

## 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.	BS

SCALE = NONE



1630 McCarthy Blvd.  
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Fax: (408)434-0507  
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TITLE: SCHEMATIC

**ENERGY HARVESTING MULTI-SOURCE DEMOBOARD**

SIZE N/A	IC NO. <b>DEMO CIRCUIT 2042A</b>	REV. <b>2</b>
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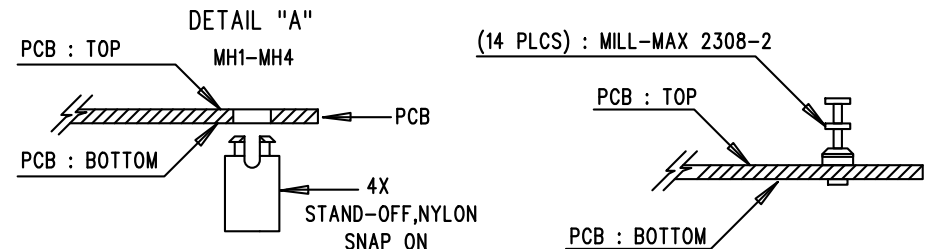
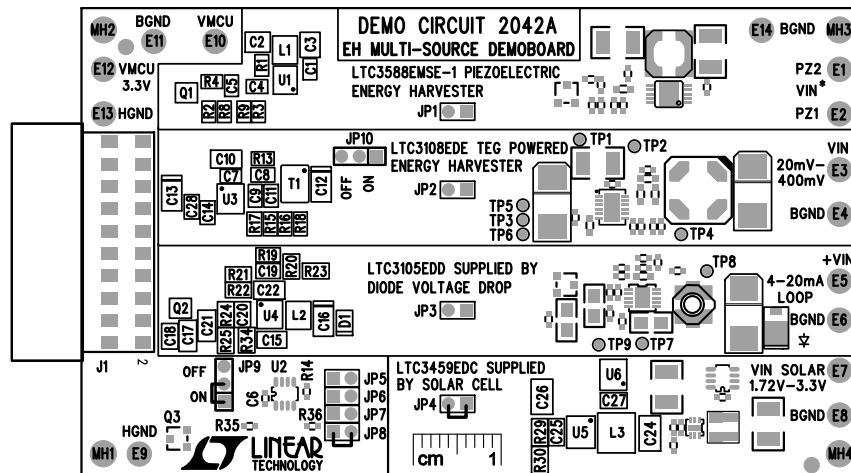
DATE: 12 - 12 - 12


SHEET 2 OF 2

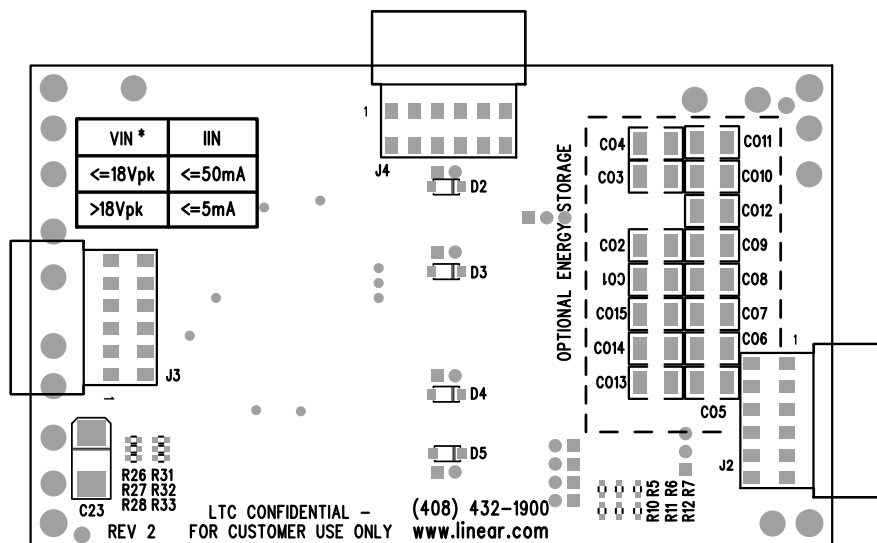
REVISION HISTORY				
ECO	REV	DESCRIPTION	APPR	DATE
-	2	PRODUCTION FAB	BS	08-31-12

## NOTES: UNLESS OTHERWISE SPECIFIED

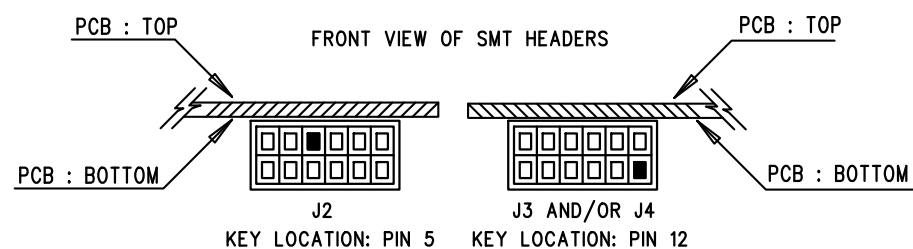
1. WORKMANSHIP SHALL BE IN ACCORDANCE WITH IPC-A-610.
2. ASSEMBLY PROCESS SHALL INCLUDE: REFLOW SOLDER TOP SIDE SMD. MAXIMUM SOLDER TEMPERATURE IS 240 DEGREES CELCIUS.
3. PARTS TO OMIT WILL BE SPECIFIED ON THE BILL OF MATERIALS  
LOCATIONS OF OMITTED PARTS SHALL BE FREE OF SOLDER.  
MASK THE SOLDER STENCIL 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.
7. INSTALL TURRETS AND 4 STAND-OFFS AT FOUR CORNERS AS SHOWN BELOW:




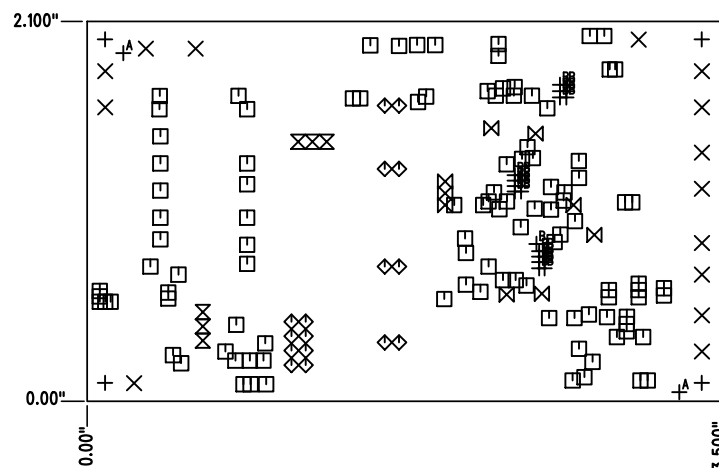
APPROVALS		 <div> 1630 MCCARTHY BLVD  MILPITAS, CA 95035  PH: (408)432-1900  www.Linear.com  LTC CONFIDENTIAL-  FOR CUSTOMER USE ONLY </div>		
PCB DES.	NC			
APP ENG.	BS			
		TITLE: TOP ASSEMBLY DRAWING: ENERGY HARVESTING MULTI-SOURCE DEMOBOARD		
		SIZE N/A	IC NO. DEMO CIRCUIT 2042A	REV. 2
SCALE = NONE		FILENAME: DC2042A-2.PCB		SHT 1 of 2



1. ENSURE HEADER KEYS FOR J2 AND J4 ARE INSTALLED AND LOCATED AS SHOWN BELOW:

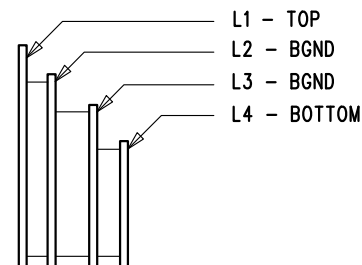


APPROVALS		 <b>LINEAR TECHNOLOGY</b> 1630 MCCARTHY BLVD MILPITAS, CA 95035 PH: (408)432-1900 www.Linear.com LTC CONFIDENTIAL - FOR CUSTOMER USE ONLY	
PCB DES.	NC		
APP ENG.	BS	<b>TITLE: BOTTOM ASSEMBLY DRAWING:</b> <b>ENERGY HARVESTING</b> <b>MULTI-SOURCE DEMOBOARD</b>	
		SIZE N/A	IC NO. DEMO CIRCUIT 2042A
			REV. 2
SCALE = NONE		FILENAME: DC2042A-2.PCB	
		SHT 2 of 2	



SIZE	QTY	SYM	PLATED	TOL
0.1181	4	+	NO	+/- .003"
0.063	14	X	YES	+/- .003"
0.015	109	□	YES	+/- .003"
0.035	16	◇	YES	+/- .003"
0.031	6	⊠	YES	+/- .003"
0.02	9	⊠	YES	+/- .003"
0.07	2	+ <sup>A</sup>	NO	+/- .003"
0.01	23	+ <sup>B</sup>	YES	+/- .003"

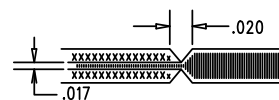
## LAYER STRUCTURE


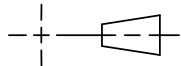


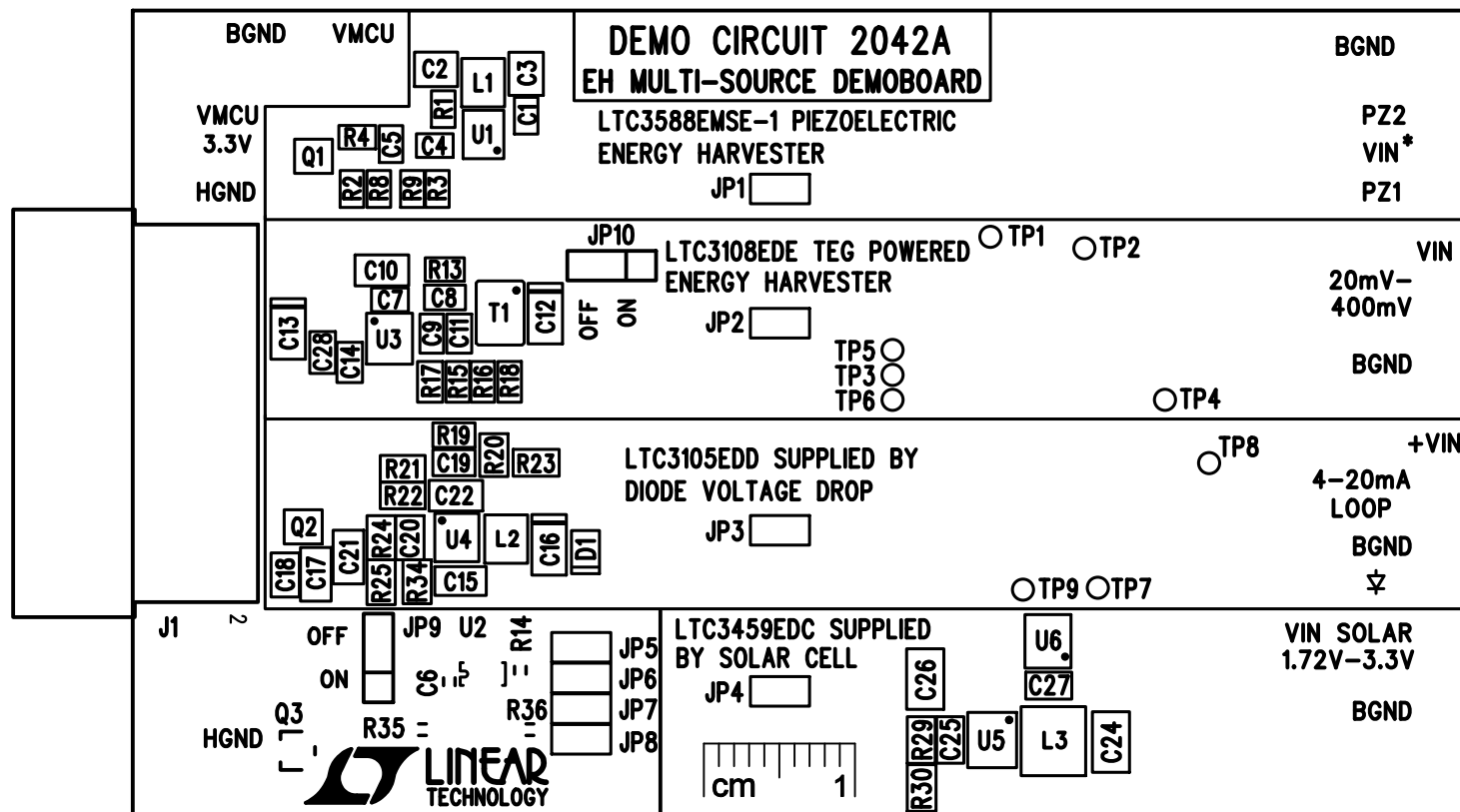
REVISION HISTORY				
ECO	REV	DESCRIPTION	APPR	DATE
-	2	PRODUCTION FAB	BS	08-31-12

## NOTES: UNLESS OTHERWISE SPECIFIED

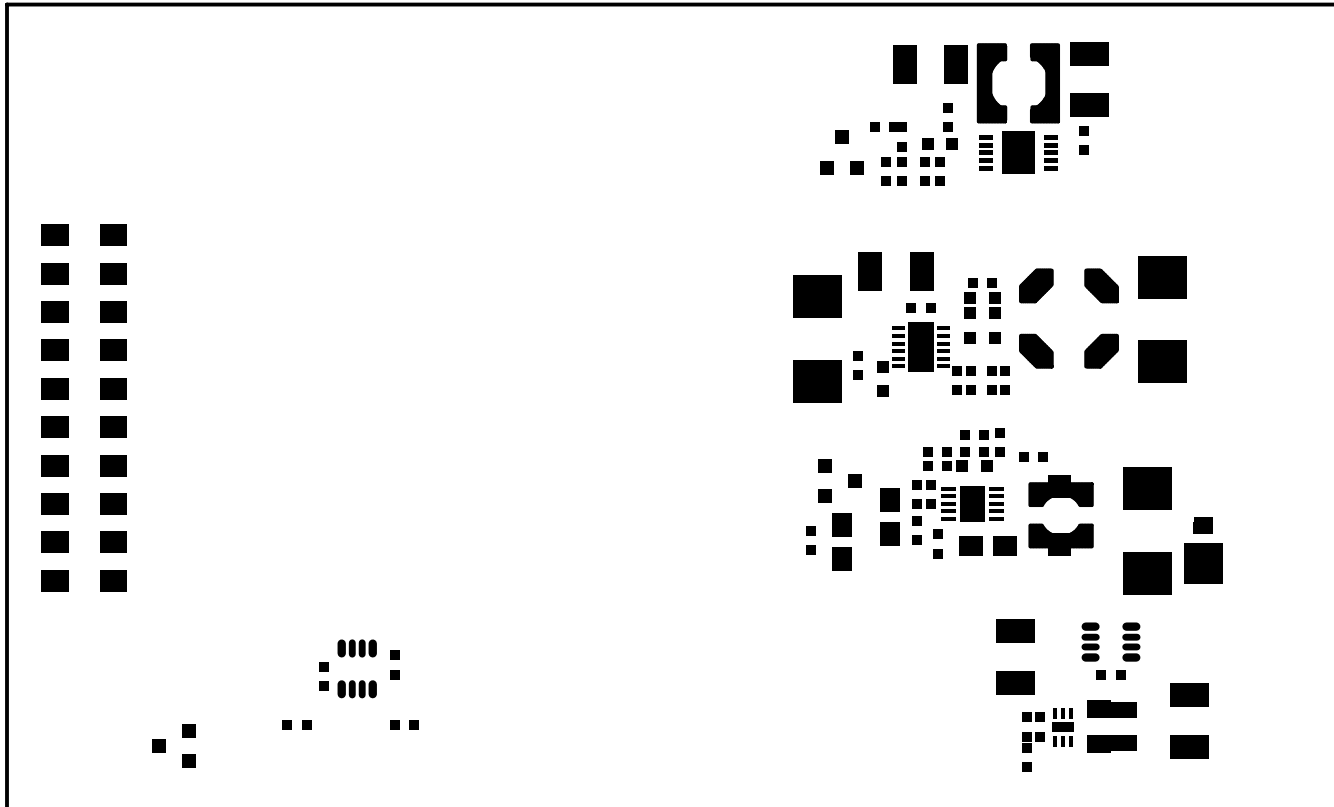
- FAB PER IPC-A-600.
- MATERIAL: -EPOXY FIBERGLASS, NEMA GRADE FR-4  
-FINISHED THICKNESS TO BE 0.062" +/- .005"  
-TOTAL OF 4 LAYERS WITH 1 OZ. CU ON THE ALL LAYERS  
-FLAMMABILITY RATING: 94 V-0 MINIMUM.
- SIZE: CUT TO DIMENSIONS AND TOLERANCES SHOWN.  
0.00 ARE PRIMARY DATUMS.
- DRILLING: -DRILL HOLES 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.  
-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.
- DO NOT ALTER SOLDER MASK MAINTAIN .0018" OVERSIZE ON SMT PADS. A .005" WEBBING IS REQUIRED BETWEEN SMD PADS.
- SCORING FOR PANELIZED PCB: "PRODUCTION FAB ONLY"



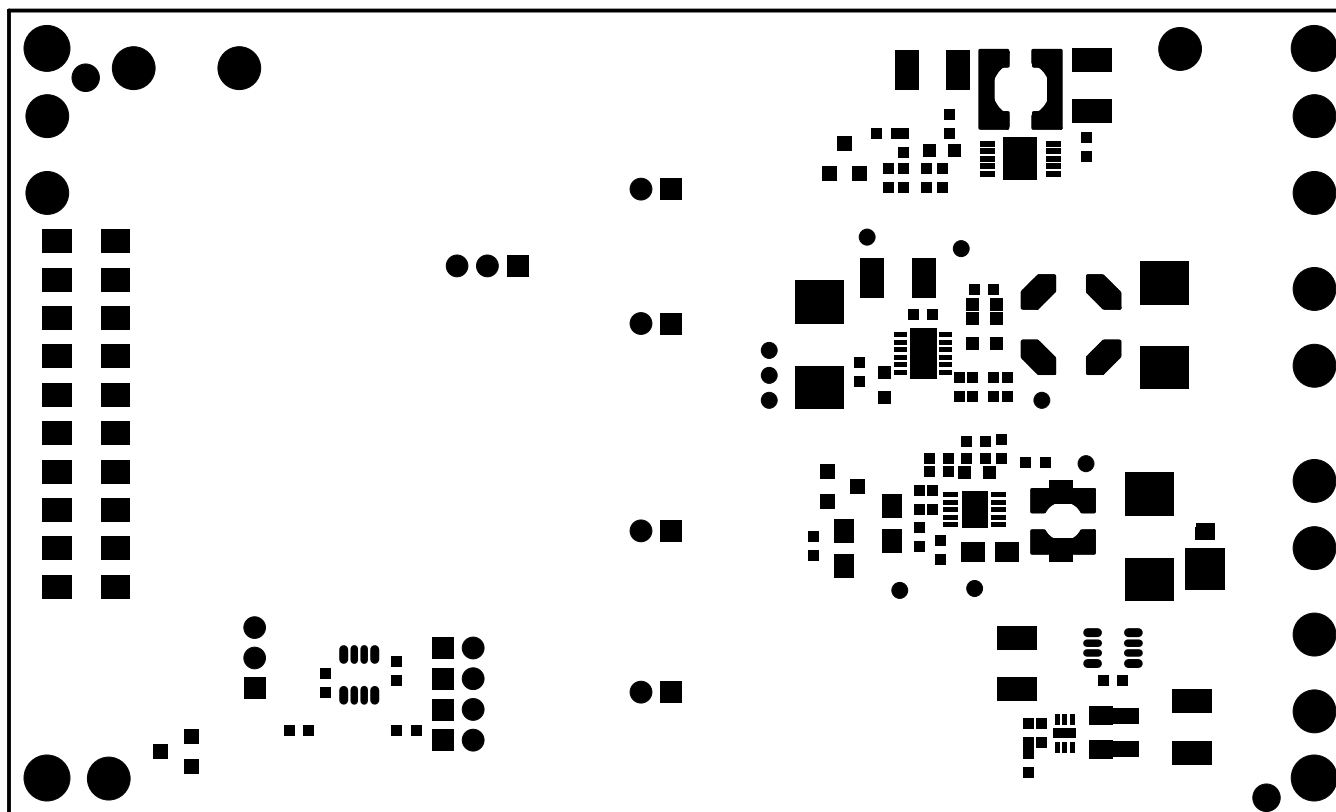
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ON ANGLE ±1 0.XX" = ±0.01" 0.XXX" = ±0.005" INTERPRET DIM AND TOL PER ASME Y14.5M-1994 THIRD ANGLE PROJECTION	APPROVALS		 1630 MCCARTHY BLVD MILPITAS, CA 95035 PH: (408)432-1900 www.linear.com LTC CONFIDENTIAL- FOR CUSTOMER USE ONLY
	PCB DES.	NC	
	APP ENG.	BS	TITLE: FABRICATION DRAWING: <b>ENERGY HARVESTING            MULTI-SOURCE DEMOBOARD</b>
DO NOT SCALE DRAWING	SCALE: NONE	FILENAME: DC2042A-2.PCB	SIZE N/A I.C. NO. DEMO CIRCUIT 2042A REV. 2 SHT 1 of 1



SILKSCREEN TOP  
 LINEAR TECH CORP.  
 DEMO CIRCUIT 2042A-2  
 ENERGY HARVESTING MULTI-SOURCE DEMOBOARD  
 DATE: 08-31-12

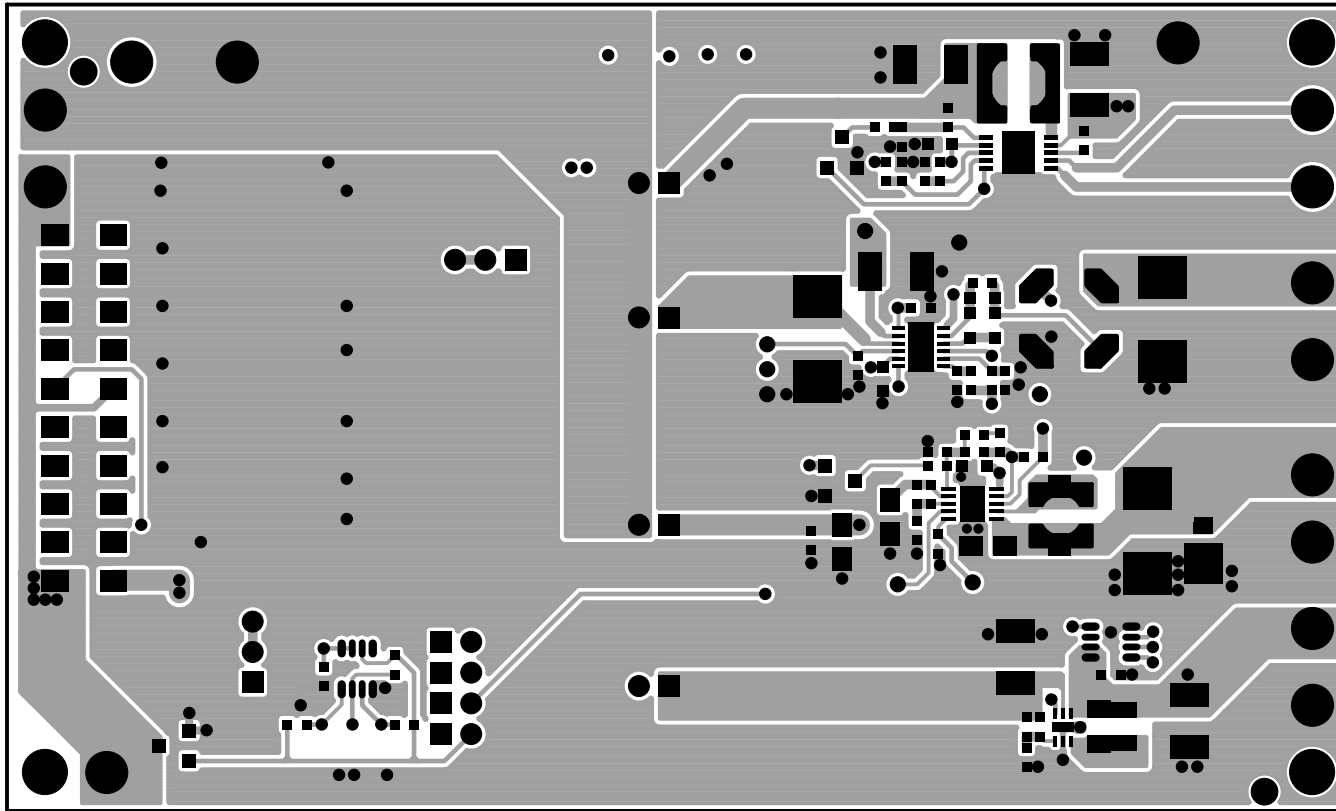


PASTEMASK TOP  
LINEAR TECH CORP.  
DEMO CIRCUIT 2042A-2  
ENERGY HARVESTING MULTI-SOURCE DEMOBOARD  
DATE: 08-31-12

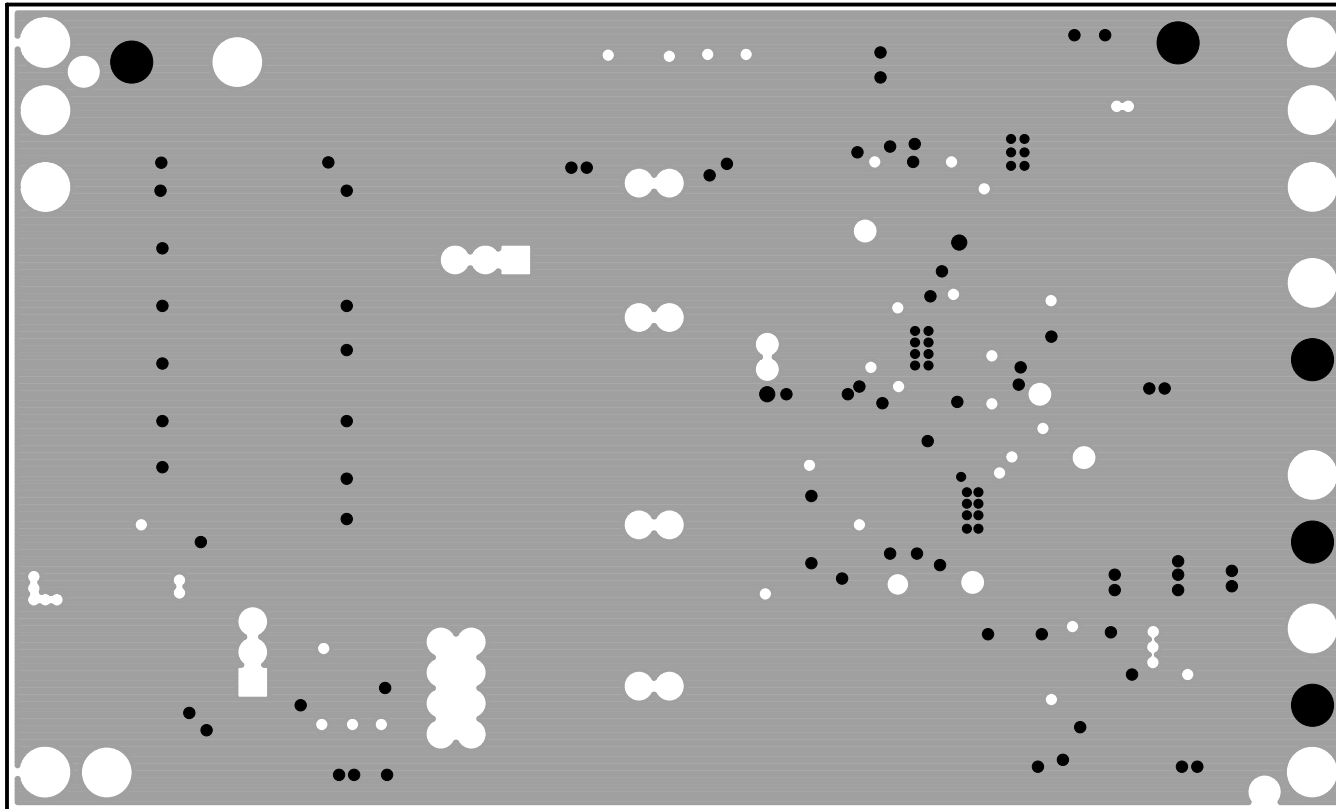


SOLDERMASK TOP  
LINEAR TECH CORP.  
DEMO CIRCUIT 2042A-2  
ENERGY HARVESTING MULTI-SOURCE DEMOBOARD  
DATE: 08-31-12

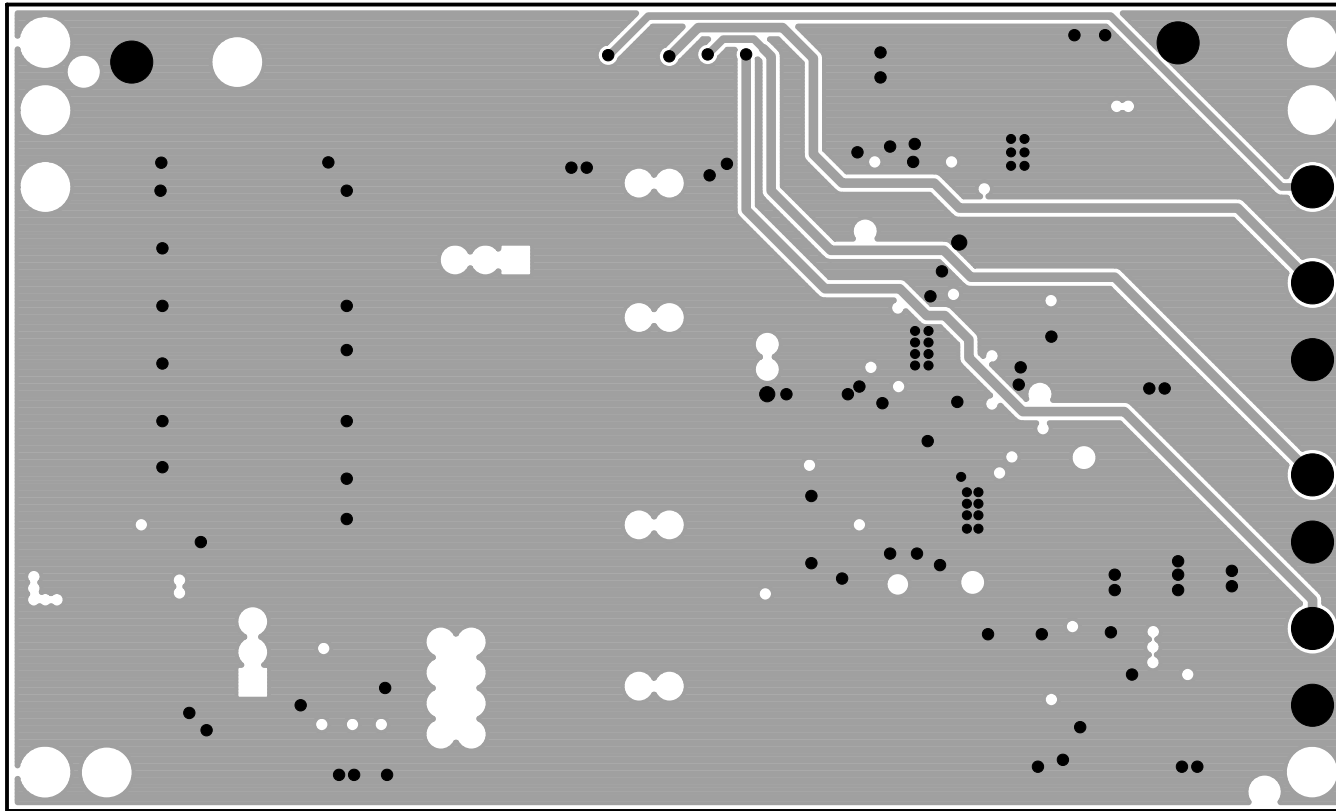




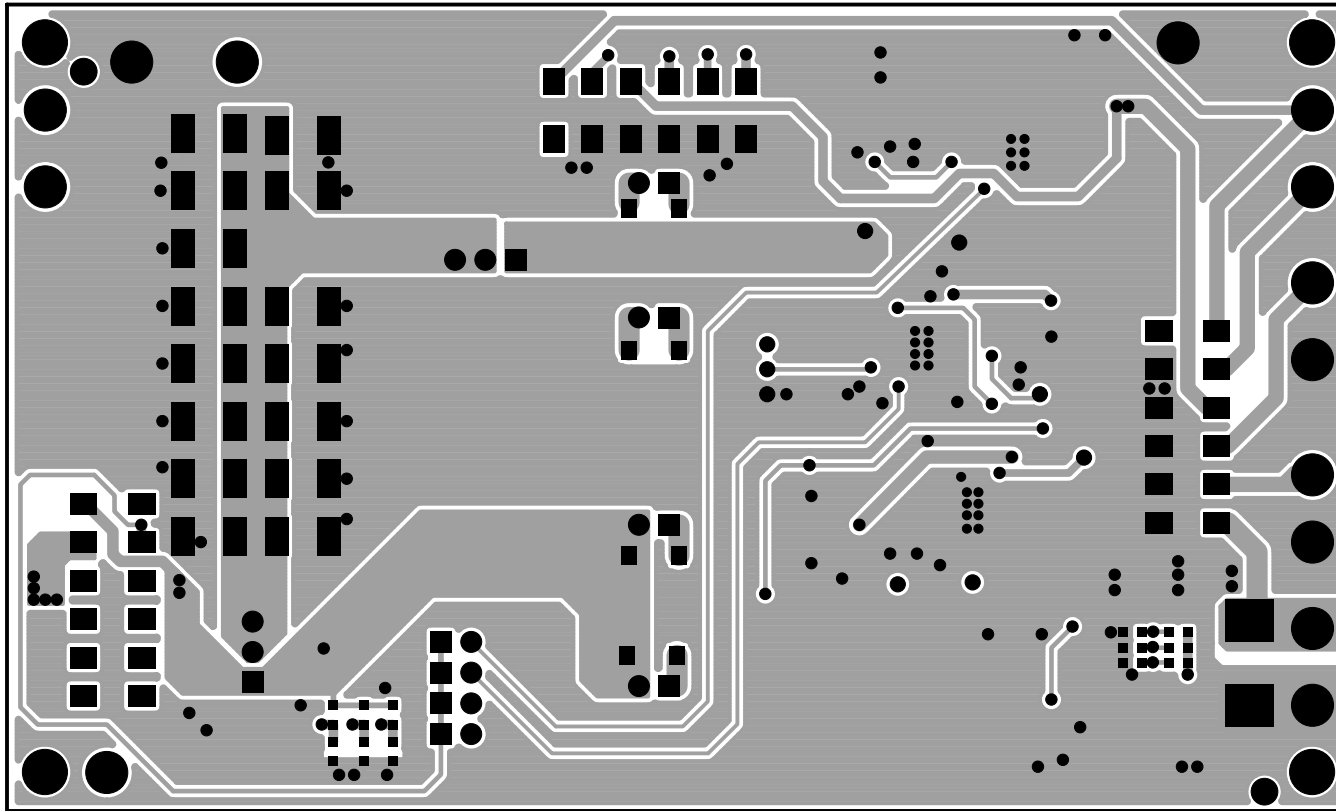
LAYER-1-TOP LAYER  
LINEAR TECH CORP.  
DEMO CIRCUIT 2042A-2  
ENERGY HARVESTING MULTI-SOURCE DEMOBOARD  
DATE: 08-31-12



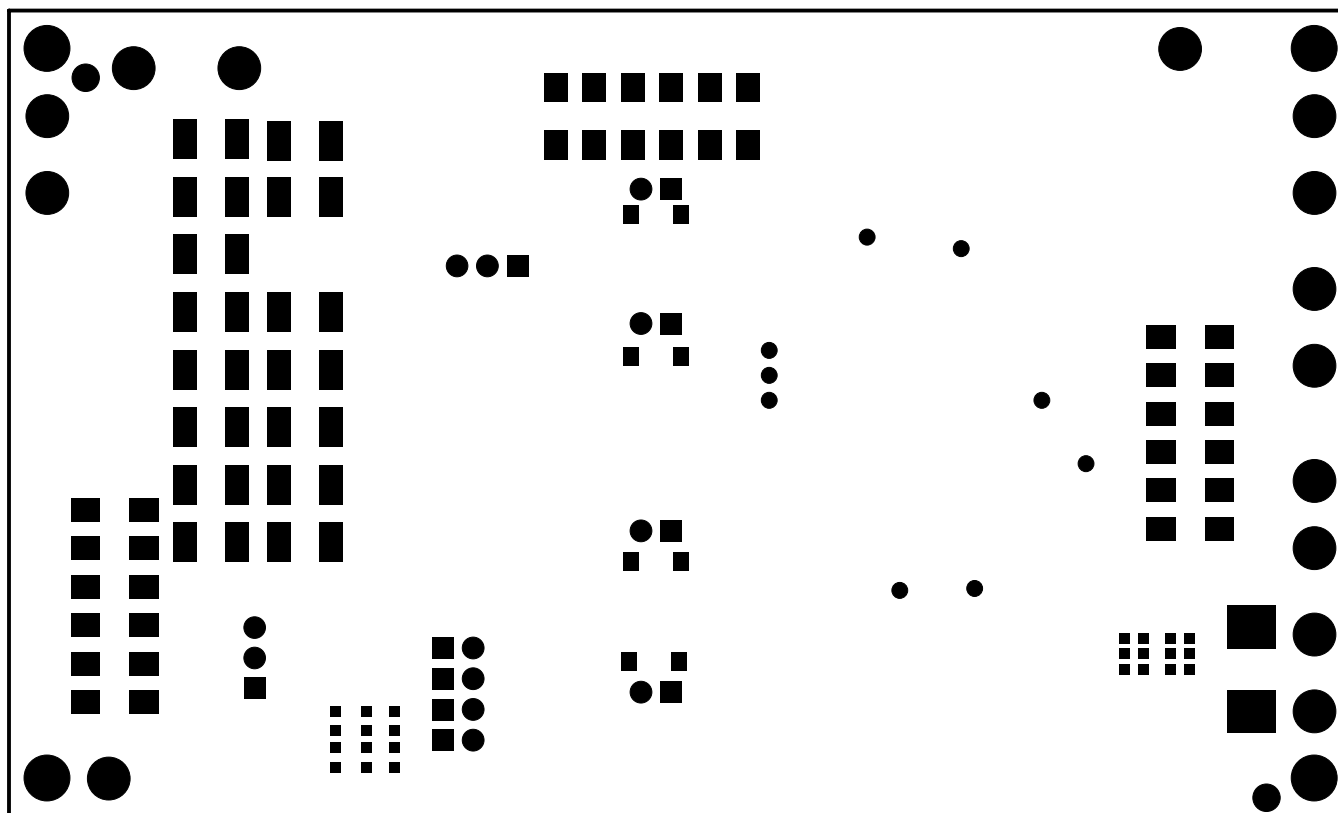
LAYER-2- BGND PLANE  
LINEAR TECH CORP.  
DEMO CIRCUIT 2042A-2  
ENERGY HARVESTING MULTI-SOURCE DEMOBOARD  
DATE: 08-31-12



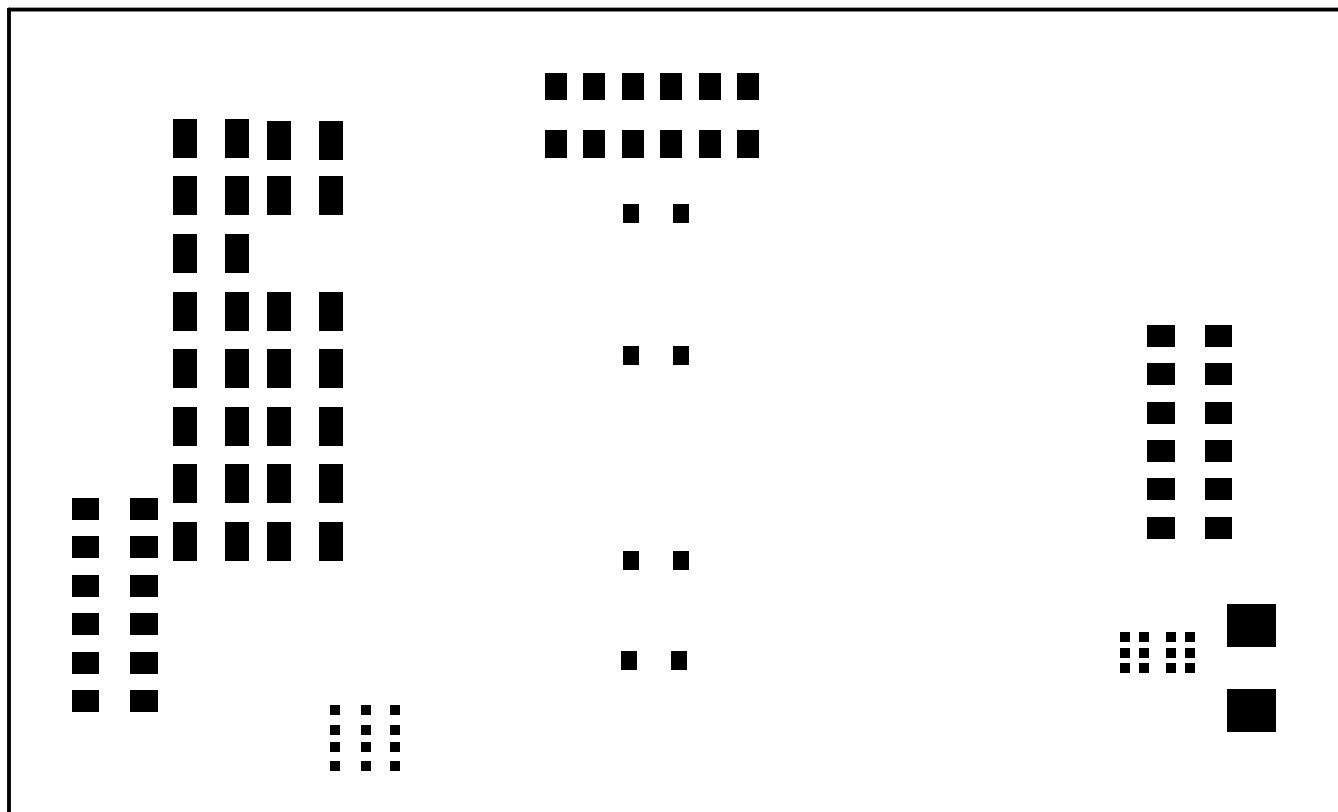
LAYER-3-BGND PLANE  
LINEAR TECH CORP.  
DEMO CIRCUIT 2042A-2  
ENERGY HARVESTING MULTI-SOURCE DEMOBOARD  
DATE: 08-31-12



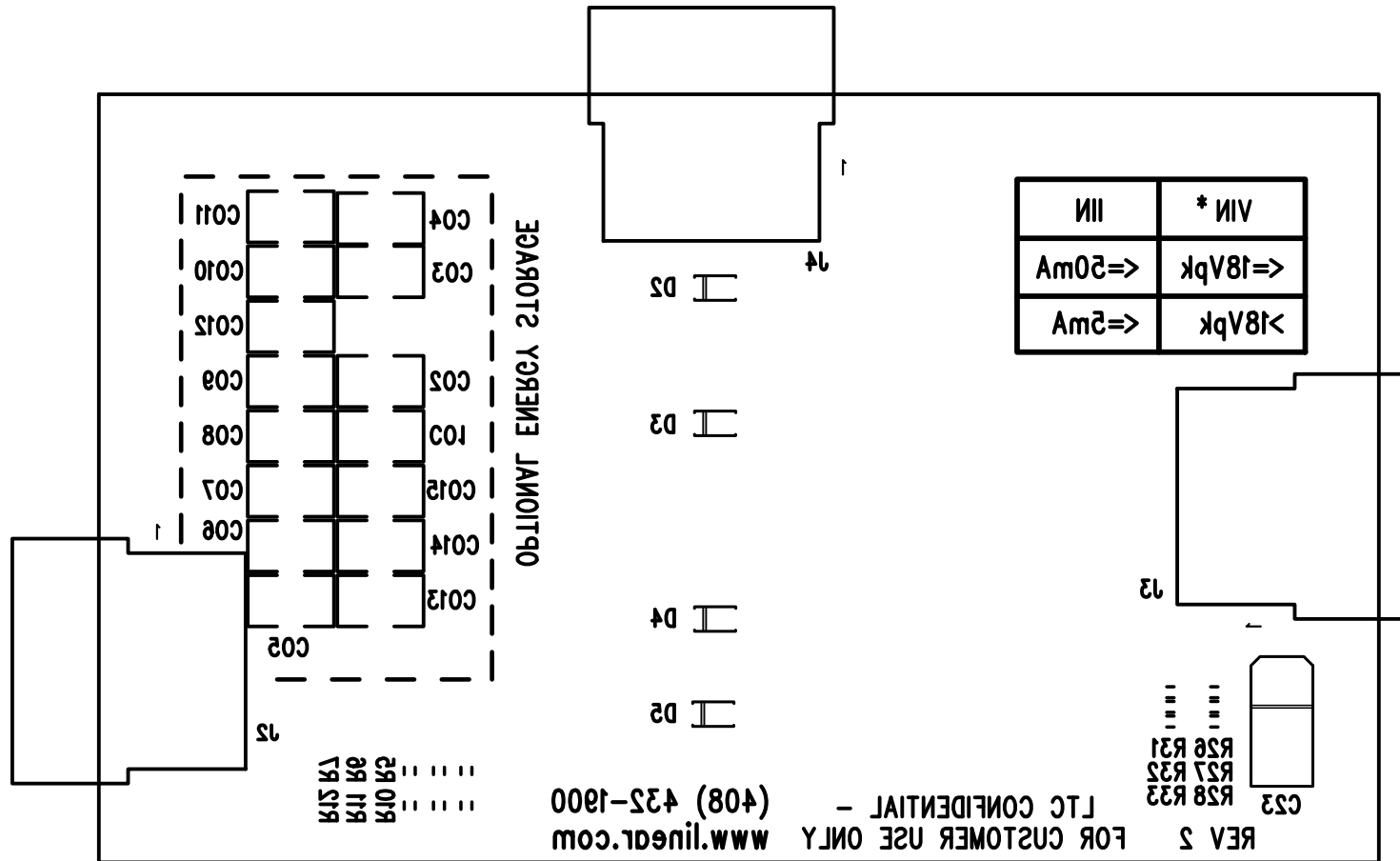
LAYER-4-BOTTOM SIDE  
LINEAR TECH CORP.  
DEMO CIRCUIT 2042A-2  
ENERGY HARVESTING MULTI-SOURCE DEMOBOARD  
DATE: 08-31-12



SOLDERMASK BOTTOM  
LINEAR TECH CORP.  
DEMO CIRCUIT 2042A-2  
ENERGY HARVESTING MULTI-SOURCE DEMOBOARD  
DATE: 08-31-12



PASTEMASK BOTTOM  
LINEAR TECH CORP.  
DEMO CIRCUIT 2042A-2  
ENERGY HARVESTING MULTI-SOURCE DEMOBOARD  
DATE: 08-31-12



SILKSCREEN BOTTOM  
 LINEAR TECH CORP.  
 DEMO CIRCUIT 2042A-2  
 ENERGY HARVESTING MULTI-SOURCE DEMOBOARD  
 DATE: 08-31-12