

# JVC

# SCHEMATIC DIAGRAMS

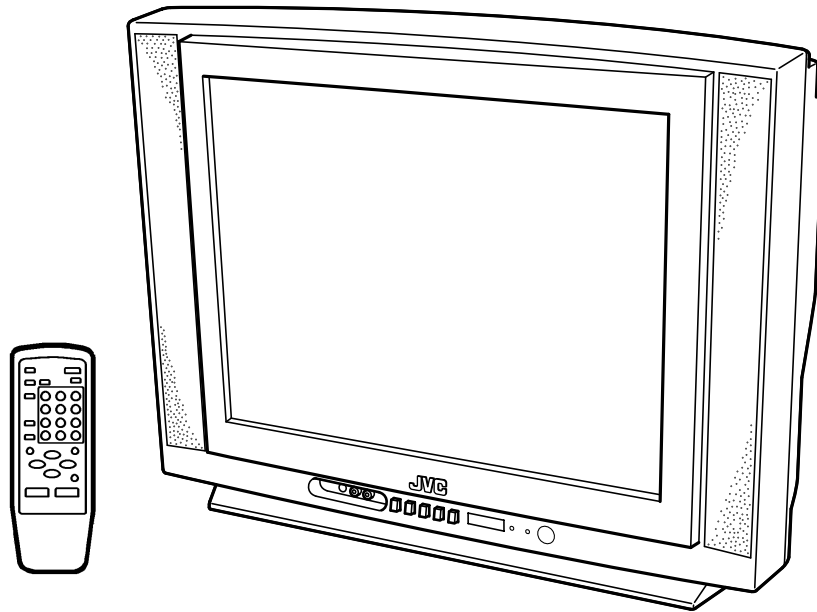
## COLOUR TELEVISION

### AV-21LT1 AV-21LT1 /-A AV-21LT1 /AU AV-2104EE

BASIC CHASSIS

CG-F

CD-ROM No.SML200110



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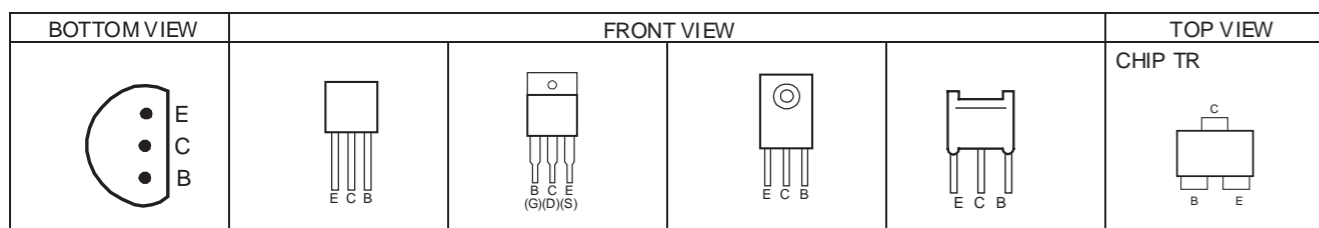
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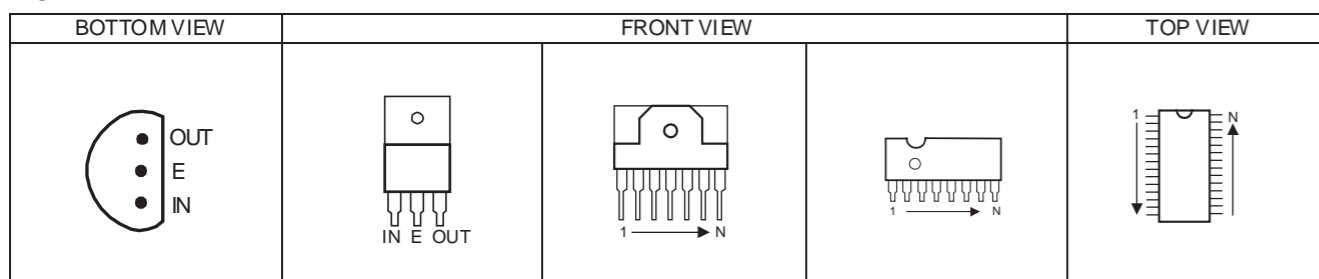
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## SEMICONDUCTOR SHAPES

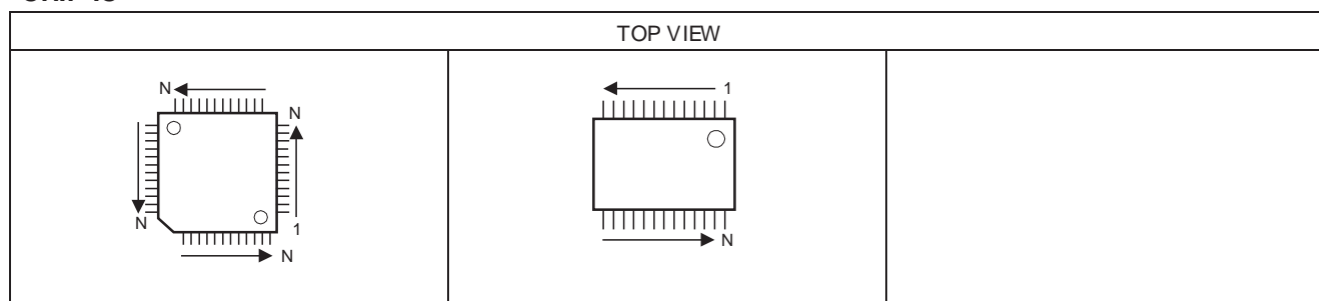
### TRANSISTOR



### IC



### CHIP IC



# 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 : Color 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.INDICATION OF PARTS SYMBOL [EXAMPLE]

- In the PW board :R1209  $\rightarrow$  R209

### 4.INDICATIONS ON THE CIRCUIT DIAGRAM

#### (1)Resistors

- Resistance value
  - No unit :[  $\Omega$  ]
  - K :[K  $\Omega$  ]
  - M :[M  $\Omega$  ]
- 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 :[ $\mu$ 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]

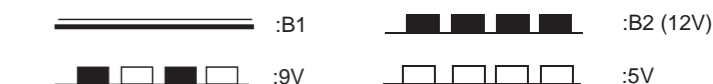
#### ● Type

- 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)Power Supply

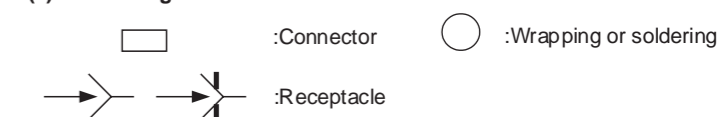


\* Respective voltage values are indicated

#### (5)Test point



#### (6)Connecting method



#### (7)Ground symbol

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

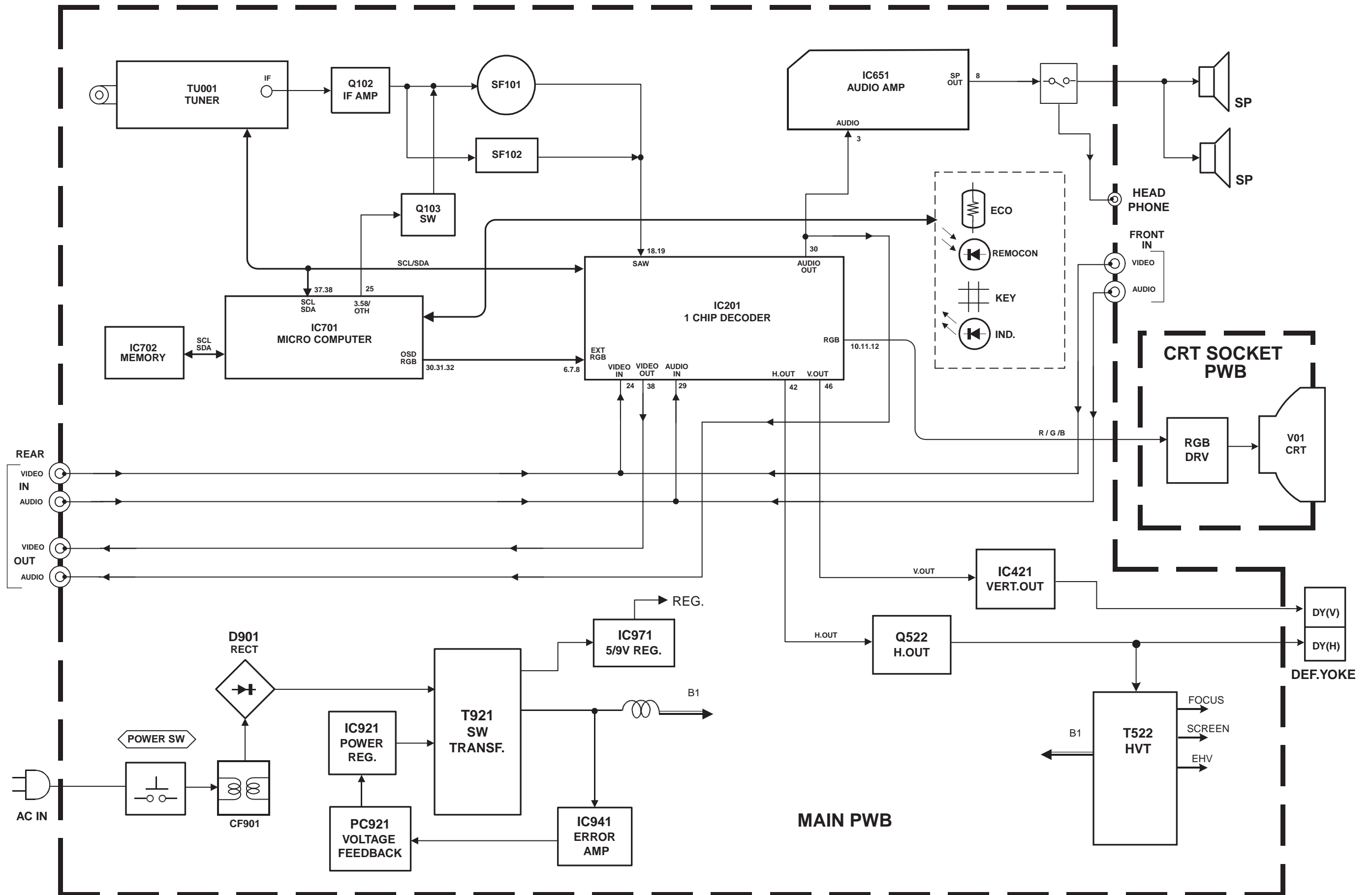
- (1)Do not touch the LIVE side GND or the LIVE side GND and the ISOLATED(NEUTRAL) side GND simultaneously. If the above caution is not respected, an electric shock may be caused. Therefore, make sure that the power cord is surely removed from the receptacle when, for example, the chassis is pulled out.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

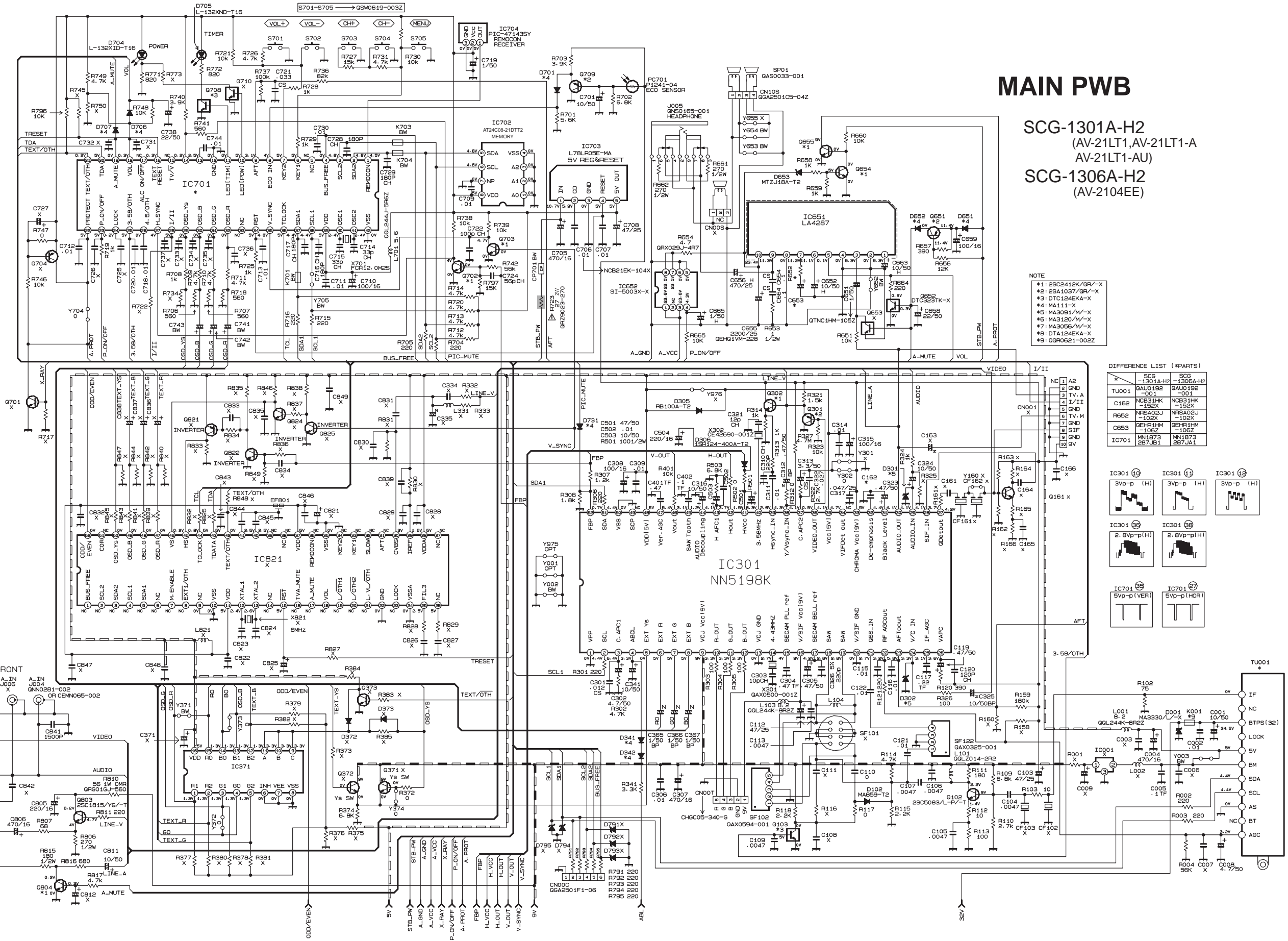
# BLOCK DIAGRAM



CIRCUIT DIAGRAMS MAIN PWB CIRCUIT DIAGRAMS [1/2]

MAIN PWB

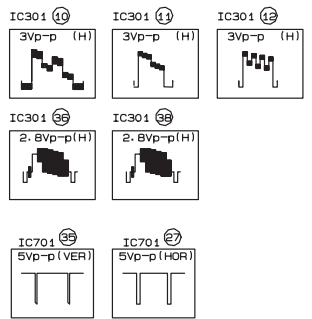
SCG-1301A-H2 (AV-21LT1, AV-21LT1-A, AV-21LT1-AU)  
 SCG-1306A-H2 (AV-2104EE)



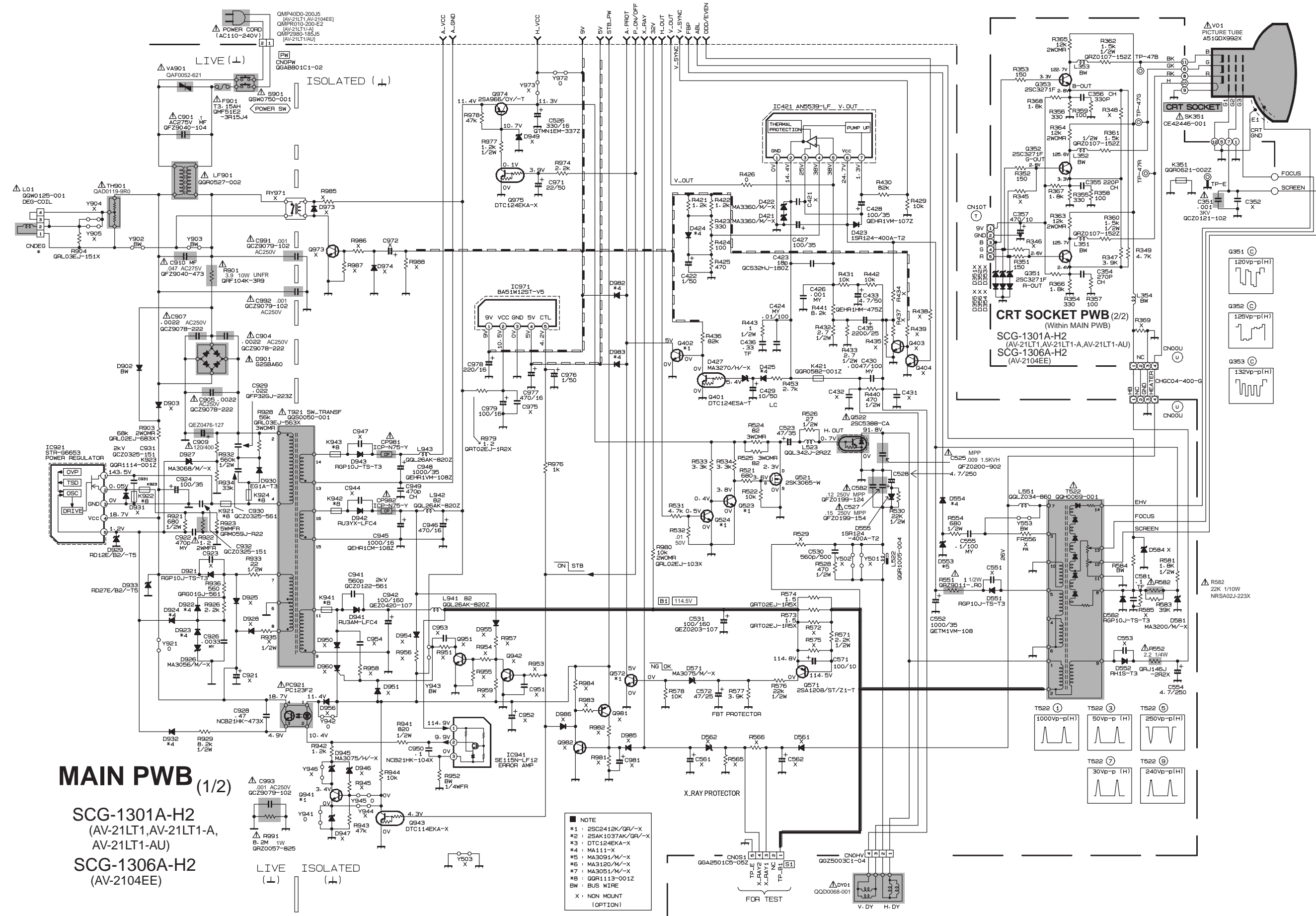
NOTE  
 #1: 2SC2412K/QR/-X  
 #2: 2SA1037/GR/-X  
 #3: DTC124EKA-X  
 #4: MA111-X  
 #5: MA3091/M/-X  
 #6: MA3120/M/-X  
 #7: MA3056/M/-X  
 #8: DTA124EKA-X  
 #9: GQR0621-002Z

DIFFERENCE LIST (\*PARTS)

NO.	SCG-1301A-H2	SCG-1306A-H2
TU001	GAU0192-001	GAU0192-001
C162	NCB31HK-152X	NCB31HK-152X
R652	NFSA02J-102X	NFSA02J-102X
C653	GEH-R11M-106Z	GEH-R11M-106Z
IC701	MN1873-287J#1	MN1873-287J#1



MAIN PWB CIRCUIT DIAGRAM [2/2]



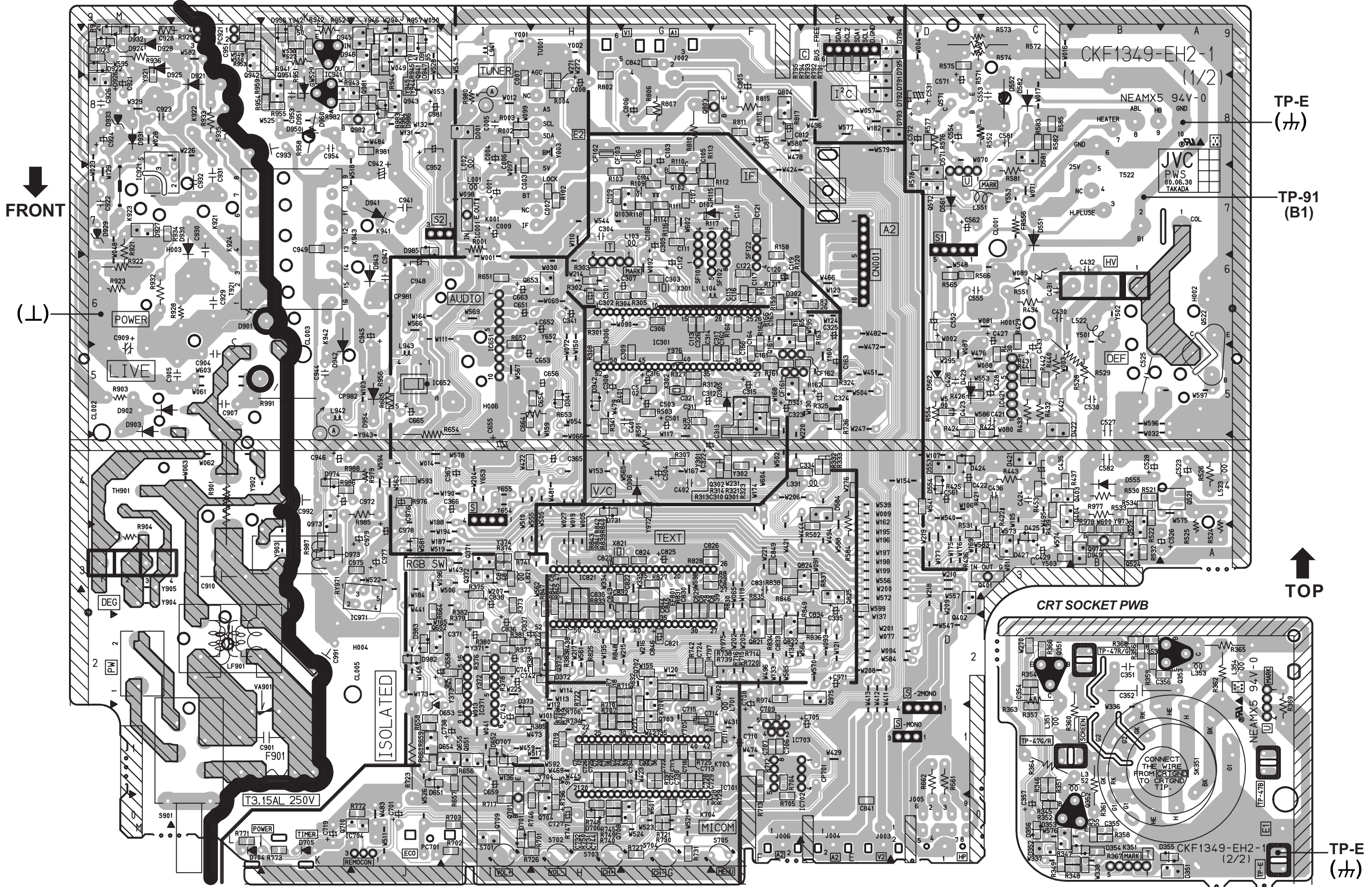
**MAIN PWB (1/2)**  
**SCG-1301A-H2**  
 (AV-21LT1, AV-21LT1-A,  
 AV-21LT1-AU)  
**SCG-1306A-H2**  
 (AV-2104EE)

LIVE (⊥)  
 ISOLATED (⊥)

- NOTE**
- \*1: 2SC2412K/GR/-X
  - \*2: 2SAK1037AK/GR/-X
  - \*3: DTC124EKA-X
  - \*4: MA111-X
  - \*5: MA3091/M/-X
  - \*6: MA3120/M/-X
  - \*7: MA3051/M/-X
  - \*8: GQR1113-001Z
  - BW: BUS WIRE
  - X: NON MOUNT (OPTION)

PATTERN DIAGRAMS MAIN PWB & CRT SOCKET PWB PATTERN

MAIN PWB



**JVC**

VICTOR COMPANY OF JAPAN, LIMITED

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

AV21LT1-H #4, AV21LT1A-H #4, AV21LT1AU-H #4  
AV2104EE-H #4



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