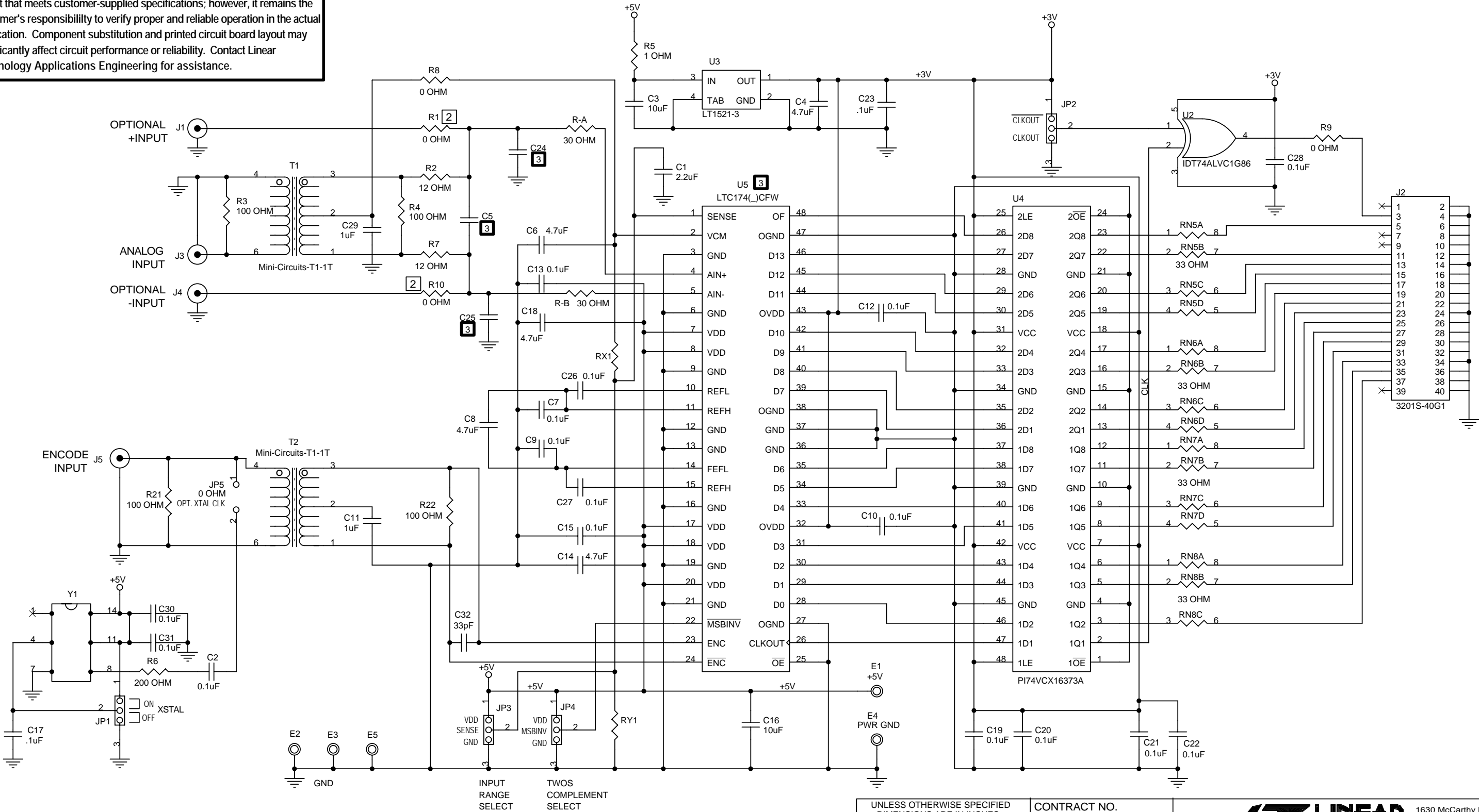


PROPRIETARY DATA:
This circuit is proprietary to Linear Technology and supplied for use with Linear Technology parts.
CUSTOMER NOTICE: Linear Technology has made a best effort to design a circuit that meets customer-supplied specifications; however, it remains the customer's responsibility to verify 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.


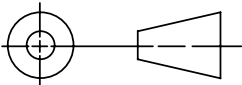
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REVISION HISTORY				
ECO	REV	DESCRIPTION	DATE	APPROVED
	1	VARIOUS PCA CONFIGURAION OPTION ON U5; DC NO. WAS 520A	4/23/03	
	2	RELEASE TO SAMPLE - NO CHG ON SCH	1/23/04	



NOTE: UNLESS OTHERWISE SPECIFIED

- 1. RX, RY = OPTIONAL INPUT RANGE SET
- 2. DO NOT INSTALL R1 AND R10.
- 3. SEE PARTS LIST FOR VARIOUS PCB ASSY CONFIGURATION.

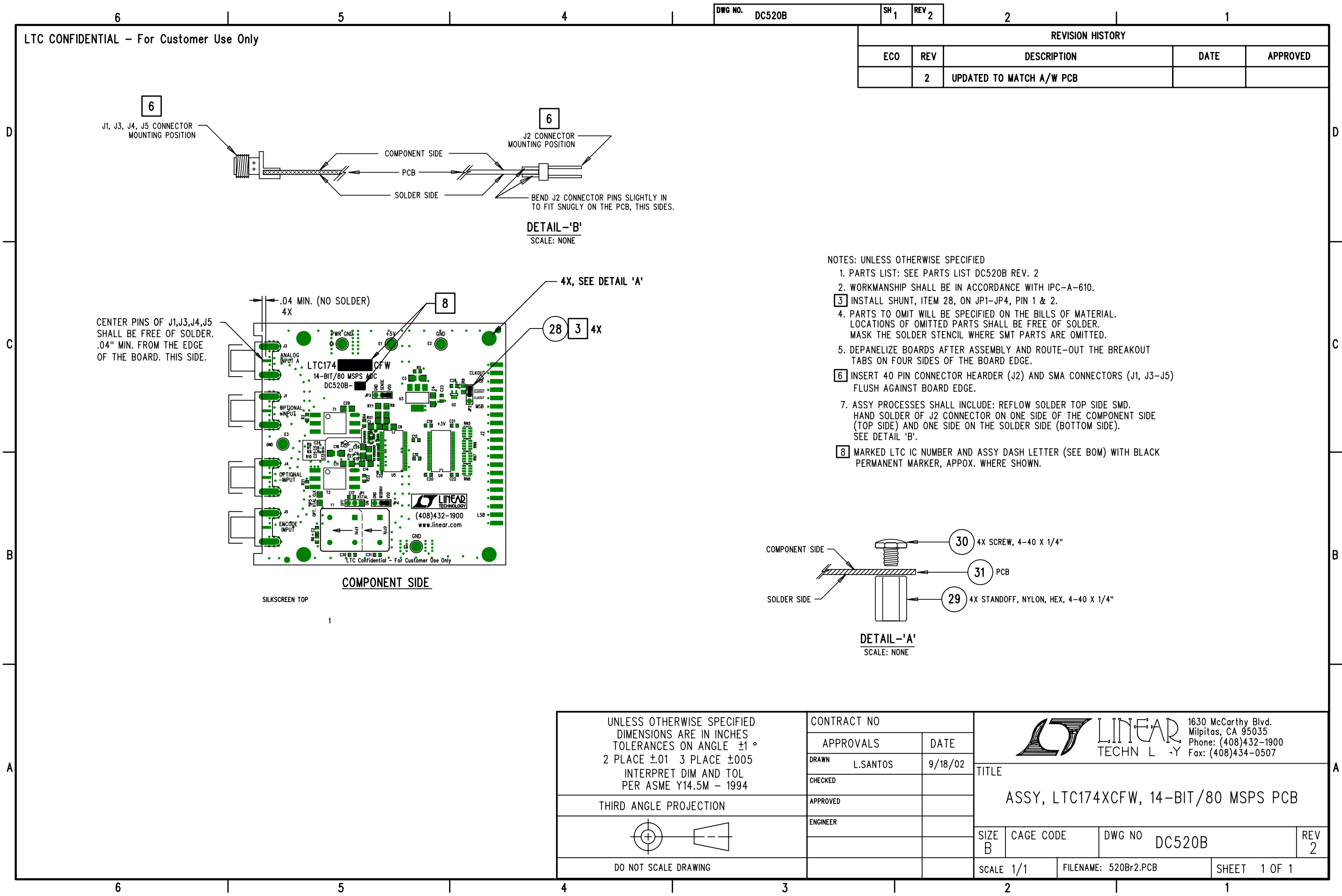
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCE ON ANGLE --- 2 PLACES --- 3 PLACES --- INTERPRET DIM AND TOL PER ASME Y14.5M -1994	CONTRACT NO.				1630 McCarthy Blvd. Milpitas, CA 95035 Phone: (408)432-1900 Fax: (408)434-0507			
	APPROVALS	DATE						
	DRAWN L.SANTOS	4/2/02	TITLE					
	THIRD ANGLE PROJECTION	CHECKED						
	APPROVED						SIZE B	CAGE CODE
	ENGINEER							
	DESIGNER							
DO NOT SCALE DRAWING	Friday, February 13, 2004		SCALE:NONE	FILENAME:520Br2.DSN	SHEET 1	OF 1		

PARTS LIST
DC520B

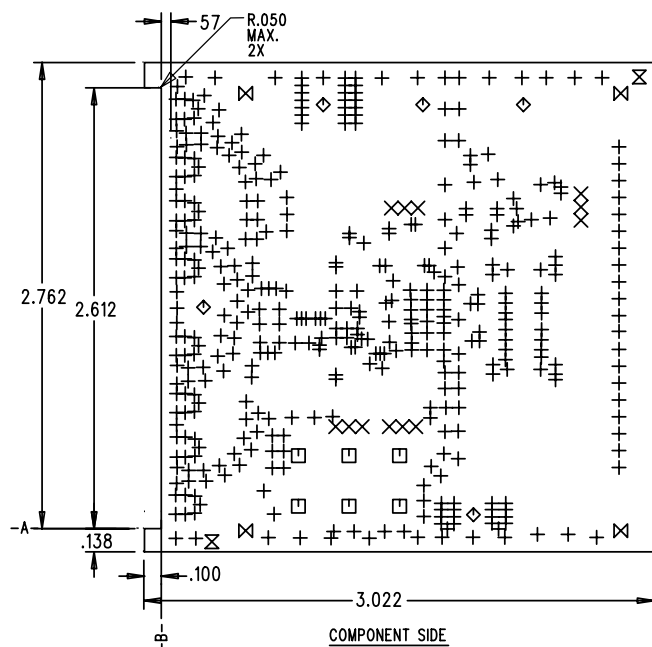
Item	Qty	Reference	Part Description	Manufacturer / Part #
PCB Assembly -A: Low Freq.				
1	3	C5,C24,C25	CAP, 22pF, NPO, 50V, 5%, 0402	AVX 04025A220JAT
2	1	C32	CAP, 33pF, NPO, 50V, 5%, 0402	AVX 04025A330JAT
3	2	C3,C16	CAP, 10uF, X5R, 10V, 20%, 1206	AVX 1206ZD106MAT
4	6	C7,C9,C13,C15,C26,C27	CAP, .1uF, X5R, 10V, 10%, 0402	AVX 0402ZD104KAT
5	12	C2,C10,C12,C17,C19,C20,C21,C22,C23,C28,C30,C31	CAP, 0.1uF, X7R, 16V, 20%, 0603	AVX 0603YC104MAT
6	2	C11,C29	CAP, 1uF, X5R, 16V, 20%, 0805	AVX 0805YD105MAT
7	1	C1	CAP, 2.2uF, X5R, 10V, 20%, 0805	AVX 0805ZD225MAT
8	5	C4,C6,C8,C14,C18	CAP, 4.7uF, X5R, 10V, 20%, 0805	AVX 0805ZD475MAT
9	1	J2	CONN, HDR, .1X.1 CNTRS, 40PIN	COMM CON CONN. 3201S-40G1
10	4	J1,J3,J4,J5	CONN, SMA, 50-OHM, EDGE-LAUNCH	EF JOHNSON 142-0701-851
11	5	E1-E5	TURRETS, TEST POINT	MILL-MAX 2308-2
12	4	JP1-JP4	CONN, HDR, 2MM, 3 PIN	COMM CON CONN. 2802S-03G2
13	1	U2	IC, IDT74ALVC1G86	Integrated DeviceTech. 74ALVC1G86DY
14	1	U3	IC, LT1521-3	LINEAR TECH. LT1521CST-3
15	1	U5	IC, LTC1748CFW , TSSOP 48	LINEAR TECH. LTC1748CFW
16	1	U4	IC, 16-BIT XSPRNT D-TYPE LATCH, TSSOP 48	TI SN74ALVCH16373DGGR
17	4	RN5-RN8	RES ARRAY, CHIP, 33 OHM, ISO	AAC CRN16-4V-330JBM
18	0	R1,R10	RES, CHIP, 0 OHM, 0402	AAC CJ05-000M
19	4	R3,R4,R21,R22	RES, CHIP, 100 OHM, 1%, 0603	AAC CR16-1000FM
20	1	R5	RES, CHIP, 1 OHM, 1%, 0603	AAC CR16-1R00FM
21	1	R8	RES, CHIP, 10 OHM, 1%, 0603	AAC CR16-10R0FM
22	2	R9,JP5	RES, CHIP, 0 OHM, 0603	AAC CJ06-000M
23	2	R2,R7	RES, CHIP, 12 OHM, 1%, 0402	AAC CR05-12R0FM
24	2	R-A,R-B	RES, CHIP, 30 OHM, 1%, 0402	AAC CR05-30R0FM
25	1	R6	RES, CHIP, 200 OHM, 1%, 0603	AAC CR16-2000FM
26	2	T1,T2	XFMR, T1-1K	MINI CIRCUITS T1-1T-KK81
27	1	Y1	XSTL, 80MHz	SARONIX NTH089A-80.0000
28	4	(JP1-JP4)	SHUNT, 2PIN, 2MM	COMM CON CCIJ2MM-138-G
29	4	MH1,MH3,MH4,MH6	STANDOFF, NYLON, HEX, 4-40 X 1/4"	MICRO PLASTIC #14HTSP101
30	4	MH1,MH3,MH4,MH6	SCREW, 4-40 X 1/4"	ANY
31	1		FAB, DC520A PCB	DEMO BOARD
PCB Assembly -B: High Freq.				
1	1	C5	CAP, 12pF, NPO, 50V, 5%, 0402	AVX 04025A120JAT

Item	Qty	Reference	Part Description	Manufacturer / Part #
PCB Assembly -C				
1	3	C5,C24,C25	CAP, 22pF, NPO, 50V, 5%, 0402	AVX 04025A220JAT
15	1	U5	IC, LTC1745CFW , TSSOP 48	LINEAR TECH. LTC1745CFW
27	1	Y1	XSTL, 25MHz	SARONIX NTH089A-25.0000
PCB Assembly -D				
1	3	C5,C24,C25	CAP, 22pF, NPO, 50V, 5%, 0402	AVX 04025A220JAT
15	1	U5	IC, LTC1746CFW , TSSOP 48	LINEAR TECH. LTC1746CFW
27	1	Y1	XSTL, 25MHz	SARONIX NTH089A-25.0000
PCB Assembly -E				
15	1	U5	IC, LTC1747CFW , TSSOP 48	LINEAR TECH. LTC1747CFW
PCB Assembly -F				
1	1	C5	CAP, 12pF, NPO, 50V, 5%, 0402	AVX 04025A120JAT
15	1	U5	IC, LTC1747CFW , TSSOP 48	LINEAR TECH. LTC1747CFW
PCB Assembly -G				
15	1	U5	IC, LTC1742CFW , TSSOP 48	LINEAR TECH. LTC1742CFW
27	1	Y1	XSTL, 65MHz	SARONIX NTH089A-65.0000
PCB Assembly -H				
1	1	C5	CAP, 12pF, NPO, 50V, 5%, 0402	AVX 04025A120JAT
15	1	U5	IC, LTC1742CFW , TSSOP 48	LINEAR TECH. LTC1742CFW
27	1	Y1	XSTL, 65MHz	SARONIX NTH089A-65.0000
PCB Assembly -I				
15	1	U5	IC, LTC1741CFW , TSSOP 48	LINEAR TECH. LTC1741CFW
27	1	Y1	XSTL, 65MHz	SARONIX NTH089A-65.0000
PCB Assembly -J				
1	1	C5	CAP, 12pF, NPO, 50V, 5%, 0402	AVX 04025A120JAT
15	1	U5	IC, LTC1741CFW , TSSOP 48	LINEAR TECH. LTC1741CFW
27	1	Y1	XSTL, 65MHz	SARONIX NTH089A-65.0000

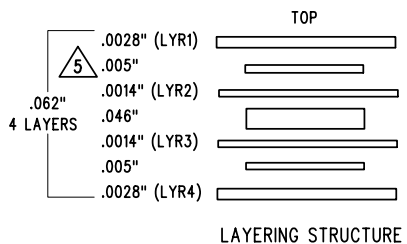
Item	Qty	Reference	Part Description	Manufacturer / Part #
PCB Assembly -K				
1	3	C5,C24,C25	CAP, 22pF, NPO, 50V, 5%, 0402	AVX 04025A220JAT
15	1	U5	IC, LTC1743CFW , TSSOP 48	LINEAR TECH. LTC1743CFW
27	1	Y1	XSTL, 50MHz	SARONIX NTH089A-50.0000
		NOTES: UNLESS OTHEWISE SPECIFIED		
		1. DO NOT INSTALL R1 & R10.		
		2. INSTALL SHUNT, ITEM 28, ON JP1-JP4 PIN 1 & 2.		



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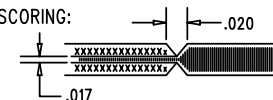
REVISION HISTORY				
ECO	REV	DESCRIPTION	DATE	APPROVED
	1	CHG SILKSCREEN FOR VARIOUS IC'S; DEMO NO. WAS 520A REV.3	9/12/02	
	2	REMOVE NOTE 11 (EXPOSED COPPER-INNER LAYER)	11/7/03	



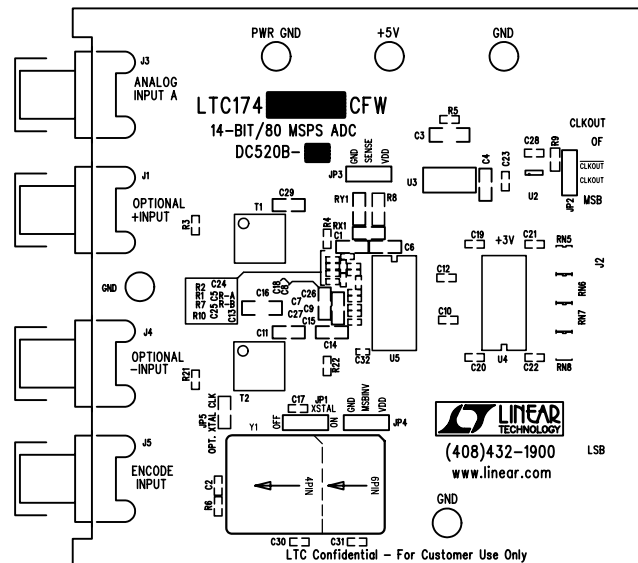
HOLE SIZE CHART			
SYM	SIZE	QTY	PTH
+	.012+/- .003	419	YES
X	.030+/- .003	12	YES
□	.035+/- .003	6	YES
◇	.064+/- .003	5	YES
⊗	.070+/- .003	2	NO
⊠	.125+/- .003	4	YES

NOTES: UNLESS OTHERWISE SPECIFIED

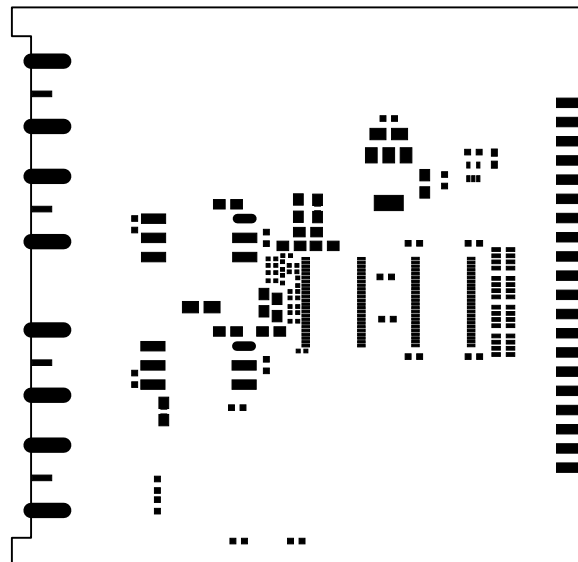
- ARTWORK P/N DC520B REV 2.
- FAB PER IPC-A-600
- MATERIAL: FR406 (GETEK)
FINISHED THICKNESS TO BE .062 +/- .005 INCH
WITH 2 OZ. COPPER ON TWO OUTER LAYERS AND
1 OZ. COPPER ON TWO INTERNAL LAYERS.
FLAMABILITY RATING: 94 V-0 MINIMUM .
- OUTER DIELECTRIC THICKNESS: TARGET 50-OHM USING 8 MIL
TRACE CONTROLLED 50 OHM IMPEDANCE LAYER 1 TO
LAYER 2. (TO BE FINALIZED BY MANUFACTURER)
- SUBJECT TO CHANGE BY MANUFACTURER, DEPENDING ON
DIELECTRIC CONSTANT DEVIATIONS. PLEASE CONSULT LTC.
- SIZE: CUT TO DIMENSIONS AND TOLERANCES SHOWN.
-A- AND -B- ARE PRIMARY DATUMS.
- DRILLING: DRILL HOLES PER SCHEDULE. PLATE THROUGH
HOLES WITH COPPER, .001 INCH THICK MIN. ALL
HOLE SIZES ARE SPECIFIED AFTER PLATING.
HOLE LOCATION TOLERANCES ARE +/- .003
INCH IN RELATION TO CENTER
- FINISH: SMOBC USING LPI BOTH SIDES, GREEN PREFERRED.
SILKSCREEN BOTH SIDES WITH WHITE NON-CONDUCTIVE
INK.
- DROP ALL UNUSED PADS ON INNER LAYERS.
- DO NOT ALTER ARTWORK e.g. TO ADD LOGO OR DATE CODE.
- SCORING:



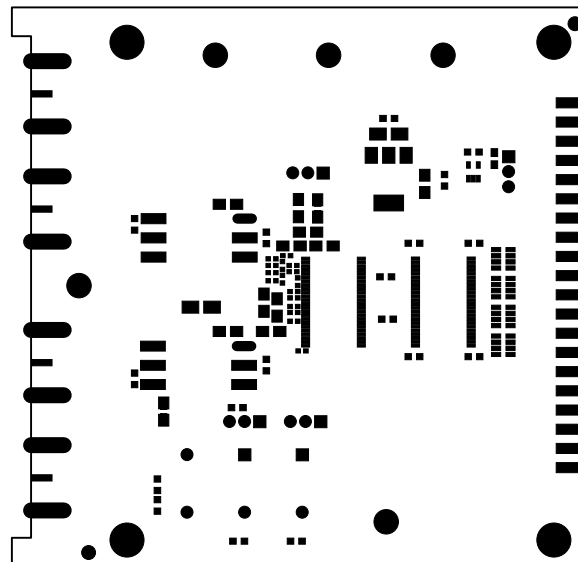
<p>UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ON ANGLE $\pm 1^\circ$ 2 PLACE ± 0.1 3 PLACE ± 0.05 INTERPRET DIM AND TOL PER ASME Y14.5M - 1994</p>	CONTRACT NO		<p>1630 McCarthy Blvd. Milpitas, CA 95035 Phone: (408)432-1900 Fax: (408)434-0507</p>	
	APPROVALS	DATE		
	DRAWN L.SANTOS	6/3/02	TITLE	
	CHECKED			
THIRD ANGLE PROJECTION	APPROVED		FAB, LTC174X, 14-BIT/80 MSPS DEMO PCB	
	ENGINEER R.REAY	6/3/02		
			SIZE A	CAGE CODE
DO NOT SCALE DRAWING			DWG NO DC520B	REV 2
			SCALE 1/1	FILENAME: 520Br2.PCB
			SHEET 1 OF 1	



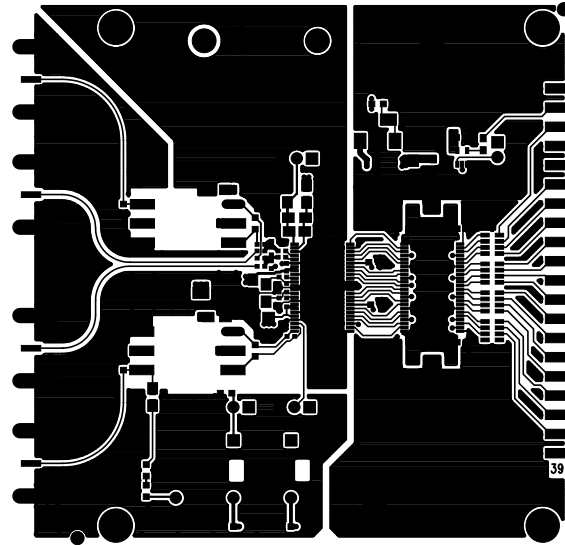
COMPANY LINEAR TECHNOLOGY CORPORATION			
TITLE A/W, LTC174X DEMO PCB		NO. DC520B	REV 2
SILKSCREEN TOP			
DSNR: LS	SHT. 1 OF 8	DATE: 11/7/03	



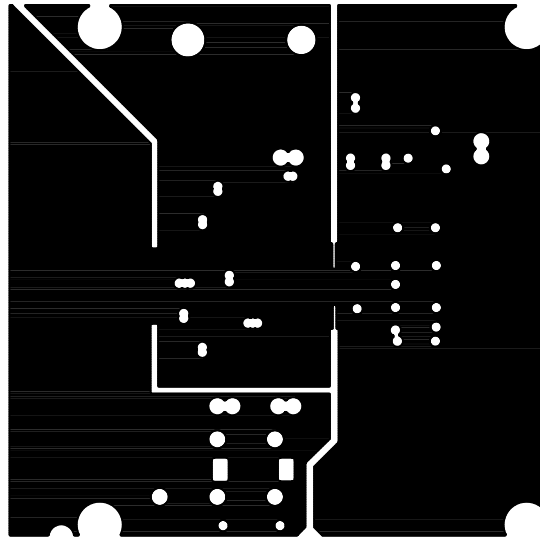
COMPANY LINEAR TECHNOLOGY CORPORATION			
TITLE A/W, LTC174X DEMO PCB		NO. DC520B	REV 2
		PASTE MASK TOP	
DSNR: LS	SHT. 2 OF 8	DATE: 11/7/03	



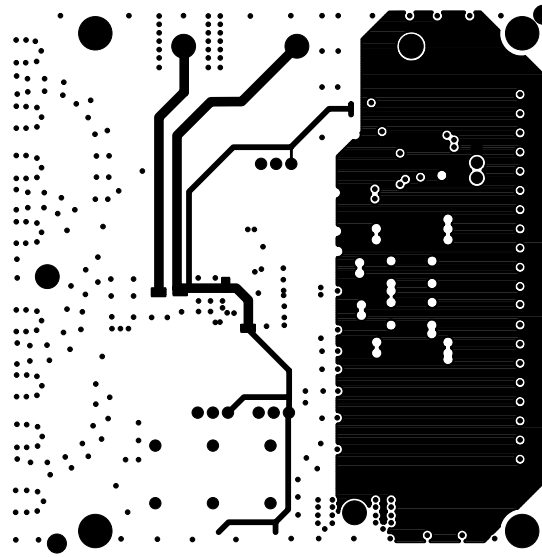
COMPANY LINEAR TECHNOLOGY CORPORATION			
TITLE A/W, LTC174X DEMO PCB		NO. DC520B	REV 2
SOLDER MASK TOP			
DSNR: LS	SHT. 3 OF 8	DATE: 11/7/03	



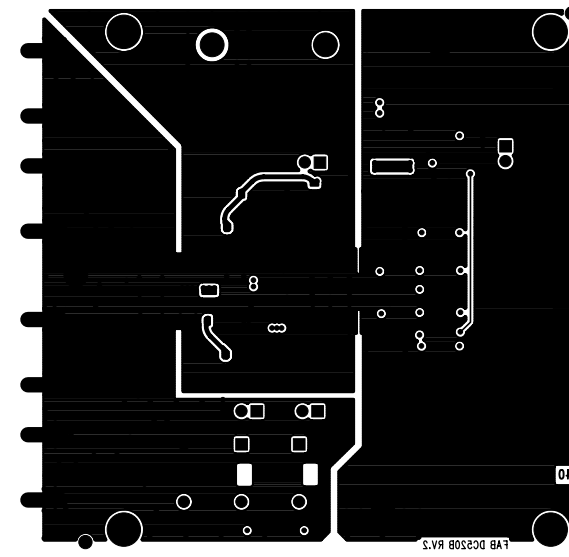
COMPANY LINEAR TECHNOLOGY CORPORATION			
TITLE A/W, LTC174X DEMO PCB		NO. DC520B	REV 2
L1-COMPONENT SIDE			
DSNR: LS	SHT. 4 OF 8	DATE: 11/7/03	



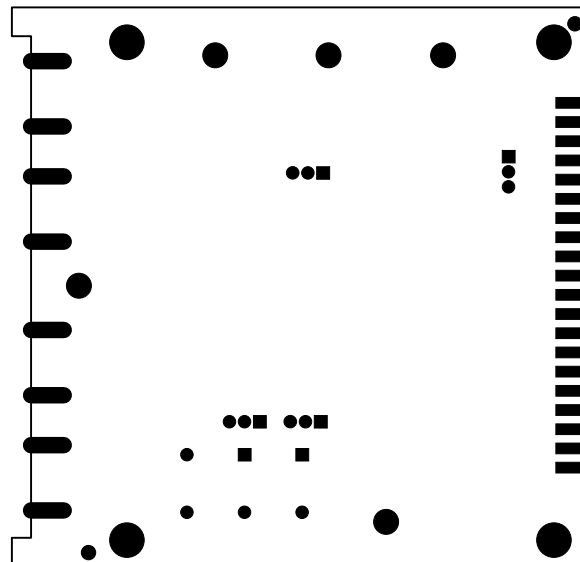
COMPANY LINEAR TECHNOLOGY CORPORATION		
TITLE A/W, LTC174X DEMO PCB	NO. DC520B	REV 2
L2-GND PLANE		
DSNR: LS	SHT. 5 OF 8	DATE: 11/7/03



COMPANY LINEAR TECHNOLOGY CORPORATION			
TITLE A/W, LTC174X DEMO PCB		NO. DC520B	REV 2
L3-POWER PLANE			
DSNR: LS	SHT. 6 OF 8	DATE: 11/7/03	



COMPANY LINEAR TECHNOLOGY CORPORATION			
TITLE A/W, LTC174X DEMO PCB		NO. DC520B	REV 2
		REV 2	
		REV 2	
DSNR: LS	SHT. 7 OF 8	DATE: 11/7/03	



COMPANY LINEAR TECHNOLOGY CORPORATION			
TITLE A/W, LTC174X DEMO PCB		NO. DC520B	REV 2
SOLDER MASK BTM			
DSNR: LS	SHT. 8 OF 8	DATE: 11/7/03	