



LINEAR TECHNOLOGY CORPORATION  
1630 MCCARTHY BLVD.  
MILPITAS, CA 95035-7487  
PH# (408) 432-1900

PURCHASE ORDER # CHANGE ORDER

VENDOR:

Eagle Electronics  
1735 Mitchell Blvd.  
Schaumburg, IL 60193

☒ NORMAL PROCESSING

☐ 24 HOUR TURN

☐ HOT !! MACHINE DOWN

TELEPHONE:

Phone: (847) 891-5800 Fax: (847) 891-5874

ORDER DATE

4/5/12

VENDOR CODE

TERMS

SHIP VIA

TAXABLE

CONFIRM TO

Julie Parent ext: 114

F.O.B. FREIGHT

ACCOUNT No.

REQUESTOR

DELIVER TO

011-087-0370-63121

Nick Carlone

Alice Silva/Bldg. 1 Milpitas

ITEM QUANTITY UOM

PART NUMBER

DESCRIPTION

IC UNIT PRICE EXTENSION DEL. DATE

1 100 ea

DC1808B-1

PCB FAB for DC1808B (LTC3589EUJ-1/LTC3589EUJ-2)

\$ 22.68 \$ 2,268.00

6 Layer Boards with 2oz. Copper Clad External

Tooling / Test cost waived

10 day turn

PDF photo plots needed prior to fabrication

TOTAL ORDER

\$2,268.00

JUSTIFICATION

Needed for production fab of DC1808B-A/B (LTC3589EUJ-1/LTC3589EUJ-2); 8-OUTPUT REGULATOR WITH SEQUENCING AND I2C.

Please ship order to Alice Silva/Bldg. 1 Milpitas.

REQUESTIONER

Nick Carlone

MANAGER

VICE PRESIDENT

PRESIDENT

BUYER



1735 Mitchell Blvd. Schaumburg, IL 60193  
Phone: (847) 891-5800 Fax: (847) 891-5874

MANUFACTURERS OF QUALITY PRINTED CIRCUIT BOARDS

Customer Name **LINEAR** Quote # **DM 41004.45659**  
Customer Part No. / Re **DC1808B-1-A REV 1** Date **4/5/2012**

Part X	<b>4.300</b>	Num. of Holes	<b>286</b>
Part Y	<b>4.000</b>	Min. Hole Size	<b>.010 or less</b>
Array X	<b>8.000</b>	Num. of PTH / NPT Slots	
Array Y	<b>9.100</b>	Line/Spacing	<b>&gt;6mil</b>
Array Up's	<b>4</b>	Leg/Color	<b>White-2 Leg</b>
Material Type to be used	<b>VT-47</b>	Mask/Color	<b>GREEN</b>
Layers	<b>6</b>	Gold Tabs (inches)	
Material Thickness	<b>0.062</b>	Ctrld. Impedance	<b>No</b>
Copper Weight	<b>1.0 oz</b>	Soft Gold	<b>No</b>
Finish	<b>ENIG</b>	Hard Gold	<b>No</b>
Score ( Lines per bd or array)	<b>4</b>	Selective Gold	<b>No</b>
Jump Score (yes/no)	<b>No</b>	Via Fill (cond/non-cond.)	<b>No</b>
Via Plug (solder mask)	<b>No</b>	Num. of Blind Via Sets	
Counter Sink/Bore Qty/bd		Mix Copper Weight	<b>No</b>
Carbon Ink	<b>No</b>		

**COMMENTS**

--

TOOLING **WAIVED**

ELECTRICAL TEST

**WAIVED**

Qty In Pcs.

**100**

**100**

Price Per Piece

**\$ 26.67 each.**

**\$ 22.68 each.**

Ship In Days

**5**

**10**

Looking forward for your business

Thanks

Dawn McConnell

715-635-7088

Above prices are based on information provided for quotation. Any changes may effect the prices. Prices good for 60 days. Warranty is limited only to products and service provided by Eagle Electronics Inc. Any disputes must be communicated within 30 days in writing, after receipt of prodct.

No credits issued without RMA.

Process.Code 1824S16S0P0




**Demo Circuit:** \_\_\_\_\_  
**Engineer:** \_\_\_\_\_  
**Checkers:** \_\_\_\_\_  
\_\_\_\_\_

## **Demo Board Pre-Fabrication Checklist**

**( Check All That Apply)**

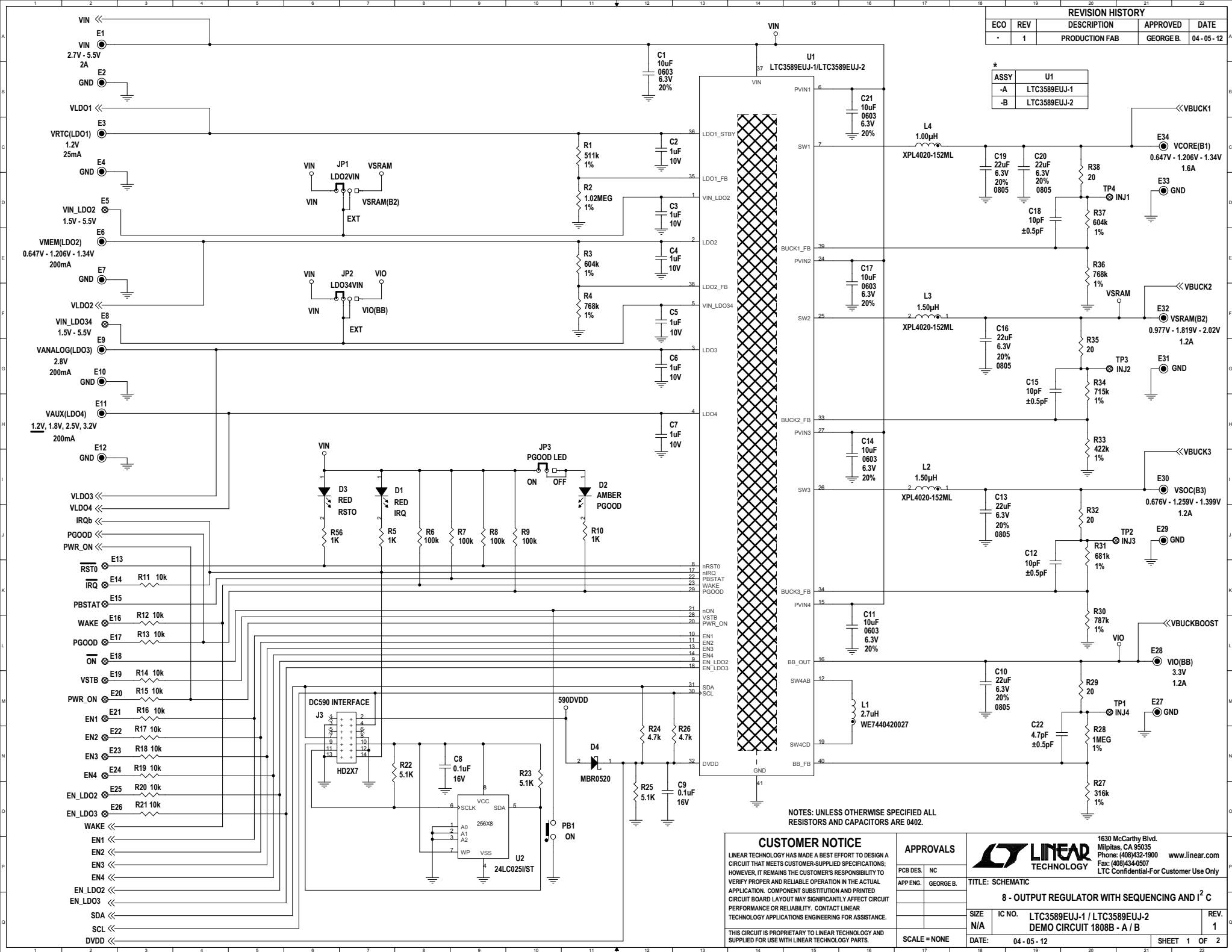
- ☐ Input terminals should list a voltage range. Output terminals should list voltage and current (when applicable).
- ☐ No floating inputs unless allowed by the datasheet. If floating inputs are allowed, so state at the left of the box and name the engineer who authorized this.
- ☐ If IC has an Exposed Pad on the bottom, it should be connected to: GND, PWR, floating copper or \_\_\_\_\_.
- ☐ Power and/or Thermal Via's (33 mil) should be verified from the required circuitry on each Demo Board.
- ☐ Optional components should be placed away from the required circuitry or on the bottom of the board. Optional components should be clearly labeled as such on the schematic.
- ☐ All Jumpers should have 3 Positions so that both operating modes may be clearly labeled and the shunt always stays on the board.
- ☐ Jumpers, Pins, Trimmers, etc. should all be labeled on the board and the schematic.  
**These labels should be an exact match in wording and case.**
- ☐ Locations for tester alignment pins (Tooling Holes) should be verified.
- ☐ Add **all** items below to the Silkscreen Layers. Top Silkscreen is a must for **"LTC Full Part Number", "Board Description", and [www.linear.com](http://www.linear.com)**.

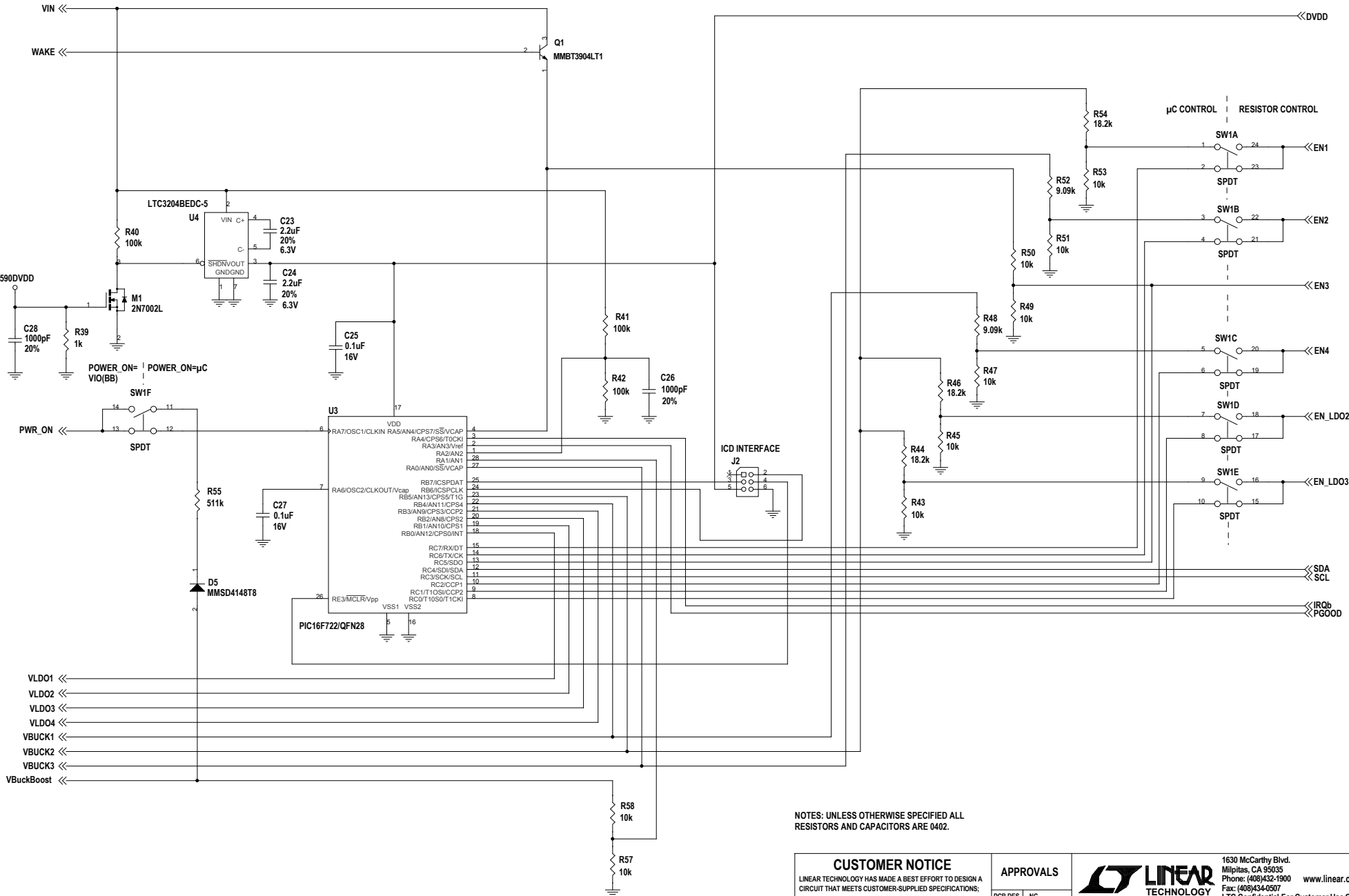
- LT1681CSW (LTC Full Part Number)
- "BOARD DESCRIPTION"
- DEMO CIRCUIT XXXA (or DCXXXX. Long version is preferred)
- 
- (408) 432-1900
- [www.linear.com](http://www.linear.com)
- LTC CONFIDENTIAL-FOR CUSTOMER USE ONLY

- ☐ Add **"REV 1"** (current Revision of each FAB) on the Bottom Layer or Bottom Silkscreen.
- ☐ Add any optional text required by a Circuit Designer, i.e. "Danger, High Voltage".
- ☐ Use **Upper Case Letters** for **all** text on SCH, PCB, FAB, and ASSY DWGs. Unless Otherwise Specified.
- ☐ **Project DIR** in \Mil-Demo\ should have the latest Doc. as request. i.e \*.DSN, \*.PCB, \*.GBR, \*.PDF, and BOM.

### ☐ **For the Portable Marketplace**

- **Use the smallest and lowest profile components possible. In some cases, it may be best to design a demo board that contains both size optimized and efficiency/debug optimized layouts.**
- **For very size critical layouts, do not use silk-screen component outlines or reference designators or else place them in an isolated area on the PCB or on the schematic.**
- **Use a 4-Layer PCB to minimize the solution size. No excessive vias around components. Makes the circuit size look larger.**

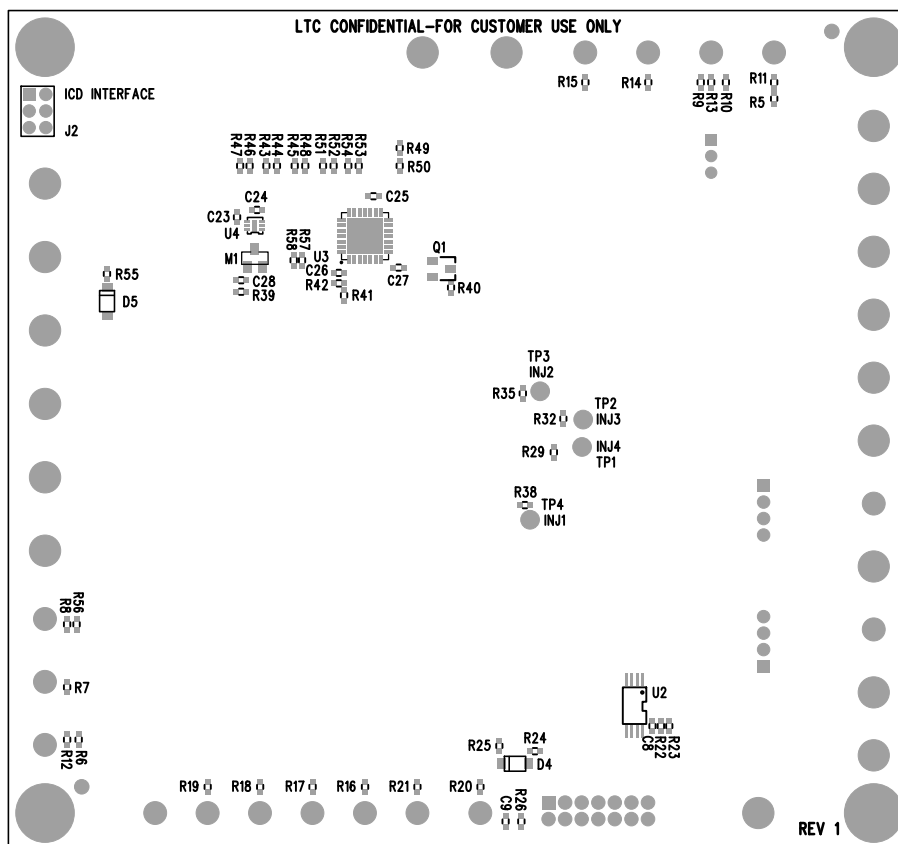





NOTES: UNLESS OTHERWISE SPECIFIED ALL  
RESISTORS AND CAPACITORS ARE 0402.

CUSTOMER NOTICE		APPROVALS		LINEAR TECHNOLOGY		1630 McCarthy Blvd. Milpitas, CA 95035 Phone: (408)432-1900 www.linear.com Fax: (408)434-0507 LTC Confidential-For Customer Use Only	
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.		PCB DES.	NC	TITLE: SCHEMATIC			
THIS CIRCUIT IS PROPRIETARY TO LINEAR TECHNOLOGY AND SUPPLIED FOR USE WITH LINEAR TECHNOLOGY PARTS.		APP ENG.	GEORGE B.	8 - OUTPUT REGULATOR WITH SEQUENCING AND I <sup>2</sup> C			
				SIZE	IC NO.	LTC3589EUJ-1 / LTC3589EUJ-2	REV.
				N/A	DEMO CIRCUIT 1808B - A / B		1
				DATE:	04 - 05 - 12		SHEET 2 OF 2

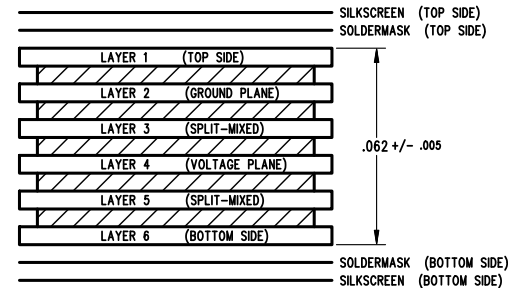




APPROVALS		 <div> 1630 MCCARTHY BLVD  MILPITAS, CA 95035  PH: (408)432-1900  www.Linear.com  LTC CONFIDENTIAL—  FOR CUSTOMER USE ONLY </div>	
PCB DES.	NC		
APP ENG.	GEORGE B.	<b>TITLE: BOTTOM ASSEMBLY DRAWING:</b> <b>8-OUTPUT REGULATOR WITH SEQUENCING AND I<sup>2</sup>C</b>	
		<b>SIZE</b> N/A	<b>IC NO.</b> LTC3589EIJ-1/LTC3589EIJ-2 <b>DEMO CIRCUIT</b> 1808B-A/B
			<b>REV.</b> 1
SCALE = NONE		<b>FILENAME:</b> DC1808B-1-A/B.PCB <b>SHT</b> 2 of 2	

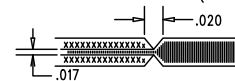
REVISION HISTORY				
ECO	REV	DESCRIPTION	APPR	DATE
-	1	PRODUCTION FAB	GEORGE B.	04-05-12

# LAYER STRUCTURE 6 LAYER

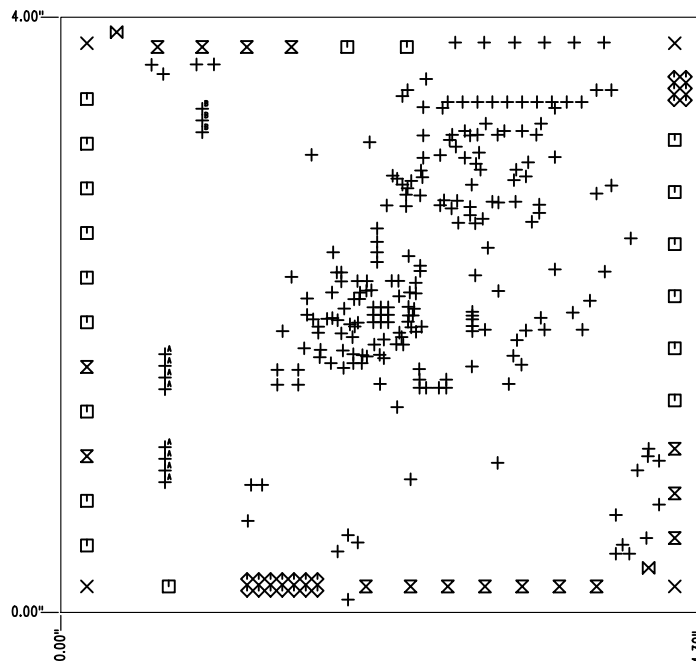


## NOTES: UNLESS OTHERWISE SPECIFIED



- FAB PER IPC-A-600.
- MATERIAL: -LEAD FREE ASSEMBLY COMPLIANT, ISOLA FR-370HR OR EQUIVALENT.  
-FINISHED THICKNESS TO BE 0.062" +/- .005"  
-TOTAL OF 6 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.  
-GOLD IMMERSION BOTH SIDES.  
-FOR SILKSCREENS: 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 (PRODUCTION FAB ONLY):



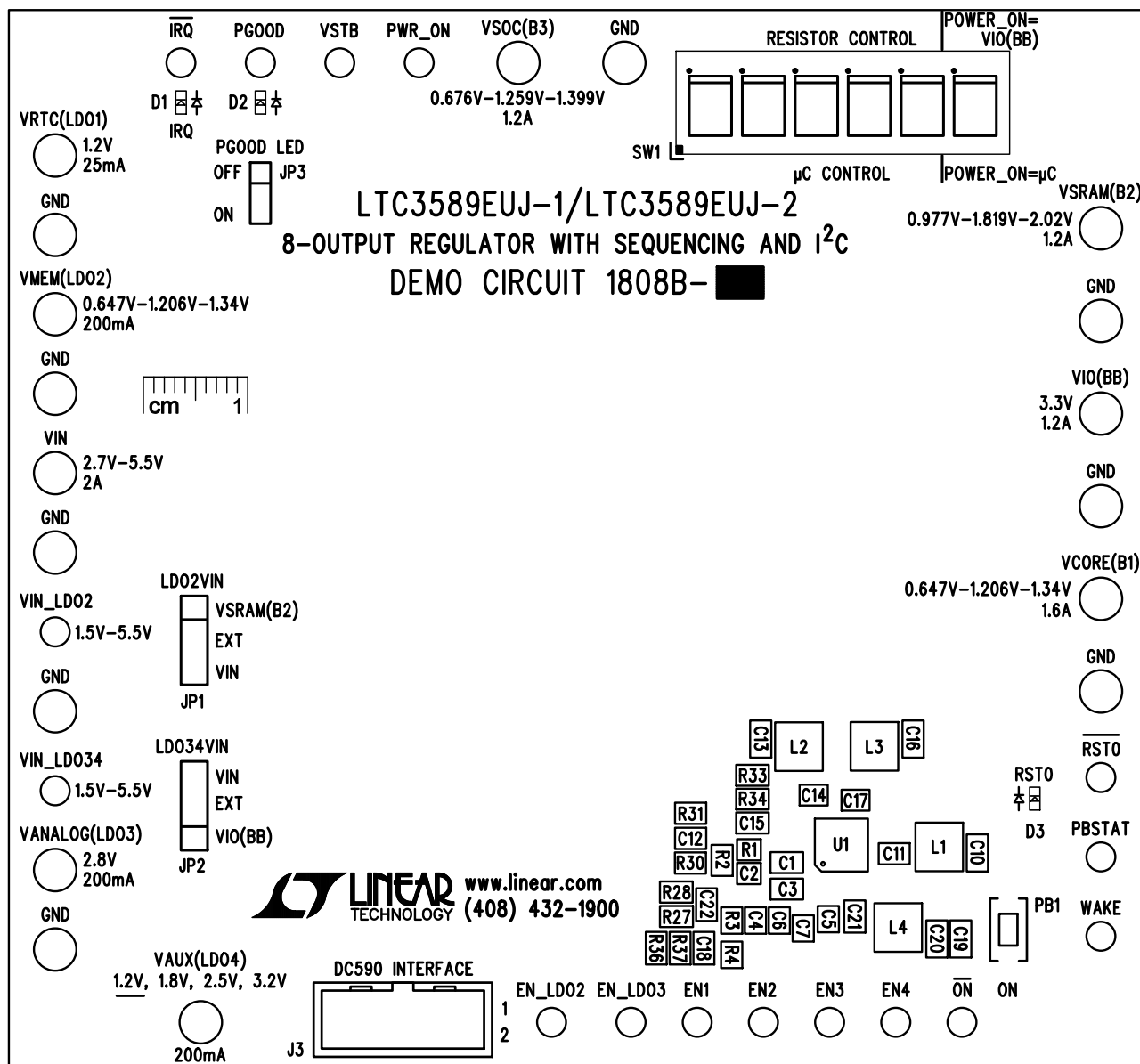
- DO NOT ALTER SOLDER MASK MAINTAIN .003" OVERSIZE ON SMT PADS. A .005" WEBBING IS REQUIRED BETWEEN SMD PADS.



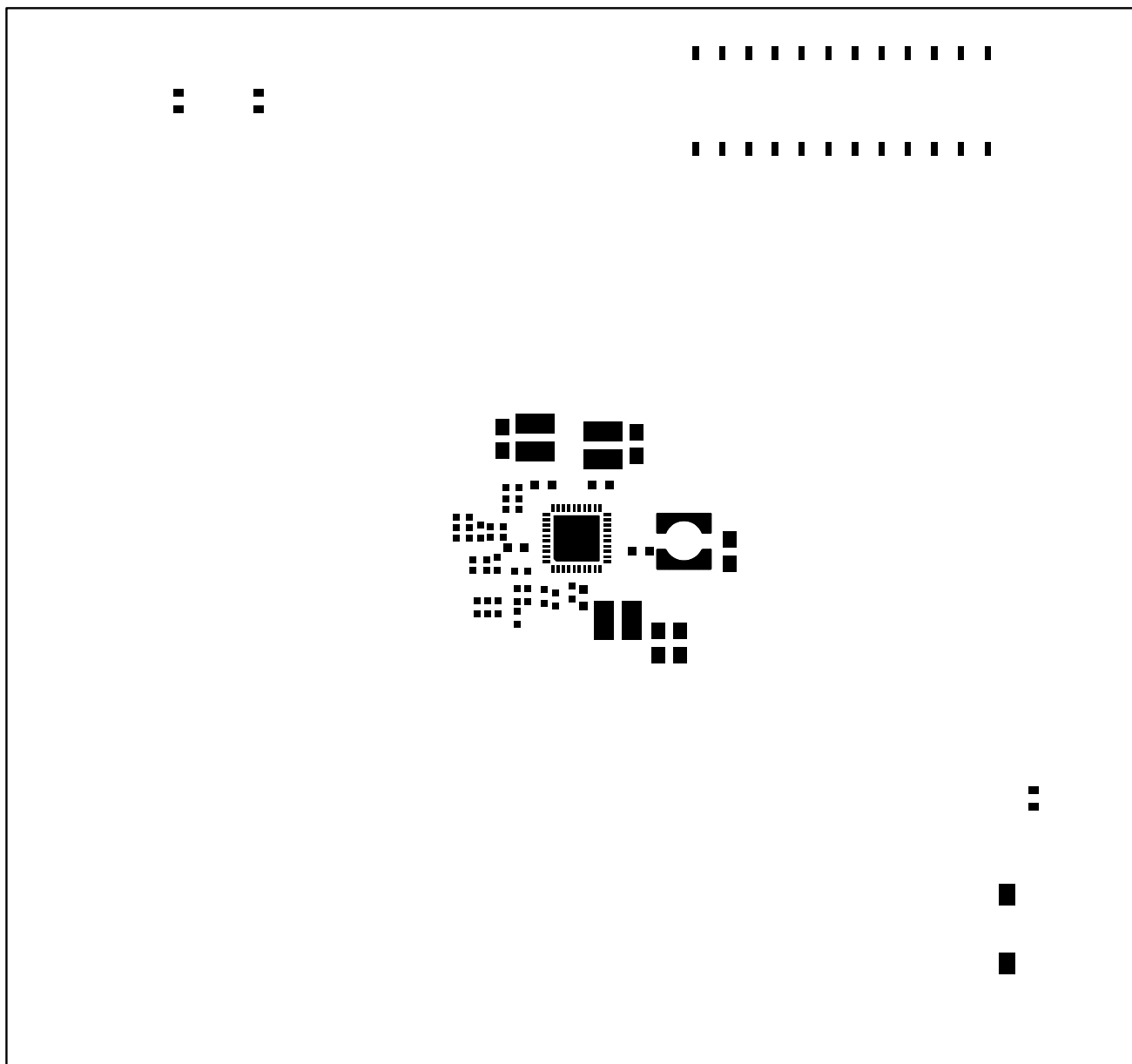
SIZE	QTY	SYM	PLATED	TOL
10	215	+	YES	+/-0.003
190	4	X	NO	+/-0.003
94	18	□	YES	+/-0.003
35	20	◇	YES	+/-0.003
63	16	⊗	YES	+/-0.003
70	2	⊗	NO	+/-0.003
37	8	⊕ <sup>A</sup>	YES	+/-0.003
31	3	⊕ <sup>B</sup>	YES	+/-0.003

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		 <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. GEORGE B.		
THIRD ANGLE PROJECTION 			TITLE: FABRICATION DRAWING: 8-OUTPUT REGULATOR WITH SEQUENCING AND I <sup>2</sup> C
DO NOT SCALE DRAWING	SCALE: NONE	FILENAME: DC1808B-1-A/B.PCB	SHT 1 of 1
		SIZE N/A	IC NO. LTC3589EUJ-1/LTC3589EUJ-2 DEMO CIRCUIT 1808B-A/B
			REV. 1

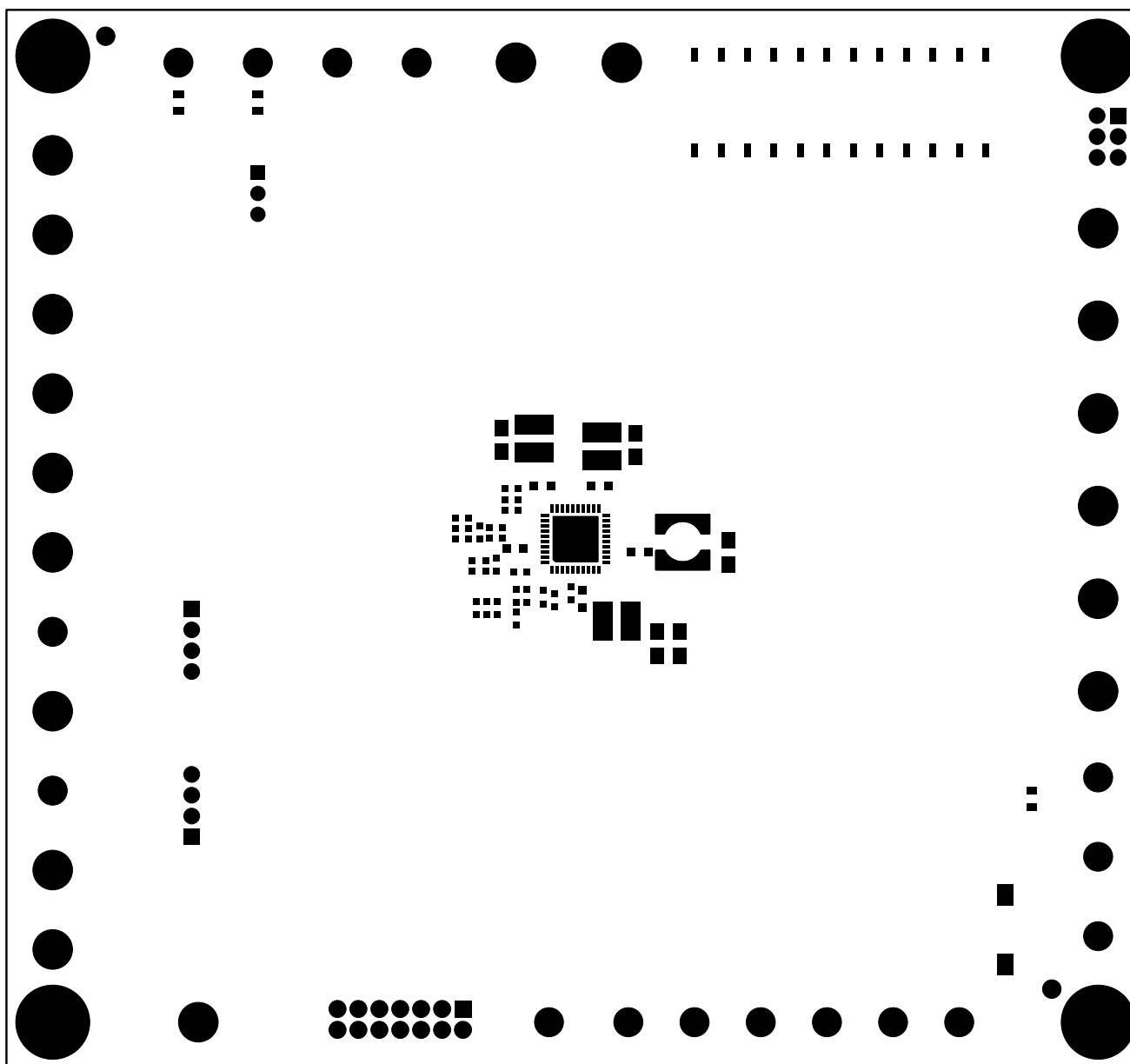




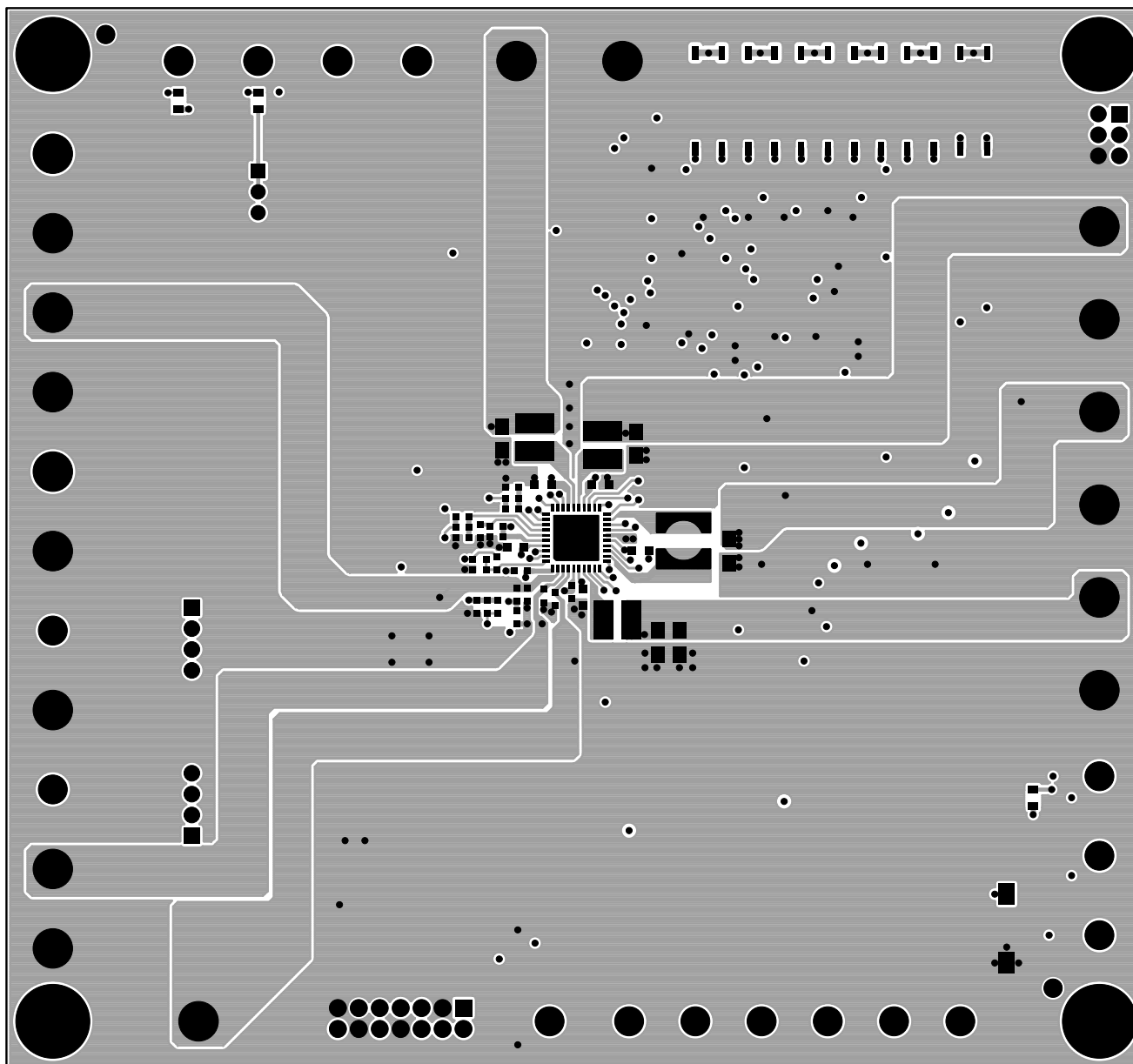
TOP SILKSCREEN  
 LINEAR TECHNOLOGY  
 DC1808B-1-A/B \* LTC3589EUJ-1/LTC3589EUJ-2  
 8-OUTPUT REGULATOR WITH SEQUENCING AND I<sup>2</sup>C  
 DATE: 04-05-12



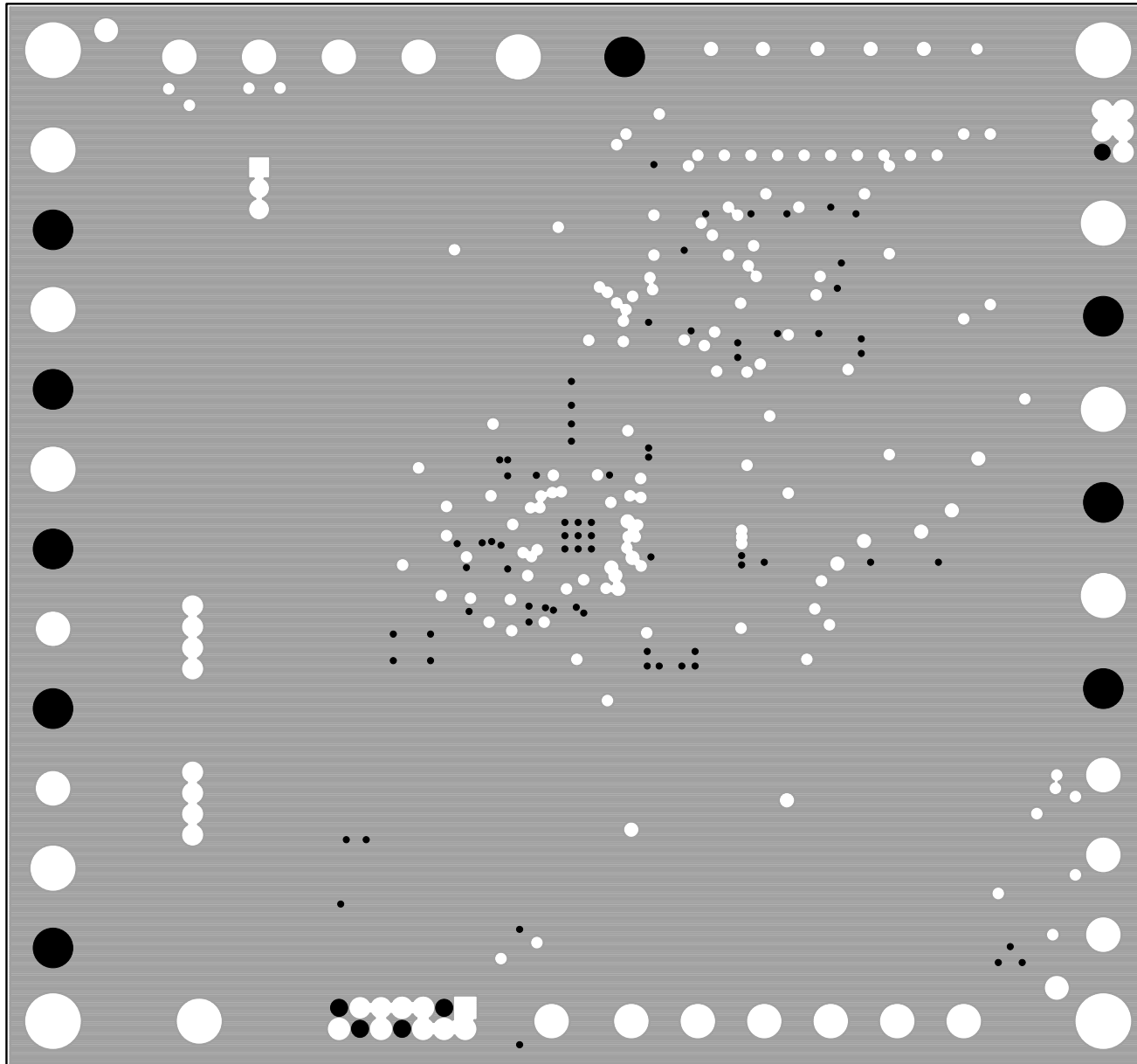
TOP SOLDER PASTE  
LINEAR TECHNOLOGY  
DC1808B-1-A/B \* LTC3589EIJ-1/LTC3589EIJ-2  
8-OUTPUT REGULATOR WITH SEQUENCING AND I<sup>2</sup>C  
DATE: 04-05-12



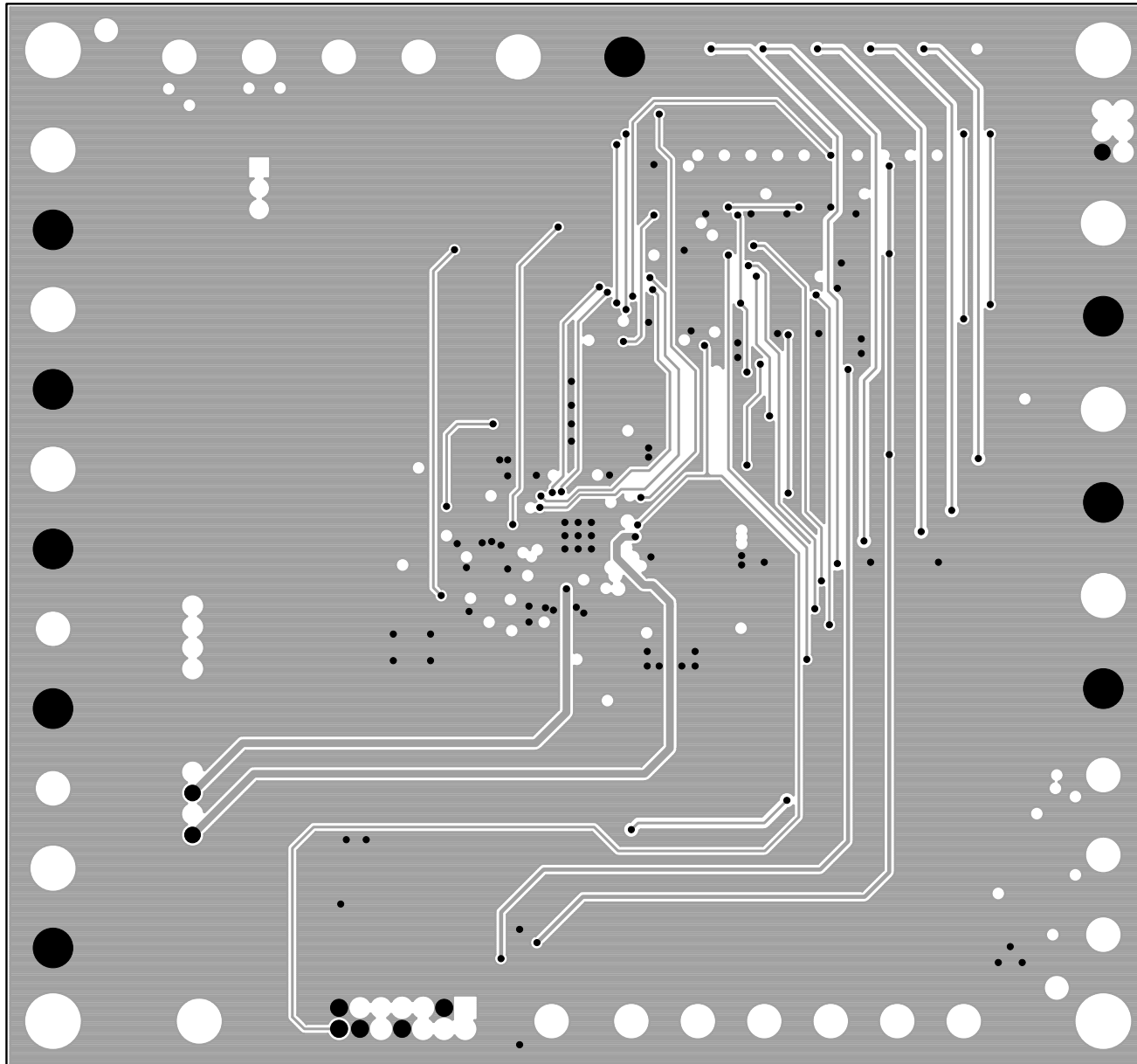
TOP SOLDER MASK  
LINEAR TECHNOLOGY  
DC1808B-1-A/B \* LTC3589EUJ-1/LTC3589EUJ-2  
8-OUTPUT REGULATOR WITH SEQUENCING AND I<sup>2</sup>C  
DATE: 04-05-12



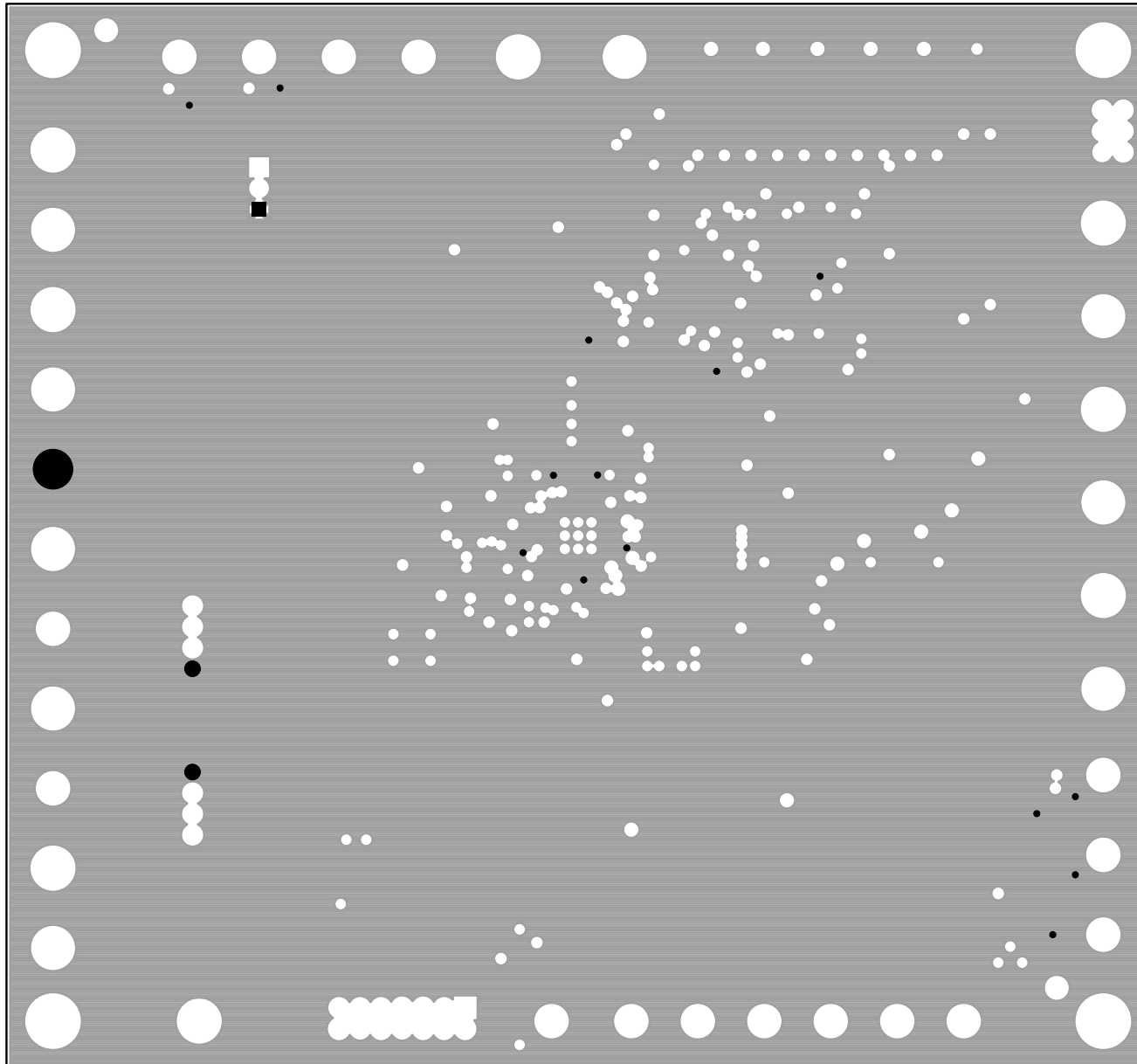
LAYER 1 - TOP LAYER  
LINEAR TECHNOLOGY  
DC1808B-1-A/B \* LTC3589EIJ-1/LTC3589EIJ-2  
8-OUTPUT REGULATOR WITH SEQUENCING AND I<sup>2</sup>C  
DATE: 04-05-12



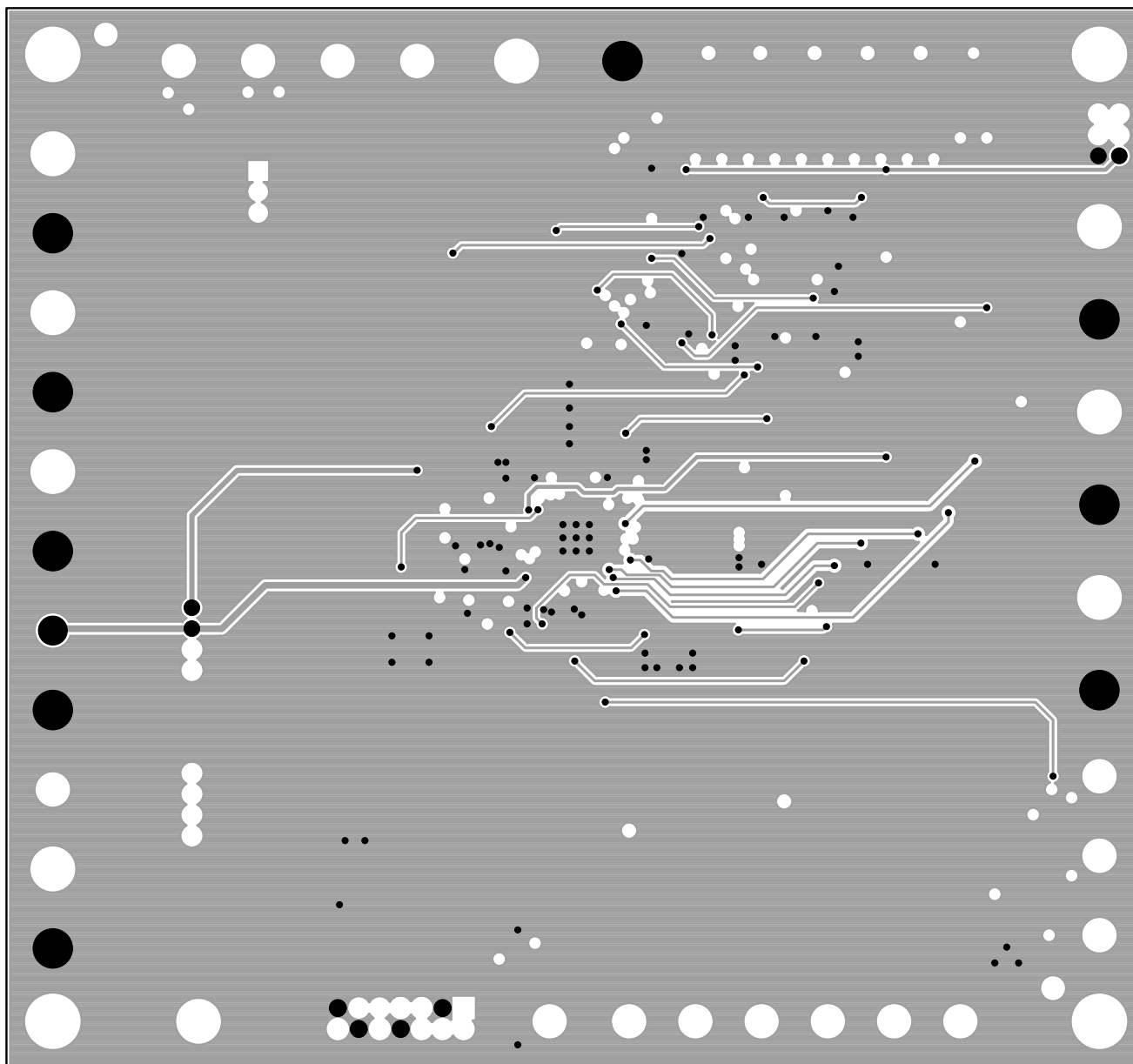
LAYER 2 - PLANE LAYER  
LINEAR TECHNOLOGY  
DC1808B-1-A/B \* LTC3589EUJ-1/LTC3589EUJ-2  
8-OUTPUT REGULATOR WITH SEQUENCING AND I<sup>2</sup>C  
DATE: 04-05-12



LAYER 3 - PLANE/SIGNAL LAYER  
LINEAR TECHNOLOGY  
DC1808B-1-A/B \* LTC3589EUJ-1/LTC3589EUJ-2  
8-OUTPUT REGULATOR WITH SEQUENCING AND I<sup>2</sup>C  
DATE: 04-05-12

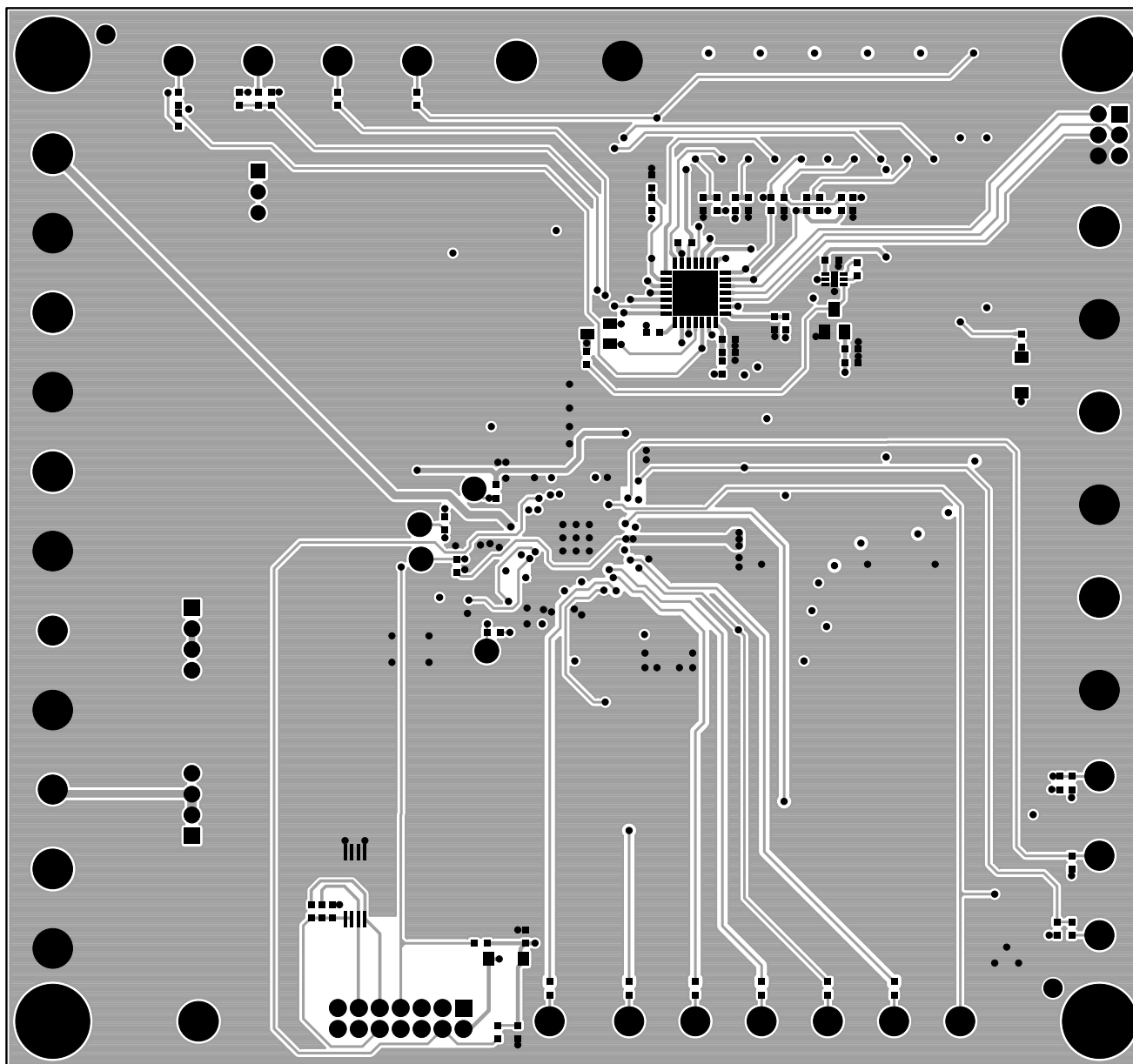


LAYER 4- PLANE LAYER  
LINEAR TECHNOLOGY  
DC1808B-1-A/B \* LTC3589EUJ-1/LTC3589EUJ-2  
8-OUTPUT REGULATOR WITH SEQUENCING AND I<sup>2</sup>C  
DATE: 04-05-12

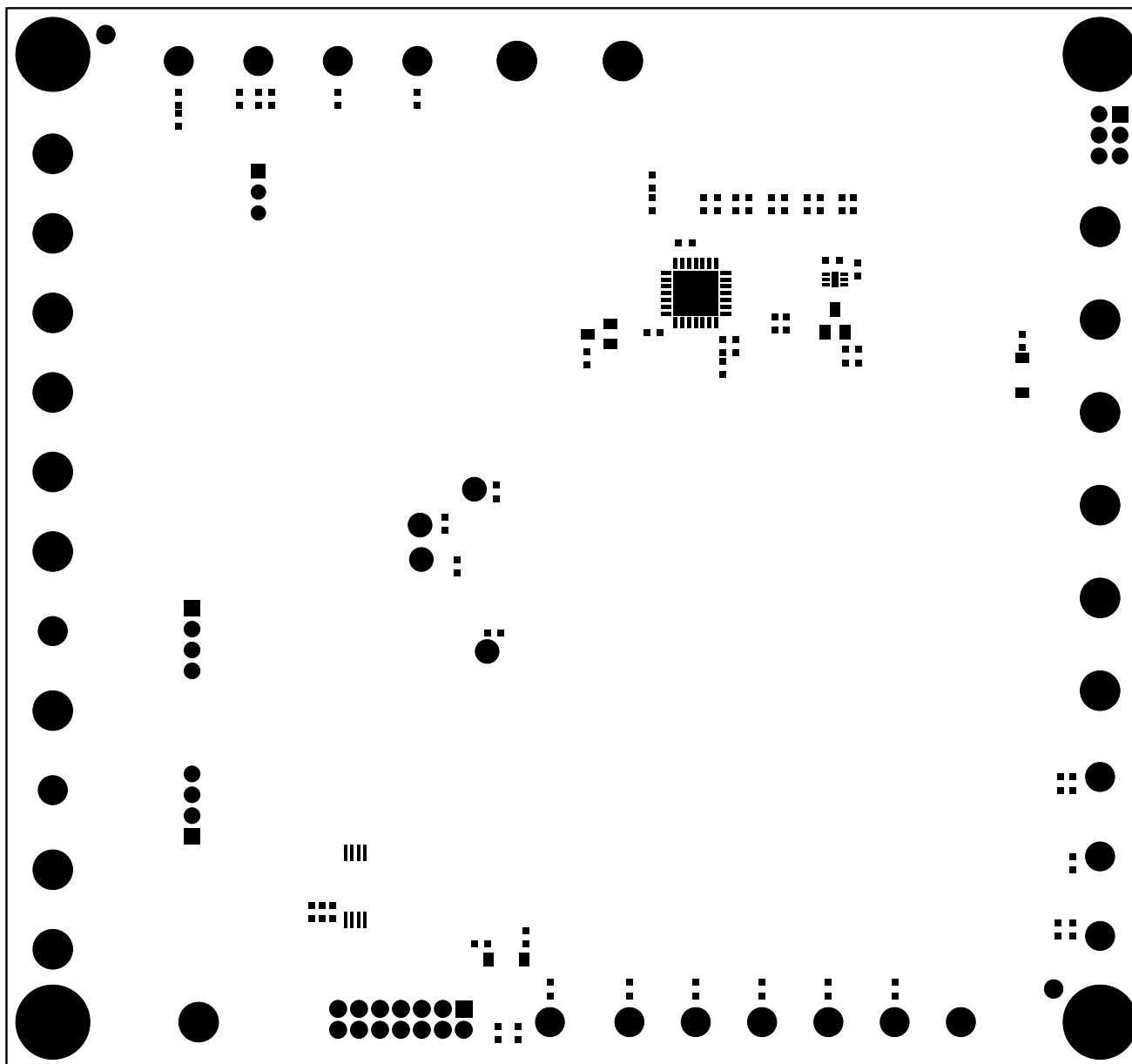


LAYER 5 - PLANE/SIGNAL LAYER  
LINEAR TECHNOLOGY  
DC1808B-1-A/B \* LTC3589EIJ-1/LTC3589EIJ-2  
8-OUTPUT REGULATOR WITH SEQUENCING AND I<sup>2</sup>C  
DATE: 04-05-12

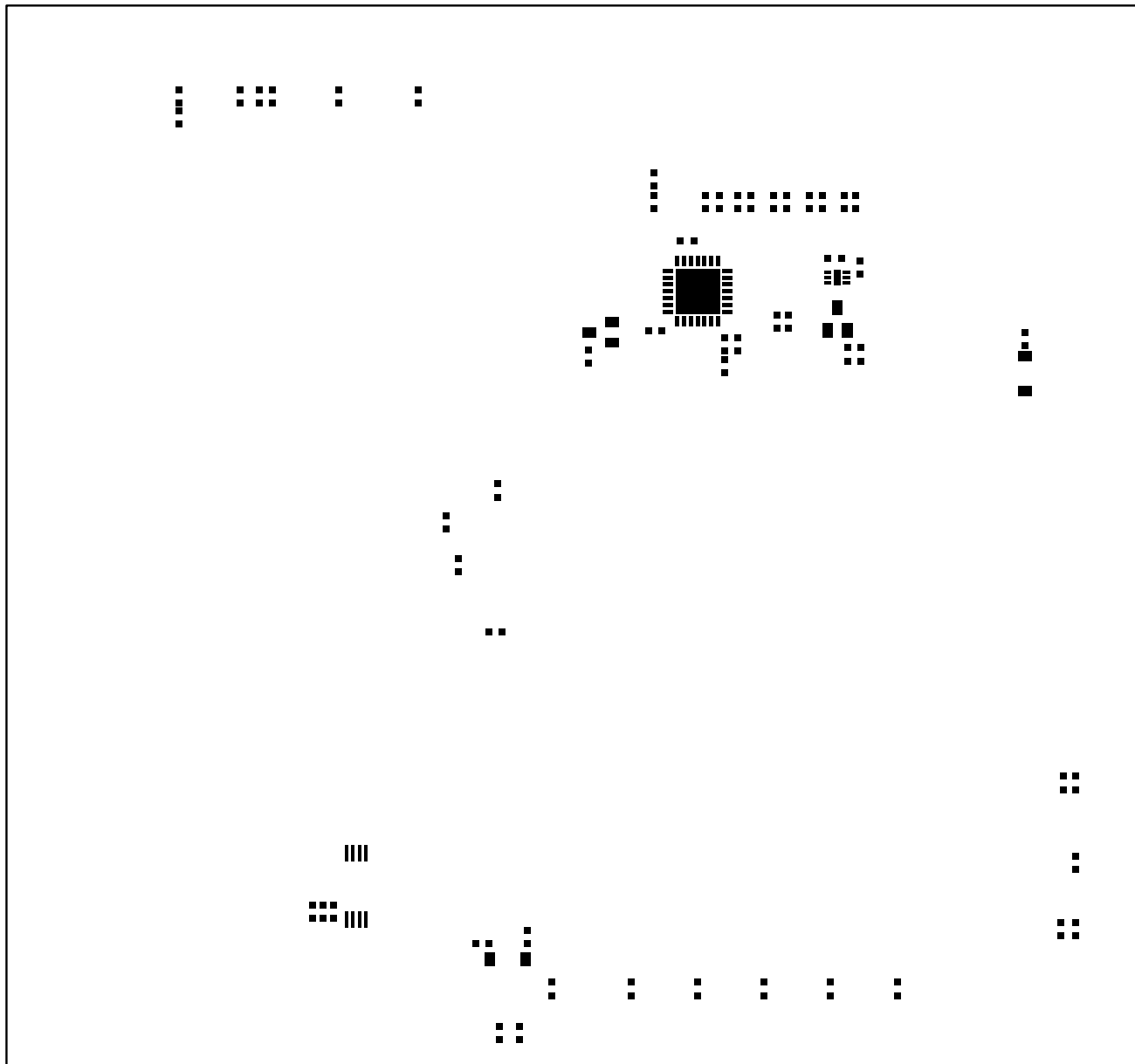




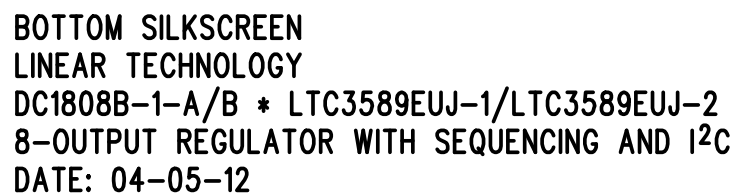
LAYER 6 - BOTTOM LAYER  
LINEAR TECHNOLOGY  
DC1808B-1-A/B \* LTC3589EIJ-1/LTC3589EIJ-2  
8-OUTPUT REGULATOR WITH SEQUENCING AND I<sup>2</sup>C  
DATE: 04-05-12



BOTTOM SOLDER MASK  
 LINEAR TECHNOLOGY  
 DC1808B-1-A/B \* LTC3589EIJ-1/LTC3589EIJ-2  
 8-OUTPUT REGULATOR WITH SEQUENCING AND I<sup>2</sup>C  
 DATE: 04-05-12



BOTTOM SOLDER PASTE  
LINEAR TECHNOLOGY  
DC1808B-1-A/B \* LTC3589EIJ-1/LTC3589EIJ-2  
8-OUTPUT REGULATOR WITH SEQUENCING AND I<sup>2</sup>C  
DATE: 04-05-12



# Linear Technology Corporation

LTC3589EIJ-1/LTC3589EIJ-2

ENGR: George B. (011-087)

BILL OF MATERIALS

DEMO BD. #1808B-A/B

QTY- 100

4/9/2012

Item	Qty	Reference	Part Description	Manufacturer / Part #	Kit Qty	Pkg Qty	Bal.	Parts/Purch.
				<b>NUMBER OF BOARDS =</b>	<b>110</b>			
1	5	C1, C11, C14, C17, C21	CAP, CHIP X5R, 10µF, ±20%, 6.3V, 0603	TDK, C1608X5R0J106M	550	2400	1850	pbf Bal=2000
2	6	C2, C3, C4, C5, C6, C7	CAP, CHIP, X5R, 1µF, ±10%, 10V, 0402	MURATA, GRM155R61A105KE15D	660		-660	
3	4	C8, C9, C25, C27	CAP, CHIP, X7R, 0.1µF, ±10%, 16V, 0402	MURATA, GRM155R71C104KA88S	440	2000	1560	pbf
4	5	C10, C13, C16, C19, C20	CAP, CHIP, X5R, 22µF, ±20%, 6.3V, 0805	TAIYO-YUDEN, JMK212ABJ226MG	550		-550	
5	3	C12, C15, C18	CAP, CHIP, C0G, 10pF, ±0.5pF, 50V, 0402	TDK, C1005C0G1H100D	330		-330	
6	1	C22	CAP, CHIP, C0G, 4.7pF, ±0.5pF, 50V, 0402	AVX, 04025A4R7DAT2A	110		-110	
7	2	C23, C24	CAP, CHIP, X5R, 2.2µF, ±20%, 6.3V, 0402	MURATA, GRM155R60J225ME15D	220		-220	
8	2	C26, C28	CAP, CHIP, C0G, 1000pF, ±5%, 50V, 0402	MURATA, GRM1555C1H102J	220		-220	
9	2	D1, D3	DIODE, LED, RED, SMT, 0603	PANASONIC, LNJ208R8ARA	220		-220	
10	1	D2	LED, AMBER HIGH BRIGHT ESS SMD, 0603	PANASONIC, LNJ436W82RA	110		-110	
11	1	D4	DIODE, SCHOTTKY, SMT, 20V, 0.5A, SOD123	ON SEMICONDUCTOR, MBR0520LG	110		-110	
12	1	D5	DIODE, Si Switching, 100V, 80mA, SOD123	ON SEMICONDUCTOR, MMSD4148T1G	110		-110	
13	18	E1-4,E6-7,E9-12,E27-34	TURRET, 0.09 DIA	MILL-MAX, 2501-2-00-80-00-00-07-0	1980		-1980	PO#19805K
14	16	E5,E8,E13-26	TURRET, 0.061 DIA	MILL-MAX, 2308-2-00-80-00-00-07-0	1760	2750	990	pbf
15	1	J2	HEADER, 2X3, 0.079 DOUBLE ROW	SAMTEC, TMM-103-02-L-D	110		-110	
16	1	J3	CONN, HEADER 14POS 2MM VERT GOLD	MOLEX, 87831-1420	110		-110	
17	2	JP1, JP2	HEADER, 1X4 PIN 0.079 SINGLE ROW	SAMTEC, TMM-104-02-L-S	220		-220	
18	1	JP3	HEADER, 1X3 PIN 0.079 SINGLE ROW	SAMTEC, TMM-103-02-L-S	110		-110	MB. PO
19	3	JP1-3	SHUNT, .079" CENTER	SAMTEC, 2SN-KB-G	330		-330	
20	1	L1	IND, SMT, 2.7µH, 47mΩ, ±30%, 2.20A 4.8mmX4.8mm	WURTH, 7440420027	110		-110	
21	2	L2,L3	IND, SMT, 1.5µH, 36mΩ, ±20%, 5.8A, 4.2mmX4.2mm	COILCRAFT, XPL4020-152MLB	220		-220	
22	1	L4	IND, SMT, 1.0µH, 29mΩ, ±20%, 6.5A, 4.2mmX4.2mm	COILCRAFT, XPL4020-102MLB	110		-110	
23	1	M1	MOSFET, 60V, 10Q, 115A, SOT-23	FAIRCHILD, 2N7002	110		-110	
24	1	PB1	SWITCH, SMT, N.O. Momentary, 3.5mmx6mm	PANASONIC, EVQPPFA25	110		-110	
25	1	Q1	BITRANS., GP SS NPN 40V, SOT-23	ON SEMICONDUCTOR, MMBT3904LG	110		-110	
26	2	R1, R55	RES, CHIP, 511kΩ, ±1%, 1/16W, 0402	VISHAY, CRCW0402511KFKED	220		-220	
27	1	R2	RES, CHIP, 1.02MEGΩ, ±1%, 1/16W, 0402	VISHAY, CRCW04021M02FKED	110	700	590	pbf
28	2	R3, R37	RES, CHIP, 604kΩ, ±1%, 1/16W, 0402	VISHAY, CRCW0402604KFKED	220	900	680	pbf aac ok
29	2	R4, R36	RES, CHIP, 768kΩ, ±1%, 1/16W, 0402	VISHAY, CRCW0402768KFKED	220		-220	
30	4	R5, R10, R39, R56	RES, CHIP, 1kΩ, ±5%, 1/16W, 0402	VISHAY, CRCW04021K00JNED	440			
31	5	R6, R7, R8, R9, R40	RES, CHIP, 100kΩ, ±5%, 1/16W, 0402	VISHAY, CRCW0402100KJNED	550		-550	
32	11	R11, R12, R13, R14, R15, R16, R17, R18, R19, R20, R21	RES, CHIP, 10kΩ, 5%, 1/16W, 0402	VISHAY, CRCW040210K0JNED	1210		-1210	
33	3	R22, R23, R25	RES, CHIP, 5.1kΩ, 5%, 1/16W, 0402	VISHAY, CRCW04025K10JNED	330		-330	
34	2	R24, R26	RES, CHIP, 4.7kΩ, ±5%, 1/16W, 0402	VISHAY, CRCW04024K70JNED	220	800	580	pbf
35	1	R27	RES, CHIP, 316kΩ, ±1%, 1/16W, 0402	VISHAY, CRCW0402316KFKED	110			
36	1	R28	RES, CHIP, 1MEGΩ, ±1%, 1/16W, 0402	VISHAY, CRCW04021M00FKED	110	700	590	pbf
37	4	R29, R32, R35, R38	RES, CHIP, 20Ω, ±5%, 1/16W, 0402	VISHAY, CRCW040220R0JNED	440		-440	
38	1	R30	RES, CHIP, 787kΩ, ±1%, 1/16W, 0402	VISHAY, CRCW0402787KFKED	110		-110	
39	1	R31	RES, CHIP, 681kΩ, ±1%, 1/16W, 0402	VISHAY, CRCW0402681KFKED	110		-110	
40	1	R33	RES, CHIP, 422kΩ, ±1%, 1/16W, 0402	VISHAY, CRCW0402422KFKED	110		-110	
41	1	R34	RES, CHIP, 715kΩ, ±1%, 1/16W, 0402	VISHAY, CRCW0402715KFKED	110		-110	

**Linear Technology Corporation**

LTC3589EIJ-1/LTC3589EIJ-2

ENGR: George B. (011-087)

**BILL OF MATERIALS****DEMO BD. #1808B-A/B****QTY- 100**

4/9/2012

Item	Qty	Reference	Part Description	Manufacturer / Part #	Kit Qty	Pkg Qty	Bal.	Parts/Purch.
				<b>NUMBER OF BOARDS =</b>	<b>110</b>			
42	2	R41, R42	RES,CHIP, 100k $\Omega$ , $\pm$ 1%, 1/16W, 0402	VISHAY, CRCW0402100KFKED	220		-220	
43	9	R43, R45, R47, R49, R50, R51, R53, R57, R58	RES,CHIP,10k $\Omega$ , $\pm$ 1%, 1/16W, 0402	VISHAY, CRCW040210K0FKED	990		-990	
44	3	R44, R46, R54	RES, CHIP, 18.2k $\Omega$ , $\pm$ 1%, 1/10W, 0402	VISHAY, CRCW040218K2FKED	330		-330	
45	2	R48, R52	RES, CHIP, 9.09k $\Omega$ , $\pm$ 1%, 1/10W, 0402	VISHAY, CRCW04029K09FKED	220		-220	
46	1	SW1	SWITCH, SMT, SPDT, 6 Pos. DIP, 37mmX8mm	CTS ELECTROCOMPONENTS, 204-126-LPST	110		-110	
47	1	U2	I2C EEPROM	MICROCHIP, 24LC025-I/ST	225			
48	1	U3	PIC microcontroller	MICROCHIP, PIC16F722-I/ML	225			
49	1	U4	Low Noise Regulated Charge Pump in 2 $\times$ 2 DFN	LINEAR TECH., LTC3204BEDC-5	225			
50	4		Stand-off, Nylon, 0.375" tall (Snap on)	KEYSTONE, 8832 (SNAP ON)	900			
51	1		FAB, PRINTED CIRCUIT BOARD	DEMO CIRCUIT 1808B-1	110		-110	
52	2		STENCIL - TOP & BOTTOM	STENCILS, DC1808B-1 TOP & BOTTOM	2		-2	
							<b>TOTAL</b>	<b>\$ -</b>

# Linear Technology Corporation

LTC3589EUJ-1

ENGR: George B. (011-087)

**BILL OF MATERIALS**

**DEMO BD. #1808B-A**

**QTY- 100**

4/9/2012

Item	Qty	Reference	Part Description	Manufacturer / Part #	Kit Qty	Pkg Qty	Bal.	Parts/Purch.
				<b>NUMBER OF BOARDS =</b>	<b>110</b>			
1	1	DC1808B-1	GENERAL BOM		1			
2	1	U1	8-OUTPUT REGULATOR WITH SEQUENCING AND I2C	LINEAR TECH., LTC3589HUJ-1	110		-110	
							<b>TOTAL</b>	<b>\$ -</b>

# Linear Technology Corporation

LTC3589EUJ-2

ENGR: George B. (011-087)

**BILL OF MATERIALS**

**DEMO BD. #1808B-B**

**QTY- 100**

4/9/2012

Item	Qty	Reference	Part Description	Manufacturer / Part #	Kit Qty	Pkg Qty	Bal.	Parts/Purch.
				<b>NUMBER OF BOARDS =</b>	<b>110</b>			
1	1	DC1808B-1	GENERAL BOM		1			
2	1	U1	8-OUTPUT REGULATOR WITH SEQUENCING AND I2C	LINEAR TECH., LTC3589HUIJ-2	110		-110	
							<b>TOTAL</b>	<b>\$ -</b>



	Qty	Reference	Part Description	Manufacture / Part #
<b>REQUIRED CIRCUIT COMPONENTS:</b>				
1	5	C1, C11, C14, C17, C21	CAP, CHIP X5R, 10µF, ±20%, 6.3V, 0603	TDK, C1608X5R0J106M
2	6	C2, C3, C4, C5, C6, C7	CAP, CHIP, X5R, 1µF, ±10%, 10V, 0402	MURATA, GRM155R61A105KE15D
3	5	C10, C13, C16, C19, C20	CAP, CHIP, X5R, 22µF, ±20%, 6.3V, 0805	TAIYO-YUDEN, JMK212ABJ226MG
4	3	C12, C15, C18	CAP, CHIP, C0G, 10pF, ±0.5pF, 50V, 0402	TDK, C1005C0G1H100D
5	1	C22	CAP, CHIP, C0G, 4.7pF, ±0.5pF, 50V, 0402	AVX, 04025A4R7DAT2A
6	1	L1	IND, SMT, 2.7µH, 47mΩ, ±30%, 2.20A 4.8mmX4.8mm	WURTH, 7440420027
7	2	L2, L3	IND, SMT, 1.5µH, 36mΩ, ±20%, 5.8A, 4.2mmX4.2mm	COILCRAFT, XPL4020-152MLB
8	1	L4	IND, SMT, 1.0µH, 29mΩ, ±20%, 6.5A, 4.2mmX4.2mm	COILCRAFT, XPL4020-102MLB
9	2	R1, R55	RES, CHIP, 511kΩ, ±1%, 1/16W, 0402	VISHAY, CRCW0402511KFKED
10	1	R2	RES, CHIP, 1.02MEGΩ, ±1%, 1/16W, 0402	VISHAY, CRCW04021M02FKED
11	2	R3, R37	RES, CHIP, 604kΩ, ±1%, 1/16W, 0402	VISHAY, CRCW0402604KFKED
12	2	R4, R36	RES, CHIP, 768kΩ, ±1%, 1/16W, 0402	VISHAY, CRCW0402768KFKED
13	1	R27	RES, CHIP, 316kΩ, ±1%, 1/16W, 0402	VISHAY, CRCW0402316KFKED
14	1	R28	RES, CHIP, 1MEGΩ, ±1%, 1/16W, 0402	VISHAY, CRCW04021M00FKED
15	4	R29, R32, R35, R38	RES, CHIP, 20Ω, ±5%, 1/16W, 0402	VISHAY, CRCW040220R0JNED
16	1	R30	RES, CHIP, 787kΩ, ±1%, 1/16W, 0402	VISHAY, CRCW0402787KFKED
17	1	R31	RES, CHIP, 681kΩ, ±1%, 1/16W, 0402	VISHAY, CRCW0402681KFKED
18	1	R33	RES, CHIP, 422kΩ, ±1%, 1/16W, 0402	VISHAY, CRCW0402422KFKED
19	1	R34	RES, CHIP, 715kΩ, ±1%, 1/16W, 0402	VISHAY, CRCW0402715KFKED
20	9	R43, R45, R47, R49, R50, R51, R53, R57, R58	RES, CHIP, 10kΩ, ±1%, 1/16W, 0402	VISHAY, CRCW040210K0FKED
21	3	R44, R46, R54	RES, CHIP, 18.2kΩ, ±1%, 1/16W, 0402	VISHAY, CRCW040218K2FKED
22	1	R48, R52	RES, CHIP, 9.09kΩ, ±1%, 1/10W, 0402	VISHAY, CRCW04029K09FKED
<b>ADDITIONAL DEMO BOARD CIRCUIT COMPONENTS:</b>				
1	4	C8, C9, C25, C27	CAP, CHIP, X7R, 0.1µF, ±10%, 16V, 0402	MURATA, GRM155R71C104KA88S
2	2	C26, C28	CAP, CHIP, C0G, 1000pF, ±5%, 50V, 0402	TDK, GRM1555C1H102J
3	2	C23, C24	CAP, CHIP, X5R, 2.2µF, ±20%, 6.3V, 0402	MURATA, GRM155R60J225ME15D
4	2	D1, D3	DIODE, LED, RED, SMT, 0603	PANASONIC, LNJ208R8ARA
5	1	D2	LED, AMBER HIGH BRIGHT ESS SMD, 0603	PANASONIC, LNJ436W82RA
6	1	D4	DIODE, SCHOTTKY, SMT, 20V, 0.5A, SOD123	ON SEMICONDUCTOR, MBR0520LG
7	1	D5	DIODE, Si SWITCHING, 100V, 80mA, SOD123	ON SEMICONDUCTOR, MM5D4148G
8	1	M1	MOSFET, 60V, 10Q, 115A, SOT-23	FAIRCHILD, 2N7002L
9	1	PB1	SWITCH, SMT, N.O. MOMENTARY, 3.5mmx6mm	PANASONIC, EVQPPFA25
10	1	Q1	BITTRANS., GP SS NPN 40V, SOT-23	ON SEMICONDUCTOR, MMBT3904LG
11	4	R5, R10, R39, R56	RES, CHIP, 1kΩ, ±5%, 1/16W, 0402	VISHAY, CRCW04021K00JNED
12	5	R6, R7, R8, R9, R40	RES, CHIP, 100kΩ, ±5%, 1/16W, 0402	VISHAY, CRCW0402100KJNED
13	11	R11, R12, R13, R14, R15, R16, R17, R18, R19, R20, R21	RES, CHIP, 10kΩ, 5%, 1/16W, 0402	VISHAY, CRCW040210K0JNED
14	3	R22, R23, R25	RES, CHIP, 5.1kΩ, 5%, 1/16W, 0402	VISHAY, CRCW04025K10JNED
15	2	R24, R26	RES, CHIP, 4.7kΩ, ±5%, 1/16W, 0402	VISHAY, CRCW04024K70JNED
16	2	R41, R42	RES, CHIP, 100kΩ, ±1%, 1/16W, 0402	VISHAY, CRCW0402100KFKED
17	1	SW1	SWITCH, SMT, SPDT, 6 Pos. DIP, 37mmx8mm	CTS ELECTROCOMPONENTS, 204-126-LPST
18	1	U2	I2C EEPROM	MICROCHIP, 24LC025-I/ST
19	1	U3	PIC MICROCONTROLLER, 6mmx6mm QFN16	MICROCHIP, PIC16F722-I/ML
20	1	U4	LOW NOISE REGULATED CHARGE PUMP in 2 × 2 DFN	LINEAR TECH., LTC3204BEDC-5
<b>HARDWARE FOR DEMO BOARD ONLY:</b>				
1	18	E1-4, E6-7, E9-12, E27-34	TURRET, 0.09 DIA	MILL-MAX, 2501-2-00-80-00-00-07-0
2	16	E5, E8, E13-26	TURRET, 0.061 DIA	MILL-MAX, 2308-2-00-80-00-00-07-0
3	1	J2	HEADER, 2X3, 0.079 DOUBLE ROW	SAMTEC, TMM-103-02-L-D
4	1	J3	CONN, HEADER 14POS 2MM VERT GOLD	MOLEX, 87831-1420
5	2	JP1, JP2	HEADER, 1X4 PIN 0.079 SINGLE ROW	SAMTEC, TMM-104-02-L-S
6	1	JP3	HEADER, 1X3 PIN 0.079 SINGLE ROW	SAMTEC, TMM-103-02-L-S
7	3	JP1-3	SHUNT, .079" CENTER	SAMTEC, 2SN-KB-G
8	4		STAND-OFF, NYLON, 0.375" tall (Snap on)	KEYSTONE, 8832 (SNAP ON)
9	1		FAB, PRINTED CIRCUIT BOARD	DEMO CIRCUIT 1808B-1

	Qty	Reference	Part Description	Manufacture / Part #
REQUIRED CIRCUIT COMPONENTS:				
1	1	U1	8 - OUTPUT REGULATOR WITH SEQUENCING AND I2C	LINEAR TECH., LTC3589HUI-1
ADDITIONAL DEMO BOARD CIRCUIT COMPONENTS:				
HARDWARE FOR DEMO BOARD ONLY:				

	Qty	Reference	Part Description	Manufacture / Part #
REQUIRED CIRCUIT COMPONENTS:				
1	1	U1	8 - OUTPUT REGULATOR WITH SEQUENCING AND I2C	LINEAR TECH., LTC3589HUIJ-2
ADDITIONAL DEMO BOARD CIRCUIT COMPONENTS:				
HARDWARE FOR DEMO BOARD ONLY:				