

STANDARD CIRCUIT DIAGRAM

NOTE ON USING CIRCUIT DIAGRAMS

1. SAFETY

The components identified by the Δ 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 :PAL 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

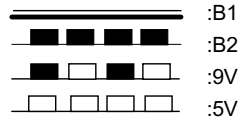
- Capacitance value
 - 1 or higher :[pF]
 - less than 1 :[μ F]
 - Withstand voltage
 - No indication :DC50[V]
 - AC indicated :AC withstand voltage [V]
 - Others :DC withstand voltage [V]
- *Electrolytic Capacitors
47/50[Example]:Capacitance value [μ F]/withstand voltage[V]

- Type
 - No indication :Ceramic capacitor
 - MY :Mylar 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

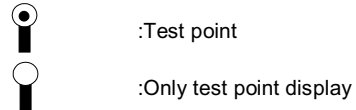
- No unit :[μ H]
- Others :As specified

(4) Power Supply

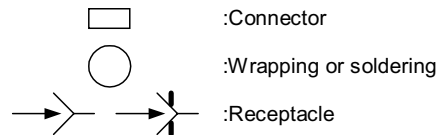


*Respective voltage values are indicated

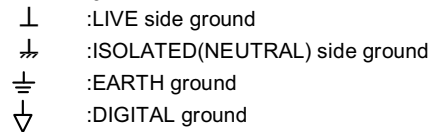
(5) Test point



(6) Connecting method



(7) Ground symbol



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) (\nearrow) 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.

When ordering parts, please use the numbers that appear in the Parts List.

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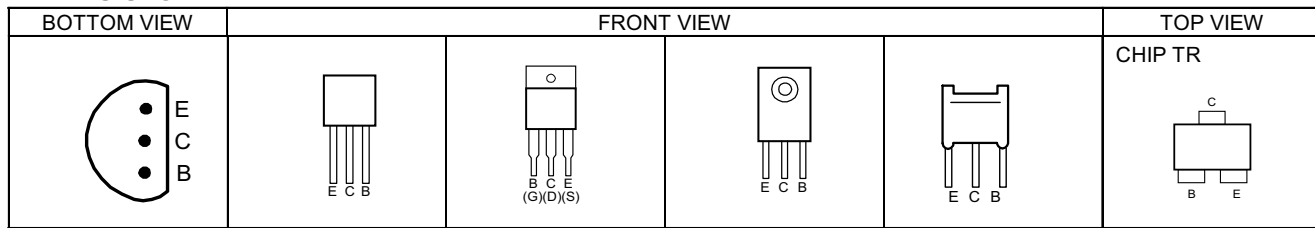
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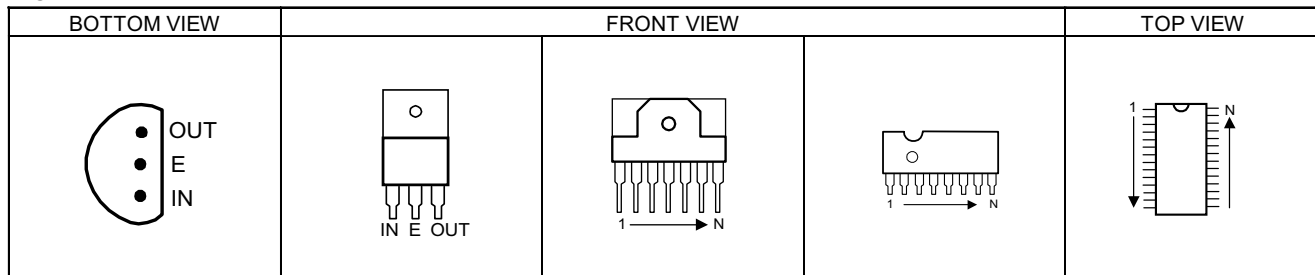
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SEMICONDUCTOR SHAPES

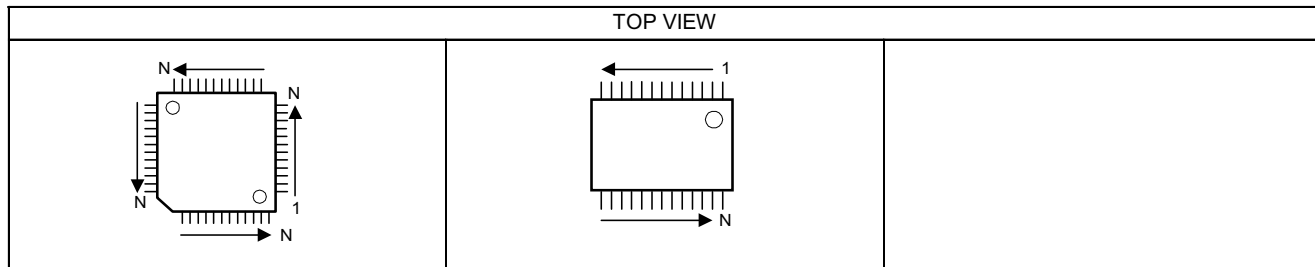
TRANSISTOR



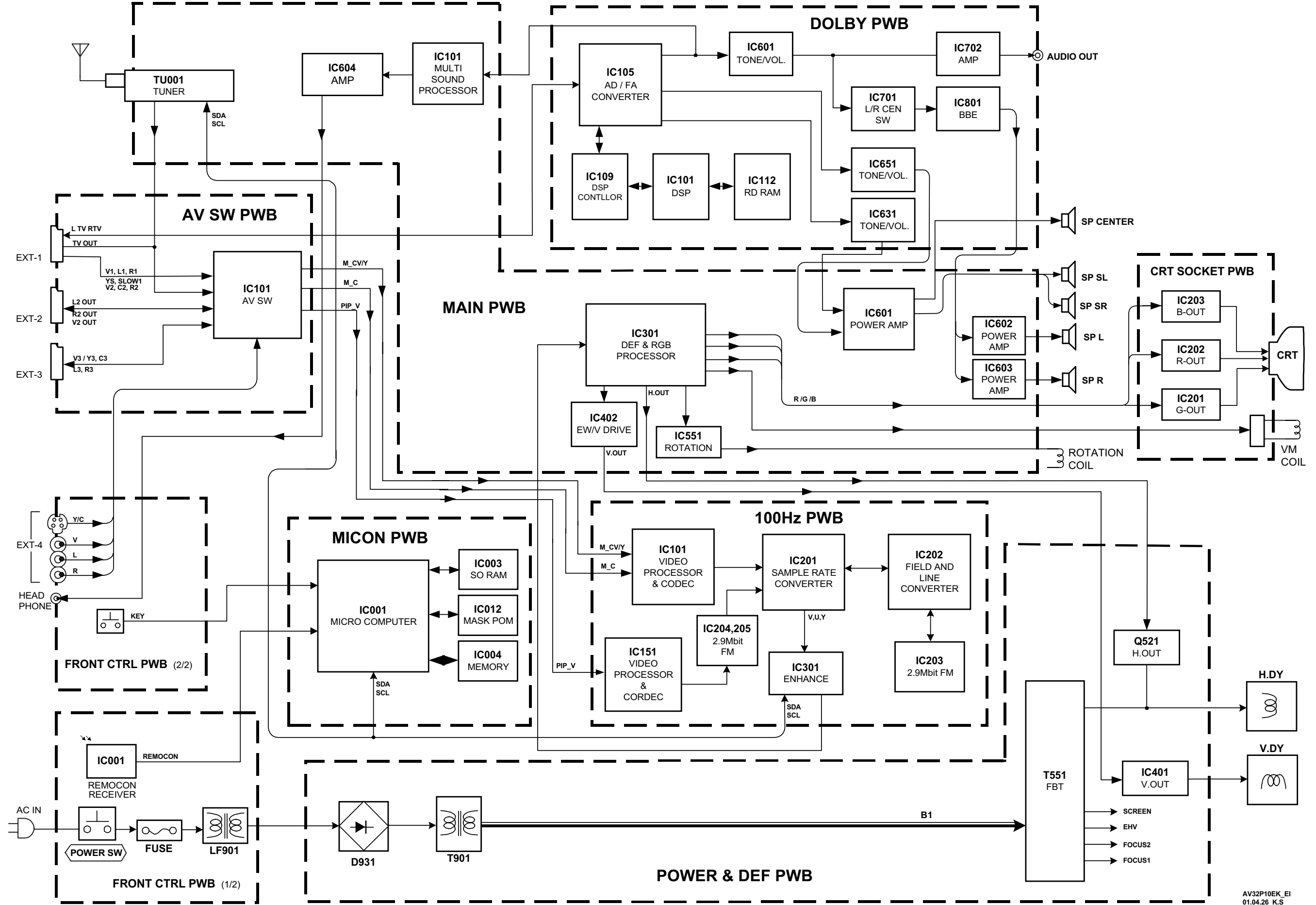
IC



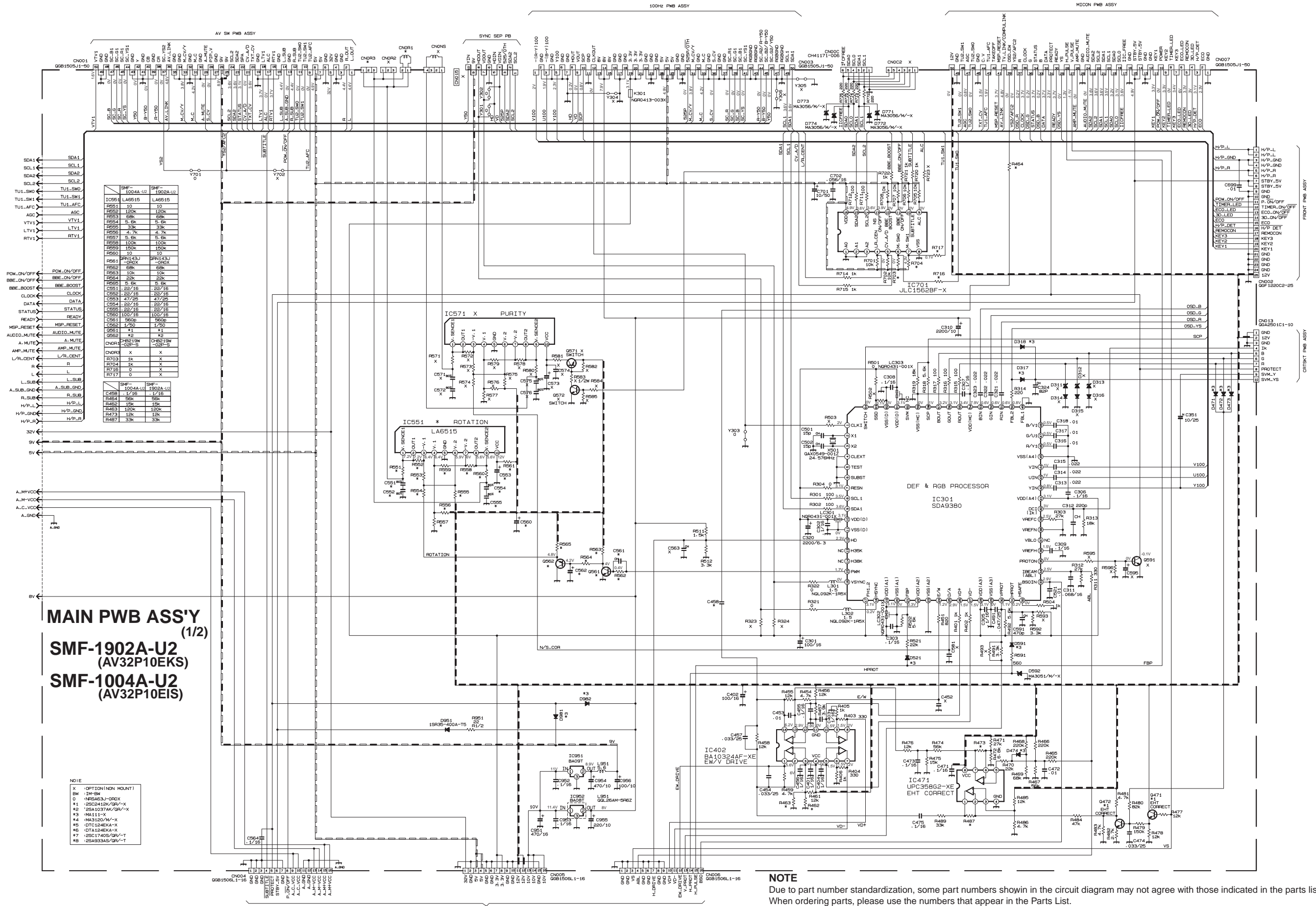
CHIP IC



BLOCK DIAGRAM



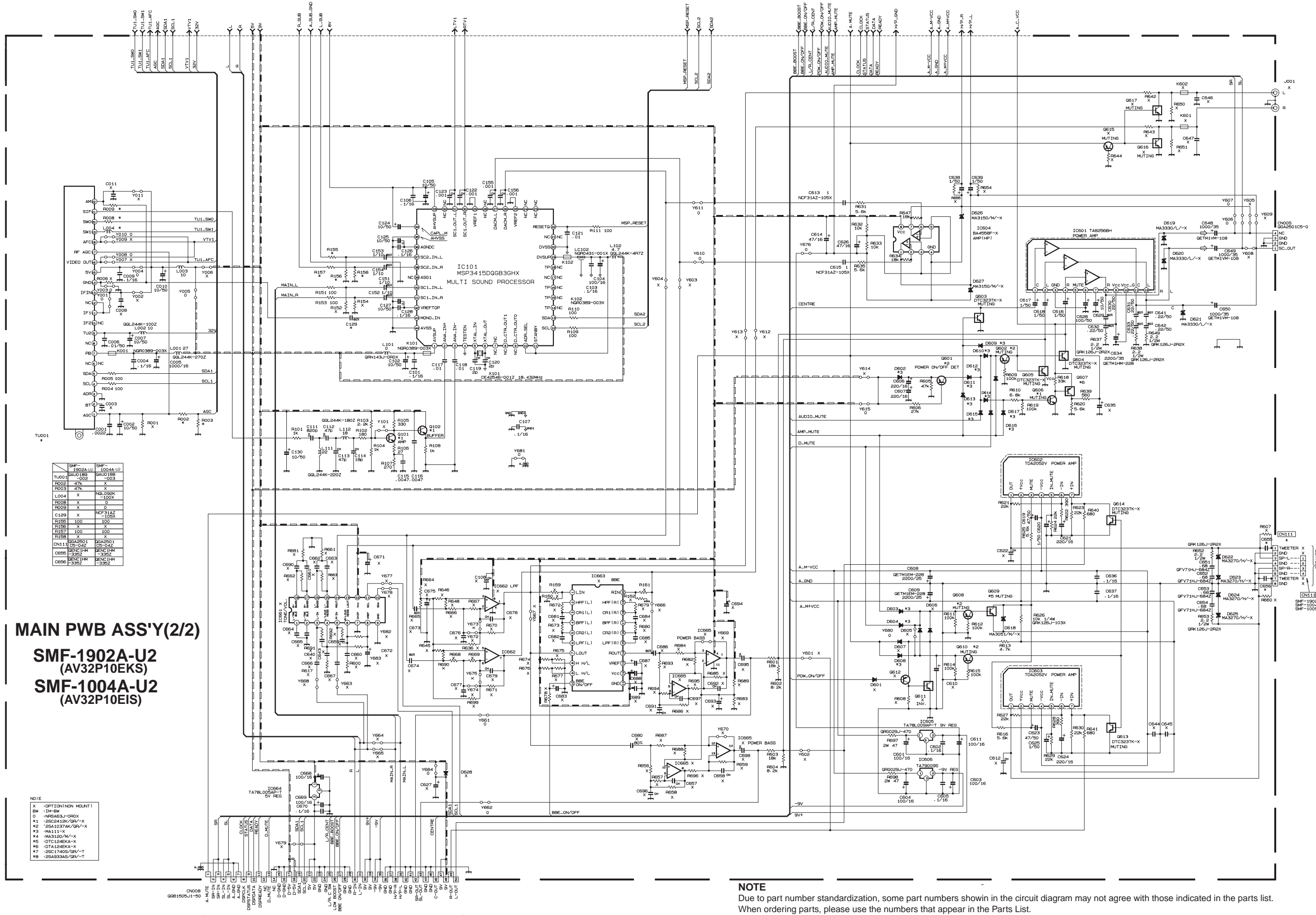
CIRCUIT DIAGRAMS MAIN PWB CIRCUIT DIAGRAM



MAIN PWB ASS'Y
(1/2)
SMF-1902A-U2
(AV32P10EKS)
SMF-1004A-U2
(AV32P10EIS)

- NOTE
- X - OPTION (NON MOUNT)
 - BW - 12M Ω
 - 0 - NFR8A63J-OROX
 - #1 - 25C2419K/GR/-X
 - #2 - 25A10374K/GR/-X
 - #3 - MA1111-X
 - #4 - MA3320/W-X
 - #5 - DTC124KA-X
 - #6 - DTA124KA-X
 - #7 - 25C17405/GR/-T
 - #8 - 25A9393A5/GR/-T

NOTE
Due to part number standardization, some part numbers shown in the circuit diagram may not agree with those indicated in the parts list. When ordering parts, please use the numbers that appear in the Parts List.



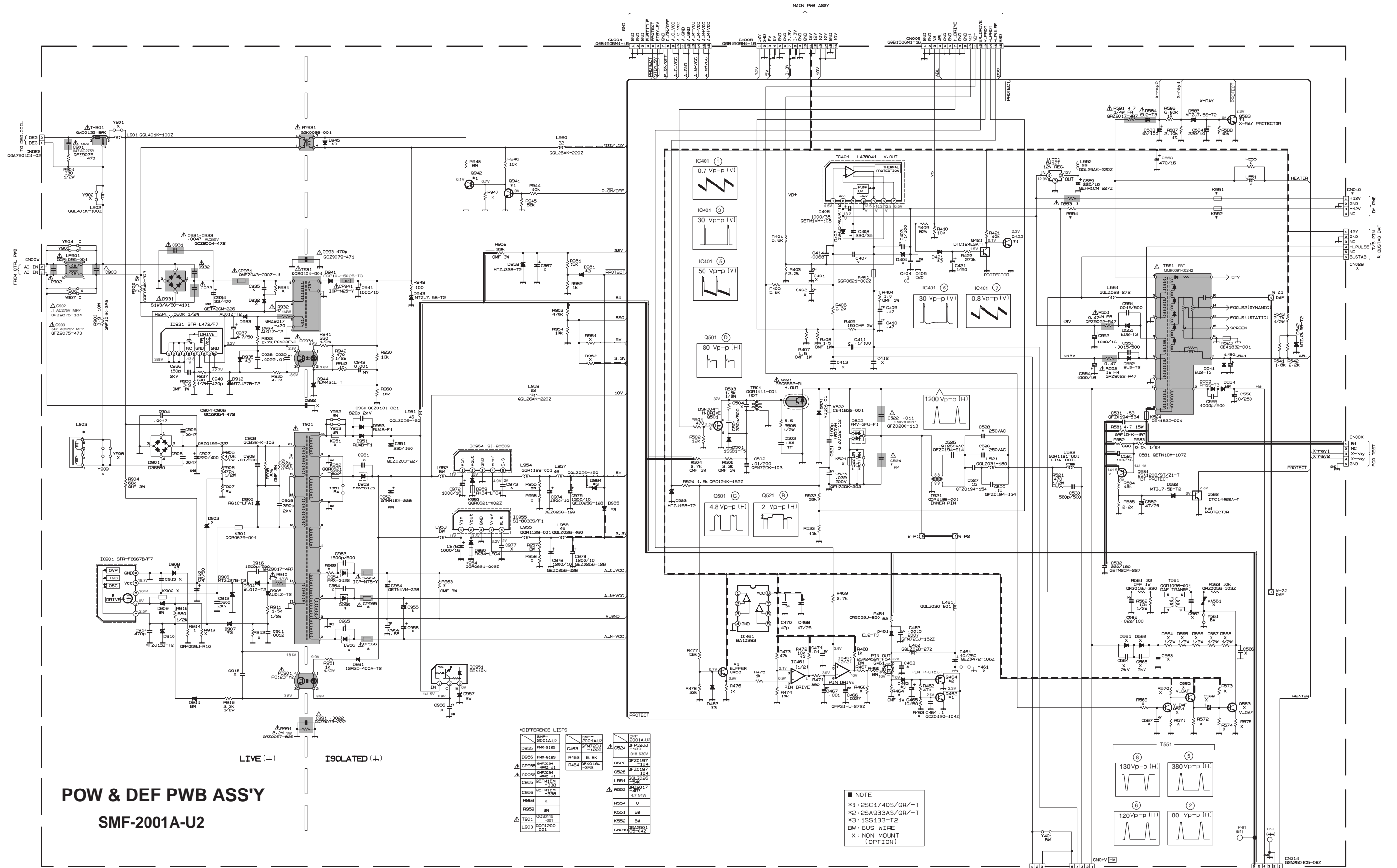
SMF-1902A-U2	SMF-1004A-U2
TU001	1802A117
R002	47K
R003	47K
L004	X
R008	X
R009	X
C109	X
R106	X
R107	X
R108	X
CN114	X
C656	X
C657	X

MAIN PWB ASS'Y(2/2)
SMF-1902A-U2
 (AV32P10EKS)
SMF-1004A-U2
 (AV32P10EIS)

- ND1E
- X - OPTION/NON MOUNT1
 - BW - 1M-BW
 - 0 - NRB63J-CR0X
 - #1 - 2S2C418K/GR-X
 - #2 - 2SA1037AK/GR-X
 - #3 - MA111-X
 - #4 - MA3150/M-X
 - #5 - DTC124EKA-X
 - #6 - DTA124EKA-X
 - #7 - 2S2C1740S/GR-T
 - #8 - 2S4933AS/GR-T

NOTE
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POWER & DEF PWB CIRCUIT DIAGRAM



POW & DEF PWB ASSY
SMF-2001A-U2

*DIFFERENCE LISTS

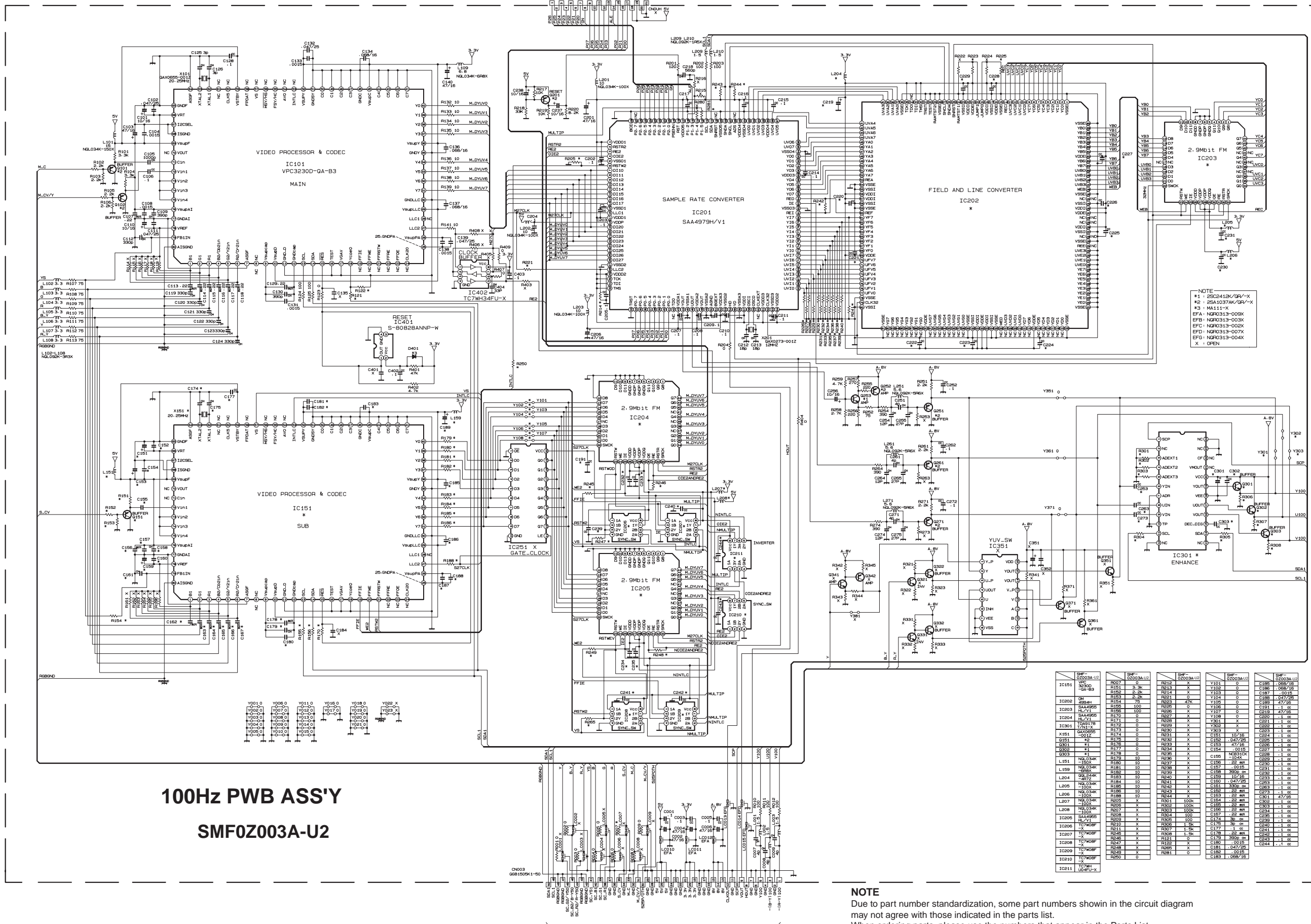
SMF-2001A-U2	SMF-2001A-U2
D955	C463
D956	R463
D957	R464
D958	R465
D959	R466
D960	R467
D961	R468
D962	R469
D963	R470
D964	R471
D965	R472
D966	R473
D967	R474
D968	R475
D969	R476
D970	R477
D971	R478
D972	R479
D973	R480
D974	R481
D975	R482
D976	R483
D977	R484
D978	R485
D979	R486
D980	R487
D981	R488
D982	R489
D983	R490
D984	R491
D985	R492
D986	R493
D987	R494
D988	R495
D989	R496
D990	R497
D991	R498
D992	R499
D993	R500
D994	R501
D995	R502
D996	R503
D997	R504
D998	R505
D999	R506
D1000	R507

NOTE
 *1: 25C1740S/QR/-T
 *2: 25A933AS/QR/-T
 *3: 1SS133-T2
 BW: BUS WIRE
 X: NON MOUNT (OPTION)

NOTE
 Due to part number standardization, some part numbers shown in the circuit diagram may not agree with those indicated in the parts list.
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100Hz PWB CIRCUIT DIAGRAM

AV32P10EKS
AV32P10EIS



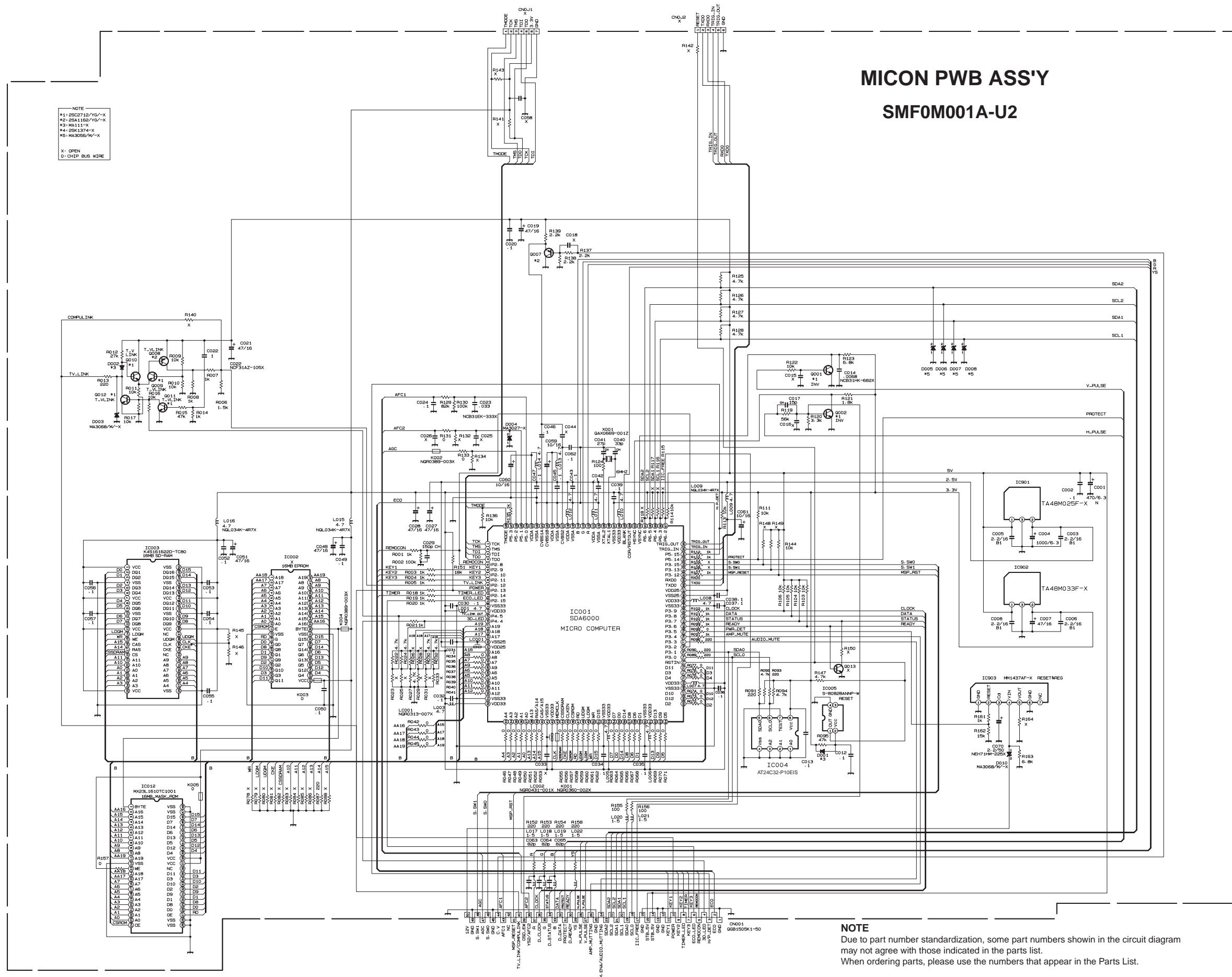
100Hz PWB ASS'Y
SMF0Z003A-U2

REF	QTY	DESCRIPTION	REF	QTY	DESCRIPTION	REF	QTY	DESCRIPTION	REF	QTY	DESCRIPTION	REF	QTY	DESCRIPTION
IC101	1	VPC3230D-GA-B3	R201	1	10K	R202	1	10K	R203	1	10K	R204	1	10K
IC102	1	TC7WH34FU-X	R205	1	10K	R206	1	10K	R207	1	10K	R208	1	10K
IC201	1	SAA4979H/V1	R209	1	10K	R210	1	10K	R211	1	10K	R212	1	10K
IC202	1	2.5MD11 FM	R213	1	10K	R214	1	10K	R215	1	10K	R216	1	10K
IC204	1	2.5MD11 FM	R217	1	10K	R218	1	10K	R219	1	10K	R220	1	10K
IC205	1	2.5MD11 FM	R221	1	10K	R222	1	10K	R223	1	10K	R224	1	10K
IC301	1	252C2412K/GRV-X	R225	1	10K	R226	1	10K	R227	1	10K	R228	1	10K
IC302	1	2541037AK/GRV-X	R229	1	10K	R230	1	10K	R231	1	10K	R232	1	10K
IC303	1	MA111-X	R233	1	10K	R234	1	10K	R235	1	10K	R236	1	10K
IC304	1	NFR0313-009K	R237	1	10K	R238	1	10K	R239	1	10K	R240	1	10K
IC305	1	NFR0313-003K	R241	1	10K	R242	1	10K	R243	1	10K	R244	1	10K
IC306	1	NFR0313-002K	R245	1	10K	R246	1	10K	R247	1	10K	R248	1	10K
IC307	1	NFR0313-007K	R249	1	10K	R250	1	10K	R251	1	10K	R252	1	10K
IC308	1	NFR0313-004K	R253	1	10K	R254	1	10K	R255	1	10K	R256	1	10K
IC309	1	NFR0313-007K	R257	1	10K	R258	1	10K	R259	1	10K	R260	1	10K
IC310	1	NFR0313-007K	R261	1	10K	R262	1	10K	R263	1	10K	R264	1	10K
IC311	1	NFR0313-004K	R265	1	10K	R266	1	10K	R267	1	10K	R268	1	10K

NOTE
Due to part number standardization, some part numbers shown in the circuit diagram may not agree with those indicated in the parts list.
When ordering parts, please use the numbers that appear in the Parts List.

MICON PWB ASS'Y
SMF0M001A-U2

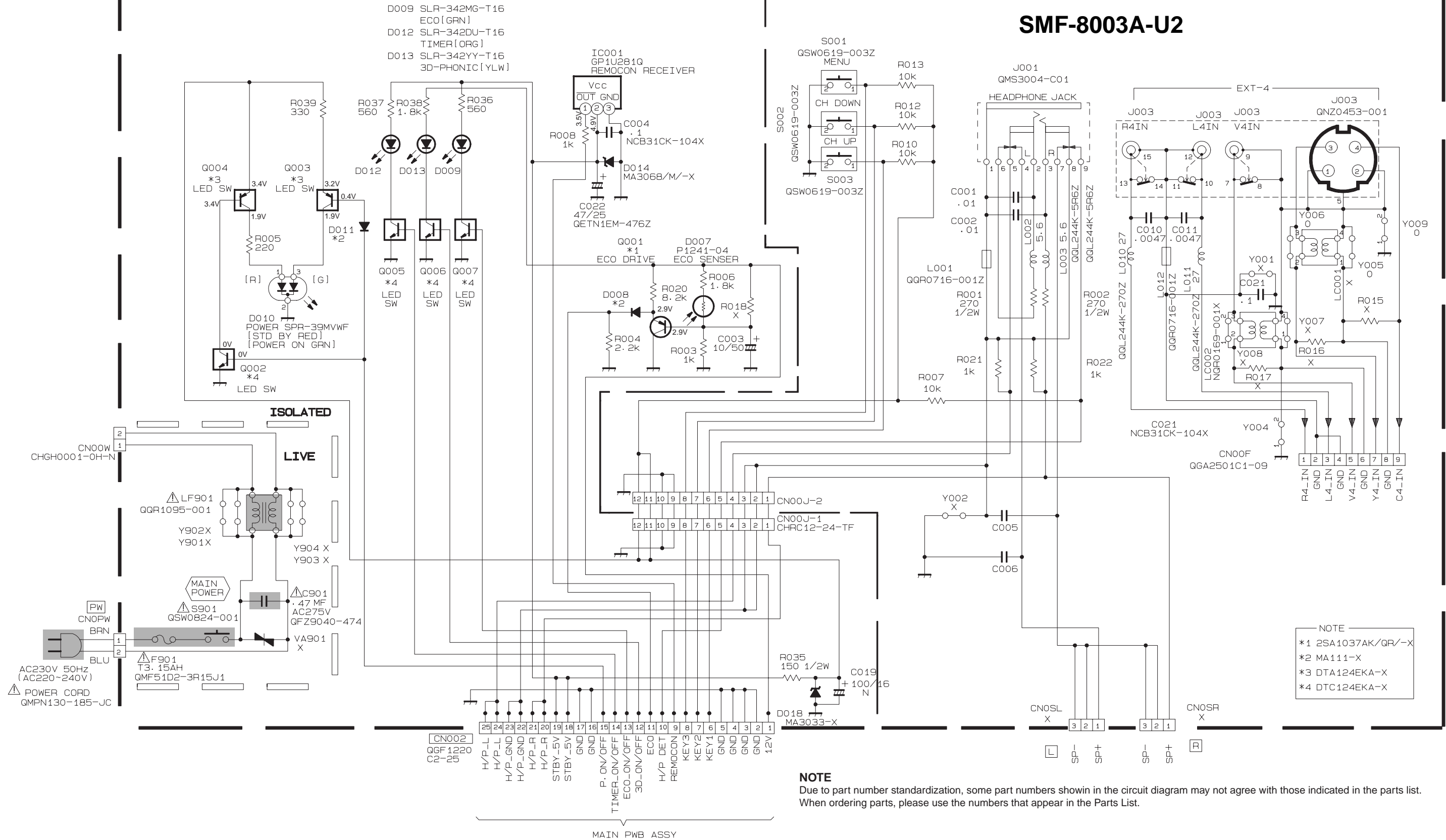
NOTE
#1=25C271D/YG-X
#2=25A116Z/YG-X
#3=MA111-X
#4=25K1374-X
#5=MA3056/M-X
X: OPEN
D: CHIP BUS WIRE



NOTE
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When ordering parts, please use the numbers that appear in the Parts List.

FRONT CONTROL CIRCUIT DIAGRAM

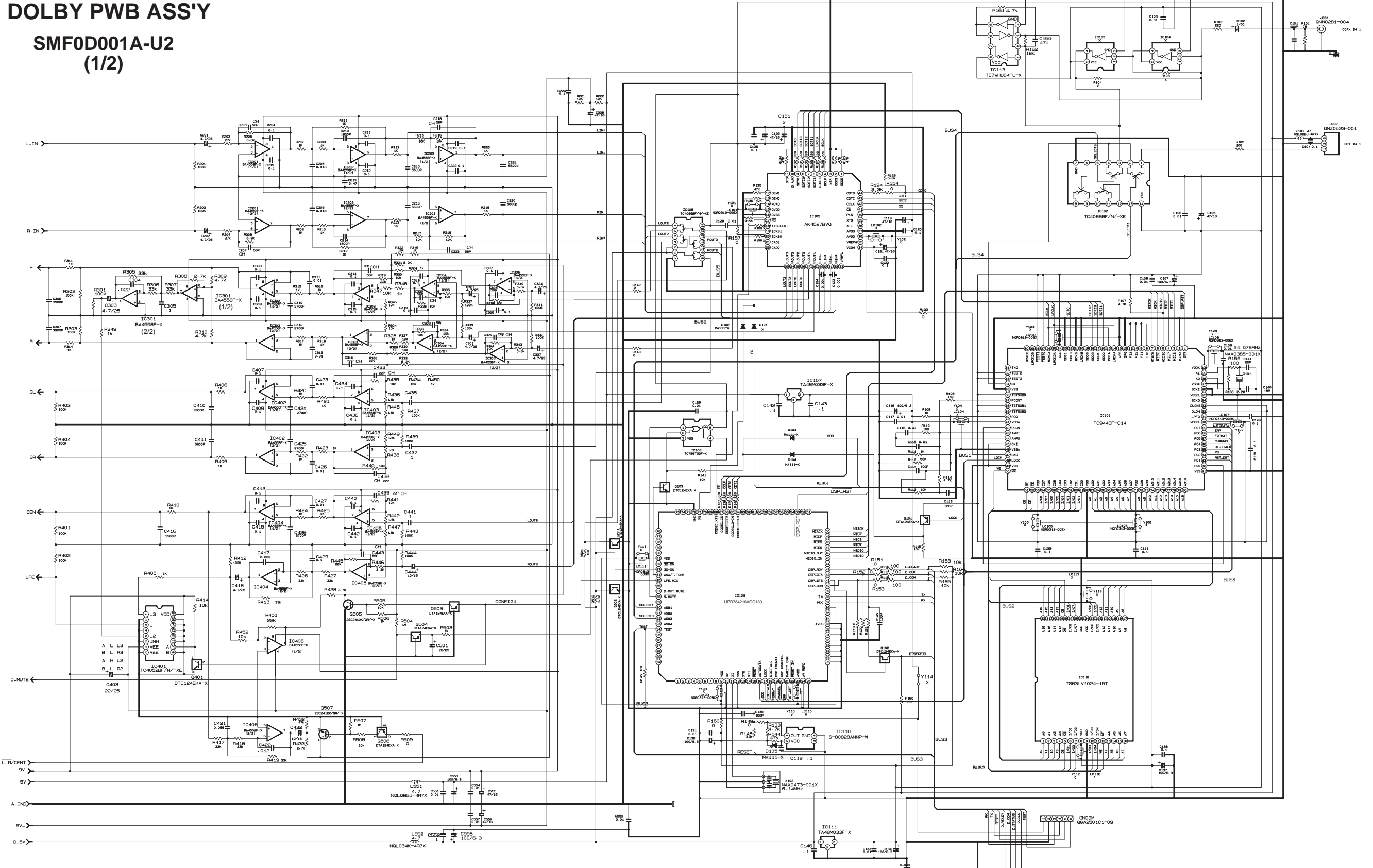
FRONT CONTRL PWB ASS'Y
SMF-8003A-U2



NOTE
Due to part number standardization, some part numbers shown in the circuit diagram may not agree with those indicated in the parts list. When ordering parts, please use the numbers that appear in the Parts List.

DOLBY CIRCUIT DIAGRAM

DOLBY PWB ASS'Y
SMF0D001A-U2
(1/2)

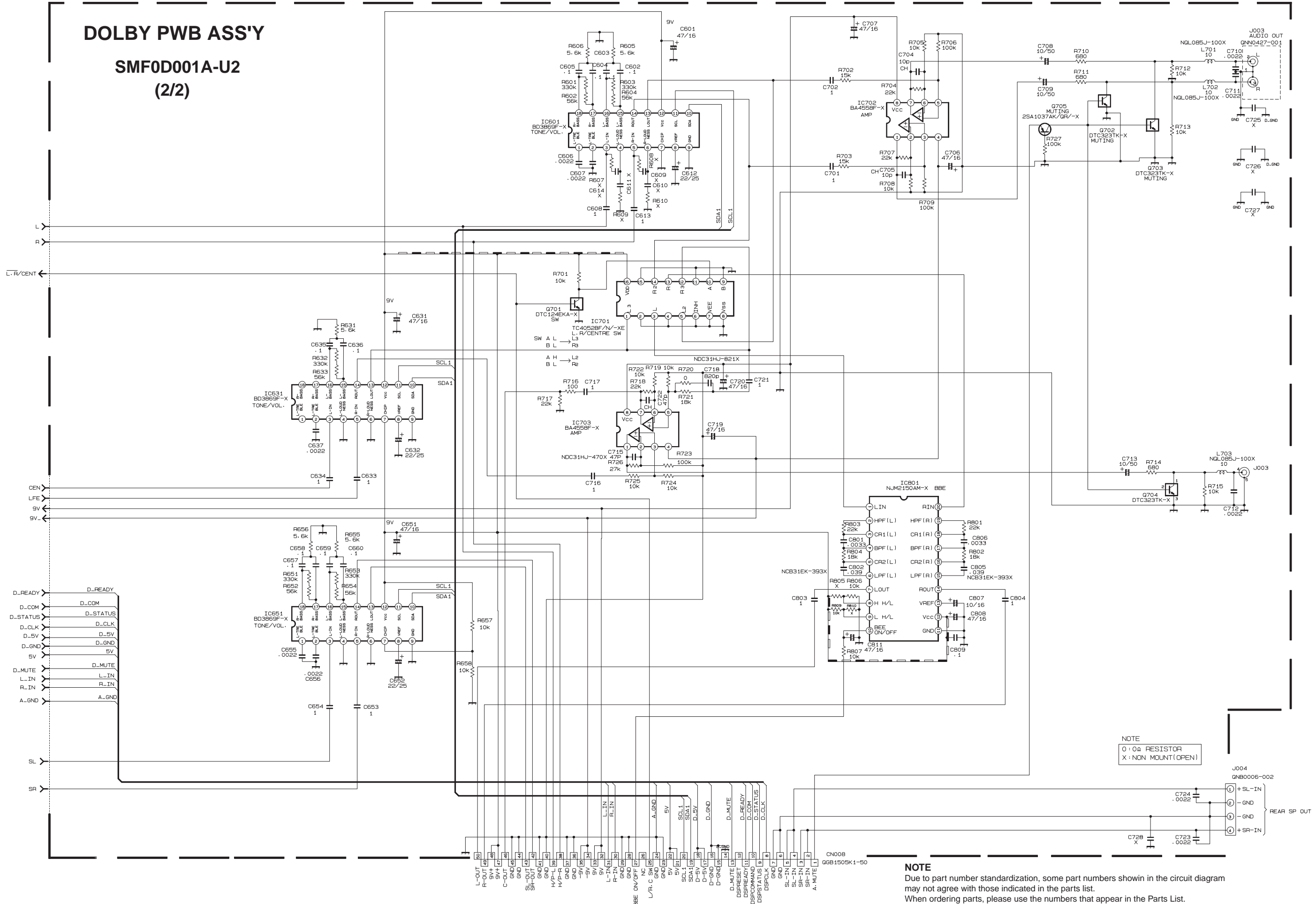


NOTE
Due to part number standardization, some part numbers shown in the circuit diagram may not agree with those indicated in the parts list.
When ordering parts, please use the numbers that appear in the Parts List.

DOLBY PWB ASS'Y

SMF0D001A-U2

(2/2)



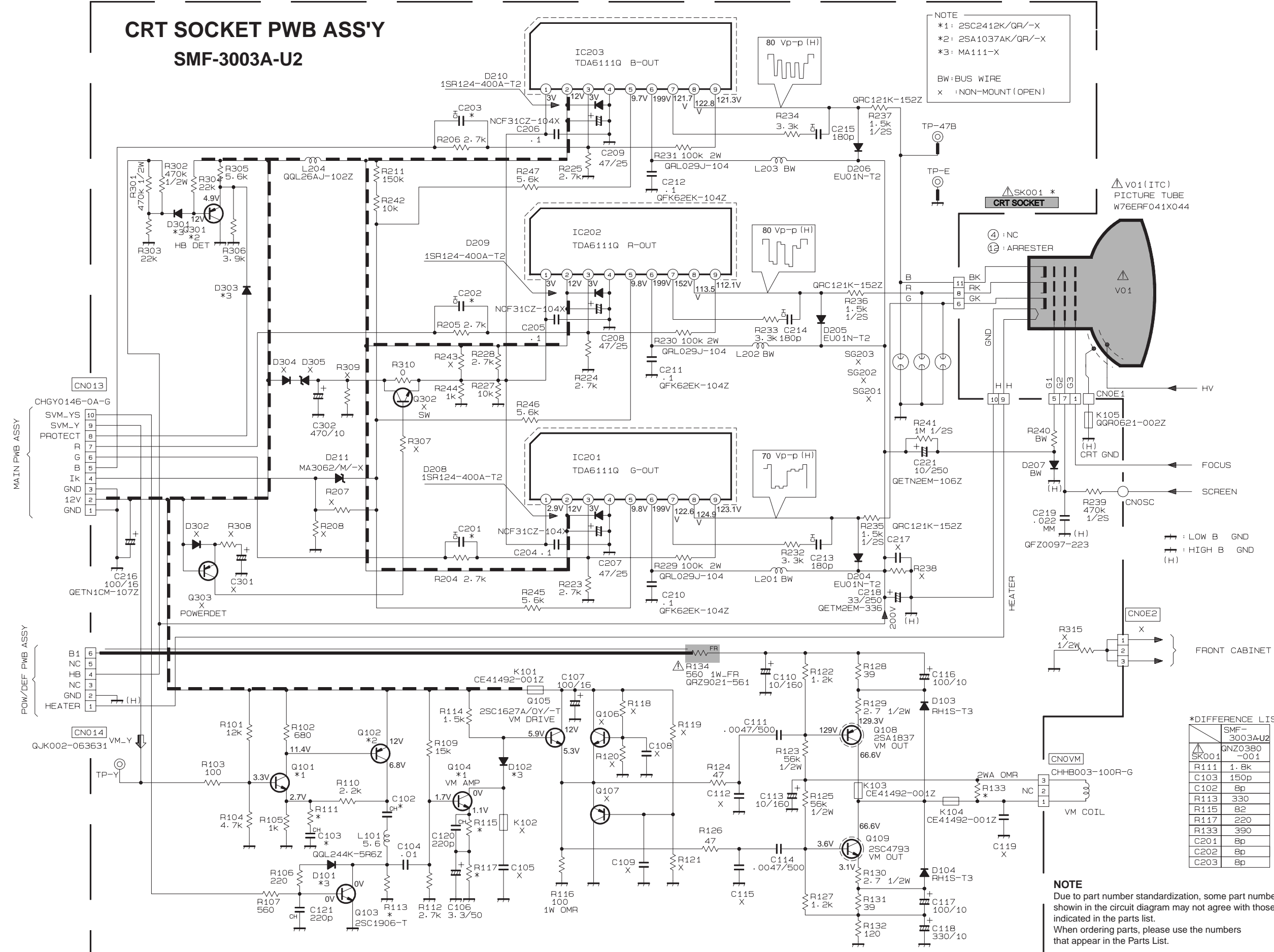
NOTE
Due to part number standardization, some part numbers shown in the circuit diagram may not agree with those indicated in the parts list.
When ordering parts, please use the numbers that appear in the Parts List.

CRT SOCKET PWB CIRCUIT DIAGRAM

CRT SOCKET PWB ASS'Y
SMF-3003A-U2

NOTE
*1: 2SC2412K/QR/-X
*2: 2SA1037AK/QR/-X
*3: MA111-X

BW: BUS WIRE
X: NON-MOUNT (OPEN)



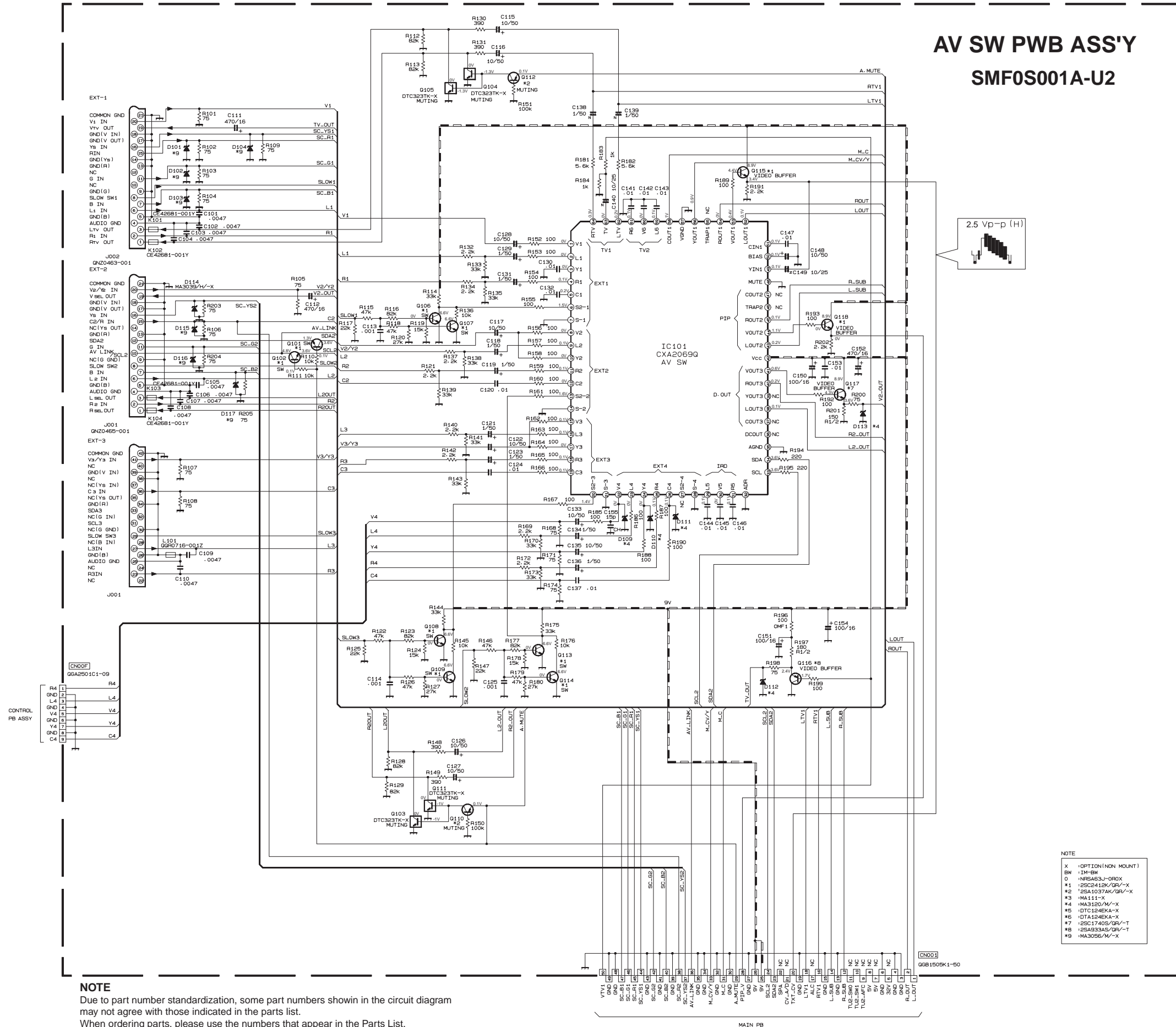
*DIFFERENCE LISTS

Part	SMF-3003A-U2
SK001	QNZ0380-001
R111	1.8k
C103	150p
C102	8p
R113	330
R115	82
R117	220
R133	390
C201	8p
C202	8p
C203	8p

NOTE
Due to part number standardization, some part numbers shown in the circuit diagram may not agree with those indicated in the parts list.
When ordering parts, please use the numbers that appear in the Parts List.

AV SW PWB CIRCUIT DIAGRAM

AV SW PWB ASS'Y
SMF0S001A-U2



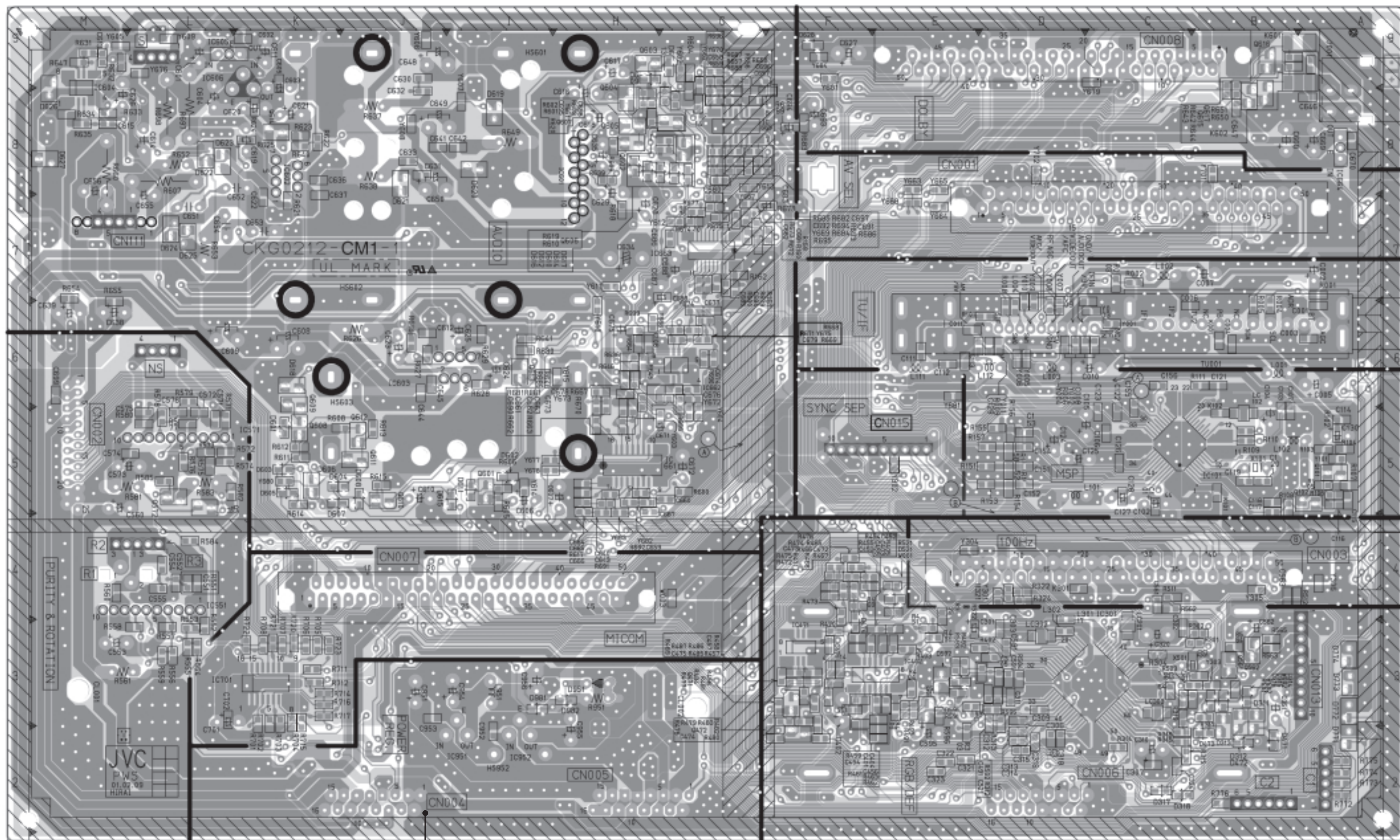
NOTE
 Due to part number standardization, some part numbers shown in the circuit diagram may not agree with those indicated in the parts list.
 When ordering parts, please use the numbers that appear in the Parts List.

NOTE

X	OPTION (NON MOUNT)
BW	IM-BW
0	INFA63J-OROX
#1	2SC2418K/GR-X
#2	2SA1037AK/GR-X
#3	MA111-X
#4	MA3120/M-X
#5	DT1248KA-X
#6	DTA1248KA-X
#7	2SC1740S/GR-T
#8	2SA333AS/GR-T
#9	MA3056/M-X

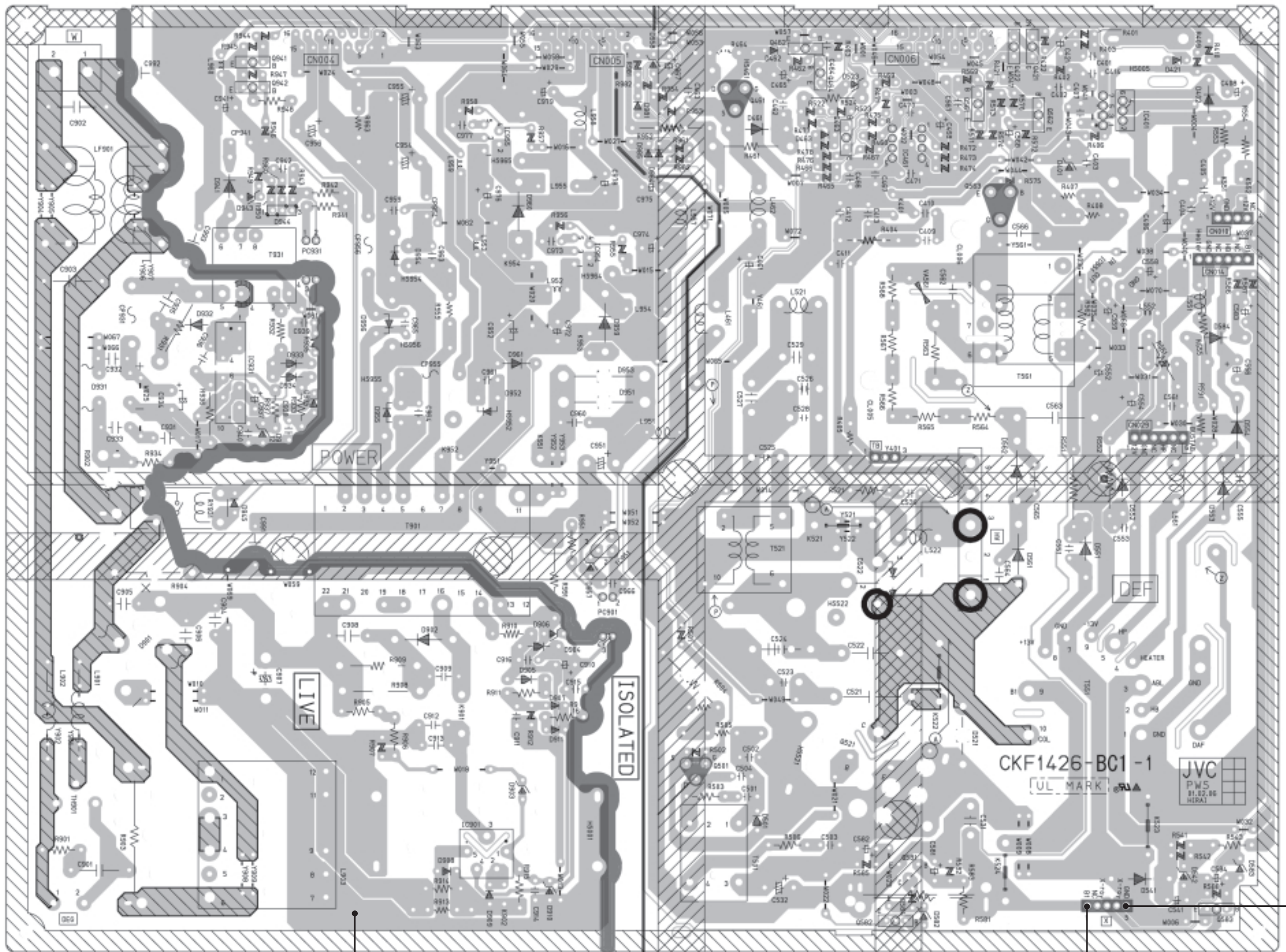
PATTERN DIAGRAMS MAIN PWB PATTERN

← FRONT



POWER & DEF PWB PATTERN

FRONT



POWER

LIVE

ISOLATED

DEF

CKF1426-BC1-1

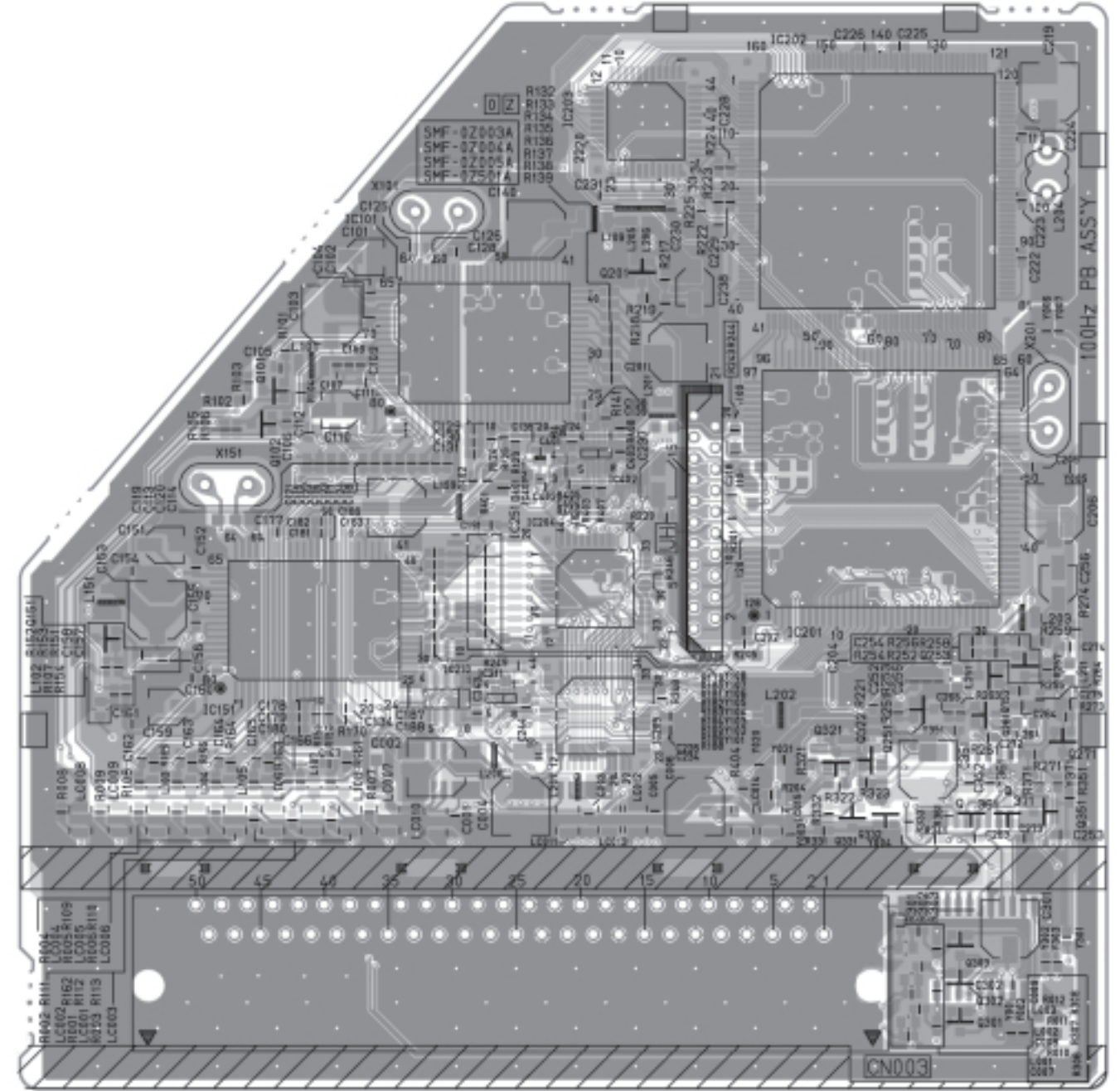
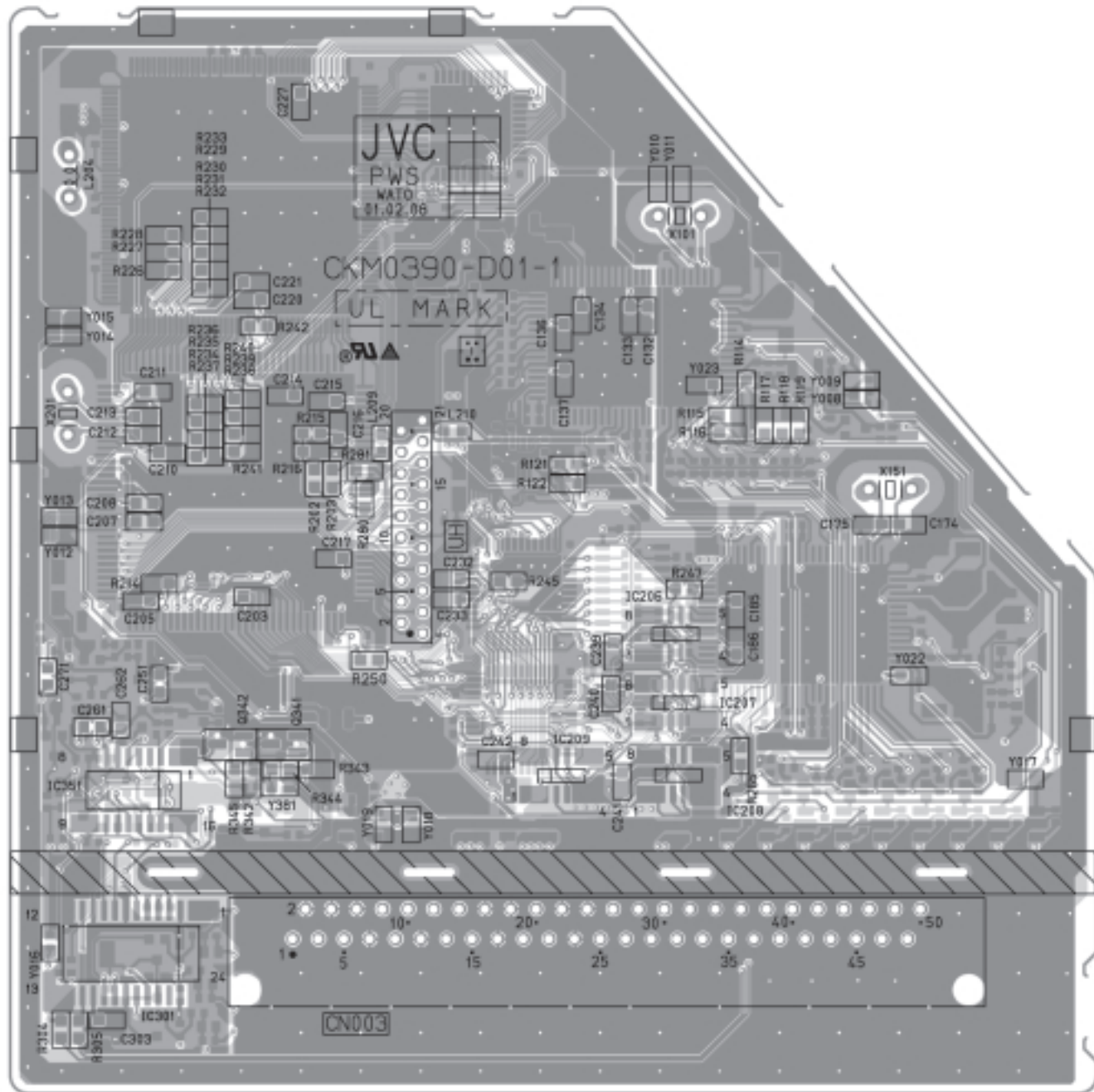


TP-E (T)

TP-91(B1)

100Hz PWB PATTERN (SOLDER SIDE)

100Hz PWB PATTERN (PARTS SIDE)

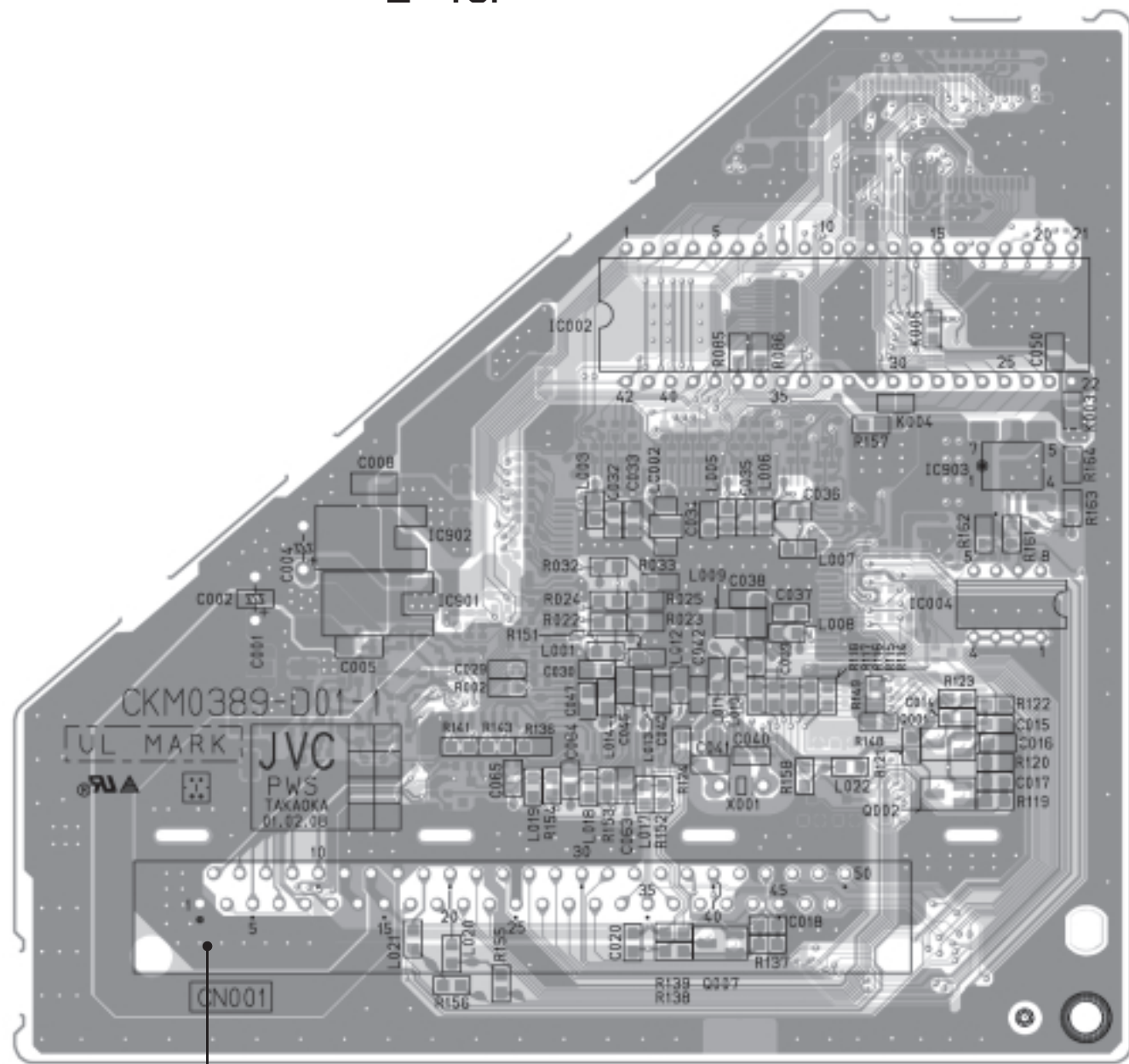


MICON PWB PATTERN (SOLDER SIDE)

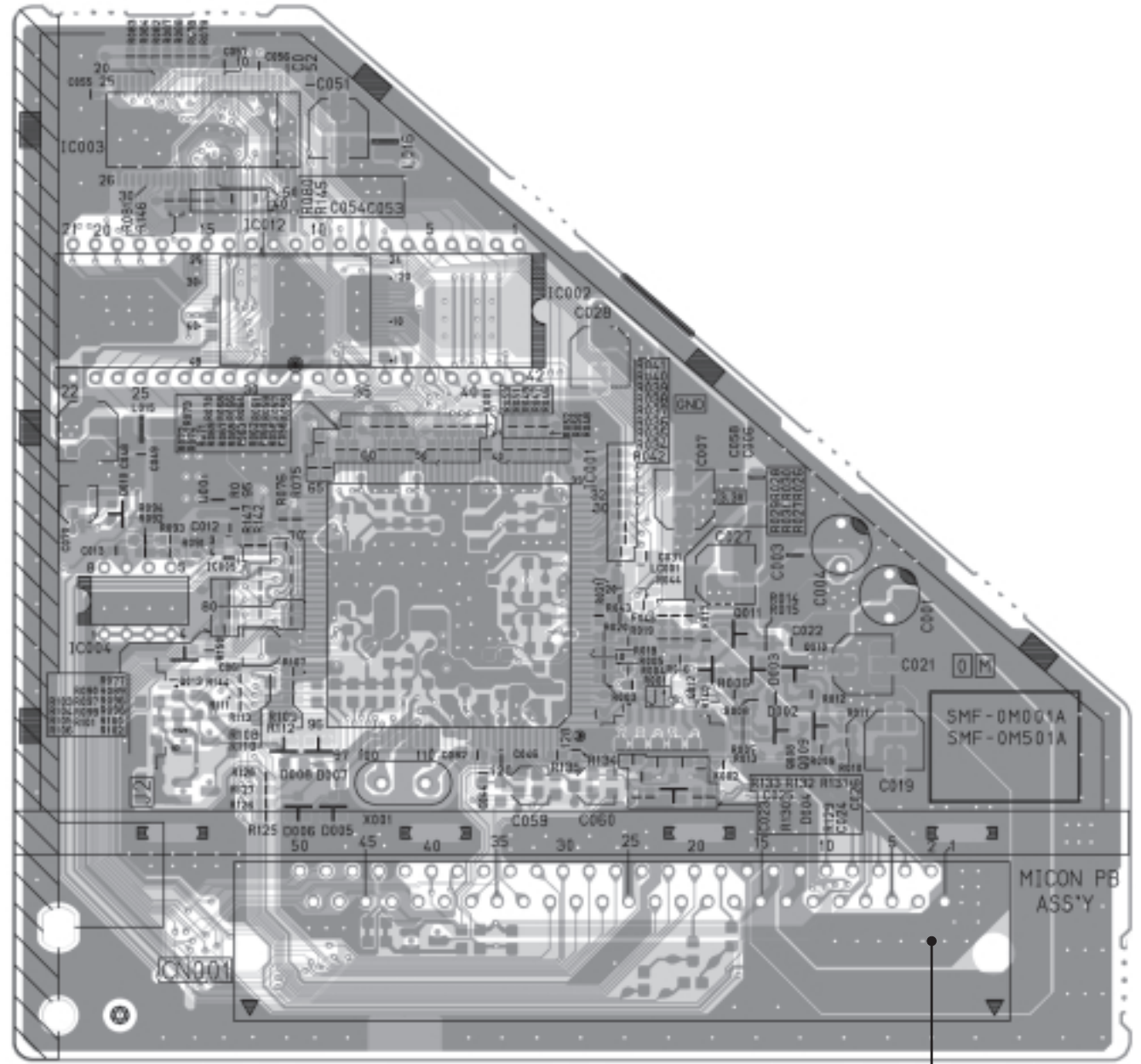
MICON PWB PATTERN (PARTS SIDE)

↑ TOP

↑ TOP



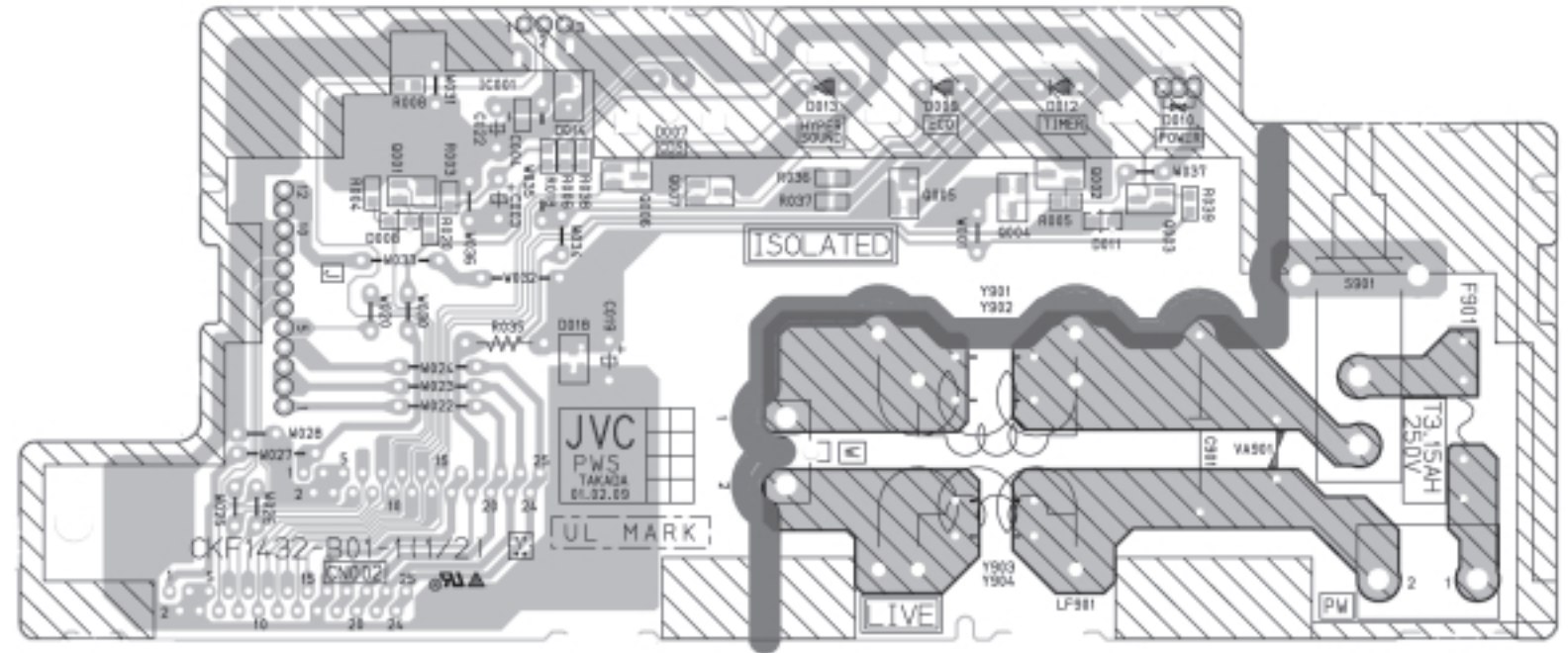
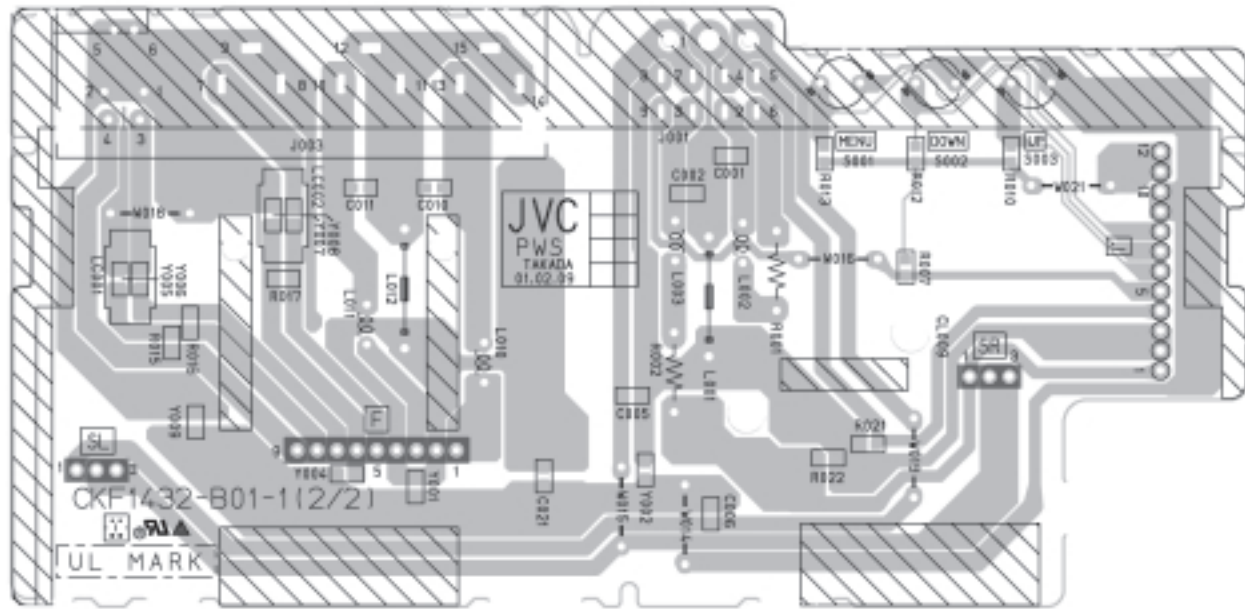
(M)



(M)

FRONT CONTROL PWB PATTERN

↑ FRONT

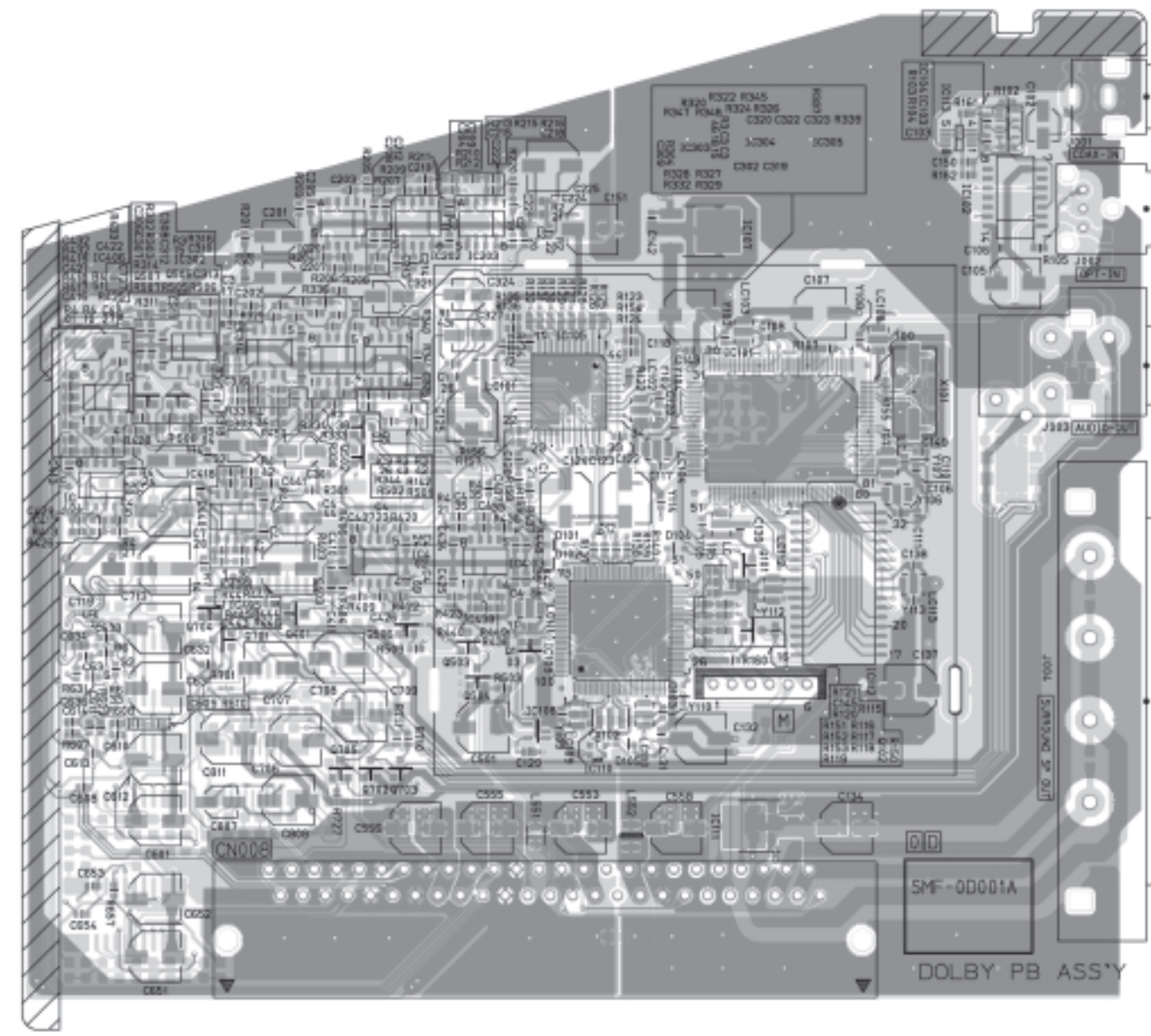
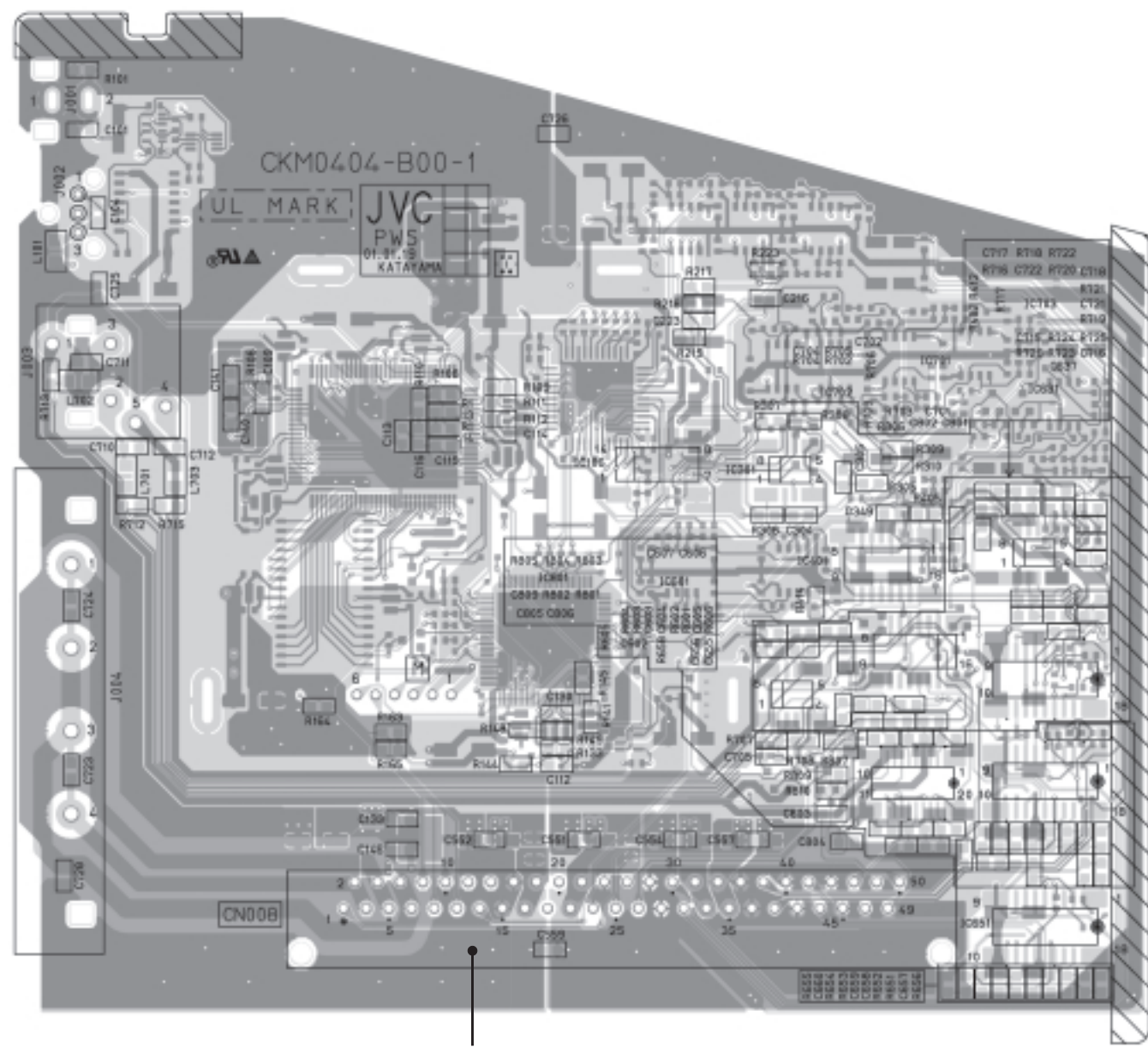


DOLBY PWB PATTERN (SOLDER SIDE)

DOLBY PWB PATTERN (PARTS SIDE)

↑ TOP

↑ TOP



CRT SOCKET PWB PATTERN

AV SW PWB PATTERN

