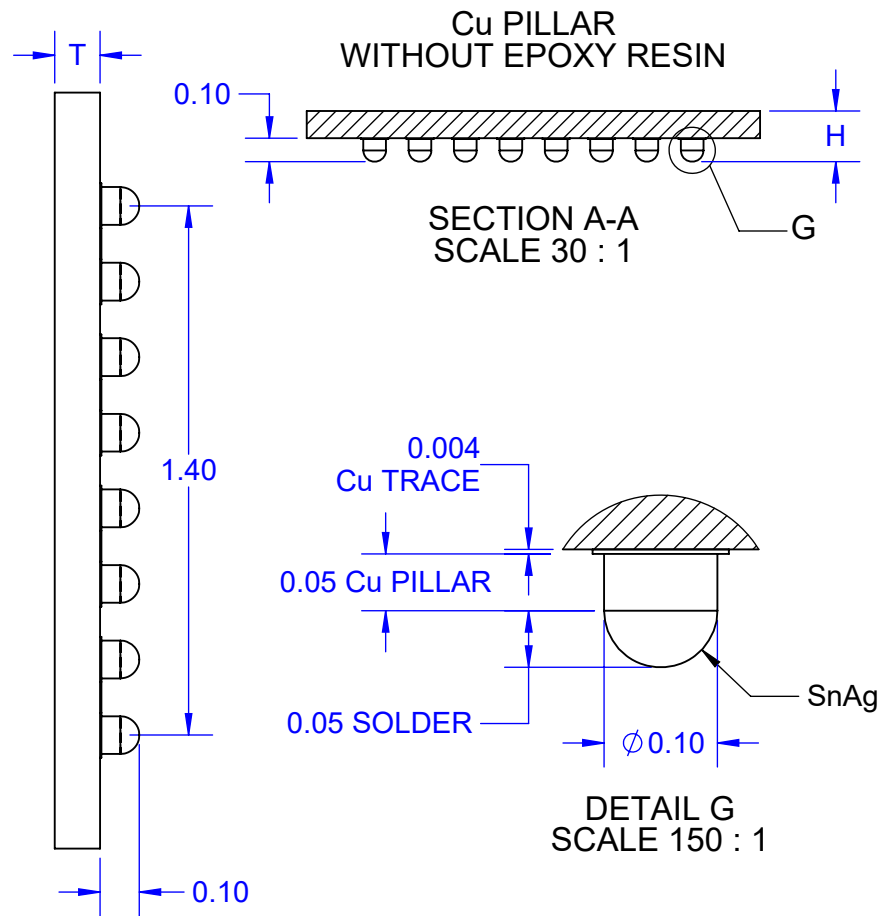
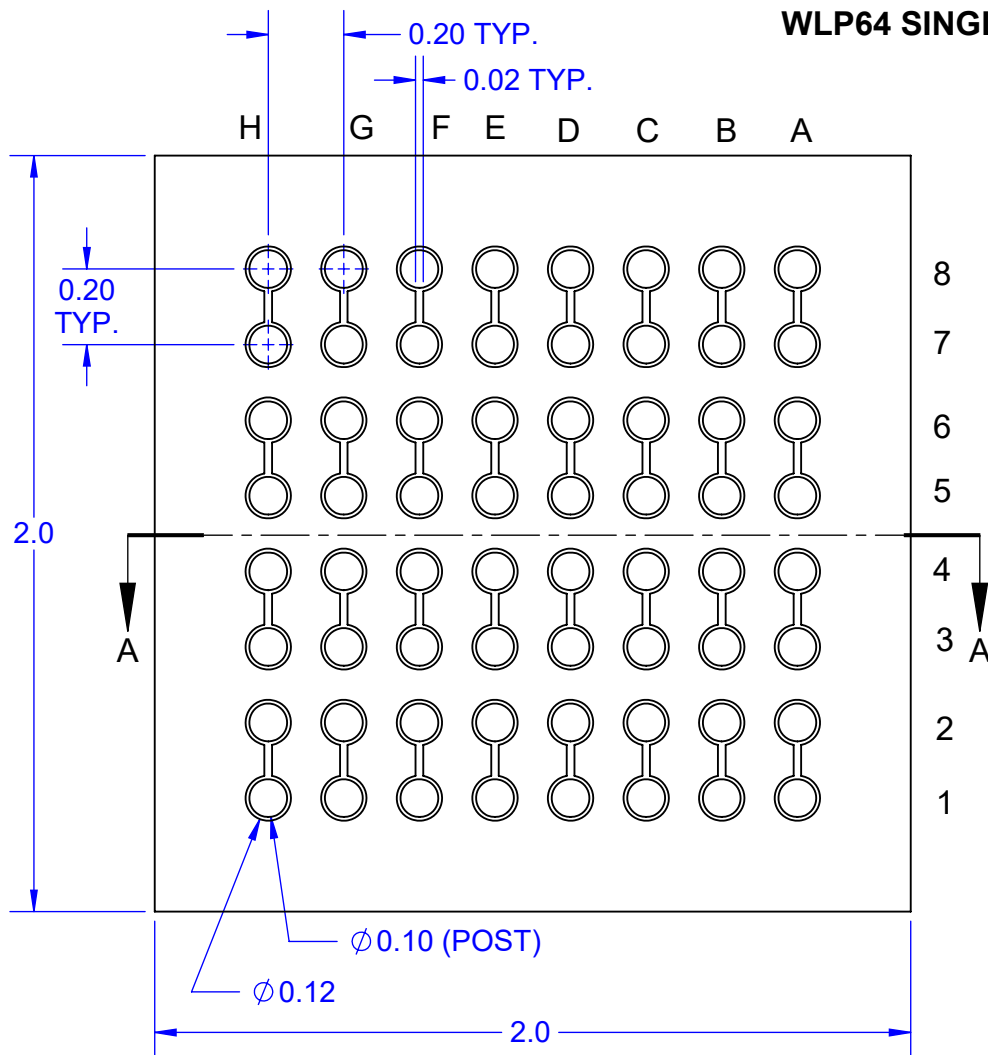


WLP64 SINGLE CHIP



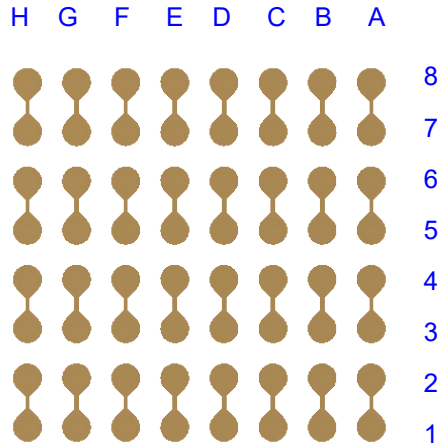
DIE THICKNESS OPTIONS	
THICKNESS Si DIE (T)	TOTAL THICKNESS WITH BUMPS (H)
0.200mm	0.300mm
0.360mm	0.460mm

NOTES:
1. DIMENSIONS MM UNLESS OTHERWISE STATED.

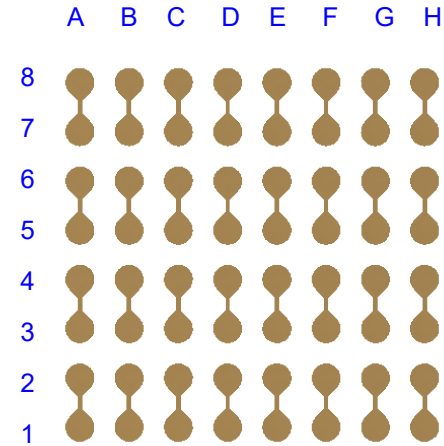
TopLine®			
TITLE		WLP64 PITCH 200µm DAISY CHAIN 2x2mm	
SCALE	SIZE	DRAWING NO.	REV
50:1	A	320880	A
DO NOT SCALE DRAWING			SHEET 1 OF 6

DAISY CHAIN PATTERN

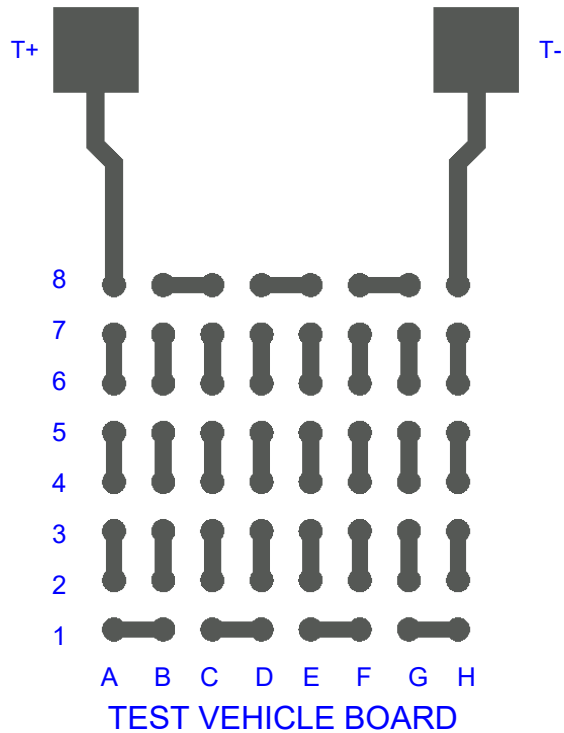
BALL VIEW



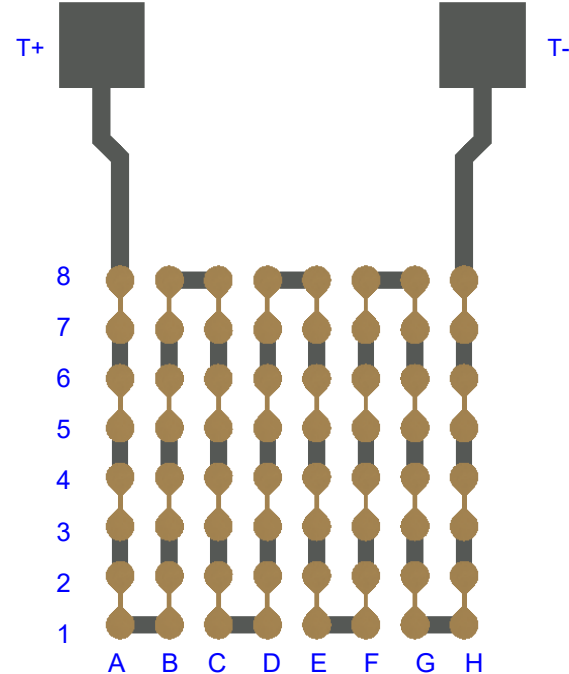
BOTTOM SIDE
(TOP X-RAY VIEW)



TOP VIEW



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

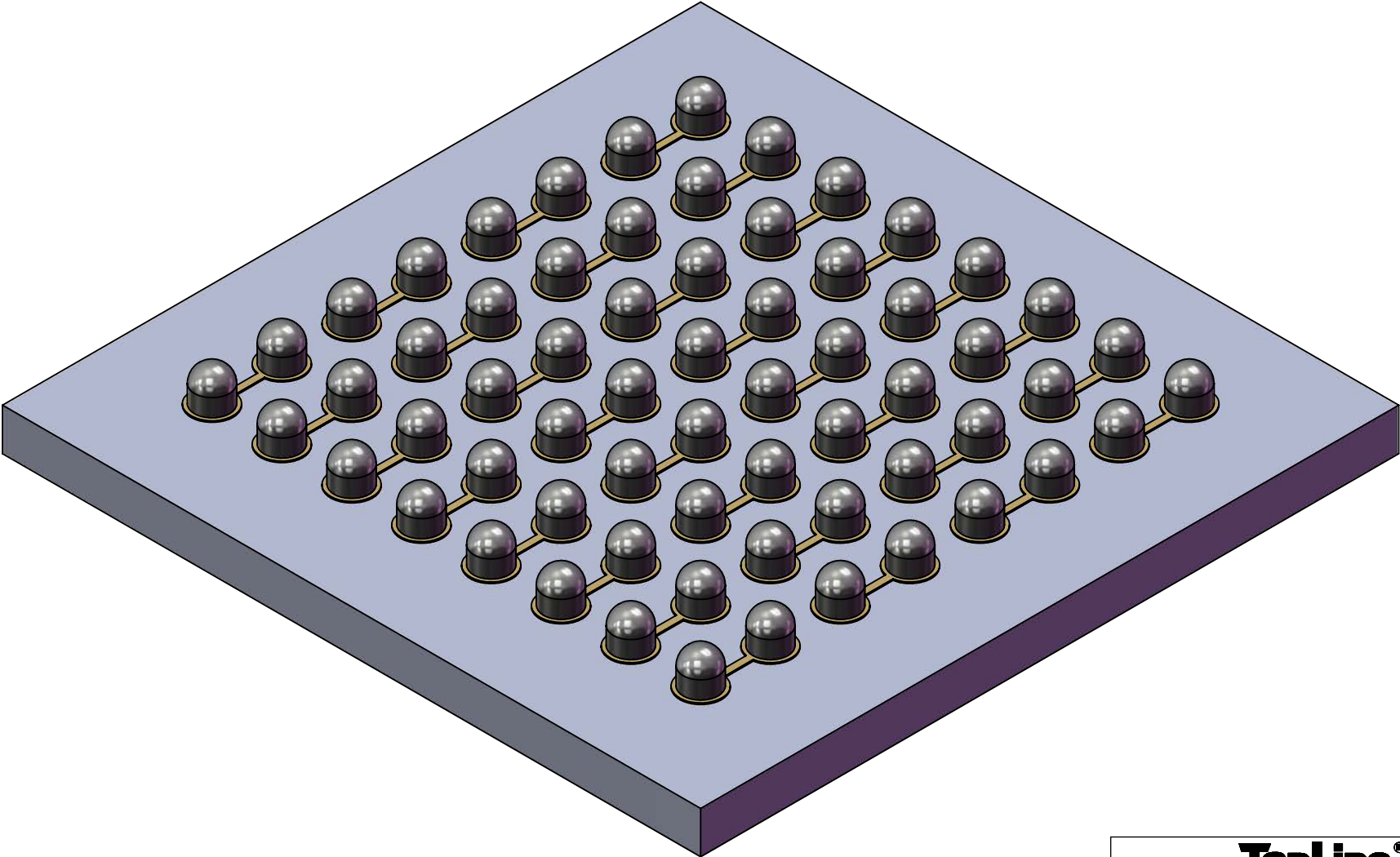


Notes:

- 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 0.10MM (3.9 MIL).
- 3) PCB DAISY CHAIN TRACING LINE WIDTH 0.07MM (2.8 MIL).

TopLine			
TITLE		WLP64 PITCH 200µm DAISY CHAIN 2x2mm	
SCALE	SIZE	DRAWING NO.	REV
32.5:1	A	320880	A
DO NOT SCALE DRAWING			SHEET 2 OF 6

MODEL BUMP VIEW



TopLine[®]

TITLE WLP64 PITCH 200µm
DAISY CHAIN 2x2mm

SCALE 35:1	SIZE A	DRAWING NO. 320880	REV A
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DO NOT SCALE DRAWING SHEET 3 OF 6

PART NUMBERING SYSTEM

WLP

64

T

.2

P

- DC088

D

2

SERIES

WLP = WAFER
LEVEL
PRODUCT

NUMBER OF PADS

<u>PADS</u>	<u>SIZE</u>
64	2.0x2.0mm
256	4.0x4.0mm
576	6.0x6.0mm
1024	8.0x8.0mm
1600	10x10mm
2304	12x12mm
3136	14x14mm
4096	16x16mm
999	Full Wafer

PAD PITCH

.2 = 0.2mm
200µm

PACKAGING

<u>CODE</u>	<u>PACKAGE</u>
W =	2" TRAY
T =	4" TRAY
E =	TAPE & REEL
G =	GEL PACK
U =	UV TAPE & RING
X =	UNDICED WAFER

BUMPS

P = Cu Pillar
SnAg Cap

PAD PITCH

DAISY CHAIN DRAWING

DIE THICKNESS

<u>CODE</u>	<u>THICKNESS</u>
2 =	200µm
3 =	360µm

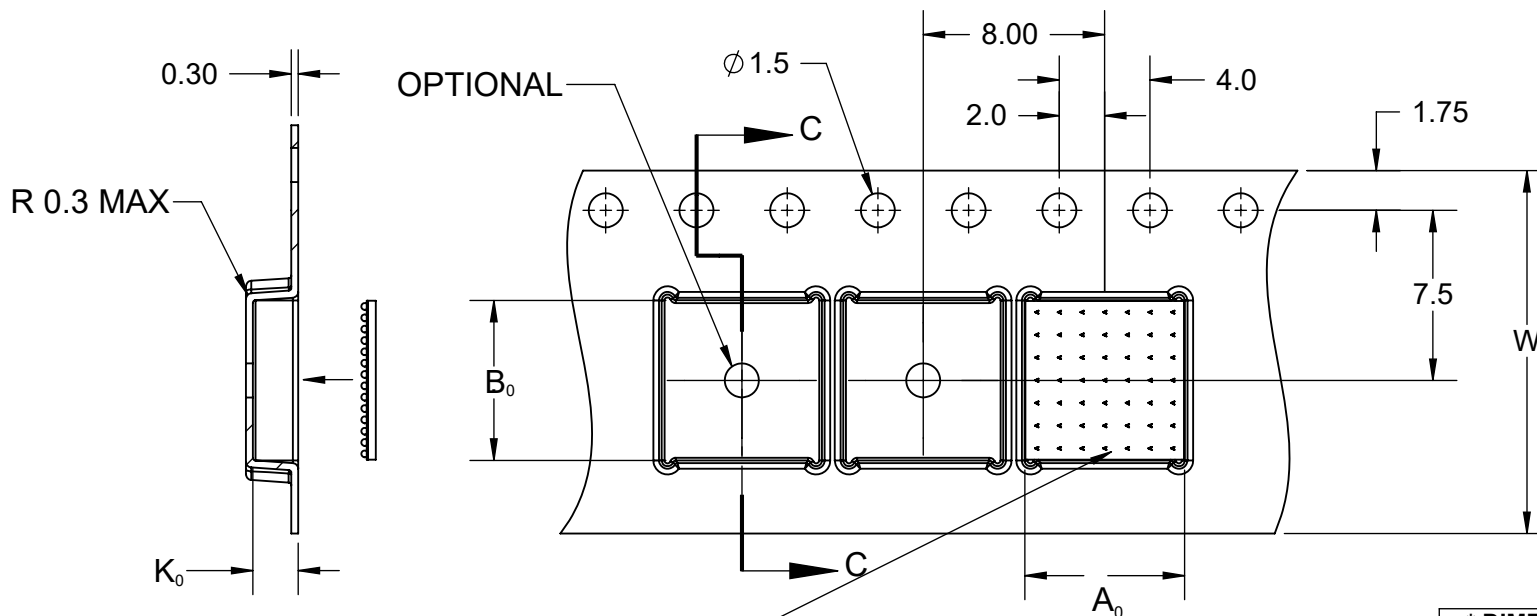
PADS

D = FACE DOWN

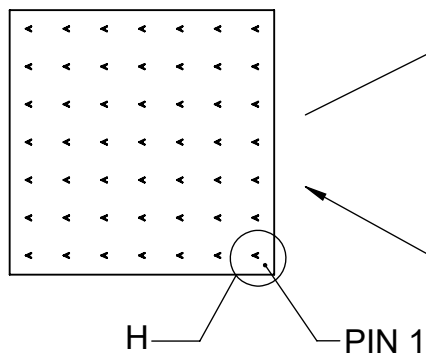


TITLE			
WLP64 PITCH 200µm DAISY CHAIN 2x2mm			
SCALE	SIZE	DRAWING NO.	REV
NONE	A	320880	A
DO NOT SCALE DRAWING			SHEET 4 OF 6

EXAMPLE OF CARRIER TYPE

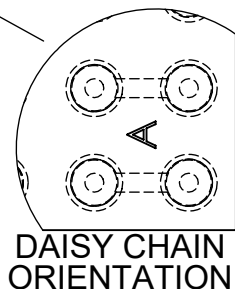


SECTION C-C
SCALE 3 : 1



* MARKING CODE	
PITCH	LETTER
0.2MM	M
0.3MM	A
0.35MM	Y
0.4MM	F
0.5MM	P

* SUBJECT TO CHANGE



DETAIL H
SCALE 25 : 1

* DIMENSION TABLE (MM)	
A ₀ =	~ 2.2
B ₀ =	~ 2.2
K ₀ =	0.6 ~ 1.0
W =	8 ~ 12

* TAPE DIMENSION SUBJECT TO CHANGE

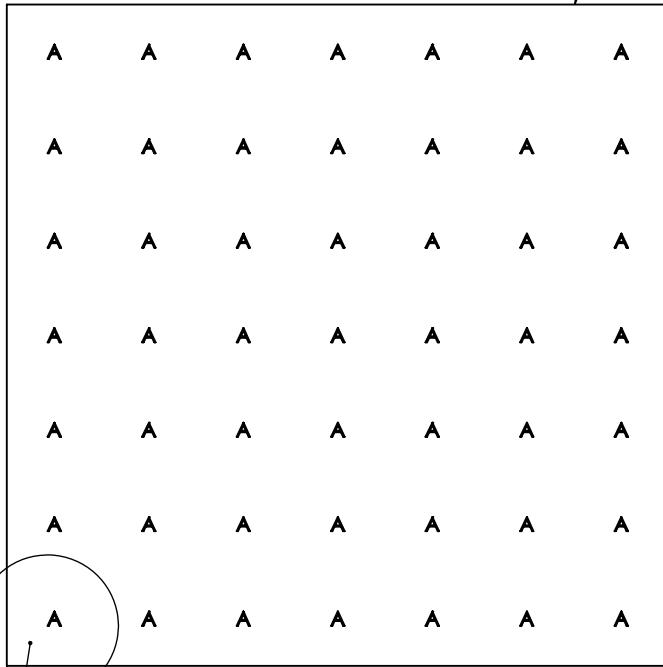
Notes: (Unless Otherwise Specified).

- 1) CARRIER TAPE SHOWN AS EXAMPLE ONLY. ACTUAL TAPE DIMENSIONS ARE DEPENDENT ON X/Y/Z SIZE OF WLP.
- 2) SURFACE OF WLP IS MARKED WITH SINGLE LETTER REPEATED MULTIPLE TIMES ACROSS TOP SURFACE.
- 3) LETTERS INDICATE ORIENTATION OF PIN A1.
- 4) 200μm THIN DIE ARE UNMARKED.

TITLE		WLP ORIENTATION TAPE AND REEL	
SCALE	SIZE	DRAWING NO.	REV
NONE	A	320880	A
DO NOT SCALE DRAWING			SHEET 5 OF 6

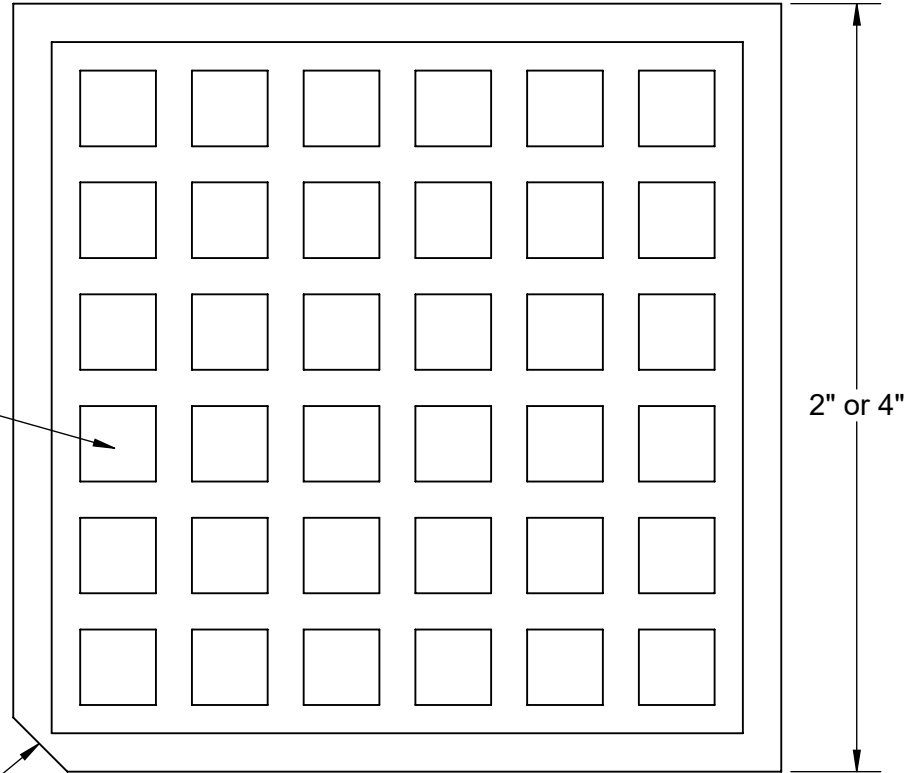
TOP VIEW

SILICON (Si)



EXAMPLE ORIENTATION OF MARKINGS ON WLP

TYPICAL WAFFLE PACK IC CHIP TRAY
SCALE = 2:1



NUMBER OF POCKETS WILL CHANGE BASED ON THE SIZE OF THE WLP CHIP

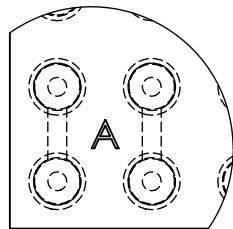
PIN 1 CHAMFER

Notes: (Unless Otherwise Specified).

- 1) EXAMPLE OF TOP SIDE LASER MARKING.
- 2) ORIENT LETTERS FOR LOCATION OF PIN A1 CORNER.
- 3) ALLOWABLE LETTER MARKING: A, F, T, M, L, Y, AND P.
- 4) SINGLE LETTER IS REPEATED MULTIPLE TIMES ACROSS TOP SIDE.
- 5) DAISY CHAIN IS HIDDEN UNDER RESIN ON BALL SIZE.
- 6) TOP SIDE DOES NOT HAVE A DOT FOR LOCATION OF PIN A1.
- 7) 200µm THIN DIE ARE UNMARKED.

* MARKING CODE	
PITCH	LETTER
0.2MM	M
0.3MM	A
0.35MM	Y
0.4MM	F
0.5MM	P

* SUBJECT TO CHANGE



DAISY CHAIN ORIENTATION

DETAIL A
SCALE 25 : 1

TopLine®

TITLE				WLP ORIENTATION WAFFLE PACK			
SCALE	SIZE	DRAWING NO.		REV			
NONE	A	320880		A			
DO NOT SCALE DRAWING						SHEET 6 OF 6	