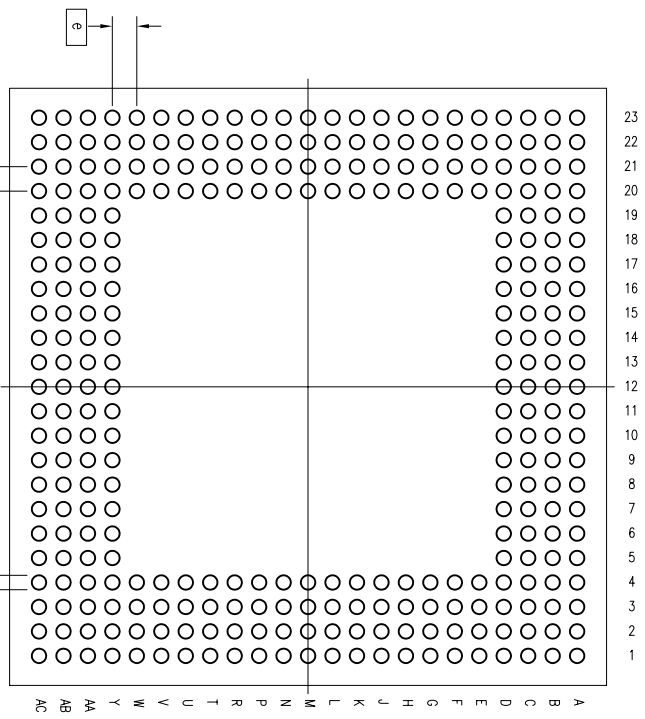
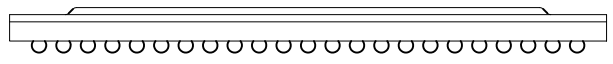
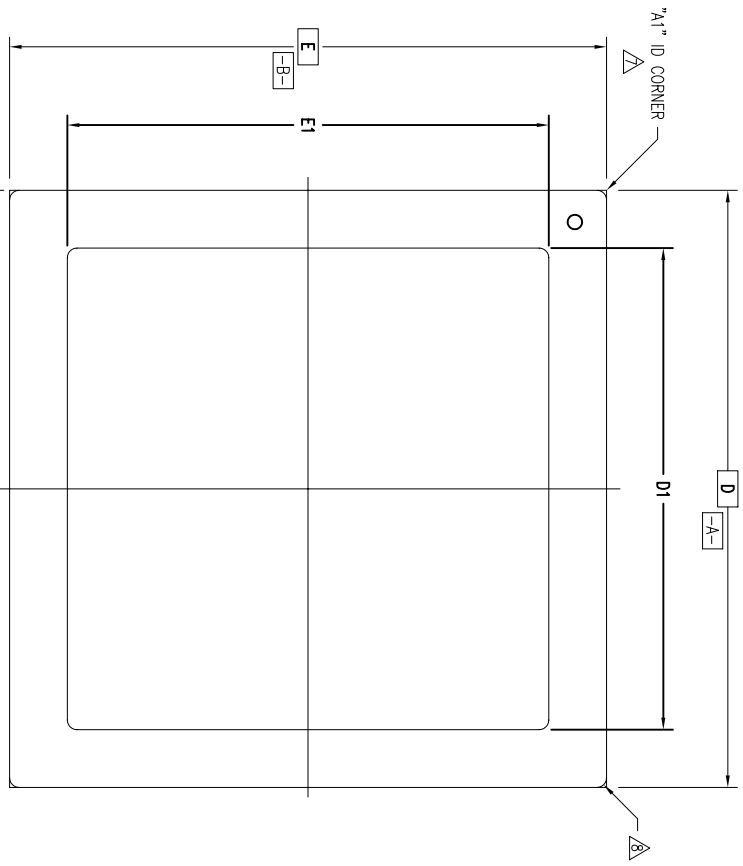
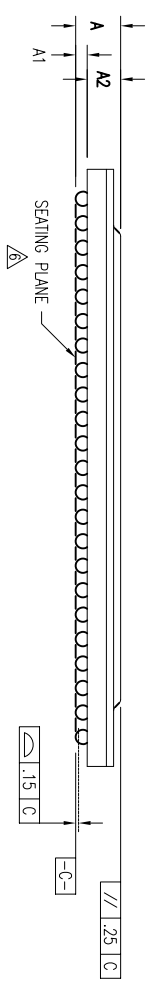


| REVISIONS | | | |
|-----------|----------------------------|----------|----------|
| REV | DESCRIPTION | DATE | APPROVED |
| 00 | INITIAL RELEASE | 06/30/04 | T. VU |
| 01 | CORRECTED ROW NAME | 12/07/04 | PKP |
| 02 | ADD GREEN BNG | 6/22/09 | PKP |
| 03 | COMBINE POD & LAND PATTERN | 5/29/13 | KS |



TOP VIEW

BOTTOM VIEW
(BALL SIDE VIEW)



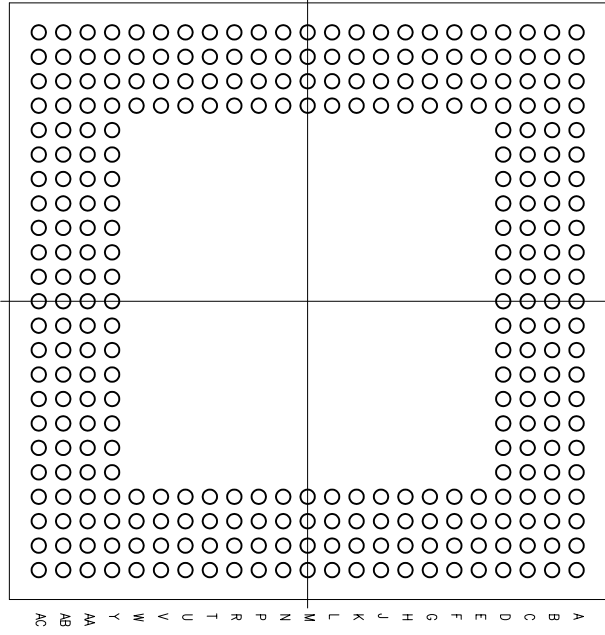
TOLERANCES
UNLESS SPECIFIED
DECIMAL ANGLULAR
XXX± ±
XXXX±
XXXX±

APPROVALS DATE TITLE
DRAWN 06/30/04 BN/BNG 304 PACKAGE OUTLINE
CHECKED 09/22/09 1.27 mm BALLPITCH FORGA

WWW.IDT.COM
6024 Silver Creek Valley Road
San Jose, CA 95138
PHONE: (408) 284-8200
FAX: (408) 284-8591

SIZE DRAWING No. PSC-4136 REV
C DO NOT SCALE DRAWING SHEET 1 OF 3

23
22
21
20
19
18
17
16
15
14
13
12
11
10
9
8
7
6
5
4
3
2
1



BOTTOM VIEW
(BALL SIDE VIEW)

| SYMBOL | JEDEC VARIATION | | | NOTE |
|--------------------|------------------|-----|------|------|
| | MIN | NOM | MAX | |
| A | — | — | 3.42 | |
| A1 | .30 | — | — | |
| A2 | 2.16 | — | 2.82 | |
| D | 31.00 BSC | | | |
| E | 31.00 BSC | | | |
| D1 | 25.00 BSC | | | |
| E1 | 25.00 BSC | | | |
| M | 23 (DEPOPULATED) | | | 3 |
| N | 304 | | | 4 |
| e | 1.27 BSC | | | |
| b | .60 | .75 | .90 | 5 |
| CENTER BALL MATRIX | N/A | | | |

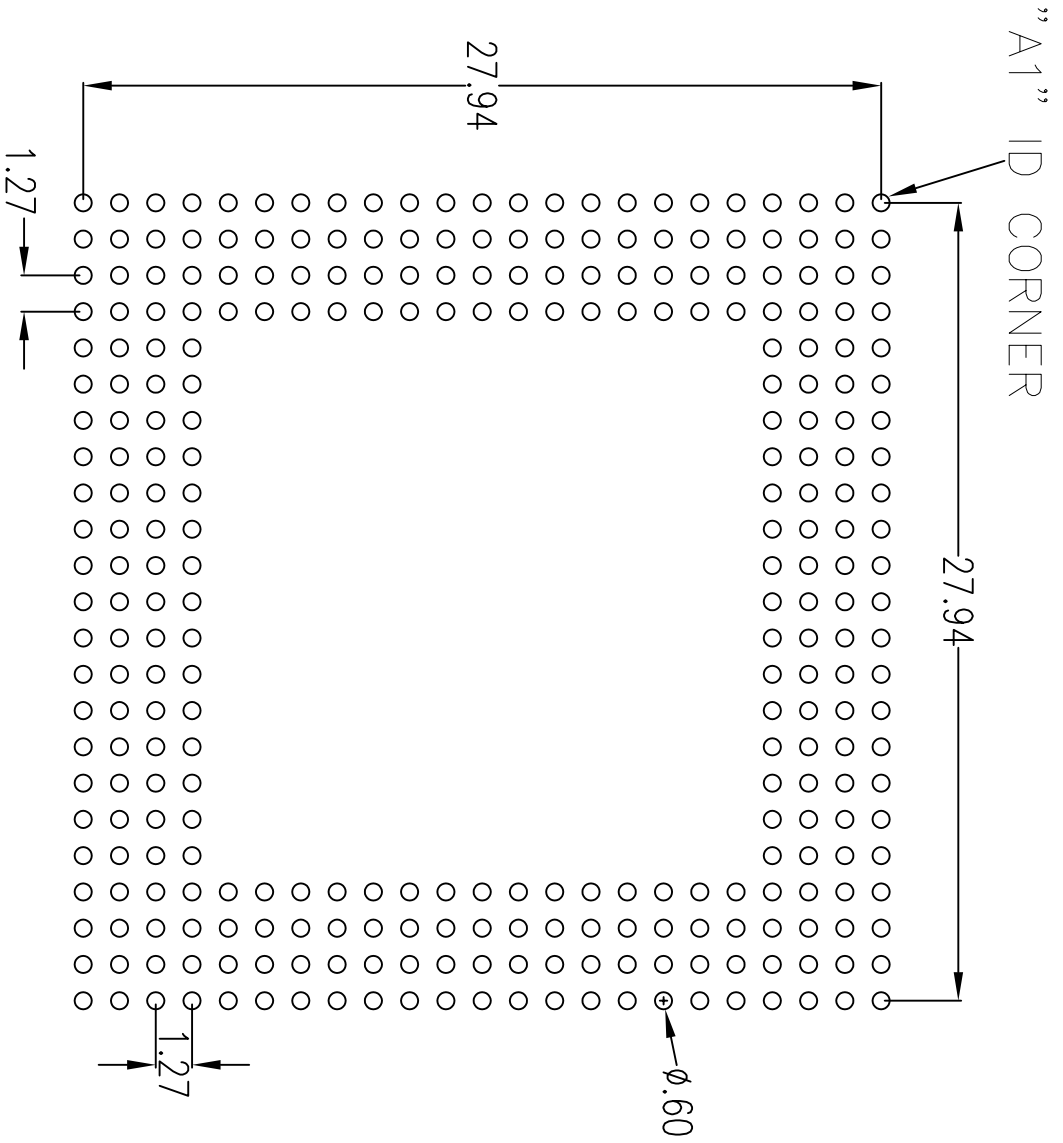
| REVISIONS | | | |
|-----------|----------------------------|----------|----------|
| REV | DESCRIPTION | DATE | APPROVED |
| 00 | INITIAL RELEASE | 06/30/04 | T. YU |
| 01 | CORRECTED ROW NAME | 12/07/04 | PKP |
| 02 | ADD GREEN BNG | 6/22/09 | PKP |
| 03 | COMBINE POD & LAND PATTERN | 5/29/13 | KS |

NOTES:


- 1 ALL DIMENSIONING AND TOLERANCING CONFORM TO ANSI Y14.5M--1982
- 2 "e" REPRESENTS THE BASIC SOLDER BALL GRID PITCH
- 3 "M" REPRESENTS THE MAXIMUM SOLDER BALL MATRIX SIZE
- 4 "N" REPRESENTS THE BALLCOUNT NUMBER
- 5 DIMENSION "b" IS MEASURED AT THE MAXIMUM SOLDER BALL DIAMETER, PARALLEL TO PRIMARY DATUM $\boxed{-C-}$
- 6 SEATING PLANE AND PRIMARY DATUM $\boxed{-C-}$ ARE DEFINED BY THE SPHERICAL CROWNS OF THE SOLDER BALLS
- 7 "A1" ID CORNER MUST BE IDENTIFIED BY CHAMFER, INK MARK, METALLIZED MARKING, INDENTATION OR OTHER FEATURE ON PACKAGE BODY
- 8 EXACT SHAPE OF EACH CORNER IS OPTIONAL
- 9 ALL DIMENSIONS ARE IN MILLIMETERS

| | | | |
|--|----------|--|--------------|
| TOLERANCES UNLESS SPECIFIED DECIMAL ANGULAR XXX± ± XXXX± ± | | IDT 6024 Silver Creek Valley Road San Jose, CA95138 PHONE: (408) 284-8200 FAX: (408) 284-8591 www.idt.com | |
| APPROVALS | DATE | TITLE | REV |
| DRAWN 579 | 06/30/04 | BN/BNG 304 PACKAGE OUTLINE | 03 |
| CHECKED | | 31.0 X 31.0 mm BODY | |
| | | 1.27 mm BALLPITCH FCBGA | |
| | | SIZE DRAWING No. PSC-4136 | |
| | | DO NOT SCALE DRAWING | SHEET 2 OF 3 |

| REVISIONS | | | |
|-----------|----------------------------|----------|----------|
| REV | DESCRIPTION | DATE | APPROVED |
| 00 | INITIAL RELEASE | 06/30/04 | T. VU |
| 01 | CORRECTED ROW NAME | 12/07/04 | PKP |
| 02 | ADD GREEN BNG | 6/22/09 | PKP |
| 03 | COMBINE POD & LAND PATTERN | 5/29/13 | KS |



RECOMMENDED LAND PATTERN DIMENSION

| | | |
|--------------------------------|-------------|---|
| TOLERANCES UNLESS SPECIFIED | |  JIDT™ 6024 Silver Creek Valley Road San Jose, CA 95138 PHONE: (408) 284-8200 FAX: (408) 284-8591 www.jidt.com |
| DECIMAL | ANGULAR | |
| ± | ± | |
| APPROVALS | DATE | TITLE |
| DRAWN <i>DB/C</i> | 08/09/12 | BN/BNG 304 PACKAGE OUTLINE |
| CHECKED | | 31.0 X 31.0 mm BODY |
| | | 1.27 mm BALLPITCH FC8GA |
| SIZE | DRAWING No. | REV |
| C | PSC-4136 | 03 |
| DO NOT SCALE DRAWING | | SHEET 3 OF 3 |