



SCHEMATIC DIAGRAMS

COLOUR TELEVISION

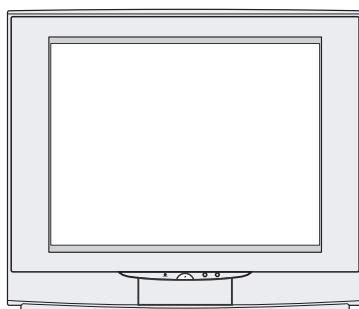
**HV-29JH14_{/H}, HV-29JH24_{/A},
HV-29JH24_{/L}, HV-29JH54_{/S},
HV-29VH14_{/G}, HV-29VH54_{/S},
HV-29VH74_{/E}, HV-29WH24_{/E}**

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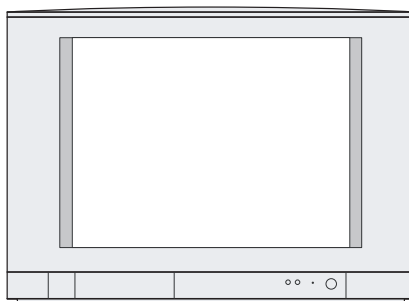
BASIC CHASSIS

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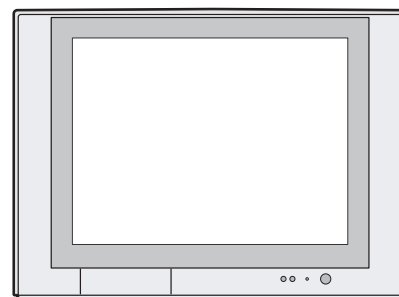
DigiPure
100Hz & PROGRESSIVE SCAN
***CINEMA
SURROUND***



HV-29JH14/H, HV-29JH24/A
HV-29JH24/L, HV-29JH54/S



HV-29VH14/G, HV-29VH54/S
HV-29VH74/E



HV-29WH24/E

HV-29JH14/H, HV-29JH24/A, HV-29JH24/L, HV-29JH54/S, HV-29VH14/G HV-29VH54/S, HV-29VH74/E, HV-29WH24/E

STANDARD CIRCUIT DIAGRAM

■ NOTE ON USING CIRCUIT DIAGRAMS

1.SAFETY

The components identified by the  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 20kΩ/V
- (4)Oscilloscope sweeping time : H ⇒ 20μs / div
: V ⇒ 5ms / div
: Others ⇒ 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 : R1209 → R209

4.INDICATIONS ON THE CIRCUIT DIAGRAM

(1)Resistors

● Resistance value

- No unit : [Ω]
- K : [kΩ]
- M : [MΩ]

● 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 : [μF]

● Withstand voltage

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

* Electrolytic Capacitors

47/50[Example]: Capacitance value [μF]/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 : [μH]
- Others : As specified

(4)Power Supply

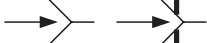
-  : B1
-  : B2 (12V)
-  : 9V
-  : 5V

* Respective voltage values are indicated

(5)Test point

-  : Test point
-  : Only test point display

(6)Connecting method

-  : Connector
-  : Wrapping or soldering
-  : Receptacle

(7)Ground symbol

-  : LIVE side ground
-  : ISOLATED(NEUTRAL) side ground
-  : 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 : () side GND and the ISOLATED(NEUTRAL) : () 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. (No.YA165)2-1

CONTENTS

SEMICONDUCTOR SHAPES2-2

BLOCK DIAGRAM2-3

CIRCUIT DIAGRAMS2-5

 MAIN PWB CIRCUIT DIAGRAM 2-5

 POWER & DEF PWB CIRCUIT DIAGRAM 2-9

 CHOKE PWB CIRCUIT DIAGRAM 2-13

 CRT SOCKET PWB CIRCUIT DIAGRAM 2-15

 MICOM/100Hz PWB CIRCUIT DIAGRAM 2-17

 AV SW PWB CIRCUIT DIAGRAM 2-21

 FRONT CONTROL PWB CIRCUIT DIAGRAM..... 2-23

PATTERN DIAGRAMS 2-27

 MAIN PWB PATTERN 2-27

 POWER & DEF PWB PATTERN 2-29

 CHOKE PWB PATTERN 2-33

 FRONT CONTROL PWB PATTERN 2-33

 AV SW PWB PATTERN 2-37

 CRT SOCKET PWB PATTERN 2-39

 MICOM/100Hz PWB PATTERN 2-41

USING P.W. BOARD

PWB ASS'Y name	HV -29JH14/H	HV -29JH24/A	HV -29JH24L	HV -29JH54S	HV -29VH14/G	HV -29VH54S	HV -29VH74/E	HV -29WH24E
MAIN P.W. BOARD	SML-1514A-H2	SML-1517A-H2	SML-1524A-H2	SML-1515A-H2	SML-1518A-H2	SML-1519A-H2	SML-1520A-H2	SML-1521A-H2
POWER & DEF P.W. BOARD	SML-2505A-H2	←	←	←	SML-2507A-H2	←	SML-2506A-H2	SML-2506A-H2
CRT SOCKET P.W. BOARD	SML-3503A-H2	←	←	←	SML-3504A-H2	←	←	SML-3504A-H2
FRONT CONTROL P.W. BOARD	SML-8502A-H2	←	←	←	SML-8504A-H2	←	←	SML-8504A-H2
CHOKE P.W. BOARD	—	—	—	—	—	—	SML-2510A-H2	SML-2510A-H2
MICOM/100Hz P.W. BOARD	SML0Z504A-H2	←	←	SML0Z503A-H2	SML0Z504A-H2	SML0Z503A-H2	←	SML0Z504A-H2
AV SW P.W. BOARD	SML0J505A-H2	←	←	SML0J506A-H2	SML0J507A-H2	SML0J508A-H2	←	SML0J507A-H2

SEMICONDUCTOR SHAPES

TRANSISTOR

BOTTOM VIEW	FRONT VIEW				TOP VIEW
					CHIP TR

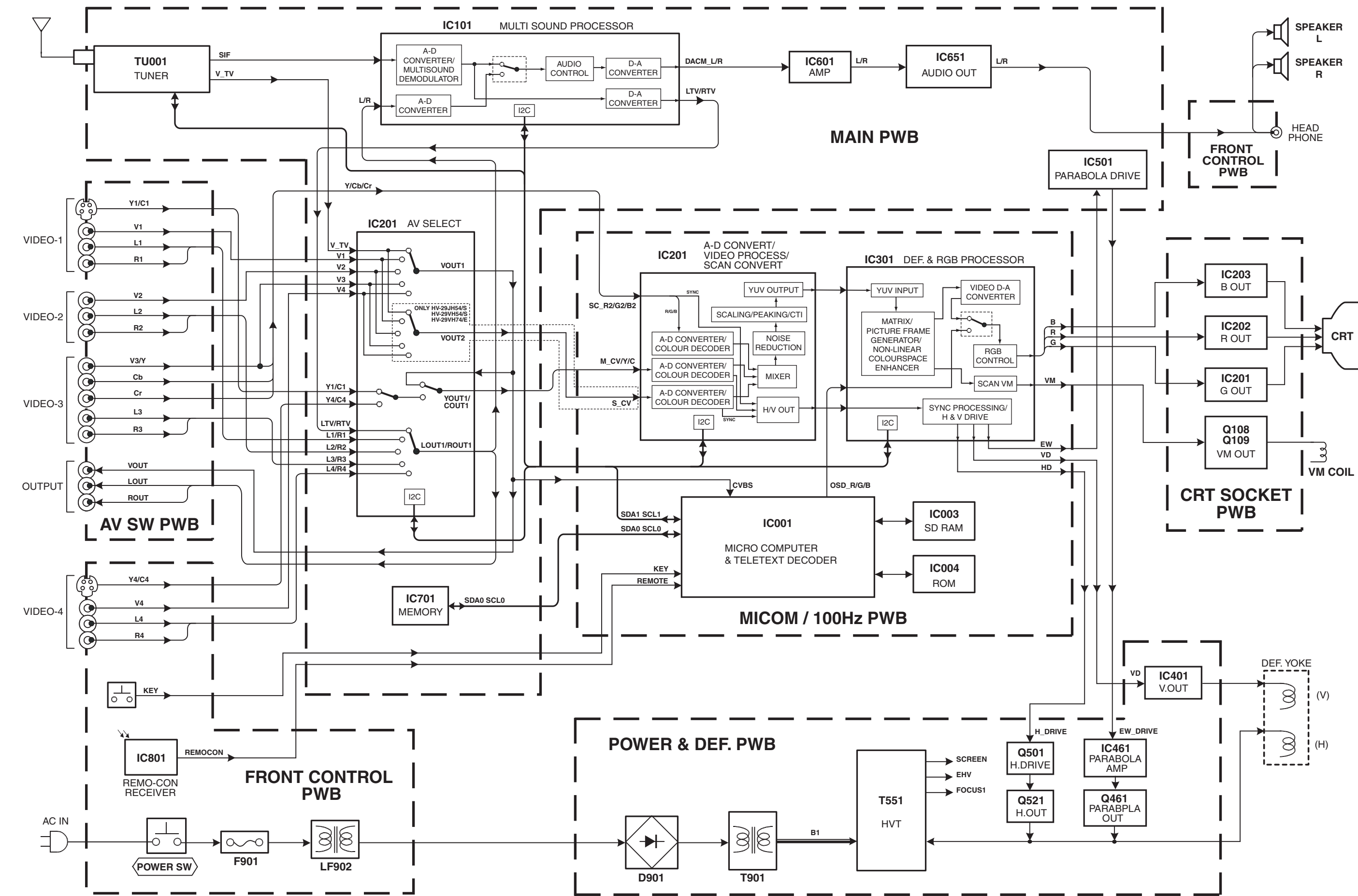
IC

BOTTOM VIEW	FRONT VIEW			TOP VIEW

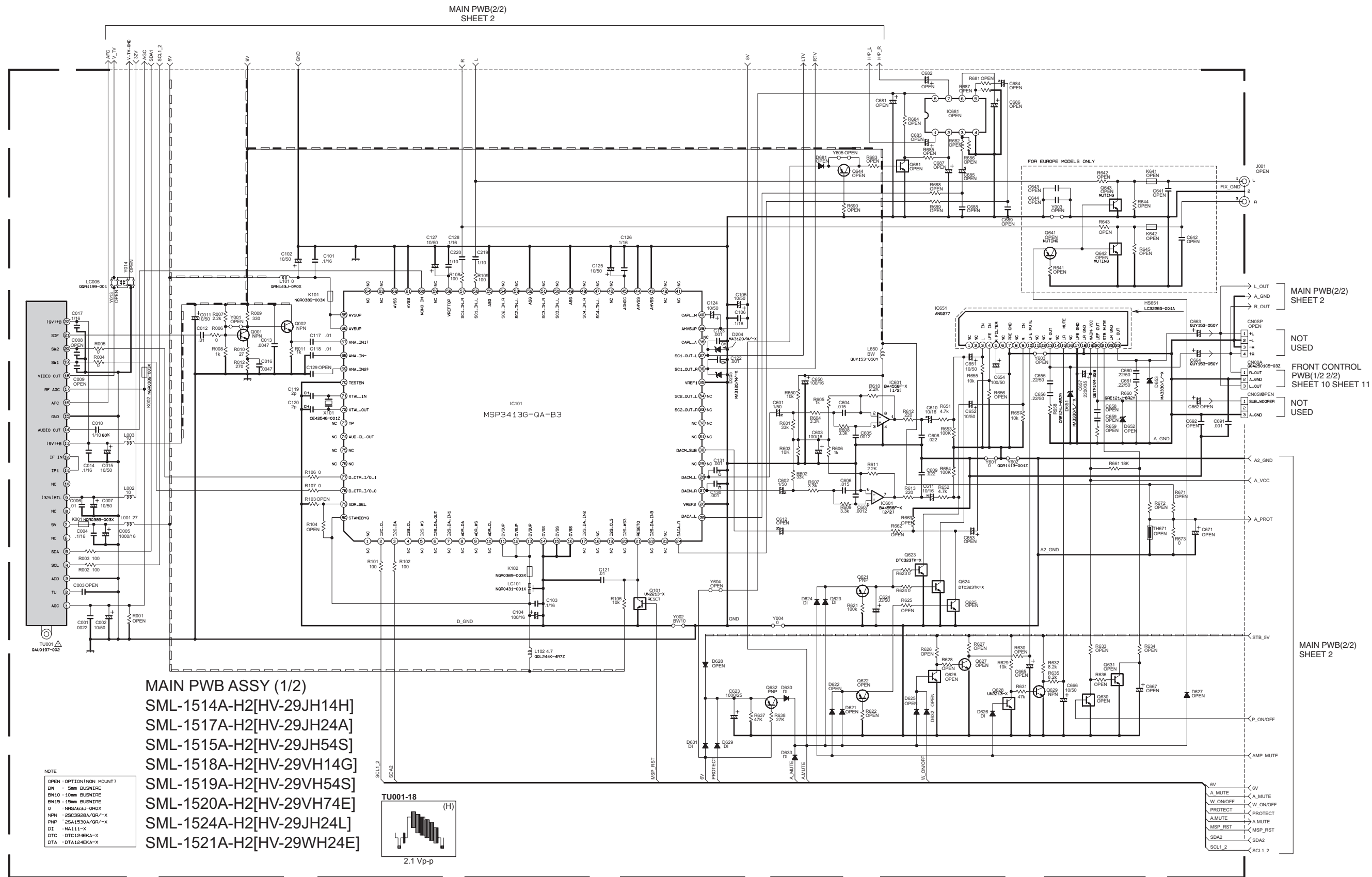
CHIP IC

TOP VIEW		

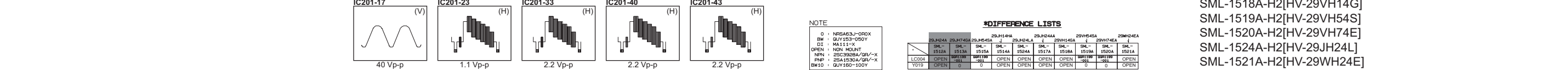
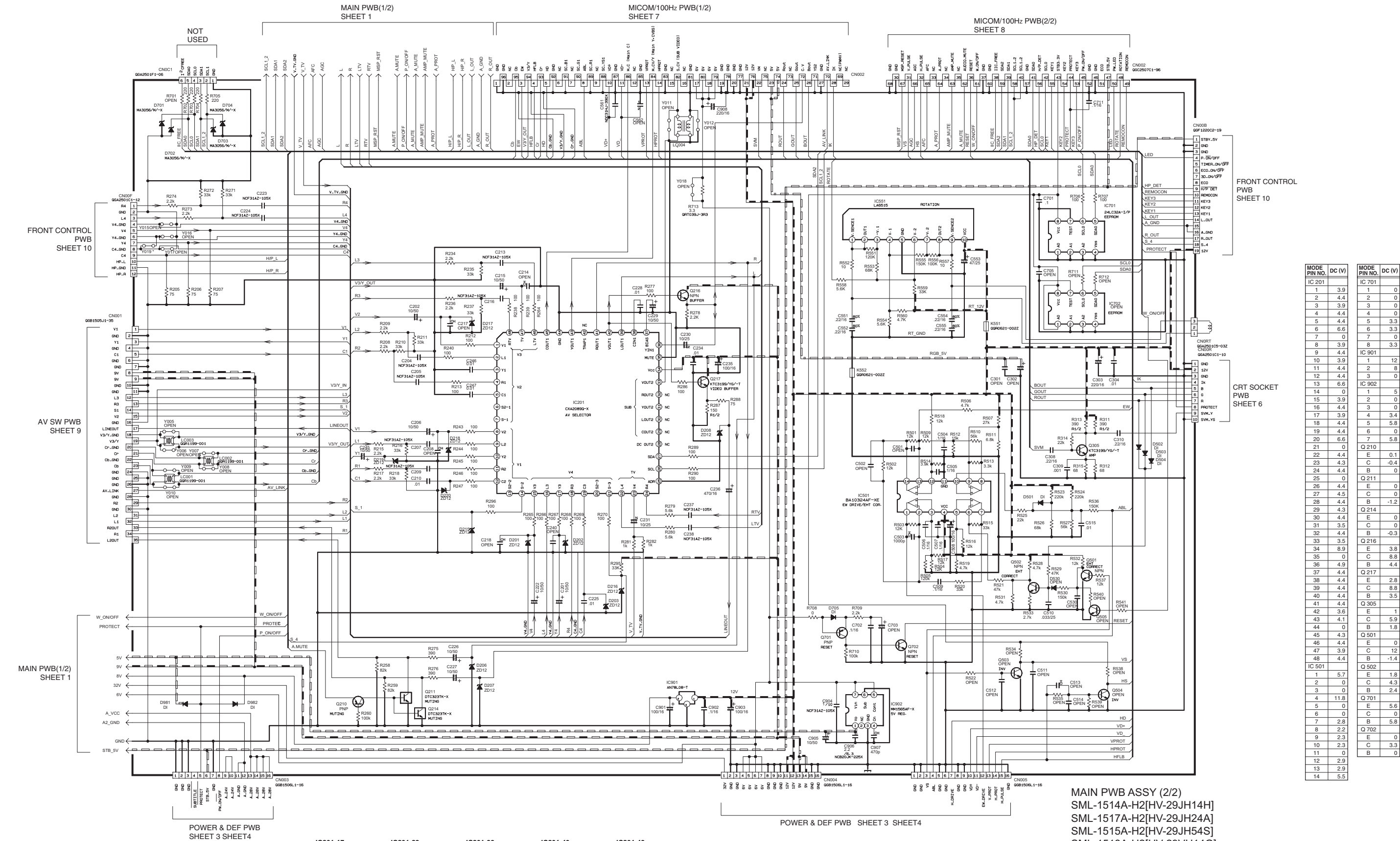
BLOCK DIAGRAM

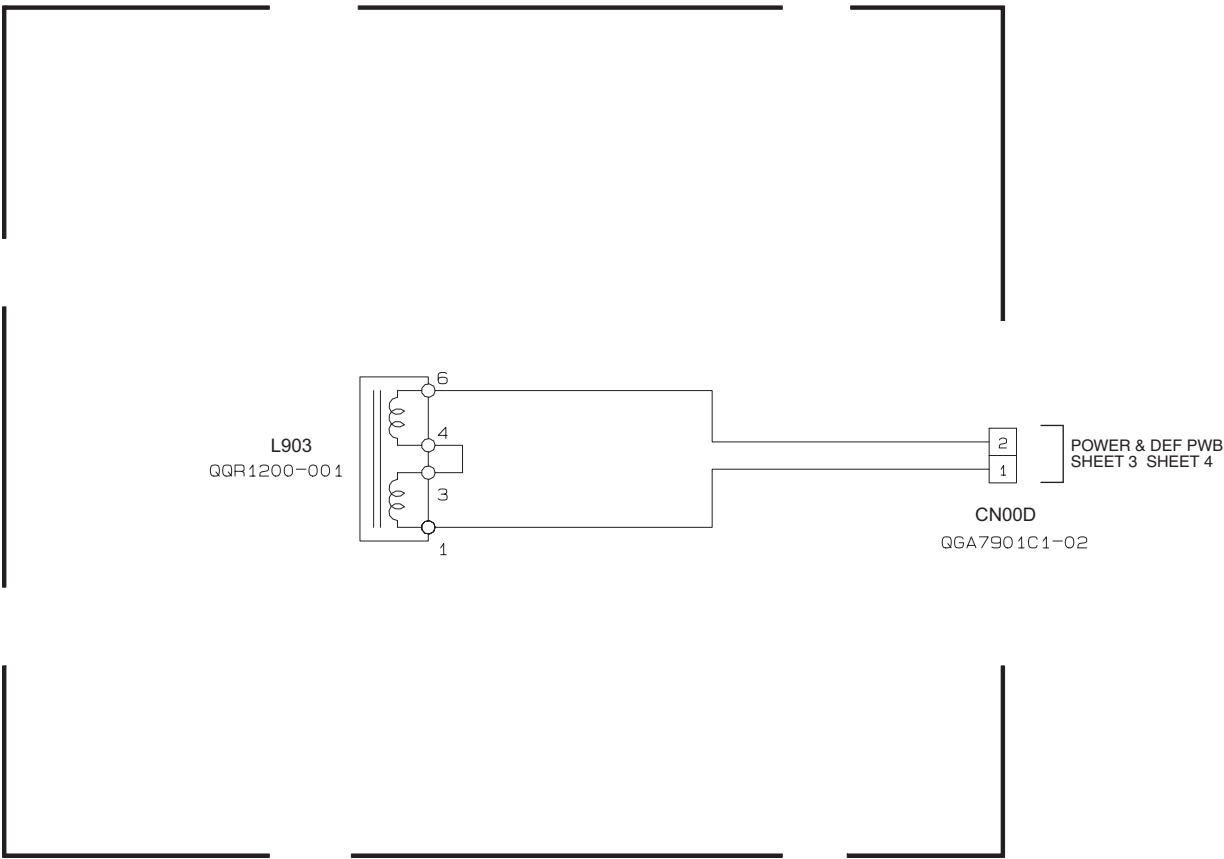


CIRCUIT DIAGRAMS
MAIN PWB CIRCUIT DIAGRAM (1/2) SHEET 1

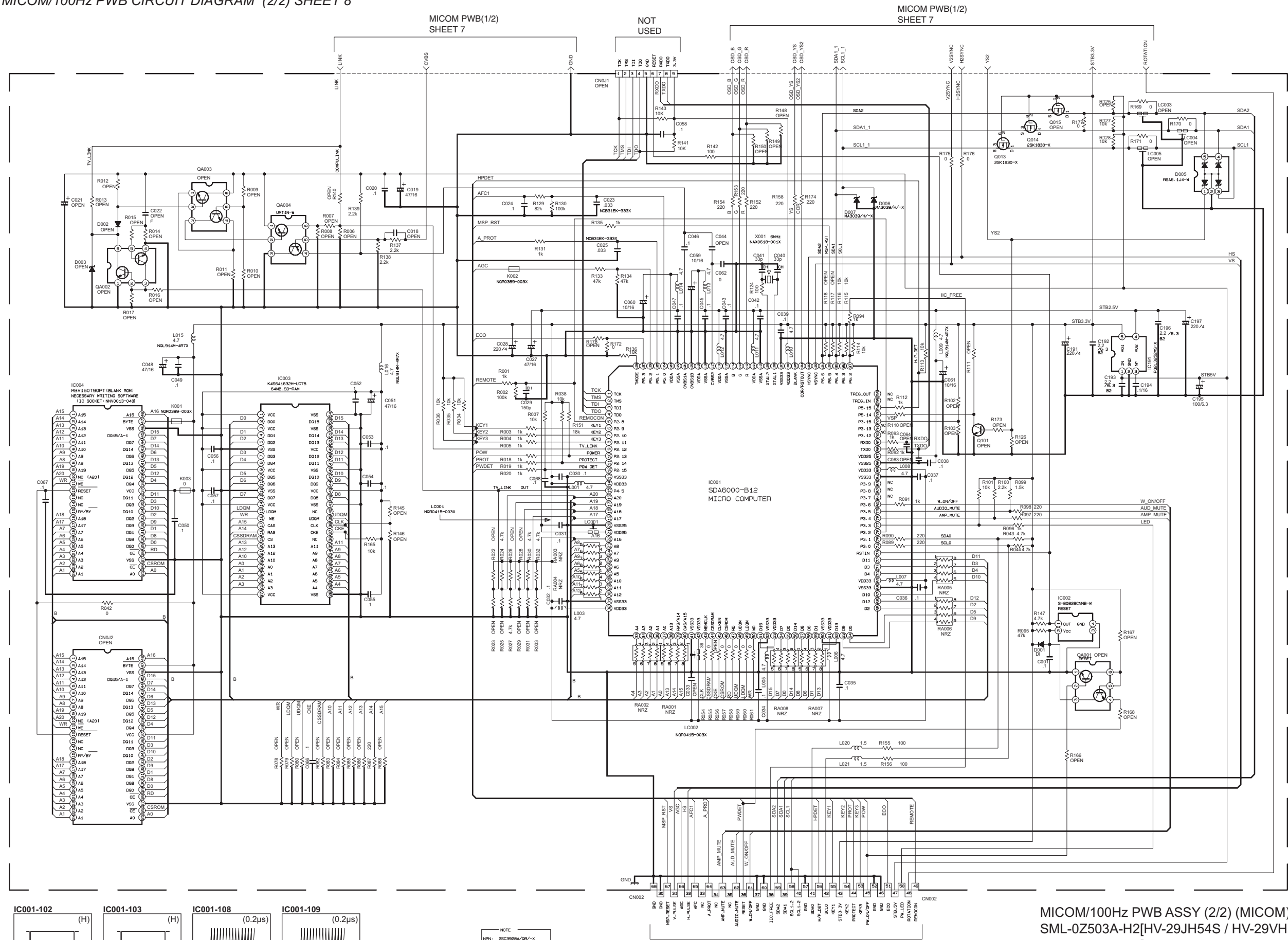


MODE PIN NO.	DC (V)	MODE PIN NO.	DC (V)
IC 101		IC 601	
1	0	1	4.4
2	4.5	2	4.4
3	4.5	3	4.3
4	1.6	4	0
5	1.5	5	4.3
6	1.6	6	4.4
7	1.6	7	0
8	1.6	8	8.8
9	1.6	IC 651	
10	1.6	1	0
11	4.9	2	0
12	4.9	3	28
13	4.9	4	0
14	0	5	0
15	0	6	0
16	0	7	14.2
17	0	8	0.7
18	0	9	0
19	0	10	29.6
20	0	11	15.5
21	4.9	12	14.1
22	0	Q 001	
23	0	E	2
24	0.1	C	4.6
25	0	B	2.7
26	0	Q 002	
27	0	E	3.9
28	0	C	8.9
29	0	C	4.6
30	0	Q 101	
31	0	E	0
32	0	C	4.9
33	3.8	B	0
34	3.8	Q 621	
35	0	E	0.2
36	3.7	C	-1.6
37	3.7	B	0
38	6.9	Q 623	
39	8	E	0
40	7	C	0
41	0	B	-1.6
42	0	Q 624	
43	0	E	0
44	0	C	0
45	3.7	B	-1.5
46	0	Q 628	
47	3.7	E	0
48	3.7	C	4.1
49	0	B	0
50	3.7	Q 629	
51	3.7	E	0
52	0	C	0
53	3.7	B	0.6
54	3.7	Q 632	
55	0	E	5.3
56	4.4	C	-1.8
57	4.4	B	5.8
58	2.6	TU 001	
59	0	1	3.7
60	3.7	2	1.7
61	0	3	0
62	0	4	4.5
63	0	5	4.5
64	0	6	NC
65	4.9	7	50
66	4.9	8	NC
67	1.5	9	31.2
68	0	10	NC
69	0	11	4.2
70	0	12	4.2
71	2.2	13	8.8
72	2.1	14	2
73	0	15	0
74	2.6	16	1.5
75	0	17	3.7
76	0	18	3.2
77	0	19	4.9
78	0	20	4.9
79	2.5	21	0
80	4.9	22	8.7



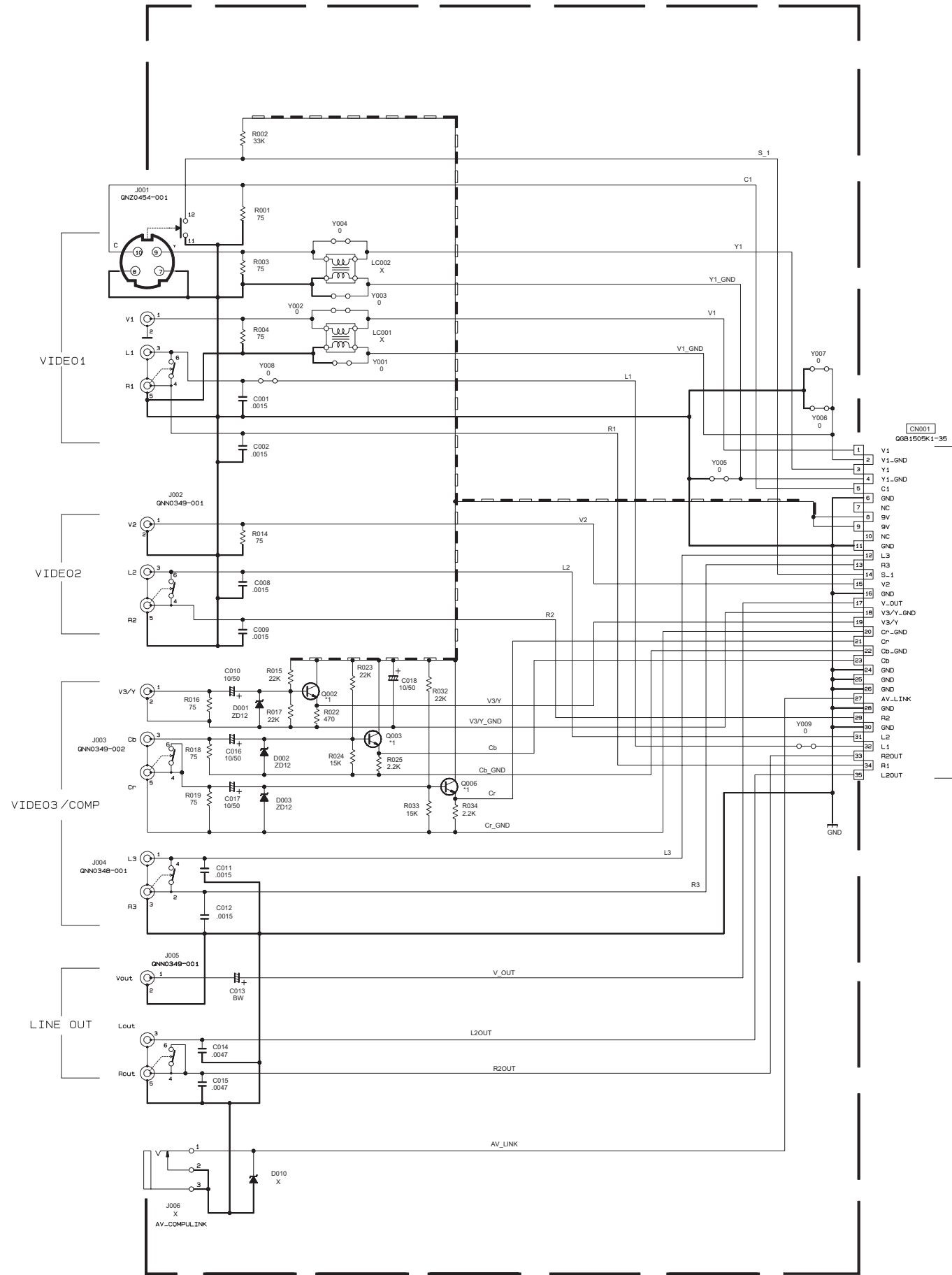


CHOKE PWB ASSY
SML-2510A-H2[HV-29VH74E / HV-29WH24E]



MODE PIN NO.	DC (V)	MODE PIN NO.	DC (V)	MODE PIN NO.	DC (V)
IC 001		97	0	Q 014	
1	0	98	2.5	S	2.5
2	1	99	2.5	D	0
3	0	100	0	G	3.3
4	1	101	0	CN002	
5	2.4	102	3.2	30	0
6	3.1	103	3.3	31	3.2
7	3.1	104	0	32	3.2
8	3.1	105	0	33	0
9	0	106	3.3	34	0
10	0	107	0	35	0
11	0	108	0	36	3.3
12	3.3	109	0.4	37	0
13	0	110	0	38	0
14	3.3	111	0	39	4.4
15	0	112	0	40	4.5
16	0	113	0	41	3.3
17	0	114	0	42	3.3
18	0	115	0	43	3.3
19	0	116	0	44	2.2
20	0	117	0	45	0
21	2.4	118	0	46	0
22	0	119	0	47	5
23	0	120	-	48	5.5
24	0	121	0	49	3.2
25	0	122	0	50	0.1
26	0	123	0	51	0
27	1.3	124	0	52	0
28	0.7	125	0	53	3.3
29	0	126	0	54	3.3
30	2.6	127	-	55	3.3
31	0	128	-	56	3.3
32	3.3	IC 003		57	0
33	1.3	1	3.2	58	4.5
34	1.3	2	0	59	4.5
35	1.3	3	3.2	60	0
36	0	4	0	61	3.3
37	0	5	0	62	0.1
38	2.6	6	0	63	0
39	3	7	0	64	0
40	3.1	8	0	65	0.8
41	0	9	3.3	66	3.7
42	3.3	10	0	67	0
43	6.4	11	0	68	0
44	3.1	12	0		
45	3.3	13	0		
46	3.3	14	3.3		
47	3.3	15	0		
48	0	16	3.2		
49	0	17	3.1		
50	0	18	3		
51	2.6	19	3.1		
52	0	20	2.6		
53	3.3	21	2.6		
54	0.3	22	0.7		
55	0.2	23	0		
56	2.6	24	0		
57	0.3	25	1.3		
58	0.2	26	1.3		
59	0.3	27	3.3		
60	0	28	0		
61	3.3	29	1.3		
62	0.3	30	0		
63	0.3	31	1.3		
64	0.3	32	1.3		
65	0	33	0		
66	0	34	0		
67	0	35	0		
68	0	36	0		
69	3.3	37	3.3		
70	0	38	0		
71	0	39	0		
72	0	40	0		
73	-	41	0		
74	3.1	42	0		
75	3.1	43	0		
76	1.7	44	0		
77	0	45	0		
78	0	46	0		
79	0.1	47	0.1		
80	0	48	0		
81	2.3	49	3.2		
82	0	50	0		
83	2.3	51	3		
84	0	52	0		
85	3.3	53	3		
86	0	54	0		
87	2.4	IC 191			
88	0	1	4.8		
89	2.23	2	0		
90	0	3	1.2		
91	0	4	2.4		
92	0	5	3.3		
93	3	Q 013			
94	3	S	2.5		
95	2.4	D	4.4		
96	3.3	G	3.3		

MICOM/100Hz PWB ASSY (2/2) (MICOM)
SML-0Z503A-H2[HV-29JH54S / HV-29VH54S / HV-29VH74E]
SML-0Z504A-H2[HV-29JH14H / HV-29JH24A / HV-29VH14G/
HV-29JH24L / HV-29VH24E]



MAIN PWB(2/2)
SHEET 2

MODE PIN NO.	DC (V)
Q002	
E	3.4
C	8.8
B	4.1
Q003	
E	2.9
C	8.8
B	3.5
Q006	
E	2.9
C	8.8
B	3.5

NOTE

X : OPTION(NON MOUNT)

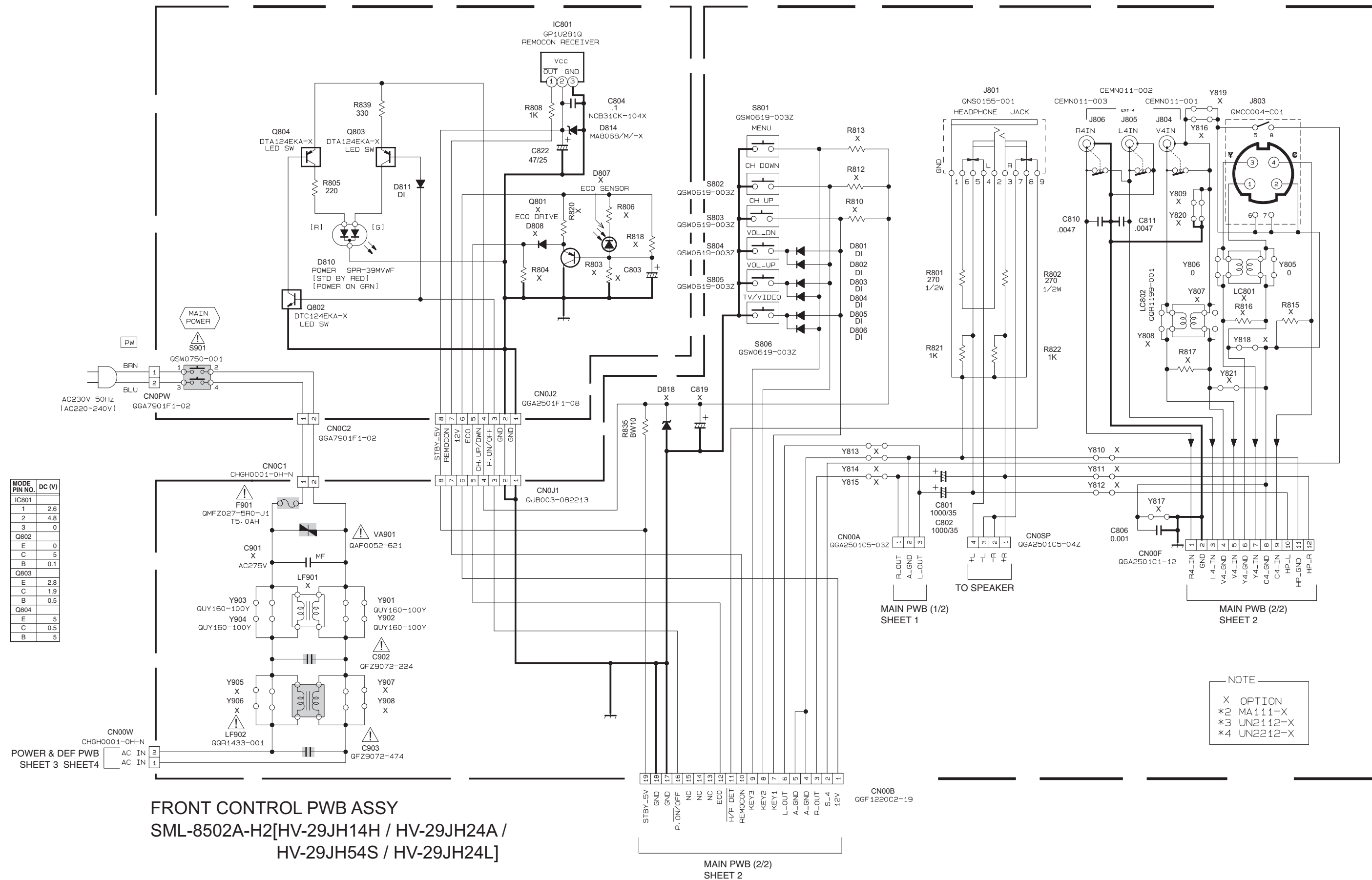
BW : QUY160-050Y

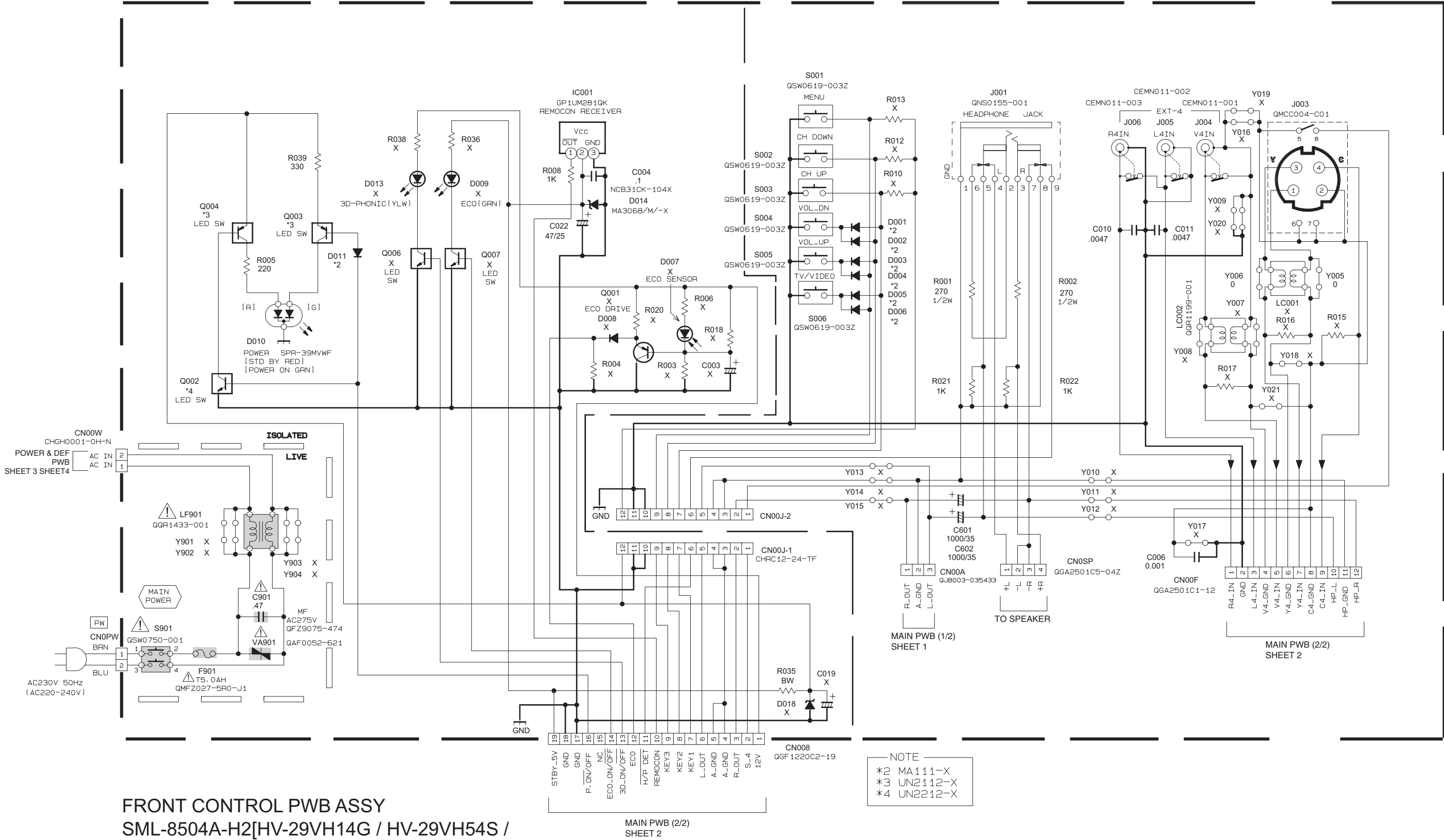
0 : NR8A63J-0R0X

*1 : 2SC2412K/GR/-X

ZD12 : MA3120/W/-X

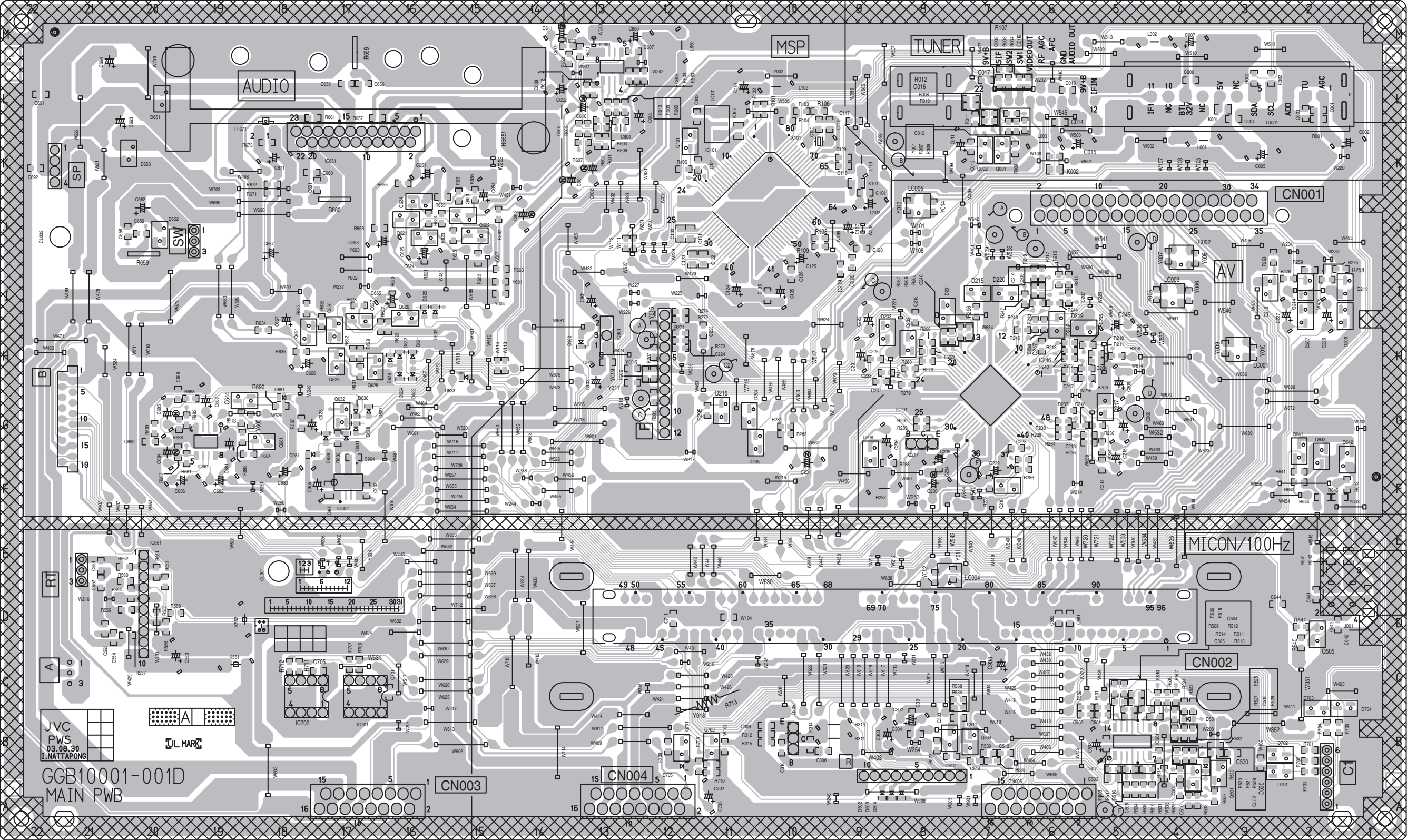
AV SW PWB ASSY
SML-0J505A-H2[HV-29JH14H / HV-29JH24A / HV-29JH24L]
SML-0J506A-H2[HV-29JH54S]
SML-0J507A-H2[HV-29VH14G / HV-29WH24E]
SML-0J508A-H2[HV-29VH54S / HV-29VH74E]



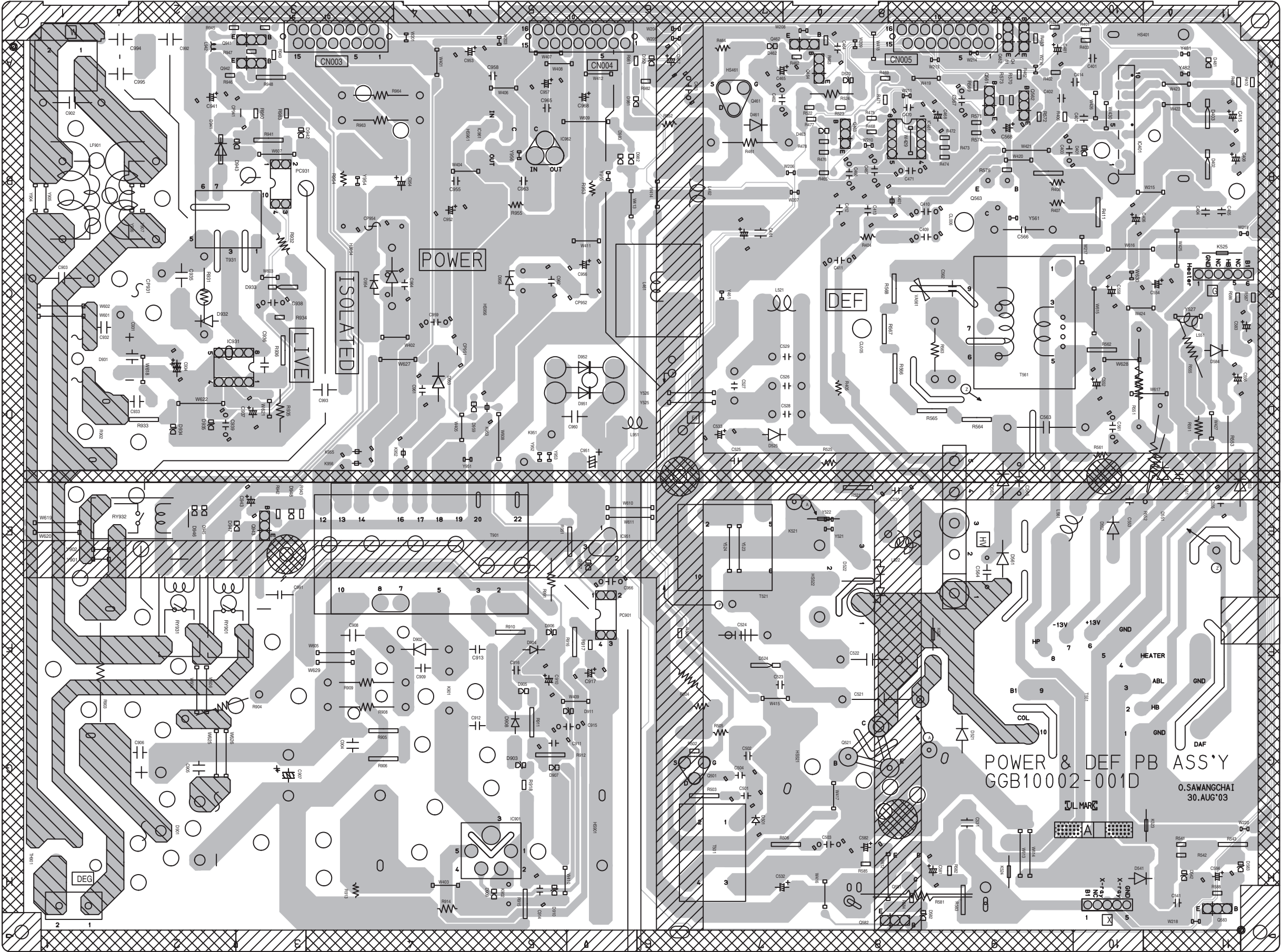


PATTERN DIAGRAMS
MAIN PWB PATTERN

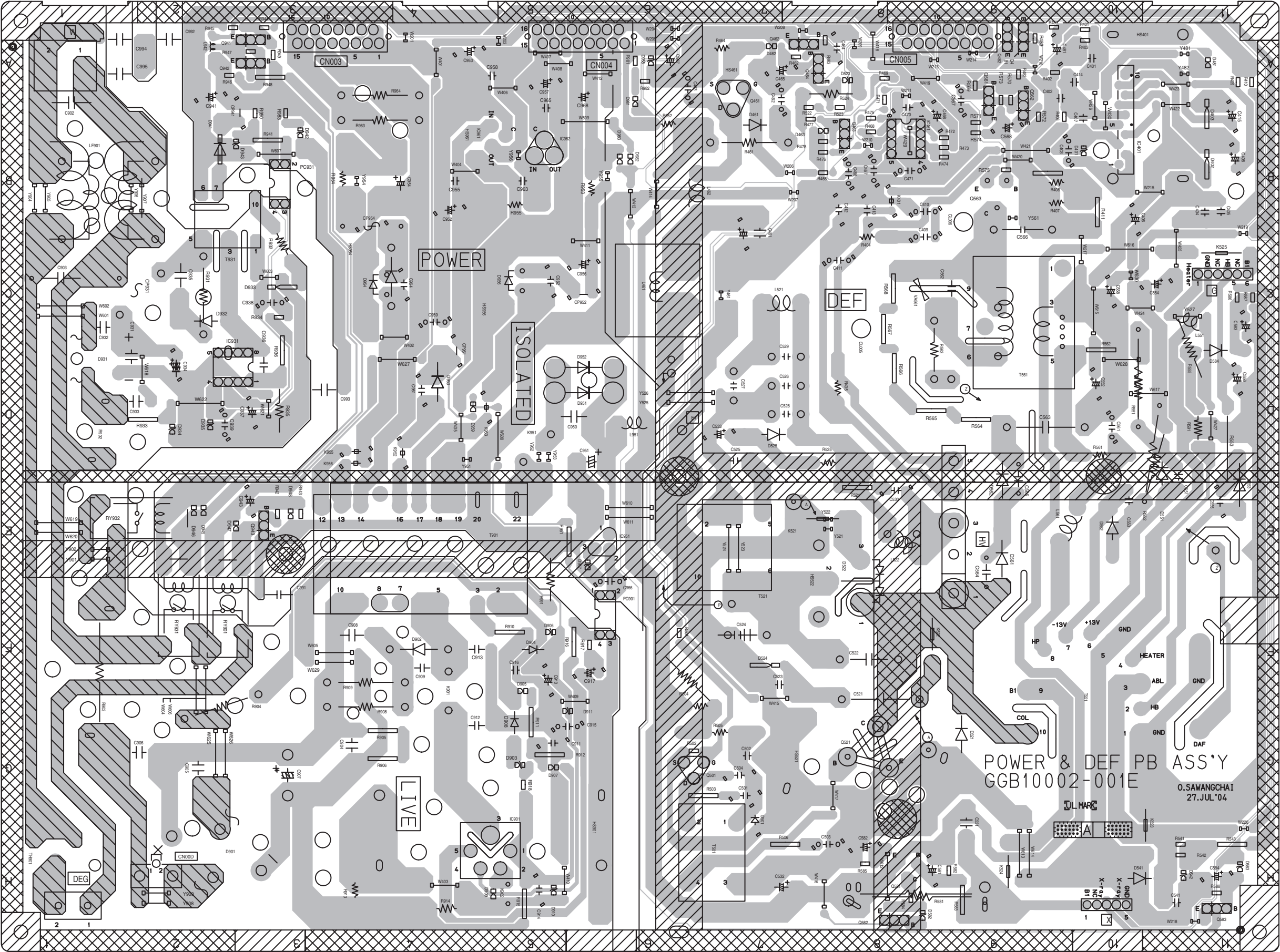
FRONT
←



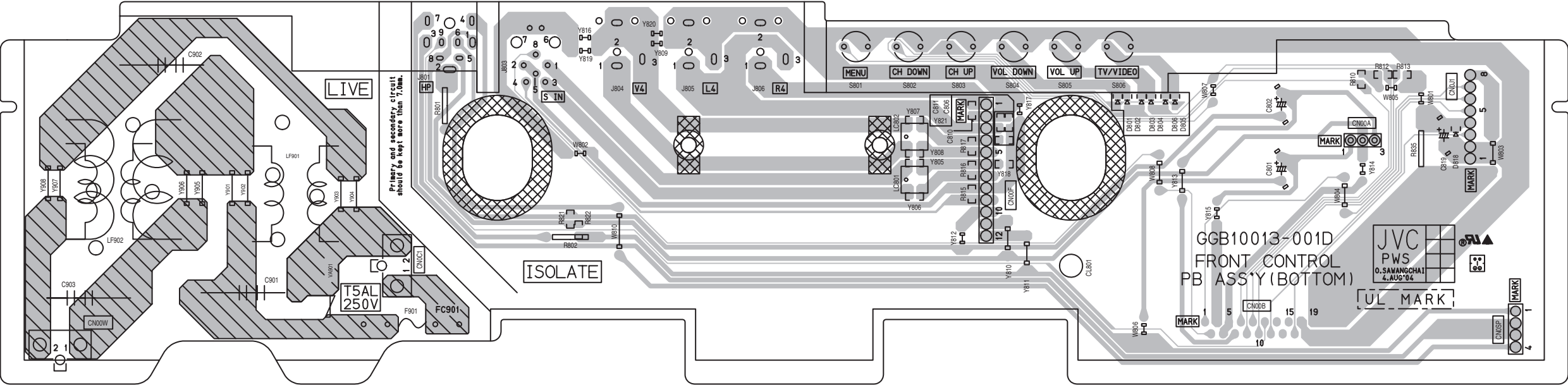
FRONT
←



FRONT
←



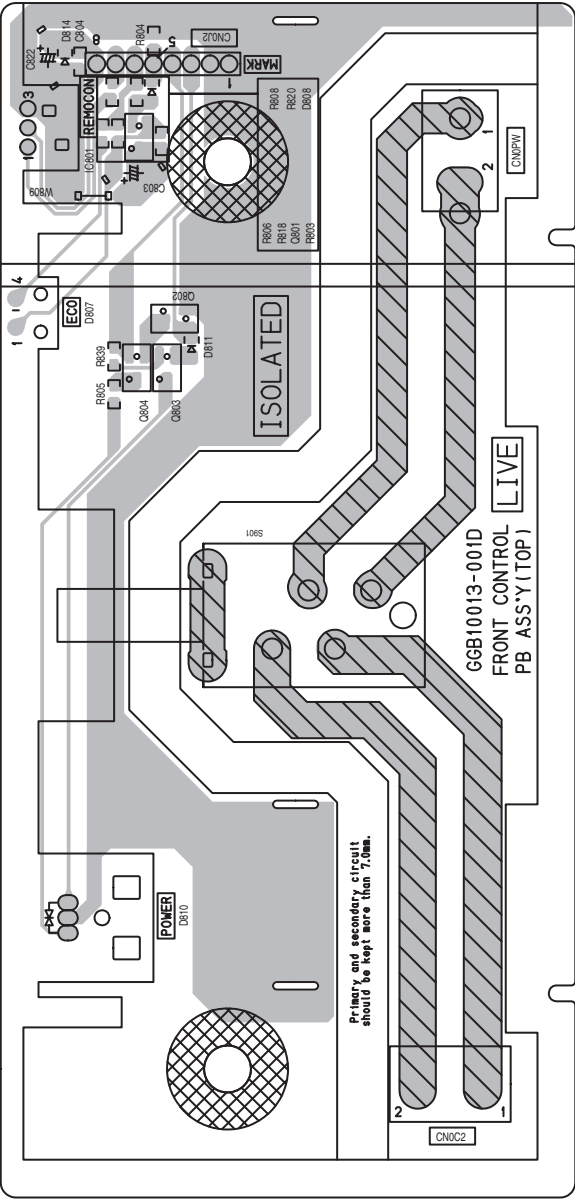
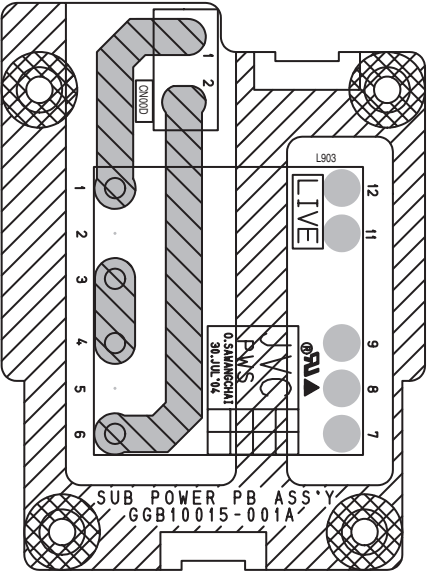
FRONT CONTROL PWB PATTERN [HV-29JH14H / HV-29JH24A / HV-29JH54S / HV-29JH24L]



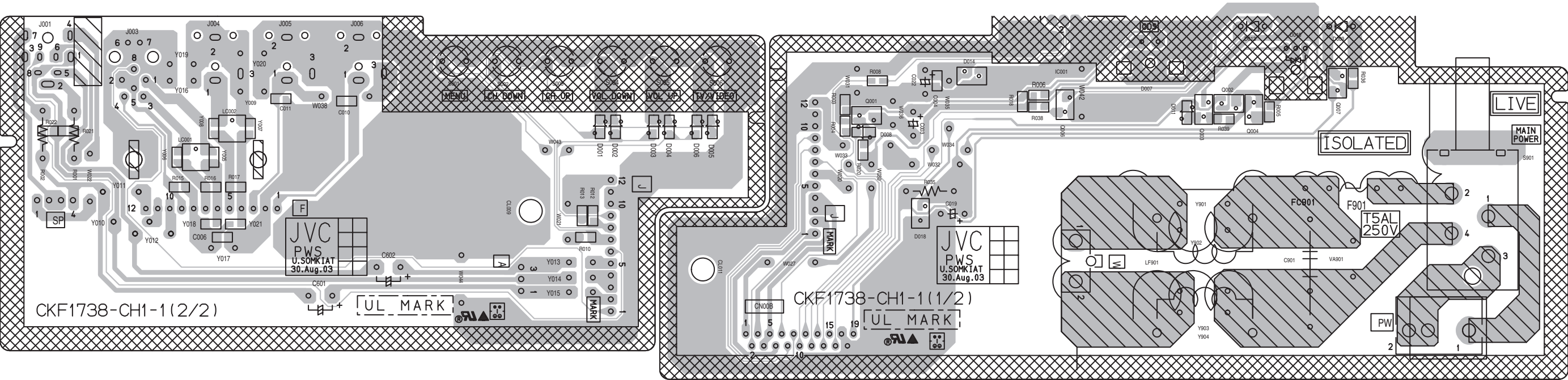
FRONT
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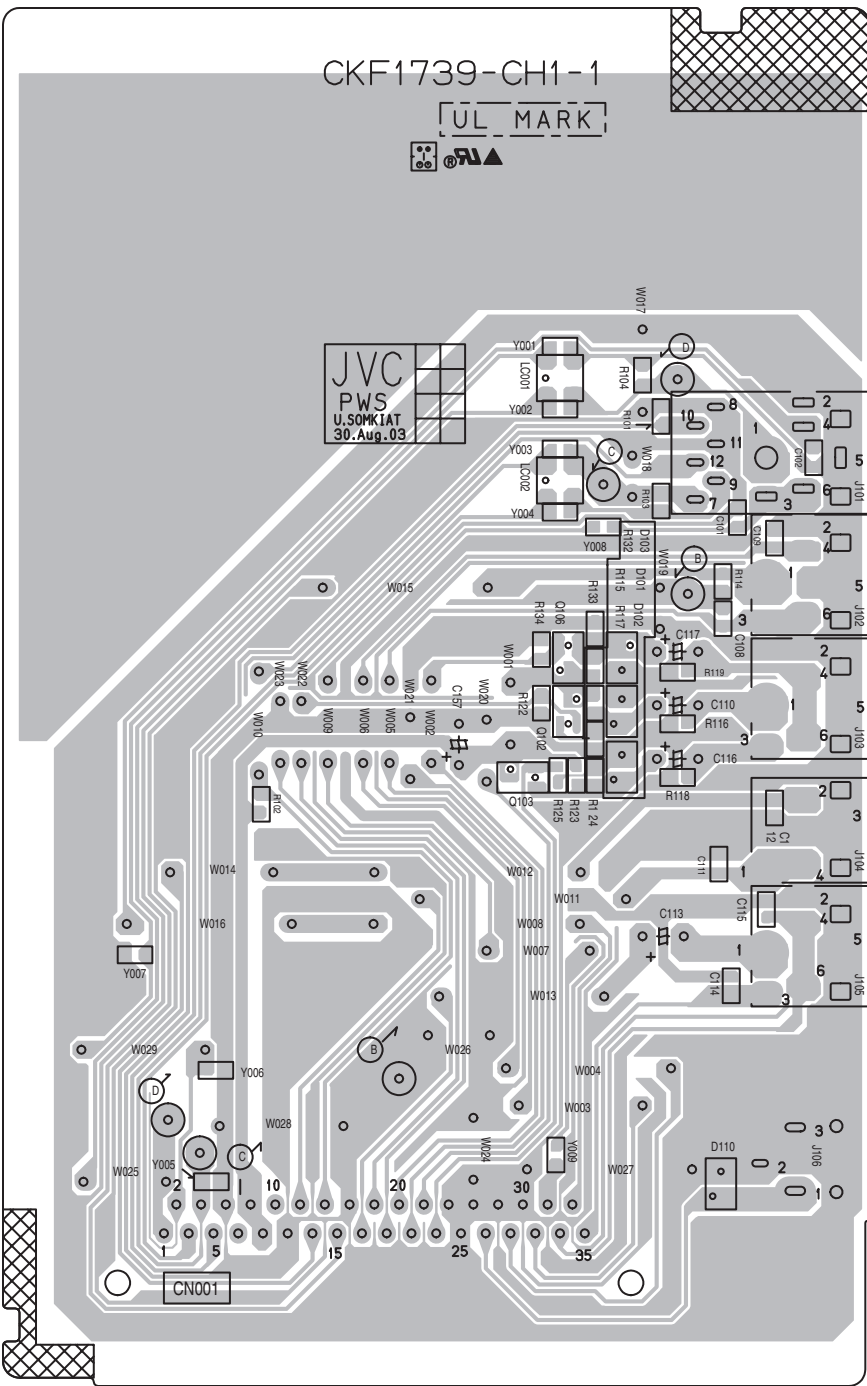
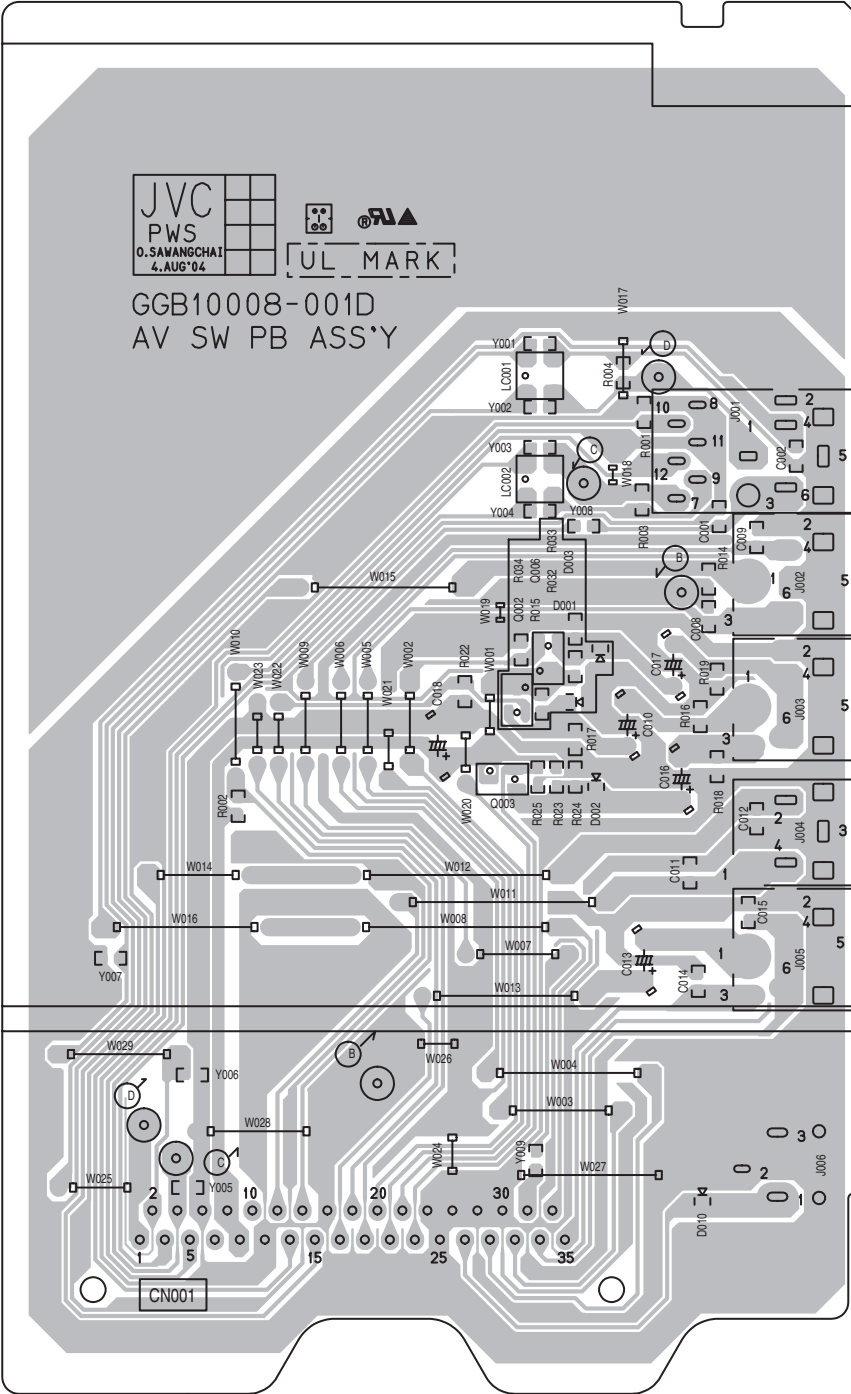
CHOKE PWB PATTERN [HV-29VH74E / HV-29WH24E]

FRONT
↑

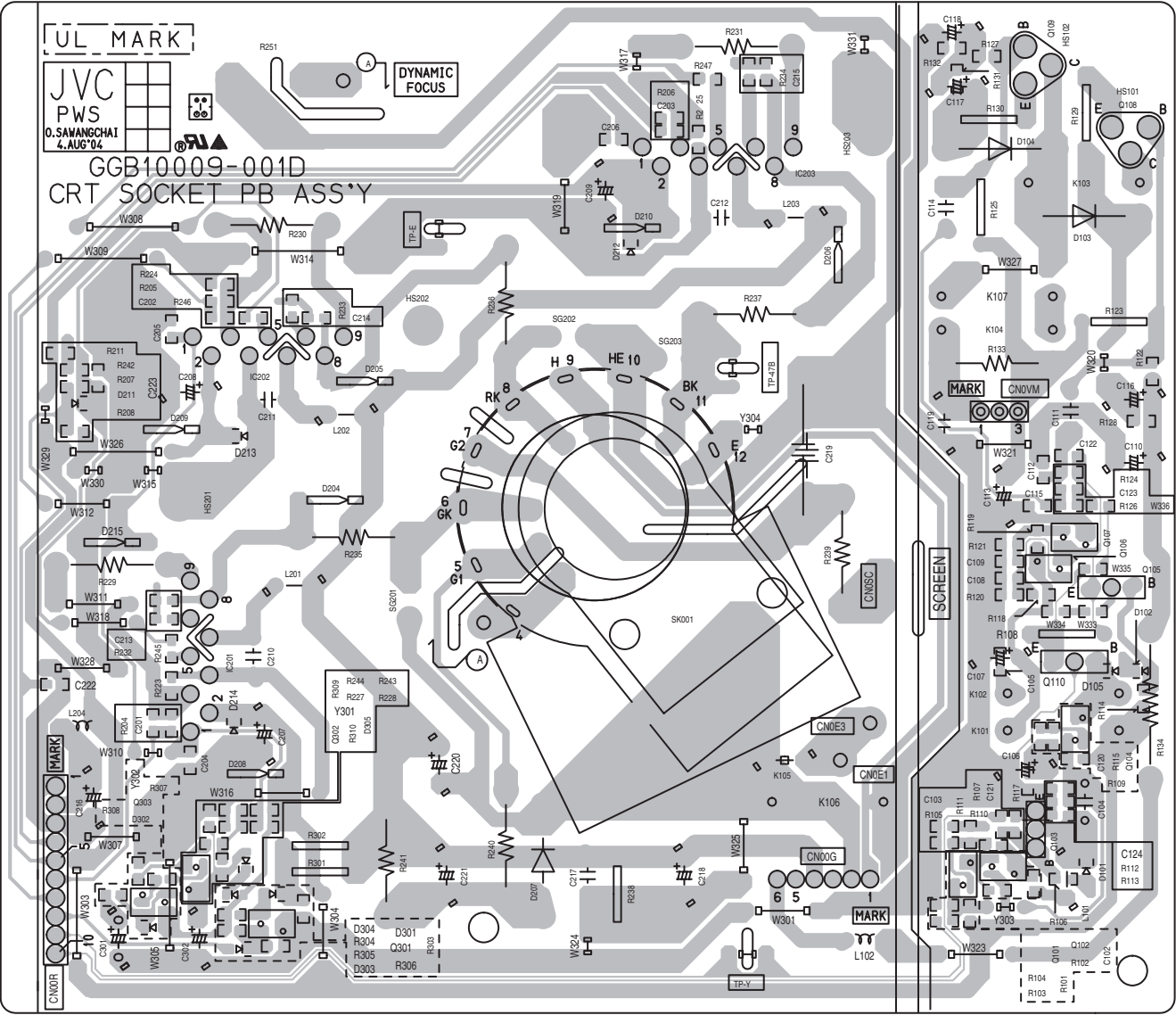


FRONT

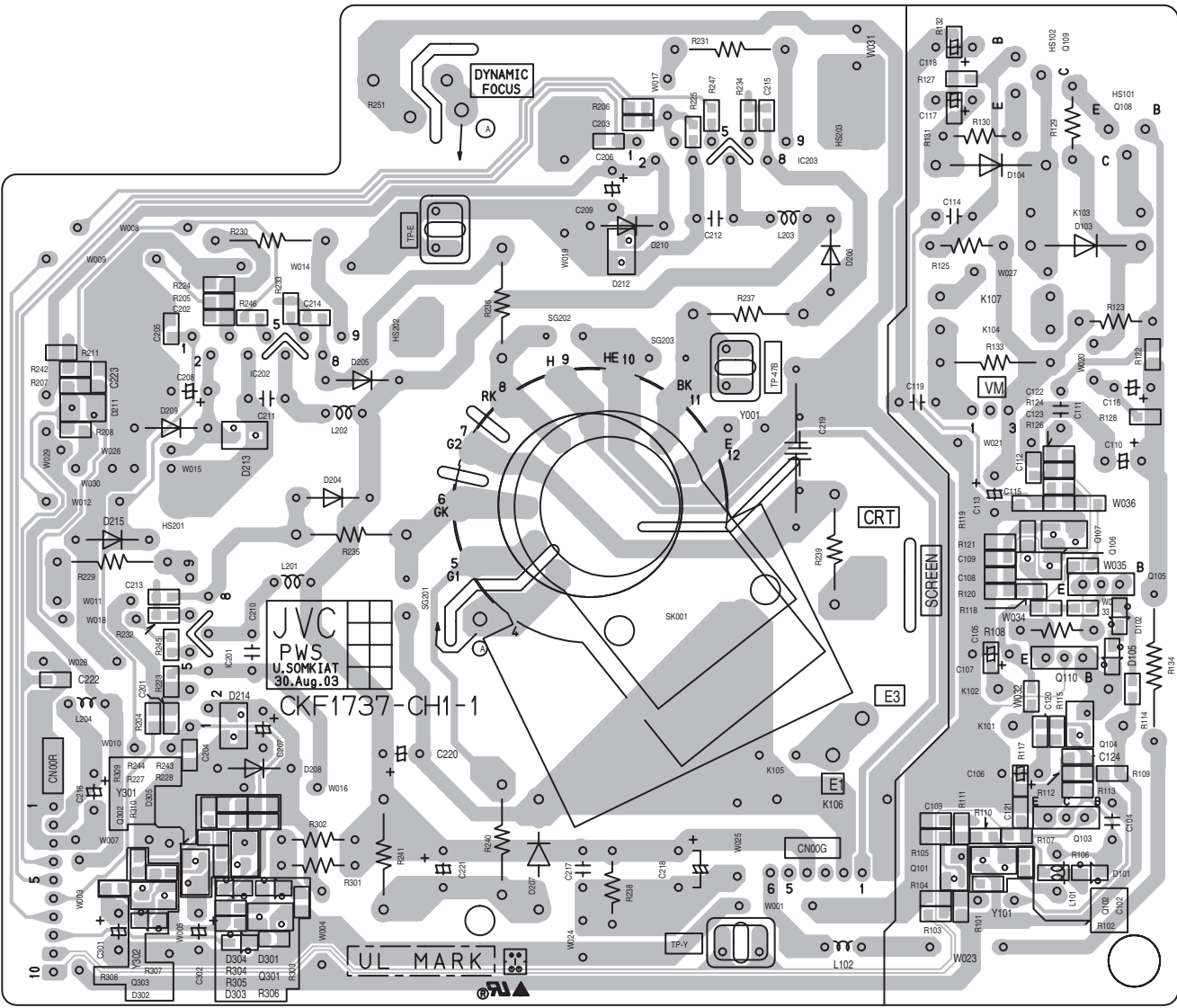




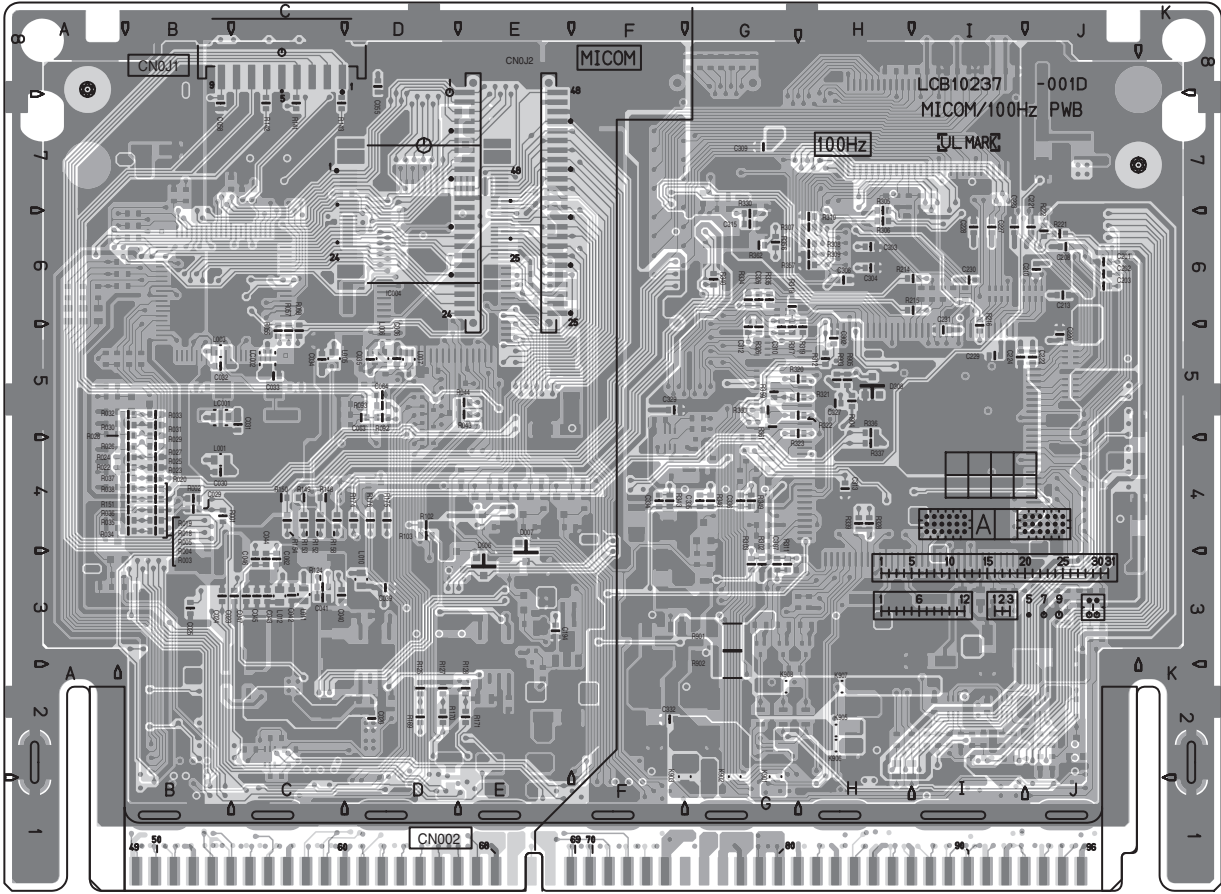
TOP
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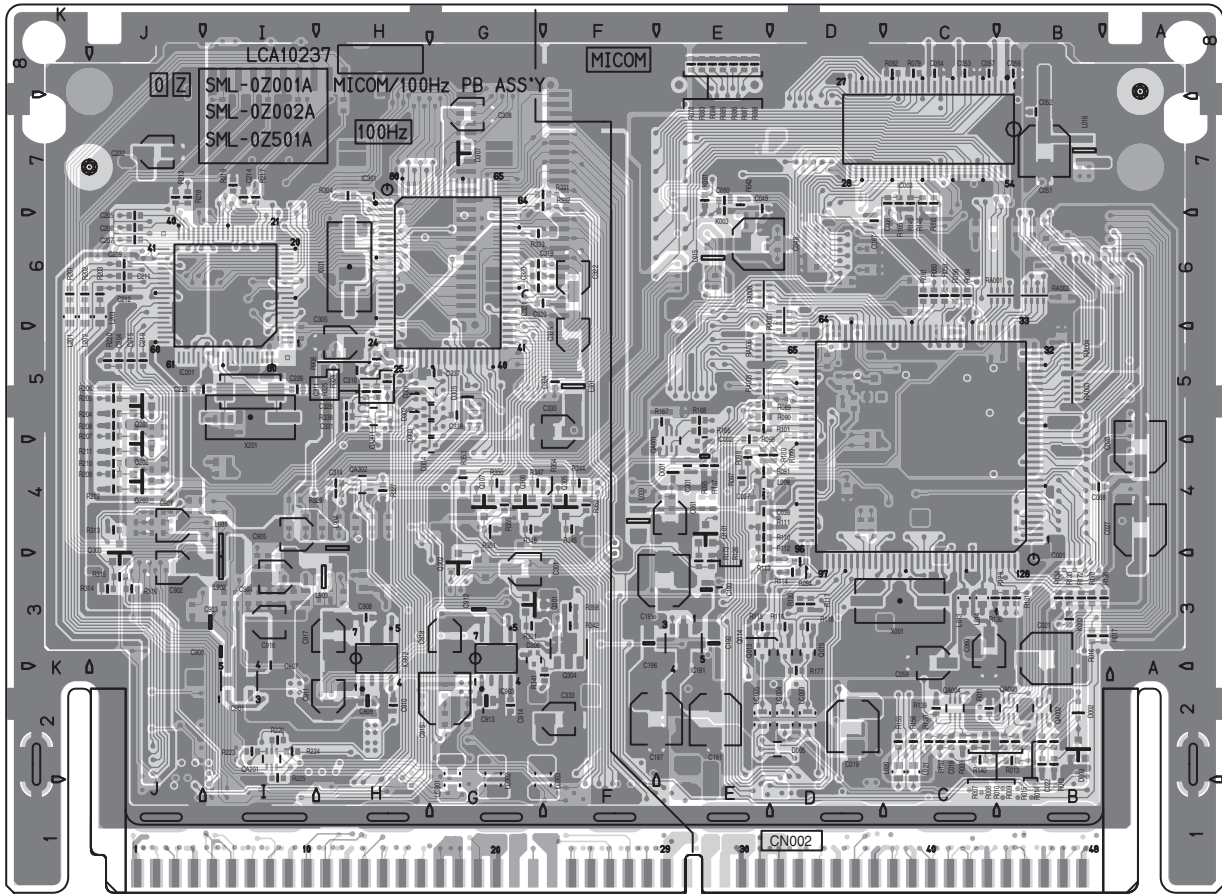
TOP
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MICOM/100Hz PWB PATTERN [SOLDER SIDE]



MICOM/100Hz PWB PATTERN [PARTS SIDE]





Victor Company of Japan, Limited
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