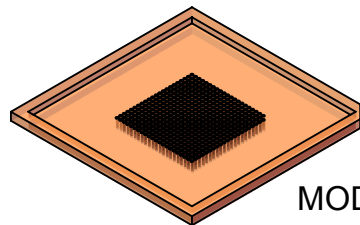
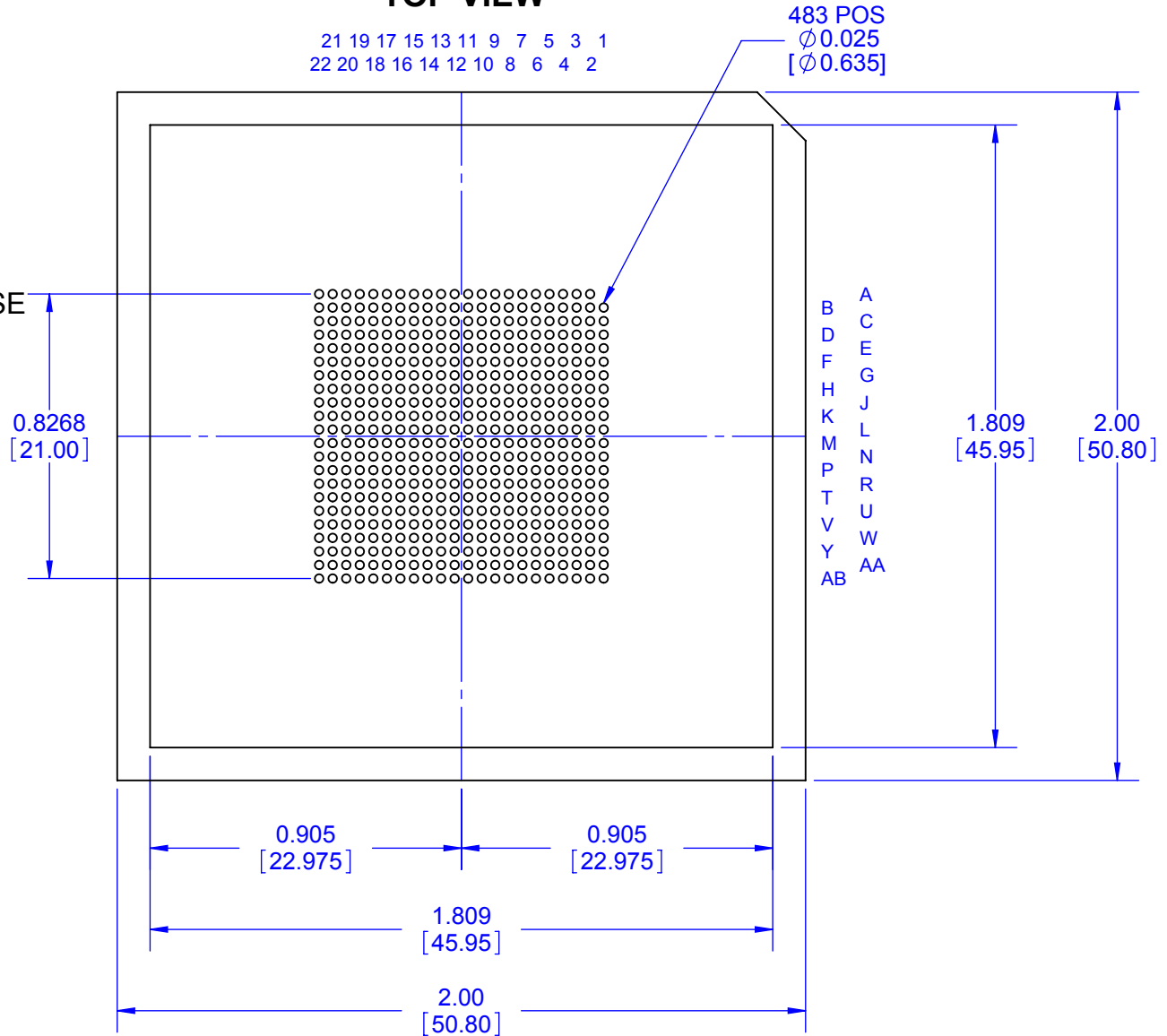
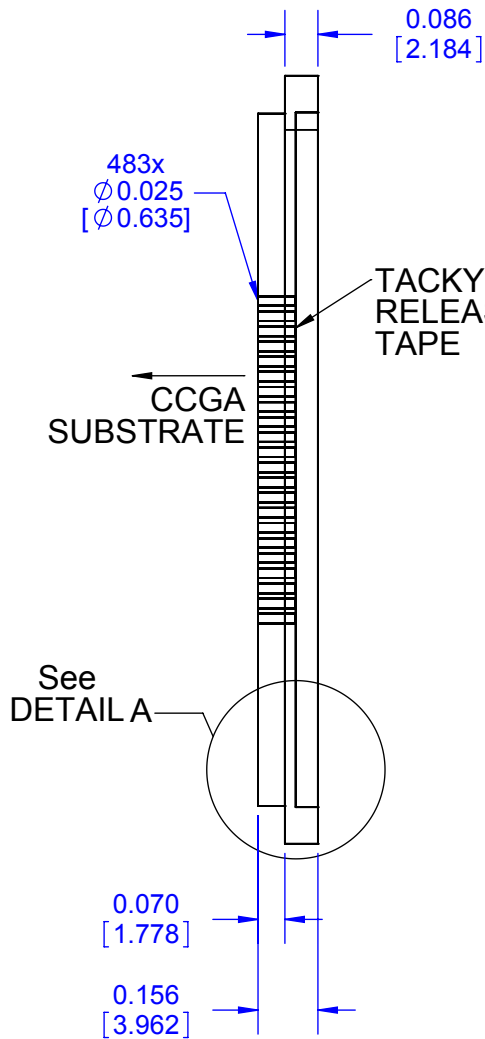


SIDE

TOP VIEW

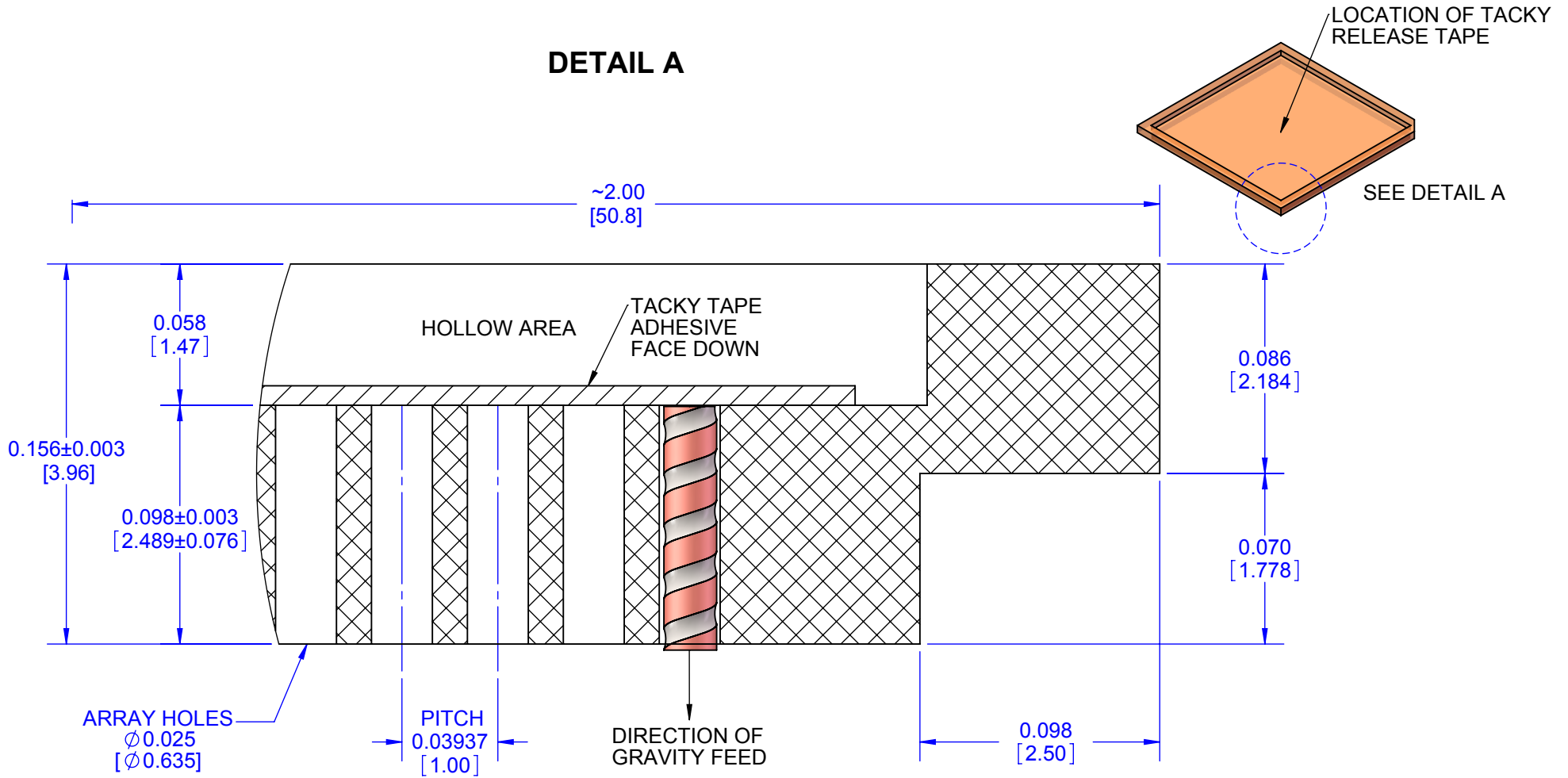


MODEL

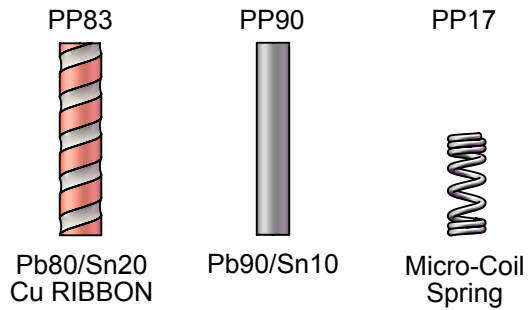
NOTES:
1. DIMENSIONS INCHES [MM].
2. SHOWN WITH MAXIMUM ARRAY.

TopLine®			
TITLE PP483 PIN-PACK™ CCGA COLUMN CARRIER			
SCALE 2:1	SIZE A	DRAWING NO. 001220	REV A
DO NOT SCALE DRAWING			SHEET 1 OF 8

DETAIL A



EXAMPLES OF COLUMNS

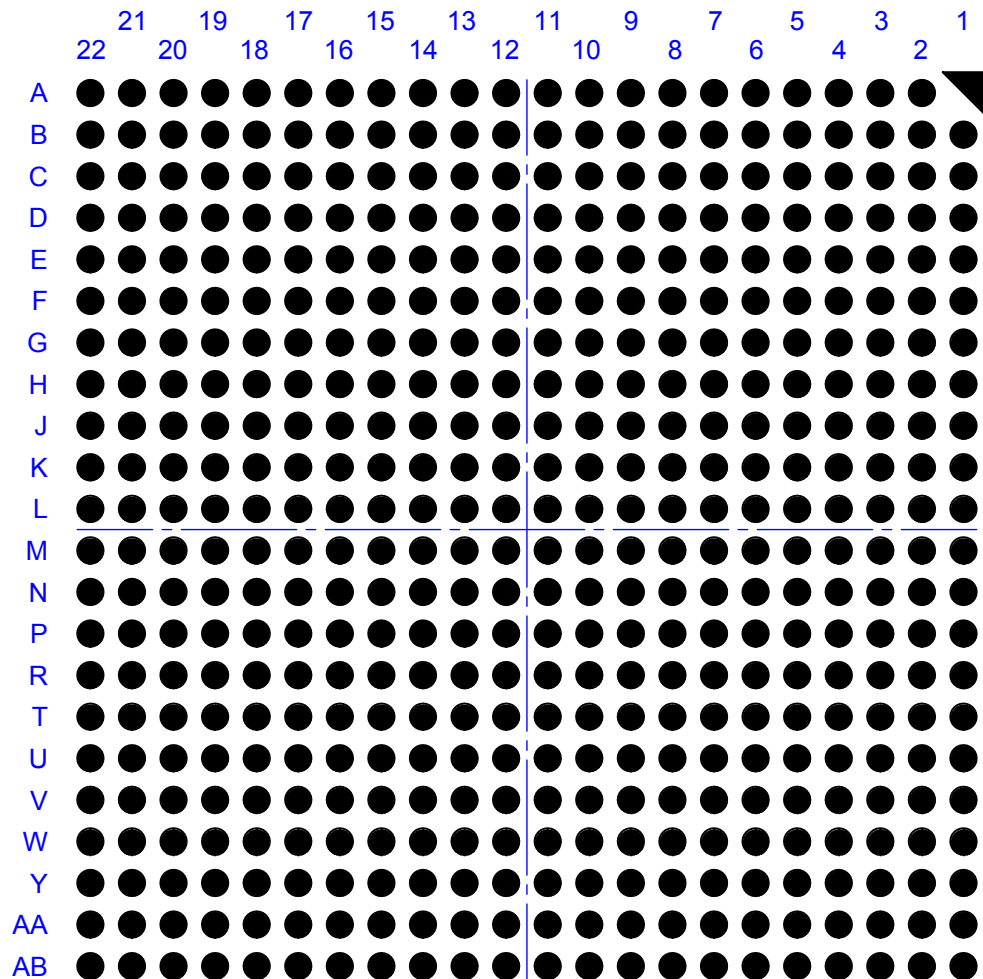


NOTES:
1. DIMENSIONS INCHES [MM].

TopLine®			
TITLE PP483 PIN-PACK™ CCGA COLUMN CARRIER			
SCALE 16:1	SIZE A	DRAWING NO. 001220	REV A
DO NOT SCALE DRAWING			SHEET 2 OF 8

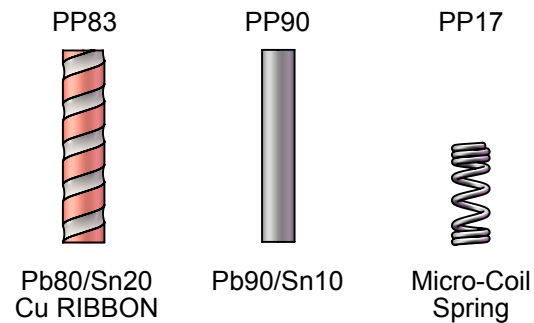
PART NUMBER TABLE

PIN-PACK™	Pins	Pitch	Matrix	COLUMN				Empty DWG	Filled DWG
				Alloy	Construction	∅ Dia	Length		
PP83C483E20x91A PP90U483E20x91A PP17P483E20x50A	483	1.0mm	22x22	Pb80 Pb90 MCS	Cu Ribbon Plain Micro Coil	0.51mm	2.41mm 2.41mm 1.27mm	001220	831220 901220 171220



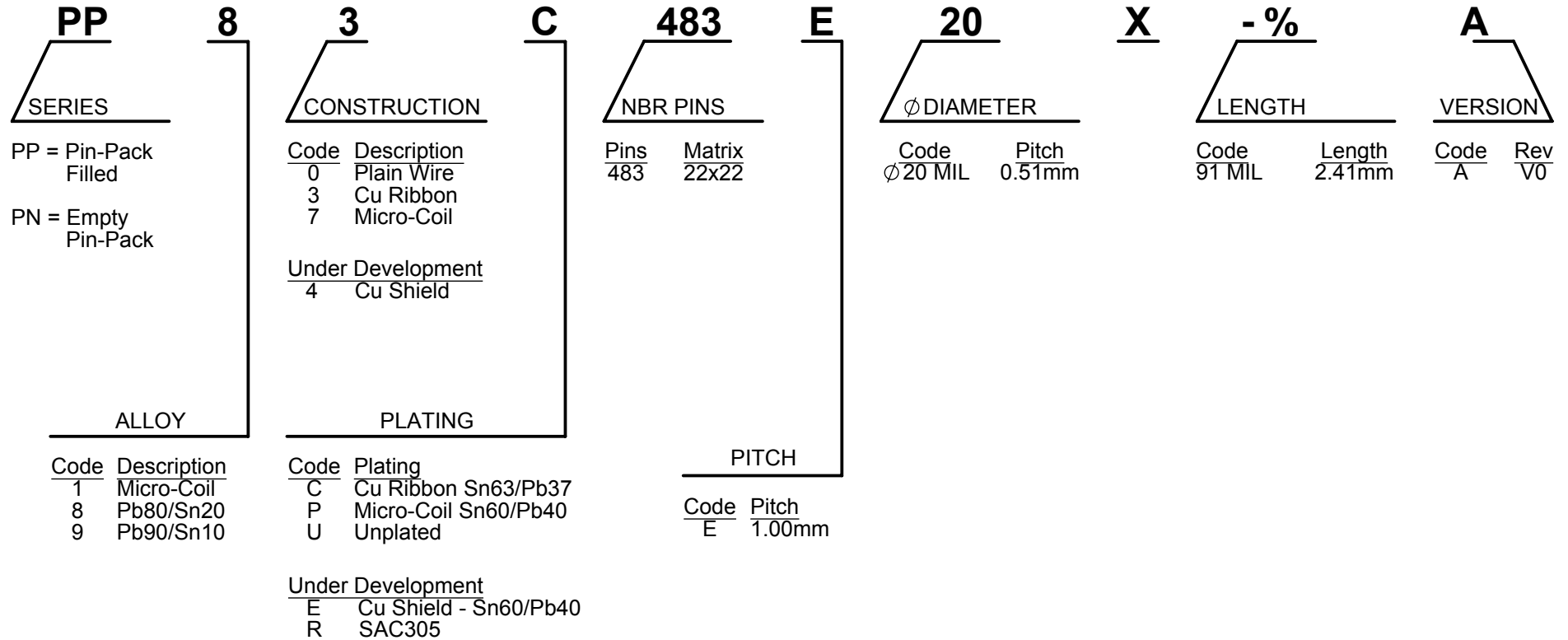
NOTE: DEPOPULATED A1.

EXAMPLES OF COLUMNS

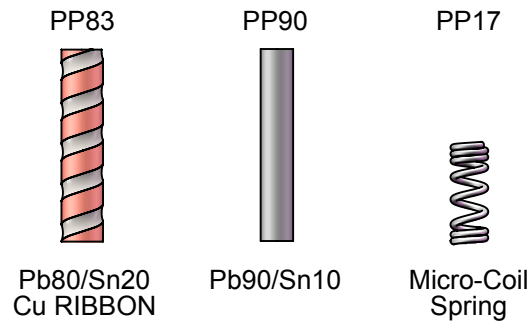


TopLine®			
TITLE PP483 PIN-PACK™ CCGA COLUMN CARRIER			
SCALE NONE	SIZE A	DRAWING NO. 001220	REV A
DO NOT SCALE DRAWING			SHEET 3 OF 8

PIN-PACK™ PART NUMBERING SYSTEM



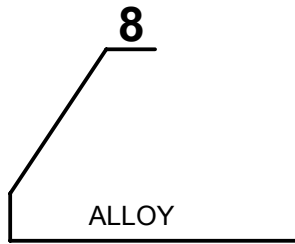
EXAMPLES OF COLUMNS



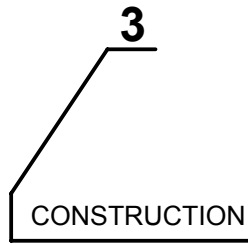
NOTE 1: PP83, PP90 and PP93 REQUIRES TRIMMING TO FINISHED LENGTH.
NOTE 2: COLUMN 2.54mm TO BE TRIMMED TO 2.21mm AFTER ATTACHMENT.

TopLine®			
TITLE PP483 PIN-PACK™ CCGA COLUMN CARRIER			
SCALE 10:1	SIZE A	DRAWING NO. 001220	REV A
DO NOT SCALE DRAWING			SHEET 4 OF 8

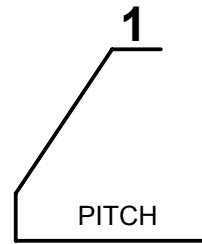
PIN-PACK™ DRAWING NUMBERING SYSTEM



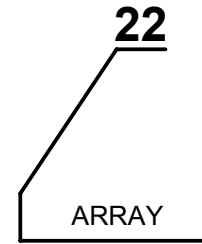
Code	Description
00	Empty
1	Micro-Coil
8	Pb80/Sn20
9	Pb90/Sn10



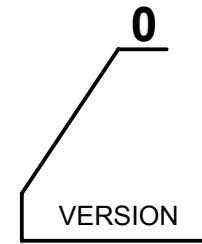
Code	Description
0	Plain Wire
3	Cu Ribbon
7	Micro-Coil



Code	Pitch
1	1.0mm



Code	Matrix
22	22x22



Code	Rev
0	483 PINS

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 PP483 PIN-PACK™
CCGA COLUMN CARRIER

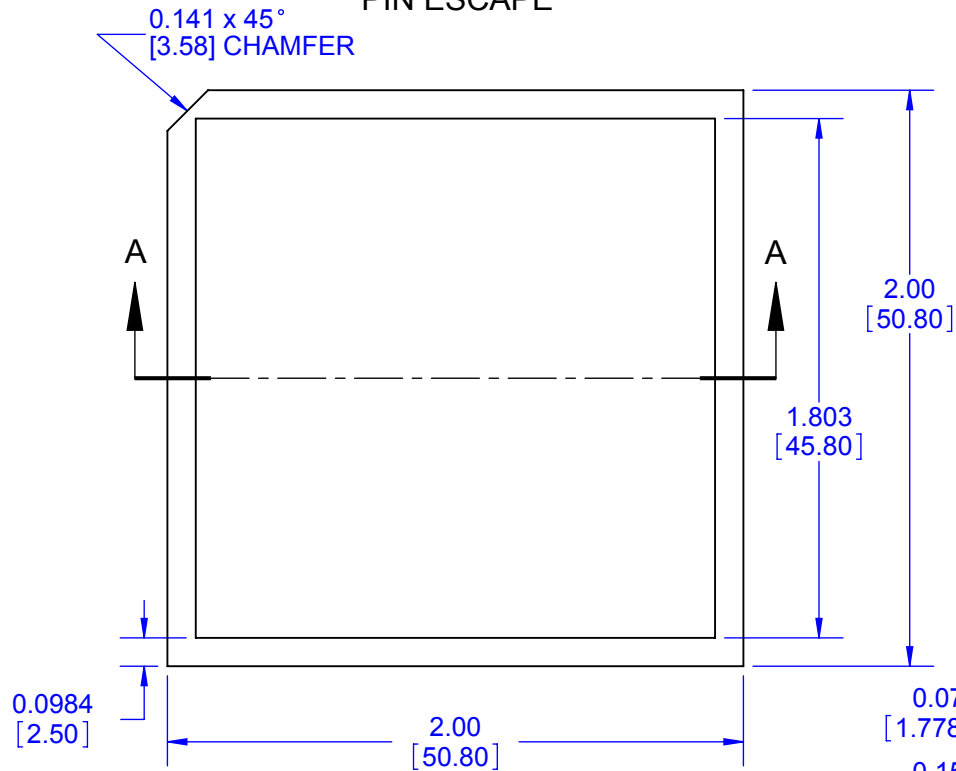
SCALE 10:1	SIZE A	DRAWING NO. 001220	REV A
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DO NOT SCALE DRAWING

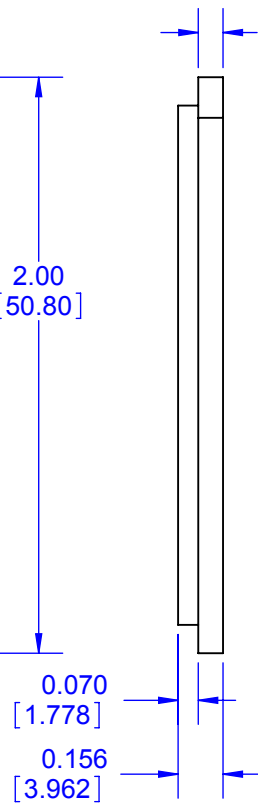
SHEET 5 OF 8

PIN-PACK™ OUTLINE

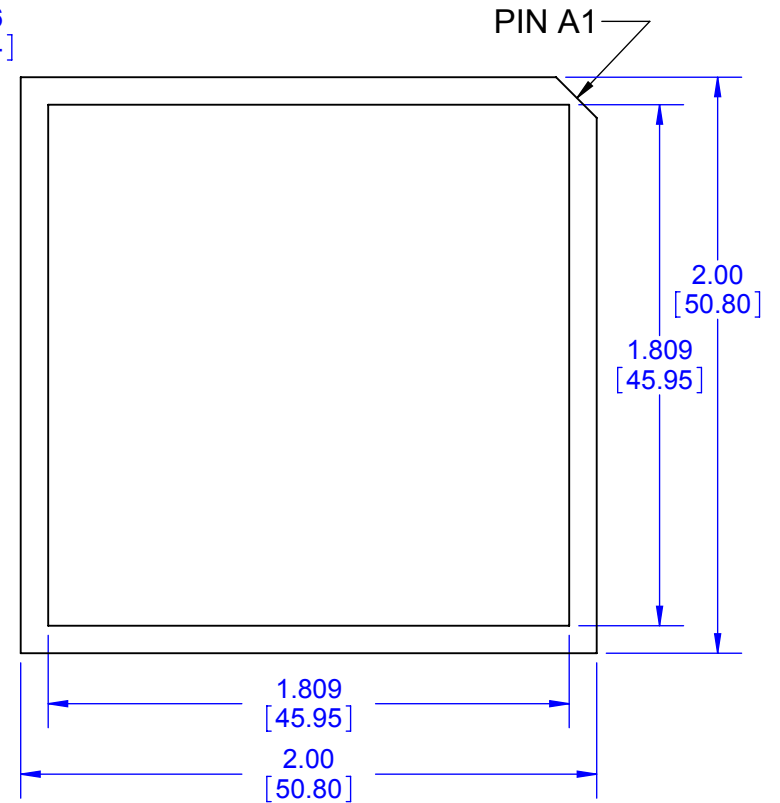
**BOTTOM
PIN ESCAPE**



SIDE

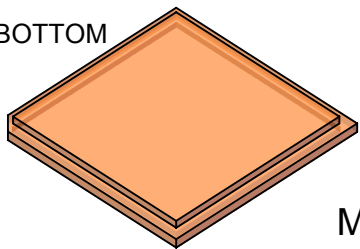


**TOP
TACKY RELEASE TAPE**

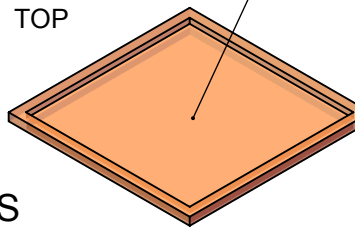


TACKY RELEASE TAPE

BOTTOM



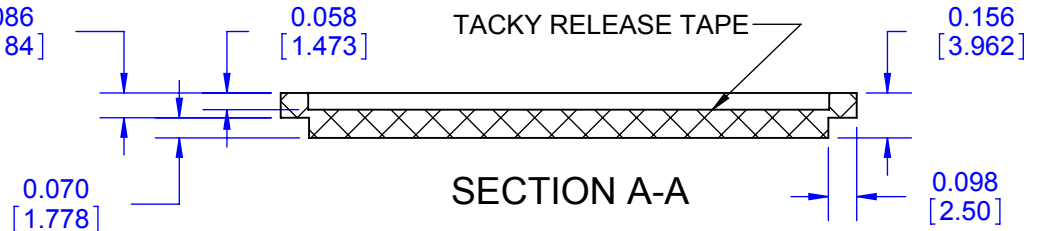
TOP



MODELS

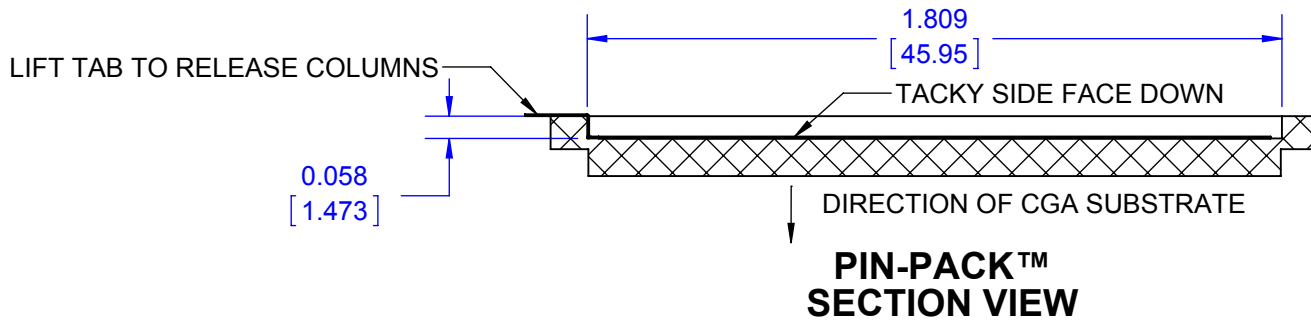
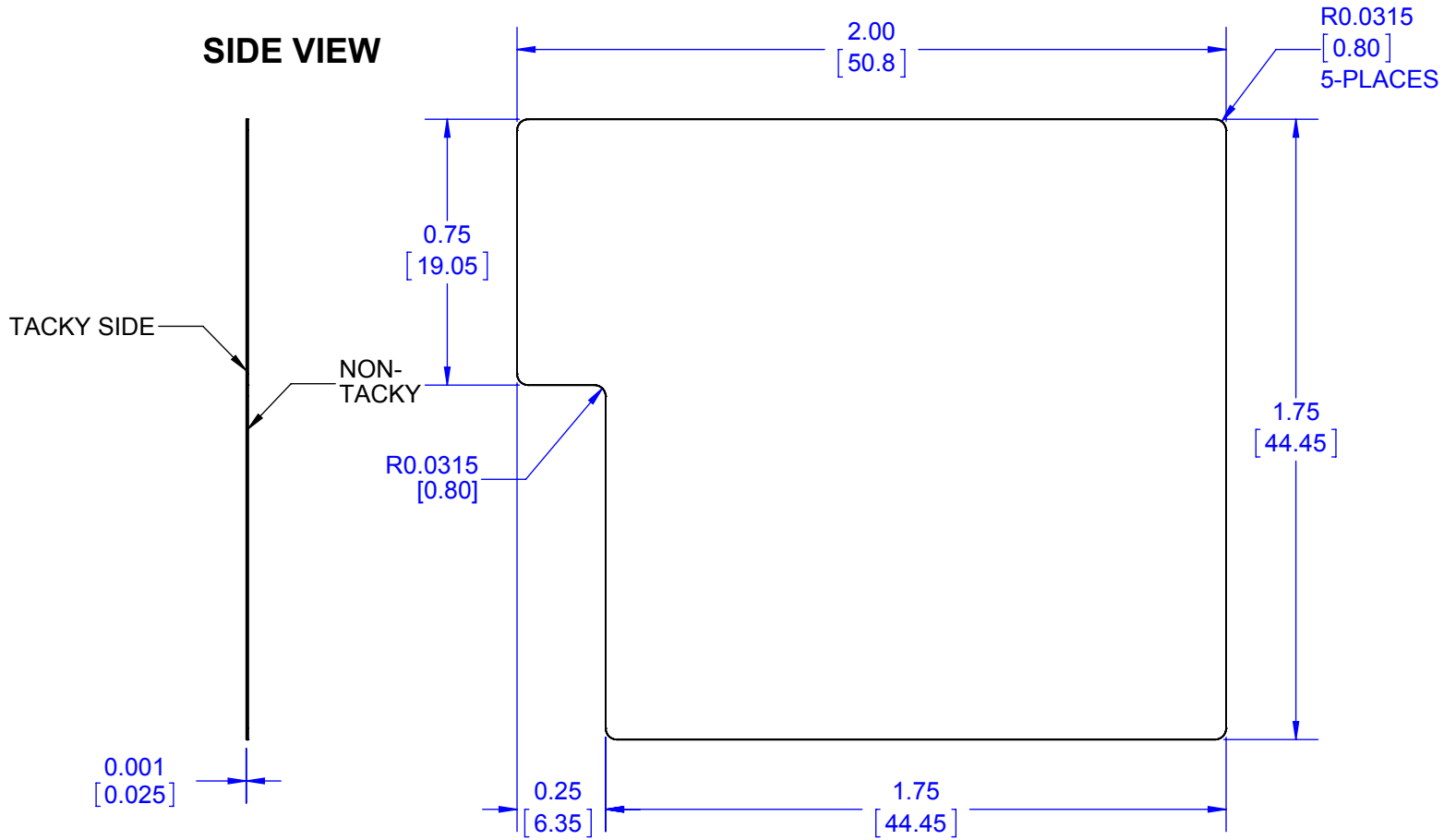
NOTES:

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



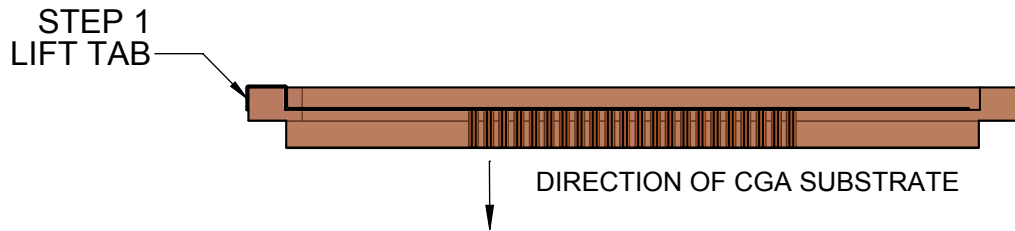
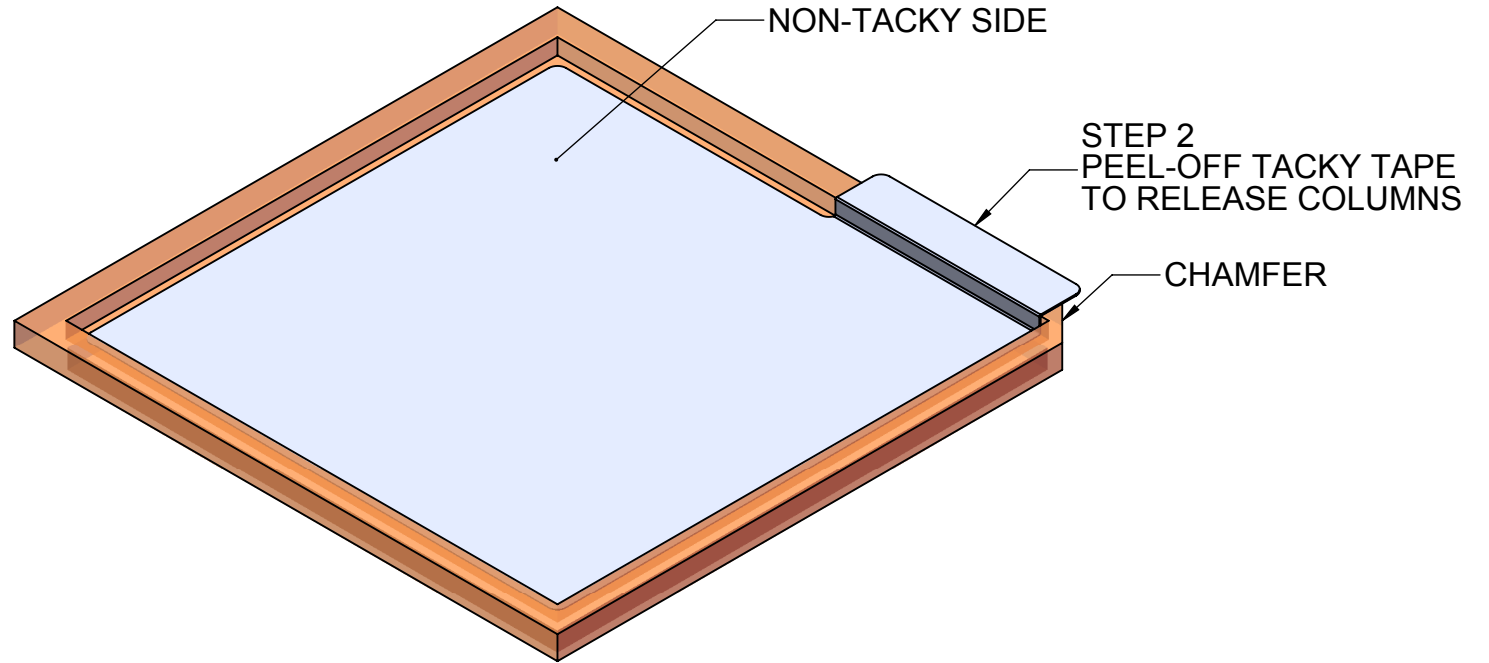
APPROVALS	DATE	TopLine®			
DRAWN T.Au	12/09/14				
ENG M. Hart	12/09/14	TITLE PP483 PIN-PACK™ CCGA COLUMN CARRIER			
MFG		SCALE	SIZE	DRAWING NO.	REV
QA		3:2	A	001220	A
CUST		DO NOT SCALE DRAWING			SHEET 6 OF 8
REVISED					

TACKY RELEASE TAPE TOP VIEW



TopLine®			
TITLE PP483 PIN-PACK™ CCGA COLUMN CARRIER			
SCALE 2:1	SIZE A	DRAWING NO. 001220	REV B
DO NOT SCALE DRAWING			SHEET 7 OF 8

TACKY RELEASE TAPE MODEL



TopLine[®]			
TITLE PP483 PIN-PACK™ CCGA COLUMN CARRIER			
SCALE 1.5:1	SIZE A	DRAWING NO. 001220	REV B
DO NOT SCALE DRAWING			SHEET 8 OF 8