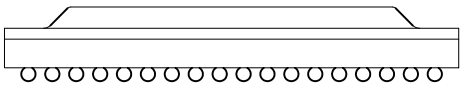
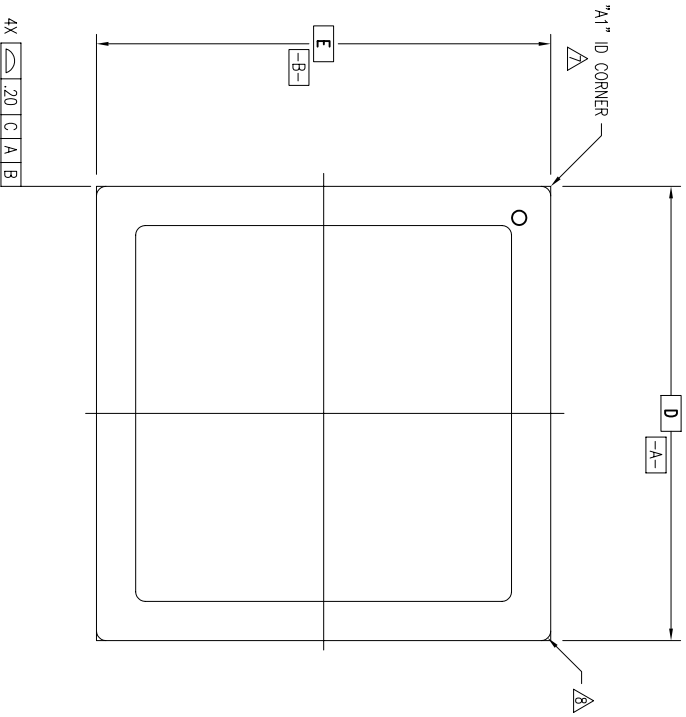
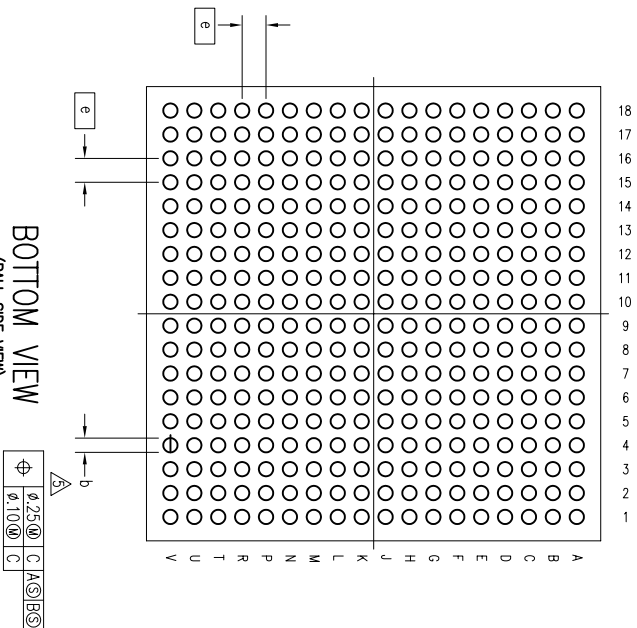


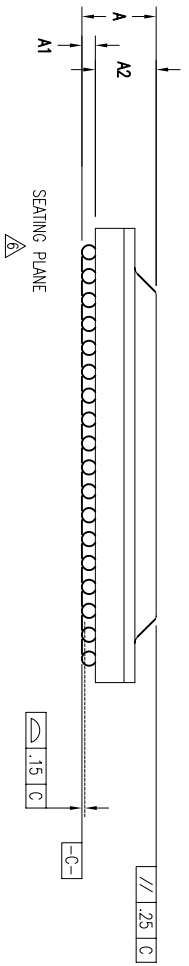
REVISIONS			
REV	DESCRIPTION	DATE	APPROVED
00	INITIAL RELEASE	09/25/09	DP
01	ADD PKG HEIGHT ".A" MIN & NOM	06/21/11	JC
02	COMBINE POD & LAND PATTERN	05/29/13	KS



BOTTOM VIEW
(BALL SIDE VIEW)



ϕ	ϕ .250	C	A	Ⓟ	Ⓟ
	ϕ .100	C			

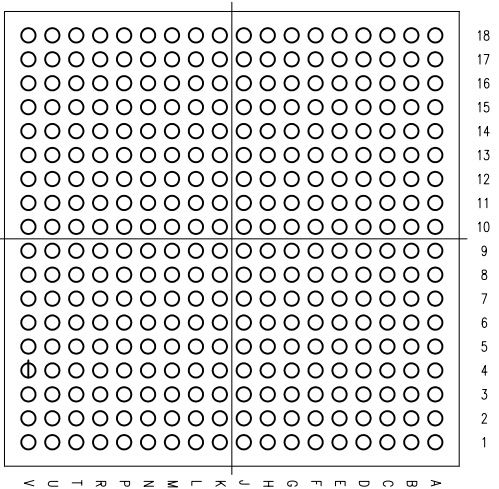


TOLERANCES UNLESS SPECIFIED		 6024 Silver Creek Valley Rd San Jose, CA, 95138 PHONE: (408) 284-8333 FAX: (408) 284-8591 www.idt.com
DECIMAL	±	
ANGULAR	±	
XXX°	±	
APPROVALS	DATE	TITLE
DRAWN <i>DP</i>	09/25/09	HL/HLG 324 PACKAGE OUTLINE
CHECKED		19.0 X 19.0 mm BODY
		1.00 mm BALLPITCH F08GA
SIZE	DRAWING NO.	REV
C	PSC-4288	02
DO NOT SCALE DRAWING		SHEET 1 OF 3

REVISIONS			
REV	DESCRIPTION	DATE	APPROVED
00	INITIAL RELEASE	09/25/09	DP
01	ADD PKG HEIGHT "A" MIN & NOM	06/21/11	JG
02	COMBINE POD & LAND PATTERN	05/29/13	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 ---C---
- 6 SEATING PLANE AND PRIMARY DATUM ---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

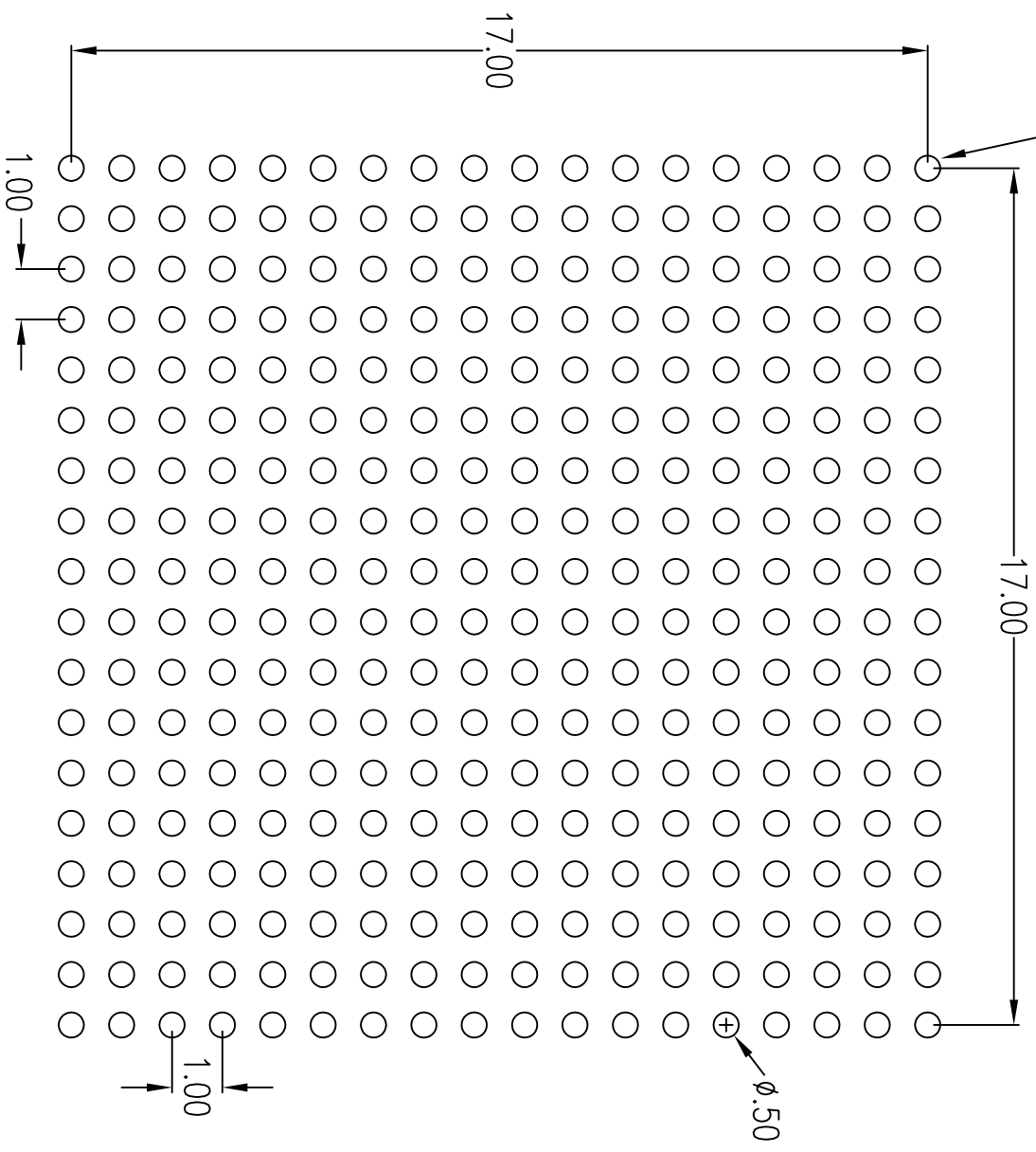


BOTTOM VIEW
(BALL SIDE VIEW)

SYMBOL	JEDEC VARIATION			NOTE
	MIN	NOM	MAX	
LOL	2.38	2.63	2.88	
A	0.30	—	—	
A1	1.76	—	2.42	
D	19.00 BSC			
E	19.00 BSC			
M	18			3
N	324			4
e	1.00 BSC			
b	0.50	0.60	0.70	5
CENTER BALL MATRIX	N/A			


TOLERANCES UNLESS SPECIFIED		 IDT 6024 Silver Creek Valley Rd. San Jose, CA 95138 PHONE: (408) 284-8333 FAX: (408) 284-8591
DECIMAL	ANGULAR	
APPROVALS	DATE	TITLE
DRAWN <i>SP</i>	09/25/09	HL/HG324 PACKAGE OUTLINE
CHECKED		19.0 X 19.0 mm BODY
		1.00 mm BALLPITCH FCBGA
		SIZE DRAWING NO. PSC-4288
		REV 02
DO NOT SCALE DRAWING		SHEET 2 OF 3

"A1" ID CORNER



RECOMMENDED LAND PATTERN DIMENSION

REVISIONS			
REV	DESCRIPTION	DATE	APPROVED
00	INITIAL RELEASE	09/25/09	DP
01	ADD PKG HEIGHT "A" MIN & NOM	06/21/11	JG
02	COMBINE POD & LAND PATTERN	05/29/13	KS

TOLERANCES UNLESS SPECIFIED		 IDT TM	6024 Silver Creek Valley Rd. San Jose, CA 95138 PHONE: (408) 284-8333 FAX: (408) 284-8591
DECIMAL	±		
ANGULAR	±	TITLE HL/HLG 324 PACKAGE OUTLINE 19.0 X 19.0 mm BODY 1.00 mm BALLPITCH FCBGA	
APPROVALS	DATE	SIZE	DRAWING No.
XXXX XXXX XXXX		C	PSC-4288
DRAWN	DATE	REV	
02	09/10/12	02	
CHECKED			
		DO NOT SCALE DRAWING	
		SHEET 3 OF 3	