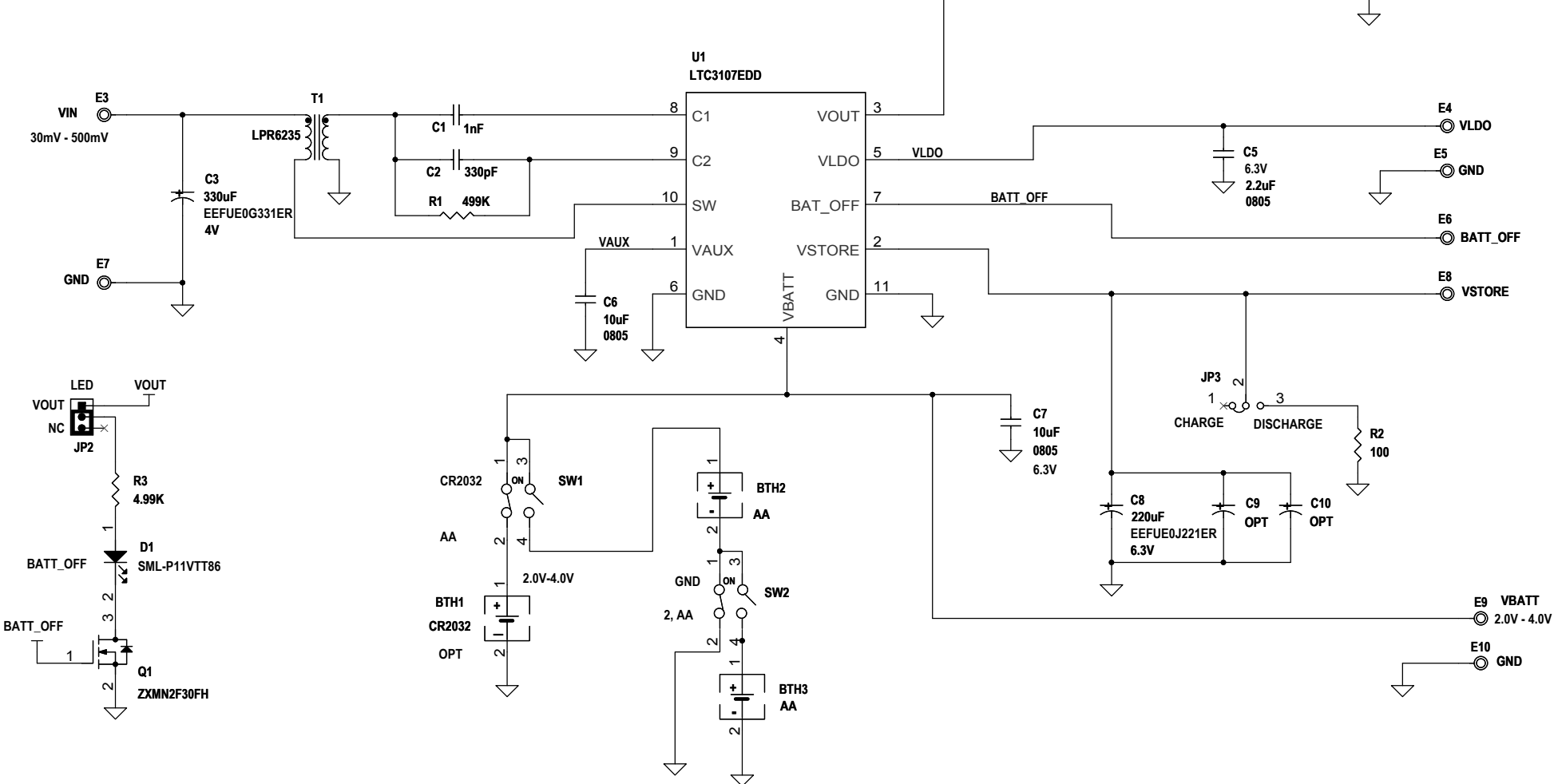


REVISION HISTORY				
ECO	REV	DESCRIPTION	APPROVED	DATE
-	2	PRODUCTION	JIM N.	11 - 18 - 13



NOTE: UNLESS OTHERWISE SPECIFIED

- ALL RESISTORS ARE IN 0603.
- ALL CAPACITORS ARE IN 0805 Unless otherwise noted.
- INSTALL SHUNTS AS SHOWN.

CUSTOMER NOTICE

LINEAR TECHNOLOGY HAS MADE A BEST EFFORT TO DESIGN A CIRCUIT THAT MEETS CUSTOMER-SUPPLIED SPECIFICATIONS; HOWEVER, IT REMAINS THE CUSTOMER'S RESPONSIBILITY TO VERIFY PROPER AND RELIABLE OPERATION IN THE ACTUAL APPLICATION. COMPONENT SUBSTITUTION AND PRINTED CIRCUIT BOARD LAYOUT MAY SIGNIFICANTLY AFFECT CIRCUIT PERFORMANCE OR RELIABILITY. CONTACT LINEAR TECHNOLOGY APPLICATIONS ENGINEERING FOR ASSISTANCE.

THIS CIRCUIT IS PROPRIETARY TO LINEAR TECHNOLOGY AND SUPPLIED FOR USE WITH LINEAR TECHNOLOGY PARTS.

APPROVALS

PCB DES. NC

APP ENG. JIM N.

SCALE = NONE

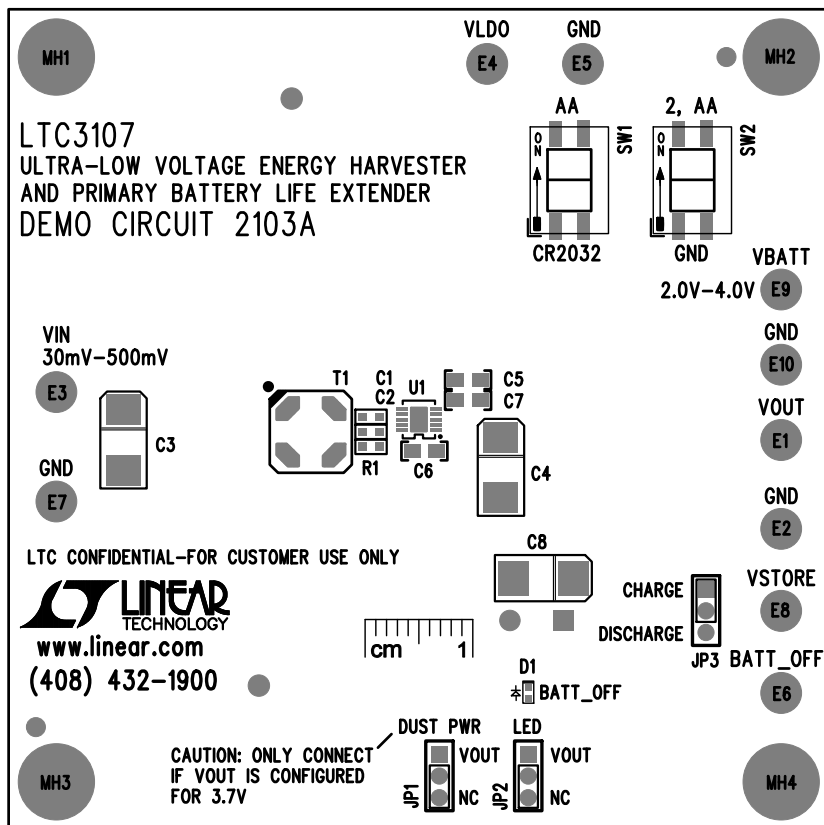


1630 McCarthy Blvd.
Milpitas, CA 95035
Phone: (408)432-1900 www.linear.com
Fax: (408)434-0507
LTC Confidential-For Customer Use Only

TITLE: SCHEMATIC
ULTRA-LOW VOLTAGE ENERGY HARVESTER
AND PRIMARY BATTERY LIFE EXTENDER

SIZE N/A IC NO. LTC3107EDD
DEMO CIRCUIT 2103A REV. 2

DATE: 11 - 18 - 13 SHEET 1 OF 1



9. INSTALL SW1-SW2 AS SHOWN BELOW IN FIG. 1
SW1-SW2: PART# CTS, 204-121LPST

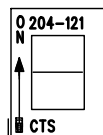
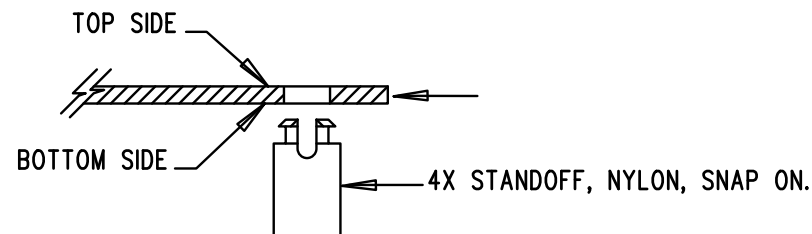


FIG. 1 TOP VIEW MOUNT

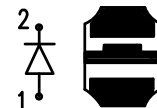
REVISION HISTORY				
ECO	REV	DESCRIPTION	APP. ENG.	DATE
-	2	PRODUCTION	JIM N.	11-18-13

NOTES: UNLESS OTHERWISE SPECIFIED

1. WORKMANSHIP SHALL BE IN ACCORDANCE WITH IPC-A-610.
2. ASSEMBLY PROCESS SHALL INCLUDE: REFLOW SOLDER TOP SIDE SMD.
3. PARTS TO OMIT WILL BE SPECIFIED ON THE BILL OF MATERIALS. LOCATIONS OF OMITTED PARTS SHALL BE FREE OF SOLDER. MASK THE SOLDER STENCIL WHERE SMT PARTS ARE OMITTED.
4. INSTALL SHUNTS AS SHOWN ON ASSY DRAWING.
5. DEPANELIZE BOARDS AFTER ASSEMBLY AND ROUTE-OUT THE BREAKOUT TABS ON FOUR SIDES OF THE BOARD EDGE.
6. DO NOT APPLY ANY KIND OF ASSEMBLY STAMP OR QA STAMP TO ANY BOARD.
7. INSTALL 4 STANDOFFS AT 4 LOCATIONS AS SHOWN BELOW:



8. INSTALL LED D1 AS SHOWN BELOW:



D1-BOTTOM VIEW:
PART# ROHM, SML-P11VTT86

APPROVALS

PCB DES.	NC
APP ENG.	JIM N.

LINEAR TECHNOLOGY
1630 MCCARTHY BLVD
MILPITAS, CA 95035
PH: (408)432-1900
www.linear.com
LTC CONFIDENTIAL-FOR CUSTOMER USE ONLY

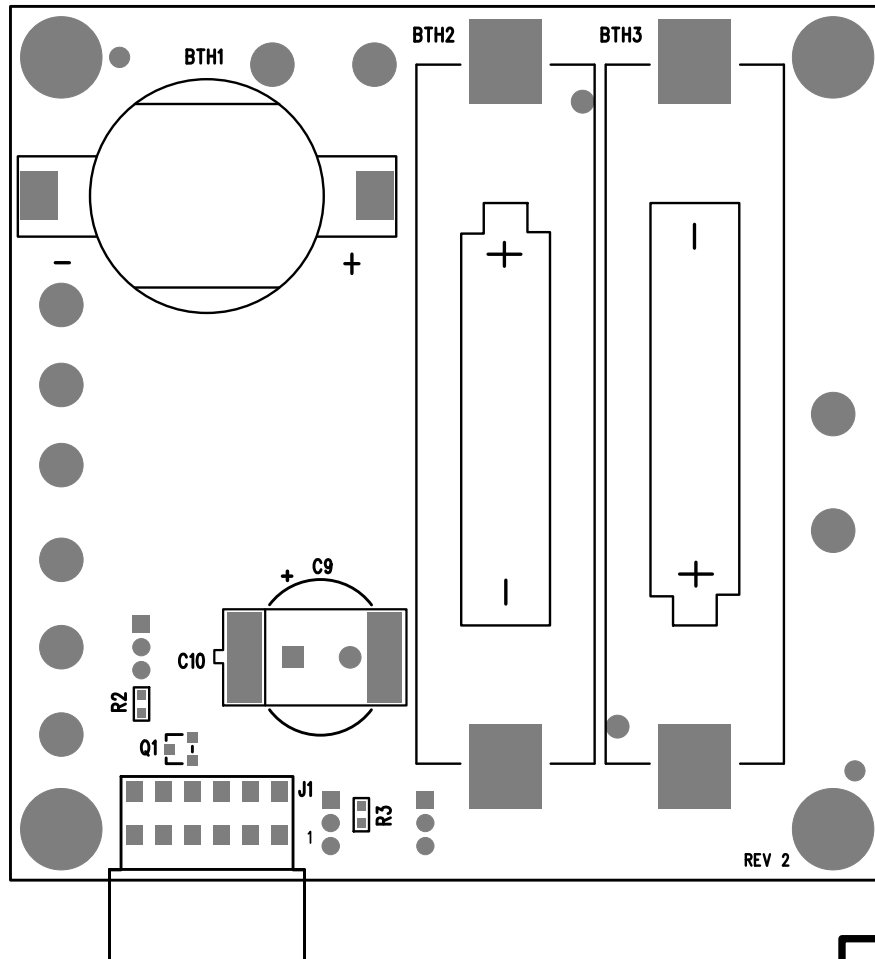
TITLE: TOP ASSEMBLY DRAWING
ULTRA-LOW VOLTAGE ENERGY HARVESTER
AND PRIMARY BATTERY LIFE EXTENDER

SIZE N/A	IC NO. LTC3107EDD DEMO CIRCUIT 2103A	REV. 2
-------------	--	-----------

SCALE = NONE

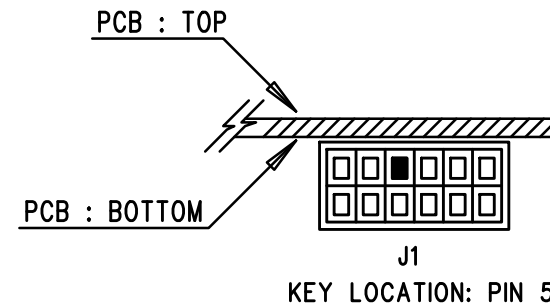
FILENAME: DC2103A-2.PCB

SHT 1 OF 1



1. ENSURE HEADER KEY FOR J1 IS INSTALLED AND LOCATED AS SHOWN BELOW:

FRONT VIEW OF SMT HEADER



APPROVALS

PCB DES.	NC
APP ENG.	JIM N.

SCALE = NONE



1630 MCCARTHY BLVD
MILPITAS, CA 95035
PH: (408)432-1900
www.linear.com
LTC CONFIDENTIAL-
FOR CUSTOMER USE ONLY

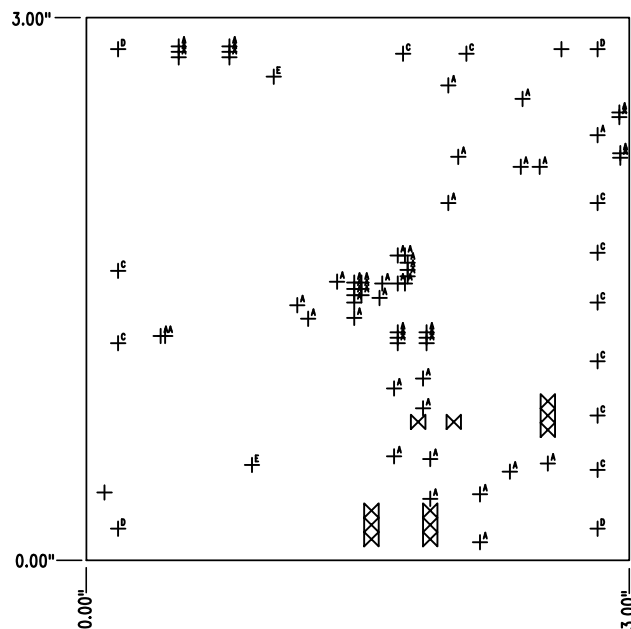
TITLE: BOTTOM ASSEMBLY DRAWING

ULTRA-LOW VOLTAGE ENERGY HARVESTER
AND PRIMARY BATTERY LIFE EXTENDER

SIZE N/A	IC NO. LTC3107EDD DEMO CIRCUIT 2103A	REV 2
-------------	---	----------

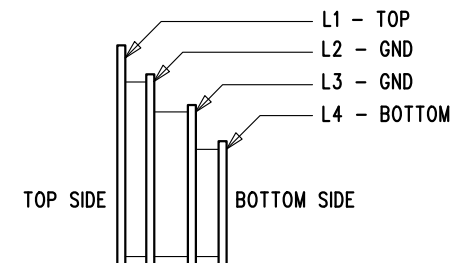
FILENAME: DC2103A-2.PCB SHT 2 of 2

REVISION HISTORY				
ECO	REV	DESCRIPTION	APP. ENG.	DATE
-	2	PRODUCTION	JIM N.	11-18-13



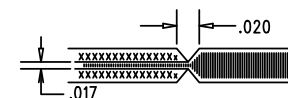
SIZE	QTY	SYM	PLATED	TOL
0.07	2	+	NO	+/-0.003
0.035	11	⊗	YES	+/-0.003
0.01	55	+	YES	+/-0.003
0.095	10	+	YES	+/-0.003
0.187	4	+	YES	+/-0.003
0.079	2	+	NO	+/-0.003


LAYER STRUCTURE

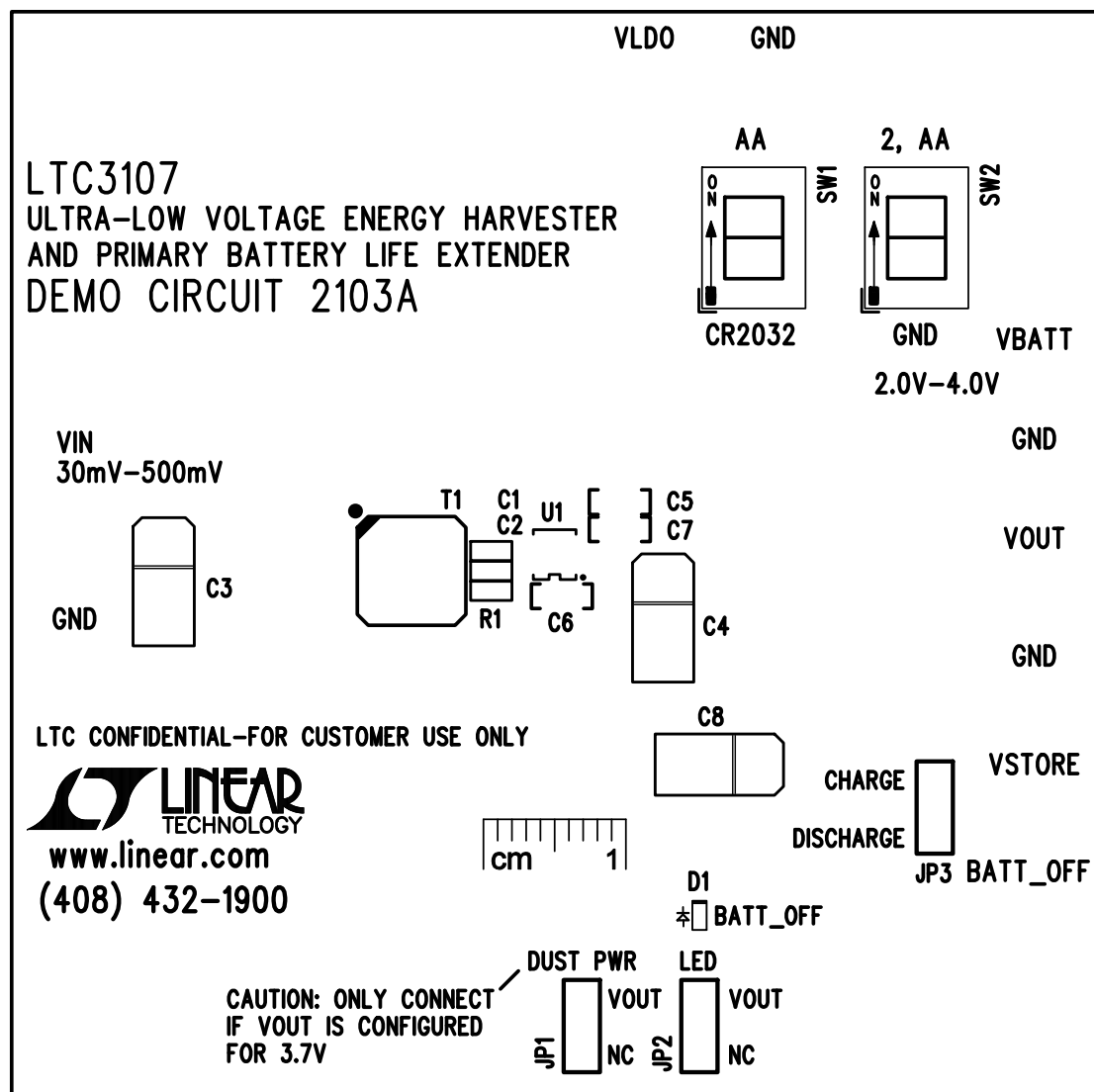


NOTES: UNLESS OTHERWISE SPECIFIED

- FAB PER IPC-A-600.
- MATERIAL: -EPOXY FIBERGLASS, NEMA GRADE FR-4
-FINISHED THICKNESS TO BE 0.062" +/- .005"
-TOTAL OF 4 LAYERS WITH 2 OZ. CU ON THE OUTER LAYERS
AND 1 OZ. CU ON THE INNER LAYERS.
-FLAMMABILITY RATING: 94 V-0 MINIMUM.
- SIZE: CUT TO DIMENSIONS AND TOLERANCES SHOWN.
0.00" ARE PRIMARY DATUMS.
- DRILLING: -DRILL HOLES PER SCHEDULE. PLATE THROUGH
HOLES WITH COPPER, 0.001" THICK MIN.
-ALL HOLE SIZES ARE SPECIFIED AFTER PLATING.
-HOLE LOCATION TOLERANCES ARE +/-0.003"
IN RELATION TO CENTER
- FINISH: -SMOBC USING LPI BOTH SIDES, COLOR GREEN, NO TENT.
-GOLD IMMERSION BOTH SIDES.
(LEAD FREE SOLDER CAN BE USED FOR PROTOTYPE)
-FOR SILKSCREEN: BOTH SIDES USE WHITE NON-CONDUCTIVE INK.
- DO NOT ALTER ARTWORK e.g. TO ADD LOGO OR DATE CODE.
PAD SIZE CAN BE MODIFIED TO MEET END FINISH.
- PCBS ARE TO BE RoHS COMPLIANT.
- SCORING FOR PANELIZED PCB:



UNLESS OTHERWISE SPECIFIED		APPROVALS		 1630 MCCARTHY BLVD MILPITAS, CA 95035 PH: (408)432-1800 www.linear.com LTC CONFIDENTIAL- FOR CUSTOMER USE ONLY	
DIMENSIONS ARE IN INCHES TOLERANCES: 0.XX" = ±0.01" 0.XXX" = ±0.005" INTERPRET DIM AND TOL PER ASME Y14.5M-1994 THIRD ANGLE PROJECTION		PCB DES.	NC		
		APP ENG.	JIM N.	TITLE: FABRICATION DRAWING	
				ULTRA-LOW VOLTAGE ENERGY HARVESTER	
				AND PRIMARY BATTERY LIFE EXTENDER	
				SIZE	IC NO. LTC3107EDD
				N/A	DEMO CIRCUIT 2103A
				REV	2
		SCALE = NONE		FILENAME: DC2103A-2.PCB	SHT 1 OF 1



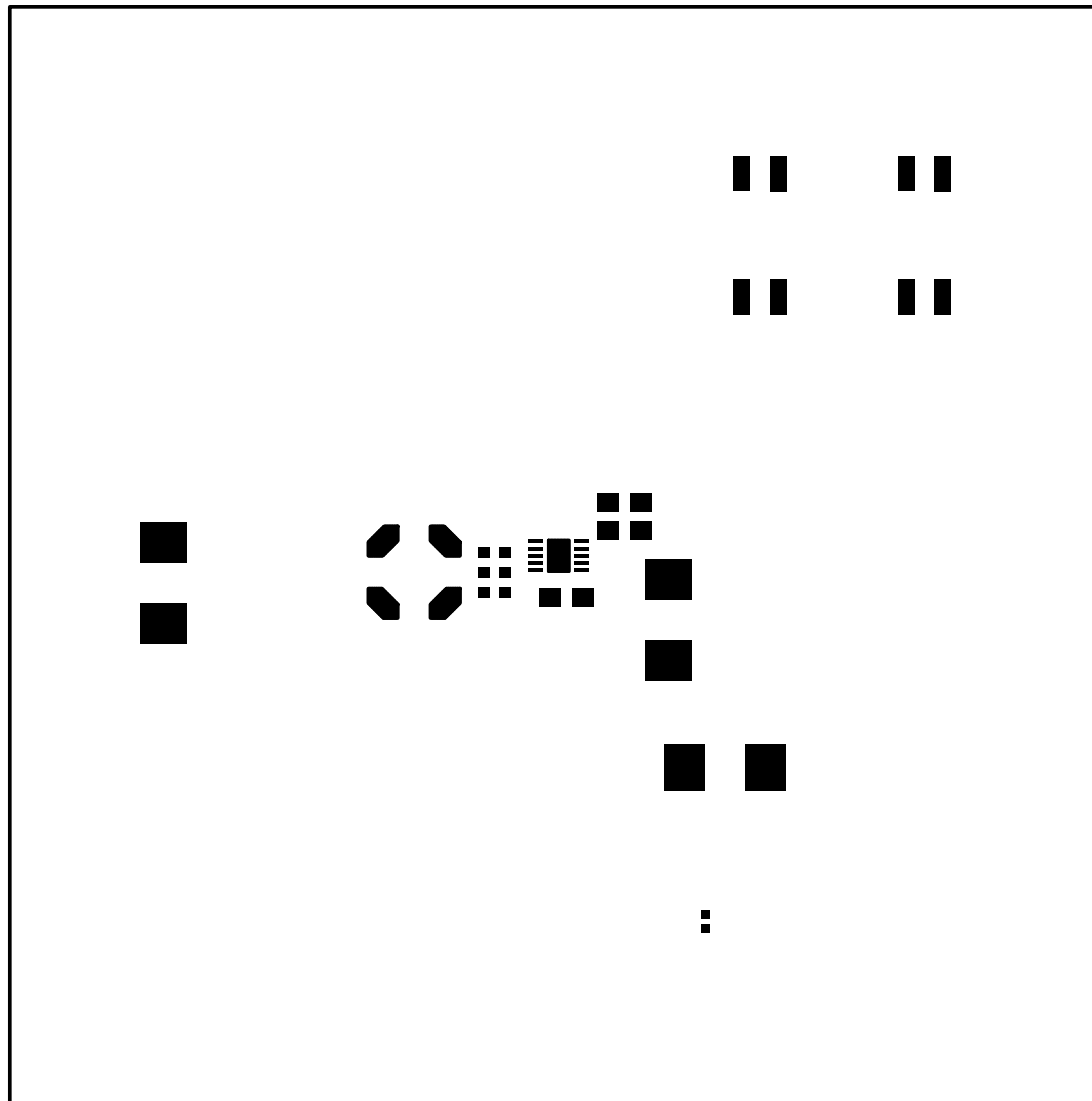
SILKSCREEN TOP

LINEAR TECH. CORP.

DEMO CIRCUIT 2103A-2 * LTC3107EDD

ULTRA-LOW VOLTAGE ENERGY HARVESTER
 AND PRIMARY BATTERY LIFE EXTENDER

DATE: 11-18-13



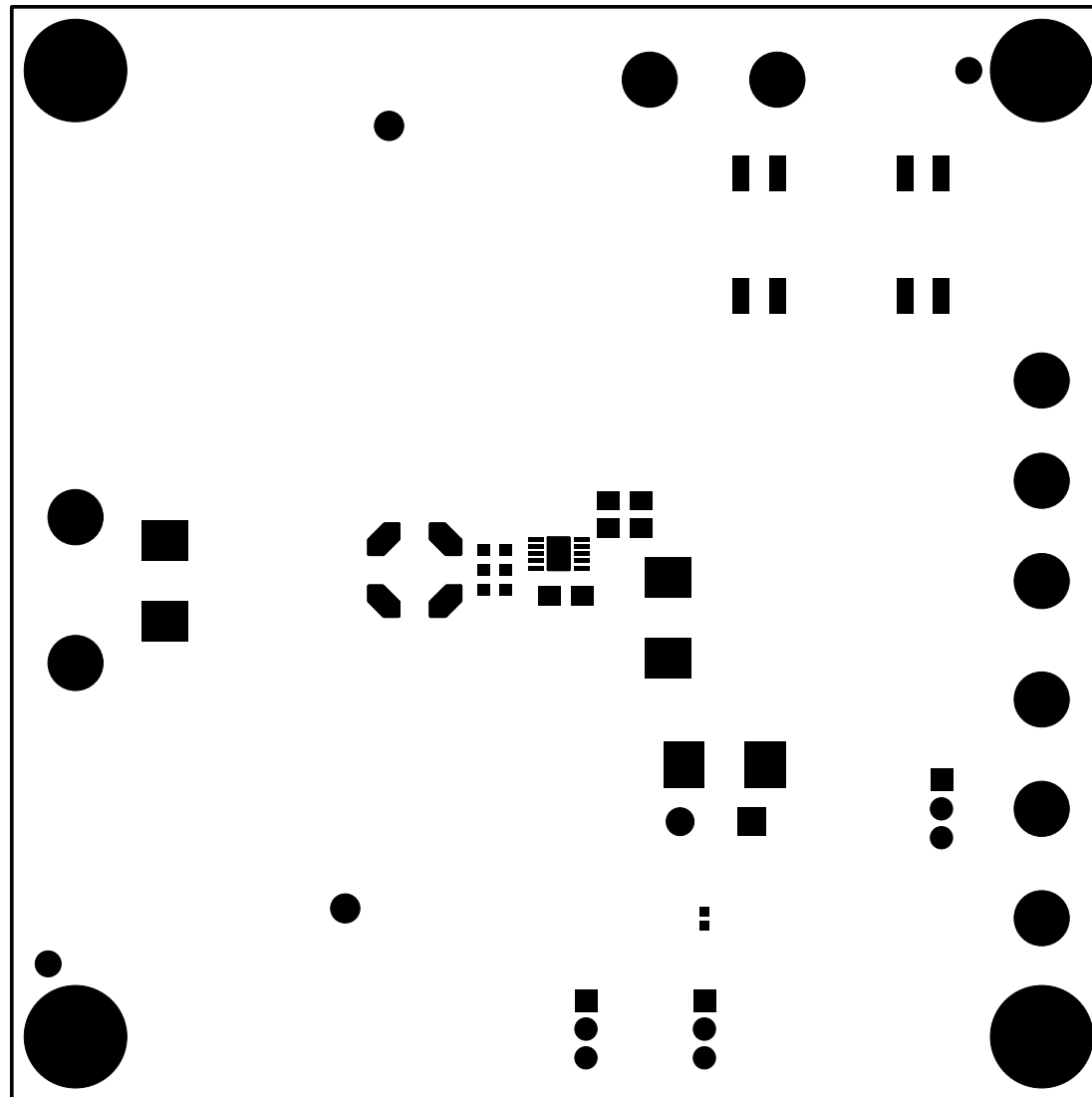
PASTEMASK TOP

LINEAR TECH. CORP.

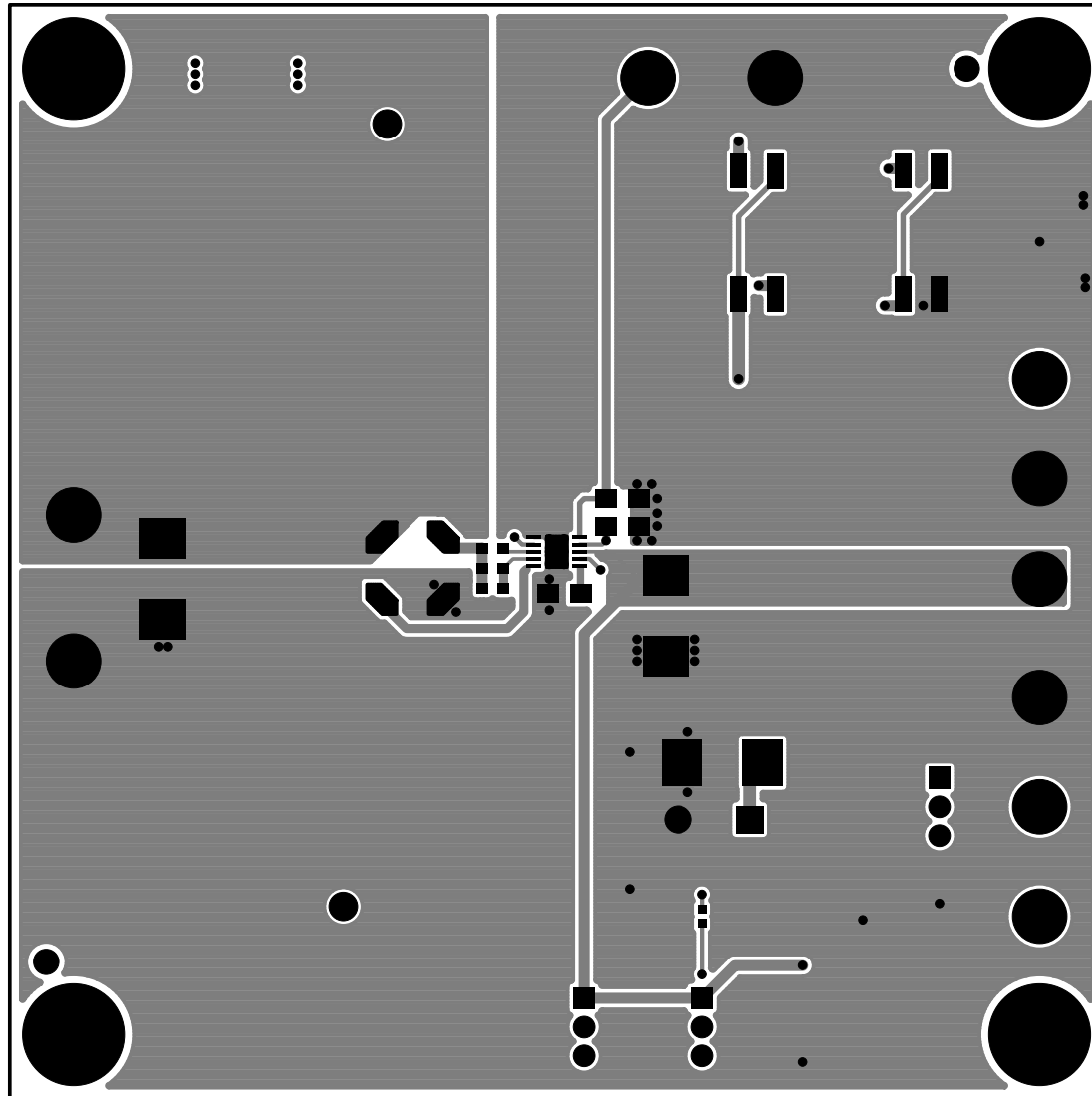
DEMO CIRCUIT 2103A-2 * LTC3107EDD

ULTRA-LOW VOLTAGE ENERGY HARVESTER
AND PRIMARY BATTERY LIFE EXTENDER

DATE: 11-18-13



SOLDERMASK TOP
LINEAR TECH. CORP.
DEMO CIRCUIT 2103A-2 * LTC3107EDD
ULTRA-LOW VOLTAGE ENERGY HARVESTER
AND PRIMARY BATTERY LIFE EXTENDER
DATE: 11-18-13



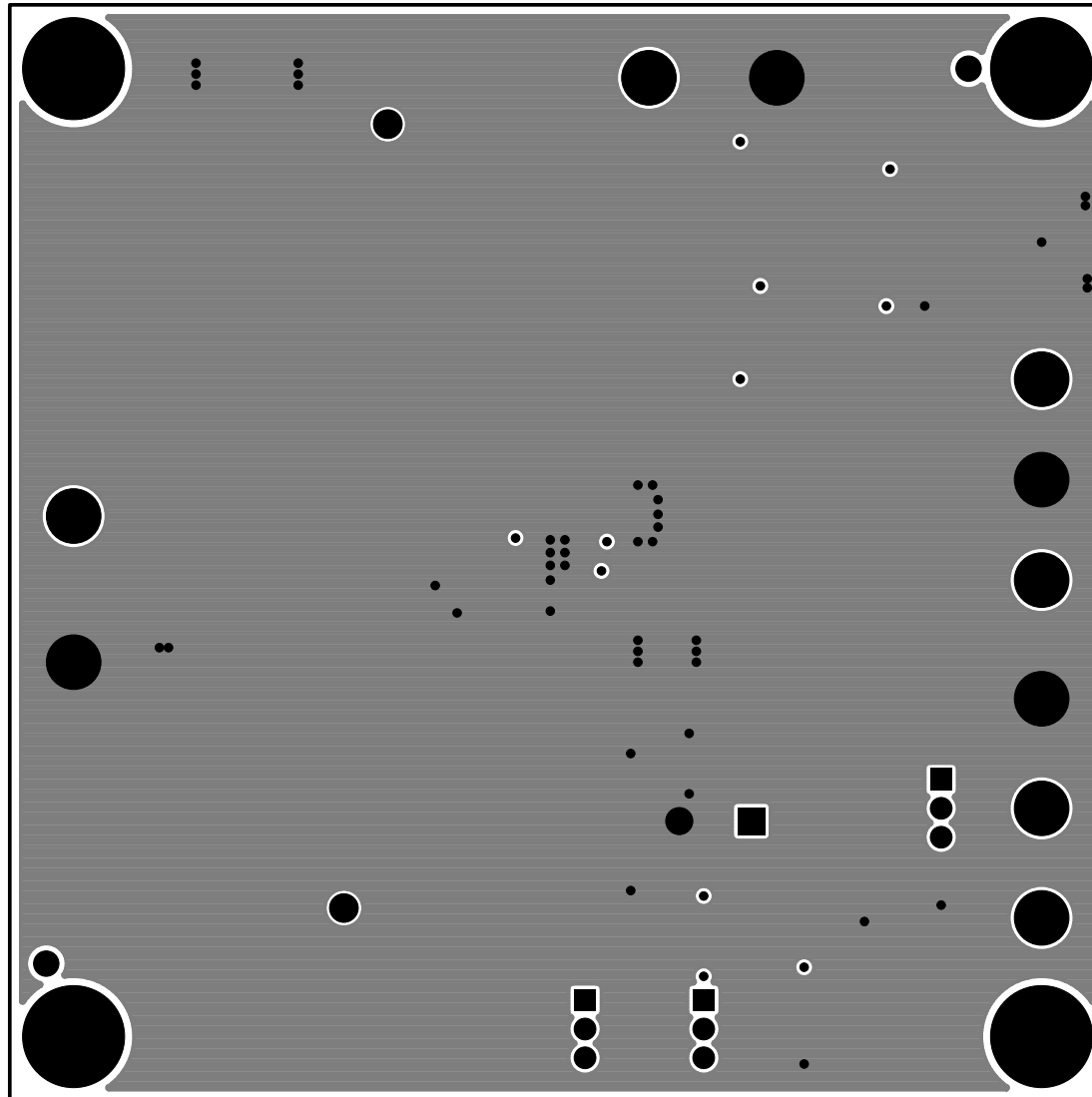
TOP SIDE

LINEAR TECH. CORP.

DEMO CIRCUIT 2103A-2 * LTC3107EDD

ULTRA-LOW VOLTAGE ENERGY HARVESTER
AND PRIMARY BATTERY LIFE EXTENDER

DATE: 11-18-13



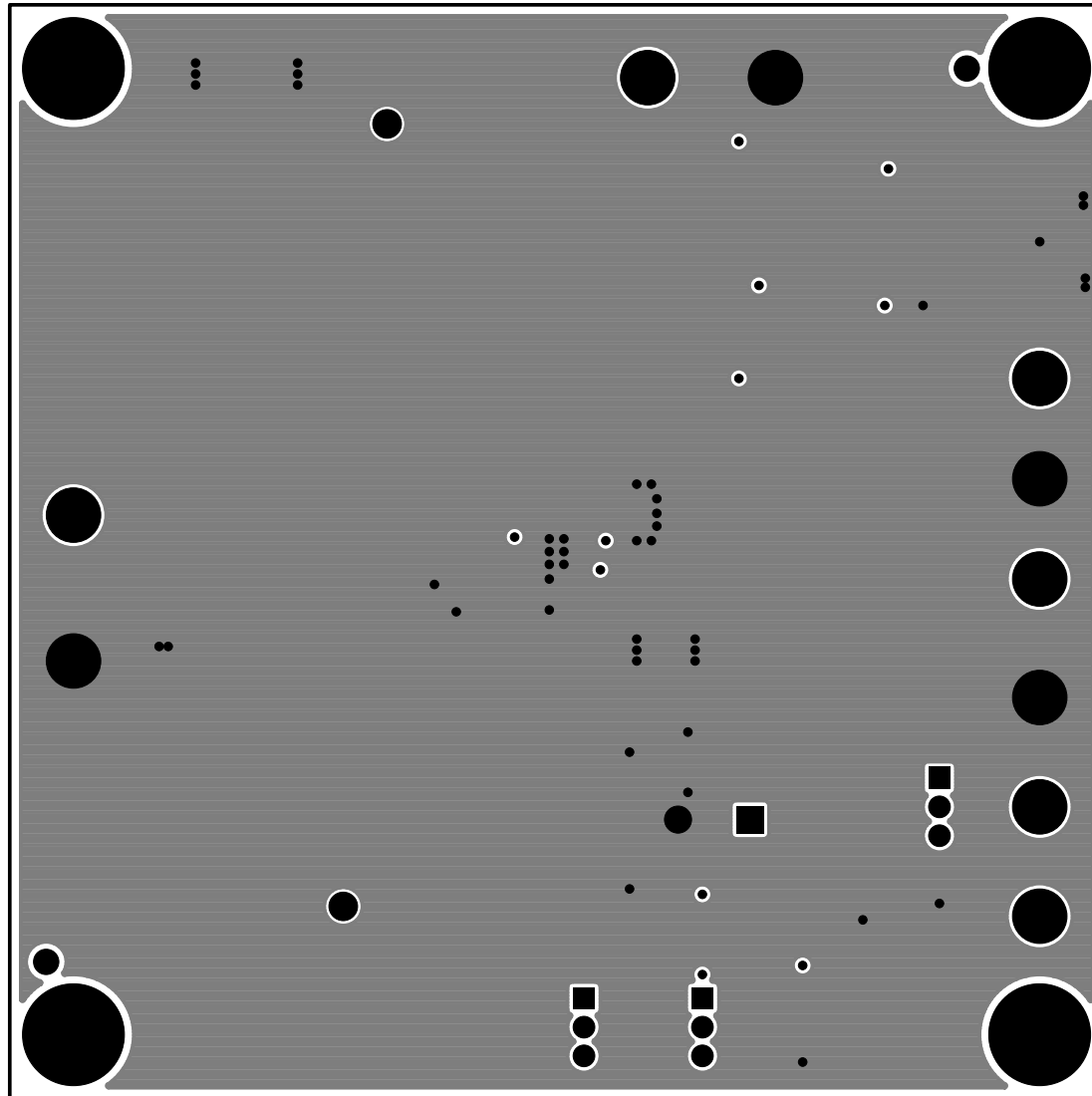
LAYER2

LINEAR TECH. CORP.

DEMO CIRCUIT 2103A-2 * LTC3107EDD

ULTRA-LOW VOLTAGE ENERGY HARVESTER
AND PRIMARY BATTERY LIFE EXTENDER

DATE: 11-18-13



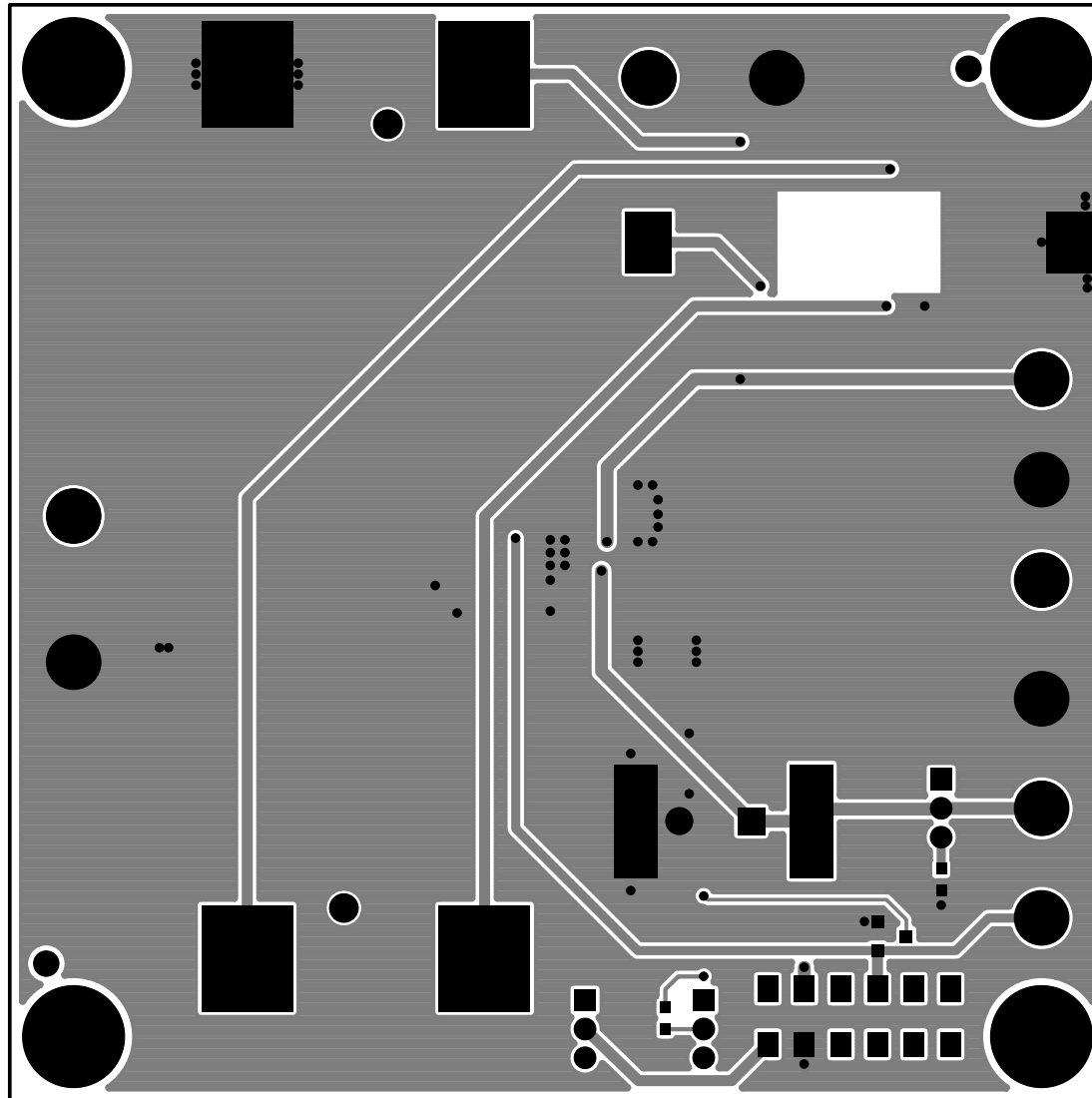
LAYER3

LINEAR TECH. CORP.

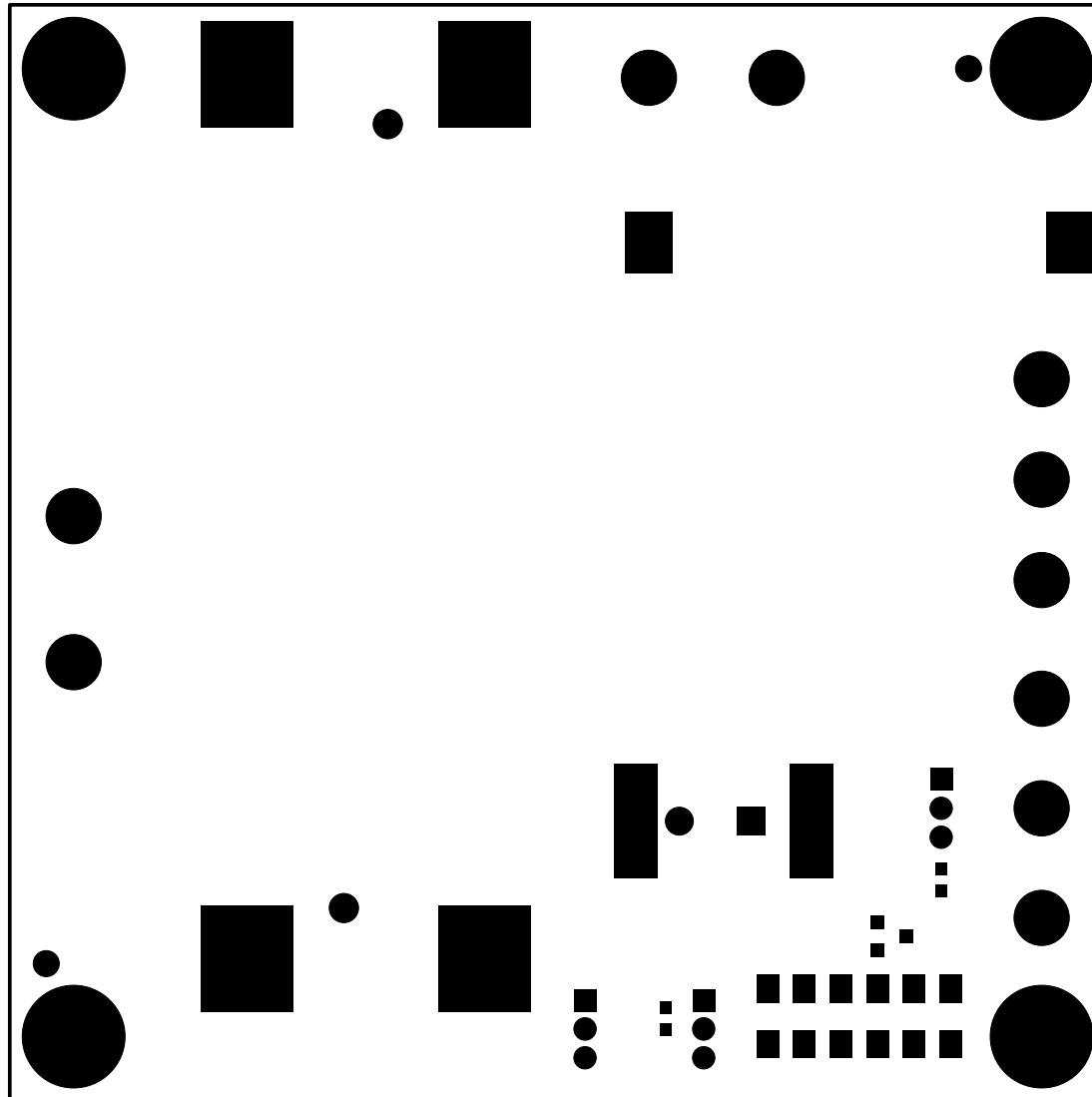
DEMO CIRCUIT 2103A-2 * LTC3107EDD

ULTRA-LOW VOLTAGE ENERGY HARVESTER
AND PRIMARY BATTERY LIFE EXTENDER

DATE: 11-18-13



BOTTOM SIDE
LINEAR TECH. CORP.
DEMO CIRCUIT 2103A-2 * LTC3107EDD
ULTRA-LOW VOLTAGE ENERGY HARVESTER
AND PRIMARY BATTERY LIFE EXTENDER
DATE: 11-18-13



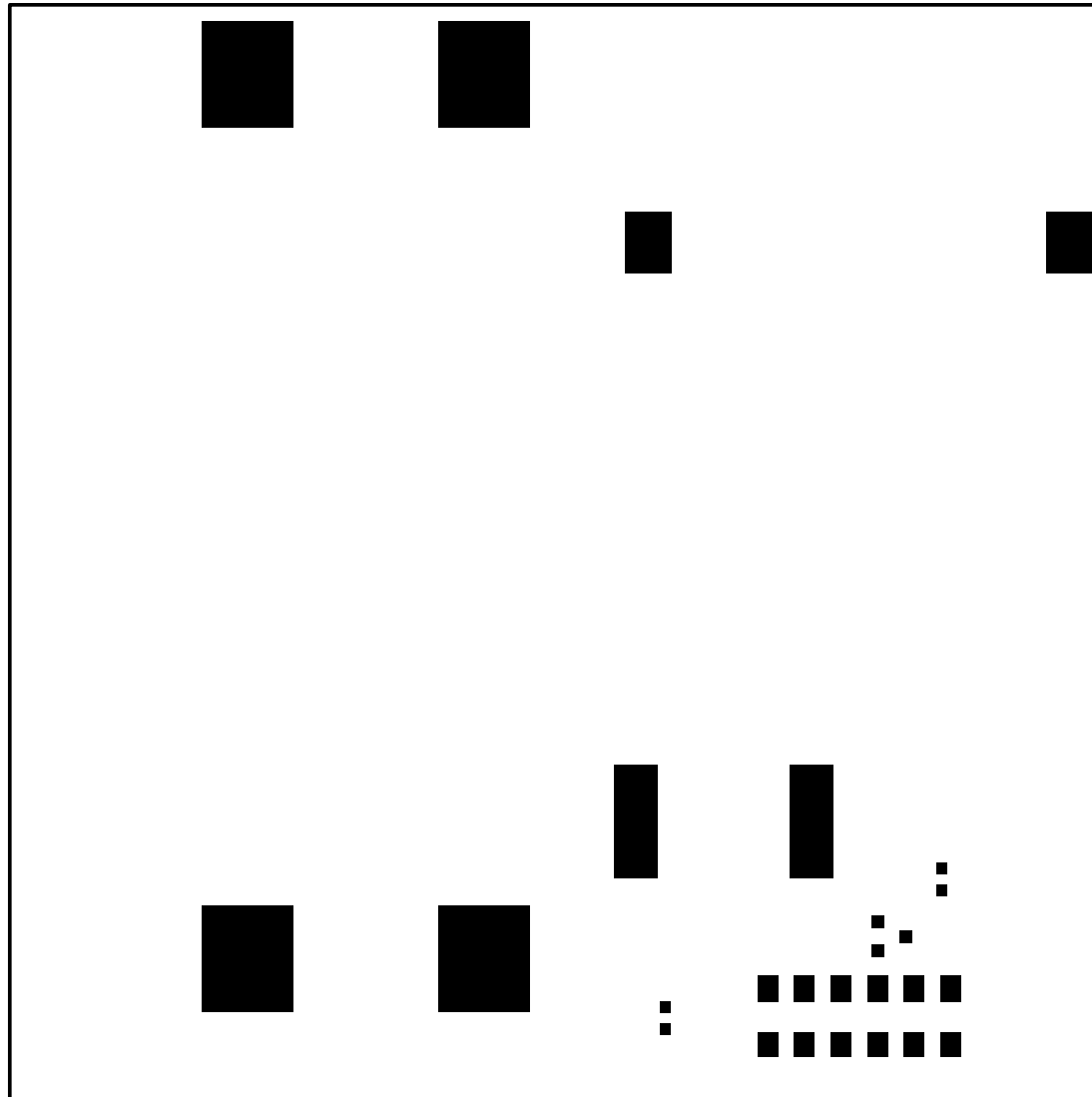
SOLDERMASK BOTTOM

LINEAR TECH. CORP.

DEMO CIRCUIT 2103A-2 * LTC3107EDD

ULTRA-LOW VOLTAGE ENERGY HARVESTER
AND PRIMARY BATTERY LIFE EXTENDER

DATE: 11-18-13



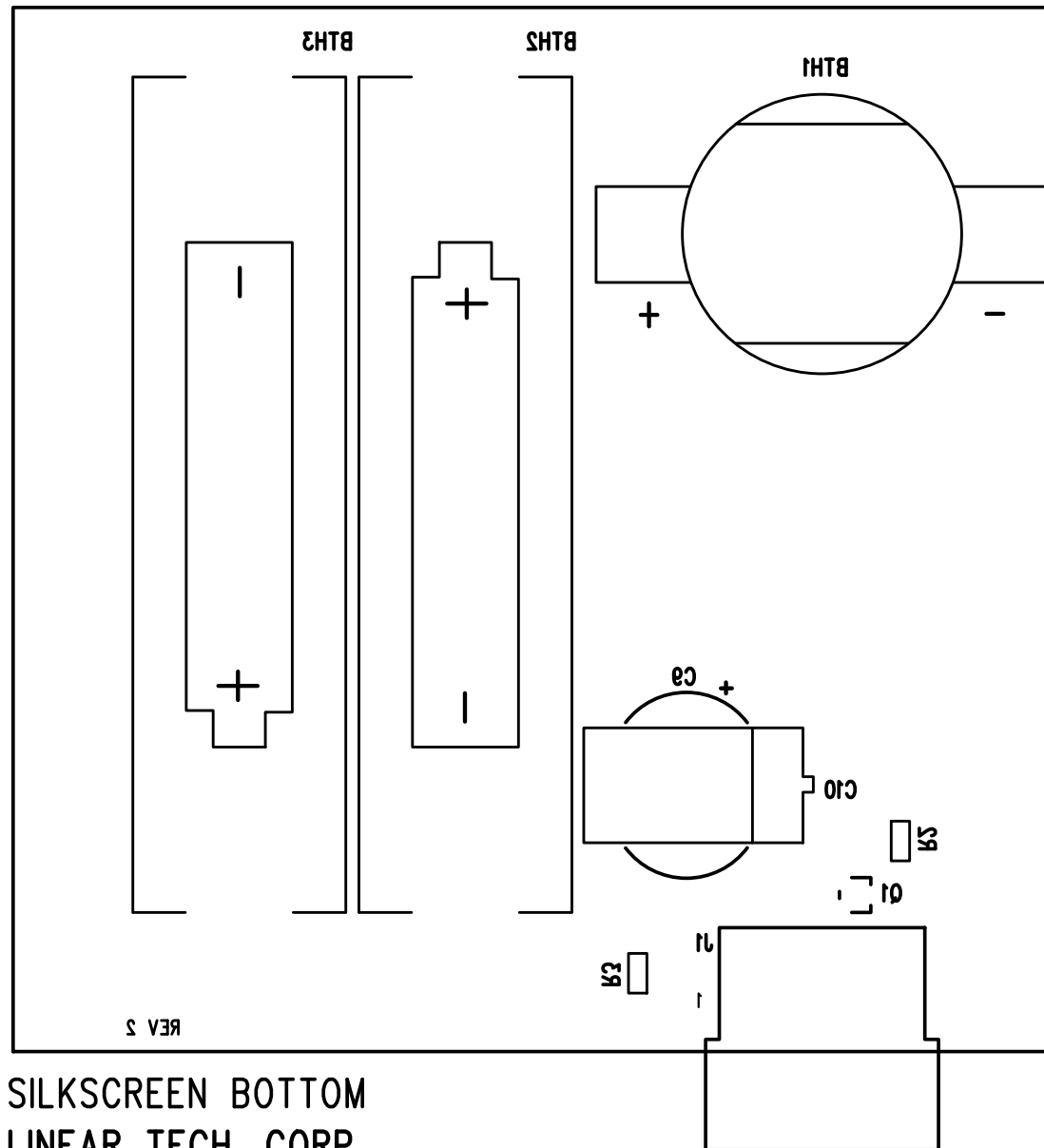
PASTEMASK BOTTOM

LINEAR TECH. CORP.

DEMO CIRCUIT 2103A-2 * LTC3107EDD

ULTRA-LOW VOLTAGE ENERGY HARVESTER
AND PRIMARY BATTERY LIFE EXTENDER

DATE: 11-18-13



SILKSCREEN BOTTOM
 LINEAR TECH. CORP.
 DEMO CIRCUIT 2103A-2 * LTC3107EDD
 ULTRA-LOW VOLTAGE ENERGY HARVESTER
 AND PRIMARY BATTERY LIFE EXTENDER
 DATE: 11-18-13