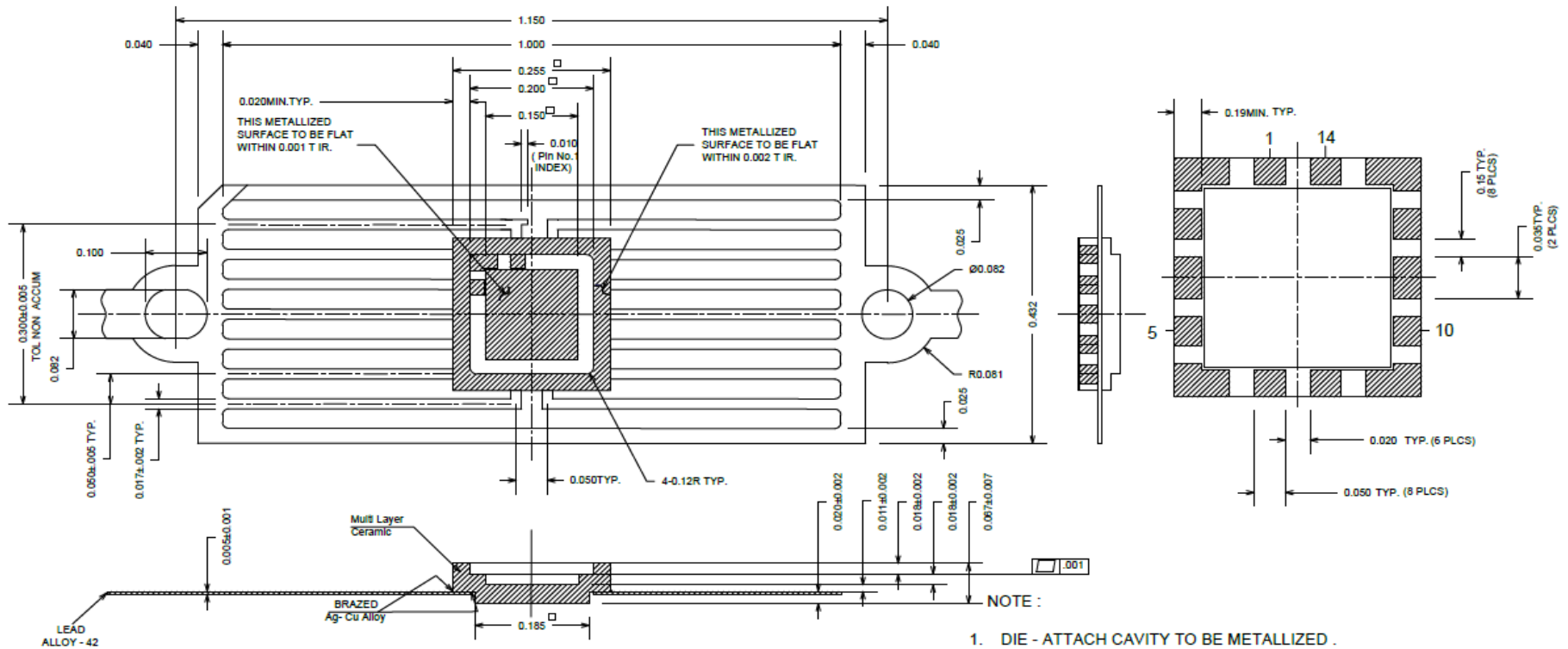


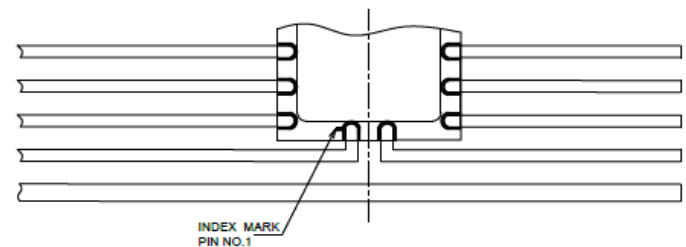
Design Drawings of Ceramic IC Packages and Sealing Lids

PROPRIETARY NOTE: The design and data on this drawing were originated by and are the exclusive property of SEMI-CONDUCTOR LABORATORY, and are to be used and held on a confidential basis. All written material and data pertaining thereto will be returned to us upon our demand.

REVISIONS					
REV.	DATE	DESCRIPTION	ECN No	APPROVAL	DCC
A	20-01-2023	WHOLE DRAWING REVISED.	VAHD / DWG /04		



1. DIE - ATTACH CAVITY TO BE METALLIZED .
2. SEAL RING TO BE METALLIZED.
3. ALL EXPOSED METAL TO HAVE GOLD PLATING 1.5 MICRONS MINIMUM OVER 2.0 MICRONS MINIMUM OF NICKEL.
4. SEAL AREA AND DIE ATTACH AREA TO ISOLATED.
5. LEAD RESISTANCE : 0.15 Ohm MAX.



TOLERANCE IN inch. UNLESS UNTIL SPECIFIED	±0.005
MATERIAL	AS PER SPEC.
FINISH	AS PER SPEC.
USED ON	
DCC	DATE
APPD.	DATE



Semi-Conductor Laboratory

(MeitY, GOVT. OF INDIA)
SECTOR 72, S.A.S. NAGAR - 160 071
PUNJAB (INDIA)

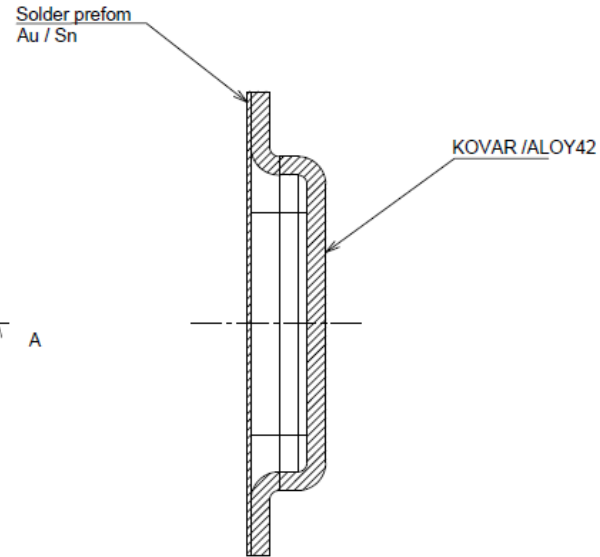
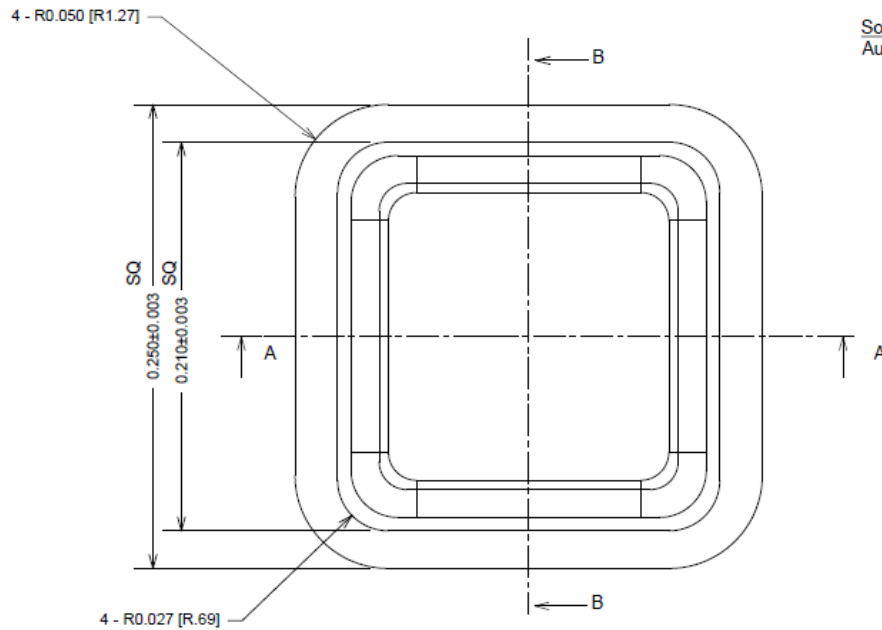
TITLE PACKAGE DRAWING FOR
CERAMIC IC PACKAGE 14 pin CSOP
Die cavity 3.81mm x 3.81 mm
(CAVITY 0.150" X 0.150")

ITEM CODE.	SIZE	DRAWING NO.	REV.
	A 4	A1542020322	A

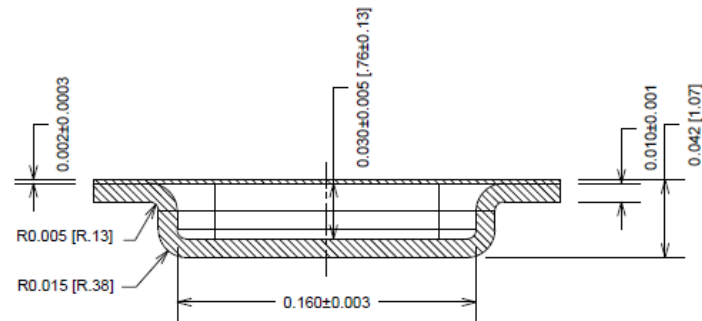
ALL DIMENSIONS ARE IN inch UNLESS UNTIL SPECIFIED SCALE : NTS SHEET 1 of 1

PROPRIETARY NOTE: The design and data on this drawing were originated by and are the exclusive property of SEMI-CONDUCTOR LABORATORY, and are to be used and held on a confidential basis. All written material and data pertaining thereto will be returned to us upon our demand.

REVISIONS					
REV.	DATE	DESCRIPTION	ECN No	APPROVAL	DCC
A	20-01-2023	WHOLE DRAWING REVISED	VAHD/ASSY/ 11		



SECTION B-B



SECTION A-A

TOLERANCE IN inch. UNLESS UNTIL SPECIFIED
1% Minimum.

MATERIAL	AS PER SPEC	
FINISH	DGN.	DATE
	DRN.	DATE
USED ON	CHD.	DATE
	DCC	DATE
	APPD.	DATE



Semi-Conductor Laboratory

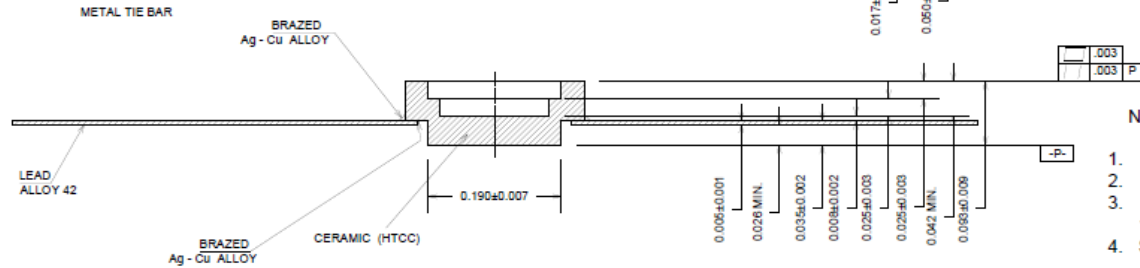
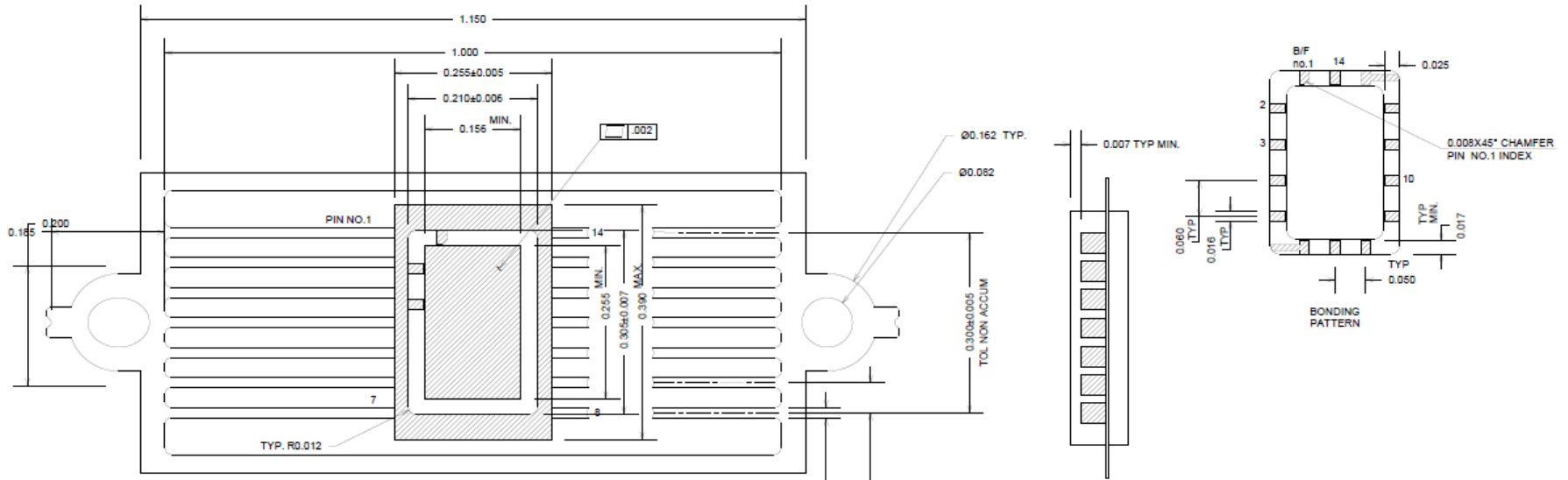
(MeitY , GOVT. OF INDIA)
SECTOR 72, S.A.S. NAGAR - 160 071
PUNJAB (INDIA)

TITLE Sealing Lid With Preform : Drawn
OD : 0.250" X 0.250" [6.35mmX 6.35mm]
ID : 0.210" X 0.210" [5.32mmX 5.32mm]

ITEM CODE.	SIZE	DRAWING NO.	REV.
	A 4	A1542020329	A
ALL DIMENSIONS ARE IN inch UNLESS UNTIL SPECIFIED		SCALE :	NTS
			SHEET 1 of 1

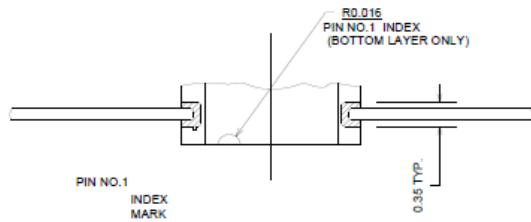
PROPRIETARY NOTE: The design and data on this drawing were originated by and are the exclusive property of SEMI-CONDUCTOR LABORATORY, and are to be used and held on a confidential basis. All written material and data pertaining thereto will be returned to us upon our demand.

REVISIONS					
REV.	DATE	DESCRIPTION	ECN No	APPROVAL	DCC
A	20-01-2023	Whole Drawing Revised.	VAHD / DWG/ 01		



NOTE :

1. DIE - ATTACH CAVITY TO BE METALLIZED.
2. SEAL RING TO BE METALLIZED.
3. ALL EXPOSED METAL TO HAVE GOLD PLATING 1.5 MICRONS MINIMUM OVER 2.0 MICRONS MINIMUM OF NICKEL.
4. SEAL AREA AND DIE ATTACH AREA TO ISOLATED.



TOLERANCE IN INCH. UNLESS UNTIL SPECIFIED	
1 % MINIMUM	
MATERIAL	
AS PER SPEC	
FINISH	
AS PER SPEC	
USED ON	
CHD.	DATE
DCC	DATE
APPD.	DATE
APPD.	DATE



Semi-Conductor Laboratory

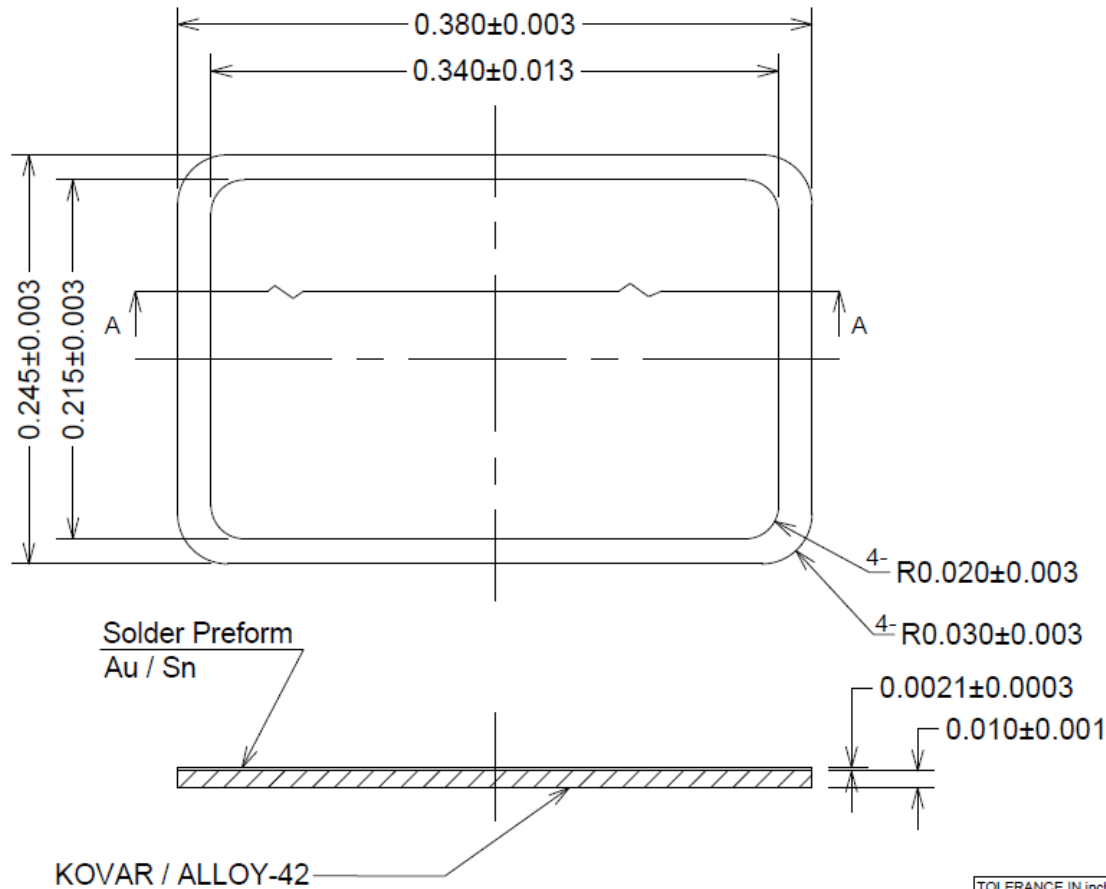
(MeitY , GOVT. OF INDIA)
SECTOR 72, S.A.S. NAGAR - 160 071
PUNJAB (INDIA)

TITLE PACKAGE DRAWING FOR
CERAMIC IC PACKAGE- 14pin CSOP
Die-Cavity : 6.47 mmx3.96mm.
(0.255"x 0.156")

ITEM CODE.	SIZE	DRAWING NO.	REV.
	A 4	A1542020323	A
ALL DIMENSIONS ARE IN INCH UNLESS UNTIL SPECIFIED		SCALE	NTS
		SHEET 1 OF 1	

PROPRIETARY NOTE: The design and data on this drawing were originated by and are the exclusive property of SEMI-CONDUCTOR LABORATORY, and are to be used and held on a confidential basis. All written material and data pertaining thereto will be returned to us upon our demand.

REVISIONS					
REV.	DATE	DESCRIPTION	ECN No	APPROVAL	DCC
A	25-01-2023	Whole Drawing Revised.	VAHD/ DWG/07		



SECTION A-A

TOLERANCE IN inch. UNLESS UNTIL SPECIFIED

AS IN DRAWING

MATERIAL AS IN DRAWING

FINISH

USED ON

DCC DATE

APPD. DATE

APPD. DATE

DATE



Semi-Conductor Laboratory

(MeitY, GOVT. OF INDIA)
SECTOR 72, S.A.S. NAGAR - 160 071
PUNJAB (INDIA)

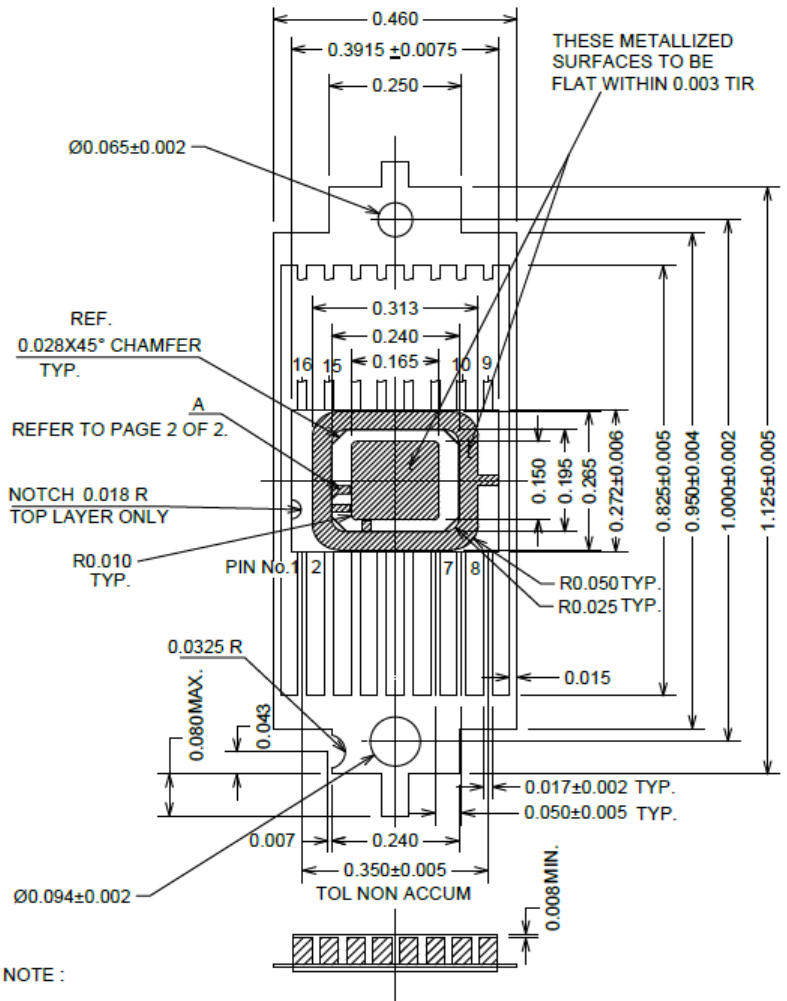
TITLE
Sealing Lid With Preform
OD : 380 mils X 245 mils
ID : 340 mils X 215 mils

ITEM CODE	SIZE	DRAWING NO.	REV.
	A 4	A1542020328	A

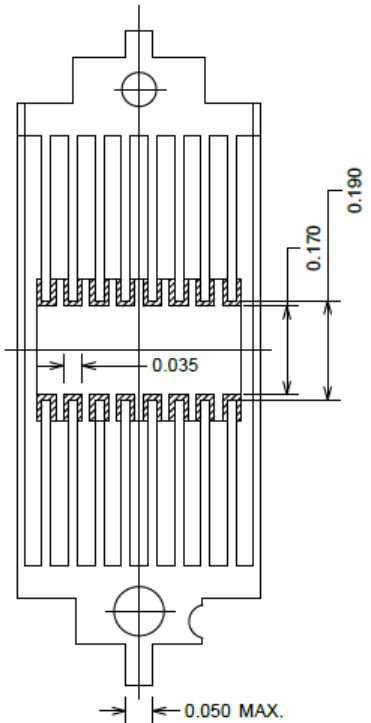
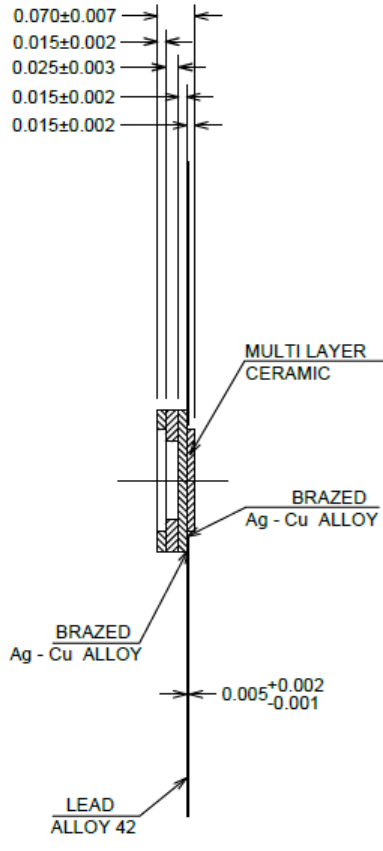
ALL DIMENSIONS ARE IN inch UNLESS UNTIL SPECIFIED SCALE : NTS SHEET 1 OF 1

PROPRIETARY NOTE: The design and data on this drawing were originated by and are the exclusive property of SEMI-CONDUCTOR LABORATORY, and are to be used and held on a confidential basis. All written material and data pertaining thereto will be returned to us upon our demand.

REVISIONS					
REV.	DATE	DESCRIPTION	ECN No	APPROVAL	DCC
A	20-01-2023	WHOLE DRAWING REVISED.	VAHD/ DWG/ 03		



- NOTE :
1. DIE - ATTACH CAVITY TO BE METALLIZED .
 2. SEAL RING TO BE METALLIZED.
 3. ALL EXPOSED METAL TO HAVE GOLD PLATING 1.5 MICRONS MINIMUM OVER 2.0 MICRONS MINIMUM OF NICKEL.
 4. SEAL AREA AND DIE ATTACH AREA TO ISOLATED.



TOLERANCE IN inch. UNLESS UNTIL SPECIFIED	
1% MINIMUM	
MATERIAL	AS PER SPEC.
FINISH	AS PER SPEC.
USED ON	
DCC	DATE
APPD.	DATE



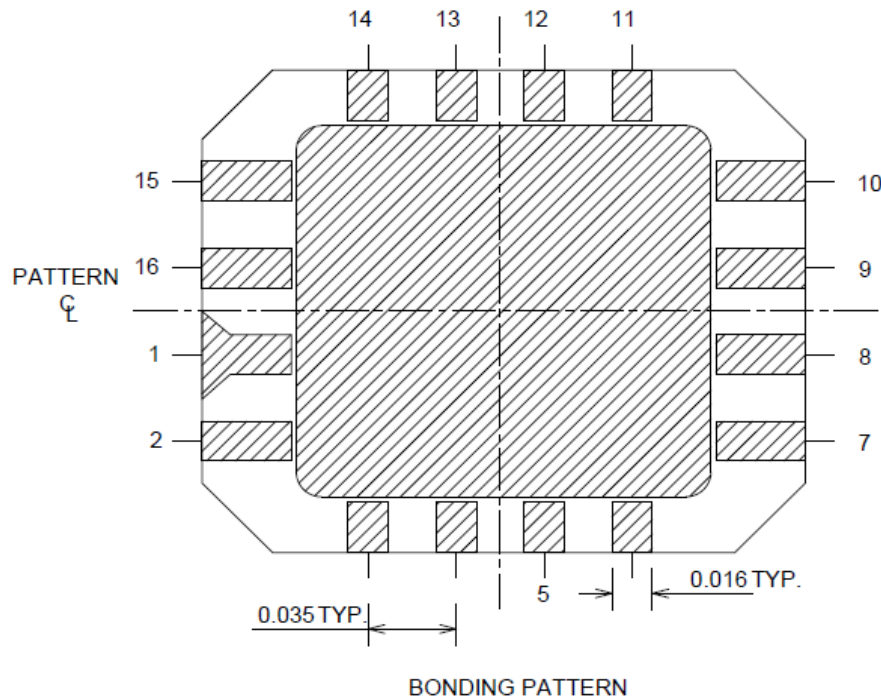
Semi-Conductor Laboratory (MeitY , GOVT. OF INDIA) SECTOR 72, S.A.S. NAGAR - 160 071 PUNJAB (INDIA)			
TITLE PACKAGE DRAWING FOR Ceramic IC Package - 16 pin CSOP Die Cavity 4.19mm x 3.81 mm (0.165" X 0.150")			
ITEM CODE	SIZE	DRAWING NO.	REV.
A1542020236	A 4	A1542020236	A
ALL DIMENSIONS ARE IN inch UNLESS UNTIL SPECIFIED		SCALE	NTS
		SHEET 1 OF 2	

PROPRIETARY NOTE: The design and data on this drawing were originated by and are the exclusive property of SEMI-CONDUCTOR LABORATORY, and are to be used and held on a confidential basis. All written material and data pertaining thereto will be returned to us upon our demand.

REVISIONS					
REV.	DATE	DESCRIPTION	ECN No	APPROVAL	DCC
A	20-01-2023	WHOLE DRAWING REVISED.	VAHD / DWG/ 03		

DETAIL
A

PATTERN
⌀



TOLERANCE IN inch. UNLESS
UNTIL SPECIFIED
1% MINIMUM

MATERIAL
AS PER SPEC.

FINISH
AS PER SPEC.

USED ON

DCC
DATE



Semi-Conductor Laboratory

(MeitY, GOVT. OF INDIA)
SECTOR 72, S.A.S. NAGAR - 160 071
PUNJAB (INDIA)

DGN. DATE
DGN. DATE
DRN. DATE

TITLE
PACKAGE DRAWING FOR
Ceramic IC Package - 16 pin CSOP
Die Cavity 4.19mm x 3.81 mm
(0.165" X 0.150")

CHD. DATE

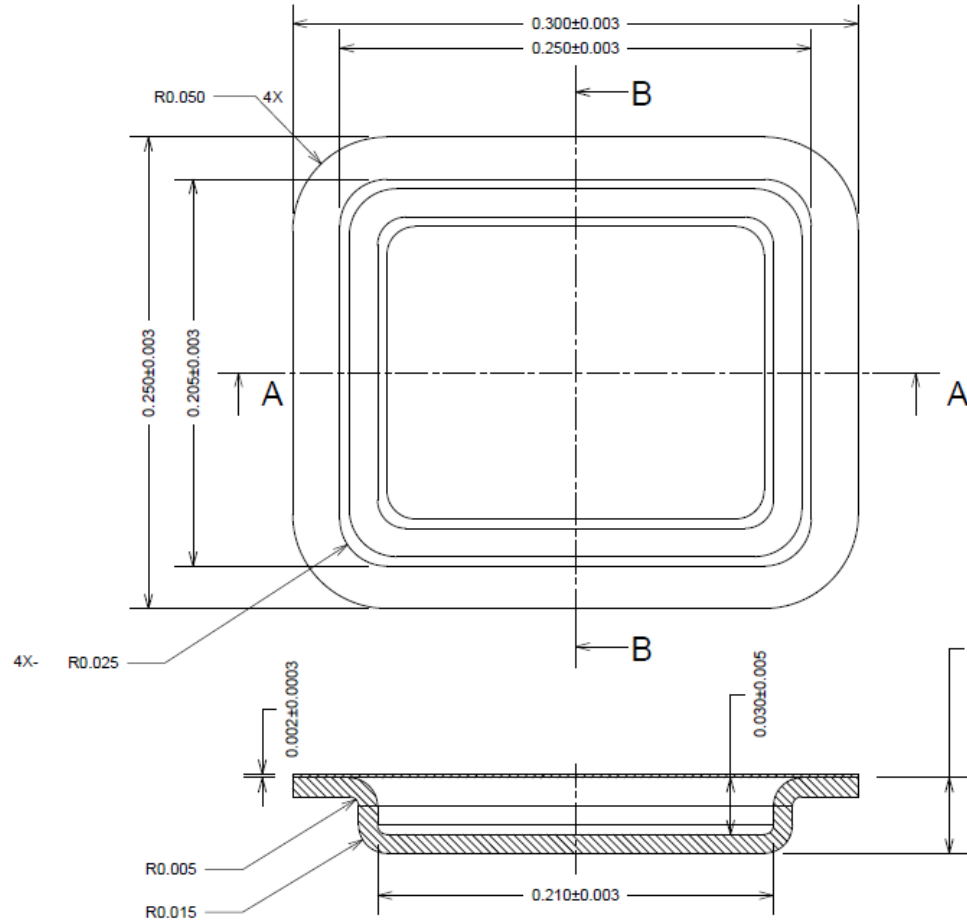
ITEM CODE. SIZE DRAWING NO. REV.
A 4 A1542020238 A

APPD. DATE
APPD. DATE

ALL DIMENSIONS ARE IN inch
UNLESS UNTIL SPECIFIED SCALE : NTS SHEET 2 OF 2

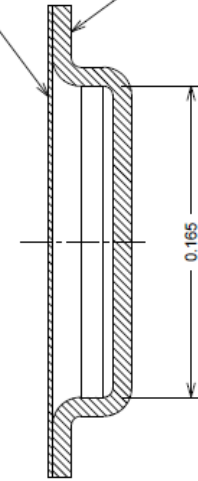
PROPRIETARY NOTE: The design and data on this drawing were originated by and are the exclusive property of SEMI-CONDUCTOR LABORATORY, and are to be used and held on a confidential basis. All written material and data pertaining thereto will be returned to us upon our demand.

REVISIONS					
REV.	DATE	DESCRIPTION	ECN No	APPROVAL	DCC
A	21-09-2016	Change in Title & Tolerance added.	VLSI / ASSY/ 192		337
A	20-01-2023	Whole Drawing Revised.	VAHD / ASSY/ 12		



Solder Preform
Au / Sn

KOVAR / ALLOY42



SECTION B-B

SECTION A-A

TOLERANCE IN inch. UNLESS UNTIL SPECIFIED
 ± 0.005

MATERIAL
AS PER SPEC

FINISH
AS PER SPEC

USED ON

DCC
DATE



Semi-Conductor Laboratory

(MeitY, GOVT. OF INDIA)
SECTOR 72, S.A.S. NAGAR - 160 071
PUNJAB (INDIA)

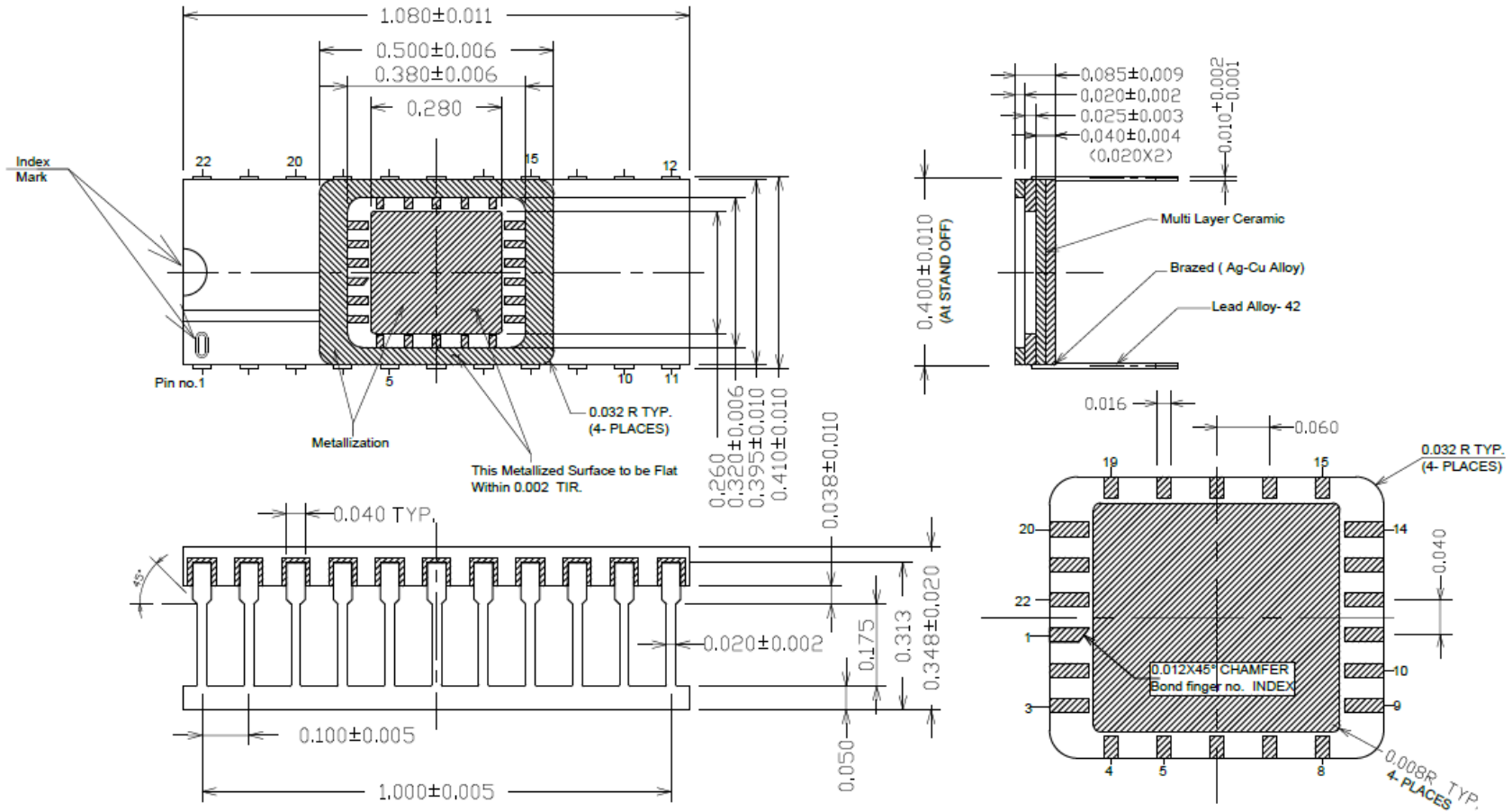
TITLE Sealing Lid With Preform : Drawn
OD : $0.300'' \times 0.250''$ [7.62mm X 6.35mm]
ID : $0.250'' \times 0.205''$ [6.35mm X 5.21mm]

ITEM CODE SIZE DRAWING NO. REV.
A 4 A0342020247 A

ALL DIMENSIONS ARE IN inch UNLESS UNTIL SPECIFIED SCALE : NTS SHEET 1 OF 1

PROPRIETARY NOTE: The design and data on this drawing were originated by and are the exclusive property of SEMI-CONDUCTOR LABORATORY, and are to be used and held on a confidential basis. All written material and data pertaining thereto will be returned to us upon our demand.

REVISIONS					
REV.	DATE	DESCRIPTION	ECN No	APPROVAL	DCC



- NOTE :-
1. PLATING THICKNESS TO BE AS PER SPECIFICATION.
 2. SEAL AREA TO BE METALLIZED.
 3. DIA- ATTACH AREA TO BE METALLIZED.
 4. LEAD RESISTANCE : 0.30 OHM MAX.
 5. ALL LEADS ARE ISOLATED FROM DIE -ATTACH & SEAL RING.

TOLERANCE IN INCH. UNLESS UNTIL SPECIFIED ±0.005

MATERIAL

AS PER SPECS.

FINISH

AS PER SPECS.

USED ON

DCC

APPD.

DATE



Semi-Conductor Laboratory

(DEPT. OF SPACE, GOVT. OF INDIA)
SECTOR 72, S.A.S. NAGAR - 160 071
PUNJAB (INDIA)

DGN. DATE

DGN. DATE

DRN. DATE

CHD. DATE

APPD. DATE

APPD. DATE

TITLE PACKAGE DRAWING FOR

22 PIN SIDE BRAZED CERAMIC PACKAGE

CAVITY : 280 MILS X 260 MILS (7.11 MM X 6.60 MM)

ITEM CODE.

SCALE

ALL DIMENSIONS ARE IN INCH UNLESS UNTIL SPECIFIED

SIZE

A-4

DRAWING NO.

A1542020458

REV.

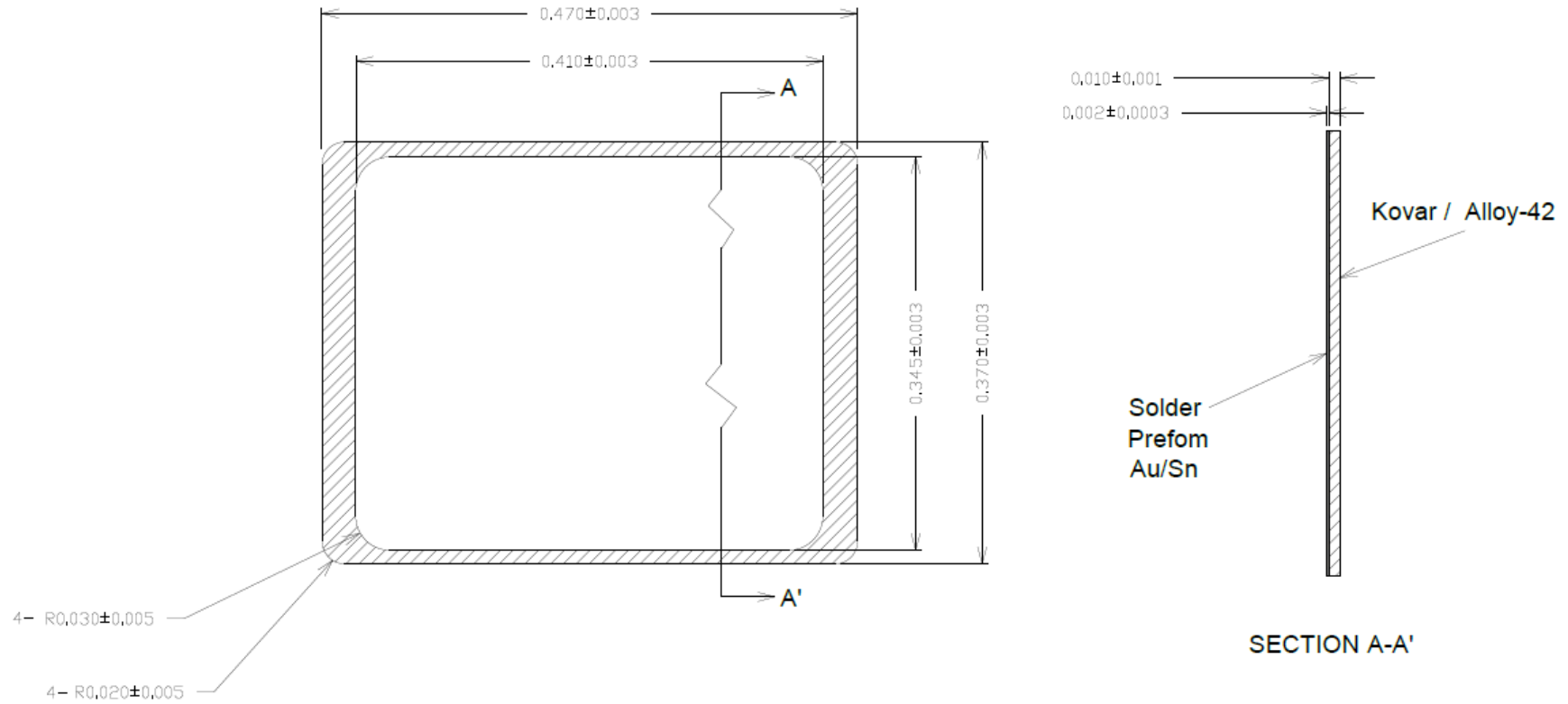
SCALE

NTS

SHEET 1 OF 1

PROPRIETARY NOTE: The design and data on this drawing were originated by and are the exclusive property of SEMI-CONDUCTOR LABORATORY, and are to be used and held on a confidential basis. All written material and data pertaining thereto will be returned to us upon our demand.

REVISIONS					
REV.	DATE	DESCRIPTION	ECN No	APPROVAL	DCC



TOLERANCE IN Inch UNLESS UNTIL SPECIFIED

AS IN DRAWING.

MATERIAL

AS IN DRAWING.

FINISH


AS PER SPEC.

USED ON

DATE

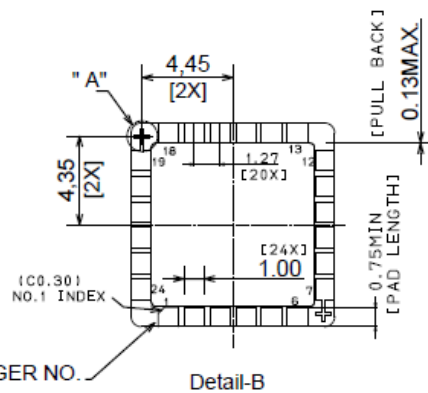
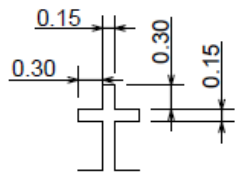
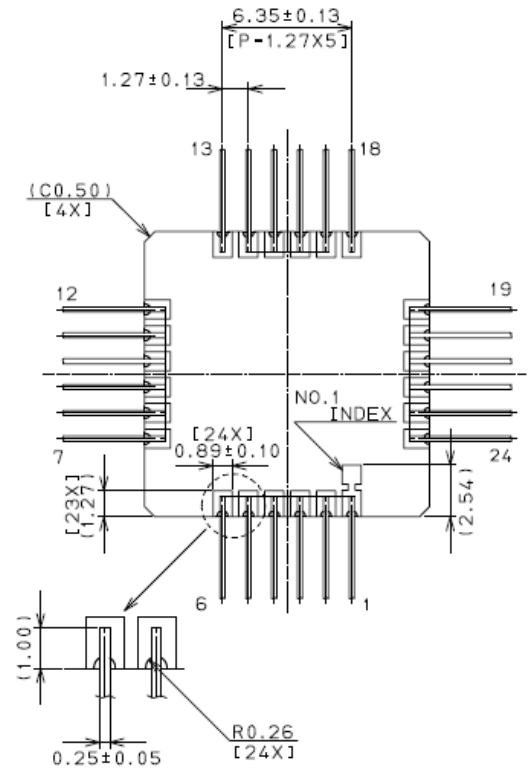
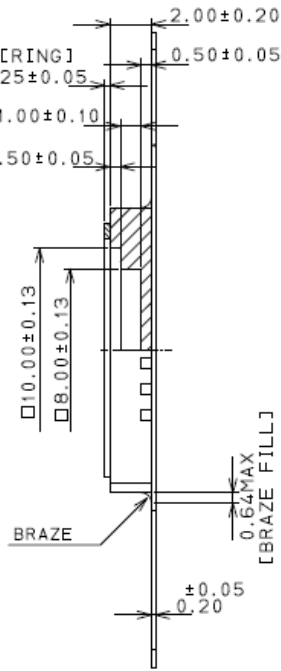
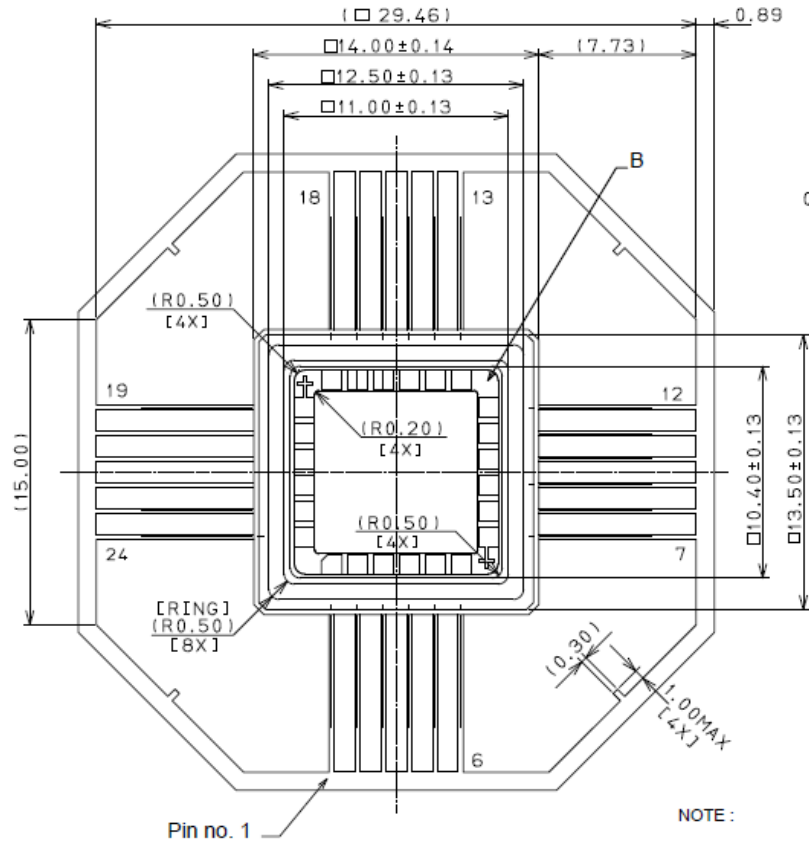
DATE

DATE

		Semi-Conductor Laboratory (MeitY , GOVT. OF INDIA) SECTOR 72, S.A.S. NAGAR - 160 071 PUNJAB (INDIA)			
		TITLE LID WITH PREFORM OD: 470mils X 370mils (11.938mm X 9.398mm) ID: 410mils X 345mils (10.414mm X 8.763mm)			
DGN.	DATE	ITEM CODE.	SIZE	DRAWING NO.	REV.
DGN.	DATE	A - 4	C15E42020007		
DRN.	DATE	ALL DIMENSIONS ARE IN Inch UNLESS UNTIL SPECIFIED			
CHD.	DATE	SCALE : NTS SHEET 1 OF 1			
APPD.	DATE				
APPD.	DATE				

PROPRIETARY NOTE: The design and data on this drawing were originated by and are the exclusive property of SEMI-CONDUCTOR LABORATORY, and are to be used and held on a confidential basis. All written material and data pertaining thereto will be returned to us upon our demand.

REVISIONS				
REV.	DATE	DESCRIPTION	ECN No	APPROVAL
A	23-01-2023	Whole Drawing Revised.	VAHD / DWG/ 01	DCC



NOTE :

1. DIE - ATTACH CAVITY TO BE METALLIZED .
2. SEAL RING TO BE METALLIZED.
3. ALL EXPOSED METAL TO HAVE GOLD PLATING 1.5 MICRONS MINIMUM OVER 2.0 MICRONS MINIMUM OF NICKEL.
4. SEAL AREA AND DIE ATTACH AREA TO ISOLATED.
5. LEAD NO.7 TO BE ELECTRICALLY CONNECTED TO THE DIE ATTACH PAD.
6. LEAD NO.19 TO BE ELECTRICALLY CONNECTED TO THE SEAL RING.

TOLERANCE IN mm UNLESS UNTIL SPECIFIED

AS IN DRAWING

MATERIAL AS PER SPEC.

FINISH AS PER SPEC.

USED ON

DCC

DATE



Semi-Conductor Laboratory

(MeitY, GOVT. OF INDIA)
SECTOR 72, S.A.S. NAGAR - 160 071
PUNJAB (INDIA)

DGN. DATE

DGN. DATE

DRN. DATE

CHD. DATE

APPD. DATE

APPD. DATE

TITLE PACKAGE DRAWING FOR

Ceramic IC Package - 24 Pin CQFP
(Die Cavity : 8.00 mm. X 8.00 mm.)

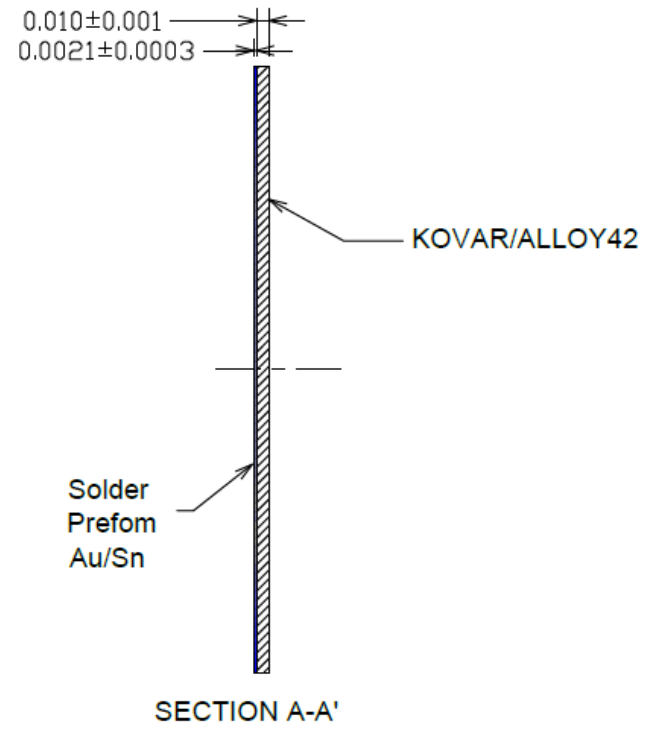
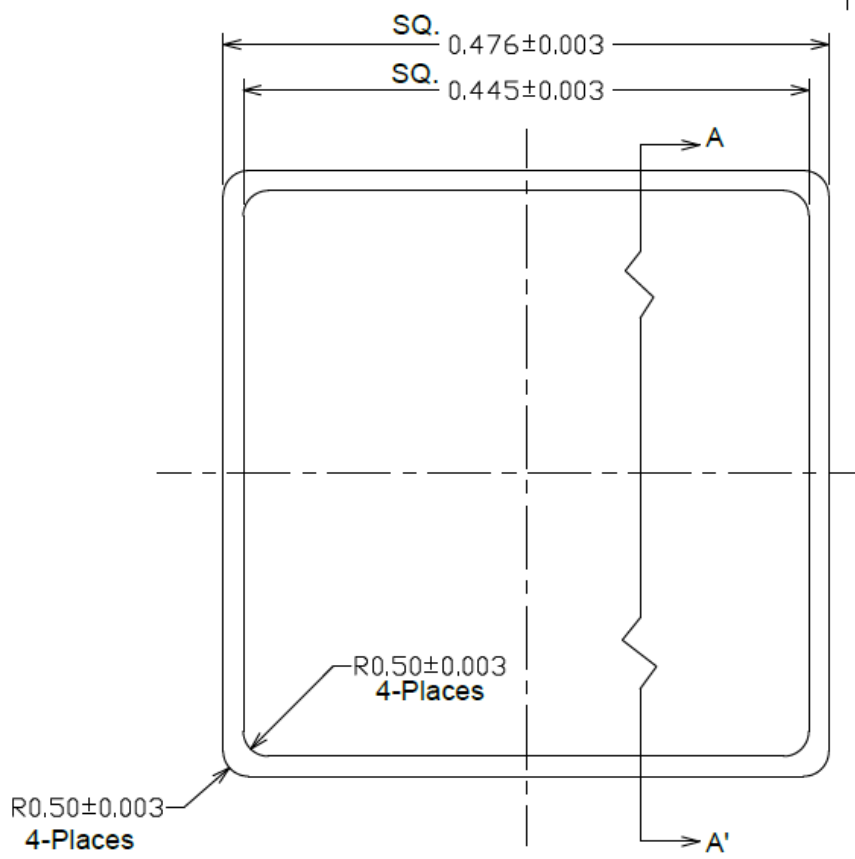
ITEM CODE. SIZE DRAWING NO. REV.


A1542020393 A

ALL DIMENSIONS ARE IN mm. SCALE : NTS SHEET 1 OF 1

PROPRIETARY NOTE: The design and data on this drawing were originated by and are the exclusive property of SEMI-CONDUCTOR LABORATORY, and are to be used and held on a confidential basis. All written material and data pertaining thereto will be returned to us upon our demand.

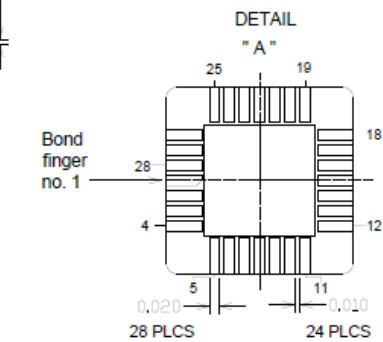
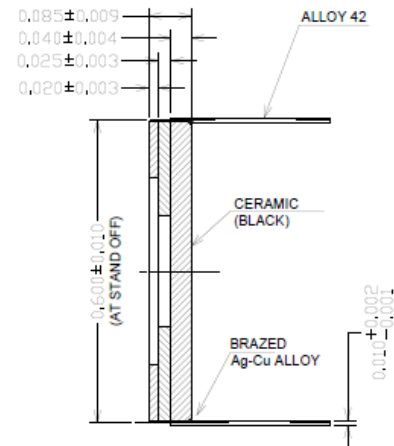
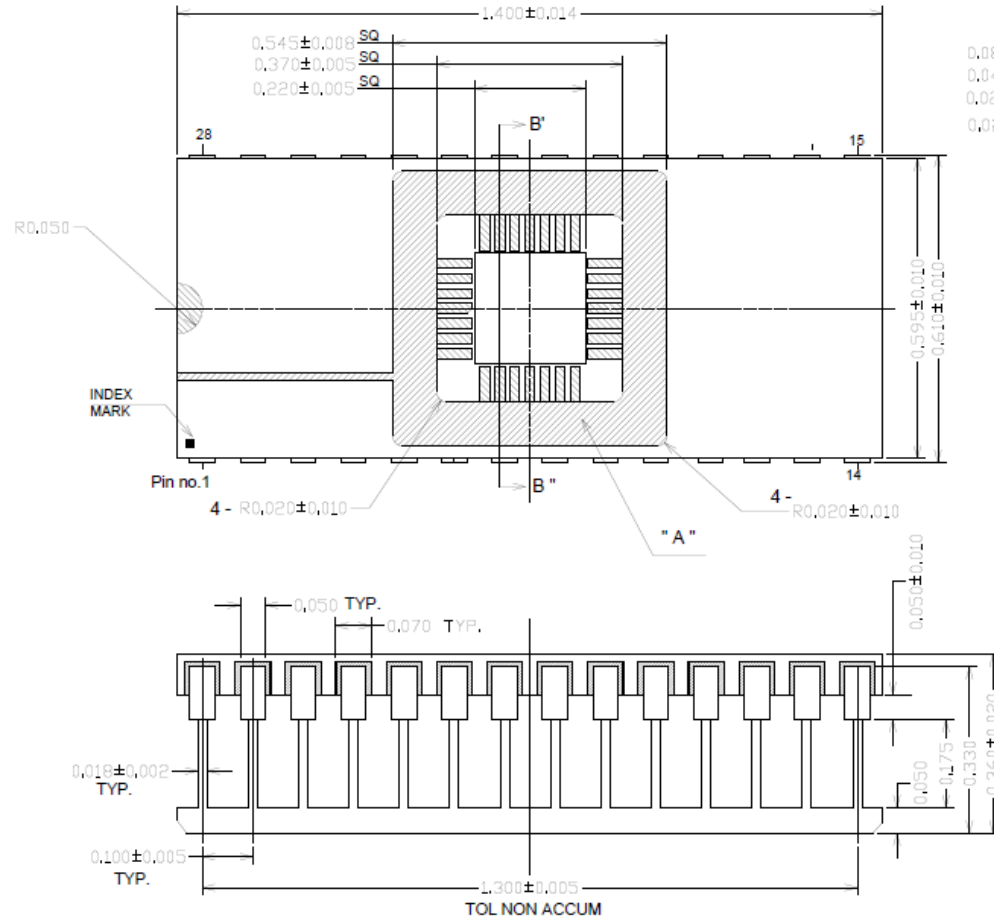
REVISIONS					
REV.	DATE	DESCRIPTION	ECN No	APPROVAL	DCC
A	20-01-2023	WHOLE DRAWING REVISED	VAHD/ASSY/ 05		



TOLERANCE IN mm UNLESS UNTIL SPECIFIED		 Semi-Conductor Laboratory (MeitY , GOVT. OF INDIA) SECTOR 72, S.A.S. NAGAR - 160 071 PUNJAB (INDIA)			
AS IN DRAWING					
MATERIAL	AS PER SPEC.	DGN.	DATE	TITLE	Sealing LID WITH PREFORM
FINISH	AS PER SPEC.	DGN.	DATE	OD: 476mils X 476mils (12.10mm X 12.10mm)	
		DRN.	DATE	ID: 445mils X 445mils (11.30mm X 11.30mm)	
USED ON		CHD.	DATE	ITEM CODE	SIZE
				A - 4	DRAWING NO.
					A1542020388
				SCALE	NTS
				DATE	SHEET 1 OF 1

PROPRIETARY NOTE: The design and data on this drawing were originated by and are the exclusive property of SEMI-CONDUCTOR LABORATORY, and are to be used and held on a confidential basis. All written material and data pertaining there to will be back to us upon our demand.

REVISIONS					
REV.	DATE	DESCRIPTION	ECN No	APPROVAL	DCC
C	28-08-2018	Whole drawing revised & Drawing no. renewed. Old Drawing no. 031202013	VLSI / ASSY / 248		
D	--06-2020	Title & Notes Modified.	VLSI / ASSY / 293		
E	09-01-2025	Note 2. Modified.	VAHD / ASSY / 56		



- NOTE : 1. SEAL AREA TO BE METALLIZED.
 2. DIE - ATTACH AREA TO BE METALLIZED .
 3. SEAL RING AND DIE ATTACH PAD TO BE FLOATING FROM ANY PINS.
 4. LEAD RESISTANCE : 0.35 OHM MAX.
 5. PLATING THICKNESS TO BE AS PER SCL SPECIFICATION.

TOLERANCE IN inch. UNLESS UNTIL SPECIFIED
 1% MINIMUM.

MATERIAL :
 AS PER SPECS.

FINISH :
 AS PER SPECS.

USED ON :
 CHD. DATE

DCC :
 APPD. DATE



Semi-Conductor Laboratory

(DEPT. OF SPACE , GOVT. OF INDIA)
 SECTOR 72, S.A.S. NAGAR - 160 071
 PUNJAB (INDIA)

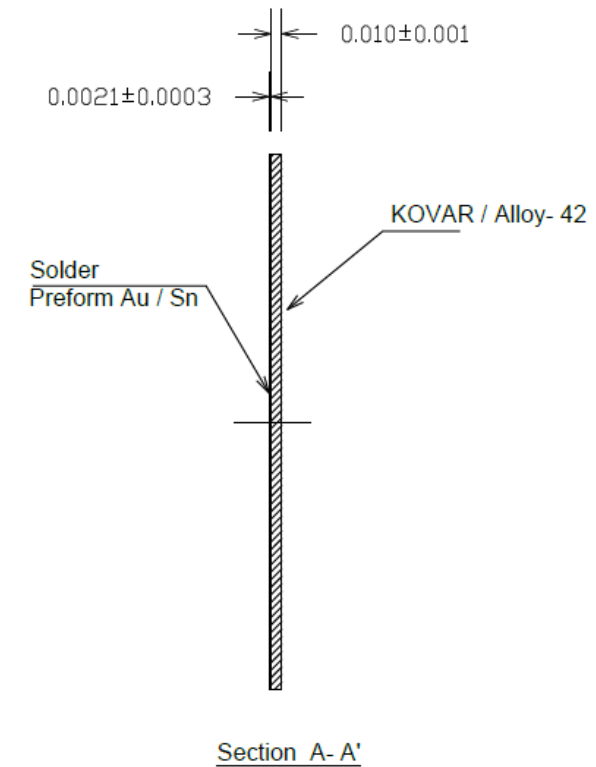
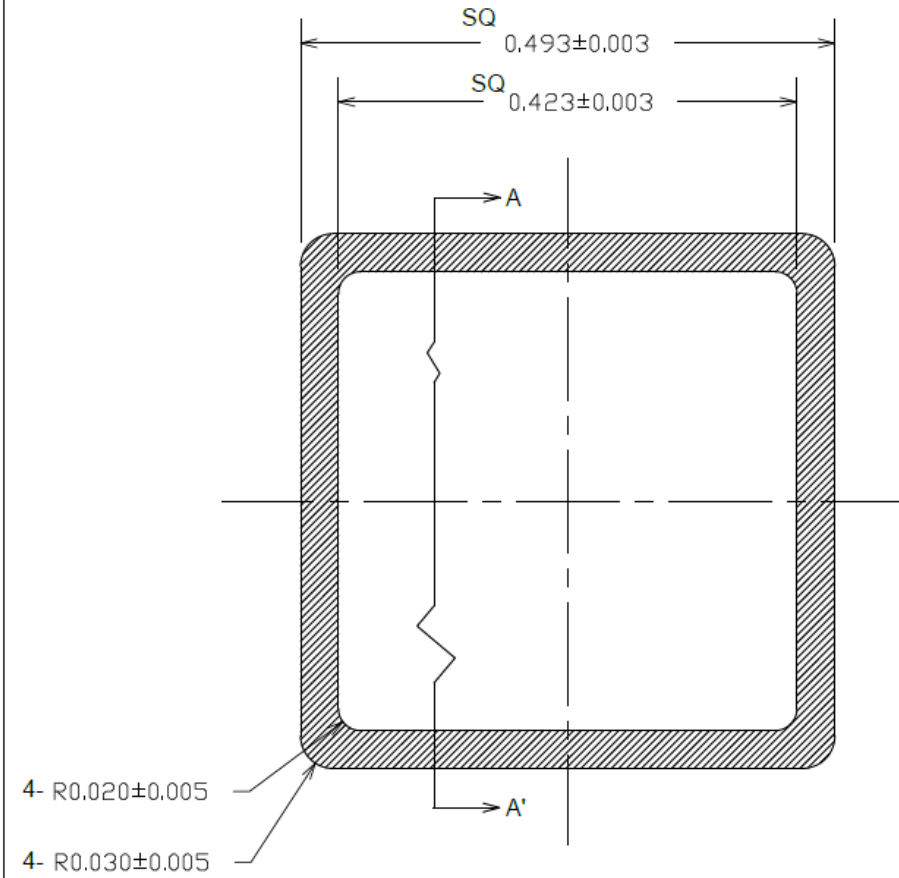
TITLE : PACKAGE DRAWING FOR
 28 LEAD SIDE BRAZED CERAMIC
 CAVITY : 0.220"X 220" (5.588mmX 5.588mm.)



ITEM CODE. : SIZE : A4 DRAWING NO. : A1542020411 REV. : E

ALL DIMENSIONS ARE IN inch UNLESS UNTIL SPECIFIED SCALE : NTS SHEET 1 OF 1

PROPRIETARY NOTE: The design and data on this drawing were originated by and are the exclusive property of SEMI-CONDUCTOR LABORATORY, and are to be used and held on a confidential basis. All written material and data pertaining thereto will be returned to us upon our demand.

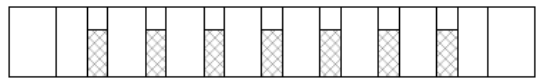
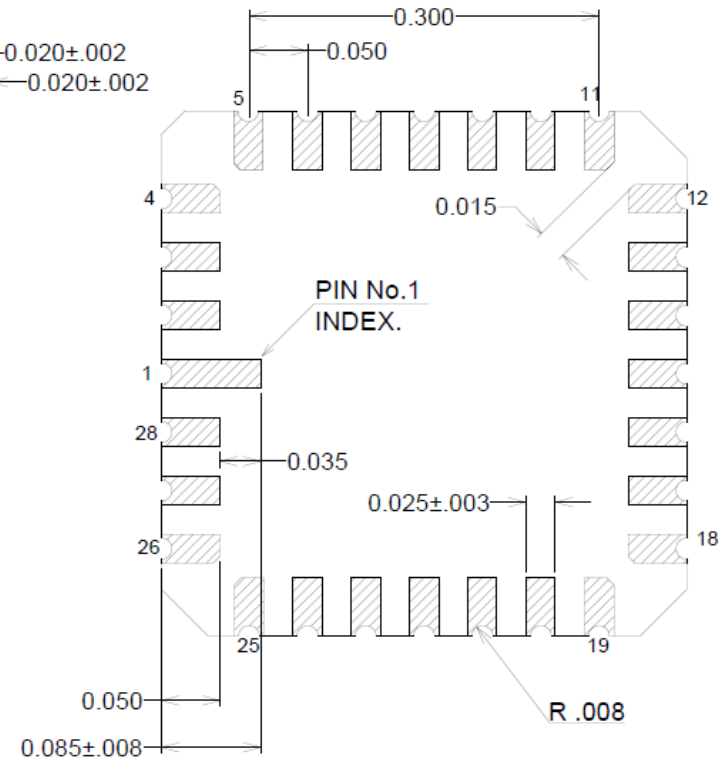
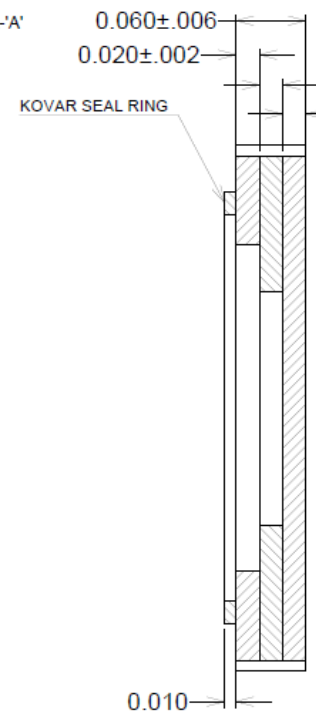
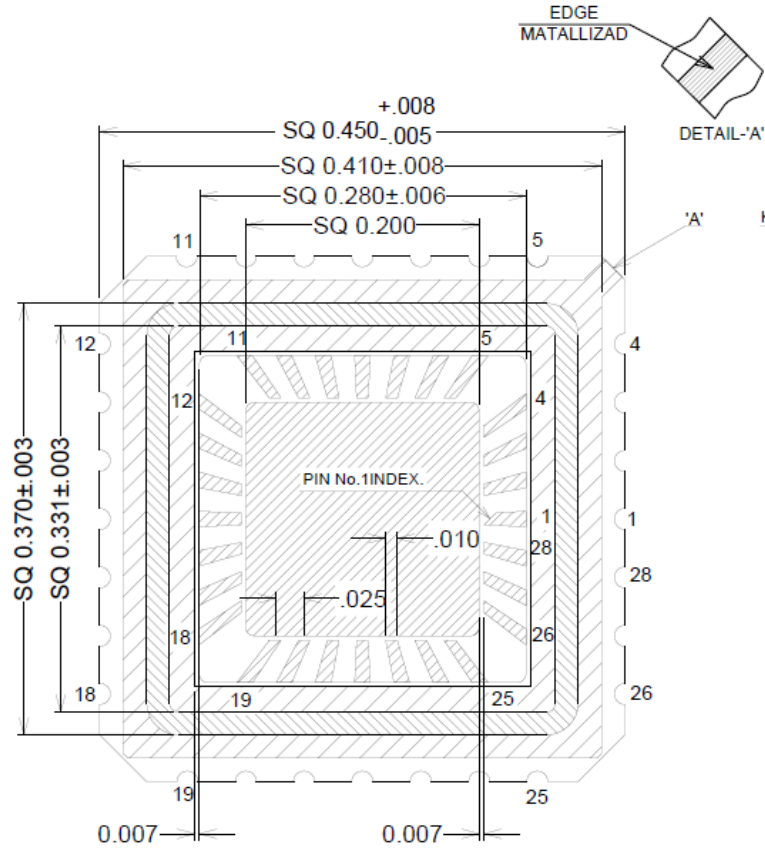
REVISIONS					
REV.	DATE	DESCRIPTION	ECN No	APPROVAL	DCC
A	18-02-2020	Whole Drawing Revised	VLSI/ASSY/288		
B	26-02-2020	Drawing Format Changed from mm. to inches	VLSI/ASSY/288		
C	02-01-2025	Tolerance of solder Preform revised	VAHDIASSY/55		



TOLERANCE IN inches UNLESS UNTIL SPECIFIED ± 1%		 Semi-Conductor Laboratory (DEPT. OF SPACE , GOVT. OF INDIA) SECTOR 72, S.A.S. NAGAR - 160 071 PUNJAB (INDIA)	
MATERIAL AS PER SPEC.			
FINISH AS PER SPEC.	DGN. DATE	TITLE LID WITH PREFORM	
USED ON	DGN. DATE	OD: 493mils X 493mils (12.522mm X 12.522mm)	
	DRN. DATE	ID: 423mils X 423mils (10.744mm X 10.744 mm)	
	CHD. DATE	ITEM CODE.	SIZE
	APPD. DATE	A1542020370	A - 4
	APPD. DATE	DRAWING NO.	REV.
		A1542020370	C
 DCC DATE		ALL DIMENSIONS ARE IN inches UNLESS UNTIL SPECIFIED SCALE : NTS SHEET 1 OF 1	

PROPRIETARY NOTE: The design and data on this drawing were originated by and are the exclusive property of SEMI-CONDUCTOR LABORATORY, and are to be used and held on a confidential basis. All written material and data pertaining thereto will be returned to us upon our demand.

REVISIONS					
REV.	DATE	DESCRIPTION	ECN No	APPROVAL	DCC



- NOTE:
1. DIE - ATTACH CAVITY TO BE METALLIZED .
 2. SEAL RING TO BE METALLIZED.
 3. ALL EXPOSED METAL TO HAVE GOLD PLATING 1.5 MICRONS MINIMUM OVER 2.0 MICRONS MINIMUM OF NICKEL.
 4. SEAL RING AND DIE ATTACH AREA TO ISOLATED.

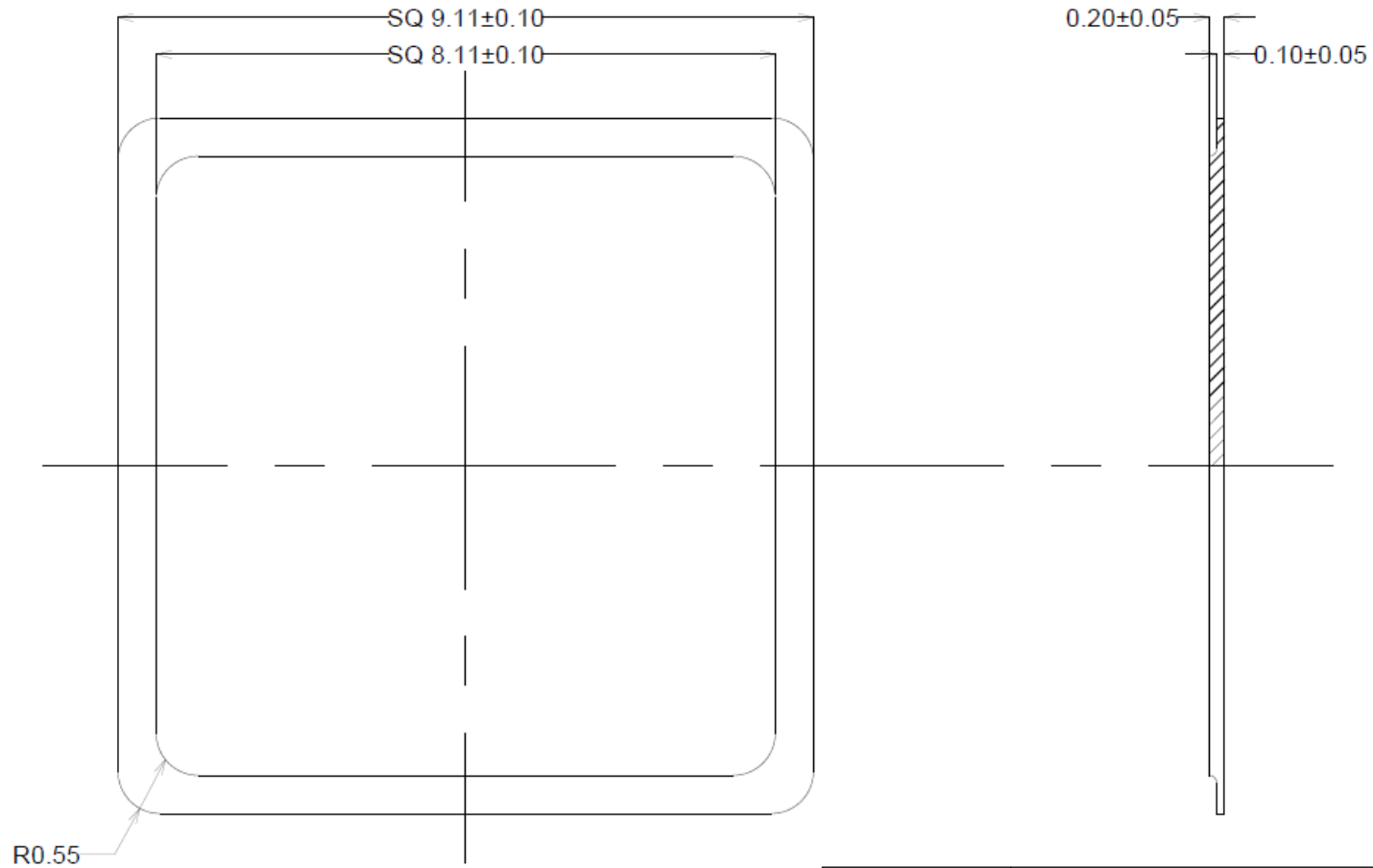
TOLERANCE IN inch. UNLESS UNTIL SPECIFIED	
1% MINIMUM	
MATERIAL	AS PER SPECS.
FINISH	AS PER SPECS.
USED ON	
DCC	DATE
APPD.	DATE



Semi-Conductor Laboratory			
(MeitY , GOVT. OF INDIA)			
SECTOR 72, S.A.S. NAGAR - 160 071			
PUNJAB (INDIA)			
DGN. DATE		TITLE	
DGN. DATE		Package drawing for	
DRN. DATE		28 Pin CLCC	
CHD. DATE		Cavity 0.200" X 0.200" (5.08 mm X 5.08mm)	
ITEM CODE.	SIZE	DRAWING NO.	REV.
	A-4	SCL/VAHD/DWG/2025/03	
APPD. DATE		SCALE :	
APPD. DATE		UNLESS UNTIL SPECIFIED	

PROPRIETARY NOTE: The design and data on this drawing were originated by and are the exclusive property of SEMI-CONDUCTOR LABORATORY, and are to be used and held on a confidential basis. All written material and data pertaining thereto will be returned to us upon our demand.

REVISIONS					
REV.	DATE	DESCRIPTION	ECN No	APPROVAL	DCC



NOTE : Matching Sealing step lid for 28 Pin CLCC package
(Reference Drawing)

TOLERANCE IN mm. UNLESS
UNTIL SPECIFIED
1% MINIMUM



Semi-Conductor Laboratory

(MeitY , GOVT. OF INDIA)
SECTOR 72, S.A.S. NAGAR - 160 071
PUNJAB (INDIA)

MATERIAL

AS PER SPECS.

DGN. DATE

TITLE

FINISH

DGN. DATE

Sealing lid with step for seam sealing

AS PER SPECS.

DRN. DATE

OD: 9.11mm X 9.11mm

USED ON

CHD. DATE

ID: 8.11mm X 8.11mm

DCC

APPD. DATE

ITEM CODE. SIZE DRAWING NO. REV.

DATE

APPD. DATE

A-4 SCL/VAHD/DWG/2025/13

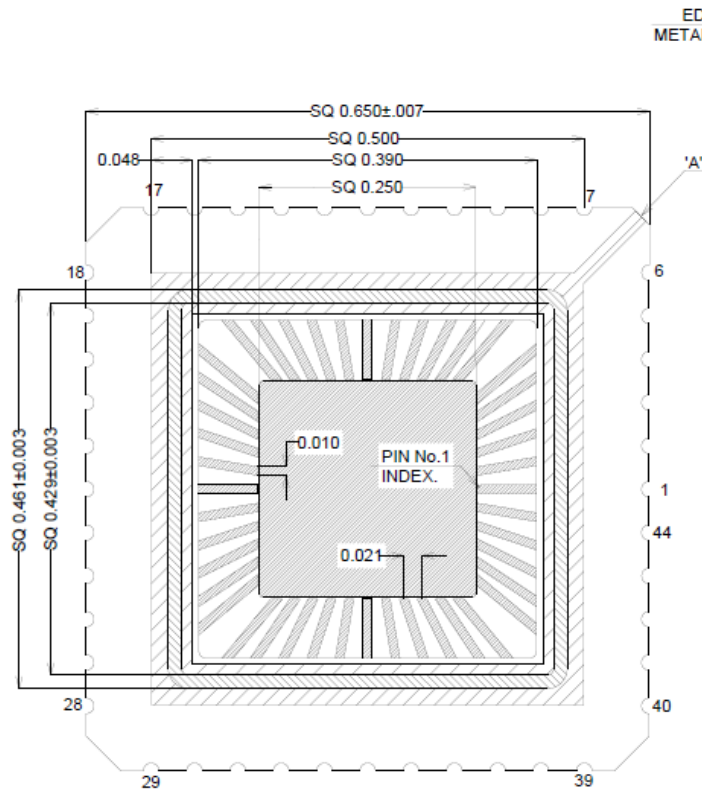
DATE

DATE

ALL DIMENSIONS ARE IN mm. SCALE : NTS SHEET 1 OF 1

PROPRIETARY NOTE: The design and data on this drawing were originated by and are the exclusive property of SEMI-CONDUCTOR LABORATORY, and are to be used and held on a confidential basis. All written material and data pertaining thereto will be returned to us upon our demand.

REVISIONS				
REV.	DATE	DESCRIPTION	ECN No	APPROVAL DCC

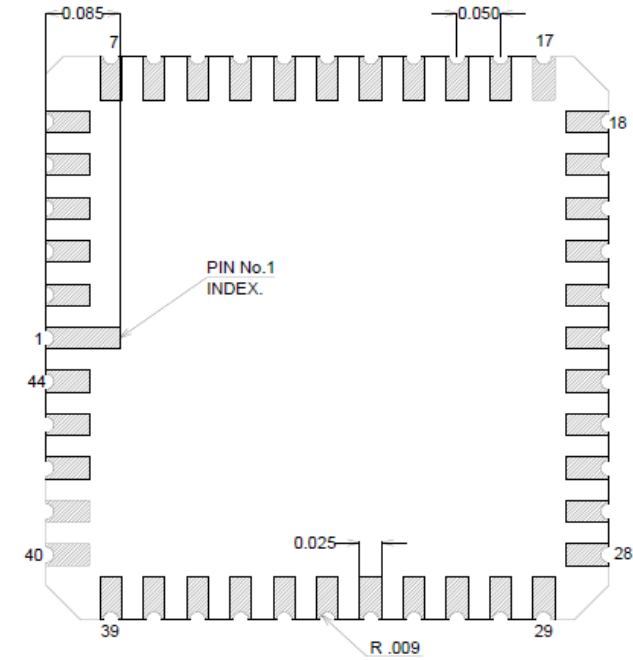
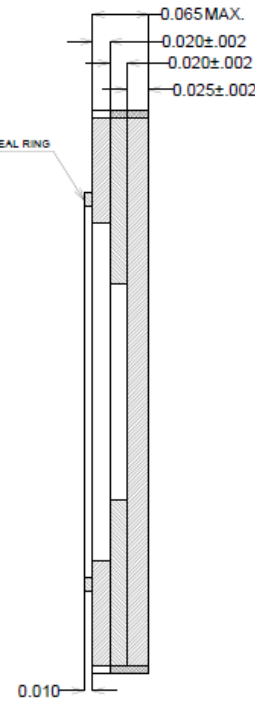


EDGE METALLIZED



DETAIL-'A'

KOVAR SEAL RING



NOTE:

1. DIE - ATTACH CAVITY TO BE METALLIZED .
2. SEAL RING TO BE METALLIZED.
3. ALL EXPOSED METAL TO HAVE GOLD PLATING 1.5 MICRONS MINIMUM OVER 2.0 MICRONS MINIMUM OF NICKEL.
4. SEAL RING AND DIE ATTACH AREA TO ISOLATED.

TOLERANCE IN inch. UNLESS UNTIL SPECIFIED
1% MINIMUM

MATERIAL

AS PER SPECS.

FINISH

AS PER SPECS.

USED ON

DCC

DATE

DATE



Semi-Conductor Laboratory

(MeitY, GOVT. OF INDIA)
SECTOR 72, S.A.S. NAGAR - 160 071
PUNJAB (INDIA)

TITLE
Package drawing for
44 Pin CLCC
Cavity 0.250" X 0.250" (6.35mm X6.35mm)

ITEM CODE. SIZE DRAWING NO. REV.

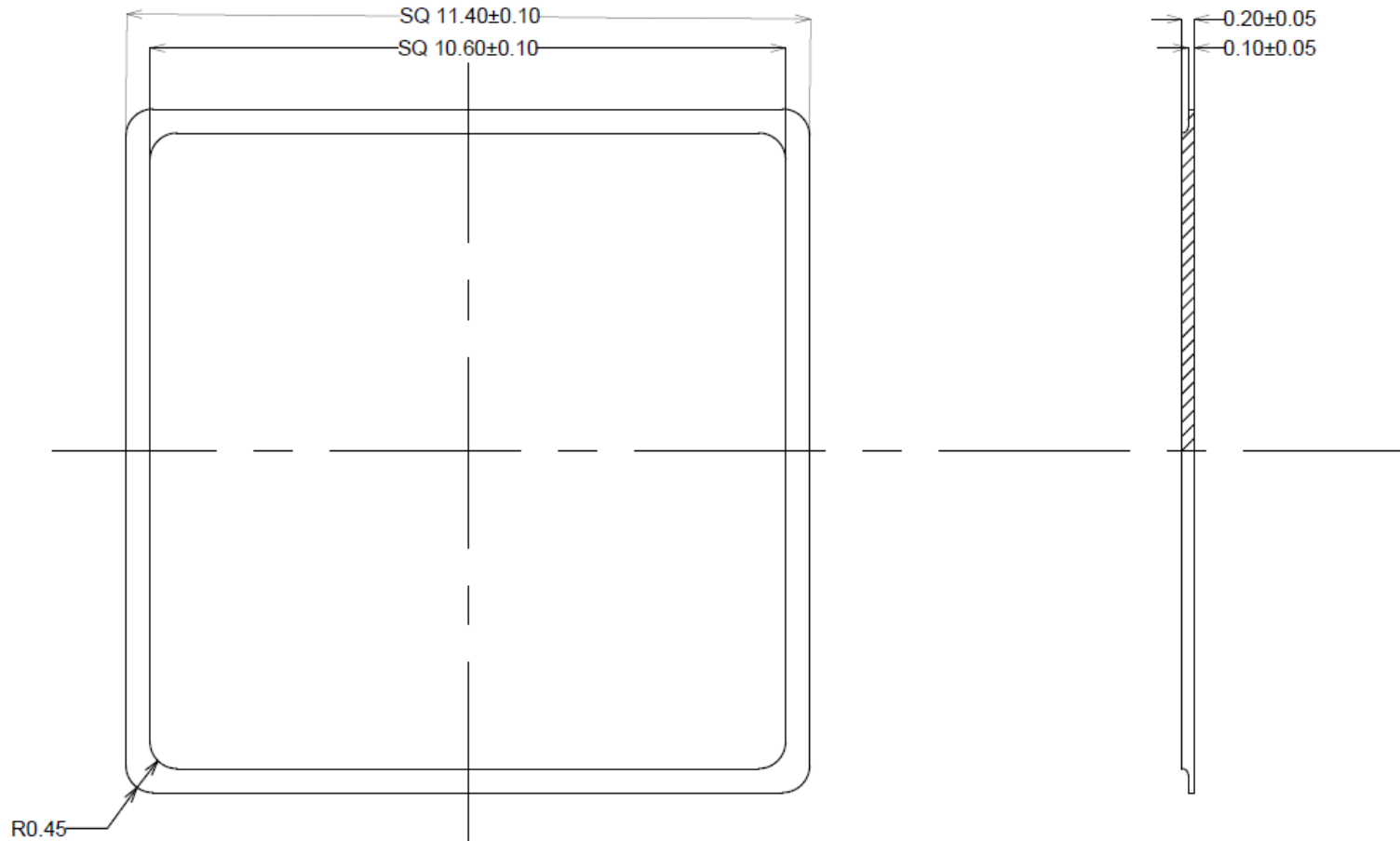
A-4 SCL/VAHD/DWG/2025/04

ALL DIMENSIONS ARE IN inch SCALE: NTS SHEET 1 OF 1

UNLESS UNTIL SPECIFIED

PROPRIETARY NOTE: The design and data on this drawing were originated by and are the exclusive property of SEMI-CONDUCTOR LABORATORY, and are to be used and held on a confidential basis. All written material and data pertaining thereto will be returned to us upon our demand.

REVISIONS					
REV.	DATE	DESCRIPTION	ECN No	APPROVAL	DCC



NOTE : Matching Sealing Step lid for 44 Pin CLCC package
(Reference Drawing)

TOLERANCE IN mm. UNLESS
UNTIL SPECIFIED
1% MINIMUM

MATERIAL

AS PER SPECS.

FINISH

AS PER SPECS.

USED ON

DCC
DATE



Semi-Conductor Laboratory

(MeitY , GOVT. OF INDIA)
SECTOR 72, S.A.S. NAGAR - 160 071
PUNJAB (INDIA)

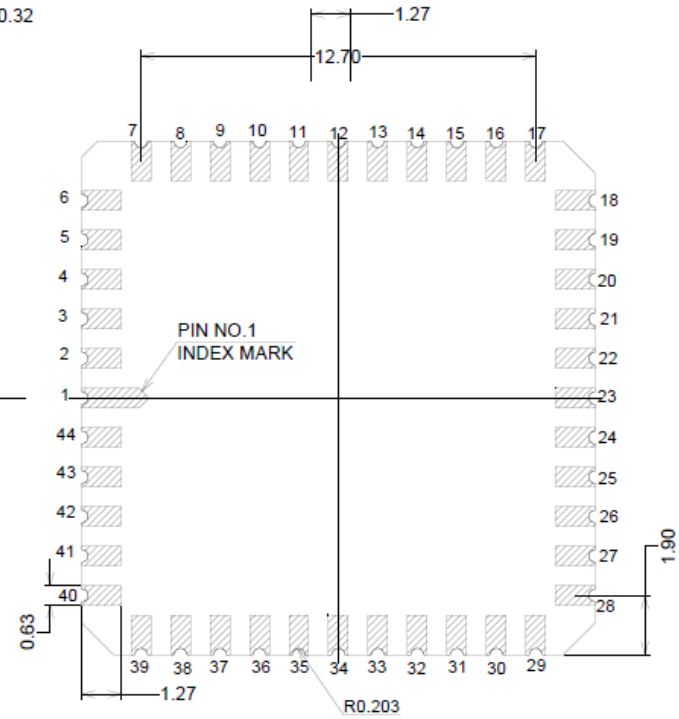
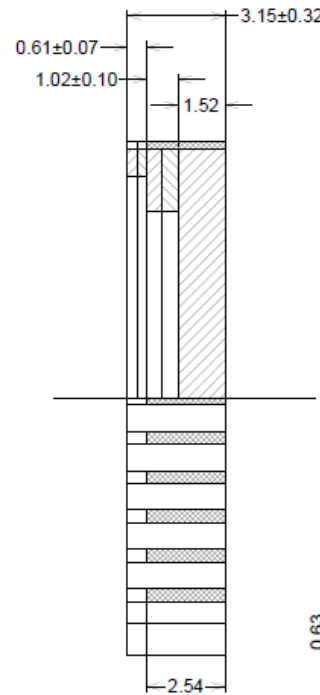
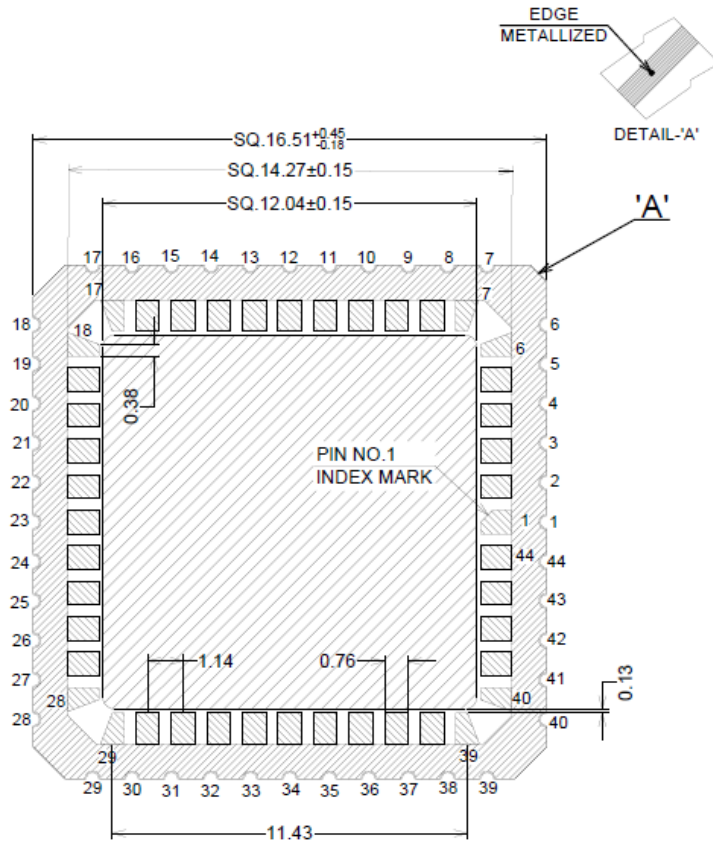
TITLE
Sealing lid with step for seam sealing
OD:11.40mm X 11.40mm
ID:10.60mm X 10.60mm

TEM CODE.	SIZE	DRAWING NO.	REV.
	A-4	SCL/VAHD/DWG/2025/15	

ALL DIMENSIONS ARE IN mm. SCALE :
UNLESS UNTIL SPECIFIED NTS SHEET 1 OF 1

PROPRIETARY NOTE: The design and data on this drawing were originated by and are the exclusive property of SEMI-CONDUCTOR LABORATORY, and are to be used and held on a confidential basis. All written material and data pertaining thereto will be returned to us upon our demand.

REVISIONS					
REV.	DATE	DESCRIPTION	ECN No	APPROVAL	DCC



NOTE:

1. DIE - ATTACH CAVITY TO BE METALLIZED .
2. SEAL RING TO BE METALLIZED.
3. ALL EXPOSED METAL TO HAVE GOLD PLATING
1.5 MICRONS MINIMUM OVER 2.0 MICRONS MINIMUM OF NICKEL.
4. SEAL RING AND DIE ATTACH AREA TO ISOLATED.

TOLERANCE IN mm UNLESS UNTIL SPECIFIED

1 % MINIMUM

MATERIAL

AS PER SPEC.

FINISH

AS PER SPEC.

USED ON

DCC

DATE



Semi-Conductor Laboratory

(MeitY, GOVT. OF INDIA)
SECTOR 72, S.A.S. NAGAR - 160 071
PUNJAB (INDIA)

DGN. DATE

DGN. DATE

DRN. DATE

CHD. DATE

APPD. DATE

APPD. DATE

TITLE
Package Drawing for
44 PIN CLCC
Cavity: 12.04 mm X 12.04 mm.

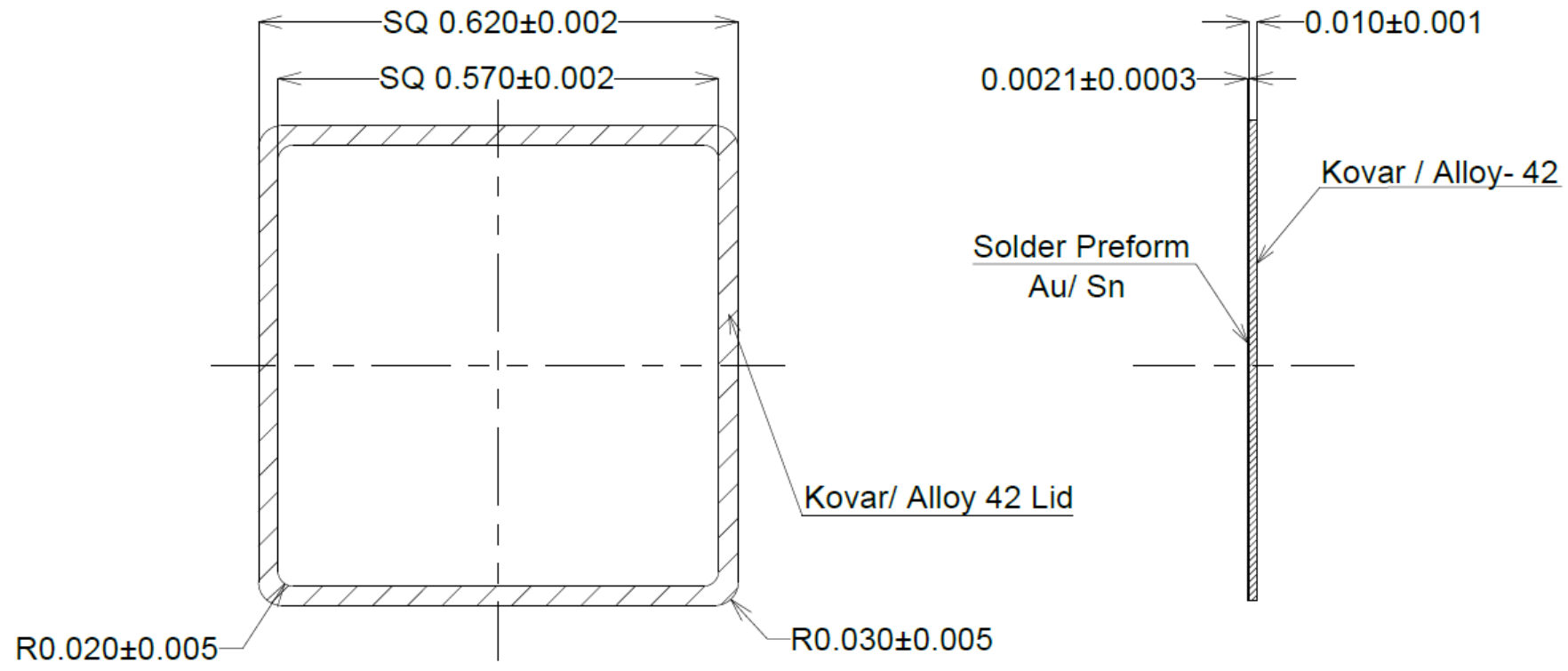
ITEM CODE. SIZE DRAWING NO. REV.



A - 4 SCL/VAHD/DWG/2025/05

ALL DIMENSIONS ARE IN mm UNLESS UNTIL SPECIFIED SCALE : NTS SHEET 1 OF 1

PROPRIETARY NOTE: The design and data on this drawing were originated by and are the exclusive property of SEMI-CONDUCTOR LABORATORY, and are to be used and held on a confidential basis. All written material and data pertaining thereto will be returned to us upon our demand.

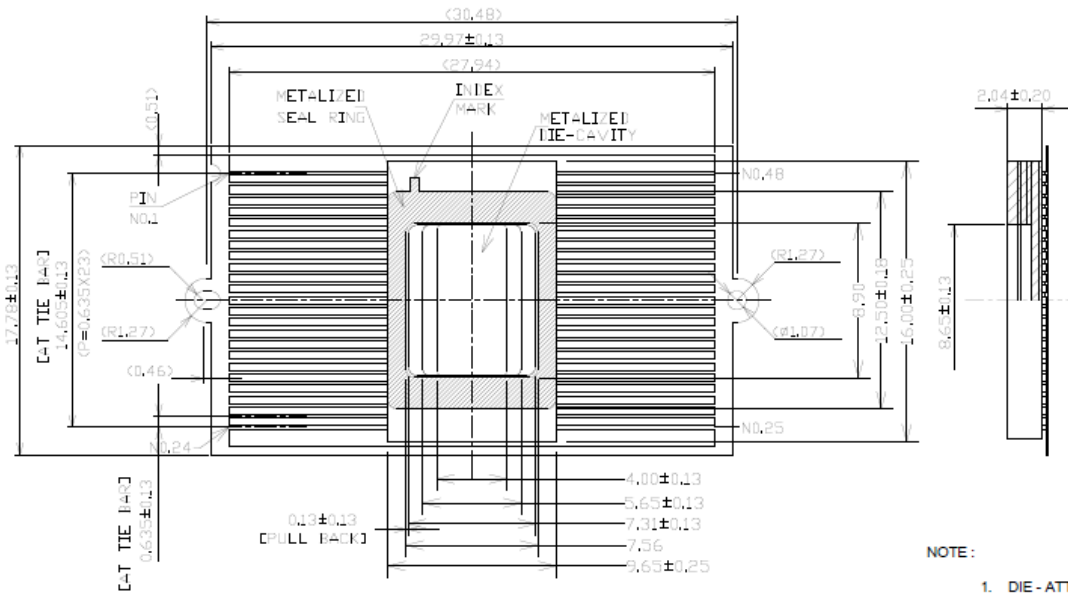
REVISIONS					
REV.	DATE	DESCRIPTION	ECN No	APPROVAL	DCC



TOLERANCE IN inch. UNLESS UNTIL SPECIFIED $\pm 1\%$			Semi-Conductor Laboratory (MeitY , GOVT. OF INDIA) SECTOR 72, S.A.S. NAGAR - 160 071 PUNJAB (INDIA)		
MATERIAL AS PER SPECS.	DGN. DATE		TITLE Metal Lid with Solder preform		
FINISH AS PER SPECS.	DRN. DATE	OD : 0.620"X0.620"(15.74mmX15.74mm) ID : 0.570"X0.570"(14.47mmX14.47mm)			
USED ON	CHD. DATE	ITEM CODE.	SIZE A-4	DRAWING NO. SCL/VAHD/DWG/2025/18	REV.
 DCC DATE	APPD. DATE	ALL DIMENSIONS ARE IN inch. UNLESS UNTIL SPECIFIED			SCALE : NTS

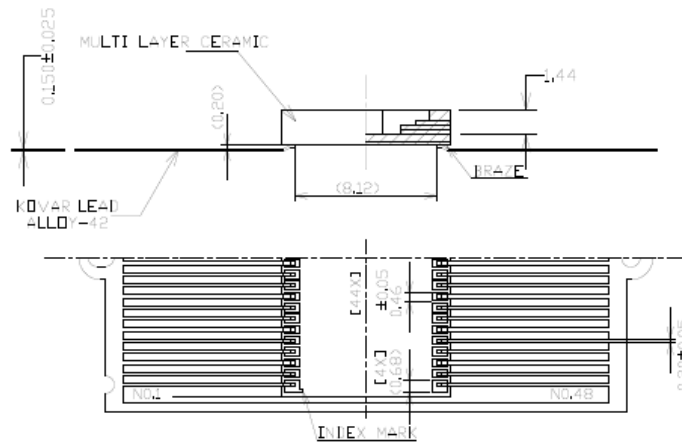
PROPRIETARY NOTE: The design and data on this drawing were originated by and are the exclusive property of SEMI-CONDUCTOR LABORATORY, and are to be used and held on a confidential basis. All written material and data pertaining thereto will be returned to us upon our demand.

REVISIONS				
REV.	DATE	DESCRIPTION	ECN No	APPROVAL



NOTE :

1. DIE - ATTACH CAVITY TO BE METALLIZED.
2. SEAL RING TO BE METALLIZED.
3. ALL EXPOSED METAL TO HAVE GOLD PLATING 1.5 MICRONS MINIMUM OVER 2.0 MICRONS MINIMUM OF NICKEL.
4. SEAL AREA AND DIE ATTACH AREA TO ISOLATED.
5. GND LEAD TO BE ELECTRICALLY CONNECTED TO THE DIE ATTACH PAD.



TOLERANCE IN mm UNLESS UNTIL SPECIFIED

± 1 %

MATERIAL AS PER SPEC

FINISH AS PER SPEC

USED ON

DCC

DATE



Semi-Conductor Laboratory

(MeitY, GOVT. OF INDIA)
SECTOR 72, S.A.S. NAGAR - 160 071
PUNJAB (INDIA)

TITLE PACKAGE DRAWING FOR
Ceramic IC Package - 48 Pin CDFP
(Die Cavity: 4.00mm X 8.65mm.)

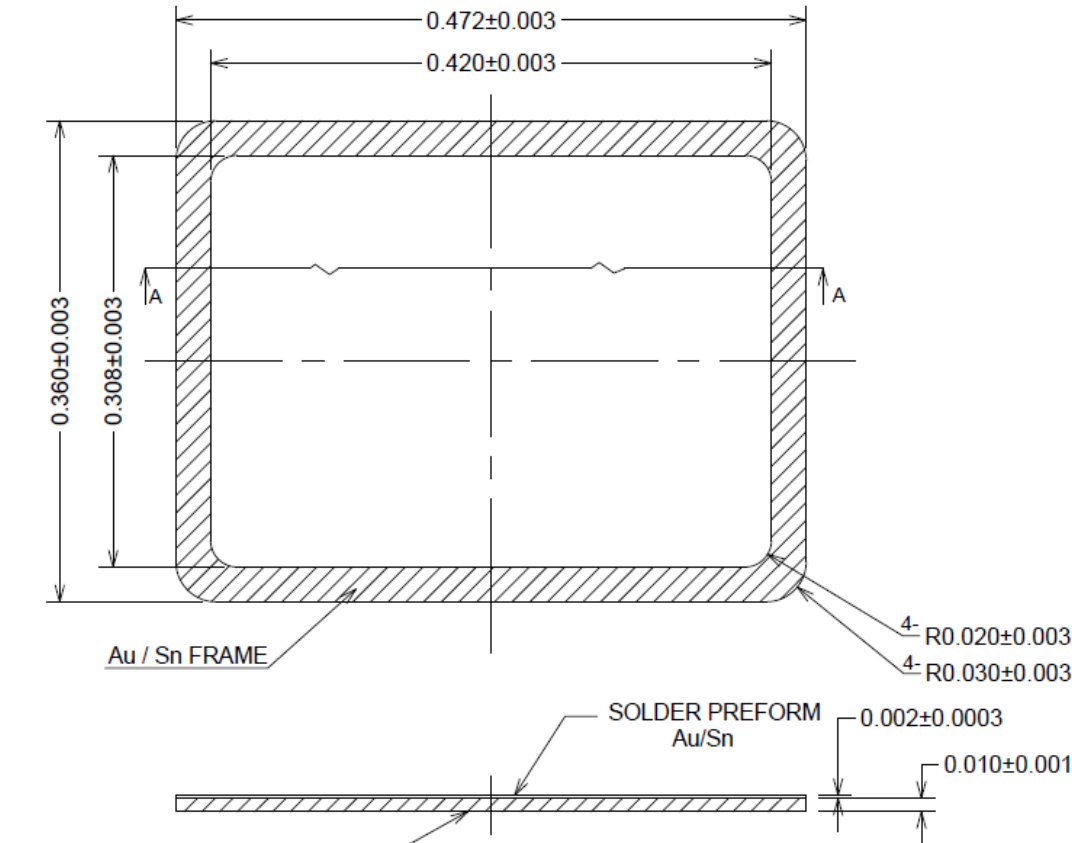
ITEM CODE. SIZE DRAWING NO. REV.

A - 4 C15E42020005


ALL DIMENSIONS ARE IN mm. SCALE : NTS SHEET 1 OF 1

PROPRIETARY NOTE: The design and data on this drawing were originated by and are the exclusive property of SEMI-CONDUCTOR LABORATORY, and are to be used and held on a confidential basis. All written material and data pertaining thereto will be returned to us upon our demand.

REVISIONS					
REV.	DATE	DESCRIPTION	ECN No	APPROVAL	DCC
A	20-01-2023	WHOLE DRAWING REVISED	VAHD/ASSY/06		

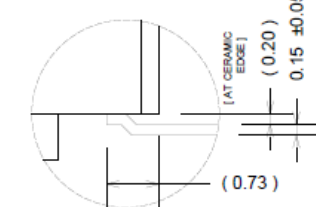
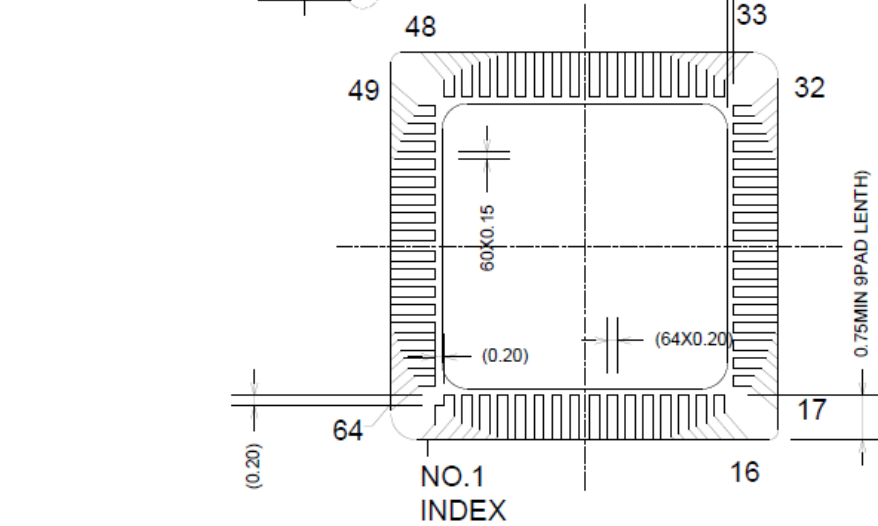
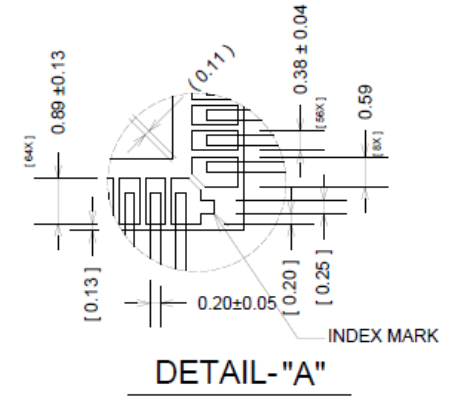
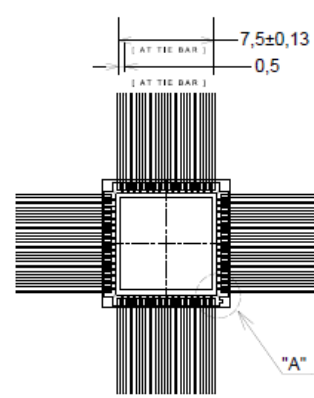
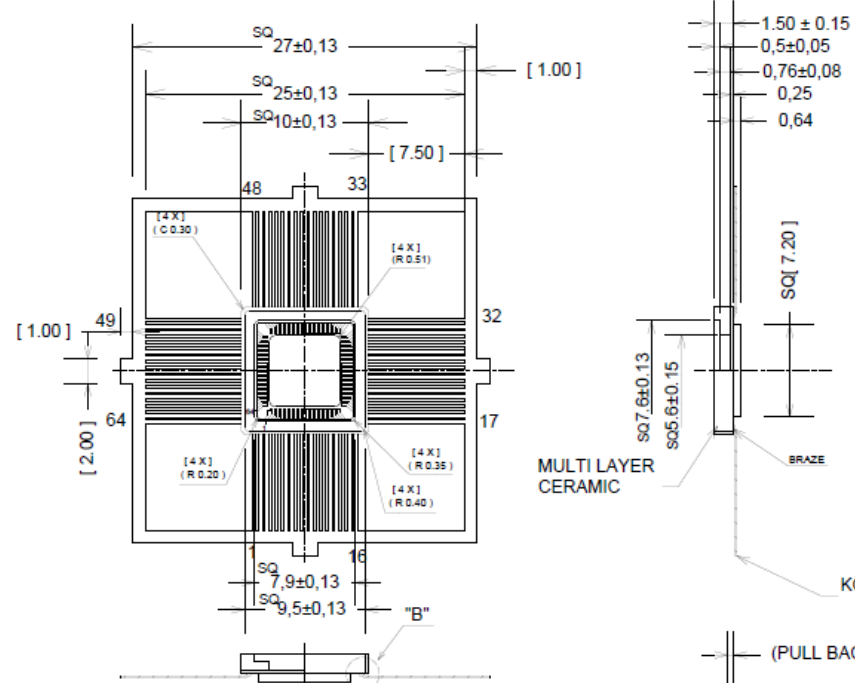


SECTION A-A

TOLERANCE IN inch. UNLESS UNTIL SPECIFIED		 Semi-Conductor Laboratory (MeitY, GOVT. OF INDIA) SECTOR 72, S.A.S. NAGAR - 160 071 PUNJAB (INDIA)			
AS IN DRAWING					
MATERIAL	AS PER SPEC	DGN.	DATE	TITLE Sealing Lid With Preform : LWP	
FINISH	AS PER SPEC	DGN.	DATE	OD : 472 mils X 360 mils	
		DRN.	DATE	ID : 420 mils X 308 mils	
USED ON		CHD.	DATE	ITEM CODE	SIZE
		APPD.	DATE	A 4	DRAWING NO. A1542020327
		APPD.	DATE	SCALE : NTS	REV. A
ALL DIMENSIONS ARE IN inch UNLESS UNTIL SPECIFIED		SHEET 1 of 1			

PROPRIETARY NOTE: The design and data on this drawing were originated by and are the exclusive property of SEMI-CONDUCTOR LABORATORY, and are to be used and held on a confidential basis. All written material and data pertaining thereto will be returned to us upon our demand.

REVISIONS					
REV.	DATE	DESCRIPTION	ECN No	APPROVAL	DCC




DETAIL- "B"

NOTE :

1. DIE - ATTACH CAVITY TO BE CERAMIC .
2. SEAL RING TO BE METALLIZED.
3. ALL EXPOSED METAL TO HAVE GOLD PLATING 1.5 MICRONS MINIMUM OVER 2.0 MICRONS MINIMUM OF NICKEL.
4. SEAL AREA AND DIE ATTACH AREA TO ISOLATED.

TOLERANCE IN mm. UNLESS UNTIL SPECIFIED

AS IN DRAWING	DGN.	DATE
MATERIAL	DGN.	DATE
AS PER SPEC	DRN.	DATE
FINISH	CHD.	DATE
AS PER SPEC	APPD.	DATE
USED ON	APPD.	DATE

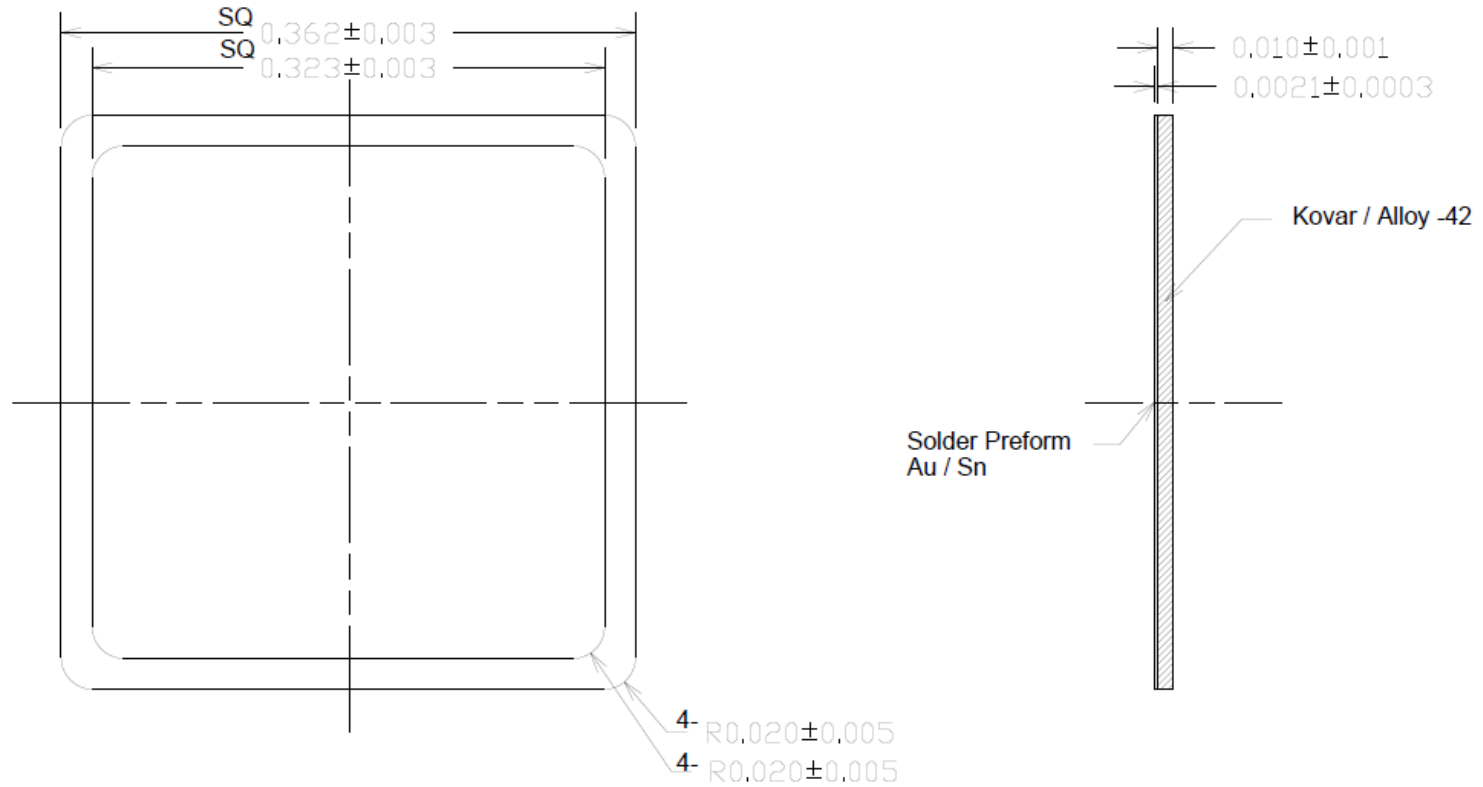


Semi-Conductor Laboratory
(Meity , GOVT. OF INDIA)
SECTOR 72, S.A.S. NAGAR - 160 071
PUNJAB (INDIA)

TITLE		PACKAGE DRAWING FOR Ceramic IC Package - 64 Pin CQFP (Die CAVITY 5.60mm X 5.60mm)	
ITEM CODE.	SIZE	DRAWING NO.	REV.
	A 4	C15E42020003	
ALL DIMENSIONS ARE IN MM UNLESS UNTIL SPECIFIED		SCALE :	NTS

PROPRIETARY NOTE: The design and data on this drawing were originated by and are the exclusive property of SEMI-CONDUCTOR LABORATORY, and are to be used and held on a confidential basis. All written material and data pertaining thereto will be returned to us upon our demand.

REVISIONS					
REV.	DATE	DESCRIPTION	ECN No	APPROVAL	DCC
A	25-01-2023	Whole drawing revised.	VAHD/ ASSY/ 10		



TOLERANCE IN inch UNLESS UNTIL SPECIFIED

AS IN DRAWING

MATERIAL AS PER SPEC.

FINISH AS PER SPEC.

USED ON

DCC APPD. DATE



Semi-Conductor Laboratory

(MeitY, GOVT. OF INDIA)
SECTOR 72, S.A.S. NAGAR - 160 071
PUNJAB (INDIA)

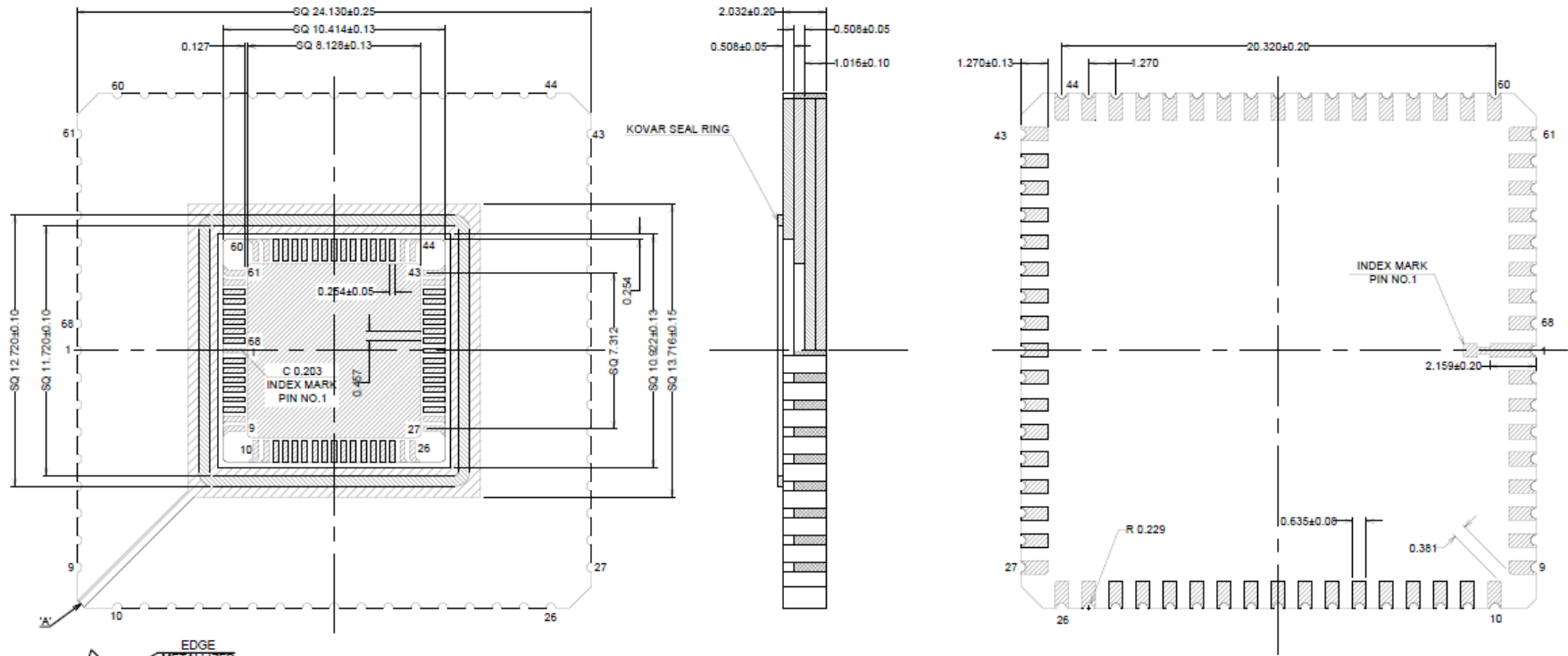
DGN.	DATE	TITLE
DGN.	DATE	LID WITH PREFORM
DRN.	DATE	OD: 362mils X 362mils (9.195mm X 9.195 mm)
		ID: 323mils X 323mils (8.204mm X 8.204mm)

USED ON	CHD.	DATE	ITEM CODE	SIZE	DRAWING NO.	REV.
	APPD.	DATE		A - 4	A1542020350	A

DATE	APPD.	DATE	ALL DIMENSIONS ARE IN inch UNLESS UNTIL SPECIFIED	SCALE	NTS	SHEET 1 OF 1
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PROPRIETARY NOTE: The design and data on this drawing were originated by and are the exclusive property of SEMI-CONDUCTOR LABORATORY, and are to be used and held on a confidential basis. All written material and data pertaining thereto will be returned to us upon our demand.

REVISIONS					
REV.	DATE	DESCRIPTION	ECN No	APPROVAL	DCC



NOTE:

1. DIE - ATTACH CAVITY TO BE METALLIZED .
2. SEAL RING TO BE METALLIZED.
3. ALL EXPOSED METAL TO HAVE GOLD PLATING 1.5 MICRONS MINIMUM OVER 2.0 MICRONS MINIMUM OF NICKEL.
4. SEAL RING AND DIE ATTACH AREA TO ISOLATED.

TOLERANCE IN mm. UNLESS UNTIL SPECIFIED
1% MINIMUM



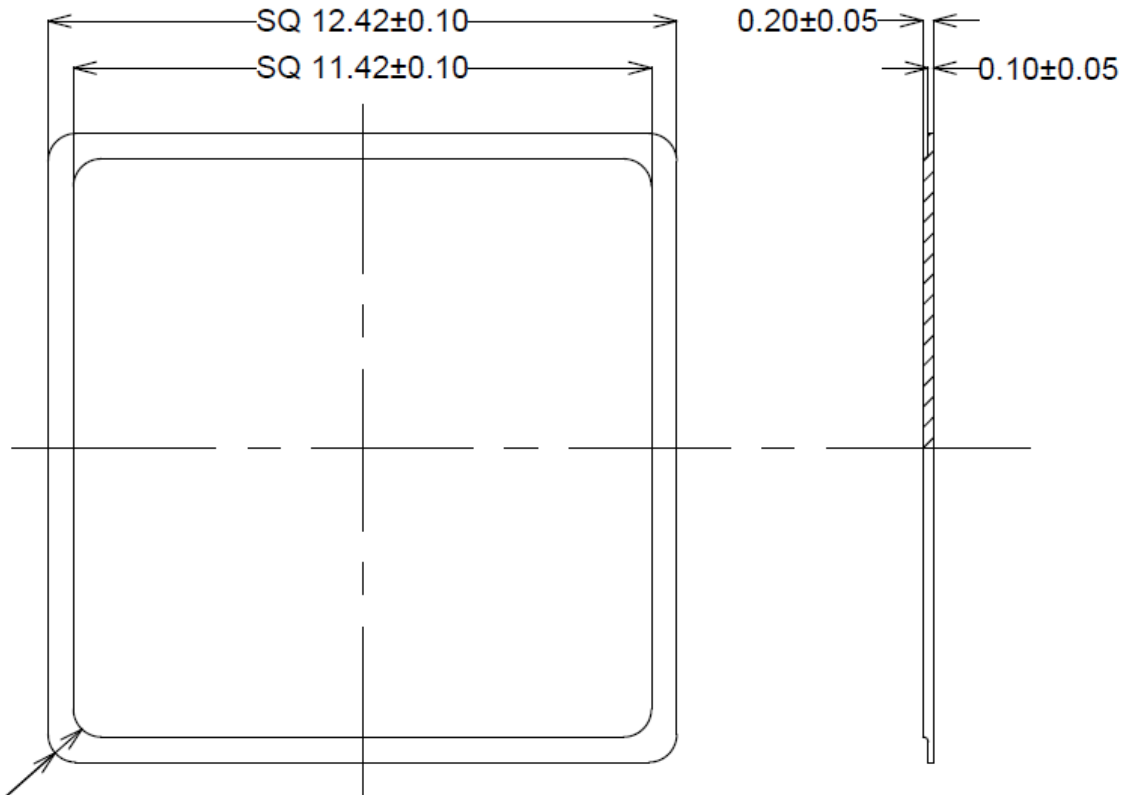
Semi-Conductor Laboratory

(MeitY, GOVT. OF INDIA)
SECTOR 72, S.A.S. NAGAR - 160 071
PUNJAB (INDIA)

MATERIAL	AS PER SPECS.	DGN.	DATE	TITLE	Package drawing for 68 Pin CLCC Cavity 8.128mm X 8.128mm				
FINISH	AS PER SPECS.	DGN.	DATE	DRN.	DATE	ITEM CODE.	SIZE	DRAWING NO.	REV.
USED ON	CHD.	DATE	APPD.	DATE	DATE	APPD.	DATE	ALL DIMENSIONS ARE IN mm. UNLESS UNTIL SPECIFIED	SCALE :
DCC	DATE	APPD.	DATE	APPD.	DATE	APPD.	DATE	SCL/VAHD/DWG/2025/08	NTS SHEET 1 OF 1

PROPRIETARY NOTE: The design and data on this drawing were originated by and are the exclusive property of SEMI-CONDUCTOR LABORATORY, and are to be used and held on a confidential basis. All written material and data pertaining thereto will be returned to us upon our demand.

REVISIONS					
REV.	DATE	DESCRIPTION	ECN No	APPROVAL	DCC



R0.55

NOTE : Matching Sealing step lid for 68 PinCLCC package
(Reference Drawing)

TOLERANCE IN mm. UNLESS
UNTIL SPECIFIED
1% MINIMUM

MATERIAL

AS PER SPECS.

FINISH

AS PER SPECS.

USED ON

DCC

DATE

DATE



Semi-Conductor Laboratory

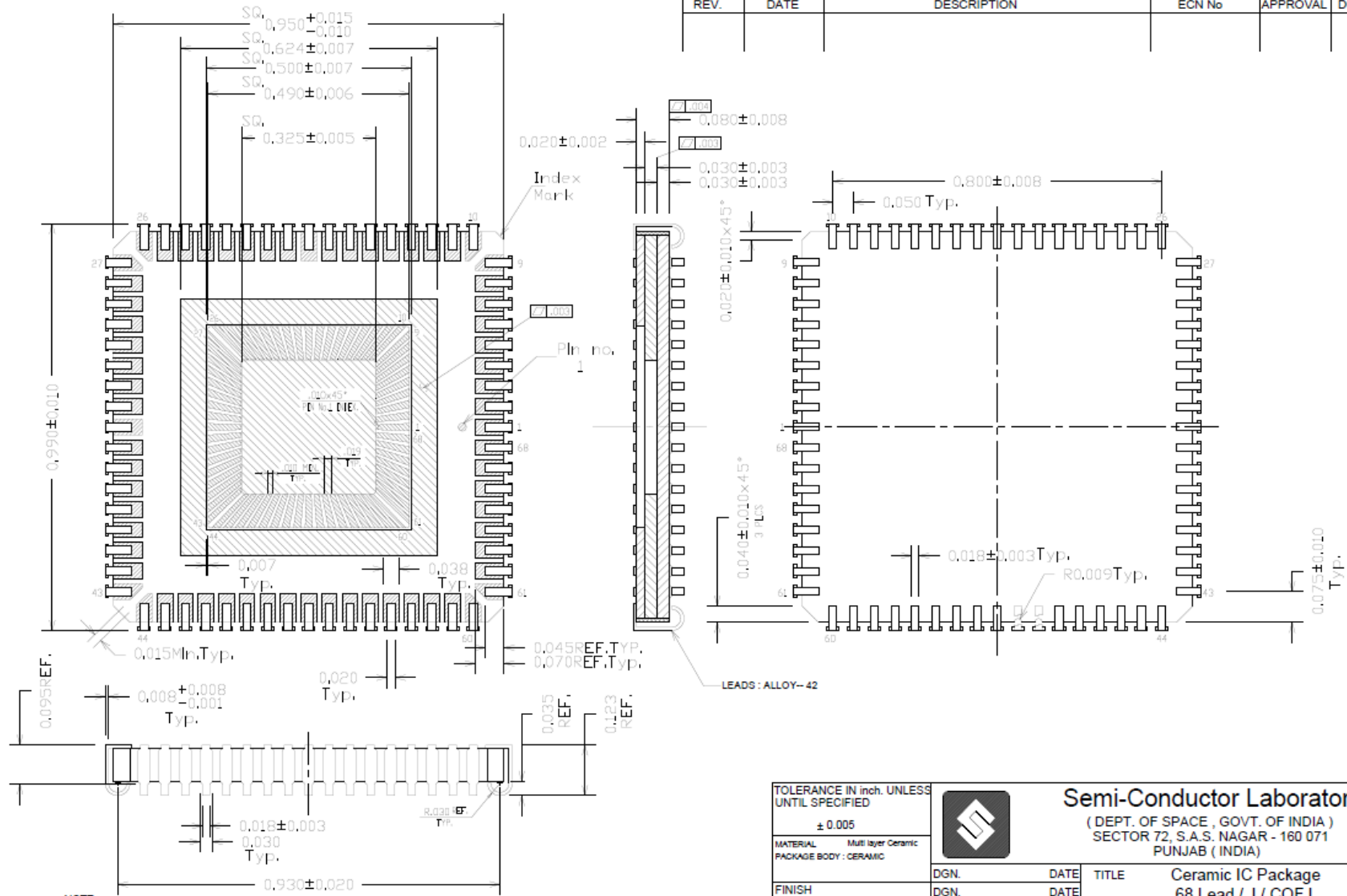
(MeitY , GOVT. OF INDIA)
SECTOR 72, S.A.S. NAGAR - 160 071
PUNJAB (INDIA)

TITLE Sealing lid with step for seam sealing
OD:12.42mm X12.42mm
ID: 11.42mmX11.42mm


ALL DIMENSIONS ARE IN mm UNLESS UNTIL SPECIFIED SCALE: NTS SHEET 1 OF 1

PROPRIETARY NOTE: The design and data on this drawing were originated by and are the exclusive property of SEMI-CONDUCTOR LABORATORY, and are to be used and held on a confidential basis. All written material and data pertaining thereto will be returned to us upon our demand.

REVISIONS					
REV.	DATE	DESCRIPTION	ECN No	APPROVAL	DCC

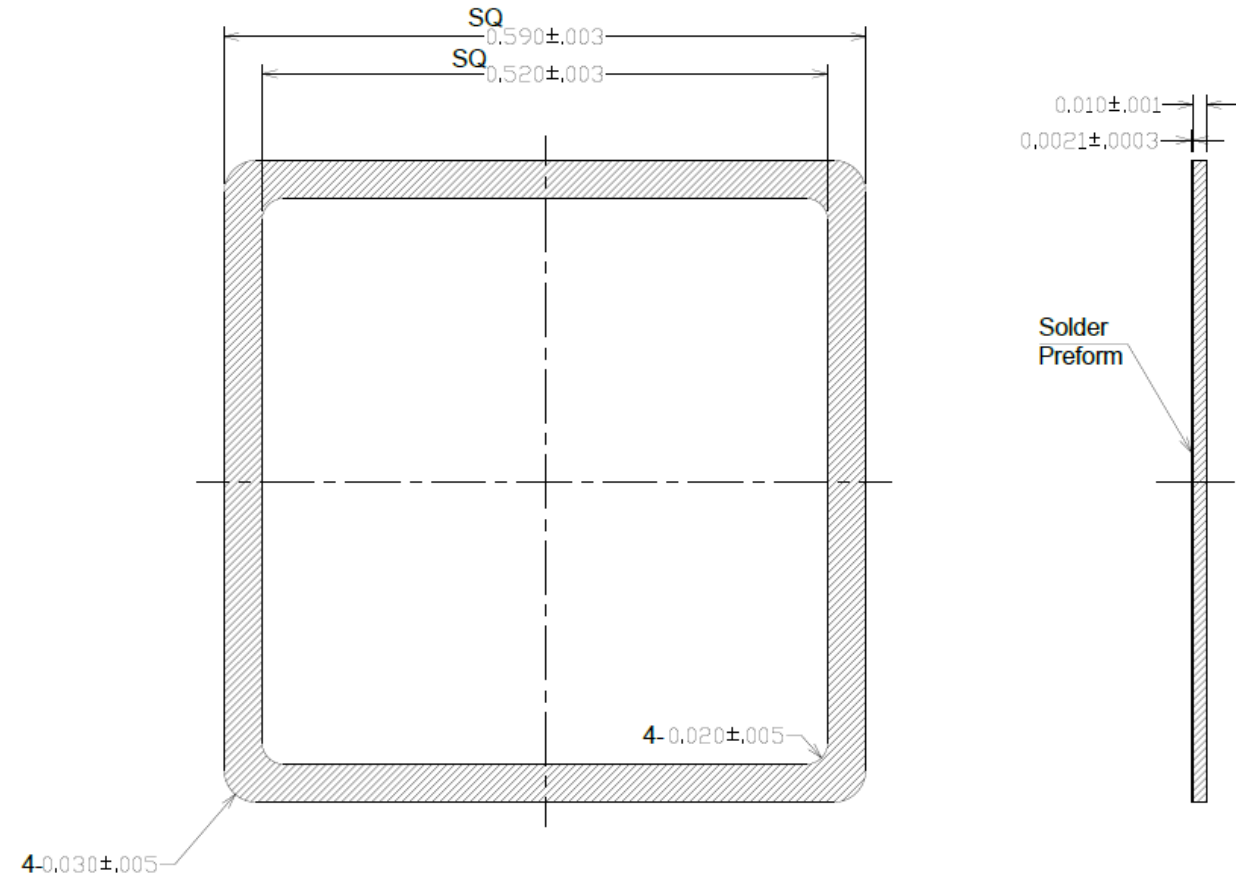




- NOTE:
- 1 ALL EXPOSED METAL & METALIZED AREA SHALL BE GOLD PLATED 80 MICRO INCH MIN. THK. OVER NICKEL PLATING UNLESS OTHERWISE SPECIFIED.
 - 2 FLATNESS METALIZED PAD'S ONLY.
 - 3 SEAL AREA AND DIE ATTACH AREA SHALL BE ISOLATED FROM ANY LEADS. (ZERO GROUND)
 - 4 DIE-ATTACH CAVITY : BARE OR METALIZED.

TOLERANCE IN INCH. UNLESS UNTIL SPECIFIED		 Semi-Conductor Laboratory (DEPT. OF SPACE, GOVT. OF INDIA) SECTOR 72, S.A.S. NAGAR - 160 071 PUNJAB (INDIA)	
± 0.005			
MATERIAL: Multi layer Ceramic PACKAGE BODY : CERAMIC		DGN. DATE	
FINISH: -----		DGN. DATE	
USED ON: -----		DRN. DATE	
DCC		CHD. DATE	
DATE		APPD. DATE	
DATE		APPD. DATE	
ALL DIMENSIONS ARE IN INCH UNLESS UNTIL SPECIFIED		ITEM CODE.	SCALE
NTS		A4	1:1
SHEET 1 OF 1		DRAWING NO. A1542020891	REV.

PROPRIETARY NOTE: The design and data on this drawing were originated by and are the exclusive property of SEMI-CONDUCTOR LABORATORY, and are to be used and held on a confidential basis. All written material and data pertaining thereto will be returned to us upon our demand.

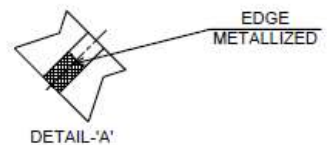
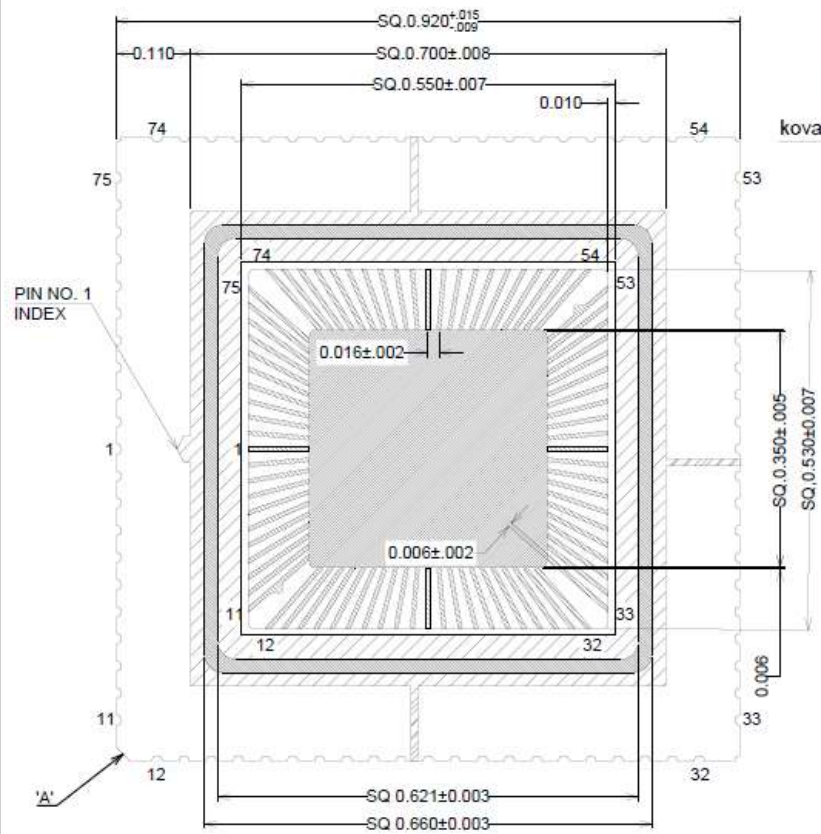
REVISIONS					
REV.	DATE	DESCRIPTION	ECN No	APPROVAL	DCC
A	01-01-2025	Whole Drawing Revised	VAHD/ASSY/54		



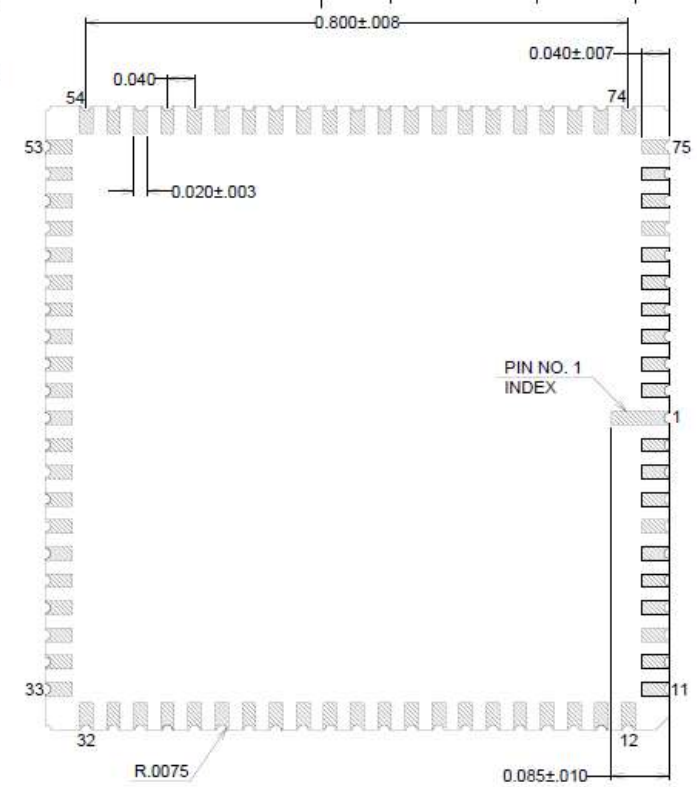
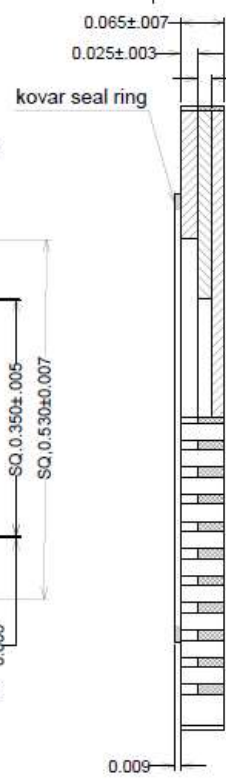
TOLERANCE IN mm UNLESS UNTIL SPECIFIED				Semi-Conductor Laboratory			
± 0.010				(DEPT. OF SPACE , GOVT. OF INDIA) SECTOR 72, S.A.S. NAGAR - 160 071 PUNJAB (INDIA)			
MATERIAL		DGN.		DATE		TITLE	
AS PER SPEC.		DGN.		DATE		LID WITH PREFORM	
FINISH		DRN.		DATE		OD: 590mils X 590mils (14.986mm X 14.986 mm)	
AS PER SPEC.		CHD.		DATE		ID: 520mils X 520mils (13.208mm X 13.208 mm)	
USED ON		APPD.		DATE		ITEM CODE.	SIZE
DCC		APPD.		DATE		A-4	DRAWING NO.
		APPD.		DATE		A1542020387	REV.
DATE		DATE		DATE		ALL DIMENSIONS ARE IN inches. UNLESS UNTIL SPECIFIED	SCALE
						NTS	SHEET 1 OF 1

PROPRIETARY NOTE: The design and data on this drawing were originated by and are the exclusive property of SEMI-CONDUCTOR LABORATORY, and are to be used and held on a confidential basis. All written material and data pertaining thereto will be returned to us upon our demand.

REVISIONS					
REV.	DATE	DESCRIPTION	ECN No	APPROVAL	DCC



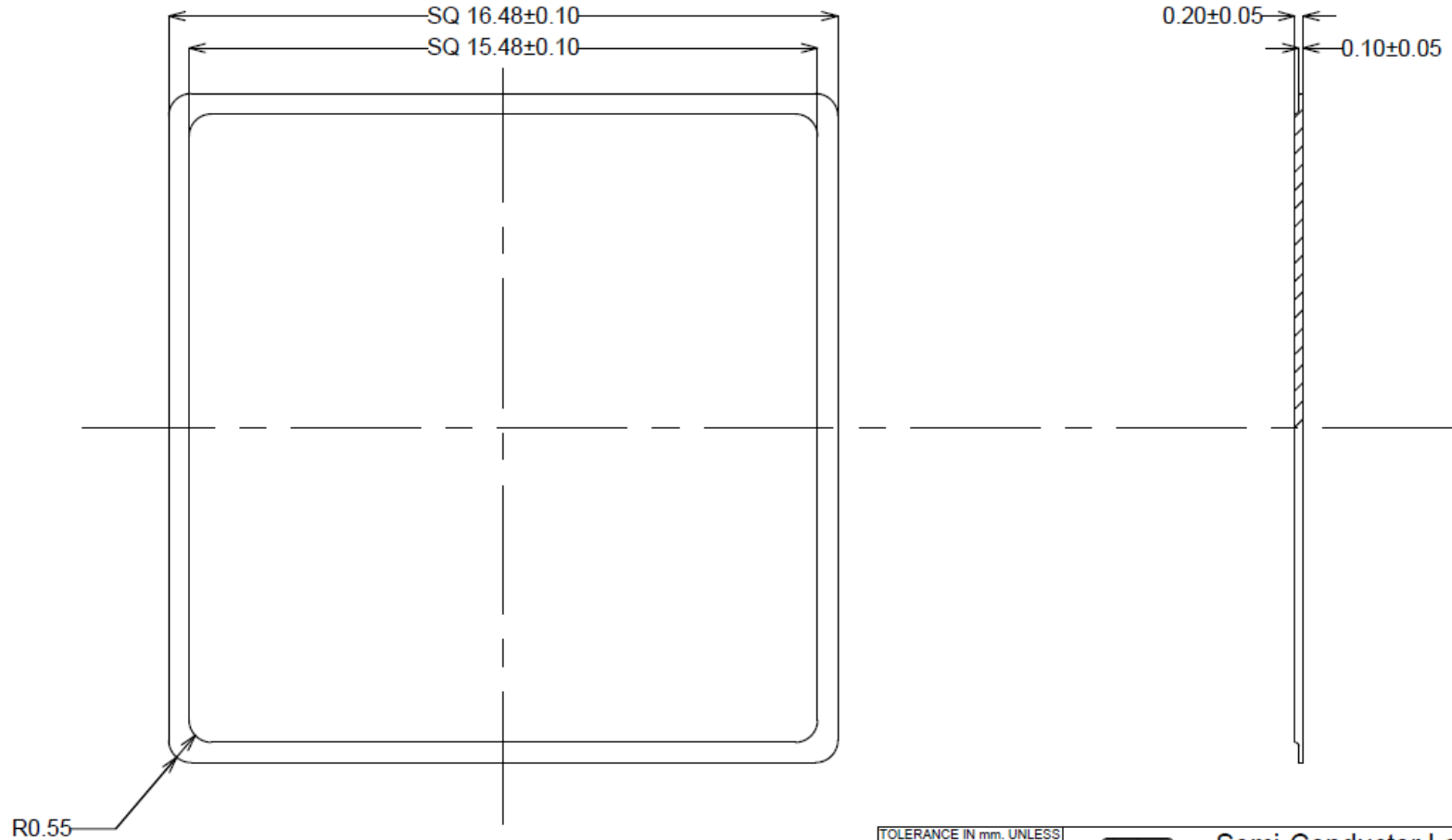
- NOTE:
1. DIE - ATTACH CAVITY TO BE METALLIZED .
 2. SEAL RING TO BE METALLIZED.
 3. ALL EXPOSED METAL TO HAVE GOLD PLATING 1.5 MICRONS MINIMUM OVER 2.0 MICRONS MINIMUM OF NICKEL.
 4. SEAL AREA AND DIE ATTACH AREA TO ISOLATED.





TOLERANCE IN inch. UNLESS UNTIL SPECIFIED 1% MINIMUM		 Semi-Conductor Laboratory (MeitY , GOVT. OF INDIA) SECTOR 72, S.A.S. NAGAR - 160 071 PUNJAB (INDIA)			
MATERIAL	AS PER SPECS.				
FINISH	AS PER SPECS.	DGN.	DATE	TITLE	Package drawing for 84 Pin CLCC Cavity 0.350" x 0.350"(8.89mm X 8.89mm)
USED ON	AS PER SPECS.	DGN.	DATE	DRN.	DATE
 DCC DATE	APPD.	DATE	APPD.	DATE	DATE
	APPD.	DATE	APPD.	DATE	DATE
ALL DIMENSIONS ARE IN inch UNLESS UNTIL SPECIFIED		ITEM CODE.	SIZE	DRAWING NO.	REV.
			A-4	SCL/VAHD/DWG/2025/07	
		SCALE :		NTS	
				SHEET 1 OF 1	

PROPRIETARY NOTE: The design and data on this drawing were originated by and are the exclusive property of SEMI-CONDUCTOR LABORATORY, and are to be used and held on a confidential basis. All written material and data pertaining thereto will be returned to us upon our demand.

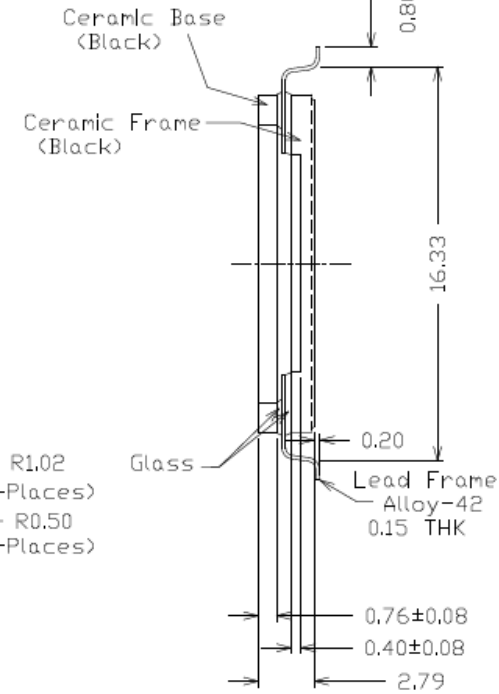
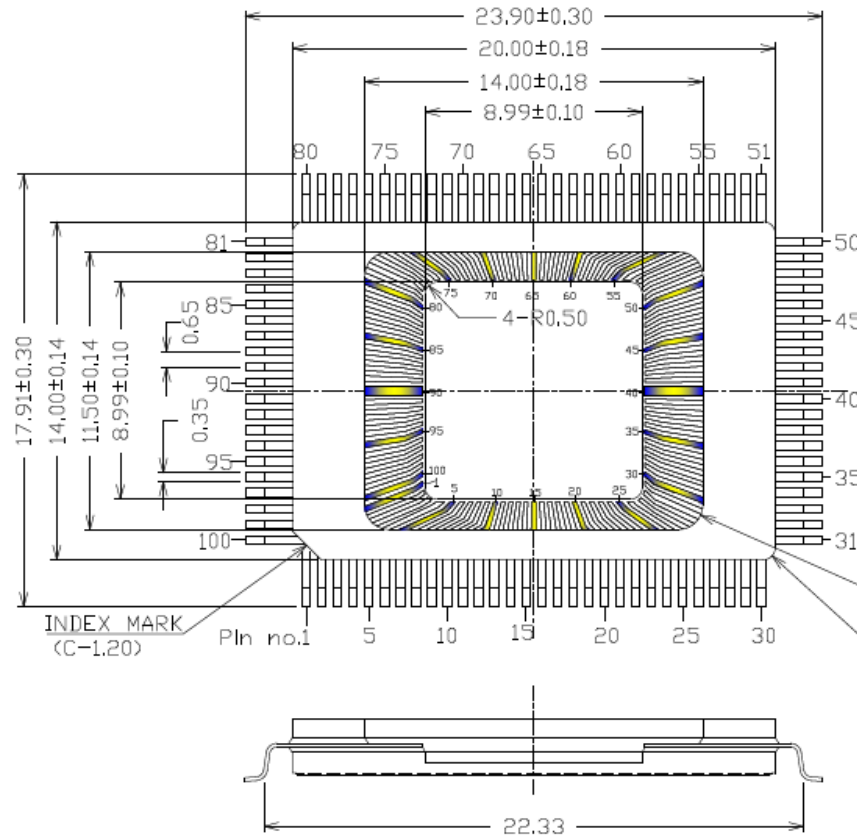
REVISIONS					
REV.	DATE	DESCRIPTION	ECN No	APPROVAL	DCC



TOLERANCE IN mm. UNLESS UNTIL SPECIFIED 1% MINIMUM			Semi-Conductor Laboratory (MeitY, GOVT. OF INDIA) SECTOR 72, S.A.S. NAGAR - 160 071 PUNJAB (INDIA)				
MATERIAL	AS PER SPECS.		DGN.	DATE	TITLE		
FINISH	AS PER SPECS.	DGN.	DATE	Sealing lid with step for seam sealing OD:16.48mmX16.48mm ID: 15.48mmX 15.48mm			
USED ON		DRN.	DATE				
	DCC	CHD.	DATE	TEM CODE.	SIZE	DRAWING NO.	REV.
	DATE	APPD.	DATE	A-4	SCL/VAHD/DWG/2025/16		
ALL DIMENSIONS ARE IN mm UNLESS UNTIL SPECIFIED				SCALE:	NTS	SHEET 1 OF 1	

PROPRIETARY NOTE: The design and data on this drawing were originated by and are the exclusive property of SEMI-CONDUCTOR LABORATORY, and are to be used and held on a confidential basis. All written material and data pertaining thereto will be returned to us upon our demand.

REVISIONS					
REV.	DATE	DESCRIPTION	ECN No	APPROVAL	DCC
A	18-01-2011	TITLE & MATERIAL CODE CHANGED.	VLBI / ASSY / 120		
B	21-01-2014	TITLE CHANGED & MATCHING LID DRG. SEPARATELY CONTROLLED.	VLBI / ASSY / 150		215
C	25-11-2021	Whole Drawing Revised.	VLBI / ASSY / 333		

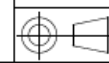


TOLERANCE IN mm. UNLESS UNTIL SPECIFIED
1 % Minimum

MATERIAL :
As in Drawing

FINISH

USED ON



DCC
DATE



Semi-Conductor Laboratory

(DEPT. OF SPACE, GOVT. OF INDIA)
SECTOR 72, S.A.S. NAGAR - 160 071
PUNJAB (INDIA)

DGN.	DATE	TITLE
DGN.	DATE	100 Lead Cerquad Package Base
DRN.	DATE	(Cavity 354 mil X 354 mil)

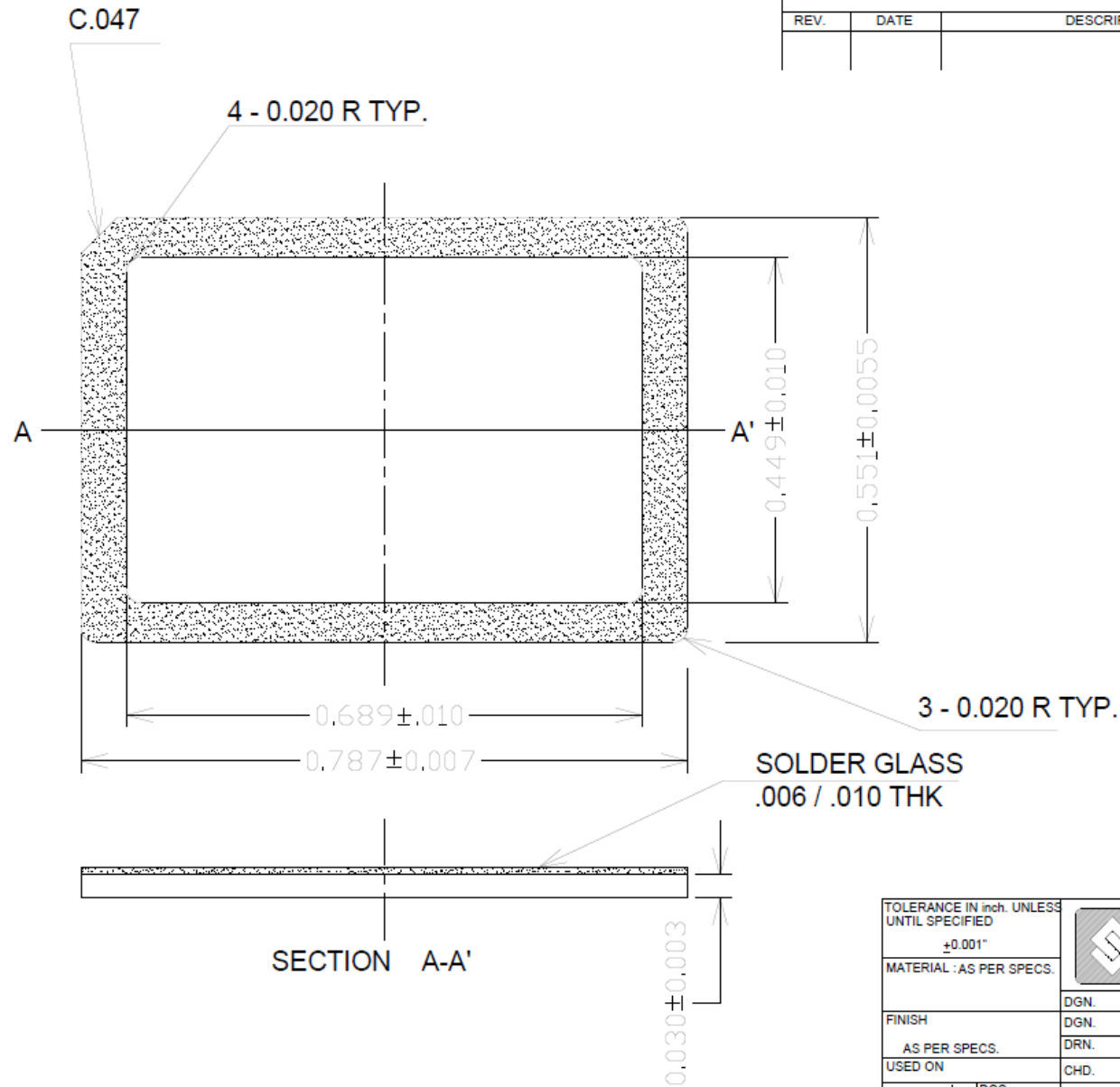
CHD.	DATE	ITEM CODE	SIZE	DRAWING NO.	REV.
APPD.	DATE	230216001	A4	A0342020148	C

ALL DIMENSIONS ARE IN mm. UNLESS UNTIL SPECIFIED

SCALE : SHEET 1 OF 1

PROPRIETARY NOTE: The design and data on this drawing were originated by and are the exclusive property of SEMI-CONDUCTOR LABORATORY, and are to be used and held on a confidential basis. All written material and data pertaining thereto will be returned to us upon our demand.

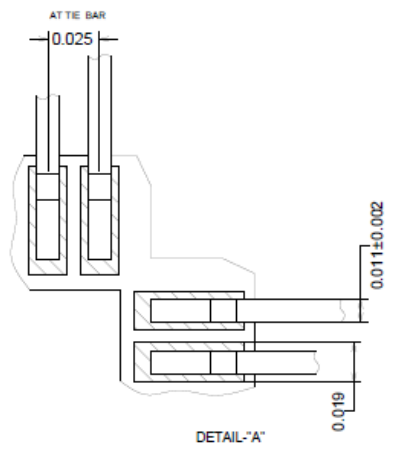
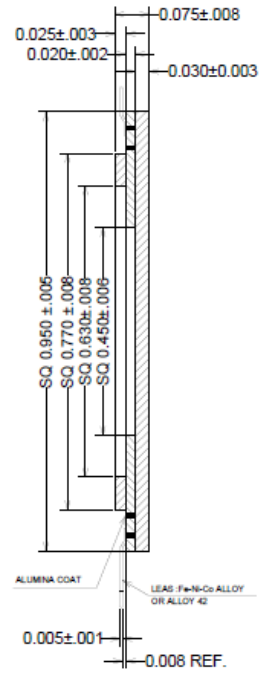
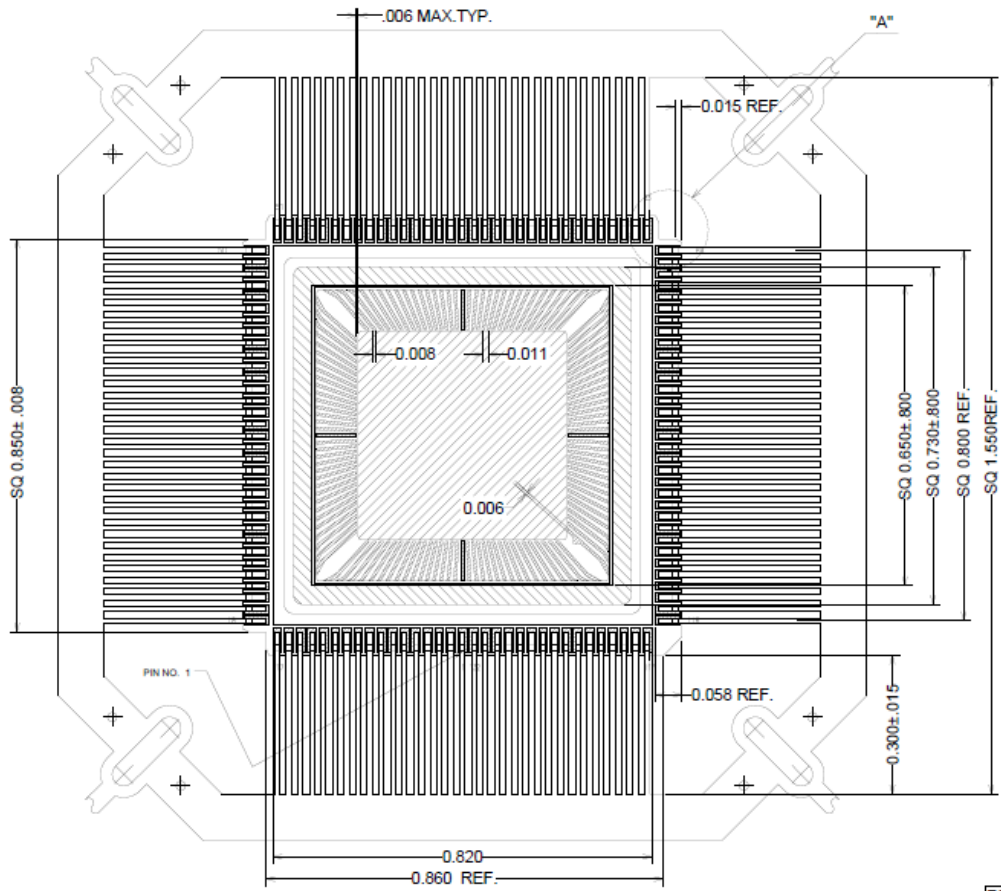
REVISIONS					
REV.	DATE	DESCRIPTION	ECN No	APPROVAL	DCC



TOLERANCE IN inch. UNLESS UNTIL SPECIFIED ±0.001"			Semi-Conductor Laboratory (DEPT. OF SPACE , GOVT. OF INDIA) SECTOR 72, S.A.S. NAGAR - 160 071 PUNJAB (INDIA)		
MATERIAL : AS PER SPECS.			TITLE CERAMIC CAP (OD 787X 551mil, ID 689 X 449mil)		
FINISH AS PER SPECS.	DGN. DATE DGN. DATE DRN. DATE	DATE			
USED ON	CHD. DATE APPD. DATE	ITEM CODE. 230218027	SIZE A4	DRAWING NO. A1542020243	REV.
	DCC DATE	APPD. DATE	APPD. DATE	ALL DIMENSIONS ARE IN inch UNLESS UNTIL SPECIFIED	SCALE NTS

PROPRIETARY NOTE: The design and data on this drawing were originated by and are the exclusive property of SEMI-CONDUCTOR LABORATORY, and are to be used and held on a confidential basis. All written material and data pertaining thereto will be returned to us upon our demand.

REVISIONS					
REV.	DATE	DESCRIPTION	ECN No	APPROVAL	DCC



- NOTE:
1. DIE - ATTACH CAVITY TO BE METALLIZED .
 2. SEAL RING TO BE METALLIZED.
 3. ALL EXPOSED METAL TO HAVE GOLD PLATING
1.5 MICRONS MINIMUM OVER 2.0 MICRONS MINIMUM OF NICKEL.
 4. SEAL RING AND DIE ATTACH AREA TO ISOLATED.

TOLERANCE IN inch UNLESS UNTIL SPECIFIED	
1% MINIMUM	
MATERIAL	AS PER SPEC.
FINISH	AS PER SPEC.
USED ON	
DCC	DATE
APPD.	DATE
APPD.	DATE



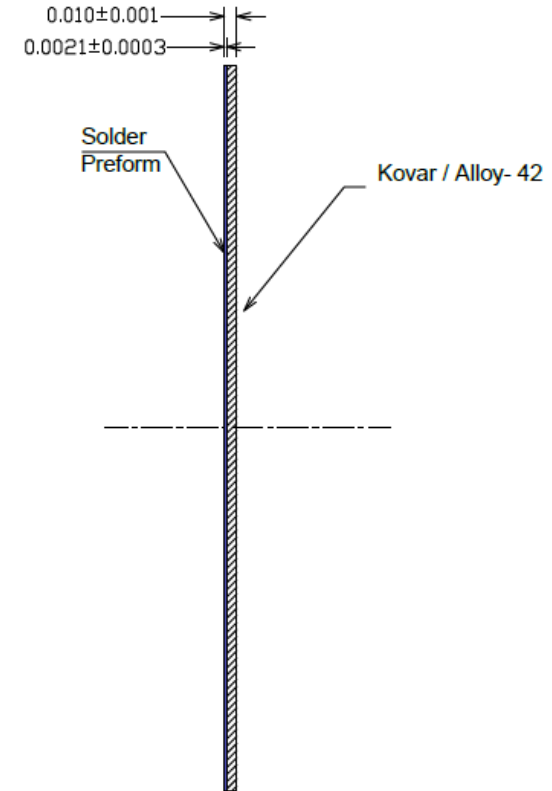
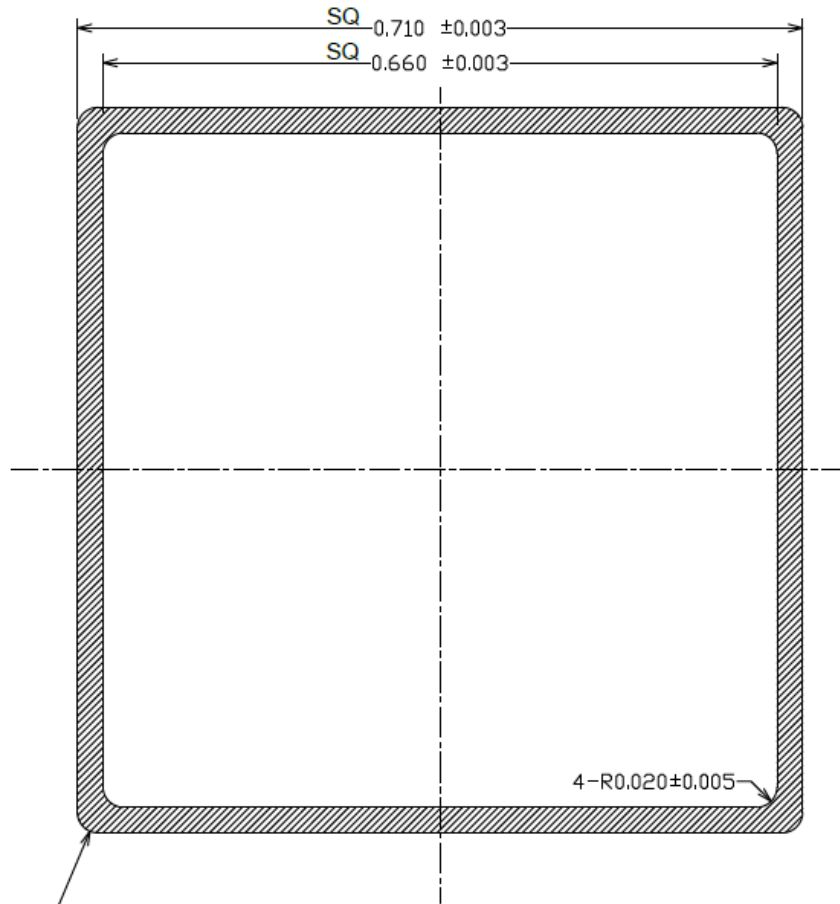
Semi-Conductor Laboratory
(Meity, GOVT. OF INDIA)
SECTOR 72, S.A.S. NAGAR - 160 071
PUNJAB (INDIA)

TITLE	Package Drawing for 132 Pin CQFP Cavity: 0.450 X 0.450 (11.43 mm X 11.43 mm)
ITEM CODE.	SIZE
A - 4	DRAWING NO.
SCL/VAHD/DWG/2025/08	REV.



ALL DIMENSIONS ARE IN inch. SCALE :
UNLESS UNTIL SPECIFIED NTS SHEET 1 OF 1

PROPRIETARY NOTE: The design and data on this drawing were originated by and are the exclusive property of SEMI-CONDUCTOR LABORATORY, and are to be used and held on a confidential basis. All written material and data pertaining thereto will be returned to us upon our demand.

REVISIONS					
REV.	DATE	DESCRIPTION	ECN No	APPROVAL	DCC
A	20-02-2018	DIMENSION MODIFIED	VAHD/ ASSY /232		403
B	20-01-2023	WHOLE DRAWING REVISED	VAHD/ ASSY / 08		

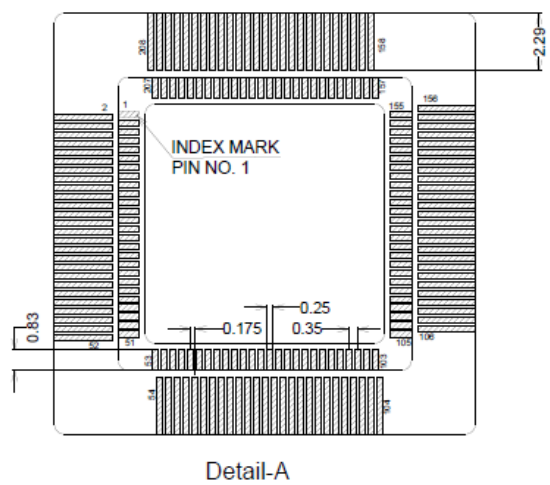
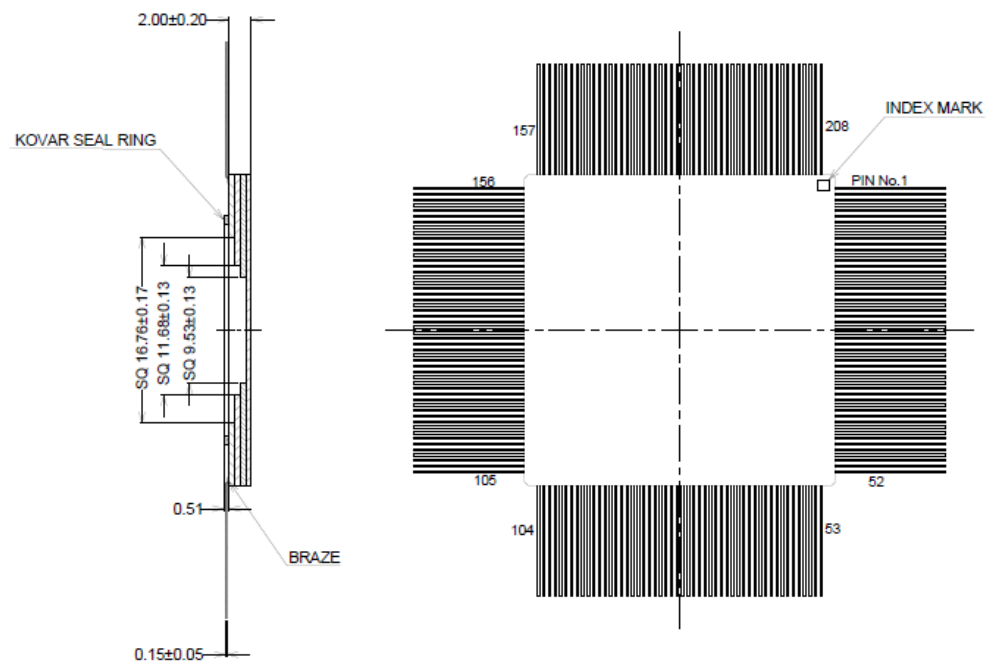
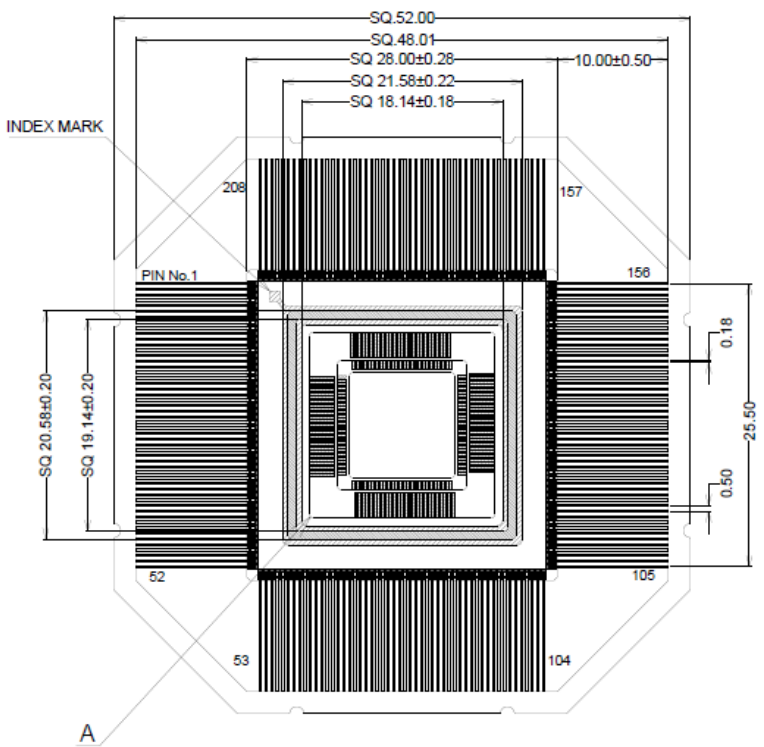


4-R0.020±0.005

TOLERANCE IN inch UNLESS UNTIL SPECIFIED ± 0.003				Semi-Conductor Laboratory (MeitY, GOVT. OF INDIA) SECTOR 72, S.A.S. NAGAR - 160 071 PUNJAB (INDIA)				
MATERIAL AS PER SPEC.				DGN.	DATE	TITLE Sealing LID With Preform : LWP OD: 710mils X 710mils (18.034mm X 18.034 mm) ID: 660mils X 660mils (16.764mm X 16.764 mm)		
FINISH AS PER SPEC.		DGN.	DATE	ITEM CODE.		SIZE A - 4	DRAWING NO. A1542020387	REV. B
USED ON		CHD.	DATE	DATE		SCALE		NTS
 DCC		APPD.	DATE	DATE		ALL DIMENSIONS ARE IN inch UNLESS UNTIL SPECIFIED		SHEET 1 OF 1

PROPRIETARY NOTE: The design and data on this drawing were originated by and are the exclusive property of SEMI-CONDUCTOR LABORATORY, and are to be used and held on a confidential basis. All written material and data pertaining thereto will be returned to us upon our demand.

REVISIONS					
REV.	DATE	DESCRIPTION	ECN No	APPROVAL	DCC



- NOTE:
- ALL EXPOSED METAL TO HAVE GOLD PLATING
1.5 MICRONS MINIMUM OVER 2.0 MICRONS MINIMUM OF NICKEL.
 - SEAL RING AND DIE ATTACH AREA TO ISOLATED.

TOLERANCE IN mm UNLESS UNTIL SPECIFIED	
1% MINIMUM	
MATERIAL	AS PER SPEC.
FINISH	AS PER SPEC.
USED ON	
DCC	
DATE	



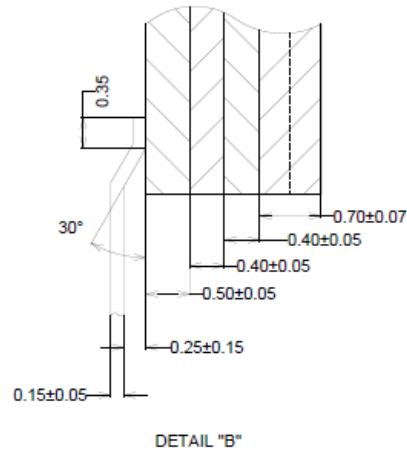
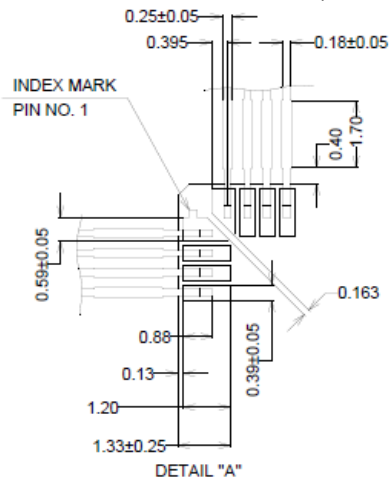
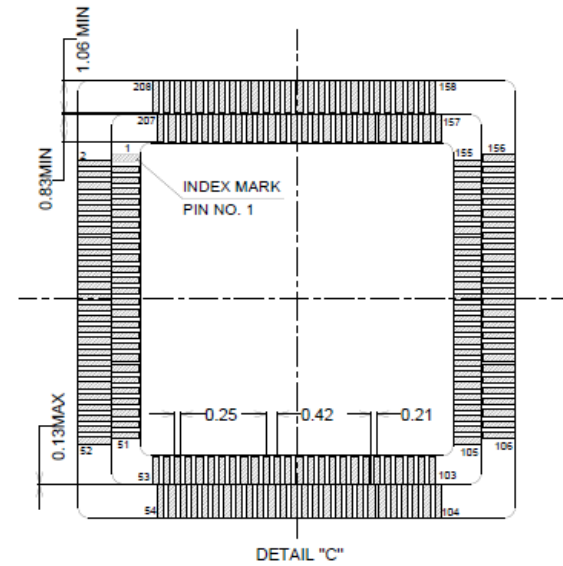
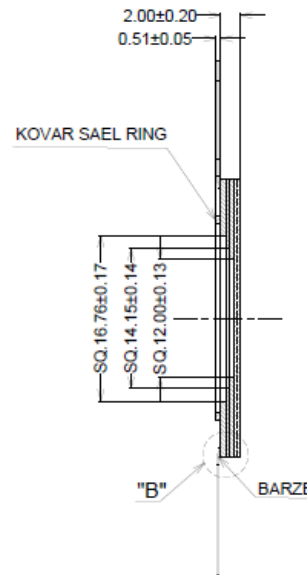
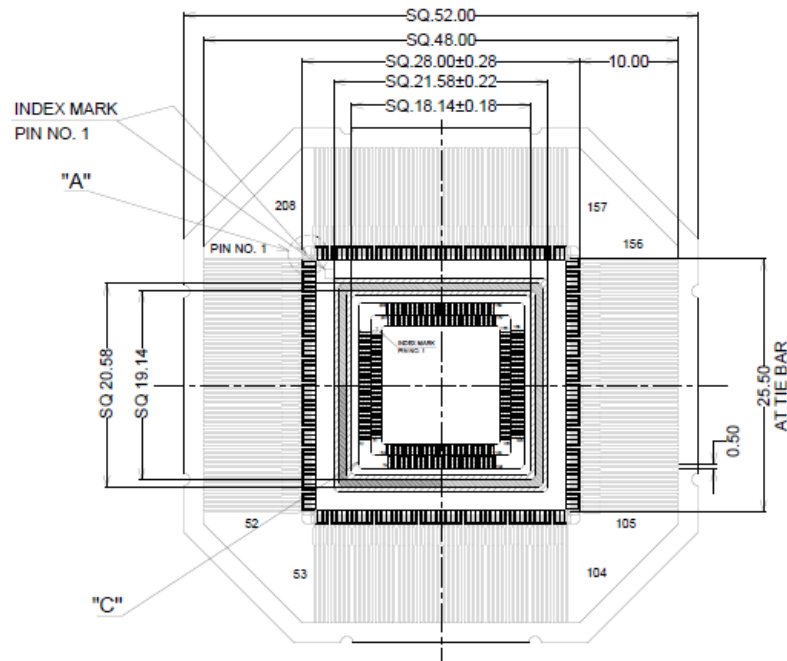
Semi-Conductor Laboratory
(MeitY, GOVT. OF INDIA)
SECTOR 72, S.A.S. NAGAR - 160 071
PUNJAB (INDIA)

TITLE **PACKAGE DRAWING FOR
208 PIN CQFP
CAVITY 9.5mm X 9.5mm.**

ITEM CODE.	SIZE	DRAWING NO.	REV.
	A 4	SCL/VAHD/DWG/2025/10	
ALL DIMENSIONS ARE IN mm. UNLESS UNTIL SPECIFIED		SCALE	
		NTS	SHEET 1 OF 1

PROPRIETARY NOTE: The design and data on this drawing were originated by and are the exclusive property of SEMI-CONDUCTOR LABORATORY, and are to be used and held on a confidential basis. All written material and data pertaining thereto will be returned to us upon our demand.

REVISIONS					
REV.	DATE	DESCRIPTION	ECN No	APPROVAL	DCC



NOTE:

1. SEAL RING TO BE METALLIZED.
2. ALL EXPOSED METAL TO HAVE GOLD PLATING 1.5 MICRONS MINIMUM OVER 2.0 MICRONS MINIMUM OF NICKEL.
3. SEAL RING AND DIE ATTACH AREA TO ISOLATED.

TOLERANCE IN mm UNLESS UNTIL SPECIFIED
1% MINIMUM



Semi-Conductor Laboratory

(MeitY, GOVT. OF INDIA)
SECTOR 72, S.A.S. NAGAR - 160 071
PUNJAB (INDIA)

MATERIAL
AS PER SPEC.

DGN. DATE

TITLE
**PACKAGE DRAWING FOR
208 PIN CQFP
CAVITY 12mm X 12mm.**

FINISH
AS PER SPEC.

DGN. DATE
DRN. DATE

ITEM CODE. SIZE DRAWING NO. REV.

USED ON
DCC

CHD. DATE
APPD. DATE

A 4 SCL/VAHD/DWG/2025/11

DATE

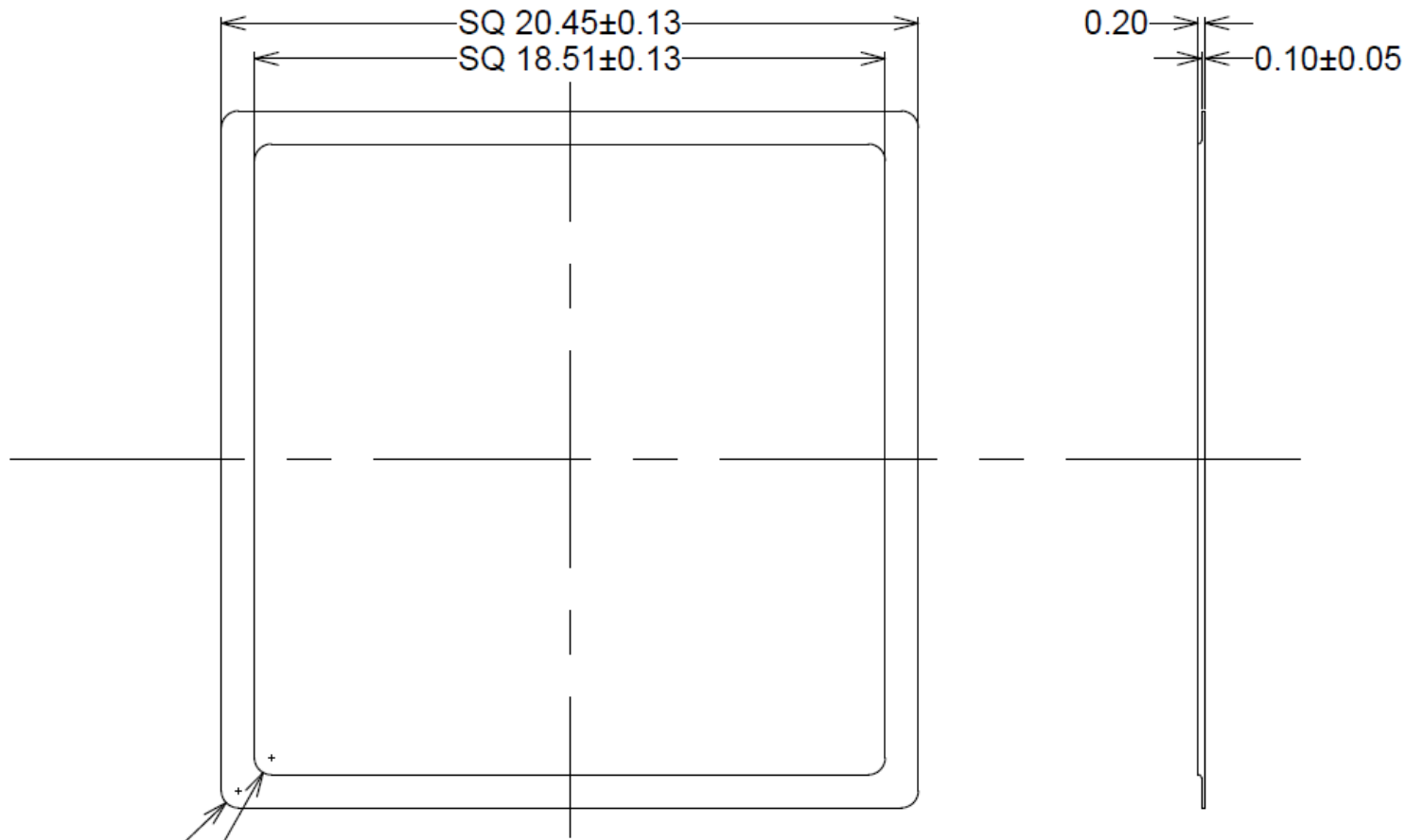
DATE

ALL DIMENSIONS ARE IN mm UNLESS UNTIL SPECIFIED

SCALE : NTS SHEET 1 OF 1

PROPRIETARY NOTE: The design and data on this drawing were originated by and are the exclusive property of SEMI-CONDUCTOR LABORATORY, and are to be used and held on a confidential basis. All written material and data pertaining thereto will be returned to us upon our demand.

REVISIONS					
REV.	DATE	DESCRIPTION	ECN No	APPROVAL	DCC



R0.50±0.07

R0.50±0.07

Matching Sealing step lid for 208 Pin CQFP package
(Reference Drawing)

TOLERANCE IN mm. UNLESS UNTIL SPECIFIED
1% MINIMUM

MATERIAL	AS PER SPECS.	DGN.	DATE
FINISH	AS PER SPECS.	DRN.	DATE
USED ON		CHD.	DATE
		APPD.	DATE
		APPD.	DATE



Semi-Conductor Laboratory

(MeitY, GOVT. OF INDIA)
SECTOR 72, S.A.S. NAGAR - 160 071
PUNJAB (INDIA)

TITLE
Sealing lid with step for seam sealing
OD:20.45mm X 20.45mm
ID:18.51mm X 18.51mm

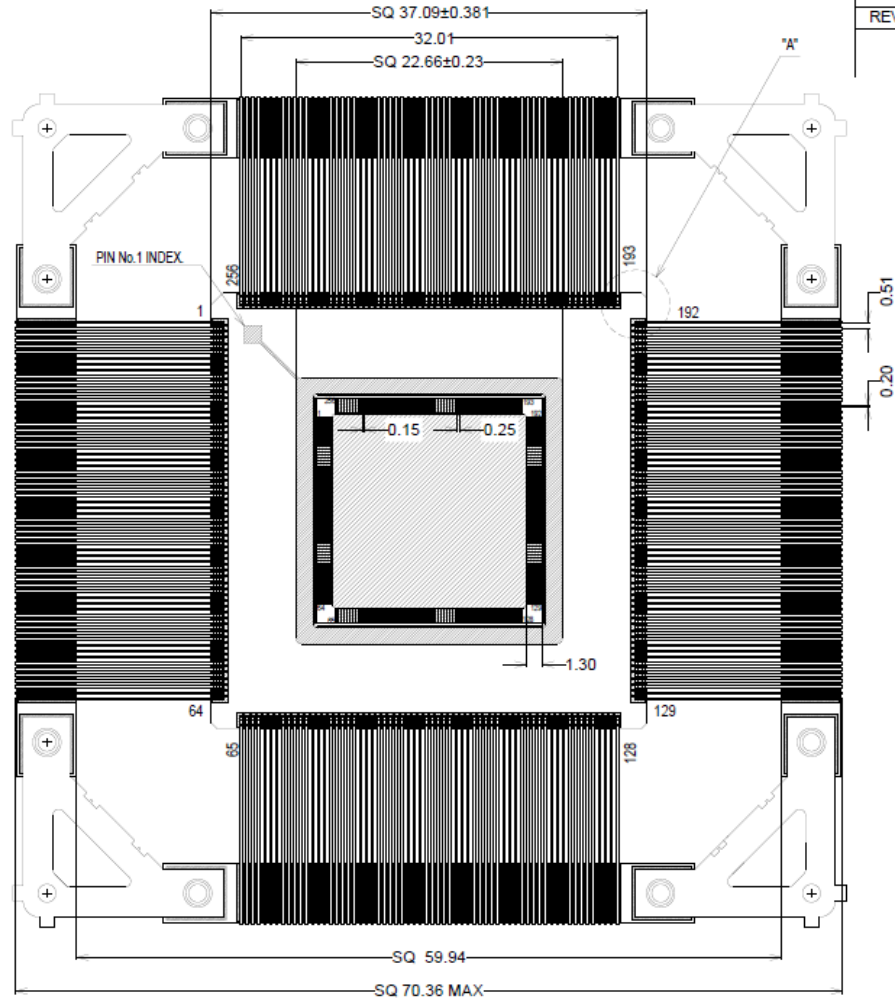
ITEM CODE:	SIZE	DRAWING NO.	REV.
	A-4	SCL/VAHD/DWG/2025/17	



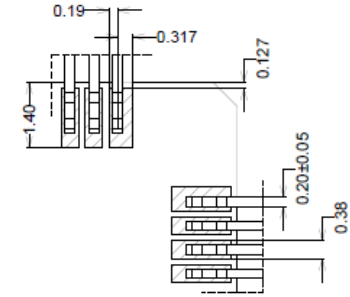
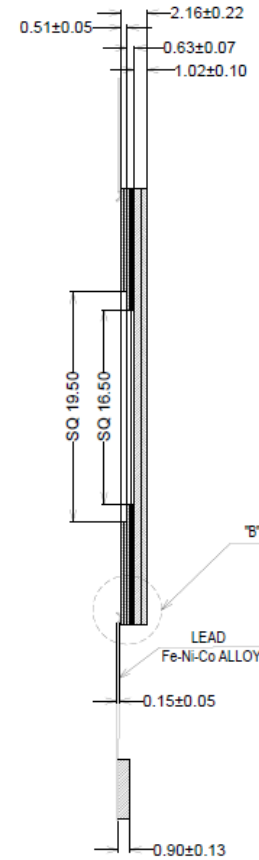
DCC	APPD.	DATE
	APPD.	DATE

ALL DIMENSIONS ARE IN mm. UNLESS UNTIL SPECIFIED
SCALE: NTS SHEET 1 OF 1

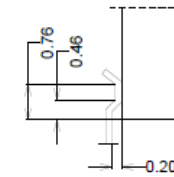
PROPRIETARY NOTE: The design and data on this drawing were originated by and are the exclusive property of SEMI-CONDUCTOR LABORATORY, and are to be used and held on a confidential basis. All written material and data pertaining thereto will be returned to us upon our demand.



REVISIONS					
REV.	DATE	DESCRIPTION	ECN No	APPROVAL	DCC



DETAIL "A"



DETAIL "B"

NOTE:

1. SEAL RING TO BE METALLIZED.
2. ALL EXPOSED METAL TO HAVE GOLD PLATING 1.5 MICRONS MINIMUM OVER 2.0 MICRONS MINIMUM OF NICKEL.
3. SEAL RING AND DIE ATTACH AREA TO ISOLATED.

TOLERANCE IN mm UNLESS UNTIL SPECIFIED

1 % MINIMUM

MATERIAL	AS PER SPEC.	DGN.	DATE
FINISH	AS PER SPEC.	DGN.	DATE
USED ON		DRN.	DATE
		CHD.	DATE
		APPD.	DATE
		APPD.	DATE



Semi-Conductor Laboratory

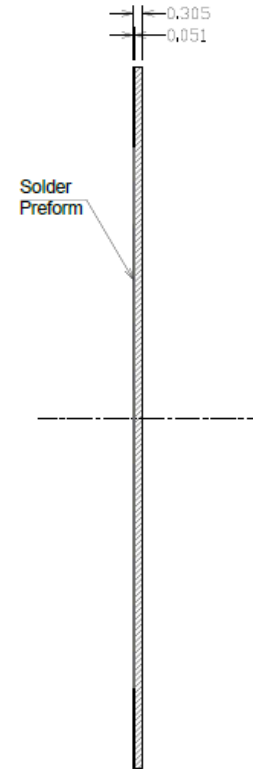
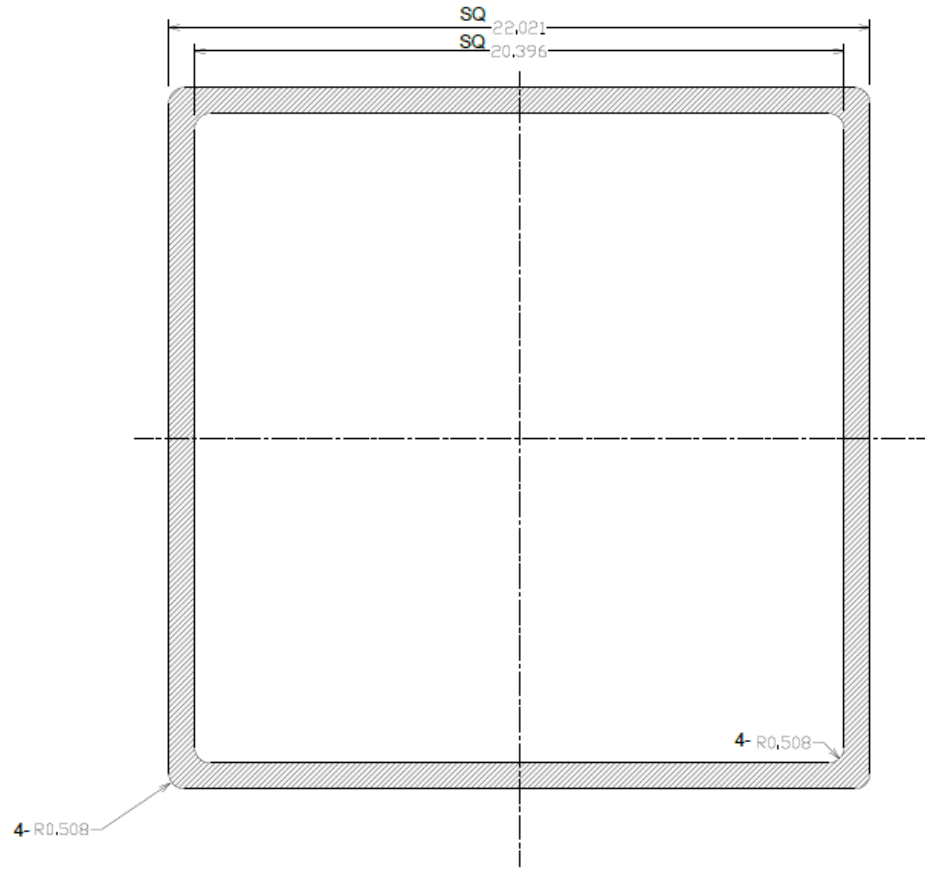
(MeitY, GOVT. OF INDIA)
SECTOR 72, S.A.S. NAGAR - 160 071
PUNJAB (INDIA)

TITLE
Package Drawing for
256 Pin CQFP
Cavity: 16.50 mm X 16.50mm

ITEM CODE.	SIZE	DRAWING NO.	REV.
	A - 4	C15E42020006	
ALL DIMENSIONS ARE IN mm. UNLESS UNTIL SPECIFIED		SCALE	
		NTS	SHEET 1 of 1

PROPRIETARY NOTE: The design and data on this drawing were originated by and are the exclusive property of SEMI-CONDUCTOR LABORATORY, and are to be used and held on a confidential basis. All written material and data pertaining thereto will be returned to us upon our demand.

REVISIONS					
REV.	DATE	DESCRIPTION	ECN No	APPROVAL	DCC
A	25-03-2019	Complete Drawing revised.	VLSI / ASSY/ 256		



TOLERANCE IN mm UNLESS UNTIL SPECIFIED
± 0.010

MATERIAL
AS PER SPEC.

FINISH
AS PER SPEC.

USED ON

DCC
DATE



Semi-Conductor Laboratory

(DEPT. OF SPACE , GOVT. OF INDIA)
SECTOR 72, S.A.S. NAGAR - 160 071
PUNJAB (INDIA)

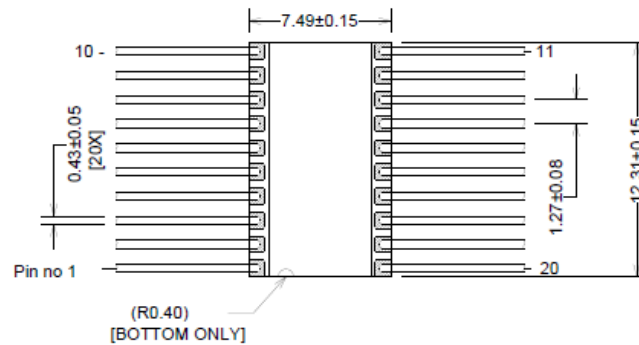
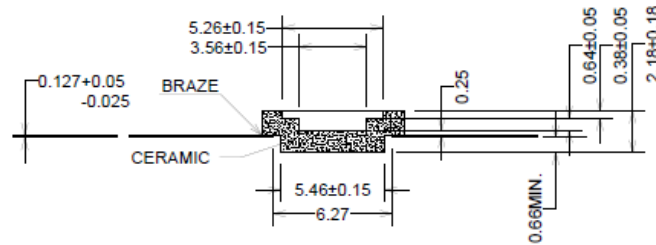
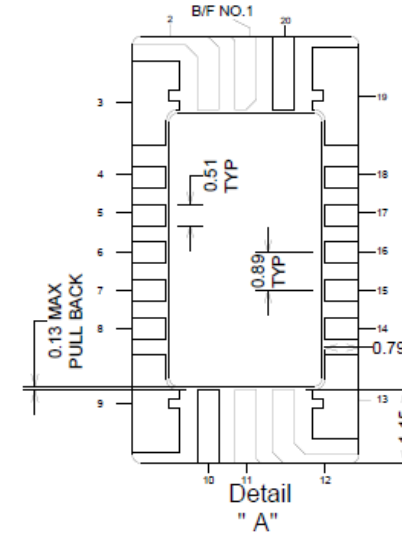
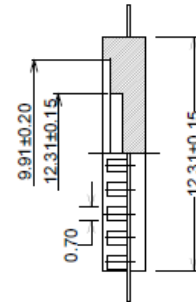
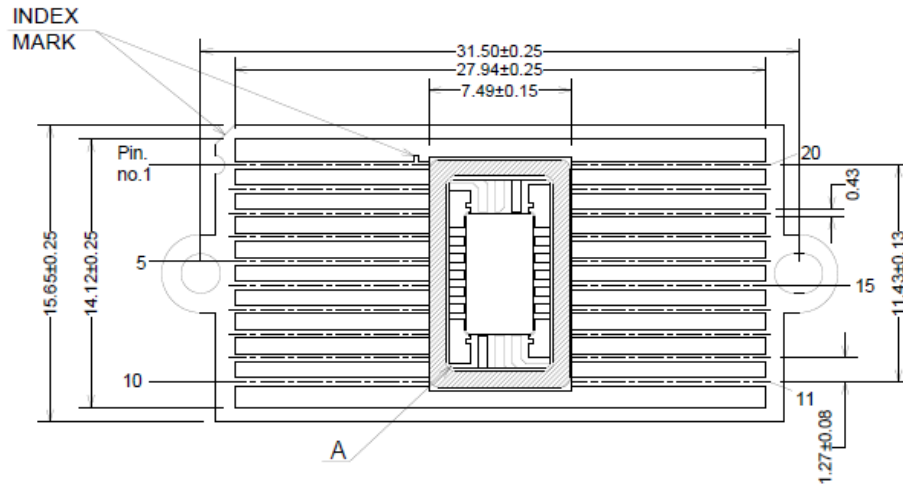
DGN.	DATE	TITLE
DGN.	DATE	LID WITH PREFORM
DRN.	DATE	OD: 867mils X 867 mils (22.021mm X 22.021 mm)
DRN.	DATE	ID: 803mils X 803 mils (20.396mm X 20.396 mm)

CHD.	DATE	ITEM CODE.	SIZE	DRAWING NO.	REV.
APPD.	DATE	A1542020349	A - 4	A1542020349	A

ALL DIMENSIONS ARE IN mm. UNLESS UNTIL SPECIFIED. SCALE : NTS SHEET 1 OF 1

PROPRIETARY NOTE: The design and data on this drawing were originated by and are the exclusive property of SEMI-CONDUCTOR LABORATORY, and are to be used and held on a confidential basis. All written material and data pertaining thereto will be returned to us upon our demand.

REVISIONS					
REV.	DATE	DESCRIPTION	ECN No	APPROVAL	DCC



NOTE:

1. DIE - ATTACH CAVITY TO BE METALLIZED .
2. SEAL RING TO BE METALLIZED.
3. ALL EXPOSED METAL TO HAVE GOLD PLATING
1.5 MICRONS MINIMUM OVER 2.0 MICRONS MINIMUM OF NICKEL.
4. SEAL RING AND DIE ATTACH AREA TO ISOLATED.

TOLERANCE IN mm. UNLESS UNTIL SPECIFIED
1% MINIMUM

MATERIAL	AS PER SPECS.
FINISH	AS PER SPECS.
USED ON	
DCC	DATE



Semi-Conductor Laboratory

(MeitY , GOVT. OF INDIA)
SECTOR 72, S.A.S. NAGAR - 160 071
PUNJAB (INDIA)

TITLE
Package Drawing for
Ceramic IC Package

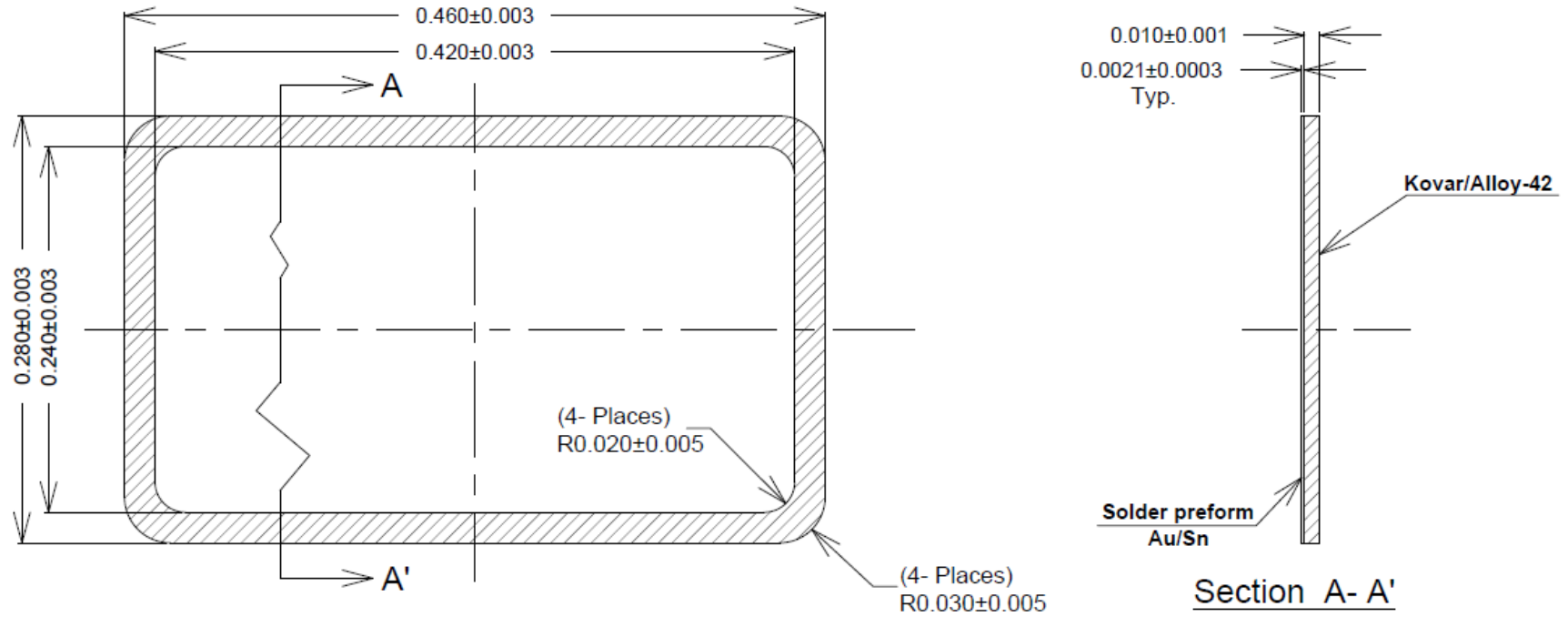
20 Pin CDFP Cavity size:-6.350mm X 3.556mm

ITEM CODE.	SIZE	DRAWING NO.	REV.
	A-4	SCL/VAHD/DWG/2028/23	

ALL DIMENSIONS ARE IN mm. UNLESS UNTIL SPECIFIED
SCALE: NTS SHEET 1 OF 1

PROPRIETARY NOTE: The design and data on this drawing were originated by and are the exclusive property of SEMI-CONDUCTOR LABORATORY, and are to be used and held on a confidential basis. All written material and data pertaining thereto will be returned to us upon our demand.

REVISIONS					
REV.	DATE	DESCRIPTION	ECN No	APPROVAL	DCC



TOLERANCE IN inch UNLESS UNTIL SPECIFIED
± 1%

MATERIAL
AS PER SPEC.

FINISH
AS PER SPEC.

USED ON

DCC
DATE



Semi-Conductor Laboratory

(MeitY, GOVT. OF INDIA)
SECTOR 72, S.A.S. NAGAR - 160 071
PUNJAB (INDIA)

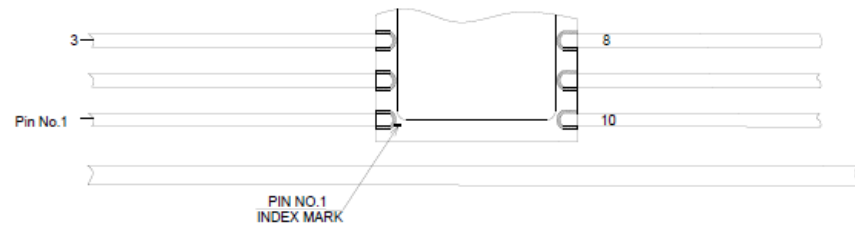
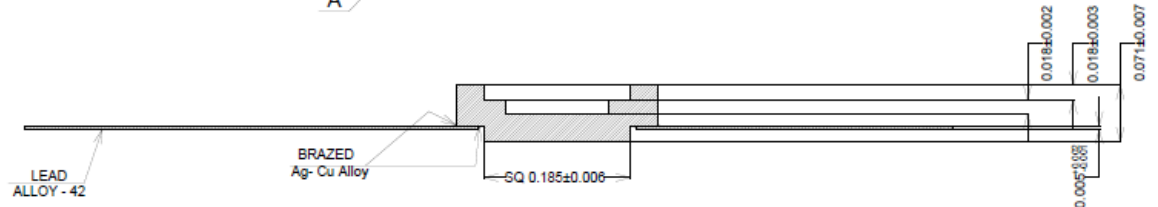
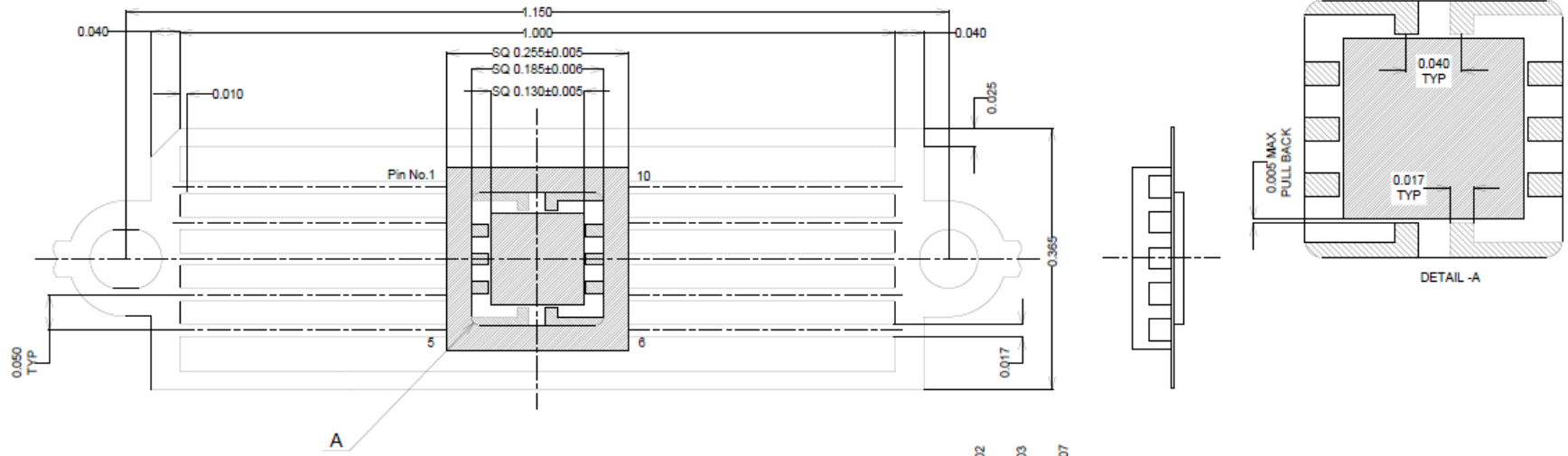
TITLE Sealing LID With Preform : LWP
OD: 460 mils X 280 mils (11.684mm X 7.112mm)
ID : 420 mils X 240 mils (10.668mm X 6.096mm)

DGN.	DATE	ITEM CODE	SIZE	DRAWING NO.	REV.
			A - 4	SCL/VAHD/DWG/2028/24	



ALL DIMENSIONS ARE IN inch UNLESS UNTIL SPECIFIED SCALE : NTS SHEET 1 OF 1

PROPRIETARY NOTE: The design and data on this drawing were originated by and are the exclusive property of SEMI-CONDUCTOR LABORATORY, and are to be used and held on a confidential basis. All written material and data pertaining thereto will be returned to us upon our demand.

REVISIONS					
REV.	DATE	DESCRIPTION	ECN No	APPROVAL	DCC



- NOTE:**
1. DIE - ATTACH CAVITY TO BE METALLIZED .
 2. SEAL RING TO BE METALLIZED.
 3. ALL EXPOSED METAL TO HAVE GOLD PLATING 1.5 MICRONS MINIMUM OVER 2.0 MICRONS MINIMUM OF NICKEL.
 4. SEAL RING AND DIE ATTACH AREA TO ISOLATED.

TOLERANCE IN inch. UNLESS UNTIL SPECIFIED 1% MINIMUM		 Semi-Conductor Laboratory (MeitY , GOVT. OF INDIA) SECTOR 72, S.A.S. NAGAR - 160 071 PUNJAB (INDIA)	
MATERIAL			
AS PER SPECS.	DGN. DATE	TITLE PACKAGE DRAWING FOR CERAMIC IC PACKAGE	
FINISH	DGN. DATE	10 PIN CSOP	
AS PER SPECS.	DRN. DATE	CAVITY 0.130" X 0.130"(3.3mm X 3.3mm)	
USED ON	CHD. DATE	ITEM CODE	SIZE A-4
 DCC DATE	APPD. DATE	DRAWING NO. SCL/VAHD/DWG/2028/22	
	APPD. DATE	SCALE : NTS	