



NORMARC 7033

INSTRUMENT LANDING SYSTEM

Transmitter Figures



NAVIA AVIATION



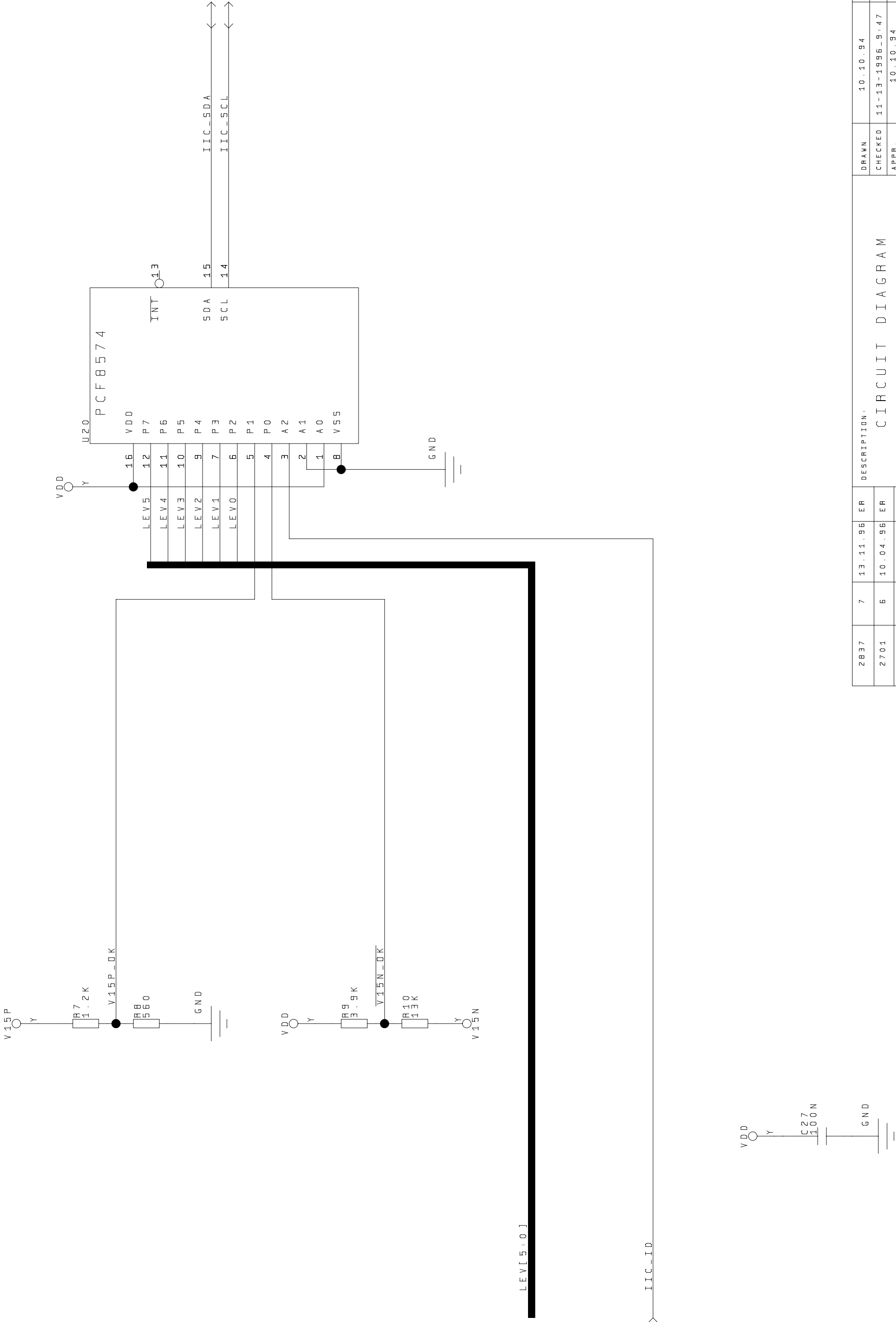
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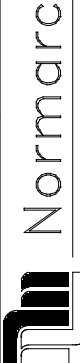
LIST OF FIGURES

1 LF1223A Low Frequency Generator

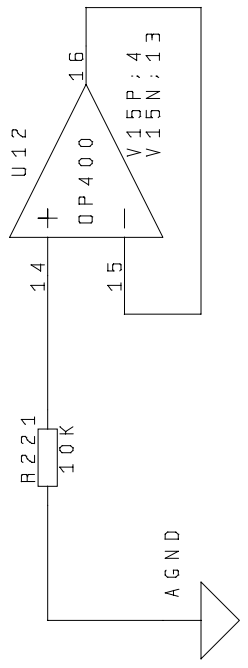
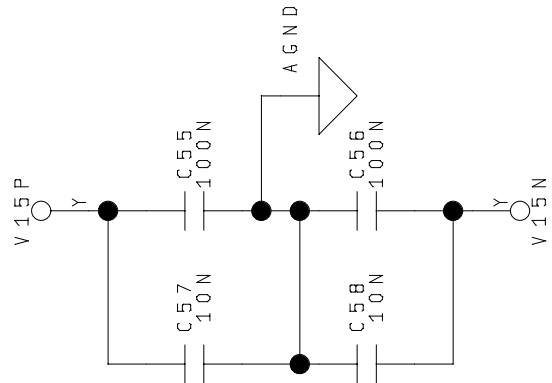
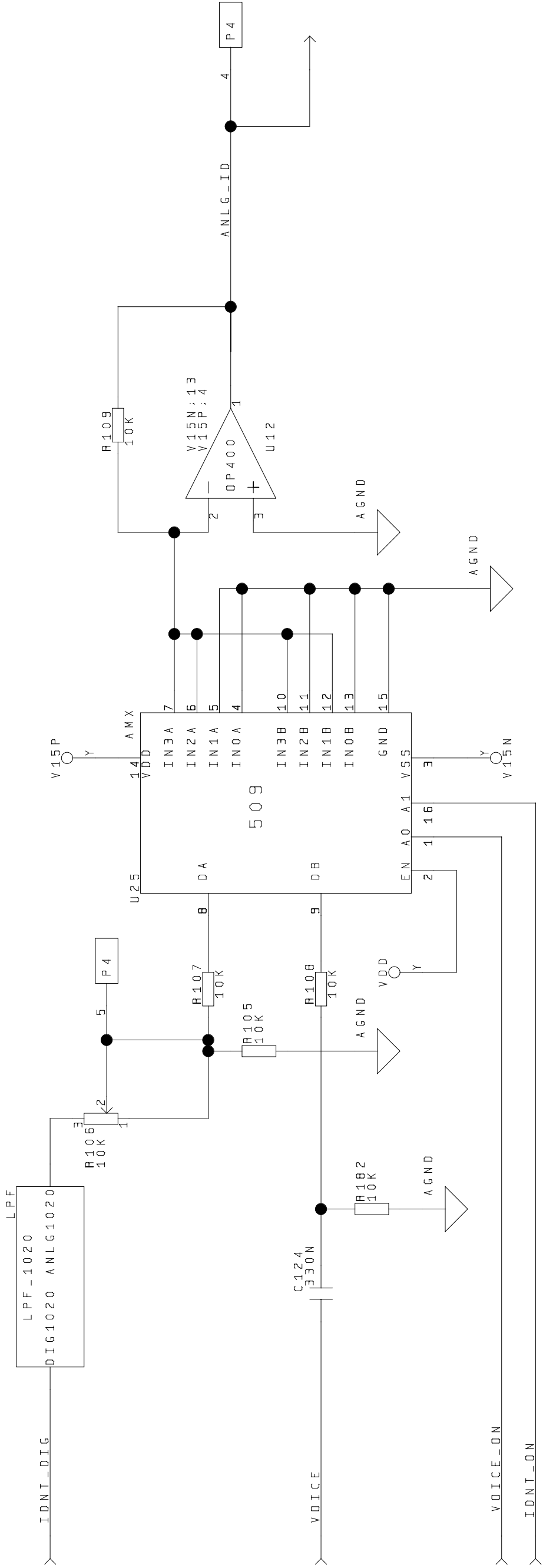
1.1 *Schematic Diagrams*



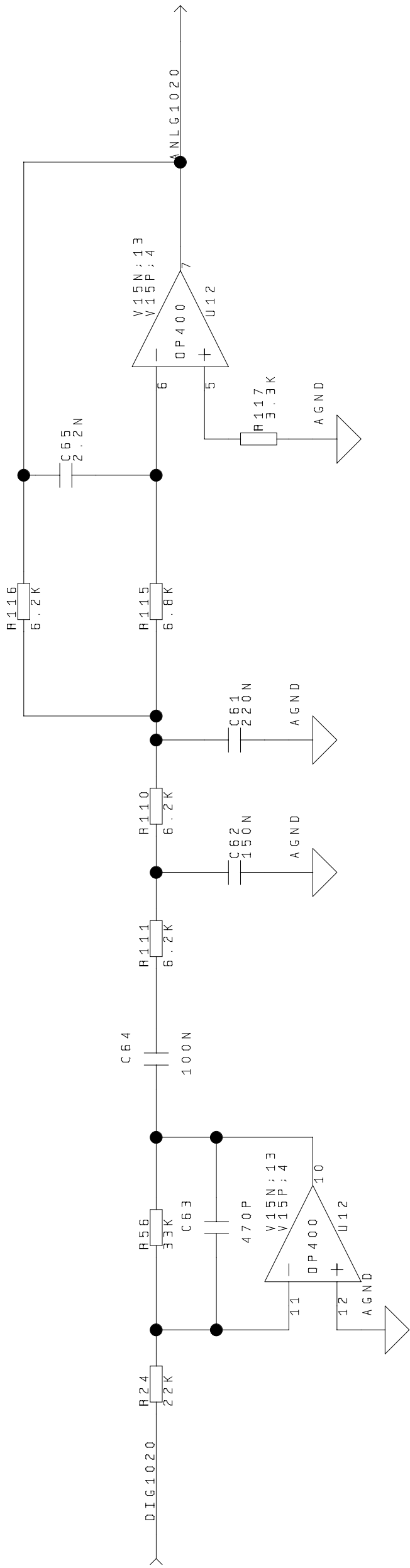
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2205	2	08.02.95	ER														
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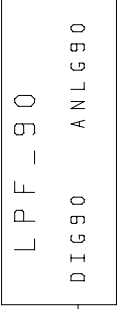


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2498	5	29.09.95	ER											#SCH.		#HDL			SIZE		A3	
2403	4	03.07.95	ER																			
2259	3	16.03.95	ER											24								
2205	2	08.02.95	ER	24								DWG. NO. : 15472		VERSION : 7								
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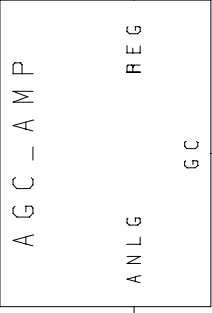


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2403	4	03.07.95	ER	NAME : LPF_1020	#SCH. :	#HDL :	SIZE : A3
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2205	2	08.02.95	ER		DWG. NO. :	15472	VERSION : 7
REF. NO.	ISSUE	DATE	SIGN	PROJECT :			

LF90-DIG



LF90-ANLG



LF90-OUT

IDENT

WR

DAC_A

SDMMSB-CS

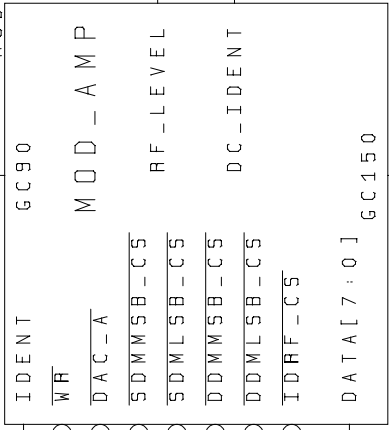
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DDMMSB-CS

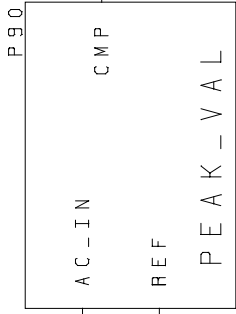
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IDRF-CS

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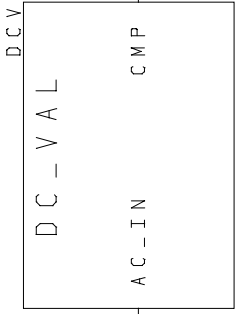


GC90



P90

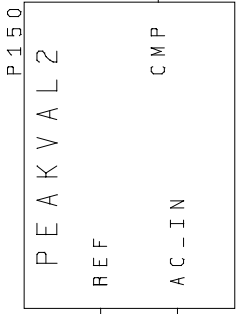
LEV90



DCV

LEVDC

DC-IDENT



P150

LEV150

LF150-DIG



LF150-ANLG



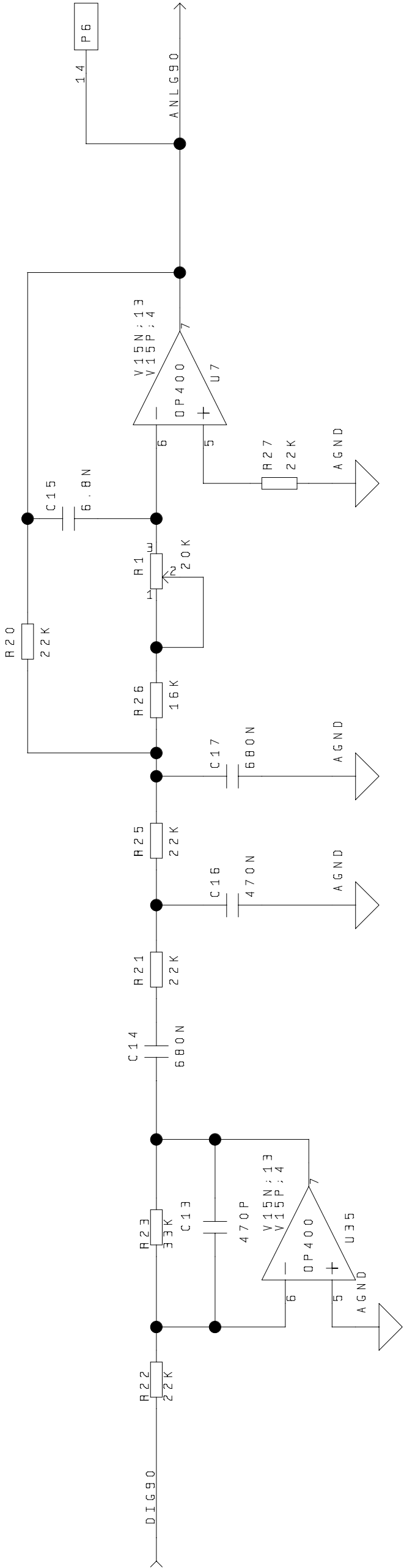
LF150-OUT

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2403	4	03.07.95	ER											#SCH. :	24	#HDL :	SIZE : A3		SHEET 6								
2259	3	16.03.95	ER											LF_MIX							MODULE : LF1223A						
2205	2	08.02.95	ER											 Normarc										DWG. NO. : 15472		VERSION 7	
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Normarc

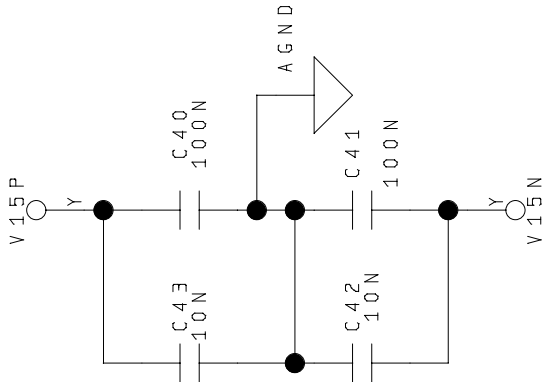
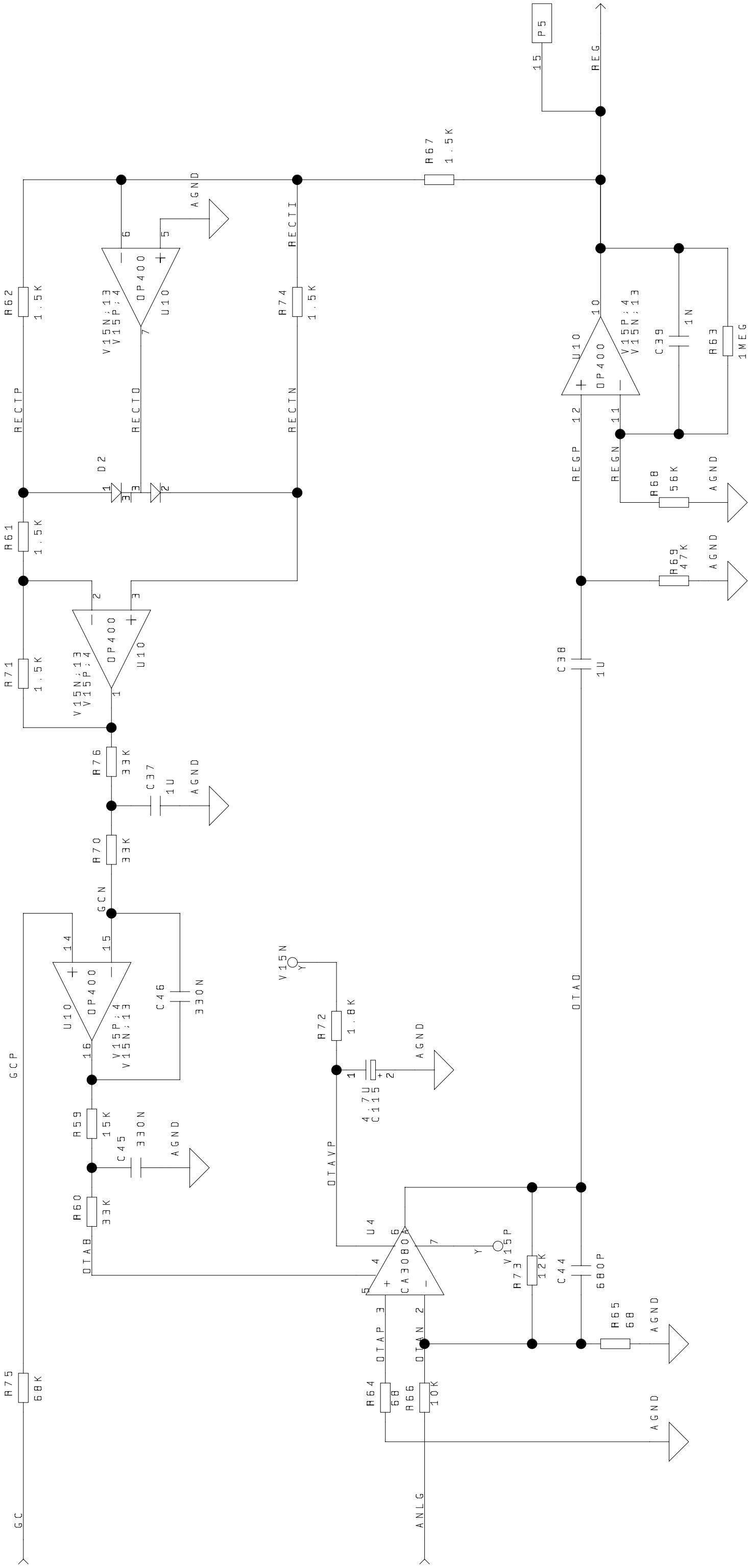
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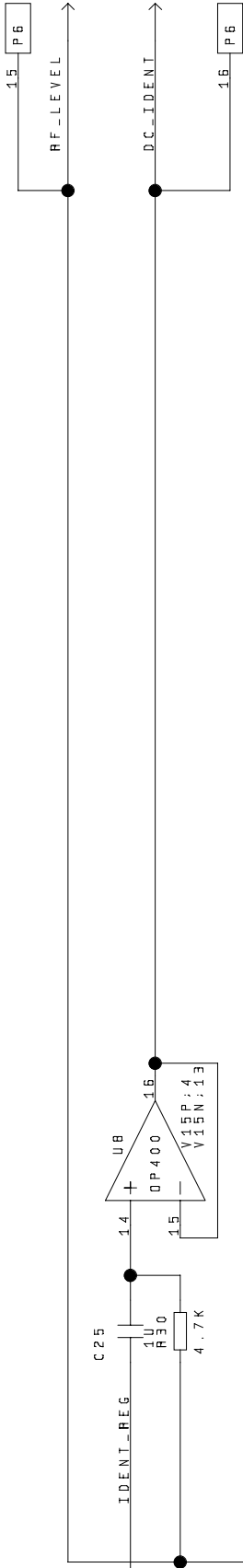
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2205	2	08.02.95	ER																						
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2403	4	03.07.95	ER		#SCH. :	#HDL :	SIZE :	SHEET :
2259	3	16.03.95	ER		24		A3	8
2205	2	08.02.95	ER	NAME : AGC - AMP	MODULE : LF1223A	DWG. NO. : 15472		VERSION : 7
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REF. NO.	ISSUE	DATE	SIGN	Copyright and all modification rights reserved NAVIA AVIATION AS, NORWAY				
				 Normarc				



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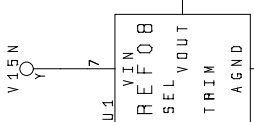
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DDMLSB-CS

IDENT

DAC-A

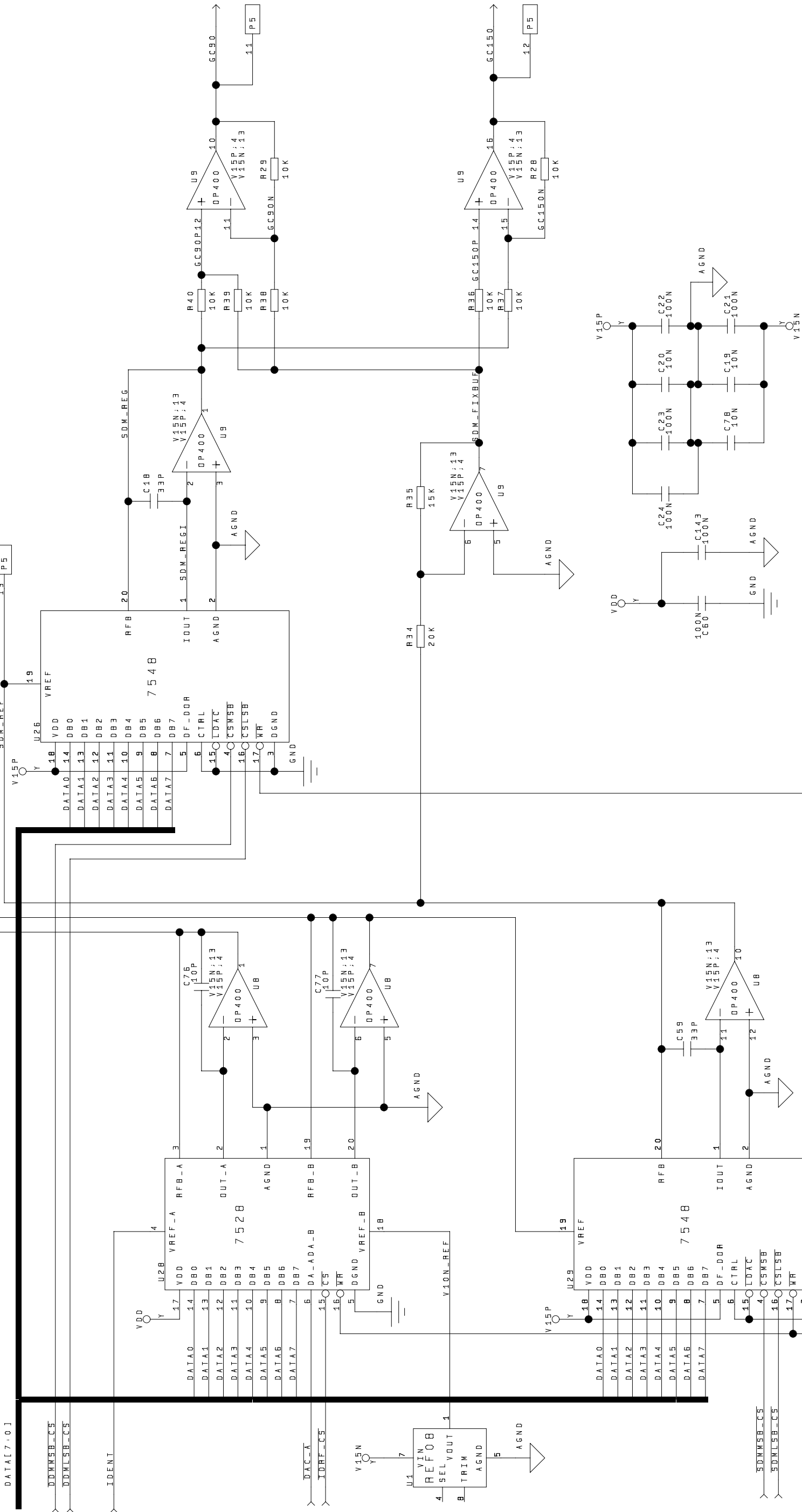
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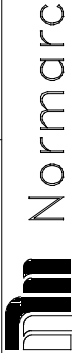
SDWMSB-CS

SDWLSB-CS

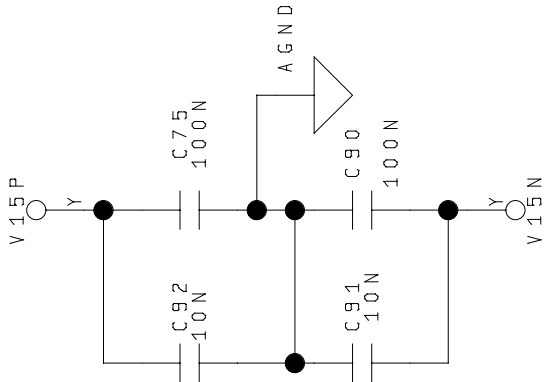
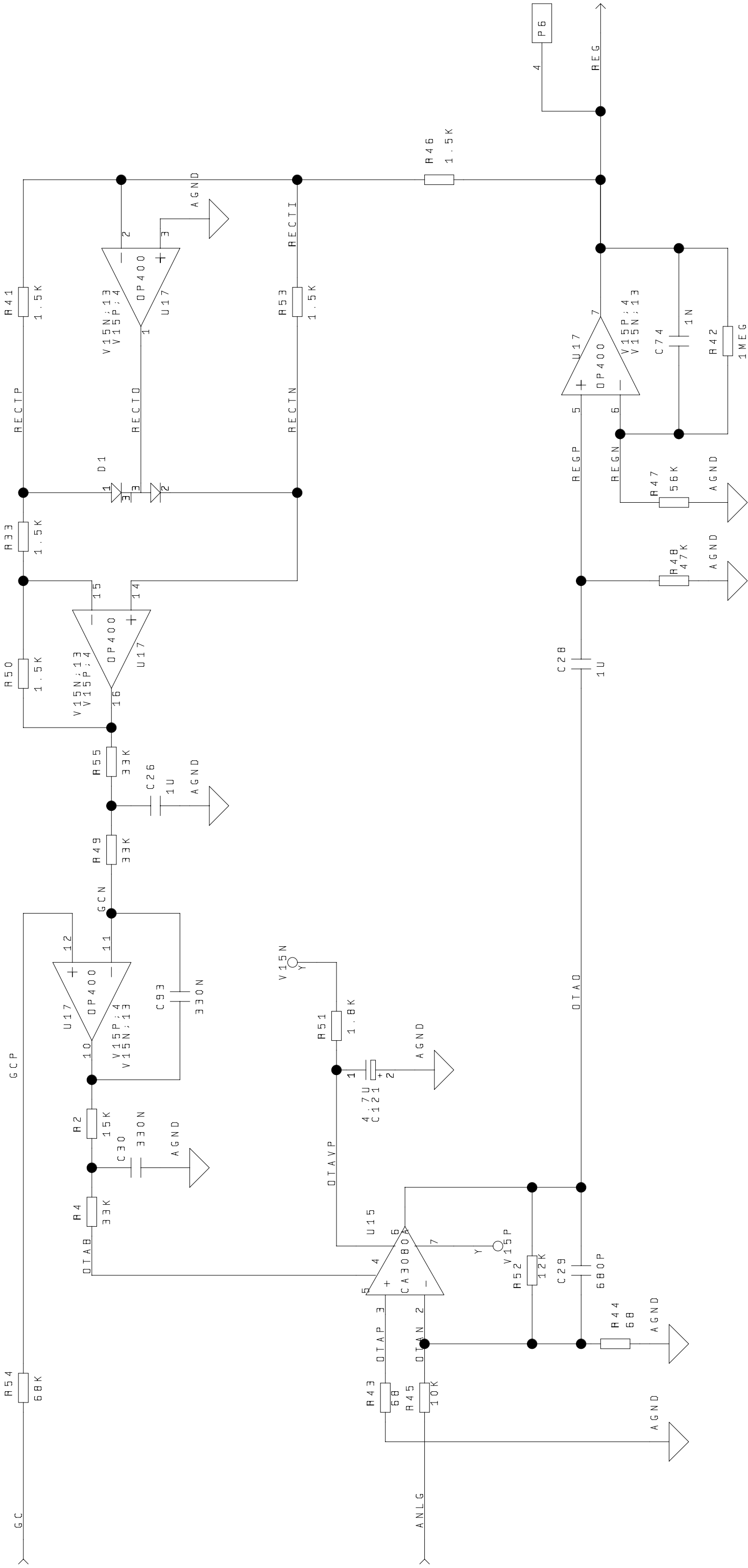
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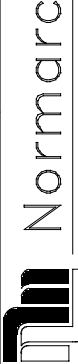
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			2403			4			03.07.95		
			2259			3			16.03.95		
			2205			2			08.02.95		
REF. NO.			ISSUE			DATE			SIGN		
NAME			MOD_AMP			MODULE			LF1223A		
#SCH.			24			#HDL			A3		
SIZE			A3			SHEET			9		
JSA			11-13-1996-12.23			10.10.94			VERSION		
DRAWN			10.10.94			15472			PROJECT		



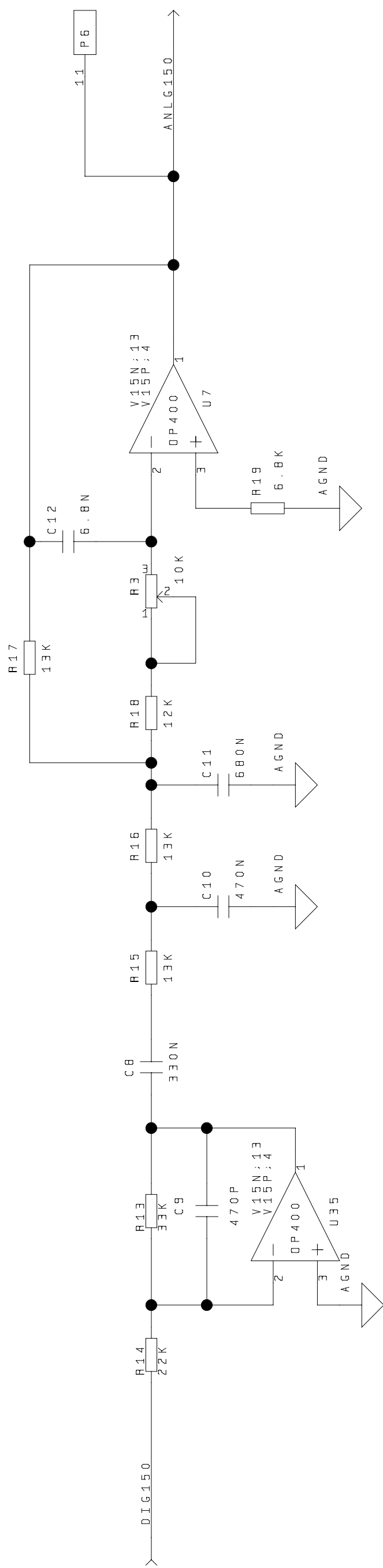
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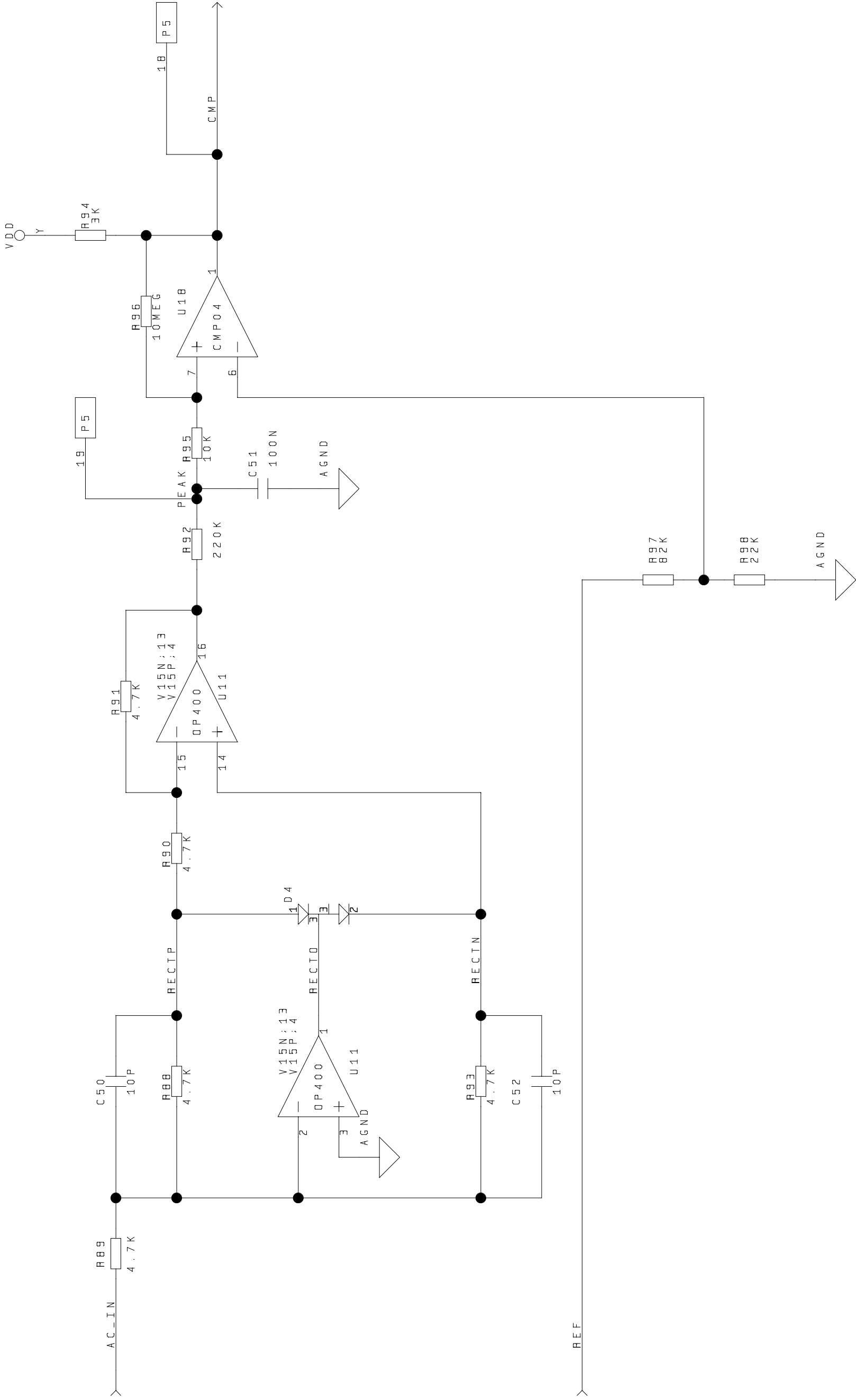
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2259	3	16.03.95	ER		24		A3	10
2205	2	08.02.95	ER	 Normarc	DWG. NO. :		VERSION :	
					15472		7	
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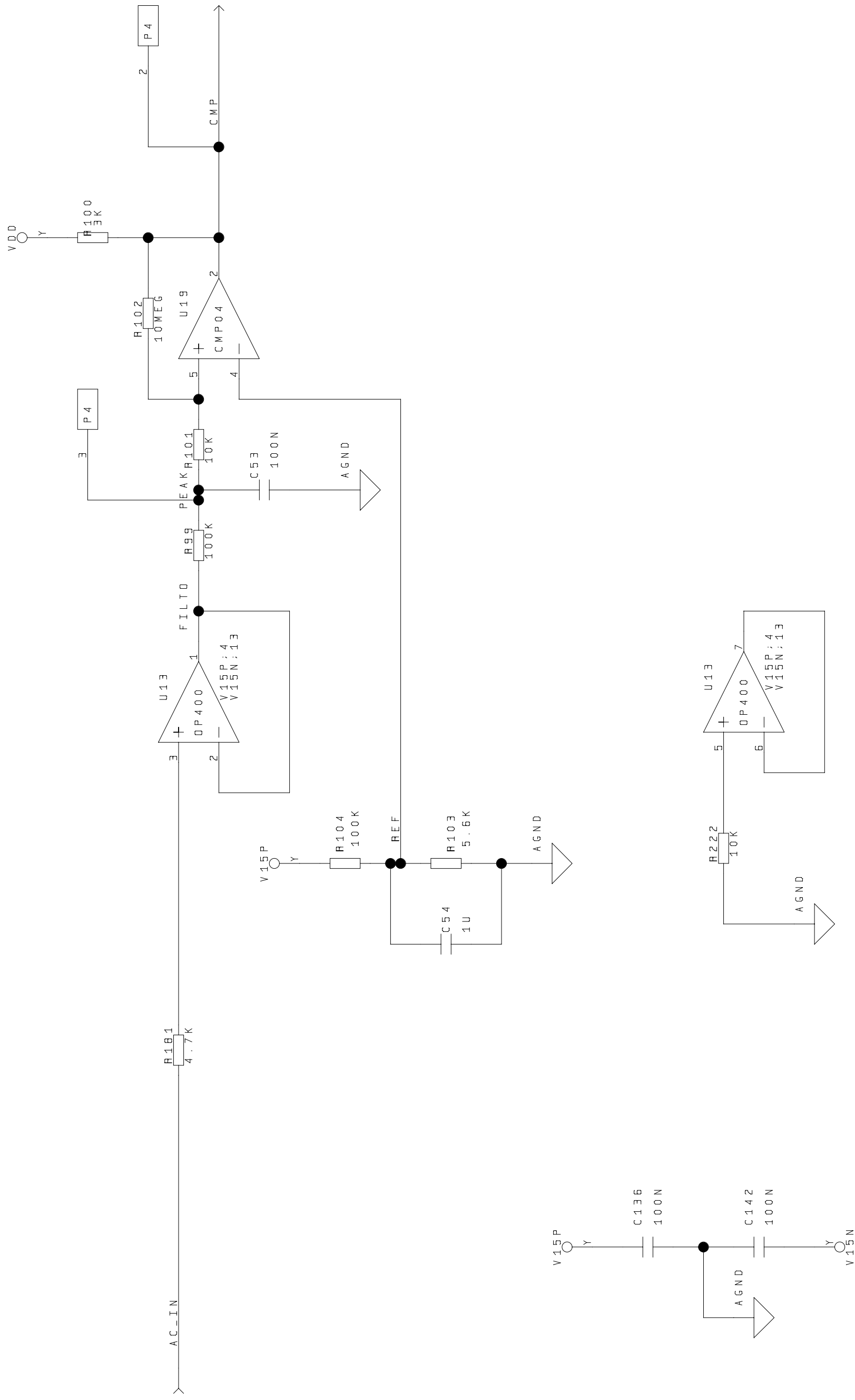
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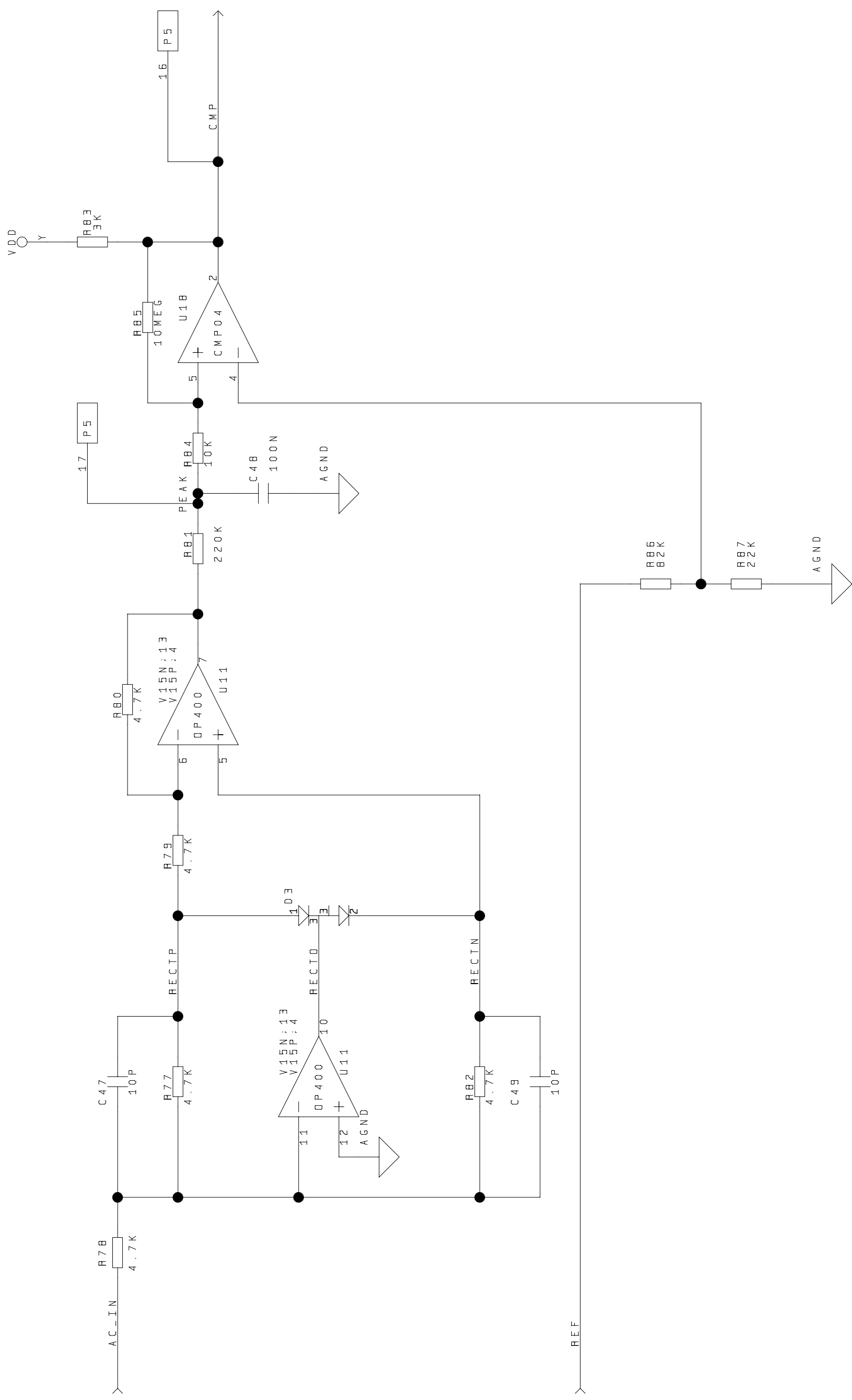


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2403	4	03.07.95	ER					MODULE : LF1223A			
2259	3	16.03.95	ER	 Normarc				DWG. NO. : 15472		VERSION : 7	
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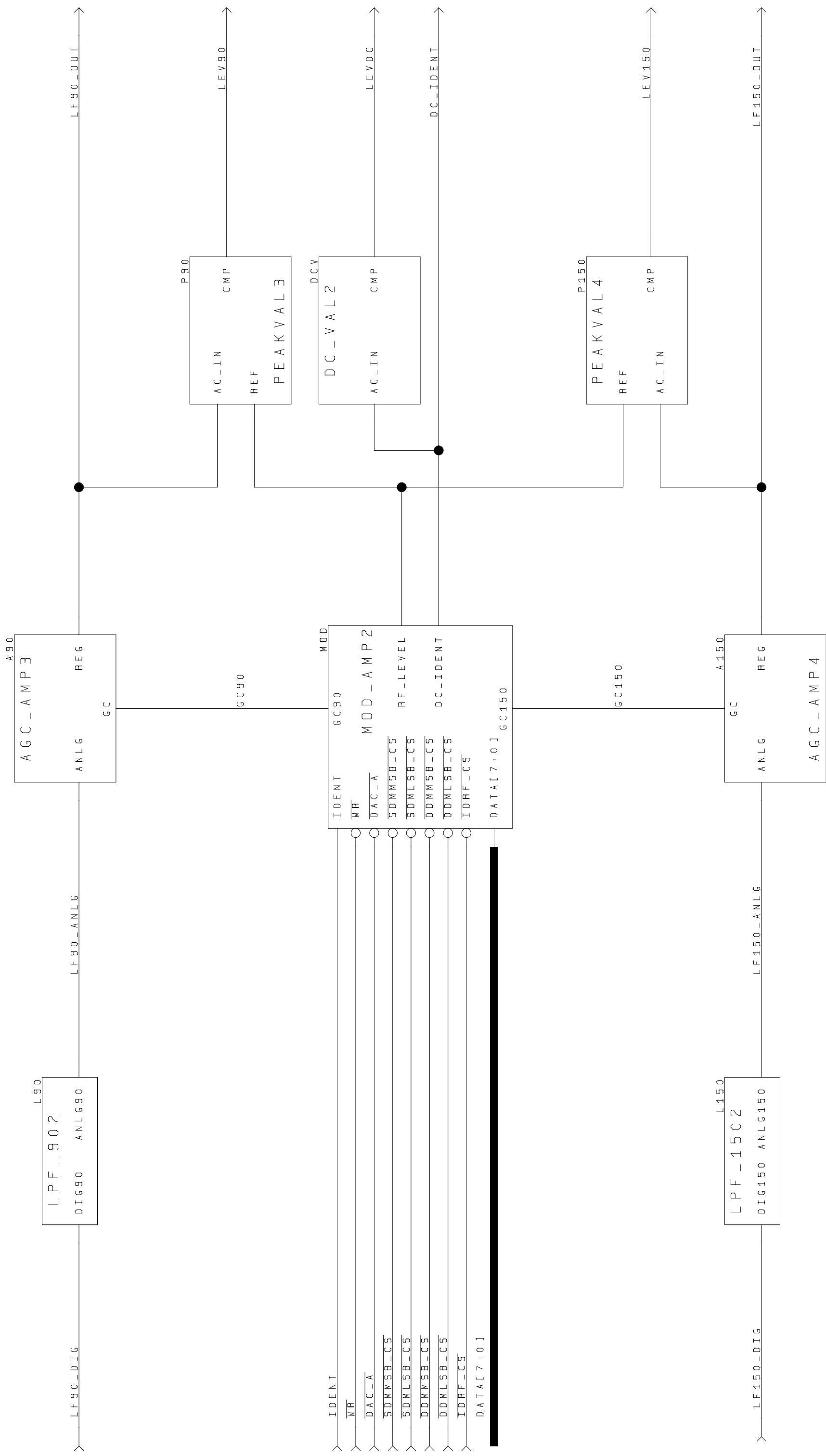


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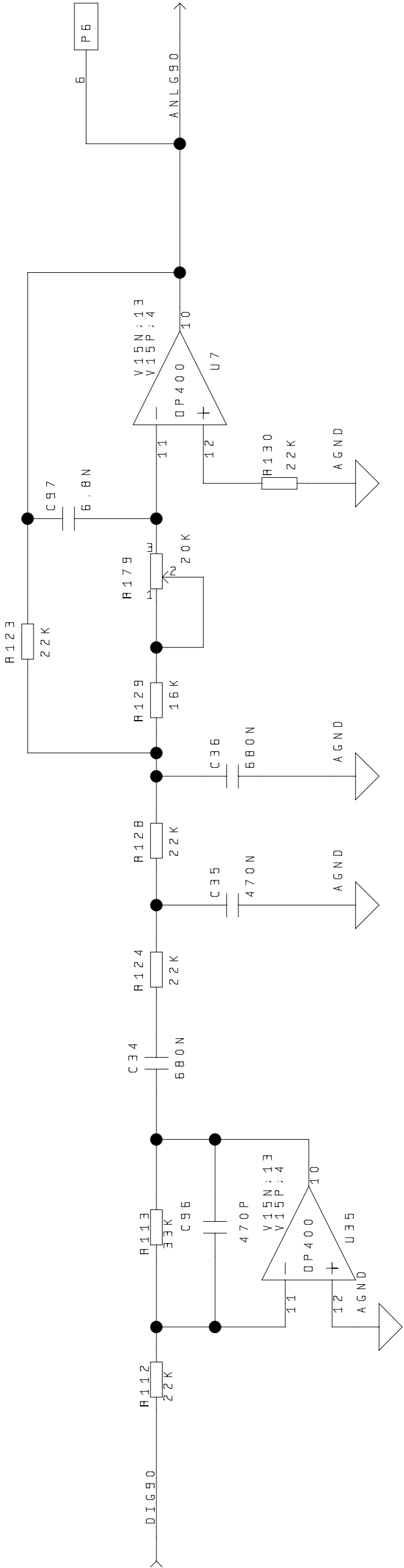
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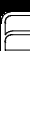


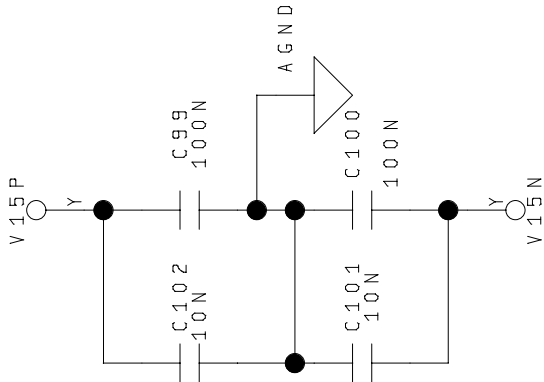
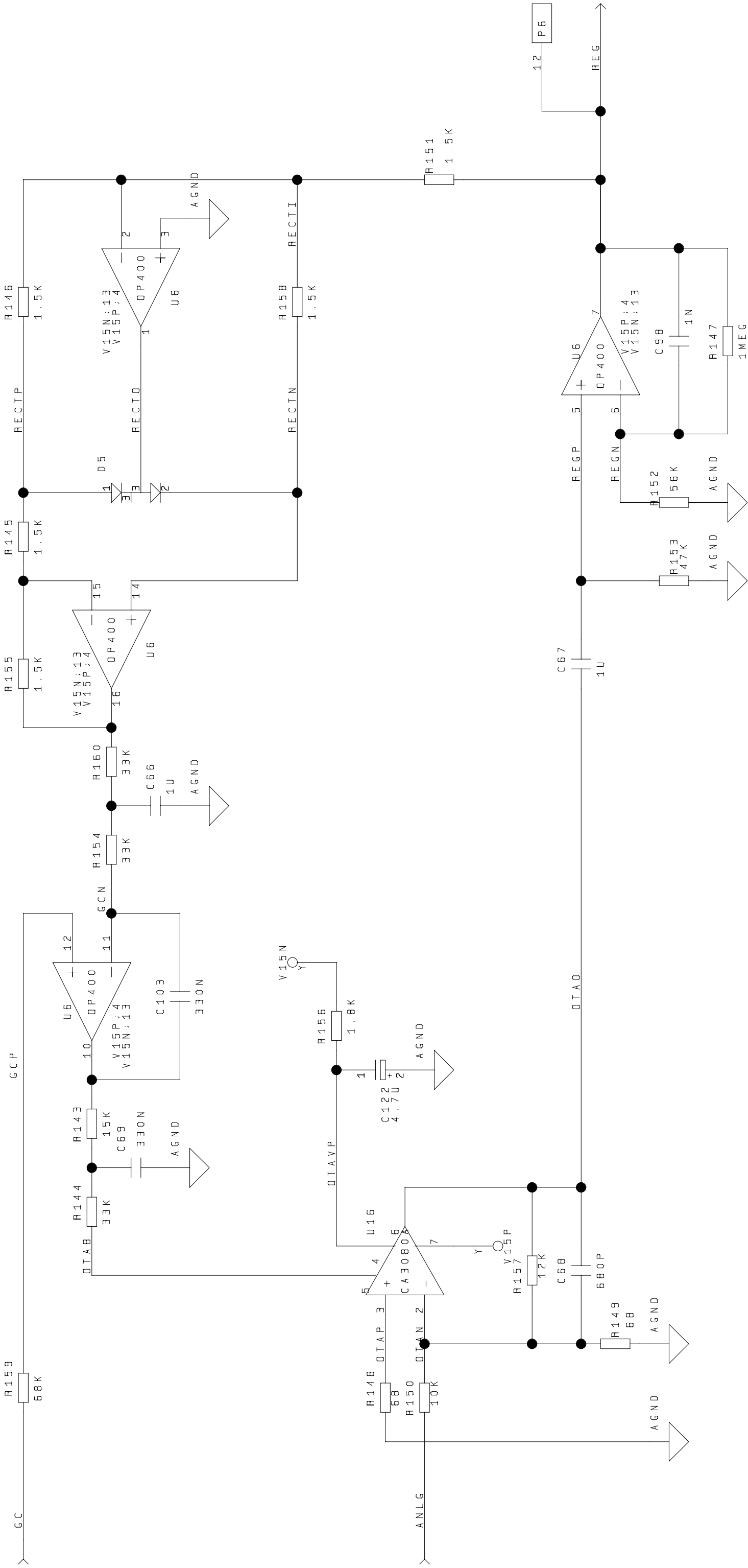
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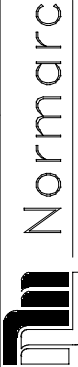
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2259	3	16.03.95	ER	NAME: LF_MIX2	MODULE: LF1223A		DWG. NO.:	VERSION:	
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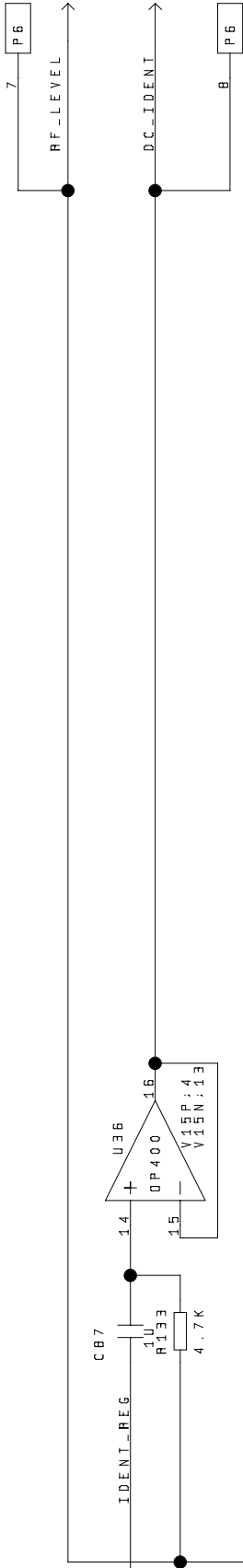
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REF. NO.	ISSUE	DATE	SIGN	 Normarc					
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DATA[7:0]

DDMM5B-CS

DDML5B-CS

IDENT

VDD

Y

U33

17

VREF-A

3

DATA0

14

DATA1

13

DATA2

12

DATA3

11

DATA4

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DATA5

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DATA6

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DATA7

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DA-ADA-B

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CS

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WF

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DGND

VREF-B

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GND

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V10N-REF

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U2

REF08

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SEL

VOUT

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TRIM

AGND

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V15N

Y

U37

19

VREF

18

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DATA1

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DATA2

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DATA3

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DATA4

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DATA5

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DATA6

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DATA7

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DF-DOR

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LDAC

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CSMSB

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CSLSB

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WF

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DGND

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GND

U36

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AGND

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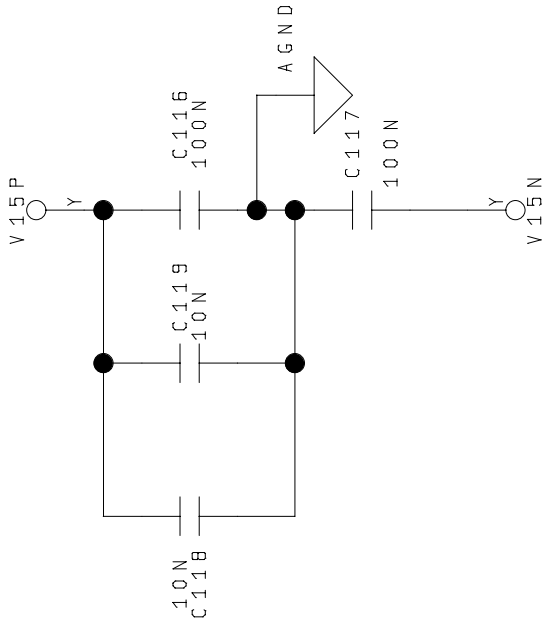
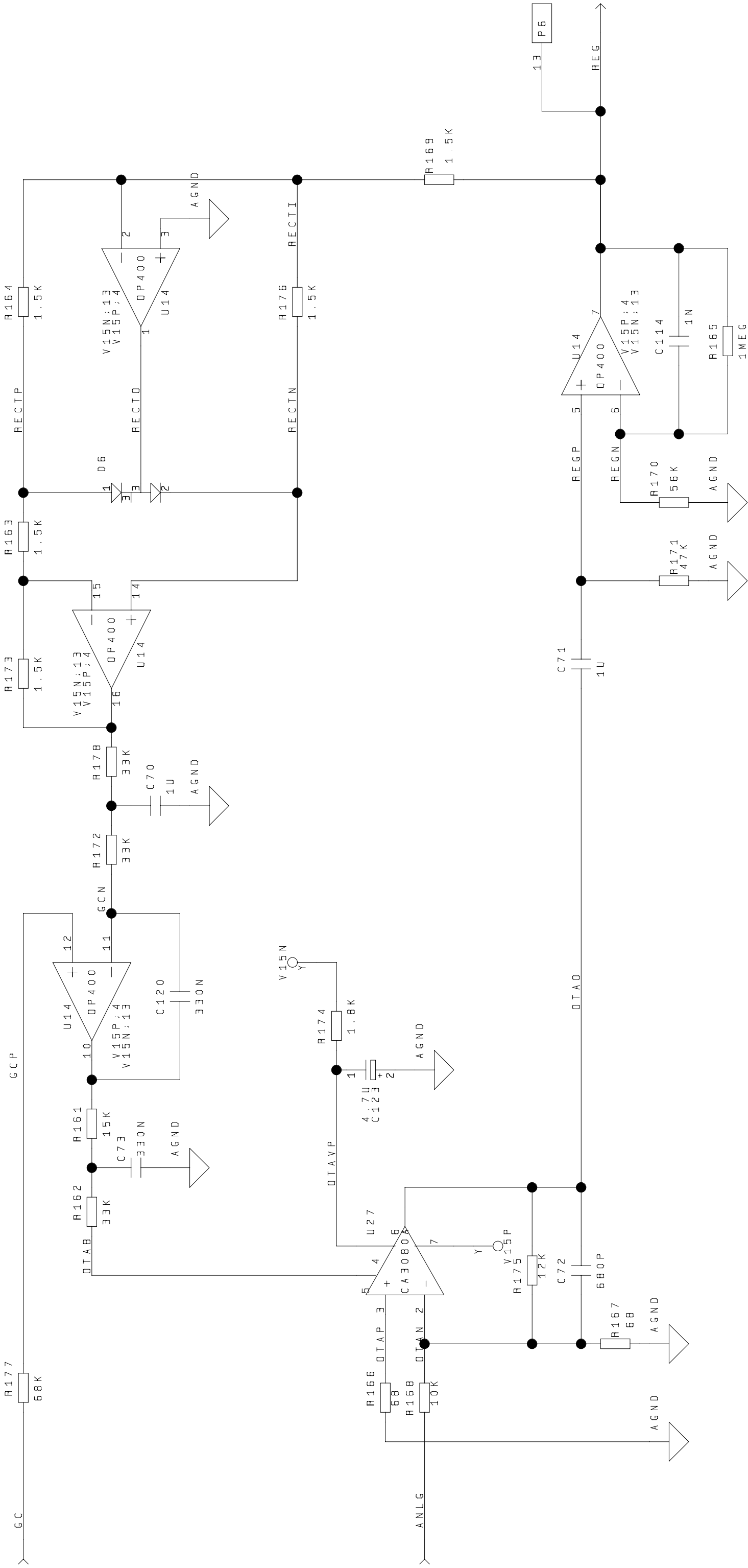
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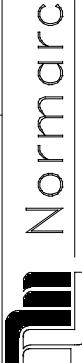
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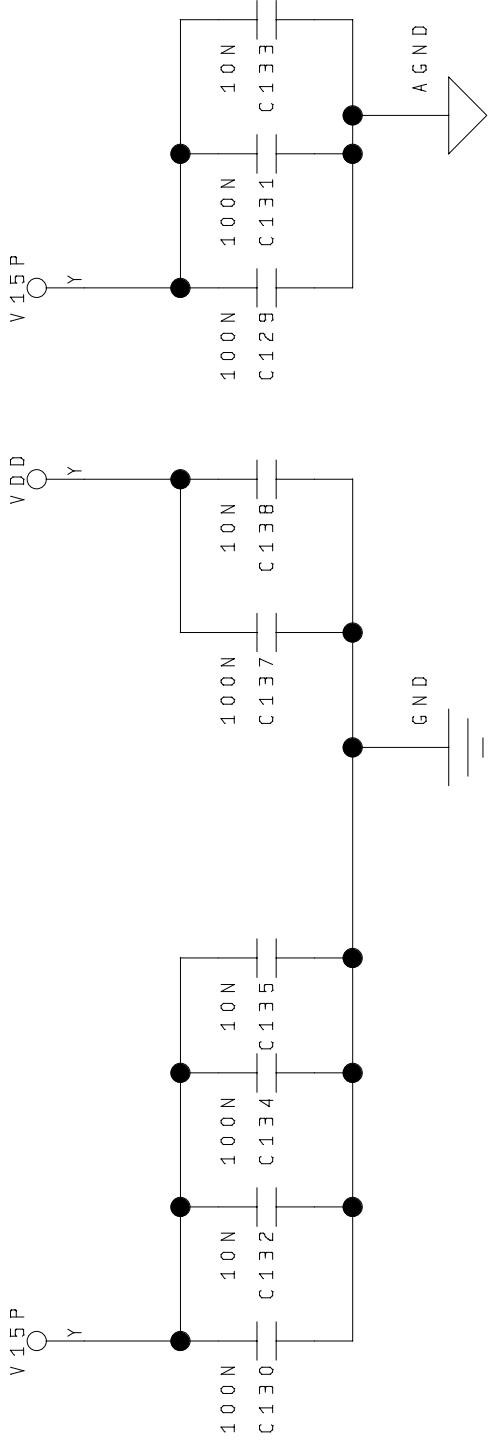
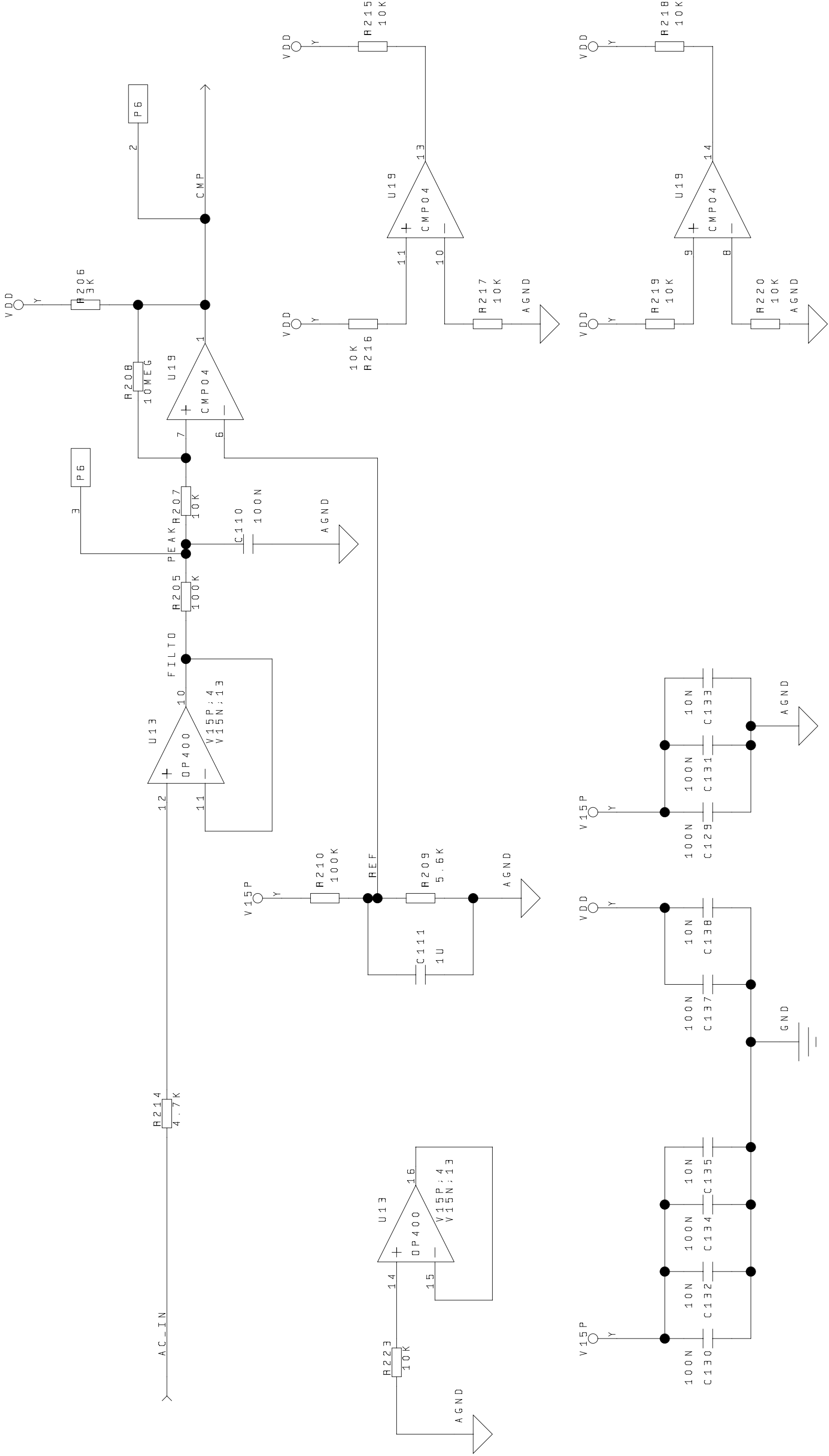
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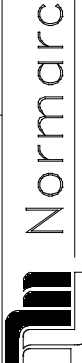
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2498	5	29.09.95	ER					#SCH. :		#HDL :		SIZE :		SHEET :
2403	4	03.07.95	ER											
2259	3	16.03.95	ER	NAME :		MODULE :		LF1223A		DWG. NO. :		VERSION :		
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				 Normarc										
				Copyright and all modification rights reserved NAVIA AVIATION AS, NORWAY				PROJECT :						



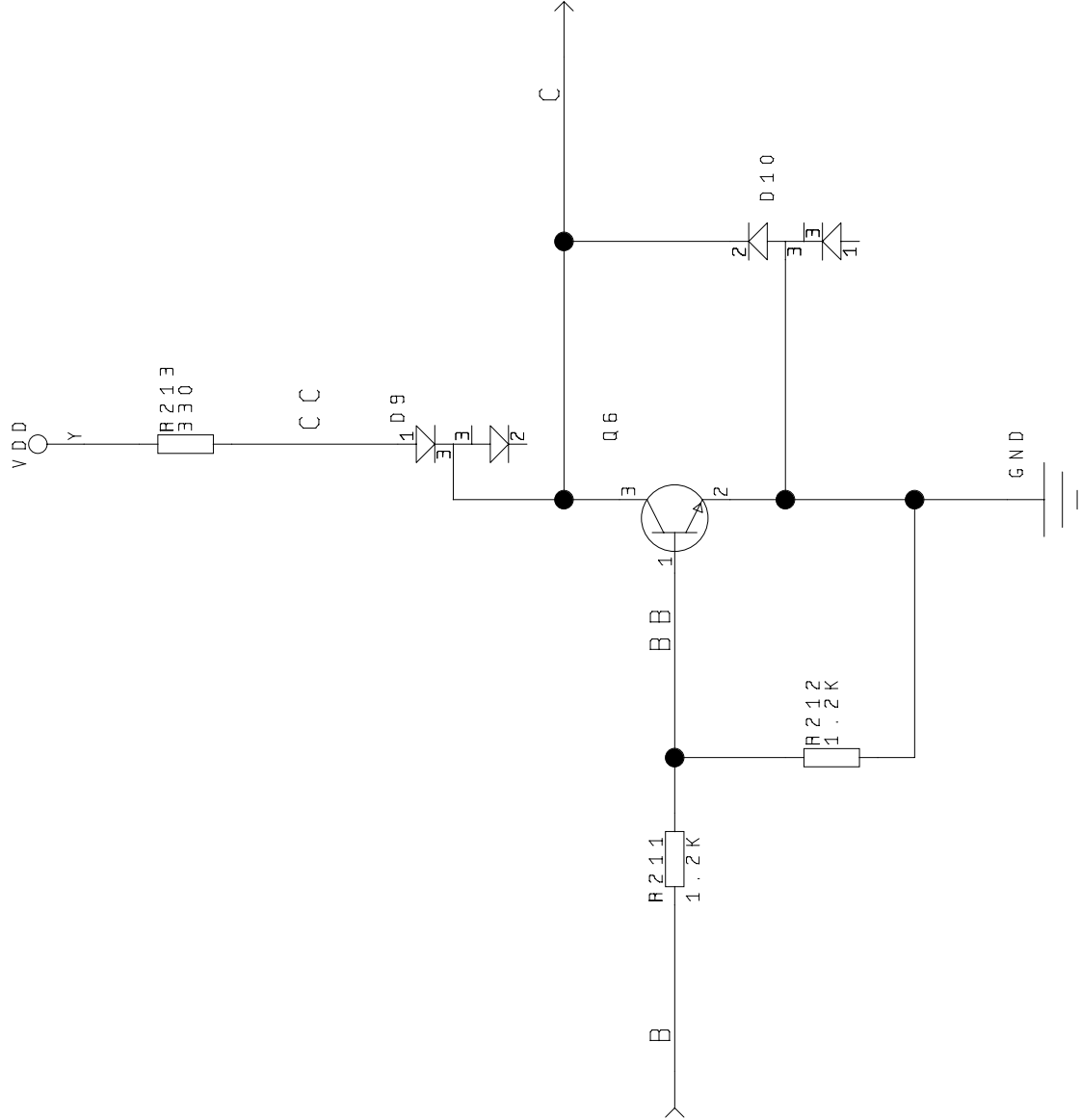
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REF. NO.	ISSUE	DATE	SIGN	DESCRIPTION				DRAWN				ER			
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				NAME				DC-VAL2				10-10-94			
				MODULE				LF1223A				10-10-94			
2837	7	13.11.96	ER	DRAWN				10.10.94				ER			
				CHECKED				11-13-1996-13-07				JSA			
2701	6	10.04.96	ER	APPR.				10.10.94				JSA			
				#SCH.				24				A3			
2498	5	29.09.95	ER	SIZE				A3				22			
				VERSION				7				JSA			
2403	4	03.07.95	ER	DWG. NO.				15472				JSA			
				PROJECT				PROJECT				JSA			
2259	3	16.03.95	ER	PROJECT				PROJECT				JSA			
				PROJECT				PROJECT				JSA			
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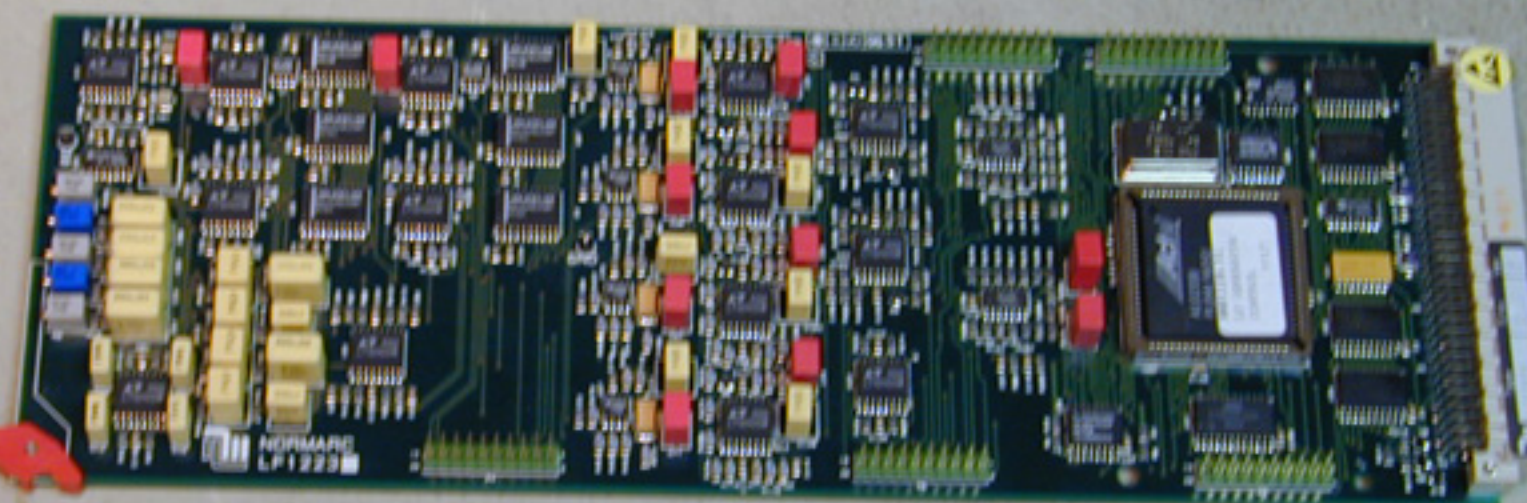


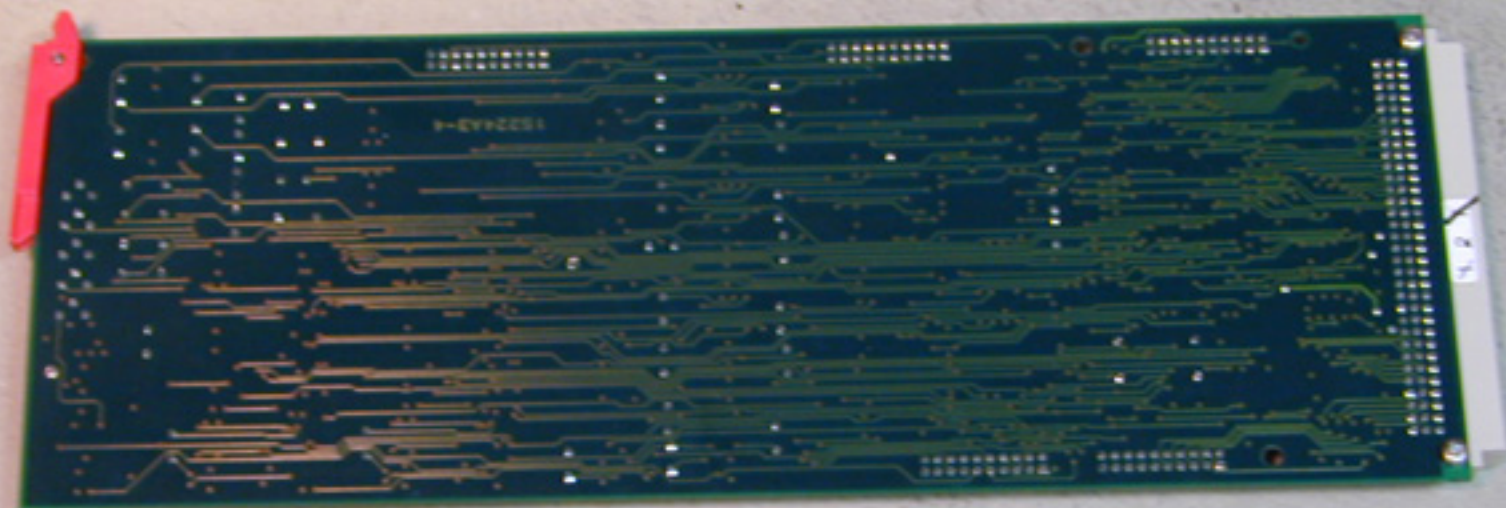
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REF. NO.	ISSUE	DATE	SIGN	PROJECT :							
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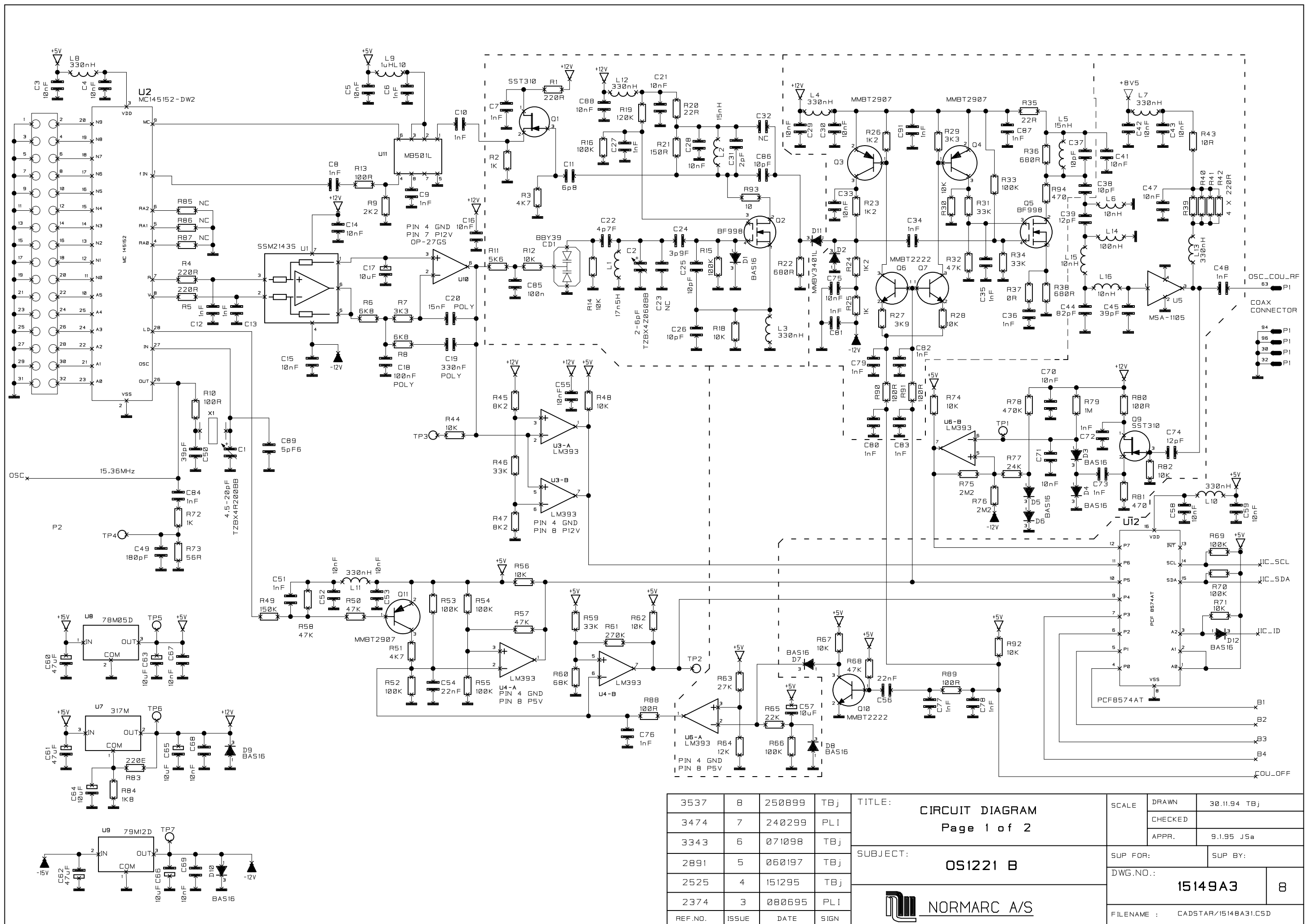
1.2 *Photos*

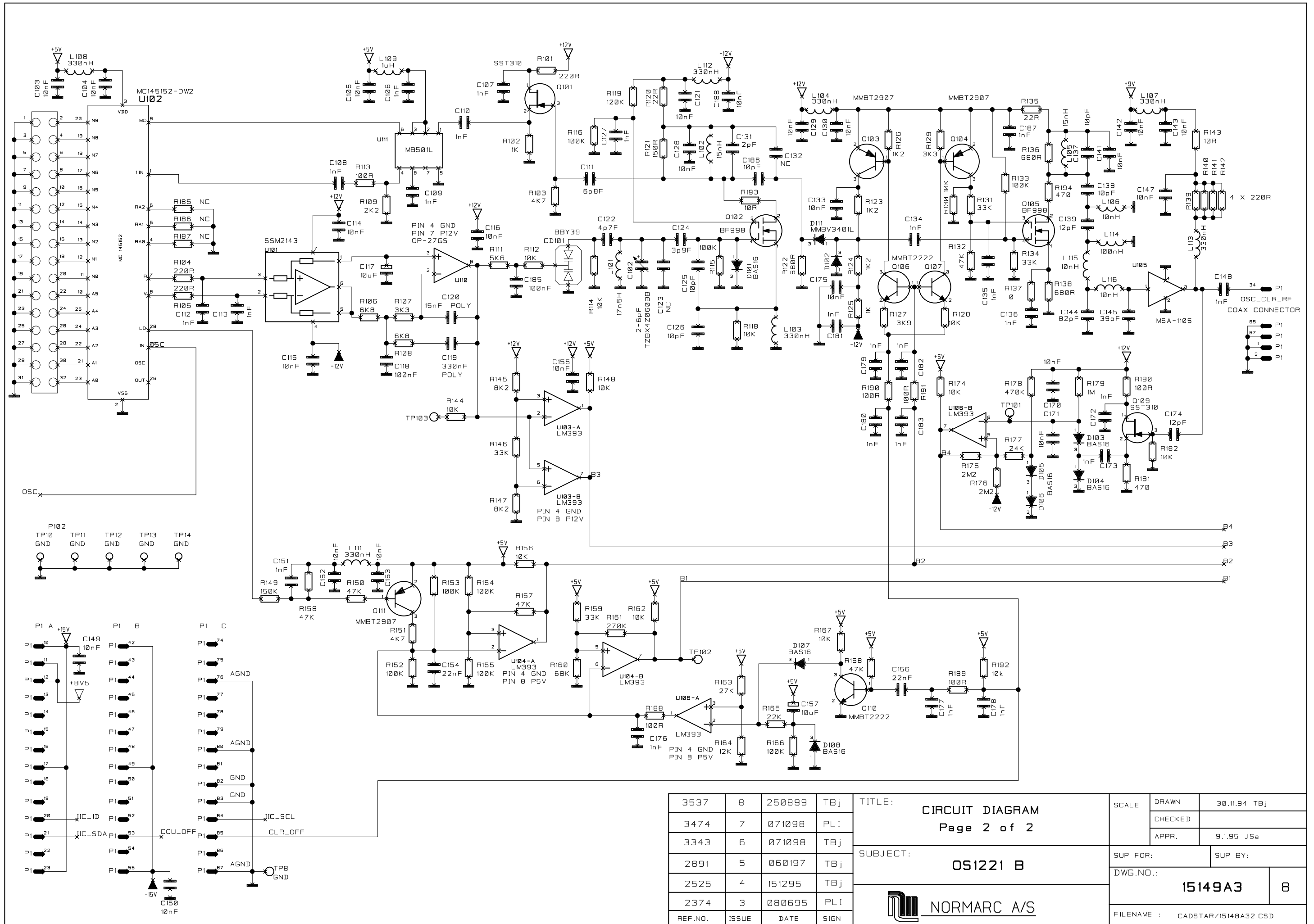




2 OS1221B RF Oscillator

2.1 *Circuit Diagrams*



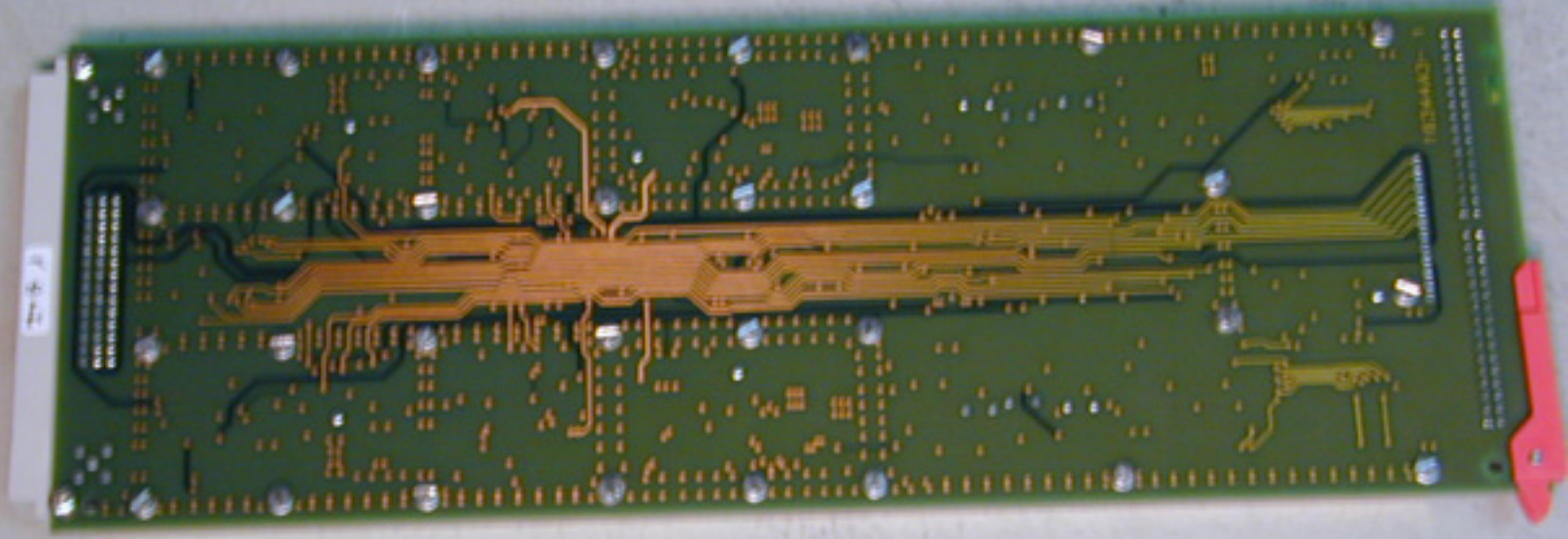


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3343	6	071098	TBJ			APPR.	9.1.95 JSa		
2891	5	060197	TBJ	SUBJECT: OS1221 B	SUP FOR:		SUP BY:		
2525	4	151295	TBJ		DWG.NO.:			15149A3	8
2374	3	080695	PLI						
REF.NO.	ISSUE	DATE	SIGN	 NORMARC A/S	FILENAME : CADSTAR/15148A32.CSD				

2.2 *Component Location*

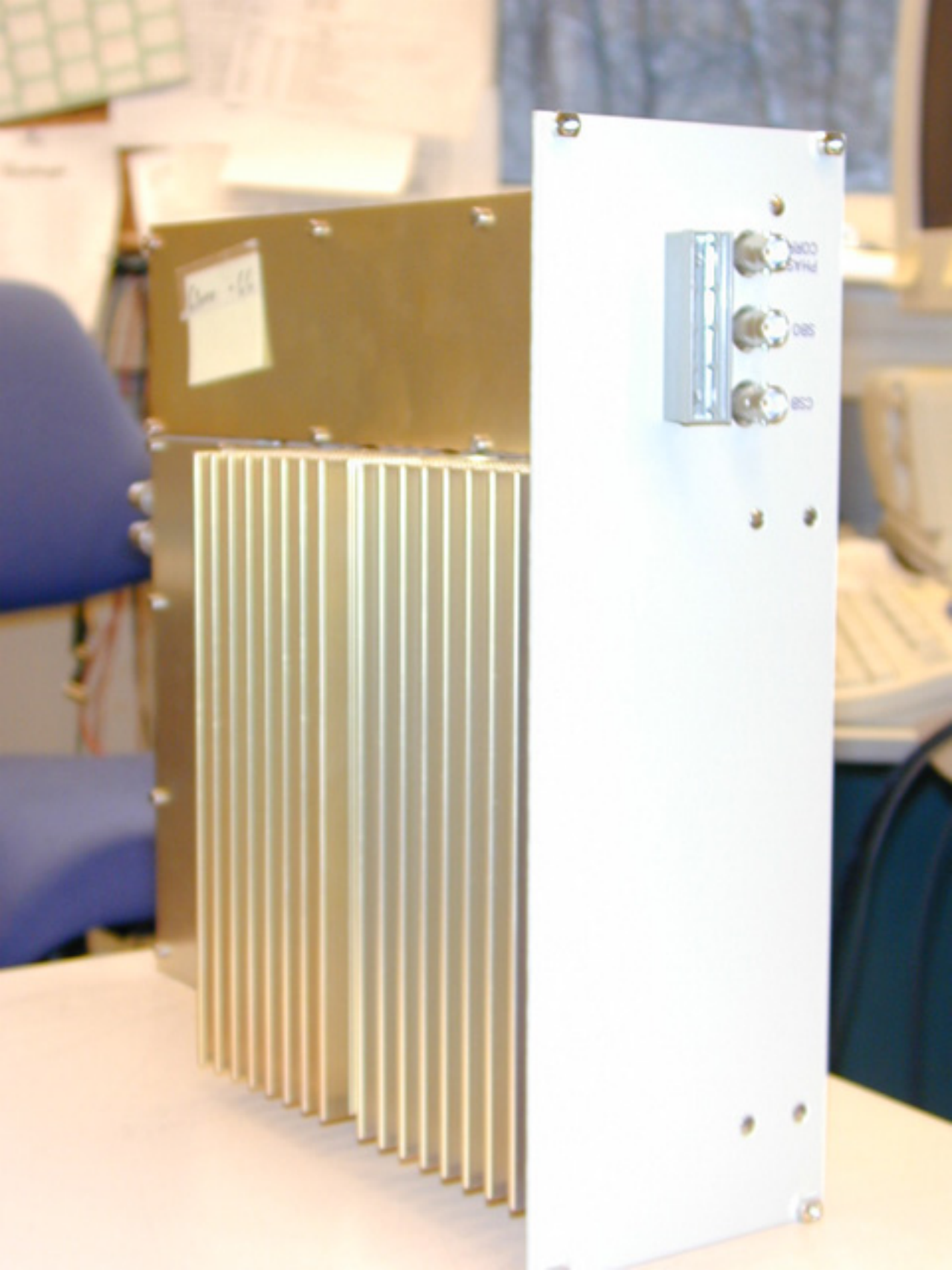
2.3 *Photos (OS1221A)*





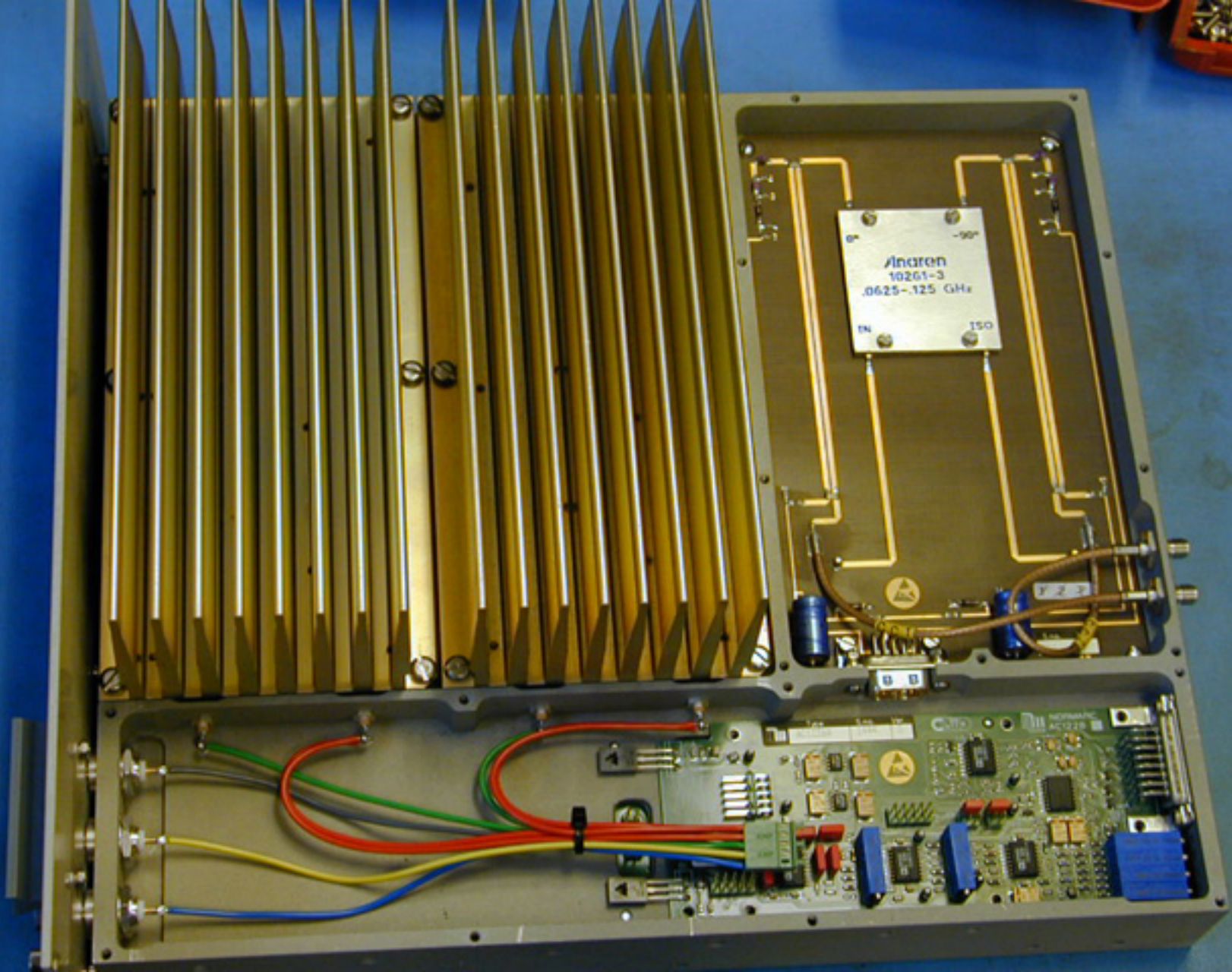
3 GPA1231A POWER AMPLIFIER

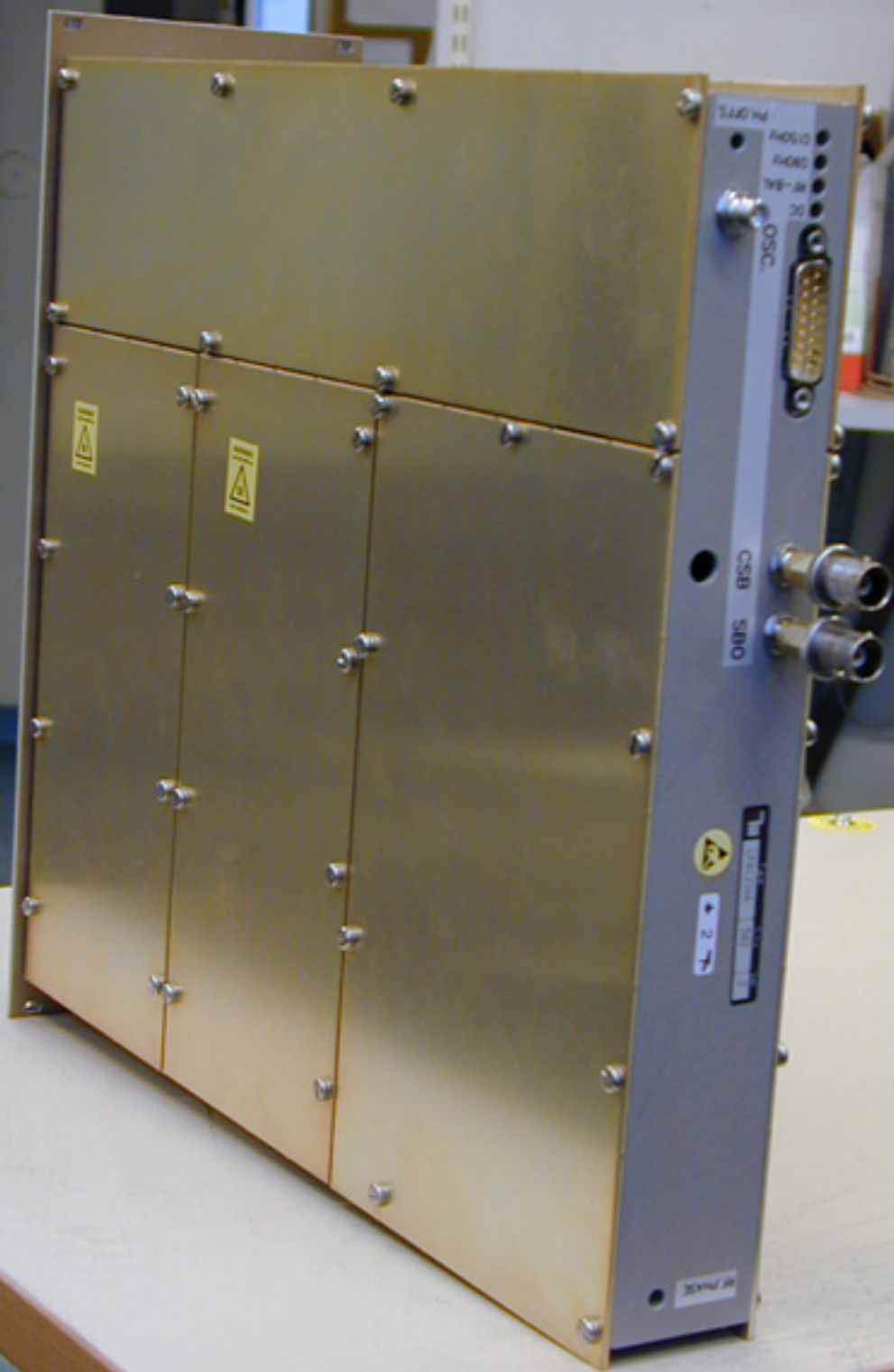
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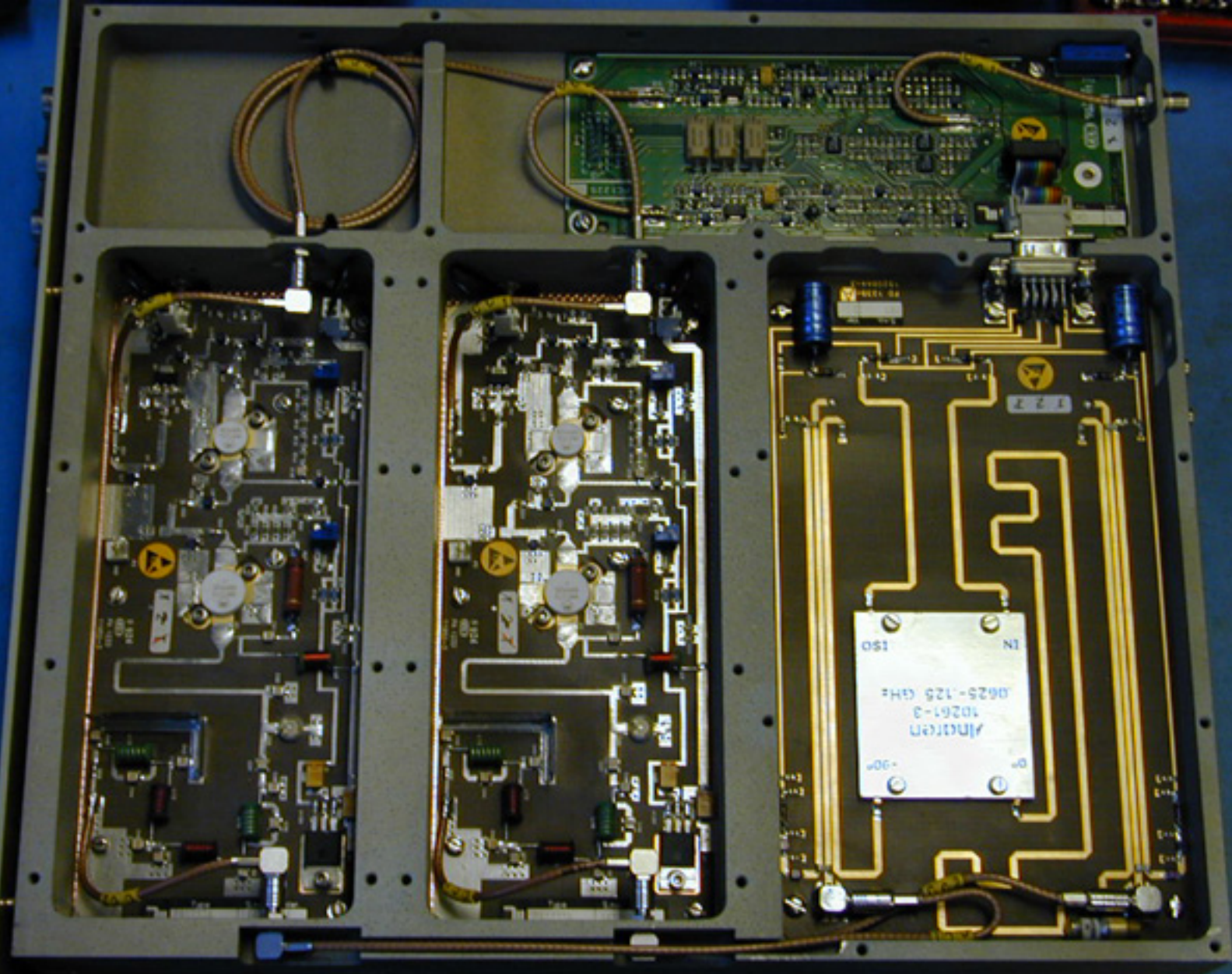


61000 - 66



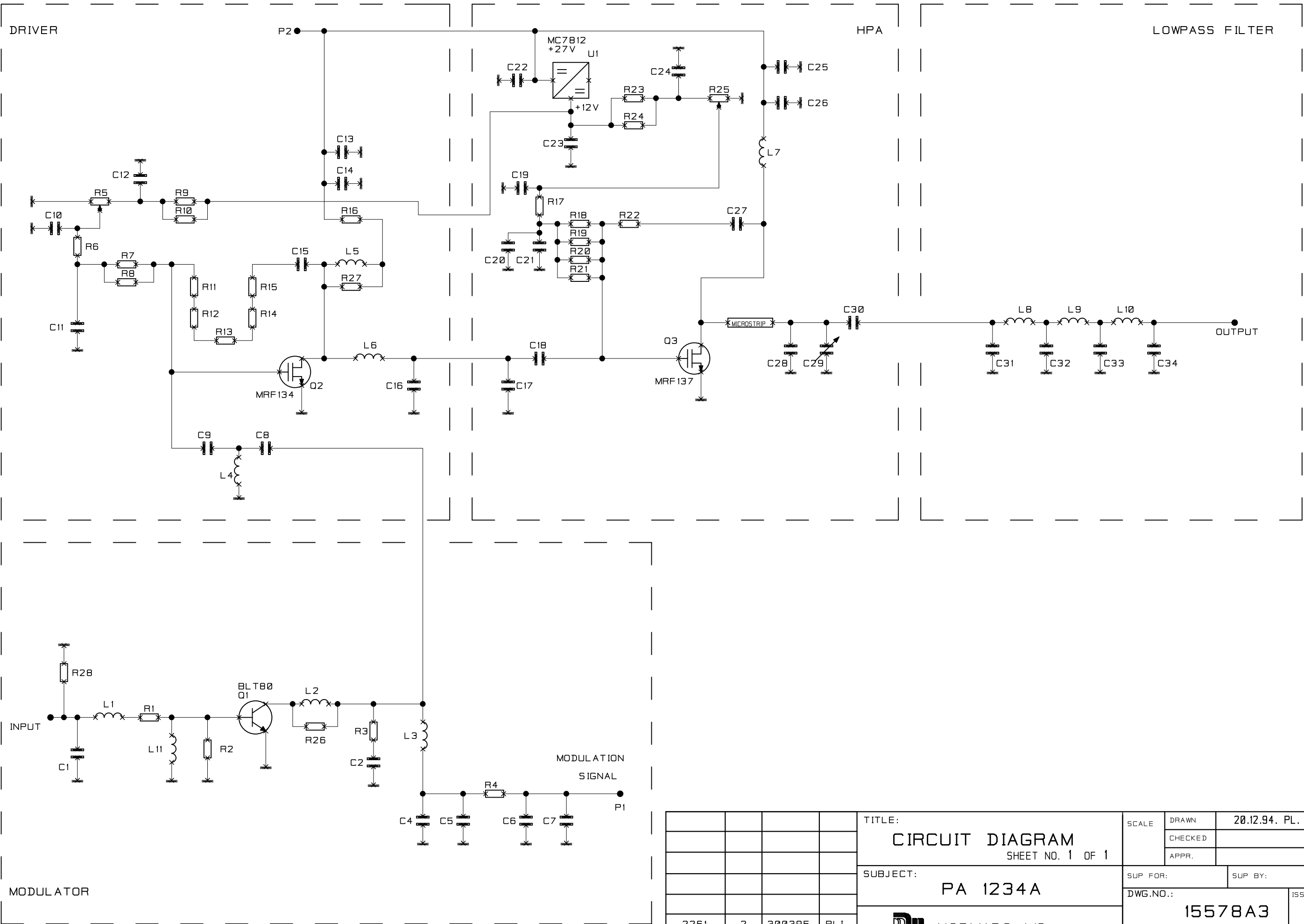






4 PA1234A Power Amplifier

4.1 *Schematic Diagrams*



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				SHEET NO. 1 OF 1		APPR.	
				SUBJECT:	SUP FOR:	SUP BY:	
				PA 1234A	DWG.NO.:	15578A3	ISSUE
							2
2261	2	300395	PL1	NORMARC A/S			
REF.NO.	ISSUE	DATE	SIGN	FILENAME : CADSTAR\15578A3			

4.2 *Parts List*

Product: 18636 Rev 2

PA 1234A POWER AMPLIFIER

Issue: 4

Change Order: 3479

Appr.:

Date:

Tot.Quant.	Pos.	Part no.	Component Manu. Description	Drwg.no.	Rev.	Value/Dim. Ratings	Tol. Function	Quant./Pos.
1 PCS	18637	18637	PA 1234A POWER AMPLIFIER PL	18637/9	4			1 PCS
1 PCS	18638	18638	PA 1234A POWER AMPLIFIER MPL	-	4			1 PCS
1 PCS	18639	18639	PA 1234A POWER AMPLIFIER CPL	-	1			1 PCS
1 PCS	C08	19832	CAP.SMD XXXX 0805C270J50	-		27P 50V	5%	1 PCS
1 PCS	C09	19836	CAP.SMD XXXX 0805C560J50	-		56P 50V	5%	1 PCS
1 PCS	C18	10208	CAP.CERAMIC ATC 700A151JP150X	-		150p 150V	0.05	1 PCS
1 PCS	Q02	11296	TRANSISTOR MOT MRF 134	-				1 PCS
1 PCS	Q03	11297	TRANSISTOR MOT MRF 137	-				1 PCS
1 PCS	U01	11510	IC MOT MCT7812CT / MC7812	-				1 PCS

Product: 18637 Rev.4

PA 1234A POWER AMPLIFIER PL

Issue: 10

Change Order: 3489

Appr.: HSA

Date: 090399

Tot.Quant.	Pos.	Part no.	Component	Manu. Description	Drwg.no.	Value/Dim.	Tol.	Quant./Pos.
					Rev.	Ratings	Function	

1 PCS	11953	11953	PCB PA1234		11953/2			1 PCS
1 PCS	13231	13231	-	LABEL SER.NO.	2		PA1234A	1 PCS
1 PCS	13298	13298	-	LABEL ESD	1			1 PCS
1 PCS	20325	20325		TYPE 52404				
1 PCS	21072	21072		LABEL PROGRESS 2	16037A4 P3	1-2-T		1 PCS
				PA 1234A GP POWER AMPL. ESPL	2			1 PCS
2 PCS	C15	10094	CAP.CERAMIC		-	100p	0.05	1 PCS
1 PCS	C16	10209	ATC 100B101JP500X		-	500V		
			CAP.CERAMIC		-	30p	0.02	1 PCS
1 PCS	C17	10210	ATC 100A300GP150DR		-	150V		
			CAP.CERAMIC		-	33p	0.05	1 PCS
2 PCS	C22	10571	ATC 100A330JP150X		-	150V		
			CAP.TANTALUM		-	1.5u	20%	1 PCS
	C23	10571	KYOC TAJJD155M050R		-	50V		
			CAP.TANTALUM		-	1.5u	20%	1 PCS
	C27	10094	KYOC TAJJD155M050R		-	50V		
			CAP.CERAMIC		-	100p	0.05	1 PCS
1 PCS	C28	10092	ATC 100B101JP500X		-	500V		
			CAP.CERAMIC		-	12p	0.05	1 PCS
1 PCS	C29	10593	ATC 100B120JP500DR		-	500V		
			CAP.TRIMMER		-	3-20p		1 PCS
			TLEC 9612SL		-			
1 PCS	C30	10090	CAP.CERAMIC		-	22p	0.05	1 PCS
			ATC 100B220JP500DR		-	500V		
2 PCS	C31	10080	CAP.CERAMIC		-	9.1p	0.05	1 PCS
			ATC 100B9R1JP500DR		-	500V		

Product: 18637

PA 1234A POWER AMPLIFIER PL

Issue: 10

Change Order: 3489

Appr.: HSA

Date: 090399

Tot.Quant.	Pos.	Part no.	Component Manu. Description	Drwg.no.	Value/Dim. Ratings	Tol. Function	Quant./Pos.
2 PCS	C32	10101	CAP.CERAMIC	-	15p	0.05	1 PCS
			ATC 100B150JP500DR		500V		
	C33	10101	CAP.CERAMIC	-	15p	0.05	1 PCS
			ATC 100B150JP500DR		500V		
	C34	10080	CAP.CERAMIC	-	9.1p	0.05	1 PCS
			ATC 100B9R1JP500DR		500V		
1 PCS	L01	13538	INDUCTOR	-	18n	20%	1 PCS
			COIL 1008CS-180XMBC				
2 PCS	L02	13523	INDUCTOR	-	10n	20%	1 PCS
			COIL 1008CS-100XMBC				
1 PCS	L03	13482	INDUCTOR	-	1u		1 PCS
			COIL 1008CS 102XKBC ALT.HS				
	L04	13523	INDUCTOR	-	10n	20%	1 PCS
			COIL 1008CS-100XMBC				
1 PCS	L05	13528	INDUCTOR	-	270n	10%	1 PCS
			COIL 1008CS-271XKBC				
1 PCS	L06	13524	INDUCTOR	-	4.7n	20%	1 PCS
			COIL 1008CT-040XMBC				
1 PCS	L07	13532	INDUCTOR	-	345n	5%	1 PCS
			COIL 132-15 345nH +-5%				
2 PCS	L08	13536	INDUCTOR	-	44n	5%	1 PCS
			COIL 132-03 44nH +-5%				
1 PCS	L09	13535	INDUCTOR	-	53.5n	5%	1 PCS
			COIL 132-04 53.5nH +-5%				
	L10	13536	INDUCTOR	-	44n	5%	1 PCS
			COIL 132-03 44nH +-5%				
1 PCS	L11	13531	INDUCTOR	-	27n	20%	1 PCS
			COIL 1008CS-270XMBC				
3 PCS	P01	12303	CONN.	-			1 PCS
			MOLX 22-27-2021				
	P02	12303	CONN.	-			1 PCS
			MOLX 22-27-2021				

Product: 18637 PA 1234A POWER AMPLIFIER PL Issue: 10 Change Order: 3489 Appr.: HSA Date: 090399

Tot.Quant.	Pos.	Part no.	Component Manu. Description	Drwg.no.	Rev.	Value/Dim. Ratings	Tol. Function	Quant./Pos.
	P03	12303	CONN.	-				1 PCS
			MOLX 22-27-2021					
1 PCS	Q01	11302	TRANSISTOR	-		SOT-223		1 PCS
			PH BLT80,115 (TAPE)					
2 PCS	R05	11134	POTENTIOMETER	-		10k	10%	1 PCS
			BOUR 3266W-1-103			0.25W		
1 PCS	R22	10622	RES.METALFILM	-		150	5%	1 PCS
			PH 2322 195 13151			750V		
	R25	11134	POTENTIOMETER	-		10k	10%	1 PCS
			BOUR 3266W-1-103			0.25W		

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NAVIA AVIATION

PARTS LIST

Page 1/1

Product: 18639

PA 1234A POWER AMPLIFIER KAB

Issue: 1

Change Order:

Appr.: *A.S.* Date: 26.11.92

Tot.Quant.	Pos.	Part no.	Component Manu. Description	Drwg.no.	Value/Dim. Rev. Ratings	Tol. Function	Quant./Pos.
------------	------	----------	--------------------------------	----------	----------------------------	------------------	-------------

.18 M

19676

COAX CABLE

-

180 MM

2 PCS

12128

CONN.COAX

-

2 PCS

SUHN 16 SMB-50-2-10/133

SMB-MALE

Product: 21072

PA 1234A GP POWER AMPL. ESPL

Issue: 7

Change Order: 3386

Appr.: *A.S.*

Date: 10.11.98

Tot.Quant.	Pos.	Part no.	Component Manu. Description	Drwg.no.	Value/Dim. Ratings	Tol. Function	Quant./Pos.
1 PCS	C01	19824	CAP.SMD XXXX 0805C5P6J50	-	5.6P	5%	1 PCS
9 PCS	C02	19852	CAP.SMD XXXX 0805C102J50	-	50V 1N	5%	1 PCS
	C04	19852	CAP.SMD XXXX 0805C102J50	-	50V 1N	5%	1 PCS
7 PCS	C05	19840	CAP.SMD XXXX 0805C102J50	-	50V 100P	5%	1 PCS
	C06	19840	CAP.SMD XXXX 0805C101J50	-	50V 100P	5%	1 PCS
	C07	19852	CAP.SMD XXXX 0805C101J50	-	50V 1N	5%	1 PCS
	C10	19840	CAP.SMD XXXX 0805C102J50	-	50V 100P	5%	1 PCS
	C11	19852	CAP.SMD XXXX 0805C101J50	-	50V 1N	5%	1 PCS
	C12	19852	CAP.SMD XXXX 0805C102J50	-	50V 1N	5%	1 PCS
	C13	19852	CAP.SMD XXXX 0805C102J50	-	50V 1N	5%	1 PCS
	C14	19840	CAP.SMD XXXX 0805C102J50	-	50V 100P	5%	1 PCS
	C19	19840	CAP.SMD XXXX 0805C101J50	-	50V 100P	5%	1 PCS
	C20	19840	CAP.SMD XXXX 0805C101J50	-	50V 100P	5%	1 PCS
	C21	19852	CAP.SMD XXXX 0805C101J50	-	50V 1N	5%	1 PCS
	C24	19852	CAP.SMD XXXX 0805C102J50	-	50V 1N	5%	1 PCS
	C25	19840	CAP.SMD XXXX 0805C102J50	-	50V 100P	5%	1 PCS

Product: 21072

PA 1234A GP POWER AMPL. ESPL

Issue: 7

Change Order: 3386

Appr.: *21.1*

Date: 0.11.99

Tot.Quant.	Pos.	Part no.	Component Manu. Description	Drwg.no.	Value/Dim. Rev. Ratings	Tol. Function	Quant./Pos.
	C26	19852	XXXX 0805C101J50 CAP.SMD	-	50V 1N	5%	1 PCS
1 PCS	R01	10909	XXXX 0805C102J50 SMD RESISTOR	-	50V 10	1%	1 PCS
1 PCS	R02	10926	XXXX 1206F100 SMD RESISTOR	-	0.25W 51	1%	1 PCS
1 PCS	R03	10940	XXXX 1206F510 SMD RESISTOR	-	0.25W 300	1%	1 PCS
1 PCS	R04	10903	XXXX 1206F301 SMD RESISTOR	-	0.25W 5.6	1%	1 PCS
2 PCS	R06	10977	XXXX 1206F5R6 SMD RESISTOR	-	0.25W 10K	1%	1 PCS
2 PCS	R07	10943	XXXX 1206F103 SMD RESISTOR	-	0.25W 390	1%	1 PCS
	R08	10943	XXXX 1206F391 SMD RESISTOR	-	0.25W 390	1%	1 PCS
4 PCS	R09	10967	XXXX 1206F391 SMD RESISTOR	-	0.25W 3.9K	1%	1 PCS
	R10	10967	XXXX 1206F392 SMD RESISTOR	-	0.25W 3.9K	1%	1 PCS
6 PCS	R11	18943	XXXX 1206F392 SMD RESISTOR	-	0.25W 100	1%	1 PCS
	R12	18943	XXXX 1206F101 SMD RESISTOR	-	0.25W 100	1%	1 PCS
	R13	18943	XXXX 1206F101 SMD RESISTOR	-	0.25W 100	1%	1 PCS
	R14	18943	XXXX 1206F101 SMD RESISTOR	-	0.25W 100	1%	1 PCS
	R15	18943	XXXX 1206F101 SMD RESISTOR	-	0.25W 100	1%	1 PCS
1 PCS	R16	20100	XXXX 1206F101 JUMPER	-	0.25W 0	1%	1 PCS

Product: 21072

PA 1234A GP POWER AMPL. ESPL

Issue: 7

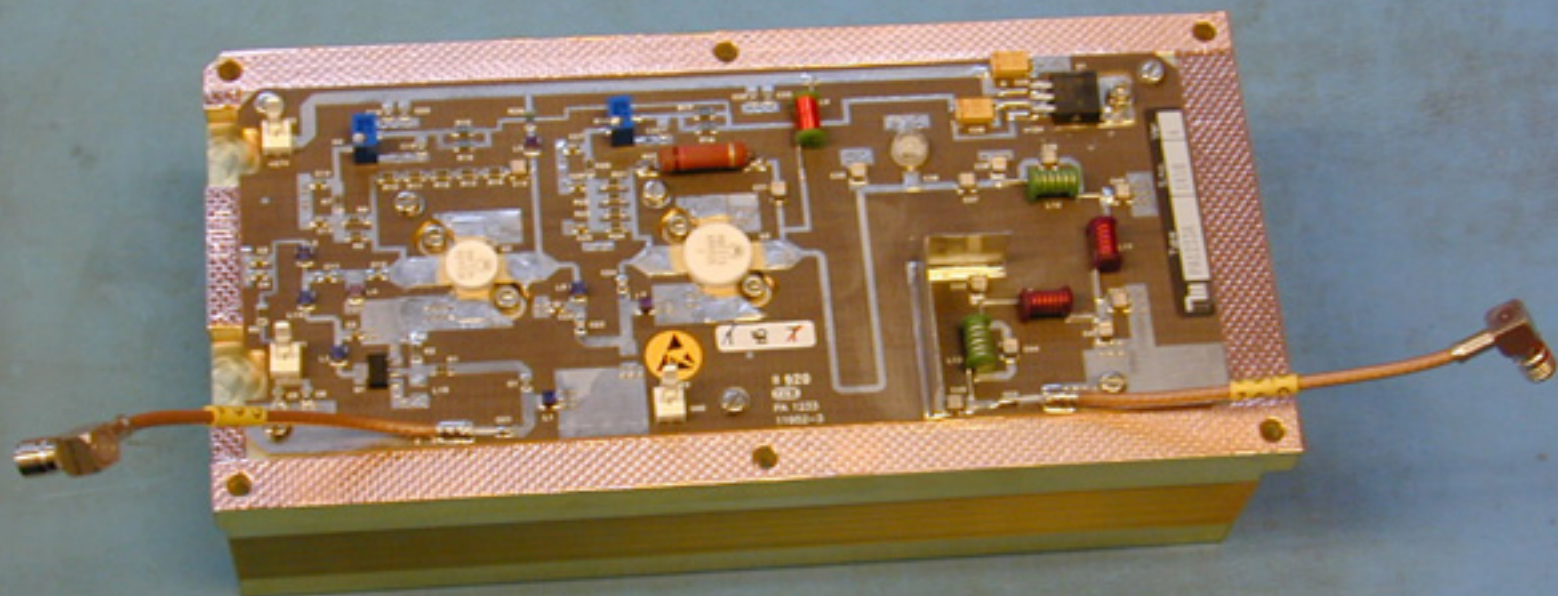
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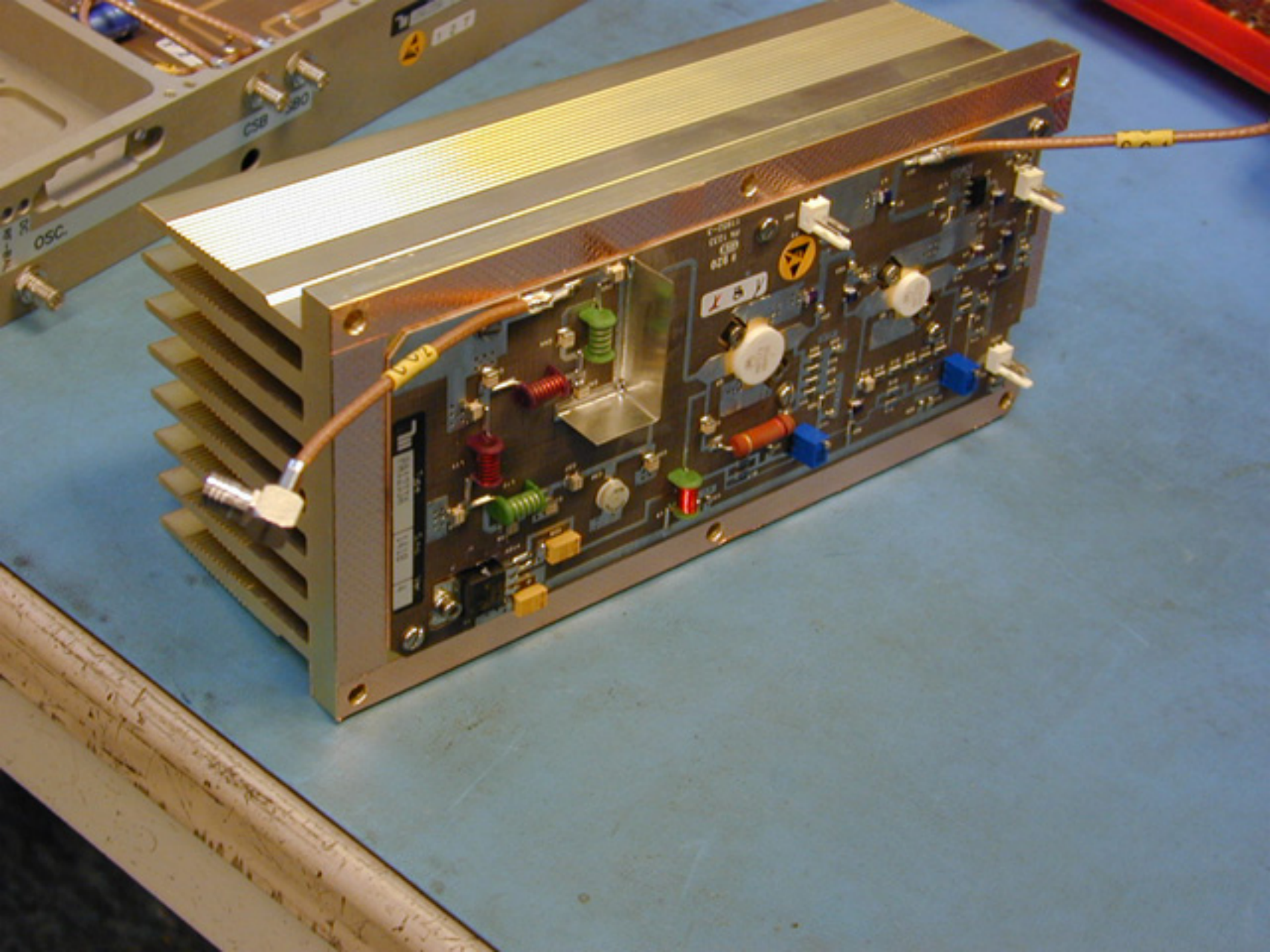
Appr.: *A.S.*

Date: 10.11.98

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	R17	10977	XXXX 1206F000 SMD RESISTOR	-		10K	1%	1 PCS
4 PCS	R18	10991	XXXX 1206F103 SMD RESISTOR	-		39K	1%	1 PCS
	R19	10991	XXXX 1206F393 SMD RESISTOR	-		39K	1%	1 PCS
	R20	10991	XXXX 1206F393 SMD RESISTOR	-		39K	1%	1 PCS
	R21	10991	XXXX 1206F393 SMD RESISTOR	-		39K	1%	1 PCS
	R23	10967	XXXX 1206F392 SMD RESISTOR	-		3.9K	1%	1 PCS
	R24	10967	XXXX 1206F392 SMD RESISTOR	-		3.9K	1%	1 PCS
	R26	18943	XXXX 1206F101 SMD RESISTOR	-		100	1%	1 PCS
1 PCS	R27	10951	XXXX 1206F821 SMD RESISTOR	-		820	1%	1 PCS
1 PCS	R28	10937	XXXX 1206F201 SMD RESISTOR	-		200	1%	1 PCS

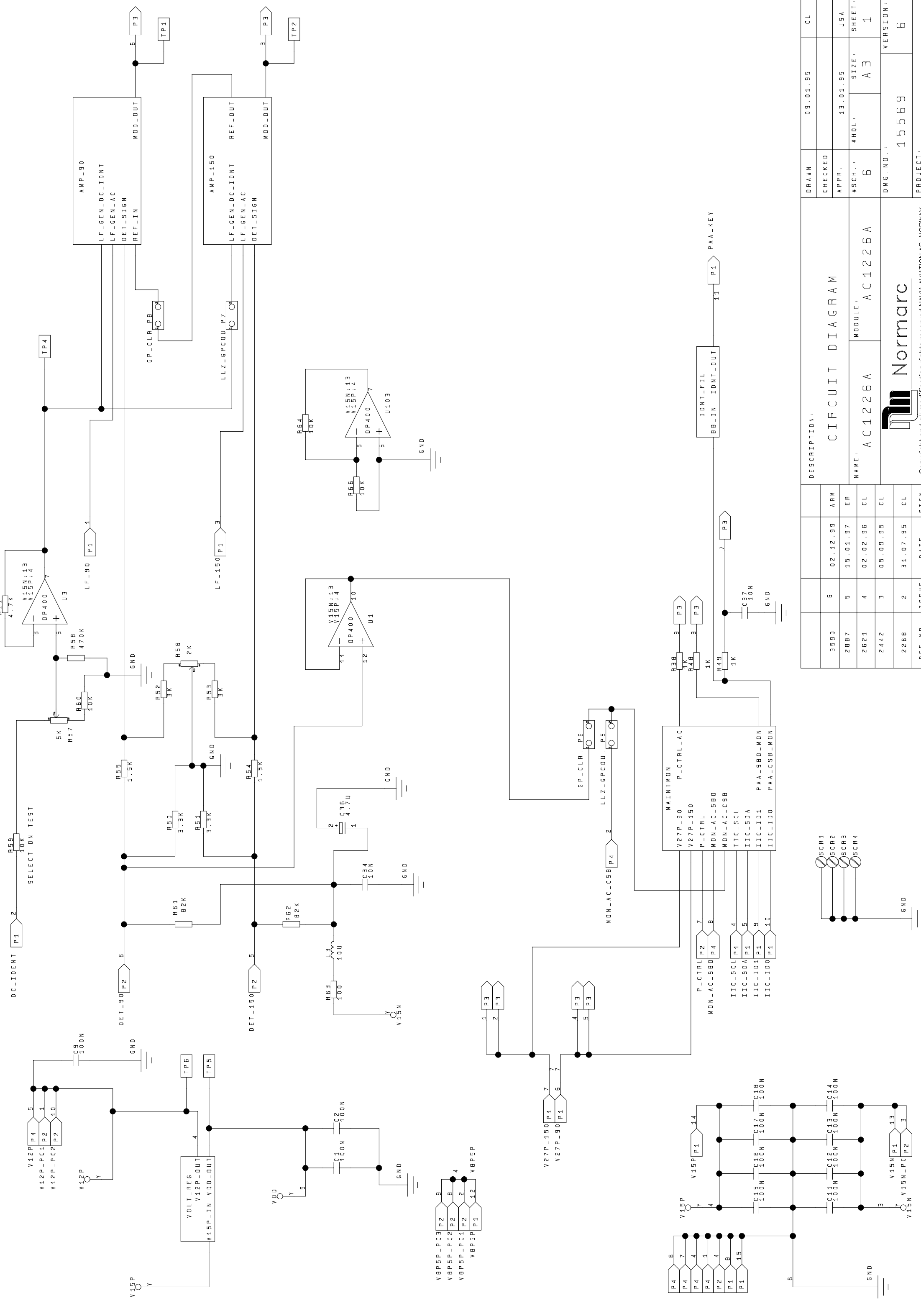
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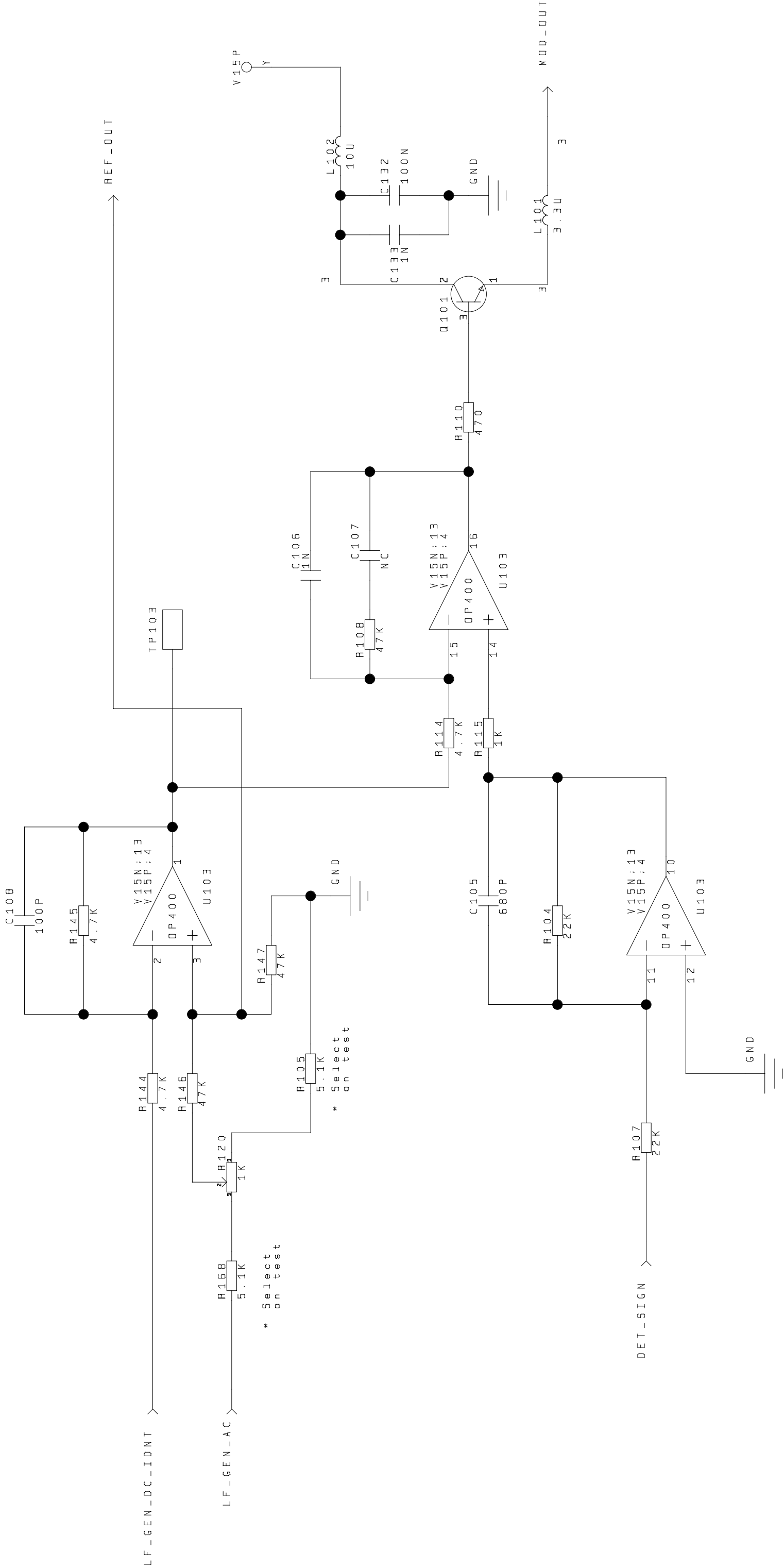


5 AC1226A AMPLITUDE CONTROL

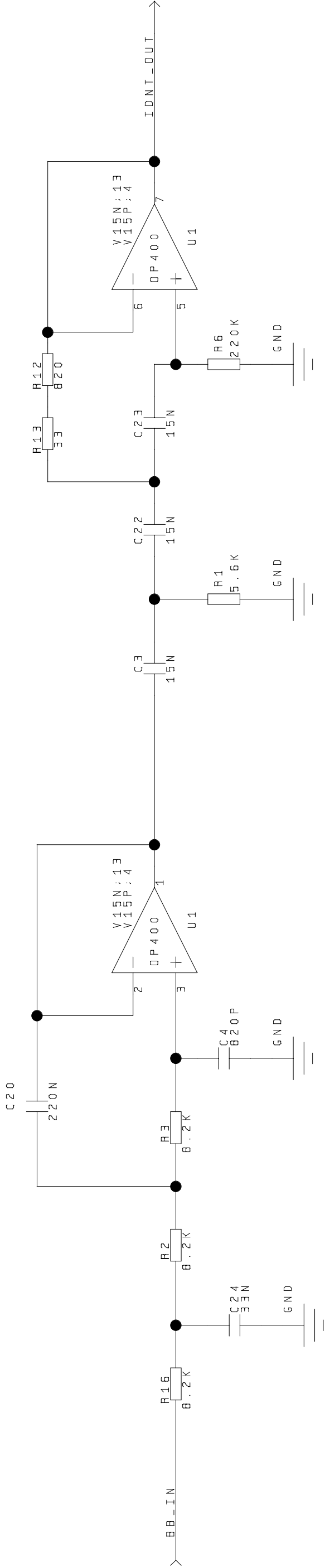
5.1 *Schematic Diagrams*



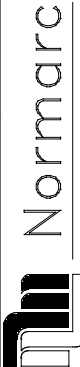
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2887	5	15.01.97								
2621	4	02.02.96								
2442	3	05.09.95								
2268	2	31.07.95								
REF. NO.	ISSUE	DATE	SIGN	PROJECT :						
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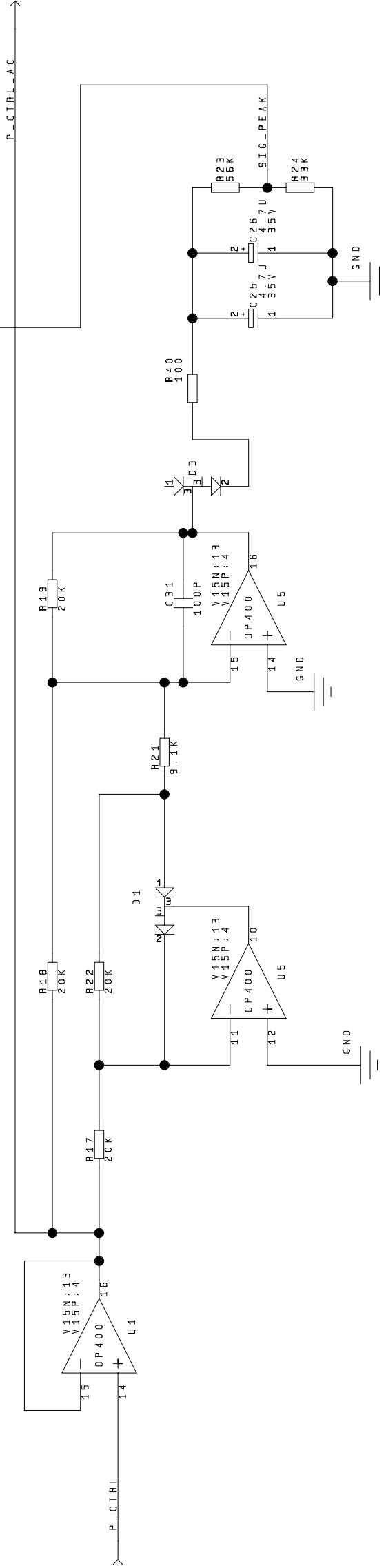
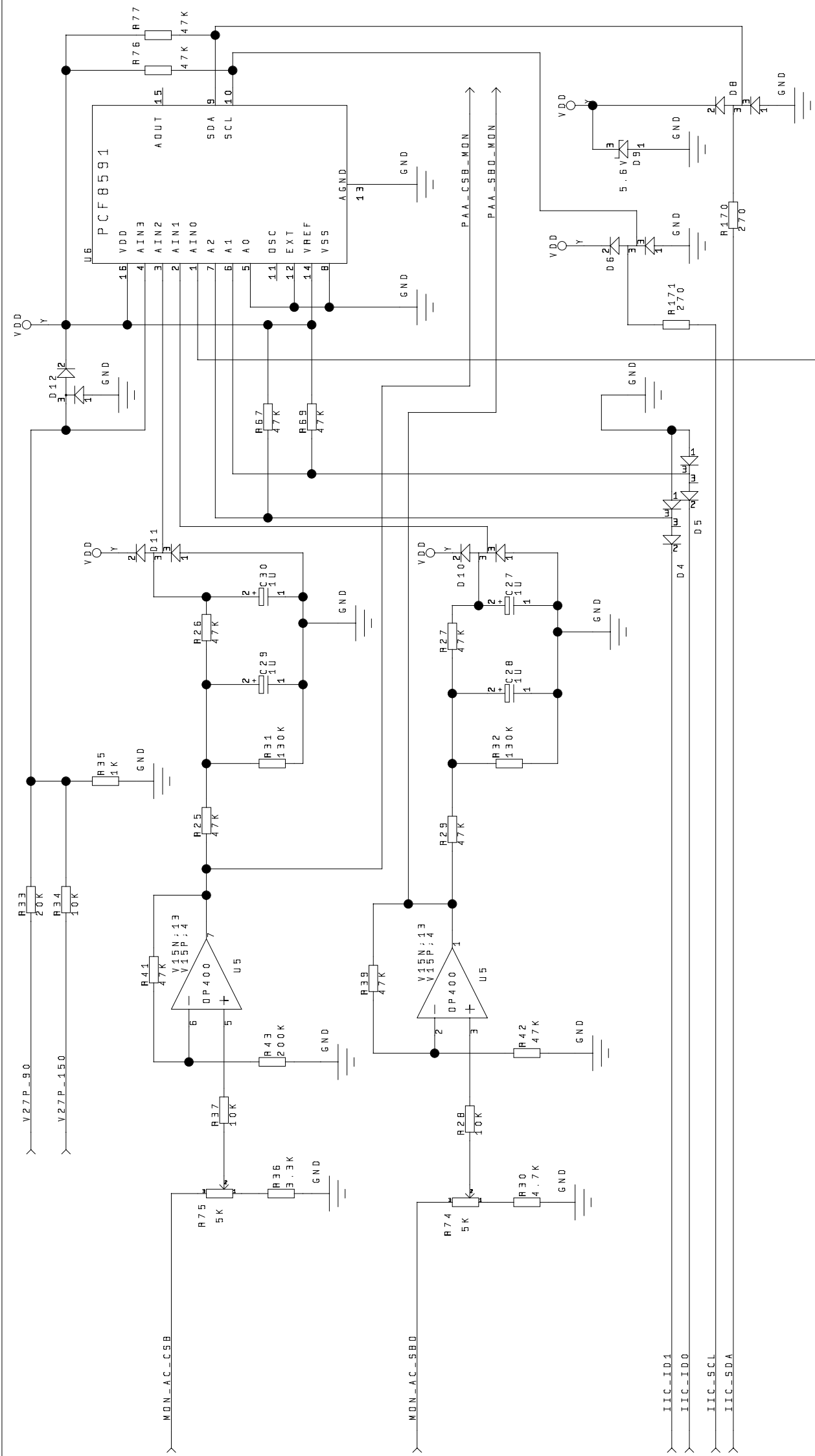
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													6	A 3	2		
2442	3	05.09.95	CL		 Normarc								DWG. NO. :			VERSION :	
2268	2	31.07.95	CL										15569			6	
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2887	5	15.01.97	ER						
2621	4	02.02.96	CL	NAME, IDNT_FIL		MODULE, AC1226A		13.01.95	JSA
2442	3	05.09.95	CL			#SCH., 6	#HDL,	SIZE, A3	SHEET, 4
2268	2	31.07.95	CL			DWG. NO., 15569		VERSION, 6	
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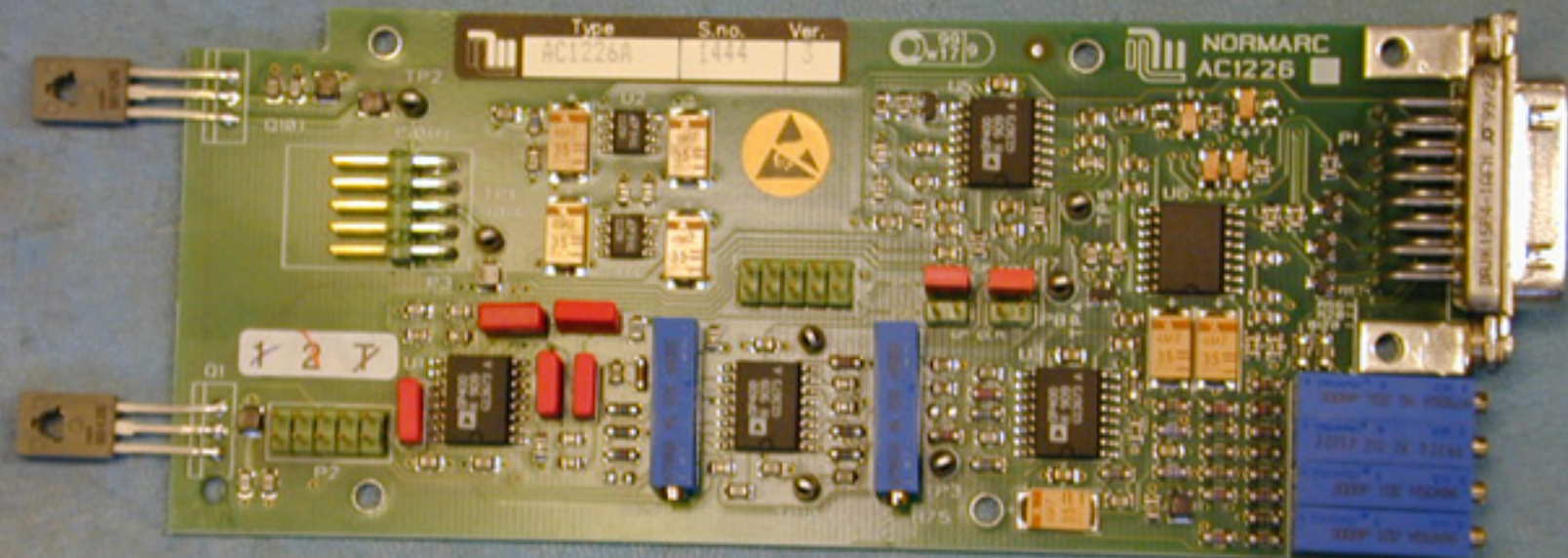


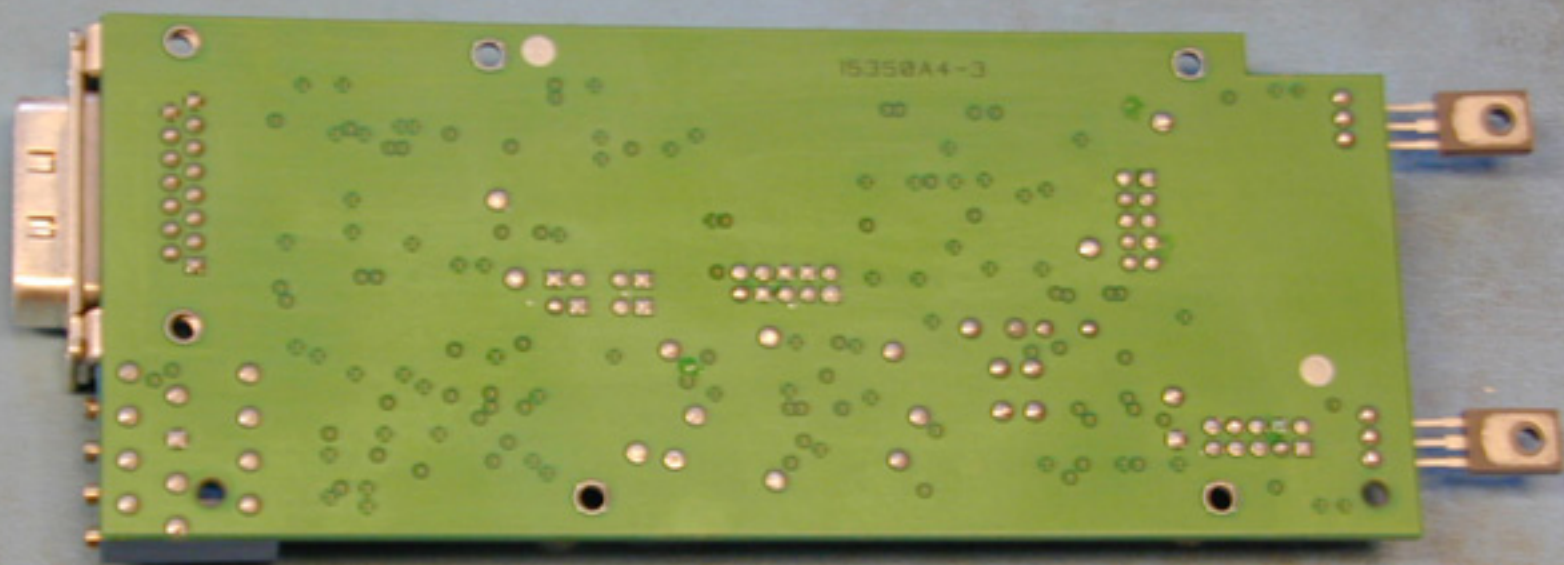
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					DESCRIPTION :		DRAWN	09.01.95	CL
3590						CIRCUIT DIAGRAM	CHECKED	12-2-1999_16.11	TMA
2887	6	02.12.99	ARM				APPR.	13.01.95	JSA
2621	5	15.01.97	ER		NAME :	MAINT MON	#SCH. :	#HDL :	SHEET :
	4	02.02.96	CL			MODULE :	6	SIZE :	5
2442	3	05.09.95	CL			AC1226A		A3	
							DWG. NO. :	15569	VERSION :
2268	2	31.07.95	CL			 Normarc			6
REF. NO.	ISSUE	DATE	SIGN		Copyright and all modification rights reserved NAVIA/AVIATION AS, NORWAY	PROJECT :			

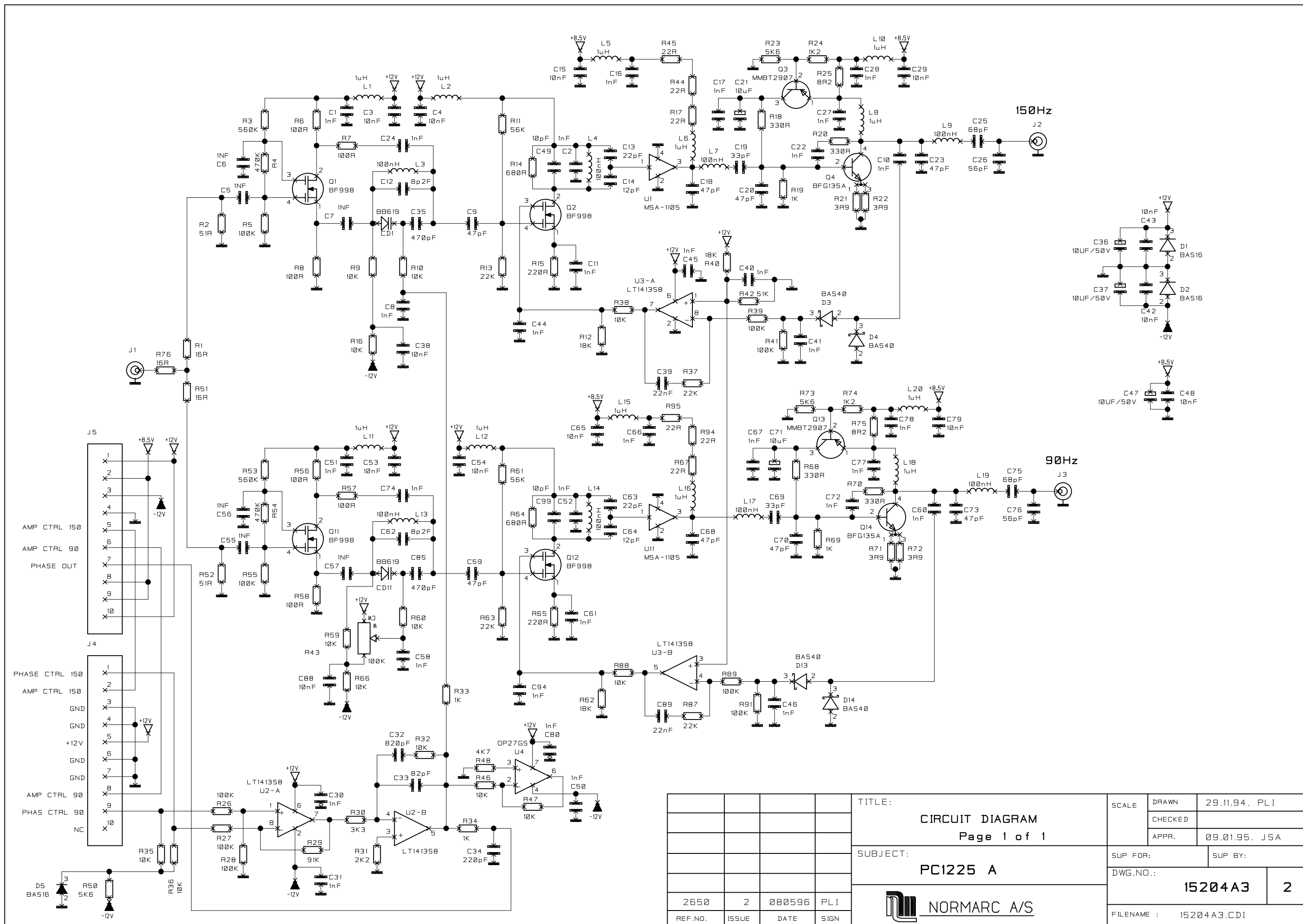
5.2 *Photos*



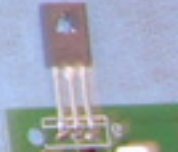
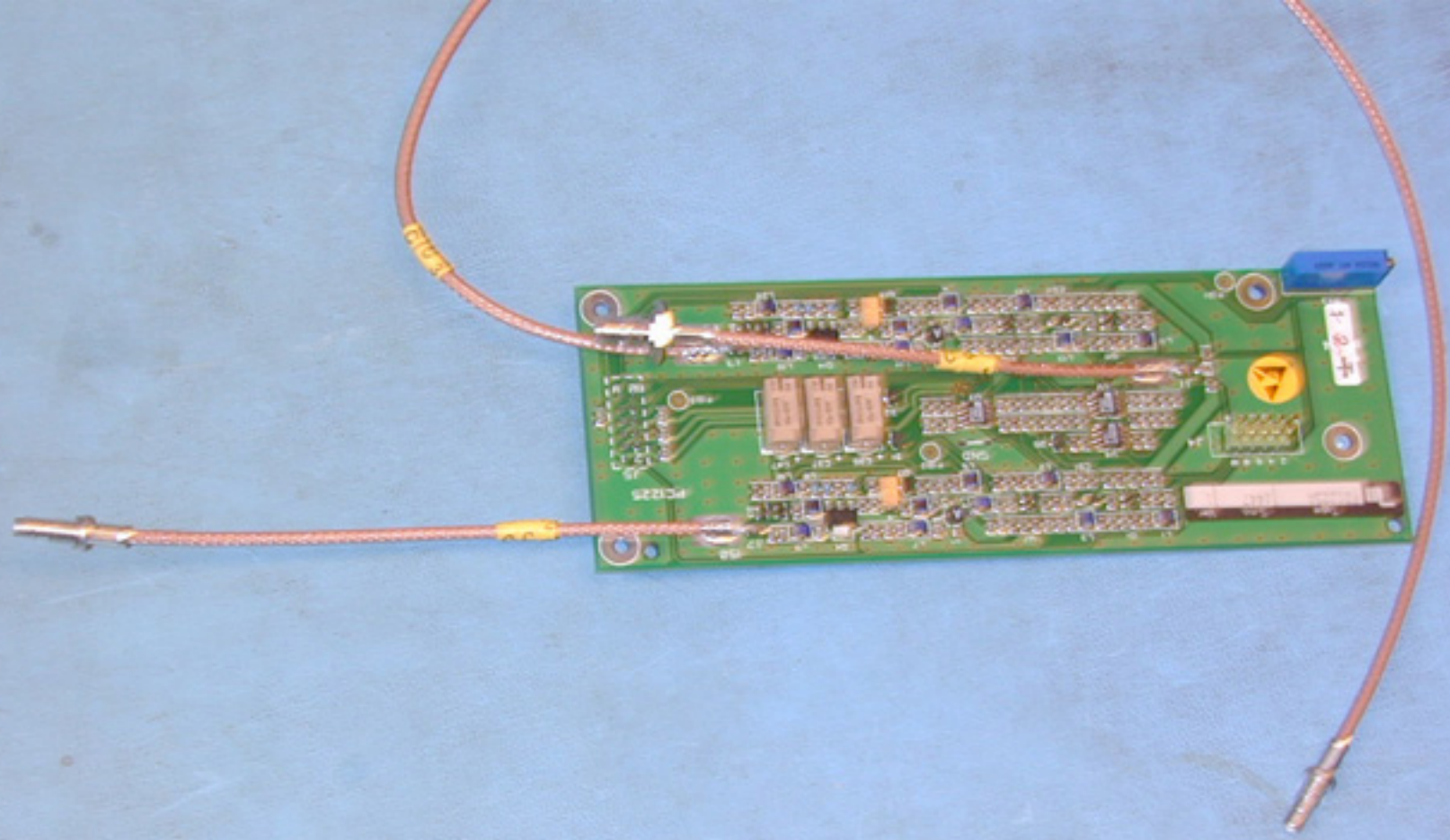


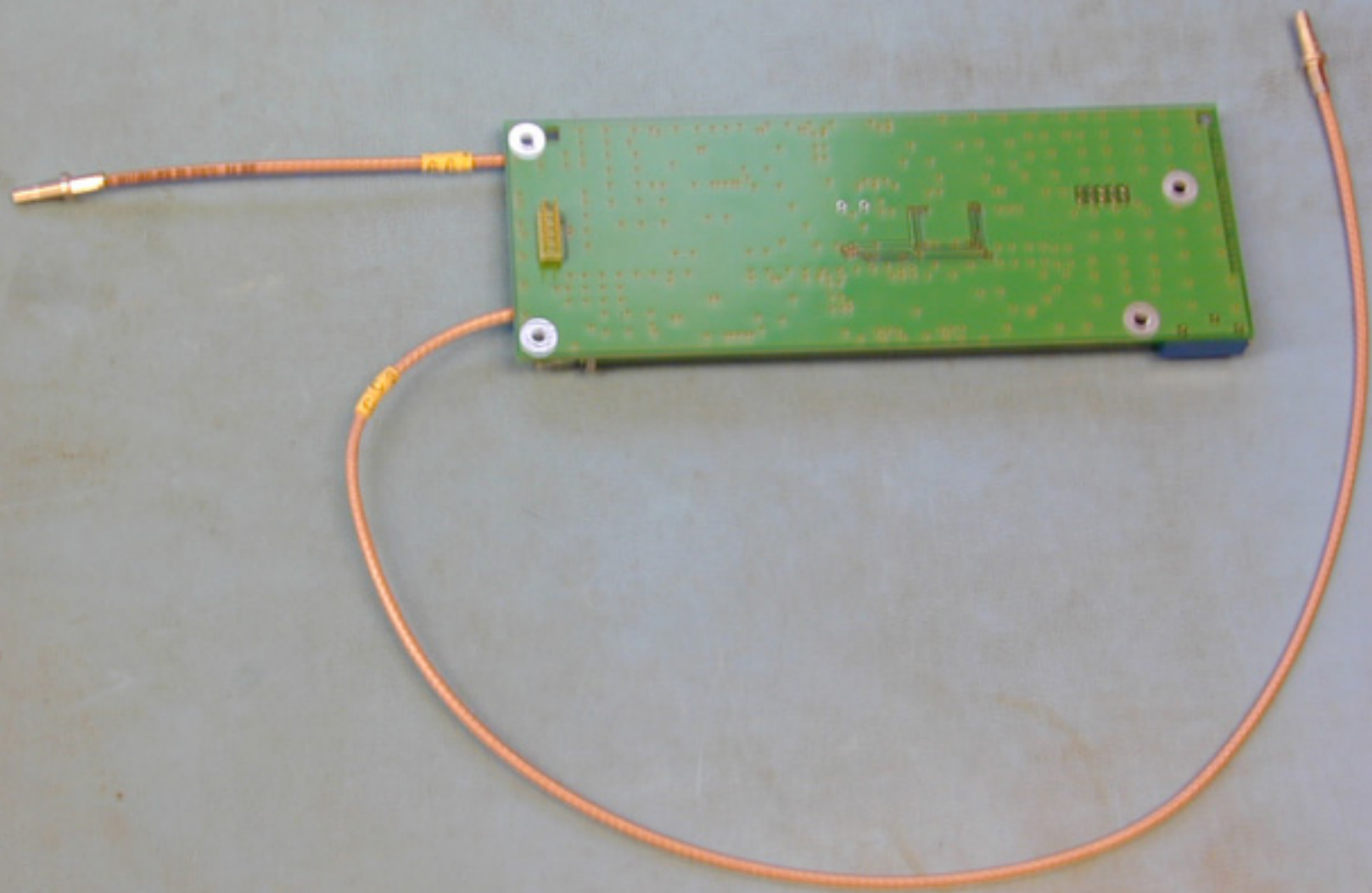
6 PC1225A PHASE CONTROL

6.1 *Schematic Diagrams*



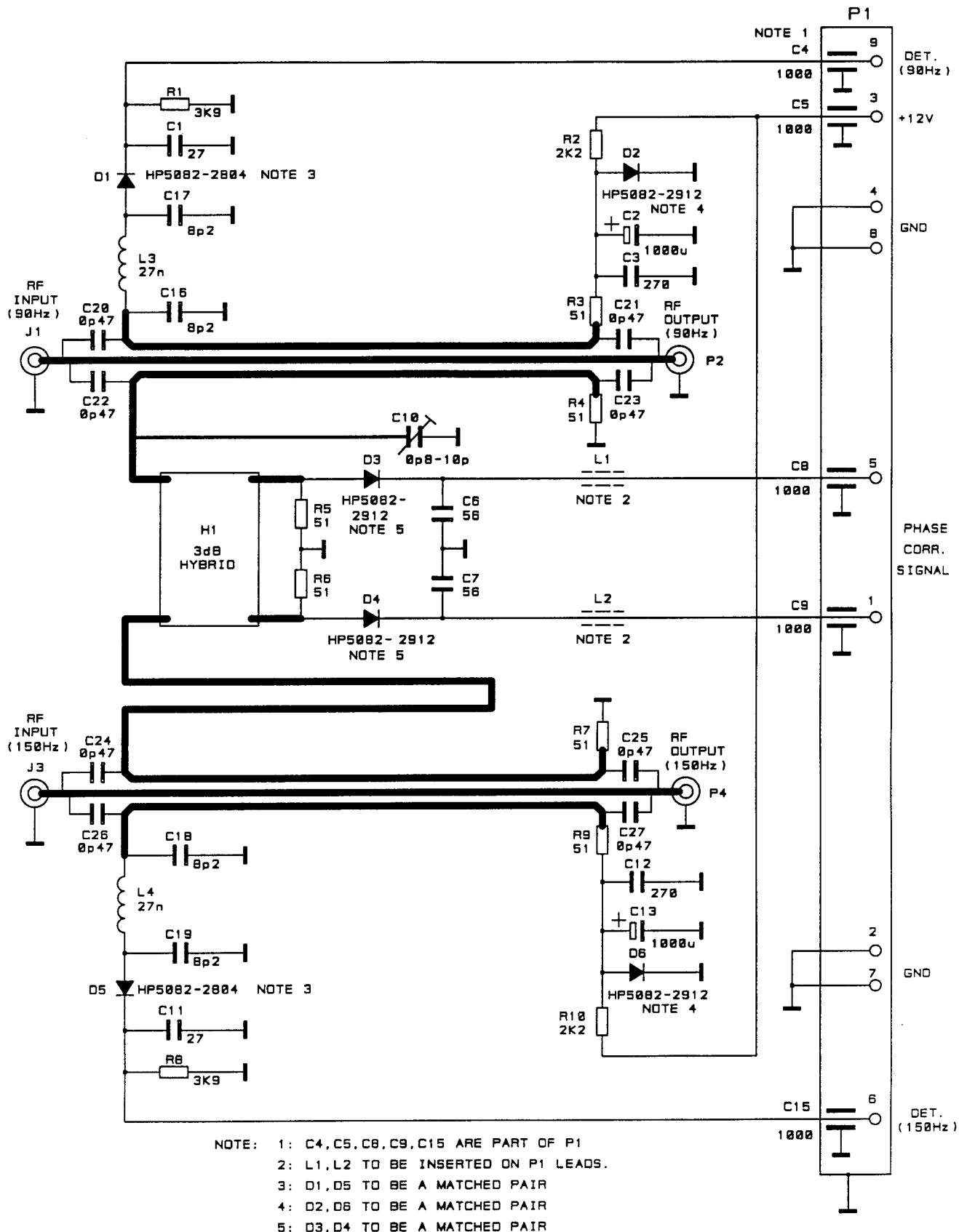
6.2 *Photos*





7 FD1236A FEEDBACK DETECTOR

7.1 *Schematic Diagrams*

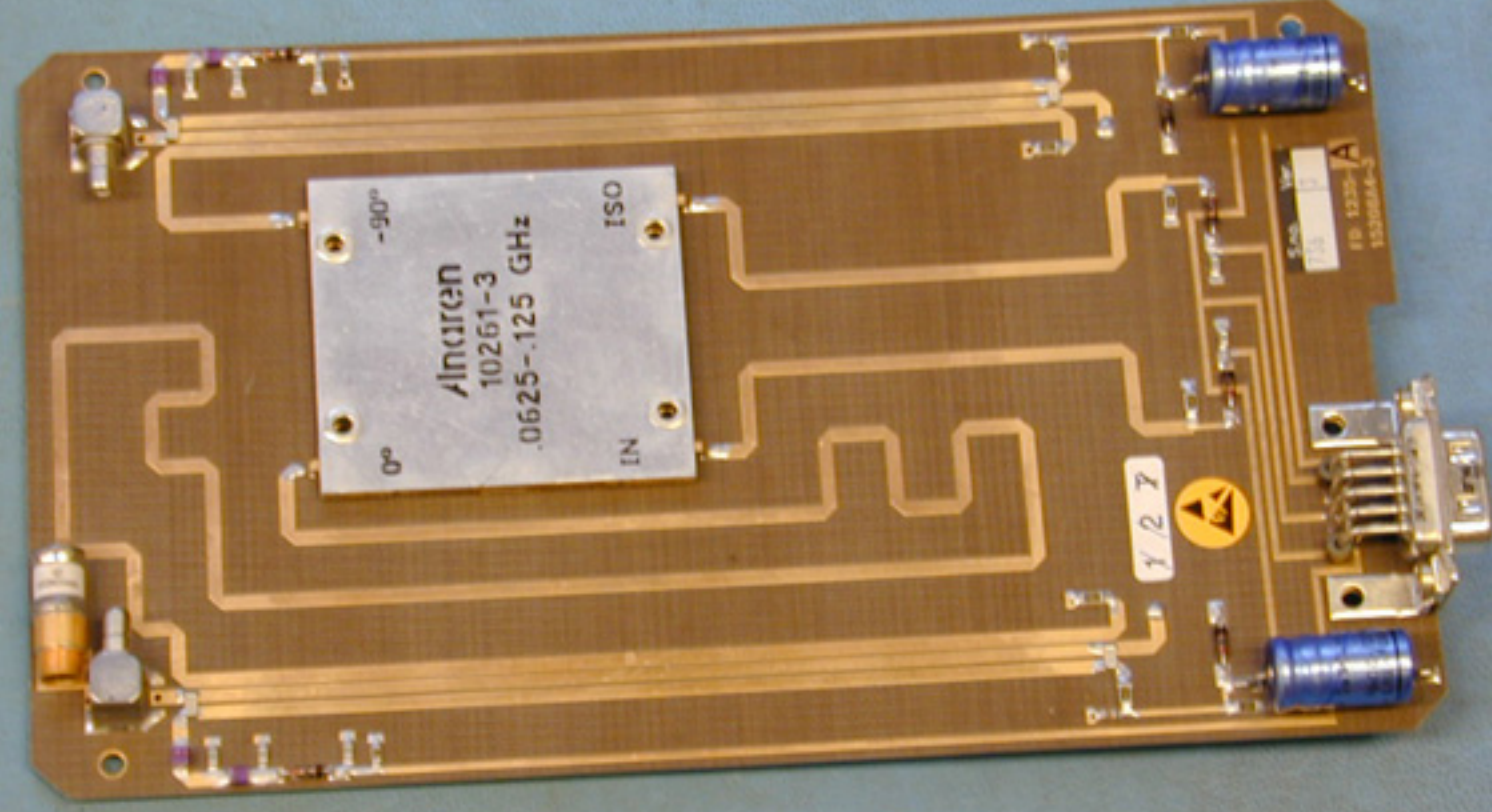


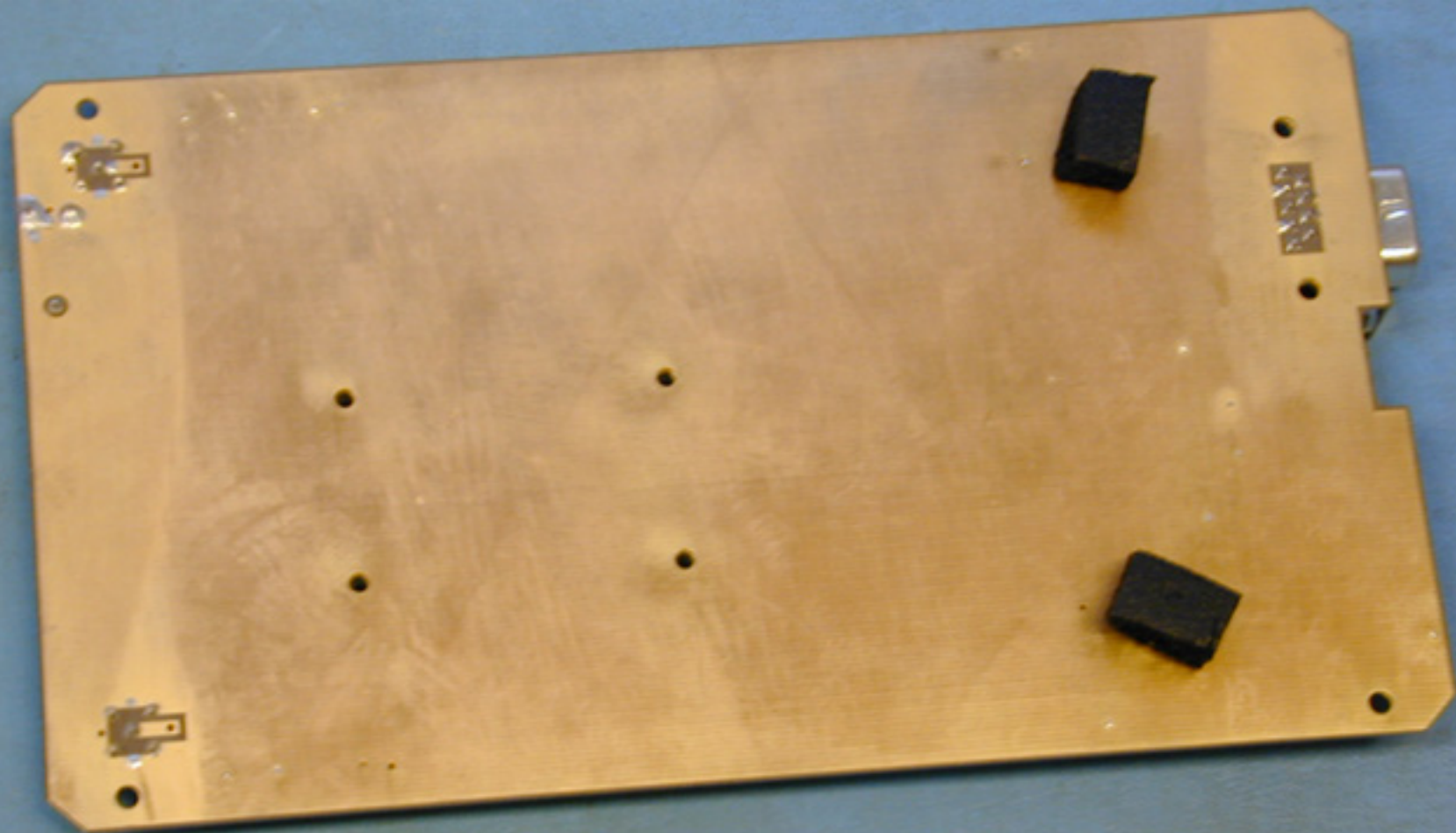
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							CHECKED	29.08.95	S.H.
							APPR.	27.09.94	JSa
							SUP FOR:	SUP BY:	
2413				SUBJECT: FD 1236A		DWG. NO.:		15390A4	
REF. NO.				ISSUE DATE		SIGN		FILENAME:	



NORMARC A/S

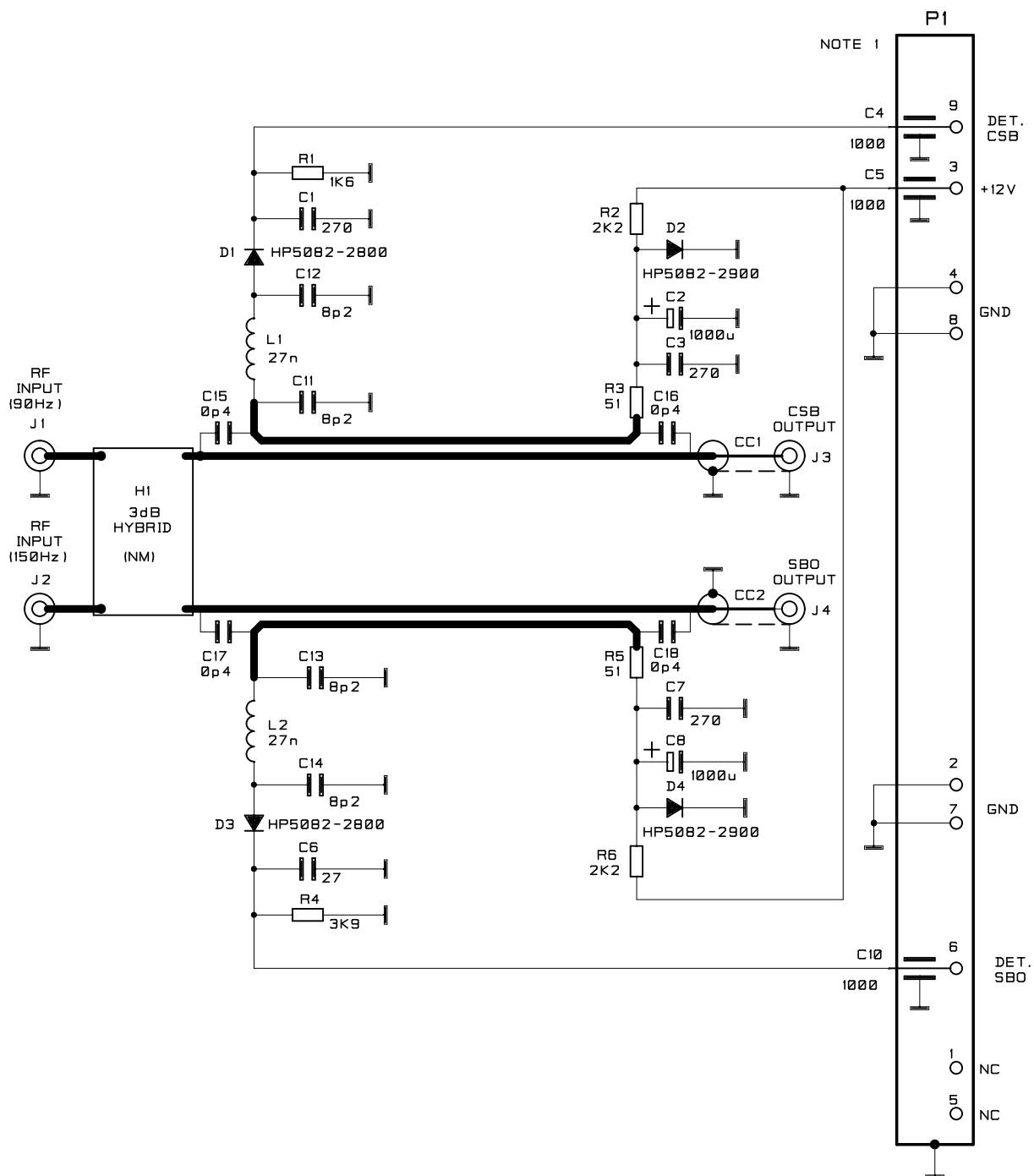
7.2 *Photos (FD1235A)*





8 CD 1238A COMBINER DETECTOR

8.1 *Schematic Diagrams*



NOTE: 1: C4,C5,C10 ARE PART OF P1

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						CHECKED		
						APPR.	13.12.94	JSa
3069	4	031097	TBj		SUBJECT:	SUP FOR:	SUP BY:	
2620	3	310196	TBj	CD 1238A	DWG.NO.:	15393A4		4
2085	2	131294	TBj	 NORMARC A/S	FILENAME :			
REF. NO.	ISSUE	DATE	SIGN					



NORMARC A/S

8.2 *Photos (CD1237A)*

