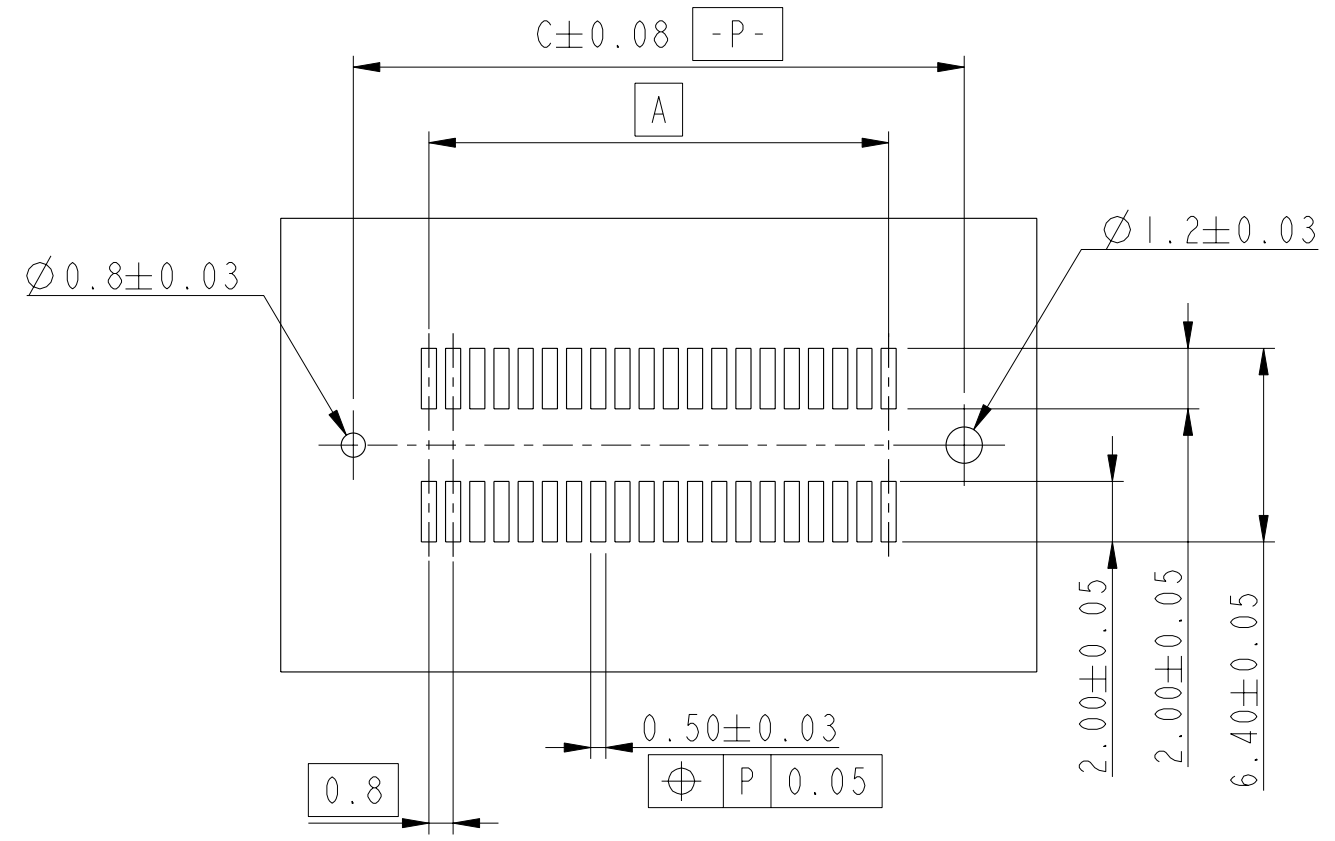
RECEPTACLE I



RECOMMENDED PCB LAYOUT WITH PEGS
FOR NO. OF POSITION 2X20, 2X30, 2X40, 2X50, 2X60



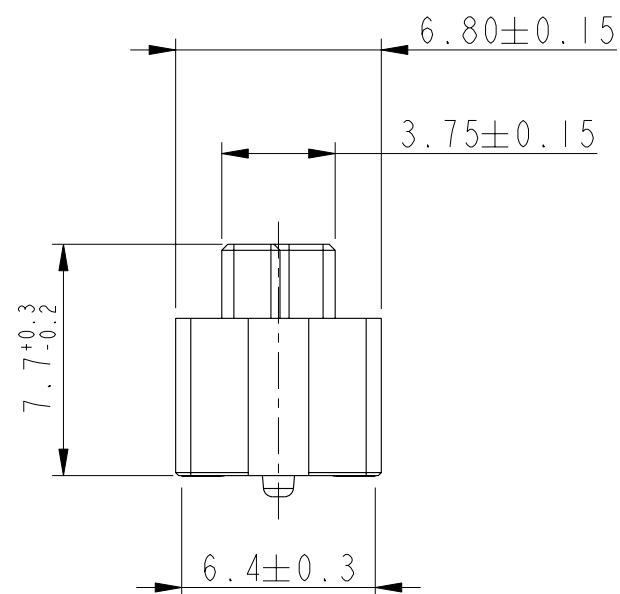
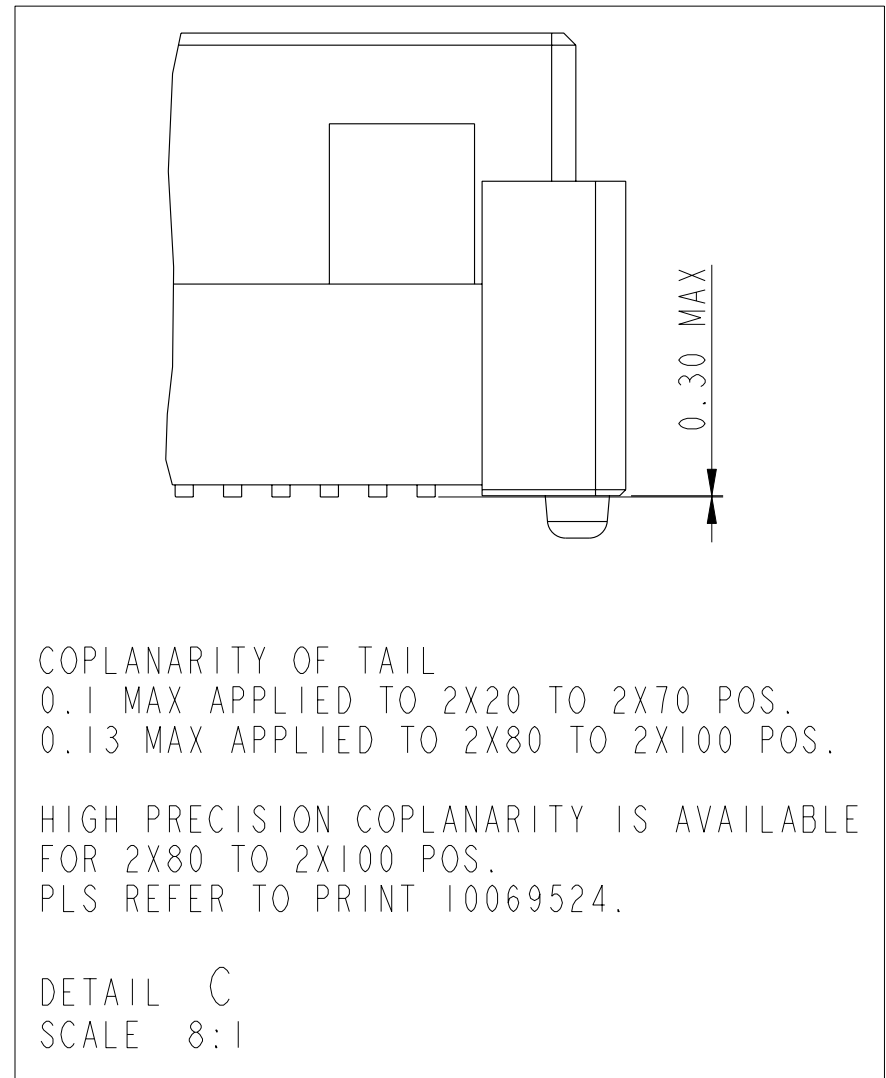
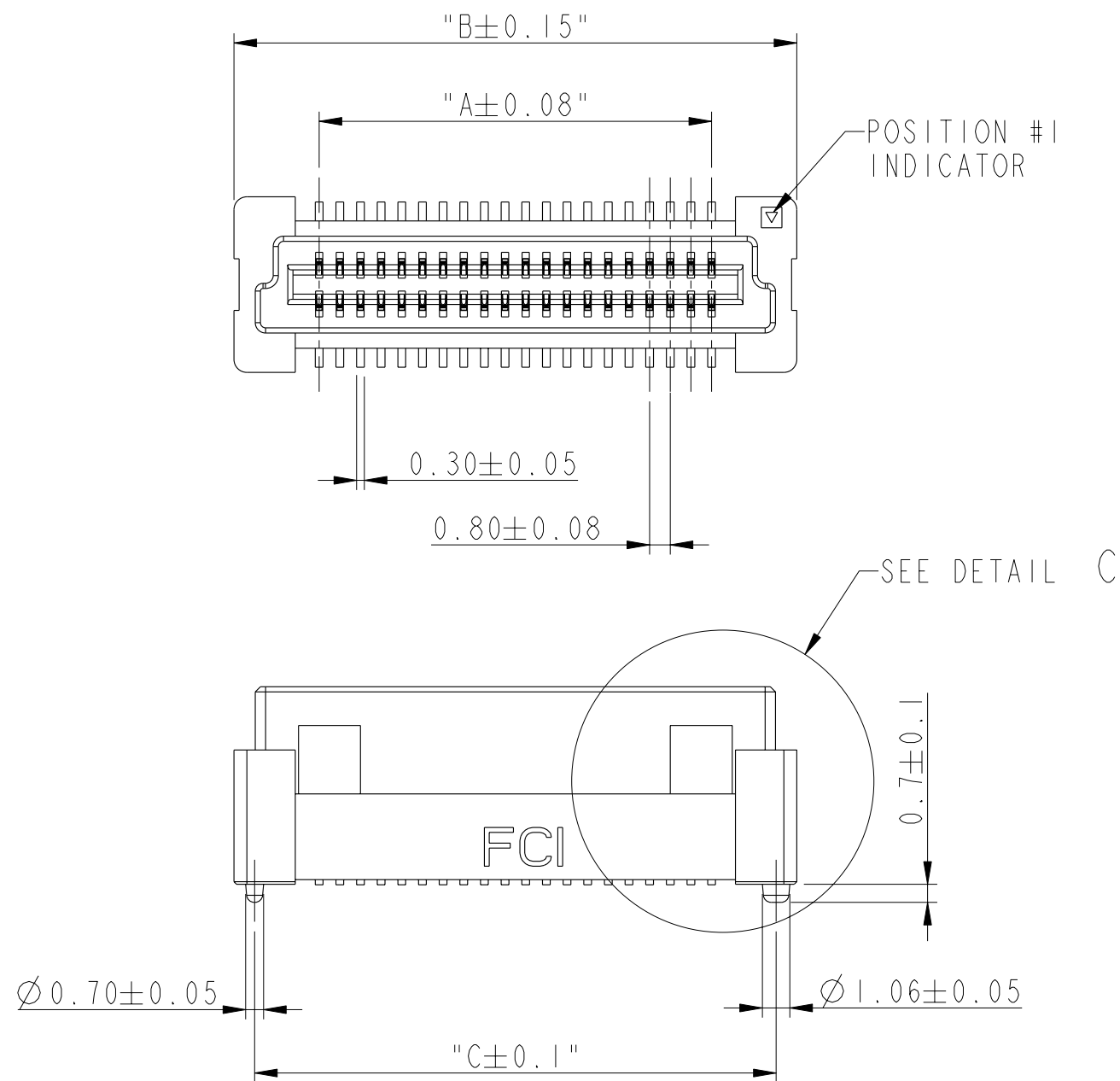
RECOMMENDED PCB LAYOUT WITHOUT PEGS AND HOLDDOWN



RECOMMENDED PCB LAYOUT WITH PEGS
FOR NO. OF POSITION 2X70, 2X80, 2X90, 2X100

FCi	title	BERGSTAK 0.8MM	dwg no	61082	Rev.
		RECEPTACLE ASSY			AA
	catalog no	-	CUSTOMER	sheet 3 of 6	

PRODUCT NO.	NUMBER OF POSITIONS	DIMENSION		
		A	B	C
61082-042***	2X20	15.2	21.8	20.2
61082-062***	2X30	23.2	29.8	28.2
61082-082***	2X40	31.2	37.8	36.2
61082-102***	2X50	39.2	45.8	44.2
61082-122***	2X60	47.2	53.8	52.2
61082-142***	2X70	55.2	61.8	60.2
61082-162***	2X80	63.2	69.8	68.2
61082-182***	2X90	71.2	77.8	76.2
61082-202***	2X100	79.2	85.8	84.2



RECEPTACLE 2



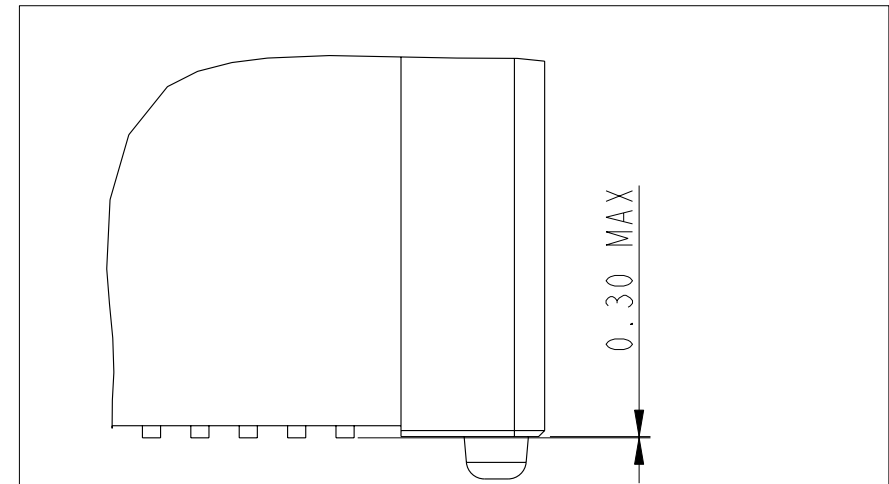
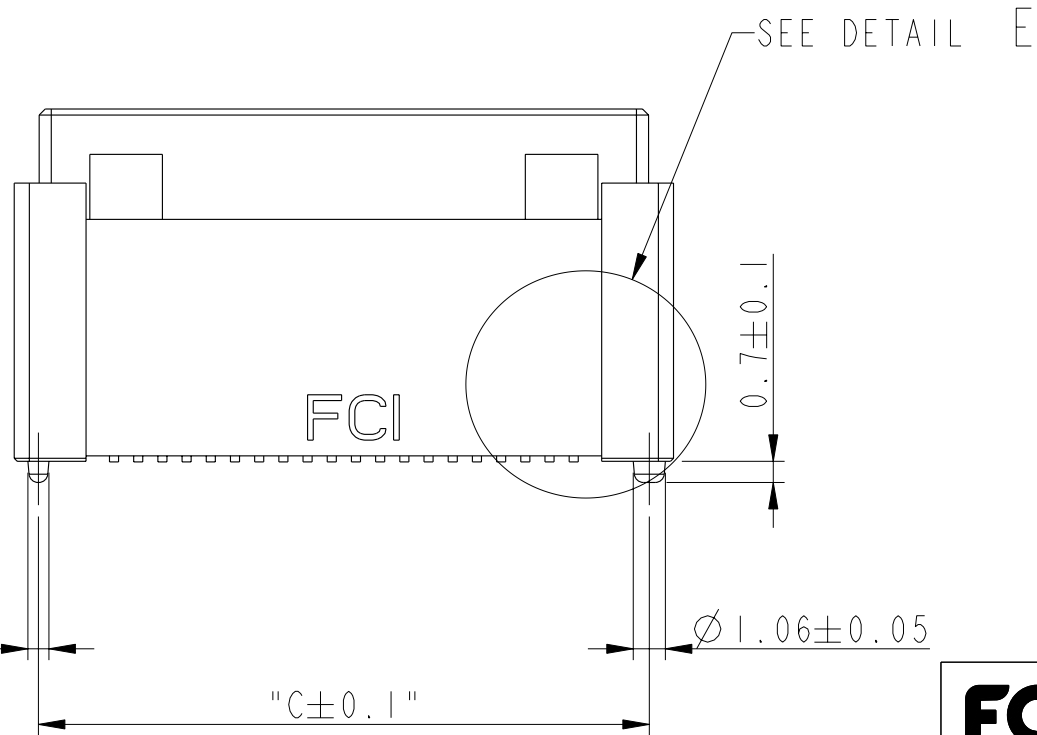
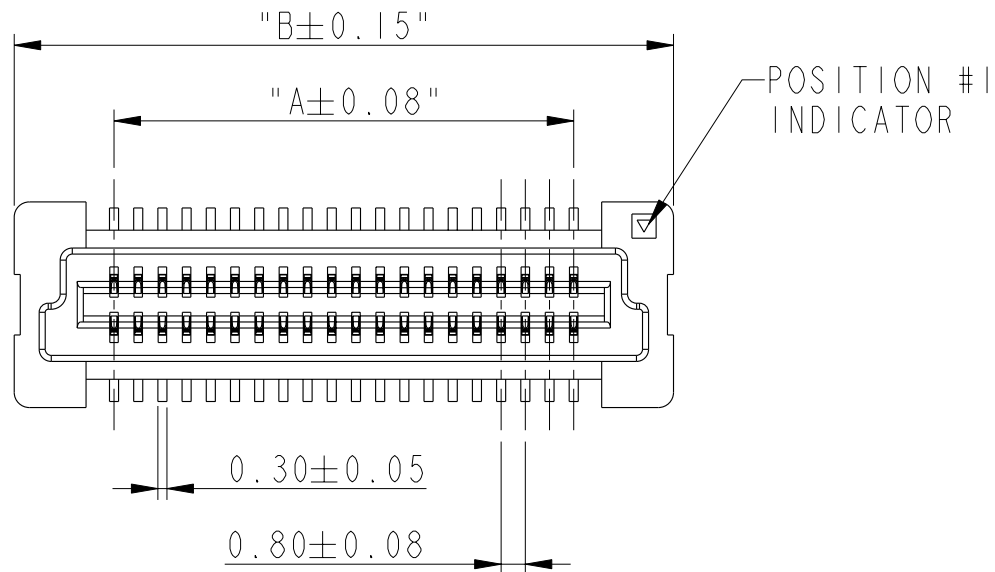
title BERGSTAK 0.8MM
RECEPTACLE ASSY
catalog no -

dwg no 61082
CUSTOMER

Rev.
AA

sheet 4 of 6

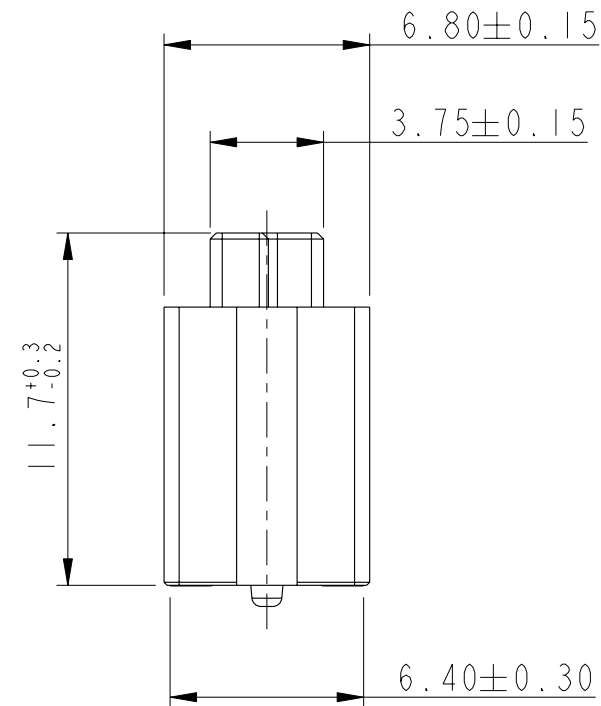
PRODUCT NO.	NUMBER OF POSITIONS	DIMENSION		
		A	B	C
61082-043***	2X20	15.2	21.8	20.2
61082-063***	2X30	23.2	29.8	28.2
61082-083***	2X40	31.2	37.8	36.2
61082-103***	2X50	39.2	45.8	44.2
61082-123***	2X60	47.2	53.8	52.2
61082-143***	2X70	55.2	61.8	60.2
61082-163***	2X80	63.2	69.8	68.2
61082-183***	2X90	71.2	77.8	76.2
61082-203***	2X100	79.2	85.8	84.2



COPLANARITY OF TAIL
0.1 MAX APPLIED TO 2X20 TO 2X70 POS
0.13 MAX APPLIED TO 2X80 TO 2X100 POS.

HIGH PRECISION COPLANARITY IS AVAILABLE
FOR 2X80 TO 2X100 POS.
PLS REFER TO PRINT 10069524.

DETAIL E
SCALE 8:1



RECEPTACLE 3



title BERGSTAK 0.8MM
RECEPTACLE ASSY
catalog no -

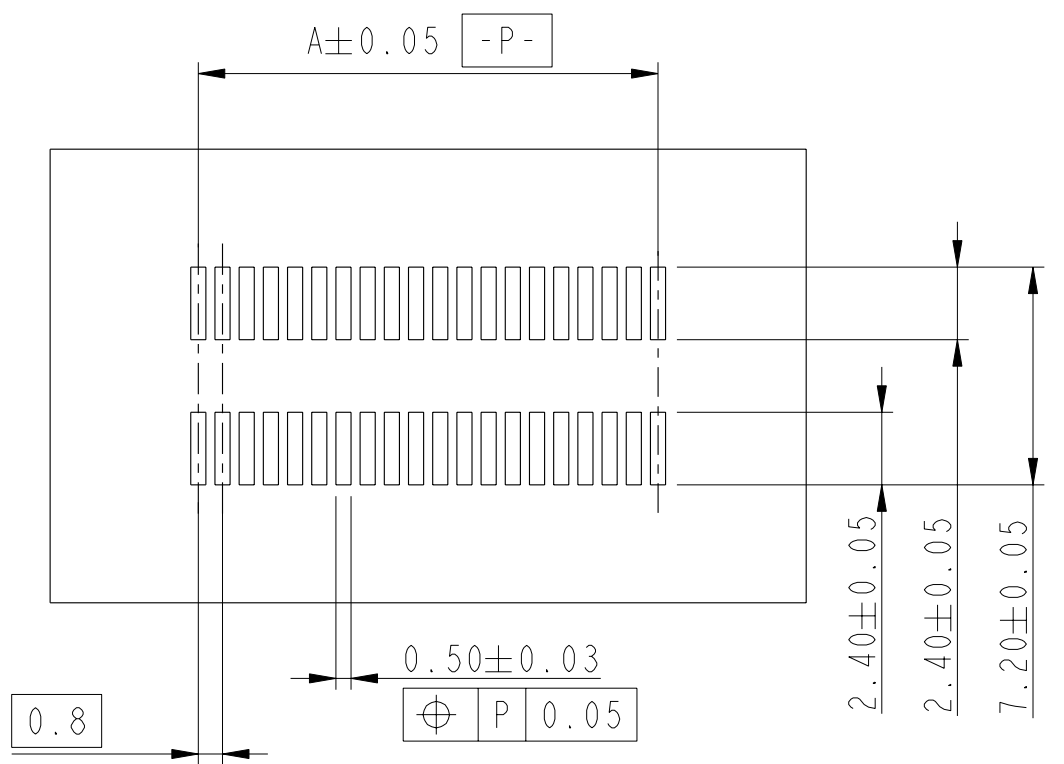
dwg no 61082

Rev.
AA

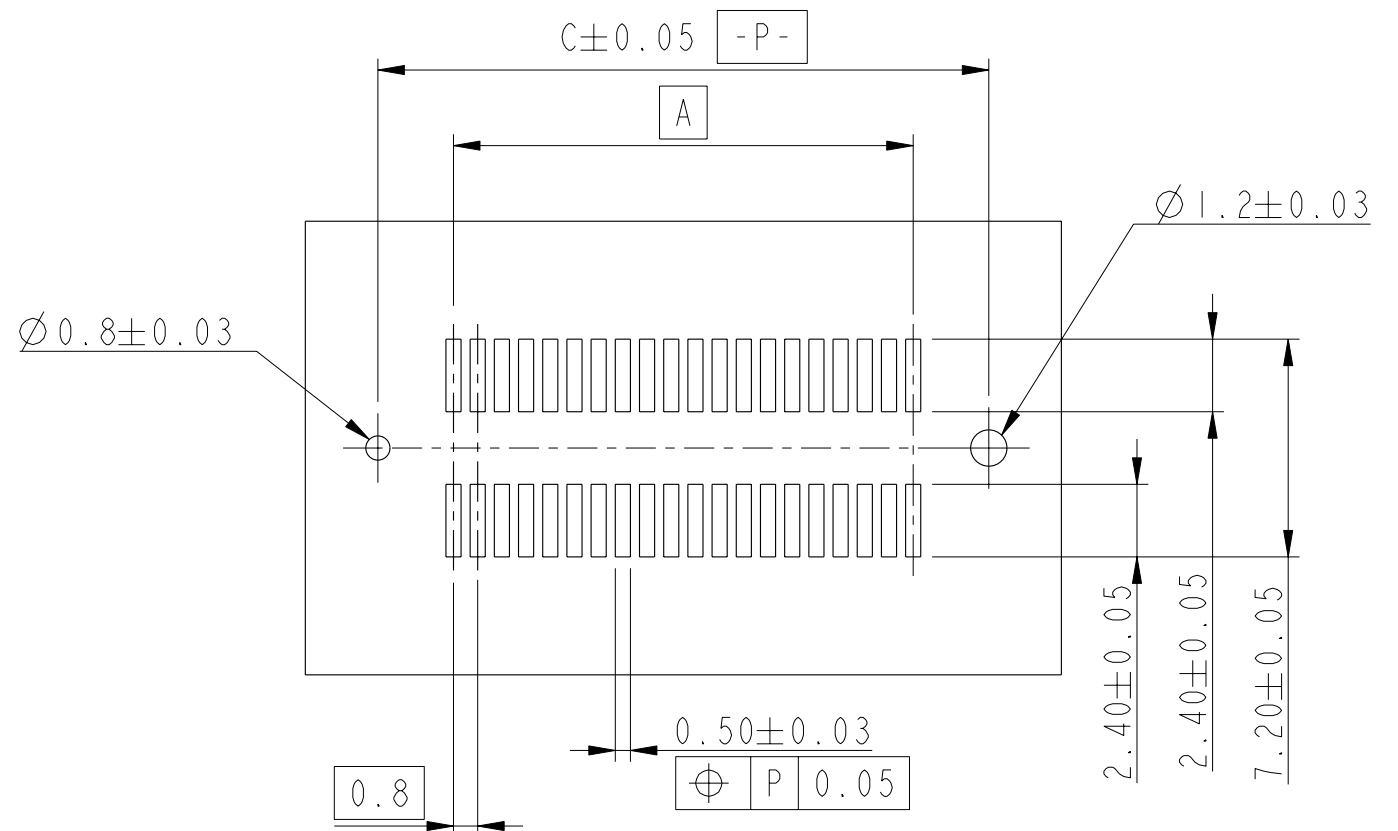
CUSTOMER

sheet 5 of 6

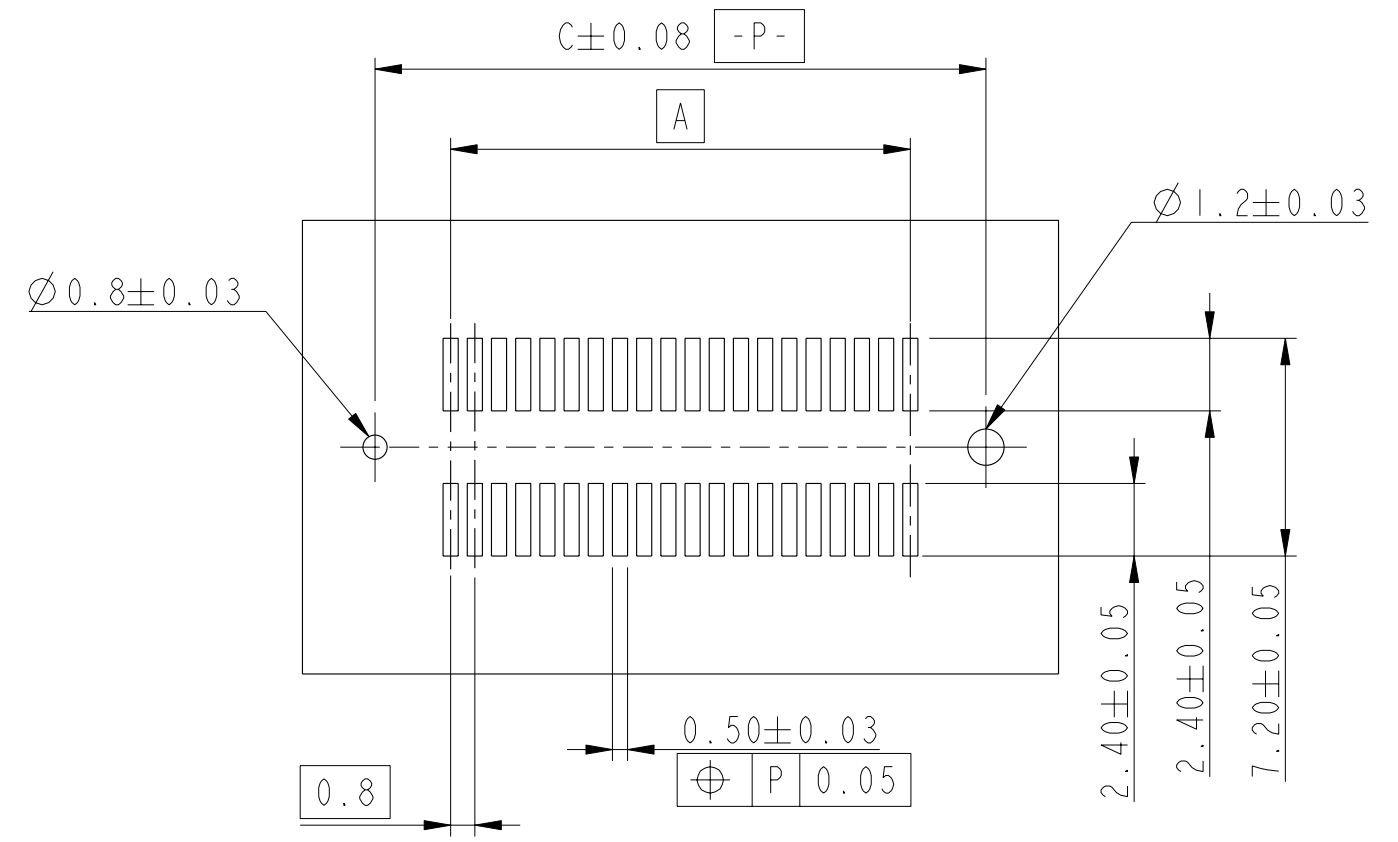
RECEPTACLE 2 & 3



RECOMMENDED PCB LAYOUT WITHOUT PEGS AND HOLDDOWN



RECOMMENDED PCB LAYOUT WITH PEGS
FOR NO. OF POSITION 2X20, 2X30, 2X40, 2X50, 2X60



RECOMMENDED PCB LAYOUT WITH PEGS
FOR NO. OF POSITION 2X70, 2X80, 2X90, 2X100

FCi	title	BERGSTAK 0.8MM	dwg no	61082	Rev.
		RECEPTACLE ASSY			AA
	catalog no	-	CUSTOMER	sheet 6 of 6	