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NOTES: UNLESS OTHERWISE SPECIFIED

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

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

3. "S" IS MEASURED WITH RESPECT TO A AND B AND DEFINES THE POSITION OF THE CENTER SOLDER BALL IN THE OUTER ROW. WHEN THERE IS AN ODD NUMBER OF SOLDER BALLS IN THE OUTER ROW "S"=.000; WHEN THERE IS AN EVEN NUMBER OF SOLDER BALLS IN THE OUTER ROW THE VALUE "S"=e/2. "S" MAY BE EITHER .000 OR e/2 FOR EACH VARIATION.

4. BALL MATRIX PATTERN IS SHOWN FOR ILLUSTRATION ONLY.

REVISION HISTORY

REV	DESCRIPTION	ORIGINATOR	DATABASE FILE NAME	GERBER FILE NAME	INCORPORATOR	DATE
00	INITIAL RELEASE	JHSHIM	N/A	N/A	ACOPI	10/18/05
01	ADDED 416BALLMAP	JCNA	N/A	N/A	JCNA	07/07/06
02	ADDED 492 BALL FOOTPRINT	JROWE	N/A	N/A	JROWE	10/27/06
03	STANDARD POD	JHSHIM	N/A	N/A	JHSHIM	03/29/07
04	CHANGED CHAMFER SIZE	JHSHIM	N/A	N/A	JHSHIM	04/24/07
05	CHANGED DIMENSION D2 AND E2 TO BASIC	DSHER	N/A	N/A	DSHER	08/23/07
06	CHANGED VALUE OF DIM A2 FROM 0.20 TO 0.23	JROWE	N/A	N/A	JROWE	09/06/07
07	ADDED 0.32 PAD OPENING FOR 416 BALL	JOWKIM	N/A	N/A	JOWKIM	11/02/07
08	ADDED MOLD CAP SIZE FOR 12.00X12.00 & TOP MAP	HOCHOI	N/A	N/A	JOWKIM	03/12/08

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: SEE CROSS SECTION

FINISH: SEE NOTE 1

DO NOT SCALE DRAWING

THIRD ANGLE PROJECTION

APPROVALS		DATE
DESIGNED	JHSHIM	08/23/05
CHECKED	BJKHIM	08/23/05
PRODUCT MANAGER	MDREI	08/23/05
RELEASED	SLOWD	10/18/05

Amkor Technology www.amkor.com

TITLE: PACKAGE OUTLINE, PS–vfBGA 15.00mm X 15.00mm LAMINATE SUBSTRATE, AWW

SIZE	SID NUMBER	DWG NUMBER	REV
A3	N/A	325824	08

STRIP DWG NUMBER/REV	PKG OUTLINE DWG NO.	SCALE	SHEET
N/A	N/A	NONE	1 OF 8