JVC

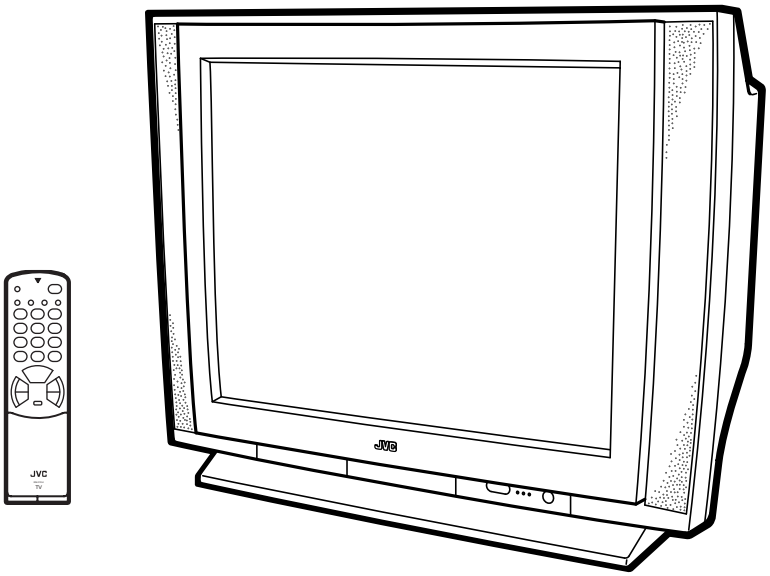
SCHEMATIC DIAGRAMS

COLOUR TELEVISION

BASIC CHASSIS
MF

HV-29LPZ
HV-29LPZ/HK
HV-29LPZ/-A
HV-29LPZ/EE

CD-ROM No.SML200206



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No.52012
Jun. 2002

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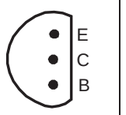
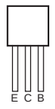
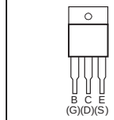
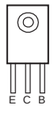
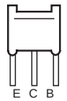
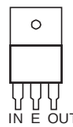
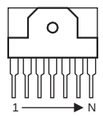
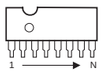
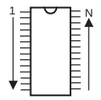
SEMICONDUCTOR SHAPES

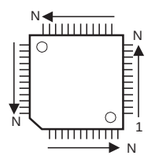
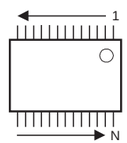
TRANSISTOR

BOTTOM VIEW	FRONT VIEW				TOP VIEW
					CHIP TR 

IC

BOTTOM VIEW	FRONT VIEW			TOP VIEW
				

CHIP IC

TOP VIEW		
		

HV-29LPZ / HV-29LPZ/HK / HV-29LPZ/-A / HV-29LPZ/EE
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	:[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	:[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

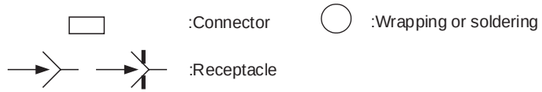
No unit	:[μH]
Others	:As specified

(4)Power Supply

∗Respective voltage values are indicated

(5)Test point

(6)Connecting method



(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.

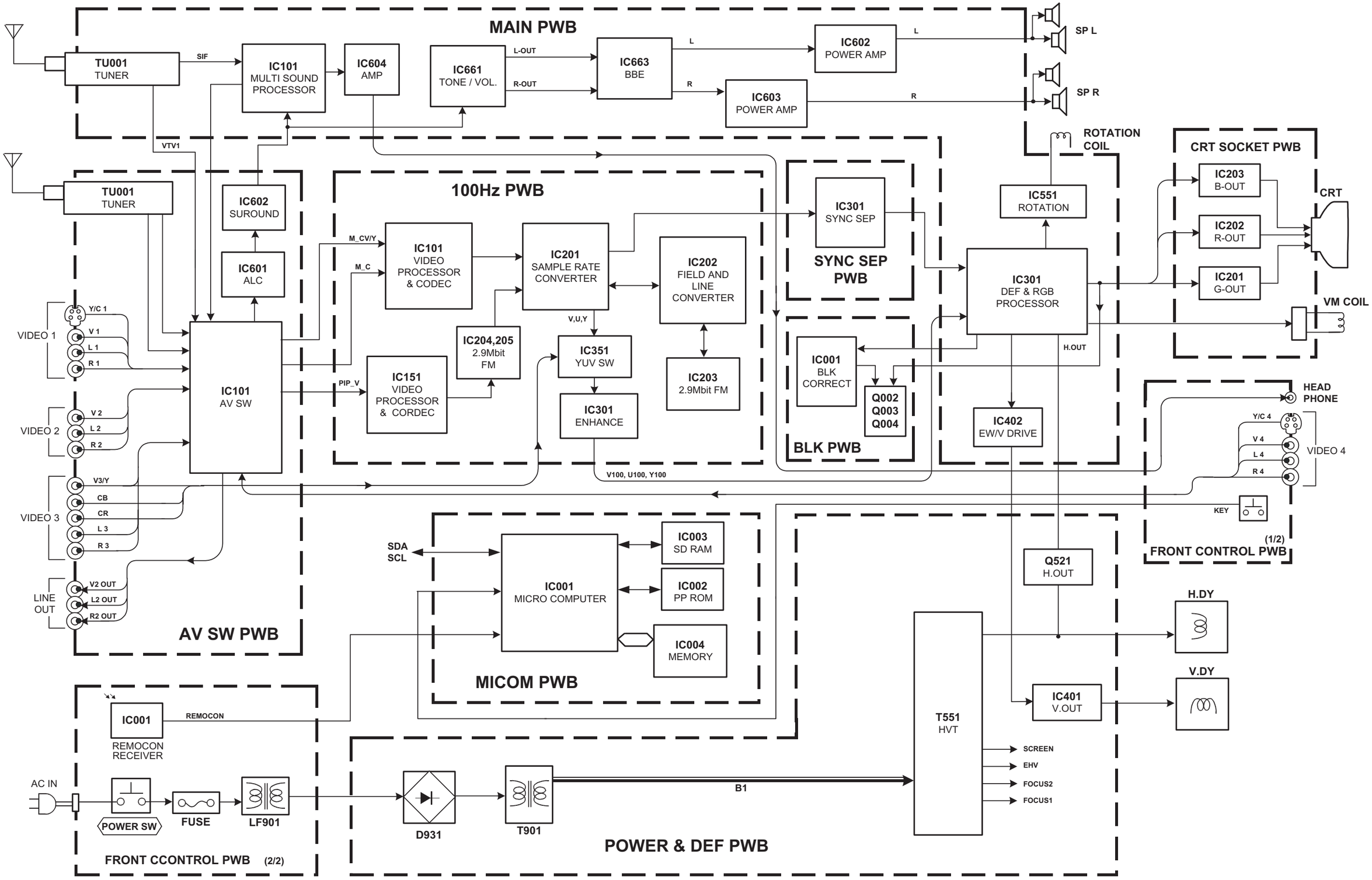
(2)Do not short between the LIVE side GND and ISOLATED(NEUTRAL) side GND or never measure with a measuring apparatus measure with a measuring apparatus (oscilloscope, etc.) the LIVE side GND and ISOLATED(NEUTRAL) side GND at the same time. If the above precaution is not respected , a fuse or any parts 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.**

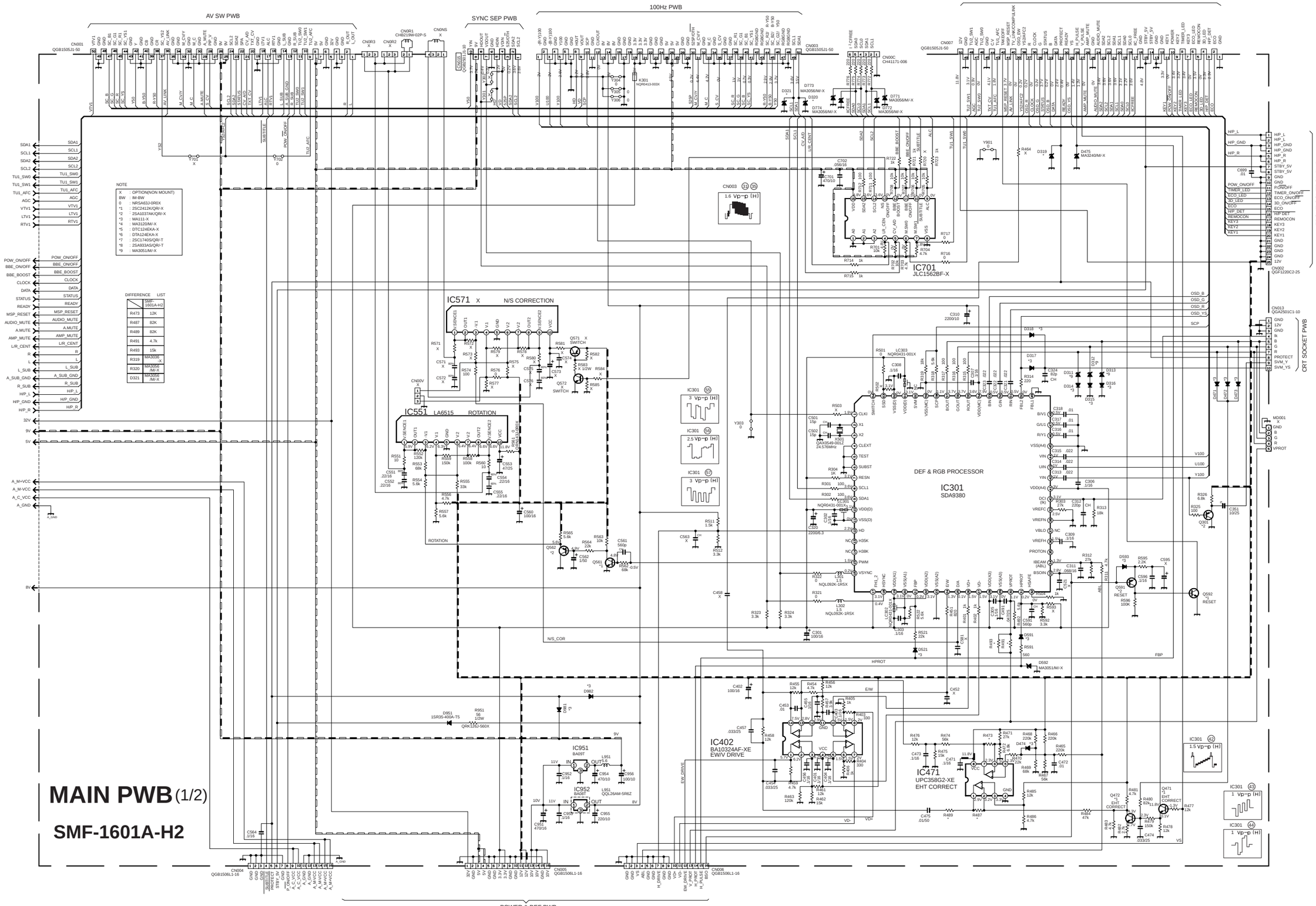
NOTE

◇ **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.

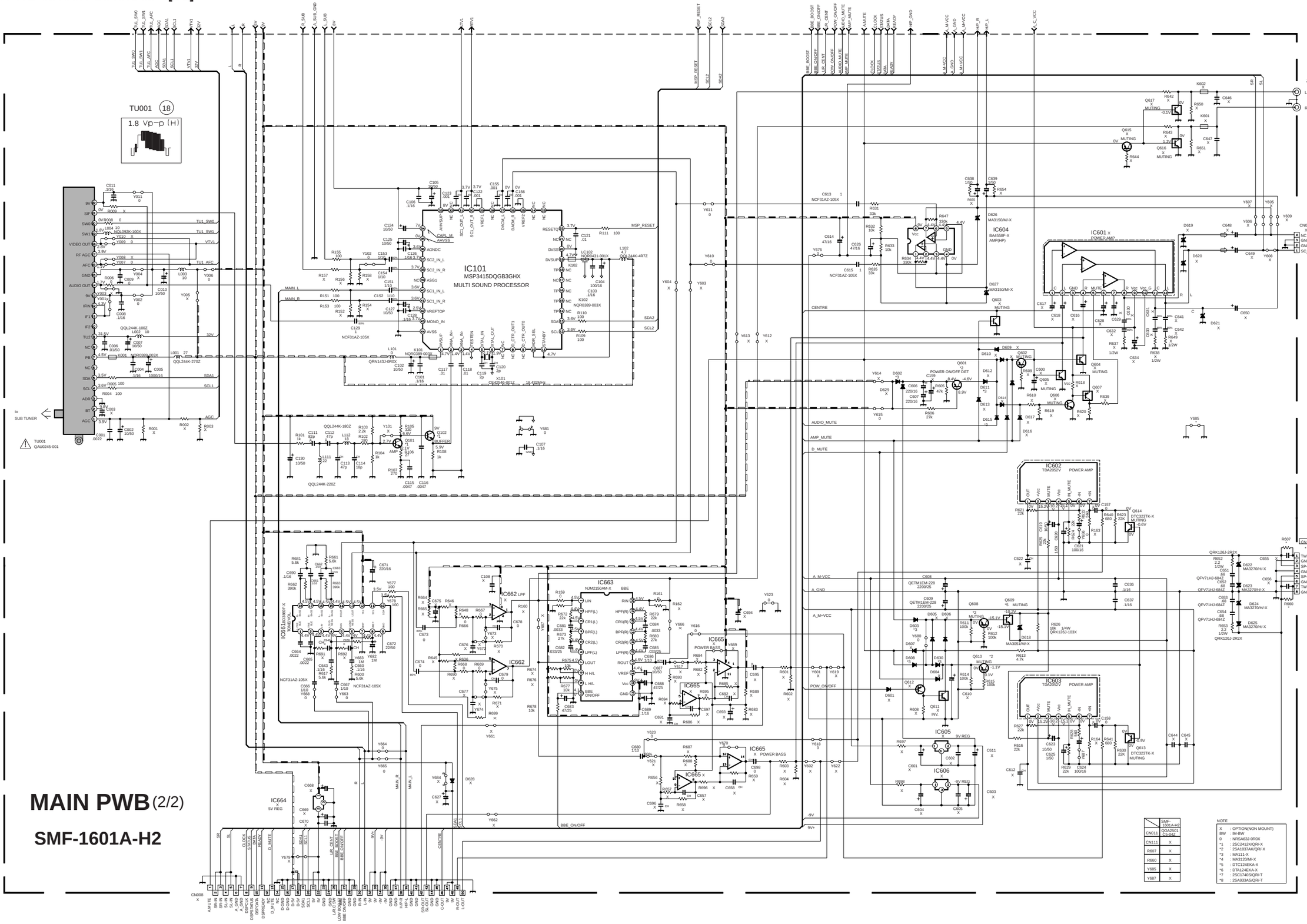
BLOCK DIAGRAM



CIRCUIT DIAGRAMS *MAIN PWB CIRCUIT DIAGRAMS* [1/2]



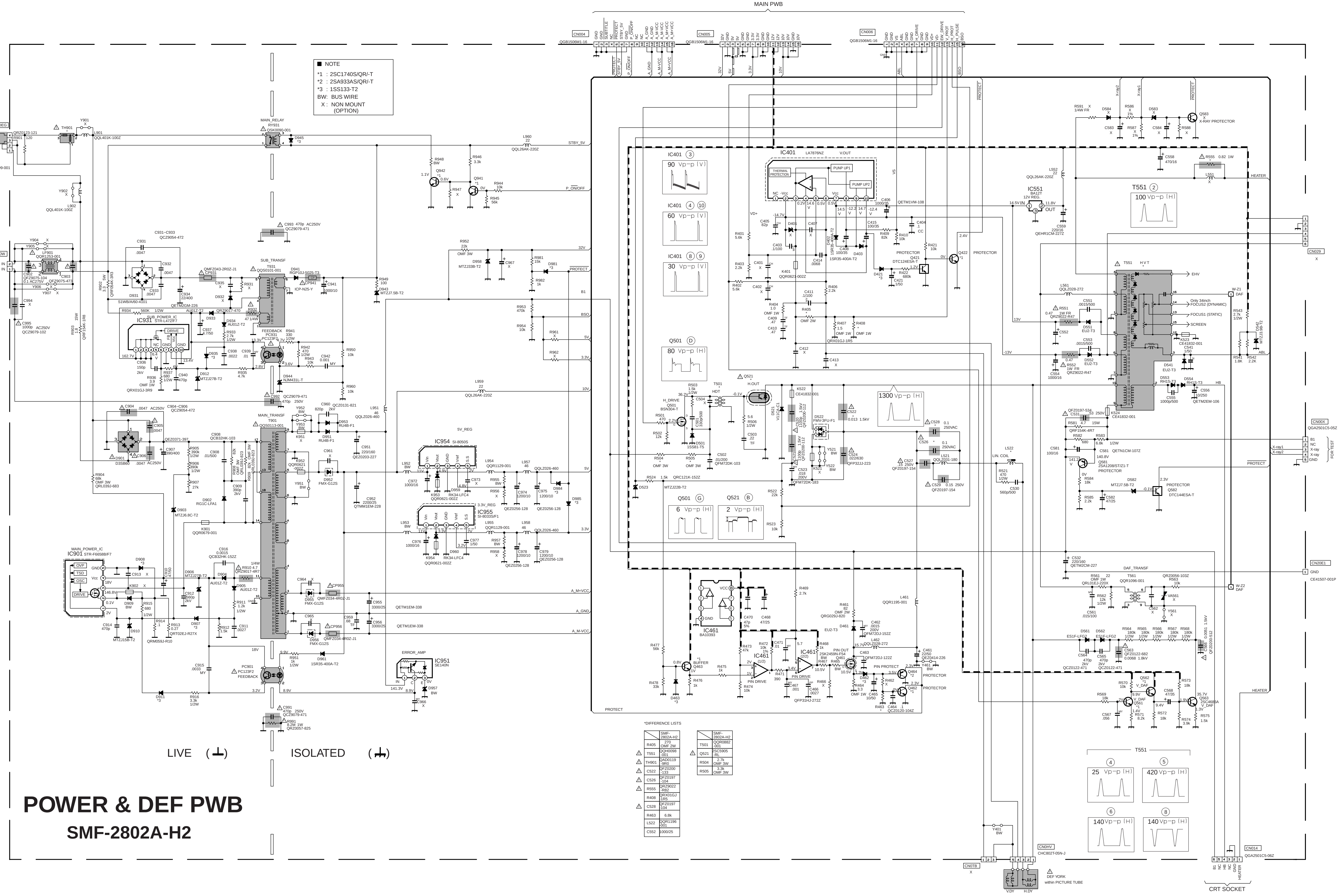
MAIN PWB CIRCUIT DIAGRAM [2/2]



MAIN PWB (2/2)

SMF-1601A-H2

POWER & DEF PWB CIRCUIT DIAGRAM



*DIFFERENCE LISTS

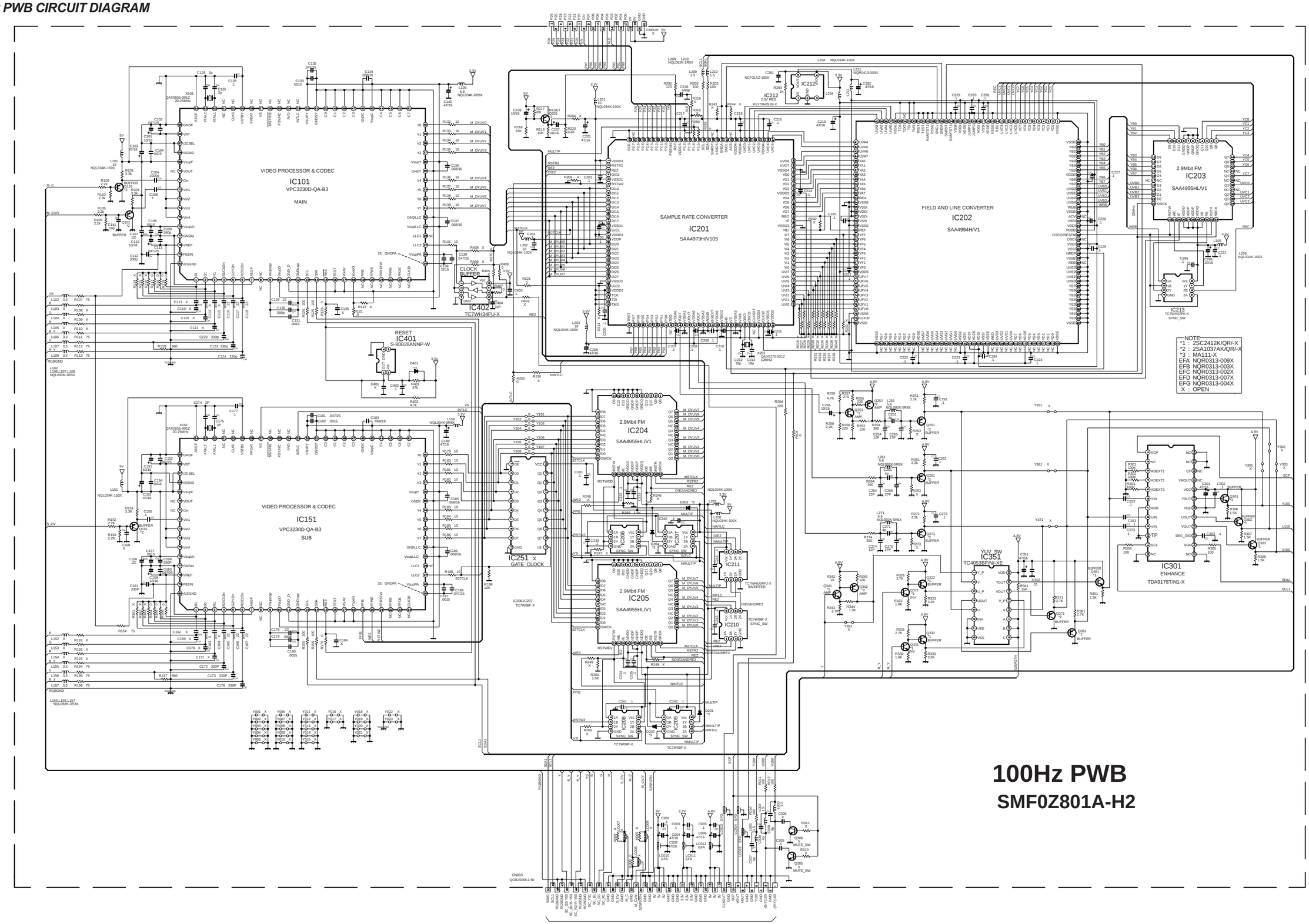
	SMF-2802A-H2
R405	270 OMF 2W
⚠ T551	QQH0098-001
⚠ TH901	QAD0119-9R0
⚠ C522	QFZ0200-133
⚠ C526	QFZ0197-104
⚠ R555	QRZ9022-R82
R408	QRX01GJ-1R5
⚠ C528	QFZ0197-104
R463	6.8k
L522	QQR1196-001
C552	1000/25

	SMF-2802A-H2
T501	QQR0882-001
⚠ Q521	2SC5905-RL
R504	2.7k OMF 3W
R505	3.3k OMF 3W

POWER & DEF PWB

SMF-2802A-H2

100Hz PWB CIRCUIT DIAGRAM



MICOM PWB CIRCUIT DIAGRAM

MICOM PWB

SMF0M901A-H2 (HV-29LPZ)
SMF0M902A-H2 (HV-29LPZ/HK)
SMF0M903A-H2 (HV-29LPZ/-A)
SMF0M904A-H2 (HV-29LPZ/EE)

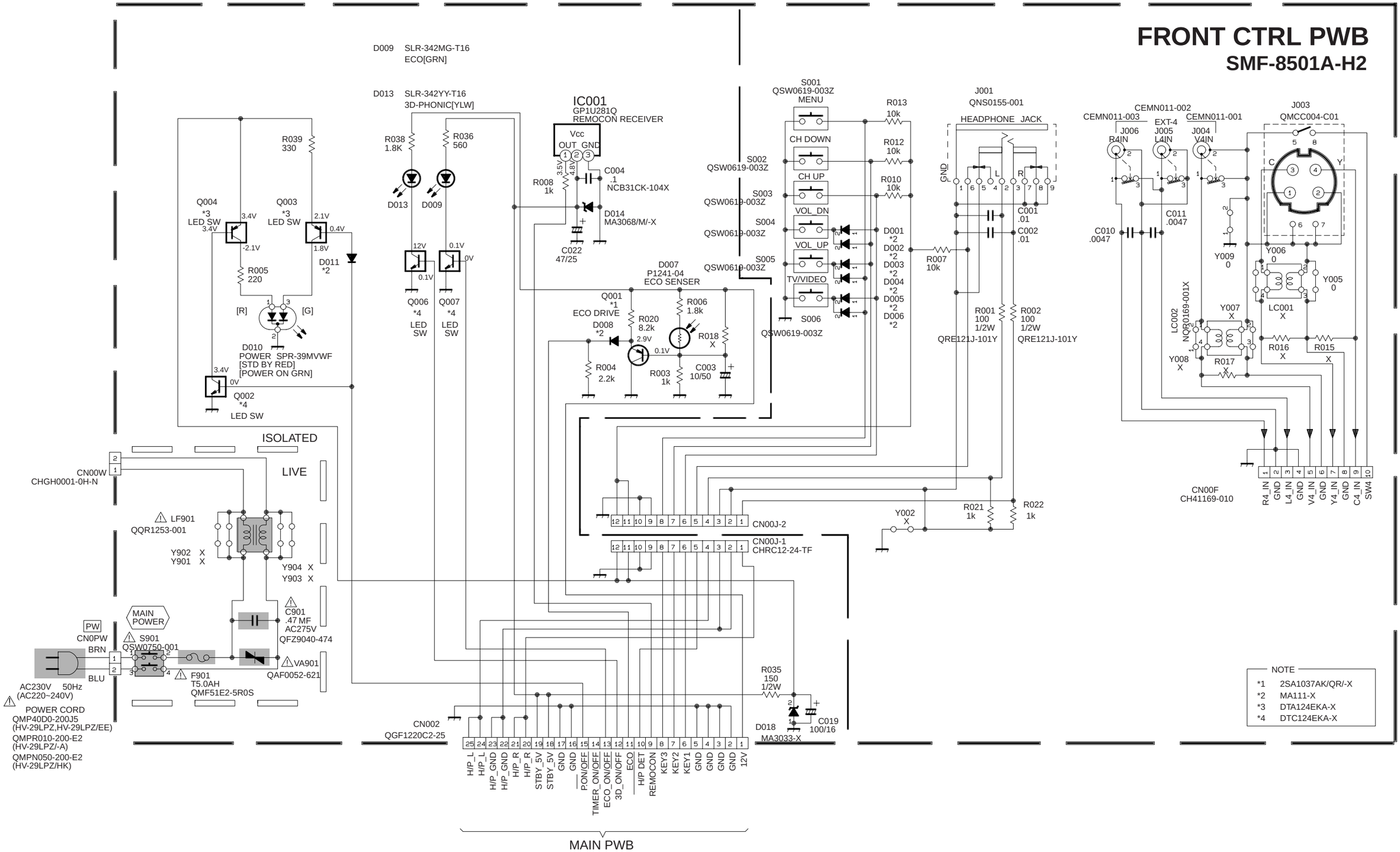
NOTE
*1: 2SC2712/YG/-X
*2: 2SA1162/YG/-X
*3: MA111-X
*4: 2SK1374-X
*5: MA3056/MI-X

X: OPEN
0: CHIP BUS WIRE

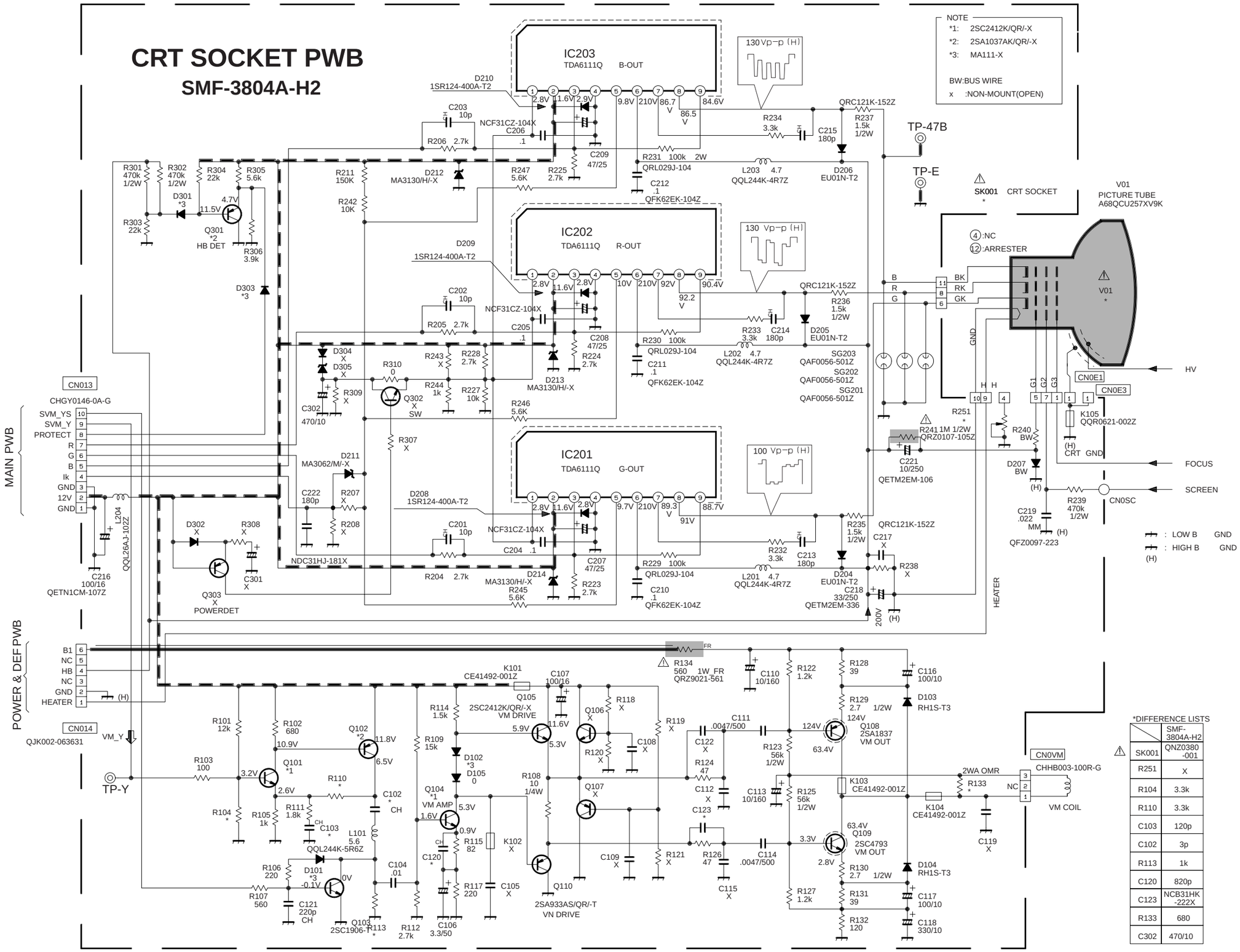
	SMF 0M904A-H2	SMF 0M903A-H2	SMF 0M902A-H2	SMF 0M901A-H2
C015	820P			
C017	100P			
IC002	MR27V 3202F -7LMA			

MAIN PWB

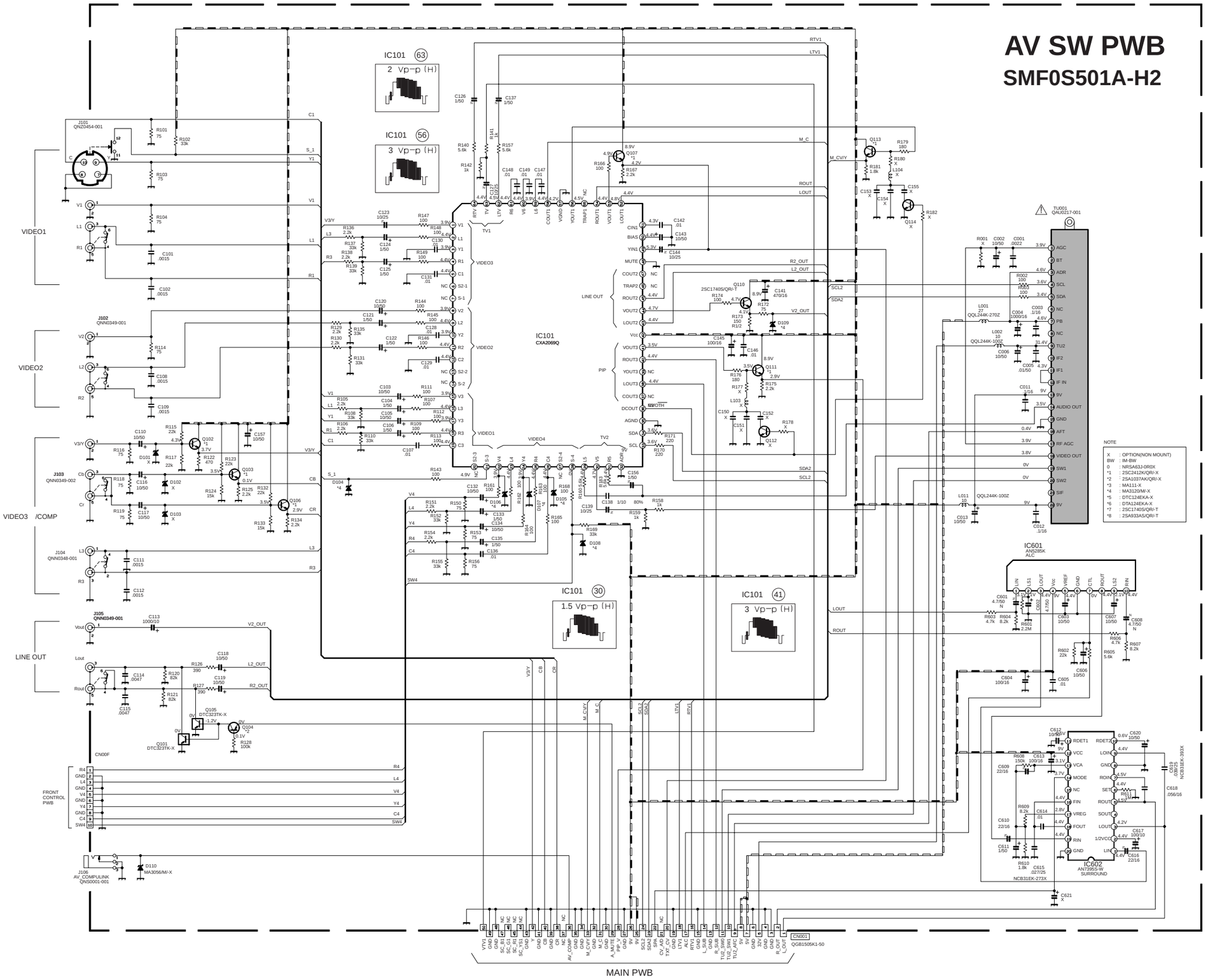
FRONT CONTROL PWB CIRCUIT DIAGRAM



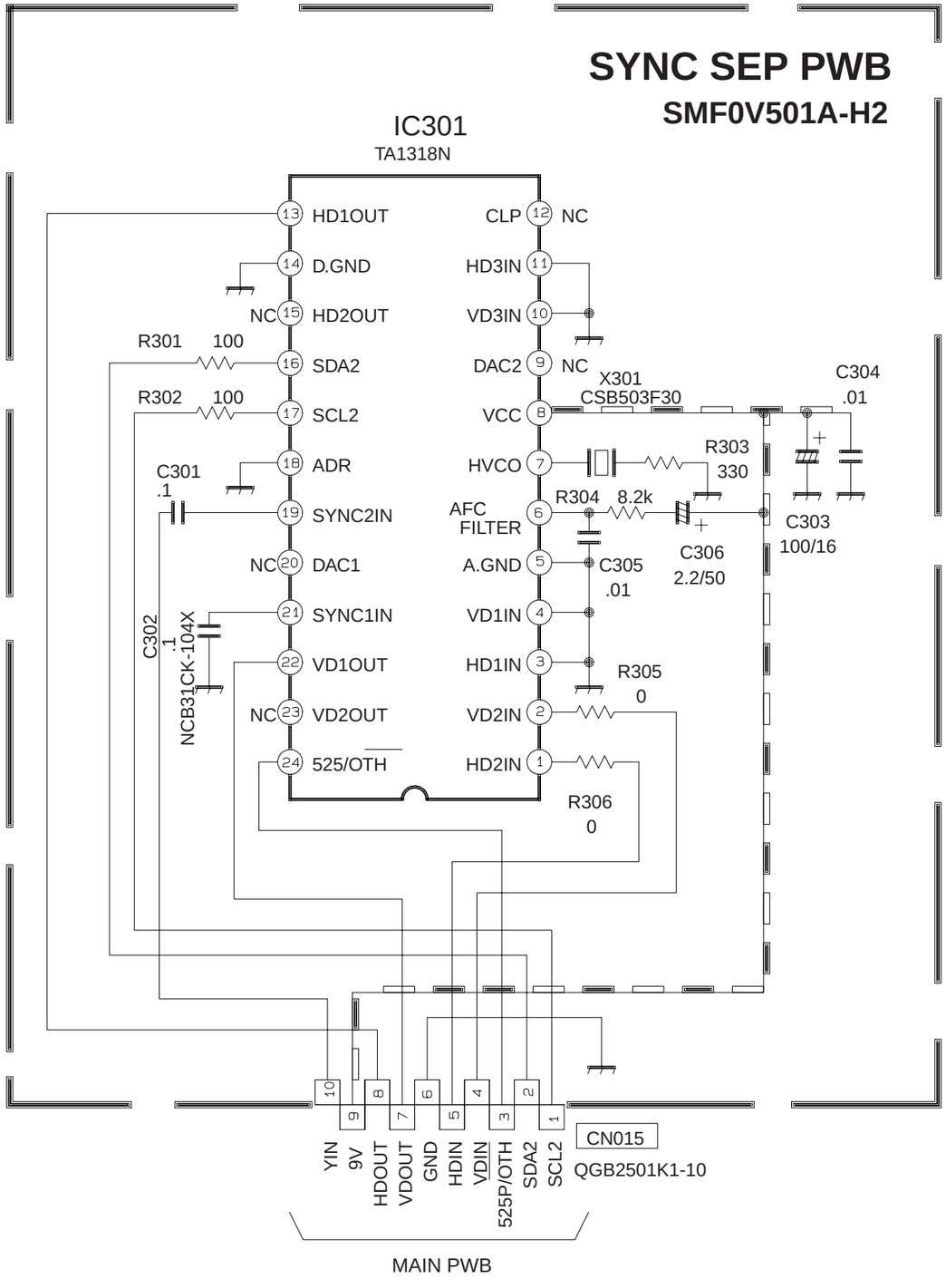
CRT SOCKET PWB CIRCUIT DIAGRAM



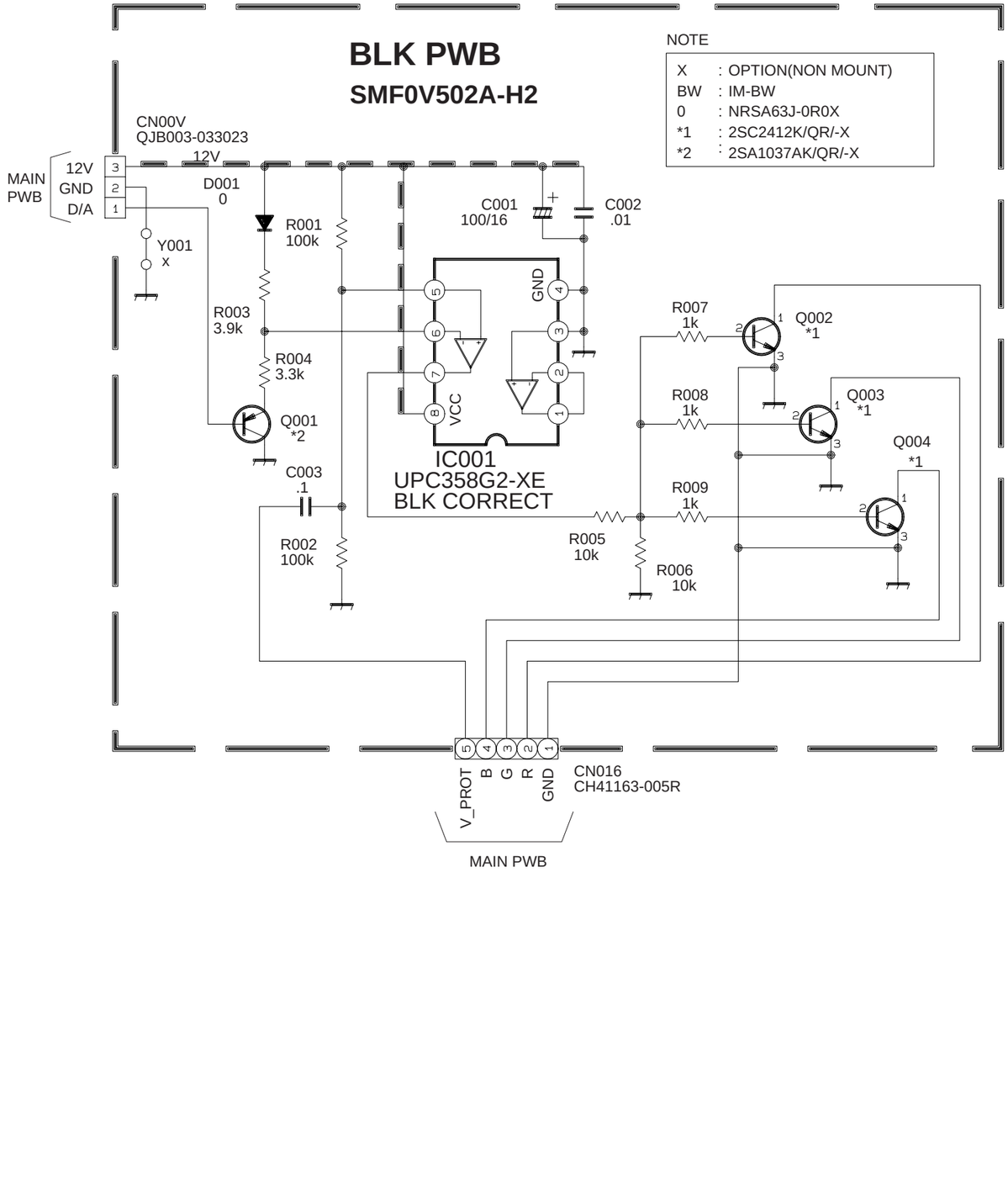
AV SW PWB CIRCUIT DIAGRAM



SYNC SEP PWB CIRCUIT DIAGRAM

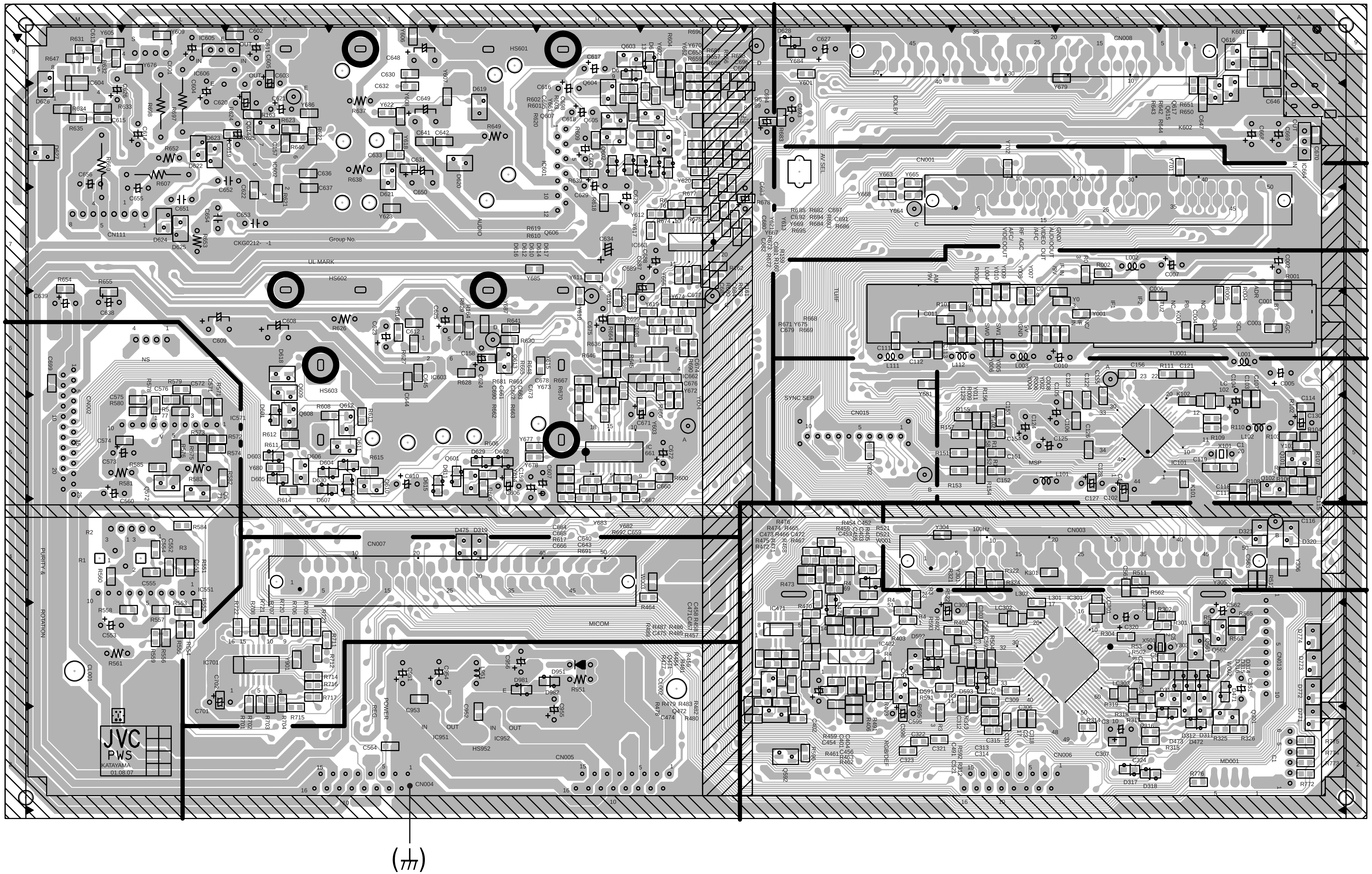


BLK PWB CIRCUIT DIAGRAM

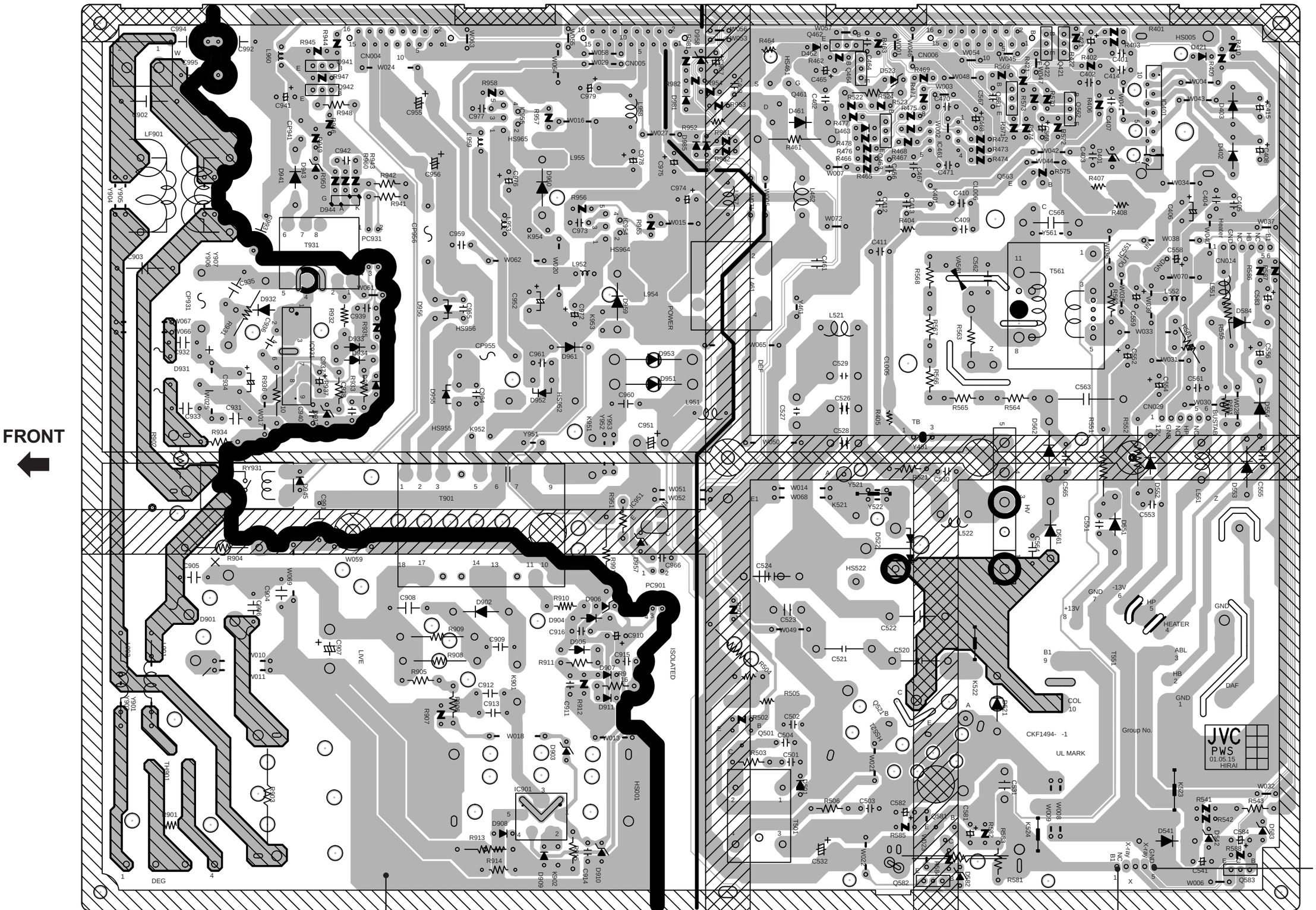


PATTERN DIAGRAMS *MAIN PWB PATTERN*

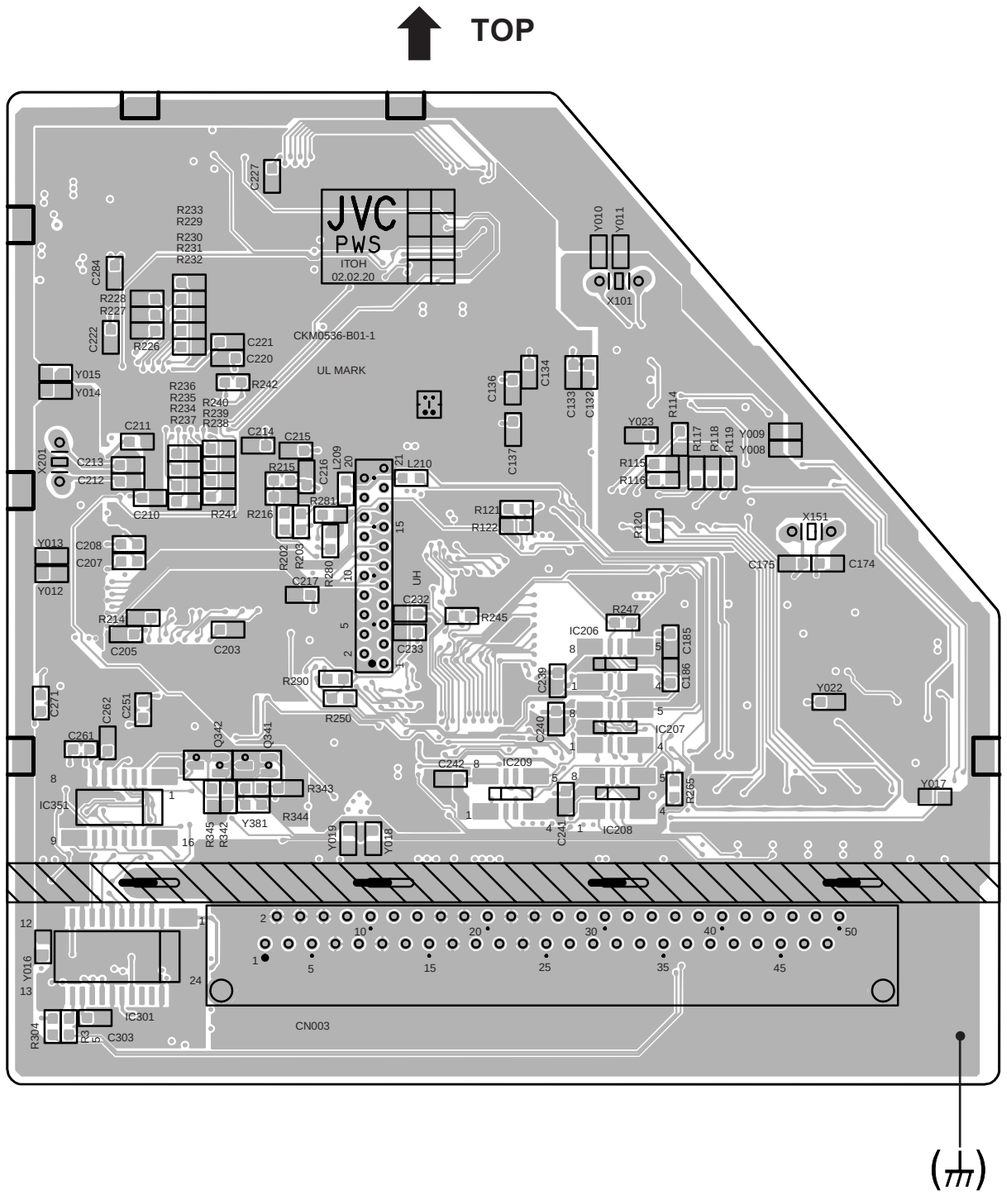
FRONT



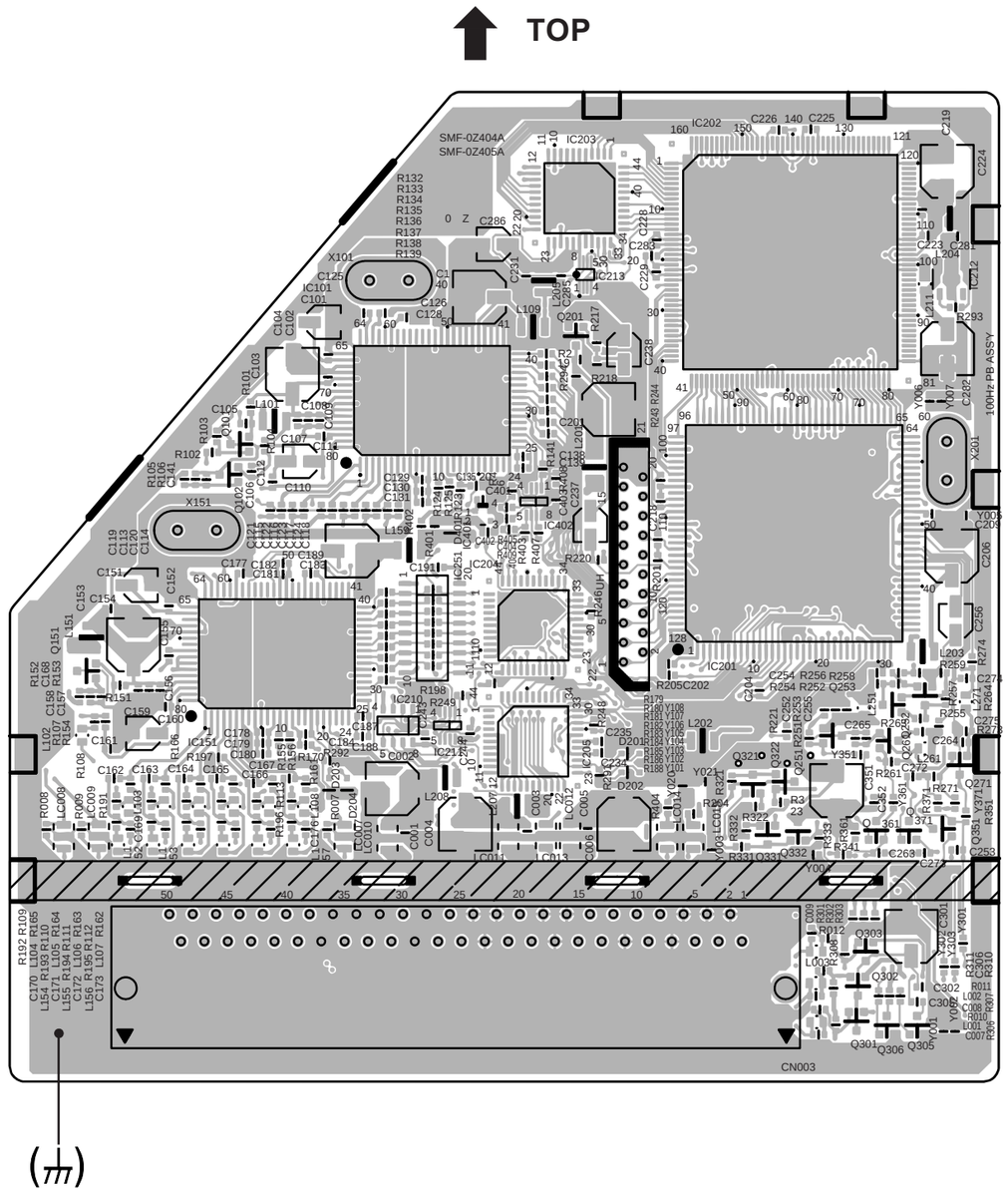
POWER & DEF PWB PATTERN



100Hz PWB PATTERN (SOLDER SIDE)

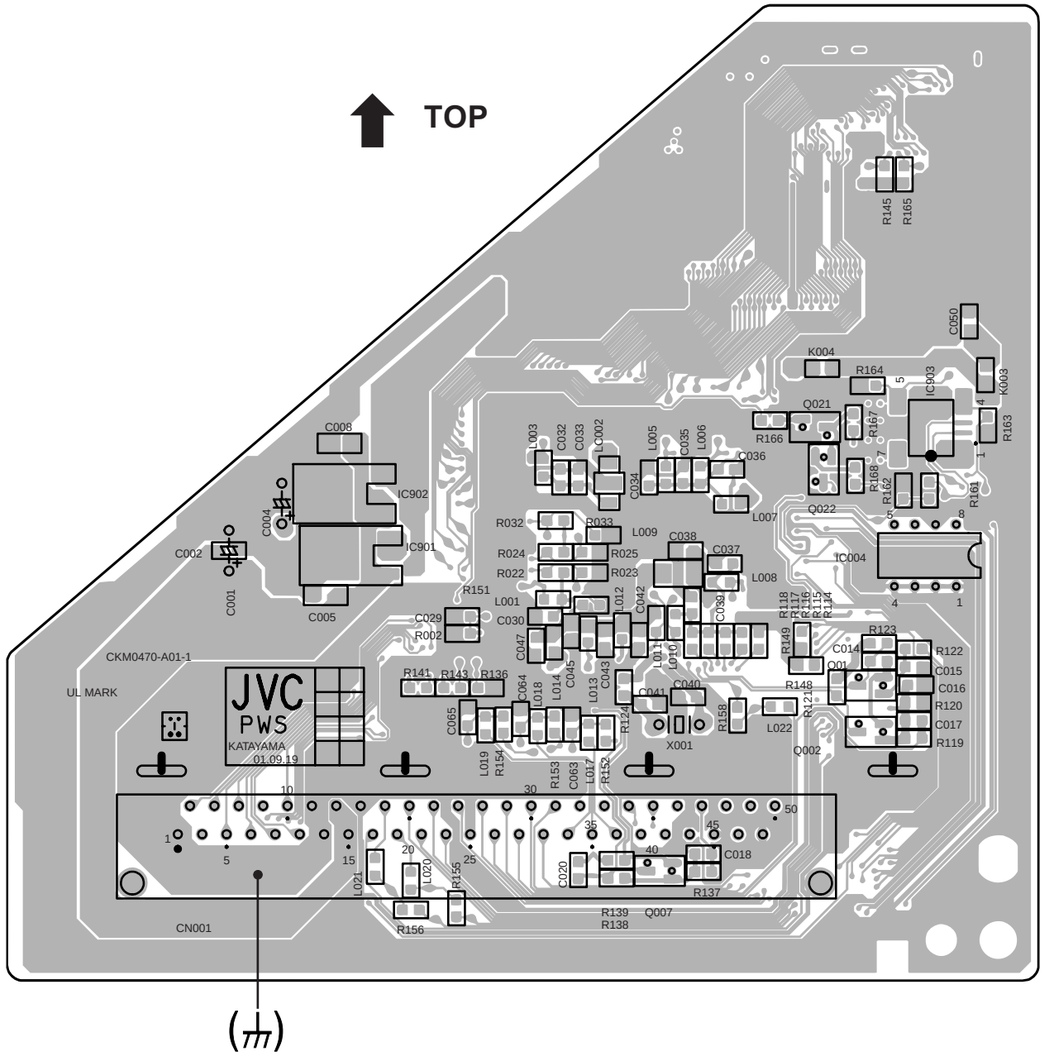


100Hz PWB PATTERN (PARTS SIDE)

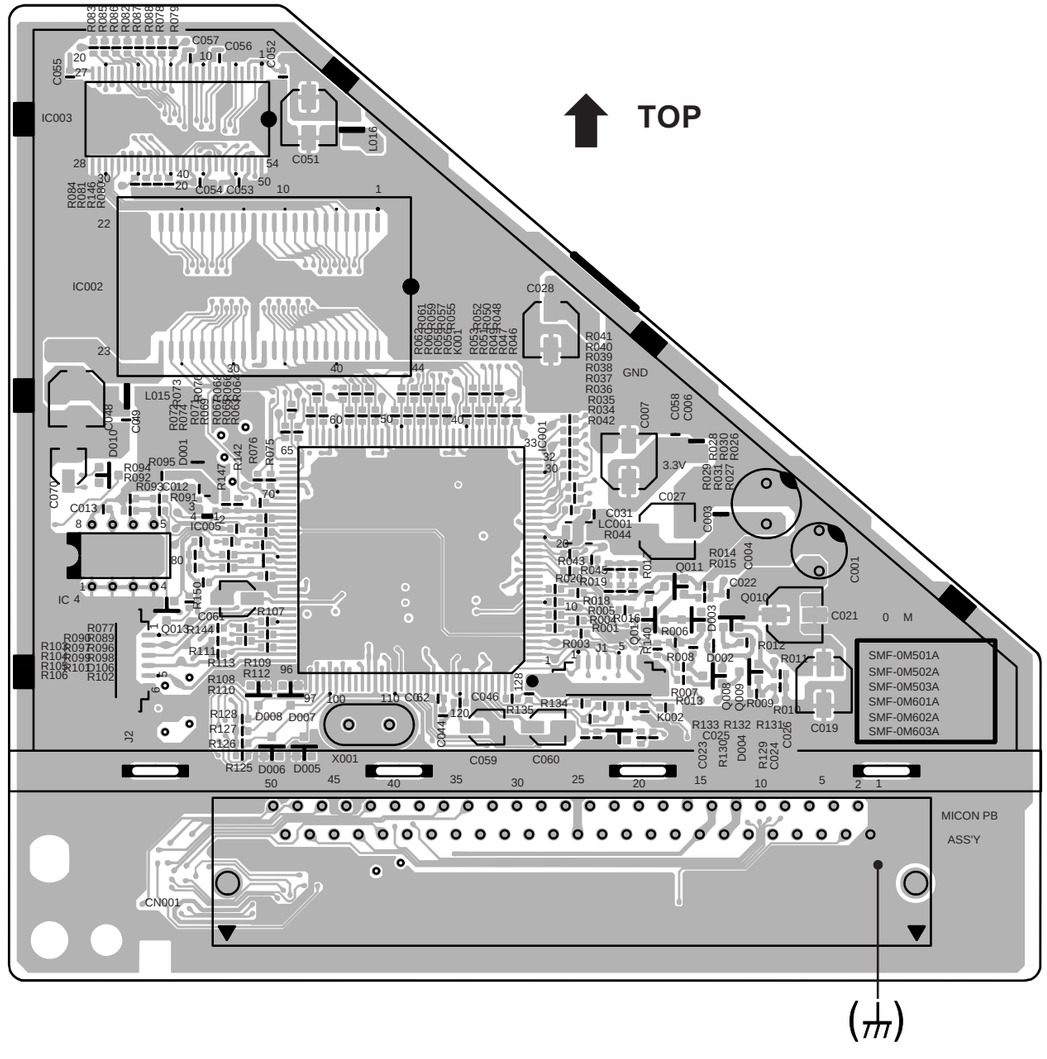


HV-29LPZ

MICOM PWB PATTERN (SOLDER SIDE)



MICOM PWB PATTERN (PARTS SIDE)



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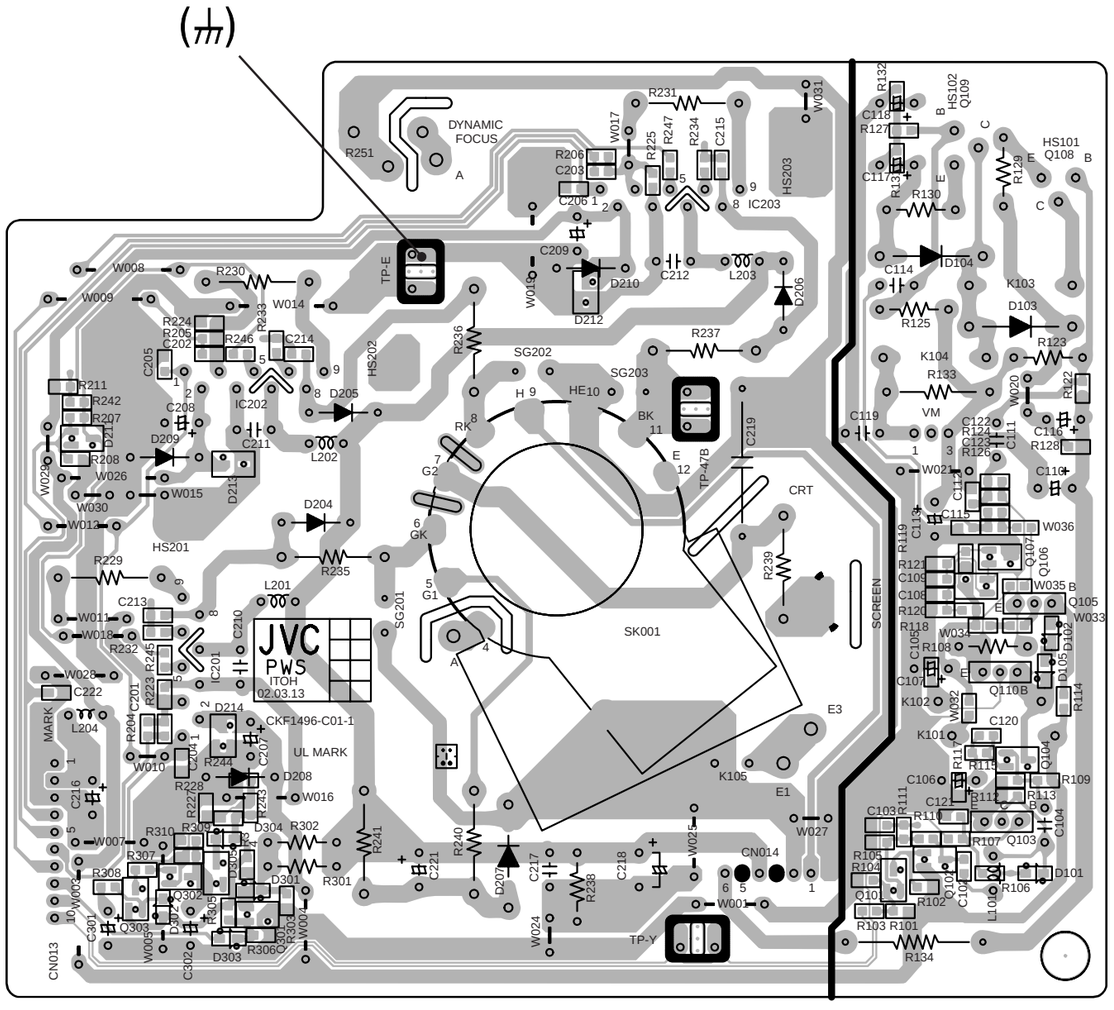
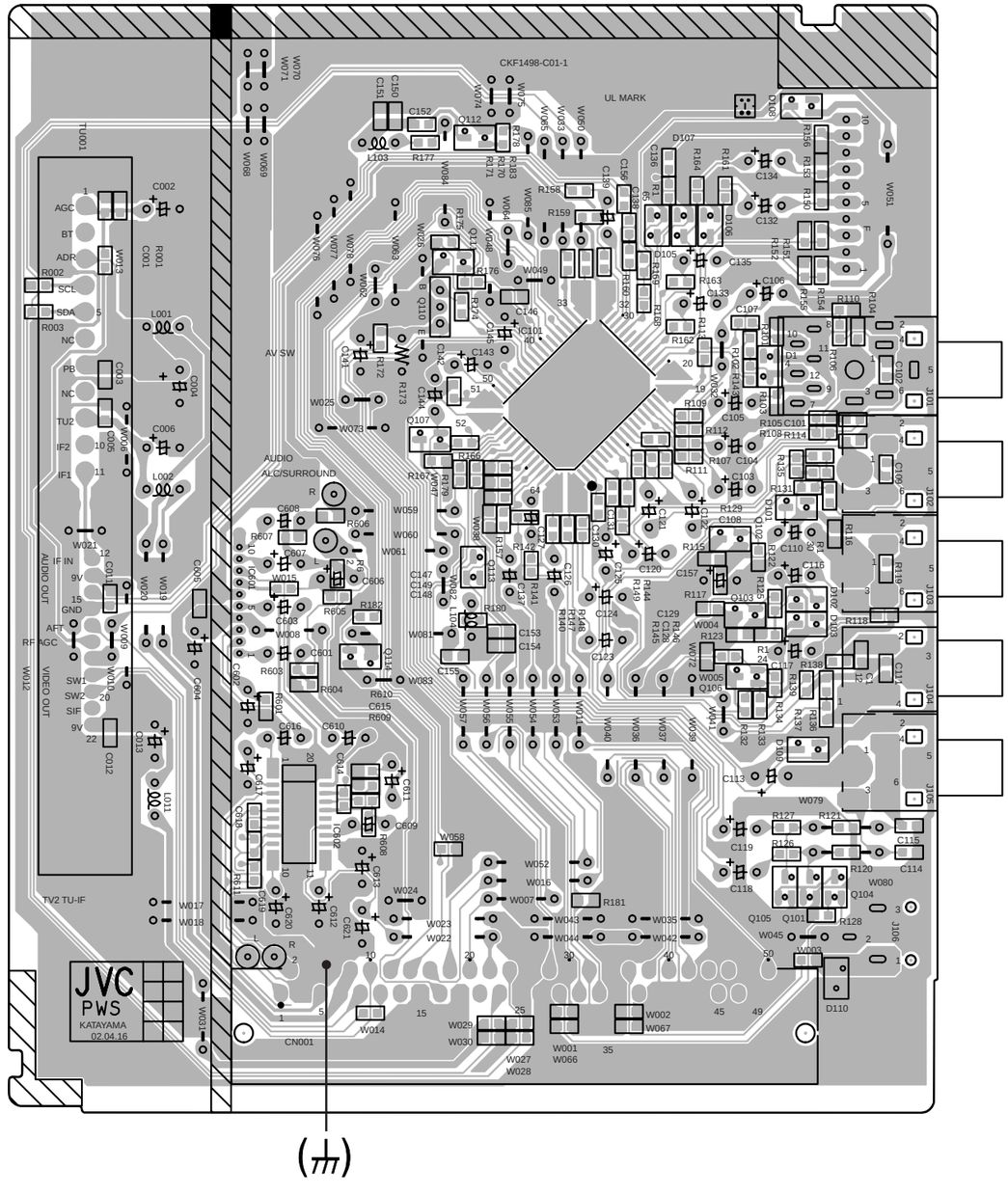
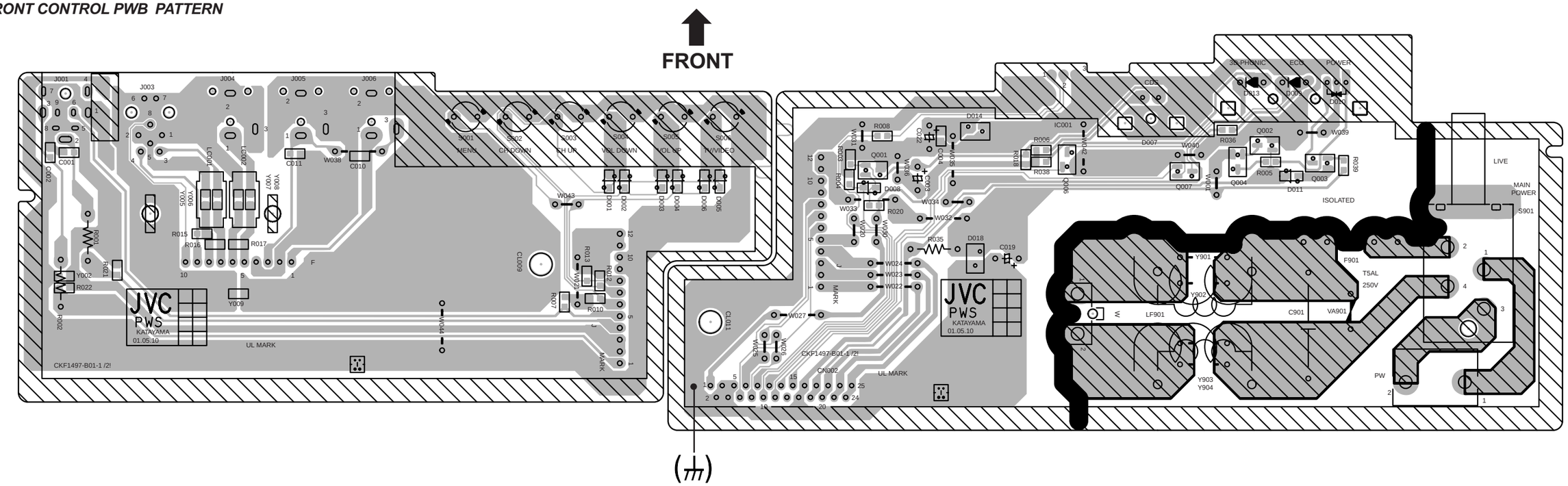
CRT SOCKET PWB PATTERN



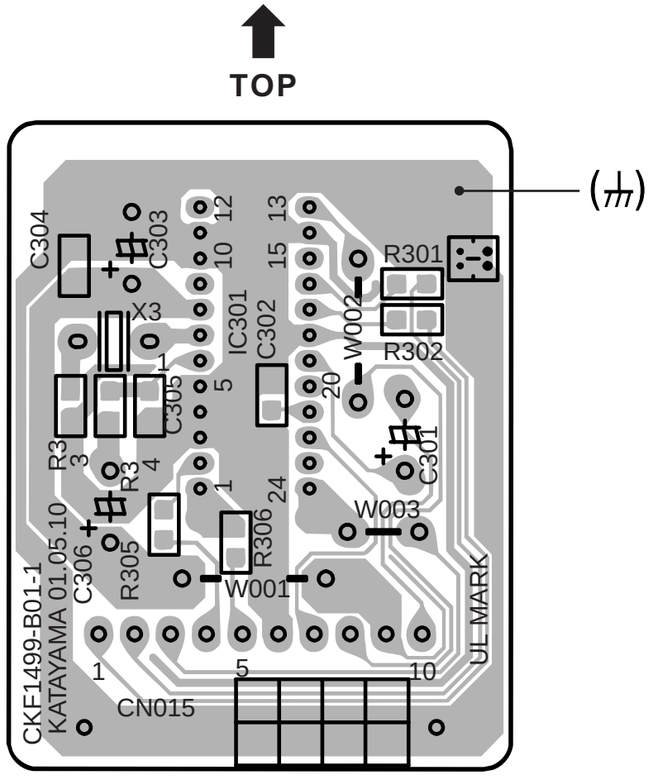
AV SW PWB PATTERN



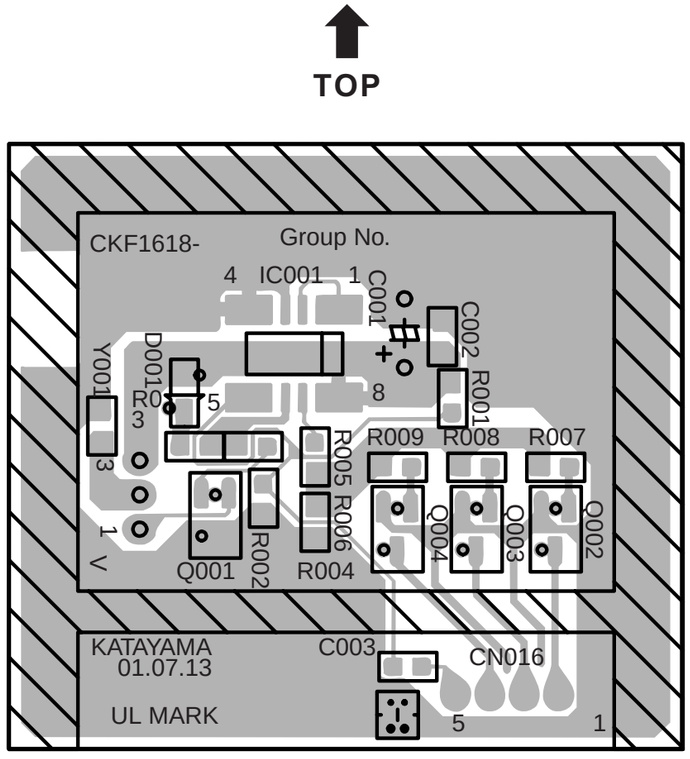
FRONT CONTROL PWB PATTERN



SYNC SEP PWB PATTERN



BLK PWB PATTERN



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