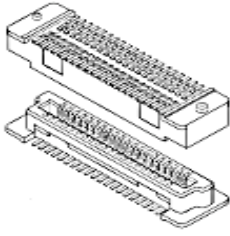


61083-044402LF - Bergstak®  
: 40 Positions, Dual Row, BTB  
Vertical Header



[www.fci.com](http://www.fci.com)

## Mating Half

- ▶ 61082-041400LF
- ▶ 61082-041402LF
- ▶ 61082-042400LF
- ▶ 61082-042402LF
- ▶ 61082-043400LF

## Specifications

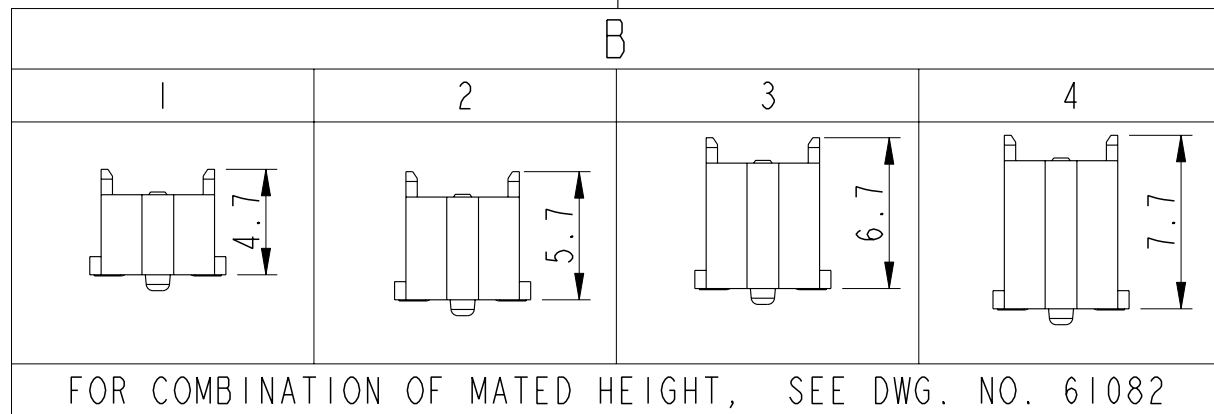
General	
Gender	Plug
Number of contacts (Total)	40
Mating half	Mates with all 40 Positions Bergstak® Receptacles Base P/N 61082
Dimensional	
Height (Mated)	8 mm(0.315 in.) 12 mm(0.472 in.) 16 mm(0.63 in.)
Dim A (in)	0.598 in.
Dim A (mm)	15.2 mm
Dim B (in)	0.858 in.
Dim B (mm)	21.8 mm
Dim C (in)	0.795 in.
Dim C (mm)	20.2 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

<b>Physical</b>	
<b>Material (Contact)</b>	Copper Alloy
<b>Material (Housing)</b>	LCP
<b>Plating (Contact area)</b>	0.2 µm (8 µin.) Gold
<b>Plating (Tail)</b>	Matte-Tin
<b>Underplating (Contact)</b>	1.27 µm (50 µin.) Nickel
<b>Resistance to Solder Heat</b>	240°C for 30 sec
<b>Temperature (Range)</b>	-40°C to +125°C
<b>Approvals / Certifications</b>	
<b>UL File Number</b>	E66906
<b>CSA File Number</b>	LR46923
<b>Approvals / Certifications</b>	UL and CSA Approved
<b>Other Features</b>	
<b>Popular Configuration (Customer Production)</b>	Yes
<b>Most Popular Configuration</b>	Yes
<b>Packaging (Type)</b>	Tape and Reel, with vacuum pickup caps
<b>Vacuum Pick-up Cap</b>	Yes
<b>Literature</b>	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



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

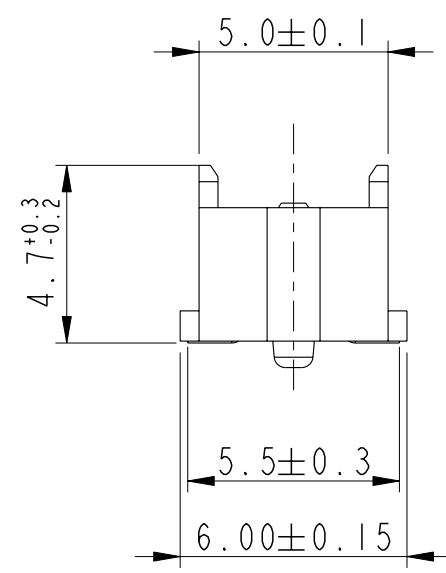
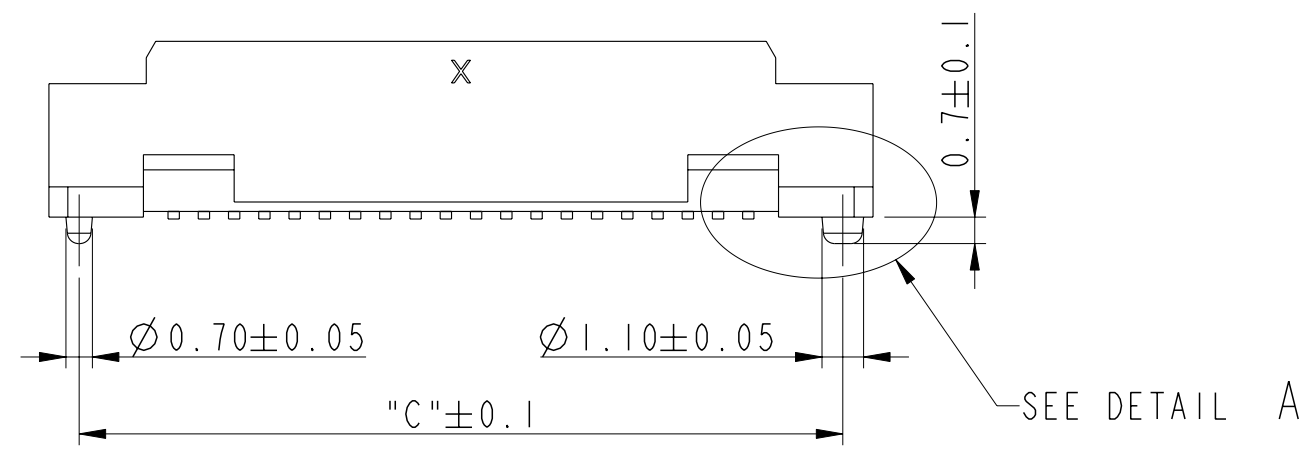
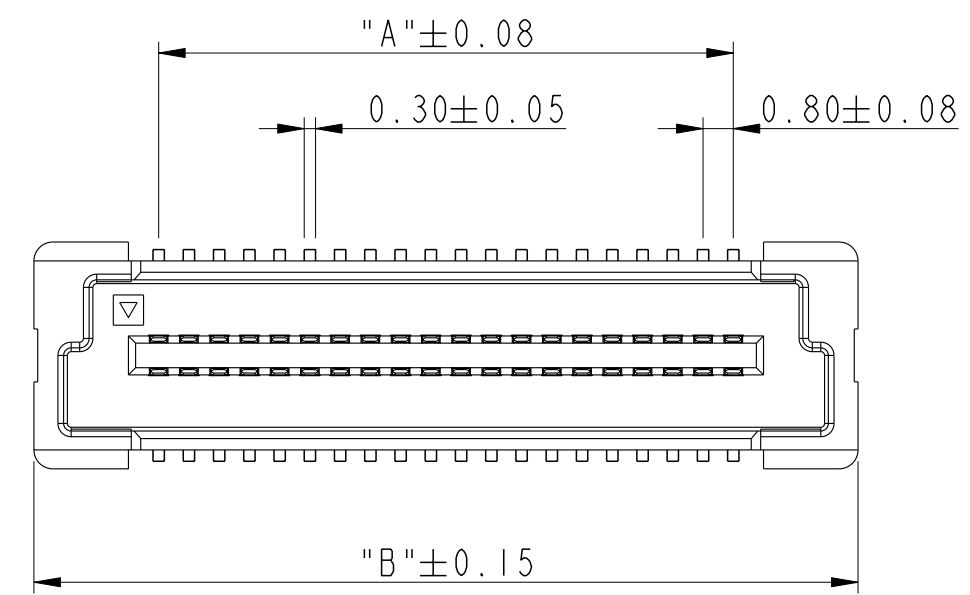
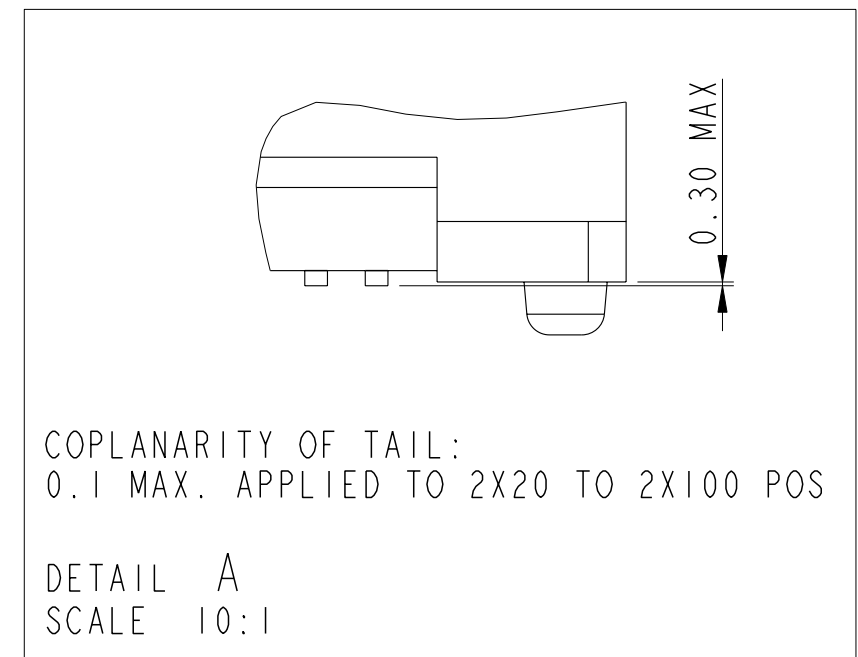
NOTE:

- 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				← →	ecn no	ELX-S-010487	rel level	RELEASE
	eng	YU WEN CHU	1999-03-24						
	chr	M CHEONG	2012-03-06						
	appr	CH TAN	2012-03-06						
product family	BERGSTAK		-	product family	BERGSTAK		-	rel level	RELEASE
surface	linear	0.X	±0.2		title	BERGSTAK 0.8mm BTB	dwg no	61083	rev
		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



PLUG 1

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

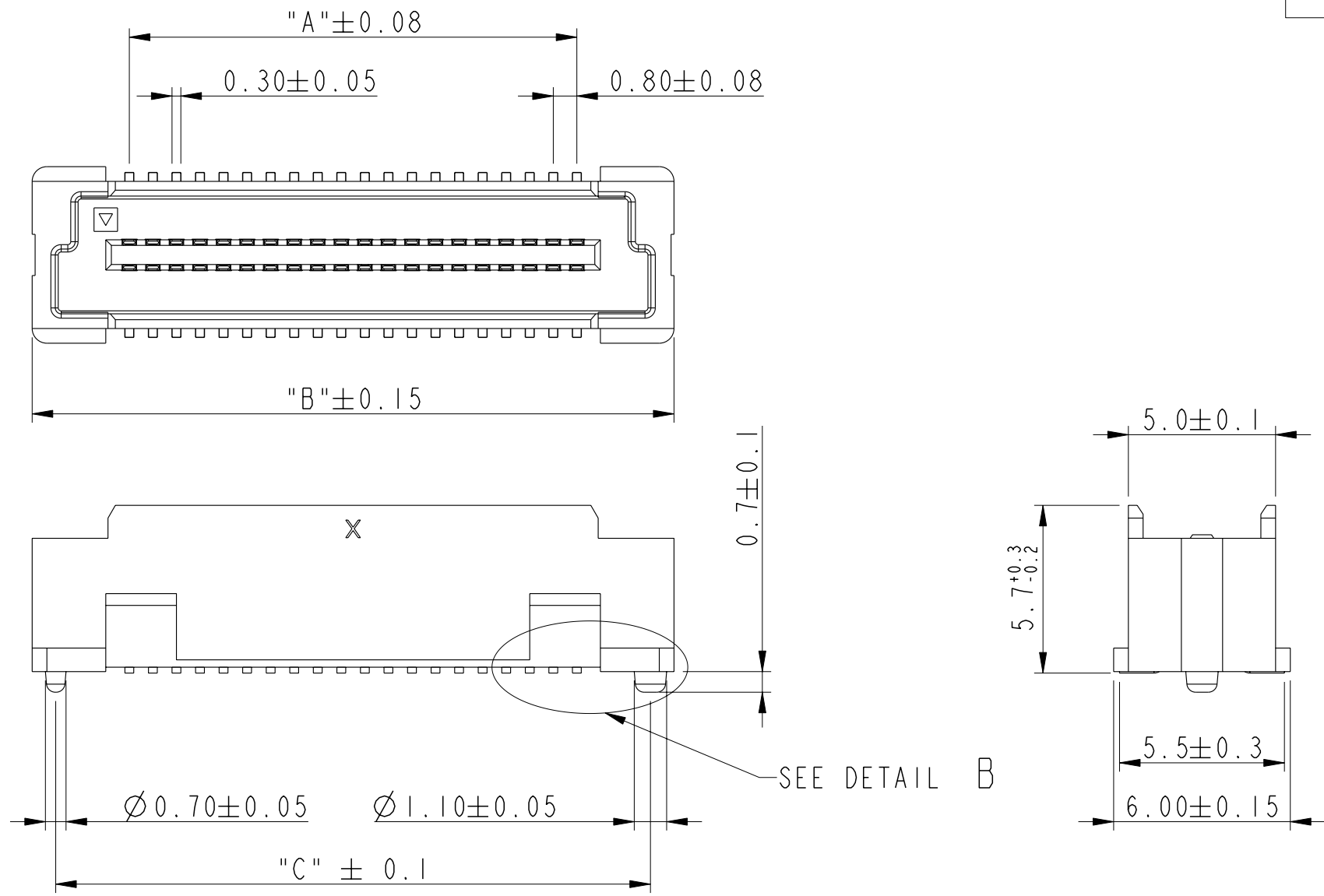


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PRODUCT NO.	NO. OF POSITION	DIMENSION		
		A	B	C
61083-042***	2X20	15.2	21.8	20.2
61083-062***	2X30	23.2	29.8	28.2
61083-082***	2X40	31.2	37.8	36.2
61083-102***	2X50	39.2	45.8	44.2
61083-122***	2X60	47.2	53.8	52.2
61083-142***	2X70	55.2	61.8	60.2
61083-162***	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	projection	mm	size	A3	scale	3:1
tolerance std	eng	YU WEN CHU	1999-03-24			ecn no	ELX-S-010487	rel level	RELEASE
TOLERANCES UNLESS OTHERWISE SPECIFIED	chr	M CHEONG	2012-03-06						
	appr	CH TAN	2012-03-06	product family	BERGSTAK				
	surface	linear	0.X	±0.2	www.fci.com	cat. no.	-	Product - Customer Drw	sheet 3 of 6
		0.XX	±0.15		title BERGSTAK 0.8mm BTB PLUG ASSY	dwg no 61083	rev AE		
		0.XXX	±0.10						
	angular	0°	±2°						

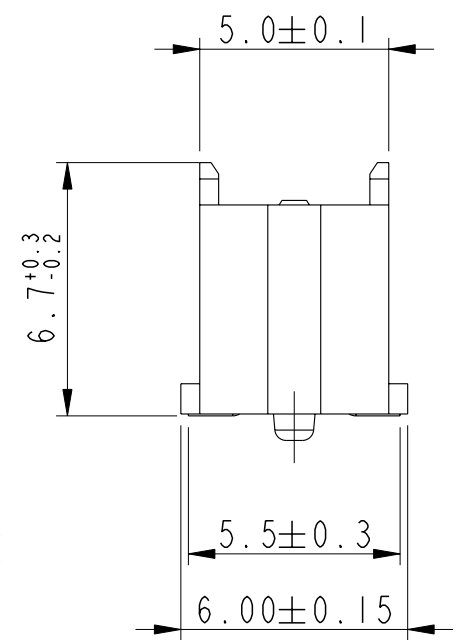
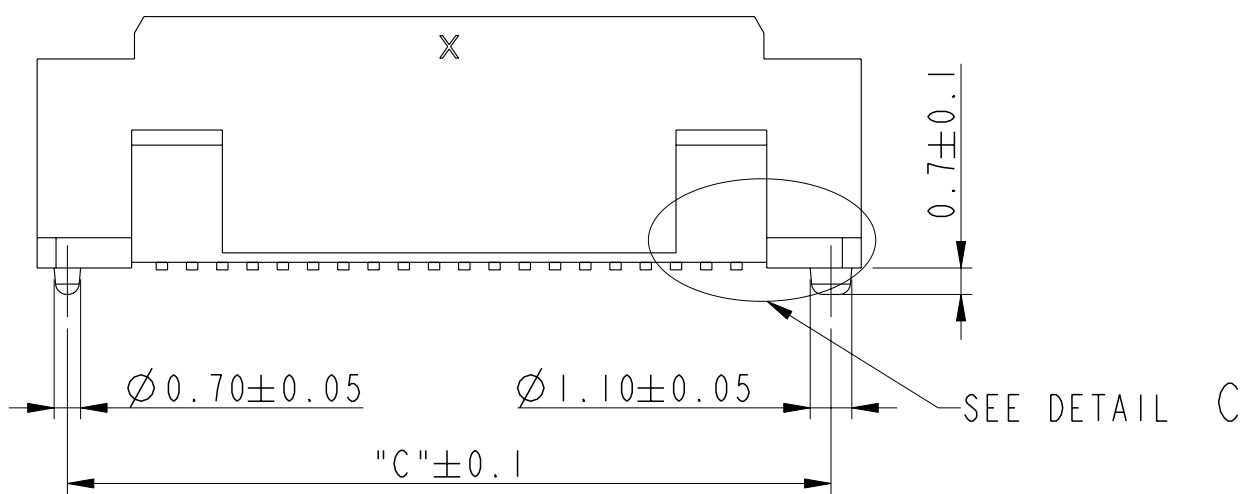
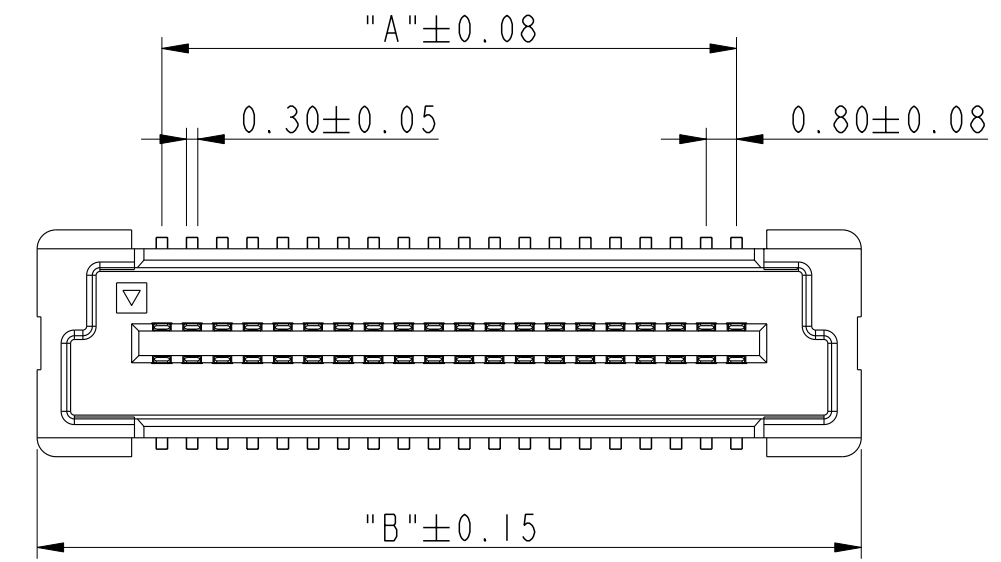


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PRODUCT NO.	NO. OF POSITION	DIMENSION		
		A	B	C
61083-043***	2X20	15.2	21.8	20.2
61083-063***	2X30	23.2	29.8	28.2
61083-083***	2X40	31.2	37.8	36.2
61083-103***	2X50	39.2	45.8	44.2
61083-123***	2X60	47.2	53.8	52.2
61083-143***	2X70	55.2	61.8	60.2
61083-163***	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

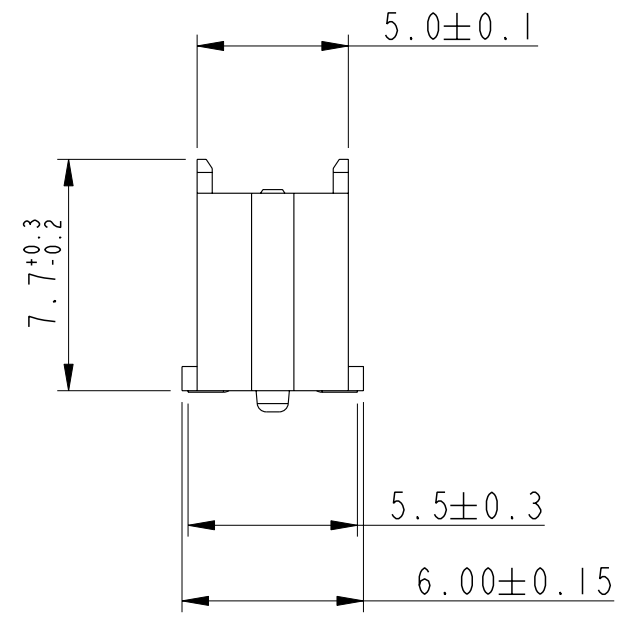
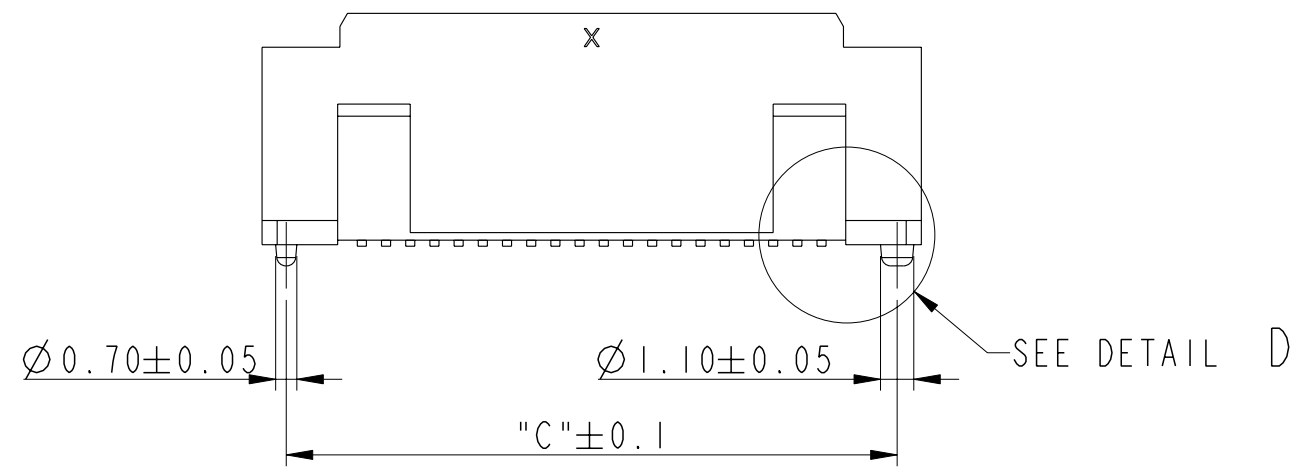
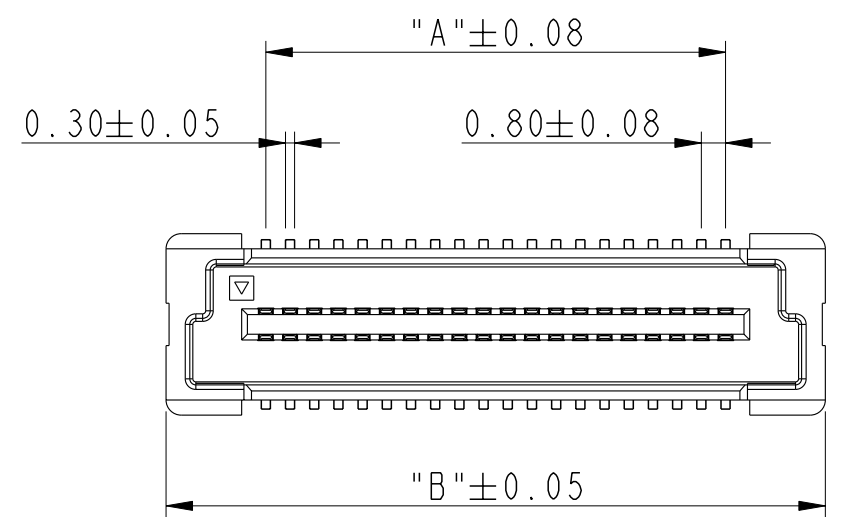
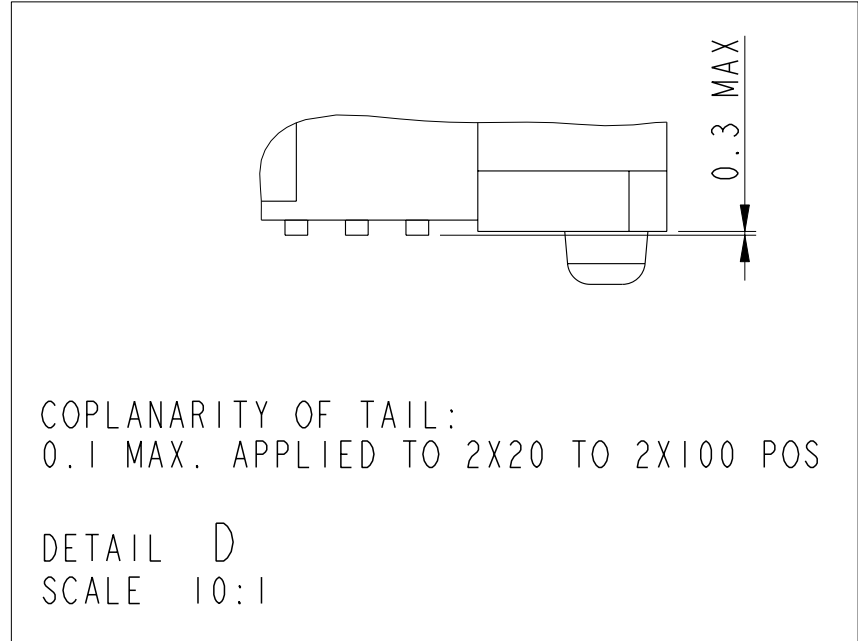


PLUG 3

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

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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



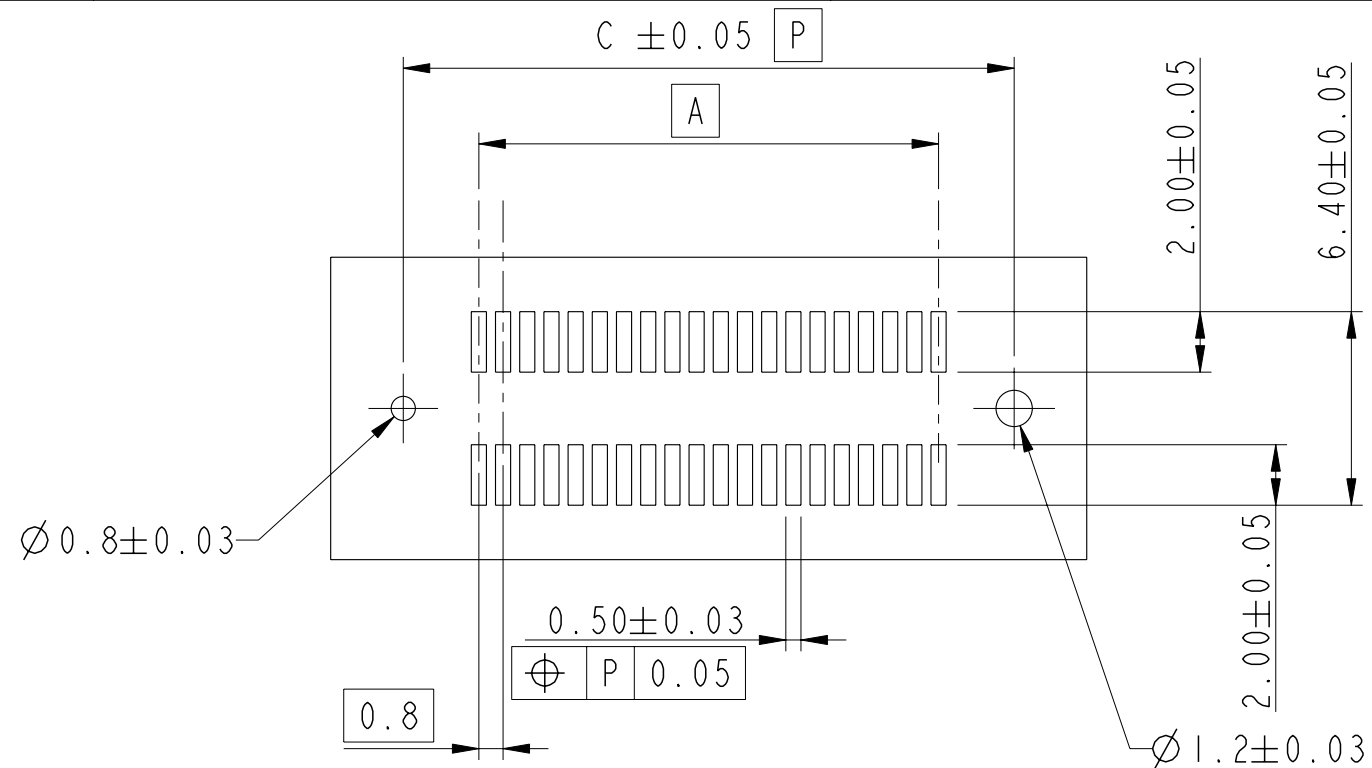
PLUG 4

spec ref	dr	MAGGIE WU	1999-03-24	projection	mm	size	A3	scale	3:1		
tolerance std	TOLERANCES UNLESS OTHERWISE SPECIFIED					ecn no	ELX-S-010487				
	eng	YU WEN CHU	1999-03-24				product family	BERGSTAK	rel level	RELEASE	
	chr	M CHEONG	2012-03-06								
appr	CH TAN	2012-03-06									
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 5 of 6			

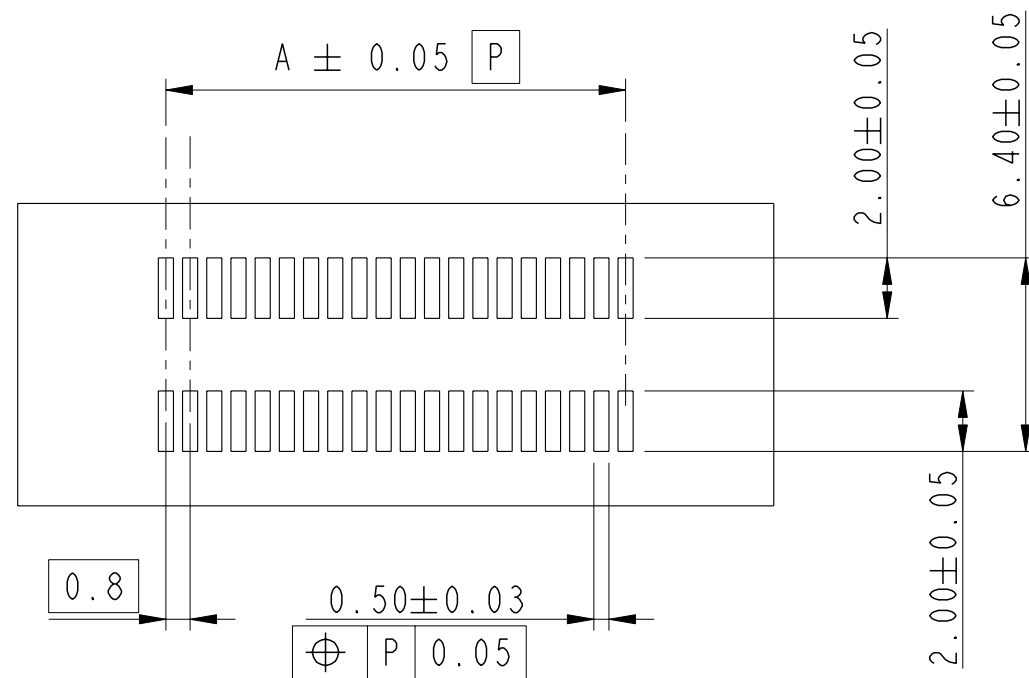


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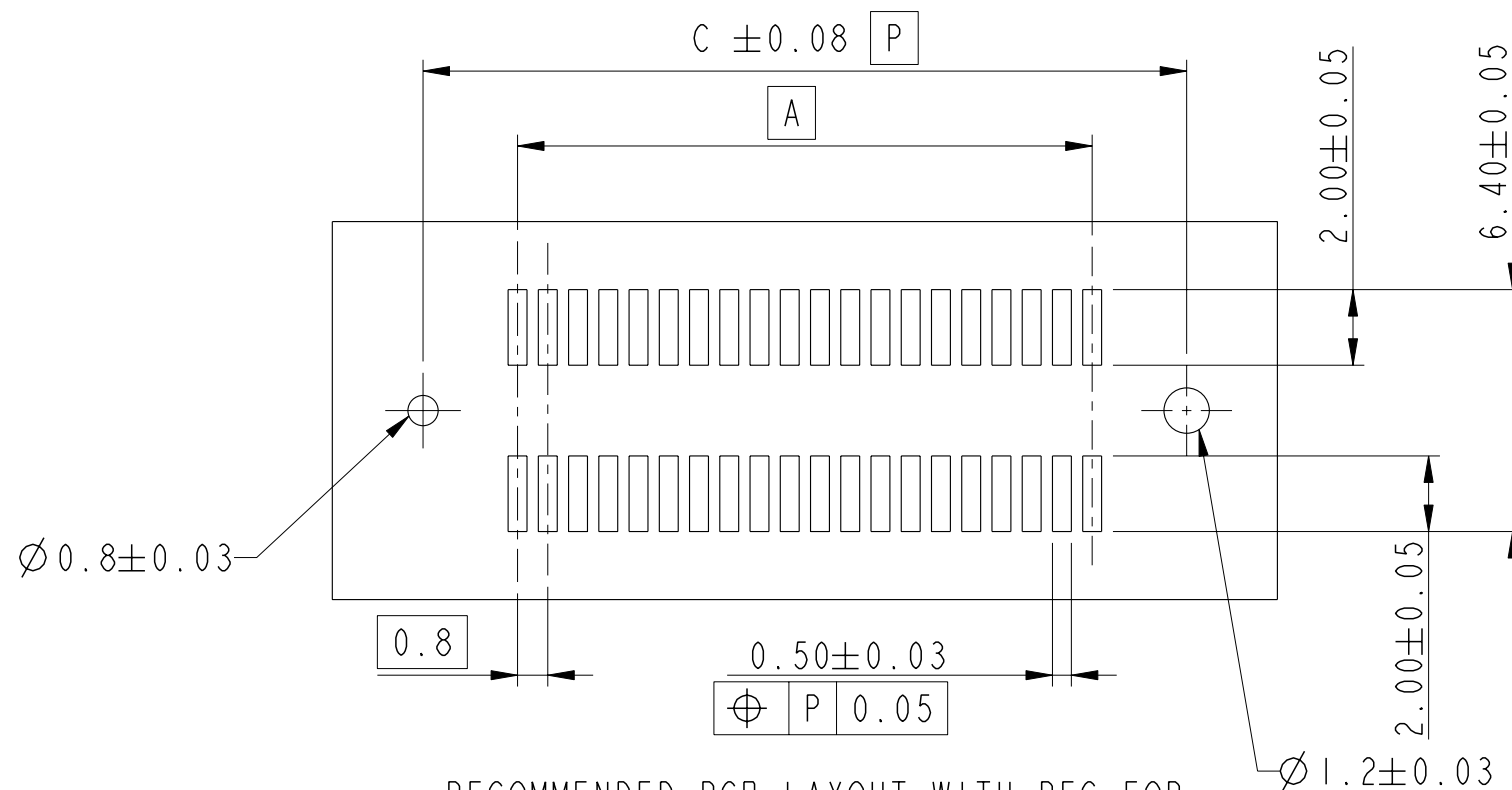
FOR PLUG 1/2/3/4



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



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



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