

JVC

SCHEMATIC DIAGRAMS

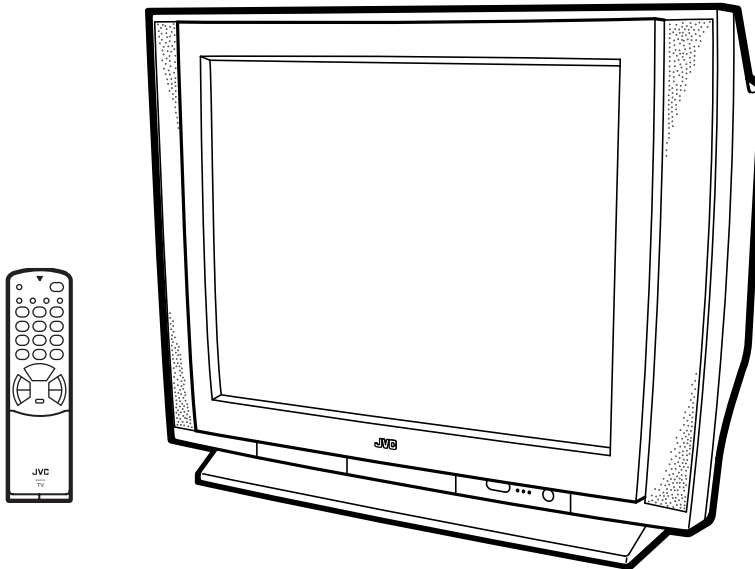
COLOUR TELEVISION

HV-34LPZ
HV-34LPZ/**HK**
HV-34LPZ/**-A**
HV-34LPZ/**EE**

BASIC CHASSIS

MF

CD-ROM No.SML200206



CONTENTS

■ NOTE ON USING CIRCUIT DIAGRAMS	2-1
■ SEMICONDUCTOR SHAPES	2-2
■ BLOCK DIAGRAM	2-3
■ CIRCUIT DIAGRAMS	2-5
■ PATTERN DIAGRAMS	2-23

CONTENTS

SEMICONDUCTOR SHAPES ----- 2-2

BLOCK DIAGRAM ----- 2-3

CIRCUIT DIAGRAMS

 MAIN PWB CIRCUIT DIAGRAM ----- 2-5

 POWER & DEF PWB CIRCUIT DIAGRAM ----- 2-9

 100Hz PWB CIRCUIT DIAGRAM ----- 2-11

 MICOM PWB CIRCUIT DIAGRAM ----- 2-13

 FRONT CONTROL PWB CIRCUIT DIAGRAM ----- 2-15

 CRT SOCKET PWB CIRCUIT DIAGRAM ----- 2-17

 AV SW PWB CIRCUIT DIAGRAM ----- 2-19

 SYNC SEP PWB CIRCUIT DIAGRAM ----- 2-21

 BLK PWB CIRCUIT DIAGRAM ----- 2-22

PATTERN DIAGRAMS

 MAIN PWB PATTERN ----- 2-23

 POWER & DEF PWB PATTERN ----- 2-25

 100Hz PWB PATTERN ----- 2-27

 MICOM PWB PATTERN ----- 2-29

 CRT SOCKET PWB PATTERN ----- 2-31

 AV SW PWB PATTERN ----- 2-32

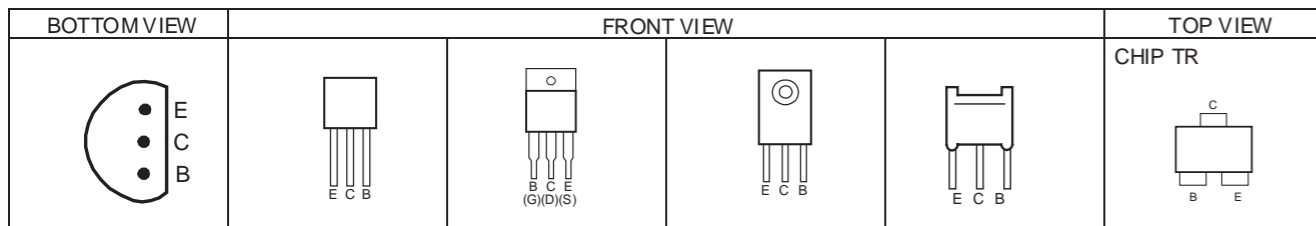
 FRONT CONTROL PWB PATTERN ----- 2-33

 SYNC PWB PATTERN ----- 2-33

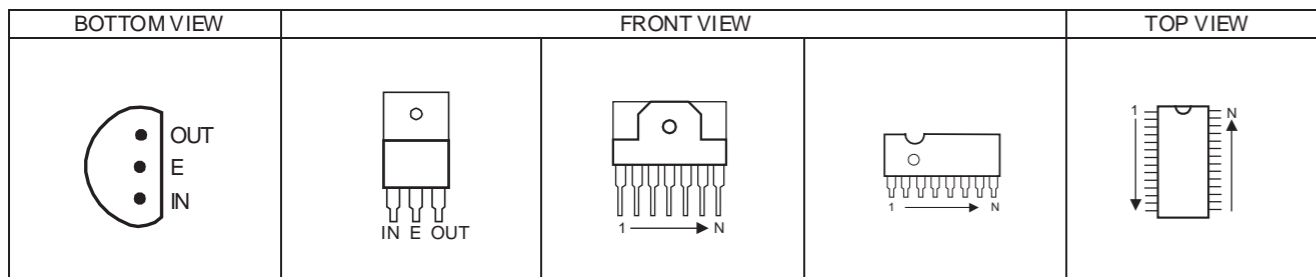
 BLK PWB PATTERN ----- 2-34

SEMICONDUCTOR SHAPES

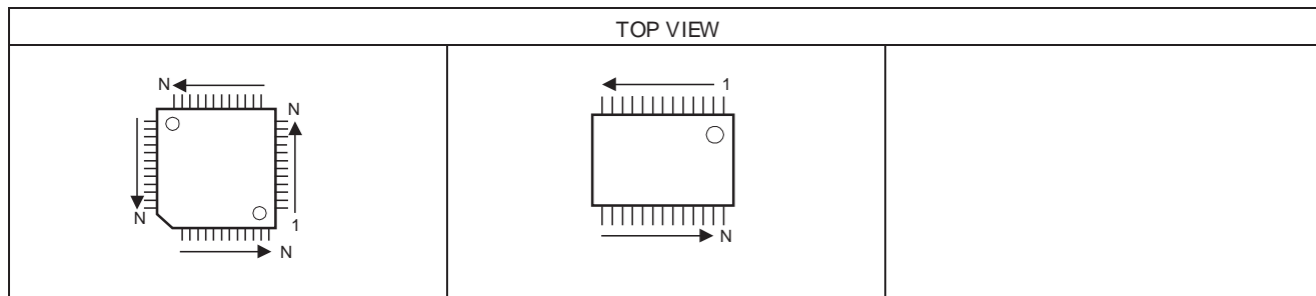
TRANSISTOR



IC



CHIP IC



HV-34LPZ / HV-34LPZ/HK / HV-34LPZ/-A / HV-34LPZ/EE STANDARD CIRCUIT DIAGRAM

NOTE ON USING CIRCUIT DIAGRAMS

1.SAFETY

The components identified by the Δ 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 :R1209 \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]

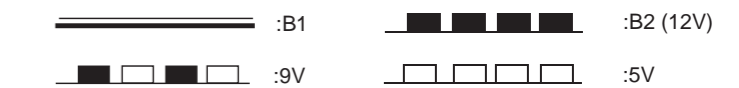
- Type

- 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

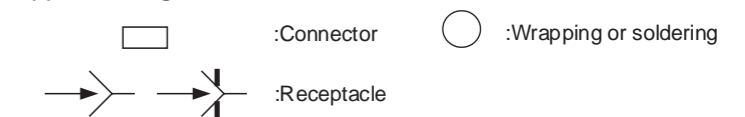


* Respective voltage values are indicated

(5)Test point



(6)Connecting method



(7)Ground symbol

- \perp :LIVE side ground
- \perp (with slash) :ISOLATED(NEUTRAL) side ground
- \perp (with horizontal line) :EARTH ground
- \perp (with square) :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) (\perp /) side GND. Therefore, care must be taken for the following points.

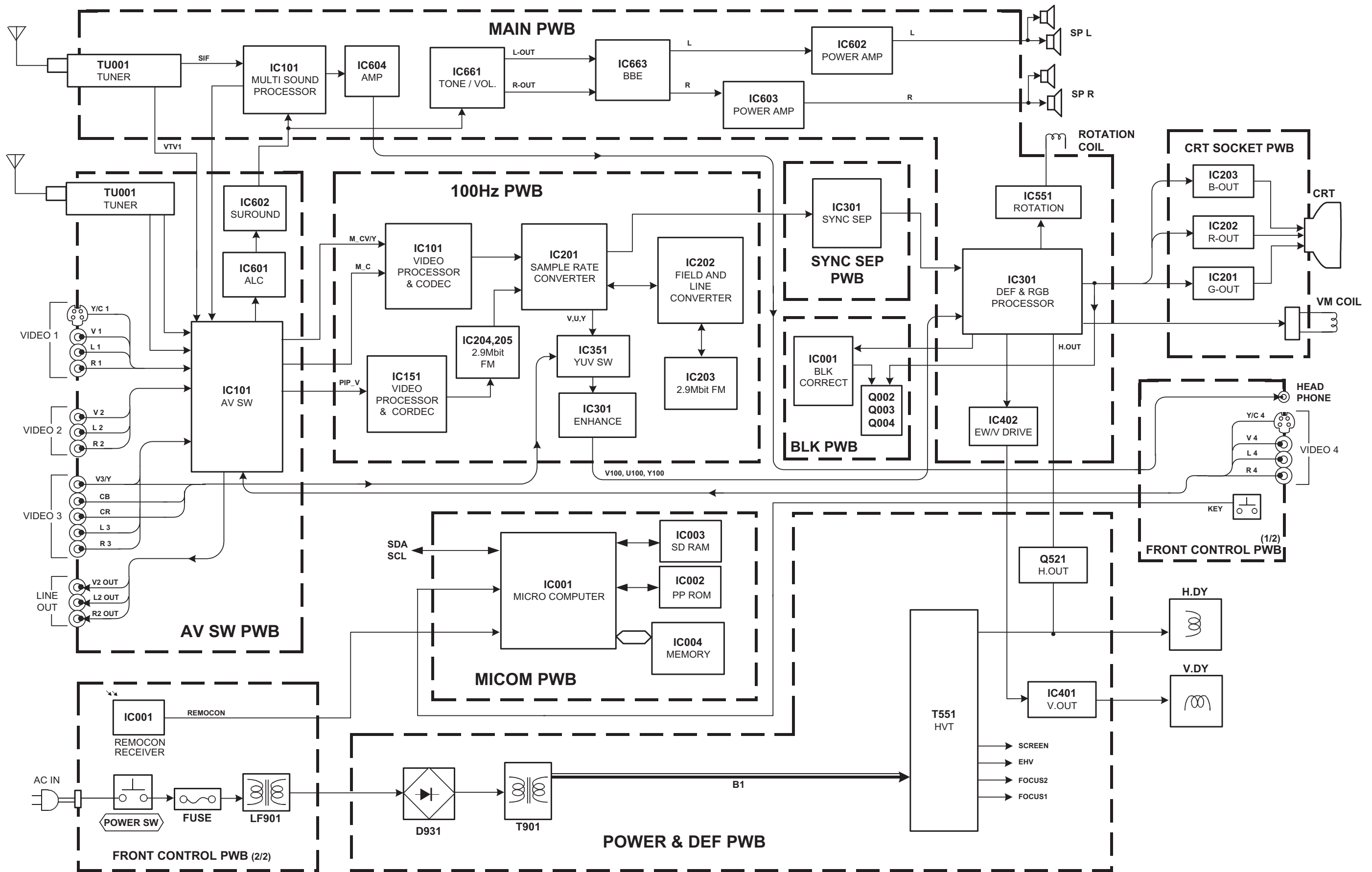
- (1)Do not touch the LIVE side GND or the LIVE side GND and the ISOLATED(NEUTRAL) side GND simultaneously. If the above caution is not respected, an electric shock may be caused. Therefore, make sure that the power cord is surely removed from the receptacle when, for example, the chassis is pulled out.
- (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

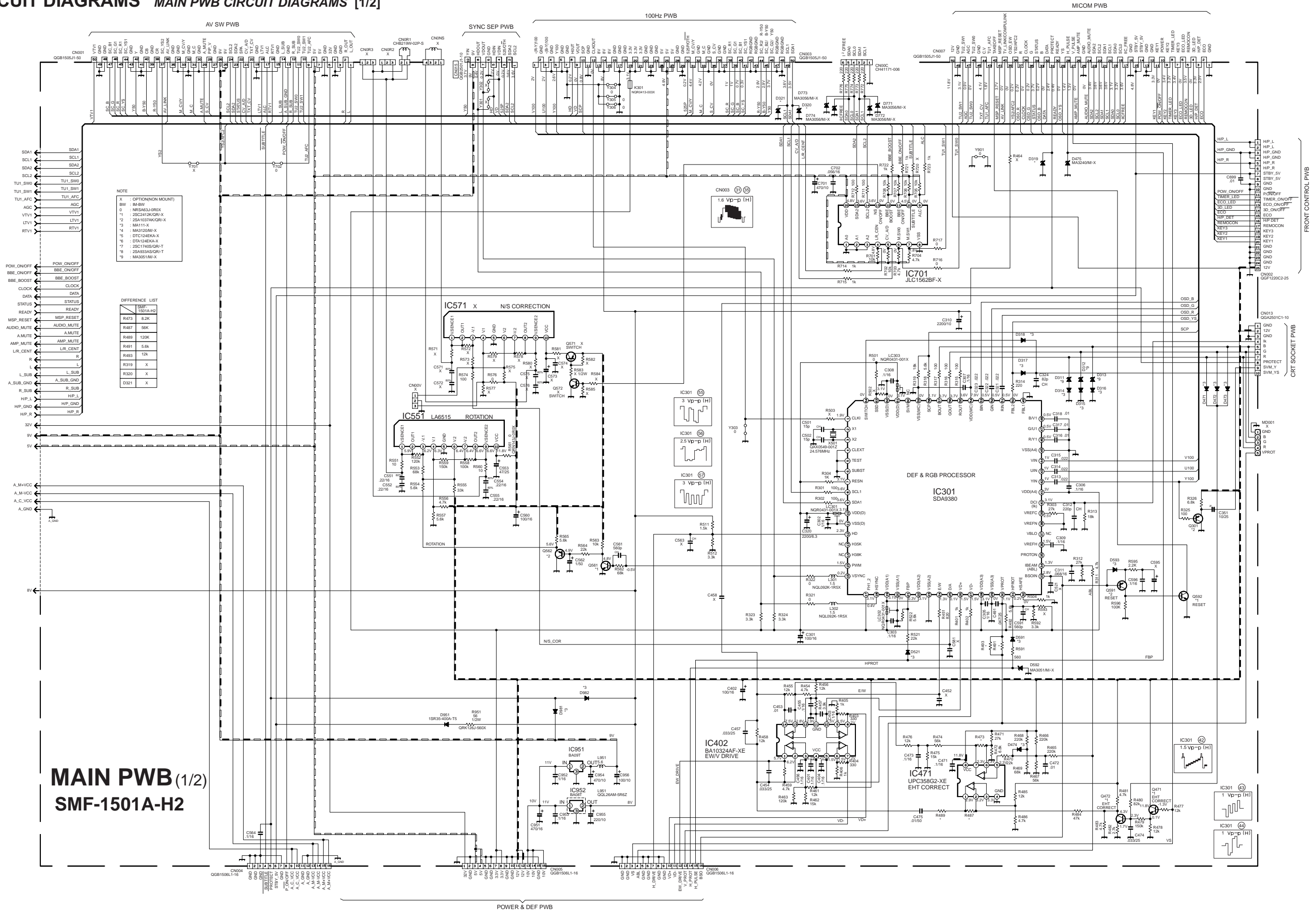
◇ Due improvement in performance, some part numbers show in the circuit diagram may not agree with those indicated in the part list.
When ordering parts, please use the numbers that appear in the Parts List.

BLOCK DIAGRAM



CIRCUIT DIAGRAMS MAIN PWB CIRCUIT DIAGRAMS [1/2]

HV-34LPZ HV-34LPZ



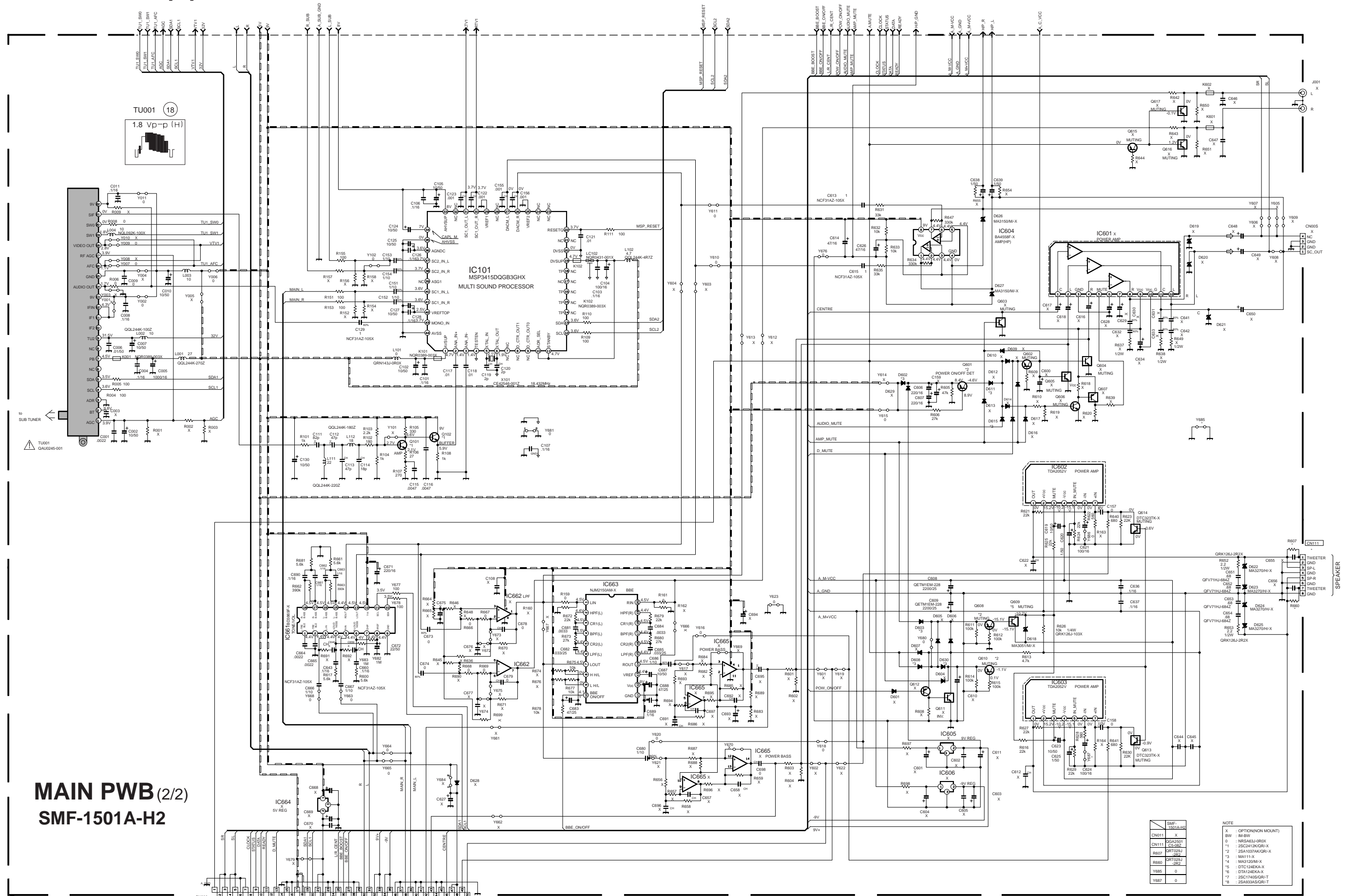
NOTE
 X - OPTION(NON MOUNT)
 BW - IM-BW
 0 - NRS463J-OR-X
 *1 - 25A1037AK-GR-X
 *2 - 25A1037AK-GR-X
 *3 - MA111-X
 *4 - MA320M-X
 *5 - DTC124EK-X
 *6 - D7A124EK-X
 *7 - 25C1740S-OR-T
 *8 - 25A933AS-OR-T
 *9 - MA3051M-X

DIFFERENCE LIST

REF	VALUE	SMF-1501A-H2
R473	8.2K	
R487	56K	
R489	120K	
R491	5.6K	
R493	12K	
R319	X	
R320	X	
D321	X	

MAIN PWB (1/2)
 SMF-1501A-H2

MAIN PWB CIRCUIT DIAGRAM [2/2]



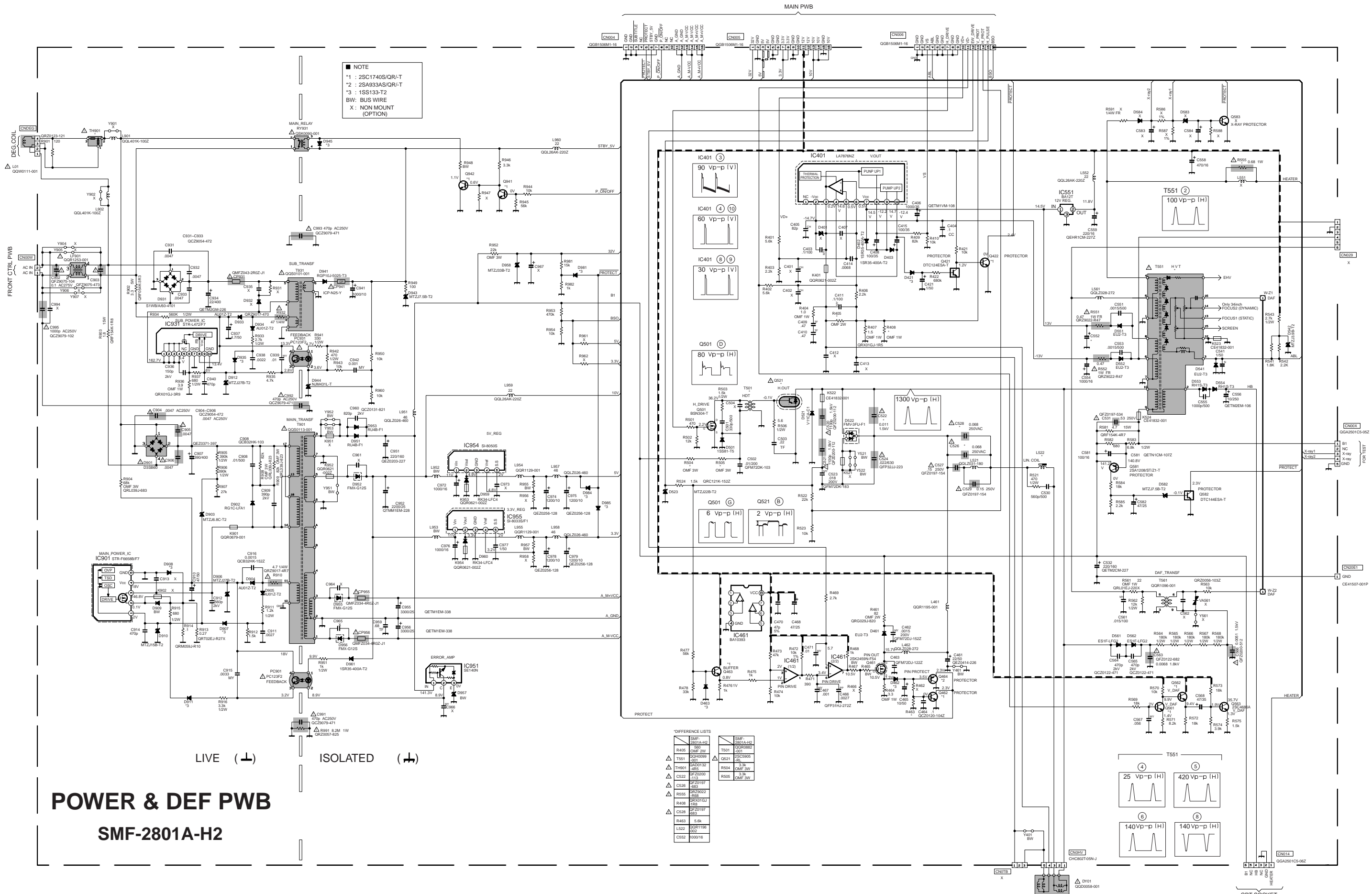
MAIN PWB (2/2)
SMF-1501A-H2

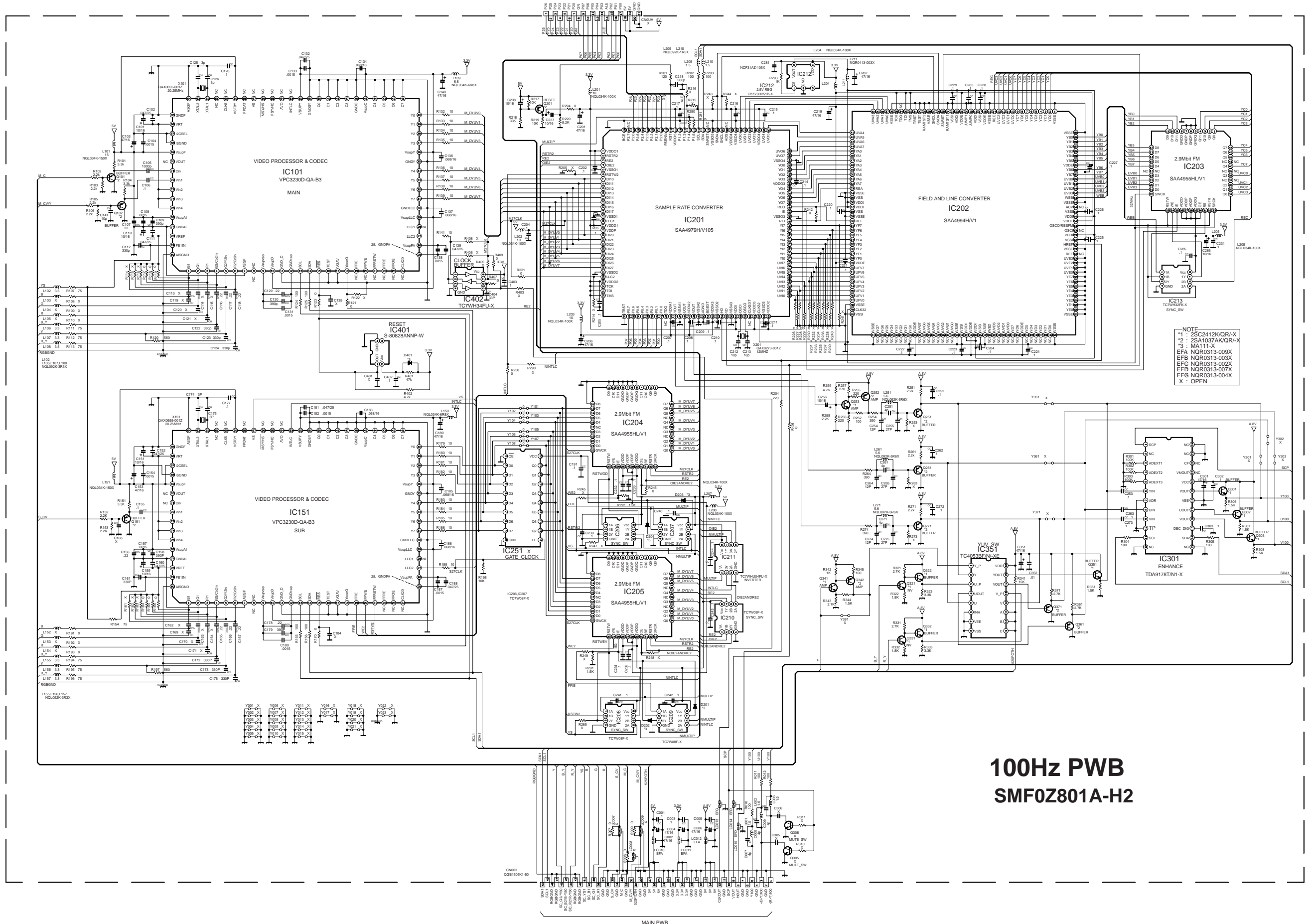
REF	VALUE	DESCRIPTION
CN011	X	SMF-1501A-H2
CN011	X	OPTION(NON MOUNT)
BW	0	8M-BW
CN111	0	NS5403J-GR0X
CN111	1	25C2412KGR-I-X
R607	0	25A1037AKGR-I-X
R660	0	MA111-X
R660	1	MA3120M-X
R660	2	DT124EK4-X
R660	3	DT142EK4-X
R660	4	25C1740SGR-I-T
R660	5	25A933SGR-I-T
Y805	0	
Y807	0	

NOTE

- X - OPTION(NON MOUNT)
- BW - 8M-BW
- 0 - NS5403J-GR0X
- 1 - 25C2412KGR-I-X
- 2 - 25A1037AKGR-I-X
- 3 - MA111-X
- 4 - MA3120M-X
- 5 - DT124EK4-X
- 6 - DT142EK4-X
- 7 - 25C1740SGR-I-T
- 8 - 25A933SGR-I-T

POWER & DEF PWB CIRCUIT DIAGRAM



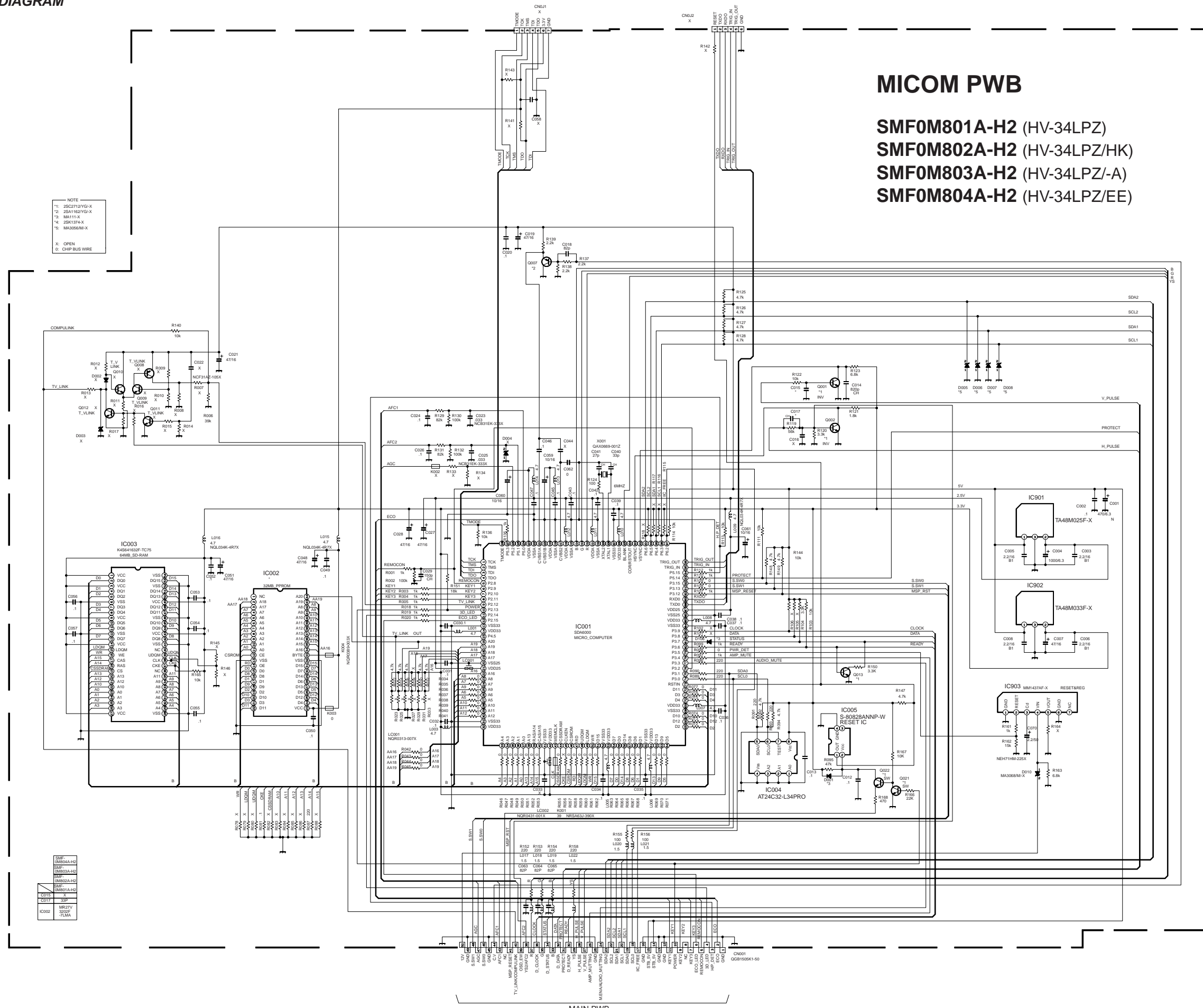


100Hz PWB
SMF0Z801A-H2

MICOM PWB

- SMF0M801A-H2 (HV-34LPZ)
- SMF0M802A-H2 (HV-34LPZ/HK)
- SMF0M803A-H2 (HV-34LPZ/-A)
- SMF0M804A-H2 (HV-34LPZ/EE)

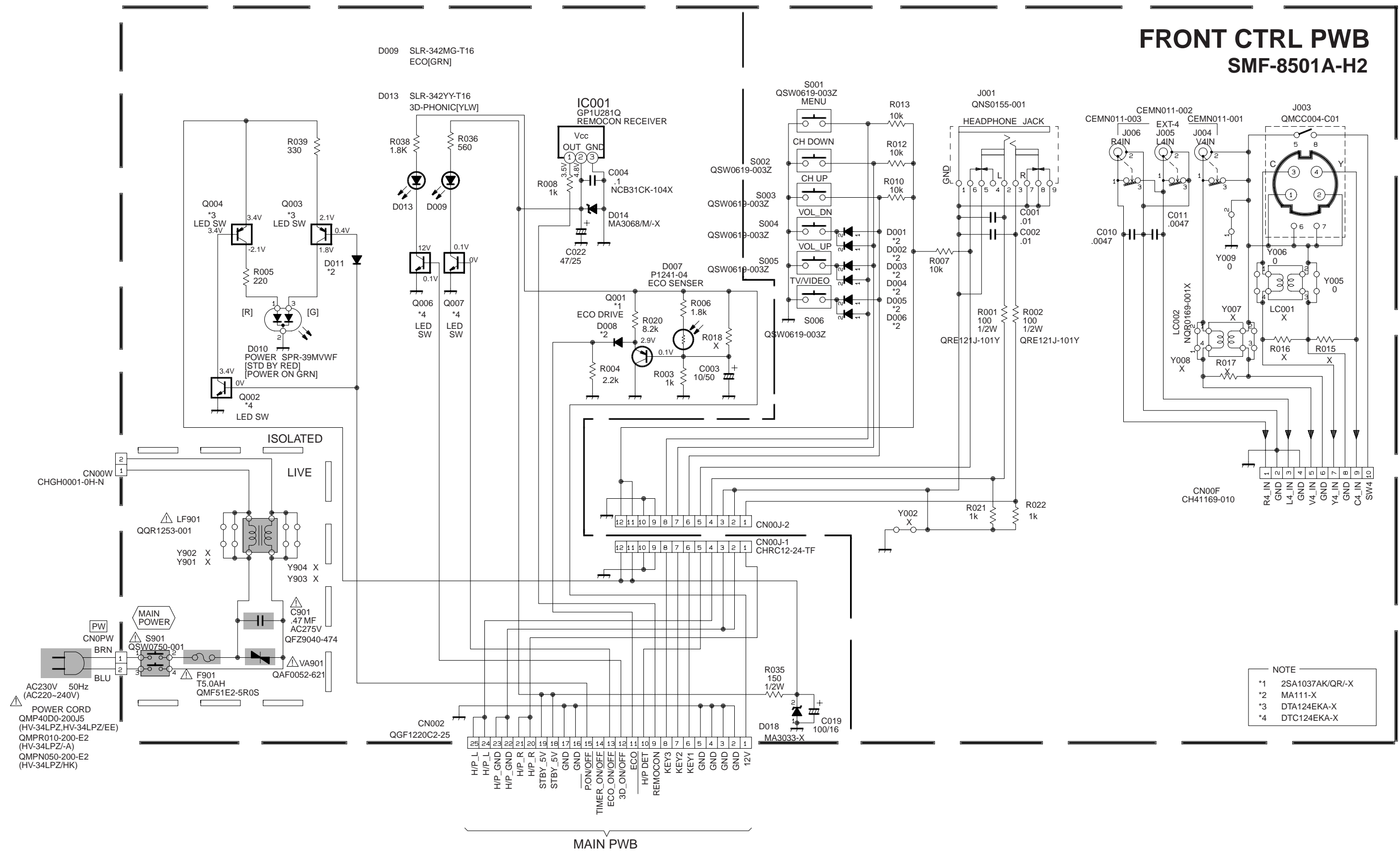
NOTE
 T1: 25C2712VGI-X
 T2: 25A1162VGI-X
 T3: MA1111-X
 T4: 25K131FX-X
 T5: MA3056M-X
 X: OPEN
 O: CHIP BUS WIRE



SMF	SMF0M801A-H2
SMF	SMF0M802A-H2
SMF	SMF0M803A-H2
SMF	SMF0M804A-H2
C001	33P
C002	MR27V 330UF 75MA

FRONT CONTROL PWB CIRCUIT DIAGRAM

FRONT CTRL PWB
SMF-8501A-H2

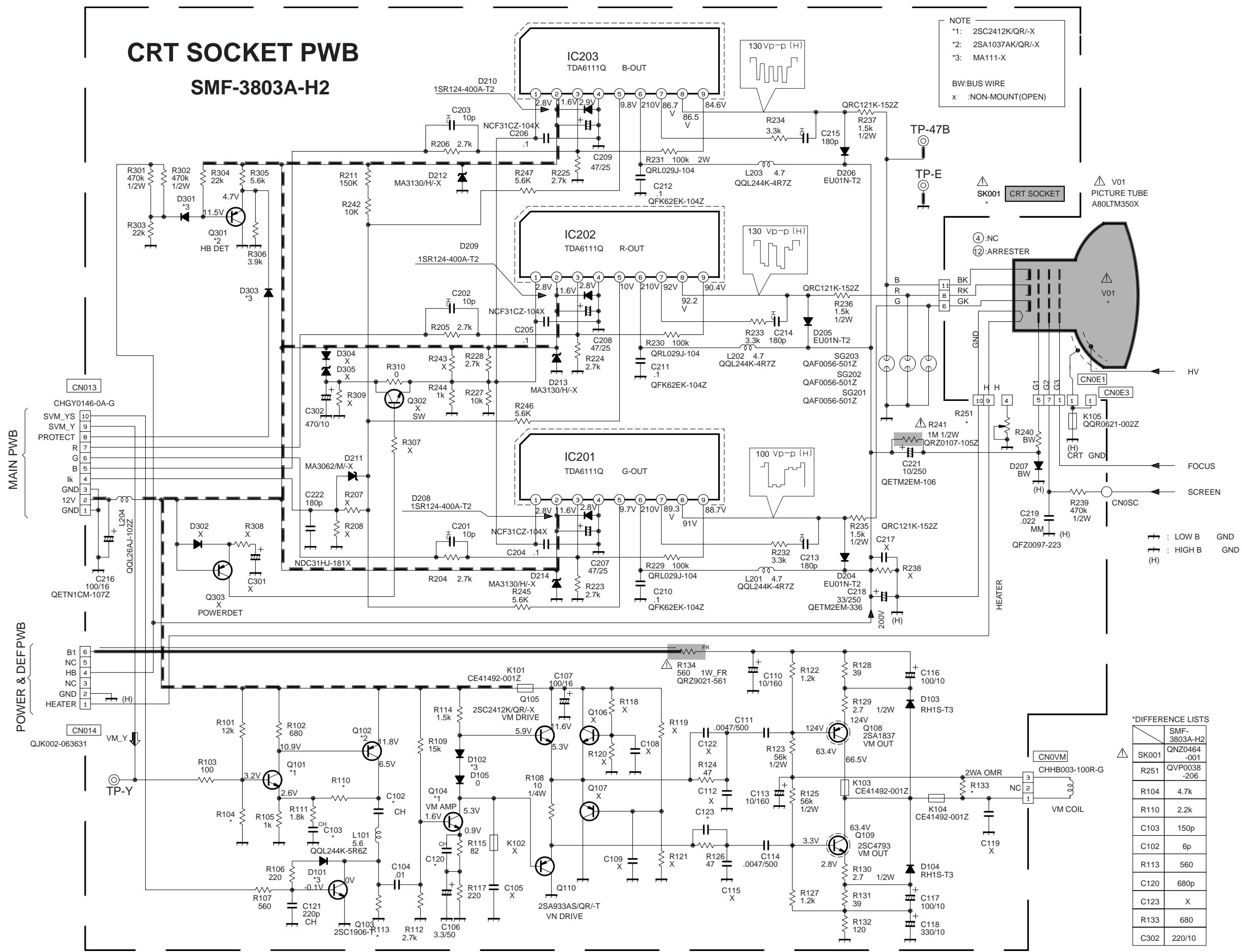


NOTE

- *1 2SA1037AK/QR-X
- *2 MA111-X
- *3 DTA124EKA-X
- *4 DTC124EKA-X

CRT SOCKET PWB SMF-3803A-H2

NOTE
 *1: 2SC2412K/QR-X
 *2: 2SA1037AK/QR-X
 *3: MA1111-X
 BW:BUS WIRE
 x :NON-MOUNT(OPEN)

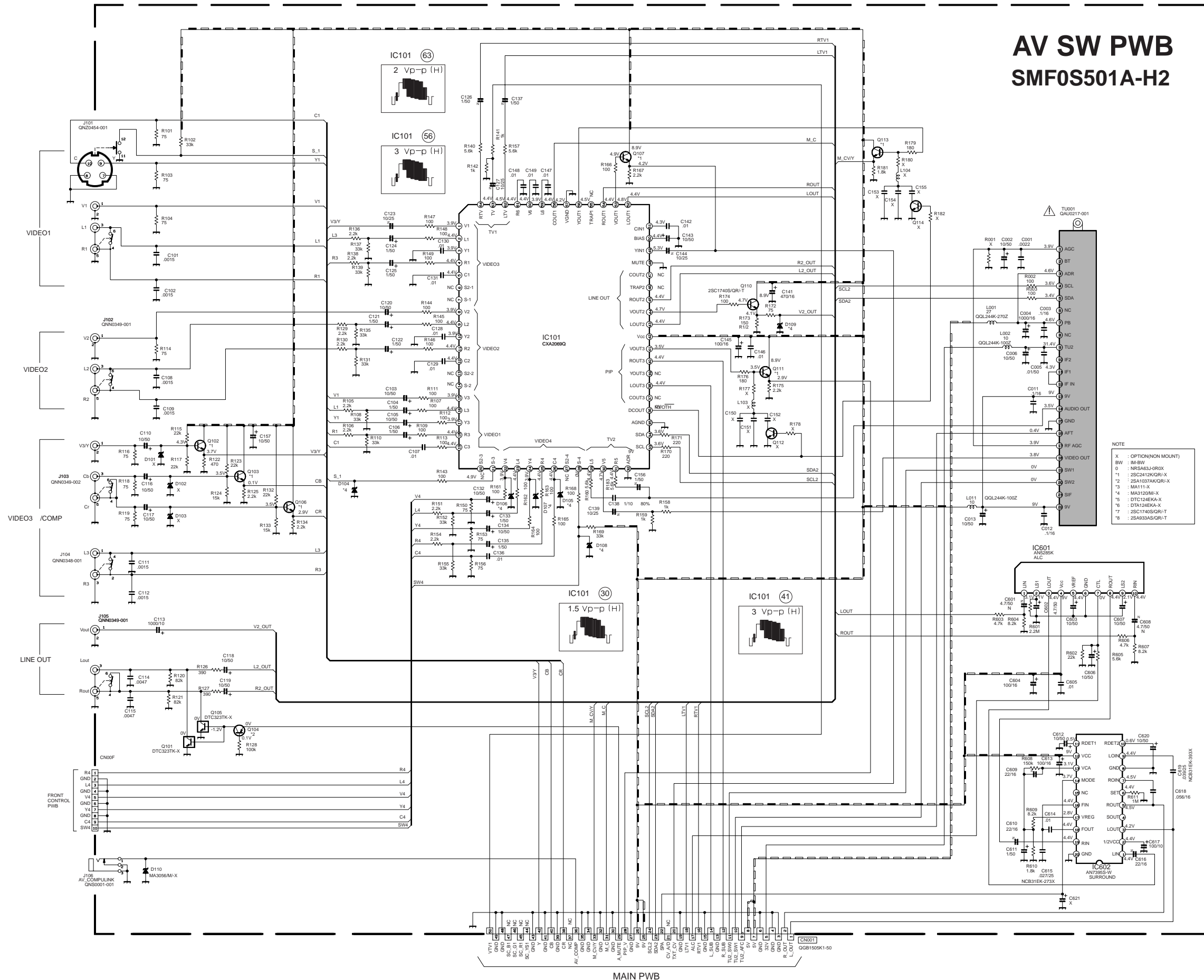


*DIFFERENCE LISTS

Part	SMF-3803A-H2	QNZ0464-001
SK001	X	QNZ0464-001
R251	X	QVP0038-206
R104	X	4.7k
R110	X	2.2k
C103	X	150p
C102	X	6p
R113	X	560
C120	X	680p
C123	X	X
R133	X	680
C302	X	220/10

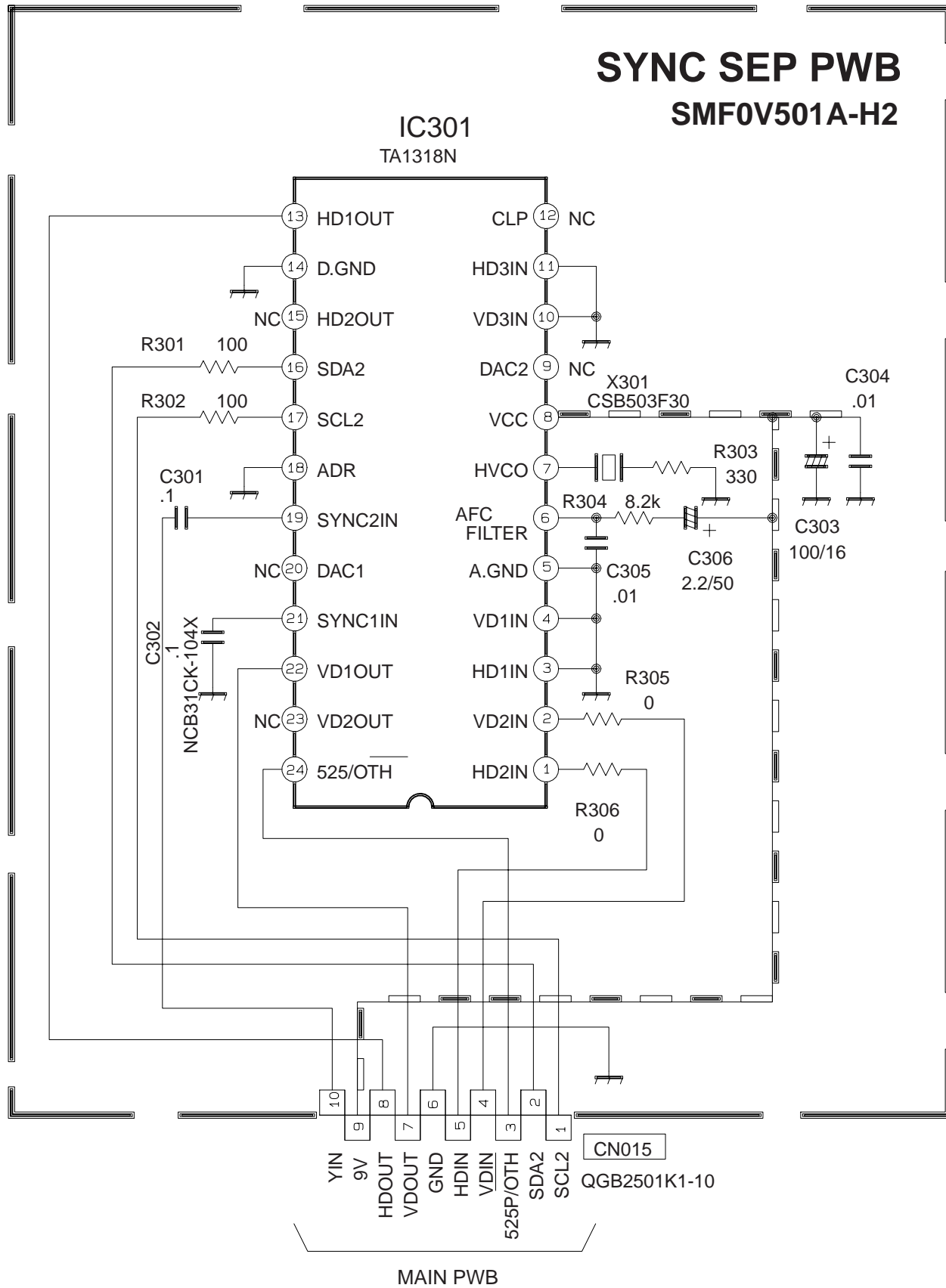
AV SW PWB CIRCUIT DIAGRAM

AV SW PWB
SMF0S501A-H2

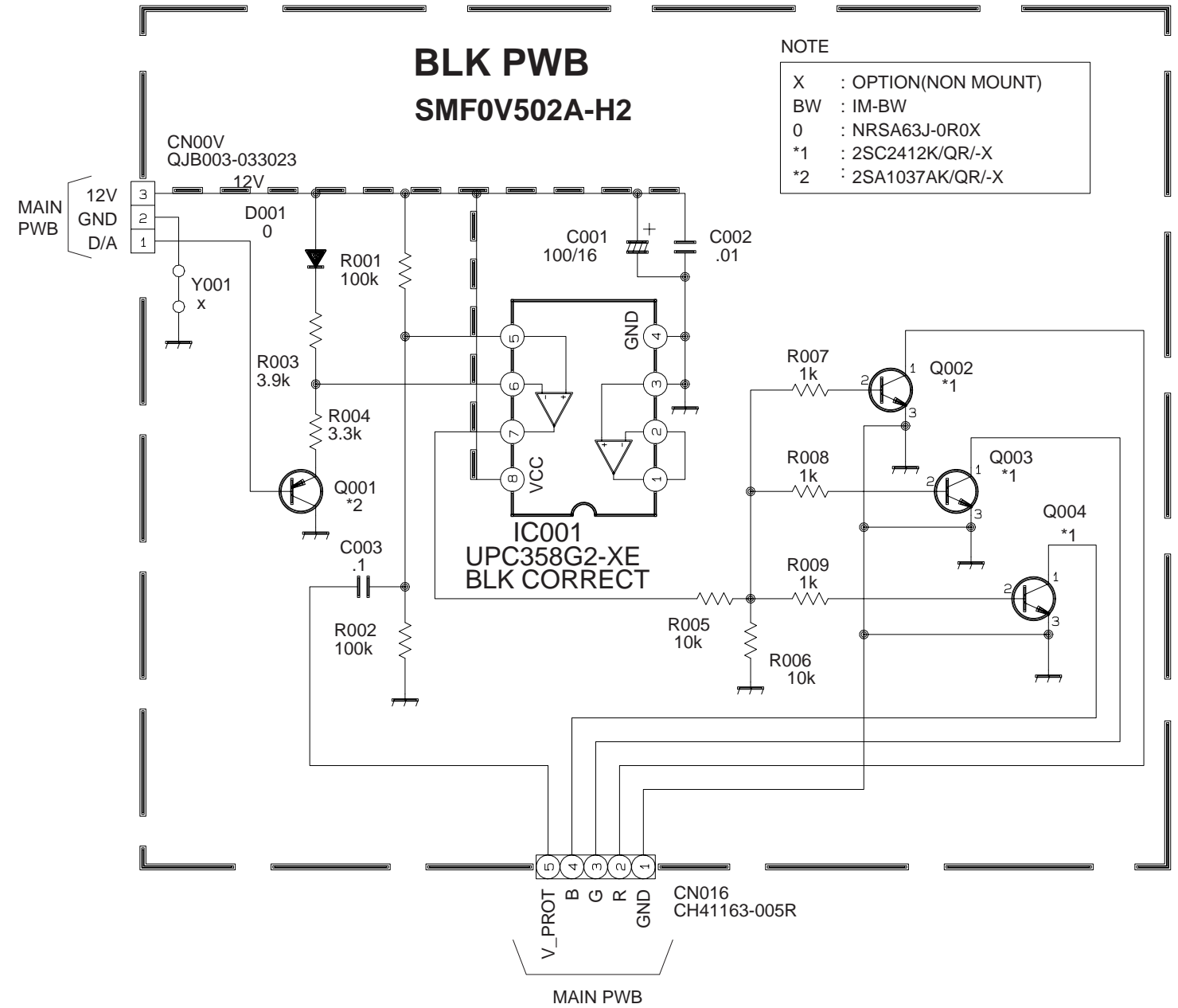


SYNC SEP PWB CIRCUIT DIAGRAM

BLK PWB CIRCUIT DIAGRAM



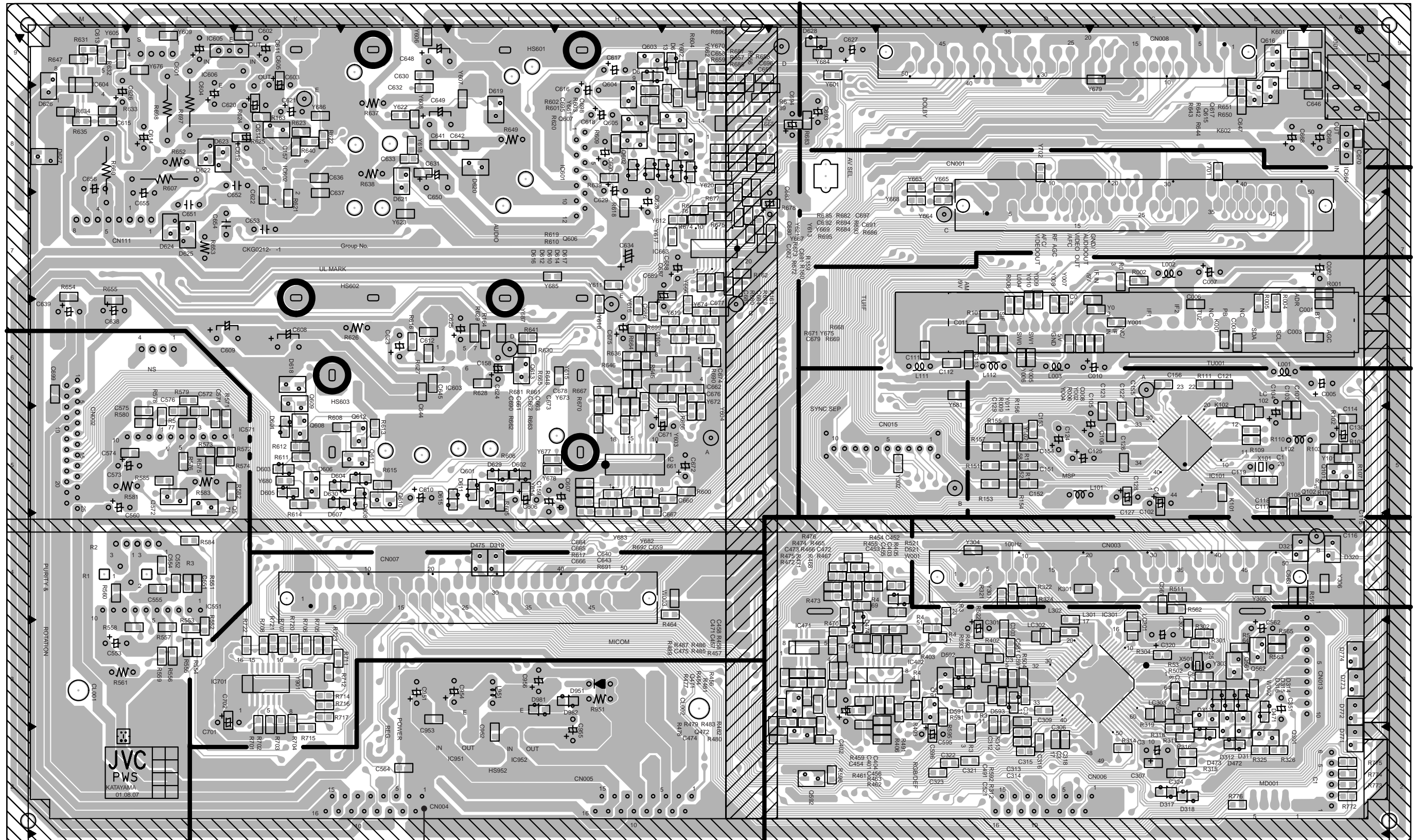
BLK PWB SMF0V502A-H2



NOTE

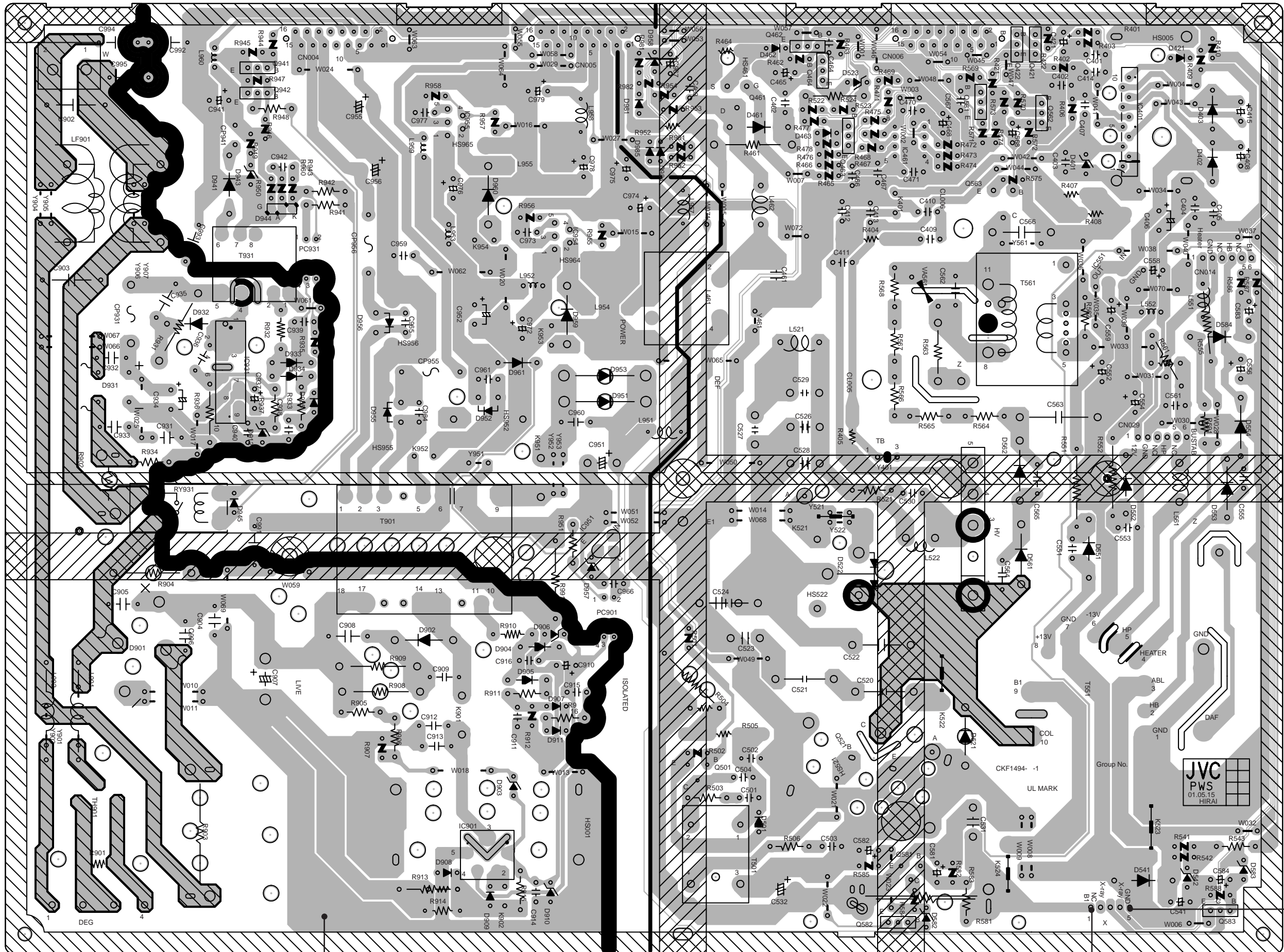
- X : OPTION(NON MOUNT)
- BW : IM-BW
- 0 : NRSA63J-0R0X
- *1 : 2SC2412K/QR/-X
- *2 : 2SA1037AK/QR/-X

PATTERN DIAGRAMS MAIN PWB PATTERN



POWER & DEF PWB PATTERN

FRONT
←



JVC
PWS
01.05.15
HIRAI

Group No.

UL MARK

CKF1494 - 1

+13V

-13V

GND

GND

GND

GND

GND

GND

GND

GND

GND

GND

GND

GND

GND

GND

GND

GND

GND

GND

GND

GND

GND

GND

GND

GND

GND

GND

GND

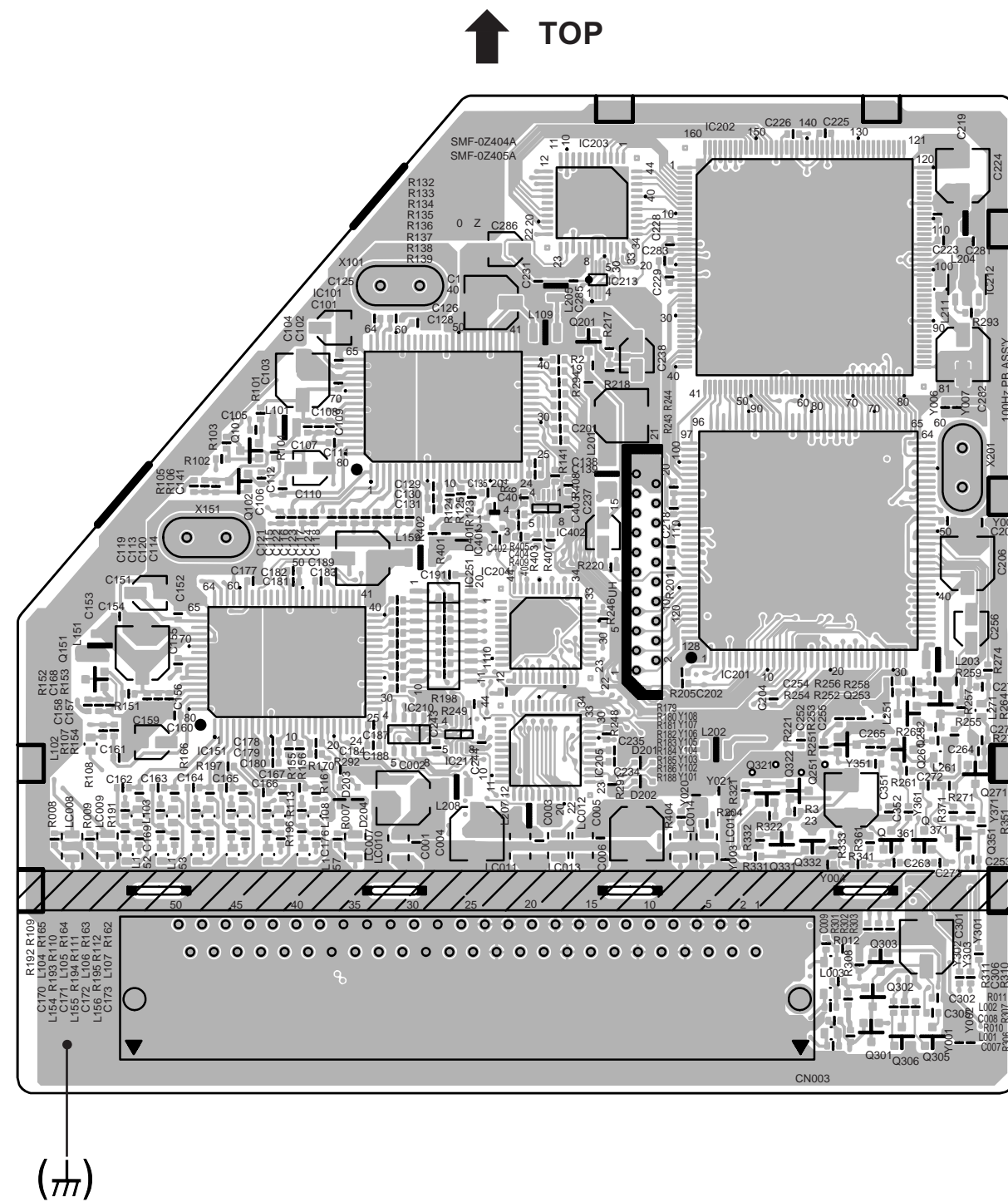
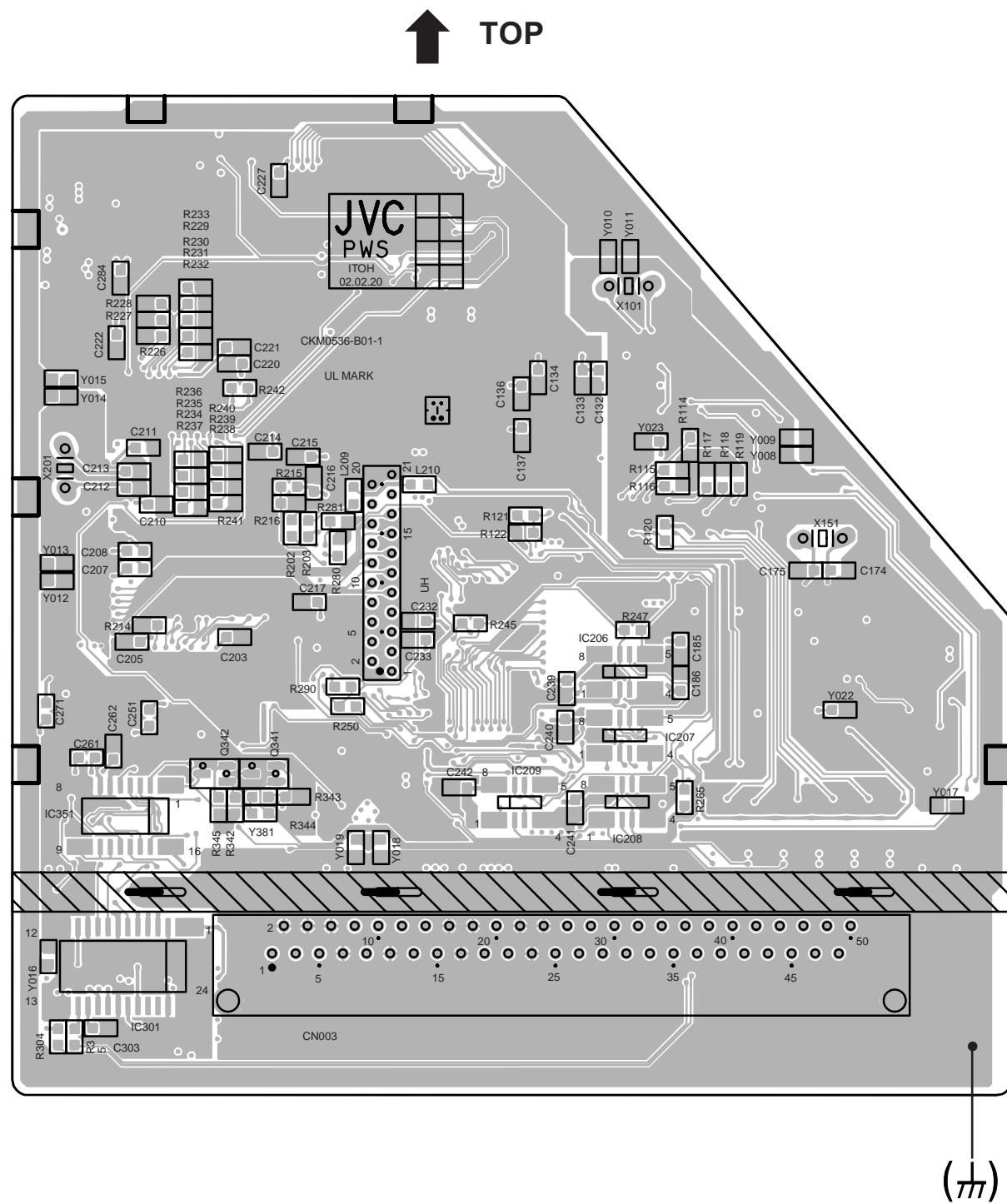
GND

GND

GND

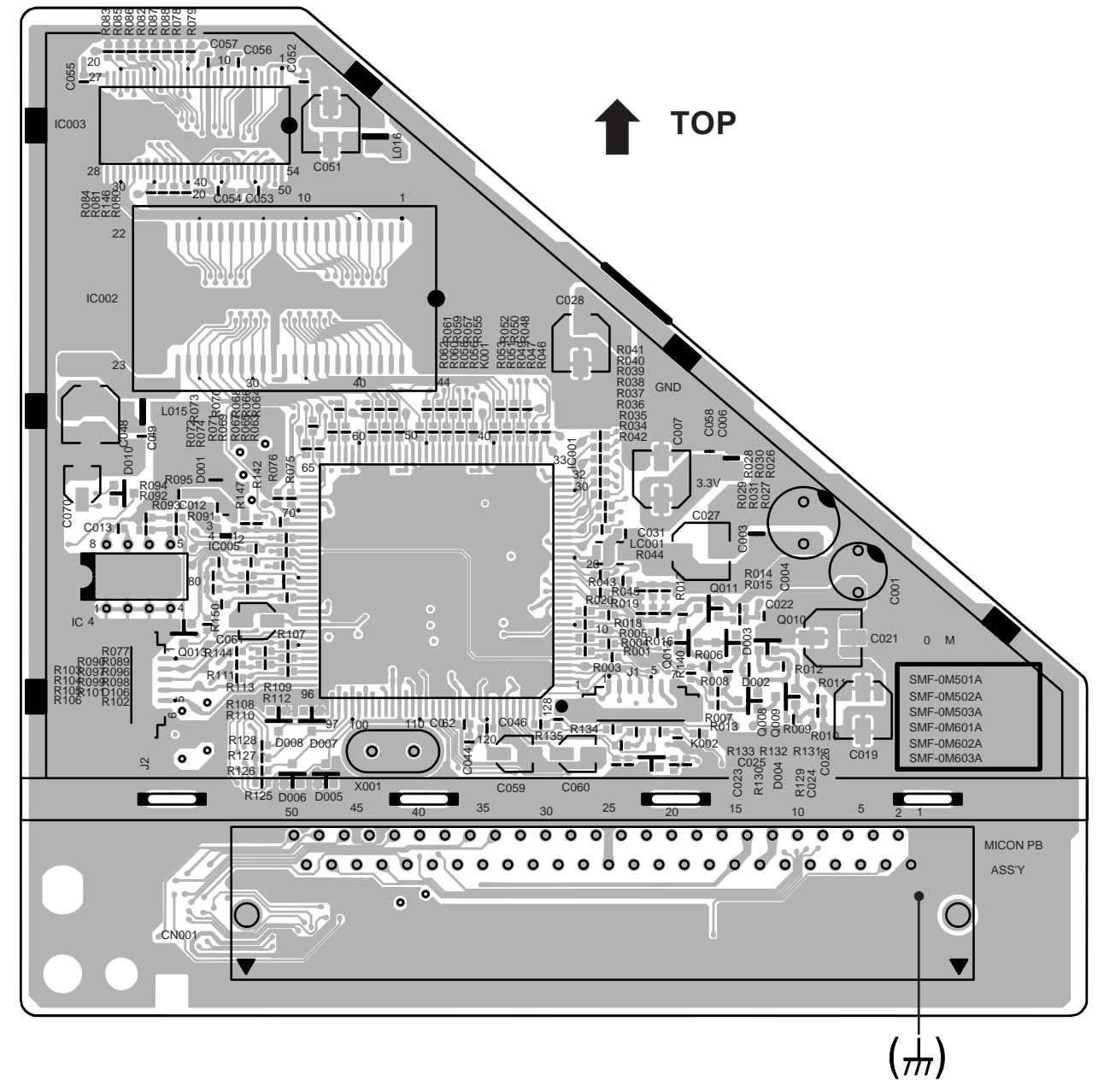
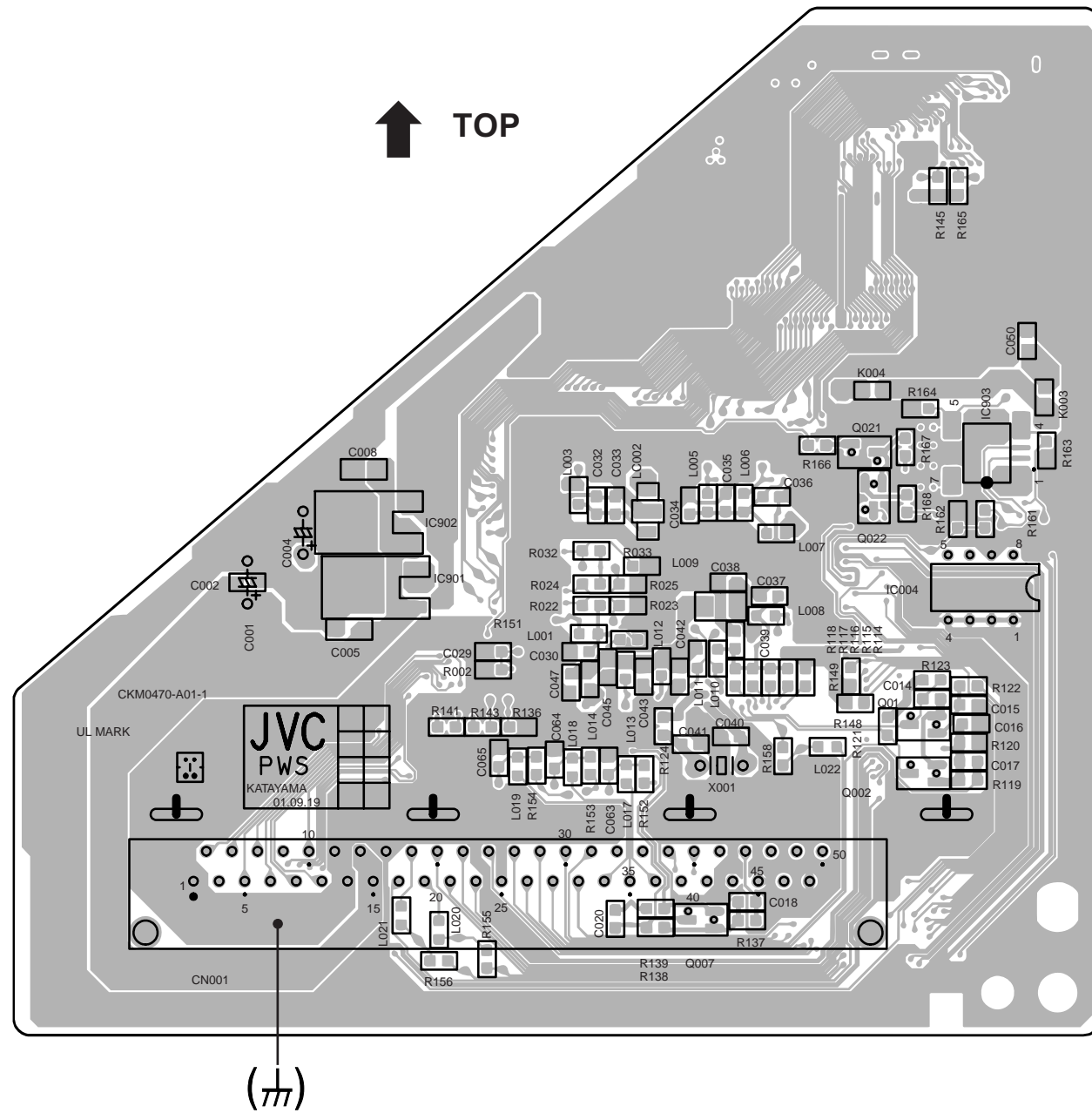
100Hz PWB PATTERN (SOLDER SIDE)

100Hz PWB PATTERN (PARTS SIDE)



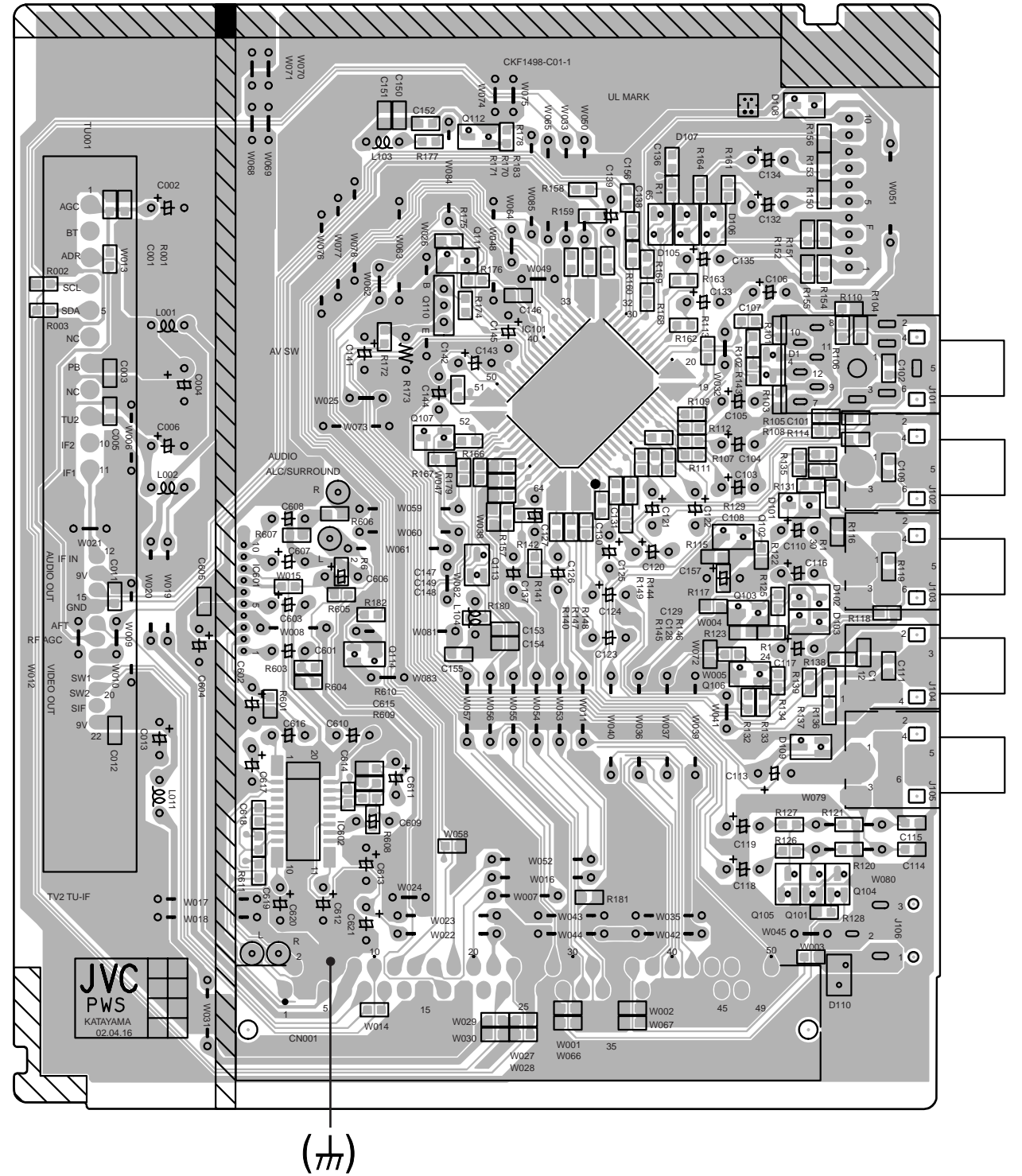
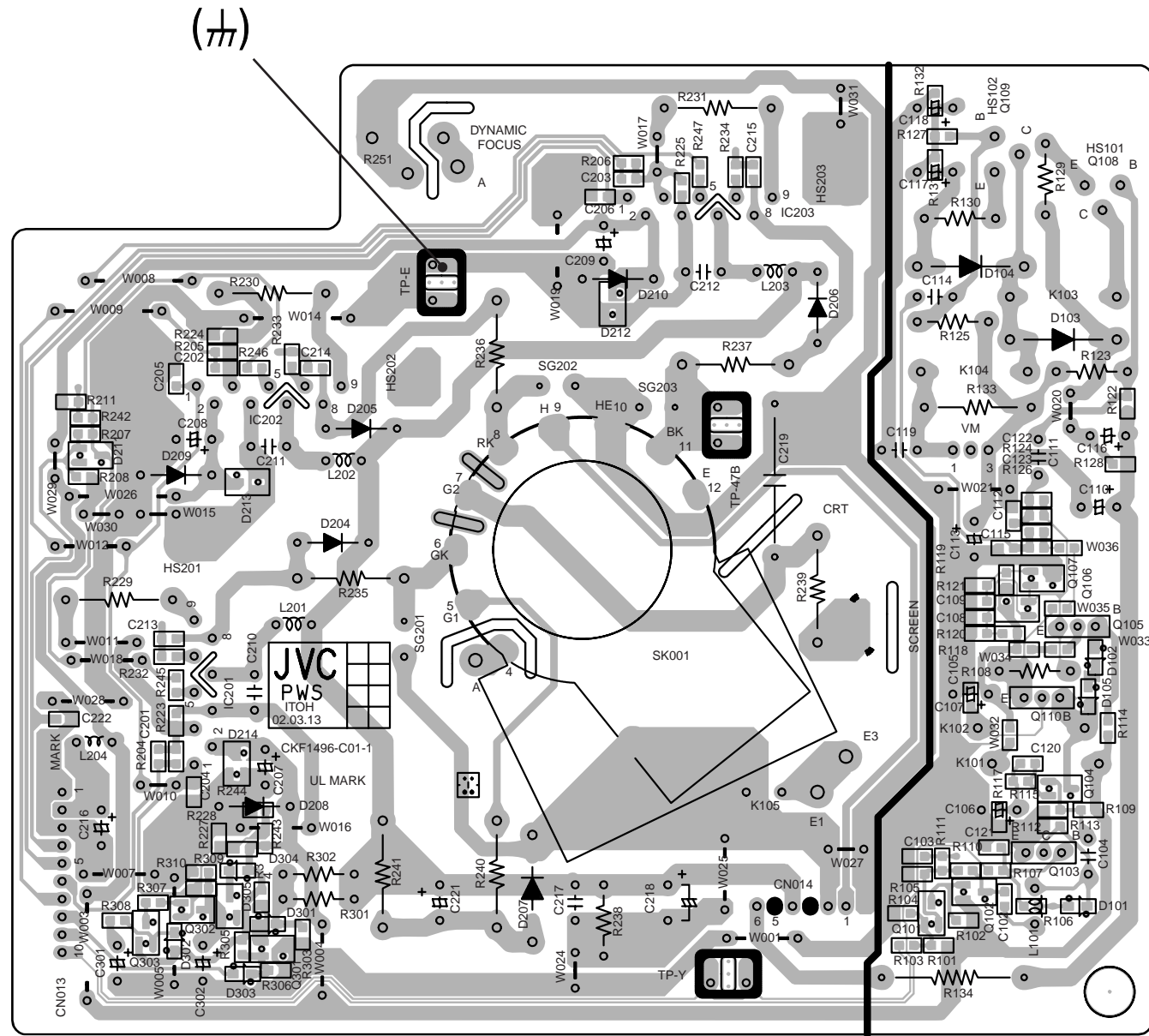
MICOM PWB PATTERN (SOLDER SIDE)

MICOM PWB PATTERN (PARTS SIDE)



CRT SOCKET PWB PATTERN

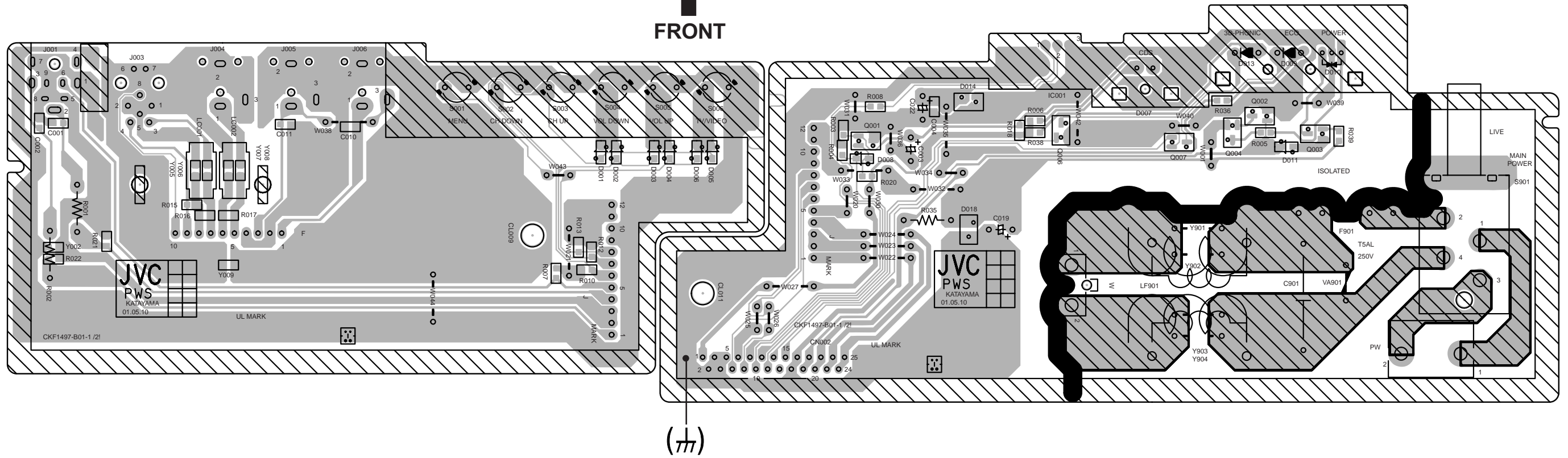
AV SW PWB PATTERN



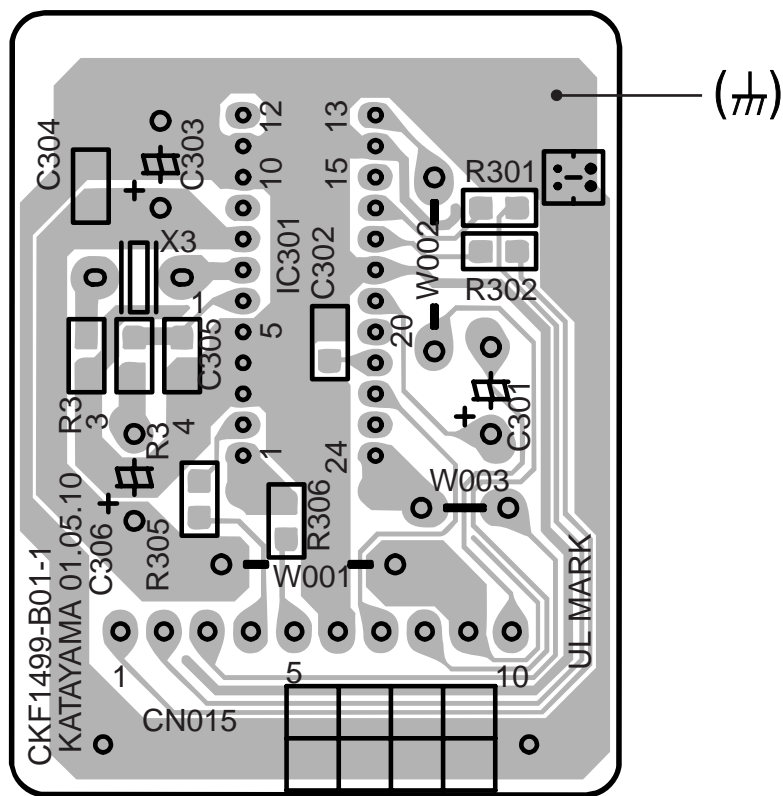
FRONT CONTROL PWB PATTERN

HV-34LPZ

HV-34LPZ

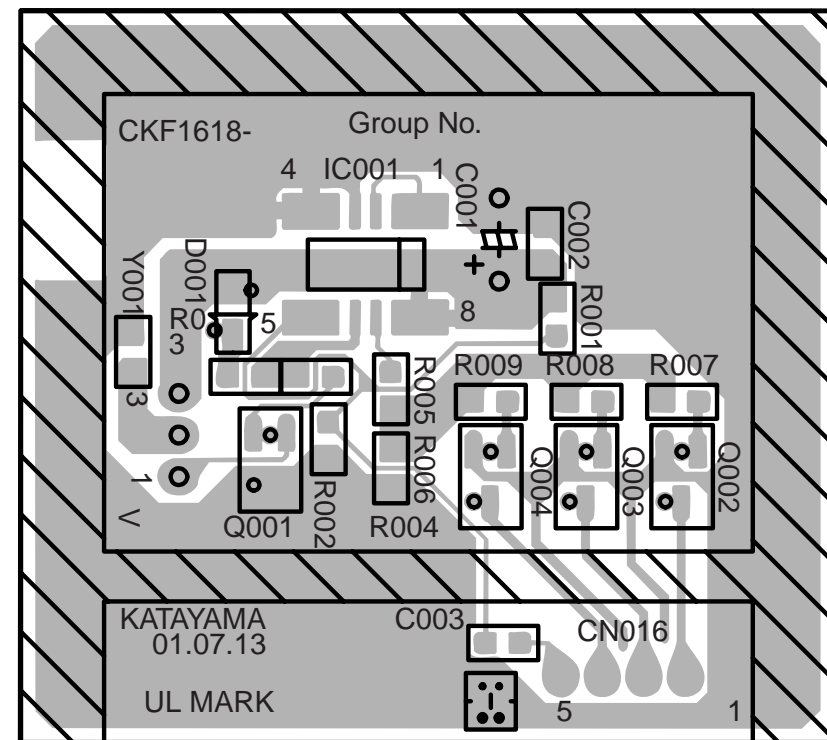


SYNC SEP PWB PATTERN



No.52013

BLK PWB PATTERN



No.52013

JVC

VICTOR COMPANY OF JAPAN, LIMITED

HOME AV NETWORK BUSINESS UNIT. 12, 3-chome, Moriya-cho, Kanagawa-ku, Yokohama, Kanagawa-prefecture, 221-8528, Japan