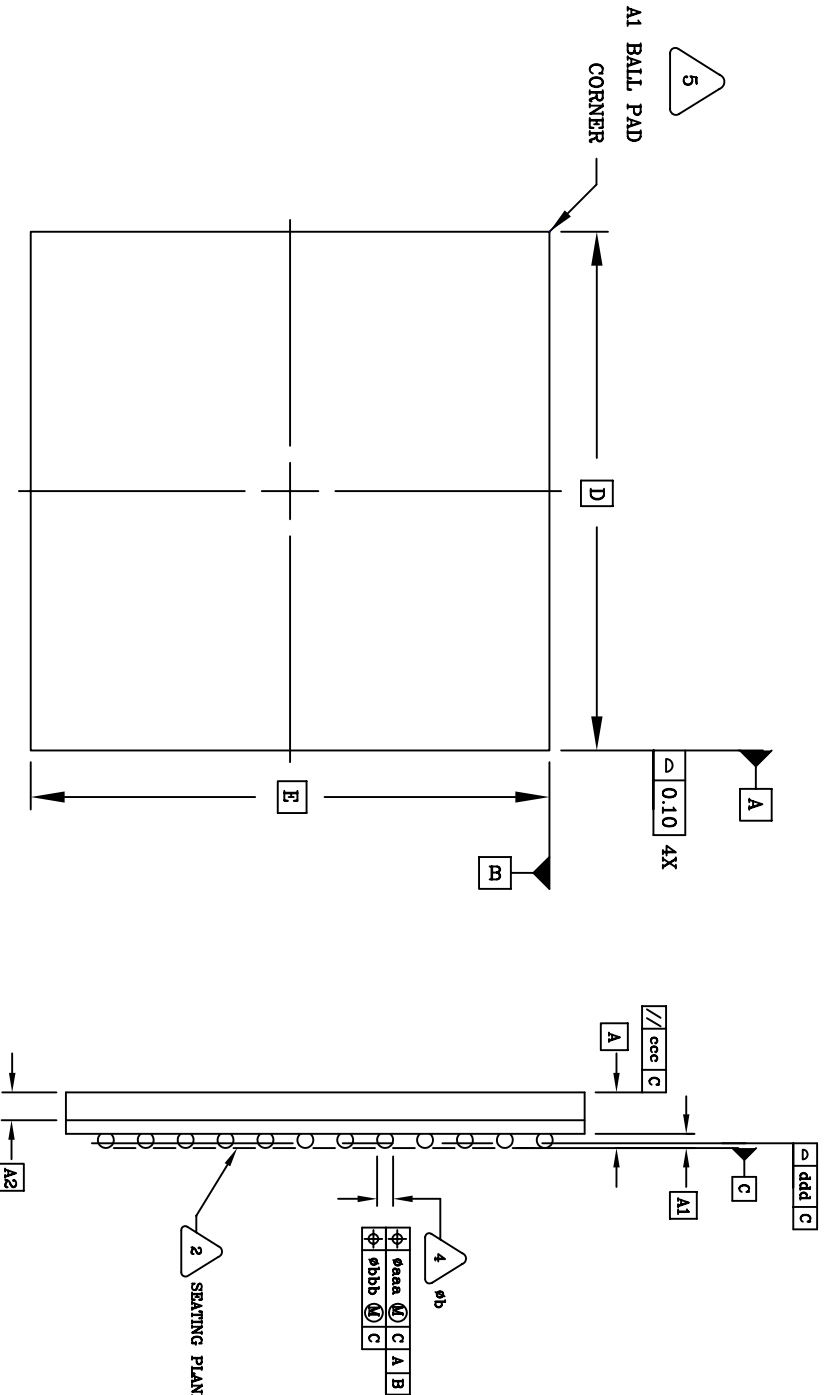


REVISIONS			
REV	DESCRIPTION	DATE	APPROVED
00	INITIAL RELEASE	05/02/00	PK
01	ADD A FOR 0.56MM SUBSTRATE THICKNESS	05/23/11	PK
02	COMBINE PAD & LAND PATTERN	4/19/13	RC



TOP VIEW

SIDE VIEW

SYMBOL	JEDEC VARIATION			NOTE
	MIN	NOM	MAX	
A	1.30	1.40	1.50	FOR 0.56MM (OR BELOW) SUBSTRATE THICKNESS
A	1.50	1.60	1.70	
A1	.31	.36	.41	FOR 0.56MM SUBSTRATE THICKNESS
A2	.65	.70	.75	
D	13.00 BSC			
D1	11.00 BSC			
E	13.00 BSC			
E1	11.00 BSC			
MD	12			3
ME	12			3
N	144			3
e	1.00 BSC			
b	.41	.46	.51	4
000	-	-	.15	
bbb	-	-	.08	
ccc	-	-	.10	
ddd	-	-	.12	

UNLESS OTHERWISE SPECIFIED
DIMENSIONS ARE IN MILLIMETERS
DECIMAL XX ±0.10
XXX ±0.05
XXXX ±0.05

ANGULAR
45°

APPROVALS

APPROVALS	DATE
DRAWN PJC/p	05/02/00
CHECKED	

BC144 PACKAGE OUTLINE
13.0 X 13.0 mm BODY CABGA

DRAWING No. PSC-4085

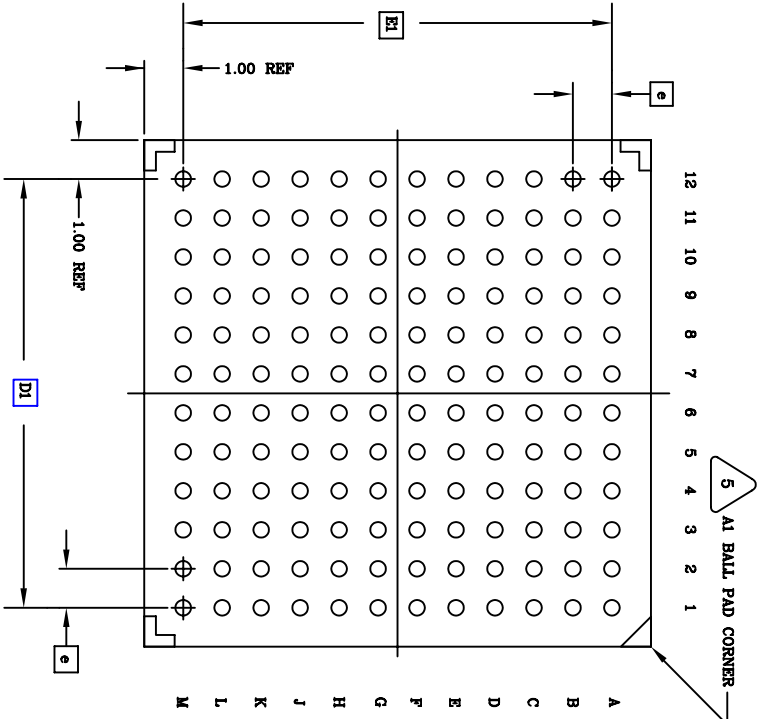
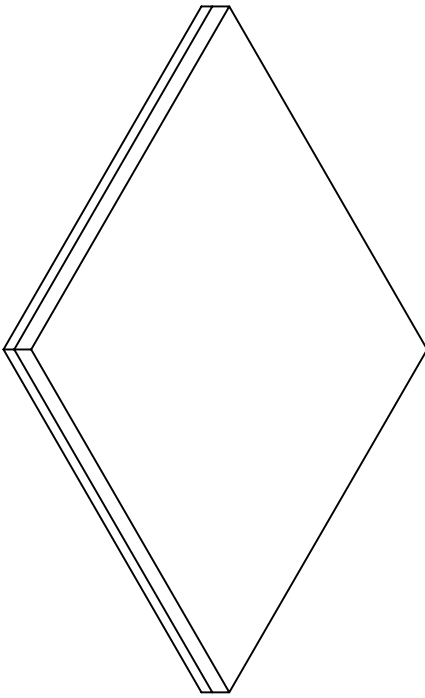
DO NOT SCALE DRAWING

SIZE SCALE REV
C N/A 02

SHEET 1 OF 3

6024 SILVER CREEK VALLEY ROAD
San Jose, CA 95138
PHONE: (408) 284-8200
FAX: (408) 284-2775
www.IDT.com

REVISIONS			
REV	DESCRIPTION	DATE	APPROVED
00	INITIAL RELEASE	05/02/00	
01	ADD A FOR 0.56MM SUBSTRATE THICKNESS	05/23/11	PK
02	COMBINE PAD & LAND PATTERN	4/19/13	RC



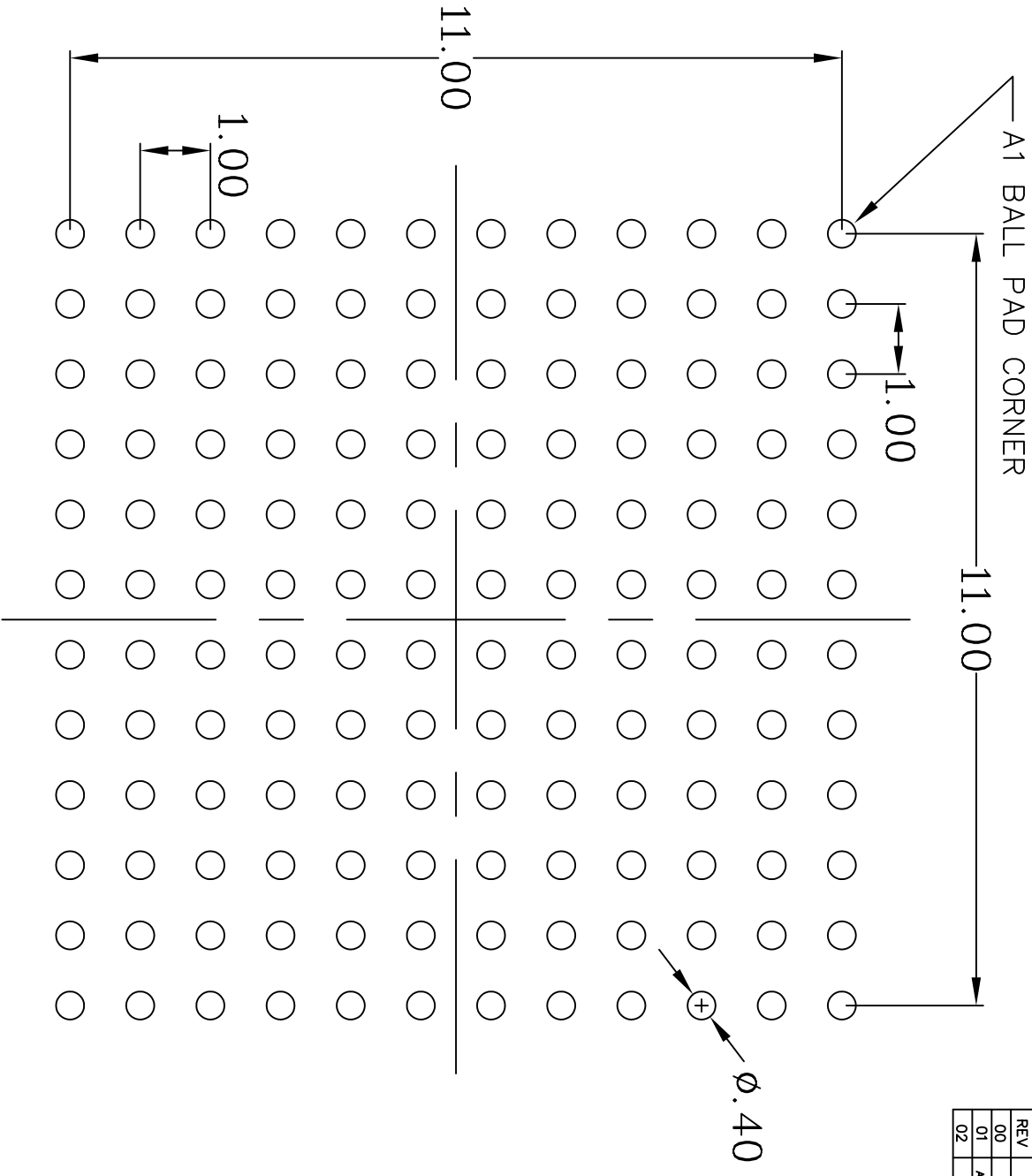
BOTTOM VIEW
(144 SOLDER BALLS)

NOTES: UNLESS OTHERWISE SPECIFIED

1. ALL DIMENSIONS AND TOLERANCES CONFORM TO ASME Y14.5M-1994.
2. SEATING PLANE AND PRIMARY DATUM C ARE DEFINED BY THE SPHERICAL CROWNS OF THE SOLDER BALLS.
3. "MD" IS THE BALL MATRIX SIZE IN THE "D" DIRECTION.
"ME" IS THE BALL MATRIX SIZE IN THE "E" DIRECTION.
"N" IS THE NUMBER OF SOLDER BALLS.
4. DIMENSION "b" IS MEASURED AT THE MAXIMUM SOLDER BALL DIAMETER, PARALLEL TO PRIMARY DATUM C.
5. "A1" ID CORNER MUST BE IDENTIFIED. IDENTIFICATION MAY BE BY MEANS OF CHAMFER, METALIZED OR INK MARK, INDENTATION OR OTHER FEATURE OF THE PACKAGE BODY.
6. ALL DIMENSIONS ARE IN MILLIMETERS.


UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN MILLIMETERS		APPROVALS	
DECIMAL XX ±0.10	ANGULAR ° ±1	DRAWN	DATE
XXX ±0.05		05/02/00	
XXXX ±0.03		CHECKED	
IDT 6024 SILVER CREEK VALLEY ROAD San Jose, CA 95138 PHONE: (408) 284-8200 FAX: (408) 284-2775 www.idt.com		DRAWING No. PSC-4085	
		BC144 PACKAGE OUTLINE 13.0 X 13.0 mm BODY CABGA	
DO NOT SCALE DRAWING		SIZE	SCALE
		C	N/A
			REV
			02

REVISIONS			
REV	DESCRIPTION	DATE	APPROVED
00	INITIAL RELEASE	05/02/00	PK
01	ADD A FOR 0.69MM SUBSTRATE THICKNESS	05/23/11	PK
02	COMBINE PAD & LAND PATTERN	4/19/13	RC



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.

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN MILLIMETERS		APPROVALS		DATE	
DECIMAL	XX #0.10	DRAWN		05/02/00	
ANGULAR	XXX #0.05	CHECKED			
	### #0.05				
 IDT 6024 SILVER CREEK VALLEY ROAD San Jose, CA 95138 PHONE: (408) 284-8200 FAX: (408) 284-2775 www.IDT.com		DRAWING No.		SIZE	SCALE
		BC144 PACKAGE OUTLINE		C	N/A
		13.0 X 13.0 mm BODY CABGA			REV
		PSC-4085			02
		DO NOT SCALE DRAWING		SHEET 3 OF 3	