


NOTES: (UNLESS OTHERWISE SPECIFIED)

1. ALL DIMENSIONS AND TOLERANCES APPLY PER ASME Y14.5M, 2009. IT IS EXPECTED THAT THE SUPPLIER UNDERSTAND AND COMPLY WITH ALL TOLERANCES AS DESCRIBED IN THIS STANDARD AND APPLIED TO THIS DRAWING.

2. ALL DIMENSIONS THAT LOCATE GEOMETRICALLY TOLERANCE FEATURES (PROFILE AND POSITION CHARACTERISTICS) ARE CONSIDERED BASIC AS DEFINED IN THE ASME Y14.5M, 2009 STANDARD.

3. WHEN DATUMS ARE SPECIFIED ON A DRAWING, DIMENSIONS ARE RELATED TO DATUM A (AS THE PRIMARY DATUM), DATUM B (SECONDARY), AND DATUM C (TERTIARY).

4. DIMENSIONS DESIGNATED WITH THE  SYMBOL SHALL BE FIRST ARTICLE INSPECTION DIMENSIONS. THREE SAMPLE PARTS MUST BE FULLY INSPECTED. FAI REPORT MUST BE VALIDATED AND APPROVED BY APPLE INC. SQE.

5. TOLERANCES DESIGNATED WITH THE SYMBOL  SHALL BE PRODUCED WITH STATISTICAL TOLERANCE PROCESS CONTROLS. IN ORDER TO USE THE TOLERANCE ON A FEATURE, THE STATISTICAL PROCESS (CP, CPK, ETC) OF THE PART MUST BE VALIDATED AND APPROVED BY APPLE INC. SQE.

6. ALL HOMOGENOUS MATERIALS MUST COMPLY WITH THE FOLLOWING ENVIRONMENTAL SPECIFICATIONS:
-APPLE INC. REGULATED SUBSTANCES SPECIFICATION, 069-0135.


7. ALL ADHESIVES, COATINGS AND PAINTS, PRINTING INKS, AND CLEANING AGENTS USED IN THE MANUFACTURING OF THIS PART MUST COMPLY WITH THE APPLE VOC SPECIFICATION (099-22549)

8. FLEX THICKNESS: 0.114MM +/-0.03

9. ODB++ IS MASTER DATA FOR LPI, COVERLAY, AND EXPOSED CU SPECIFICATIONS.

10. COMPONENTS SHOWN ARE ONLY FOR REFERENCE. THEY DO NOT REFLECT ACTUAL COMPONENT PLACEMENT.

11. FLAME RATING CALL OUT:
PLASTICS, INCLUDING FOAMS, MUST COMPLY WITH THE FOLLOWING SPECIFICATION: 062-9728

 12 APPLY 2D BARCODE LABEL HERE.
BARCODE FORMAT PLEASE REFER TO APPLE INC. LABEL SPEC: 081-2110-B OR APPLE TPM APPROVED SUBSTITUTE.
BARCODE APPLICATION: MUST BE REMOVED AWAY FROM PARTS DURING FINAL ASSEMBLY PROCESS
COLOR: WHITE BACKGROUND WITH BLACK MARKINGS.
BARCODE QUALITY: MUST MEET GRADE "C" OR BETTER FOR BARCODE VERIFIER ACCORDING TO ISO/IEC 15415
LABEL MUST HAVE STRONG ABRASION RESISTENCE CAPABILITY ACCORDING TO U969 & CSA TEST STANDARD.


 13 SILKSCREEN / INKJET: PART INFORMATION, INCLUDING APPLE INC. P/N AND REV, DATE CODE, VENDOR, SHOULD BE SPECIFIED. PART AND VENDOR INFORMATION SHOULD NOT BE VISIBLE FROM TOP VIEW AFTER INSTALLATION.

14. ALL MATERIALS MUST COMPLY WITH APPLE INC. SPECIFICATION 062-9728, BE UL RECOGNIZED AND MEET THE FOLLOWING REQUIREMENTS:
- FLEX AND STIFFENER MATERIALS MUST HAVE A MINIMUM FLAMMABILITY RATING OF V-2, VTM-2, VW-1 OR BETTER.
- FLEX PCB WITH COMPONENTS MUST HAVE MINIMUM FLAMMABILITY RATING OF V-1 OR BETTER.
- EXPOSED ACCESSIBLE CONNECTORS MUST HAVE MINIMUM FLAMMABILITY RATING OF V-2 OR BETTER.

 15 NON CONDUCTIVE PSA: TESA 61365, THICKNESS: 0.100 ±0.010 MM

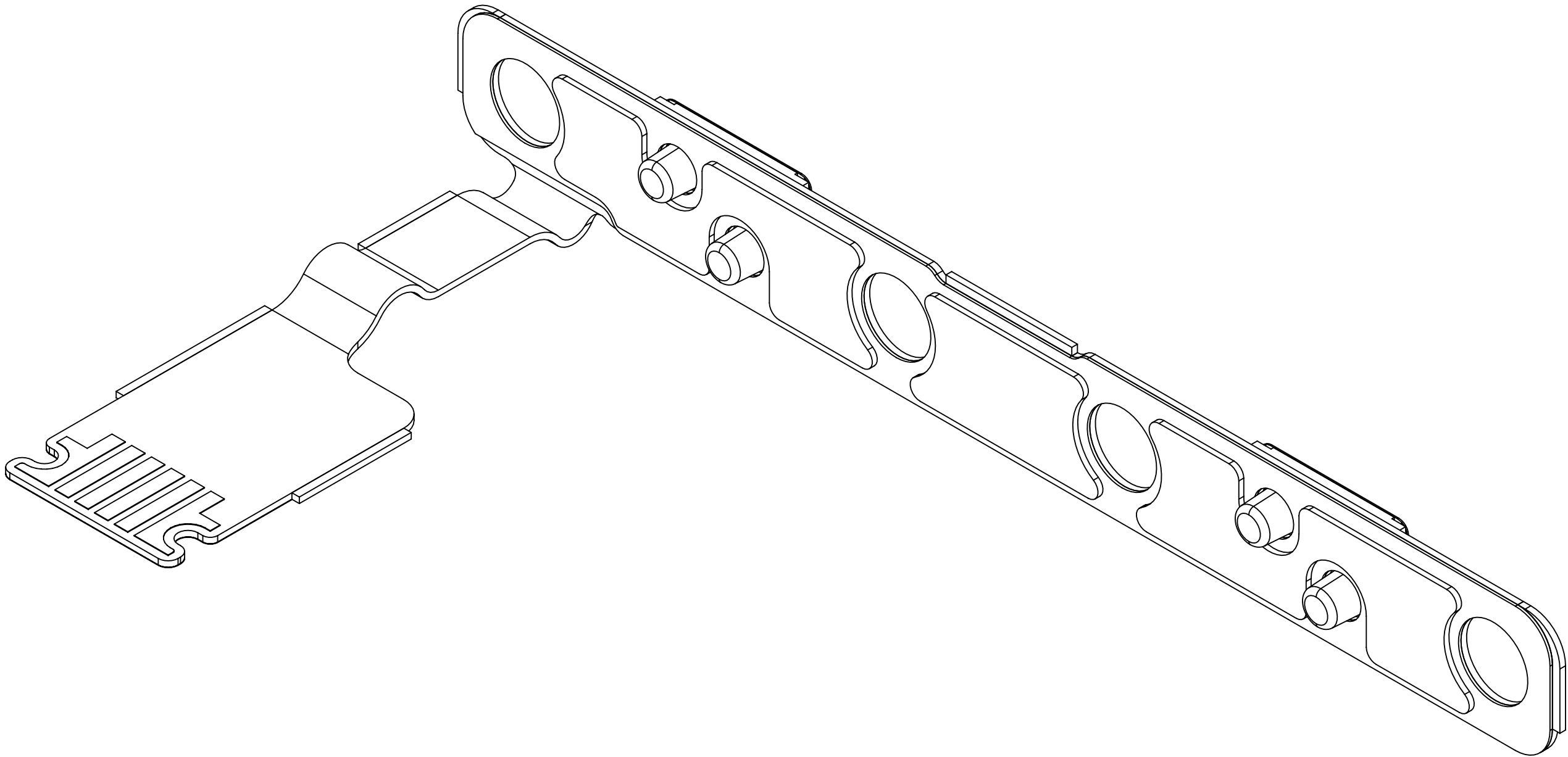
 16 RELEASE LINER MATERIAL: PET. THICKNESS: (0.036-0.05 MM). COLOR: TRANSPARENT BLUE

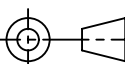

 17 PI STIFFENER THICKNESS INCLUDING TSA: 0.050 ± 0.010 MM
CO-CUT STIFFENER WITH FLEX OUTLINE, UNLESS OTHERWISE SPECIFIED.

 18 SWITCH, VOLUME BUTTON
- ACCEPTABLE PART NUMBERS: 705S00031, 705S00048, 705S00062
- ENCAPSULATE SWITCH LEADS WITH COLLTECH CT2288G1F
- UNDERFILL WITH HENKEL E1216M
- INSPECT 100% FOR THE FOLLOWING CRITERIA:
* POST-REFLOW CLICK RATIO (%): 50 +17/-15
* POST-REFLOW OPERATION FORCE (N): 3.3 ±0.7
* POST-REFLOW TRAVEL (MM): 0.10 MIN
* TEST METHODS SHALL BE APPROVED BY APPLE INC. SQE

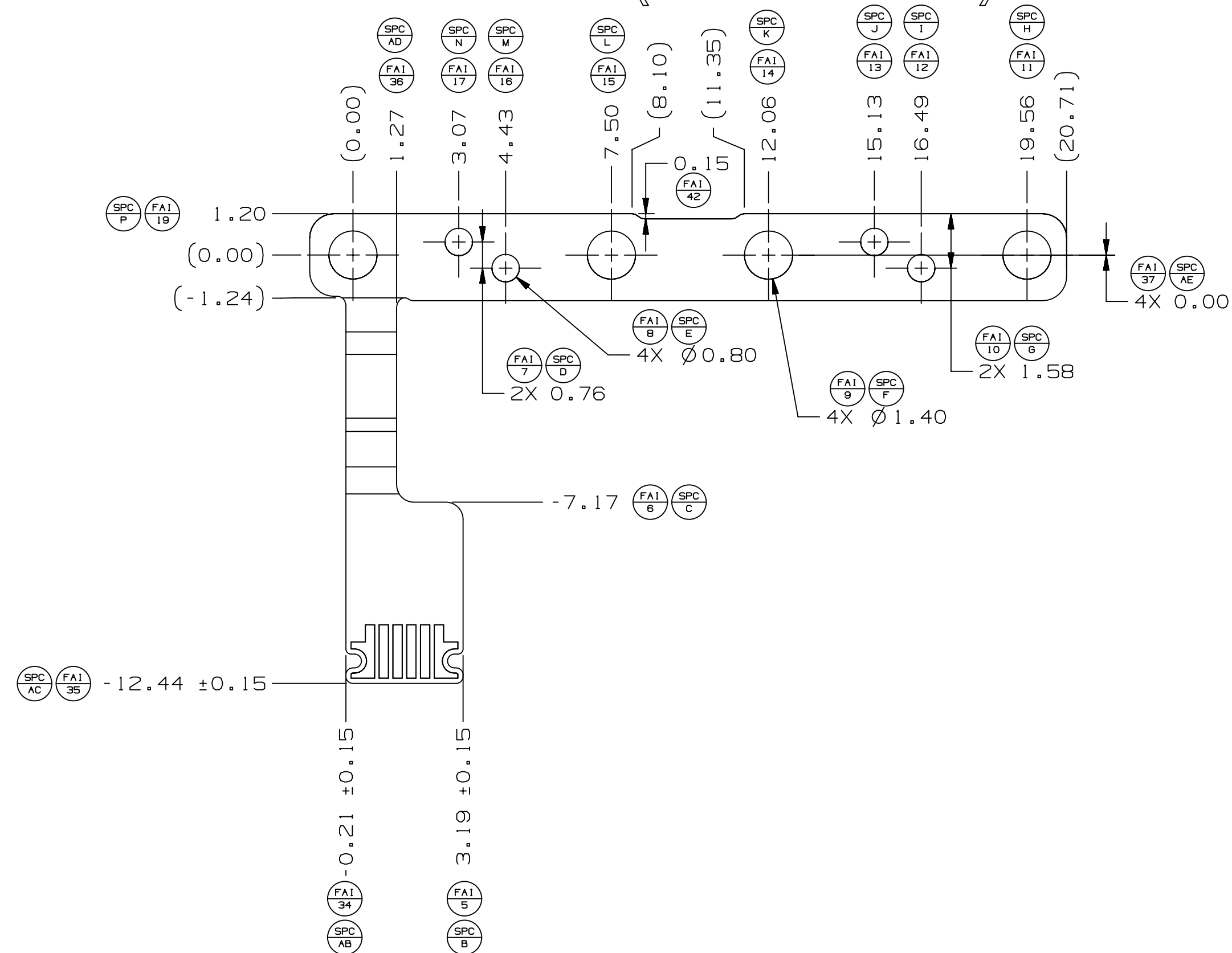
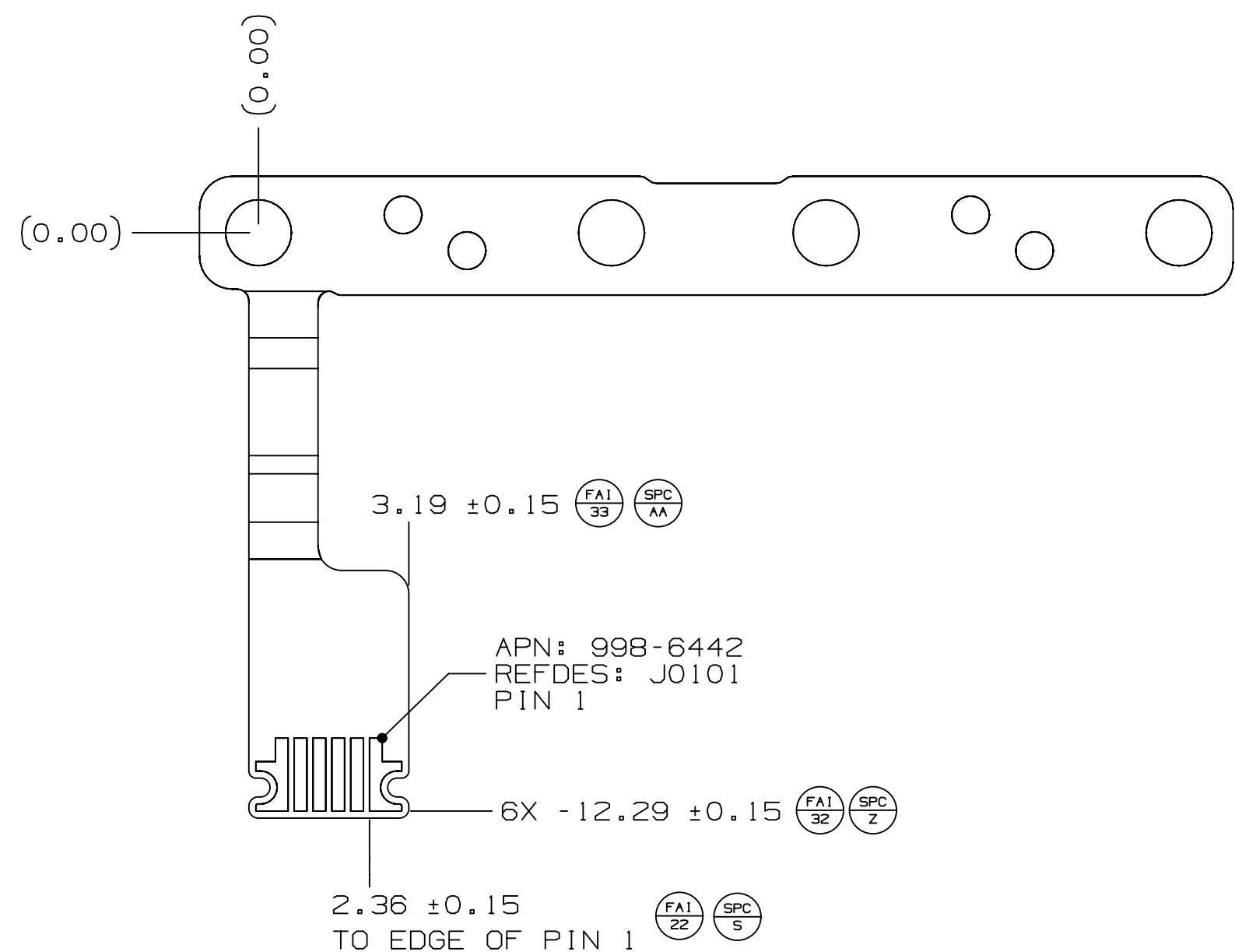
 19 TOTAL THICKNESS OF FLEX, PI STIFFENER AND TSA: 0.12 ± 0.03 MM
CO-CUT STIFFENER WITH FLEX OUTLINE, UNLESS OTHERWISE SPECIFIED.

REV	ECO#	DESCRIPTION OF REVISION
03	0037150595	UPDATES FOR TOLERANCES, STIFFENER UPDATE ON ZIF, AND LINER UPDATES. <div>BRENDON COLBERT 08/11/22</div>
04		UPDATED DIMENSIONS AND NOTE 19 <div>BRENDON COLBERT 08/16/22</div>
05		ADDED ADDITIONAL VESTIGE TAB LOCATION. <div>BRENDON COLBERT 08/19/22</div>
07	0038794812	UPDATED BARCODE POSITION, ADDED VESTIGE TAB, MODIFIED NOTE 16 TO ADD ADDITIONAL SWITCH, MODIFIED LINER LENGTH. <div>BRENDON COLBERT 02/03/23</div>
08		UPDATED BARCODE LOCATION AND LINER GEOMETRY. <div>BRENDON COLBERT 02/21/22</div>
09	0043301757	UPDATED PSA LINER GEOMETRY. <div>L. LI 05/25/23</div>
10	0044986390	UPDATED FAI4. ADDED FAI45. <div>L. LI 06/22/23</div>

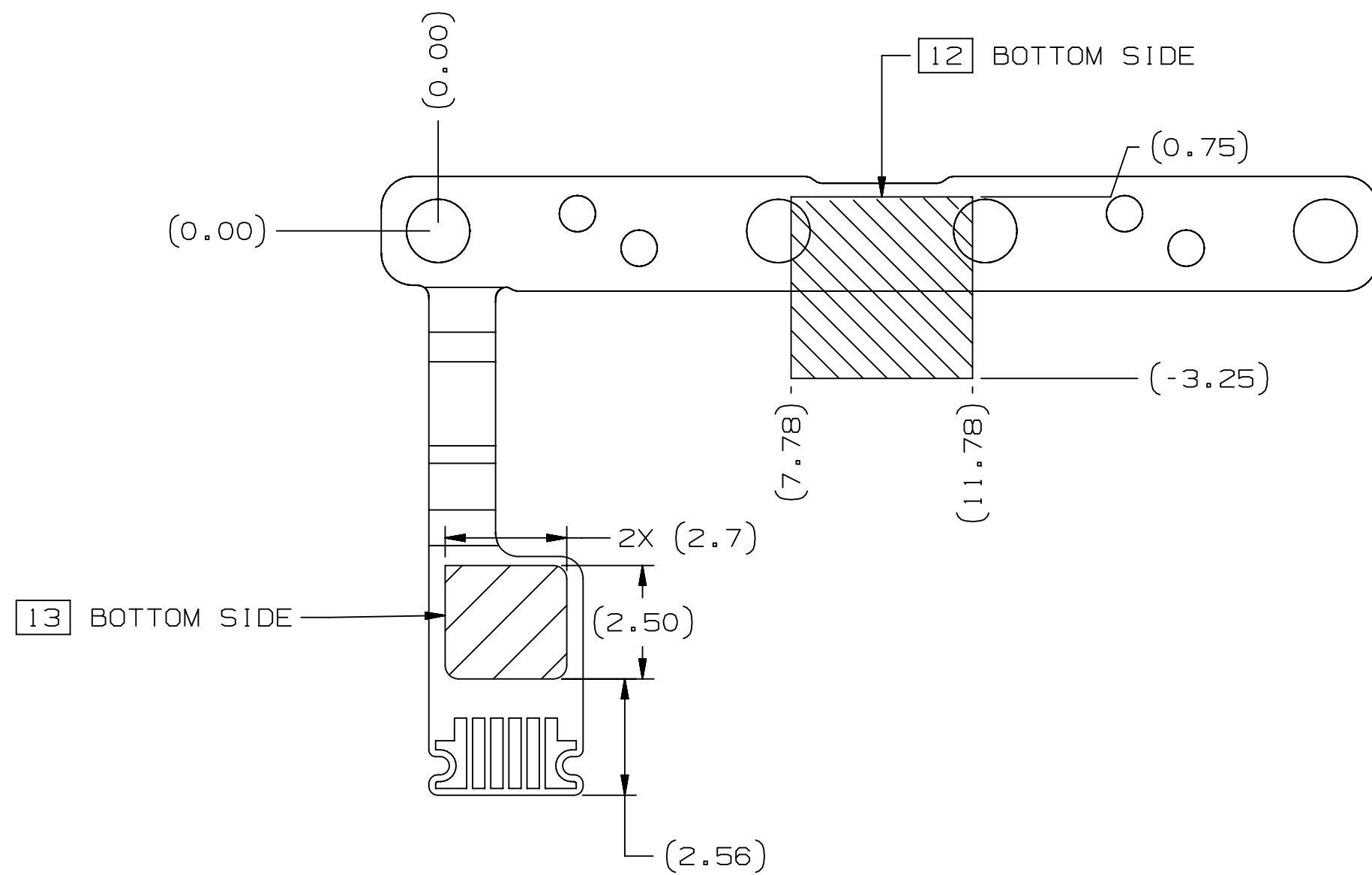
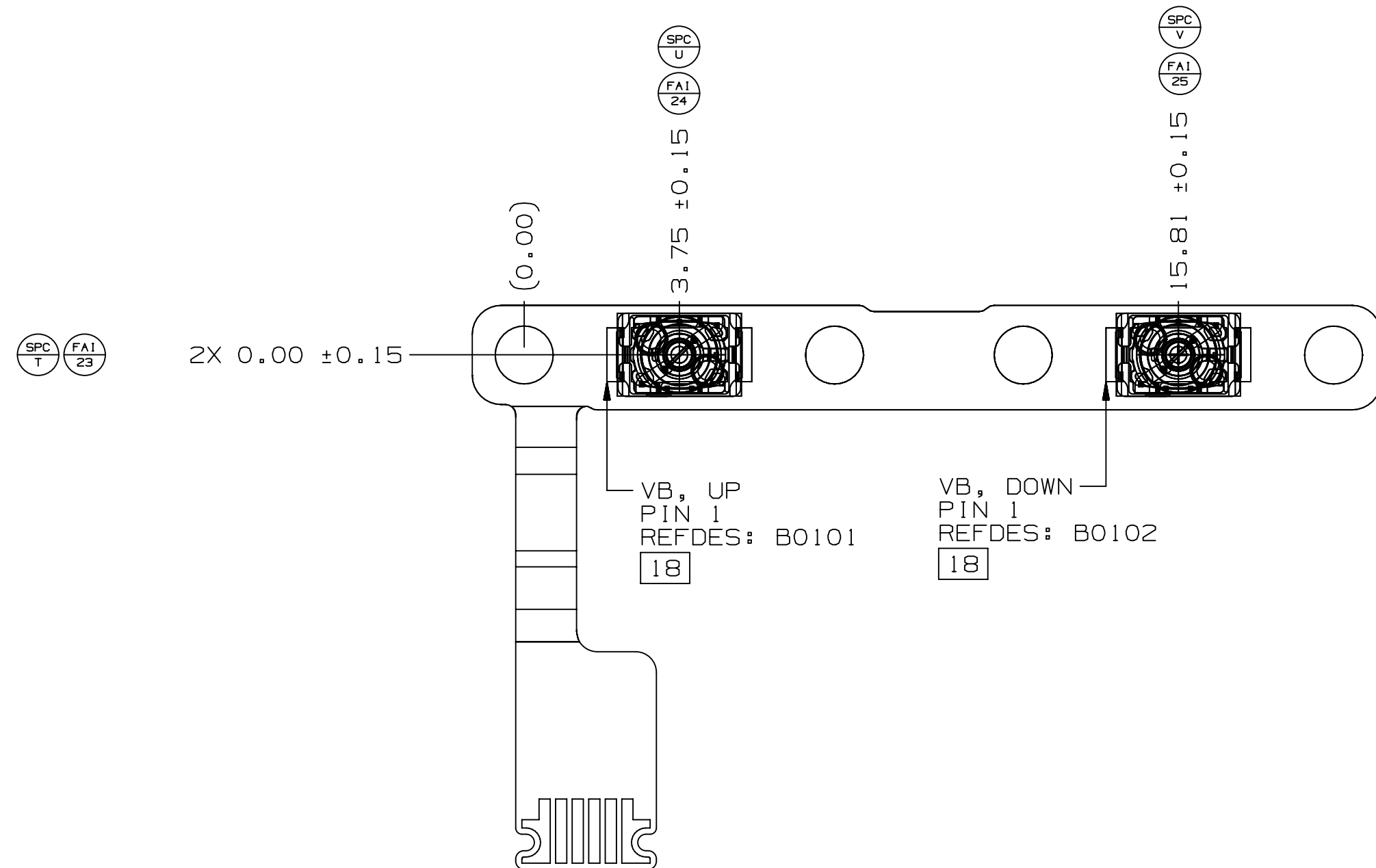


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DIMENSIONS ARE IN MILLIMETERS		TITLE	
TOLERANCES		MCO , FLEX , VB , J537	
X.X ±0.2		DRAWING NUMBER	
X.XX ±0.10			
X.XXX ±0.050			
ANGLES ±0.5°		REV.	
DO NOT SCALE DRAWINGS		056 - 16240	
THIRD ANGLE PROJECTION		10	
		SCALE	SHT 1 OF 4
		NONE	

TOP VIEW (FLEX OUTLINE)

COMPONENTS (TOPSIDE)
(AS VIEWED FROM TOP)
(COMPONENTS AUTO PLACED)

SILKSCREEN AND BARCODE

COMPONENTS (BOTTOMSIDE)
(AS VIEWED FROM TOP)
(COMPONENTS AUTO PLACED)

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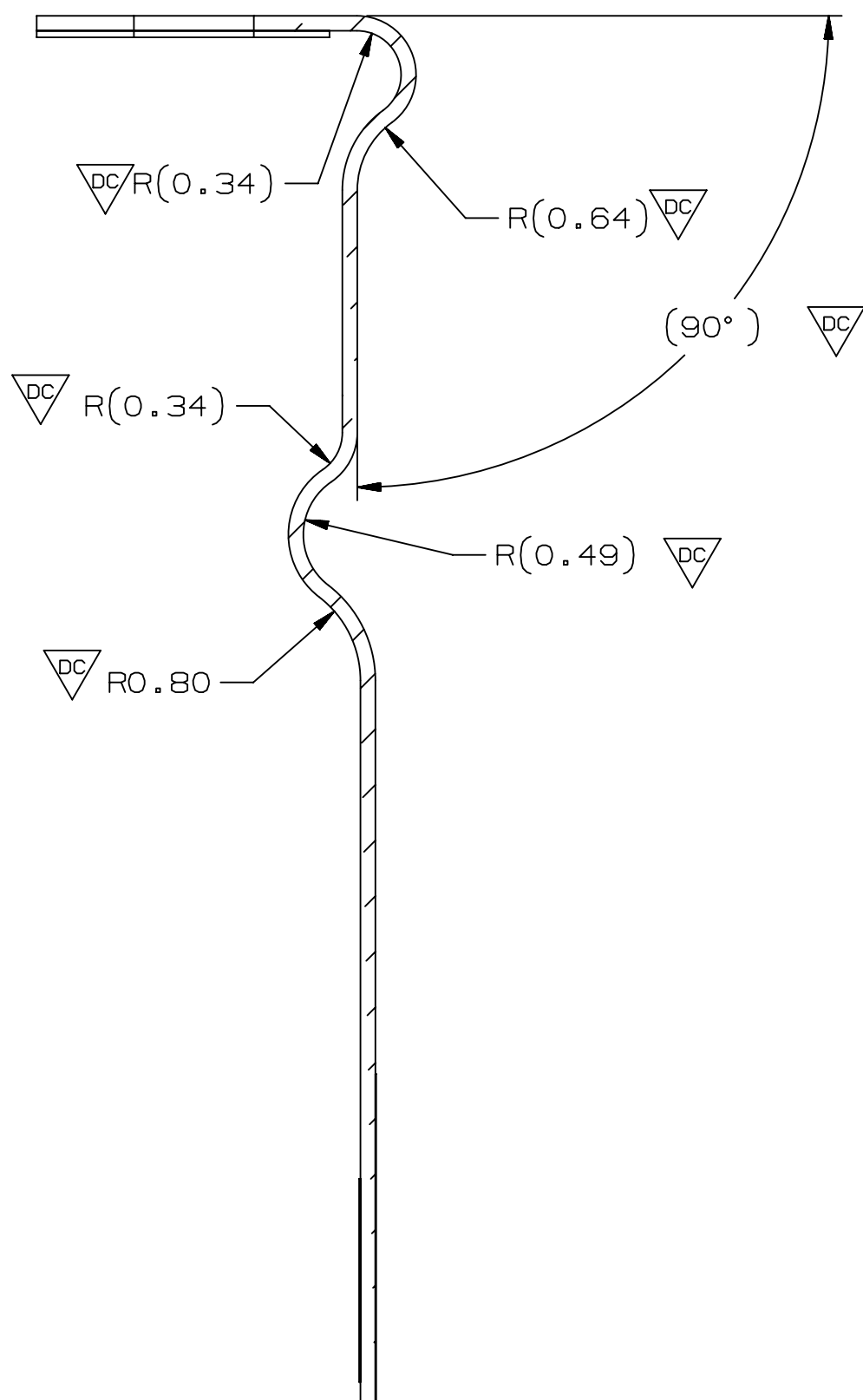
Apple Inc.

SIZE	DRAWING NUMBER	REV.
D	056-16240	10
SCALE	NONE	SHT 2 OF 4

REQUIRED PRE-BENDS

(AS VIEWED FROM TOP)

PRE-BEND TOLERANCES APPLY AT TIME OF PRE-BEND (TO) ONLY
SHIP IN RELAXED STATE



SECTION C - C

