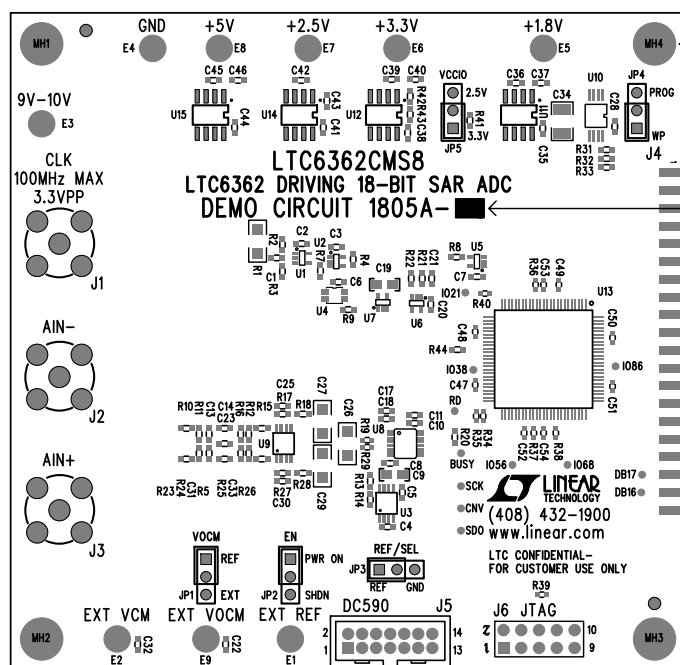


CUSTOMER NOTICE		APPROVALS		LINEAR TECHNOLOGY	
LINEAR TECHNOLOGY HAS MADE A BEST EFFORT TO DESIGN A CIRCUIT THAT MEETS CUSTOMER-SUPPLIED SPECIFICATIONS; HOWEVER, IT REMAINS THE CUSTOMER'S RESPONSIBILITY TO VERIFY PROPER AND RELIABLE OPERATION IN THE ACTUAL APPLICATION. COMPONENT SUBSTITUTION AND PRINTED CIRCUIT BOARD LAYOUT MAY SIGNIFICANTLY AFFECT CIRCUIT PERFORMANCE OR RELIABILITY. CONTACT LINEAR TECHNOLOGY APPLICATIONS ENGINEERING FOR ASSISTANCE.		PCB DES.	NC	1630 McCarthy Blvd. Milpitas, CA 95035 Phone: (408)432-1900 www.linear.com Fax: (408)434-0507 LTC Confidential-For Customer Use Only	
		APP ENG.	ERJON Q.		
THIS CIRCUIT IS PROPRIETARY TO LINEAR TECHNOLOGY AND SUPPLIED FOR USE WITH LINEAR TECHNOLOGY PARTS.		SCALE = NONE		<b>TITLE: SCHEMATIC</b> <b>LTC6362 DRIVING 18 - BIT SAR ADC</b>	
				SIZE N/A IC NO. LTC6362CMS8 DEMO CIRCUIT 1805A - A / H REV. 2	
		DATE: 10-14-11		SHEET 2 OF 2	

REVISION HISTORY				
ECO	REV	DESCRIPTION	APPR	DATE
	2	PRODUCTION FAB	ERJON Q.	10-14-11

# NOTES: UNLESS OTHERWISE SPECIFIED

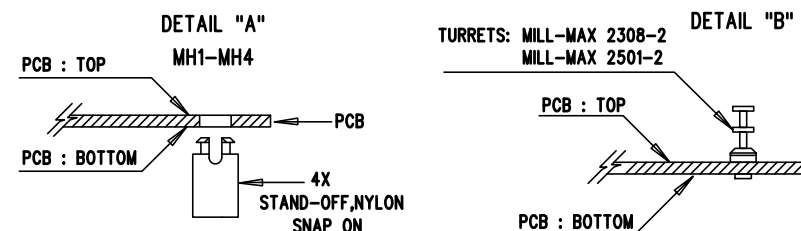
1. WORKMANSHIP SHALL BE IN ACCORDANCE WITH IPC-A-610.
2. ASSEMBLY PROCESS SHALL INCLUDE: REFLOW SOLDER TOP SIDE SMD. MAXIMUM SOLDER TEMPERATURE IS 240 DEGREES CELSIUS.
3. PARTS TO OMIT WILL BE SPECIFIED ON THE BILL OF MATERIALS. LOCATIONS OF OMITTED PARTS SHALL BE FREE OF SOLDER. MASK THE SOLDER STENCIL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



DETAIL "A"


7

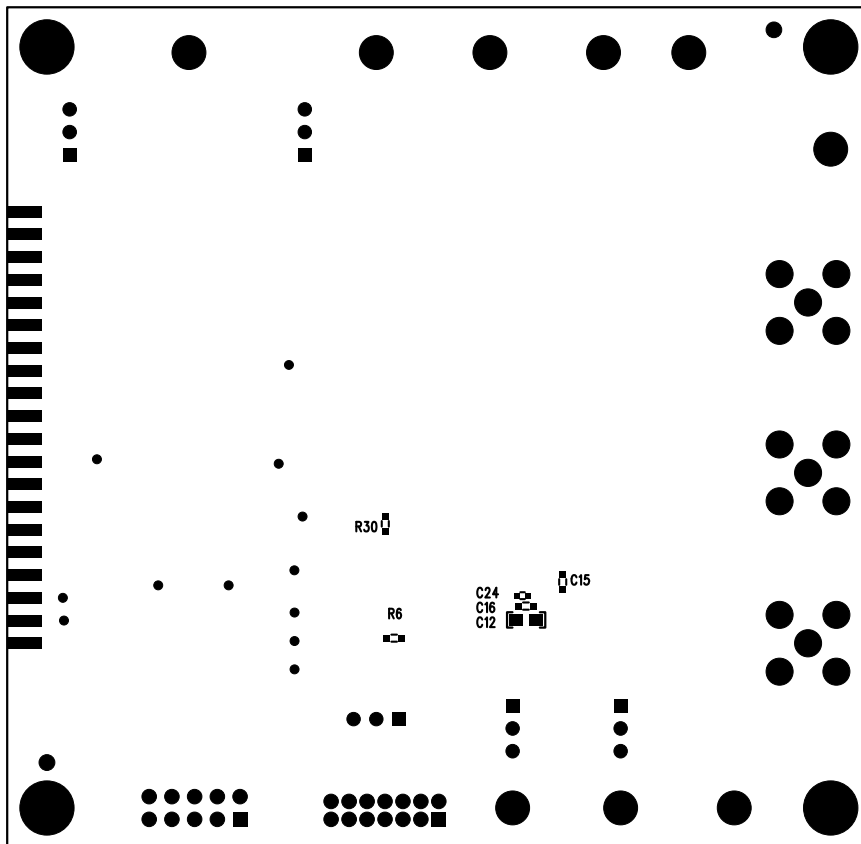
DETAIL "B"




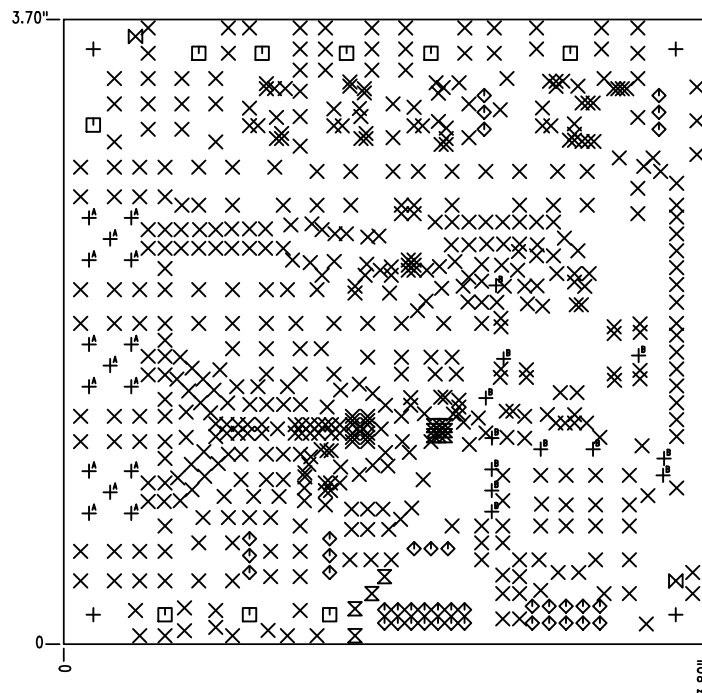
7. MARK EACH ASSEMBLY TYPE WITH BLACK PERMANENT MARKER AS SHOWN IN TABLE BELOW:

ASSY	U8	MSPS	BITS
-A	LTC2380CMS-16	2.0	16
-B	LTC2378CMS-16	1.0	16
-C	LTC2377CMS-16	0.5	16
-D	LTC2376CMS-16	0.25	16
-E	LTC2379CMS-18	1.6	18
-F	LTC2378CMS-18	1.0	18
-G	LTC2377CMS-18	0.5	18
-H	LTC2376CMS-18	0.25	18

APPROVALS		 <b>LINEAR TECHNOLOGY</b>		1630 MCCARTHY BLVD MILPITAS, CA 95035 PH: (408)432-1900 www.linear.com LTC CONFIDENTIAL - FOR CUSTOMER USE ONLY	
	NAME	TITLE: TOP ASSEMBLY DRAWING:  LTC6362 DRIVING 18-BIT SAR ADC			
PCB DES.	NC				
APP ENG.	ERJON Q.				
		SIZE	IC NO.	LTC6362CMS8	REV.
		N/A	DEMO CIRCUIT 1805A-A/H		2
SCALE = NONE		FILENAME: DC1805A-2.PCB			SHT 1 of 2

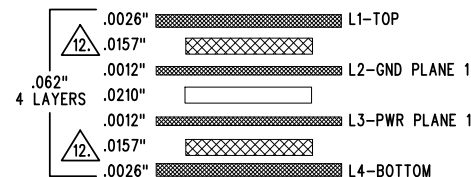


APPROVALS		 <b>LINEAR TECHNOLOGY</b> 1630 MCCARTHY BLVD MILPITAS, CA 95035 PH: (408)432-1900 <a href="http://www.linear.com">www.linear.com</a> LTC CONFIDENTIAL- FOR CUSTOMER USE ONLY			
PCB DES.	NC				
APP ENG.	ERJON Q.	TITLE: BOTTOM ASSEMBLY DRAWING:			
		LTC6362 DRIVING 18-BIT SAR ADC			
		SIZE	IC NO.	LTC6362CMS8	REV.
		N/A		DEMO CIRCUIT 1805A-A/H	2
SCALE = NONE		FILENAME: DC1805A-2.PCB		SHT 2 of 2	



SIZE	QTY	SYM	PLATED	TOL
0.19	4	+	YES	+/-0.003"
0.01	544	X	YES	+/-0.003"
0.095	9	□	YES	+/-0.003"
0.035	39	◇	YES	+/-0.003"
0.015	13	⊗	YES	+/-0.003"
0.07	2	⊠	NO	+/-0.003"
0.055	15	⊕	YES	+/-0.003"
0.02	12	⊖	YES	+/-0.003"

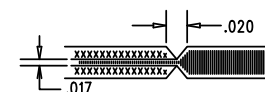
## LAYER STRUCTURE



REVISION HISTORY			
ECO	REV	DESCRIPTION	APPR DATE
	2	PRODUCTION FAB	ERJON Q. 10-14-11


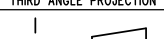
## NOTES: UNLESS OTHERWISE SPECIFIED

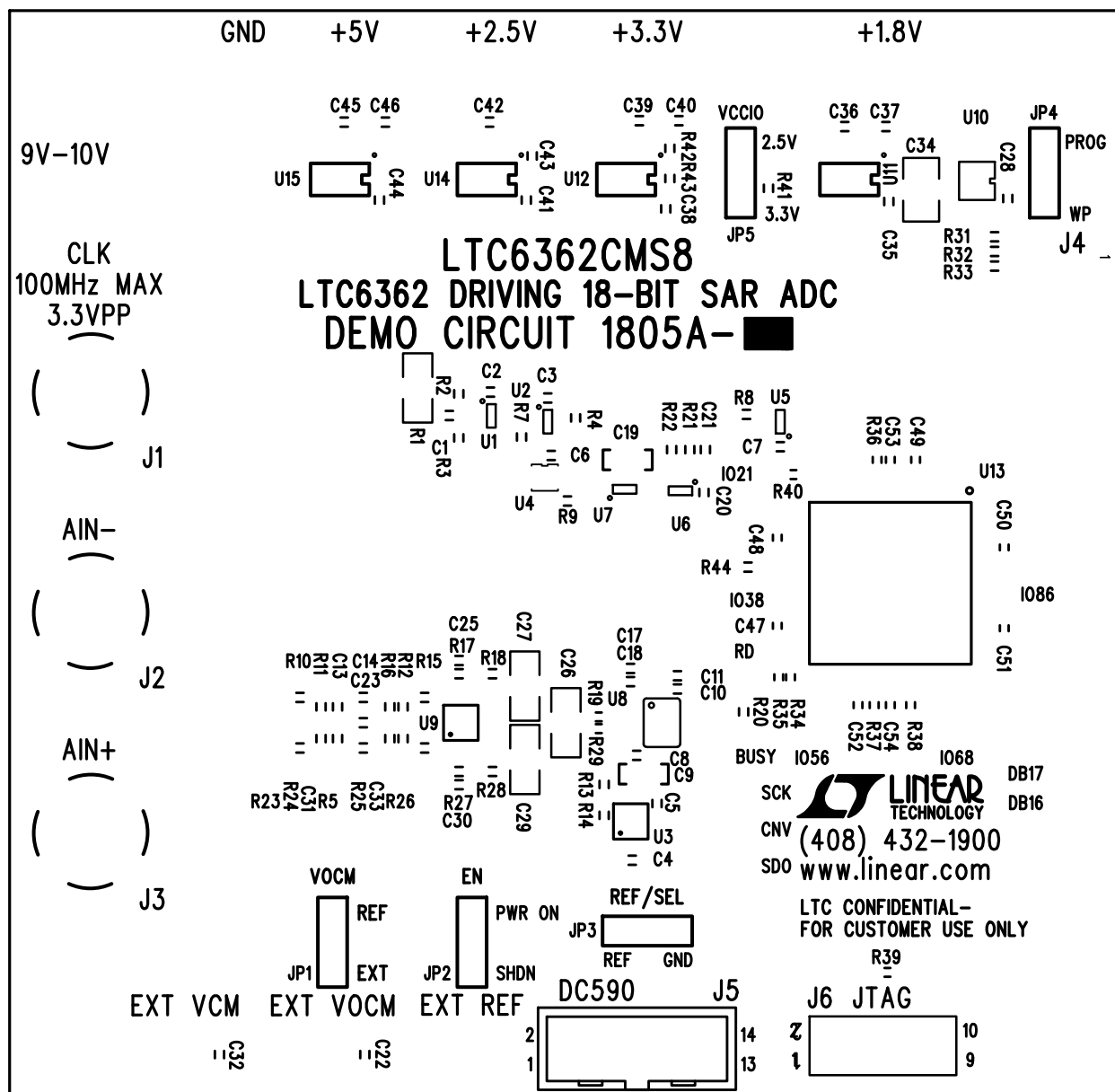
- FAB PER IPC-A-600.
- MATERIAL: -LEAD FREE ASSEMBLY COMPLIANT, ISOLA FR-370HR OR EQUIVALENT.  
-FINISHED THICKNESS TO BE 0.062" +/- .005"  
-TOTAL OF 4 LAYERS WITH 2 OZ. CU ON THE OUTER LAYERS  
AND 1 OZ. CU ON THE INNER LAYERS.  
-FLAMMABILITY RATING: 94 V-0 MINIMUM.
- SIZE: CUT TO DIMENSIONS AND TOLERANCES 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.  
-FINISH SHALL BE ENIG.  
(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:



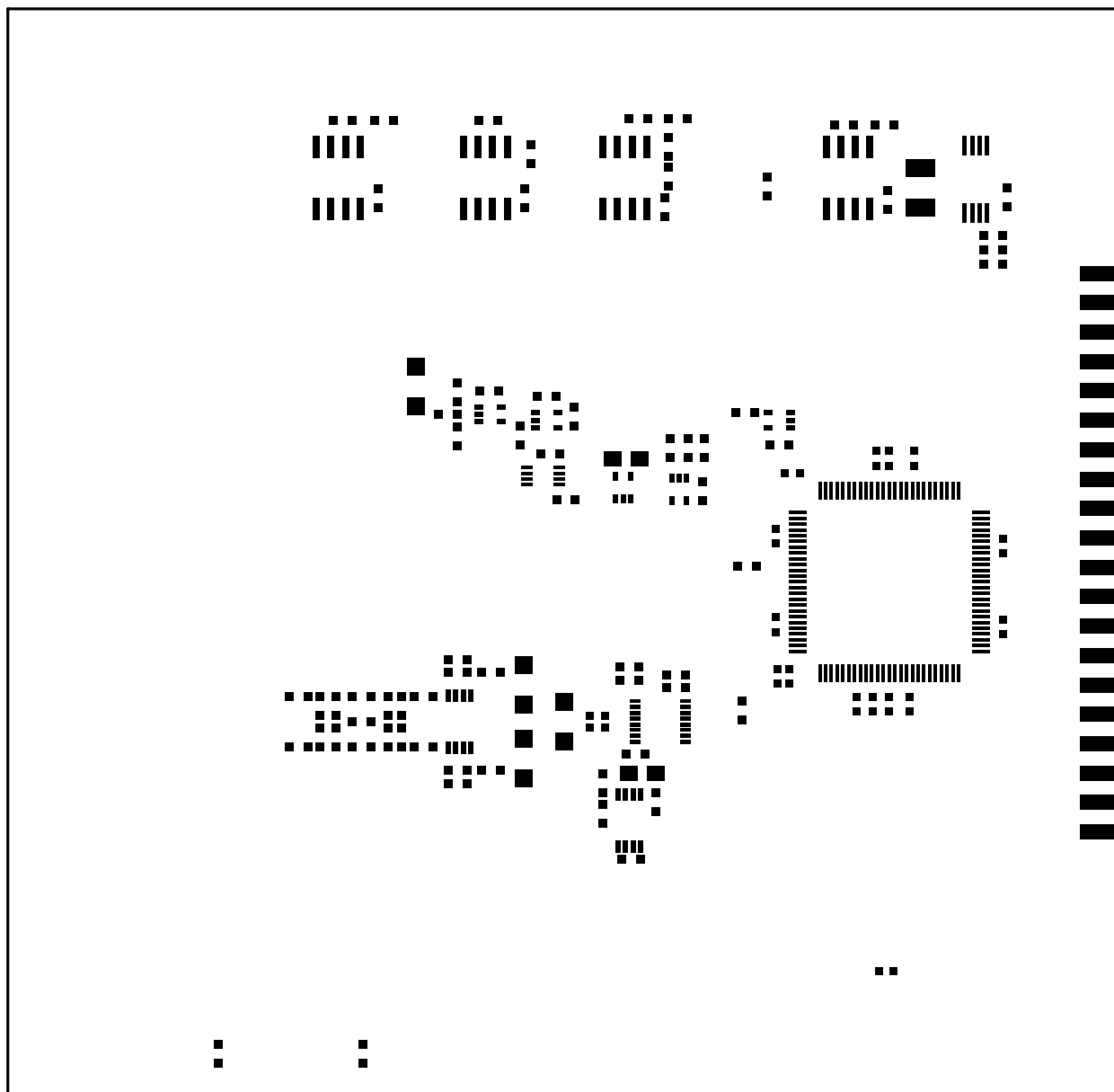
- CONTROLLED 50 OHM IMPEDANCE FOR LAYER 1 TRACE WIDTHS OF 20 MILS.

(10) SUBJECT TO CHANGE BY MANUFACTURER, DEPENDING ON DIELECTRIC  
CONSTANT DEVIATIONS. PLEASE CONSULT LTC.

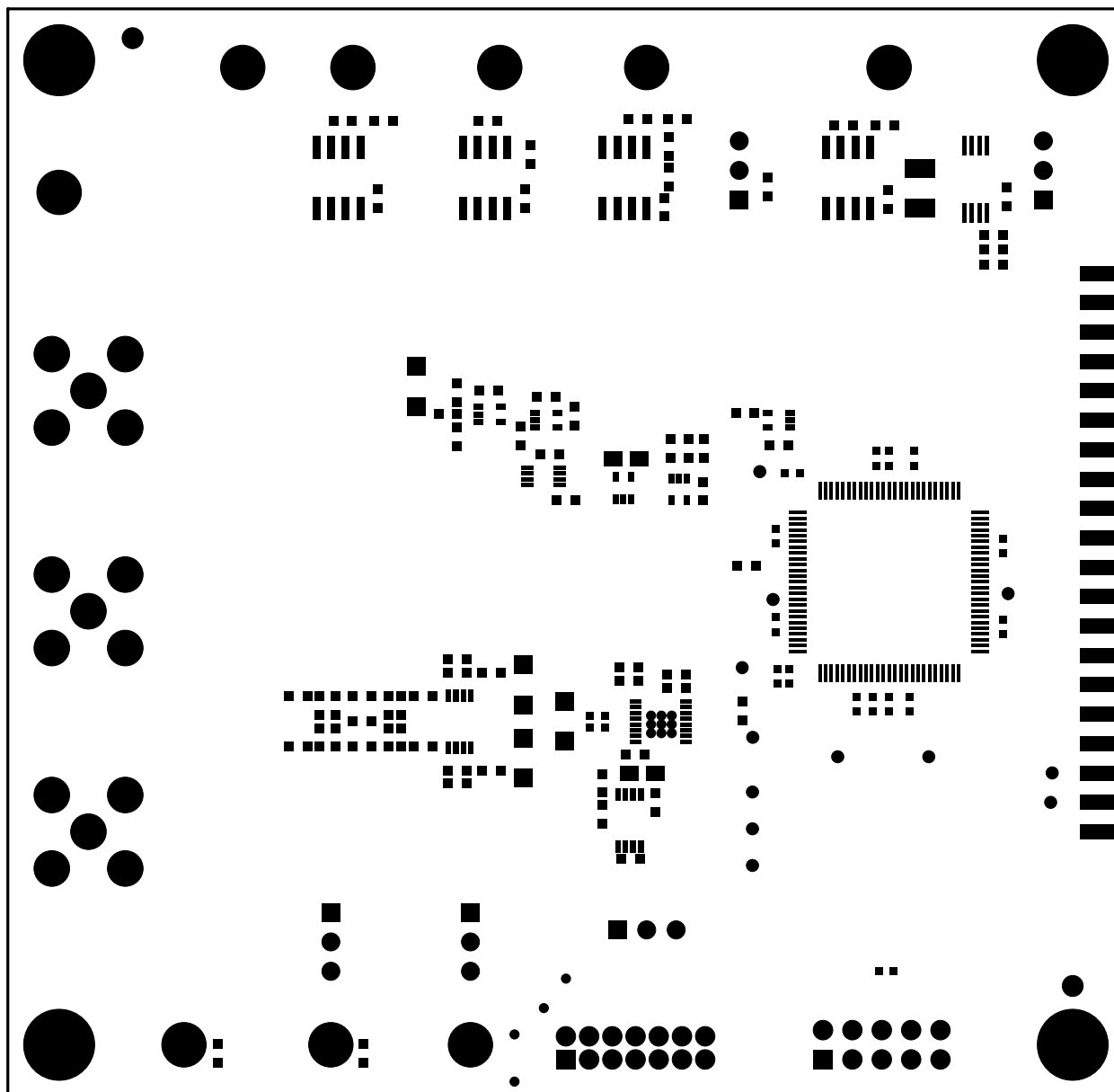
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ON ANGLE ±1 0.XX" = ±0.01" 0.XXX" = ±0.005" INTERPRET DIM AND TOL PER ASME Y14.5M-1994	APPROVALS			1630 MCCARTHY BLVD MILPITAS, CA 95035 PH: (408)432-1900 www.linear.com LTC CONFIDENTIAL- FOR CUSTOMER USE ONLY
		NAME		
	PCB DES. NC			
	APP ENG. ERJON Q.			
THIRD ANGLE PROJECTION			TITLE: FABRICATION DRAWING:  LTC6362 DRIVING 18-BIT SAR ADC	
			SIZE N/A	IC NO. LTC6362CMS8 DEMO CIRCUIT 1805A-A/H
DO NOT SCALE DRAWING	SCALE: NONE		FILENAME: DC1805A-2.PCB	REV. 2 SHT 1 of 1



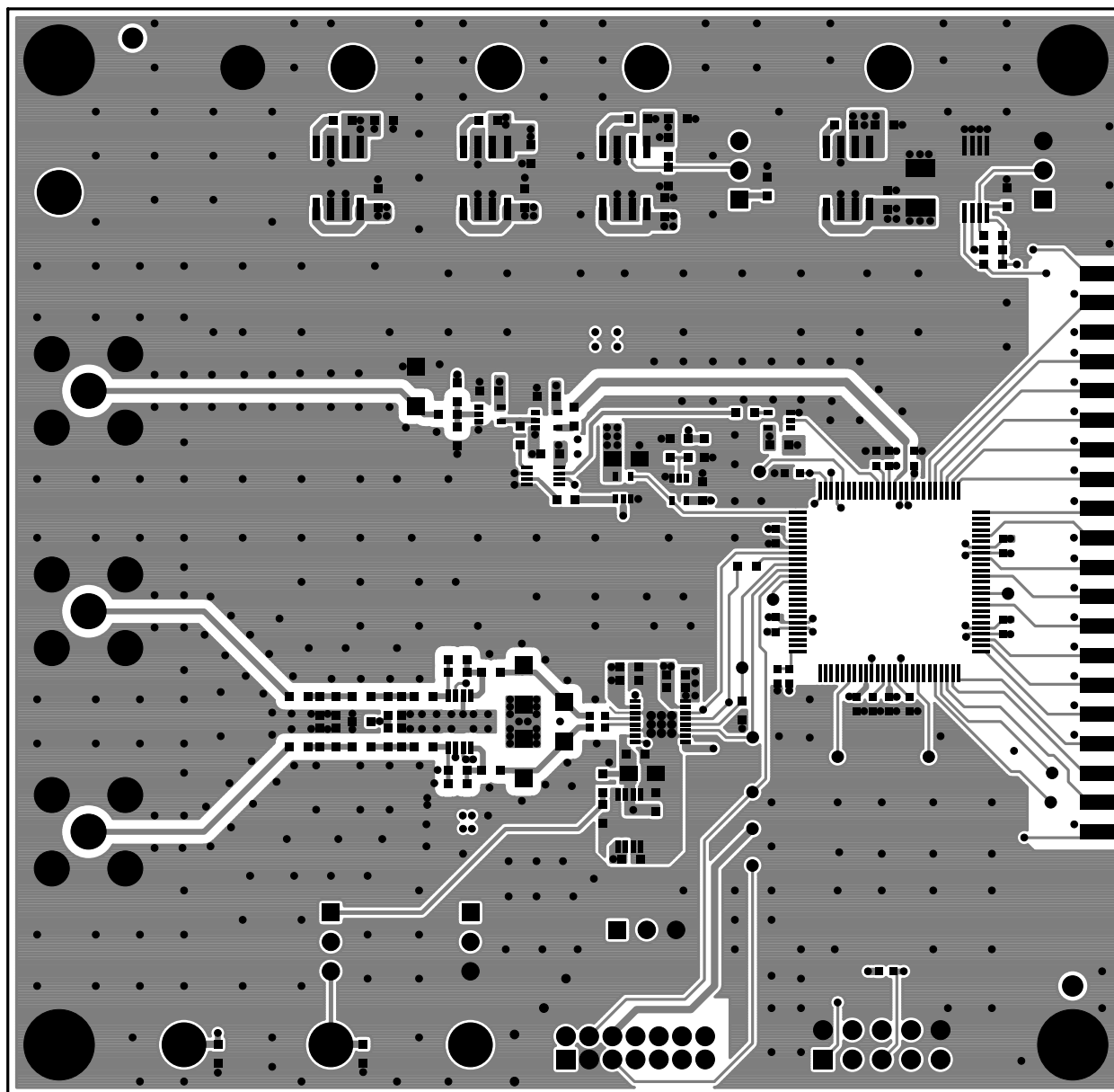
TOP SILKSCREEN  
 LINEAR TECHNOLOGY  
 DC1805A-2-A/H  
 LTC6362 DRIVING 18-BIT SAR ADC  
 DATE: 10-14-11



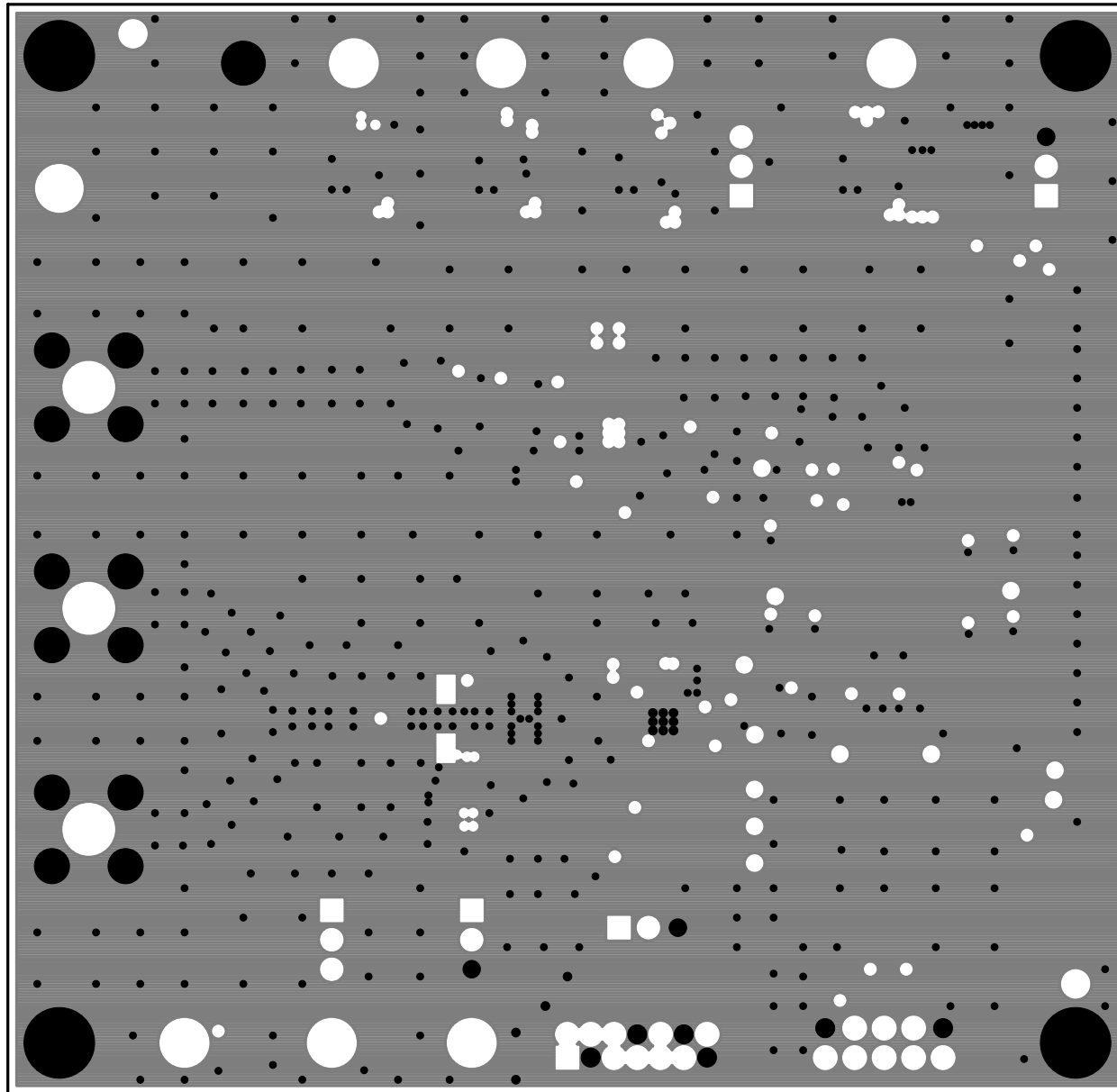
TOP SOLDER PASTE  
LINEAR TECHNOLOGY  
DC1805A-2-A/H  
LTC6362 DRIVING 18-BIT SAR ADC  
DATE: 10-14-11



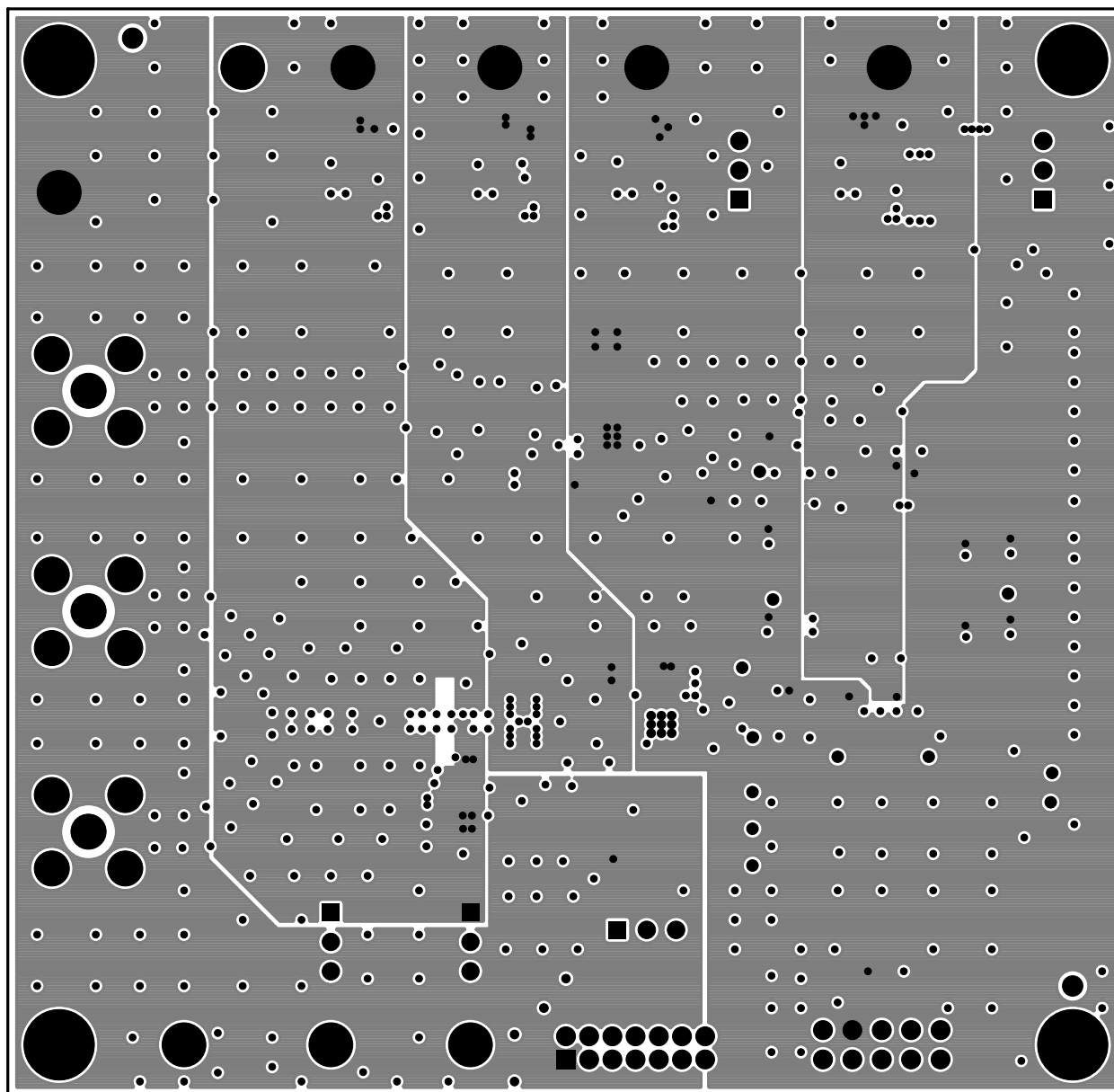
TOP SOLDER MASK  
LINEAR TECHNOLOGY  
DC1805A-2-A/H  
LTC6362 DRIVING 18-BIT SAR ADC  
DATE: 10-14-11



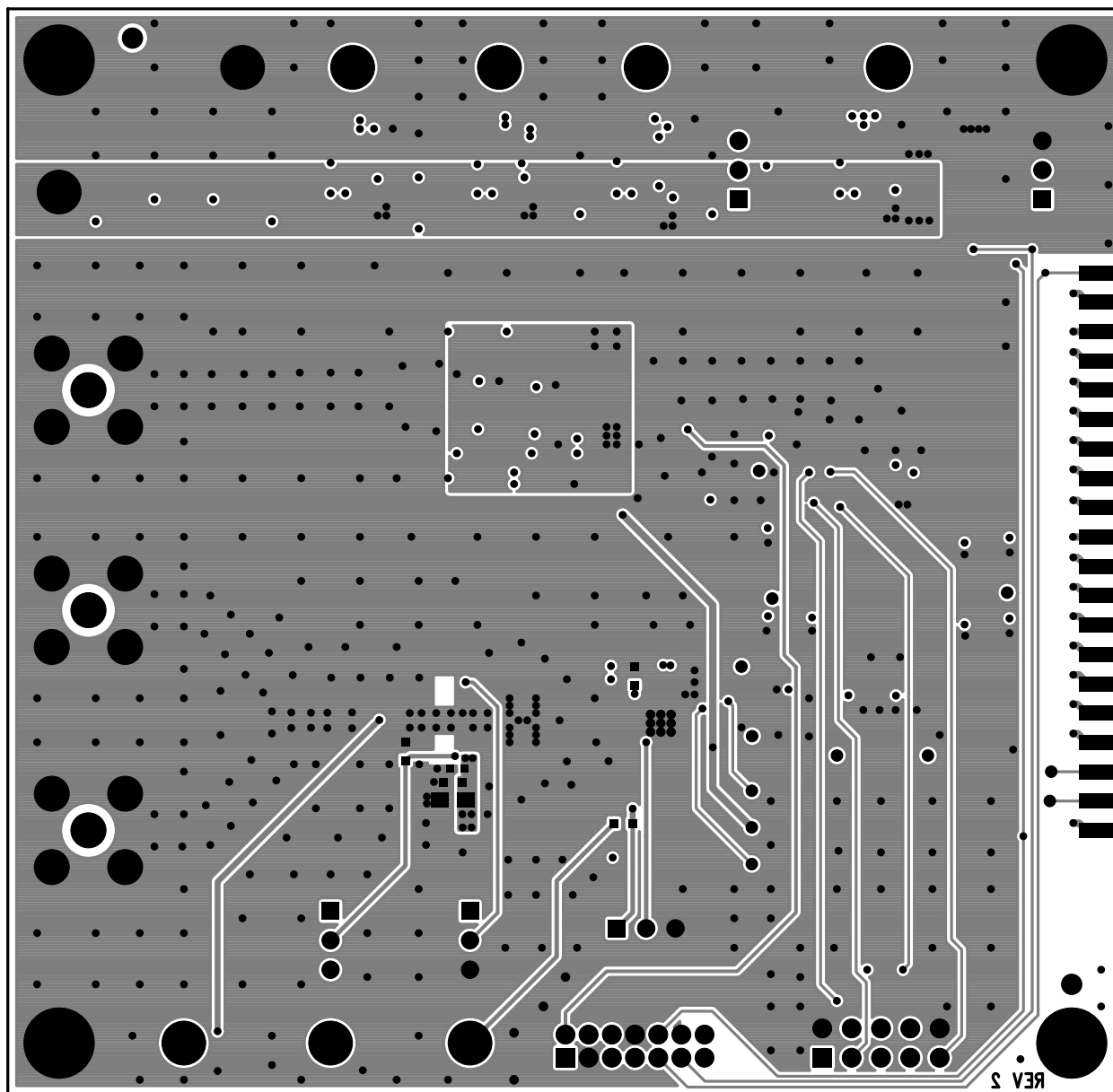
LAYER 1 - TOP LAYER  
LINEAR TECHNOLOGY  
DC1805A-2-A/H  
LTC6362 DRIVING 18-BIT SAR ADC  
DATE: 10-14-11



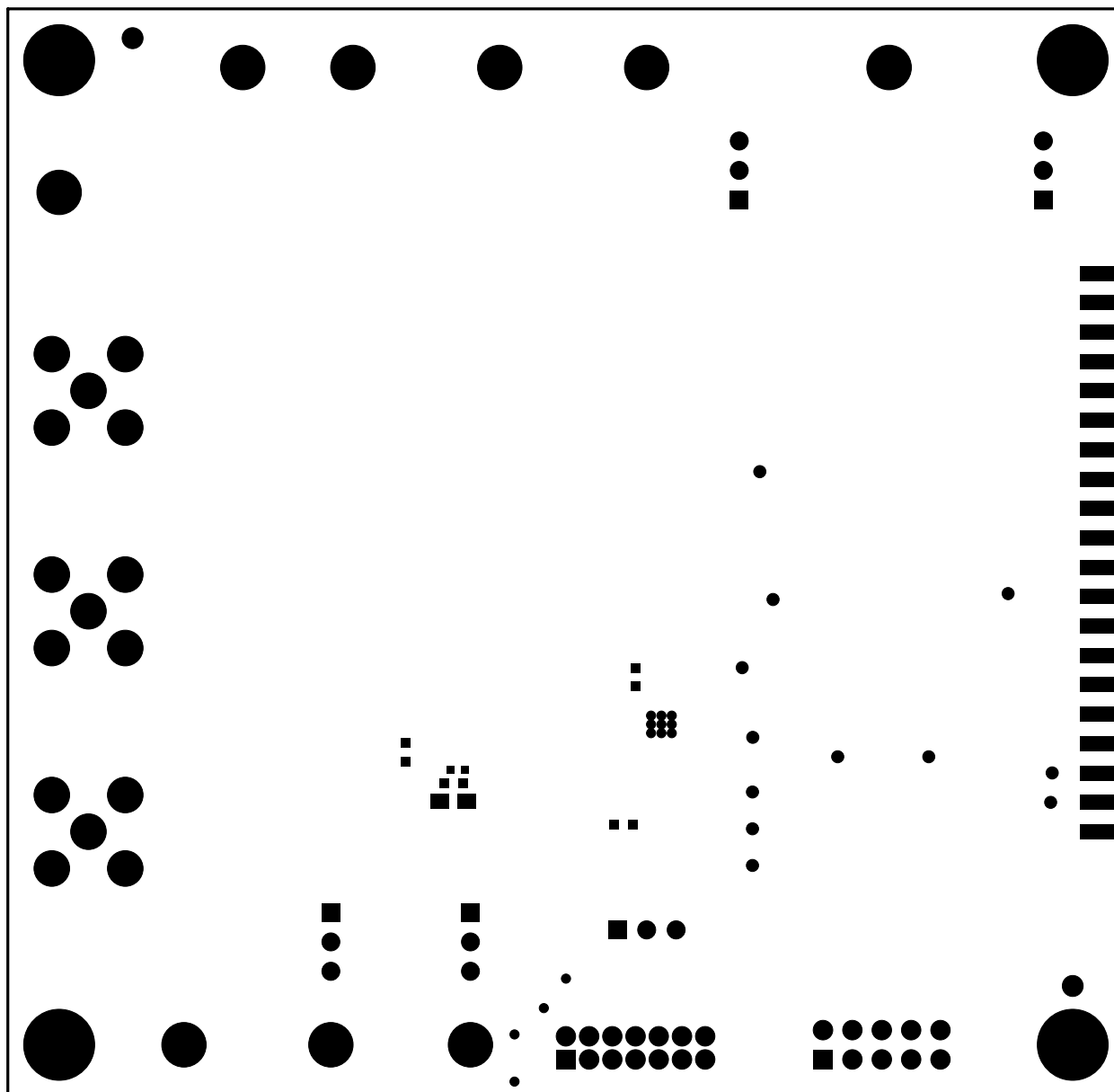
LAYER 2 - GND PLANE 1  
LINEAR TECHNOLOGY  
DC1805A-2-A/H  
LTC6362 DRIVING 18-BIT SAR ADC  
DATE: 10-14-11



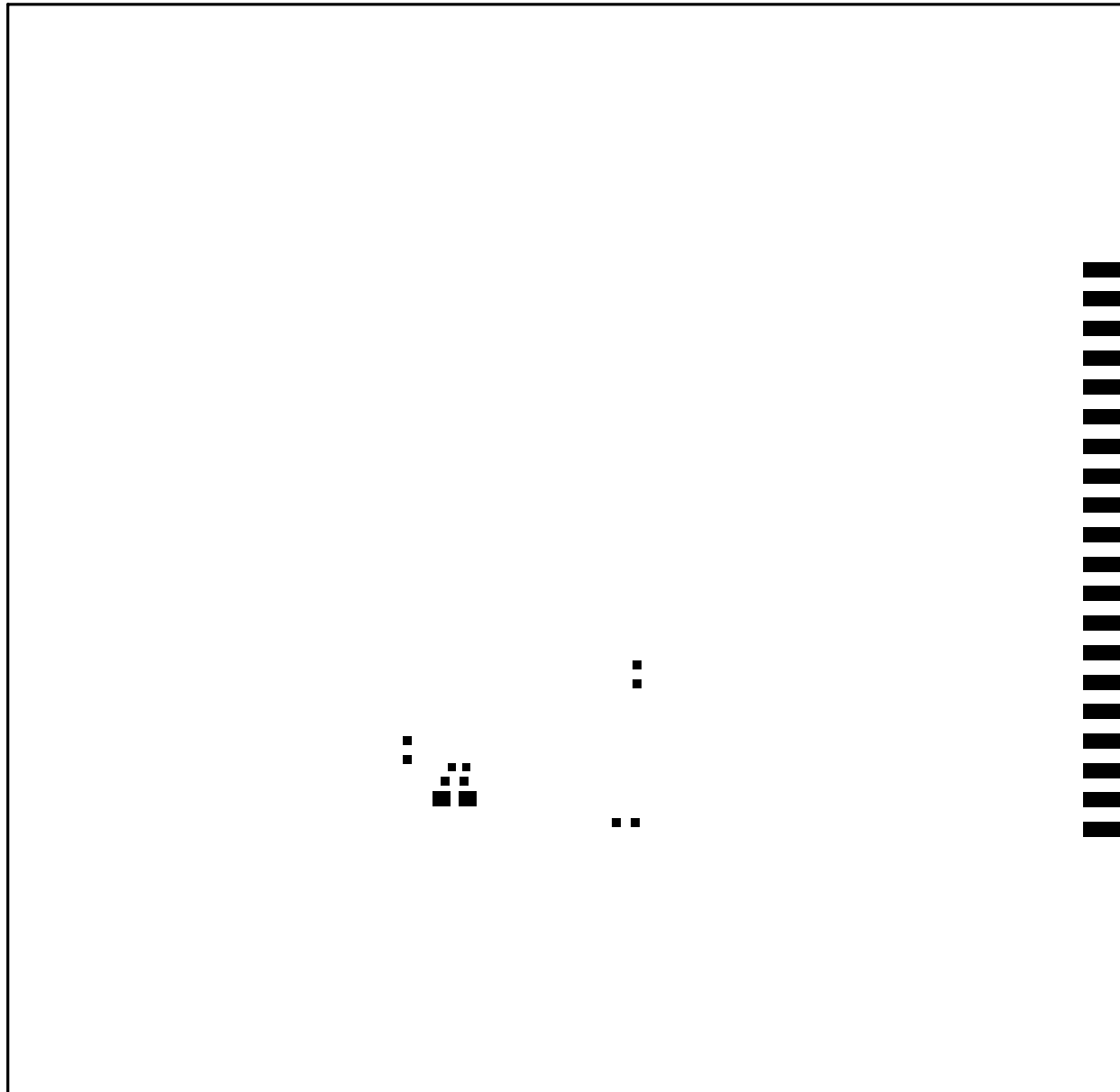
LAYER 3 - POWER PLANE 1  
LINEAR TECHNOLOGY  
DC1805A-2-A/H  
LTC6362 DRIVING 18-BIT SAR ADC  
DATE: 10-14-11



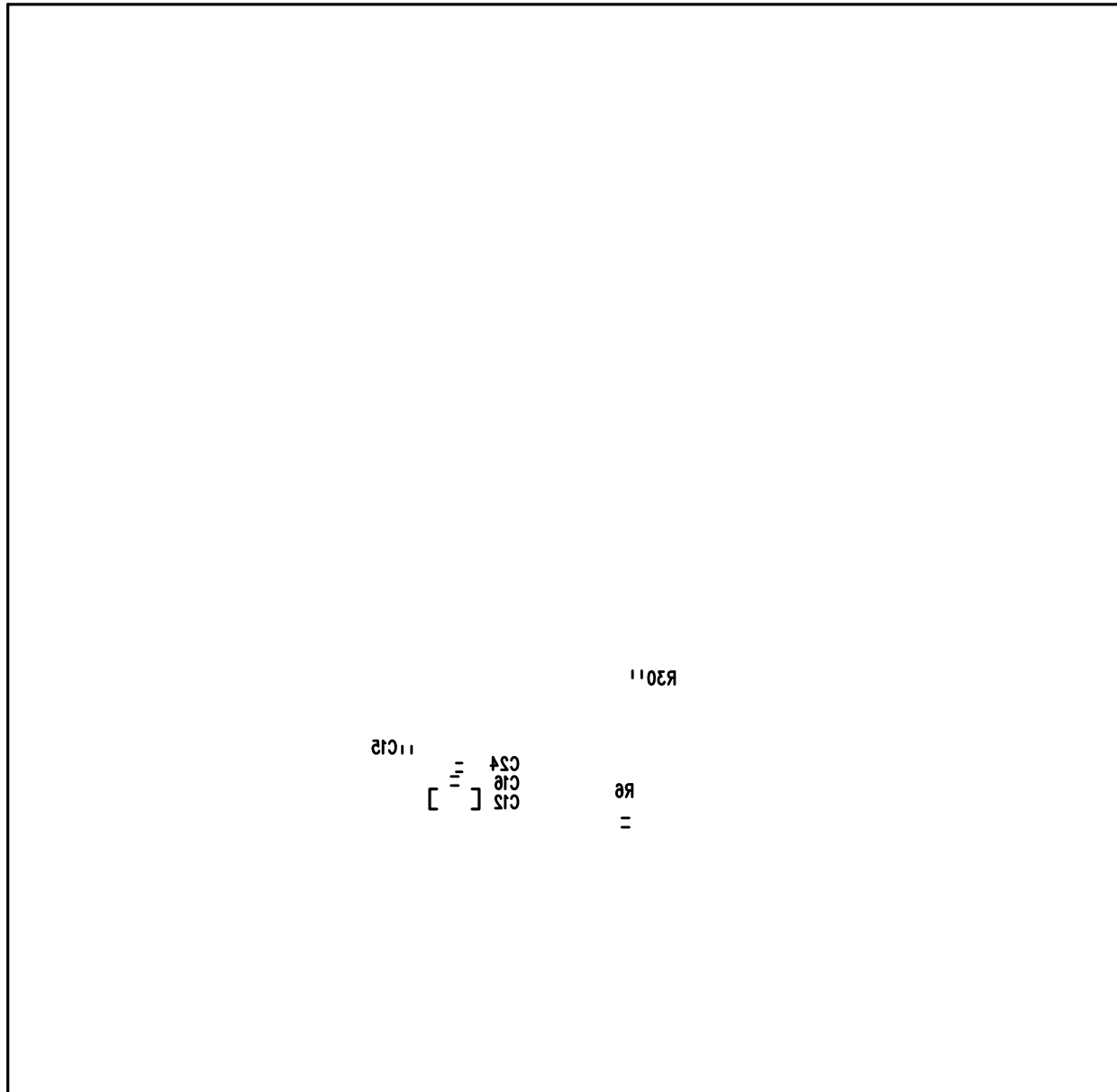
LAYER 4 - BOTTOM LAYER  
LINEAR TECHNOLOGY  
DC1805A-2-A/H  
LTC6362 DRIVING 18-BIT SAR ADC  
DATE: 10-14-11



BOTTOM SOLDER MASK  
LINEAR TECHNOLOGY  
DC1805A-2-A/H  
LTC6362 DRIVING 18-BIT SAR ADC  
DATE: 10-14-11



BOTTOM SOLDER PASTE  
LINEAR TECHNOLOGY  
DC1805A-2-A/H  
LTC6362 DRIVING 18-BIT SAR ADC  
DATE: 10-14-11



BOTTOM SILKSCREEN  
LINEAR TECHNOLOGY  
DC1805A-2-A/H  
LTC6362 DRIVING 18-BIT SAR ADC  
DATE: 10-14-11

# Linear Technology Corporation

ENG: ERJON Q. (041-087)

LTC6362 DRIVING 18-BIT SAR ADC

BILL OF MATERIALS

DC1805A-2-GENERAL BOM

QTY-250

3/19/2012 12:30 PM

Item	Qty	Reference	Part Description	Manufacturer / Part #	Kit Qty
				<b>NUMBER OF BOARDS =</b>	<b>250</b>
1	14	C1,C2,C3,C4,C6,C7,C8,C10,C15,C16,C18,C20,C21,C28	CAP., X7R, 0.1µF, 25V, 10%, 0603	AVX, 06033C104KAT2A	3500
2	5	C22,C35,C38,C41,C44	CAP., X7R, 1µF, 16V, 10%, 0603	AVX, 0603YC105KAT2A	1250
3	1	C9	CAP., X5R, 47µF 6.3V, 20%, 0805	TAIYO YUDEN, JMK212BJ476MG-T	250
4	7	C5,C11,C17,C37,C40,C43,C46	CAP., X5R, 10µF 6.3V, 20%, 0603	TDK, C1608X5R0J106MT	1750
5	1	C12	CAP., X7R, 4.7µF 10V, 10%, 0805	AVX, 0805ZC475KAT2A	250
6	1	C19	CAP., X7R, 0.1µF, 25V, 5%, 0805	AVX, 08053C104JAT2A	250
7	1	C24	CAP., X7R, 0.01µF, 16V,10%, 0402	AVX,0402YC103KAT2A	250
8	0	C13,C14,C23,C25,C30,C31,C32,C33	CAP., 0603	OPT	0
9	3	C26,C27,C29	CAP.,CERM 3900pF, 100V NPO, 5%, 1206	AVX, 12061A392JAT2A	750
10	1	C34	CAP., X5R, 22µF 16V, 20%, 1210	TAIYO YUDEN, EMK325BJ226MM-T	250
11	4	C36,C39,C42,C45	CAP., X7R, 0.01µF, 16V,10%,0603	AVX, 0603YC103KAT	1000
12	8	C47,C48,C49,C50,C51,C52,C53,C54	CAP., X7R, 0.1µF, 16V,10%, 0402	TDK, C1005X7R1C104KT	2000
13	9	E1,E2,E3,E4,E5,E6,E7,E8,E9	TP, TURRET, 0.094"	MILL-MAX, 2501-2-00-80-00-00-07-0	2250
14	3	J1,J2,J3	CONN., BNC-5PINS	CONNEX, 112404	750
15	1	J4	CONN., 40PINS SMT, CON-EDGE40-100	SAMTEC, TSW-120-07-L-D	250
16	1	J5	HEADER, 2X7, 0.079"	MOLEX, 87831-1420	250
17	1	J6	HEADER, 2X5, 0.100", HD2X5-100	SAMTEC, TSW-105-07-L-D	250
18	5	JP1-JP5	JMP., 1X3, 0.100", HD1X3-100	SAMTEC, TSW-103-07-L-S	1250
19	1	R1	RES., CHIP 49.9, 1%, 1206	NIC, NRC12F49R9TRF	250
20	11	R2,R3,R13,R14,R15,R17,R20,R21,R26,R27,R30	RES., CHIP 1K, 1%, 0603	NIC, NRC06F1001TRF	2750
21	5	R4,R7,R8,R9,R44	RES., CHIP 33, 1%, 0603	NIC, NRC06F33R0TRF	1250
22	4	R5,R10,R12,R23	RES., CHIP 0, 1%, 0603	NIC, NRC06F0000TRF	1000
23	0	R6,R11,R16,R24,R25	RES., 0603	OPT	0
24	2	R18,R28	RES., CHIP 35.7, 1%, 0603	VISHAY, CRCW060335R7FKEA	500
25	2	R19,R29	RES., CHIP 0, 1/16W, 1%, 0402	NIC, NRC04F0000TRF	500
26	1	R22	RES., CHIP 2K, 1%, 0603	NIC, NRC06F2001TRF	250
27	3	R31,R32,R33	RES., CHIP 4.99K, 1%, 0603	NIC, NRC06F4991TRF	750
28	1	R34	RES., CHIP 10K, 1%, 0402	NIC, NRC04F1002TRF	250
29	4	R36,R37,R38,R40	RES., CHIP 1K, 1%, 0402	NIC, NRC04F1001TRF	1000
30	1	R39	RES., CHIP 10K, 1%, 0603	NIC, NRC06F1002TRF	250
31	1	R41	RES., CHIP 2.80K, 1%, 0603	NIC, NRC06F2801TRF	250
32	1	R42	RES., CHIP 1.69K, 1%, 0603	NIC, NRC06F1691TRF	250
33	1	R43	RES., CHIP 1.54K, 1%, 0603	NIC, NRC06F1541TRF	250
34	2	U1,U6	IC, TINYLOGIC UHS INVERTER, SC70-5	FAIRCHILD, NC7SZ04P5X	500
35	2	U2,U5	IC, TINYLOGIC ULP-A UNBUFFERED INVERTER,SC70-5	FAIRCHILD, NC7SVU04P5X	500
36	1	U3	IC., LTC6655CHMS8-5, MS8	LINEAR TECH., LTC6655CHMS8-5#PBF	250

# Linear Technology Corporation

ENG: ERJON Q. (041-087)

LTC6362 DRIVING 18-BIT SAR ADC

**BILL OF MATERIALS**

**DC1805A-2-GENERAL BOM**

**QTY-250**

3/19/2012 12:30 PM

Item	Qty	Reference	Part Description	Manufacturer / Part #	Kit Qty
				<b>NUMBER OF BOARDS =</b>	<b>250</b>
37	1	U4	IC, SINGLE D FLIP FLOP, US8	ON SEMI., NL17SZ74USG	250
38	1	U7	IC, SINGLE SPST BUS SWITCH, SC70-5	FAIRCHILD, NC7SZ66P5X	250
39	1	U9	IC., LTC6362CMS8, MS8	LINEAR TECH., LTC6362CMS8#PBF	250
40	1	U10	IC, SERIAL EEPROM, TSSOP	MICROCHIP, 24LC024-I/ST	250
41	1	U11	IC., LT1763CS8-1.8, SO8	LINEAR TECH., LT1763CS8-1.8#PBF	250
42	1	U12	IC., LT1763CS8, SO8	LINEAR TECH., LT1763CS8#PBF	250
43	1	U13	IC, MAX II FAMILY, TQFP100	ALTERA, EPM240GT100C5N	250
44	1	U14	IC., LT1763CS8-2.5, SO8	LINEAR TECH., LT1763CS8-2.5#PBF	250
45	1	U15	IC., LT1763CS8-5, SO8	LINEAR TECH., LT1763CS8-5#PBF	250
46	4	MH1-MH4	STAND-OFF, NYLON (SNAP ON), 0.375" TALL	KEYSTONE, 8832(SNAP ON)	1000
47	5	SHUNTS AS SHOWN ON ASSY DWG (JP1-JP5)	SHUNT, .100" CENTER	SAMTEC, SNT-100-BK-G	1250
48	2	STENCILS FOR BOTH SIDES		STENCIL # DC1805A-2	2

**Linear Technology Corporation**  
**LTC6362CMS8E**

**BILL OF MATERIALS**  
**DC1805A1-A**  
**QTY-95**  
3/19/2012 12:30 PM

<i>Item</i>	<i>Qty</i>		<i>Part Description</i>	<i>Manufacturer / Part #</i>	<i>Kit Qty</i>
				<b>NUMBER OF BOARDS =</b>	<b>30</b>
1	1	DC1805A-2	GENERAL BOM		1
2	1	U8	IC., LTC2380CMS-16, MS16	LINEAR TECH., LTC2380CMS-16	30
3	1		FAB, PRINTED CIRCUIT BOARD	DEMO CIRCUIT 1805A-2	30
4	0	<b>R35 (OPT)</b>	<b>RES., CHIP 300, 1%, 0402</b>	<b>OPT</b>	<b>0</b>

**Linear Technology Corporation**  
**LTC6362CMS8E**

**BILL OF MATERIALS**  
**DC1805A1-B**  
**QTY-95**  
3/19/2012 12:30 PM

<i>Item</i>	<i>Qty</i>		<i>Part Description</i>	<i>Manufacturer / Part #</i>	<i>Kit Qty</i>
				<b>NUMBER OF BOARDS =</b>	<b>30</b>
1	1	DC1805A-2	GENERAL BOM		1
2	1	U8	IC., LTC2378CMS-16, MS16	LINEAR TECH., LTC2378CMS-16	30
3	1		FAB, PRINTED CIRCUIT BOARD	DEMO CIRCUIT 1805A-2	30
4	0	<b>R35 (OPT)</b>	<b>RES., CHIP 300, 1%, 0402</b>	<b>OPT</b>	<b>0</b>

**Linear Technology Corporation**  
**LTC6362CMS8**

**BILL OF MATERIALS**  
**DC1805A1-C**  
**QTY-95**  
3/19/2012 12:30 PM

<i>Item</i>	<i>Qty</i>		<i>Part Description</i>	<i>Manufacturer / Part #</i>	<i>Kit Qty</i>
				<b>NUMBER OF BOARDS =</b>	<b>30</b>
1	1	DC1805A-2	GENERAL BOM		1
2	1	U8	IC., LTC2377CMS-16, MS16	LINEAR TECH., LTC2377CMS-16	30
3	1		FAB, PRINTED CIRCUIT BOARD	DEMO CIRCUIT 1805A-2	30
4	0	<b>R35 (OPT)</b>	<b>RES., CHIP 300, 1%, 0402</b>	<b>OPT</b>	<b>0</b>

**Linear Technology Corporation**  
**LTC6362CMS8**

**BILL OF MATERIALS**  
**DC1805A1-D**  
**QTY-95**  
3/19/2012 12:30 PM

<i>Item</i>	<i>Qty</i>		<i>Part Description</i>	<i>Manufacturer / Part #</i>	<i>Kit Qty</i>
				<b>NUMBER OF BOARDS =</b>	<b>30</b>
1	1	DC1805A-2	GENERAL BOM		1
2	1	U8	IC., LTC2376CMS-16, MS16	LINEAR TECH., LTC2376CMS-16	30
3	1		FAB, PRINTED CIRCUIT BOARD	DEMO CIRCUIT 1805A-2	30
4	0	<b>R35 (OPT)</b>	<b>RES., CHIP 300, 1%, 0402</b>	<b>OPT</b>	<b>0</b>

**Linear Technology Corporation**  
**LTC6362CMS8**

**BILL OF MATERIALS**  
**DC1805A1-E**  
**QTY-95**  
3/19/2012 12:30 PM

<i>Item</i>	<i>Qty</i>		<i>Part Description</i>	<i>Manufacturer / Part #</i>	<i>Kit Qty</i>
				<b>NUMBER OF BOARDS =</b>	<b>30</b>
1	1	DC1805A-2	GENERAL BOM		1
2	1	U8	IC., LTC2379CMS-18, MS16	LINEAR TECH., LTC2379CMS-18	30
3	1		FAB, PRINTED CIRCUIT BOARD	DEMO CIRCUIT 1805A-2	30
4	1	<b>R35</b>	<b>RES., CHIP 300, 1%, 0402</b>	<b>NIC, NRC04F3000TRF</b>	<b>30</b>

**Linear Technology Corporation**  
**LTC6362CMS8**

**BILL OF MATERIALS**  
**DC1805A1-F**  
**QTY-95**  
3/19/2012 12:30 PM

<i>Item</i>	<i>Qty</i>		<i>Part Description</i>	<i>Manufacturer / Part #</i>	<i>Kit Qty</i>
				<b>NUMBER OF BOARDS =</b>	<b>30</b>
1	1	DC1805A-2	GENERAL BOM		1
2	1	U8	IC., LTC2378CMS-18, MS16	LINEAR TECH., LTC2378CMS-18	30
3	1		FAB, PRINTED CIRCUIT BOARD	DEMO CIRCUIT 1805A-2	30
4	1	<b>R35</b>	<b>RES., CHIP 300, 1%, 0402</b>	<b>NIC, NRC04F3000TRF</b>	<b>30</b>

**Linear Technology Corporation**  
**LTC6362CMS8**

**BILL OF MATERIALS**  
**DC1805A1-G**  
**QTY-95**  
3/19/2012 12:30 PM

<i>Item</i>	<i>Qty</i>		<i>Part Description</i>	<i>Manufacturer / Part #</i>	<i>Kit Qty</i>
				<b>NUMBER OF BOARDS =</b>	<b>30</b>
1	1	DC1805A-2	GENERAL BOM		1
2	1	U8	IC., LTC2377CMS-18, MS16	LINEAR TECH., LTC2377CMS-18	30
3	1		FAB, PRINTED CIRCUIT BOARD	DEMO CIRCUIT 1805A-2	30
4	1	<b>R35</b>	<b>RES., CHIP 300, 1%, 0402</b>	<b>NIC, NRC04F3000TRF</b>	<b>30</b>

**Linear Technology Corporation**  
**LTC6362CMS8**

**BILL OF MATERIALS**  
**DC1805A1-H**  
**QTY-95**  
3/19/2012 12:30 PM

<i>Item</i>	<i>Qty</i>		<i>Part Description</i>	<i>Manufacturer / Part #</i>	<i>Kit Qty</i>
				<b>NUMBER OF BOARDS =</b>	<b>30</b>
1	1	DC1805A-2	GENERAL BOM		1
2	1	U8	IC., LTC2376CMS-18, MS16	LINEAR TECH., LTC2376CMS-18	30
3	1		FAB, PRINTED CIRCUIT BOARD	DEMO CIRCUIT 1805A-2	30
4	1	<b>R35</b>	<b>RES., CHIP 300, 1%, 0402</b>	<b>NIC, NRC04F3000TRF</b>	<b>30</b>