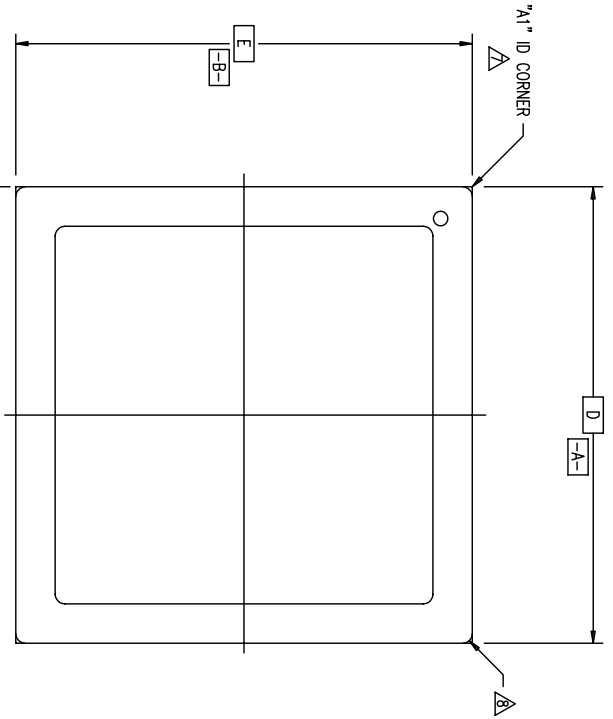
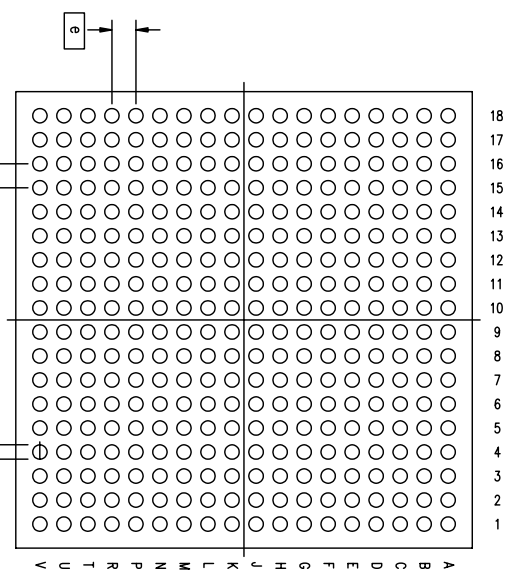
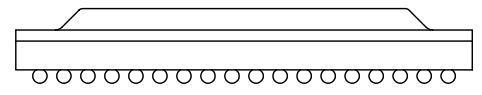


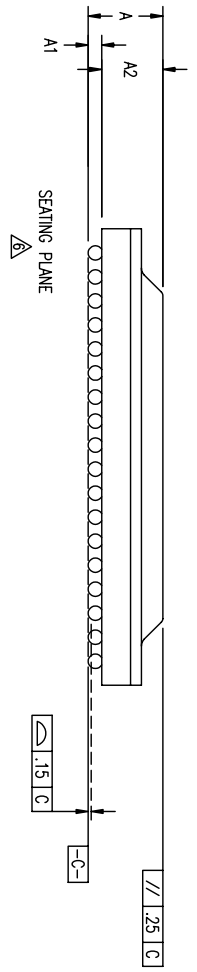
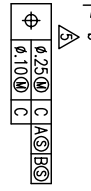
REVISIONS			
REV	DESCRIPTION	DATE	APPROVED
00	INITIAL RELEASE	04/10/07	TV
01	ADD PKG HEIGHT "A" MIN & NOM	06/21/11	JG
02	COMBINE POD & LAND PATTERN	05/29/13	KS




TOP VIEW

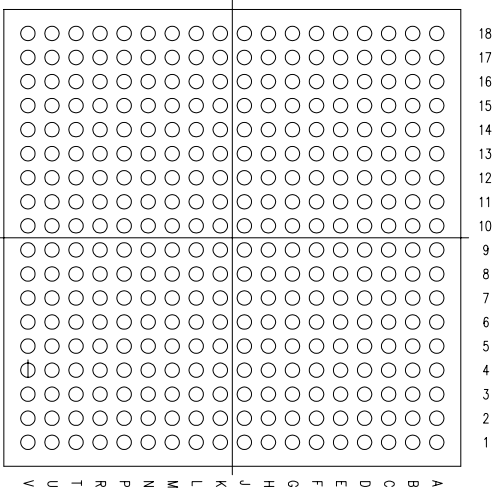


BOTTOM VIEW
(BALL SIDE VIEW)



TOLERANCES UNLESS SPECIFIED		 www.IDT.com
DECIMAL	ANGULAR	
± .005	± .005	
APPROVALS	DATE	TITLE
DRAWN 377	04/10/07	BL/BR/AL/AR 324 PACKAGE OUTLINE
CHECKED		19.0 X 19.0 mm BODY
		1.00 mm BALLPITCH FCBGA
SIZE	DRAWING No.	REV
C	PSC-4211	02
DO NOT SCALE DRAWING		SHEET 1 OF 3

REVISIONS			
REV	DESCRIPTION	DATE	APPROVE
00	INITIAL RELEASE	04/10/07	TV
01	ADD PKG HEIGHT "A" MIN & NOM	06/21/11	JG
02	COMBINE POD & LAND PATTERN	05/29/13	KS




BOTTOM VIEW
(BALL SIDE VIEW)

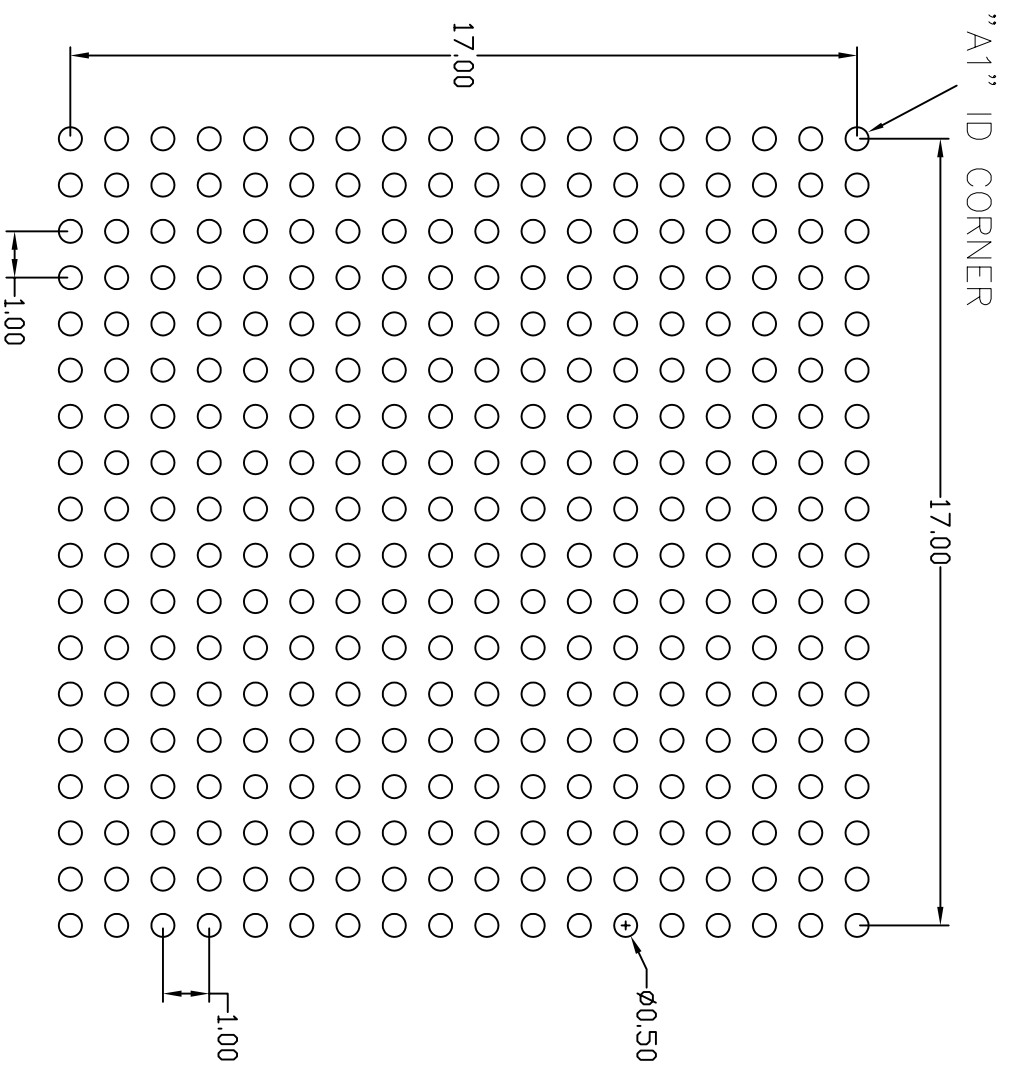
SYMBOL	JEDEC VARIATION			NONE	NOM	MAX	N
	MIN	NOM	MAX				
A	2.77	3.02	3.27				3
A1	.30	-	-				4
A2	2.16	-	2.82				
D	19.00 BSC						
E	19.00 BSC						
M	18						3
N	324						4
e	1.00 BSC						
b	.50	.60	.70				5
CENTER BALL MATRIX	N/A						

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 BALLOUNT NUMBER
- 5 DIMENSION "b" IS MEASURED AT THE MAXIMUM SOLDER BALL DIAMETER, PARALLEL TO PRIMARY DATUM $\boxed{C-C}$
- 6 SEATING PLANE AND PRIMARY DATUM $\boxed{C-C}$ 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		DATE	
DECIMAL	ANGULAR	04/10/07	
±			
 2975 Stender Way Santa Clara, CA 95054 PHONE: (408) 727-6116 FAX: (408) 492-8674 www.ibt.com		TITLE BL/BR/AL/AR 324 PACKAGE OUTLINE 19.0 X 19.0 mm BODY 1.00 mm BALLPITCH FCBGA	
APPROVALS	DATE	SIZE	DRAWING No.
DRAWN 379		C	PSC-4211
CHECKED			
			REV 02
DO NOT SCALE DRAWING		SHEET 2 OF 3	

REVISIONS				
REV	DESCRIPTION	DATE	APPROVE	
00	INITIAL RELEASE	04/10/07	TV	
01	ADD PKG HEIGHT "A" MIN & NOM	06/21/11	JG	
02	COMBINE POD & LAND PATTERN	05/29/13	KS	



RECOMMENDED LAND PATTERN DIMENSION

TOLERANCES UNLESS SPECIFIED			
DECIMAL	±	6024 Silver Creek Valley Rd San Jose, CA 95138 PHONE: (408) 284-8200 FAX: (408) 284-3572	
ANGULAR	±	www.IDT.com	
APPROVALS	DATE	TITLE BL/BR/AL/AR 324 PACKAGE OUTLINE	
DRAWN	08/10/12	19.0 x 19.0 mm BODY	
CHECKED		1.0 mm BALLPITCH FCBGA	
SIZE	C	DRAWING NO.	PSC-4211
DO NOT SCALE DRAWING		REV	02
		SHEET	3 OF 3