

Service
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Service Manual

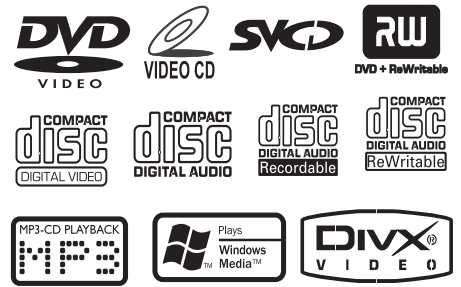


TABLE OF CONTENTS

Location of PCBS	1-1	MOTOR Board	8
Specifications	1-2	Circuit diagram.....	8-1
Measurement Setup	1-3	Layout diagram.....	8-4
Service Aids, Safety Instruction, etc.	1-4	USB/SD Board	9
Instructions On CD Playability	1-5 to 1-6	TFT Board	10
Software Version Check & Upgrade	2-1	Circuit diagram.....	10-1
Malfunction Check Chart	2-3	Layout diagram.....	10-4
Disassembly Diagram	3-1 to 3-2	MAIN Board	11
Block Diagram	4-1	Circuit diagram.....	11-1
Wiring Diagram.....	4-2	Layout diagram.....	11-8
KEY Board	5	Explode View	12
Circuit diagram	5-1		
Layout diagram.....	5-2		
LCD Board	6		
Circuit diagram	6-1		
Layout diagram.....	6-2		
MOTOR Board	7		
Circuit diagram.....	7-1		
Layout diagram.....	7-2		



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Version 1.0



PHILIPS

Specifications

General

Power supply:	12V DC(11V-16V) negative ground
Fuse:	15A
Suitable speaker impedance:	4-8Ω
Maximum power output:	50W×4channels
Continuous power out:	24W×4channels(4Ω 10% T.H.D.)
Pre-Amp output voltage:	2.0V(CD play mode;1kHz,0dB,10kΩ load)
Subwoofer output voltage:	2.0V(CD play mode)
Aux-in level:	≥500mV
Dimensions(W×H×D):	188×58×193mm
Weight:	2.5kg

Disc Player

System:	Disc digital audio system
Frequency response:	20Hz-20k Hz
Signal/noise ratio:	> 75dB
Total harmonic distortion:	Less than 0.3%(1KHz)
Channel separation:	> 55dB
Video signal for mat:	NTSC/PAL/AUTO
Video output:	1+0.2V

LCD

Screen size:	7inches(16:9)
Display resolution:	480×234 dots
Active area:	154.08×86.58mm
Dot pitch:	0.107×0.370mm
Contrast ratio:	350
Brightness:	200cd/m

Bluetooth

Communication system:	Bluetooth Standard version 2.0
Output:	Bluetooth Standard Power Classer 2
Maximum communication range:	Line of sight approx.10m
Frequency band:	2.4GHz band(2.4000GHz-2.4835GHz)
Modulation method:	FHSS
Compatible bluetooth profiles	Hands-Free Profile(HFP) Hands-Free Profile(HFP) Advanced Audio Distribution Profile(A2DP) Audio Video Remote Control Profile(AVRCP)
Supported codecs	SBC(Sub Band Codec),MP3
Receive	SBC(Sub Band Codec)
Transmit	

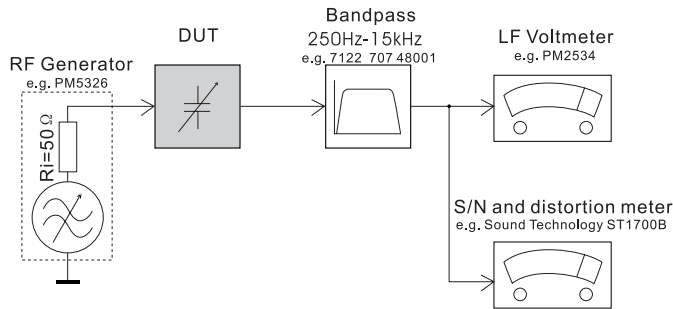
Tuner

Frequency range	87.5-108.0MHz(Eur)
— FM	65.0-74.0MHz (OIRT) 87.5-107.9MHz(Ame)
Frequency range	522-1620KHz(Eur)
— AM(MW)	530-1710MHz(Ame)
Usable sensitivity	8uV
— FM	
Usable sensitivity	30uV
— AM(MW)(S/N=20db)	
Frequency response	30Hz-15KHz
Stereo separation	30db(1KHz)
Signal/noise ratio	> 55db

Note: Specifications and design are subject to change without notice for product improvements.

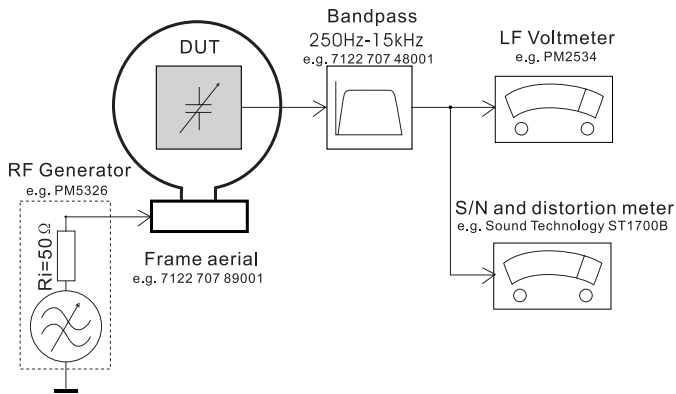
MEASUREMENT SETUP

Tuner FM



Use a bandpass filter to eliminate hum(50Hz,100Hz) and disturbance from the pilotone(19kHz,38kHz).

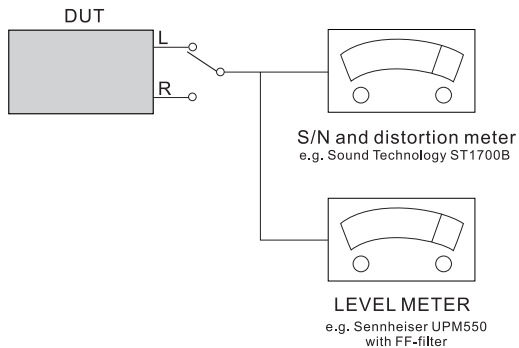
Tuner AM (MW,LW)



To avoid atmospheric interference all AM-measurements have to be carried out in a Faraday's cage. Use a bandpass filter (or at least a high pass filter with 250Hz) to eliminate hum (50Hz,100Hz).

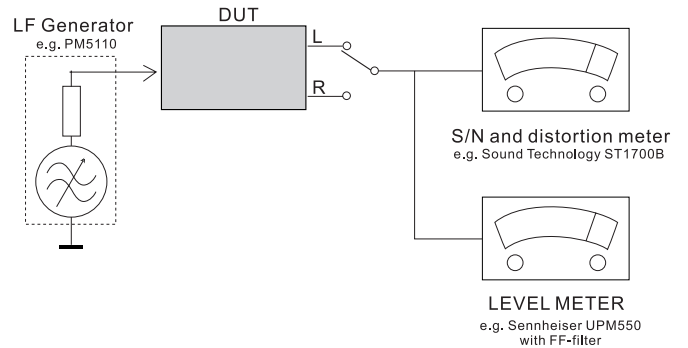
CD

Use Audio Signal Disc SBC429 4822 397 30184 (replaces test disc 3)



Cassette

Use Universal Test Cassette CrO2 SBC419 4822 397 30069 or Universal Test Cassette Fe SBC420 4822 397 30071



SERVICE AIDS

WARNING

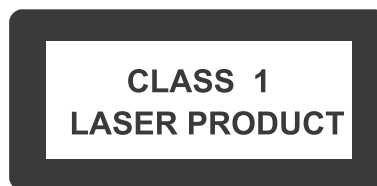
All ICs and many other semi-conductors are susceptible to electrostatic discharges (ESD). Careless handling during repair can reduce life drastically.
When repairing, make sure that you are connected with the same potential as the mass of the set via a wrist wrap with resistance. Keep components and tools also at this potential.

ESD



Safety regulations require that the set be restored to its original condition and that parts which are identical with those specified, be used

Safety components are marked by the symbol Δ .



INFORMATION ABOUT LEAD-FREE SOLDERING

Philips CE is producing lead-free sets from 1.1.2005 onwards.

IDENTIFICATION:

Regardless of special logo (not always indicated) one must treat all sets from 1 Jan 2005 onwards, according next rules:



- On our website www.atyourservice.ce.Philips.com you find more information to:
 - * BGA-de-/soldering (+ baking instructions)
 - * Heating-profiles of BGAs and other ICs used in Philips-sets
 - * Lead free

You will find this and more technical information within the "magazine", chapter "workshop news".

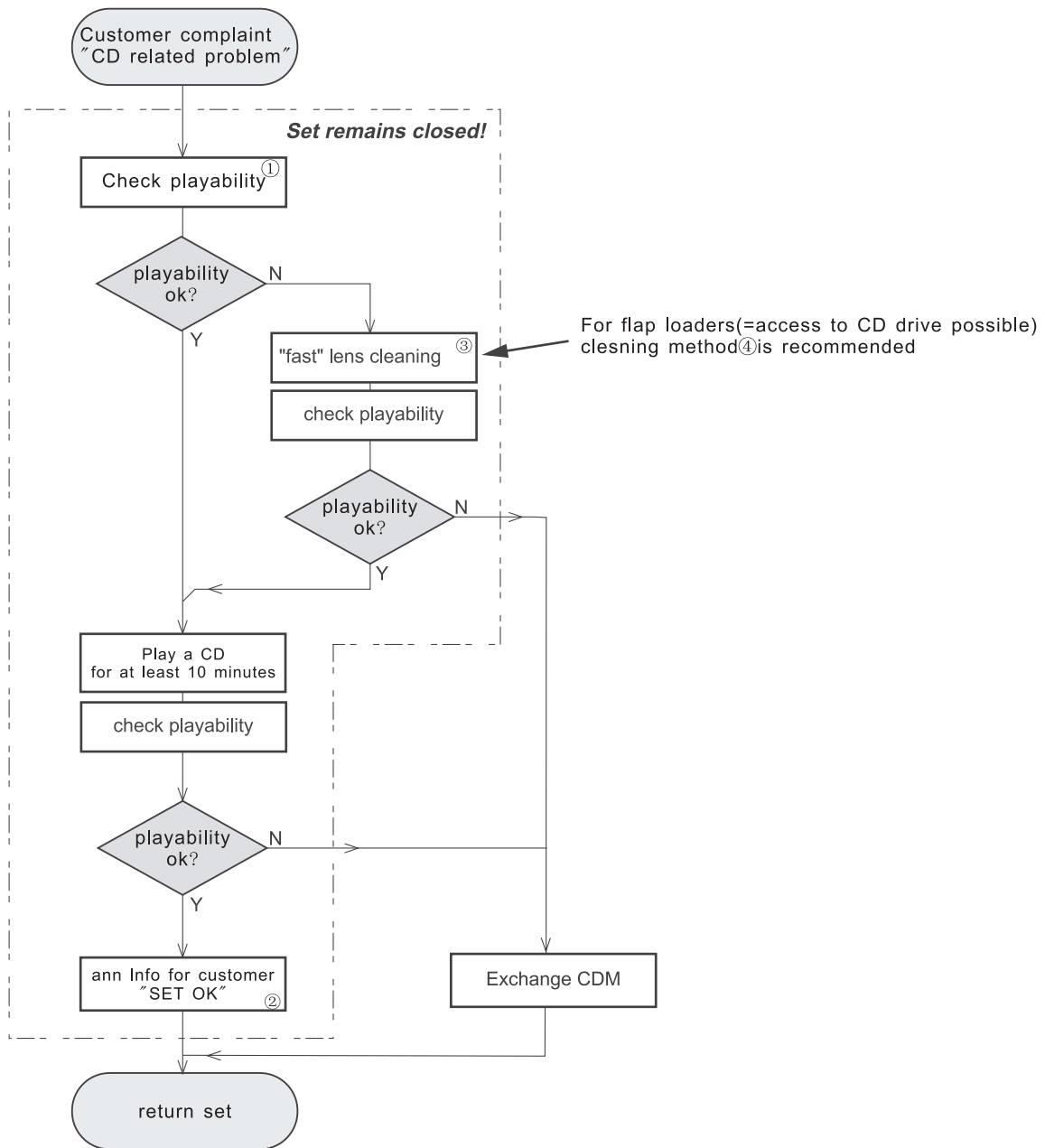
For additional questions please contact your local repair-helpdesk.

SERVICE INSTRUCTION

Safety regulations require that after a repair, the set must be returned in its original condition. Pay in particular attention to the following points:

- Route the wire trees correctly and fix them with the mounted cable clamps.
- Check the insulation of the AC Power lead for external damage.
- Check the strain relief of the AC Power cord for proper function.
- Check the electrical DC resistance between the AC Power Plug and the secondary side (only for sets which have a AC Power isolated power supply):
 1. Unplug the AC Power cord and connect a wire between the two pins of the AC Power plug.
 2. Set the AC Power switch to the "on" position (keep the AC Power cord unplugged!).
 3. Measure the resistance value between the pins of the AC Power plug and the metal shielding of the tuner or the aerial connection on the set. The reading should be larger than 4.5 Mohm (For U.S. it should be between 4.2 Mohm and 12 Mohm).
 4. Switch "off" the set, and remove the wire between the two pins of the AC Power plug.
- Check the cabinet for defects, to avoid touching of any inner parts by the customer.

INSTRUCTIONS ON CD PLAYABILITY



①-④For description-see following pages

INSTRUCTIONS ON CD PLAYABILITY

①

PLAYABILITY CHECK

For sets which are compatible with **CD-RW** discs
 use CD-RW Printed Audio Disc7104 099 96611
 TR 3 (Fingerprint)
 TR 8 (600µ Black dot) **maximum at 01:00**

- playback of these two tracks without audible disturbance
 playing time for: Fingerprint ≥ 10 seconds
 Black dot from 00:50 to 01:10
- jump forward/backward (search) within a reasonable time

For all other sets
 use CD-DA SBC 444A4822 397 30245
 TR 14 (600µ Black dot) **maximum at 01:15**
 TR 19 (Fingerprint)
 TR 10 (1000µ wedge)

- playback of all these tracks without audible disturbance
 playing time for: 1000µ wedge ≥ 10 seconds
 Fingerprint ≥ 10 seconds
 Black dot from 01:05 to 01:25
- jump forward/backward (search) within a reasonable time

②

CUSTOMER INFORMATION

It is proposed to add an addendum sheet to the set which informs the customer that the set has been checked carefully - but no fault was found. The problem was obviously caused by a scratched, dirty or copy-protected CD. In case problems remain, the customer is requested to contact the workshop directly. The lens cleaning (method ③) should be mentioned in the addendum sheet.

The final wording in national language as well as the printing is under responsibility of the Regional Service Organizations.

④

LIQUID LENS CLEANING

Before touching the lens it is advised to clean the surface of the lens by blowing clean air over it. This to avoid that little particles make scratches on the lens.

Because the material of the lens is synthetic and coated with a special anti-reflectivity layer, cleaning must be done with a non-aggressive cleaning fluid. It is advised to use "Cleaning Solvent

The actuator is a very precise mechanical component and may not be damaged in order to guarantee its full function. Clean the lens gently (don't press too hard) with a soft and clean cotton bud moistened with the special lens cleaner.

The direction of cleaning must be in the way as indicated in the picture below.



Software version check and upgrade

Software version check

Open the settings menu, and then press the numeric keys 543210 on the remote control in turn. A picture contained Version information will be displayed.

Version	Customer Model	CID2680
System	Foryou Model	CE_6610
	MCU Version	V1.84 Jan 27 2010
Radio	MPEG Version	V1.31
TFT Test	Servo Version	
	Bluetooth Version	0319
DVD Test	MPU Version	V1.72
Key Test	OS Version	V2.39 2009.11.20
	Load Factory Default	YES >
Exit		

Software upgrade files : MPU.BIN MPEG.BIN MCU.BIN BT.BIN

MPEG upgrade

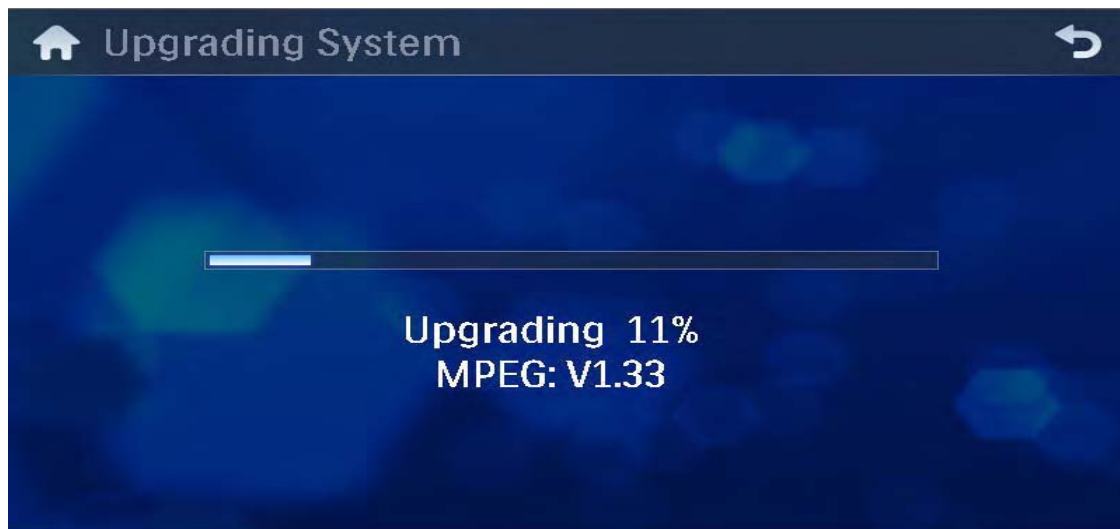
1. First, copy the upgrade files to USB storage device. To ensure success, add some media files larger than 8M such as MP3 to the storage device meanwhile.
2. Insert the storage device contained upgrade files into the player and the player will load the upgrade files automatically. Following picture will be displayed.



3. Following picture will be displayed after you select the "MPEG upgrade" option



4. Touch “upgrade” to start upgrade process and following picture will be displayed . Meanwhile , Beep tone can be heard during the upgrade process .



MCU upgrade

1. First , copy the upgrade files to USB storage device . To ensure success , add some media files larger than 8M such as MP3 to the storage device meanwhile .
2. Insert the storage device contained upgrade files into the player and the player will load the upgrade files automatically . Following picture will be displayed .



3. Following picture will be displayed after you select the “MCU upgrade” option



4. Touch “upgrade” to start upgrade process and following picture will be displayed . Meanwhile , Beep tone can be heard during the upgrade process .

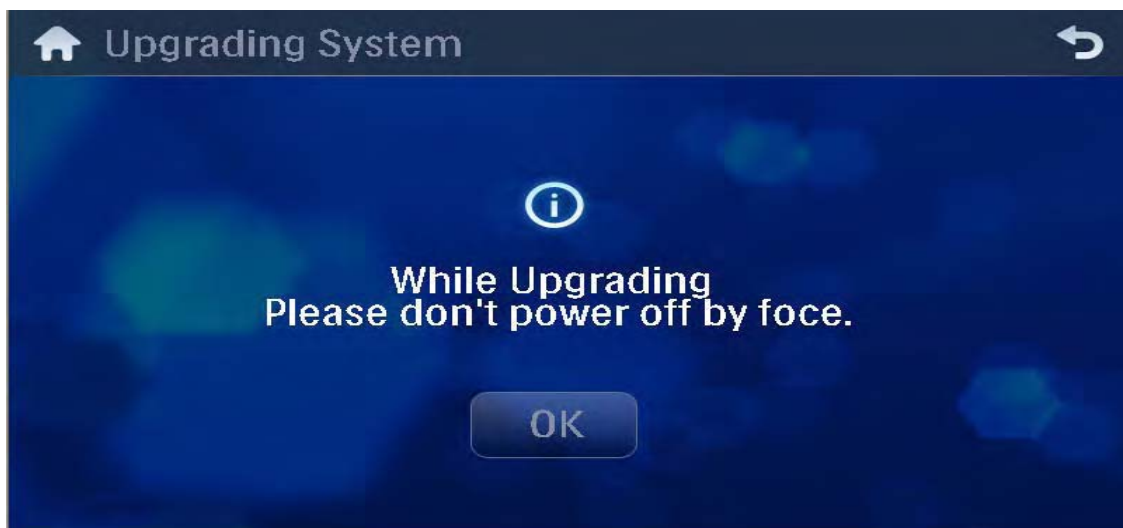


MPU upgrade

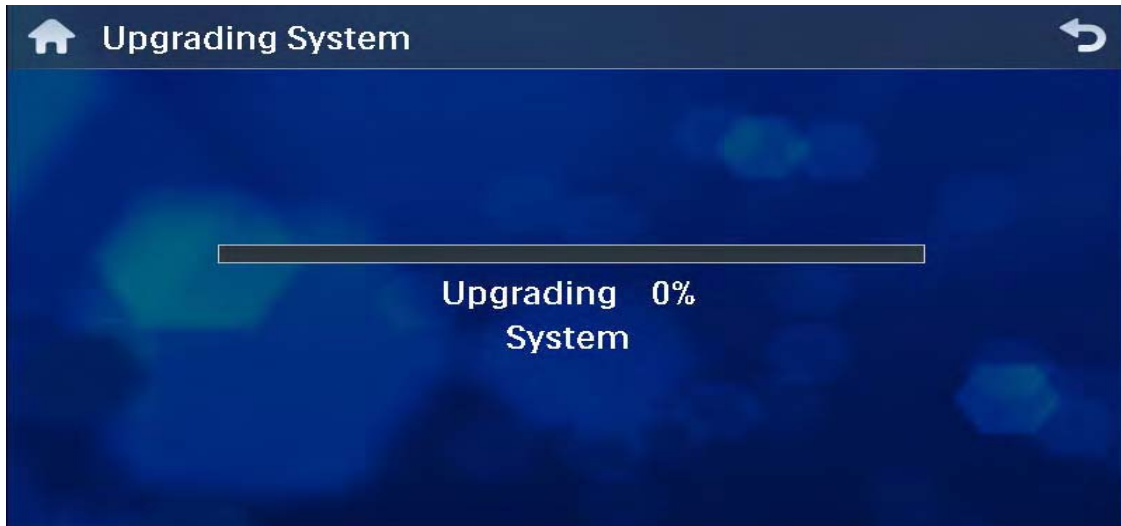
1. First , copy the upgrade files to USB storage device . To ensure success , add some media files larger than 8M such as MP3 to the storage device meanwhile .
2. Insert the storage device contained upgrade files into the player and the player will load the upgrade files automatically . Following picture will be displayed .



3. Following picture will be displayed after you select the “MPU upgrade” option .



4. Touch “upgrade” to start upgrade process and following picture will be displayed . Meanwhile , Beep tone can be heard during the upgrade process .



BT upgrade

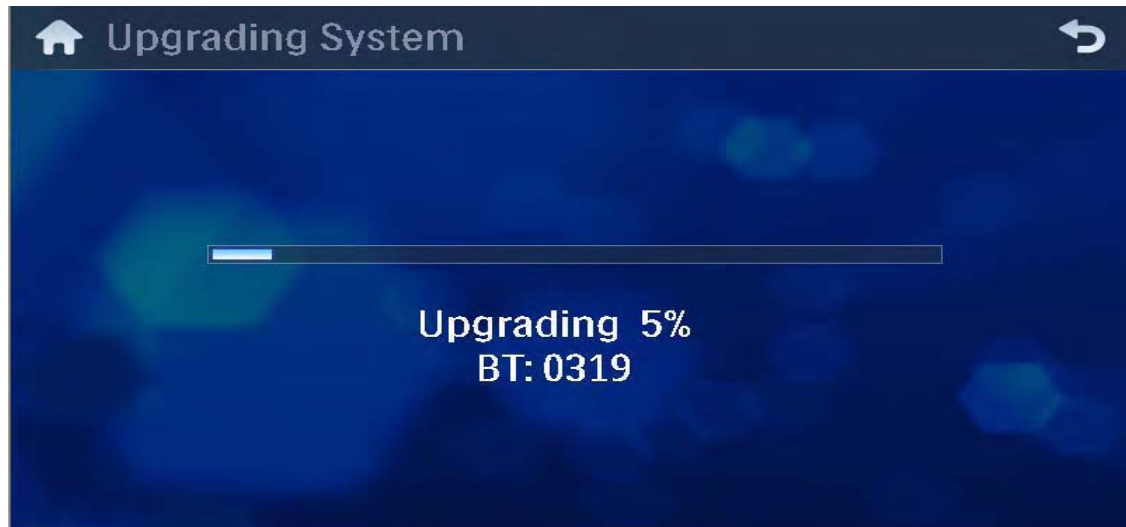
1. First , copy the upgrade files to USB storage device . To ensure success , add some media files larger than 8M such as MP3 to the storage device meanwhile .
2. Insert the storage device contained upgrade files into the player and the player will load the upgrade files automatically . Following picture will be displayed .



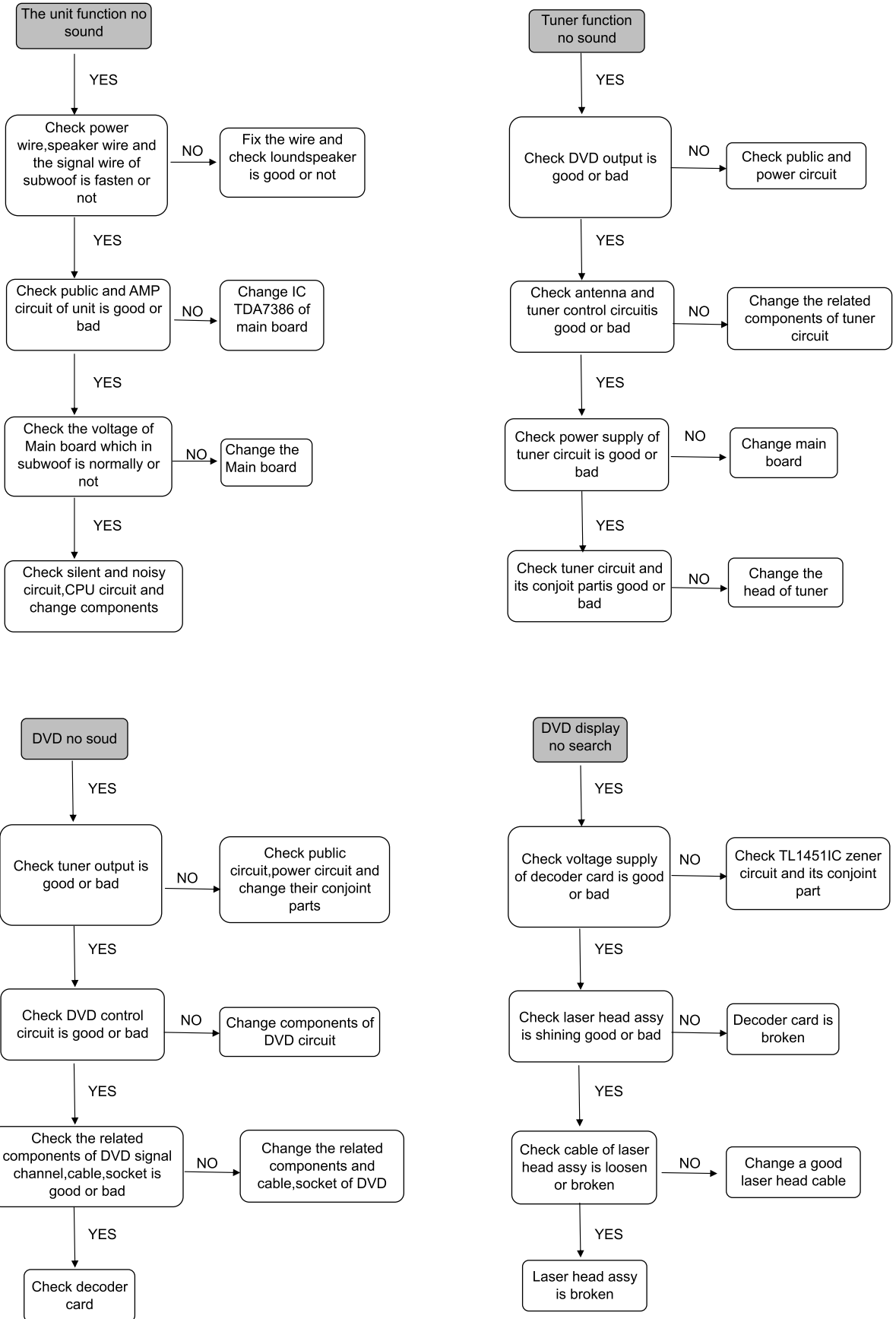
3. Following picture will be displayed after you select the “BT upgrade” option .

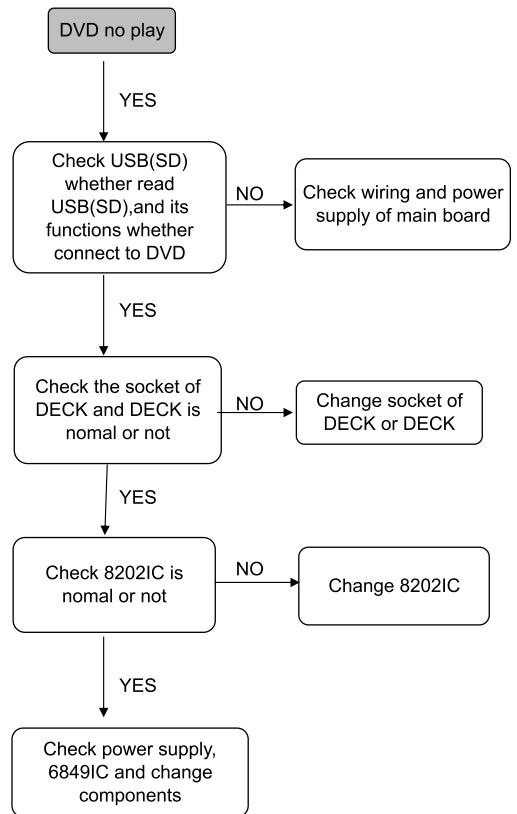
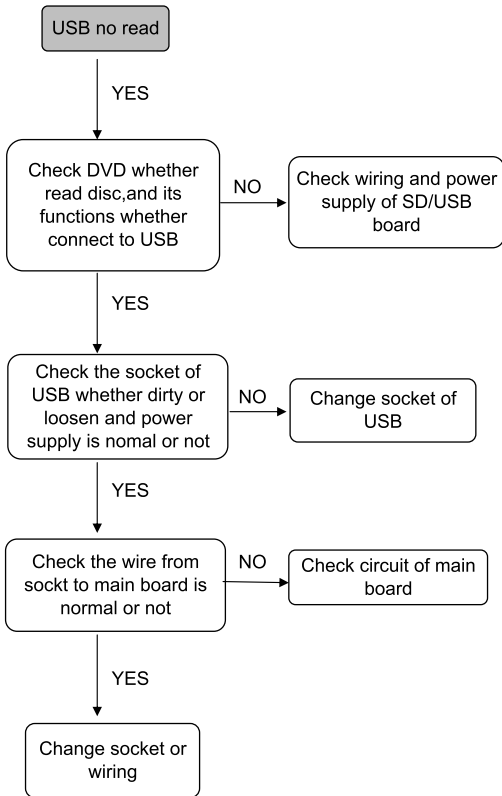
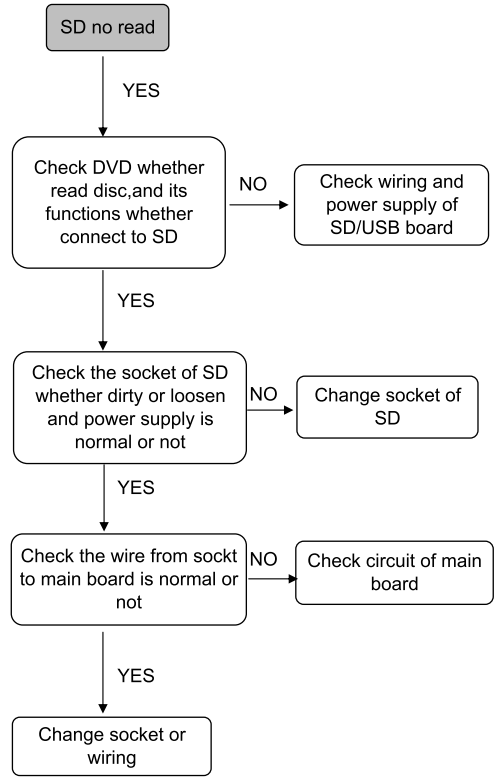
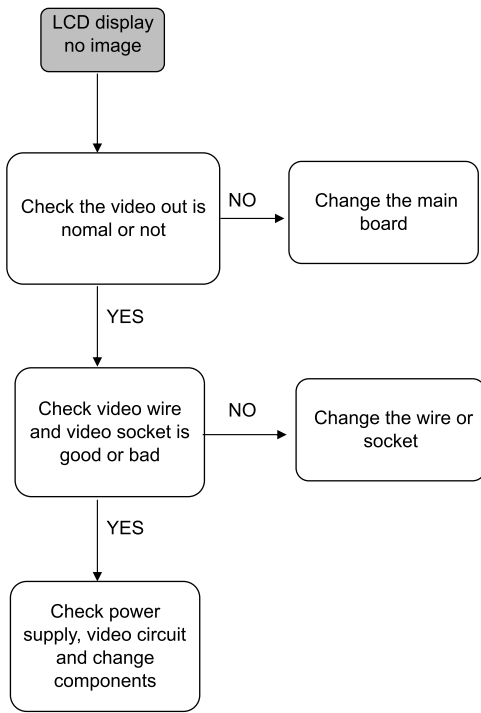


4. Touch “upgrade” to start upgrade process and following picture will be displayed . Meanwhile , Beep tone can be heard during the upgrade process .

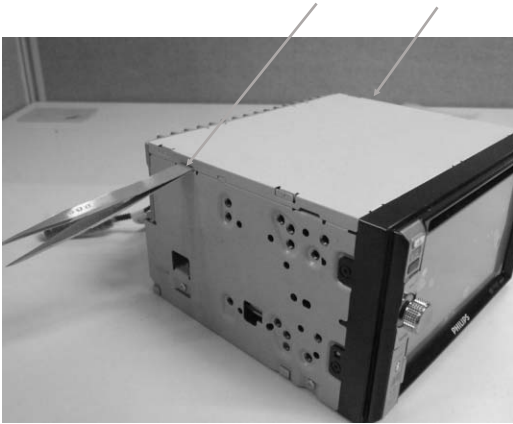


Malfunction Check Chart

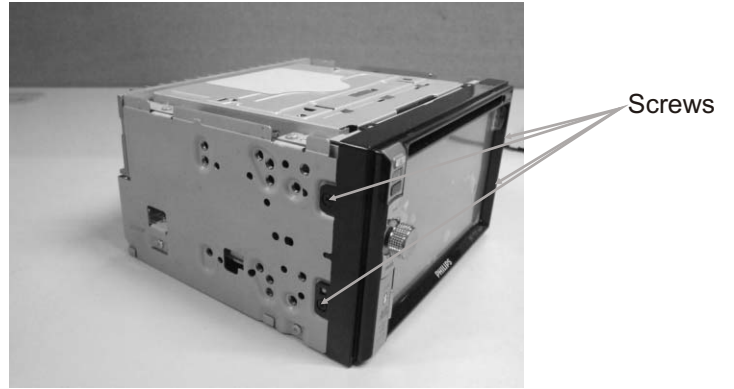




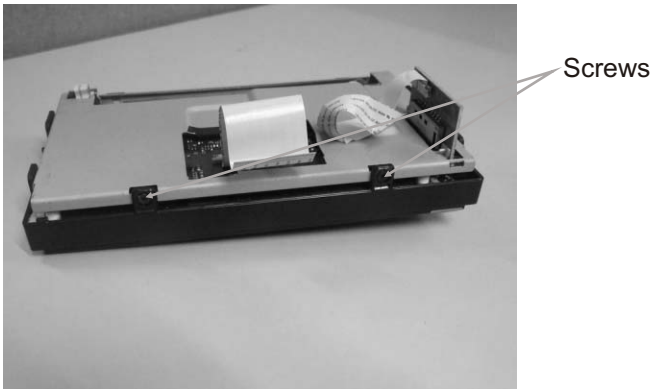
1. Open the top cover softly.



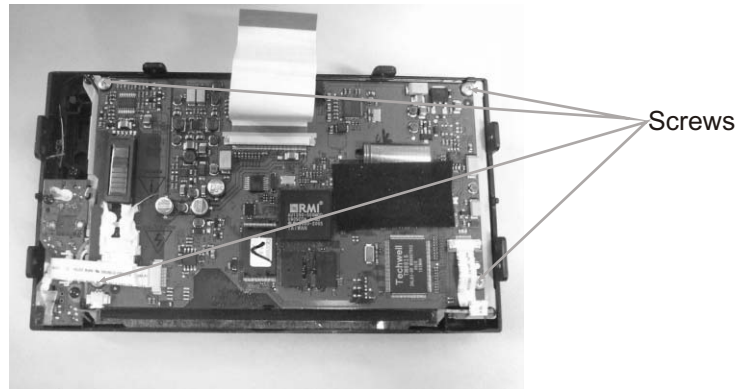
2. Disassemble 4 screws and the panel.



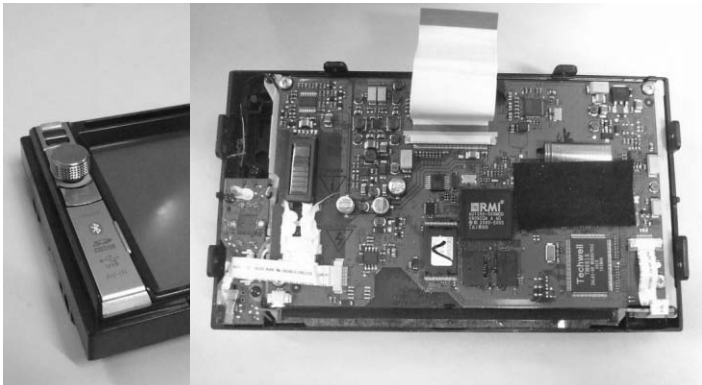
3. As sketch map shows, remove the metal cover



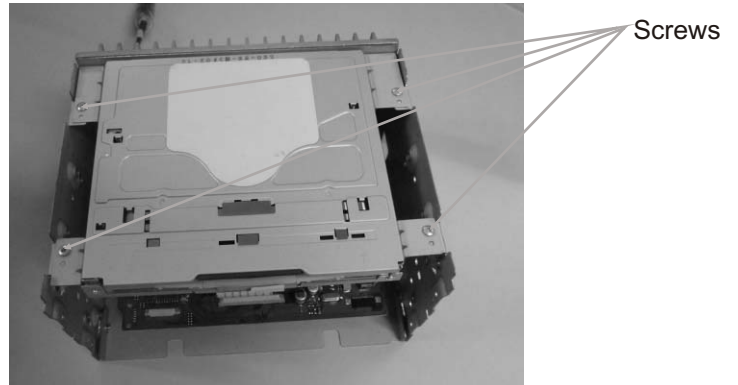
4. Disassemble 4 screws as picture shows, and remove TFT drive board.



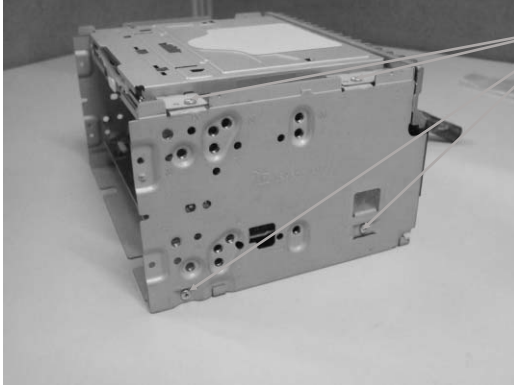
5. Pull out the knob and disassemble screws as sketch map shows, then take KB down.



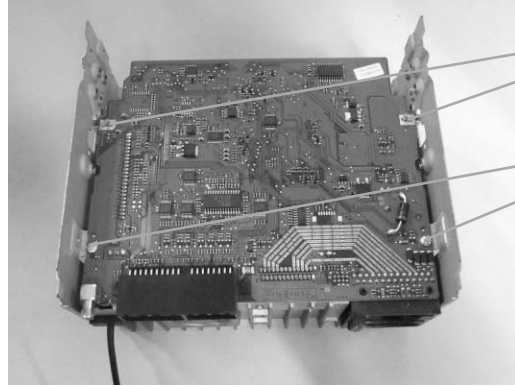
6. Disassemble 4 screws as picture shows, and take out the loader.



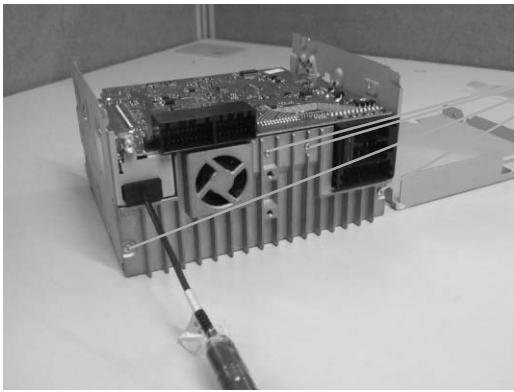
7. Disassemble 4 screws and remove the bottom cover.



8. Disassemble 2 screws, then take down the MB as sketch map shows.

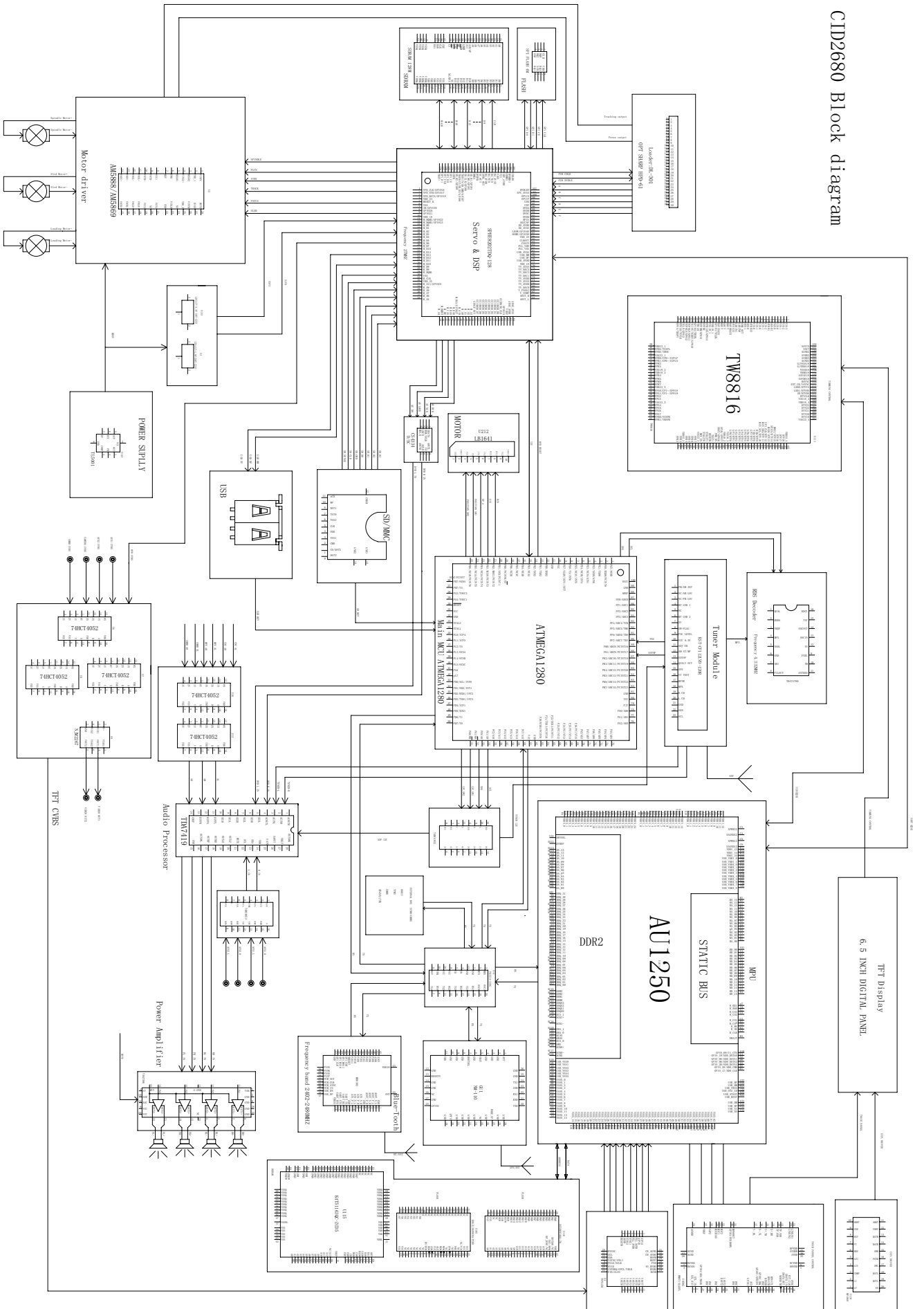


9. Disassemble screws, remove the heat sink and fan.

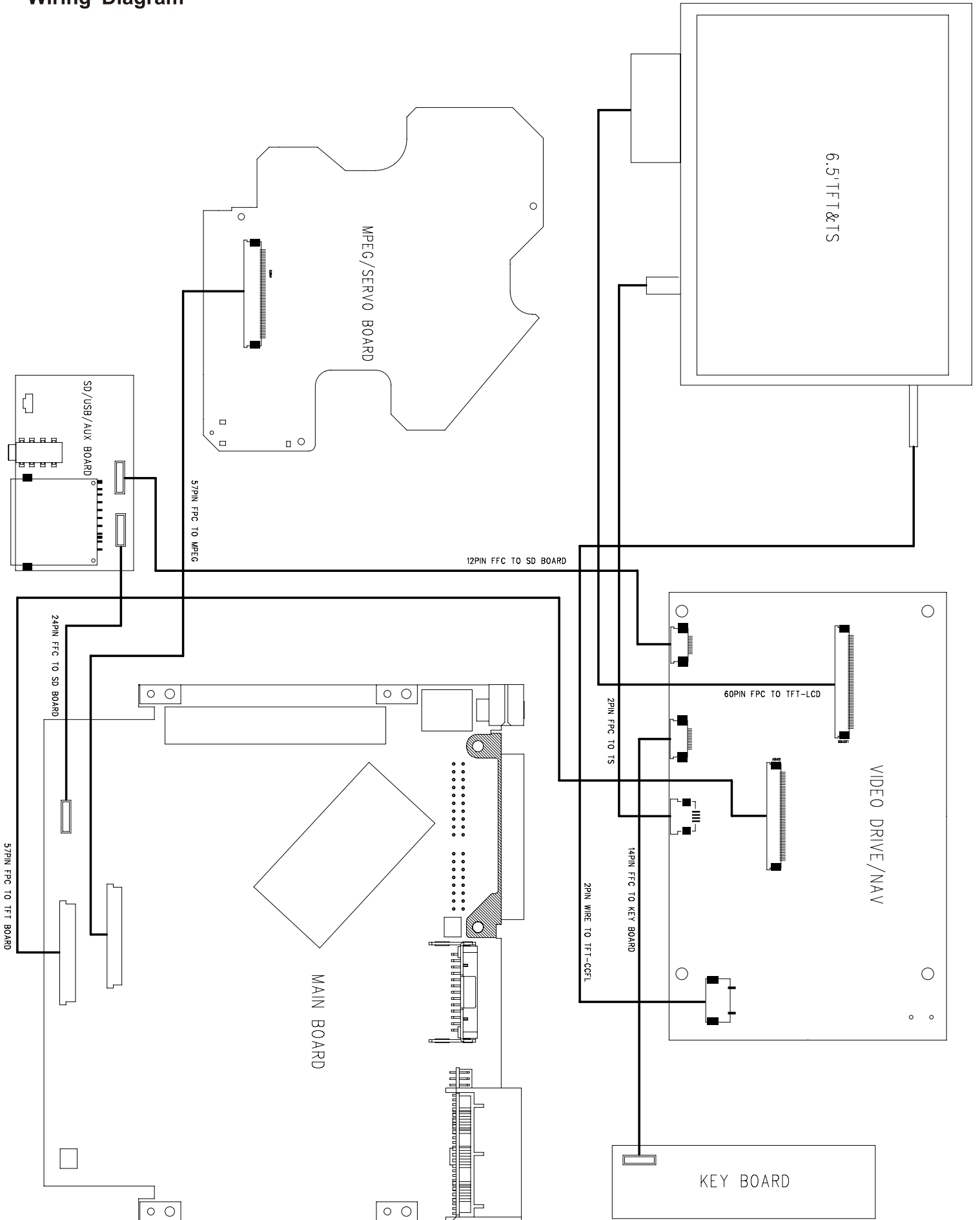


Block Diagram

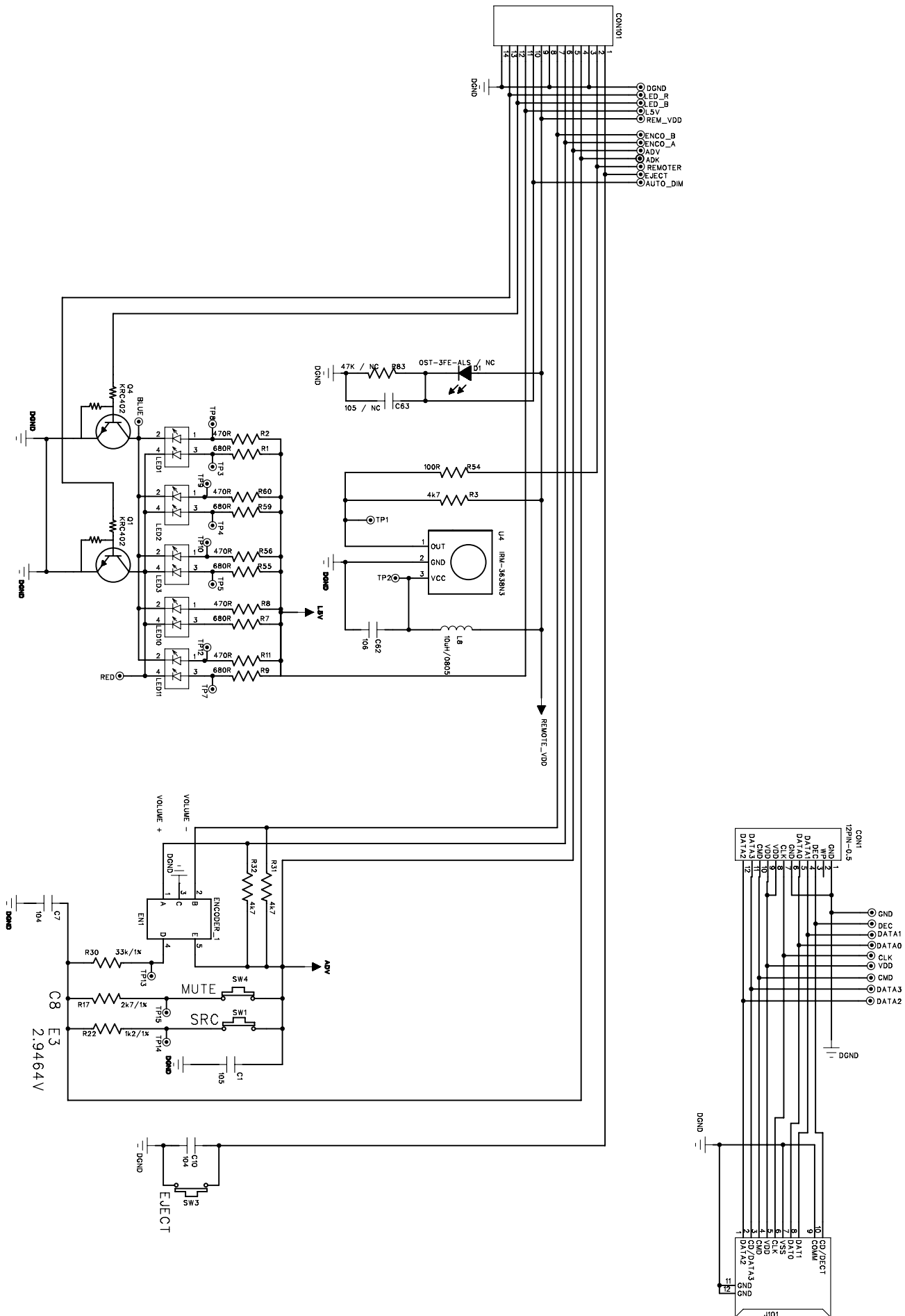
CID2680 Block diagram



Wiring Diagram

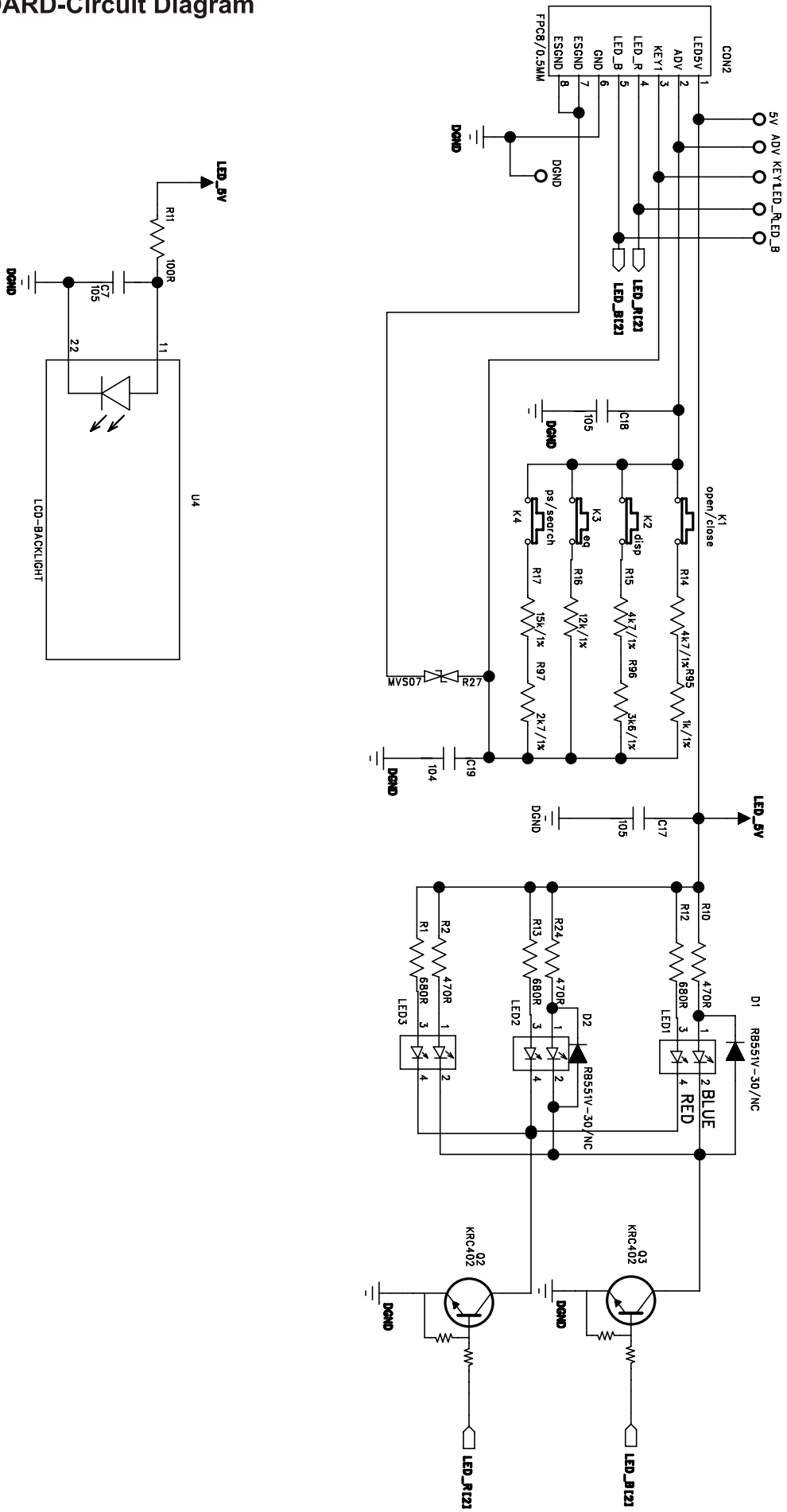


KEY BOARD-Circuit Diagram

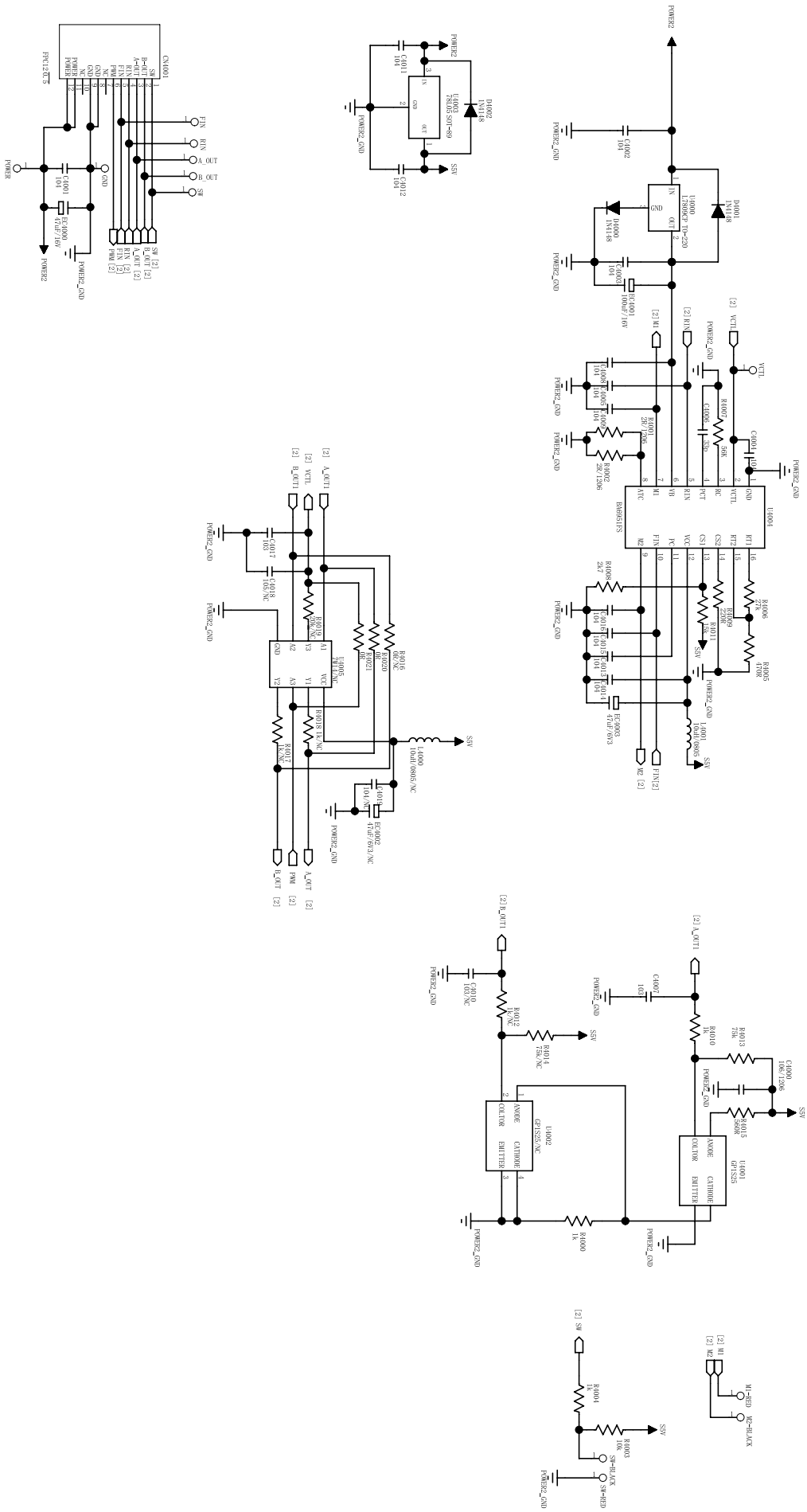


CID-2680
KEY / MINI SD BOARD

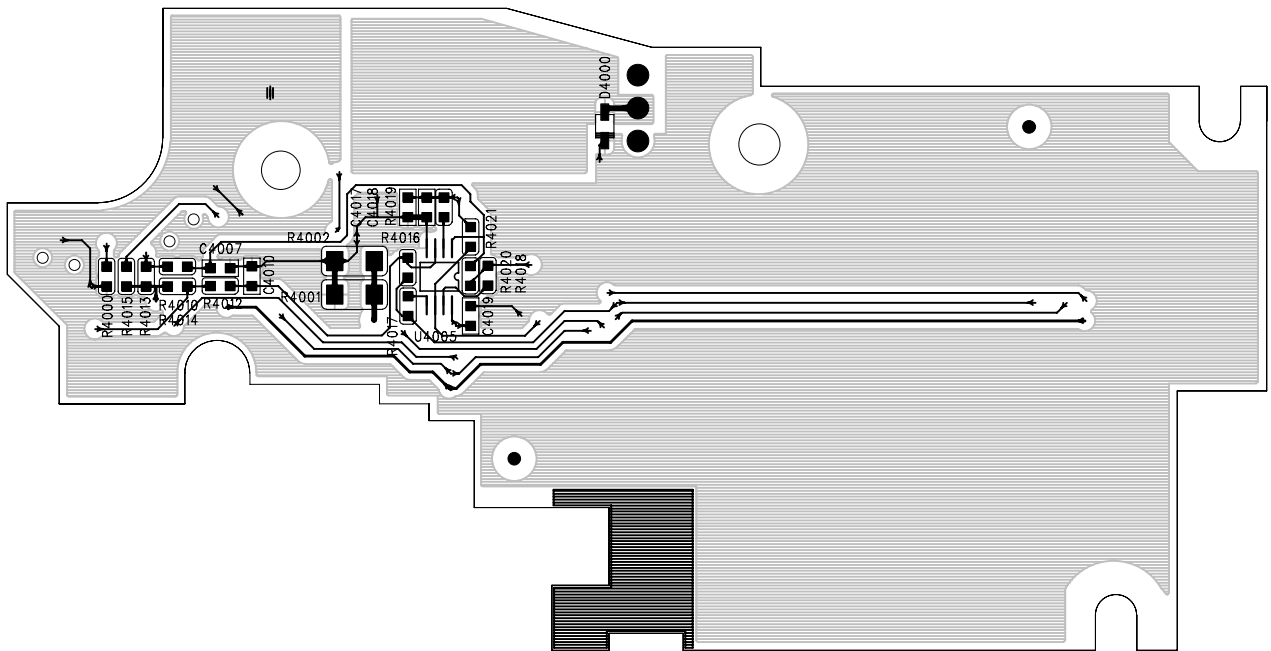
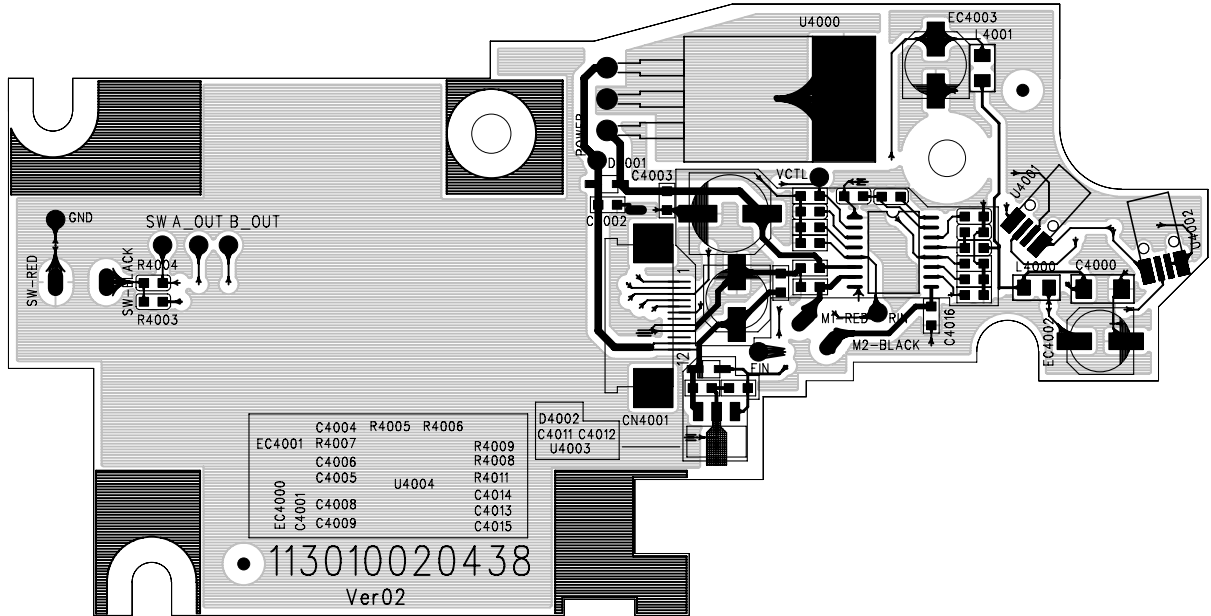
LCD BOARD-Circuit Diagram



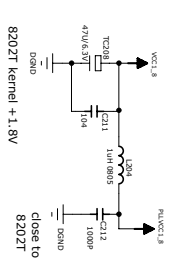
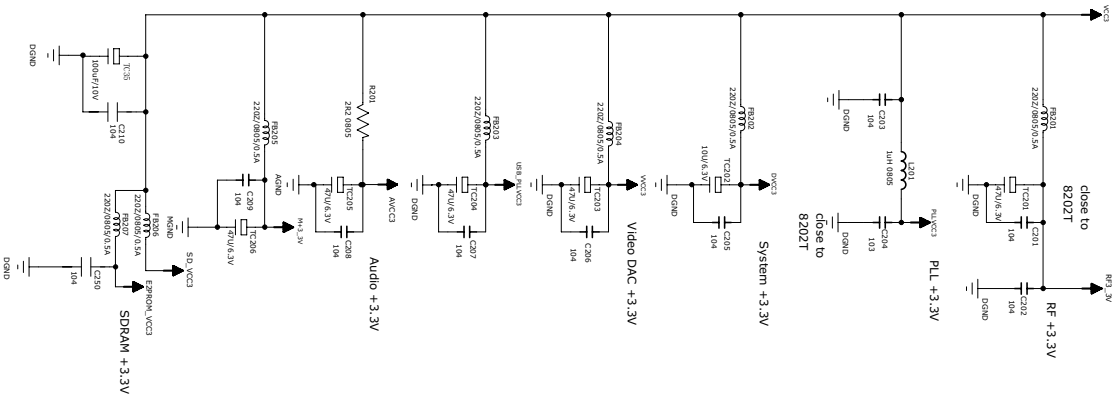
MOTOR BOARD-Circuit Diagram



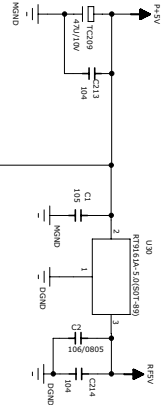
MOTOR BOARD-Layout Diagram



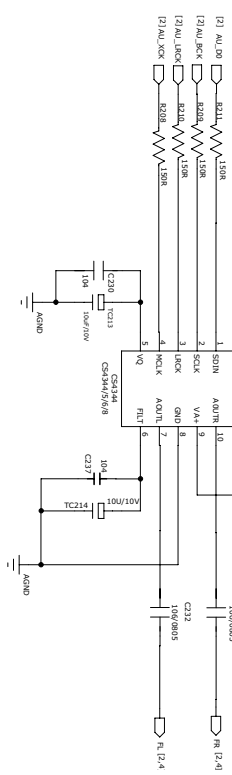
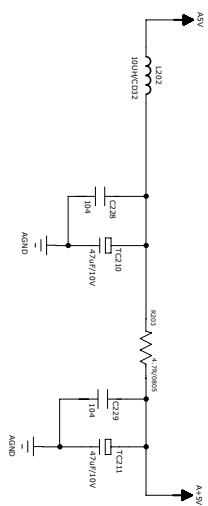
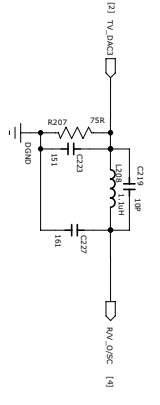
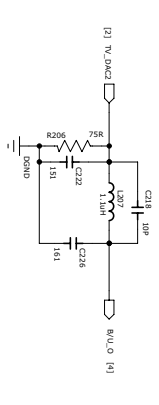
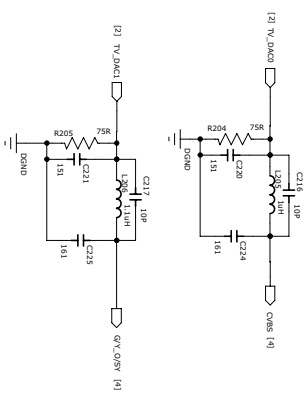
SERVO BOARD-Circuit Diagram-2



Servo analog +5V

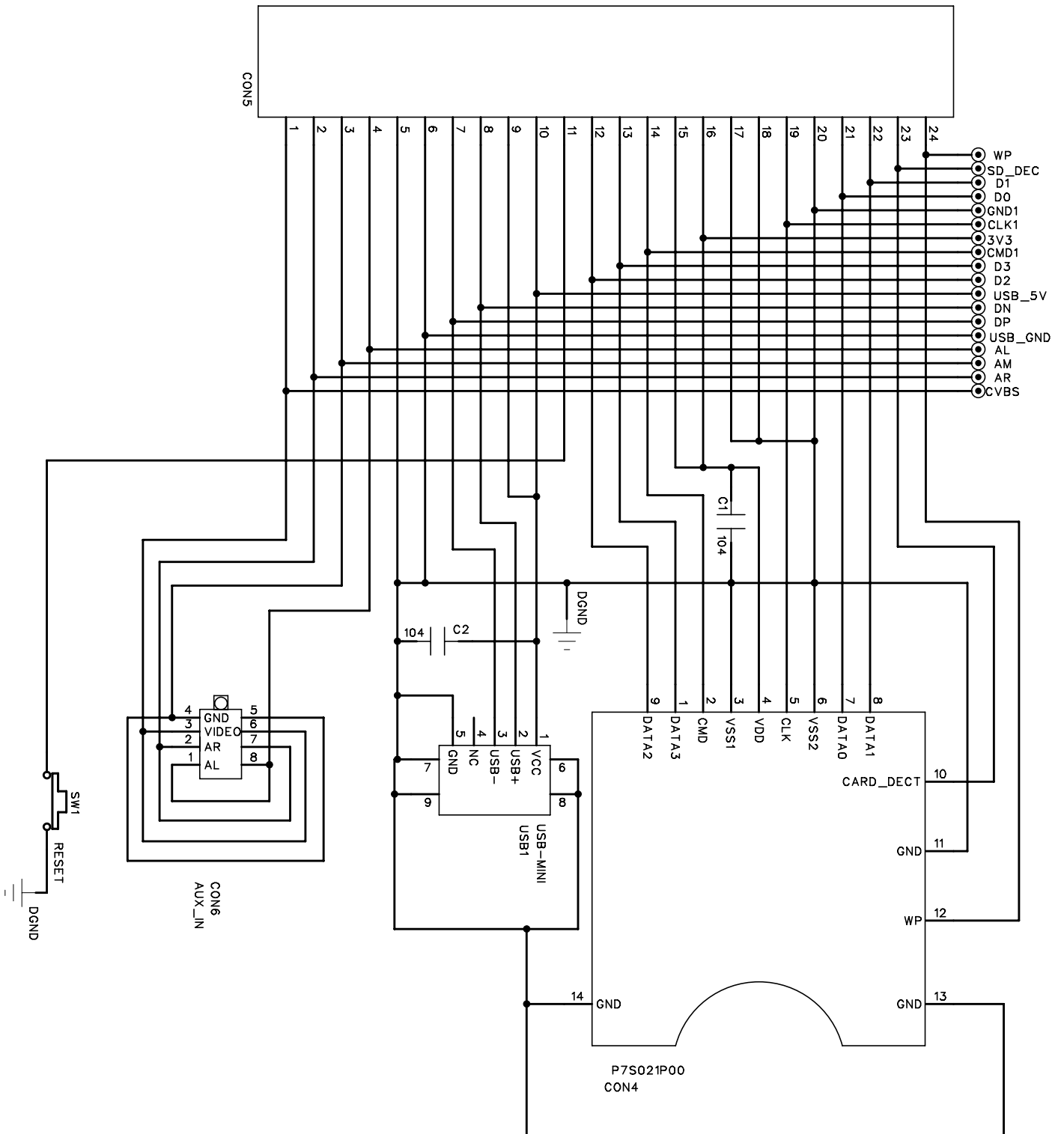


TV0	TV1	TV2	TV3
CVB	Y	DB	CR
CVB	Y(S-Video)	CVB	C(S-Video)
CVB	G	B	R

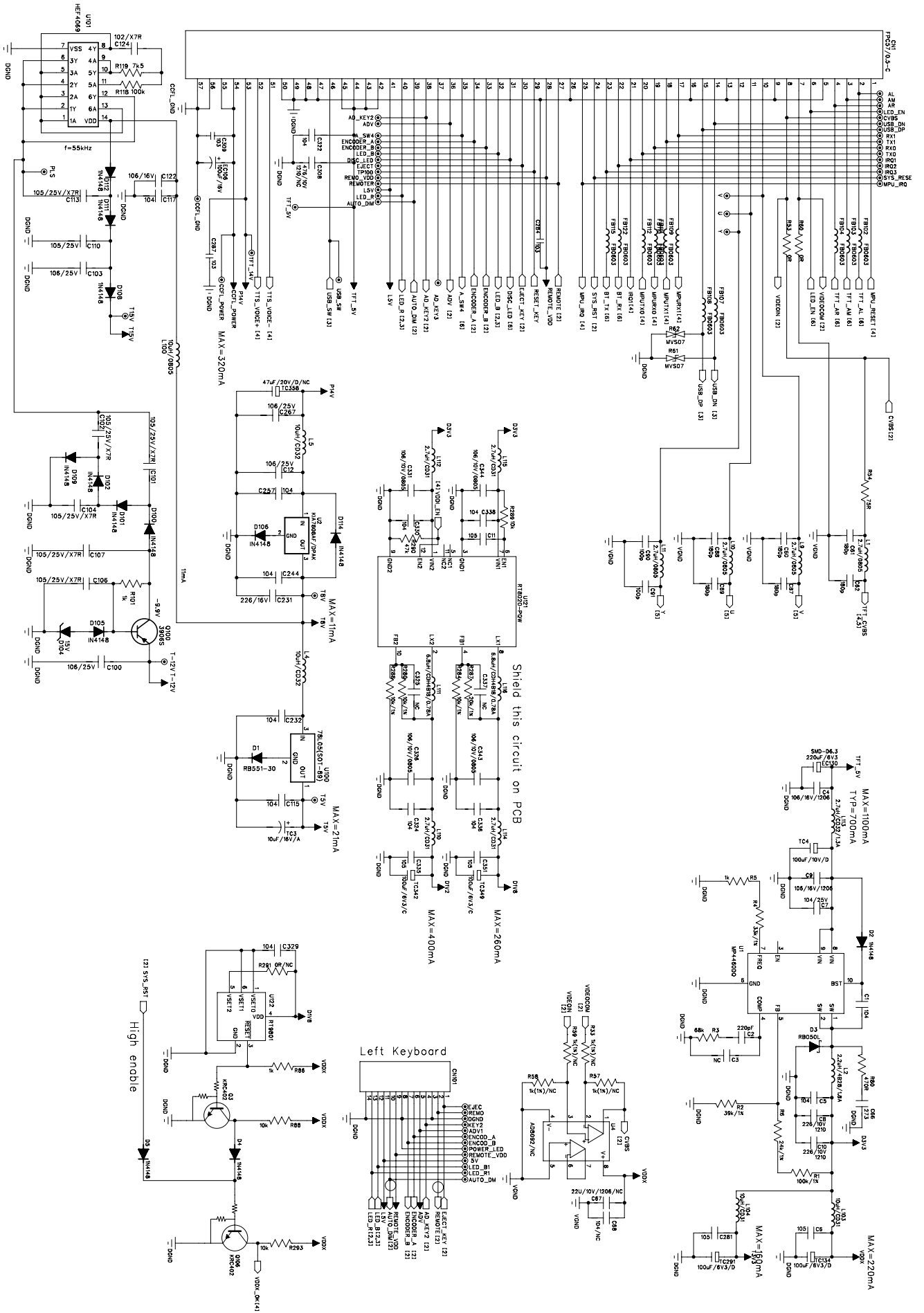


CID2680
POWER/VIDEO/AUDIO

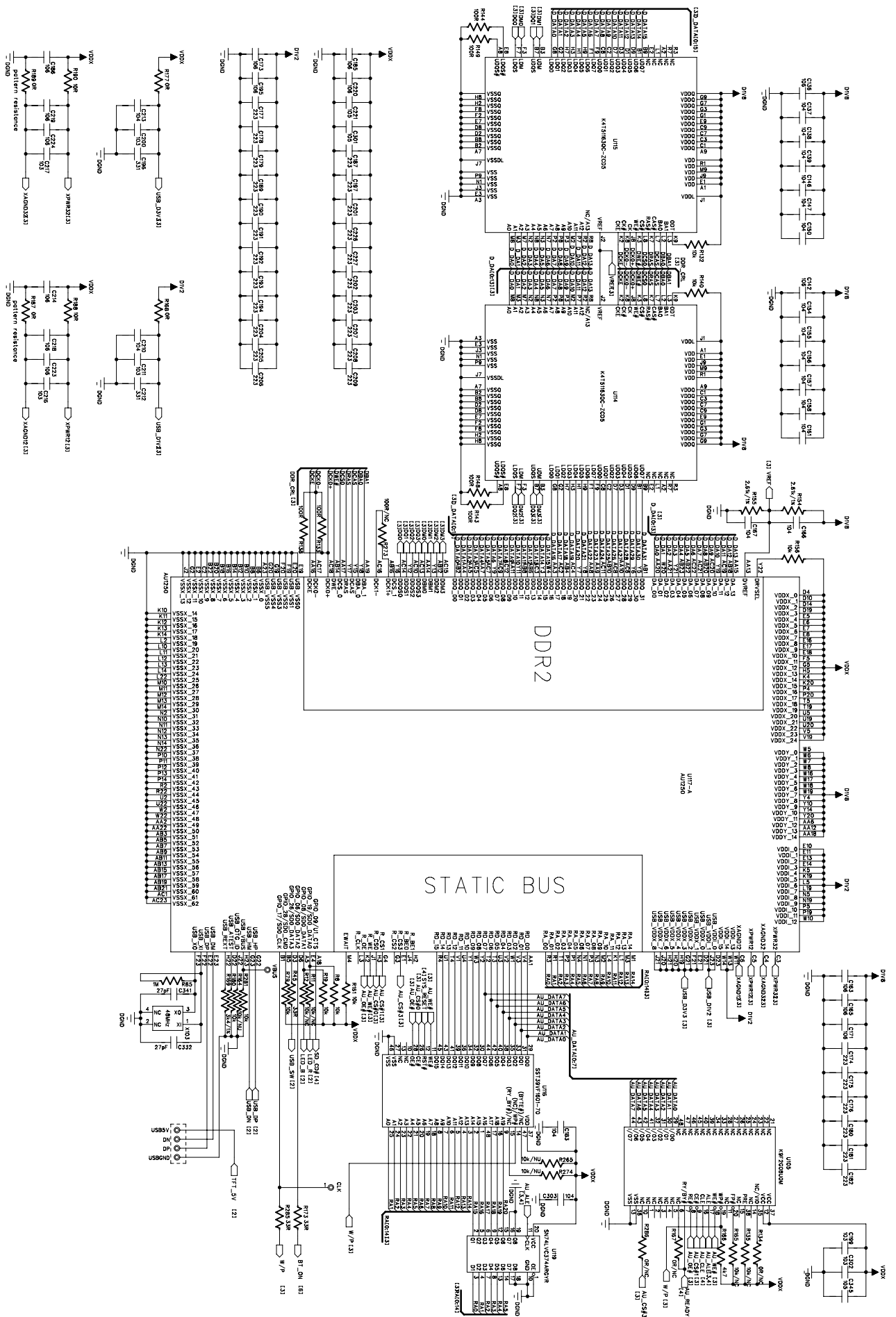
USB/SD BOARD-Circuit Diagram



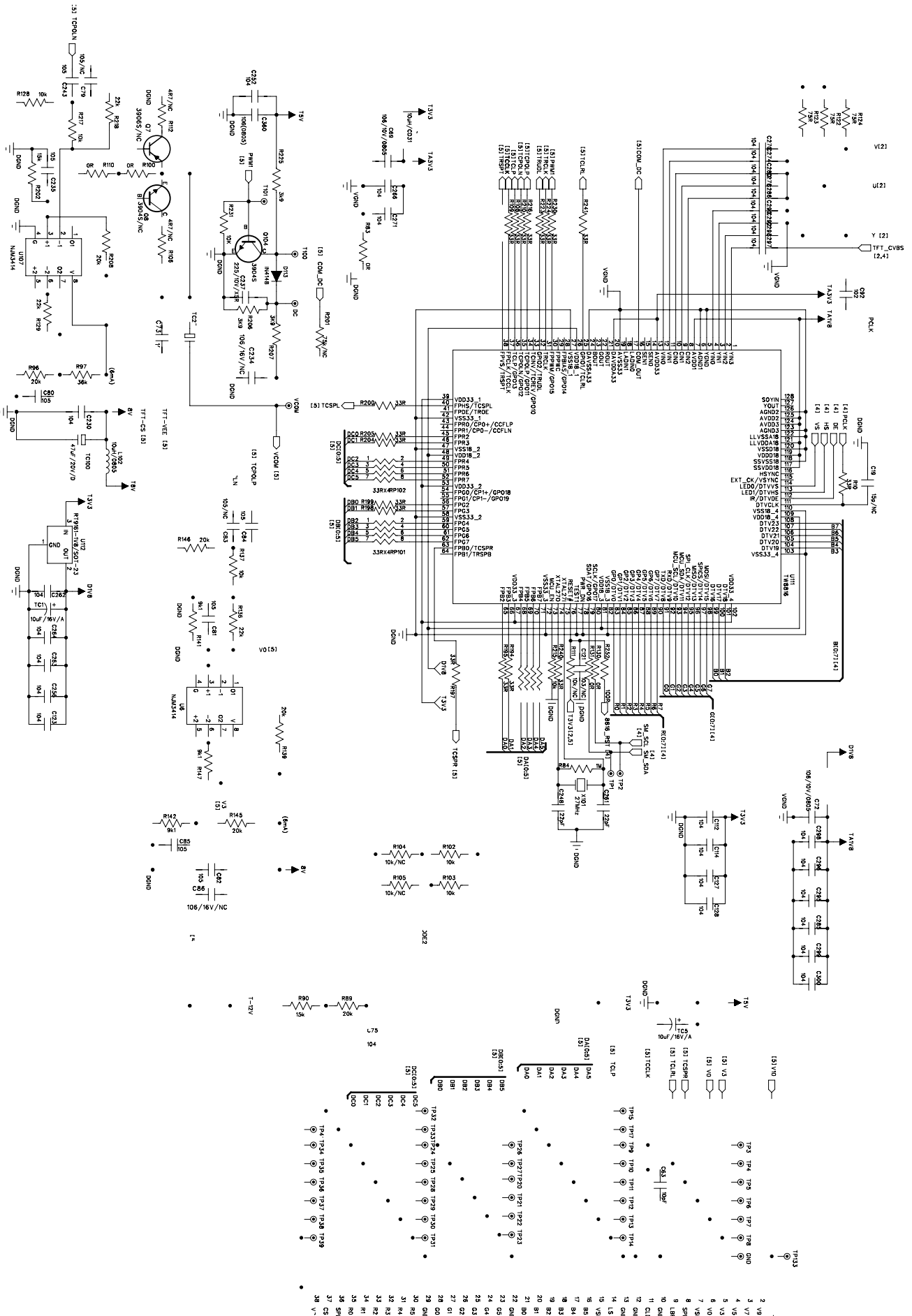
TFT BOARD-Circuit Diagram-1



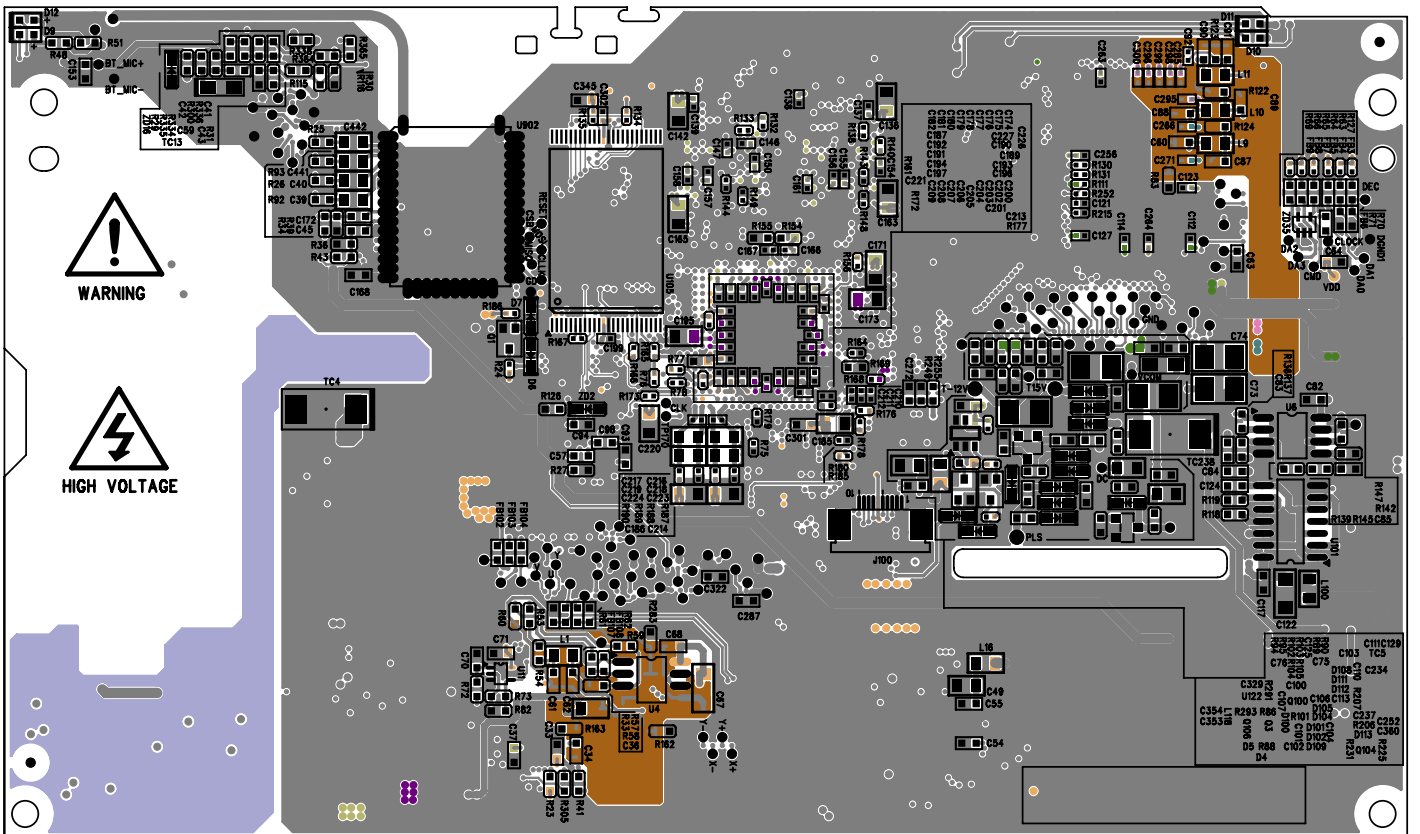
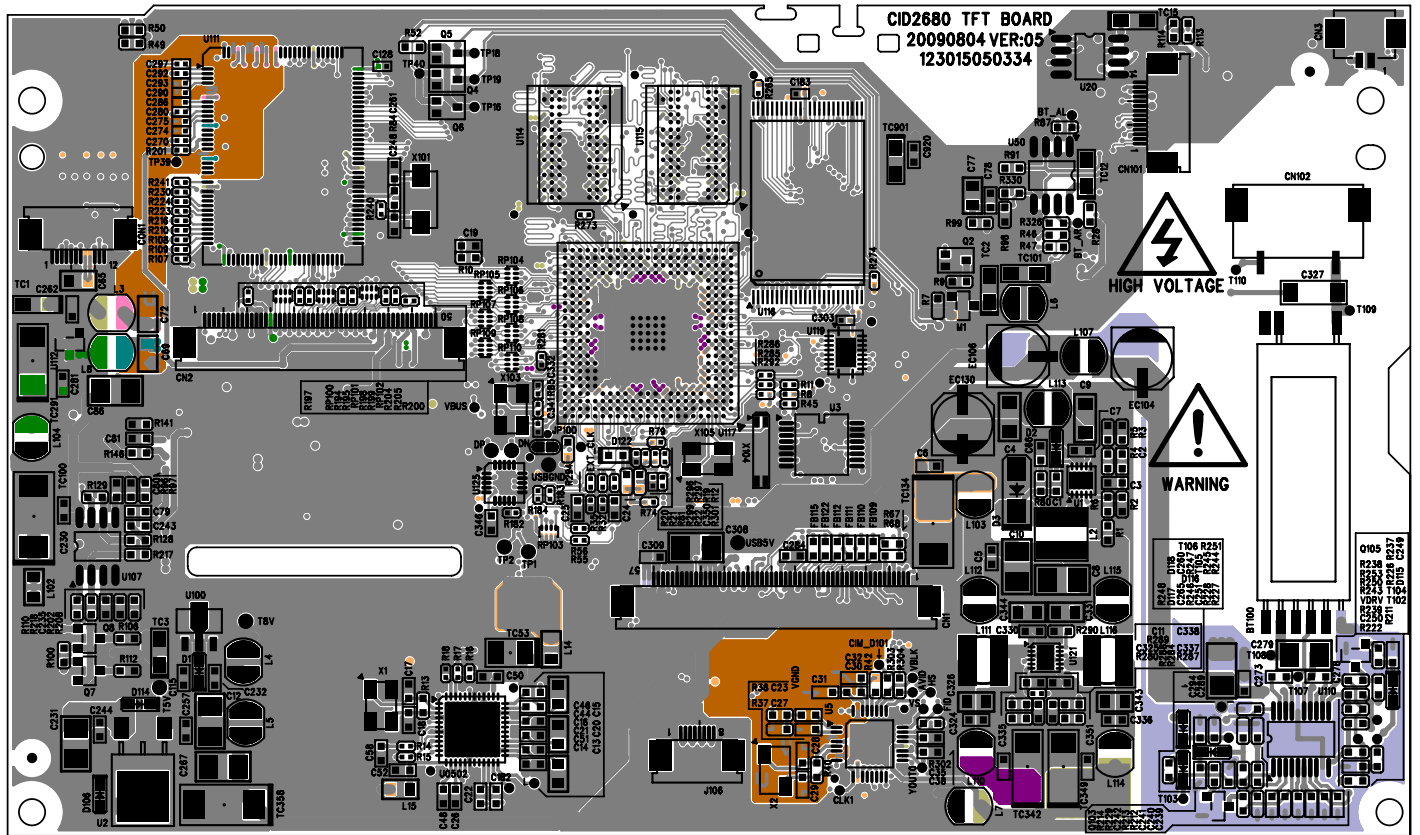
TFT BOARD-Circuit Diagram-2



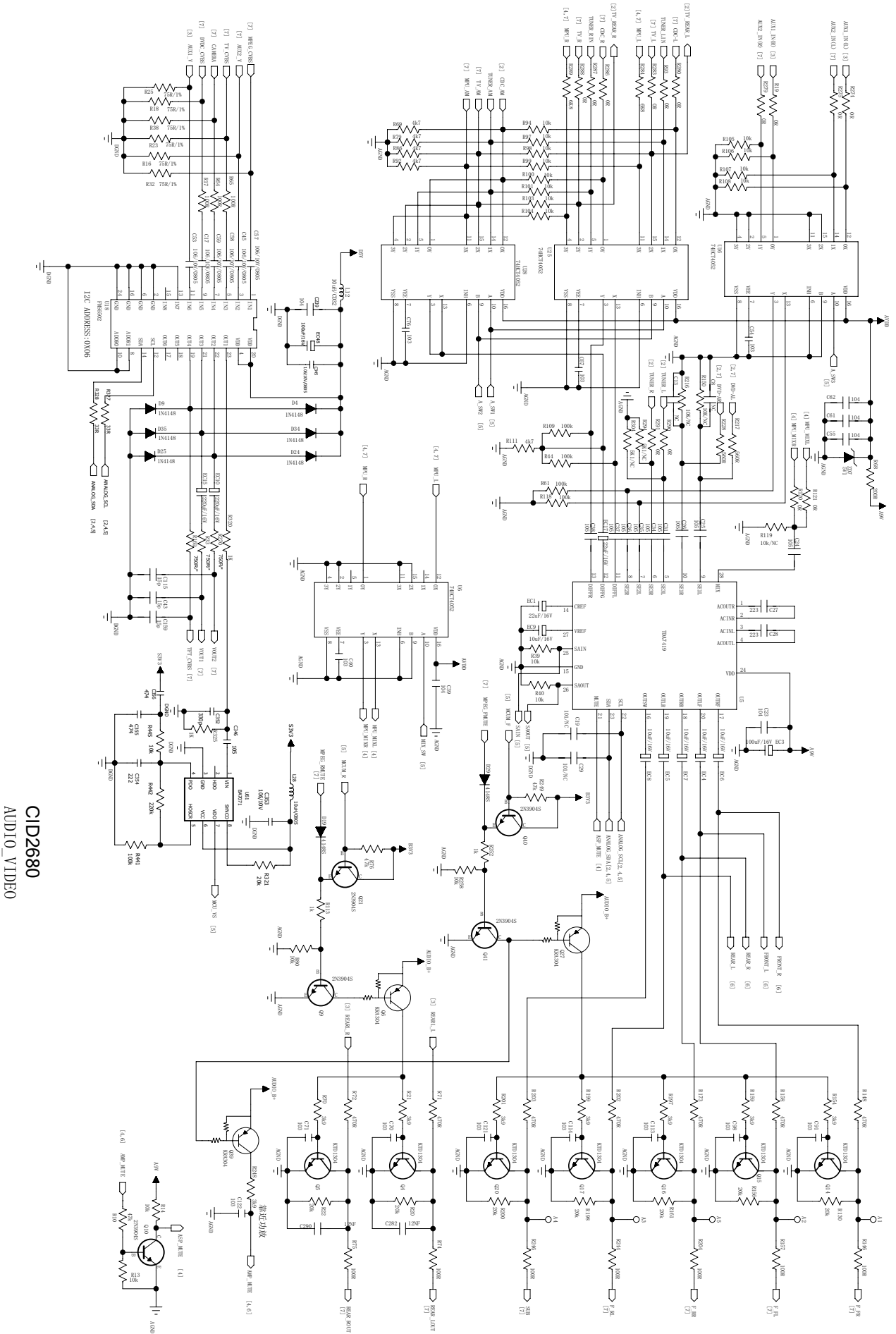
TFT BOARD-Circuit Diagram-1



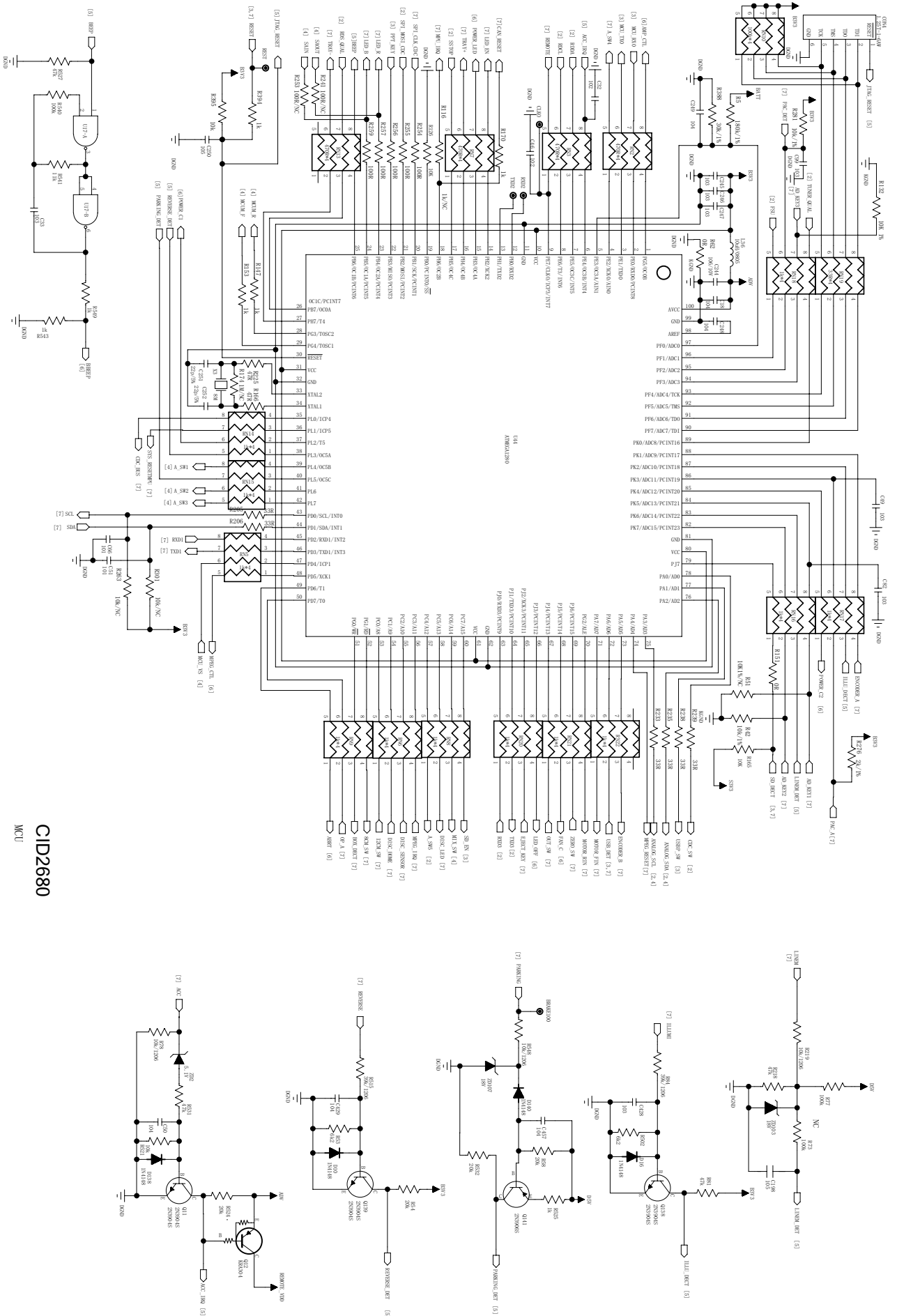
TFT BOARD-Layout Diagram



MAIN BOARD-Circuit Diagram-3



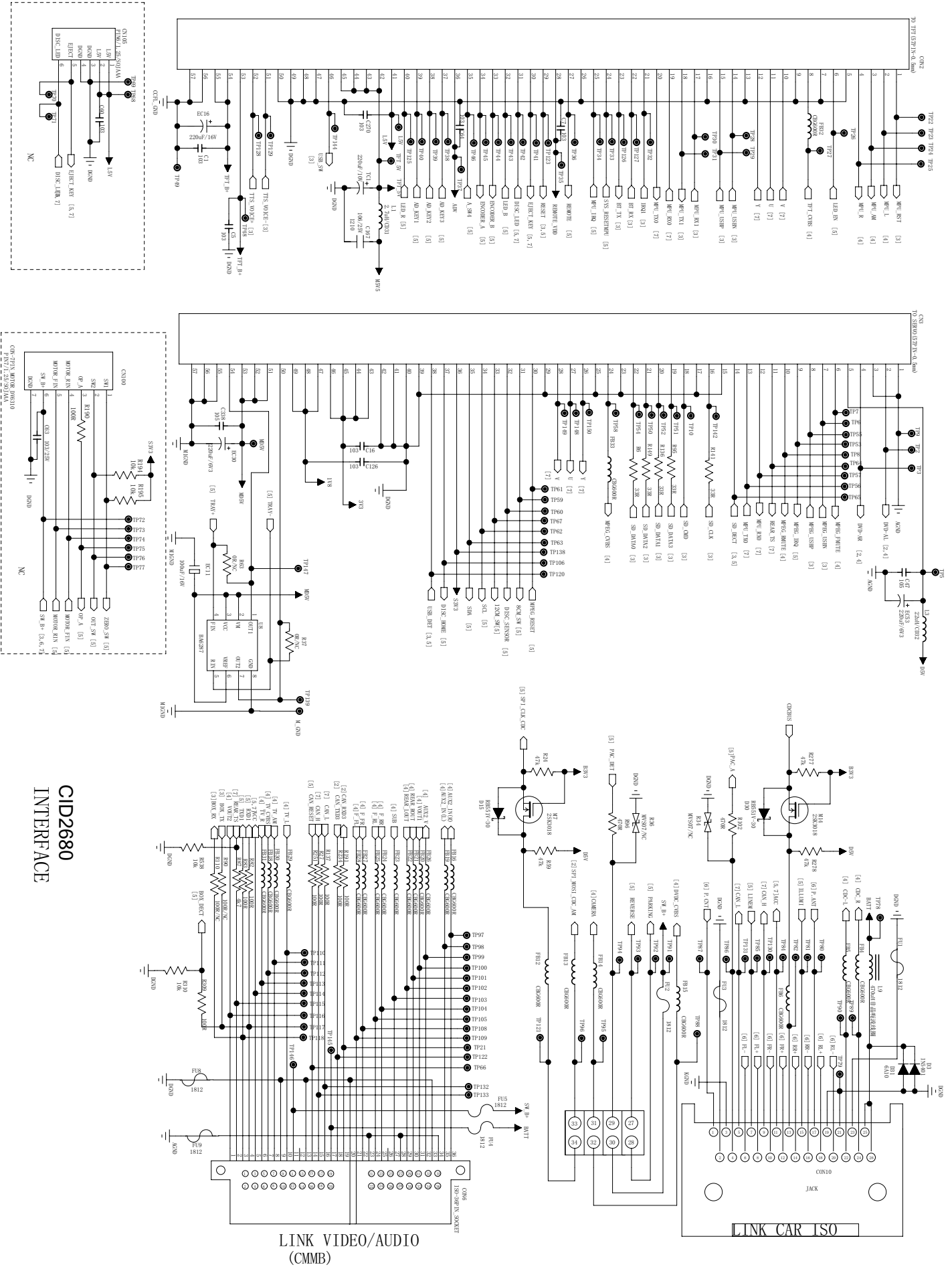
MAIN BOARD-Circuit Diagram-4



CID2680

MCIU

MAIN BOARD-Circuit Diagram-6

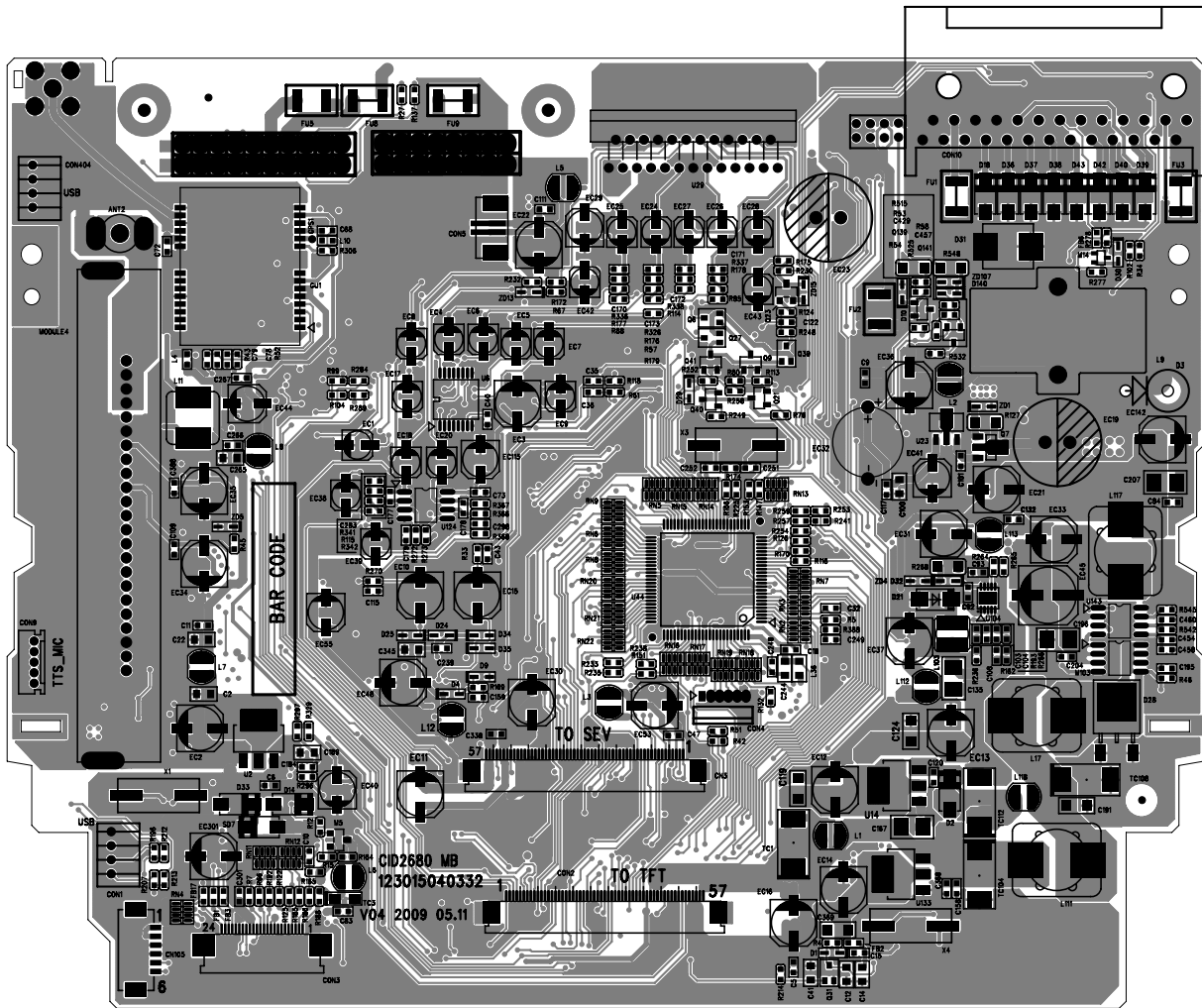


CID2680
INTERFACE

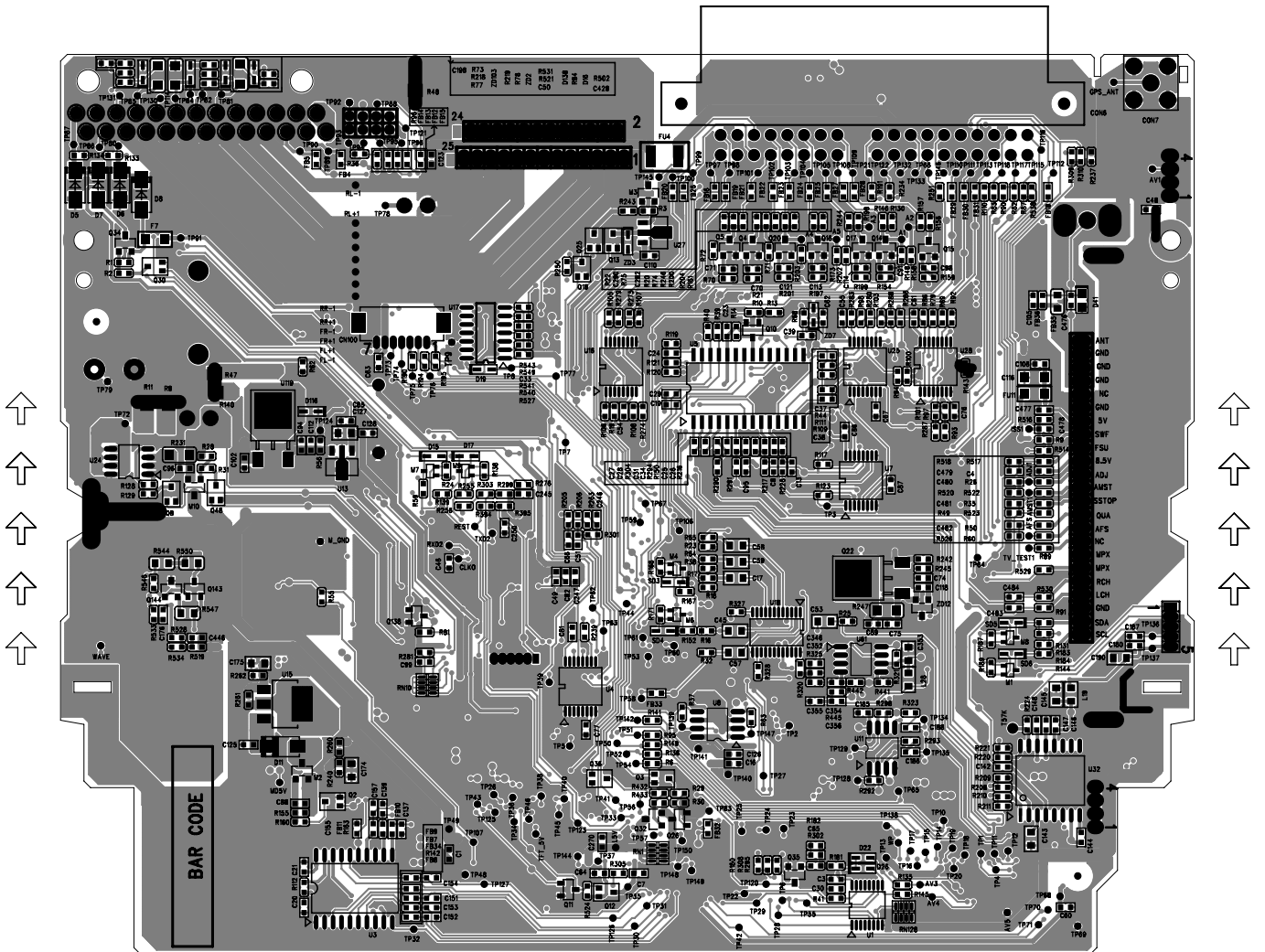
LINK VIDEO/AUDIO
(CMMB)

LINK CAR ISO

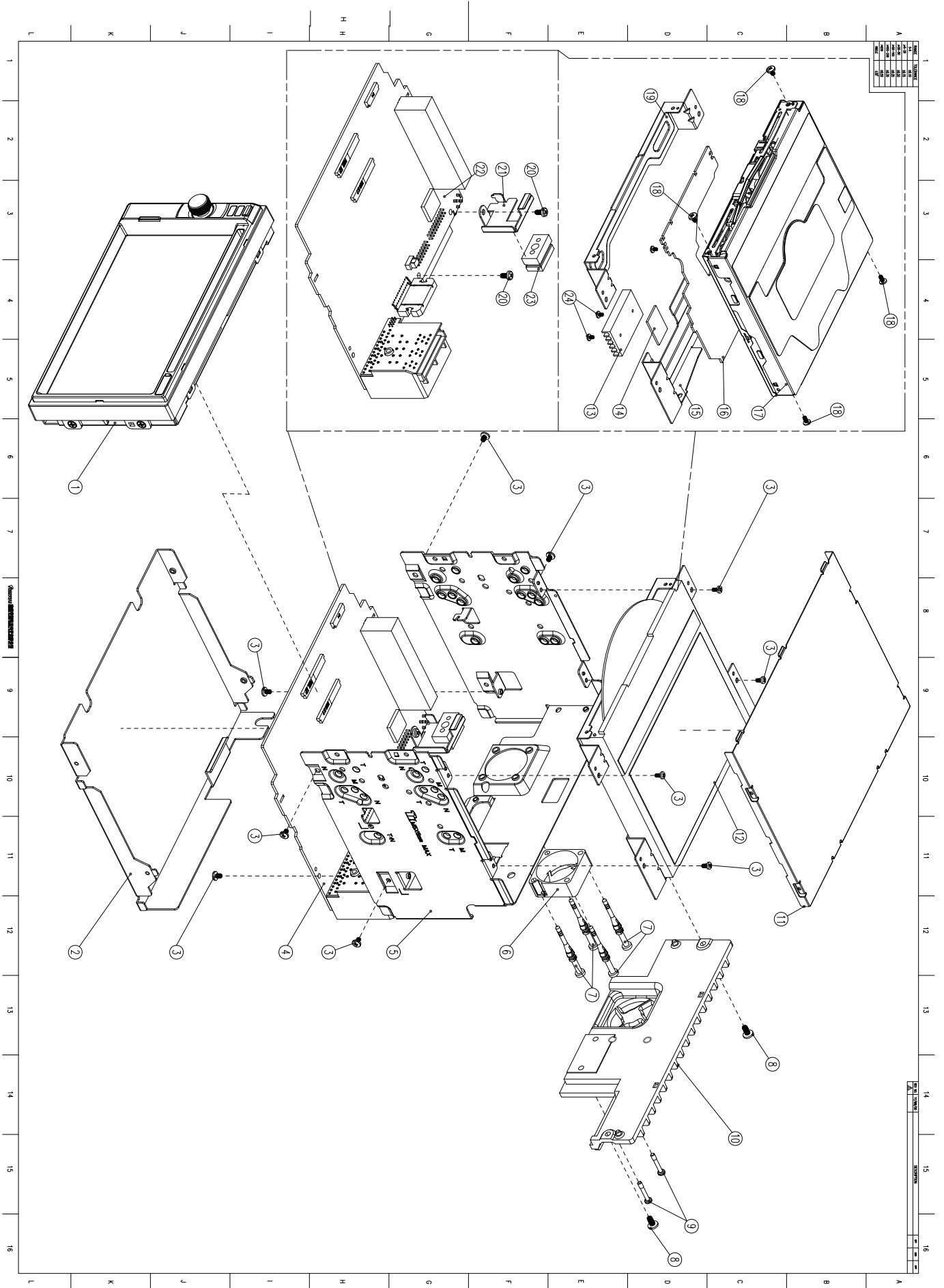
MAIN BOARD-Layout Diagram



MAIN BOARD-Layout Diagram



EXPLODE VIEW



EXPLODE VIEW

