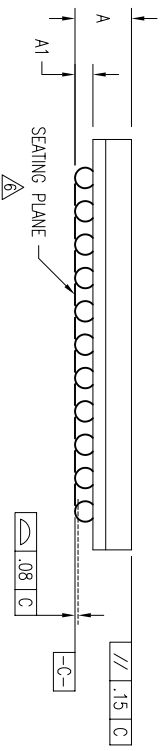
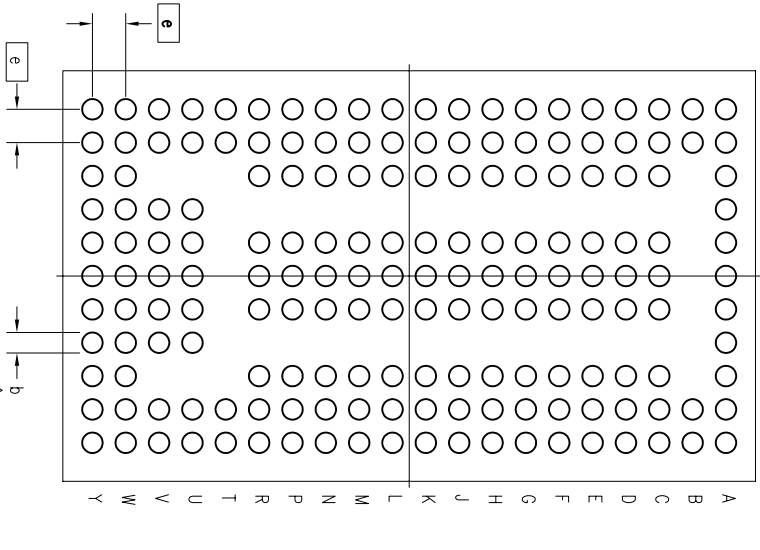
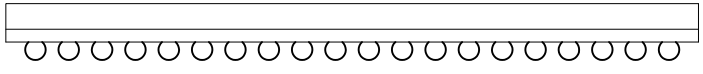
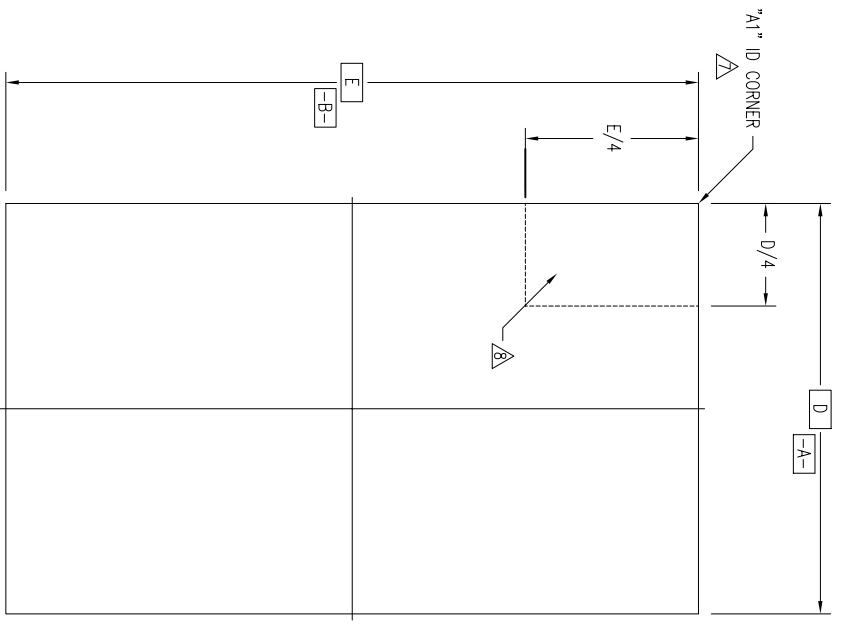


REVISIONS

REV	DESCRIPTION	DATE	APPROVED
02	CHANGE "A" DIMENSION	10/05/07	Tu Vu
03	CHANGE TITLE BLOCK TOL	10/13/11	D.P
04	COMBINE POD & LAND PATTERN	06/21/13	KS

11 10 9 8 7 6 5 4 3 2 1



TOLERANCES UNLESS SPECIFIED

DECIMAL ANGULAR

XX ± .05

XXX ± .030

APPROVALS DATE TITLE

DRAWN 37J 10/29/06 AK/AK6176

CHECKED FFBGA

SIZE DRAWING No. PSC-4199

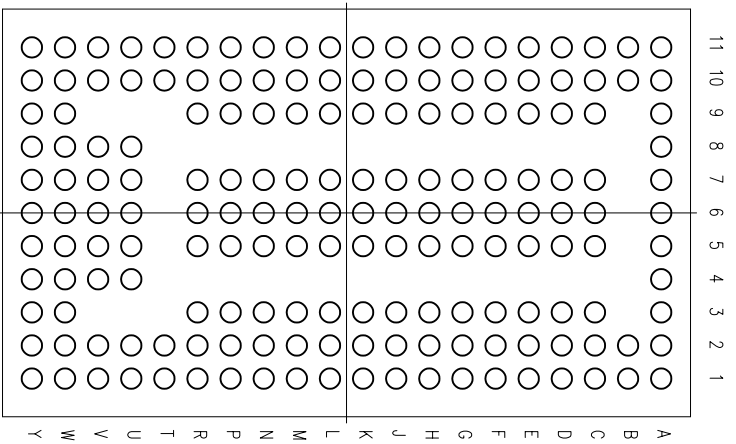
DO NOT SCALE DRAWING

REV 04

SHEET 1 OF 3

6024 Silver Creek Valley Road  
San Jose, CA 95138  
PHONE: (408) 284-8200  
FAX: (408) 284-8891  
TMS: 910-338-2070

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(176 BALL)

SYMBOL	JEDEC VARIATION			NOTE
	NOT YET REGISTERED	NOM	MAX	
A	1.00	-	1.20	
A1	.25	-	-	
D	8.00	BSC		
E	13.50	BSC		
M	11 X 20			3
N	176			4
e	.65	BSC		
b	.35	.40	.45	5
CENTER BALL MATRIX	N/A			

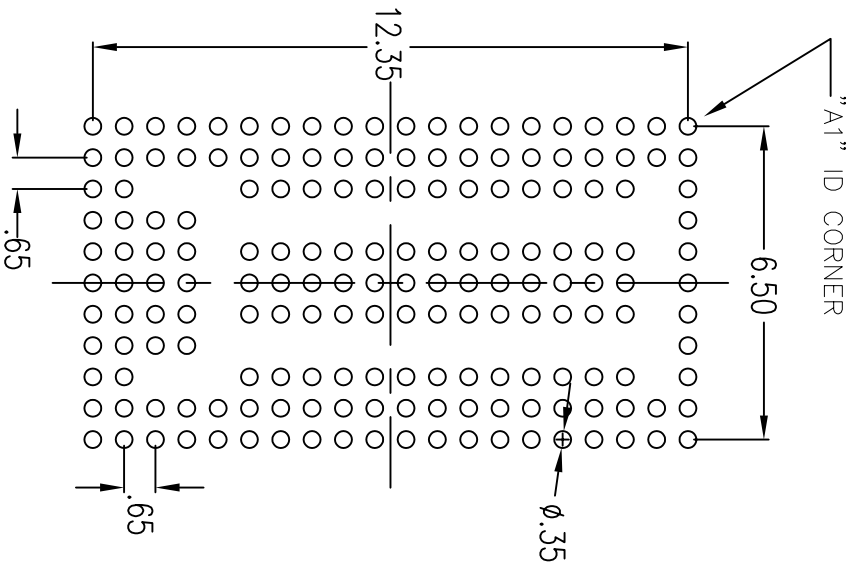
REVISIONS			
REV	DESCRIPTION	DATE	APPROVED
02	CHANGE "A" DIMENSION	10/05/07	Tu Vu
03	CHANGE TITLE BLOCK TOL	10/13/11	D.P
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NOTES:

- 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  $\boxed{-C-}$
- 6 SEATING PLANE AND PRIMARY DATUM  $\boxed{-C-}$  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 IF "A1" ID CORNER IS ON PACKAGE BODY, IT MUST BE LOCATED WITHIN THE ZONE INDICATED
- 9 ALL DIMENSIONS ARE IN MILLIMETERS

TOLERANCES UNLESS SPECIFIED		 6024 Silver Creek Valley Road San Jose, CA 95138 PHONE: (408) 284-8200 FAX: (408) 4284-8591 WWW.IDT.COM TWK: 910-338-2070	
DECIMAL	ANGULAR	±	
XX±.05			
XXXX.030			
APPROVALS	DATE	TITLE	
DRAWN <i>JYJ</i>	08/25/06	AK/AK6176 PACKAGE OUTLINE	
CHECKED		8.0 X 13.5 mm BODY	
		FPBGA	
SIZE	DRAWING No.	REV	
C	PSC-4199	04	
DO NOT SCALE DRAWING		SHEET 2 OF 3	

REVISIONS			
REV	DESCRIPTION	DATE	APPROVED
02	CHANGE "A" DIMENSION	10/05/07	TU VU
03	CHANGE TITLE BLOCK TOL	10/13/11	D.P
04	COMBINE POD & LAND PATTERN	06/21/13	KS



RECOMMENDED LAND PATTERN DIMENSION

**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 Road	
DECIMAL	ANGULAR	San Jose, CA 95138	
X±.1	±	PHONE: (408) 284-8200	
XXX±.05		FAX: (408) 4284-8591	
XXXX±.030		TWX: 910-339-2070	
APPROVALS	DATE	TITLE	REV
DRAWN 272	08/25/06	AK/AKG176 PACKAGE OUTLINE	04
CHECKED		FPBCA	
SIZE	DRAWING No.	DO NOT SCALE DRAWING	SHEET 3 OF 3
C	PSC-4199		