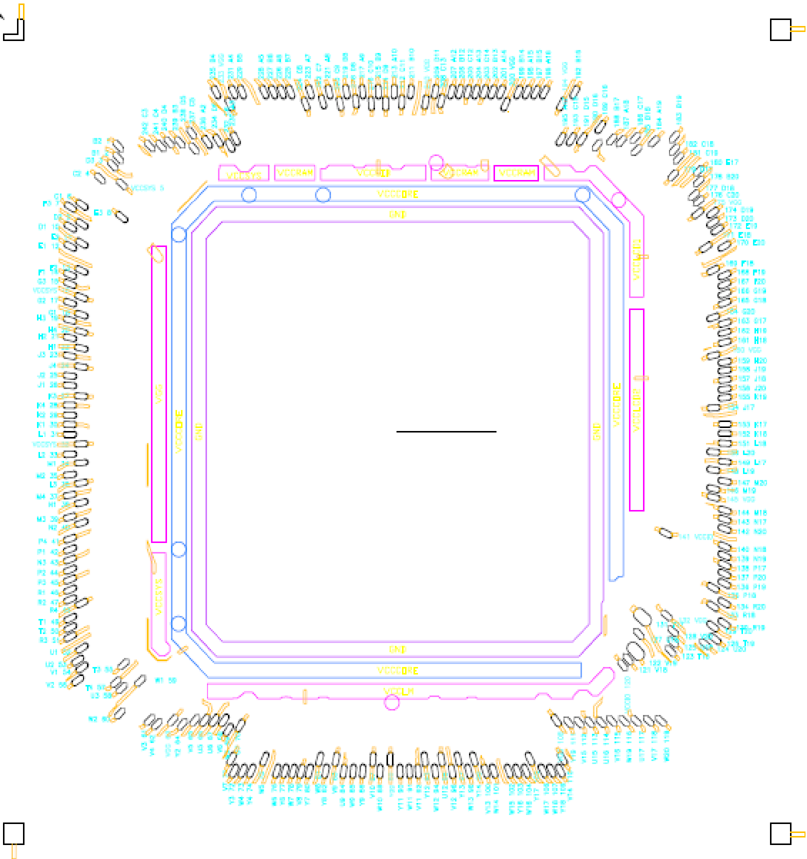
A1 BALL PAD CORNER



REVISION HISTORY			
REV	DESCRIPTION	DESIGNER	DATE

WIRE BOND INFORMATION (UNITS IN mm UNLESS OTHERWISE NOTED)

- DEVICE: xxx
- DIE SIZE: X: xxx Y: xxx
- DIE THICKNESS: N/A
- DIE PAD OPENING: xxx
- DIE PAD PITCH: xxx
- NUMBER OF BUMPS: N/A
- BUMP MATERIAL: N/A
- LONGEST WIRE (2D)/LD NO.: xxx/xxx
- SHORTEST WIRE (2D)/LD NO.: xxx/xxx
- TOTAL WIRE LENGTH (2D): xxx
- WIRE DIAMETER/# WIRES: xxx/xxx
- WIRE ANGLE: xxx
- DBRC: xxx
- DIE LOCATION: X: 0.000 Y: 0.000
- BOND FINGER PITCH/LENGTH: 0.135/0.250
- MOLD CAP THICKNESS: xxx
- RELATED UD NUMBER: 353681UD

COMMENTS:

DO NOT BOND THIS AREA
* NC BOND FINGER

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DRAWING TYPE

BOND DIAGRAM

Amkor Technolo
www.amkor.com
THIRD ANGLE PROJECTION

PACKAGE TYPE	LAYER COUNT	BODY SIZE
CTBGA	2	14.00mm X 14.00m
BALL PITCH		BALL COUNT
0.65mm		364

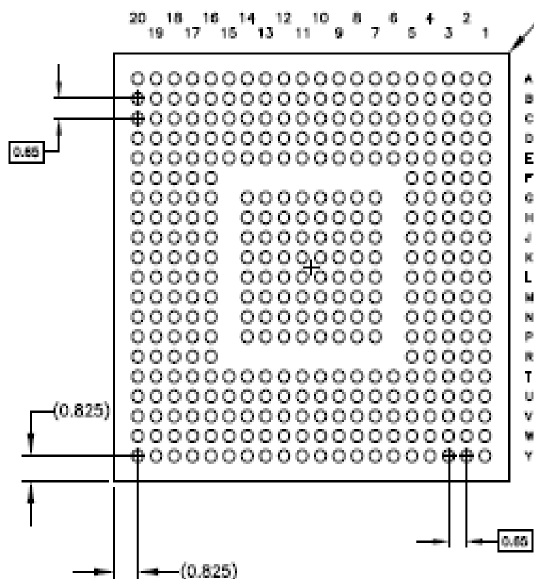
SIZE	SCALE	DWG NUMBER	REV
A3	12:1	XXXXX	X
SHEET			
1 OF 1			

A1 BALL PAD
A1/PIN1

MOLD GATE

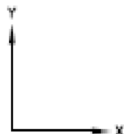
ORIENTATION
"NC"–NO CONNECT
"X"–STITCH BOND

CUSTOMER – 1 – CONFIDENTIAL



BOTTOM VIEW

364 SOLDER BALLS



SIZE	DWG NUMBER	REV
A3	300871	00
SCALE 8:1	SHEET 3 OF 3	

A1 BALL PAD CORNER

14.00

14.00

0.10 (4X)

A

B

TOP VIEW

// 0.10 C

0.10 C

C

5. ø0.40±0.05

Ø0.15Ⓜ C A B

Ø0.08Ⓜ C

6. SEATING PLANE

0.32±0.05

0.70±0.05

1.23± 0.10

SIDE VIEW

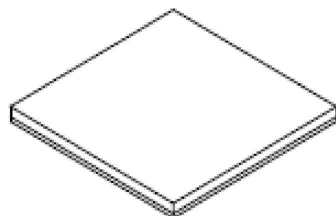
Y

X

SIZE	DWG NUMBER	REV
A3	300871	00
SCALE 8:1	SHEET 2 OF 3	

REVISION HISTORY

REV	ECN NUMBER	DESCRIPTION	ORIGINATOR	DATABASE FILE NAME	GERBER FILE NAME	INCORPORATOR	DATE
00	N/A	INITIAL RELEASE	PGONZ	N/A	N/A	PGONZ	06/12/03



7. REFERENCE SPECIFICATIONS:
   A. AWW SPEC #001-0531-2234: PACKING OPERATION PROCEDURE.
   B. AWW 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 400.

3. THE MAXIMUM SOLDER BALL MATRIX SIZE IS 20 X 20.

2. THE BASIC SOLDER BALL GRID PITCH IS 0.65mm.

1. ALL DIMENSIONS AND TOLERANCES CONFORM TO ANSI 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	PGONZ	05/08/03
CHECKED	ACOPI	05/08/03
PRODUCT MANAGER	CKOEH	05/08/03
RELEASED	BSMIT	06/12/03

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, 20 X 20 MATRIX, 14.00mm X 14.00mm X 1.23mm, 0.70mm MOLD CAP, 0.40mm BALL, 0.65mm PITCH, LAMINATE SUBSTRATE, AWW

SIZE	DO NUMBER	DWG NUMBER	REV
A3	N/A	300871	00

STRIP DWG NUMBER/REV	PKG OUTLINE DWG NO.	SCALE	SHEET
N/A	N/A	NONE	1 OF 3