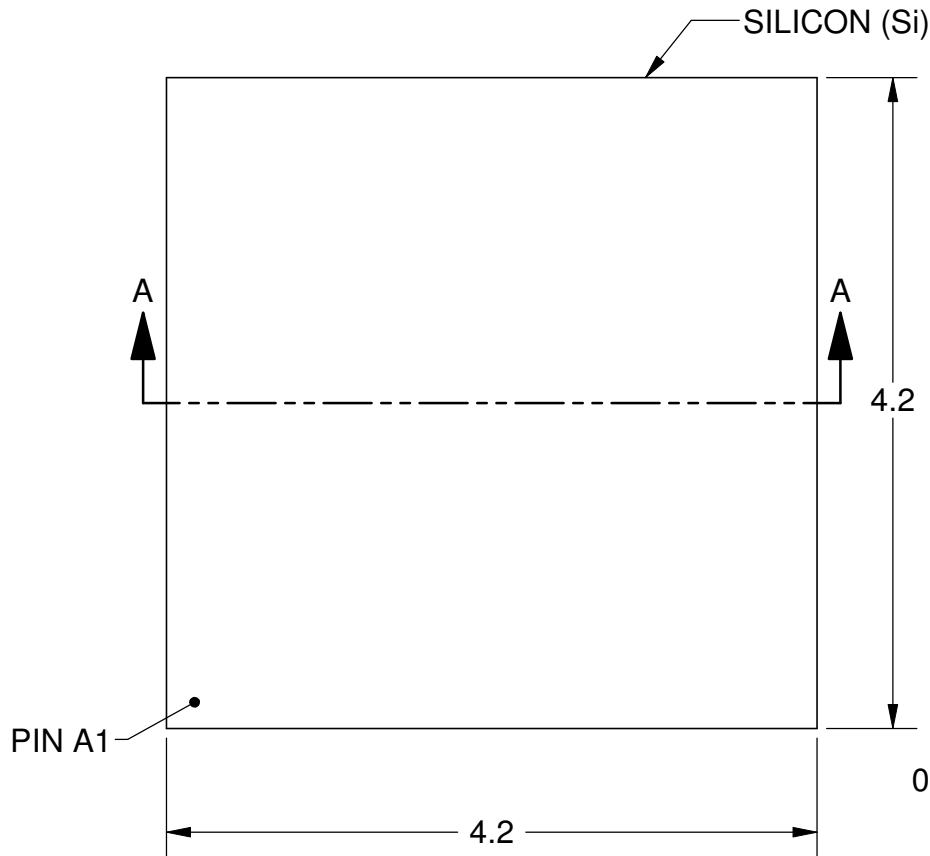
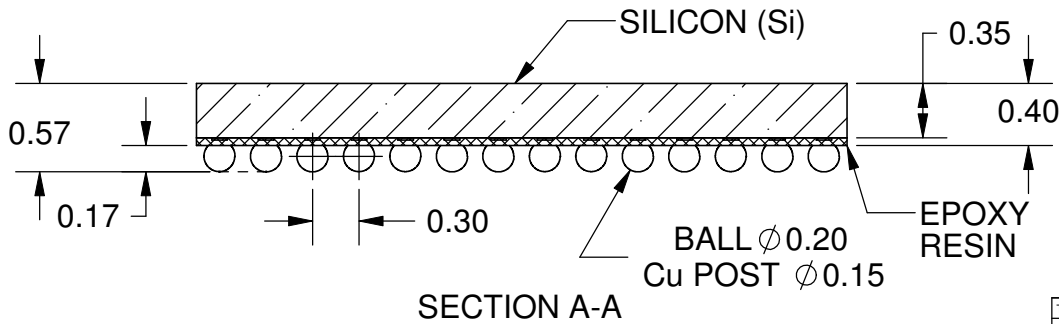
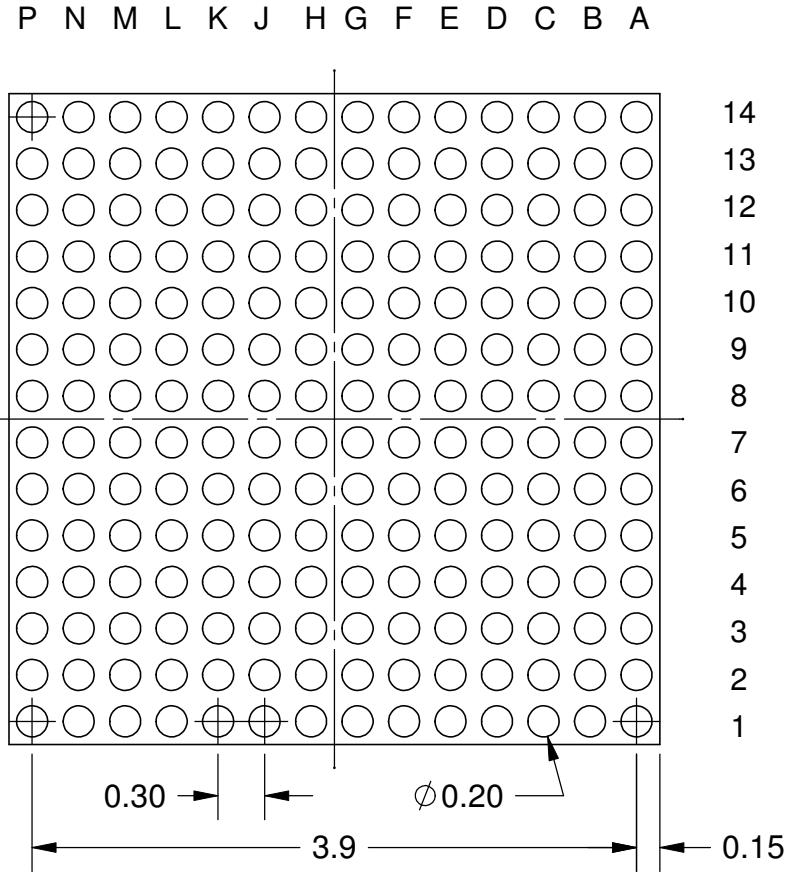


TOP VIEW



BALL VIEW



Notes: (Unless Otherwise Specified).

- 1) ALL DIMENSIONS ARE IN MM.
- 2) SOLDER BALL ALLOY:
STANDARD: SAC305 (Sn96.5/Ag3.0/Cu0.5).
SPECIAL: LF35 (Sn98.3/Ag1.2/Cu0.5).
- 3) BALL DIAMETER (BEFORE REFLOW): 0.20mm.
- 4) NON-SOLDER MASK DEFINED PAD.
- 5) PAD Cu DIAMETER: 0.15mm.
- 6) SUBSTRATE MATERIAL: Si (SILICON).
- 7) DAISY CHAIN PATTERN (SEE PAGE 2).

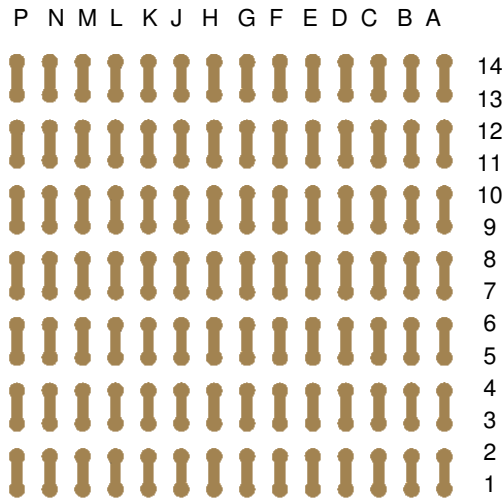
PART NUMBER TABLE

PART NUMBER	BALL ALLOY	Pb-FREE	RoHS	Si DIE
WLP196T.3C-DC148D	Sn96.5/Ag3.0/Cu0.5	YES	YES	YES
WLP196T.3C1-DC148D	Sn98.3/Ag1.2/Cu0.5	YES	YES	YES

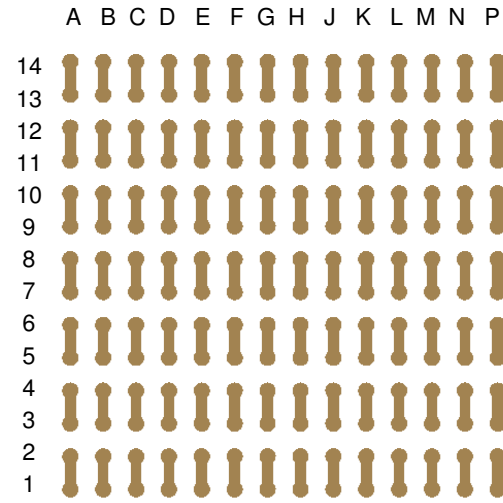
TOLERANCE UNLESS NOTED		APPROVALS		DATE		TopLine [®]			
X.X	+/- 0.3	DRAWN J. Hines		12/29/2010					
X.XX	+/- 0.03	ENG				SCALE 20.5:1			
X.XXX	+/- 0.003	MFG							
ANGLES +/- 0.5°		QA				DRAWING NO. 531482			
ALL DIMENSIONS IN		CUST							
<input type="checkbox"/> INCHES <input checked="" type="checkbox"/> MILLIMETERS		REVISED				DO NOT SCALE DRAWING			
THIRD ANGLE PROJECTION									

DAISY CHAIN PATTERN

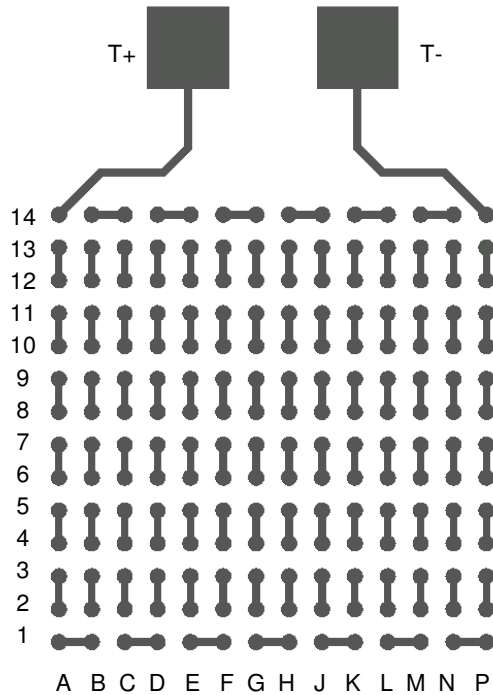
BALL VIEW



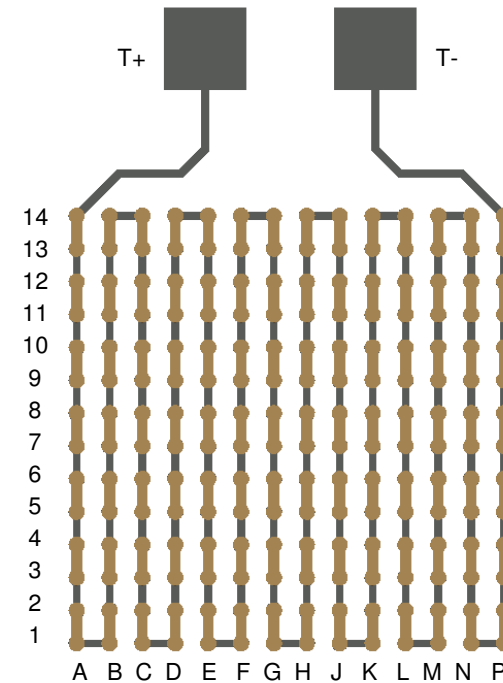
BOTTOM SIDE
(TOP X-RAY VIEW)



TOP VIEW



AFTER MOUNTING
TO TEST BOARD
(TOP X-RAY VIEW)



TEST VEHICLE BOARD

Notes:

- 1) PCB BOARD DIMENSIONS ARE PRESENTED ONLY AS A GUIDELINE. DESIGNERS SHOULD USE THEIR OWN EXPERIENCE WHEN DESIGNING PCB.
- 2) PCB Cu BALL PAD DIAMETER 0.15mm (5.9mil).
- 3) PCB DAISY CHAIN TRACING LINE WIDTH 0.07mm (3mil).

TopLine ®			
TITLE WLP196T.3C-DC148D 196-BALL P=0.3mm (TEG0306)			
SCALE	SIZE	DRAWING NO.	REV
14.5:1	A	531482	A
DO NOT SCALE DRAWING			SHEET 2 OF 2