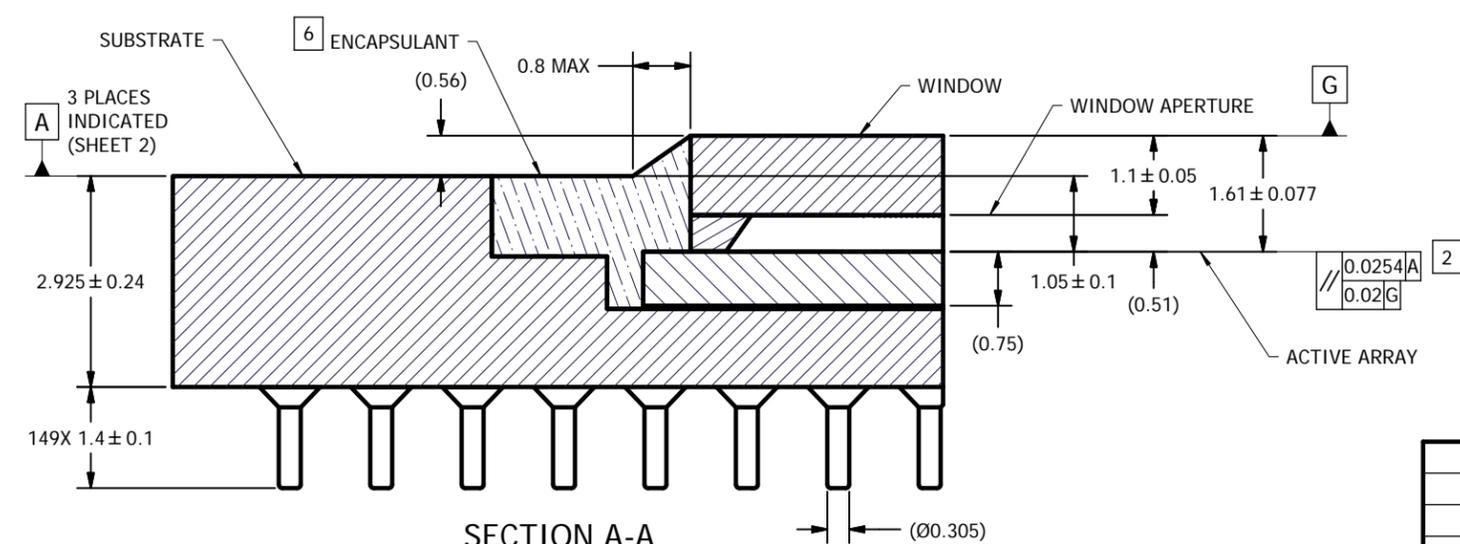
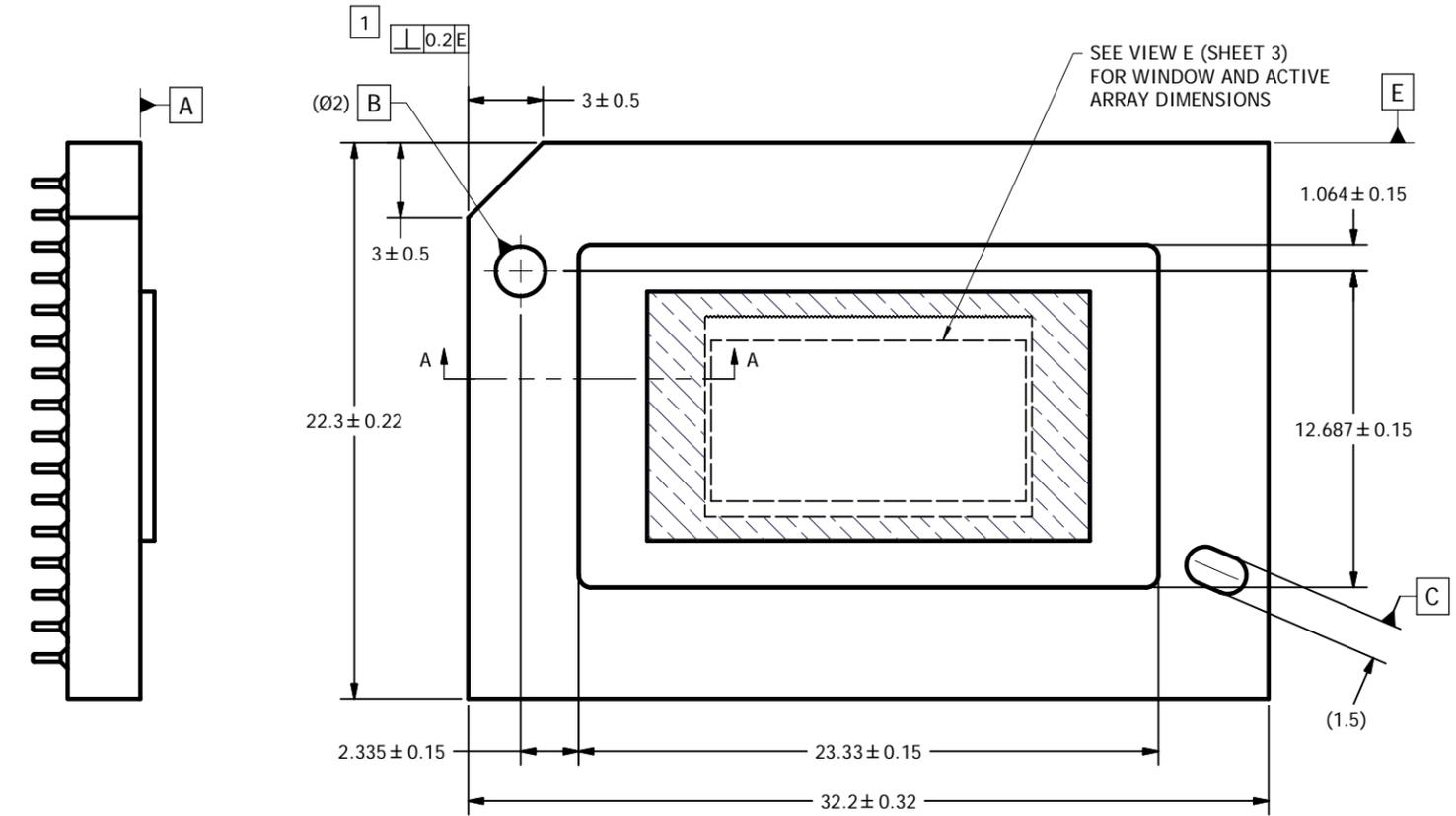
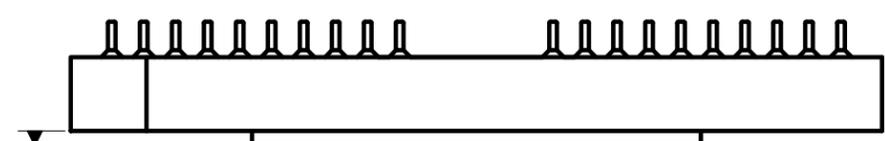


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REVISIONS			
REV	DESCRIPTION	DATE	BY
A	ECO 2155049: INITIAL RELEASE	12/7/2015	BMH
B	ECO 2165903: UPDATE SUBSTRATE BACK MARKING, SH. 4	4/25/2017	BMH
C	ECO 2170159: RELAX DIE HEIGHT TOL., WAS +/-0.08	11/9/2017	BMH

NOTES UNLESS OTHERWISE SPECIFIED:

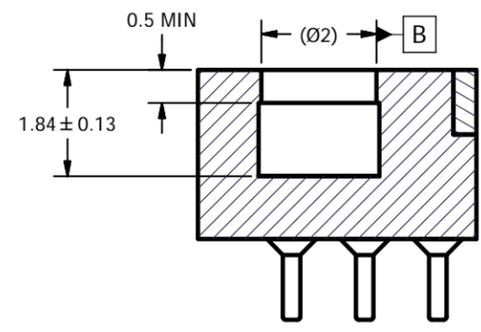
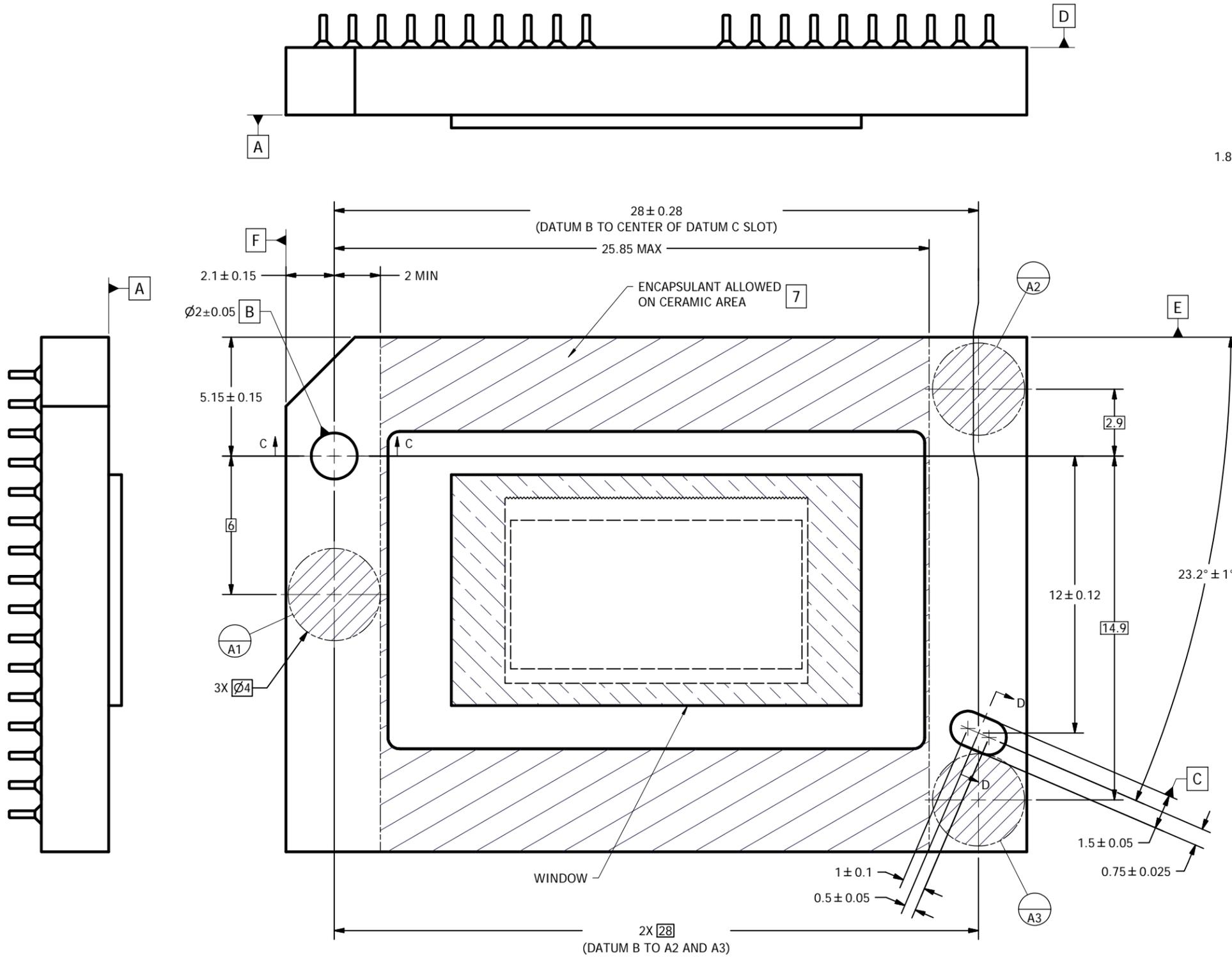
- 1 SUBSTRATE EDGE PERPENDICULARITY TOLERANCE APPLIES TO ENTIRE SURFACE.
- 2 DIE PARALLELISM TOLERANCE APPLIES TO DMD ACTIVE ARRAY ONLY.
- 3 ROTATION ANGLE OF DMD ACTIVE ARRAY IS A REFINEMENT OF THE LOCATION TOLERANCE AND HAS A MAXIMUM VALUE OF 0.8 DEGREES.
- 4 SUBSTRATE SYMBOLIZATION PAD AND PLATING AT BOTTOM OF DATUMS B AND C HOLES TO BE ELECTRICALLY CONNECTED TO VSS PLANE WITHIN THE SUBSTRATE.
- 5 BOUNDARY MIRRORS SURROUNDING THE ACTIVE ARRAY.
- 6 MAXIMUM ENCAPSULANT PROFILE SHOWN.
- 7 ENCAPSULANT ALLOWED ON THE SURFACE OF THE CERAMIC IN THE AREA SHOWN IN VIEW B (SHEET 2). ENCAPSULATION SHALL NOT EXCEED 0.2 THICKNESS MAXIMUM.
- 8 INDICATED CERAMIC SUBSTRATE FEATURES TO BE PLATED WITH 0.3 MICROMETERS MINIMUM ELECTROLYTIC GOLD OVER 0.1 MICROMETER MINIMUM PALLADIUM OVER 1.27-8.89 MICROMETERS ELECTROLYTIC NICKEL PER ASTM B488-01, ASTM B679-95(2009), AND AMS-QQ-N-290, RESPECTIVELY.
- 9 NOTE THAT THE ACTIVE ARRAY CENTER IS IN A DIFFERENT LOCATION FROM ALL PRIOR SERIES 450 DMD'S.



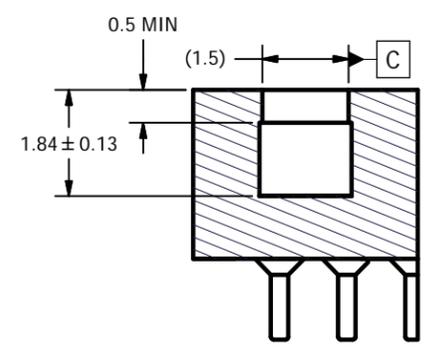
SECTION A-A
SCALE 20 : 1

↑ INCIDENT LIGHT

UNLESS OTHERWISE SPECIFIED		DRAWN B. HASKETT 12/7/2015		 TEXAS INSTRUMENTS Dallas, Texas	
● DIMENSIONS ARE IN MILLIMETERS ● TOLERANCES: ANGLES ± 1° 2 PLACE DECIMALS ± 0.25 1 PLACE DECIMALS ± 0.50 ● DIMENSIONAL LIMITS APPLY BEFORE PROCEEDING ● INTERPRET DIMENSIONS IN ACCORDANCE WITH ASME Y14.5M-1994 ● REMOVE ALL BURRS AND SHARP EDGES ● PARENTHETICAL INFORMATION FOR REFERENCE ONLY		ENGINEER B. HASKETT 12/7/2015 QA/CE P. KONRAD 12/8/2015 CM S. SUSI 12/8/2015			
THIRD ANGLE PROJECTION NONE 0314DA NEXT ASSY USED ON APPLICATION		APPROVED M. DORAK 12/8/2015 B. RAY 12/8/2015		SIZE D	DWG NO. 2514853
				SCALE 4:1	SHEET 1 OF 4



SECTION C-C
DATUM B
SCALE 16 : 1



SECTION D-D
DATUM C
(VIEW ROTATED FOR CLARITY)
SCALE 16 : 1

VIEW B
DATUMS AND ENCAPSULANT ALLOWABLE AREA
SCALE 10 : 1

D

D

C

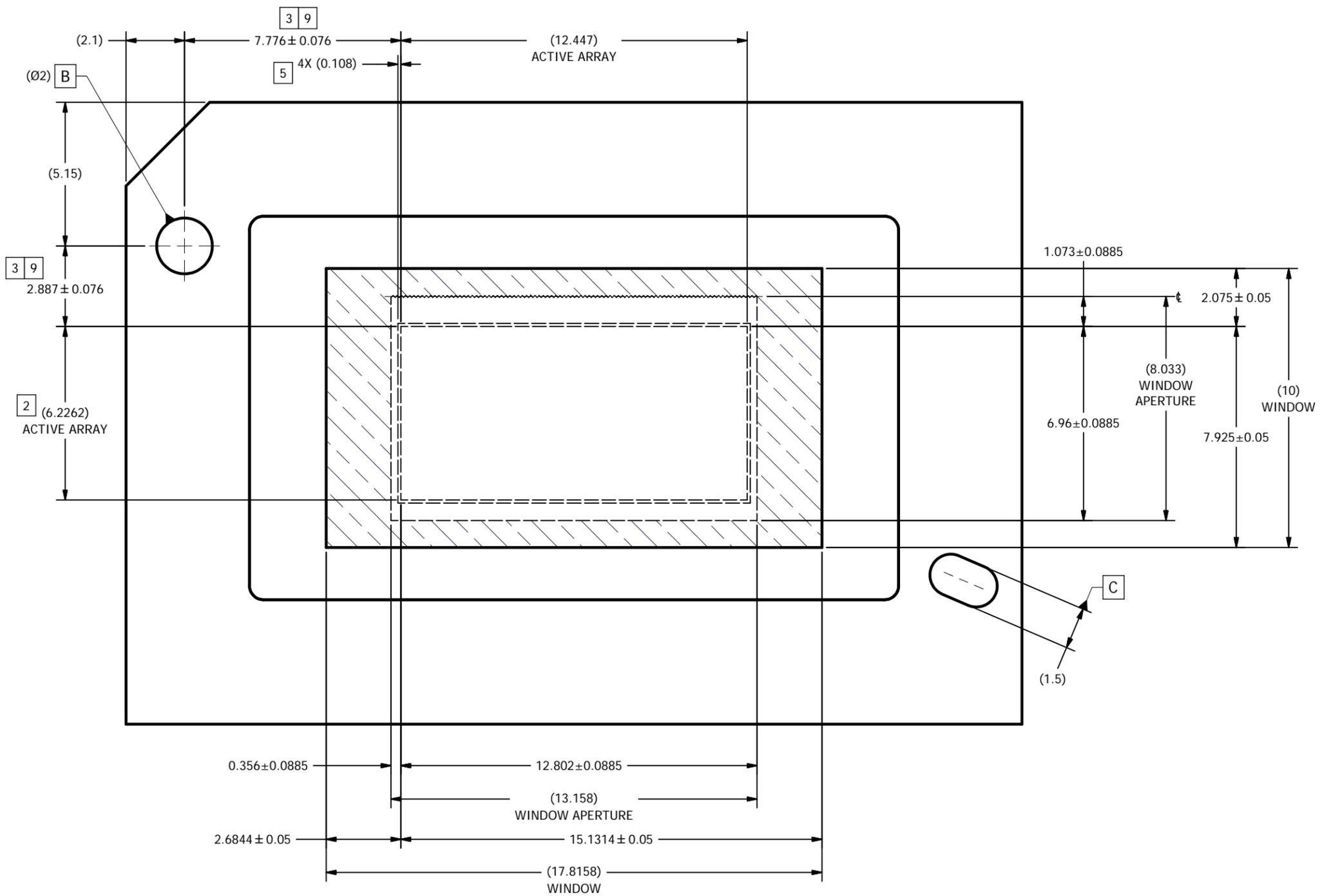
C

B

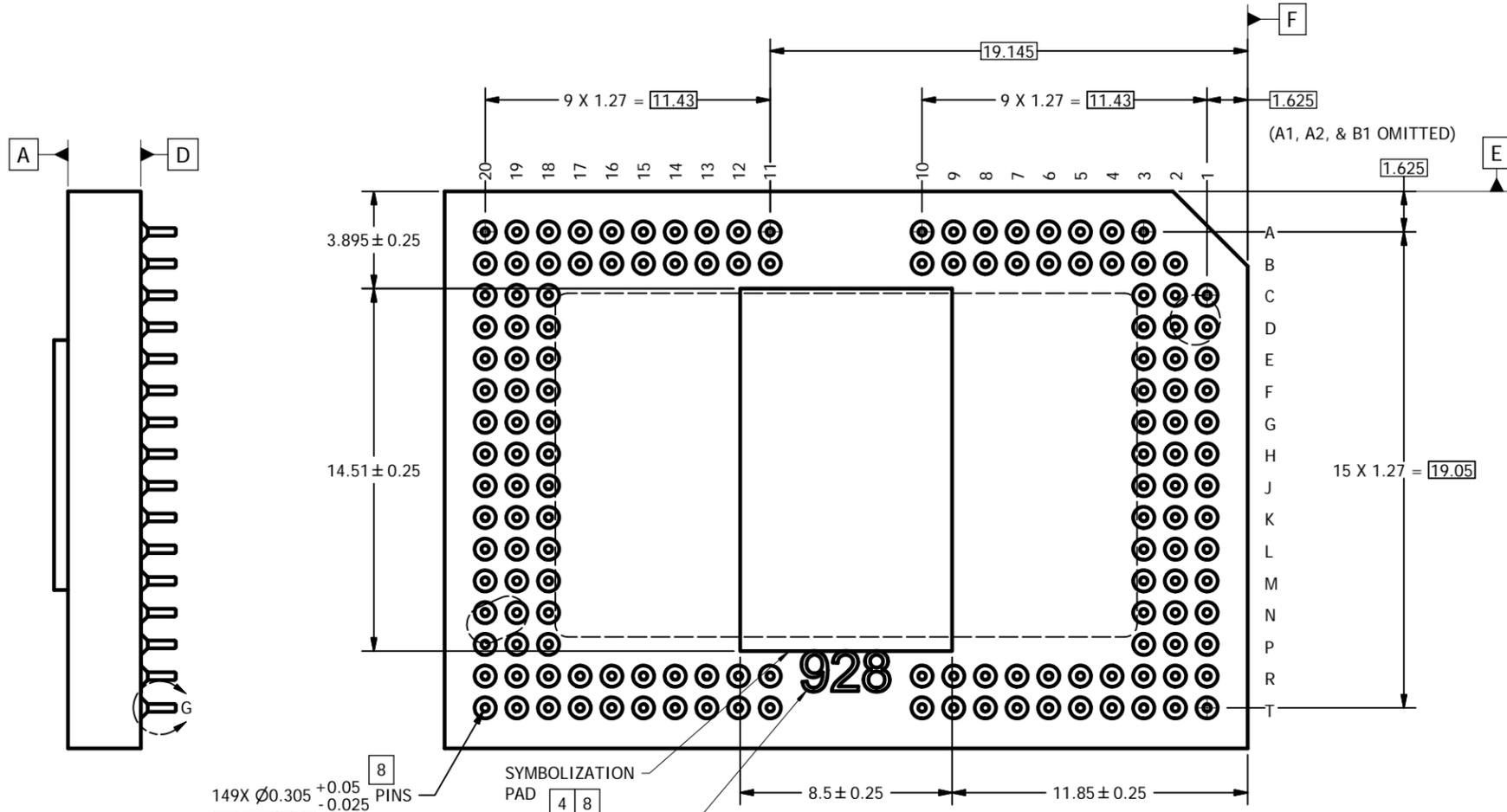
B

A

A

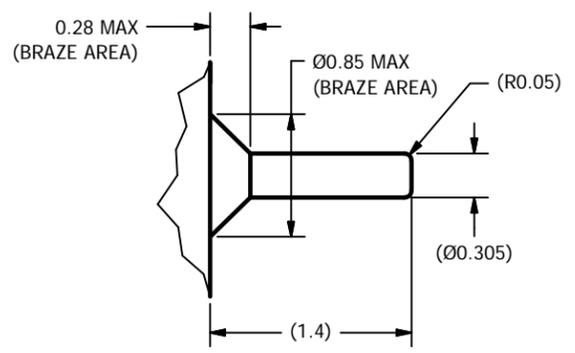


VIEW E
 ACTIVE ARRAY AND WINDOW
 SCALE 12 : 1



149X $\varnothing 0.305^{+0.05}_{-0.025}$ PINS
 $\varnothing 0.5$ DEF
 $\varnothing 0.25$ D

VIEW F
 PINS AND SYMBOLIZATION PAD
 SCALE 8 : 1



DETAIL G
 PIN AND BRAZE DIMENSIONS
 149 PLACES
 SCALE 40 : 1

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