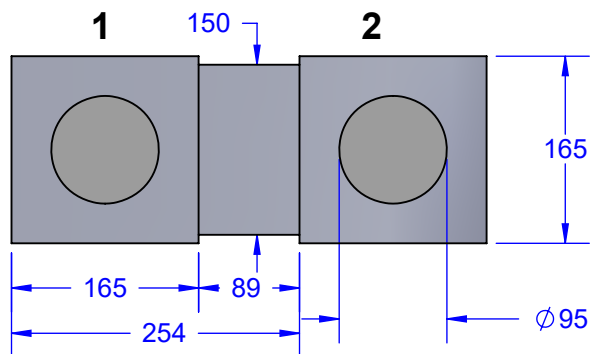
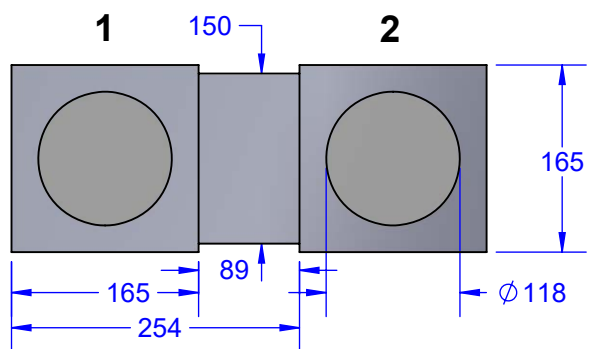


## WIRE BONDING PAD

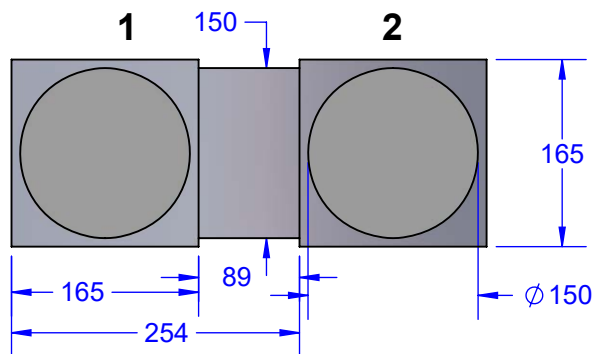
DETAIL 1



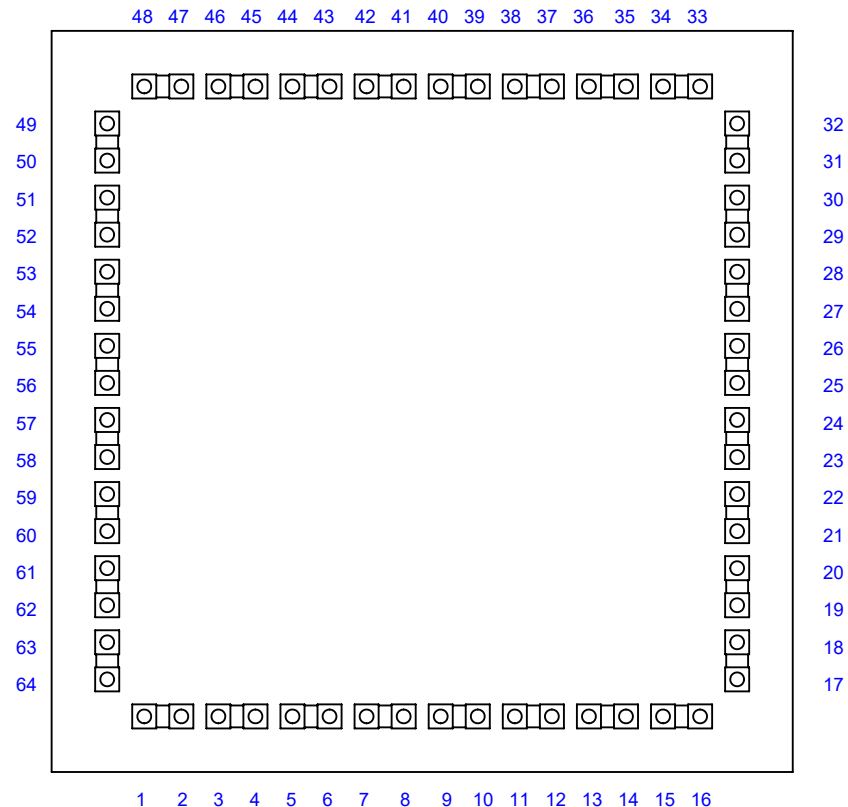
DETAIL 2



DETAIL 3



## DAISY CHAIN PATTERN PAD VIEW



### NOTES:

- 1) DIMENSIONS: MICRONS ( $\mu\text{m}$ ) OR AS SPECIFIED.
- 2) THICKNESS: 635 $\mu\text{m}$  (OTHER AVAILABLE).
- 3) PASSIVATION: NITRIDE 8KA THICKNESS (.8 $\mu\text{m}$ ).
- 4) PACKAGING: STANDARD WAFFLE PACK (TRAY).
- 5) PAD METAL THICKNESS: 9KA (.9 $\mu\text{m}$ ).

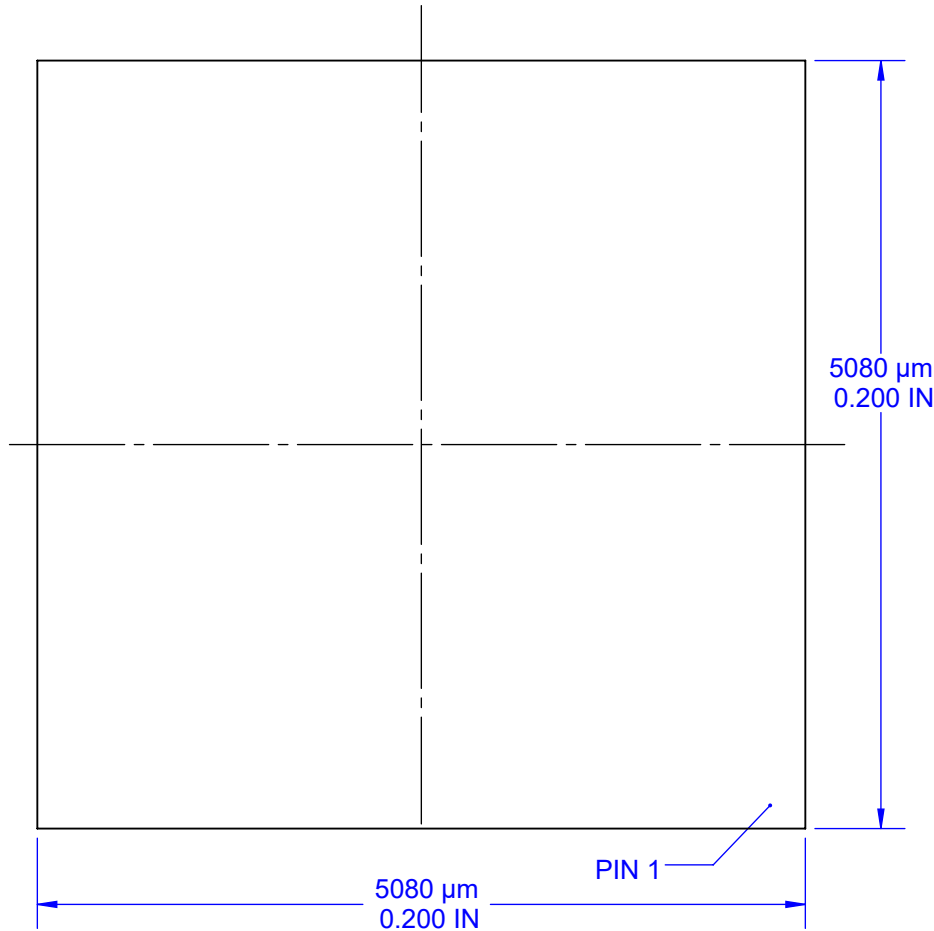
### PART NUMBER TABLE

| PART NUMBER    | DIE SIZE | DIE PER WAFER | BOND SITE                    | DETAIL |
|----------------|----------|---------------|------------------------------|--------|
| FCN64K5A254-DC | 5.08mm   | 340           | $\varnothing 95\mu\text{m}$  | 1      |
| FCN64N5A254-DC | 5.08mm   | 340           | $\varnothing 118\mu\text{m}$ | 2      |
| FCN64U5A254-DC | 5.08mm   | 340           | $\varnothing 150\mu\text{m}$ | 3      |

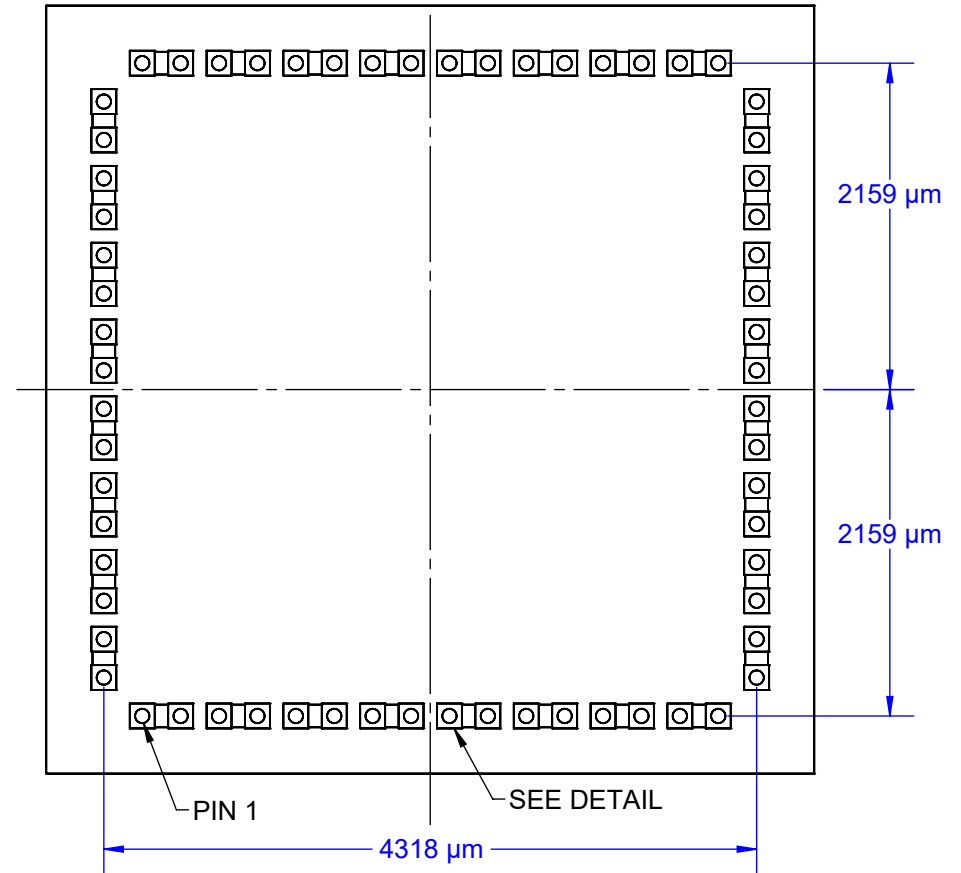
| APPROVALS |         | DATE     |  |        |                    |              |
|-----------|---------|----------|---------------------------------------------------------------------------------------|--------|--------------------|--------------|
| DRAWN     | T. Au   | 04/16/25 |                                                                                       |        |                    |              |
| ENG       | M. Hart | 04/16/25 | TITLE FCN64 - 254 $\mu\text{m}$ PITCH                                                 |        |                    |              |
| MFG       |         |          | DAISY CHAIN DIE                                                                       |        |                    |              |
| QA        |         |          | SCALE 15:1                                                                            | SIZE A | DRAWING NO. 631610 | REV A        |
| CUST      |         |          |                                                                                       |        |                    |              |
| REVISED   |         |          | DO NOT SCALE DRAWING                                                                  |        |                    | SHEET 1 OF 7 |

# OUTLINE DIMENSIONS

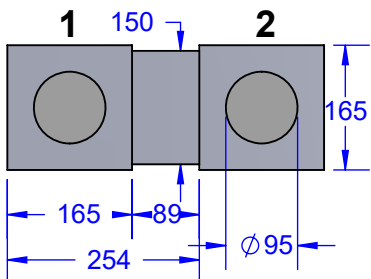
BACK SIDE



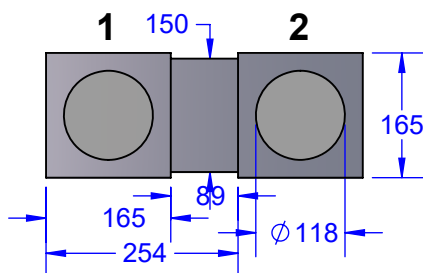
PAD SIDE



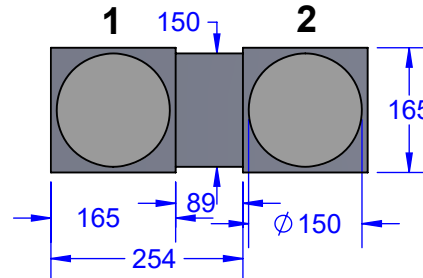
DETAIL 1



DETAIL 2



DETAIL 3



**TopLine**

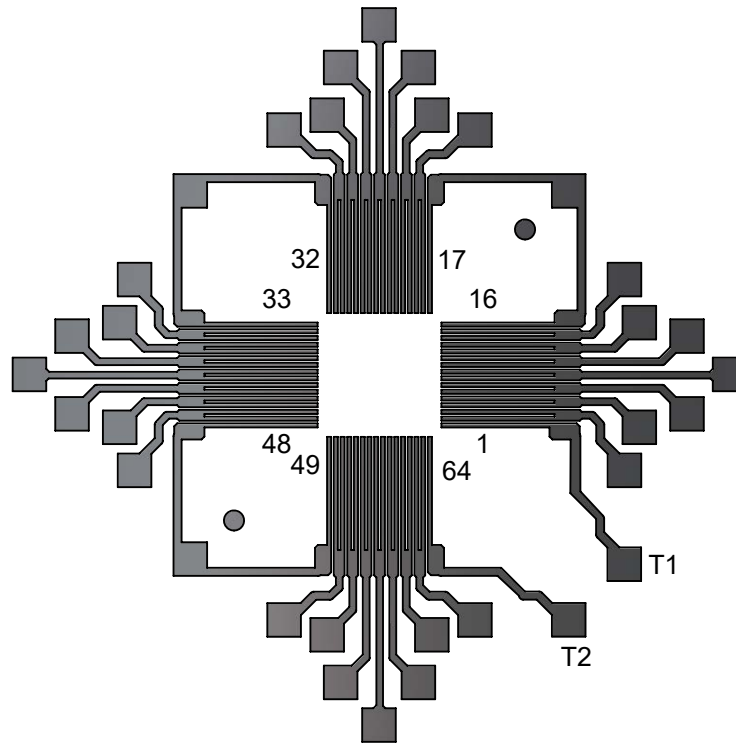
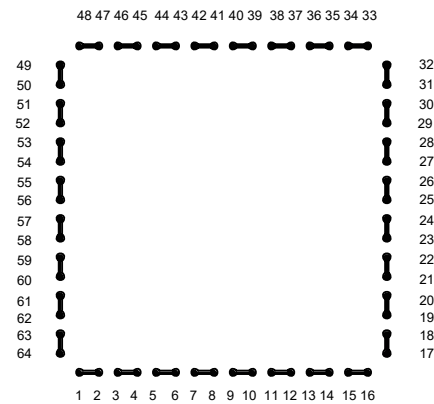
TITLE FCN64 - 254 $\mu\text{m}$  PITCH  
DAISY CHAIN DIE

|                 |           |                       |          |
|-----------------|-----------|-----------------------|----------|
| SCALE<br>17.5:1 | SIZE<br>A | DRAWING NO.<br>631610 | REV<br>A |
|-----------------|-----------|-----------------------|----------|

DO NOT SCALE DRAWING

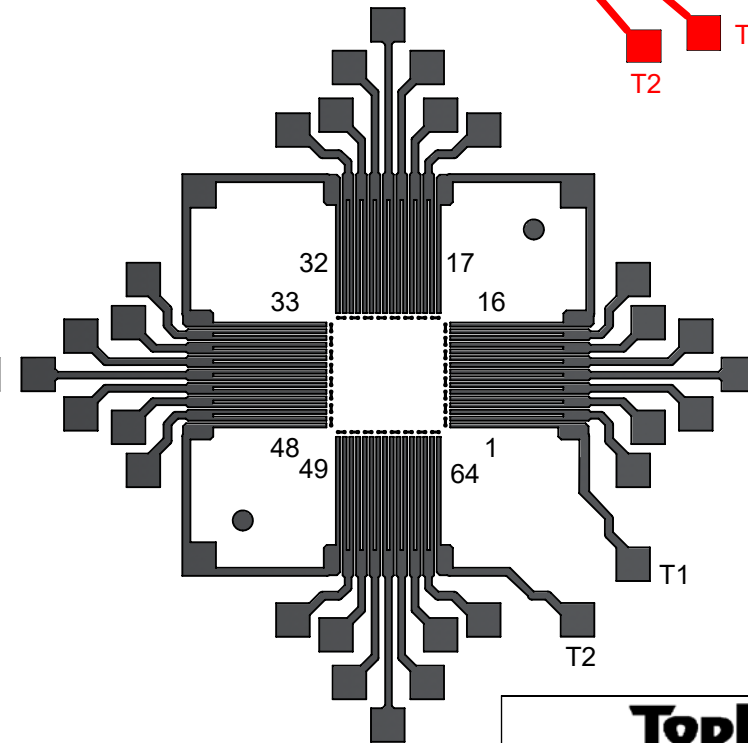
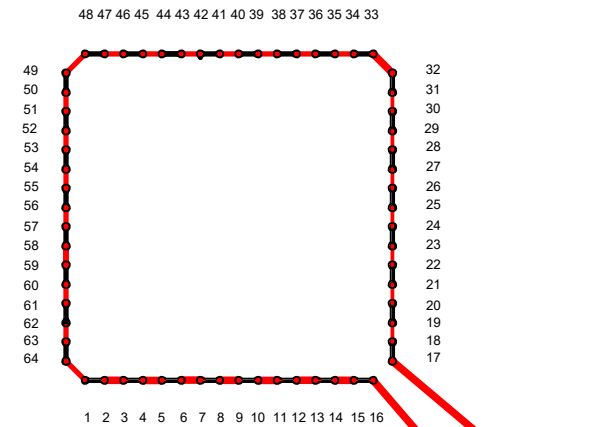
SHEET 2 OF 7

## PAD VIEW



**PCB VIEW**  
SCALE: 3.5/1

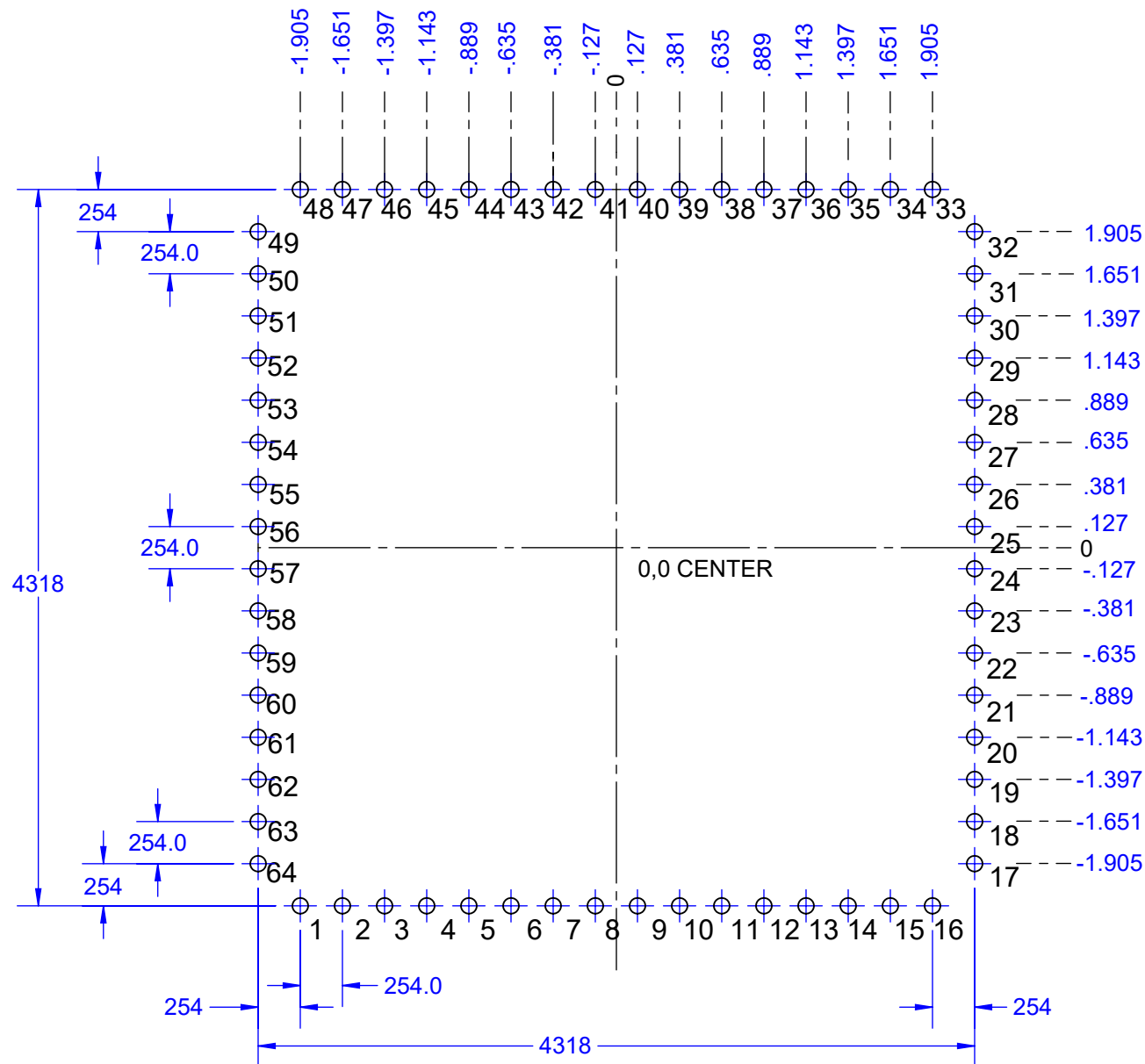
## AFTER BONDING



**AFTER BONDING**  
SCALE: 3.5/1

| TopLine®                                     |           |                       |              |
|----------------------------------------------|-----------|-----------------------|--------------|
| TITLE FCN64 - 254um PITCH<br>DAISY CHAIN DIE |           |                       |              |
| SCALE<br>10:1                                | SIZE<br>A | DRAWING NO.<br>631610 | REV<br>A     |
| DO NOT SCALE DRAWING                         |           |                       | SHEET 3 OF 7 |

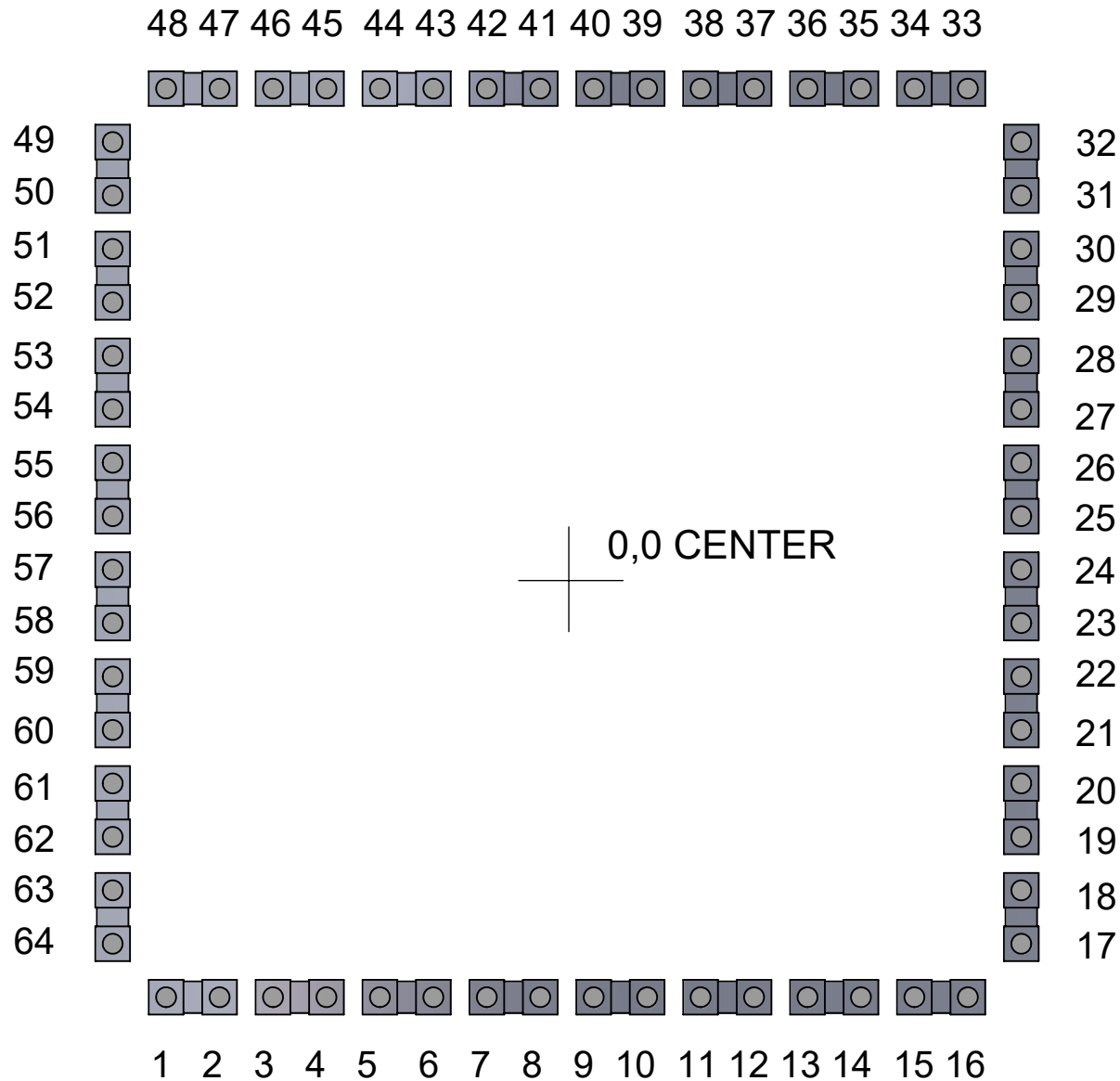
# PAD LOCATION DIMENSION MICRON ( $\mu\text{m}$ )



- NOTES:
- 1) DIMENSIONS: MICRONS ( $\mu\text{m}$ ).
  - 2) X=0, Y=0 IS CENTER OF DIE.
  - 3) SEE NET LIST PAGE 6.

|                                                          |           |                       |          |
|----------------------------------------------------------|-----------|-----------------------|----------|
| <b>TopLine<sup>®</sup></b>                               |           |                       |          |
| TITLE FCN64 - 254 $\mu\text{m}$ PITCH<br>DAISY CHAIN DIE |           |                       |          |
| SCALE<br>10:1                                            | SIZE<br>A | DRAWING NO.<br>631610 | REV<br>A |
| DO NOT SCALE DRAWING                                     |           | SHEET 4 OF 7          |          |

**BONDING MAP  
SEE NET LIST (PAGE 6)**



|                                                 |           |                       |          |
|-------------------------------------------------|-----------|-----------------------|----------|
| <b>TopLine<sup>®</sup></b>                      |           |                       |          |
| TITLE    FCN64 - 254um PITCH<br>DAISY CHAIN DIE |           |                       |          |
| SCALE<br>25:1                                   | SIZE<br>A | DRAWING NO.<br>631610 | REV<br>A |
| DO NOT SCALE DRAWING                            |           | SHEET 5   OF 7        |          |

**FCN64 NET LIST**  
**MICRON (μm)**  
**(0,0) LOCATED AT THE CENTER OF THE DIE**

| PIN# | X     | Y      |
|------|-------|--------|
| 1    | -1905 | - 2159 |
| 2    | -1651 | - 2159 |
| 3    | -1397 | - 2159 |
| 4    | -1143 | - 2159 |
| 5    | -889  | - 2159 |
| 6    | -635  | - 2159 |
| 7    | -381  | - 2159 |
| 8    | -127  | - 2159 |
| 9    | 127   | - 2159 |
| 10   | 381   | - 2159 |
| 11   | 635   | - 2159 |
| 12   | 889   | - 2159 |
| 13   | 1143  | - 2159 |
| 14   | 1397  | - 2159 |
| 15   | 1651  | - 2159 |
| 16   | 1905  | - 2159 |
| 17   | 2159  | -1905  |
| 18   | 2159  | -1651  |
| 19   | 2159  | -1397  |
| 20   | 2159  | -1143  |
| 21   | 2159  | -889   |
| 22   | 2159  | -635   |

| PIN# | X    | Y    |
|------|------|------|
| 23   | 2159 | -381 |
| 24   | 2159 | -127 |
| 25   | 2159 | 127  |
| 26   | 2159 | 381  |
| 27   | 2159 | 635  |
| 28   | 2159 | 889  |
| 29   | 2159 | 1143 |
| 30   | 2159 | 1397 |
| 31   | 2159 | 1651 |
| 32   | 2159 | 1905 |
| 33   | 1905 | 2159 |
| 34   | 1651 | 2159 |
| 35   | 1397 | 2159 |
| 36   | 1143 | 2159 |
| 37   | 889  | 2159 |
| 38   | 635  | 2159 |
| 39   | 381  | 2159 |
| 40   | 127  | 2159 |
| 41   | -127 | 2159 |
| 42   | -381 | 2159 |
| 43   | -635 | 2159 |
| 44   | -889 | 2159 |

| PIN# | X     | Y     |
|------|-------|-------|
| 45   | -1143 | 2159  |
| 46   | -1397 | 2159  |
| 47   | -1651 | 2159  |
| 48   | -1905 | 2159  |
| 49   | -2159 | 1905  |
| 50   | -2159 | 1651  |
| 51   | -2159 | 1397  |
| 52   | -2159 | 1143  |
| 53   | -2159 | 889   |
| 54   | -2159 | 635   |
| 55   | -2159 | 381   |
| 56   | -2159 | 127   |
| 57   | -2159 | -127  |
| 58   | -2159 | -381  |
| 59   | -2159 | -635  |
| 60   | -2159 | -889  |
| 61   | -2159 | -1143 |
| 62   | -2159 | -1397 |
| 63   | -2159 | -1651 |
| 64   | -2159 | -1905 |

**NOTES:**

- 1) DIMENSIONS: MICRON (μm).
- 2) X = 0, Y = 0 IS CENTER OF DIE.

|                                              |           |                       |              |
|----------------------------------------------|-----------|-----------------------|--------------|
| <b>TopLine®</b>                              |           |                       |              |
| TITLE FCN64 - 254μm PITCH<br>DAISY CHAIN DIE |           |                       |              |
| SCALE<br>10:1                                | SIZE<br>A | DRAWING NO.<br>631610 | REV<br>A     |
| DO NOT SCALE DRAWING                         |           |                       | SHEET 6 OF 7 |

# PART NUMBERING SYSTEM

**FCN**

**64**

**K**

**5**

**A**

**254**

**- OPTION**

**- DC**

**- PACKING**

## BONDING DIE

FCN = SINGLE DIE  
FCWN = UNSAWN WAFER  
5" (125mm)

## NBR BOND PADS

| PADS | DIE ARRAY | SIZE |
|------|-----------|------|
| 64   | 1X        | 5mm  |
| 128  | 4X        | 10mm |
| 192  | 9X        | 15mm |
| 256  | 16X       | 20mm |

## PAD

K =  $\phi$  95 $\mu$ m  
N =  $\phi$  118 $\mu$ m  
U =  $\phi$  150 $\mu$ m

## DIE SIZE

| CODE | MM    | MIL |
|------|-------|-----|
| 5    | 5.08  | 200 |
| 10   | 10.16 | 400 |
| 15   | 15.24 | 600 |
| 20   | 20.32 | 800 |

## PAD MATERIAL

A = Al98, Si1.0 Cu1.0

## BUMP PITCH

$\mu$ m

## OPTIONS

| DIE THINNING |             |       |
|--------------|-------------|-------|
| CODE         | $\mu$ M     | INCH  |
| NONE         | 635 $\mu$ m | .025" |
| BG530        | 530 $\mu$ m | .021" |
| BG430        | 430 $\mu$ m | .017" |
| BG360        | 360 $\mu$ m | .014" |
| BG250        | 250 $\mu$ m | .010" |
| BG200        | 200 $\mu$ m | .008" |
| BG150        | 150 $\mu$ m | .006" |
| BG100        | 100 $\mu$ m | .004" |

OTHER THICKNESS AVAILABLE

## DAISY CHAIN

## PACKAGING

BLANK = TRAY (STANDARD)

| SIZE | TRAY   | QTY    |
|------|--------|--------|
| 5MM  | 2-INCH | 36 PCS |
| 10MM | 4-INCH | 49 PCS |
| 15MM | 4-INCH | 25 PCS |
| 20MM | 4-INCH | 9 PCS  |

**TopLine**®

TITLE FCN64 - 254 $\mu$ m PITCH  
DAISY CHAIN DIE

| SCALE | SIZE | DRAWING NO. | REV |
|-------|------|-------------|-----|
| 10:1  | A    | 631610      | A   |

DO NOT SCALE DRAWING

SHEET 7 OF 7