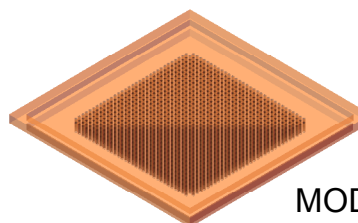
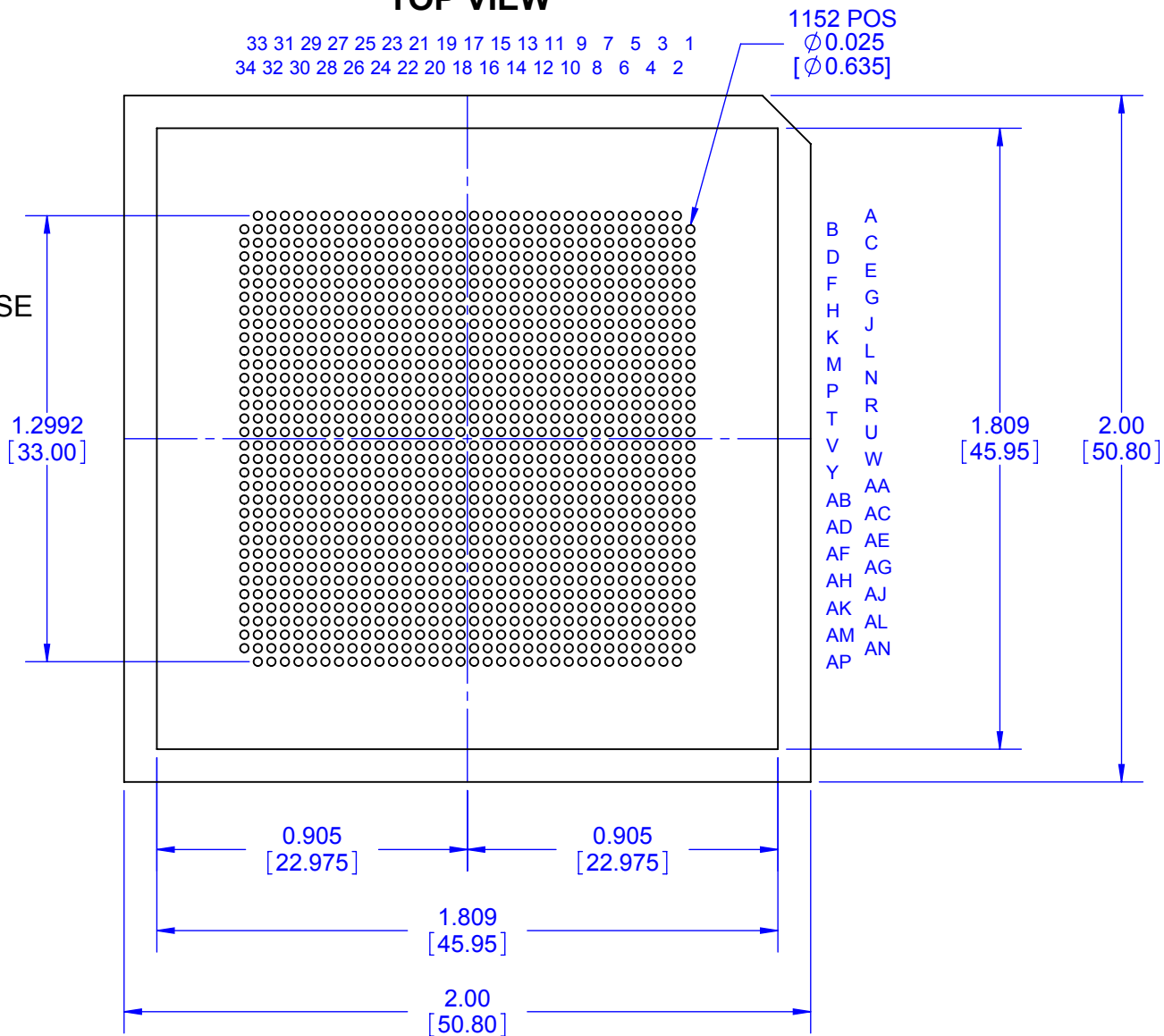
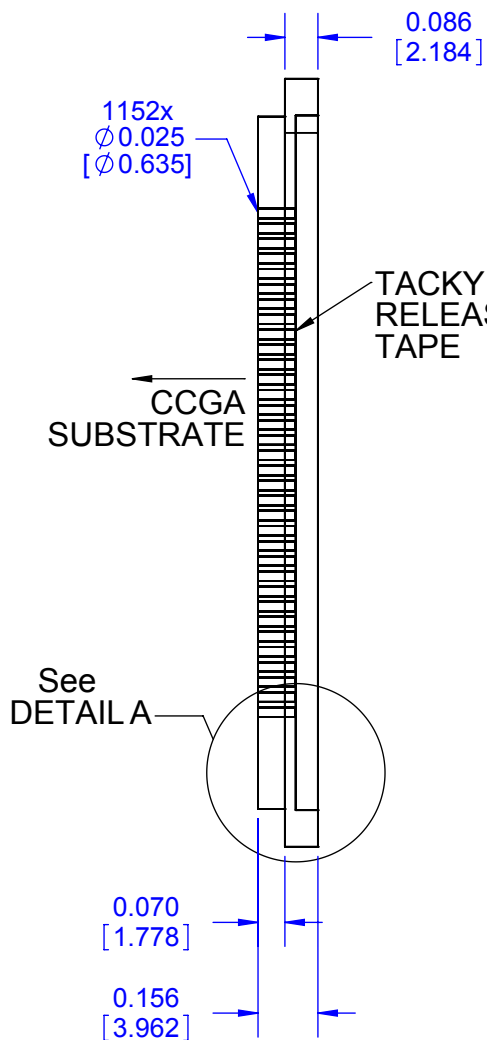


**SIDE**

**TOP VIEW**

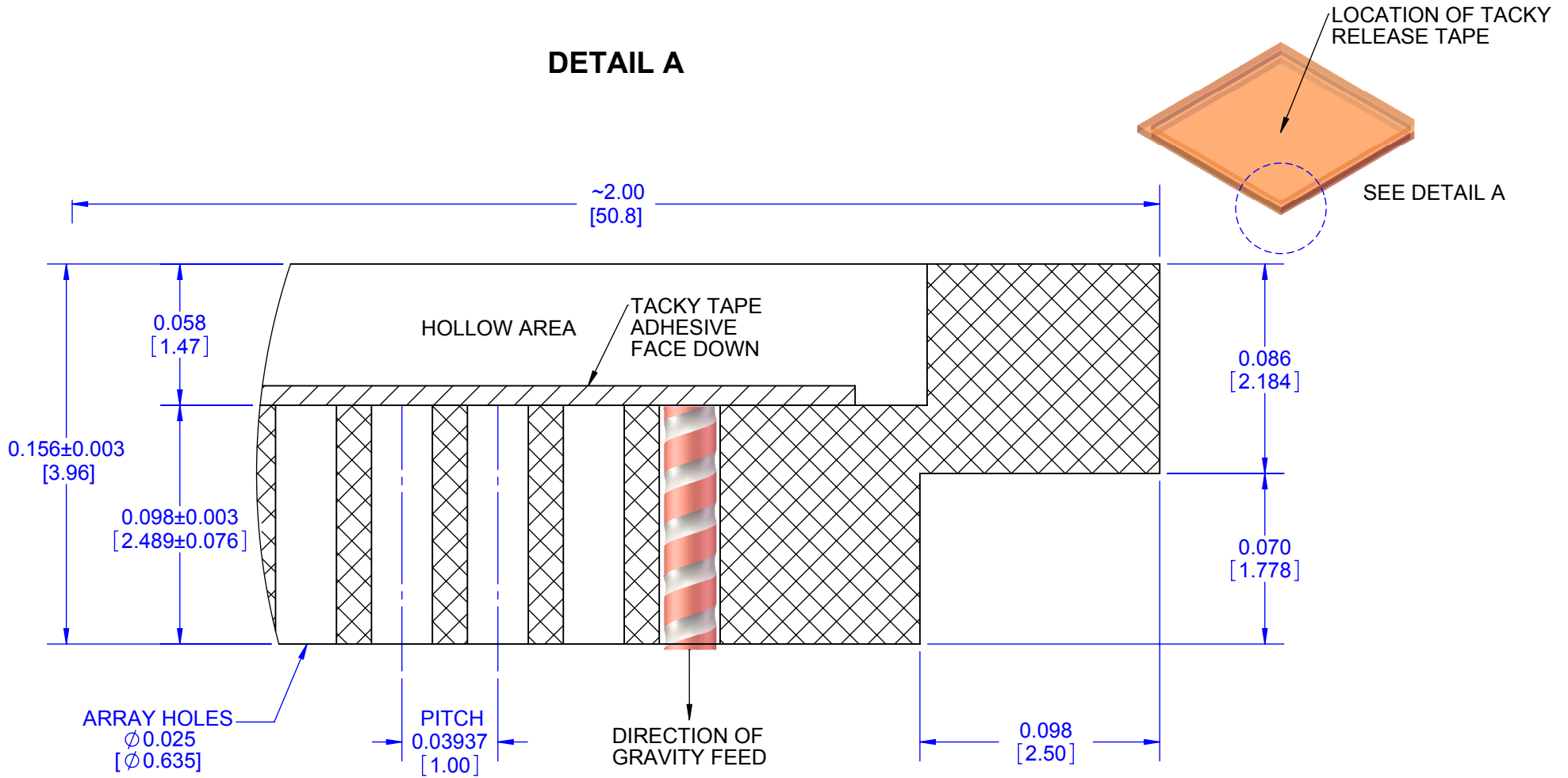


MODEL

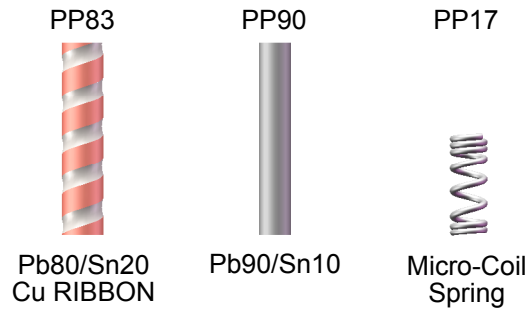
NOTES:  
1. DIMENSIONS INCHES [MM].  
2. SHOWN WITH MAXIMUM ARRAY.

<b>TopLine®</b>			
TITLE PP1152 PIN-PACK™ CCGA COLUMN CARRIER			
SCALE 2:1	SIZE A	DRAWING NO. 001342	REV A
DO NOT SCALE DRAWING			SHEET 1 OF 8

# DETAIL A



## EXAMPLES OF COLUMNS



NOTES:  
1. DIMENSIONS INCHES [MM].

**TopLine**<sup>®</sup>

TITLE PP1152 PIN-PACK™  
CCGA COLUMN CARRIER

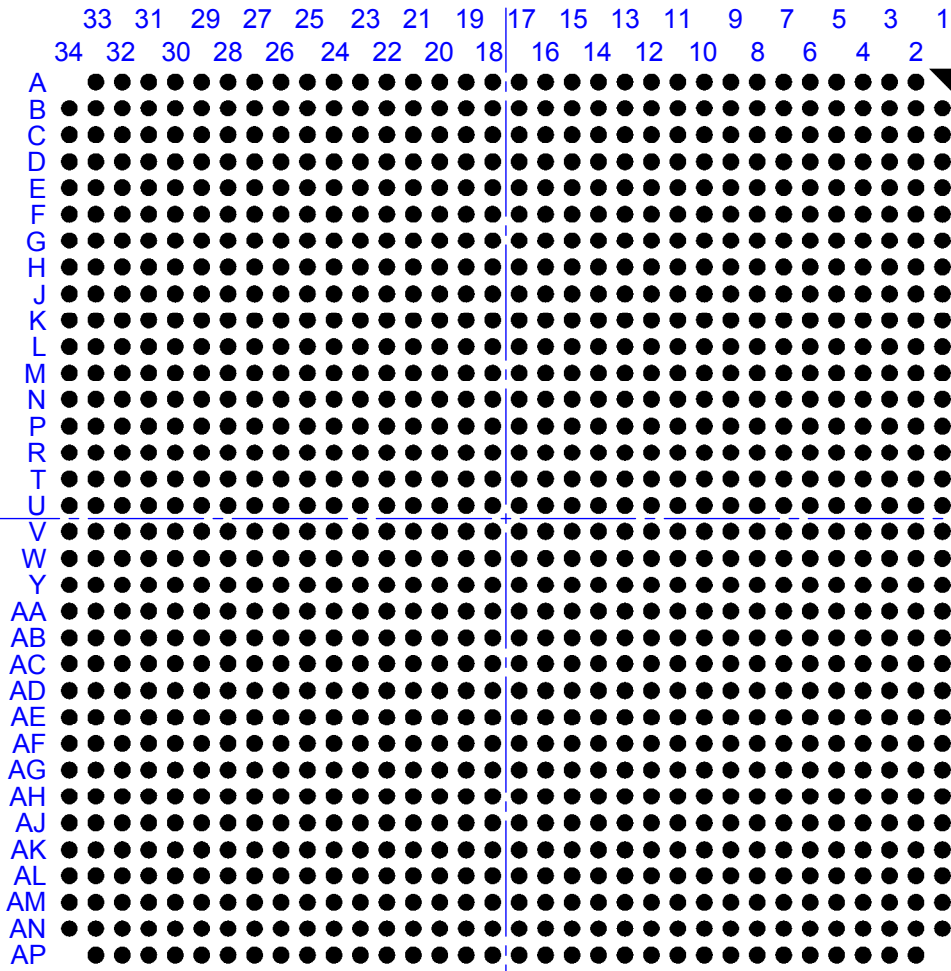
SCALE 16:1	SIZE A	DRAWING NO. 001342	REV A
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DO NOT SCALE DRAWING

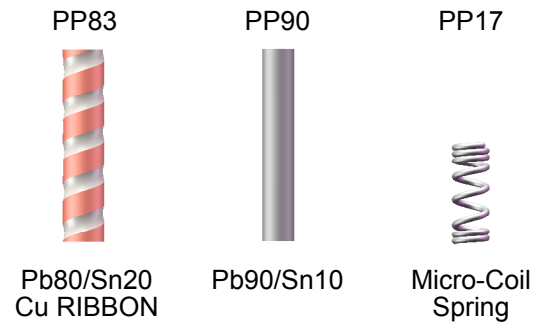
SHEET 2 OF 8

### PART NUMBER TABLE

PIN-PACK™	Pins	Pitch	Matrix	COLUMN				Empty DWG	Filled DWG
				Alloy	Construction	∅ Dia	Length		
PP83C1152E20x100A PP90U1152E20x100A PP17P1152E20x50A	1152	1.0mm	34x34	Pb80 Pb90 MCS	Cu Ribbon Plain Micro Coil	0.51mm	2.54mm 2.54mm 1.27mm	001342	831342 901342 171342

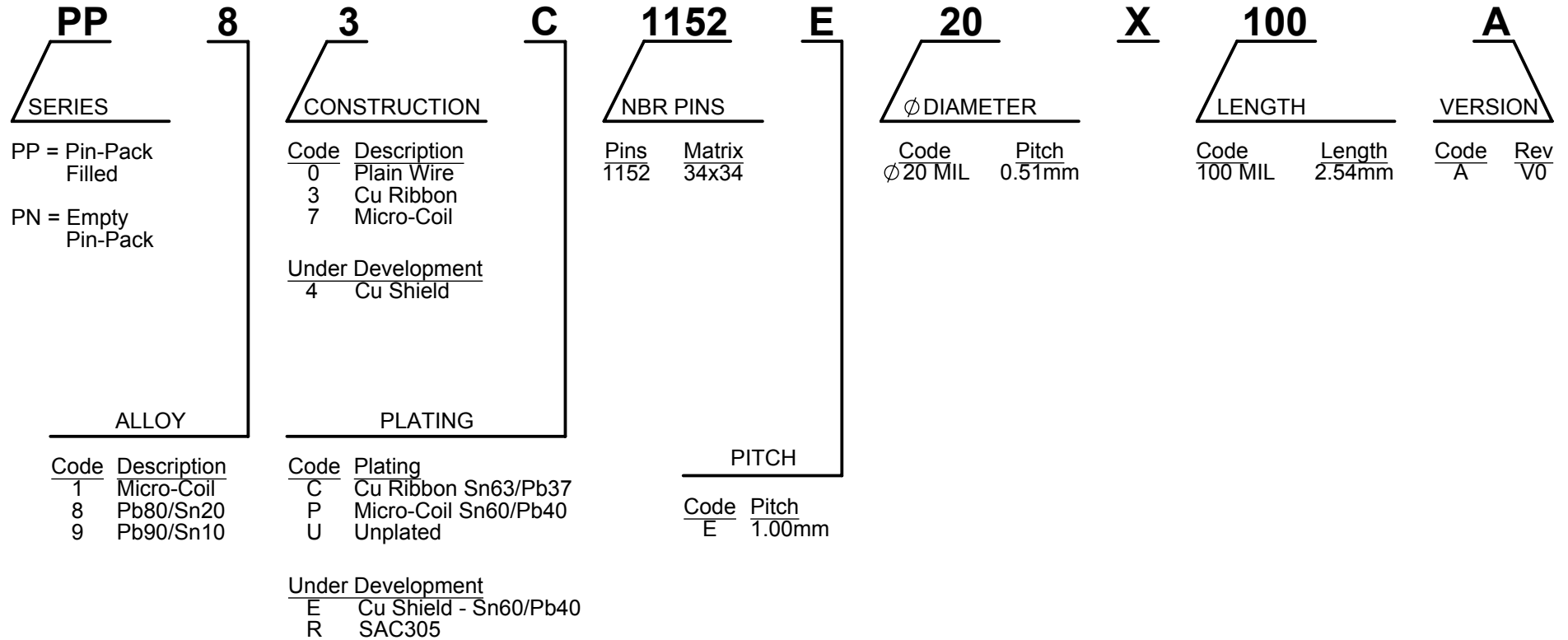


#### EXAMPLES OF COLUMNS

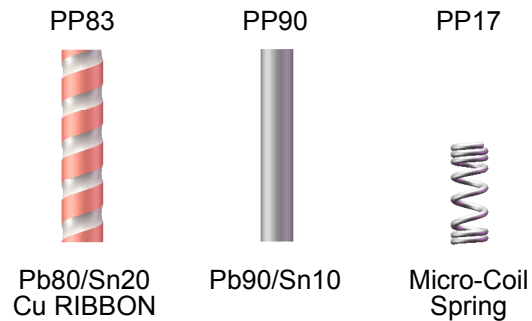


TopLine®			
TITLE PP1152 PIN-PACK™ CCGA COLUMN CARRIER			
SCALE NONE	SIZE A	DRAWING NO. 001342	REV A
DO NOT SCALE DRAWING			SHEET 3 OF 8

# PIN-PACK™ PART NUMBERING SYSTEM



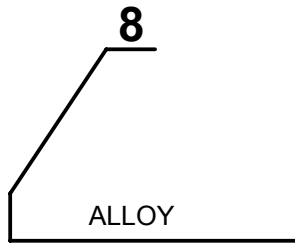
## EXAMPLES OF COLUMNS



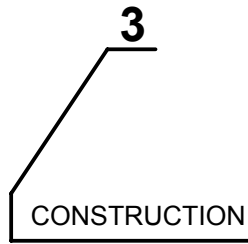
NOTE 1: PP83, PP90 and PP93 REQUIRES TRIMMING TO FINISHED LENGTH.  
 NOTE 2: COLUMN 2.54mm TO BE TRIMMED TO 2.21mm AFTER ATTACHMENT.

<b>TopLine®</b>			
TITLE    PP1152 PIN-PACK™ CCGA COLUMN CARRIER			
SCALE 10:1	SIZE A	DRAWING NO. 001342	REV A
DO NOT SCALE DRAWING			SHEET 4 OF 8

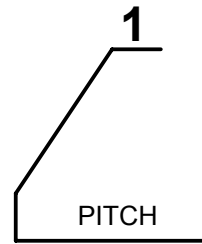
# PIN-PACK™ DRAWING NUMBERING SYSTEM



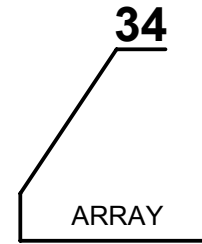
Code	Description
00	Empty
1	Micro-Coil
8	Pb80/Sn20
9	Pb90/Sn10



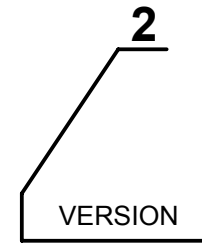
Code	Description
0	Plain Wire
3	Cu Ribbon
7	Micro-Coil



Code	Pitch
1	1.0mm



Code	Matrix
34	34x34



Code	Rev
2	1152 PINS Ø0.51mm

Under Development

4	Cu + Sn60/Pb40
5	Cu + SAC
6	Sn60/Pb40

## EXAMPLES OF COLUMNS

PP83



Pb80/Sn20  
Cu RIBBON

PP90



Pb90/Sn10

PP17



Micro-Coil  
Spring

**TopLine®**

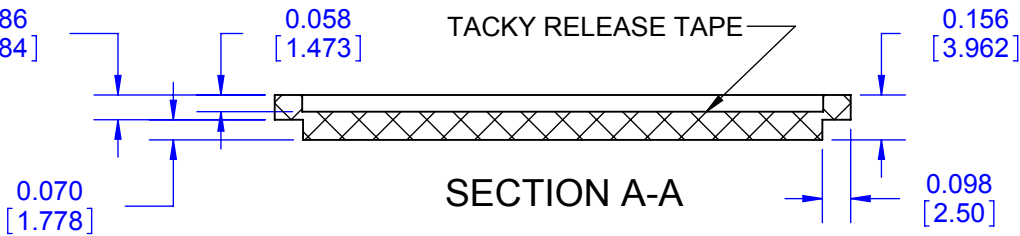
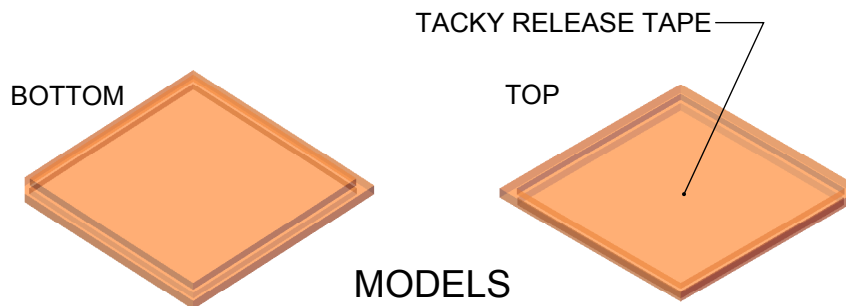
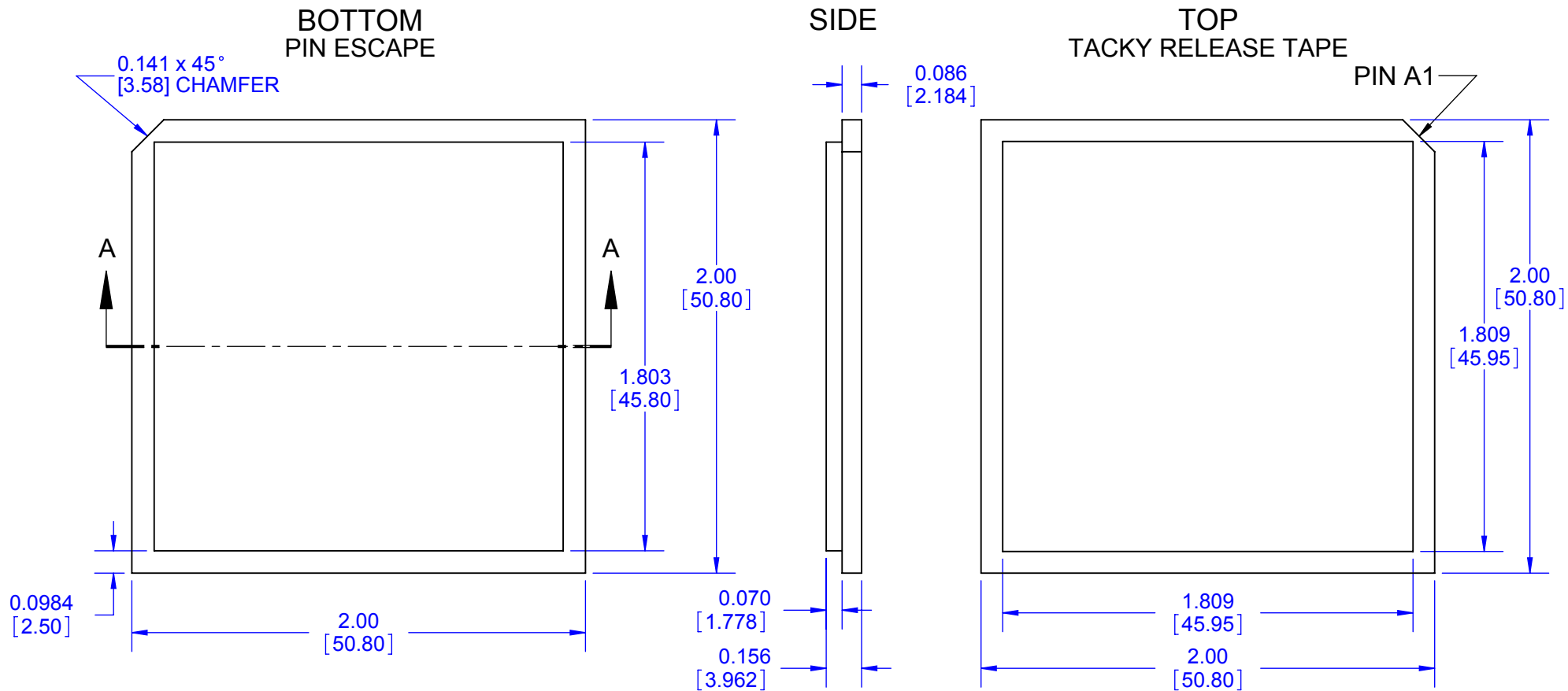
TITLE PP1152 PIN-PACK™  
CCGA COLUMN CARRIER

SCALE	SIZE	DRAWING NO.	REV
10:1	A	001342	A

DO NOT SCALE DRAWING

SHEET 5 OF 8

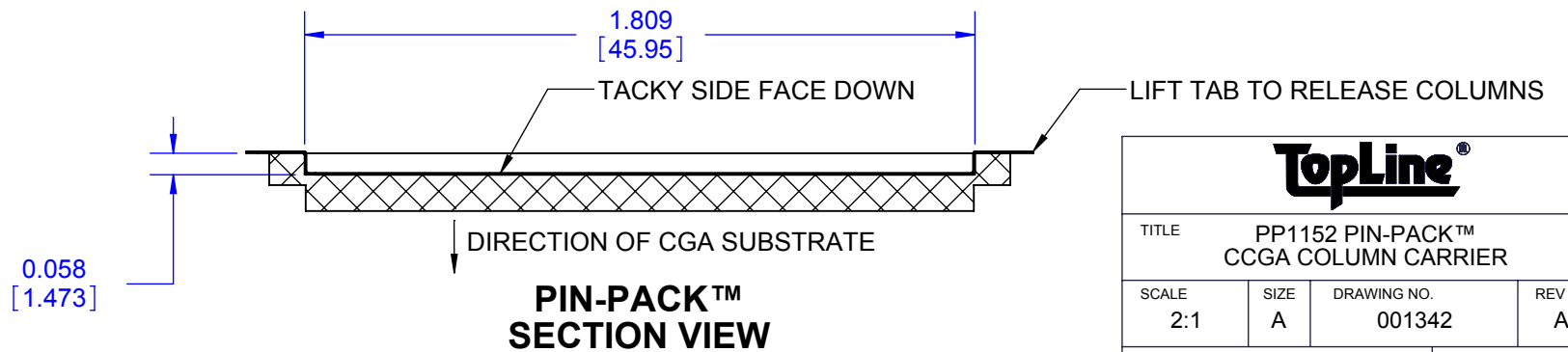
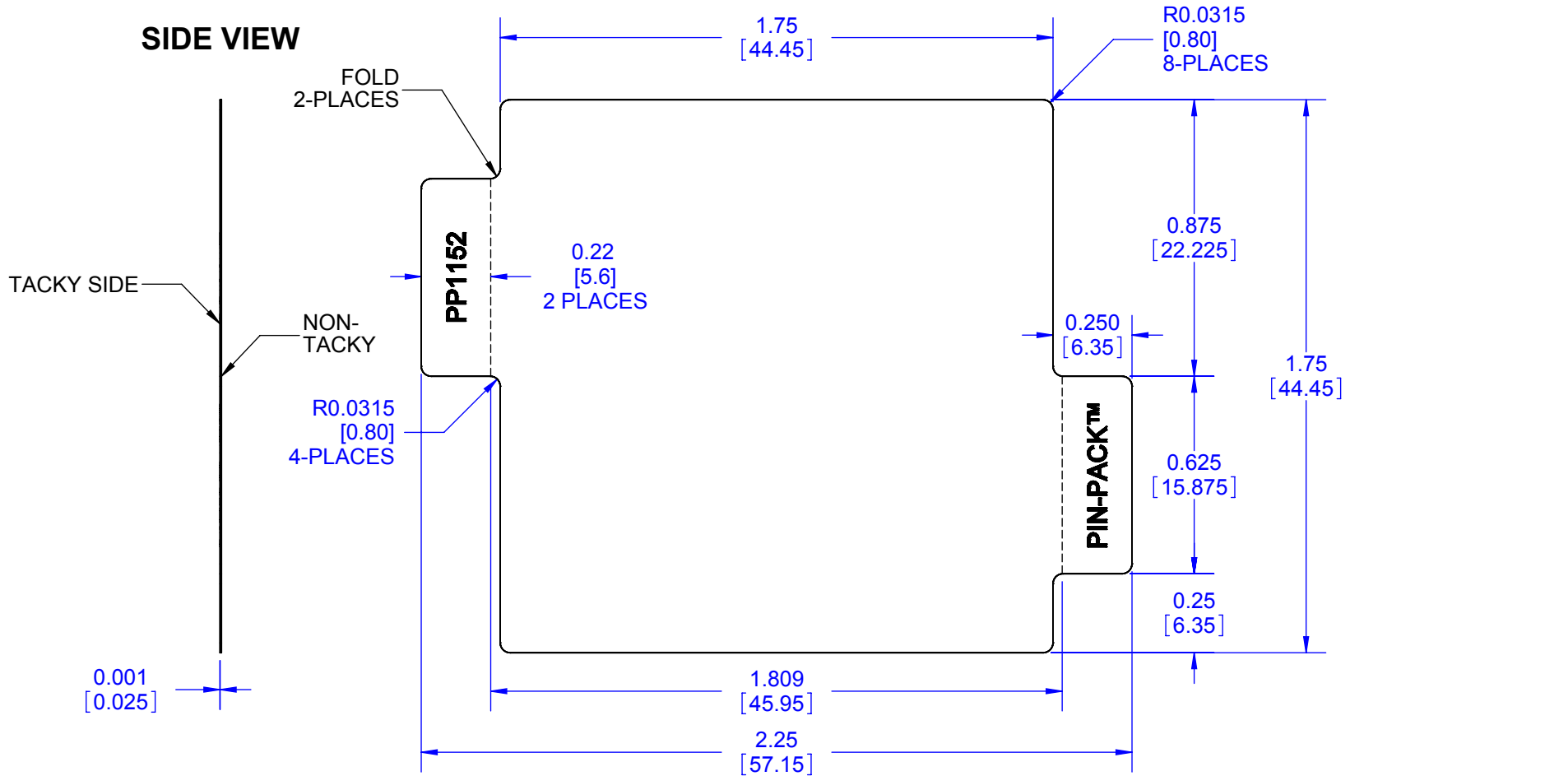
# PIN-PACK™ OUTLINE



- NOTES:**
1. DIMENSIONS INCHES [MM].
  2. SHOWN WITHOUT HOLES FOR CLARITY.
  3. PIN-PACK™ IS TRADEMARK OF TOPLINE.
  4. PIN-PACK™ PATENT PENDING.

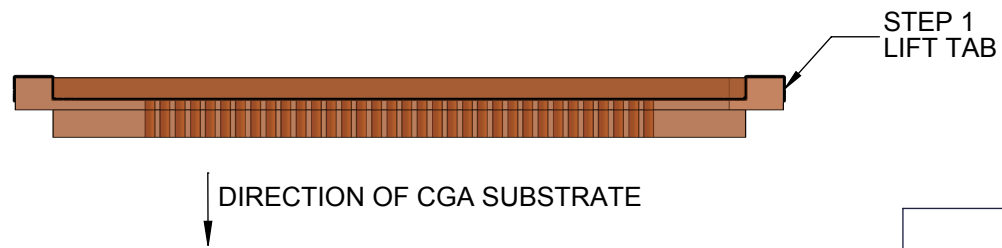
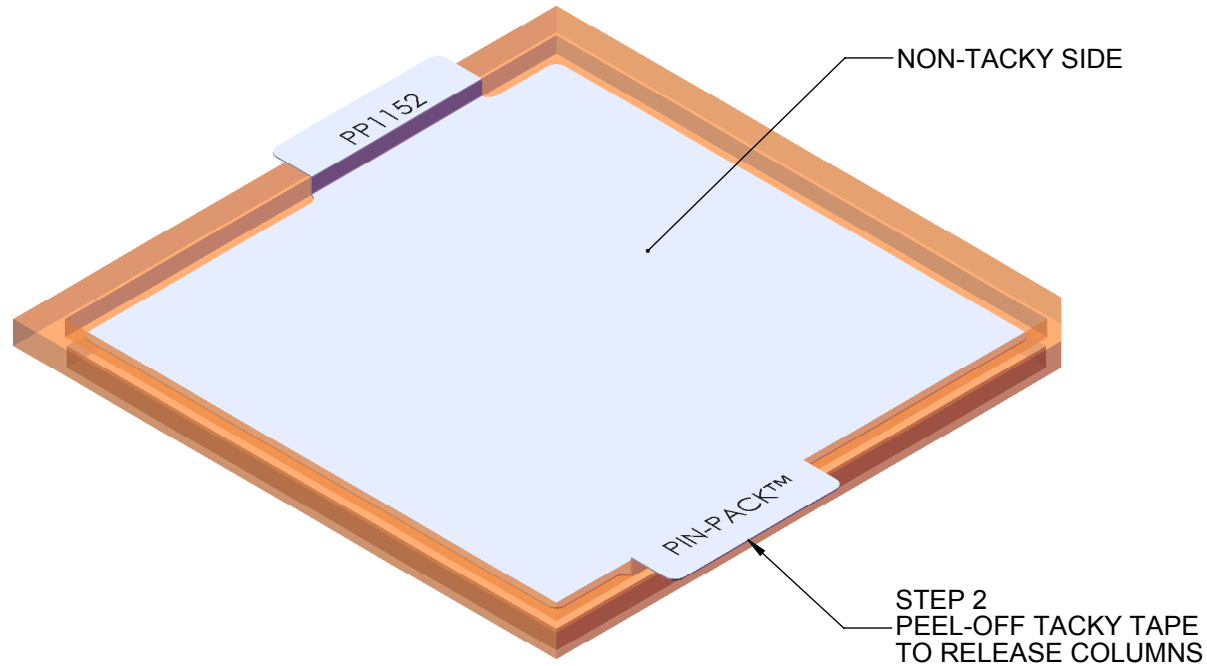
APPROVALS	DATE	<b>TopLine®</b>			
DRAWN T.Au	09/30/14				
ENG M. Hart	09/30/14	TITLE PP1152 PIN-PACK™ CCGA COLUMN CARRIER			
MFG		SCALE	SIZE	DRAWING NO.	REV
QA		3:2	A	001342	A
CUST		DO NOT SCALE DRAWING			SHEET 6 OF 8
REVISED					

# TACKY RELEASE TAPE TOP VIEW



<b>TopLine®</b>			
TITLE PP1152 PIN-PACK™ CCGA COLUMN CARRIER			
SCALE 2:1	SIZE A	DRAWING NO. 001342	REV A
DO NOT SCALE DRAWING			SHEET 7 OF 8

# TACKY RELEASE TAPE MODEL



<b>TopLine®</b>			
TITLE    PP1152 PIN-PACK™ CCGA COLUMN CARRIER			
SCALE	SIZE	DRAWING NO.	REV
2:1	A	001342	A
DO NOT SCALE DRAWING			SHEET 8 OF 8