

JVC

SCHEMATIC DIAGRAMS

COLOUR TELEVISION

**AV-28X37SUE, AV-28X37HKE,
AV-28X35HKE, AV-28X37HIE,
AV-28H35SUE, AV-28H35BUE,
AV-28X35HUE**

BASIC CHASSIS

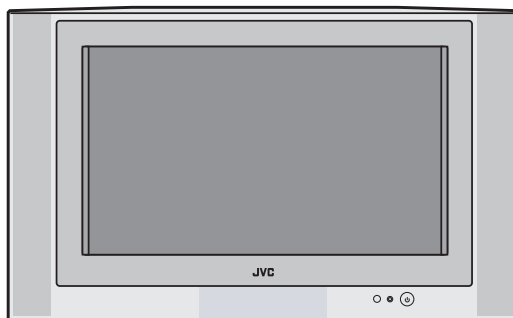
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CD-ROM No.SML200305

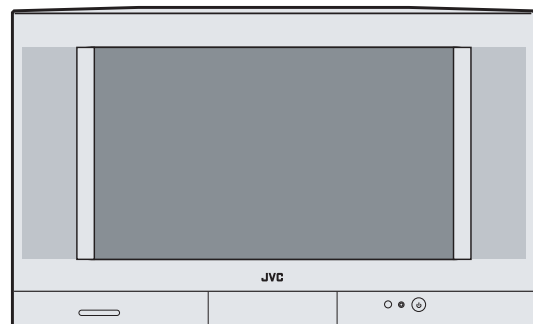
InterArt
Natural Vision
T-V LINK



<RM-C50H>
<RM-C54H>
<RM-C55H>



AV-28X35HKE
AV-28H35SUE
AV-28H35BUE
AV-28X35HUE




AV-28X37SUE
AV-28X37HKE
AV-28X37HIE

AV-28X37SUE, AV-28X37HKE, AV-28X35HKE,
AV-28X37HIE, AV-28H35SUE, AV-28X35HUE,
AV-28H35BUE

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 20kΩ /V
(4)Oscilloscope sweeping time	:H ⇒ 20μs/div :V ⇒ 5ms/div :Others ⇒ 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 → 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	:[μF]

● Withstand voltage

No indication	:DC50[V]
Others	:DC withstand voltage [V]
AC indicated	:AC withstand voltage [V]

* Electrolytic Capacitors

47/50[Example]:Capacitance value [μF]/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	:[μH]
Others	:As specified

(4)Power Supply



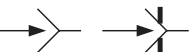
	:B1		:B2 (12V)
	:9V		:5V

* Respective voltage values are indicated





(5)Test point

	:Test point		:Only test point display
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(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.

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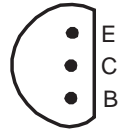
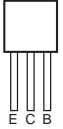
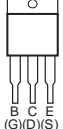
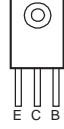

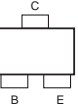
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USING P.W. BOARD


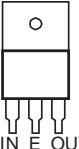
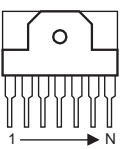
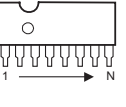
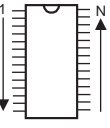
P.W.B ASS'Y	AV-28X37SUE	AV-28X37HKE	AV-28X35HKE	AV-28X37HIE	AV-28H35SUE	AV-28H35BUE	AV-28X35HUE
MAIN PWB	SML-1002A-U2	SML-1902A-U2	←	SML-1002A-U2	←	←	←
POWER & DEF PWB	SML-2002A-U2	←	←	←	←	←	←
100Hz PWB	SML0Z001A-U2	←	←	←	SML0Z002-U2	←	SML0Z001A-U2
CRT SOCKET PWB	SML-3002A-U2	←	←	←	←	←	←
FRONT CONTROL PWB	SML-8001A-U2	←	←	←	←	←	←
SIDE CONTROL PWB	SML-8101A-U2	←	←	←	←	←	←
AV JACK PWB	SML0J001A-U2	←	←	←	←	←	←

SEMICONDUCTOR SHAPES

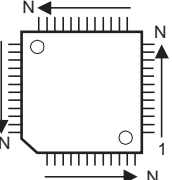
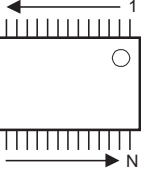
TRANSISTOR

BOTTOM VIEW	FRONT VIEW				TOP VIEW
					CHIP TR 

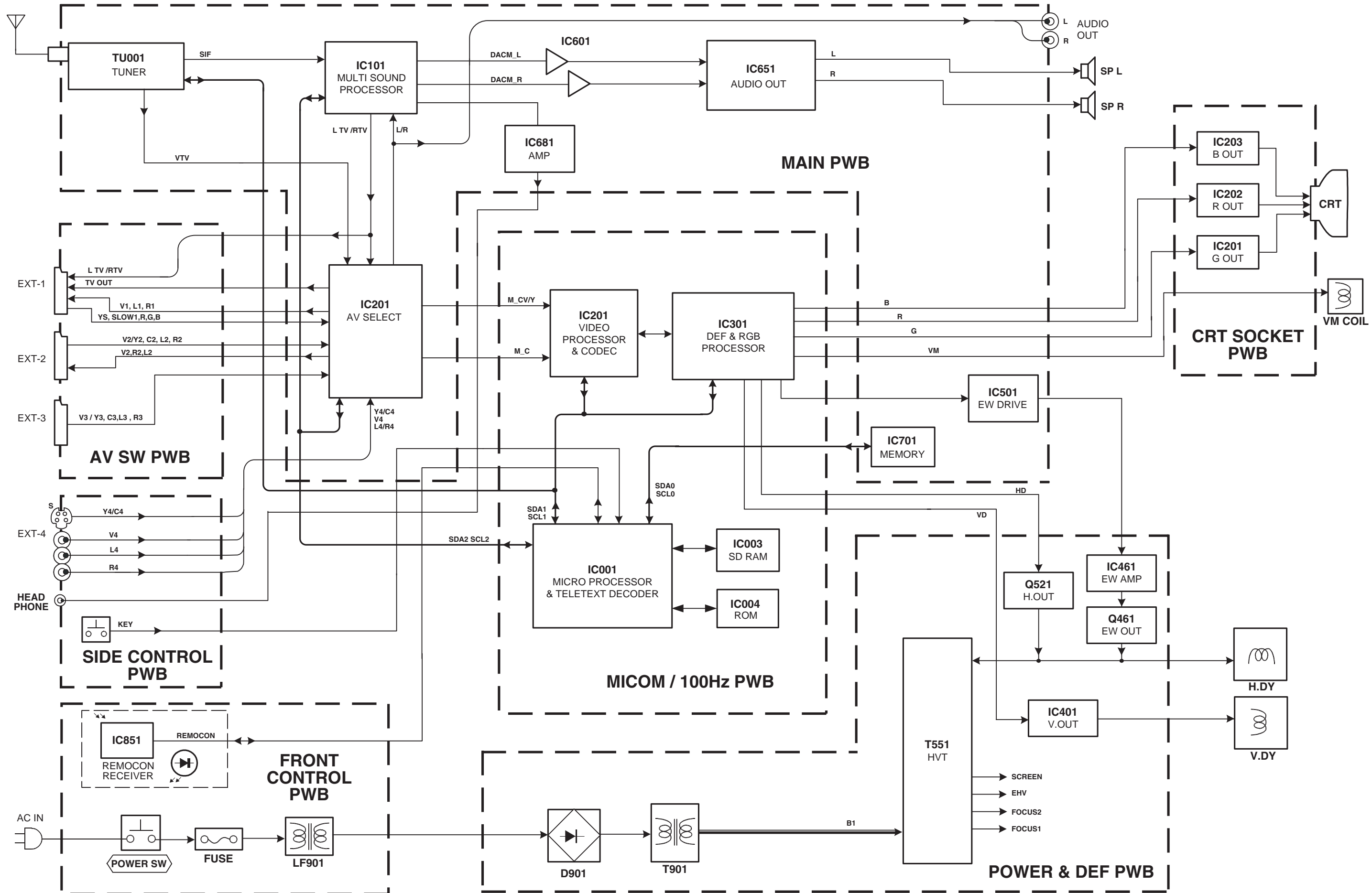
IC

BOTTOM VIEW	FRONT VIEW			TOP VIEW
				

CHIP IC

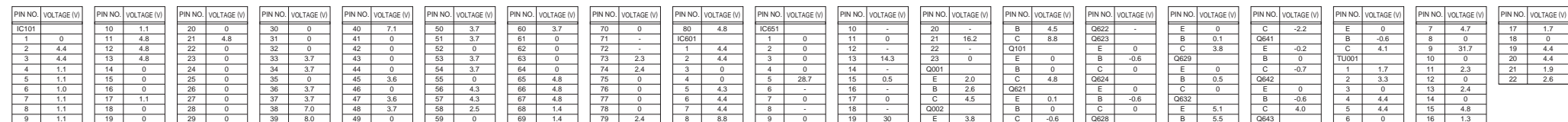
TOP VIEW		
		

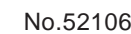
BLOCK DIAGRAM

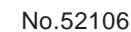


MAIN PWB CIRCUIT DIAGRAM (1/2) SHEET 1

AV-28X37SUE
AV-28X37HKE AV-28X35HKE
AV-28X37HIE AV-28H35SUE
AV-28X35HUE AV-28H35BUE

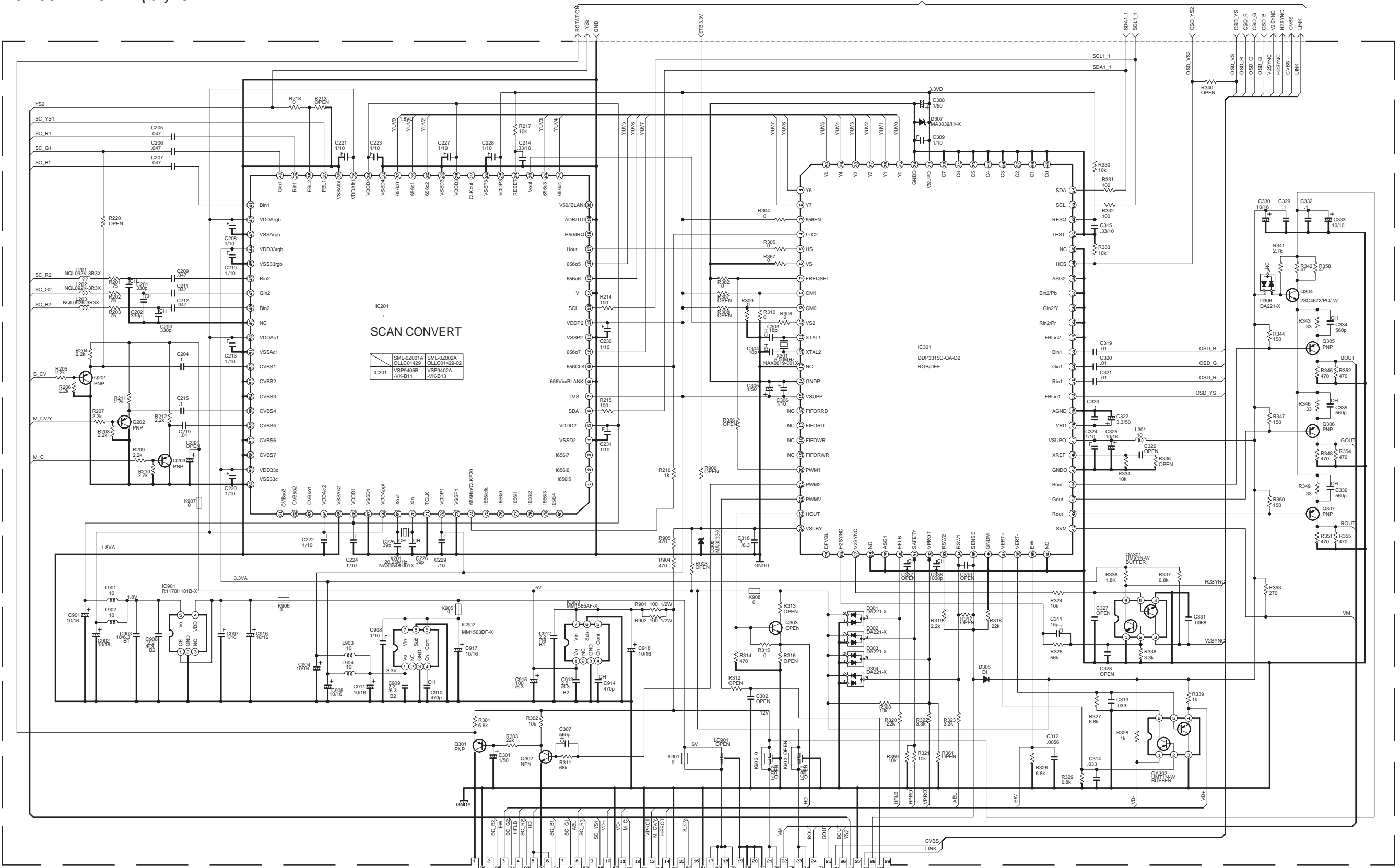






AV-28X37SUE AV-28X37HKE AV-28X37HIE AV-28X35HUE
AV-28X37SUE AV-28X35HKE AV-28X37HIE AV-28H35SUE
AV-28X35HUE AV-28H35BUE

TO MICOM PART



NOTE
NPN: 2SD601A/GR/-X
PNP: 2SB709A/GR/-X
DI: M4111-X
O: CHIP BUS WIRE

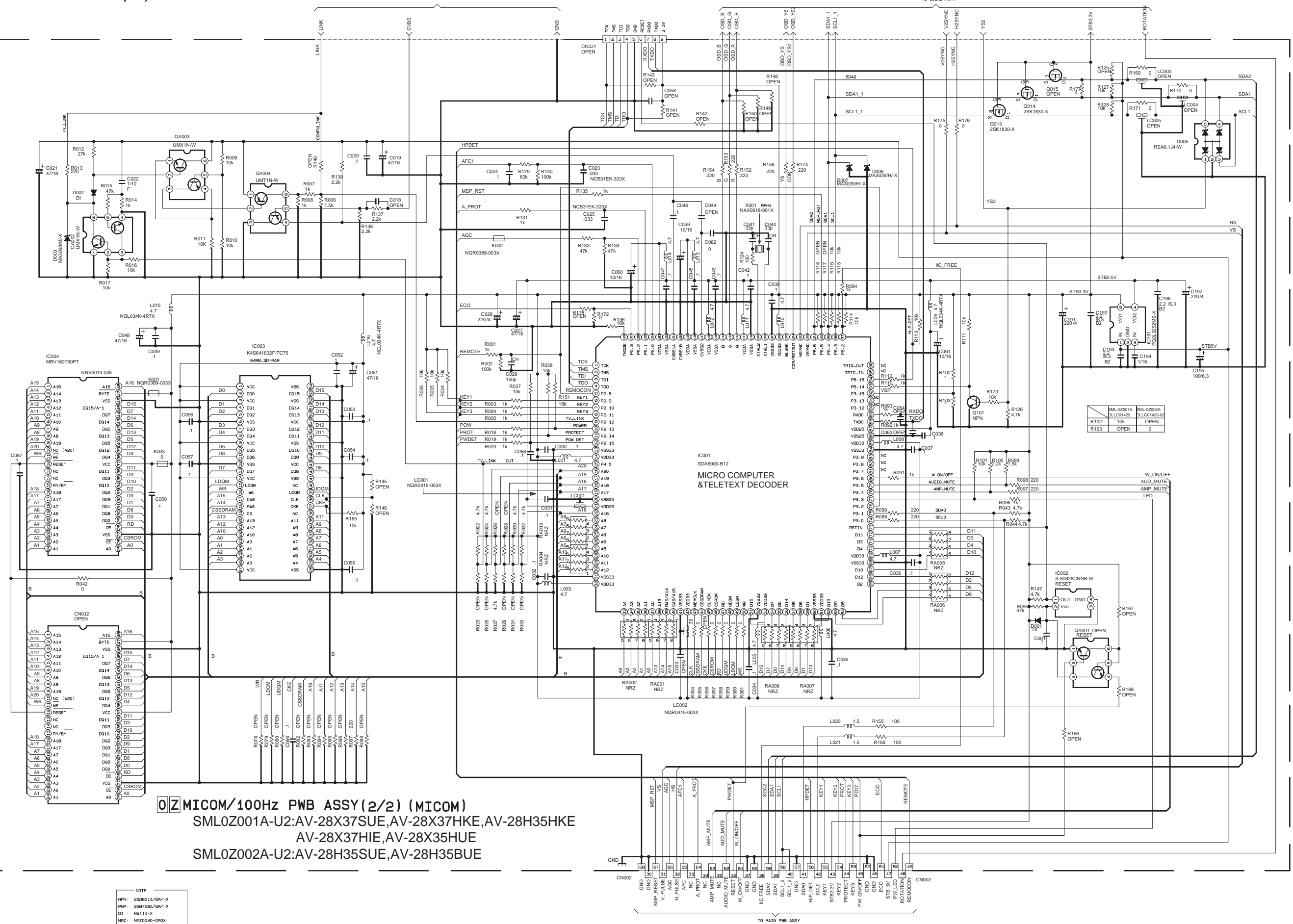
PIN NO.	VOLTAGE (V)	PIN NO.	VOLTAGE (V)	PIN NO.	VOLTAGE (V)	PIN NO.	VOLTAGE (V)	PIN NO.	VOLTAGE (V)	PIN NO.	VOLTAGE (V)	PIN NO.	VOLTAGE (V)	PIN NO.	VOLTAGE (V)
CN002	0	13	0	26	2.5	39	4.4	52	0	65	1.8	78	0	91	0
1	0	14	0.2	27	0	40	4.4	53	3.2	66	1.7	79	5.5	92	0
2	0	15	0	28	1.4	41	3.2	54	3.2	67	0	80	5.5	93	0
3	2.3	16	0	29	0	42	3.2	55	3.2	68	0	81	0	94	0
4	2.1	17	5.5	30	0	43	3.2	56	3.2	69	0	82	0	95	0
5	1.4	18	5.5	31	3.1	44	2.2	57	0	70	4.0	83	0	96	0
6	0	19	0	32	2.7	45	0	58	4.4	71	0	84	4.1		
7	0	20	0	33	0	46	0	59	4.4	72	3.7	85	0		
8	2.2	21	12	34	0	47	4.6	60	0	73	0	86	4.2		
9	0	22	4.7	35	0	48	12	61	0	74	4.9	87	0		
10	2.0	23	4.9	36	3.2	49	0	62	0	75	0	88	0		
11	2.0	24	2.5	37	0	50	0	63	0	76	12	89	0		
12	0	25	2.5	38	0	51	0	64	0.4	77	0	90	0		

TO MAIN PWB ASSY

MICOM/100Hz PWB ASSY (1/2) (100Hz)
SML0Z001A-U2:AV-28X37SUE,AV-28X37HKE,AV-28H35HKE
AV-28X37HIE,AV-28X35HUE
SML0Z002A-U2:AV-28H35SUE,AV-28H35BUE

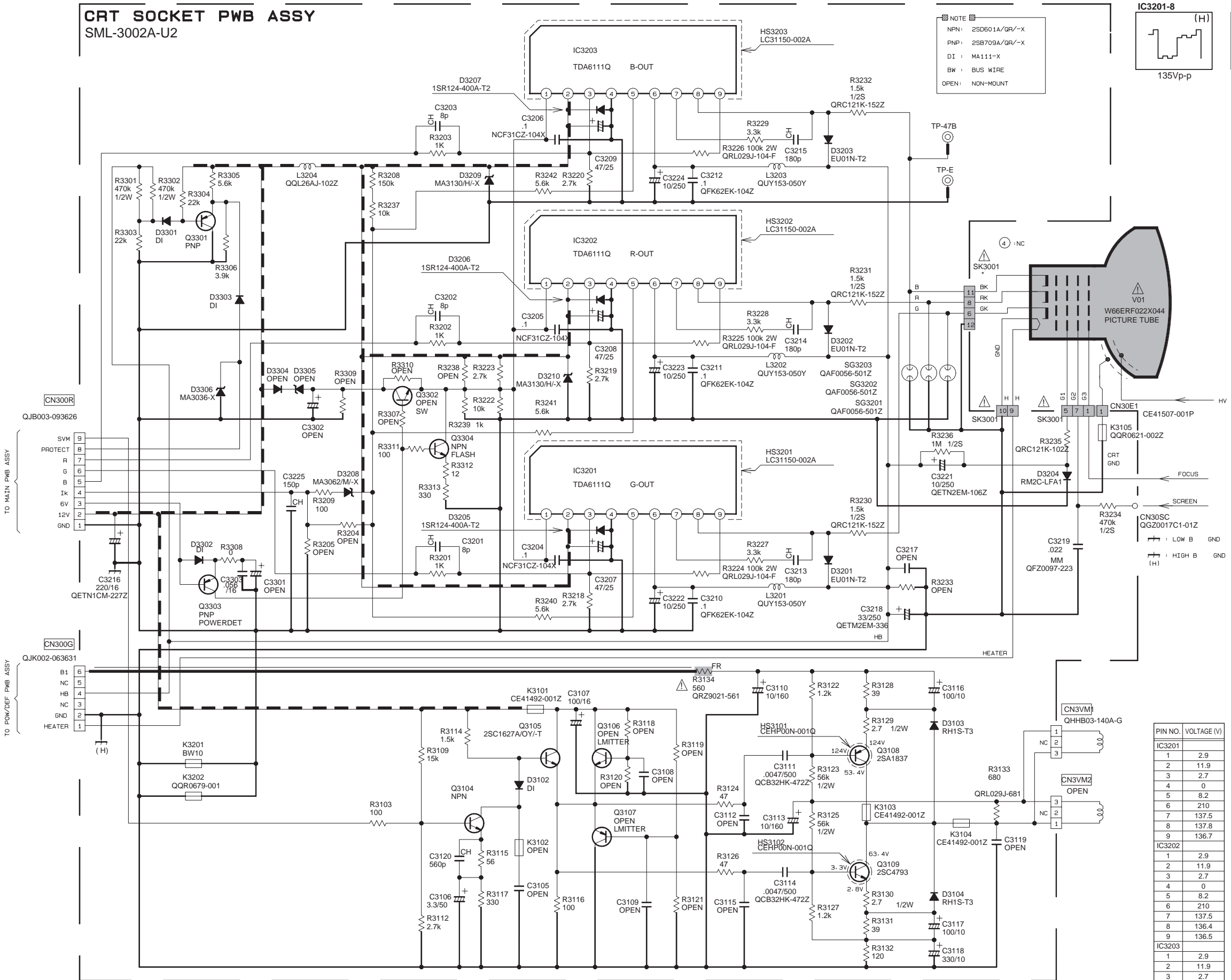
AV-28X37SUE
AV-28X37HKE AV-28X35HKE
AV-28X37HIE AV-28H35SUE
AV-28X35HUE AV-28H35BUE

AV-28X37SUE
AV-28X37HKE AV-28X35HKE
AV-28X37HIE AV-28H35SUE
AV-28X35HUE AV-28H35BUE

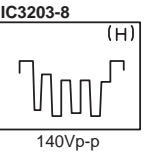
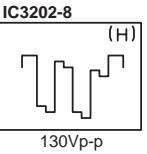
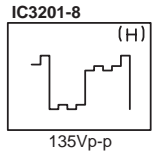


AV-28X37SUE AV-28X35HKE AV-28X37HKE AV-28X35HKE
AV-28X37HIE AV-28H35SUE AV-28X37HIE AV-28H35SUE
AV-28X35HUE AV-28H35BUE AV-28X35HUE AV-28H35BUE

CRT SOCKET PWB ASSY
SML-3002A-U2



NOTE
NPN : 2SD601A/GR/-X
PNP : 2SB709A/GR/-X
DI : MA111-X
BW : BUS WIRE
OPEN : NON-MOUNT



SML-3002A-U2
QNZ0536-001

PIN NO.	VOLTAGE (V)
IC3201	
1	2.9
2	11.9
3	2.7
4	0
5	8.2
6	210
7	137.5
8	137.8
9	136.7
IC3202	
1	2.9
2	11.9
3	2.7
4	0
5	8.2
6	210
7	137.5
8	136.4
9	136.5
IC3203	
1	2.9
2	11.9
3	2.7
4	0
5	8.2

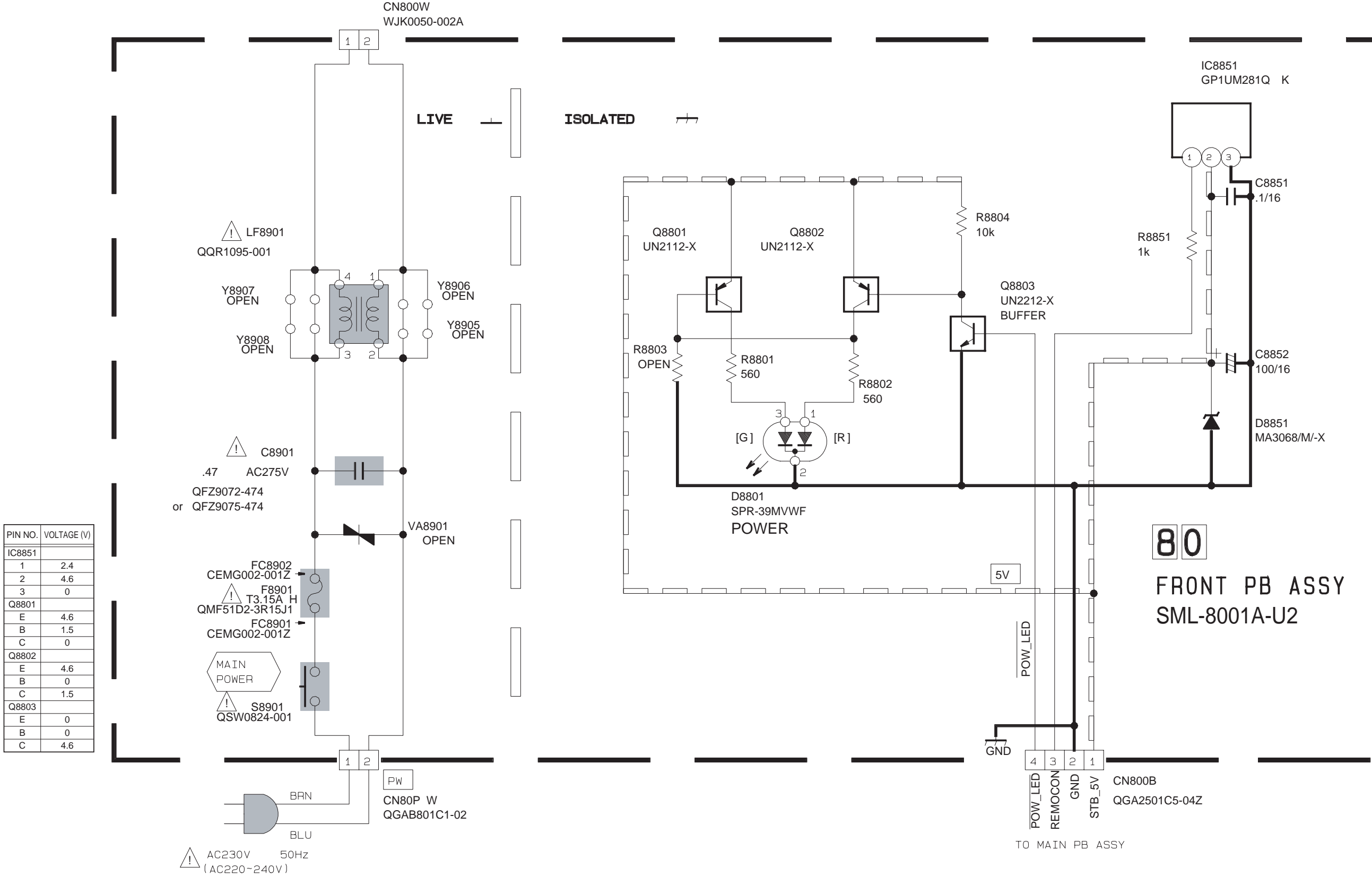
PIN NO.	VOLTAGE (V)
6	210
7	135.2
8	135
9	134.5
Q3104	
E	1.1
B	1.7
C	6.2
Q3105	
E	6.2
B	6.8
C	12.0
Q3108	
E	127.6
B	127.1
C	64.2
Q3109	
E	3.4
B	3.8
C	64.2
Q3301	
E	4.8
B	12.0
C	0
Q3303	
E	11.8

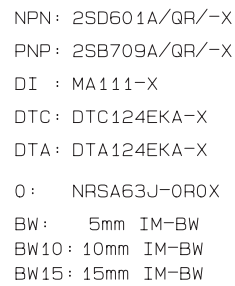
PIN NO.	VOLTAGE (V)
B	12.0
C	-1.0
Q3304	
E	0
B	-0.8
C	2.9

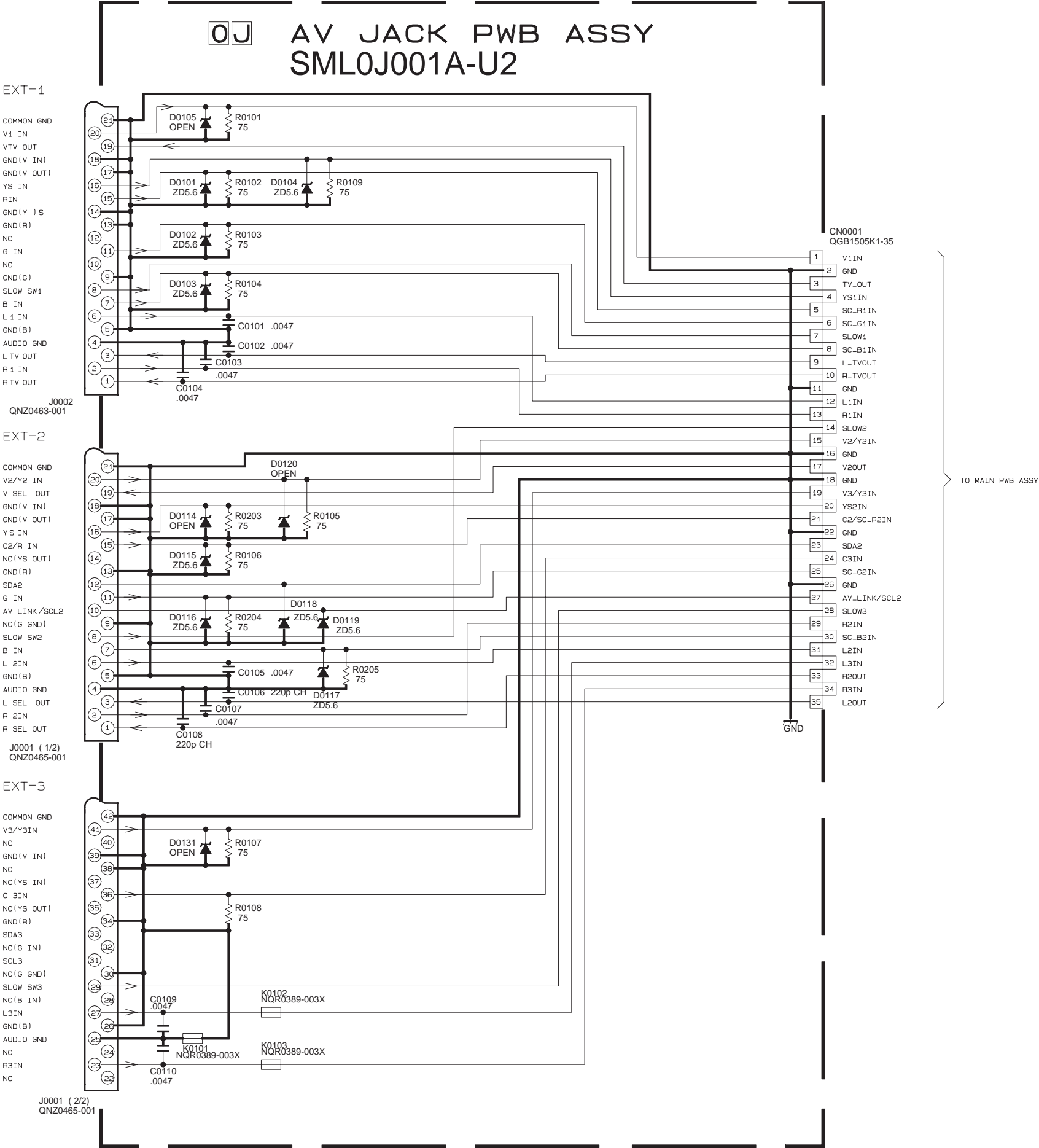
FRONT CONTROL PWB CIRCUIT DIAGRAM SHEET 7

AV-28X37SUE AV-28X35HKE AV-28X37HKE AV-28X35HKE
AV-28X37HIE AV-28H35SUE AV-28X37HIE AV-28H35SUE
AV-28X35HUE AV-28H35BUE AV-28X35HUE AV-28H35BUE

TO POW/DEF PB ASSY







PATTERN DIAGRAMS

MAIN PWB PATTERN

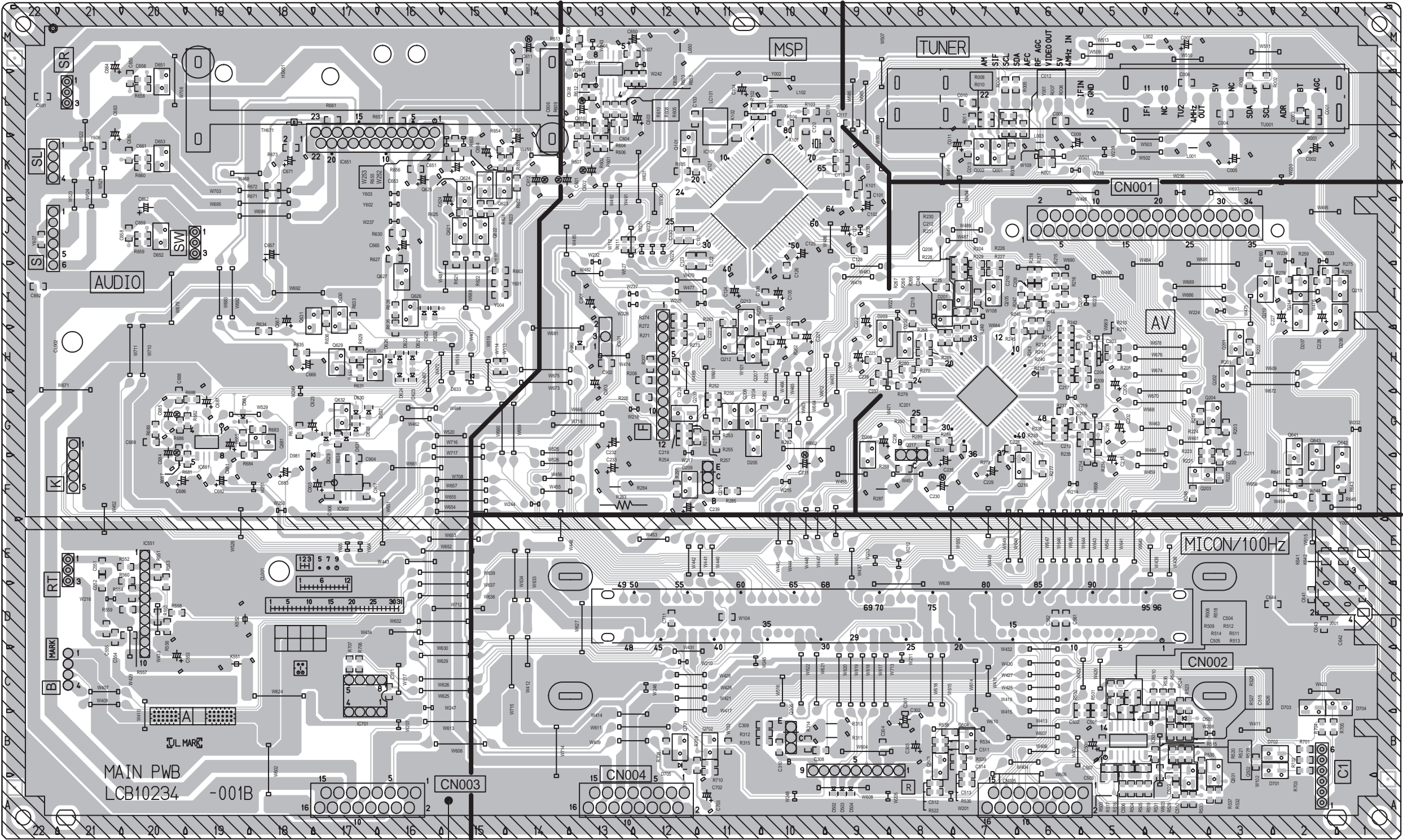
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AV-28X35HKE AV-28H35SUE AV-28H35BUE

AV-28X37SUE AV-28X35HKE AV-28X37HIE AV-28H35SUE AV-28X35HUE AV-28H35BUE



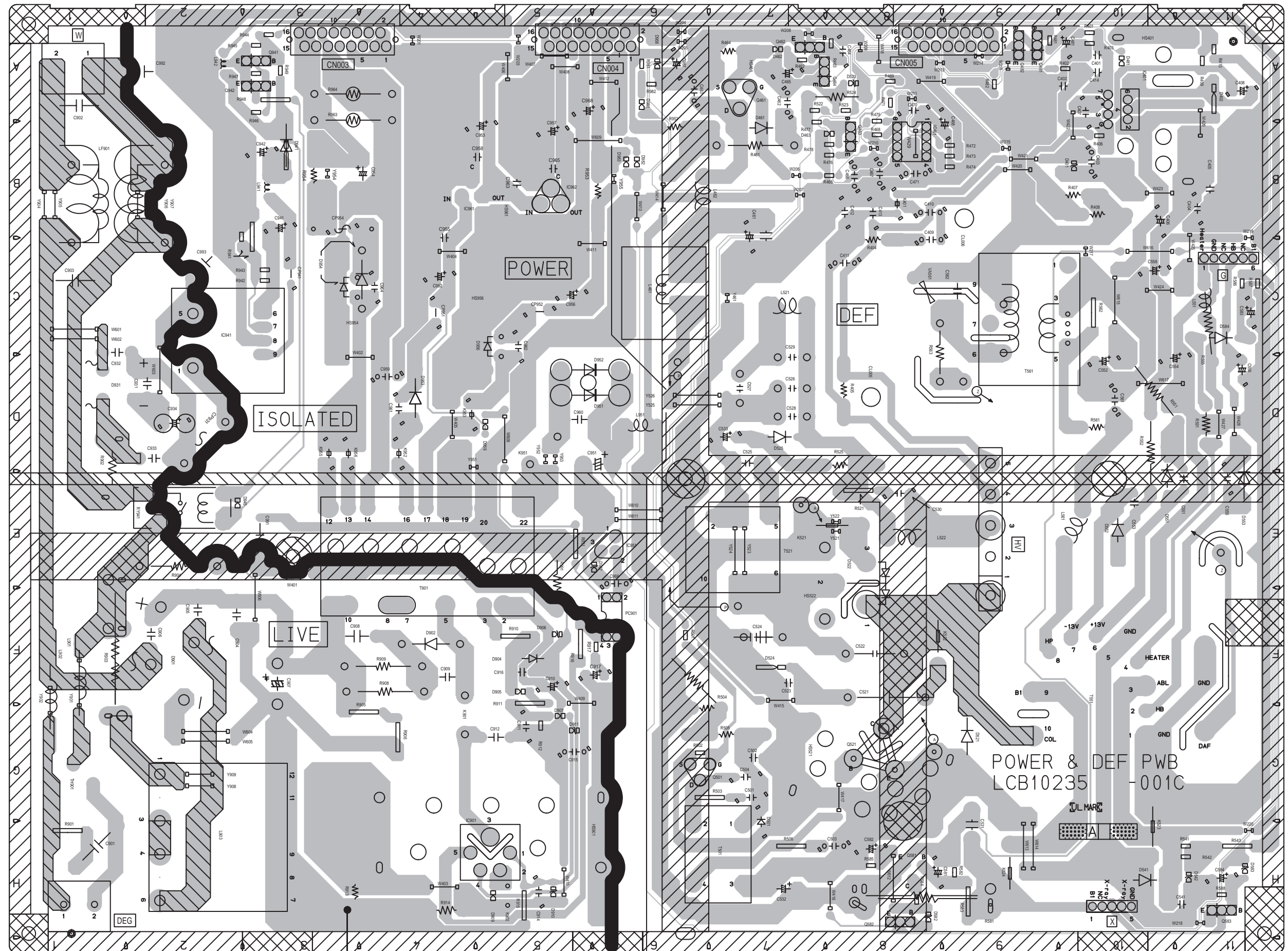
FRONT



AV-28X37SUE AV-28X35SUE
AV-28X37HKE AV-28X35HKE
AV-28X37HIE AV-28H35SUE
AV-28X35HUE AV-28H35BUE
AV-28X37SUE AV-28X35HKE
AV-28X37HIE AV-28H35SUE
AV-28X35HUE AV-28H35BUE

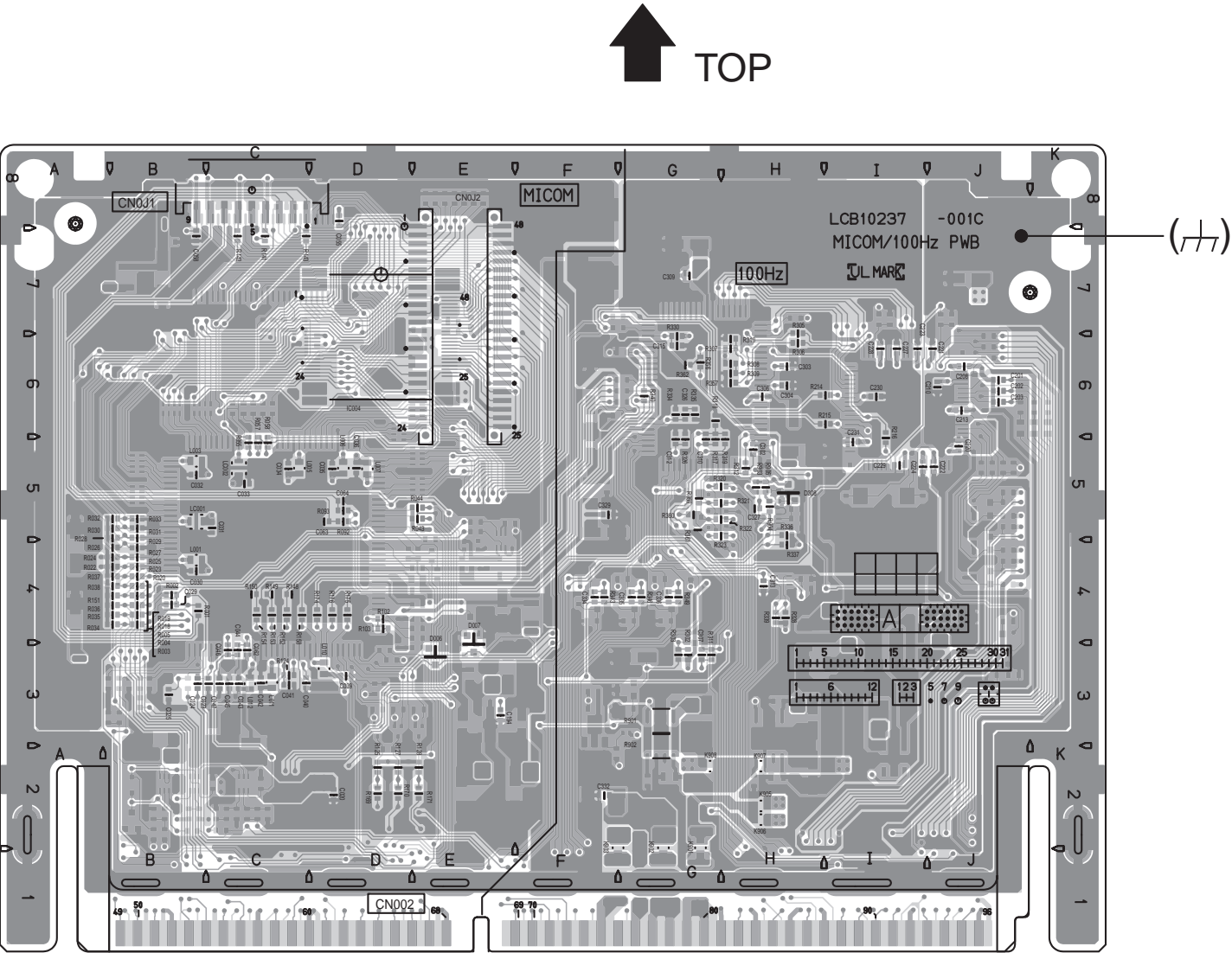
POWER & DEF PWB PATTERN

FRONT

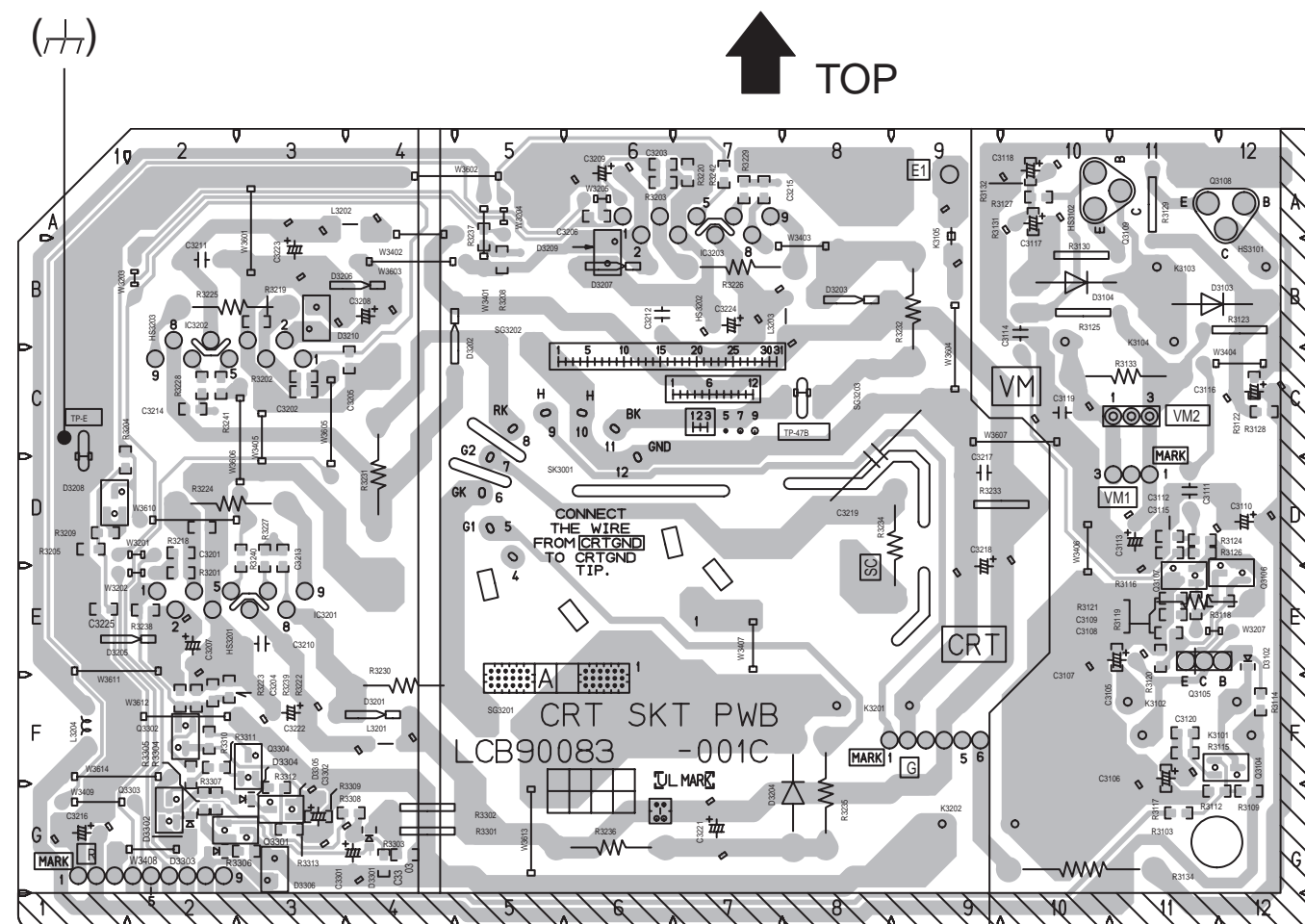


100Hz PWB PATTERN [SOLDER SIDE]

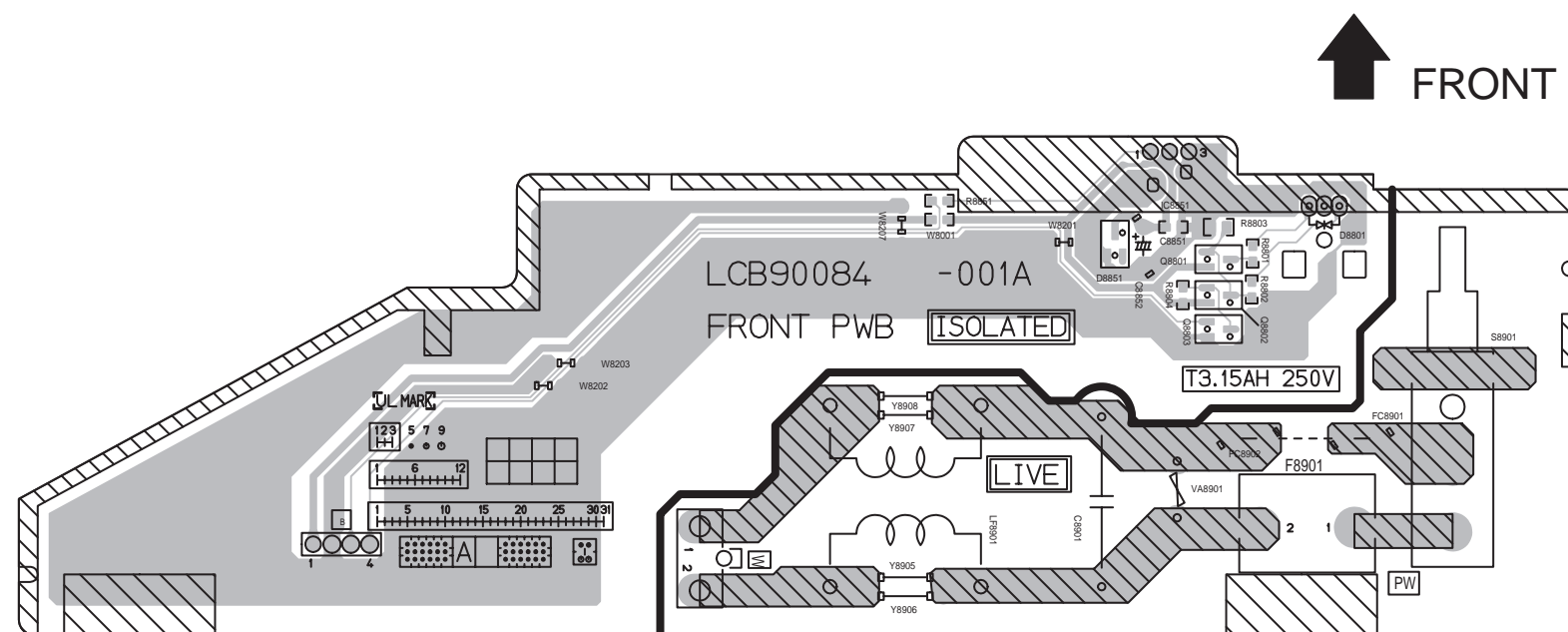
AV-28X37SUE
AV-28X37HKE AV-28X35HKE
AV-28X37HIE AV-28H35SUE
AV-28X35HUE AV-28H35BUE



CRT SOCKET PWB PATTERN



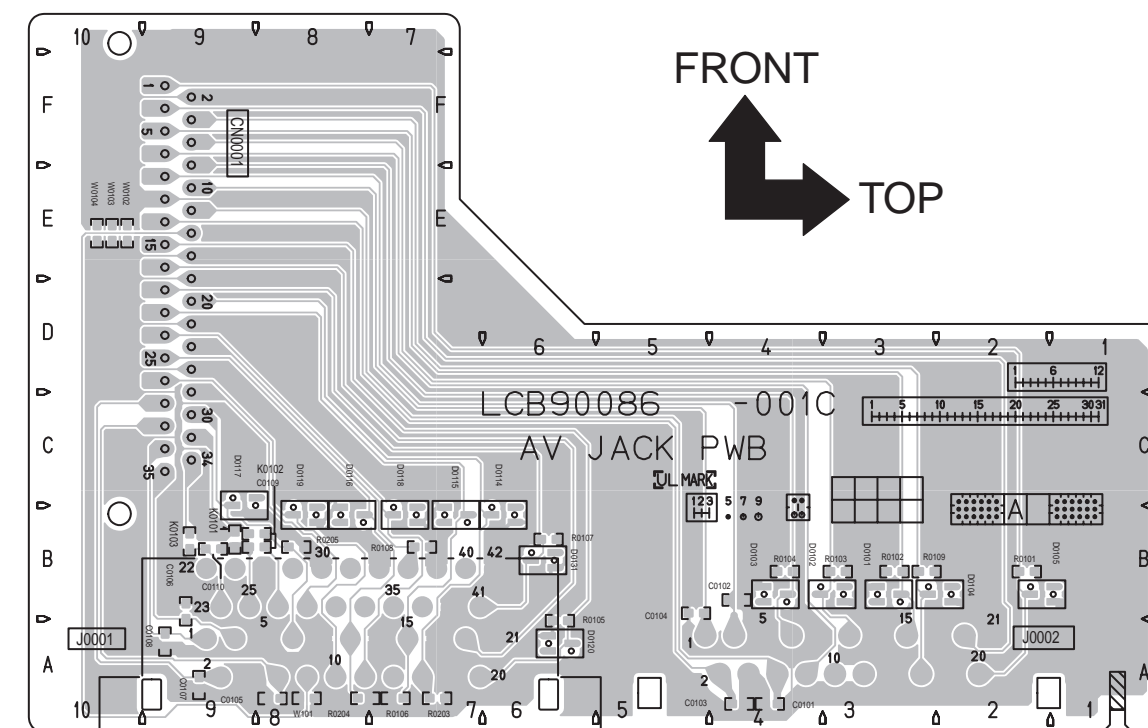
FRONT CONTROL PWB PATTERN



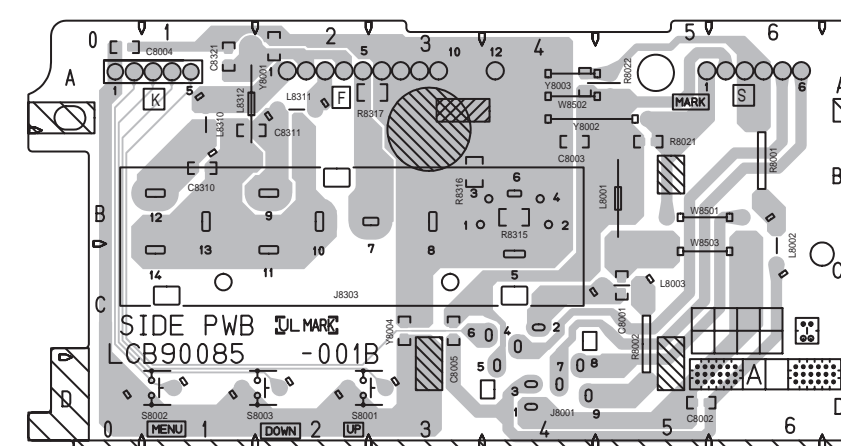
AV-28X37SUE
AV-28X37HKE AV-28X35HKE
AV-28X37HIE AV-28H35SUE
AV-28X35HUE AV-28H35BUE

AV-28X37SUE
AV-28X37HKE AV-28X35HKE
AV-28X37HIE AV-28H35SUE
AV-28X35HUE AV-28H35BUE

AV JACK PWB PATTERN



SIDE CONTROL PWB PATTERN



AV-28X37SUE AV-28X37HKE
AV-28X35HKE AV-28X37HIE
AV-28H35SUE AV-28H35BUE
AV-28X35HUE



VICTOR COMPANY OF JAPAN, LIMITED
AV & MULTIMEDIA COMPANY DISPLAY CATEGORY 12, 3-chome, Moriya-cho, kanagawa-ku, Yokohama, kanagawa-prefecture, 221-8528, Japan

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