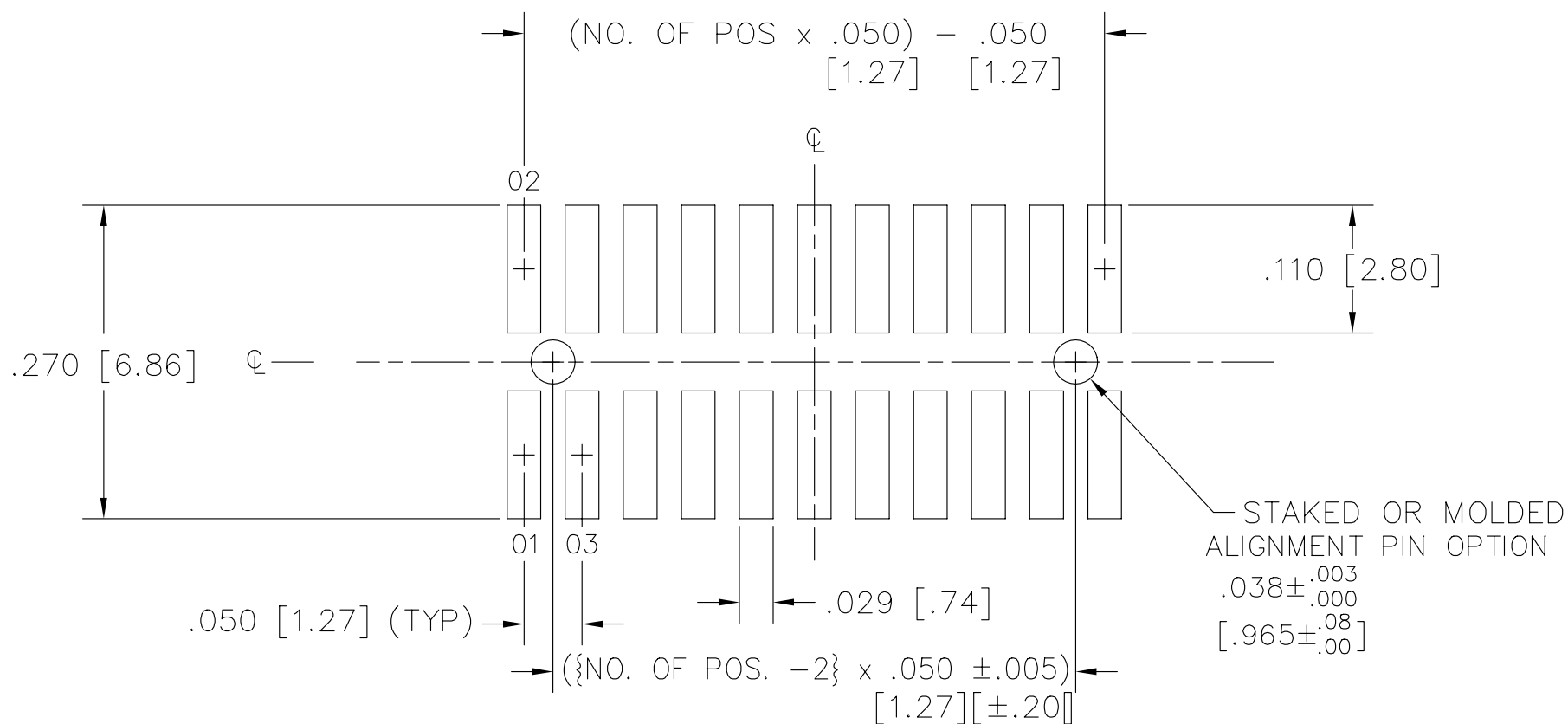


RECOMMENDED P.C. BOARD LAYOUT FOR FTSH SURFACE MOUNT (DOUBLE)

REV. D



samtec

MISC\MKTG\FOOTPRNT
FTSH-DV

810 PROGRESS BLVD. NEW ALBANY, INDIANA 47150
PHONE (812) 944-6733 P.O. BOX 1147

PLOT SCALE: 1 = .1

REV.	CD
------	----

NOTES:

1. PARTS MAY BE CUT TO POSITION.
2. SHEAR TAILS TO DIMENSION SHOWN.
3. MEASURED AT BEND RADIUS, NOT AT END OF PIN.
4. TUBE ONLY -05 THROUGH -50 POSITIONS (SEE TABLE 2).
5. GOLD PLATING TO BE ON POST, TIN PLATING TO BE ON TAIL.
6.  REPRESENTS A CRITICAL DIMENSION.
7. MINIMUM PUSHOUT FORCE: 1.0 LB.
8. .003" MAX BURR ALLOWANCE
9. .010 [.25] MAX CUT FLASH
10. USE T-1S40-02-X-2 FOR FTSH-150-01-L-DV.
RAN ON AUTOMATION ONLY. TERMINALS ARE NOT SHEARED.
11. USE FTSH -SW BODIES UNTIL STOCK IS DEPLETED, THEN USE THE -CN BODY
(NOTE: BODY FOR -CN IS .200 WIDE, -SW IS .175).

DO NOT SCALE
FROM THIS PRINT

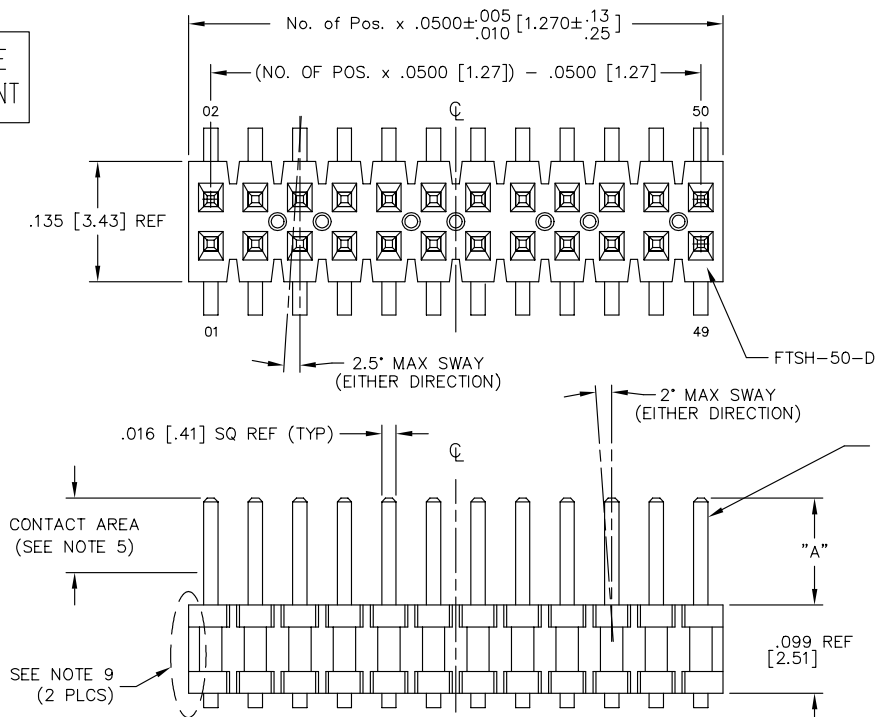


FIG. 1

OPTION(S)	PACKAGING TUBE	TUBE PLUG
NONE, -A (-04 LEAD STYLE)	PT-1-24-04-15	TP-09 (2 REQ'D)
NONE, -A (-01, -02 LEAD STYLES)	PT-1-24-03-43	TP-24 (2 REQ'D)
NONE, -A (-03 LEAD STYLE)	PT-1-24-01-43	TP-24 (2 REQ'D)
-P (-01 LEAD STYLE)	PT-1-24-02-17	TP-09 (2 REQ'D)
-K-P (-01 LEAD STYLE ONLY)	PT-1-24-01-27	TP-03 (2 REQ'D)
-K-P (-04 LEAD STYLE)	PT-1-24-06-29	TP-07 (2 REQ'D)
-K (-FOR -01 LEAD STYLE ONLY)		
-ES (-03, -04 STYLES)	PT-1-24-03-09	TP-03 (2 REQ'D)
-ES-P, -P (-02, -03, -04 STYLES)		
-EC, -EC-P, -EL-P -ES-A, -ES-A-P -A-P, -K-A-P -EP, -EP-A, -EP-P, -EP-A-P	PT-1-24-03-09	TP-03 (2 REQ'D)
-EJ, -EJ-K-P, -EJ-P	PT-1-24-02-70	TP-07 (2 REQ'D)
EJ-A-P	PT-1-24-01-106	TP-07 (2 REQ'D)
-EPC, -EPC-D, -EPC-P	PT-1-24-04-09	TP-03 (2 REQ'D)
-EL, -EL-A, -EL-A-P	PT-1-24-01-43	TP-24 (2 REQ'D)
-EJ-A, -EJ-K-A, -EJ-K-A-P	PT-1-24-01-70	TP-29 (2 REQ'D)
-ES (-02 LEAD STYLE)	PT-1-24-01-55	TP-03 (2 REQ'D)

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TABLE 1	
LEAD STYLE	"A"
-01	.120 [3.05]
-02	.075 [1.91]
-03	.065 [1.65]
-04	.150 [3.81]

MATERIAL:
INSULATOR:
BLACK LIQUID CRYSTAL POLYMER
TERMINAL:
PHOSPHOR BRONZE

TITLE:
0.050 [1.27] x 0.050 [1.27] C
DOUBLE VERTICAL
SMT TERMINAL STRIP

DWG NO: FTSH-1XX-XX-X-DV-XXX
SHEET 1 OF 4

FTSH-1XX-XX-X-DV-XXX

No. OF POS ————
-02 THRU -50
(PER ROW)

LEAD STYLE ————
-01: .120 [3.05]
(USE T-1S15-03-X)
-02: .075 [1.91]
(USE T-1S15-03-X)
-03: .065 [1.65]
(USE T-1S15-03-X)
-04: .150 [3.81]
(USE T-1S15-03-X)

PLATING

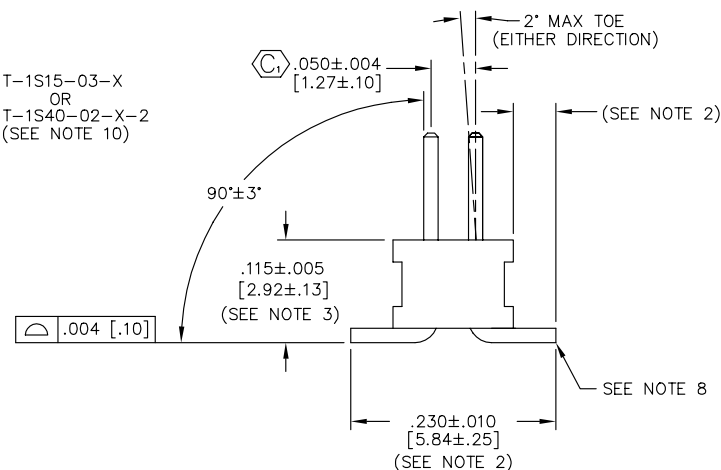
- L: LIGHT SELECTIVE
(USE T-1S15-XX-L)
- F: FLASH SELECTIVE
(USE T-1S15-XX-F)
- S: SELECTIVE
(USE T-1S15-XX-S)
- SM: HEAVY SELECTIVE GOLD
MATTE TIN TAIL
(USE T-1S15-XX-SM)
- LM: LIGHT SELECTIVE GOLD,
MATTE TIN TAIL
(USE T-1S15-XX-LM)
- FM: FLASH SELECTIVE GOLD,
MATTE TIN TAIL
(USE T-1S15-XX-FM)

TAIL OPTION _____
-DV: DOUBLE VERTICAL
(USE FTSH-50-D)

* = NOT ENGINEERING APPROVED

— OPTIONS

- P: PICK & PLACE PAD (4 POS MIN)
(SEE SHT 2, TABLE 5)
- TR: TAPE & REEL PACKAGING
- EN: END SHROUDS (SEE FIG. 2, SHT 2)
(MOLDED IN -EN 5 POS MIN; -02 & -03 LEAD STYLE ONLY)
(SNAP SHROUDS 9 POS MIN; -02 & -03 LEAD STYLE ONLY)
- EJ: EJECTOR SHROUDS (SEE FIG. 2, SHT 2)
(10 POS MIN; -01 LEAD STYLE ONLY)
- EJA: EJECTOR SHROUDS WITH MOLDED ALIGNMENT PIN (SEE FIG. 4, SHT 2)
(10 POS MIN; -01 LEAD STYLE ONLY) (NOT VALID WITH -A OPTION)
- EJC: EJECTOR SHROUDS WITH LOOKING CLIP (SEE FIG. 4, SHT 2)
(10 POS MIN; -01 LEAD STYLE ONLY) (NOT VALID WITH -A OPTION)
- EC: LOOKING CLIP (SEE FIG. 5, SHT. 2)
(9 POS MIN; -02 & -03 LEAD STYLE ONLY)
- EP: GUIDE POST (SEE FIG. 6, SHT. 2)
(9 POS MIN; -02 & -03 LEAD STYLE ONLY)
(USE ONLY WHEN MATING WITH CLP)
- EL: BOARD LOCK (SEE FIG. 7, SHT 2)
(9 POS MIN; -02 & -03 LEAD STYLE ONLY)
(USE ONLY WHEN MATING WITH CLP)
- EPC: GUIDE POST & LOOKING CLIP (SEE FIG 11, SHT 3)
(9 POS MIN; -02 & -03 LEAD STYLE ONLY)
(USE ONLY WHEN MATING WITH CLP) (NOT VALID WITH -A OPTION)
- A: ALIGNMENT PIN (MOLDED OR STAKED) (SEE FIG. 8 & 9, SHT. 3)
(MOLDED: 3 POSITION MIN, STAKED: 6 POSITION MIN)
[SAMTEC DISCRETION ON WHICH -A PIN USED]
- K: KEYING OPTION FOR MATING WITH FFSD (SEE TABLE 3, SHEET 3)
8 POSITION AVAILABLE AS STANDARD.
[POSITION 13, 17, 20 & 25 AVAILABLE WITH ANY END SHROUD OPTION] (LEAD STYLE -01 ONLY, SEE FIG. 10, SHT 3)
(ALIGNMENT PIN AVAILABLE WITH -K OPTION BUT MUST BE MOLDED)
- *-M: METAL PICK & PLACE PAD (4 POS MIN)
(SEE MPP-22-5) (SEE FIG. 13, SHT 4)
(NOT AVAILABLE WITH -K OPTION)

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FTSHMKT1

santec

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CODE 55322

MADE BY: PURVIS 10-12-95

FTSH-1XX-XX-X-DV-XXX
SHEET 1 OF 4

REV. CD

FIG. 2
(DIFFERENT AS SHOWN, OTHERWISE SAME AS FIG. 1)
(USE -02 OR -03 LEAD STYLE ONLY)
(9 POS. MIN. FOR SNAP SHROUDS)

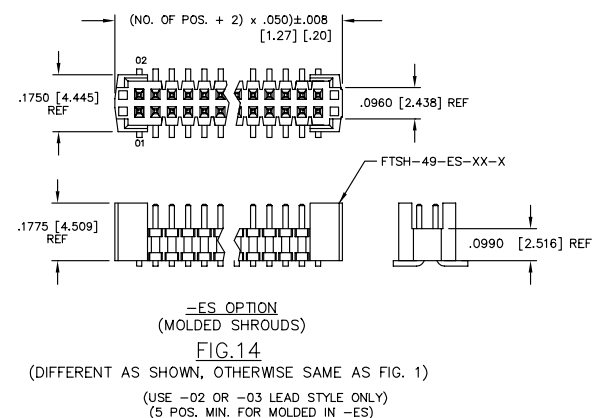
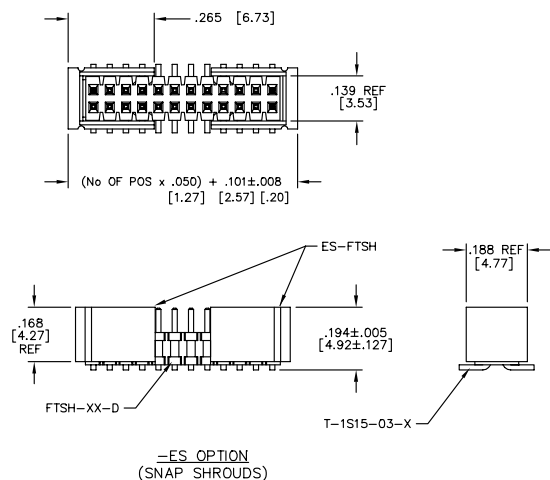
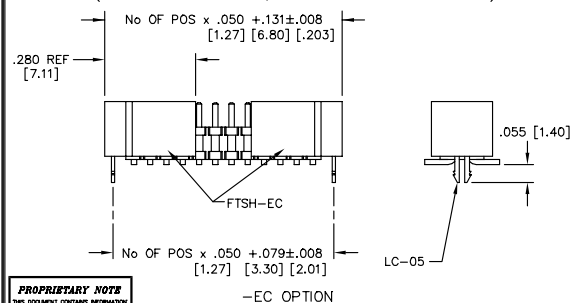


FIG. 5
(DIFFERENT AS SHOWN, OTHERWISE SAME AS FIG. 2)

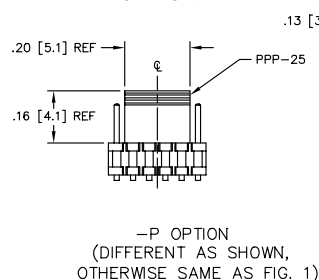


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TABLE 5		
OPTION	PAD	MIN. POS
NONE, -A	PPP-25	4
EJ,EJC,EJA	PPP-41	10
ES,EC,EP,EL	PPP-25	9
EPC	PPP-25	5 *
K, K-EJ	PPP-48	SEE FIG 10

* MOLDED SHROUD ONLY

FIG. 3
-P OPTION



UNLESS OTHERWISE NOTED
DIMENSIONS ARE IN INCHES
TOLERANCES ARE:
ONE PLACE DECIMALS $\pm .1$ [2.5]
TWO PLACE DECIMALS $\pm .01$ [2.5]
THREE PLACE DECIMALS $\pm .005$ [13]
FOUR PLACE DECIMALS $\pm .0020$ [51]
ANGLES $\pm 2^\circ$

TITLE:
.050 [1.27] x .050 [1.27] ϕ
DOUBLE VERTICAL
SMT TERMINAL STRIP

DWG NO:
FTSH-1XX-XX-X-DV-XXX
SHEET 2 OF 4

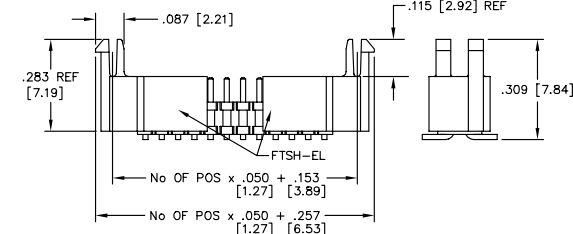


FIG. 7
(DIFFERENT AS SHOWN, OTHERWISE SAME AS FIG. 2)
-EL OPTION (USE ONLY WHEN MATING WITH CLP)

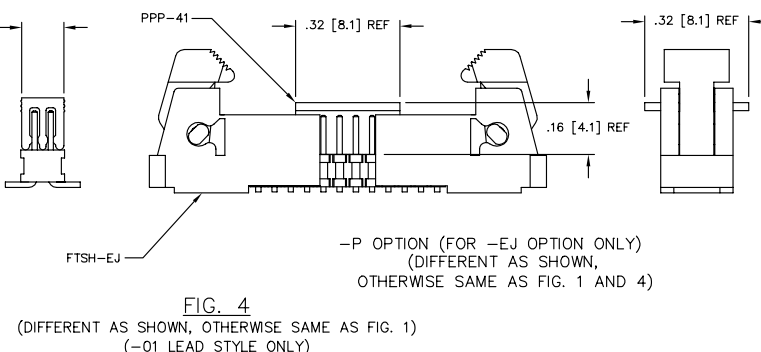


FIG. 4
(DIFFERENT AS SHOWN, OTHERWISE SAME AS FIG. 1)
(-01 LEAD STYLE ONLY)

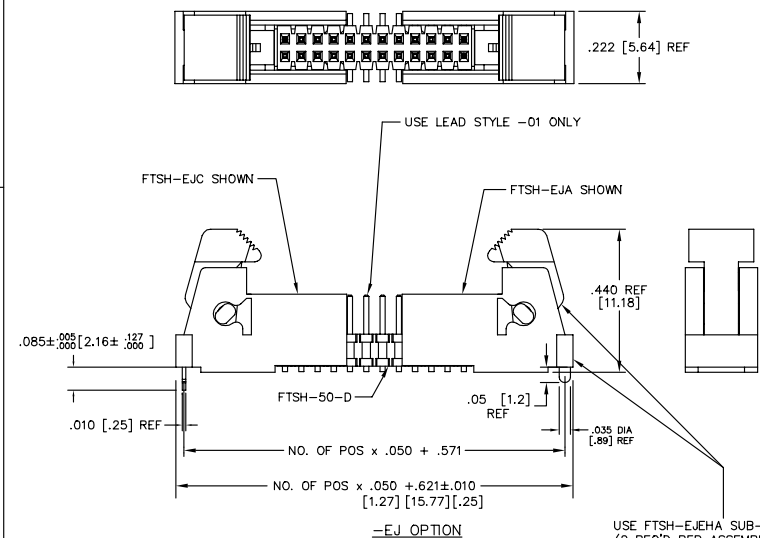
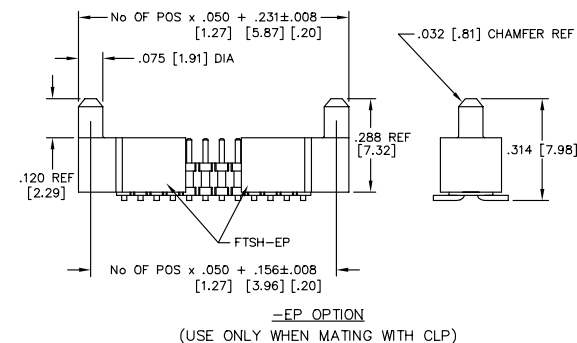


FIG. 6
(DIFFERENT AS SHOWN, OTHERWISE SAME AS FIG. 2)



USE FTSH-EJEHA SUB-ASSEMBLY
(2 REQ'D PER ASSEMBLY- EACH
USES 1 EHA-02, 1 FTSH-EJ OR FTSH-EJ-A)

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FTSH-1XX-XX-X-DV-XXX
SHEET 2 OF 4

REV. CD

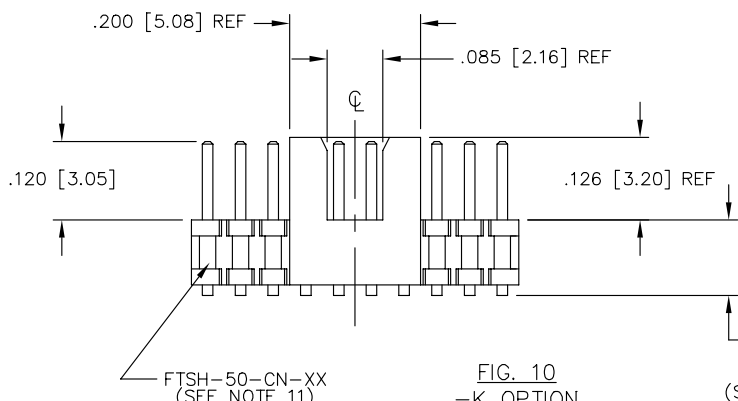
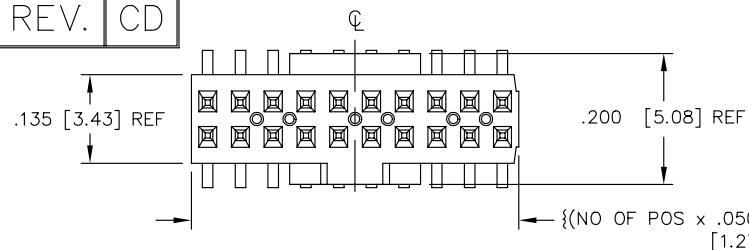


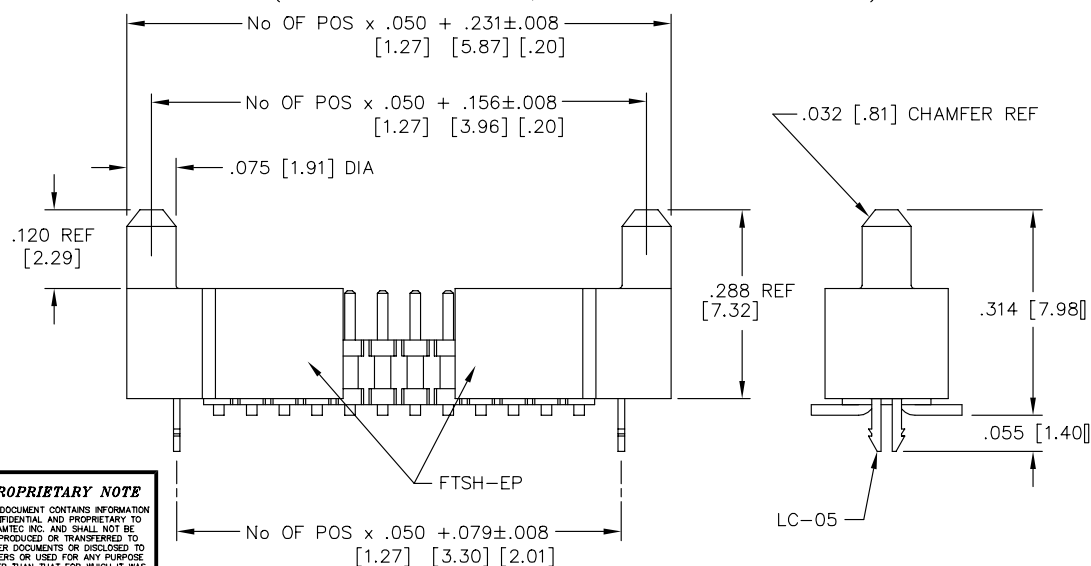
TABLE 3		
NO OF POS	BODY	NO OF PARTS PER FULL STRIP
-05	FTSH-50-CN-05 (SEE NOTE 11)	10
-10	FTSH-50-CN-10 (SEE NOTE 11)	5
-13	FTSH-50-CN-13 (SEE NOTE 11)	3
-20	FTSH-50-CN-20 (SEE NOTE 11)	2
-25	FTSH-50-CN-25 (SEE NOTE 11)	2

FTSH-50-CN-XX (SEE NOTE 11)

FIG. 10
-K OPTION

(LEAD STYLE -01, POSITIONS 05, 10, 13, 20 & 25 ONLY)
[POSITION 13, 17, 20, & 25 AVAILABLE WITH -K & -EX (ANY SHROUD) OPTION]
(DIFFERENT AS SHOWN, OTHERWISE SAME AS FIG. 1)

FIG. 11
(DIFFERENT AS SHOWN, OTHERWISE SAME AS FIG. 2)



FTSH-EP

LC-05

-EPC OPTION
(USE ONLY WHEN MATING WITH CLP)

UNLESS OTHERWISE NOTED

DIMENSIONS ARE IN INCHES

TOLERANCES ARE:

ONE PLACE DECIMALS $\pm .1$ [2.54] THREE PLACE DECIMALS $\pm .005$ [.13]
TWO PLACE DECIMALS $\pm .01$ [.25] FOUR PLACE DECIMALS $\pm .0010$ [.025]

ANGLES
 $\pm 1^\circ$

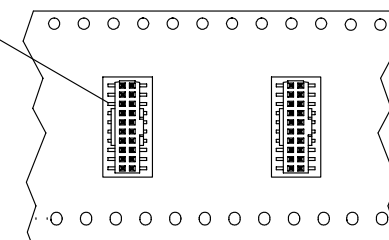
TITLE:
.050 [1.27] x .050 [1.27] ϕ
DOUBLE VERTICAL
SMT TERMINAL STRIP

DWG NO:

FTSH-1XX-XX-X-DV-XXX
SHEET 3 OF 4

TAPE & REEL VIEW

NOTE: TAPE & REEL ORIENTATION:
POLARIZATION NOTCH TO THE RIGHT



FEED DIRECTION →

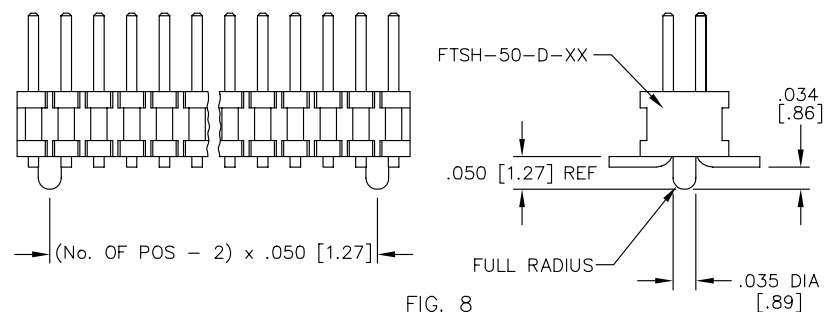


FIG. 8
-A OPTION (MOLDED)
MOLD 3 POSITION MIN

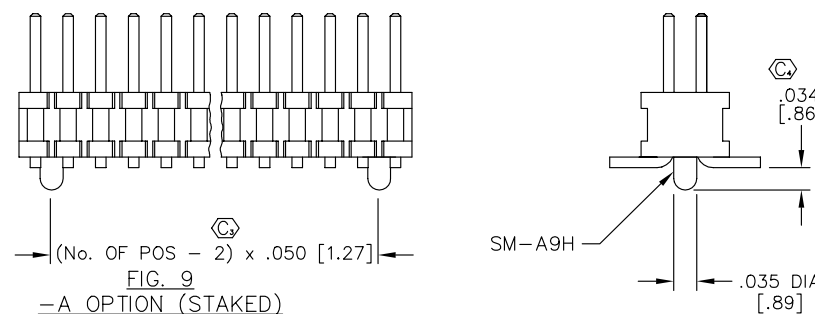


FIG. 9
-A OPTION (STAKED)
6 POSITIONS MIN

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FTSH-1XX-XX-X-DV-XXX
SHEET 3 OF 4

REV. CD

DIMENSIONS ARE IN INCHES		UNLESS OTHERWISE NOTED	TOLERANCES ARE:	TITLE:	DWG NO:
ONE PLACE DECIMALS $\pm .1$ [2.54]	THREE PLACE DECIMALS $\pm .005$ [.13]	ANGLES $\pm 1^\circ$		.050 [1.27] x .050 [1.27] ϕ DOUBLE VERTICAL SMT TERMINAL STRIP	FTSH-1XX-XX-X-DV-XXX
TWO PLACE DECIMALS $\pm .01$ [.25]	FOUR PLACE DECIMALS $\pm .0010$ [.025]				SHEET 4 OF 4

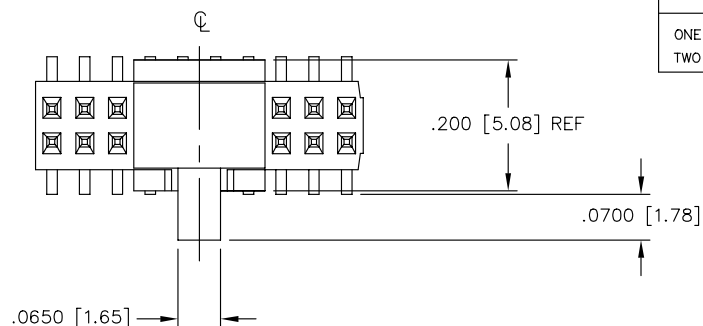
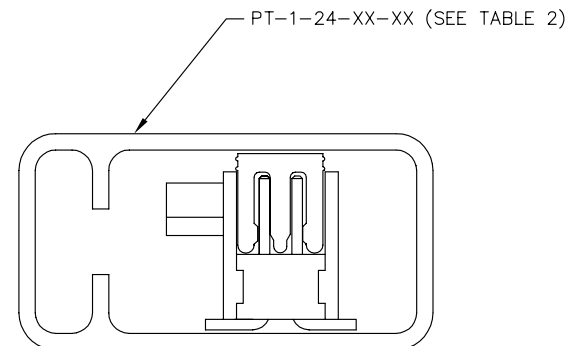
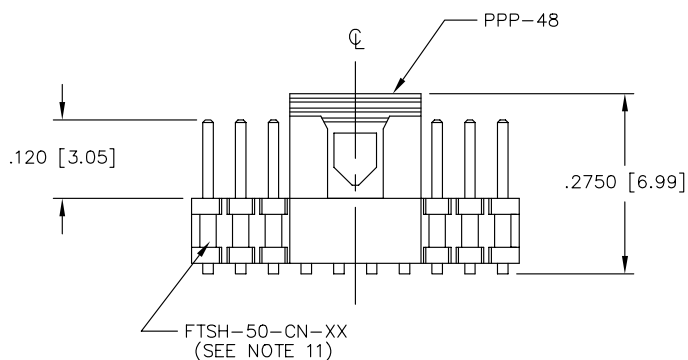


FIG. 12
-P, -K & -TR OPTION
(LEAD STYLE -01, POSITIONS 05, 10, 13, 20 & 25 ONLY)
[POSITIONS 20 & 25 ONLY WITH ANY -EX (END SHROUD) OPTION]
(DIFFERENT AS SHOWN, OTHERWISE SAME AS FIG. 1)



PACKAGING VIEW FOR FTSH-1XX-01-X-DV-K-P

FIG. 13
-M: METAL PICK & PLACE PAD
(NOT AVAILABLE WITH -K OPTION)(5 POS MIN)

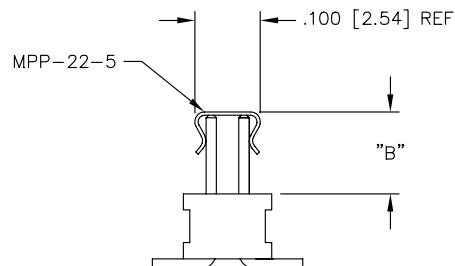
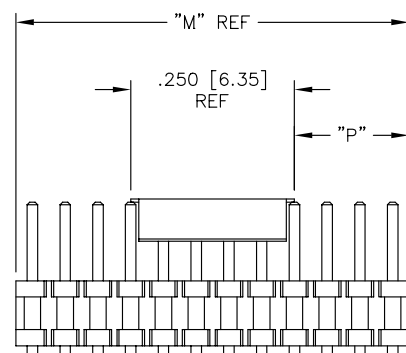


TABLE 4	
LEAD STYLE	"B"
-01	.125 [3.18]
-02	.080 [2.03]
-03	.070 [1.78]
-04	.155 [3.94]

Do not scale
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"M" = No OF POSITIONS x .0500 [1.270]
"P" = {("M" - .250 [6.35]) / 2 } $\pm .020$ [.51]

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FTSH-1XX-XX-X-DV-XXX
SHEET 4 OF 4