

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.	MM

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

Li-Ion Battery Charger

SIZE N/A	IC NO. LTC4054EMS-4.2 DEMO CIRCUIT 569B	REV. 1
DATE: 8 - 25 - 16		SHEET 1 OF 1

Linear Technology Corporation

LTC4054ES5-4.2

Bill Of Material
Demo Bd. #569B-1

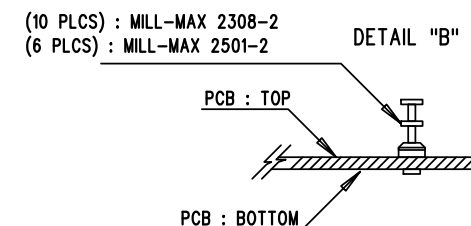
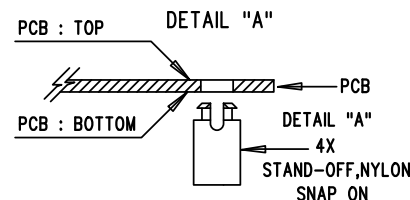
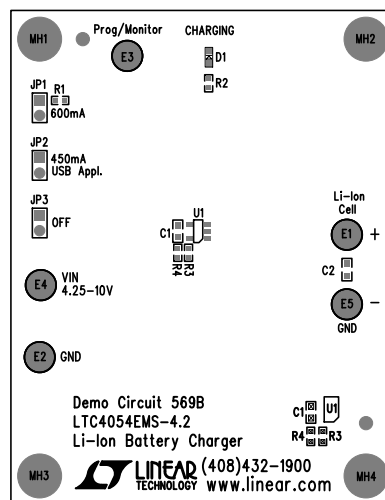
8/26/2016

Item	Qty	Reference	Part Description	Manufacture / Part #
1	2	C1,C2	Cap., X5R 1uF 10V 20%	Taiyo Yuden LMK107BJ105MA
2	1	D1	LED 565NM GRN DIFF 0603 SMD	Lumex Opto/Components Inc, SML-LX0603GW-TR
3	3	JP1-JP3	Headers, 2 Pins 2mm Ctrs.	CommConn Con Inc. 2802S-02G2
4	1	XJP2	Shunt, 2 Pins 2mm Ctrs.	CommConn Con Inc. CCIJ2MM-138G
5	1	R1	Res., Chip 1.62K 1/16W 1% 0402	AAC CR05-1621FM
6	1	R2	Res., Chip 1k 1/16W 5% 0402	AAC CR05-102JM
7	1	R3	Res., Chip 2.21K 1/16W 5% 0402	AAC CR05-2211FM
8	1	R4	Res., Chip 1 Ohm 1/16W 5% 0402	AAC CR05-1R0JM
9	5	TP1-TP5	TEST POINT, TURRET, 0.094",MTG. HOLE	MILL-MAX, 2501-2-00-80-00-00-07-0
10	1	U1	I.C., Li-Ion Battery Charger	Linear Tech. Corp. LTC4054ES5-4.2#PBF
11	4		STAND-OFF, NYLON 0.25" tall (SNAP ON)	KEYSTONE, 8831 (SNAP ON)
12	1		PRINTED CIRCUIT BOARD	DEMO CIRCUIT 569B-1
13	1		STENCIL TOP	STENCIL DC569B-1

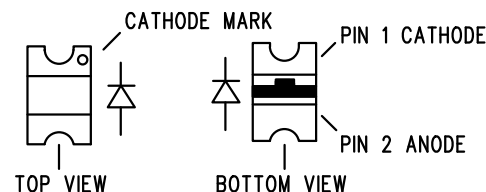
REVISION HISTORY				
ECO	REV	DESCRIPTION	APPR	DATE
-	1	PRODUCTION	MARTY M.	8-25-16


NOTES: UNLESS OTHERWISE SPECIFIED

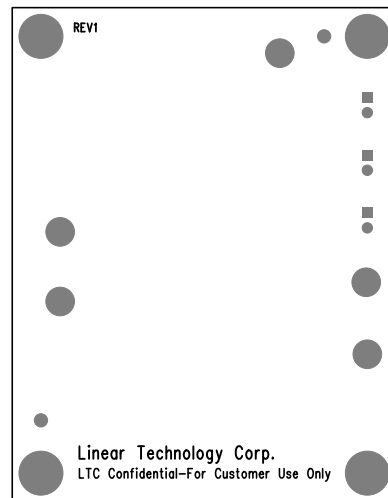
1. WORKMANSHIP SHALL BE IN ACCORDANCE WITH IPC-A-610, CLASS 2.
2. ASSEMBLY REFLOW PROFILE SHALL BE IN ACCORDANCE WITH J-STD-020 WITH MAXIMUM SOLDER TEMPERATURE OF 250 DEGREES CELSIUS.
3. PARTS TO OMIT WILL BE SPECIFIED ON THE BILL OF MATERIALS
LOCATIONS OF OMITTED PARTS SHALL BE FREE OF SOLDER.
MASK 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 TURRETS, STAND-OFFS AND BANANA JACKS AS SHOWN BELOW:




8. INSTALL LED D1 AS SHOWN:



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.	MARTY M.	TITLE: TOP ASSEMBLY DRAWING:	
		Li-Ion Battery Charger	
		SIZE	IC NO. LTC4054
		N/A	DEMO CIRCUIT 569B
SCALE = NONE			REV. 1
		SHT 1 of 2	

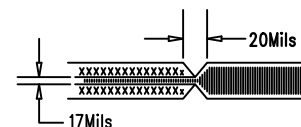


APPROVALS		 LINEAR TECHNOLOGY <small>1630 MCCARTHY BLVD MILPITAS, CA 95035 PH: (408)432-1900 www.Linear.com LTC CONFIDENTIAL- FOR CUSTOMER USE ONLY</small>	
PCB DES.	NC		
APP ENG.	MM	TITLE: BOTTOM ASSEMBLY DRAWING: Li-Ion Battery Charger	
SIZE	IC NO.	LTC4054 DEMO CIRCUIT 569B	REV.
N/A			1
SCALE = NONE		SHT 2 of 2	

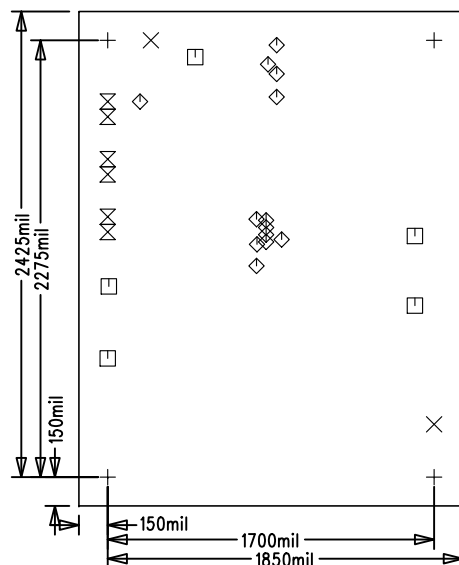
REVISIONS		
REV	APPR	DATE

NOTES: UNLESS OTHERWISE SPECIFIED:

1. FAB PER IPC-A-600.
2. 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 2 OZ. CU ON THE INNER LAYERS.
-FLAMMABILITY RATING: 94 V-0 MINIMUM.
3. SIZE: CUT TO DIMENSIONS AND TOLERANCES SHOWN.
0.00 ARE PRIMARY DATUMS.
4. 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
5. FINISH: -SMOBC USING LPI BOTH SIDES, COLOR GREEN, TENT BOTH SIDES.
-GOLD IMMERSION BOTH SIDES.
-FOR SILKSCREEN: BOTH SIDES USE WHITE NON-CONDUCTIVE INK.
6. DO NOT ALTER ARTWORK e.g. TO ADD LOGO OR DATE CODE.
PAD SIZE CAN BE MODIFIED TO MEET END FINISH.
7. PCBs ARE TO BE RoHS COMPLIANT.
8. SCORING:

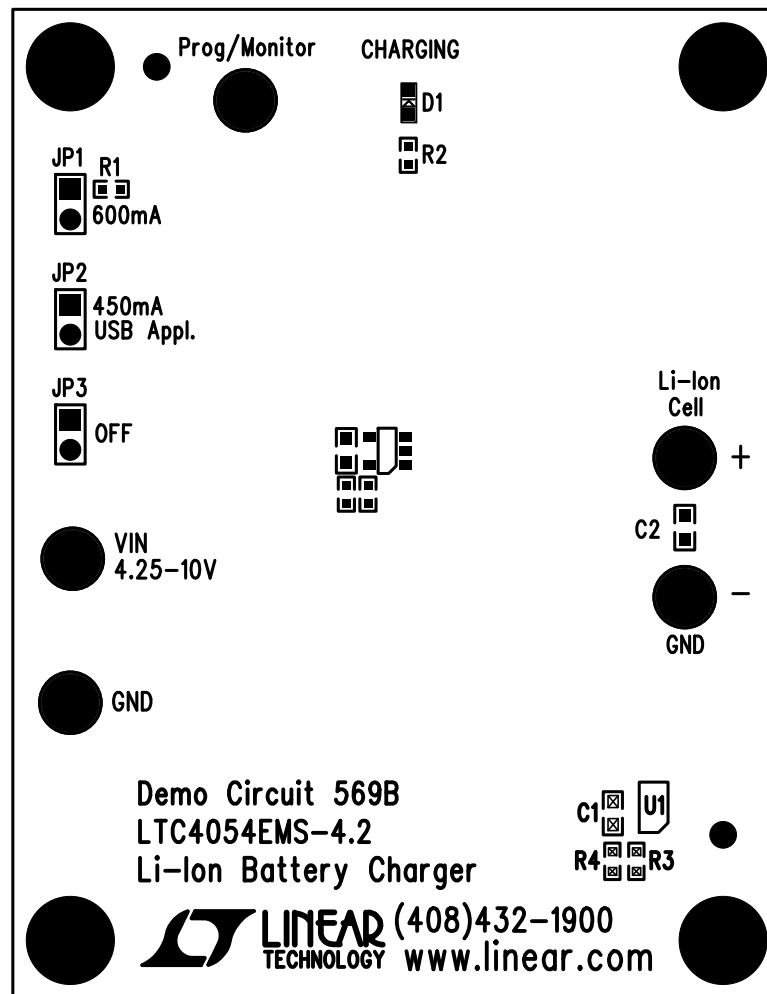


9. DO NOT ALTER SOLDER MASK MAINTAIN .0015 (1.5 MIL) CLEARANCE ON SMT PADS 4.7 MIL WEBBING IS REQUIRED.

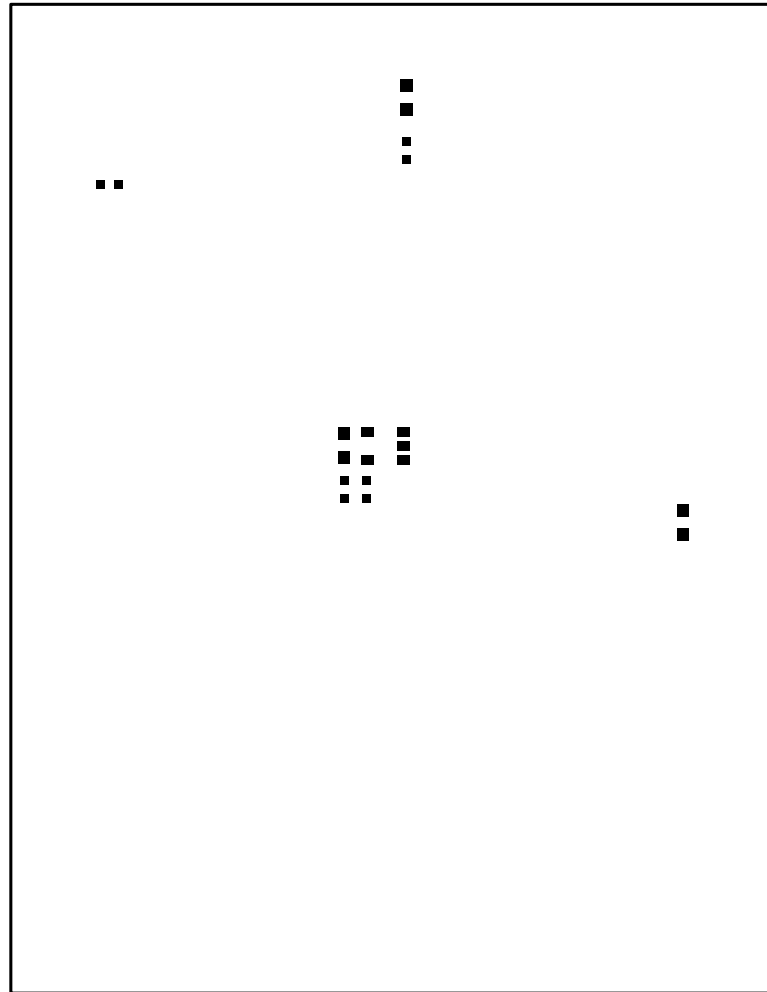


SIZE	QTY	SYM	PLATED	TOL
0.01	13	◇	YES	+/- .003"
0.035	6	⊗	YES	+/- .003"
0.07	2	⊗	NO	+/- .003"
0.094	5	□	YES	+/- .003"
0.19	4	+	YES	+/- .003"

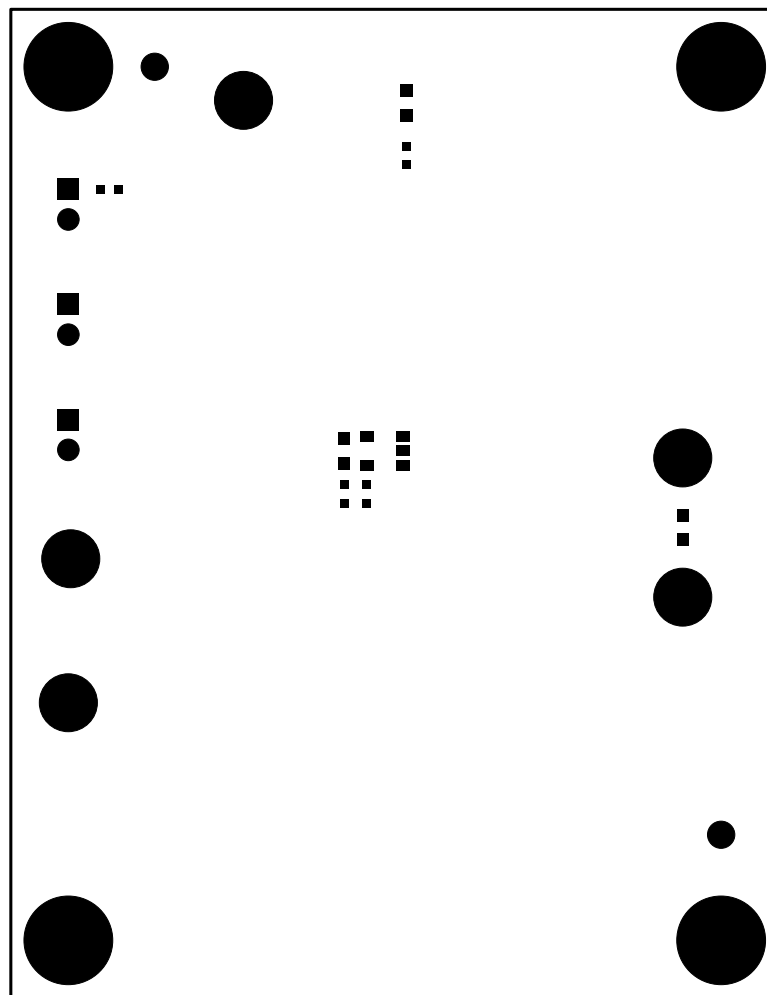
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ON ANGLE 1 0.XX" = ±0.01" 0.XXX" = ±0.005" INTERPRET DIM AND TOL PER ASME Y14.5M-1994	APPROVALS		 1630 MCCARTHY BLVD MILPITAS, CA 95035 PH: (408)432-1900 www.Linear.com LTC CONFIDENTIAL- FOR CUSTOMER USE ONLY	
	PCB DES.	NC		
THIRD ANGLE PROJECTION	APP ENG.	MM	TITLE: FABRICATION DRAWING: Li-Ion Battery Charger	
DO NOT SCALE DRAWING	SCALE: NONE	SIZE	IC NO. LTC4054	REV. 1
		N/A	DEMO CIRCUIT 569B	
			SHT 1 of 1	



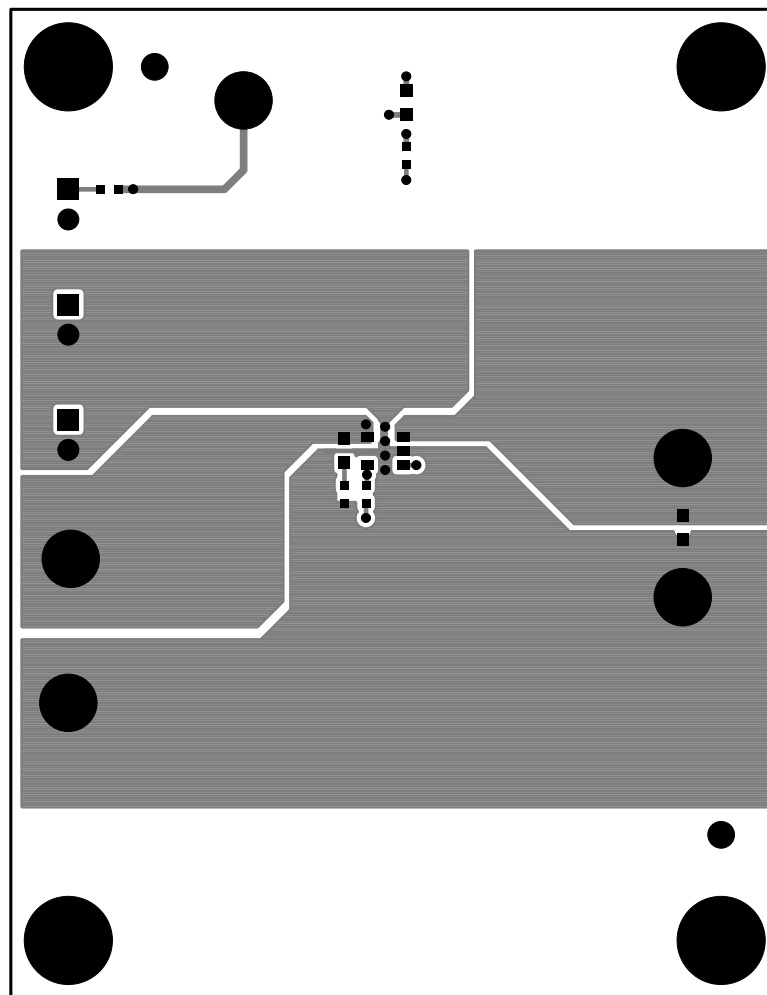
Silkscreen Top
 Linear Tech. Corp.
 Demo Circuit 569B-1 * LTC4054



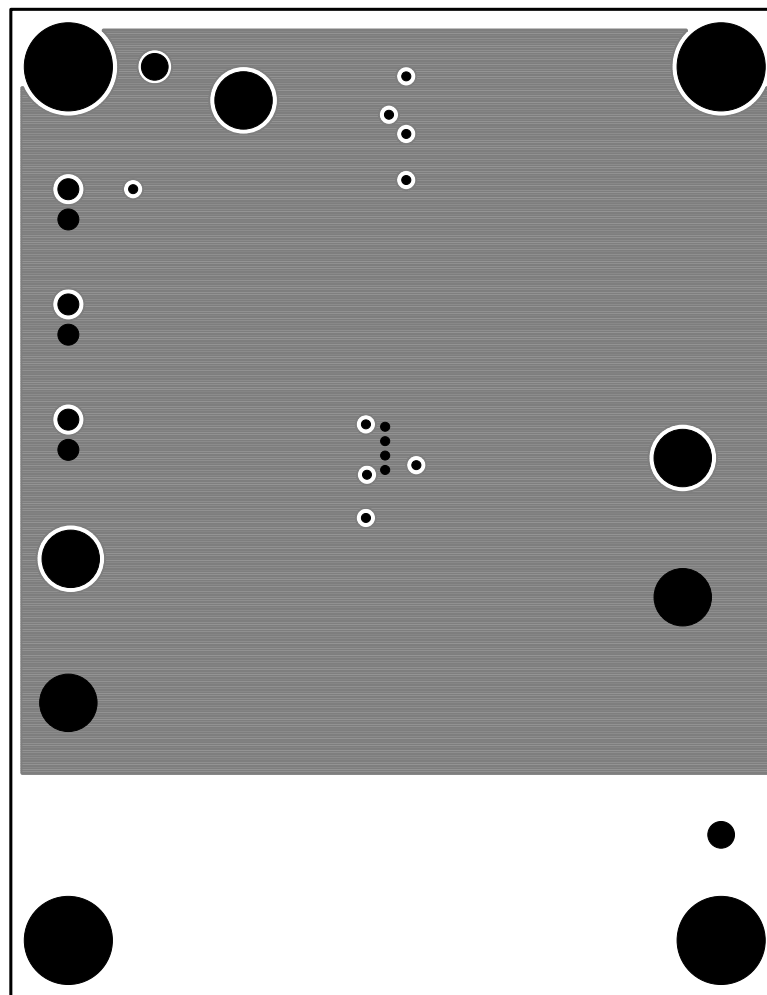
PasteMask Top
Linear Tech. Corp.
Demo Circuit 569B-1 * LTC4054



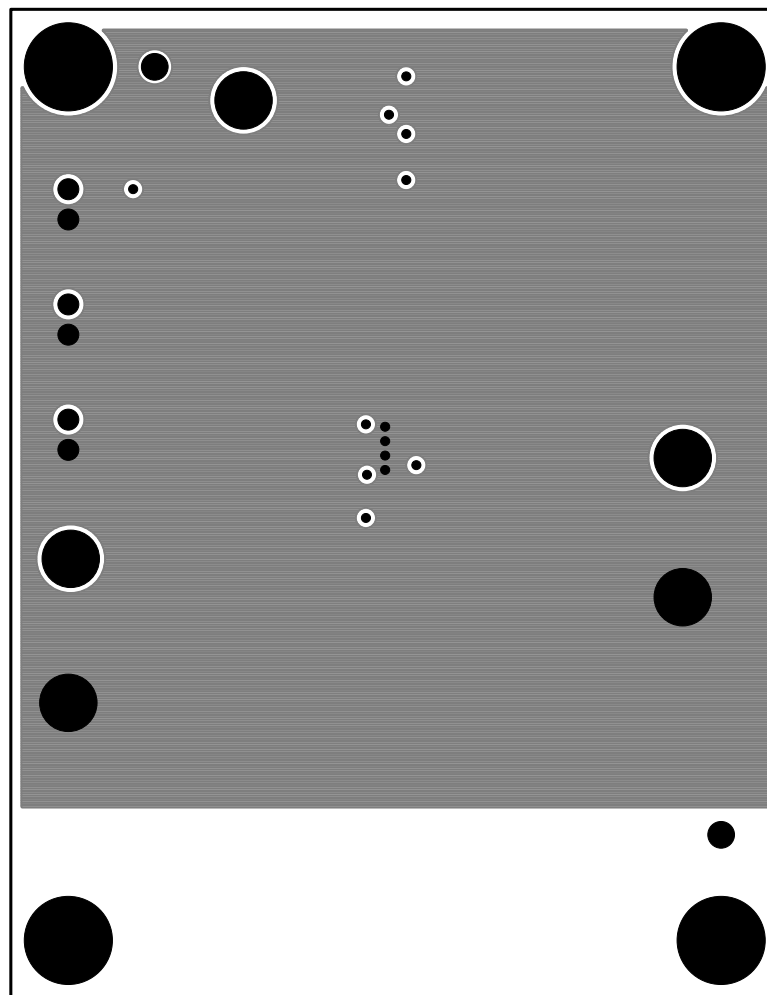
Solder Mask Top
Linear Tech. Corp.
Demo Circuit 569B-1 * LTC4054



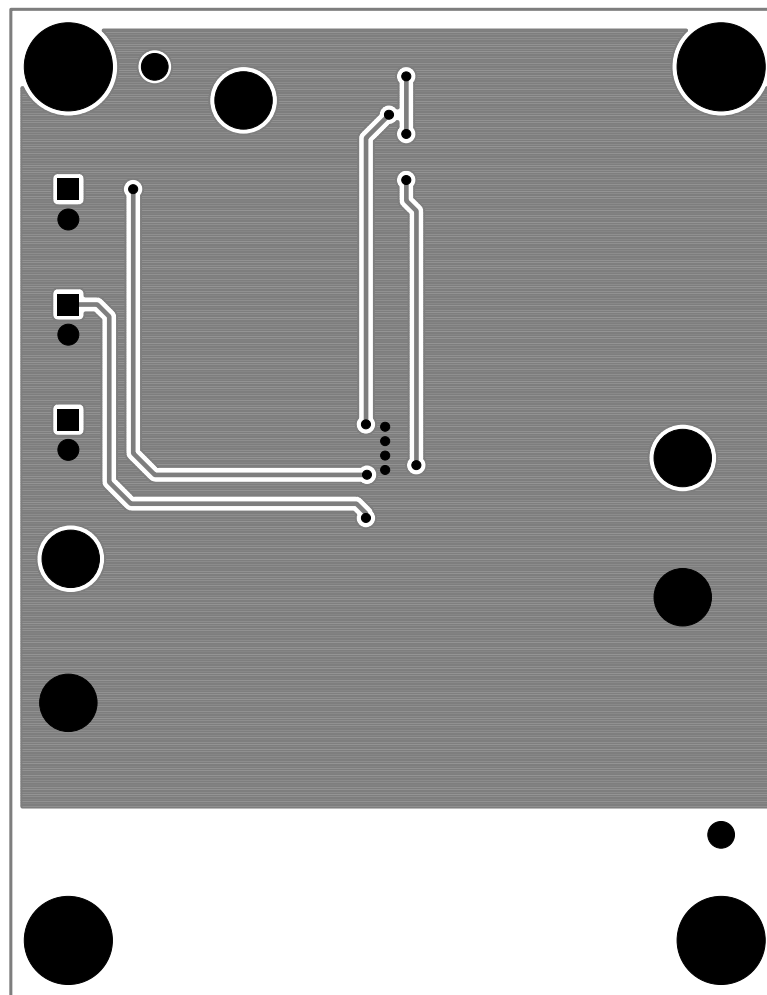
Component Side
Linear Tech. Corp.
Demo Circuit 569B-1 * LTC4054



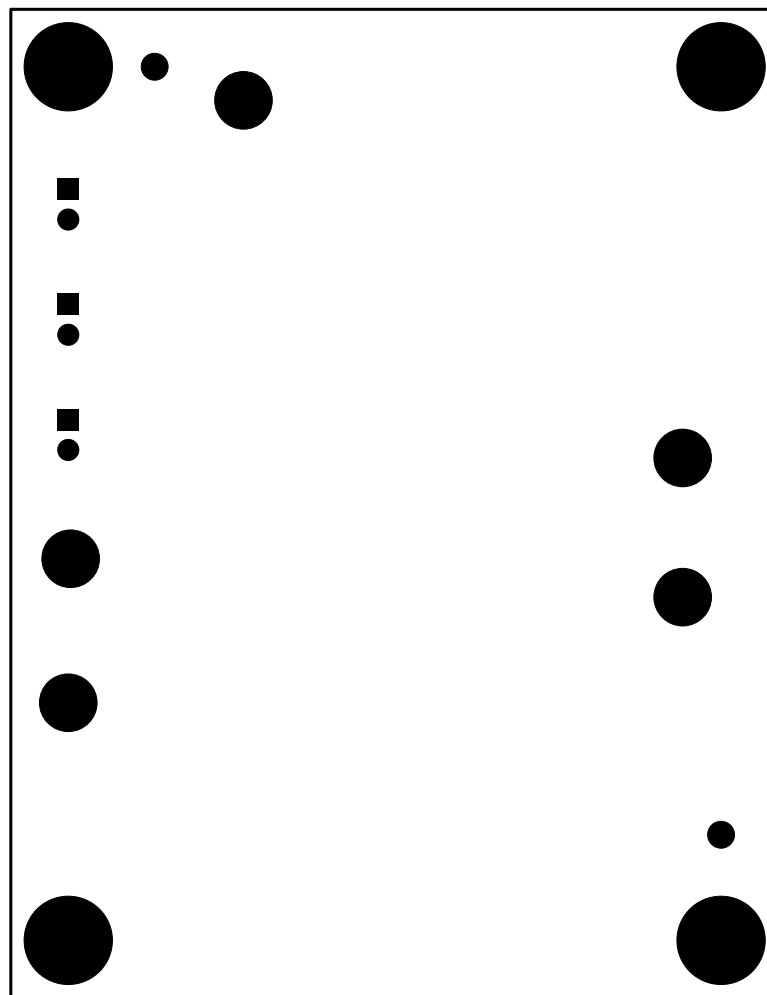
Layer2
Linear Tech. Corp.
Demo Circuit 569B-1 * LTC4054



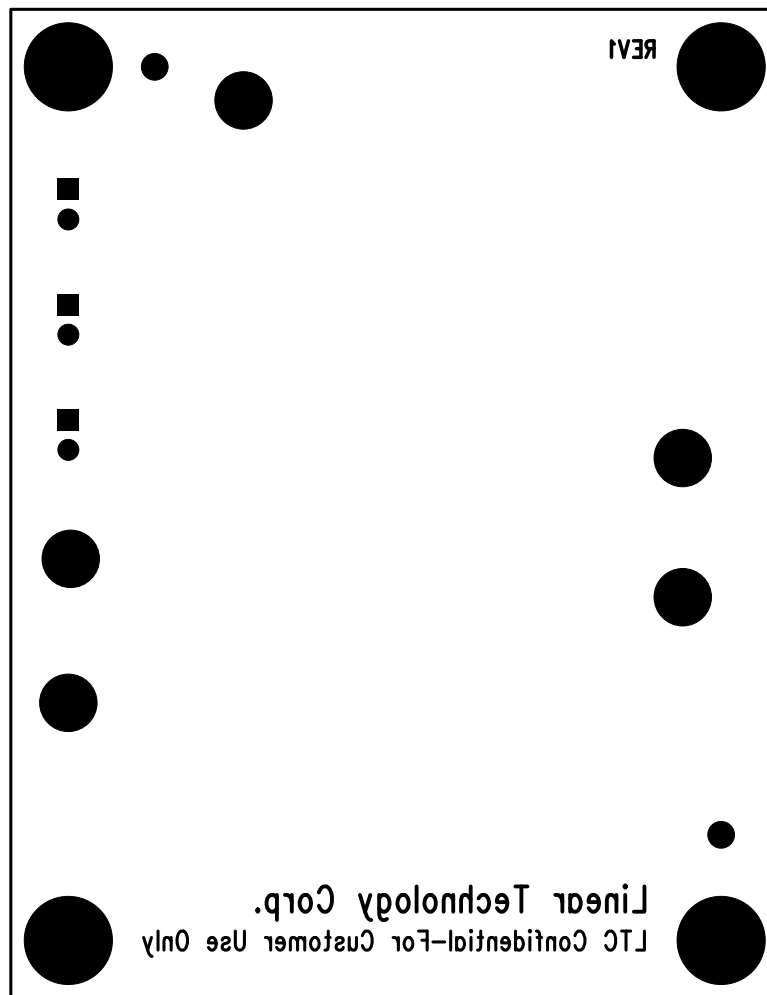
Layer3
Linear Tech. Corp.
Demo Circuit 569B-1 * LTC4054



Layer4
Linear Tech. Corp.
Demo Circuit 569B-1 * LTC4054



SolderMask Bottom
Linear Tech. Corp.
Demo Circuit 569B-1 * LTC4054



Silkscreen Bottom
Linear Tech. Corp.
Demo Circuit 569B-1 * LTC4054