

D

C

B

A

NOTES: (UNLESS OTHERWISE SPECIFIED)

1. ALL DIMENSIONS AND TOLERANCES APPLY PER ASME Y14.5, 2009. IT IS EXPECTED THAT THE SUPPLIER UNDERSTAND AND COMPLY WITH ALL TOLERANCES AS DESCRIBED IN THIS STANDARD AND APPLIED TO THIS DRAWING.
2. WHEN DATUMS ARE SPECIFIED ON A DRAWING, DIMENSIONS ARE RELATED TO DATUM A (AS THE PRIMARY DATUM), DATUM B (SECONDARY), AND DATUM C (TERTIARY).

3. 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. MQE.

4. DIMENSIONS DESIGNATED WITH THE  SYMBOL SHALL BE MONITORED WITH STATISTICAL PROCESS CONTROLS. THE PROCESS CONTROL DATA (CP, CPK, ETC.) OF THE PART MUST BE VALIDATED AND APPROVED BY APPLE INC. MQE.

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

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

ALL MATERIALS WITH RECYCLED OR RENEWABLE CONTENT MUST COMPLY WITH THE APPLE RECYCLED & RENEWABLE MATERIAL SPECIFICATION, 099-15583.

6. REFER TO CAD FILE FOR COMPONENT RESTRICTION HEIGHT GEOMETRY.

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

8. DIMENSIONS LABELED FOR DATA COLLECTION WITH  REQUIRE INSPECTION ON #X SAMPLES PER APPLE INC. PD AND MQE APPROVED METHOD.

9. DIMENSIONS LABELED AS  REQUIRE 100% INSPECTION PER APPLE INC. PD AND MQE APPROVED METHOD.

10. UNLESS OTHERWISE SPECIFIED, ENCAPSULATE ALL COMPONENTS WITH COLTECH CT2288 G1F.

11. NO GLUE OVERFLOW ALLOWED OUTSIDE OF THE OUTLINE PERIMETER OF FPC.

12. FLEX THICKNESS: 0.104 MM +/-0.02

13 PI STIFFENER
THICKNESS (INCLUDING ADHESIVE): 0.100 ± 0.0100 MM
COLOR: MATTE BLACK
PI STIFFENER SHALL BE CO-CUT WITH FLEX EDGES EXCEPT WHERE SPECIFIED

14 SUS STIFFENER:
MATERIAL: SUS 316 1/2H
THICKNESS: 0.100 MM
PLATING: ELECTROLESS NI PLATE 1-5 um

ATTACH WITH CONDUCTIVE ADHESIVE, TOYO TSC200GD, (0.06) MM THICK
0.140 MM THICK AFTER BONDING.

15 NON-CONDUCTIVE ADHESIVE
MATERIAL: TESA 61305
THICKNESS: 0.050 MM ± 0.005

16 ADHESIVE LINER:
MATERIAL: CLEAR BLUE PET
THICKNESS: 0.036 - 0.050 MM

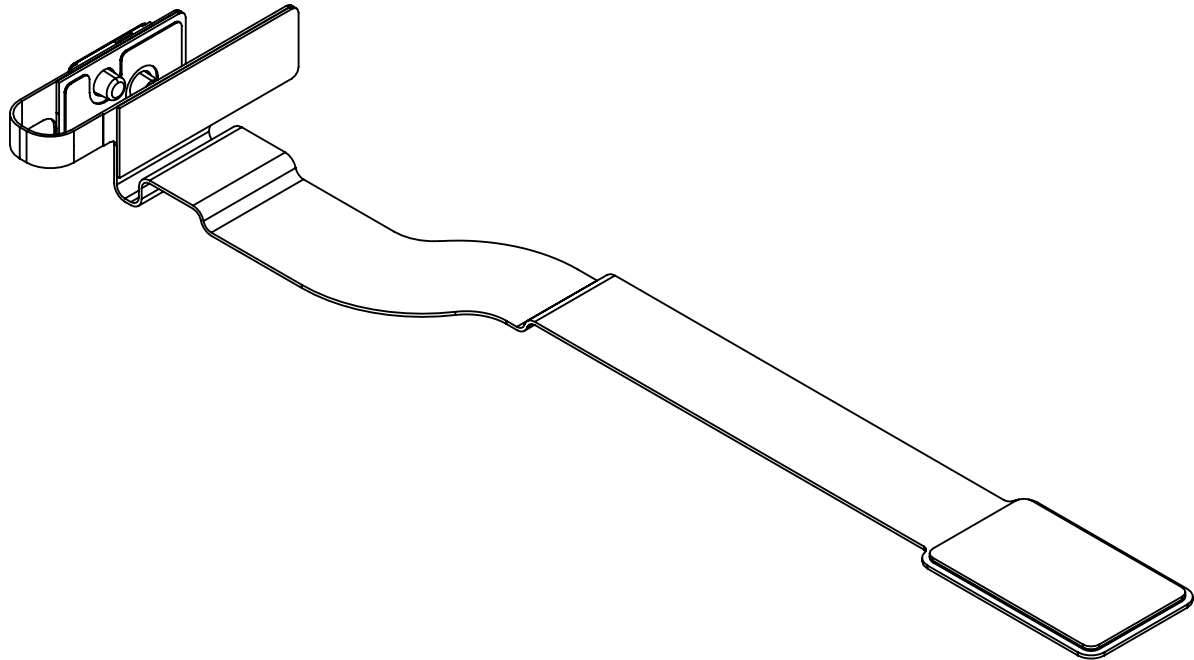
17 SILKSCREEN: PART INFORMATION, INCLUDING APPLE INC. P/N AND REV, DATE CODE, VENDOR, SHOULD BE SPECIFIED. PART AND VENDOR INFORMATION SHOULD NOT BE VISIBLE FROM TOP VIEW AFTER INSTALLATION.

18 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: BLACK BACKGROUND WITH WHITE MARKINGS OR 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.


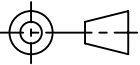

19 POWER BUTTON SWITCH
ACCEPTABLE PART NUMBERS:
705S00031, 705S00045, 705S00048 OR 705S00053

20. 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.

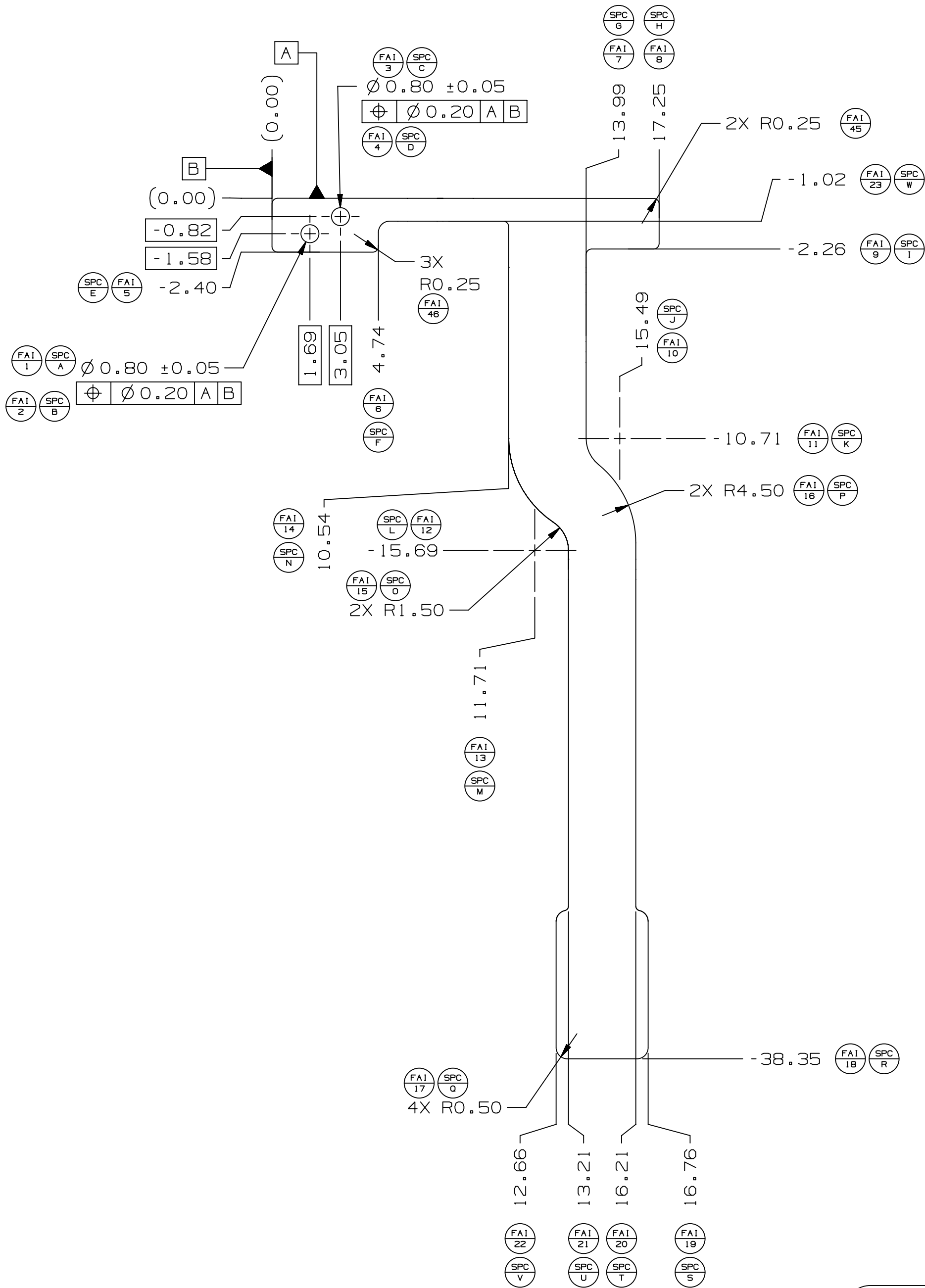
21. FLAME RATING CALL OUT:
PLASTICS, INCLUDING FOAMS, MUST COMPLY WITH THE FOLLOWING SPECIFICATION: 062-9728.



REV	ECO#	DESCRIPTION OF REVISION
05		INITIAL 2D JTURBAN 01/07/25
06		UPDATED OUTLINE. ADDED DETAIL TO 2D JTURBAN 01/08/25
07		2D CLEANUP PER DFM. ADDED LINERS. ADDED TOP EXPOSED COPPER. ADDED BEND & SWITCH DEFINITION. ADDED SILKSCREEN & BARCODE JTURBAN 01/10/25
08		REMOVED TOP EXPOSED COPPER, UPDATED LINER, UPDATED BARCODE JTURBAN 01/14/25
09		CORRECTED LOCATION OF PIN1 ARROW FOR SWITCH IN MCO JTURBAN 01/15/25
10		ADDED BEND CL CALLOUTS TO SHEET 8 JTURBAN 01/24/25

METRIC		 Apple Inc.	
DRAFTER APPLE PD	DATE	NOTICE OF PROPRIETARY PROPERTY: THE INFORMATION CONTAINED HEREIN IS THE PROPRIETARY PROPERTY OF APPLE INC. THE POSSESSOR AGREES TO THE FOLLOWING: (i) TO MAINTAIN THIS DOCUMENT IN CONFIDENCE (ii) NOT TO REPRODUCE OR COPY IT (iii) NOT TO REVEAL OR PUBLISH IT IN WHOLE OR PART (iv) ALL RIGHTS RESERVED	
DESIGNER APPLE PD	DATE		
DIMENSIONS ARE IN MILLIMETERS TOLERANCES X.X ±0.2 X.XX ±0.10 X.XXX ±0.050 ANGLES ±0.5° DO NOT SCALE DRAWINGS		TITLE MCO , PB , FLEX , LOOP , X3580	
		DRAWING NUMBER 056 - 22229	REV. 10
 THIRD ANGLE PROJECTION		SIZE 	SCALE NONE SHT 1 OF 8

FLEX OUTLINE



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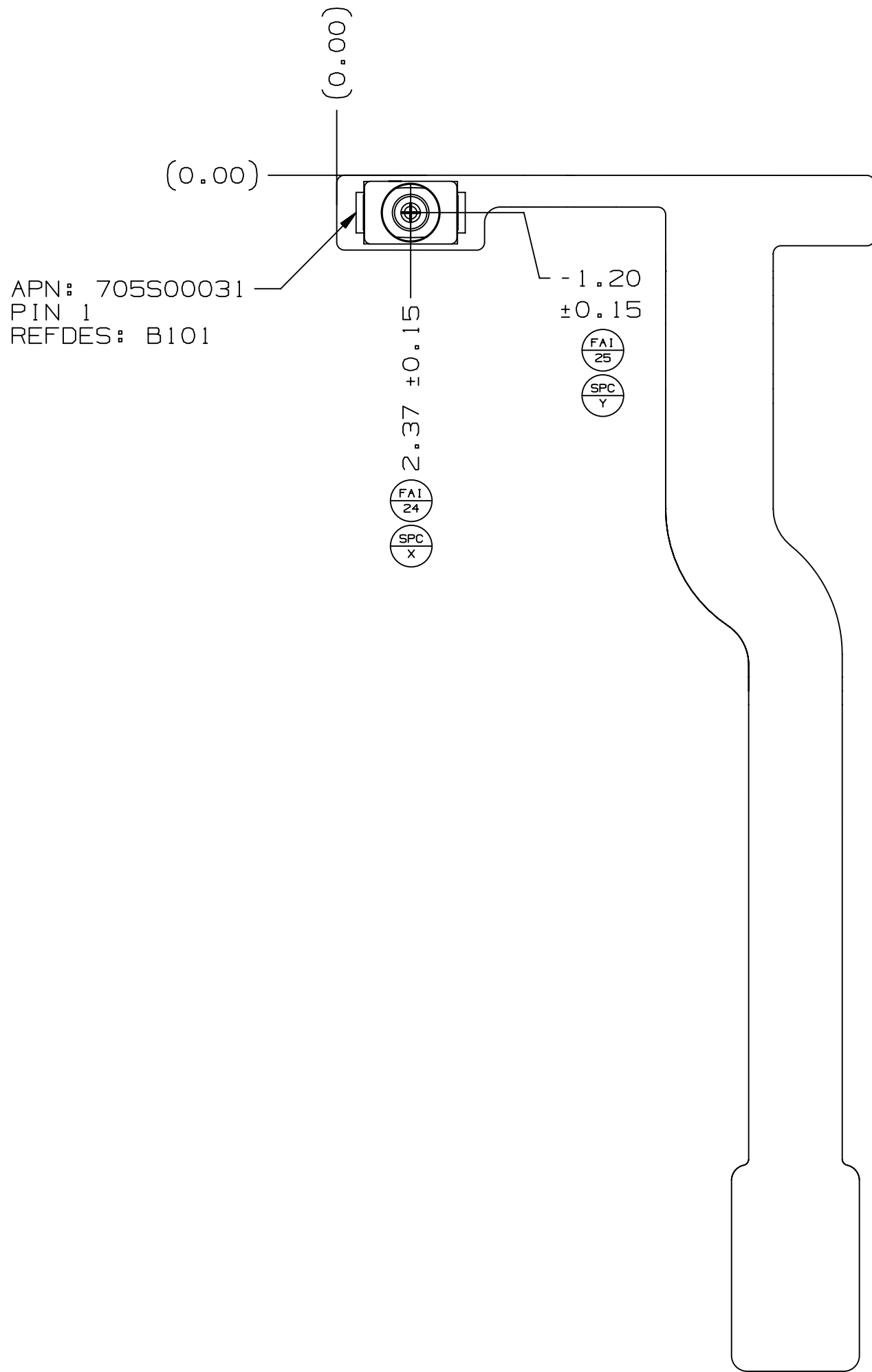
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SIZE	DRAWING NUMBER	REV.
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SCALE:	SHT	2	OF	8
NONE				

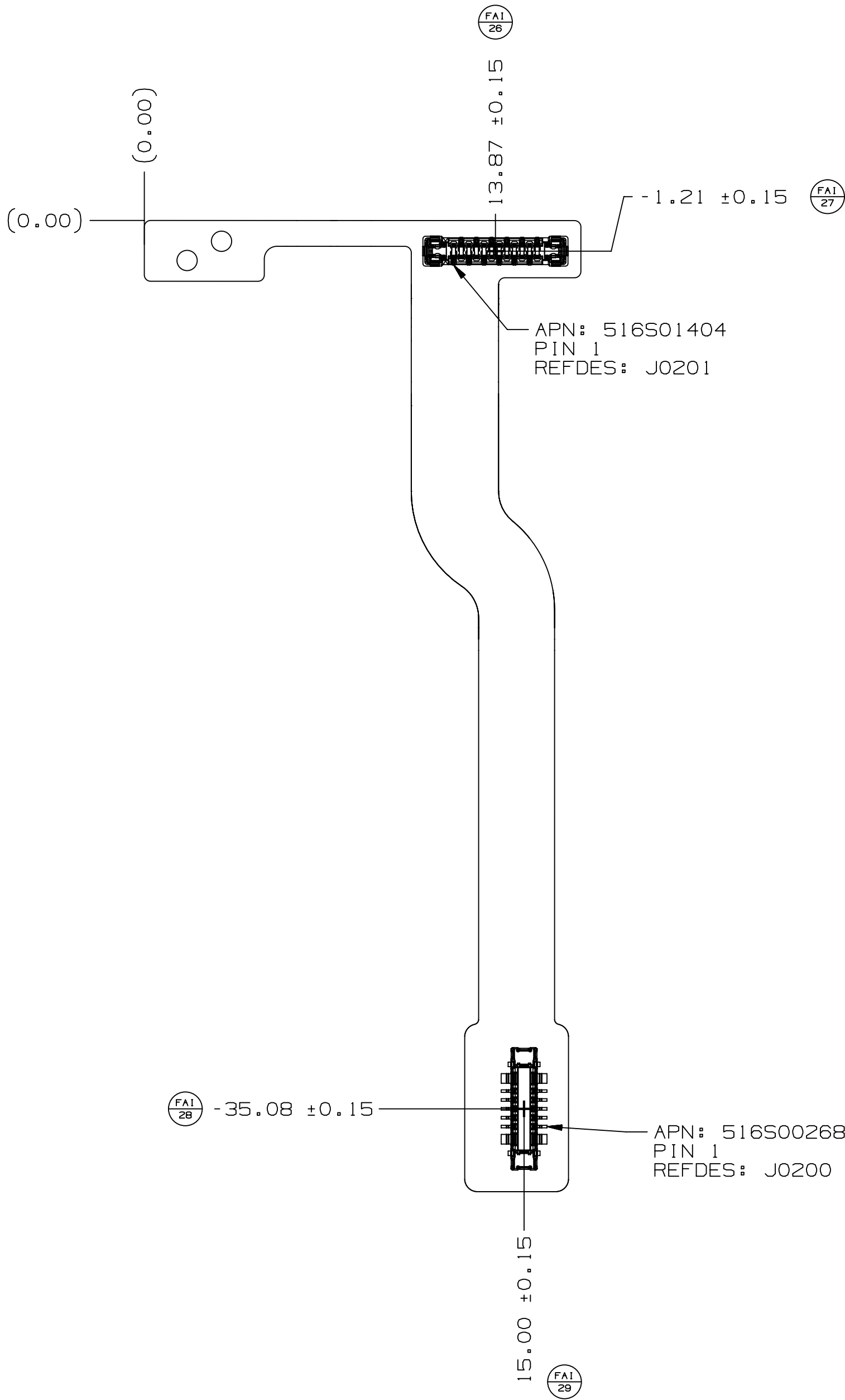
TOP COMPONENTS

(AS VIEWED THROUGH TOP)



BOTTOM COMPONENTS

(AS VIEWED THROUGH TOP)



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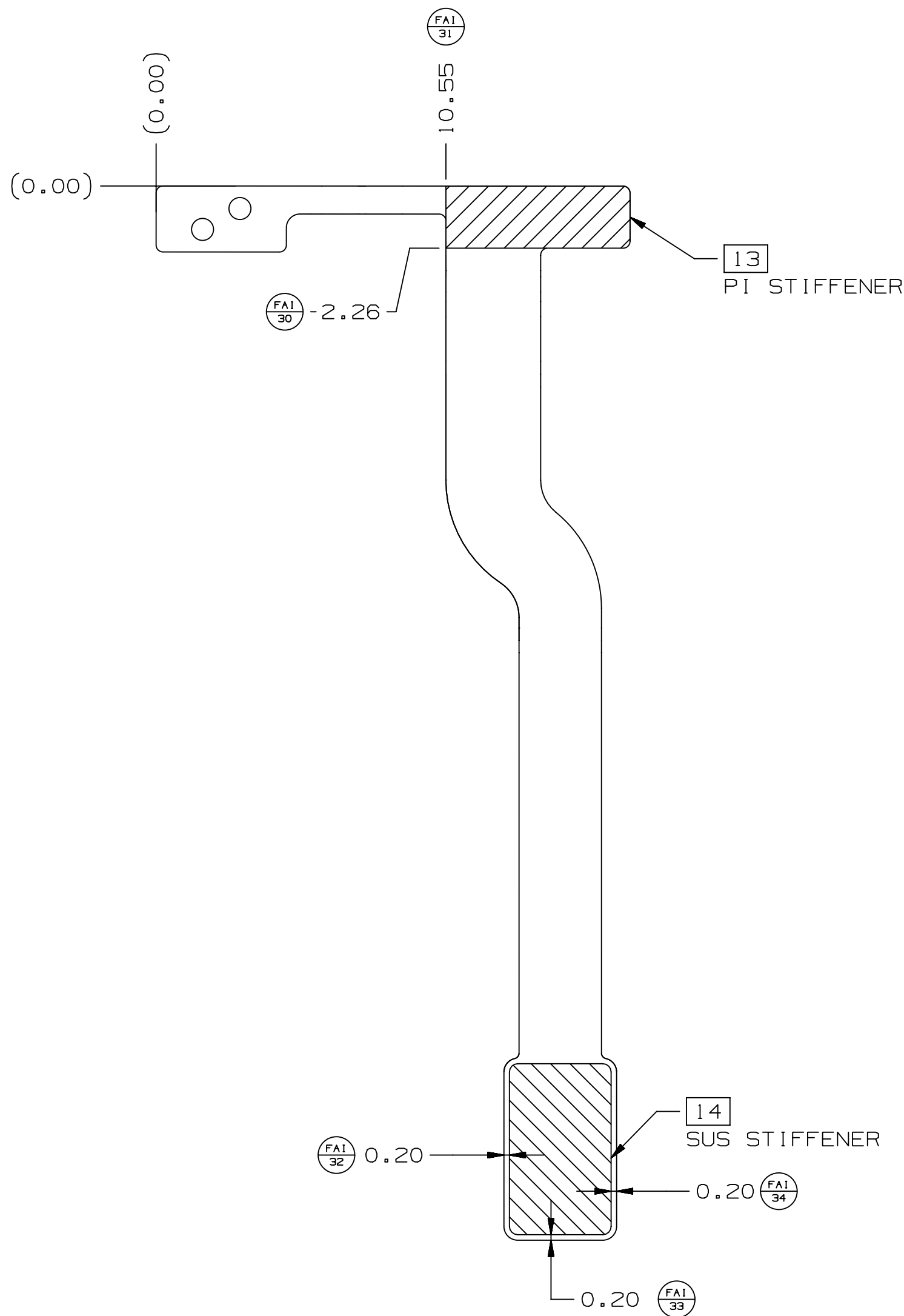
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TOP STIFFENER AREA

(AS VIEWED THROUGH TOP)

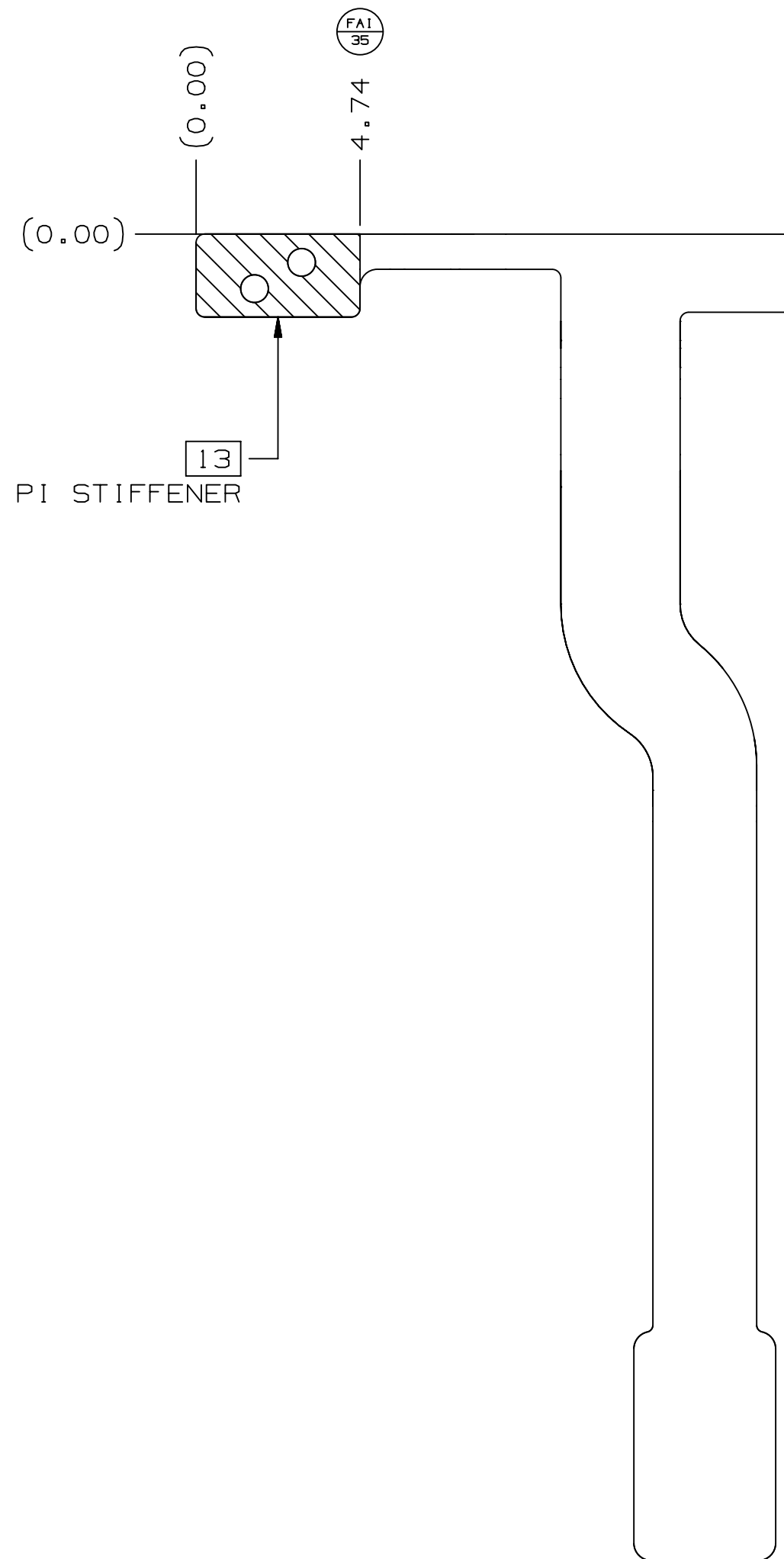
STIFFENER TOLERANCE: ± 0.20
(UNLESS OTHERWISE SPECIFIED)



BOTTOM STIFFENER AREAS

(AS VIEWED THROUGH TOP)

STIFFENER TOLERANCE: ± 0.20
(UNLESS OTHERWISE SPECIFIED)

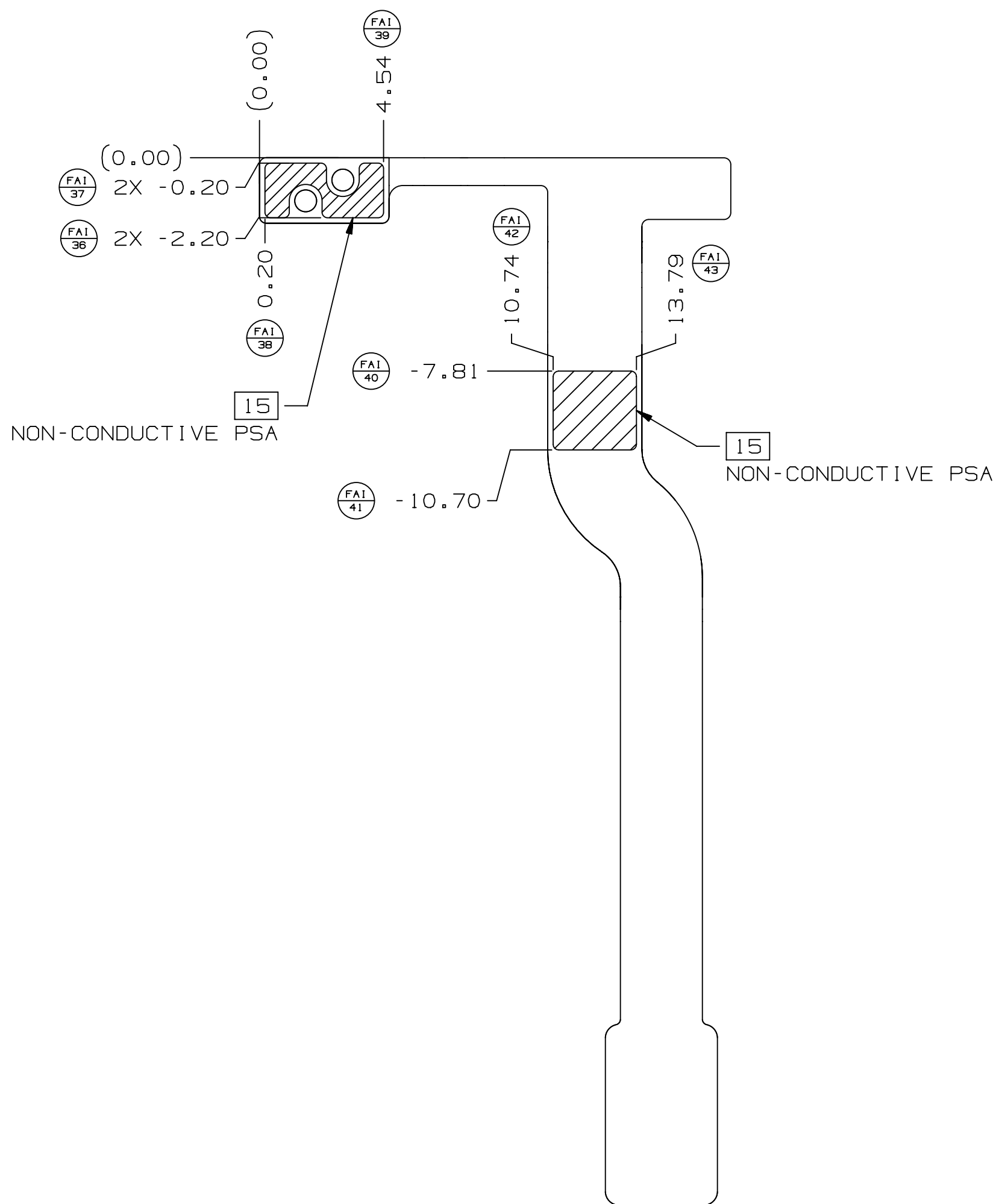


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SIZE	DRAWING NUMBER	REV.		
C	056-22229	10		
SCALE:	NONE	SHT	4	OF 8

BOTTOM ADHESIVE AREAS

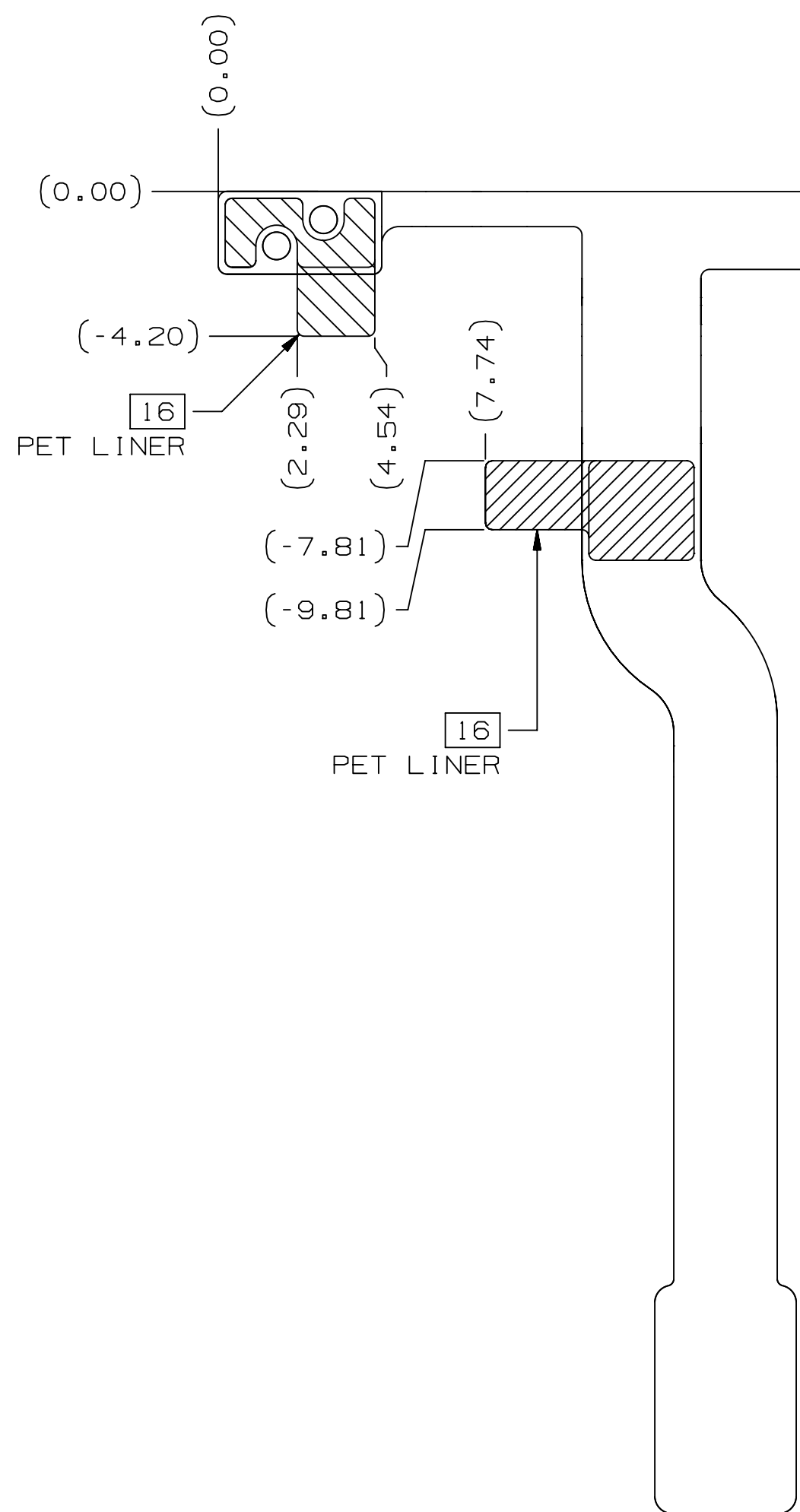
(AS VIEWED THROUGH TOP)

PSA TOLERANCE: ± 0.20
(UNLESS OTHERWISE SPECIFIED)



BOTTOM ADHESIVE LINERS

(AS VIEWED THROUGH TOP)



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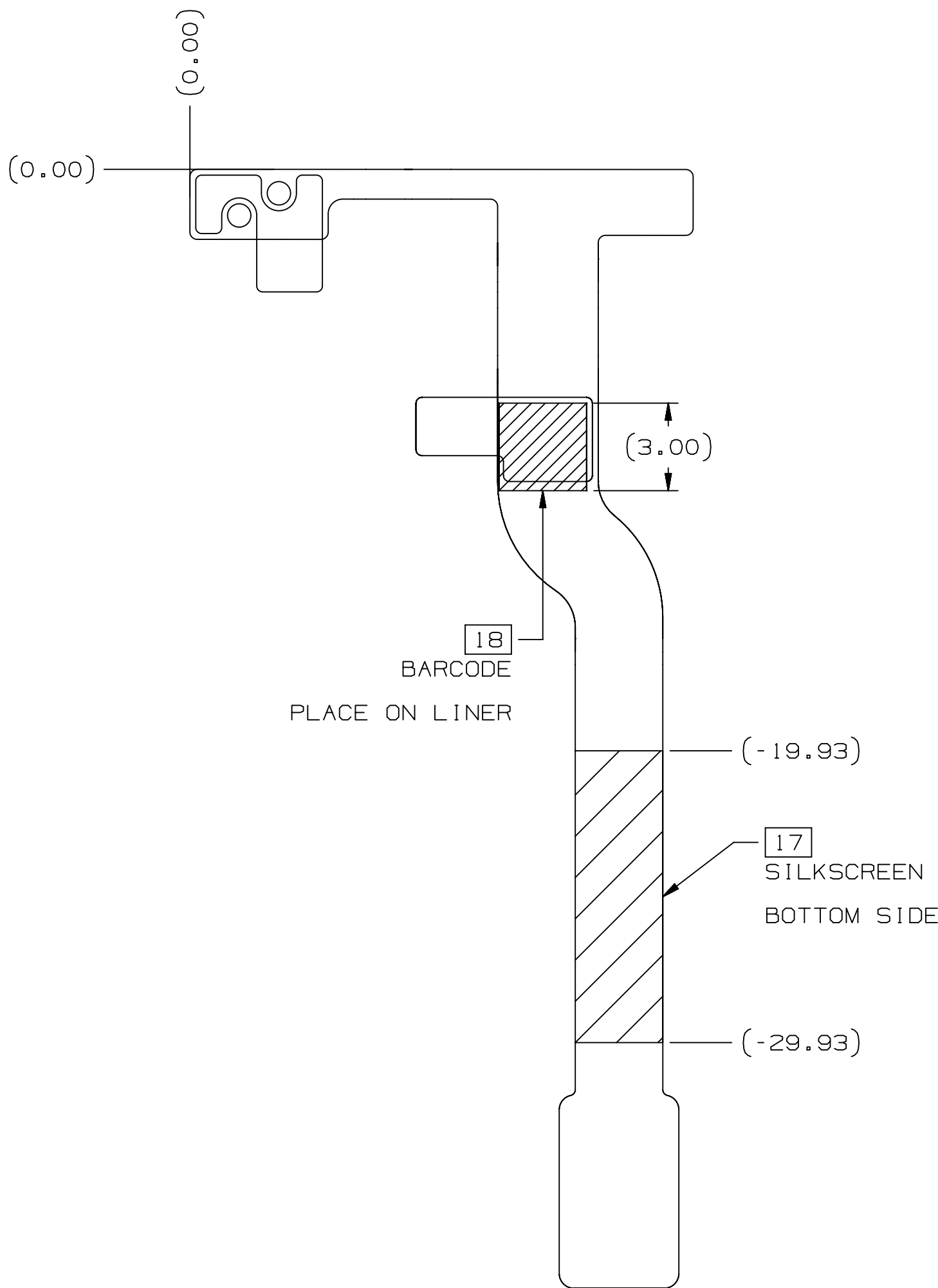
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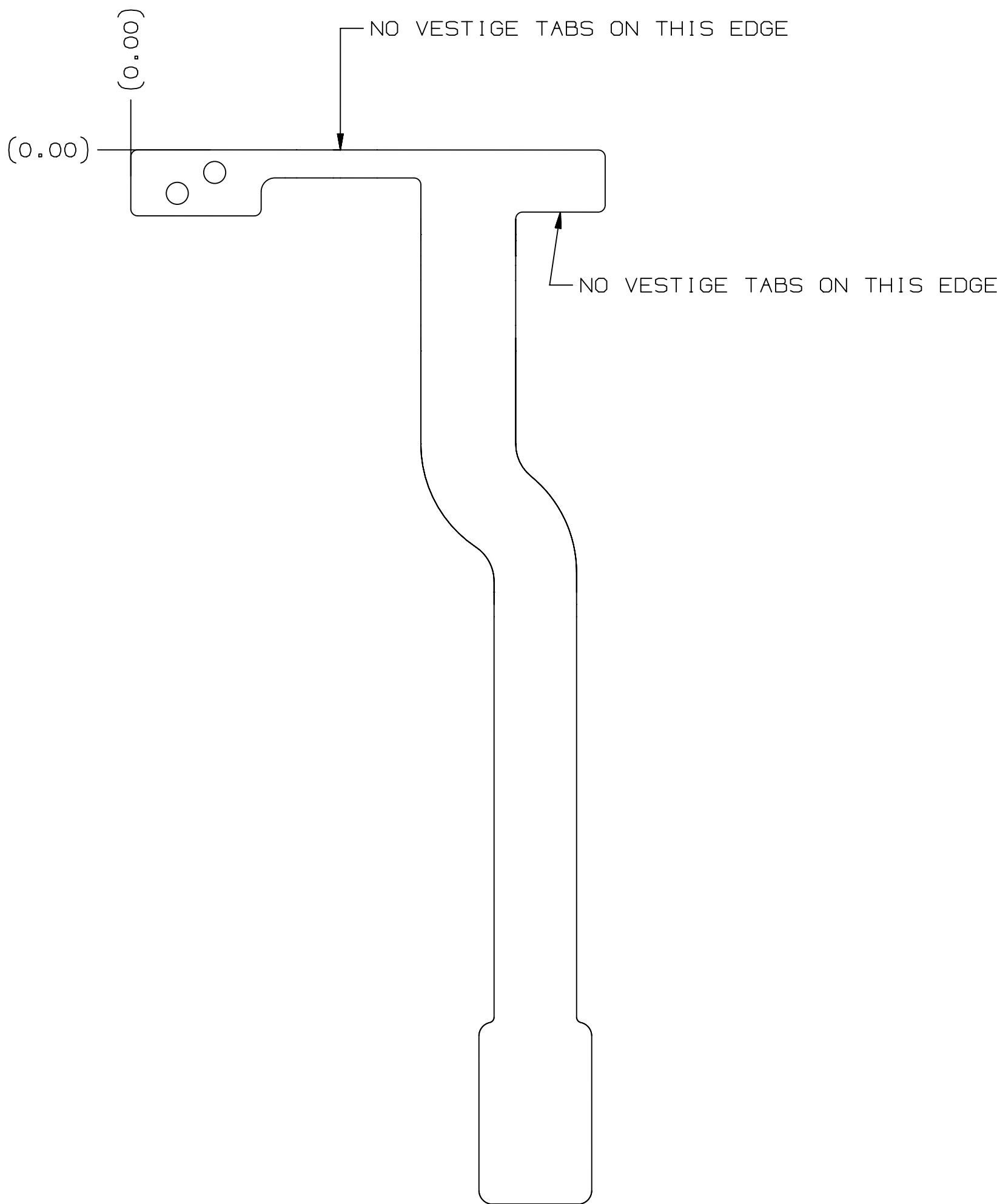
SILKSCREEN & BARCODE

(AS VIEWED THROUGH TOP)



VESTIGE TABS

(AS VIEWED THROUGH TOP)



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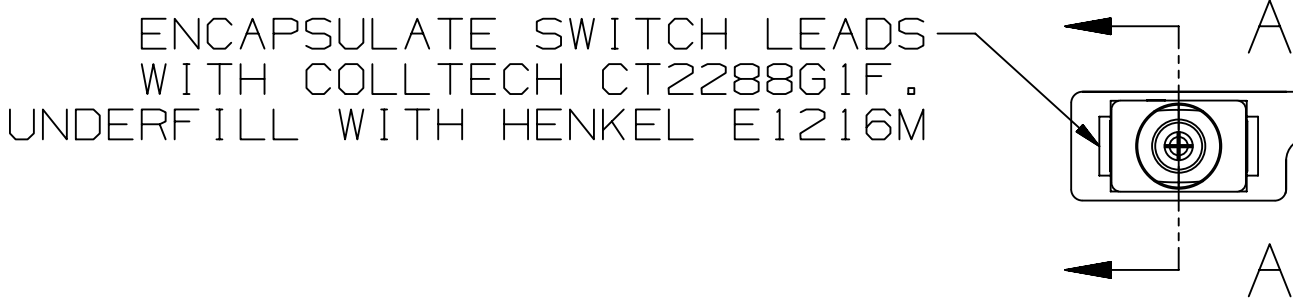
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
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BUTTON SWITCH 19

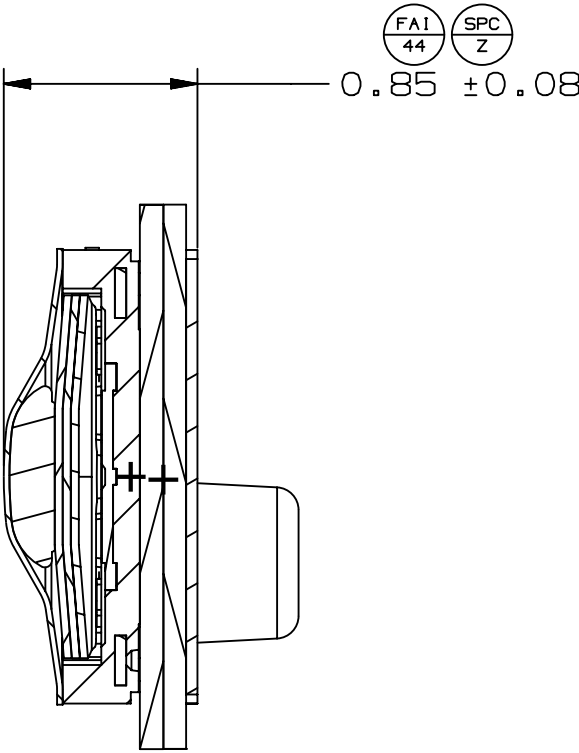


C

 INSPECT 100% FOR THE FOLLOWING CRITERIA:

- POST-REFLOW CLICK RATIO (%): 50 ± 11
- POST-REFLOW OPERATION FORCE (N): 3.3 ± 0.7
- POST-REFLOW TRAVEL (MM): 0.10 MIN

TEST METHOD MUST BE APPROVED BY APPLE INC. SQE





B

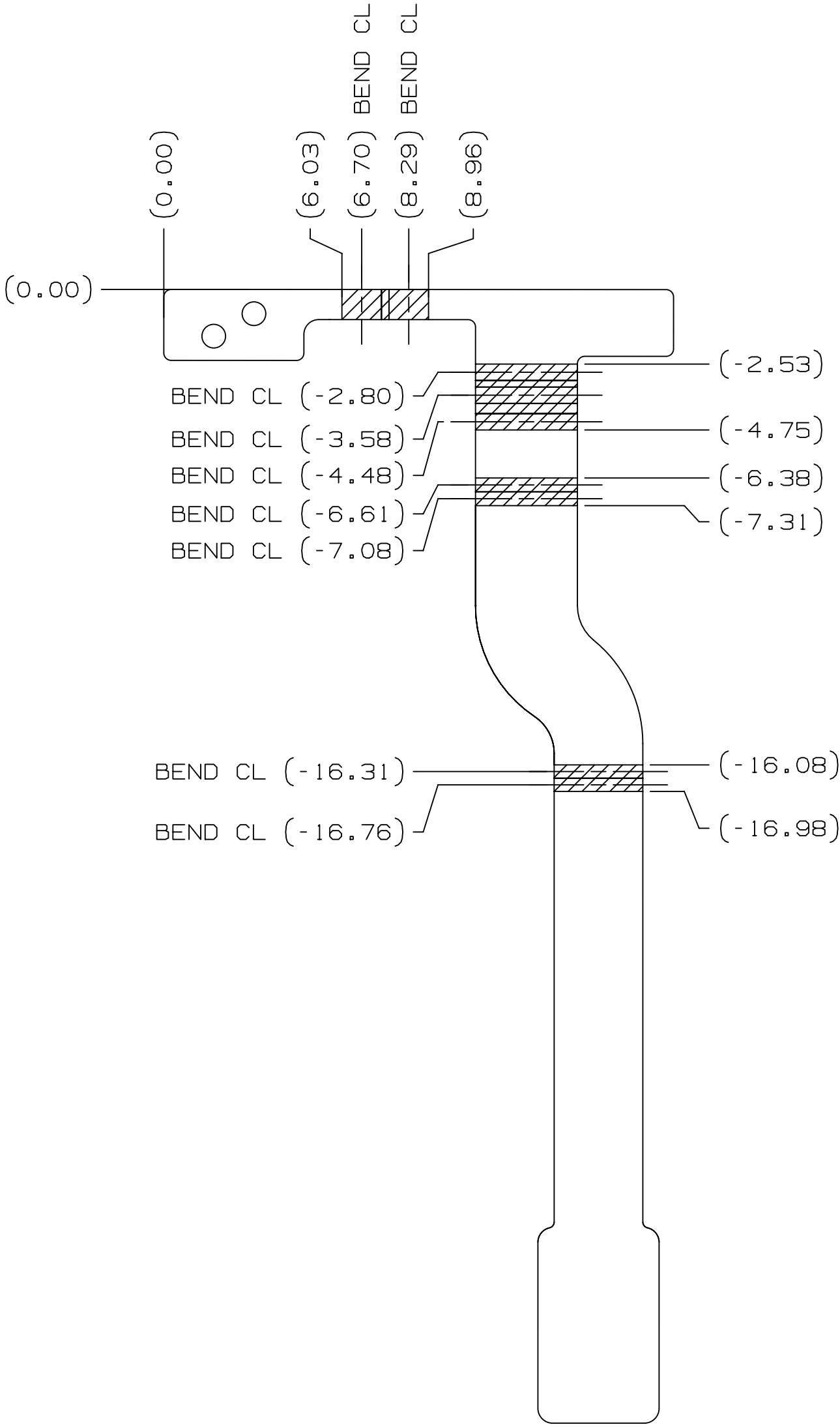
SECTION A - A

A

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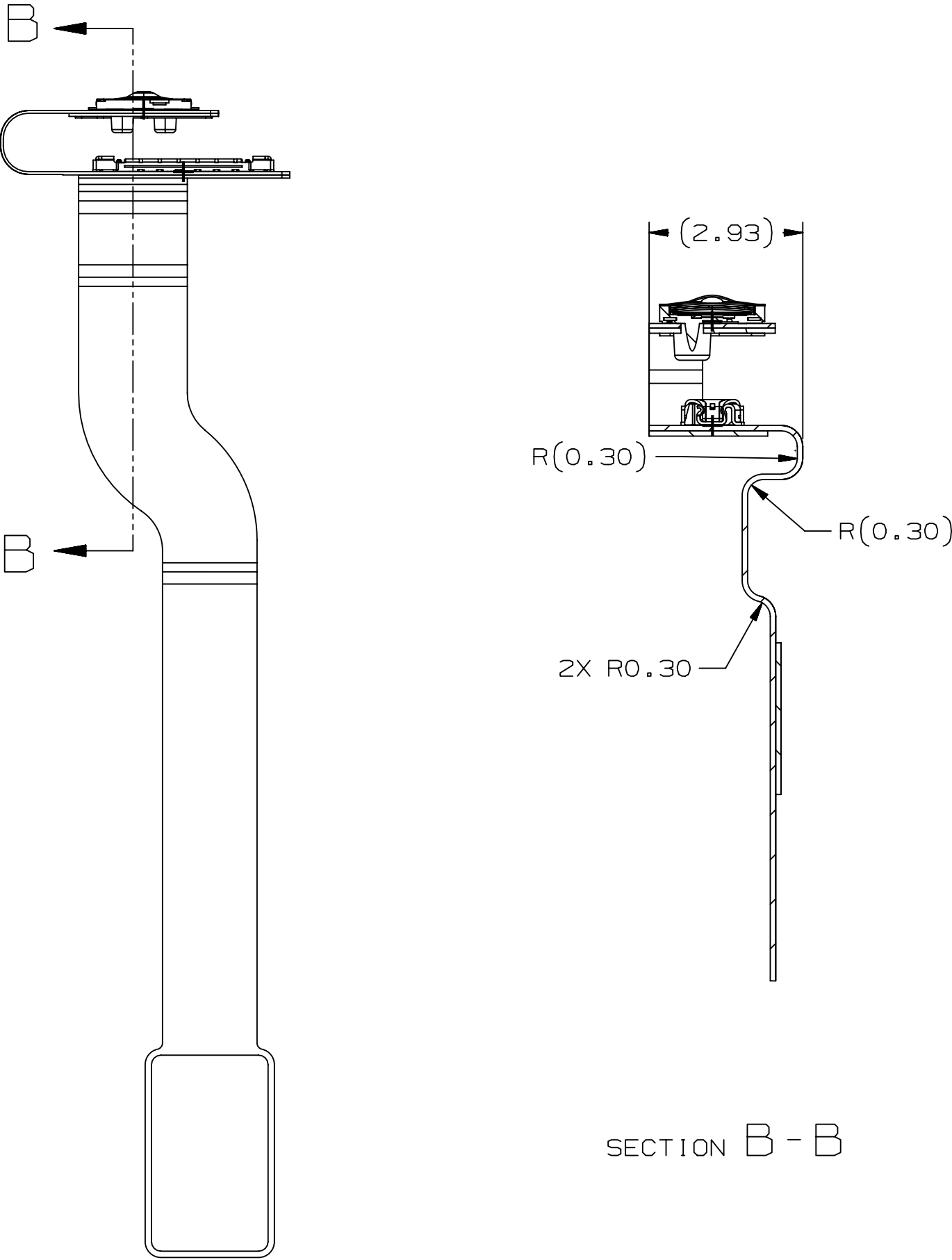
 Apple Inc.		
SIZE	DRAWING NUMBER	REV.
	056-22229	10
SCALE:	NONE	SHT 7 OF 8

BEND-REGIONS



PRE-BENDS

PRE-BEND AND SHIP FLAT



SECTION B - B

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SIZE	DRAWING NUMBER	REV.
C	056-22229	10
SCALE:	NONE	SHT 8 OF 8

NX GENERATED