

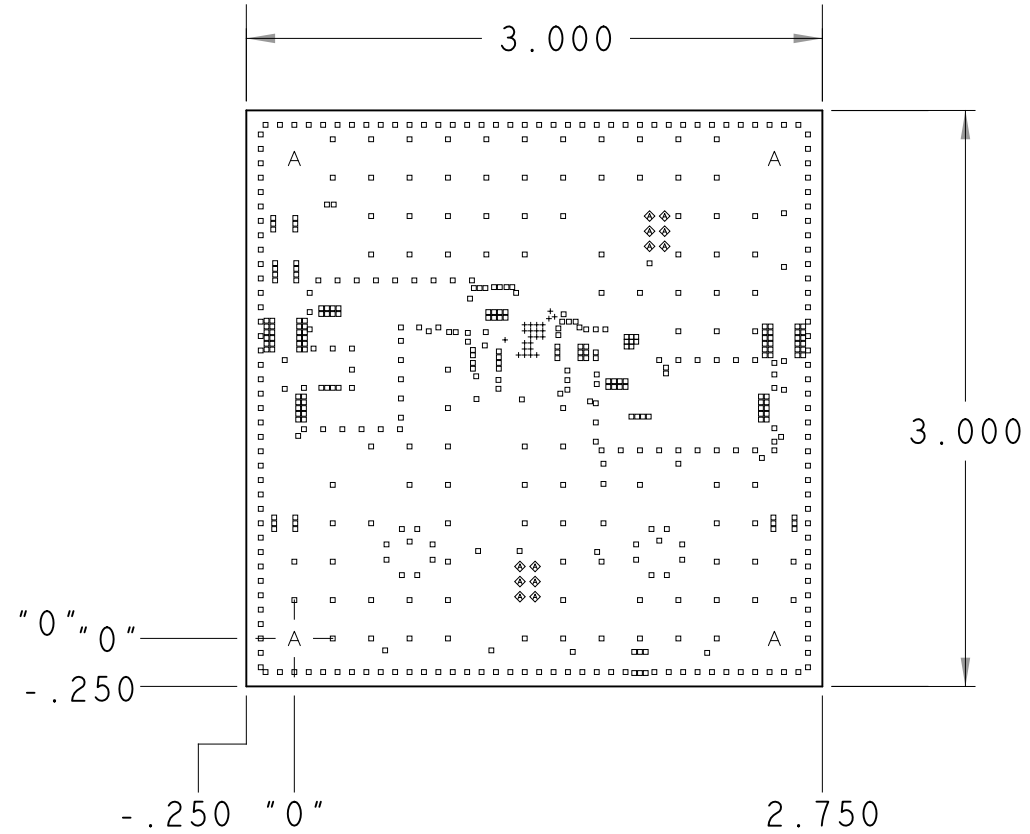
D

C

B

A

STACKUP TABLE				
Unit = Mils				
#	NAME	TYPE	MATERIAL	THICKNESS
		SURFACE	AIR	0
	SOLDERMASK_TOP	MASK	PHOTOIMAGABLE_ACRYLIC	1.5
1	TOP	CONDUCTOR	COPPER	2.8
		DIELECTRIC	FR-4	3.15
2	L2_GND-SIG	CONDUCTOR	2OZ COPPER	2.8
		DIELECTRIC	FR-4	42
3	L3_GND-SIG	CONDUCTOR	2OZ COPPER	2.8
		DIELECTRIC	FR-4	3.15
4	BOTTOM	CONDUCTOR	COPPER	2.8
	SOLDERMASK_BOTTOM	MASK	PHOTOIMAGABLE_ACRYLIC	1.5
		SURFACE	AIR	0
TOTAL THICKNESS				62.5



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

FINISHED HOLES IN MILS				
ALL UNITS ARE IN MILS				
FIGURE	SIZE	PLATED	QTY	TOLERANCE/NOTES
.	7.0	PLATED	23	
o	12.0	PLATED	547	
o	35.0	PLATED	12	
A	187.0	NON-PLATED	4	

SPECIFICATIONS:

- 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; FR406
- CLADDING; ALL LAYERS .5 OZ. COPPER, OVERPLATE TO 2.0 OZ.
- SOLDER MASK; 1.SOLDERMASK 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.
2. MAINTAIN +/- 1.5 MIL SOLDERMASK REGISTRATION TOLERANCE.
3. U1 BGA HAS BOTH SOLDERMASK-DEFINED AND NON-SOLDERMASK-DEFINED PADS.
- 3.1 SOLDERMASK APERTURE SIZE FOR SOLDERMASK DEFINED PADS SHALL BE 16 MILS., AS PER PROVIDED DESIGN FILES.
- 3.2 SOLDERMASK APERTURE SIZE FOR NON-SOLDERMASK DEFINED PADS SHALL BE 21 MILS., AS PER PROVIDED DESIGN FILES.
- 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.

REVISIONS			
REV	DESCRIPTION	DATE	APPROVED
A	INITIAL RELEASE	13OCT20	M. HAWKINS
B	PER ECR# 113280	01MAR23	A. NGUYEN

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 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 6 MILS.
- MINIMUM DESIGN SPACING IS 8 MILS IN U1 BGA AREA, TOP SIDE. OVERALL MINIMUM DESIGN SPACING IS 6 MILS.
- 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, MFR. 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.
- MFR. 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
 - MFR LOGO
 - SUCCESSFUL ELECTRICAL TEST.

PRIMARY SIDE

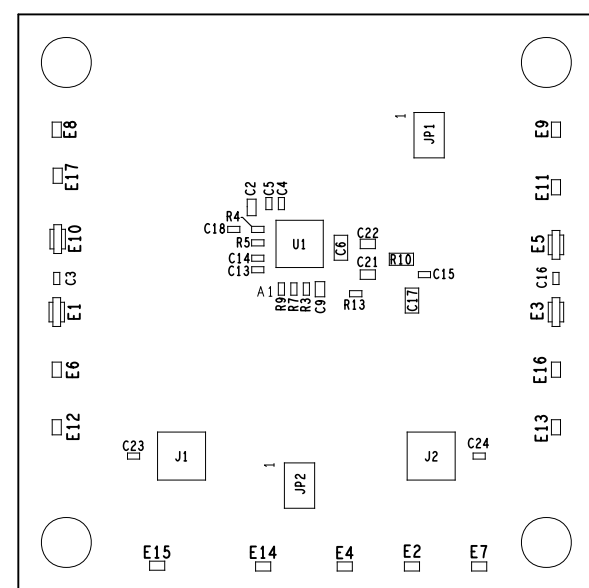
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES DECIMALS FRACTIONS ANGLES .XX +/- .010 .XXX +/- .005 .XXXX +/- .0050	APPROVAL	DATE	<div><div>ANALOG DEVICES</div><div>AHEAD OF WHAT'S POSSIBLE™</div></div> <div>ADI Power by Linear</div> <div>TITLE FABRICATION LTM4702 CUSTOMER EVAL</div>			
	TEMPLATE ENGINEER					
	HARDWARE SERVICES					
	HARDWARE SYSTEMS					
MATERIAL	COMPONENT ENGINEER		SIZE FSCN NO DRAWING NUMBER REV D 24355 09-065996 B			
	HARDWARE RELEASE					
FINISH	PCB DESIGNER M. HAWKINS	03MAY22	SCALE 1/1 SHEET 1 OF 1			
	PCB ENGINEER					
	CHECKER					
DO NOT SCALE DWG						

D

C

B

A




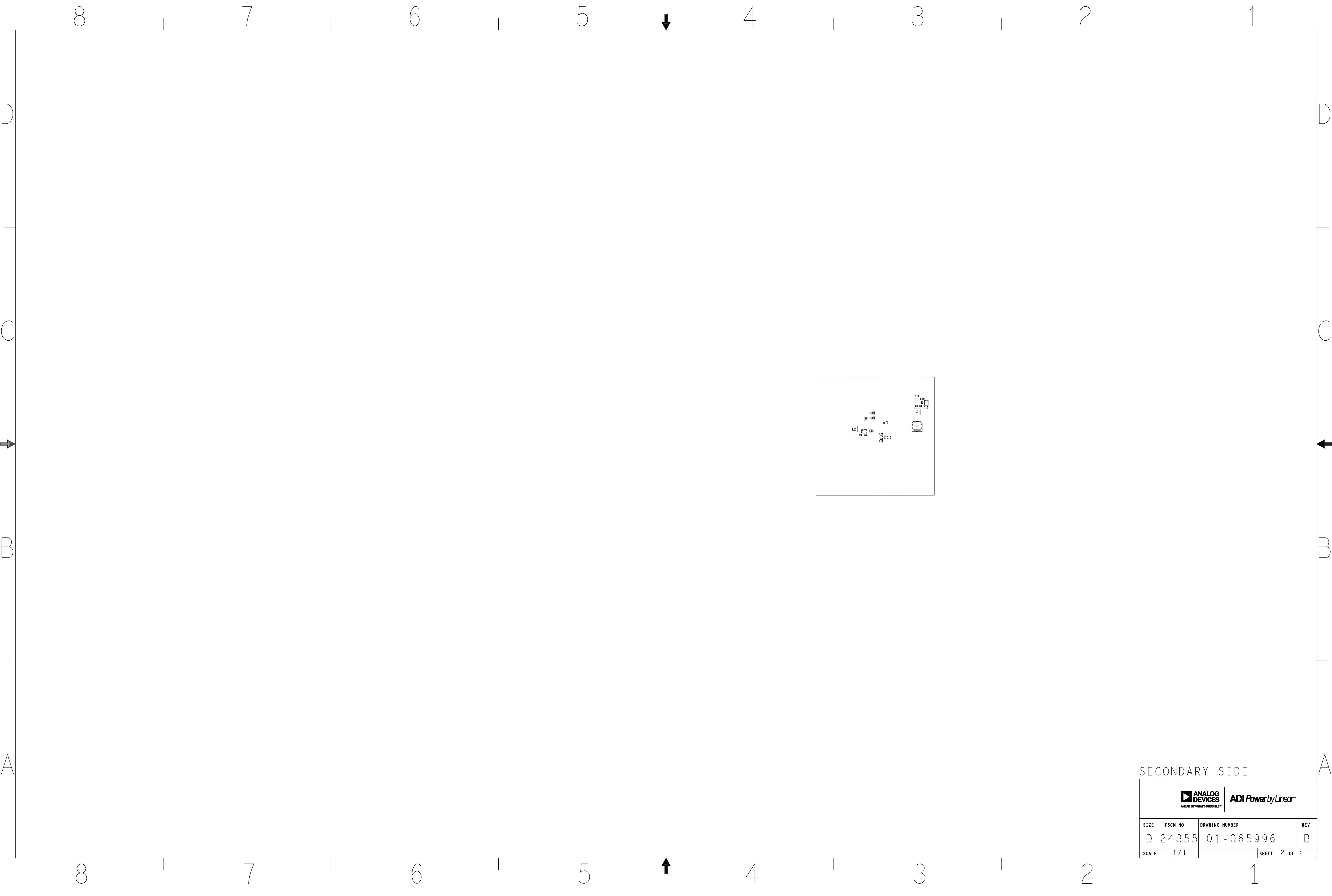
REVISIONS			
REV	DESCRIPTION	DATE	APPROVED
A	INITIAL RELEASE	13OCT20	M. HAWKINS
B	PER ECR# 113280	01MAR23	A. NGUYEN

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. CLEANLINESS SHALL BE TESTED IN ACCORDANCE WITH IPC-TM-650.
6. SPECIFIC COMPONENTS SHOULD BE INSTALLED WITH THEIR CORRESPONDING MECHANICAL PARTS LISTED ON THE MECHANICAL PARTS SECTION OF THE BOM.
7. IF THIS WILL UNDERGO AUTO-ASSEMBLY:
 - A. ASSEMBLY VENDOR MUST SUPPLY A COPY OF X-RAY FOR BGA TO ENSURE THE CONNECTIVITY OF EVERY PIN.
 - B. ASSEMBLY VENDOR MUST PERFORM DIODE TEST ON BGA COMPONENT AND PROVIDE DIODE TEST RESULT TO ADI.

PRIMARY SIDE

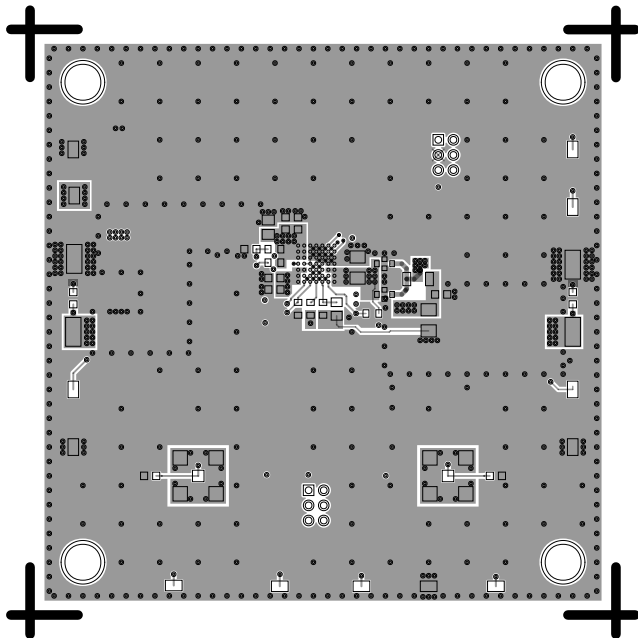
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES		APPROVAL		DATE		 ADL Power by Linear <small>AHEAD OF WHAT'S POSSIBLE™</small>	
TOLERANCES		TEMPERATURE ENGINEER				<div> <div>TITLE</div> <div>ASSEMBLY</div> <div>LTM4702 CUSTOMER EVAL</div> </div>	
DECIMALS	ANGLES	HARDWARE SERVICES					
.XX -.010	°.1/32	HARDWARE SYSTEMS					
.XXX -.005	°XX						
.XXX -.0050	°XXX						
MATERIAL		COMPONENT ENGINEER					
		HARDWARE RELEASE X					
FINISH		PCB DESIGNER M. HAWKINS	03MAY22	SIZE	FSCM NO	DRAWING NUMBER	REV
		PTD ENGINEER X		D	24355	01-065996	B
		CHECKER X					
DO NOT SCALE DWG			SCALE	1/1	SHEET		1 OF 2



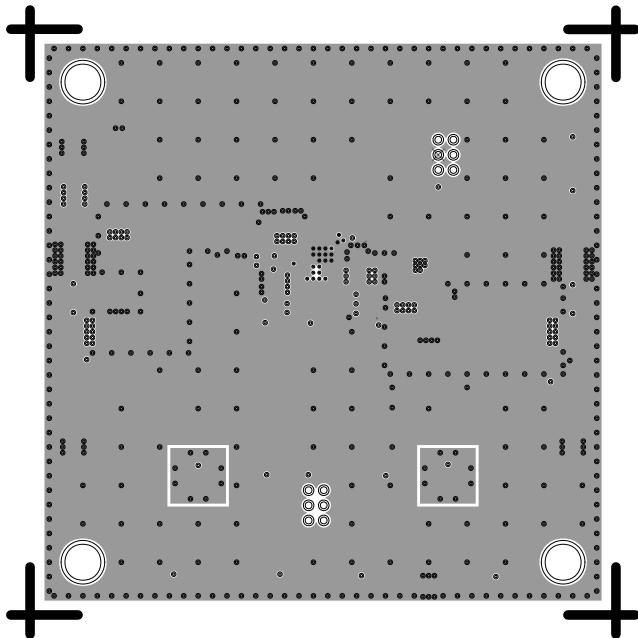
SECONDARY SIDE

<div><div>ANALOG DEVICES <small>AHEAD OF WHAT'S POSSIBLE™</small></div><div>ADI Power by Linear</div></div>			
SIZE	FSCM NO	DRAWING NUMBER	REV
D	24355	01-065996	B
SCALE	1/1	SHEET 2 OF 2	

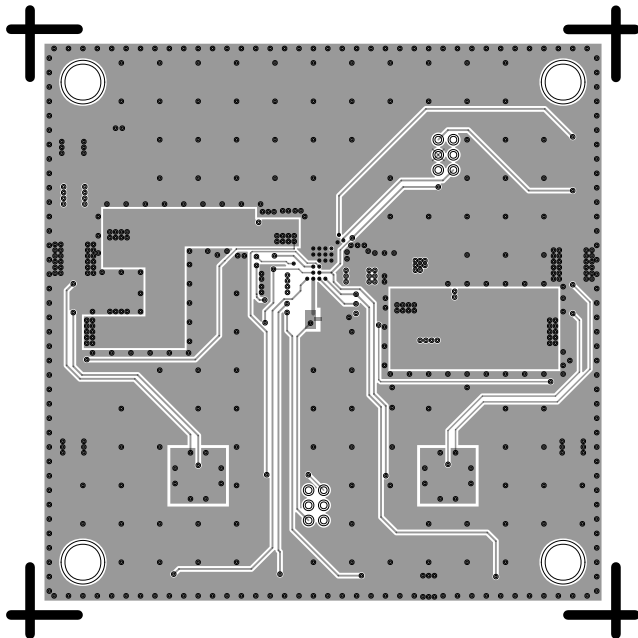
L1 PRIMARY
08-065996-01
REV B



L2 GND-SIG
08 - 065996-075
REV B



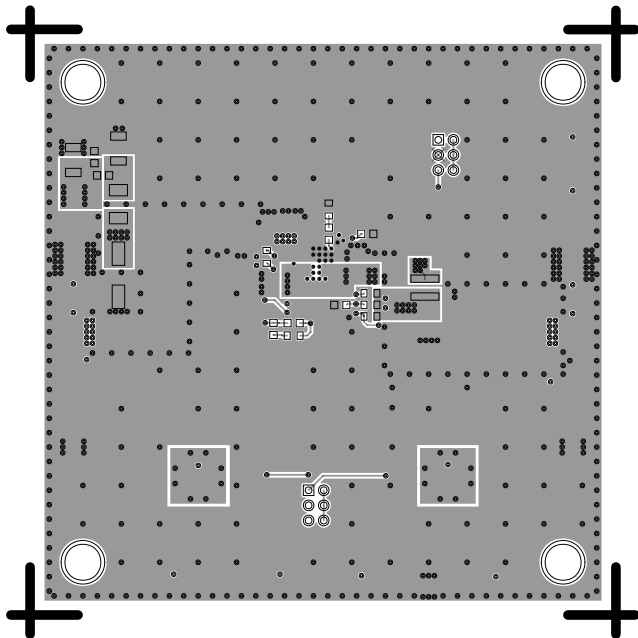
L3 GND-SIG
08- 065996-085
REV B



L4 SECONDARY

08-065996-02

REV B



SILKSCREEN PRIMARY

08-065996-03

REV B



LTM4702

16V, 8A μ MODULE REGULATOR
with LOW NOISE REFERENCE

EVAL-LTM4702-AZ
PRIMARY SIDE
08-065996 REV. B

E8 GND

E17 VEMI
4V-16V

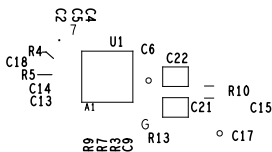
E10 GND

C3
E1 VIN
4V-16V

E6 VIN
SENSE

E12 SENSE
GND

C23



JP1 SYNC
PULSE
FCM

CLKOUT E9

SYNC E11

GND E5

C16
VOUT
1V/8A E3

VO
SENSE E16

SENSE
GND E13

C24
cm 1



JP2
90 PS
120 PS
180 PS



TSENSE-
E15

TSENSE+
E14

RUN
E4

GND
E2

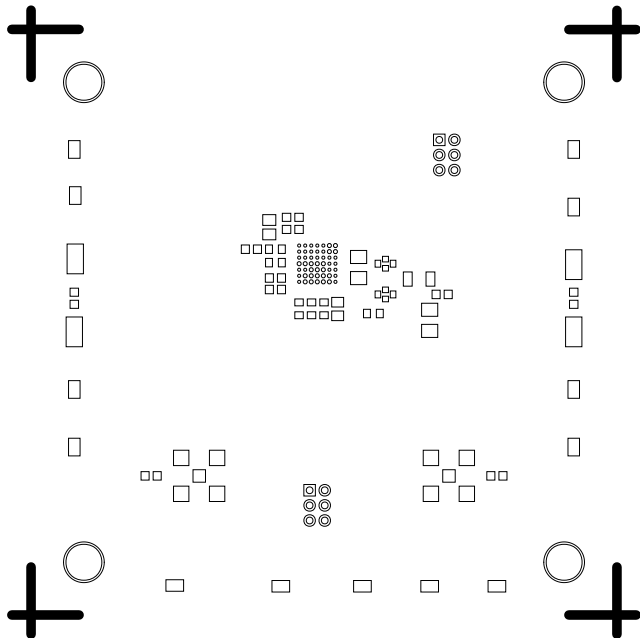
PG
E7



SOLDERMASK PRIMARY

08-065996-04

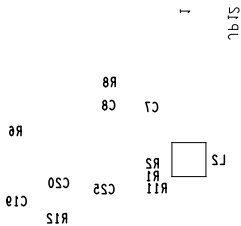
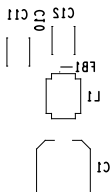
REV B



SILKSCREEN SECONDARY

08-065996-05

REV B

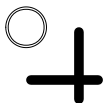
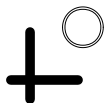
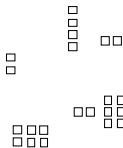


08-065996 REV. B
SECONDARY SIDE

SS9L
1



REV B



PASTEMASK PRIMARY

08-065996 - 9

REV B



PASTEMASK SECONDARY

08-065996-10

REV B

