

LCD TV SERVICE MANUAL

Modle list

**KL26AS21U, KL26AS22U, KL32BS22U
KL32AS21U, KL32AS23U, KL37AS23U
KL37BS22U, KL37AS21U, KL40AS11U
KL40AS21U, KL42AS11U, KL42AS23U**

KONKA GROUP CO,LTD.

Digital Flat Display Division

IMPORTANT SERVICE SAFETY INFORMATION

Operating the receiver outside of its cabinet or with its back removed involves a shock hazard. Work on these models should only be performed by those who are thoroughly familiar with precautions necessary when working on high voltage equipment.

Exercise care when servicing this chassis with power applied. If carelessly contacted, can cause serious shock or result in damage to the chassis. Maintain interconnecting ground lead connections between chassis, escutcheon, picture tube tag and tuner when operating chassis.

When it is necessary to make measurements or tests with AC power applied to the receiver chassis, an Isolation Transformer must be used as a safety precaution and to prevent possible damage to transistors. The Isolation Transformer should be connected between the TV line cord plug and the AC power outlet.

It is important to maintain specified values of all components and anywhere else in the receiver that could cause a rise in operating supply voltages. No changes should be made to the original design of the receiver.

Components shown in the shaded areas on the schematic diagram and/or identified by in the replacement parts list should be replaced only with exact factory recommended replacement parts. The use of unauthorized substitute parts may create shock, fire, or other hazards.

Before returning the receiver to the user, perform the following safety checks:

1. Inspect all lead dress to make certain that leads are not pinched or that hardware is not lodged between the chassis and other metal parts in the receiver.
2. Replace all protective devices such as non-metallic control knobs, insulating fish papers, cabinet backs, adjustment and compartment covers of shields, isolation resistor-capacitor networks, mechanical insulators etc.
3. To be sure that no shock hazard exists, a check for the presence of leakage current should be made at each exposed metal part having a return path to the chassis (antenna, cabinet metal, screw heads knobs and/or shafts, escutcheon, etc.) in the following manner.

Plug the AC line cord directly into a 110V/220V/240V, AC receptacle. (Do not use an Isolation Transformer during these checks.) All checks must be repeated with the AC line cord plug connection reversed. (If necessary, a non-polarized adapter plug must be used only for the purpose of completing these checks.)

PLEASE READ BEFORE ATTEMPTING SERVICE

1. Use an Isolation Transformer when performing any service on this chassis.
2. Never disconnect any leads while receiver is in operation.
3. Disconnect all power before attempting any repairs.
4. Do not short any position of the circuit while the power is on.
5. For safety reasons, replace components only with identical replacement parts (SEE PARTS LIST).
6. Before alignment, warm up the TV for at least 30 minutes.
7. When removing a PCB or related component, after unfastening or changing a wire, be sure to put the wire back in its original position.
8. Inferior silicon grease can damage IC's and transistors. When replacing IC's and transistors, use only specified silicon grease. Remove all old silicon when applying new silicon.
9. Before removing the anode cap, discharge electricity because it contains high voltage.

A. SPECIFICATION

System : PAL: M, N; NTSC: M

Channel :

AIR:

L-VHF:2~6	55.25MHz~83.25MHz
H-VHF:7~13	175.25MHz~211.25MHz
UHF :14~69	471.25MHz~801.25MHz

CABLE:

2~G	55.25MHz~157.25MHz
H~CCC	163.25MHz~451.25MHz
DDD~125	457.25MHz~801.25MHz

Audio Output Power :

Size	26	32	37	40	42
Power(W)	4W*2	4 W*2	5W*2	5 W*2	5 W*2

Antenna Impedance : 75 Ω

Power Consumption : 340W (Max)

Size	26	32	37	40	42
Power Consumption(W)	160	180	195	270	270

Power Supply : ~110—240V, 50/60Hz

Item	Port List
1	RF Cable
2	Y/Composite(V2) 、Cb、Cr (SD)
3	Y、Pb、Pr (HD)
4	VGA/RGB
5	VGA Audio Input
6	HDMI Input
7	V1 Input
9	Earphone Audio Output
10	S-Video Input
11	Component Audio Input

B. ADJUSTMENT MANUAL

I . TEST NOTE

1. Please follow the pointed test steps and choose the right test equipment to conduct adjustment, otherwise good effect of Unit could not be obtained. The unit should be warmed up for 30 minutes before adjustment and every parameter should be adjusted repeatedly till the optimum value obtained, the pointed voltage value should be ensured during test to get satisfied test result.

2. Test environment

1) Temperature : 15°C-35°C

2) Relative Humidity : 45-75%

3) Air pressure : 86-106KPa

3 Test equipments (The following equipment should be calibrated before testing)

1) Computer	1 set
2) Multi-meter (VICTOR VC9801)	1 set
3) VideoSignalGenerator(ChromaModel2227/2327/VG859/SFU)	1 set
4) Color Analyzer (Chroma Model 7120)	1 set
5) DDC card (DYNACOLOR, INC D8330)	1 slice
6) TV Video Signal Generator (FLUKE PM54200)	1 set
7) Remote controller with factory keys	1 set
8) AV,VGA, YPbPR/YCbCr,HDMI Signal line etc	1 set

ITEM Program Menu		Equipments	Requirements	Procedure and SPEC
1	M/B Voltage confirmation	Digital Multimeter	JSK3178-006 Min Board	1. Connect Power to check if Power LED displays the green light. 2. Please refer to appendix 5.1/5.2/5.3 if there is abnormal phenomenon.
2	Update NVRAM	PC Debug Tool		1. Please refer to appendix 5.6 if there is abnormal phenomenon.
3	Update HDMI EEPROM	PC,ALL-11 Debug Tool、HDMI Cable		1. Please refer to appendix 5.6 if there is abnormal phenomenon.
4	Update HDCP KEY	PC,ALL-11 Debug Tool		1. Please refer to appendix 5.6 if there is abnormal phenomenon.
5	Enter factory menu			1. Enter factory menu : Please MENU button on the remote control,then Please PRE button per 5 times。
6	Update NVRAM explain			1. Enter factory menu, Select “VGA IIC SELECT” IIC: From VGA Update UOCIII NVRAM TXRX: From VGA Update MCU NVRAM; DDC: From VGA UpdateDDCNVRAM;
7	enactment factory (default)			1.Enter factory menu, Select “RESET”, turn off the power , after be over then supply the power again。
8	Auto color	TV Signal Generator (FLUKE PM54200 PM5418)	AV: interlaced output PAL and NTSC Mode, black and white signal; YPbPr : interlaced output COLOR signal; VGA : interlaced	1.Enter factory menu, Select “Auto color”, (NOT: after 10 seconds, factory appear “PASS” Auto color adjustment OK; appear “ FAIL ” Auto color adjustment be defeated, then again adjustment。)
9	Color Temp. adjust white-balance calibrate			1After Color Temp adjustment OK, Can't Auto Color” again。

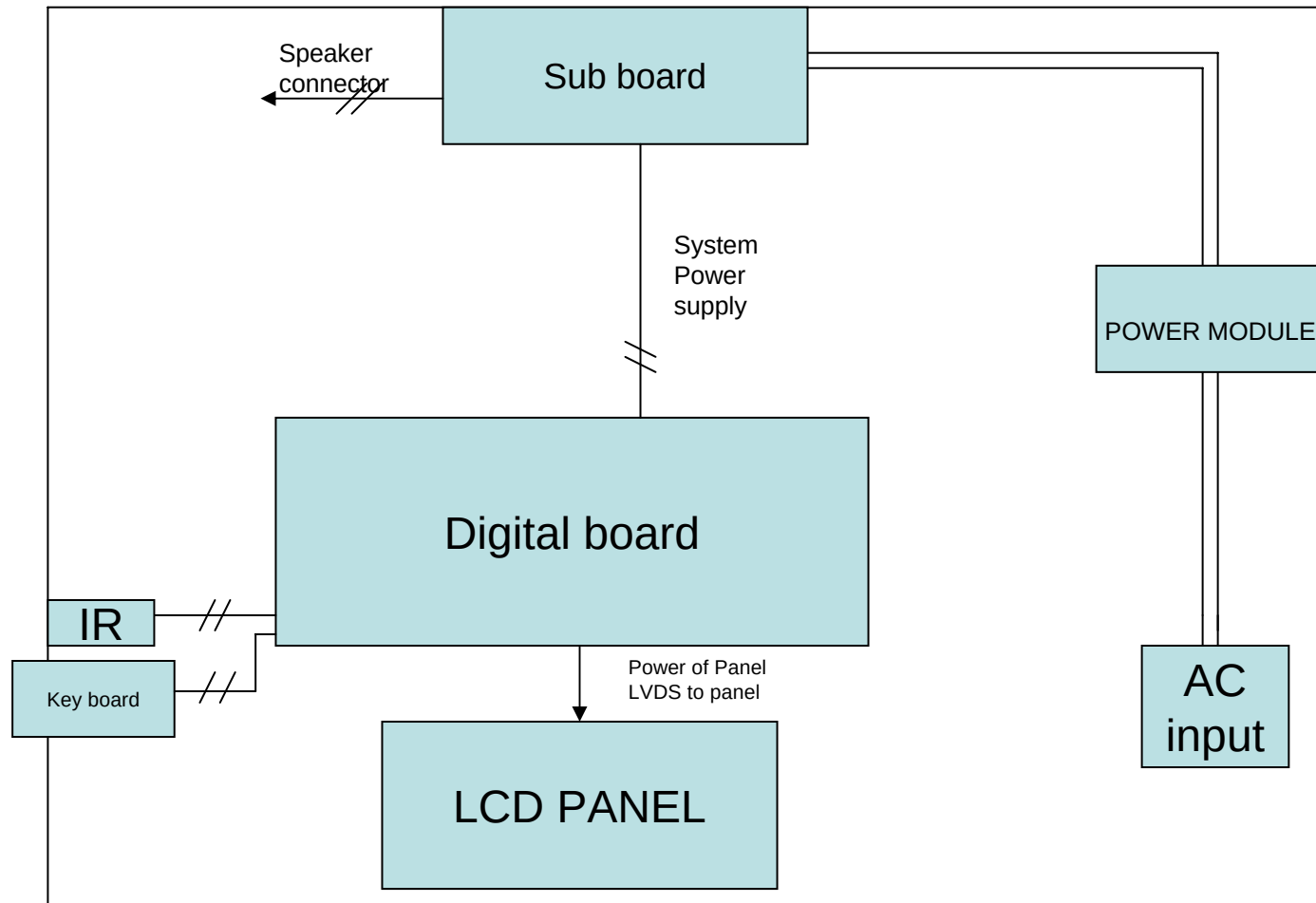
	a.AV :Color Temp and white-balance calibrate adjust	TV Signal Generator Color Signal Generator	Enter black and white signal	1.Enter factory menu, Select “USER RGB” , Adjustment B-R/G/B, chromaticity coordinates of white to fit the12000 Adjustment C-R/G/B, if black calibration.
	b.YPbPr: Color Temp and white-balance calibrate adjust	HDTV Video Signal Generator VG848 Color Signal Generator	Enter black and white signal	1.Enter factory menu, Select “USER RGB” , Adjustment B-R/G/B, chromaticity coordinates of white to fit the12000 Adjustment C-R/G/B, if black calibration.
	c.VGA Color Temp and white-balance calibrate adjust	HDTV Video Signal Generator VG848 Color Signal Generator	Enter black and white signal, Enter User menu, Select “ Color Temp.	1. .Enter factory menu, Select “Color Temp” , Select”7500”, chromaticity coordinates of white to fit the7500; Select”Memory” chromaticity coordinates of white to fit the12000.
10	TV parameter enactment			
	a. AFC Setup	TV Signal Generator		1. Enter User menu, Select “CHANNEL”, Setup AFC for “ON”
	b. AGC adjust	TV Signal Generator	TVEnter 60dB-90dB “half Color BAR” 、 ”GREY” Picture	1. Press button to display factory menu on TV and select “RF AGC” , press volume +/- button to adjust 。 2. pledge 60dB to 90dB Screen is clear and fluent
11	DDC function examination	PC or Pattern Generator	1024*768@75Hz ; Picture	1. DDC Tester connects with the platform then read or writes data in EEPROM. 2. Affirm DDC2 content is right or not.
12.	TV mode check	Factory TV Signal or TV Signal Generator	Output PAL Signal	1.Enter User menu, Check if the picture is normal, no Signal background the snowflake points are come forth, no Signal is would several minutes enter standby state. 2. Check Auto Search / Management、 etc is right or not
13.	VIDEO check	DVD Video Cable	Play DVD Set DVD to interlaced output	1.Screen is clear and fluent, Audio checks if the output is normal。
14	Y,Cb,Cr(480i/576i)	DVD Component Cable 720p/1080i DVD	Play DVD Set DVD to interlaced	1.Screen is clear and fluent, Audio checks if the output is normal。

15	Y,Pb,Pr SDTV: 576P/480P HDTV: 720p/1080i	HDTV Receiver ATSC HDTV Tuner Component Cable	Play DVD SDTV/HDTV (Y,Pr,Pb)	1.Screen is clear and fluent, Audio checks if the output is normal。
16	1.VGA INPUT	PC VGA Cable TV BOX D-SUB Cable	PC Mode Please refer to appendix 5.5	1.Apiece Mode.Screen is clear and fluent 。 2. Play TV BOX Screen is clear and fluent, Audio checks if the output is normal。
17	19. HDMI check	SAMSUNG DVD-HD948 Gdbbk DVD (or HDMIofDVD) HDMI Cable	HDMI Mode Please refer to appendix 5.6	1.Select "SOURC"Eand Select "HDMI" 2.Apiece Mode:Screen is clear and fluent, Audio checks if the output is normal。
18	20. HDCP check	Gdbbk DVD (or HDMIofDVD) HDMI Cabl VGA859		1.Select "SOURC"Eand Select "HDMI" ● check Signal Generator output HDMI/HDCP Signal, checks if the output is"PASS"
19.	Teletext function check	FLUKE54200	Output 55dB Teletext Signal	1.Select "SOURCE"and Select "TV". 2.Please "Teletext" button on the remote control. 3.Check if the Teletext pictureis normal 。 4.Check if the Teletext function normal. 5..Check if the Teletext chaos phenomena。
20	Earphone Output function check	Earphone、DVD	TV or play DVD IN	1. plug into Earphone, speaker aponia, Earphone Audio is normal, Press VOL+- Key Set the sound volume., Audio checks if the output is normal 2. pull out Earphone, speaker Audio is normal。
21.	remote control function check	PC 、DVDPattern Generator TV Signal Generator	V or play DVD IN	1. Check if the apiece mode function normal 。

C. Key IC list

Item	P/N	Type	Circuit No.	Qty.
1	19004890	W79E632A40PL-PLCC44-Winbond/#	N001	1
2	19004329	TDA1308-SO8-PHILIP/#	N201	1
3	19006219	HY5DU281622FTP-5-TSOPII-HYNIX/#	N507, N508	2
4	19006110	MST6151DA-LF-PQFP208-MSTAR/#	N504	1
5	19005679	MP1430-SOIC8-MPS/#	N800	1
6	19003437	MP1410ES-LF-SOIC-8-MPS/#	N801	1
8	19005010	AZ1117H-3.3TRE1-SOT223-BCD/#	N803, N806, N805, N809	4
10	19005235	AZ1117H-1.8TR-SOT223-AAC/#	N804, N807	2
11	19005236	AZ1117H-2.5TR-SOT223-AAC/#	N808	1
12	19005582	DA15011H1/N1C00-QFP128-PHILIP/#	N401	1
13	19005532	CS4344-10LD TSSOP-CirrusLogic/#	N500	1

Mstar 6151DA CHASSIS SYSTEM LAYOUT

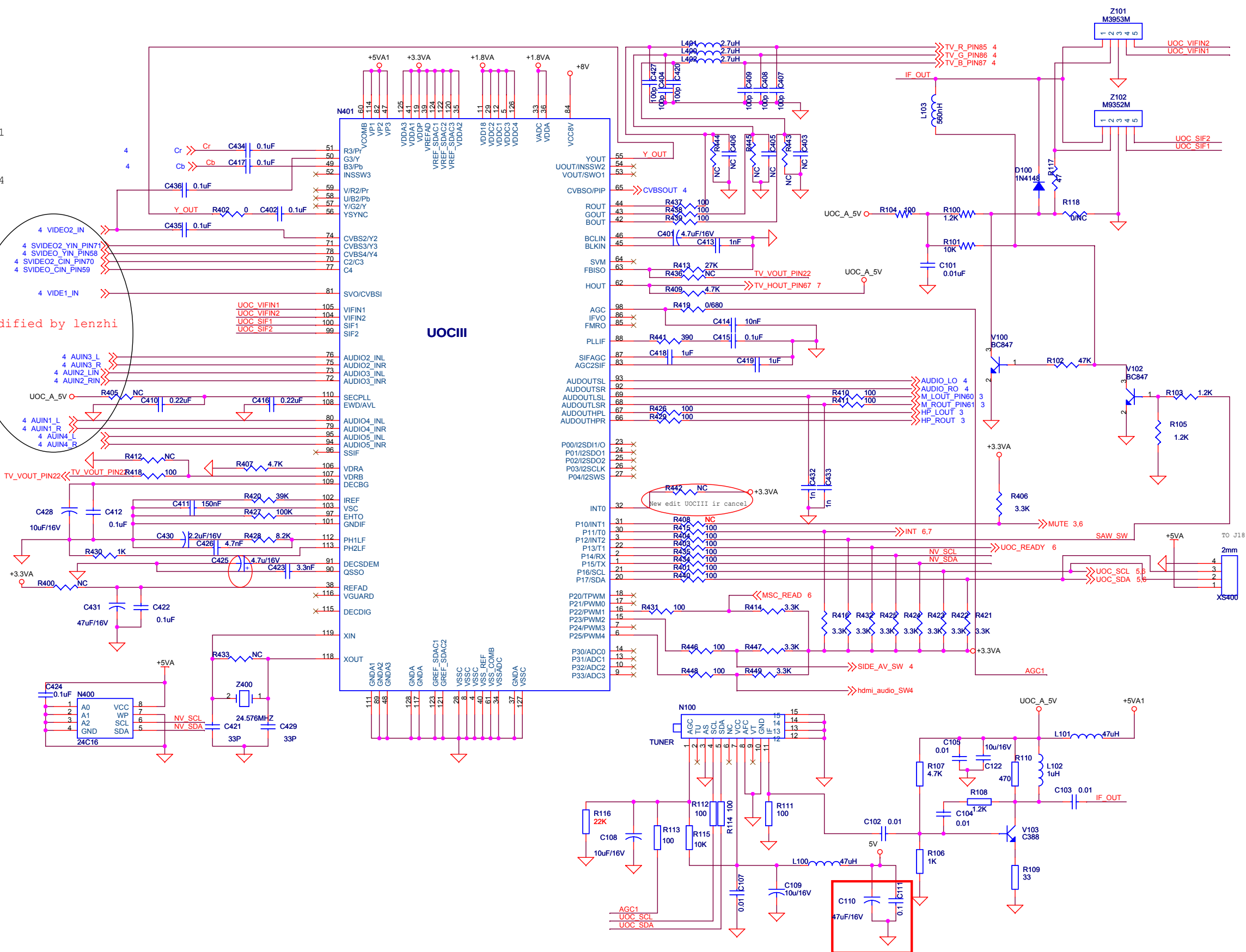


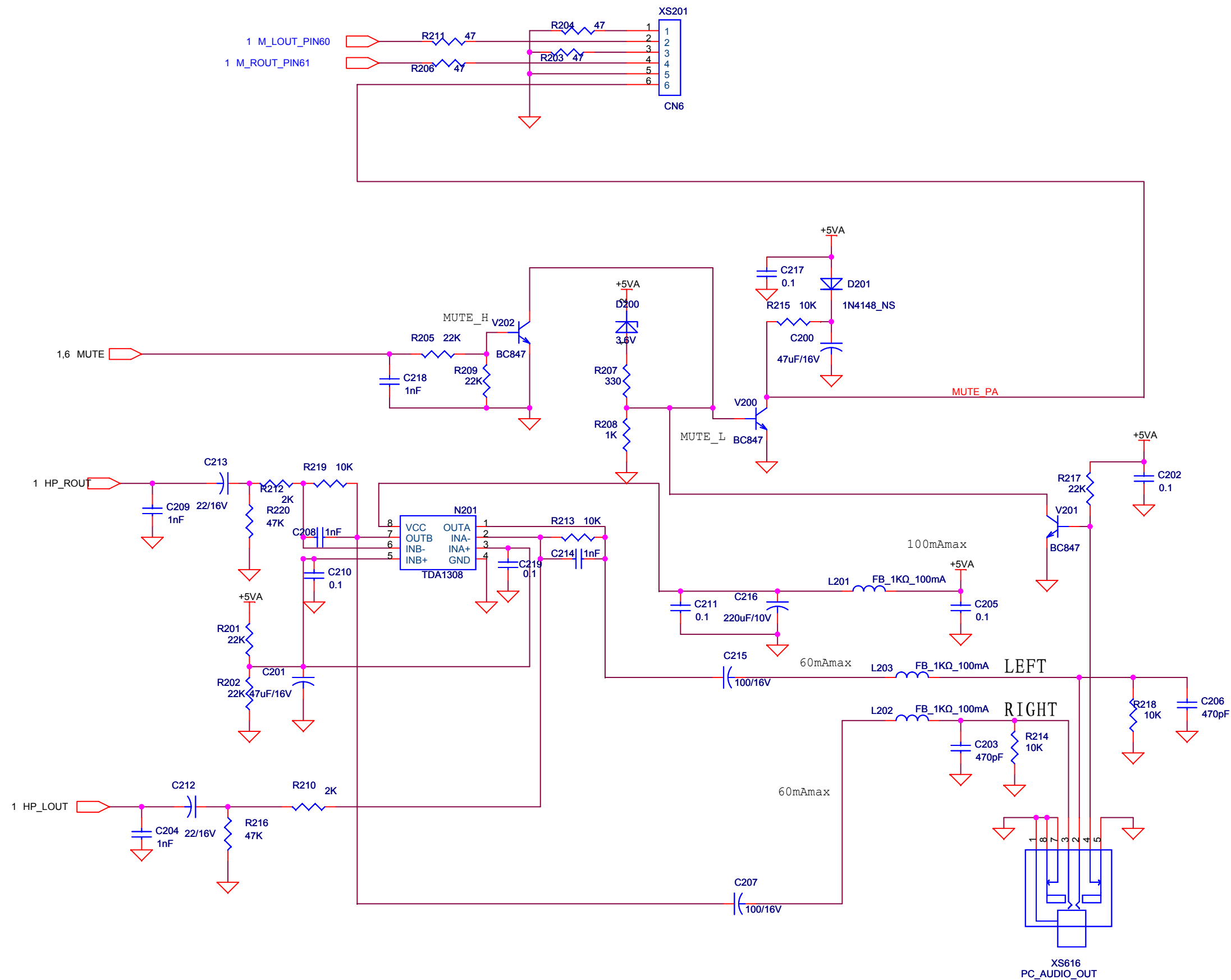
Video1 pin74-pin81
AU1_R pin75-pin79
AU2_L pin79-pin80

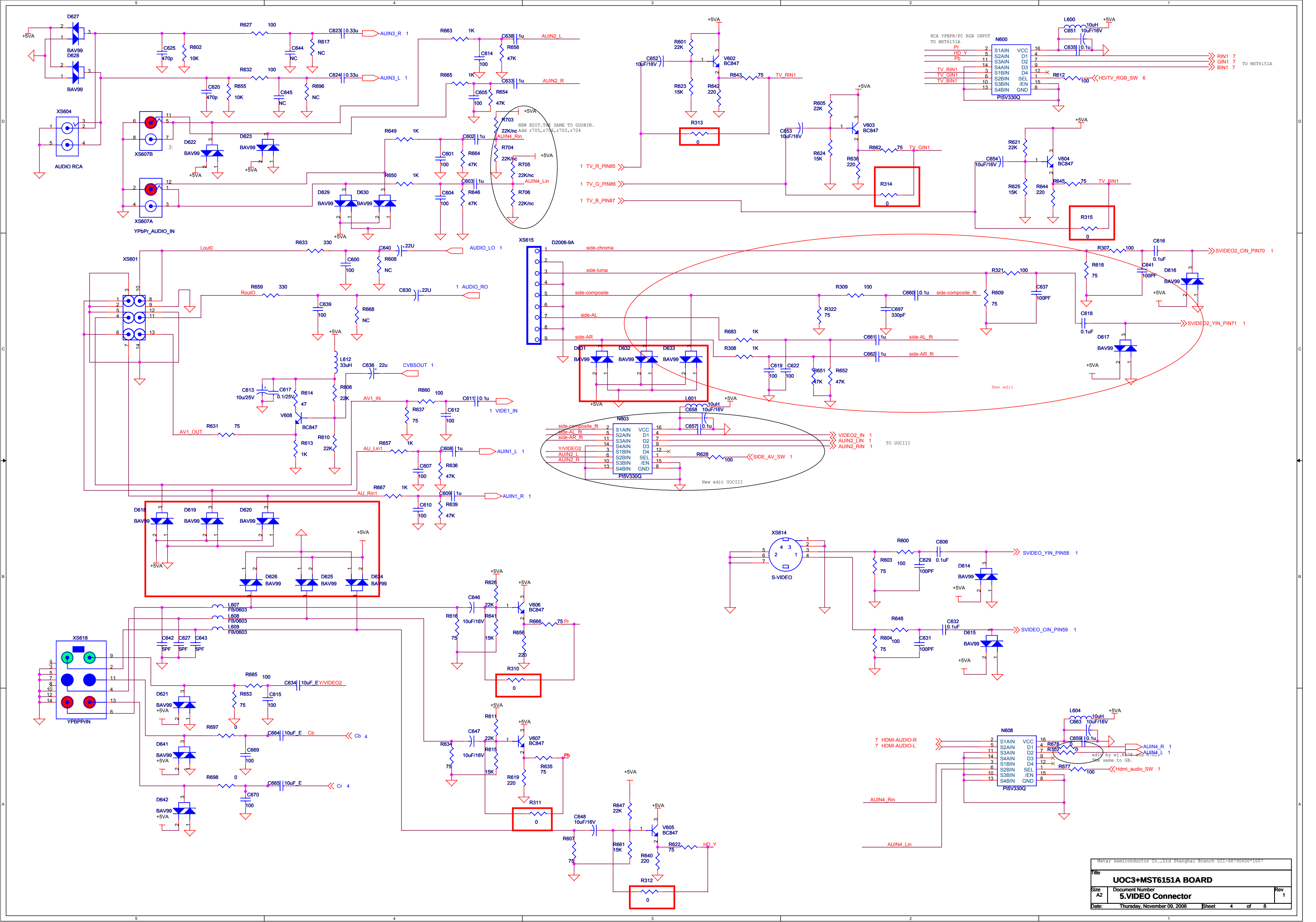
Video2 pin78-pin74

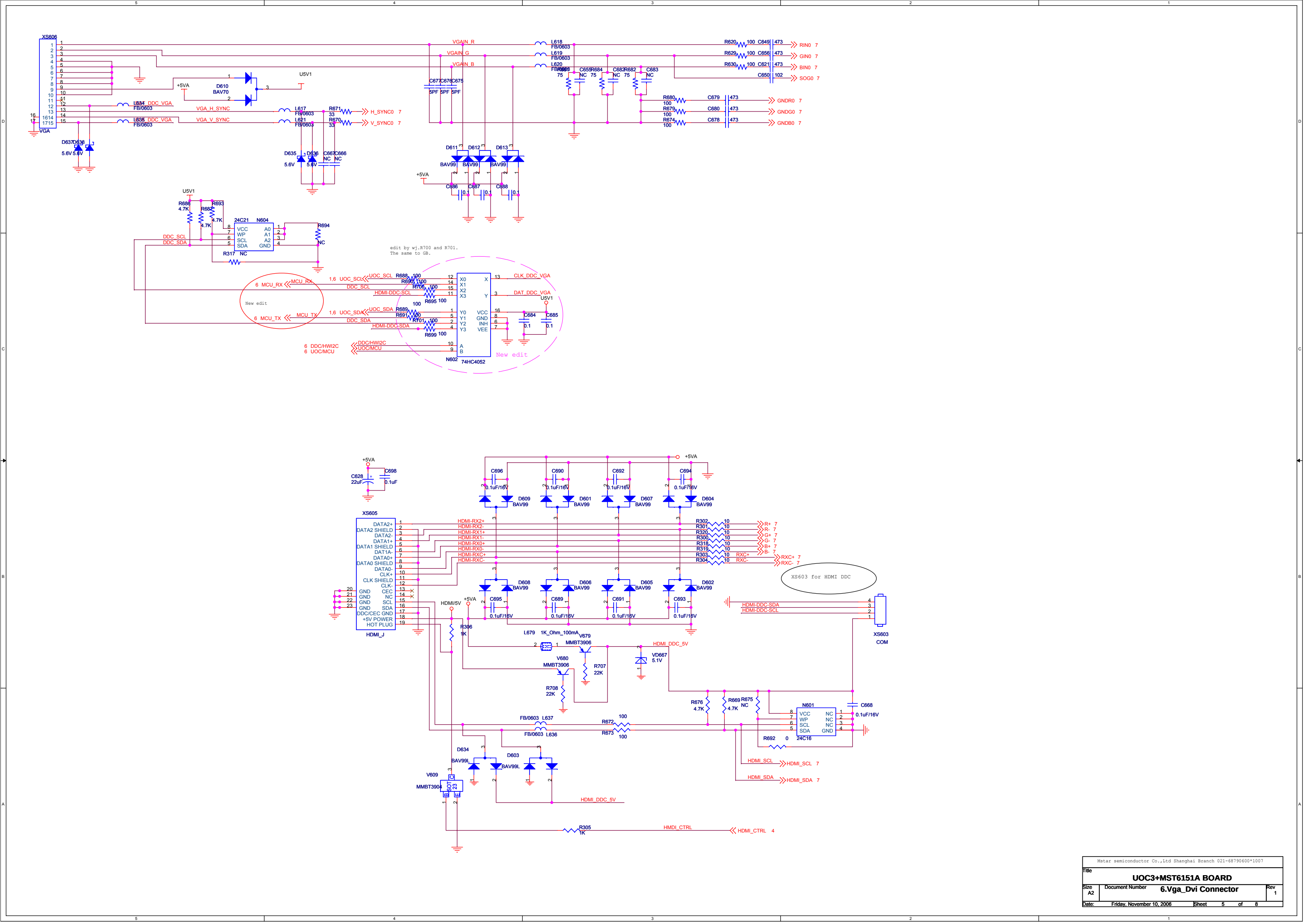
SV_Y pin71-pin78
SV_C pin70-pin77

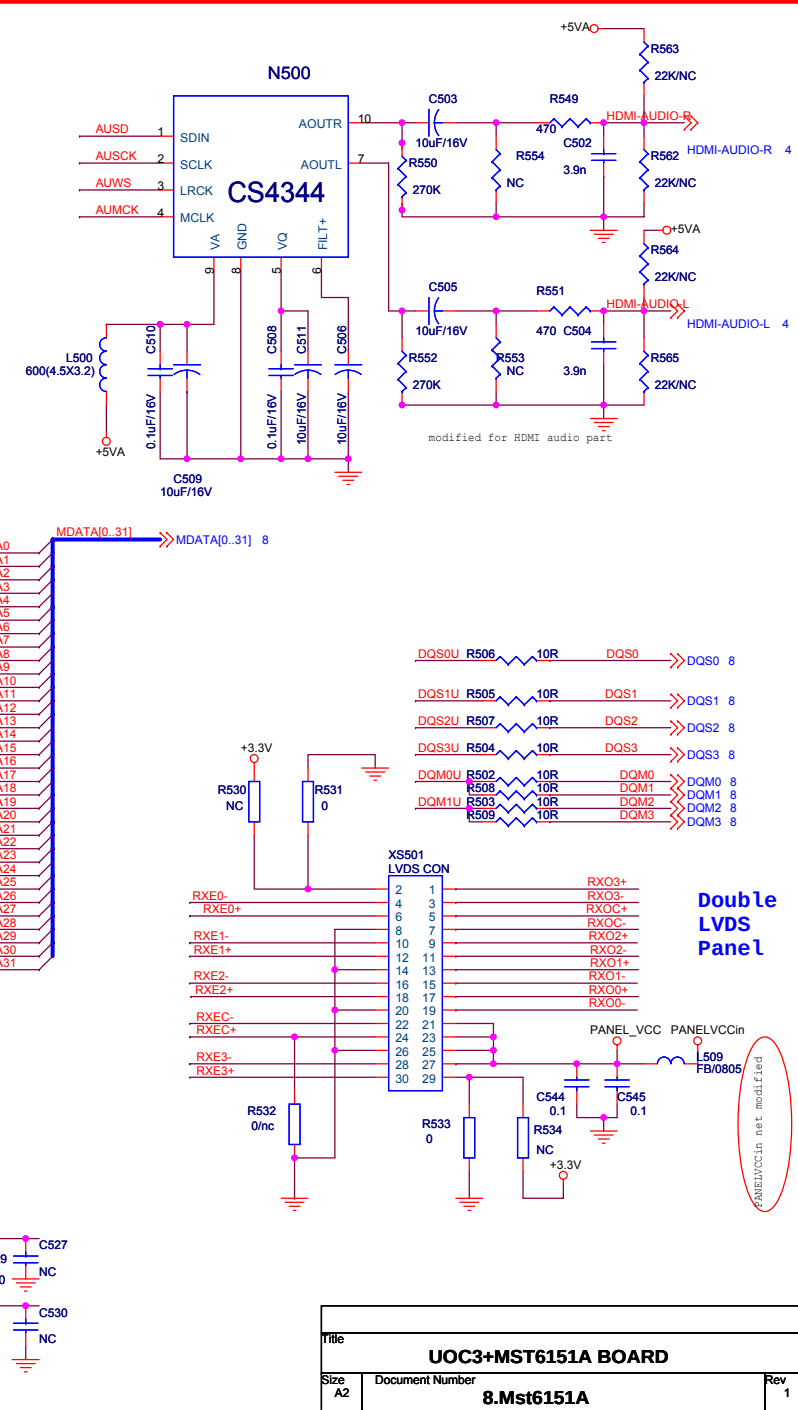
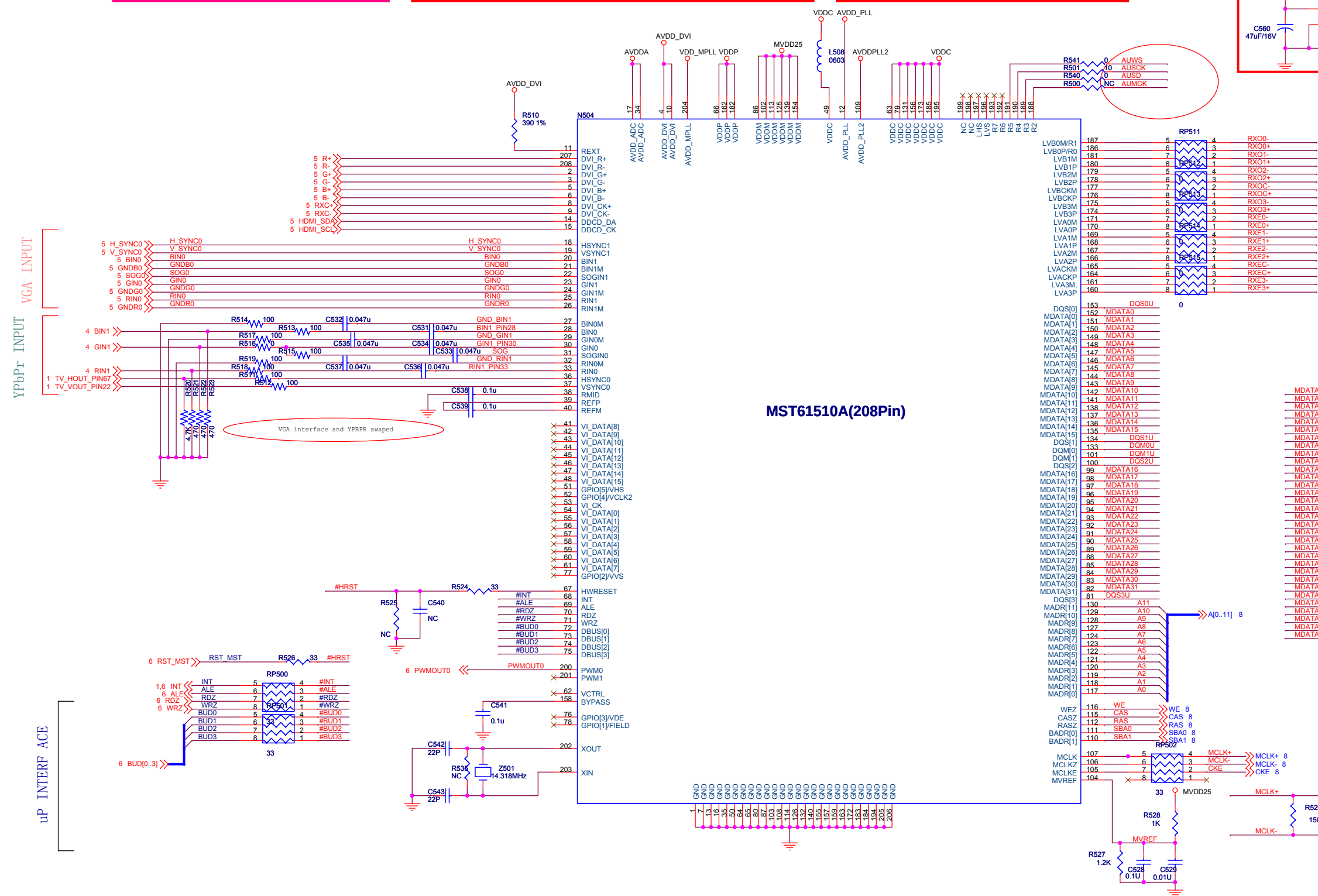
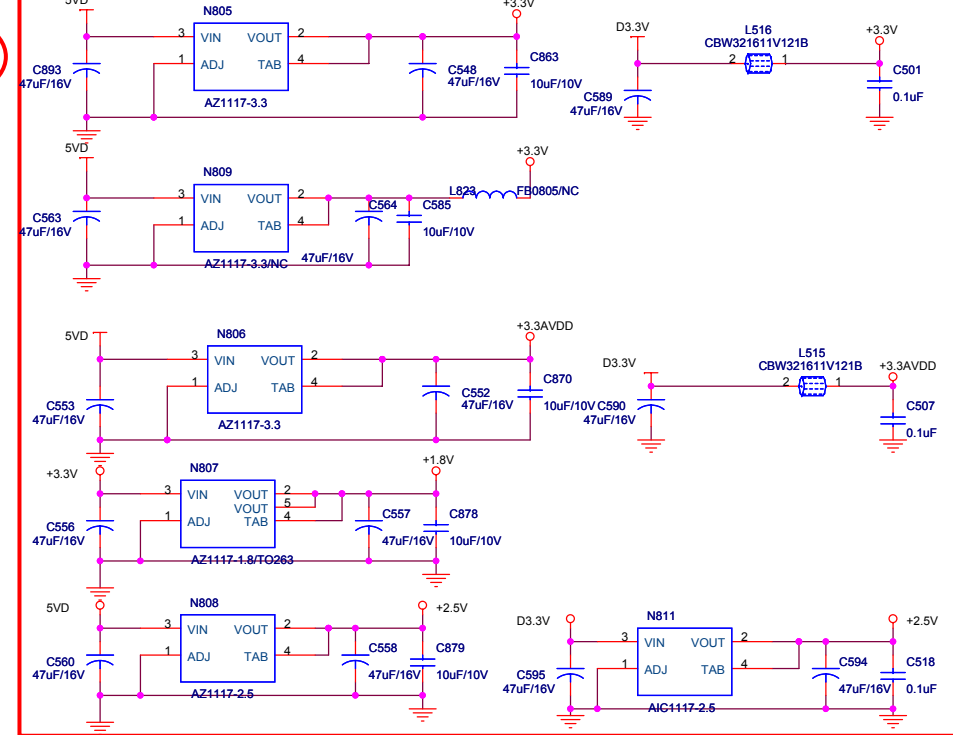
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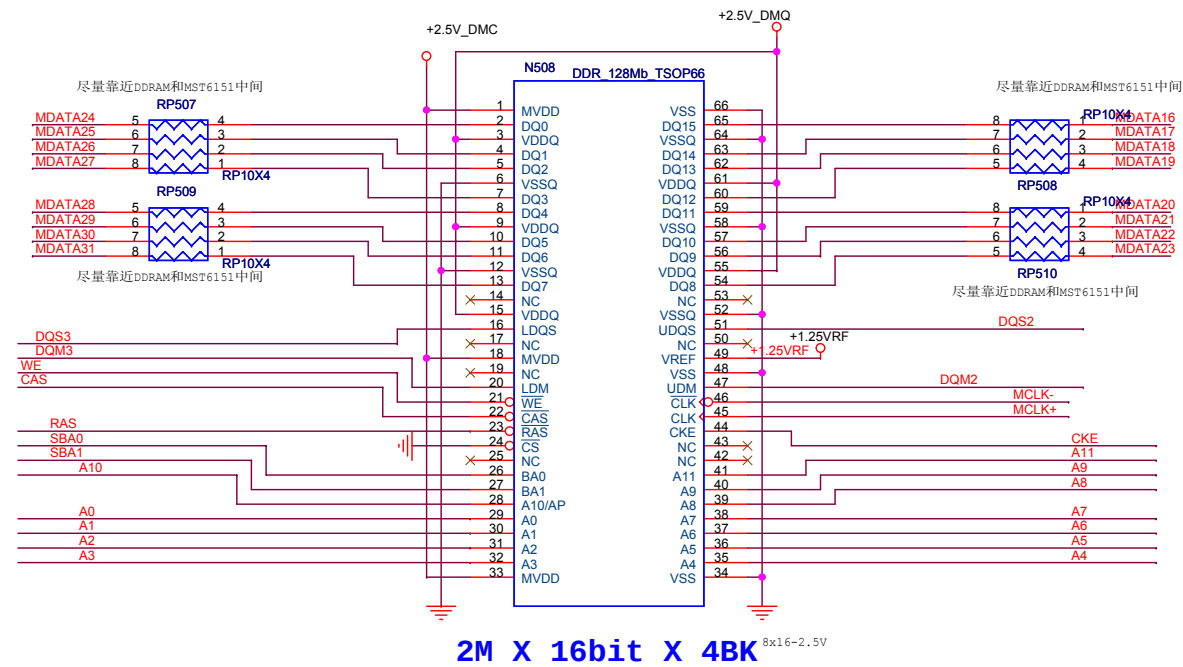
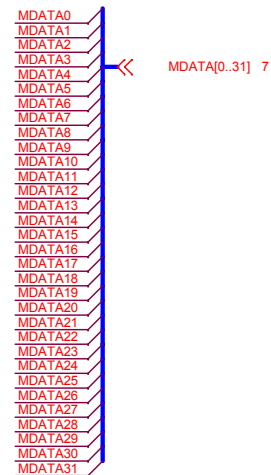










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