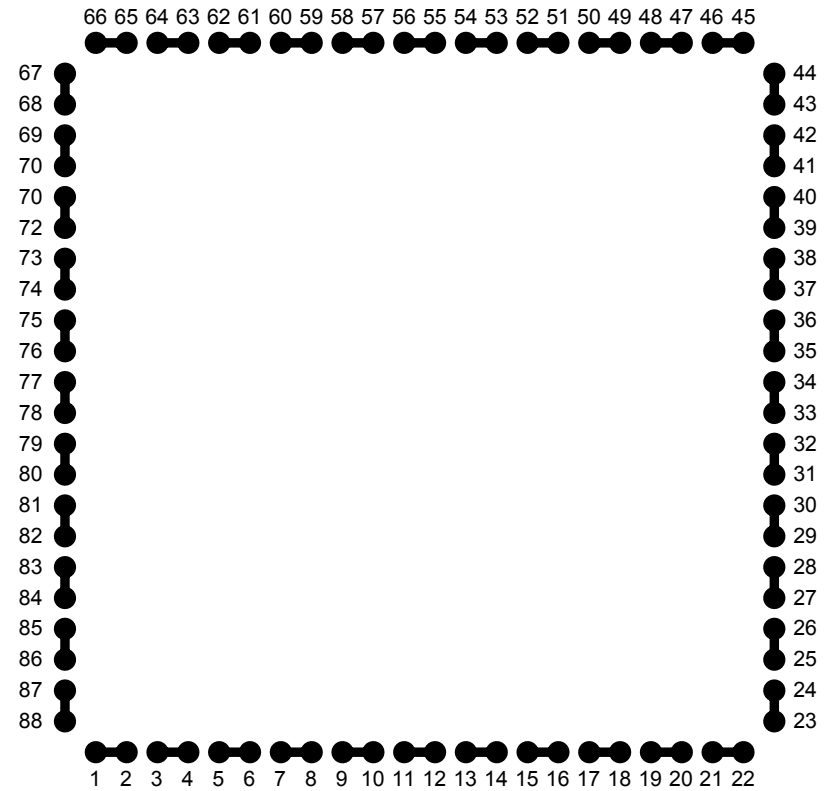
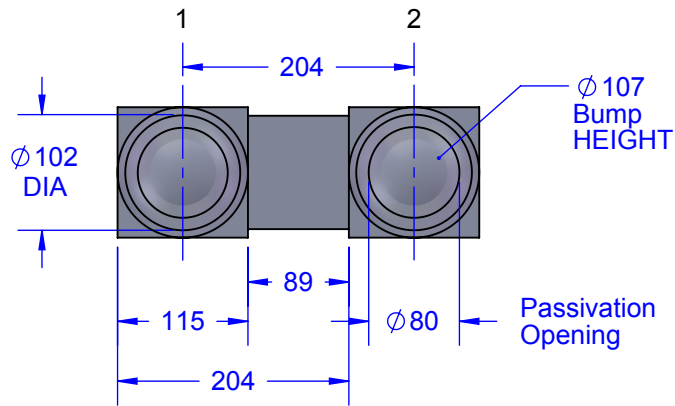


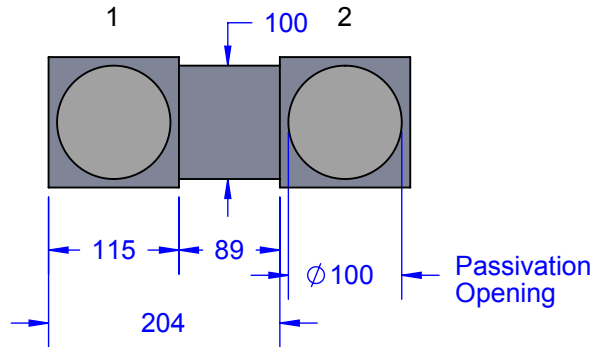
DAISY CHAIN PATTERN BUMP (PAD) VIEW



SOLDER BUMP PAD DETAIL 7



WIRE BONDING PAD DETAIL 2



NOTES:

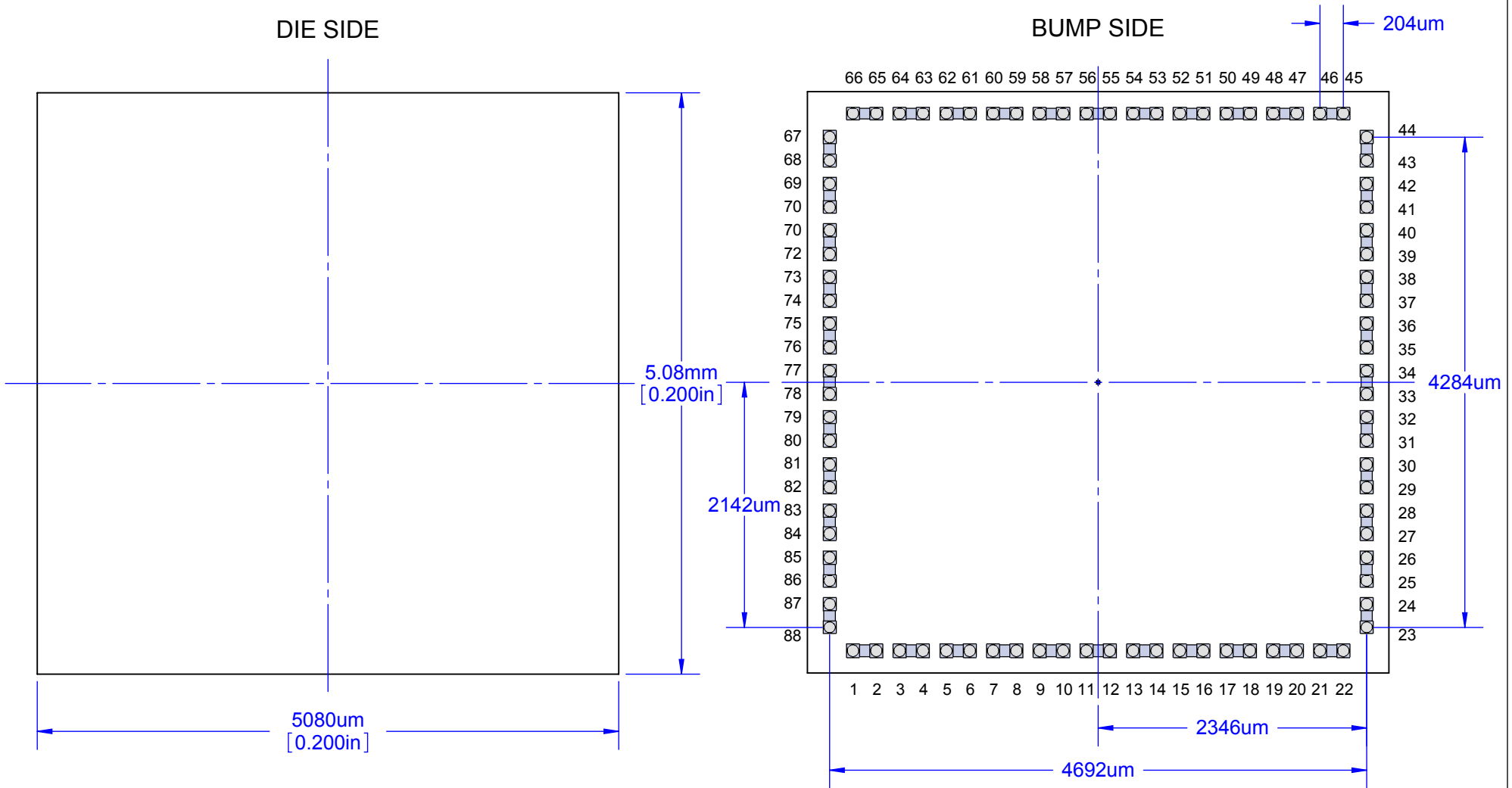
- 1) DIMENSIONS IN MICRONS (μm) OR AS SPECIFIED.
- 2) THICKNESS: 600 μm (OTHER AVAILABLE).
- 3) PASSIVATION: NITRIDE (STANDARD).
- 4) PACKAGING:
 - a) STANDARD PACK WAFFLE PACK (TRAY).
 - b) TAPE AND REEL (SPECIAL ORDER).
 - c) SAWN or UNSAWN WAFER (5-INCH).
- 5) BACKSIDE METAL:
 - a) NONE (STANDARD).
 - b) METAL (SPECIAL ORDER).

PART NUMBER TABLE

PART NUMBER	BUMP ALLOY	Pb-Free	BUMP DIA	BUMP HEIGHT	DETAIL
FC88G5.08C204-DC	SAC - SnAgCu	YES	ϕ 102	ϕ 107	7
FC88G5.08E204-DC	SnPb Eutectic	NO	ϕ 102	ϕ 107	7
FCN88G5.08A204-DC	AI - BUMPLESS	YES	NONE		2

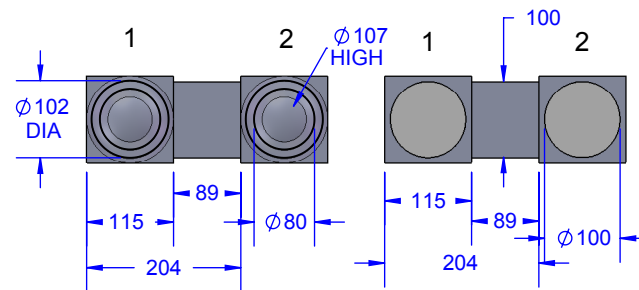
APPROVALS	DATE	TopLine [®]			
DRAWN T.Au	07/12/14	TITLE FC88 - 204 μm PITCH FLIP CHIP 5.08 x 5.08mm			
ENG M. Hart	07/12/14				
MFG		SCALE	SIZE	DRAWING NO.	REV
QA		150:1	A	382210	A
CUST		DO NOT SCALE DRAWING			SHEET 1 OF 8
REVISED					

OUTLINE DIMENSIONS



**SOLDER BUMP PAD
DETAIL 7**

**WIRE BONDING PAD
DETAIL 2**



PART NUMBER TABLE					
PART NUMBER	BUMP ALLOY	Pb-Free	BUMP DIA	BUMP HEIGHT	DETAIL
FC88G5.08C204-DC	SAC - SnAgCu	YES	∅ 102	∅ 107	7
FC88G5.08E204-DC	SnPb Eutectic	NO	∅ 102	∅ 107	7
FCN88G5.08A204-DC	AI - BUMPLESS	YES	NONE		2

TopLine®

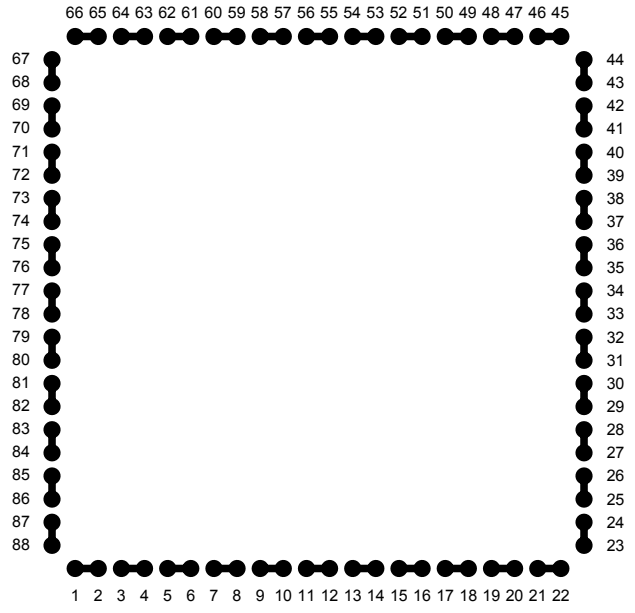
TITLE FC88 - 204µm PITCH
FLIP CHIP 5.08 x 5.08mm

SCALE 20:1	SIZE A	DRAWING NO. 382210	REV A
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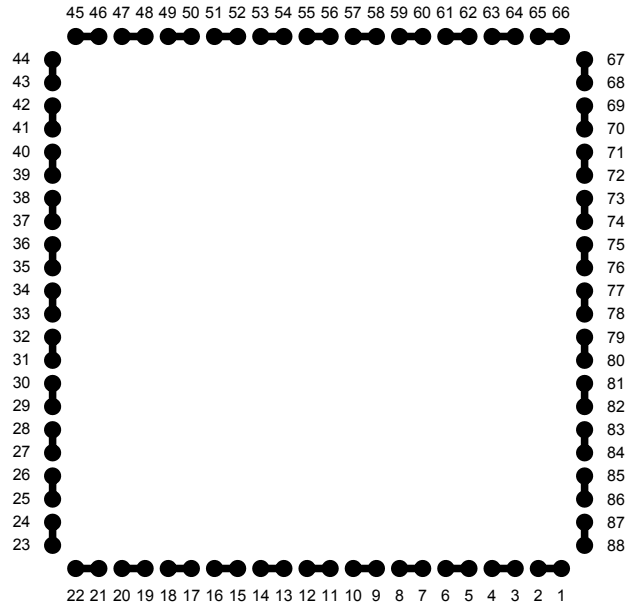
DO NOT SCALE DRAWING

SHEET 2 OF 8

BUMP VIEW

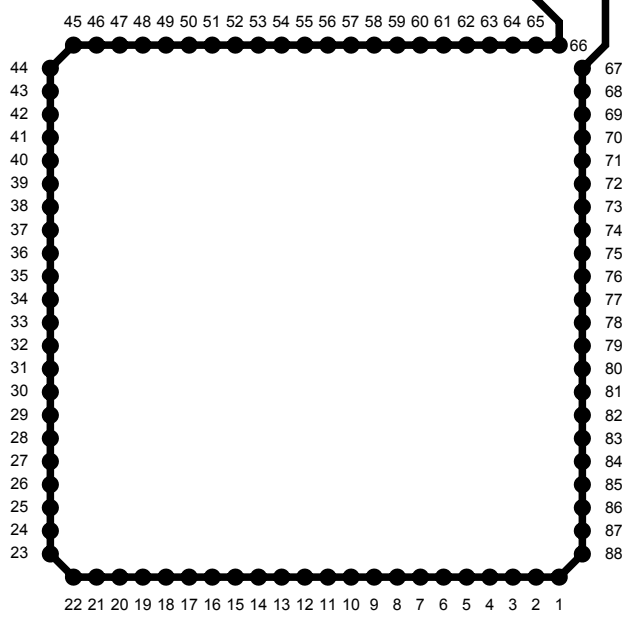
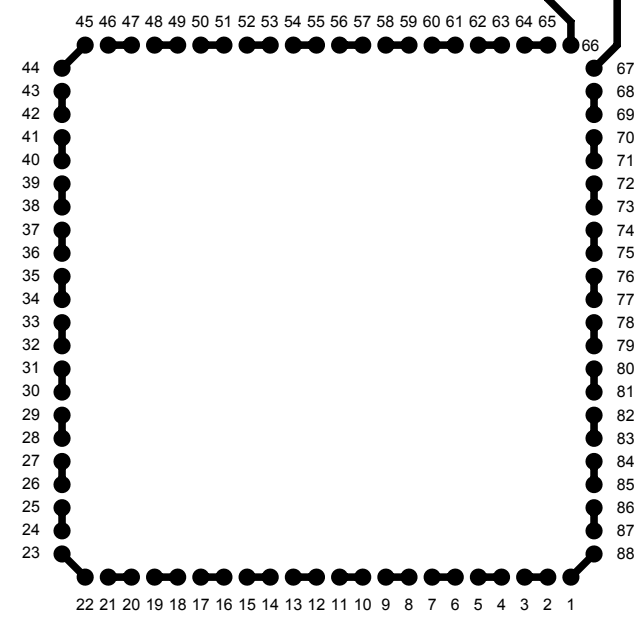


X-RAY VIEW



T1 T2

T1 T2

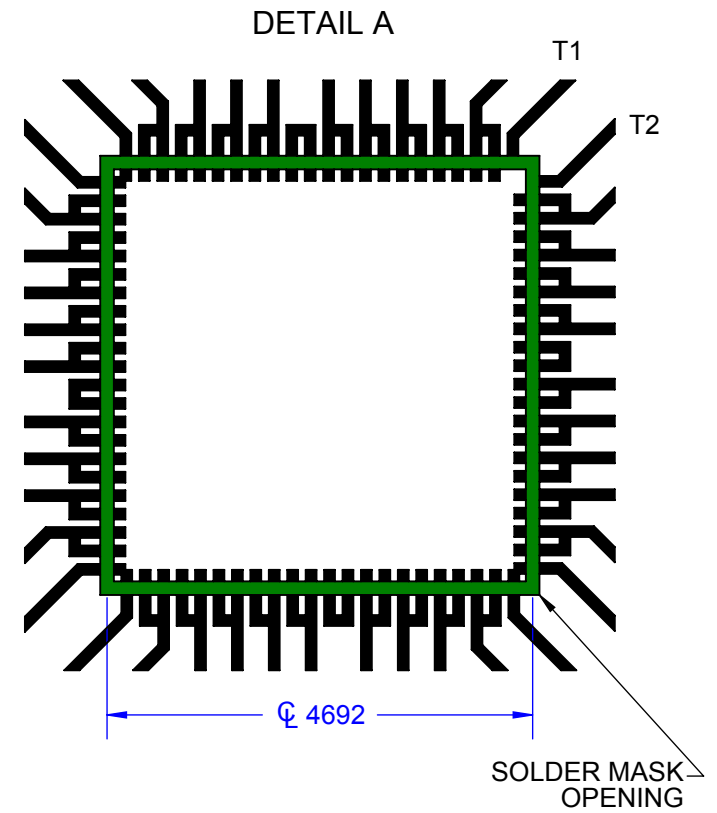
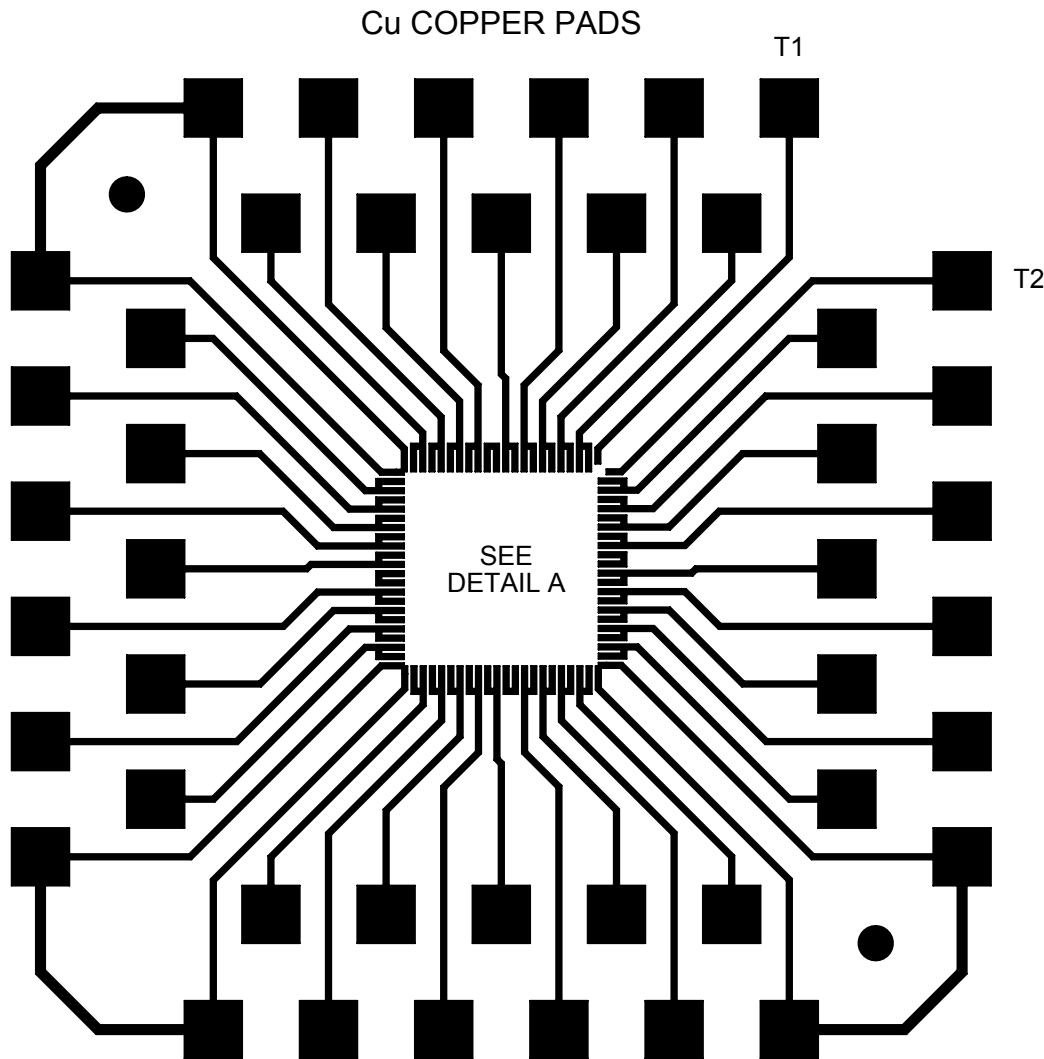


PCB VIEW

AFTER MOUNTING TO TEST BOARD

TopLine®			
TITLE FC88 - 204µm PITCH FLIP CHIP 5.08 x 5.08mm			
SCALE 15:1	SIZE A	DRAWING NO. 382210	REV A
DO NOT SCALE DRAWING			SHEET 3 OF 8

RECOMMENDED PC BOARD



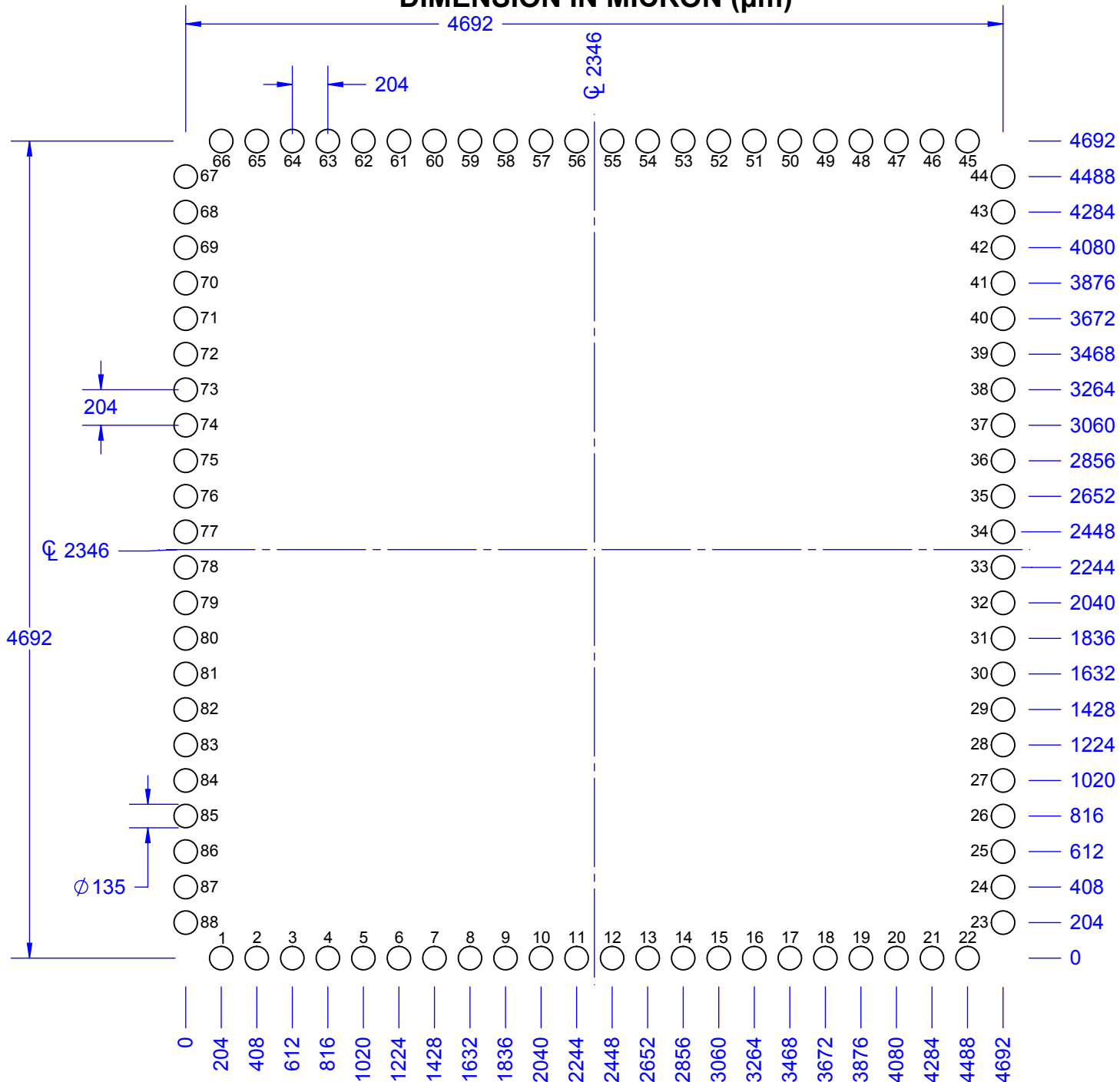
TYPICAL DIMENSIONS MASK OPENING:
4 PLACES: 204 x 4900µm

NOTES:

- 1) PCB BOARD DIMENSIONS ARE PRESENTED ONLY AS A GUIDE. DESIGNERS SHOULD USE THEIR OWN EXPERIENCE WHEN DESIGNING PCB.
- 2) NON-SOLDERMASK DEFINED PADS (NSMD).
- 3) TWO LOCAL FIDUCIALS PER DESIGNER'S PREFERENCE.

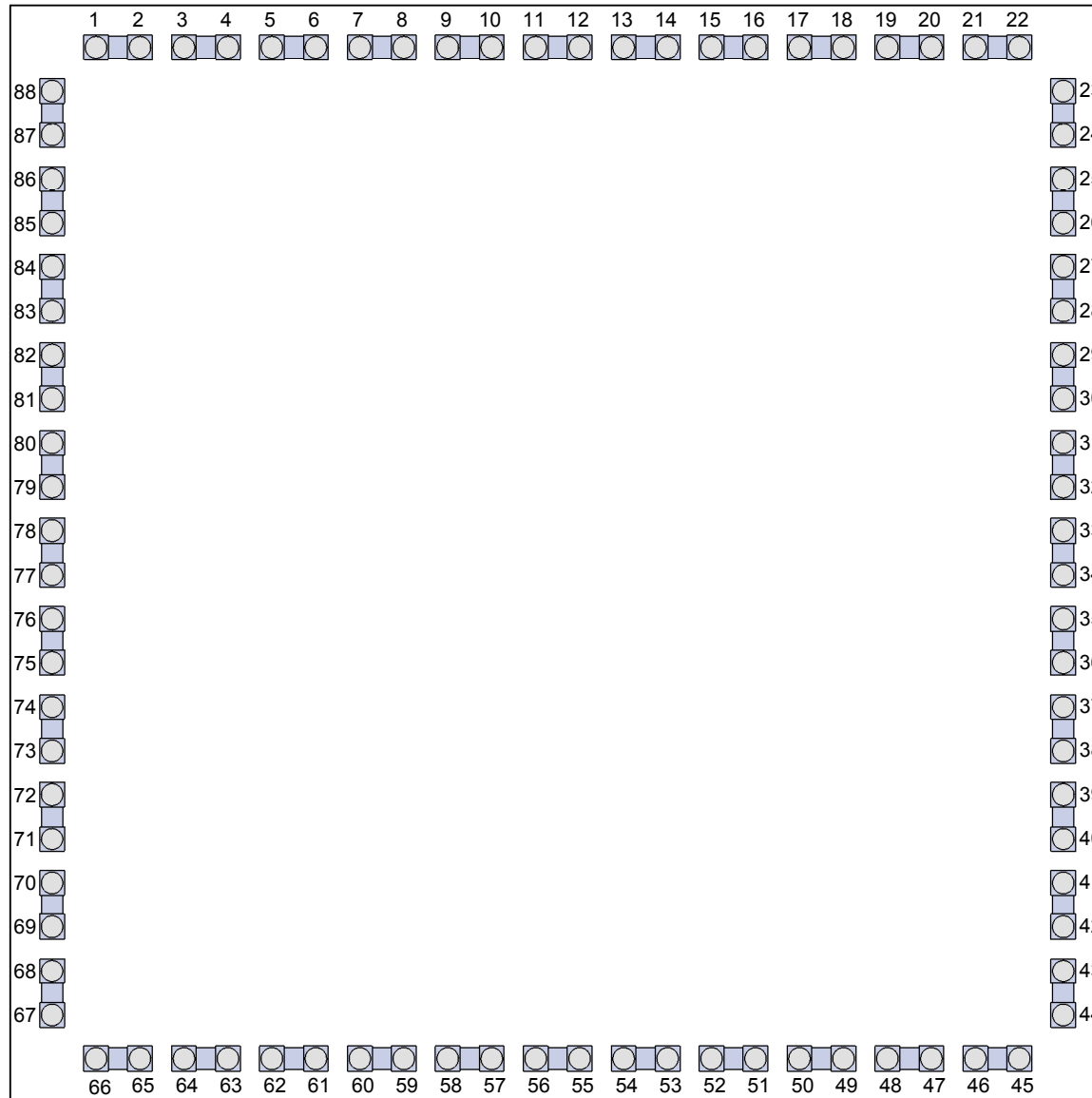
TopLine®			
TITLE		FC88 - 204µm PITCH FLIP CHIP 5.08 x 5.08mm	
SCALE	SIZE	DRAWING NO.	REV
6:1	A	382210	A
DO NOT SCALE DRAWING			SHEET 4 OF 8

**PAD LOCATION
SHOWN BUMP VIEW
DIMENSION IN MICRON (μm)**



TopLine®			
TITLE FC88 - 204 μm PITCH FLIP CHIP 5.08 x 5.08mm			
SCALE 30:1	SIZE A	DRAWING NO. 382210	REV A
DO NOT SCALE DRAWING			SHEET 5 OF 8

BONDING MAP SEE NET LIST (PAGE 7)



TopLine®			
TITLE FC88 - 204µm PITCH FLIP CHIP 5.08 x 5.08mm			
SCALE	SIZE	DRAWING NO.	REV
30:1	A	382210	A
DO NOT SCALE DRAWING			SHEET 6 OF 8

FC88 NET LIST

PIN#	X	Y
1	-2142	2346
2	-1938	2346
3	-1734	2346
4	-1530	2346
5	-1326	2346
6	-1122	2346
7	-918	2346
8	-714	2346
9	-510	2346
10	-306	2346
11	-102	2346
12	102	2346
13	306	2346
14	510	2346
15	714	2346
16	918	2346
17	1122	2346
18	1326	2346
19	1530	2346
20	1734	2346
21	1938	2346
22	2142	2346

PIN#	X	Y
23	2346	2142
24	2346	1938
25	2346	1734
26	2346	1530
27	2346	1326
28	2346	1122
29	2346	918
30	2346	714
31	2346	510
32	2346	306
33	2346	102
34	2346	-102
35	2346	-306
36	2346	-510
37	2346	-714
38	2346	-918
39	2346	-1122
40	2346	-1326
41	2346	-1530
42	2346	-1734
43	2346	-1938
44	2346	-2142

PIN#	X	Y
45	2142	-2346
46	1938	-2346
47	1734	-2346
48	1530	-2346
49	1326	-2346
50	1122	-2346
51	918	-2346
52	714	-2346
53	510	-2346
54	306	-2346
55	102	-2346
56	-102	-2346
57	-306	-2346
58	-510	-2346
59	-714	-2346
60	-918	-2346
61	-1122	-2346
62	-1326	-2346
63	-1530	-2346
64	-1734	-2346
65	-1938	-2346
66	-2142	-2346

PIN#	X	Y
67	-2346	-2142
68	-2346	-1938
69	-2346	-1734
70	-2346	-1530
71	-2346	-1326
72	-2346	-1122
73	-2346	-918
74	-2346	-714
75	-2346	-510
76	-2346	-306
77	-2346	-102
78	-2346	102
79	-2346	306
80	-2346	510
81	-2346	714
82	-2346	918
83	-2346	1122
84	-2346	1326
85	-2346	1530
86	-2346	1734
87	-2346	1938
88	-2346	2142

NOTES:
 1) DIMENSIONS IN MICRON (UM).
 2) X = 0, Y = 0 IS CENTER OF DIE.

TopLine®			
TITLE FC88 - 204µm PITCH FLIP CHIP 5.08 x 5.08mm			
SCALE NONE	SIZE A	DRAWING NO. 382210	REV A
DO NOT SCALE DRAWING			SHEET 7 OF 8

PART NUMBERING SYSTEM

FC

88

G

5.08

C

204

- ATTACH -

DC

- OPTION

Flip Chip

FC = Standard Flip Chip
 FCW = Bumped Wafer*
 FCN = Bumpless Chip
 FCWN = Bumpless Wafer*

* 5-INCH WAFER

Number Bumps

Bump
88

Bump Diameter

Diam ϕ 102 μ m
 Height 107 μ m

Die Size

Bump	mm	mils
88	5.08mm	200

Bump Material

E = Eutectic Sn63/Pb37
 C = Lead Free SAC
 A = Al Pad (Bumpless)
 For Wirebonding

Bump Pitch

in μ m

Options

Blank = Standard
 Adhesive Attach

M = Metal Back Side
 For Eutectic Solder

DIE THINNING

Code	μ m	Inch
None	635 μ m	.025"
BG530	530 μ m	.021"
BG430	430 μ m	.017"
BG360	360 μ m	.014"
BG250	250 μ m	.010"

Daisy Chain

Packaging

Blank = Tray (Standard)

Bump	Tray	Qty
88	2-inch	36pcs

Packaging Options

TR = Tape & Reel

UVR = UV Tape
 Wafer Ring

NTR = Non UV Tape
 Wafer Ring



TITLE FC88 - 204 μ m PITCH
 FLIP CHIP 5.08 x 5.08mm

SCALE	SIZE	DRAWING NO.	REV
NONE	A	382210	A