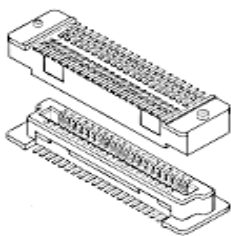


61083-184402LF - Bergstak®
: 180 Positions, Dual Row,
BTB Vertical Header



www.fci.com

Mating Half

- 61082-181400LF
- 61082-181402LF
- 61082-182400LF
- 61082-182402LF
- 61082-183400LF

Specifications

General	
Gender	Plug
Number of contacts (Total)	180
Mating half	Mates with all 180 Positions Bergstak® Receptacles Base P/N 61082
Dimensional	
Height (Mated)	8 mm(0.315 in.) 12 mm(0.472 in.) 16 mm(0.63 in.)
Dim A (in)	2.803 in.
Dim A (mm)	71.2 mm
Dim B (in)	3.063 in.
Dim B (mm)	77.8 mm
Dim C (in)	3 in.
Dim C (mm)	76.2 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 µin.) Gold
Plating (Tail)	Matte-Tin
Underplating (Contact)	1.27 µm (50 µin.) 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 Production)	Yes
Most Popular Configuration	Yes
Packaging (Type)	Tape and Reel, with vacuum pickup caps
Vacuum Pick-up Cap	Yes
Literature	950547-001



61083-

AA B C D E FF

AA	NO. OF POSITIONS
04	2X20
06	2X30
08	2X40
10	2X50
12	2X60
14	2X70
16	2X80
18	2X90
20	2X100

B			
1	2	3	4
FOR COMBINATION OF MATED HEIGHT, SEE DWG. NO. 61082			

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)
7	T&R WITH PLASTIC PICK UP CAP. (SEE NOTE 11)

D	FEATURE	HOLD DOWN
0	YES	NO
2	NO	NO

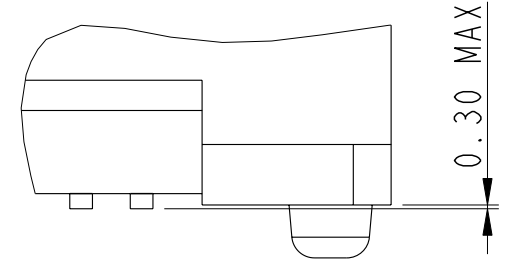
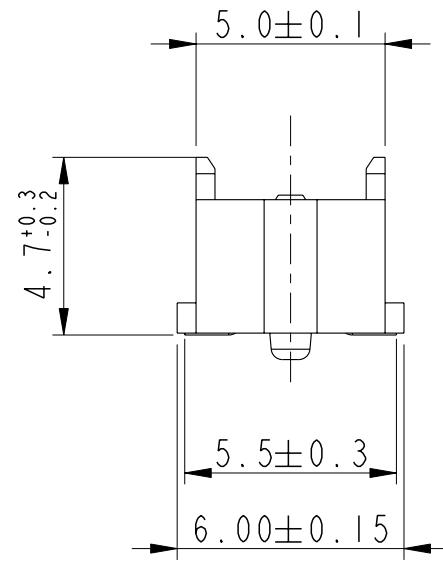
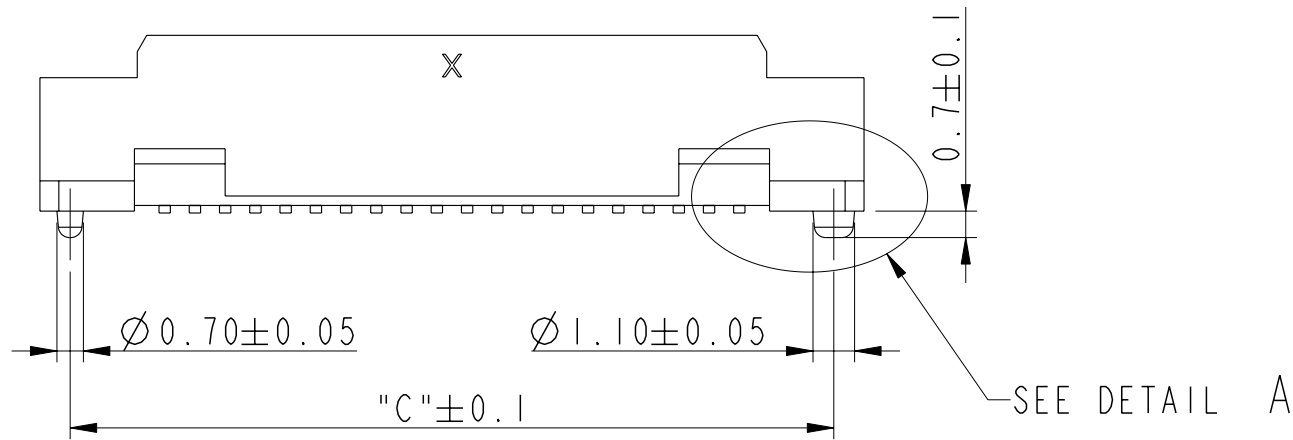
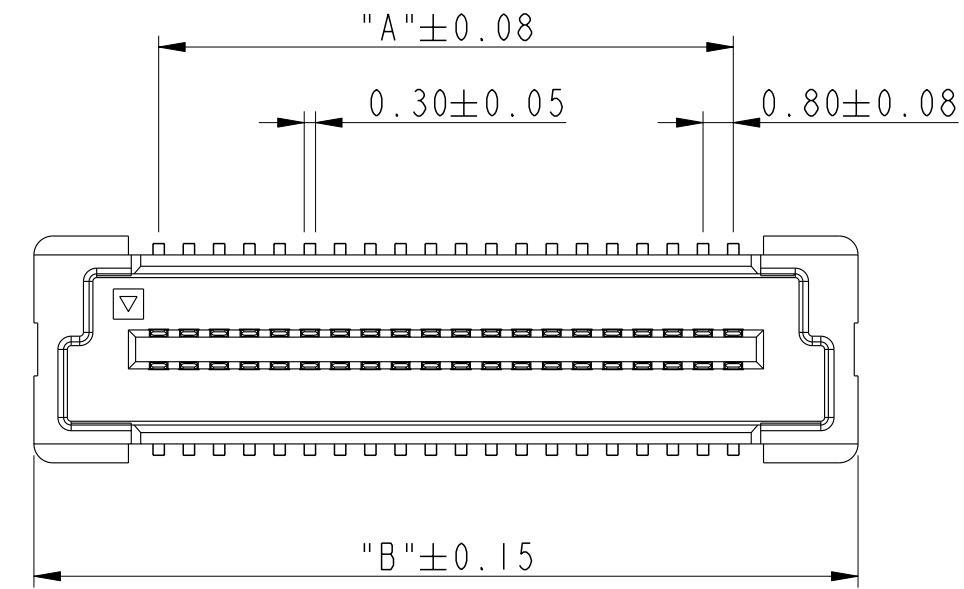
NOTE:

- MATERIAL:
HOUSING: G.F. LCP, UL94-V0
TERMINAL: BRASS
- PLATING:
AS SHOWN IN TABLE.
- SEE GS-12-547 FOR PRODUCT SPEC.
- SEE GS-14-551 AND GS-14-816 FOR PACKAGING SPEC.
- PACKAGING OPTION 2: NOT ALL SIZES ARE AVAILABLE. CHECK WITH FACTORY.
- THIS PRODUCT MEETS THE EUROPEAN UNION DIRECTIVES AND OTHER COUNTRY REGULATIONS AS DESCRIBED IN GS-22-008.
- THE HOUSING WILL WITHSTAND EXPOSURE UP TO 260° PEAK TEMPERATURE FOR 10 SECONDS IN A CONVECTION, INFRA-RED OR VAPOR PHASE 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 10069525.
- A SYMBOL WILL BE NEXT TO ANY DIMENSION, VIEW OR NOTE WHICH HAS BEEN MODIFIED WITH THE CURRENT DRAWING REVISION.
- PLASTIC PICK UP CAP OPTION IS ONLY AVAILABLE TO P/N: 61083-043607LF.

C	PLATING	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.	NONE
4	GOLD 0.2um MIN / PURE MATT TIN NICKEL UNDERPLATE OVERALL 1.27um. (LEADFREE PLATING)	LF (NOTE 6 & 8)
5	GOLD 0.38um MIN / MATT PURE TIN NICKEL UNDERPLATE OVERALL 1.27UM MIN (LEADFREE PLATING)	LF (NOTE 6 & 8)
6	GOLD FLASH (0.1um MIN) OVER PALLADIUM-NICKEL 0.76um MIN / PURE MATT TIN NICKEL UNDERPLATE OVERALL 1.27um. (LEADFREE PLATING)	LF (NOTE 6 & 8)

spec ref				dr	MAGGIE WU	1999-03-24	projection	mm	size	A3	scale	3:1
tolerance std	TOLERANCES UNLESS OTHERWISE SPECIFIED			eng	YU WEN CHU	1999-03-24			ecn no	ELX-S-01048		
				chr	M CHEONG	2012-03-06						
				appr	CH TAN	2012-03-06						
						product family	BERGSTAK	-	rel level	RELEASE		
surface	linear	0.X	±0.2		title BERGSTAK 0.8mm BTB PLUG ASSY				dwg no 61083		rev AE	
		0.XX	±0.15									
		0.XXX	±0.10									
	angular	0°	±2°	www.fci.com	cat. no.		-	Product - Customer Drw			sheet 1 of 6	

PRODUCT NO.	NO. OF POSITION	DIMENSION		
		A	B	C
61083-041***	2X20	15.2	21.8	20.2
61083-061***	2X30	23.2	29.8	28.2
61083-081***	2X40	31.2	37.8	36.2
61083-101***	2X50	39.2	45.8	44.2
61083-121***	2X60	47.2	53.8	52.2
61083-141***	2X70	55.2	61.8	60.2
61083-161***	2X80	63.2	69.8	68.2
61083-181***	2X90	71.2	77.8	76.2
61083-201***	2X100	79.2	85.8	84.2



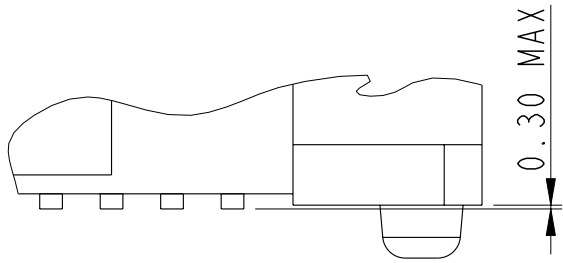
COPLANARITY OF TAIL:
0.1 MAX. APPLIED TO 2X20 TO 2X100 POS

DETAIL A
SCALE 10:1

PLUG I

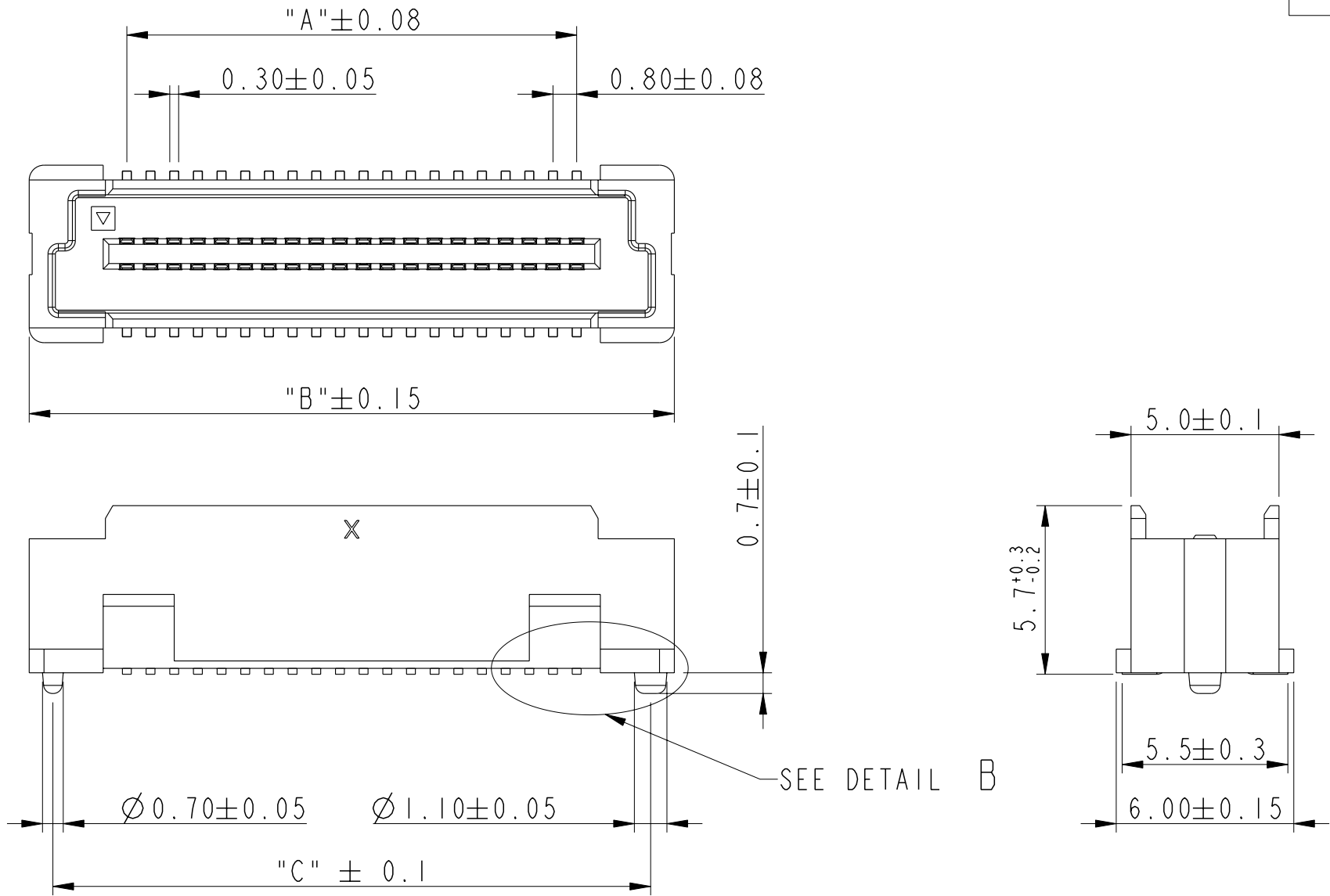
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tolerance std	TOLERANCES UNLESS OTHERWISE SPECIFIED			eng	YU WEN CHU	1999-03-24			ecn no	ELX-S-010487			
				chr	M CHEONG	2012-03-06							
				appr	CH TAN	2012-03-06							product family
surface 	linear	0.X	±0.2		title BERGSTAK 0.8mm BTB PLUG ASSY				dwg no 61083				rev AE
		0.XX	±0.15										
		0.XXX	±0.10										
		angular	0°	±2°	www.fci.com	cat. no.	-	Product - Customer Drw				sheet 2 of 6	

PRODUCT NO.	NO. OF POSITION	DIMENSION		
		A	B	C
61083-042***	2X20	15.2	21.8	20.2
61083-062***	2X30	23.2	29.8	28.2
61083-082***	2X40	31.2	37.8	36.2
61083-102***	2X50	39.2	45.8	44.2
61083-122***	2X60	47.2	53.8	52.2
61083-142***	2X70	55.2	61.8	60.2
61083-162***	2X80	63.2	69.8	68.2
61083-182***	2X90	71.2	77.8	76.2
61083-202***	2X100	79.2	85.8	84.2

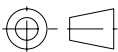


COPLANARITY OF TAIL
0.1 MAX. APPLIED TO 2X20 TO 2X100 POS

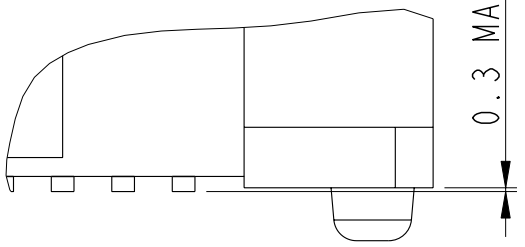
DETAIL B
SCALE 10:1



PLUG 2

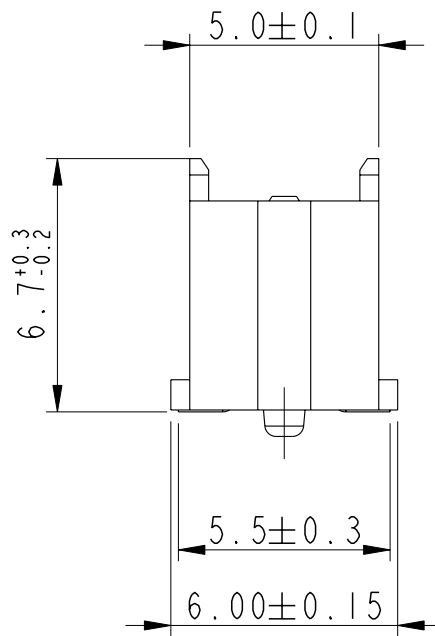
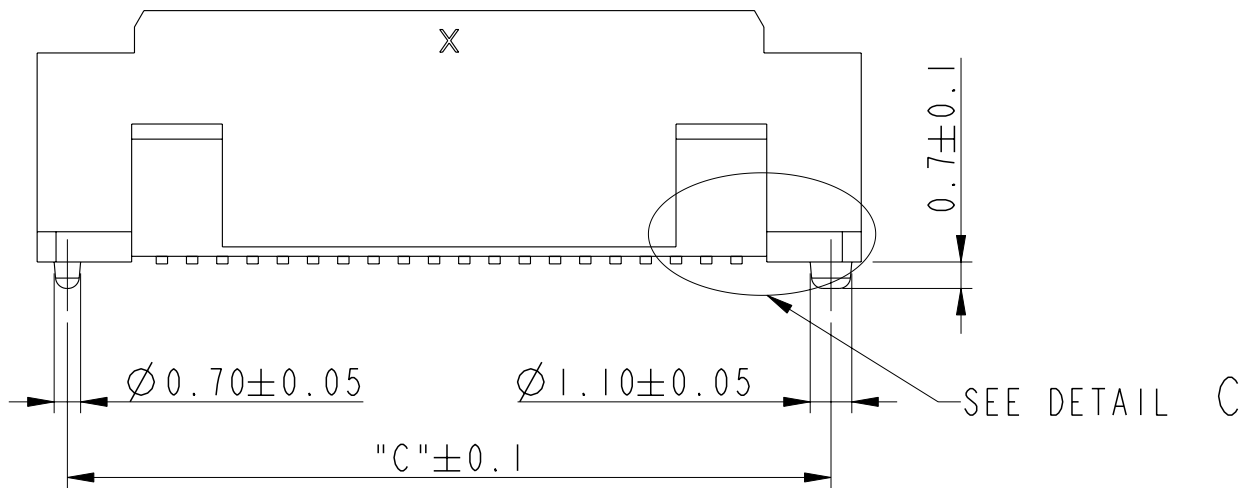
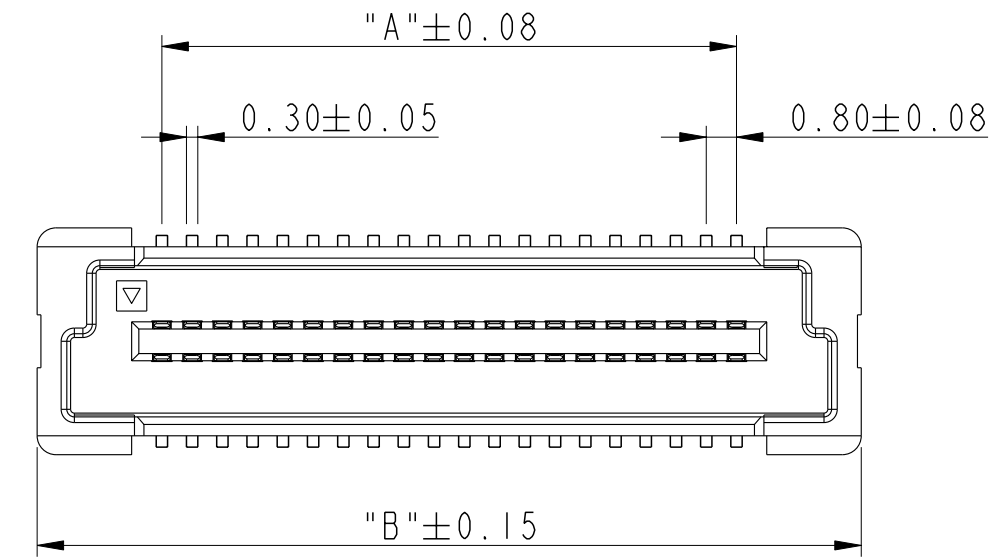
spec ref				dr	MAGGIE WU	1999-03-24			size	A3	scale	3:1			
tolerance std	TOLERANCES UNLESS OTHERWISE SPECIFIED			eng	YU WEN CHU	1999-03-24			ecn no	ELX-S-010487					
				chr	M CHEONG	2012-03-06									
				appr	CH TAN	2012-03-06									
							product family	BERGSTAK		-	rel level	RELEASE			
surface 	linear	0.X	±0.2		title				BERGSTAK 0.8mm BTB		dwg no	61083		rev	AE
		0.XX	±0.15												
		0.XXX	±0.10												
	angular	0°	±2°	www.fci.com	cat. no.		-	Product - Customer Drw				sheet 3 of 6			

PRODUCT NO.	NO. OF POSITION	DIMENSION		
		A	B	C
61083-043***	2X20	15.2	21.8	20.2
61083-063***	2X30	23.2	29.8	28.2
61083-083***	2X40	31.2	37.8	36.2
61083-103***	2X50	39.2	45.8	44.2
61083-123***	2X60	47.2	53.8	52.2
61083-143***	2X70	55.2	61.8	60.2
61083-163***	2X80	63.2	69.8	68.2
61083-183***	2X90	71.2	77.8	76.2
61083-203***	2X100	79.2	85.8	84.2



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

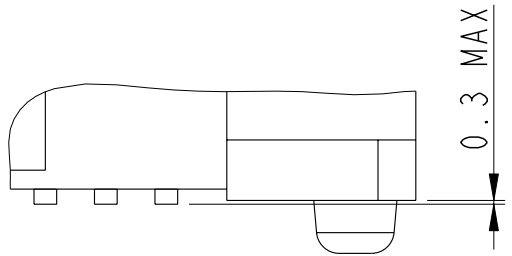
DETAIL C
SCALE 10:1



PLUG 3

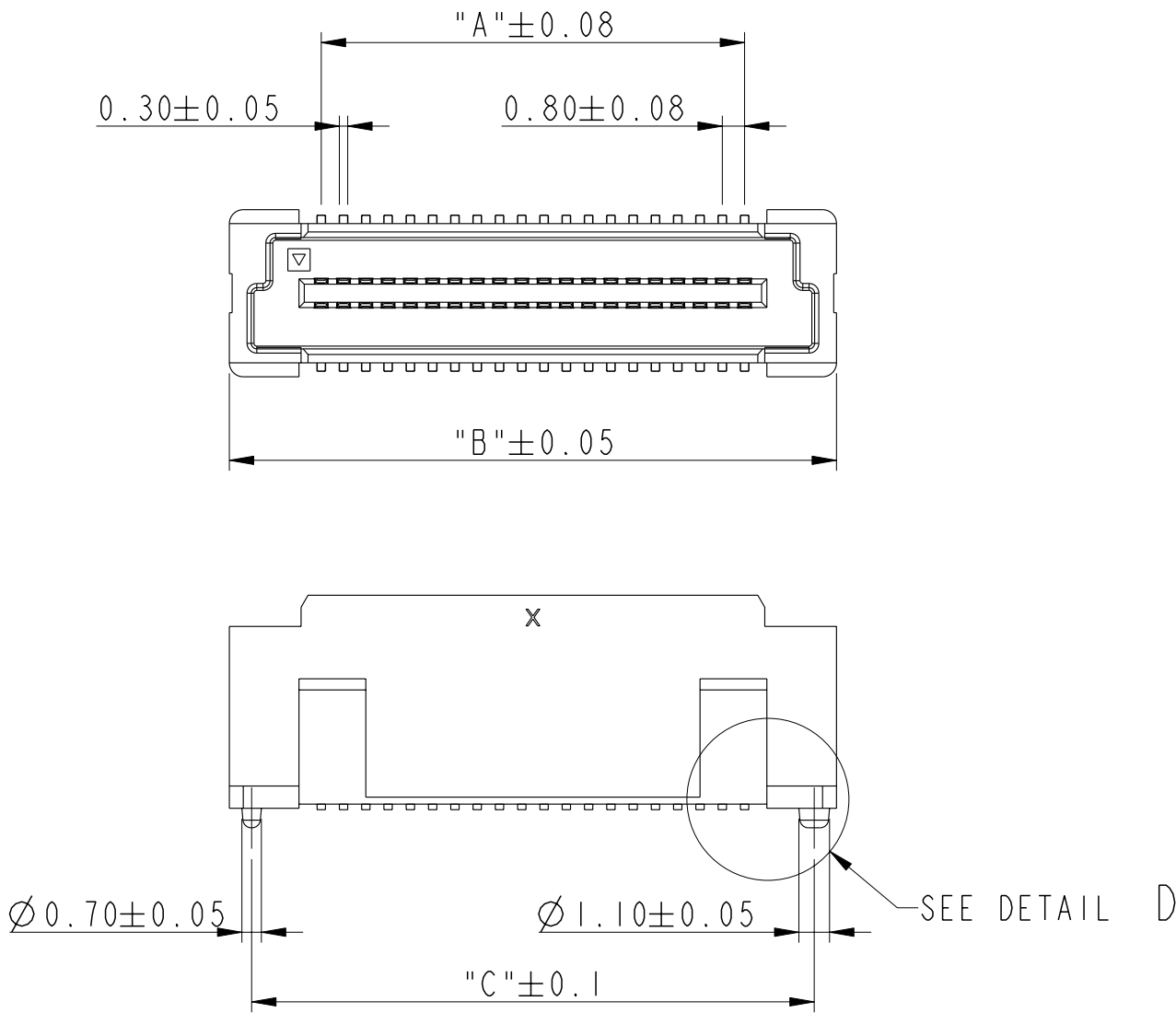
spec ref				dr		MAGGIE WU		1999-03-24		projection		mm		size		A3		scale		3:1									
tolerance std		TOLERANCES UNLESS OTHERWISE SPECIFIED						eng						YU WEN CHU		1999-03-24		ecn no		ELX-S-010487									
								chr		M CHEONG		2012-03-06																	
								appr		CH TAN		2012-03-06		product family				BERGSTAK		-		rel level		RELEASE					
surface		linear		0.X		±0.2				title				BERGSTAK 0.8mm BTB				dwg no				61083				rev		AE	
				0.XX		±0.15																							
				0.XXX		±0.10																							
		angular		0°		±2°		www.fci.com		cat. no.		-		Product - Customer Drw				sheet 4 of 6											

PRODUCT NO.	NO. OF POSITION	DIMENSION		
		A	B	C
61083-044***	2X20	15.2	21.8	20.2
61083-064***	2X30	23.2	29.8	28.2
61083-084***	2X40	31.2	37.8	36.2
61083-104***	2X50	39.2	45.8	44.2
61083-124***	2X60	47.2	53.8	52.2
61083-144***	2X70	55.2	61.8	60.2
61083-164***	2X80	63.2	69.8	68.2
61083-184***	2X90	71.2	77.8	76.2
61083-204***	2X100	79.2	85.8	84.2



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

DETAIL D
SCALE 10:1



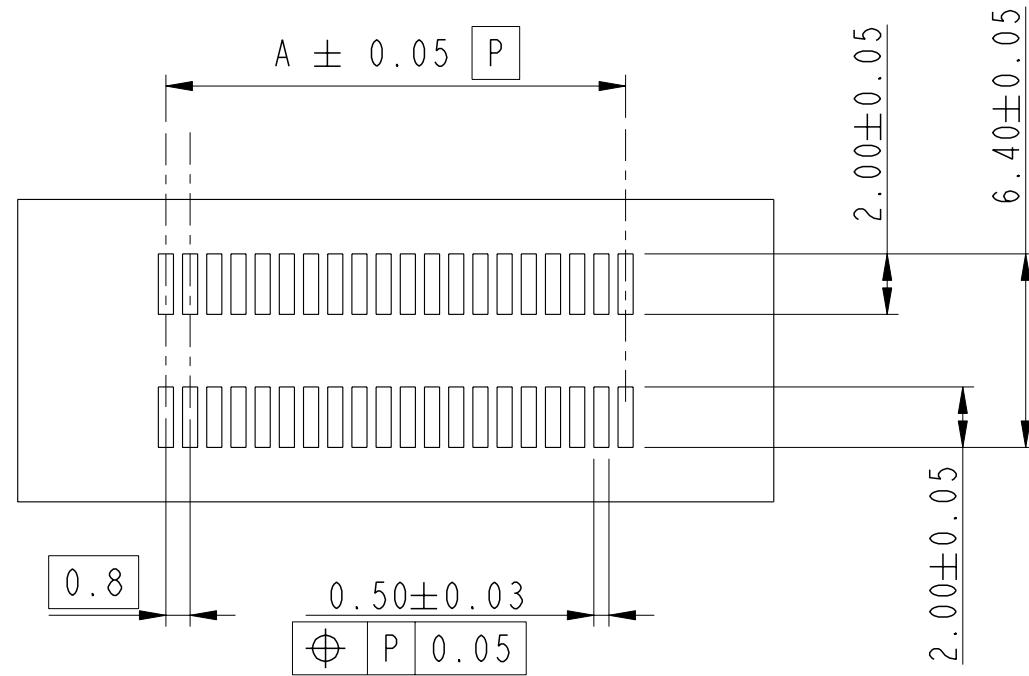
PLUG 4

spec ref				dr		MAGGIE WU		1999-03-24		projection 		mm 		size		A3		scale		3:1									
tolerance std		TOLERANCES UNLESS OTHERWISE SPECIFIED				eng		YU WEN CHU						1999-03-24		ecn no				ELX-S-010487									
						chr		M CHEONG		2012-03-06																			
												appr		CH TAN		2012-03-06		product family				BERGSTAK				-		rel level	
surface 		linear		0.X		±0.2				title		BERGSTAK 0.8mm BTB						dwg no		61083						rev		AE	
				0.XX		±0.15																							
				0.XXX		±0.10																							
		angular		0°		±2°		www.fci.com		cat. no.		-		Product - Customer Drw						sheet 5 of 6									

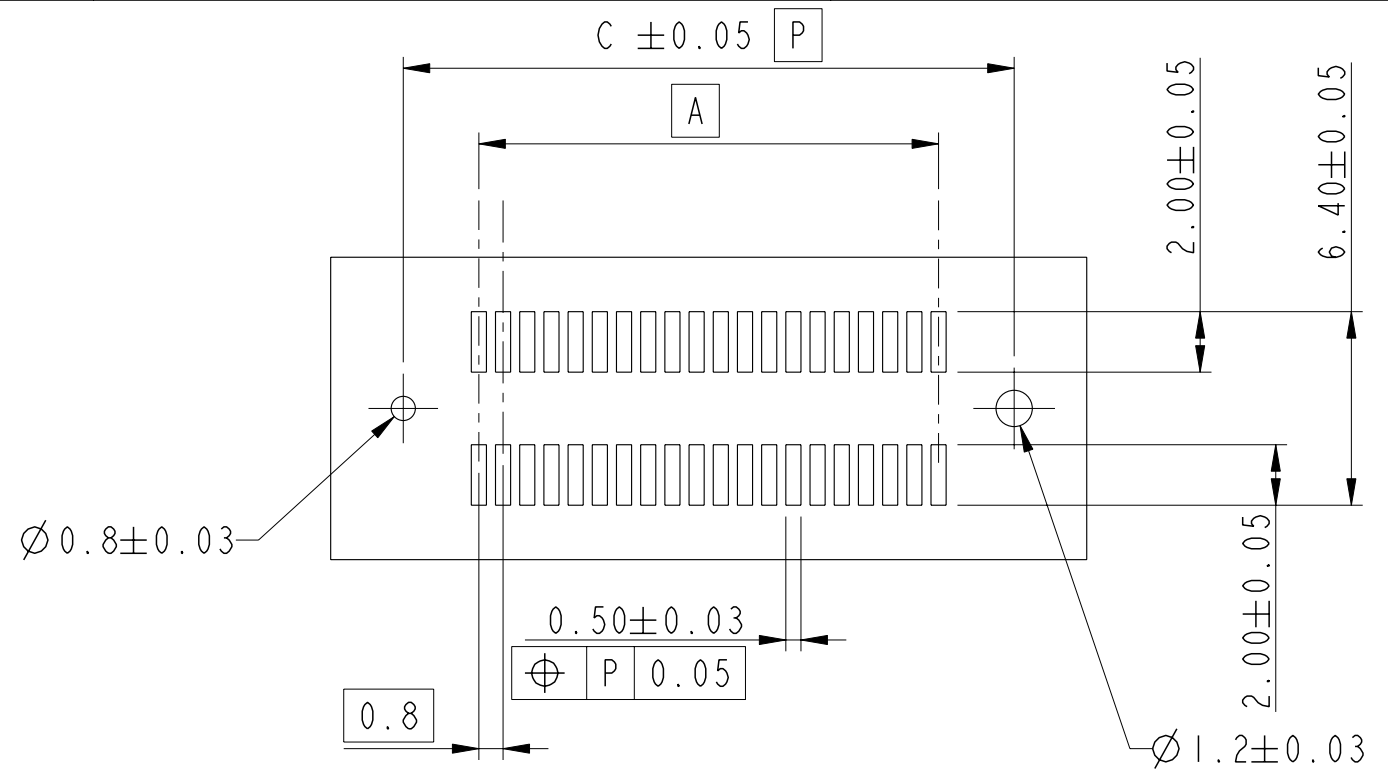


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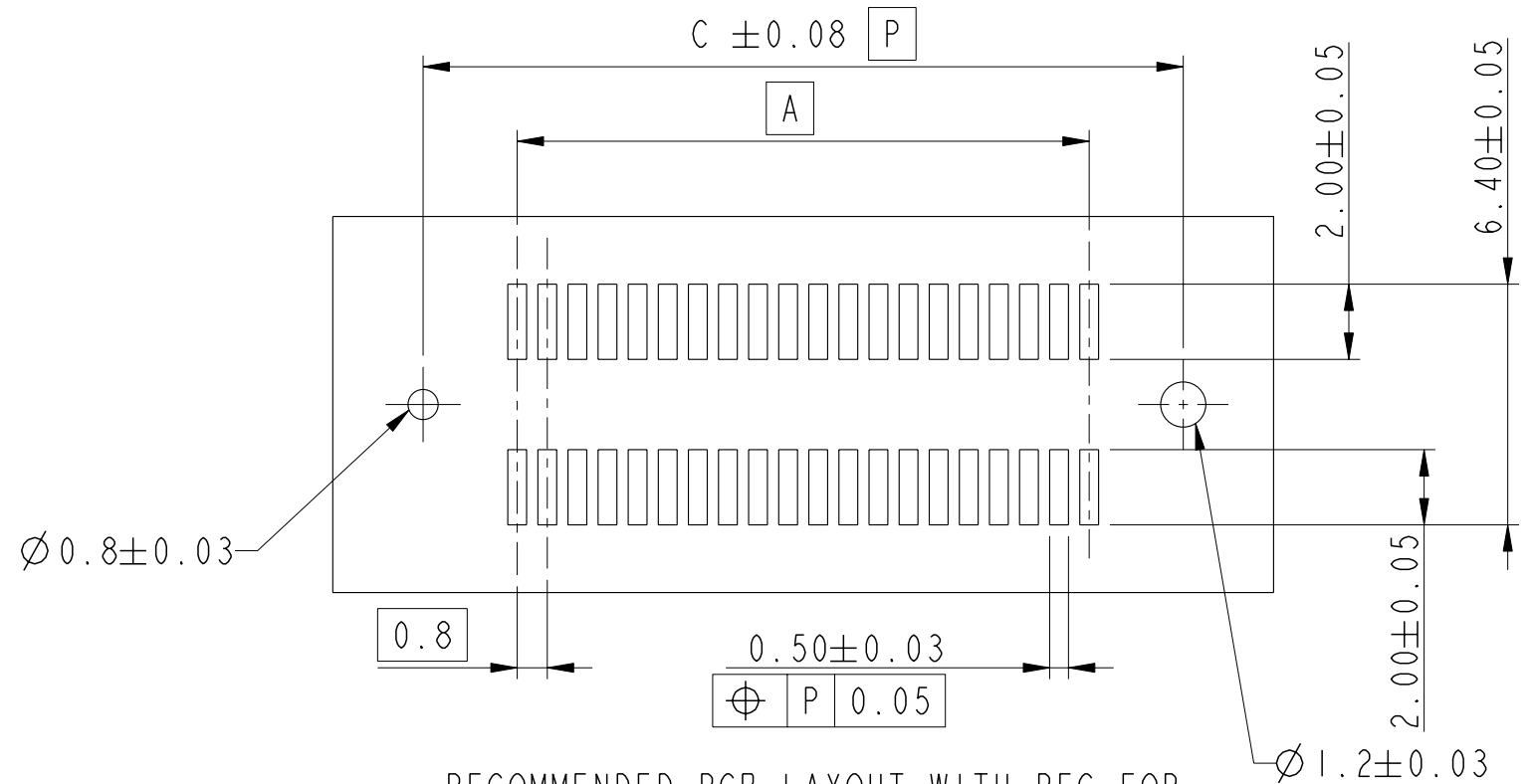
FOR PLUG 1/2/3/4



RECOMMENDED PCB LAYOUT WITHOUT PEG AND HOLDDOWN FOR
NO. OF POS 2X20, 2X30, 2X40, 2X50 2X60



RECOMMENDED PCB LAYOUT WITH PEG FOR
NO. OF POS 2X20, 2X30, 2X40, 2X50 2X60



RECOMMENDED PCB LAYOUT WITH PEG FOR
NO. OF POS 2X70, 2X80, 2X90, 2X100

spec ref				dr	MAGGIE WU	1999-03-24	projection	mm	size	A3	scale	3:1
tolerance std	TOLERANCES UNLESS OTHERWISE SPECIFIED			eng	YU WEN CHU	1999-03-24			ecn noELX-S-010487			
				chr	M CHEONG	2012-03-06						
				appr	CH TAN	2012-03-06						
							product family	BERGSTAK	-	rel levelRELEASE		
surface -	linear	0.X	±0.2		titleBERGSTAK 0.8mm BTB PLUG ASSY				dwg no61083		revAE	
		0.XX	±0.15									
		0.XXX	±0.10									
	angular	0°	±2°	www.fci.com	cat. no.		-	Product - Customer Drw			sheet 6 of 6	