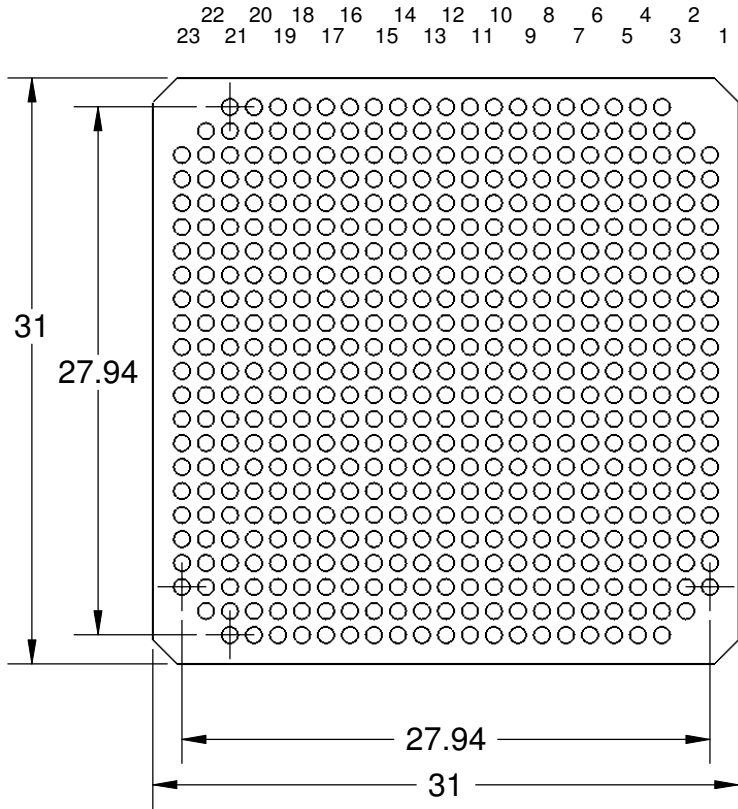
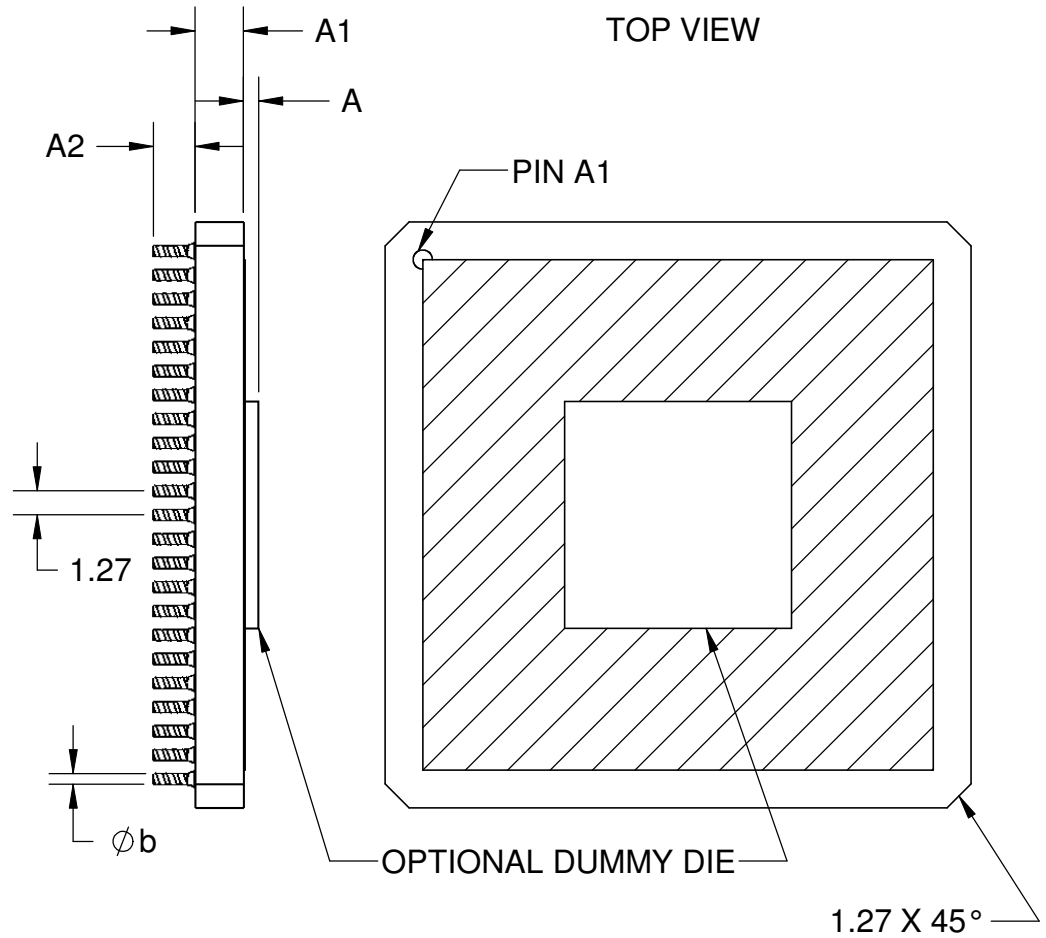


REVISIONS				
DATE	REV.	ECO	DESCRIPTION	APPROVED

BOTTOM VIEW



TOP VIEW



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

DIMENSIONS			
SYMBOL	MIN.	NOM.	MAX.
A	2.30	3.00	3.30
A <sub>1</sub>	2.30	2.56	2.82
A <sub>2</sub>	2.10	2.20	2.30
∅b	0.51	0.54	0.57
DIE	OPTIONAL	10X10	12X12

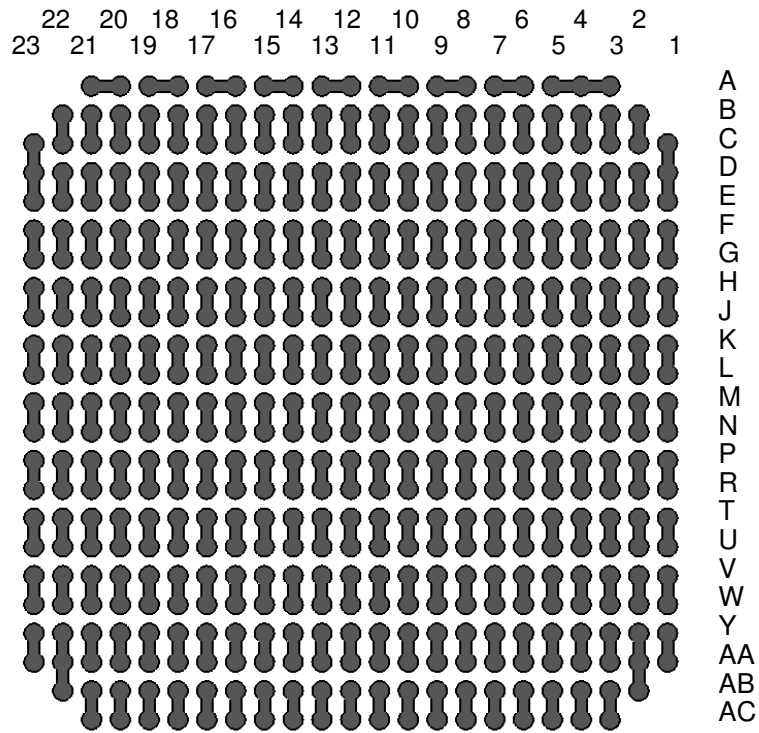
Notes: (Unless Otherwise Specified).  
1) DIMENSIONS ARE IN MM.

PART NUMBER OPTIONS		
PART NUMBER	DUMMY DIE	SOLDER PIN
CCGA517T1.27-DC237	NO	Pb80/Sn20 Cu RIBBON
CCGA517T1.27A-DC237D	YES	
CCGA517T1.27A-DC237	NO	Pb90/Sn10
CCGA517T1.27A-DC237D	YES	

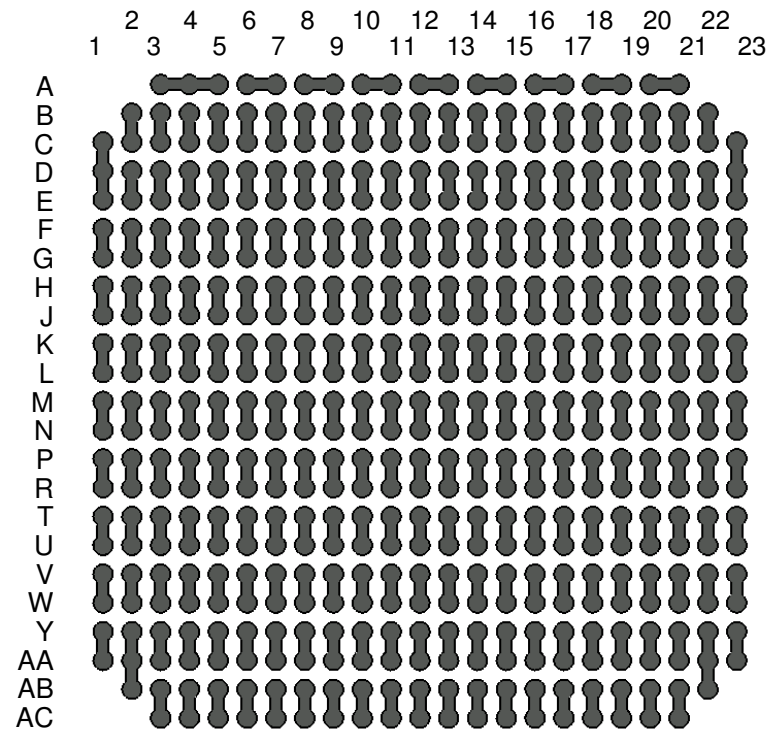
TOLERANCE UNLESS NOTED		APPROVALS	DATE								
X.XX	+/- 0.01	DRAWN J. Hines	6/13/2010								
X.XXX	+/- 0.005										
X.XXXX	+/- 0.0005										
ANGLES	+/- 0.5°	ENG		TITLE	CCGA517T1.27-DC237 DUMMY COLUMN GRID ARRAY						
ALL DIMENSIONS IN		MFG		SCALE	2.5:1	SIZE	A	DRAWING NO.	160080	REV	A
<input type="checkbox"/> 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

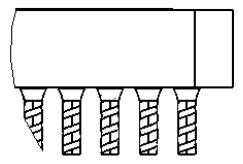
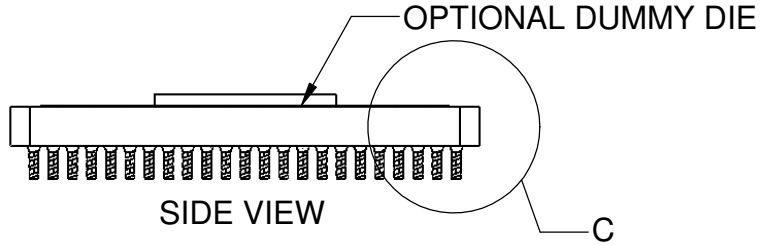


## BOTTOM X-RAY VIEWED FROM TOP

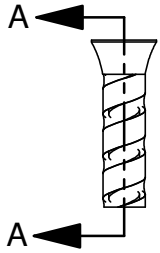


<b>TopLine</b> ®			
TITLE CCGA517T1.27-DC237 DUMMY COLUMN GRID ARRAY			
SCALE 3:1	SIZE A	DRAWING NO. 160080	REV A
DO NOT SCALE DRAWING		SHEET 2 OF 3	

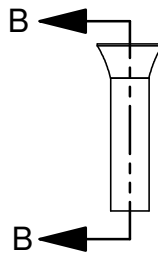
SOLDER PIN OPTIONS  
SECTION DETAIL



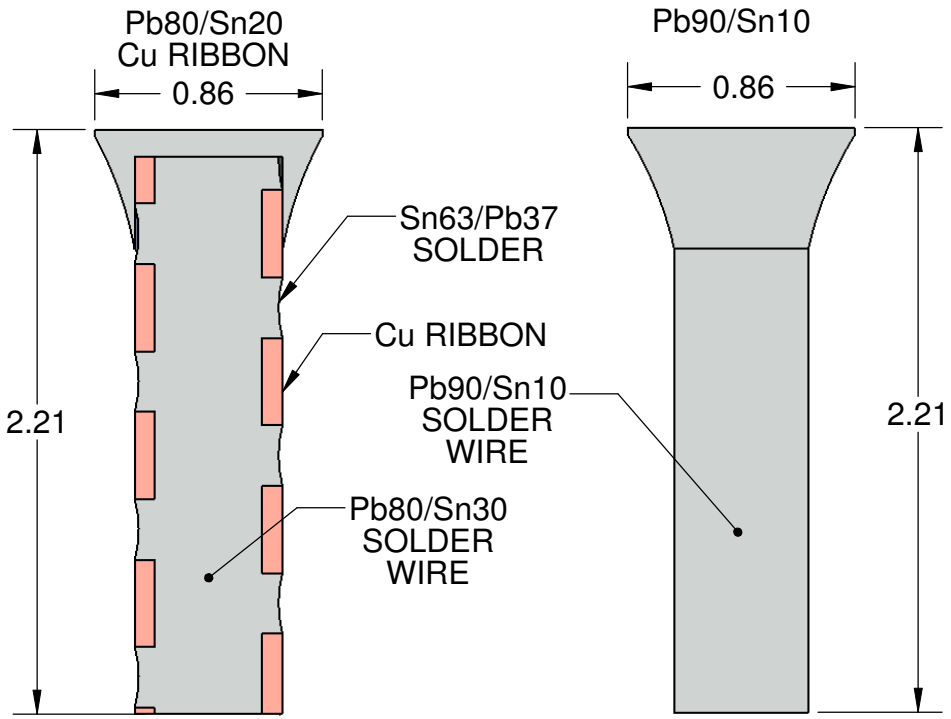
DETAIL C  
SCALE 4 : 1



Pb80/Sn20  
Cu RIBBON  
SCALE 10:1

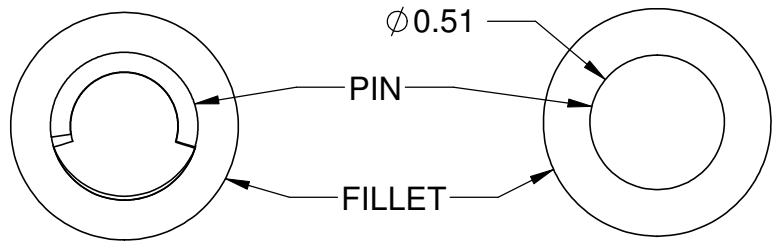


Pb90/Sn10  
SCALE 10:1



SECTION A-A  
SCALE 35 : 1

SECTION B-B  
SCALE 35 : 1



PART NUMBER OPTIONS		
PART NUMBER	DUMMY DIE	SOLDERPIN
CCGA517T1.27-DC237	NO	Pb80/Sn20 Cu RIBBON
CCGA517T1.27A-DC237	YES	
CCGA517T1.27A-DC237D	NO	Pb90/Sn10
CCGA517T1.27A-DC237D	YES	

**TopLine**®

TITLE CCGA517T1.27-DC237  
DUMMY COLUMN GRID ARRAY

SCALE 2:1	SIZE A	DRAWING NO. 160080	REV A
--------------	-----------	-----------------------	----------

DO NOT SCALE DRAWING SHEET 3 OF 3