

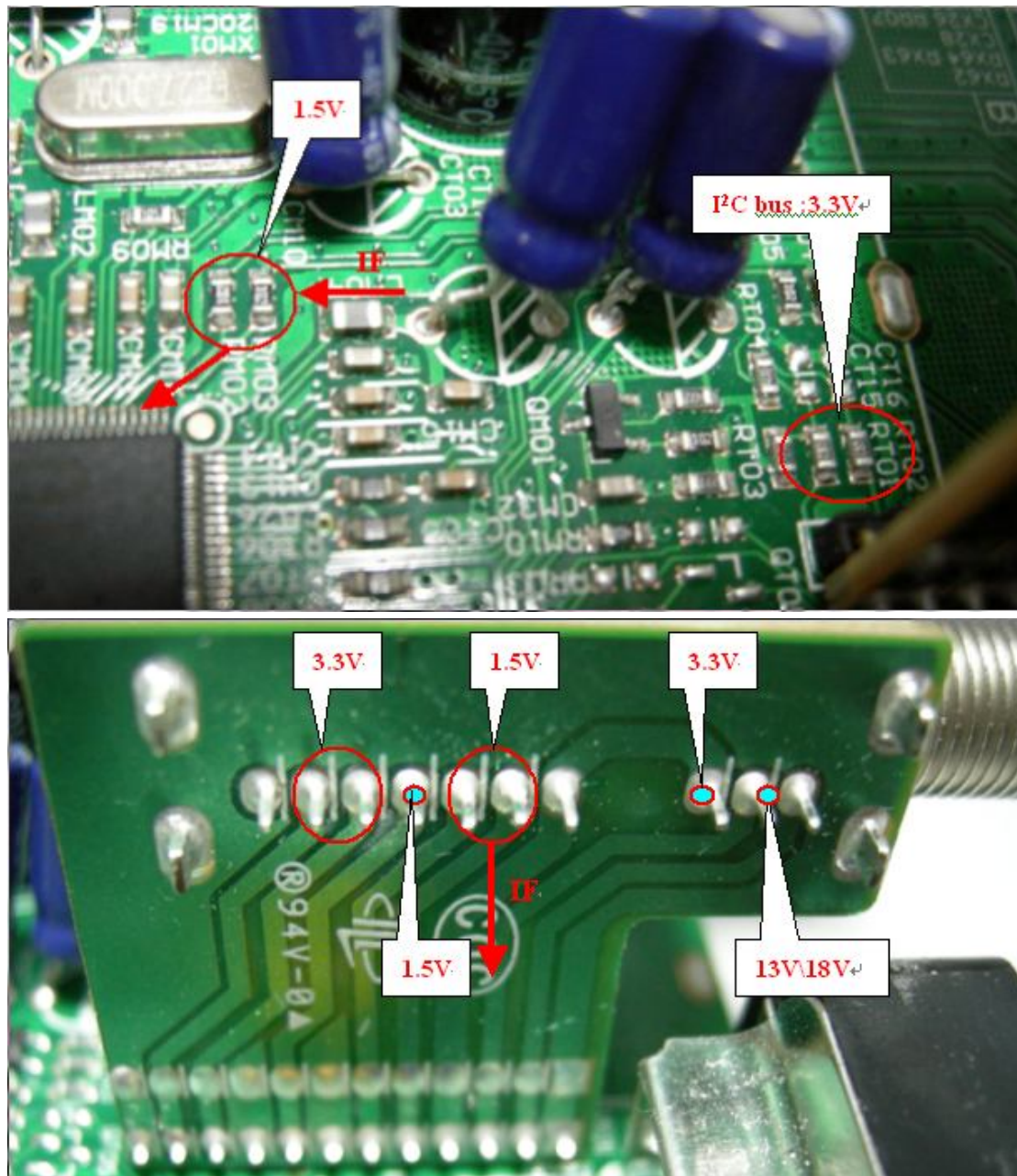
SAB 3000

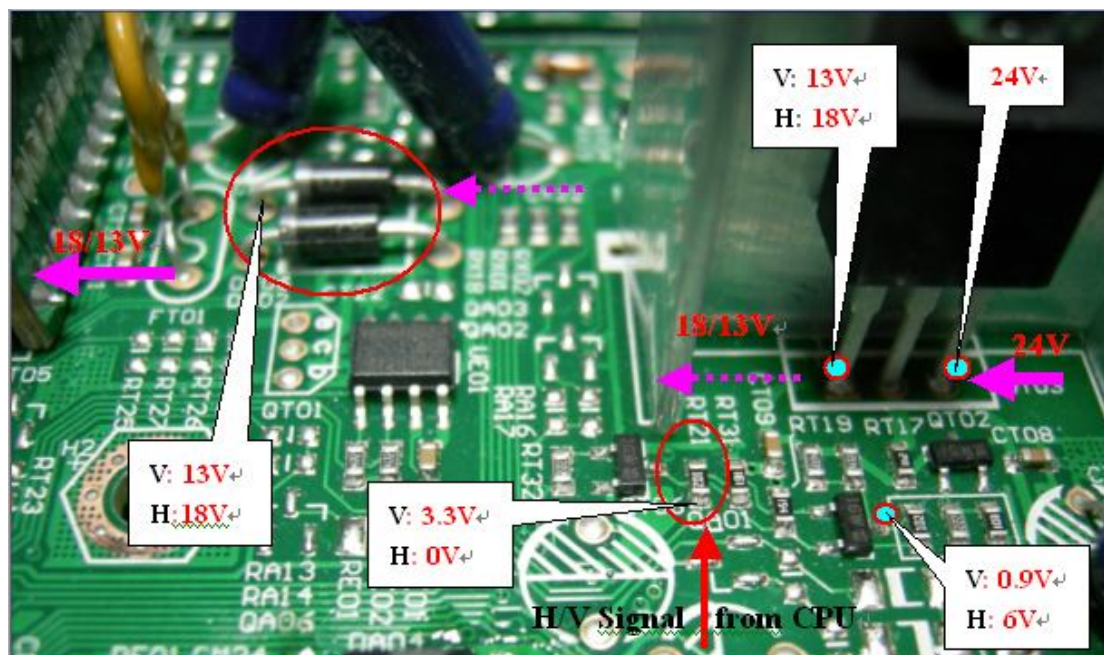
Repair Guide

Repairing Guide

1. MAIN BOARD CIRCUIT
 - 1.1 Tuner Circuit
 - 1.1.1 Tuner Circuit SCH(a&b)

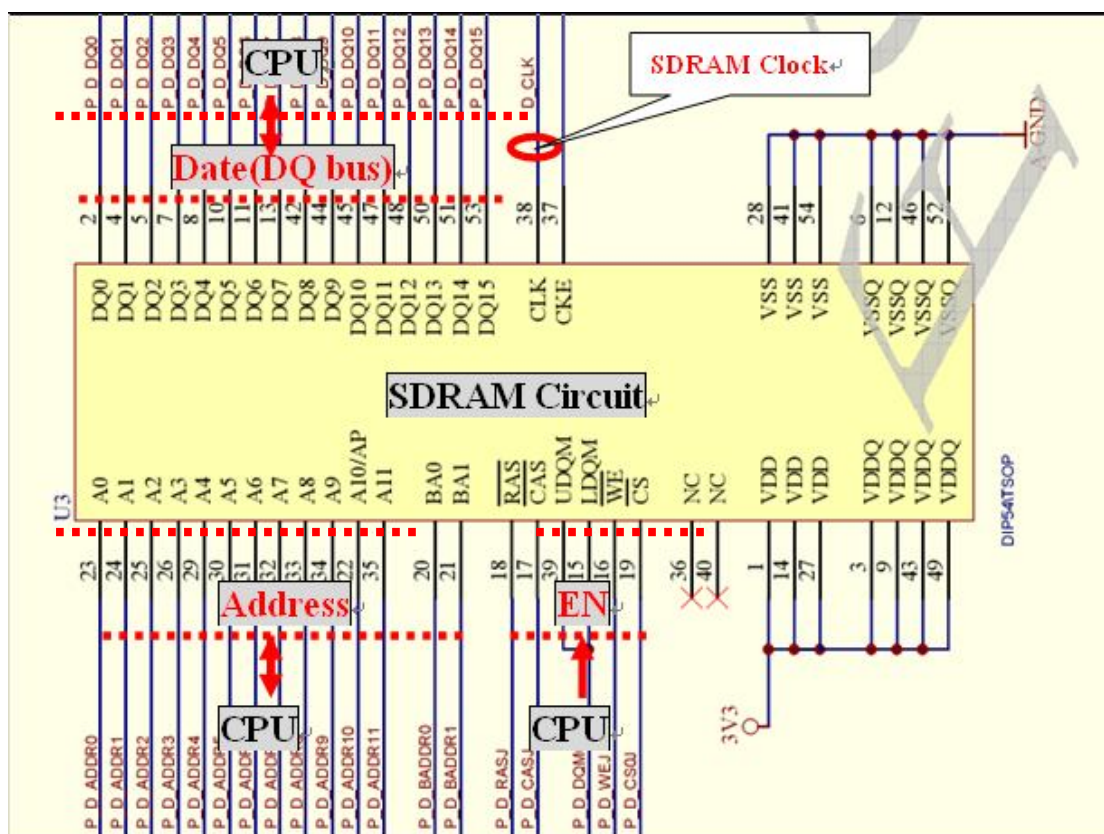
1.1.2 Tuner Circuit Picture





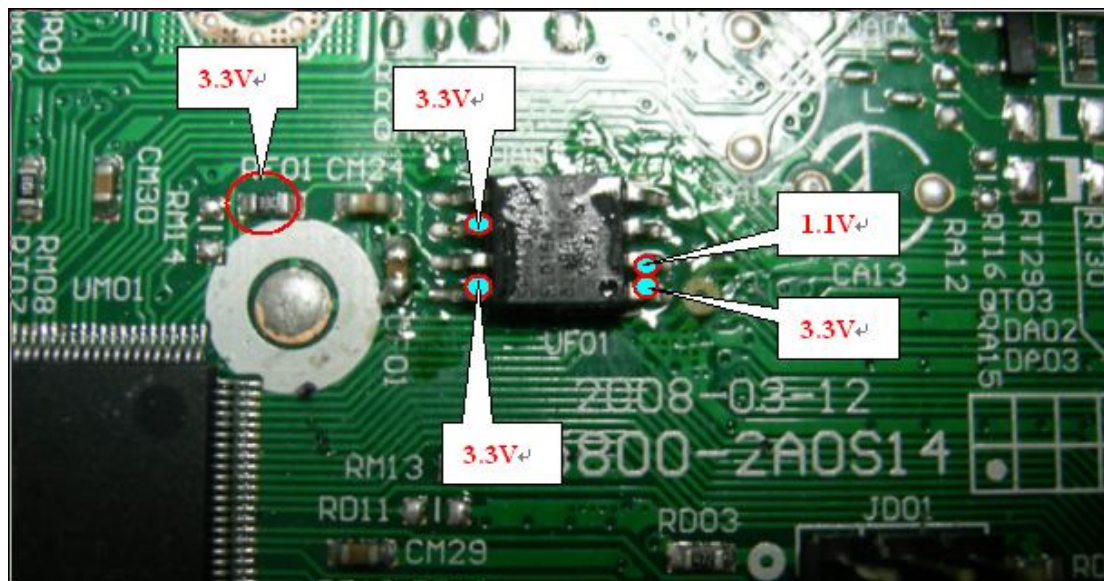
1.2SDRAM Circuit

1.2.1SDRAM Circuit SCH





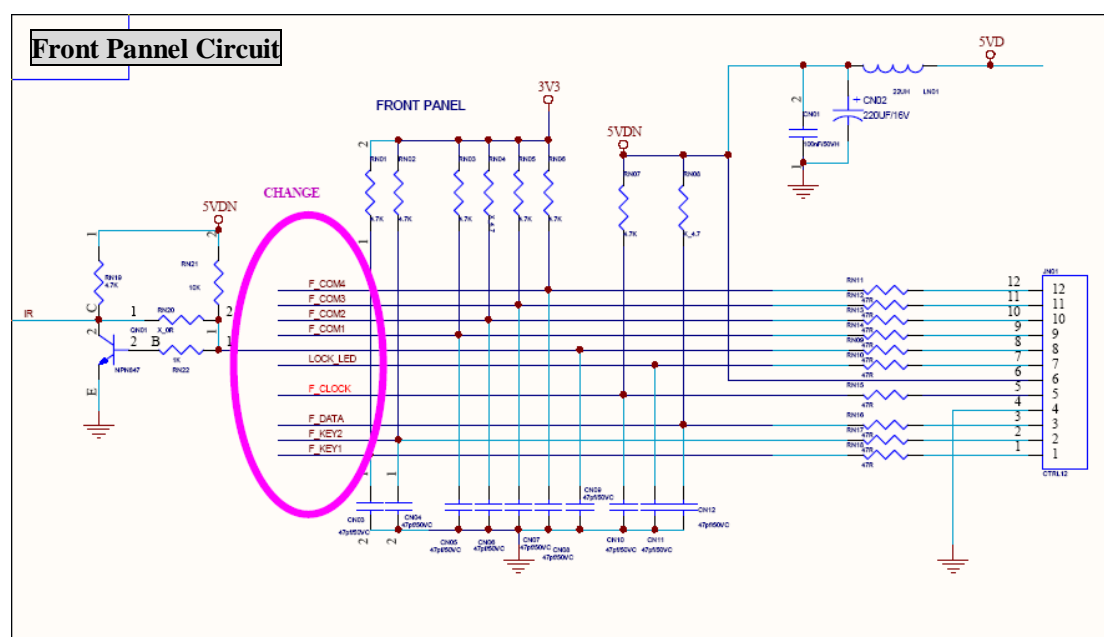
1.3.2 Flash Circuit Picture



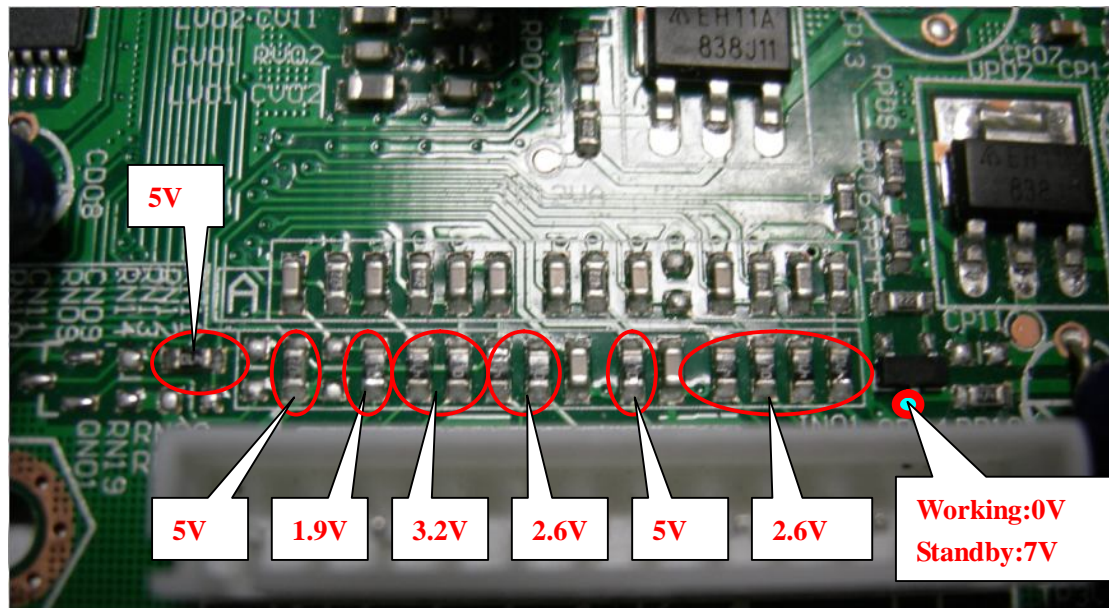
1.4 Front Panel Circuit

1.4.1 Front Panel SCH(a&b&c)

a



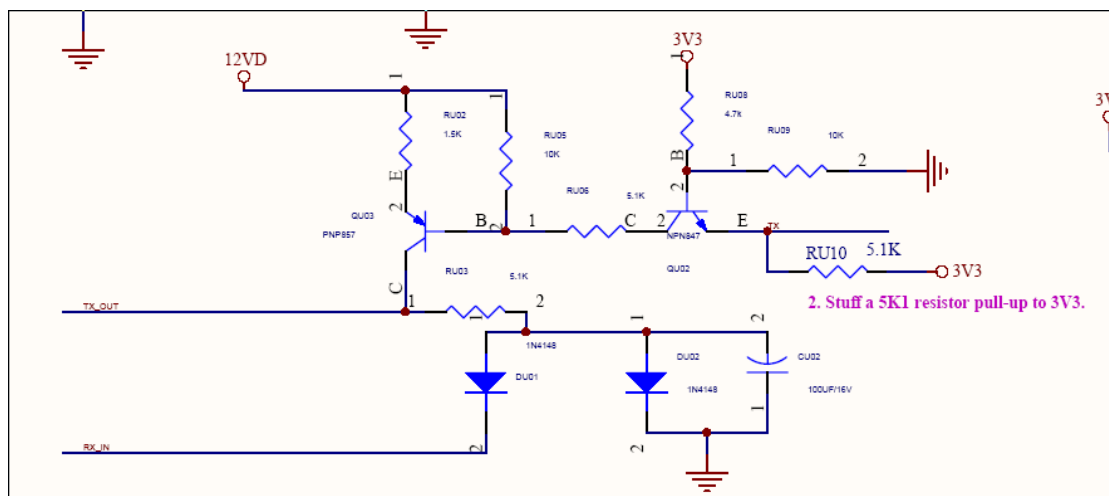
1.4.2 Front Pannel Circuit Picture



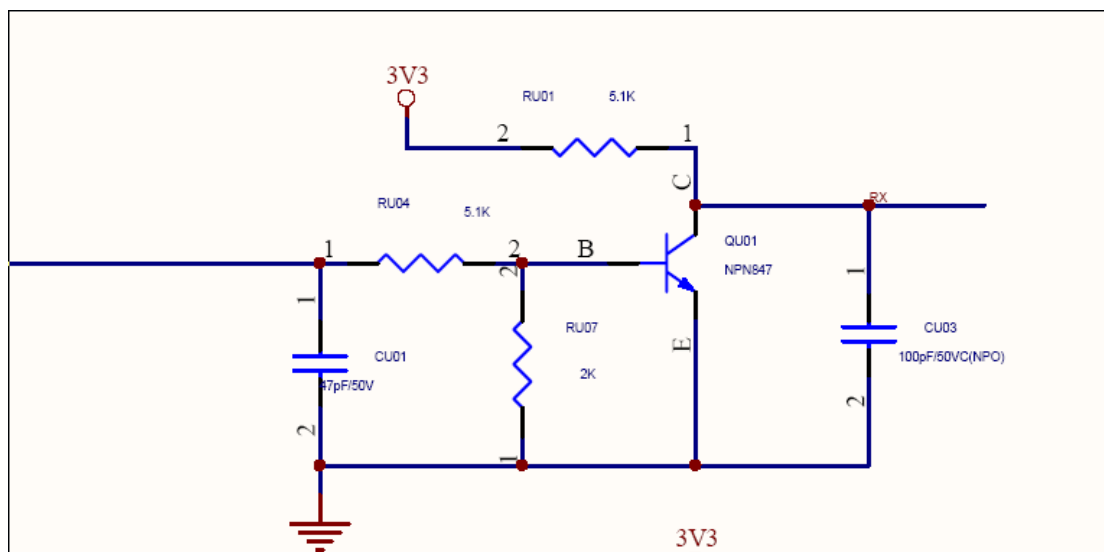
1.5RS232 Circuit

1.5.1RS232 Circuit SCH(a&b)

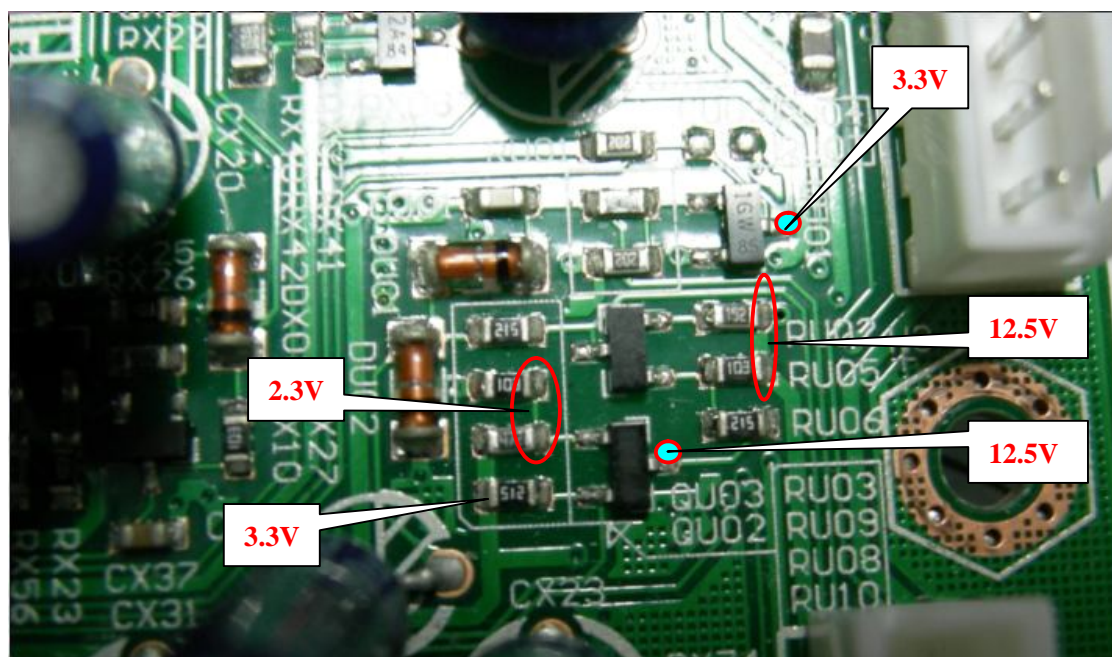
a



b

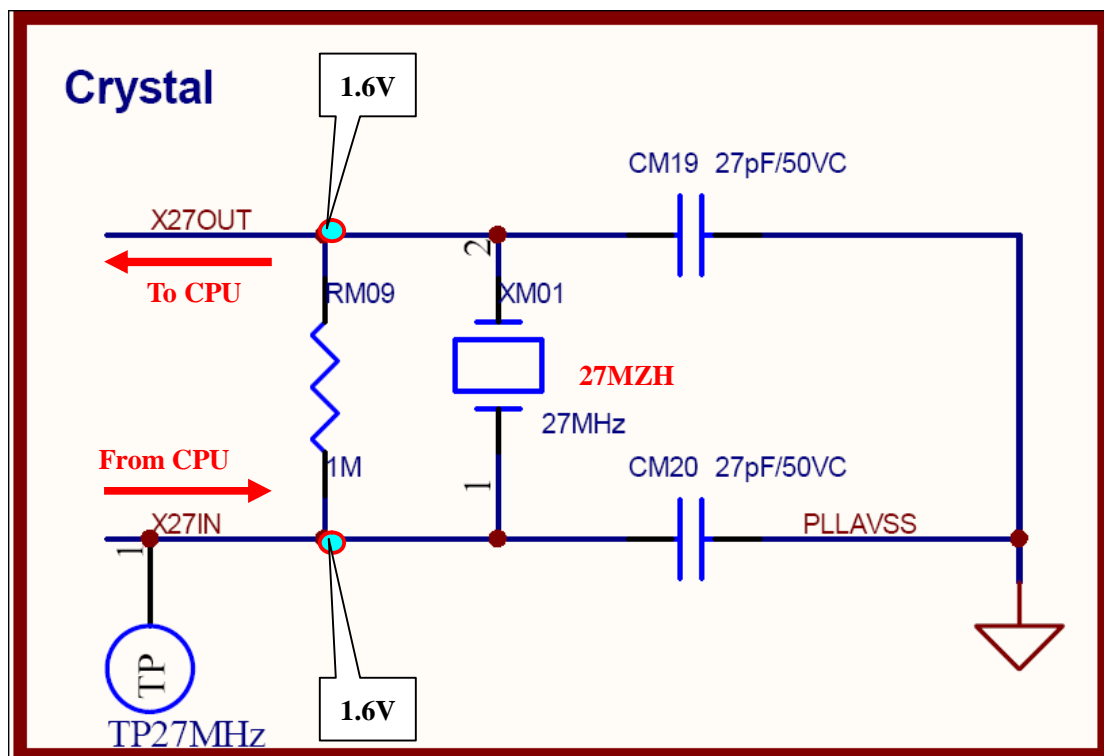


1.5.2 RS232 Circuit Picture

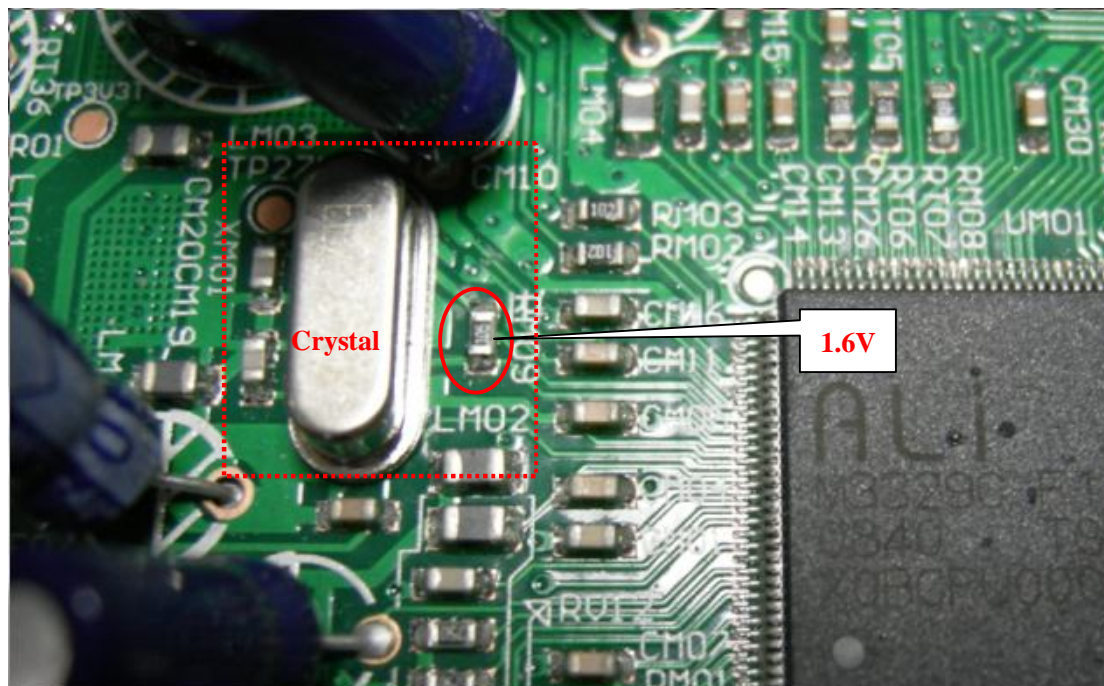


1.6Crystal Circuit

1.6.1crystal Circuit SCH

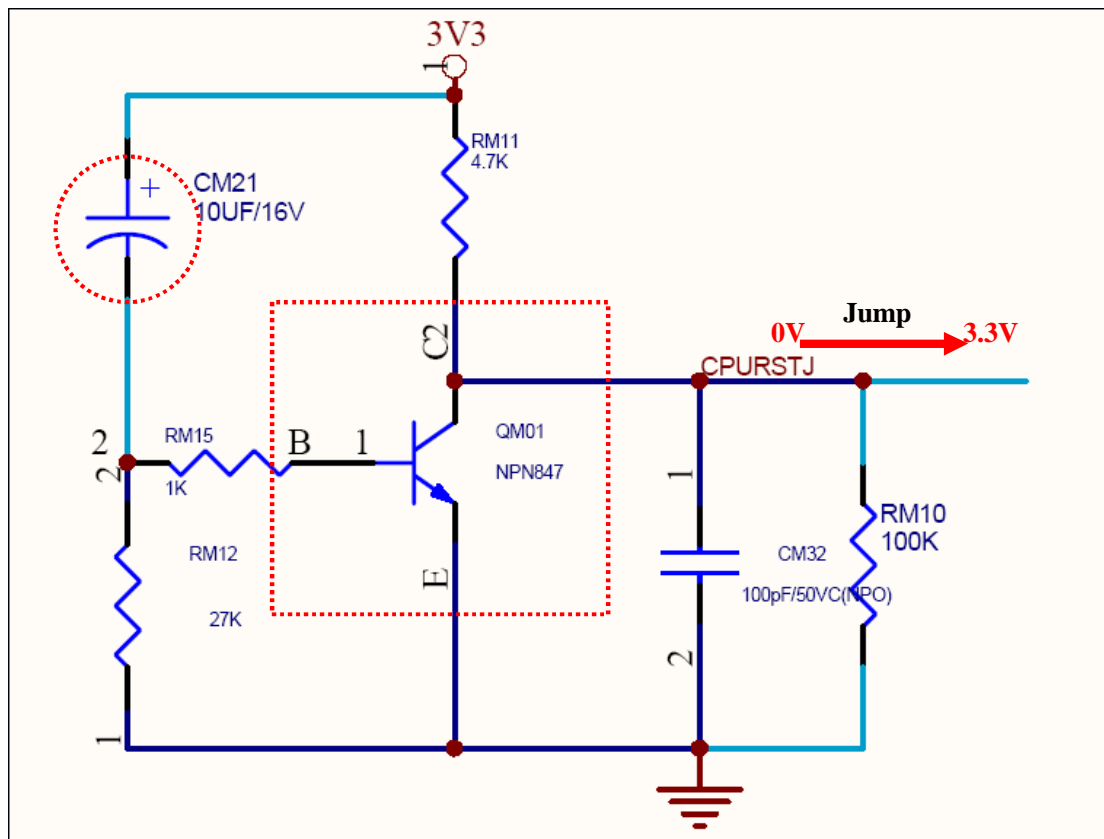


1.6.2 Crystal Circuit picture

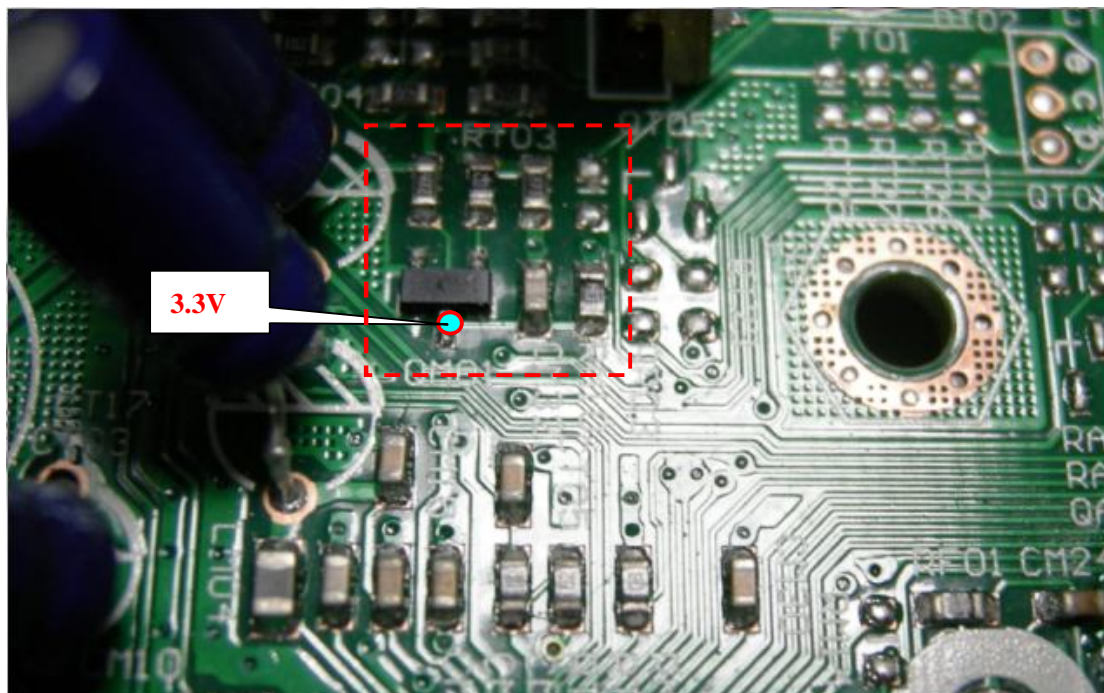


1.7 Reset Circuit

1.7.1 Reset Circuit SCH



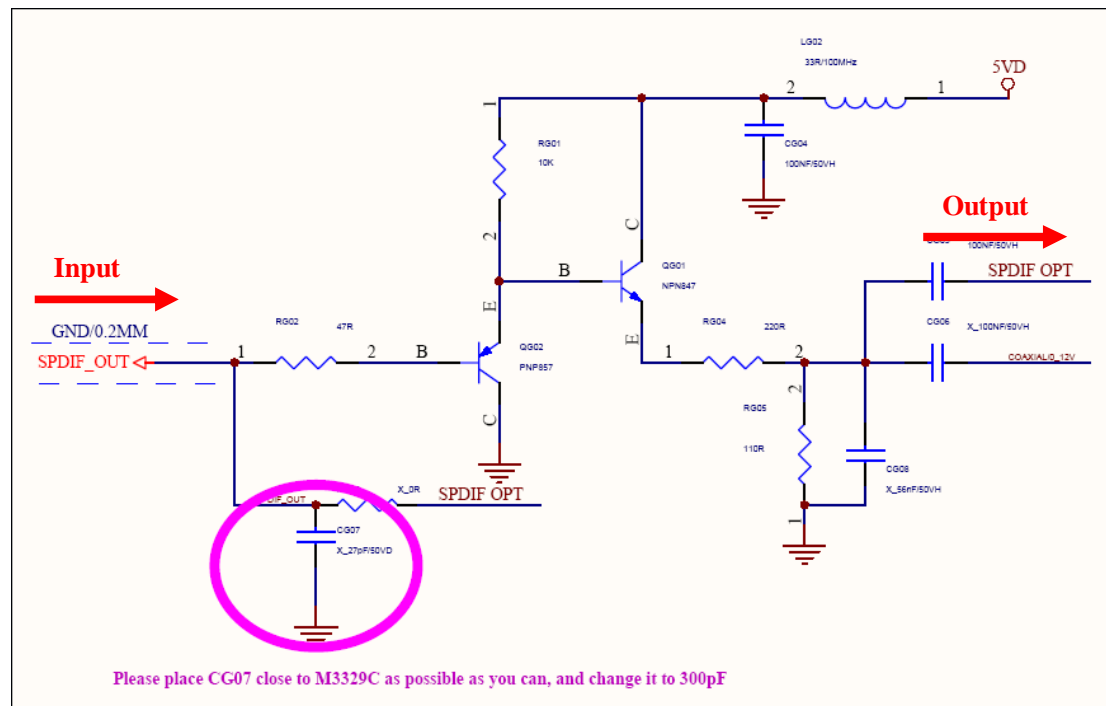
1.7.2 Reset Circuit Picture



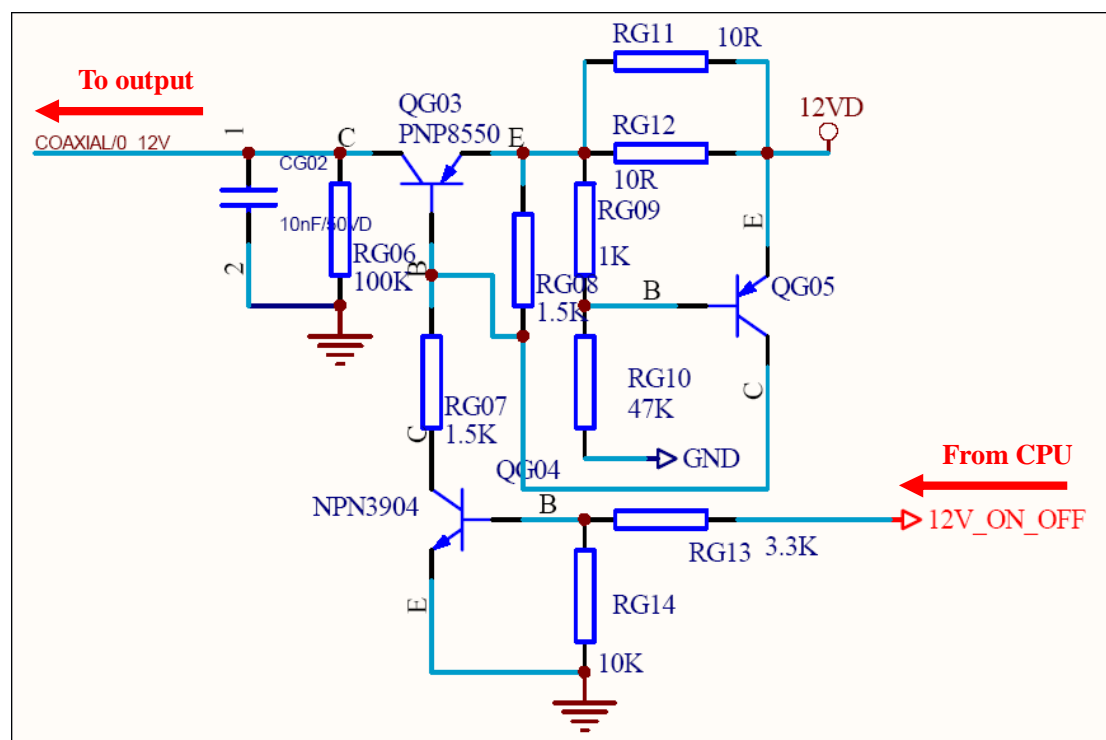
1.8 SPDIF Circuit&12V output circuit

1.8.1 SPDIF Circuit&12V output circuit SCH

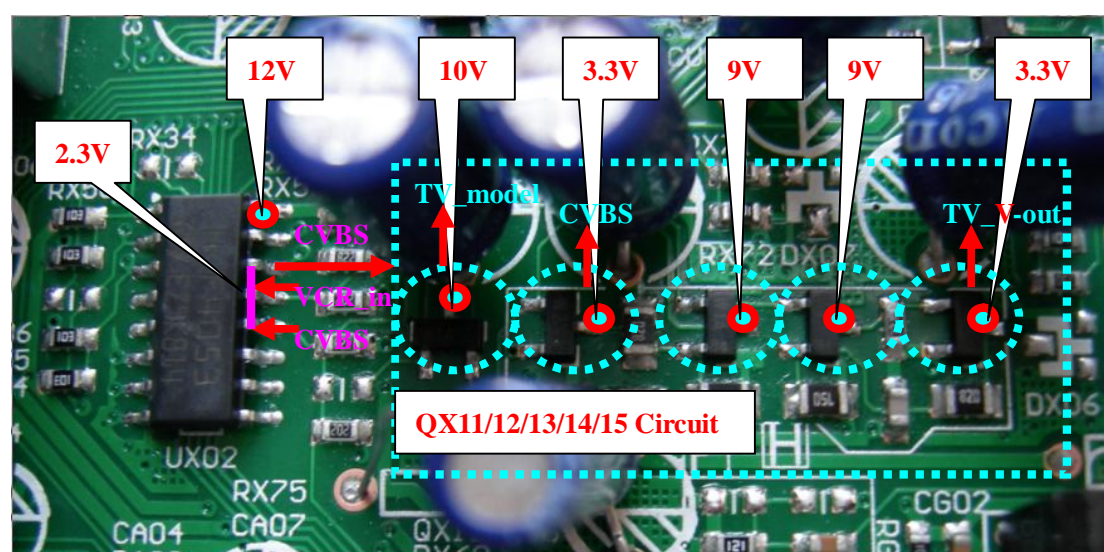
a.

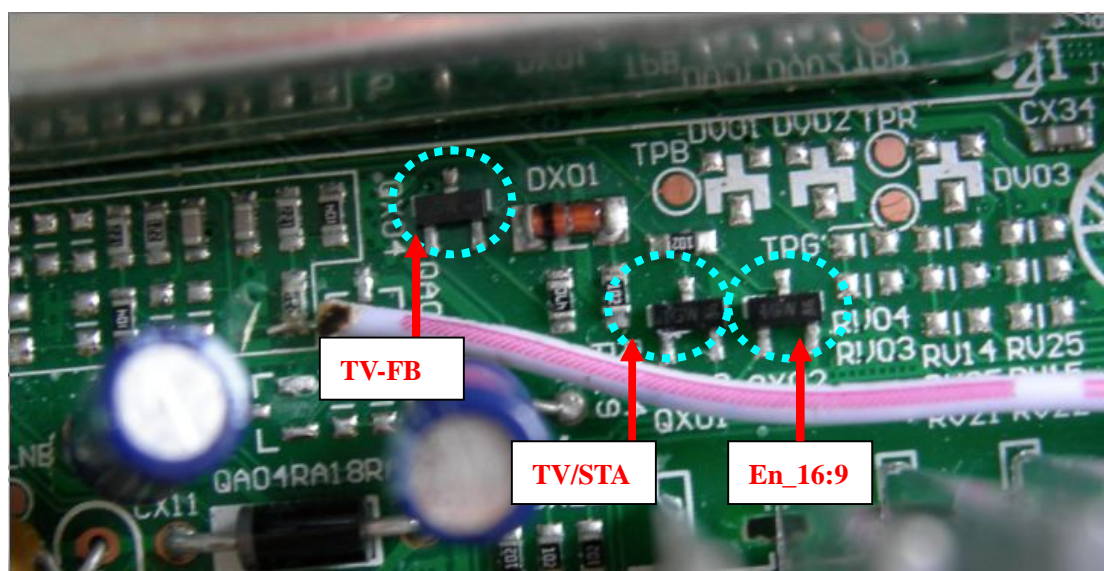
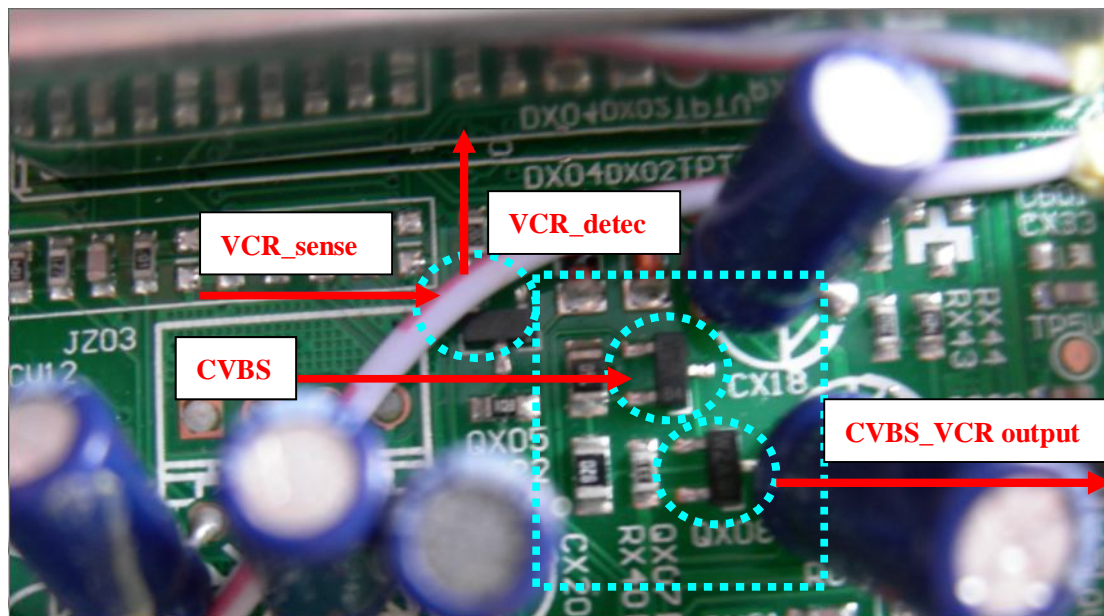


b.



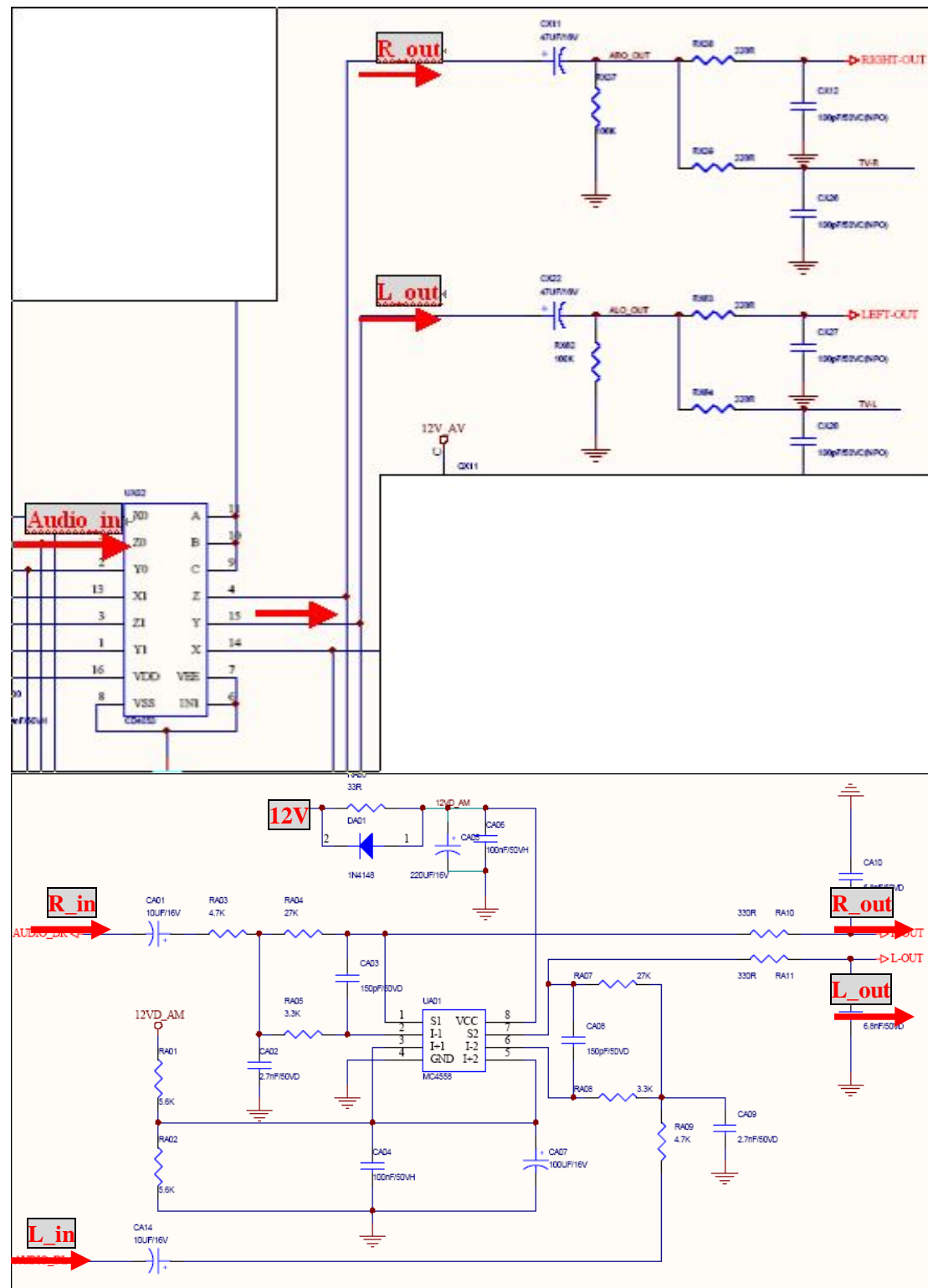


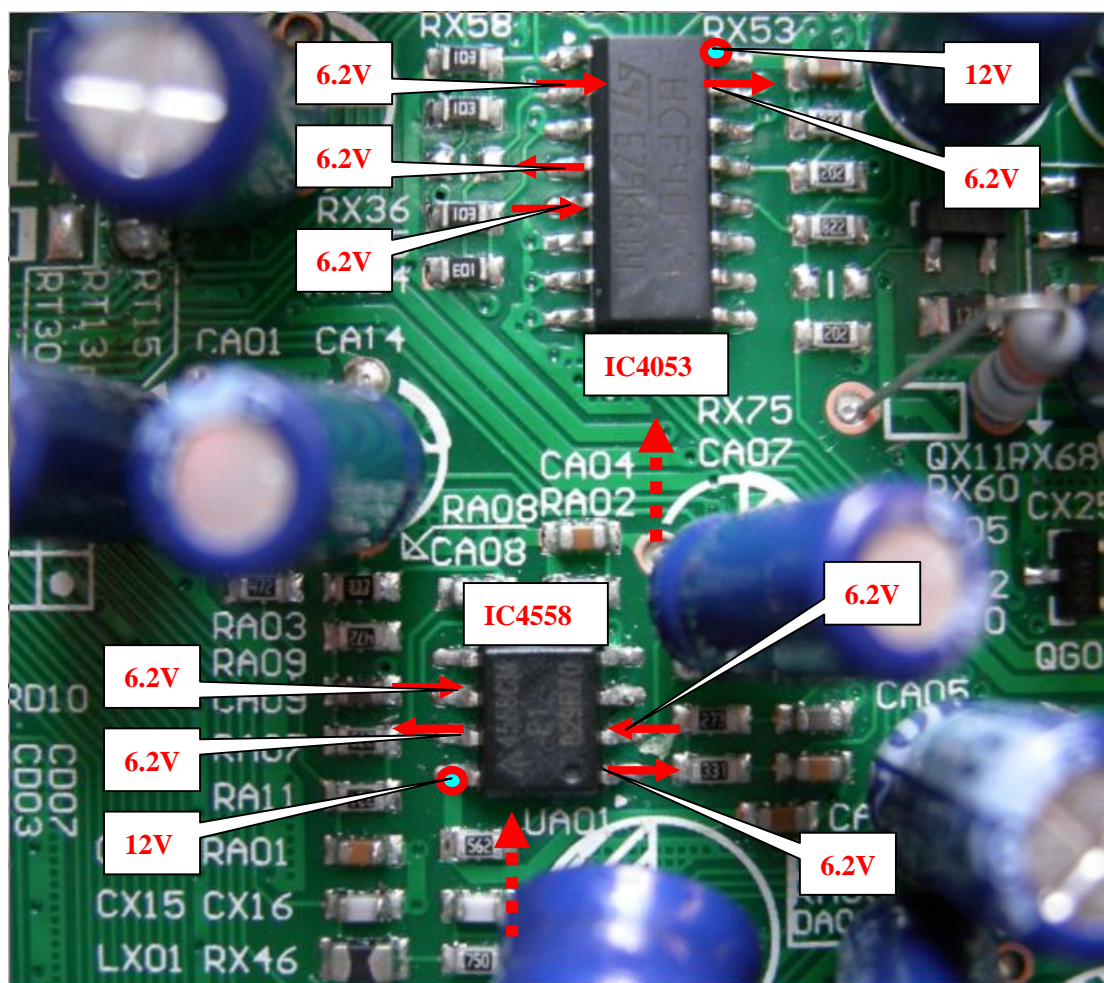




1.10 Audio Circuit

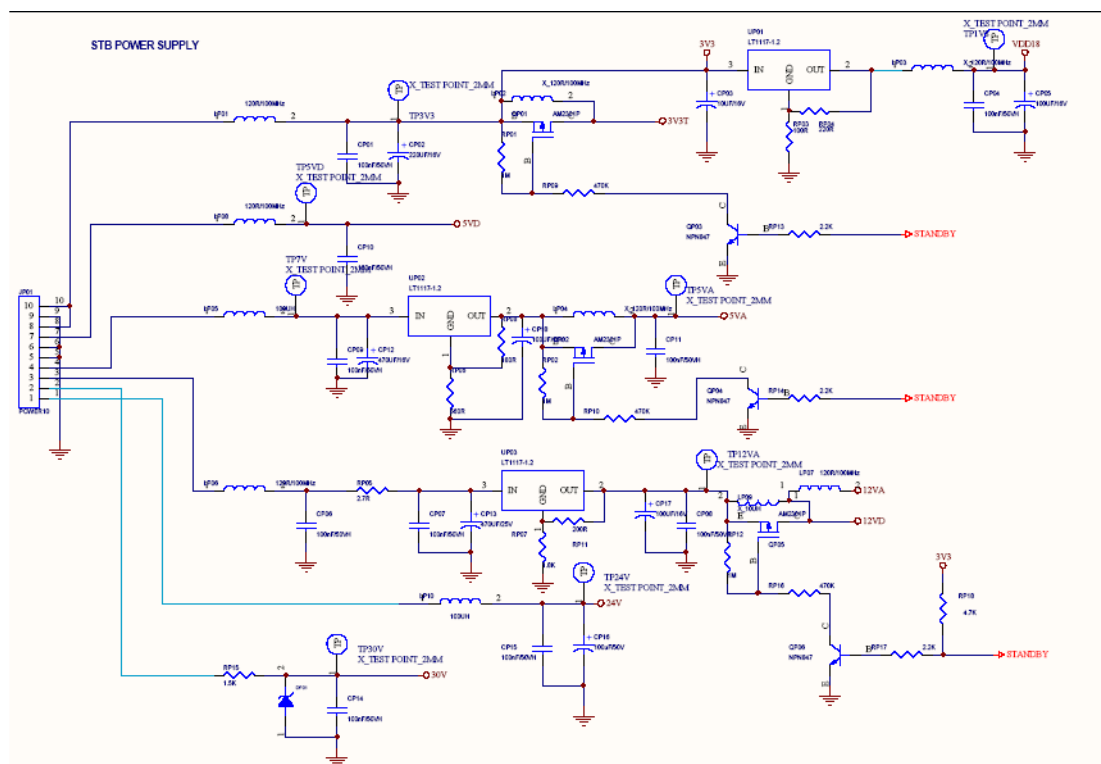
1.10.1 Audio Circuit SCH(a&b)



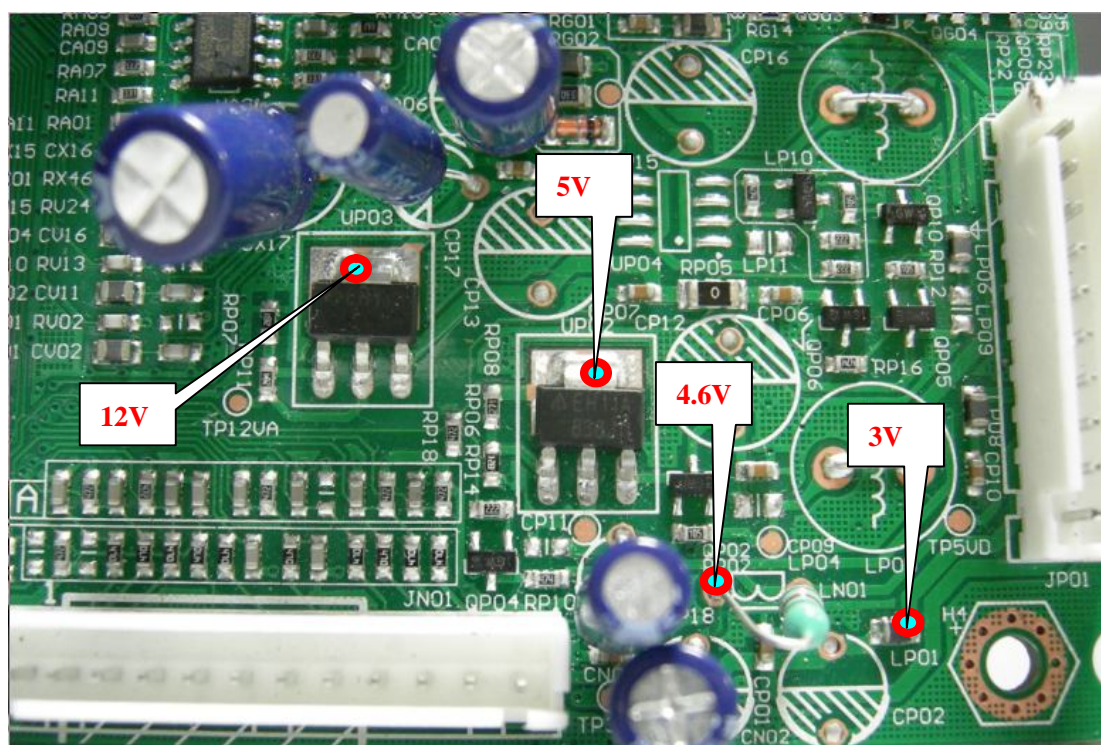


1.11STB Power Supply Circuit

1.11.1 Power SCH



1.11.2 Power Picture

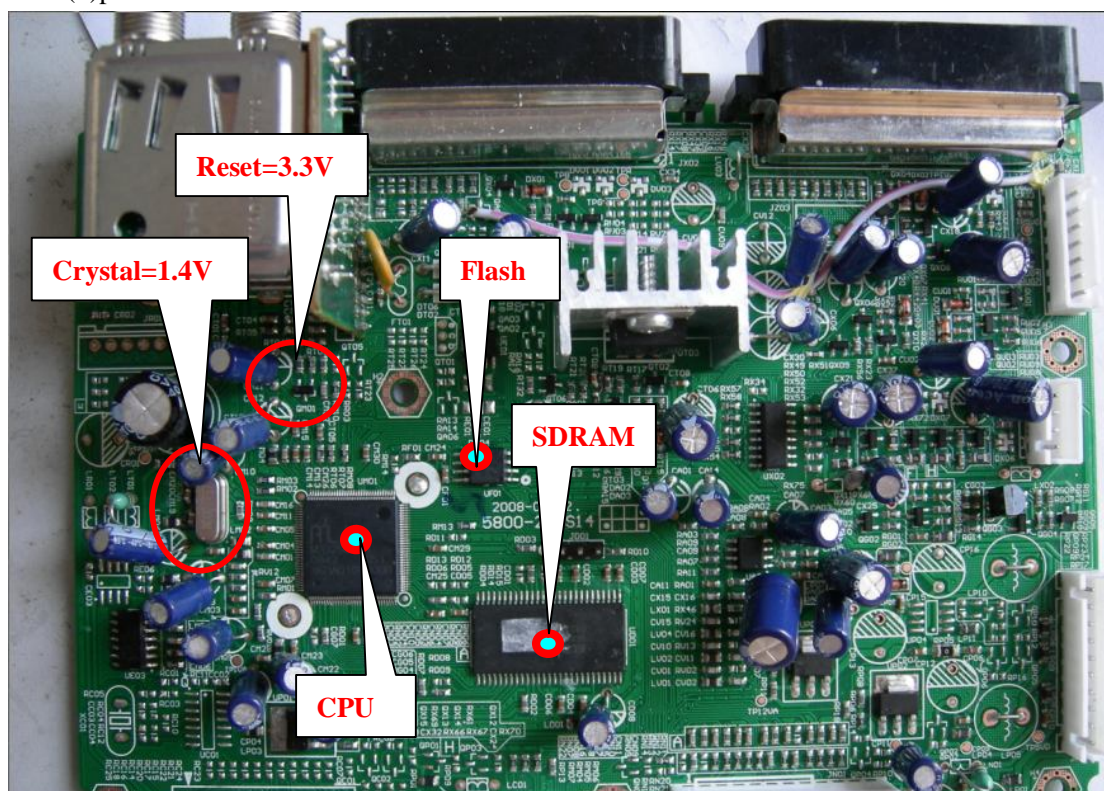


1.2 Troubleshooting steps:

1.2.1 Front panel nothing display (STB No Boot)

Checking steps:

- (1) checking power board output voltage: 3.3V/5V/7V/14V
- (2) checking main board: Reset circuit/27MHz circuit/I²C bus circuit/ flash circuit
- (3) try to soldering main board chips: FLASH SDRAM CPU
- (4) try to change chip "FLASH" / "SDRAM" / "CPU" one by one;
- (5) picture:

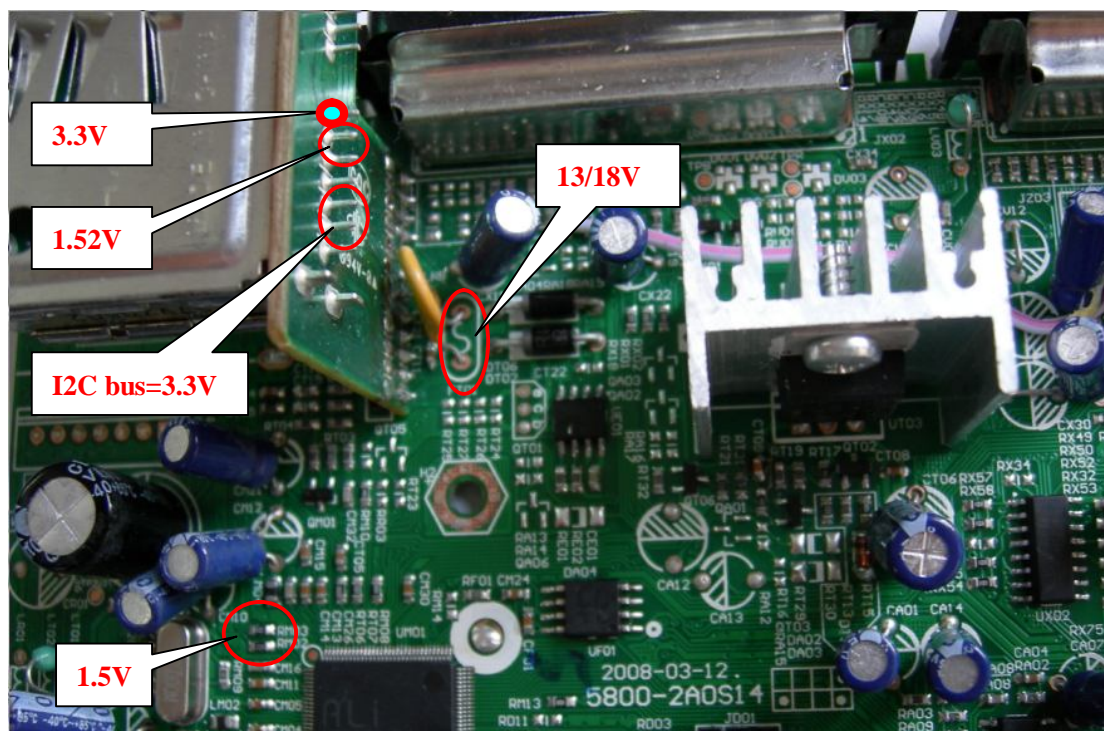


1.2.2 Not searching channels or less channels:

Checking steps:

- (1) checking Tuner power supply: 3.3V
 ** (according testing result to checking power supply circuit)
- (2) testing Tuner I²C bus pin (SDA & SCL) voltage: 3.3V,
 and testing the 5th & 6th pin of Tuner is 1.5V;
 ** (Need to check near tuner circuit if this is not 3.3V)
- (3) Try to change the tuner;
 ** (Maybe is CPU problem if STB still no good after changed the tuner;

(4)picture:

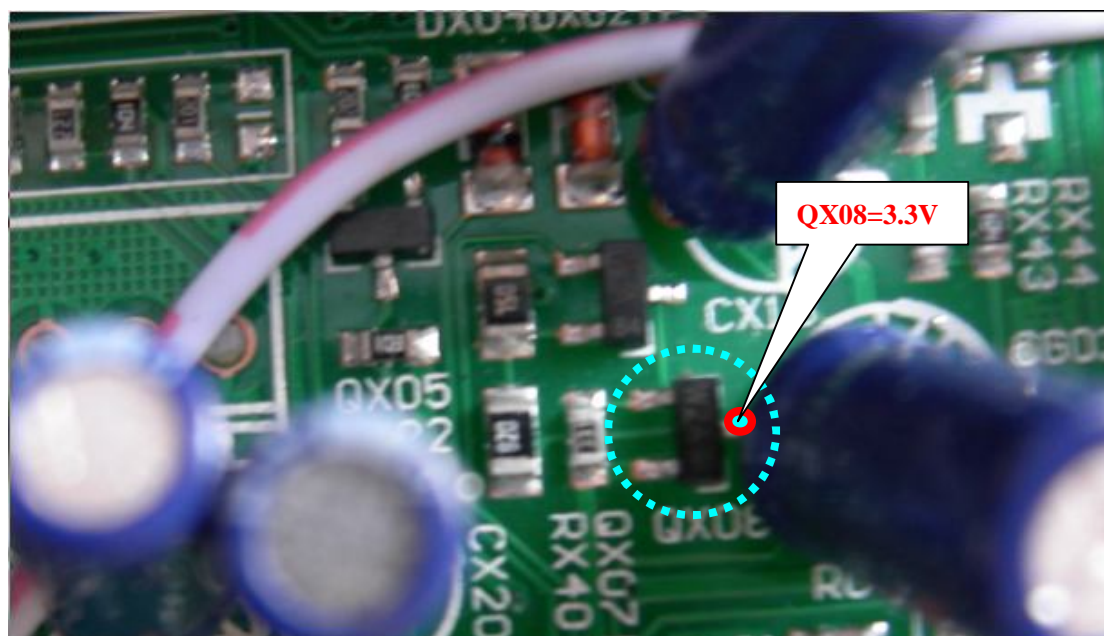


1.2.3 No video signal output

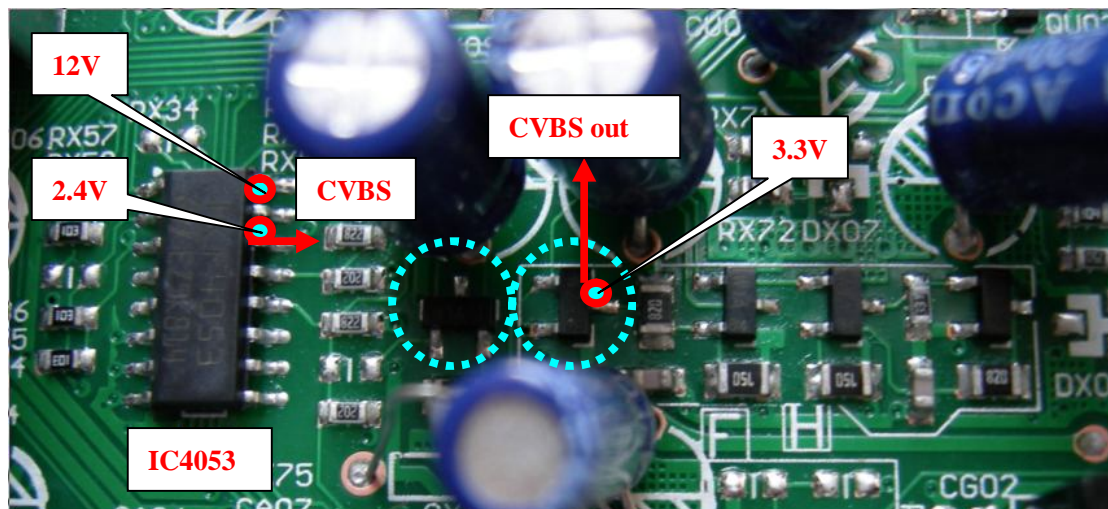
Checking steps:

- (1) Please to check video cable which connect with TV first;
- (2) Please try to test "QX08 QX13 QX15" circuits

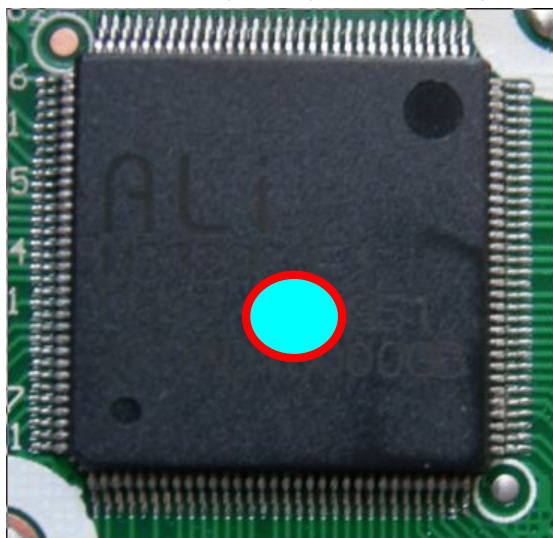
**(according testing result to check circuit)



- (3) Try to change new IC4053 chip if up circuit is normal;
**(according testing result to change new IC4053 chip)



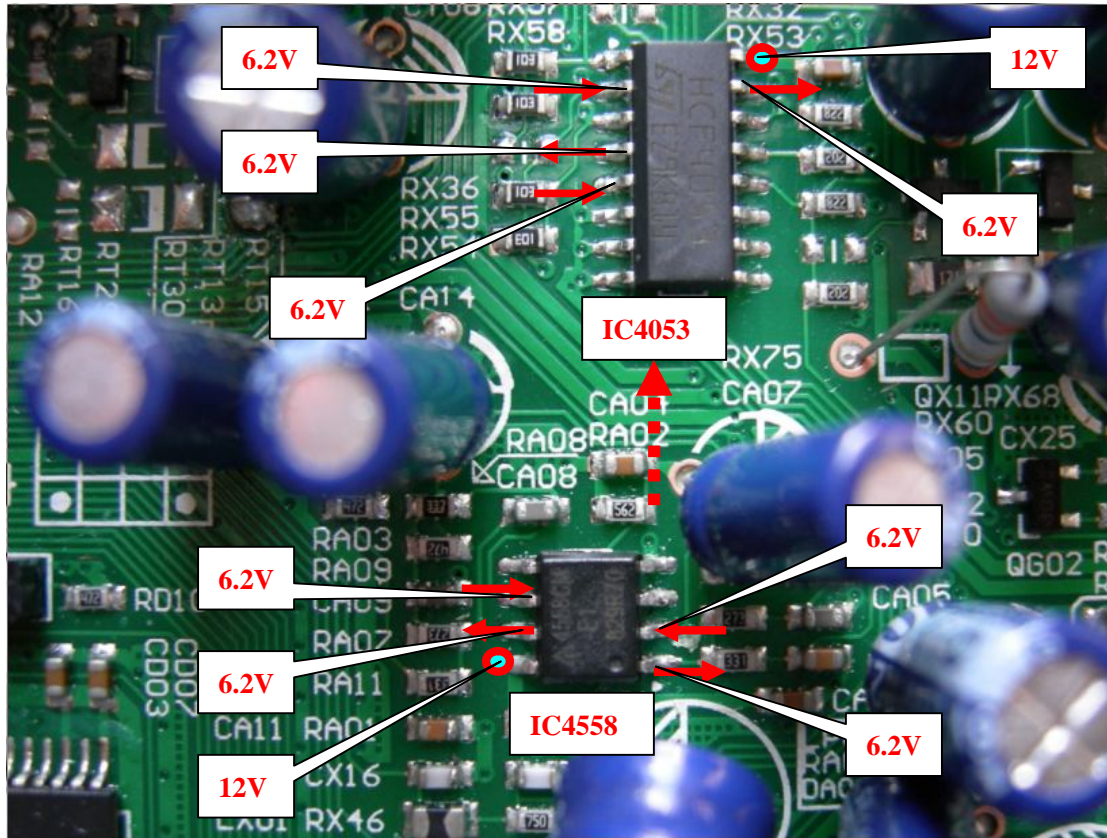
- (4) Try to change new CPU chip if SDRAM;
**(according testing result to change new CPU chip)



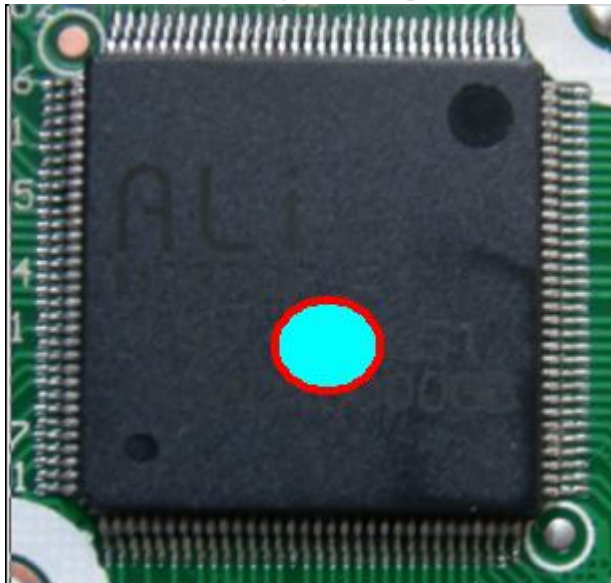
1.2.3 No audio signal output

Checking steps:

- (1) Please to check audio cable which connect with TV first;
- (2) Please try to check IC4053 circuits
- (3) Please try to check IC4558 circuits

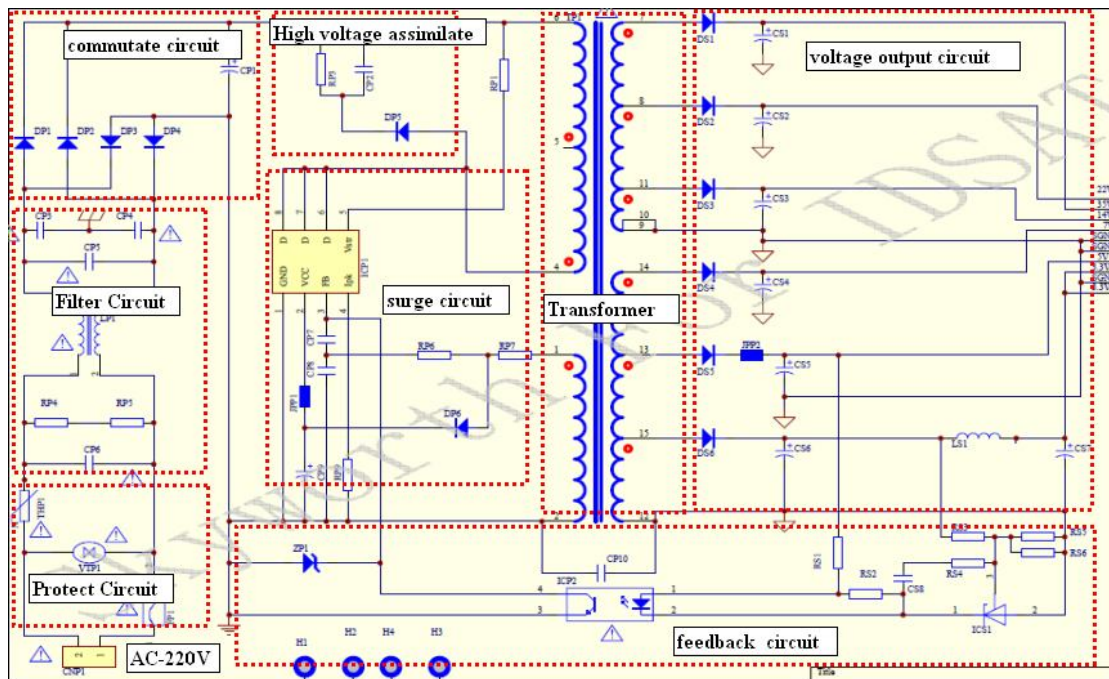


- (4) Please try to change CPU chipset;

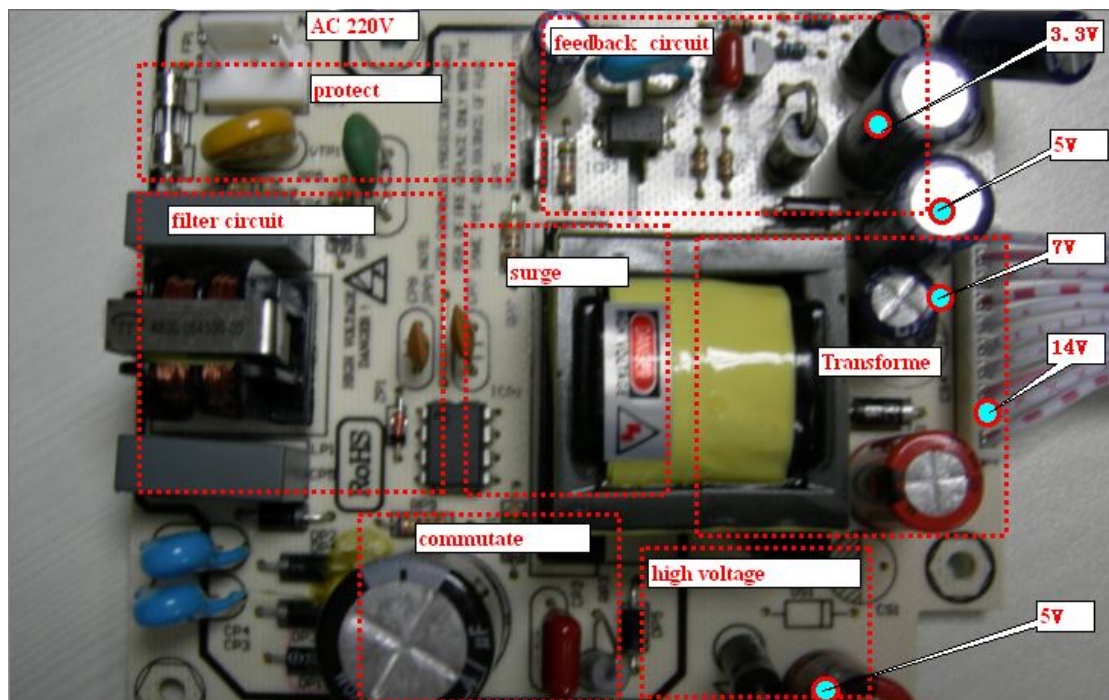


Power Board

1. Power board SCH:



2. power board Picture



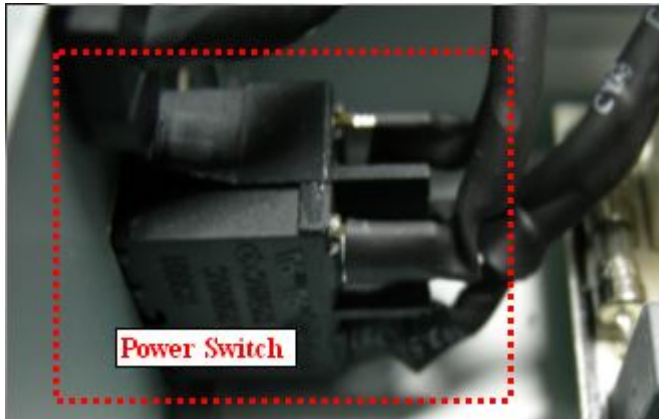
3. Trouble&checking steps:

1.None DC voltage output;

Checking steps:

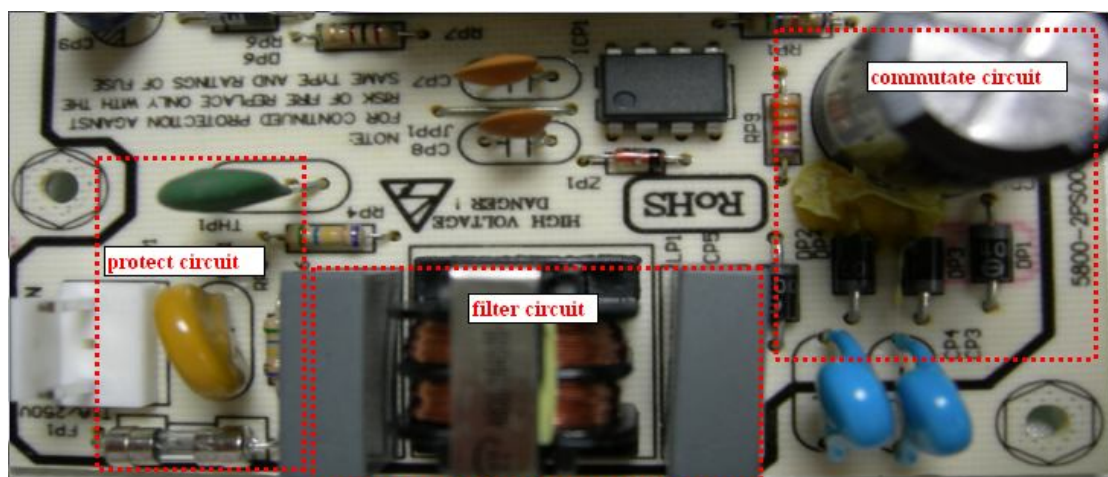
(1)Testing AC220V input;

**(please checking power line and switch if AC220V is abnormal)



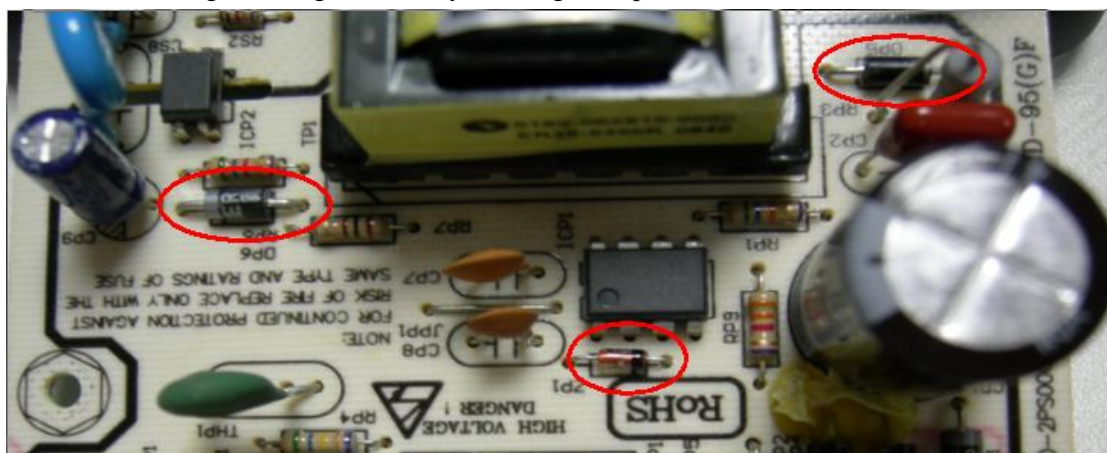
(2)Testing DC300V output;

**(please checking the circuit component of between DC300V and AC220V if DC300V is abnormal); example for: protect circuit and filter circuit and Commutate circuit)

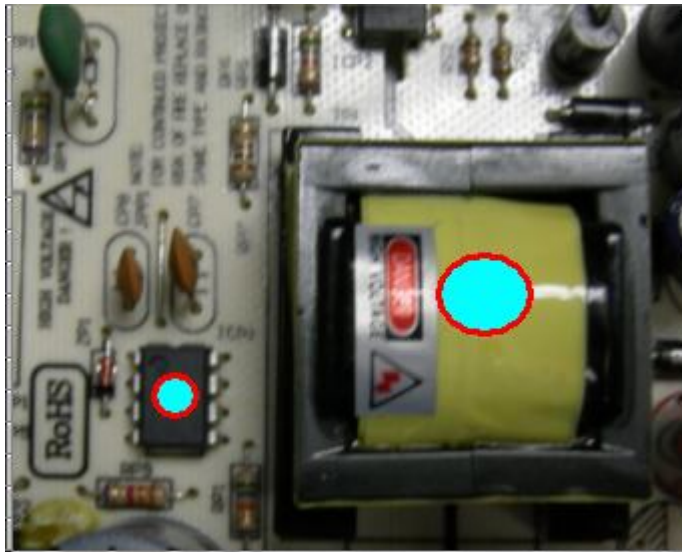


(3)Checking ZP1 DP5 DP6 with resistance testing methods;

**(According checking result to try to change component)



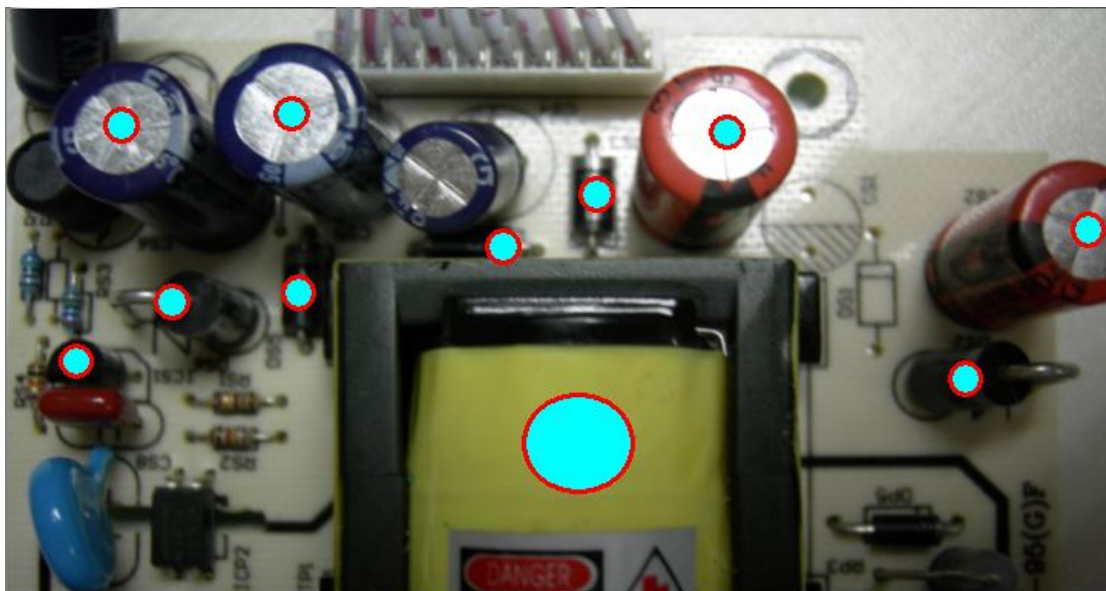
- (4) Checking IC1 and switch transformer with resistance testing methods;
**(According checking result to try to change component)



2. one of all voltage is abnormal; (higher or lower or none output);

Checking steps:

- (1) Checking diode of happening issue circuit;
**(please change new diode if testing result is abnormal)
- (2) Checking capacitance of happening issue circuit;
**(please soldering or change new capacitance if testing result is abnormal)
- (3) Checking switch transformer;;
**(According checking result to try to change switch transformer)

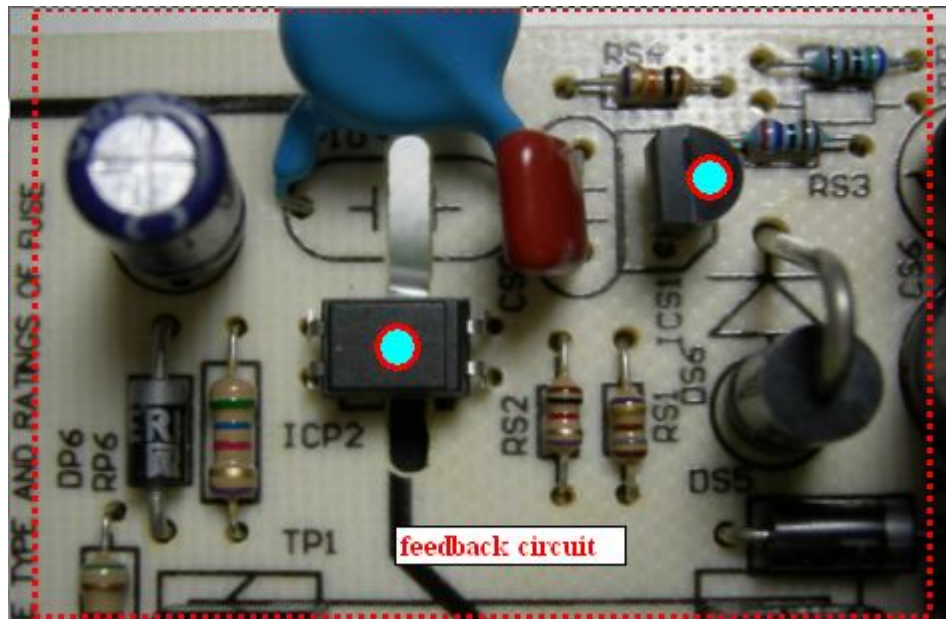


3.All output voltage are a little higher or lower than normal;

Checking steps:

(1)Checking ICP2 and ICS1;

** (please try to change new ICP2 or ICS1 if testing result is abnormal)

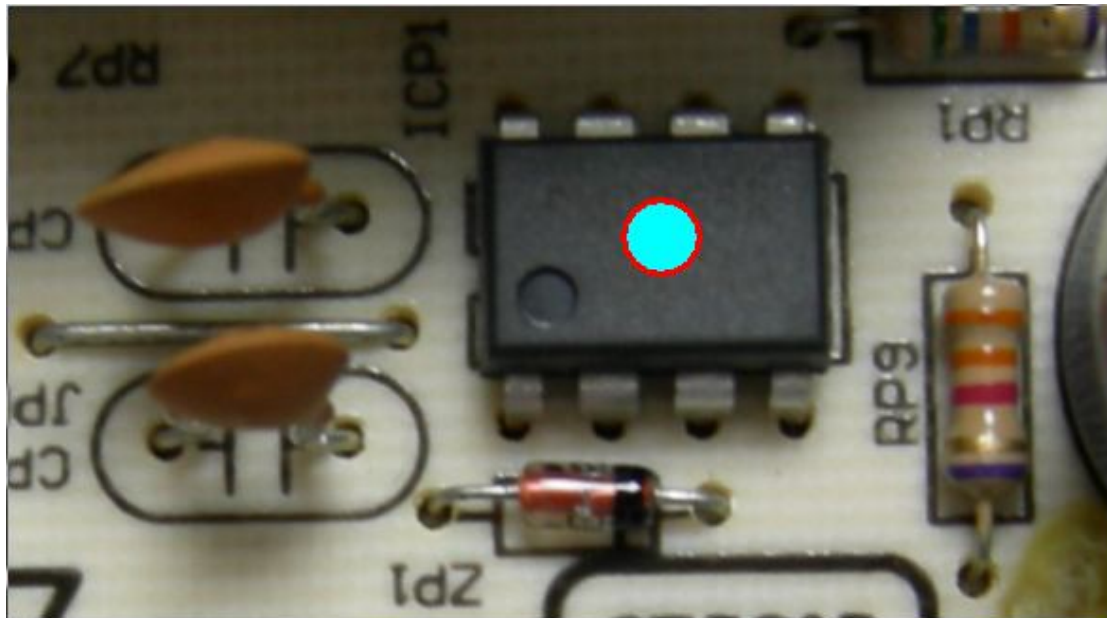


(2) Checking the component of feedback circuit:

** (please soldering or change feedback component if testing result is abnormal)

(3)Checking IC1

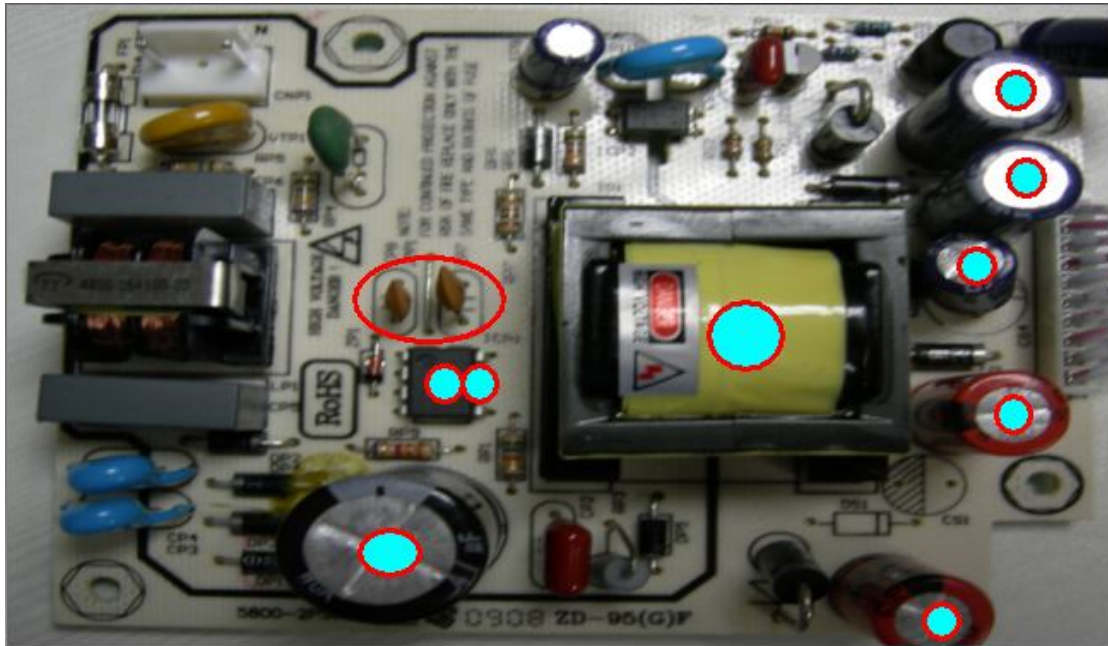
** (According checking result to try to change IC1)



4. power board can not driver load(main board);

Checking steps:

(1) soldering all capacitance on the power board;

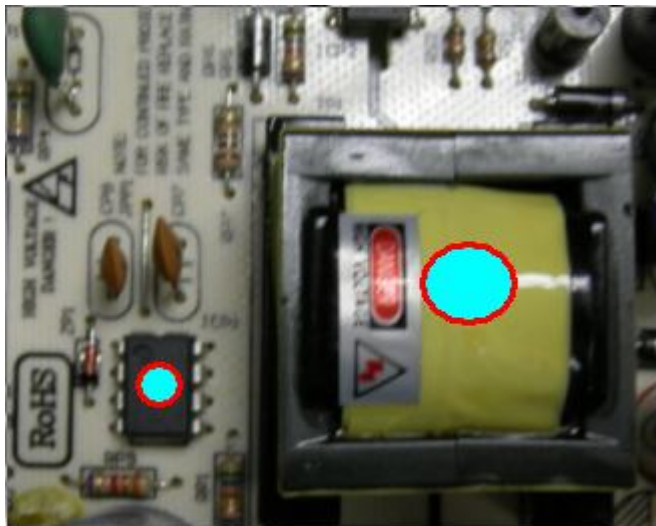


(2) Checking the switch transformer with resistance testing methods:

**(please soldering or change new switch transformer if testing result is abnormal)

(3) Checking the ICP1 with resistance testing methods:

**(please soldering or change new ICP1 if testing result is abnormal)



5. There are some noise during power working;

Checking steps:

(1) Resoldering switch transformer and some capacitances on the power board;

(2) Checking the switch transformer with resistance testing methods:

** (please soldering or change new switch transformer if testing result is abnormal)

(3) Checking the ICP2 with resistance testing methods:

** (please soldering or change new ICP2 if testing result is abnormal)

