

Preliminary

# JVC

## SCHEMATIC DIAGRAMS

COLOUR TELEVISION

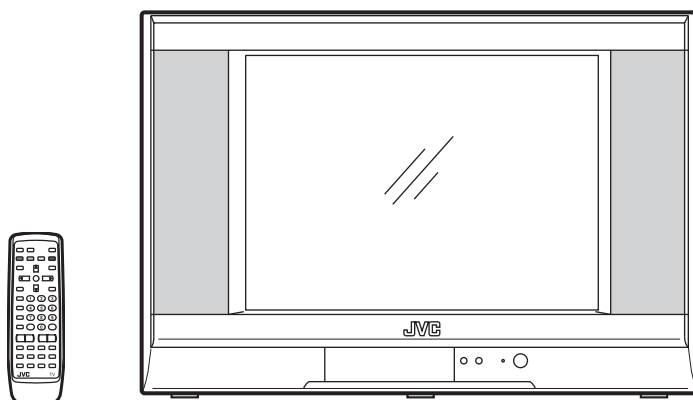
**AV-2186ME, AV-21MS16<sub>/H</sub>,  
AV-21MS26, AV-21MX16<sub>/G</sub>,  
AV-21MX16<sub>/S</sub>, AV-21MX56<sub>/S</sub>,  
AV-21MX76<sub>/G</sub>**

CD-ROM No.SML200607

BASIC CHASSIS

CW3

InterArt  
MaxxBass®




# AV-2186ME, AV-21MS16/H, AV-21MS26, AV-21MX16/G, AV-21MX16/s, AV-21MX56/s, AV-21MX76/G

## 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 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 : R209  $\rightarrow$  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



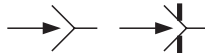
-  : B1
-  : B2 (12V)
-  : 9V
-  : 5V

\* 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 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. (No.YA442)2-1

CONTENTS

SEMICONDUCTOR SHAPES .....2-2

BLOCK DIAGRAM

[AV-21MS16/H, AV-21MS26, AV-21MX16/G, AV-21MX16/S] ..... 2-3

[AV-2186ME, AV-21MX56/S,AV-21MX76/G] ..... 2-5

CIRCUIT DIAGRAMS

MAIN PWB CIRCUIT DIAGRAM [AV-2186ME, AV-21MX56/S, AV-21MX76/G] (1/4), (2/4) ..... 2-7

MAIN PWB CIRCUIT DIAGRAM [AV-2186ME, AV-21MX56/S, AV-21MX76/G] (3/4), (4/4) ..... 2-9

MAIN PWB CIRCUIT DIAGRAM [AV-21MS16/H, AV-21MS26] (1/4), (2/4) .....2-11

MAIN PWB CIRCUIT DIAGRAM [AV-21MS16/H, AV-21MS26] (3/4), (4/4) ..... 2-13

MAIN PWB CIRCUIT DIAGRAM [AV-21MX16/G, AV-21MX16/S] (1/4), (2/4) ..... 2-15

MAIN PWB CIRCUIT DIAGRAM [AV-21MX16/G, AV-21MX16/S] (3/4), (4/4) ..... 2-17

BASS PWB CIRCUIT DIAGRAM ..... 2-19

PATTERN DIAGRAMS

MAIN PWB PATTERN ..... 2-21

BASS PWB PATTERN ..... 2-23

VOLTAGE CHATRS..... 2-25

WAVEFORMS ..... 2-26

USING P.W. BOARD

P.W.B ASS'Y name	AV-2186ME	AV-21MX56/S	AV-21MX76/G	AV-21MS16/H
MAIN P.W. BOARD	SCW-1901A-H2	SCW-1911A-H2	SCW-1908A-H2	SCW-1903A-H2
BASS P.W. BOARD	SCW-6001A-H2	←	←	←

P.W.B ASS'Y name	AV-21MS26	AV-21MX16/G	AV-21MX16/S
MAIN P.W. BOARD	SCW-1902A-H2	SCW-1910A-H2	SCW-1912A-H2
BASS P.W. BOARD	SCW-6001A-H2	←	←

SEMICONDUCTOR SHAPES

TRANSISTOR

BOTTOM VIEW	FRONT VIEW				TOP VIEW
					CHIP TR 

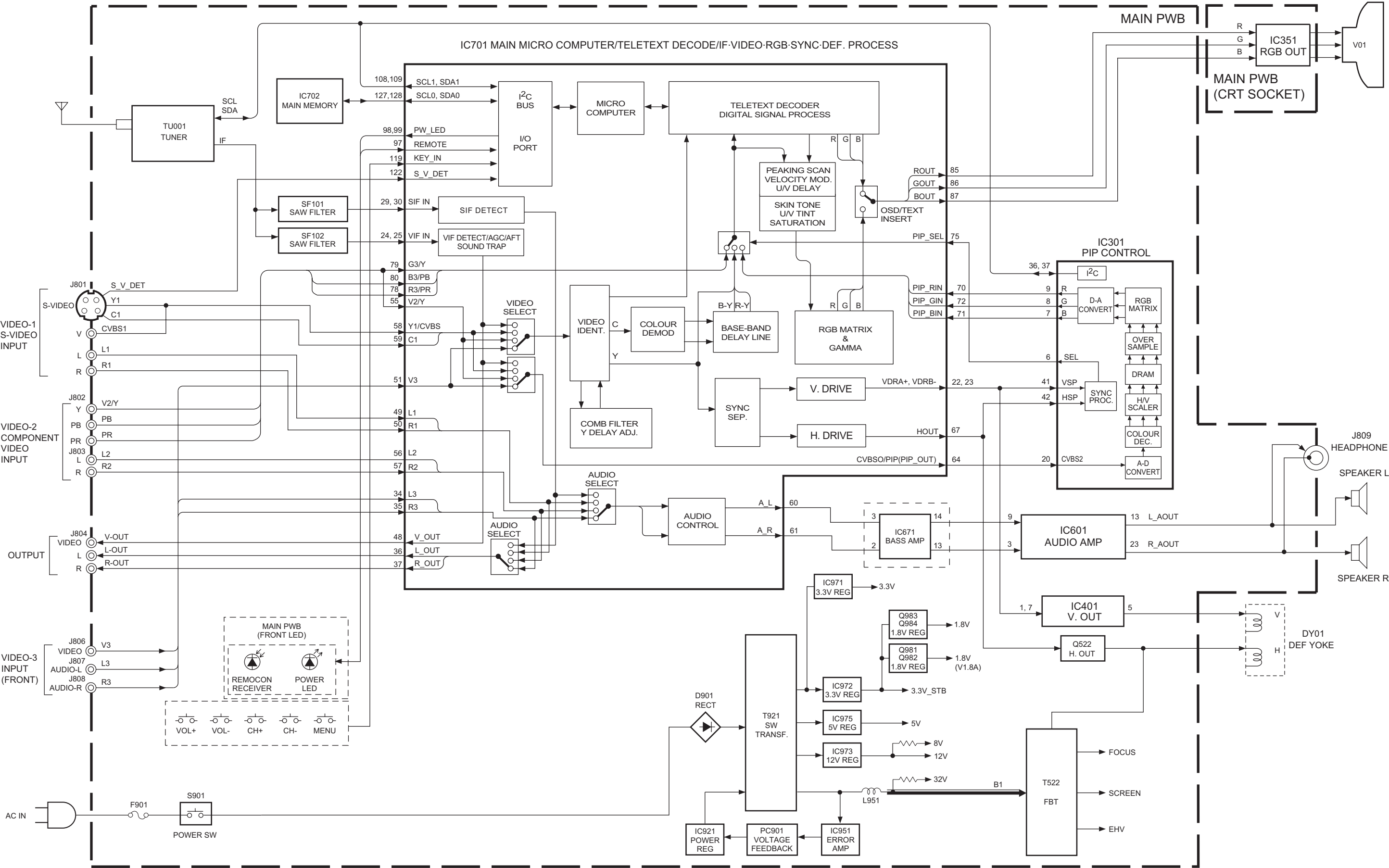
IC

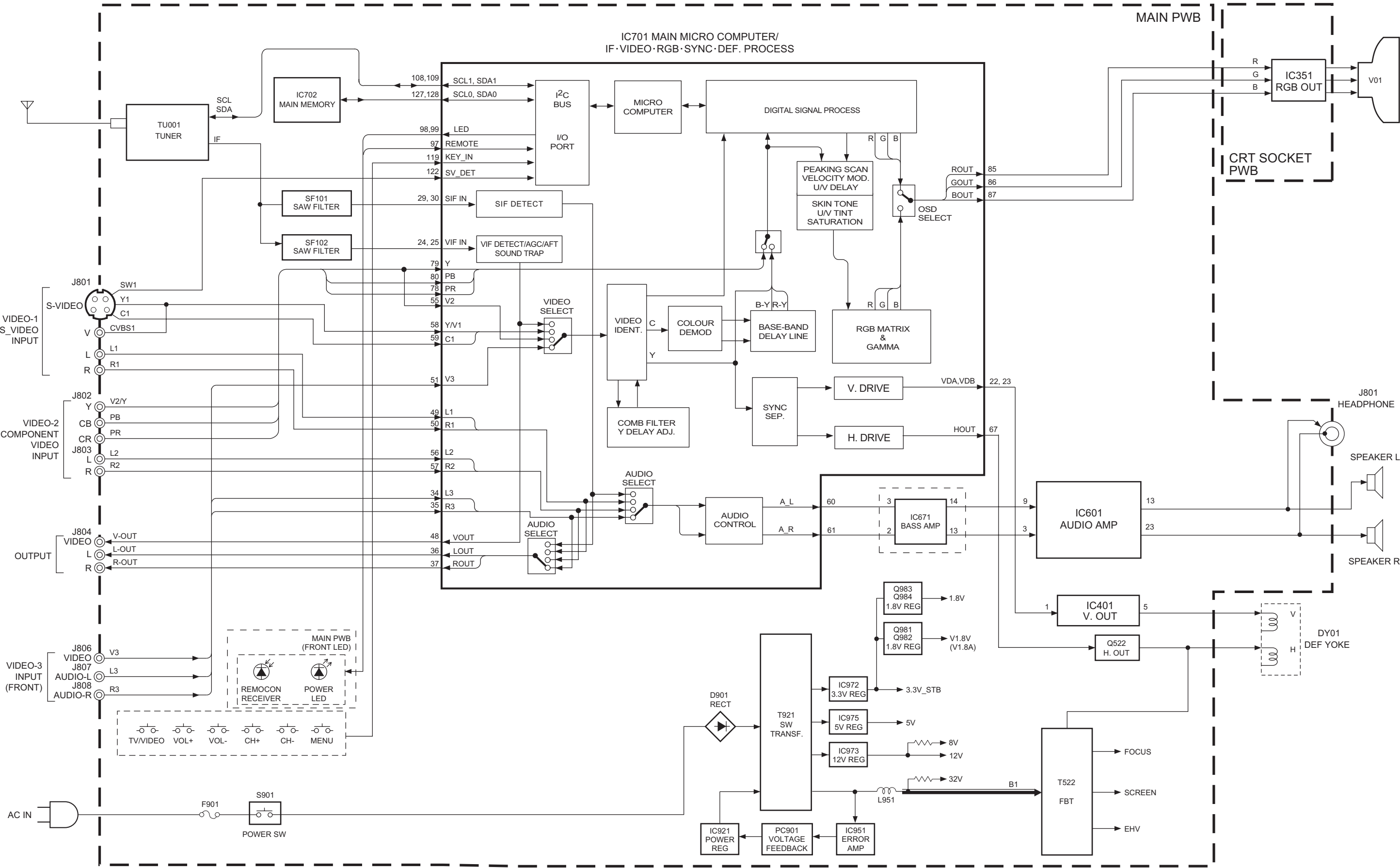
BOTTOM VIEW	FRONT VIEW			TOP VIEW

CHIP IC

TOP VIEW		

**BLOCK DIAGRAMS**  
[AV-2186ME, AV-21MX56/S, AV-21MX76/G]





MAIN PWB CIRCUIT DIAGRAM [AV-2186ME, AV-21MX56/S, AV-21MX76/G] (1/4), (2/4) SHEET1

MAIN PWB ASS'Y  
SCW 1001A U2 5A

IC302  
55645

IC301  
GP1UE2810KVIF  
REMOTE CON  
RECEIVER

POWER  
LED (RED)

CN10T

INPUT

GA5013-C01  
2 WATTS/8 OHM(X2)

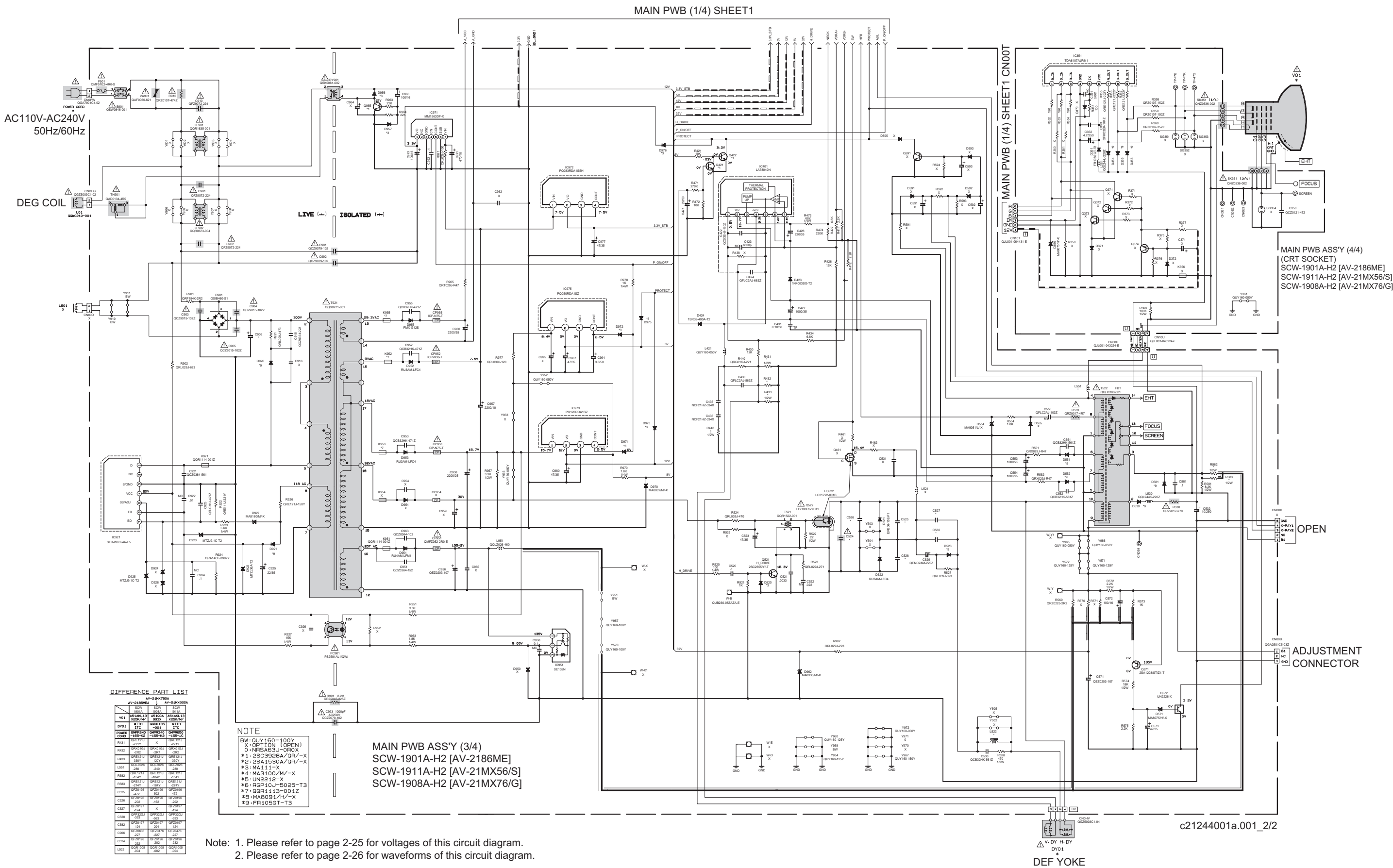
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	AV-210X76GA		
	AV-2186MEA		AV-210056SA
	SCW	SCW	SCW

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42)2-7

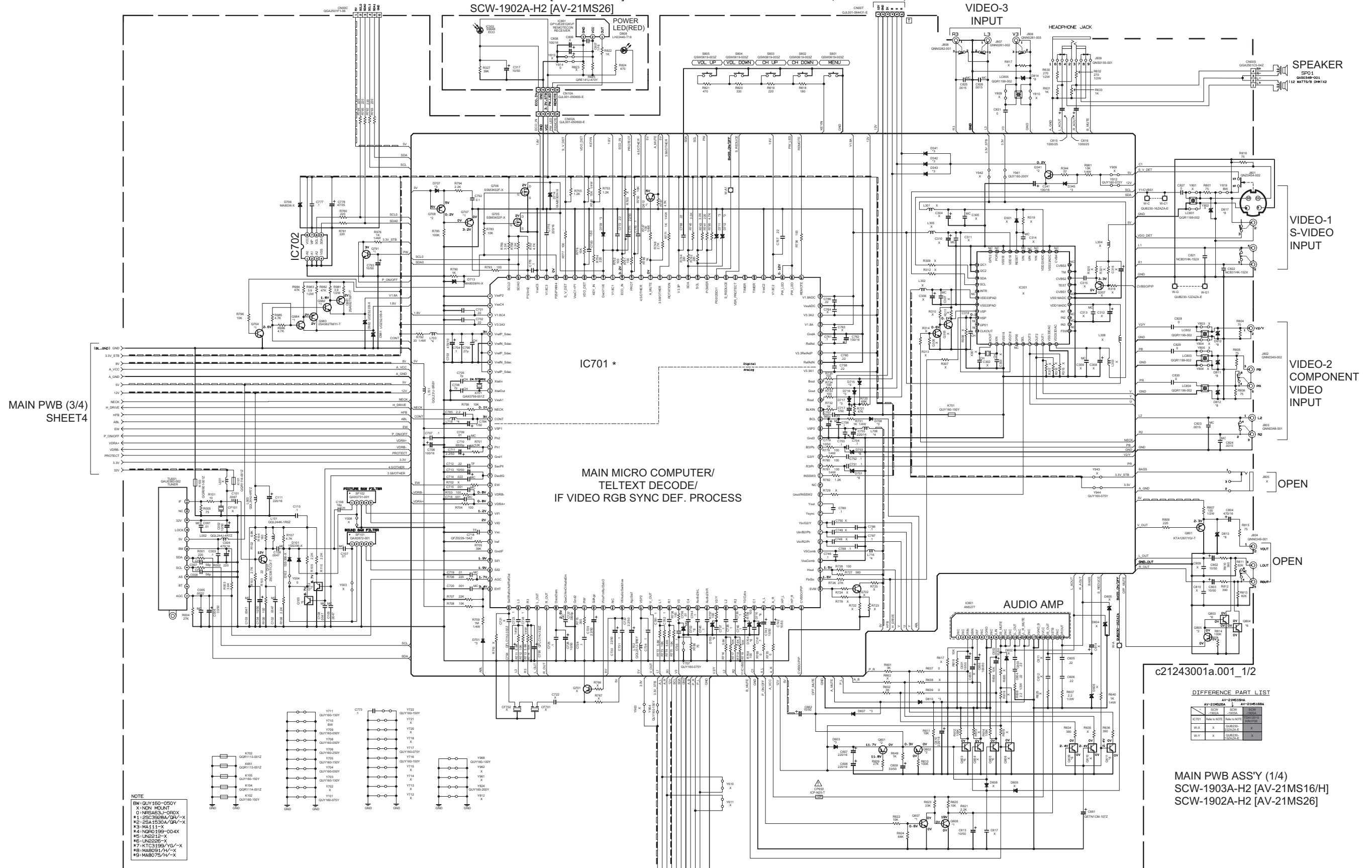




MAIN PWB CIRCUIT DIAGRAM [AV-21MS16/H, AV-21MS26] (1/4), (2/4) SHEET 3

MAIN PWB ASS'Y (2/4) (FRONT LED)  
SCW-1903A-H2 [AV-21MS16/H]  
SCW-1902A-H2 [AV-21MS26]

MAIN PWB (4/4) SHEET4  
(CRT SOCKET) CN10T



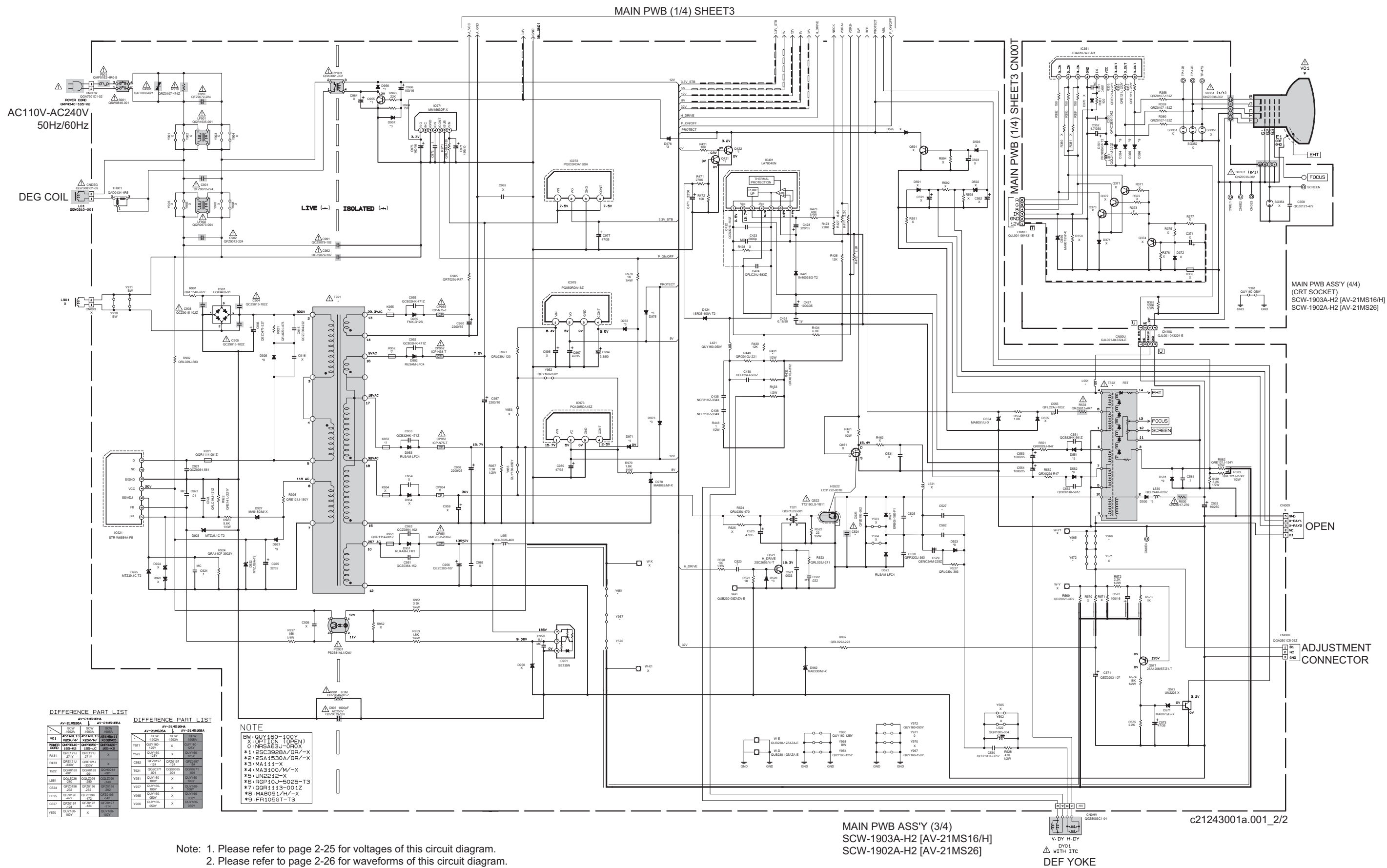
Note: 1. Please refer to parts list for the part number of IC701 and IC702.  
2. Please refer to page 2-25 for voltages of this circuit diagram.  
3. Please refer to page 2-26 for waveforms of this circuit diagram.

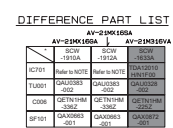
BASS PWB  
SHEET7 CN00M

2-12(No.YA442)

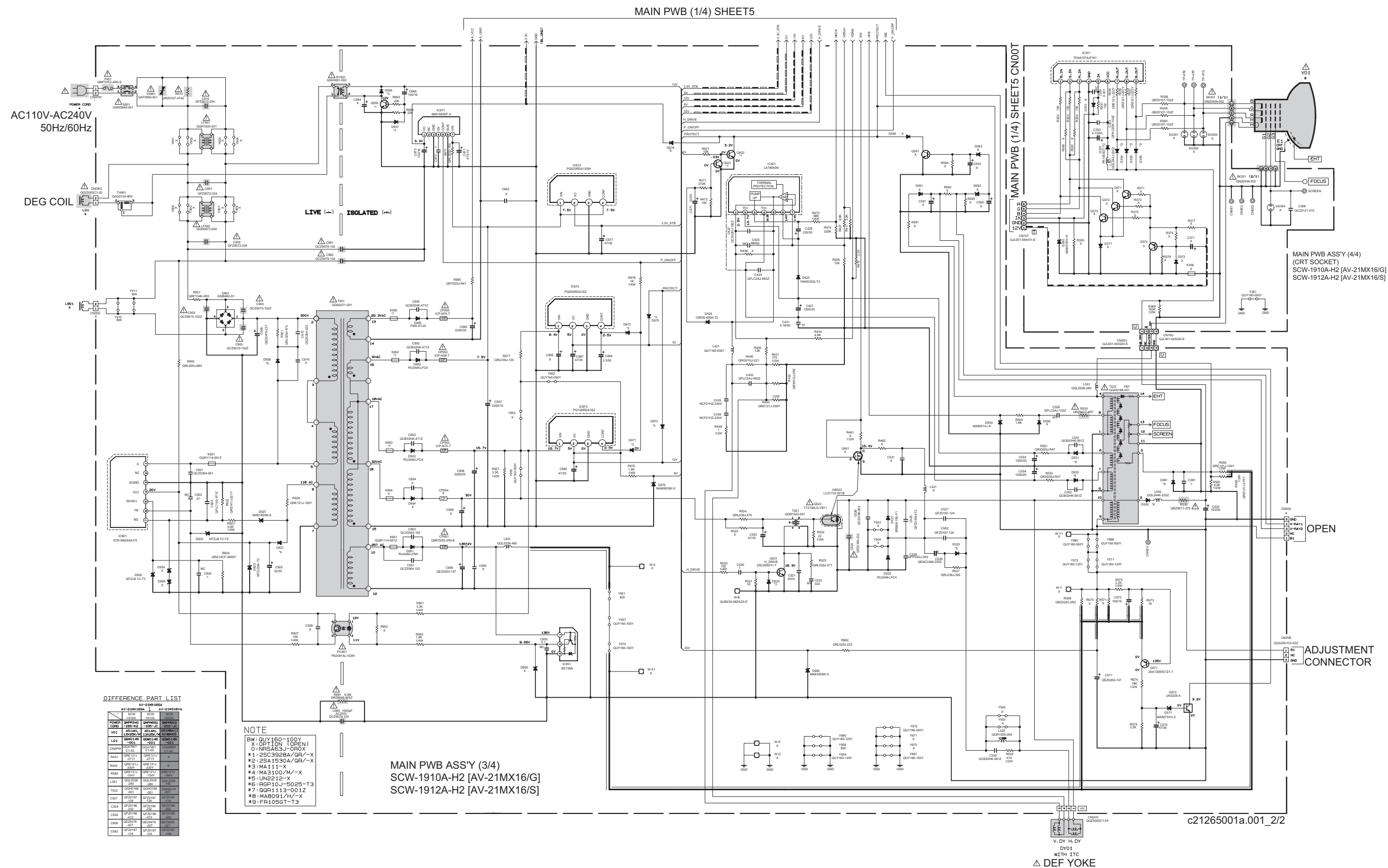
(No.YA442)2-11



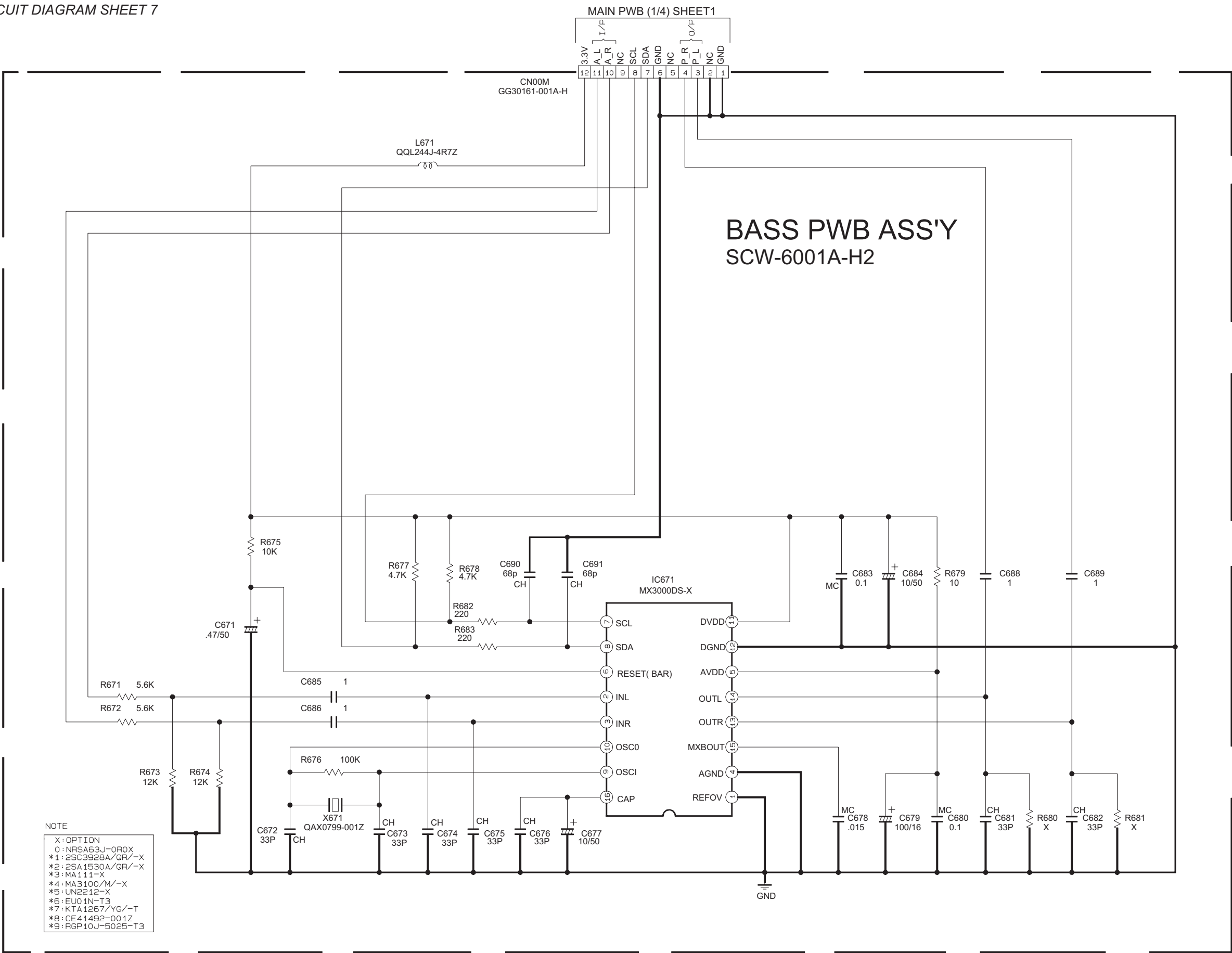




BASS PWB  
SHEET7 CN00M



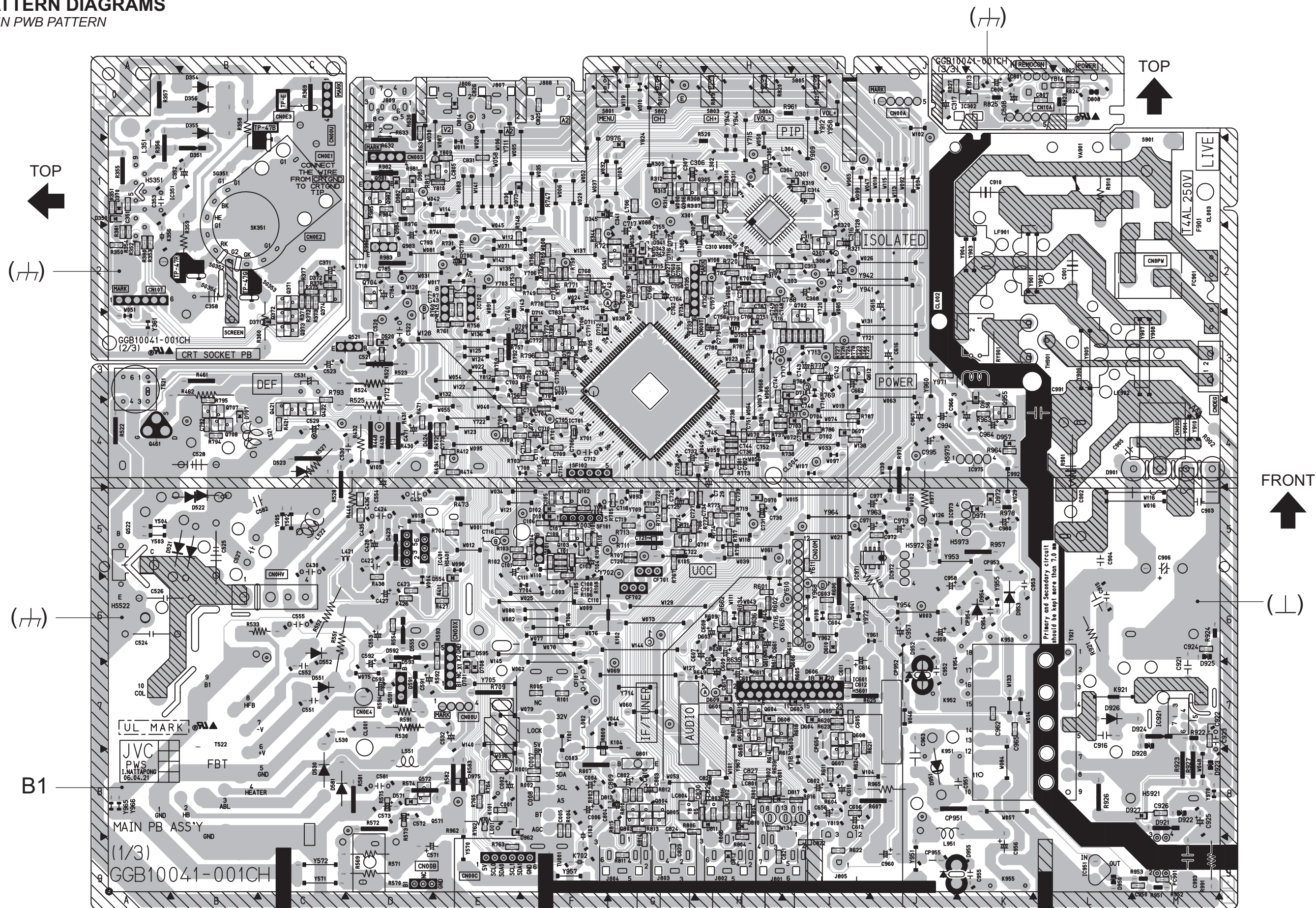
Note: 1. Please refer to page 2-25 for voltages of this circuit diagram.  
2. Please refer to page 2-26 for waveforms of this circuit diagram.



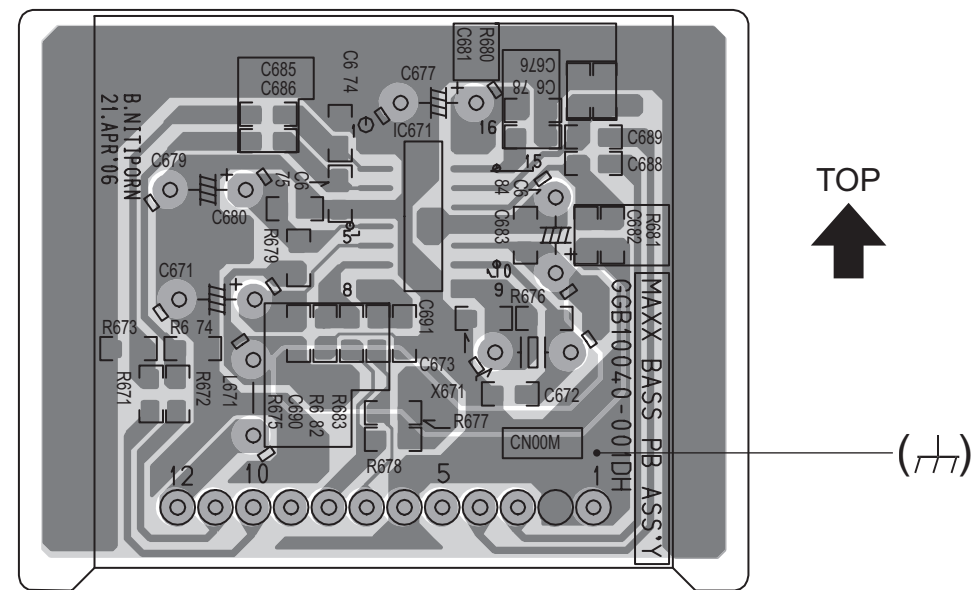
Note: 1. Please refer to page 2-25 for voltages of this circuit diagram.



## PATTERN DIAGRAMS

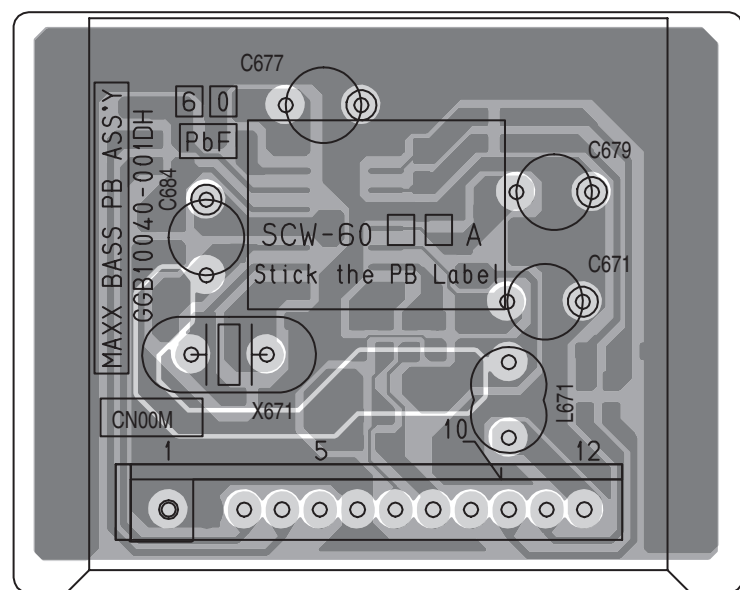


BASS PWB PATTERN [SOLDER SIDE]



TOP  
↑

BASS PWB PATTERN [PARTS SIDE]



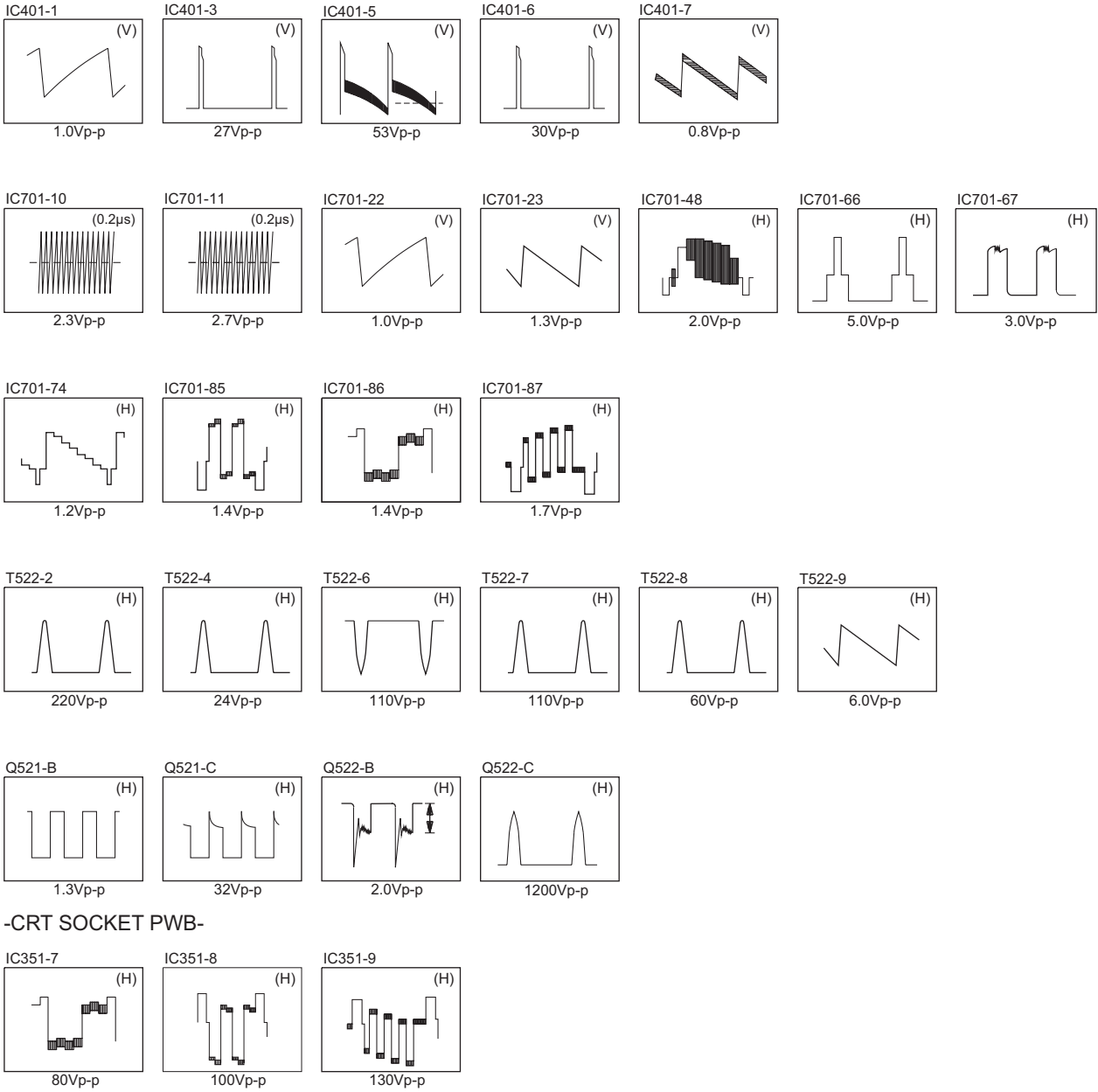


VOLTAGE CHARTS

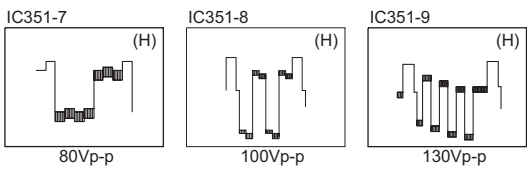
<MAIN PWB>		<MAIN PWB> (FRONT LED)		<MAIN PWB> (CRT SOCKET)		<BASS PWB>	
MODE PIN NO.	DC (V)	MODE PIN NO.	DC (V)	MODE PIN NO.	DC (V)	MODE PIN NO.	DC (V)
IC401		65	1.9	IC975		IC671	
1	0.5	66	1.4	1	8.2	1	0
2	13.7	67	1.5	2	4.8	2	1.2
3	-11.7	68	0.2	3	0.2	3	1.2
4	-13.8	69	4.9	4	2.5	4	0
5	0.2	70	1.3	Q101	E	5	3.2
6	13.9	71	1.4	E	2.4	6	3.3
7	0.4	72	1.3	C	11.8	7	2.3
IC601		73	2.0	B	3.1	8	2.1
1	0	74	1.7	Q102	E	9	1.4
2	NC	75	0.4	E	0	10	1.5
3	0	76	0	C	2.9	11	3.3
4	NC	77	3.3	B	0	12	0
5	25.9	78	1.3	Q801	E	13	1.6
6	NC	79	1.3	E	2.2	14	1.6
7	0	80	1.3	C	0	15	0.1
8	NC	81	0	B	1.5	16	1.2
9	0	82	4.9	Q305	E		
10	NC	83	2.1	Q306	-		
11	0.5	84	3.4	Q307	-		
12	NC	85	2.1	Q341	Q804		
13	12.9	86	2.1	E	E		
14	NC	87	2.1	C	C		
15	0.7	88	3.3	B	B		
16	NC	89	0	Q421	Q805		
17	0	90	3.3	E	E		
18	NC	91	1.6	C	C		
19	27.2	92	0	B	B		
20	NC	93	1.9	Q422	Q955		
21	16.7	94	3.3	E	E		
22	NC	95	0	C	C		
23	12.8	96	1.9	B	B		
IC701		97	3.0	Q521	Q981		
1	0	98	0.1	E	E		
2	0	99	0.1	C	C		
3	1.9	100	2.1	B	B		
4	3.3	101	0	Q522	Q982		
5	3.1	102	2.4	E	E		
6	0	103	2.5	C	C		
7	3.2	104	0	B	B		
8	0	105	0.2	Q571	Q983		
9	3.2	106	2.6	E	E		
10	1.5	107	0	C	C		
11	1.3	108	2.2	B	B		
12	0	109	1.1	Q572	Q984		
13	0.1	110	3.3	E	E		
14	2.5	111	0	C	C		
15	4.9	112	3.3	B	B		
16	1.9	113	0	Q601	TU001		
17	2.3	114	3.3	E	1		
18	0	115	1.1	C	2		
19	2.3	116	2.6	B	3		
20	2.3	117	1.9	Q602	4		
21	0	118	1.8	E	5		
22	0.8	119	3.3	C	6		
23	0.9	120	3.1	B	7		
24	1.9	121	0	Q603	8		
25	1.9	122	3.3	E	9		
26	2.3	123	0.1	C	11		
27	1.9	124	1.9	B			
28	0.2	125	0	Q605			
29	1.9	126	3.3	E			
30	1.0	127	3.2	C			
31	4.3	128	3.2	B			
32	3.1	IC702		Q607			
33	2.2	1	0	E	0.1		
34	2.1	2	0	C	0		
35	2.2	3	0	B	0.6		
36	3.5	4	0	Q608			
37	3.4	5	3.2	E	0		
38	2.2	6	3.2	C	18.5		
39	2.5	7	0	B	0		
40	0	8	3.3	Q609			
41	3.0	IC921		E	0		
42	1.4	1	125.4	C	0		
43	2.7	2	NC	B	0		
44	2.2	3	0	Q611			
45	8.3	4	19.7	E	0		
46	2.0	5	4.0	C	0		
47	5.0	6	1.7	B	0		
48	1.3	7	0.3	Q612			
49	2.2	IC951		E	0		
50	2.0	1	135.5	C	5.0		
51	1.5	2	9.4	B	0		
52	1.4	3	0	Q704			
53	2.2	IC971	-	E	0		
54	2.1	IC972		C	2.5		
55	1.3	1	6.4	B	0		
56	2.2	2	3.3	Q705			
57	1.3	3	0	S	0		
58	1.8	4	6.4	D	0.2		
59	1.4	IC973		G	1.9		
60	1.3	1	15.4	Q706			
61	3.7	2	11.8	S	0		
62	1.3	3	0	D	0		
63	3.5	4	2.5	G	1.9		
64	0.5						

WAVEFORMS

-MAIN PWB-



-CRT SOCKET PWB-





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