



(1,27mm) .050"

CLP SERIES

CLP-107-02-F-D-P

CLP-115-02-L-D

CLP-130-02-L-D

CLP-116-02-F-DH

LOW PROFILE DUAL WIPE SOCKET

SPECIFICATIONS

For complete specifications and recommended PCB layouts see www.samtec.com?CLP

Insulator Material:
Black Liquid Crystal Polymer



Contact Material:
Phosphor Bronze
Plating: Sn or Au over 50µ" (1,27µm) Ni

Current Rating:
1.75A @ 80°C ambient
Operating Temp Range:
-55°C to +125°C

Contact Resistance:
10 mΩ max

Insertion Depth:
Top Entry = (1,40mm) .055" minimum, Bottom Entry = (2,41mm) .095" minimum plus board thickness
DH Entry = (2,31mm) .091" to (2,67mm) .105"

Insertion Force:
(Single contact only)
3.8oz (1,05N) average

Normal Force:
60 grams (0,59N) average

Withdrawal Force:
(Single contact only)
2oz (0,56N) average

Max Cycles:
100 with 10µ" (0,25µm) Au

RoHS Compliant:
Yes

Processing:
Lead-Free Solderable:
Yes

SMT Lead Coplanarity:
(0,10mm) .004" max (02-35)
(0,15mm) .006" max (36-50)

Mates with:
FTSH, FTS,
FW, FFDL2



High reliability
Tiger Claw™ contacts

(1,27mm x 1,27mm)
.050" x .050"
micro pitch

Low Profile
(2,21mm)
.087"

Surface Mount

Suitable for pass-through applications

APPLICATIONS



HORIZONTAL



PASS-THRU

1,27mm FTSH/CLP	Rated @ 3dB Insertion Loss
5,13mm Stack Height	
Single-Ended Signaling	7.0 GHz / 14 Gbps
Differential Pair Signaling	8.5 GHz / 17 Gbps

Performance data for other stack heights and complete test data available at www.samtec.com?CLP or contact sig@samtec.com

1,27mm FW/CLP	Rated @ 3dB Insertion Loss
17,7mm Stack Height	
Single-Ended Signaling	3.0 GHz / 6.0 Gbps
Differential Pair Signaling	4.0 GHz / 8.0 Gbps

Performance data for other stack heights and complete test data available at www.samtec.com?CLP or contact sig@samtec.com

CLP - 1 NO. PINS PER ROW - 02 - PLATING OPTION - ROW OPTION - OTHER OPTION

02 thru 50

CLP-110-02-L-D-A

- F = Gold flash on contact, Matte Tin on tail
- L = 10µ" (0,25µm) Gold on contact, Matte Tin on tail
- G = 10µ" (0,25µm) Gold (-D only)

- D = Double Row
- DH = Double Horizontal (Requires FTSH or FSH -01 lead style)

- BE = Bottom Entry (Required for bottom entry applications)

- A = Alignment Pin (Not available with -PA option) (5, 10, 25 positions only) (-DH option and other sizes. Call Samtec)

- K = (4,00mm) .157" DIA Polyimide film Pick & Place Pad (5 positions min.)

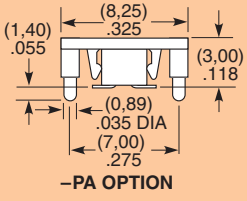
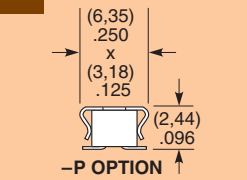
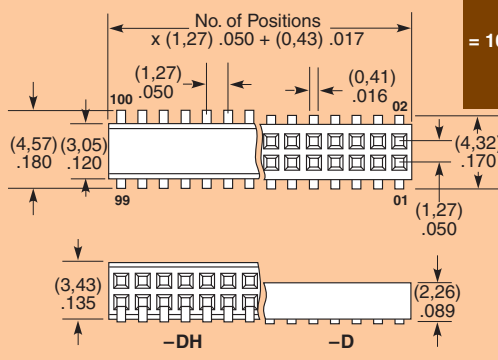
- P = Pick & Place Pad (5 positions min. -D only) (Not always necessary for auto placement. See Flex Processing.)

- PA = Pick & Place Pad with Alignment Pin (-D only) (Not Available with -A option)

- TR = Tape & Reel

ALSO AVAILABLE
Single row available. (Mates with FTS Series) Call Samtec.

APPLICATION SPECIFIC OPTION
Single row options available. Call Samtec.



PIN/ROW	A
04-15	(3,56) .140
16-50	(7,11) .280

If odd pins/row, alignment pins are on middle position on centerline of the part. If even pins/row, then alignment pins are between middle two positions.

Note: Other Gold plating options available. Contact Samtec.
Note: Some sizes, styles and options are non-standard, non-returnable.

Due to technical progress, all designs, specifications and components are subject to change without notice.

WWW.SAMTEC.COM

DO NOT SCALE FROM THIS PRINT

1. $\text{\textcircled{C}}$ REPRESENTS A CRITICAL DIMENSION
2. MINIMUM PUSHOUT FORCE: .5LB (8 OZ)
3. ONE POSITION WILL BE LOST FOR EVERY CUT MADE ON A SOCKET STRIP
4. TUBE PACKAGE POSITIONS 5-50 ONLY. POSITIONS 2-4 ARE TO BE LAYERED PACKAGED.
5. SHEAR TAILS TO DIMENSIONS SHOWN
6. PARTS TO BE SYMMETRICAL ABOUT \bar{C} WITHIN $\pm .0015[0.038]$.
7. ENDWALL AFTER CUTTING: $.0185[0.470] \pm .0025[0.064]$
8. VOID CORES MAY NOT BE PRESENT.
9. HAND FILL USE C-106-01-XX.
AUTOMATION USE C-106-22-XX. C-106-02-XX CAN BE SUBBED FOR C-106-22-XX.
- $\text{\textcircled{C}}$ 10. MAX CUT FLASH: $.010[0.27]$ WITH NO FLASH ALLOWED IN HOLES OR EXTENDING BELOW LEADS.
- $\text{\textcircled{C}}$ 11. MAX BURR: $.005[.13]$.

CLP-1XX-XX-XXX-D-XX

No OF POSITIONS PER ROW
-02 THRU -50

LEAD STYLE SPEC
-02: SURFACE MOUNT
(USE C-106-X2-XXX)
(SEE NOTE 9)

OPTION

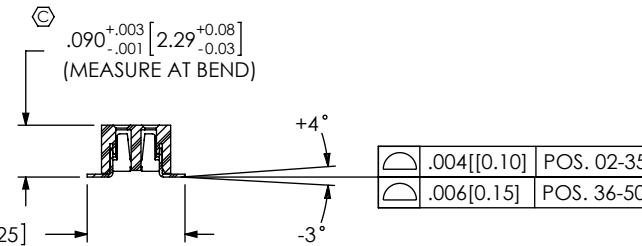
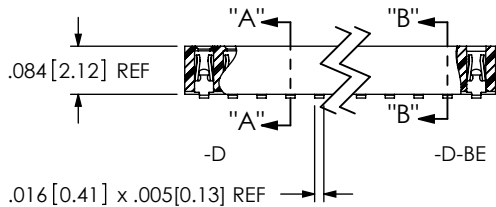
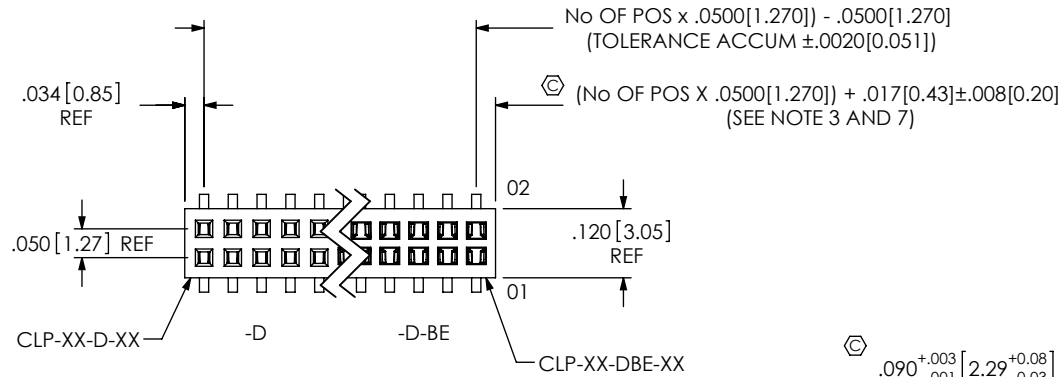
- P: PICK & PLACE PAD (USE LMP-01)
(AVAILABLE ON POSITION -05 THRU -50 ONLY)
(NOT AVAILABLE WITH -PA OR -K OPTIONS)
(SEE FIG. 3, SHT 2)
- A: ALIGNMENT PIN (USE CLP-XX-D-XX)
(NOT AVAILABLE WITH -PA OPTION)
(SEE FIG. 3, SHT 2)
- TR: TAPE AND REEL
- BE: BOTTOM ENTRY ONLY (USE CLP-XX-DBE-XX)
- PA: PICK & PLACE PAD WITH ALIGNMENT PINS
(NOT AVAILABLE WITH -P, -A, OR -K OPTIONS)
(SEE SHT 2, TABLE 3)
- K: POLYIMIDE FILM PAD (POSITIONS -05 THRU -50 ONLY)
(USE K-500-300, SEE FIG. 5, SHT 2)
(.005[0.13] THICKNESS WITH SILICONE ADHESIVE)
(NOT AVAILABLE WITH -P OR -PA OPTIONS)

BODY SPEC

- D: DOUBLE ROW
(USE CLP-XX-D)

PLATING SPEC

- F: 3μ " FLASH SELECTIVE GOLD IN CONTACT AREA
MATTE TIN ON TAIL
- L: 10μ " LIGHT SELECTIVE GOLD IN CONTACT AREA
MATTE TIN ON TAIL
- S: 30μ " SELECTIVE GOLD IN CONTACT AREA
MATTE TIN ON TAIL
- G: 10μ " GOLD IN CONTACT AREA
 3μ ON TAIL
- H: 30μ " HEAVY GOLD IN CONTACT AREA
 3μ ON TAIL
- LM: 10μ " LIGHT SELECTIVE GOLD IN CONTACT AREA
MATTE TIN ON TAIL
- FM: 3μ " FLASH SELECTIVE GOLD IN CONTACT AREA
MATTE TIN ON TAIL
- SM: 30μ " SELECTIVE GOLD IN CONTACT AREA
MATTE TIN ON TAIL
- LTL: 10μ " LIGHT SELECTIVE GOLD IN CONTACT AREA
TIN/LEAD (90/10+/-5%) TAIL



SECTION "A"- "A"
(-D BODY: CLP-XX-D-XX)



SECTION "B"- "B"
(-D-BE BODY: CLP-XX-DBE-XX)
(DIFFERENT AS SHOWN,
OTHERWISE SAME AS -D BODY)

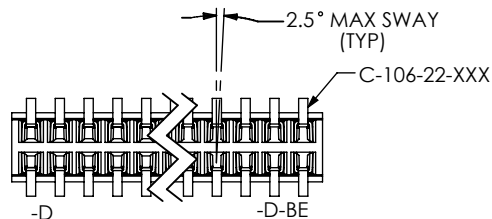


FIG 1

UNLESS OTHERWISE SPECIFIED,
DIMENSIONS ARE IN INCHES.
TOLERANCES ARE:
DECIMALS ANGLES
.XX: $\pm .01$ [.3] 2°
.XXX: $\pm .005$ [.13]
.XXXX: $\pm .0020$ [.051]

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520 PARK EAST BLVD., NEW ALBANY, IN 47150
PHONE: 812-944-6733 FAX: 812-948-5047
e-Mail: info@SAMTEC.com code 53322

MATERIAL: DO NOT SCALE DRAWING SHEET SCALE: 3:1

DESCRIPTION:
LOW PROFILE .050 x .050 DOUBLE ROW ASM

INSULATOR: LCP, UL 94 VO, COLOR: BLACK
CONTACT: PHOS BRONZE

DWG. NO. CLP-1XX-XX-XXX-D-XX

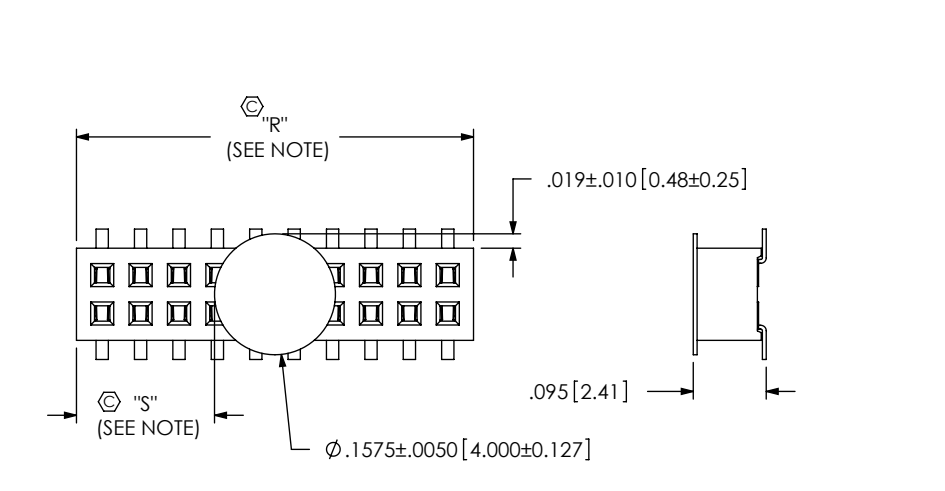
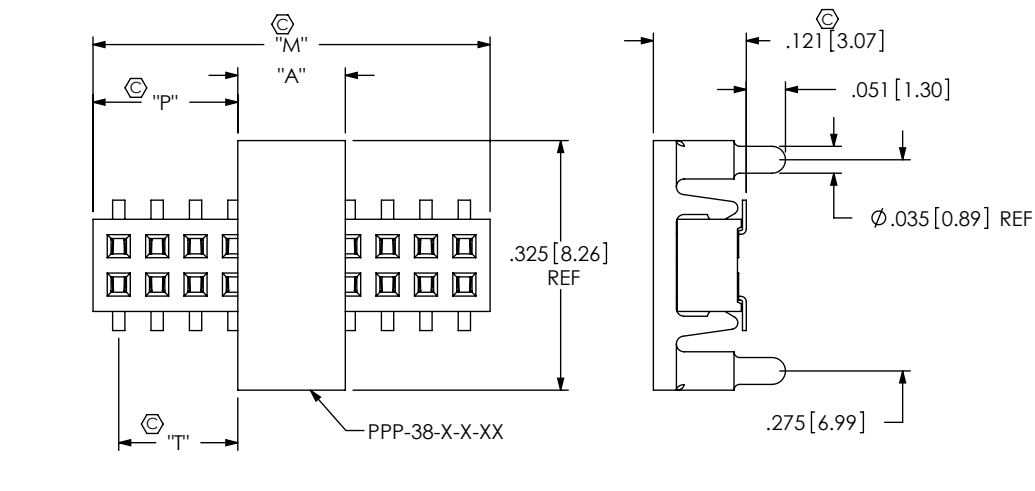
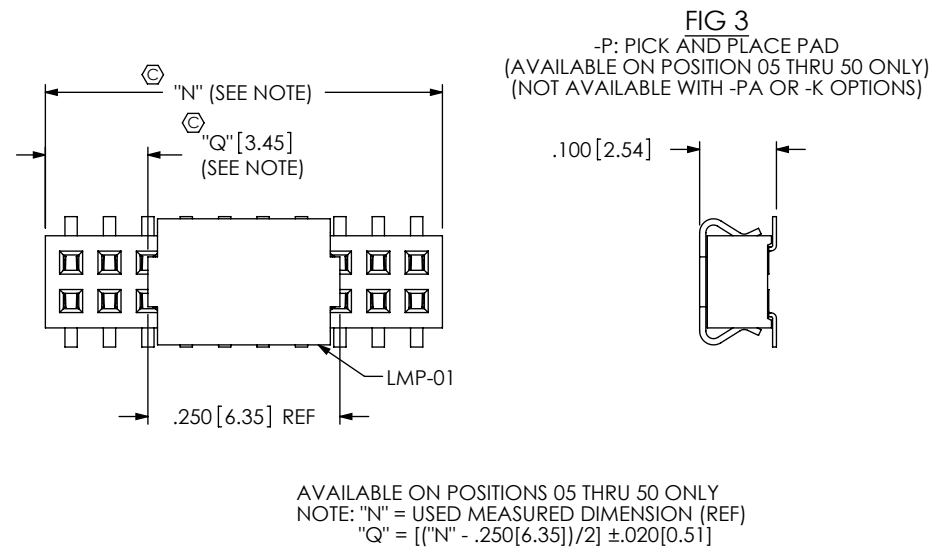
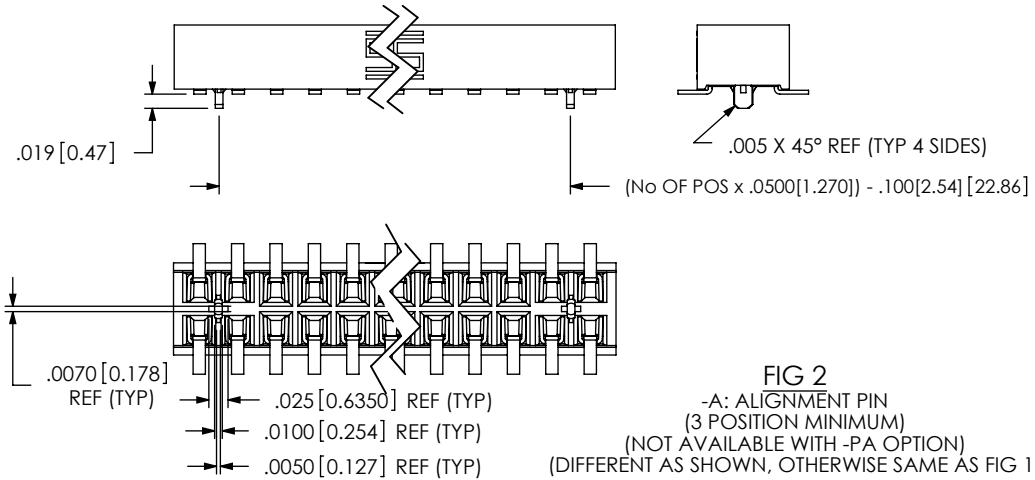


TABLE 1

POS/ROW	"A"	"M"	"P"
4-15	.140 [3.56] REF	USED MEASURED DIMENSION (REF)	[{"M" - "A"} / 2] ± .020 [0.51]
16-50	.280 [7.11] REF		

TABLE 3

POS/ROW	PIN COUNT	PAD	"T"
4-15	ODD	PPP-38-O-4-15	(((No OF POS.-1)/2)x.050 [1.27])-.070 [1.78]
	EVEN	PPP-38-E-4-15	
16-50	ODD	PPP-38-O-16-50	(((No OF POS.-1)/2)x.050 [1.27])-.140 [3.56]
	EVEN	PPP-38-E-16-50	

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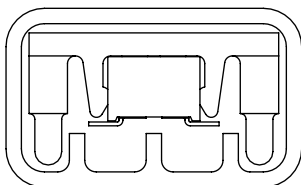
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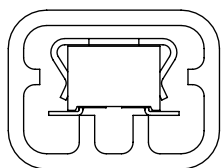
DESCRIPTION:
 LOW PROFILE .050 x .050 DOUBLE ROW ASM
 DWG. NO. CLP-1XX-XX-XXX-D-XX
 BY: PURVIS 01/31/1994 SHEET 2 OF 3

PACKAGING
(SEE NOTE 4, SHEET 1)

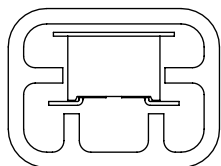


PT-CLP001-PA

TABLE 2		
OPTION	TUBE	PLUG
NONE, -A	PT-CLX001-D	TP-33
-P, -A-P	PT-CLX002-D	TP-33
-A-K, -K	PT-CLX001-D	TP-33
-PA	PT-CLP001-PA	TP-24-02



PT-CLX-002-D



PT-CLX-001-D

CG

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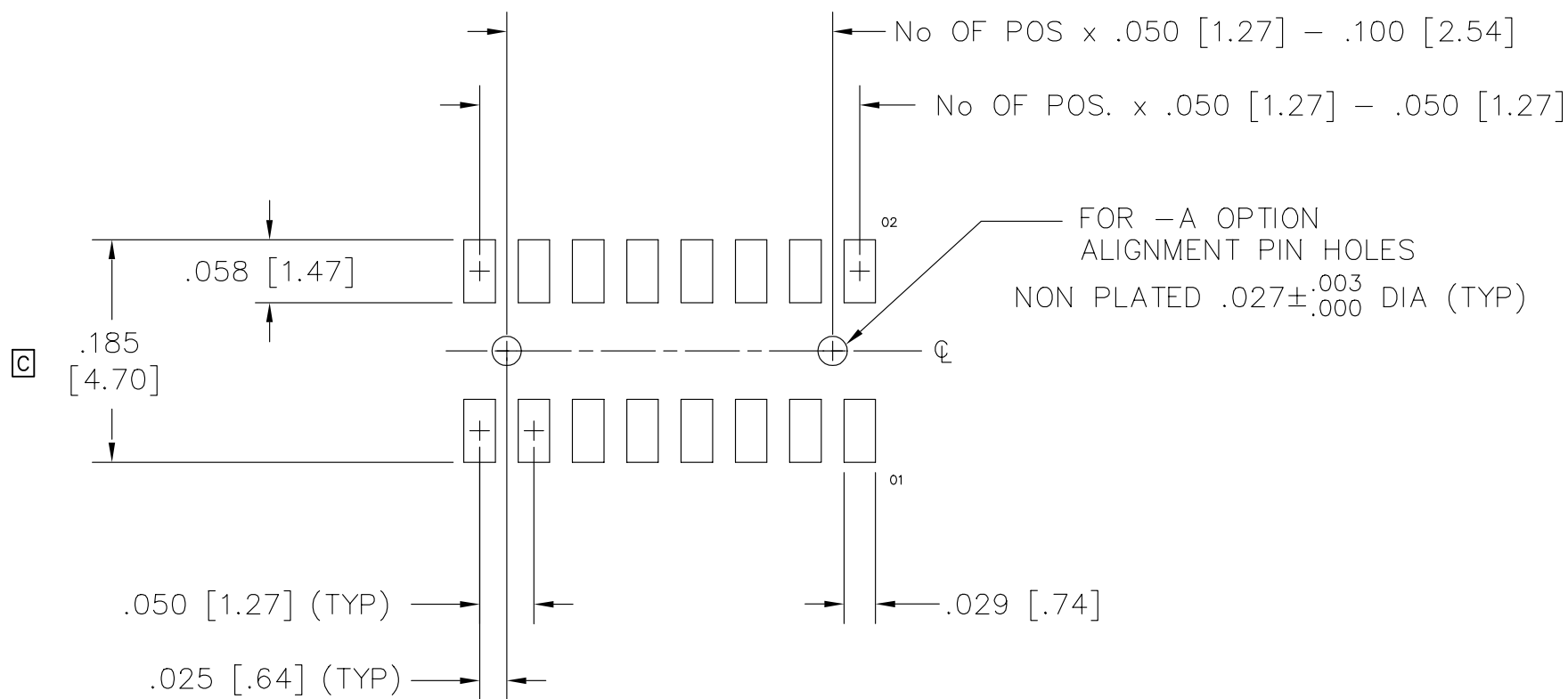
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DWG. NO. CLP-1XX-XX-XXX-D-XX

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RECOMMENDED P.C. BOARD LAYOUT FOR CLP (SURFACE MOUNT)

REV. C



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PLOT SCALE: 1 = .1