

JVC

SCHEMATIC DIAGRAMS

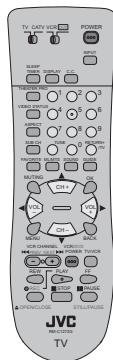
REAR PROJECTION TELEVISION

**AV-48P777_{/H}, AV-48P787_{/H},
AV-56P777_{/H}, AV-56P787_{/H}**

CD-ROM No.SML200608

BASIC CHASSIS

SR2



*I'Art*TM_{PRO}

HIGH DEFINITION TELEVISION
HDTV
MONITOR

HDMITM
HIGH-DEFINITION MULTIMEDIA INTERFACE



AV-48P777/H, AV-48P787/H, AV-56P777/H, AV-56P787/H

STANDARD CIRCUIT DIAGRAM

NOTE ON USING CIRCUIT DIAGRAMS

1.SAFETY

The components identified by the \triangle symbol and shading are critical for safety. For continued safety replace safety critical components only with manufactures recommended parts.

2.SPECIFIED VOLTAGE AND WAVEFORM VALUES

The voltage and waveform values have been measured under the following conditions.

- (1)Input signal : Colour bar signal
- (2)Setting positions of each knob/button and variable resistor : Original setting position when shipped
- (3)Internal resistance of tester : DC 20k Ω /V
- (4)Oscilloscope sweeping time : H \Rightarrow 20 μ s / div
: V \Rightarrow 5ms / div
: Others \Rightarrow Sweeping time is specified
- (5)Voltage values : All DC voltage values

* Since the voltage values of signal circuit vary to some extent according to adjustments, use them as reference values.

3.INDICATION OF PARTS SYMBOL [EXAMPLE]

- In the PW board : R209 \rightarrow R209

4.INDICATIONS ON THE CIRCUIT DIAGRAM

(1)Resistors

● Resistance value

- No unit : [Ω]
- K : [k Ω]
- M : [M Ω]

● Rated allowable power

- No indication : 1/16 [W]
- Others : As specified

● Type

- No indication : Carbon resistor
- OMR : Oxide metal film resistor
- MFR : Metal film resistor
- MPR : Metal plate resistor
- UNFR : Uninflammable resistor
- FR : Fusible resistor

* Composition resistor 1/2 [W] is specified as 1/2S or Comp.

(2)Capacitors

● Capacitance value

- 1 or higher : [pF]
- less than 1 : [μ F]

● Withstand voltage

- No indication : DC50[V]
- Others : DC withstand voltage [V]
- AC indicated : AC withstand voltage [V]

* Electrolytic Capacitors

47/50[Example]: Capacitance value [μ F]/withstand voltage[V]

● Type

- No indication : Ceramic capacitor
- MM : Metalized mylar capacitor
- PP : Polypropylene capacitor
- MPP : Metalized polypropylene capacitor
- MF : Metalized film capacitor
- TF : Thin film capacitor
- BP : Bipolar electrolytic capacitor
- TAN : Tantalum capacitor

(3)Coils

- No unit : [μ H]
- Others : As specified

(4)Power Supply

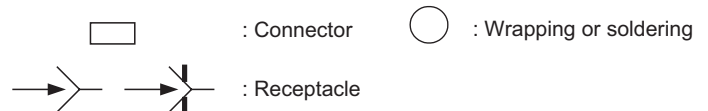


* Respective voltage values are indicated

(5)Test point



(6)Connecting method



(7)Ground symbol

- \perp : LIVE side ground
- \downarrow : ISOLATED(NEUTRAL) side ground
- \equiv : EARTH ground
- ∇ : DIGITAL ground

5.NOTE FOR REPAIRING SERVICE

This model's power circuit is partly different in the GND. The difference of the GND is shown by the LIVE (\perp) side GND and the ISOLATED(NEUTRAL) (\downarrow) side GND. Therefore, care must be taken for the following points.

- (1)Do not touch the LIVE side GND or the LIVE side GND and the ISOLATED(NEUTRAL) side GND simultaneously. if the above caution is not respected, an electric shock may be caused. Therefore, make sure that the power cord is surely removed from the receptacle when, for example, the chassis is pulled out.
- (2)Do not short between the LIVE side GND and ISOLATED(NEUTRAL) side GND or never measure with a measuring apparatus measure with a measuring apparatus (oscilloscope, etc.) the LIVE side GND and ISOLATED(NEUTRAL) side GND at the same time. If the above precaution is not respected, a fuse or any parts will be broken.

◆ Since the circuit diagram is a standard one, the circuit and circuit constants may be subject to change for improvement without any notice.

NOTE

◆ Due improvement in performance, some part numbers show in the circuit diagram may not agree with those indicated in the part list.

When ordering parts, please use the numbers that appear in the Parts List.

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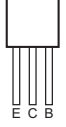
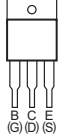
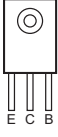
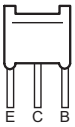
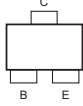
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USING P.W. BOARD


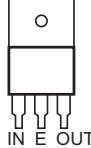
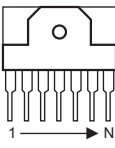
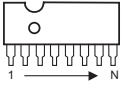
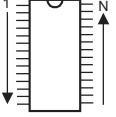
P.W.B ASS'Y name	AV-48P777/H	AV-48P787/H	AV-56P777/H	AV-56P787/H
MAIN P.W. BOARD	SSR-1510A-M2	←	SSR-1511A-M2	←
DEF & CONVERGENCE OUT P.W. BOARD	SSR-2510A-M2	←	←	←
R CRT SOCKET P.W. BOARD	SSR-3151A-M2	←	←	←
G CRT SOCKET P.W. BOARD	SSR-3251A-M2	←	←	←
B CRT SOCKET P.W. BOARD	SSR-3351A-M2	←	←	←
USB P.W. BOARD	SSR-7561A-M2	←	←	←
REMOTE SENSOR P.W. BOARD	SSR-8010A-M2	←	←	←
POWER P.W. BOARD	SSR-9010A-M2	←	←	←
FRONT CONTROL P.W. BOARD	SSR0L015A-M2	←	←	←
DIGITAL CONVERGENCE MODULE P.W. BOARD	SSR0K050A-M2	←	SSR0K051A-M2	←

SEMICONDUCTOR SHAPES

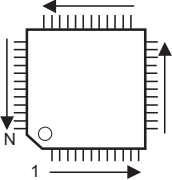
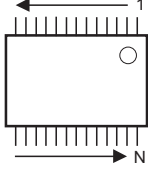
TRANSISTOR

BOTTOM VIEW	FRONT VIEW				TOP VIEW
					CHIP TR 

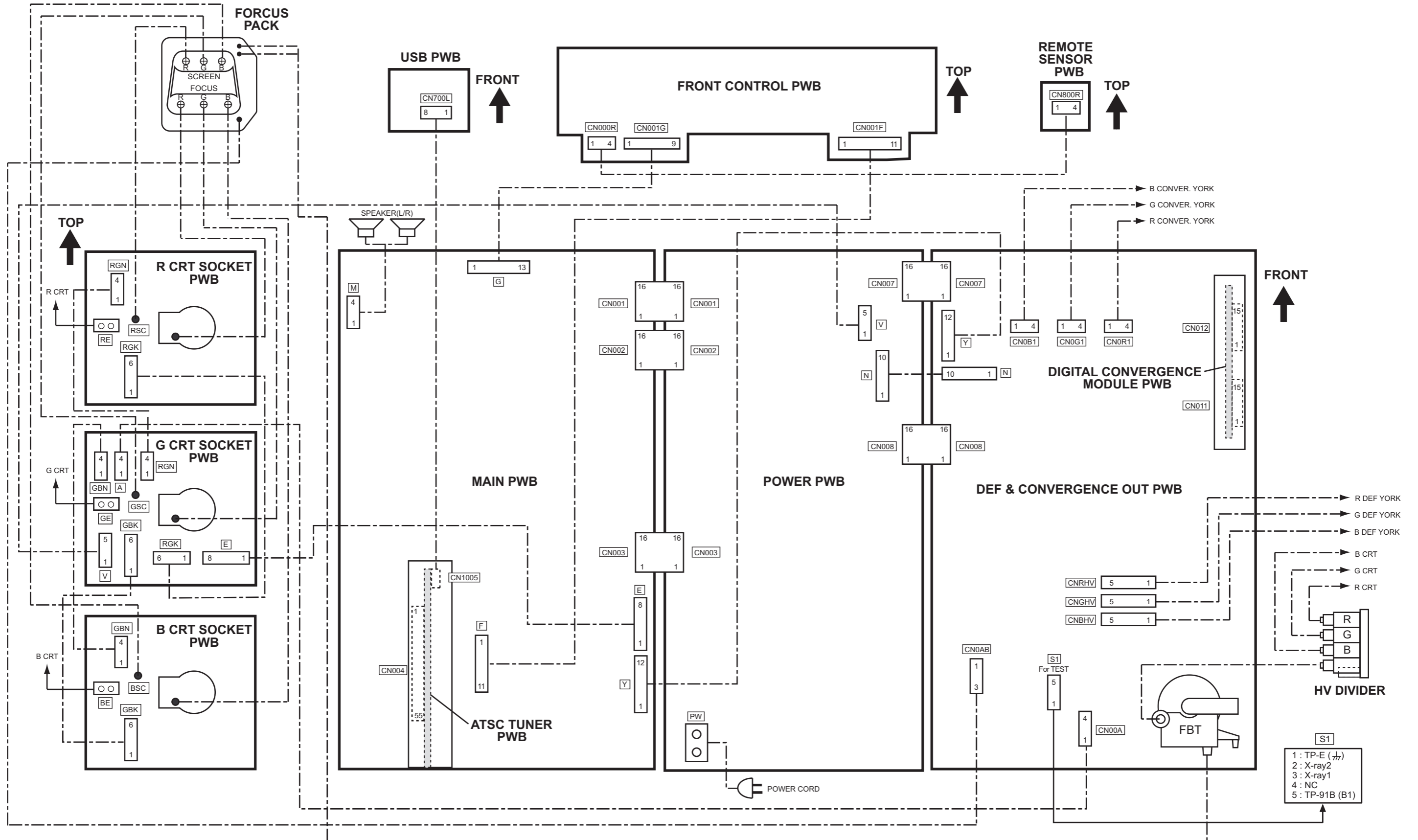
IC

BOTTOM VIEW	FRONT VIEW			TOP VIEW
				

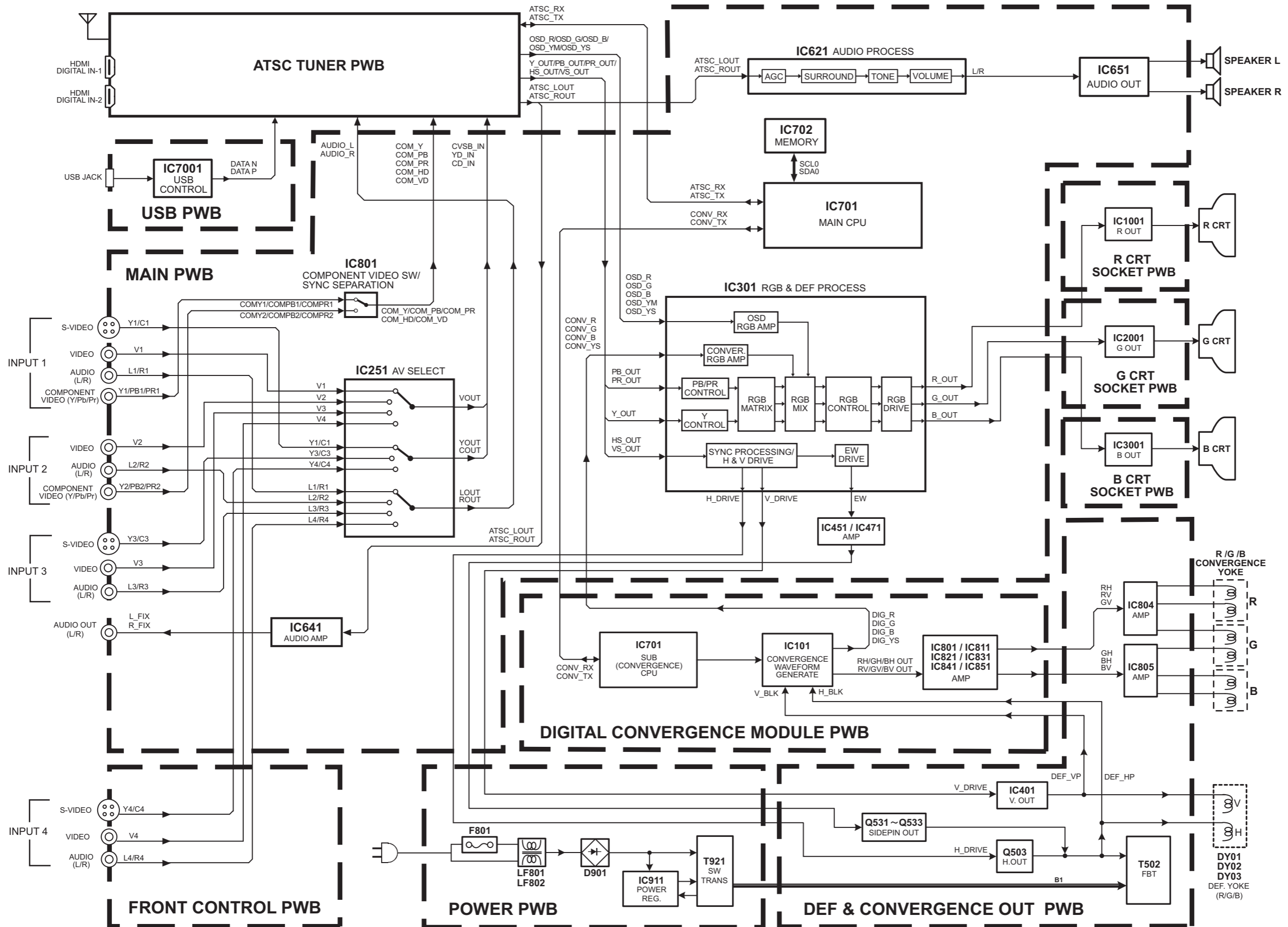
CHIP IC

TOP VIEW		
		

WIRING DIAGRAM



BLOCK DIAGRAM



CIRCUIT DIAGRAMS

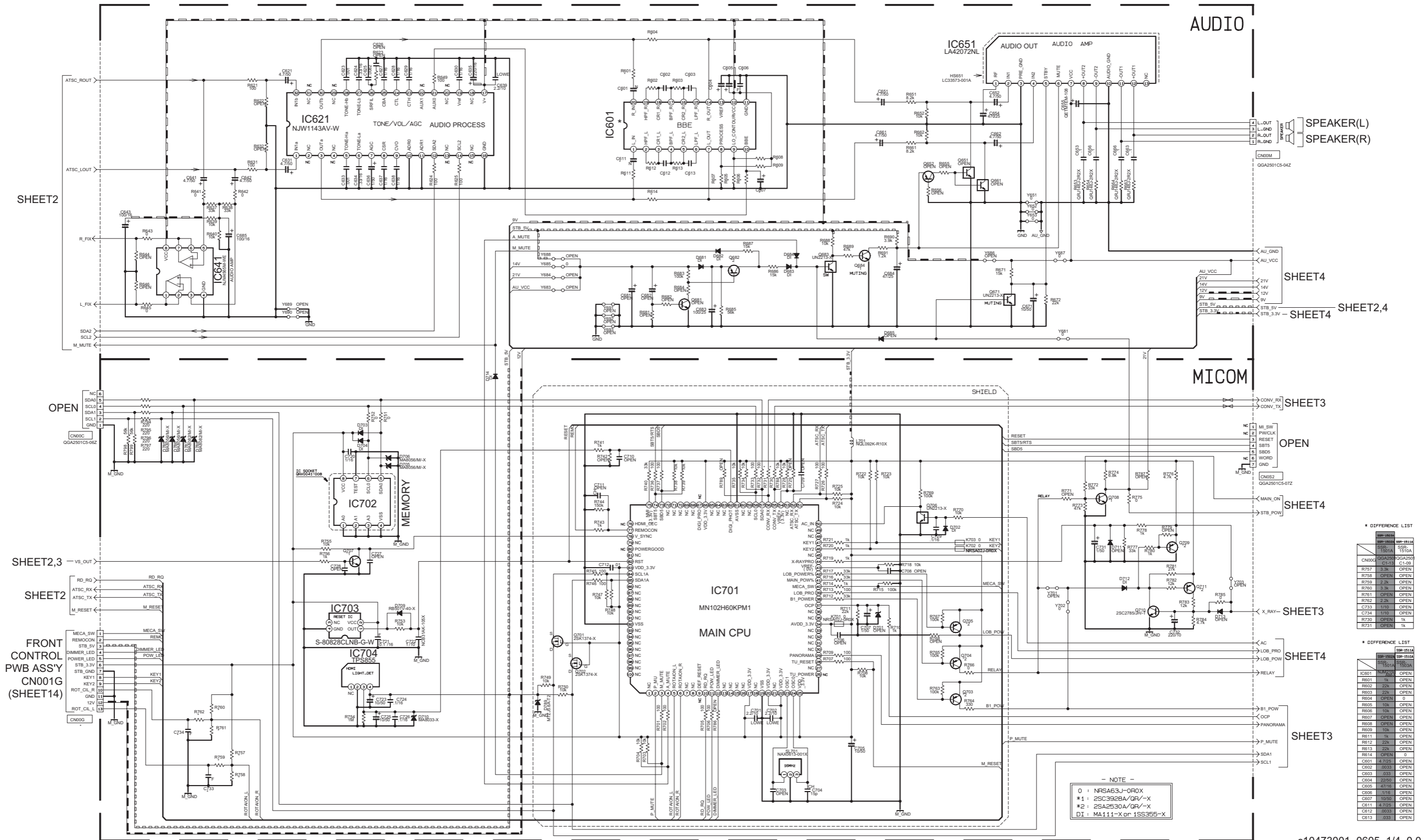
MAIN PWB CIRCUIT DIAGRAM (1/4) SHEET 1

MAIN PWB ASS'Y(1/4)

SSR-1510A-M2 [AV-48P777/H, AV-48P787/H]

SSR-1511A-M2 [AV-56P777/H, AV-56P787/H]

NOTE : Refer to the part list for the part number of IC702.



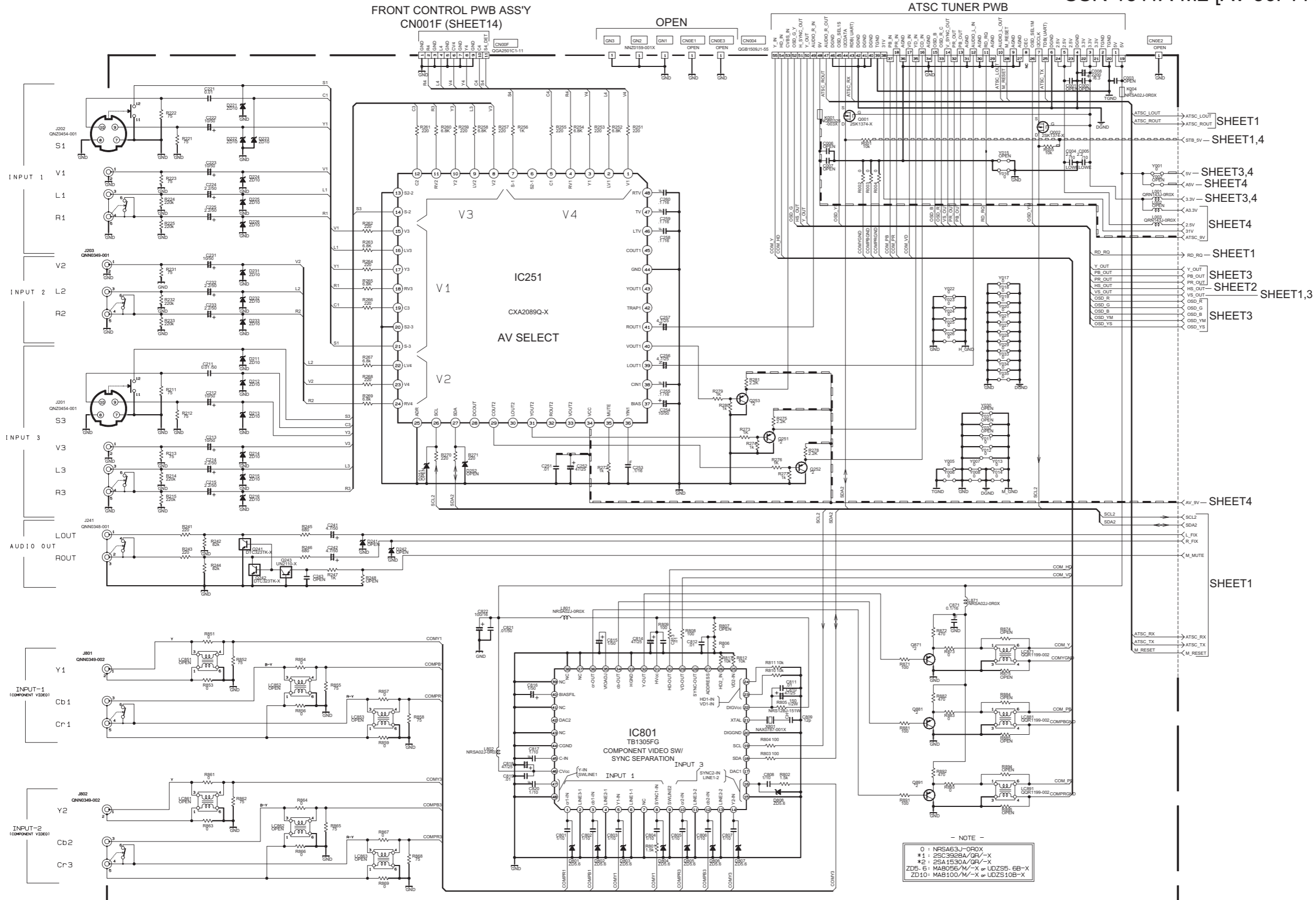
* DIFFERENCE LIST

REF	ORIG	REV	DESCRIPTION
R757	3.3K	OPEN	
R758	OPEN	OPEN	
R759	2.2K	OPEN	
R760	3.3K	OPEN	
R761	OPEN	OPEN	
R762	2.2K	OPEN	
C733	1/10	OPEN	
C734	1/10	OPEN	
R750	OPEN	1K	
R751	OPEN	1K	

* DIFFERENCE LIST

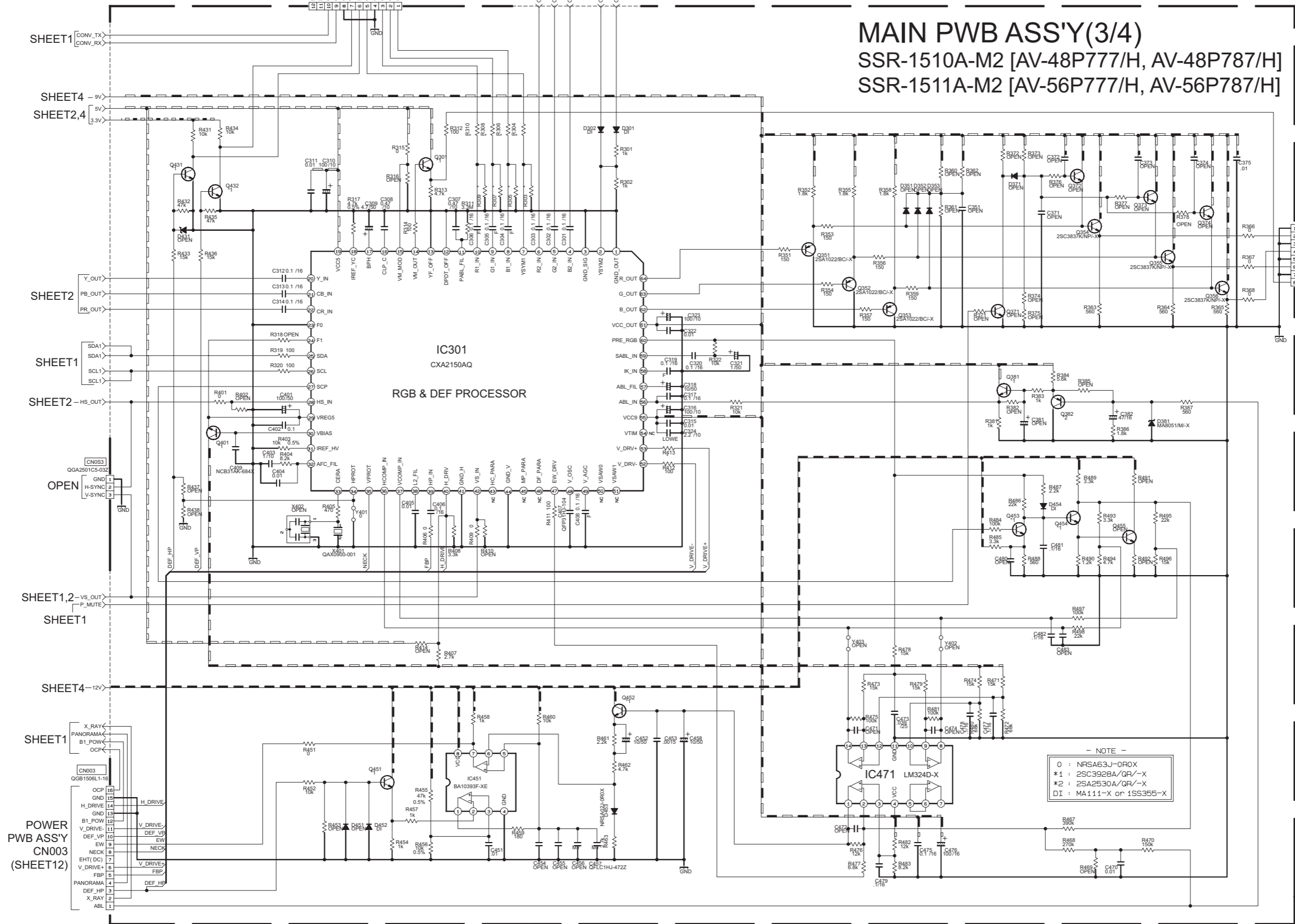
REF	ORIG	REV	DESCRIPTION
IC601	NR5A63J-OR0X	OPEN	
R801	1K	OPEN	
R802	22K	OPEN	
R803	22K	OPEN	
R804	OPEN	0	
R805	10K	OPEN	
R806	10K	OPEN	
R807	OPEN	OPEN	
R808	OPEN	OPEN	
R809	10K	OPEN	
R811	1K	OPEN	
R812	22K	OPEN	
R813	22K	OPEN	
R814	OPEN	0	
C801	4.725	OPEN	
C802	0.033	OPEN	
C803	22K	OPEN	
C804	2250	OPEN	
C805	47/10	OPEN	
C806	1/10	OPEN	
C807	1000	OPEN	
C811	4.725	OPEN	
C812	0.033	OPEN	
C813	0.033	OPEN	

- NOTE -
 0 : NFA63J-OR0X
 *1 : 2SC3928A/QR-X
 *2 : 2SA2530A/QR-X
 DI : MA111-X or 1S355-X



MAIN PWB ASS'Y(3/4)
SSR-1510A-M2 [AV-48P777/H, AV-48P787/H]
SSR-1511A-M2 [AV-56P777/H, AV-56P787/H]

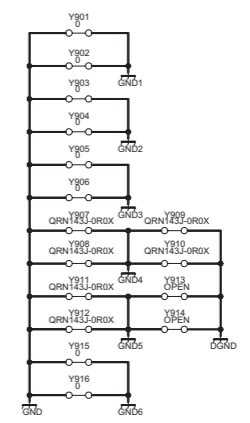
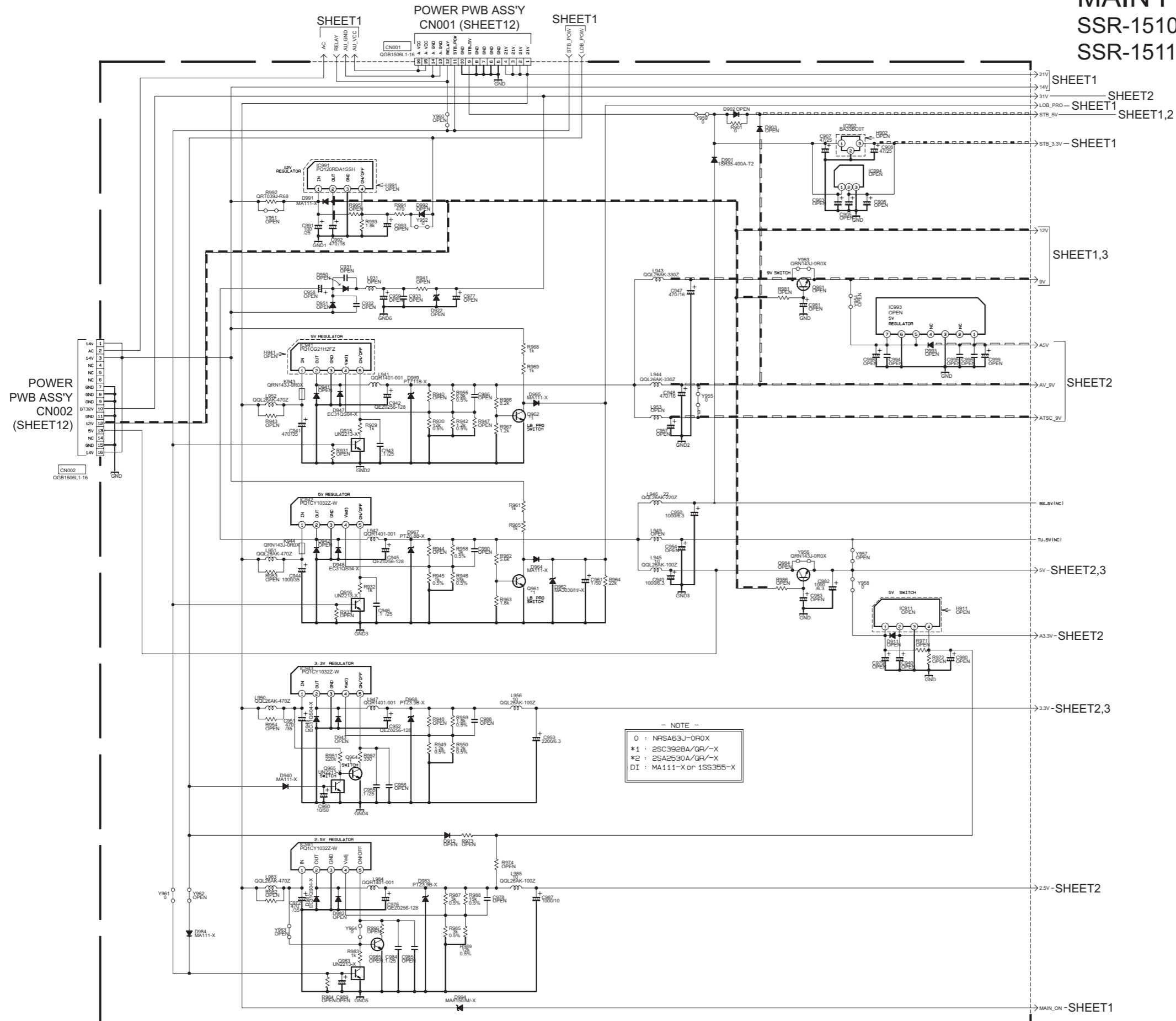
G CRT SOCKET
PWB ASS'Y
CN200E
(SHEET8)

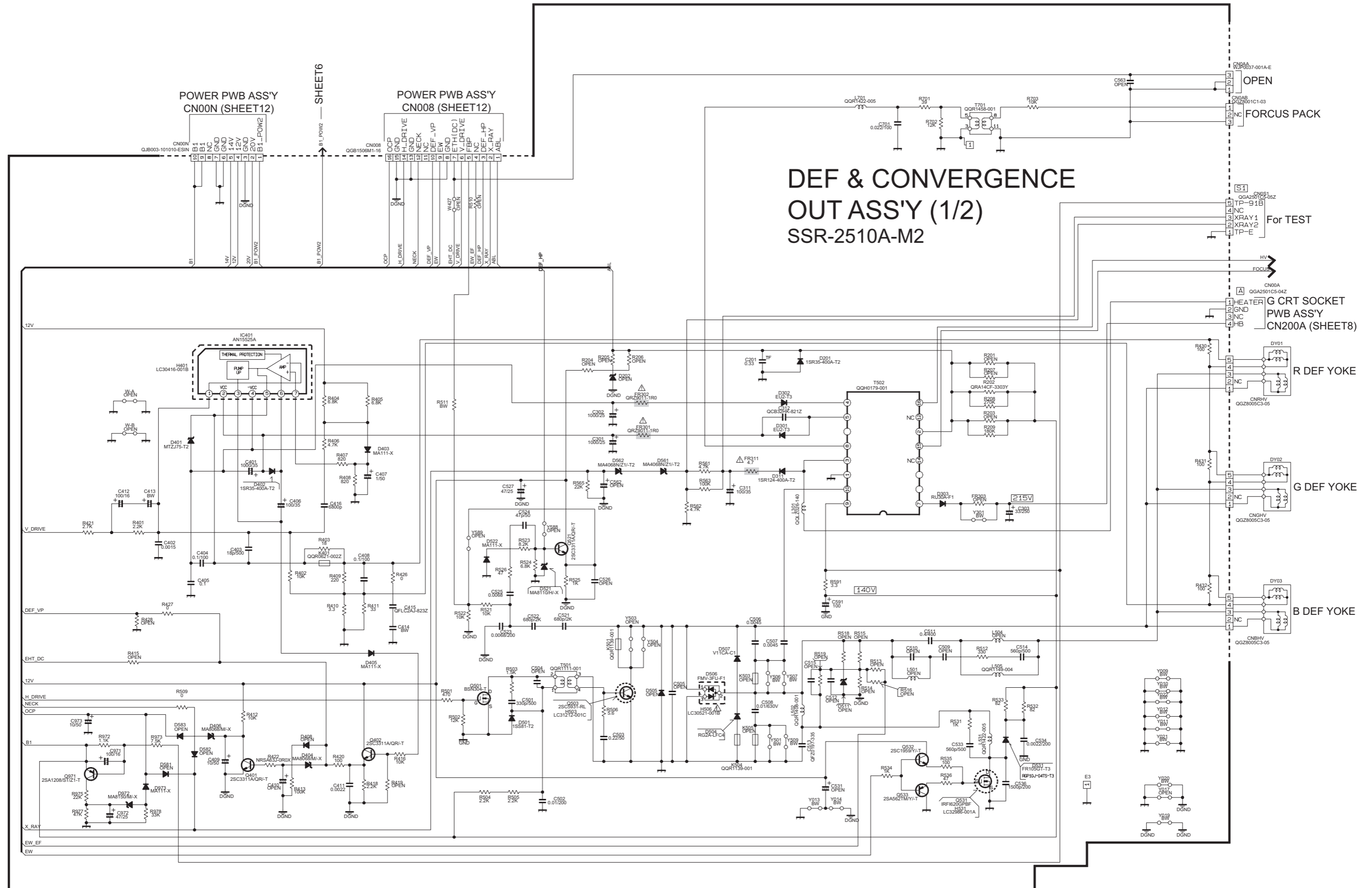


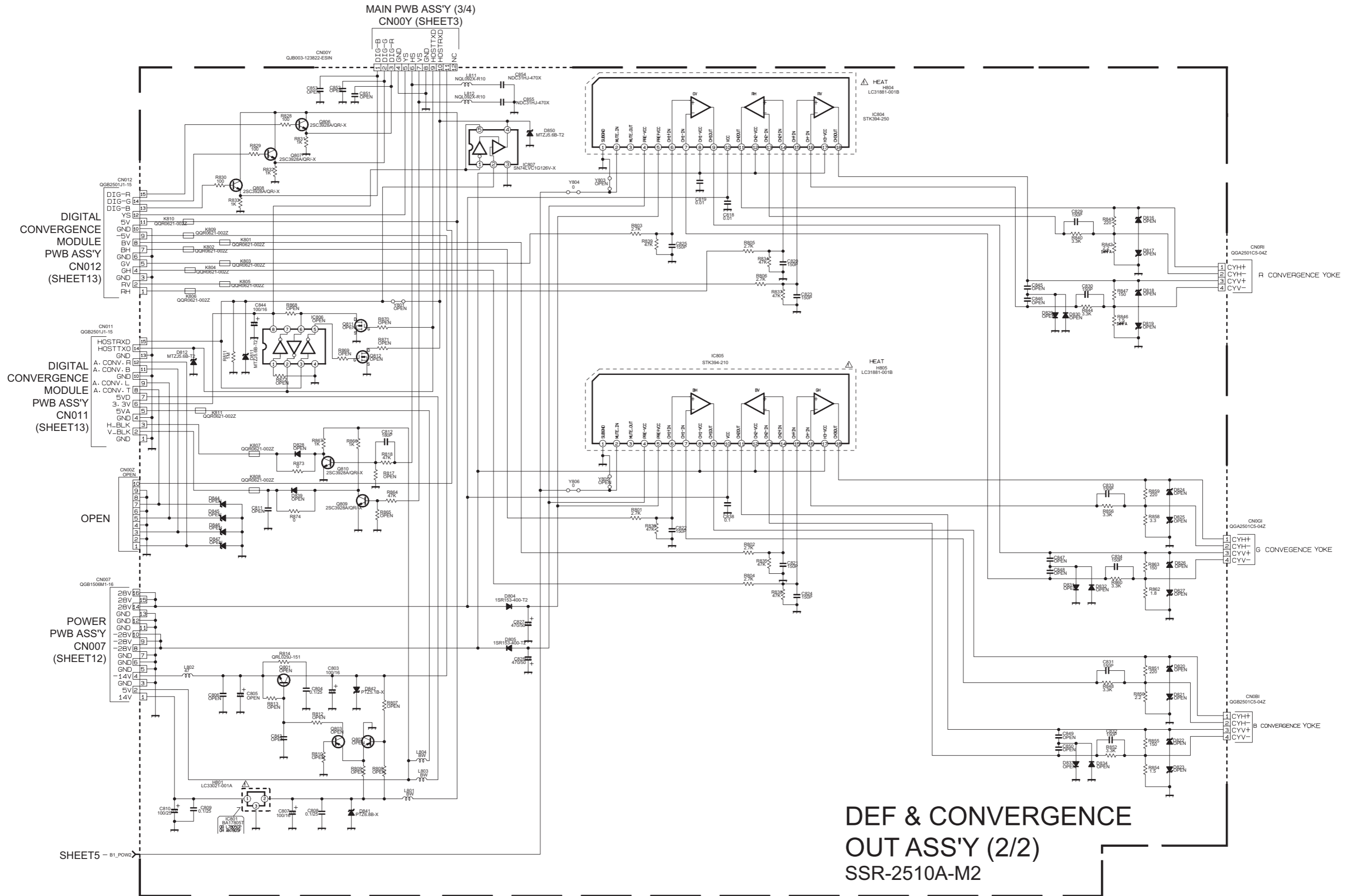
* DIFFERENCE LIST

Part No.	SSR-1510A	SSR-1511A
CN00Y	OPEN	QGA2501C5-08Z
R303	0	OPEN
R304	OPEN	0
R305	0	OPEN
R306	OPEN	0
R307	0	OPEN
R308	OPEN	0
R309	0	OPEN
R310	OPEN	0
R413	100	OPEN

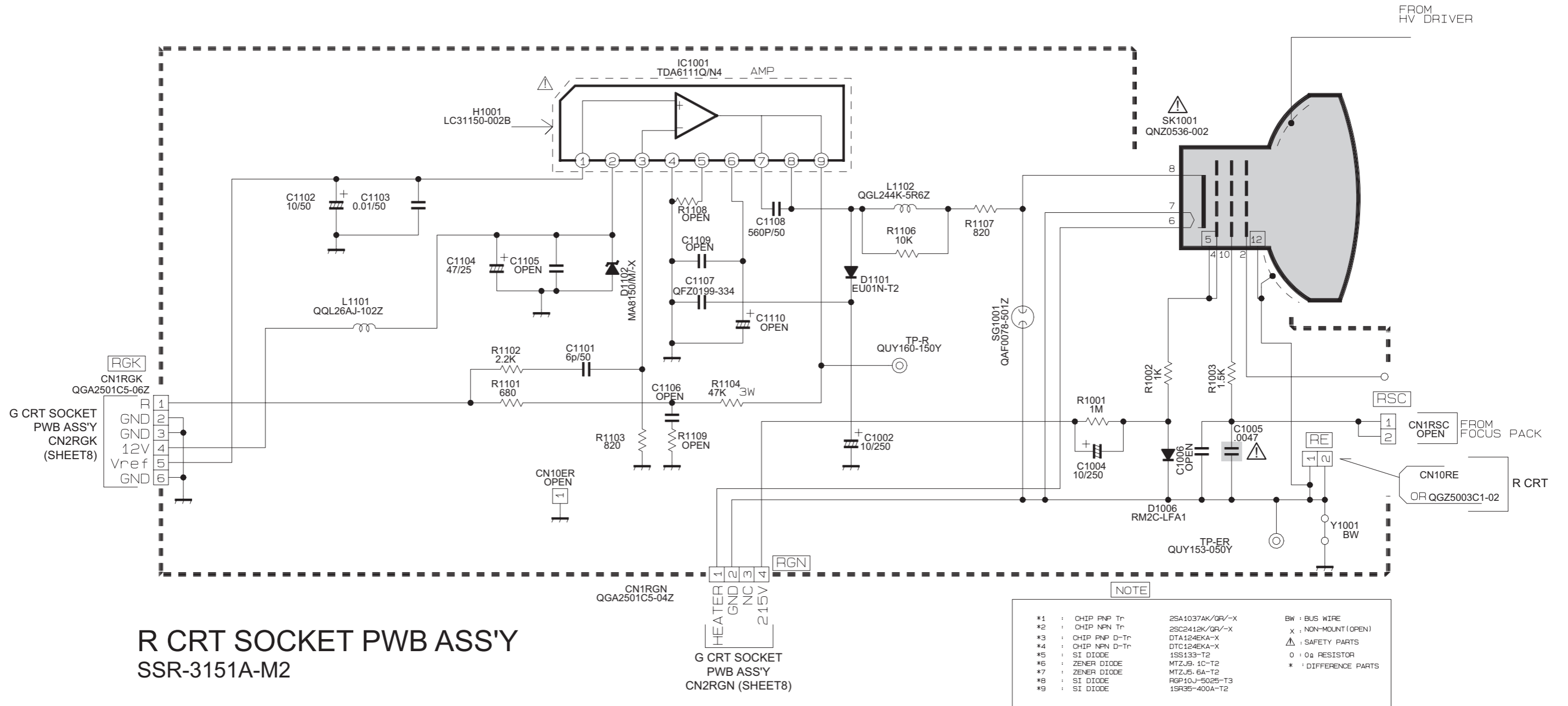
MAIN PWB ASS'Y(4/4)
 SSR-1510A-M2 [AV-48P777/H, AV-48P787/H]
 SSR-1511A-M2 [AV-56P777/H, AV-56P787/H]



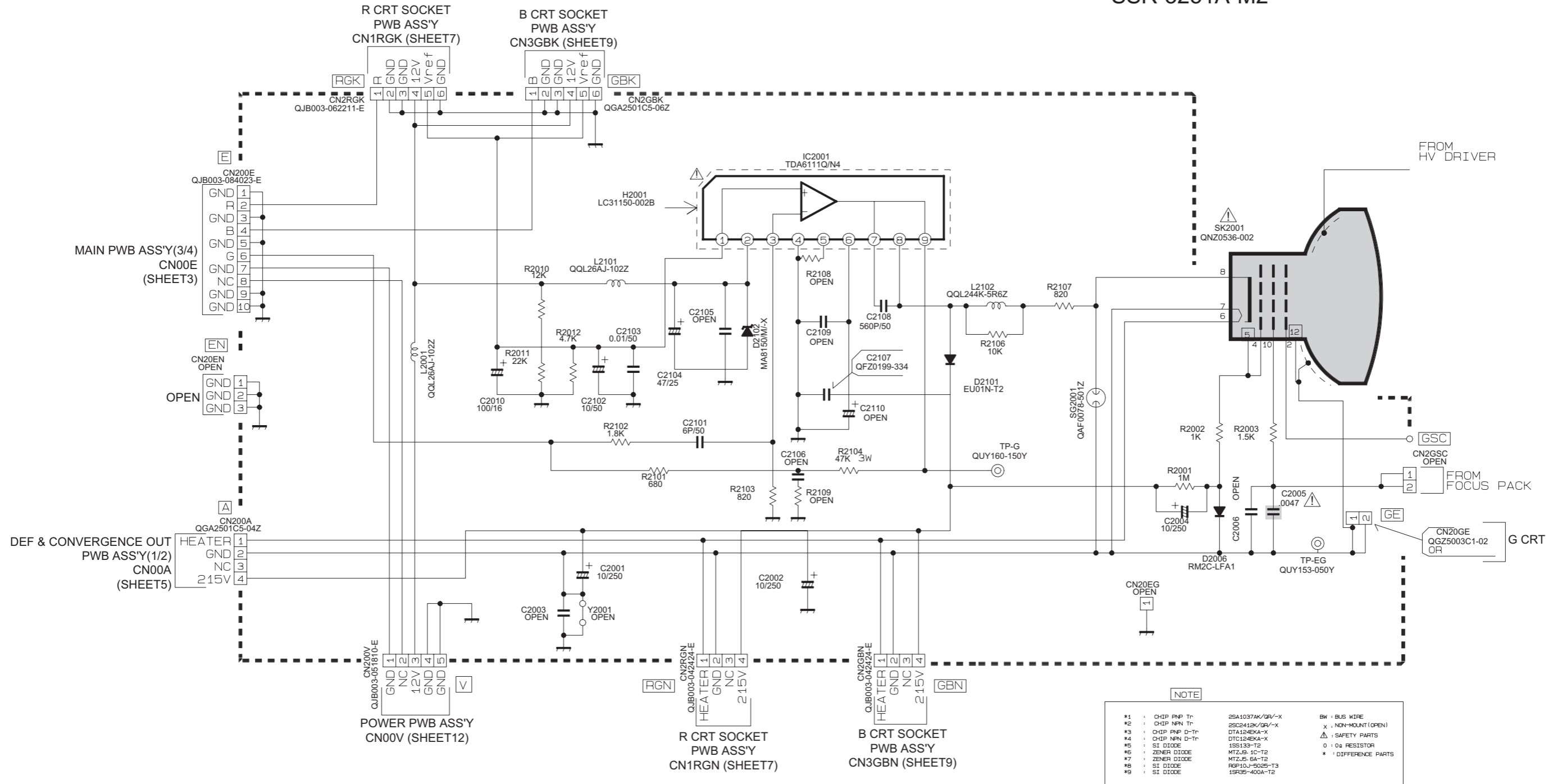


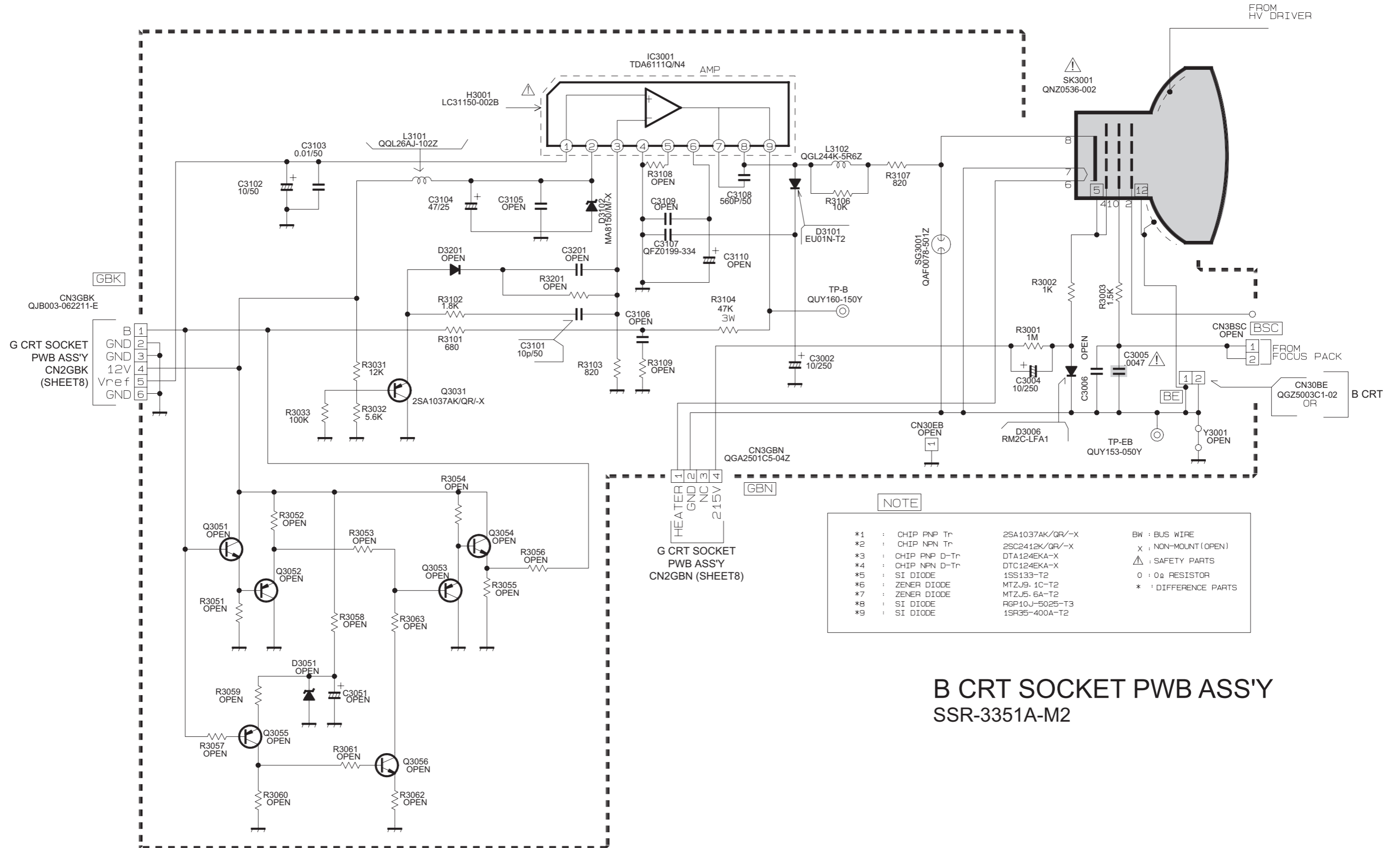


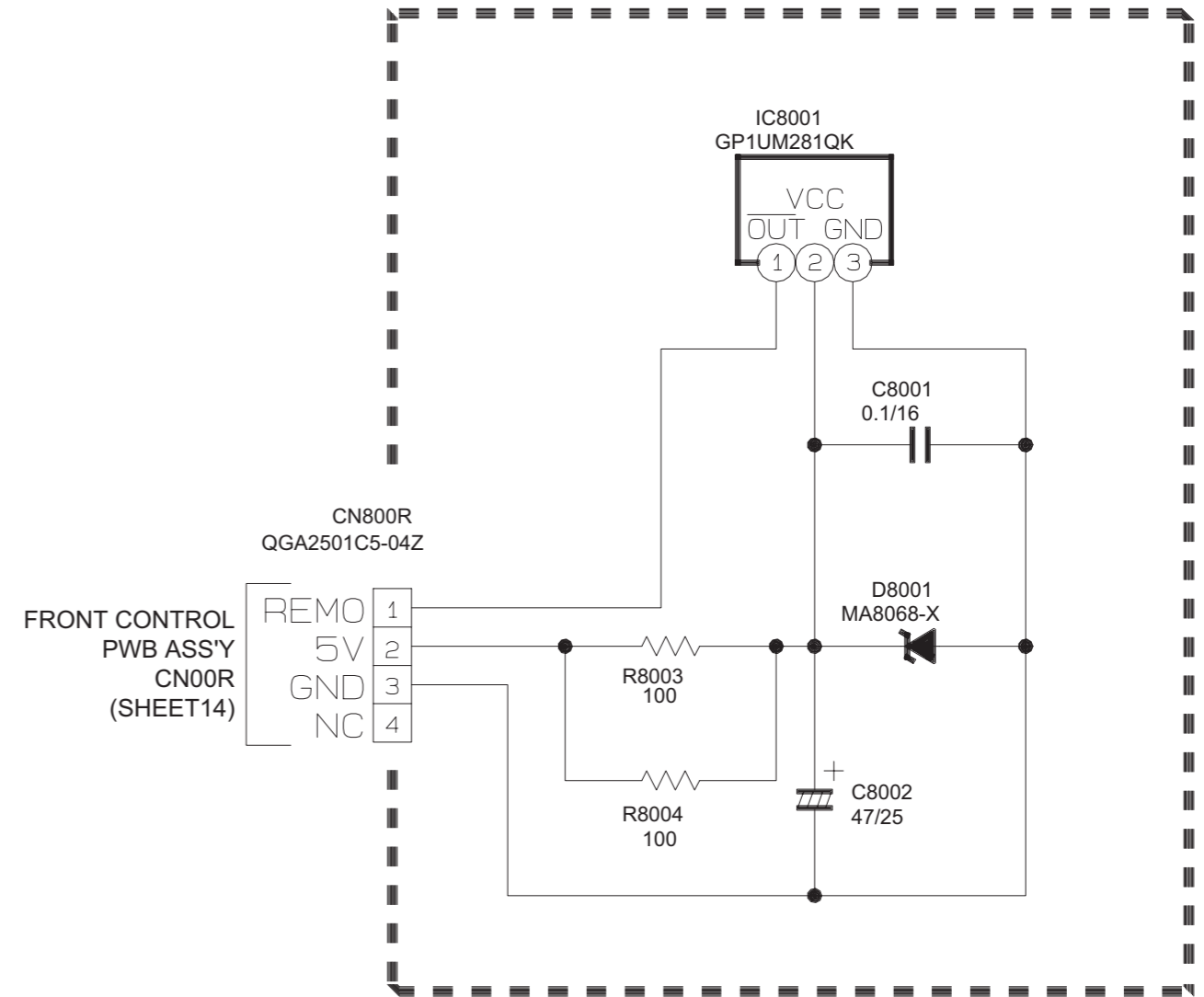
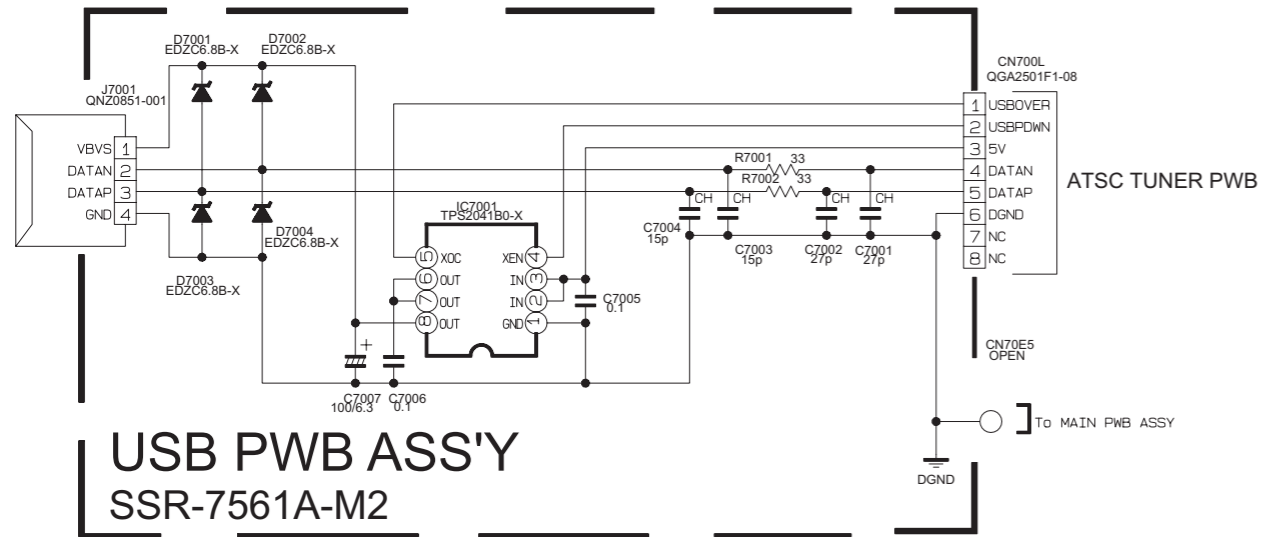
DEF & CONVERGENCE
OUT ASS'Y (2/2)
SSR-2510A-M2

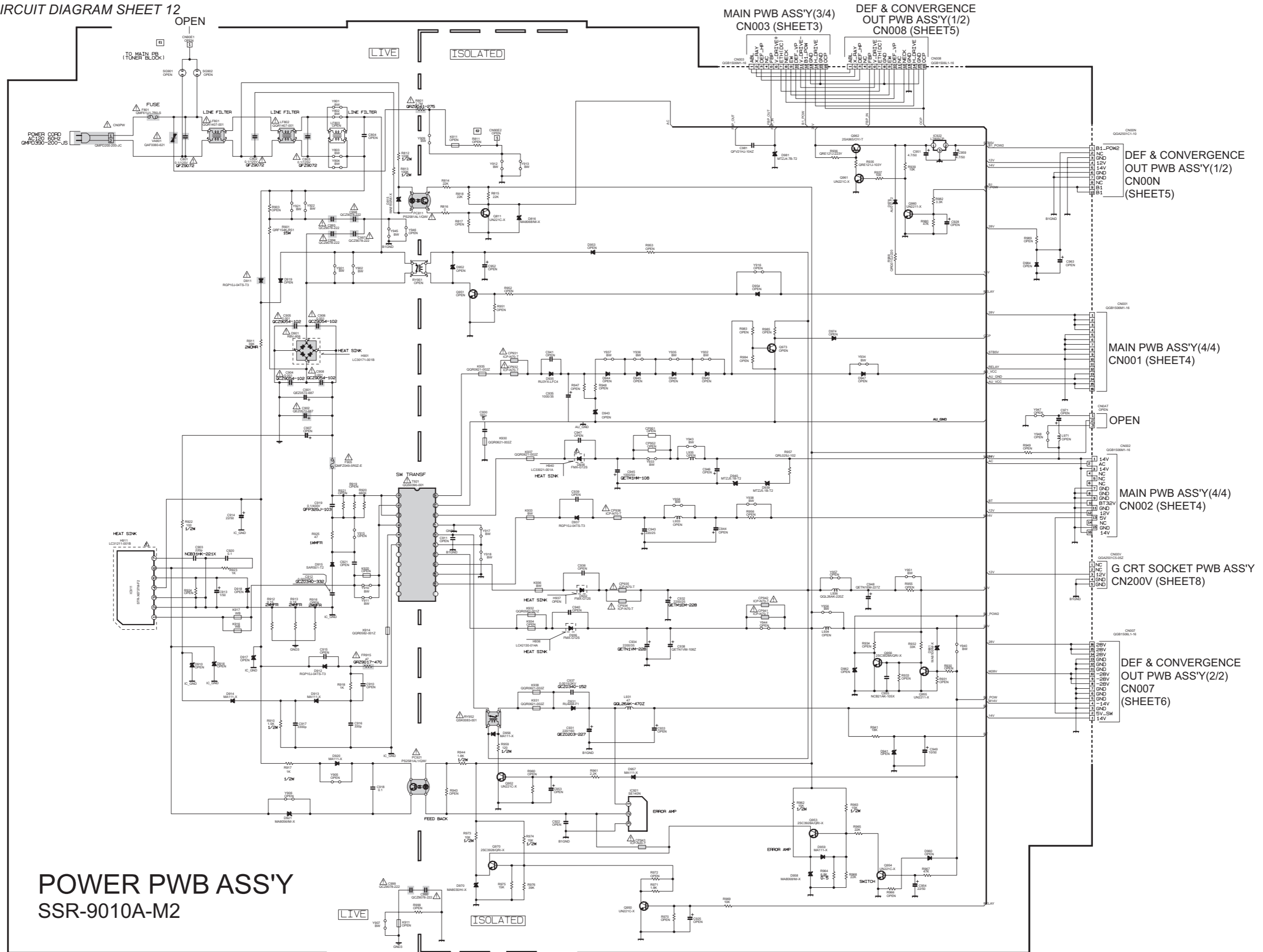


G CRT SOCKET PWB ASS'Y SSR-3251A-M2

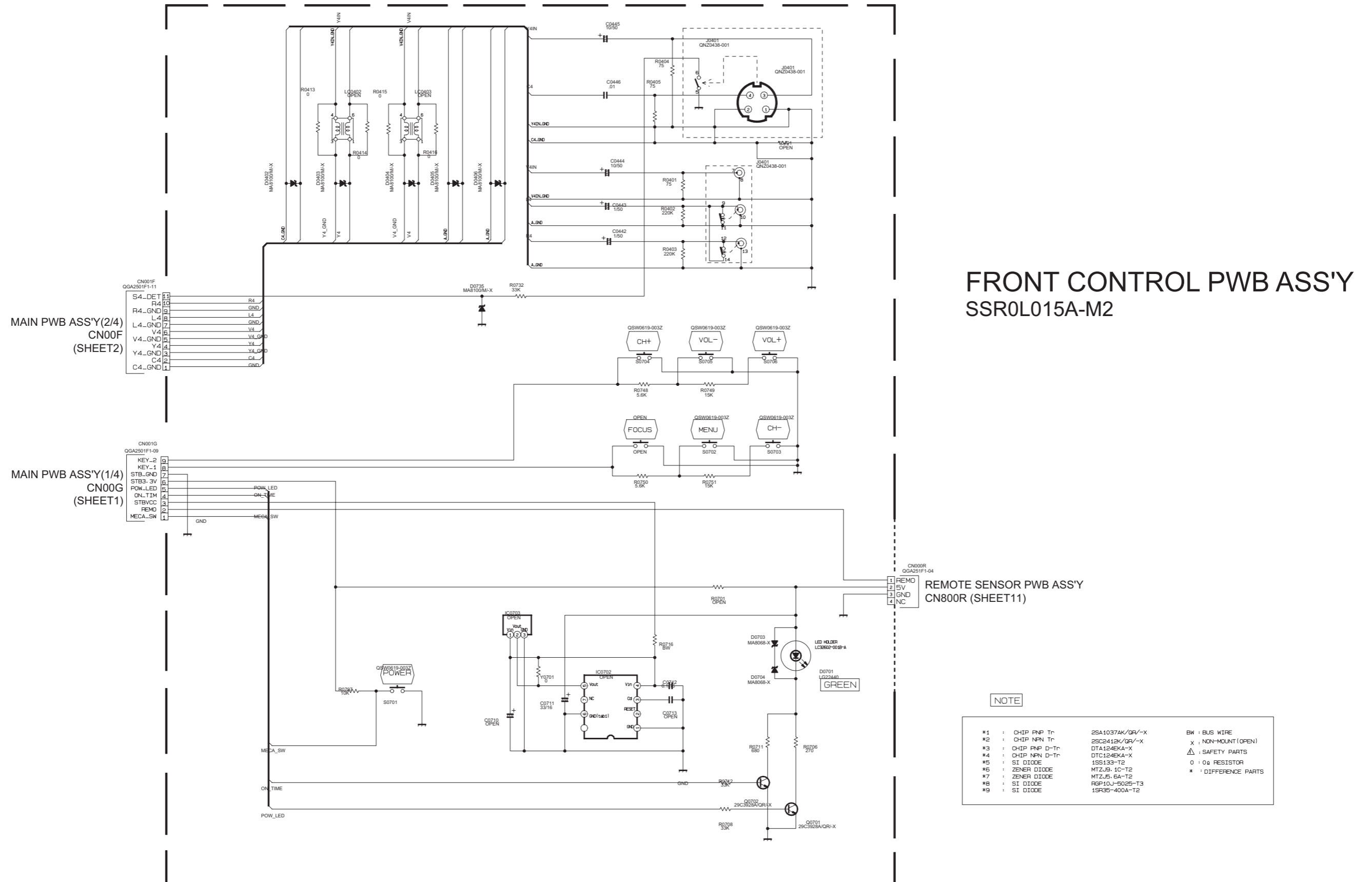








POWER PWB ASS'Y
SSR-9010A-M2



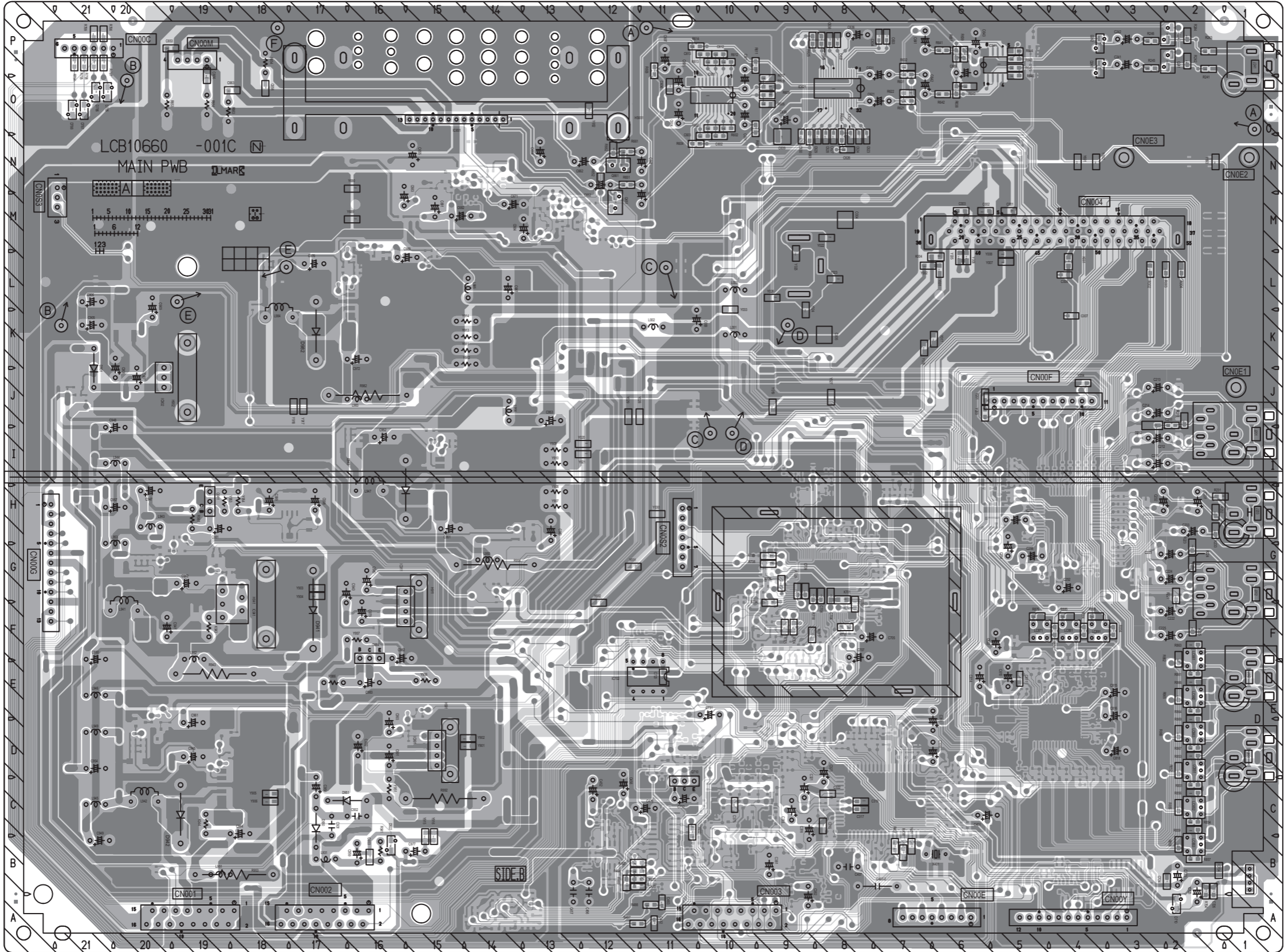
FRONT CONTROL PWB ASS'Y
SSR0L015A-M2

NOTE

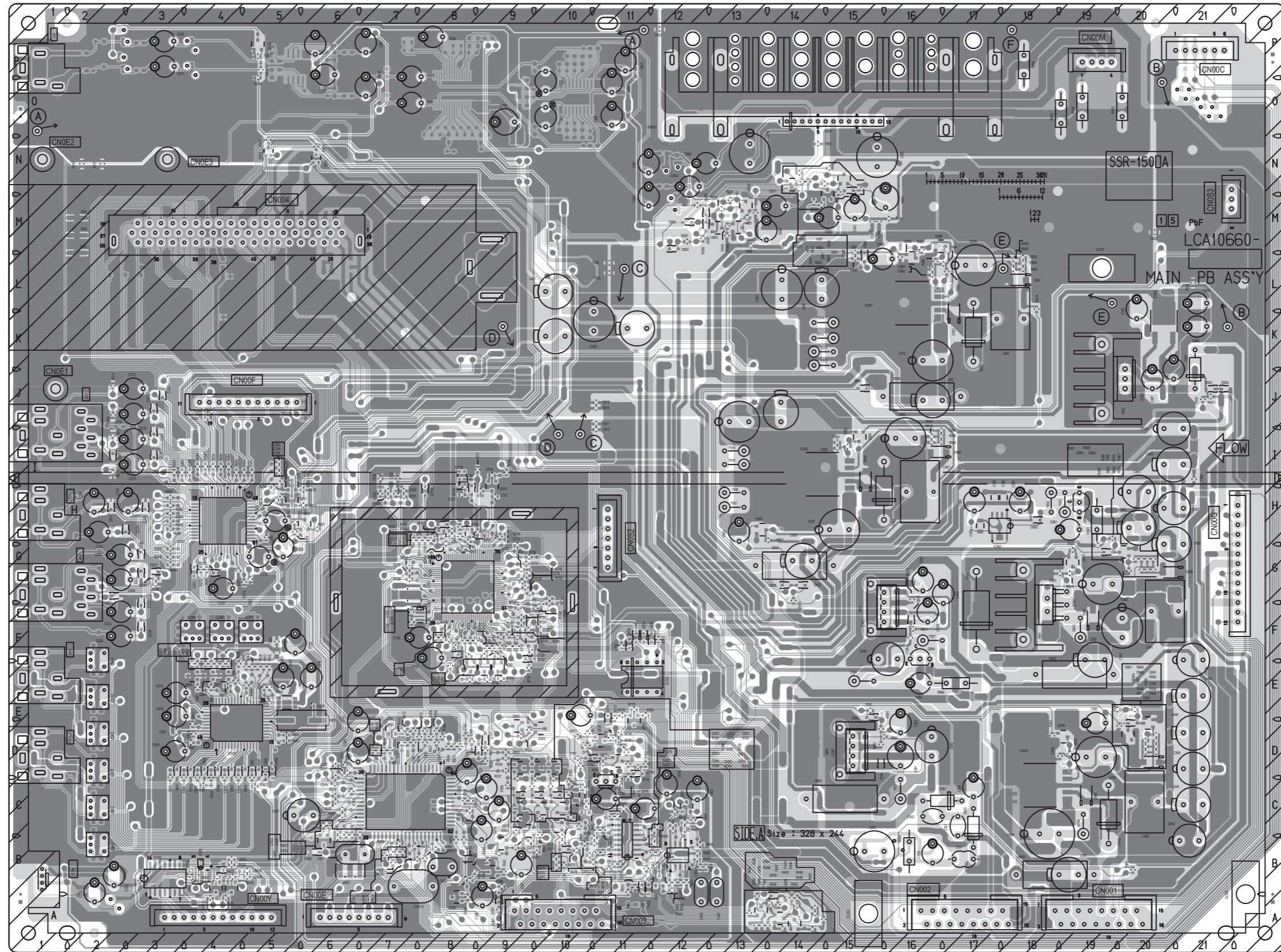
*1	: CHIP FNP Tr	2SA1037AK/GR/-X	BW	: BUS WIRE
*2	: CHIP NPN Tr	2SC2412K/GR/-X	x	: NON-MOUNT (OPEN)
*3	: CHIP FNP D-Tr	DTA124EKA-X	△	: SAFETY PARTS
*4	: CHIP NPN D-Tr	DTC124EKA-X	0	: 0Ω RESISTOR
*5	: SI DIODE	1S5133-T2	*	: DIFFERENCE PARTS
*6	: ZENER DIODE	MTZJ9.1C-T2		
*7	: ZENER DIODE	MTZJ5.6A-T2		
*8	: SI DIODE	RGP10J-5025-T3		
*9	: SI DIODE	1SP35-400A-T2		

PATTERN DIAGRAMS
MAIN PWB PATTERN [SOLDER SIDE]

FRONT
←

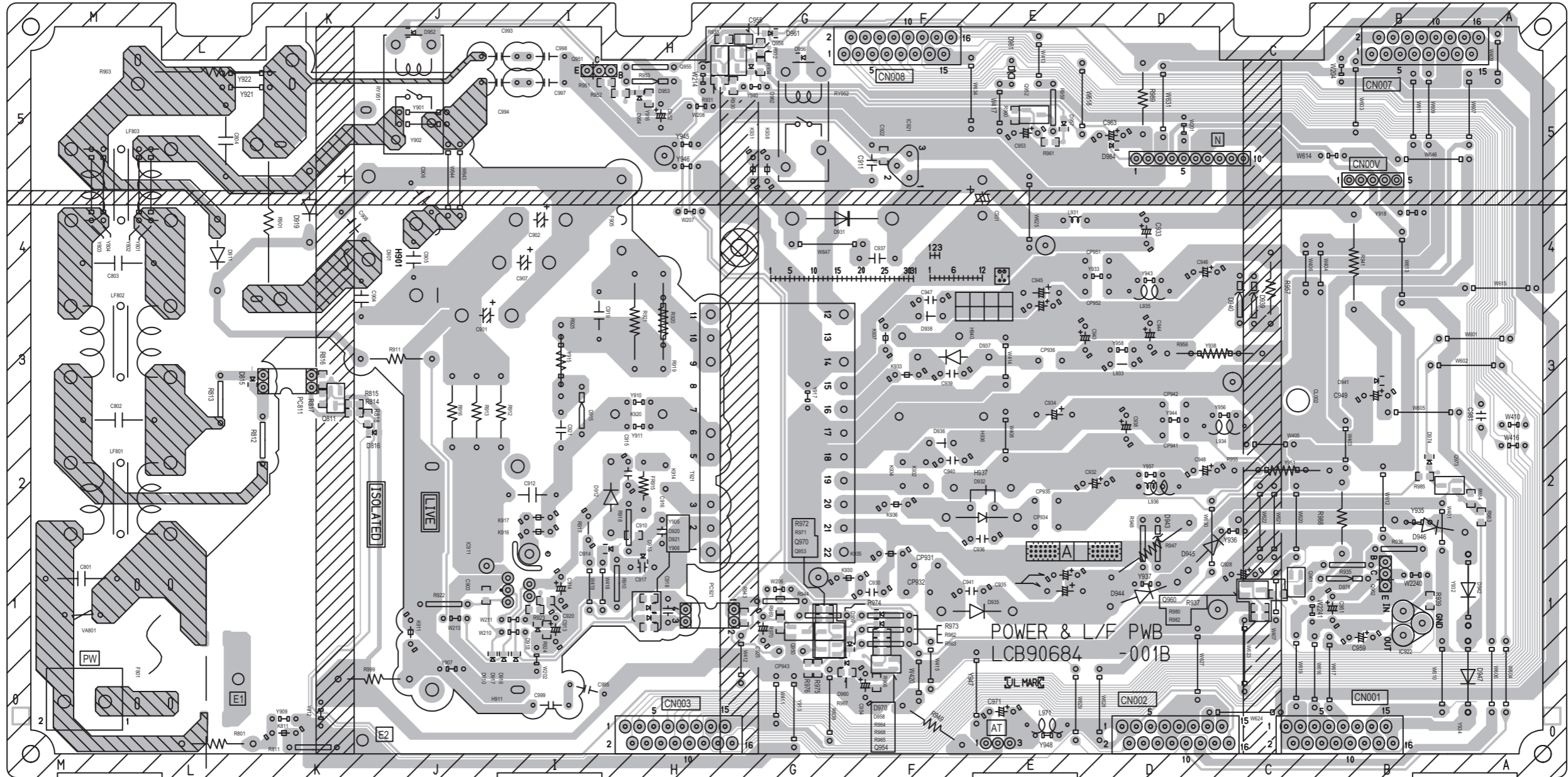


MAIN PWB PATTERN [PARTS SIDE]

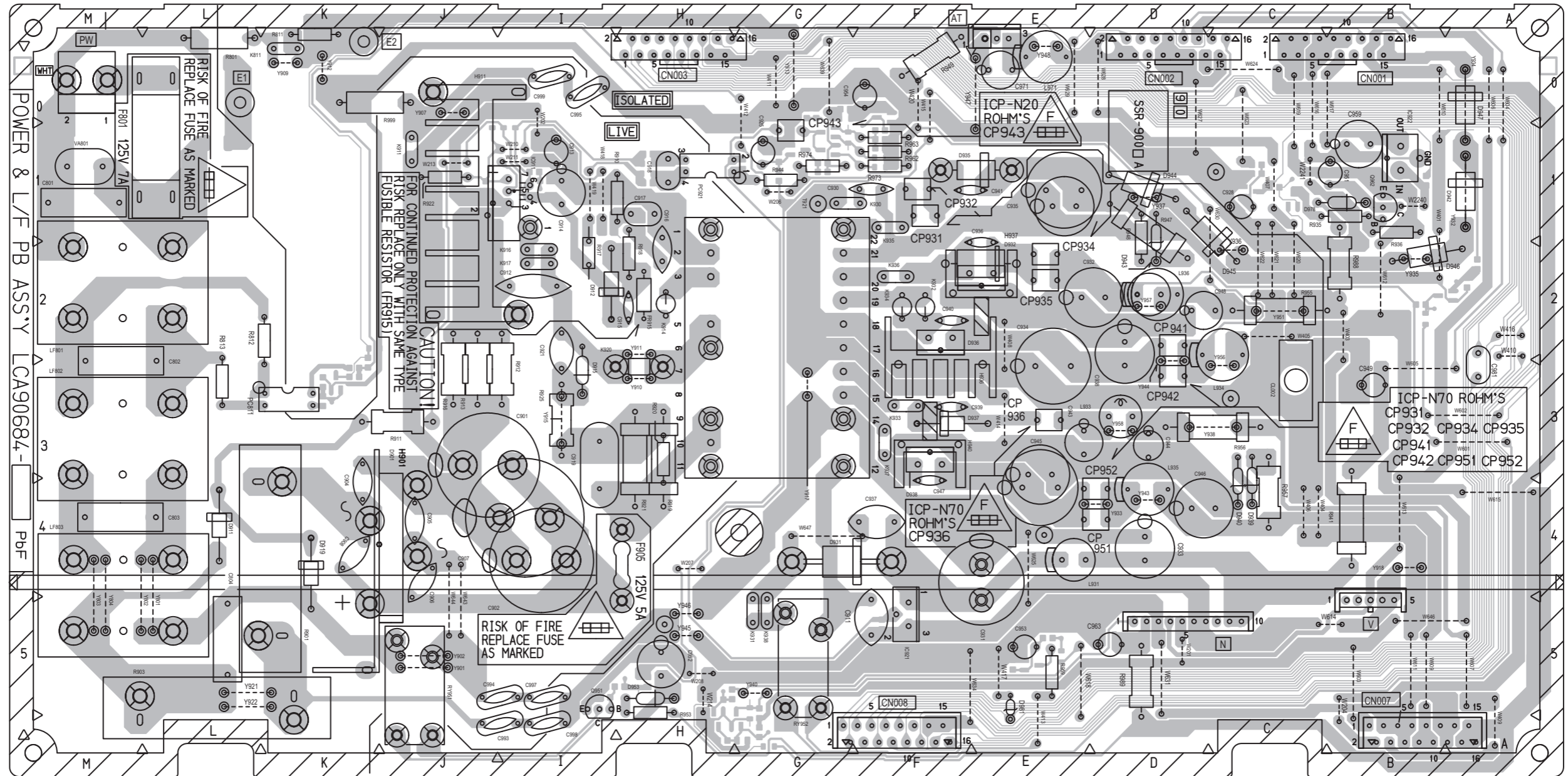


FRONT
➔

FRONT
←



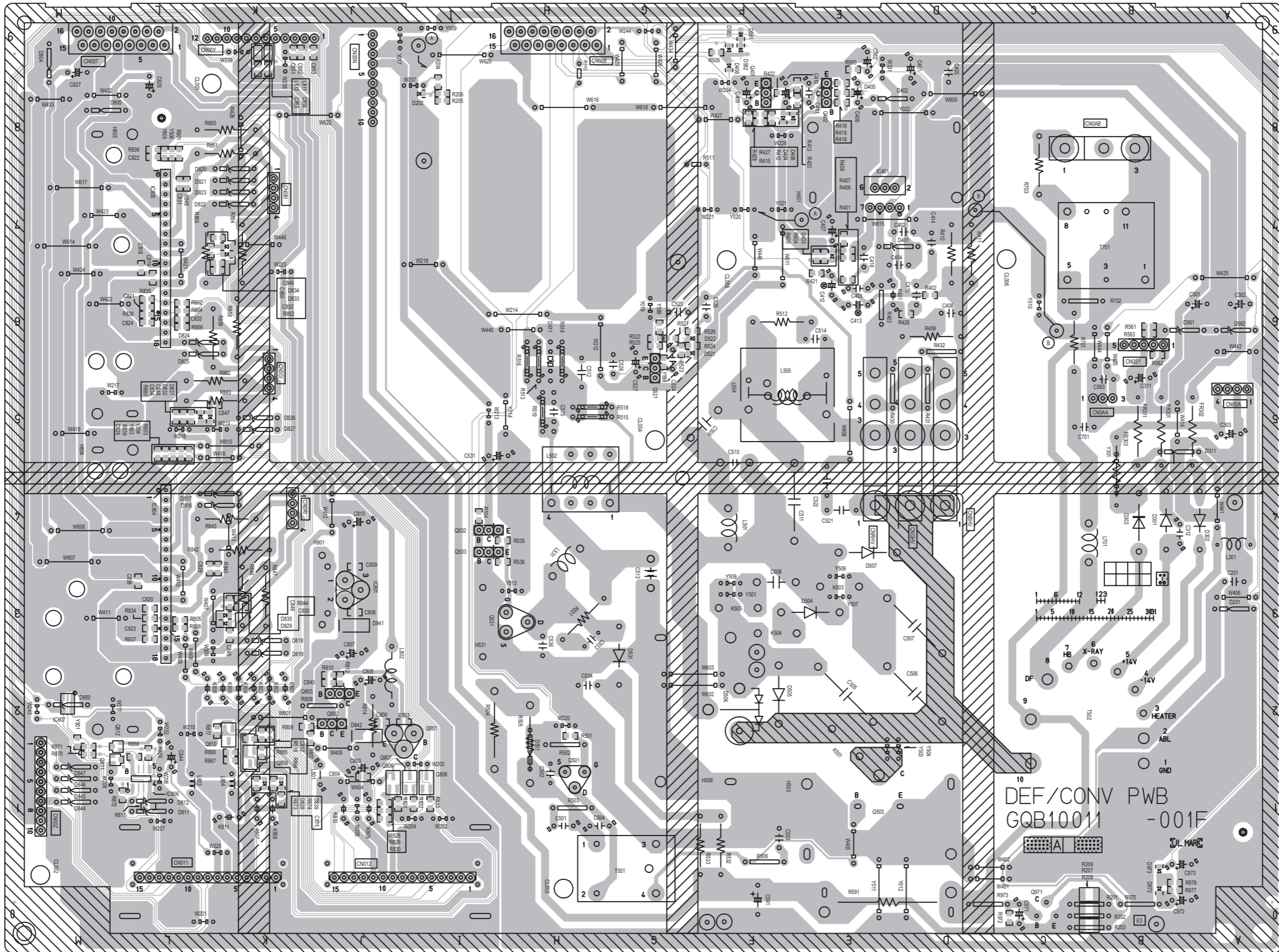
CAUTION :
 FOR CONTINUED PROTECTION AGAINST FIRE HAZARD,
 REPLACE ONLY WITH SAME TYPE AND RATED FUSE(S)
 AND ROHM'S MFR'S TYPE CP(S).



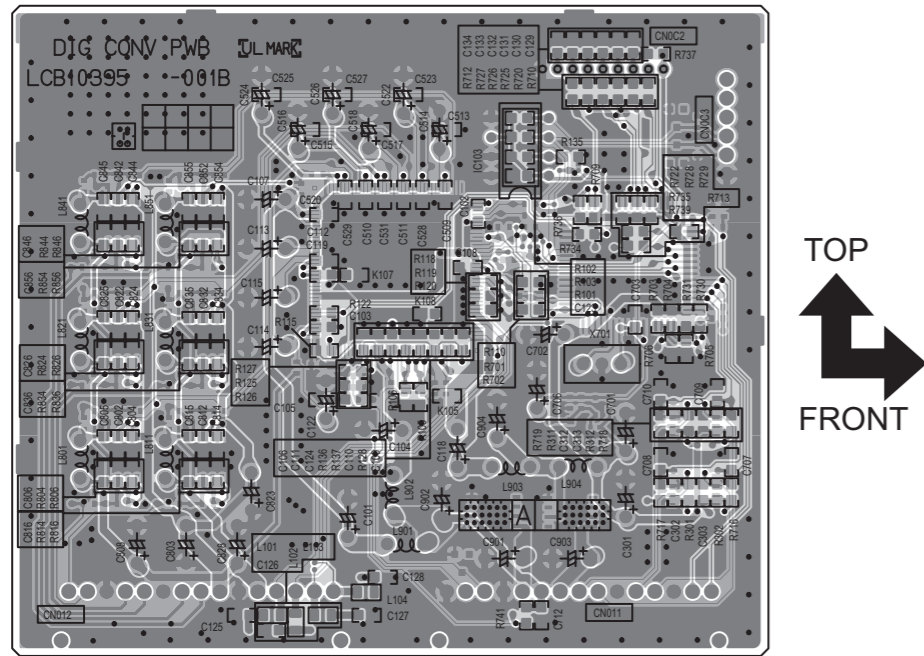
FRONT

DEF & CONVERGENCE OUT PWB PATTERN [SOLDER SIDE]

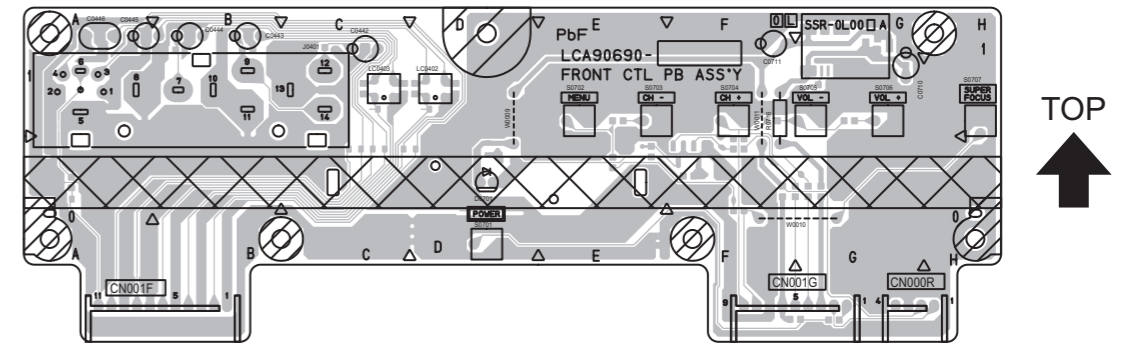
FRONT
←



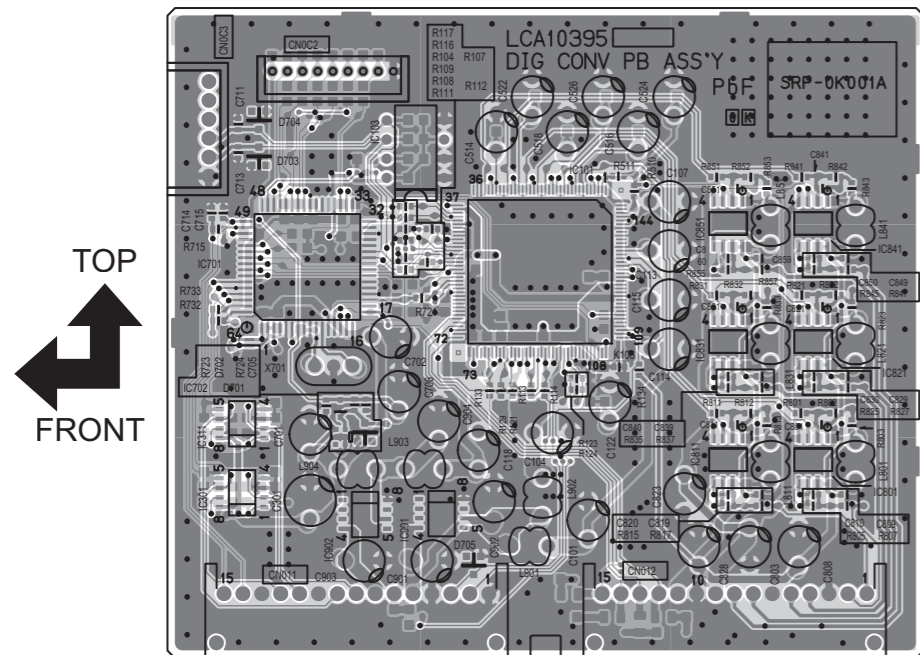
DIGITAL CONVERGENCE MODULE PWB PATTERN [SOLDER SIDE]



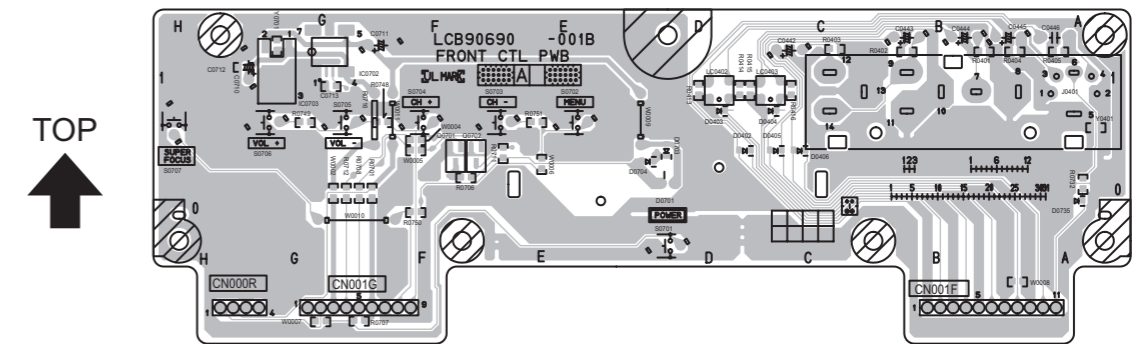
FRONT CONTROL PWB PATTERN [SOLDER SIDE]



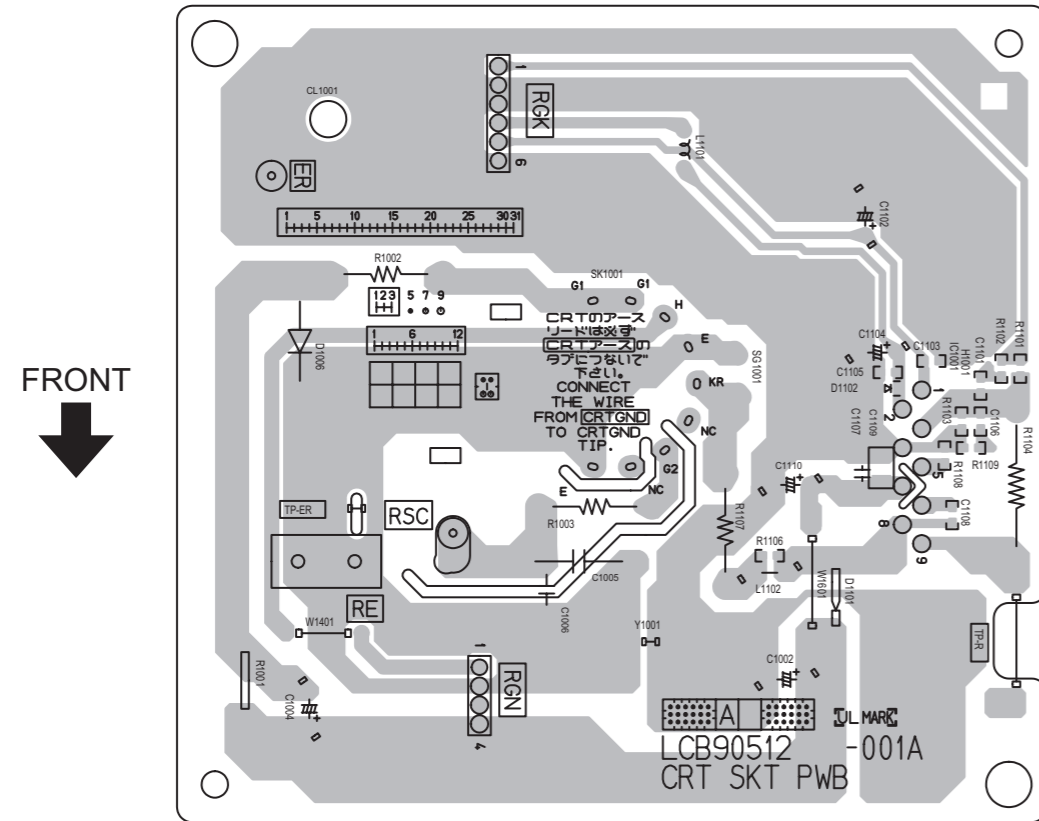
DIGITAL CONVERGENCE MODULE PWB PATTERN [PARTS SIDE]



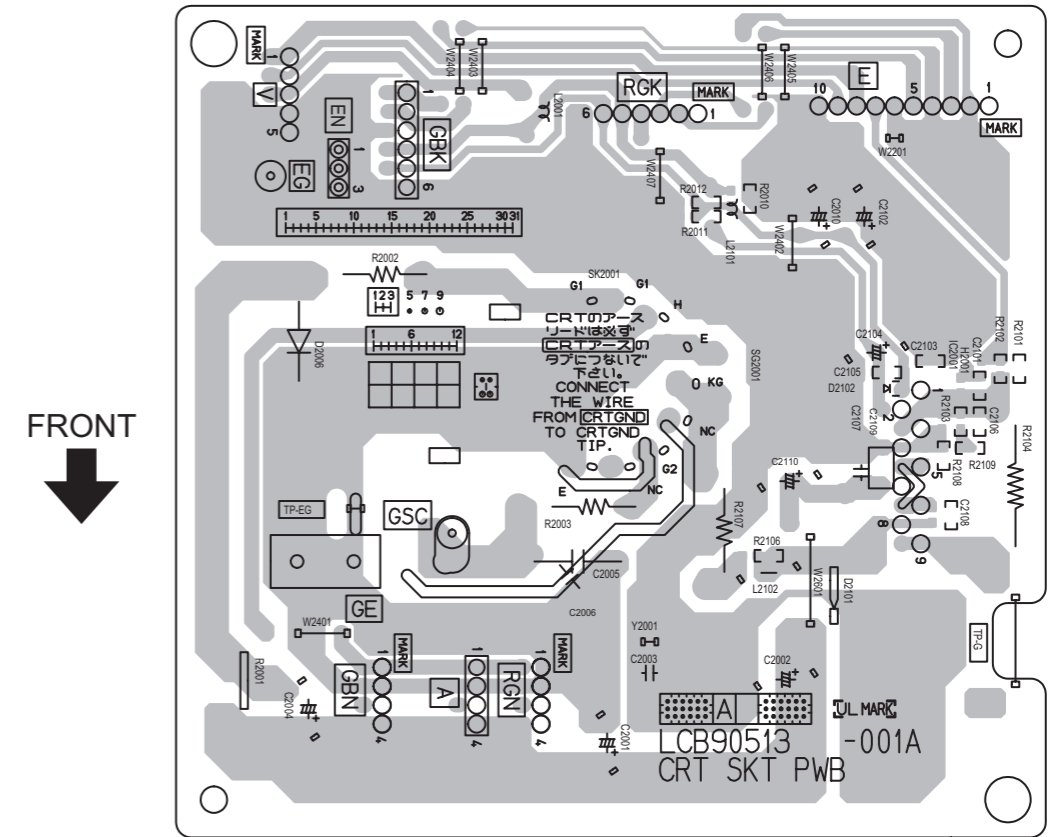
FRONT CONTROL PWB PATTERN [PARTS SIDE]



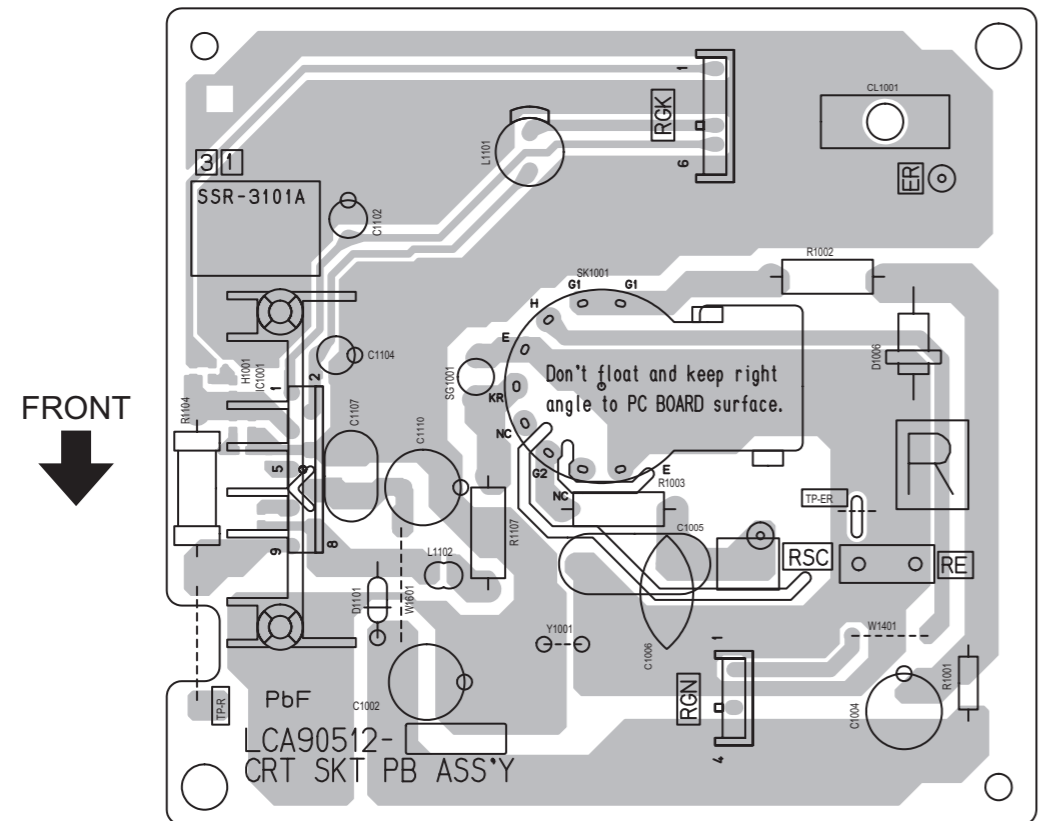
R CRT SOCKET PWB PATTERN [SOLDER SIDE]



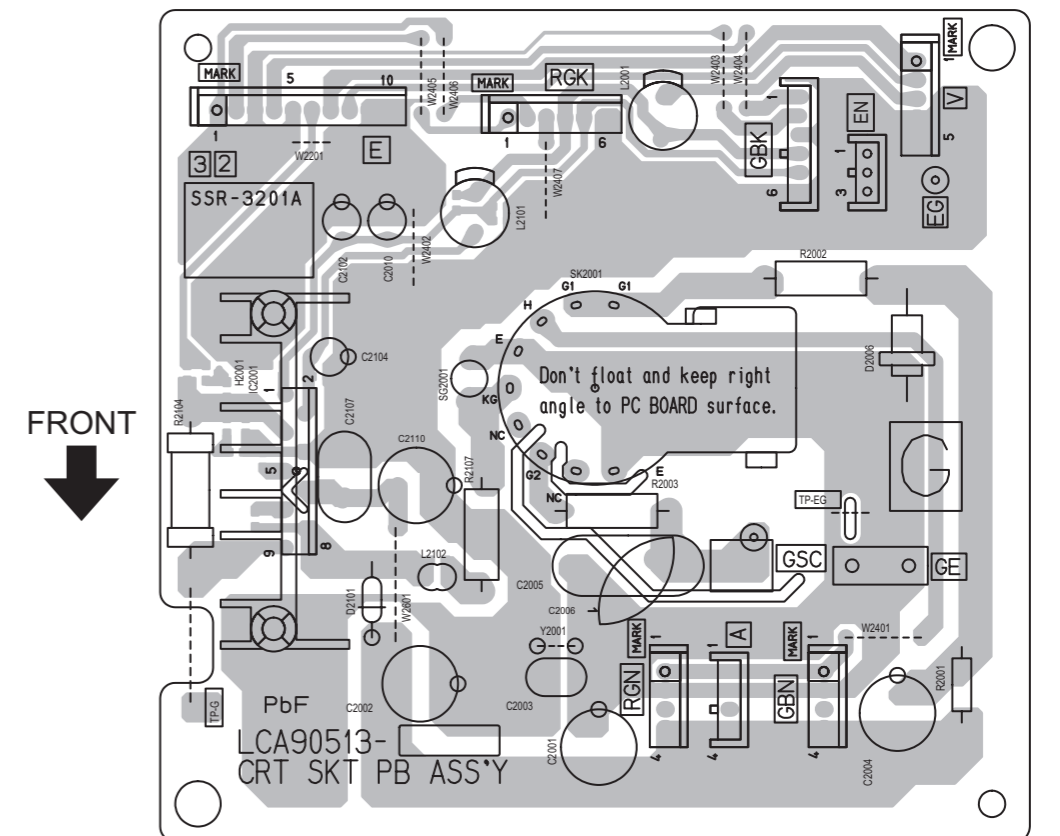
G CRT SOCKET PWB PATTERN [SOLDER SIDE]



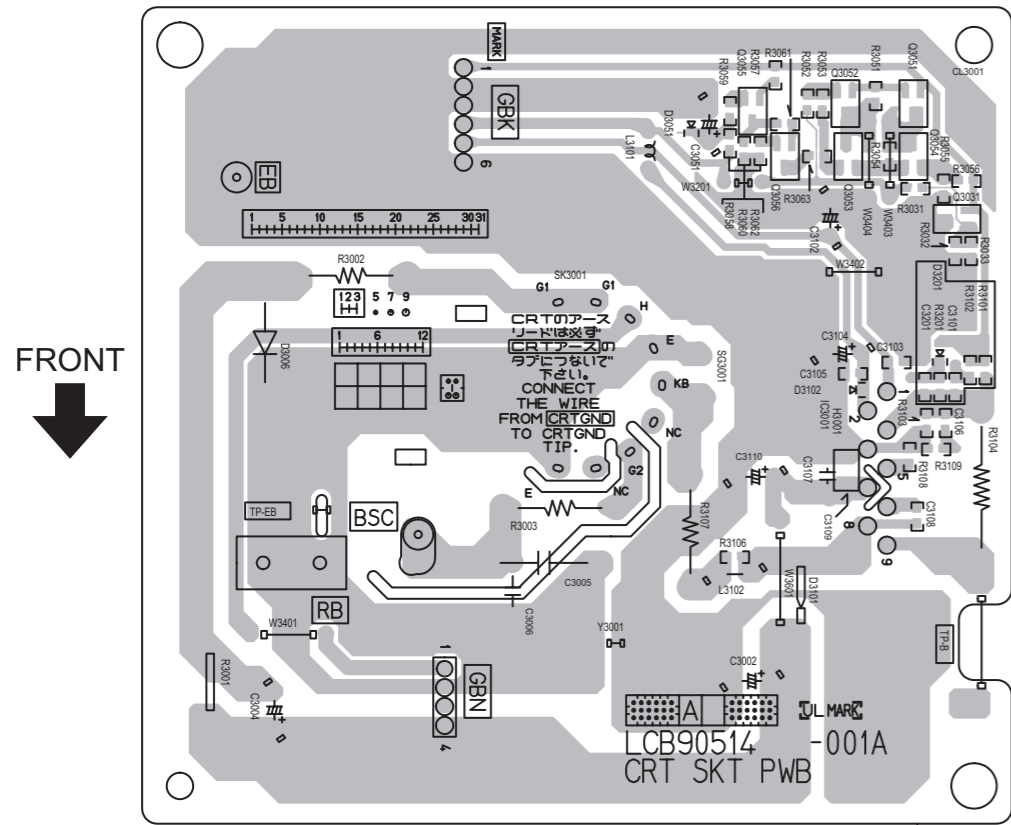
R CRT SOCKET PWB PATTERN [PARTS SIDE]



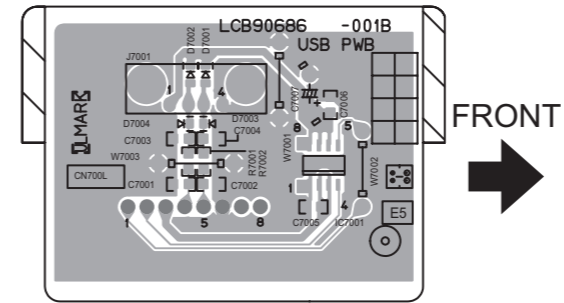
G CRT SOCKET PWB PATTERN [PARTS SIDE]



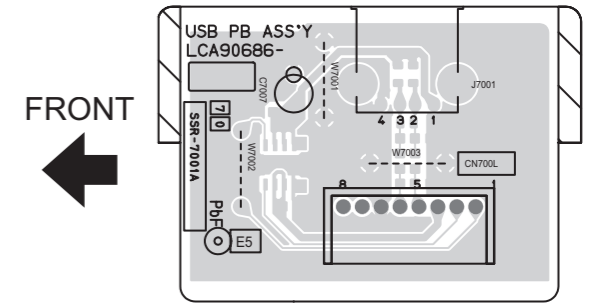
B CRT SOCKET PWB PATTERN [SOLDER SIDE]



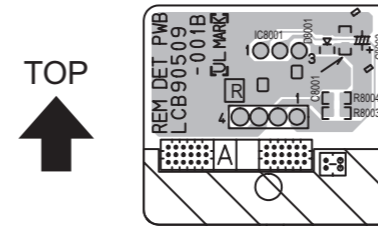
USB PWB PATTERN [SOLDER SIDE]



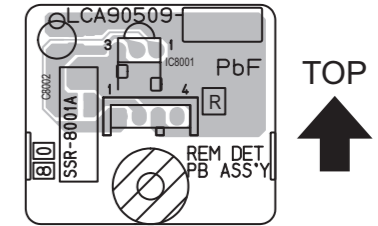
USB PWB PATTERN [PARTS SIDE]



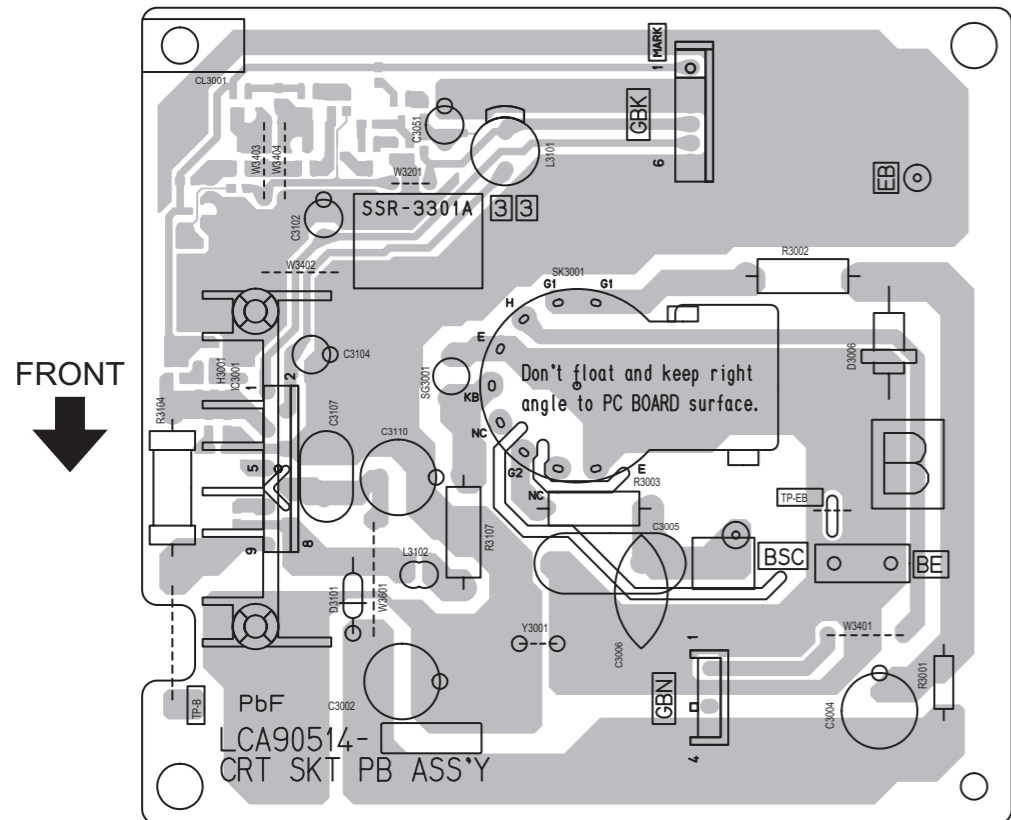
REMOTE SENSOR PWB PATTERN [SOLDER SIDE]



REMOTE SENSOR PWB PATTERN [PARTS SIDE]



B CRT SOCKET PWB PATTERN [PARTS SIDE]



VOLTAGE CHARTS

<MAIN PWB(1/4)>

MODE PIN NO.	DC (V)
IC621	
1	4.5
2	NC
3	4.5
4	NC
5	4.5
6	4.5
7	1
8	0.5
9	4.3
10	0
11	0
12	4.9
13	NC
14	4.9
15	NC
16	0
17	9
18	NC
19	4.4
20	NC
21	0
22	NC
23	2.9
24	3.3
25	3.2
26	4.5
27	4.5
28	4.5
29	NC
30	4.5
31	NC
32	4.5
IC641	
1	4.5
2	4.5
3	4.5
4	0
5	4.5
6	4.5
7	4.5
8	9
IC651	
1	18.5
2	0
3	0
4	0
5	7.8
6	1.1
7	19.5
8	19.3
9	9.2
10	0
11	0
12	0
13	NC
IC701	
1	NC
2	0
3	0
4	0
5	NC
6	NC
7	NC
8	NC
9	NC
10	3.3
11	3.2
12	0
13	NC
14	NC
15	NC
16	NC
17	3.2
18	3.2
19	0
20	3.2
21	NC
22	3.2
23	1.5
24	1.6
25	3.2
26	NC
27	NC
28	0
29	3.2
30	NC
31	NC
32	NC
33	NC
34	3.2
35	NC
36	NC
37	0
38	0
39	0
40	0

MODE PIN NO.	DC (V)
41	0
42	0
43	0.1
44	2.7
45	3.2
46	3.1
47	3.1
48	NC
49	NC
50	*
51	3.3
52	3.2
53	NC
54	3.1
55	3.2
56	3.2
57	3.1
58	3.1
59	NC
60	NC
61	0
62	1.7
63	NC
64	NC
65	NC
66	3.2
67	NC
68	NC
69	NC
70	NC
71	NC
72	NC
73	3.1
74	3.1
75	*
76	3.2
77	2.8
78	3.2
79	NC
80	NC
81	NC
82	3.2
83	3.2
84	3.3
85	3.3
86	NC
87	NC
88	NC
89	NC
90	NC
91	NC
92	0
93	NC
94	NC
95	NC
96	NC
97	NC
98	NC
99	NC
100	NC
IC702	
1	0
2	0
3	0
4	0
5	3.1
6	3.1
7	0
8	3.2
IC703	
1	3.2
2	3.2
3	NC
4	0
IC704	
1	NC
2	0
3	2.2
4	4.9
Q671	
1	0
E	0
C	7.9
B	0
Q682	
E	14.8
C	-0.4
B	15.2
Q683	
E	0
C	4.2
B	0.3
Q684	
E	0
C	0
B	0.6

MODE PIN NO.	DC (V)
Q701	
S	3.8
D	3.2
G	3.2
Q702	
S	3.8
D	3.3
G	3.2
Q703	
E	3.2
C	3.1
B	2.6
Q704	
E	3.2
C	3.2
B	2.6
Q705	
E	3.2
C	3.2
B	2.6
Q706	
E	0
C	*
B	0
Q707	
E	0
C	3.1
B	0
Q708	
E	0
C	0
B	0.6
Q709	
E	2.8
C	0
B	3.3
Q710	
E	0
C	3.4
B	0
Q711	
E	3.2
C	0
B	3.5

<MAIN PWB(2/4)>

MODE PIN NO.	DC (V)
IC251	
1	3.9
2	4.5
3	3.9
4	4.5
5	4.5
6	NC
7	4.9
8	4
9	4.5
10	3.9
11	4.5
12	4.5
13	0
14	5
15	4
16	4.5
17	0
18	4.5
19	4.5
20	0
21	5
22	0
23	0
24	4.5
25	0
26	4.9
27	4.9
28	NC
29	4.3
30	NC
31	0
32	NC
33	NC
34	9
35	0
36	3.9
37	4.5
38	0
39	4.5
40	3.6
41	4.5
42	NC
43	NC
44	0
45	NC
46	4.5
47	3.9
48	4.5

MODE PIN NO.	DC (V)
IC801	
1	2.8
2	0
3	2.8
4	0
5	2.2
6	0
7	0
8	1.8
9	0
10	2.8
11	0
12	2.8
13	0
14	2.2
15	0
16	1.8
17	2.4
18	0
19	4.9
20	0
21	4.1
22	3.4
23	0.8
24	0.8
25	0.8
26	0.8
27	0
28	0
29	3.4
30	0
31	5
32	1.5
33	0
34	2.1
35	2.4
36	2.1
37	0
38	0
39	0
40	0
41	0
42	0
43	0
44	0
45	1.8
46	5
47	2.2
48	0
Q001	
S	3.3
D	4.9
G	3.3
Q002	
S	3.3
D	4.9
G	3.3
Q241	
E	0
C	0
B	-1
Q242	
E	0
C	0
B	-1
Q243	
E	0.1
C	0
B	0
Q251	
E	2.3
C	0
B	1.7
Q252	
E	2.7
C	0
B	2.1
Q253	
E	2.4
C	0
B	1.8
Q871	
E	2.1
C	0
B	1.5
Q881	
E	2.8
C	0
B	2.1
Q891	
E	2.7
C	0
B	2.1
CN004	
1	5
2	0
3	3.3

MODE PIN NO.	DC (V)
4	0
5	2.5
6	0
7	3.3
8	NC
9	0
10	0
11	3.3
12	3
13	1.3
14	0
15	0
16	2.8
17	3.4
18	2.7
19	5
20	0
21	4.1
22	3.4
23	0.8
24	0.8
25	0.8
26	0.8
27	0
28	0
29	0
30	0
31	0
32	1.2
33	0
34	2.1
35	2.4
36	2.1
37	0
38	31.7
39	0
40	0
41	0
42	0
43	3.2
44	3.3
45	0.3
46	0
47	0
48	9
49	3.1
50	1.1
51	0
52	0
53	2.5
54	3.4
55	2.2

<MAIN PWB(3/4)>

MODE PIN NO.	DC (V)
IC301	
1	0
2	0.1
3	0
4	3.1
5	3.1
6	3.1
7	0.1
8	3.7
9	3.7
10	3.7
11	0
12	0
13	0
14	2.4
15	5.7
16	2.4
17	2.4
18	1.1
19	5
20	3.4
21	3.5
22	3.5
23	0
24	2
25	3.8
26	3.8
27	0.7
28	0
29	5
30	0
31	3.3
32	3
33	1.6
34	0
35	0
36	7.7
37	7.7
38	3.4
39	2.1
40	2.5

MODE PIN NO.	DC (V)
41	0
42	0
43	NC
44	0
45	NC
46	NC
47	4.2
48	4.4
49	5.5
50	NC
51	NC
52	0
53	0
54	NC
55	9
56	5
57	0
58	0
59	2.3
60	1.9
61	9
62	1.9
63	1.8
64	1.8
IC451	
1	2.5
2	1.5
3	2
4	0
5	2.7
6	0.9
7	10.3
8	11.9
IC471	
1	3.7
2	4.1
3	4.1
4	9
5	NC
6	NC
7	NC
8	0
9	0
10	7.4
11	0
12	7.4
13	3.6
14	7.7
Q301	
E	1.9
C	5
B	2.5
Q351	
E	2.6
C	0
B	1.8
Q352	
E	2.5
C	0
B	1.8
Q353	
E	2.6
C	0
B	1.9
Q354	
E	2.1
C	9
B	2.6
Q355	
E	2
C	9
B	2.5
Q356	
E	2.1
C	9
B	2.6
Q381	
E	5
C	9
B	5.6
Q382	
E	5.6
C	0
B	5
Q401	
E	5
C	9
B	5.7
Q431	
E	0
C	1.9
B	0.3
Q432	
E	0
C	2.9
B	0.2

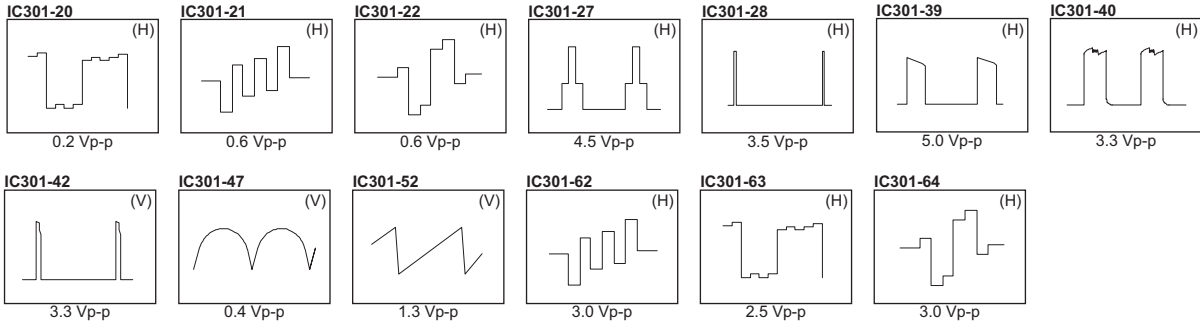
MODE PIN NO.	DC (V)
Q451	
E	1.5
C	11.9
B	1.9
Q452	
E	3.1
C	11.9
B	3.7
Q453	
E	1.7
C	1.2
B	0.1
Q454	
E	0.6
C	6.9
B	1.2

<MAIN PWB(4/4)>

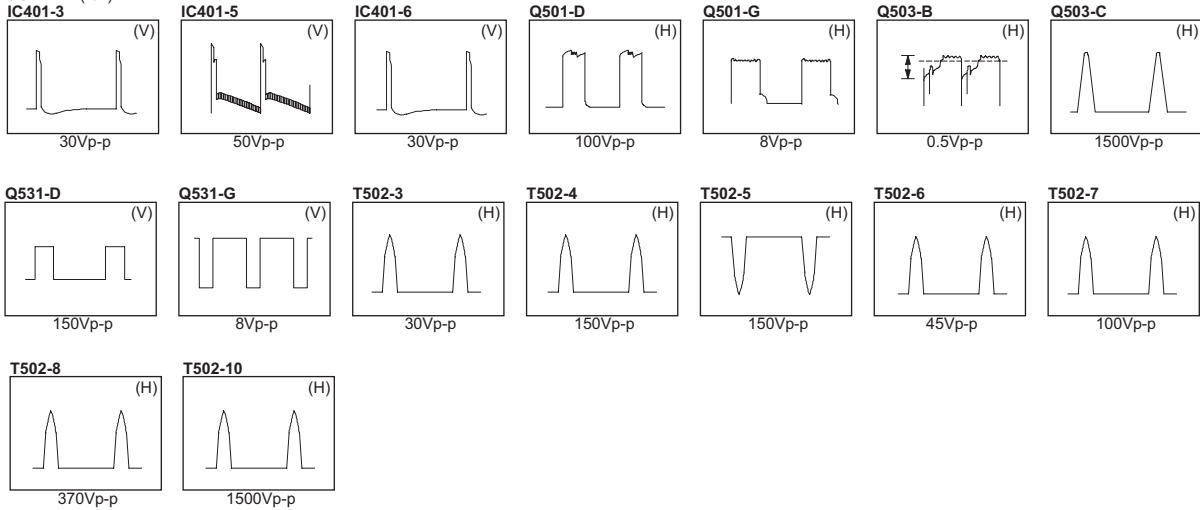
MODE PIN NO.	DC (V)
IC902	
1	4.9
2	0
3	3.2
IC941	
1	20.1
2	9.1
3	0
4	1.2
5	6.7
IC942	
1	20.1
2	5.2
3	0
4	1.2
5	6.7
IC943	
1	20
2	3.5
3	0
4	1.2
5	6.7
IC981	
1	20
2	2.6
3	0
4	1.3
5	6.7
IC991	
1	15.3
2	11.8

WAVEFORMS

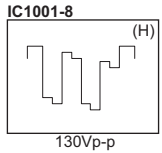
MAIN PWB(3/4)



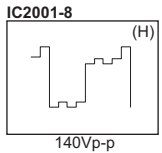
DEF&CONVERGENCE OUT PWB(1/2)



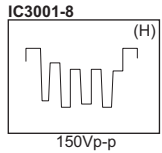
R CRT SOCKET PWB



G CRT SOCKET PWB



B CRT SOCKET PWB





JVC

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