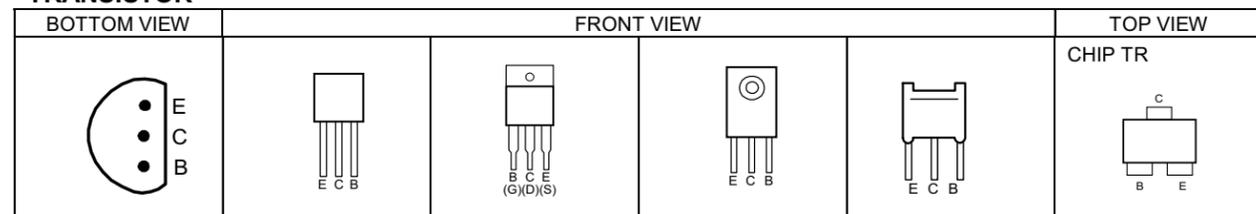


CONTENTS

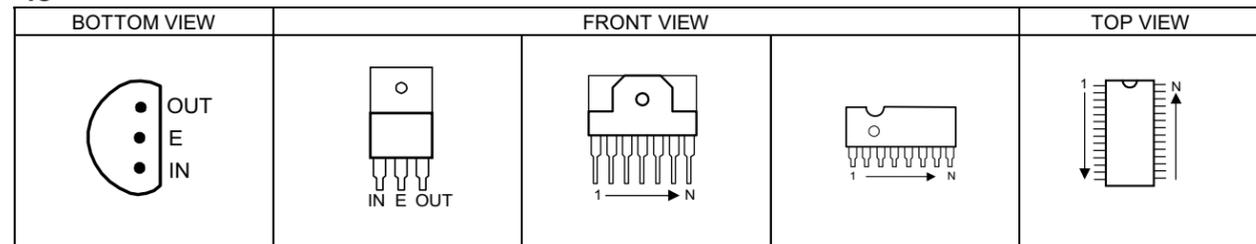
SEMICONDUCTOR SHAPES	2-2
BLOCK DIAGRAM	2-3
CIRCUIT DIAGRAMS	
MAIN PWB CIRCUIT DIAGRAM	2-5
POWER & DEF PWB CIRCUIT DIAGRAM	2-11
SUB MICON & AUTO PANORAMA PWB CIRCUIT DIAGRAM	2-13
100Hz PWB CIRCUIT DIAGRAM	2-15
IF PWB CIRCUIT DIAGRAM [AV-32WL1EU / AV-32WL1EI]	2-17
IF PWB CIRCUIT DIAGRAM [AV-32WL1EK]	2-19
BBE PWB CURCUIT DIAGRAM	2-21
FRONT CONTROL PWB / SIDE CONTROL JACK PWB CURCUIT DIAGRAM	2-23
CRT SOCKET PWB CIRCUIT DIAGRAM	2-25
AV TERMINAL PWB CIRCUIT DIAGRAM	2-27
PATTERN DIAGRAMS	
MAIN PWB PATTERN	2-29
POWER & DEF PWB PATTERN	2-31
AV TERMINAL PWB PATTERN	2-33
IF PWB PATTERN	2-34
CRT SOCKET PWB PATTERN	2-35
FRONT CONTROL PWB PATTERN	2-37
SIDE CONTROL JACK PWB PATTERN	2-38
100Hz PWB PATTERN (PARTS SIDE)	2-39
100Hz PWB PATTERN (SOLDER SIDE)	2-40
SUB MICON & AUTOPANORAMA PWB PATTERN	2-41
BBE PWB PATTERN	2-42

SEMICONDUCTOR SHAPES

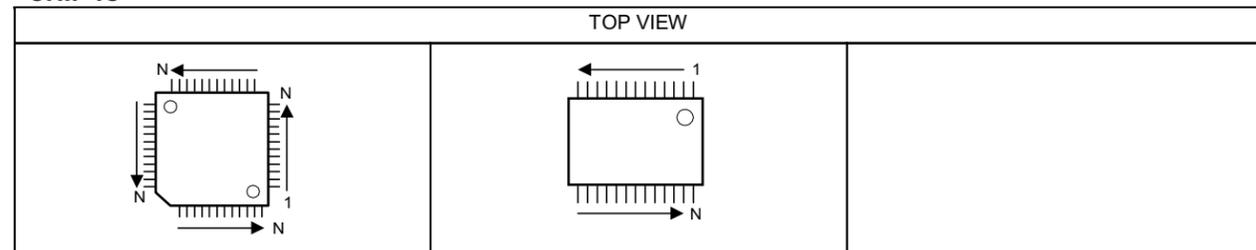
TRANSISTOR



IC



CHIP IC



AV-32WL1EU / AV-32WL1EI / AV-32WL1EK 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 : PAL 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 : 1/10[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]
- AC indicated : AC withstand voltage [V]
- Others : DC withstand voltage [V]

* Electrolytic Capacitors

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

- Type
- No indication : Ceramic capacitor
- MY : Mylar 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

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

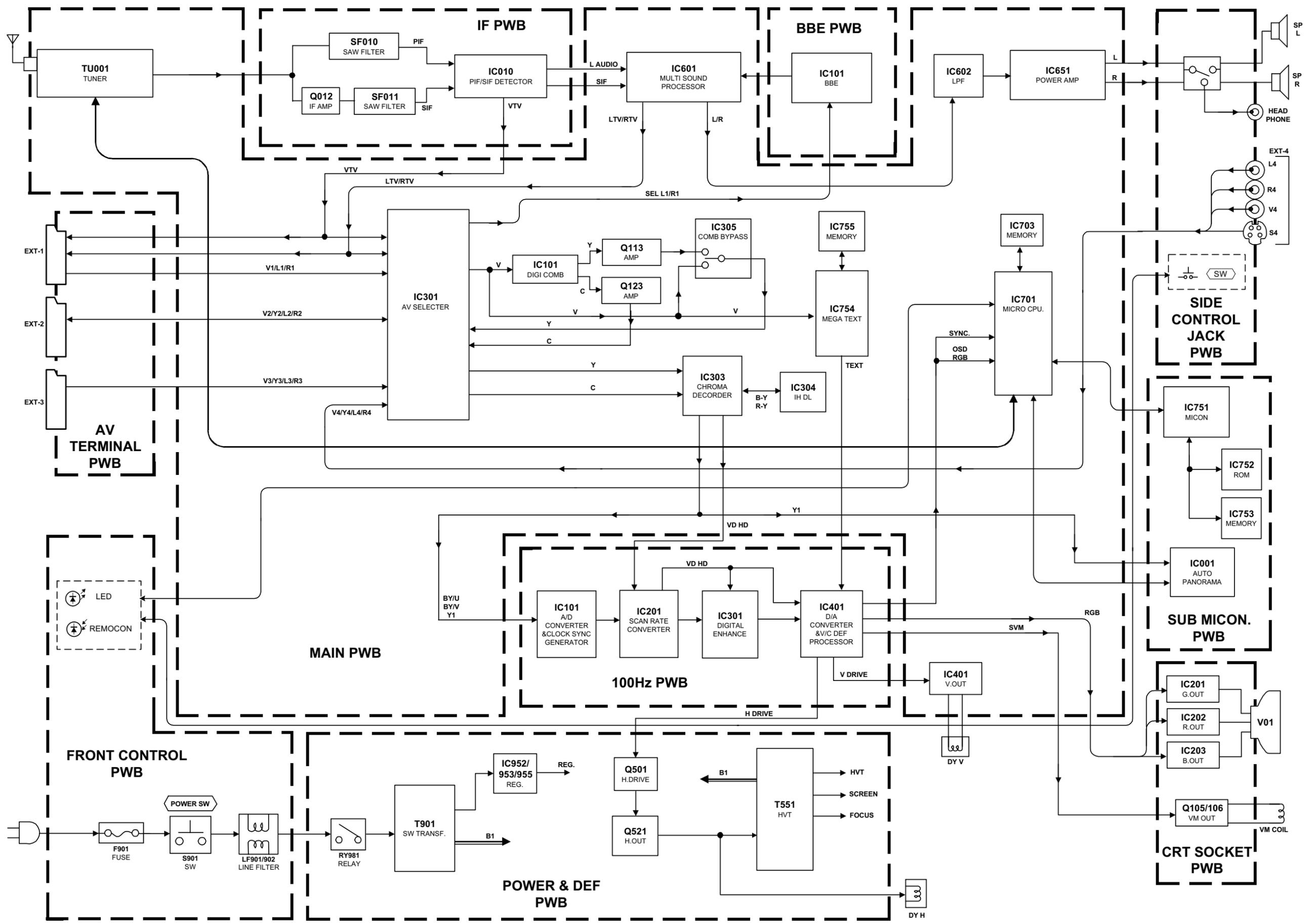
5. NOTE FOR REPAIRING SERVICE

This model's power circuit is partly different in the GND. The difference of the GND is shown by the LIVE : (\perp) side GND and the ISOLATED(NEUTRAL) : (\neq) 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 (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.

BLOCK DIAGRAM

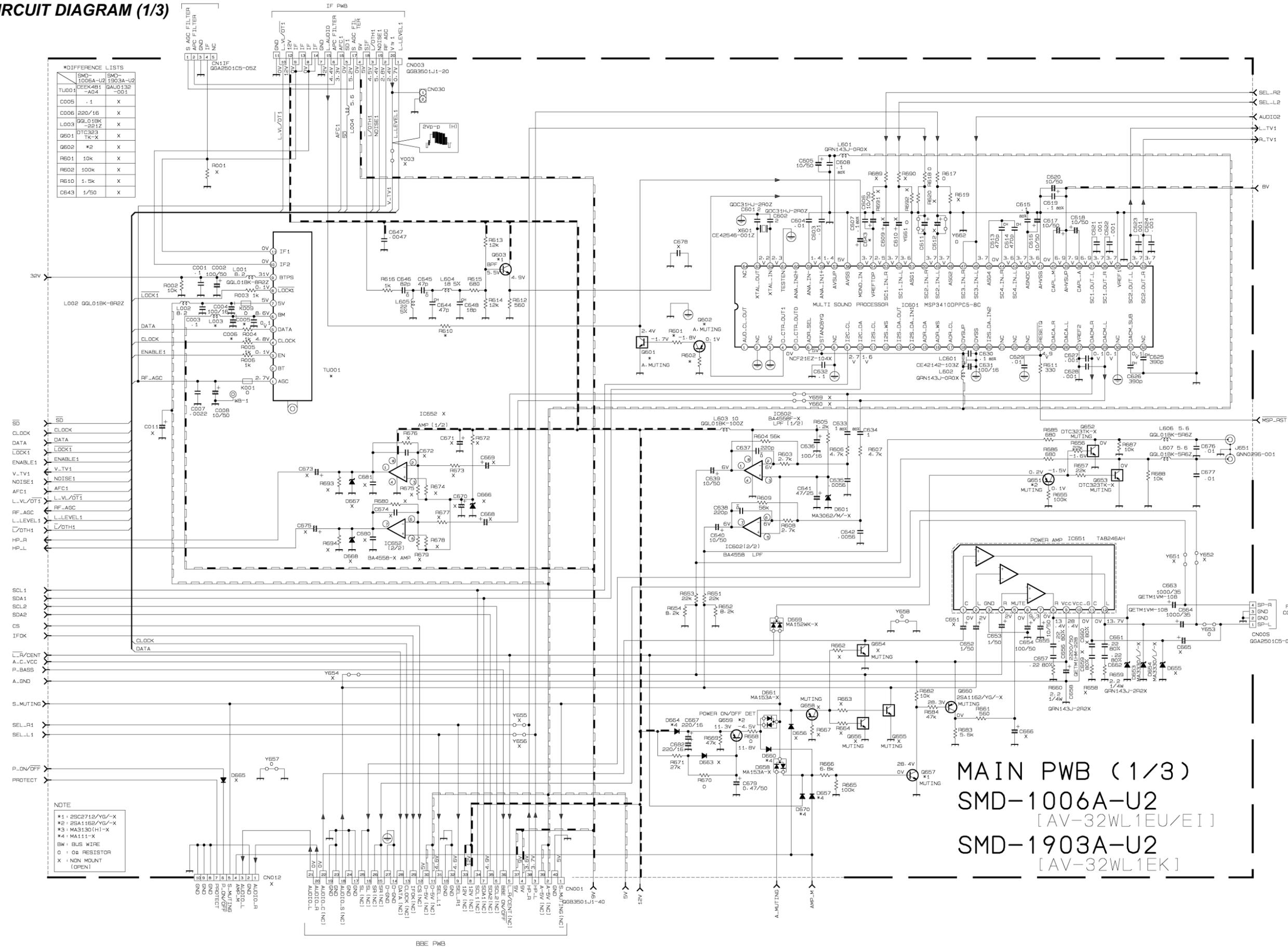


CIRCUIT DIAGRAMS

MAIN PWB CIRCUIT DIAGRAM (1/3)

AV-32WL1EU
AV-32WL1EI
AV-32WL1EK

AV-32WL1EU
AV-32WL1EI
AV-32WL1EK



MAIN PWB (1/3)
SMD-1006A-U2
[AV-32WL1EU/EI]
SMD-1903A-U2
[AV-32WL1EK]

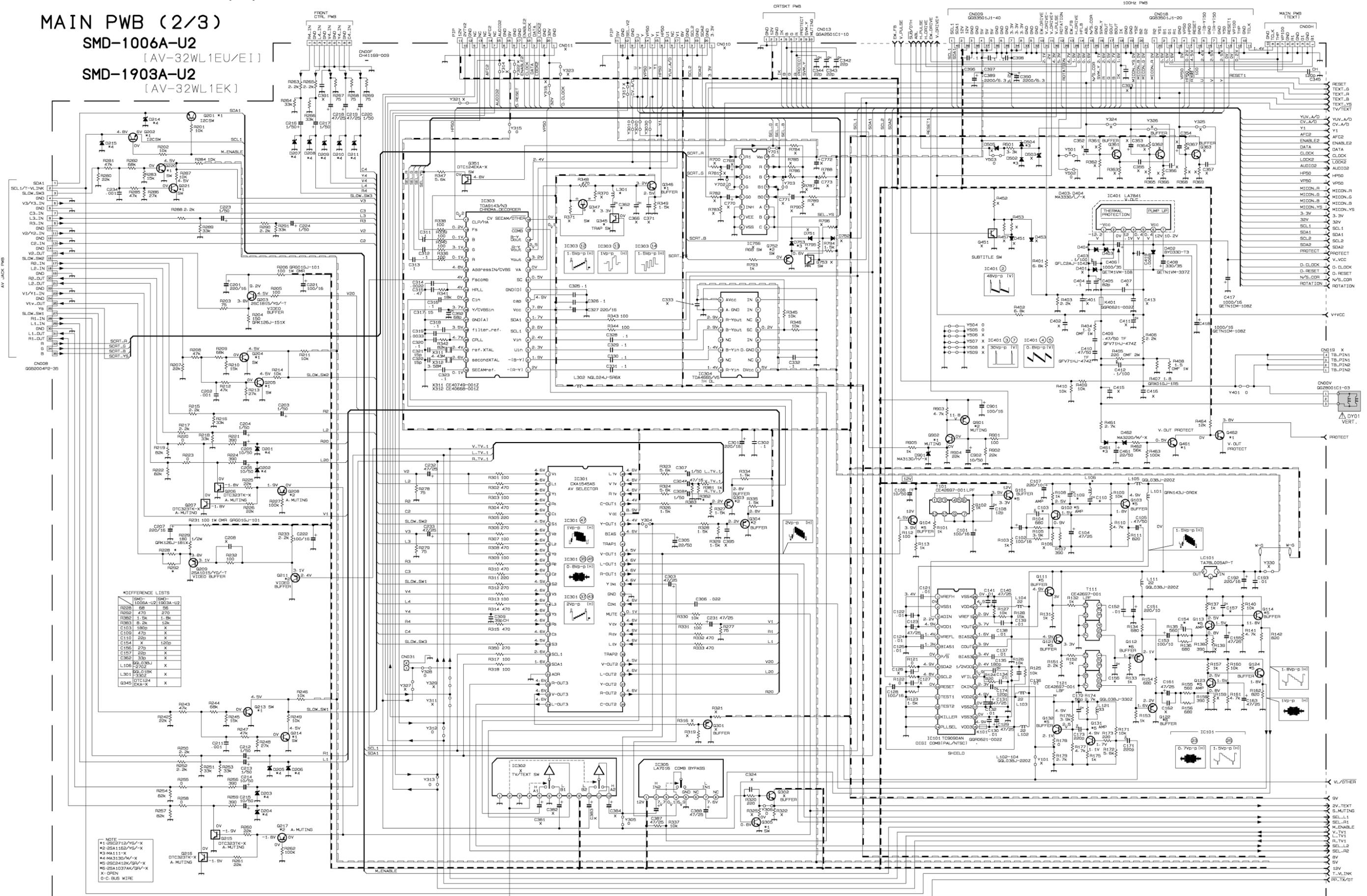
MAIN PWB CIRCUIT DIAGRAM (2/3)

AV-32WL1EU
AV-32WL1EI
AV-32WL1EK

AV-32WL1EU
AV-32WL1EI
AV-32WL1EK

MAIN PWB (2/3)

SMD-1006A-U2
[AV-32WL1EU/EI]
SMD-1903A-U2
[AV-32WL1EK]



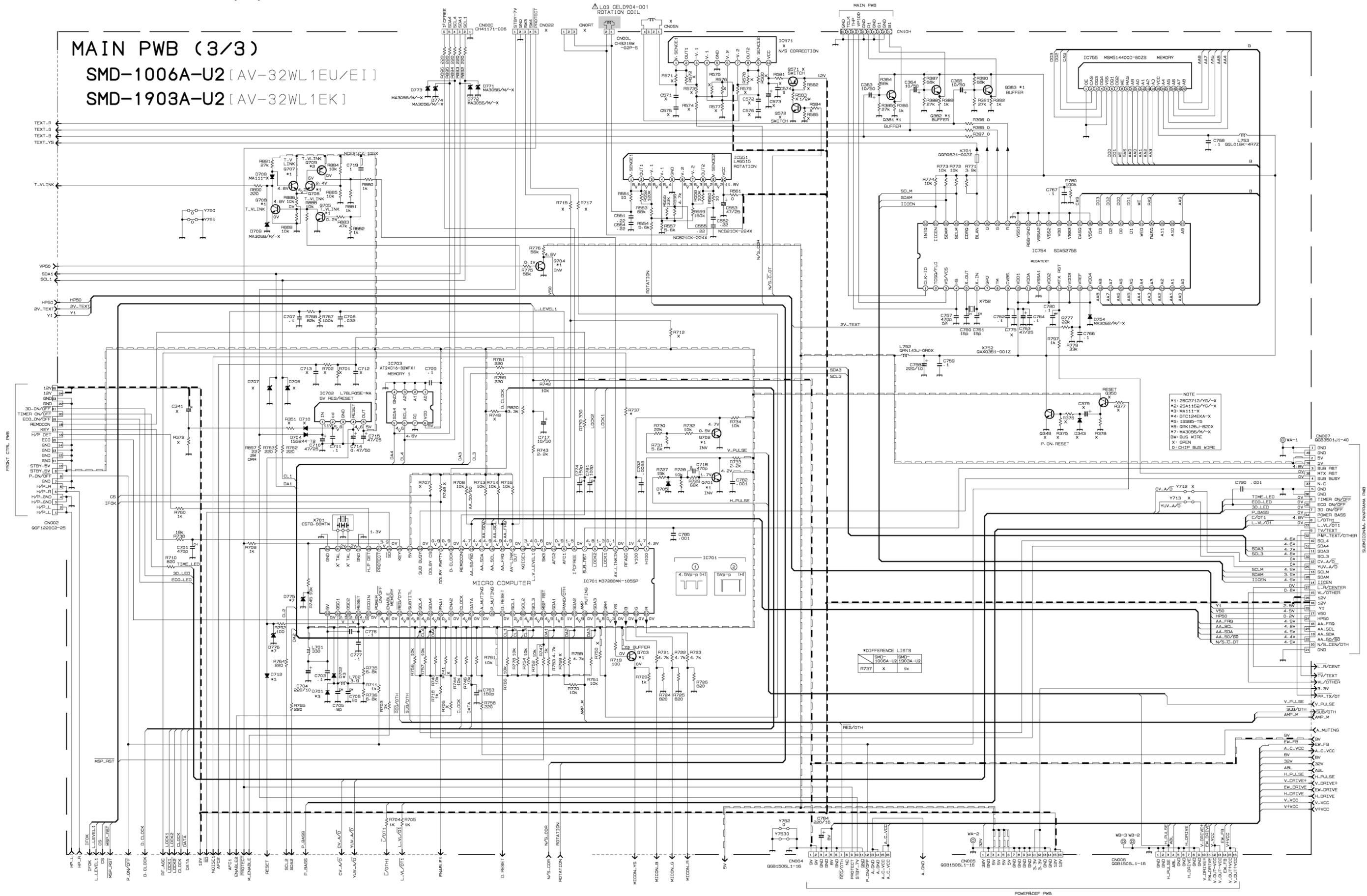
DIFFERENCE LIST

REV	1006A-U2	1903A-U2
R228	58	270
R289	470	270
R283	8.2K	1.5K
C103	180P	X
C109	470	X
C110	220	X
C154	X	180P
C156	270	X
C157	220	X
C362	330	X
L106	GR.038J-2A02	X
L301	GR.018K-1302	X
Q345	DTIC124	X

NOTE
#1: SMD1903/VG-X
#2: SMD1006/VG-X
#3: MA111-X
#4: MA330/AV-X
#5: 2SC2418K/GR-X
#6: 2SA1037AK/GR-X
X: OPEN
O: IC BUS WIRE

MAIN PWB (3/3)

SMD-1006A-U2 [AV-32WL1EU/EI]
SMD-1903A-U2 [AV-32WL1EK]



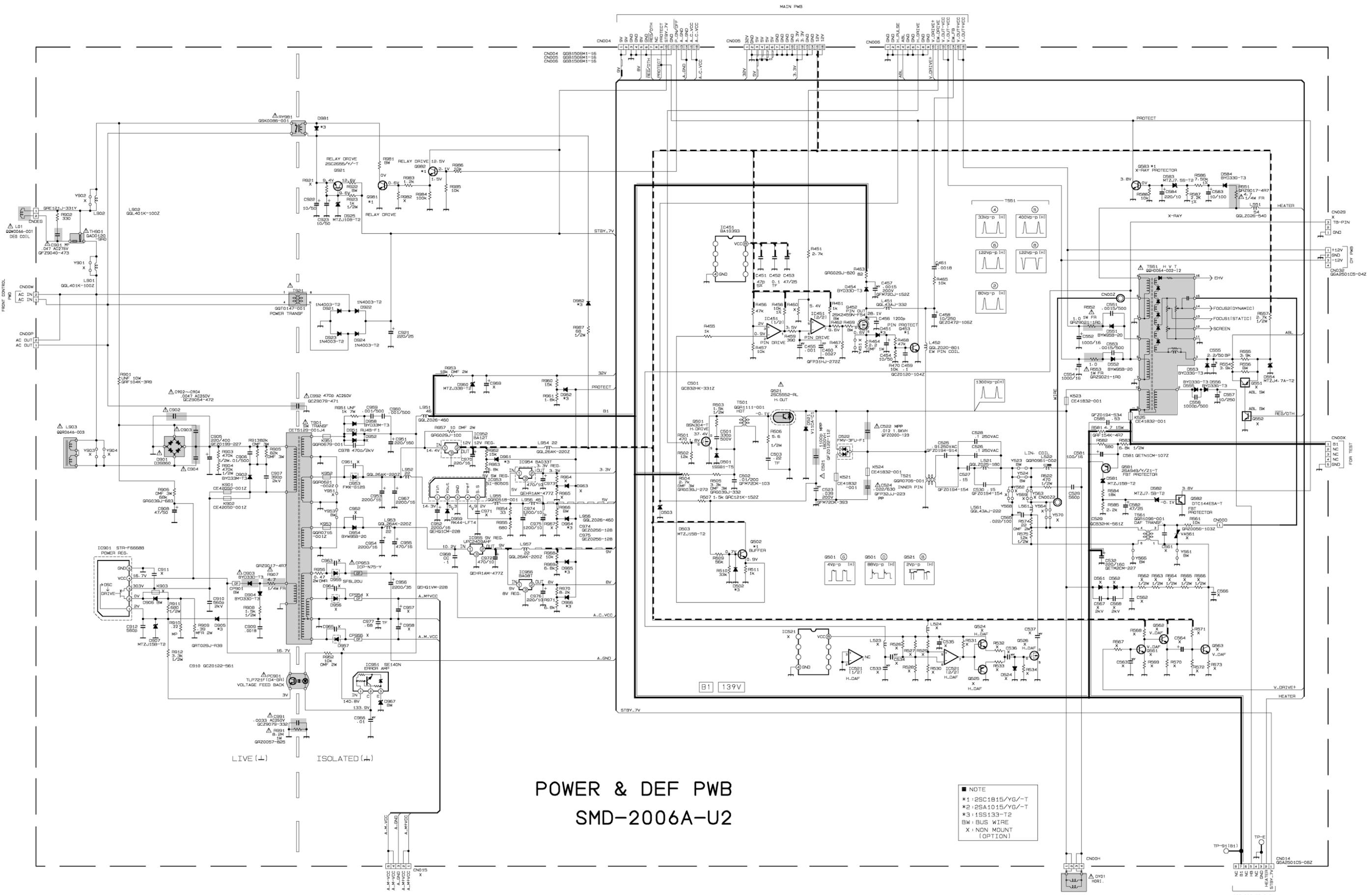
NOTE
#1: 28C271B/YG/-X
#2: 28A116B/YG/-X
#3: MA1111-X
#4: DT124EKA-X
#5: 1S58B5-TS
#6: 6N126J-S20X
#7: MA3056/W-X
BW: BUS WIRE
X: OPEN
D: CHIP BUS WIRE

*DIFFERENCE LISTS

SMD-1006A-U2	SMD-1903A-U2
R737 X	1k

POWER & DEF PWB CIRCUIT DIAGRAM

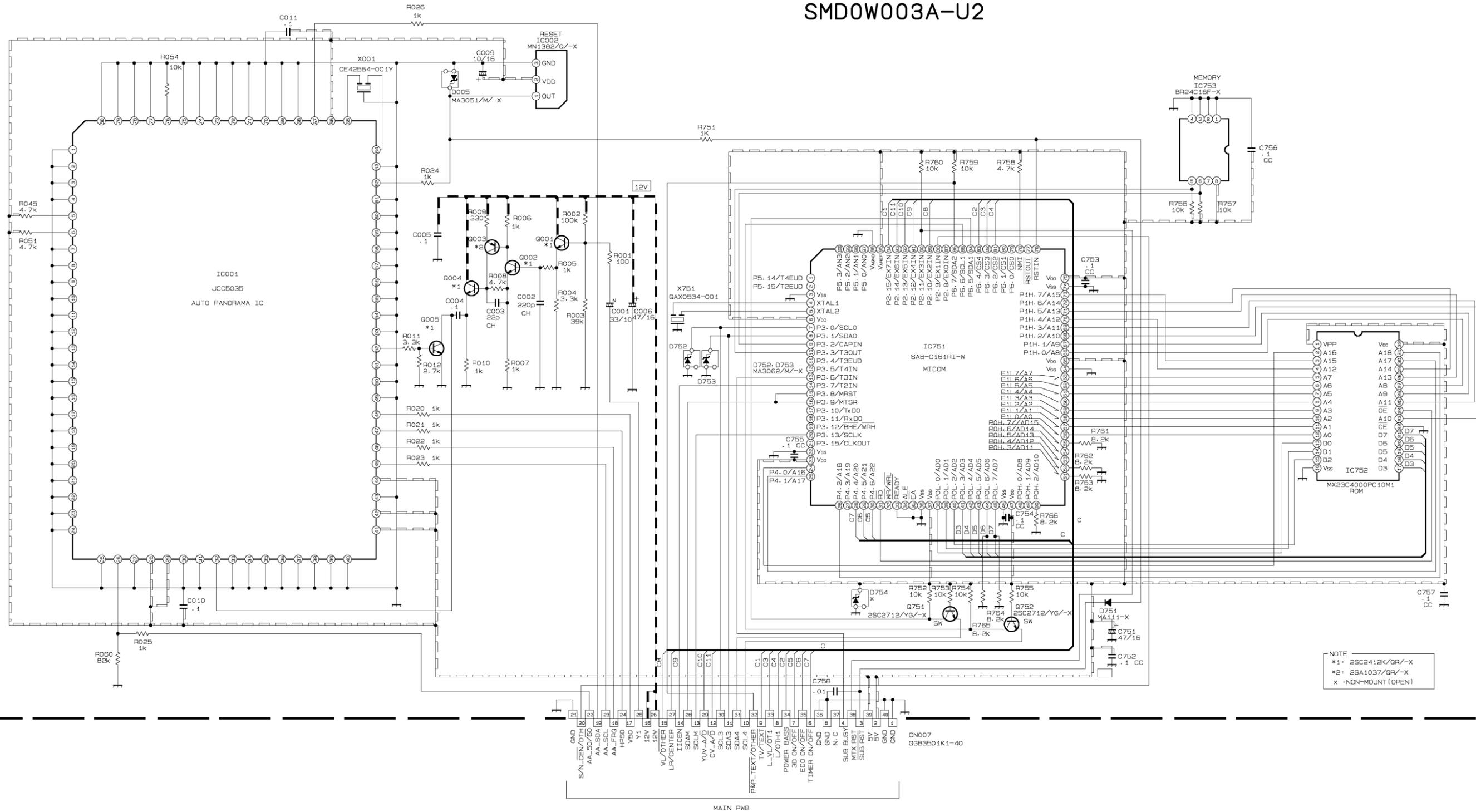
AV-32WL1EU
AV-32WL1EI
AV-32WL1EK



POWER & DEF PWB
SMD-2006A-U2

SUB MICON & AUTO PANORAMA PWB CIRCUIT DIAGRAM

SUB MICON & AUTO PANORAMIC PWB
SMD0W003A-U2

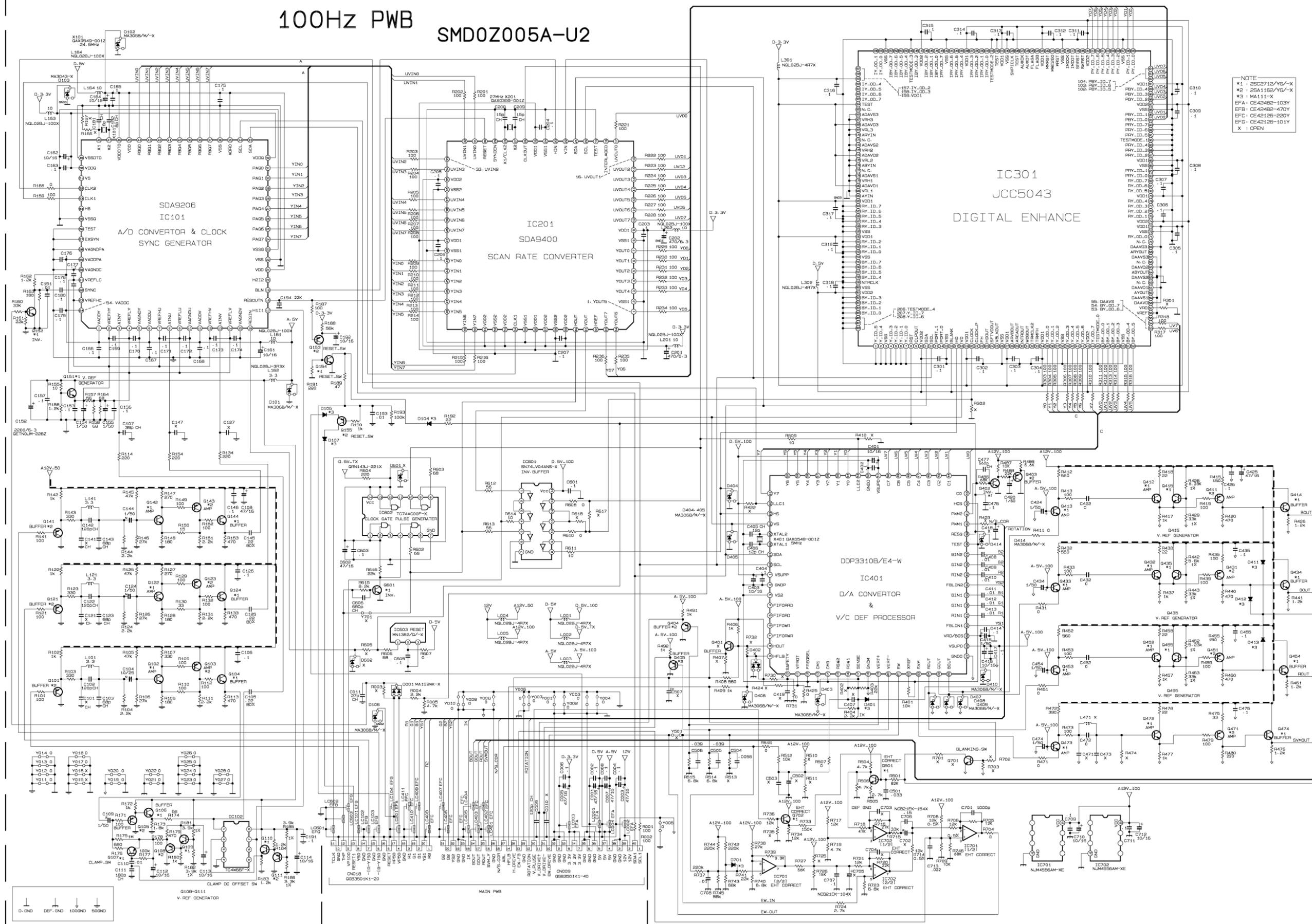


100Hz PWB CIRCUIT DIAGRAM

AV-32WL1EU
AV-32WL1EI
AV-32WL1EK

AV-32WL1EU
AV-32WL1EI
AV-32WL1EK

100Hz PWB SMD0Z005A-U2

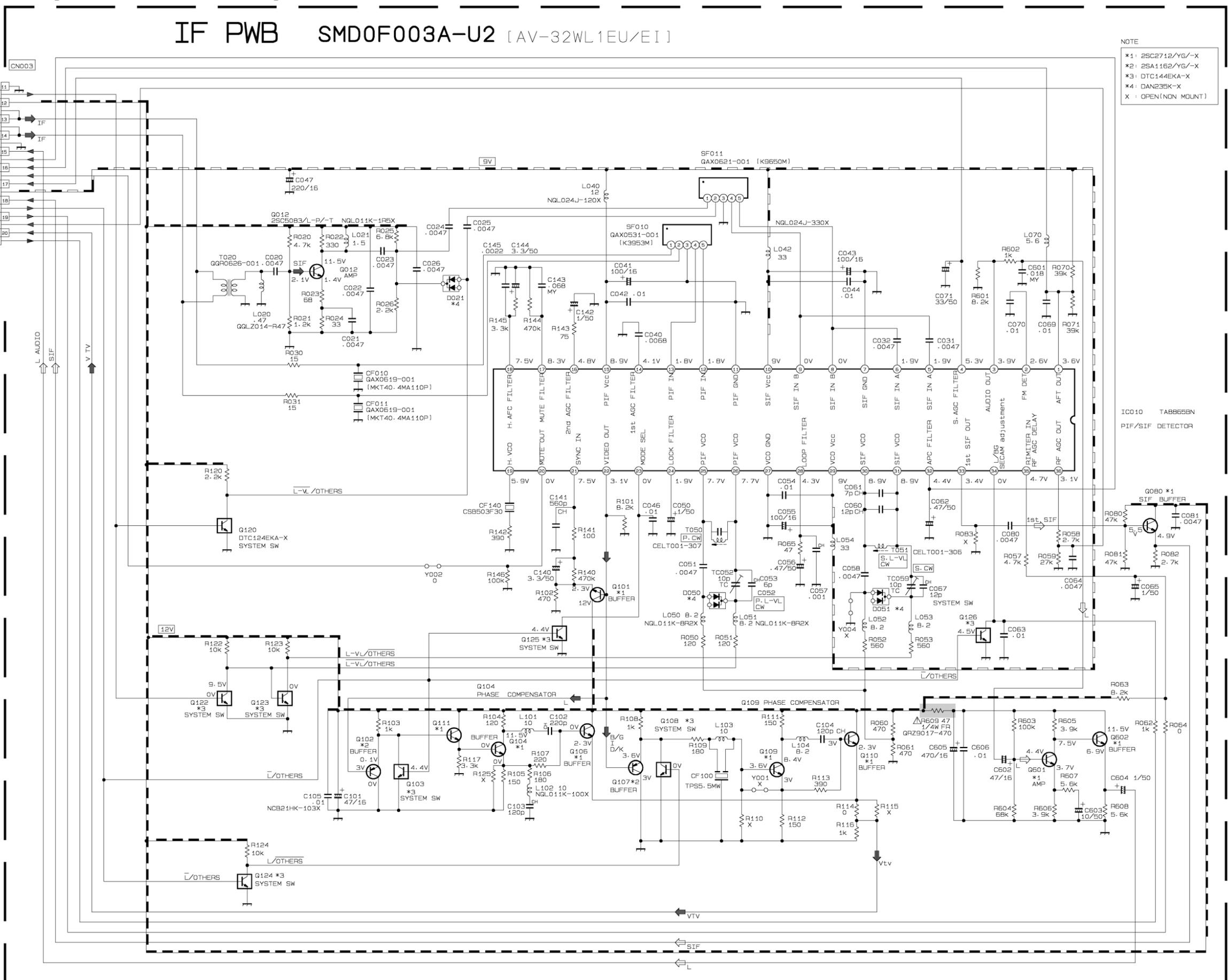


NOTE
*1 : 25C2712/YG/-X
*2 : 25A1152/YG/-X
*3 : MA111-X
EFA : CE42482-103Y
EFB : CE42482-470Y
EFC : CE42126-220Y
EFD : CE42126-101Y
X : OPEN

IF PWB CIRCUIT DIAGRAM [AV-32WL1EU / AV-32WL1EI]

IF PWB SMD0F003A-U2 [AV-32WL1EU/EI]

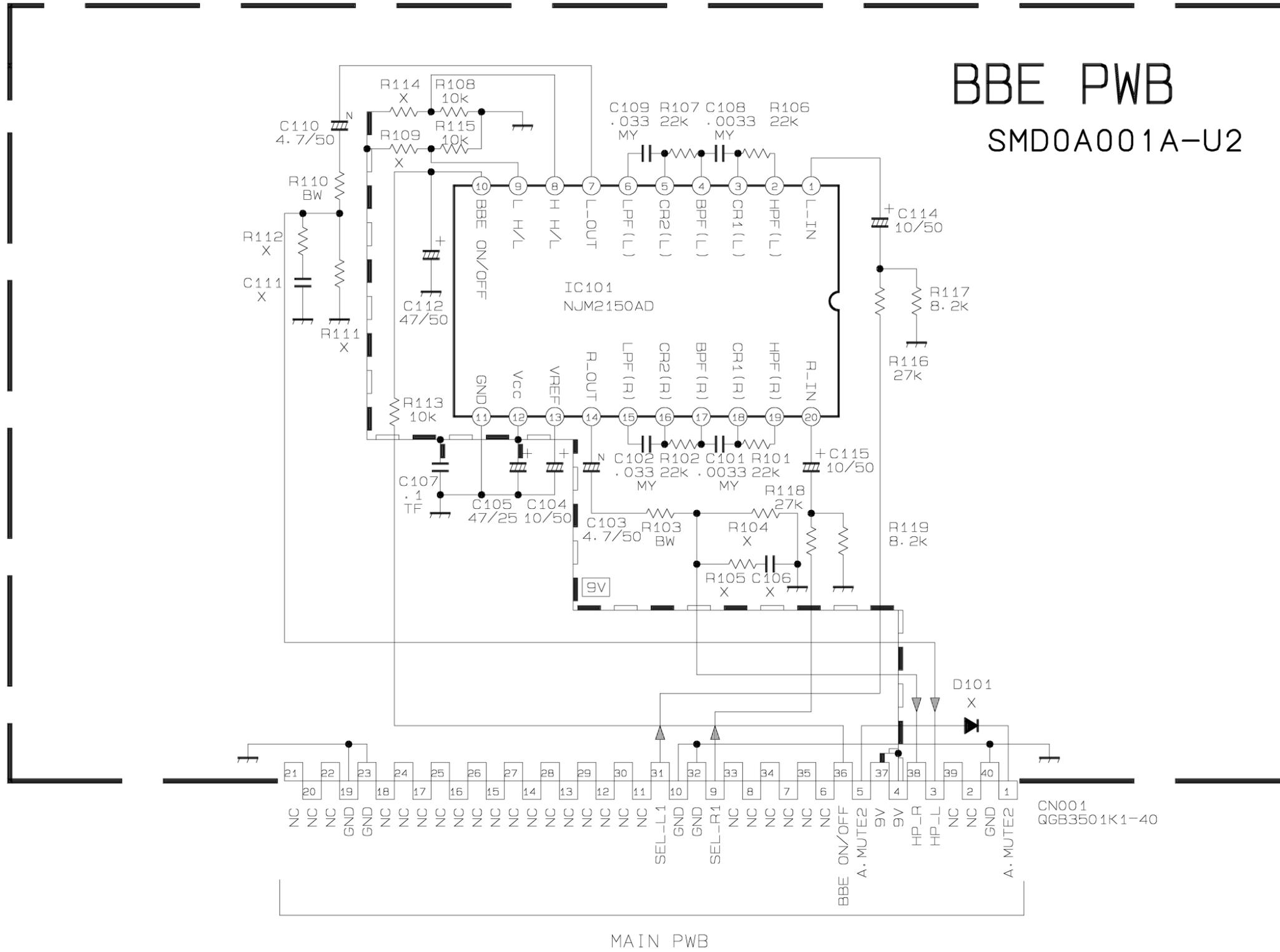
- MAIN PWB
- 11 GND
 - 12 L-VL/OT1
 - 13 IF
 - 14 IF
 - 15 IF
 - 16 GND
 - 17 L AUDIO
 - 18 APC FILTER
 - 19 AFC1
 - 20 SD1
 - 21 S-AGC FILTER
 - 22 SV
 - 23 SIF
 - 24 L/OTH1
 - 25 NOISE1
 - 26 RF AGC
 - 27 V~1
 - 28 L-LEVEL1



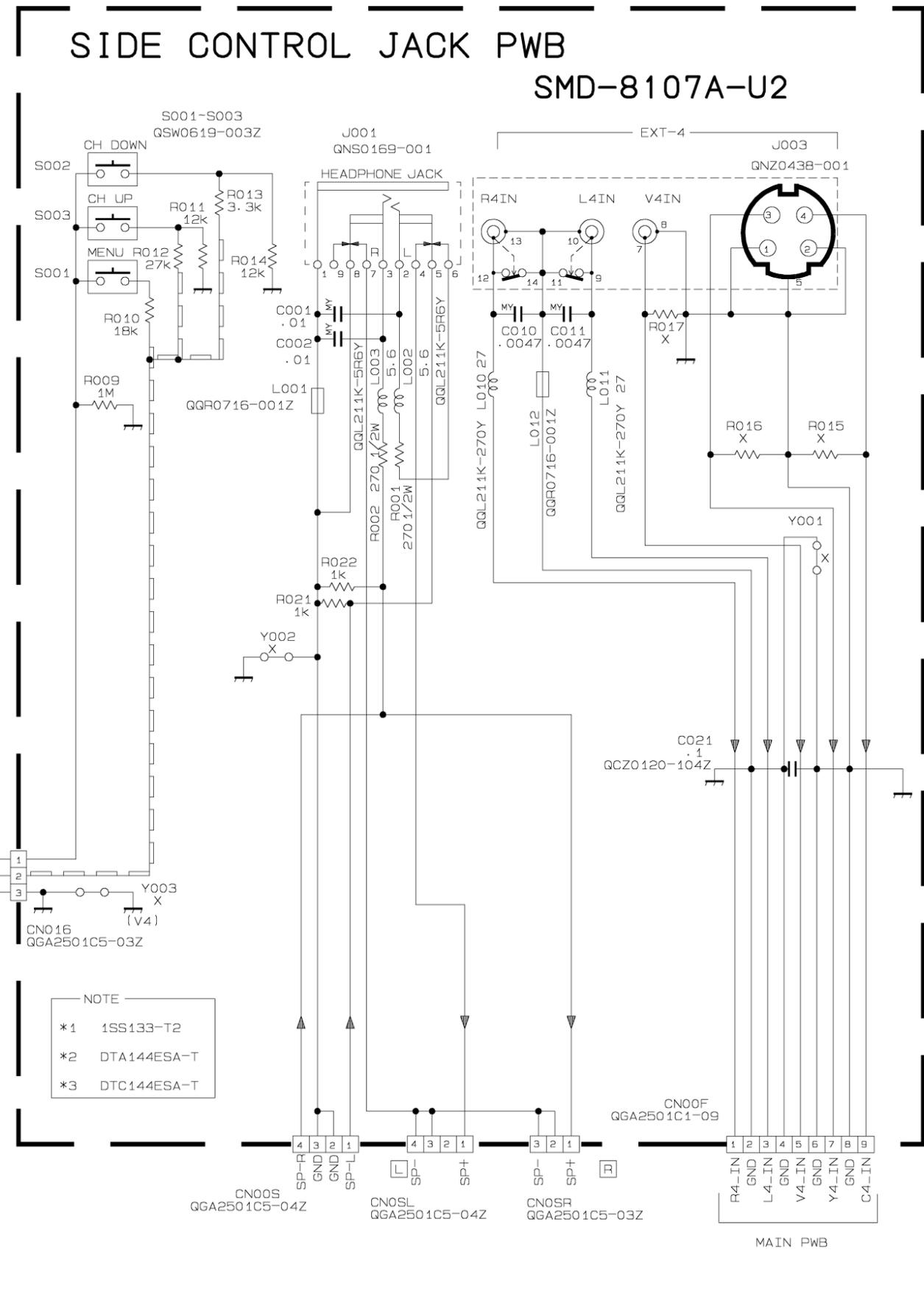
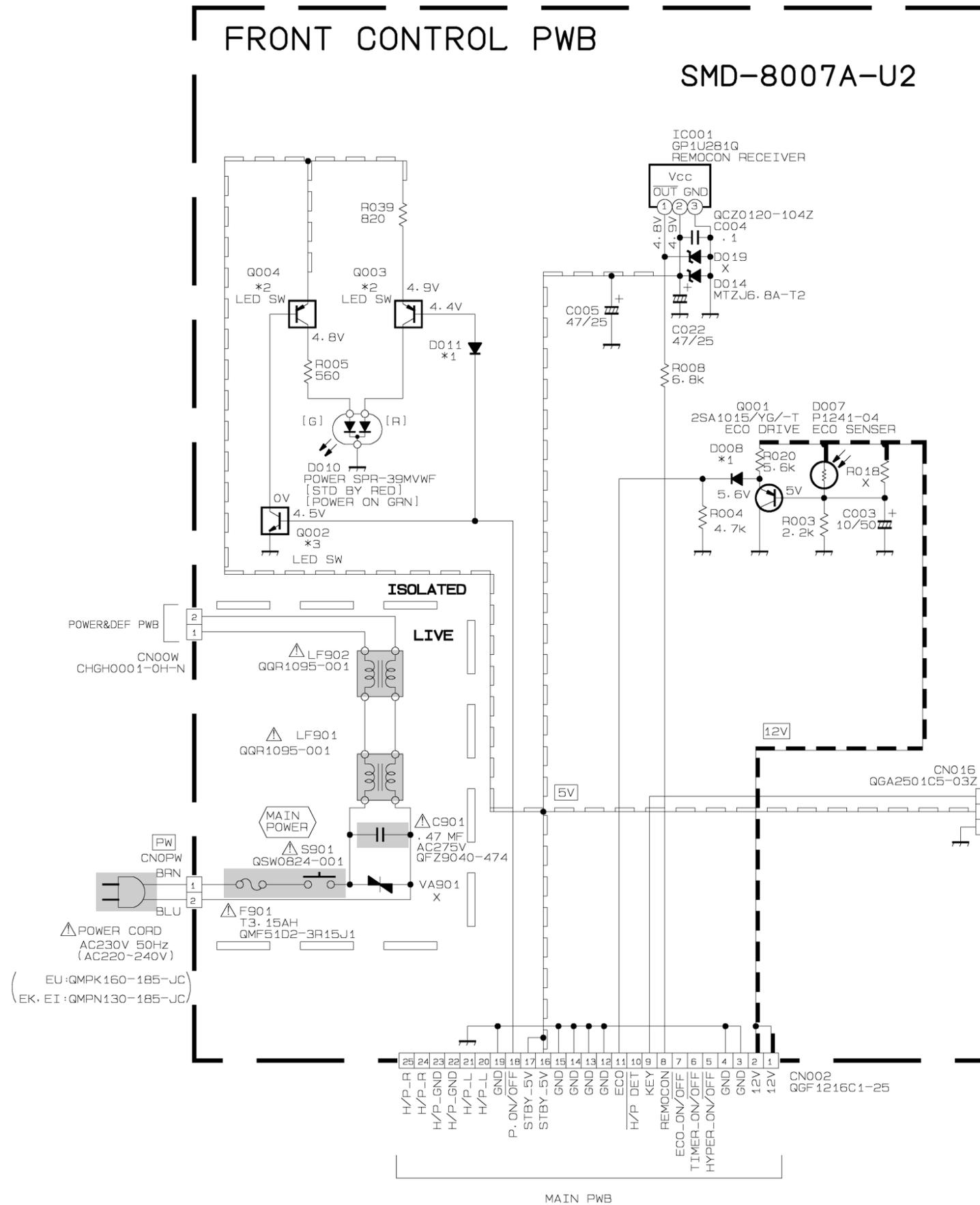
NOTE

- *1: 2SC2712/YG/-X
- *2: 2SA1162/YG/-X
- *3: DTC144EKA-X
- *4: DAN235K-X
- X: OPEN(NON MOUNT)

IC010 TABB65BN
PIF/SIF DETECTOR



FRONT CONTROL PWB / SIDE CONTROL JACK PWB CIRCUIT DIAGRAM

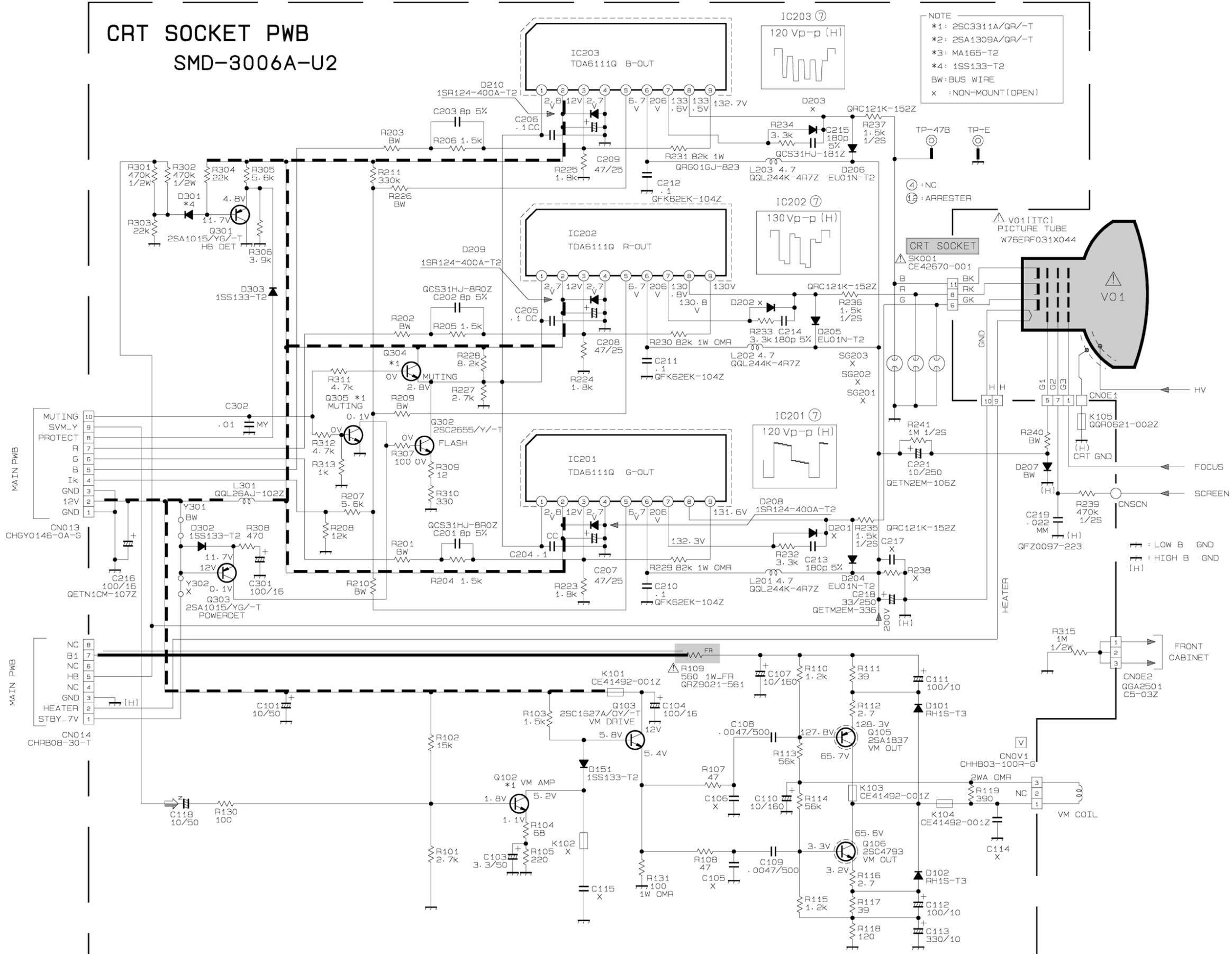


CRT SOCKET PWB CIRCUIT DIAGRAM

AV-32WL1EU
AV-32WL1EI
AV-32WL1EK

AV-32WL1EU
AV-32WL1EI
AV-32WL1EK

**CRT SOCKET PWB
SMD-3006A-U2**



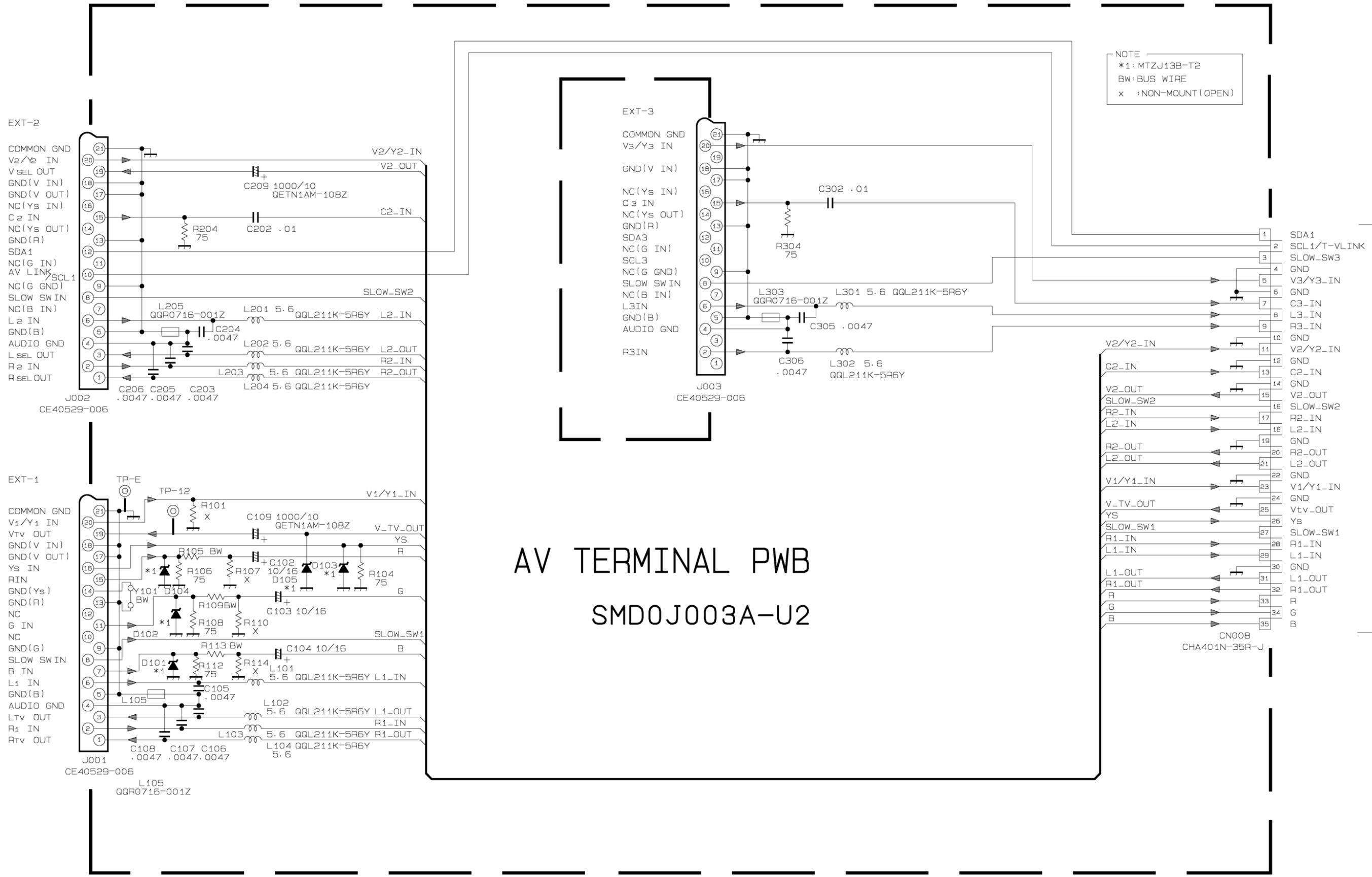
NOTE
*1: 2SC3311A/QR/-T
*2: 2SA1309A/QR/-T
*3: MA165-T2
*4: 1SS133-T2
BW: BUS WIRE
X : NON-MOUNT (OPEN)

MAIN PWB
MUTING 10
SVM_Y 9
PROTECT 8
R 7
G 6
B 5
IK 4
GND 3
12V 2
GND 1

MAIN PWB
NC 8
B1 7
NC 6
HB 5
NC 4
GND 3
HEATER 2
STBY_7V 1

FRONT CABINET
CNOE2 GGA2501 C5-03Z

AV TERMINAL PWB CIRCUIT DIAGRAM

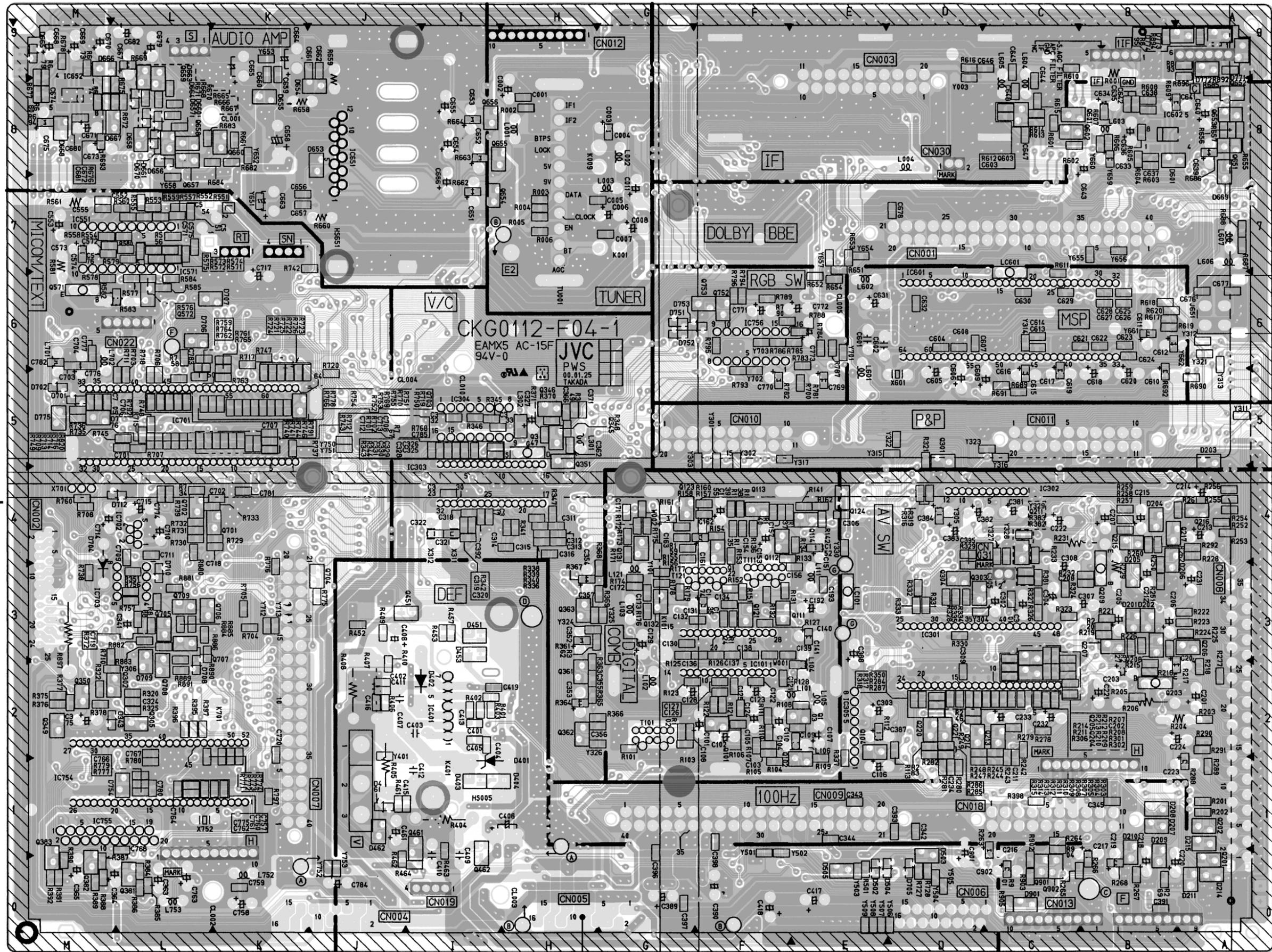


PATTERN DIAGRAMS MAIN PWB PATTERN

AV-32WL1EU
AV-32WL1EI
AV-32WL1EK

AV-32WL1EU
AV-32WL1EI
AV-32WL1EK

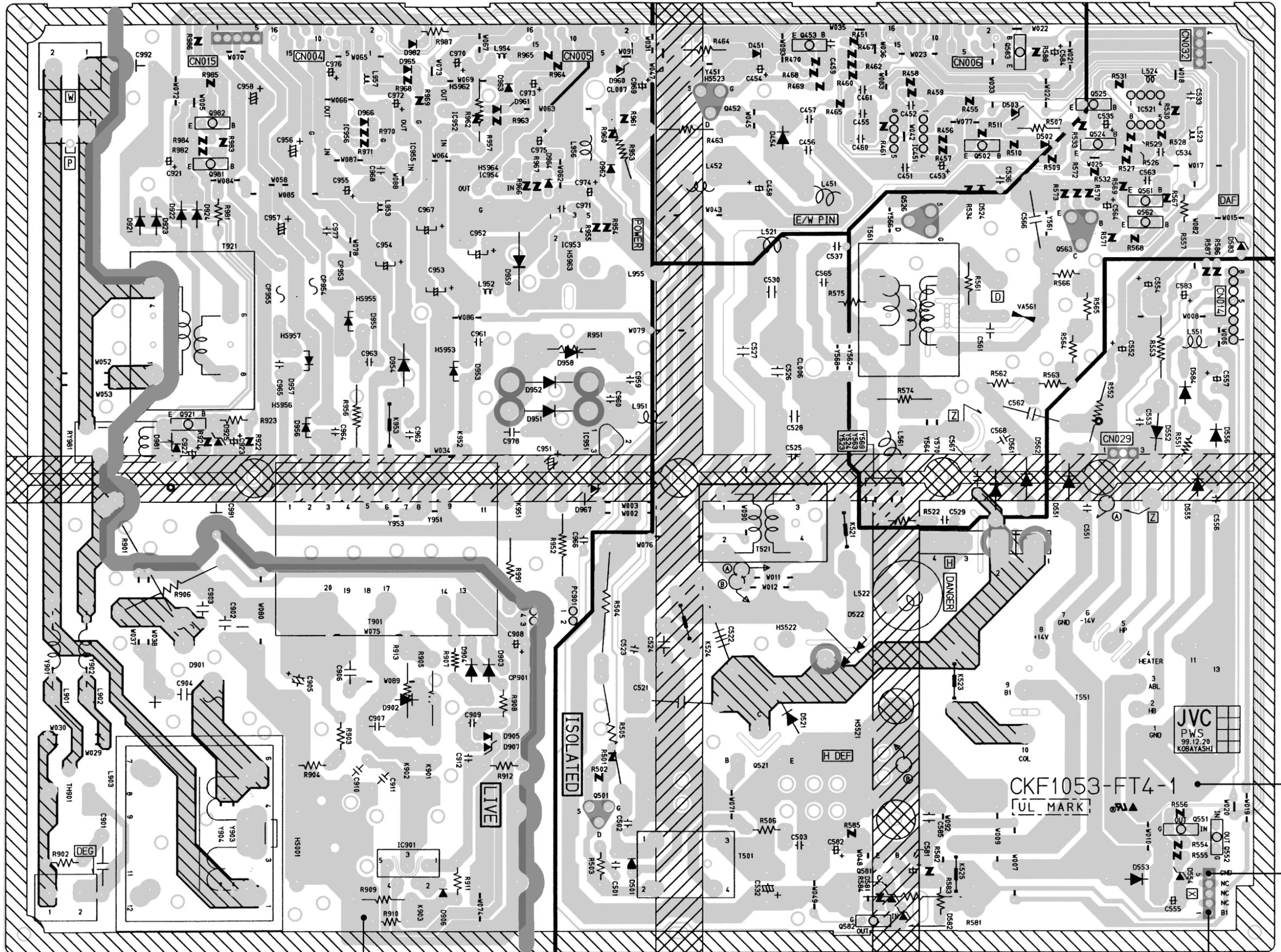
FRONT



POWER & DEF PWB PATTERN

AV-32WL1EU
AV-32WL1EI
AV-32WL1EK

AV-32WL1EU
AV-32WL1EI
AV-32WL1EK



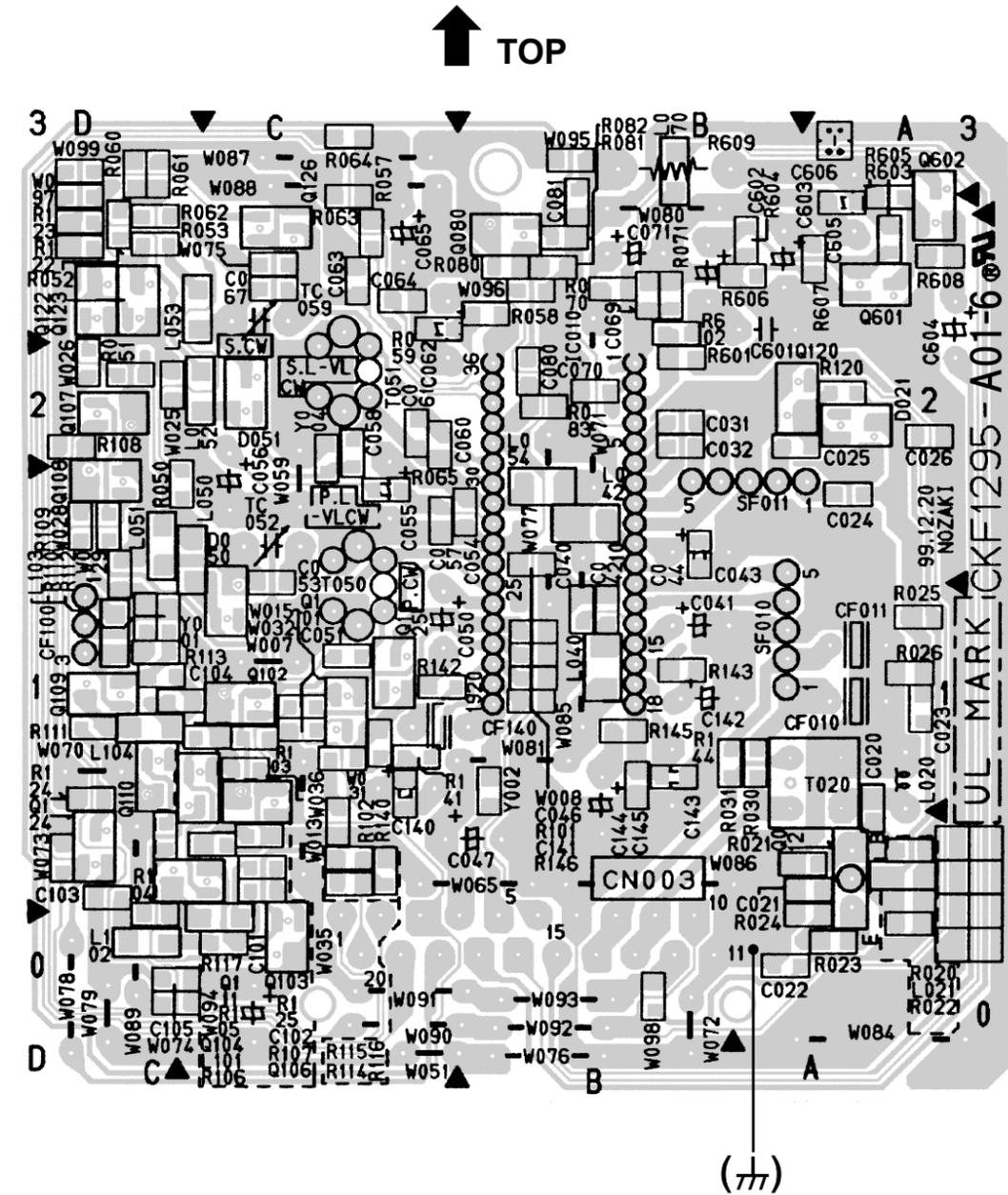
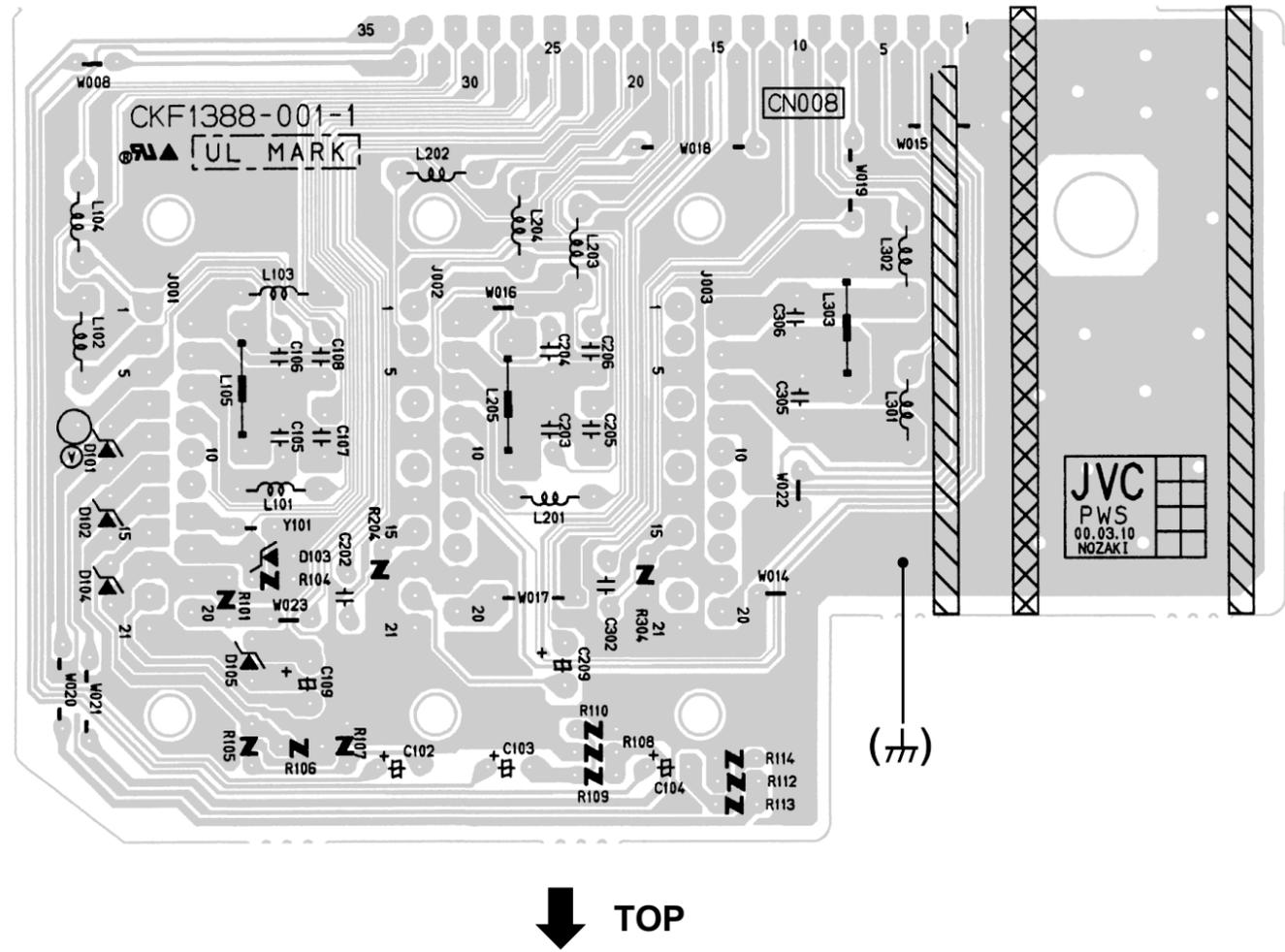
FRONT

TP-E
(T)

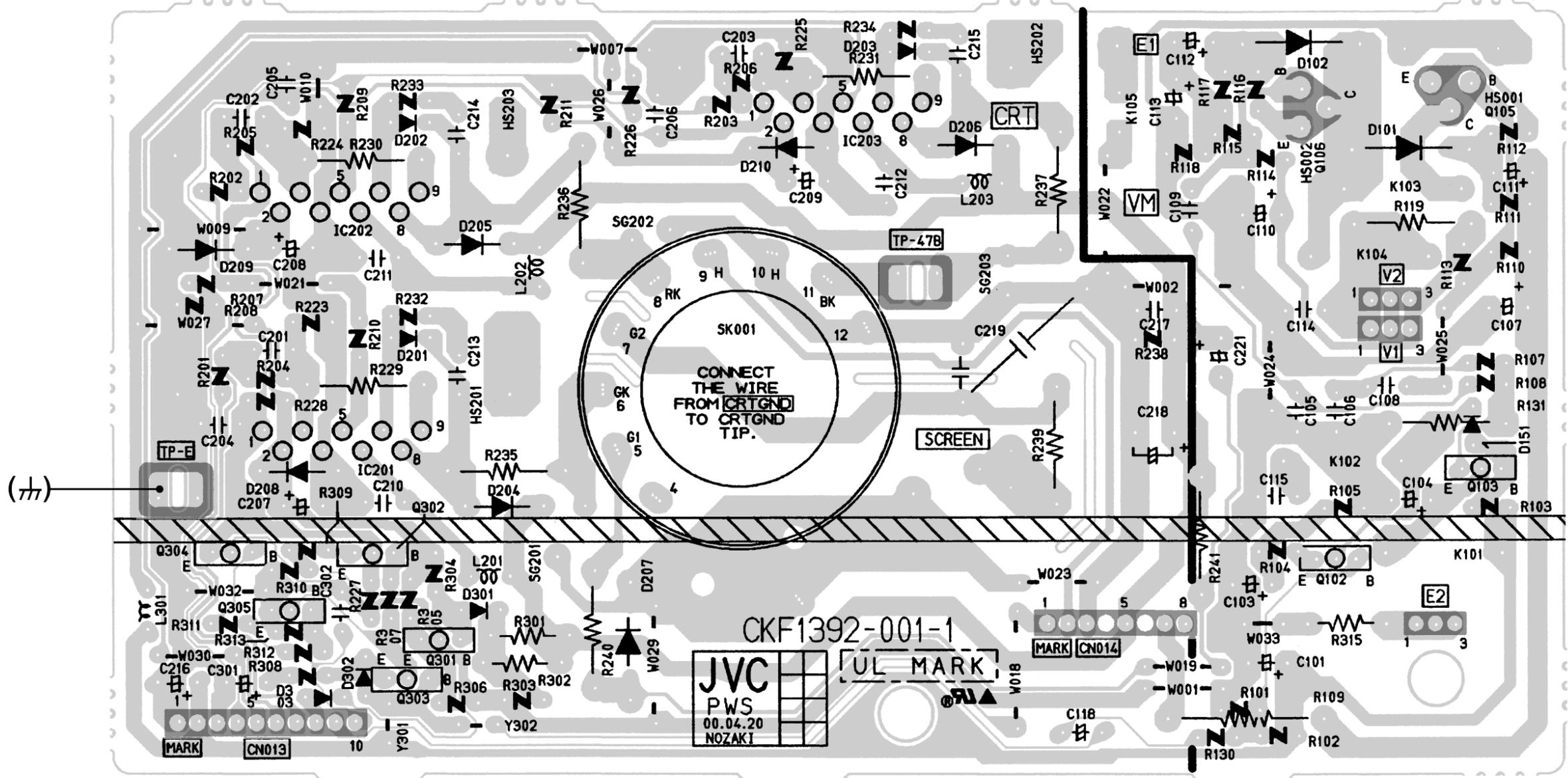
TP-91(B1)

AV TERMINAL PWB PATTERN

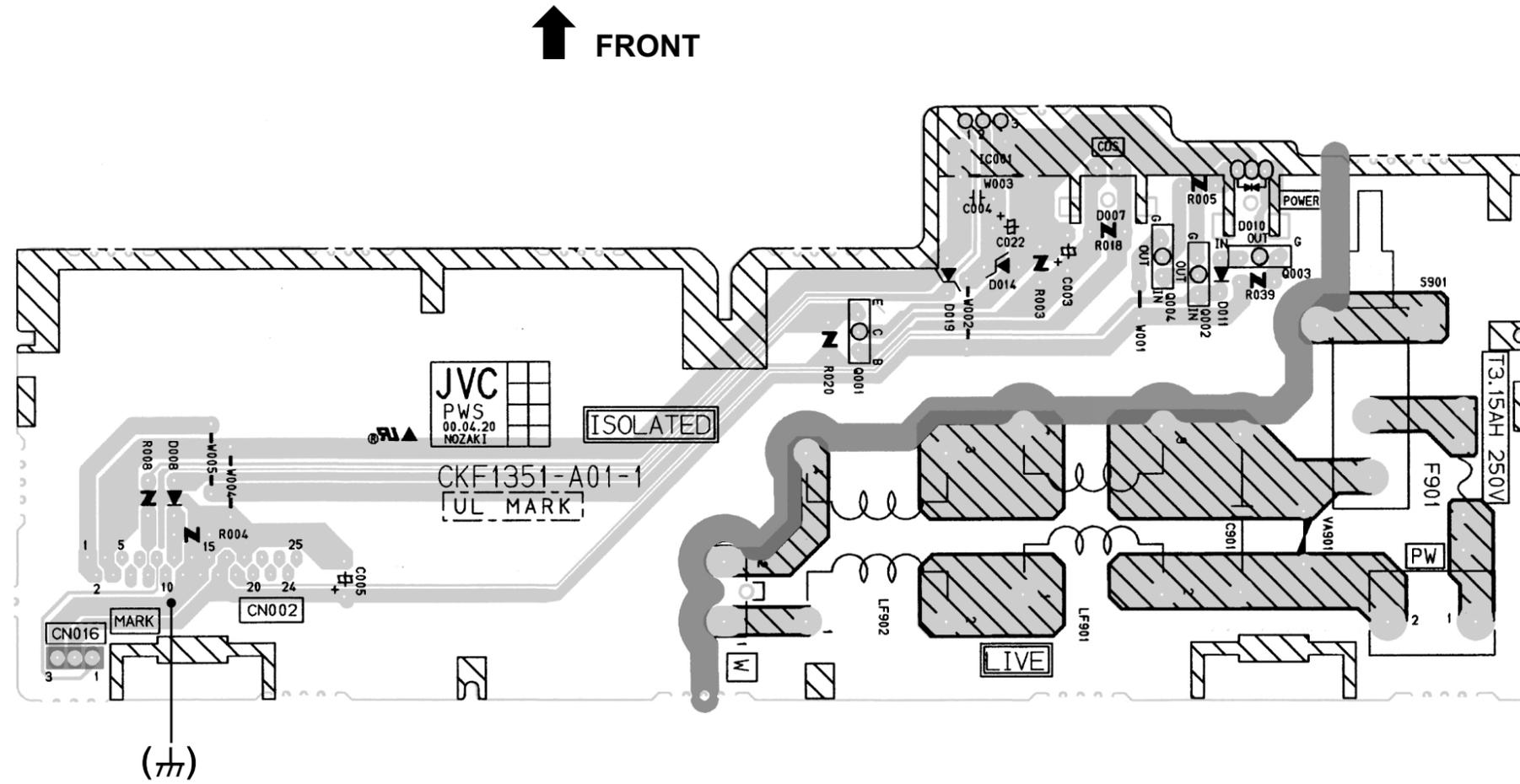
IF PWB PATTERN



CRT SOCKET PWB PATTERN

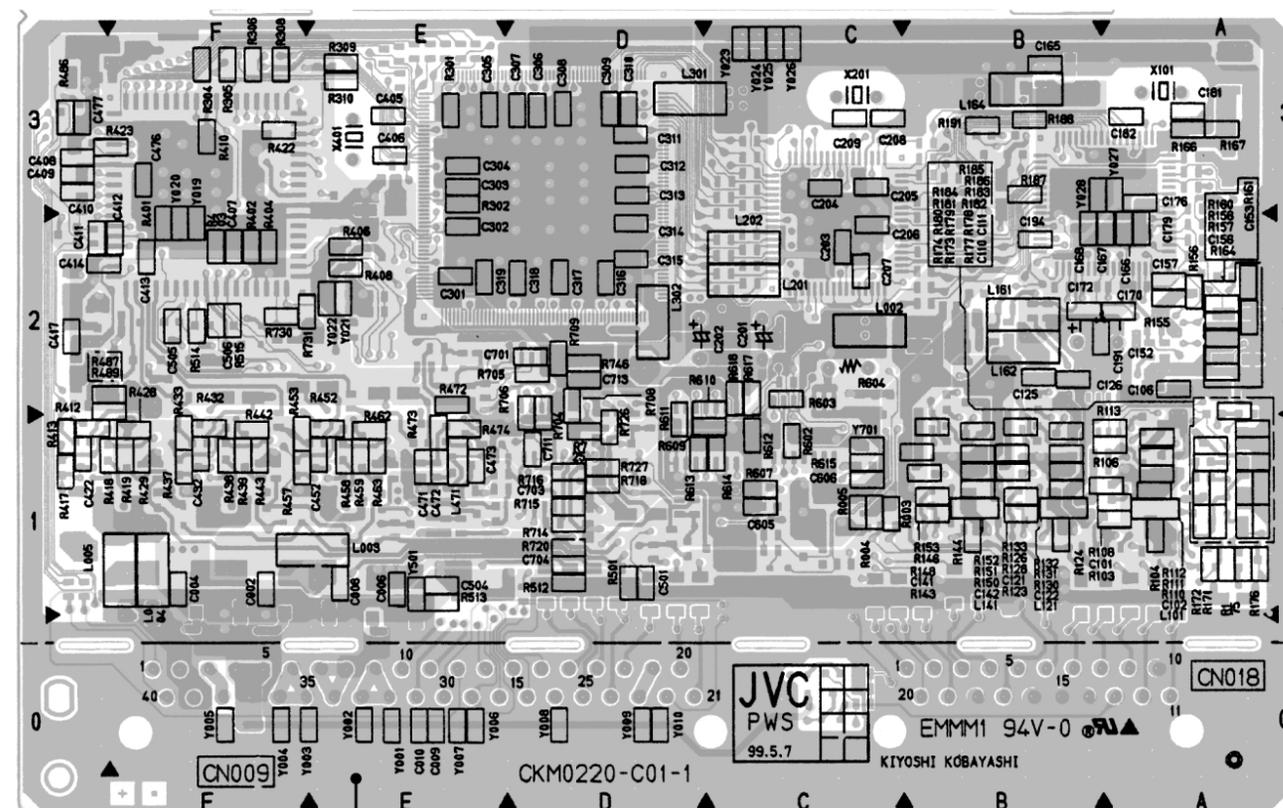
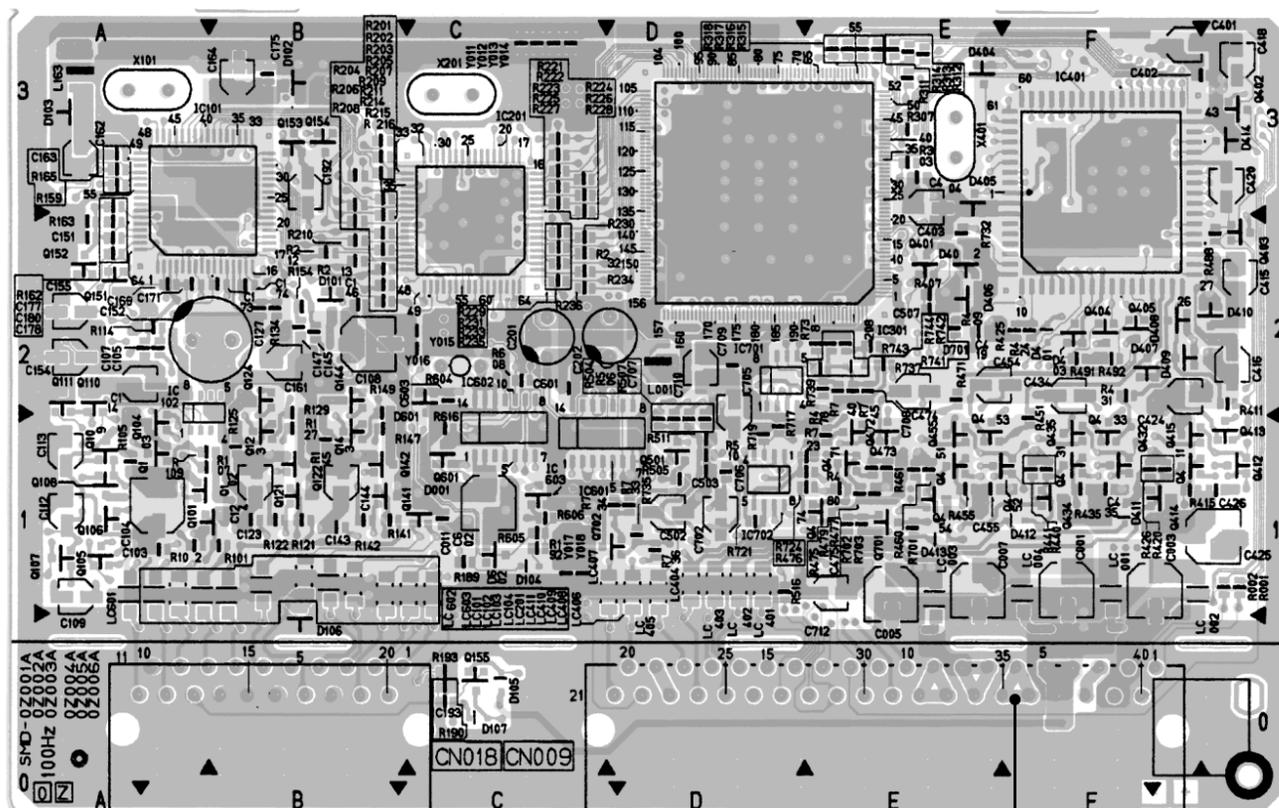


FRONT CONTROL PWB PATTERN



100Hz PWB PATTERN (PARTS SIDE)

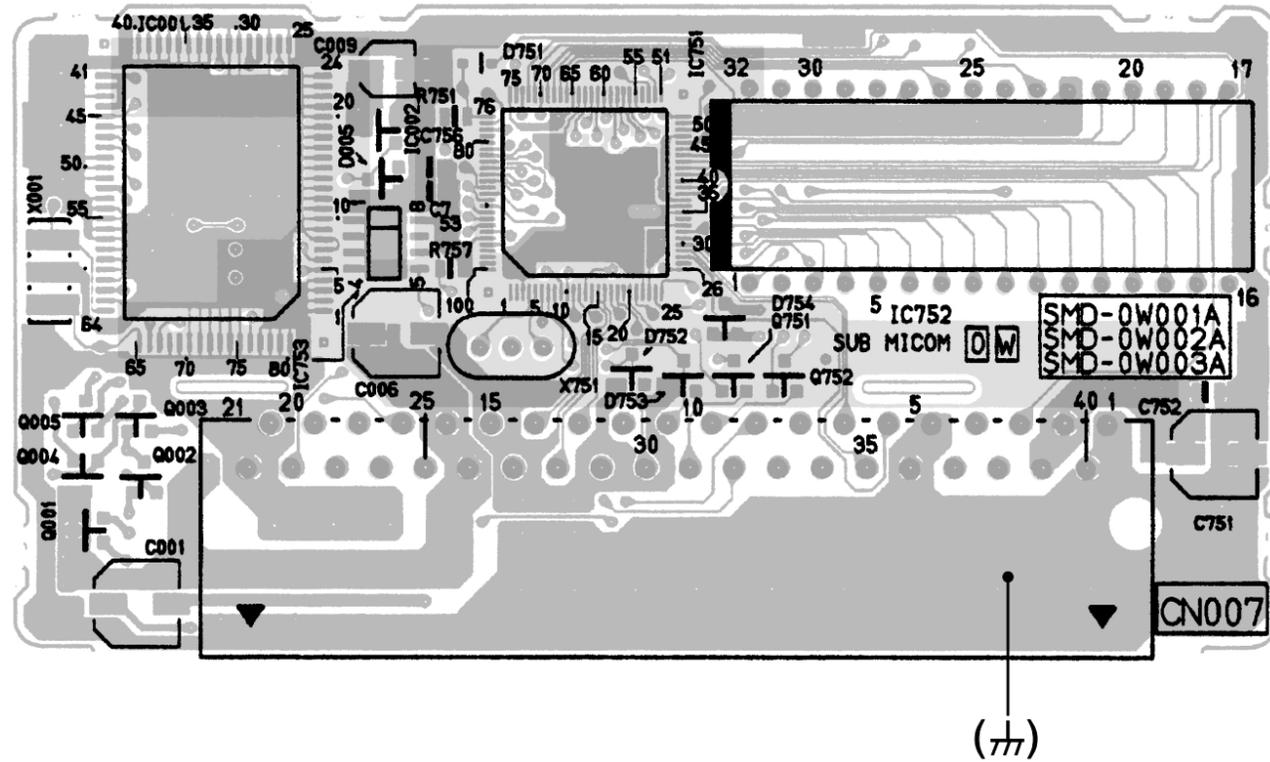
100Hz PWB PATTERN (SOLDER SIDE)



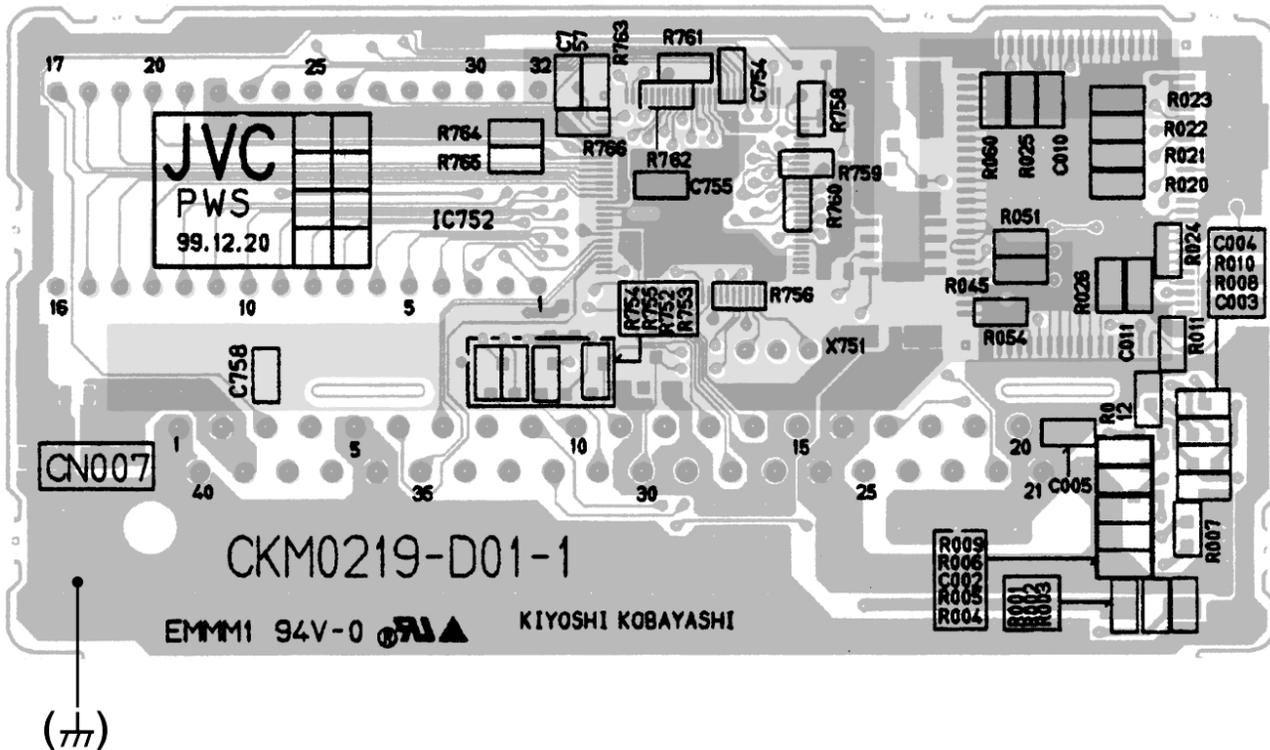
(///)

(///)

SUB MICON & AUTO PANORAMA PWB PATTERN (PARTS SIDE)



SUB MICON & AUTO PANORAMA PWB PATTERN (SOLDER SIDE)



BBE PWB PATTERN

