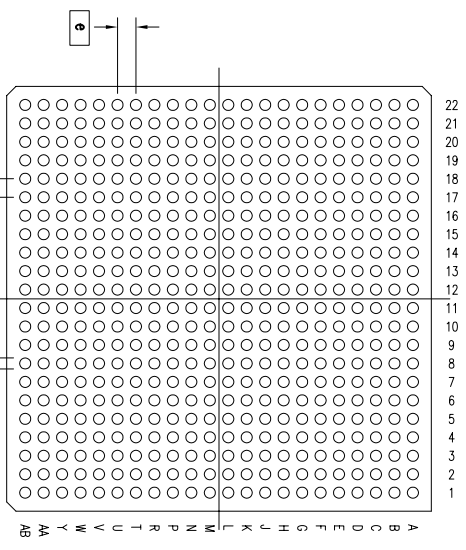
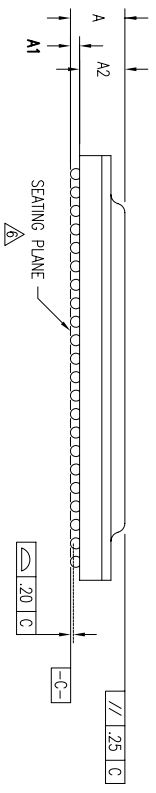
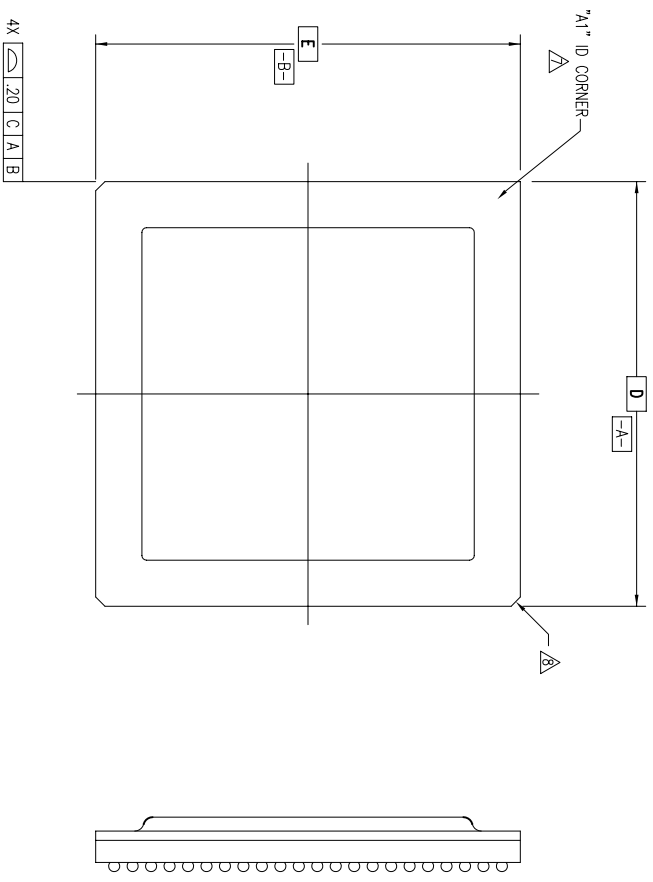

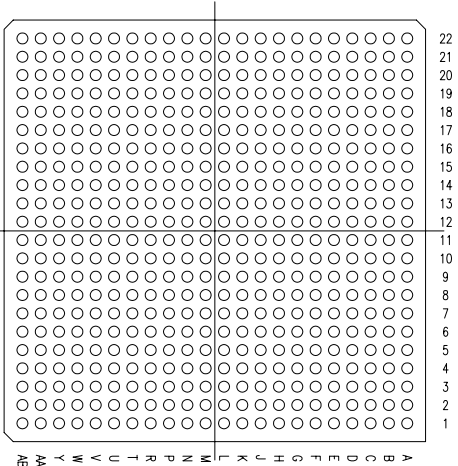


REVISIONS			
REV	DESCRIPTION	DATE	APPROVED
00	INITIAL RELEASE	09/22/09	DP
01	COMBINE POD & LAND PATTERN	5/31/13	KS



TOLERANCES UNLESS SPECIFIED DECIMAL ANGULAR XX.X .05 ±1° XXX.X .030		 wwww.idt.com 6024 Silver Creek Valley Rd San Jose, CA 95138 PHONE: (408) 284-8200 FAX: (408) 284-3572	
APPROVALS DRAWN <i>gjp</i> CHECKED	DATE 09/15/06	TITLE HL/HLG PACKAGE OUTLINE 23.0 x 23.0 mm BODY 1.00 mm PITCH FCBGA	
SIZE C DRAWING No. PSC-4287		REV 01	
DO NOT SCALE DRAWING		SHEET 1 OF 3	




484 BALLS

SYMBOL	JEDEC VARIATION			NOTE
	MIN	NOM	MAX	
A	-	-	2.92	
A1	-	.50	-	
A2	1.96	-	2.32	
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			

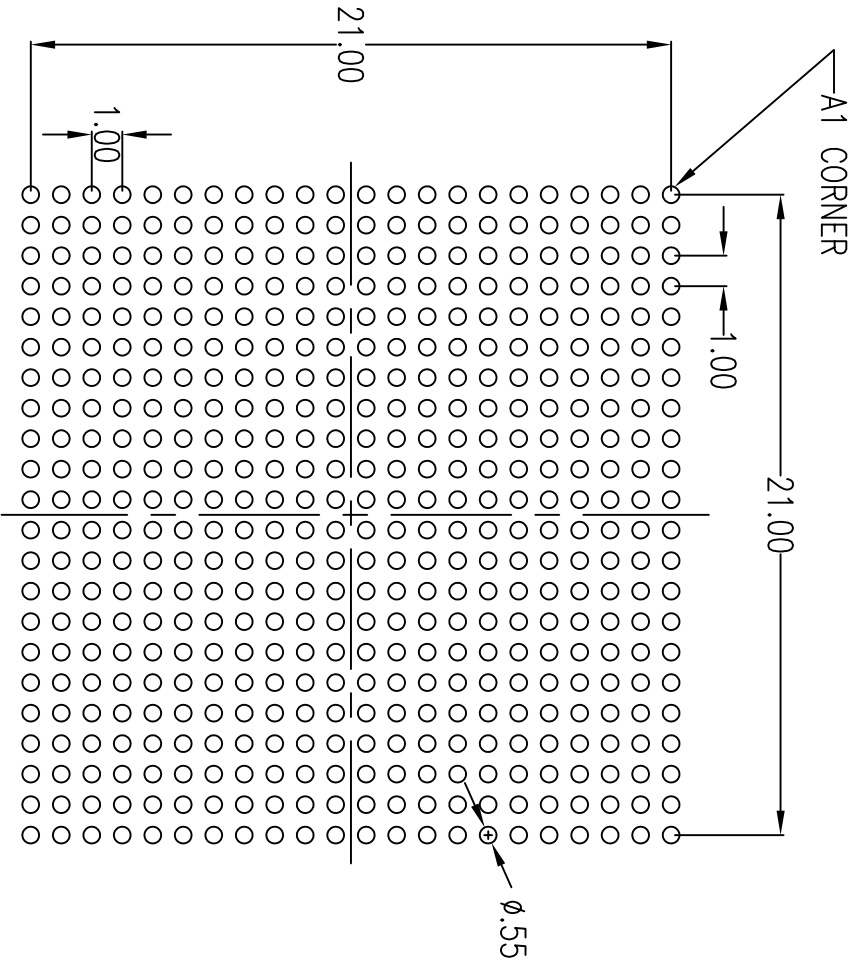
REVISIONS			
REV	DESCRIPTION	DATE	APPROVED
00	INITIAL RELEASE	09/22/09	DP
01	COMBINE POD & LAND PATTERN	5/31/13	KS

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
- △ DIMENSION "b" IS MEASURED AT THE MAXIMUM SOLDER BALL DIAMETER, PARALLEL TO PRIMARY DATUM ---C---
- △ SEATING PLANE AND PRIMARY DATUM ---C--- ARE DEFINED BY THE SPHERICAL CROWNS OF THE SOLDER BALLS
- △ "A1" ID CORNER MUST BE IDENTIFIED BY CHAMFER, INK MARK, METALLIZED MARKING, INDENTATION OR OTHER FEATURE ON PACKAGE BODY
- △ EXACT SHAPE OF EACH CORNER IS OPTIONAL
- 9 ALL DIMENSIONS ARE IN MILLIMETERS

TOLERANCES UNLESS SPECIFIED DECIMAL ANGULAR $\pm .1$ $\pm .05$ $\pm .030$		 IDT 6024 Silver Creek Valley Rd San Jose, CA 95138 PHONE: (408) 284-8200 FAX: (408) 294-3572
APPROVALS DRAWN <i>gjp</i> CHECKED	DATE 09/22/09	
TITLE HL/HLG PACKAGE OUTLINE 23.0 x 23.0 mm BODY 1.00 mm PITCH FBGA		WWW.IDT.COM PSC-4287
SIZE C	DRAWING No. PSC-4287	REV 01
DO NOT SCALE DRAWING		SHEET 2 OF 3


REVISIONS			
REV	DESCRIPTION	DATE	APPROVED
00	INITIAL RELEASE	09/22/09	DP
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		ANGULAR ±1°		 6024 Silver Creek Valley Rd San Jose, CA 95138 PHONE: (408) 284-8200 FAX: (408) 284-3572					
DECIMAL	XX± .105	DATE	09/22/09						
APPROVALS	XXX± .030	TITLE	HL/HLG PACKAGE OUTLINE	SIZE	C	DRAWING No.	PSC-4287	REV	01
DRAWN	gpp	DATE	09/22/09	SIZE	C	DRAWING No.	PSC-4287	REV	01
CHECKED				DO NOT SCALE DRAWING				SHEET	3 OF 3