



SCHEMATIC DIAGRAMS

LCD TELEVISION BUILT-IN DVD PLAYER

LT-32D200/AK, LT-32DV20/AK

DVD-ROM No.SML2009Q1

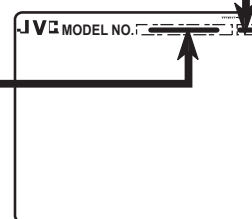


There may be multiple versions of this TV model.

The TV version is identified by the letters next to the model number on the TV's Rating.
(See illustration).

Use the service manual that matches the version of the TV.

MODEL NAME
LT-32D200
LT-32DV20



RATING LABEL (REAR)

VERSION
AK

LT-32D200/AK, LT-32DV20/AK

STANDARD CIRCUIT DIAGRAM

■ NOTE ON USING CIRCUIT DIAGRAMS

1.SAFETY

The components identified by the $\triangle$ 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

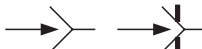
-  : B1
-  : B2 (12V)
-  : 9V
-  : 5V

* 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 (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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USING P.W. BOARD

P.W.B ASS'Y name	LT-32D200/AK	LT-32DV20/AK
POWER SUPPLY P.W. BOARD	FU-1ESA21065-1	←
JACK P.W. BOARD	FU-1ESA21065-2	←
INVERTER P.W. BOARD	FU-1ESA20113-1	←
FUNCTION P.W. BOARD	FU-1ESA20113-2	←
IR SENSOR P.W. BOARD	FU-1ESA20113-3	←
JUNCTION P.W. BOARD	FU-1ESA20113-4	←
DIGITAL MAIN P.W. BOARD	FU-1ESA19265(Not supply individual parts of this PWB.)	←
DVD MAIN P.W. BOARD	FU-N7EX1KUP(Not supply individual parts of this PWB.)	←

SEMICONDUCTOR SHAPES

TRANSISTOR

BOTTOM VIEW	FRONT VIEW				TOP VIEW
					CHIP TR

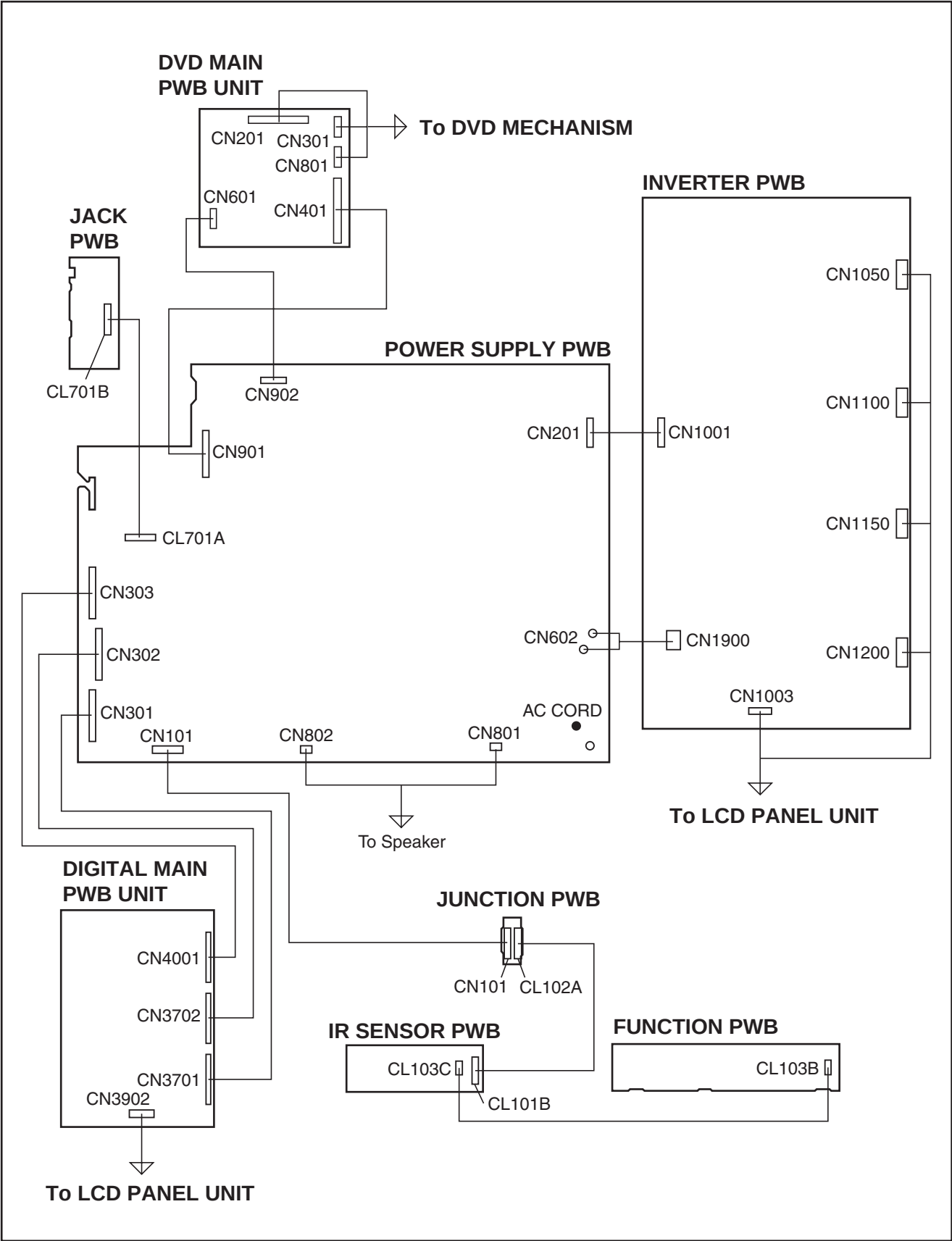
IC

BOTTOM VIEW	FRONT VIEW			TOP VIEW

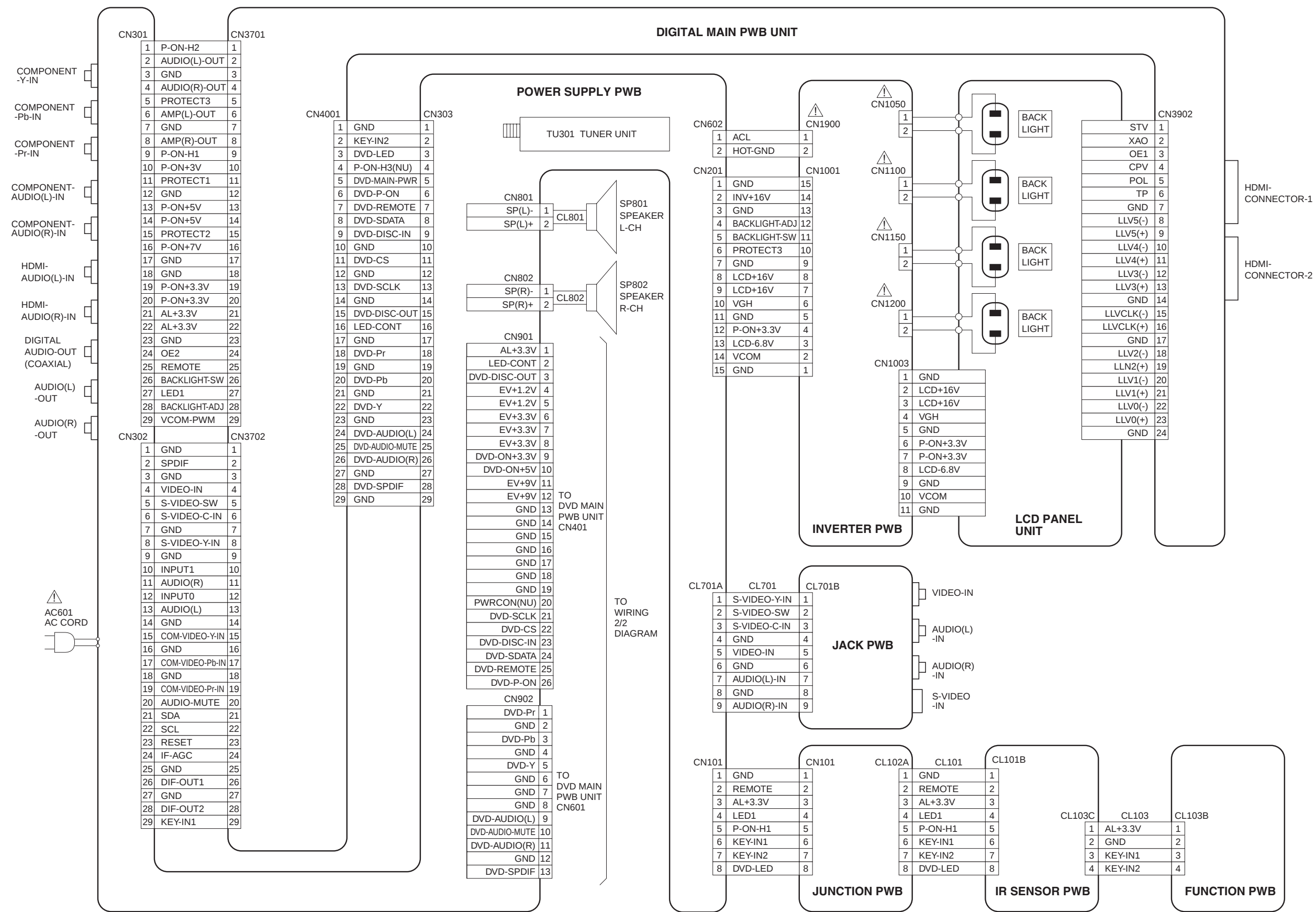
CHIP IC

TOP VIEW		

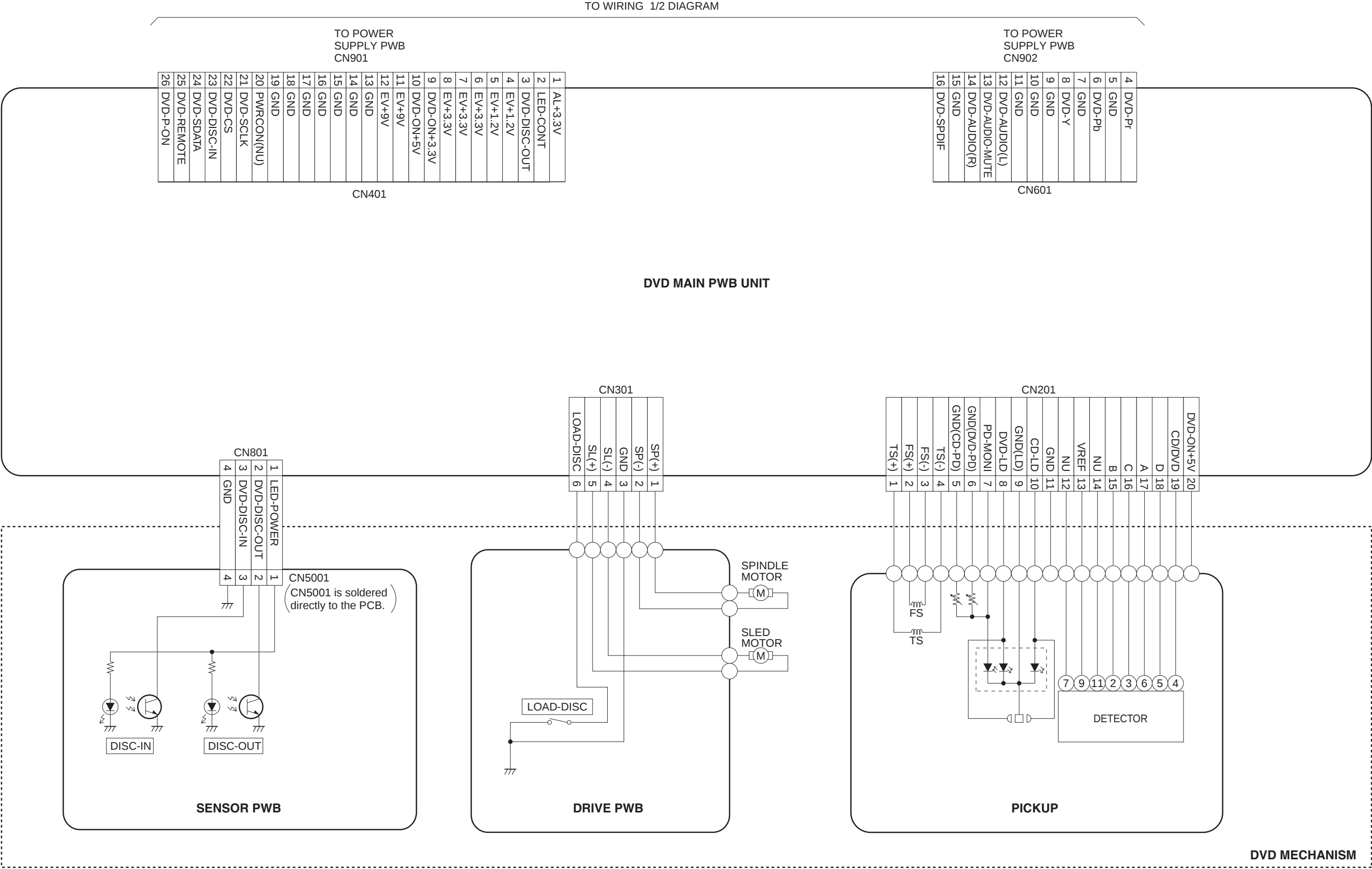
WIRING DIAGRAM [TV CABLE]



WIRING DIAGRAM (1/2)



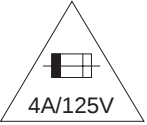
WIRING DIAGRAM (2/2)



POWER SUPPLY BLOCK DIAGRAM

CAUTION !

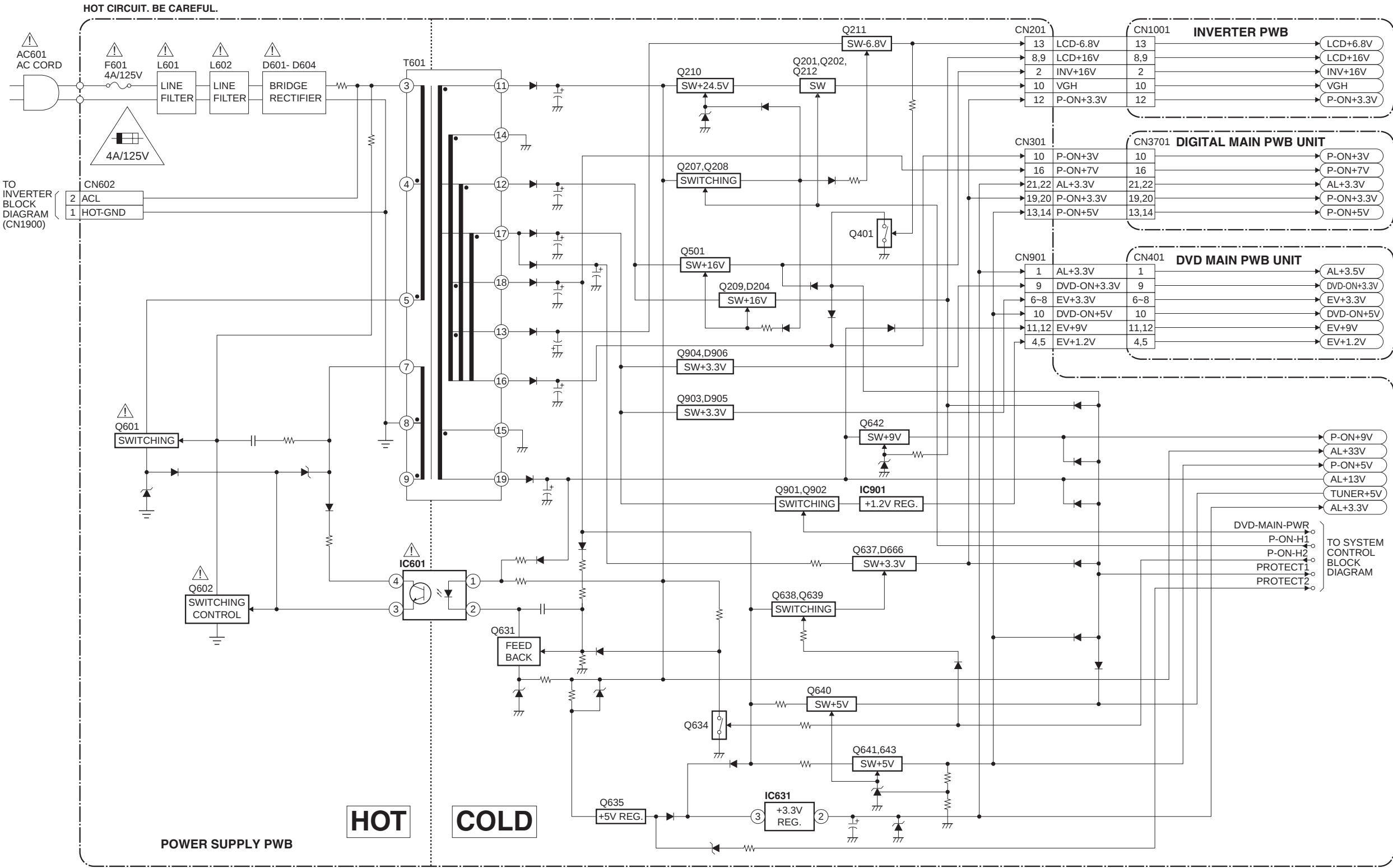
Fixed voltage (or Auto voltage selectable) power supply circuit is used in this unit.
If Main Fuse (F601) is blown , check to see that all components in the power supply circuit are not defective before you connect the AC plug to the AC power supply.
Otherwise it may cause some components in the power supply circuit to fail.



CAUTION ! : For continued protection against risk of fire,
replace only with same type 4 A, 125V fuse.
ATTENTION : Utiliser un fusible de rechange de même type de 4A, 125V.

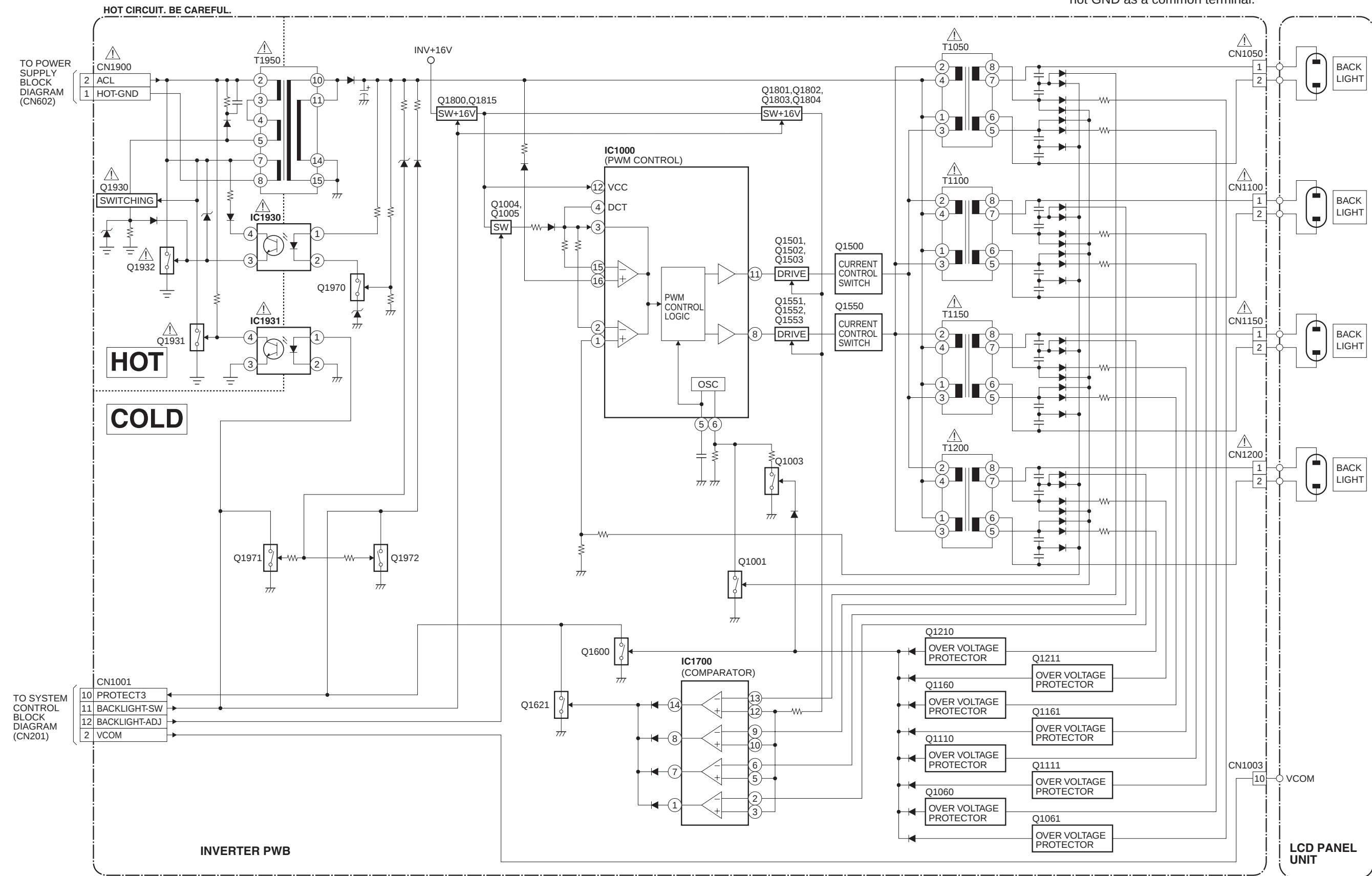
NOTE:

The voltage for parts in hot circuit is measured using
hot GND as a common terminal.

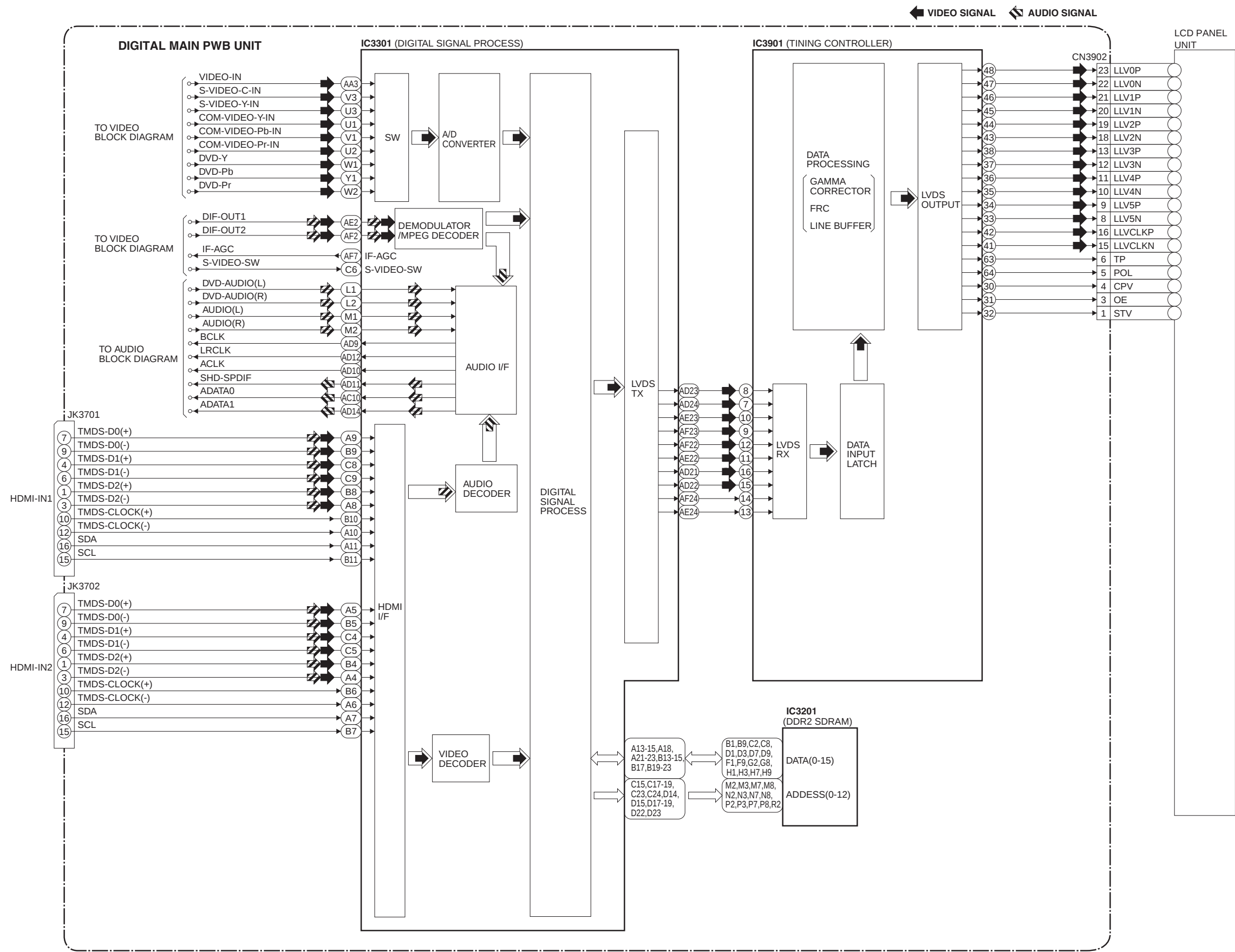


INVERTER BLOCK DIAGRAM

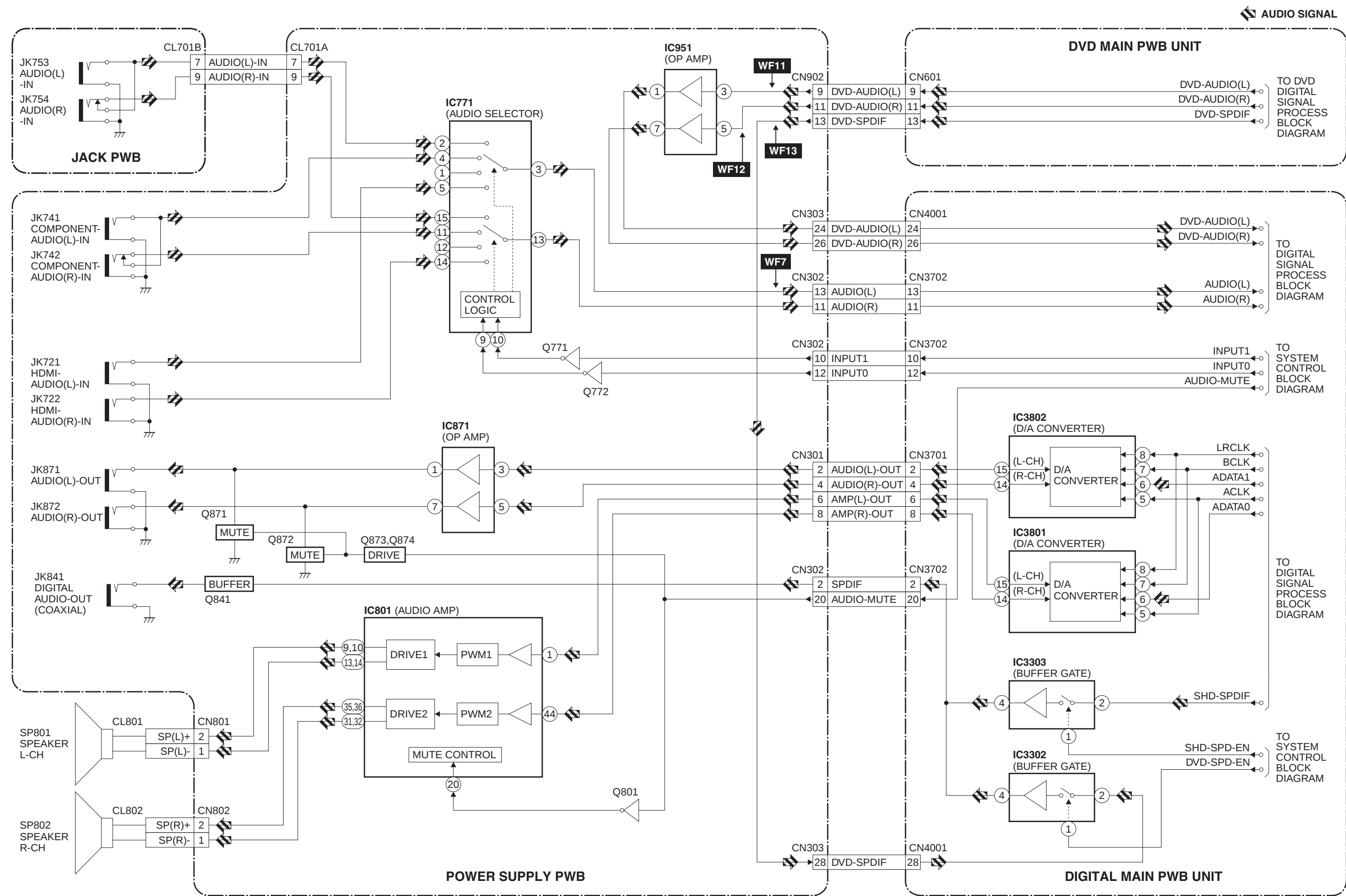
NOTE:
The voltage for parts in hot circuit is measured using
hot GND as a common terminal.



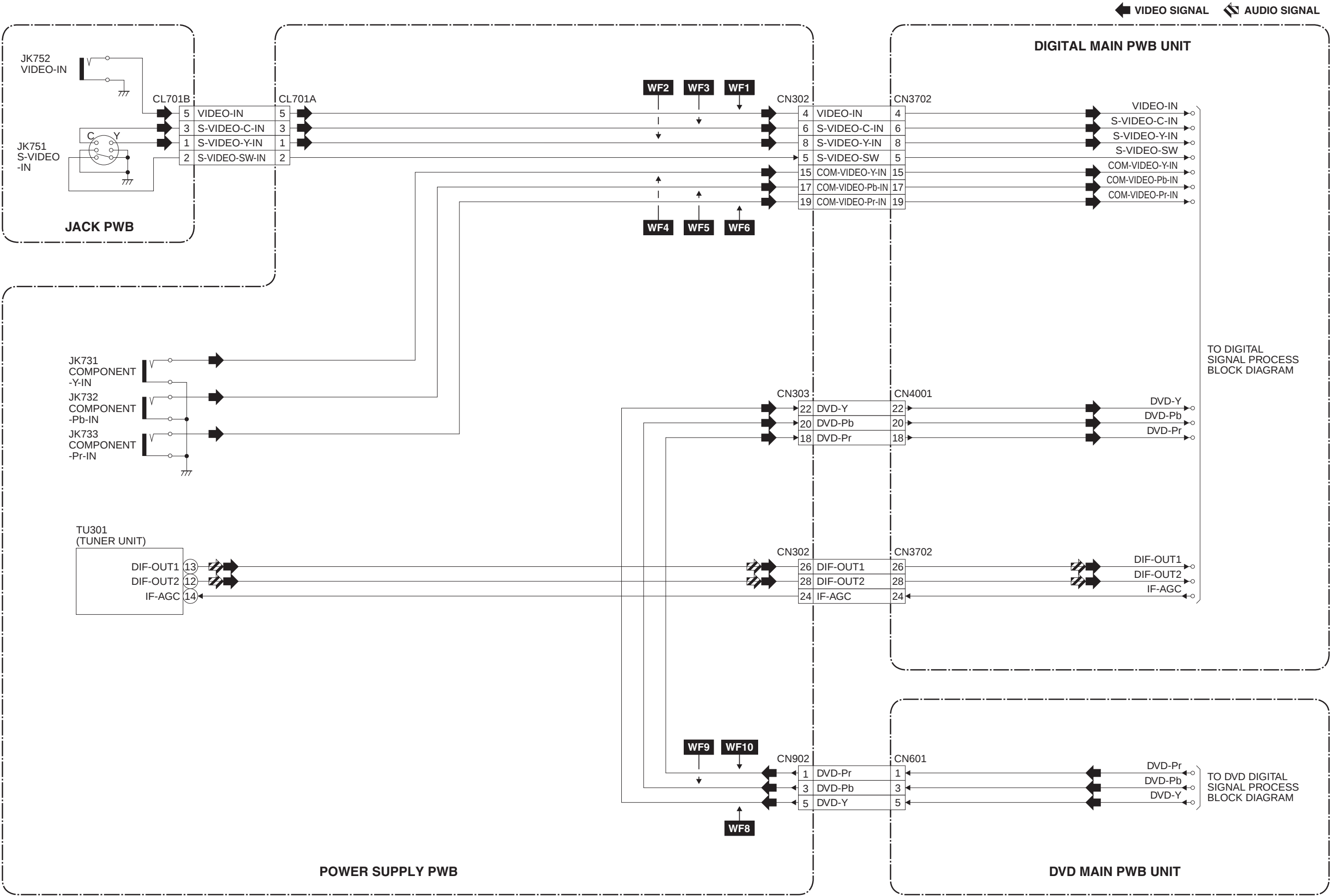
DIGITAL SIGNAL PROCESS BLOCK DIAGRAM



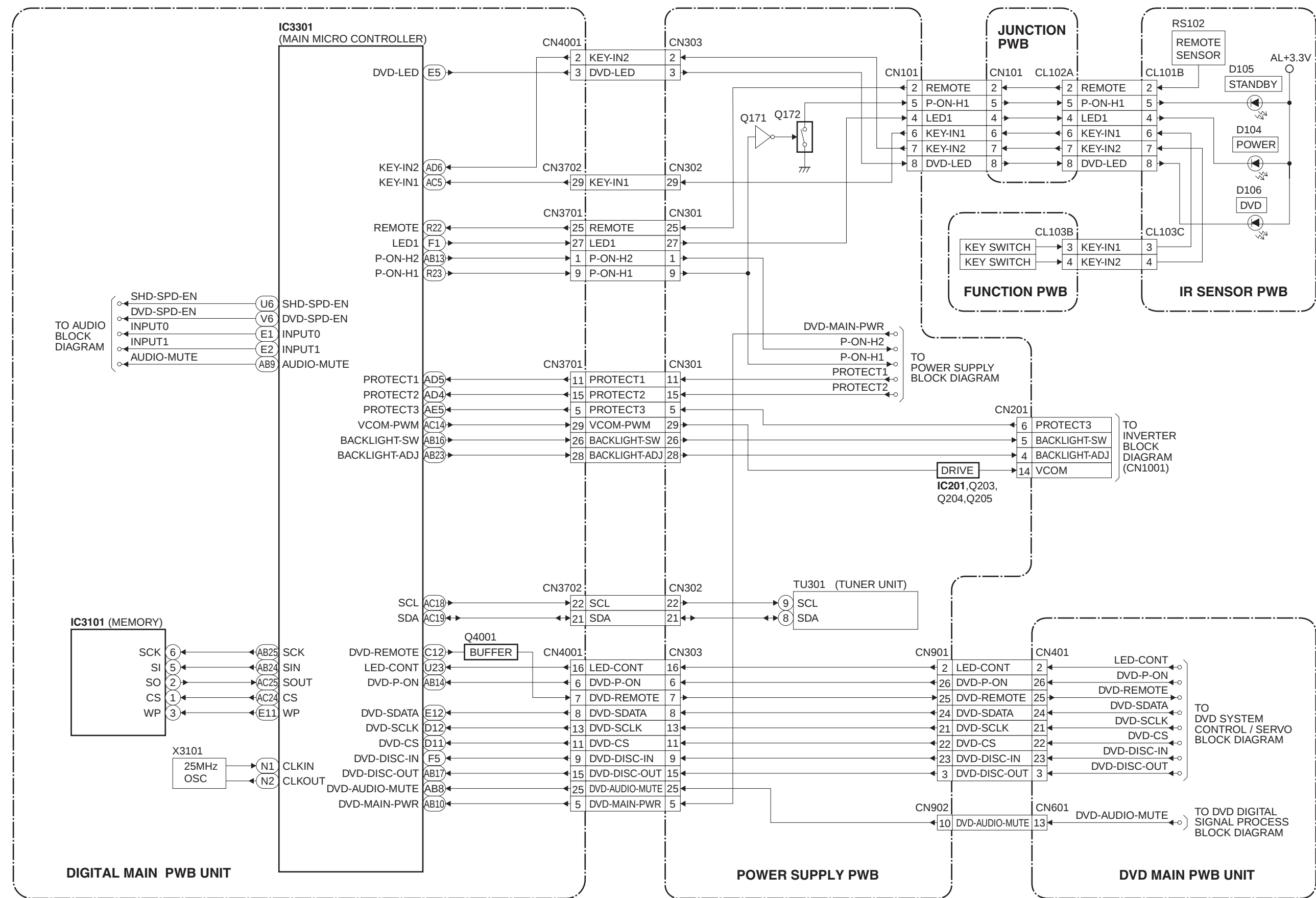
AUDIO BLOCK DIAGRAM



VIDEO BLOCK DIAGRAM

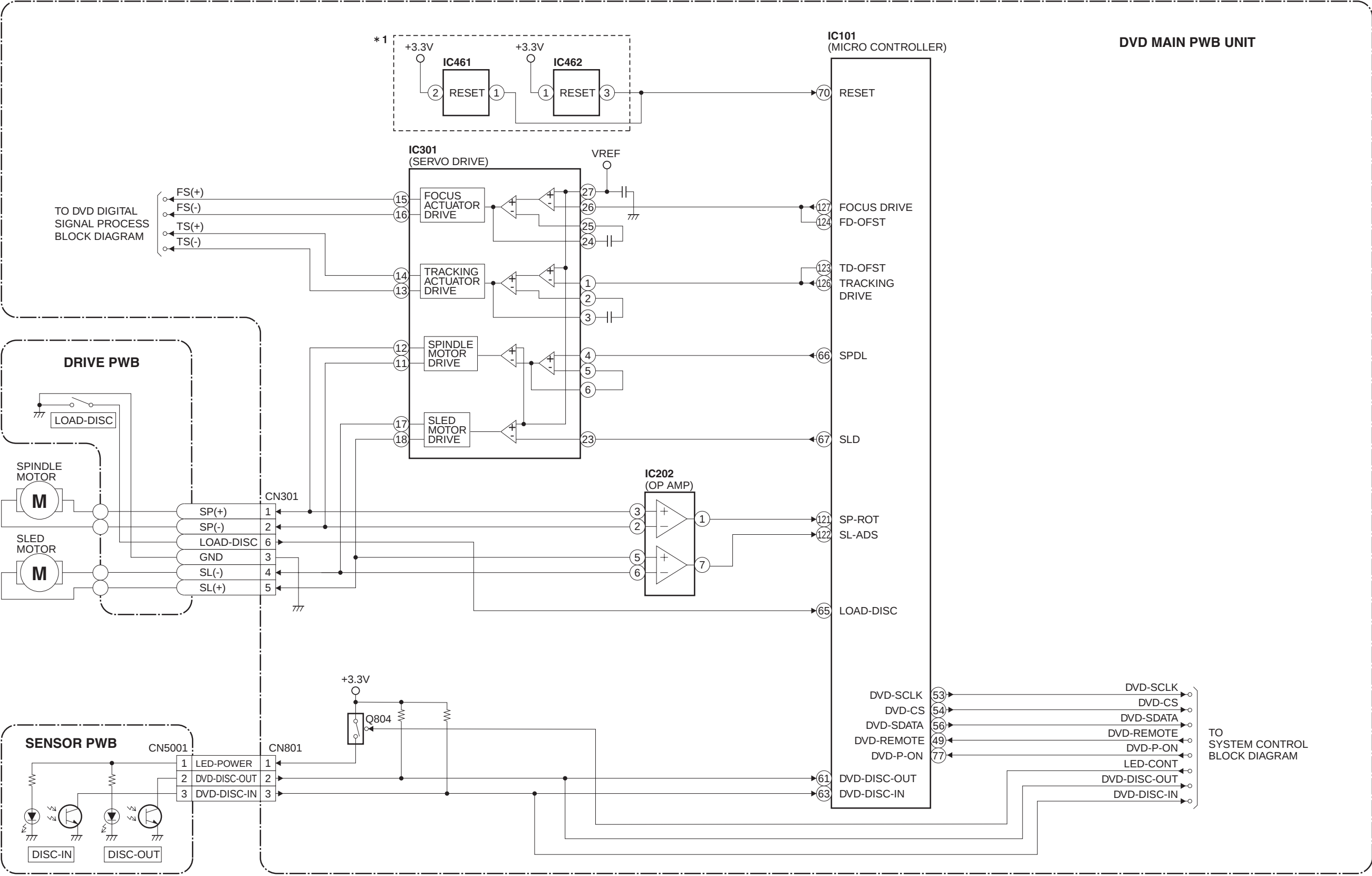


SYSTEM CONTROL BLOCK DIAGRAM

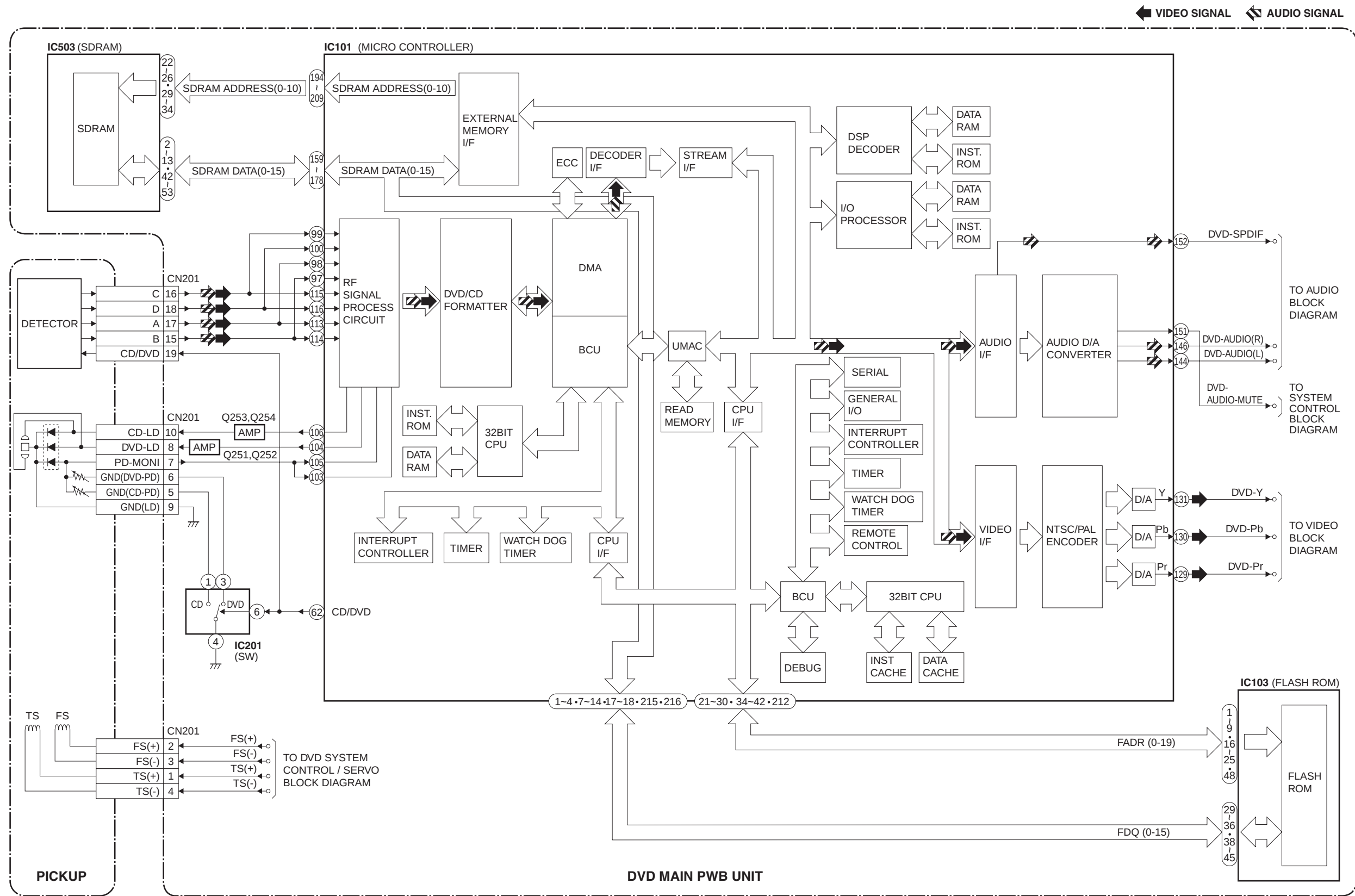


DVD SYSTEM CONTROL/SERVO BLOCK DIAGRAM

*1 NOTE:
Either IC461 or IC462 is used for DVD MAIN PWB UNIT.

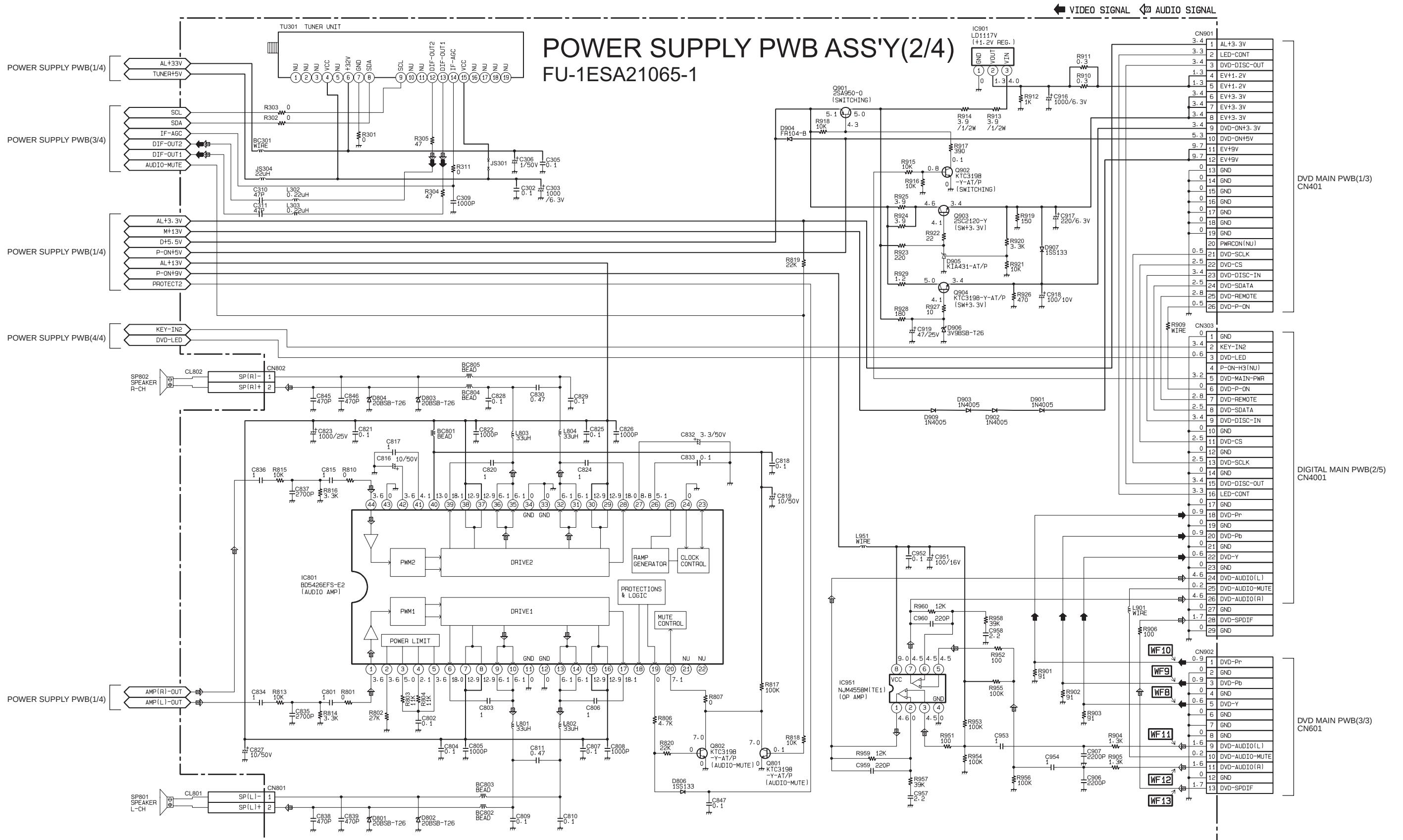


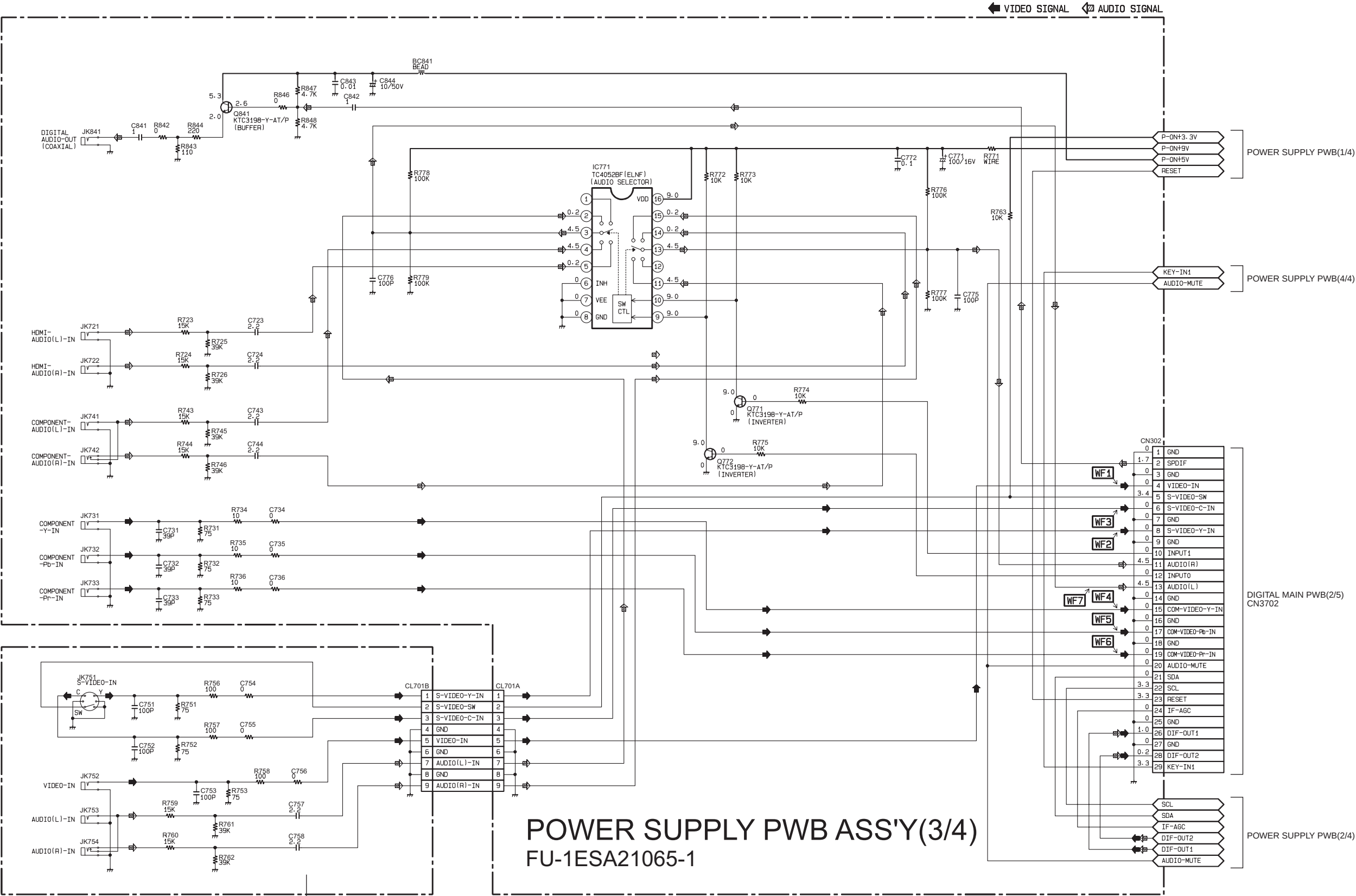
DVD DIGITAL SIGNAL PROCESS BLOCK DIAGRAM

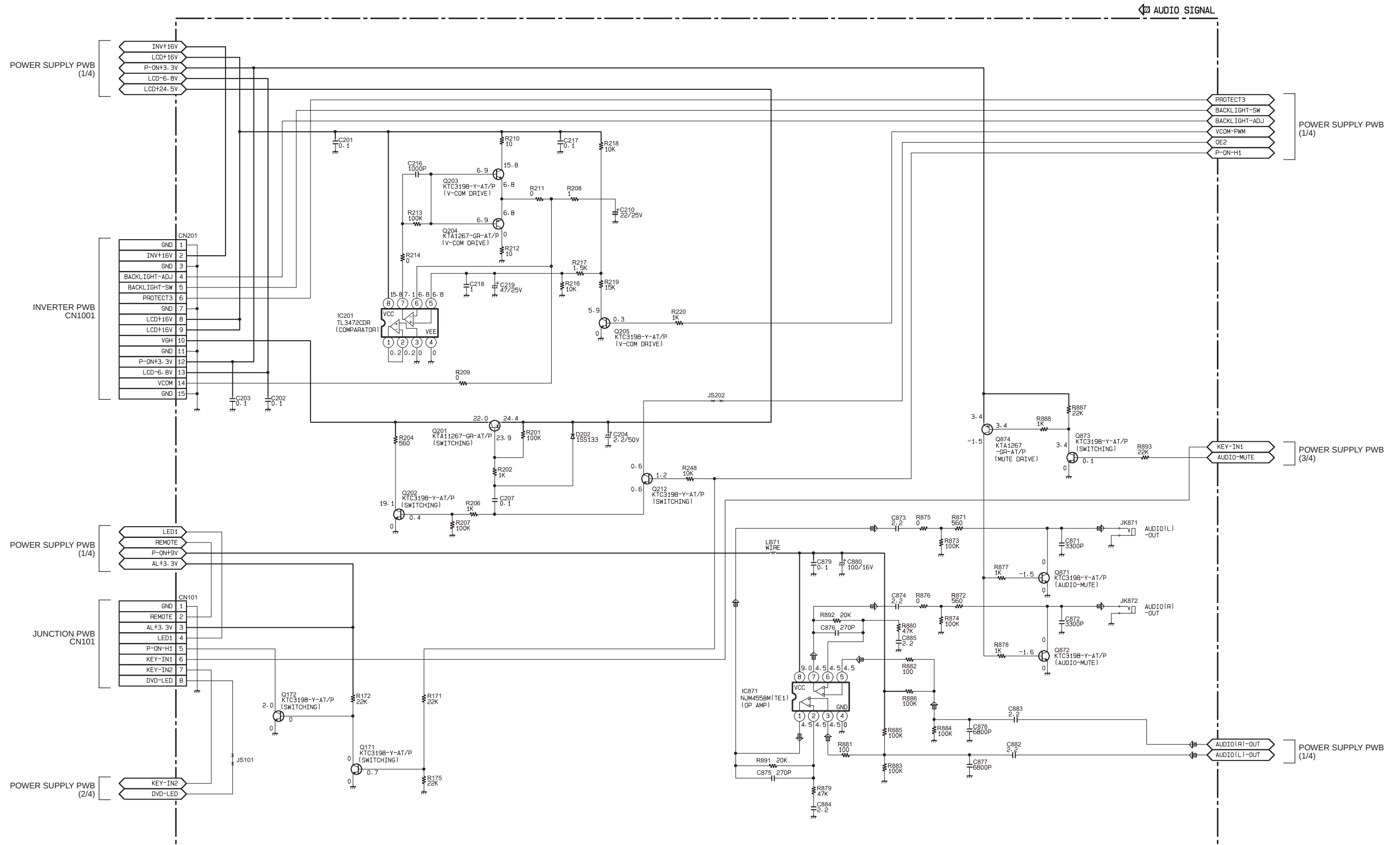


POWER SUPPLY PWB CIRCUIT DIAGRAM (1/4)



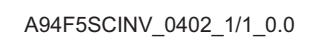


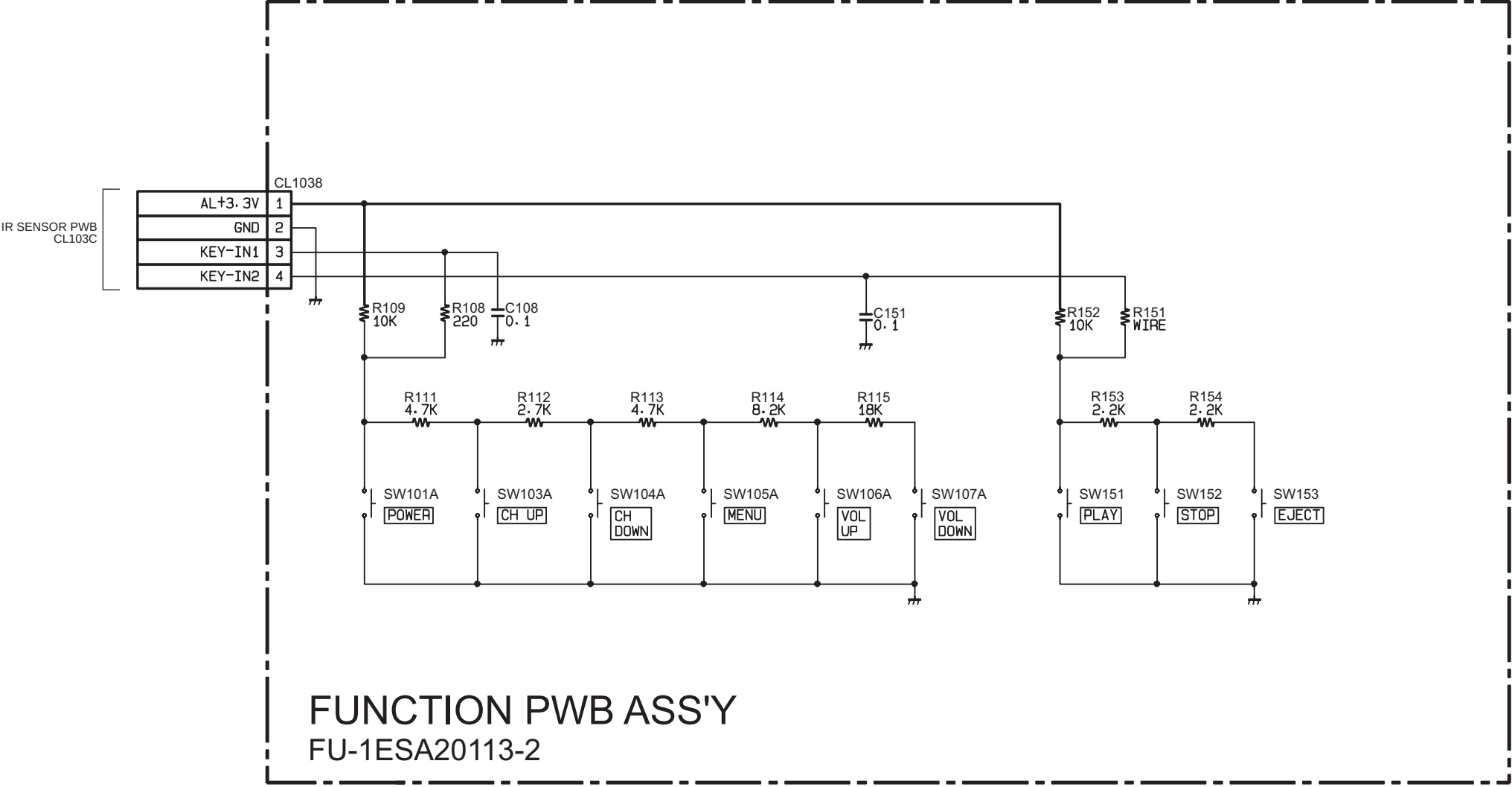


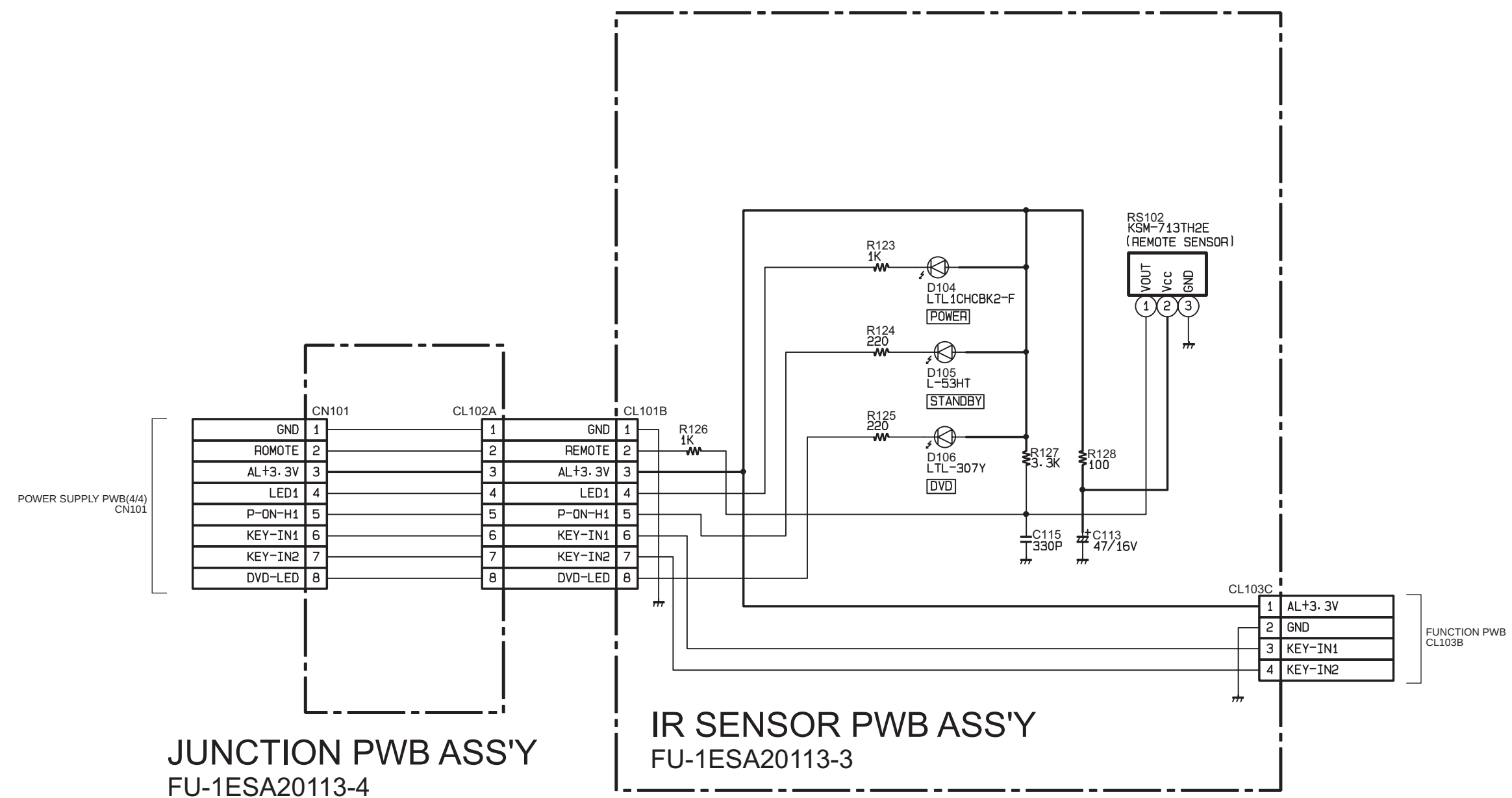


POWER SUPPLY PWB ASS'Y(4/4)
FU-1ESA21065-1

NOTE:
The voltage for parts in hot circuit is measured using hot GND as a common terminal.

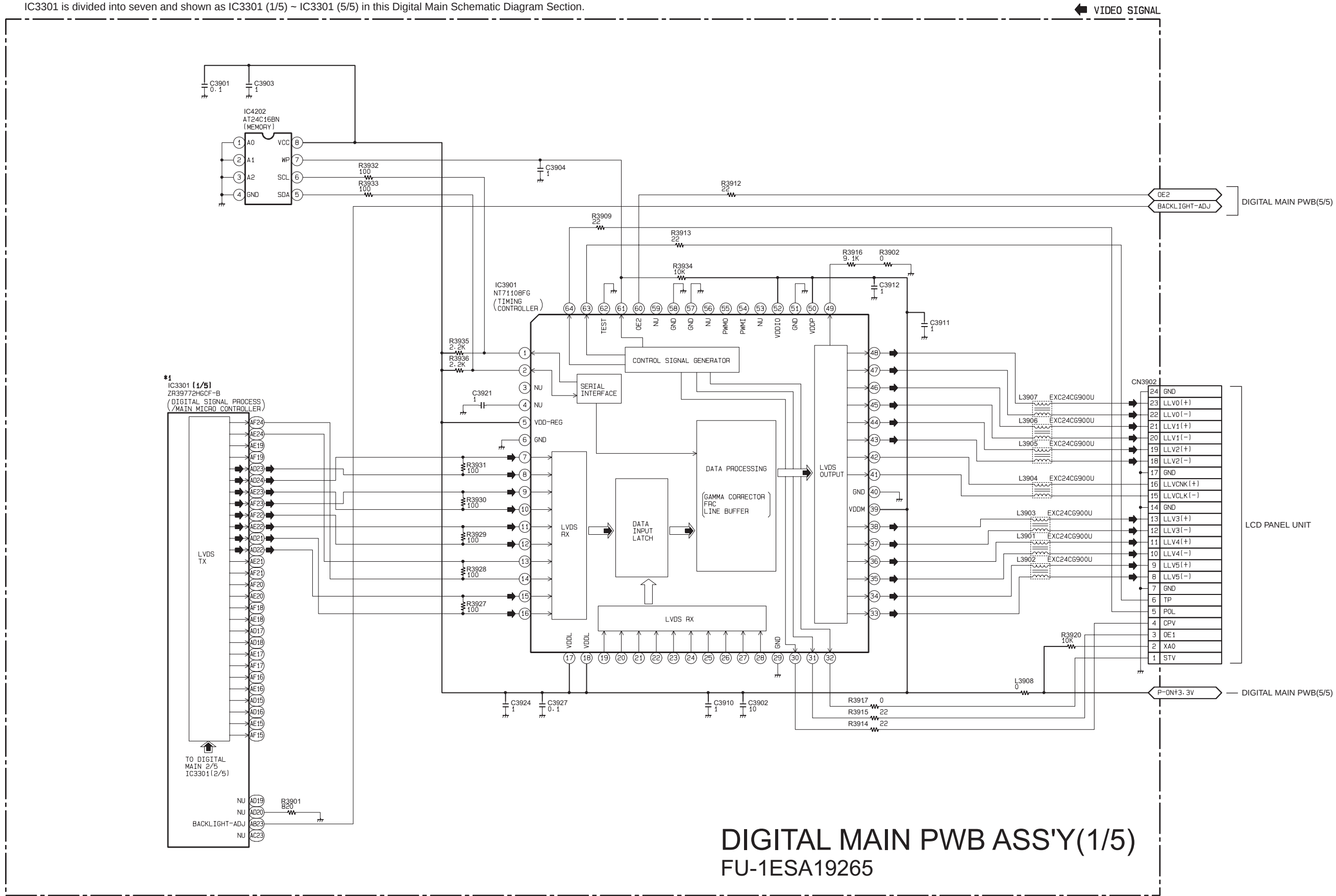






*1 NOTE:
The order of pins shown in this diagram is different from that of actual IC3301.
IC3301 is divided into seven and shown as IC3301 (1/5) ~ IC3301 (5/5) in this Digital Main Schematic Diagram Section.

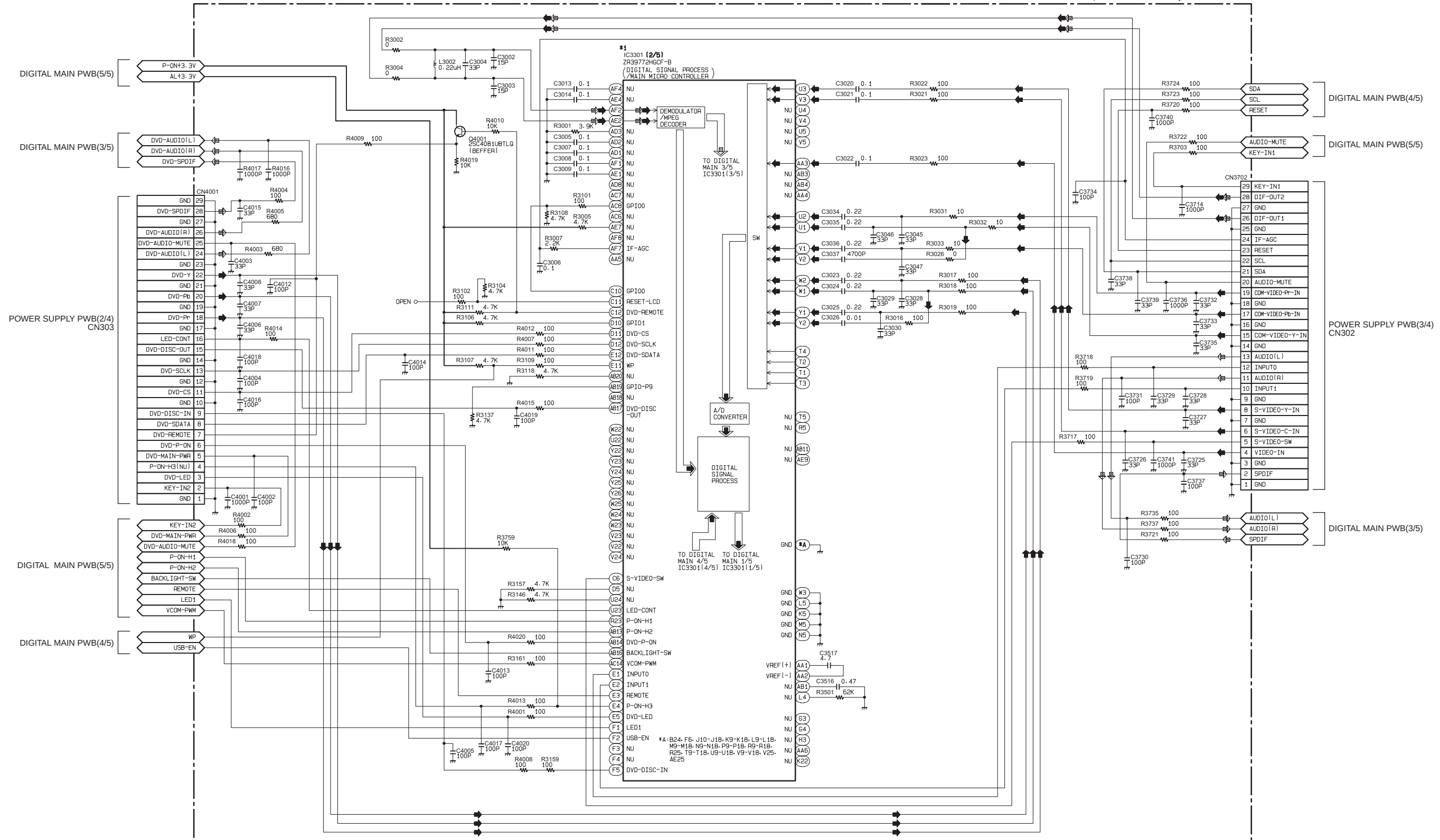
This schematic is only for reference.
Avoid replacing individual parts.
Relpace the entire PWB ASS'Y only.



DIGITAL MAIN PWB CIRCUIT DIAGRAM (2/5)

***1 NOTE:**
The order of pins shown in this diagram is different from that of actual IC3301.
IC3301 is divided into seven and shown as IC3301 (1/5) ~ IC3301 (5/5) in this Digital Main Schematic Diagram Section.

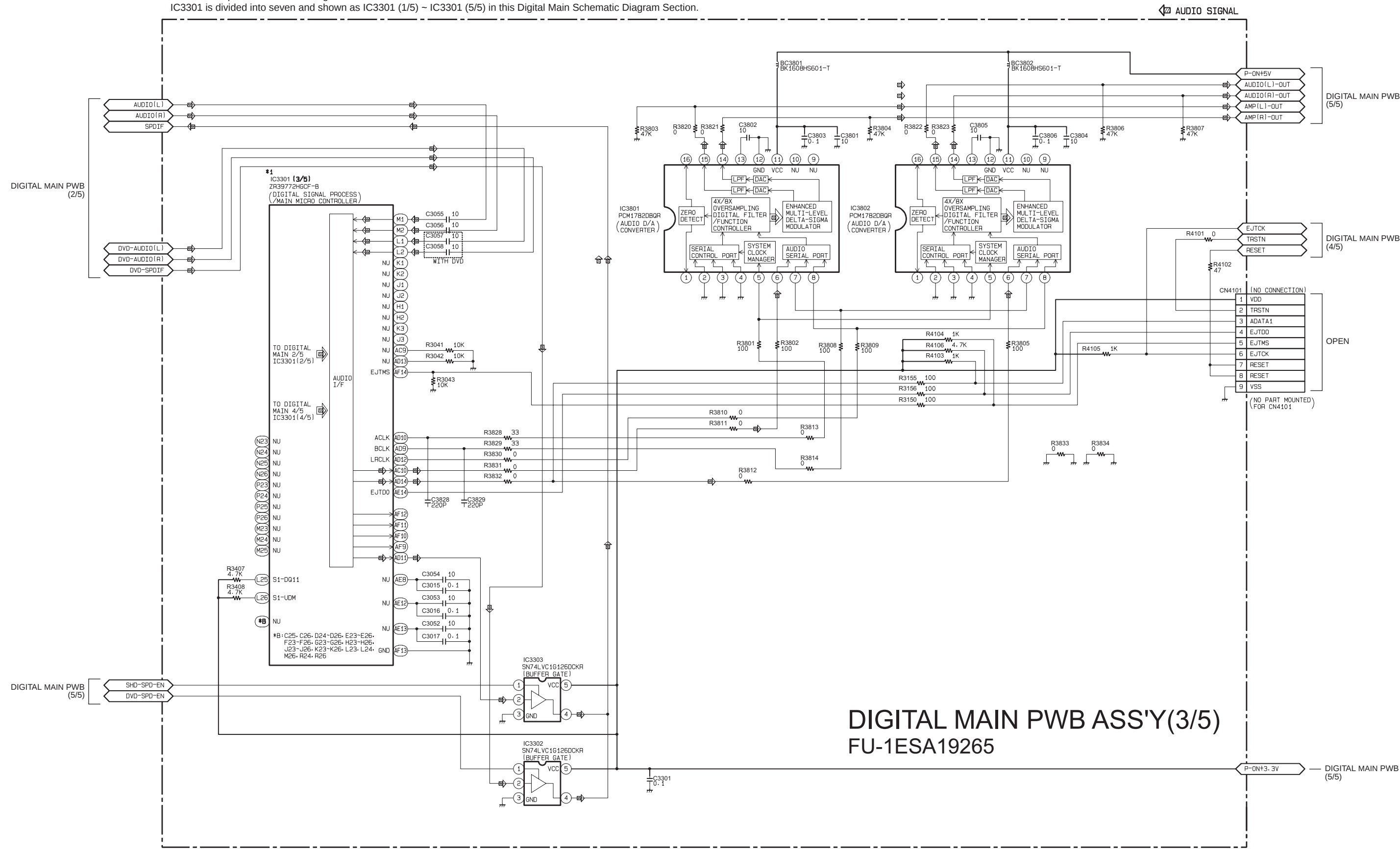
This schematic is only for reference.
Avoid replacing individual parts.
Relpace the entire PWB ASS'Y only.



DIGITAL MAIN PWB ASS'Y(2/5)
FU-1ESA19265

***1 NOTE:**
The order of pins shown in this diagram is different from that of actual IC3301.
IC3301 is divided into seven and shown as IC3301 (1/5) ~ IC3301 (5/5) in this Digital Main Schematic Diagram Section.

This schematic is only for reference.
Avoid replacing individual parts.
Relpace the entire PWB ASS'Y only.



This schematic is only for reference.
Avoid replacing individual parts.
Relpace the entire PWB ASS'Y only.

The order of pins shown in this diagram is different from that of actual IC3301.
IC3301 is divided into seven and shown as IC3301 (1/5) ~ IC3301 (5/5) in this Digital Main Schematic Diagram Section.



The order of pins shown in this diagram is different from that of actual IC3301.
IC3301 is divided into seven and shown as IC3301 (1/5) ~ IC3301 (5/5) in this Digital Main Schematic Diagram Section.



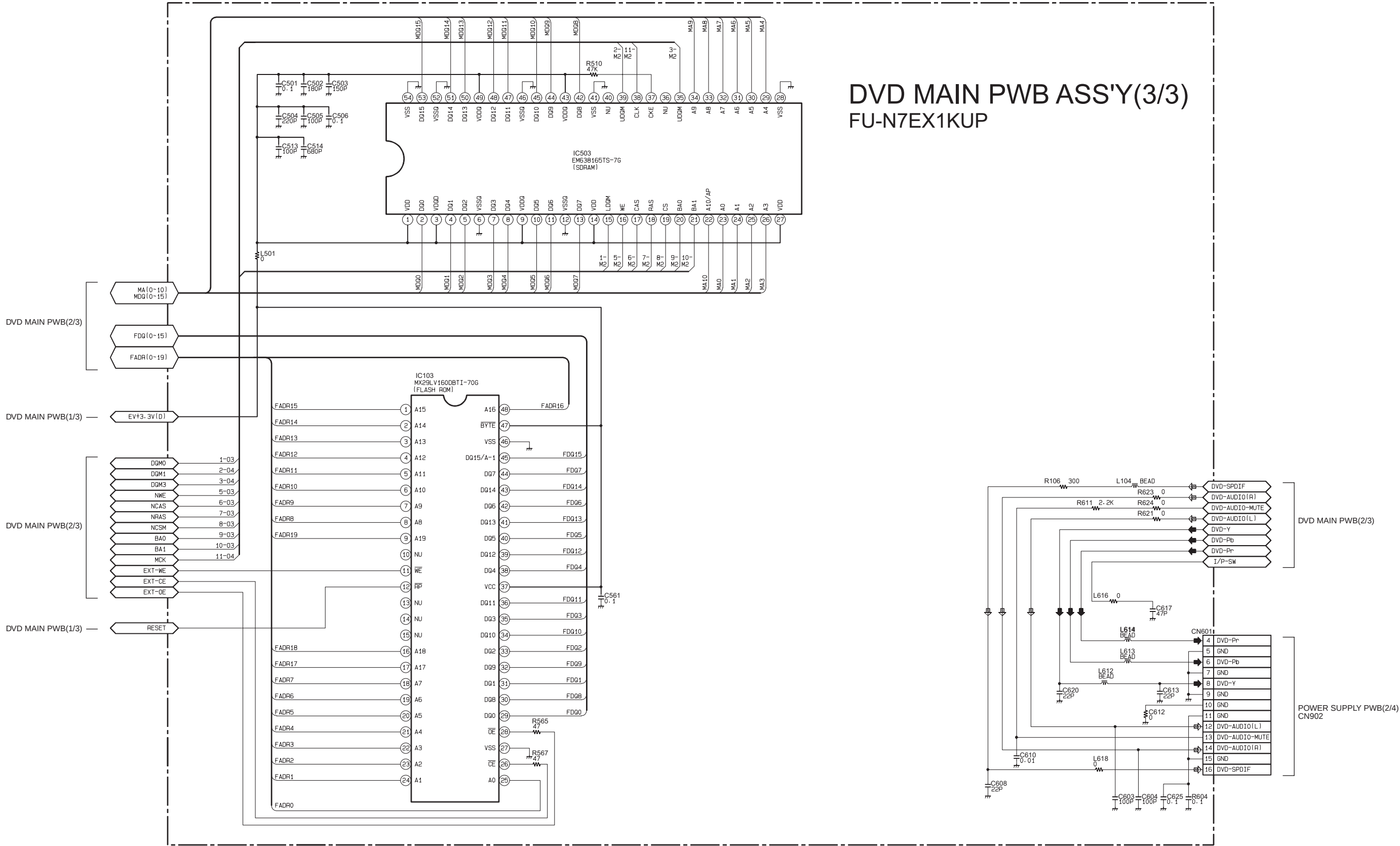
This schematic is only for reference.
Avoid replacing individual parts.
Relpace the entire PWB ASS'Y only.



This schematic is only for reference.
Avoid replacing individual parts.
Relpace the entire PWB ASS'Y only.

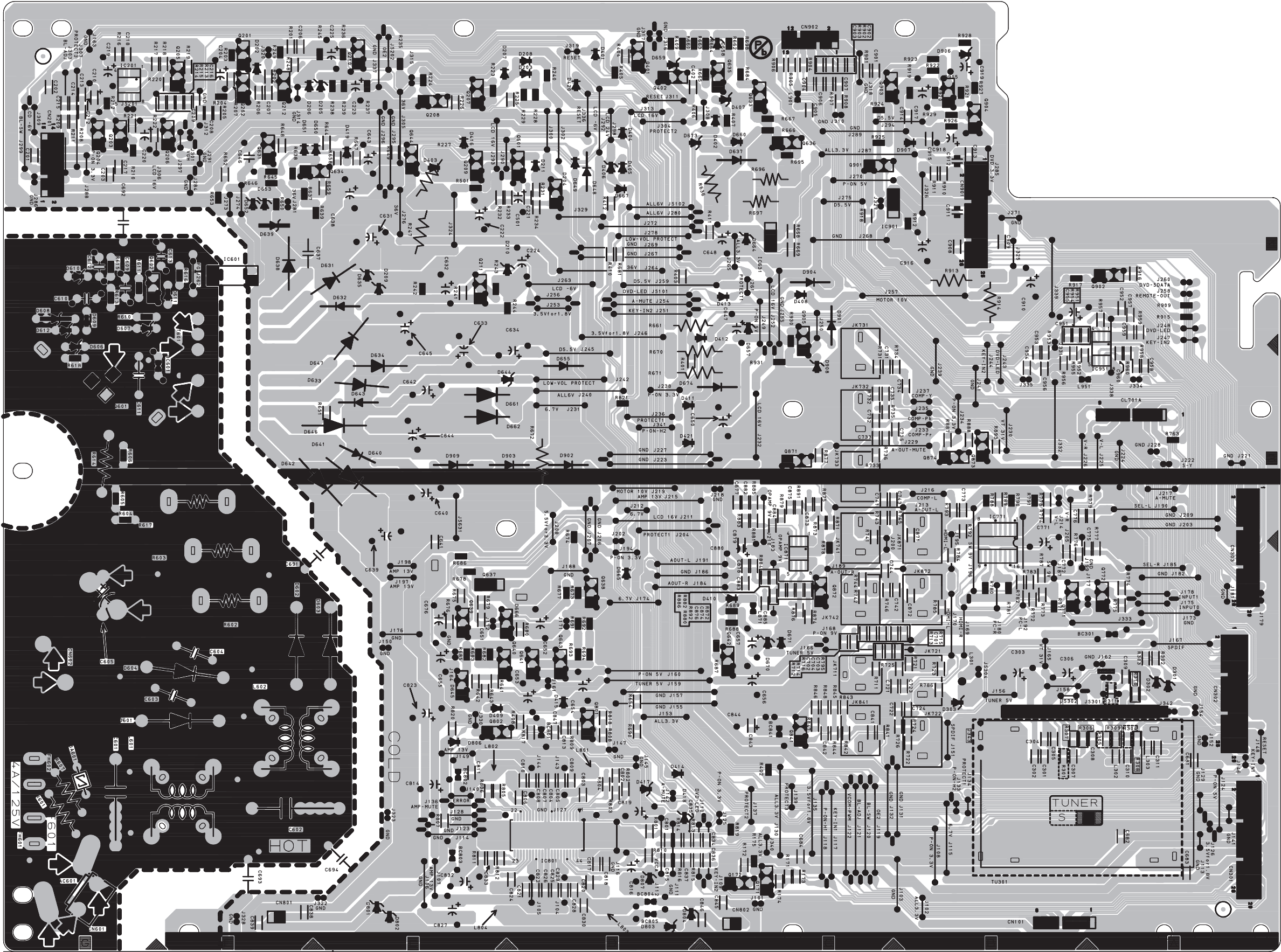
VIDEO SIGNAL AUDIO SIGNAL

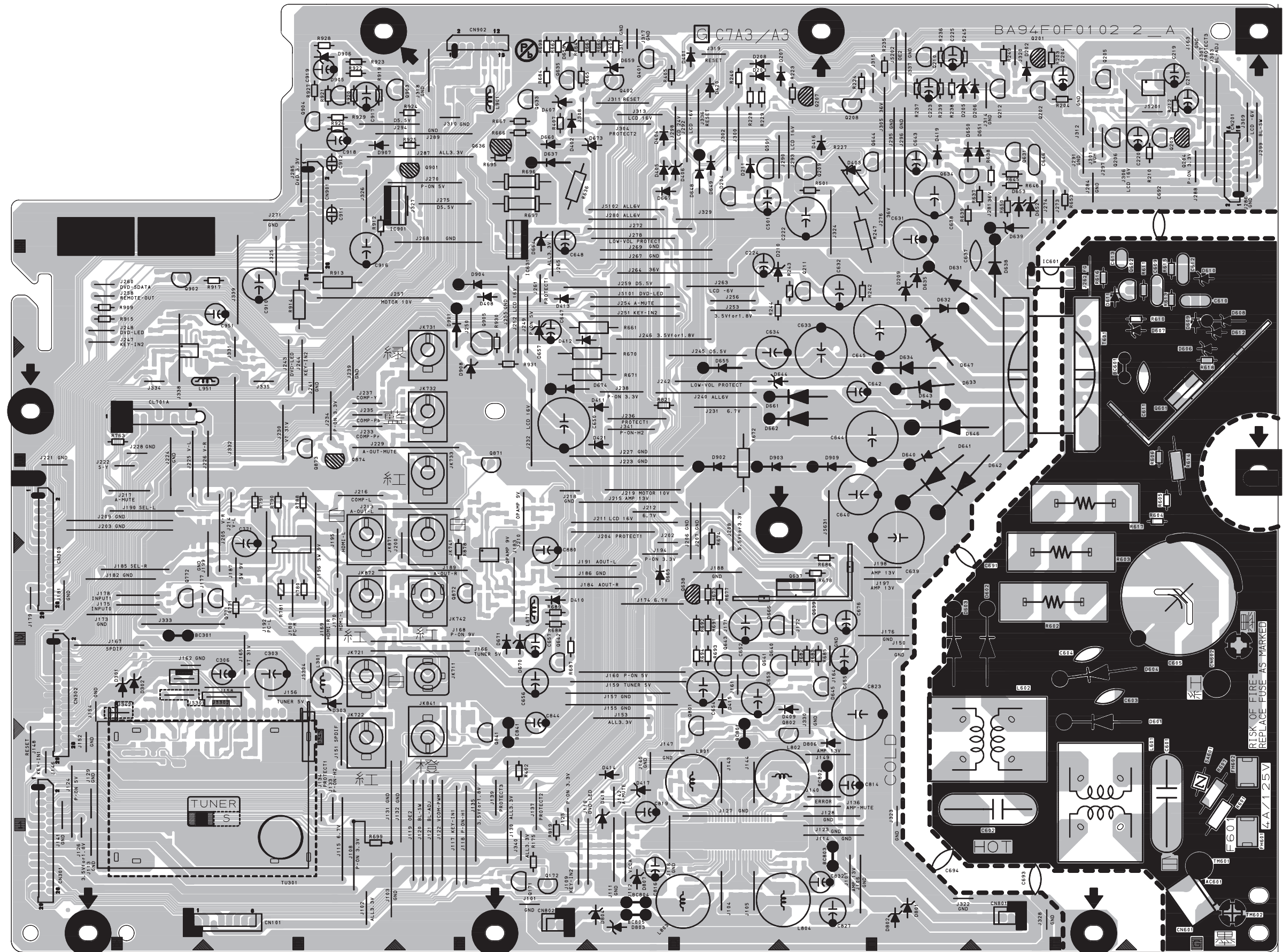
DVD MAIN PWB ASS'Y(3/3)
FU-N7EX1KUP



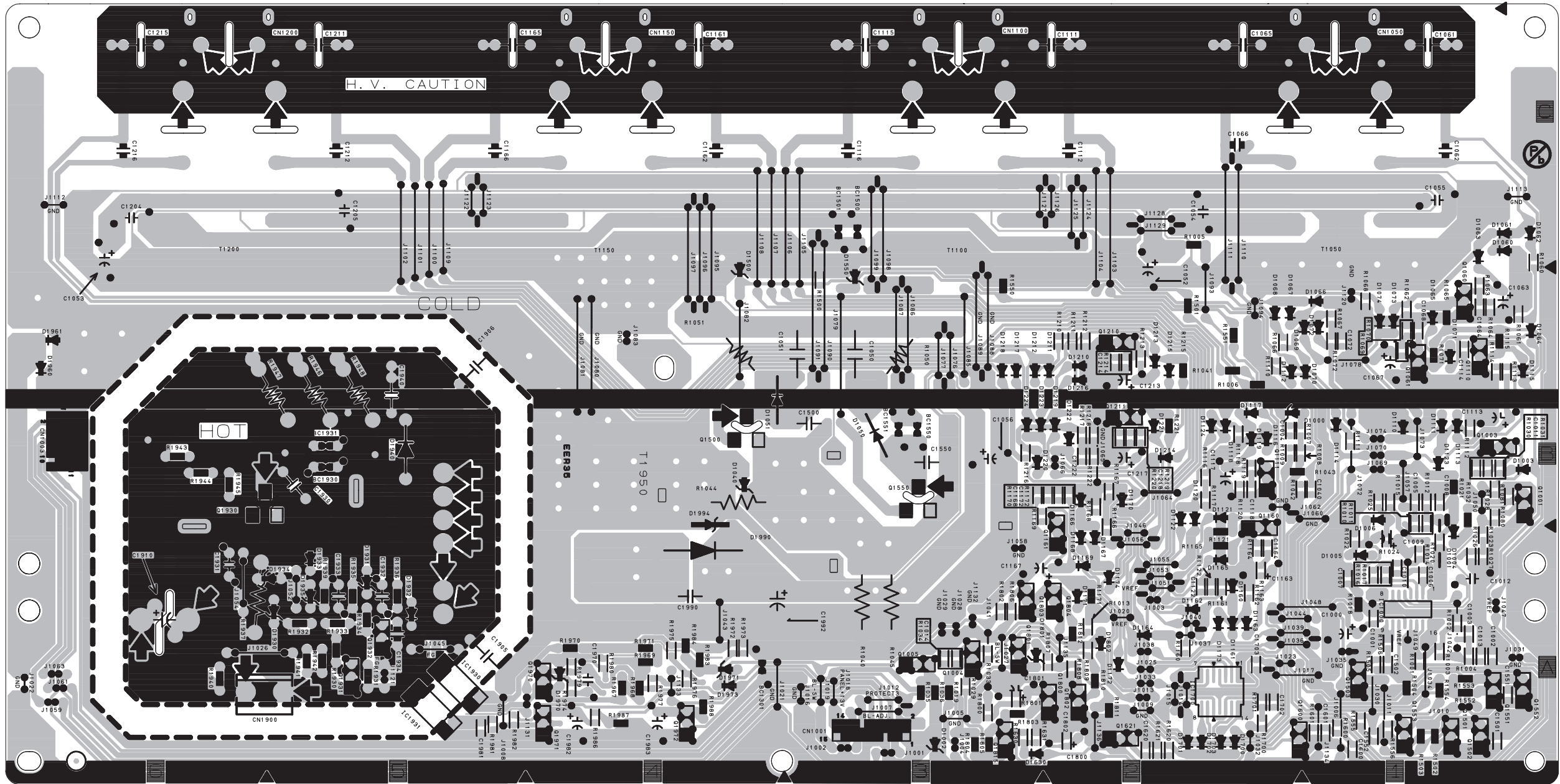
PATTERN DIAGRAMS
POWER SUPPLY PWB PATTERN [SOLDER SIDE]

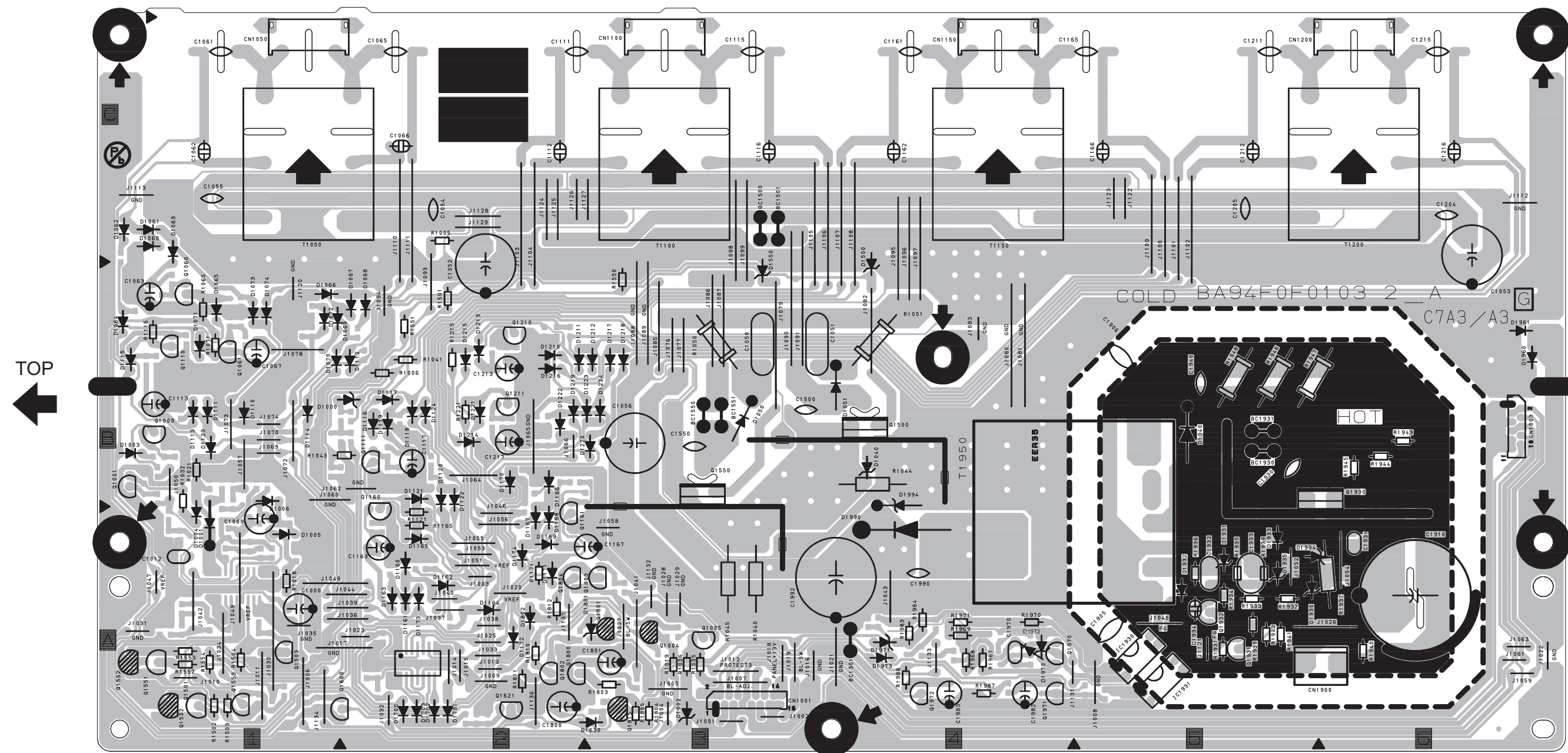
TOP
↑





TOP
↑



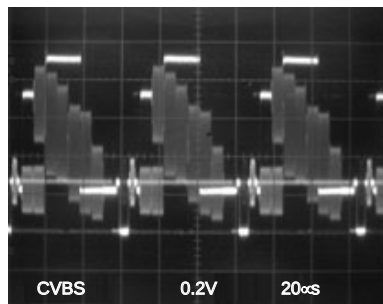


WAVEFORMS

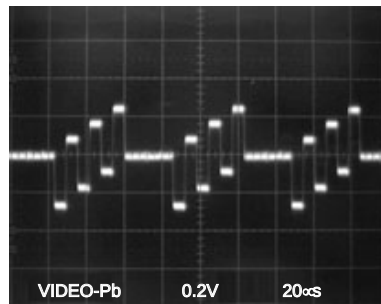
WF1 ~ WF7 = Waveforms to be observed at Waveform check points.
(Shown in Schematic Diagram.)

Input: NTSC Color Bar Signal (with 1kHz Audio Signal)

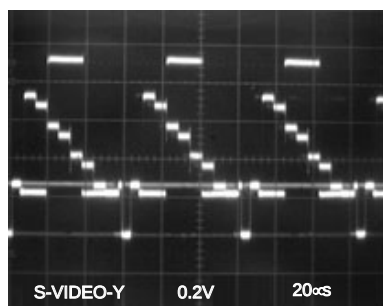
WF1 Pin 4 of CN302



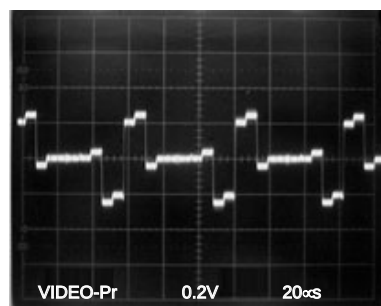
WF5 Pin 17 of CN302



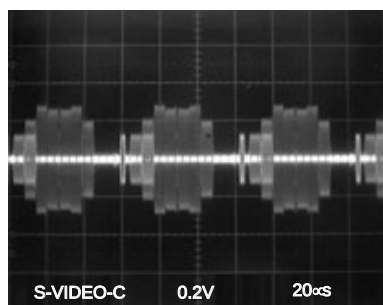
WF2 Pin 8 of CN302



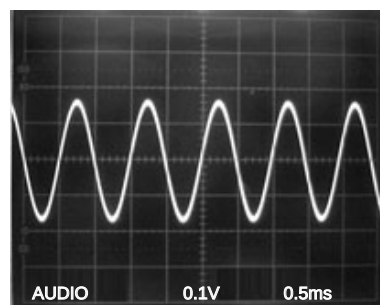
WF6 Pin 19 of CN302



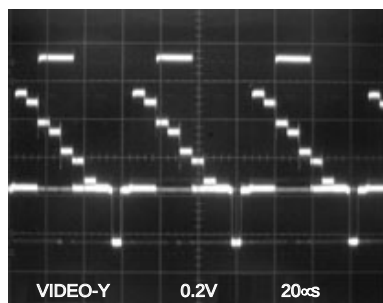
WF3 Pin 6 of CN302



WF7 Pin 13 of CN302



WF4 Pin 15 of CN302

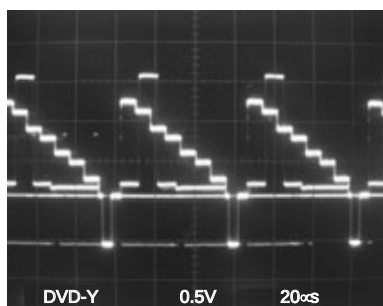


WAVEFORMS

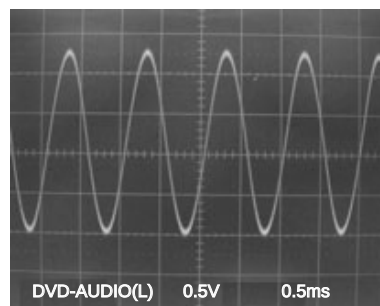
WF8 ~ WF13 = Waveforms to be observed at
Waveform check points.
(Shown in Schematic Diagram.)

Input: NTSC Color Bar Signal (with 1kHz Audio Signal)
DVD Video (Play MODE)

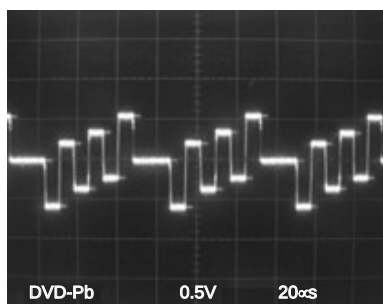
WF8 Pin 5 of CN902



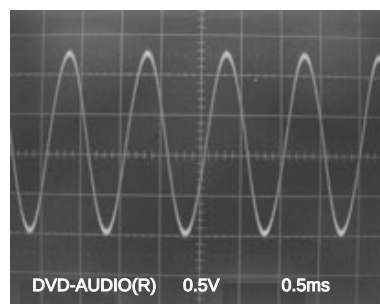
WF11 Pin 9 of CN902



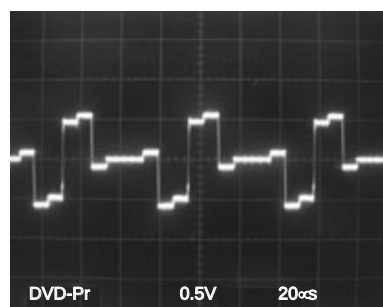
WF9 Pin 3 of CN902



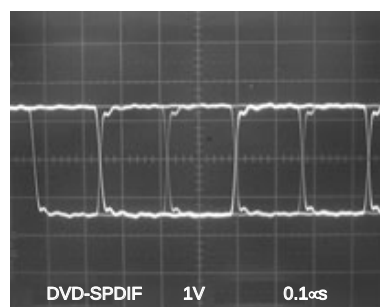
WF12 Pin 11 of CN902



WF10 Pin 1 of CN902



WF13 Pin 13 of CN902





Victor Company of Japan, Limited
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