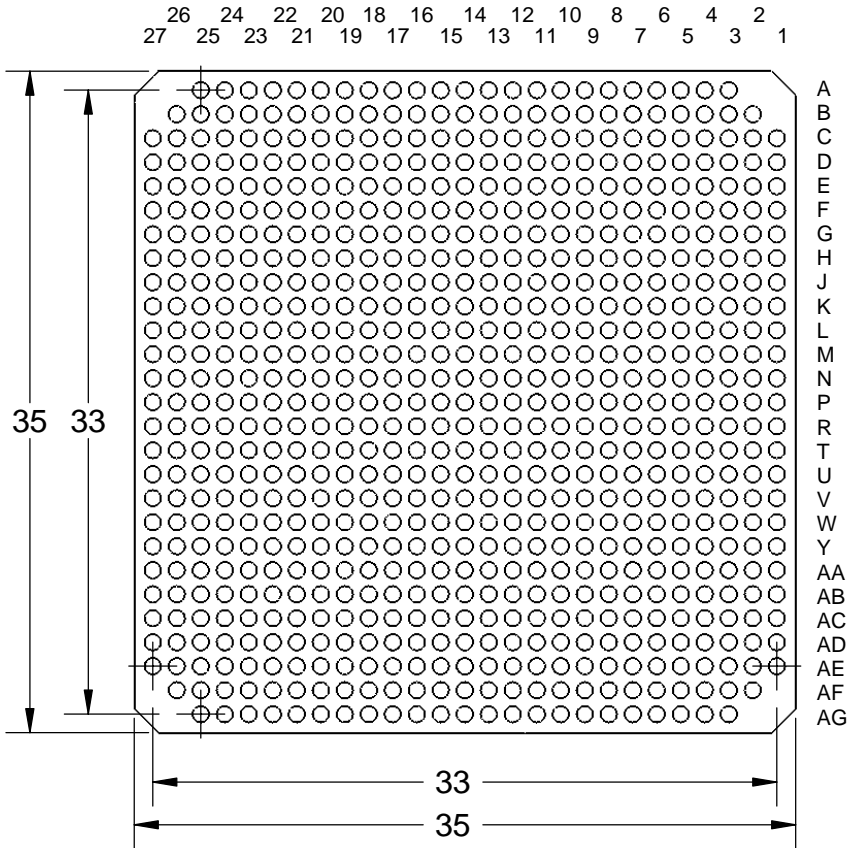
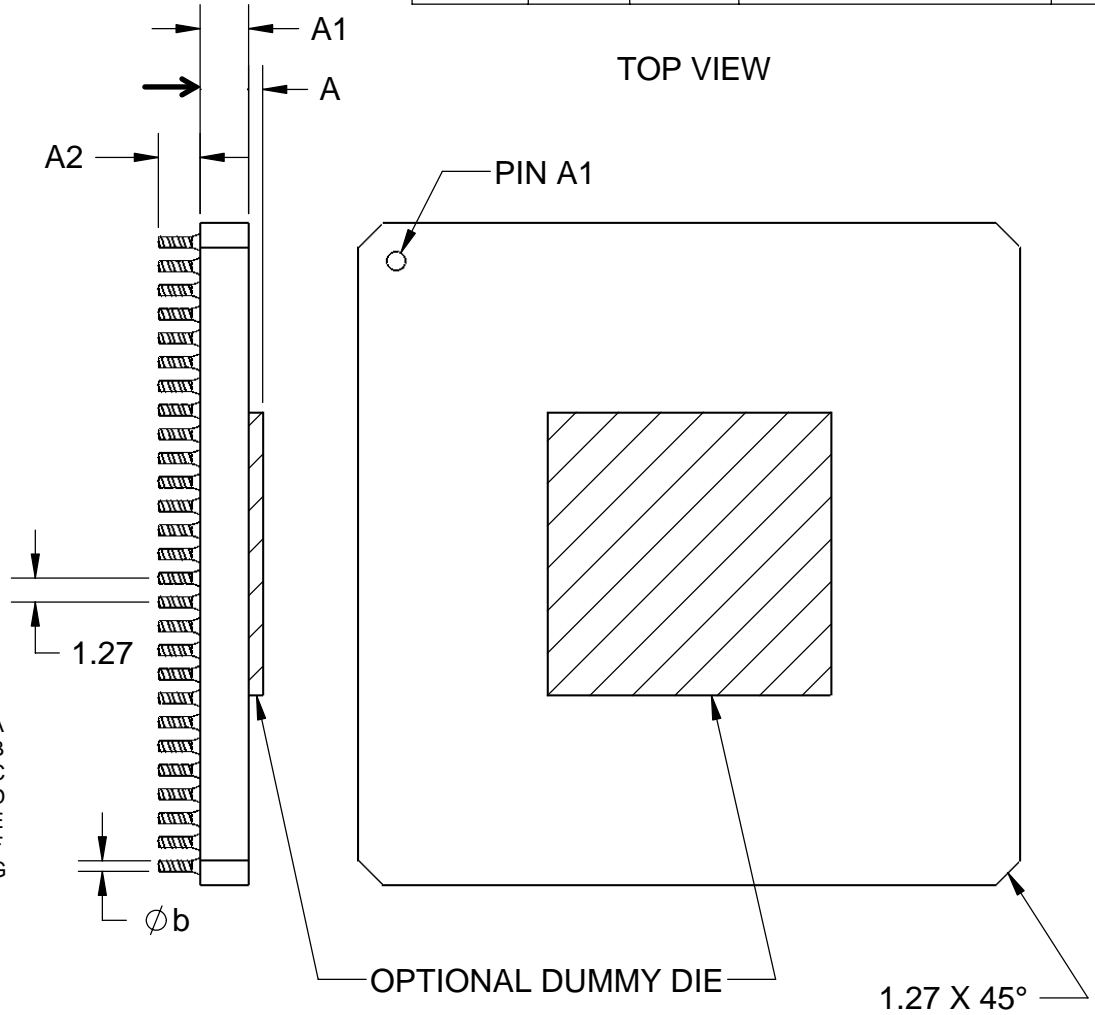


REVISIONS				
DATE	REV.	ECO	DESCRIPTION	APPROVED

BOTTOM VIEW



TOP VIEW



DIMENSIONS			
SYMBOL	MIN.	NOM.	MAX.
A		3.00	3.30
A <sub>1</sub>	2.30	2.56	2.82
A <sub>2</sub>	2.10	2.20	2.30
$\phi b$	0.51	0.54	0.57
DIE	OPTIONAL	12X12	15X15

Notes: (Unless Otherwise Specified).  
1) DIMENSIONS ARE IN MM.

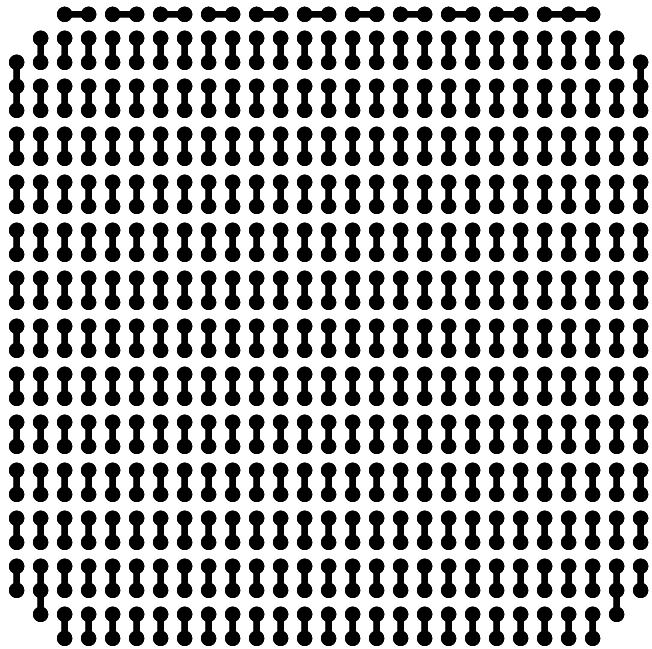
PART NUMBER OPTIONS		
PART NUMBER	DUMMY DIE	SOLDER PIN
CCGA717T1.27-DC278	NO	Pb80/Sn20 Cu RIBBON
CCGA717T1.27A-DC278D	YES	
CCGA717T1.27A-DC278	NO	Pb90/Sn10
CCGA717T1.27A-DC278D	YES	

TOLERANCE UNLESS NOTED		APPROVALS	DATE								
X.XX	+/- 0.01	DRAWN J. Hines	3/27/2010								
X.XXX	+/- 0.005										
X.XXXX	+/- 0.0005										
ANGLES	+/- 0.5°	ENG		TITLE	CCGA717T1.27-DC278 DUMMY COLUMN GRID ARRAY						
ALL DIMENSIONS IN		MFG		SCALE	2.5:1	SIZE	A	DRAWING NO.	160100	REV	A
<input type="checkbox"/> INCHES <input checked="" type="checkbox"/> MILLIMETERS		QA		DO NOT SCALE DRAWING			SHEET 1 OF 3				
THIRD ANGLE PROJECTION		CUST									
		REVISED									

# DAISY CHAIN PATTERN

## COLUMN (BALL) VIEW

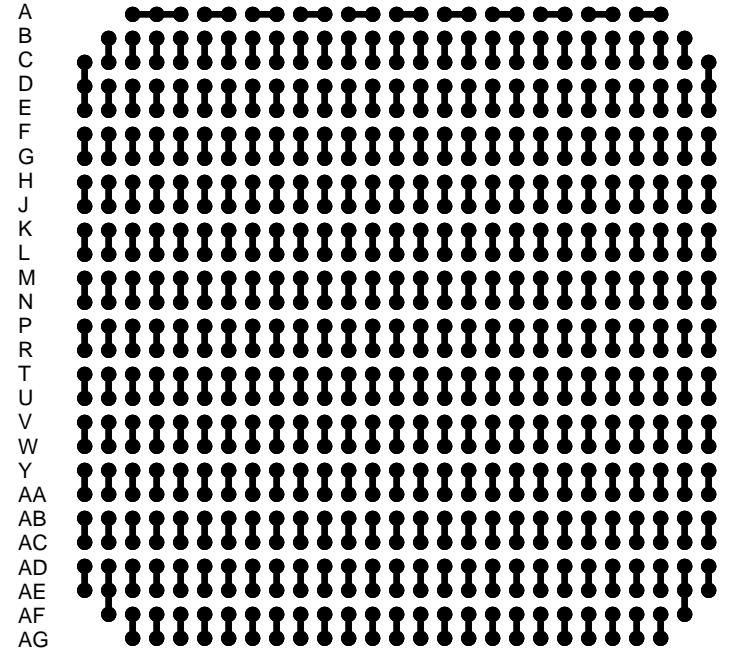
26 24 22 20 18 16 14 12 10 8 6 4 2  
27 25 23 21 19 17 15 13 11 9 7 5 3 1



A  
B  
C  
D  
E  
F  
G  
H  
J  
K  
L  
M  
N  
P  
R  
T  
U  
V  
W  
Y  
AA  
AB  
AC  
AD  
AE  
AF  
AG

## BOTTOM X-RAY VIEWED FROM TOP

2 4 6 8 10 12 14 16 18 20 22 24 26  
1 3 5 7 9 11 13 15 17 19 21 23 25 27



A  
B  
C  
D  
E  
F  
G  
H  
J  
K  
L  
M  
N  
P  
R  
T  
U  
V  
W  
Y  
AA  
AB  
AC  
AD  
AE  
AF  
AG

**TopLine**<sup>®</sup>

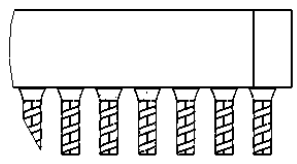
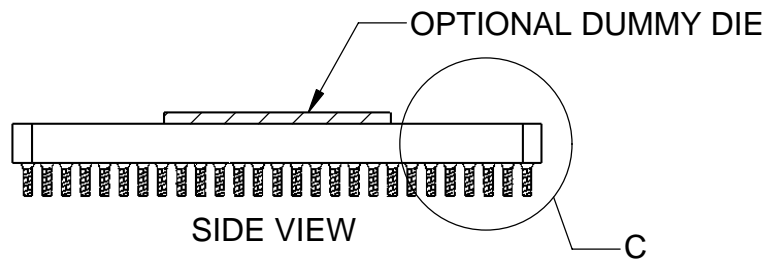
TITLE CCGA717T1.27-DC278  
DUMMY COLUMN GRID ARRAY

SCALE 2.5:1	SIZE A	DRAWING NO. 160100	REV A
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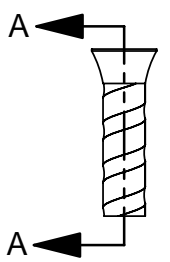
DO NOT SCALE DRAWING

SHEET 2 OF 3

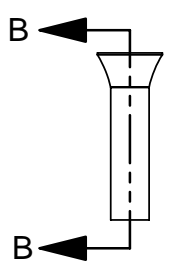
SOLDER PIN OPTIONS  
SECTION DETAIL



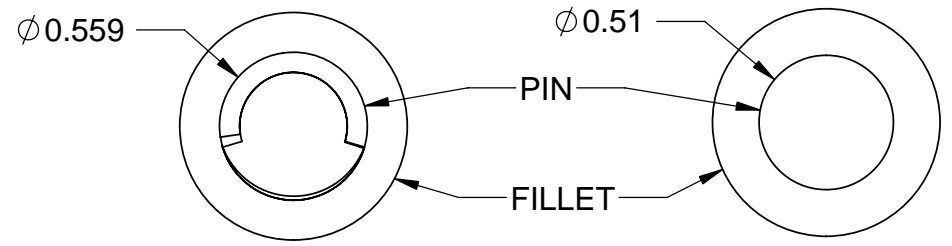
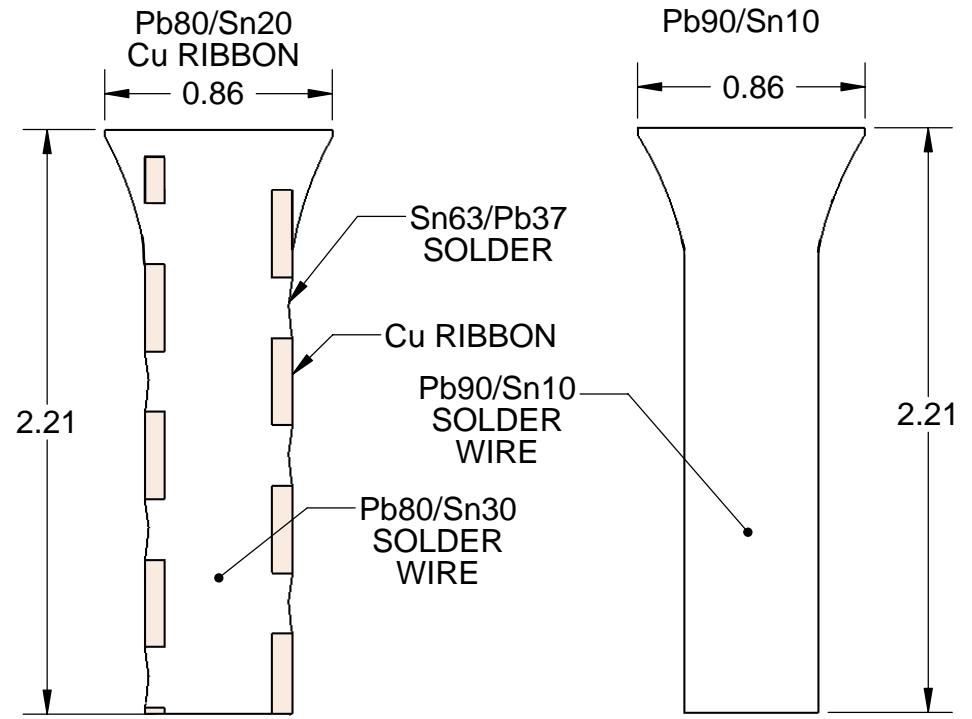
DETAIL C  
SCALE 4 : 1



Pb80/Sn20  
Cu RIBBON  
SCALE 10:1



Pb90/Sn10  
SCALE 10:1



PART NUMBER OPTIONS		
PART NUMBER	DUMMY DIE	SOLDERPIN
CCGA717T1.27-DC278	NO	Pb80/Sn20 Cu RIBBON
CCGA717T1.27-DC278D	YES	
CCGA717T1.27A-DC278	NO	Pb90/Sn10
CCGA717T1.27A-DC278D	YES	

**TopLine**<sup>®</sup>

TITLE CCGA717T1.27-DC278  
DUMMY COLUMN GRID ARRAY

SCALE 2:1	SIZE A	DRAWING NO. 160100	REV A
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DO NOT SCALE DRAWING

SHEET 3 OF 3