

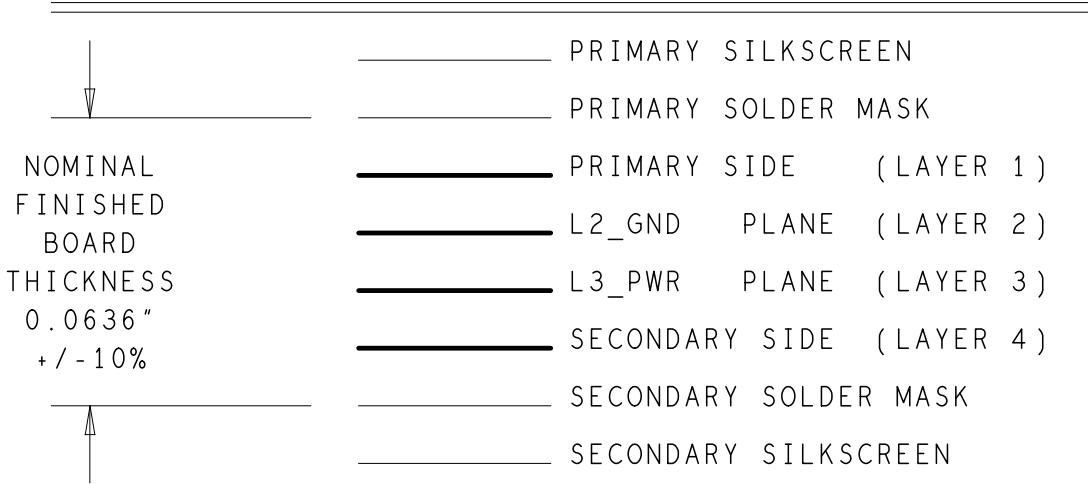
SPECIFICATIONS:

- 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 .5 OZ. COPPER.~~
INTERNAL PLANE LAYERS 1 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:

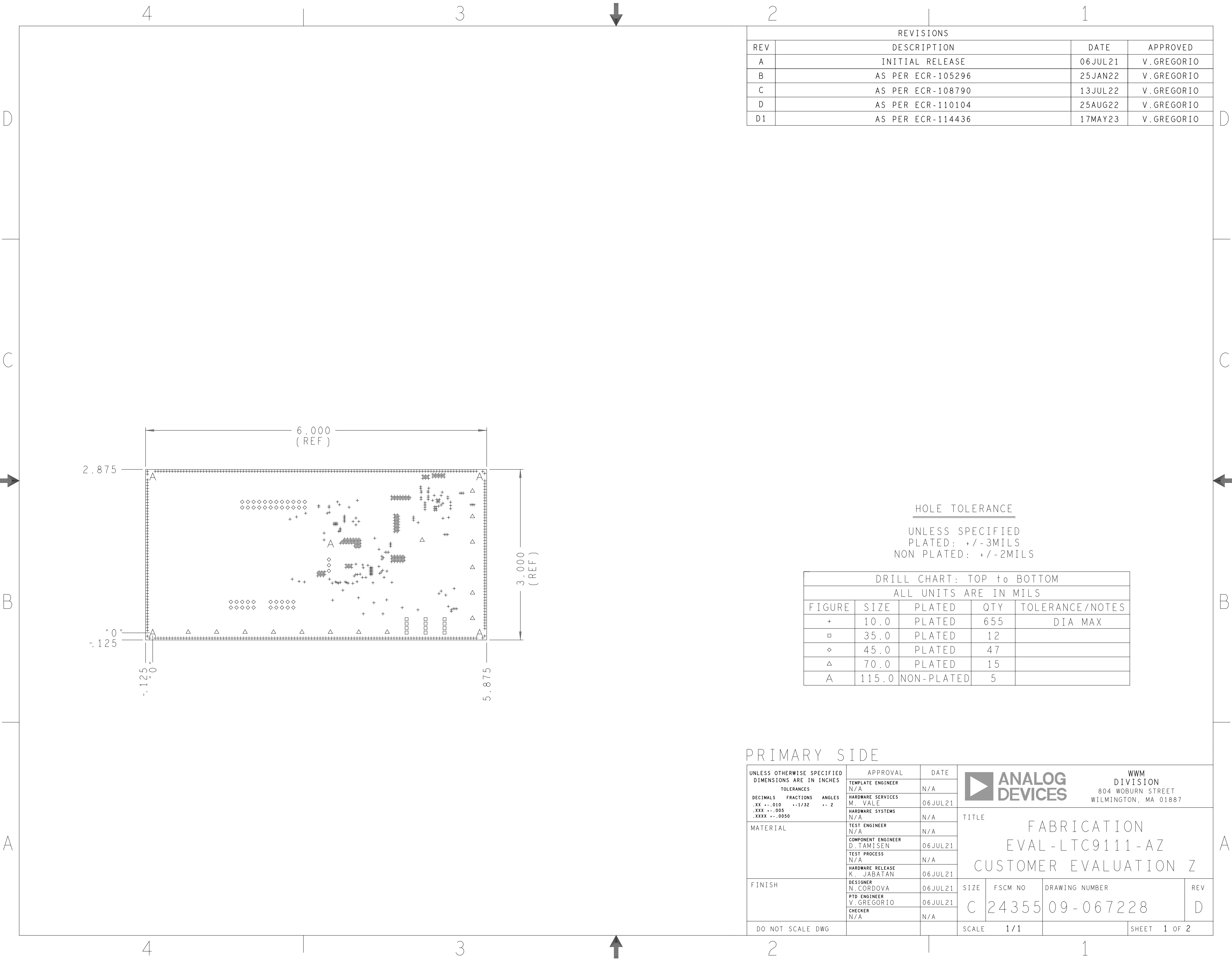
- REFER TO IPC-6010 SERIES (LATEST REV.), CLASS 2 FOR FABRICATION UNLESS OTHERWISE SPECIFIED.
- ACCEPTABILITY PER ANALOG DEVICES, INC. SPECIFICATION TST00115, (LATEST REVISION.)
- MODIFICATIONS TO THE ARTWORK ARE NOT ALLOWED WITHOUT WRITTEN AUTHORIZATION.
- HOLE PATTERN TOLERANCES FOR UNDIMENSIONED HOLES SHALL BE A DIAMETER OF 0.005 INCHES FROM THEIR TRUE POSITION.
- PLATED HOLE WALL THICKNESS SHALL NOT BE LESS THAN 0.001 INCH MINIMUM AVERAGE, WITH NO READING LESS THAN .0008 INCH 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 .006 INCH.
- ~~NON-FUNCTIONAL PAD REMOVAL FROM INNER SIGNAL LAYERS MAY BE PERFORMED AFTER CUSTOMER APPROVAL.~~
- IF PAD SIZES PROVIDED ARE NOT LARGE ENOUGH TO MAINTAIN ANNULAR RING REQUIREMENT, MFGR. MAY REQUEST APPROVAL TO TEAR DROP PADS TO MAINTAIN ANNULAR RING. (AT PAD TO TRACE INTERSECTION ONLY AND ELECTRICAL INTEGRITY MUST BE MAINTAINED.)
- THIEVING MAY BE ADDED TO COMPENSATE FOR LOW COPPER DENSITY AREAS ON THIS DESIGN ONLY AFTER REVIEW AND APPROVAL FROM THE CUSTOMER:
 - THIEVING TO CARD EDGE, FIDUCIALS, NON-PLATED THROUGH HOLES, ALL OTHER FEATURES TO BE 0.200 INCH MINIMUM.
 - THERE SHALL BE NO THIEVING IN ANY AREAS FREE OF SOLDER MASK OR INTERNAL COPPER PLANES.
- MFGR. TO LEGIBLY ETCH OR STAMP/SCREEN WITH PERMANENT NON-CONDUCTIVE INK ON SECONDARY SIDE IN A CLEAR AREA UNLESS OTHERWISE INDICATED;
 - U.L. CODE-FLAMMABILITY RATING
 - DATE CODE (STAMP).
 - LOT NUMBER
 - MFGR LOGO
 - SUCCESSFUL ELECTRICAL TEST.
- REPAIRS PER IPC-7711/21 (LATEST REV.) ARE ALLOWED.
- 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.

4 LAYER STACKUP



PRIMARY SIDE

		ANALOG DEVICES		WWM DIVISION 804 WOBURN STREET WILMINGTON, MA 01887	
		SIZE	FSCM NO	DRAWING NUMBER	REV
C		24355	09-067228	D	
SCALE		1/1		SHEET 2 OF 2	



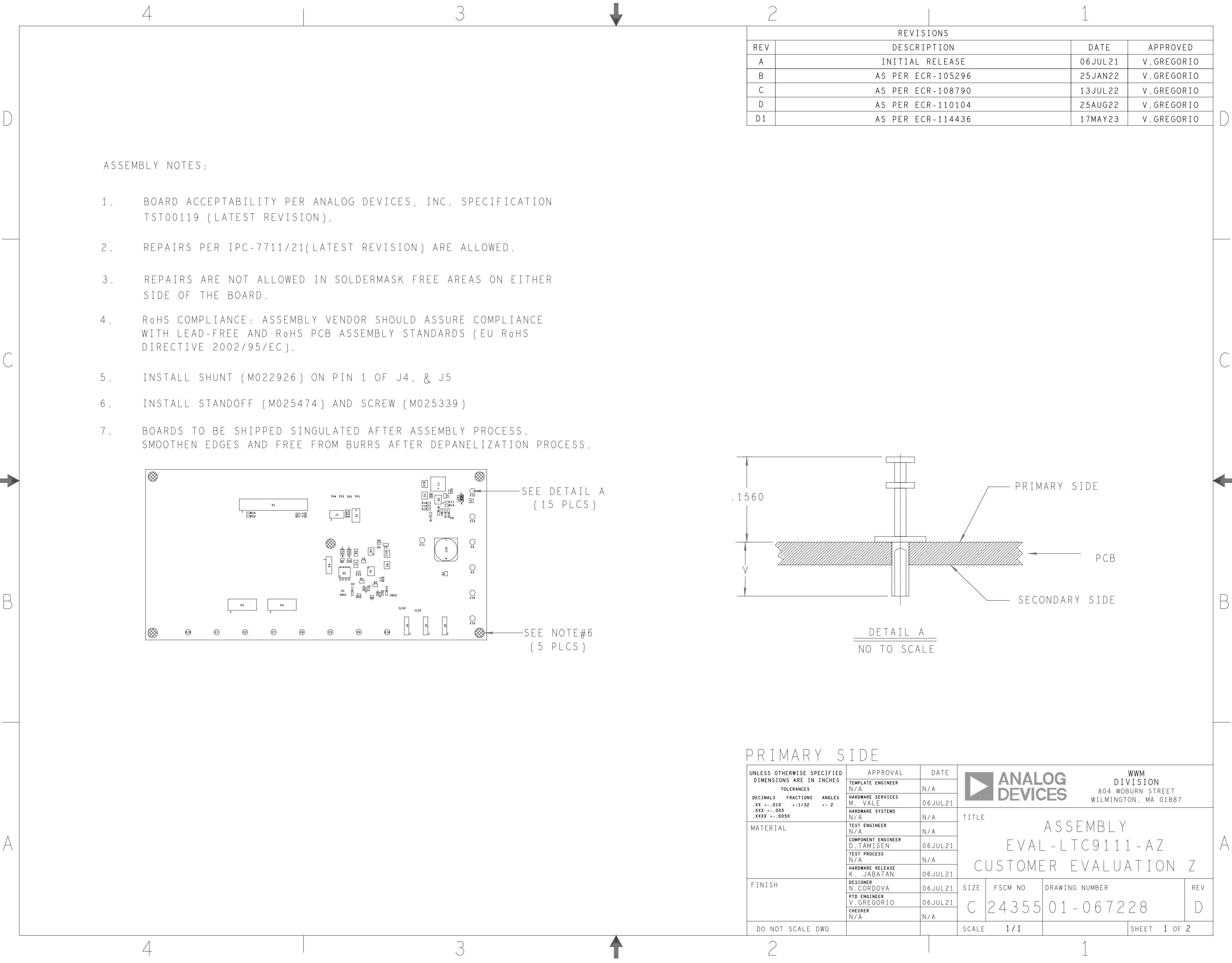
REVISIONS			
REV	DESCRIPTION	DATE	APPROVED
A	INITIAL RELEASE	06JUL21	V.GREGORIO
B	AS PER ECR-105296	25JAN22	V.GREGORIO
C	AS PER ECR-108790	13JUL22	V.GREGORIO
D	AS PER ECR-110104	25AUG22	V.GREGORIO
D1	AS PER ECR-114436	17MAY23	V.GREGORIO

HOLE TOLERANCE
UNLESS SPECIFIED
PLATED: +/-3MILS
NON PLATED: +/-2MILS

DRILL CHART: TOP to BOTTOM				
ALL UNITS ARE IN MILS				
FIGURE	SIZE	PLATED	QTY	TOLERANCE/NOTES
+	10.0	PLATED	655	DIA MAX
□	35.0	PLATED	12	
◇	45.0	PLATED	47	
△	70.0	PLATED	15	
A	115.0	NON-PLATED	5	

PRIMARY SIDE

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES DECIMALS FRACTIONS ANGLES .XX -.010 --1/32 -- 2 .XXX -.005 .XXXX -.0050			APPROVAL		DATE		<div><div><div></div></div><div>ANALOG DEVICES</div></div> <div>WWM DIVISION 804 WOBURN STREET WILMINGTON, MA 01887</div>									
			TEMPLATE ENGINEER N/A		N/A											
			HARDWARE SERVICES M. VALE		06JUL21											
			HARDWARE SYSTEMS N/A		N/A											
MATERIAL			TEST ENGINEER N/A		N/A		TITLE FABRICATION EVAL-LTC9111-AZ CUSTOMER EVALUATION Z									
			COMPONENT ENGINEER D. TAMISEN		06JUL21											
			TEST PROCESS N/A		N/A											
			HARDWARE RELEASE K. JABATAN		06JUL21											
FINISH			DESIGNER N. CORDOVA		06JUL21		SIZE C		FSCM NO 24355		DRAWING NUMBER 09-067228		REV D			
			PTD ENGINEER V. GREGORIO		06JUL21											
			CHECKER N/A		N/A											
DO NOT SCALE DWG							SCALE		1/1				SHEET		1 OF 2	

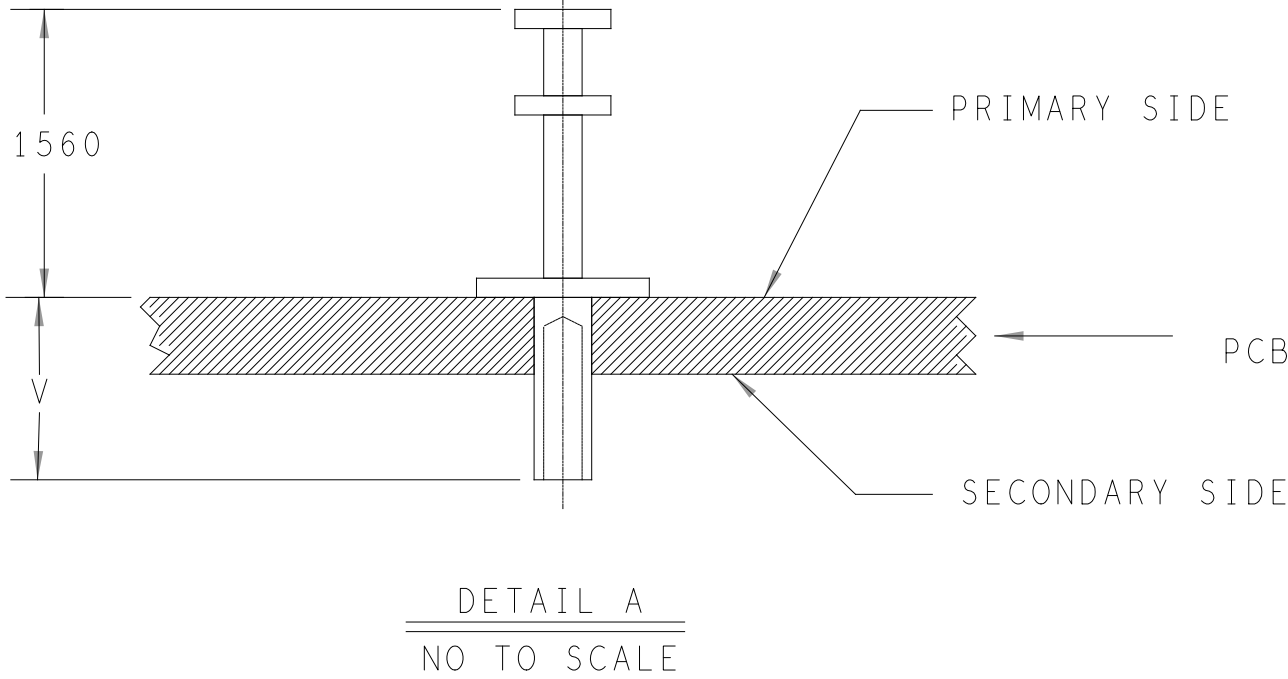


ASSEMBLY NOTES:

- BOARD ACCEPTABILITY PER ANALOG DEVICES, INC. SPECIFICATION TST00119 (LATEST REVISION).
- REPAIRS PER IPC-7711/21(LATEST REVISION) ARE ALLOWED.
- REPAIRS ARE NOT ALLOWED IN SOLDERMASK FREE AREAS ON EITHER SIDE OF THE BOARD.
- RoHS COMPLIANCE: ASSEMBLY VENDOR SHOULD ASSURE COMPLIANCE WITH LEAD-FREE AND RoHS PCB ASSEMBLY STANDARDS (EU RoHS DIRECTIVE 2002/95/EC).
- INSTALL SHUNT (M022926) ON PIN 1 OF J4, & J5
- INSTALL STANDOFF (M025474) AND SCREW (M025339)
- BOARDS TO BE SHIPPED SINGULATED AFTER ASSEMBLY PROCESS. SMOOTHEN EDGES AND FREE FROM BURRS AFTER DEPANELIZATION PROCESS.

SEE DETAIL A
(15 PLCS)

SEE NOTE#6
(5 PLCS)



PRIMARY SIDE

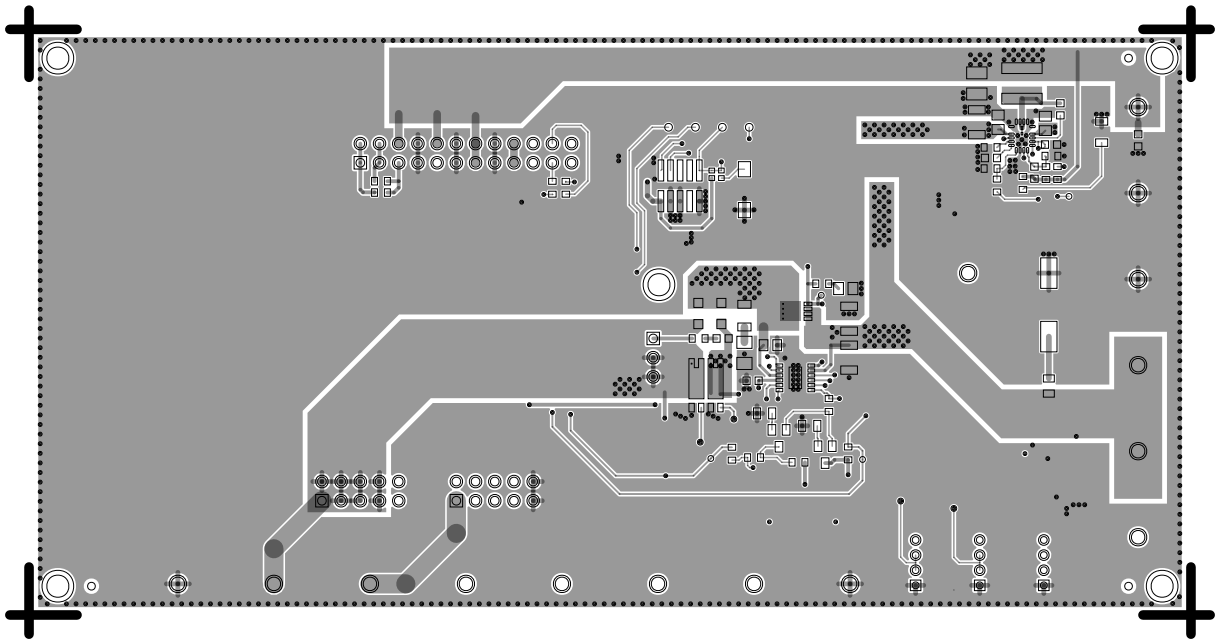
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES DECIMALS FRACTIONS ANGLES .XX -.010 --1/32 -- 2 .XXX -.005 .XXXX -.0050	APPROVAL		DATE		<div><div><div></div></div><div>ANALOG DEVICES</div></div> <div>WWM DIVISION 804 WOBURN STREET WILMINGTON, MA 01887</div> <div>TITLE ASSEMBLY EVAL-LTC9111-AZ CUSTOMER EVALUATION Z</div>			
	TEMPLATE ENGINEER N/A		N/A					
	HARDWARE SERVICES M. VALE		06JUL21					
	HARDWARE SYSTEMS N/A		N/A					
MATERIAL	TEST ENGINEER N/A		N/A		SIZE FSCM NO DRAWING NUMBER REV C 24355 01-067228 D			
	COMPONENT ENGINEER D. TAMIEN		06JUL21					
	TEST PROCESS N/A		N/A					
	HARDWARE RELEASE K. JABATAN		06JUL21					
FINISH	DESIGNER N. CORDOVA		06JUL21		SCALE 1/1 SHEET 1 OF 2			
	PTD ENGINEER V. GREGORIO		06JUL21					
	CHECKER N/A		N/A					
	DO NOT SCALE DWG							



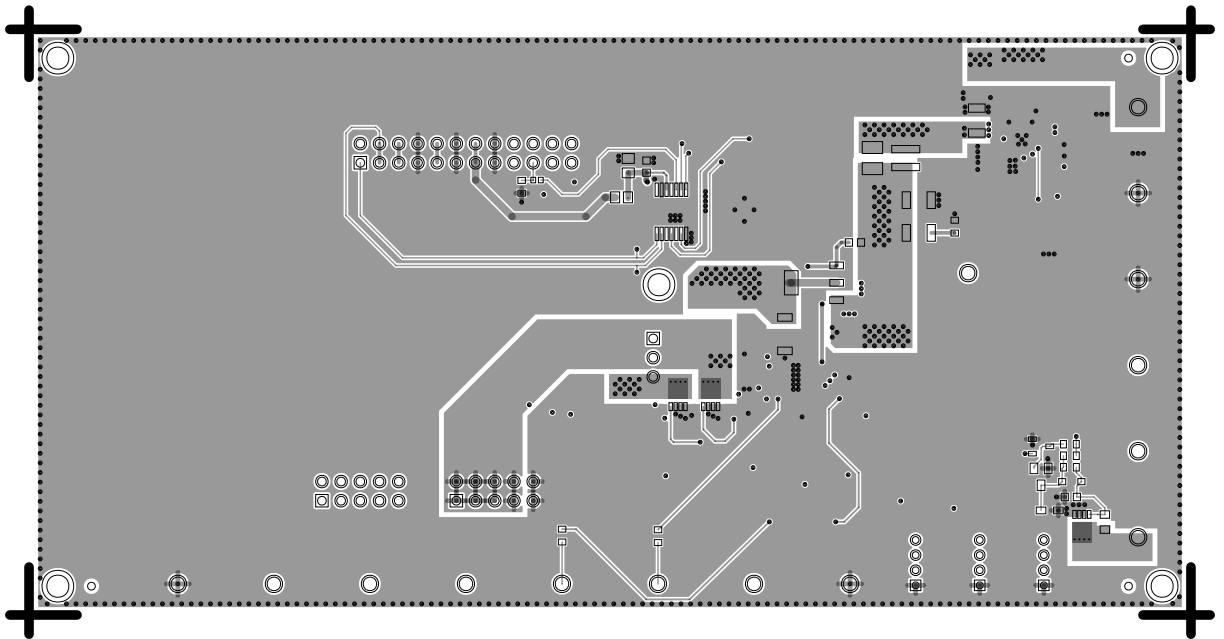
SECONDARY SIDE

<div><div><div></div></div><div>ANALOG DEVICES</div></div> <div>WWM DIVISION 804 WOBURN STREET WILMINGTON, MA 01887</div>			
SIZE	FSCM NO	DRAWING NUMBER	REV
C	24355	01-067228	D
SCALE	1 / 1	SHEET 2 OF 2	

L1 PRIMARY
08-067228-01
REV D



L4 SECONDARY
08-067228-02
REV D

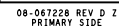


REV D



LTC9111, 802.3cg

SPoE PD Controller



GND
E14
○



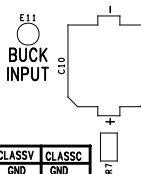
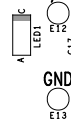
LTC9111 CIRCUITRY



BUCK

U2
L1
D1
C6
C5
R16
C12
R15
R17
R18
R13
R25
C8
C7
R14
C11
C20

3.3V/3.5A



CLASS	CLASSV	CLASSC
10	GND	GND
11	GND	FLOAT
12	GND	STBY
13	STBY	GND
14	STBY	FLOAT
15	STBY	STBY

E4
GND

OUT+

OUT+

AB-001-

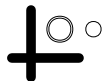
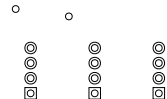
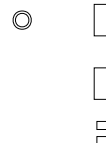
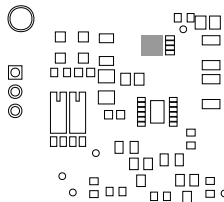
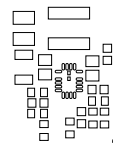
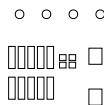
E15

CLSVO CLSC EXT
CLASSV CLASS SCCP
GND STBY STBY VSTBY
E14 IN1 IN2
GND GND GND

SOLDERMASK PRIMARY

08-067228-04

REV D

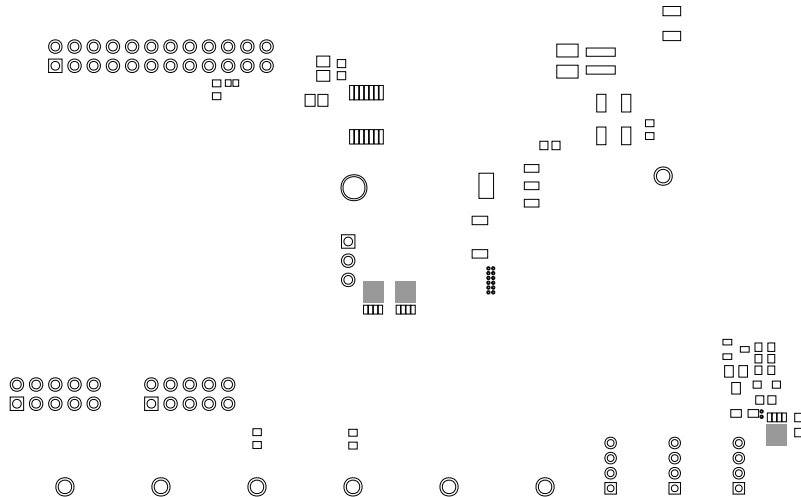
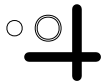
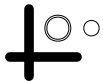


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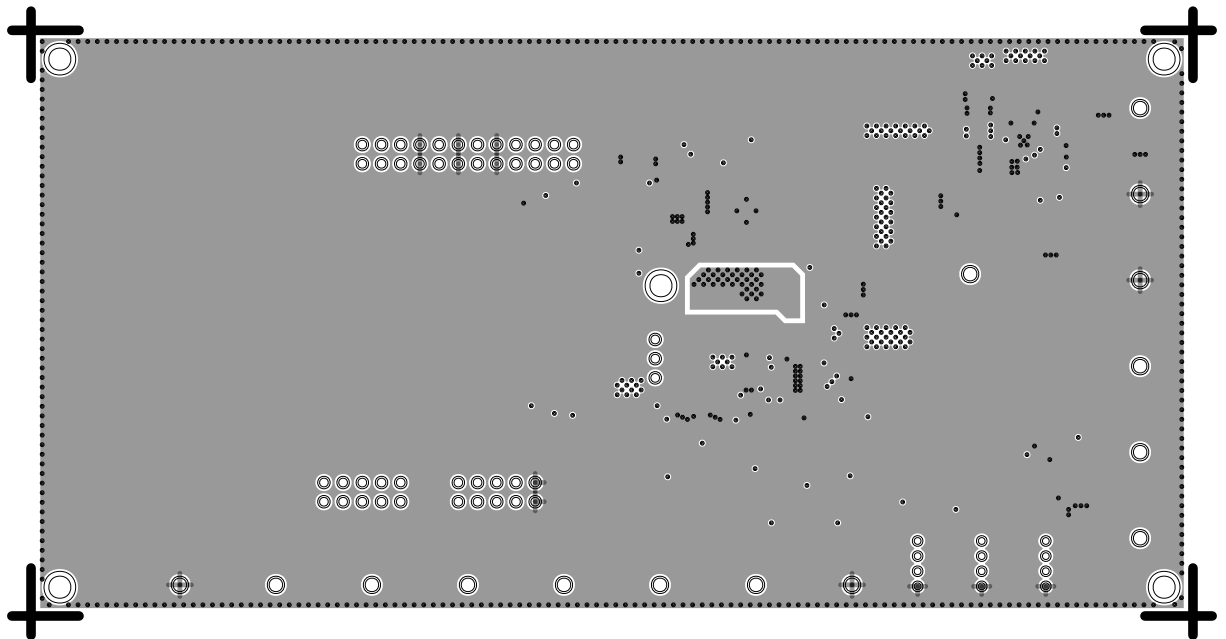
SOLDERMASK SECONDARY

08-067228-06

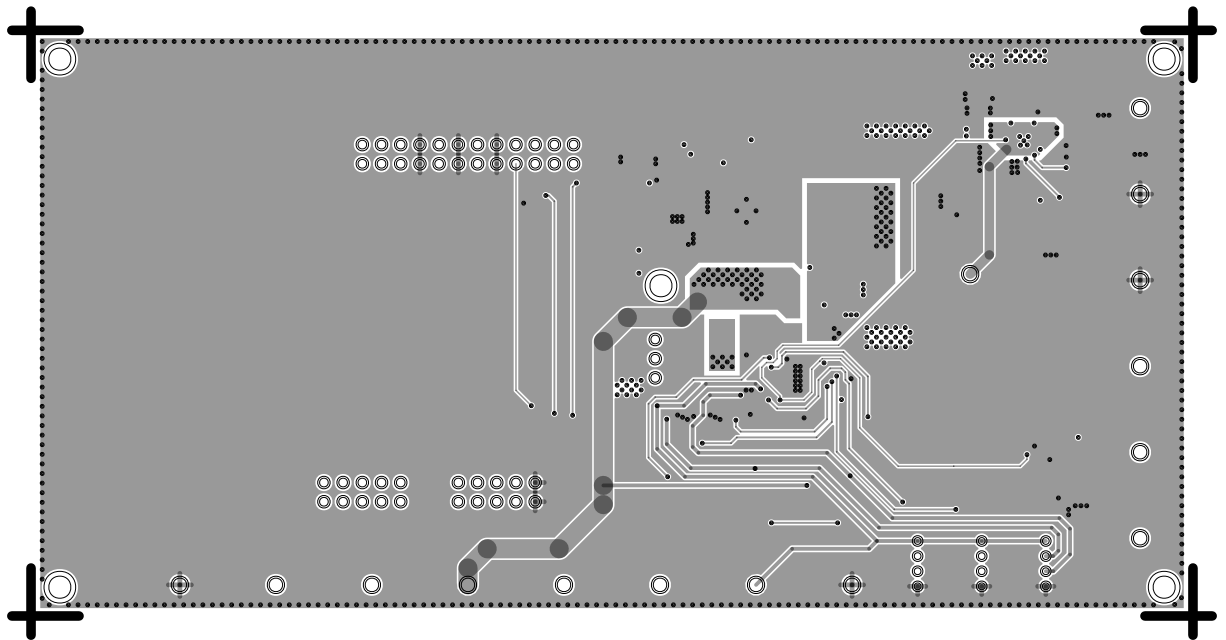
REV D



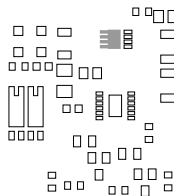
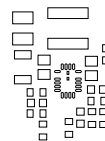
L2 GND
08-067228-07
REV D



L3 PWR
08-067228-08
REV D



PASTEMASK PRIMARY
08-067228-09
REV D



PASTEMASK SECONDARY

08-067228-10

REV D

