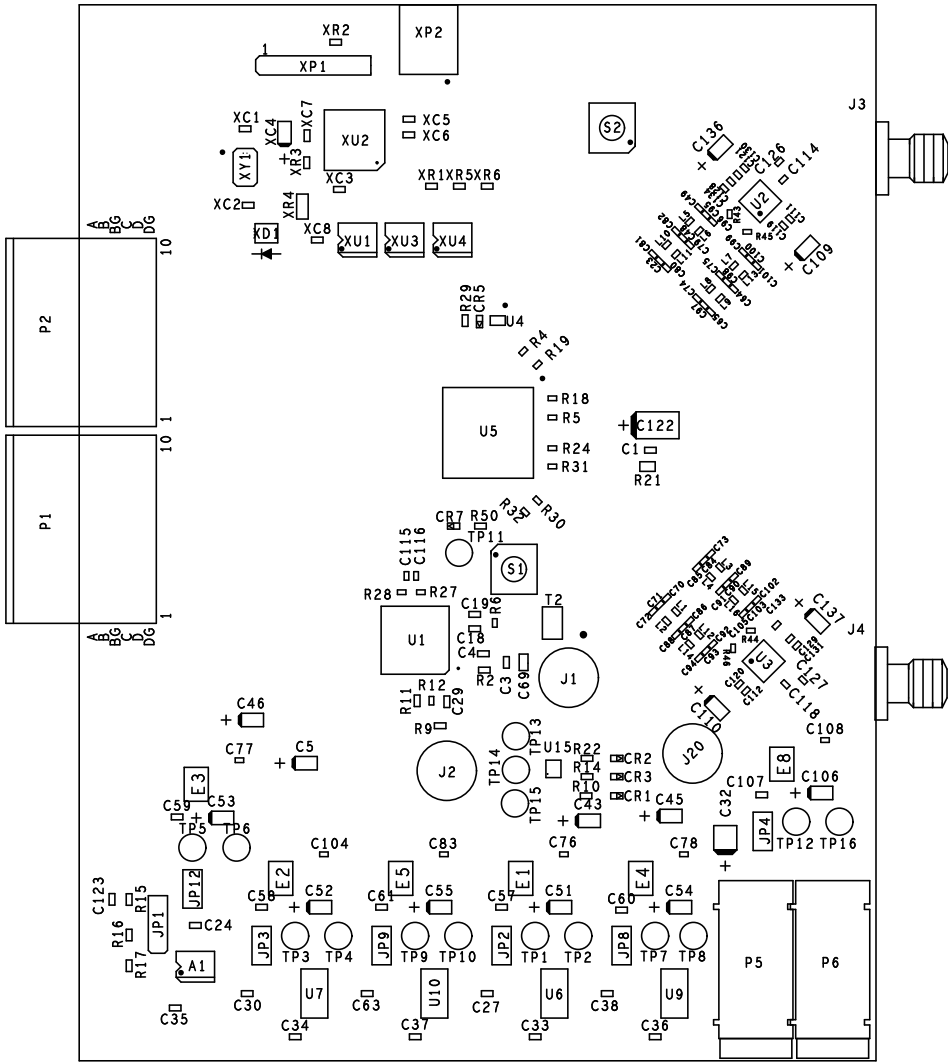



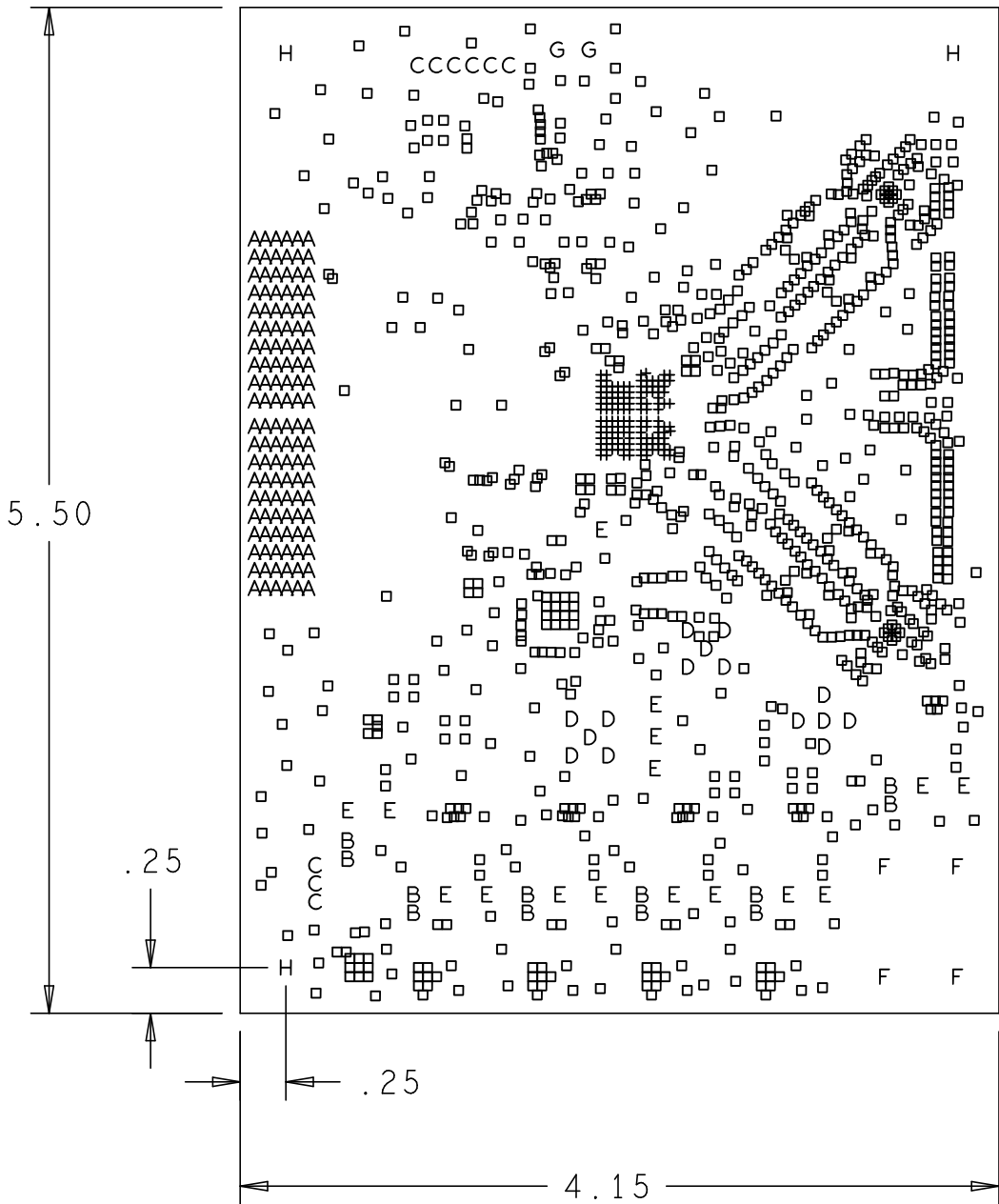
REVISIONS			
REV	DESCRIPTION	DATE	APPROVED
A	INITIAL RELEASE	27APR10	K. J.



PRIMARY SIDE

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES DECIMALS FRACTIONS ANGLES .XX +/- .010 +/- 1/32 +/- 2 .XXX +/- .005			 <b>ANALOG DEVICES</b> HSC DIVISION 804 WOBURN STREET WILMINGTON, MA 01887		TITLE AD9148 M5372 EBZ BOARD	
	APPROVAL	DATE				
	DRAWN BY W.D.B	27APR10				
	DESIGNED					
FINISH	CHECKED		SIZE C	FSCM NO	DRAWING NUMBER HSC 09032	REV
	APPROVED					
	MFG ENGINEER					
DO NOT SCALE DWG			SCALE	1 / 1		SHEET OF

REVISIONS			
REV	DESCRIPTION	DATE	APPROVED
A	INITIAL RELEASE	27APR10	K. J.



PRIMARY SIDE

- NOTES:
- MATERIALS; FR-4, IN ACCORDANCE WITH IPC-L-130 (LATEST REV.). GLASS FABRIC BASE, EPOXY RESIN, FIRE RESISTANT.
- BONDING AGENT; PREIMPREGNATED B STAGE EPOXY GLASS CLOTH IN ACCORDANCE WITH IPC-L-109 (LATEST REV.).
- CLADDING; EXTERNAL LAYERS 1/2 OZ. COPPER, OVERPLATE TO 1 1/2 OZ. INTERNAL SIGNAL LAYERS 1 OZ. COPPER. INTERNAL PLANE LAYERS 1 OZ. COPPER.
- SOLDER MASK; SHALL BE BLUE LIQUID PHOTOIMAGABLE (LPI) APPLIED ON BOTH SIDES OVER BARE COPPER AND SHALL MEET IPC-SM-840 (LATEST REV.) CLASS 3.
- SILK SCREEN; SHALL BE PERMANENT NON-CONDUCTIVE EPOXY INK, COLOR WHITE.
- U.L. RATING; 94VO MINIMUM.

- FABRICATION:
- REFER TO IPC-6010 SERIES (LATEST REV.), CLASS 2 FOR FABRICATION UNLESS OTHERWISE SPECIFIED.
  - UNDIMENSIONED HOLES TO BE LOCATED WITHIN +/- .005 OF THEIR TRUE POSITION WITH RESPECT TO ARTWORK.
  - PLATED HOLE WALL THICKNESS SHALL NOT BE LESS THAN .001 INCH MINIMUM AVERAGE, WITH NO READING LESS THAN .0008 BY CROSS SECTION.
  - HOLE DIAMETERS APPLY AFTER PLATING.
  - FINISHED CONDUCTOR WIDTHS SHALL NOT BE REDUCED FROM THE NOMINAL, INDICATED ON THE MASTER PATTERN, BY MORE THAN THE CONDUCTOR THICKNESS.
  - MINIMUM DESIGN LINE WIDTH IS .008 INCH.
  - MINIMUM DESIGN SPACING IS .008 INCH.
  - BOARD/PANEL MUST MEET IPC-A-600 (LATEST REV.) CLASS 2 FOR FLATNESS.
  - MFGR. TO LEGIBLY ETCH OR STAMP/SCREEN WITH PERMANENT NON-CONDUCTIVE INK ON SECONDARY SIDE IN A CLEAR AREA UNLESS OTHERWISE INDICATED;  
A. U.L. CODE D. MFGR. LOGO  
B. DATE CODE (STAMP) E. SUCCESSFUL ELECTRICAL BOARD TEST.  
C. FLAMMABILITY RATING
  - NON-FUNCTIONAL PADS MAY BE REMOVED FROM INNER SIGNAL LAYERS AT MFGR. DISCRETION.
  - IF PAD SIZES PROVIDED ARE NOT LARGE ENOUGH TO MAINTAIN ANNULAR RING REQUIREMENT, MFGR. MAY TEAR DROP PADS TO MAINTAIN ANNULAR RING AT PAD TO CIRCUIT INTERFACE ONLY AND MUST INSURE ELECTRICAL INTEGRITY.
  - REPAIRS PER IPC-R-700 ARE ALLOWED.
  - MODIFICATIONS TO THE ARTWORK, OTHER THAN THOSE DESCRIBED ON THE FABRICATION DRAWING, ARE NOT ALLOWED WITHOUT WRITTEN AUTHORIZATION.
  - FINISH: SURFACES SHALL HAVE ENIG FINISH PLATED WITH 2-6 MICROINCHES OF IMMERSION GOLD OVER 100-200 MICROINCHES OF ELECTROLESS NICKEL.

8 LAYER STACKUP

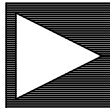
HOLE TOLERANCE

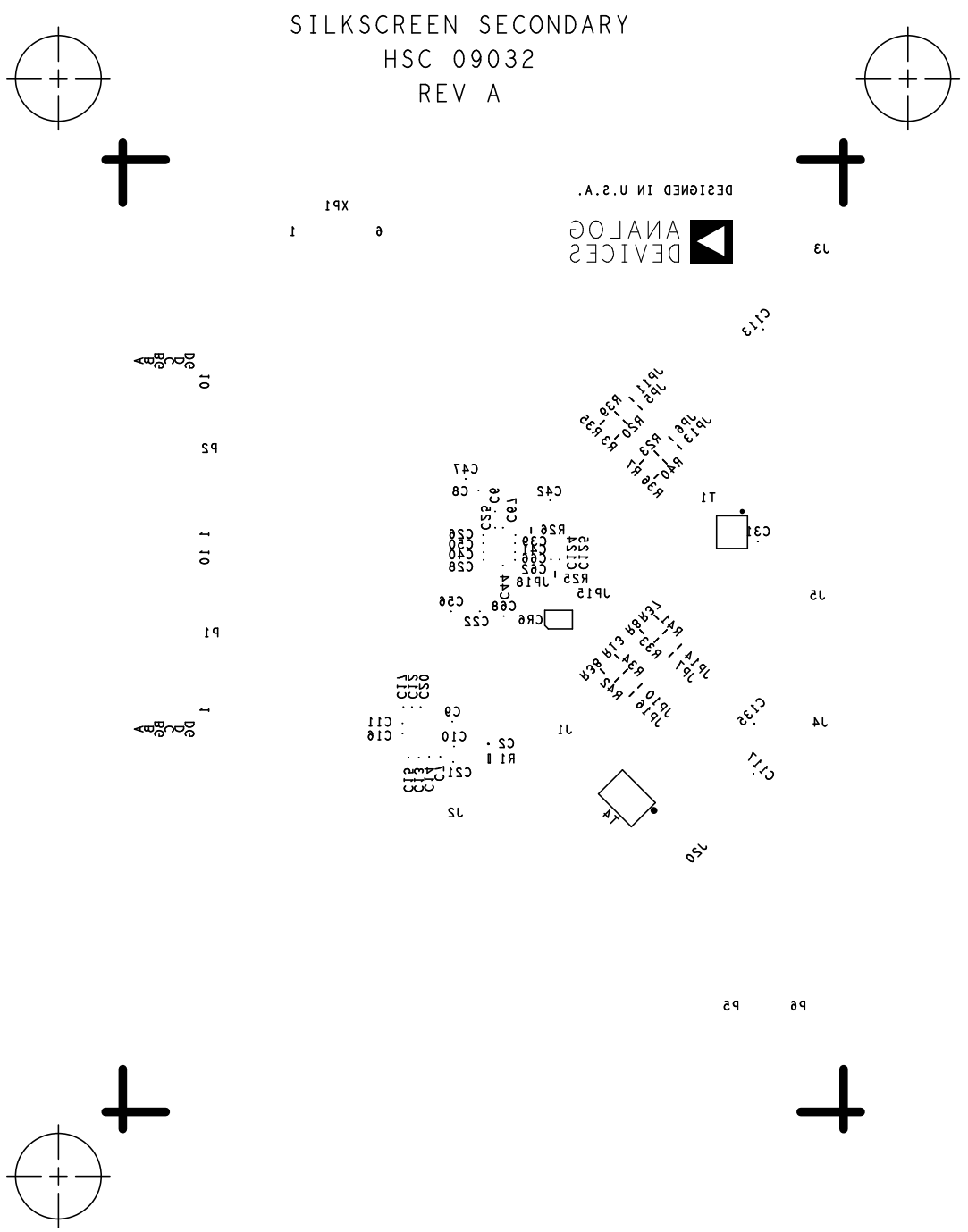
UNLESS SPECIFIED  
PLATED: +/- .003  
NON PLATED: +/- .001

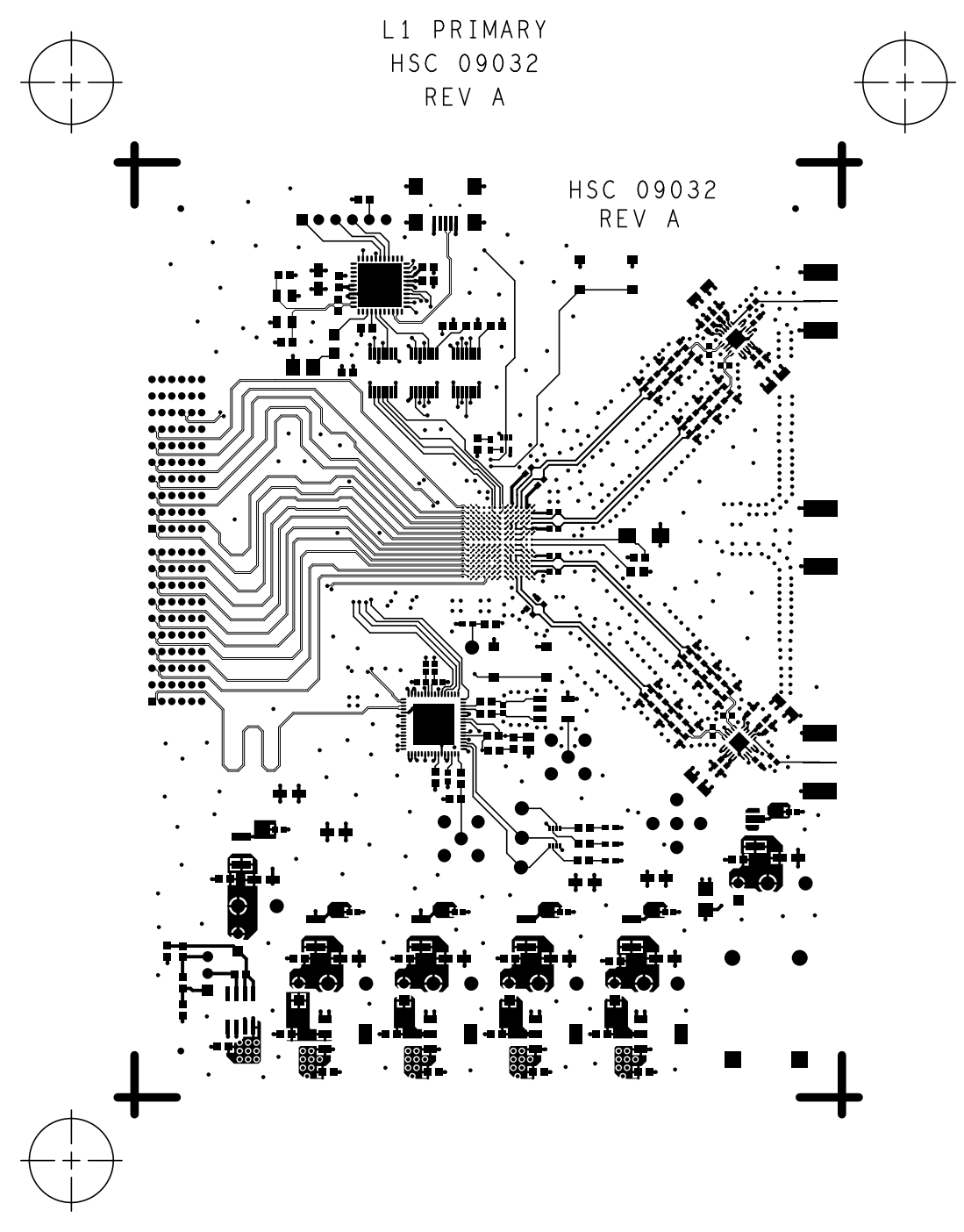
FINISHED HOLES IN MILS				
ALL UNITS ARE IN MILS				
FIGURE	SIZE	PLATED	QTY	TOLERANCE/NOTES
+	6.0	PLATED	135	
□	12.0	PLATED	930	
A	25.0	PLATED	120	
B	40.0	PLATED	12	
C	45.0	PLATED	9	
D	60.0	PLATED	15	
E	63.0	PLATED	16	
F	75.0	PLATED	4	
G	40.0	NON-PLATED	2	
H	155.0	NON-PLATED	3	

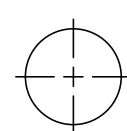
	PRIMARY SILKSCREEN
	PRIMARY SOLDER MASK
	PRIMARY SIDE (LAYER 1)
0.0045"	GROUND PLANE (LAYER 2)
0.010"	POWER PLANE (LAYER 3)
0.016"	GROUND PLANE (LAYER 4)
0.008"	INTERNAL SIGNAL (LAYER 5)
0.016"	POWER PLANE (LAYER 6)
0.010"	GROUND PLANE (LAYER 7)
0.0045"	SECONDARY SIDE (LAYER 8)
	SECONDARY SOLDER MASK
	SECONDARY SILKSCREEN

CHARACTERISTIC IMPEDANCE = 50 OHMS +/- 10%  
ARTWORK LINE WIDTH FOR  
IMPEDANCE CONTROLLED LINES = 0.008"  
DIFFERENTIAL IMPEDANCE = 100 OHMS +/- 10%  
ARTWORK LINE WIDTH FOR  
IMPEDANCE CONTROLLED LINES = 0.005"

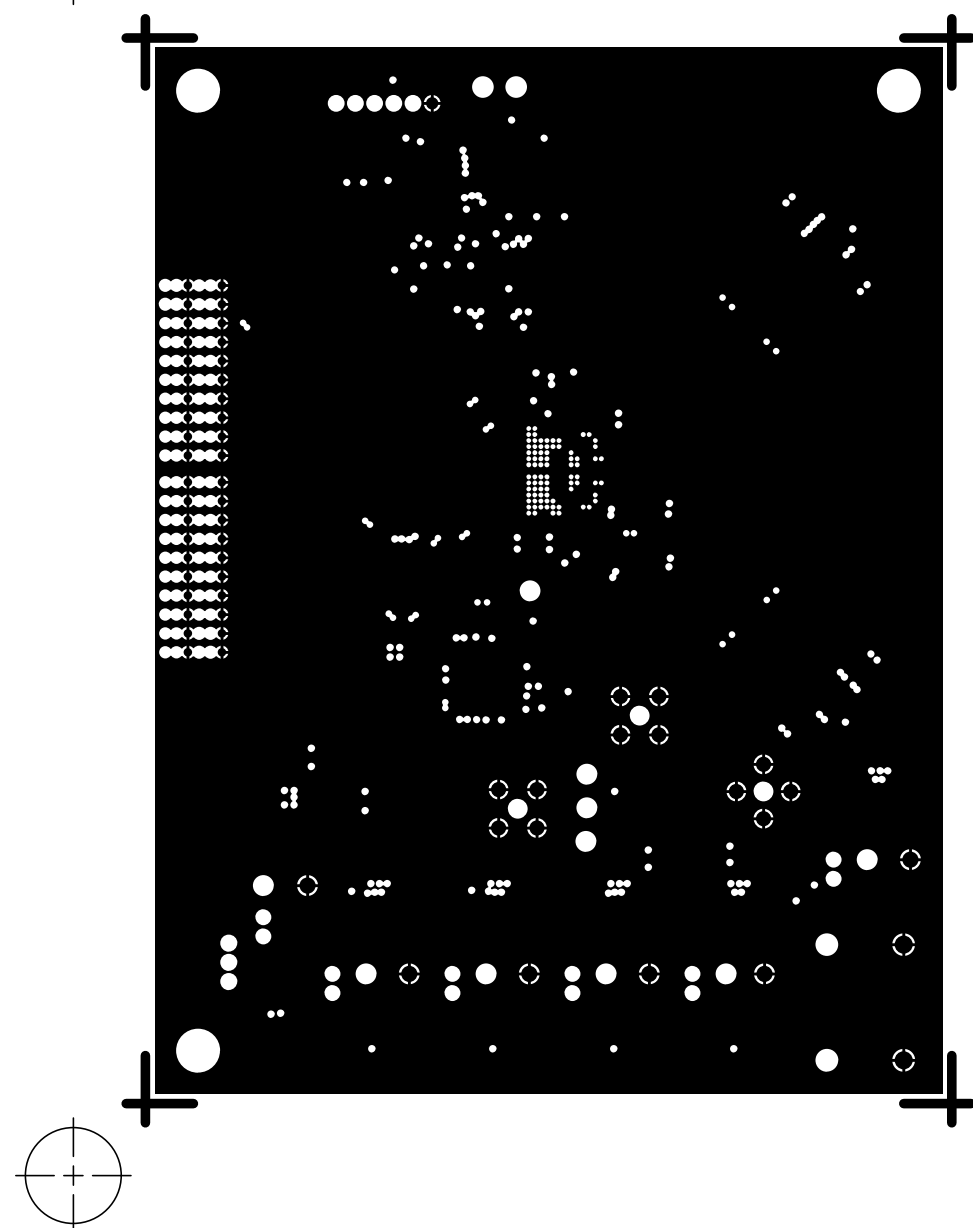
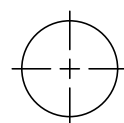
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES DECIMALS FRACTIONS ANGLES XX +/- .010 --1/32 +/- 2 .XXX +/- .005			NCDRILL		 ANALOG DEVICES		HSC DIVISION 804 WOBURN STREET WILMINGTON, MA 01887	
MATERIAL			APPROVAL		DATE		TITLE  AD9148 M5372 EBZ  BOARD	
			DRAWN BY W.D.B		27APR10			
			DESIGNED					
			CHECKED					
FINISH			APPROVED				SIZE FSCM NO DRAWING NUMBER REV  C 1/1 HSC 09032 A	
			MFG ENGINEER					
DO NOT SCALE DWG							SHEET 1 OF 1	



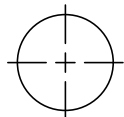
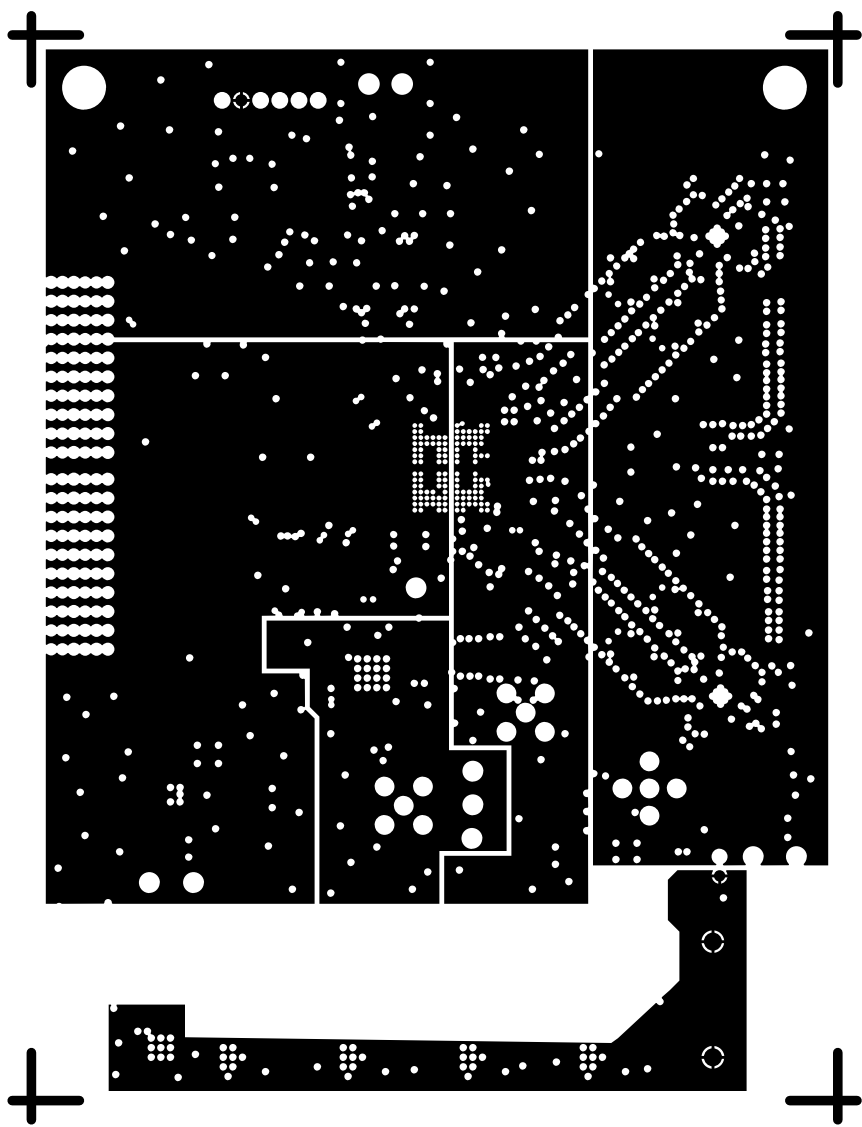
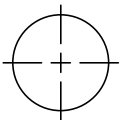
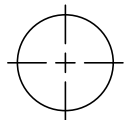


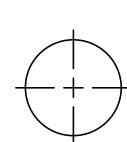


L2 GROUND  
HSC 09032  
REV A

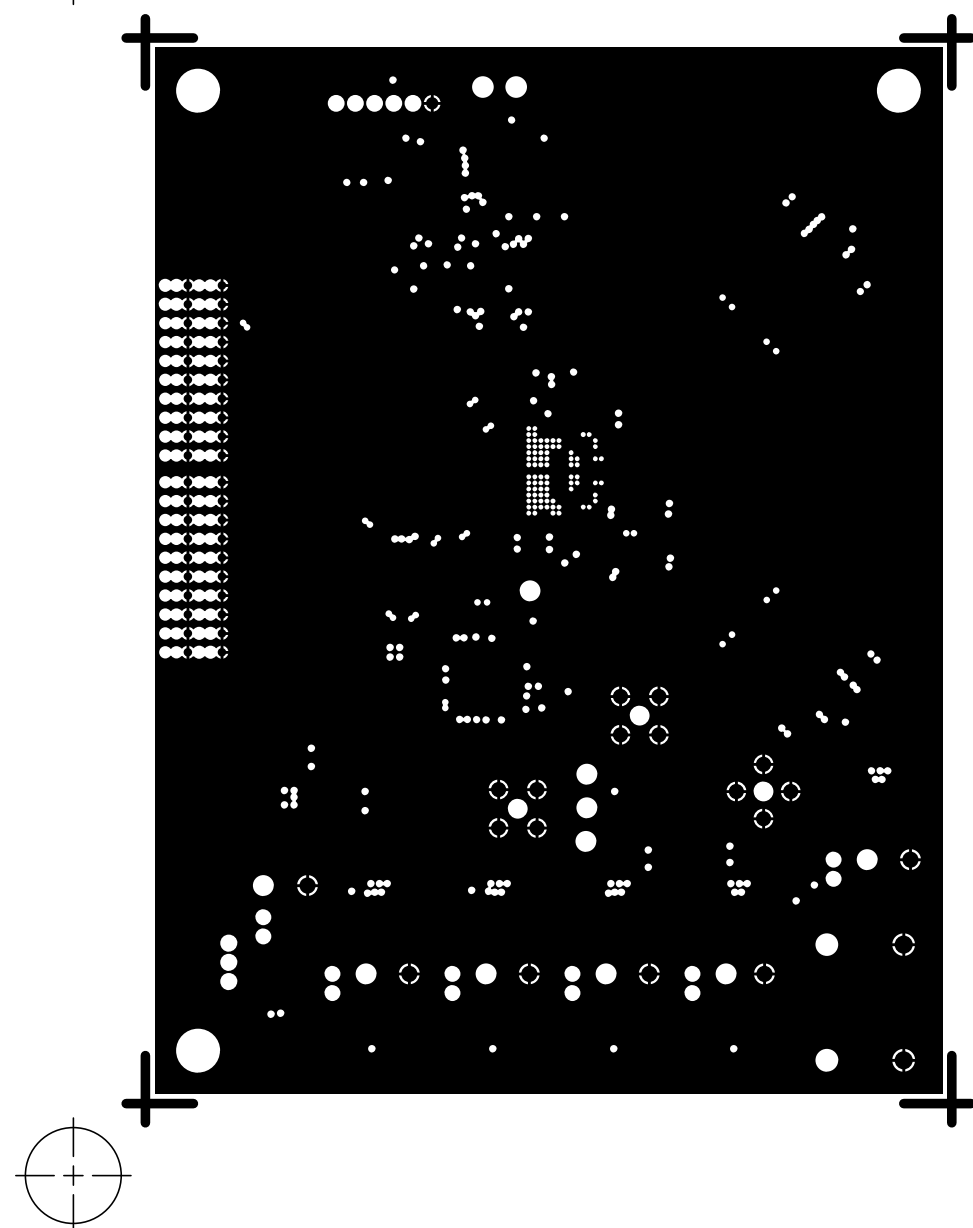
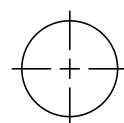


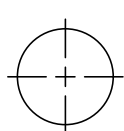
L3 POWER  
HSC 09032  
REV A



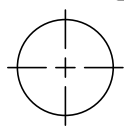
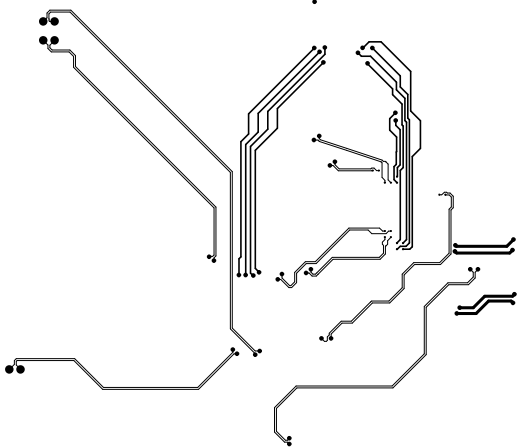
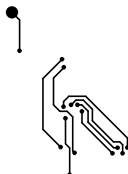
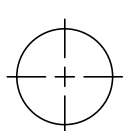


L4 GROUND  
HSC 09032  
REV A



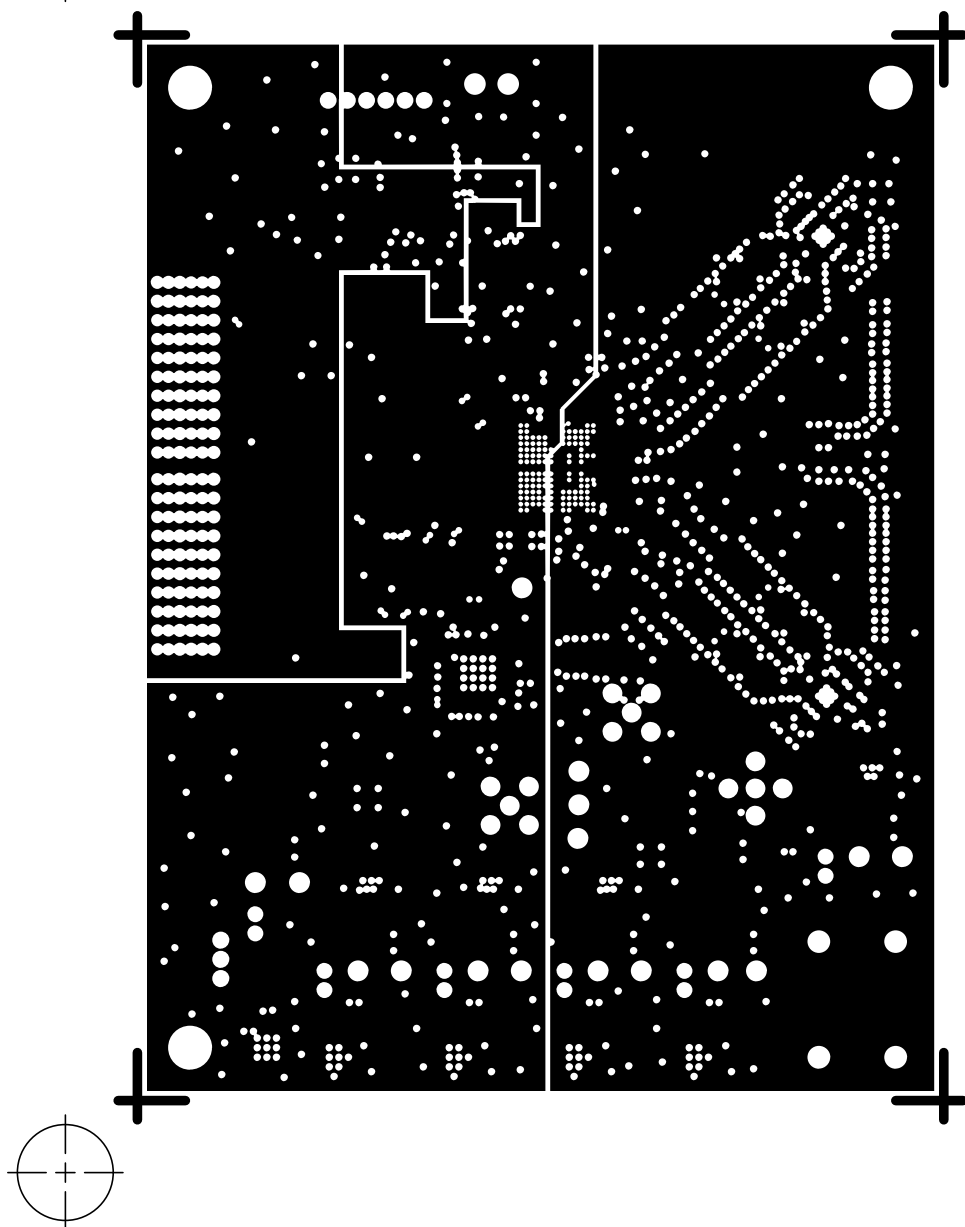
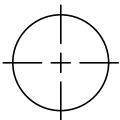
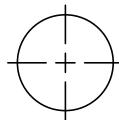


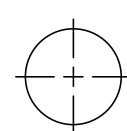
L5 SIGNAL  
HSC 09032  
REV A



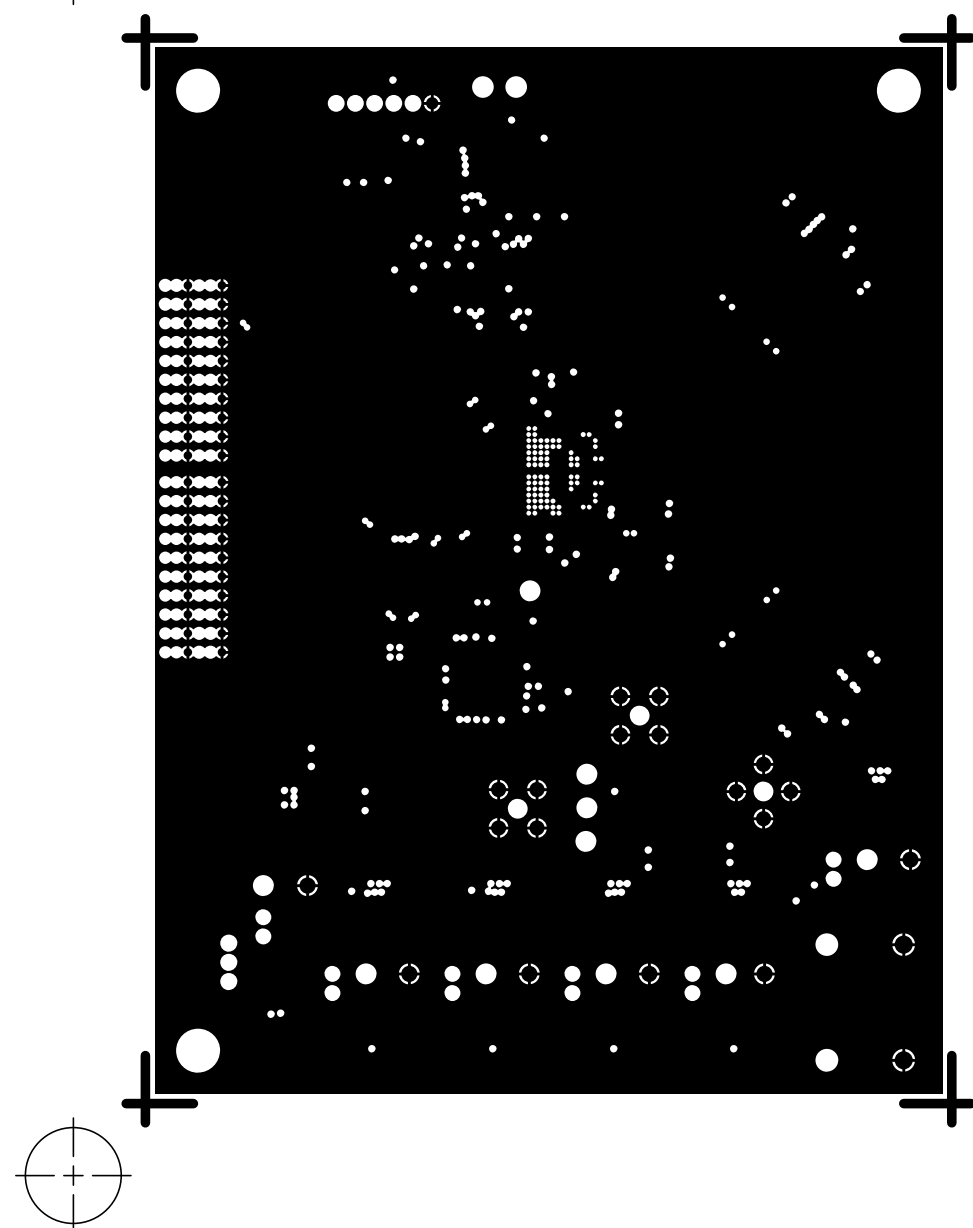
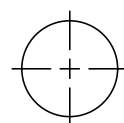


L6 POWER  
HSC 09032  
REV A

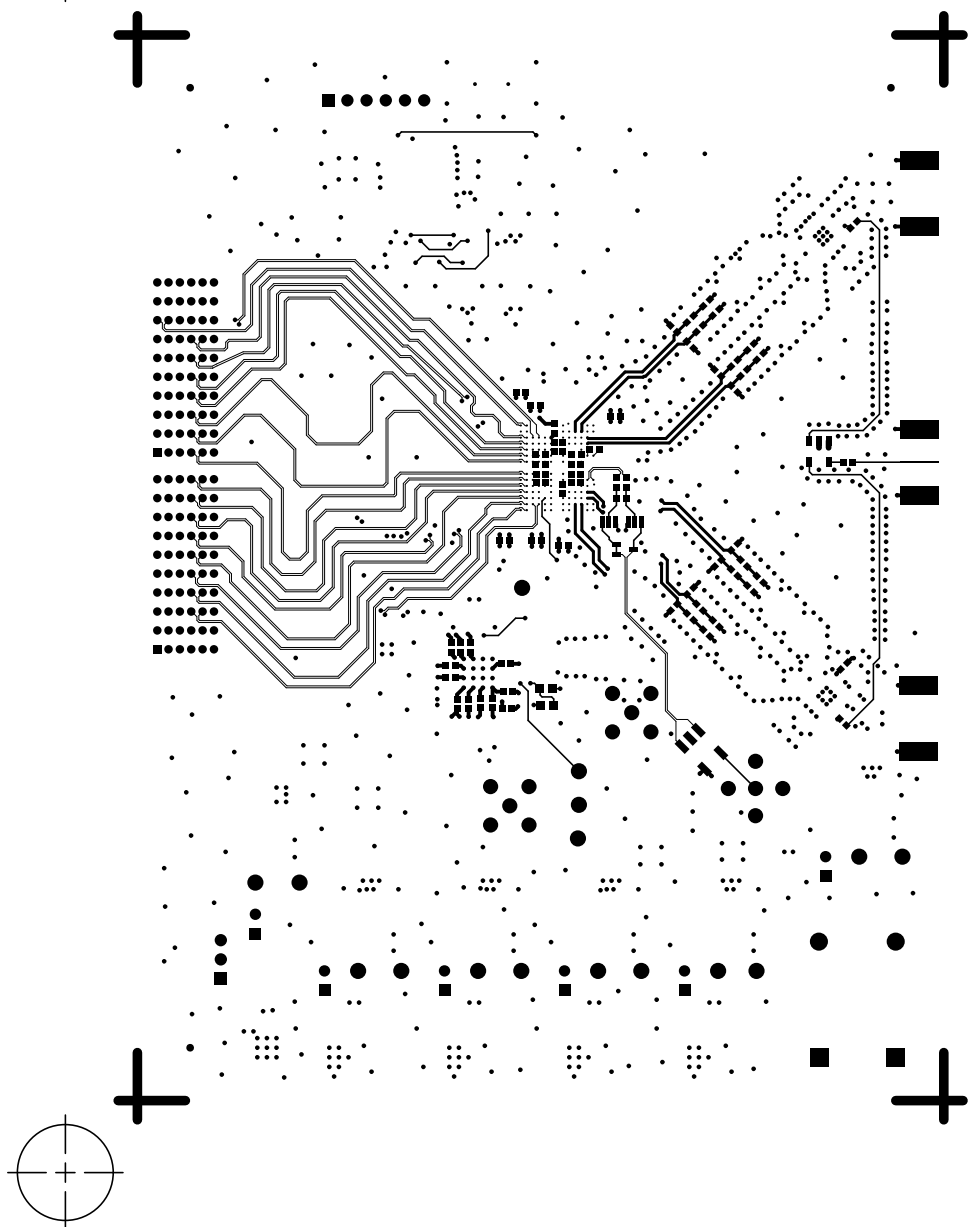
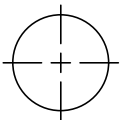
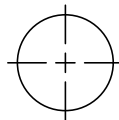




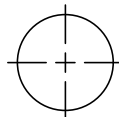
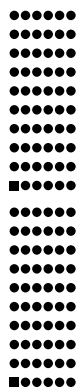
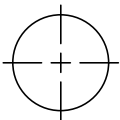
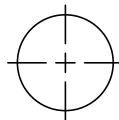
L7 GROUND  
HSC 09032  
REV A

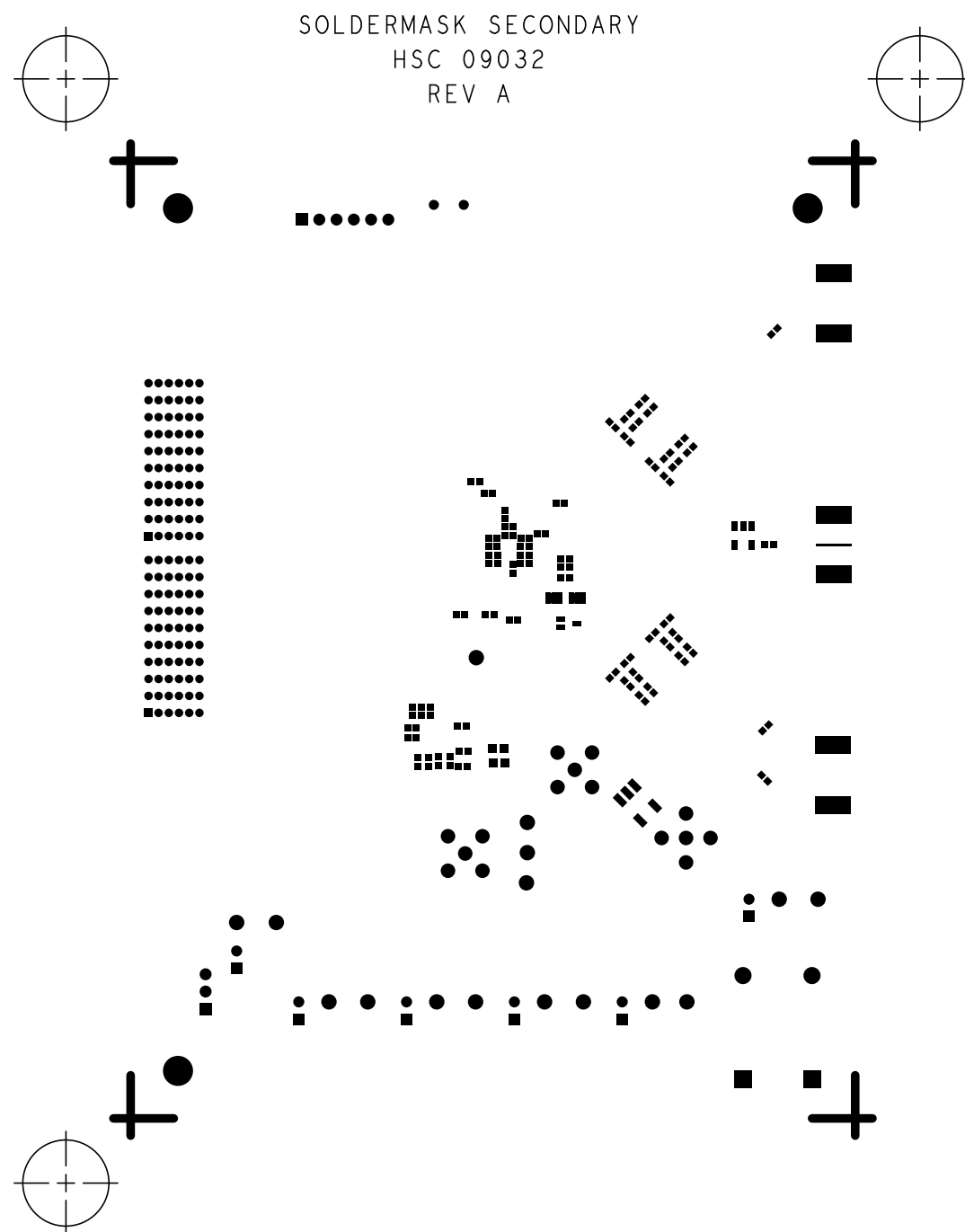


L8 SECONDARY  
HSC 09032  
REV A

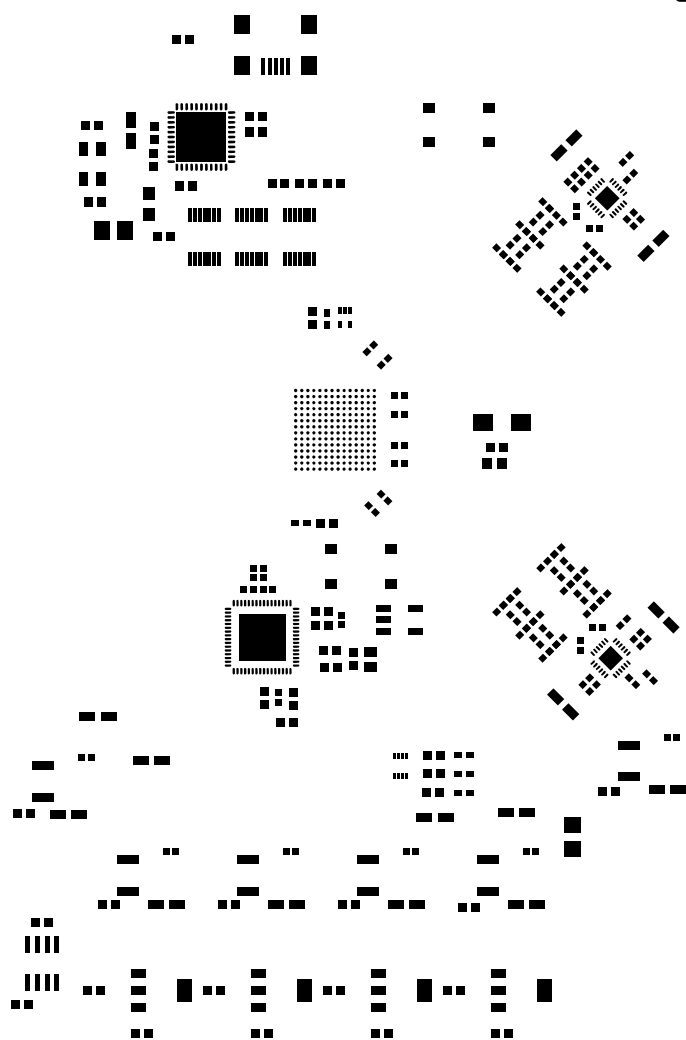
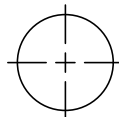
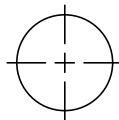
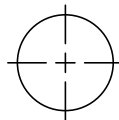


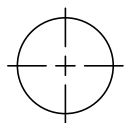
SOLDERMASK PRIMARY  
HSC 09032  
REV A





PASTEMASK PRIMARY  
HSC 09032  
REV A





PASTEMASK SECONDARY  
HSC 09032  
REV A

