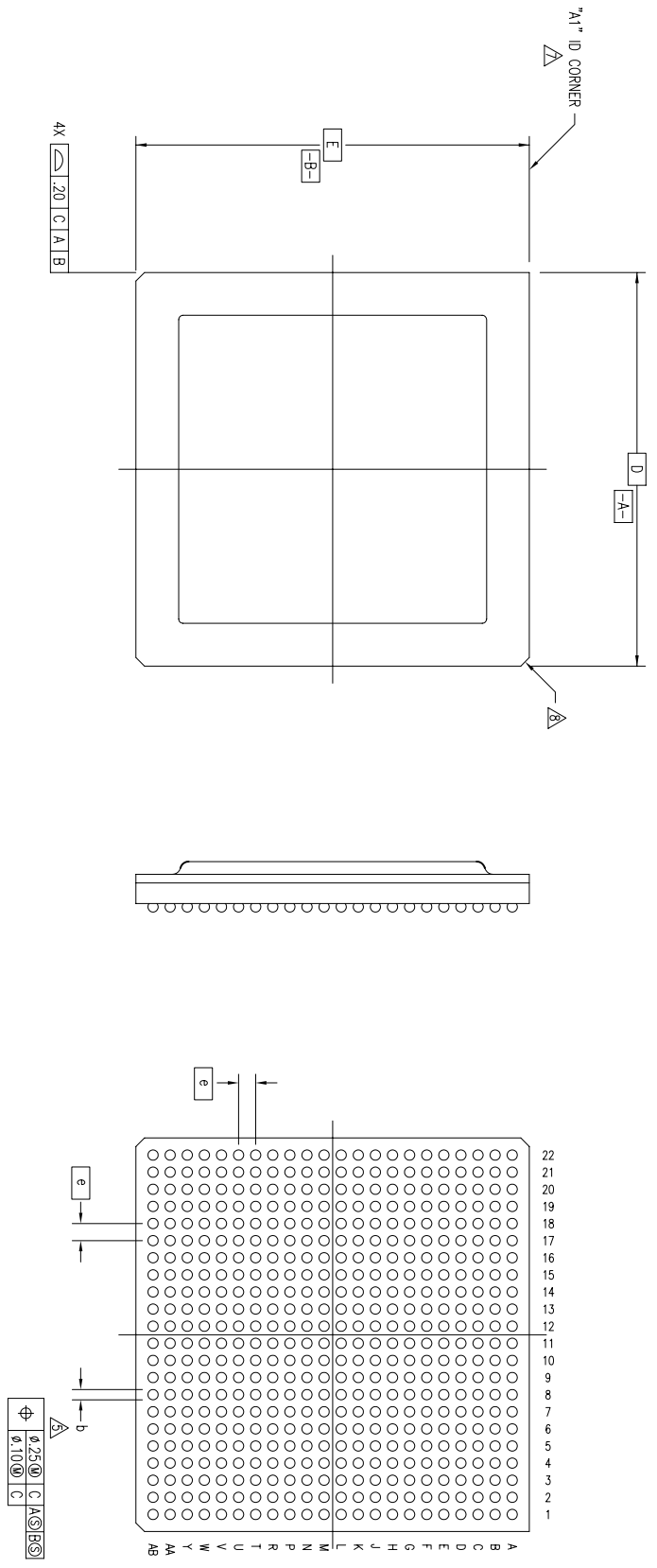
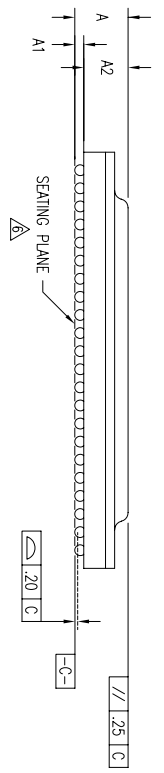
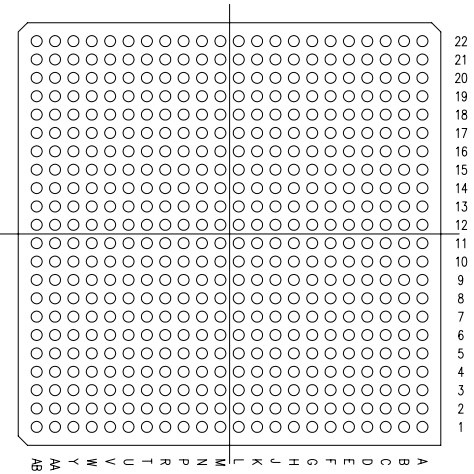


REVISIONS			
REV	DESCRIPTION	DATE	APPROVED
00	INITIAL RELEASE	09/15/06	PKP
01	COMBINE POD & LAND PATTERN	5/31/13	KS



TOLERANCES UNLESS SPECIFIED		6024 Silver Creek Valley Rd	
DECIMAL	ANGULAR	San Jose, CA 95138	
XX# .05	F1°	PHONE: (408) 284-8200	
XXXX .030		FAX: (408) 284-3572	
APPROVALS	DATE	TITLE	
DRAWN PKP	09/15/06	BL/BR PACKAGE OUTLINE	
CHECKED		23.0 x 23.0 mm BODY	
		1.00 mm PITCH FCBGA	
SIZE	DRAWING No.	REV	
C	PSC-4202	01	
DO NOT SCALE DRAWING		SHEET 1 OF 3	






484 BALLS

SYMBOL	JEDEC VARIATION			NOTES
	MIN	NOM	MAX	
A	-	-	3.32	
A1	-	.50	-	
A2	2.36	-	2.72	
D	23.00 BSC			
E	23.00 BSC			
M	22			3
N	484			4
e	1.00 BSC			
b	.50	.64	.70	5
CENTER BALL MATRIX	N/A			

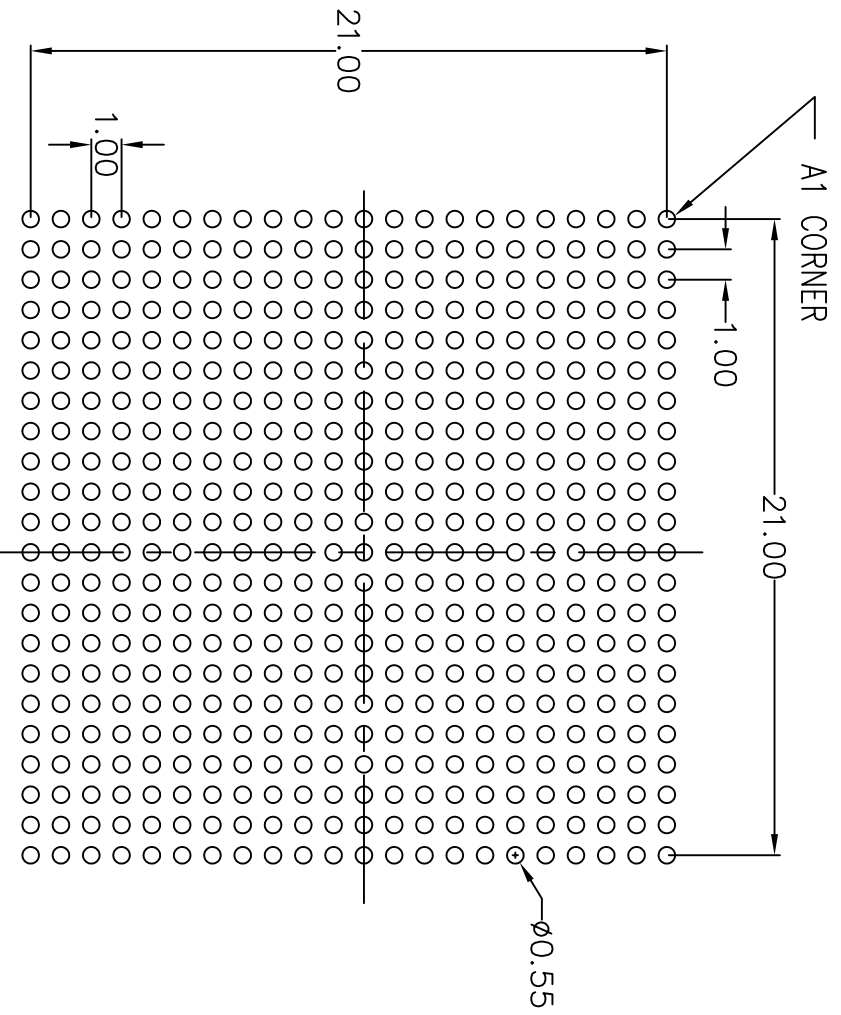
REVISIONS			
REV	DESCRIPTION	DATE	APPROVED
00	INITIAL RELEASE	09/15/06	PKP
01	COMBINE POD & LAND PATTERN	5/31/13	KS

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 \square -C-
- 6 SEATING PLANE AND PRIMARY DATUM \square -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 ±1° XX.X .05 XXX.X .030		 IDT™ www.IDT.com	6024 Silver Creek Valley Rd San Jose, CA 95138 PHONE: (408) 284-8200 FAX: (408) 284-3572
APPROVALS DRAWN: 09/15/06 CHECKED:	DATE: 09/15/06 TITLE: BL/BR PACKAGE OUTLINE 23.0 x 23.0 mm BODY 1.00 mm PITCH FBGA		
SIZE: C DRAWING No.: PSC-4202	DO NOT SCALE DRAWING	REV: 01	SHEET 2 OF 3


REVISIONS			
REV	DESCRIPTION	DATE	APPROVED
00	INITIAL RELEASE	09/15/06	PKP
01	COMBINE POD & LAND PATTERN	5/31/13	KS



RECOMMENDED LAND PATTERN

NOTE:

- 1) ALL dimensions are in mm, Angles in degrees.
- 2) Top down view, as view on PCB.
- 3) NSMD Land Pattern Assumed
- 4) Land Pattern Recommendation as per IPC-7351B generic requirement for surface mount design and Land Pattern.

TOLERANCES UNLESS SPECIFIED				6024 Silver Creek Valley Rd San Jose, CA 95138 PHONE: (408) 294-8200 FAX: (408) 284-3572	
DECIMAL	ANGULAR	www.IDT.COM		TITLE BL/BR PACKAGE OUTLINE 23.0 x 23.0 mm BODY 1.00 mm PITCH FCBCGA	
XX± .05	±1°	APPROVALS	DATE	SIZE	DRAWING No.
XXX± .030			09/15/06	C	PSC-4202
DRAWN	PKP	CHECKED		DO NOT SCALE DRAWING	REV
					01
					SHEET 3 OF 3