



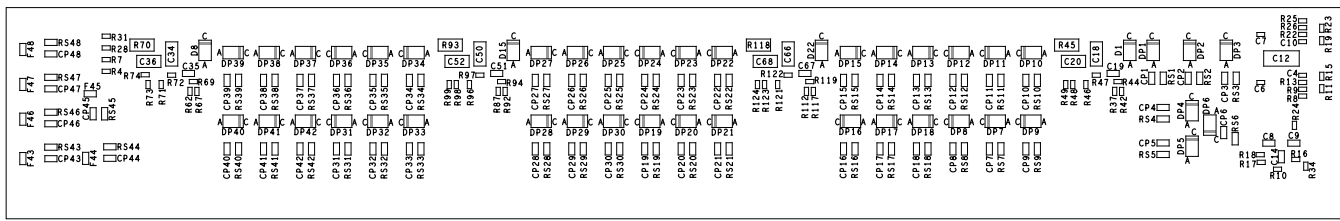
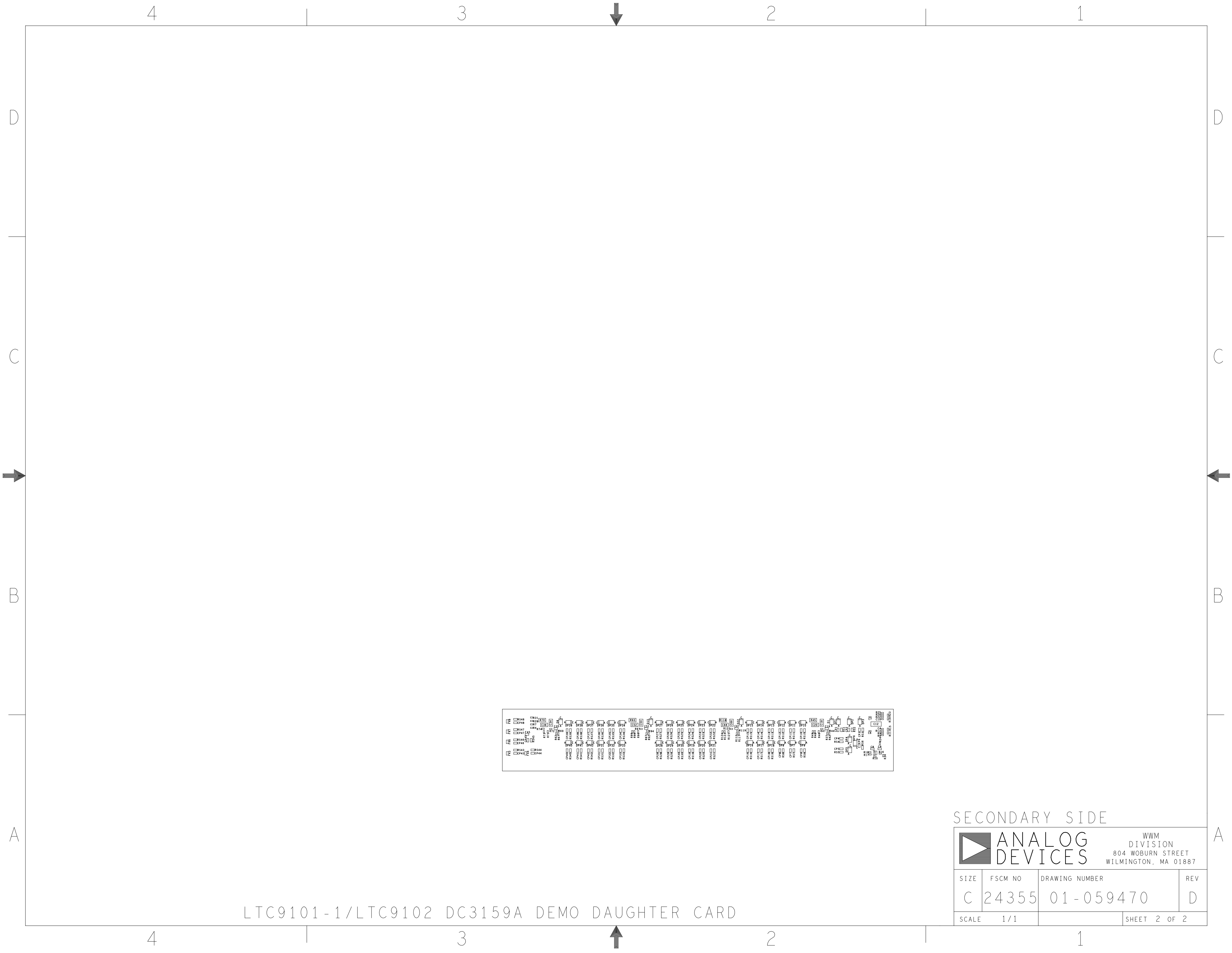
ASSEMBLY NOTES:

1. BOARD ACCEPTABILITY PER ANALOG DEVICES, INC. SPECIFICATION TST00119 (LATEST REVISION).
2. REPAIRS PER IPC-7711/21(LATEST REVISION) ARE ALLOWED.
3. REPAIRS ARE NOT ALLOWED IN SOLDERMASK FREE AREAS ON EITHER SIDE OF THE BOARD.
4. RoHS COMPLIANCE: ASSEMBLY VENDOR SHOULD ASSURE COMPLIANCE WITH LEAD-FREE AND RoHS PCB ASSEMBLY STANDARDS (EU RoHS DIRECTIVE 2002/95/EC).
5. THIS BOARD CONTAINS ELECTROSTATIC DISCHARGE SENSITIVE DEVICES.
6. BOARDS TO BE SHIPPED SINGULATED AFTER ASSEMBLY PROCESS SMOOTHEN EDGES AND FREE FROM BURS AFTER DEPANELIZATION PROCESS

REVISIONS			
REV	DESCRIPTION	DATE	APPROVED
A	INITIAL RELEASE	28NOV19	D.REYES
A1	AS PER ECR-097342	31AUG20	E.HORSMA
B	AS PER ECR-098354	07SEP20	E.HORSMA
B1	AS PER ECR-100937	11JAN21	E.HORSMA
C	AS PER ECR-102115	22APR21	E.HORSMA
D	AS PER ECR-105021	02NOV21	E.HORSMA

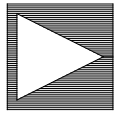
PRIMARY SIDE											
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES			APPROVAL		DATE		<div><div></div><div>ANALOG DEVICES</div></div> <div>WWM DIVISION 804 WOBURN STREET WILMINGTON, MA 01887</div>				
			TEMPLATE ENGINEER								
TOLERANCES							TITLE ASSEMBLY LTC9101-1 / LTC9102 DC3159A DEMO BRD Z				
DECIMALS	FRACTIONS	ANGLES	HARDWARE SERVICES M. JOSE		28NOV19						
.XX -.010	--1/32	-- 2	HARDWARE SYSTEMS								
.XXX -.005			TEST ENGINEER								
.XXXX -.0050			COMPONENT ENGINEER C. CAUILAN		28NOV19						
MATERIAL			TEST PROCESS								
			HARDWARE RELEASE K. JABATAN		28NOV19						
FINISH			DESIGNER N. CORDOVA		28NOV19		SIZE	FSCM NO	DRAWING NUMBER		REV
			PTD ENGINEER D. REYES		28NOV19		C	24355	01-059470		D
			CHECKER E. HORSMA		28NOV19						
DO NOT SCALE DWG							SCALE 1/1		SHEET 1 OF 2		

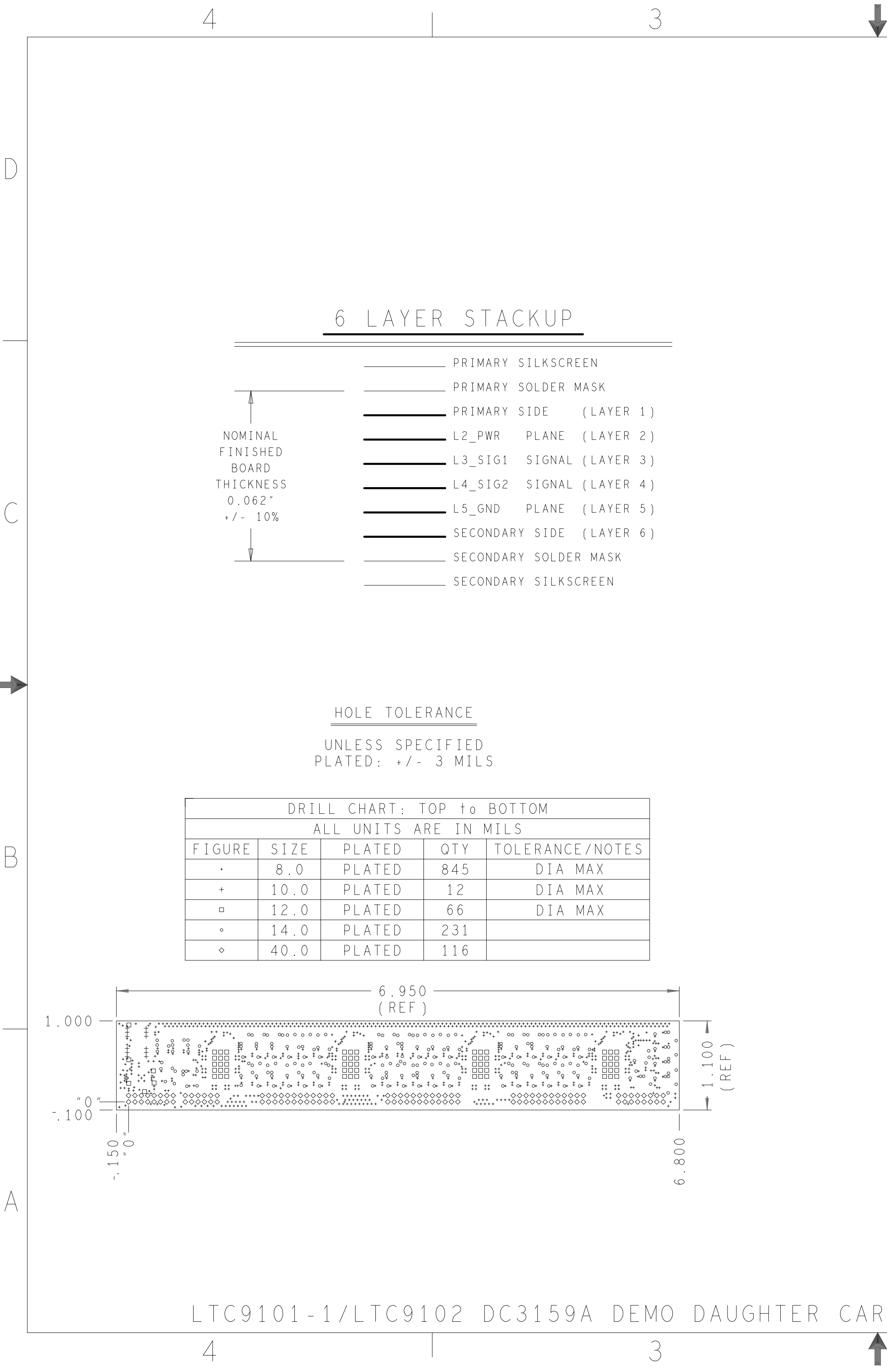
LTC9101-1/LTC9102 DC3159A DEMO DAUGHTER CARD



LTC9101-1/LTC9102 DC3159A DEMO DAUGHTER CARD

SECONDARY SIDE

		WWM DIVISION 804 WOBURN STREET WILMINGTON, MA 01887	
		SIZE	REV
C	24355	DRAWING NUMBER	D
SCALE	1 / 1	SHEET 2 OF 2	



2 1

REVISIONS

REV	DESCRIPTION	DATE	APPROVED
A	INITIAL RELEASE	28NOV19	D.REYES
A1	AS PER ECR-097342	31AUG20	E.HORSMA
B	AS PER ECR-098354	07SEP20	E.HORSMA
B1	AS PER ECR-100937	11JAN21	E.HORSMA
C	AS PER ECR-102115	22APR21	E.HORSMA
D	AS PER ECR-105021	02NOV21	E.HORSMA

IMPEDANCE TABLE
IMPEDANCE TOLERANCE +/- 10%


DP - DIFFERENTIAL PAIR

LAYER	IMPEDANCE	REFERENCE	LINE WIDTH	SPACING
LAYER 1	100 OHMS-DP	LAYER 2	0.004"	0.0055"
LAYER 3	100 OHMS-DP	LAYER 2	0.005"	0.010"
LAYER 6	100 OHMS-DP	LAYER 5	0.004"	0.0055"

STACKUP TABLE
Unit = Mils

#	NAME	TYPE	MATERIAL	THICKNESS
		SURFACE	AIR	0
	SOLDERMASK TOP	MASK	CONFORMAL COAT	0.79
1	TOP	CONDUCTOR	PLATED COPPER FOIL	2.1
		DIELECTRIC	FR-4	7.86
2	L2_GND	PLANE	COPPER	2.61
		DIELECTRIC	FR-4	8
3	L3_SIG1	CONDUCTOR	COPPER	2.61
		DIELECTRIC	FR-4	16.59
4	L4_SIG2	CONDUCTOR	COPPER	2.61
		DIELECTRIC	FR-4	8
5	L5_PWR	PLANE	COPPER	2.61
		DIELECTRIC	FR-4	7.86
6	BOTTOM	CONDUCTOR	PLATED COPPER FOIL	2.1
	SOLDERMASK BOTTOM	MASK	CONFORMAL COAT	0.79
		SURFACE	AIR	0
TOTAL THICKNESS				64.52

PRIMARY SIDE

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES				APPROVAL		DATE	
TOLERANCES DECIMALS FRACTIONS ANGLES .XX -.010 --1/32 -- 2 .XXX -.005 .XXXX -.0050				TEMPLATE ENGINEER		 WWM DIVISION 804 WOBURN STREET WILMINGTON, MA 01887	
				HARDWARE SERVICES M. JOSE	28NOV19		
				HARDWARE SYSTEMS			
MATERIAL				TEST ENGINEER		TITLE FABRICATION LTC9101-1 / LTC9102 DC3159A DEMO BRD Z	
				COMPONENT ENGINEER C. CAUILAN	28NOV19		
				TEST PROCESS			
FINISH				HARDWARE RELEASE K. JABATAN	28NOV19	SIZE FSCM NO DRAWING NUMBER REV C 24355 09-059470 D	
				DESIGNER N. CORDOVA	28NOV19		
				PTD ENGINEER D. REYES	28NOV19		
DO NOT SCALE DWG				CHECKER E. HORSMA	28NOV19	SCALE 1/1 SHEET 1 OF 2	

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2

1

REVISIONS			
REV	DESCRIPTION	DATE	APPROVED
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B1	AS PER ECR-100937	11JAN21	E. HORSMA
C	AS PER ECR-102115	22APR21	E. HORSMA
D	AS PER ECR-105021	02NOV21	E. HORSMA

SPECIFICATIONS:

ROHS COMPLIANCE NOTE: HOMOGENOUS MATERIALS IN THIS BOARD SHALL BE COMPLIANT
THE EU RoHS DIRECTIVE 2002/95/EC

MATERIALS; ALL LAMINATES AND BONDING MATERIALS SHOULD BE SELECTED FROM
IPC-4101 OR IPC-4103, MINIMUM Tg>170degC, Td>300degC,
U.L. RATING OF 94 V-0

MATERIAL FAMILY: ISOLA370HR OR S1000-2 OR IT180 OR EQUIVALENT

CLADDING;	EXTERNAL LAYERS .5 OZ. COPPER, OVERPLATE TO 1.5 OZ.
	INTERNAL SIGNAL LAYERS 2 OZ. COPPER.
	INTERNAL PLANE LAYERS 2 OZ. COPPER.

NOTE: IF THE LAYER STACKUP CONFLICTS WITH THE ABOVE CLADDING SPECIFICATIONS THEN THE LAYER STACKUP SHALL TAKE PRECEDENCE.

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

SILK SCREEN; SHALL BE PERMANENT NON-CONDUCTIVE EPOXY INK, COLOR: WHITE
SYNTHETIC INKJET PRINTING ALLOWED FOR DENSE BOARDS,
COLOR: WHITE

SURFACE FINISH: ENIG (ELECTROLESS NICKEL / IMMERSION GOLD)
PER IPC-4552 LATEST REVISION


INTENTIONAL SHORTS: IF SUPPLIED DATA INCLUDES A FILE "READ_ME.2", THEN
INTENTIONAL NET SHORTS EXIST. CUSTOMER REVIEW AND APPROVAL
IS REQUIRED IF SUPPLIED DATA REPORTS ANY CONDITION THAT
DOES NOT MATCH "READ ME.2" FILE PROVIDED.

TEST REQUIREMENTS; 100% NETLIST ELECTRICAL VERIFICATION USING CUSTOMER
SUPPLIED IPC-D-356 NETLIST FOR OPENS AND SHORTS WHEN
"GERBER DATA" IS PROVIDED. THIS VERIFICATION ALSO
REQUIRED FOR "ODB++" DATA PER EMBEDDED NETLIST.

REQUIREMENTS:

1. REFER TO IPC-6010 SERIES (LATEST REV.), CLASS 2 FOR FABRICATION UNLESS OTHERWISE SPECIFIED.
2. ACCEPTABILITY PER ANALOG DEVICES, INC. SPECIFICATION TST00115, (LATEST REVISION.)
3. MODIFICATIONS TO THE ARTWORK ARE NOT ALLOWED WITHOUT WRITTEN AUTHORIZATION.
4. HOLE PATTERN TOLERANCES FOR UNDIMENSIONED HOLES SHALL BE A DIAMETER OF 0.005 INCHES FROM THEIR TRUE POSITION.
5. PLATED HOLE WALL THICKNESS SHALL NOT BE LESS THAN 0.001 INCH MINIMUM AVERAGE, WITH NO READING LESS THAN .0008 BY CROSS SECTION.
6. HOLE DIAMETERS APPLY AFTER PLATING.
7. FINISHED CONDUCTOR WIDTHS SHALL NOT BE REDUCED FROM THE NOMINAL INDICATED ON THE MASTER PATTERN, BY MORE THAN THE CONDUCTOR THICKNESS.
8. MINIMUM DESIGN LINE WIDTH IS .004 INCH.
9. MINIMUM DESIGN SPACING IS .055 INCH.
- ~~10. NON-FUNCTIONAL PAD REMOVAL FROM INNER SIGNAL LAYERS MAY BE PERFORMED AFTER CUSTOMER APPROVAL.~~
11. IF PAD SIZES PROVIDED ARE NOT LARGE ENOUGH TO MAINTAIN ANNULAR RING REQUIREMENT, MFR. MAY REQUEST APPROVAL TO TEAR DROP PADS TO MAINTAIN ANNULAR RING. (AT PAD TO TRACE INTERSECTION ONLY AND ELECTRICAL INTEGRITY MUST BE MAINTAINED.)
12. THIEVING MAY BE ADDED TO COMPENSATE FOR LOW COPPER DENSITY AREAS ON THIS DESIGN ONLY AFTER REVIEW AND APPROVAL FROM THE CUSTOMER:
 - A. THIEVING TO CARD EDGE, FIDUCIALS, NON-PLATED THROUGH HOLES, ALL OTHER FEATURES TO BE 0.200 INCH MINIMUM.
 - B. THERE SHALL BE NO THIEVING IN ANY AREAS FREE OF SOLDER MASK OR INTERNAL COPPER PLANES.
13. MFR. 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-FLAMMABILITY RATING
 - B. DATE CODE (STAMP).
 - C. LOT NUMBER
 - D. MFR LOGO
 - E. SUCCESSFUL ELECTRICAL TEST.
14. REPAIRS PER IPC-7711/21 (LATEST REV.) ARE ALLOWED.
15. BOARDS TO BE SHIPPED IN ARRAY AND KEEP INTACT. PANEL TO BE SUBJECTED TO CUSTOMER'S APPROVAL. PANELED SOLDER PASTE STENCIL SHOULD BE SENT TO THE CUSTOMER.

PRIMARY SIDE

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES			APPROVAL		DATE		 ANALOG DEVICES		WMM DIVISION 804 WOBURN STREET WILMINGTON, MA 01887		
TOLERANCES			TEMPLATE ENGINEER				TITLE FABRICATION LTC9101-1 / LTC9102 DC3159A DEMO BRD Z				
DECIMALS	FRACTIONS	ANGLES	HARDWARE SERVICES M. JOSE		28NOV19						
.XX --.010	--1/32	-- 2	HARDWARE SYSTEMS								
.XXX --.005											
.XXXX --.0050											
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			TEST PROCESS								
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FINISH			DESIGNER N. CORDOVA		28NOV19		SIZE	FSCM NO	DRAWING NUMBER	REV	
			PTD ENGINEER D. REYES		28NOV19		C	24355	09-059470	D	
			CHECKER E. HORSMA		28NOV19						
DO NOT SCALE DWG							SCALE 1/1		SHEET 2 of 2		

LTC9101-1/LTC9102 DC3159A DEMO DAUGHTER CARD

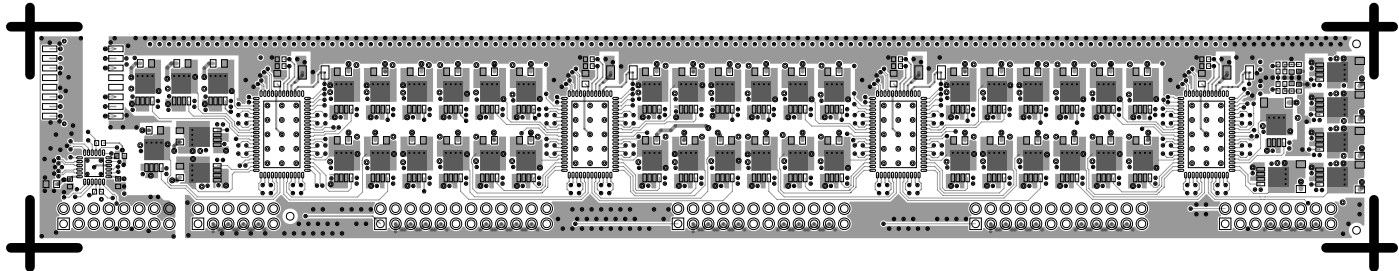
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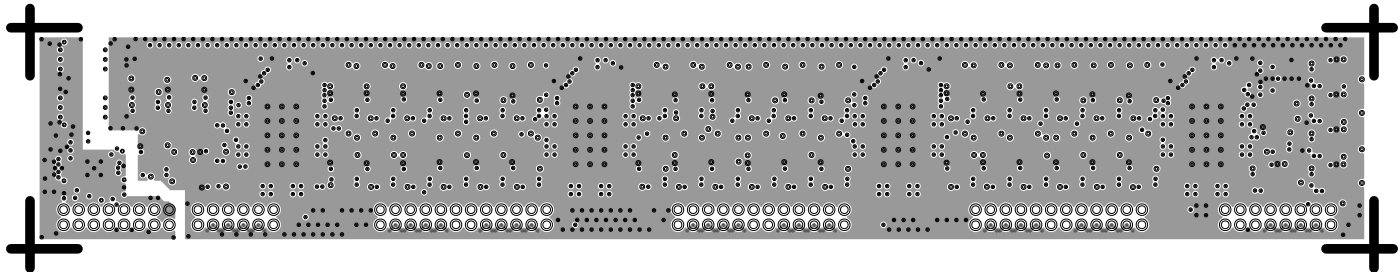
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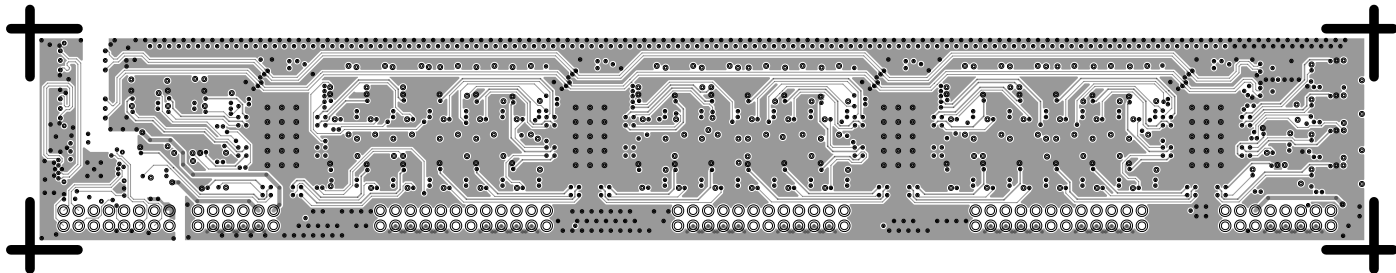
L1 PRIMARY
08-059470-01
REV D



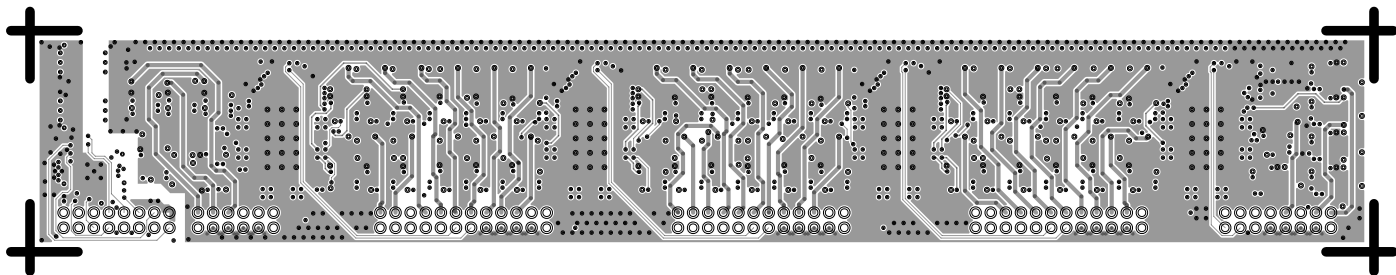
L2 GND
08-059470-07
REV D



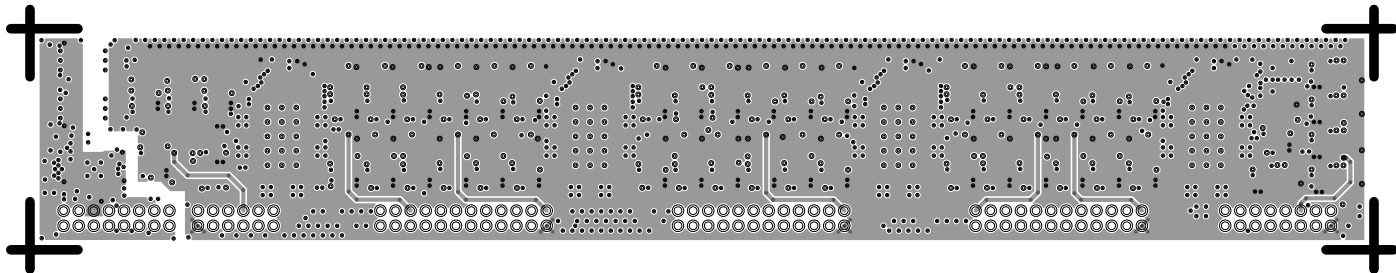
L3 SIG1
08-059470-08
REV D



L4 SIG2
08-059470-09
REV D



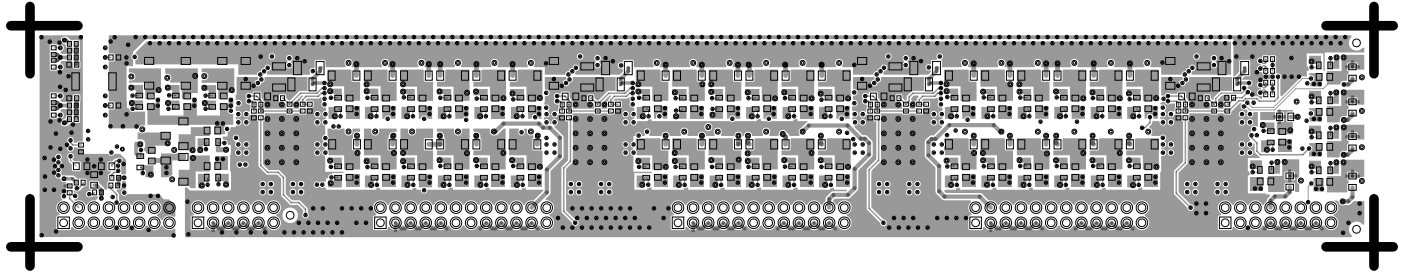
L5 PWR
08-059470-10
REV D



L6 SECONDARY

08-059470-02

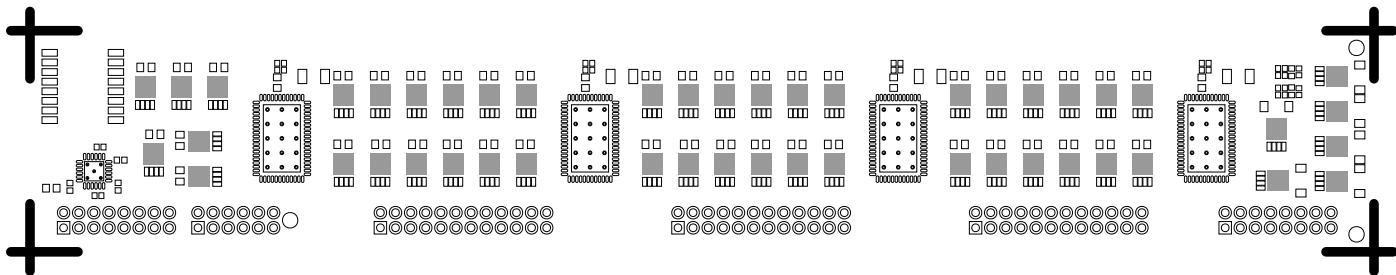
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SOLDERMASK PRIMARY

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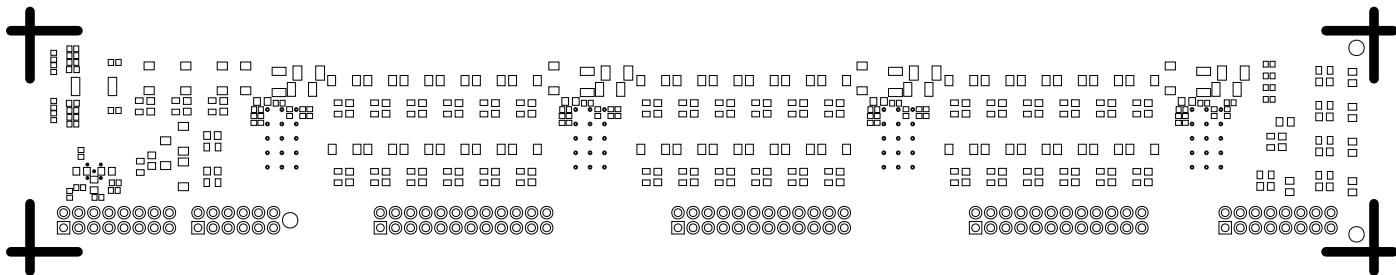
REV D



SOLDERMASK SECONDARY

08-059470-06

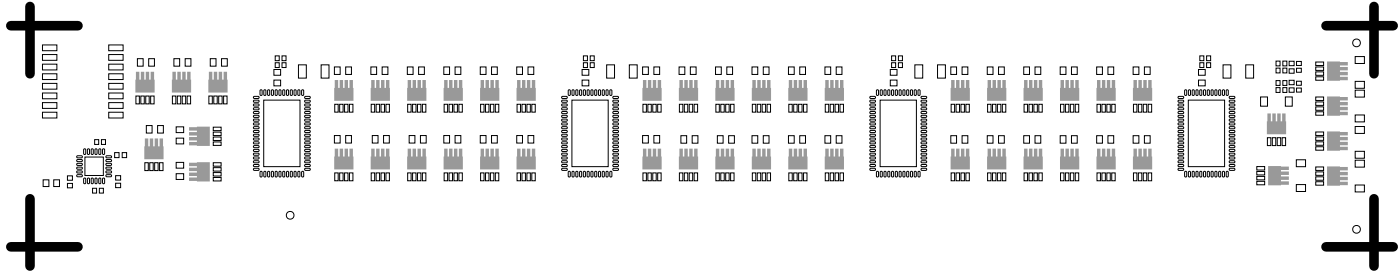
REV D



PASTEMASK PRIMARY

08-059470-11

REV D



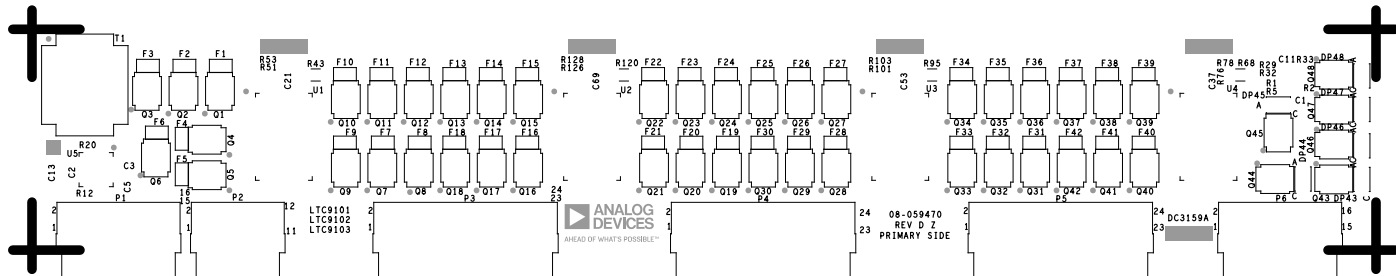
PASTEMASK SECONDARY

08-059470-12

REV D



REV D



REV D

