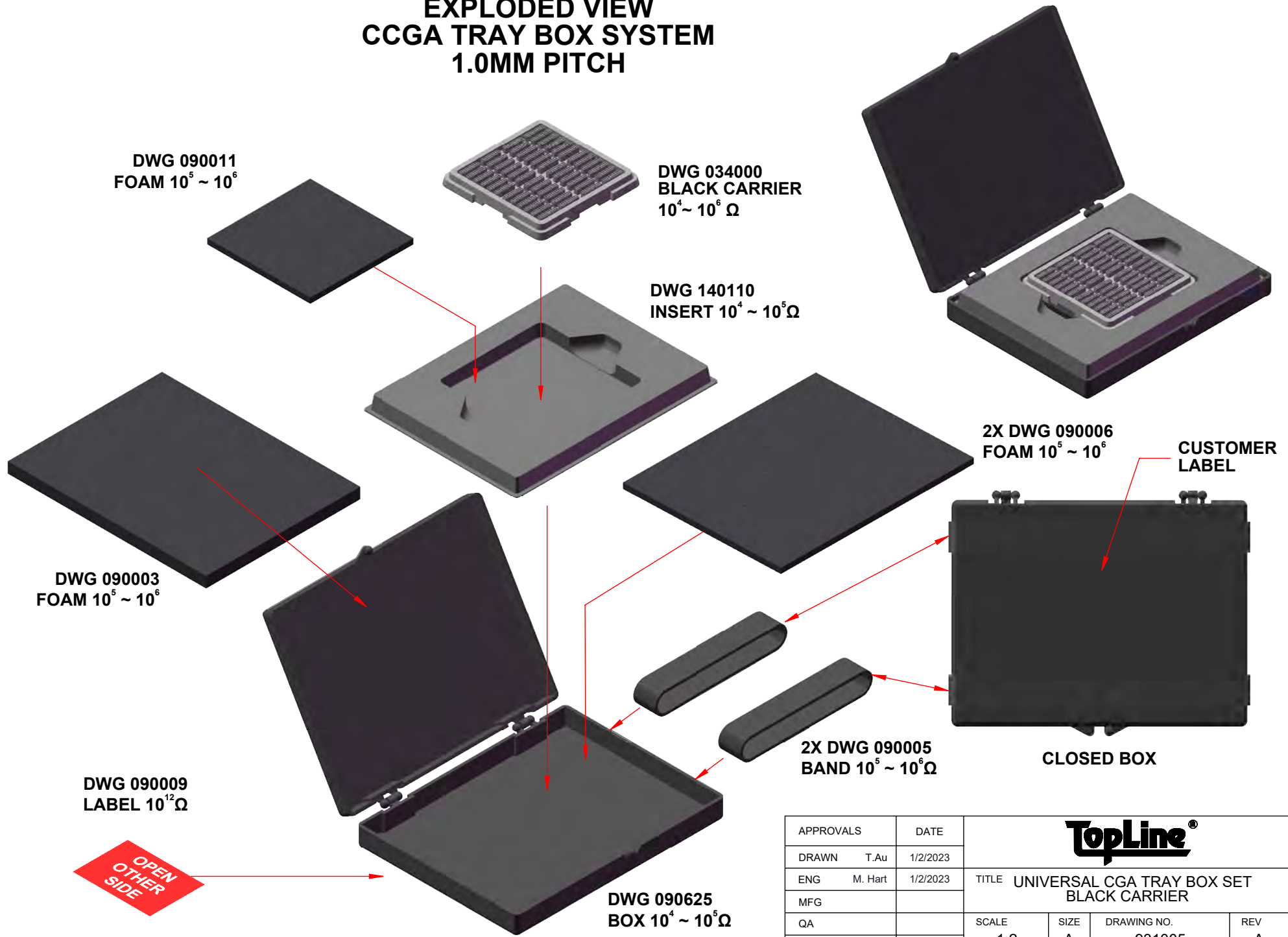


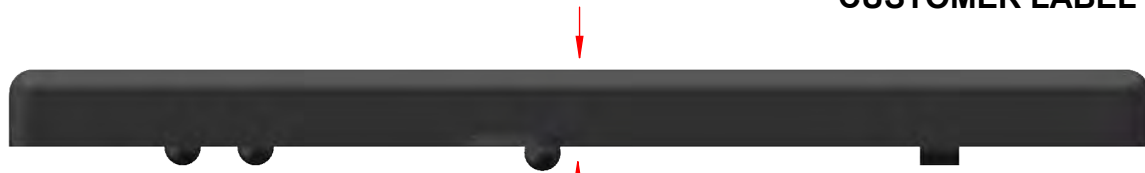
EXPLODED VIEW CCGA TRAY BOX SYSTEM 1.0MM PITCH



APPROVALS	DATE	TopLine®			
DRAWN T. Au	1/2/2023				
ENG M. Hart	1/2/2023	TITLE UNIVERSAL CGA TRAY BOX SET BLACK CARRIER			
MFG		SCALE	SIZE	DRAWING NO.	REV
QA		1:2	A	931005	A
CUST		DO NOT SCALE DRAWING			SHEET 1 OF 17
REVISED					

**EXPLODED SIDE VIEW
PITCH 1.0mm**

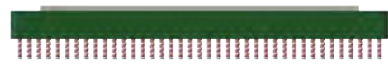
CUSTOMER LABEL



DWG 090625 BOX TOP



**DWG 090003 FOAM (LOW PROFILE CCGA)
DWG 090006 FOAM (HIGH PROFILE CCGA)**



CCGA COMPONENT



DWG 034000 CARRIER



DWG 090011 FOAM (OPTIONAL LOW PROFILE CCGA)



DWG 140110 INSERT



**DWG 090006 FOAM
2X - LOW PROFILE CCGA
1X - HIGH PROFILE CCGA**



**DWG 090625
BOX BOTTOM**



DWG 090009 LABEL



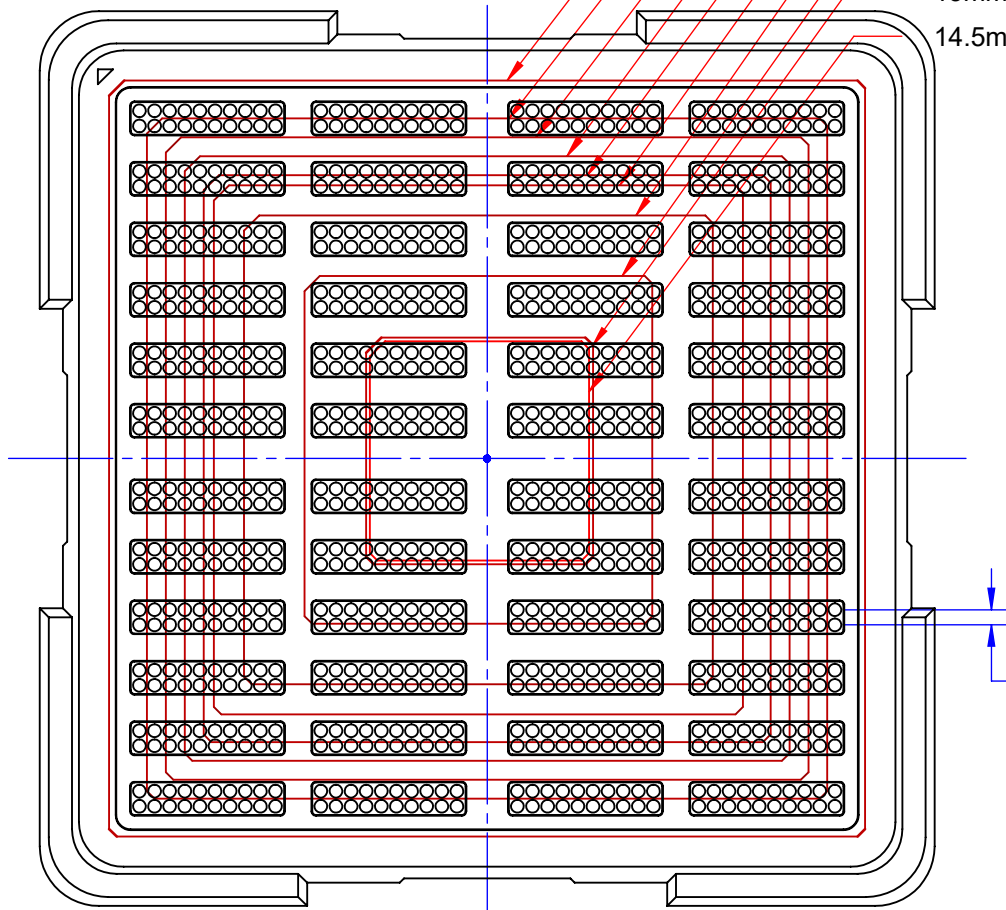
TITLE UNIVERSAL CGA TRAY BOX SET
BLACK CARRIER

SCALE 1:2	SIZE A	DRAWING NO. 931365	REV A
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DO NOT SCALE DRAWING SHEET 2 OF 17

TOP VIEW

- 50mm CCGA2401 MATRIX 49x49
- 45mm CCGA1752 MATRIX 42x42
- 42.5mm CCGA1657 MATRIX 41x41
- 40mm CCGA1509 MATRIX 39x39
- 37.5mm CCGA1272 MATRIX 36x36
- 35mm CCGA1140~1152 MATRIX 34x34
- 31mm CCGA896 MATRIX 30x30
- 23mm CCGA483 MATRIX 22x22
- 15mm CCGA196 MATRIX 14x14
- 14.5mm CCGA143 MATRIX 12x12



PITCH
1.0mm TYP.

TopLine[®]

TITLE CCGA UNIVERSAL CARRIER
PITCH 1.0MM

SCALE 2:1	SIZE A	DRAWING NO. 034000	REV B
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DO NOT SCALE DRAWING

SHEET 3 OF 17

CCGA SIZE TABLE COLUMN MATRIX AND TYPICAL SIZE (MM)

MATRIX		COLUMNS		SIZE
X	Y	Nominal	Maximum	Nominal
12	12	143	144	14.5mm
13	13	169	169	14.5mm
14	14	196	196	15mm
15	15		225	16mm
16	16		256	17mm
17	17	289	289	18mm
18	18		324	19mm
19	19	361	361	21mm
20	20	399	400	21mm
21	21		441	23mm
22	22	483	484	23mm
23	23		529	25mm
24	24	572	576	25mm
25	25		625	27mm
26	26		676	29mm
27	27		729	29mm
28	28		784	31mm
29	29		841	31mm
30	30	896	900	31mm

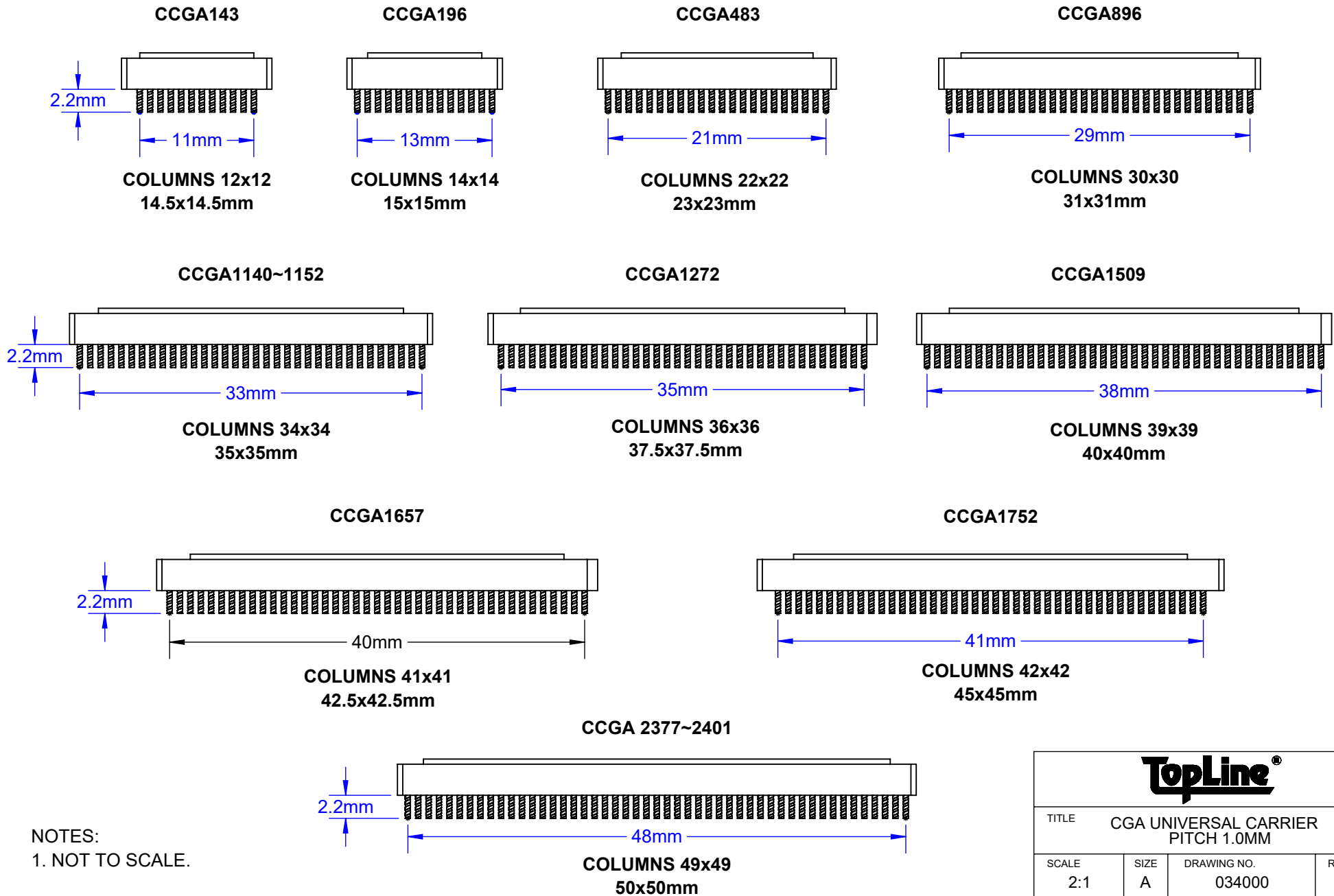
MATRIX		COLUMNS		SIZE
X	Y	Nominal	Maximum	Nominal
31	31		961	33mm
32	32		1024	33mm
33	33		189	35mm
34	34	1140~1152	1156	35mm
35	35		1225	37.5mm
36	36	1272	196	37.5mm
37	37		1369	40mm
38	38		1444	40mm
39	39	1509	1521	40mm
40	40		1600	40mm
41	41	1657	1681	42.5mm
42	42	1752	1764	45mm
43	43		1849	45mm
44	44		1936	45mm
45	45		2025	47.5mm
46	46	2104	2116	47.5mm
47	47		2209	50mm
48	48		2304	50mm
49	49	2377	2401	50mm

Notes:

1. CONTACT TOPLINE FOR OTHER SIZES.

TopLine®			
TITLE UNIVERSAL CCGA 1.0MM TRAY BOX SYSTEM			
SCALE 2:1	SIZE A	DRAWING NO. 931005	REV
DO NOT SCALE DRAWING			SHEET 4 OF 17

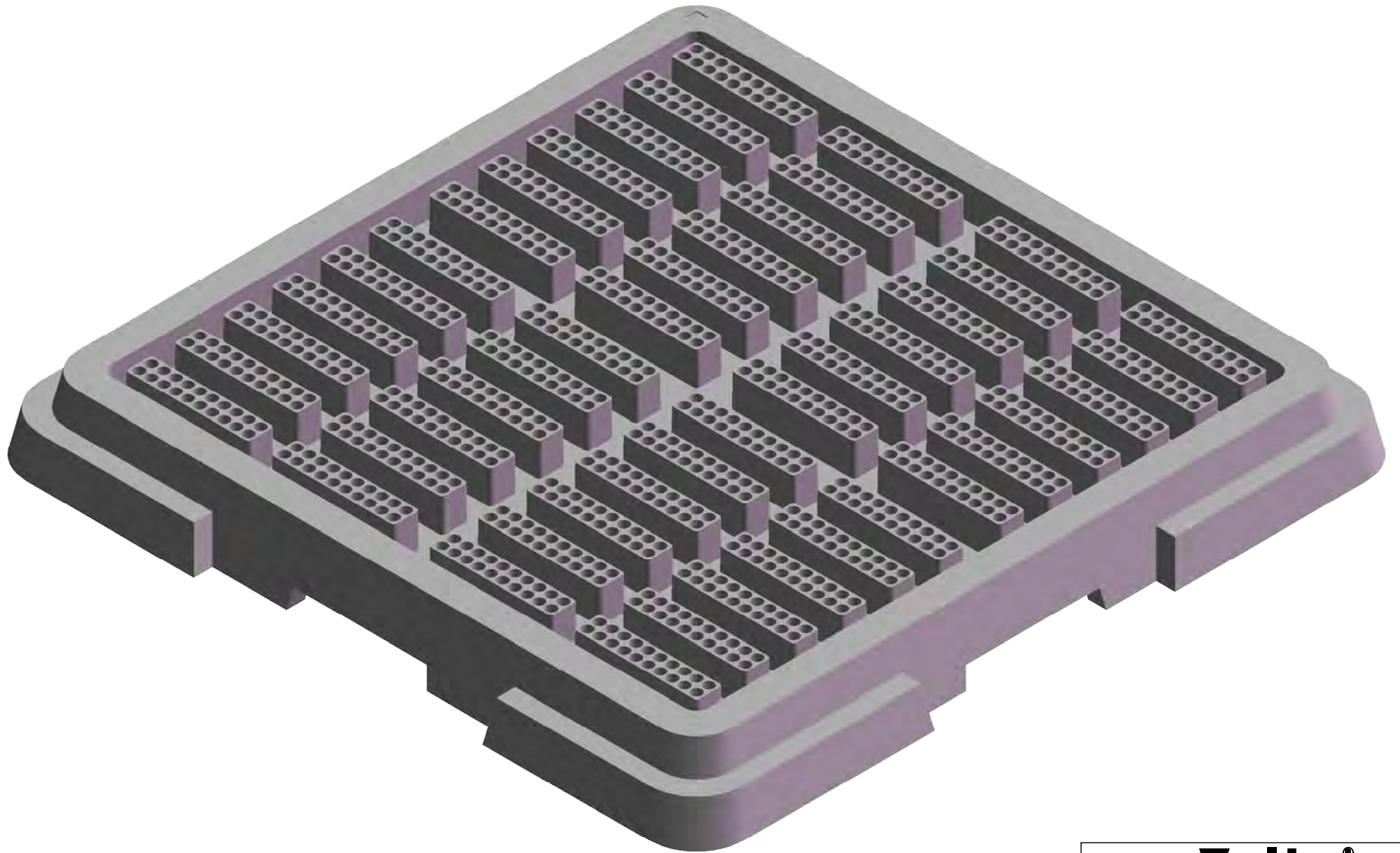
SIDE VIEW SEATING OF CCGA ON CARRIER



NOTES:
1. NOT TO SCALE.

TopLine®			
TITLE CGA UNIVERSAL CARRIER PITCH 1.0MM			
SCALE 2:1	SIZE A	DRAWING NO. 034000	REV B
DO NOT SCALE DRAWING			SHEET 5 OF 17

MODEL
TOP



TopLine®

TITLE CONDUCTIVE 1.0mm PITCH
BLACK CARRIER

SCALE 3:1	SIZE A	DRAWING NO. 931395	REV A
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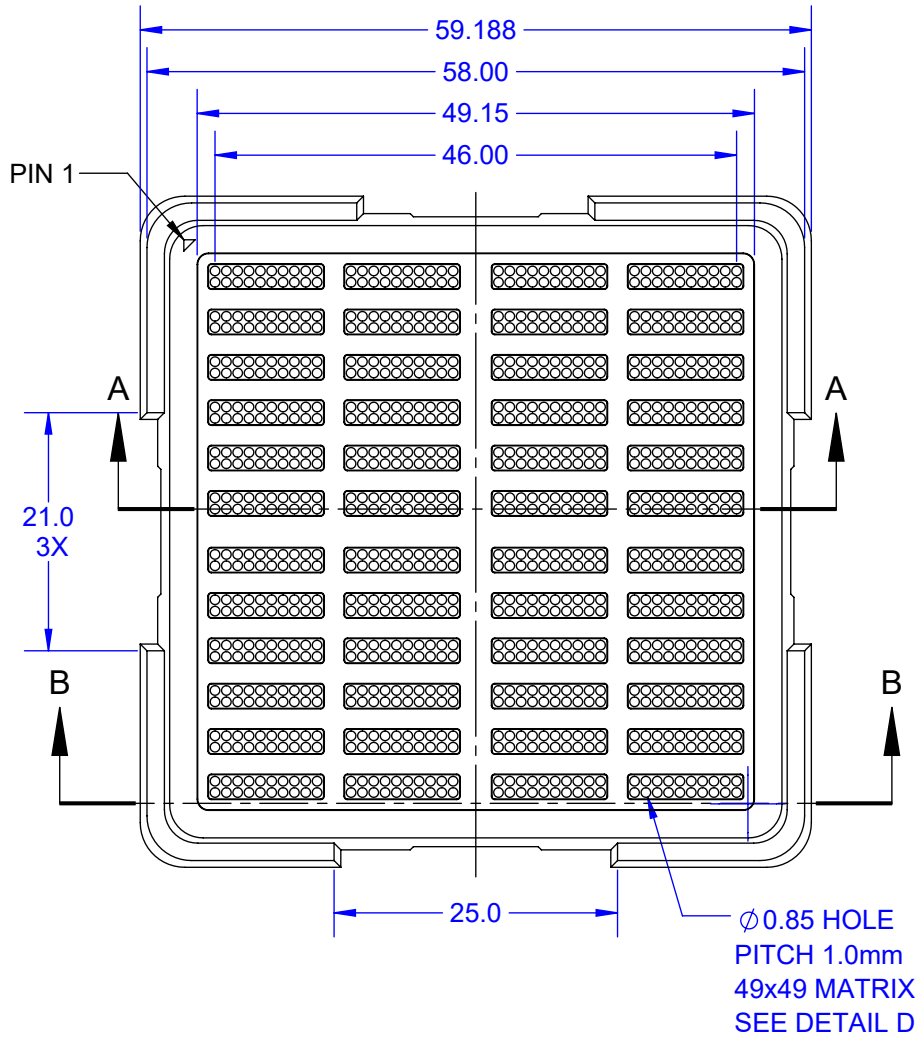
DO NOT SCALE DRAWING SHEET 6 OF 17

MODEL
BOTTOM

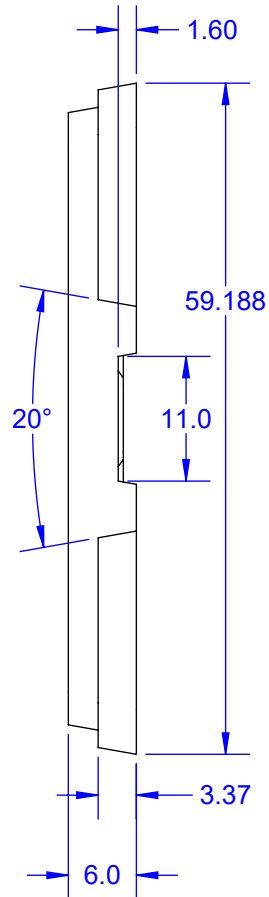


TopLine®			
TITLE CGA UNIVERSAL CARRIER PITCH 1.0MM			
SCALE 3:1	SIZE A	DRAWING NO. 034000	REV B
DO NOT SCALE DRAWING			SHEET 7 OF 17

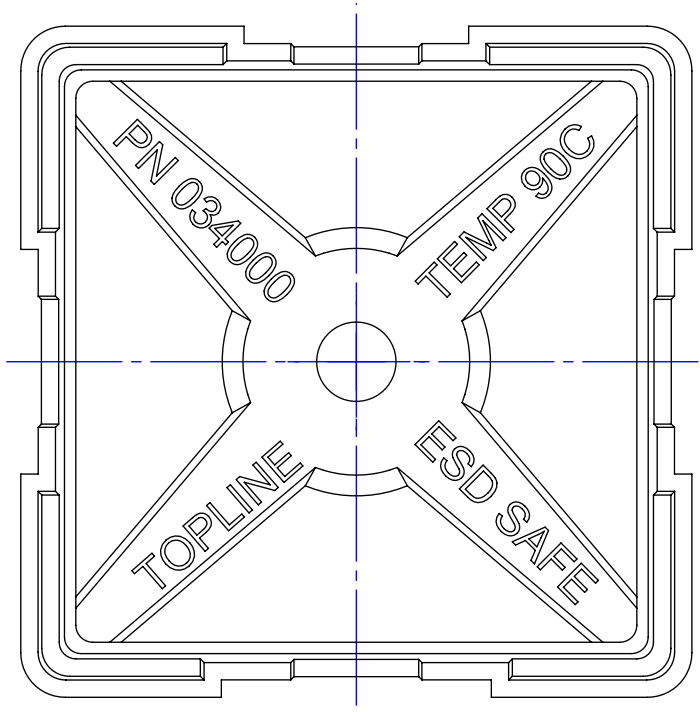
TOP



SIDE

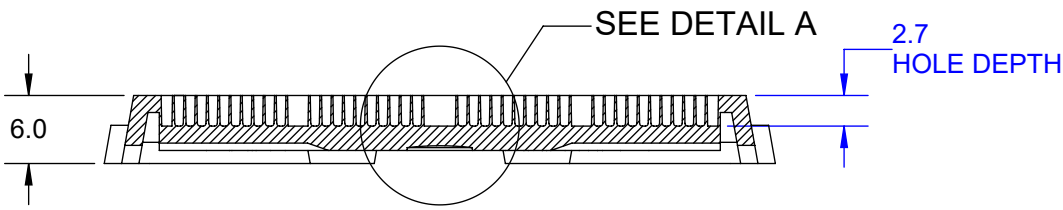


BOTTOM



NOTES:

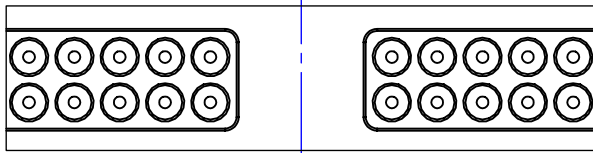
1. DIMENSION MM.
2. MATERIAL: CONDUCTIVE POLYCARBONATE.
3. TEMPERATURE 90°C MAX.
4. COLOR: BLACK.
5. PERMANENT ESD SAFE
SURFACE RESISTIVITY $10^4 \sim 10^6 \Omega$.



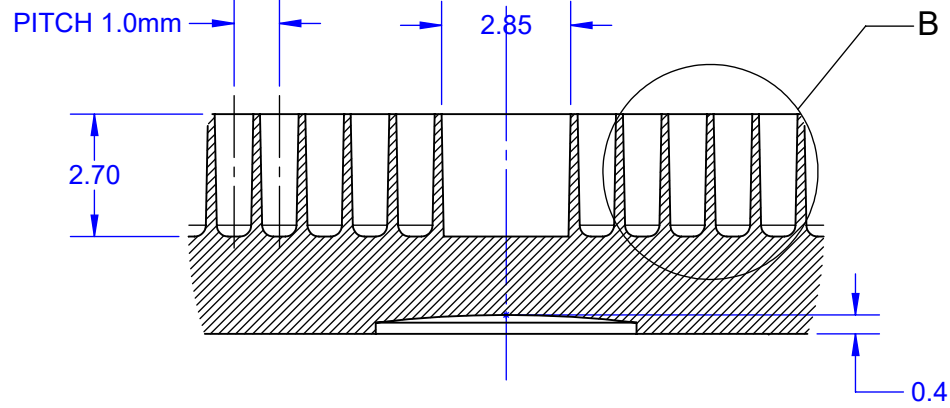
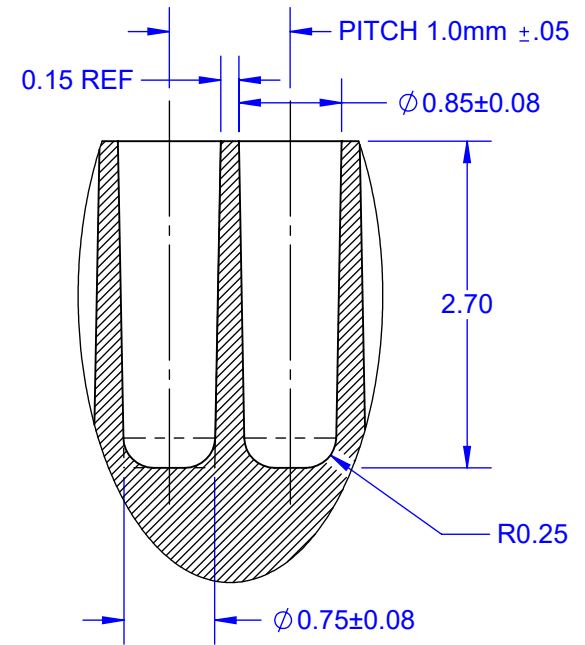
SECTION A-A

APPROVALS	DATE	TopLine®			
DRAWN T. Au	1/2/2023				
ENG M. Hart	1/2/2023	TITLE CGA CARRIER 1.0mm PITCH BLACK CARRIER			
TOLERANCE	MFG	SCALE	SIZE	DRAWING NO.	REV
[X] MM	QA	3:2	A	931365	A
X.X = ±0.2	CUST	DO NOT SCALE DRAWING			SHEET 8 OF 17
X.XX = ±0.1	REVISED				

TOP



DETAIL B
SCALE 16 : 1



DETAIL A

TopLine[®]

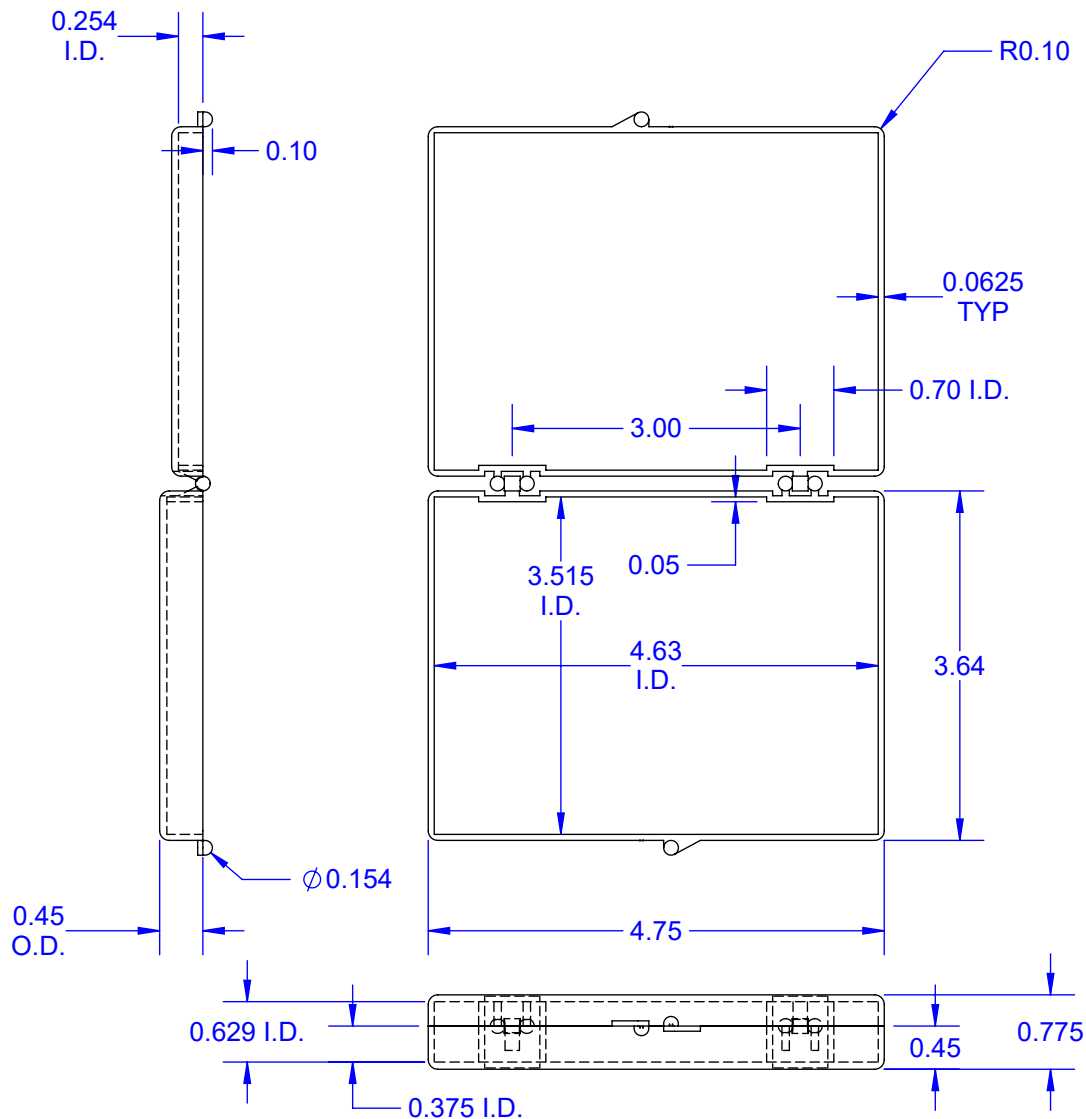
TITLE CCGA UNIVERSAL CARRIER
PITCH 1.0MM

SCALE	SIZE	DRAWING NO.	REV
6:1	A	034000	B

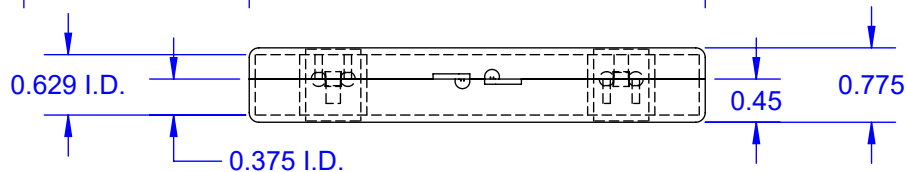
DO NOT SCALE DRAWING

SHEET 9 OF 17

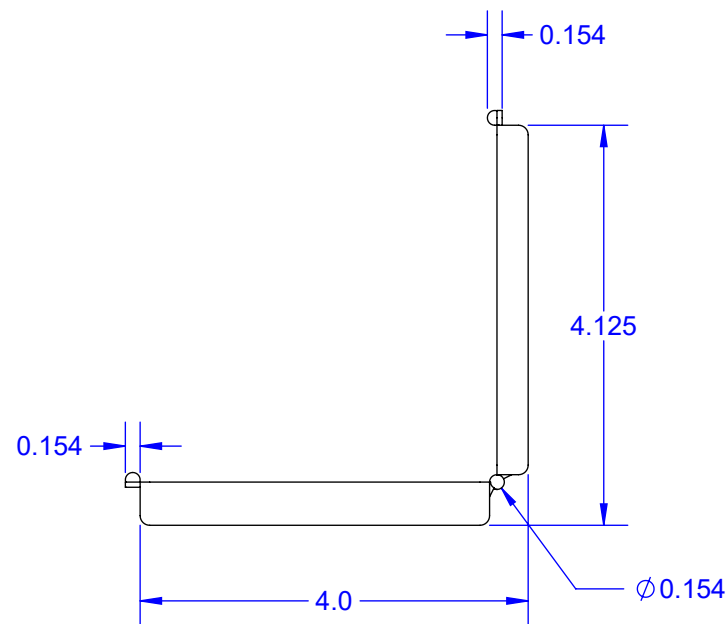
TOP (OPEN)



FRONT (CLOSED)



SIDE VIEW (OPEN)



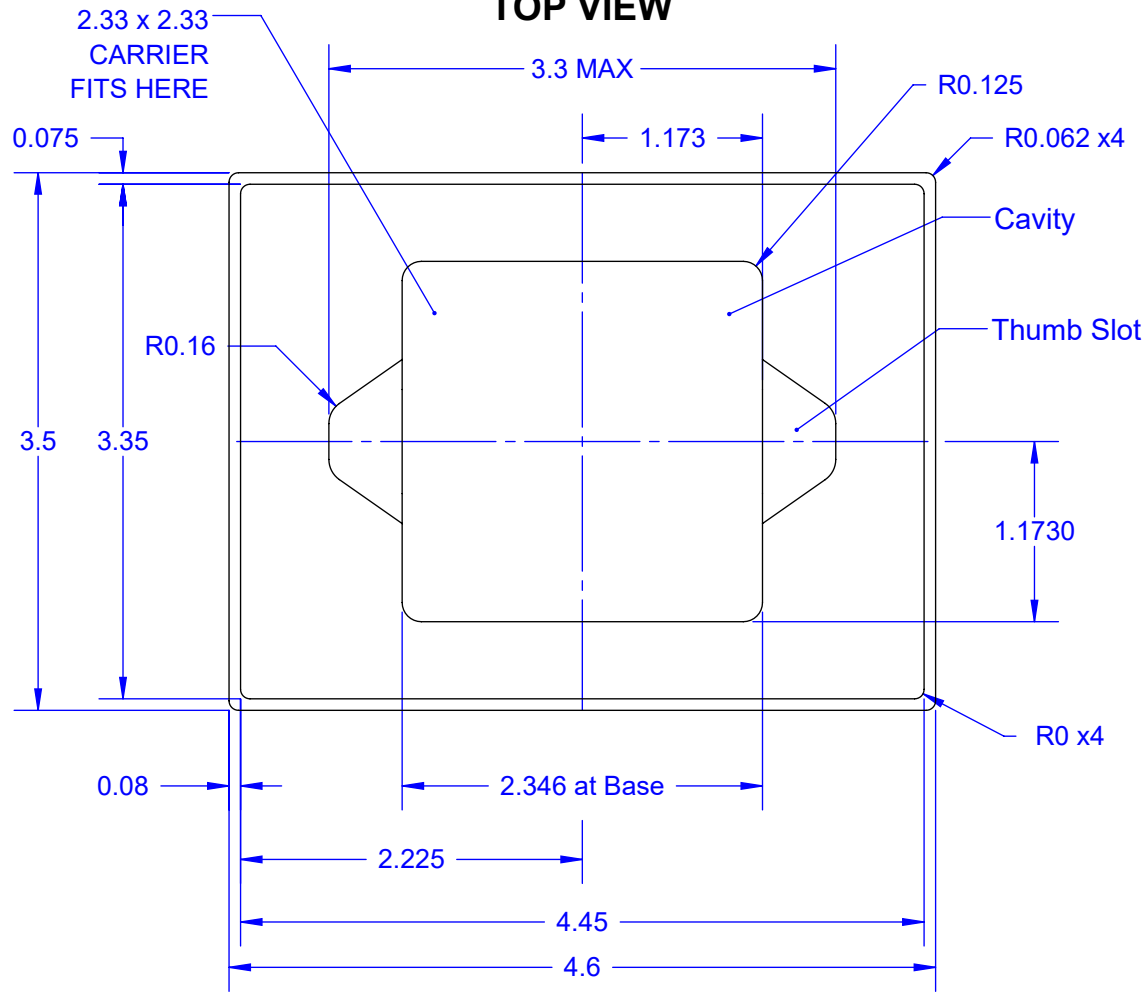
MODEL

Notes: (Unless Otherwise Specified).

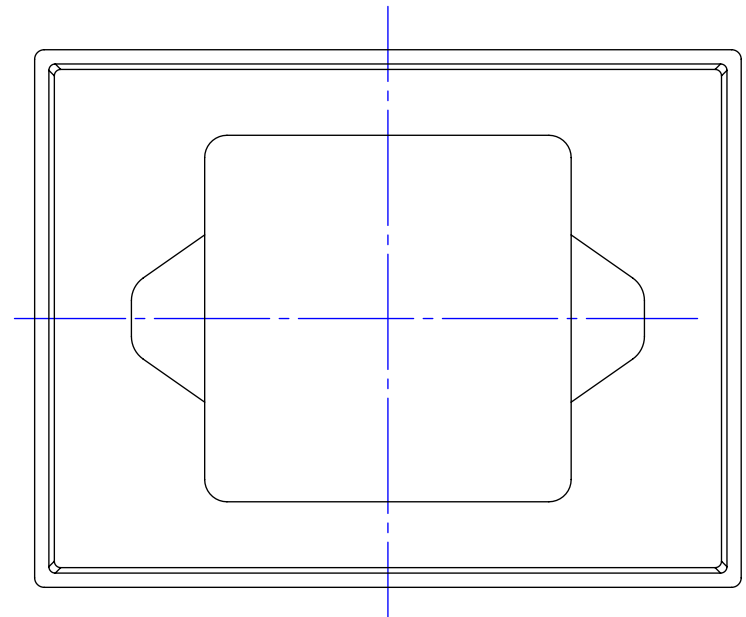
- 1) SURFACE RESISTIVITY: $10^4 \sim 10^5 \Omega$.
- 2) MATERIAL: CARBON FILLED POLYPROPYLENE.
- 3) DIMENSIONS IN INCHES.

TopLine®			
TITLE		EC1-15mm EMPTY HINGE BOX	
SCALE	SIZE	DRAWING NO.	REV
1:2	A	090625	A
DO NOT SCALE DRAWING			SHEET 10 OF 17

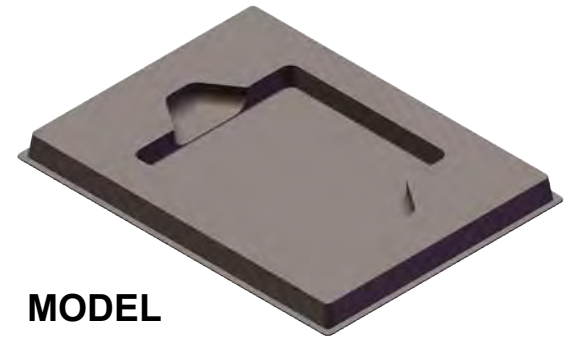
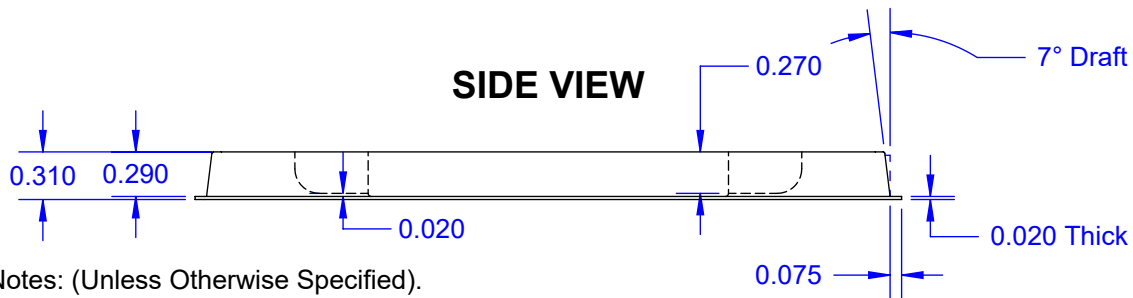
TOP VIEW



BOTTOM VIEW



SIDE VIEW



MODEL

Notes: (Unless Otherwise Specified).

- 1) DIMENSIONS: INCHES.
- 2) MATERIAL: CONDUCTIVE STYRENE.
- 3) SURFACE RESISTIVITY <math>< 10^4 \Omega</math>.

TopLine®

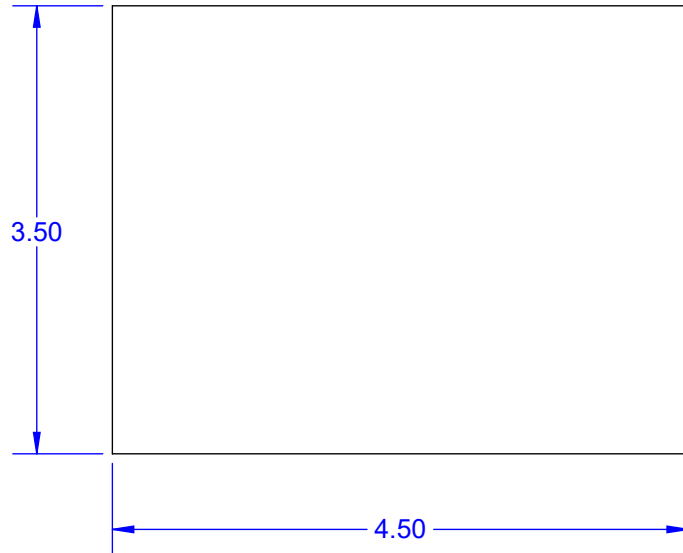
TITLE CCGA TRAY INSERT
FOR 4.625 x 3.5 HINGE BOX

SCALE	SIZE	DRAWING NO.	REV
2:2.5	A	140110	A

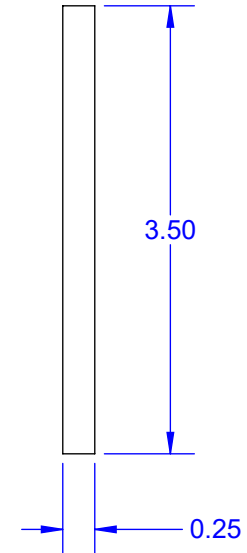
DO NOT SCALE DRAWING

SHEET 11 OF 17

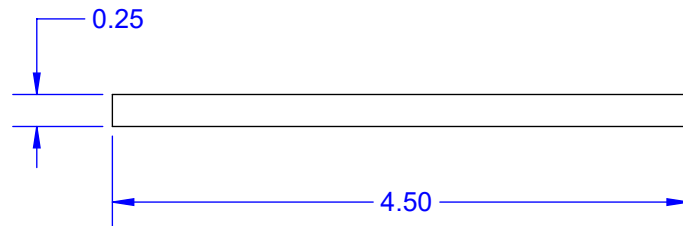
TOP



EDGE



SIDE

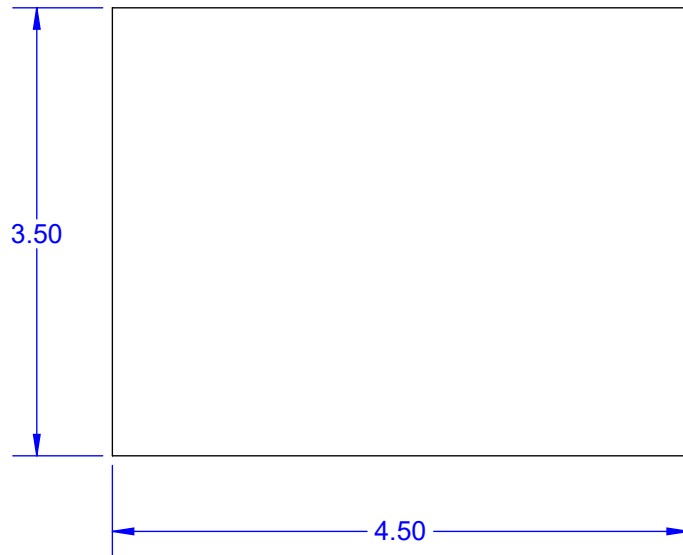


MODEL

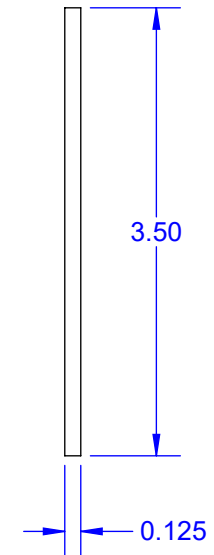
- Notes: (Unless Otherwise Specified).
- 1) SURFACE RESISTIVITY: $10^5 \sim 10^6 \Omega$
 - 3) DENSITY 1.7 PFC Min.
 - 4) DIMENSIONS IN INCHES.

TopLine®			
TITLE		EC1-FOAM-SOFT-.25-A LOW DENSITY FOAM	
SCALE	SIZE	DRAWING NO.	REV
1:1.5	A	090003	A
DO NOT SCALE DRAWING			SHEET 18 OF 17

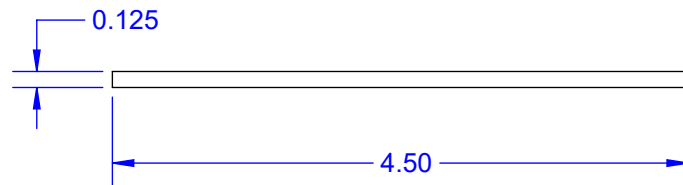
TOP



EDGE



SIDE

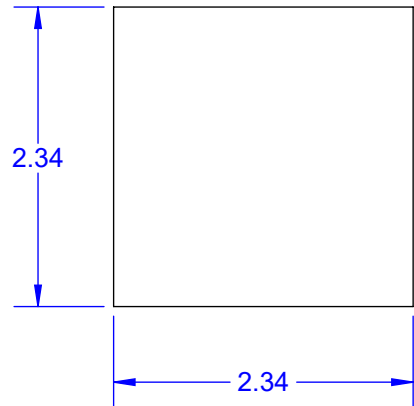


MODEL

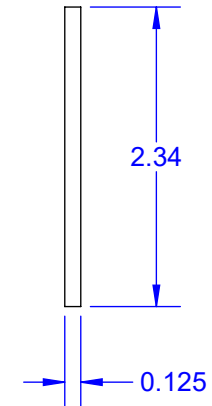
- Notes: (Unless Otherwise Specified).
- 1) SURFACE RESISTIVITY: $10^5 \sim 10^6 \Omega$
 - 3) DENSITY 1.7 PFC Min.
 - 4) DIMENSIONS IN INCHES.

TopLine®			
TITLE EC1-FOAM-SOFT-.125-A LOW DENSITY FOAM			
SCALE 1:1.5	SIZE A	DRAWING NO. 090006	REV A
DO NOT SCALE DRAWING			SHEET 13 OF 17

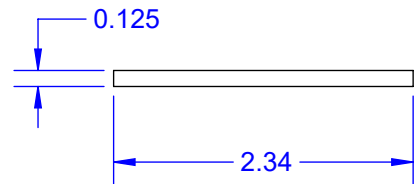
TOP



EDGE



SIDE

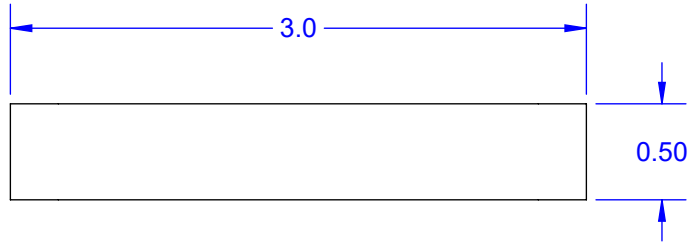


MODEL

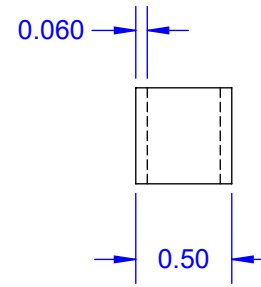
- Notes: (Unless Otherwise Specified).
- 1) SURFACE RESISTIVITY: $10^5 \sim 10^6 \Omega$.
 - 2) SOFT CONDUCTIVE FOAM.
 - 3) DENSITY 1.7 PFC Min.

TopLine[®]			
TITLE		LOW DENSITY FOAM FOAM-SOFT-2.34A	
SCALE	SIZE	DRAWING NO.	REV
1:1.5	A	090011	A
DO NOT SCALE DRAWING			SHEET 14 OF 17

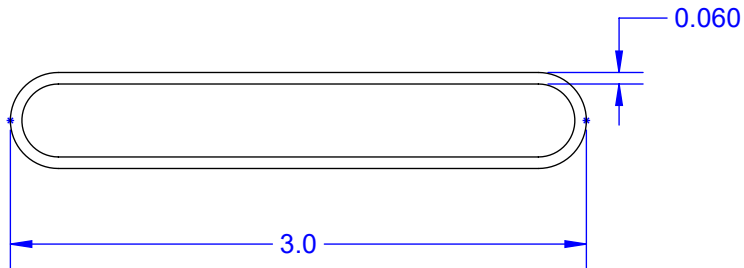
TOP



EDGE



SIDE



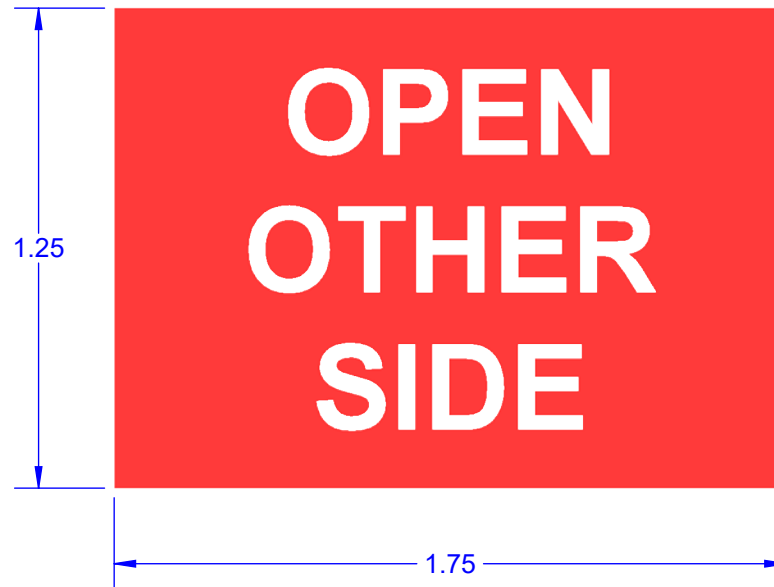
MODEL

Notes: (Unless Otherwise Specified).

1) SURFACE RESISTIVITY: $10^5 \sim 10^6$.

2) DIMENSIONS IN INCHES (RESTING POSITION).

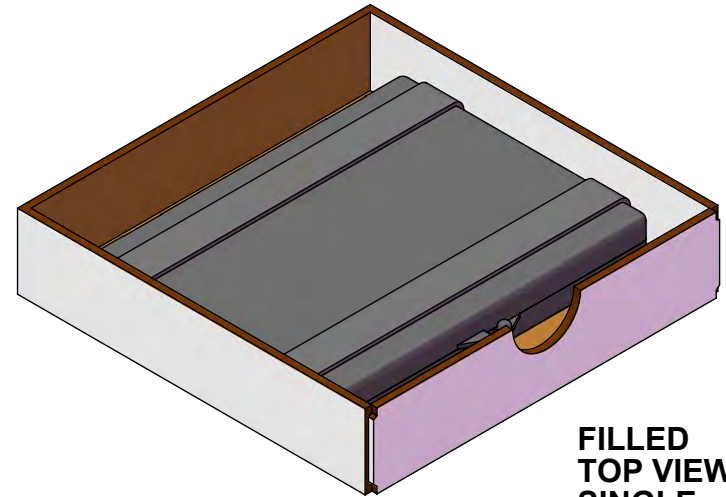
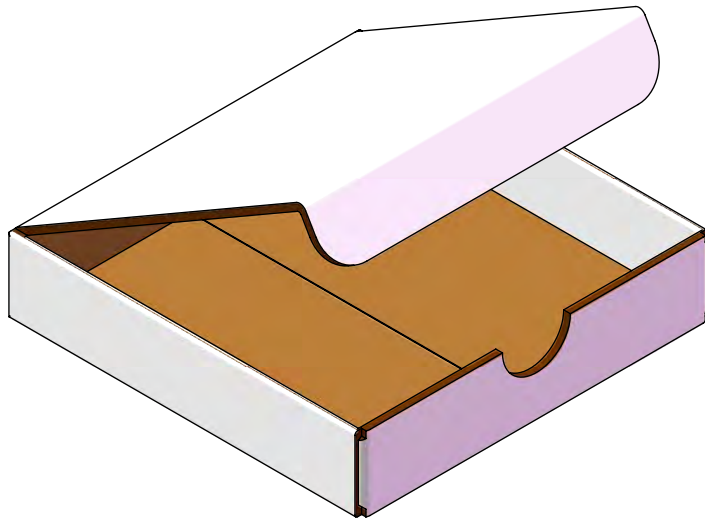
TopLine®			
TITLE		RUBBER BAND-3.0-C BLACK CONDUCTIVE	
SCALE	SIZE	DRAWING NO.	REV
1:1	A	090005	A
DO NOT SCALE DRAWING			SHEET 15 OF 17



Notes: (Unless Otherwise Specified).

1. DIMENSIONS INCHES.
2. MATERIAL: PAPER LABEL WITH ADHESIVE.
3. COLOR: RED.
4. PURPOSE: IDENTIFY BOTTOM OF HINGE BOX.

TopLine[®]			
TITLE		LABEL FOR BOTTOM OF HINGE BOX	
SCALE	SIZE	DRAWING NO.	REV
2:1	A	090009	A
DO NOT SCALE DRAWING			SHEET 16 OF 17



**FILLED
TOP VIEW
SINGLE**

Notes: (Unless Otherwise Specified).

1. DIMENSIONS INCHES.
2. MEASUREMENT INCLUDES RUBBER BANDS.
3. BOX SIZE SUBJECT TO CHANGE.

TopLine®

TITLE CCGA TRAY BOX CARRIER
CARTON

SCALE 1:2	SIZE A	DRAWING NO. 900001	REV A
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DO NOT SCALE DRAWING

SHEET 17 OF 17