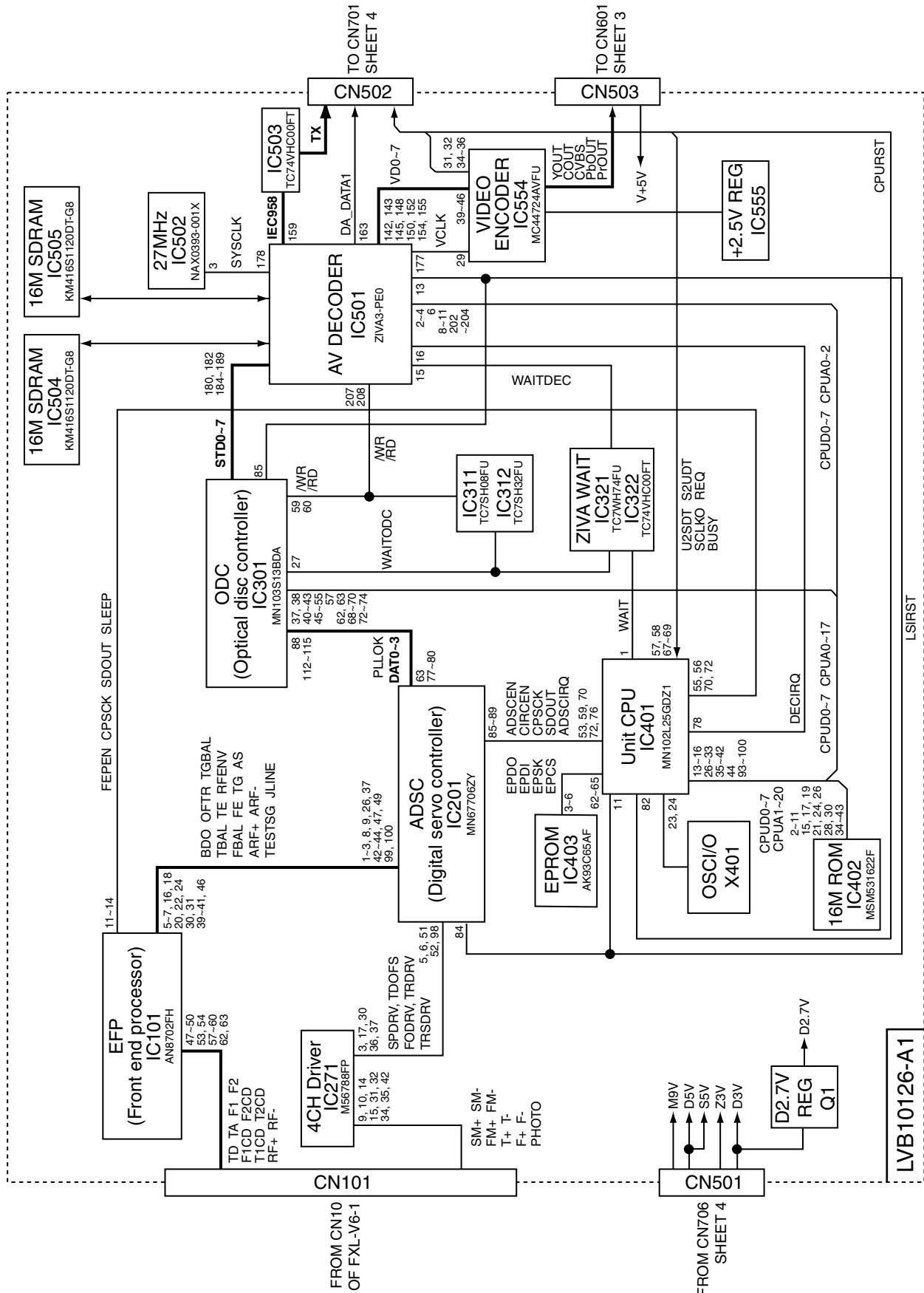


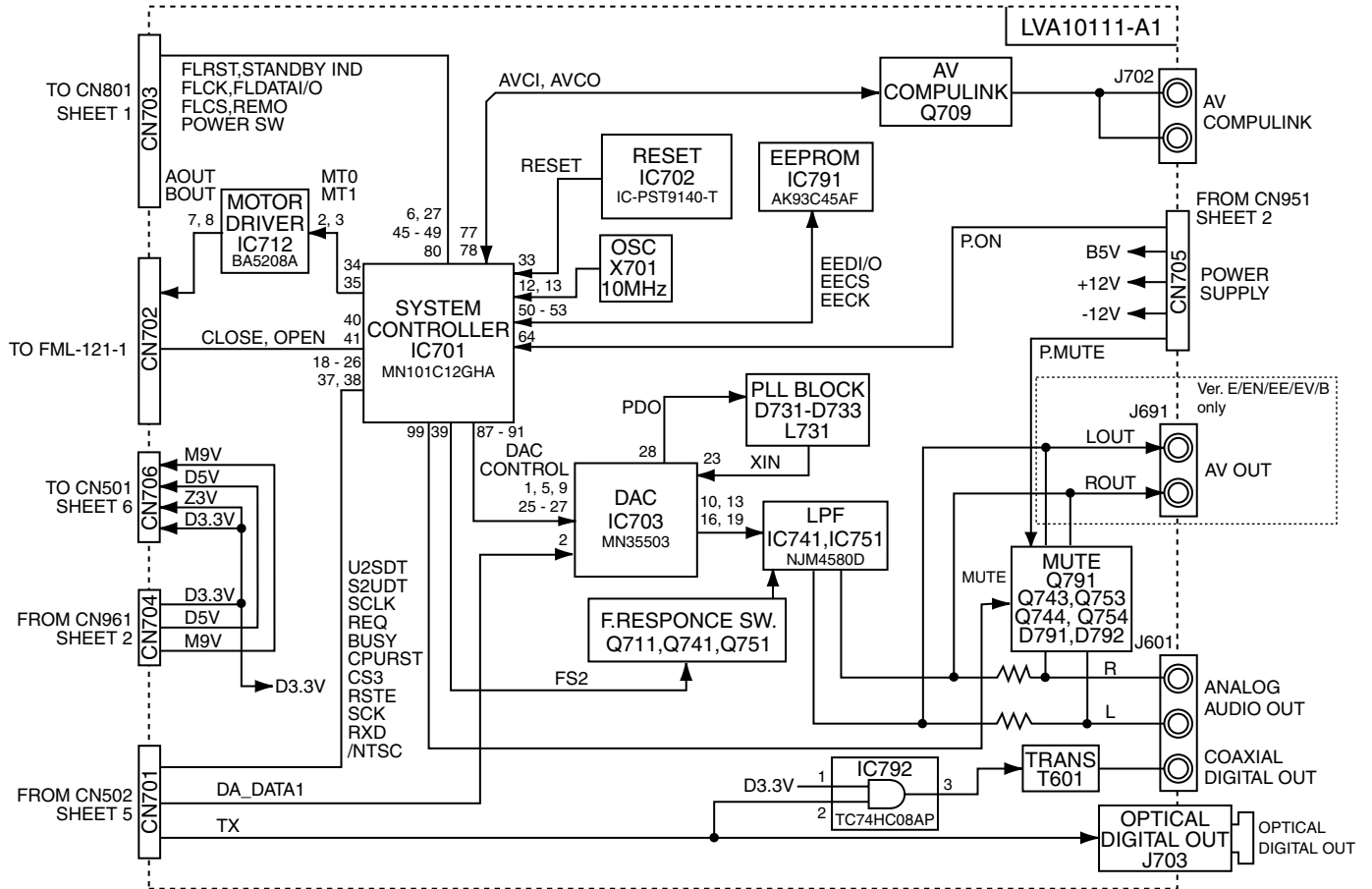
# Block diagrams

## ■ DVD Servo control and DSP section (SHEET 5,6)

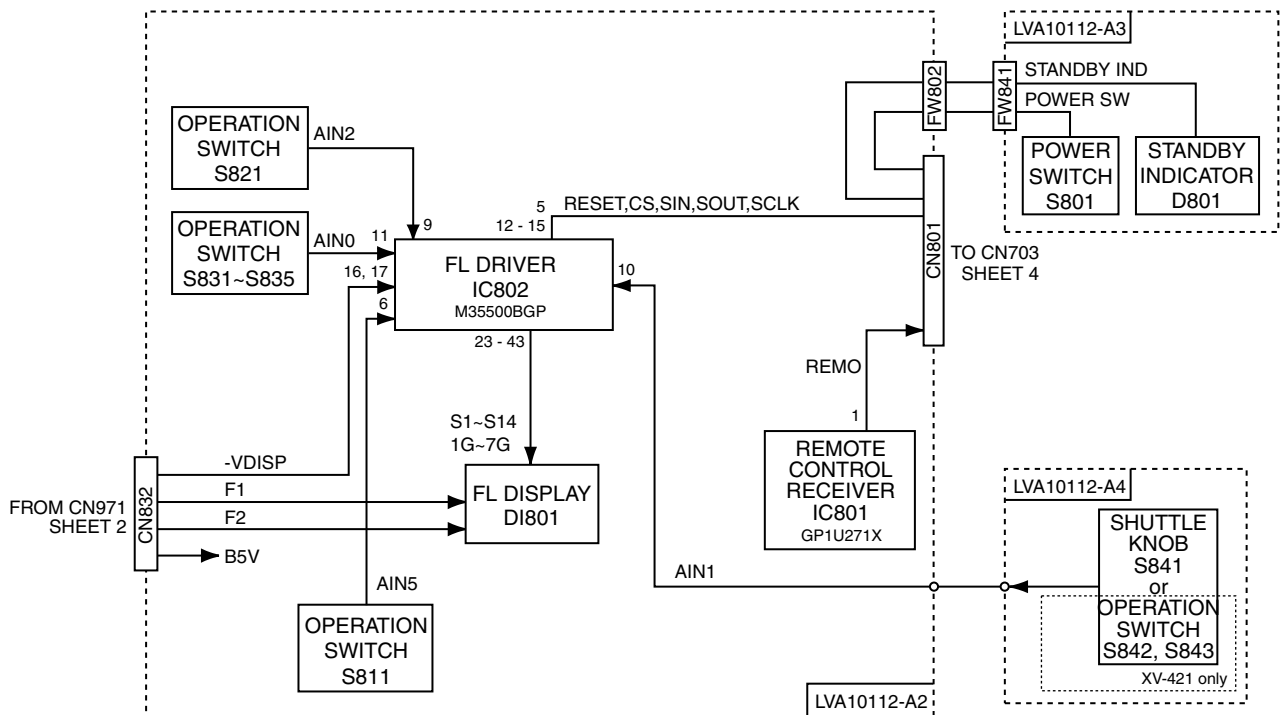




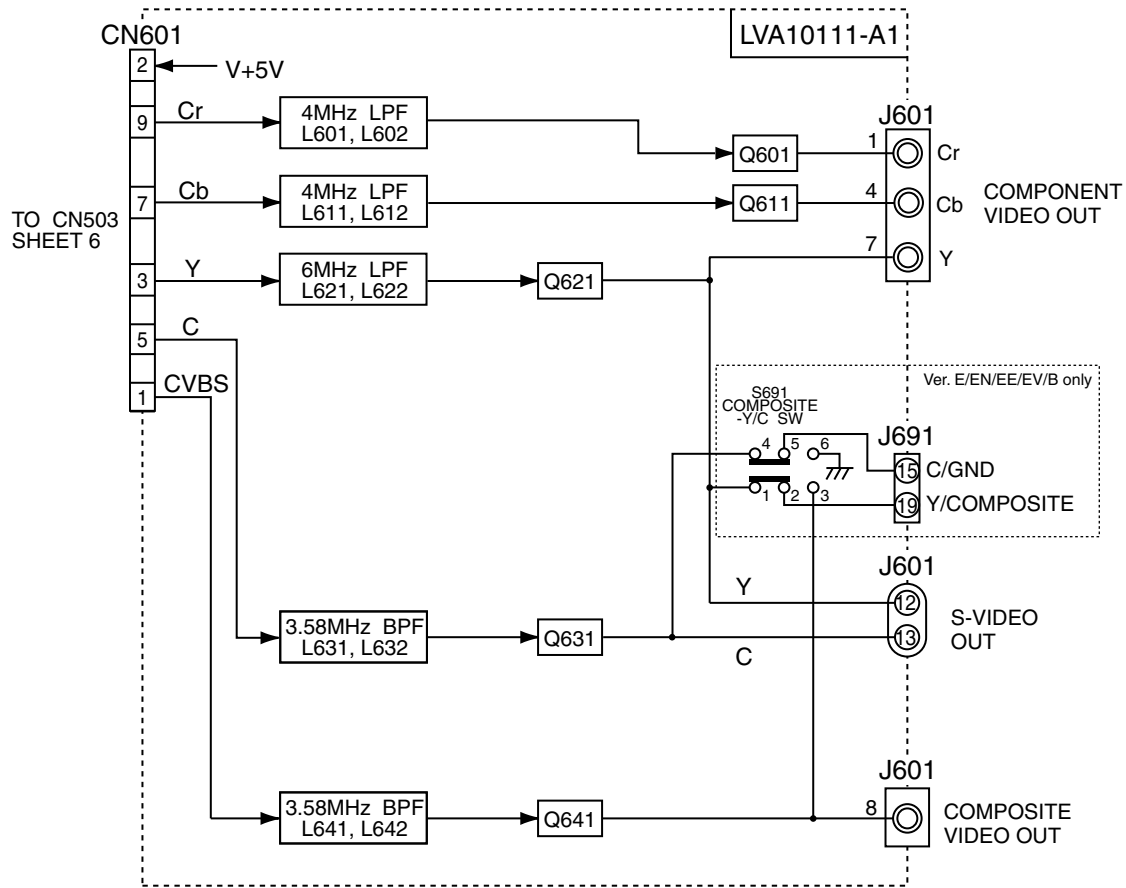
■ System control and Audio out section (SHEET 4)



■ FL Driver section (SHEET 1)

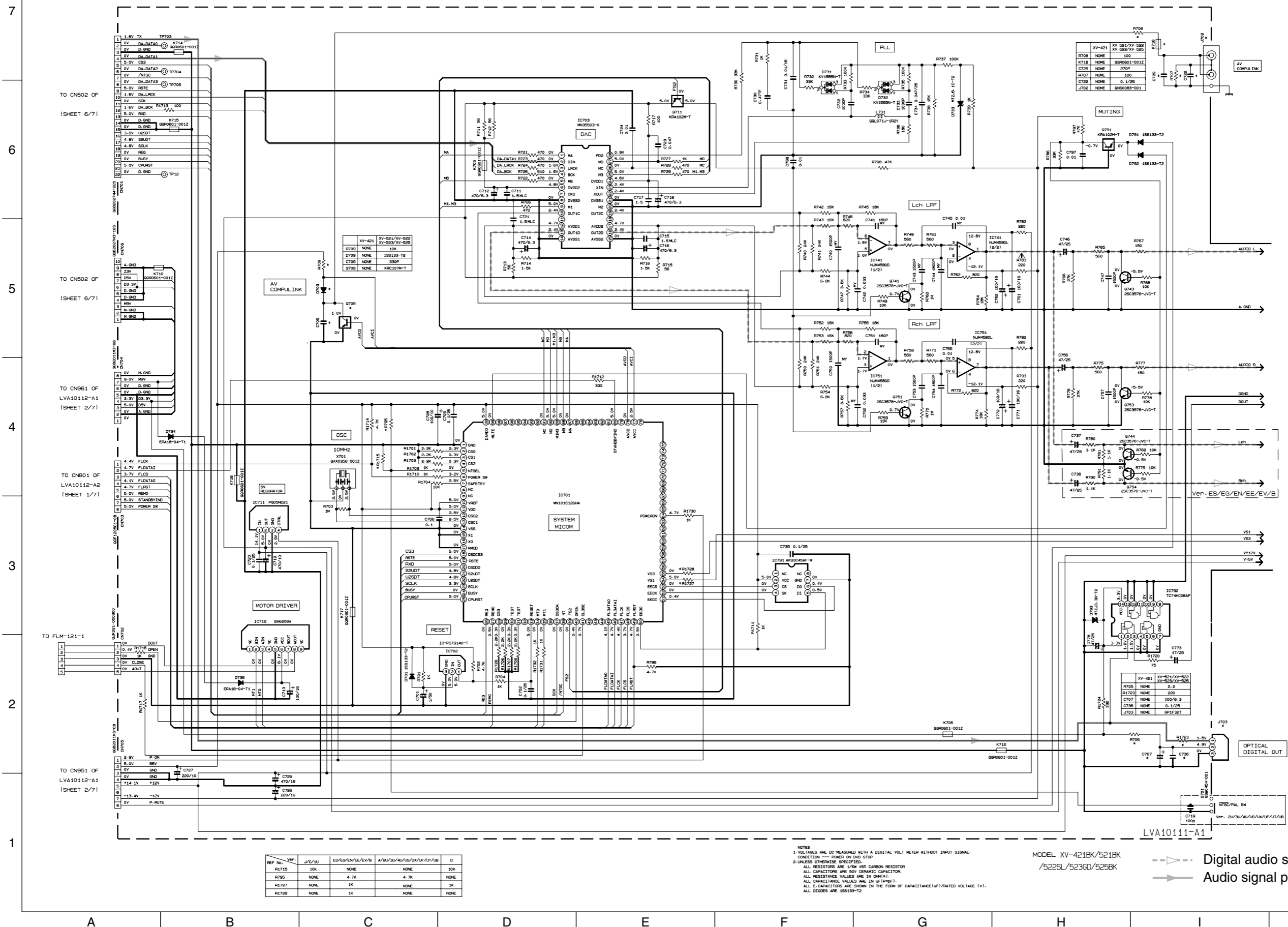


■ Video out section (SHEET 3)



# Standard schematic diagrams

## System control circuit



REF. NO.	VAL.	W/C/Ω	ES/EN/EE/EV/B	A/2U/3U/4U/5U/6U/7U/8	D
R175	10K		NONE	NONE	10K
R795	NONE	4.7K		NONE	NONE
R177	NONE	1K		NONE	1K
R178	NONE	1K		NONE	NONE

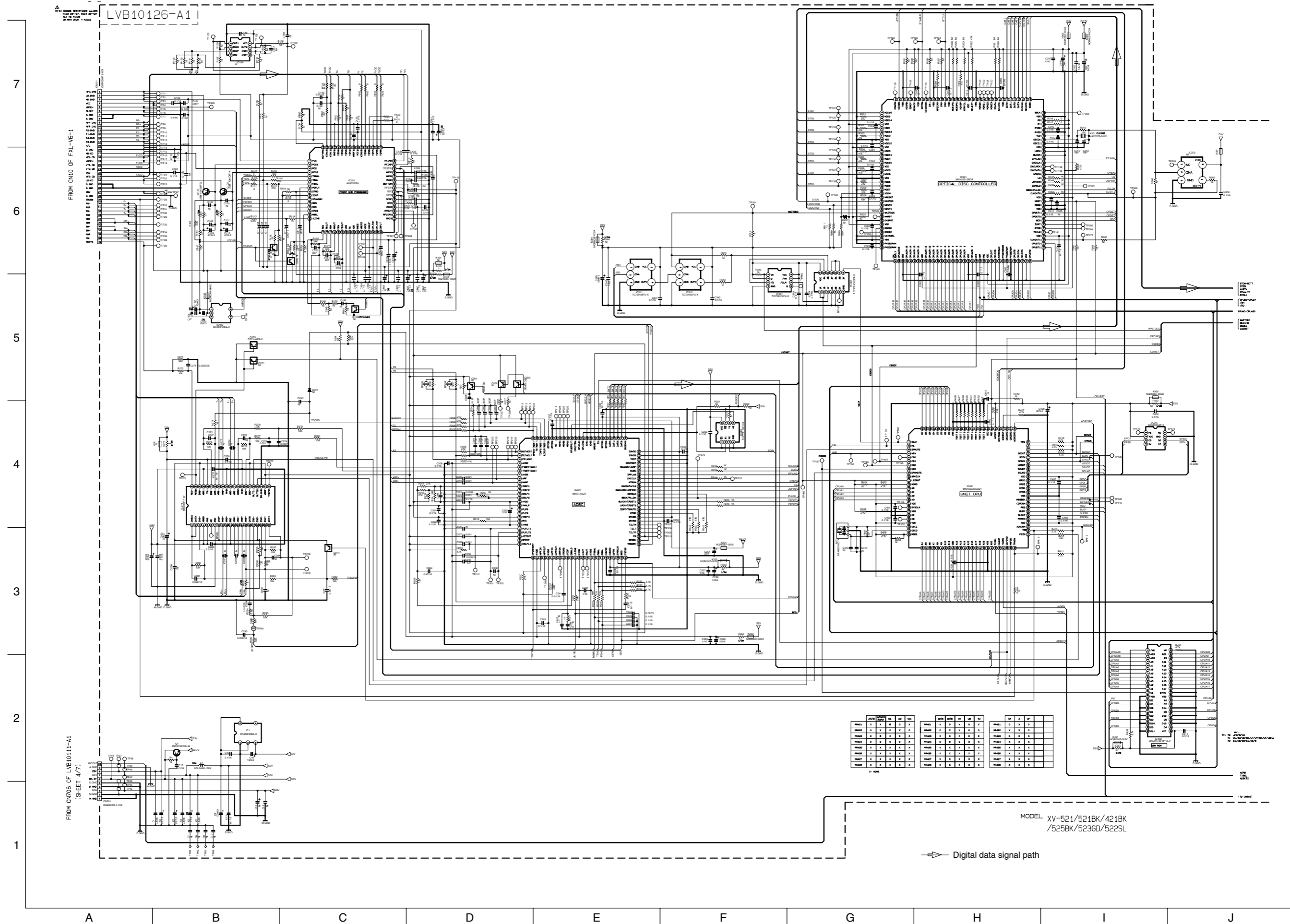
NOTES:  
 1- VOLTAGES ARE DC-MEASURED WITH A DIGITAL VOLT METER WITHOUT INPUT SIGNAL.  
 CONDITION --- POWER ON DVD STOP  
 2- UNLESS OTHERWISE SPECIFIED  
 ALL RESISTORS ARE 1/8W 5% CARBON RESISTOR  
 ALL CAPACITORS ARE 50V CERAMIC CAPACITOR  
 ALL RESISTANCE VALUES ARE IN OHM(S)  
 ALL CAPACITANCE VALUES ARE IN UF(PF)  
 ALL E-CAPACITORS ARE SHOWN IN THE FORM OF CAPACITANCE(UF)/RATED VOLTAGE (V).  
 ALL DIODES ARE 1SS133-T2

MODEL XV-421BK/521BK  
 /522SL/523GD/525BK

--- Digital audio signal path  
 — Audio signal path



DVD servo circuit



FROM CN706 OF LVB10111-A1 (SHEET 4/7)

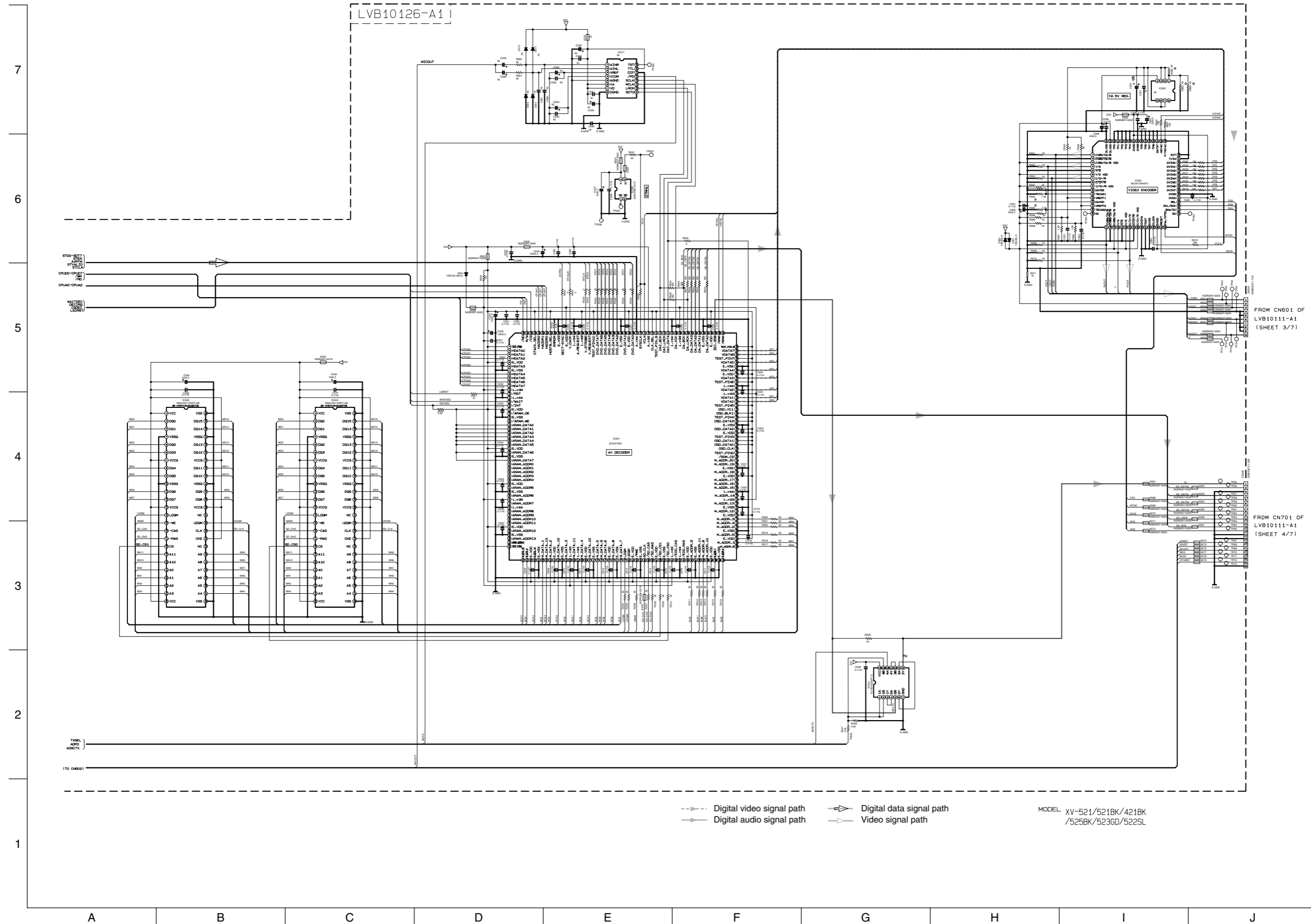
FROM CN10 OF FXL-V5-1

LVB10126-A1

MODEL XV-521/521BK/421BK /525BK/523GD/522SL

△ Digital data signal path

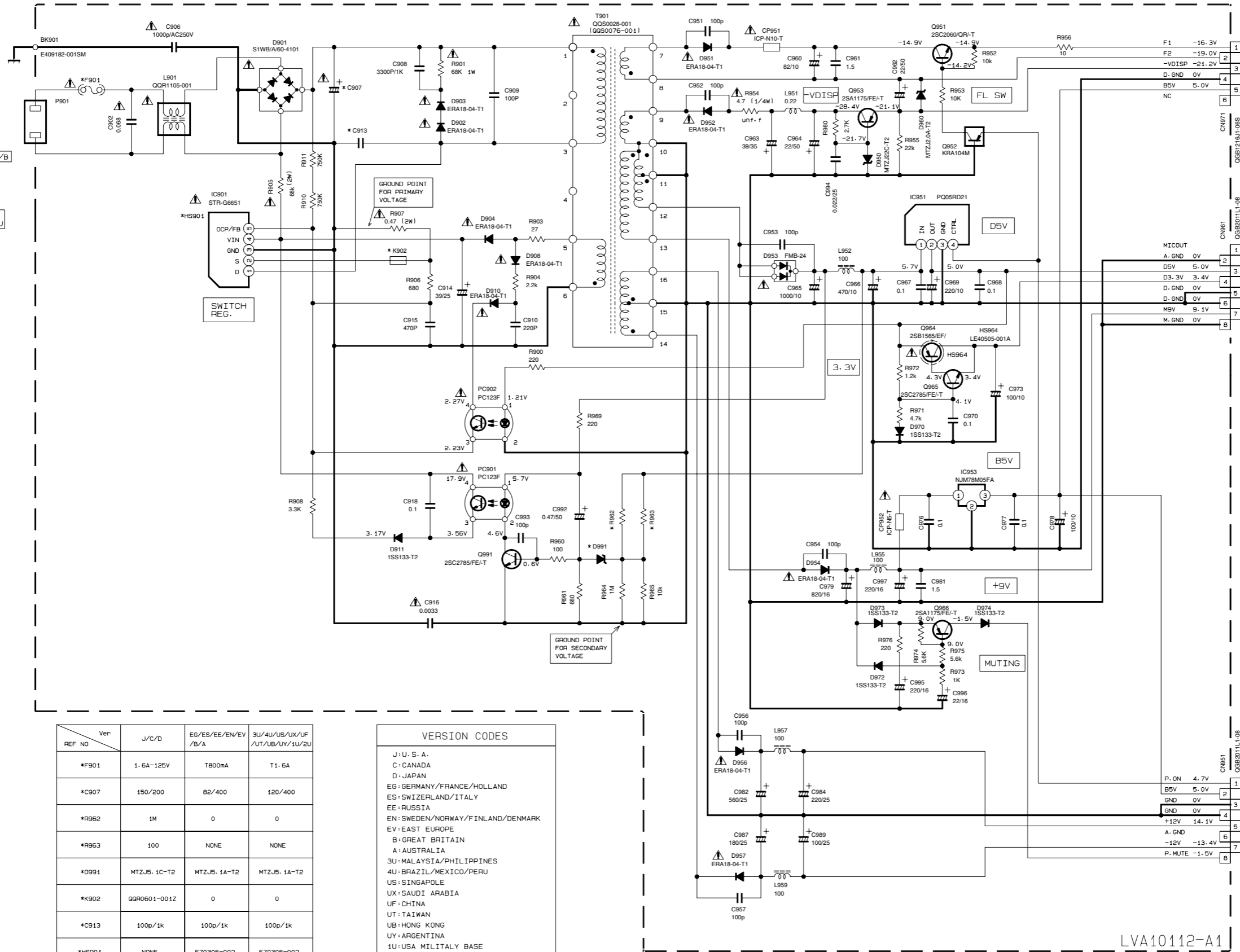
■ DSP circuit





Power supply circuit

- Ver. J/C  
120V 60Hz
- Ver. D  
100V 50/60Hz
- Ver. EG/ES/EE/EN/EB/B  
230V 50Hz
- Ver. A  
240V 50Hz
- Ver. 3U/4U/US/UX/UF  
/UT/UB/UY/1U/2U  
110-240V 50/60Hz



TO CNB32 OF  
LVA10112-A2  
(SHEET 1/7)

TO CN704 OF  
LVA10111-A1  
(SHEET 4/7)

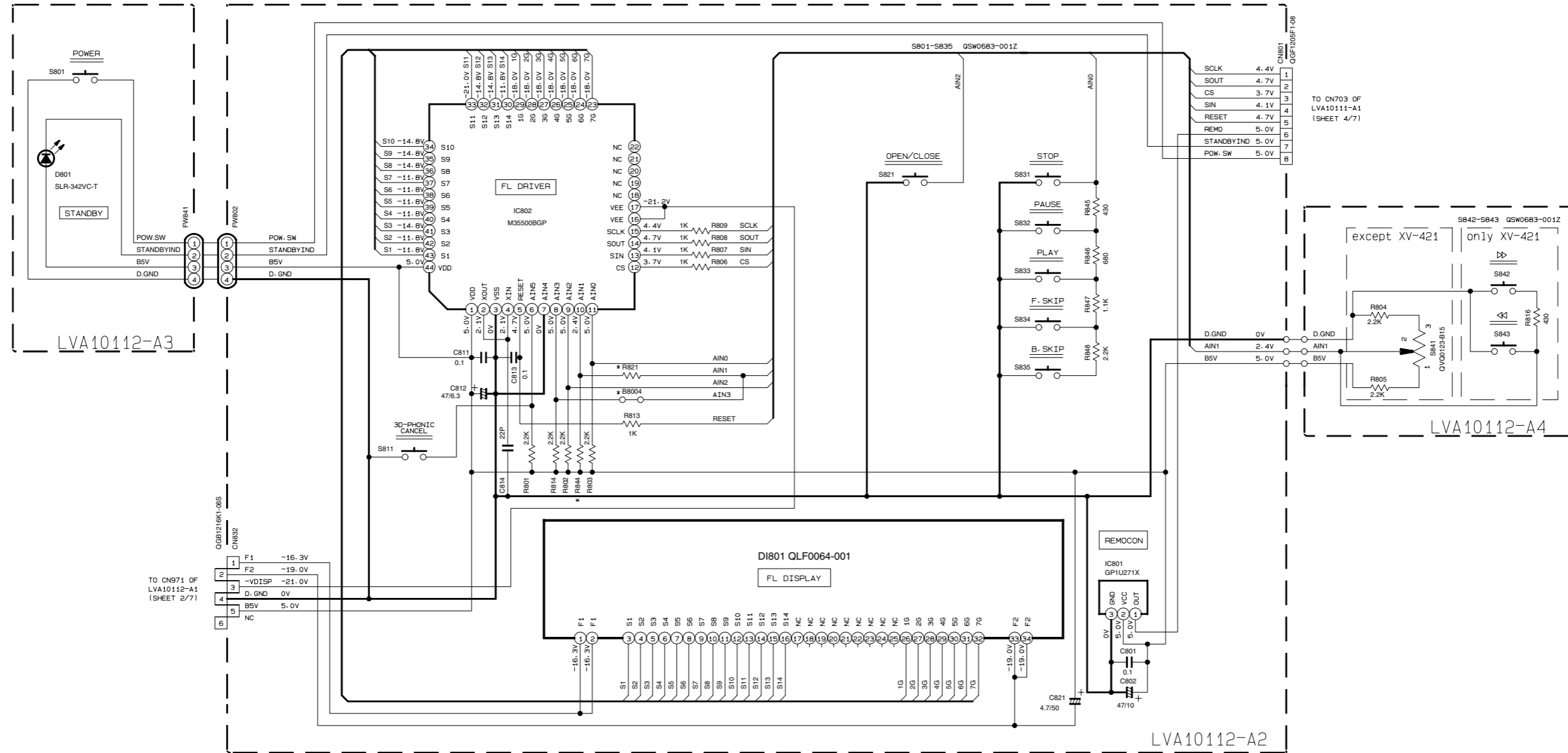
TO CN705 OF  
LVA10111-A1  
(SHEET 4/7)

Ver	J/C/D	EG/ES/EE/EN/EB/UB/A	3U/4U/US/UX/UF/UT/UB/UY/1U/2U
*F901	1.6A-125V	T800mA	T1.6A
*C907	150/200	82/400	120/400
*R962	1M	0	0
*R963	100	NONE	NONE
*D991	MTZJ5.1C-T2	MTZJ5.1A-T2	MTZJ5.1A-T2
*K902	QGR0601-001Z	0	0
*C913	100p/1k	100p/1k	100p/1k
*HS901	NONE	E70306-002	E70306-002

VERSION CODES
J: U. S. A.
C: CANADA
D: JAPAN
EG: GERMANY/FRANCE/HOLLAND
ES: SWITZERLAND/ITALY
EE: RUSSIA
EN: SWEDEN/NORWAY/FINLAND/DENMARK
EV: EAST EUROPE
B: GREAT BRITAIN
A: AUSTRALIA
3U: MALAYSIA/PHILIPPINES
4U: BRAZIL/MEXICO/PERU
US: SINGAPOLE
UX: SAUDI ARABIA
UF: CHINA
UT: TAIWAN
UB: HONG KONG
UY: ARGENTINA
1U: USA MILITARY BASE
2U: TURKEY/EGYPT/SOUTHAFRICA

MODEL  
XV-521/521BK/421BK  
/525BK/523GD/522SL

Display circuit



NOTES  
 1. VOLTAGES ARE DC-MEASURED WITH A DIGITAL VOLT METER WITHOUT INPUT SIGNAL. CONDITION --- POWER ON NO DISC  
 2. UNLESS OTHERWISE SPECIFIED.  
 ALL RESISTORS ARE 1/6W ±5% CARBON RESISTOR.  
 ALL CAPACITORS ARE 50V CERAMIC CAPACITOR.  
 ALL RESISTANCE VALUES ARE IN OHM(Ω).  
 ALL CAPACITANCE VALUES ARE IN μF(P=pF).  
 ALL E. CAPACITORS ARE SHOWN IN THE FORM OF CAPACITANCE(μF)/RATED VOLTAGE (V).

XV-521/521BK/421BK  
 /525BK/523GD/522SL

■ Voltage value section

7  
  
  
  
6  
  
  
  
5  
  
  
  
  
  
4  
  
  
  
3  
  
  
  
  
  
2  
  
  
  
1

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	4.6V
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	4.0V	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	3.2V		
26	2.1V		
27	2.1V		
28	4.6V		
29	4.6V		
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	2.6V		
46	2.1V		
47	2.1V		
48	2.1V		
49	2.2V		
50	2.2V		

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

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		
16	2.7V		
17	0.2V		
18	2.2V		
19	1.5V		
20	0V		
21	1.6V		
22	1.6V		
23	1.5V		
24	1.7V		
25	1.9V		
26	2.1V		
27	3.2V		
28	1.7V		
29	0V		
30	0V		
31	1.7V		
32	0V		
33	1.7V		
34	1.7V		
35	0.1V		
36	1.6V		
37	1.7V		
38	3.2V		
39	1.6V		
40	1.6V		
41	0V		
42	1.7V		
43	1.7V		
44	1.7V		
45	0V		
46	3.3V		
47	0V		
48	1.7V		
49	0V		
50	0.3V		

NO	DC(V)
1	0V
2	3.3V
3	4.9V
4	0V
6	4.9V
7	0V
8	4.9V

NO	DC(V)	NO	DC(V)
1	0V	6	0V
2	0V	7	0V
3	0V	8	1.37V
4	9V	9	3.9V
5	9V	10	3.4V
6	0V	11	0V
7	0V	12	3.4V
8	1.37V	13	4.5V
9	3.9V	14	5.7V
10	3.4V	15	3V
11	0V	16	0V
12	3.4V	17	0V
13	4.5V	18	0V
14	5.7V	19	0V
15	3V	20	1.37V
16	0V	21	0V
17	0V	22	1.37V
18	0V	23	1.37V
19	0V	24	0V
20	1.37V	25	0V
21	0V	26	3.18V
22	1.37V	27	4.9V
23	1.37V	28	0V
24	0V	29	1.41V
25	0V	30	2.37V
26	3.18V	31	2.56V
27	4.9V	32	0V
28	0V	33	2.39V
29	1.41V	34	2.56V
30	2.37V	35	1.34V
31	2.56V	36	1.37V
32	0V	37	4.93V
33	2.39V	38	0V
34	2.56V	39	1.6V
35	1.34V	40	1.6V
36	1.37V	41	3.2V
37	4.93V	42	3V
38	0V		
39	1.6V		
40	1.6V		
41	3.2V		
42	3V		

NO	DC(V)	NO	DC(V)	NO	DC(V)	NO	DC(V)
1	3.3V	51	0.7V	101	1.6V	151	3.3V
2	3.3V	52	1.0V	102	3.3V	152	3.3V
3	3.3V	53	3.6V	103	0V	153	3.3V
4	3.3V	54	3.9V	104	3.3V	154	3.3V
5	0V	55	1.0V	105	3.3V	155	3.3V
6	3.3V	56	0V	106	3.3V	156	3.3V
7	3.3V	57	0.7V	107	0V	157	3.3V
8	0V	58	4.9V	108	0V	158	3.3V
9	3.3V	59	4.9V	109	2.5V	159	3.3V
10	3.6V	60	4.4V	110	0V	160	3.3V
11	3.3V	61	3.3V	111	1.7V	161	3.3V
12	3.3V	62	1.2V	112	1.1V	162	3.3V
13	3.3V	63	2.4V	113	1.1V	163	3.3V
14	3.3V	64	0V	114	1.1V	164	3.3V
15	3.3V	65	0V	115	1.1V	165	3.3V
16	3.3V	66	2.6V	116	3.3V	166	3.3V
17	3.3V	67	0V	117	3.3V	167	3.3V
18	0V	68	1.0V	118	3.3V	168	3.3V
19	0V	69	2.1V	119	0V	169	3.3V
20	3.3V	70	1.0V	120	0V	170	3.3V
21	3.3V	71	0V	121	0V	171	3.3V
22	4.5V	72	2.3V	122	0V	172	3.3V
23	4.5V	73	0.6V	123	0V	173	3.3V
24	0V	74	0.6V	124	3.3V	174	3.3V
25	0.1V	75	1.7V	125	2.6V	175	3.3V
26	4.9V	76	3.3V	126	1.3V	176	3.3V
27	4.9V	77	0V	127	0V	177	3.3V
28	1.4V	78	3.3V	128	1.4V	178	3.3V
29	0V	79	0V	129	1.1V	179	3.3V
30	3.3V	80	3.3V	130	3.3V	180	3.3V
31	0V	81	0V	131	1.6V	181	3.3V
32	3.3V	82	0V	132	3.3V	182	3.3V
33	0V	83	0V	133	0V	183	3.3V
34	0V	84	0V	134	0V	184	3.3V
35	0V	85	4.6V	135	3.3V	185	3.3V
36	2.6V	86	2.6V	136	1.3V	186	3.3V
37	0V	87	1.7V	137	0V	187	3.3V
38	0.3V	88	0V	138	3.3V	188	3.3V
39	0V	89	0V	139	1.3V	189	3.3V
40	4.1V	90	0V	140	1.0V	190	3.3V
41	3.3V	91	0V	141	1.1V	191	3.3V
42	4.2V	92	3.3V	142	0V	192	3.3V
43	1.6V	93	0V	143	3.3V	193	3.3V
44	2.6V	94	3.3V	144	3.3V	194	3.3V
45	3.3V	95	0V			195	3.3V
46	3.6V	96	3.3V			196	3.3V
47	3.7V	97	0V			197	3.3V
48	3.8V	98	0V			198	3.3V
49	3.7V	99	0V			199	3.3V
50	3.6V	100	1.6V			200	3.3V

NO	DC(V)
1	5.0V
2	4.6V
3	0V
4	4.7V
5	0V

NO	DC(V)
1	5.0V
2	4.7V
3	0V
4	5.0V
5	5.0V

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

NO	DC(V)
1	5.0V
2	5.0V
3	0V
4	0V
5	0V
6	5.0V
7	0V
8	5.0V
9	0V
10	0V
11	0V
12	5.0V
13	5.0V
14	5.0V

NO	DC(V)
1	0V
2	1.4V
3	0V
4	1.6V
5	3.2V

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

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

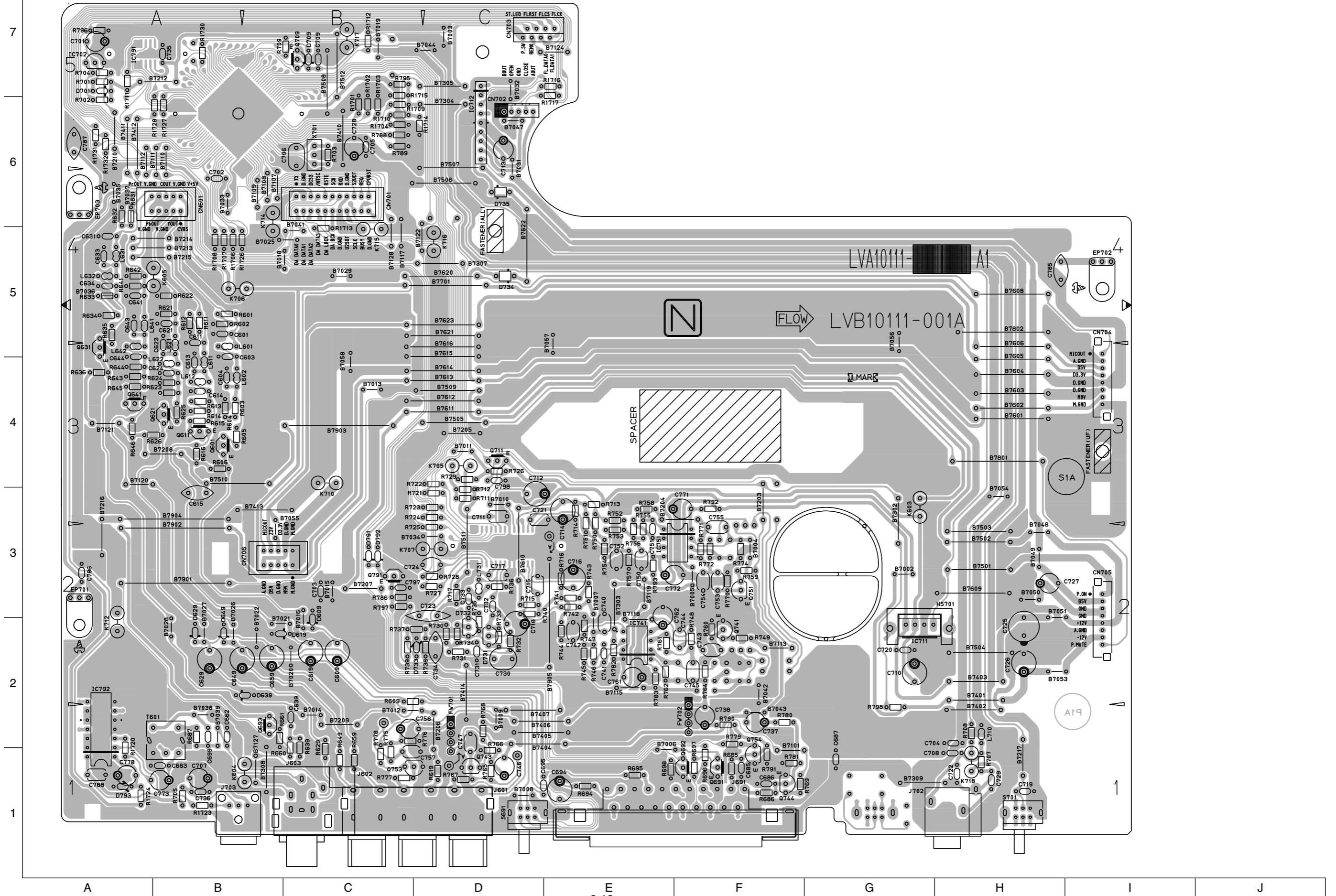
NO	DC(V)
1	5.0V
2	5.0V
3	0V
4	0V
5	0V
6	5.0V
7	0V
8	5.0V
9	0V
10	0V
11	0V
12	5.0V
13	5.0V
14	5.0V

NO	DC(V)	NO	DC(V)	NO	DC(V)
1	5.0V	51	0.6V	101	5.0V
2	5.0V	52	5.0V	102	5.0V
3	5.0V	53	5.0V	103	5.0V
4	5.0V	54	5.0V	104	5.0V
5	0V	55	5.0V	105	5.0V
6	5.0V	56	5.0V	106	5.0V
7	5.0V	57	0V	107	5.0V
8	4.4V	58	0V	108	5.0V
9	0V	59	5.0V	109	5.0V
10	0V	60	0V	110	5.0V
11	4.9V	61	3.3V	111	5.0V
12	5.0V	62	0V	112	5.0V
13	0V	63	0V	113	5.0V
14	0V	64	0V	114	5.0V
15	2.1V	65	0V	115	5.0V
16	1.9V	66	5.0V	116	5.0V
17	5.0V	67	4.6V	117	5.0V
18	2.3V	68	3.6V	118	5.0V
19	0V	69	4.6V	119	5.0V
20	0V	70	5.0V	120	5.0V
21	5.0V	71	0V	121	5.0V
22	5.0V	72	5.0V	122	5.0V
23	2.4V	73	5.0V	123	5.0V
24	2.4V	74	5.0V	124	5.0V
25	5.0V	75	5.0V	125	5.0V
26	2.7V	76	5.0V	126	5.0V
27	1.6V	77	5.0V	127	5.0V
28	2.1V	78	3.1V	128	5.0V
29	1.7V	79	0V	129	5.0V
30	3.5V	80			

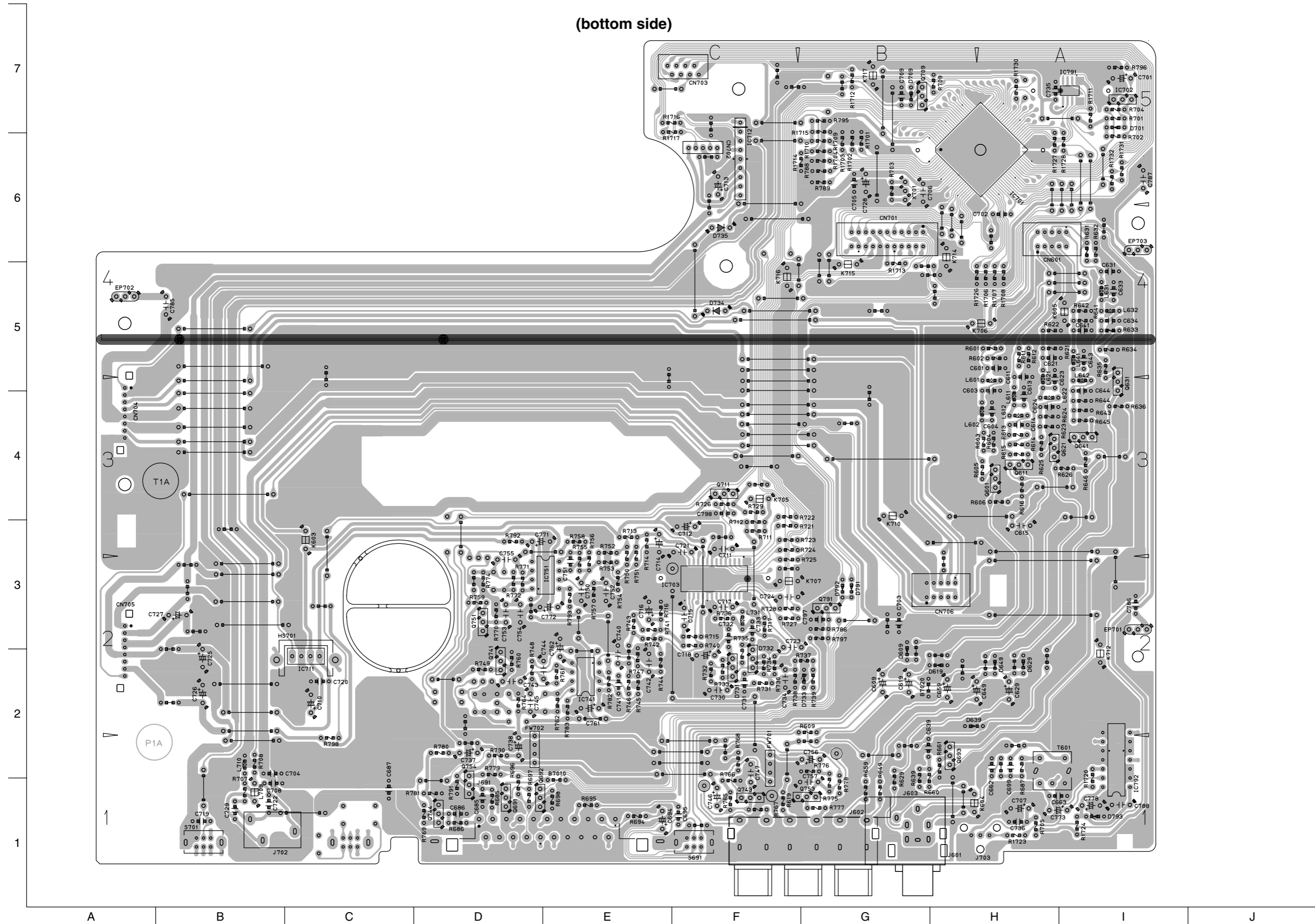
# Printed circuit boards

■ MAIN board

(surface side)



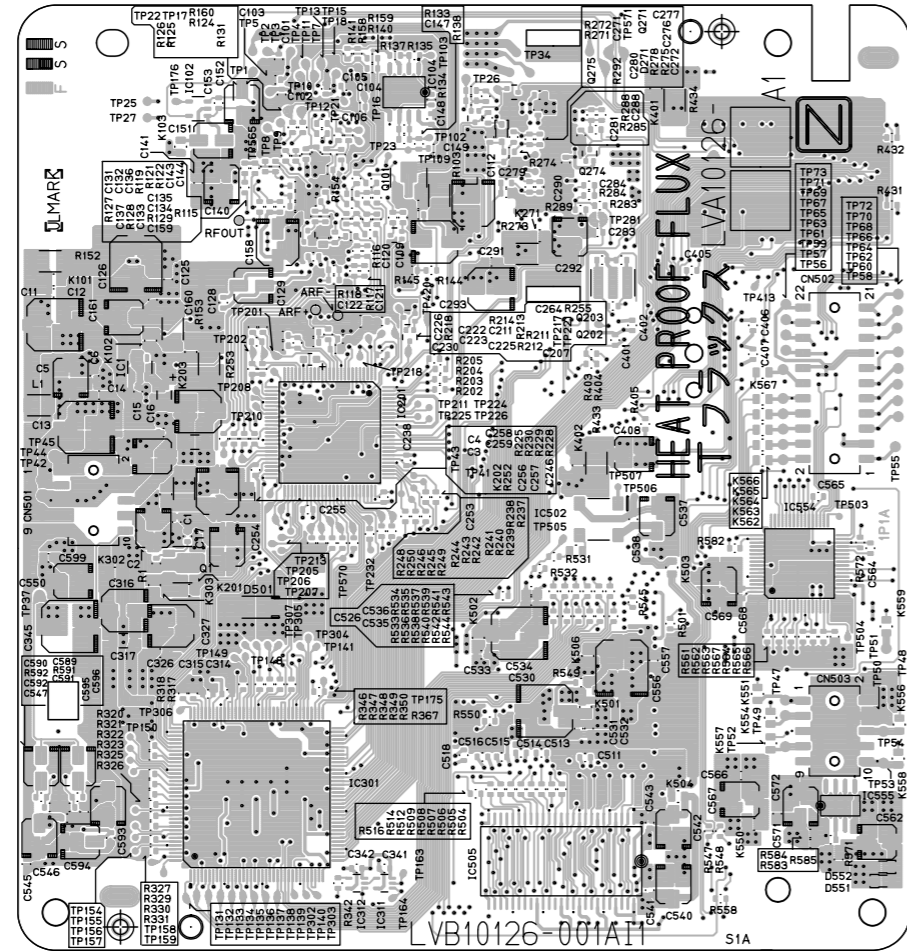
(bottom side)



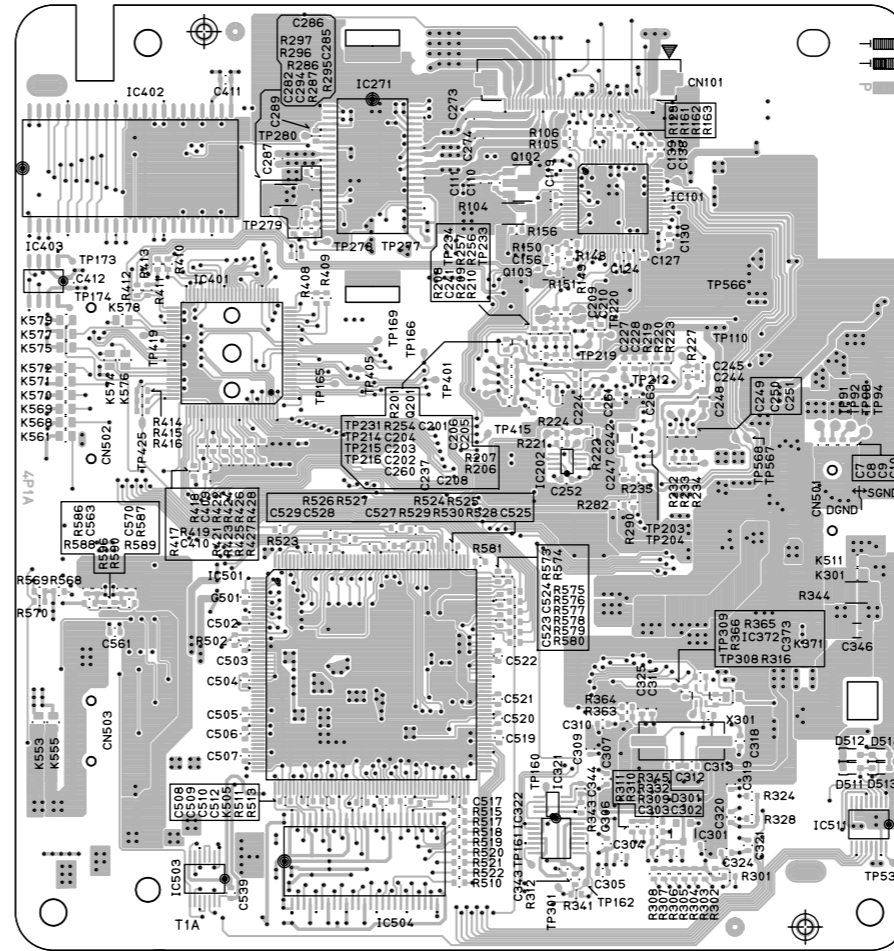
■ DVD Servo

7  
6  
5  
4  
3  
2  
1

(surface side)



(bottom side)



A B C D E F G H I J