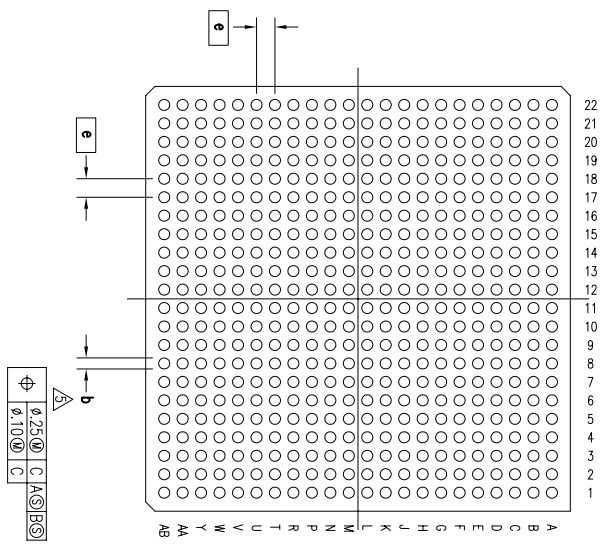
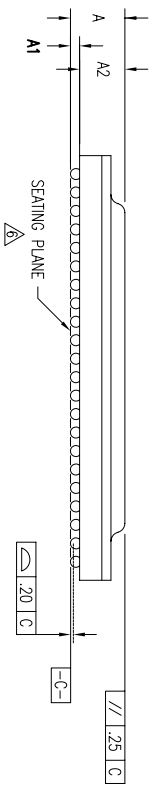
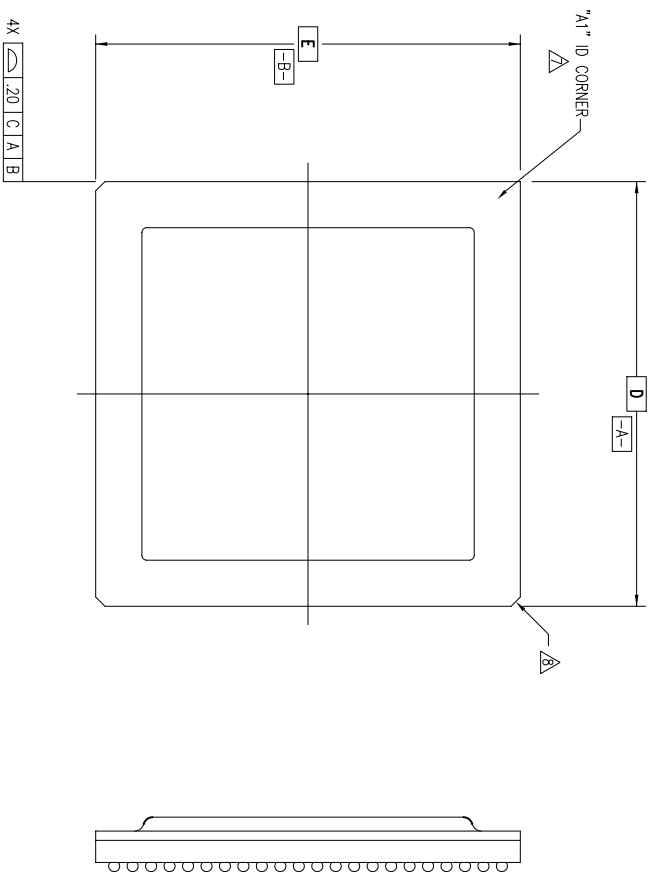



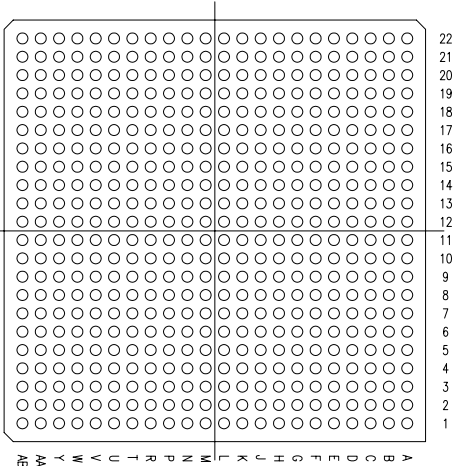
REVISIONS			
REV	DESCRIPTION	DATE	APPROVED
00	INITIAL RELEASE	09/22/09	DP
01	COMBINE POD & LAND PATTERN	5/31/13	KS



TOLERANCES UNLESS SPECIFIED		DECIMAL ANGULAR	
XX .105		±1°	
XXX .030			
APPROVALS	DATE	TITLE	HL/HLG PACKAGE OUTLINE
DRAWN <i>gjp</i>	09/15/06	23.0 x 23.0 mm BODY	
CHECKED		1.00 mm PITCH FCBGA	
SIZE	DRAWING No.	PSC-4287	REV 01
DO NOT SCALE DRAWING		SHEET 1 OF 3	


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 APPROVALS: _____ DATE: _____
 DRAWN: *gjp* 09/15/06
 CHECKED: _____
 SIZE: C DRAWING No.: PSC-4287
 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			

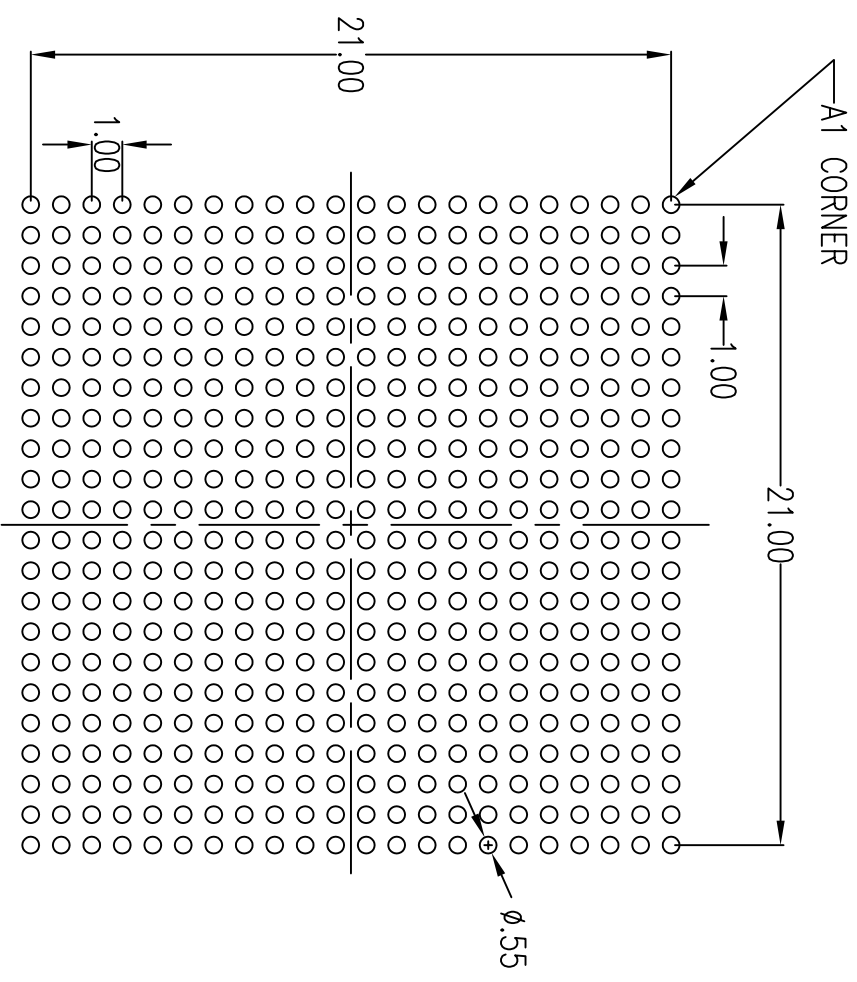
REVISIONS			
REV	DESCRIPTION	DATE	APPROVED
00	INITIAL RELEASE	09/22/09	DP
01	COMBINE POD & LAND PATTERN	5/31/13	KS

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
- ALL DIMENSIONS ARE IN MILLIMETERS

TOLERANCES UNLESS SPECIFIED DECIMAL ANGULAR $\pm .1^\circ$		 IDT 6024 Silver Creek Valley Rd San Jose, CA 95138 PHONE: (408) 284-8200 FAX: (408) 294-3572
WWW.IDT.COM XXXX .030		
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
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°	
DECIMAL	XX± .105	www.IDT.com	
APPROVALS	DATE	6024 Silver Creek Valley Rd San Jose, CA 95138 PHONE: (408) 284-8200 FAX: (408) 284-3572	
DRAWN gpp	09/22/09	TITLE HL/HLG PACKAGE OUTLINE	
CHECKED		23.0 x 23.0 mm BODY 1.00 mm PITCH FOBGA	
SIZE	DRAWING No.	DO NOT SCALE DRAWING	REV
C	PSC-4287		01
			SHEET 3 OF 3