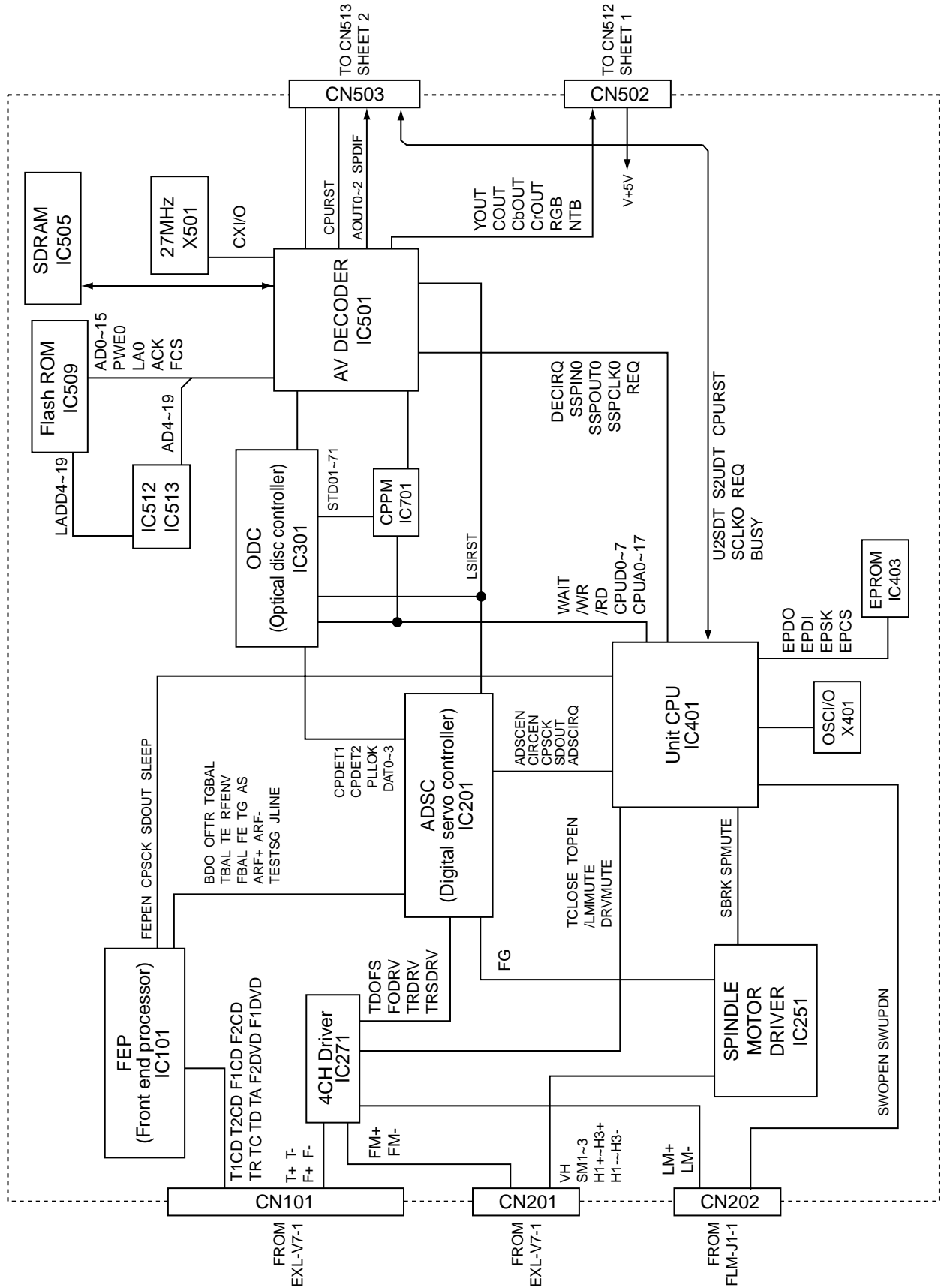


Safety precaution

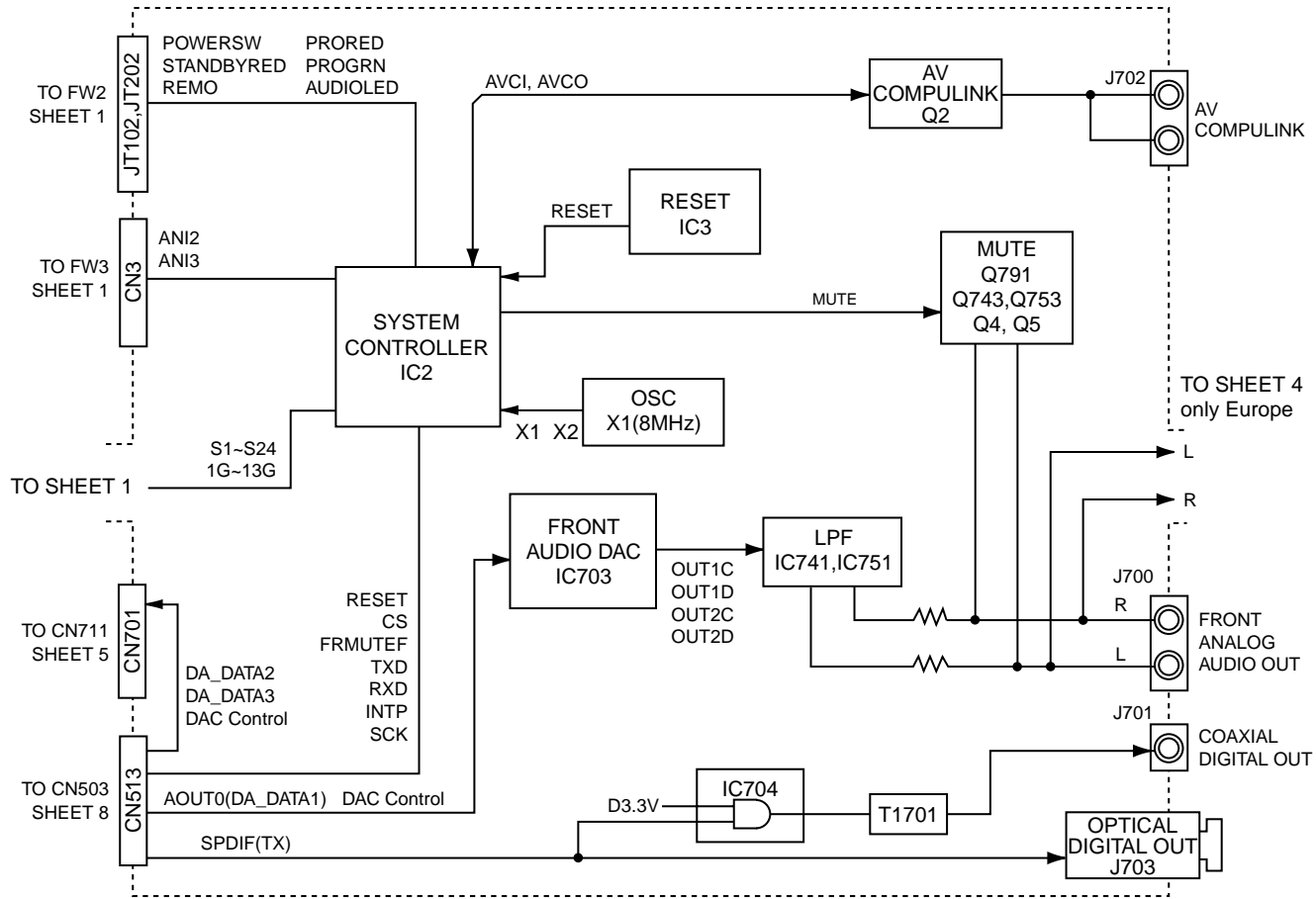
In regard with component parts appearing on the silk-screen printed side (parts side) of the PWB diagrams, the parts that are printed over with black such as the resistor (■), diode (⬤) and ICP (●) or identified by the "⚠" mark nearby are critical for safety. When replacing them, be sure to use the parts of the same type and rating as specified by the manufacturer. (Except the JC version)

Block diagrams

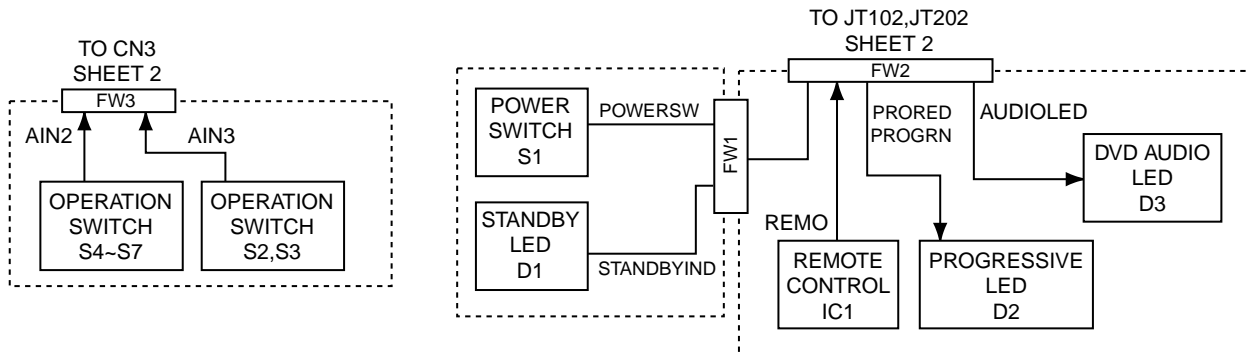
■ DVD Servo control & AV decoder section (SHEET 6,7,8)



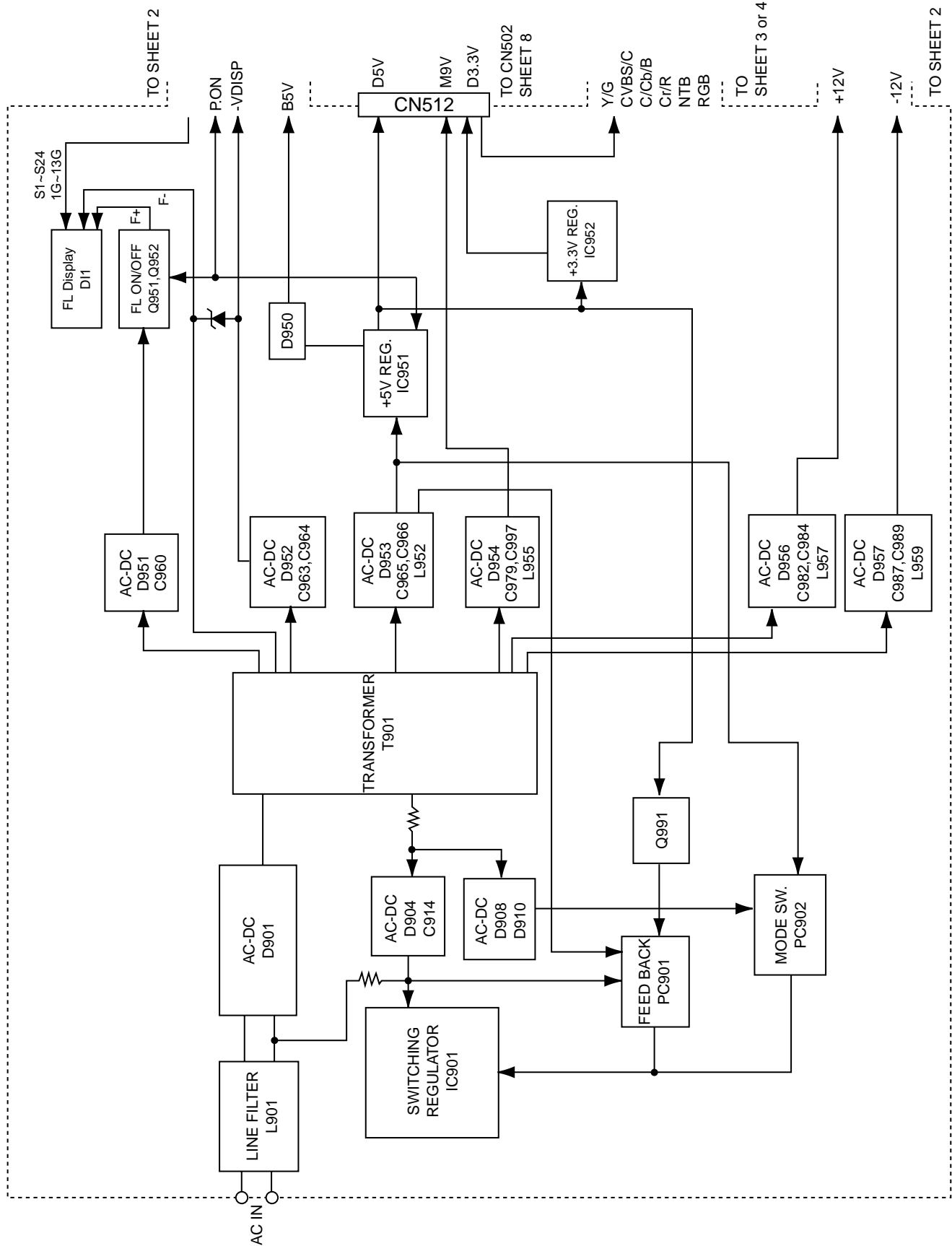
■ System control & audio signal output section (SHEET 2)



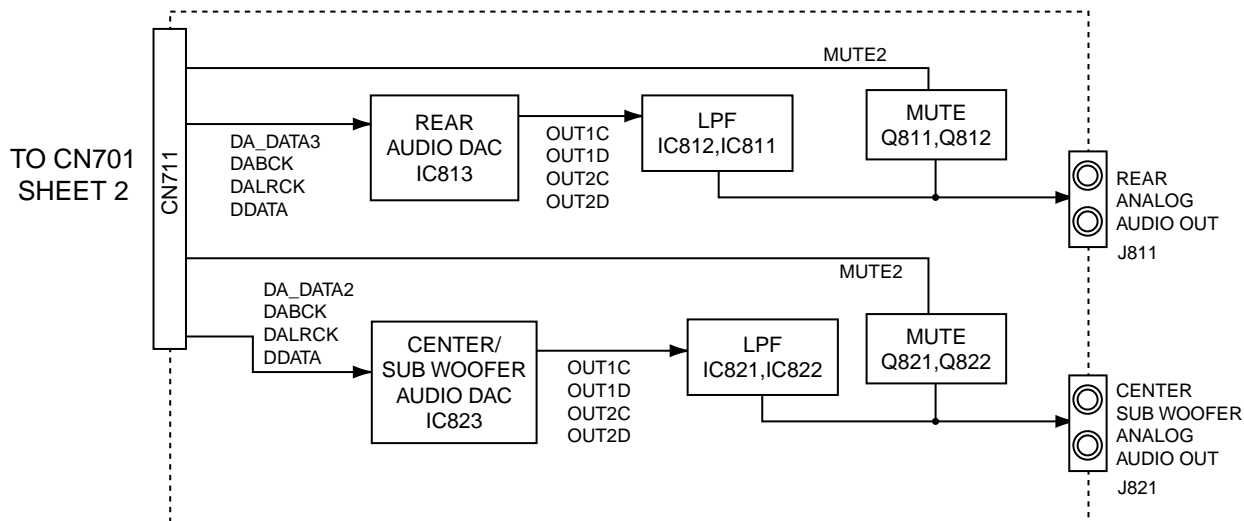
■ Operation switch section (SHEET 1)



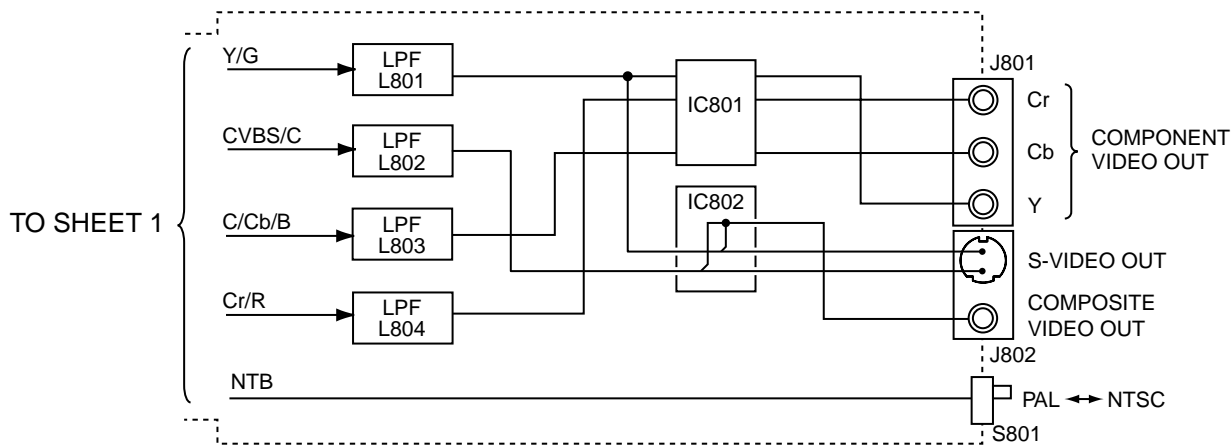
■ DC Regulator section (SHEET 1)



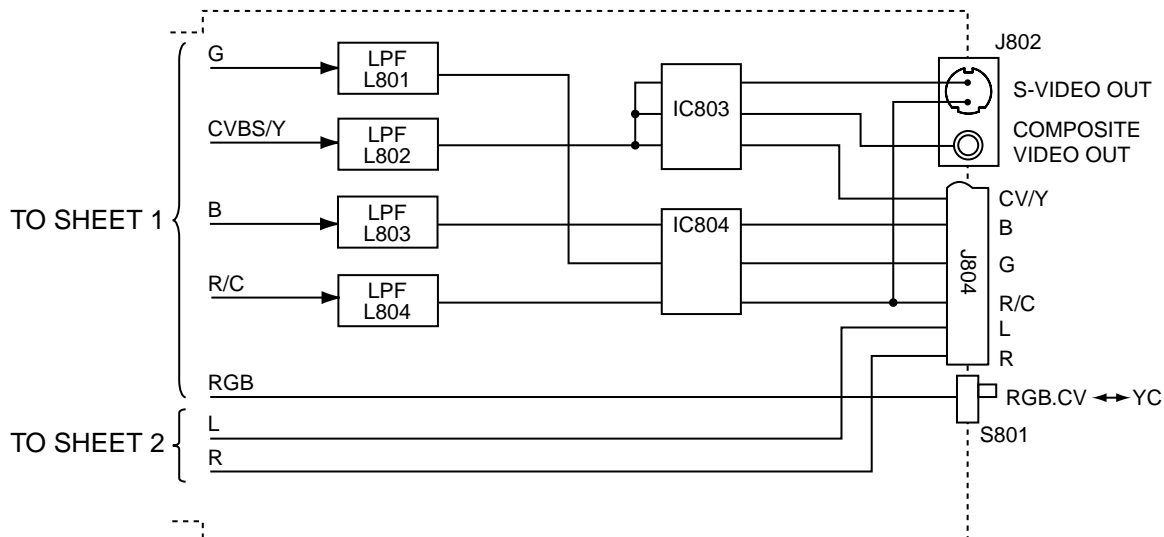
■ Surround audio signal output section (SHEET 5)



■ Video signal output section (SHEET 3 for Asia area)



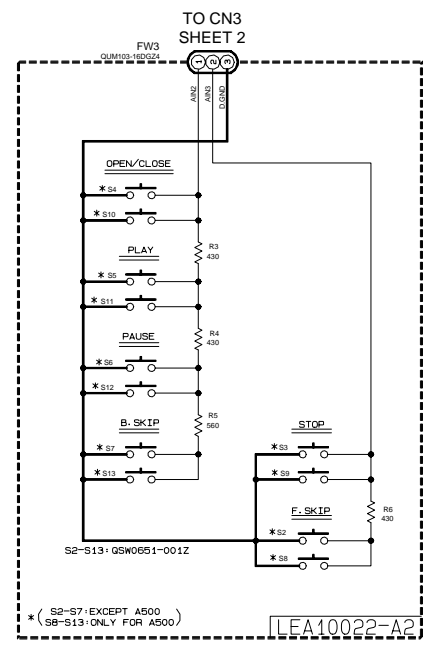
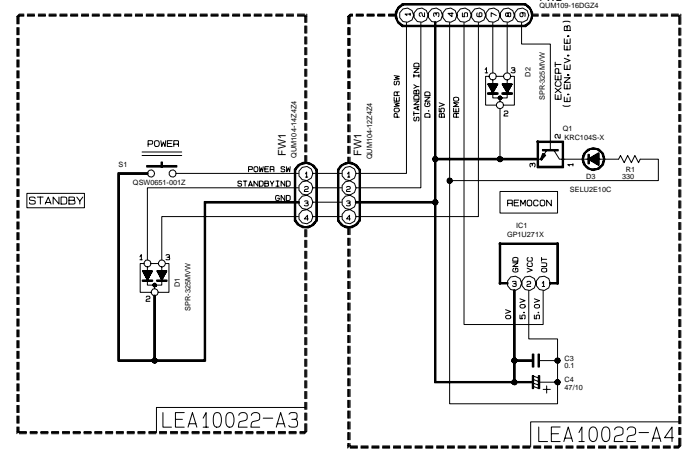
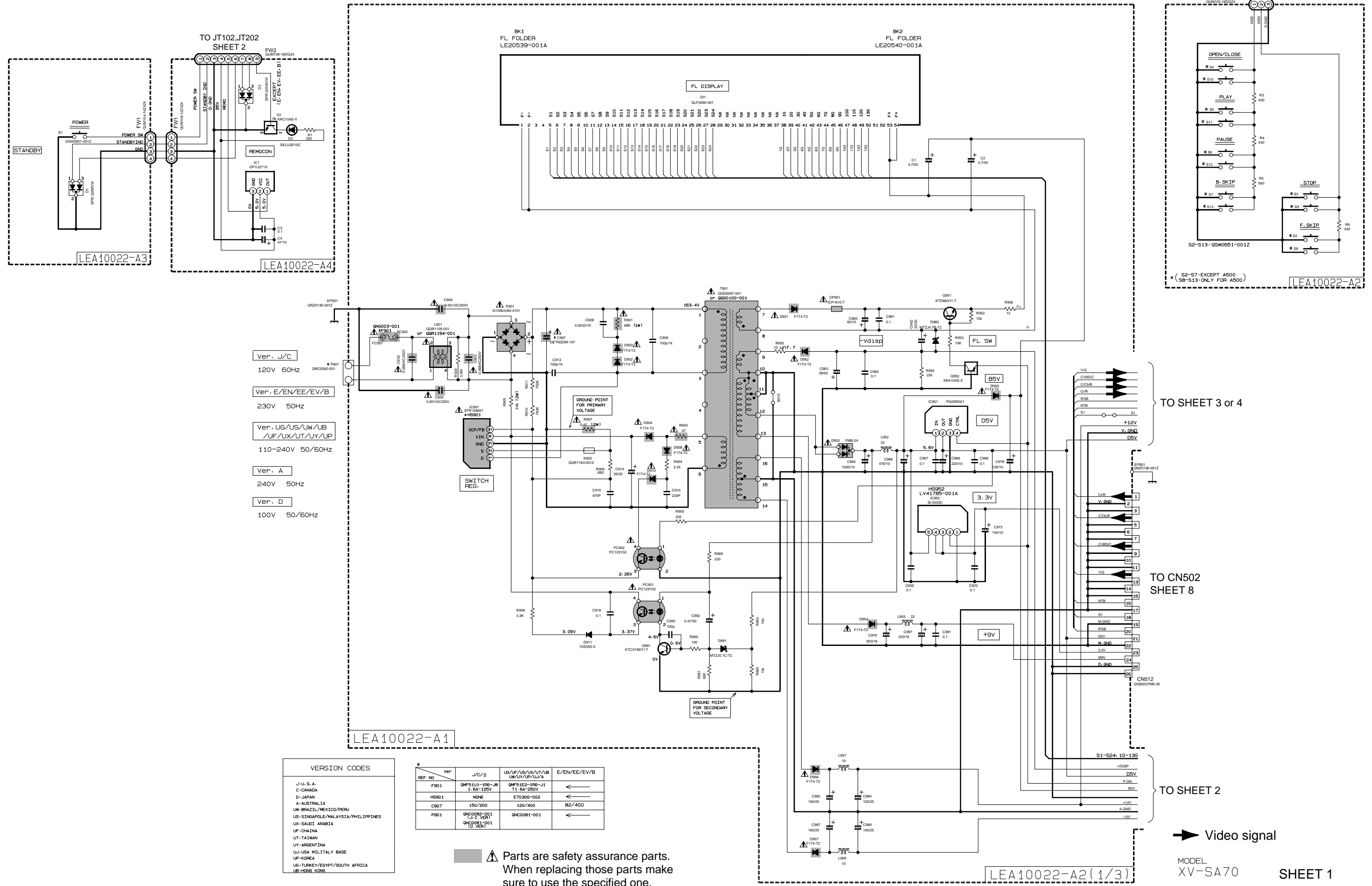
■ Video signal output section (SHEET 4 for Europe area)



Standard schematic diagrams

FL Display & Power supply section

5
4
3
2
1



- Ver. J/C
120V 60Hz
- Ver. E/EN/EE/EV/B
230V 50Hz
- Ver. UG/US/UW/UB
/UF/UX/UT/UY/UP
110-240V 50/60Hz
- Ver. A
240V 50Hz
- Ver. D
100V 50/60Hz

VERSION CODES	
J:U.S.A.	
C:CANADA	
D:JAPAN	
A:AUSTRALIA	
UK:IRAQI/MEXICO/PERU	
US:SINGAPOLE/MALAYSIA/PHILIPPINES	
UK:SAUDI ARABIA	
UF:CHINA	
UT:TAINAN	
UY:ARGENTINA	
UJ:USA MILITARY BASE	
UP:KOREA	
US:TURKEY/EGYPT/SOUTH AFRICA	
UR:INDONESIA	

REF. NO.	Ver.	J/C/D	UG/AF/AS/AX/UT/AB UK/UY/UP/UA/A	E/EN/EE/EV/B
F901	QNF51U1-1R6-JB T.1.6A-125V	←	QNF51E2-1R6-J1 T.1.6A-250V	←
H901	NDNE	←	E70306-002	←
C907	150/200	←	120/400	B2/400
P901	QNC0086-001 QNC0087-001 QNC0088-001 TO VER1	←	QNC0081-001	←

Parts are safety assurance parts. When replacing those parts make sure to use the specified one.

TO SHEET 3 or 4

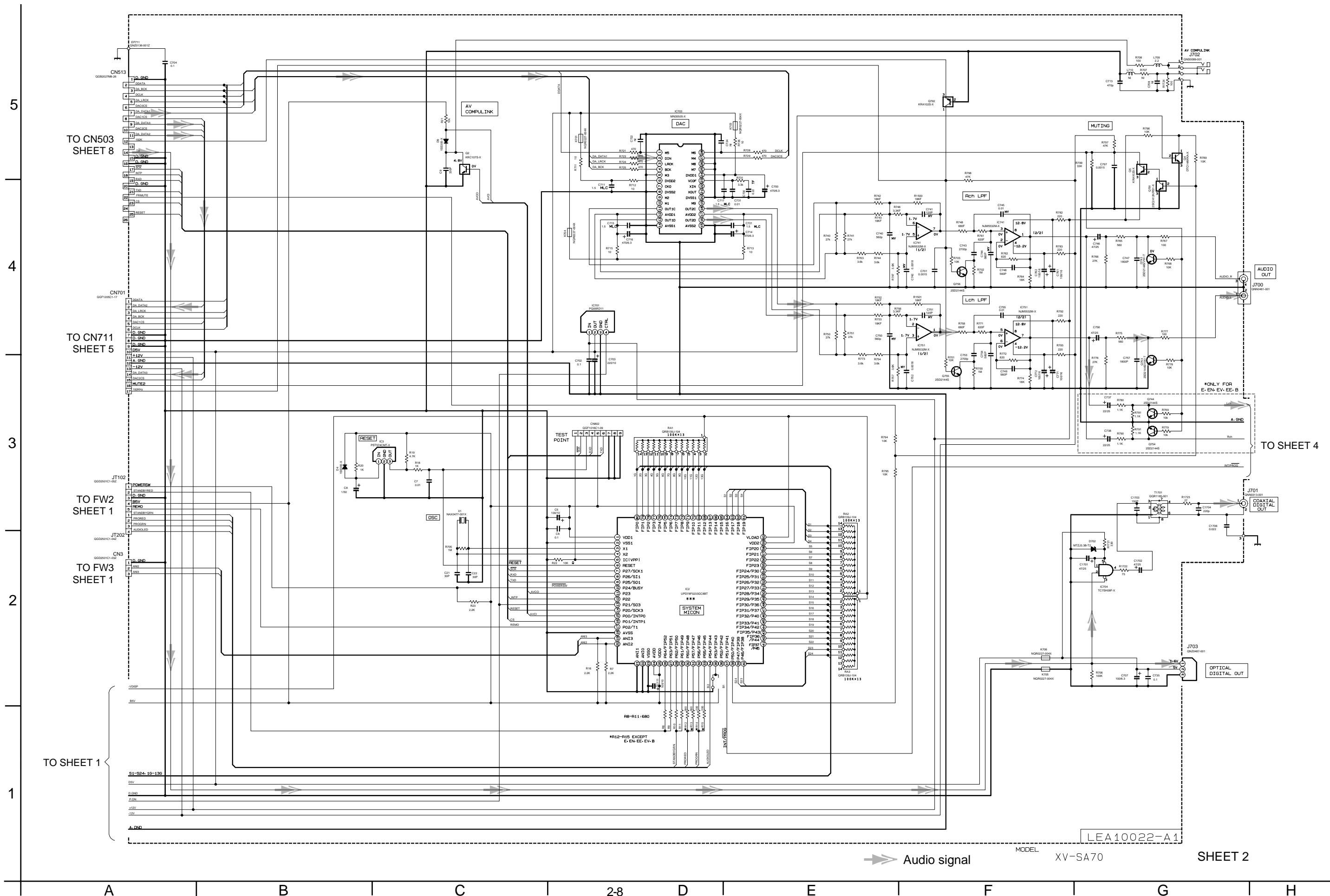
TO CN502 SHEET 8

TO SHEET 2

Video signal

MODEL XV-SA70 SHEET 1

System control & audio signal output section



LEA10022-A1

Audio signal MODEL XV-SA70

SHEET 2

5
4
3
2
1

TO CN503 SHEET 8

TO CN711 SHEET 5

TO FW2 SHEET 1

TO FW3 SHEET 1

TO SHEET 1

TO SHEET 4

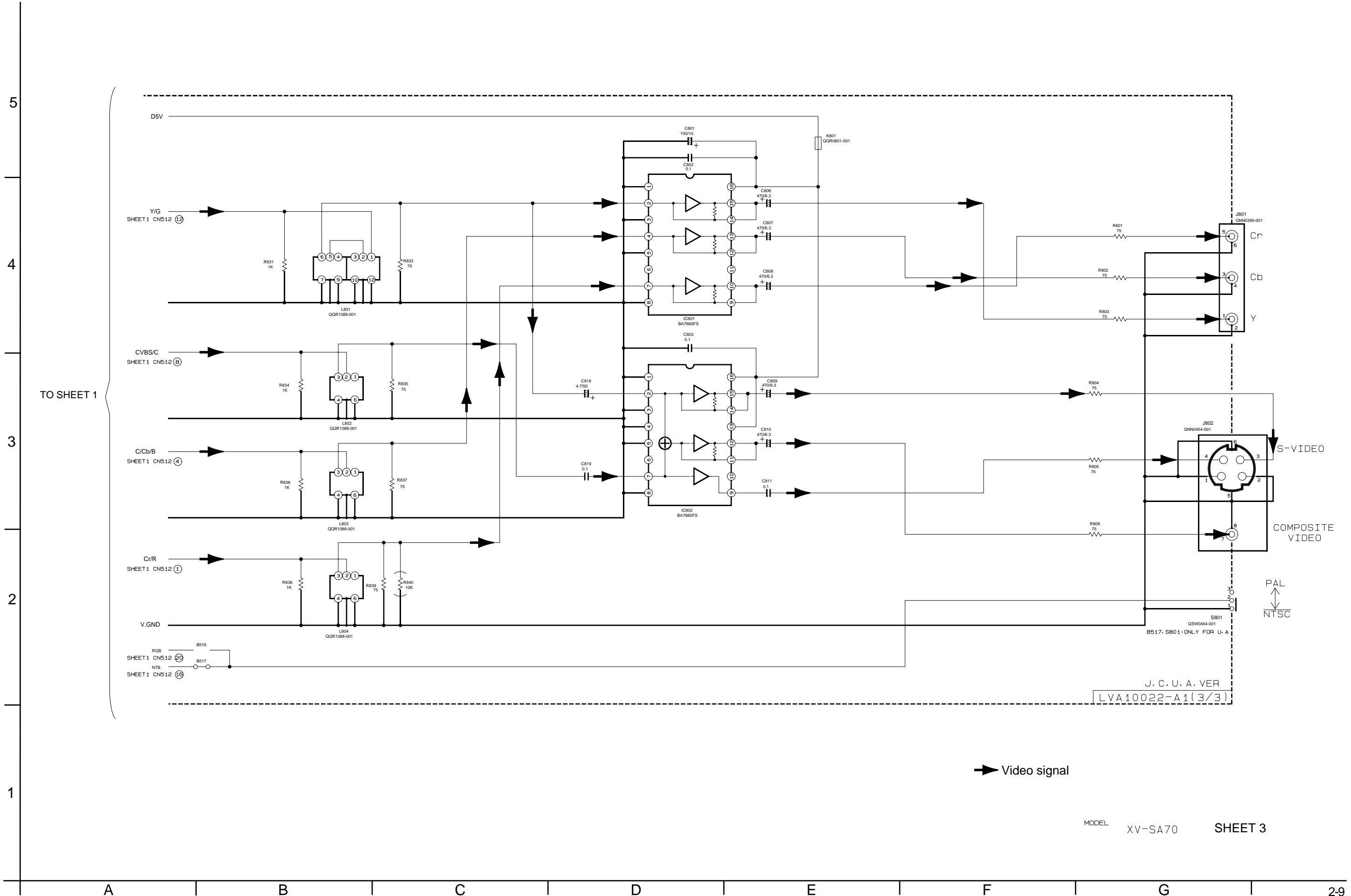
COAXIAL DIGITAL OUT

OPTICAL DIGITAL OUT

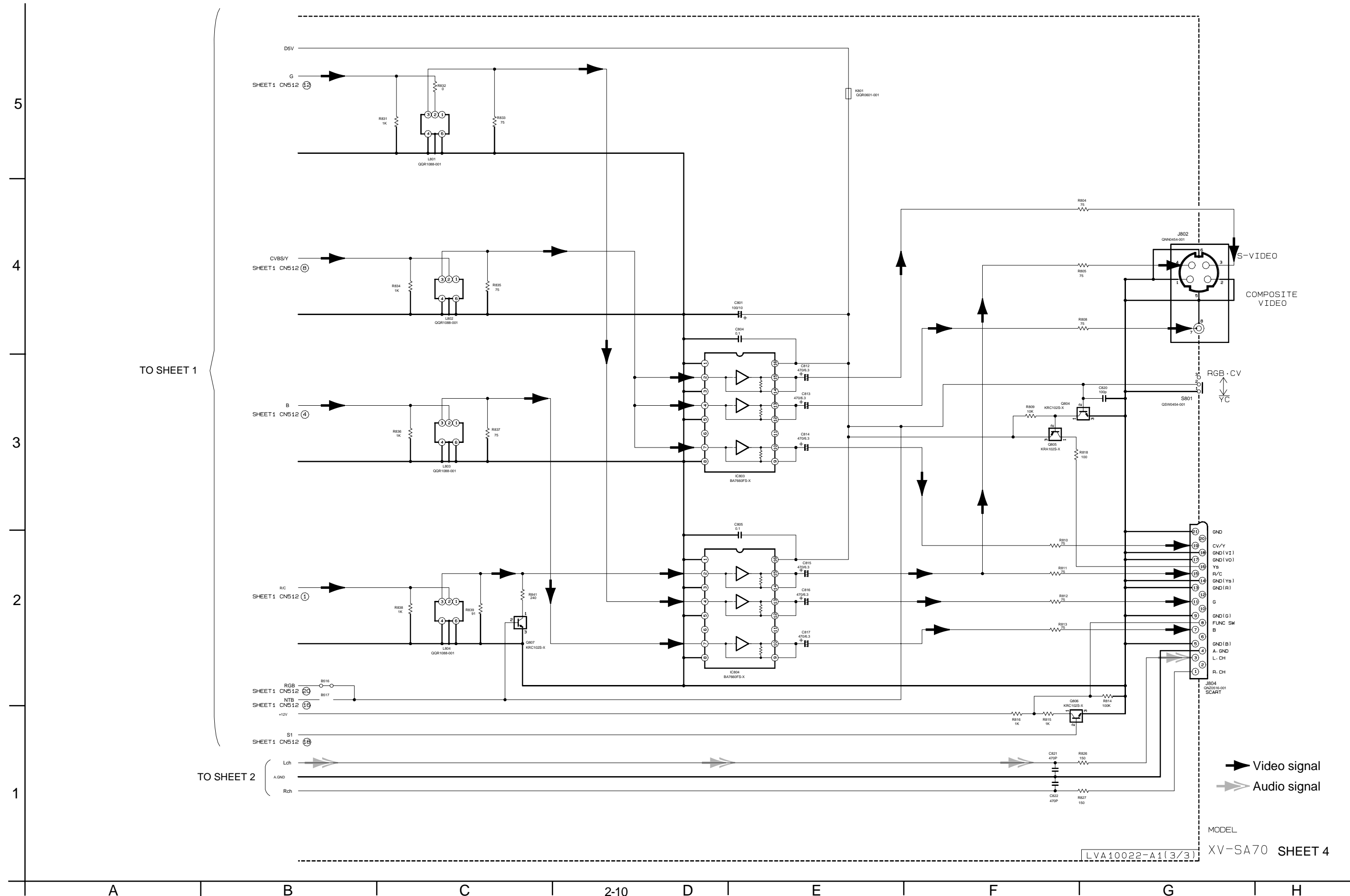
SHEET 2

A B C D E F G H

Video signal output section (For ver. J,C,U,A)



Video signal output terminal section (For europe)



TO SHEET 1

TO SHEET 2

→ Video signal
 ⇨ Audio signal

5

4

3

2

1

A

B

C

2-10

D

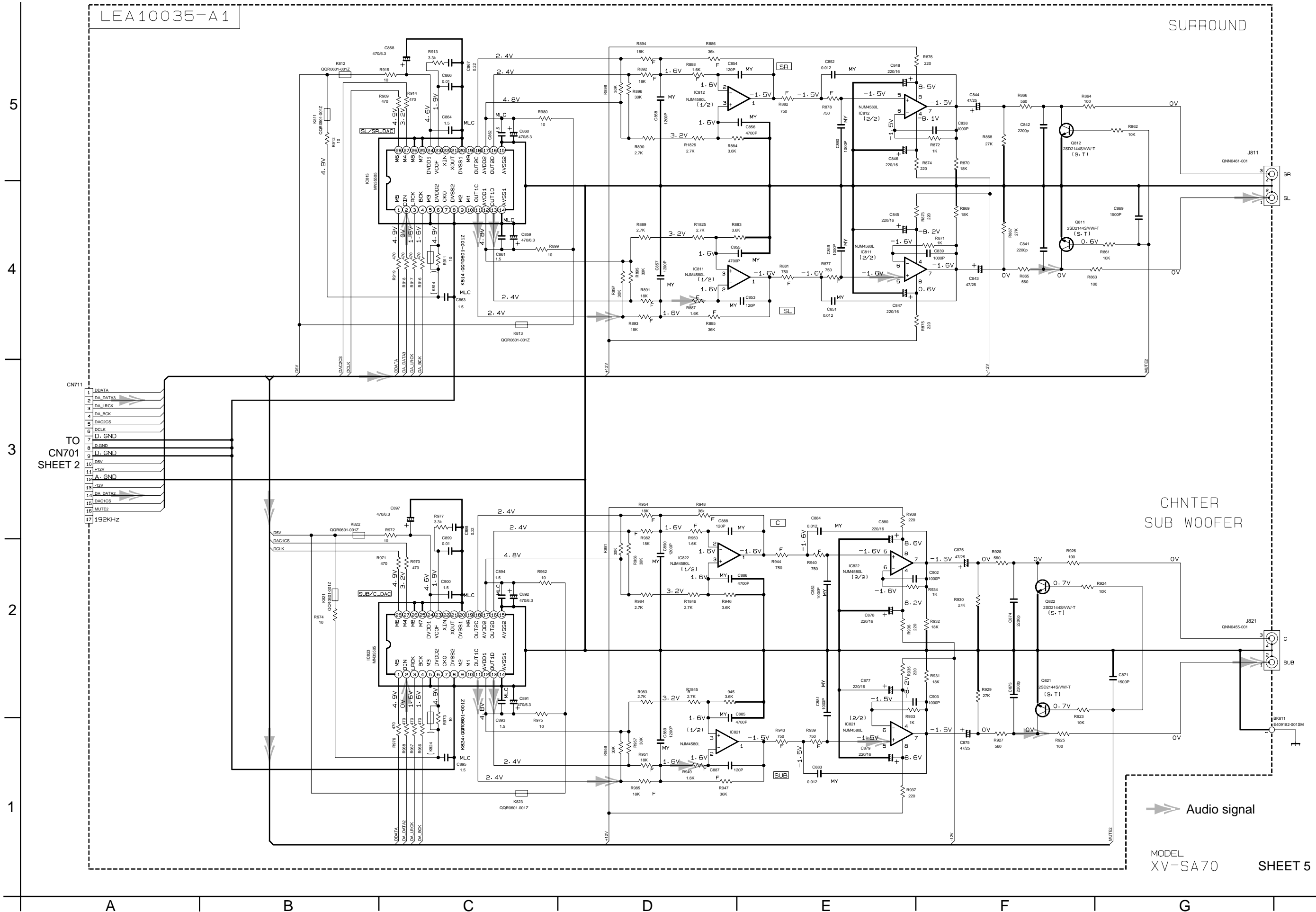
E

F

G

H

Surround audio signal output section



LEA10035-A1

SURROUND

CENTER SUB WOOFER

Audio signal

MODEL XV-SA70 SHEET 5

5

4

3

2

1

TO CN701 SHEET 2

- 1 DDATA
- 2 DA DATA3
- 3 DA LRCK
- 4 DA BCK
- 5 DAC2CS
- 6 DCLK
- 7 D_GND
- 8 D_GND
- 9 D_GND
- 10 DEV
- 11 +12V
- 12 A_GND
- 13 -12V
- 14 DA DATA2
- 15 DAC1CS
- 16 MUTEZ
- 17 192KHZ

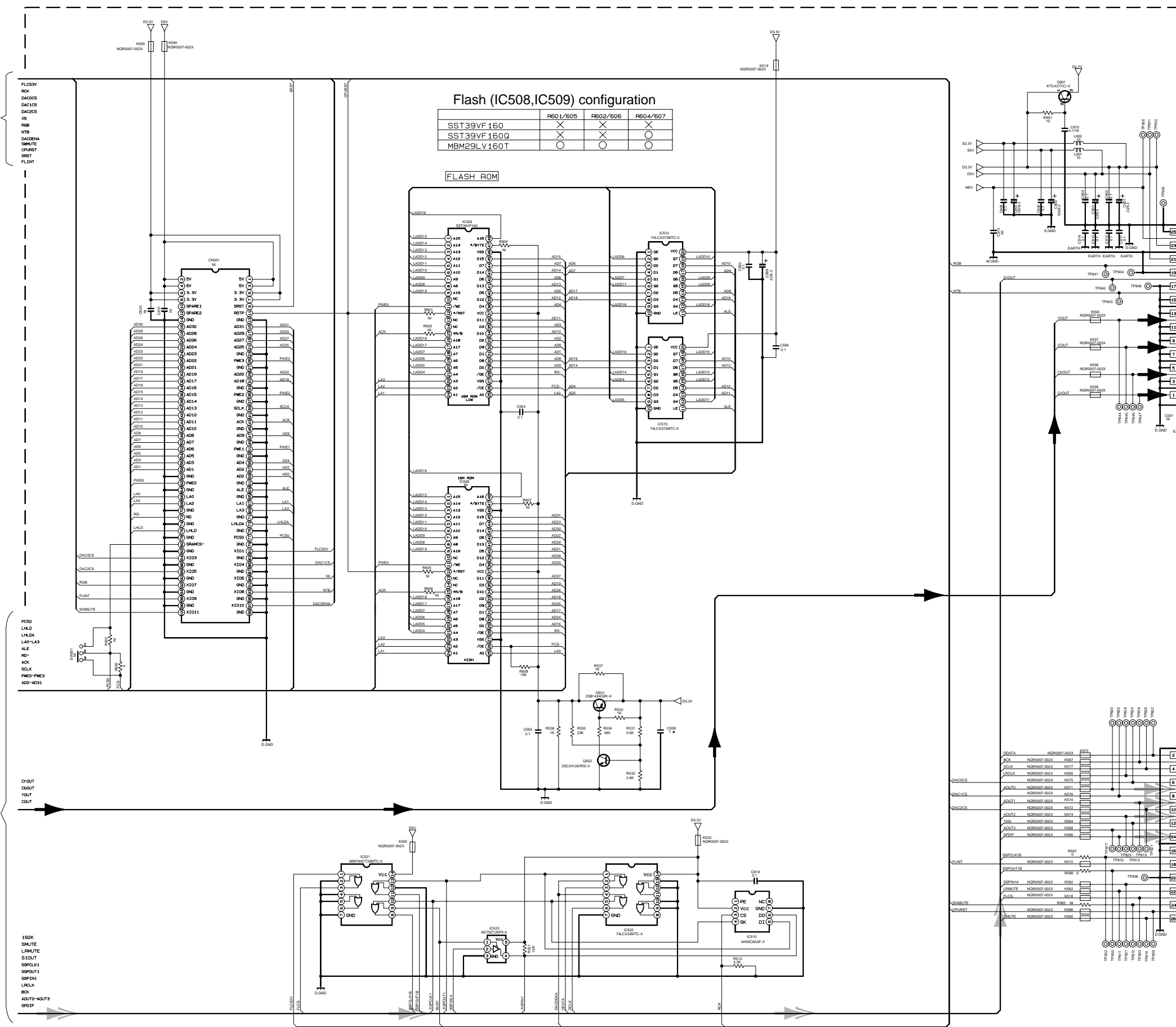
Flash ROM section

TO SHEET 7

Flash (IC508,IC509) configuration

	REG L/605	REG2/606	REG4/607
SST39VF160	X	X	X
SST39VF160Q	X	X	X
MBM29LV160T	O	O	O

FLASH ROM



RS0
LHLD
LHLD.A
ALE
RD-
ADK
SCLK
PWE0-PWE3
AD0-AD31

CS-OUT
CS-OUT
YOUT
COUT

192K
SMUTE
LHLD.A
S1OUT
SPCLK1
SPCLK1
SPCLK1
LHLD.A
BCK
ADULT0-ADULT3
SPCLK

TO CN512 SHEET 1

TO CN513 SHEET 2

Audio signal Video signal

■ Voltage value section (SHEET 6~8)

IC101

NO	DC (V)	NO	DC (V)
1	0V	51	2.2V
2	4.2V	52	2.2V
3	0V	53	2.2V
4	4.3V	54	2.2V
5	1.7V	55	4.8V
6	1.7V	56	2.2V
7	1.7V	57	2.2V
8	4.1V	58	2.2V
9	3.3V	59	2.2V
10	0V	60	2.2V
11	4.9V	61	0V
12	4.9V	62	2.2V
13	4.9V	63	2.2V
14	4.9V	64	1.6V
15	1.2V		
16	1.7V		
17	1.7V		
18	1.7V		
19	1.7V		
20	1.7V		
21	1.7V		
22	1.7V		
23	0V		
24	1.7V		
25	3.3V		
26	0V		
27	2.1V		
28	4.8V		
29	4.8V		
30	2.1V		
31	2.1V		
32	2.0V		
33	0V		
34	1.3V		
35	2.4V		
36	3.3V		
37	1.9V		
38	2.4V		
39	0V		
40	0V		
41	1.7V		
42	1.5V		
43	1.6V		
44	1.1V		
45	2.5V		
46	2.1V		
47	2.1V		
48	2.1V		
49	2.2V		
50	2.2V		

IC102

NO	DC (V)
1	0V
2	5.0V
3	0V
4	0V
5	0V

IC201

NO	DC (V)	NO	DC (V)
1	1.7V	51	1.7V
2	1.7V	52	1.7V
3	1.7V	53	3.2V
4	3.2V	54	0V
5	1.7V	55	0V
6	1.7V	56	0V
7	0V	57	0V
8	1.6V	58	2.6V
9	1.6V	59	0V
10	1.5V	60	0V
11	1.5V	61	0V
12	1.7V	62	0V
13	1.5V	63	0V
14	3.2V	64	0V
15	1.7V	65	0V
16	2.7V	66	0V
17	0.2V	67	3.3V
18	2.2V	68	1.7V
19	1.5V	69	3.3V
20	0V	70	2.5V
21	1.6V	71	0V
22	1.6V	72	0V
23	1.5V	73	0V
24	1.7V	74	0V
25	1.5V	75	3.3V
26	2.1V	76	1.7V
27	3.2V	77	1.1V
28	1.4V	78	1.1V
29	0V	79	1.1V
30	0V	80	1.1V
31	1.7V	81	0V
32	0V	82	3.3V
33	1.7V	83	3.3V
34	1.7V	84	4.8V
35	0.1V	85	4.9V
36	1.6V	86	4.9V
37	1.7V	87	3.3V
38	3.2V	88	4.9V
39	1.6V	89	4.9V
40	1.6V	90	0.5V
41	0V	91	1.7V
42	1.7V	92	2.5V
43	1.7V	93	3.3V
44	1.7V	94	0.7V
45	0V	95	0V
46	3.3V	96	2.6V
47	0V	97	1.8V
48	1.7V	98	1.6V
49	0V	99	1.6V
50	0.3V	100	1.7V

IC271

NO	DC (V)
1	0V
2	3.9V
3	3.4V
4	5.7V
5	3V
6	0V
7	0V
8	1.37V
9	3.9V
10	3.4V
11	0V
12	3.4V
13	4.5V
14	5.7V
15	3V
16	0V
17	0V
18	0V
19	0V
20	1.37V
21	0V
22	1.37V
23	1.37V
24	0V
25	0V
26	3.16V
27	1.37V
28	0V
29	1.41V
30	2.37V
31	2.56V
32	0V
33	2.39V
34	2.56V
35	1.34V
36	1.37V
37	4.93V
38	0V
39	9V
40	1.37V
41	3.2V
42	3V

IC301

NO	DC (V)	NO	DC (V)	NO	DC (V)
1	3.3V	51	1.0V	101	1.6V
2	3.3V	52	1.0V	102	3.3V
3	3.3V	53	3.6V	103	0V
4	3.3V	54	3.8V	104	3.3V
5	0V	55	1.0V	105	3.3V
6	3.3V	56	0V	106	3.3V
7	3.3V	57	0.7V	107	0V
8	0V	58	4.9V	108	0V
9	3.3V	59	4.9V	109	2.5V
10	3.6V	60	4.4V	110	0V
11	3.3V	61	3.3V	111	1.7V
12	3.3V	62	1.2V	112	1.1V
13	3.3V	63	2.4V	113	1.1V
14	3.3V	64	0V	114	1.1V
15	3.3V	65	0V	115	1.1V
16	3.3V	66	2.6V	116	3.3V
17	3.3V	67	0V	117	3.3V
18	0V	68	1.0V	118	3.3V
19	0V	69	2.1V	119	0V
20	3.3V	70	1.0V	120	0V
21	3.3V	71	0V	121	0V
22	4.5V	72	2.3V	122	0V
23	4.5V	73	0.8V	123	0V
24	0V	74	0.8V	124	3.3V
25	0.1V	75	1.7V	125	2.6V
26	4.9V	76	3.3V	126	1.3V
27	4.9V	77	0V	127	0V
28	1.4V	78	3.3V	128	1.4V
29	0V	79	0V	129	1.1V
30	3.3V	80	3.3V	130	3.3V
31	0V	81	0V	131	1.6V
32	3.3V	82	0V	132	3.3V
33	0V	83	0V	133	0V
34	0V	84	0V	134	0V
35	0V	85	4.8V	135	3.3V
36	2.6V	86	2.6V	136	1.3V
37	0V	87	1.7V	137	0V
38	0.3V	88	0V	138	3.3V
39	0V	89	0V	139	1.3V
40	4.1V	90	0V	140	1.0V
41	4.3V	91	0V	141	1.1V
42	4.2V	92	3.3V	142	0V
43	1.6V	93	0V	143	3.3V
44	2.6V	94	3.3V	144	3.3V
45	3.3V	95	0V		
46	3.6V	96	3.3V		
47	3.7V	97	0V		
48	3.8V	98	0V		
49	3.7V	99	0V		
50	3.8V	100	1.6V		

IC401

NO	DC (V)	NO	DC (V)
1	5.0V	51	0.6V
2	5.0V	52	5.0V
3	5.0V	53	5.0V
4	5.0V	54	5.0V
5	0V	55	5.0V
6	5.0V	56	5.0V
7	5.0V	57	0V
8	4.4V	58	0V
9	0V	59	5.0V
10	0V	60	0V
11	4.9V	61	0V
12	5.0V	62	0V
13	0V	63	0V
14	0V	64	0V
15	2.1V	65	0V
16	1.9V	66	5.0V
17	5.0V	67	4.8V
18	2.3V	68	3.8V
19	0V	69	4.8V
20	0V	70	5.0V
21	5.0V	71	0V
22	5.0V	72	5.0V
23	2.4V	73	5.0V
24	3.2V	74	5.0V
25	5.0V	75	5.0V
26	2.2V	76	5.0V
27	1.8V	77	5.0V
28	2.1V	78	3.1V
29	1.7V	79	0V
30	3.5V	80	5.0V
31	3.5V	81	5.0V
32	2.1V	82	4.9V
33	2V	83	5.0V
34	5.0V	84	5.0V
35	2.6V	85	0V
36	4.3V	86	0V
37	4V	87	0V
38	0V	88	5.0V
39	5V	89	5.0V
40	0V	90	5.0V
41	0V	91	5.0V
42	0V	92	0V
43	0V	93	1.1V
44	0V	94	1.5V
45	0V	95	0V
46	0V	96	0V
47	0V	97	2.3V
48	5V	98	2.3V
49	0V	99	2.3V
50	5.0V	100	2.4V

IC403

NO	DC (V)
1	4.9V
2	5.0V
3	0V
4	0V
5	0V
6	1.0V
7	0V
8	0V

IC701

NO	DC (V)	NO	DC (V)
1	3.2V	51	3.2V
2	0V	52	0V
3	0.2V	53	3.2V
4	0.2V	54	3.2V
5	0V	55	3.2V
6	0.1V	56	0V
7	0.1V	57	0V
8	0V	58	3.2V
9	0.1V	59	0V
10	0V	60	3.1V
11	3.2V	61	3.1V
12	0V	62	3.2V
13	0.6V	63	3.2V
14	1.4V	64	0V
15	1.4V	65	0V
16	1.4V	66	0V
17	1.5V	67	0V
18	1.8V	68	3.2V
19	2.0V	69	0V
20	2.1V	70	3.2V
21	3.2V	71	3.0V
22	0V	72	1.5V
23	3.2V	73	1.5V
24	3.2V	74	0V
25	3.2V	75	3.2V
26	0.2V	76	0V
27	3.2V	77	1.3V
28	3.2V	78	1.0V
29	3.2V	79	3.2V
30	0V	80	0V
31	3.2V	81	3.2V
32	0V	82	0V
33	0V	83	0V
34	0V	84	3.2V
35	0V	85	1.6V
36	0V	86	0V
37	0V	87	3.2V
38	0V	88	3.2V
39	0V	89	0V
40	3.1V	90	3.2V
41	3.2V	91	3.2V
42	3.2V	92	0V
43	0V	93	0V
44	3.2V	94	0V
45	0V	95	0V
46	1.5V	96	0V
47	3.1V	97	3.1V
48	0V	98	0V
49	3.2V	99	3.1V
50	0V	100	0V

IC501

NO	DC (V)	NO	DC (V)	NO	DC (V)	NO	DC (V)	NO	DC (V)
1	3.3V	51	0V	101	1.8V	151	0V	201	0V
2	0V	52	0V	102	3.3V	152	0V	202	3.2V
3	0V	53	3.3V	103	0V	153	0V	203	3.2V
4	1.8V	54	0V	104	0V	154	3.3V	204	0V
5	0V	55	0V	105	0V	155	0V	205	5V
6	0V	56	0V	106	0V	156	3.3V	206	3.2V
7	0V	57	0V	107	3.3V	157	0V	207	3.2V
8	0V	58	0V	108	1.8V	158	0V	208	3.2V
9	0V	59	0V	109	0V	159	1.8V	209	0V
10	3.3V	60	0V	110	0V	160	1.8V	210	3.3V
11	0V	61	0V	111	0V	161	3.		

Printed circuit boards

■ Main board

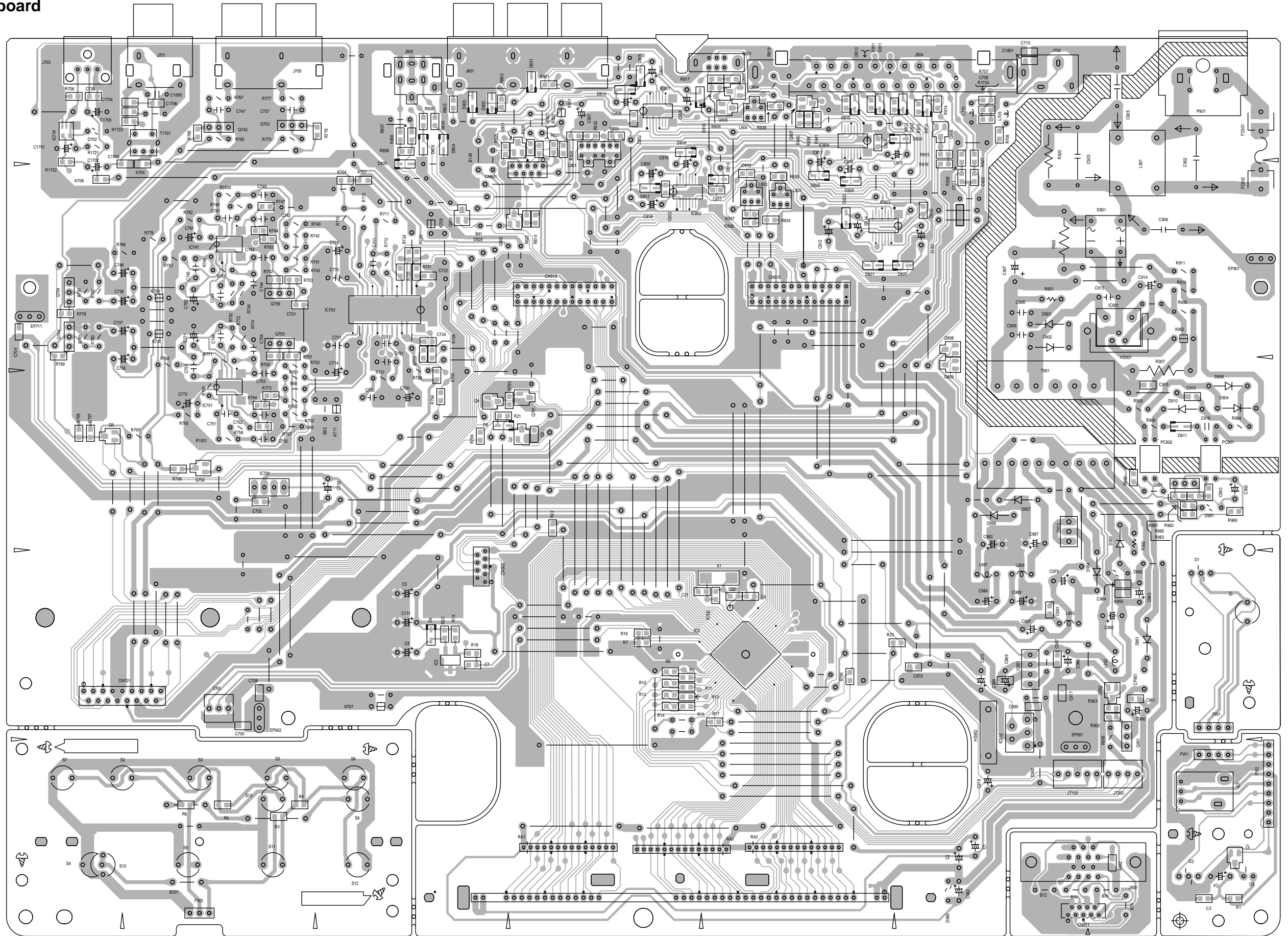
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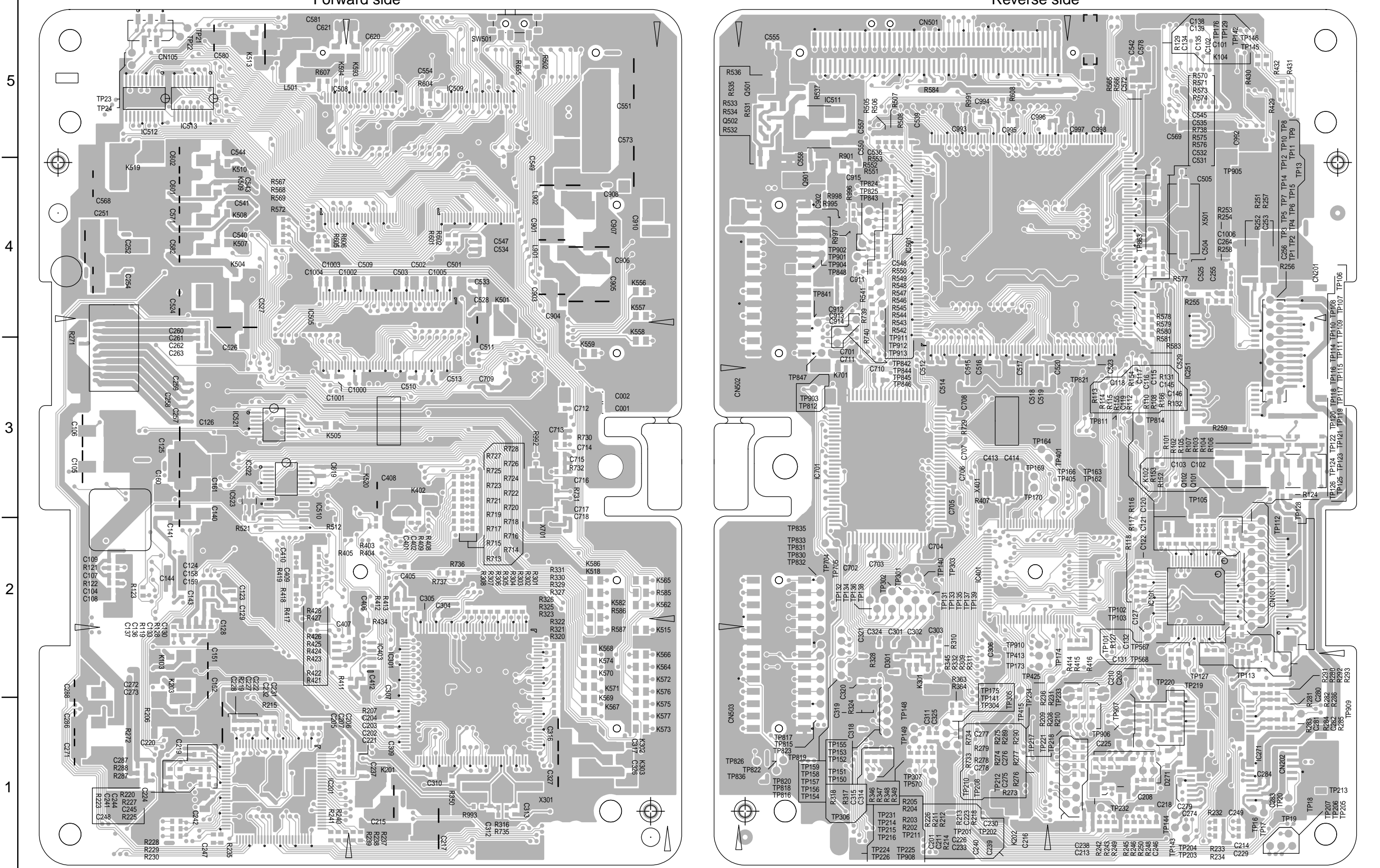
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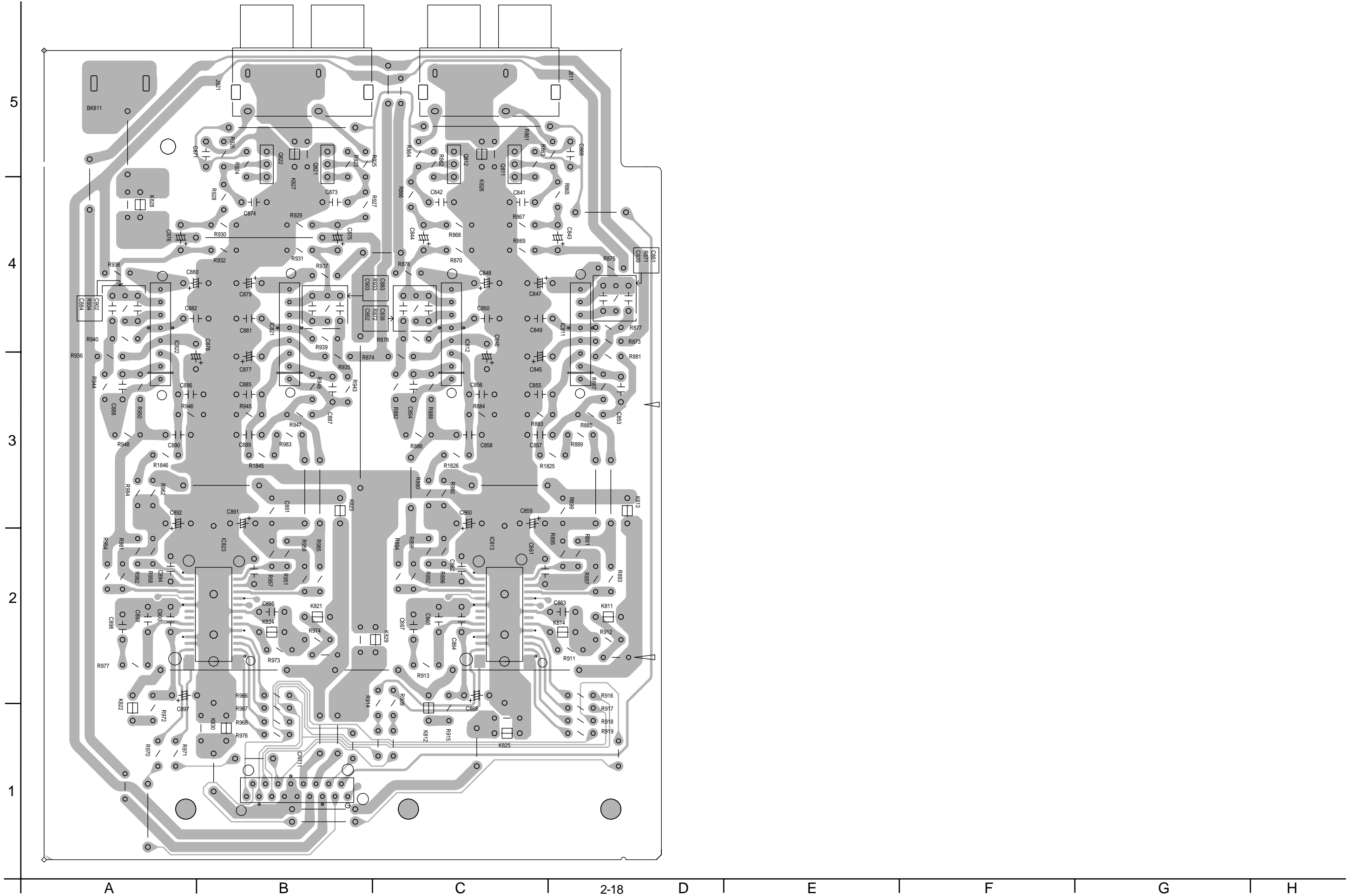
DVD Servo control board

Forward side

Reverse side



■ Surround audio board



< M E M O >