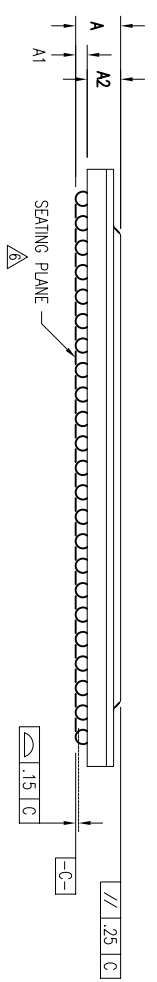
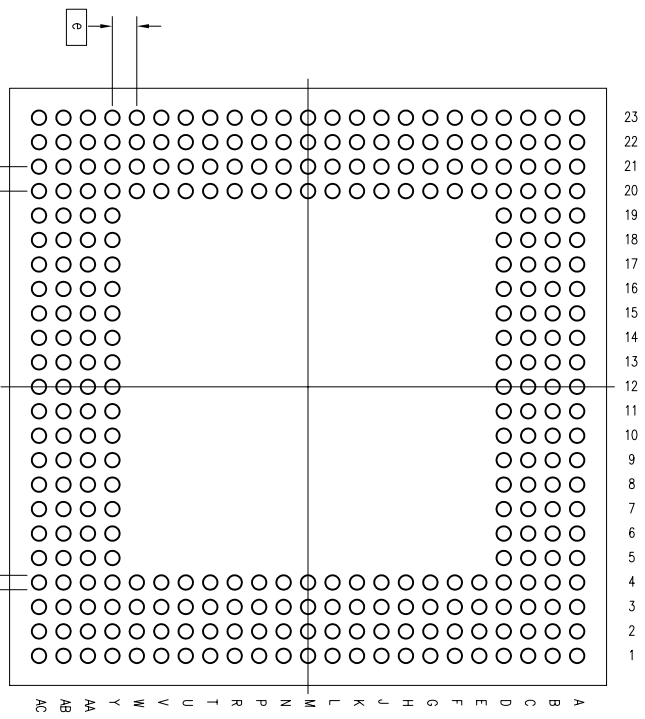
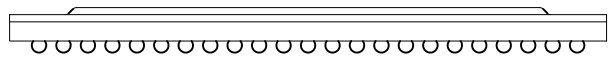
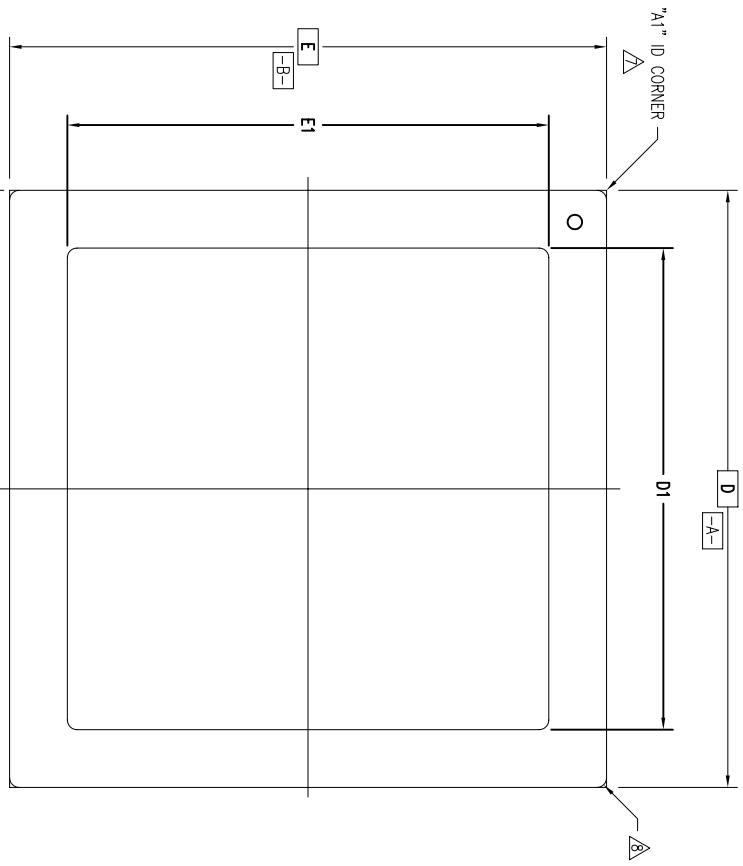


REVISIONS			
REV	DESCRIPTION	DATE	APPROVED
00	INITIAL RELEASE	06/30/04	T. VU
01	CORRECTED ROW NAME	12/07/04	PKP
02	ADD GREEN BNG	6/22/09	PKP
03	COMBINE POD & LAND PATTERN	5/29/13	KS



TOP VIEW

BOTTOM VIEW  
(BALL SIDE VIEW)

⊕	⊕	⊕	⊕	⊕	⊕
⌀.25	⌀.10	C	A	B	B
C	C	C	C	C	C

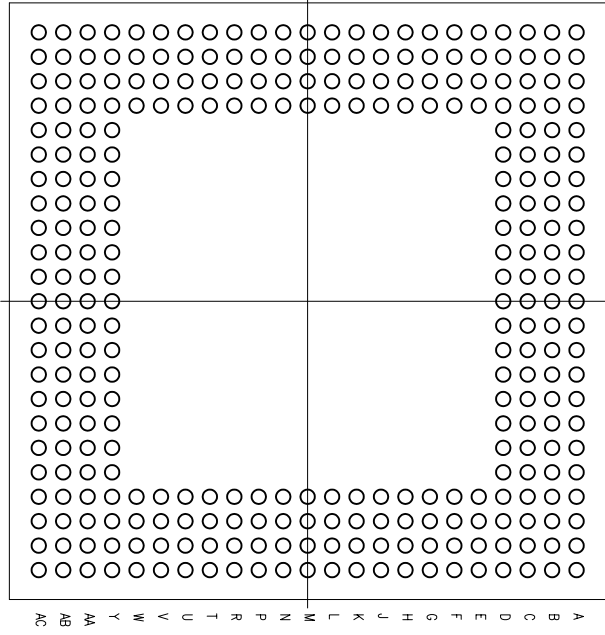
TOLERANCES UNLESS SPECIFIED  
 DECIMAL ANGLULAR  
 XXX± ±  
 XXXXX± ±

APPROVALS DATE TITLE  
 DRAWN 3/04 BN/BNG 304 PACKAGE OUTLINE  
 CHECKED 06/30/04 31.0 X 31.0 mm BODY  
 1.27 mm BALLPITCH FORGA

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

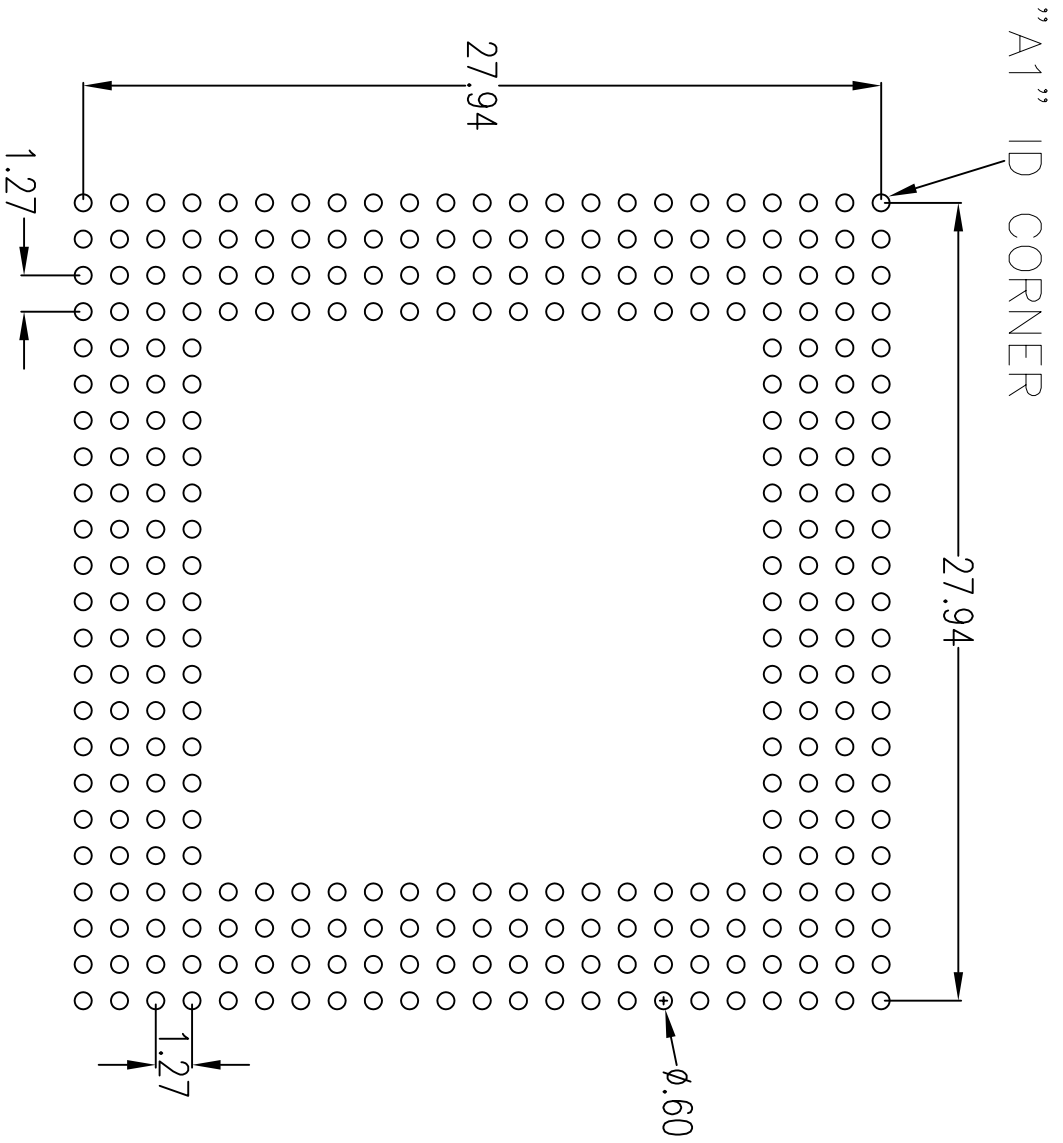
**NOTES:**

- 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


<b>TOLERANCES UNLESS SPECIFIED IN DECIMAL ANGULAR</b> XXX± XXXX± APPROVALS: DATE: 06/30/04 DRAWN: JYJ CHECKED:		<b>IDT</b> 6024 Silver Creek Valley Road San Jose, CA95138 PHONE: (408) 284-8200 WWW.IDT.COM FAX: (408) 284-8591	
TITLE: BN/BNG 304 PACKAGE OUTLINE 31.0 X 31.0 mm BODY 1.27 mm BALL PITCH FC8GA		SIZE: C DRAWING No: PSC-4136	REV: 03 SHEET 2 OF 3

DO NOT SCALE DRAWING

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		 6024 Silver Creek Valley Road San Jose, CA 95138 PHONE: (408) 284-8200 FAX: (408) 284-8591
DECIMAL	ANGULAR	
±	±	
APPROVALS	DATE	TITLE
DRAWN: <i>DB/C</i> CHECKED: <i>DB/C</i>	08/09/12	BN/BNG 304 PACKAGE OUTLINE
SIZE	DRAWING No.	REV
C	PSC-4136	03
DO NOT SCALE DRAWING		SHEET 3 OF 3