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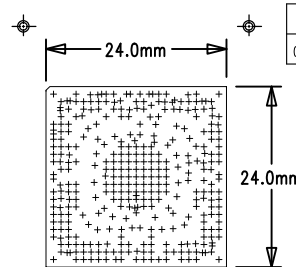
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NOTES: UNLESS OTHERWISE SPECIFIED

- 1.) REQUIREMENTS:
- A. INTERPRET DRAWING PER ANSI Y145
 - B. PERFORMANCE SPECIFICATION, IPC-6012, LATEST REVISION, CLASS 2
 - C. ACCEPTABILITY SPECIFICATION, IPC-A-600, LATEST REVISION, CLASS 2
 - D. UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE MM
 - E. ORDER OF PRECEDENCE, IN CASE OF CONFLICT:
 - o PROCUREMENT DOCUMENT (PURCHASE ORDER).
 - o MANUFACTURING WAIVER
 - o DRILL DRAWING
 - o BOARD OUTLINE DRAWING
- 2.) MATERIAL: SEE LAYER STACK-UP FOR OVER-ALL THICKNESSES & TOLERANCE
- A. N5000 CORE & PREPREG PER ENCLOSED LAYUP DETAIL 'A'
 - B. MATERIAL SUBSTITUTION MUST BE APPROVED IN WRITING BY CUSTOMER
- 3.) ARTWORK:
- A. NONFUNCTIONAL PADS: MAY BE REMOVED ON INNER LAYERS ONLY
 - B. SOLDERMASK: PER SUPPLIED ARTWORK. NO MODIFICATION TO ARTWORK IMAGE
 - C. ETCH COMPENSATION: AT VENDOR DISCRETION TO MEET FINAL REQUIREMENTS.
- 4.) COPPER WEIGHT:
- A. OUTER LAYERS, FINISHED THICKNESS: 1 OZ.
 - B. INNER LAYERS, FINISHED THICKNESS: 3 OZ.
- 5.) GOLD PLATING:
- A. TOP BONDABLE GOLD SHALL BE 30 MICROINCHES MINIMUM PER ASTM B488, TYPE 1 (99.90%) MINIMUM PURITY. GRADE A (KNOOP HARDNESS 90 MAXIMUM)
 - B. BOTTOM GOLD PLATING SHALL BE ENIG 3-15 MICROINCHES
- 6.) SOLDER RESIST:
- A. PSR4000 AUS303. THICKNESS = 0.029 [.0011] REF
- 7.) REQUIREMENTS OF FINAL FINISH PLATING/COATING PER IPC-6012, CLASS 2.
- 8.) ALL EDGES SHALL BE FREE OF ALL DEFECTS AND BURRS.
- 9.) CONTROLLED IMPEDANCE CIRCUITS: ROUTING LAYERS SHALL BE 50-OHM SINGLE TERMINATED & 100-OHM DIFFERENTIAL PAIRS. FABRICATOR SHALL ADJUST ARTWORK TO ACHIEVE SPECIFIED IMPDANCE, AS MEASURED BY TDR PER IPC TM 650 2.5.5.7

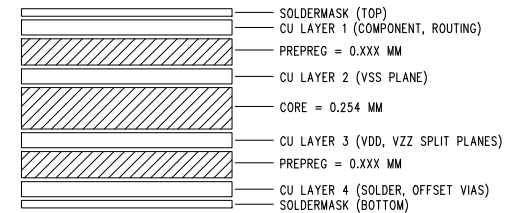
REVISION RECORD

LTR	ECO NO:	APPROVED:	DATE:



SIZE	QTY	SYM	PLATED	TOL
0.15	347	+	YES	+/-0.0

4 LAYER SUBSTRATE STACK-UP



University of California at San Diego			
UCSD BGA			
DATE	REV	DATE	REV
DWS	2014-03-15	UCSD001	1.0
DATE	REV	DATE	REV
XXX	UCSD001-1.0	100%WELL LAYERING	

COMPANY:

UNIVERSITY OF CALIFORNIA AT SAN DIEGO

TITLE:

BGA352, 1.0MM PITCH

DRAWN: D. SMITH	DATED: 2014/04/22
CHECKED: M. TAYLOR	DATED: 2014/04/22
QUALITY CONTROL: QC By	DATED: QC Date
RELEASED: Released By	DATED: Release Date

CODE:

Code

SIZE:

A

DRAWING NO:

UCSD001-BGA

REV:

1.0

SCALE: 1 : 1

SHEET: 1 OF 1