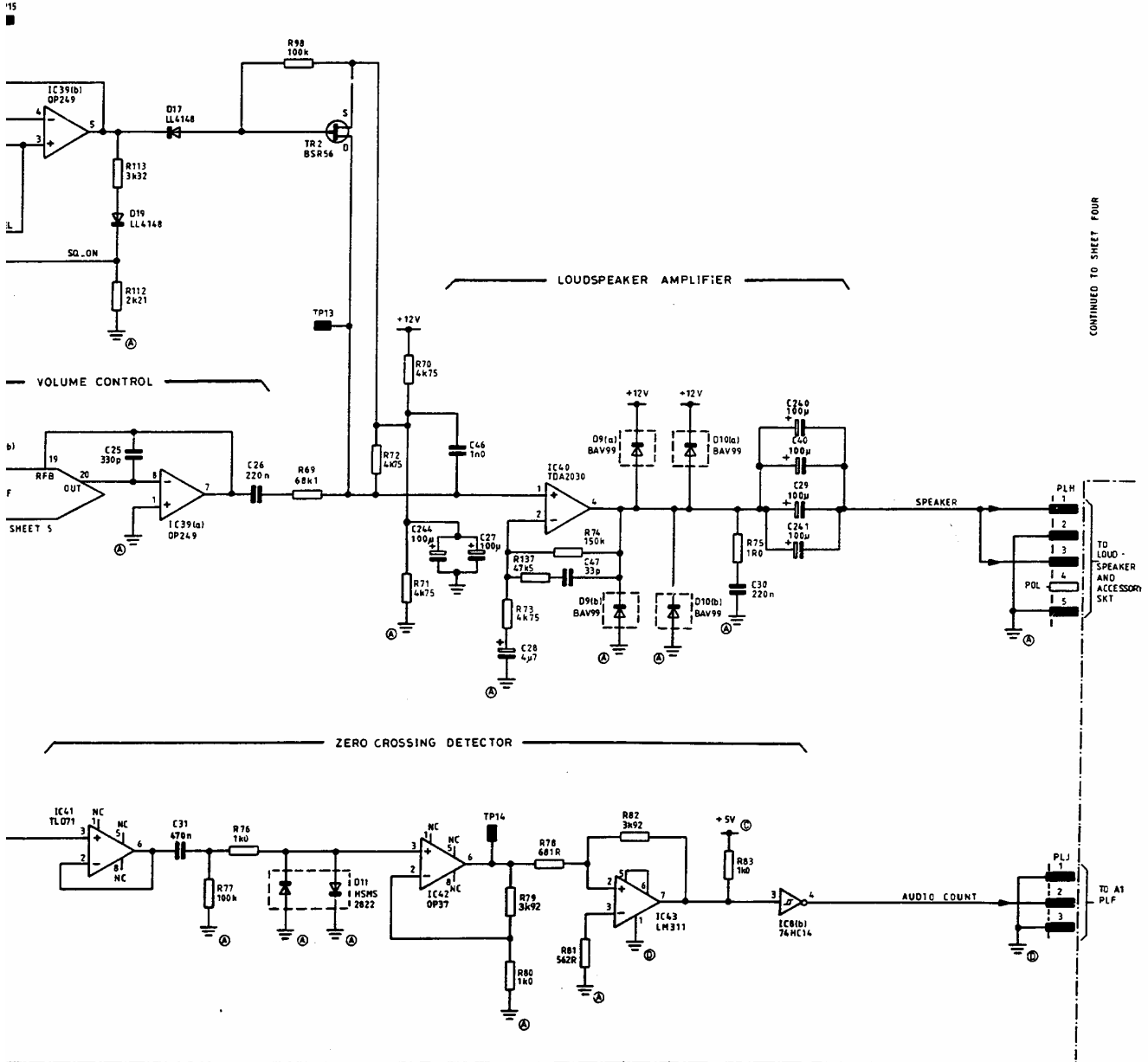


Circuit diagrams **A2/2**

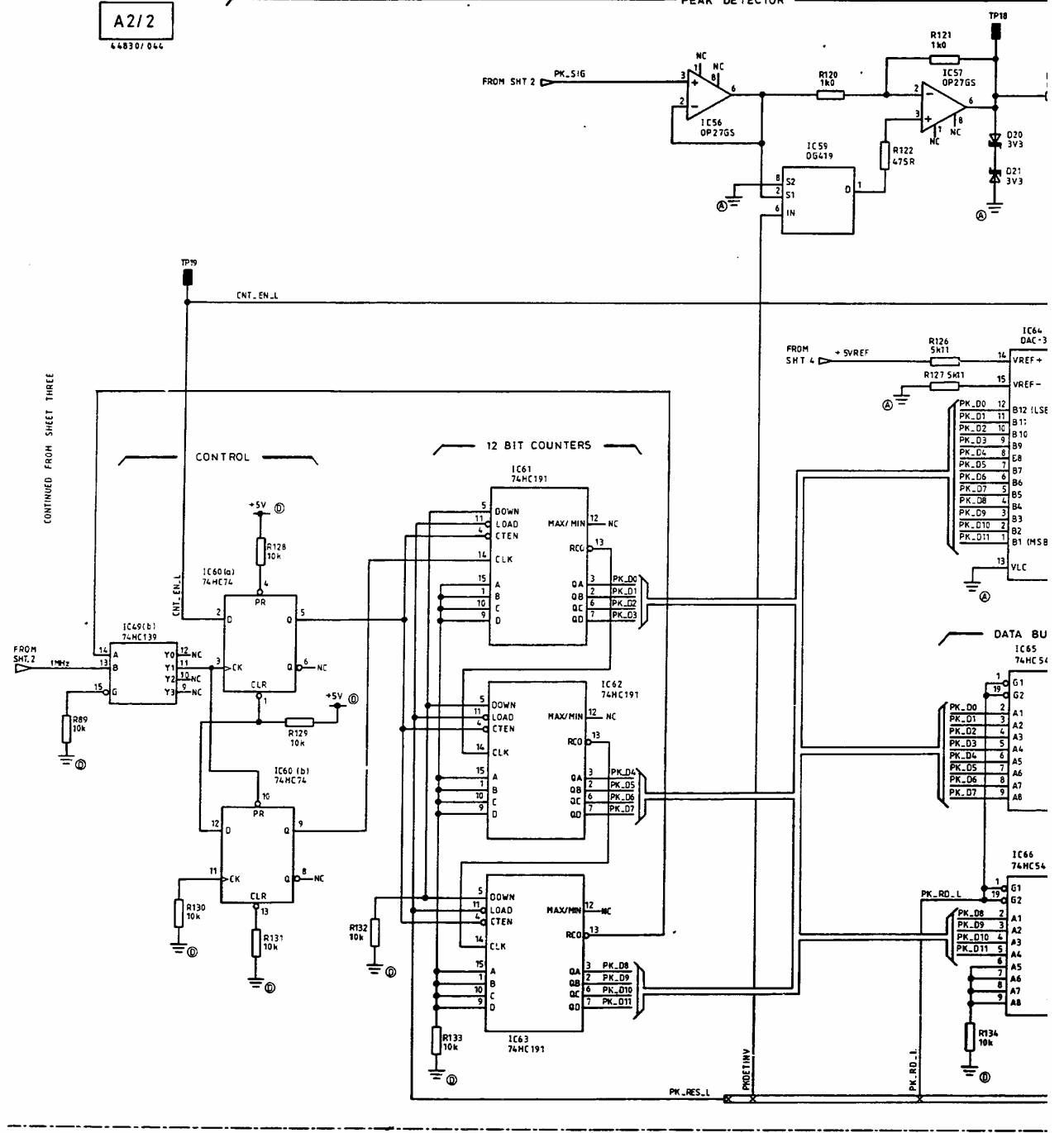


CONTINUED TO SHEET FOUR

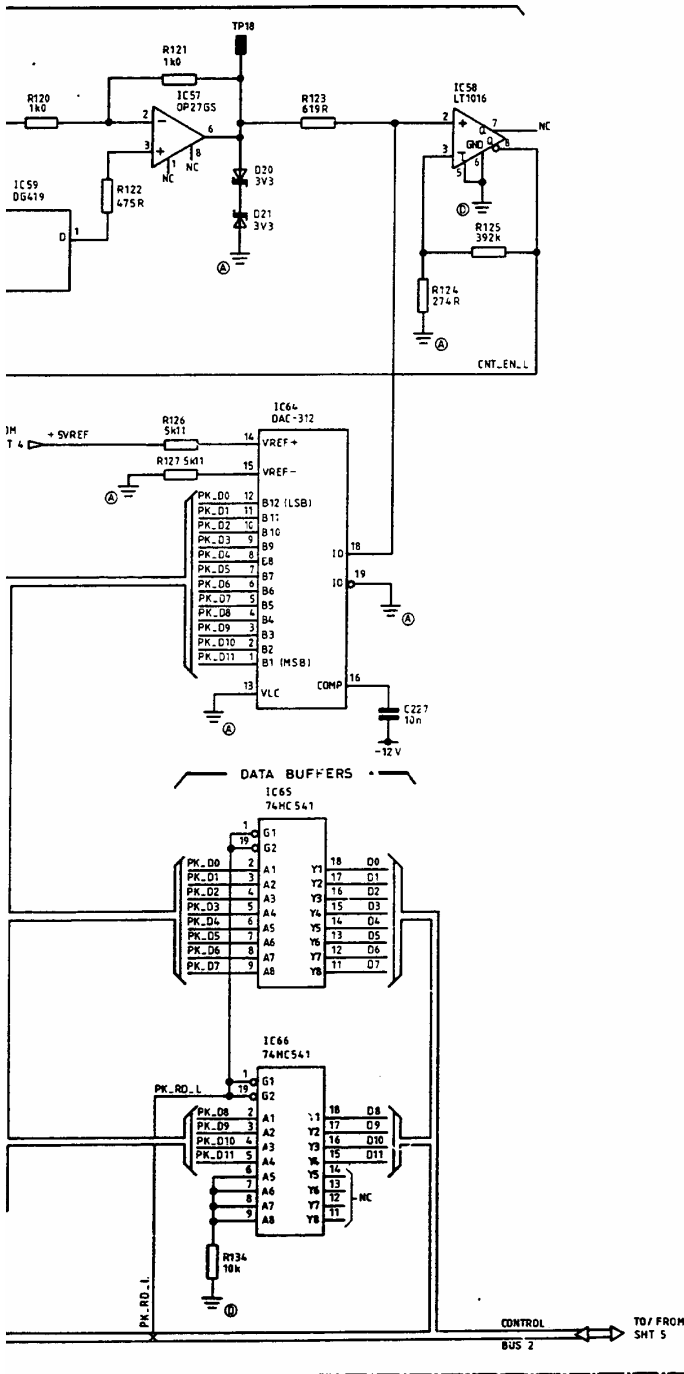
Fig. 7-48 A2/2 Squelch control, loudspeaker, and audio count channels - circuit

PART OF
A2/2
 44830/044

PEAK DETECTOR



Circuit diagrams A2/2



SUPPLY LINE TABLE											
IC	TYPE	+12V PIN	-12V PIN	+5VA PIN	-5VA PIN	OVA PIN	OVD PIN	DECOUPLING +12V TO OVA	DECOUPLING -12V TO OVA	DECOUPLING +5VA TO OVA	DECOUPLING -5VA TO OVA
1	OP249	6	2					C101	C102		
2	7528	17	2			1	5	C103			
3	OP249	6	2					C104	C105		
4	DG419	4	7	5		3		C106	C107		
5	OP249	6	2					C108	C109		
6	OP37			7	4					C110	C111
7	LM311			8	4					C112	C113
9	OP249	6	2					C114	C115		
11	OP177	7	4					C116	C117		
12	OP177	7	4					C118	C119		
13	OP177	7	4					C120	C121		
14	DG508A	13	3			14		C122	C123		
15	OP177	7	4					C124	C125		
16	OP177	7	4					C126	C127		
17	DG441	13	4			5		C128	C129		
18	OP249	6	2					C130	C131		
19	DG419	4	7	5		3		C132	C133		
20	7528	17	2			1	5	C134			
21	OP249	6	2					C135	C136		
22	DG441	13	4			5		C137	C138		

IC	TYPE	+12V PIN	-12V PIN	+5VA PIN	-5VA PIN	OVA PIN	OVD PIN	DECOUPLING +12V TO OVA	DECOUPLING -12V TO OVA	DECOUPLING +5VA TO OVA	DECOUPLING -5VA TO OVA
23	DG441	13	4			5		C139	C140		
24	DG441	13	4			5		C141	C142		
25	DG441	13	4			5		C143	C144		
26	TL071	7	4					C145	C146		
27	AD637	13	12			3		C147	C148		
28	OP177	7	4					C149	C150		
29	OP177	7	4					C151	C152		
30	OP37	7	4					C153	C154		
31	OP249	6	2					C155	C156		
32	DG419	4	7	5		3		C157	C158		
36	DG508A	13	3			14		C165	C166		
37	OP27GS	7	4					C167	C168		
38	ADC912	10	23	24		3	12	C169	C170		
39	OP249	6	2					C171	C172		
40	2030	5				3		C173			
41	TL071	7	4					C174	C175		
42	OP37	7	4	7	4					C176	C177
43	LM311	7	4	8	4					C178	C179
54	OAC08	1	7					C190	C191		
56	OP27GS	7	4					C192	C193		
57	OP27GS	7	4	1	4			C194	C195		
58	LT1016					3		C198	C199	C196	C197
59	DG419	4	7	5				C228	C229		
64	OAC312	20	17								

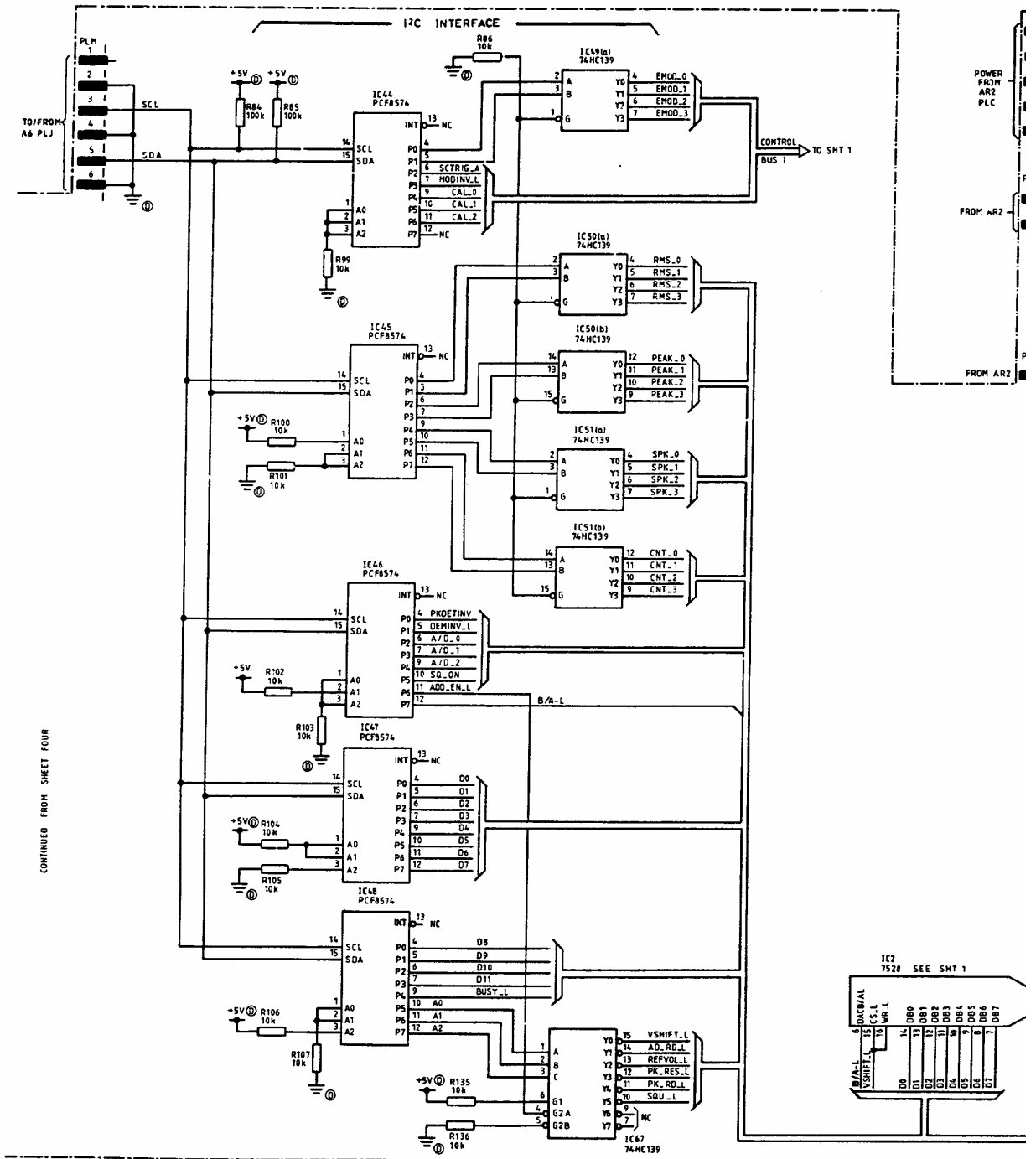
IC	TYPE	+5VD PIN	OVD PIN	DECOUPLING +5VD TO OVD
8	HC14	14	7	C180
44	8574	16	8	C181
45	8574	16	8	C182
46	8574	16	8	C183
47	8574	16	8	C184
48	8574	16	8	C185
49	HC139	16	8	C186
50	HC139	16	8	C187
51	HC139	16	8	C188
55	HC374	20	10	C189
60	HC74	14	7	C220
61	HC191	16	8	C221
62	HC191	16	8	C222
63	HC191	16	8	C223
65	HC541	20	10	C224
66	HC541	20	10	C225
67	HC138	16	8	C226

C101 TO C158
C165 TO C199
C220 TO C226
C228 TO C229 } ALL 10n

EXTRA ELECTROLYTIC DECOUPLING				
CAP	VALUE	NEAR IC	+VE PIN	-VE PIN
C200	10u	7	+5VA	OVA
C201	10u	7	OVA	-5VA
C202	10u	27	+12V	OVA
C203	10u	27	OVA	-12V
C208	10u	38	+5VA	OVA
C209	10u	38	OVA	-12V
C210	100u	40	+12V	OVA
C211	100u	40	-12V	OVA
C212	10u	43	+5VA	OVA
C213	10u	43	OVA	-5VA
C214	10u	58	-5VA	-5VA
C242	100u	40	+12V	OVA
C243	100u	40	+12V	OVA

CONTINUED TO SHEET FIVE

Fig. 7-49 A2/2 Peak detector - circuit



CONTINUED FROM SHEET FOUR

Circuit diagrams A2/2

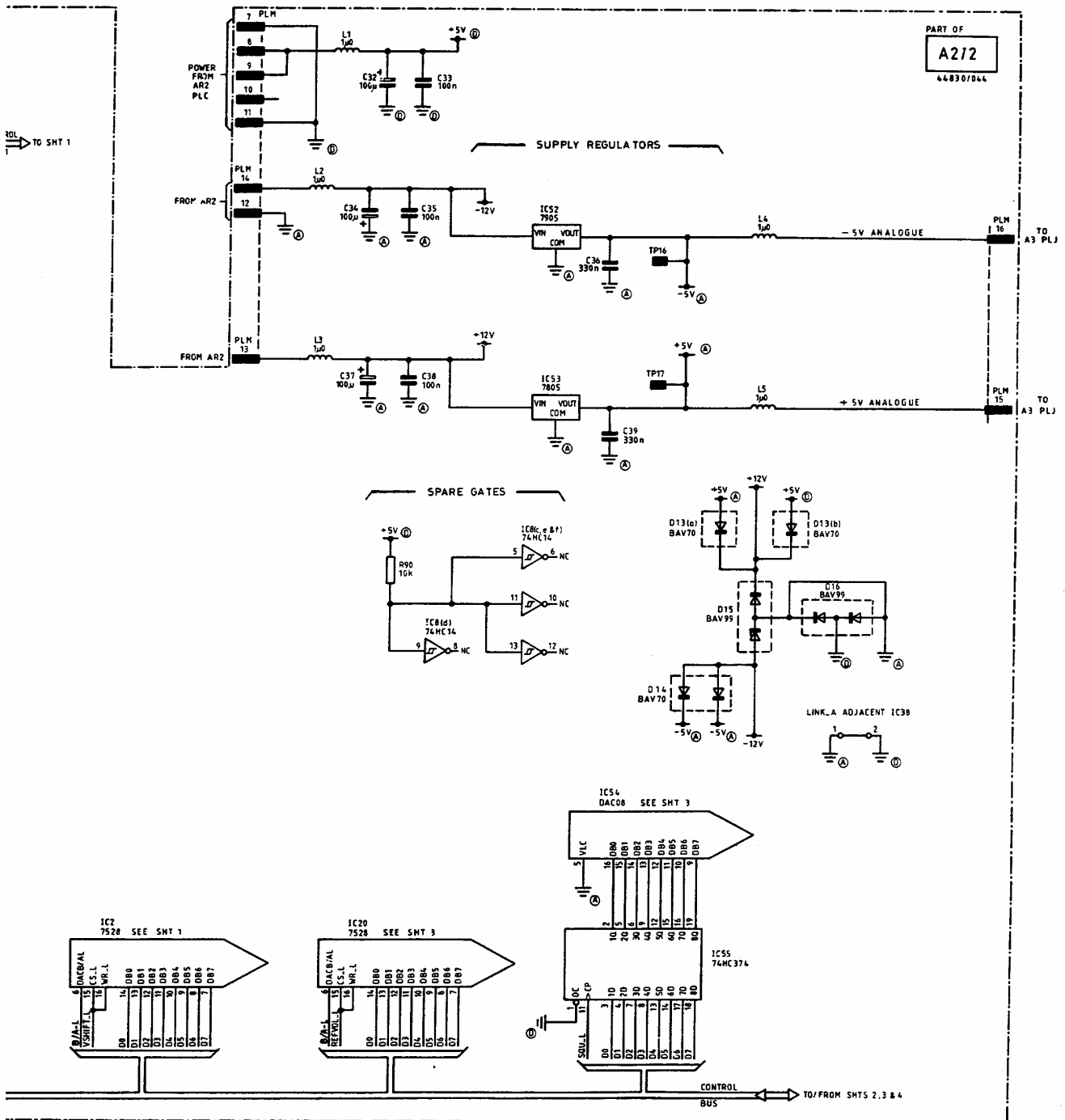
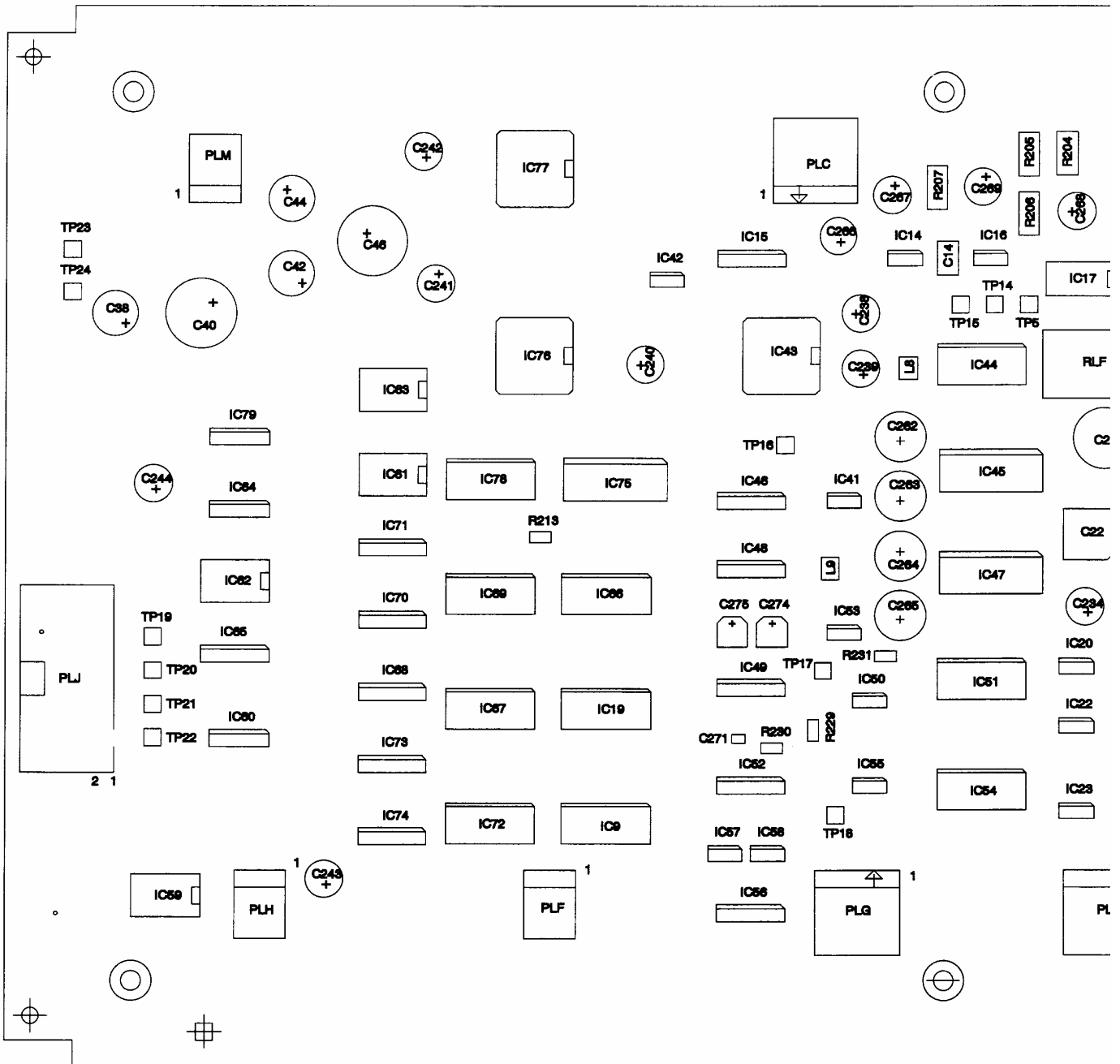


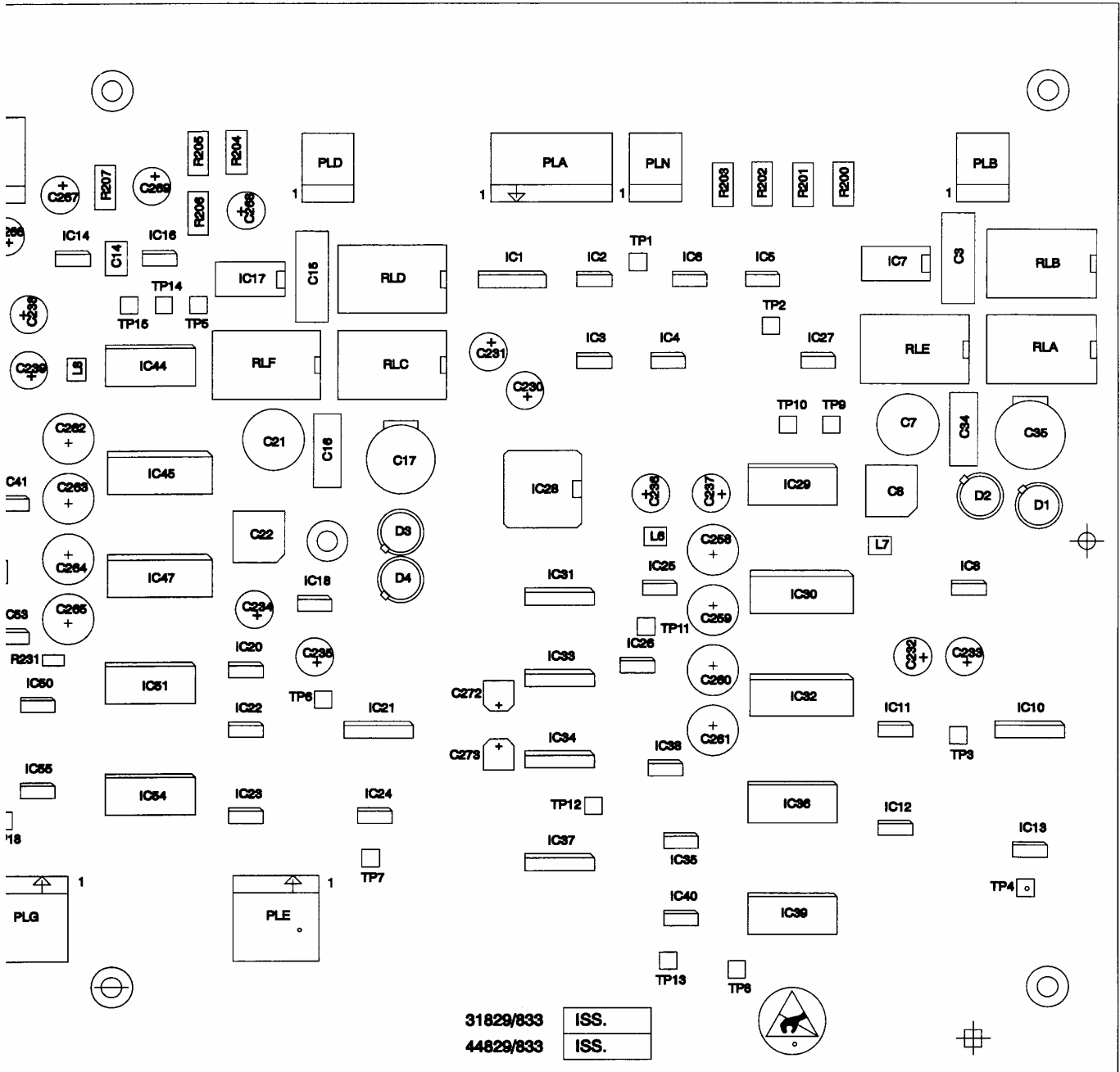
Fig. 7-50 A2/2 I²C interface, supply regulators - circuit

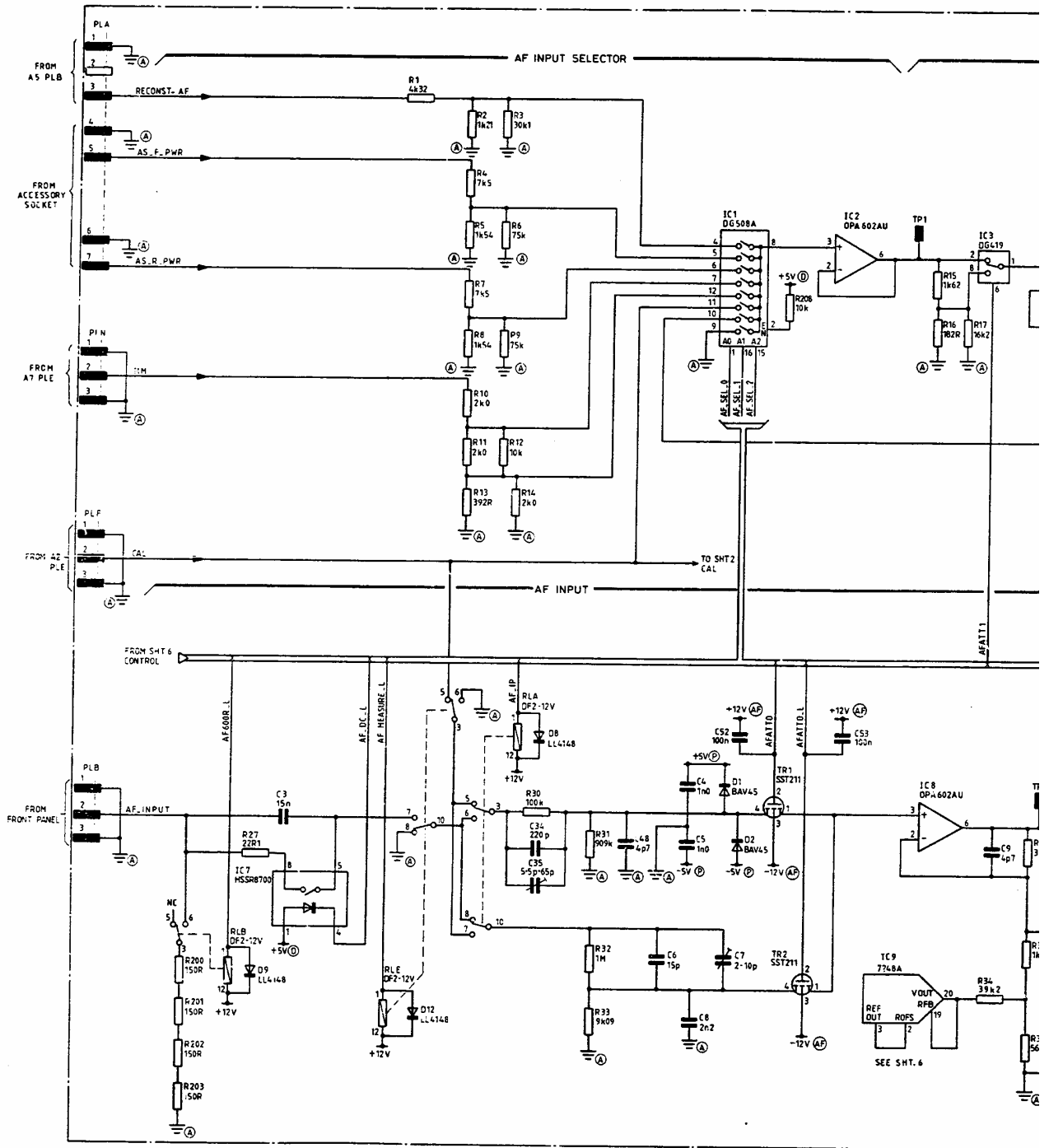


i²C interface, supply regulators A2/2

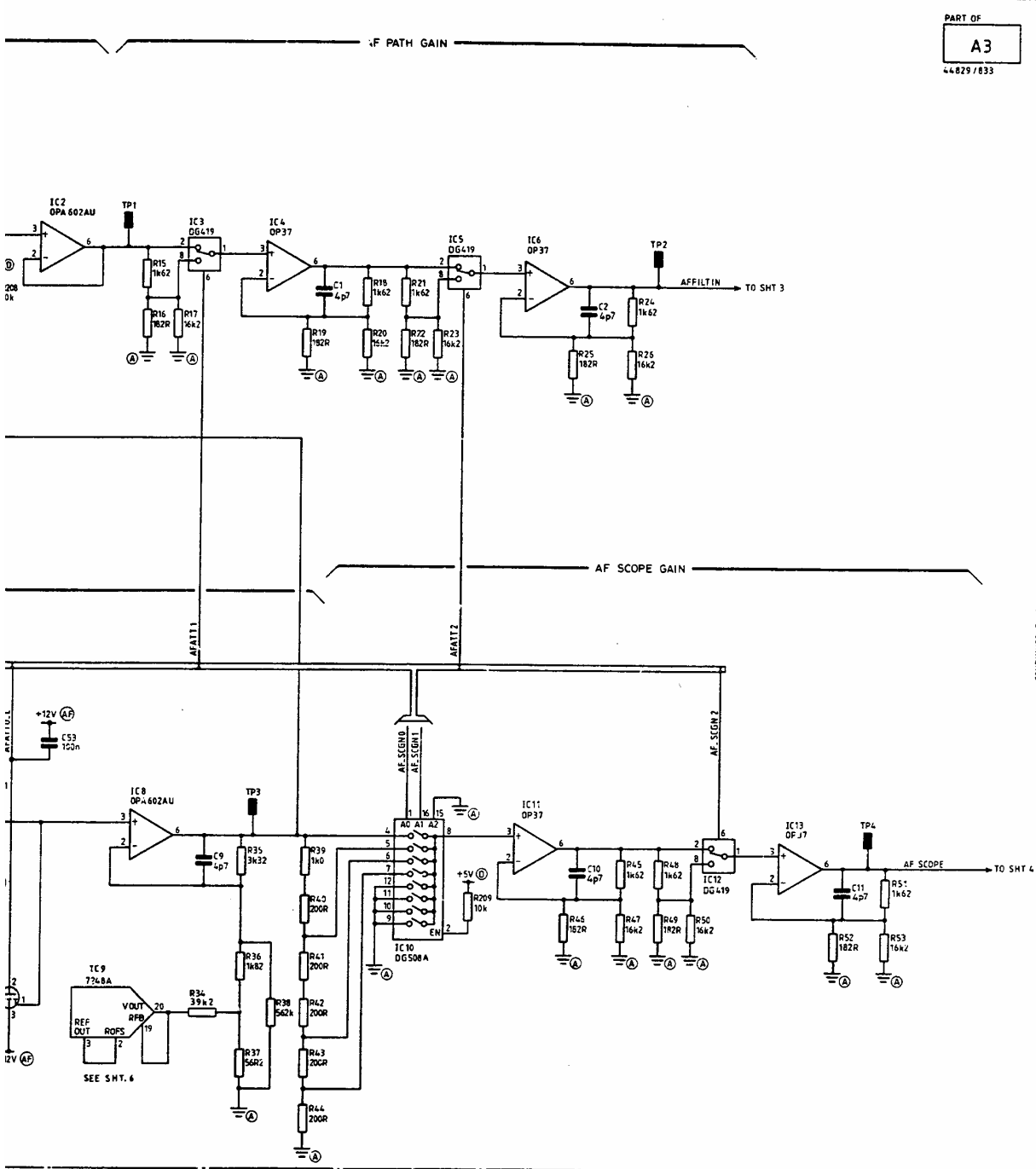
Drg. No. 44829/833

Component layout A3



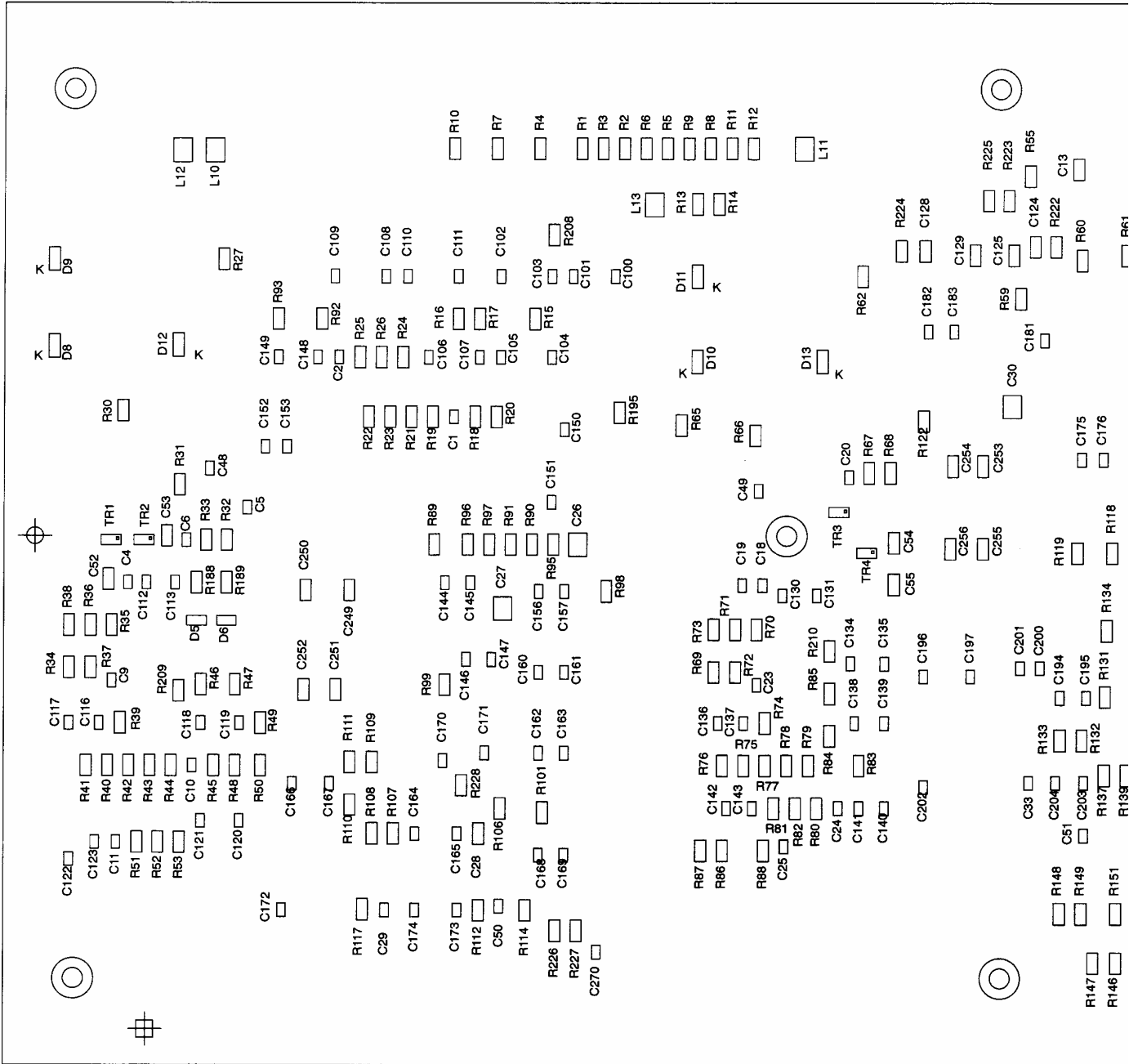


Circuit diagrams A3



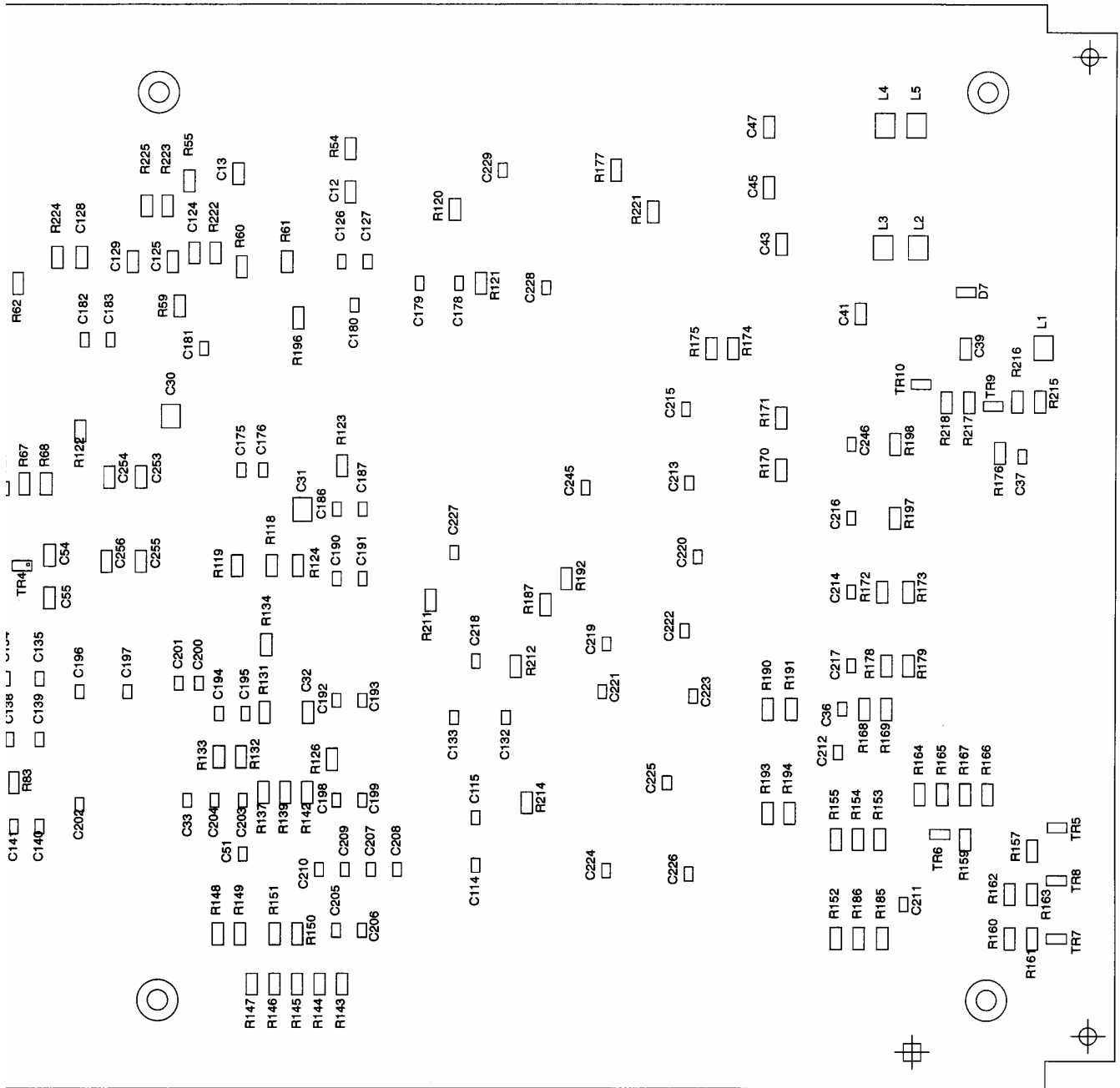
CONTINUED TO SHEET TWO

Fig. 7-52 A3 AF input and AF scope gain - circuit



AF input and AF scope gain A3

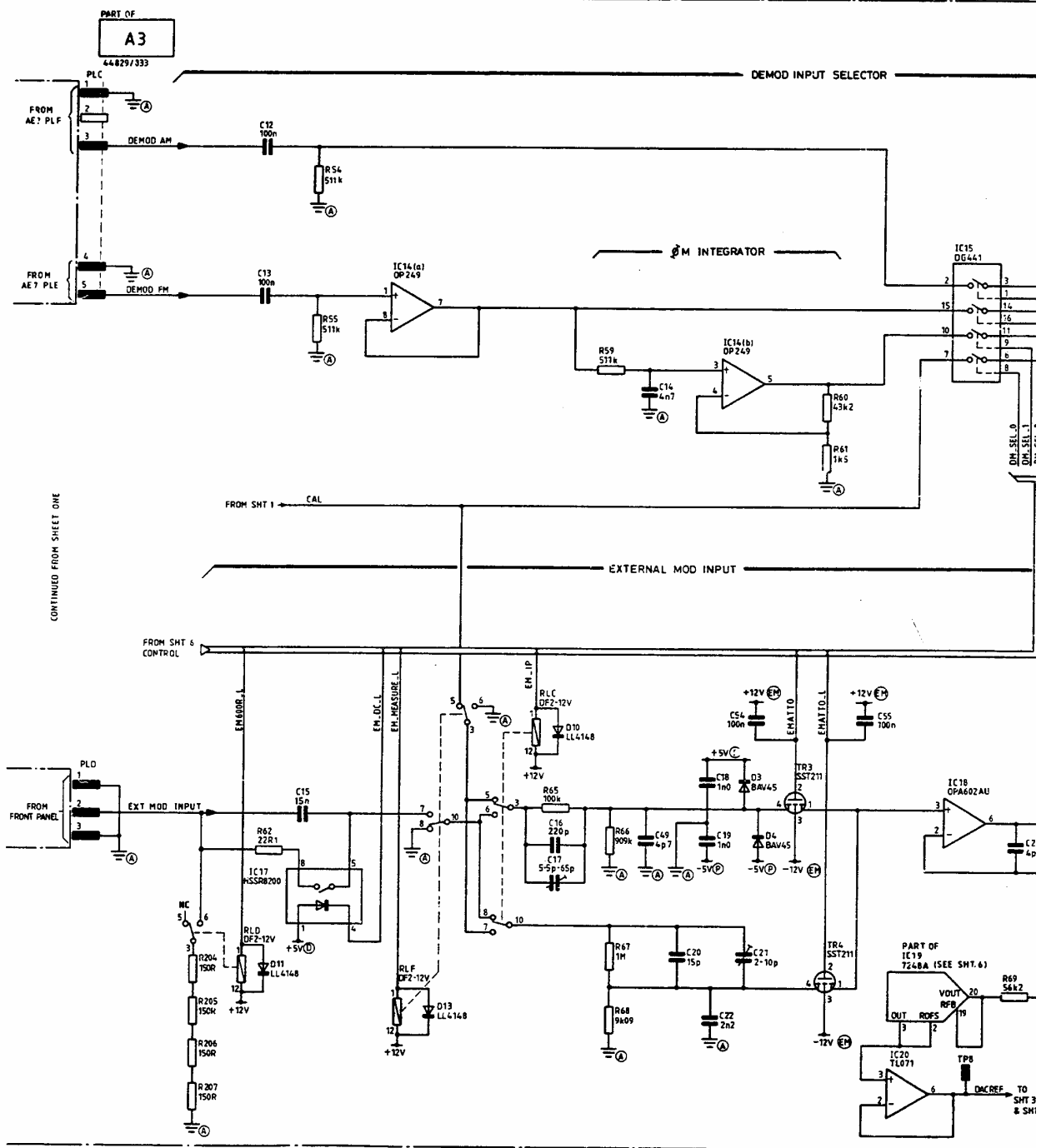
Drg. No. 44829/833



A3

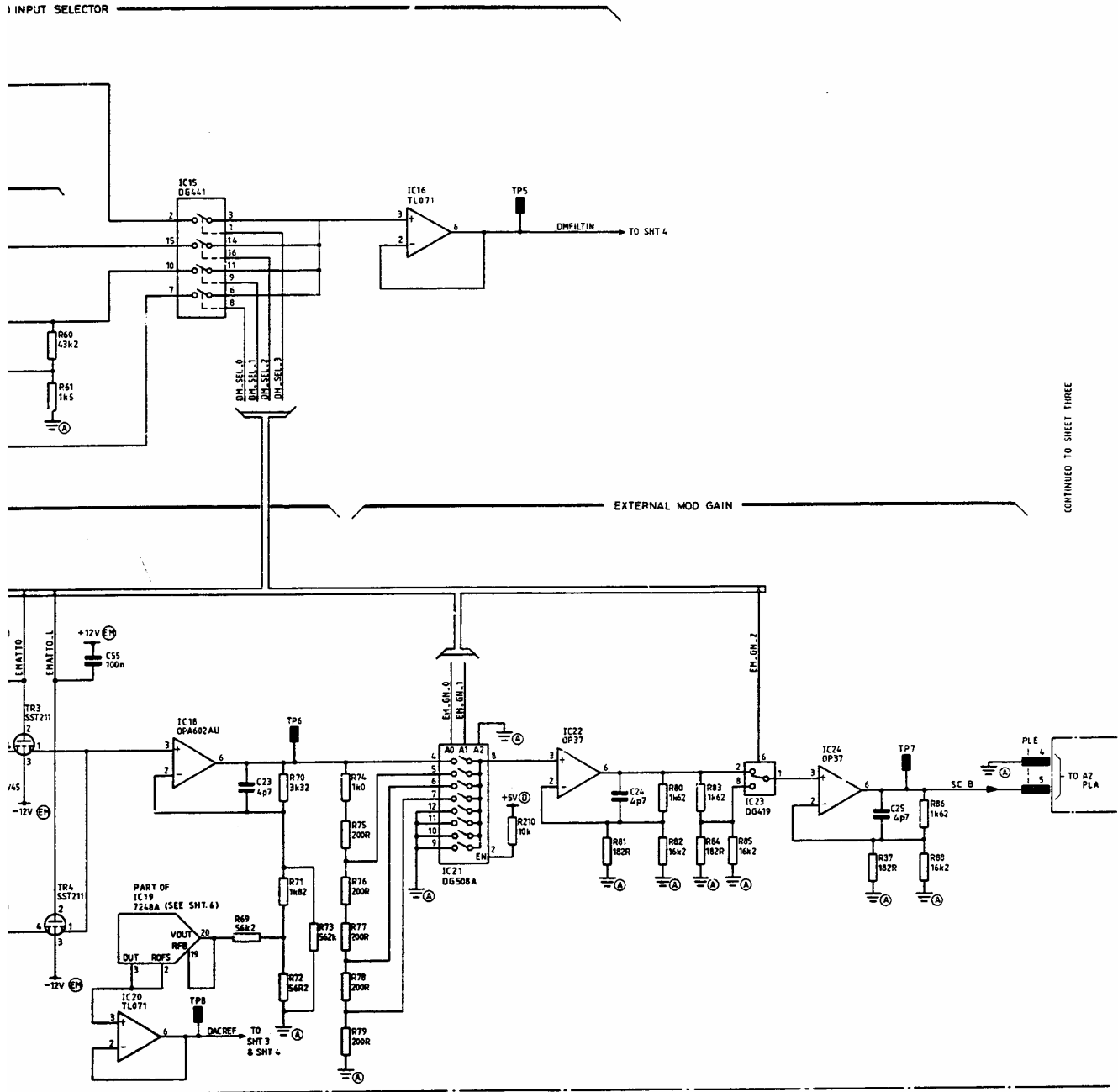
Drg. No. 44829/833 Sheet 1 of 2 Issue 1

Fig. 7-53 A3 Audio processor 1 - component layout, solder side



CONTINUED FROM SHEET ONE

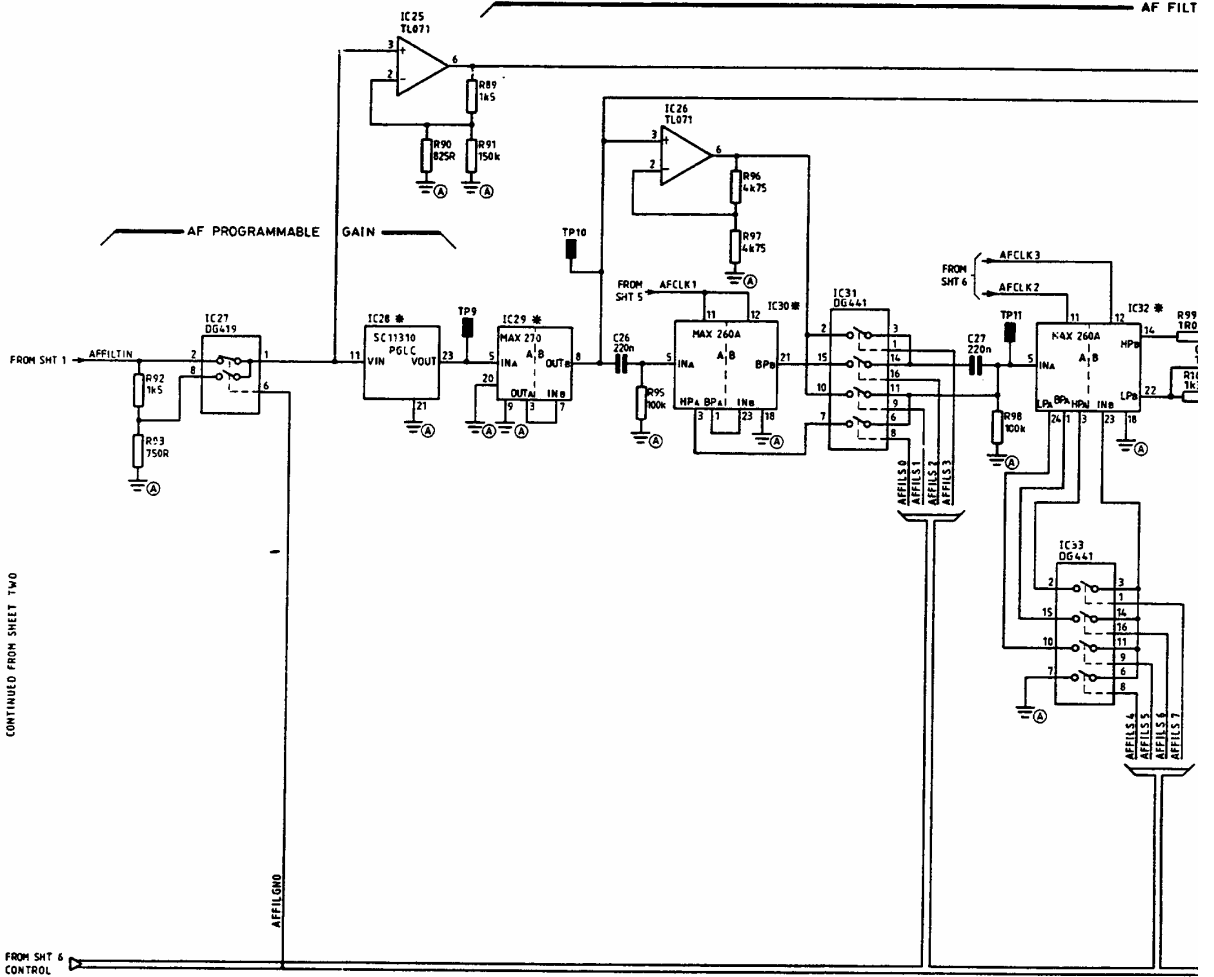
Circuit diagrams A3



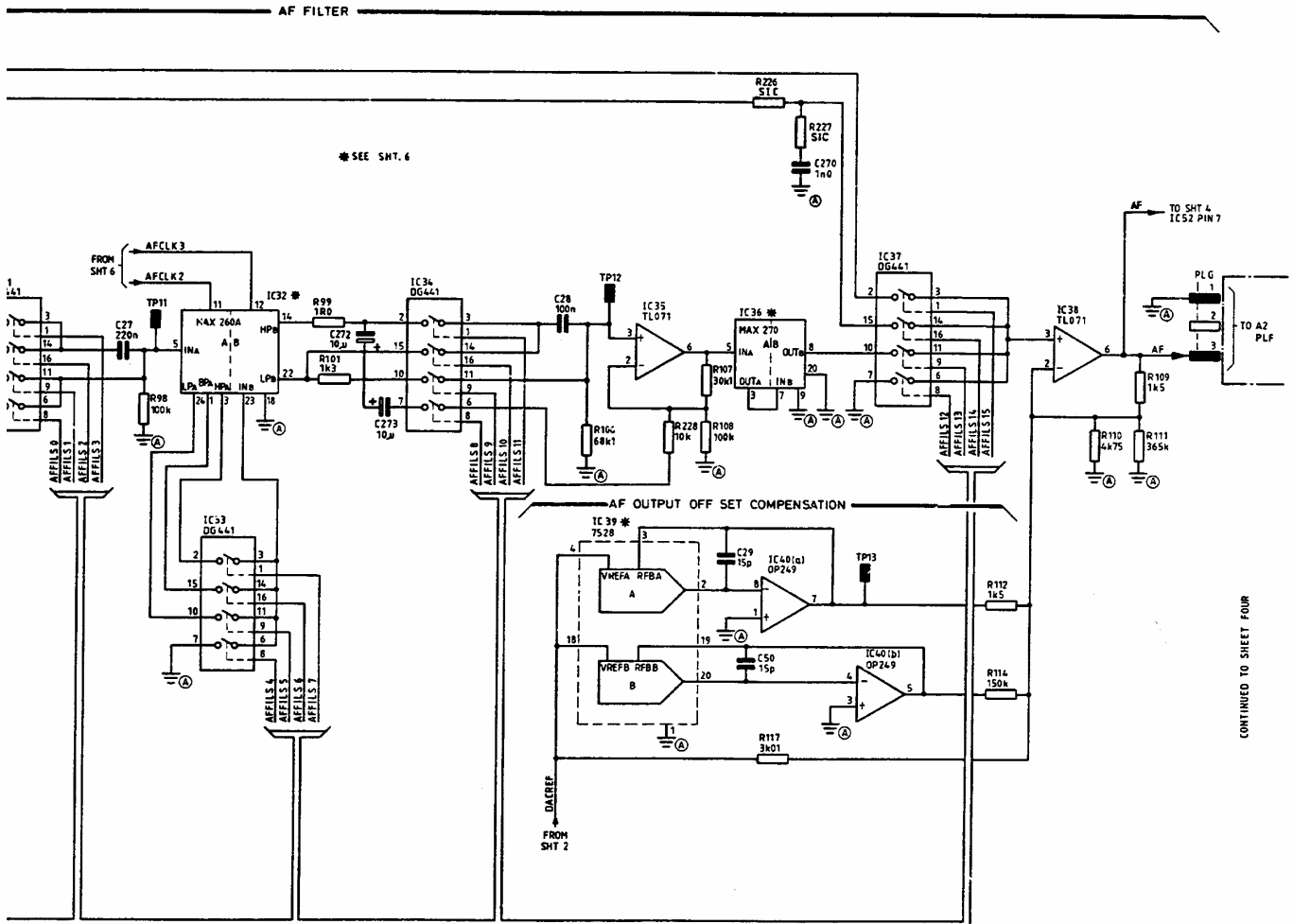
CONTINUED TO SHEET THREE

Fig. 7-54 A3 Demodulation input selection, ext mod input and gain - circuit

PART OF
A3
 44829 / 833



Circuit diagrams **A3**

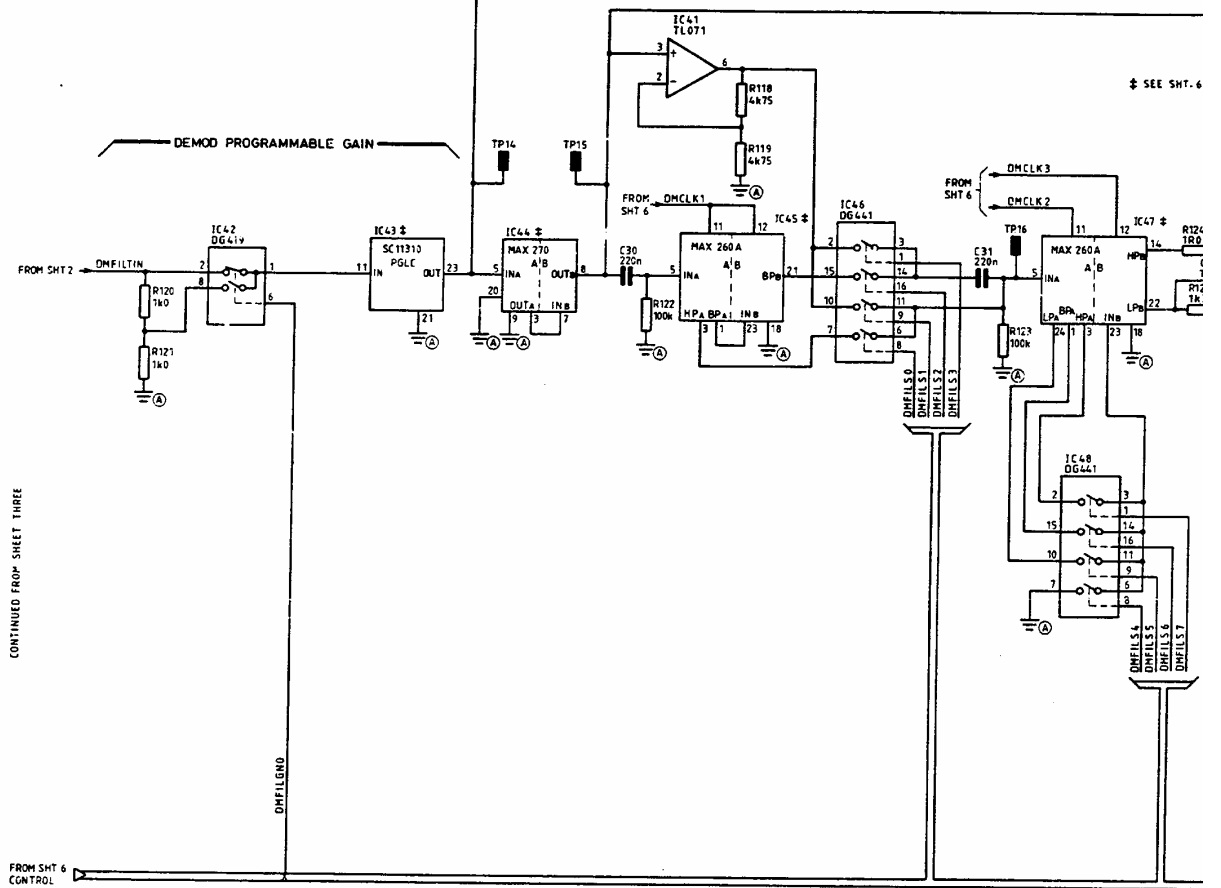


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Fig. 7-55 A3 AF filter - circuit

PART OF
A3
 44829 / 033

DEMOM FIL



Circuit diagrams **A3**

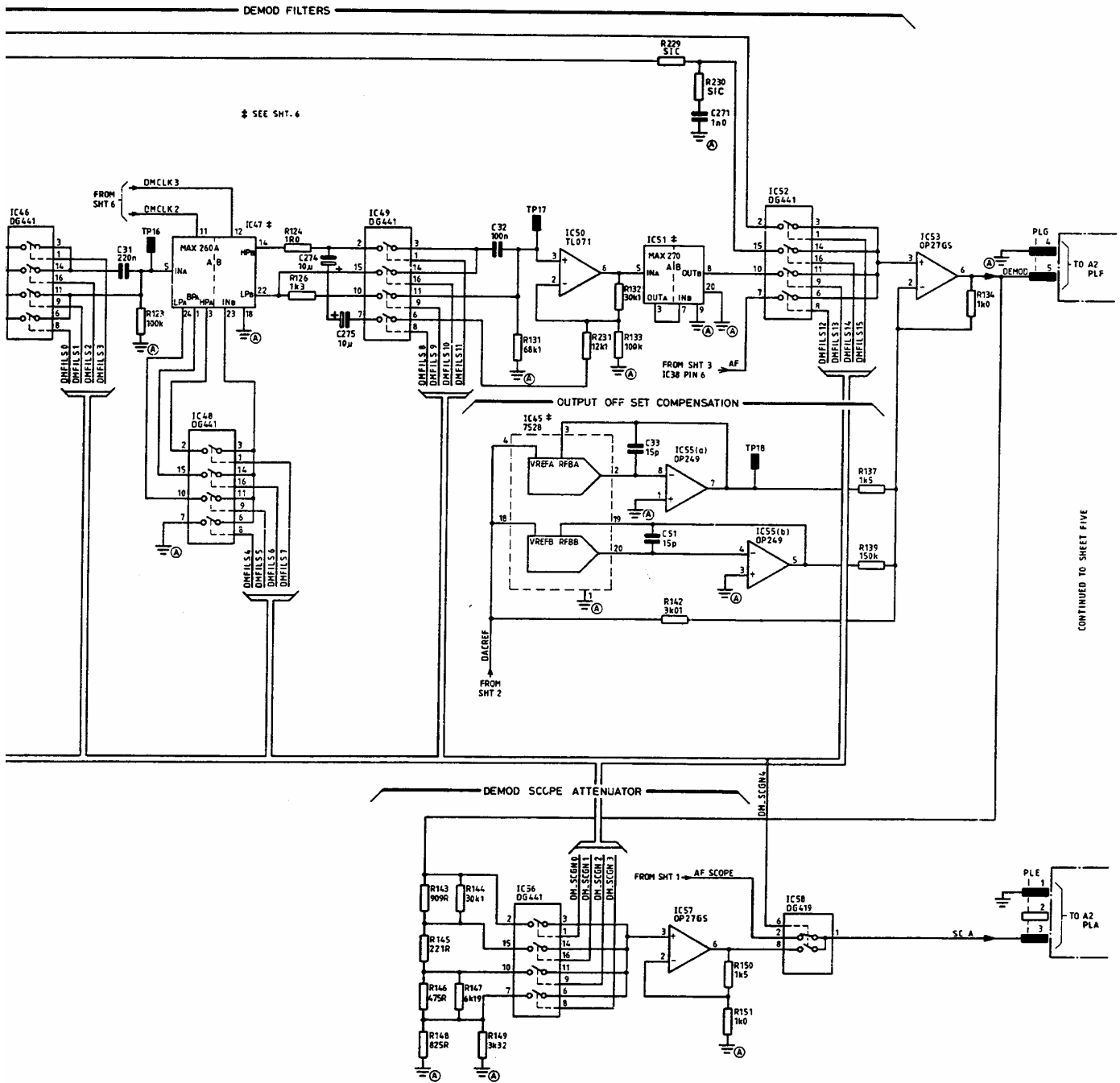
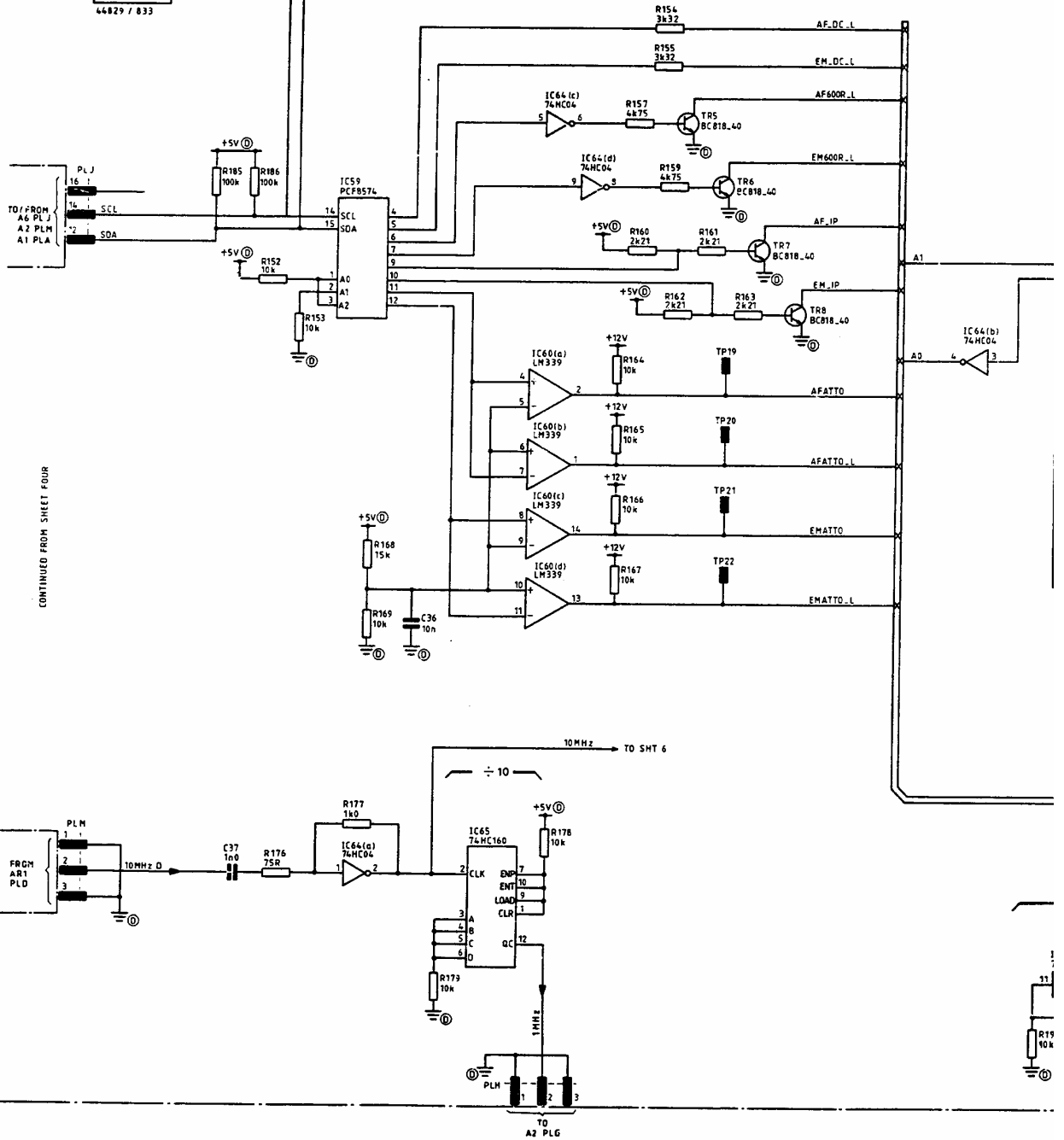


Fig. 7-56 A3 Demodulation filters and scope attenuator - circuit

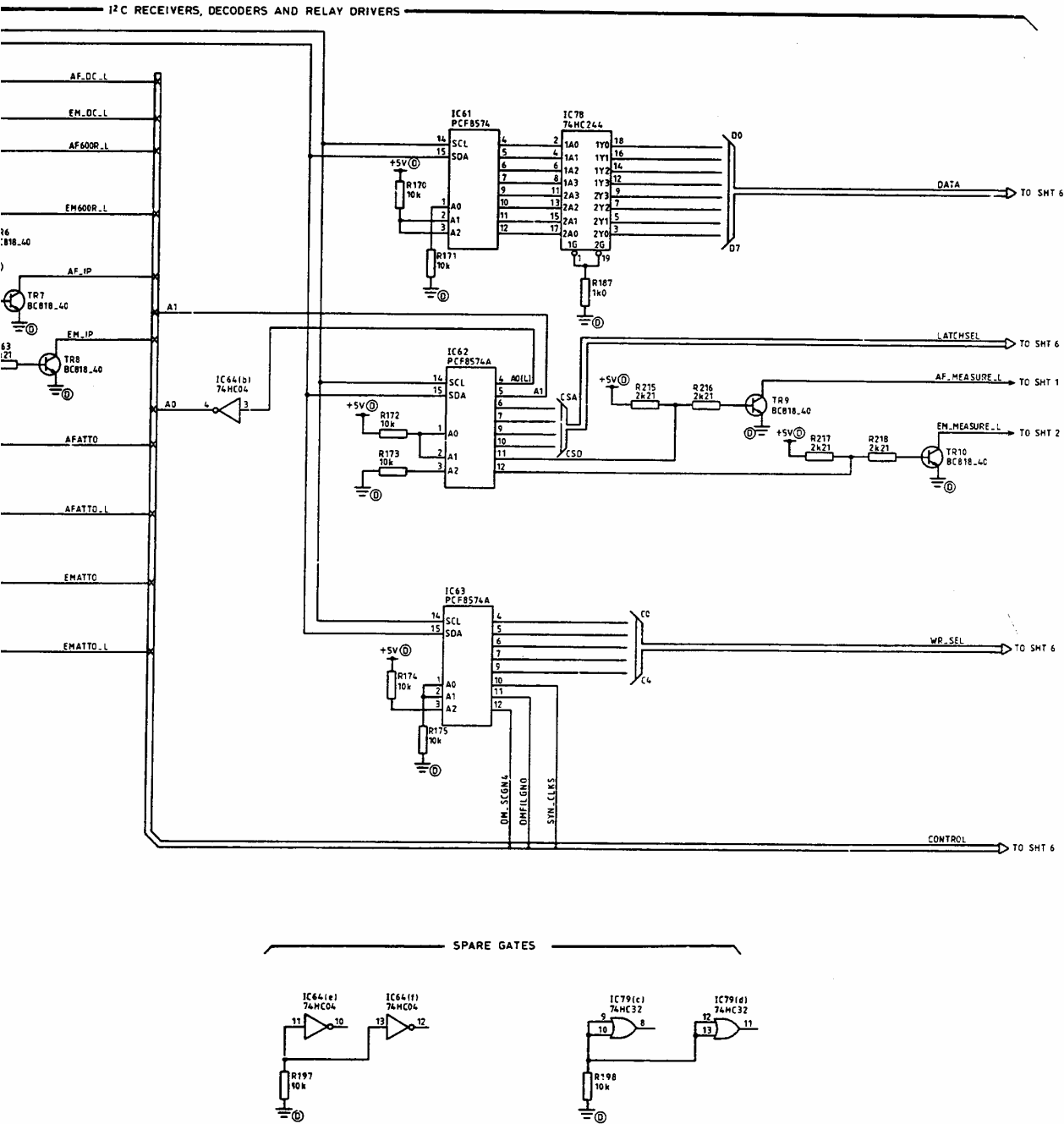
PART OF

A3
44829 / 833

I²C RECEIVERS, DECODERS AND

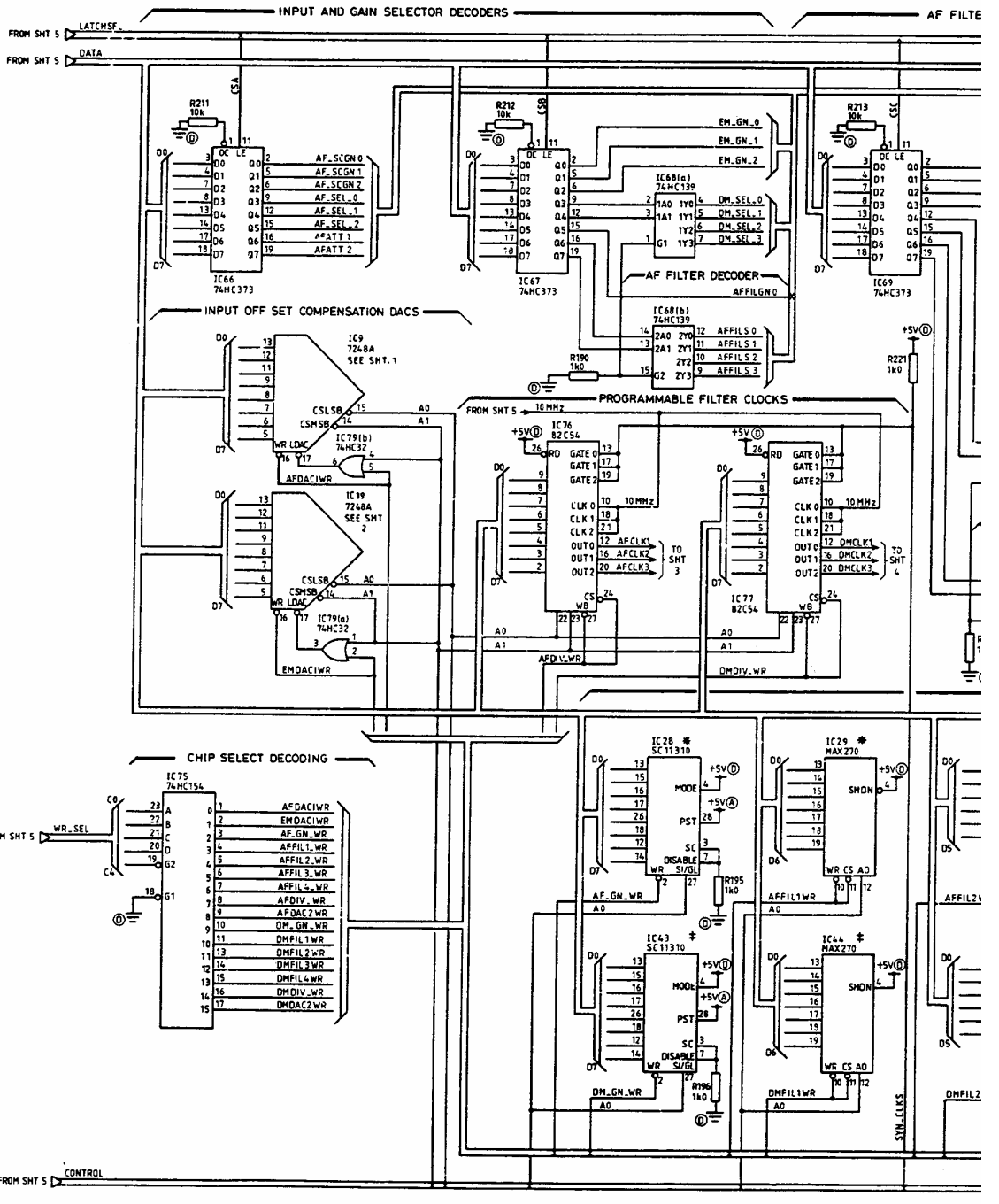


Circuit diagrams A3

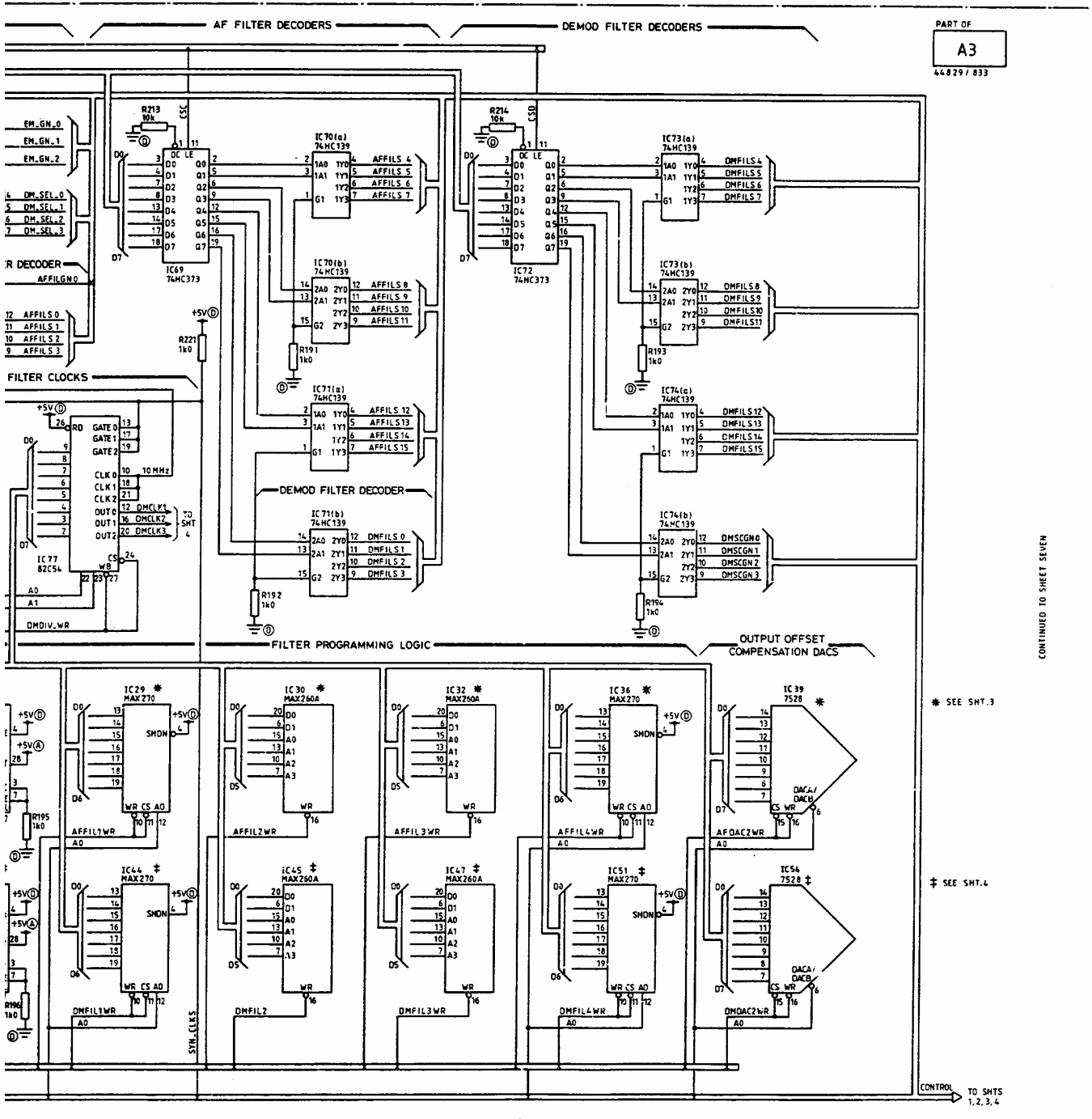


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Fig. 7-57 A3 I²C receivers, decoders, and relay drivers - circuit



Circuit diagrams A3



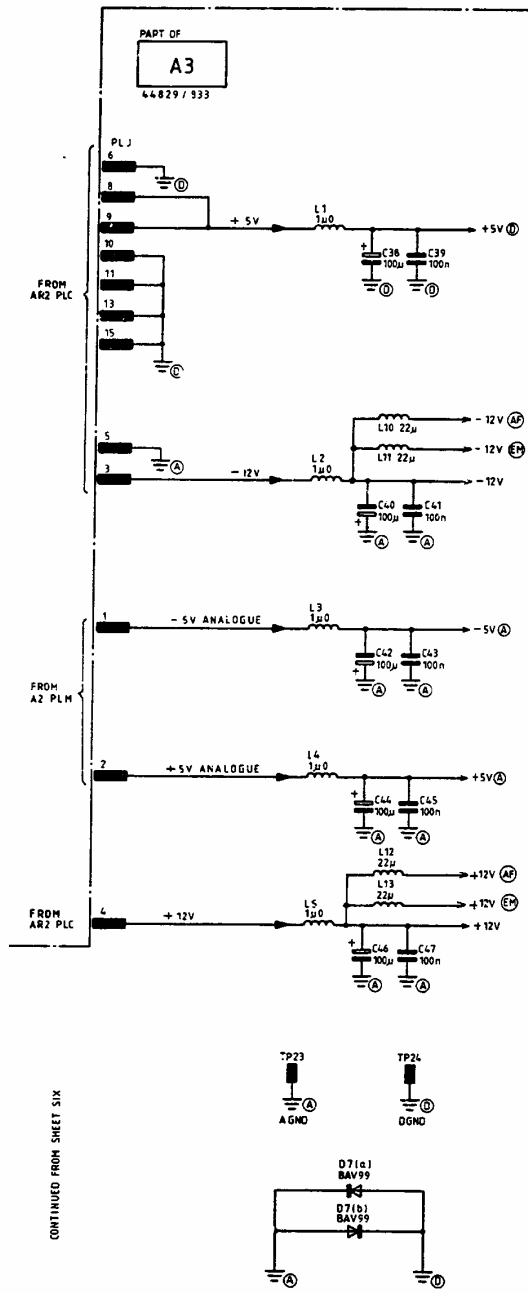
CONTINUED TO SHEET SEVEN

* SEE SHT. 3

‡ SEE SHT. 4

CONTROL TO SHTS 1, 2, 3, 4

Fig. 7-58 A3 Input and gain selector and filter decoders - circuit



SUPPLY LINE TABLE									
IC	+12V (AF)	+12V (EH)	-12V (AF)	-12V (EH)	+5V A	A GND	+12V (AF)	DECOUPLING T	
1	13		3			14	C100		
2	7		4				C102		
3	4		7		5	3	C104		
4	7		4				C106		
5	4		7		5	3	C108		
6	7		4				C110		
8	7		4				C112		
10	13		3			14	C116		
11	7		4				C118		
12	4		7		5	3	C120		
13	7		4				C122		
18	7	7	4	4				C130	
20	7	7	4	4				C134	
21	13	7	3			14		C136	
22	7	7	4					C138	
23		4	7	7	5	3		C140	
24		7		4				C142	

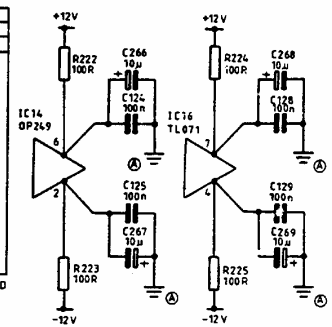
SUPPLY LINE TABLE									
IC	+12V	-12V	+5V A	-5V A	AGND	+5V D	DGND	+12V TO AGND	-12V TO AGND
9	18	1			4		10	C114	C115
15	13	4			5		10	C126	C127
19	18	1			4			C132	C133
25	7	4						C144	C145
26	7	4			3			C146	C147
27	4	7	5		21		5	C148	C149
28			9	1	6	9			
29			2	6					
31	13	4			5			C156	C157
33	13	4			5			C160	C161
34	13	4			5			C162	C163
35	7	4						C164	C165
36			2	6	9				
37	13	4			5			C168	C169
38	7	4			1			C170	C171
39	17					5		C172	
40	6	2						C173	C174
41	7	4			3			C175	C176
42	4	7	5		21		5	C178	C179
43			9	1	6	9			
44			2	6					
46	13	4			5			C186	C187
48	13	4			5			C190	C191
49	13	4			5			C192	C193
50	7	4						C194	C195
51	13	4	2	6	9			C198	C199
53	7	4			5			C200	C201
54	17				1		5	C202	
55	6	2						C203	C204
56	13	4			5			C205	C206
57	7	4			3			C207	C208
58	4	7	5				16	C209	C210
59							8		
60	3	12							
61						16	8		
62						16	8		
63						16	8		
64						14	7		
65						16	8		
66						20	10		
67						20	10		
68						16	8		
69						20	10		
70						16	8		
71						16	8		
72						20	10		
73						16	8		
74						16	8		
75						24	12		
76						28	14		
77						28	14		
78						20	10		
79						14	7		

Circuit diagrams A3

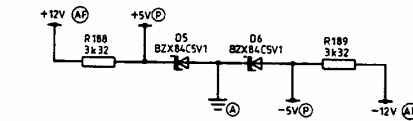
SUPPLY LINE TABLE				DECOUPLING TO AGND		
V(AF)	-12V (EM)	+5V A	A GND	+12V (AF)	-12V (AF)	-12V (EM)
3			14	C100		C101
4				C102		C103
7		5	3	C104		C105
4				C106		C107
7		5	3	C108		C109
4				C110		C111
4			14	C112		C113
3				C116		C117
4				C118		C119
7		5	3	C120		C121
4				C122		C123
	4			C130		C131
	4			C134		C135
	3		14	C136		C137
	4			C138		C139
	7	5	3	C140		C141
	4			C142		C143

SUPPLY LINE TABLE				EXTRA ELECTROLYTIC DECOUPLING	
NEAR IC	+VE PIN	-VE PIN	DEC CAP		
4	+12V(AF)	AGND	C230	10μ	
4	AGND	-12V(AF)	C231	10μ	
8	+12V(AF)	AGND	C232	10μ	
8	AGND	-12V(AF)	C233	10μ	
18	+12V(EM)	AGND	C234	10μ	
18	AGND	-12V(EM)	C235	10μ	
29	+5V A	AGND	C236	10μ	
29	AGND	-5V A	C237	10μ	
43	+5V A	AGND	C238	10μ	
43	AGND	-5V A	C239	10μ	
75	+5V D	DGND	C240	10μ	
76	+5V D	DGND	C241	10μ	
77	+5V D	DGND	C242	10μ	
78	+5V D	DGND	C243	10μ	
65	+5V D	DGND	C244	10μ	

ALL IC'S DECOUPLED AT SUPPLY TO GROUND AS INDICATED



SUPPLY LINE TABLE				DECOUPLING CAPACITOR					
+5V A	A GND	+5V D	D GND	+12V TO AGND	-12V TO AGND	+5V TO AGND	-5V TO AGND	+5V D TO DGND	+12V TO -12V
	4		10	C114	C115				
	5		10	C126	C127				
	4			C132	C133				
				C144	C145				
1	3		5	C146	C147		C150		
6	21			C148	C149		C152	C151	
	9							C153	
	5			C156	C157				
	5			C160	C161				
	5			C162	C163				
	6			C164	C165				
	9			C168	C169		C166		C167
	5			C170	C171				
	1		5	C172	C173				
	3			C175	C176		C180		
1	21		5	C178	C179		C182	C181	
6	9							C183	
	5			C186	C187				
	5			C190	C191				
	5			C192	C193				
	6			C194	C195				
	9			C198	C199		C196		C197
	5			C200	C201				
	1		5	C202	C203				
	5			C205	C206				
	3			C207	C208				
		16	8	C209	C210			C211	
		16	8					C213	C212
		16	8					C214	
		14	7					C215	
		16	8					C216	
		16	8					C217	
		20	10					C218	
		20	10					C221	
		16	8					C223	
		20	10					C219	
		16	8					C222	
		16	8					C220	
		20	10					C224	
		16	8					C225	
		16	8					C226	
		24	12					C227	
		28	14					C228	
		20	10					C229	
		14	7					C245	
								C246	



SWITCHED CAPACITOR FILTER DECOUPLING

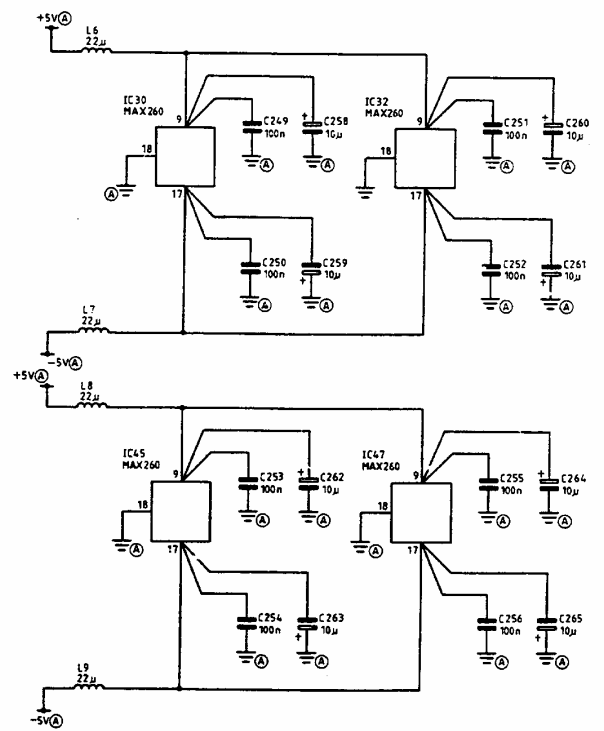
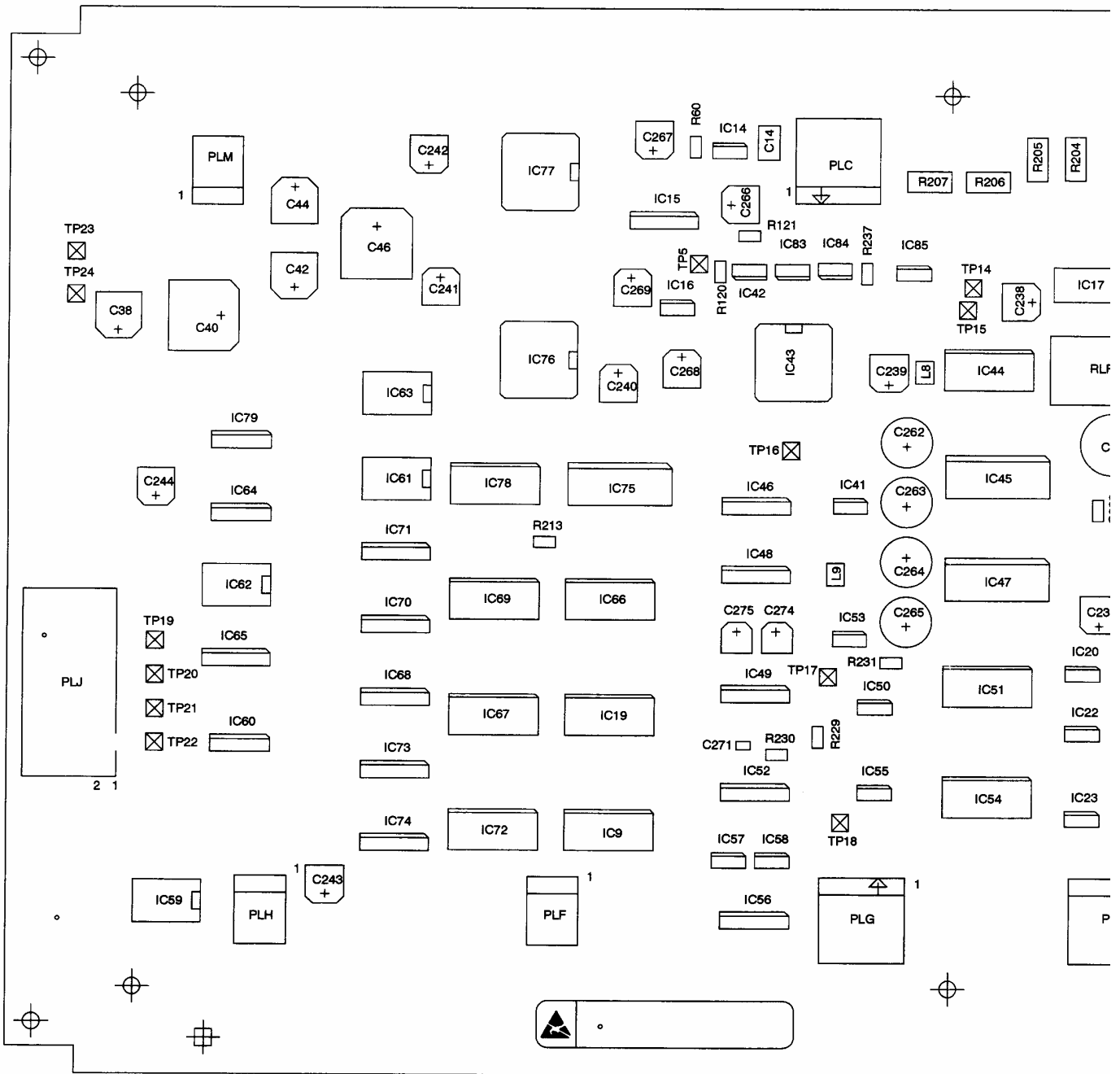


Fig. 7-59 A3 Power supply and decoupling arrangements - circuit

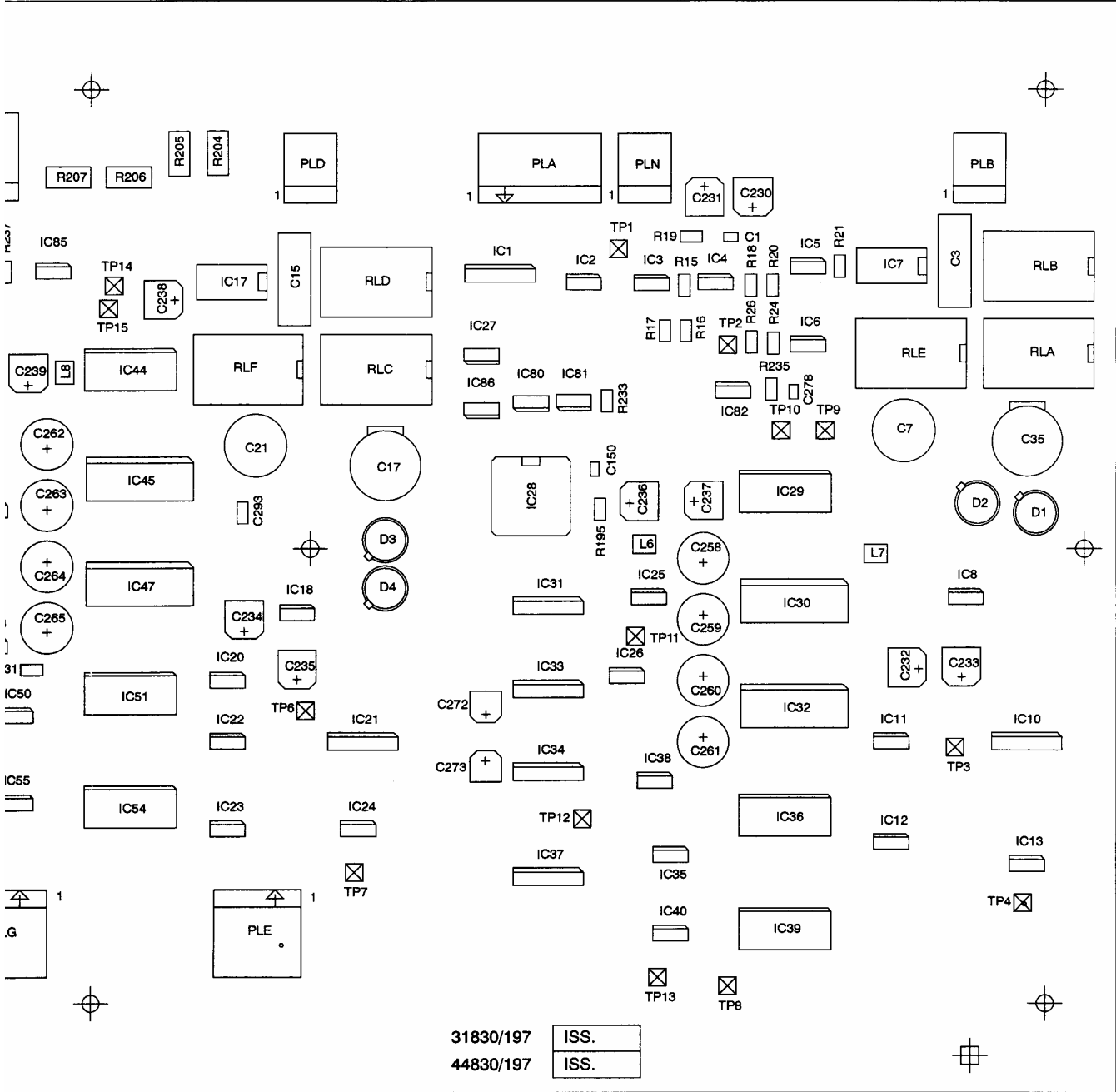
SERVICING DIAGRAMS

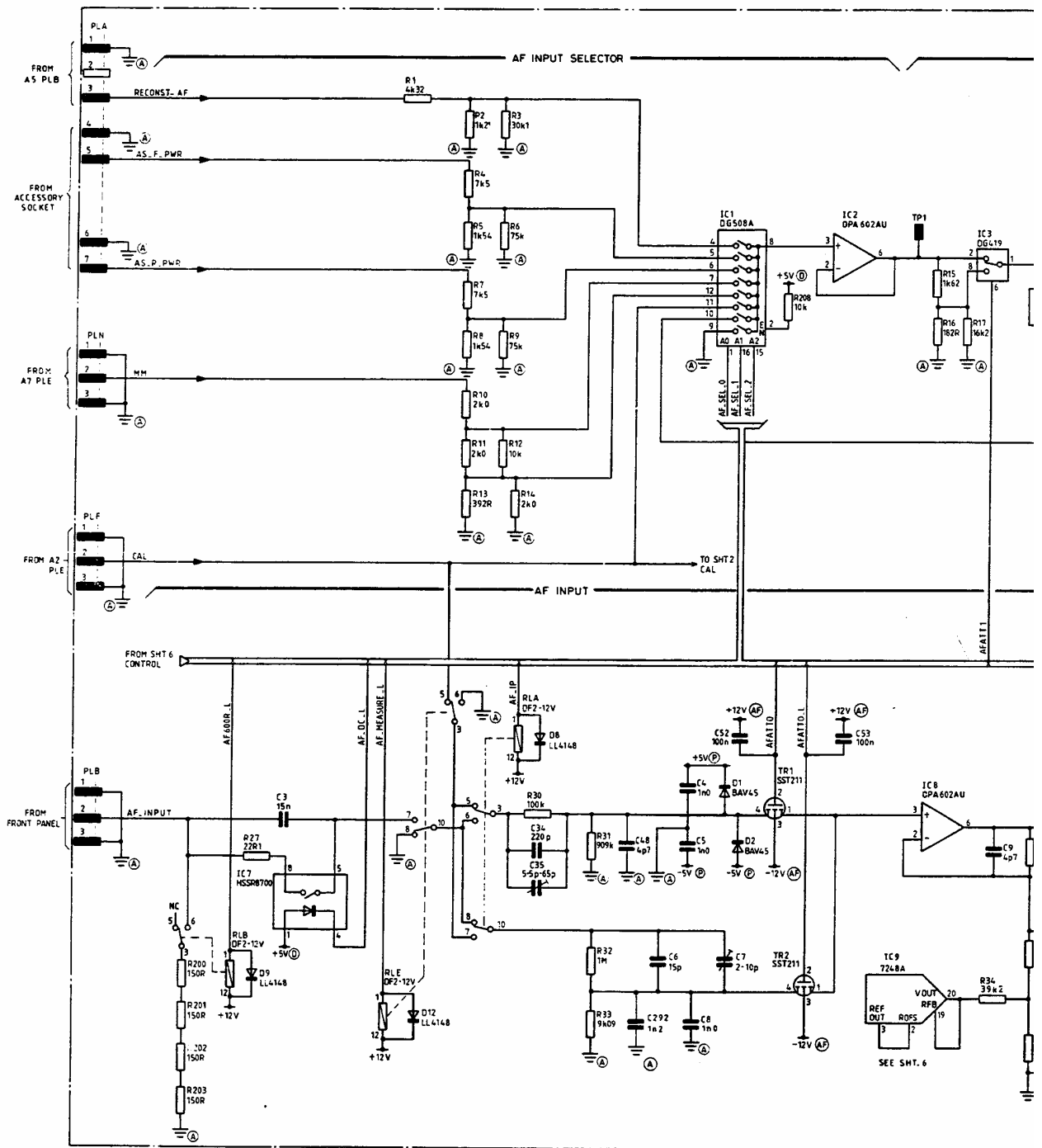


Power supply and decoupling arrangements **A3**

Drg. No. 44830/19;

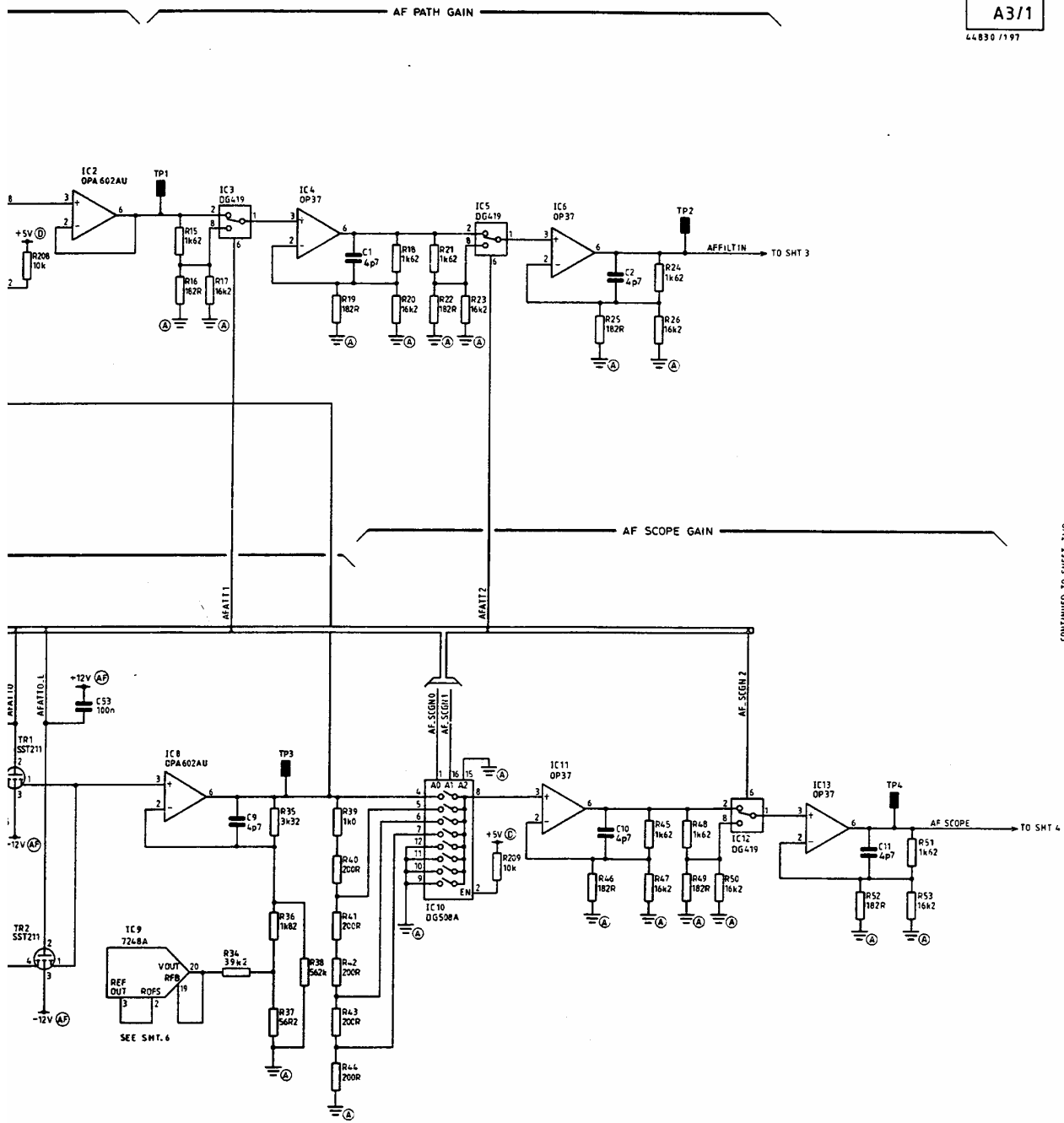
Component layout A3/1





Circuit diagrams A3/1

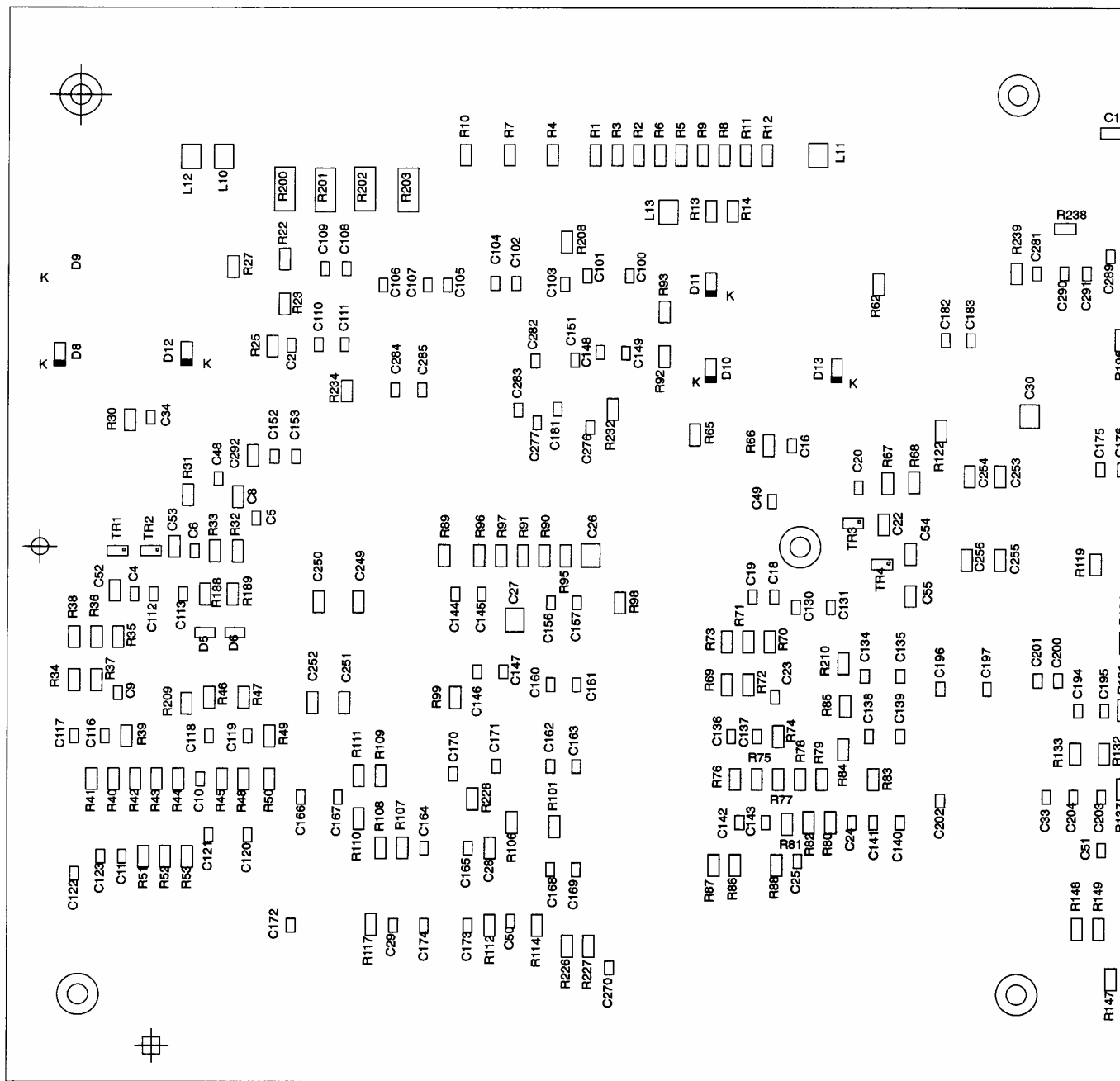
PART OF
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CONTINUED TO SHEET TWO

Fig. 7-61 A3/1 AF input and AF scope gain - circuit

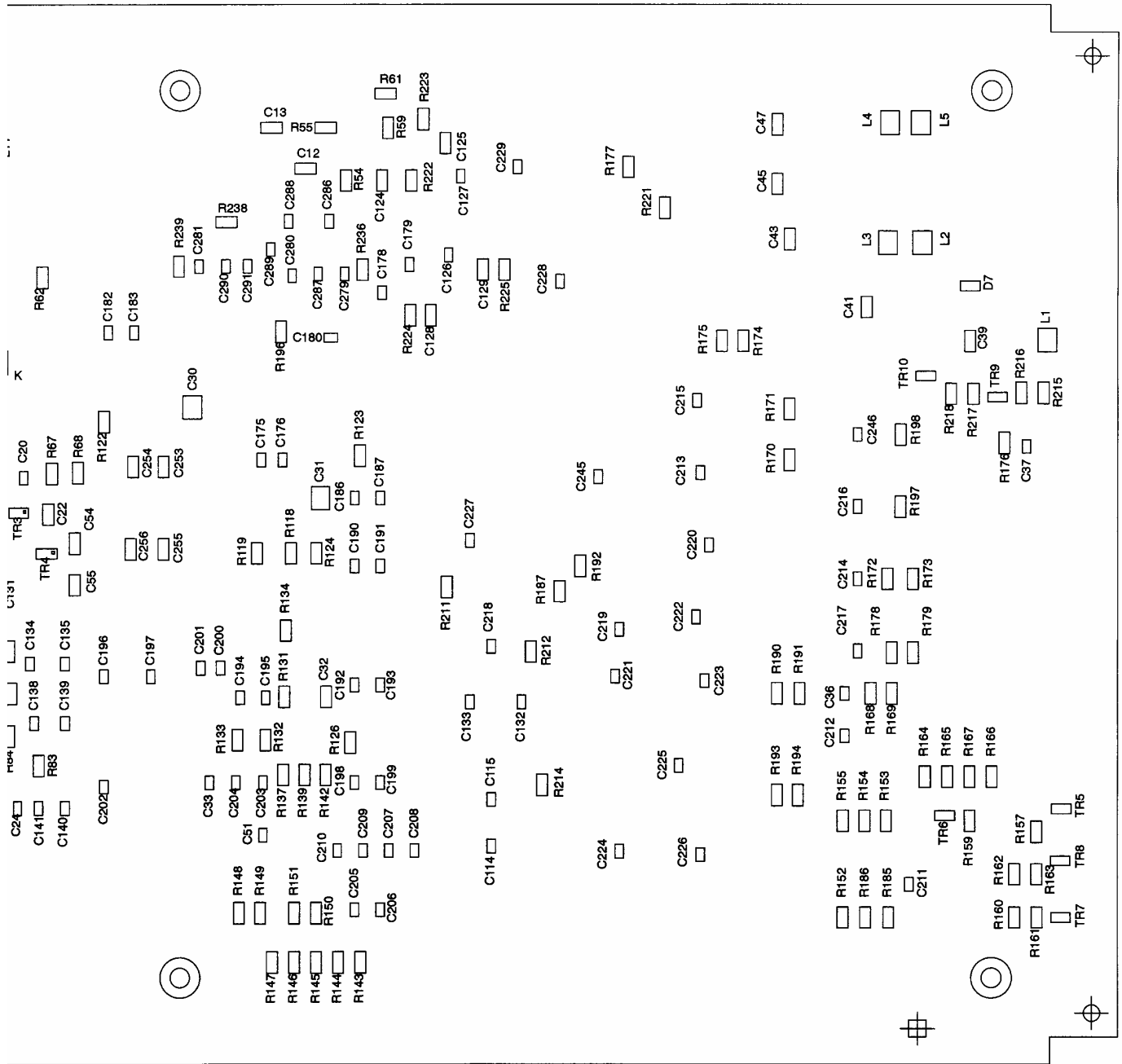
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AF input and AF scope gain A3/1

Drg. No. 44830/197

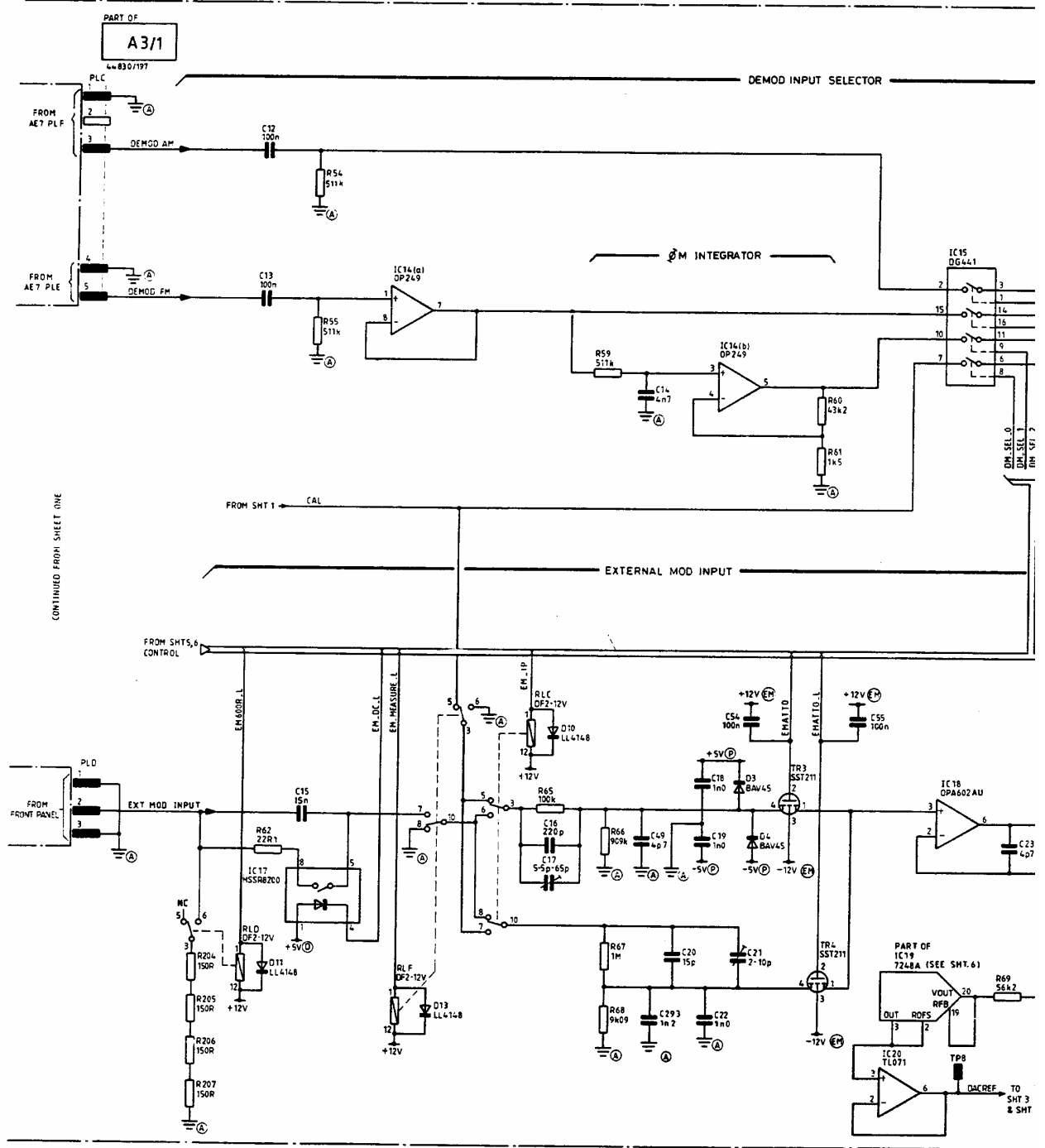
Component layout A3/1



A3/1

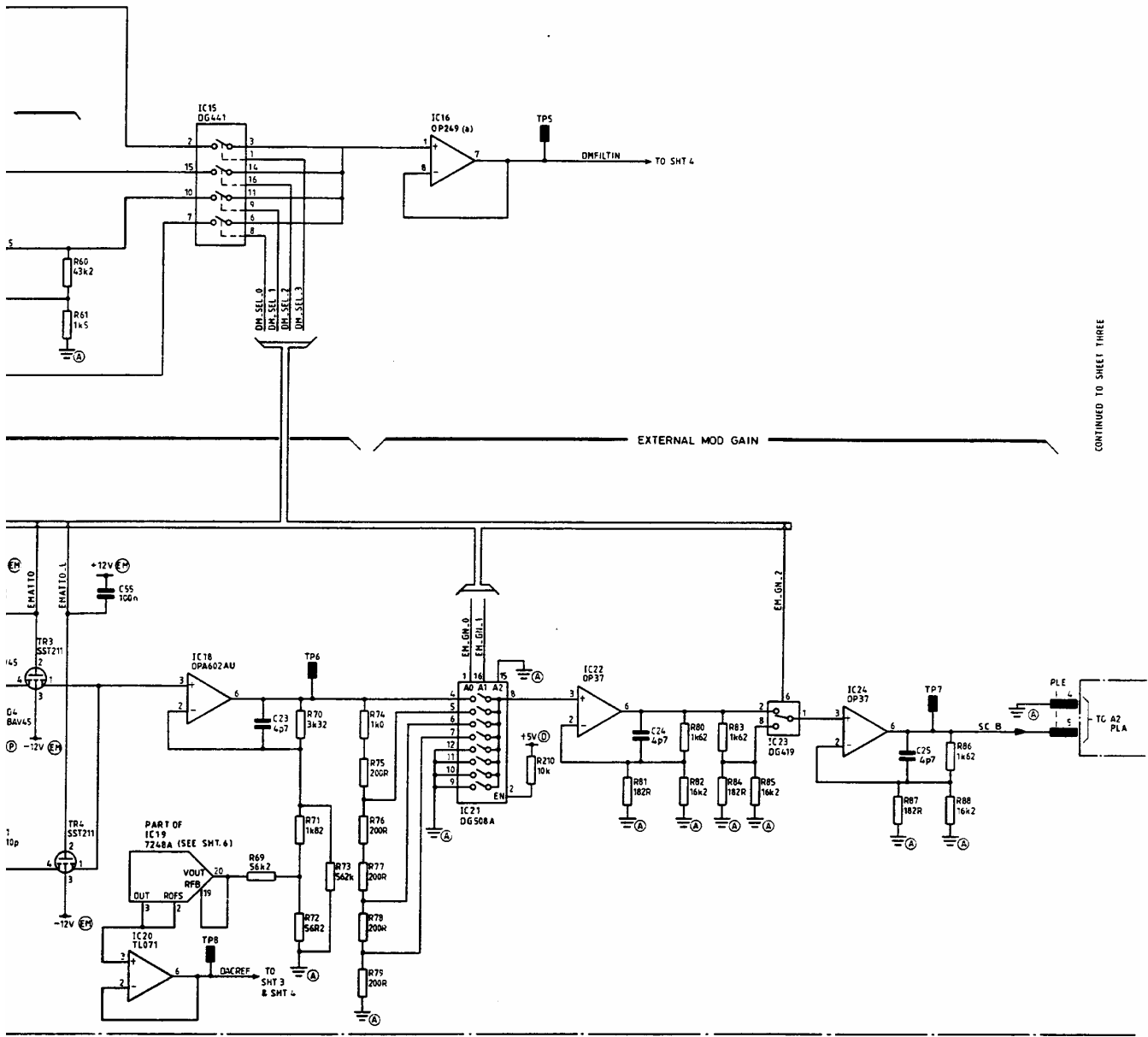
Drg. No. 44830/197 Sheet 2 of 2 Issue 4

Fig. 7-62 A3/1 Audio processor 1 - component layout, solder side



Circuit diagrams A3/1

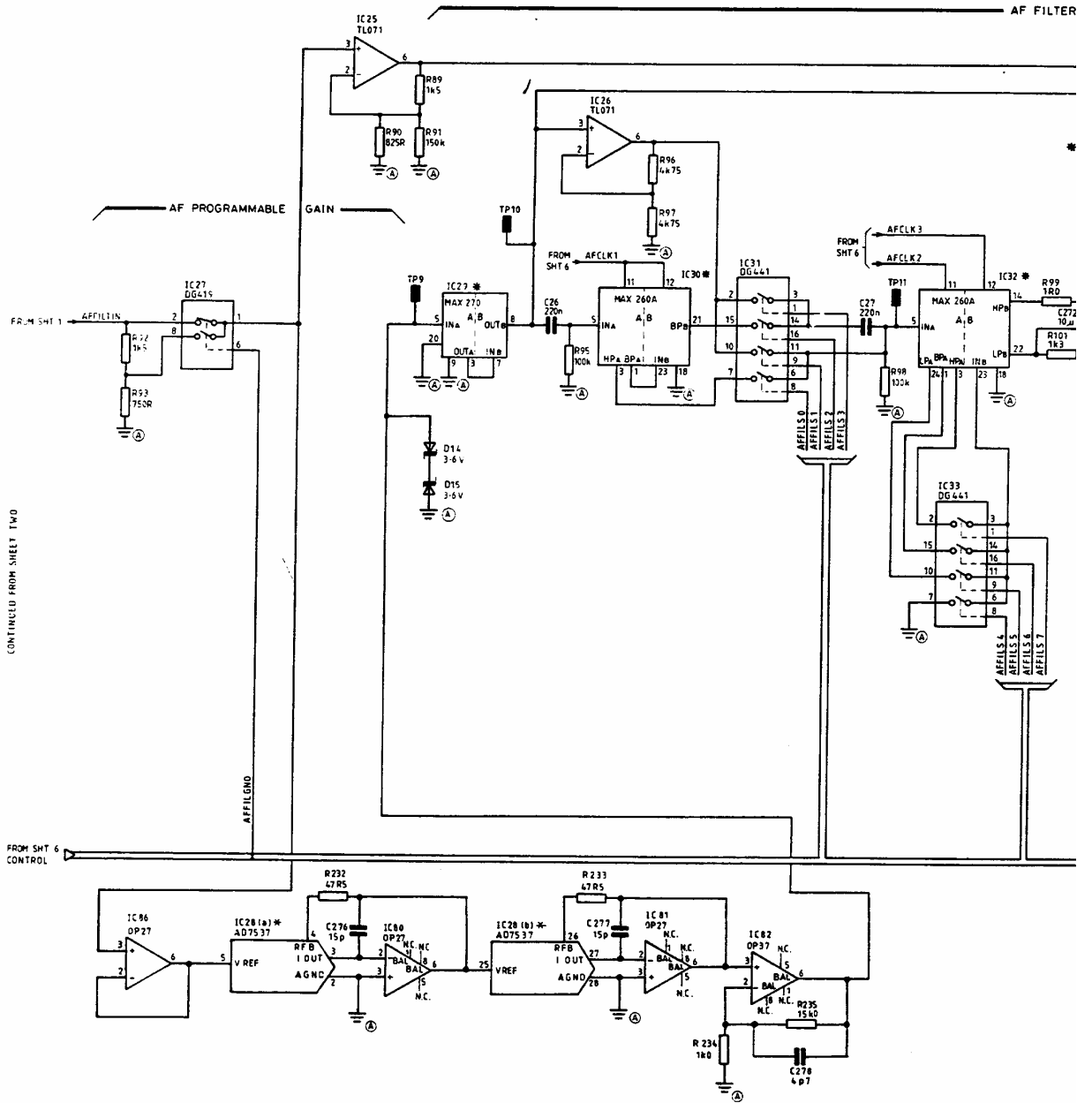
MOD INPUT SELECTOR



CONTINUED TO SHEET THREE

Fig. 7-63 A3/1 Demodulation input selection, ext mod input and gain - circuit

PART OF
A3/1
 44630/197



CONTINUED FROM SHEET TWO

Circuit diagrams **A3/1**

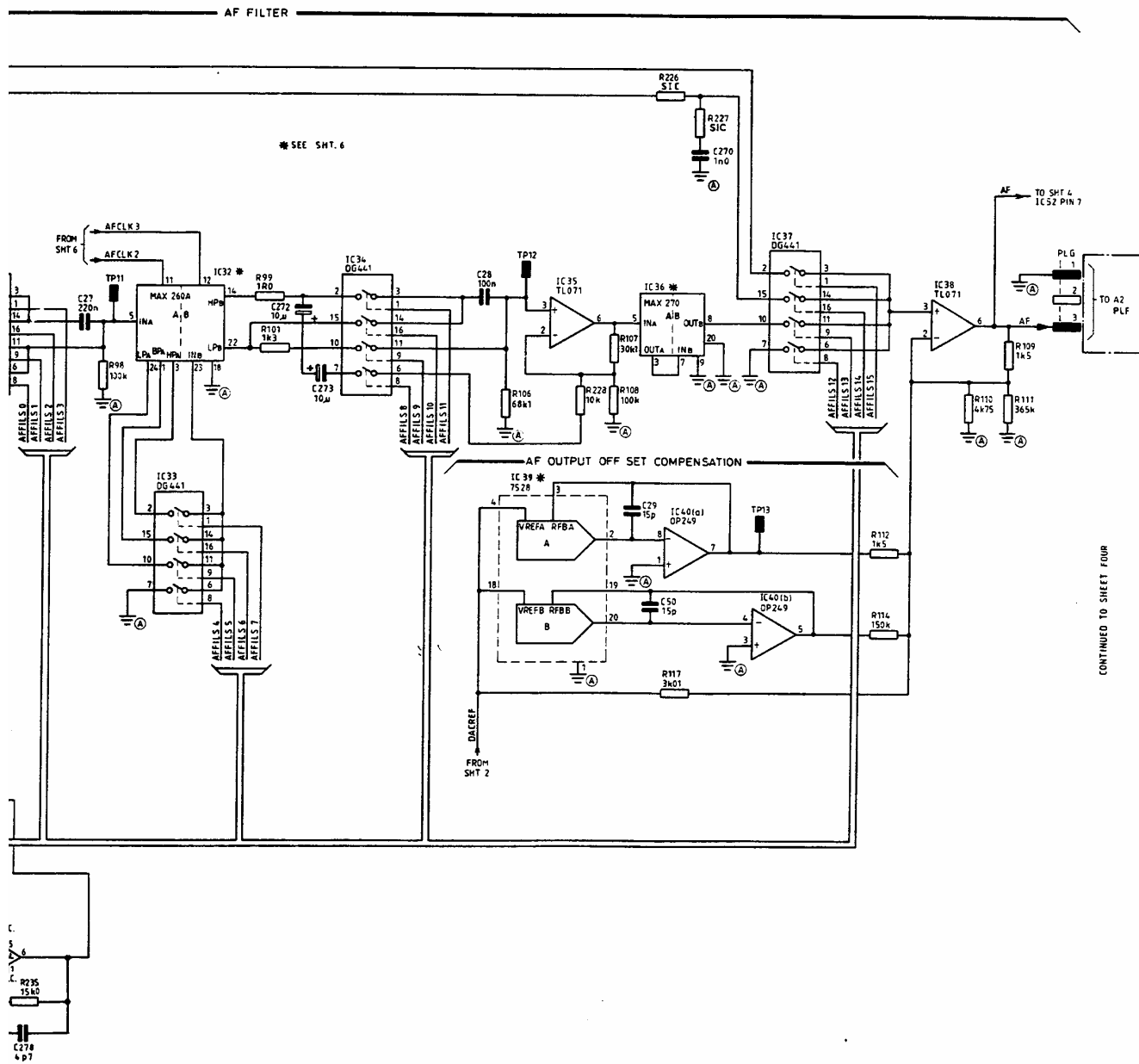
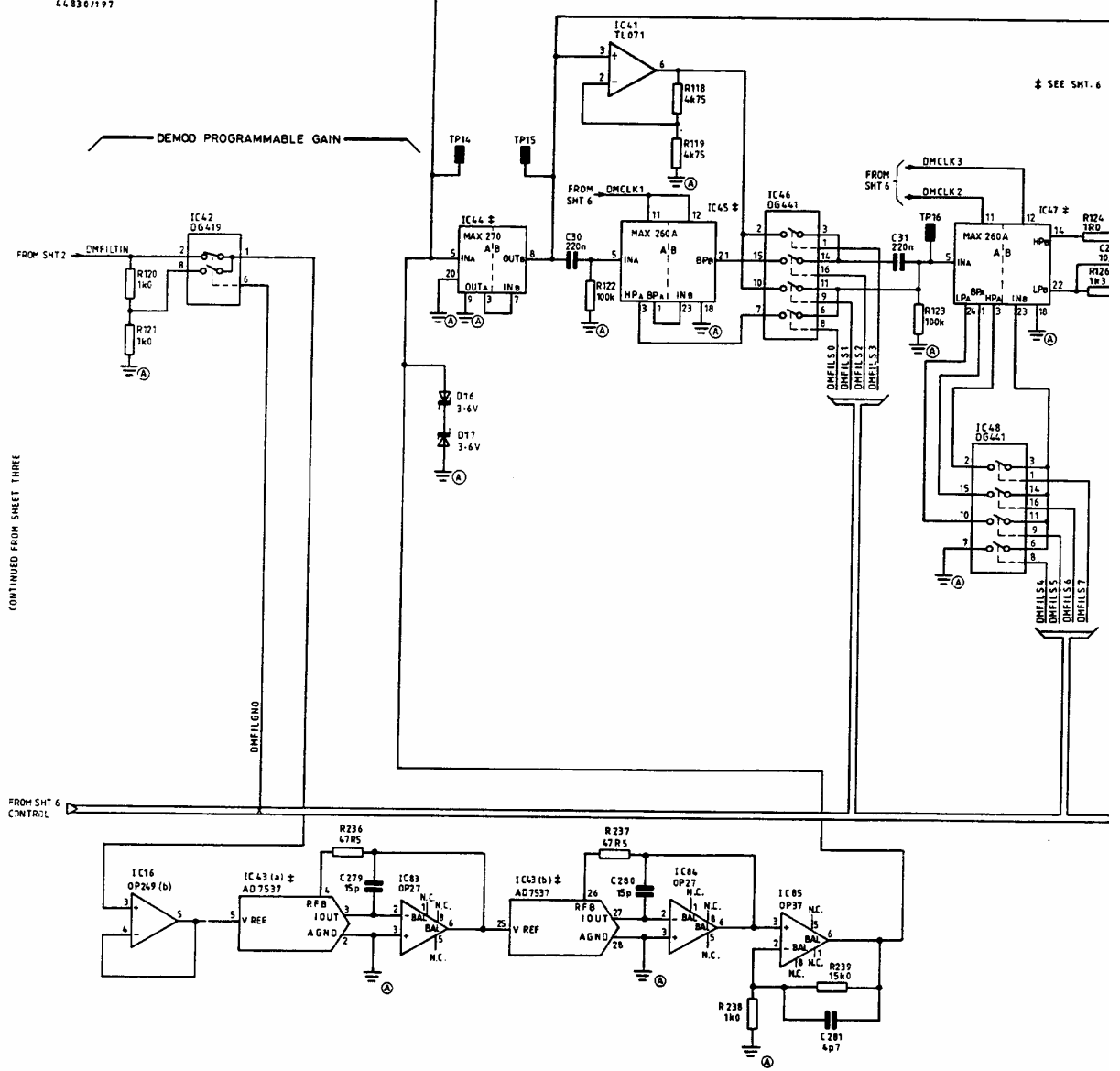


Fig. 7-64 A3/1 AF filter - circuit

PART OF
A3/1
 44830/197

DEMOD FILTER

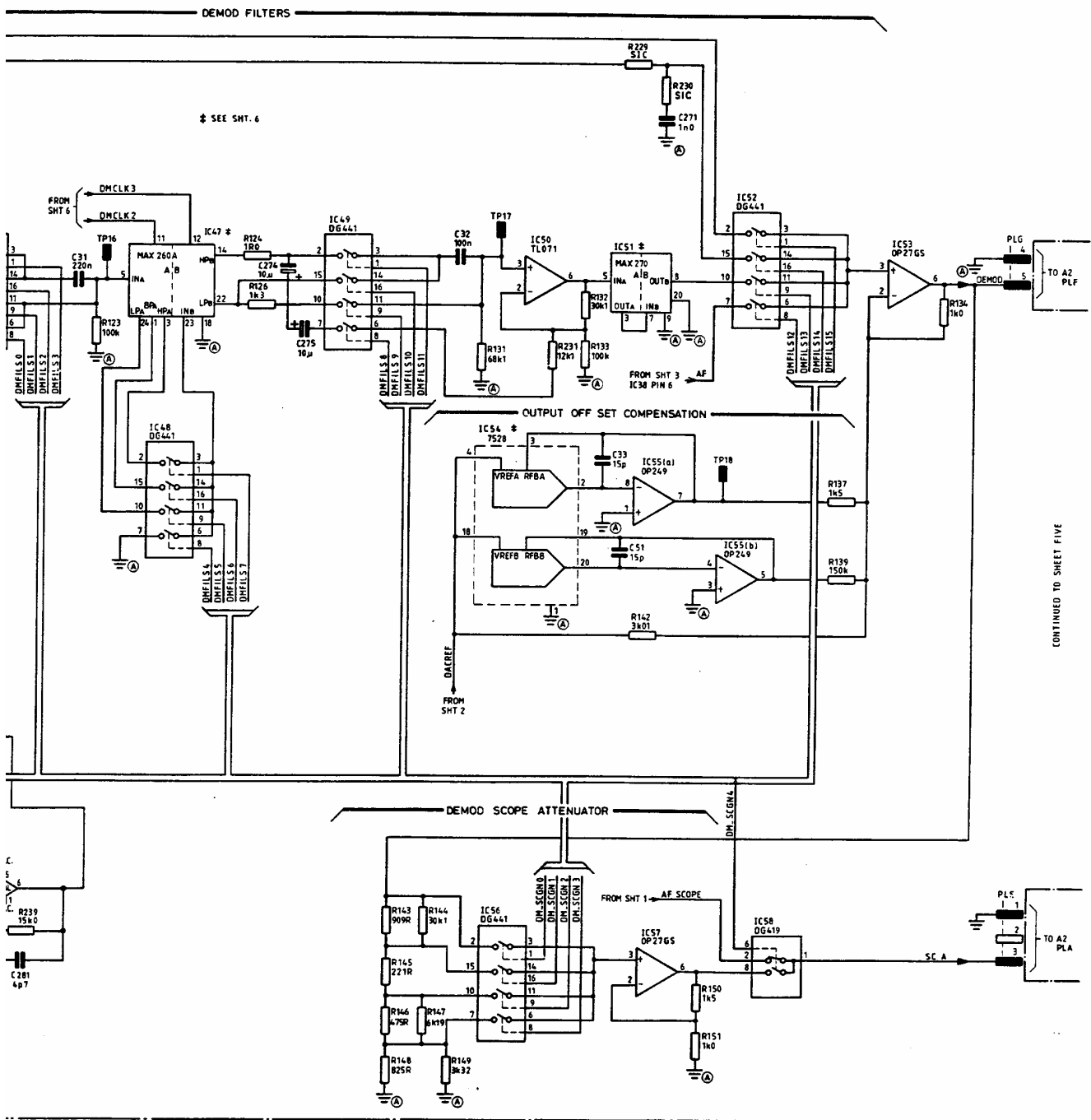


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FROM SHT 6 CONTROL

SEE SHT. 6

Circuit diagrams A3/1

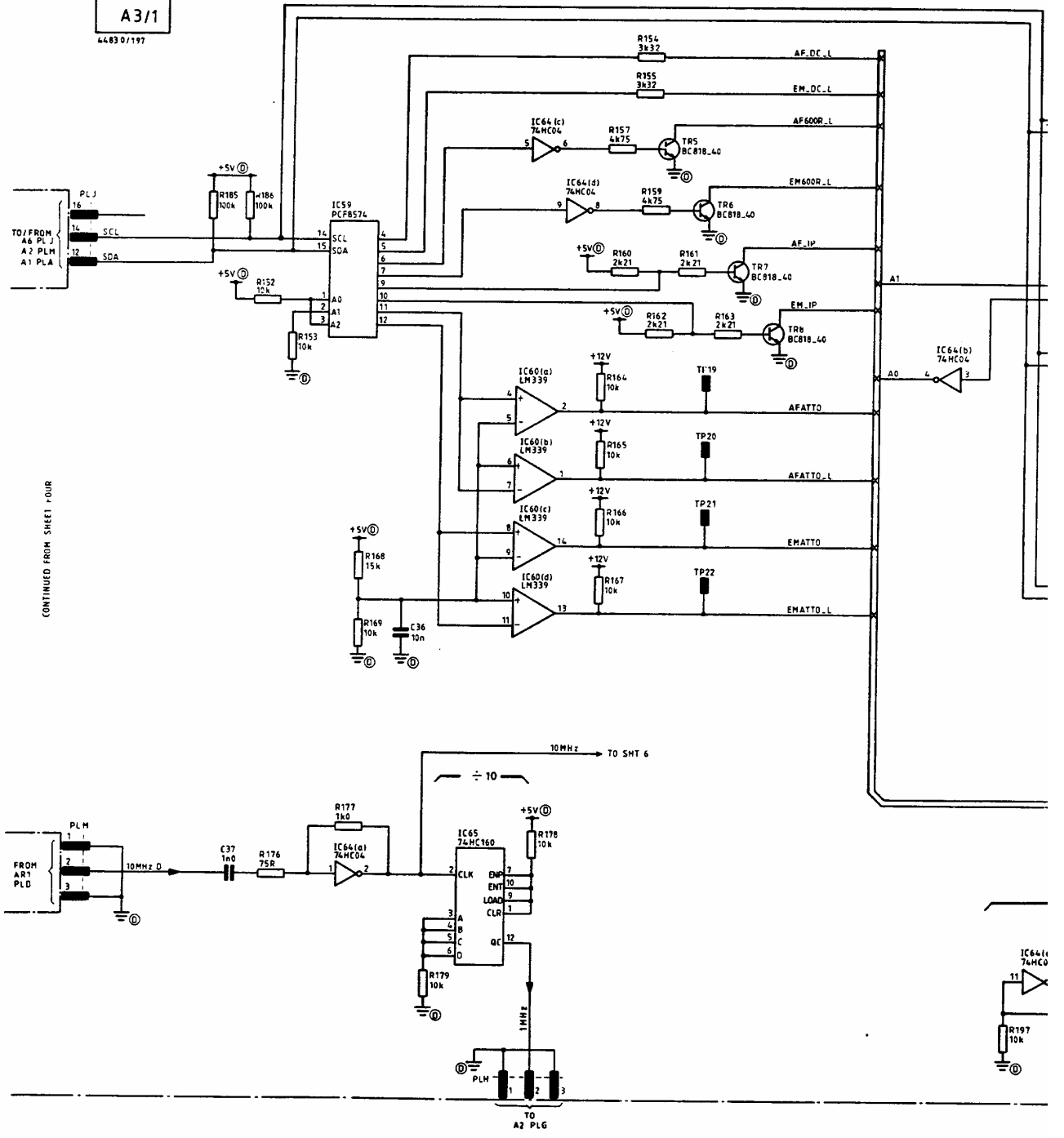


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Fig. 7-65 A3/1 Demodulation filters and scope attenuator - circuit

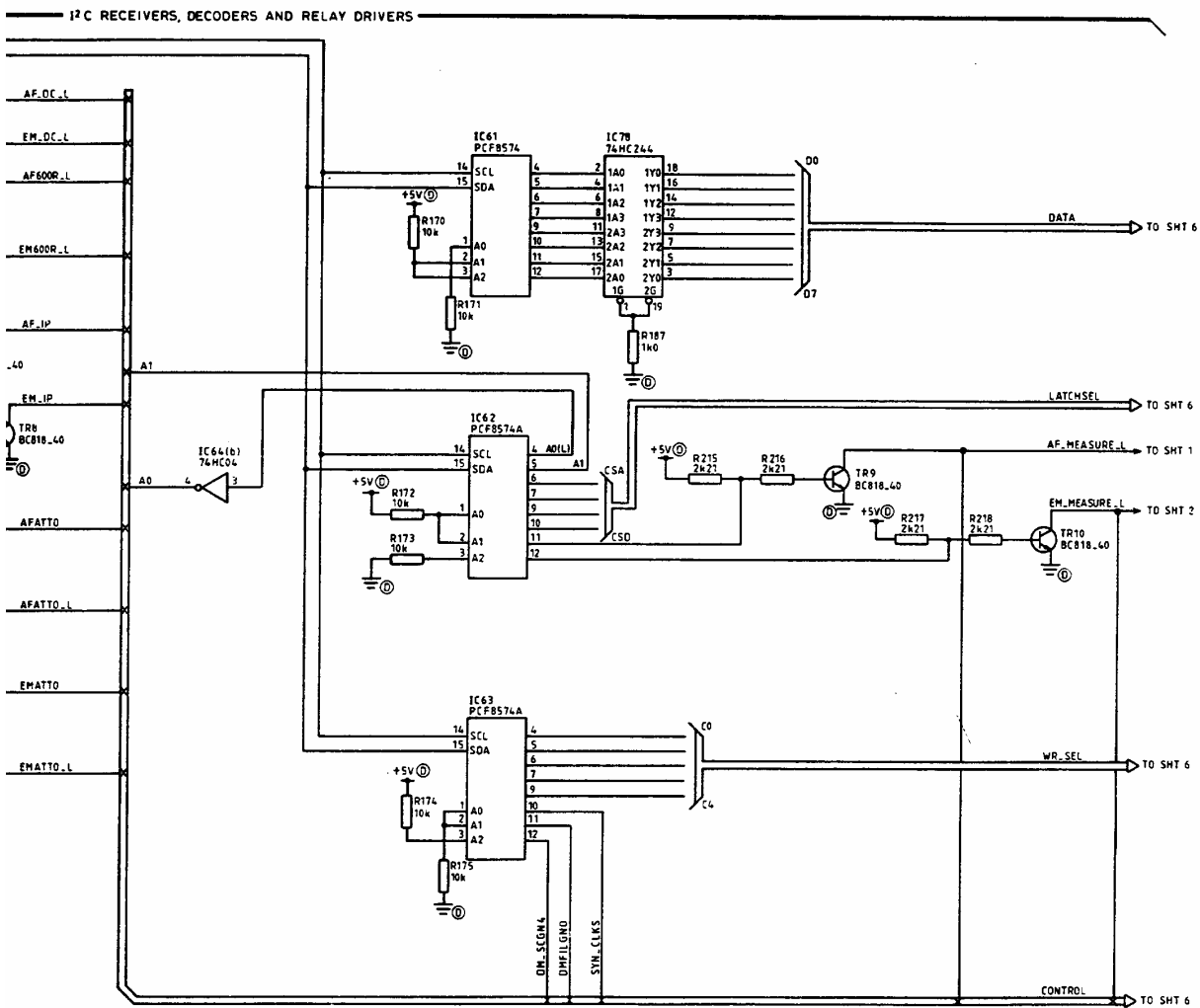
PART OF
A3/1
 44830/197

I²C RECEIVERS, DECODERS AND REL



CONTINUED FROM SHEET FOUR

Circuit diagrams A3/1



CONTINUED TO SHEET SIX

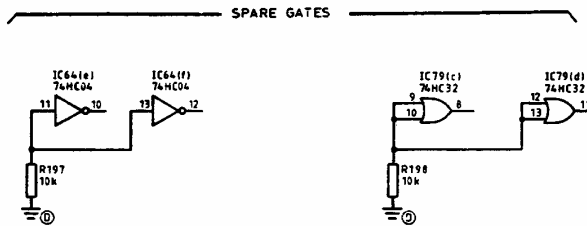
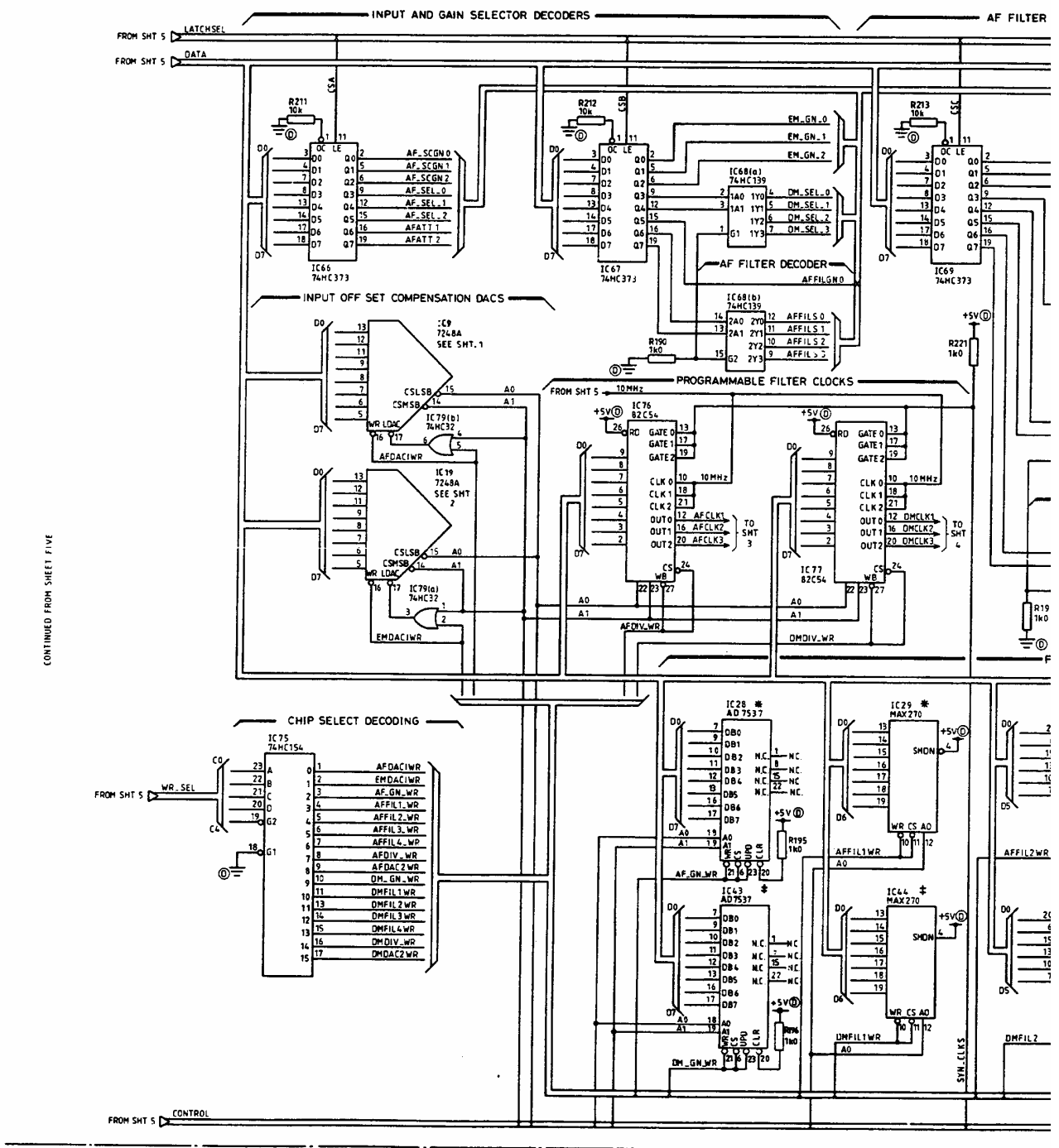
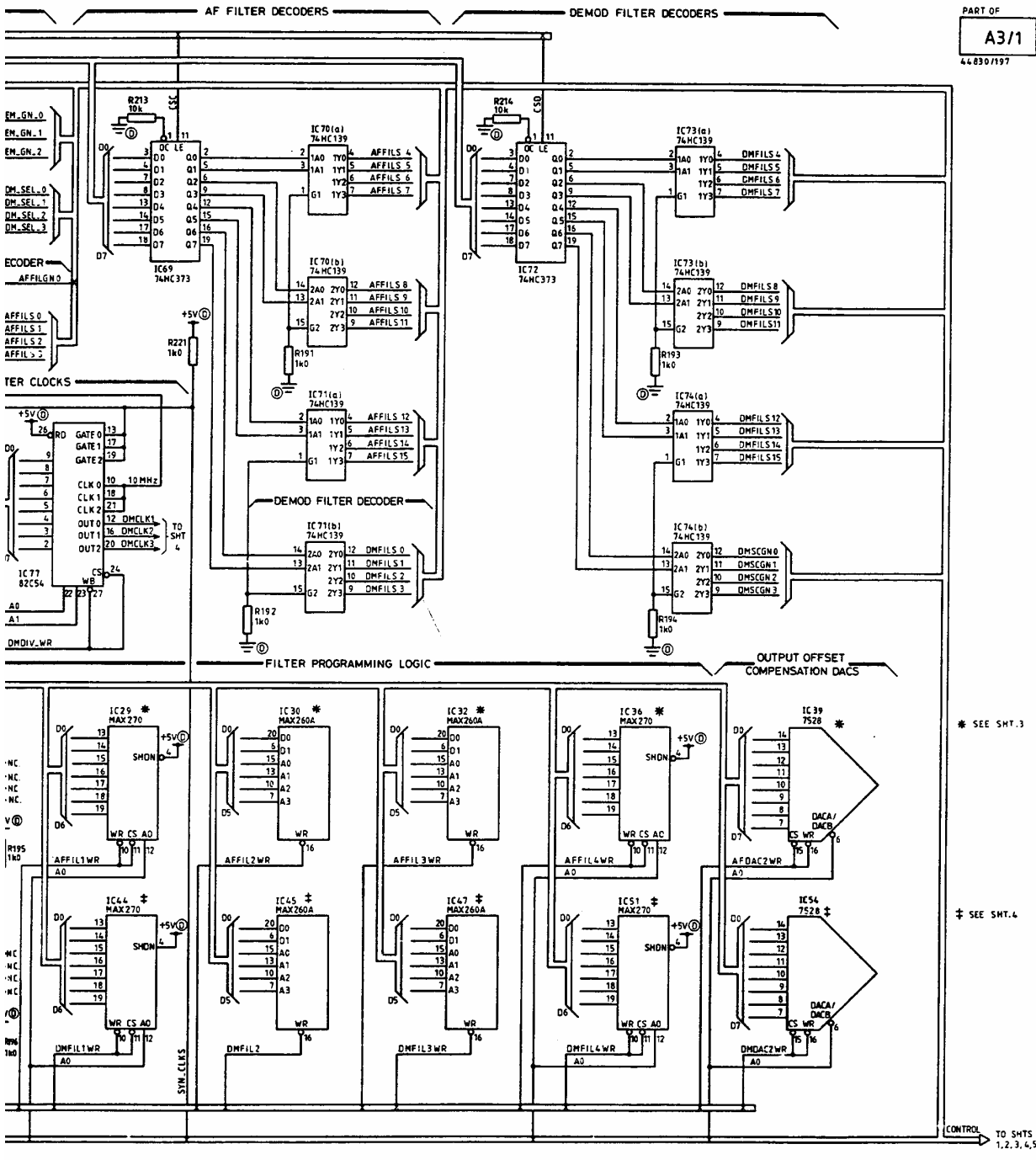


Fig. 7-66 A3/1 I²C receivers, decoders, and relay drivers - circuit



CONTINUED FROM SHEET FIVE

Circuit diagrams A3/1



PART OF
A3/1
 44830/197

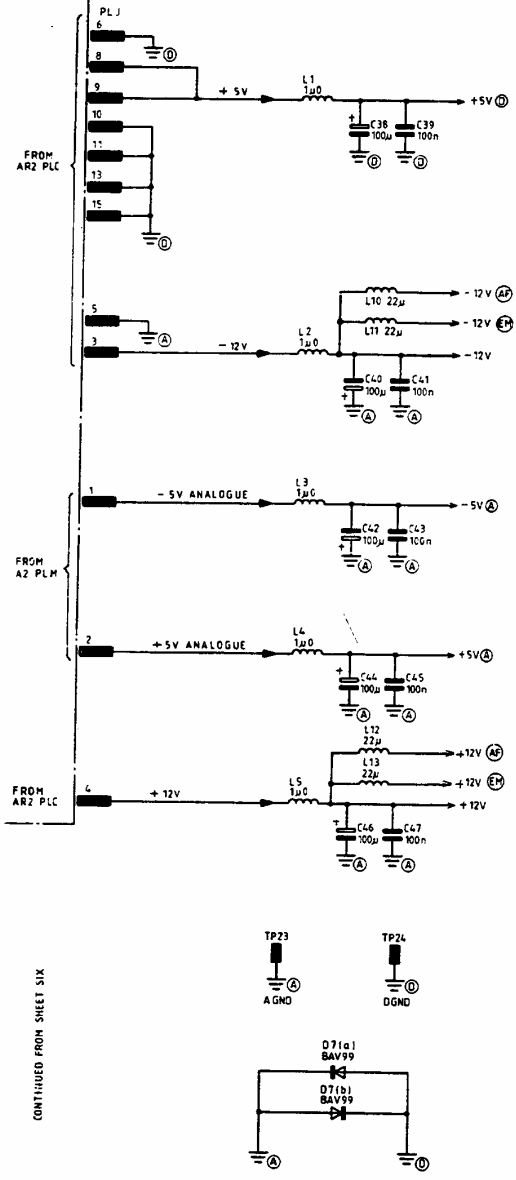
CONTINUED TO SHEET SEVEN

* SEE SHT.3
 ‡ SEE SHT.4

CONTROL TO SHTS 1,2,3,4,5

Fig. 7-67 A3/1 Input and gain selector and filter decoders - circuit

PART OF
A3/1
4-5830/197



CONTINUED FROM SHEET SIX

SUPPLY LINE TABLE										
IC	SUPPLY LINE TABLE				DECOUPLING TO AGND					
	+12V (AF)	+12V (EM)	-12V (AF)	-12V (EM)	+5V A	A GND	+12V (AF)	+12V (EM)	-12V (I)	
1	13		3			14	C100		C101	
2	7		4				C102		C103	
3	4		7		5	3	C104		C105	
4	7		4				C106		C107	
5	4		7		5	3	C108		C109	
6	7		4				C110		C111	
8	7		4				C112		C113	
10	13		3			14	C116		C117	
11	7		4				C118		C119	
12	4		7		5	3	C120		C121	
13	7		4				C122		C123	
18		7		4				C130		
20		7		4				C134		
21		13		3		14		C136		
22		7		4				C138		
23		4		7	5	3		C140		
24		7		4				C142		

SUPPLY LINE TABLE										
IC	SUPPLY LINE TABLE						DECOUPLING TO AGND			
	+12V	-12V	+5V A	-5V A	A GND	+5V D	DGND	+12V TO AGND	-12V TO AGND	+5V TO AGND
9	18	1			4		10	C114		C115
15	13	4			5			C126		C127
19	18	1			4		10	C132		C133
25	7	4			4			C144		C145
26	7	4			3			C146		C147
27	4	7	5		3			C148		C149
28	26		2	6	9		14	C150		
29										C152
31	13	4			5			C156		C157
33	13	4			5			C160		C161
34	13	4			5			C162		C163
35	7	4			5			C164		C165
36			2	6	9					C166
37	13	4			5			C168		C169
38	7	4			1		5	C170		C171
39	17							C172		
40	6	2						C173		C174
41	7	4			3			C175		C176
42	4	7	5		3			C178		C179
43	24		2	6	9		14	C180		
44										C182
46	13	4			5			C186		C187
48	13	4			5			C190		C191
49	13	4			5			C192		C193
50	7	4			5			C194		C195
51			2	6	9					C196
52	13	4			5			C198		C199
53	7	4			1			C200		C201
54	17						5	C202		
55	6	2						C203		C204
56	13	4			5			C205		C206
57	7	4			3			C207		C208
58	4	7	5		3			C209		C210
59							16			
60	3	12					8			
61							16	8		
62							16	8		
63							16	8		
64							14	7		
65							16	8		
66							20	10		
67							20	10		
68							16	8		
69							20	10		
70							16	8		
71							16	8		
72							20	10		
73							16	8		
74							16	8		
75							24	12		
76							28	14		
77							28	14		
78							20	10		
79							14	7		
80	7	4						C251		C251
81	7	4						C282		C283
82	7	4						C284		C285
83	7	4						C286		C287
84	7	4						C288		C289
85	7	4						C290		C291
86	7	4								

Circuit diagrams A3/1

SUPPLY LINE TABLE						
V(EM)	+5V A	A GND	DECOUPLING TO AGND			
			+12V (AF)	+12V (EM)	-12V (AF)	-12V (EM)
		14	C100 C102 C104 C106 C108		C101 C103 C105 C107 C109	
		14	C110 C112 C116 C118 C120		C111 C113 C117 C119 C121	
4				C130	C123	C131
4				C134		C135
3		14		C136 C138		C137 C139
7	5	3		C140 C142		C141 C143

SUPPLY LINE TABLE							
GND	+5V D	DGND	DECOUPLING CAPACITOR				
			+12V TO AGND	-12V TO AGND	+5V TO AGND	-5V TO AGND	+5V TO DGND
4		10	C114 C126 C132 C164	C115 C127 C133 C165			
3		14	C146 C148 C150	C147 C169			
5			C156	C157			
5			C160 C162 C164	C161 C163 C165			
1			C168 C170 C172 C173	C169 C171 C174	C166	C167	
1		5	C175 C178 C180	C176 C179			
			C186	C187			
			C190 C192 C194	C191 C193 C195			
			C198 C200 C202 C203	C199 C201 C204	C182	C183	
		5	C205 C207 C209	C206 C208 C210	C196	C197	
16		8					C211
16		8					C213
16		8					C214
14		7					C215
16		8					C216
20		10					C217
20		10					C218
16		8					C221
20		10					C223
16		8					C219
16		8					C222
16		8					C220
16		8					C224
16		8					C225
24		12					C226
28		14					C227
28		14					C228
20		10					C229
14		7					C245 C246
			C151 C282 C284 C286 C288 C290	C181 C283 C285 C287 C289 C291			

SUPPLY LINE TABLE					
NEAR IC	EXTRA ELECTROLYTIC DECOUPLING				
	+VE PIN	-VE PIN	DEC	CAP	
4	+12V(AF)	AGND	C230	10μ	
4	AGND	-12V(AF)	C231	10μ	
8	+12V(AF)	AGND	C232	10μ	
8	AGND	-12V(AF)	C233	10μ	
18	+12V(EM)	AGND	C234	10μ	
18	AGND	-12V(EM)	C235	10μ	
29	+5V A	AGND	C236	10μ	
29	AGND	-5V A	C237	10μ	
44	+5V A	AGND	C238	10μ	
44	AGND	-5V A	C239	10μ	
75	+5V D	DGND	C240	10μ	
76	+5V D	DGND	C241	10μ	
77	+5V D	DGND	C242	10μ	
78	+5V D	DGND	C243	10μ	
65	+5V D	DGND	C244	10μ	

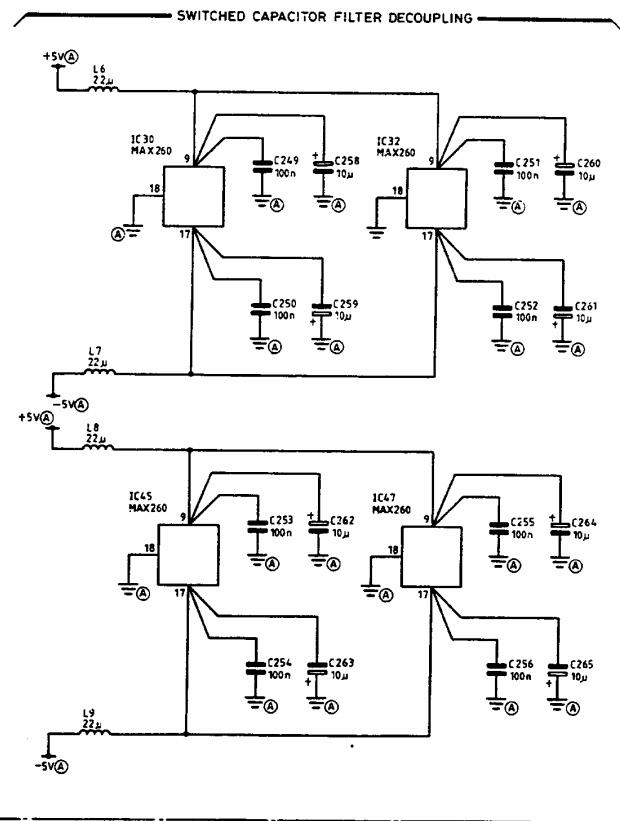
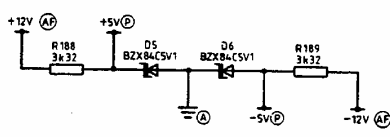
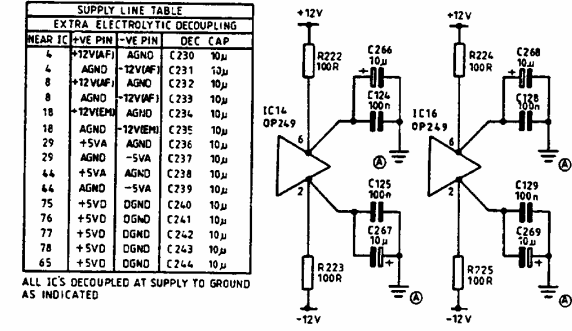
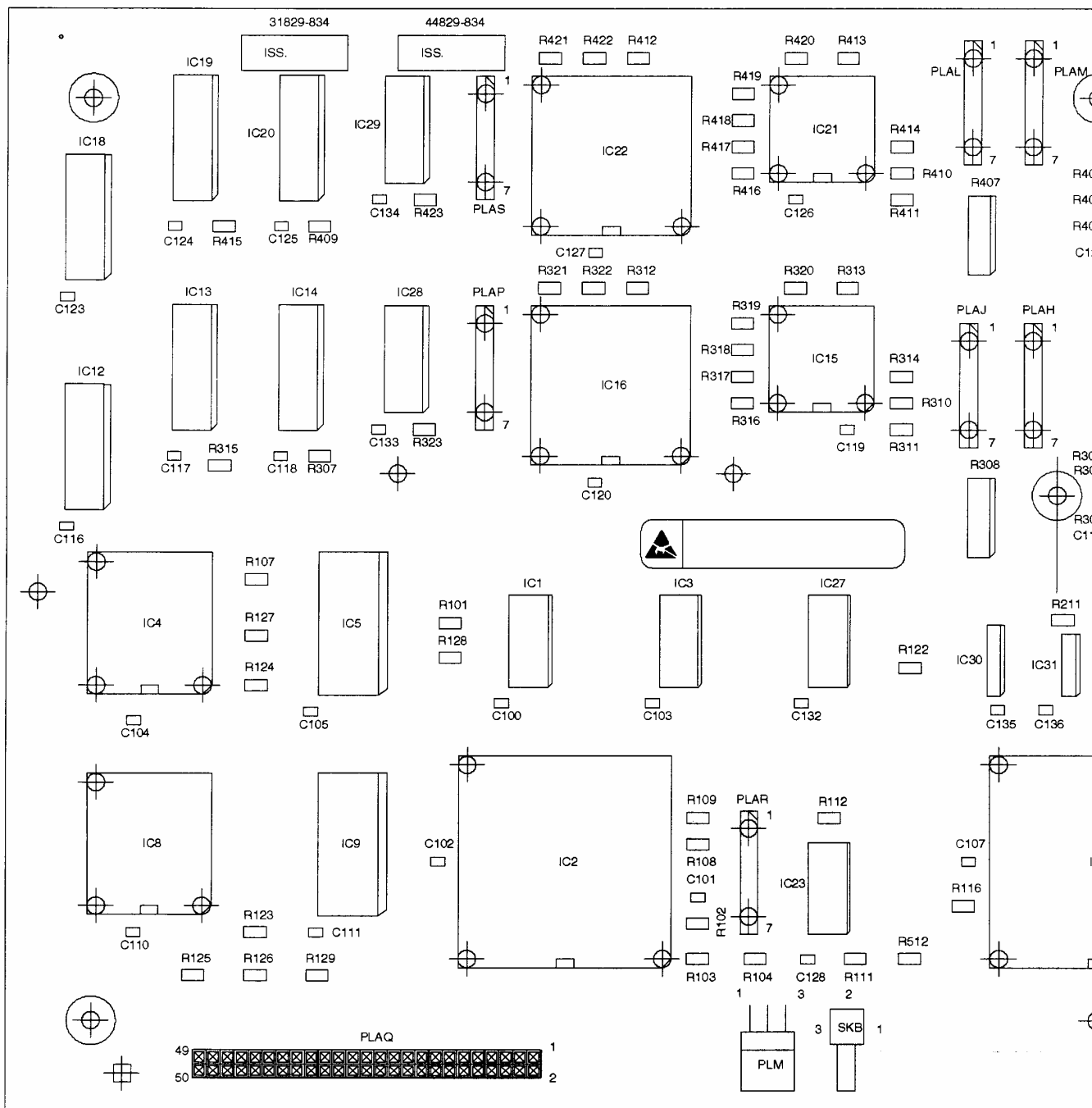


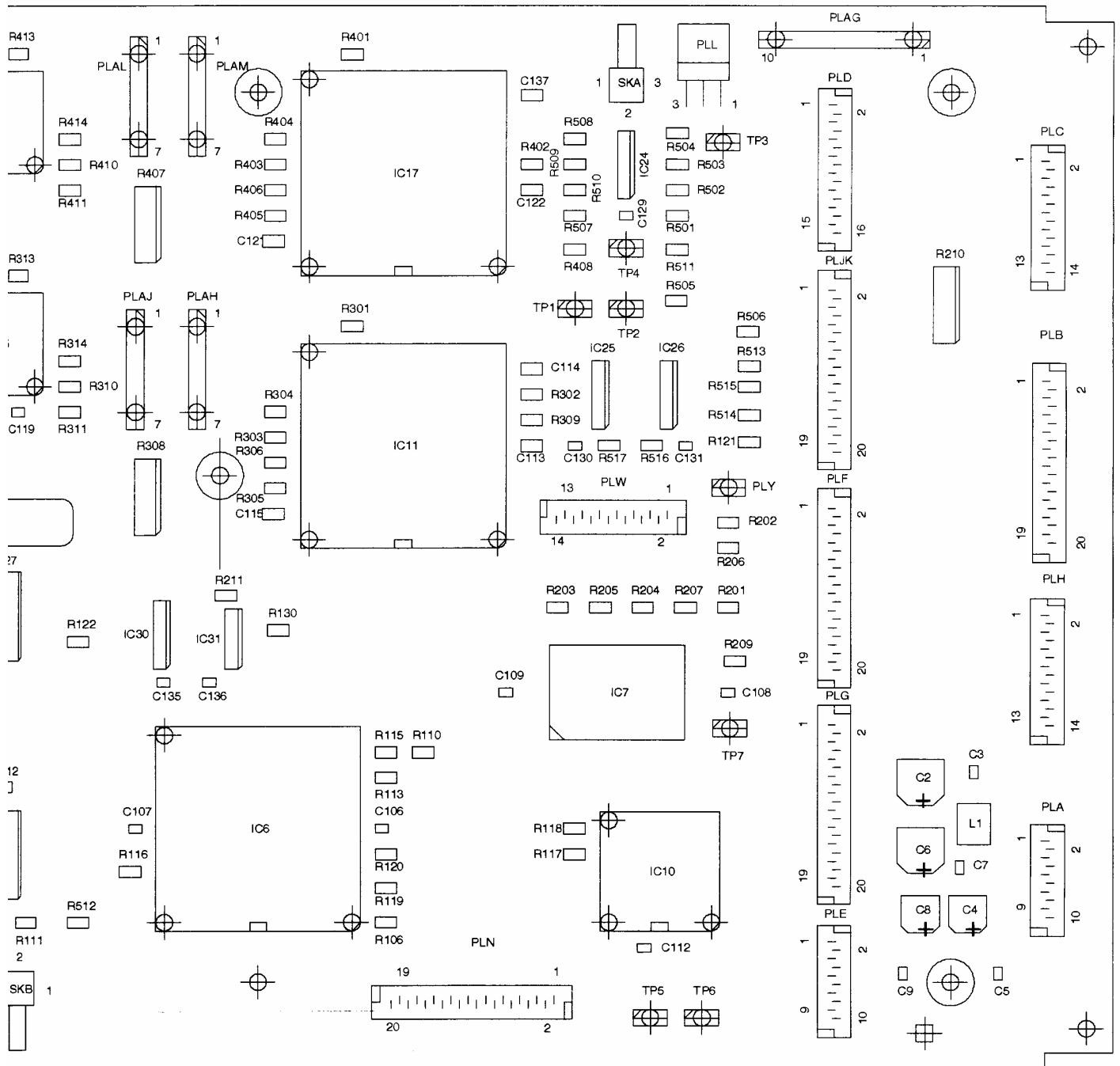
Fig. 7-68 A3/1 Power supply and decoupling arrangements - circuit



Power supply and decoupling arrangements A3/1

Drg. No. 44829/E

Component layout A4

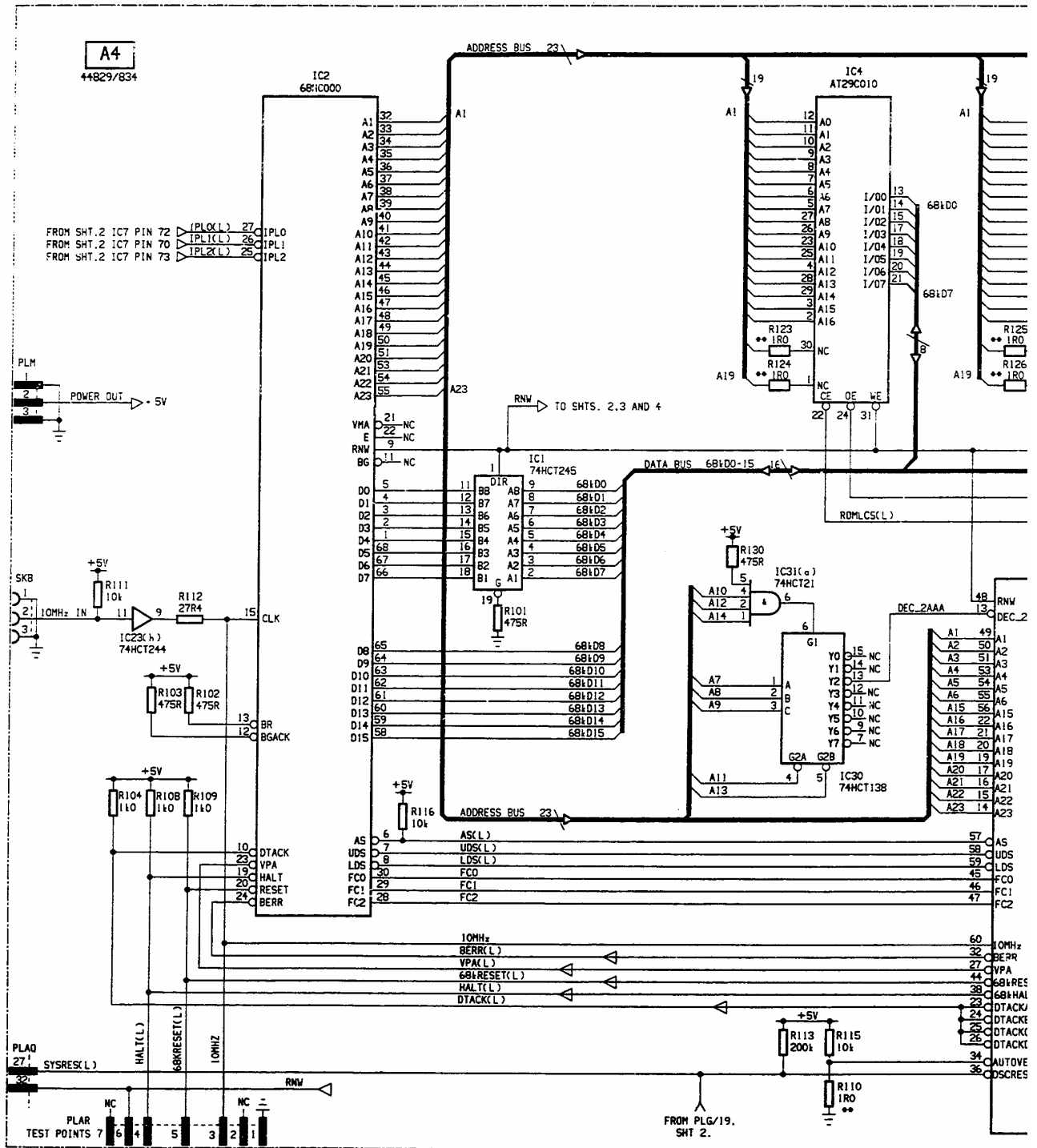


A3/1

Drg. No. 44829/834 Sheet 1 of 1 Issue 4

Fig. 7-69 A4 Hot processor 1 - component layout

46882-168



Circuit diagrams A4

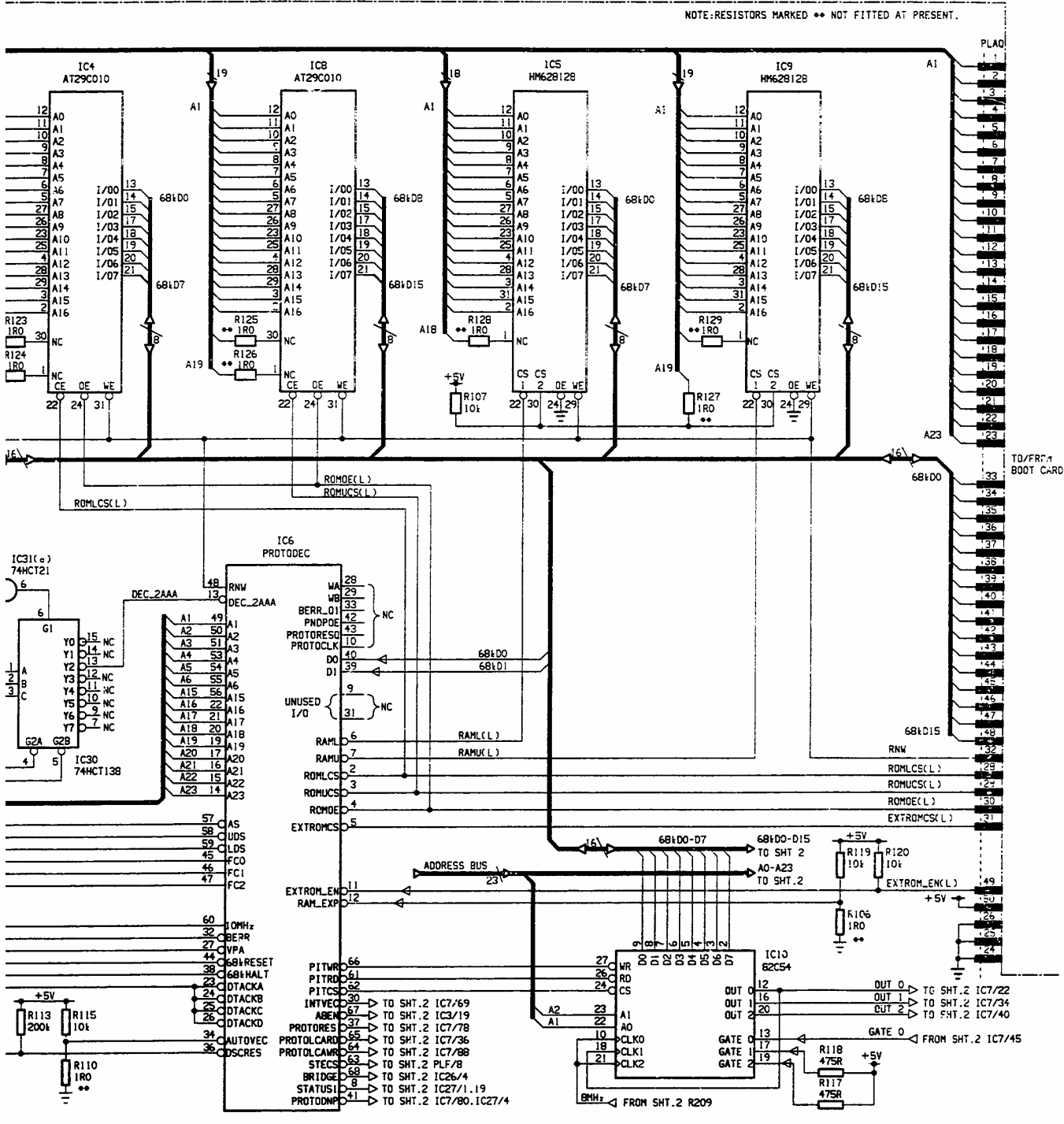
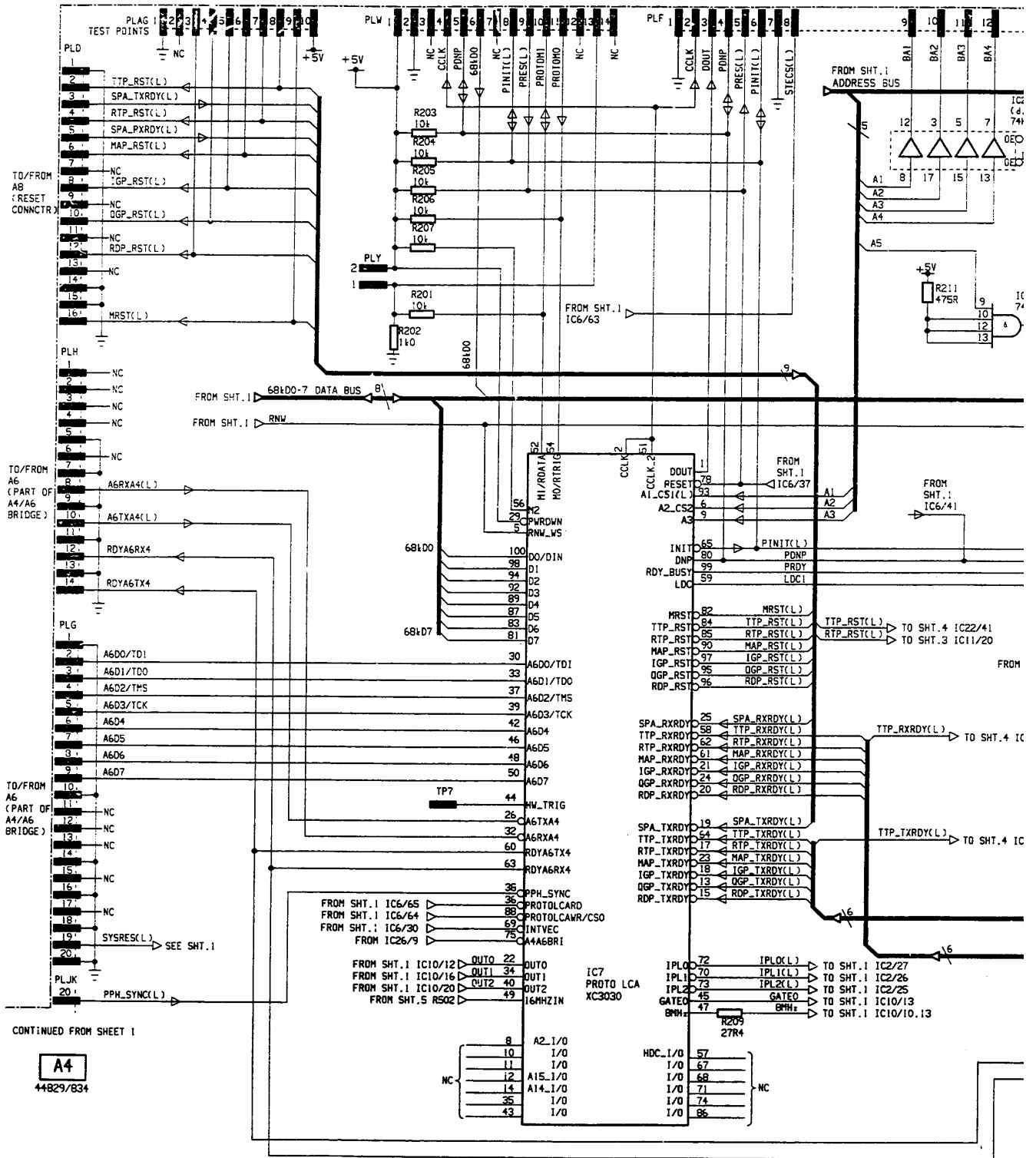


Fig. 7-70 A4 68000 processor, decoding and DTACK, RAM, EPROM, PIT - circuit

(TO/FROM PC)

TO/FROM A8 (LCA CON



CONTINUED FROM SHEET 1

A4
44829/834

TO/FRM A8 (LCA CONFIG PORT)

Circuit diagrams **A4**

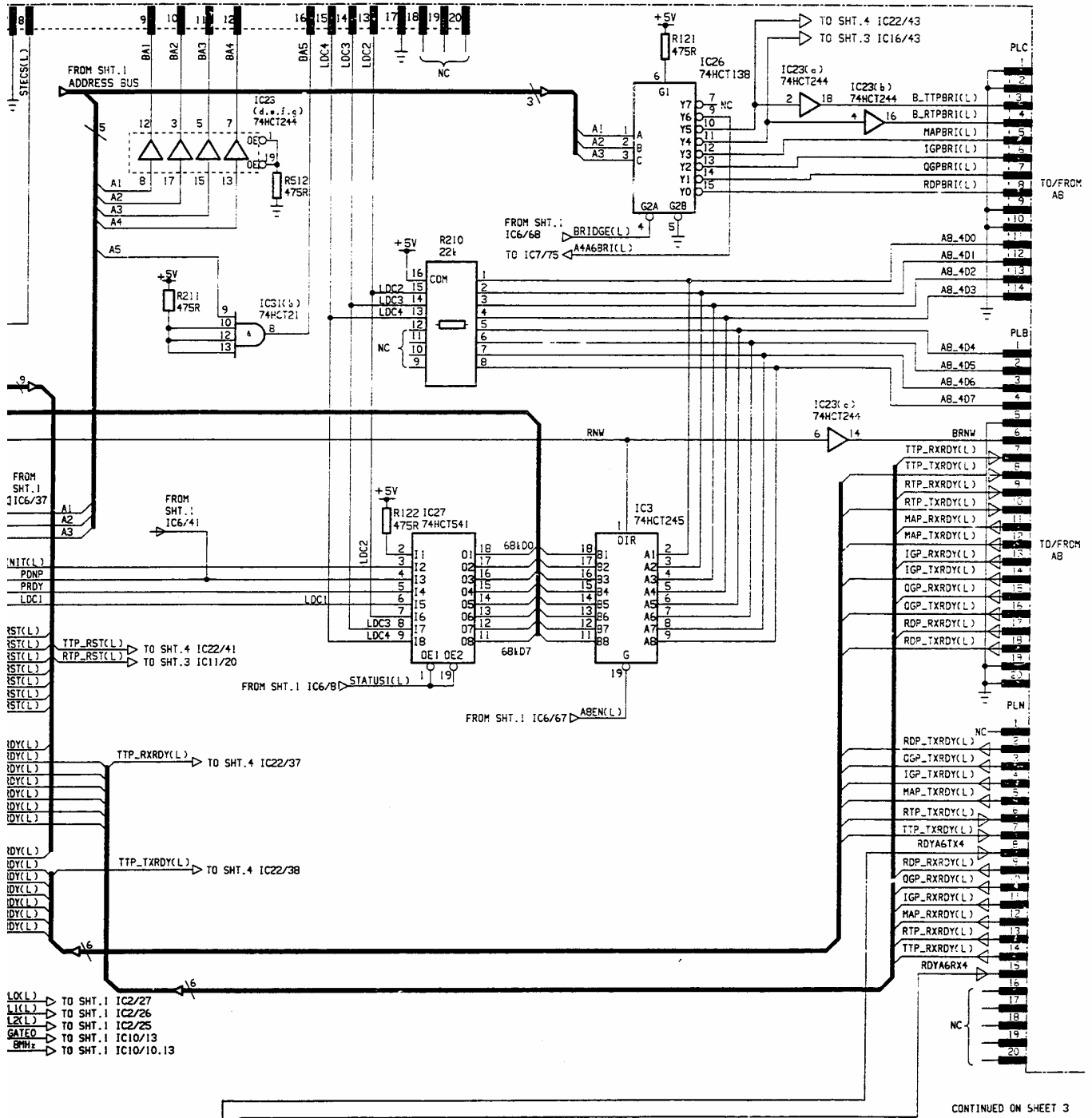
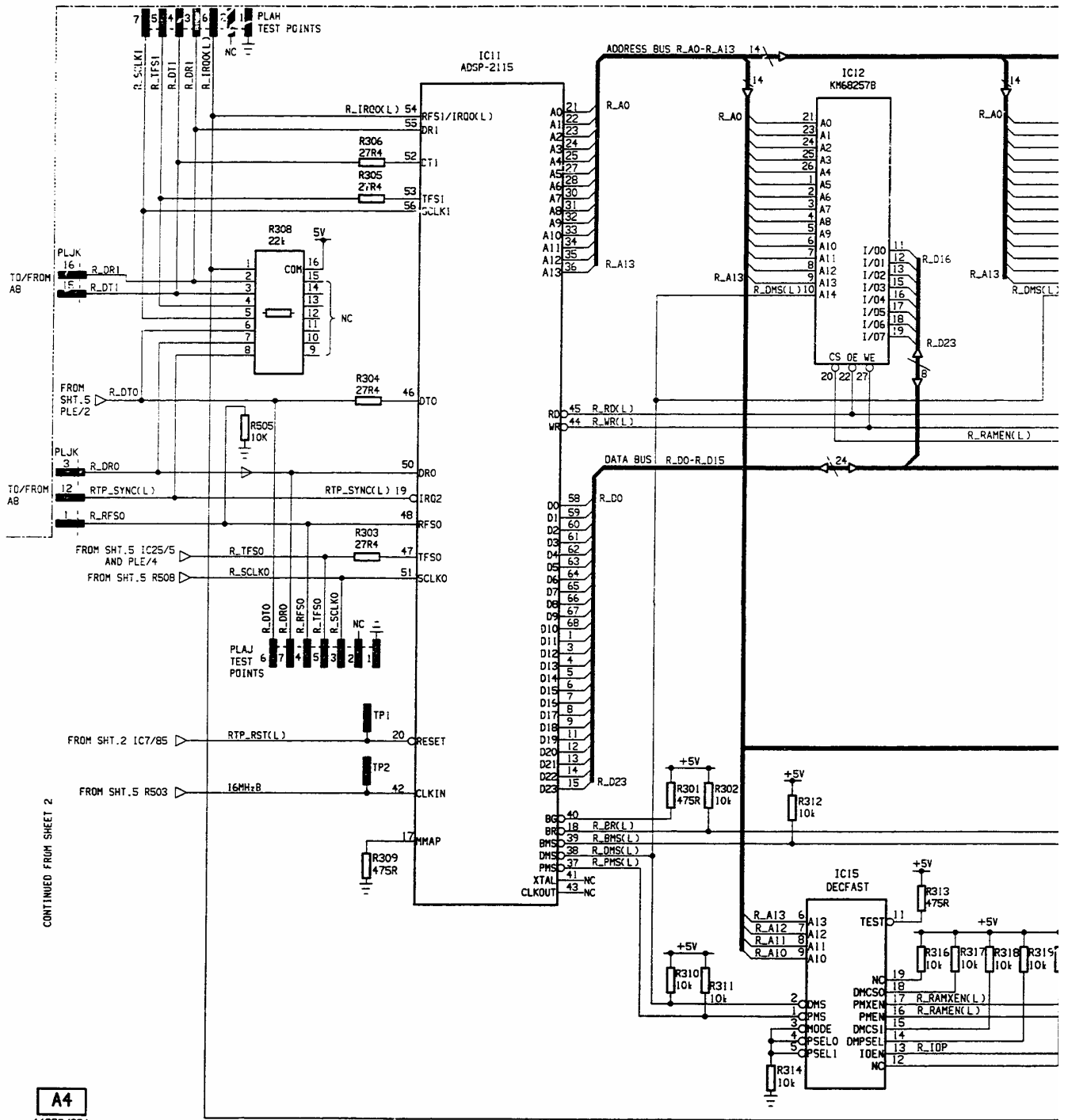
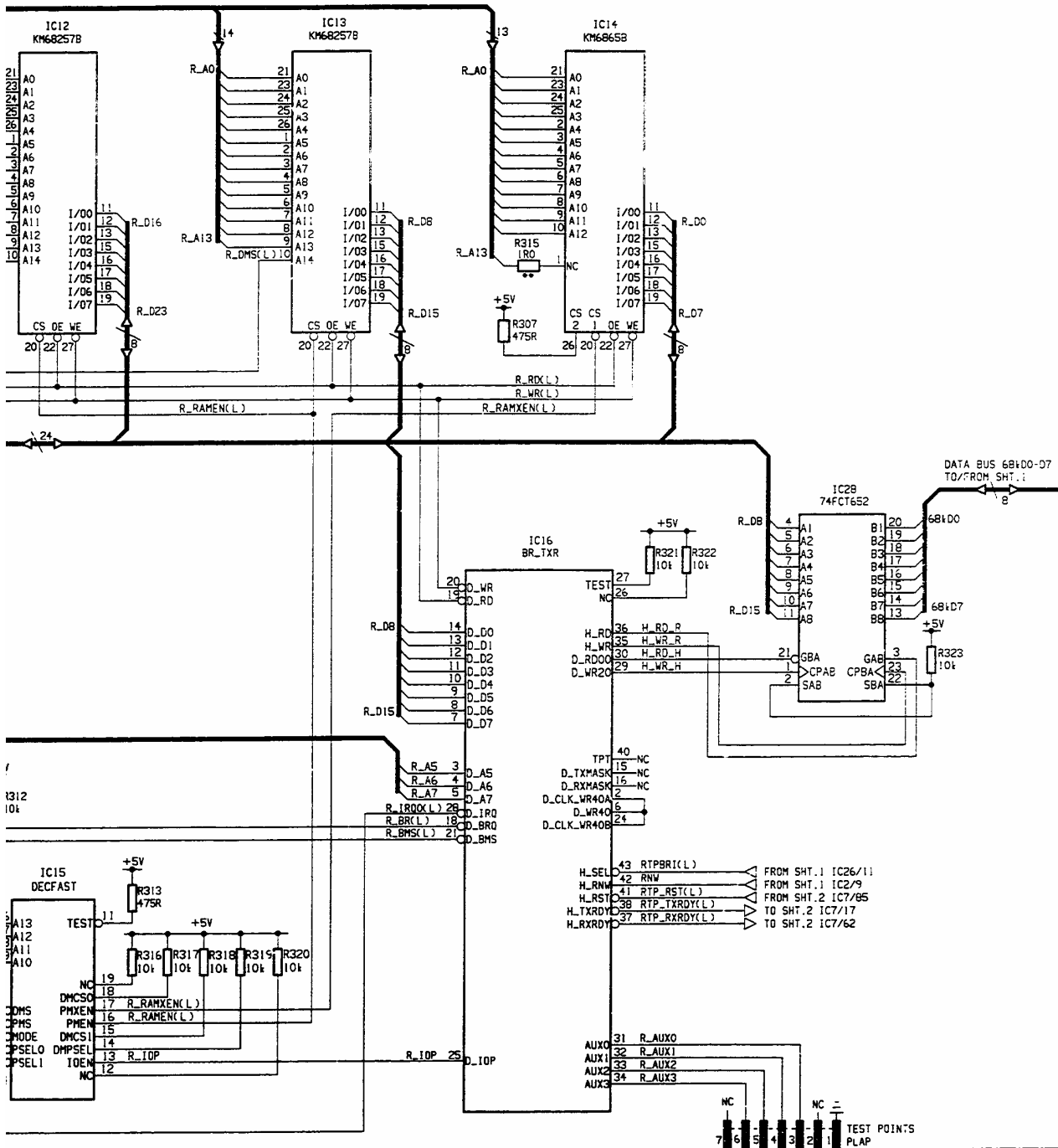


Fig. 7-71 A4 PPH - A8 interface - circuit



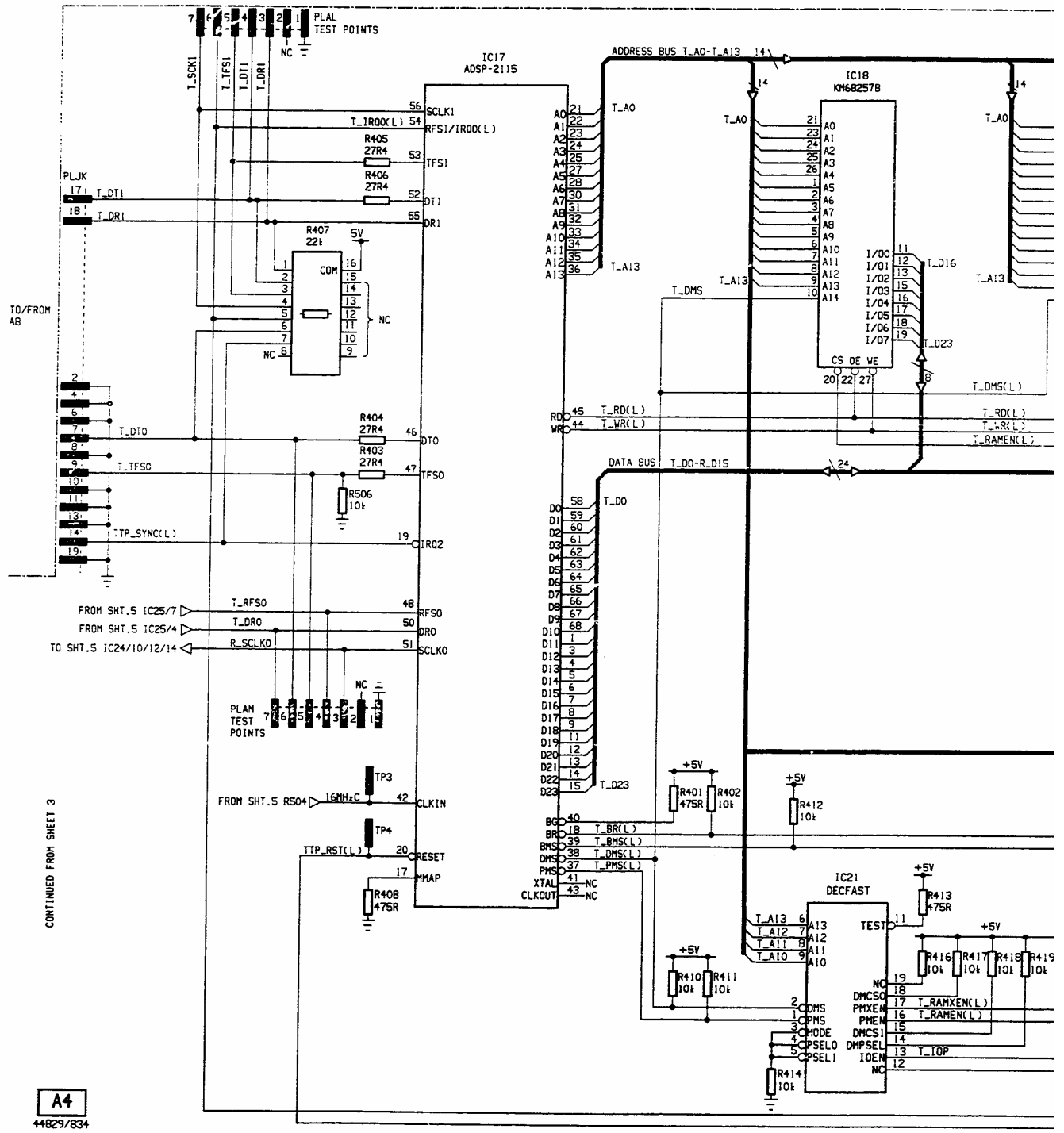
Circuit diagrams A4

NOTE: RESISTORS MARKED ** ARE NOT FITTED AT PRESENT.



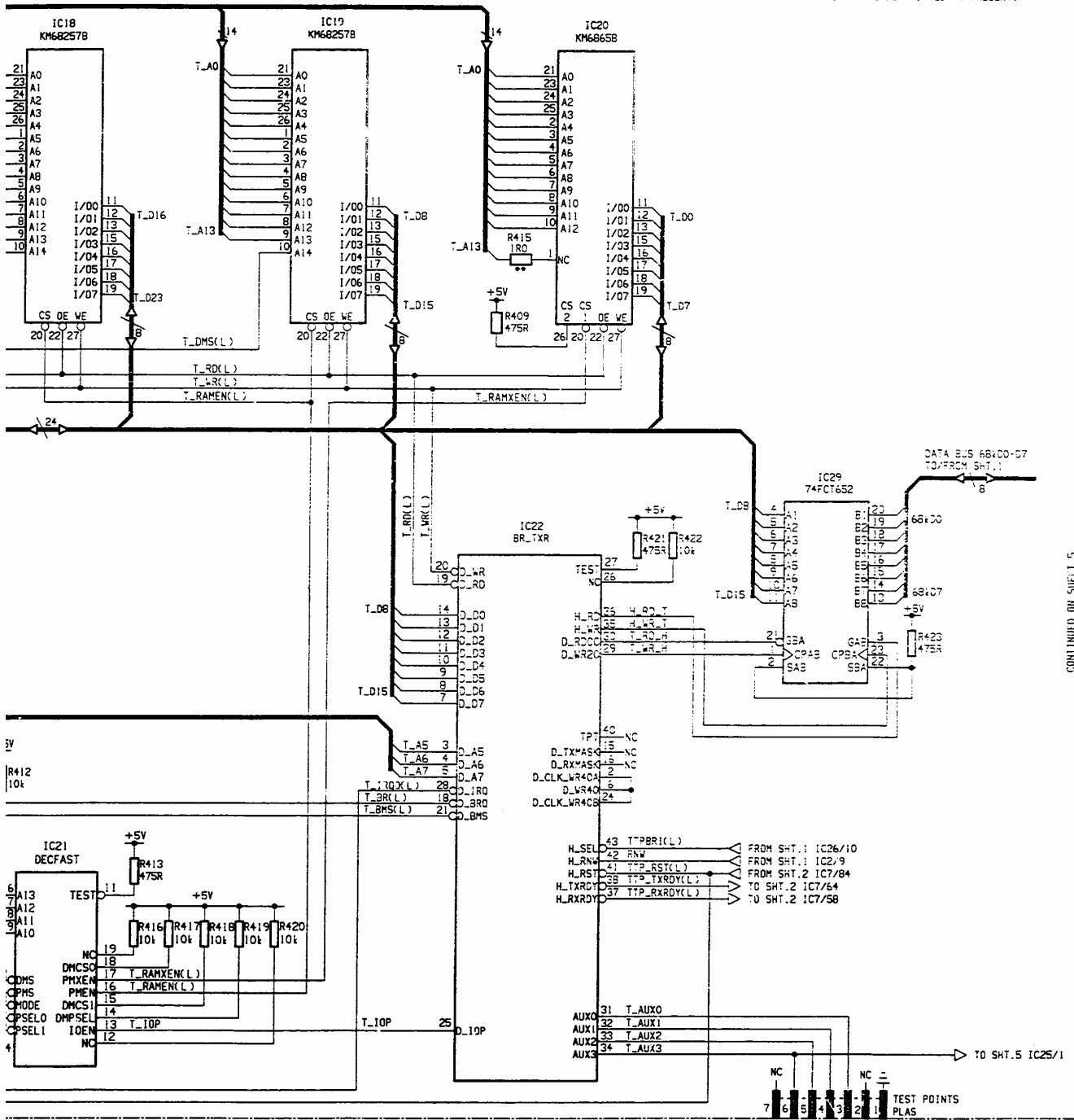
CONTINUED ON SHEET 4

Fig. 7-72 A4 Receive (uplink) traffic processor DSP - circuit



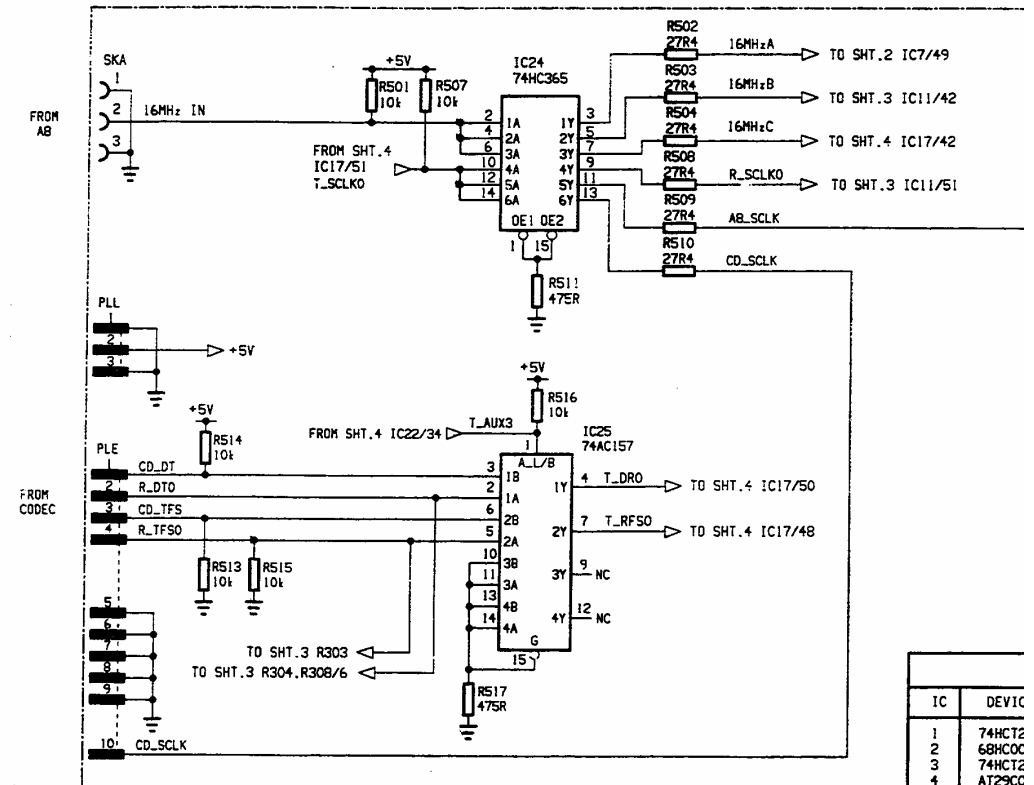
Circuit diagrams **A4**

NOTE: RESISTORS MARKED ** ARE NOT FITTED AT PRESENT.

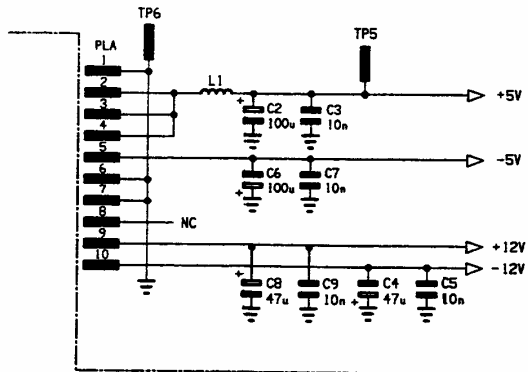


CONTINUED ON SHEET 5

Fig. 7-73 A4 Transmit (downlink) traffic processor DSP - circuit



CONTINUED FROM SHEET 4



IC	DEVICE
1	74HCT2
2	68HC0C
3	74HCT2
4	AT29CC
5	62812E
6	EP181C
7	XC3030
8	AT29C0
9	62812B
10	82C54
11	ADSP21
12	KM6825
13	KM6825
14	KM6865
15	GAL16V
16	EP910
17	ADSP21
18	KM6825
19	KM6825
20	KM6865
21	GAL16V
22	EP910
23	74HCT2
24	74HC36
25	74HC15
26	74HCT1:
27	74HCT5:
28	74FCT6:
29	74FCT6:
30	74HCT1:
31	74HCT2

IC'S ARE 1

Circuit diagrams **A4**

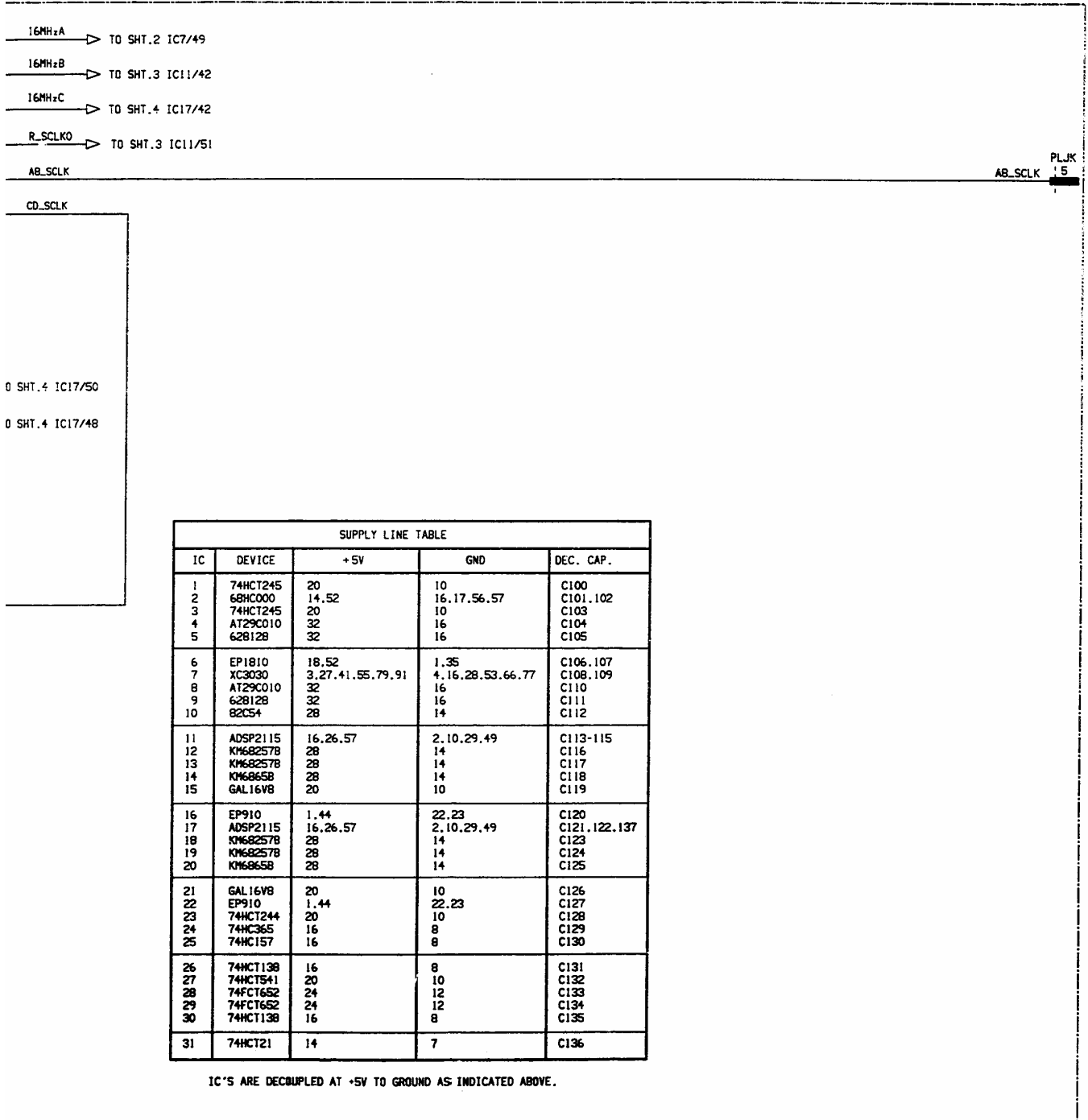
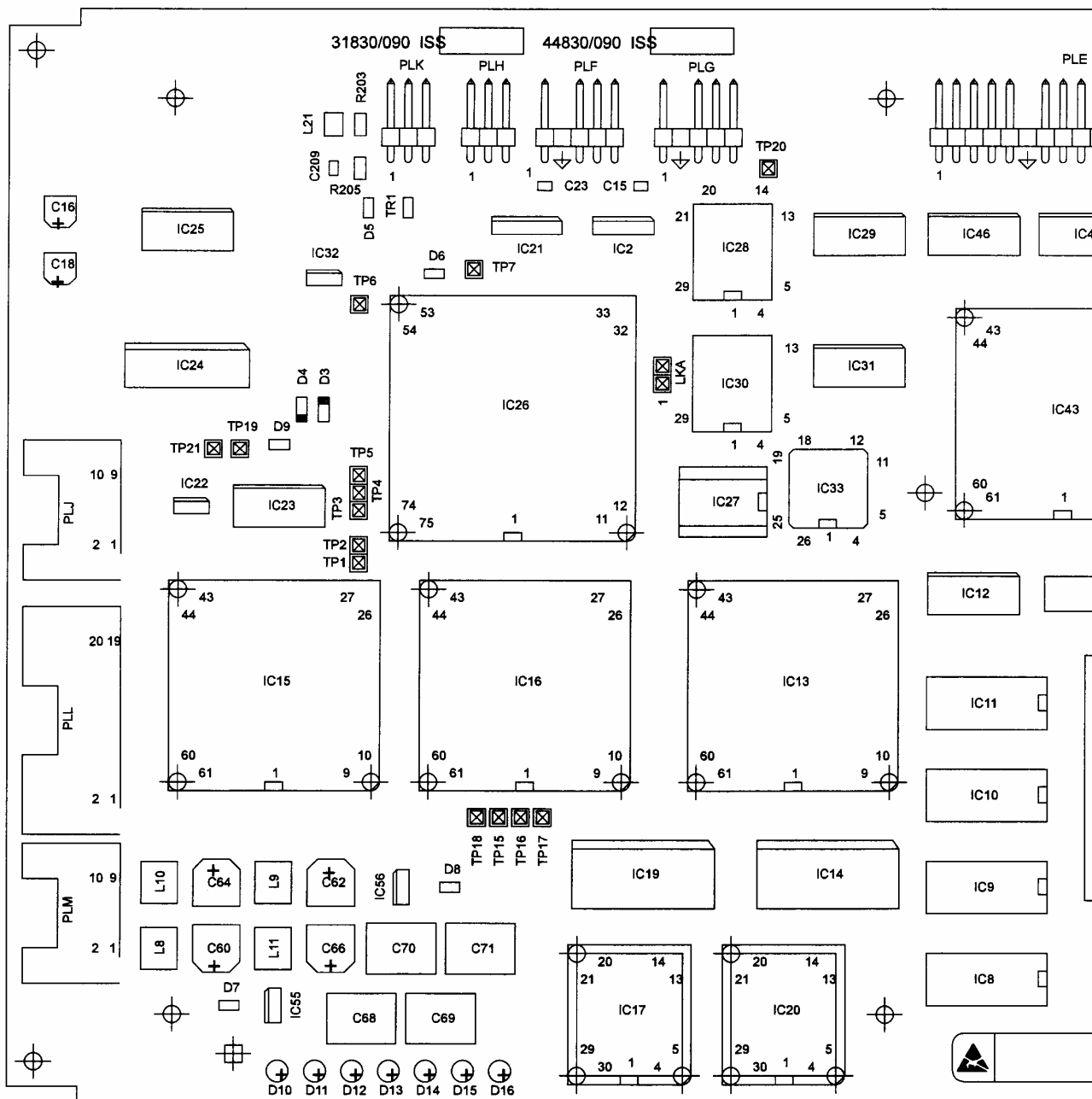


Fig. 7-74 A4 DSP clock and A4 power supply distribution - circuit

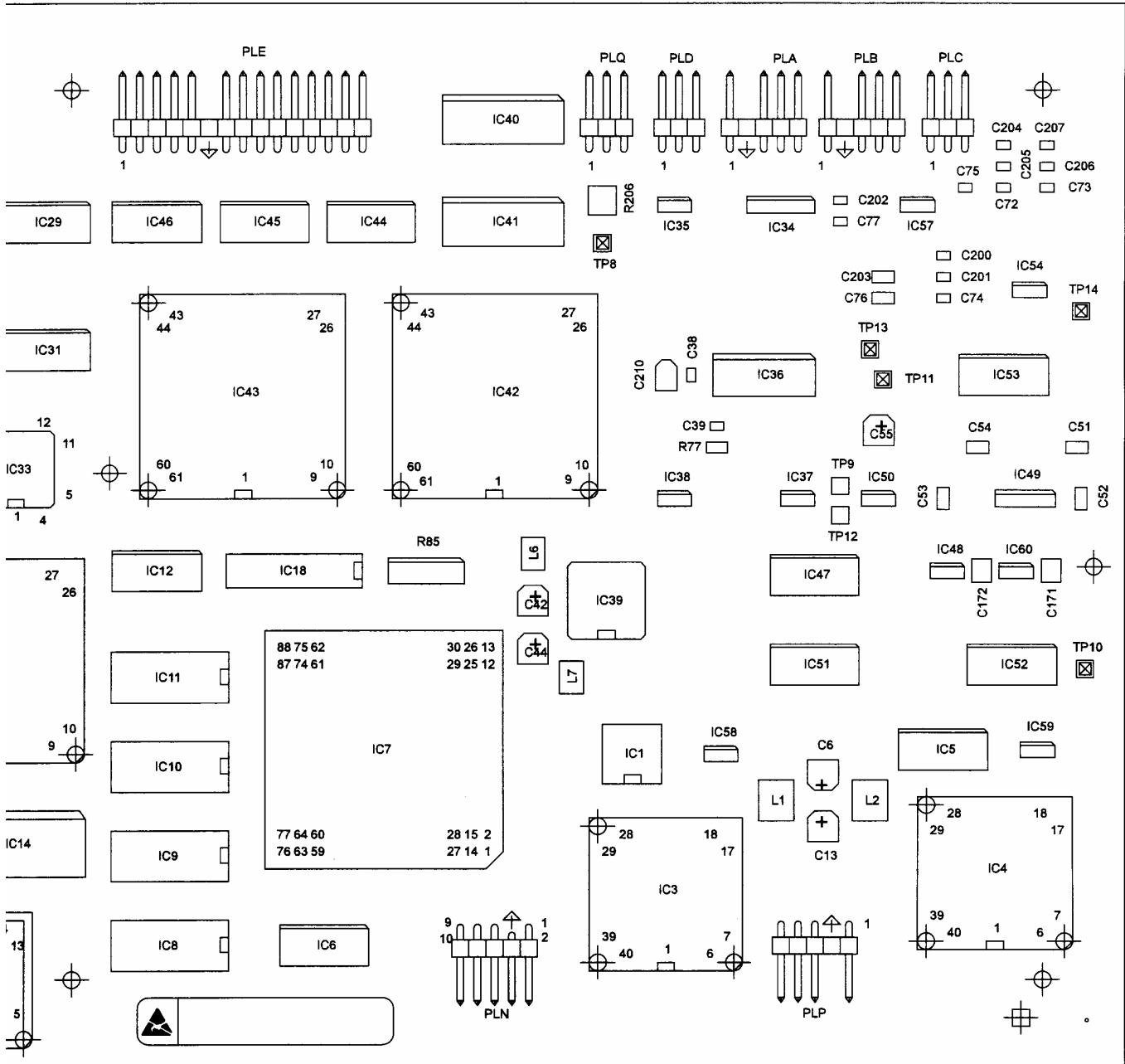
SERVICING DIAGRAMS



DSP clock and A4 power supply distribution A4

Drg. No. 44829/83

Component layout **A5**

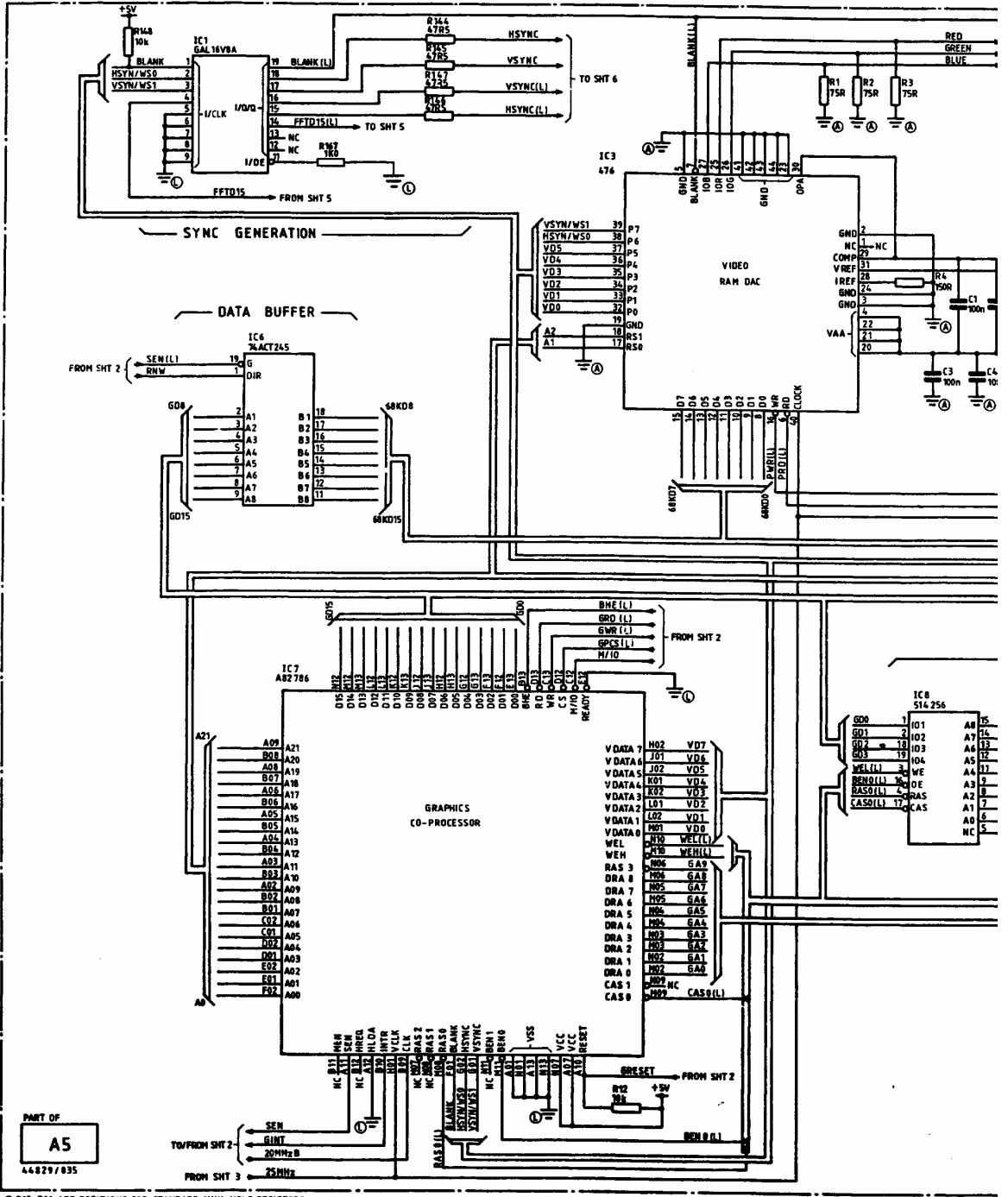


A4

Drg. No. 44829/835 Sheet 1 of 2 Issue 4

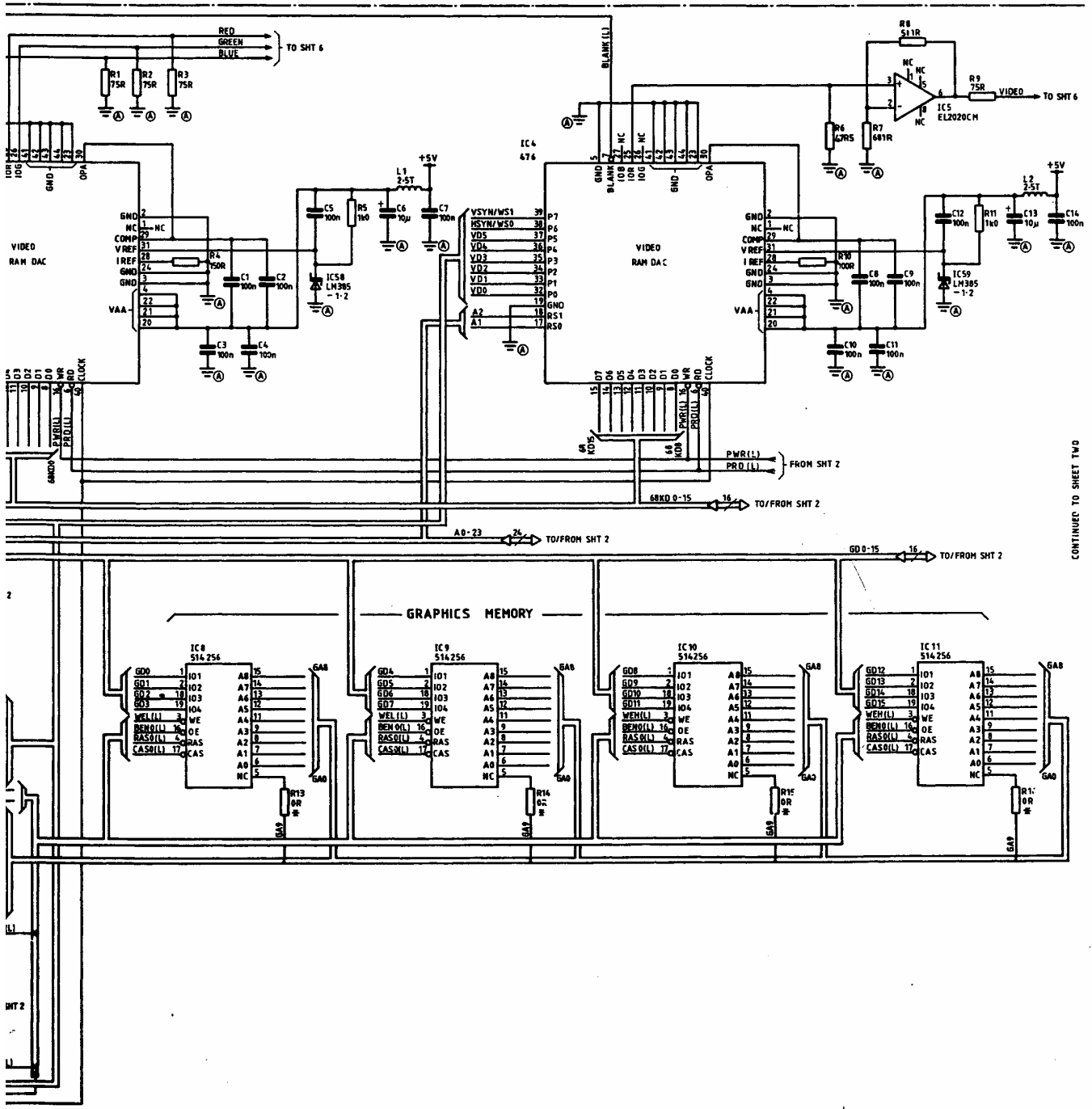
Fig. 7-75 A5 Display - component layout, component side

46882-168



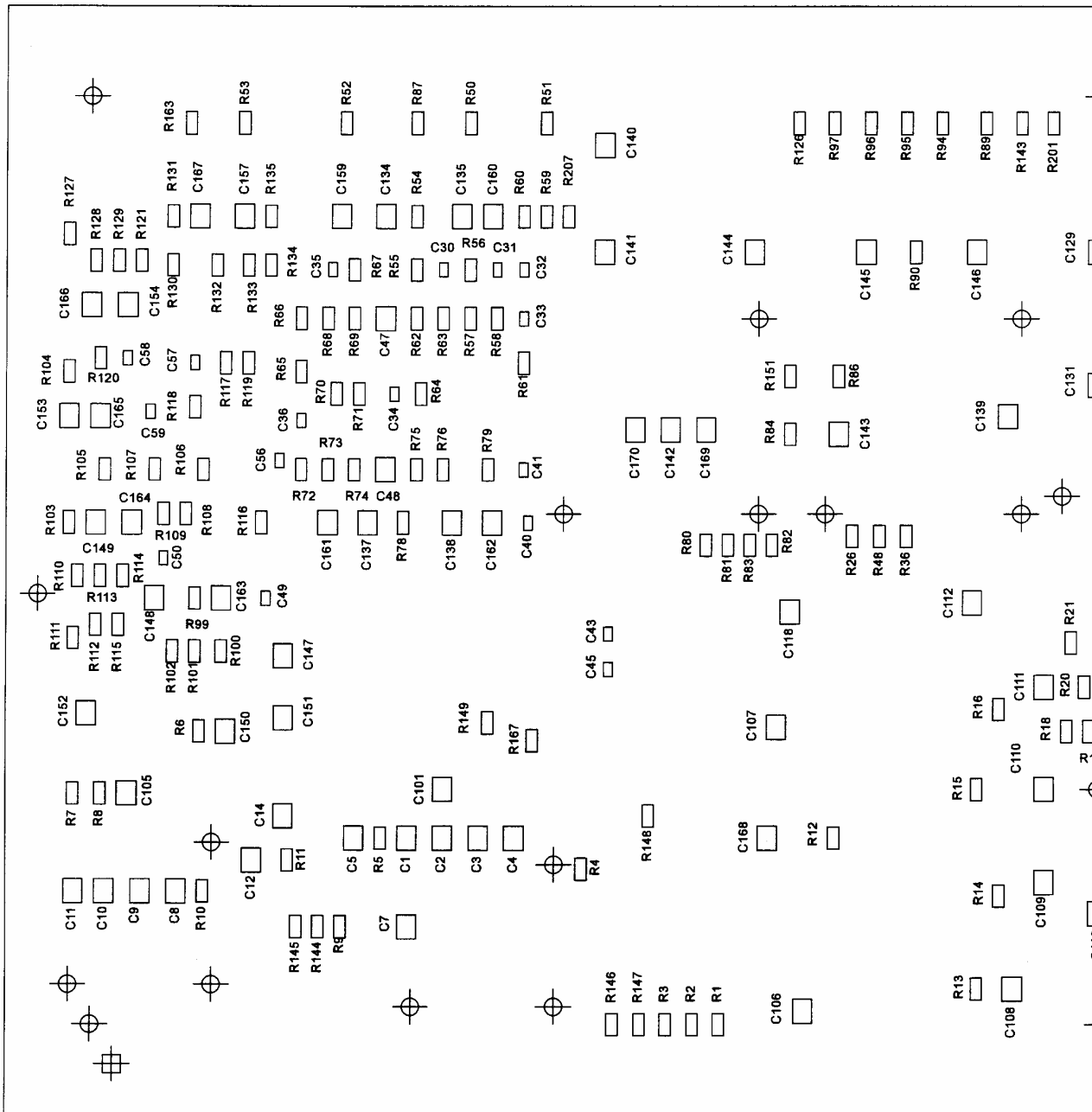
® R13-R16 ARE POSITIONS FOR STANDARD MINI-HELP RESISTORS - IT IS NOT INTENDED TO FIT THESE AT PRESENT.

Circuit diagrams A5



CONTINUED TO SHEET TWO

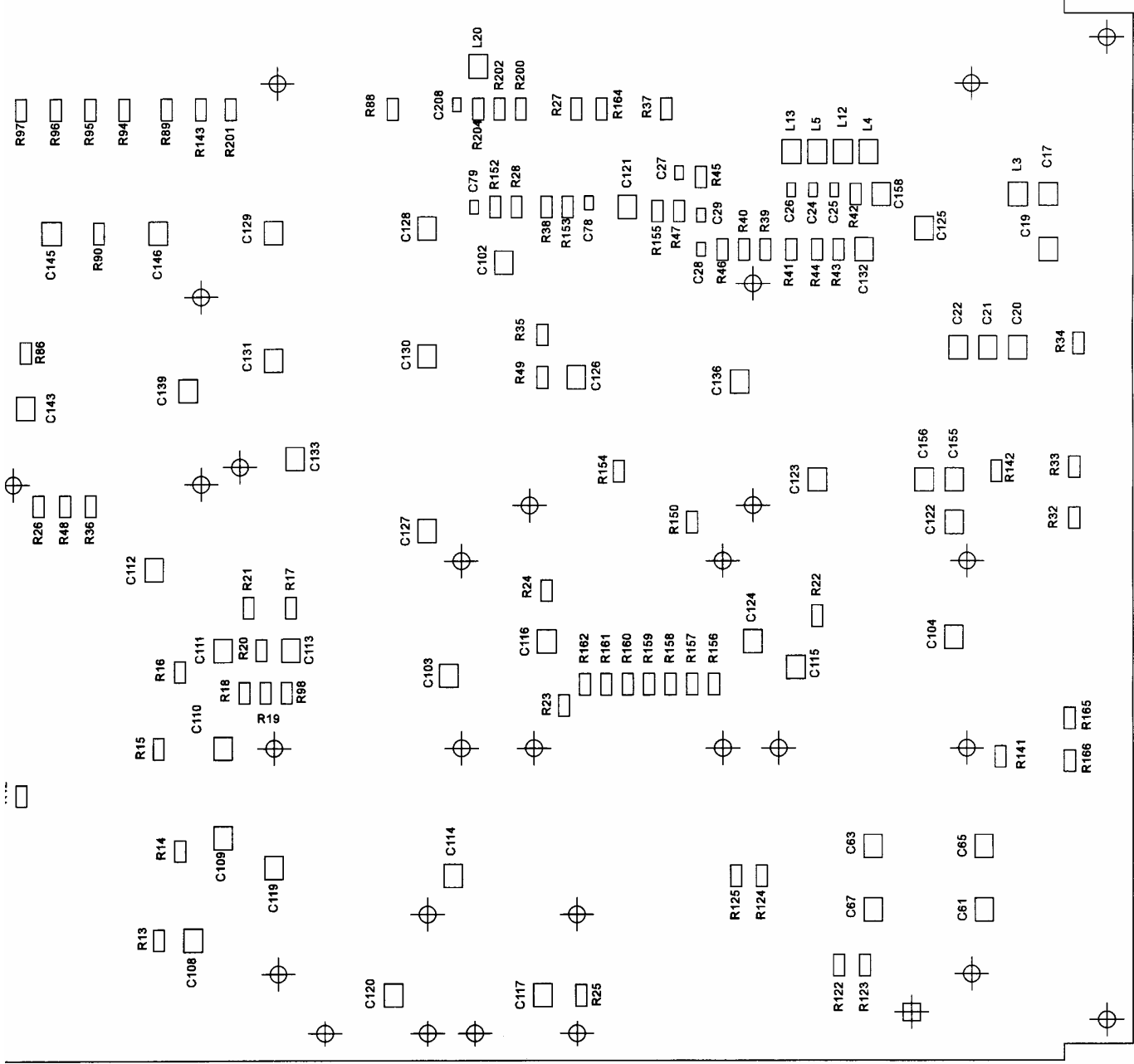
Fig. 7-76 A5 Graphics - circuit

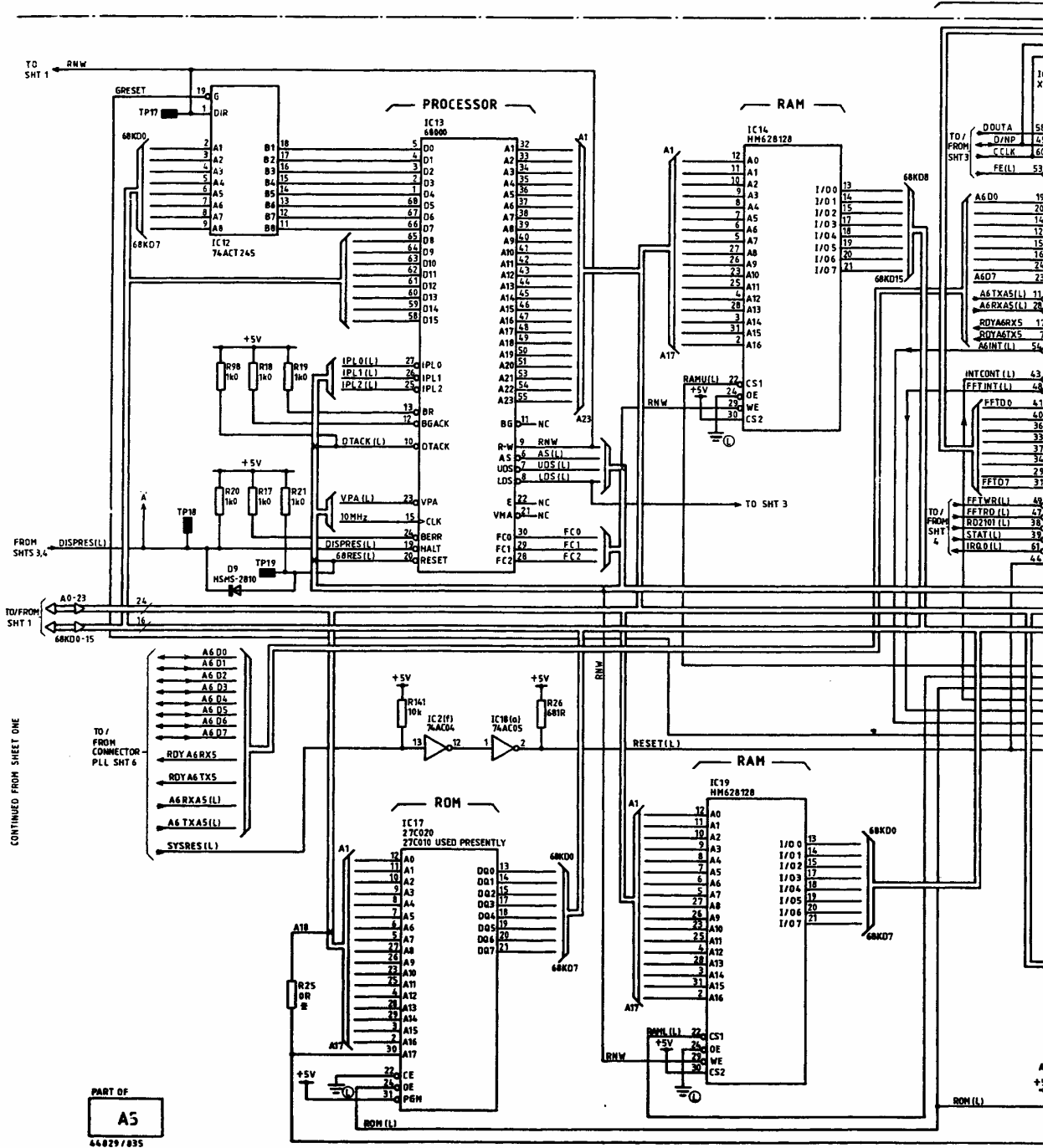


Graphics A5

Drg. No. 44829/83

Component layout A5

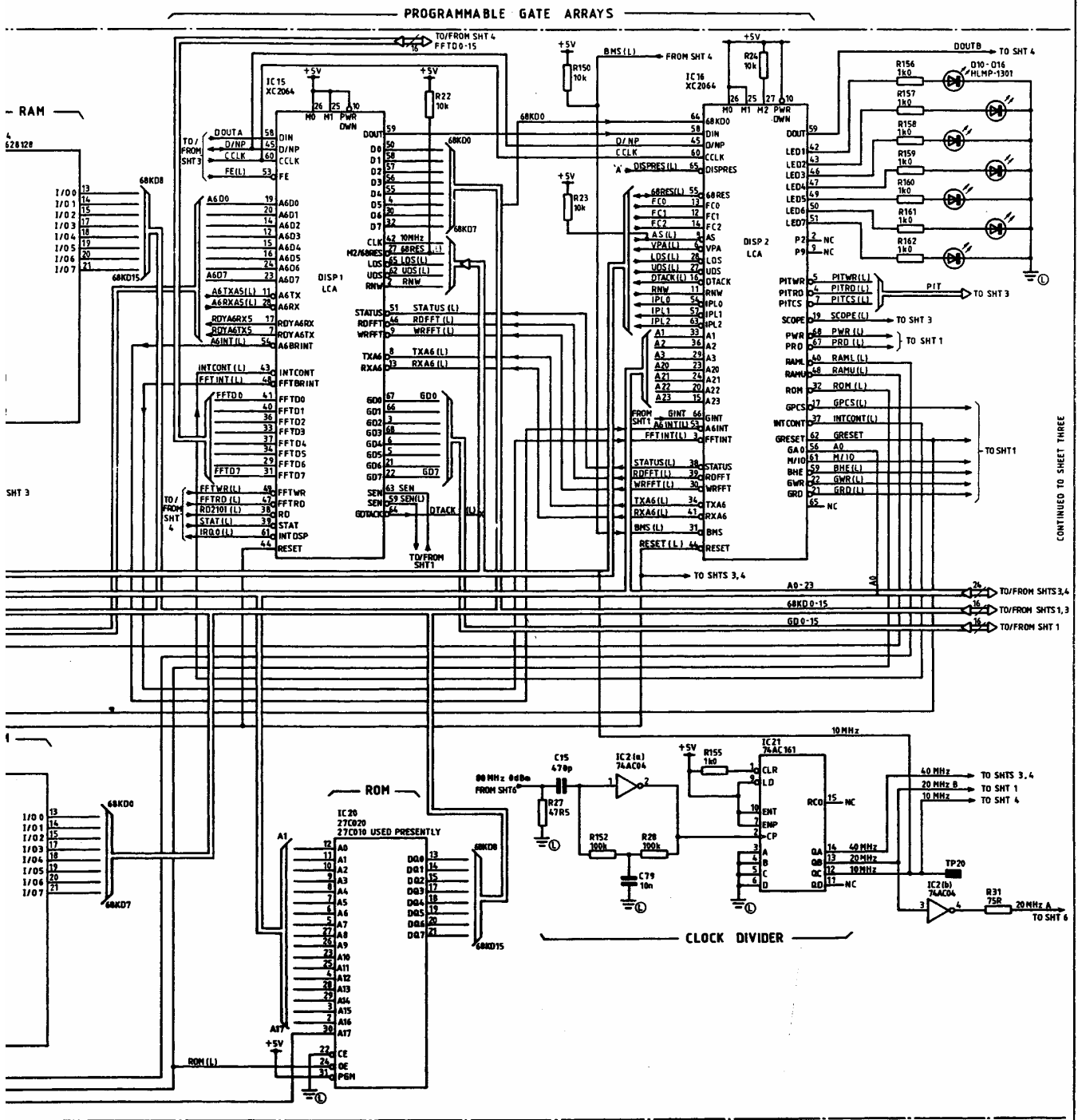




PART OF
A5
44829/835

R25 IS IN POSITION FOR STANDARD MINI-HALF RESISTOR - IT IS NOT INTENDED TO FIT IT AT PRESENT

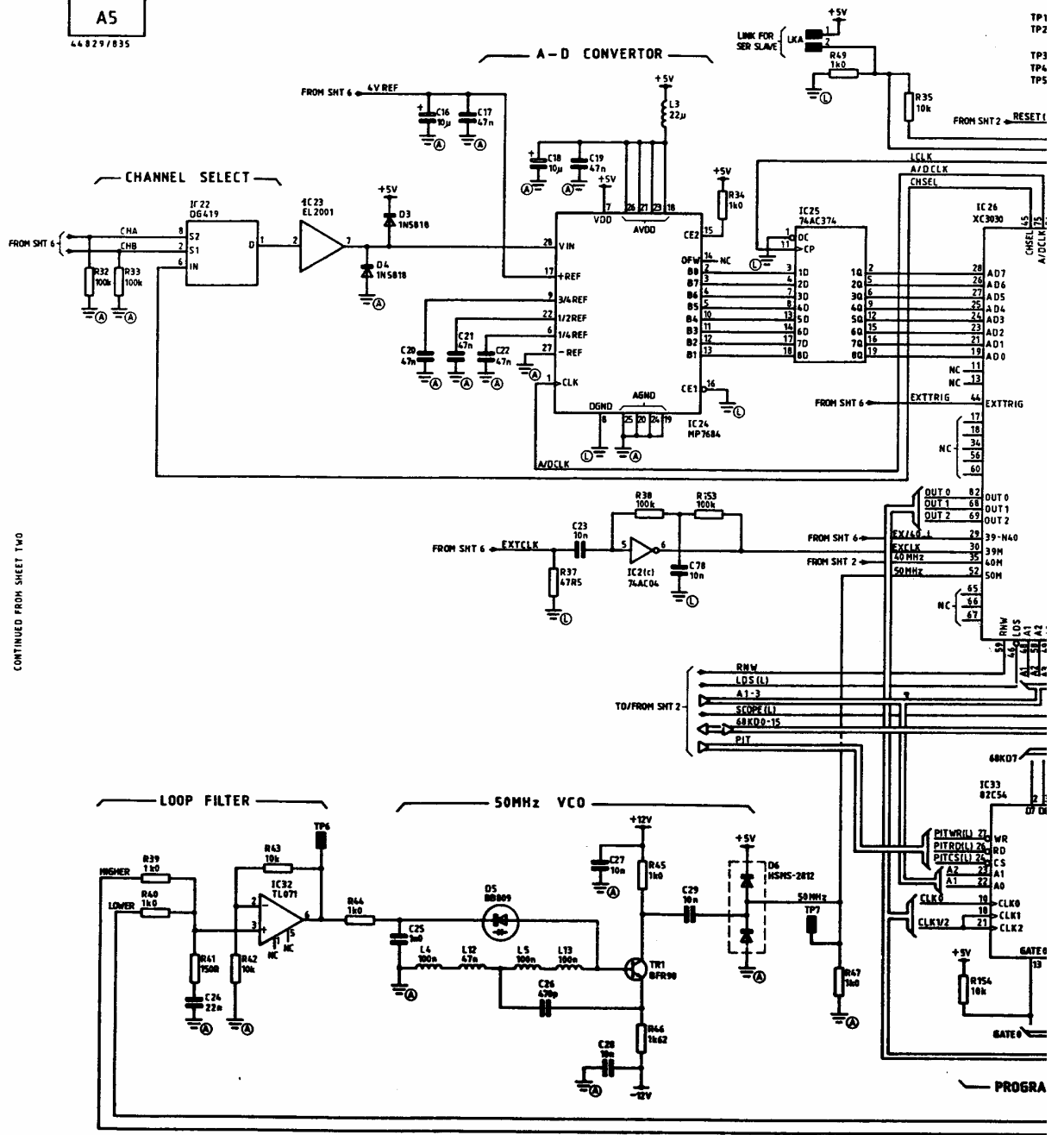
Circuit diagrams A5



CONTINUED TO SHEET THREE

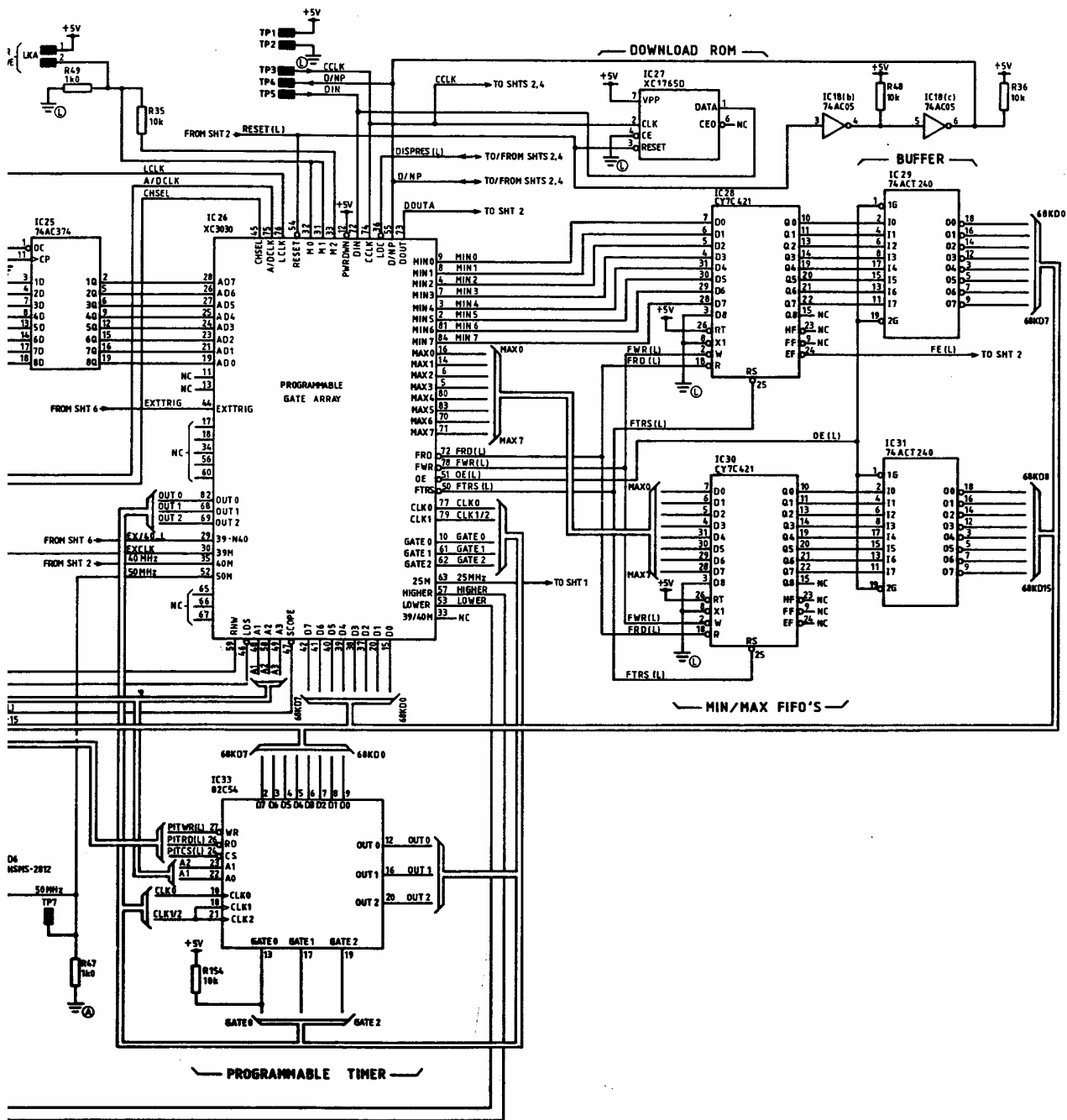
Fig. 7-78 A5 Main processor - circuit

PART OF
A5
 44829/835



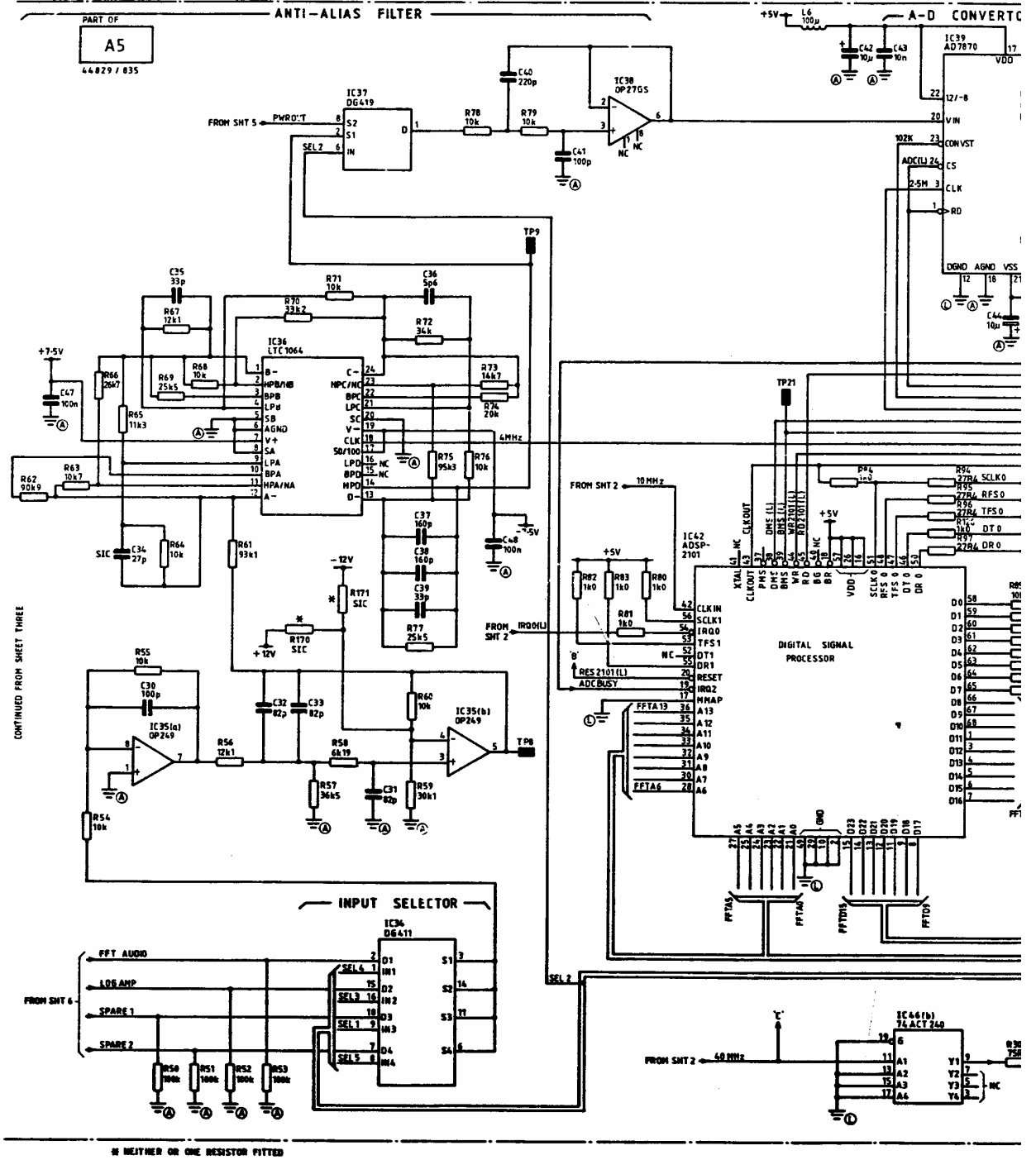
CONTINUED FROM SHEET TWO

Circuit diagrams **A5**



CONTINUED TO SHEET FOUR

Fig. 7-79 A5 Scope - circuit



Circuit diagrams A5

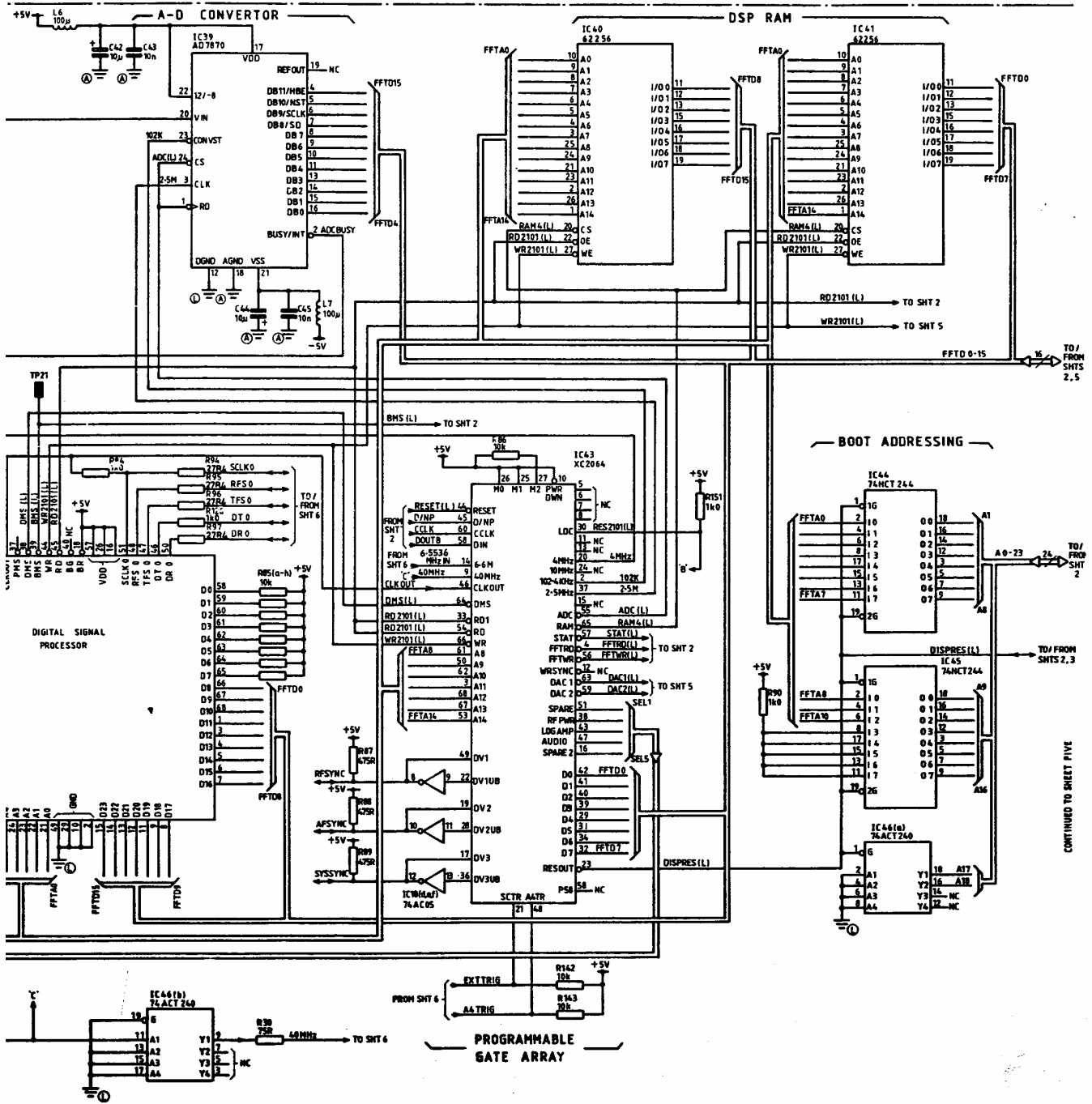
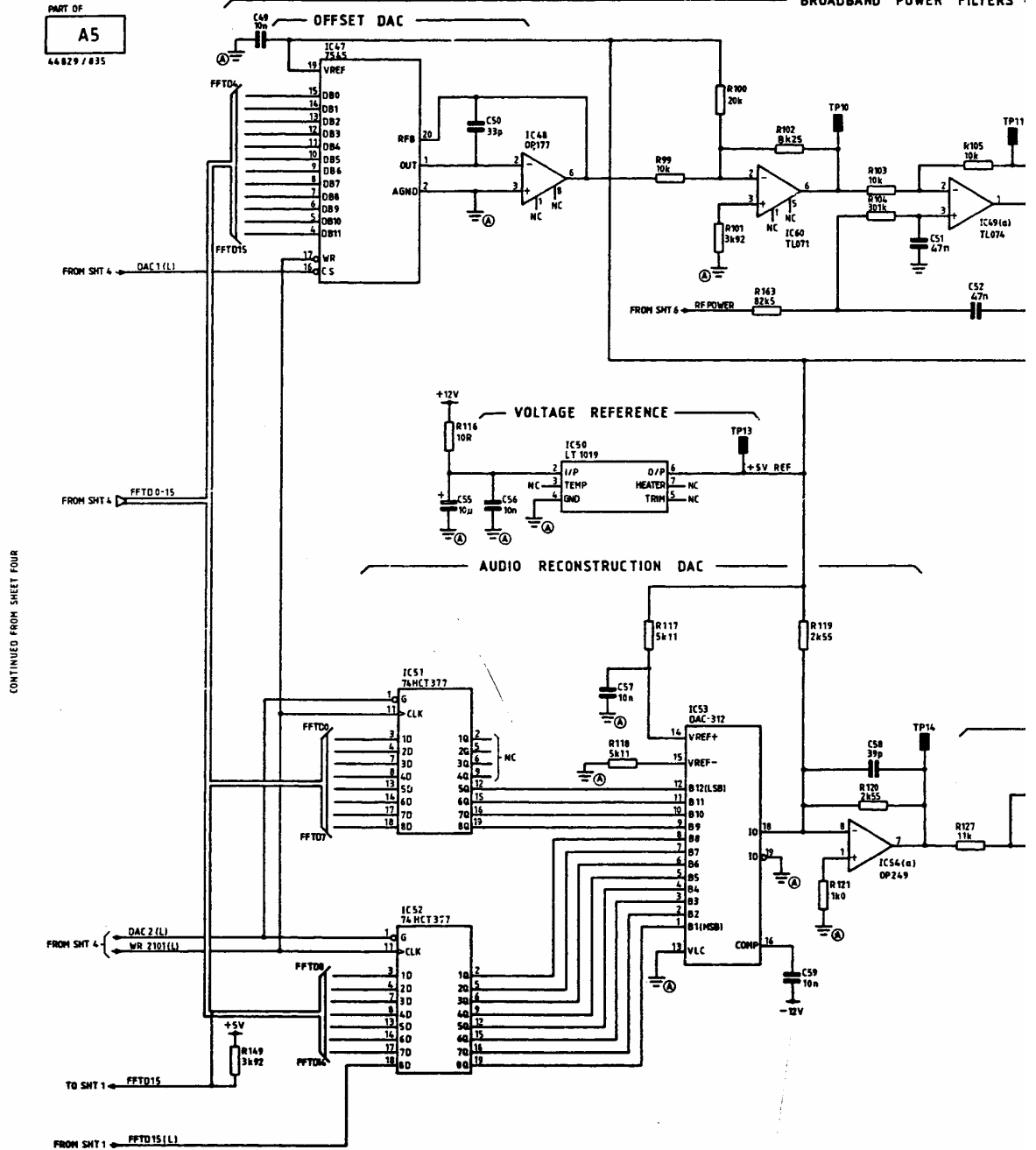


Fig. 7-80 A5 Digital signal processor - circuit

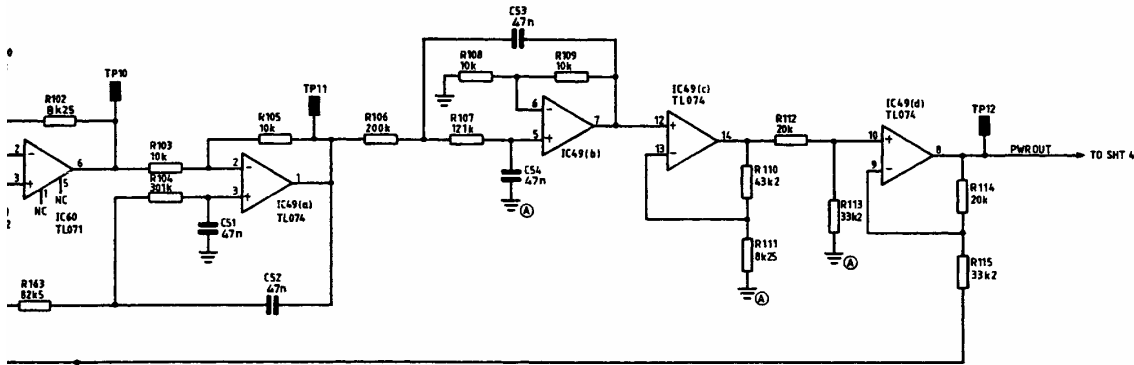
PART OF
A5
44829 / 835



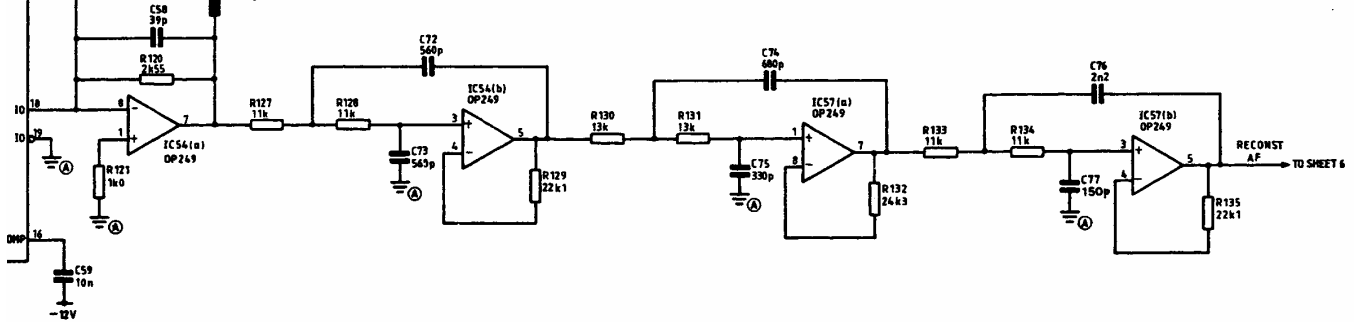
CONTINUED FROM SHEET FOUR

Circuit diagrams A5

BROADBAND POWER FILTERS

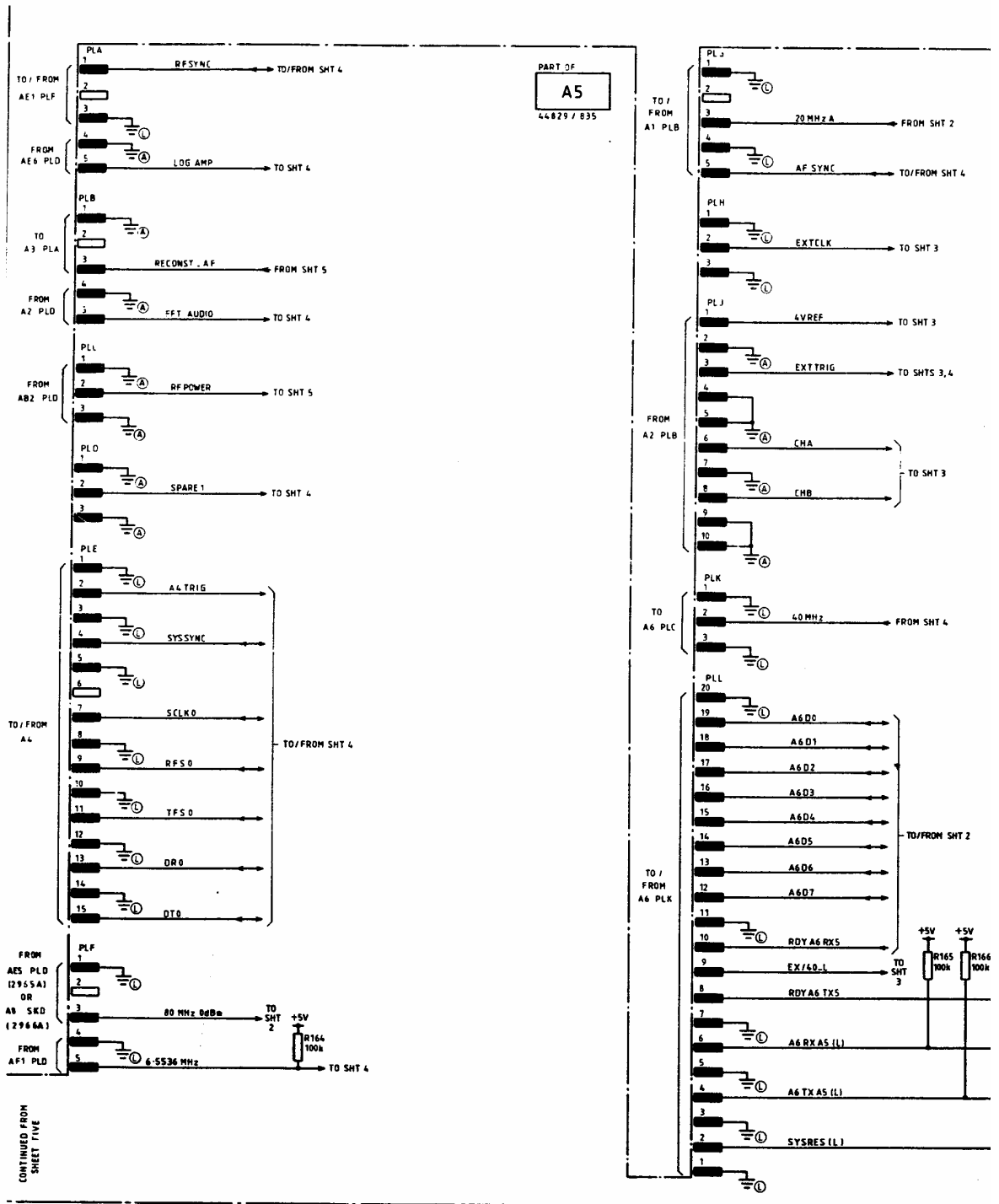


RECONSTRUCTION FILTER

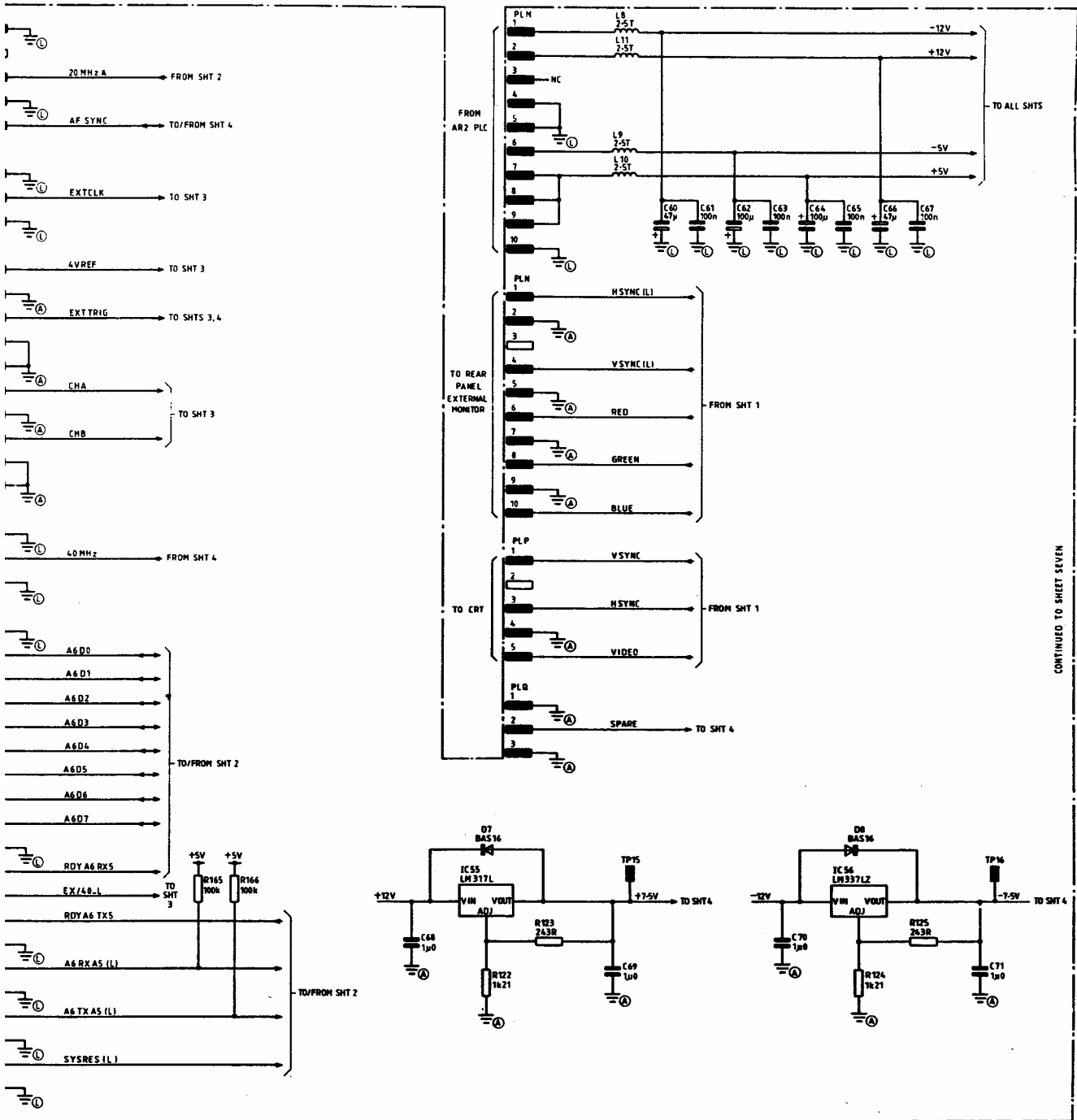


CONTINUED TO SHEET SIX

Fig. 7-81 A5 Digital to analogue converters - circuit



Circuit diagrams **A5**



CONTINUED TO SHEET SEVEN

Fig. 7-82 A5 Connectors and power inputs - circuit

DIGITAL SUPPLY PIN CI

SUPPLY LIST		
IC No	+5V PIN(S)	0
1	20	
2	14	
6	20	
8	10	
9	10	
10	10	
11	10	
12	20	
13	14,52	W
14	32	
15	18,52	
16	18,52	
17	32	
18	14	
19	32	
20	32	
21	16	
25	20	
26	22,64	
27	8	
28	32	
29	20	
30	32	
31	20	
33	28	
40	28	
41	28	
43	18,52	
44	20	
45	20	
46	20	
51	20	
52	20	
7	-	
42	-	

Circuit diagrams **A5**

PART OF
A5
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DIGITAL SUPPLY PIN CONNECTIONS & DECOUPLING

SUPPLY LINE TABLE			
IC No	+5V PIN(S)	0V L PIN(S)	DEC CAP(S)
1	20	10	C101
2	14	7	C102
6	20	10	C106
8	10	20	C108
9	10	20	C109
10	10	20	C110
11	10	20	C111
12	20	10	C112
13	14,52	16,17,56,57	C113, 103
14	32	16	C114
15	18,52	1,35	C115,104
16	18,52	1,35	C116,124
17	32	16	C117
18	14	7	C118
19	32	16	C119
20	32	16	C120
21	16	8	C121
25	20	10	C125
26	22,64	43,1	C126,136
27	8	5	C127
28	32	16	C128
29	20	10	C129
30	32	16	C130
31	20	10	C131
33	28	14	C133
40	28	14	C140
41	28	14	C141
43	18,52	1,35	C143,139
44	20	10	C144
45	20	10	C145
46	20	10	C146
51	20	10	C151
52	20	10	C152
7	-	-	C107,168
42	-	-	C142,169,170

ANALOGUE SUPPLY PIN CONNECTIONS & DECOUPLING

SUPPLY LINE TABLE						
IC No	+12V PIN	-12V PIN	0VA PIN	+5V PIN	DECOUPLING	
					+12V	-12V
5	7	4	-	-	C105	C150
22	4	7	3	5	C122	C155
23	1	4	-	-	C123	C156
32	7	4	-	-	C132	C158
34	13	4	5	12	C134	C159
35	6	2	-	-	C135	C160
37	4	7	3	5	C137	C161
38	7	4	-	-	C138	C162
47	18	-	3	-	C147	-
48	7	4	-	-	C148	C163
49	4	11	-	-	C149	C164
53	20	17	-	-	C153	C165
54	6	2	-	-	C154	C166
57	6	2	-	-	C157	C167
60	7	4	-	-	C171	C172

ALL IC'S DECOUPLED AT SUPPLY TO GROUND AS INDICATED
ALL CAPACITOR VALUES 100n

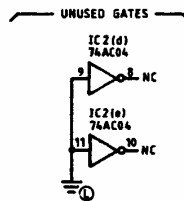
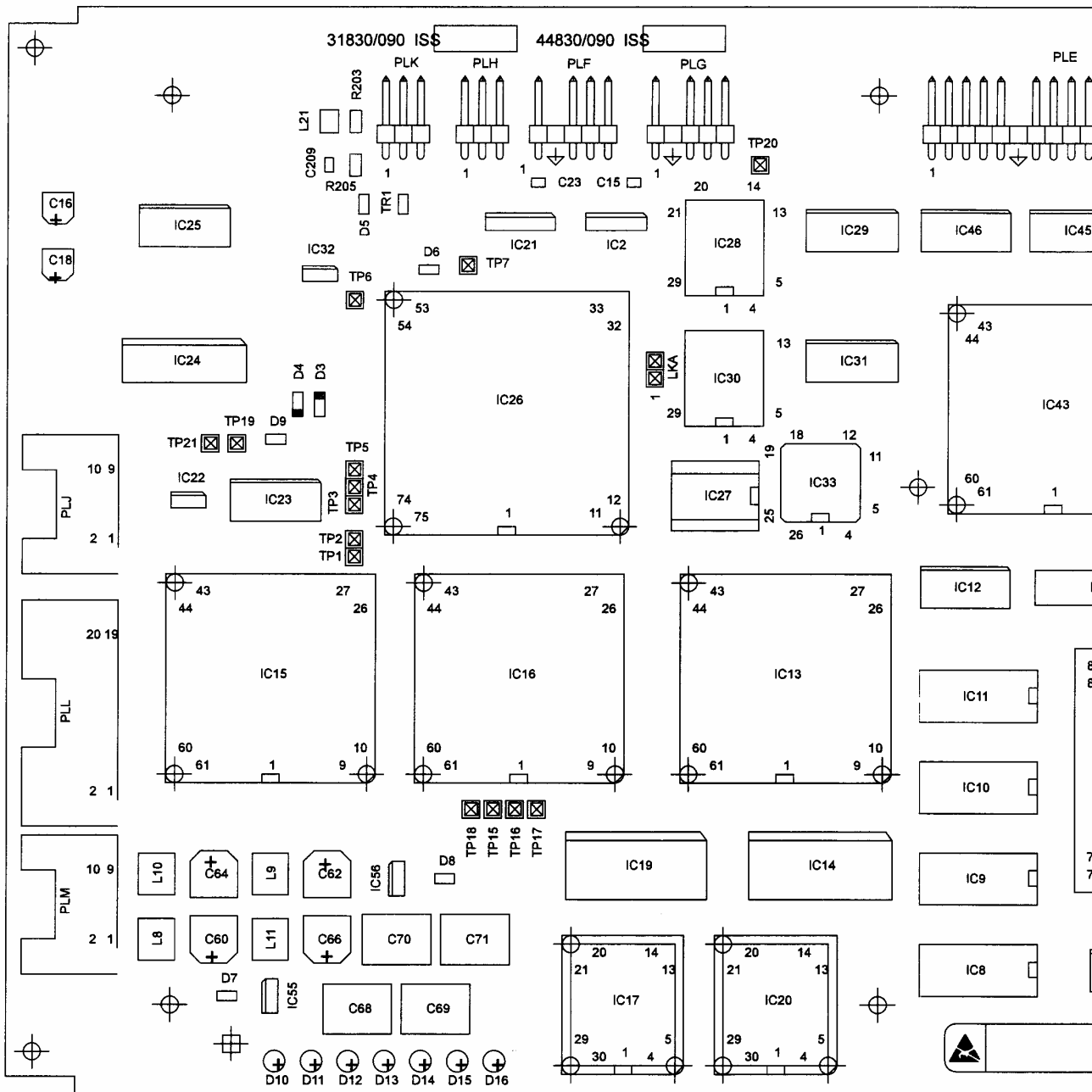


Fig. 7-83 A5 Power supply and decoupling arrangements

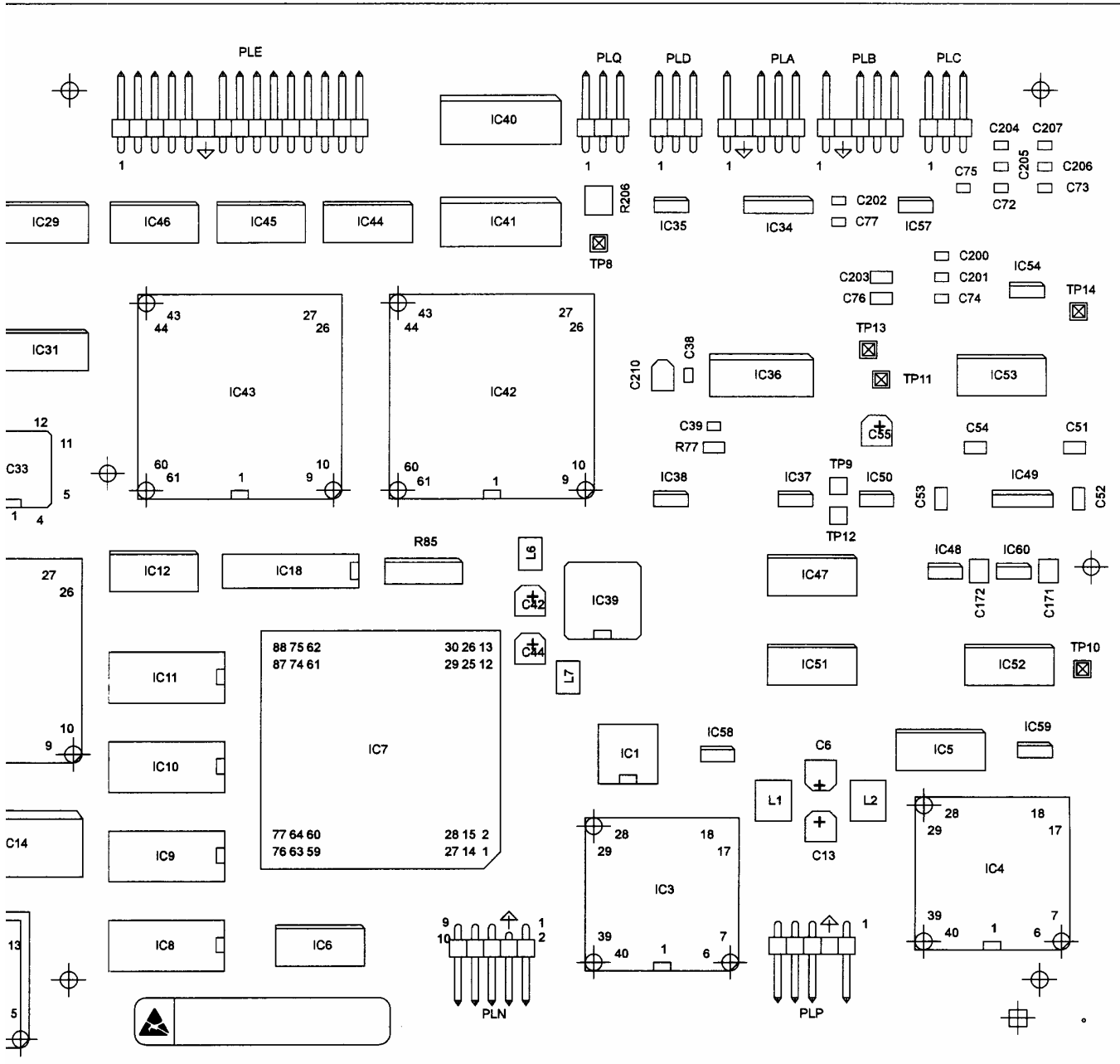
SERVICING DIAGRAMS



Power supply and decoupling arrangements A5

Drg. No. 44830/09C

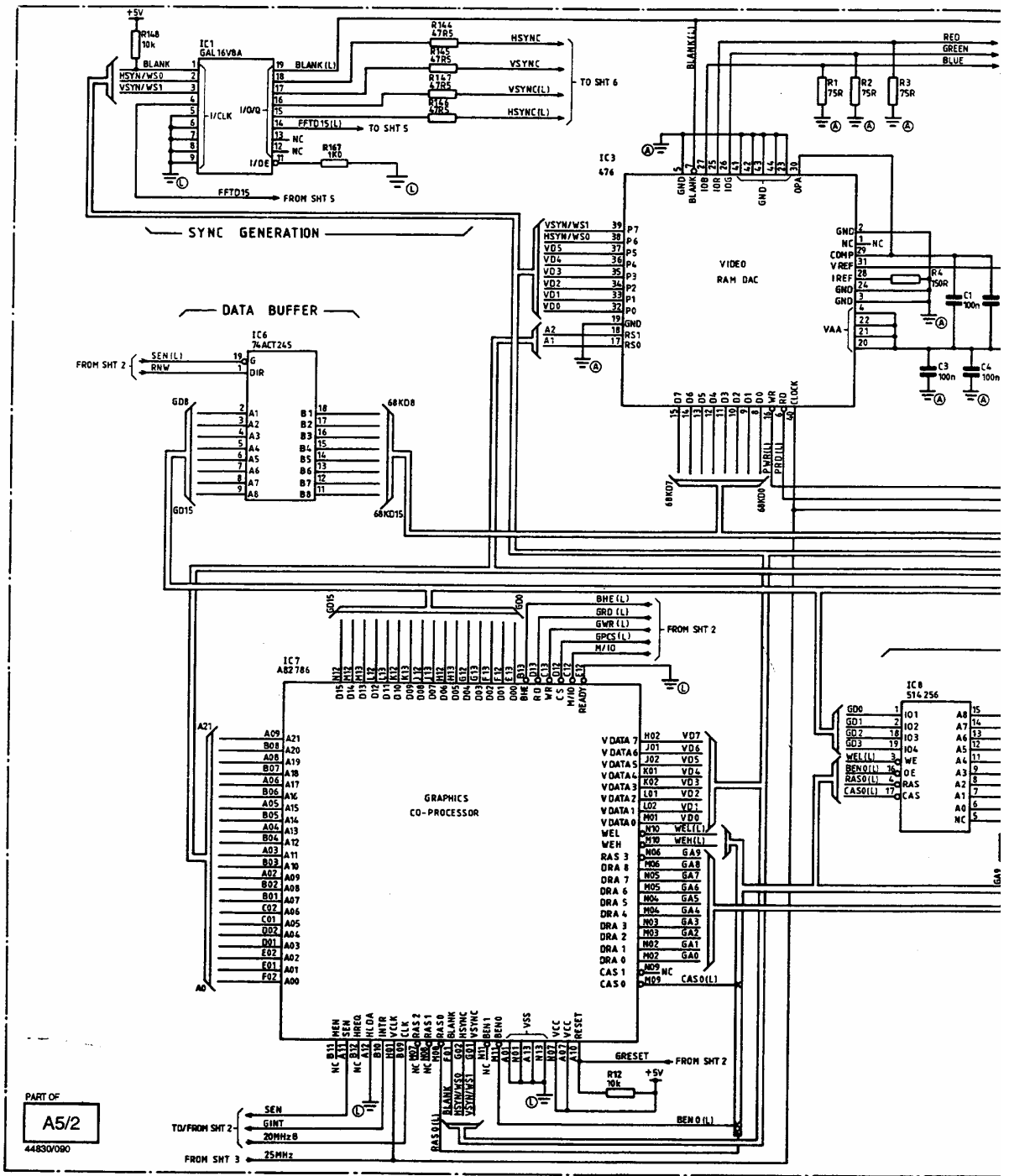
Component layout A5/2



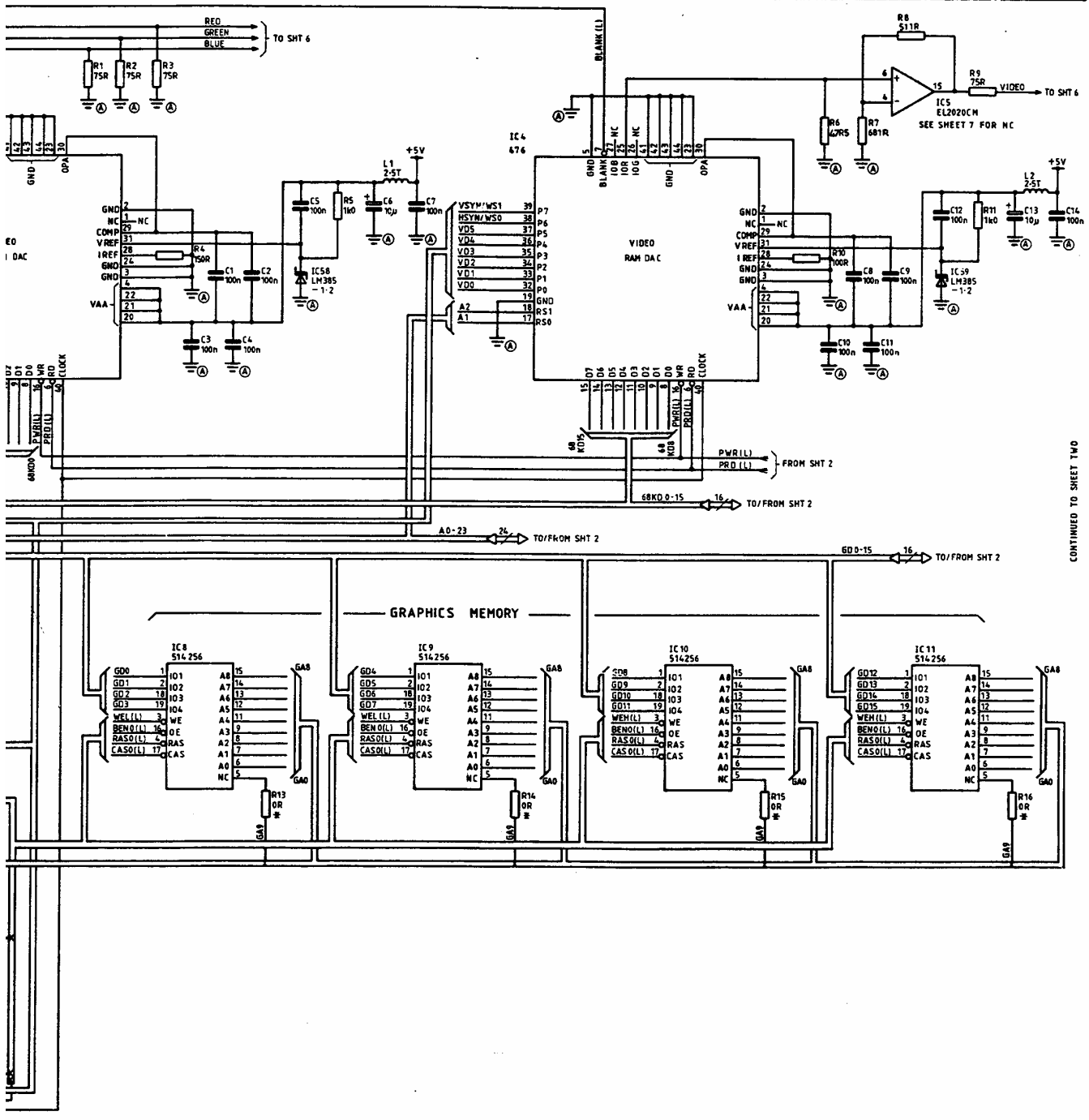
A5

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Fig. 7-84 A5/2 Display - component layout, component side

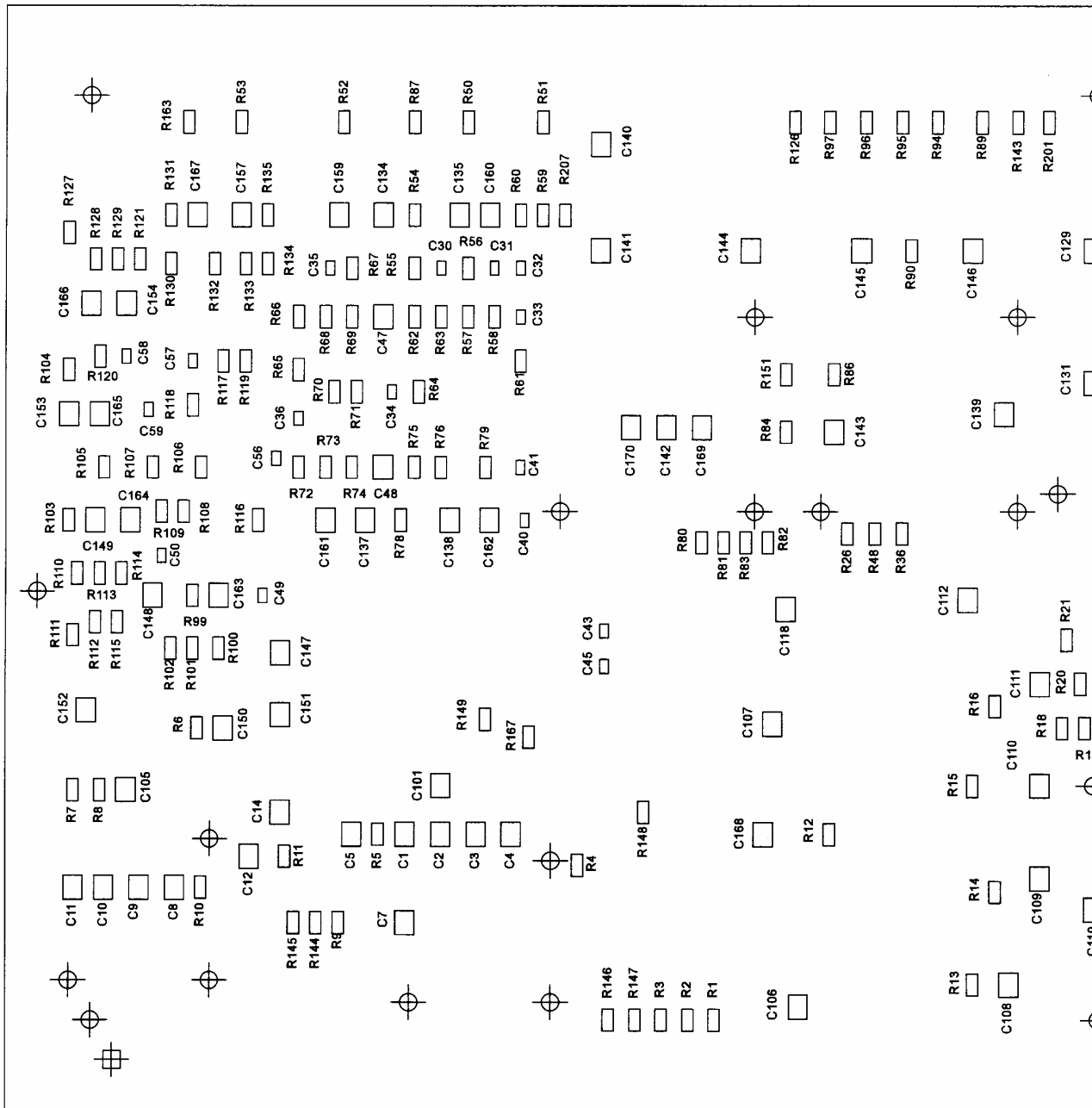


Circuit diagrams **A5/2**



CONTINUED TO SHEET TWO

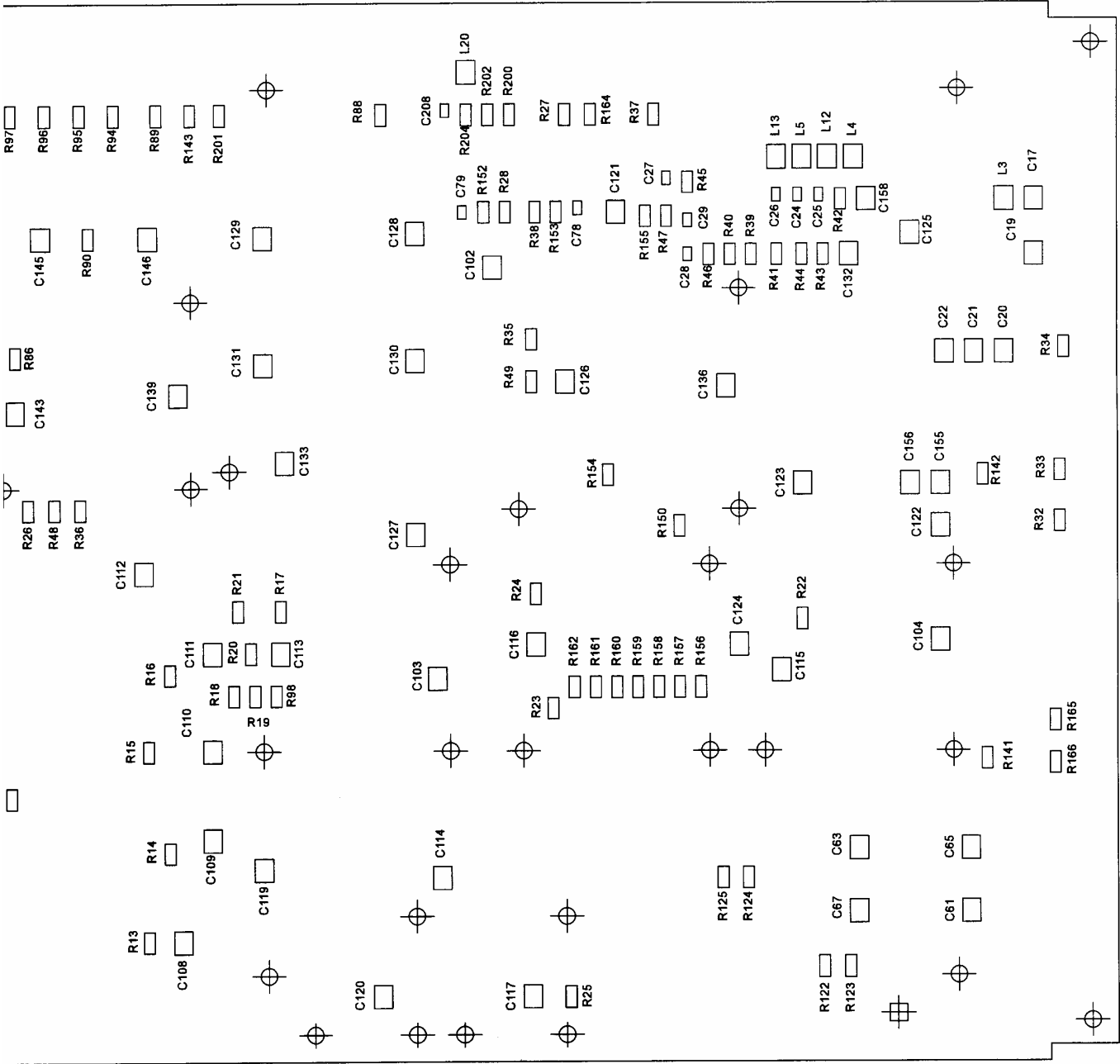
Fig. 7-85 A5/2 Graphics - circuit

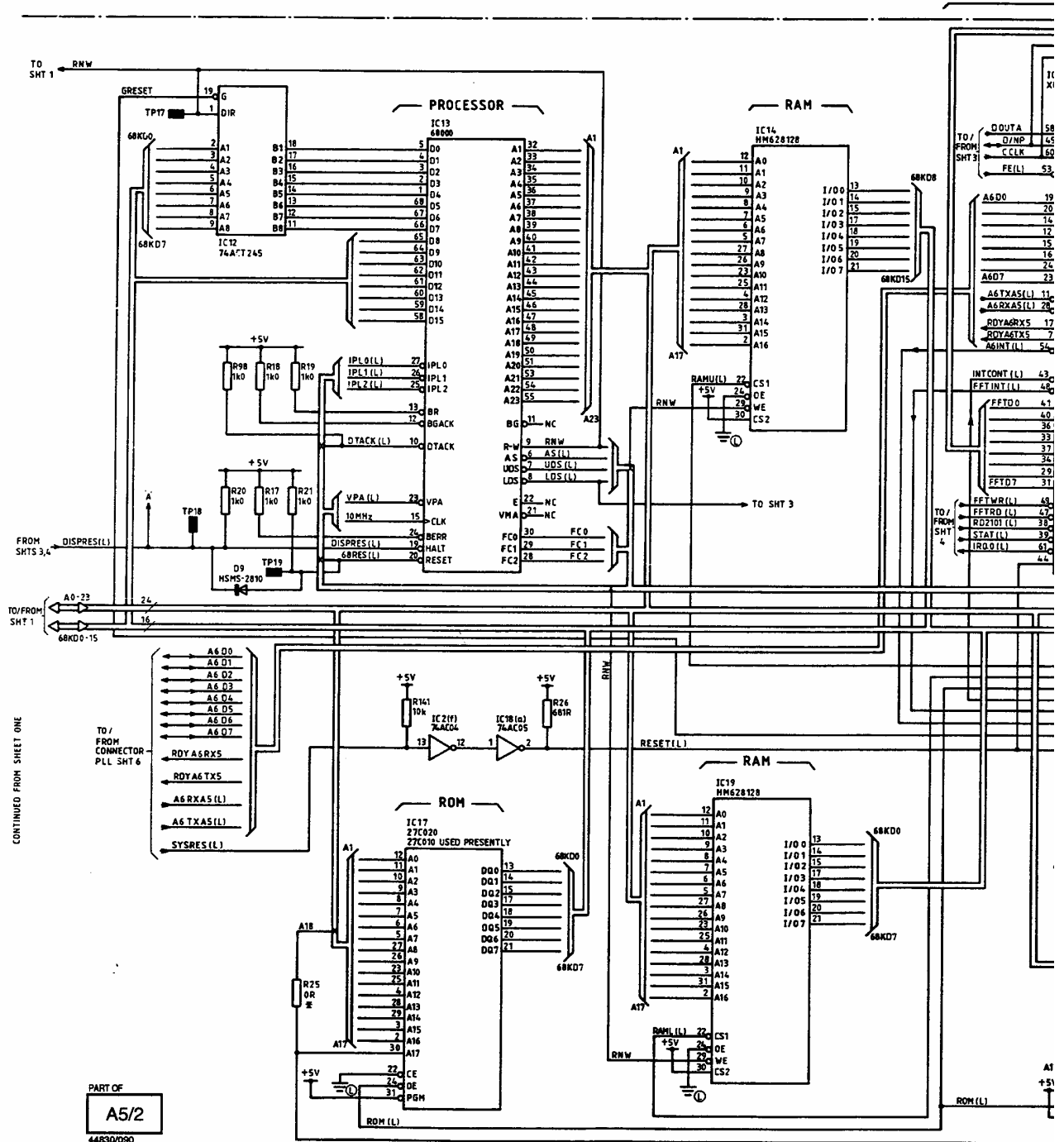


Graphics A5/2

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Component layout A5/2





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* R25 IS IN POSITION FOR STANDARD MINI-HELF RESISTOR - IT IS NOT INTENDED TO FIT IT AT PRESENT

Circuit diagrams A5/2

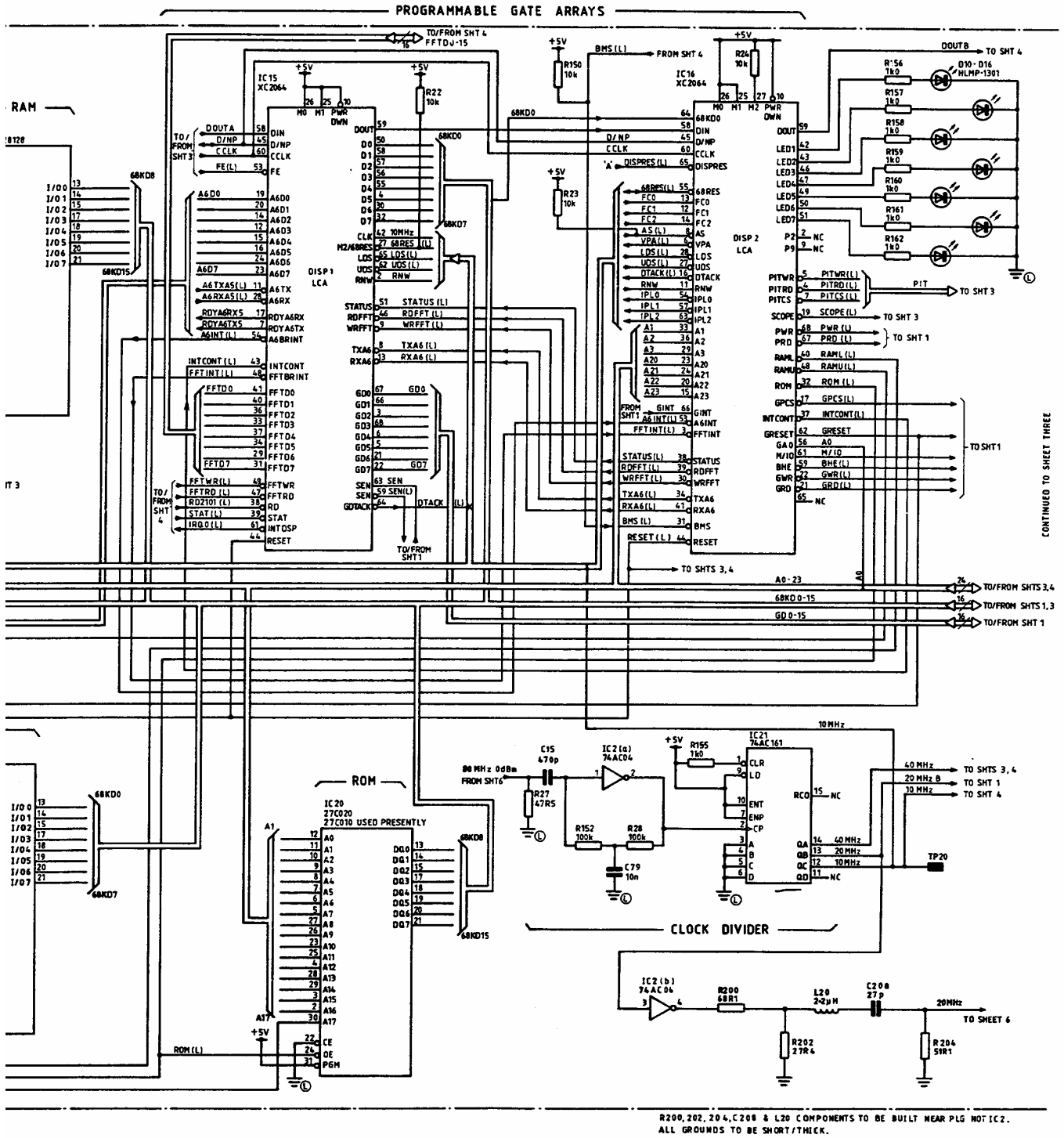
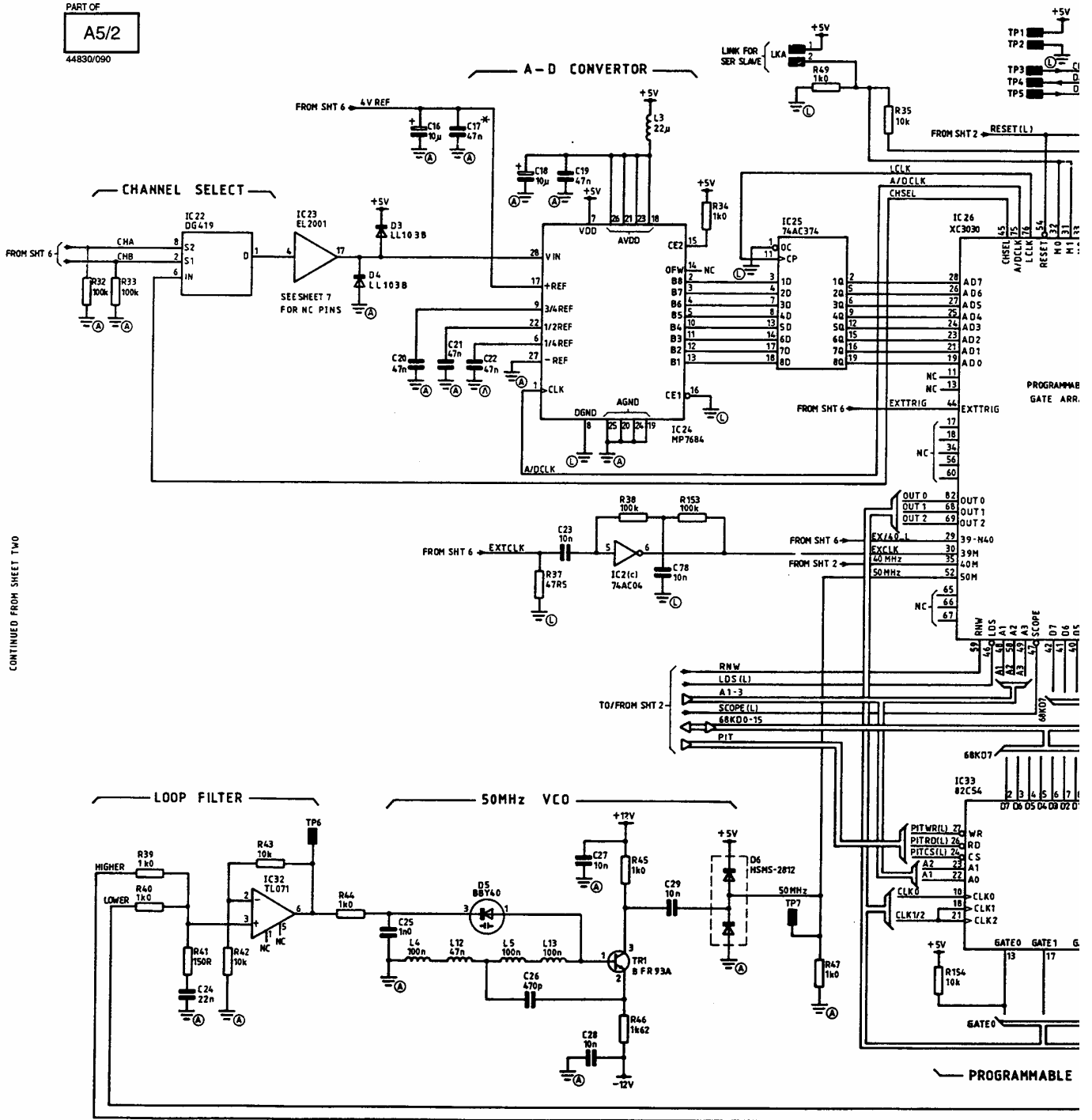


Fig. 7-87 A5/2 Main processor - circuit

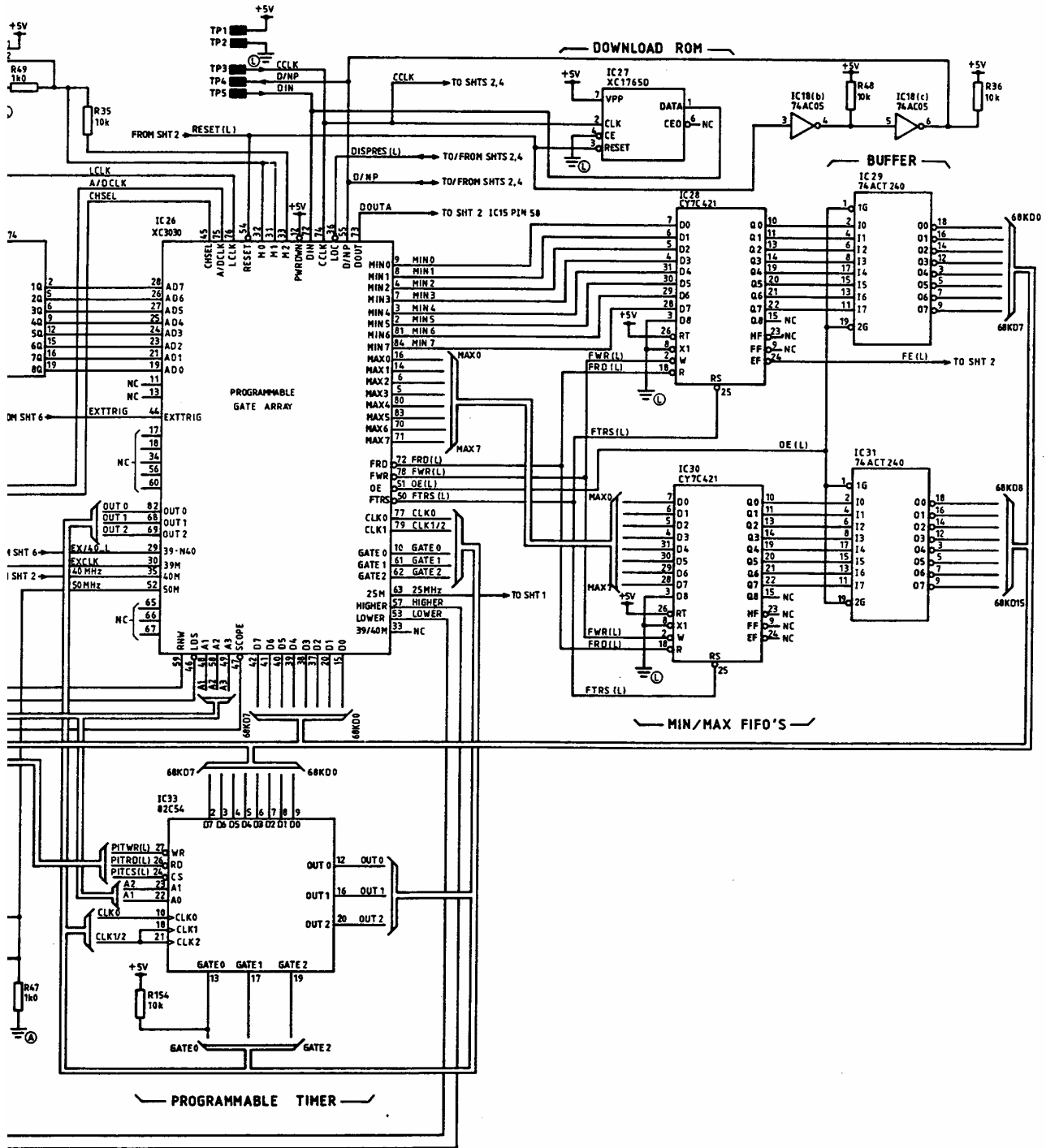
PART OF
A5/2
 44830/090



CONTINUED FROM SHEET TWO

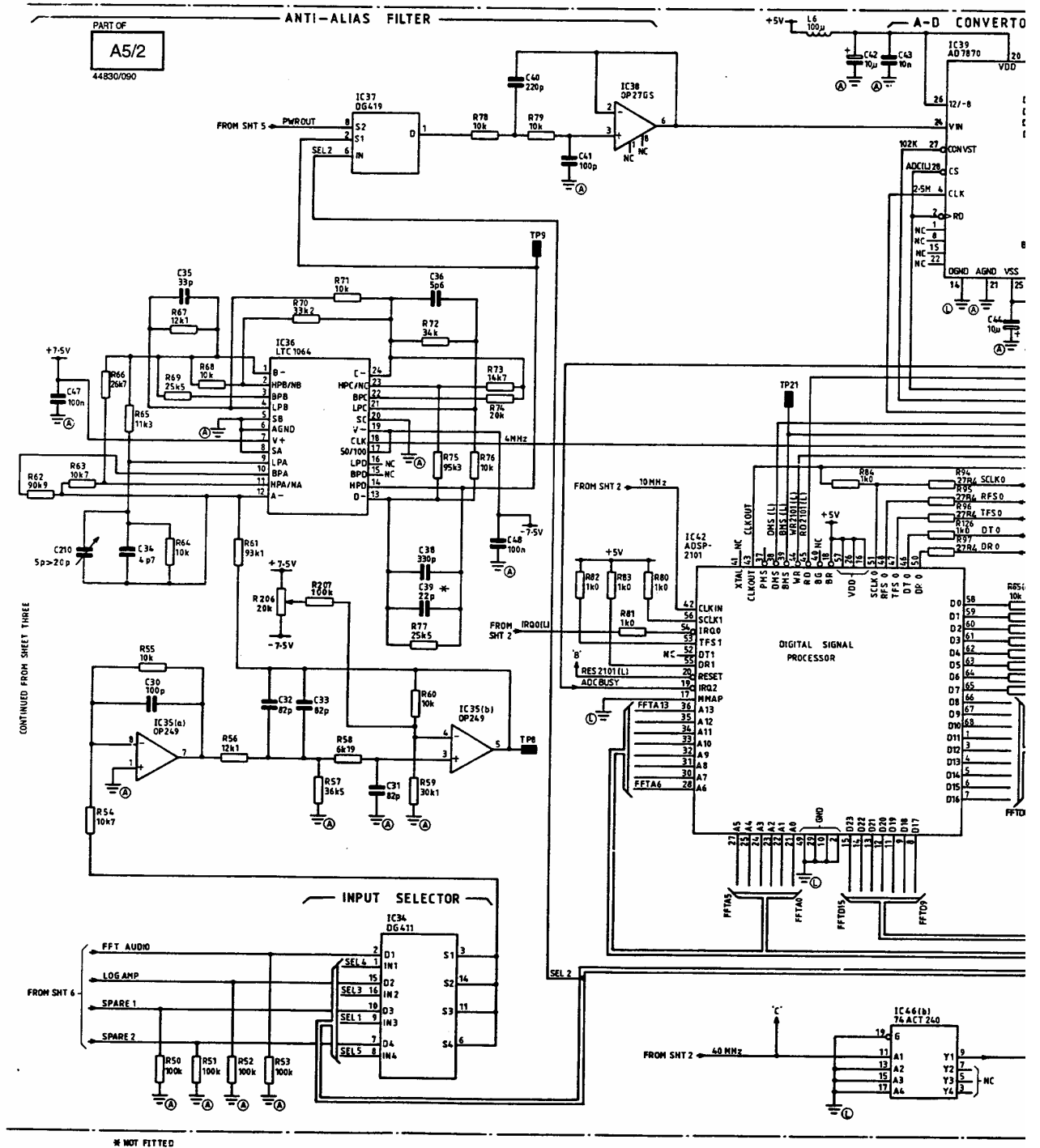
* NOT FITTED

Circuit diagrams A5/2



CONTINUED TO SHEET FOUR

Fig. 7-88 A5/2 Scope - circuit



Circuit diagrams A5/2

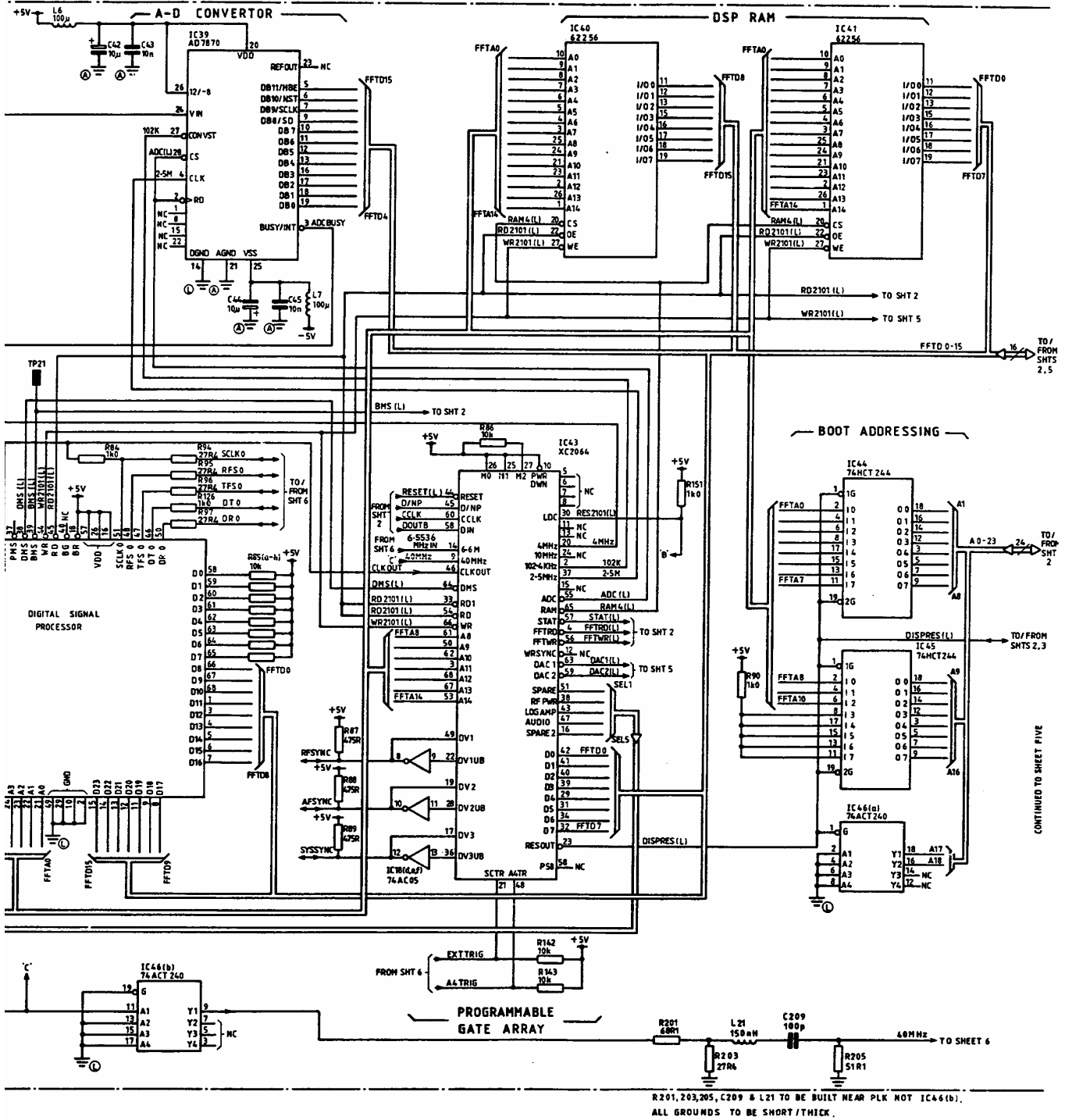
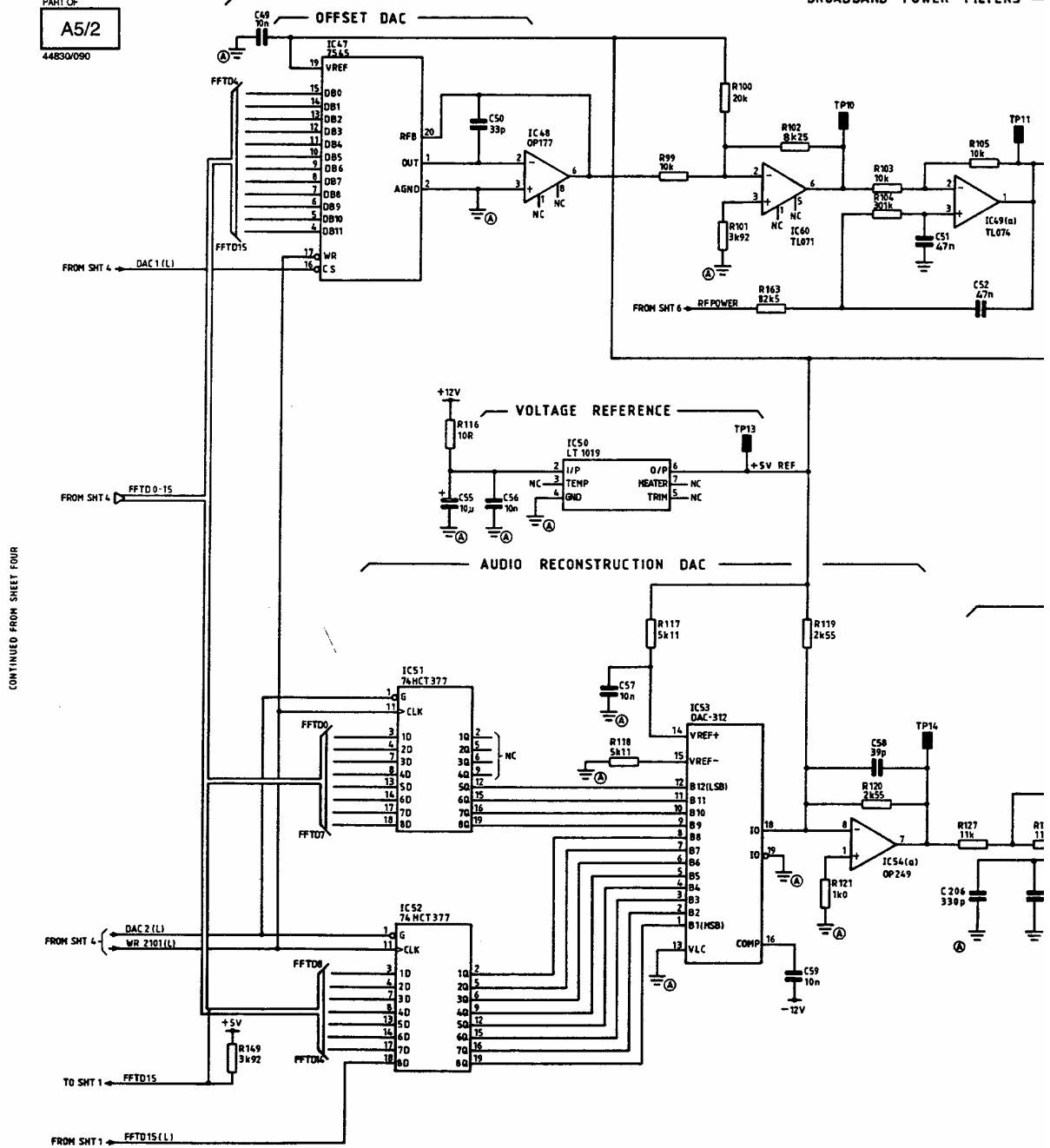


Fig. 7-89 A5/2 Digital signal processor - circuit

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BROADBAND POWER FILTERS



CONTINUED FROM SHEET FOUR

Circuit diagrams A5/2

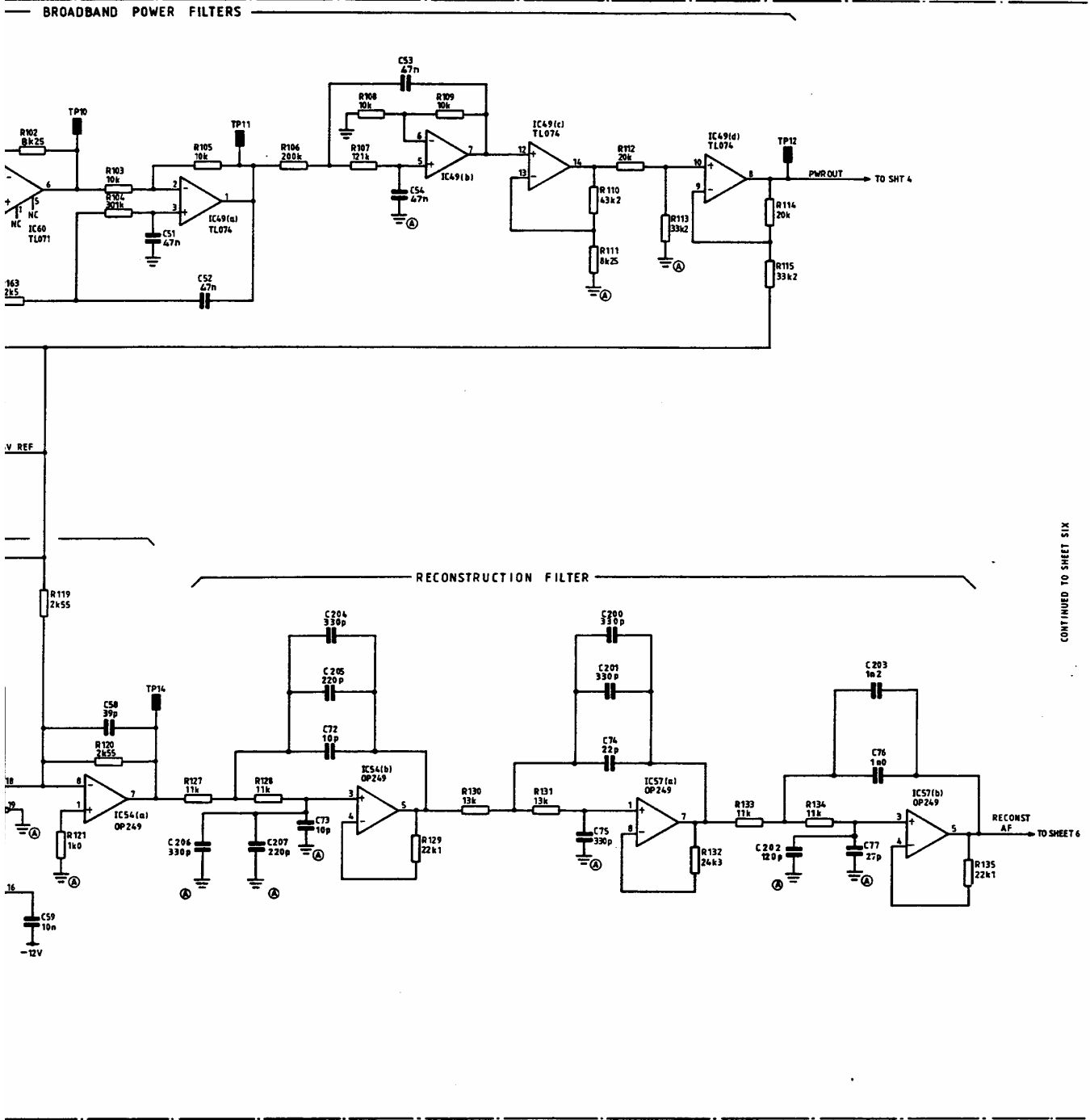
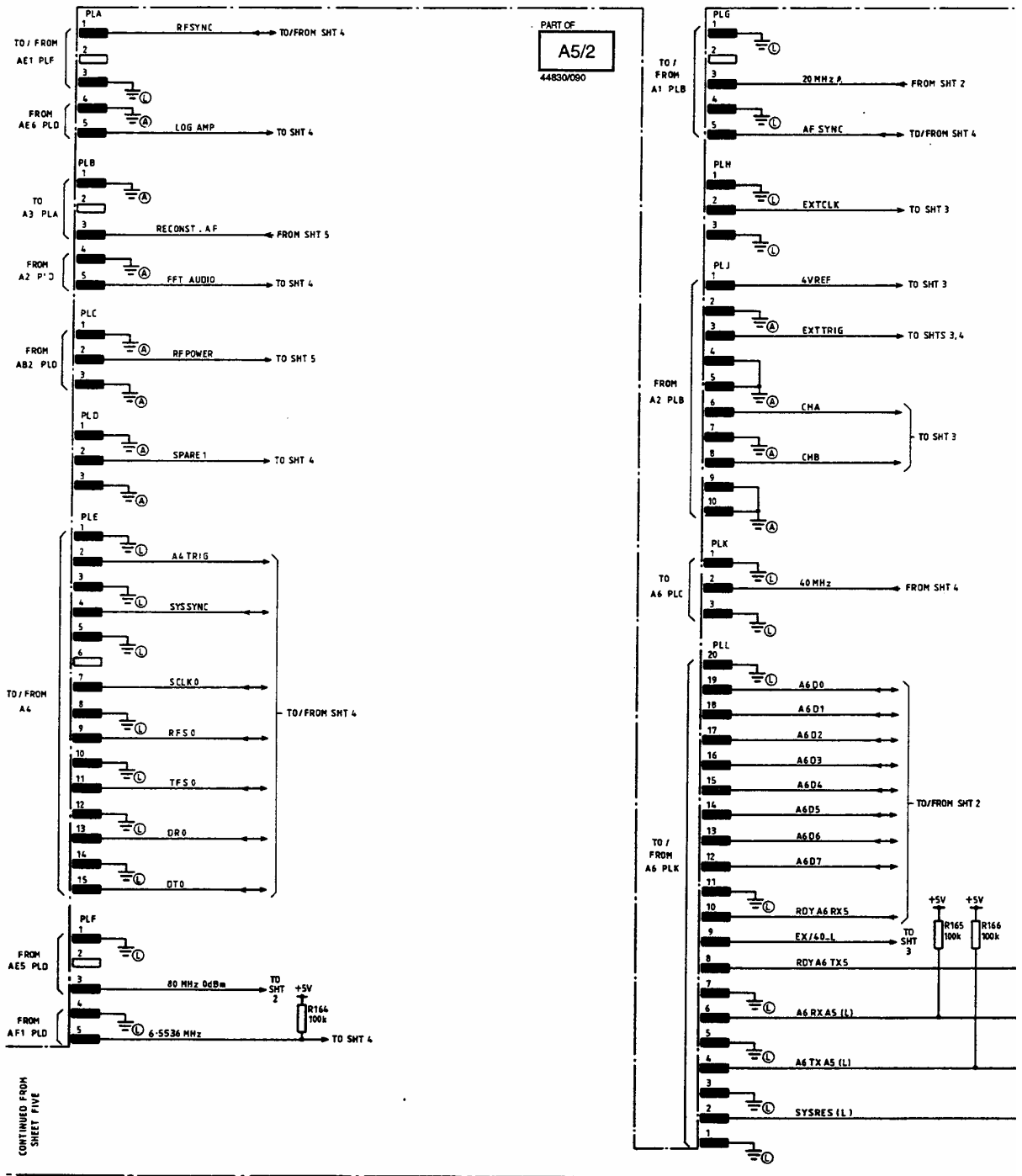
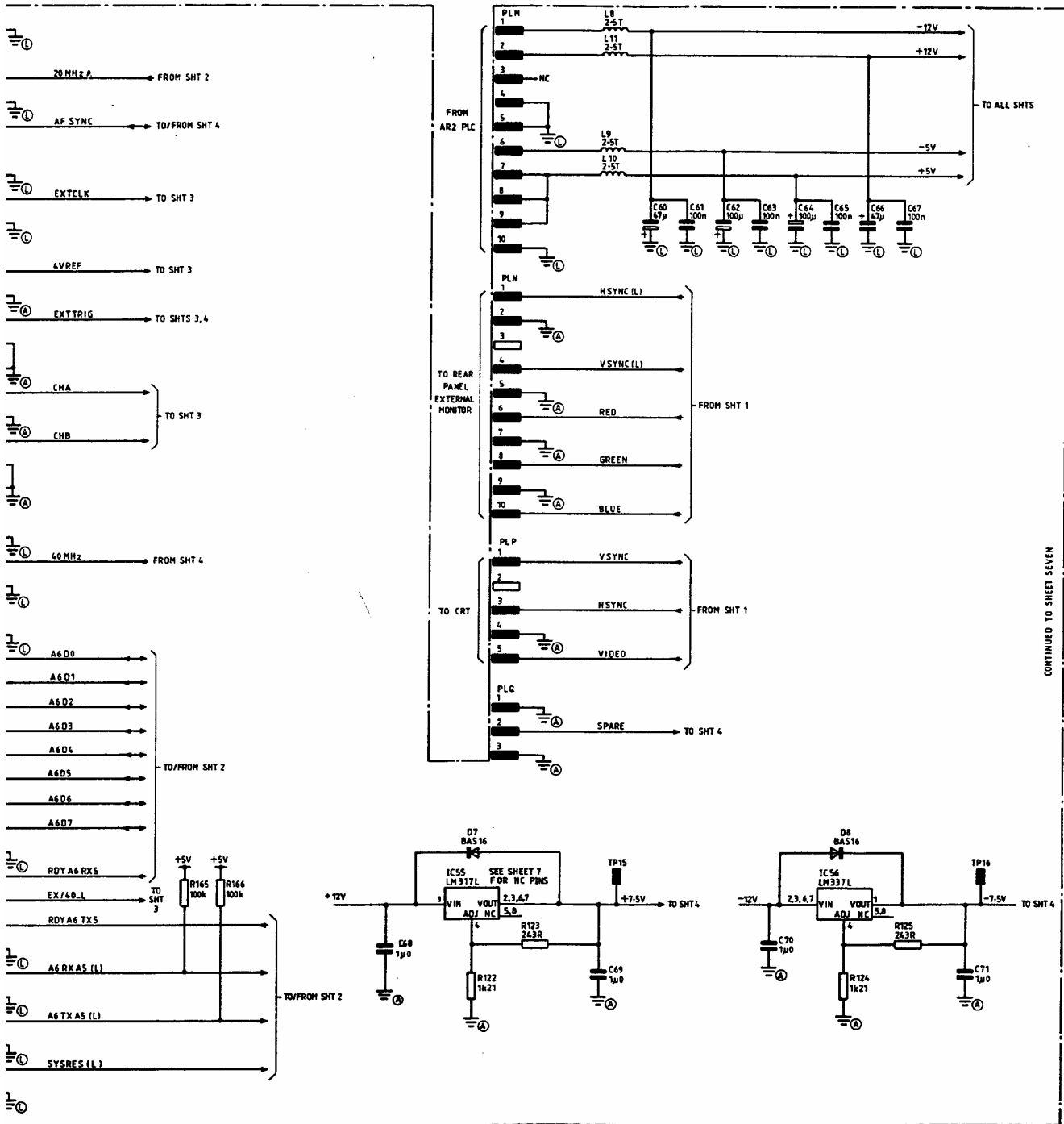


Fig. 7-90 A5/2 Digital to analogue converters - circuit



Circuit diagrams **A5/2**



CONTINUED TO SHEET SEVEN

Fig. 7-91 A5/2 Connectors and power inputs - circuit

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A5/2

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DIGITAL SUPPLY PIN CONNECTIONS & DECOUPLING

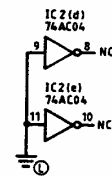
SUPPLY LINE TABLE			
IC No	+5V PIN(S)	0V L PIN(S)	DEC CAP(S)
1	20	10	C101
2	14	7	C102
6	20	10	C106
8	10	20	C108
9	10	20	C109
10	10	20	C110
11	10	20	C111
12	20	10	C112
13	14,52	16,17,56,57	C113,103
14	32	16	C114
15	18,52	1,35	C115,104
16	18,52	1,35	C116,124
17	32	16	C117
18	14	7	C118
19	32	16	C119
20	32	16	C120
21	16	8	C121
25	20	10	C125
26	22,64	43,1	C126,136
27	8	5	C127
28	32	16	C128
29	20	10	C129
30	32	16	C130
31	20	10	C131
33	28	14	C133
40	28	14	C140
41	28	14	C141
43	18,52	1,35	C143,139
44	20	10	C144
45	20	10	C145
46	20	10	C146
51	20	10	C151
52	20	10	C152
7	-	-	C107,168
42	-	-	C142,169,170

ANALOGUE SUPPLY PIN CONNECTIONS & DECOUPLING

SUPPLY LINE TABLE			
IC No	+12V PIN	-12V PIN	0VA PIN
5	17	8	-
22	4	7	3
23	2	8	-
32	7	4	-
34	13	4	5
35	6	2	-
37	4	7	3
38	7	4	-
47	18	-	3
48	7	4	-
49	4	11	-
53	20	17	-
54	6	2	-
57	6	2	-
60	7	4	-

ALL IC'S DECOUPLED AT SUPPLY TO GROUND AS INDICATED
ALL CAPACITOR VALUES 100n

UNUSED GATES



Circuit diagrams **A5/2**

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Y090

ANALOGUE SUPPLY PIN CONNECTIONS & DECOUPLING

IC No	SUPPLY LINE TABLE				DECOUPLING	
	+12V PIN	-12V PIN	OVA PIN	+5V PIN	+12V	-12V
	5	17	8	-	-	C105
22	4	7	3	5	C122	C155
23	2	8	-	-	C123	C156
32	7	4	-	-	C132	C158
34	13	4	5	12	C134	C159
35	6	2	-	-	C195	C160
37	4	7	3	5	C137	C161
38	7	4	-	-	C138	C162
47	18	-	3	-	C147	-
48	7	4	-	-	C148	C163
49	4	11	-	-	C149	C164
53	20	17	-	-	C153	C165
54	6	2	-	-	C154	C166
57	6	2	-	-	C157	C167
60	7	4	-	-	C171	C172

ALL IC'S DECOUPLED AT SUPPLY TO GROUND AS INDICATED
ALL CAPACITOR VALUES 100µ

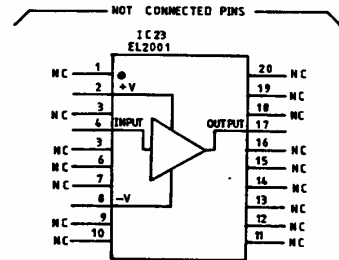
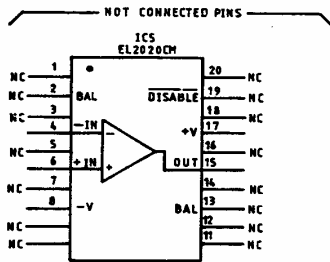
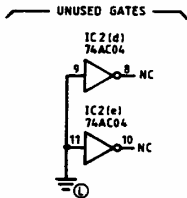
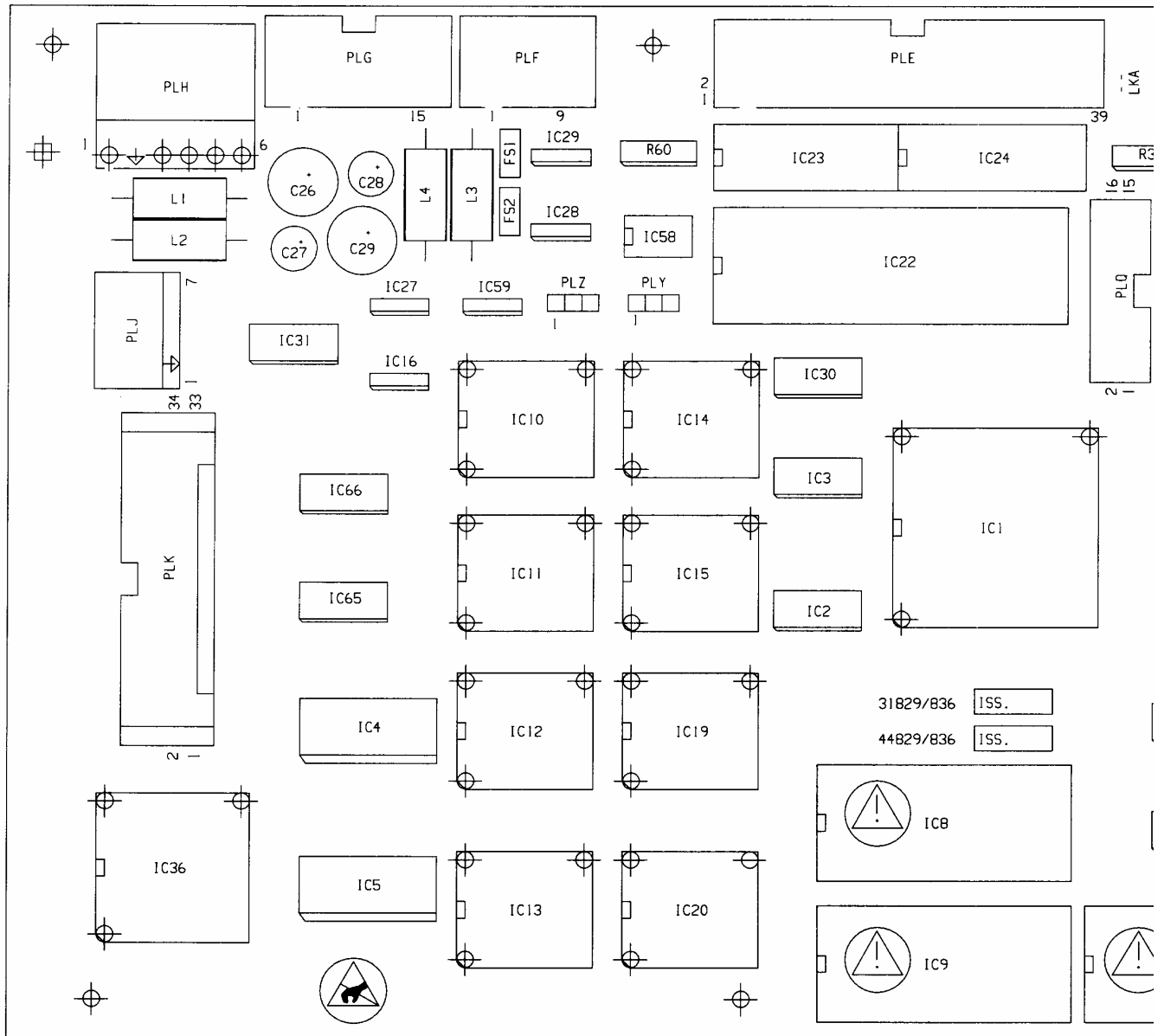


Fig. 7-92 A5/2 Power supply and decoupling arrangements

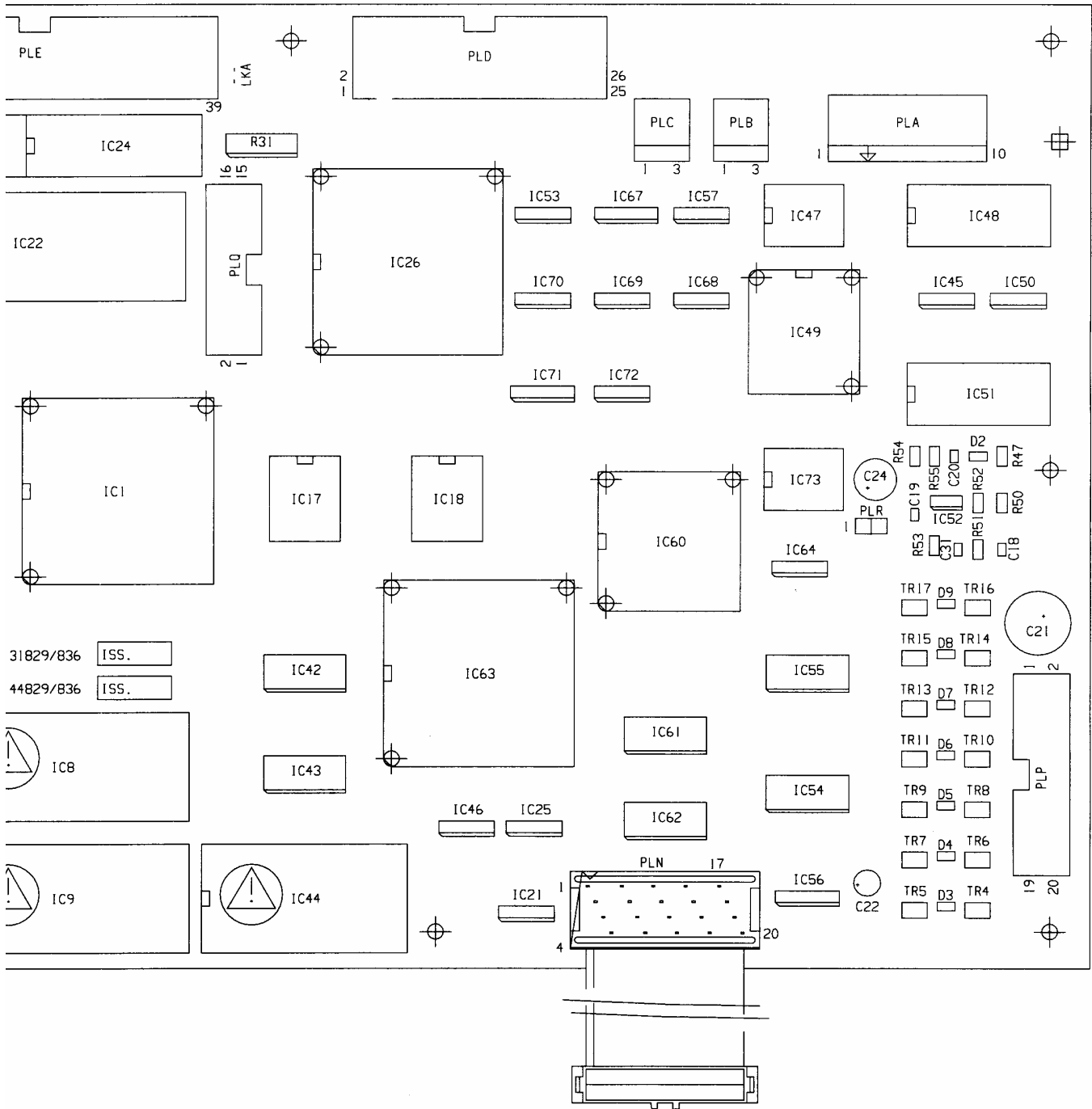
SERVICING DIAGRAMS



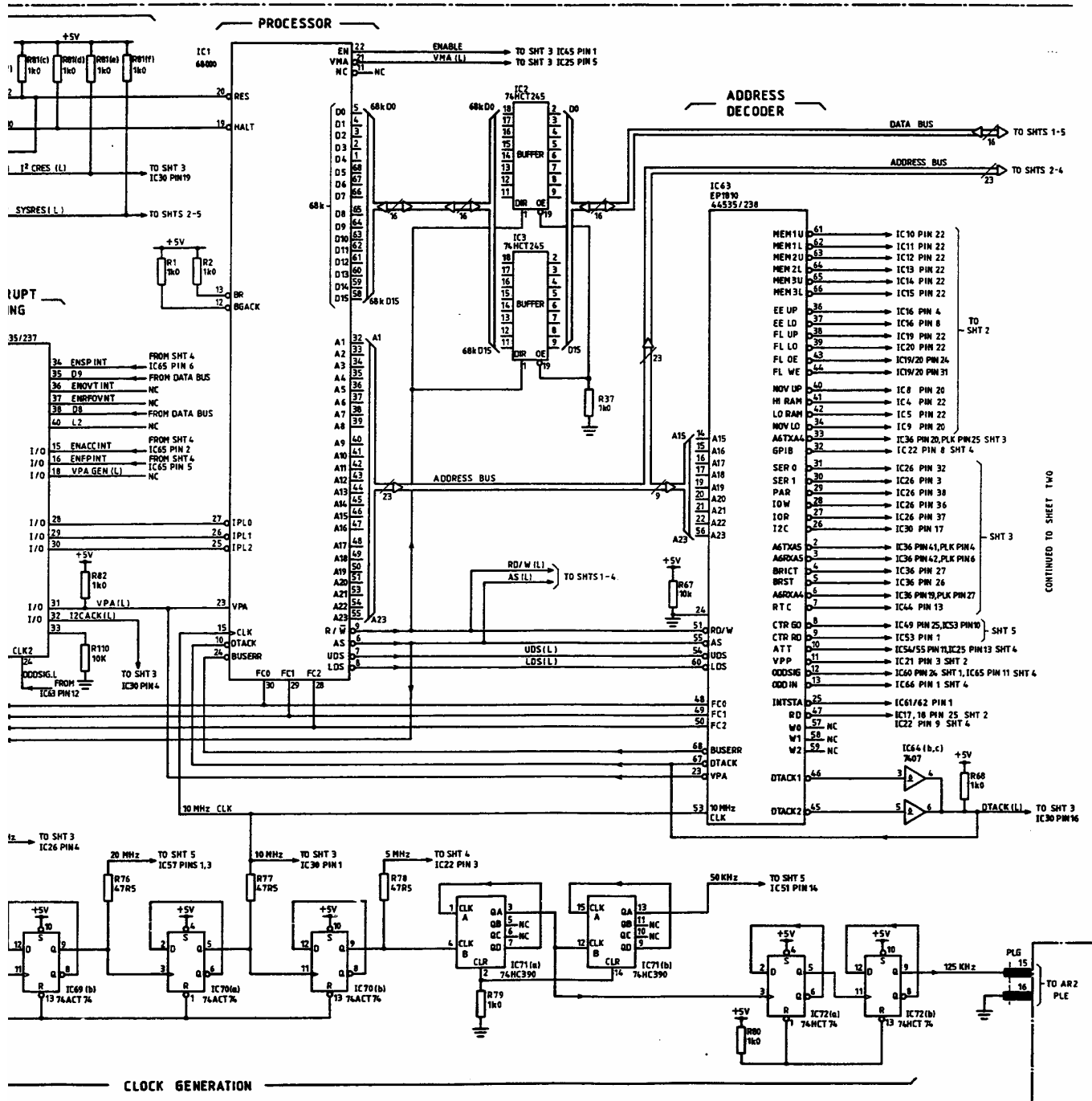
Power supply and decoupling arrangements A5/2

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Component layout A6

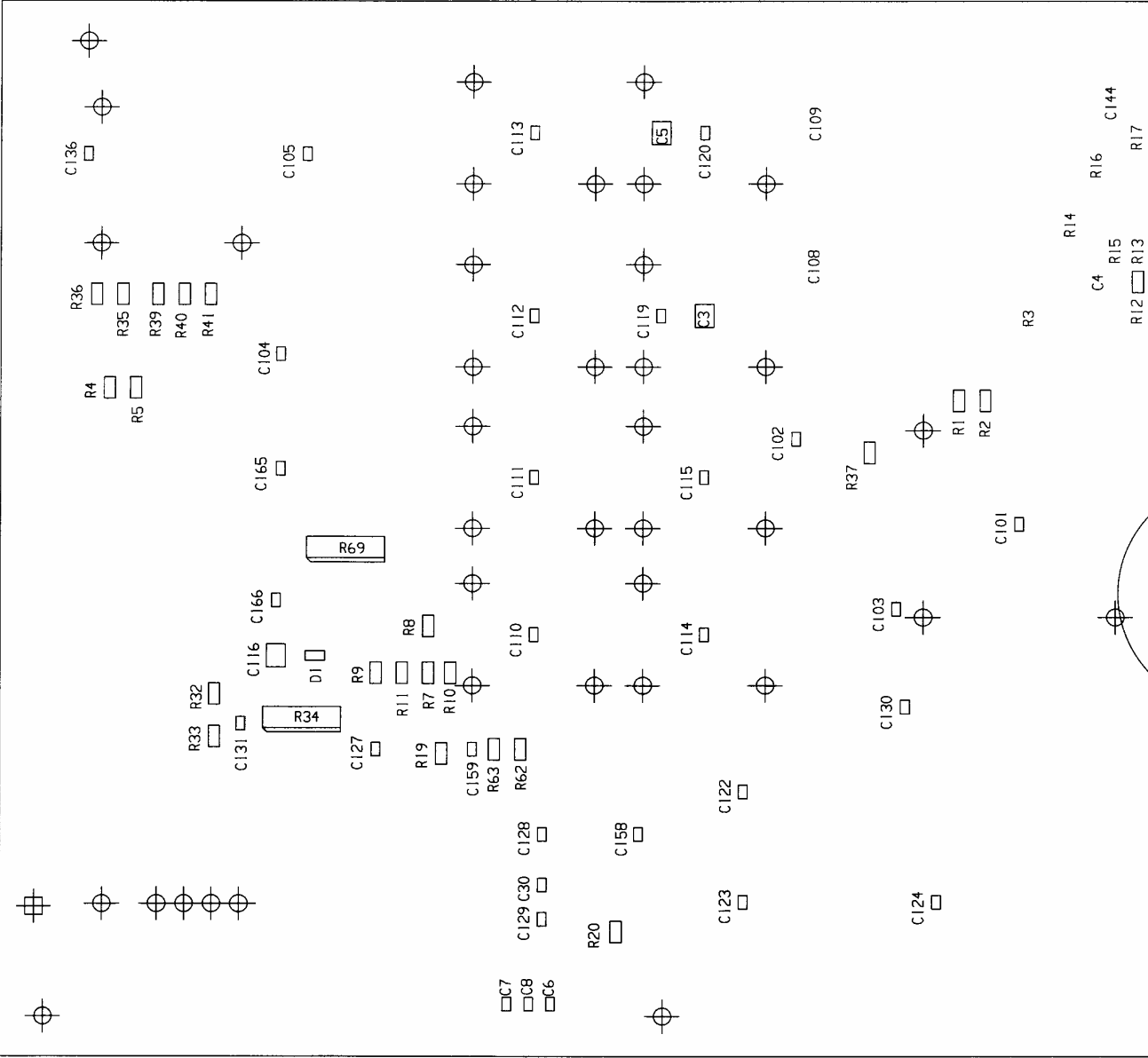


Circuit diagrams A6



CONTINUED TO SHEET TWO

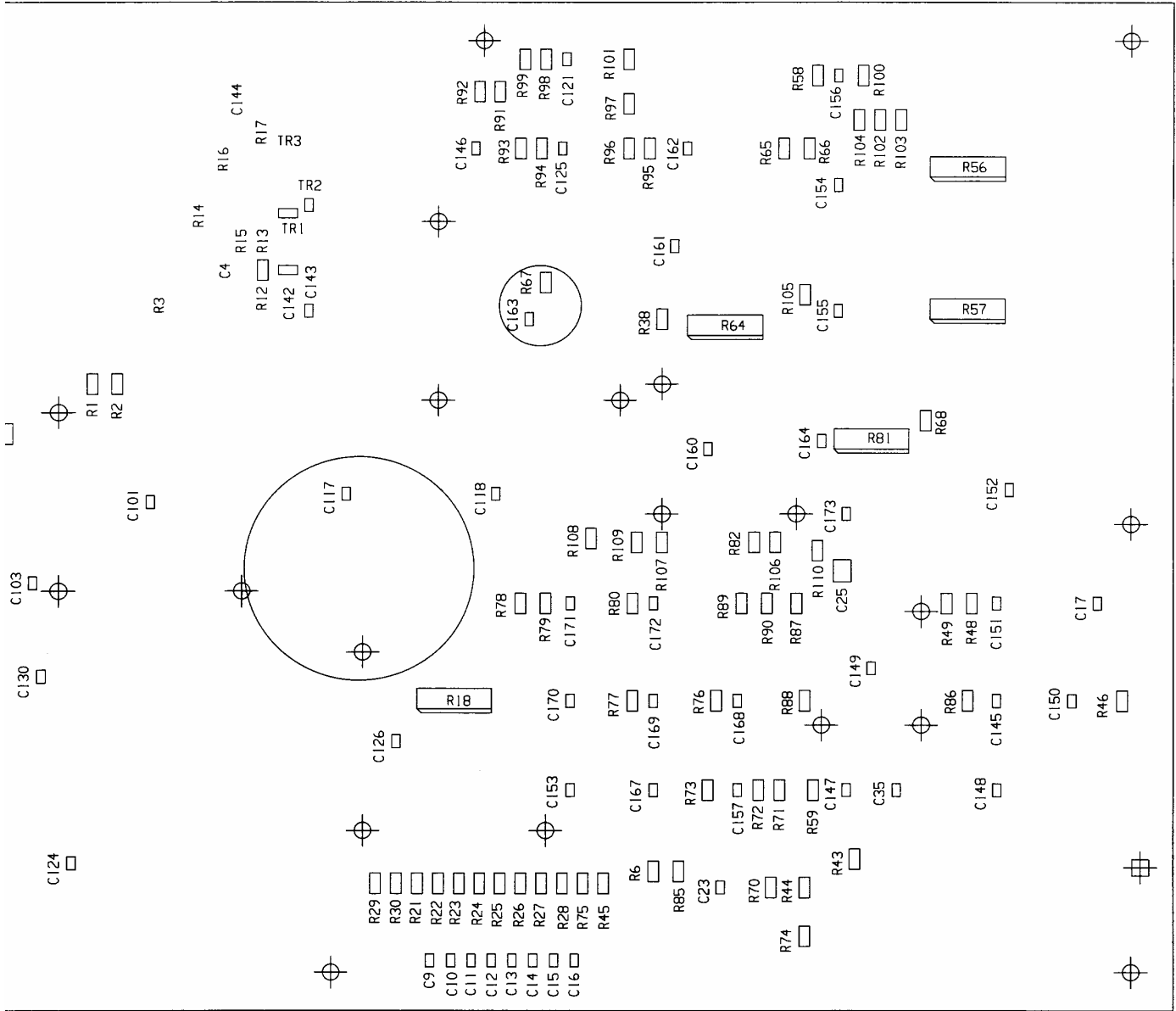
Fig. 7-94 A6 CPU - circuit



CPU A6

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Component layout A6

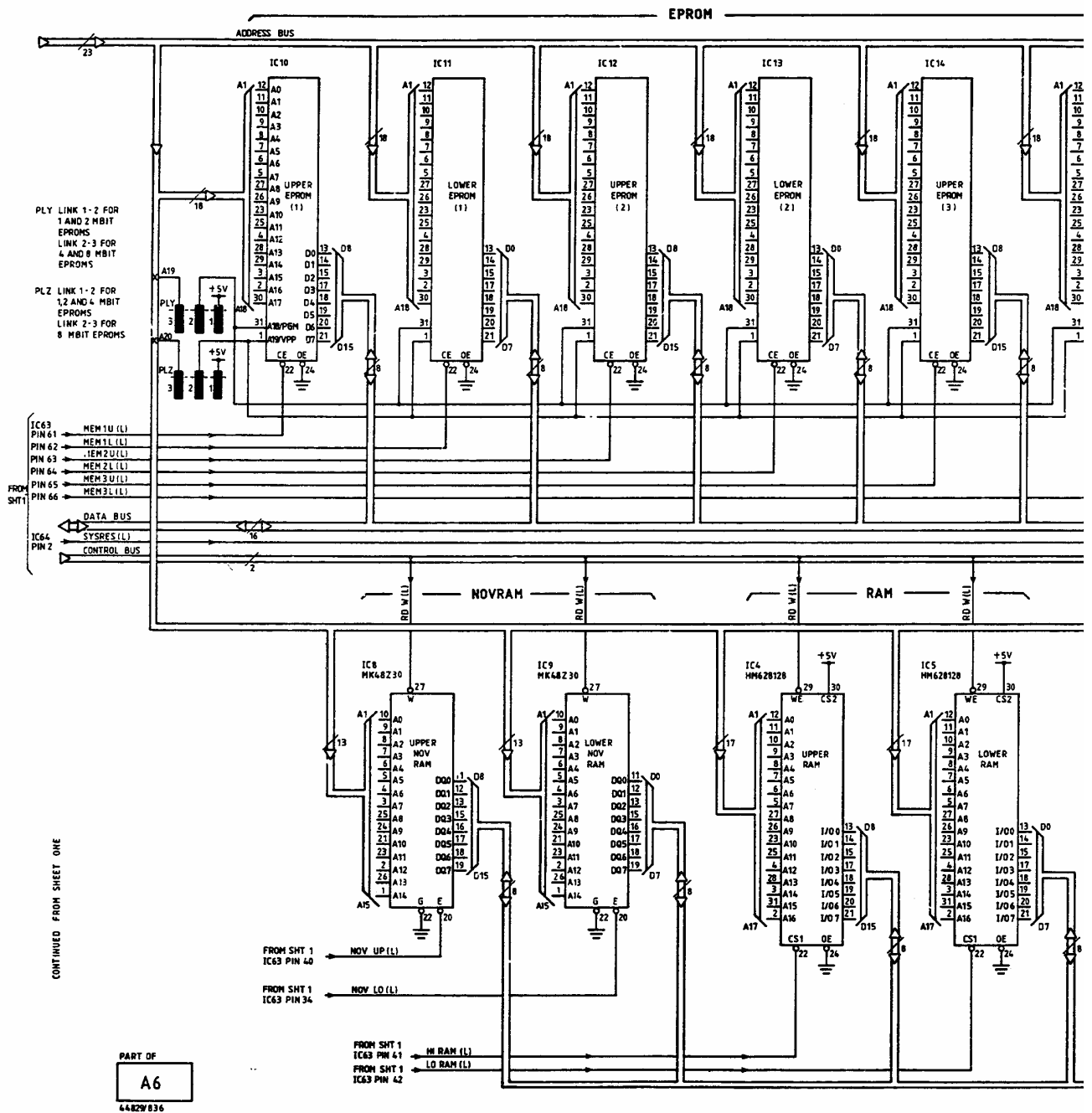


A6

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Fig. 7-95 A6 CPU - component layout, solder side

46882-168



Circuit diagrams A6

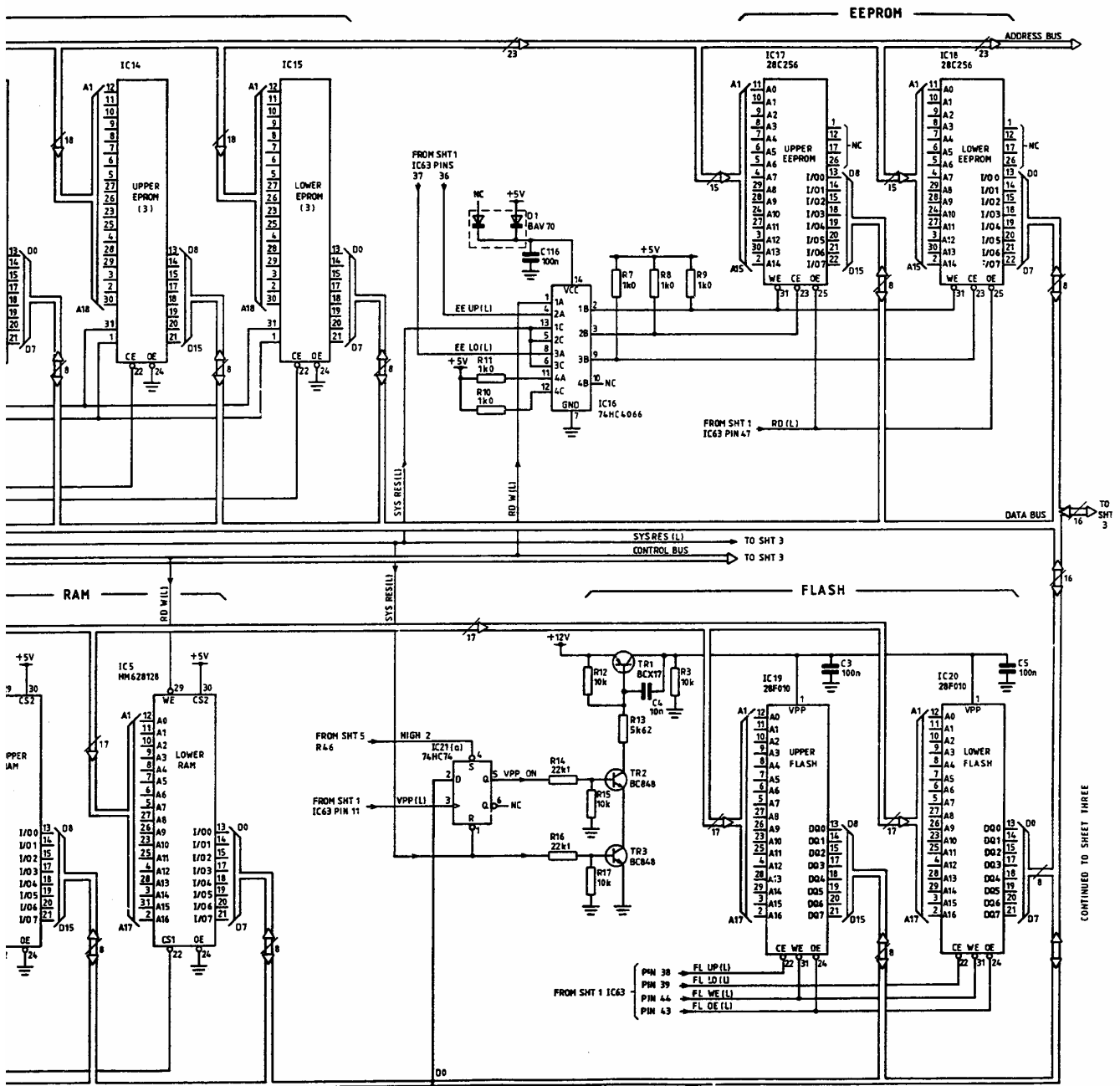
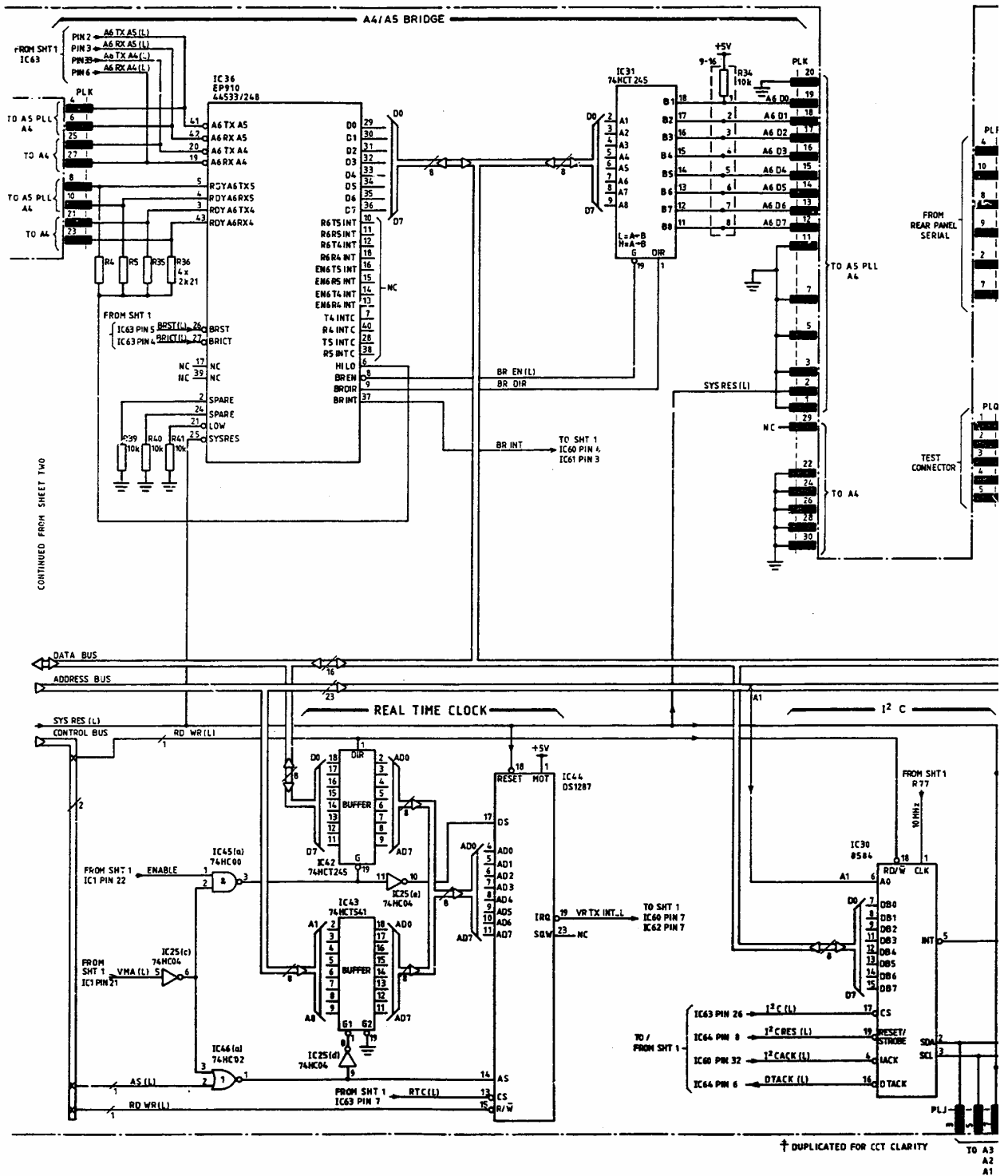


Fig. 7-96 A6 EPROM, EEPROM, RAM, Flash memory - circuit



Circuit diagrams A6

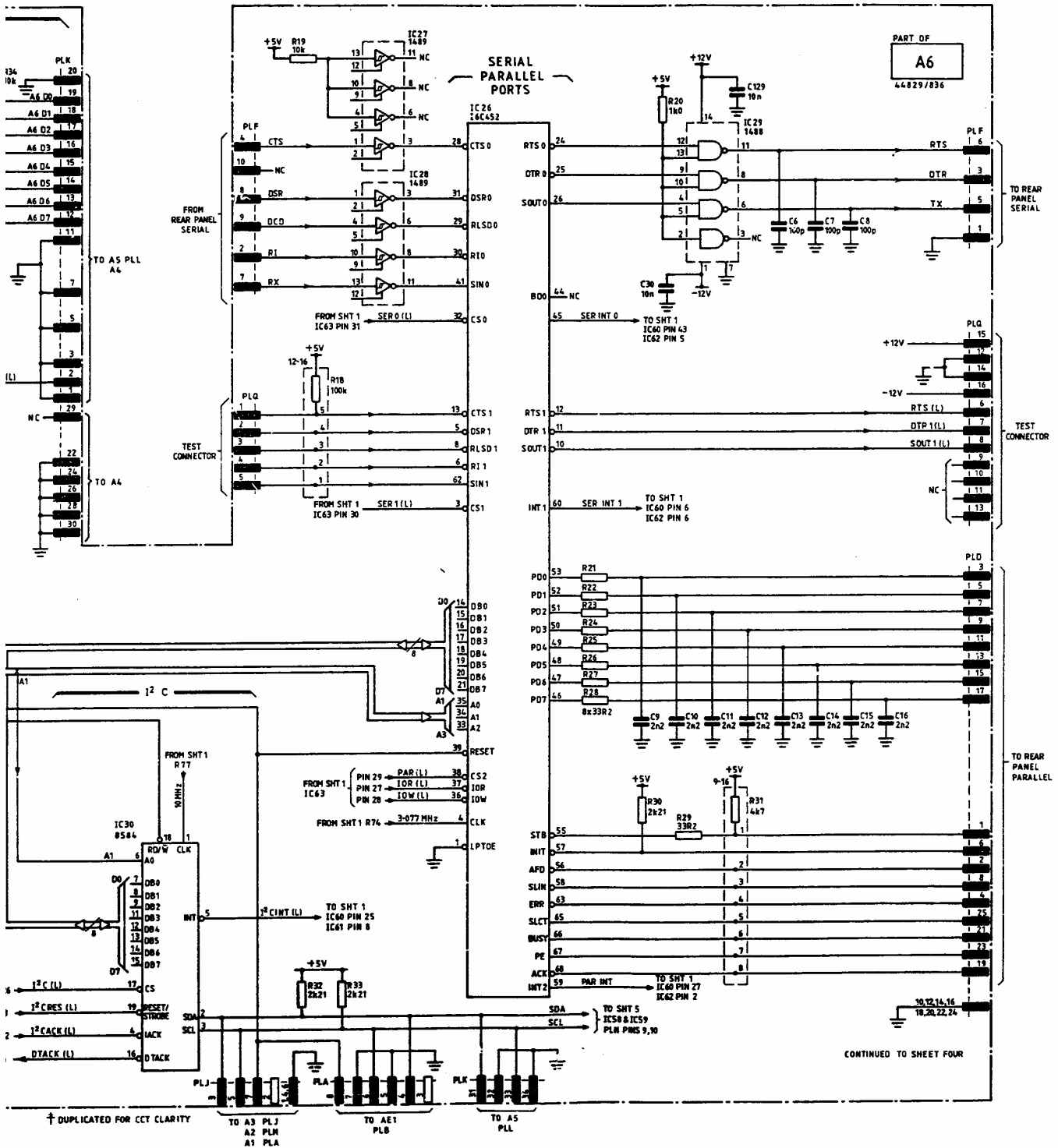


Fig. 7-97 A6 A4/A5 bridge, serial/parallel port controller, real-time clock - circuit

STEP ATTENUATOR DRIVERS

