REVISIONS			
REV	DESCRIPTION	DATE	APPROVED
A	INITIAL RELEASE	11DEC13	L.W.
B	CHANGES PER ENGINEER	23MAY14	L.W.

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.

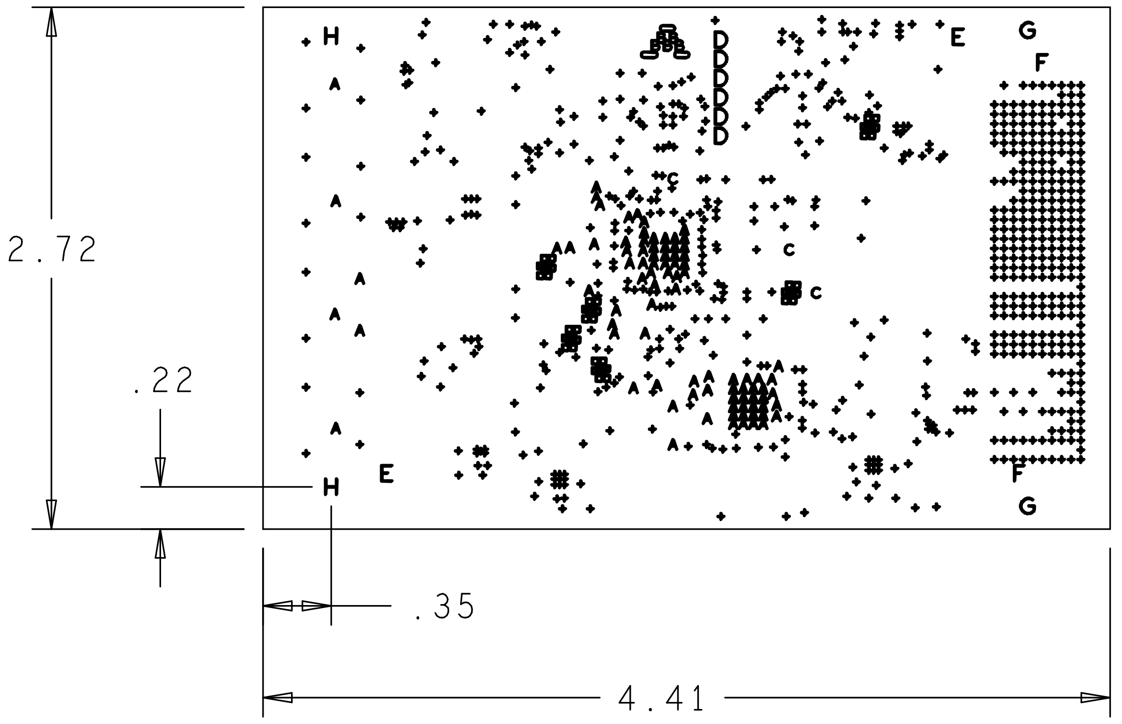
SOLDER MASK; SHALL BE LIQUID PHOTOIMAGABLE (LPI) APPLIED ON BOTH SIDES OVER BARE COPPER AND SHALL MEET IPC-SM-840 (LATEST REV.) CLASS 3. COLOR : BLUE.

SILK SCREEN; SHALL BE PERMANENT NON-CONDUCTIVE EPOXY INK, COLOR WHITE.

U.L. RATING; 94VO MINIMUM.

FABRICATION:

1. REFER TO IPC-6010 SERIES (LATEST REV.), CLASS 2 FOR FABRICATION UNLESS OTHERWISE SPECIFIED.
2. UNDIMENSIONED HOLES TO BE LOCATED WITHIN +/-.005 OF THEIR TRUE POSITION WITH RESPECT TO ARTWORK.
3. PLATED HOLE WALL THICKNESS SHALL NOT BE LESS THAN .001 INCH MINIMUM AVERAGE, WITH NO READING LESS THAN .0008 BY CROSS SECTION.
4. HOLE DIAMETERS APPLY AFTER PLATING.
5. FINISHED CONDUCTOR WIDTHS SHALL NOT BE REDUCED FROM THE NOMINAL, INDICATED ON THE MASTER PATTERN, BY MORE THAN THE CONDUCTOR THICKNESS.
6. MINIMUM DESIGN LINE WIDTH IS .005 INCH.
7. MINIMUM DESIGN SPACING IS .005 INCH.
8. BOARD/PANEL MUST MEET IPC-A-600 (LATEST REV.) CLASS 2 FOR FLATNESS.
9. 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
10. NON-FUNCTIONAL PADS MAY BE REMOVED FROM INNER SIGNAL LAYERS AT MFGR. DISCRETION.
11. 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.
12. REPAIRS PER IPC-R-700 ARE ALLOWED.
13. MODIFICATIONS TO THE ARTWORK, OTHER THAN THOSE DESCRIBED ON THE FABRICATION DRAWING, ARE NOT ALLOWED WITHOUT WRITTEN AUTHORIZATION.
14. FINISH: SURFACES SHALL HAVE ENIG FINISH PLATED WITH 2-6 MICROINCHES OF IMMERSION GOLD OVER 100-200 MICROINCHES OF ELECTROLESS NICKEL.
15. VIAS TO BE NON-CONDUCTIVE EPOXY FILLED AND GROUND FLUSH PRIOR TO OVER PLATING.



PRIMARY SIDE

10 LAYER STACKUP

PRIMARY SILKSCREEN
PRIMARY SOLDER MASK
PRIMARY SIDE (LAYER 1)
0.00811" GROUND PLANE (LAYER 2)
0.006" SIGNAL LAYER (LAYER 3)
0.00608" GROUND PLANE (LAYER 4)
0.003" POWER LAYER (LAYER 5)
0.00316" POWER PLANE (LAYER 6)
0.003" GROUND PLANE (LAYER 7)
0.00608" SIGNAL LAYER (LAYER 8)
0.006" GROUND PLANE (LAYER 9)
0.00811" SECONDARY SIDE (LAYER 10)
SECONDARY SOLDER MASK
SECONDARY SILKSCREEN

NOMINAL FINISHED BOARD THICKNESS 0.063" +/- .007

CHARACTERISTIC IMPEDANCE = 50 OHMS +/- 10%
ARTWORK LINE WIDTH FOR
IMPEDANCE CONTROLLED LINES = 0.0155" FOR LAYER 1 AND 10.
IMPEDANCE CONTROLLED LINES = 0.0080" FOR LAYER 3 AND 8.

DIFFERENTIAL IMPEDANCE = 100 OHMS +/- 10%
ARTWORK LINE WIDTH FOR
IMPEDANCE CONTROLLED LINES = 0.0100" FOR LAYER 1 AND 10.
IMPEDANCE CONTROLLED LINES = 0.0050" FOR LAYER 3 AND 8.

FINISHED HOLES IN MILS
ALL UNITS ARE IN MILS

FIGURE	SIZE	PLATED	QTY	TOLERANCE/NOTES
▪	6.0	PLATED	48	
+	10.0	PLATED	708	SEE NOTE 15
A	15.0	PLATED	89	SEE NOTE 15
B	28.0	PLATED	5	
C	40.0	PLATED	3	
D	45.0	PLATED	6	
E	63.0	PLATED	2	
F	50.0	NON-PLATED	2	
G	105.0	NON-PLATED	2	
H	125.0	NON-PLATED	2	
⬭	75x28	PLATED	2	
⬭	83x28	PLATED	1	

UNLESS OTHERWISE SPECIFIED
DIMENSIONS ARE IN INCHES
TOLERANCES
DECIMALS .XX +-.010 .XXX +-.005
FRACTIONS +-1/32
ANGLES +/- 2

NCDRILL

APPROVAL		DATE
DRAWN BY	P.M.A	11DEC13
DESIGNED		
CHECKED	W.D.B	11DEC13
APPROVED		
MFG ENGINEER		

MATERIAL

FINISH

DO NOT SCALE DWG

ANALOG DEVICES

HSC
DIVISION
804 WOBURN STREET
WILMINGTON, MA 01887

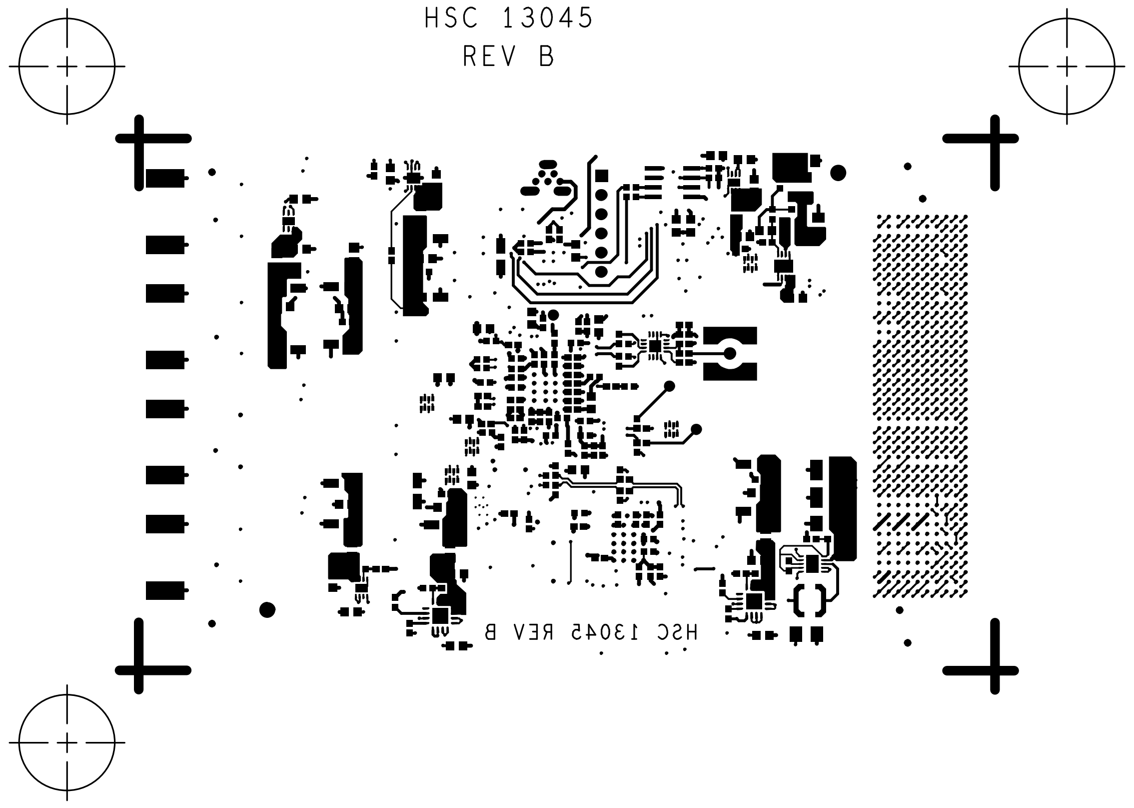
TITLE
AD9144 FMC
EVALUATION BOARD

SIZE	FSCM NO	DRAWING NUMBER	REV
C		HSC 13045	B

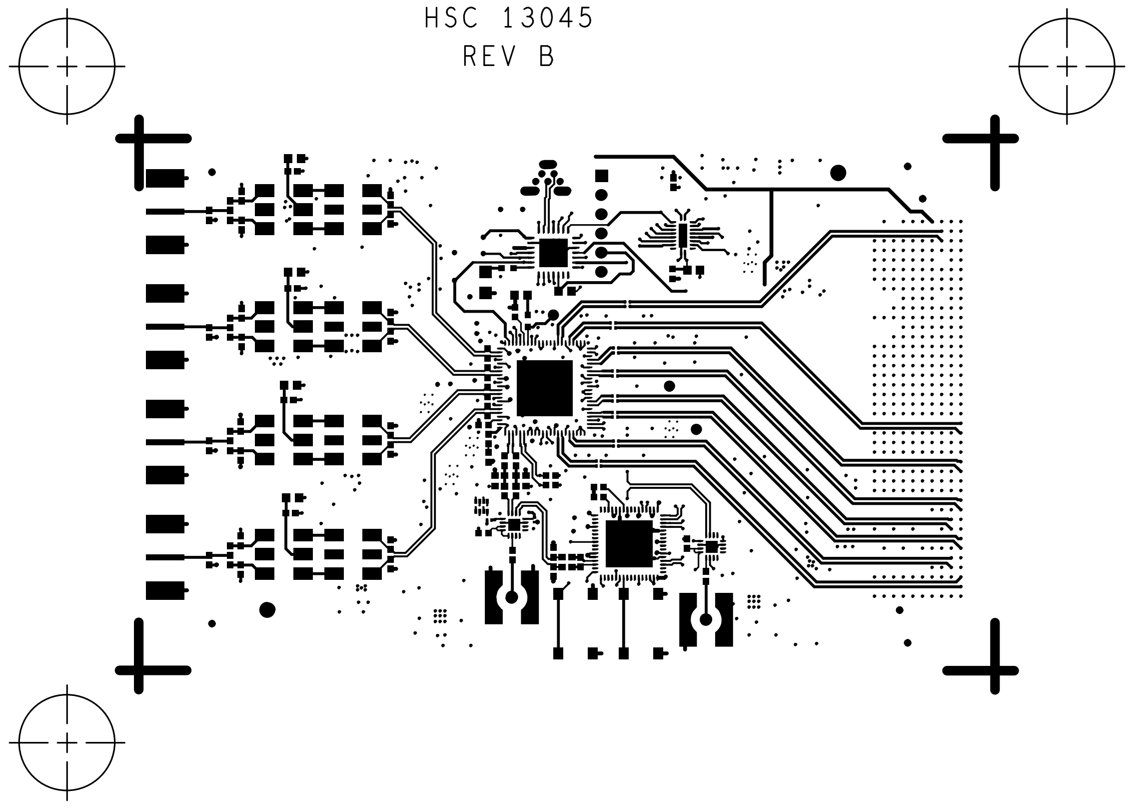
SCALE 1/1

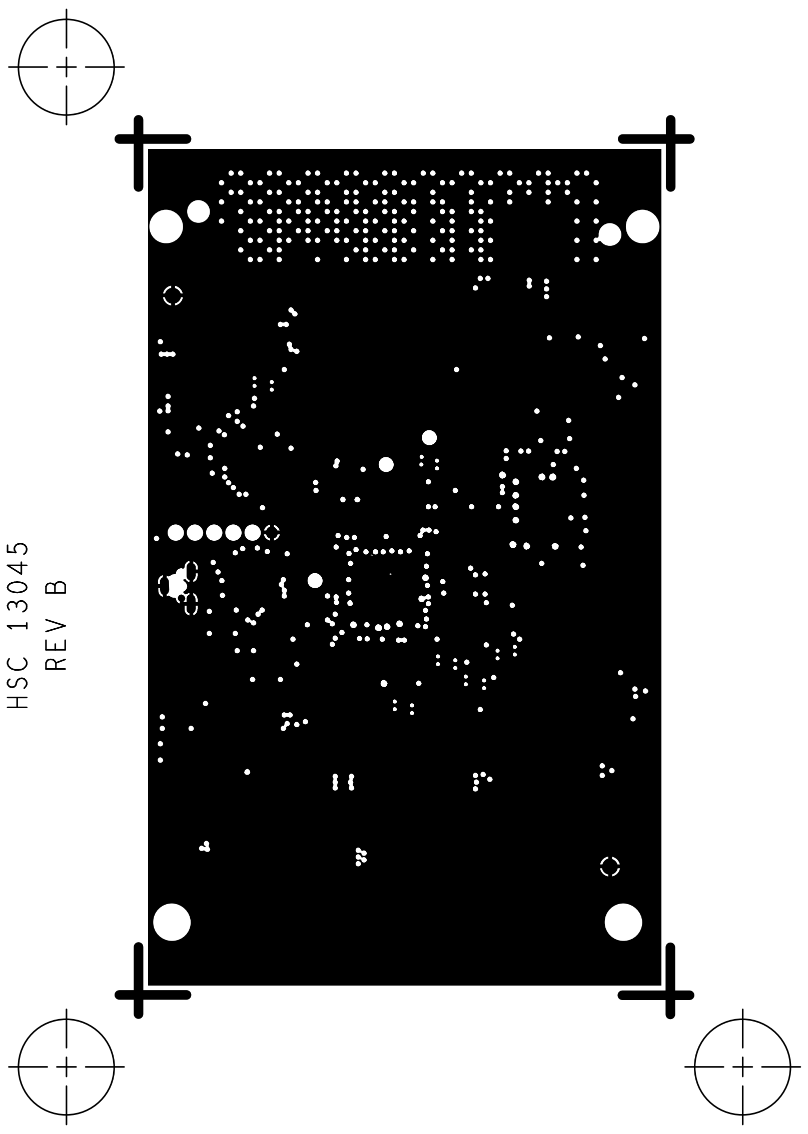
SHEET 1 OF 1

L10 SECONDARY
HSC 13045
REV B



L1 PRIMARY
HSC 13045
REV B

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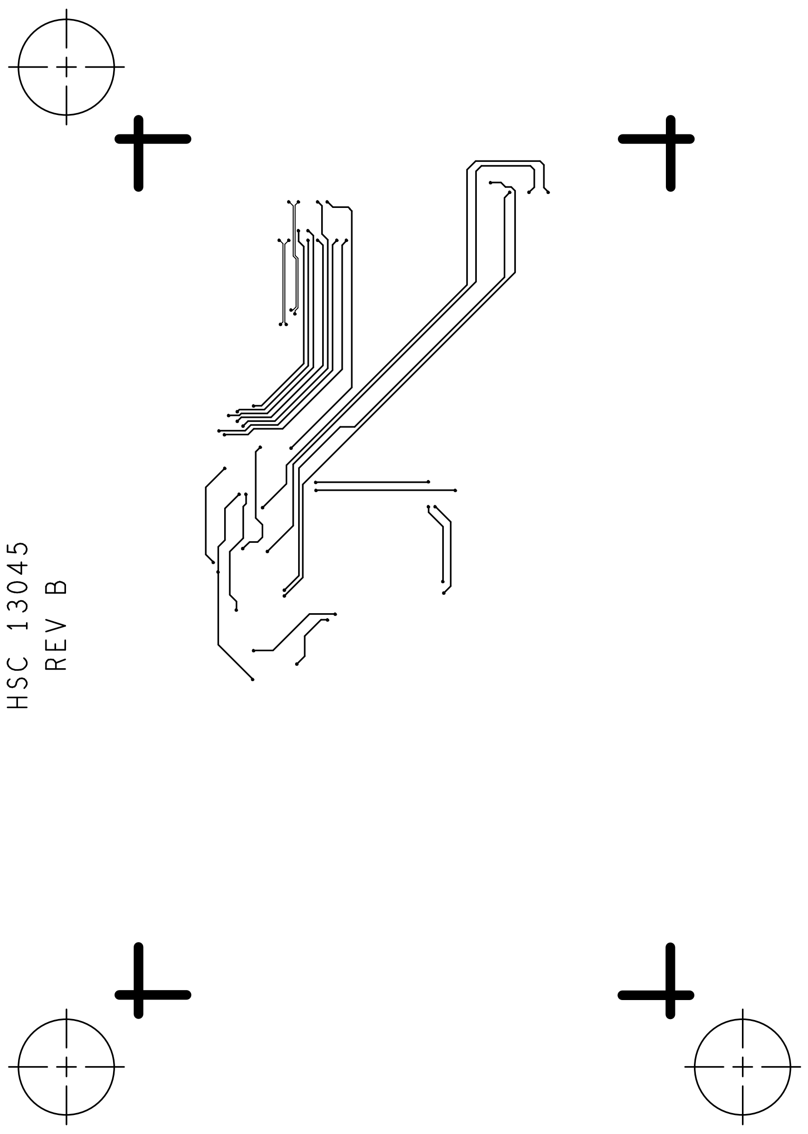
REV B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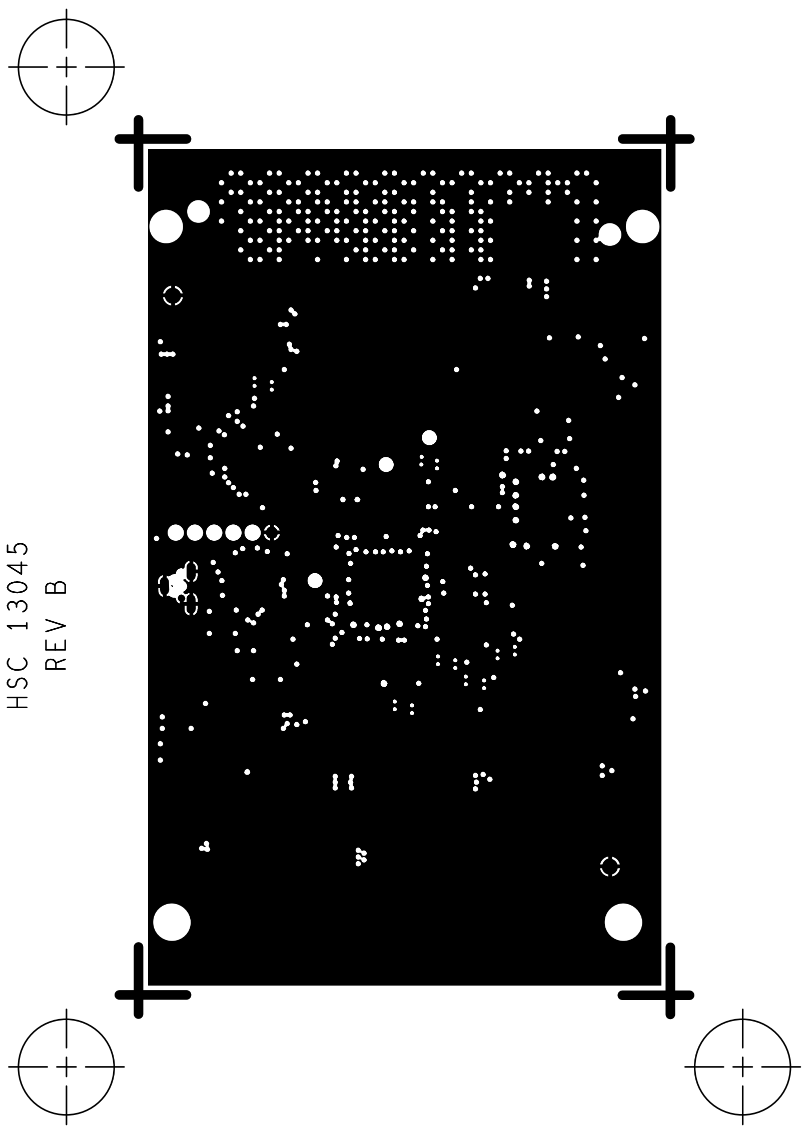
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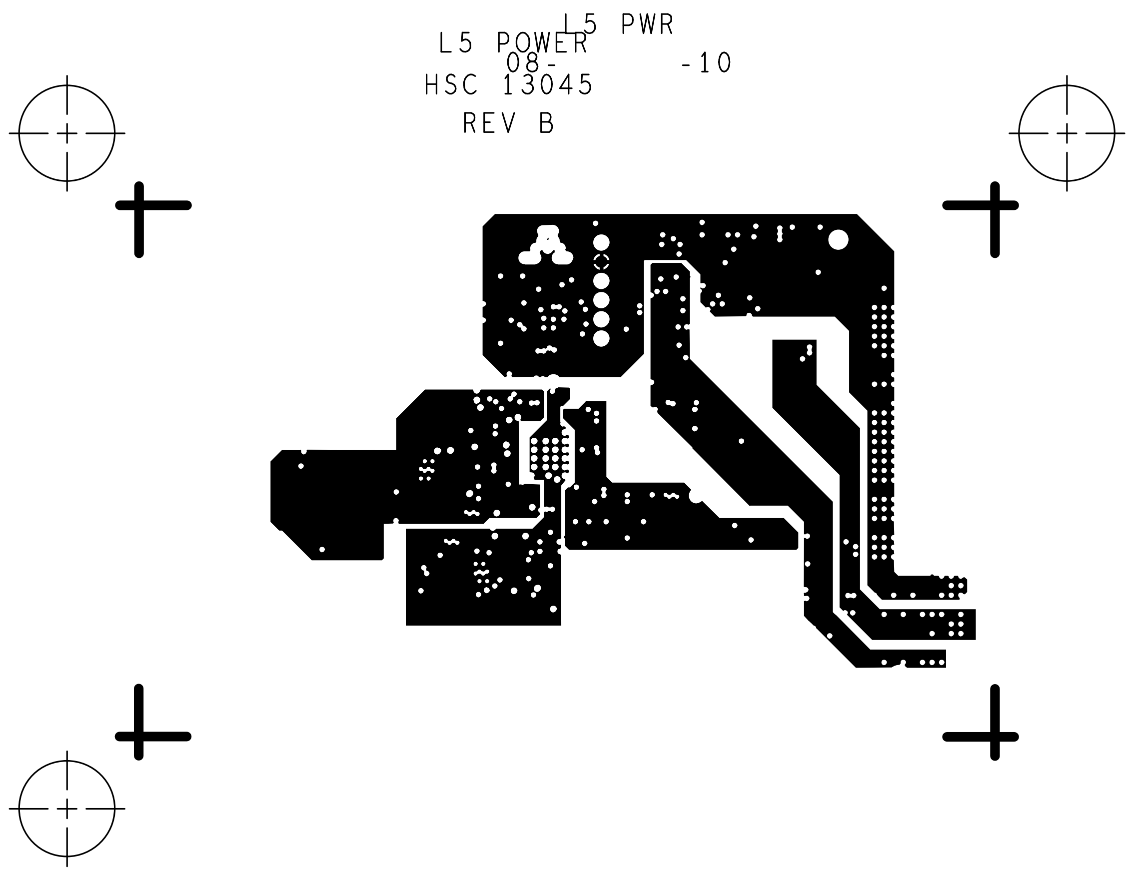
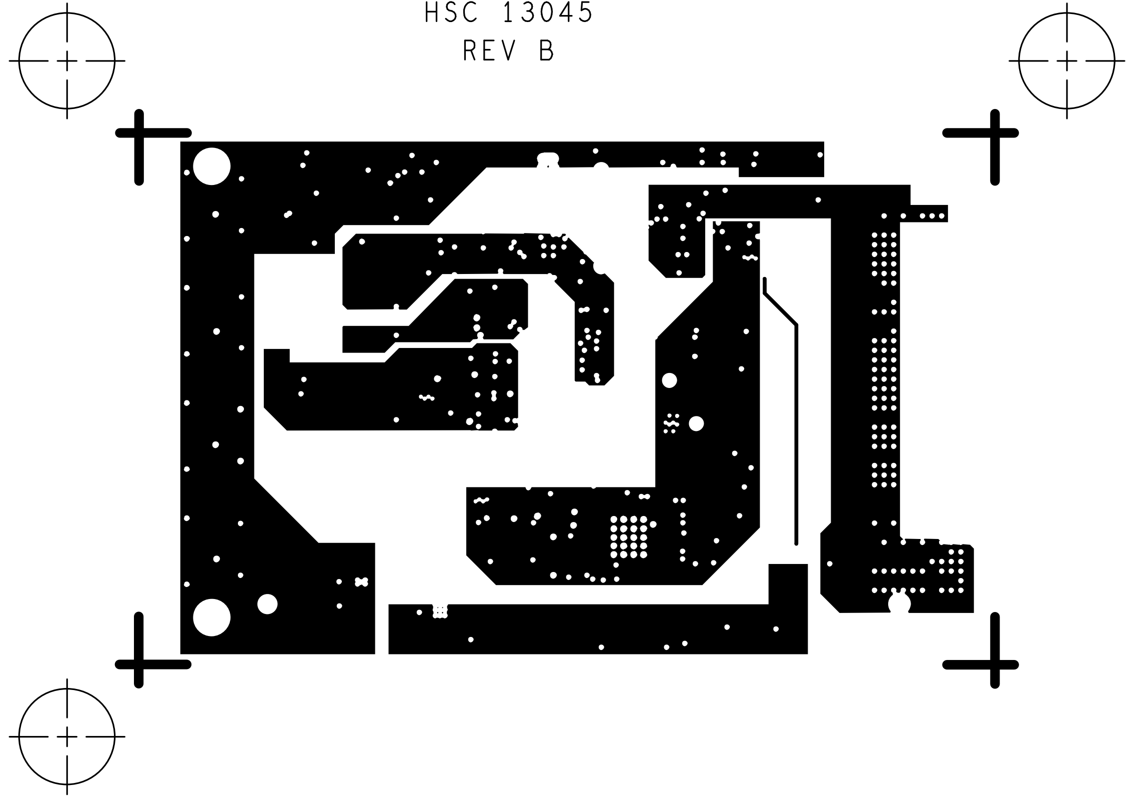
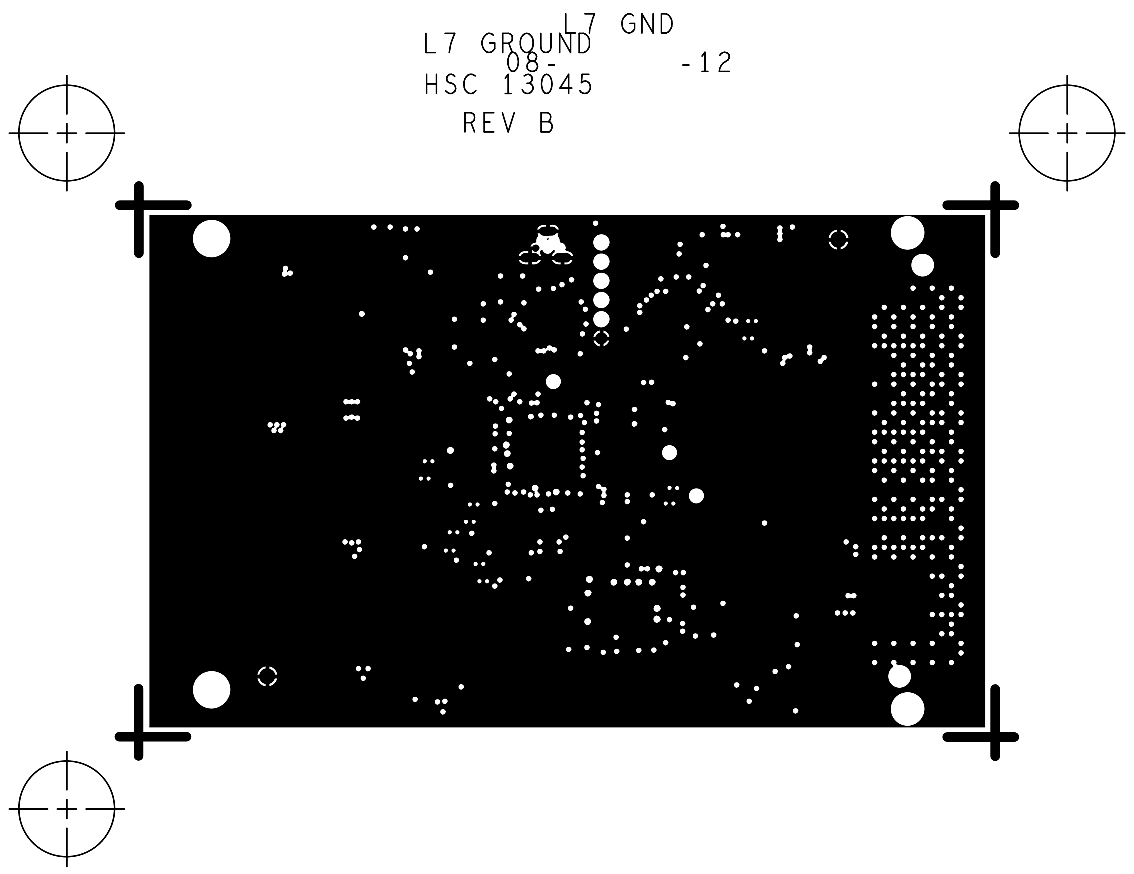
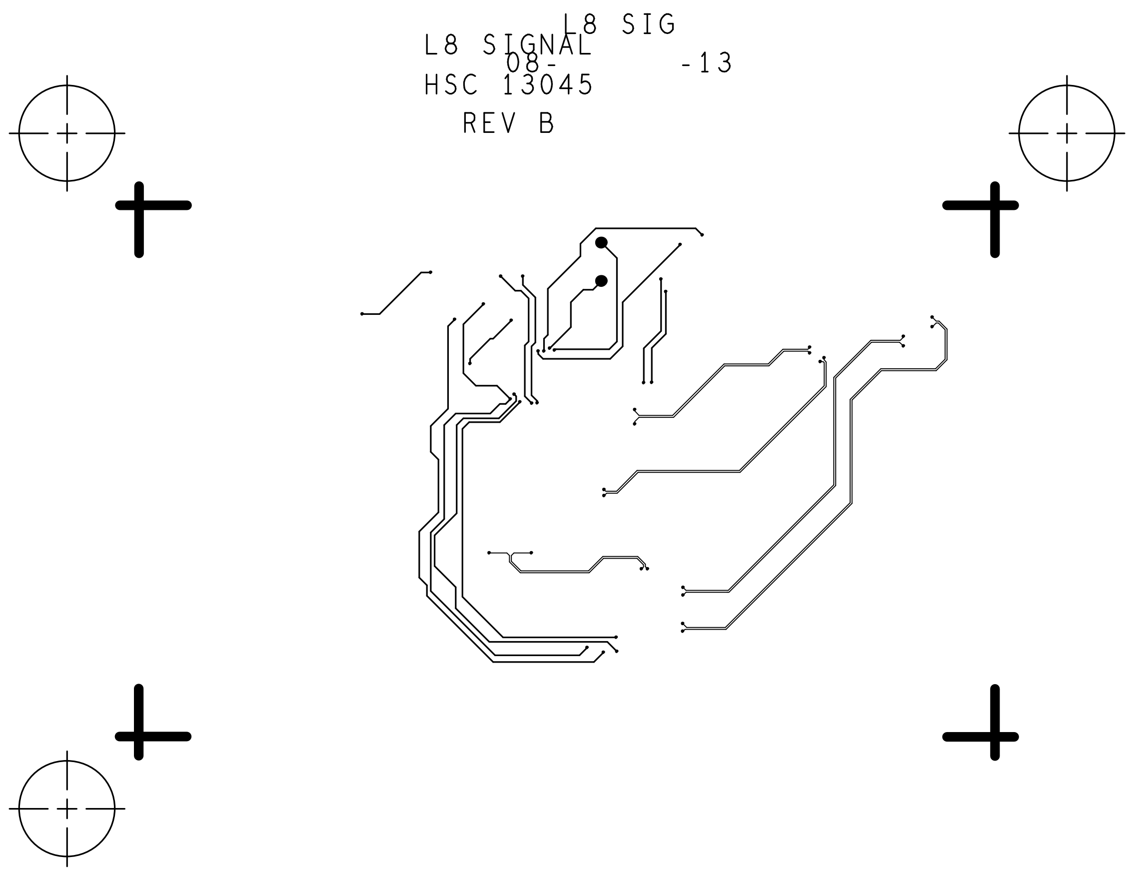
REV B


L5 PWR
L5 POWER
08-
-10
HSC 13045
REV B

L6 PWR
L6 POWER
08-   -11
HSC 13045
REV B




L7 GND
L7 GROUND
08-
-12
HSC 13045
REV B


L8 SIG
L8 SIGNAL
08- -13
HSC 13045
REV B

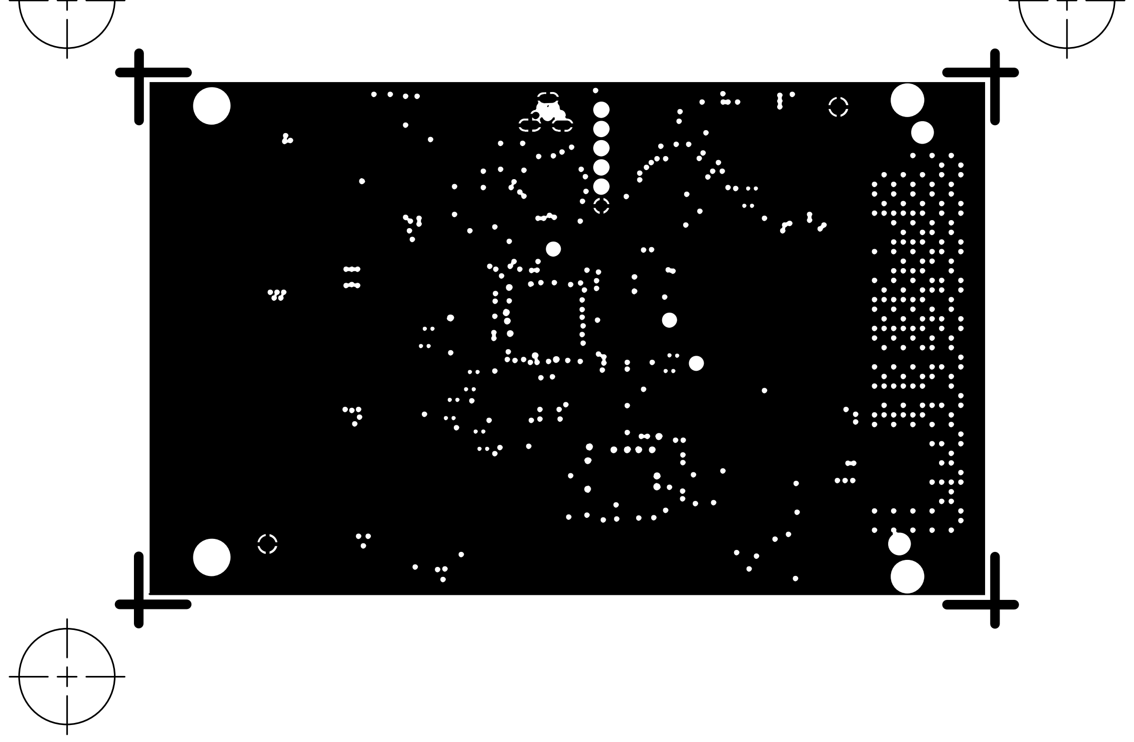
L9 GND

L9 GROUND

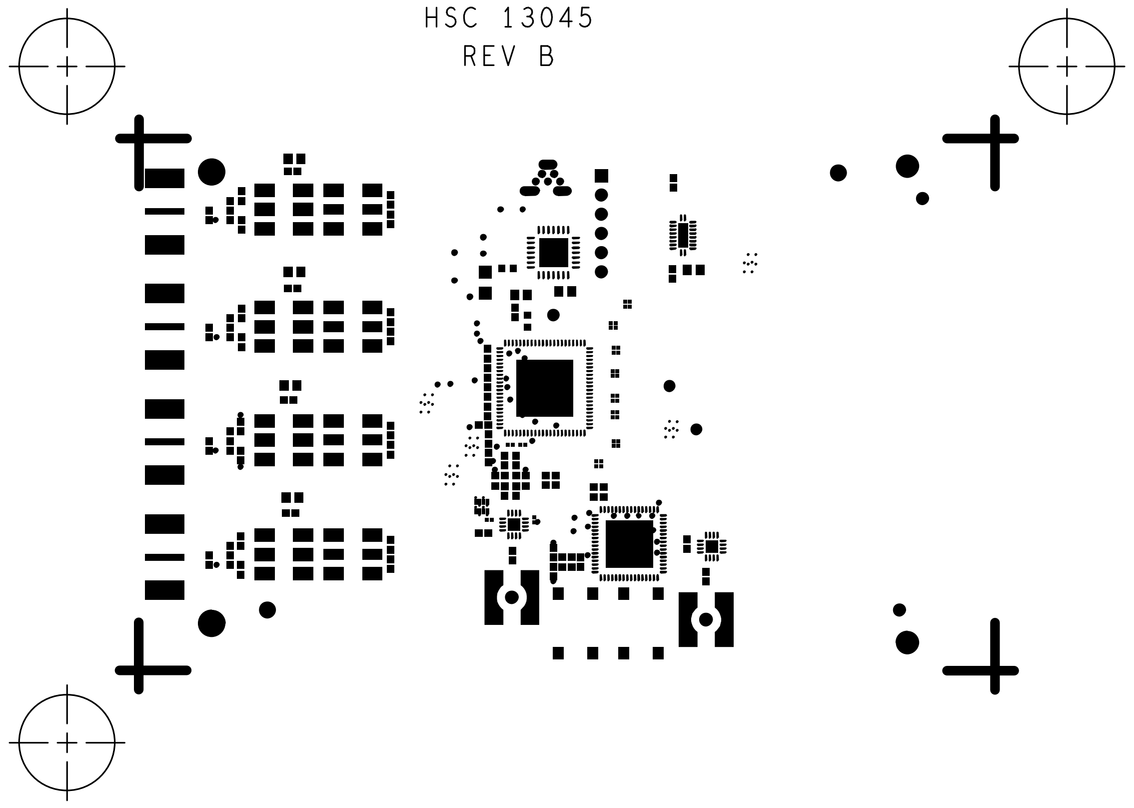
08- -14

HSC 13045

REV B



SOLDERMASK PRIMARY
HSC 13045
REV B



SOLDERMASK SECONDARY
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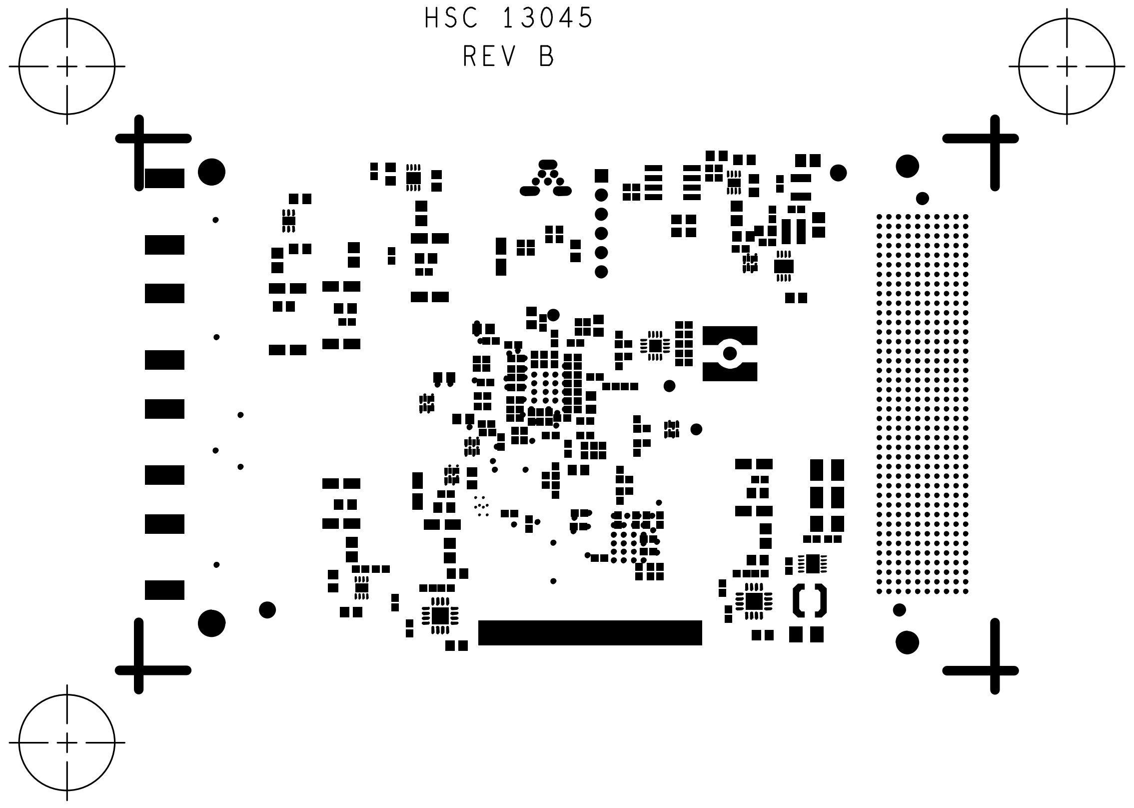
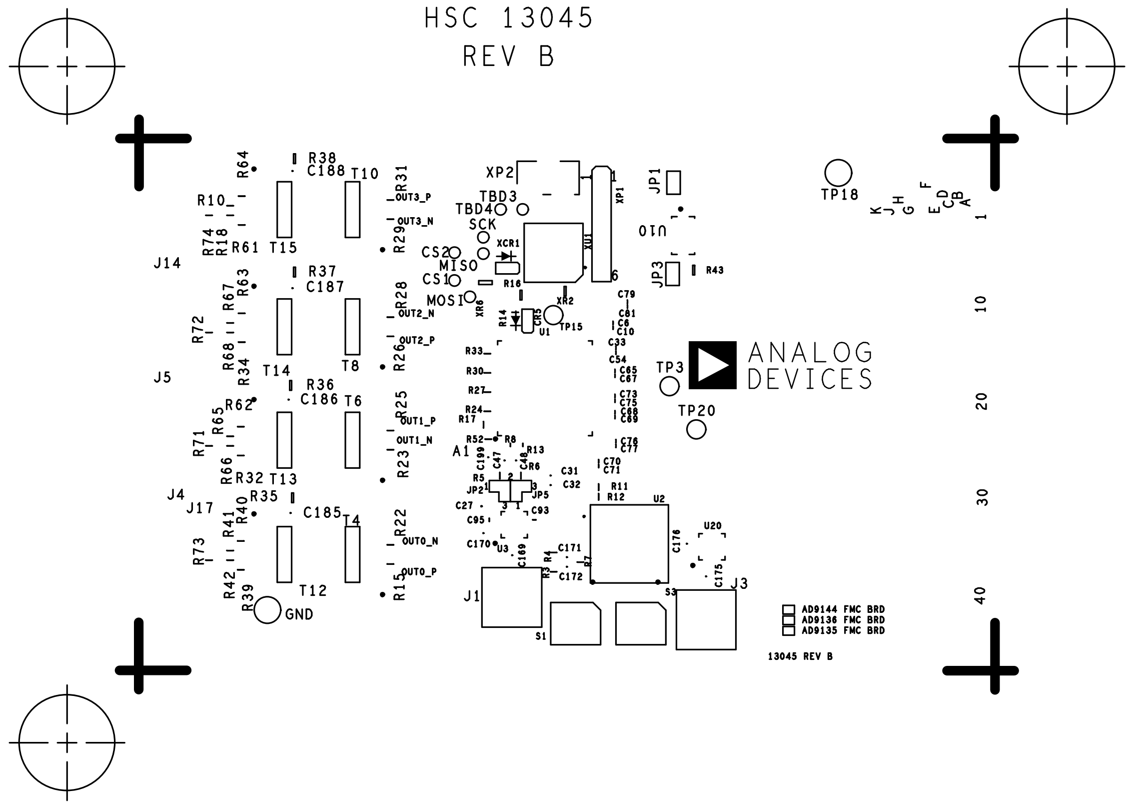
REV B



SILKSCREEN PRIMARY
HSC 13045
REV B



SILKSCREEN SECONDARY

HSC 13045

REV B