

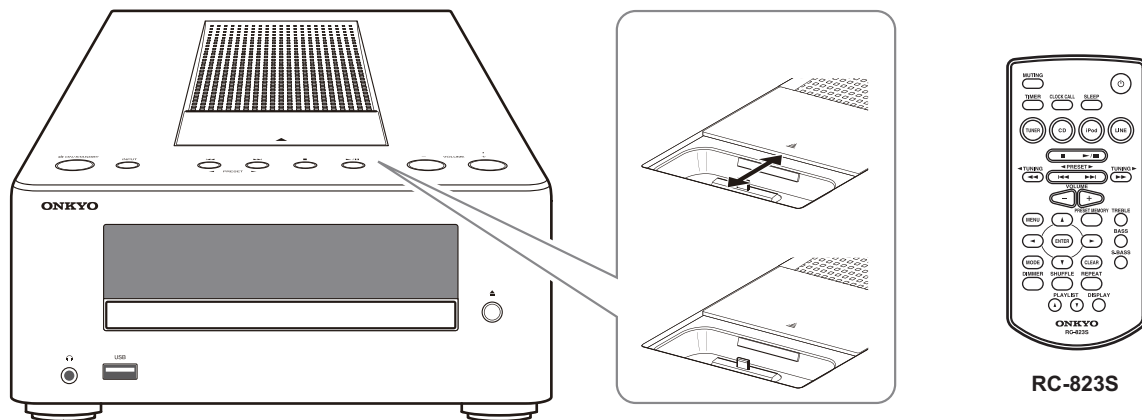
ONKYO® SERVICE MANUAL

Ref. No. 4446-R5

CR-255:072013

CR-255DAB:092013

CD RECEIVER MODEL CR-255(B/W/GR/R/LB)/255DAB(W)



Black/White/Green/Red/LightBlue model

B WDC	120V AC, 60Hz
B/W/GR/R/LB WMP	220-240V AC, 50/60Hz

SAFETY-RELATED COMPONENT WARNING!!

COMPONENTS IDENTIFIED BY MARK  ON THE SCHEMATIC DIAGRAM AND IN THE PARTS LIST ARE CRITICAL FOR RISK OF FIRE AND ELECTRIC SHOCK. REPLACE THESE COMPONENTS WITH ONKYO PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL.

MAKE LEAKAGE-CURRENT OR RESISTANCE MEASUREMENTS TO DETERMINE THAT EXPOSED PARTS ARE ACCEPTABLY INSULATED FROM THE SUPPLY CIRCUIT BEFORE RETURNING THE APPLIANCE TO THE CUSTOMER.

Features

General

- CD tuner audio system with built-in iPod®/ iPhone®*1*2 dock
- Super Bass (S.Bass) function for deeper bass sounds
- Bass and treble tone controls
- Line input for external audio source
- Headphones jack
- Dimmable display

Onkyo Corporation
Service Department

Service Procedures - 1

WHEN REPLACING DECK

[When removing the Deck]

Before removing Pick Up PCB and MT PCB connector, the short circuit the position shown in **Fig. 1** using a soldering iron. If you remove the Deck with no soldering, the Laser may be damaged.

[When installing the Deck]

Remove all the soldering on the short circuit position after the connection of Pick Up PCB and MT PCB connector.

NOTE

- Before your operation, please read "PREPARATION OF SERVICING"
- Use the Lead Free solder.
- Manual soldering conditions
 - Soldering temperature: $320 \pm 20^{\circ}\text{C}$
 - Soldering time: Within 3 seconds
 - Soldering combination: Sn-3.0Ag-0.5Cu
- When Soldering/Removing of solder, use the draw in equipment over the Pick Up Unit to keep the Flux smoke away from it.

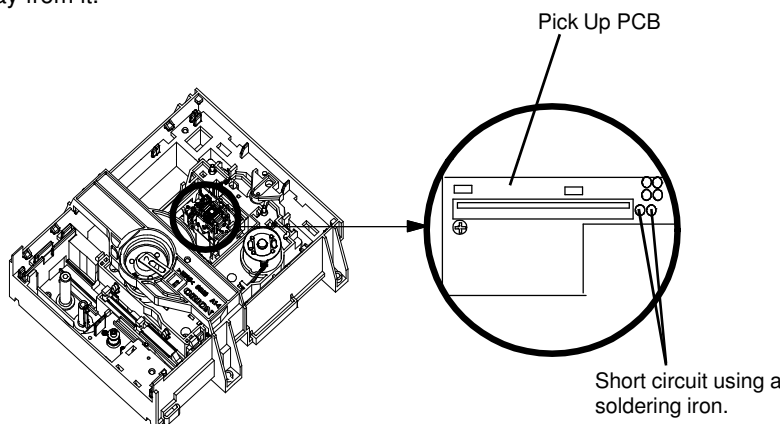


Fig. 1

PROTECTION OF EYES FROM LASER BEAM DURING SERVICING (Only Optical pickup included)

This set employs a laser. Therefore, be sure to follow carefully the instructions below when servicing.

WARNING!!

WHEN SERVICING, DO NOT APPROACH THE LASER EXIT WITH THE EYE TOO CLOSELY. WHEN IT IS NECESSARY TO CONFIRM LASER BEAM EMISSION, BE SURE TO OBSERVE FROM A DISTANCE OF MORE THAN 30cm FROM THE SURFACE OF THE OBJECTIVE LENS ON THE OPTICAL PICK-UP BLOCK.

THIS PRODUCT UTILIZES A LASER. USE OF CONTROLS OR ADJUSTMENTS OR PERFORMANCE OF PROCEDURES OTHER THAN THOSE SPECIFIED HEREIN MAY RESULT IN HAZARDOUS RADIATION EXPOSURE.

The label on the right is applied on the rear panel.

CLASS 1 LASER
PRODUCT

1. This unit is a CLASS 1 LASER PRODUCT and employs a laser inside the cabinet.
2. To prevent the laser from being exposed, do not remove the cover. Refer servicing to qualified personnel.

CAUTION (Only lithium-ion batteries included)

Danger of explosion if lithium-ion batteries is incorrectly replaced.
Replace only with the same or equivalent type recommended by the manufacturer.
Discard used batteries according to the manufacturer's instructions.

Service Procedures - 2

DISC REMOVAL METHOD AT NO POWER SUPPLY

1. Slide the Rack Loading (White) toward the arrow direction by using a minus driver to release the lock.
(Refer to Fig. 1)
2. Manually open the Tray.

NOTE: Please strongly pushing Rack Loading (White) to release the lock because the tray doesn't go out easily.

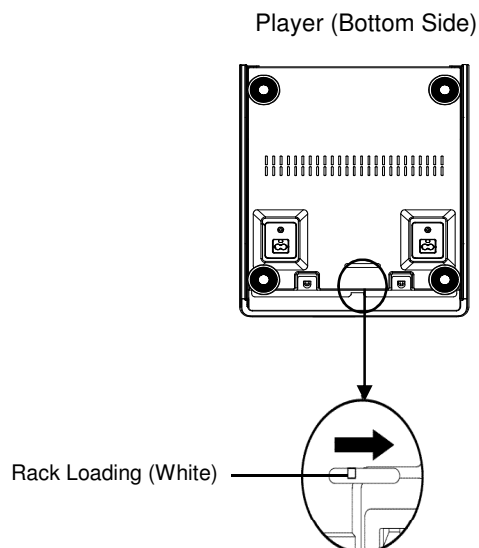


Fig. 1

PARENTAL CONTROL - RATING LEVEL 4 DIGIT PASSWORD CANCELLATION

If the stored 4 digit password in the Rating Level menu needs to be cancelled, please follow the steps below.

1. Set the DVD to the Stand-by Mode.
2. Press and hold the 'STOP' key on the front panel.
3. Simultaneously press and hold the POWER key on the front panel.
4. The 4 digit password has now been cleared.

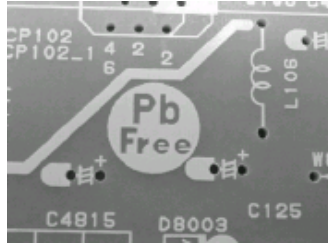
NOTE: The above procedure will reset ALL of the player's settings to the default factory state.

Service Procedures - 3

ABOUT LEAD FREE SOLDER (PbF)

Distinction of PbF PCB:

PCBs (manufactured) using lead free solder will have a PbF printing on the PCB.
(Please refer to figures.)



Caution:

- Pb free solder has a higher melting point than standard solder;
Typically the melting point is 86°F~104°F(30°C~40°C) higher.
Please use a soldering iron with temperature control and adjust it to 650°F ± 20°F (350°C ± 10°C).
In case of using high temperature soldering iron, please be careful not to heat too long.
- Pb free solder will tend to splash when heated too high (about 1100°F/ 600°C).
- All products with the printed circuit board with PbF printing must be serviced with lead free solder.
When soldering or unsoldering, completely remove all of the solder from the pins or solder area,
and be sure to heat the soldering points with the lead free solder until it melts sufficiently.

Recommendations

Recommended lead free solder composition is Sn-3.0Ag-0.5Cu.

Service Procedure - 4

Special feature for multi press the buttons

To factory default preference values

While holding down the [stop] button, press the [ON/STANDBY] button.

To view the version of the VFD

*CD microcomputer software version

*System Maicon software version

While holding down the CD receiver's [TRACK DOWN] button, press the [INPUT] button.

Later, the [TRACKDOWN]/[TRACK UP] button, switch between

CD microcomputer software version and system microcomputer software version.

To enable or disable Tray open/close key

Press the [play/pause] button three times, then holding the [open/close] button 10 seconds.

Start the mechanical durability test mode (test mode details define NES)

While holding down the [STOP] button in the TRAY open, press the [open/close] button.

Change the EEPROM data.

Volume to 0.

While holding down the [VOLUME DOWN] button, press the remote controller's [SLEEP] button.

To view the version and EEPROM checksum value.

Volume to 0.

While holding down the [VOLUME DOWN] button, press the remote controller's [STOP] button.

Service Procedure - 5

Initial setting values list for each destination are the following.

	EU	USA/CANADA	CHINA	JAPAN	EU(DAB)
INPUT	CD	CD	CD	CD	CD
REPEAT	OFF	OFF	OFF	OFF	OFF
SHUFFLE	OFF	OFF	OFF	OFF	OFF
DIMMER	DM1	DM1	DM1	DM1	DM1
TIME	- : -	- : -	- : -	- : -	- : -
TIMER SET	- : -	- : -	- : -	- : -	- : -
TIMER	OFF	OFF	OFF	OFF	OFF
SLEEP TIMER	OFF	OFF	OFF	OFF	OFF
VOLUME	10	10	10	10	10
MUTE	OFF	OFF	OFF	OFF	OFF
BASS	0	0	0	0	0
TREBLE	0	0	0	0	0
S.BASS	OFF	OFF	OFF	OFF	OFF
FM TUNER PRESET	NONE	NONE	NONE	NONE	NONE
FM TUNER FREQUENCY	87.50MHz	87.50MHz	87.50MHz	76.00MHz	87.50MHz
AM TUNER PRESET	-	NONE	-	-	-
AM TUNER FREQUENCY	-	530.00KHz	-	-	-
DAB TUNER PRESET	-	-	-	-	NONE
DAB TUNER FREQUENCY	-	-	-	-	-
TUNER MODE	FM	FM	FM	FM	FM
iPod/USB (without Apple Lightning)	-	-	iPod	iPod	-
TRAY LOCK MODE	OFF	OFF	OFF	OFF	OFF
TIME MODE	24-Hour	24-Hour	24-Hour	24-Hour	24-Hour
Auto Power Down (ErP MODEL ONLY)	ON	OFF	OFF	OFF	ON

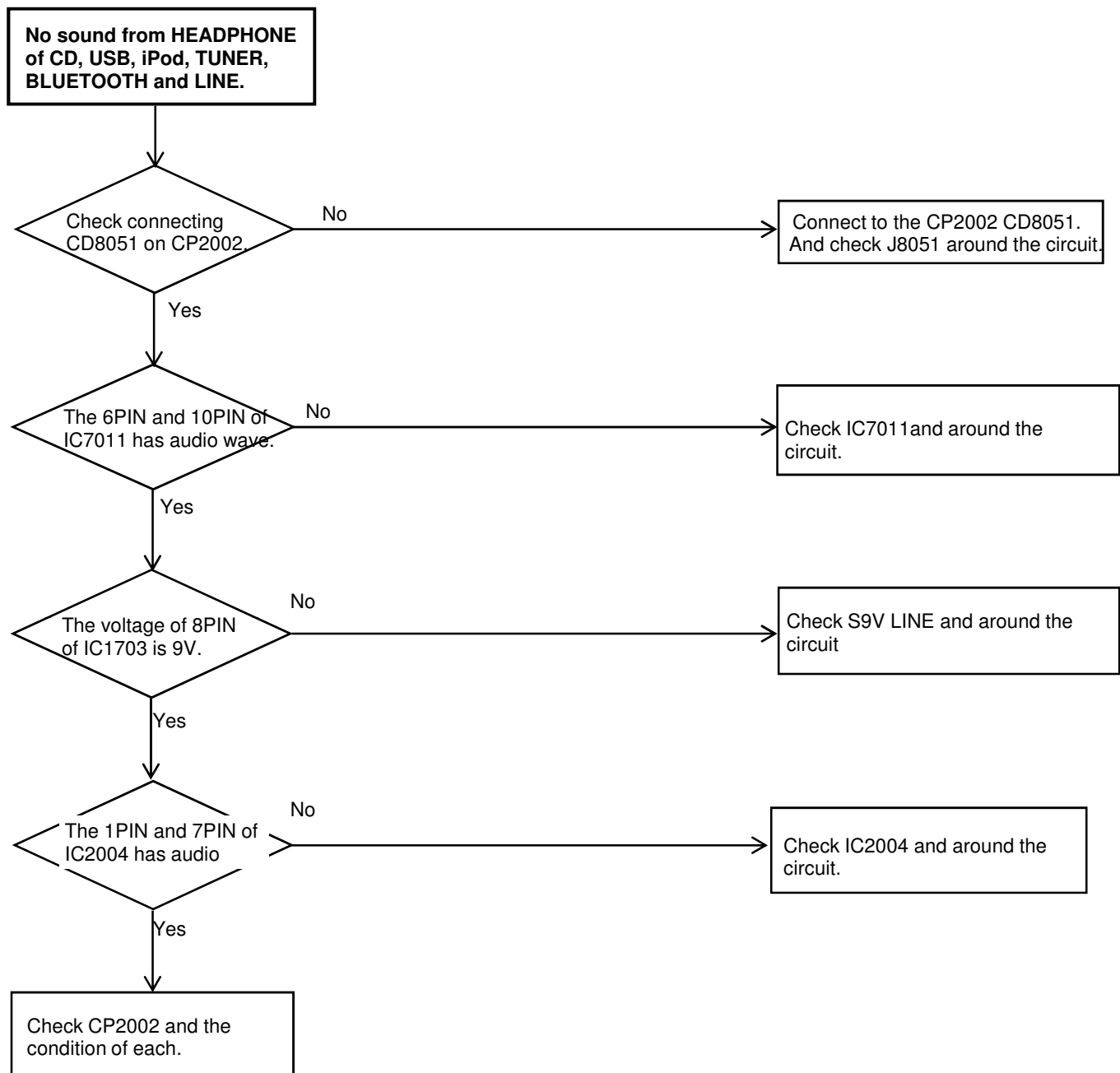
Initial frequency TUNER FM/AM

The frequency of the TUNER mode in the initial shipment status. This means representing the initial frequency in the State do not also 1 station preset.

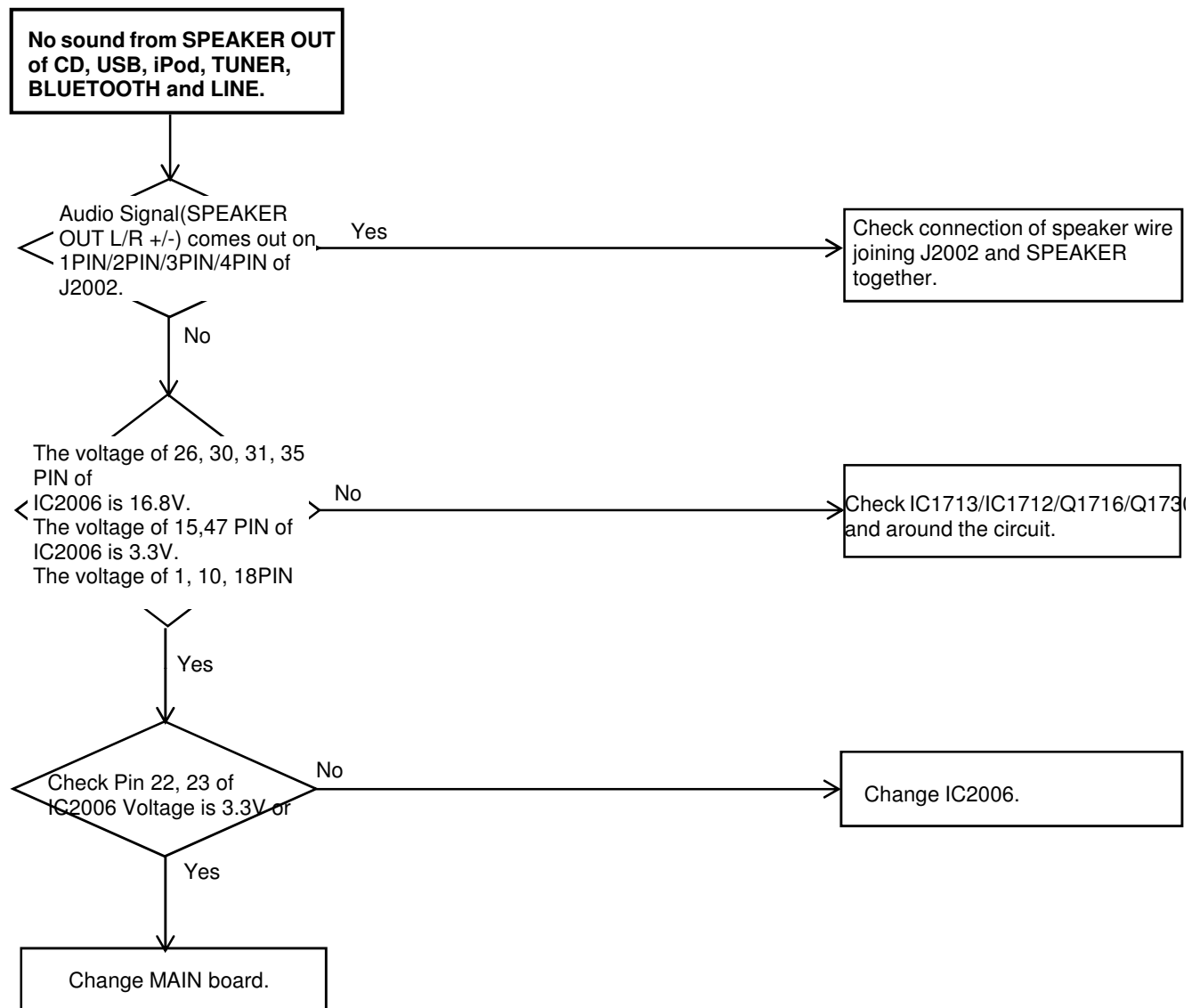
Or the frequency used to clear the all the preset numbers.

DAB TUNER: switching to DAB mode for the first time, always run the Auto Scan. So initial frequency is not set.

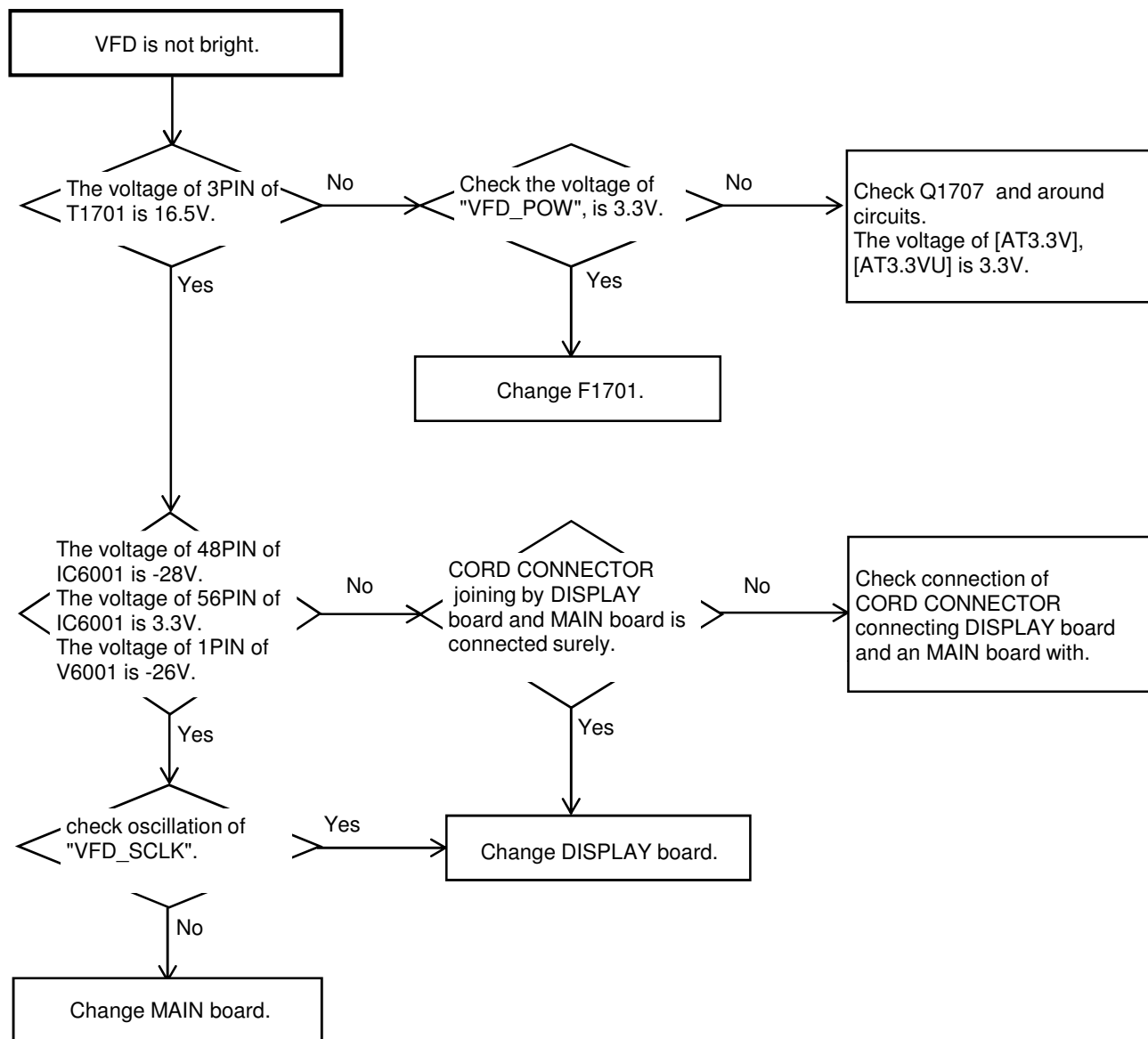
TROUBLESHOOTING GUIDE - 1



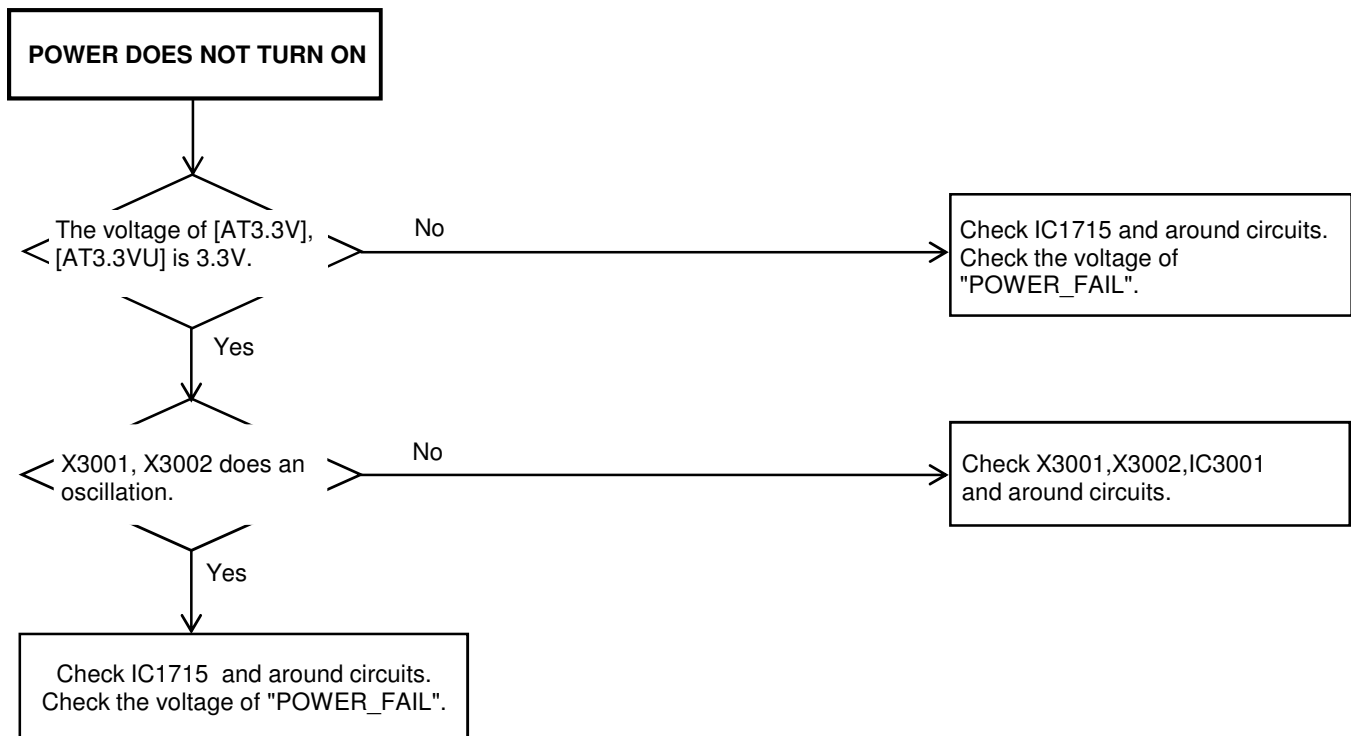
TROUBLESHOOTING GUIDE - 2



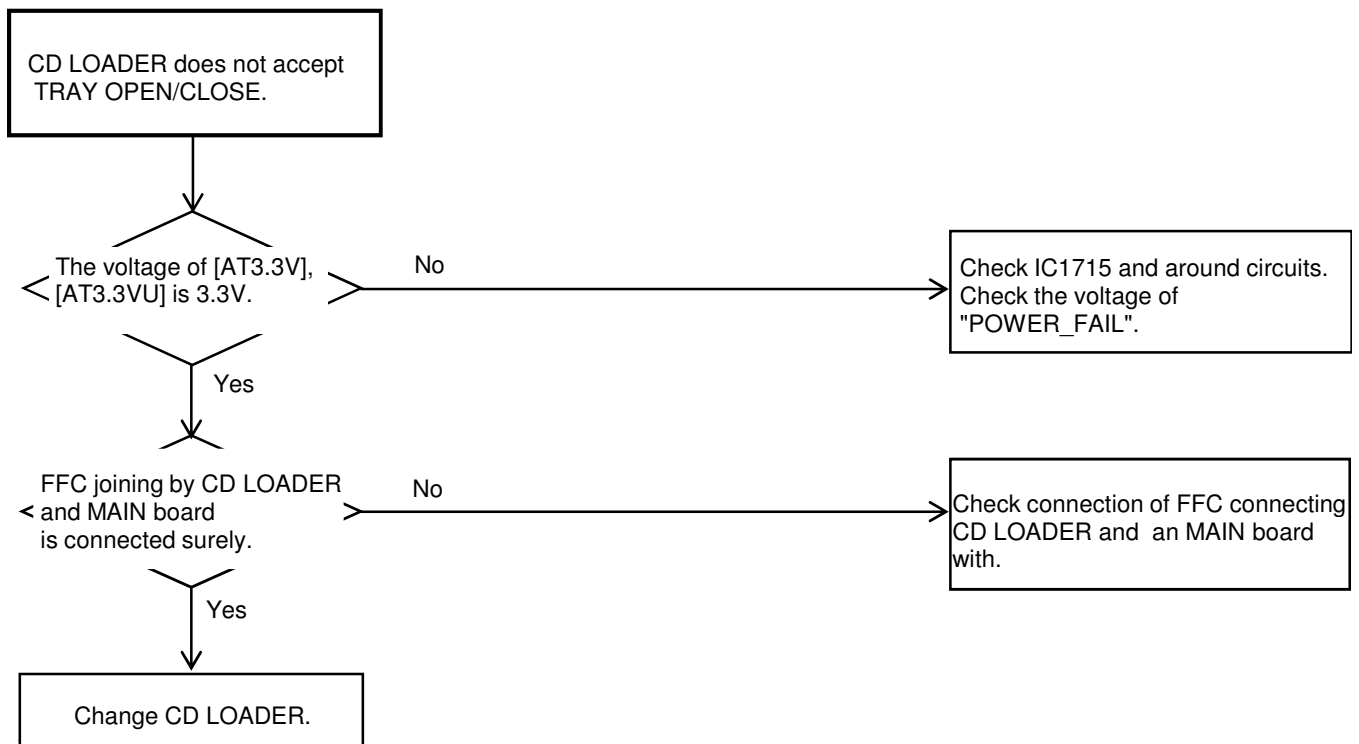
TROUBLESHOOTING GUIDE - 3



TROUBLESHOOTING GUIDE - 4



TROUBLESHOOTING GUIDE - 5



FIRMWARE UPDATE - 1

CD / iPod Dock section

How to Check Version

1. Press **[ON/STANDBY]** button to turn on the unit.
2. Hold down **[TRACK DOWN (SKIP-)]** button and then press **[INPUT]** button.
Main FW version will be displayed.
FL display 1.DB0CT35252 *It depends on the version.
3. Press **[TRACK UP (SKIP+)]** button or **[TRACK DOWN (SKIP-)]** button.
CD / iPod Dock FW version will be displayed.
FL display 2.AJCCD3515A *It depends on the version.
4. To exit from check version, press **[ON/STANDBY]** button to put the unit into the Standby mode.

Preparation

[Making of Update disc]

1. Download the firmware file from the Onkyo FTP-server.
(However European service partners should download the firmware file from the ExtraNet.)
Onkyo FTP-server: ftp://manex.onkyo.co.jp/_servicefwa/CR255_255DAB_CRU3LT
ID and Password are those we informed when changed.
2. CD-R/RW Writing Software is run, and setting of follows is carried out.
Writing method: Disc At Once or Track At Once
Using disc: Blank CD-R or CD-RW
Volume label: **CD_STD_AJC**
3. Program: Download the latest "AJCCDxxxxx.BIN" files for CR-255/255DAB.
4. Execute writing in disc.

FIRMWARE UPDATE - 2

CD / iPod Dock section

Procedure

[Note]

Be sure to do Factory Initialization when the updating finishes.

1. Turn on the unit and switch to CD mode.
2. Open the disc tray.
3. Set the Update disc.
4. Close the disc tray.
(When disc is read normally, Update is started.)

FL display

CD UpGrading

<Note>

Don't turn off power and don't unplug (AC off) while updating firmware.

5. When the update is completed, the disc tray opens. Then, take out the Update disc.
6. Close the disc tray.
7. (Factory Initialization) Hold down **[STOP]** button and then press **[ON/STANDBY]** button.
(When such character string disappears, initialization is completed.)

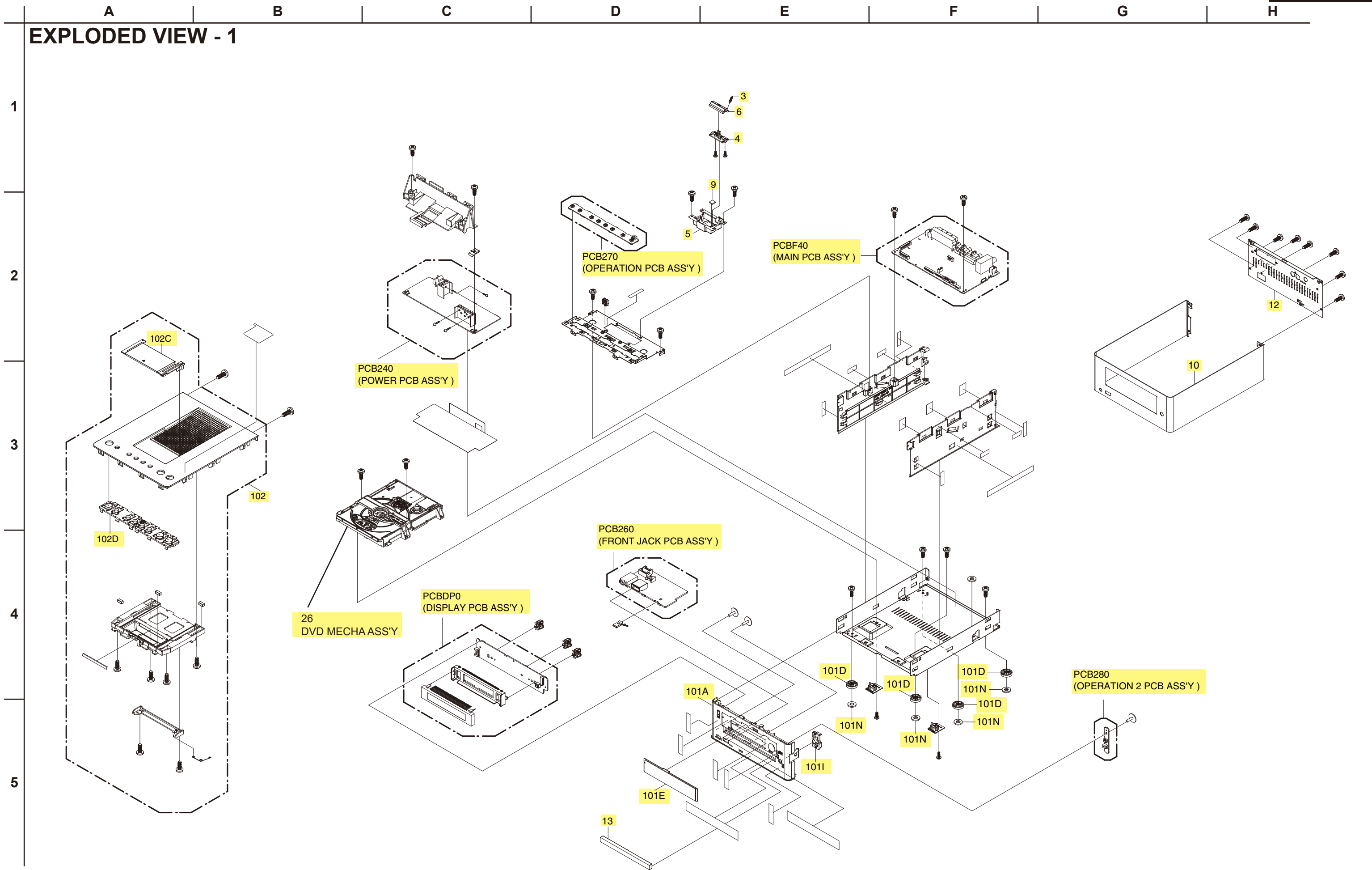
FL display

RESET

>>

8. Unplug the power code.
9. Turn on the unit and confirm the new version number (CD / iPod Dock FW).

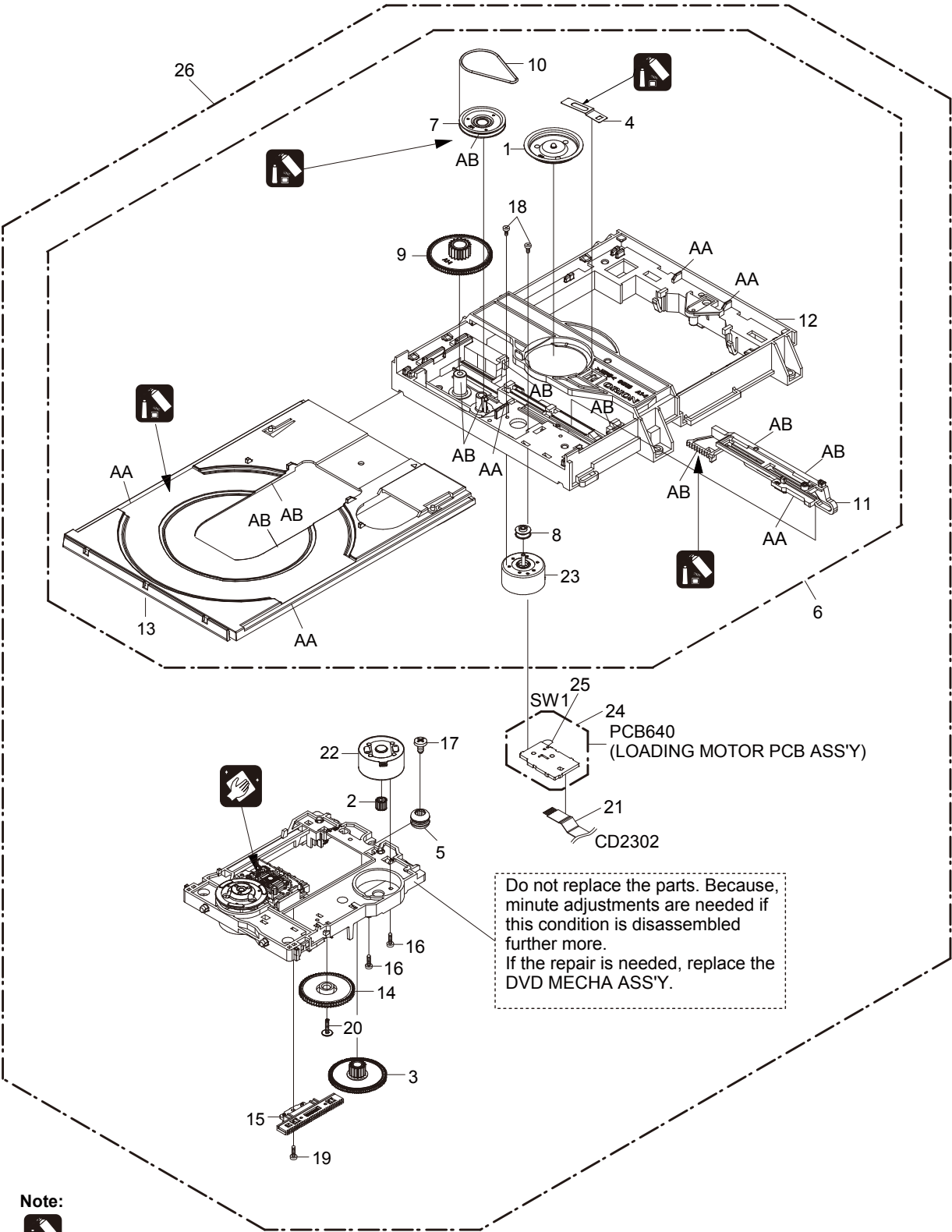
EXPLODED VIEW - 1



A B C D E F G H

EXPLODED VIEW - 2

DECK EXPLODED VIEW



Note:



CLASS	PART NO.	PART NAME	MARK
GREASE	NSP	CFD-5007Z	AA
		G-313Y	AB

NOTE: Applying positions AA and AB for the grease are displayed for this section. Check if the correct grease is applied for each position.

DVD DECK REPLACEMENT PARTS LIST

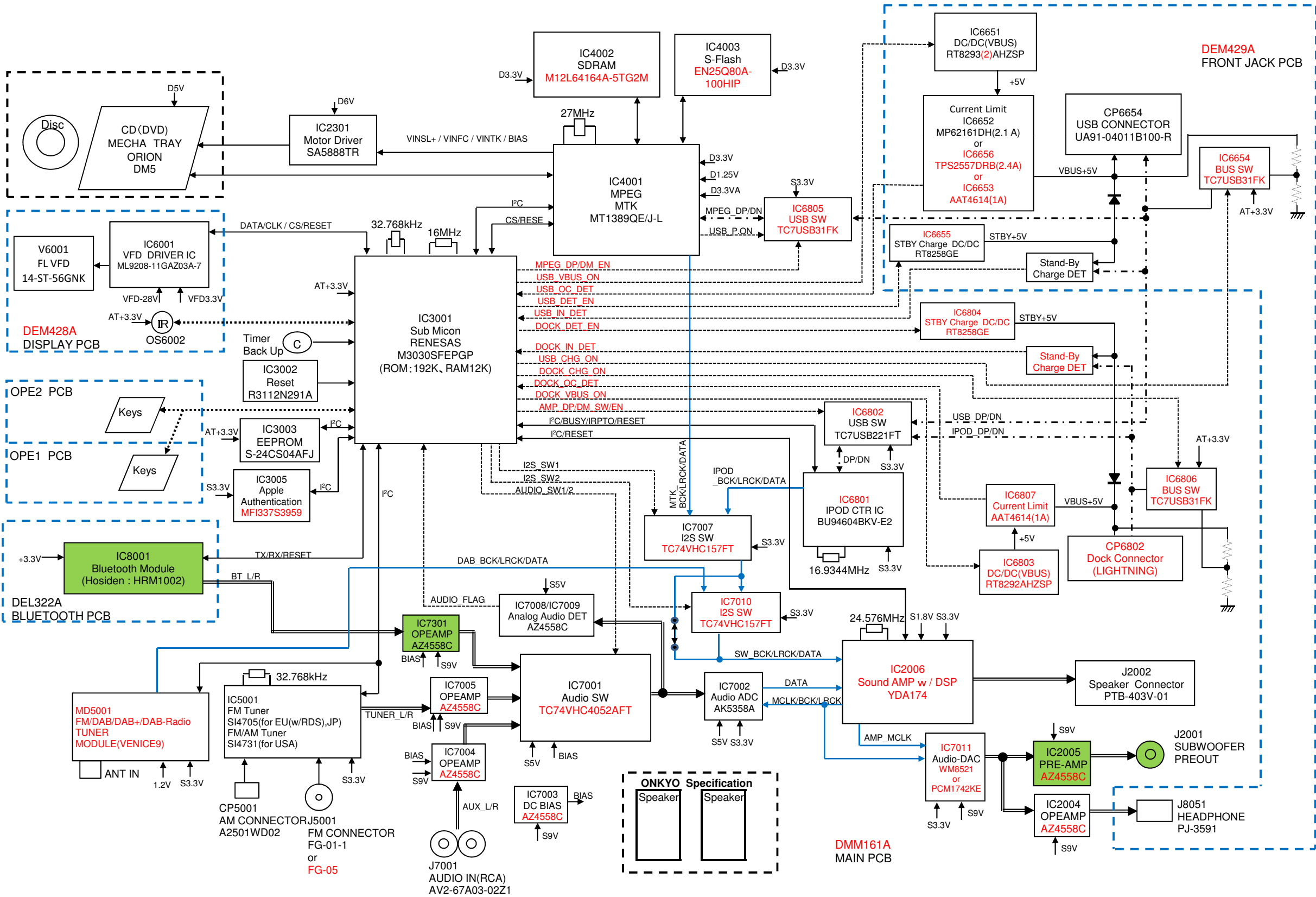
REF. NO.	PART NO.	DESCRIPTION	
1	NSP	CLAMPER	
2		GEAR MOTOR	
3		GEAR MIDDLE	
4		SPRING CLAMPER	
5		INSULATOR(R)	
6		LOADER SUB ASS'Y	
7		GEAR PULLEY	
8		PULLEY,MOTOR	
9		GEAR MAIN	
10		BELT LOADING	
11		RACK LOADING	
12		FRAME MAIN	
13		TRAY	
14		GEAR FEED	
15		FEED RACK ASS'Y	
16		SCREW,PAN	M1.7x2.3 P3
17		SCREW TAP TITE(P) PAN	WH8 2x8
18		SCREW,PAN	M1.7x3 P3
19		SCREW,T-TITE(B)CAMERA PAN	M1.7x5.0 P3
20		SCREW TAP TITE(P) PAN	WH5.4 1.7x8
21		CORD JUMPER	FFC100822005031000T8-F00
22		MOTOR	JQ24-35H440A
23		MOTOR	JQ24-35H440
24		LOADING MOTOR PCB ASS'Y	FEJ005A
25		PUSH SWITCH	ESE31R11T
△26	A13404A650	DVD MECHA ASS'Y	A13404A650

<Note>
Parts marked by "NSP" are generally unavailable because they are not in our Master Spare Parts List.

NOTE :
THE COMPONENTS IDENTIFIED BY THE MARK △ ARE CRITICAL FOR RISK OF FIRE AND ELECTRIC SHOCK. REPLACE ONLY WITH PART NUMBER SPECIFIED.

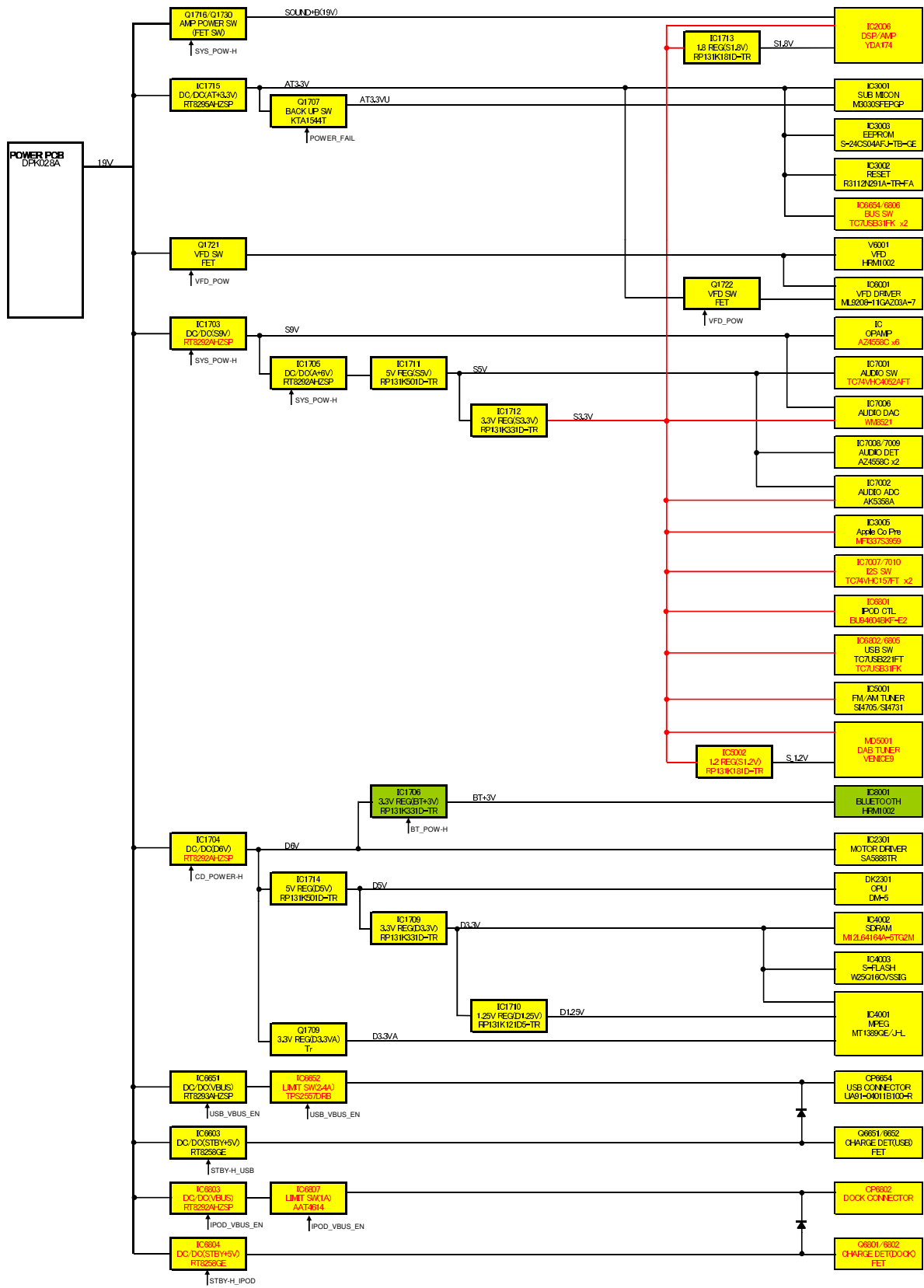
Schematic Diagrams - 1

BLOCK DIAGRAM



Schematic Diagrams - 2

POWER BLOCK DIAGRAM



1

2



4

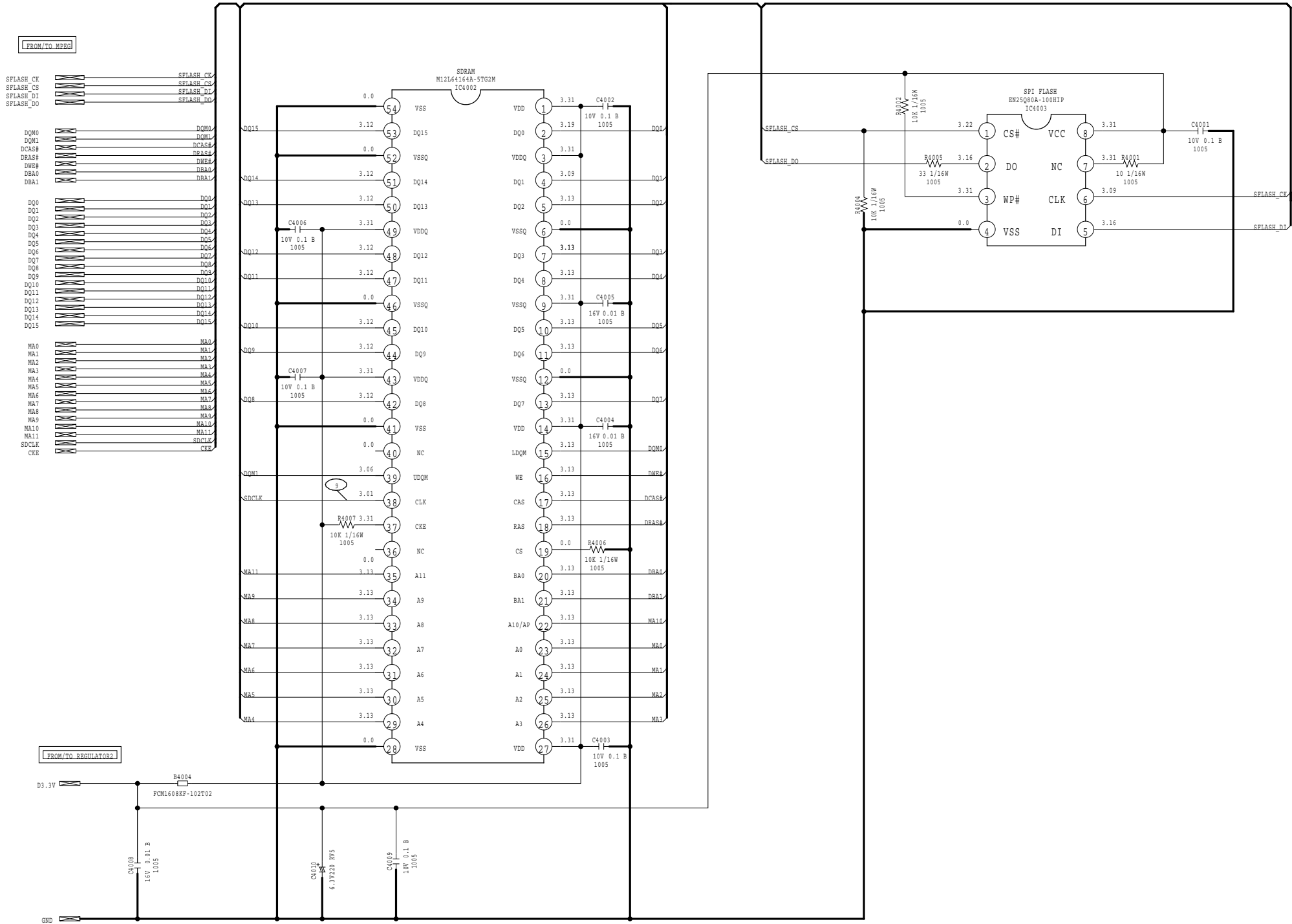
5

ATTENTION: LES PIÈCES RÉPARÉES PAR UN  ÉTANT DANGEREUSES AU POINT DE VUE SÉCURITÉ N'UTILISER QUE CELLES DÉCRITES DANS LA NOMENCLATURE DES PIÈCES.

A B C D E F G H

Schematic Diagrams - 4

SDRAM SCHEMATIC DIAGRAM
(MAIN PCB)



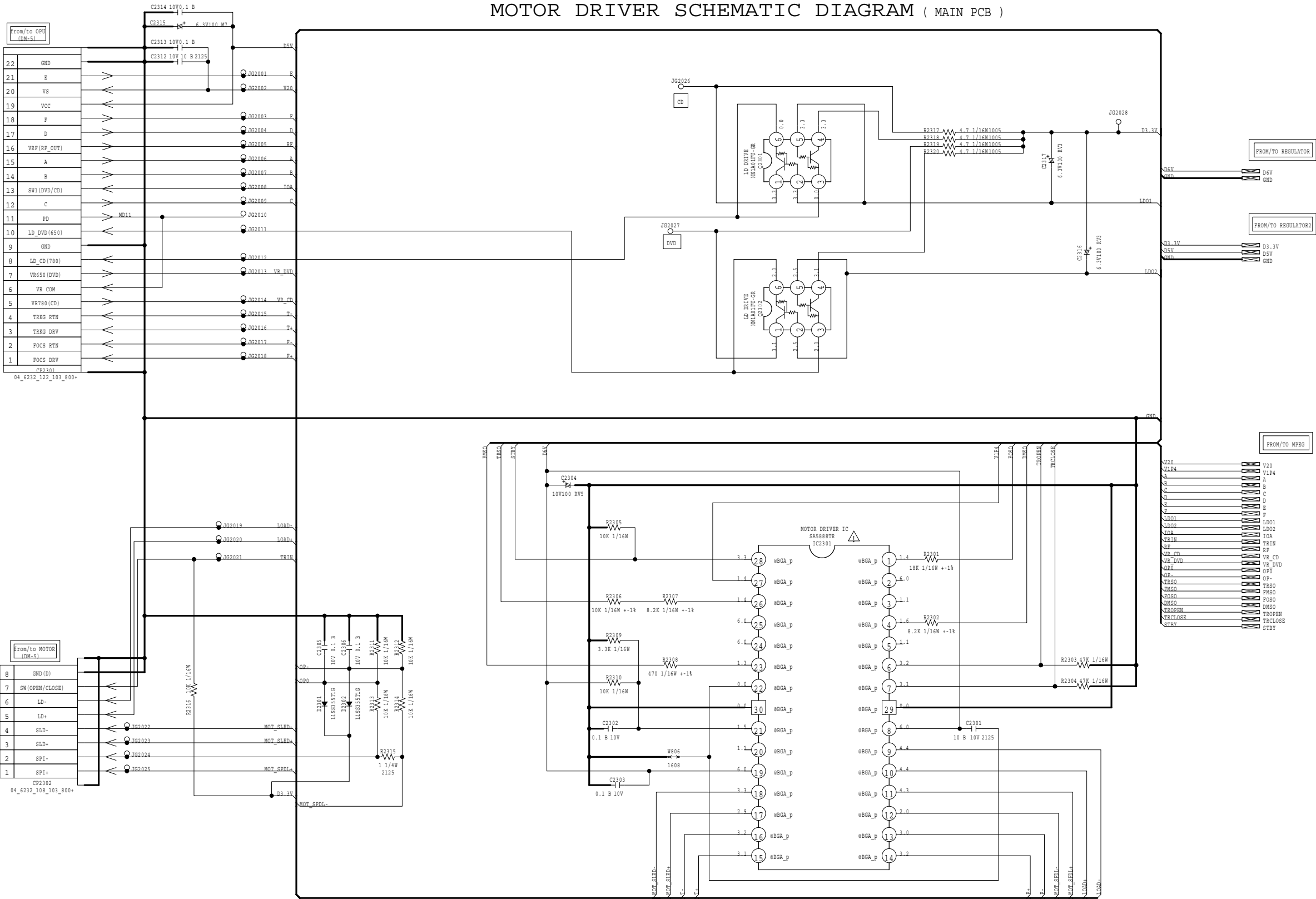
1

2



Schematic Diagrams - 7

MOTOR DRIVER SCHEMATIC DIAGRAM (MAIN PCB)



ATTENTION: LES PIECES REPARÉES PAR UN  ÉTANT DANGEREUSES AU POINT DE VUE SÉCURITÉ N'UTILISER QUE CELLES DÉCRITES DANS LA NOMENCLATURE DES PIÈCES.

CAUTION: SINCE THESE PARTS MARKED BY  ARE CRITICAL FOR SAFETY, USE ONES DESCRIBED IN PARTS LIST ONLY.

1

2

CAUTION: SINCE THESE PARTS MARKED BY $\triangle$ ARE
CRITICAL FOR SAFETY, USE ONES
DESCRIBED IN PARTS LIST ONLY.

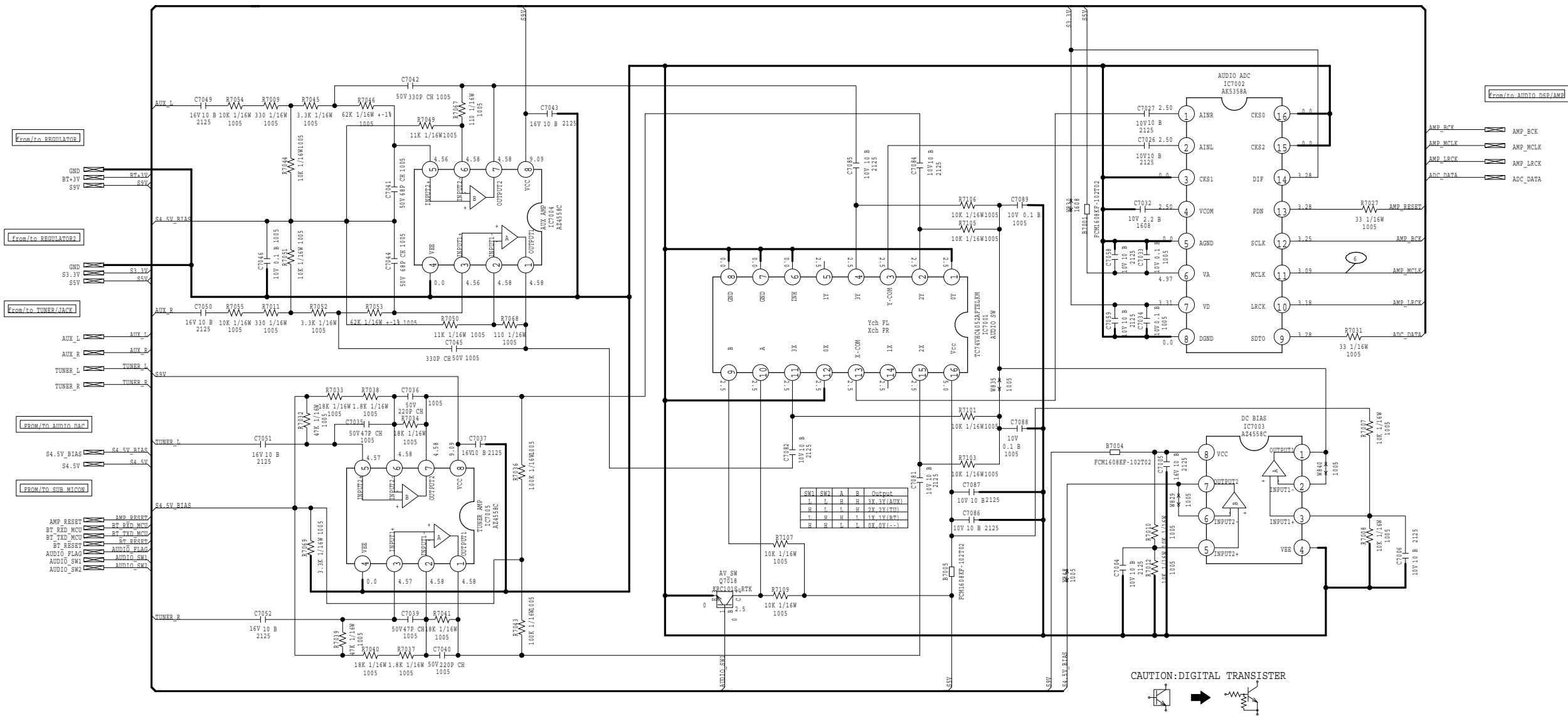
3



5

Schematic Diagrams - 9

AUDIO SW SCHEMATIC DIAGRAM



1

2



1

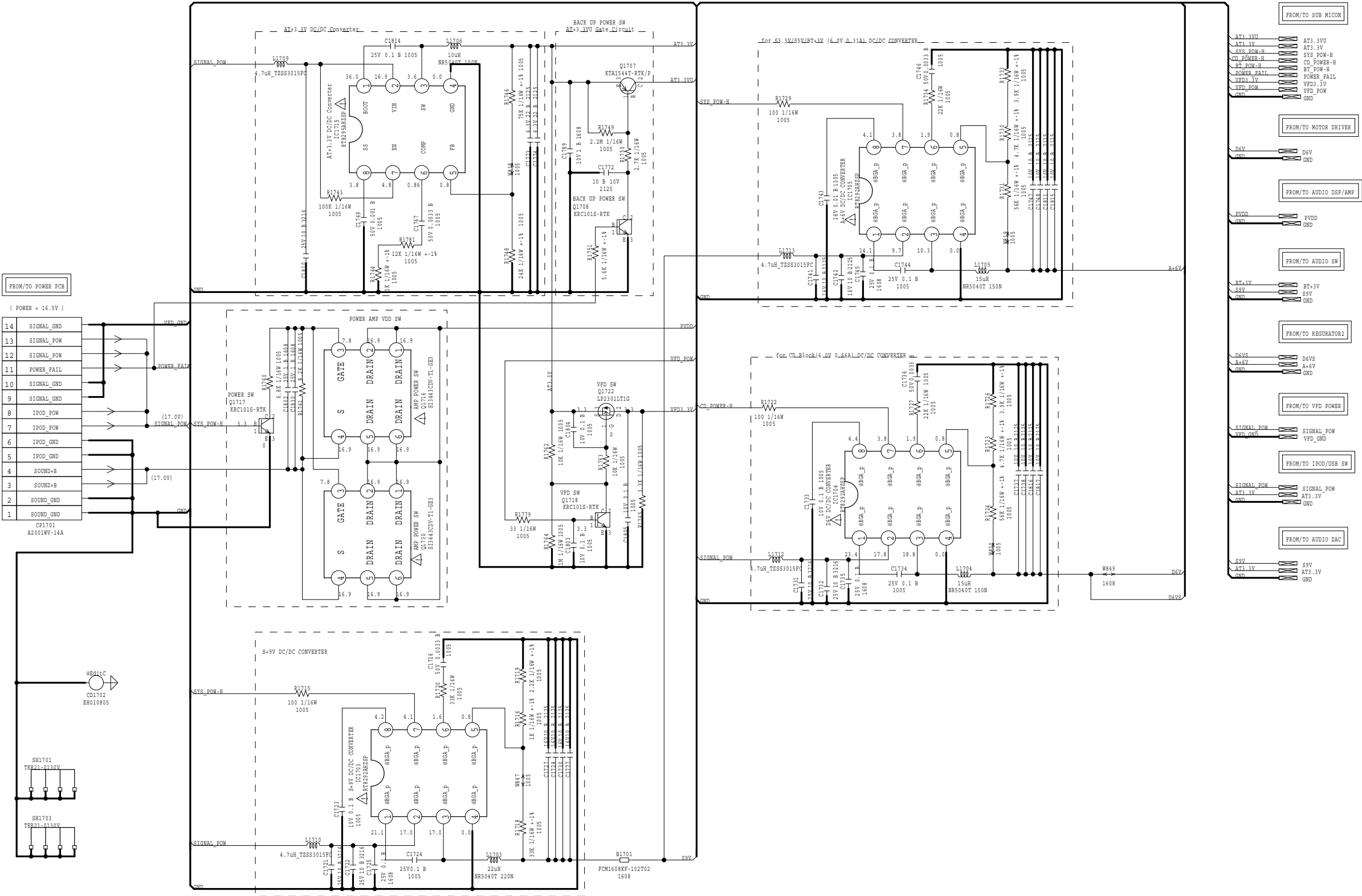
2



5

Schematic Diagrams - 12

REGULATOR SCHEMATIC DIAGRAM
(MAIN PCB)



ATTENTION: LES PIÈCES REPARÉES PAR UN Δ ÉTANT DANGEREUSES AU POINT DE VUE SÉCURITÉ N'UTILISER QUE CELLES DÉCRITES DANS LA NOMENCLATURE DES PIÈCES.

CAUTION: SINCE THESE PARTS MARKED BY Δ ARE CRITICAL FOR SAFETY, USE ONES DESCRIBED IN PARTS LIST ONLY.

CAUTION: DIGITAL TRANSISTOR



- 1
- 2
- 3
- 4
- 5

1



3

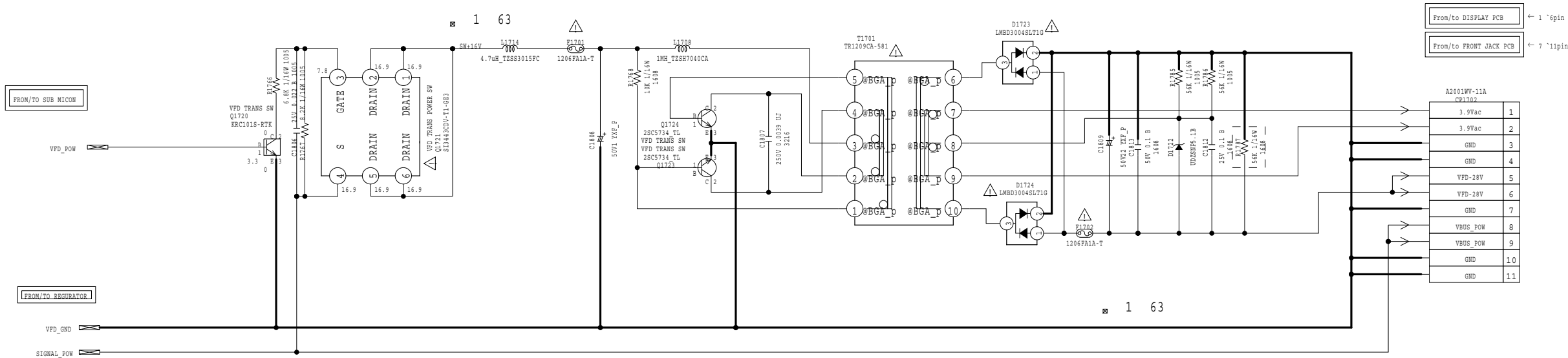
4

5

The diagram illustrates the transformation of a square element into a spring-damper system. On the left, a square element is shown with a diagonal line from the bottom-left to the top-right corner. A small circle is attached to the top-left corner, and a small arrow points to the bottom-right corner. A large black arrow points to the right, where a spring-damper system is shown. The system consists of a spring and a damper in parallel, connected to a fixed wall on the right. A small circle is attached to the left end of the spring, and a small arrow points to the right end of the damper.

Schematic Diagrams - 14

VFD POWER SCHEMATIC DIAGRAM
(MAIN PCB)



CAUTION: FOR CONTINUED PROTECTION AGAINST FIRE HAZARD,
REPLACE ONLY WITH THE SAME TYPE FUSE 1A 63V (F1701/F1702)

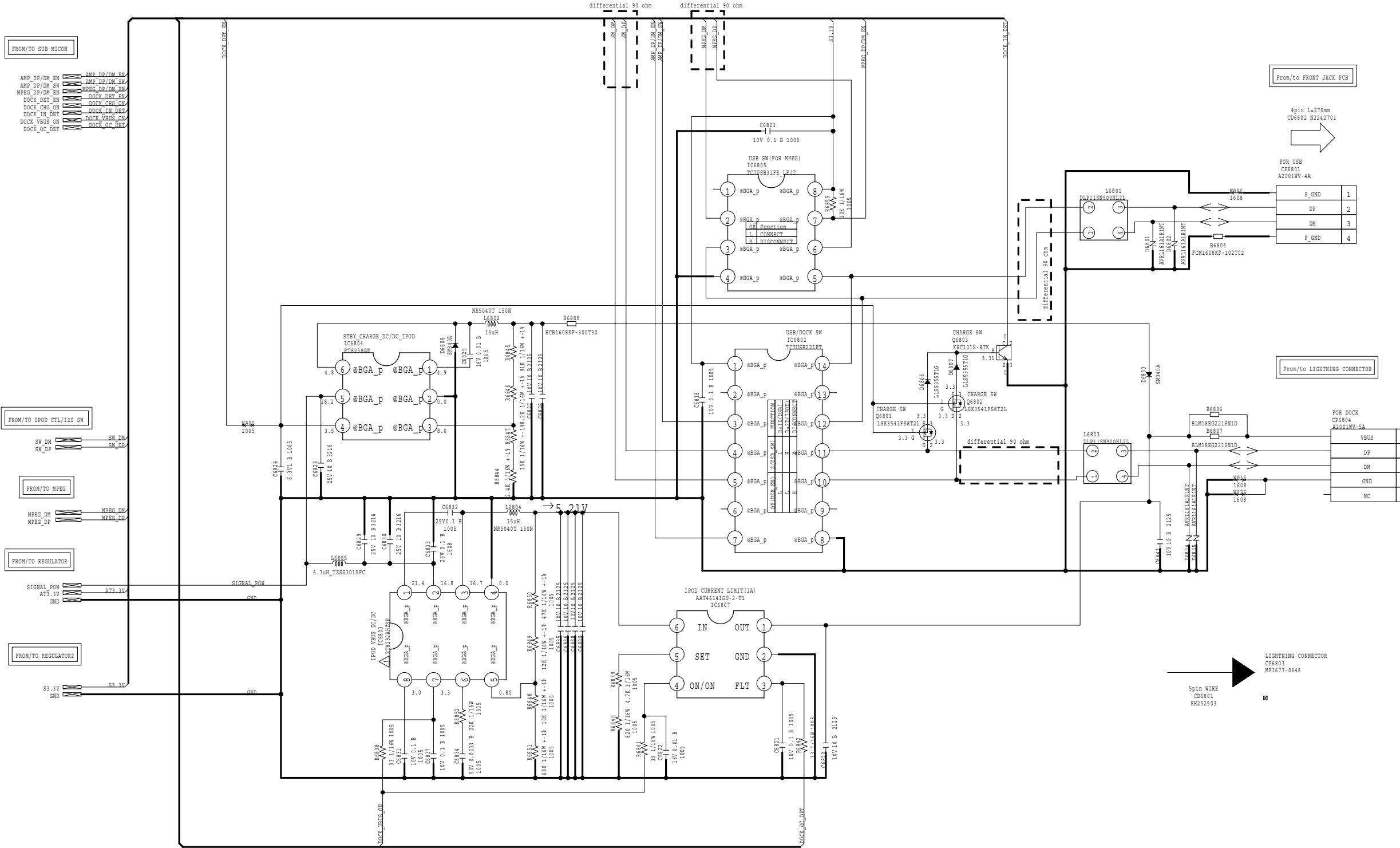
ATTENTION: POUR UNE PROTECTION CONTINUE LES RISQUES D'INCENDIE
N'UTILISER QUE DES FUSIBLE DE MEME TYPE 1A 63V (F1701/F1702)

ATTENTION: LES PIECES REPARÉES PAR UN ÉTANT DANGEREUSES AU POINT DE VUE SÉCURITÉ N'UTILISER QUE CELLES DÉCRITES DANS LA NOMENCLATURE DES PIÈCES.

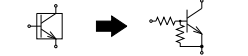
CAUTION: SINCE THESE PARTS MARKED BY ARE CRITICAL FOR SAFETY, USE ONES DESCRIBED IN PARTS LIST ONLY.

Schematic Diagrams - 15

IPOD/USB SW SCHEMATIC DIAGRAM
(MAIN PCB)

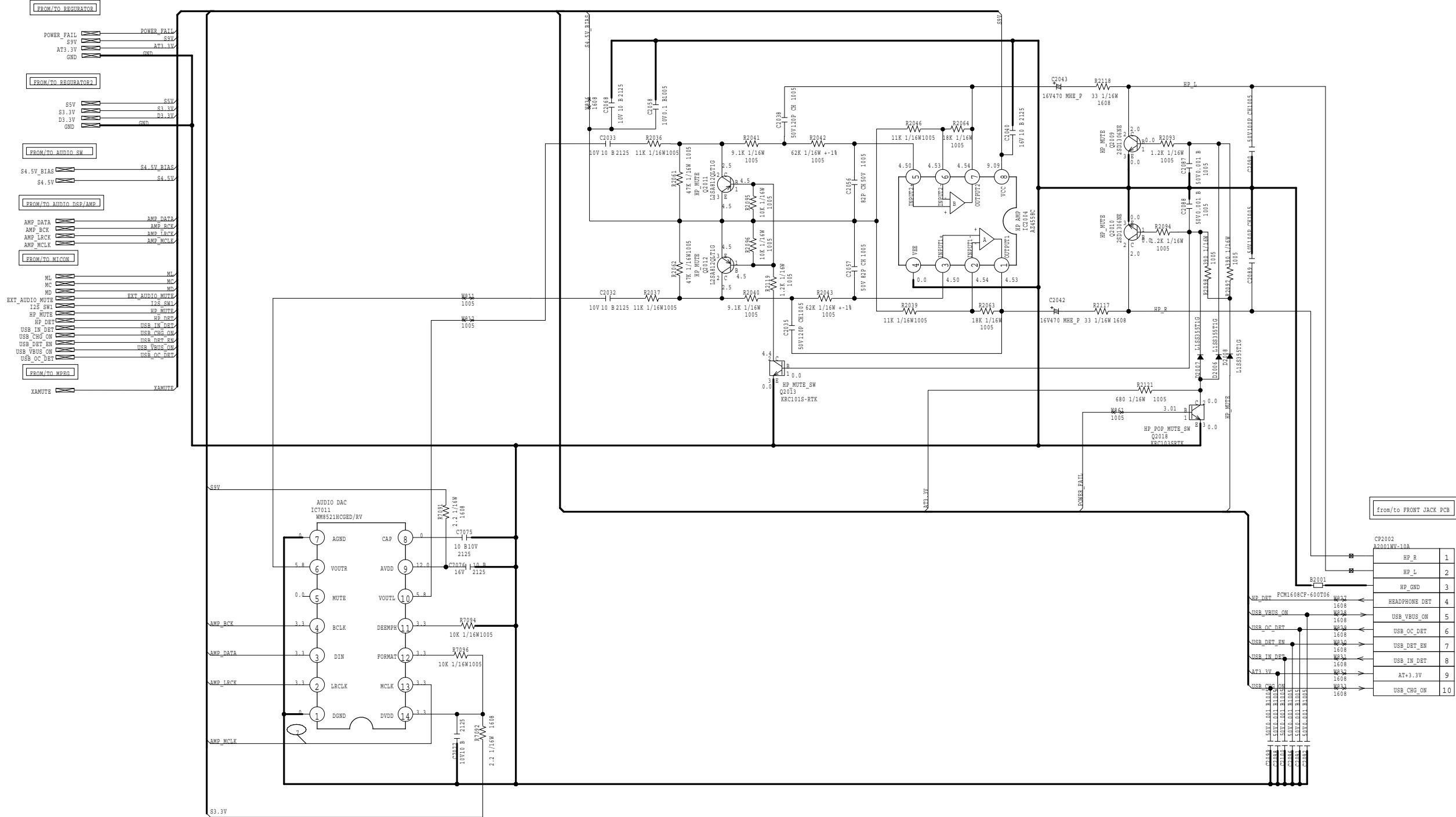


CAUTION: DIGITAL TRANSISTOR



Schematic Diagrams - 16

AUDIO DAC SCHEMATIC DIAGRAM
(MAIN PCB)

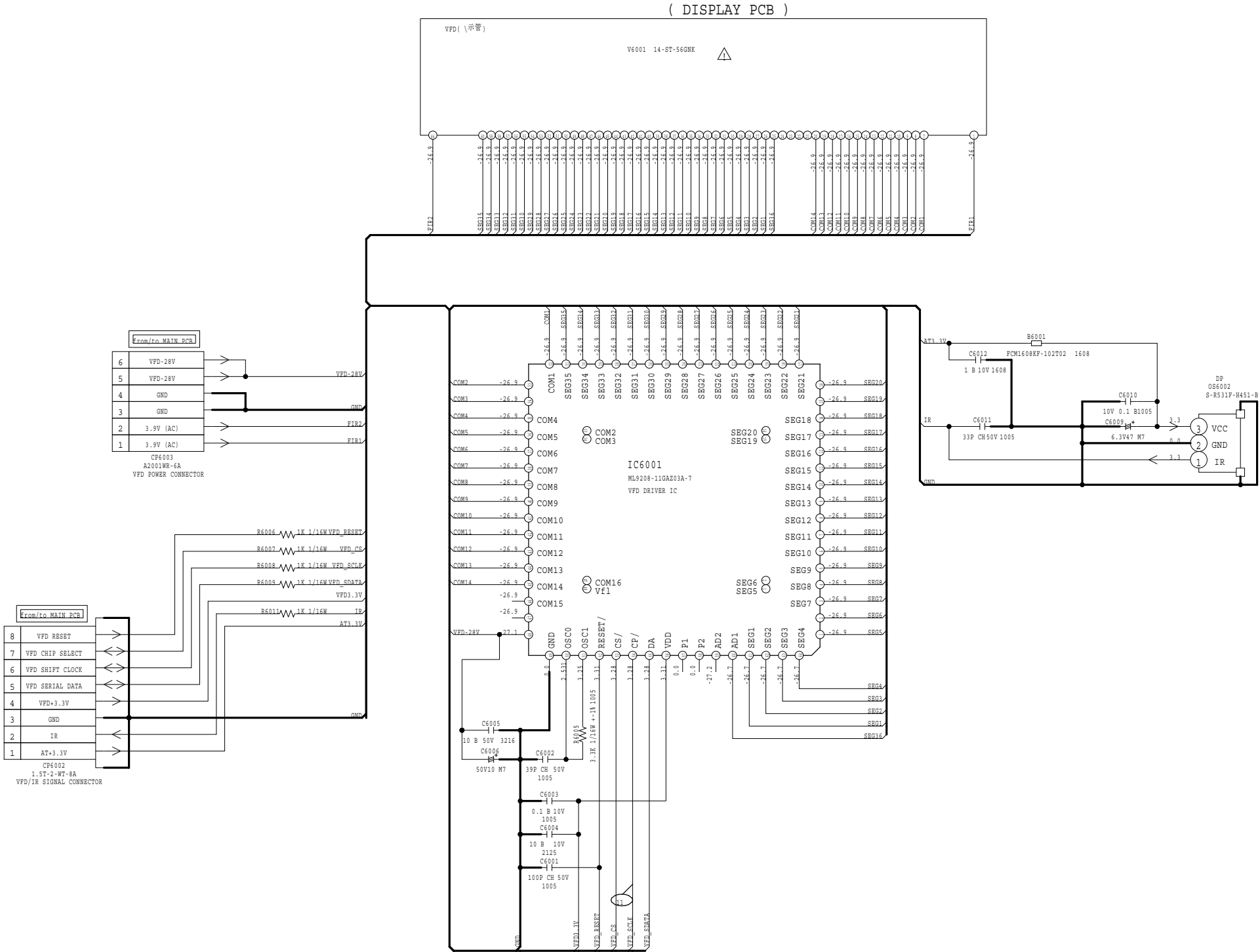


from/to FRONT JACK PCB

CP2002	A2001WV-10A
HP_R	1
HP_L	2
HP_GND	3
HEADPHONE_DET	4
USB_VBUS_ON	5
USB_OC_DET	6
USB_DET_EN	7
USB_IN_DET	8
AT+3.3V	9
USB_CHG_ON	10

Schematic Diagrams - 17

DISPLAY SCHEMATIC DIAGRAM

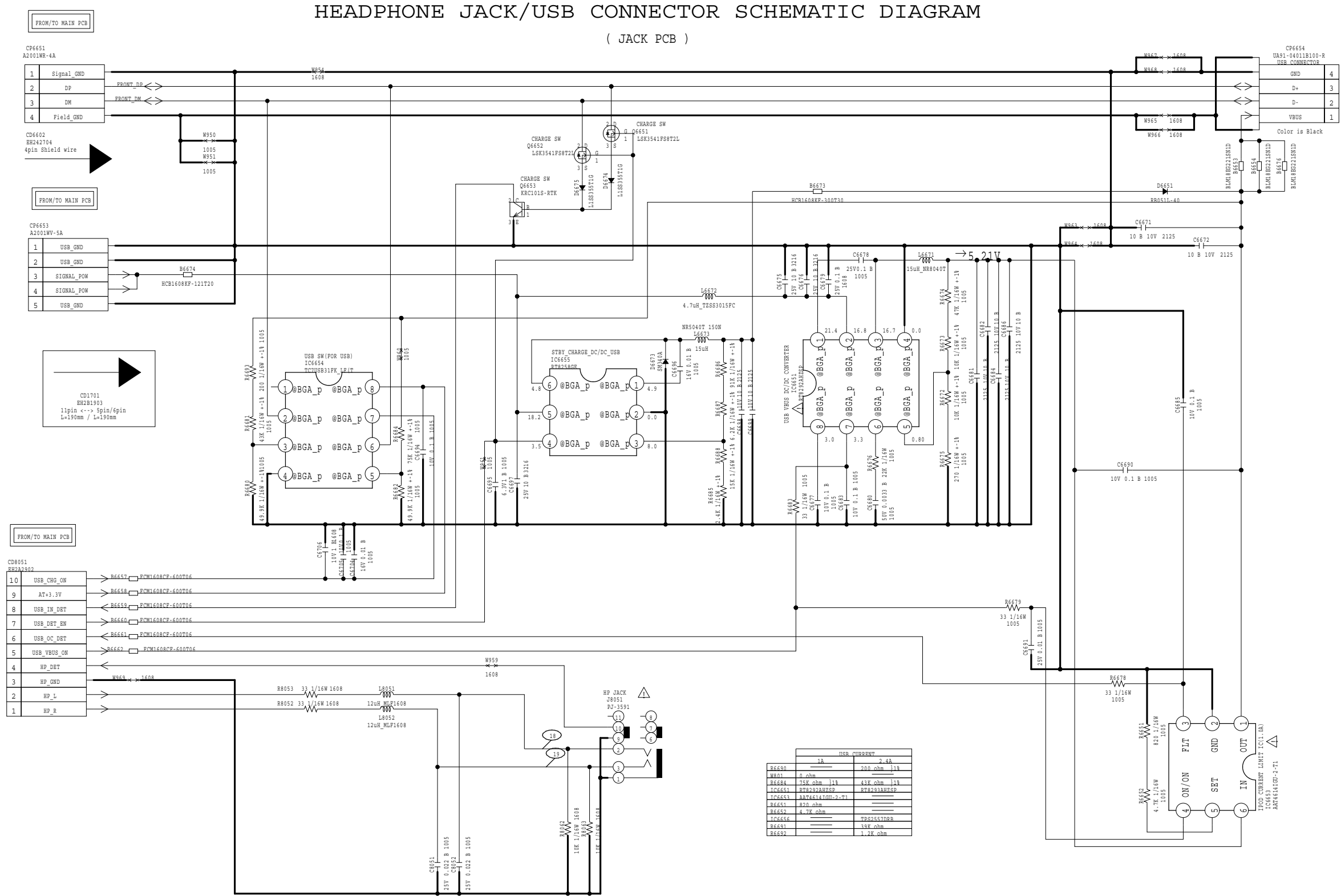


ATTENTION: LES PIÈCES RÉPARÉES PAR UN  ÉTANT DANGEREUSES AU POINT DE VUE SÉCURITÉ N'UTILISER QUE CELLES DÉCRITES DANS LA NOMENCLATURE DES PIÈCES.

CAUTION: SINCE THESE PARTS MARKED BY  ARE CRITICAL FOR SAFETY, USE ONES DESCRIBED IN PARTS LIST ONLY.

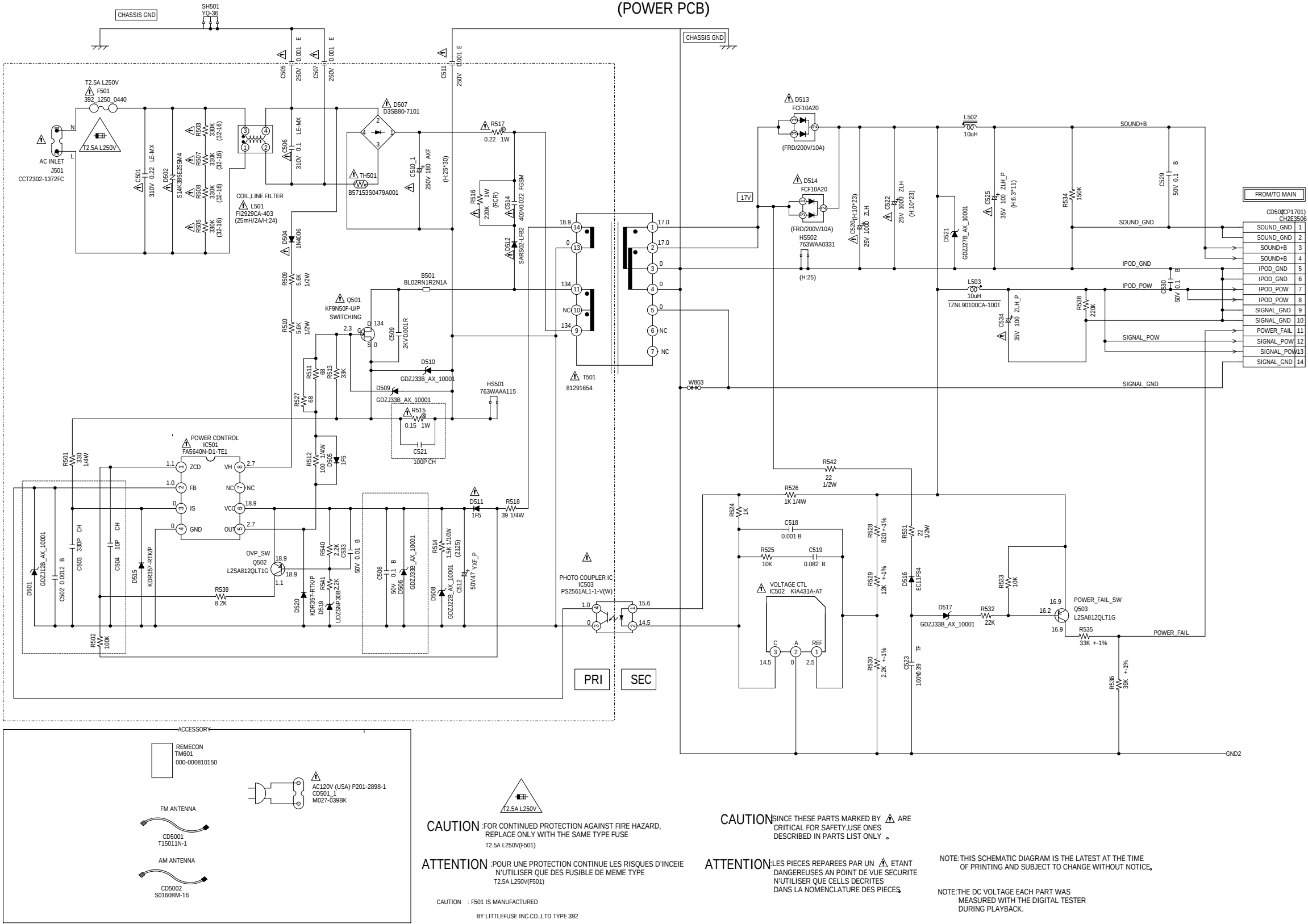
Schematic Diagrams - 18

HEADPHONE JACK/USB CONNECTOR SCHEMATIC DIAGRAM
(JACK PCB)



Schematic Diagrams - 19

POWER SCHEMATIC DIAGRAM
(POWER PCB)



CAUTION FOR CONTINUED PROTECTION AGAINST FIRE HAZARD, REPLACE ONLY WITH THE SAME TYPE FUSE
T2.5A L250V(F501)

ATTENTION POUR UNE PROTECTION CONTINUE LES RISQUES D'INCEIE N'UTILISER QUE DES FUSIBLE DE MEME TYPE
T2.5A L250V(F501)

CAUTION : F501 IS MANUFACTURED BY LITTELFUSE INC.CO.,LTD TYPE 392

CAUTION SINCE THESE PARTS MARKED BY ARE CRITICAL FOR SAFETY, USE ONES DESCRIBED IN PARTS LIST ONLY .

ATTENTION LES PIECES REPARÉES PAR UN ETANT DANGEREUSES AN POINT DE VUE SECURITE N'UTILISER QUE CELLS DECRITES DANS LA NOMENCLATURE DES PIECES

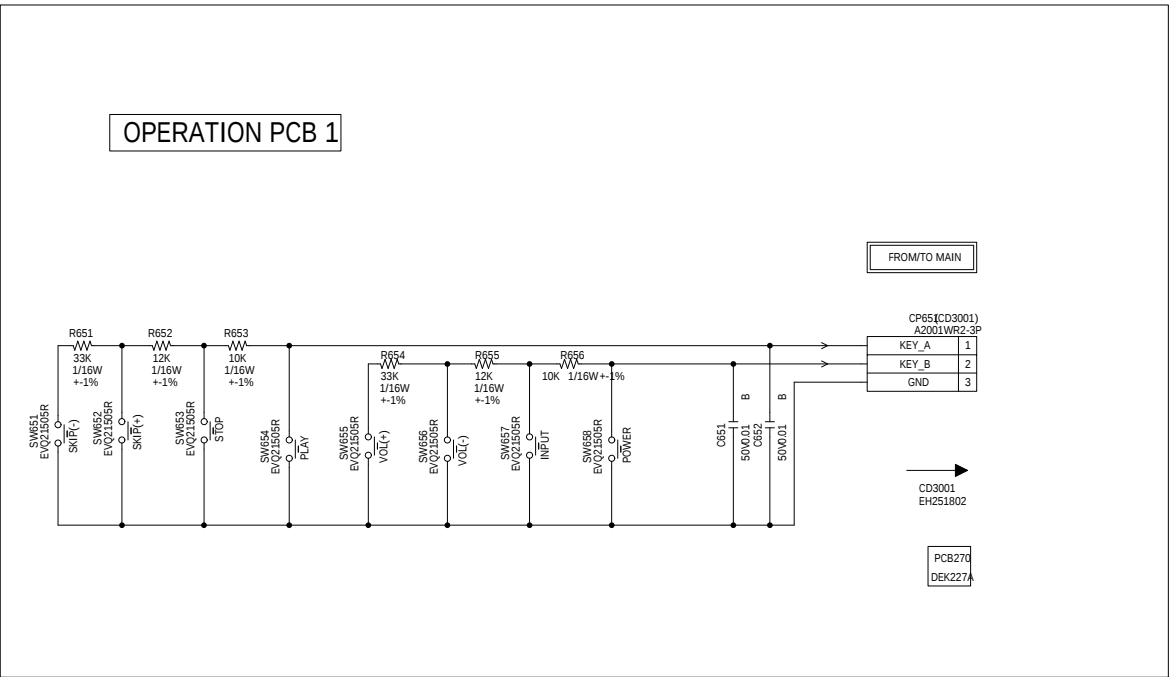
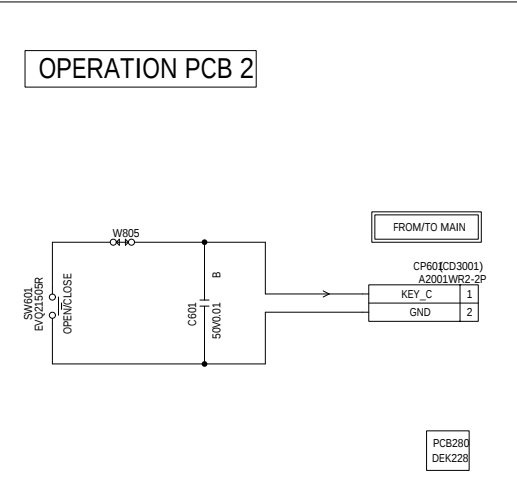
NOTE: THIS SCHEMATIC DIAGRAM IS THE LATEST AT THE TIME OF PRINTING AND SUBJECT TO CHANGE WITHOUT NOTICE,

NOTE: THE DC VOLTAGE EACH PART WAS MEASURED WITH THE DIGITAL TESTER DURING PLAYBACK.

Schematic Diagrams - 20

OPERATION/USB SCHEMATIC DIAGRAM

(OPERATION PCB)



NOTE: THIS SCHEMATIC DIAGRAM IS THE LATEST AT THE TIME OF PRINTING AND SUBJECT TO CHANGE WITHOUT NOTICE.

NOTE:THE DC VOLTAGE EACH PART WAS MEASURED WITH THE DIGITAL TESTER DURING PLAYBACK.

A

B

C

D

E

F

G

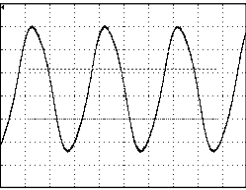
H

Schematic Diagrams - 21

WAVEFORMS

SUB MICON

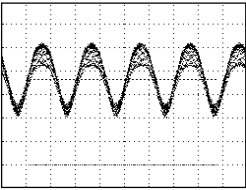
20nS
500mV



1

AUDIO DSP/AMP

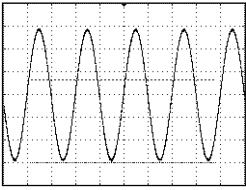
500uS
1V



14

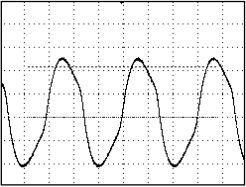
TUNER/JACK

500uS
500mV



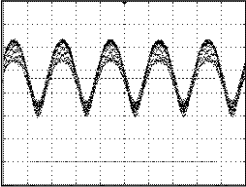
12

10uS
500mV



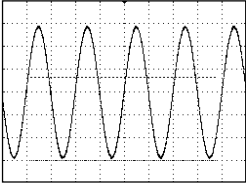
2

500uS
1V



15

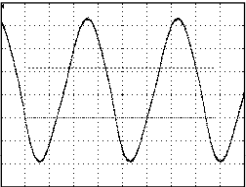
500uS
500mV



13

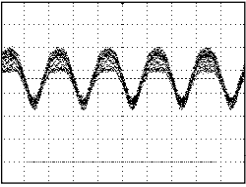
MPEG

10nS
200mV



3

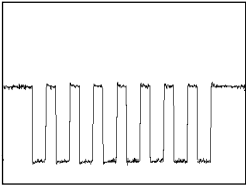
500uS
1V



16

DISPLAY

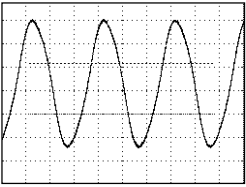
2uS
1V



11

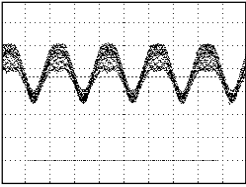
I POD CONTROLLER/USB SW

20nS
500mV



4

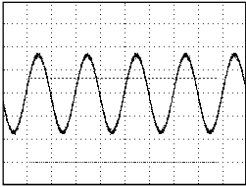
500uS
1V



17

HEADPHONE JACK/USB CONNECTOR

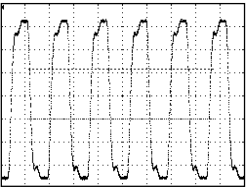
500uS
200mV



18

AUDIO DSP/AMP

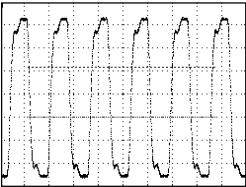
50nS
500mV



7

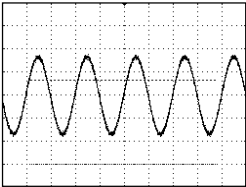
AUDIO SW

50nS
500mV



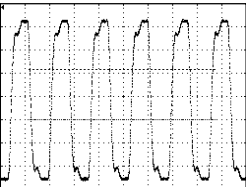
6

500uS
200mV



19

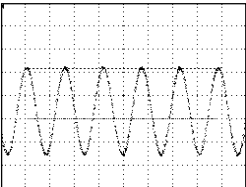
50nS
500mV



8

SDRAM

5nS
500mV

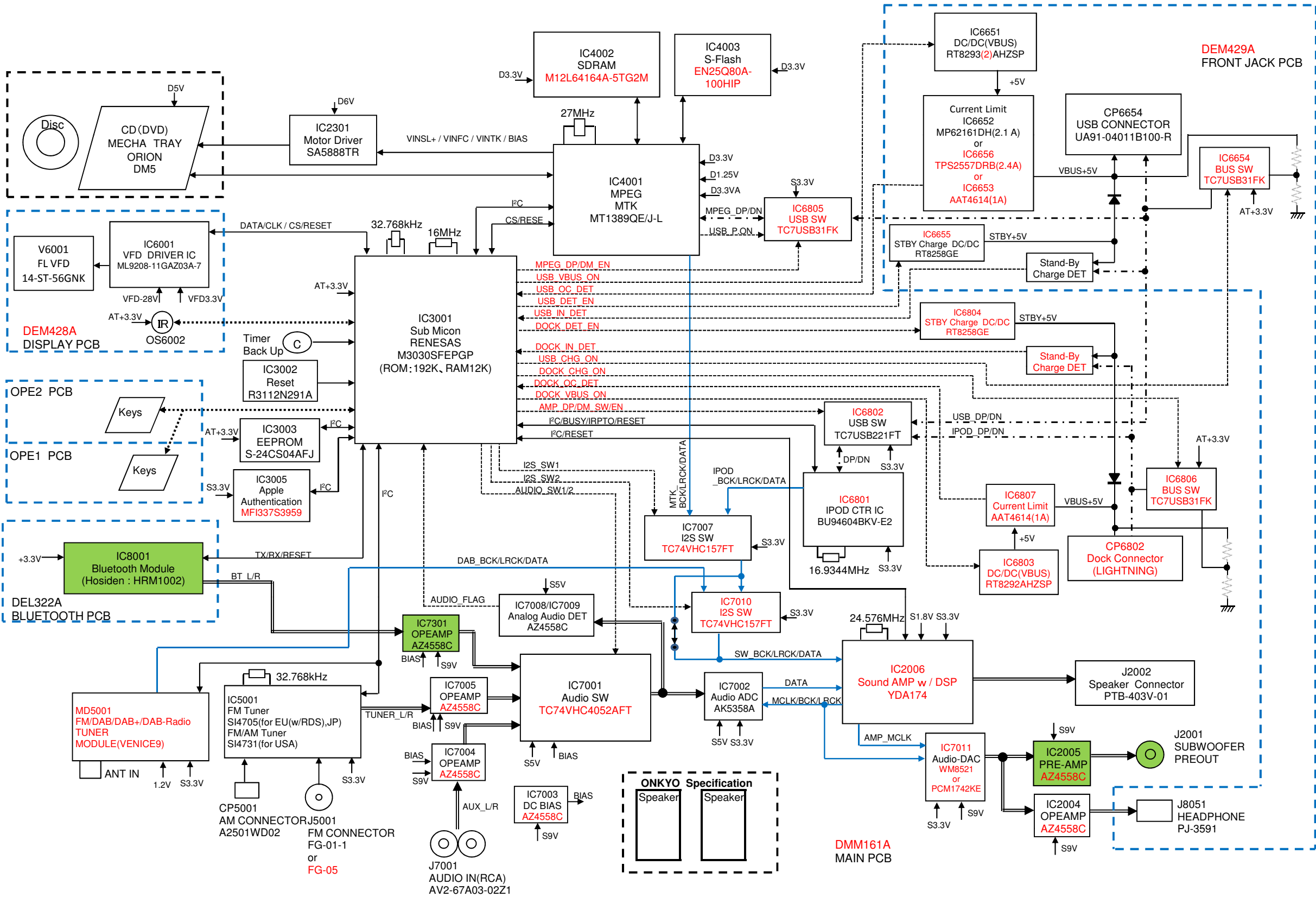


9

NOTE: The following waveforms were measured at the point of the corresponding balloon number in the

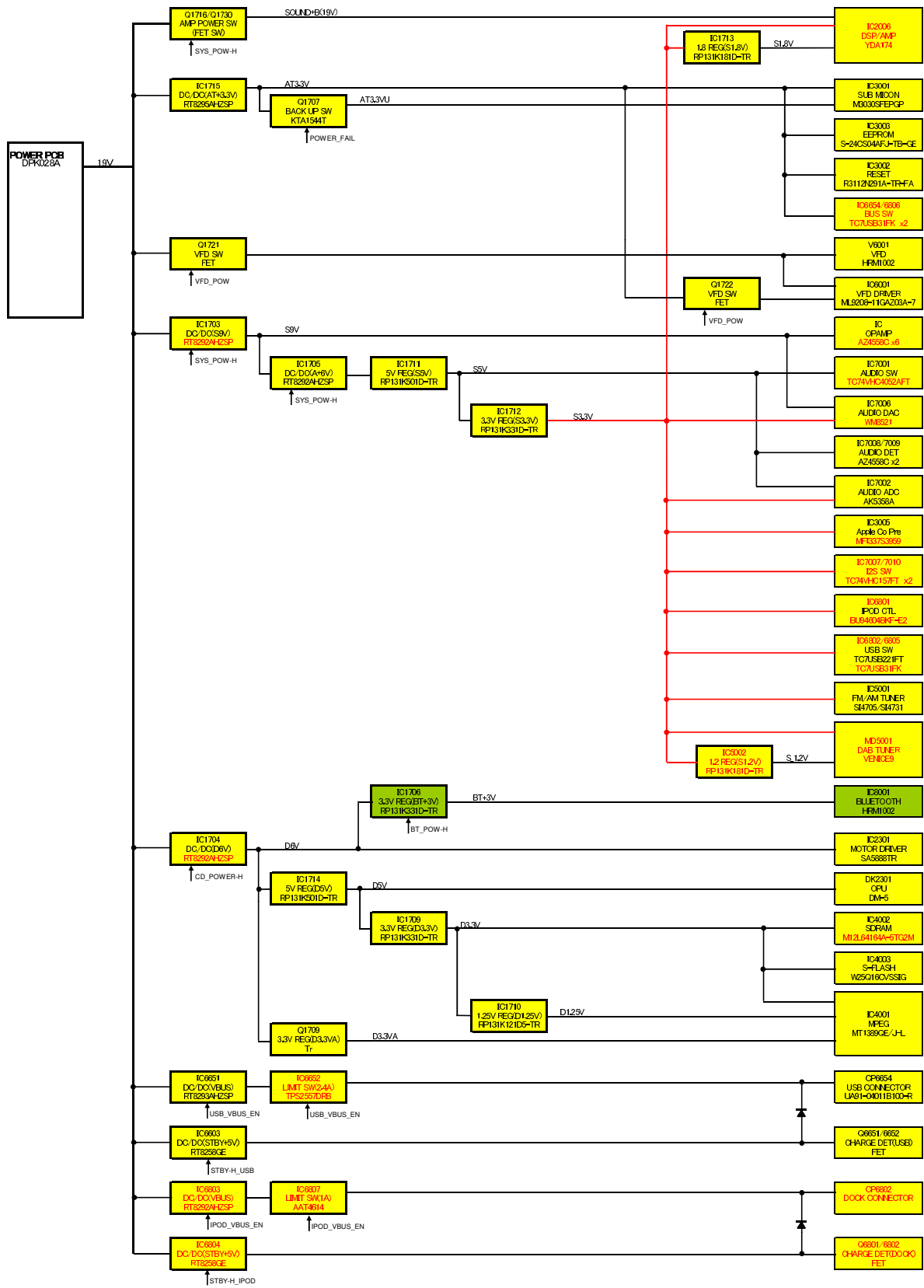
Schematic Diagrams - 1

BLOCK DIAGRAM



Schematic Diagrams - 2

POWER BLOCK DIAGRAM



1

2



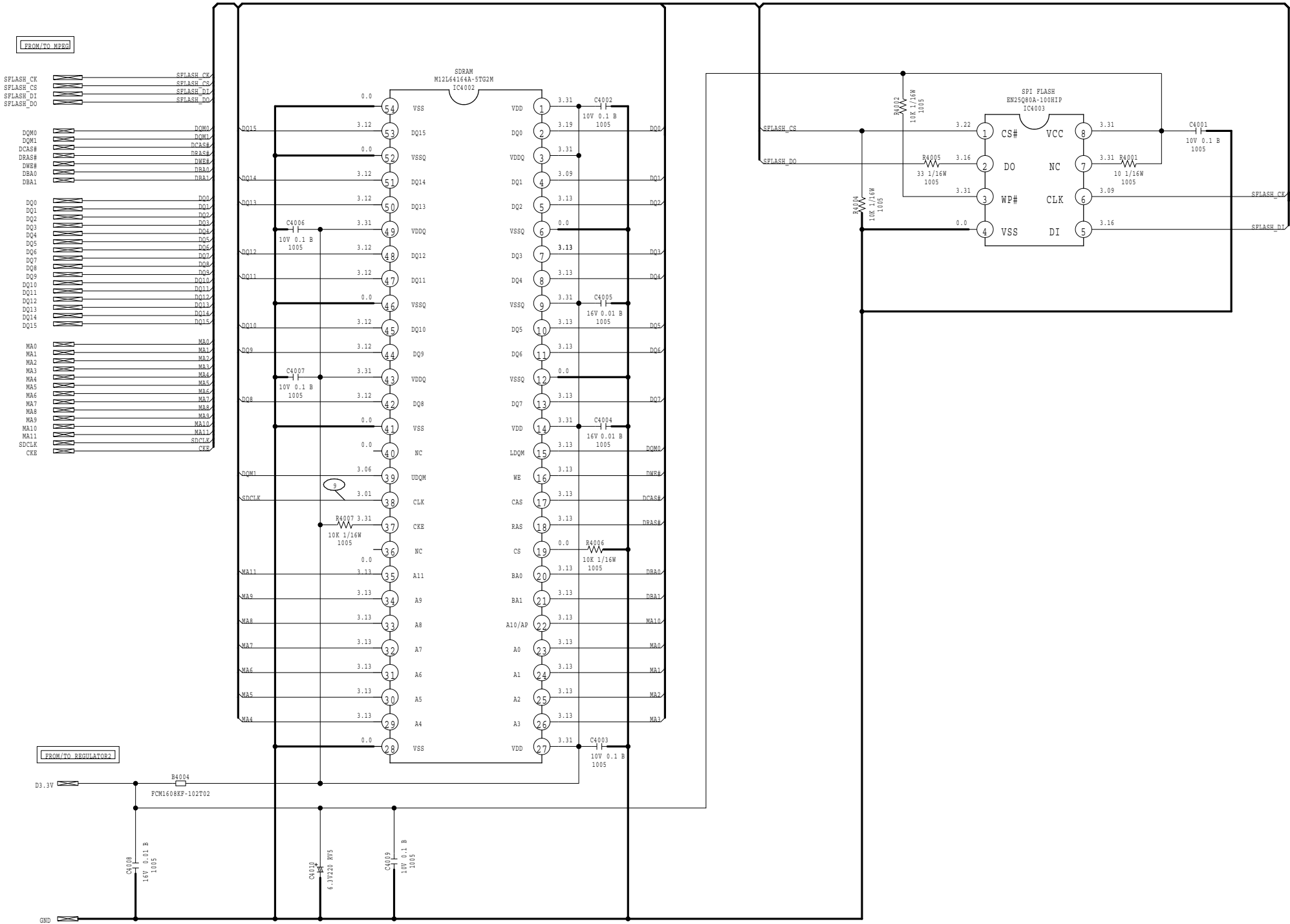
4

5

5

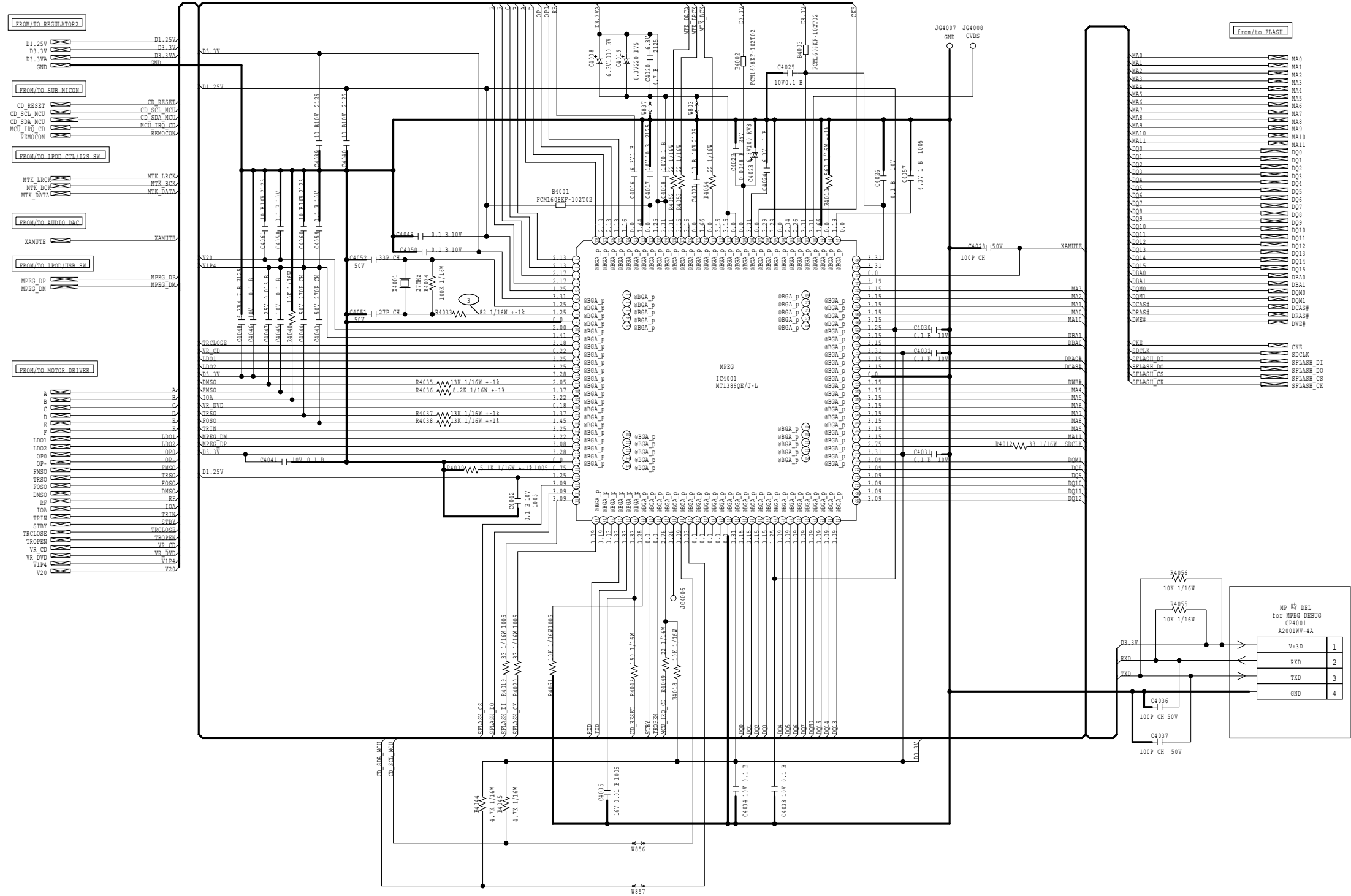
Schematic Diagrams - 4

SDRAM SCHEMATIC DIAGRAM
(MAIN PCB)



Schematic Diagrams - 6

MPEG SCHEMATIC DIAGRAM
(MAIN PCB)



- 1
- 2
- 3
- 4
- 5



CAUTION: SINCE THESE PARTS MARKED BY  ARE CRITICAL FOR SAFETY, USE ONES DESCRIBED IN PARTS LIST ONLY.

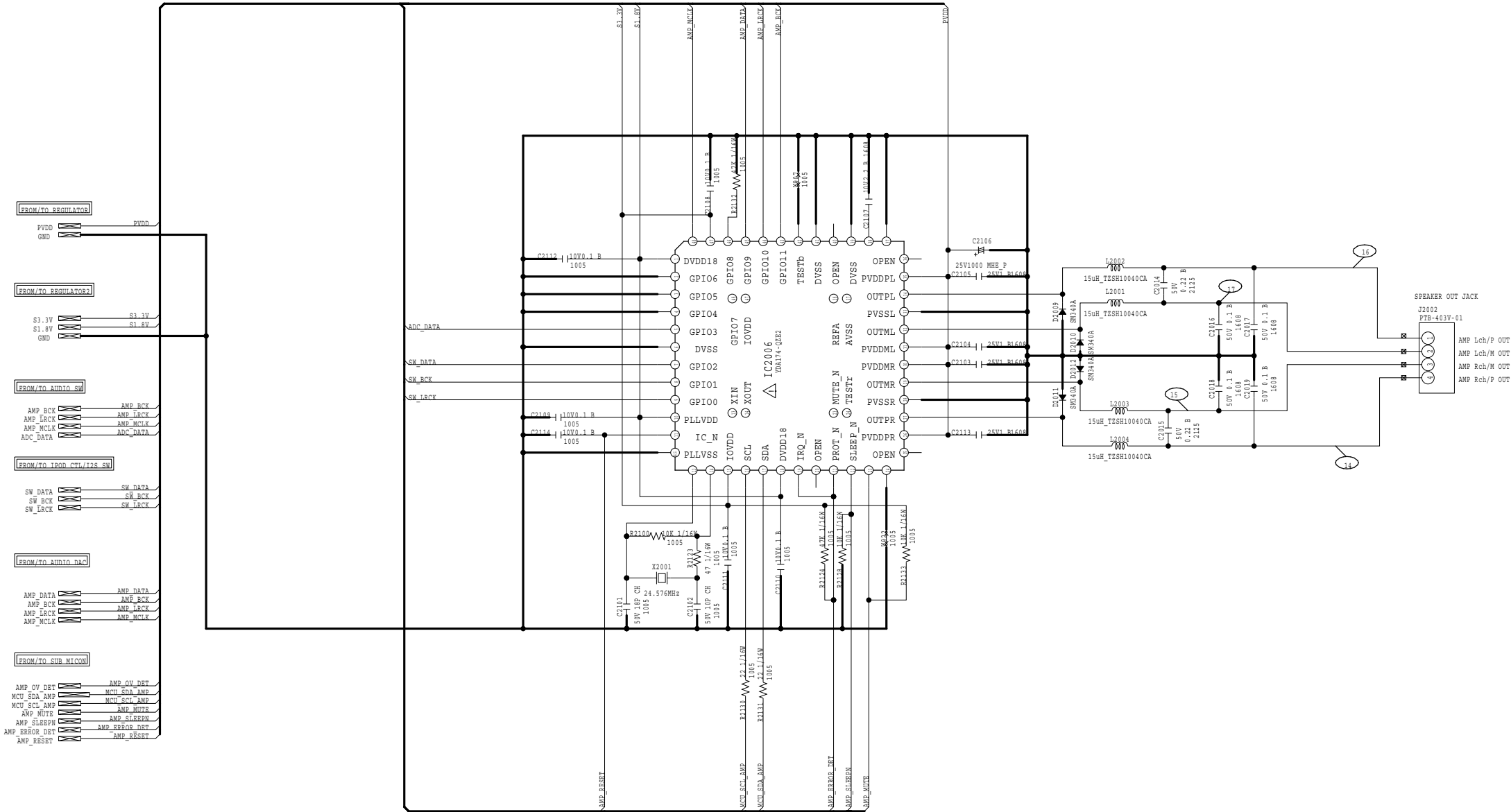
CAUTION: SINCE THESE PARTS MARKED BY  ARE CRITICAL FOR SAFETY, USE ONES DESCRIBED IN PARTS LIST ONLY.

Schematic Diagrams - 8

AUDIO DSP/AMP SCHEMATIC DIAGRAM
(MAIN PCB)

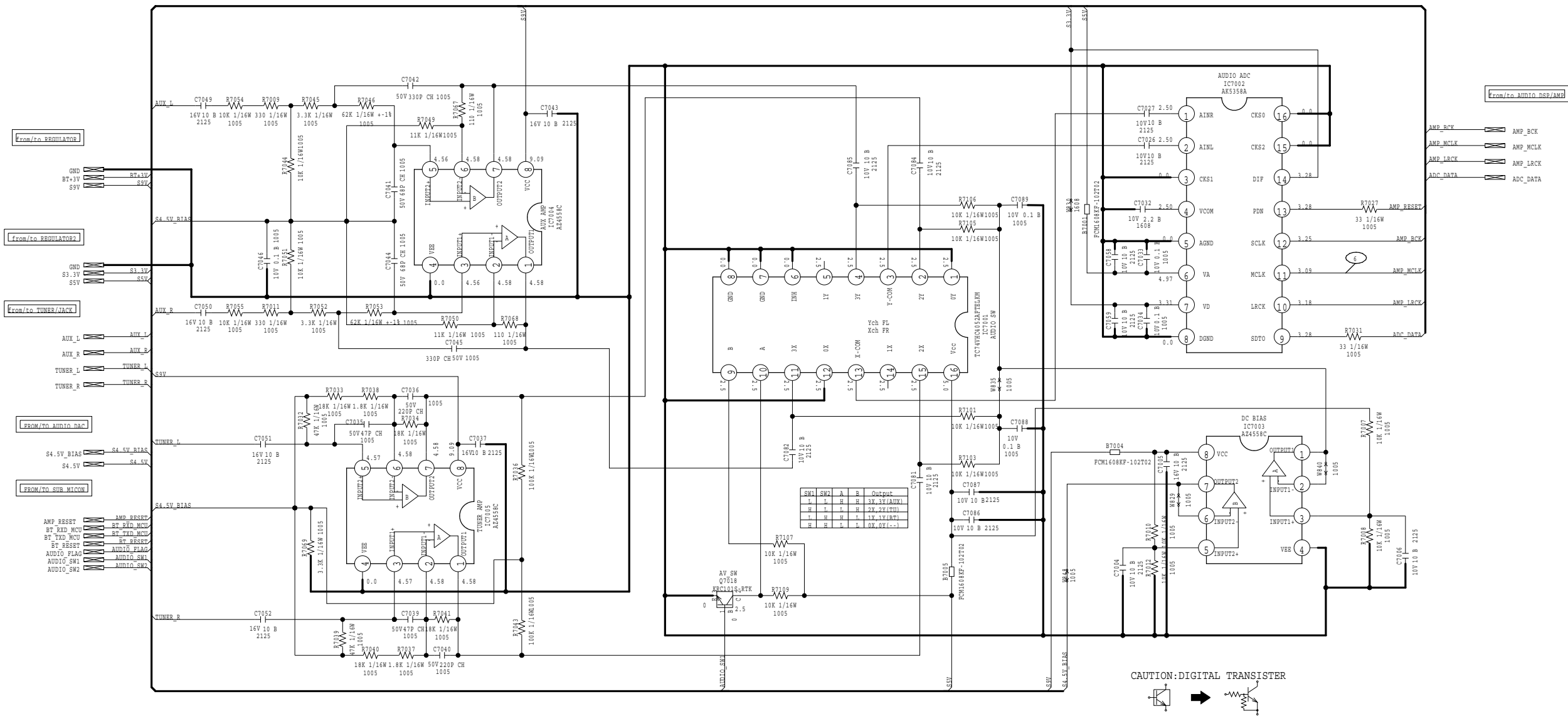
ATTENTION: LES PIECES REPARÉES PAR UN ⚠ ETANT DANGERUSES AN POINT DE VUE SECURITE N'UTILISER QUE CELLS DECRITES DANS LA NOMENCLATURE DES PIECES.

CAUTION: SINCE THESE PARTS MARKED BY ⚠ ARE CRITICAL FOR SAFETY, USE ONES DESCRIBED IN PARTS LIST ONLY.



Schematic Diagrams - 9

AUDIO SW SCHEMATIC DIAGRAM



1

2



5

1

2

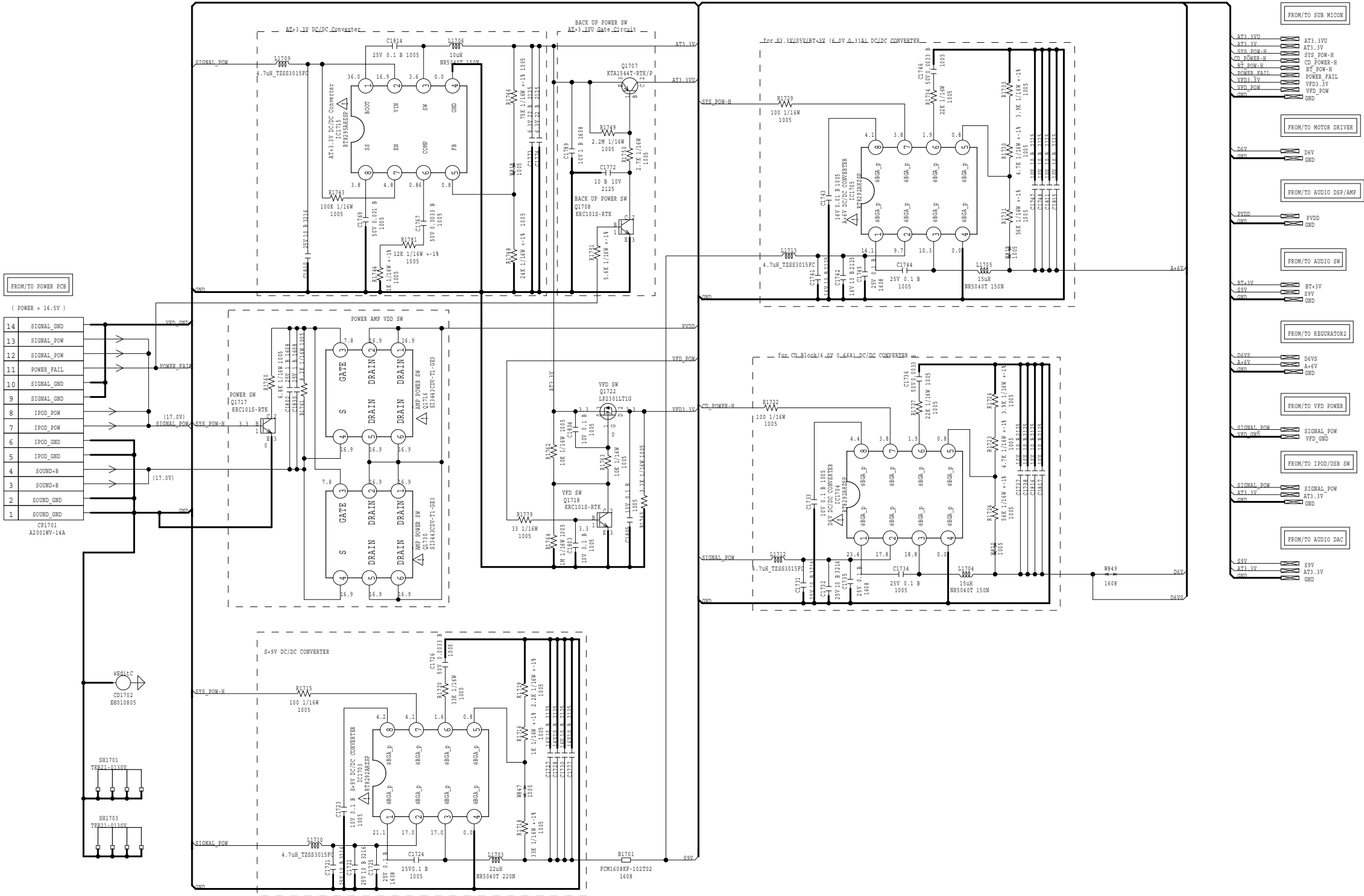


4

5

Schematic Diagrams - 12

REGULATOR SCHEMATIC DIAGRAM
(MAIN PCB)



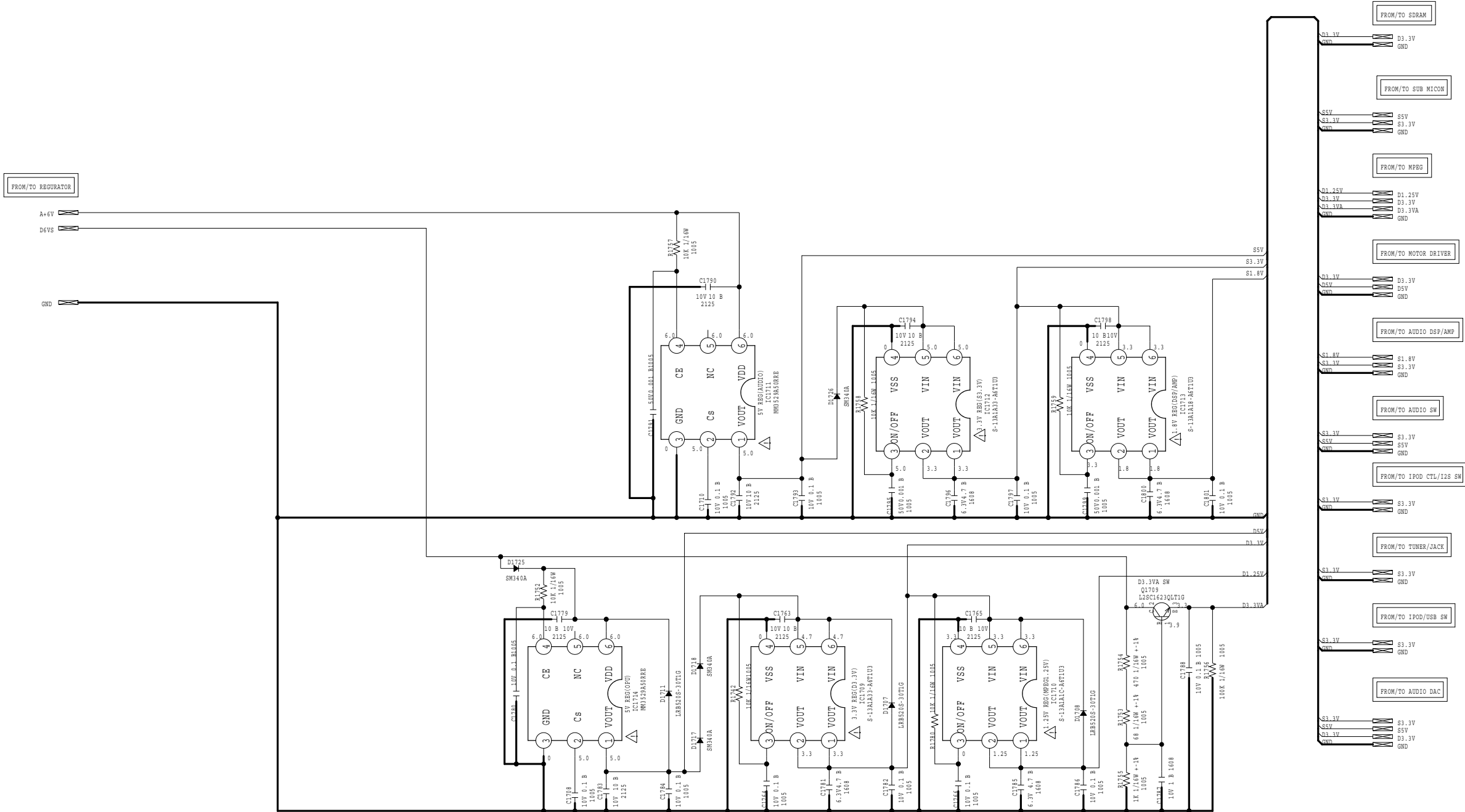
ATTENTION: LES PIÈCES REPARÉES PAR UN Δ ÉTANT DANGEREUSES AU POINT DE VUE SÉCURITÉ N'UTILISER QUE CELLES DÉCRITES DANS LA NOMENCLATURE DES PIÈCES.

CAUTION: SINCE THESE PARTS MARKED BY Δ ARE CRITICAL FOR SAFETY, USE ONES DESCRIBED IN PARTS LIST ONLY.

CAUTION: DIGITAL TRANSISTOR

Schematic Diagrams - 13

REGULATOR2 SCHEMATIC DIAGRAM
(MAIN PCB)



ATTENTION: LES PIÈCES REPAREES PAR UN  ETANT DANGERUSES AN POINT DE VUE SECURITE N'UTILISER QUE CELLS DECRITES DANS LA NOMENCLATURE DES PIÈCES.

CAUTION: SINCE THESE PARTS MARKED BY  ARE CRITICAL FOR SAFETY, USE ONES DESCRIBED IN PARTS LIST ONLY.

1

2

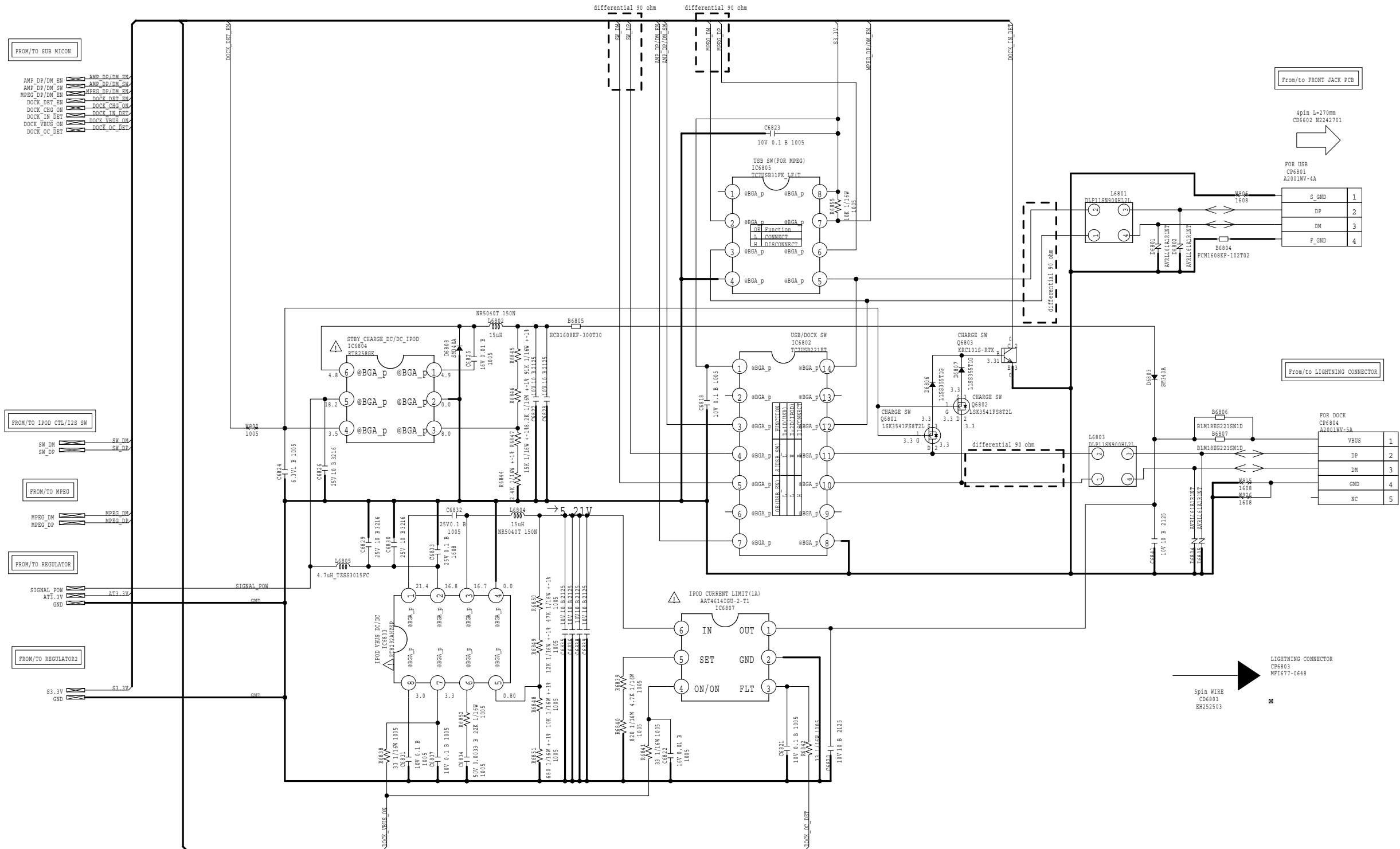


5

CAUTION: DIGITAL TRANSISTER

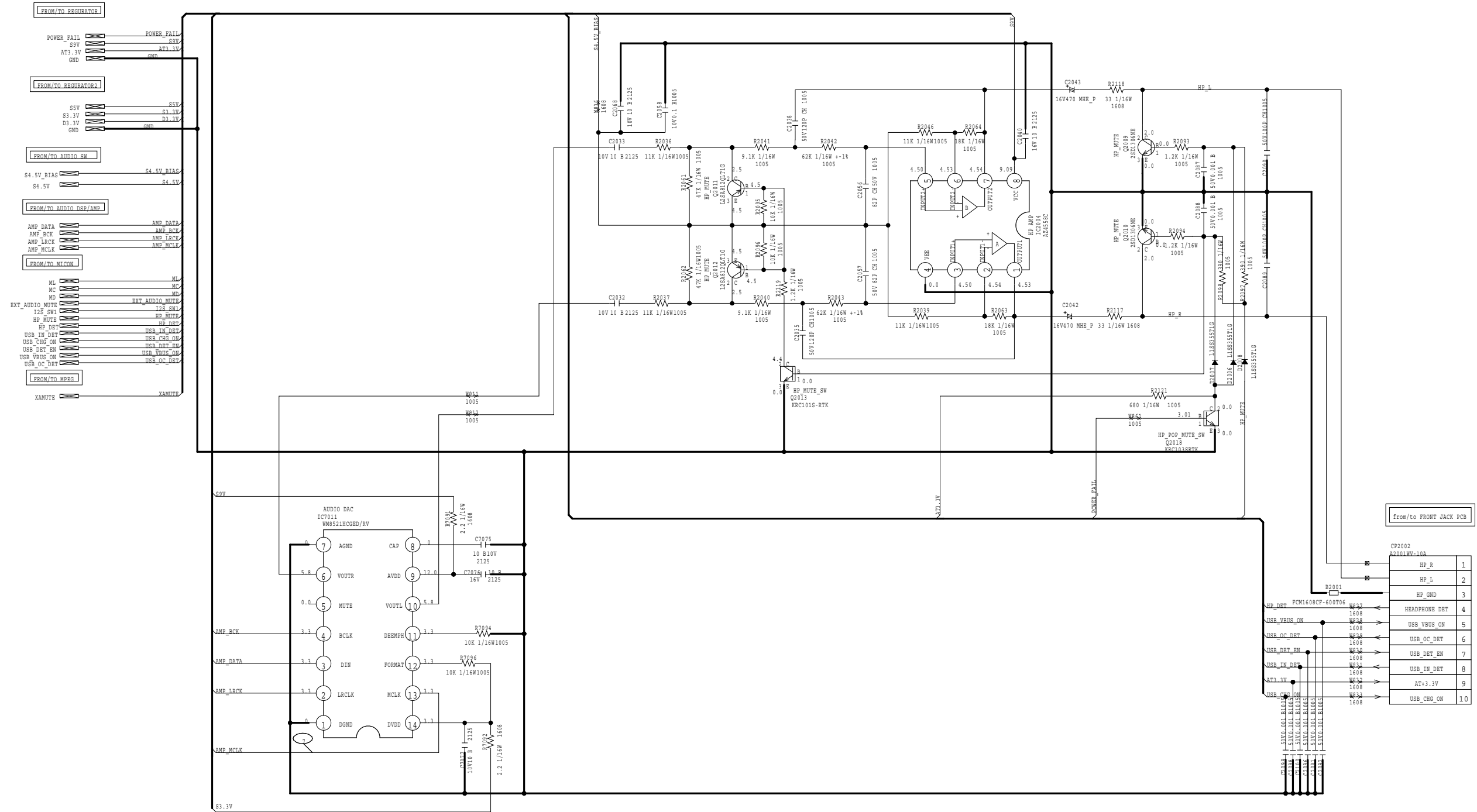
CAUTION: SINCE THESE PARTS MARKED BY Δ ARE CRITICAL FOR SAFETY, USE ONES DESCRIBED IN PARTS LIST ONLY.

IPOD/USB SW SCHEMATIC DIAGRAM
(MAIN PCB)



- 1
- 2
- 3
- 4
- 5

AUDIO DAC SCHEMATIC DIAGRAM
(MAIN PCB)

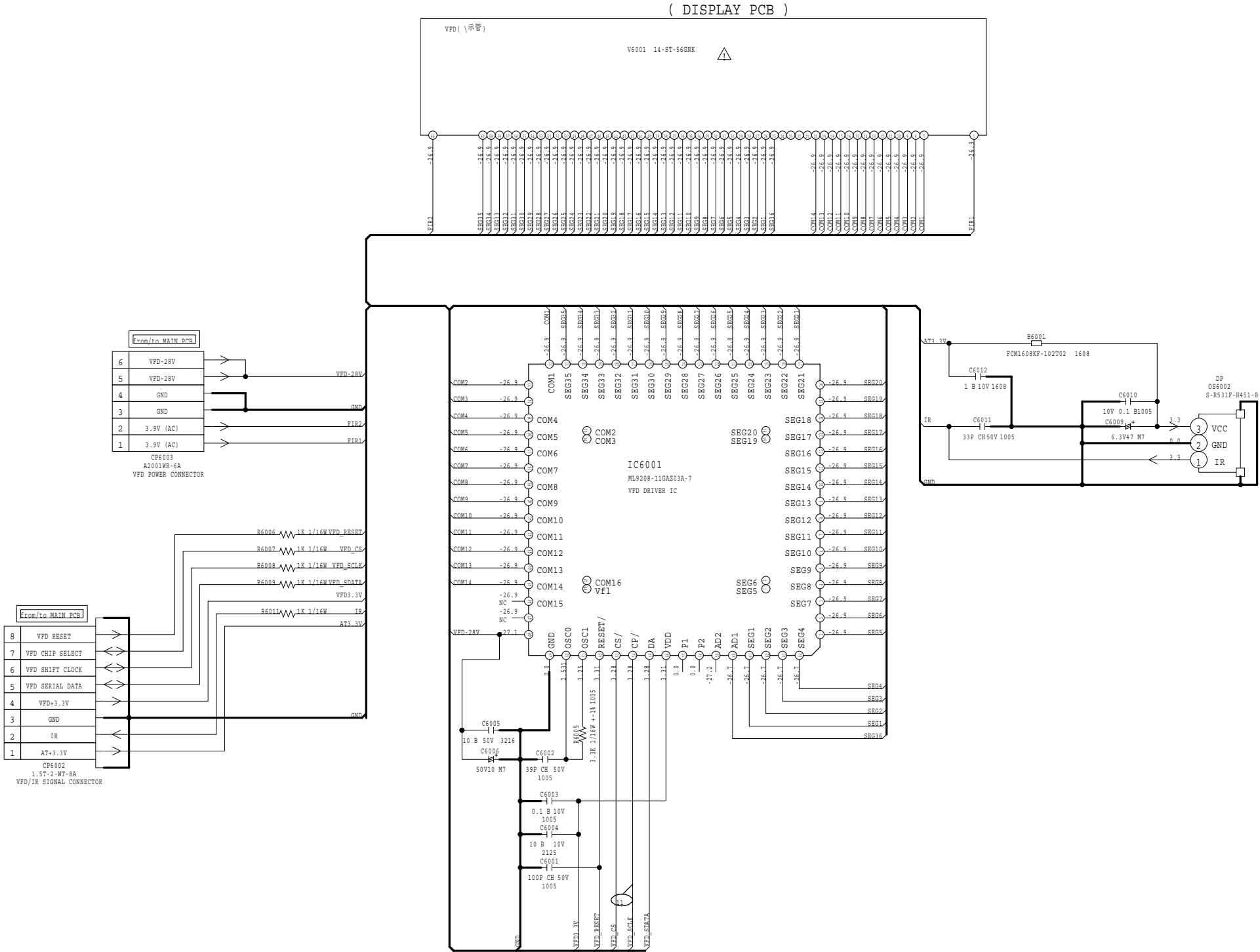


CAUTION: DIGITAL TRANSISTOR



Schematic Diagrams - 17

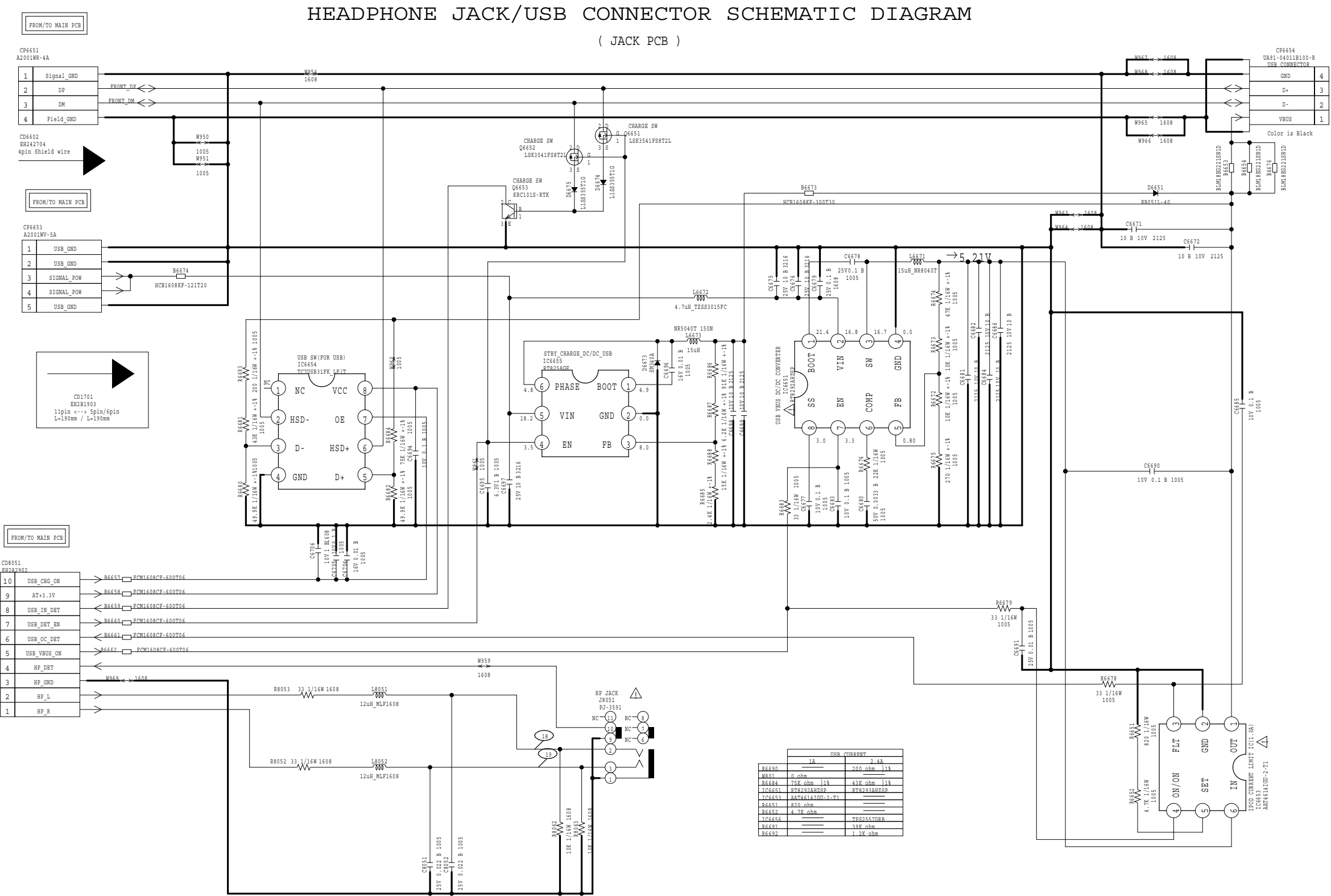
DISPLAY SCHEMATIC DIAGRAM



ATTENTION: LES PIÈCES REPARÉES PAR UN  ÉTANT DANGEREUSES AU POINT DE VUE SÉCURITÉ N'UTILISER QUE CELLES DÉCRITES DANS LA NOMENCLATURE DES PIÈCES.

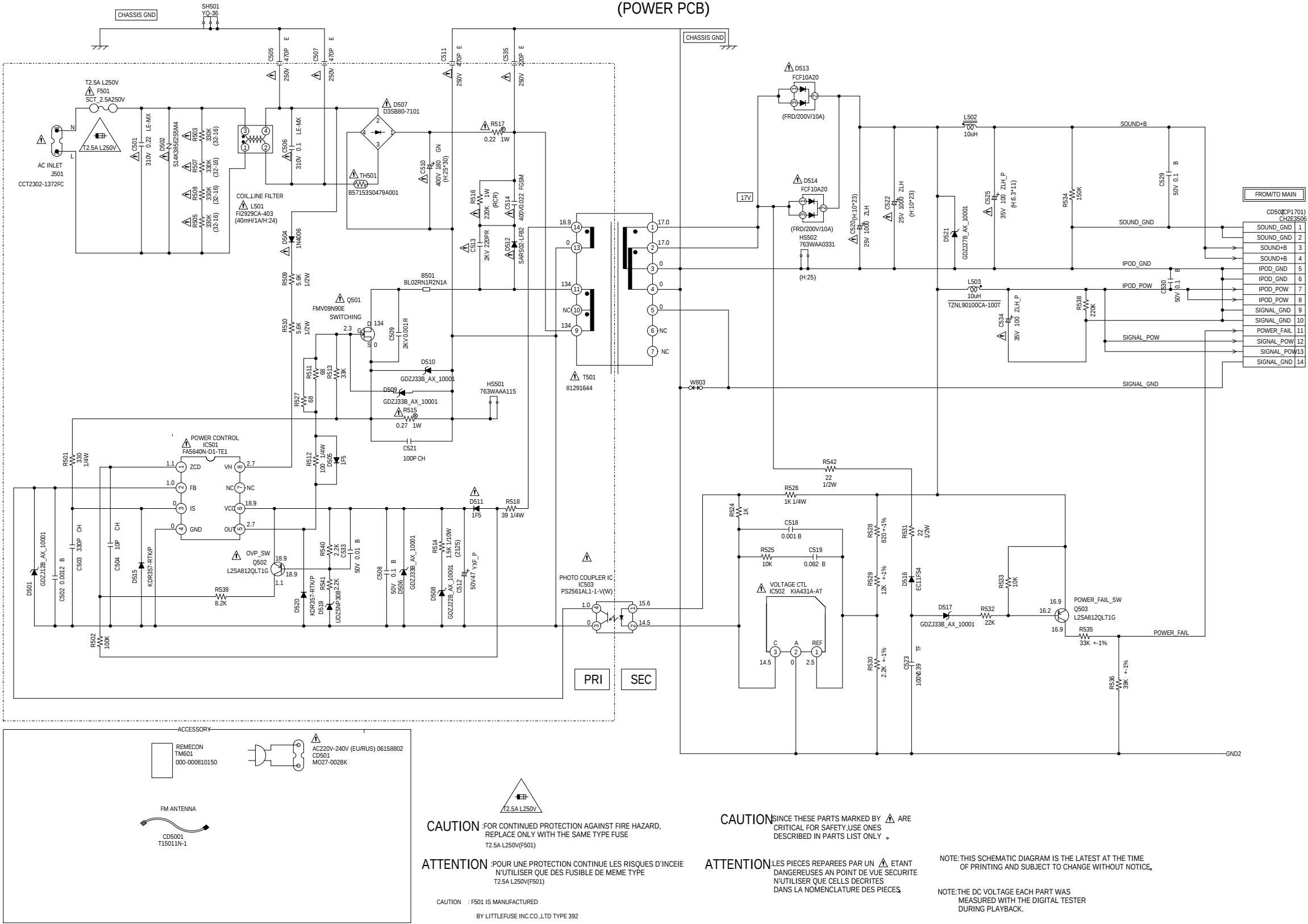
CAUTION: SINCE THESE PARTS MARKED BY  ARE CRITICAL FOR SAFETY, USE ONES DESCRIBED IN PARTS LIST ONLY.

Schematic Diagrams - 18



Schematic Diagrams - 19

POWER SCHEMATIC DIAGRAM
(POWER PCB)



A

B

C

D

E

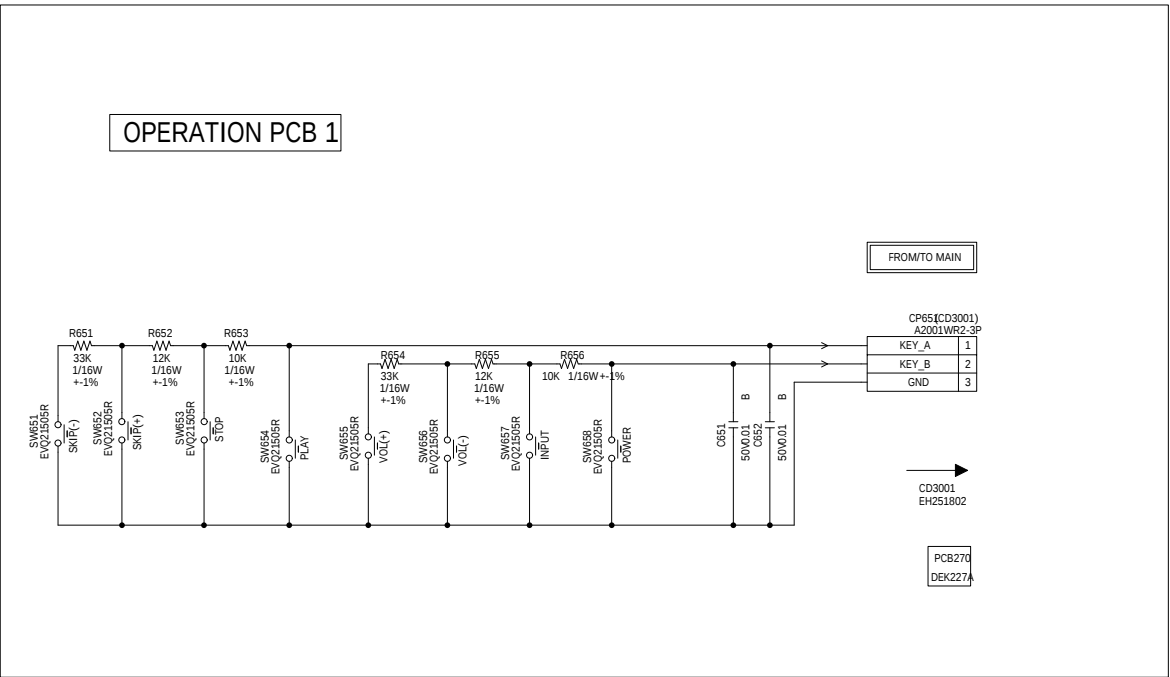
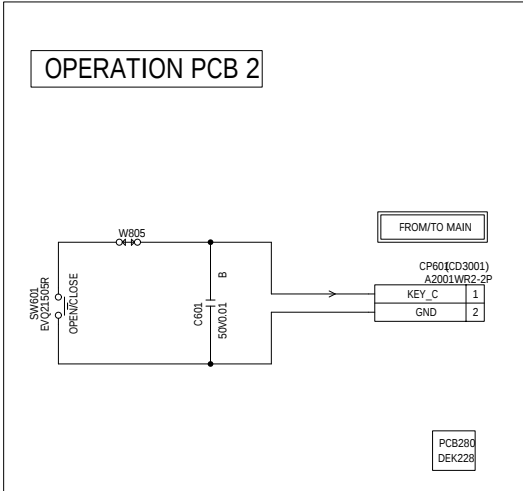
F

G

H

Schematic Diagrams - 20

OPERATION/USB SCHEMATIC DIAGRAM
(OPERATION PCB)



NOTE: THIS SCHEMATIC DIAGRAM IS THE LATEST AT THE TIME
OF PRINTING AND SUBJECT TO CHANGE WITHOUT NOTICE.

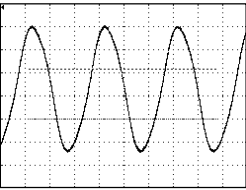
NOTE: THE DC VOLTAGE EACH PART WAS
MEASURED WITH THE DIGITAL TESTER
DURING PLAYBACK.

Schematic Diagrams - 21

WAVEFORMS

SUB MICON

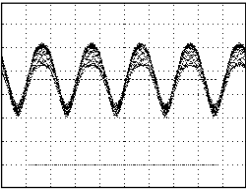
20nS
500mV



1

AUDIO DSP/AMP

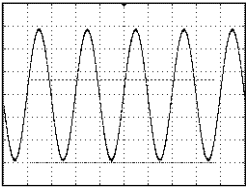
500uS
1V



14

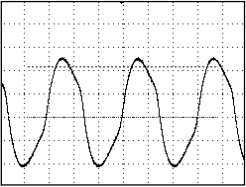
TUNER/JACK

500uS
500mV



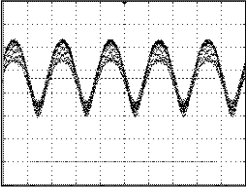
12

10uS
500mV



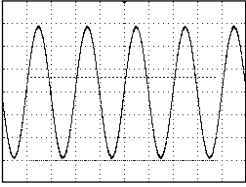
2

500uS
1V



15

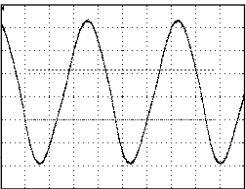
500uS
500mV



13

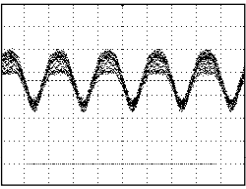
MPEG

10nS
200mV



3

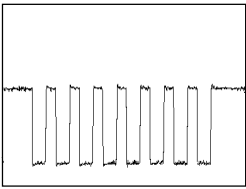
500uS
1V



16

DISPLAY

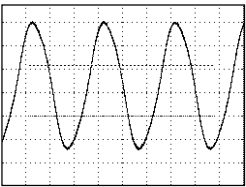
2uS
1V



11

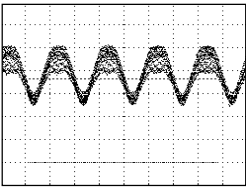
I POD CONTROLLER/USB SW

20nS
500mV



4

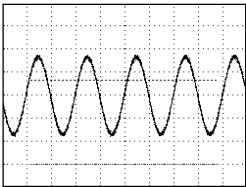
500uS
1V



17

HEADPHONE JACK/USB CONNECTOR

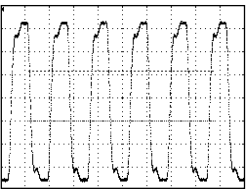
500uS
200mV



18

AUDIO DSP/AMP

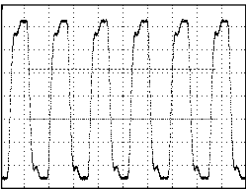
50nS
500mV



7

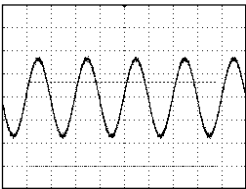
AUDIO SW

50nS
500mV



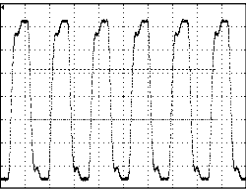
6

500uS
200mV



19

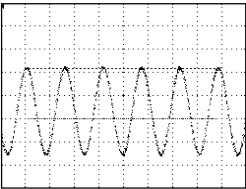
50nS
500mV



8

SDRAM

5nS
500mV

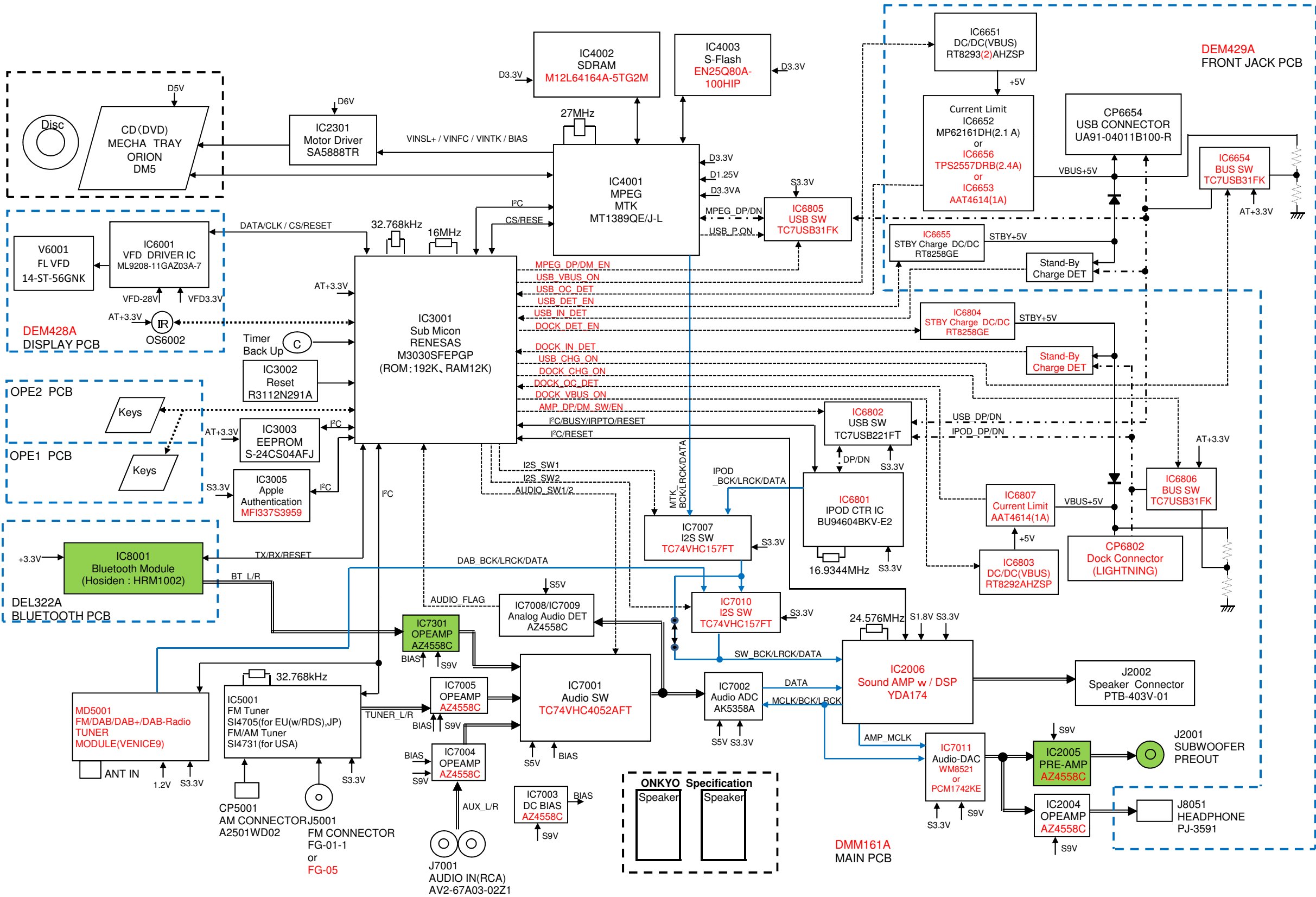


9

NOTE: The following waveforms were measured at the point of the corresponding balloon number in the

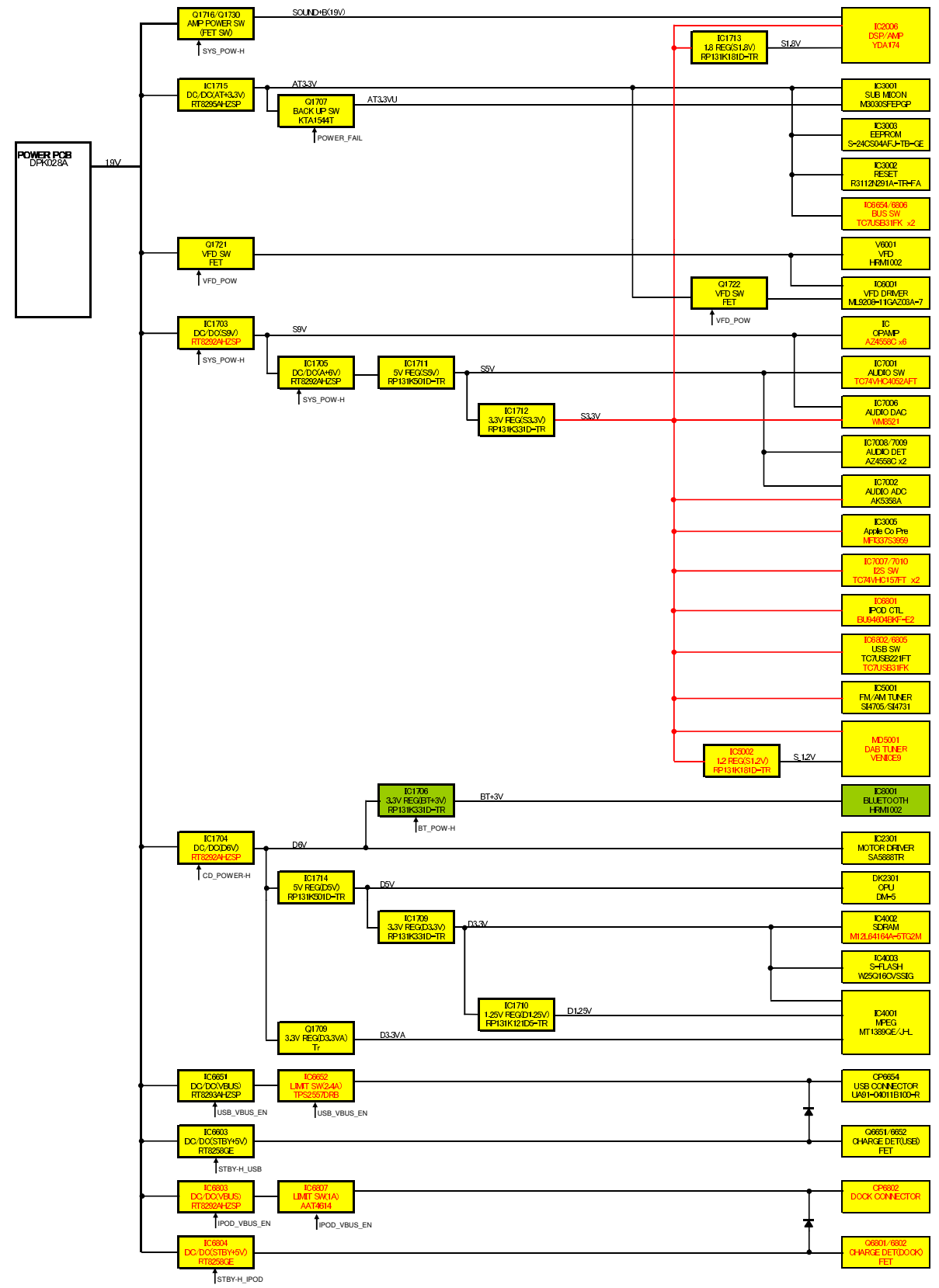
Schematic Diagrams - 1

BLOCK DIAGRAM



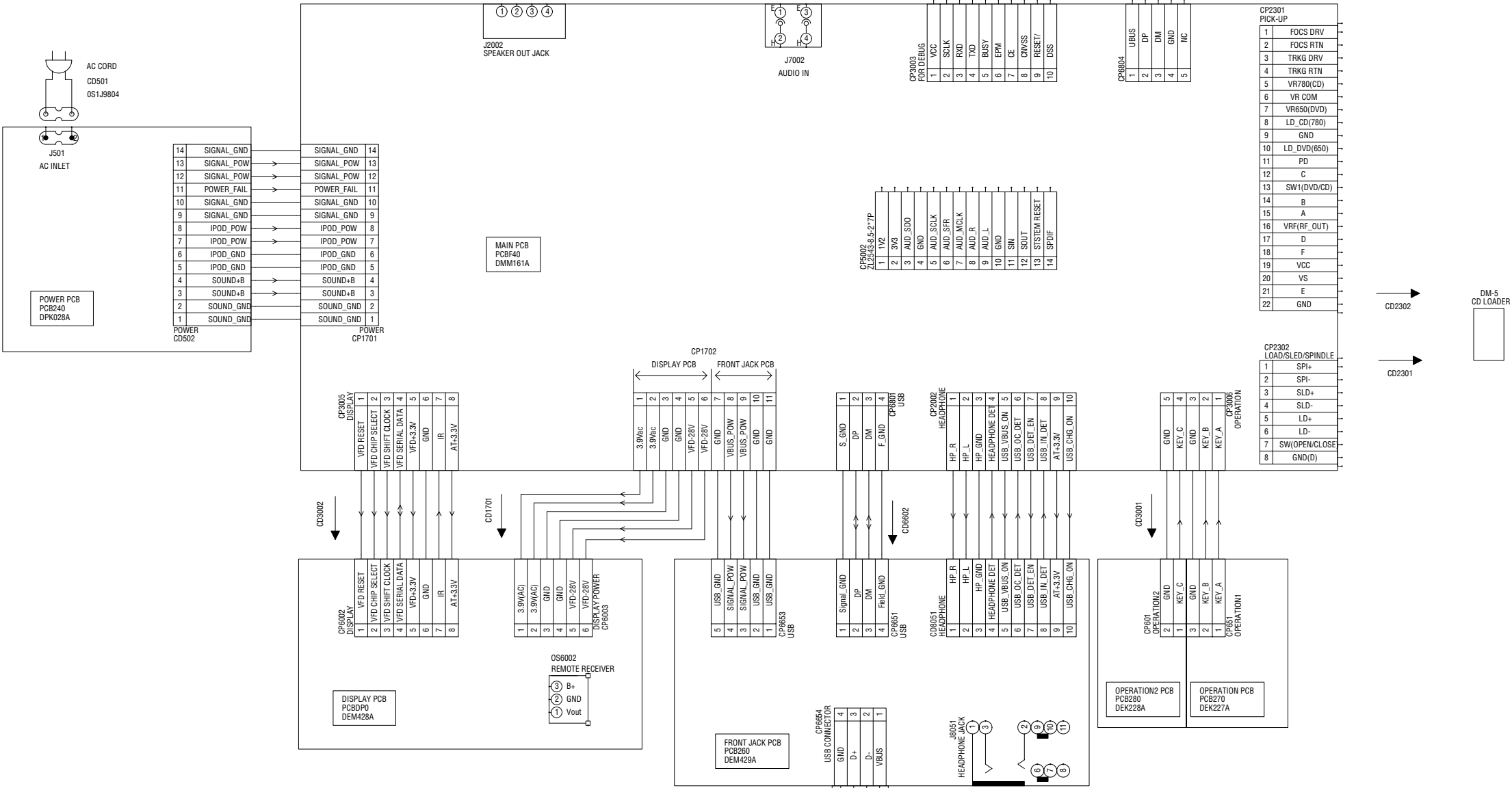
Schematic Diagrams - 2

POWER BLOCK DIAGRAM



Schematic Diagrams - 3

INTERCONNECTION DIAGRAM



NOTE: THIS INTERCONNECTION DIAGRAM IS THE LATEST AT THE TIME OF PRINTING AND SUBJECT TO CHANGE WITHOUT NOTICE .

CAUTIONSINCE THESE PARTS MARKED BY ⚠ ARE CRITICAL FOR SAFETY,USE ONES DESCRIBED IN PARTS LIST ONLY .

ATTENTIONLES PIECES REPARÉES PAR UN ⚠ ETANT DANGEREUSES AN POINT DE VUE SECURITE N'UTILISER QUE CELLS DECRITES DANS LA NOMENCLATURE DES PIECES.

A

B

C

D

E

F

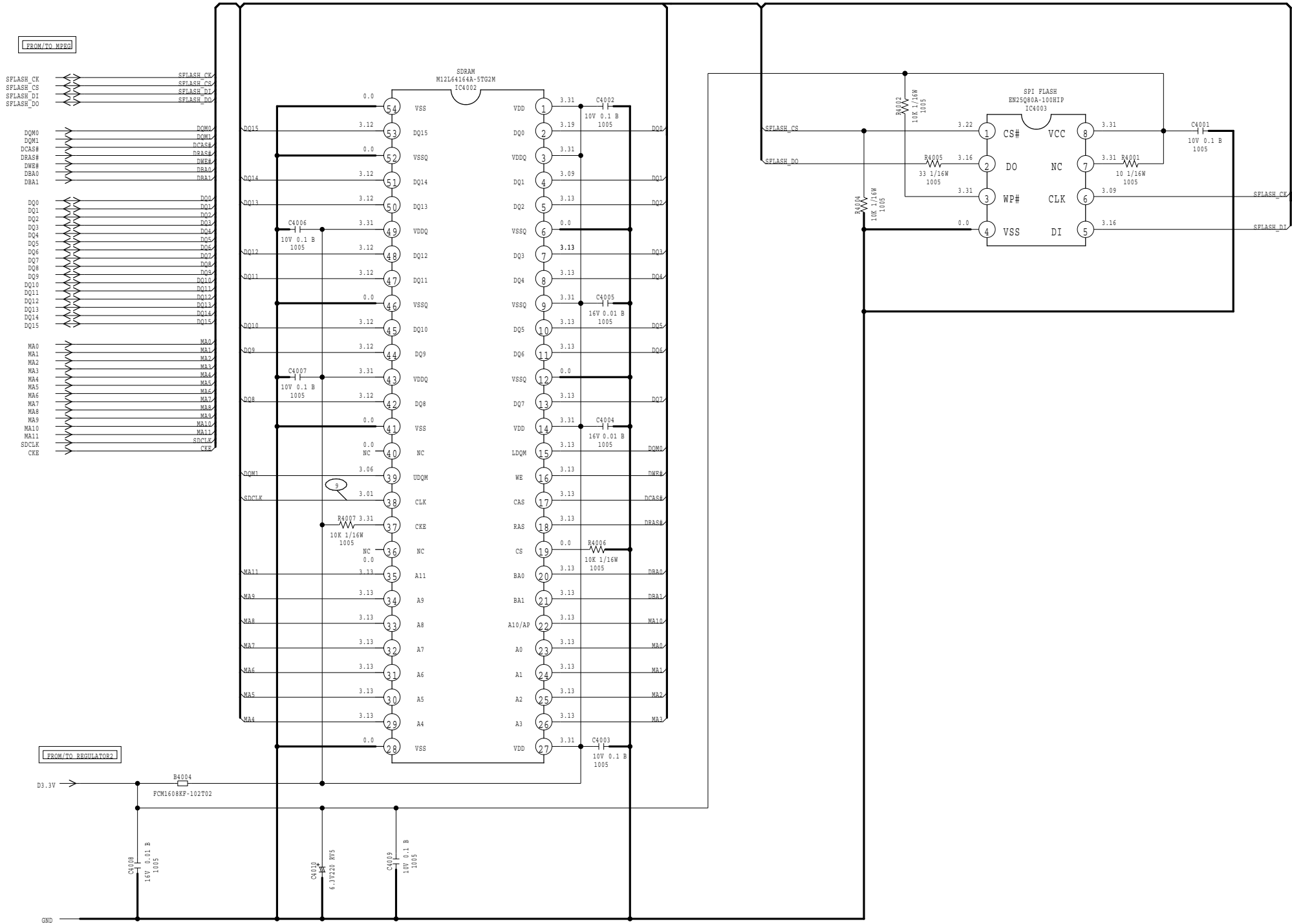
G

H

Schematic Diagrams - 4

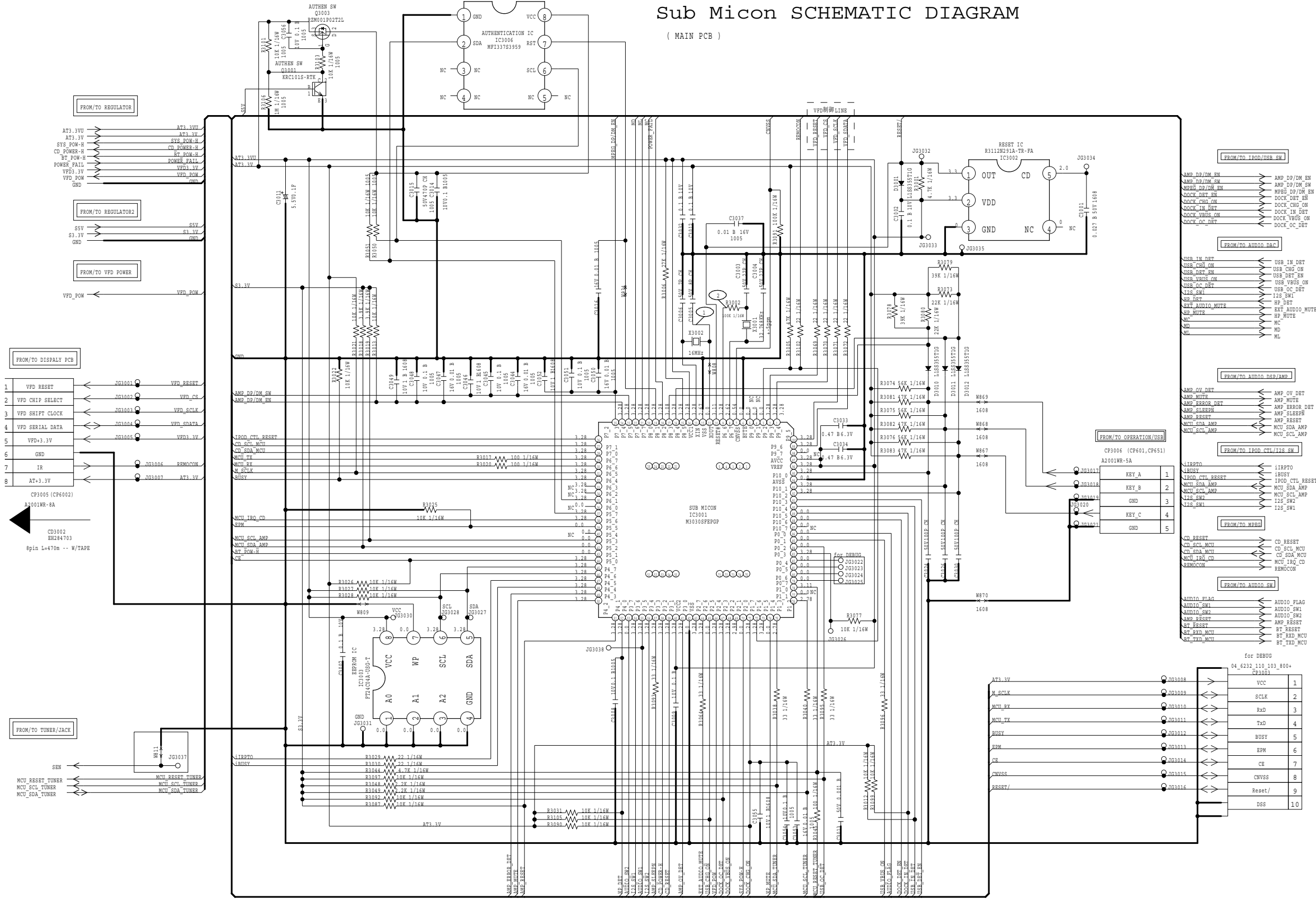
SDRAM SCHEMATIC DIAGRAM

(MAIN PCB)



Schematic Diagrams - 5

Sub Micon SCHEMATIC DIAGRAM
(MAIN PCB)



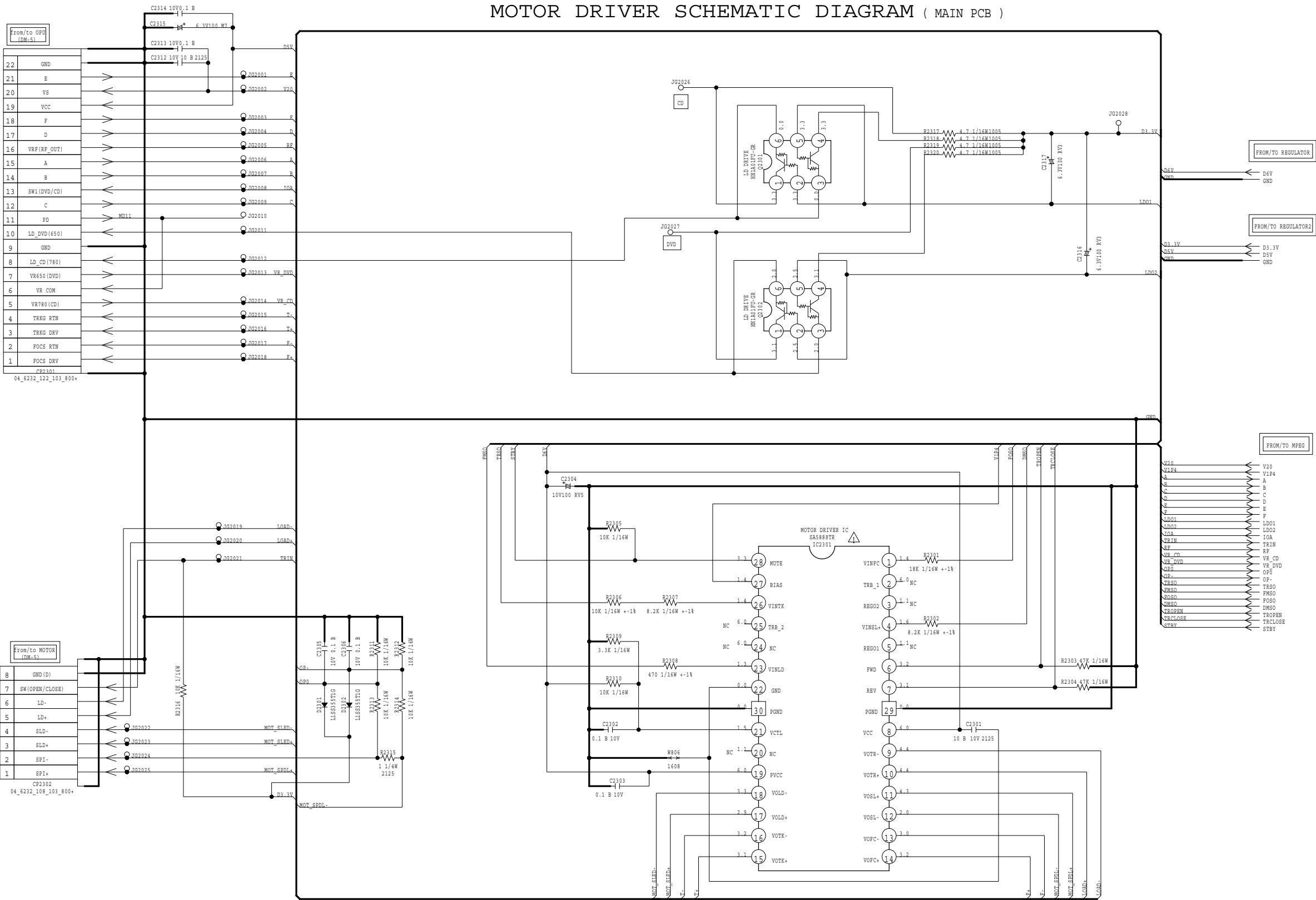
1

2



Schematic Diagrams - 7

MOTOR DRIVER SCHEMATIC DIAGRAM (MAIN PCB)



ATTENTION: LES PIECES REPARÉES PAR UN ÉTANT DANGEREUSES AU POINT DE VUE SÉCURITÉ N'UTILISER QUE CELLES DÉCRITES DANS LA NOMENCLATURE DES PIÈCES.

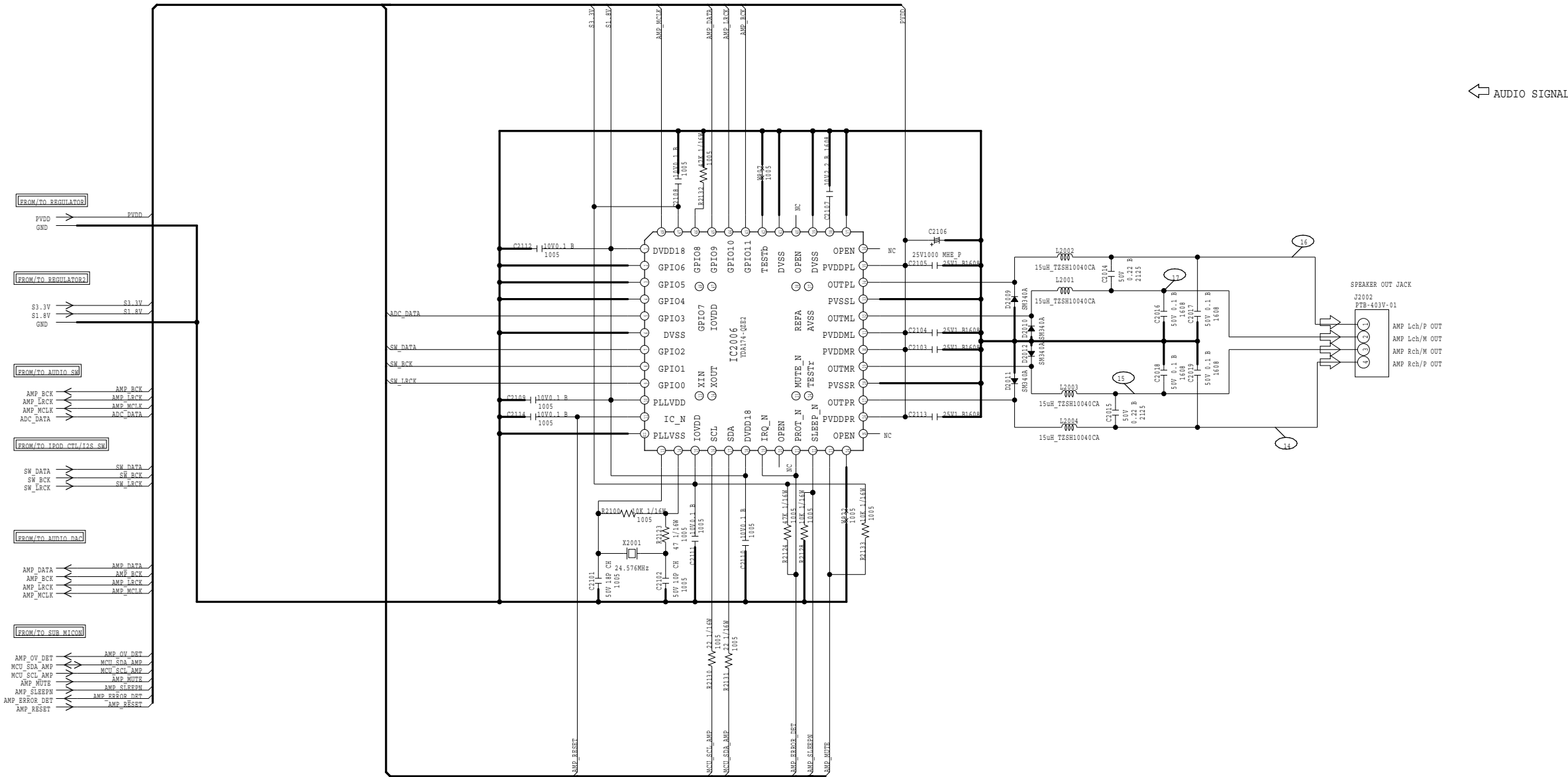
CAUTION: SINCE THESE PARTS MARKED BY ARE CRITICAL FOR SAFETY, USE ONES DESCRIBED IN PARTS LIST ONLY.

A | Schematic Diagrams - 8

AUDIO DSP/AMP SCHEMATIC DIAGRAM
(MAIN PCB)

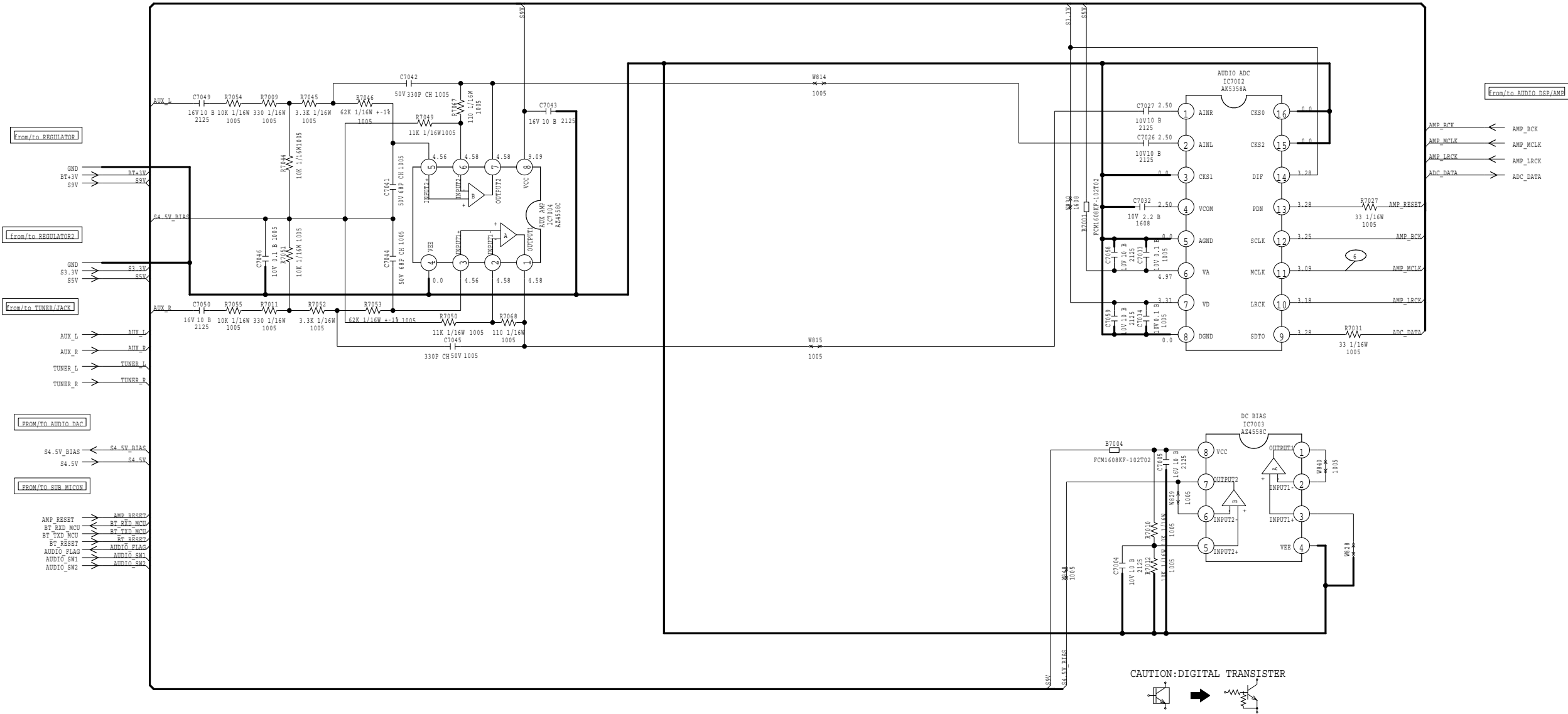
ATTENTION: LES PIECES REPARÉES PAR UN Δ ETANT
DANGERUSES AN POINT DE VUE SECURITE
N'UTILISER QUE CELLS DECRITES
DANS LA NOMENCLATURE DES PIECES.

CAUTION: SINCE THESE PARTS MARKED BY ARE CRITICAL FOR SAFETY, USE ONES DESCRIBED IN PARTS LIST ONLY.



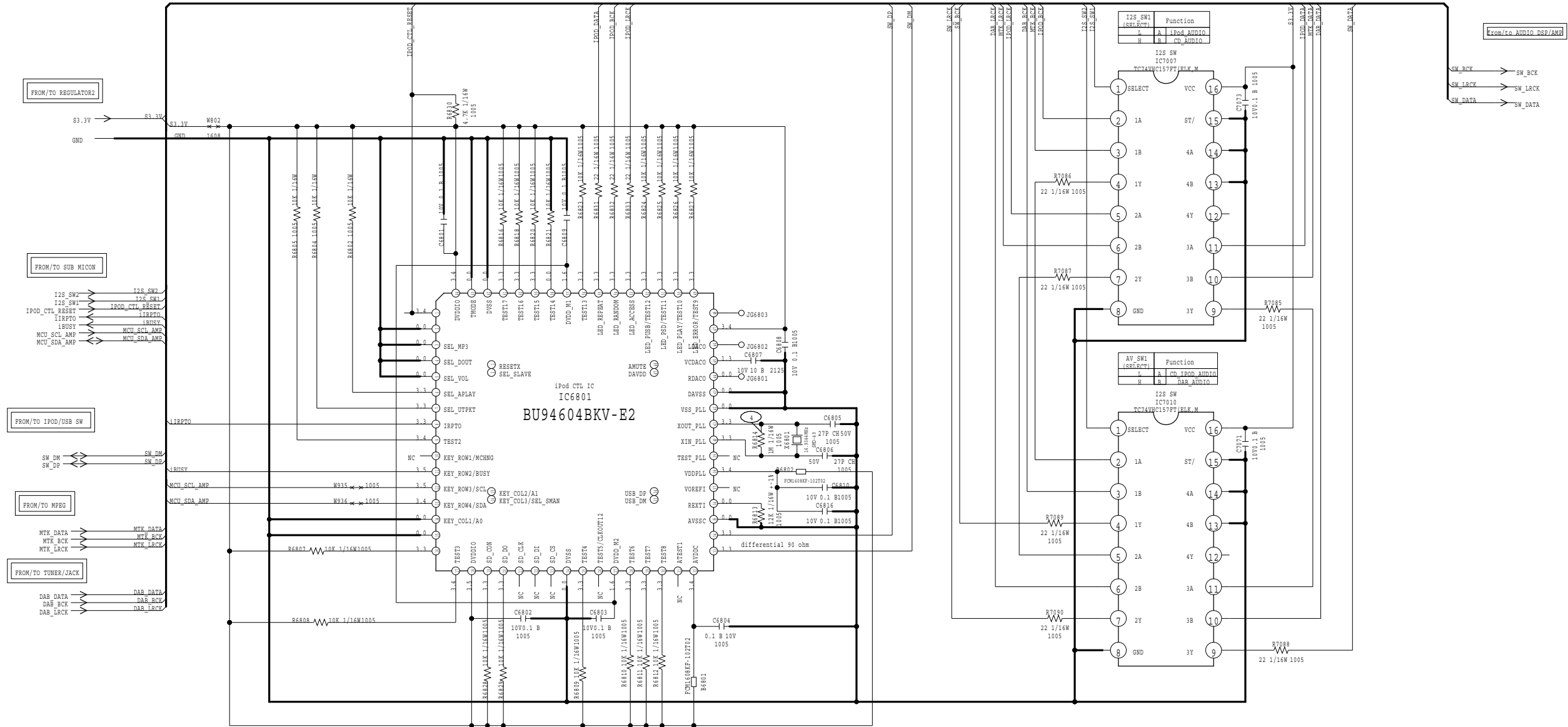
Schematic Diagrams - 9

AUDIO SW SCHEMATIC DIAGRAM



Schematic Diagrams - 10

iPod CTL/I2S SW SCHEMATIC DIAGRAM
(MAIN PCB)



A

B

C

D

E

F

G

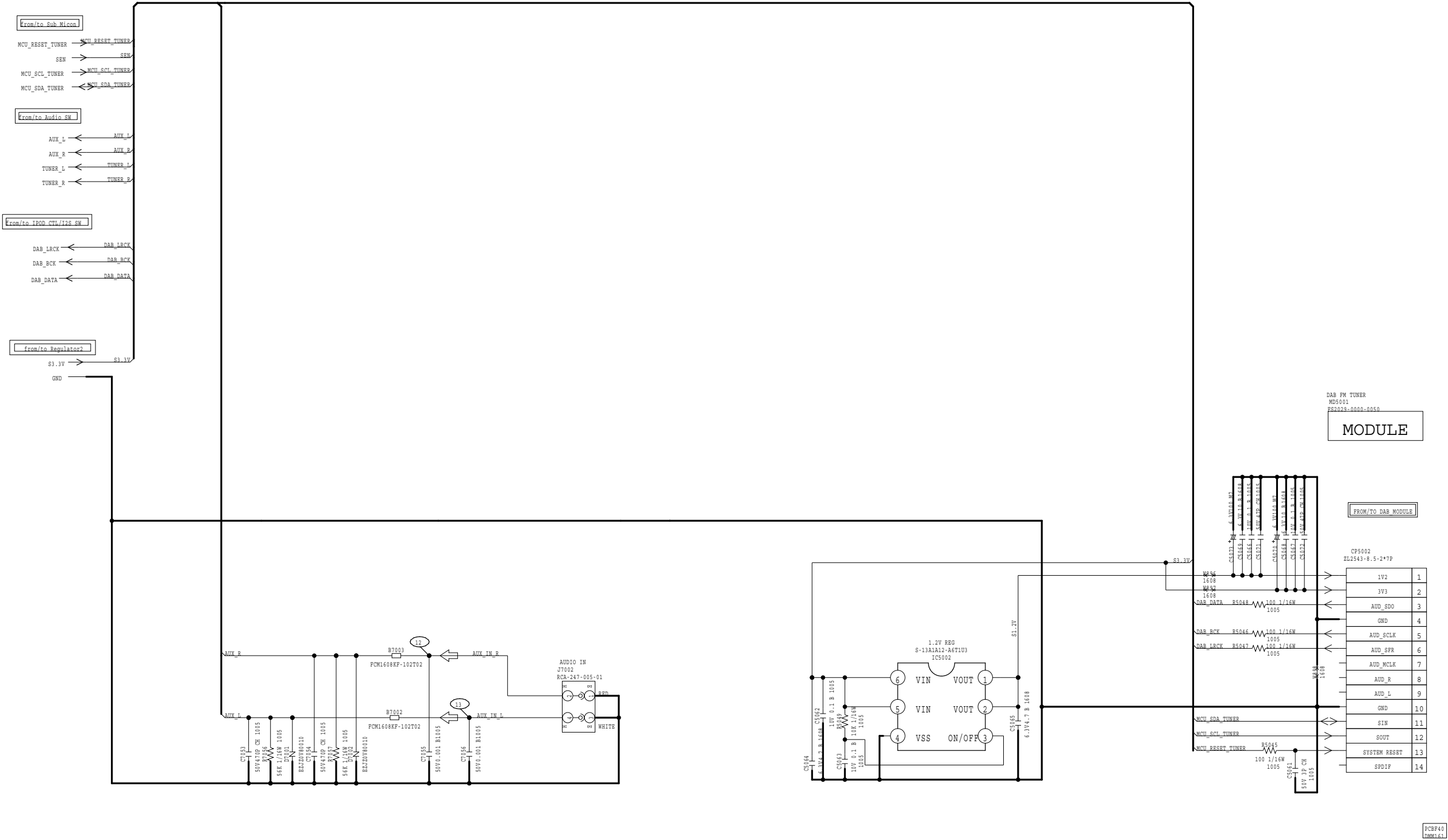
H

Schematic Diagrams - 11

TUNER/JACK SCHEMATIC DIAGRAM

(MAIN PCB)

(FM/AM TUNER & AUX IN[L/R])

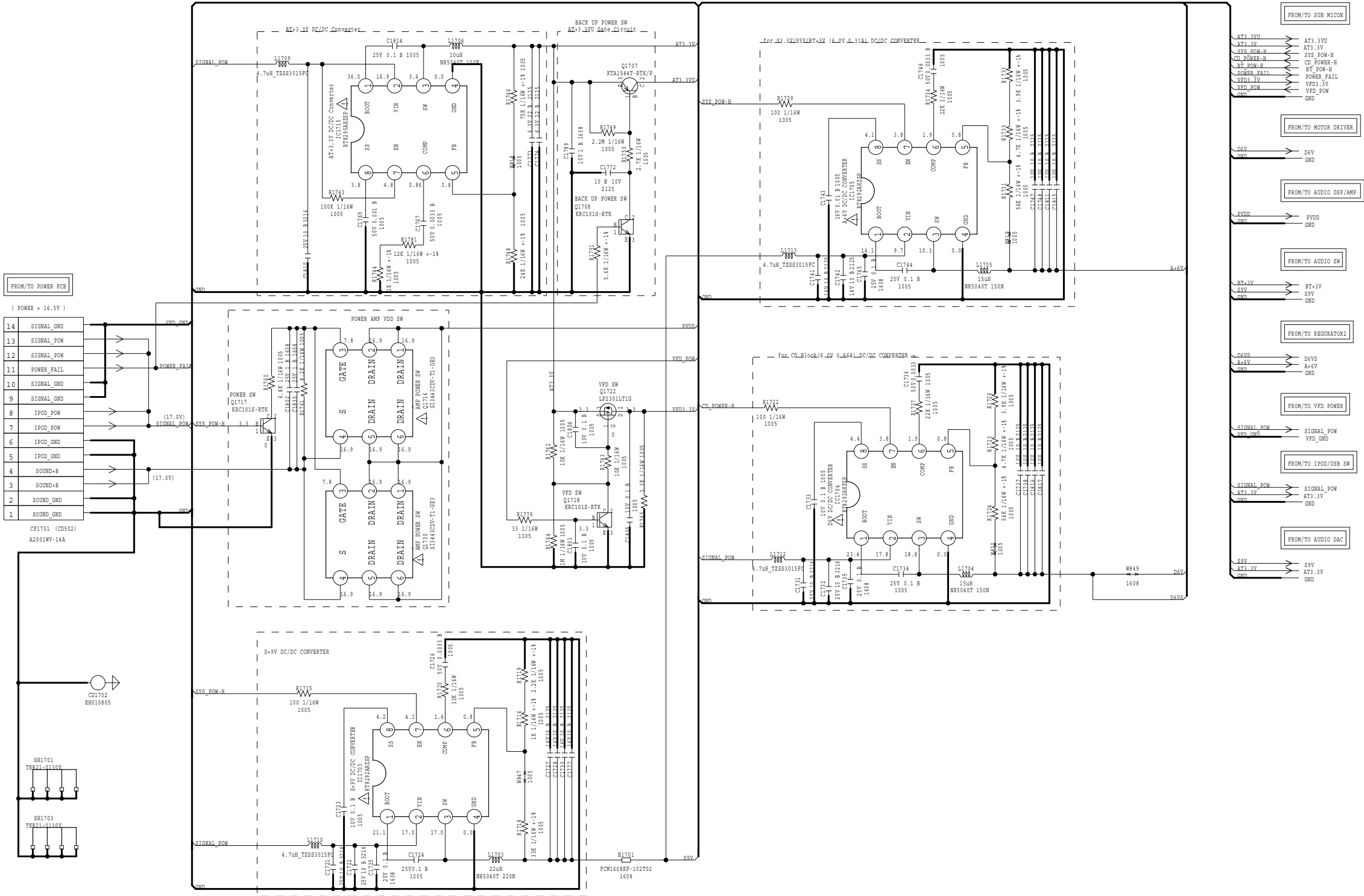


ATTENTION: LES PIÈCES REPARÉES PAR UN △ ETANT DANGERUSES AN POINT DE VUE SECURITE N'UTILISER QUE CELLS DECRITES DANS LA NOMENCLATURE DES PIÈCES.

CAUTION: SINCE THESE PARTS MARKED BY △ ARE CRITICAL FOR SAFETY, USE ONES DESCRIBED IN PARTS LIST ONLY.

Schematic Diagrams - 12

REGULATOR SCHEMATIC DIAGRAM
(MAIN PCB)



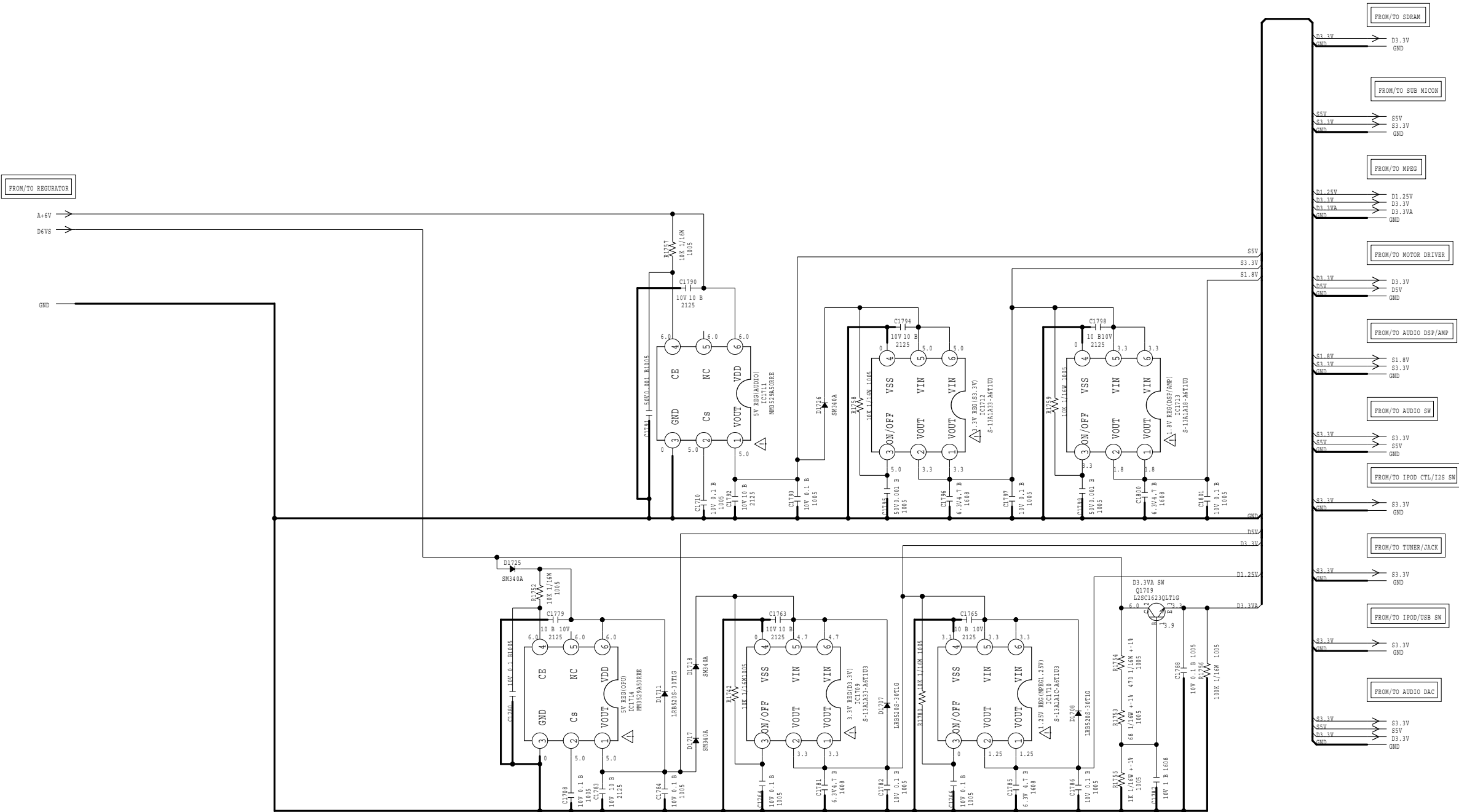
ATTENTION: LES PIÈCES REPAREES PAR UN ETANT DANGERUSES AN POINT DE VUE SECURITE N'UTILISER QUE CELLS DECRITES DANS LA NOMENCLATURE DES PIÈCES.

CAUTION: SINCE THESE PARTS MARKED BY ARE CRITICAL FOR SAFETY, USE ONES DESCRIBED IN PARTS LIST ONLY.

CAUTION: DIGITAL TRANSISTOR

Schematic Diagrams - 13

REGULATOR2 SCHEMATIC DIAGRAM
(MAIN PCB)



ATTENTION : LES PIECES REPARÉES PAR UN Δ ÉTANT
DANGEREUSES AU POINT DE VUE SÉCURITÉ
N'UTILISER QUE CELLES DÉCRITES
DANS LA NOMENCLATURE DES PIÈCES.

CAUTION: SINCE THESE PARTS MARKED BY $\triangle$ ARE
CRITICAL FOR SAFETY, USE ONES
DESCRIBED IN PARTS LIST ONLY.

CAUTION: DIGITAL TRANSISTOR



A

B

C

D

E

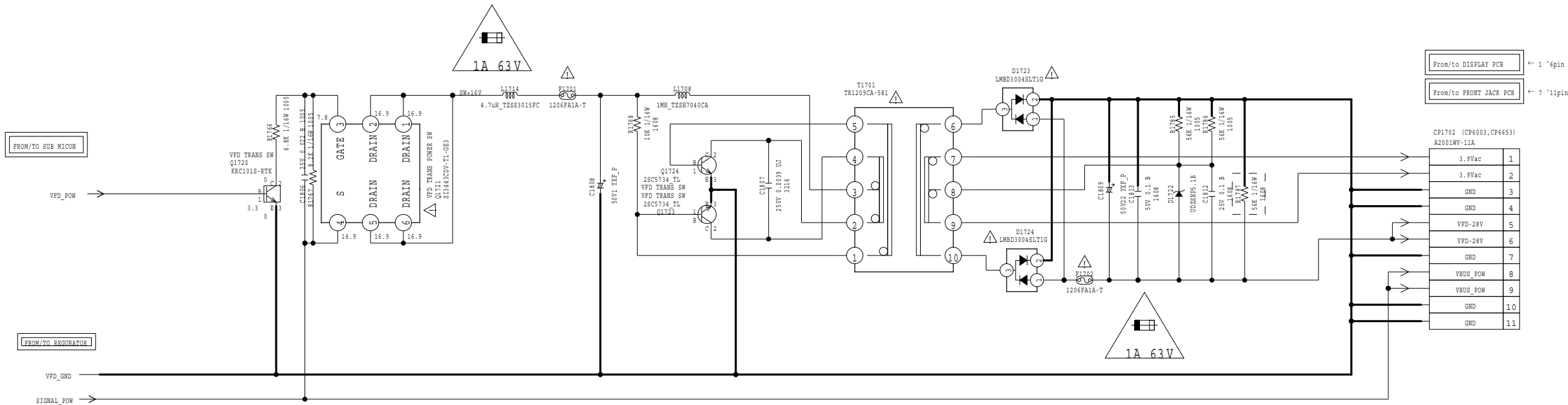
F

G

H

Schematic Diagrams - 14

VFD POWER SCHEMATIC DIAGRAM
(MAIN PCB)



CAUTION: FOR CONTINUED PROTECTION AGAINST FIRE HAZARD,
REPLACE ONLY WITH THE SAME TYPE FUSE 1A 63V (F1701/F1702)

ATTENTION: POUR UNE PROTECTION CONTINUE LES RISQUES D'INCENDIE
N'UTILISER QUE DES FUSIBLE DE MEME TYPE 1A 63V (F1701/F1702)

ATTENTION: LES PIECES REPARÉES PAR UN  ÉTANT DANGEREUSES AU POINT DE VUE SÉCURITÉ N'UTILISER QUE CELLES DÉCRITES DANS LA NOMENCLATURE DES PIÈCES.

CAUTION: SINCE THESE PARTS MARKED BY  ARE CRITICAL FOR SAFETY, USE ONES DESCRIBED IN PARTS LIST ONLY.

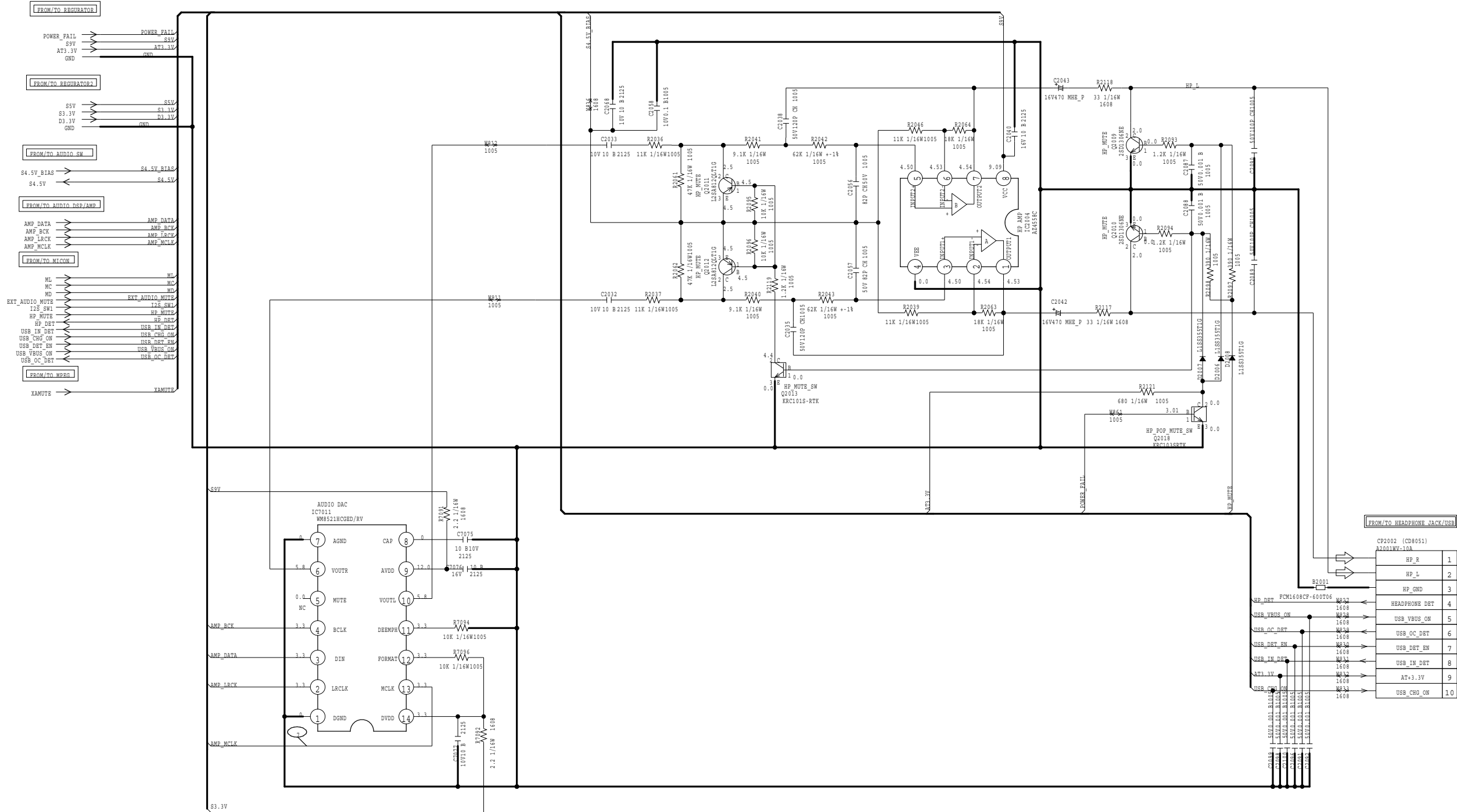
1

2



Schematic Diagrams - 16

AUDIO DAC SCHEMATIC DIAGRAM
(MAIN PCB)



A

B

C

D

E

F

G

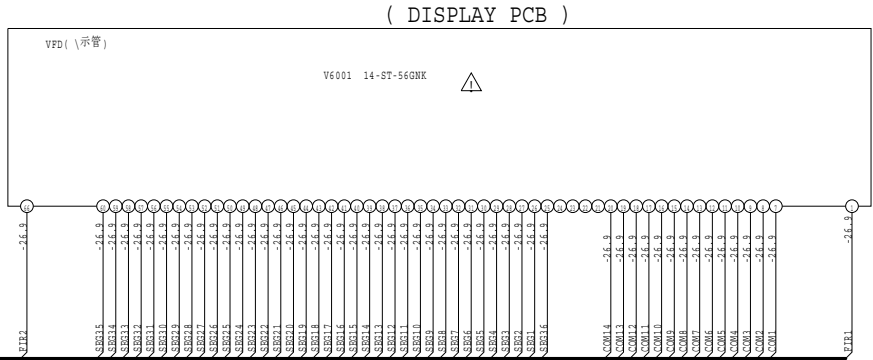
H

Schematic Diagrams - 17

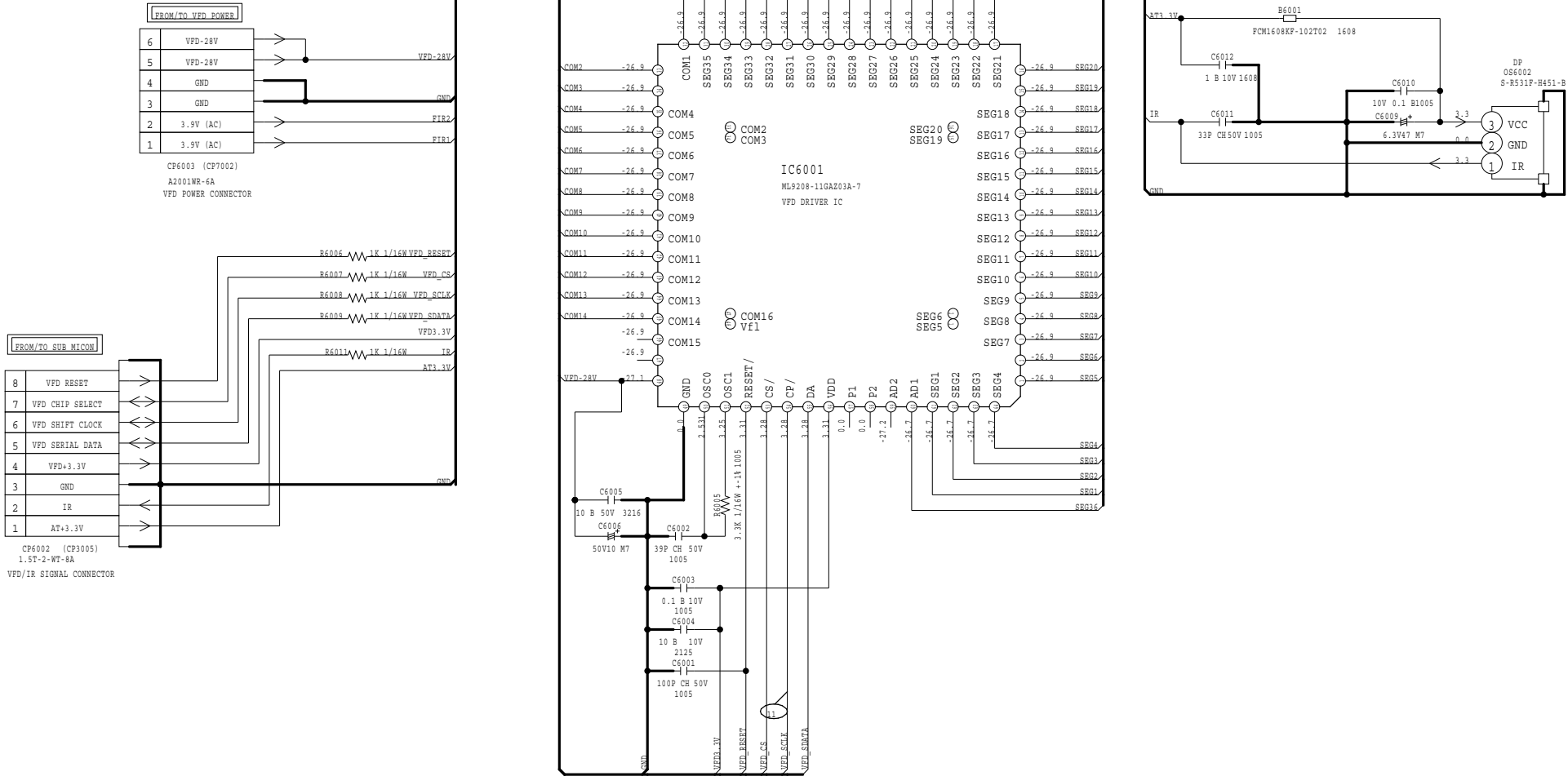
1

DISPLAY SCHEMATIC DIAGRAM

2



3



4

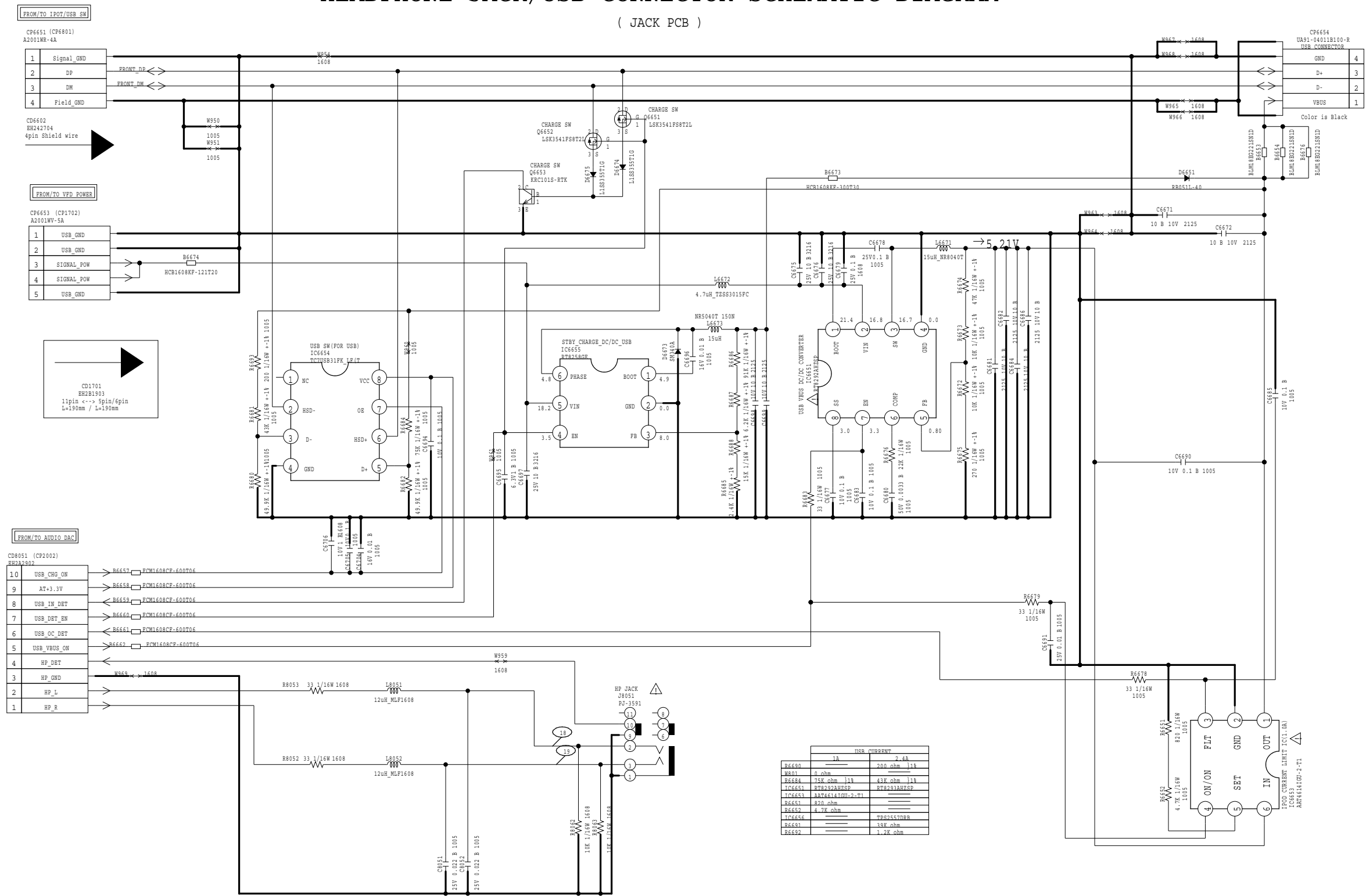
5

ATTENTION:LES PIECES REPARÉES PAR UN  ÉTANT DANGEREUSES AN POINT DE VUE SECURITE N'UTILISER QUE CELLS DECRITES DANS LA NOMENCLATURE DES PIECES.

CAUTION: SINCE THESE PARTS MARKED BY  ARE CRITICAL FOR SAFETY, USE ONES DESCRIBED IN PARTS LIST ONLY.

Schematic Diagrams - 18

HEADPHONE JACK/USB CONNECTOR SCHEMATIC DIAGRAM
(JACK PCB)



ATTENTION: LES PIÈCES REPARÉES PAR UN ÉTANT DANGEREUSES AU POINT DE VUE SÉCURITÉ N'UTILISER QUE CELLES DÉCRITES DANS LA NOMENCLATURE DES PIÈCES.

CAUTION: SINCE THESE PARTS MARKED BY ARE CRITICAL FOR SAFETY, USE ONES DESCRIBED IN PARTS LIST ONLY.

CAUTION: DIGITAL TRANSISTOR

A B C D E F G H

Schematic Diagrams - 19

1

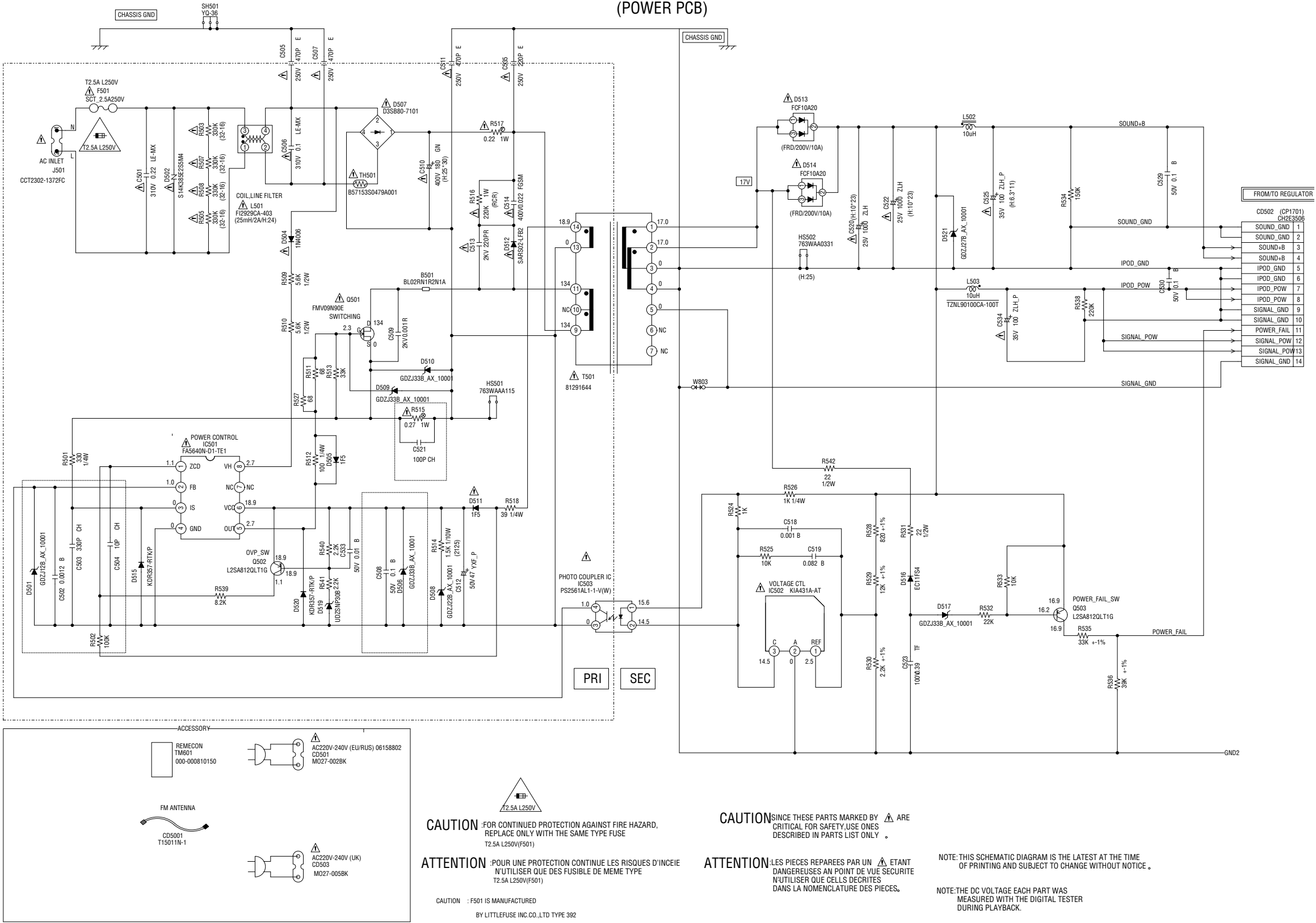
2

3

4

5

POWER SCHEMATIC DIAGRAM (POWER PCB)



A

B

C

D

E

F

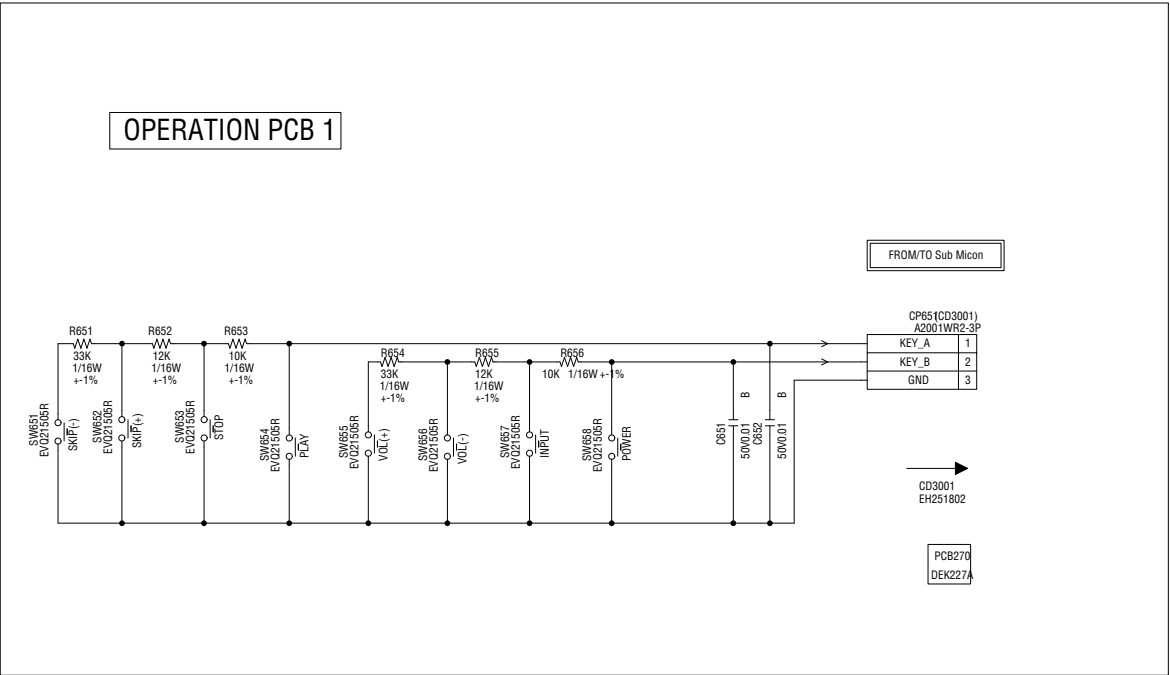
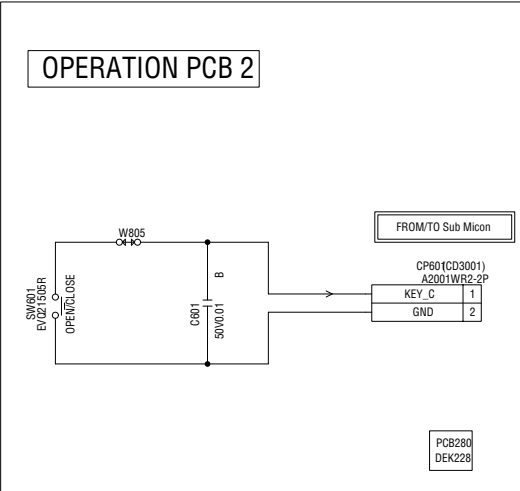
G

H

Schematic Diagrams - 20

OPERATION/USB SCHEMATIC DIAGRAM

(OPERATION PCB)



NOTE: THIS SCHEMATIC DIAGRAM IS THE LATEST AT THE TIME
OF PRINTING AND SUBJECT TO CHANGE WITHOUT NOTICE .

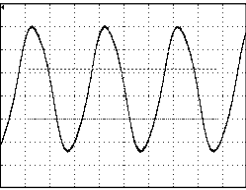
NOTE: THE DC VOLTAGE EACH PART WAS
MEASURED WITH THE DIGITAL TESTER
DURING PLAYBACK.

Schematic Diagrams - 21

WAVEFORMS

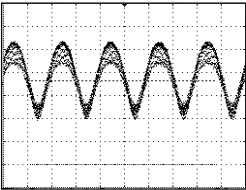
SUB MICON

20nS
500mV



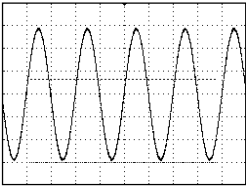
AUDIO DSP/AMP

500uS
1V

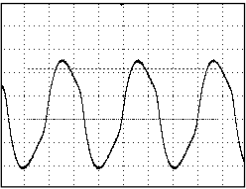


TUNER/JACK

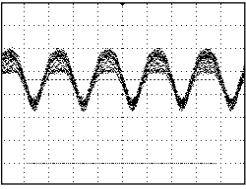
500uS
500mV



10uS
500mV

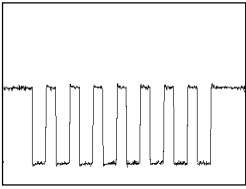


500uS
1V



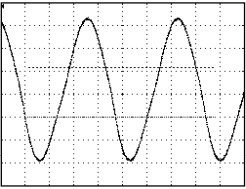
DISPLAY

2uS
1V

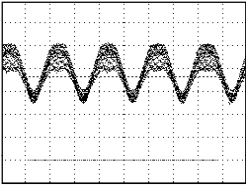


MPEG

10nS
200mV

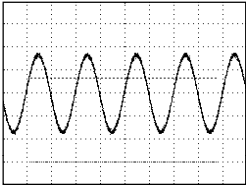


500uS
1V



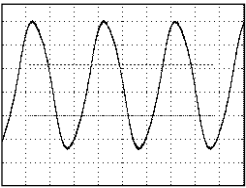
HEADPHONE JACK/USB CONNECTOR

500uS
200mV



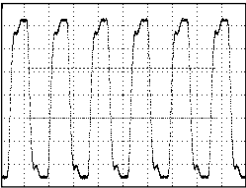
I POD CONTROLLER/USB SW

20nS
500mV

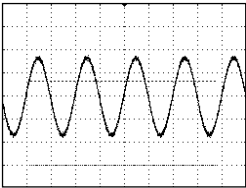


AUDIO SW

50nS
500mV

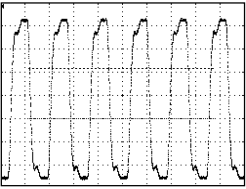


500uS
200mV



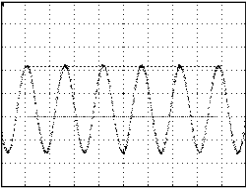
AUDIO DAC

50nS
500mV



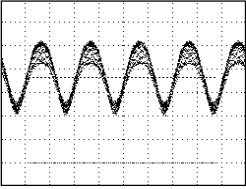
SDRAM

5nS
500mV



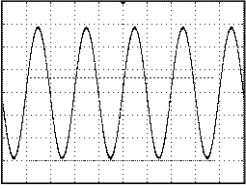
AUDIO DSP/AMP

500uS
1V



TUNER/JACK

500uS
500mV



NOTE: The following waveforms were measured at the point of the corresponding balloon number in the

A

B

C

D

E

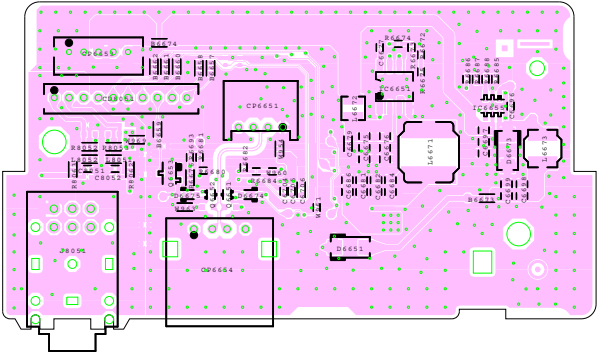
F

G

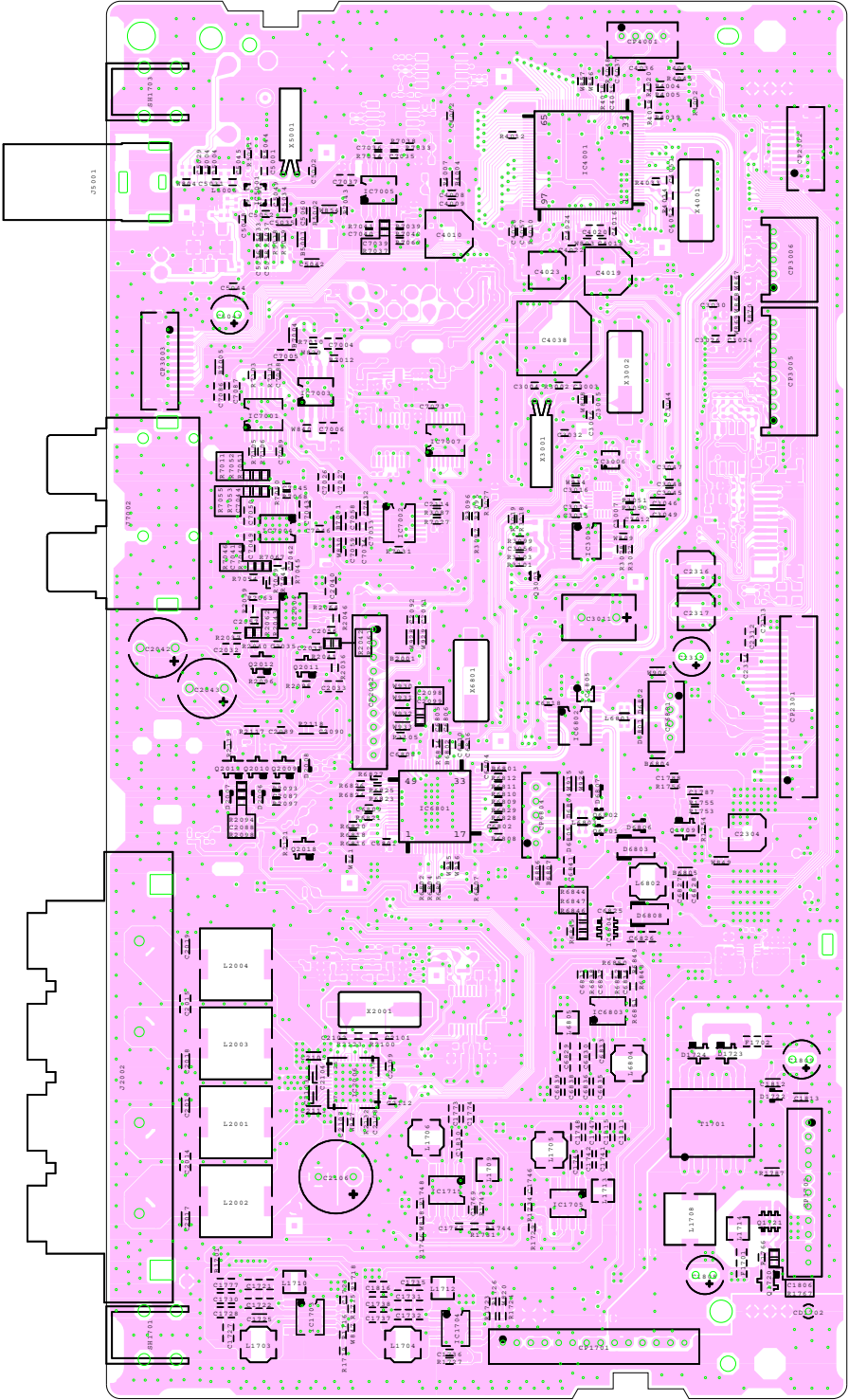
H

PC BOARD VIEWS - 1

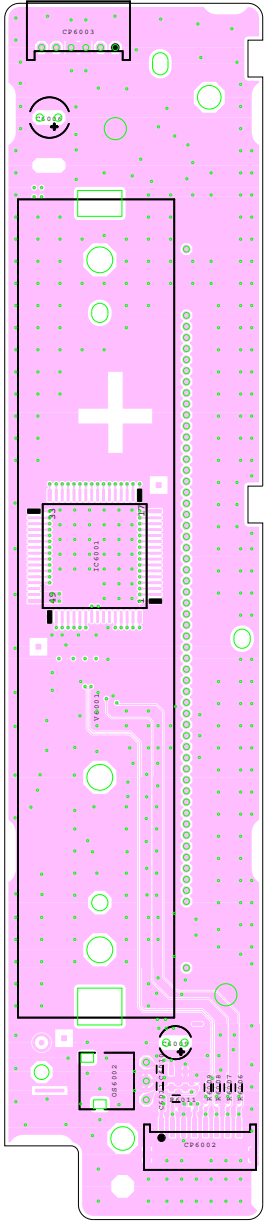
1



2



3



4

5



PC BOARD VIEWS - 3

PRINTED CIRCUIT BOARDS
POWER/OPERATION/OPERATION 2 (INSERTED PARTS)
SOLDER SIDE

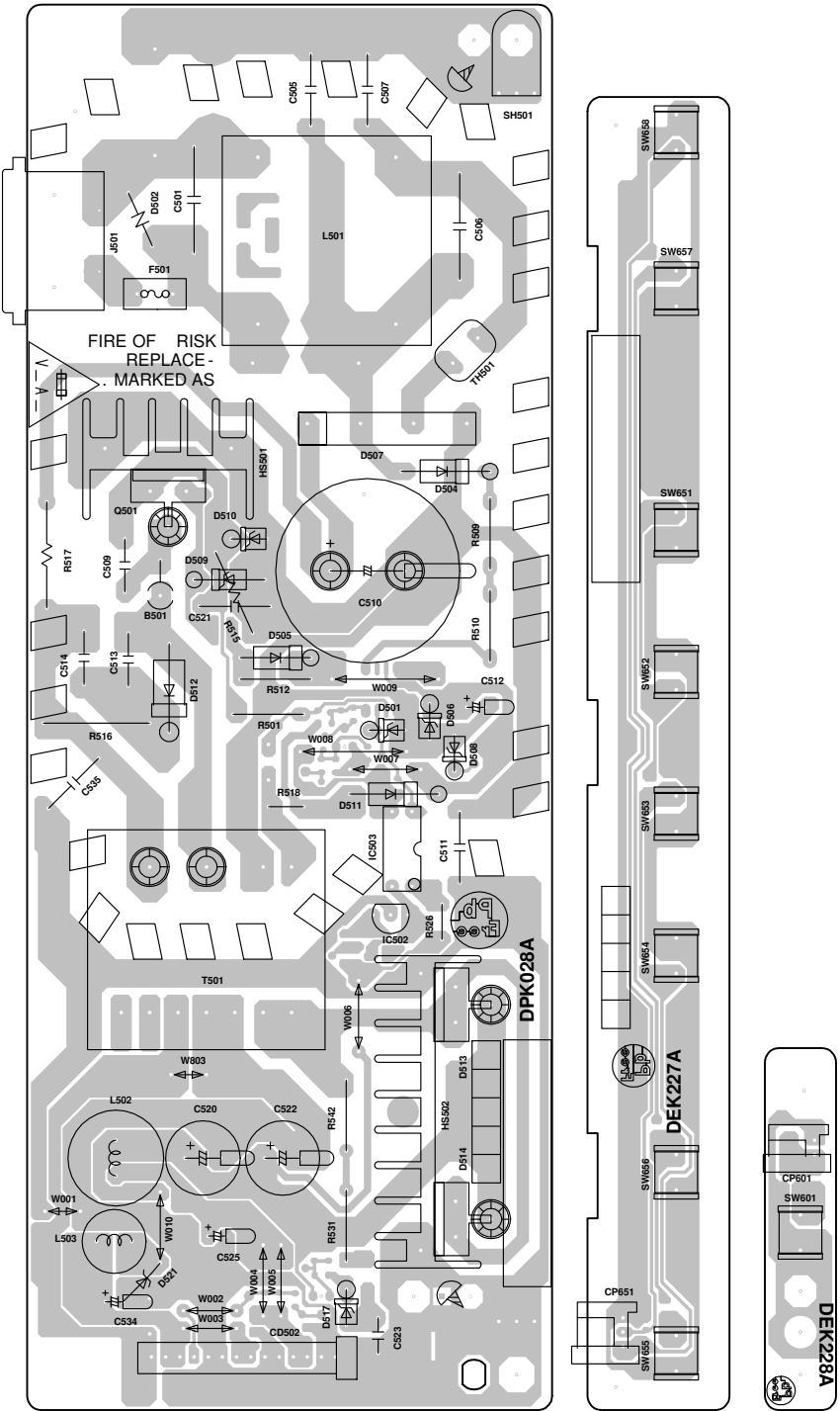
1

2

3

4

5



	A	
PC BOARD VIEWS - 4		

**PRINTED CIRCUIT BOARDS
POWER/OPERATION/OPERATION 2 (CHIP MOUNTED PARTS)
SOLDER SIDE**

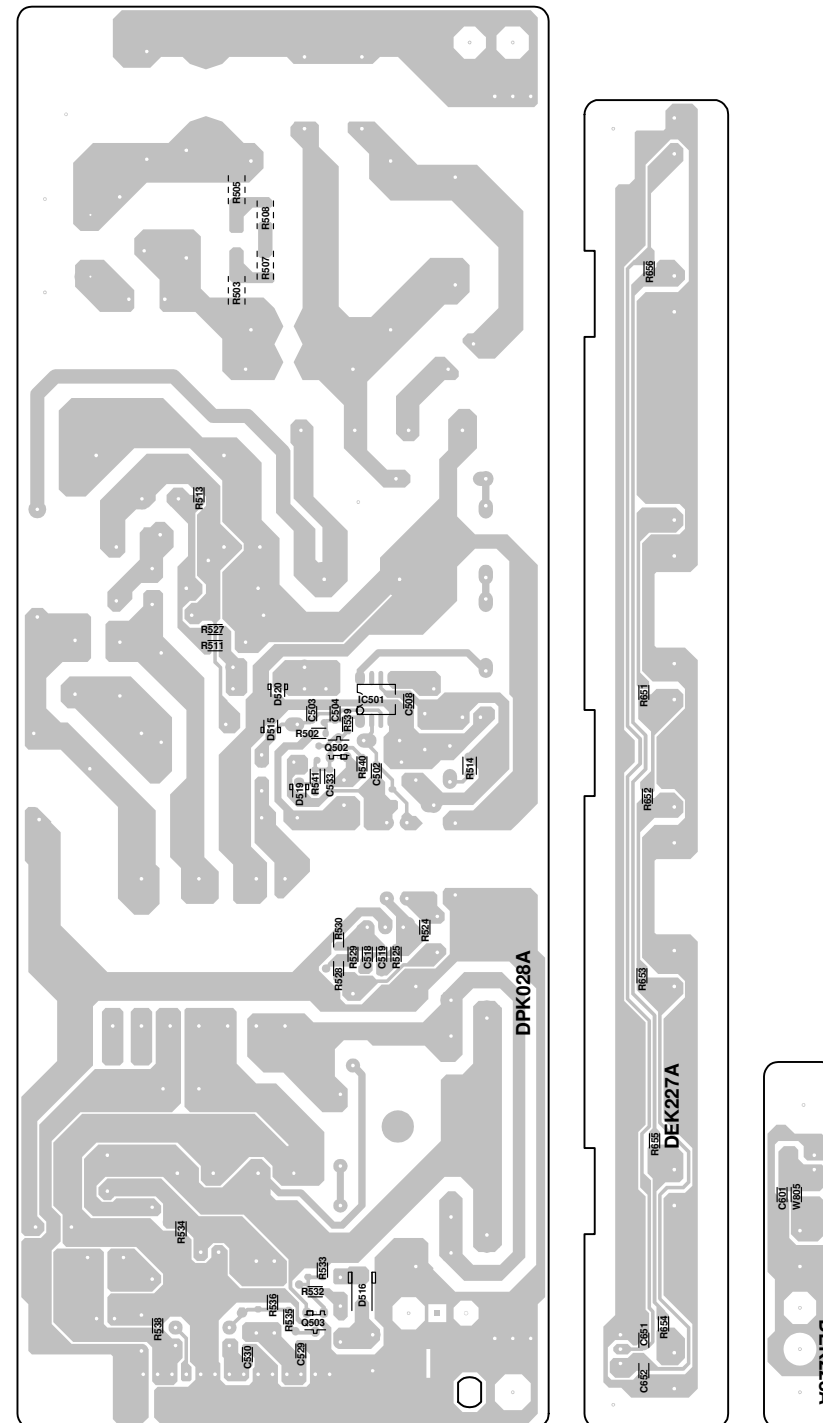
1

2

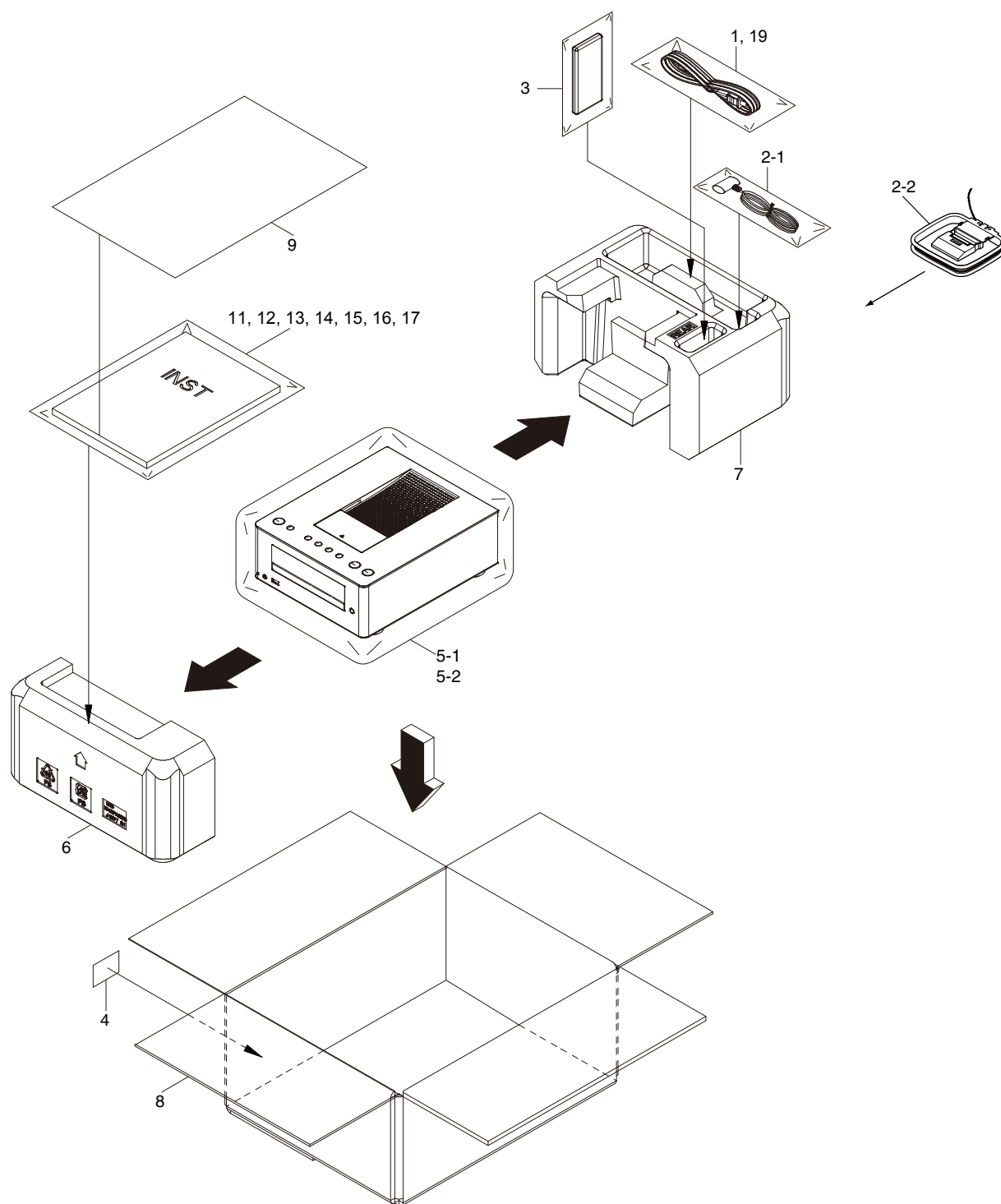
3

4

5



PACKING VIEW



CR-255/255DAB/U3/U3LT

<Note>

Parts marked by "**NSP**" are generally unavailable because they are not in our Master Spare Parts List.

<Notes>

A CR-255(W/B/GR/R/LB)WMP
B CR-255DAB(W)WMP
C CR-255(B)WDC
D CR-U3LT(W/BR)WJJ
E CR-U3(W/B)WJJ

**NOTE : THE COMPONENTS IDENTIFIED BY THE MARK
! ARE CRITICAL FOR RISK OF FIRE AND
ELECTRIC SHOCK. REPLACE ONLY WITH PART
NUMBER SPECIFIED.**

EXPLODED VIEW PARTS LIST

REF. NO.	PART NAME	DESCRIPTION	Q'TY	PART NO. (SN)	REMARKS
3	SPRING COVER CONNECTO		1	749WUAA001	
4	COVER CONNECTOR 2		1	761WPA4469	
			1	761WPA0725	
5	HOLDER COVER		1	761WPAA470	
			1	761WPA0726	
6	COVER CONNECTOR		1	761WPBA040	
			1	761WPBA039	
			1	761WPBA046	
			1	761WPBA044	
9	CUSHION		1	800WRA0017	
10	PANEL FRONT		1	701WSJA021	
			1	701WSJA024	
			1	701WSJA026	
			1	701WSJA027	
			1	701WSJA028	
			1	701WSJA022	
			1	701WSJA023	
			1	701WSJA025	
			1	701WSJA029	
			1	701WSJA030	
12	PLATE JACK		1	702WSJA007	
			1	702WSJA008	
			1	702WSJA010	
			1	702WSJA009	
			1	702WSJA011	
13	TRAY		1	712WPB0182	
			1	711WPA0414	
102	TOP CABI ASS'Y		1	7A702B828C	
			1	7A702B827C	
			1	7A702B862C	
			1	7A702B837C	
			1	7A702B851A	
			1	7A702B852A	
101A	CABINET FRONT		1	701WPBA133	
			1	701WPBA134	
			1	701WPBA135	
101D	LEG		1	704WPA0182	
101E	PLATE DISPLAY		1	711WPDB025	
			1	711WPB0062	
101I	FRONT BUTTON FRAME		1	735WPBB730	
			1	735WPA1000	
101N	CUSHION LEG		1	800WRA0015	
102C	DOCK SHUTTER		1	702WPBA335	
			1	702WPBA331	
			1	702WPBA336	
			1	702WPBA330	
102D	TOP BUTTON FRAME		1	735WPBB733	
			1	735WPBB732	
			1	735WPBB735	
			1	735WPBB729	

[illegible]

Parts marked by "**NSP**" are generally unavailable because they are not in our Master Spare Parts List.

<Notes>

- A CR-255(W/B/GR/R/LB)WMP
B CR-255DAB(W)WMP
C CR-255(B)WDC
D CR-U3LT(W/BR)WJJ
E CR-U3(W/B)WJJ

REF. NO.	PART NAME	DESCRIPTION	Q'TY	PART NO. (SN)	REMARKS
PCB240	POWER PCB ASS'Y	DPK028A	1	A13405A240	
			1	A13404A240	
			1	A13412A240	
			1	A13411A240	
			1	A13401A240	
			1	A11532A240	
			1	A11533A240	
PCB260	FRONT JACK PCB ASS'Y	DEM429A	1	A13405A260	
		DEM429A	1	A13412A260	
		DEM429A	1	A13411A260	
		DEM429A	1	A13401A260	
		DEL321A	1	A11533A260	
PCB270	OPERATION PCB ASS'Y	DEK227A	1	A13405A270	
			1	A13412A270	
			1	A13411A270	
			1	A13401A270	
			1	A11533A270	
PCB280	OPERATION 2 PCB ASS'Y	DEK228A	1	A13405A280	
			1	A13412A280	
			1	A13411A280	
			1	A13401A280	
			1	A11533A280	
PCBDP0	DISPLAY PCB ASS'Y	DEM428A	1	A13405ADP0	
		DEM428A	1	A13404ADP0	
		DEM428A	1	A13412ADP0	
		DEM428A	1	A13411ADP0	
		DEM428A	1	A13401ADP0	
		DEL320A	1	A11532ADP0	
		DEL320A	1	A11533ADP0	
PCBF40	MAIN PCB ASS'Y	DMM161A	1	A13405AF40	
		DMM161A	1	A13406AF40	
		DMM161A	1	A13412AF40	
		DMM161A	1	A13411AF40	
		DMM161A	1	A13401AF40	
		DMM161A	1	A13402AF40	
		DML155A	1	A11551AF40	
		DML155A	1	A11552AF40	
PCBFG0	BLUETOOTH PCB ASS'Y	DEL322A	1	A11533AFG0	
26	MECHA ASS'Y	A13404A650	1	A13404A650	!
		A11501A650	1	A11501A650	!

	A	B	C	D	E
CR-255(W)WMP					
CR-255(B)WMP					
CR-255(GR)WMP					
CR-255(R)WMP					
CR-255(LB)WMP					
CR-255DAB(W)WMP					
CR-255(B)WDC					
CR-U3LT(W)WJJ					
CR-U3LT(BR)WJJ					
CR-U3(W)WJJ					
CR-U3(B)WJJ					

CR-255/255DAB/U3/U3LT

<Note>

Parts marked by "**NSP**" are generally unavailable because they are not in our Master Spare Parts List.

<Notes>

A CR-255(W/B/GR/R/LB)WMP
B CR-255DAB(W)WMP
C CR-255(B)WDC
D CR-U3LT(W/BR)WJJ
E CR-U3(W/B)WJJ

**NOTE : THE COMPONENTS IDENTIFIED BY THE MARK
! ARE CRITICAL FOR RISK OF FIRE AND
ELECTRIC SHOCK. REPLACE ONLY WITH PART
NUMBER SPECIFIED.**

A	CR-255(W)WMP
A	CR-255(B)WMP
A	CR-255(GR)WMP
A	CR-255(R)WMP
A	CR-255(LB)WMP
B	CR-255DAB(W)WMP
C	CR-255(B)WDC
D	CR-U3LT(W)WJ3
D	CR-U3LT(BR)WJ3
E	CR-U3(W)WJ3
F	CR-U3(BR)WJ3

PACKING PROCEDURES PARTS LIST

REF. NO.	PART NAME	DESCRIPTION	Q'TY	PART NO. (SN)	REMARKS
1	AC CORD	CORD SET AC (MO27-002BK)	1	120A158804	!
		CORD SET AC (MO27-005BK)	1	120A148803	!
		CORD SET AC (MO27-039BK)	1	120A108901	!
		CORD SET AC (0S1J9804)	1	120S1J9804	!
2-1	ANTENNA ROD	T15011N-1	1	06ERLOB001	
2-2		S0160BM-16	1	06ERLOA001	
3	REMO CON	TRANSMITTER (RC-823S)	1	076D0TD041	
		TRANSMITTER (RC-854C)	1	076D0TD031	
4	LABEL	CARTON LABEL	1	723000G305	
		CARTON LABEL	1	723000G301	
		CARTON LABEL	1	723000G376	
		CARTON LABEL	1	723000G377	
		CARTON LABEL	1	723000G378	
		CARTON LABEL	1	723000G312	
		CARTON LABEL	1	723000G313	
		CARTON LABEL	1	723000G302	
		CARTON LABEL	1	723000G344	
		CARTON LABEL	1	723000G339	
		CARTON LABEL	1	723000G340	
5-1	BAG	FILM BAG	1	791WHAA339	
5-2	SHEET	FELT SHEET	1	800WQ0A396	
6	PAD	PACKAGE FRONT	1	792WHA0850	
			1	792WHA0864	
7	PAD	PACKAGE BACK	1	792WHA0851	
			1	792WHA0865	
8	CARTON	GIFT BOX	1	793WCDF165	
			1	793WCDF162	
			1	793WCDF169	
			1	793WCDF163	
			1	793WCDF195	
			1	793WCDF182	
			1	793WCDF183	
9	SHEET PROTECTION PAD	360x330 MM	1	795WCAB598	
			1	795WCAB597	
11	POLYBAG INSTRUCTION	(RED CAUTION)	1	JB5KD001	
12	INS SHEET	WEEE SHEET	1	J1153829A	
			1	J1340529A	
13	SHEET	INFORMATION SHEET(HANDBILL)	1	J1154629A	
			1	J1154629B	
			1	J1155029A	
14	INS MANUAL	INSTRUCTION BOOK(EN)	1	J1340401A	
		INSTRUCTION BOOK(EN)	1	J1341201A	
		INSTRUCTION BOOK(EN/FR/ES)	1	J1341131A	
		INSTRUCTION BOOK(JP)	1	J1340101A	
		INSTRUCTION BOOK(JP)	1	J1155101A	
15	INS MANUAL	INSTRUCTION BOOK(FR/ES/IT)	1	J1340431A	
		INSTRUCTION BOOK(DE/FR/SV)	1	J1341231A	
16	INS MANUAL	INSTRUCTION BOOK(DE/NL/SV)	1	J1340432A	
17	WARRANTY CARD		1	J1341102A	
			1	J1340192A	
			1	J1155192A	
			1	J1155292A	
18	SHEET	INVITATION SHEET (J1155149A)	1	29370048	
19	POLYBAG INSTRUCTION		1	791WHAA334	

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