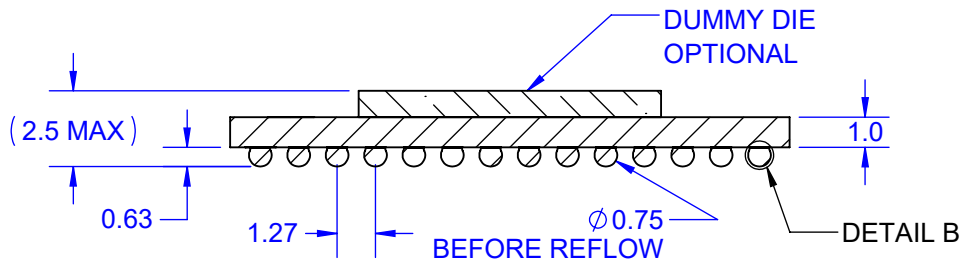
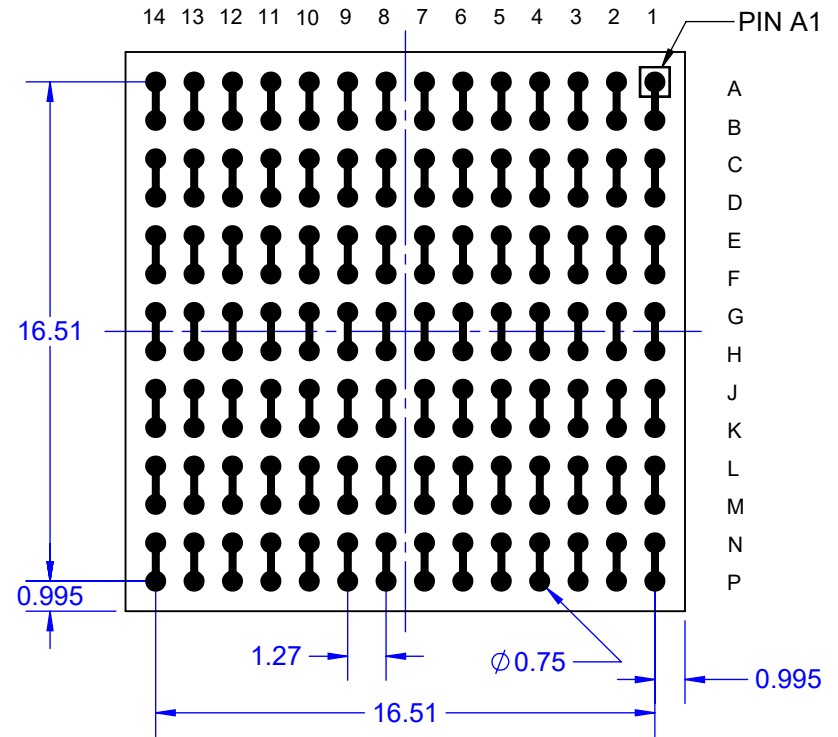
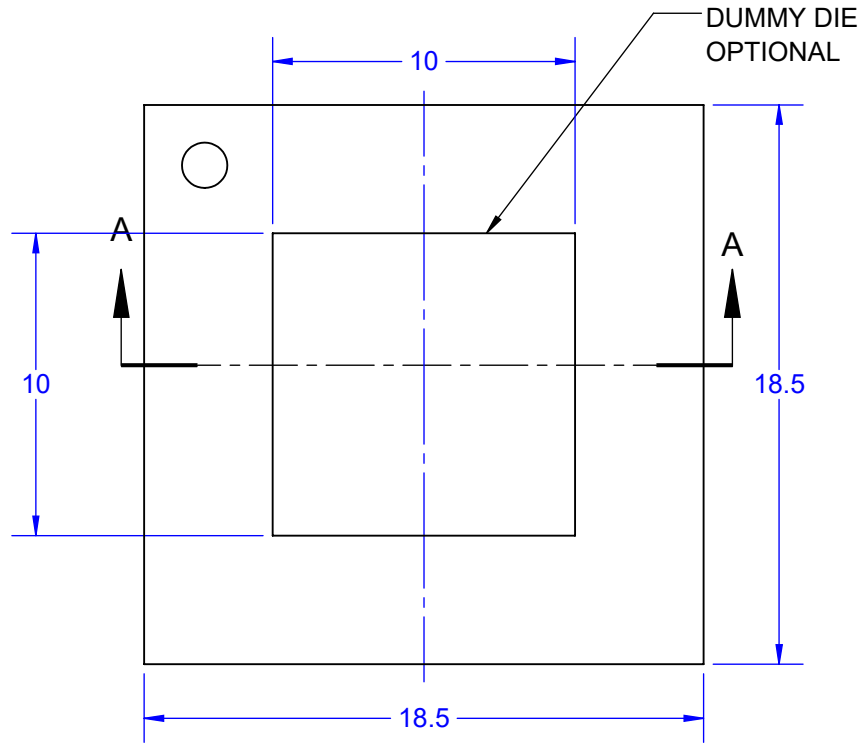


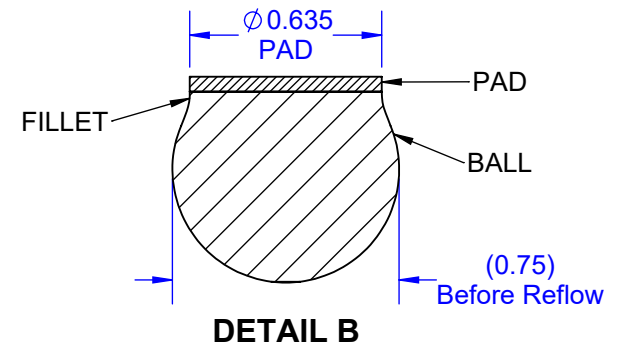
CBGA WITH DIE

TOP VIEW

BALL VIEW



SECTION A-A
SCALE 4 : 1



DETAIL B

Notes: (Unless Otherwise Specified).

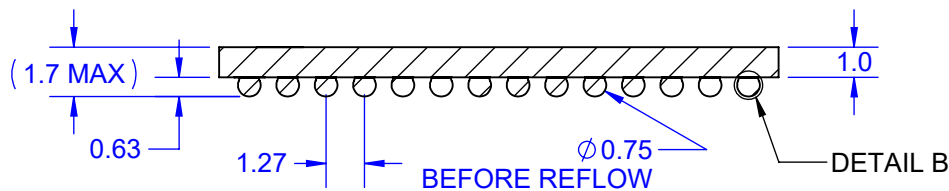
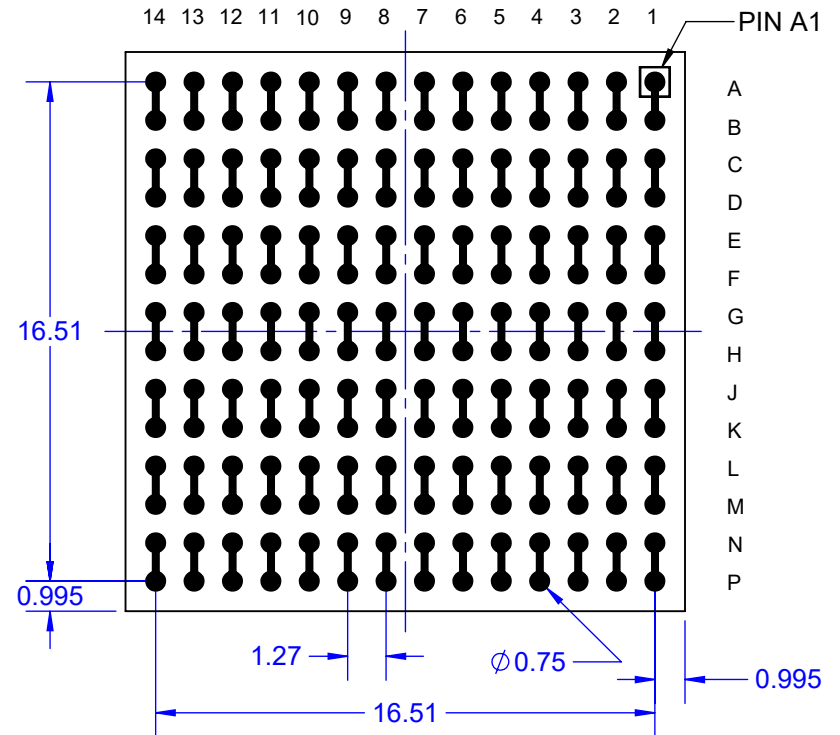
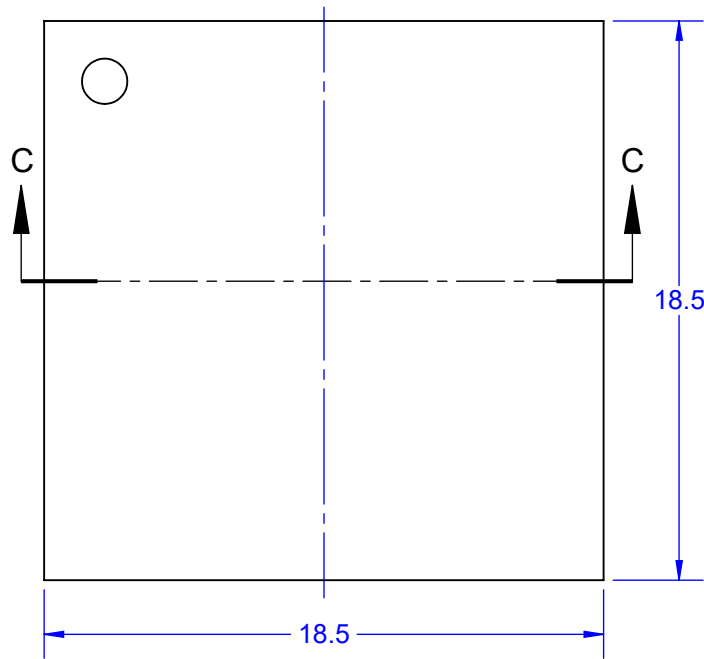
- 1) ALL DIMENSIONS ARE MM.
- 2) SOLDER BALL ALLOY: SEE PART NUMBER CONFIGURATION.
- 3) BALL DIAMETER (BEFORE REFLOW): 0.76mm (30 MIL).
- 4) SOLDER MASK OPENING: 0.635mm (25 MIL).
- 5) SUBSTRATE: ALUMINA CERAMIC.

APPROVALS	DATE	TopLine [®]			
DRAWN T. Au	07/30/2022				
ENG M. Hart	07/30/2022	TITLE CBGA196T1.27L-DC11 CERAMIC BALL GRID ARRAY			
MFG		SCALE	SIZE	DRAWING NO.	REV
QA		4:1	A	520117	A
CUST		DO NOT SCALE DRAWING			SHEET 1 OF 6
REVISED					

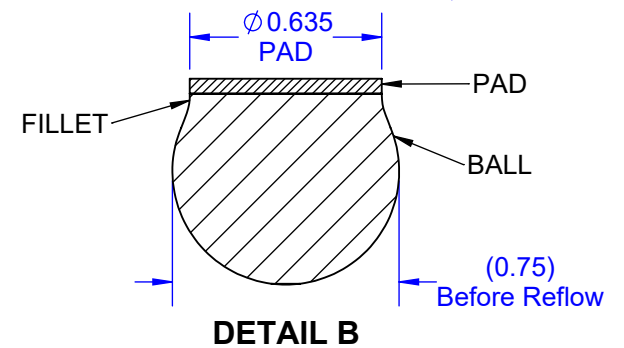
TOP VIEW

CBGA WITHOUT DIE

BALL VIEW



SECTION C-C
SCALE 4 : 1



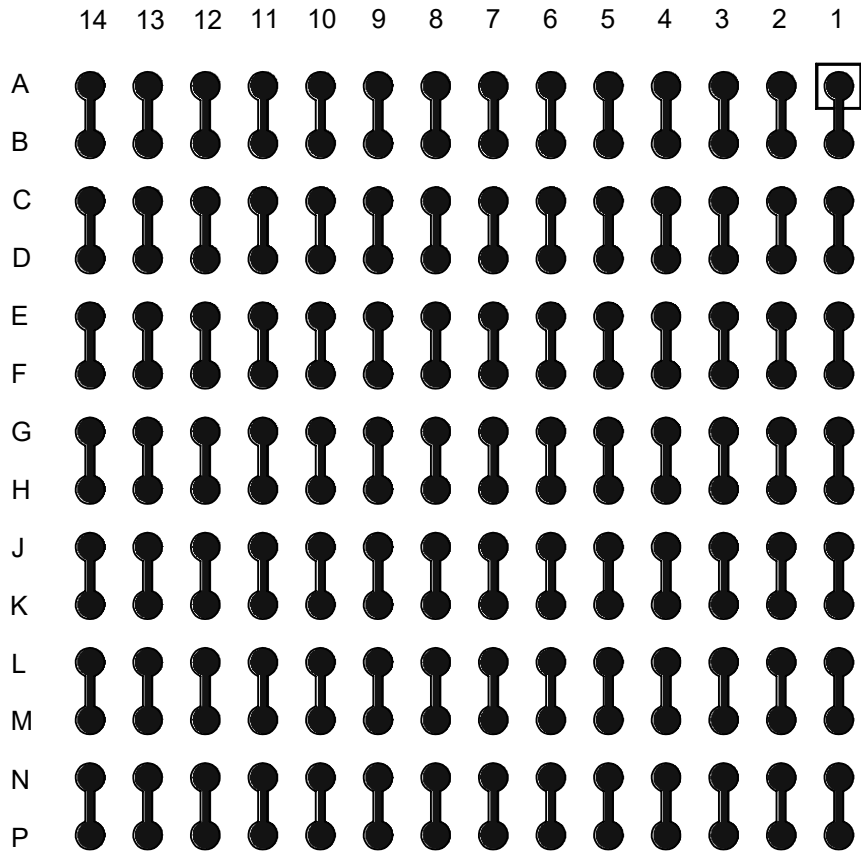
DETAIL B

Notes: (Unless Otherwise Specified).

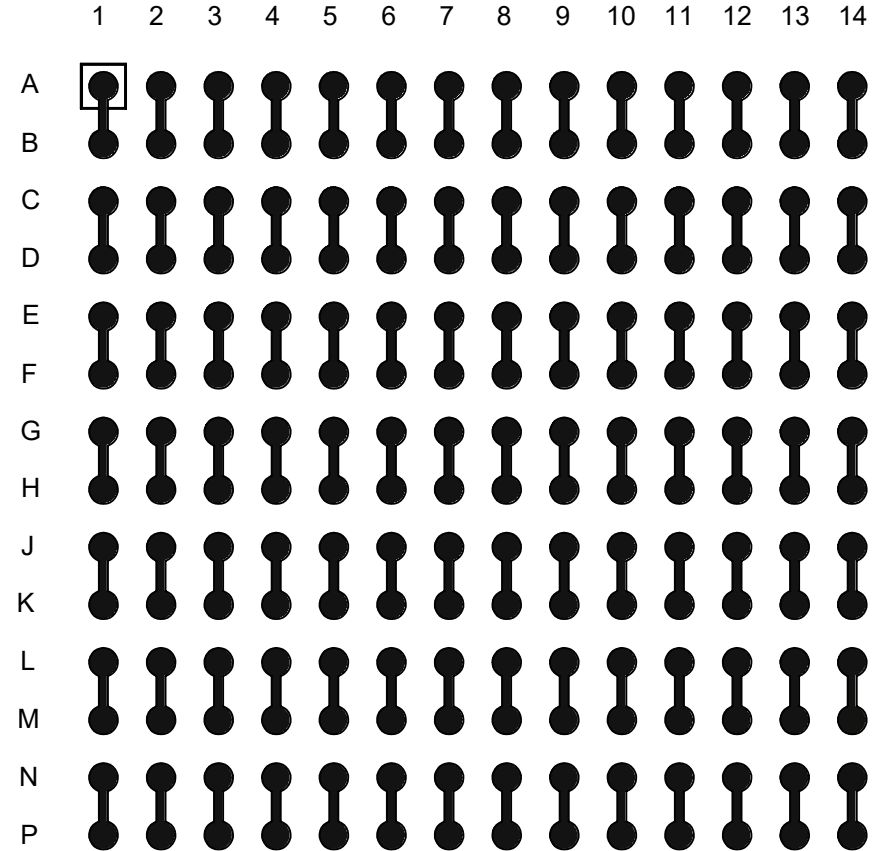
- 1) ALL DIMENSIONS ARE MM.
- 2) SOLDER BALL ALLOY: SEE PART NUMBER CONFIGURATION.
- 3) BALL DIAMETER (BEFORE REFLOW): 0.76mm (30 MIL).
- 4) SOLDER MASK OPENING: 0.635mm (25 MIL).
- 5) SUBSTRATE: ALUMINA CERAMIC.

APPROVALS	DATE	TopLine [®]			
DRAWN T. Au	07/30/2022				
ENG M. Hart	07/30/2022	TITLE CBGA196T1.27L-DC11 CERAMIC BALL GRID ARRAY			
MFG		SCALE	SIZE	DRAWING NO.	REV
QA		4:1	A	520117	A
CUST		DO NOT SCALE DRAWING			SHEET 2 OF 6
REVISED					

BALL VIEW



BOTTOM SIDE (TOP X-RAY VIEW)



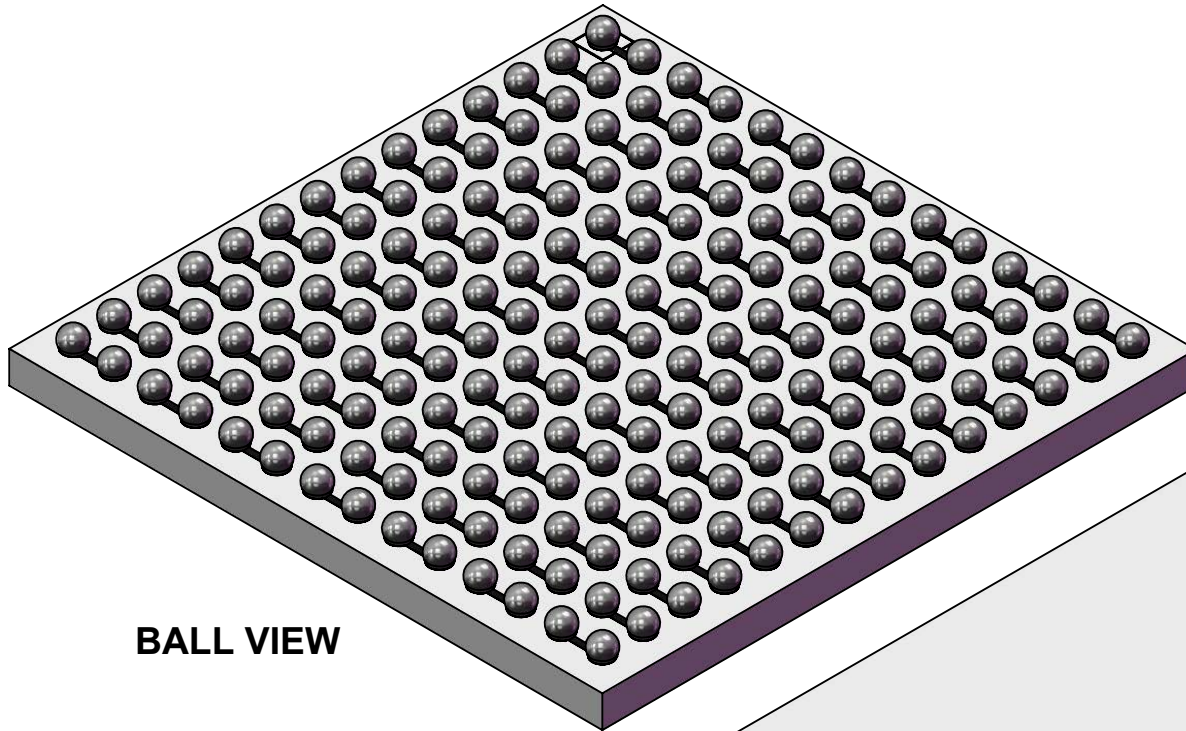
TopLine[®]

TITLE CBGA196T1.27L-DC11
CERAMIC BALL GRID ARRAY

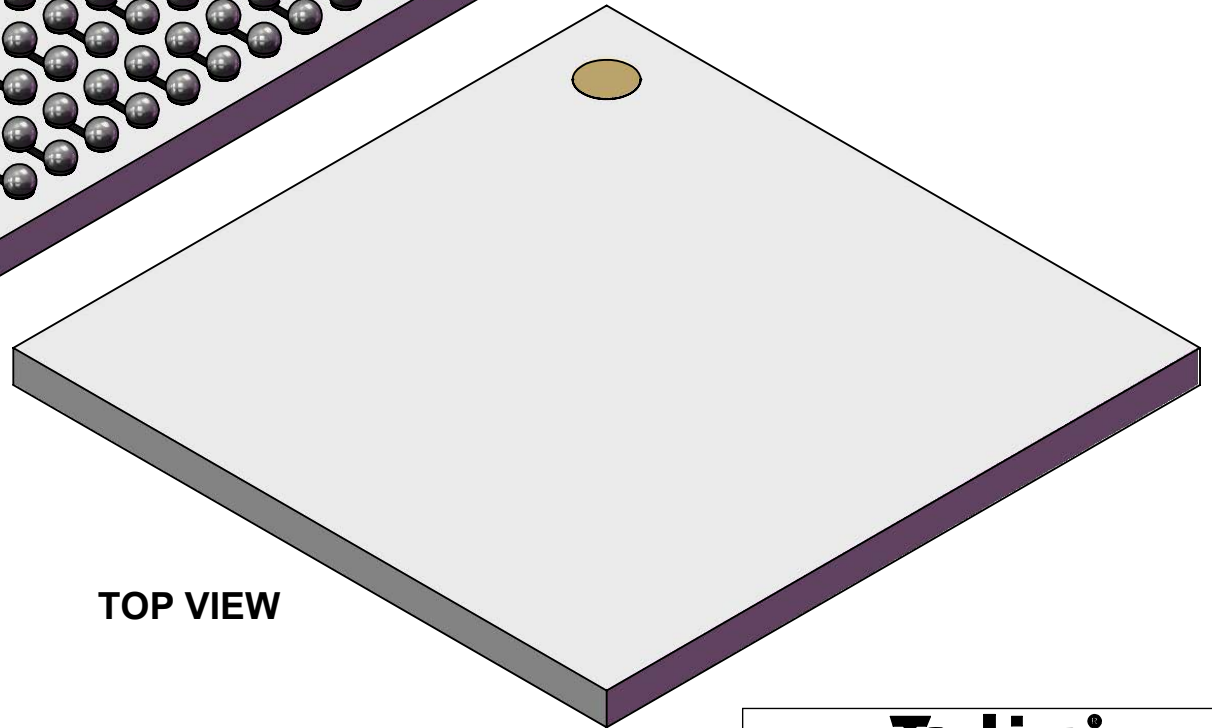
SCALE 6:1	SIZE A	DRAWING NO. 520117	REV A
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DO NOT SCALE DRAWING SHEET 3 OF 6

MODEL
CBGA WITH BALL
WITHOUT DIE



BALL VIEW



TOP VIEW

TopLine[®]

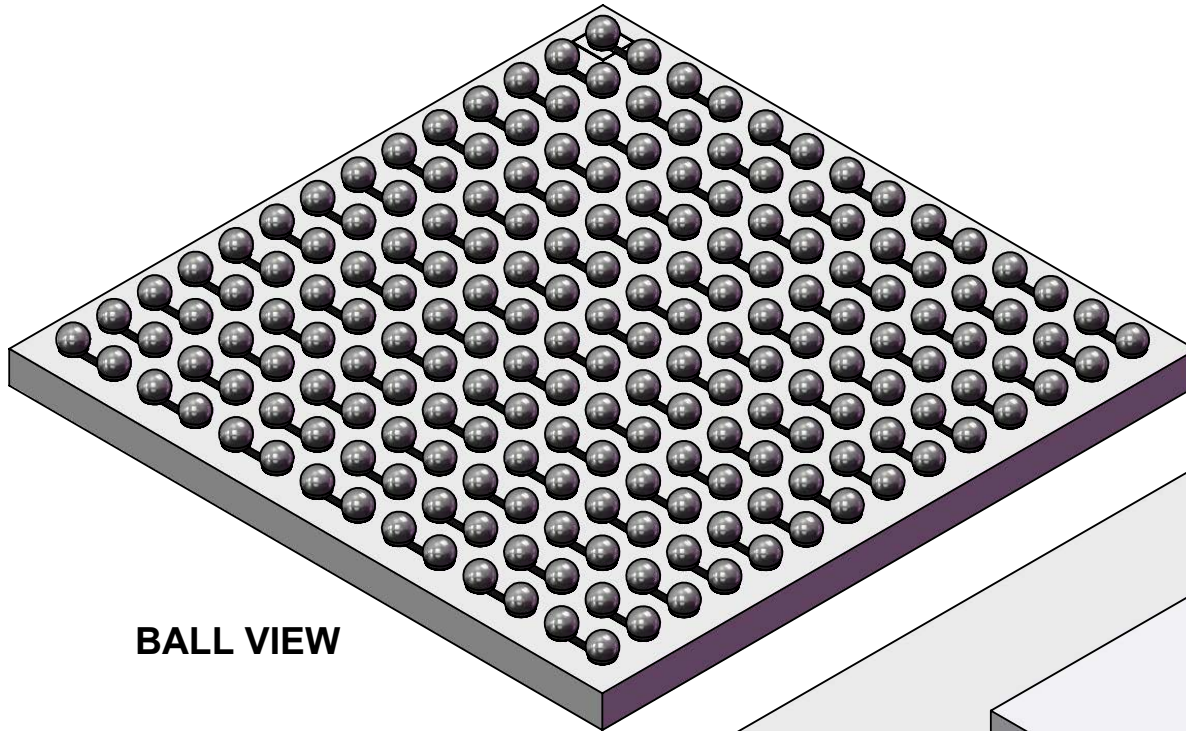
TITLE CBGA196T1.27L-DC11
CERAMIC BALL GRID ARRAY

SCALE	SIZE	DRAWING NO.	REV
6:1	A	520117	A

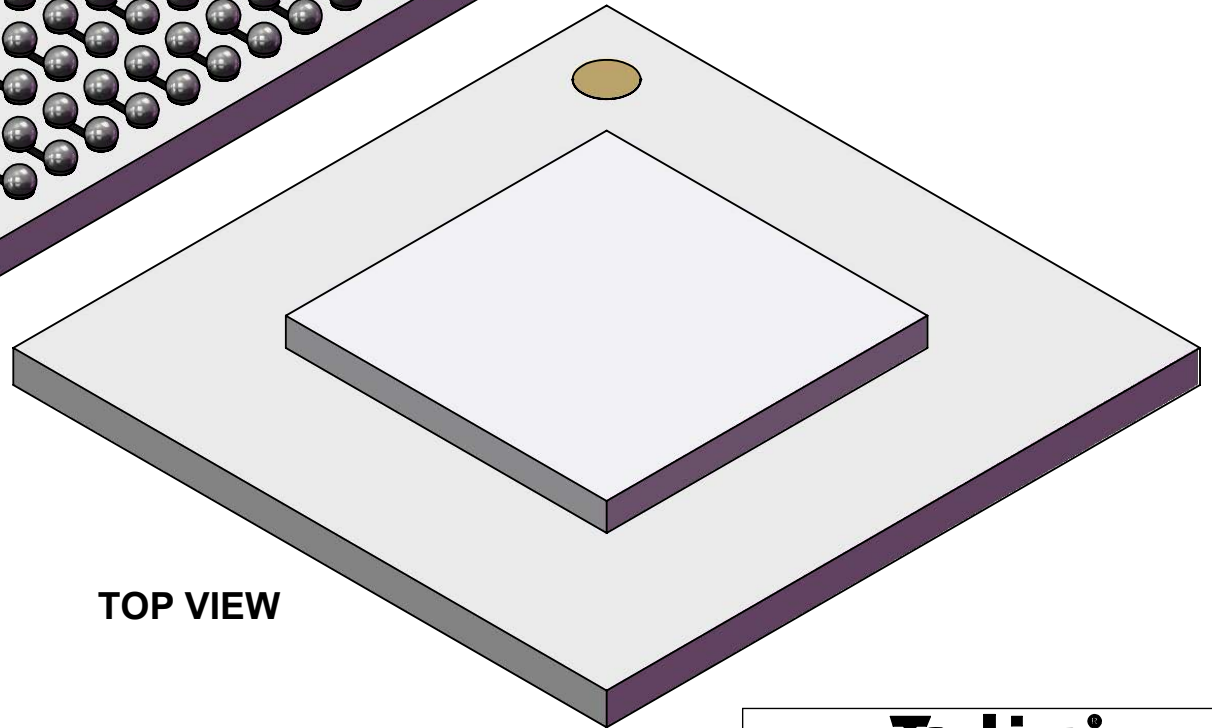
DO NOT SCALE DRAWING

SHEET 4 OF 6

**MODEL
CBGA WITH BALL
WITH DIE**



BALL VIEW



TOP VIEW

TopLine[®]

TITLE CBGA196T1.27L-DC11
CERAMIC BALL GRID ARRAY

SCALE 6:1	SIZE A	DRAWING NO. 520117	REV A
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DO NOT SCALE DRAWING

SHEET 5 OF 6

PART NUMBER SYSTEM

CBGA

SERIES

CBGA = CERAMIC
BALL GRID ARRAY

196

BALLS

NBR SOLDER
BALLS

T

TRAY

T = JEDEC

1.27

PITCH

1.27mm = 0.050"

X

ALLOY

L = Sn62/Pb36/Ag2.0
X = Sn63/Pb37
C = SAC305
Blank = Sn10/Pb90

DC11

DAISY CHAIN

DC11 = SEE PATTERN

D

DIE

D = DUMMY DIE
BLANK = WITHOUT DIE

PART NUMBER	BALL ALLOY	CODE	LEAD FREE	DIE
CBGA196T1.27-DC11	Sn10/Pb90	Sn10	NO	NO
CBGA196T1.27-DC11D	Sn10/Pb90	Sn10	NO	YES
CBGA196T1.27L-DC11	Sn62/Pb36/Ag2.0	Sn62	NO	NO
CBGA196T1.27L-DC11D	Sn62/Pb36/Ag2.0	Sn62	NO	YES
CBGA196T1.27X-DC11	Sn63/Pb37	Sn63	NO	NO
CBGA196T1.27X-DC11D	Sn63/Pb37	Sn63	NO	YES
CBGA196T1.27C-DC11	Sn96.5/Ag3.0/Cu0.5	SAC305	YES	NO
CBGA196T1.27C-DC11D	Sn96.5/Ag3.0/Cu0.5	SAC305	YES	YES

TopLine[®]			
TITLE CBGA196T1.27L-DC11 CERAMIC BALL GRID ARRAY			
SCALE NONE	SIZE A	DRAWING NO. 520117	REV A
DO NOT SCALE DRAWING			SHEET 6 OF 6