

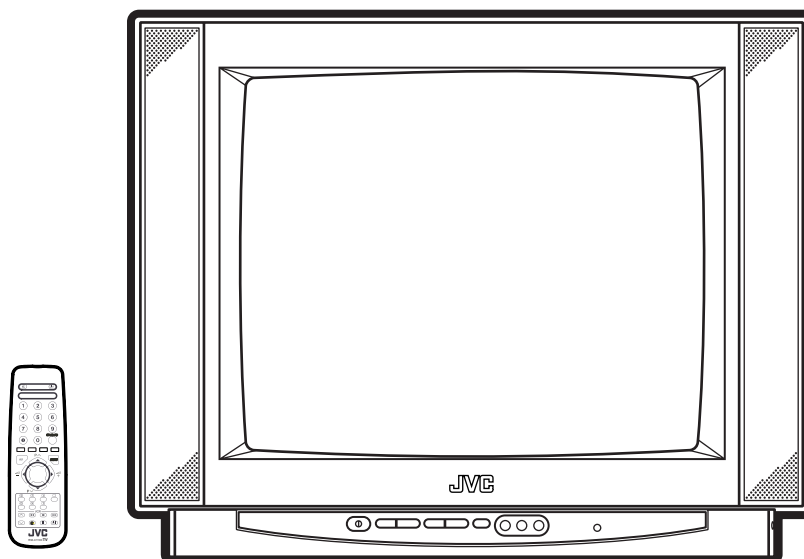
# JVC

## SCHEMATIC DIAGRAMS

### COLOUR TELEVISION

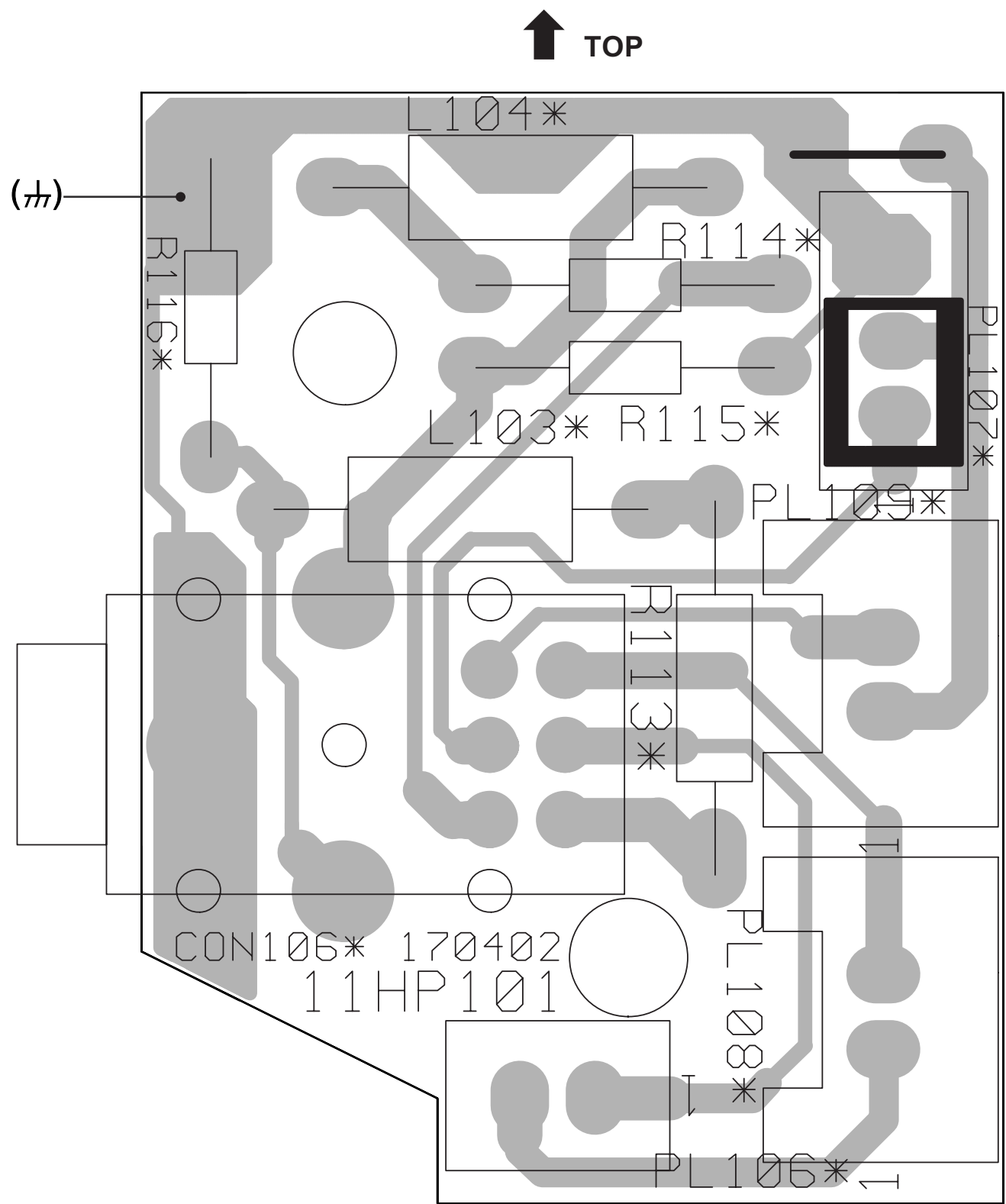
**AV-21BT8ENS / AV-21BT8ENB**  
**AV-21BT8EPS / AV-21BT8EPB**  
**AV-21BT8EES / AV-21BT8EEB**  
**AV-21BT80EP**

CD-ROM No.SML200207



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# AV-21BT8ENS, AV-21BT8ENB AV-21BT8EPS, AV-21BT8EPB AV-21BT8EES, AV-21BT8EEB AV-21BT80EP

## STANDARD CIRCUIT DIAGRAM

### NOTE ON USING CIRCUIT DIAGRAMS

#### 1.SAFETY

The components identified by the  $\Delta$  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 $\Omega$  /V
- (4)Oscilloscope sweeping time :H  $\Rightarrow$  20 $\mu$ 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.INDICATIONS ON THE CIRCUIT DIAGRAM

##### (1)Resistors

###### ● Resistance value

- No unit :{  $\Omega$  }
- K :{K  $\Omega$  }
- M :{M  $\Omega$  }

###### ● Type

- No indication :Carbon resistor
- OMR :Oxide metal film resistor
- MFR :Metal film resistor
- MPR :Metal plate resistor
- UNFR :Uninflamable 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 :{ $\mu$ 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 [ $\mu$ 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 :{  $\mu$ H }
- Others :As specified

#### 4.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.

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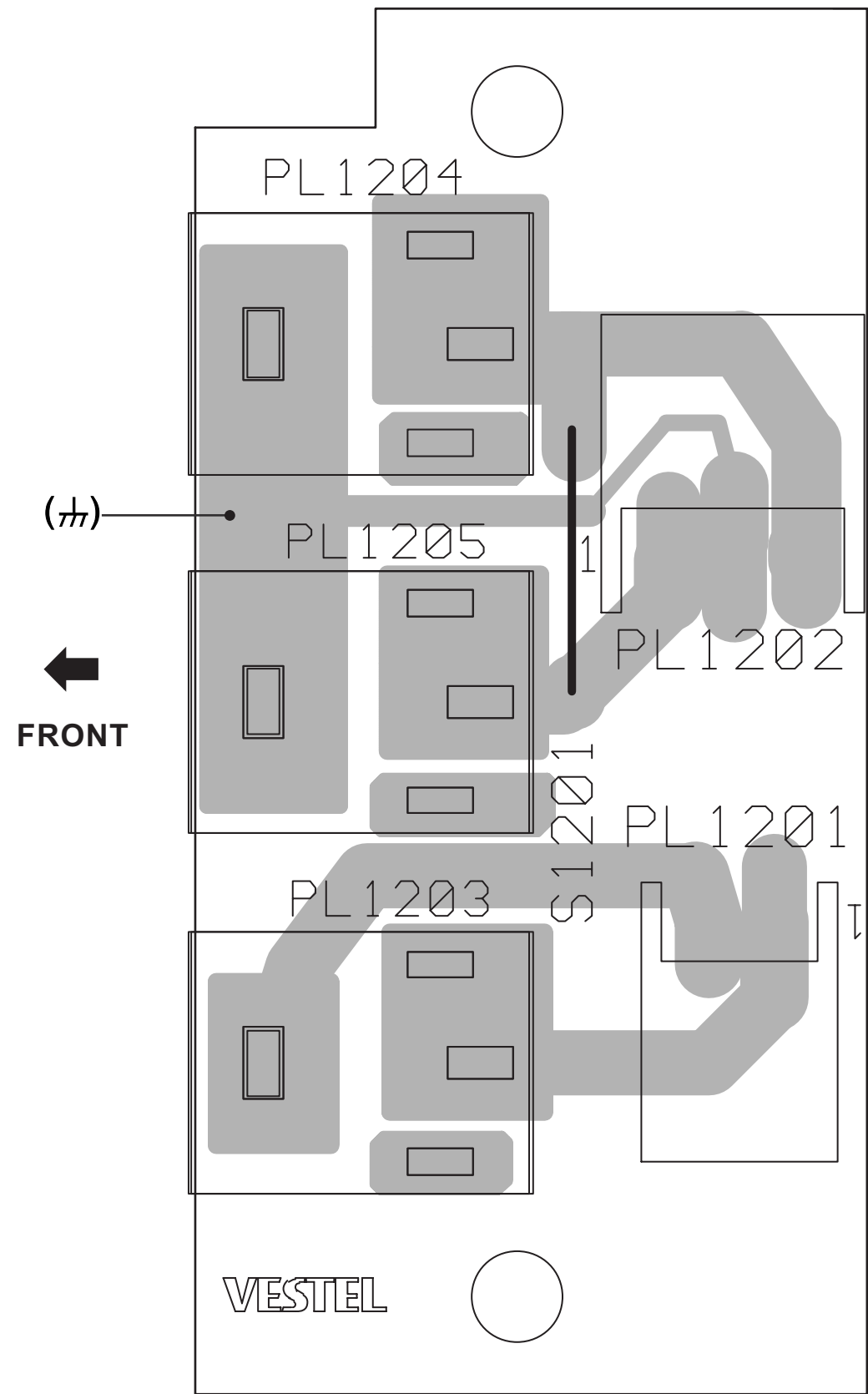
SEMICONDUCTOR SHAPES

TRANSISTOR					
BOTTOM VIEW	FRONT VIEW				TOP VIEW
					CHIP TR 

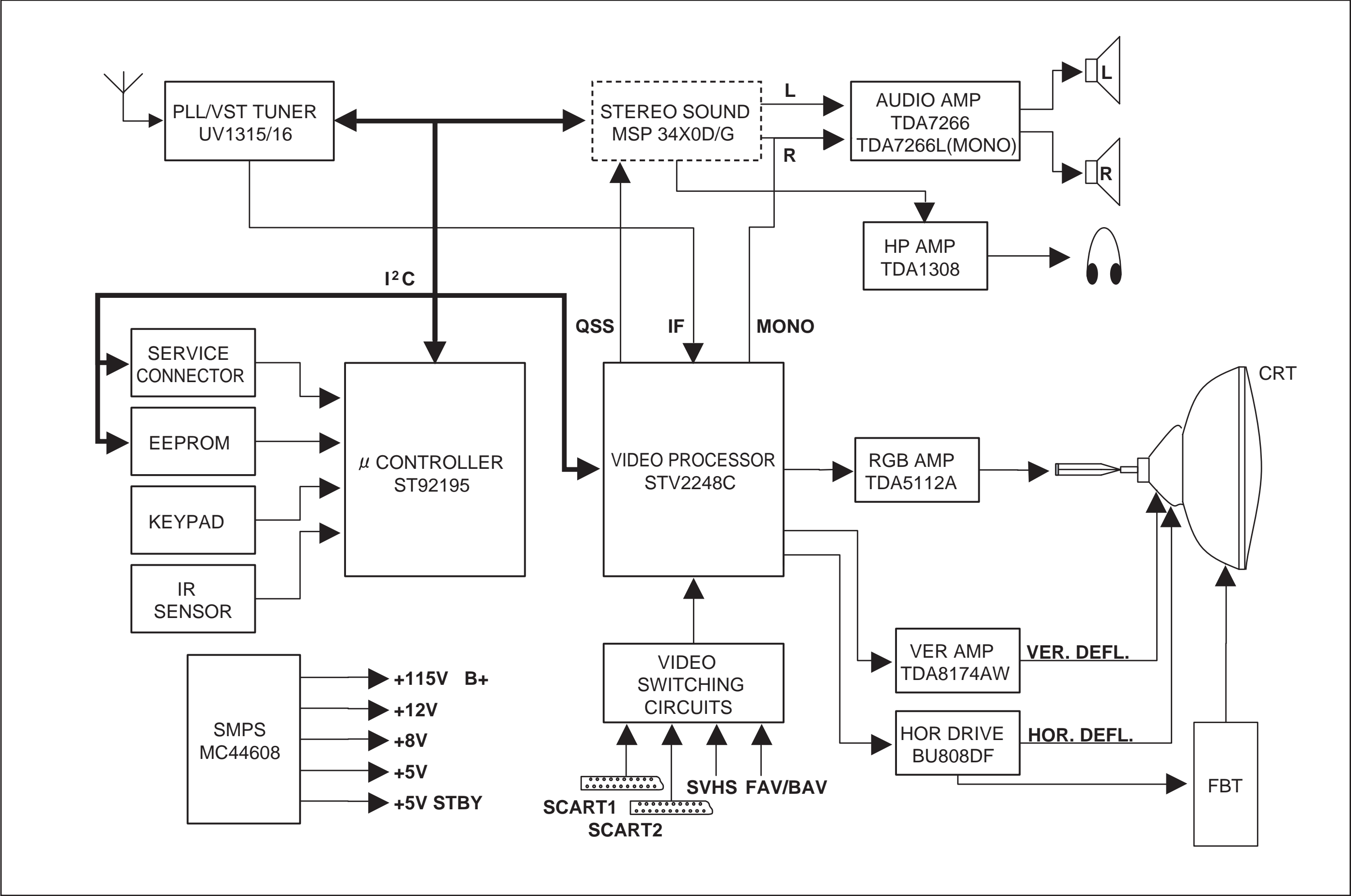
IC				
BOTTOM VIEW	FRONT VIEW			TOP VIEW

CHIP IC		
TOP VIEW		

FRONT AV PWB PATTERN



BLOCK DIAGRAM



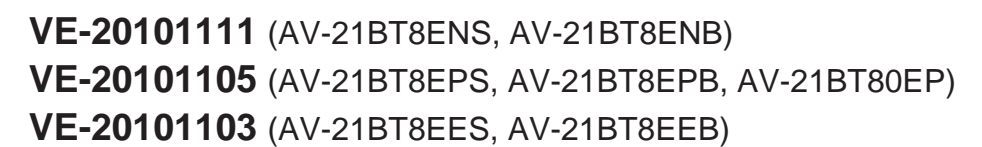
# MAIN PWB (1/6)

**VE-20101105** (AV-21BT8EPS, AV-21BT8EPB, AV-21BT80EP)

**VE-20101103** (AV-21BT8EES, AV-21BT8EEB)

EN			EE			EP		
C446	---	---	C446	---	---	C446	30003045	CAP 10 10UF 50V M
C451	30012581	CAP SMD 1NF 50V K R	C451	30012581	CAP SMD 1NF 50V K R	C451	30012589	CAP SMD 4.7NF 50V K R
C452	30012581	CAP SMD 1NF 50V K R	C452	30012581	CAP SMD 1NF 50V K R	C452	30012589	CAP SMD 4.7NF 50V K R
C453	---	---	C453	---	---	C453	30012581	CAP SMD 1NF 50V K R
D402	---	---	D402	---	---	D402	30012411	DIODE B4782 SMD
IC403	30014521	IC STV2247(SHRINK56)	IC403	30014510	IC STV2248(SHRINK56)	IC403	30014510	IC STV2248(SHRINK56)
IC500	20095957	IC 24C08	IC500	20101102	IC 24C08	IC500	20101102	IC 24C08
IC501	20095939	PR IC.3K-ST92196C	IC501	20104642	PR IC.30/7-T STR 92195C	IC501	20095939	PR IC.3K-ST92196C
L407	---	---	L407	---	---	L407	30002052	FIXED COIL 47UH 960 K
PL703	---	---	PL703	---	---	PL703	30008949	CAP 0.68M BLUE (7CM)
Q402	---	---	Q402	---	---	Q402	30001457	TR BC458 SMD
Q405	---	---	Q405	---	---	Q405	30001457	TR BC458 SMD
R407	---	---	R407	---	---	R407	30000047	RES OF 144K 10K J
R410	---	---	R410	---	---	R410	30000047	RES OF 144K 10K J
R412	---	---	R412	---	---	R412	30012696	RES SMD 1/16W 47K J
R465	---	---	R465	---	---	R465	30012692	RES SMD 1/16W 4.7K J
R467	---	---	R467	---	---	R467	30012641	RES SMD 1/16W 10K J
R468	---	---	R468	---	---	R468	30012641	RES SMD 1/16W 10K J
R552	---	---	R552	---	---	R552	30012692	RES SMD 1/16W 4.7K J
S410	30012985	JUMPER SMD	S410	30012985	JUMPER SMD	S410	30012985	JUMPER SMD
S411	---	---	S411	30012985	JUMPER SMD	S411	---	---
Z401	30001705	FILTER SAW OFWG8353M	Z401	30013163	FILTER SAW K9356	Z401	30013163	FILTER SAW K9356
Z402	30015591	FILTER SAW G9367	Z402	30014261	FILTER SAW K9358M	Z402	30014261	FILTER SAW K9358M
Z404	---	---	Z404	30001724	FILTER SER TRAP TFS 5.5M-H	Z404	30001724	FILTER SER TRAP TFS 5.5M-H







## MAIN PWB (4/6)

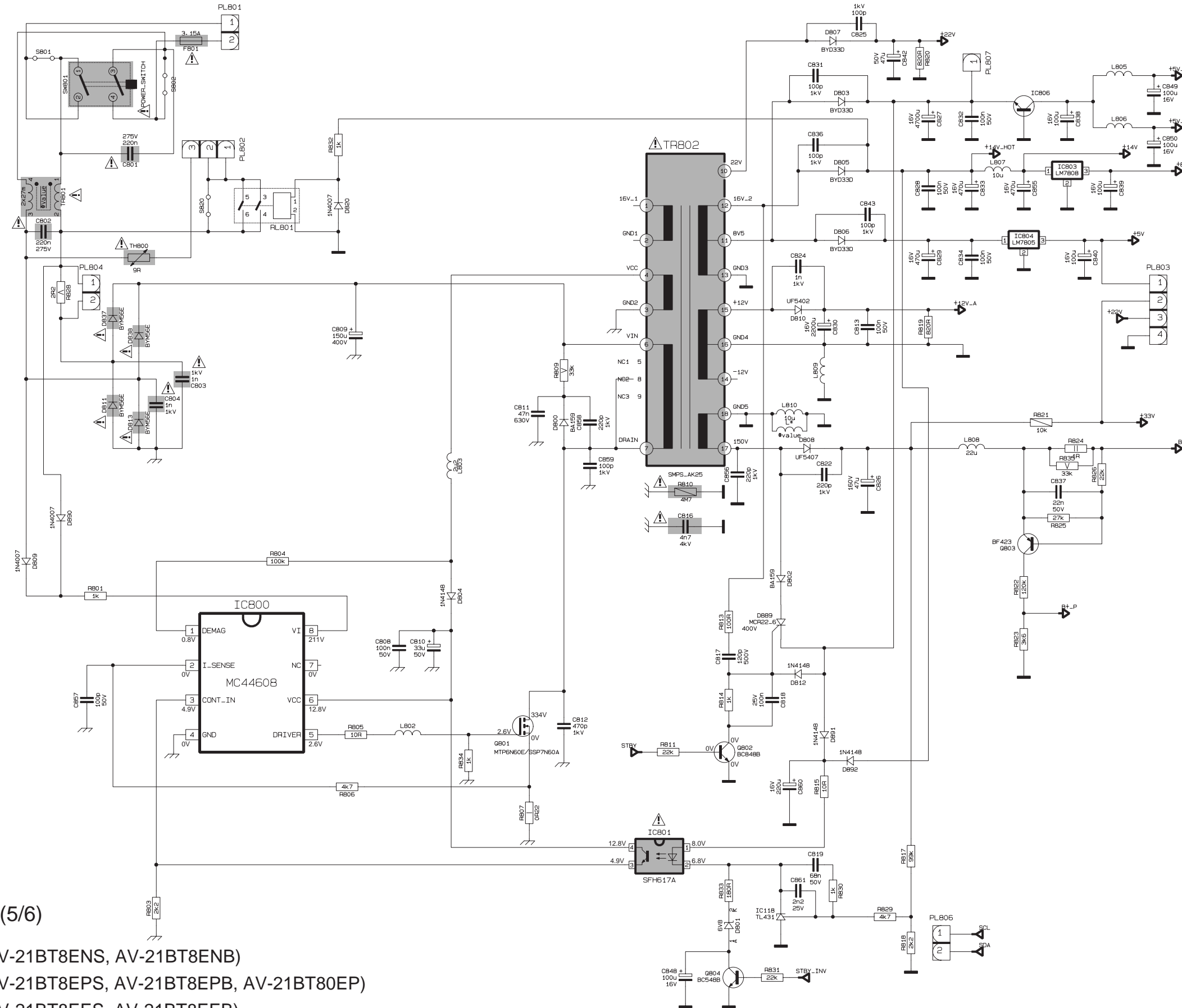
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No.52054



MAIN PWB CIRCUIT DIAGRAM [5/6]



MAIN PWB (5/6)

VE-20101111 (AV-21BT8ENS, AV-21BT8ENB)

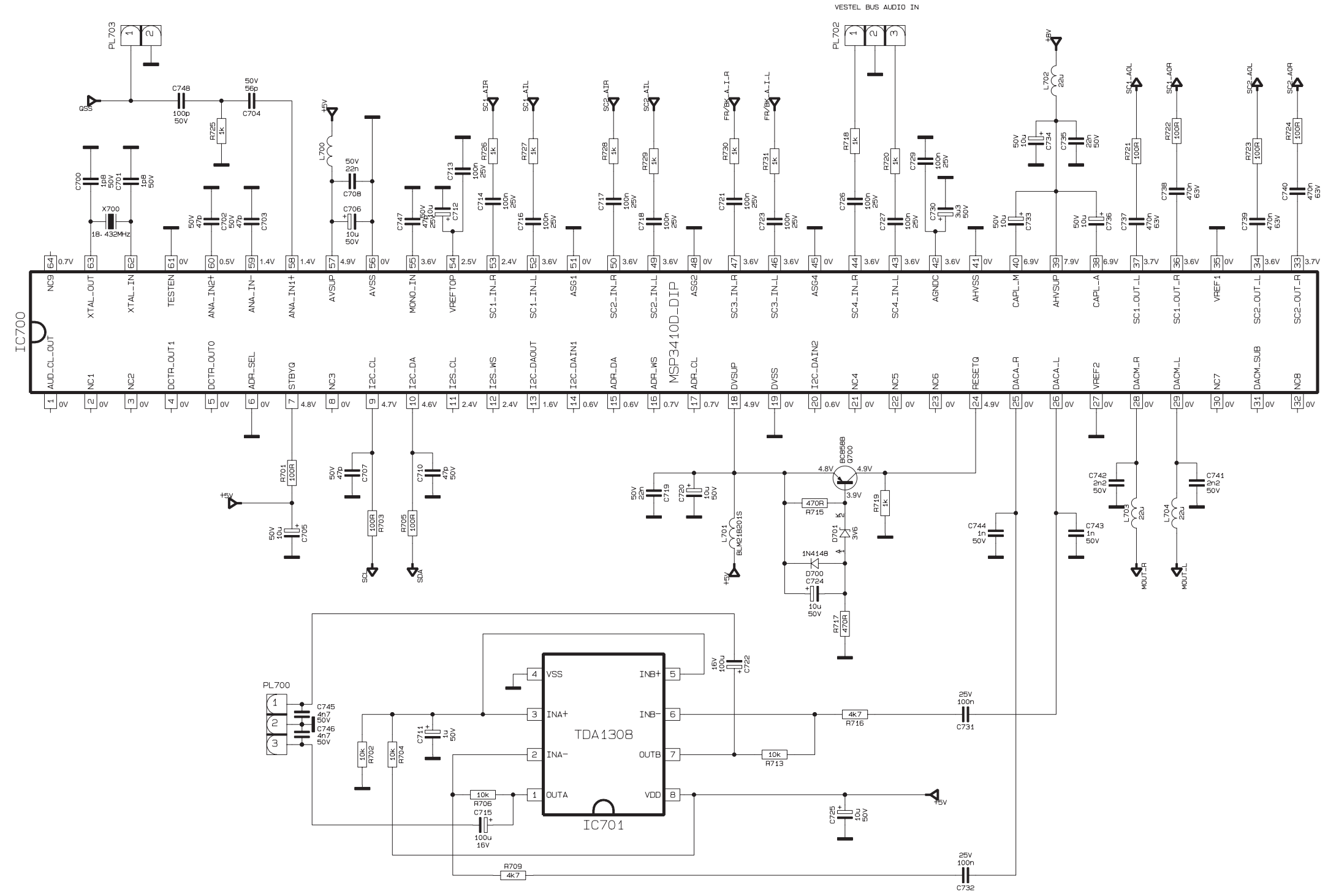
VE-20101105 (AV-21BT8EPS, AV-21BT8EPB, AV-21BT80EP)

VE-20101103 (AV-21BT8EES, AV-21BT8EEB)

AV-21BT8ENS / AV-21BT8ENB  
AV-21BT8EPS / AV-21BT8EPB  
AV-21BT8EES / AV-21BT8EEB  
AV-21BT80EP

AV-21BT8ENS / AV-21BT8ENB  
AV-21BT8EPS / AV-21BT8EPB  
AV-21BT8EES / AV-21BT8EEB  
AV-21BT80EP

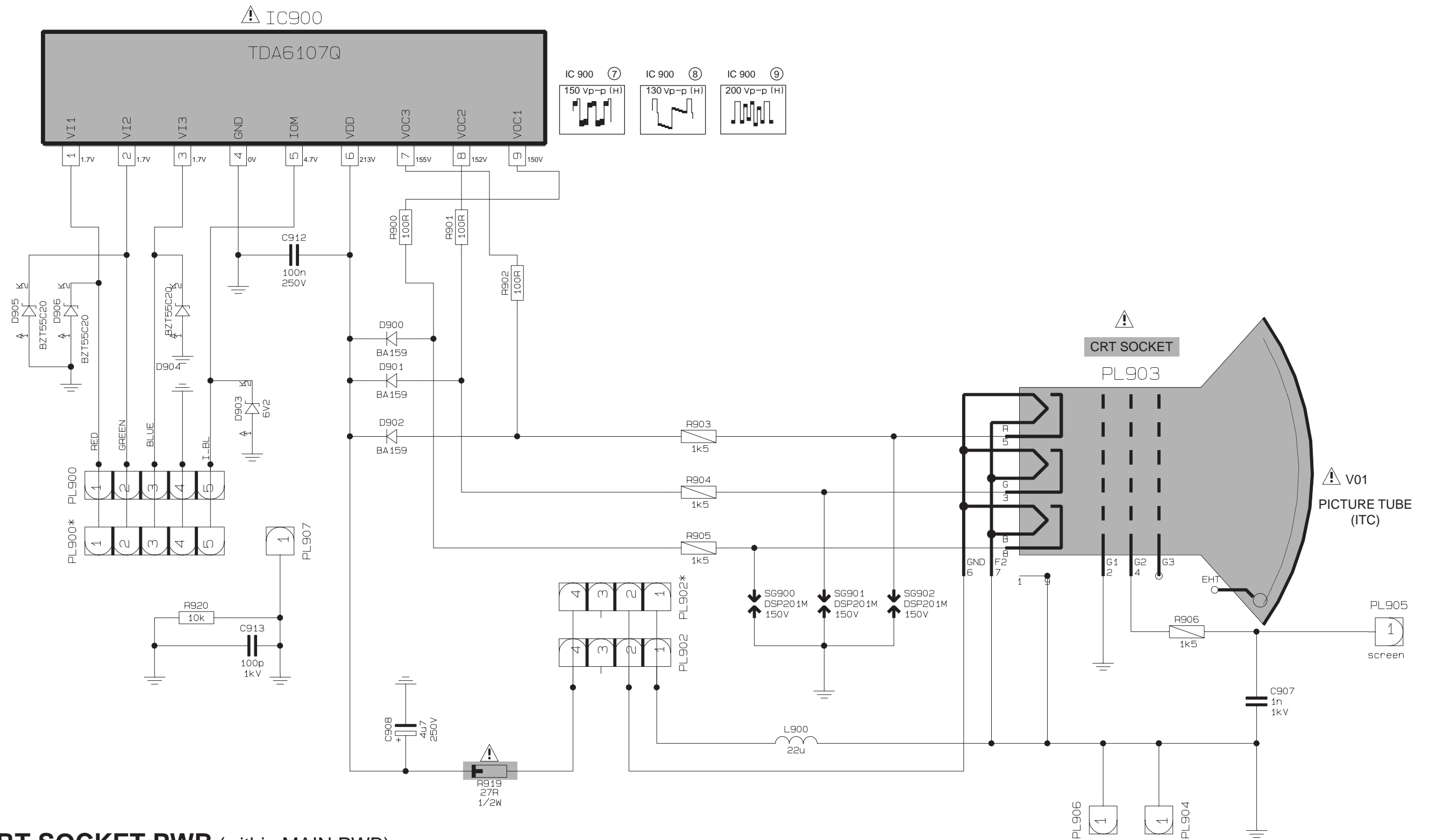
MAIN PWB CIRCUIT DIAGRAM [6/6]



MAIN PWB (6/6)

- VE-20101111 (AV-21BT8ENS, AV-21BT8ENB)
- VE-20101105 (AV-21BT8EPS, AV-21BT8EPB, AV-21BT80EP)
- VE-20101103 (AV-21BT8EES, AV-21BT8EEB)

# CRT SOCKET PWB CIRCUIT DIAGRAM



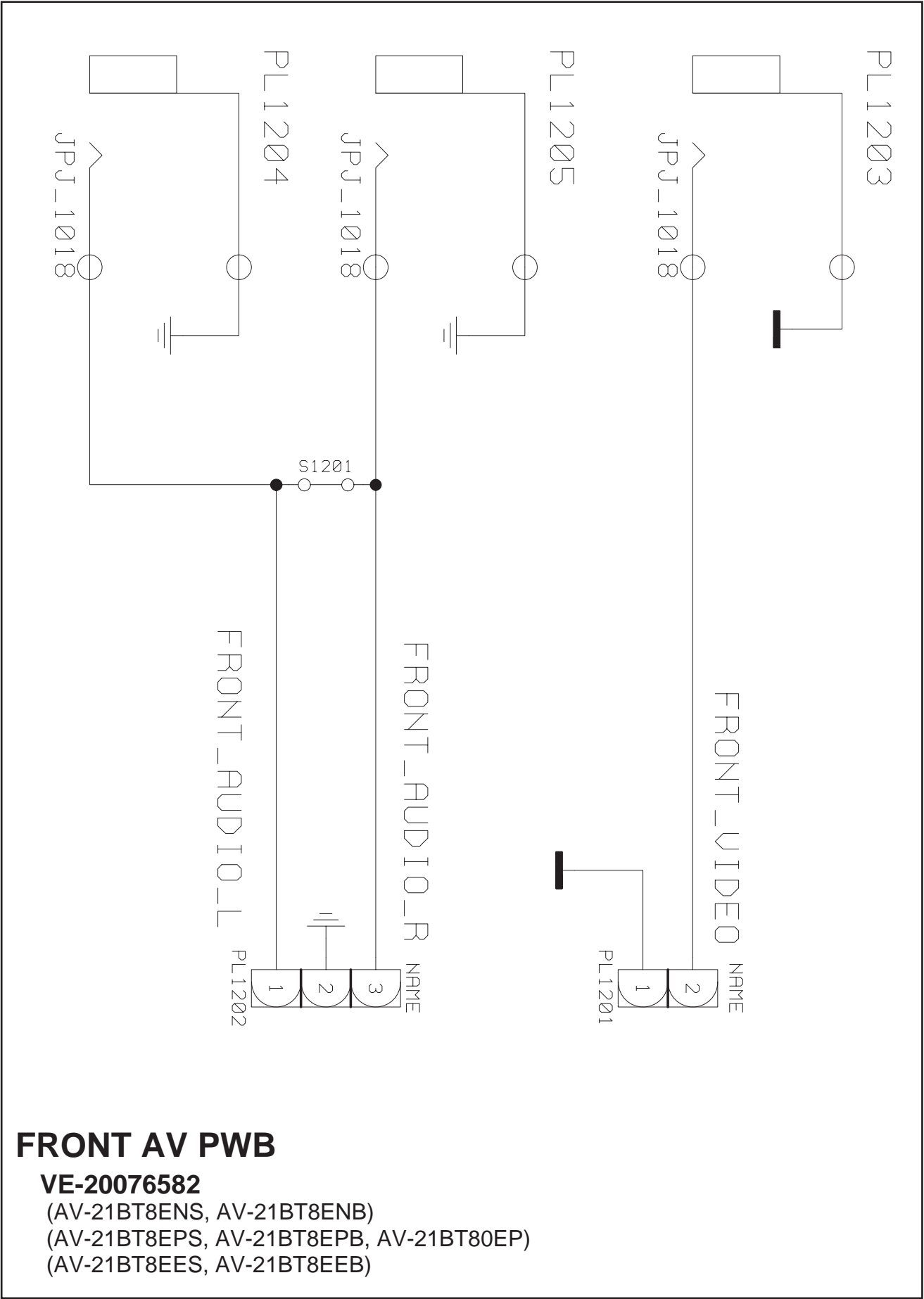
## CRT SOCKET PWB (within MAIN PWB)

VE-20101111 (AV-21BT8ENS, AV-21BT8ENB)

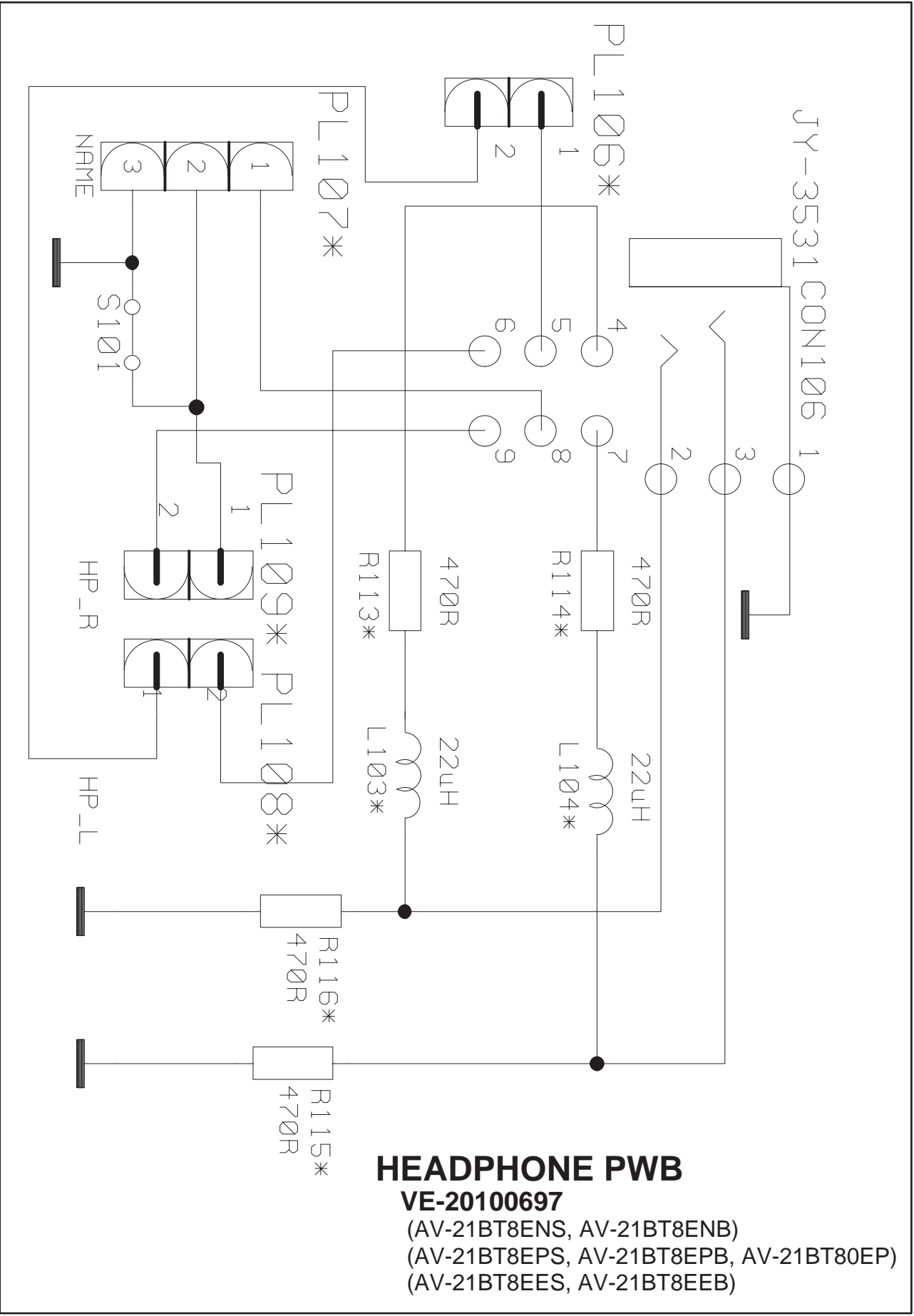
VE-20101105 (AV-21BT8EPS, AV-21BT8EPB, AV-21BT80EP)

VE-20101103 (AV-21BT8EES, AV-21BT8EEB)

FRONT AV PWB CIRCUIT DIAGRAM



HEADPHONE PWB CIRCUIT DIAGRAM





AV-21BT8ENS / AV-21BT8ENB  
AV-21BT8EPS / AV-21BT8EPB  
AV-21BT8EES / AV-21BT8EEB  
AV-21BT80EP

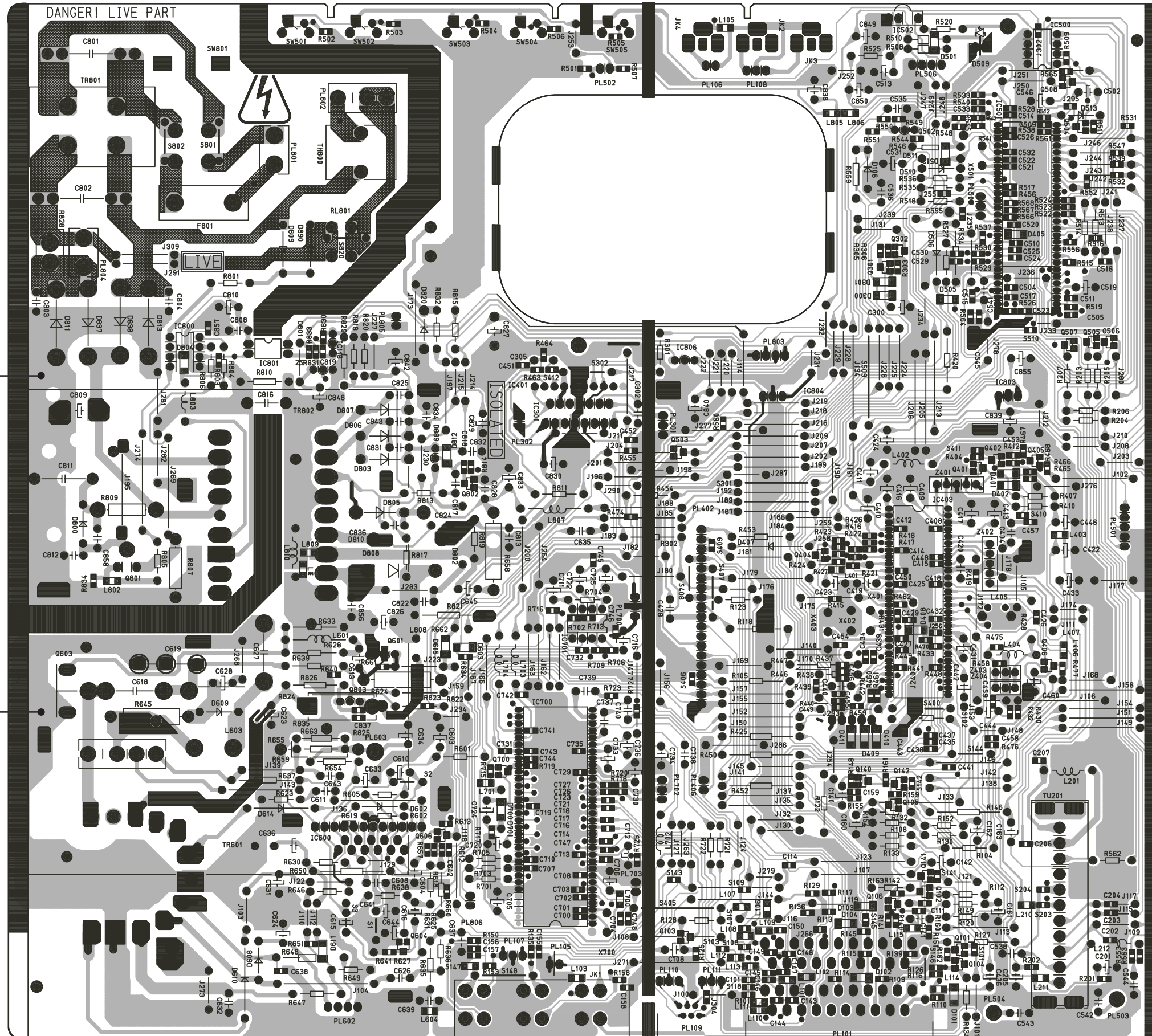
AV-21BT8ENS / AV-21BT8ENB  
AV-21BT8EPS / AV-21BT8EPB  
AV-21BT8EES / AV-21BT8EEB  
AV-21BT80EP

PATTERN DIAGRAMS MAIN PWB PATTERN

FRONT

(L)

(H)





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