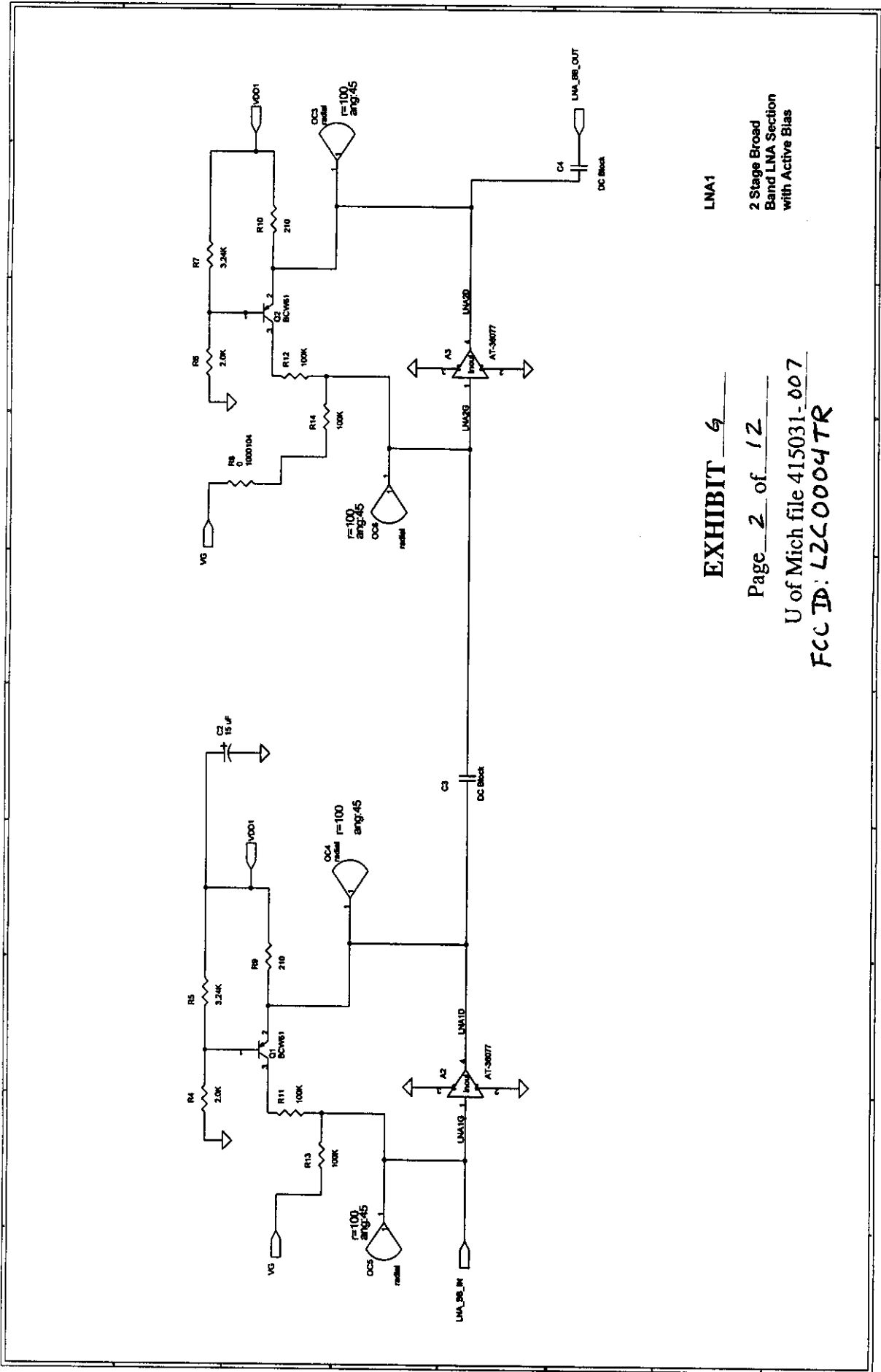


BUA Top Level Schematic

EXHIBIT 6  
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LNA1

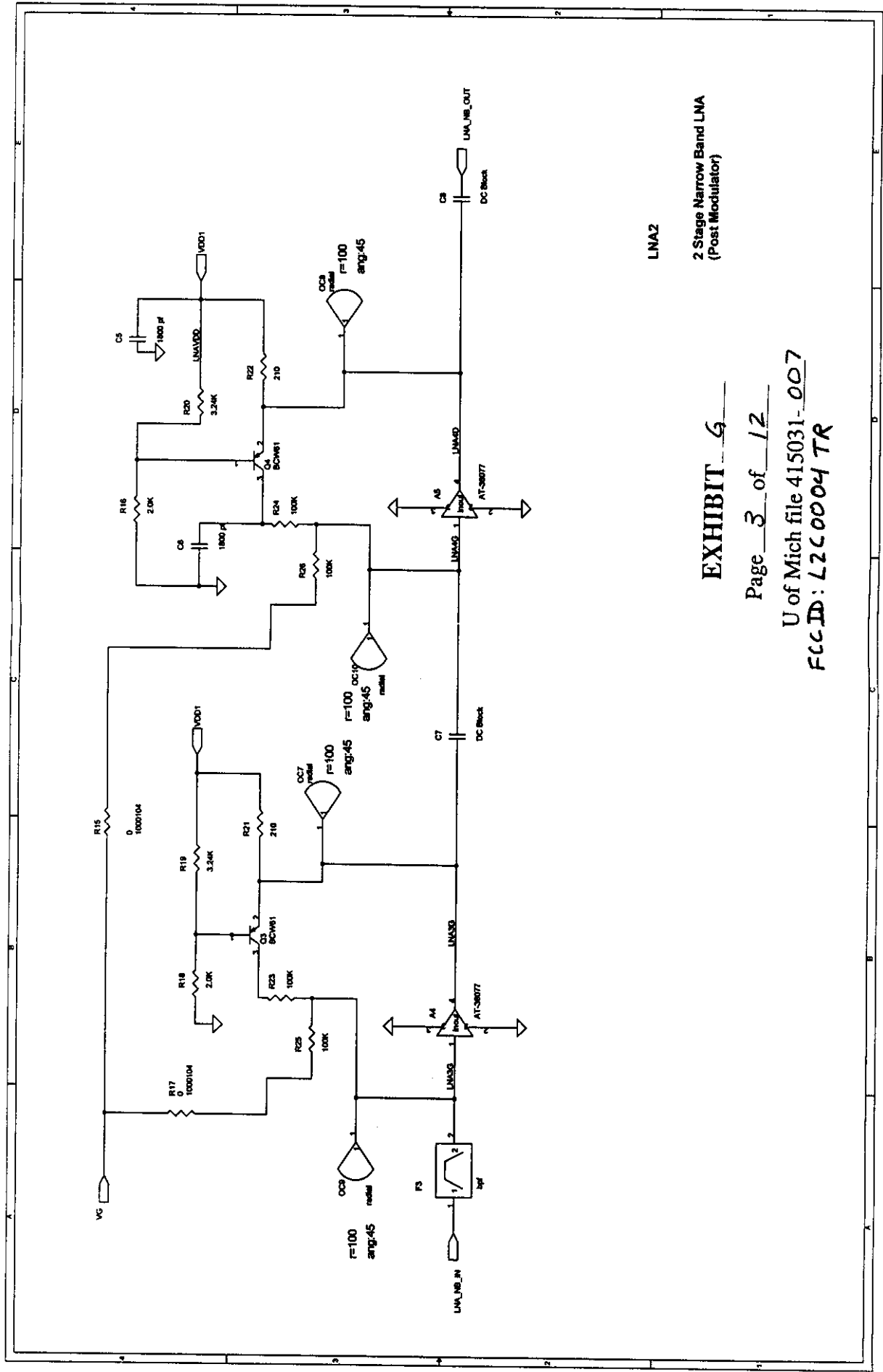
EXHIBIT 4

2 Stage Broad  
Band LNA Section  
with Active Bias

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LNA2

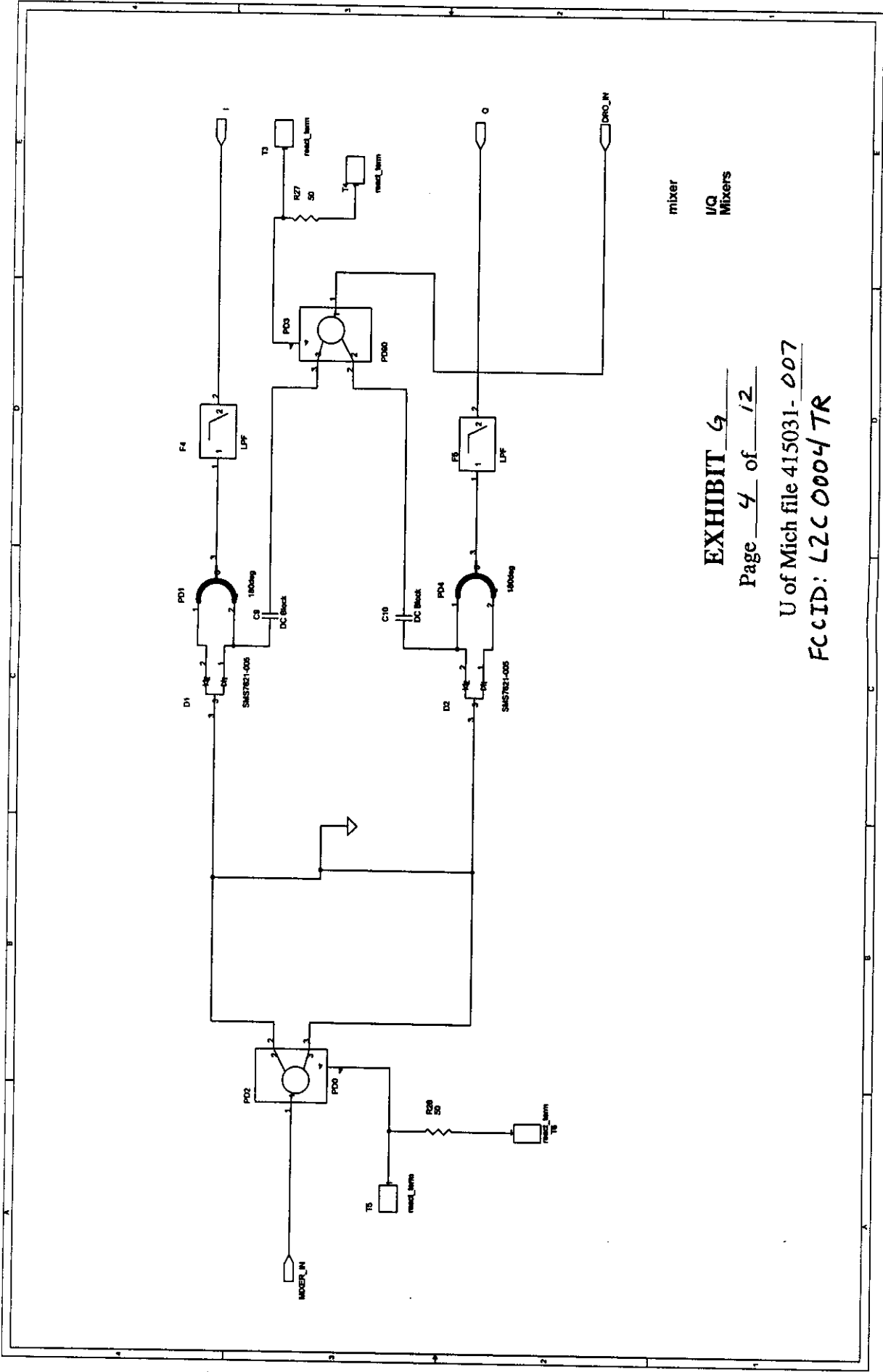
2 Stage Narrow Band LNA  
(Post Modulator)

EXHIBIT 6

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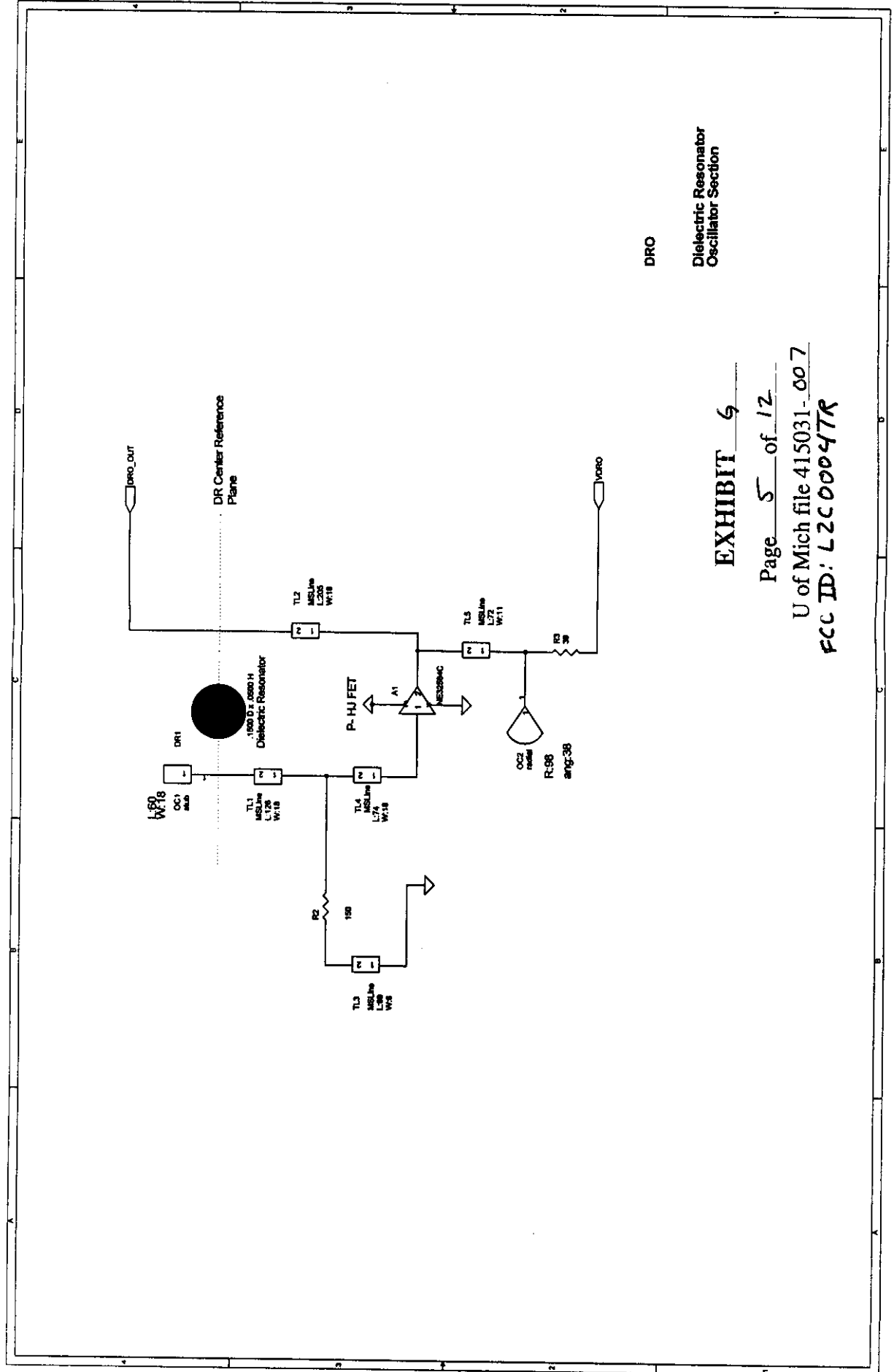
mixer  
I/Q  
Mixers

**EXHIBIT 4**

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DRO

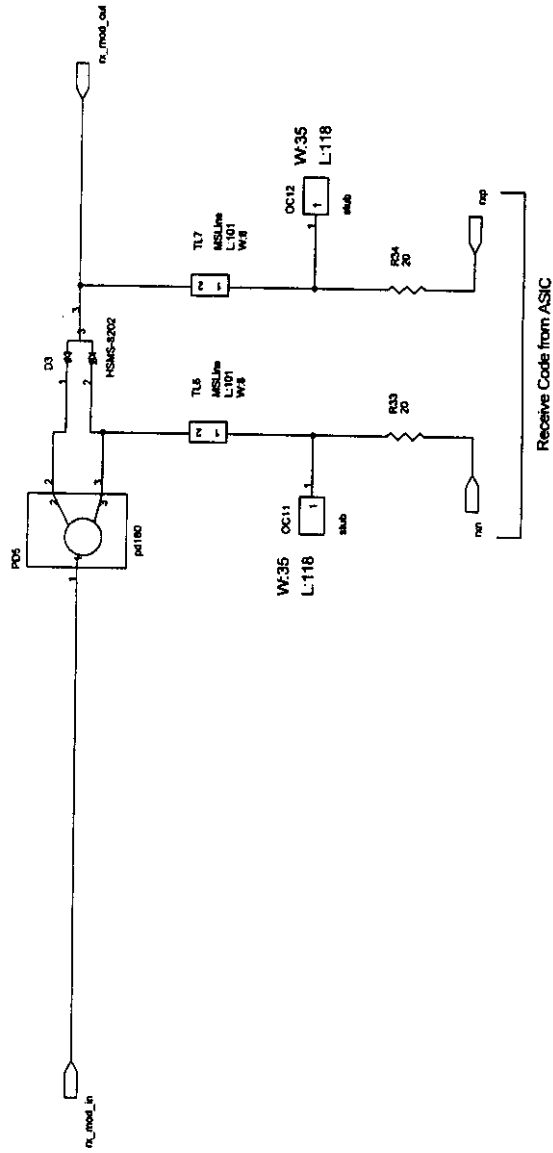
Dielectric Resonator  
Oscillator Section

**EXHIBIT 5**

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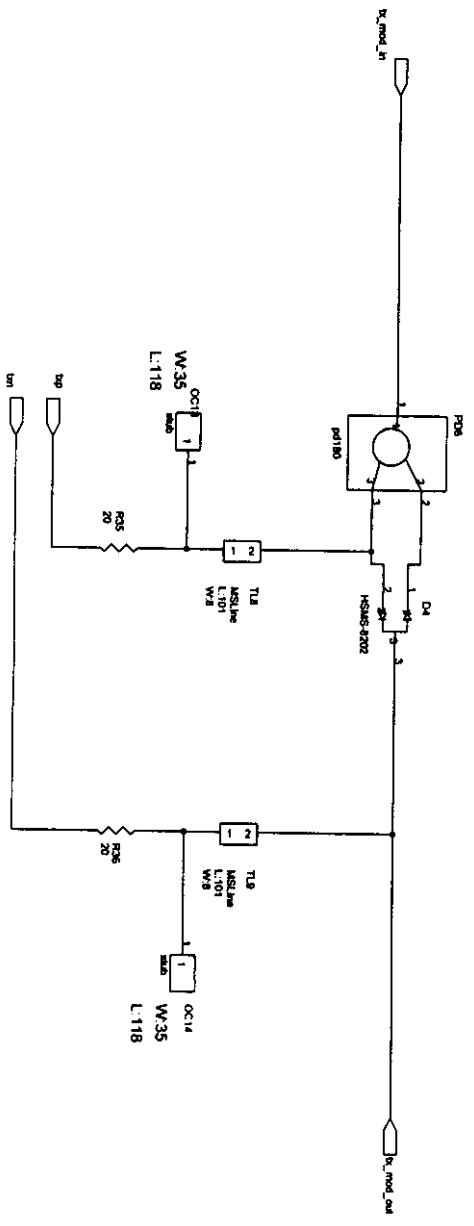
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FCC ID: L2C0004TR



RXMod  
Receive Modulator

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txmod  
TX Modulator

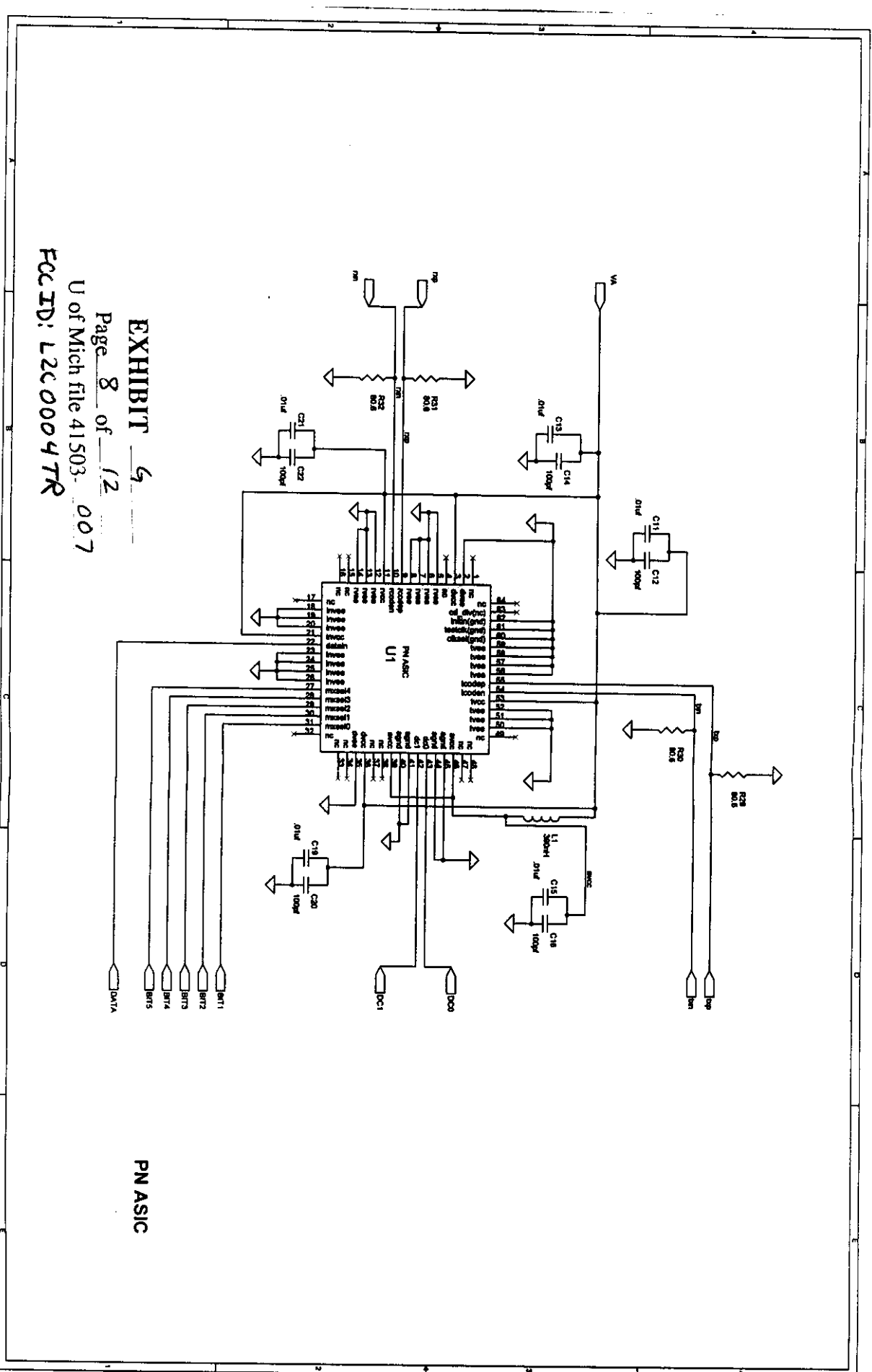


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FCC ID: L2C0004TR

PN ASIC



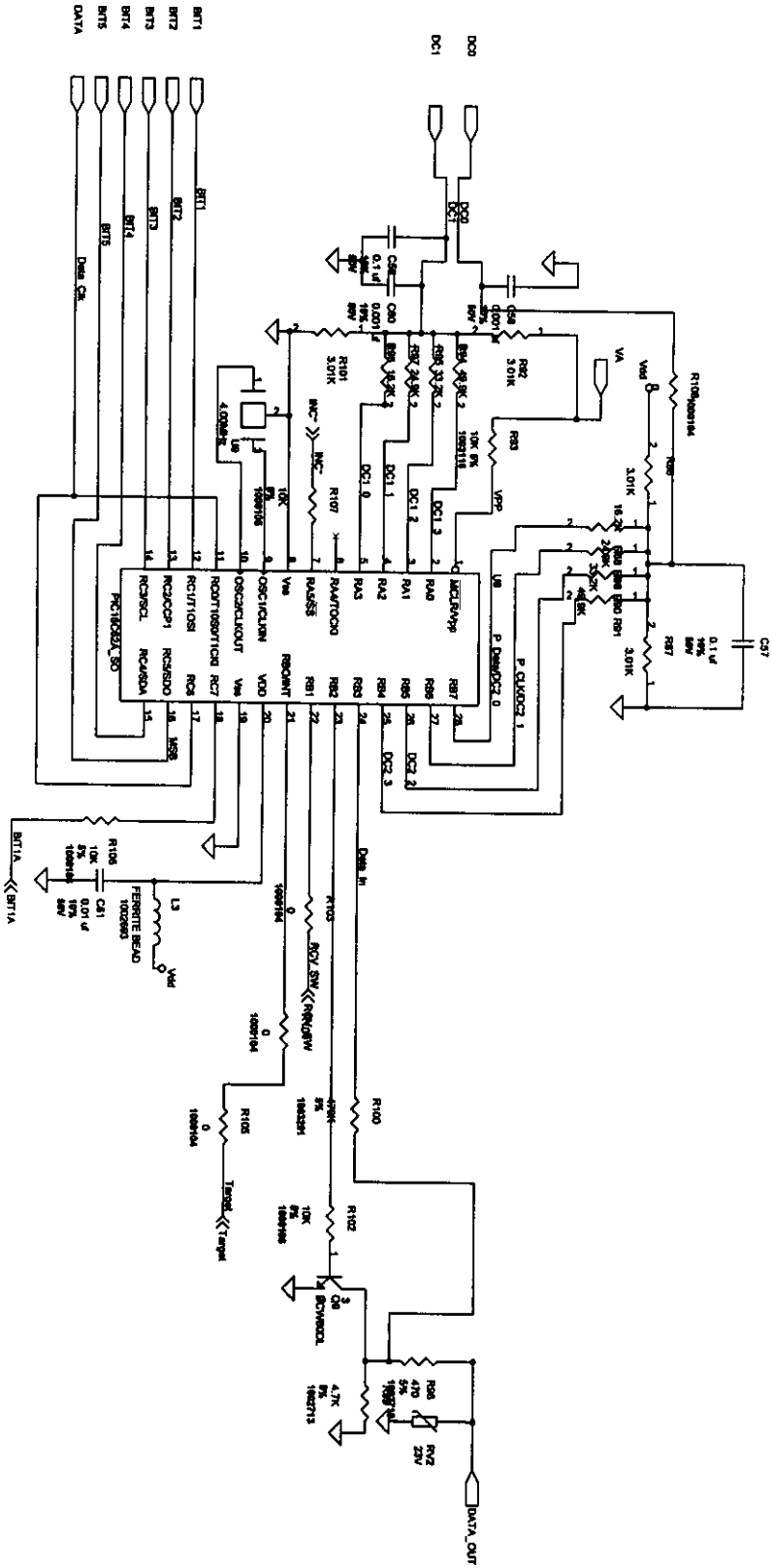
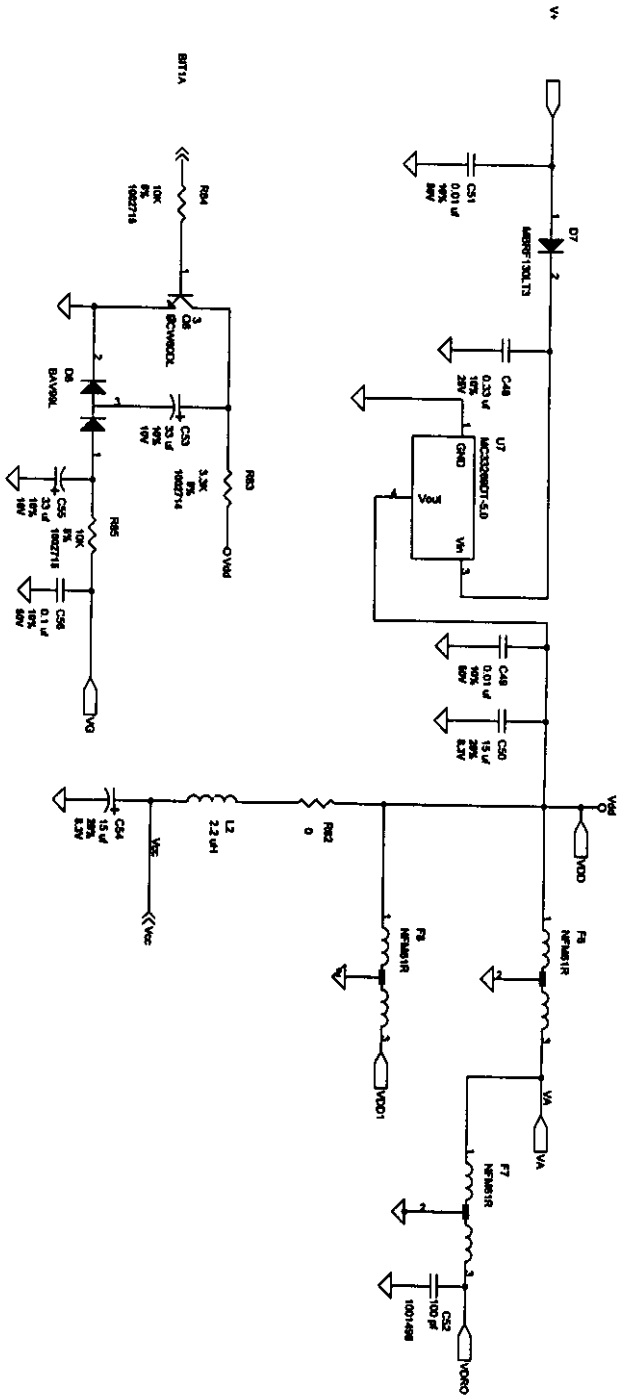


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Sequencer

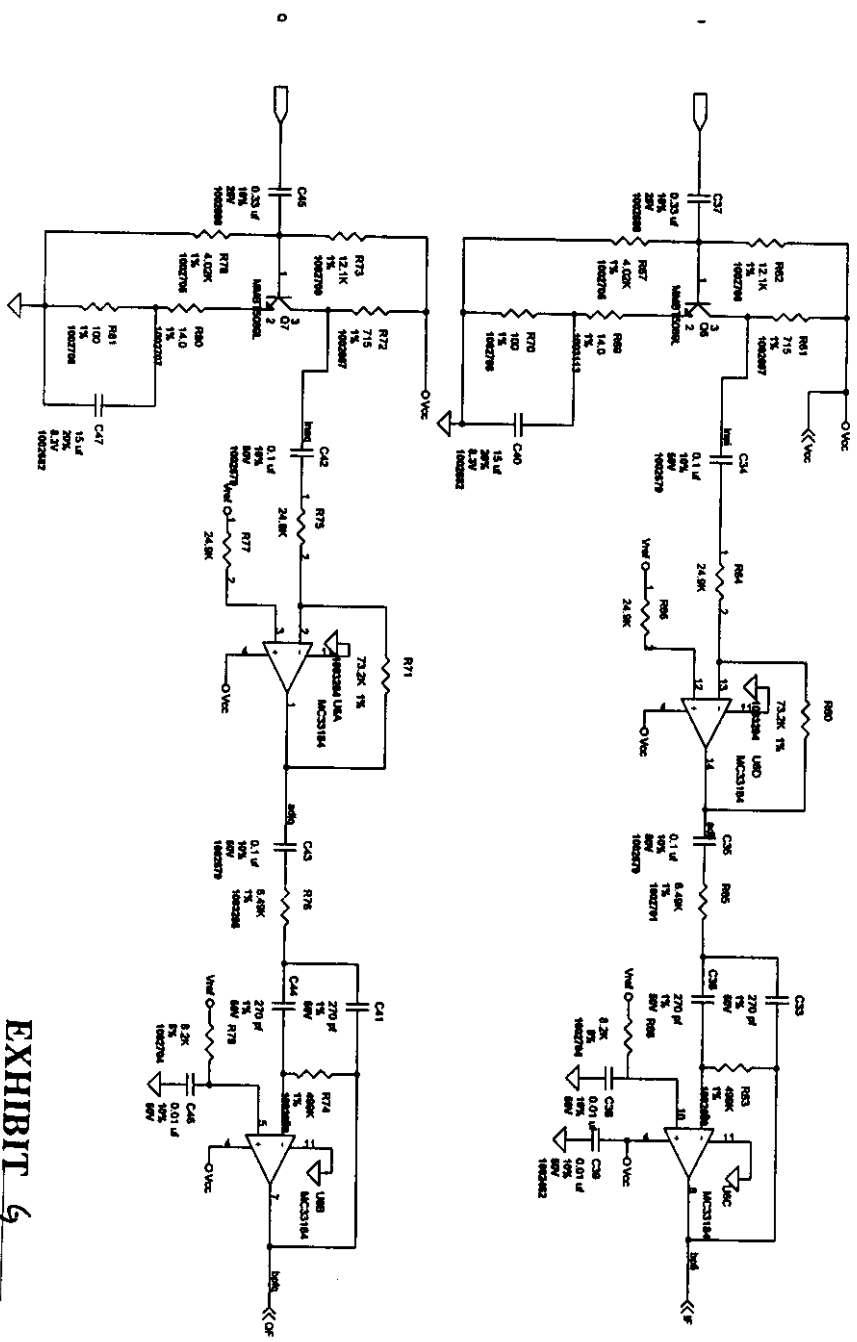


**EXHIBIT 4**

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Power Supply

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**EXHIBIT 6**

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LF LNA



- ◆ 3 main pieces in assembly
- ◆ Orientation features for error proofing

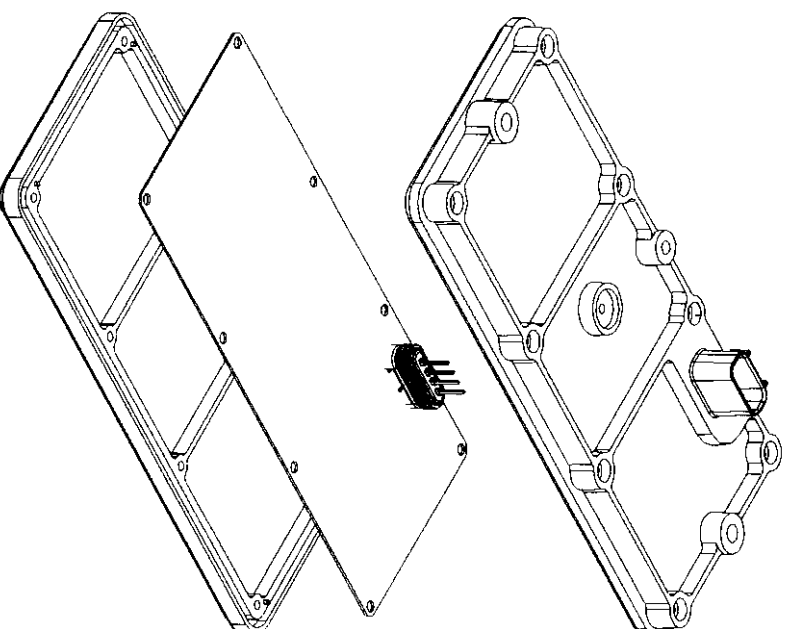


EXHIBIT   H  

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FCC ID:   L2C 0004 TR  

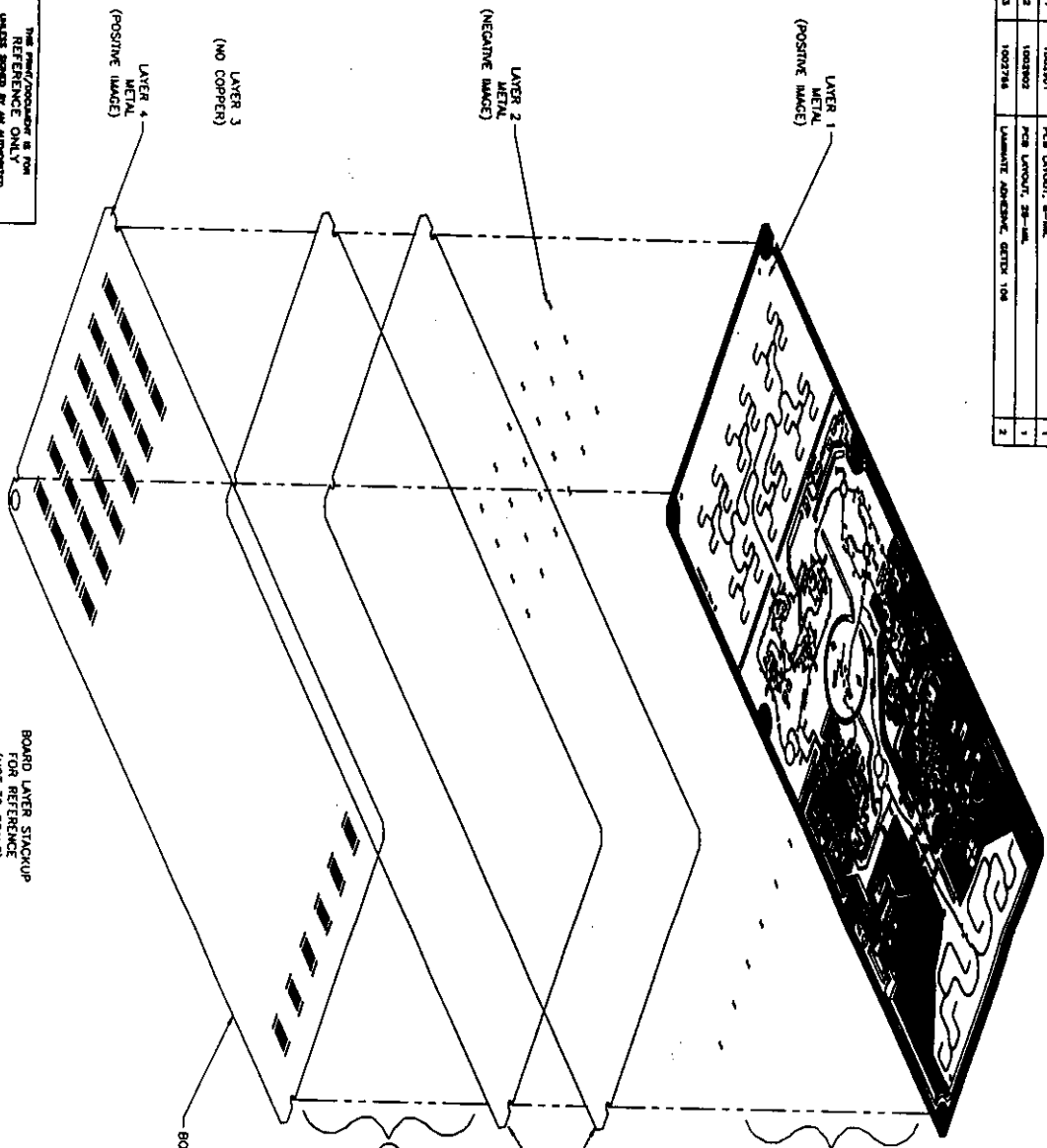
Delco Electronics Systems Proprietary

**FOREWARN**  
COLLISION WARNING SYSTEMS

Cesar Sanchez

THIS ASSEMBLY SHALL CONSIST OF THE FOLLOWING

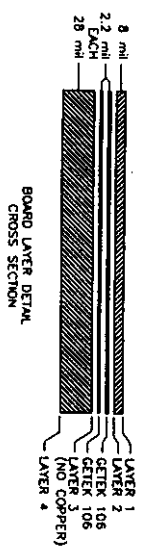
PART NO.	DESCRIPTION	QTY
1002901	PCB LAYOUT, 8-1/2" x 11"	1
1002902	PCB LAYOUT, 28-1/2" x 11"	1
1002903	LAMINATE ADHESIVE, GETEX 106	2



① 8 mil ROGERS 4003  
 ALL PLATED THRU HOLES  
 EDGE PLATED

② 28 mil ROGERS 4003 CORE  
 ALL HOLES NOT PLATED

③ 2 LAYERS OF GETEX 106 PREPREG (2.2 mil EACH)



- NOTES:
1. L.P.I. SOLDER MASK ON TOP OF LAYER 1.
  2. METAL FINISH ON LAYER 1 AND LAYER 4 TO BE TIN LEAD REFLOW.

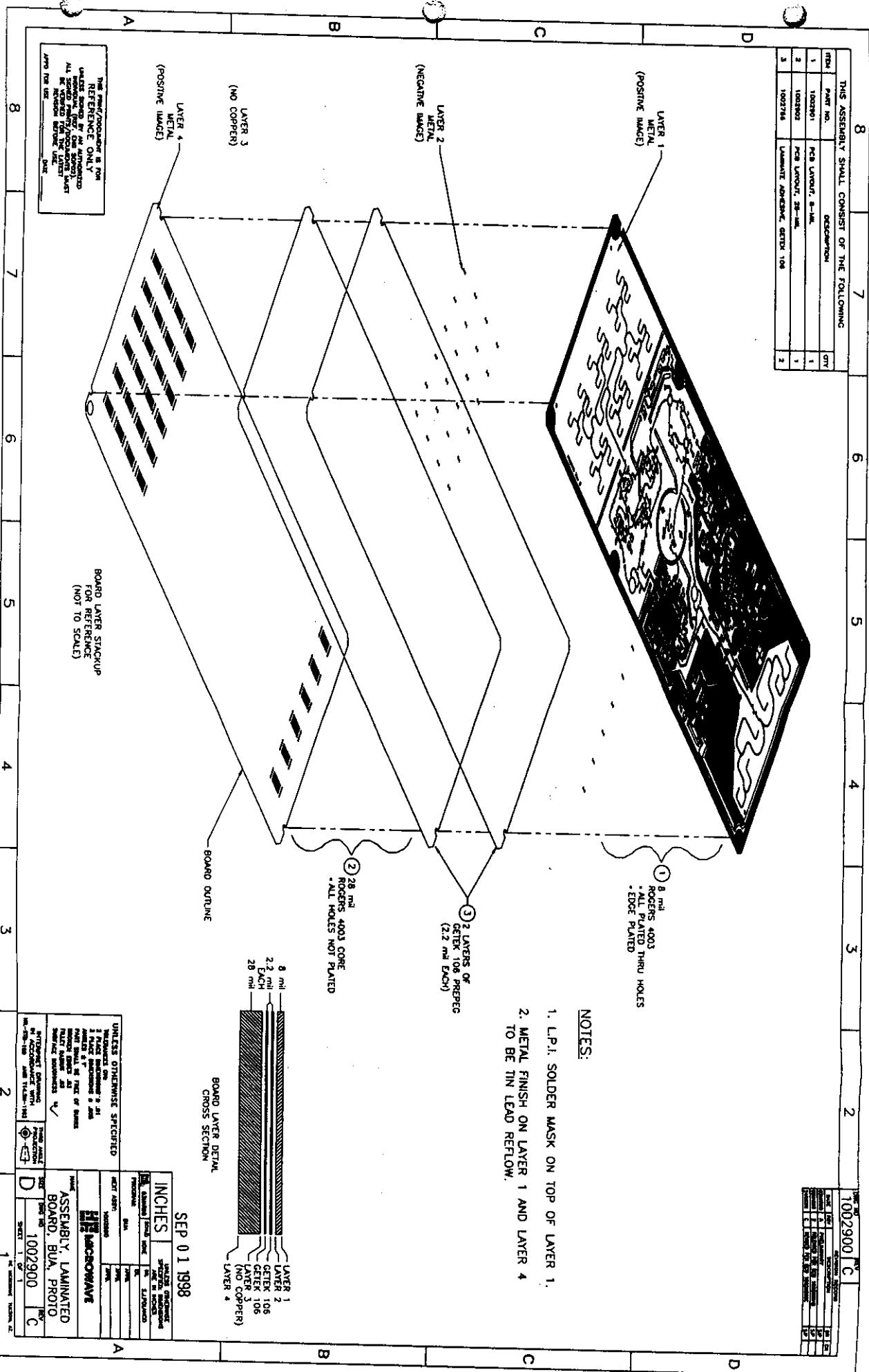
THE PART/POUNDRY IS FOR REFERENCE ONLY. UNLESS OTHERWISE SPECIFIED, ALL DIMENSIONS ARE IN INCHES. DIMENSIONS IN PARENTHESES ARE FOR INFORMATION ONLY. DIMENSIONS IN BRACKETS ARE FOR INFORMATION ONLY. DIMENSIONS IN DASHES ARE FOR INFORMATION ONLY.

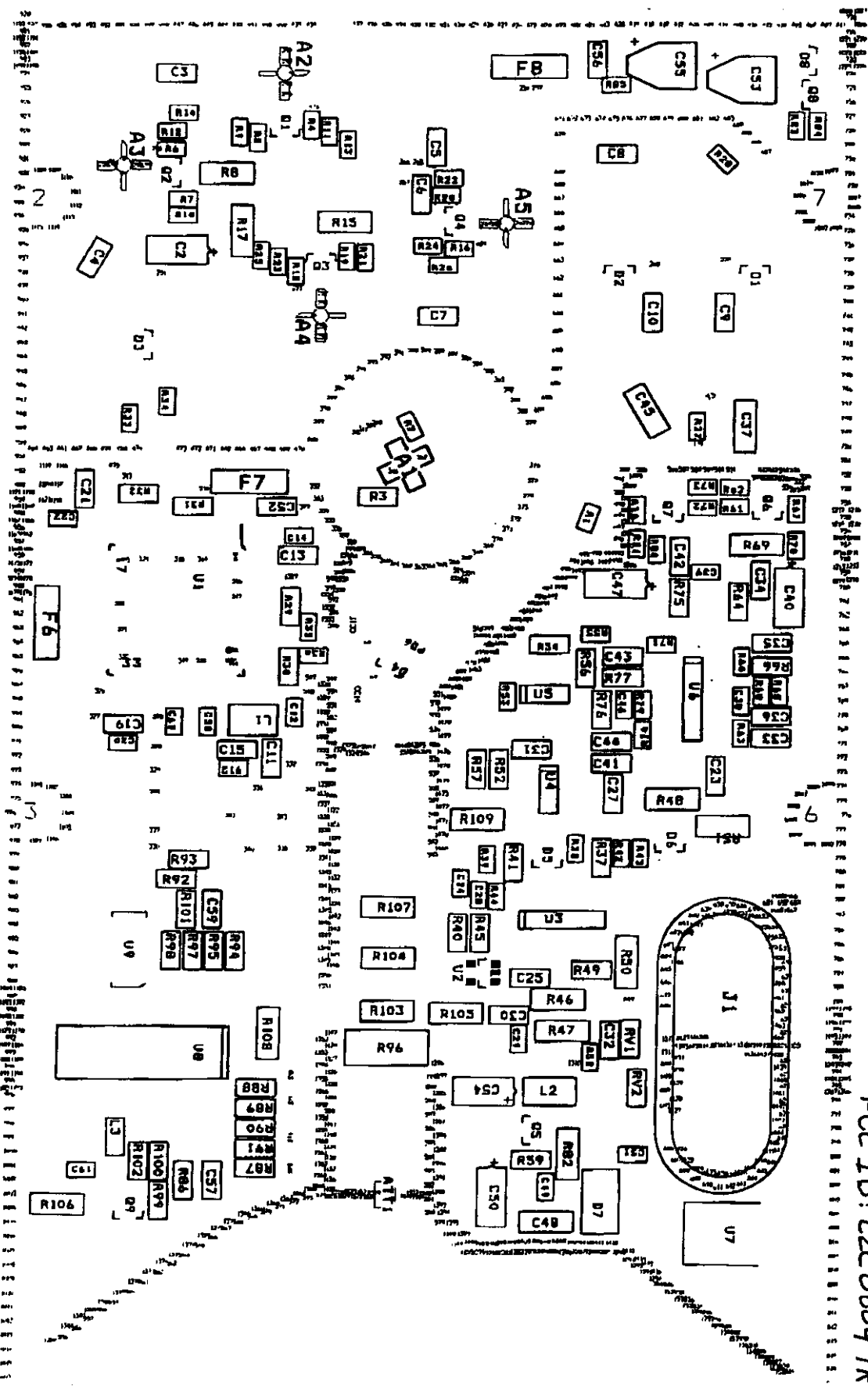
BOARD LAYER STACKUP FOR REFERENCE (NOT TO SCALE)

UNLESS OTHERWISE SPECIFIED

FINISH	THICKNESS	FINISH	THICKNESS
ROGERS 4003	28 mil	GETEX 106	2.2 mil
ROGERS 4003	8 mil	GETEX 106	2.2 mil

DATE	SEP 01 1998
BY	ASSEMBLY, LAMINATED BOARD, BUA, PROTO
REV	1002900
SHEET	1 OF 1





ATT1	10 dB Pad	1002838	ATTEN
A1	NE32584C	1002840	DRO_REV4
A2	AT-36077	1002839	ATF77
A3	AT-36077	1002839	ATF77
A4	AT-36077	1002839	ATF77
A5	AT-36077	1002839	ATF77
C1	DC Block	1002842	C0805A
C3	DC Block	1002842	C0805A
C4	DC Block	1002842	C0805A
C7	DC Block	1002842	C0805A
C8	DC Block	1002842	C0805A
C9	DC Block	1002842	C0805A
C10	DC Block	1002842	C0805A
C2	15 uF	1002682	SM/CT_3528_12
C5	1800 pf	1002688	SM/C_0805
C6	1800 pf	1002688	SM/C_0805
C11	.01uf	1003028	SM/C_0805
C13	.01uf	1003028	SM/C_0805
C15	.01uf	1003028	SM/C_0805
C19	.01uf	1003028	SM/C_0805
C21	.01uf	1003028	SM/C_0805
C12	100pf	1003293	SM/C_0603
C14	100pf	1003293	SM/C_0603
C16	100pf	1003293	SM/C_0603
C20	100pf	1003293	SM/C_0603
C22	100pf	1003293	SM/C_0603
C23	0.1 uf	1002679	SM/C_0805
C27	0.1 uf	1002679	SM/C_0805
C32	0.1 uf	1002679	SM/C_0805
C56	0.1 uf	1002679	SM/C_0805
C57	0.1 uf	1002679	SM/C_0805
C59	0.1 uf	1002679	SM/C_0805
C24	0.001 uf	1002687	SM/C_0603
C28	0.001 uf	1002687	SM/C_0603
C58	0.001 uf	1002687	SM/C_0603
C60	0.001 uf	1002687	SM/C_0603
C25	1800 pf	1003276	SM/C_0805
C29	0.01 uf	1002462	SM/C_0603
C38	0.01 uf	1002462	SM/C_0603
C39	0.01 uf	1002462	SM/C_0603
C46	0.01 uf	1002462	SM/C_0603
C49	0.01 uf	1002462	SM/C_0603
C51	0.01 uf	1002462	SM/C_0603
C61	0.01 uf	1002462	SM/C_0603
C31	0.01 uf	1003028	SM/C_0805
C30	0.01 uf	1003028	SM/C_0805
C33	270 pf	1003277	SM/C_0805
C36	270 pf	1003277	SM/C_0805
C41	270 pf	1003277	SM/C_0805

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FCC ID: L2C 0004TR



C44	270 pf	1003277	SM/C_0805
C34	0.1 uf	1002679	SM/C_0805
C35	0.1 uf	1002679	SM/C_0805
C42	0.1 uf	1002679	SM/C_0805
C43	0.1 uf	1002679	SM/C_0805
C37	0.33 uf	1002680	SM/C_1206
C45	0.33 uf	1002680	SM/C_1206
C48	0.33 uf	1002680	SM/C_1206
C40	15 uf	1002682	SM/CT_3528_12
C50	15 uf	1002682	SM/CT_3528_21
C47	15 uf	1002682	SM/CT_3528_21
C52	100 pf	1001498	SM/C_0805
C53	33 uf	1002684	SM_CAP33_POL
C55	33 uf	1002684	SM_CAP33_POL
C54	15 uf	1002682	SM/CT_3528_12
DR1	Osc Res	1002843	
DR2	Notch	1003482	
D1	SMS7621-005	1002845	SM/SOT23_123
D2	SMS7621-005	1002845	SM/SOT23_123
D4	HSMS-8202	1002844	SM/SOT23_123
D3	HSMS-8202	1002844	SM/SOT23_123
D5	BAV99L	1002689	SM/SOT23_123
D6	BAV99L	1002689	SM/SOT23_123
D8	BAV99L	1002689	SM/SOT23_123
D7	MBRF130LT3	1002690	SM/D_MLL41_21
F6	NFM61R	1002691	EMI
F7	NFM61R	1002691	EMI
F8	NFM61R	1002691	EMI
J1	Con4pin	1002583	CONN4
L1	390nH	1002846	SM/L_1110
L2	2.2 uH	1002694	SM/L_1210
L3	FERRITE BEAD	1002693	SM/C_0805
Q1	BCW61	1002847	SM/SOT23_123
Q2	BCW61	1002847	SM/SOT23_123
Q3	BCW61	1002847	SM/SOT23_123
Q4	BCW61	1002847	SM/SOT23_123
Q5	BCW60DL	1002695	SM/SOT23_123
Q8	BCW60DL	1002695	SM/SOT23_123
Q9	BCW60DL	1002695	SM/SOT23_123
Q7	MMBT5089L	1002696	SM/SOT23_123
Q6	MMBT5089L	1002696	SM/SOT23_123
RV2	23V	1003278	SM/C_0805
RV1	23V	1003278	SM/C_0805
R1	50	1002848	SM/C_0603
R27	50	1002848	SM/C_0603
R28	50	1002848	SM/C_0603
R2	150	1002856	SM/C_0603
R3	39	1002857	SM/C_0805
R4	2.0K	1002849	SM/C_0603

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FCC ID: L2C0004 TR

R6	2.0K	1002849	SM/C_0603
R16	2.0K	1002849	SM/C_0603
R18	2.0K	1002849	SM/C_0603
R5	3.24K	1002850	SM/C_0603
R7	3.24K	1002850	SM/C_0603
R19	3.24K	1002850	SM/C_0603
R20	3.24K	1002850	SM/C_0603
R8	0	1000104	SM/C_1206
R15	0	1000104	SM/C_1206
R17	0	1000104	SM/C_1206
R82	0	1000104	SM/C_1206
R9	210	1002851	SM/C_0603
R10	210	1002851	SM/C_0603
R21	210	1002851	SM/C_0603
R22	210	1002851	SM/C_0603
R11	100K	1002718	SM/C_0603
R12	100K	1002718	SM/C_0603
R13	100K	1002718	SM/C_0603
R14	100K	1002718	SM/C_0603
R23	100K	1002718	SM/C_0603
R24	100K	1002718	SM/C_0603
R25	100K	1002718	SM/C_0603
R26	100K	1002718	SM/C_0603
R29	80.6	1003279	SM/R_0805
R30	80.6	1003279	SM/R_0805
R31	80.6	1003279	SM/R_0805
R32	80.6	1003279	SM/R_0805
R33	20	1002852	SM/C_0603
R34	20	1002852	SM/C_0603
R35	20	1002852	SM/C_0603
R36	20	1002852	SM/C_0603
R37	20.0K	1001475	SM/C_0805
R38	40.2K	1002717	SM/C_0603
R43	40.2K	1002717	SM/C_0603
R39	100K	1002718	SM/C_0603
R44	100K	1002718	SM/C_0603
R58	100K	1002718	SM/C_0603
R40	499K	1001711	SM/C_0805
R45	499K	1001711	SM/C_0805
R41	22K	1003117	SM/C_0805
R42	20.0K	1002716	SM/C_0603
R46	49.9K	1000118	SM/C_1206
R48	49.9K	1000118	SM/C_1206
R47	301K	1003280	SM/R_1206
R49	10MEG	1003281	SM/C_0805
R50	10K	1000106	SM/R_1206
R51	22K	1003115	SM/C_1206
R52	10K	1003116	SM/C_0805
R57	10K	1003116	SM/C_0805

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FCC ID: L2C0004TR

R59	10K	1003116	SM/C_0805
R93	10K	1003116	SM/C_0805
R53	8.87K	1002722	SM/C_0603
R54	1.21K	1003282	SM/R_0805
R55	1.21K	1002723	SM/C_0603
R56	8.87K	1003283	SM/C_0805
R60	73.2K	1003284	SM/C_0603
R71	73.2K	1003284	SM/C_0603
R72	715	1002697	SM/C_0603
R61	715	1002697	SM/C_0603
R73	12.1K	1002700	SM/C_0603
R62	12.1K	1002700	SM/C_0603
R74	499K	1002698	SM/C_0603
R63	499K	1002698	SM/C_0603
R64	24.9K	1003285	SM/C_0805
R66	24.9K	1003285	SM/C_0805
R75	24.9K	1003285	SM/C_0805
R77	24.9K	1003285	SM/C_0805
R89	24.9K	1003285	SM/C_0805
R97	24.9K	1003285	SM/C_0805
R65	6.49K	1002701	SM/C_0603
R78	4.02K	1002705	SM/C_0603
R67	4.02K	1002705	SM/C_0603
R79	8.2K	1002704	SM/C_0603
R68	8.2K	1002704	SM/C_0603
R69	14	1003113	SM/C_1206
R81	100	1002708	SM/C_0603
R70	100	1002708	SM/C_0603
R76	6.49K	1003286	SM/C_0805
R80	14	1002707	SM/C_0603
R83	3.3K	1002714	SM/C_0603
R85	10K	1002715	SM/C_0603
R84	10K	1002715	SM/C_0603
R86	3.01K	1003287	SM/C_0805
R87	3.01K	1003287	SM/C_0805
R92	3.01K	1003287	SM/C_0805
R101	3.01K	1003287	SM/C_0805
R88	16.2K	1003288	SM/C_0805
R98	16.2K	1003288	SM/C_0805
R90	33.2K	1003289	SM/C_0805
R95	33.2K	1003289	SM/C_0805
R91	49.9K	1003290	SM/C_0805
R94	49.9K	1003290	SM/C_0805
R96	470	1002710	SM/R_2512
R99	4.7K	1002713	SM/C_0805
R100	470K	1003291	SM/C_0805
R102	10K	1000106	SM/C_0805
R103	0	1000104	SM/C_1206
R104	0	1000104	SM/C_1206

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R105	0	1000104	SM/C_1206
R109	0	1000104	SM/C_1206
R106	10K	1000106	SM/C_1206
R107	10K	1000106	SM/C_1206
R108	0	1000104	SM/R_1206
U1	PN ASIC	1002301C	QUAD.80M/64/WG17.45
U2	MAX4502	1002711	SM/SOT23-5
U3	MAX4334ESD	1002712	SOG.050/14/WG.244/L.350
U4	DS1804ZN-050	1002683	SOG.050/8/WG.244/L.200
U5	LM2904N	1002678	SOG.050/8/WG.244/L.200
U6	MC33184	1002724	SOG.050/14/WG.244/L.350
U7	MC33269DT-5.0	1002727	SM/_DPAK
U8	PIC16C62A_SO	1003292	SOG.050/28/WG.420/L.700
U9	4.00 MHz	1002726	CST
Mechanical Components			
		1002900	Assembly, Laminated Board, BUA
		1002576	Screw, Backcover
		1002589	Seal, Radome
		1002573	Seal, Connector, Shroud
		1002571	Screw, Connector
		1002588	Snubber, Board
		102582	Seal, Connector, SM
		1002904	Connector Shroud
		1003219	O-ring
		1003302	Tuning Screw
		1003027	Backcover
		1002786	Radome
		1003454	Absorber
		1002928	Solder Paste, SN63
		1002630	Adhesive, Loctite, 3609
		1002826	BUA, Label (board
		1001432	Label

EXHIBIT H

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 FCC ID: L2C 0004TR

June 12, 1999

Re: Certification for  
Delphi Delco Presence Sensor  
Model: BUA  
FCC ID: L2C0004TR  
CANADA: to be provided by IC

LIST OF PHOTOGRAPHS

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List of photographs	1 of 7
Case top side	2 of 7
Case bottom side	3 of 7
Case disassembled, top side	4 of 7
Case disassembled, bottom side	5 of 7
Circuit board, component side	6 of 7
Circuit board, antenna side	7 of 7

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