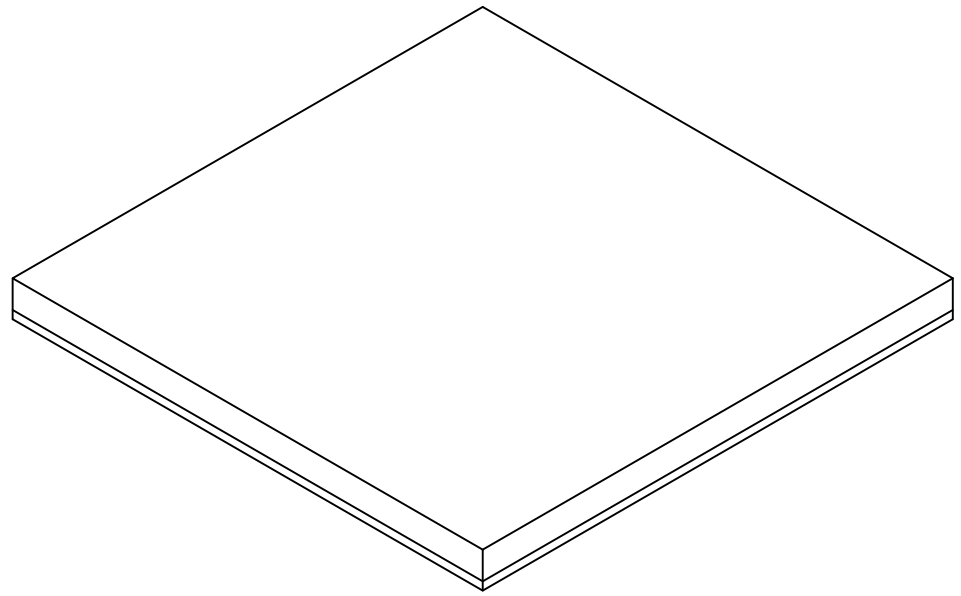
REVISION HISTORY					
REV	DCN NUMBER	DESCRIPTION	ORIGINATOR	INCORPORATOR	DATE
00	C06099	INITIAL RELEASE	MCM	EB	05/06/99
01	C9341	INITIAL RELEASE	SMHAN	SMHAN	07/06/00
02	C17641	CHANGE TITLE AND UPDATE FORMATS	DSHER	DSHER	08/07/02
03	NA	ADDED SHEET 4 AND 196 BGA BALL MATRIX	JGIAN	JGIAN	06/05/03
04	N/A	CORRECTED TOTAL THICK. TO 1.11 +0.09/-0.10	HOCHOI	-----	03/04/04



7. REFERENCE SPECIFICATIONS:
   A. AAWW SPEC #001-0531-2234: PACKING OPERATION PROCEDURE.
   B. AAWW SPEC #001-0519-2062: MARKING.

△6. PRIMARY DATUM C AND SEATING PLANE ARE DEFINED BY THE SPHERICAL CROWNS OF THE SOLDER BALLS.

△5. DIMENSION IS MEASURED AT THE MAXIMUM SOLDER BALL DIAMETER, PARALLEL TO PRIMARY DATUM C.

4. THE MAXIMUM ALLOWABLE NUMBER OF SOLDER BALLS IS 196.

3. THE MAXIMUM SOLDER BALL MATRIX SIZE IS 14 X 14.

2. THE BASIC SOLDER BALL GRID PITCH IS 0.80mm.

1. ALL DIMENSIONS AND TOLERANCES CONFORM TO ASME Y14.5M-1994.

NOTES: UNLESS OTHERWISE SPECIFIED

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN MILLIMETERS

DECIMAL X.X ±0.1, X.XX ±0.05, X.XXX ±0.030 — ANGULAR ±1°

INTERPRET DIM AND TOL PER ASME Y14.5M - 1994

MATERIAL: N/A

FINISH: N/A

DO NOT SCALE DRAWING

THIRD ANGLE PROJECTION

APPROVALS	DATE
DESIGNED: SMHAN	06/05/00
CHECKED: DARNO	06/05/00
PRODUCT MANAGER: TPANC	06/05/00
RELEASED: ROLM	06/06/00

Amkor Technology, Inc.
Chandler, Arizona, USA
Anam Semiconductor, Inc.,
Seoul, Korea
Amkor Technology Philippines, Inc.
Manila, Philippines

Amkor Technology / ANAM Semiconductor

TITLE: PACKAGE OUTLINE - MAF, 14 X 14 MATRIX, 12.00mm X 12.00mm X 1.11mm, 0.60mm MOLD CAP, 0.40mm BALL, 0.80mm PITCH, LAMINATE SUBSTRATE, AWW

SIZE	SID NUMBER	DWG NUMBER	REV
A3	N/A	75443	04

STRIP DWG NUMBER/REV	PKG OUTLINE DWG NO.	SCALE	SHEET
N/A	N/A	NONE	1 OF 4