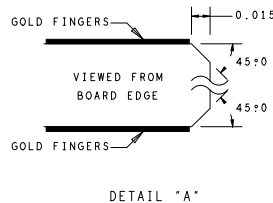
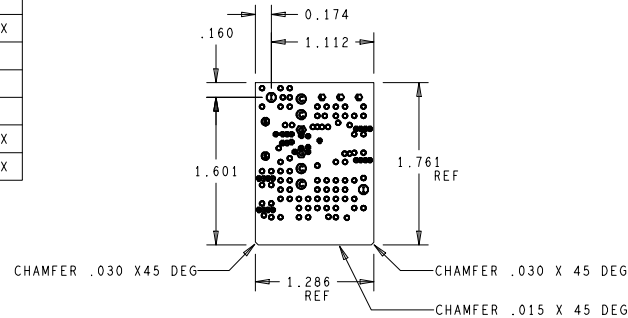


ARTWORK SELECTION TABLE		PLATING			
		HASL	ALL AU 10	BUMP AU 30	WHITE TIN
FILM	DESCRIPTION	-1	-2	-5	-6
1	COMP (TOP) SIDE	X	X	X	X
2	CIRC (BOT) SIDE	X	X	X	X
3	SILKSCREEN TOP	X	X	X	X
4	SOLDERMASK TOP	X	X	X	X
5	SILKSCREEN BOT	X	X	X	X
6	SOLDERMASK BOT	X	X	X	X
7	INT1	X	X	X	X
8	INT2	X	X	X	X
9	INT3				
10	INT4				
11	GOLDMASK BUMP TOP			X	
12	GOLDMASK BUMP BOT				
13	PASTEMASK TOP	X	X	X	X
14	PASTEMASK BOT				
15	BUMPLET TOP			X	
16	BUMPLET BOT				
17	GOLDMASK SLDR TOP	X	X		X
18	GOLDMASK SLDR BOT	X	X	X	X

PLATING OPTIONS:

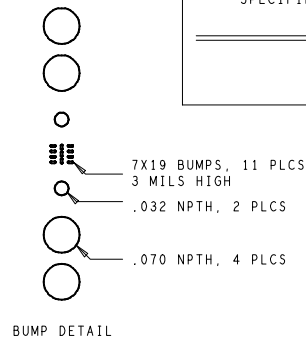
- HASL FINISH OPTION: ALL EXPOSED COPPER CONDUCTORS, PADS AND PLATED-THRU HOLES SHALL BE COATED WITH ELECTRO-DEPOSITED TIN-LEAD 63/37, 0.0002/0.0008" THK. REFLOW TIN-LEAD IS ACCEPTABLE.
- "ALL AU 10" OPTION: OUTER LAYERS TO BE GOLD PLATED 0.000010" MIN PER MIL-G-45204B, CLASS 00, GRADE A, TYPE I, OVER LOW STRESS NICKEL PLATING 0.000150" MIN PER QQ-N-290, CLASS I.
- "HARD AU 30" OPTION: OUTER LAYERS TO BE GOLD PLATED 0.000010" MIN PER MIL-G-45204B, CLASS 00, GRADE A, TYPE I, OVER LOW STRESS NICKEL PLATING 0.000150" MIN PER QQ-N-290, CLASS I.
TOP/BOT LAYER TO BE SELECTIVE GOLD PLATED 0.000030" MIN PER MIL-G-45204B, CLASS 0, GRADE C, TYPE I, PER MASK.
- "HARD AU 50" OPTION: OUTER LAYERS TO BE GOLD PLATED 0.000010" MIN PER MIL-G-45204B, CLASS 00, GRADE A, TYPE I, OVER LOW STRESS NICKEL PLATING 0.000200" MIN PER QQ-N-290, CLASS I.
TOP/BOT LAYER TO BE SELECTIVE GOLD PLATED 0.000050" MIN PER MIL-G-45204B, CLASS 1, GRADE C, TYPE I, PER MASK.
- "BUMP AU 30" OPTION: OUTER LAYERS TO BE GOLD PLATED 0.000010" MIN PER MIL-G-45204B, CLASS 00, GRADE A, TYPE I, OVER LOW STRESS NICKEL PLATING 0.000150" MIN PER QQ-N-290, CLASS I.
TOP/BOT LAYER TO BE SELECTIVE GOLD PLATED 0.000030" MIN PER MIL-G-45204B, CLASS 0, GRADE C, TYPE I, PER MASK.
ADD GOLD BUMPLETS PER DETAIL "A".
- WHITE TIN FINISH OPTION: ALL EXPOSED COPPER CONDUCTORS, PADS AND PLATED-THRU HOLES SHALL BE COATED WITH ELECTRO-DEPOSITED WHITE TIN, 0.0002/0.0008" THICK.



DETAIL "A"

FABRICATION NOTES:

- MATERIAL: .062 THK ROGERS RO3003/FR-4 GLASS EPOXY LAMINATE, COPPER CLAD 1OZ/ 4-LAYER MULTILAYER PER MIL-P-13949F CLASS 2 FLAMMABILITY RATING FOR BOARD MATERIAL SHALL BE 94V-2 MINIMUM.
- FINISHED COPPER THICKNESS SHALL BE .001 IN. MIN IN PLATED-THRU HOLES AND .0026 IN. MIN (NOMINAL 1.5 OZ) FOR CONDUCTORS AND PADS.
- THERE SHALL BE NO STRAY PARTICLES ON THE BOARD OR CIRCUITS.
- MINIMUM DESIGN LINE WIDTH SHALL BE 0.012".
- MINIMUM DESIGN SPACING SHALL BE 0.006".
- ALL HOLES TO BE DRILLED WITHIN $\pm .008$ DIA OF ACTUAL PAD CENTER.
- TANGENT BREAKOUT IS ACCEPTABLE ON PADS, EXCEPT IN DIRECTION OF CONNECTING TRACK.
- ALL LAYER REGISTRATION TO BE WITHIN 0.005".
- MAXIMUM FINISHED BOARD WARPAGE SHALL BE 0.010 IN/IN.
- LPI SOLDER MASK, BOTH SIDES .002 THICK MAX. COLOR: GREEN
- SILKSCREEN BOTH SIDES; COLOR, YELLOW.
- ALL ANALOG DEVICES SUPPLIED MATERIAL TO BE RETURNED IN ORIGINAL CONDITION.
- MANUFACTURER'S LOGO AND DATE CODE TO APPEAR IN COPPER ON COMPONENT SIDE, NEAR BOARD PART NUMBER.
- PLATING OPTION TO BE APPENDED TO BOARD PART NUMBER ON BOTTOM, IN COPPER OR IN SILKSCREEN, INCLUDE DASH (-) AND NUMBER.
- IPC NETLIST TESTING TO BE DONE WITH NETLIST PROVIDED PRIOR TO FABRICATION. ANY INTENTIONAL SHORTS WILL BE DEFINED IN SHORTS.TXT FILE.
- COPPER ON TOP, BOTTOM OR INTERNAL EDGE OF BOARD MAY BE CUT BACK 0.015" FROM BOARD EDGE FOR FABRICATION REQUIREMENTS.

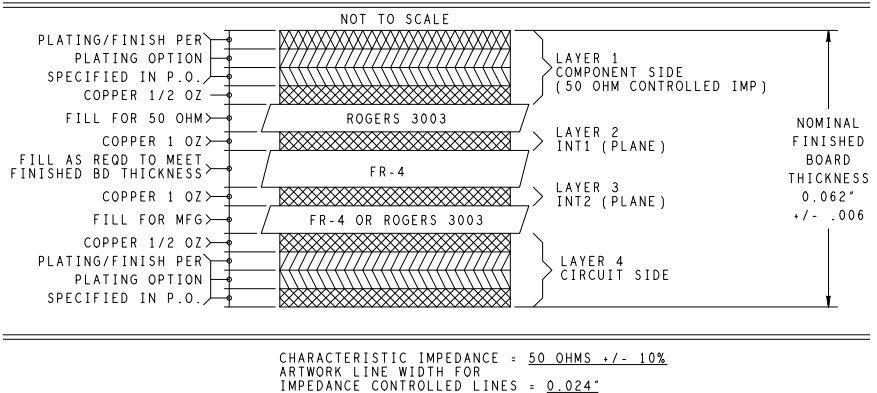


BUMP DETAIL

REVISIONS			
REV	DESCRIPTION	DATE	APPROVED
A	INITIAL RELEASE	04/05	M.P.

DRILL CHART				
ALL UNITS ARE IN MILS				
FIGURE	SIZE	TOLERANCE	PLATED	QTY
•	12.0	MAX DIAM	PLATED	30
•	18.0	MAX DIAM	PLATED	85
•	62.0	3.0	PLATED	3
•	82.0	3.0	PLATED	2
•	30.0	2.0	NON-PLATED	2
•	70.0	2.0	NON-PLATED	4
•	120.0	2.0	NON-PLATED	2

LAYUP DETAIL



UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES		TOLERANCES		ANGLES	
DECIMALS	FRACTIONS	DECIMALS	FRACTIONS	DECIMALS	FRACTIONS
.XX	1/16	.XX	1/32	.XX	1/2
.XXX	1/32	.XXX	1/64	.XXX	1/4
MATERIAL		APPROVAL		DATE	
DESIGNED		R.S.		04/05	
CHECKED					
FINISH		APPROVED			
MFG ENGINEER					
DO NOT SCALE DWG		SCALE		1X1	
		TITLE		AD8319 CHAR BOARD	
		SIZE		C	
		FSCM NO		DRAWING NUMBER	
				09-A01145	
		REV		A	
		SHEET 1 OF 1			