

# SERVICE MANUAL



# T 785

Surround Sound Receiver

# T 785

Surround Sound  
Receiver

# SAFETY INFORMATION

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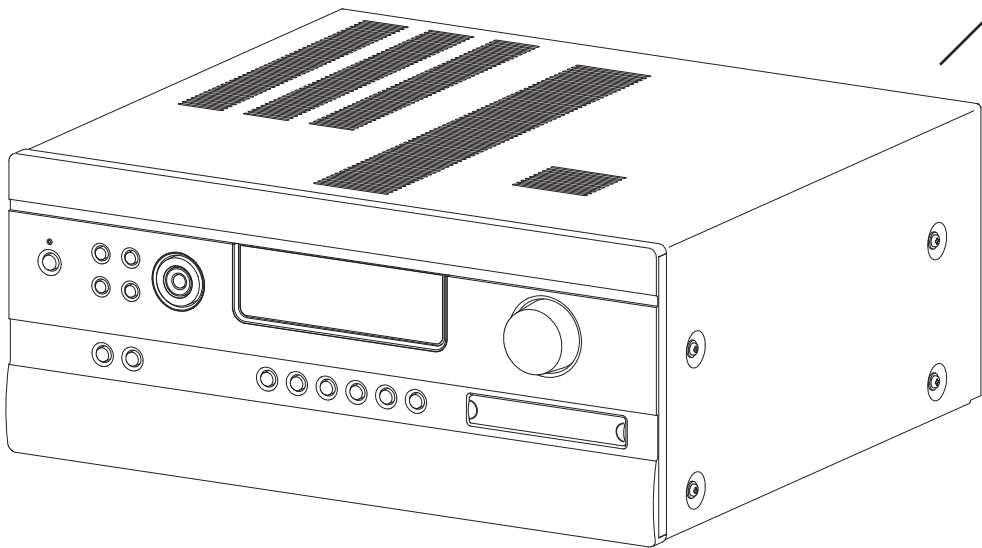
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THIS DEVICE COMPLIES WITH PART 15 OF THE FCC RULES. OPERATION IS SUBJECT TO THE FOLLOWING TWO CONDITIONS:  
(1) THIS DEVICE MAY NOT CAUSE HARMFUL INTERFERENCE.  
(2) THIS DEVICE MUST ACCEPT INTERFERENCE RECEIVED, INCLUDING INTERFERENCE THAT MAY CAUSE UNDESIRABLE OPERATION.

**NAD ELECTRONICS INTERNATIONAL**  
633 GRANITE COURT, PICKERING, ON CANADA L1W 3K1  
**MODEL T785 AV SURROUND SOUND RECEIVER**  
**POWER RATING** 120V ~ 60Hz 9.5A  
DESIGNED & ENGINEERED IN CANADA, CUSTOM MANUFACTURED TO NAD SPECIFICATIONS IN CHINA

**NAD ELECTRONICS INTERNATIONAL**  
**MODEL T 785 A/V SURROUND SOUND RECEIVER**  
**POWER RATING** 230V ~ 50Hz 5.5A  
DESIGNED & ENGINEERED IN CANADA, CUSTOM MANUFACTURED TO NAD SPECIFICATIONS IN CHINA

 **CAUTION**   
RISK OF ELECTRIC SHOCK  
DO NOT OPEN  
**WARNING: SHOCK HAZARD - DO NOT OPEN**  
**AVIS: RISQUE DE CHOC ELECTRIQUE - NE PAS OUVRIR**



# SERVICE SAFETY PRECAUTIONS

## 1. Replacing the fuses

**CAUTION:**

FOR CONTINUED PROTECTION AGAINST THE RISK OF FIRE REPLACE ONLY WITH SAME TYPE OF FUSE.

Reference Designator		Database Part Number	Description
F8001*AH	⚠	20-001-0078-90	FUSE TIME-LAG 10A/250VAC 5X20mm UL/CSA 5T
F8001*C,CT	⚠	20-001-0078-90	FUSE TIME-LAG 10A/250VAC 5X20mm UL/CSA 5T
F8002*AH	⚠	20-001-0076-90	FUSE 1.6A 250V TIME LAG LBC 5x20mm TSD UL/CSA/VDE/SEMKO
F8002*C,CT	⚠	20-001-0069-90	FUSE TIME-LAG 800mA 250V 5x20mm TSD UL/CSA/VDE/CCC WALTER 5X20mm VDE/UL/CSA 5T

**NOTE:**

<\*AH > : USA, CANADIAN MODEL ONLY.  
 <\*C, \*CT > : EUROPEAN MODEL ONLY.

## 2. Safety check out

(Only U.S.A. model)

Before returning the product to the customer, make leakage current or resistance measurements to determine that exposed parts are acceptably insulated from supply circuit.

Parts marked with the symbol ⚠ are critical with regard to the risk of fire and electric shock.

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# SPECIFICATIONS

## POWER AMPLIFIER SECTION

Rated distortion	(Rated power level into 8 ohms, THD 20 Hz-20 kHz FL/C/FR)	$\leq 0.1 \%$
	(Rated power level into 8 ohms, THD 20 Hz-20 kHz SL/SR/BS)	$\leq 0.1 \%$
Input Sensitivity	(ref. 8 ohms, 1 kHz)	$1.46 \pm 0.1 \text{ V}$
S/N Ratio	(A-wtd, 1kHz, 1 W, 8 ohm, SL/SR/BL)	$\geq -80 \text{ dB}$
Frequency Response	(20 Hz - 20 kHz)	$0 \pm 1.0 \text{ dB}$
Channel Balance	(1 dB to -40 dB, 1 kHz)	$\leq 2 \text{ dB}$
	(-41 dB to -50 dB, 1 kHz)	$\leq 3 \text{ dB}$
Audio muting at 1 kHz		$\geq 55 \text{ dB}$
Subwoofer out, 500 mV in	(THD at 2 V O/P, 100 Hz)	$\leq 0.5 \%$
Crosstalk	(500 mV input, 10 W, 1 kHz)	$\geq -54 \text{ dB}$
<b>Controls</b>		
Bass	(at 500 mV in, 1 W out, 100 Hz)	$\pm 10 \text{ dB} \pm 2 \text{ dB}$
Treble	(at 500 mV in, 1 W out, 10 kHz)	$\pm 10 \text{ dB} \pm 2 \text{ dB}$

## DOLBY DIGITAL SECTION

Channel Difference	(FL ref. Track 30)	$\pm 1.2 \text{ dB}$
Frequency Response at Dolby config.2	SL Track 46 200 - 20 kHz	$\pm 0.8 \text{ dB}$
	SR Track 47 200 - 20 kHz	$\pm 0.8 \text{ dB}$
	C Track 44 200 - 20 kHz	$\pm 0.8 \text{ dB}$
Harmonic Distortion (1 W, Audio LPF, Dolby Congfig 1)	FL Track 65 997 Hz	$\leq 0.08 \%$
	FR Track 67 997 Hz	$\leq 0.08 \%$
	SL Track 68 997 Hz	$\leq 0.08 \%$
	SR Track 69 997 Hz	$\leq 0.08 \%$
	C Track 66 997 Hz	$\leq 0.08 \%$
S/N Ratio (31 for O/P 1 W, Track 35)	CCIR / ARM	$\geq 65 \text{ dB}$
	Audio LPF	$\geq 64 \text{ dB}$
	A-wtd	$\geq 68 \text{ dB}$
Channel Separation (1 W, 20 kHz LPF)	Track 65 997 Hz	$\geq 55 \text{ dB}$

## DOLBY PRO LOGIC II SECTION

### **Frequency Response**

I/P mode : L, R	: 1 V in, 1 W, Ch L/R	40 Hz	$0 \pm 2.0 \text{ dB}$
		20 Hz	$0 \pm 2.0 \text{ dB}$
I/P mode : L=R	: 1 V in, 1 W, Ch /L/R	40 Hz	$0 \pm 2.0 \text{ dB}$
	Ch C	20 kHz	$0 \pm 2.0 \text{ dB}$
I/P mode : L=-R	: 1 V in, 1 W, Ch SL/SR	40 Hz	$0 \pm 2.0 \text{ dB}$
		20 kHz	$0 \pm 2.0 \text{ dB}$
S/N Ratio (200 mV in, 1 W, A-WTD w/ 1 k termination)			
I/P mode : L, R	: 1 kHz, Ch L/R		$\geq 60 \text{ dB}$
I/P mode : L=R	: 1 kHz, Ch C		$\geq 60 \text{ dB}$
I/P mode : L=-R	: 1 kHz, Ch SL/SR		$\geq 60 \text{ dB}$
THD (2.2 V in, 1 W, w/ 80 kHz LPF, 1 kHz)			$\leq 0.2 \%$



## **DTS SECTION**

Output Level (Vol 0 dB)	: FL/FR/C/SL/SR Track 6	1 kHz	<b>0.5 -0.2/+0.8 W</b>
Channel Difference (FL ref)	: FL/FR/C/SL/SR Track 6	1 kHz	<b>0 ± 1.0 dB</b>
Harmonic Distortion (Audio Filter)	: FL/FR/C/SL/SR Track 10-14	1 kHz	<b>≤ 0.08 %</b>
Frequency Response (20 Hz to 20 kHz)	Track 26-30		<b>+2/-1.5 dB</b>
Subwoofer Output Level	1 kHz ref at pre-out (FL) Play Track 10, charge to 15		<b>12.5 ± 1.5 dB</b>

## **AM TUNER SECTION**

Input level is expressed as the reading in open circuit of 75-ohm source impedance signal generator

Usable sensitivity (999/1000 kHz)		<b>≤ 60 dB<sub>μV</sub></b>
S/N Ratio (5 mV in)		<b>≥ 38 dB</b>
THD (5 mV in)		<b>≤ 3 %</b>
IF Rejection (450 kHz)		<b>≤ 36 dB</b>
Image Rejection (F+2xIF)		<b>≥ 28 dB</b>
Selectivity		<b>≥ 17 dB</b>
Output		<b>170 -20/+30 mV</b>
Loop sensitivity (20 dB S/N)		
999/1000 kHz		<b>≤ 66 dB</b>
603/600 kHz		<b>≤ 66 dB</b>
1404/1400 kHz		<b>≤ 66 dB</b>
Frequency Response (100 - 2.3 kHz, 5 mV)		<b>± 6 dB</b>

## **FM TUNER SECTION**

**\*C**

**\*AH**

Input level is expressed as the reading in open circuit of 75-ohm source impedance signal generator

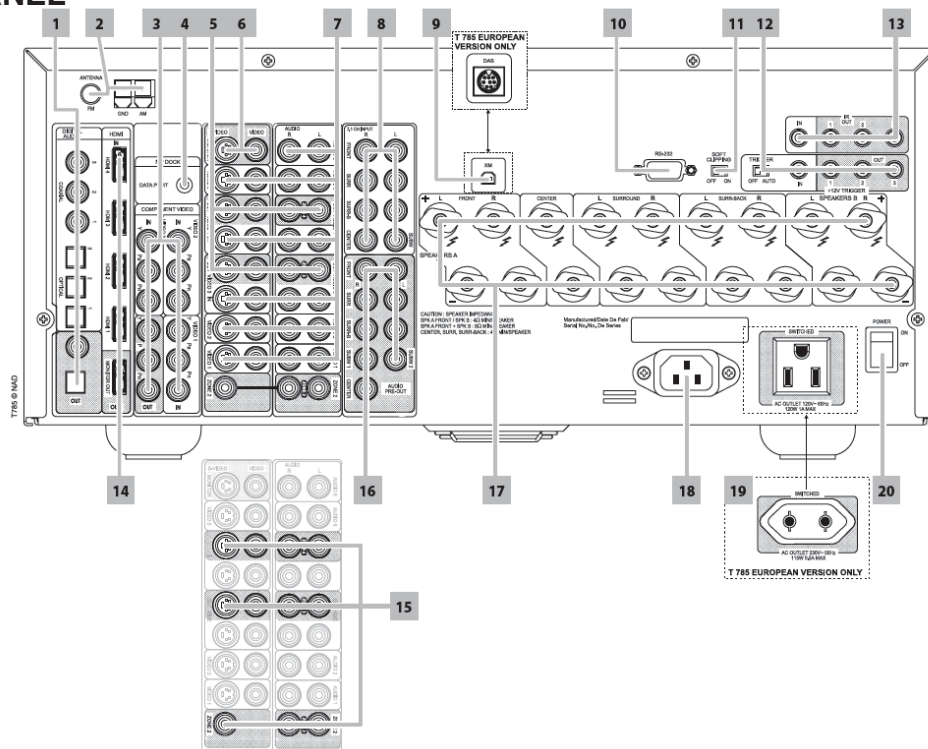
Usable sensitivity (98 MHz)		<b>≤ 15 dB<sub>μ</sub></b>	<b>≤ 15 dB<sub>μv</sub></b>
S/N Ratio (60 dB, IHF wtd)	Mono	<b>≥ 60 dB</b>	<b>≥ 60 dB</b>
	Stereo	<b>≥ 63 dB</b>	<b>≥ 63 dB</b>
Frequency Response (20 Hz - 15 kHz, 60 dB <sub>μ</sub> )		<b>0 ± 1.5 dB</b>	<b>0 ± 1.5 dB</b>
Channel Separation (60 dB <sub>μ</sub> )	100 Hz	<b>≥ 30 dB</b>	<b>≥ 30 dB</b>
	1 k	<b>≥ 32 dB</b>	<b>≥ 32 dB</b>
	10 kHz	<b>≥ 30 dB</b>	<b>≥ 30 dB</b>
Alternate Channel Selectivity (40 dB <sub>μ</sub> , ± 400 kHz)		<b>≥ 60 dB</b>	<b>≥ 45 dB</b>
Capture Ratio (40 dB <sub>μ</sub> )		<b>≤ 3 dB</b>	<b>≤ 3 dB</b>
AM Suppression (60 dB <sub>μ</sub> , 100% Mod. FM, 30% Mod. AM)		<b>≥ 48 dB</b>	<b>≥ 48 dB</b>
Image Rejection (119.4 MHz)		–	<b>≥ 65 dB</b>
I.F. Rejection (10.7 MHz)		<b>≥ 78 dB</b>	–
Pilot Suppression (98 MHz)		<b>≥ 50 dB</b>	<b>≥ 50 dB</b>
THD (60 dB <sub>μ</sub> , L=R 75 kHz for AH, 40 kHz Dev for C)	Mono	<b>≤ 0.5 %</b>	<b>≤ 0.5 %</b>
	Stereo	<b>≤ 0.5 %</b>	<b>≤ 0.5 %</b>
Auto-Search Sensitivity	On	<b>≥ 24 dB<sub>μ</sub></b>	<b>≥ 24 dB<sub>μ</sub></b>
	Off	<b>≤ 15 dB<sub>μ</sub></b>	<b>≤ 15 dB<sub>μ</sub></b>
RDS decode Sensitivity		<b>≤ 26 dB<sub>μ</sub></b>	–

## **PHYSICAL SPECIFICATIONS**

Dimensions (Width x Height x Depth)	<b>435 x 180 x 431 mm</b>
Net Weight	<b>26.05 Kg (57.31 lbs)</b>
Shipping Weight	<b>31.1 Kg (68.42 lbs)</b>

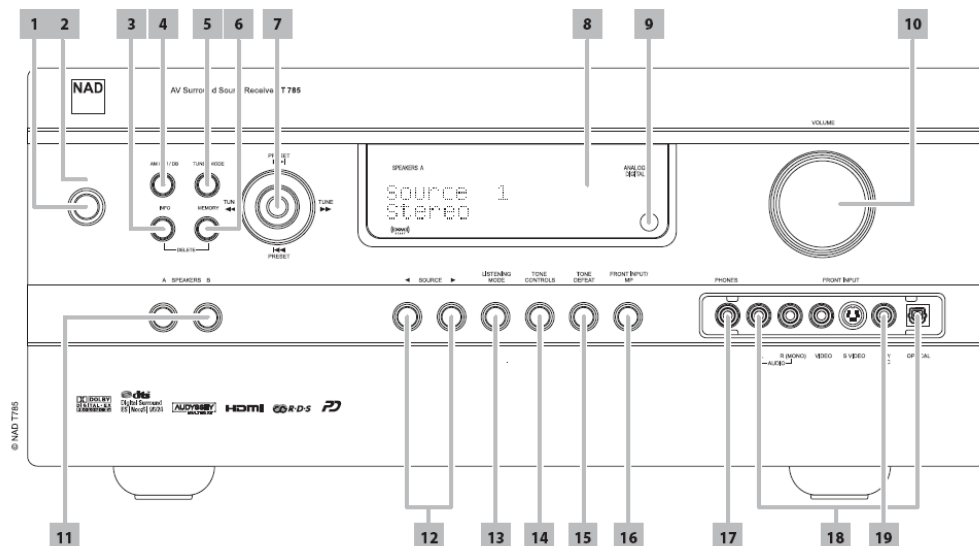
# REAR PANEL / FRONT PANEL VIEW

## REAR PANEL



- |                           |                        |                           |
|---------------------------|------------------------|---------------------------|
| 1. DIGITAL AUDIO IN/OUT   | 7. AUDIO/VIDEO 1~6 IN  | 13. IR IN/OUT             |
| 2. FM,AM ANTENNA INPUT    | 8. 7.1 CH INPUT        | 14. HDMI                  |
| 3. COMPONENT IN/OUT       | 9. XM MODULE INPUT(AH) | 15. ZONE 2,3,4            |
| 4. MP DOCK                | DAB MODULE INOUT(C,CT) | 16. AUDIO PREOUT          |
| 5. AUDIO/VIDEO 3/4 OUT    | 10. RS-232             | 17. SPEAKERS A, SPEAKER B |
| 6. MONITOR(S-VIDEO,VIDEO) | 11. SOFT CLIPPING      | 18. AC POWER INLET        |
|                           | 12. +12V TRIGGER OUT   | 19. SWITCHED AC OUTLET    |
|                           |                        | 20. POWER                 |

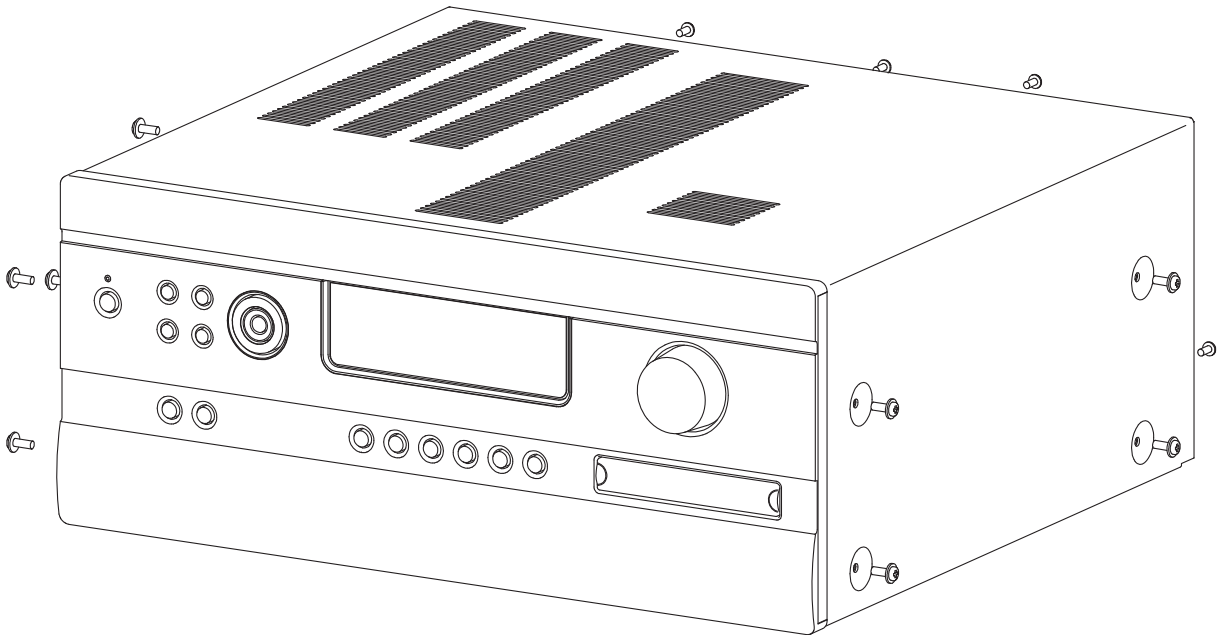
## FRONT PANEL



- |                 |                                     |                       |
|-----------------|-------------------------------------|-----------------------|
| 1. POWER BUTTON | 7. NAVIGATION AND ENTER BUTTON      | 12. LISTENING MODE    |
| 2. STANDBY LED  | 8. VACUUM, FLUORESCENT DISPLAY(VFD) | 13. TONE CONTROLS     |
| 3. INFO         | 9. VOLUME                           | 14. TONE DEFEAT       |
| 4. AM/FM/DB     | 10. SPEAKER A/B                     | 15. FRONT INPUT/MP    |
| 5. TUNER MODE   | 11. SOURCE                          | 16. PHONES            |
| 6. MEMORY       |                                     | 17. FRONT INPUT JACKS |
|                 |                                     | 18. MP/MIC INPUT      |

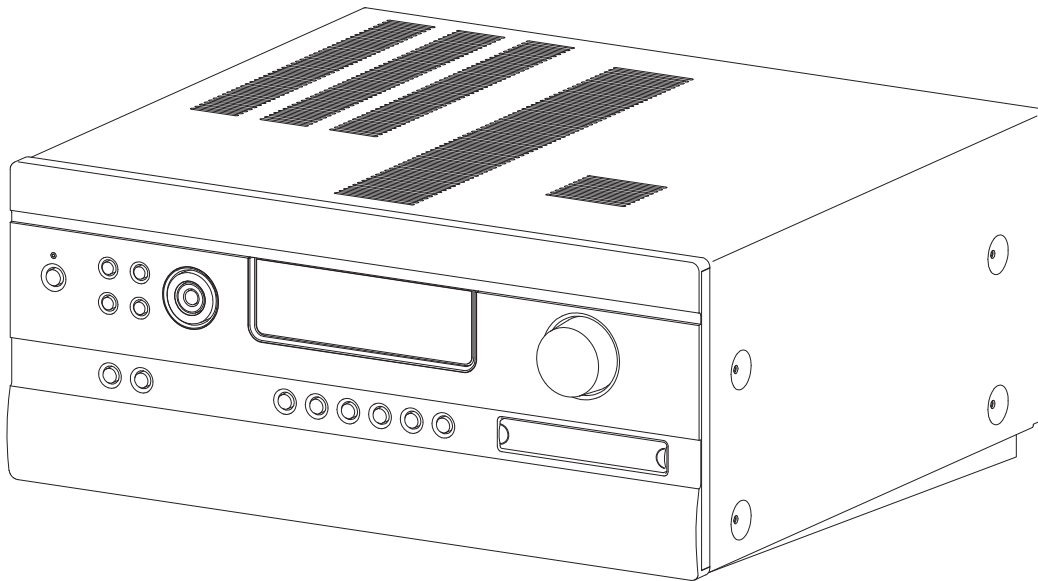
# DISASSEMBLY INSTRUCTIONS

1. Remove machine screws M4.0 x 8.0 (x8 pcs) from the side panels.  
Remove tapping screw 3.5 x 8.0 (x4 pcs) from the back panel.  
Refer to **Figure No. 1**.



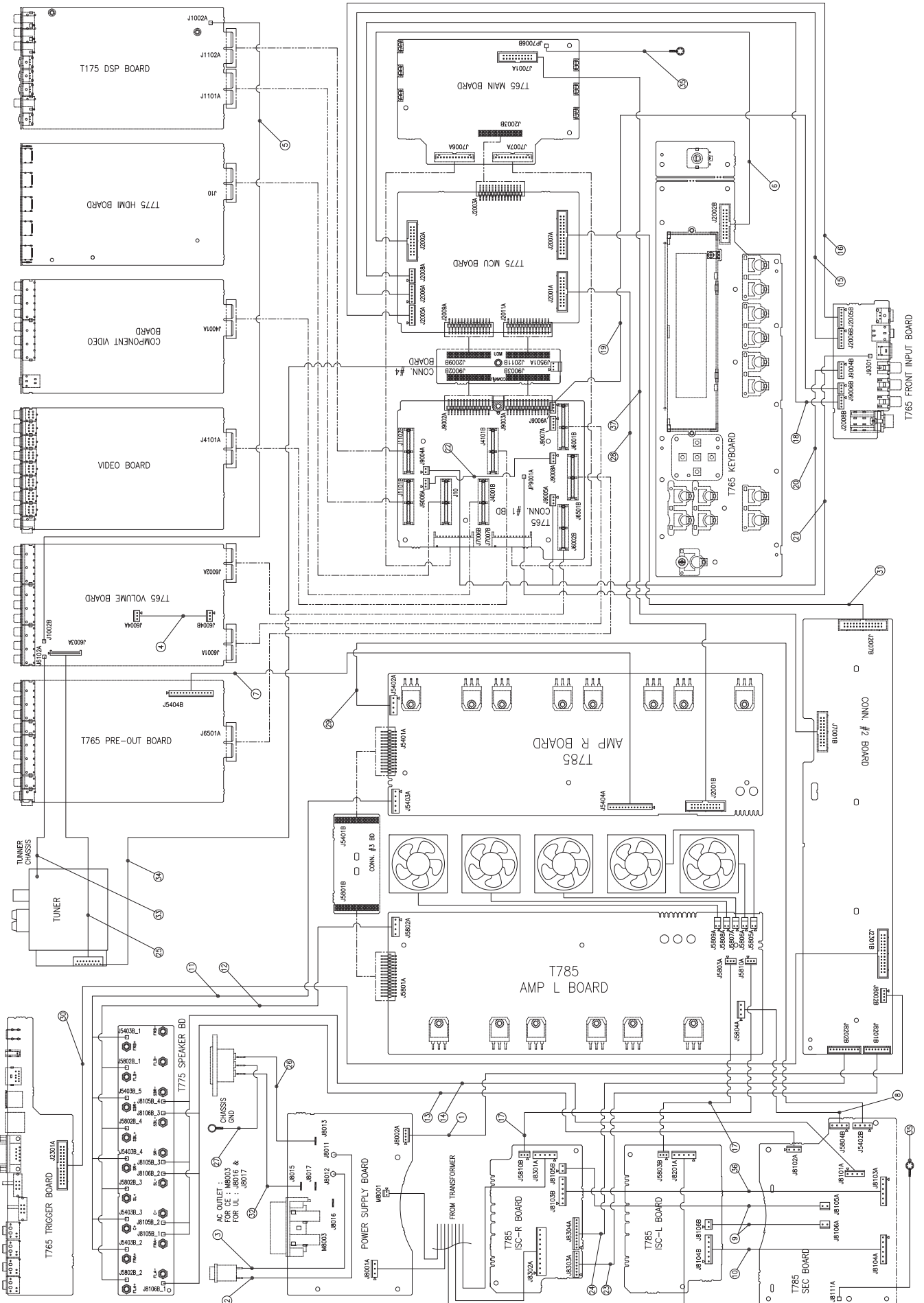
**Figure No. 1**

2. Pull both sides of the TOP COVER slightly outwards and tilt approx. 35 ° and then remove in the direction as indicated. Refer to **Figure No. 2**.



**Figure No. 2**

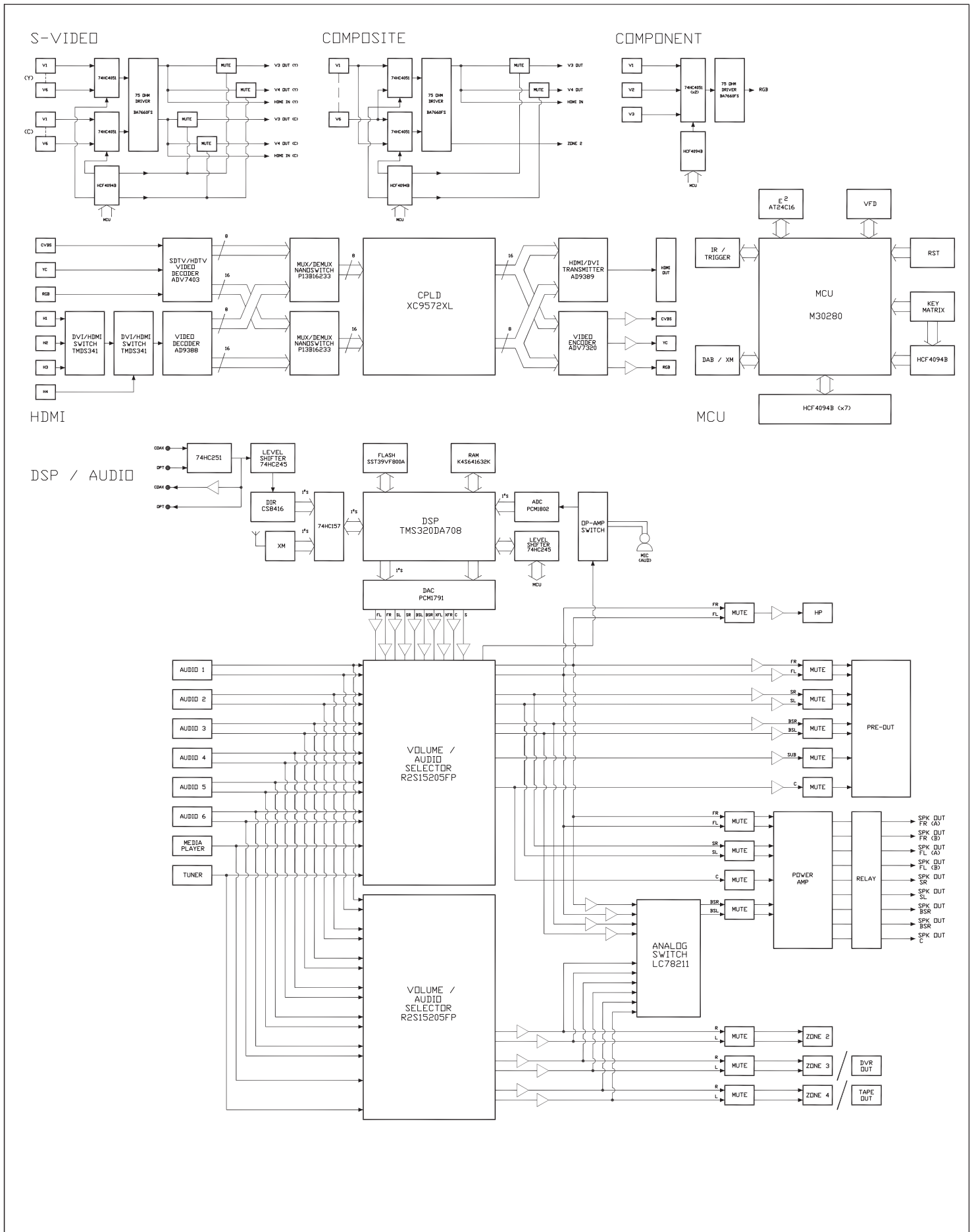
# WIRING DIAGRAM



## WIRING DIAGRAM PARTS LIST

Item	Database Part Number	Description	Remark
1	17-012-2965-90	CABLE ASSY 4 WAYS #26 2.5P L=400mm (RoHS)	PSU BD-J8002A
2	17-012-3943-90	CABLE ASSY 1 WAY #16 UL1672 BLUE L=140mm FASTON 4.8mm (RoHS)	PSU BD-J8011
3	17-012-3944-90	CABLE ASSY 1 WAY #16 UL1672 BROWN L=140mm FASTON 4.8mm (RoHS)	PSU BD-J8012
4	17-012-3940-90	CABLE ASSY 3 WAYS #26 2.5P UL2854 L=110 (ROHS)	VOL BD- J6004A/B
5	17-012-3938-90	CABLE ASSY 1 WAY #18 UL1007 L=320MM W/ HEADER (RoHS)	DSP BD-J1002A
6	17-012-3378-90	CABLE ASSY 20 WAYS #28 UL2651 L=240mm PCB MOUNT (RoHS)	KEYBOARD- J2002B
7	17-012-3173-90	CABLE ASSY 14 WAYS #26 2.5P UL1533 L=100 (RoHS)	PRE-OUT BD- J5404B
8	17-012-3176-90	CABLE ASSY 3 WAYS #18 3.96P UL1007 L=80 (RoHS)	SEC BD-J5402B
9	17-012-3603-90	CABLE ASSY 2 WAYS #18 UL1007 L=170MM (RoHS)	SEC BD- J8105A,J8106A
10	17-012-3604-90	CABLE ASSY 6 WAYS #18 UL1007 L=140MM (RoHS)	SEC BD-J8104A
11	17-012-3174-90	CABLE ASSY 5 WAYS #18 3.96P UL1007 L=300mm (W/R/B/V/O) (RoHS)	SPK BD- J5403B1-B5
12	17-012-3947-90	CABLE ASSY 4 WAYS #18 3.96P UL1007 L=260 (W/R/Y/BL) (RoHS)	SPK BD- J5802B1-B4
13	17-012-3329-90	CABLE ASSY 3 WAYS #18 UL1007 3.96P L=420 (RoHS)	SPK BD- J8106B1-B3
14	17-012-3330-90	CABLE ASSY 4 WAYS #18 UL1007 3.96P L=440 (RoHS)	SPK BD- J8105B1-B4
15	17-012-3171-90	CABLE ASSY 6 WAYS #26 2.5P UL1533 L=200 (RoHS)	V6 VD-J2006B
16	17-012-3404-90	CABLE ASSY 6 WAYS #26 2.5P UL1007 L=150 (RoHS)	V6 BD-J2005B
17	17-012-3939-90	CABLE ASSY 3 WAYS #26 2.5P UL2468 L=180 (RoHS)	ISC-L BD- J5803B, ISC-R BD- J5810B
18	17-012-3930-90	CABLE ASSY 4 WAYS #26 2.5P UL1533 L=160 (RoHS)	V6 BD-J2008A
19	17-012-3936-90	CABLE ASSY 3 WAYS #26 2.5P UL2854 L=310 (RoHS)	CONN#1-J9006A
20	17-012-3937-90	CABLE ASSY 5 WAYS #26 2.5P UL2854/1533 L=230/320 (RoHS)	CONN#1- J9004A/J9005A
21	17-012-3938-90	CABLE ASSY 1 WAY #18 UL1007 L=320 W/ HEADER (RoHS)	CONN#1- JP9001A
22	17-012-3941-90	CABLE ASSY 3 WAYS #26 2.5P UL2854 L=130 (RoHS)	CONN#1- J9008A/B
23	17-012-3457-90	CABLE ASSY 8 WAYS #26 UL1007 2.5P L=120 (RoHS)	CONN#2-J8202B
24	17-012-3458-90	CABLE ASSY 10 WAYS #26 UL1007 2.5P L=80 (RoHS)	CONN#2-J8201B
25	17-010-0124-90	FFC CABLE 17 PINS P1.25 L=180 15 & 16 PINS VOID (RoHS)	TUNER-J5404B
26	17-012-2874-90	CABLE ASSY 1 WAY #16 UL1672 BLUE L=100mm (RoHS)	J8015,J8017
27	17-012-2875-90	CABLE ASSY 1 WAY #16 UL 1015 GREEN/YELLOW L=100 (RoHS)	CHASSIS GND, AC OUTLET GND
28	17-012-3166-90	CABLE ASSY 20 WAYS #28 UL2651 L=100mm (RoHS)	J2001C
29	17-012-3298-90	CABLE ASSY 3 WAYS #18 UL1007 L=420mm (RoHS)	J5402A/B
30	17-012-3346-90	CABLE ASSY 26 WAYS #28 UL2651 L=330mm (RoHS)	J2301C
31	17-012-3942-90	CABLE ASSY 26 WAYS #28 UL2651 L=230mm (RoHS)	J2007C
32	17-012-3948-90	CABLE ASSY 1 WAY #16 UL1672 BROWN L=100 (RoHS)	J8013,J8016
33	17-012-3963-90	CABLE ASSY 1 WAY #18 UL1007 L=200 W/ HEADER (RoHS)	TUNER-J6102A
34	17-012-4020-90	CABLE ASSY 3 WAYS #26 2.5P UL2547 L=300 (RoHS)	TUNER-J9501A
35	17-012-4021-90	CABLE ASSY 1 WAY AWG18 UL1007 BLACK L=200mm W/INT. TEETH RING TERMINAL (RoHS)	MAIN-JP7006B- GND, SEC BD-GND
36	17-012-3605-90	CABLE ASSY 6 WAYS #18 UL1007 L=170MM	SEC BD-J8103A
37	17-012-3573-90	CABLE ASSY 20 WAYS #28 UL2651 L=130mm (RoHS)	J7001C

# BLOCK DIAGRAM



## SPECIAL FUNCTION

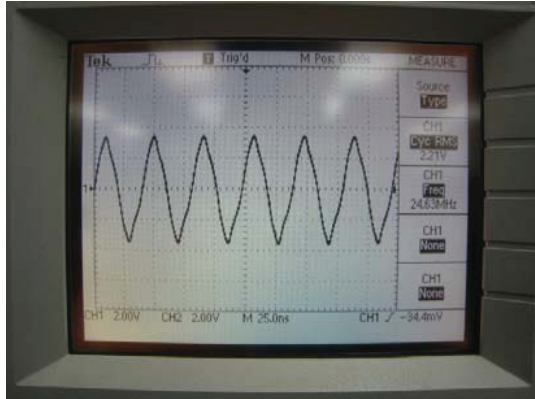
Function	Keys	Notes
Factory Reset AH	Source Down + Front/MP	
Factory Reset C	Source UP + Front/MP	
Toggle IR Channel	Source Down + Power	Only for v1.08 or higher.
Check MCU Version	Source Down + Source UP	For v1.03 or higher, this checks all versions.
Check DSP Version	Source Down + Listening Mode	Only for v1.02 or older.
Check Current Video Mode	Source Down + Tone Controls	
MIC Test	Source Down + Tone Defeat	
VFD Test	Source Down + Display	
PAL/NTSC	Source Down + Memory	
DAB/XM	Source Down + Tuner Band	Must cycle power before change takes effect.
9k/10k	Source UP + Tuner Band	Must reselect AM before change takes effect.
XM 1kHz Test Tone	Tuner Band + Tuner Mode	XM must be selected first.
XM Signal Strength	Tuner Mode for 0.5 seconds	XM must be selected first.
XM Diagnostics Mode	Tuner Mode for 3 seconds	XM must be selected first.
Check DAB Module Version	Tuner Mode for 3 seconds	DAB must be selected first.
Enter Diagnostics Mode	Source Down + Enter	
Diagnostic Mode Down	Source Down + Cursor Right	
Diagnostic Mode Up	Source Down + Cursor Left	
Power Off All Zones	Power Toggle or Power Off for 3 seconds	



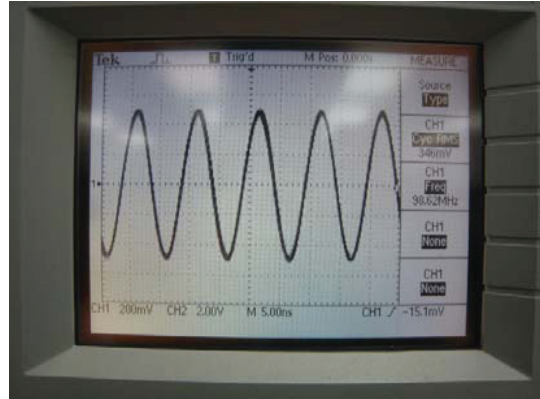
# DETAILS & WAVEFORMS ON SYSTEM TEST & DEBUGGING

## DSP

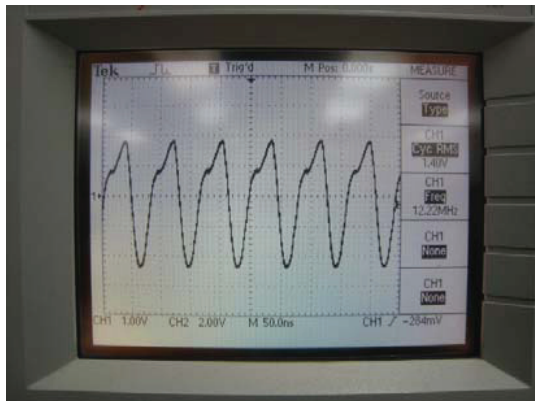
U1007 Pin 17 - X1001C output, 24.576MHz



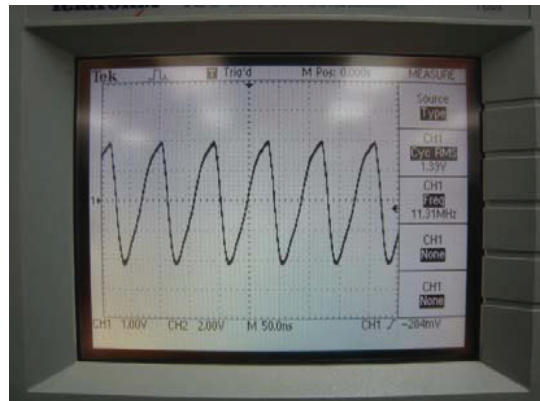
U1007 Pin 70 - Clock for external memory, 100MHz



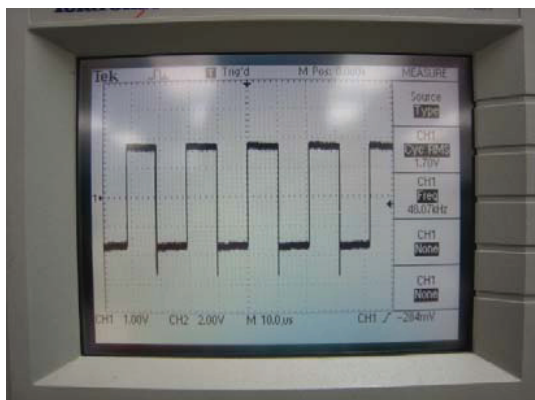
U1007 Pin 2 - Master clock (Analog), 12.288MHz



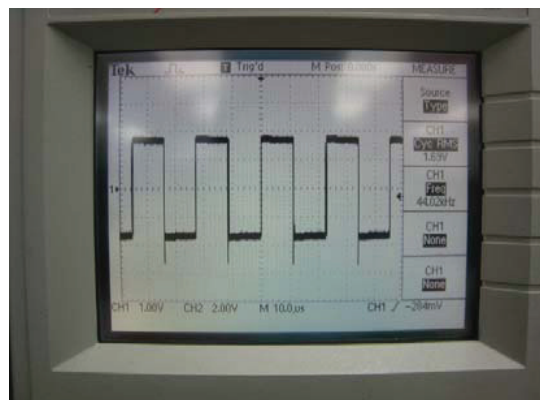
U1007 Pin 2 - Master clock (PCM), 11.2896MHz



U1007 Pin 12 - Left/Right clock (Analog), 48kHz

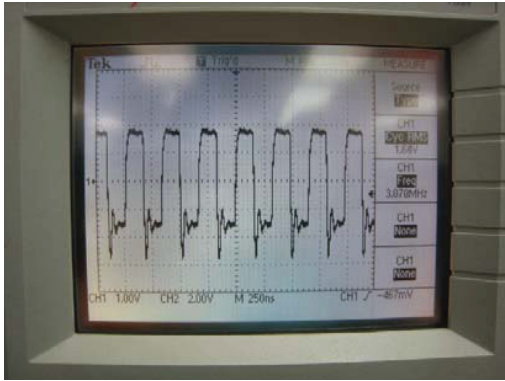


U1007 Pin 12 - Left/Right clock (PCM), 44.1kHz



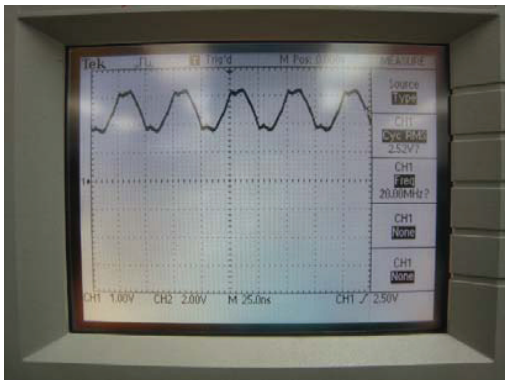


U1007 Pin 9 - Serial clock (Analog), 3.072MHz



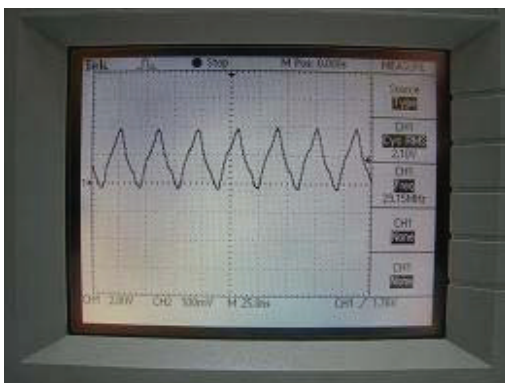
## MCU

U2001 Pin 12 - X2001A output, 20.000MHz

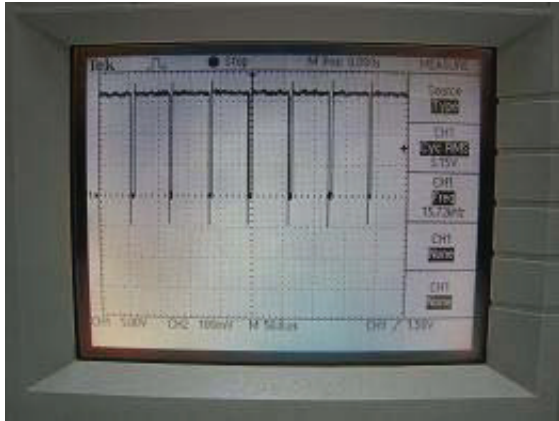


## HDMI

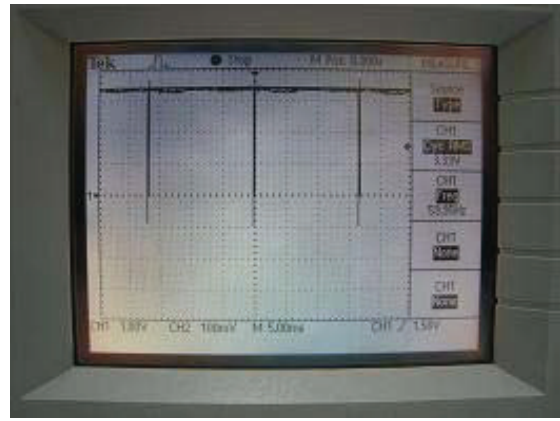
U12 Pin 38 - U3 output, 28.636MHz



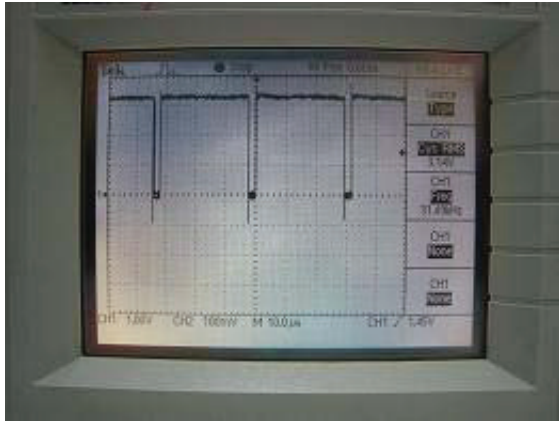
U9 Pin 1 –DAC\_HS (OSD Off), 31.48kHz



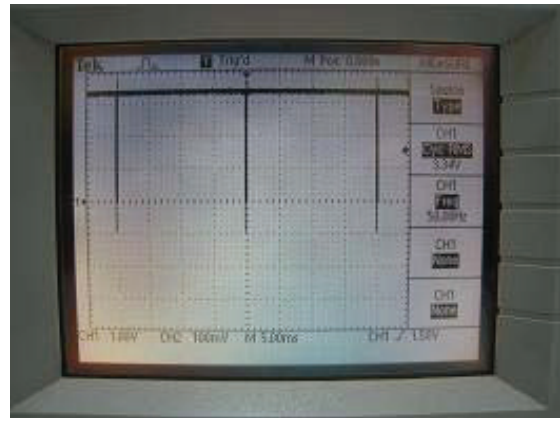
U9 Pin 54 –DAC\_VS (OSD On, NTSC), 60Hz



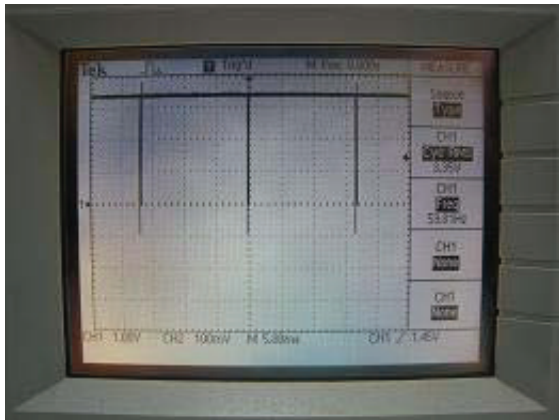
U9 Pin 1 –DAC\_HS (OSD On), 15.72kHz



U9 Pin 54 –DAC\_VS (OSD On, PAL), 50Hz



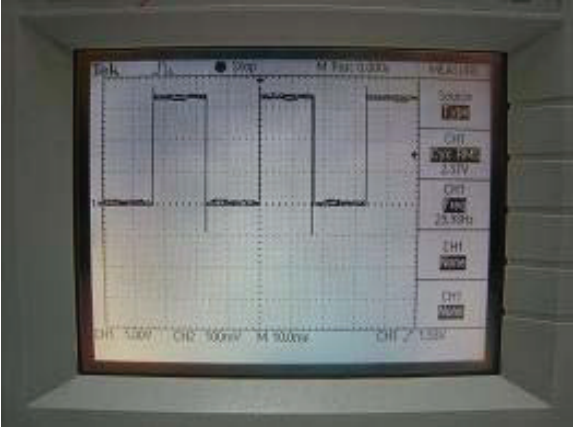
U9 Pin 54 –DAC\_VS (OSD Off), 60Hz



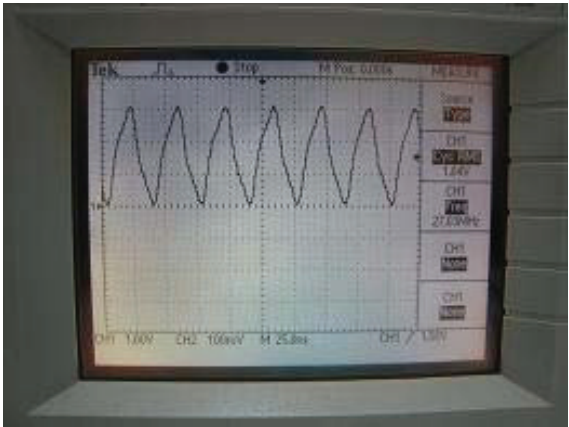
U9 Pin 4 –DAC\_FLD (OSD Off), Idle



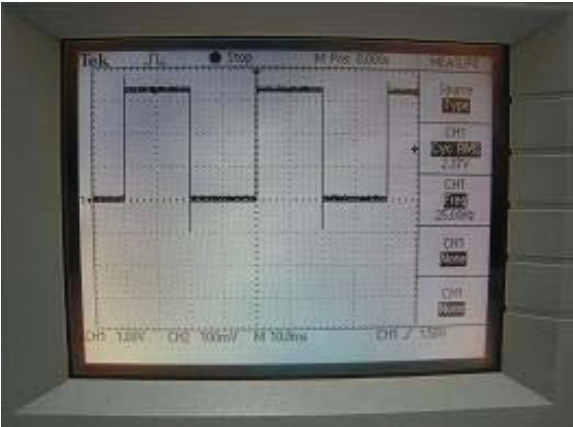
U9 Pin 4 –DAC\_FLD (OSD On, NTSC), 30Hz



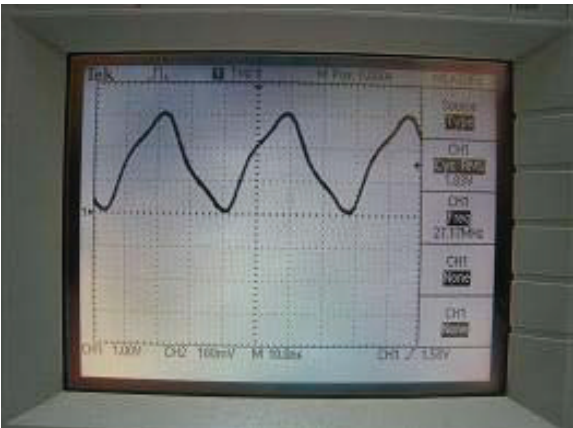
U9 Pin 51 –PCLK (OSD On), 27MHz



U9 Pin 4 –DAC\_FLD (OSD On, PAL), 25Hz

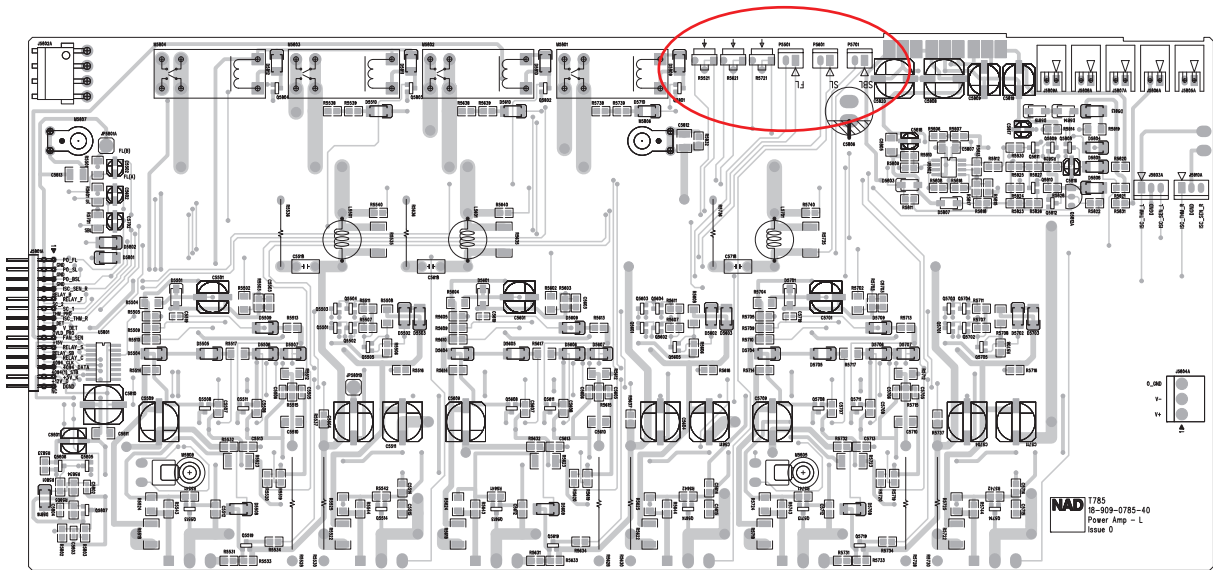


U9 Pin 51 –PCLK (OSD Off), 27MHz

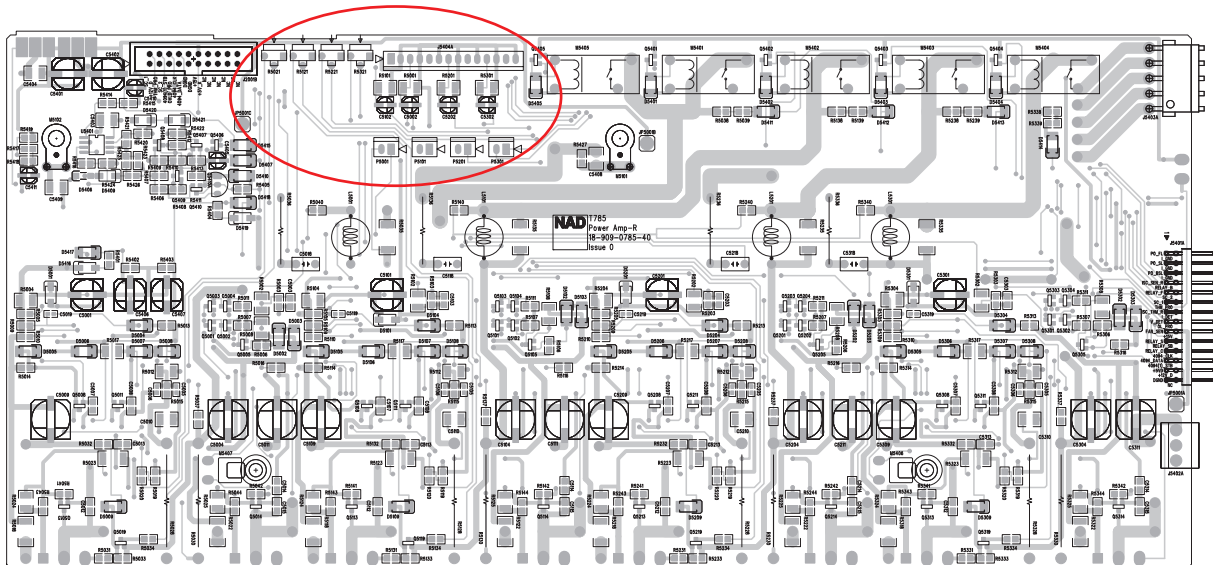


# ADJUSTMENT POINT DIAGRAM

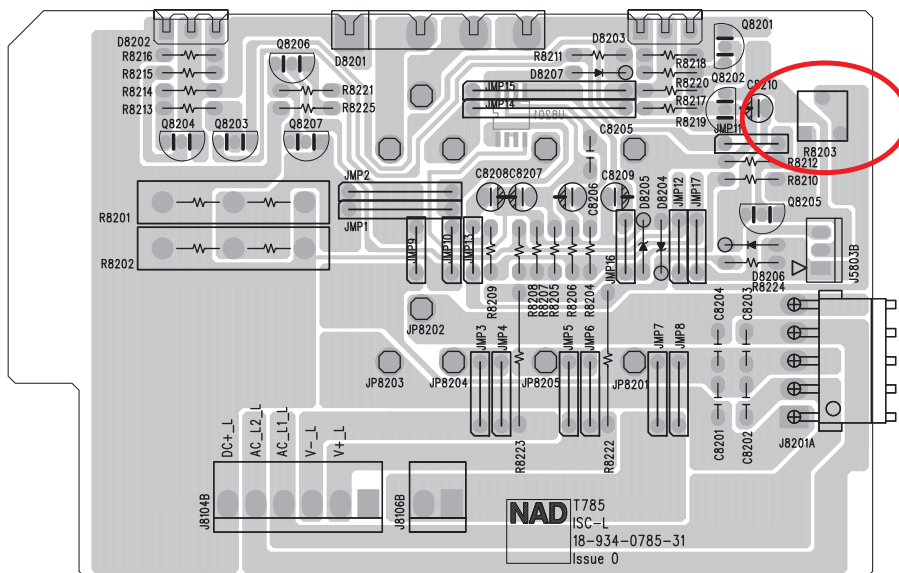
## LEFT CHANNEL AMPLIFIER BOARD



## RIGHT CHANNEL AMPLIFIER BOARD

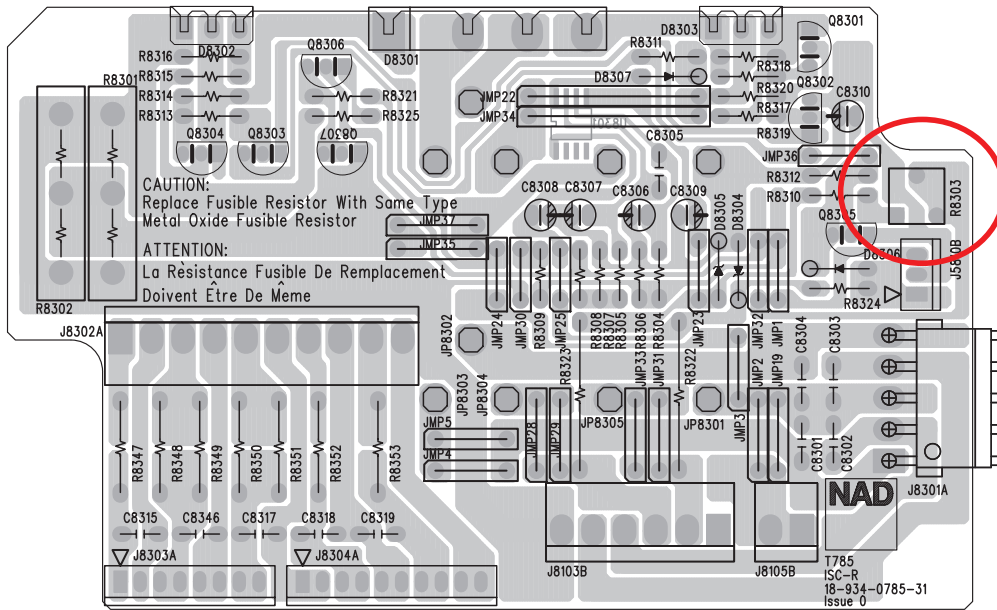


## ISC-L BOARD





## ISC-R BOARD



## AMPLIFIER ADJUSTMENT

### Idle Current

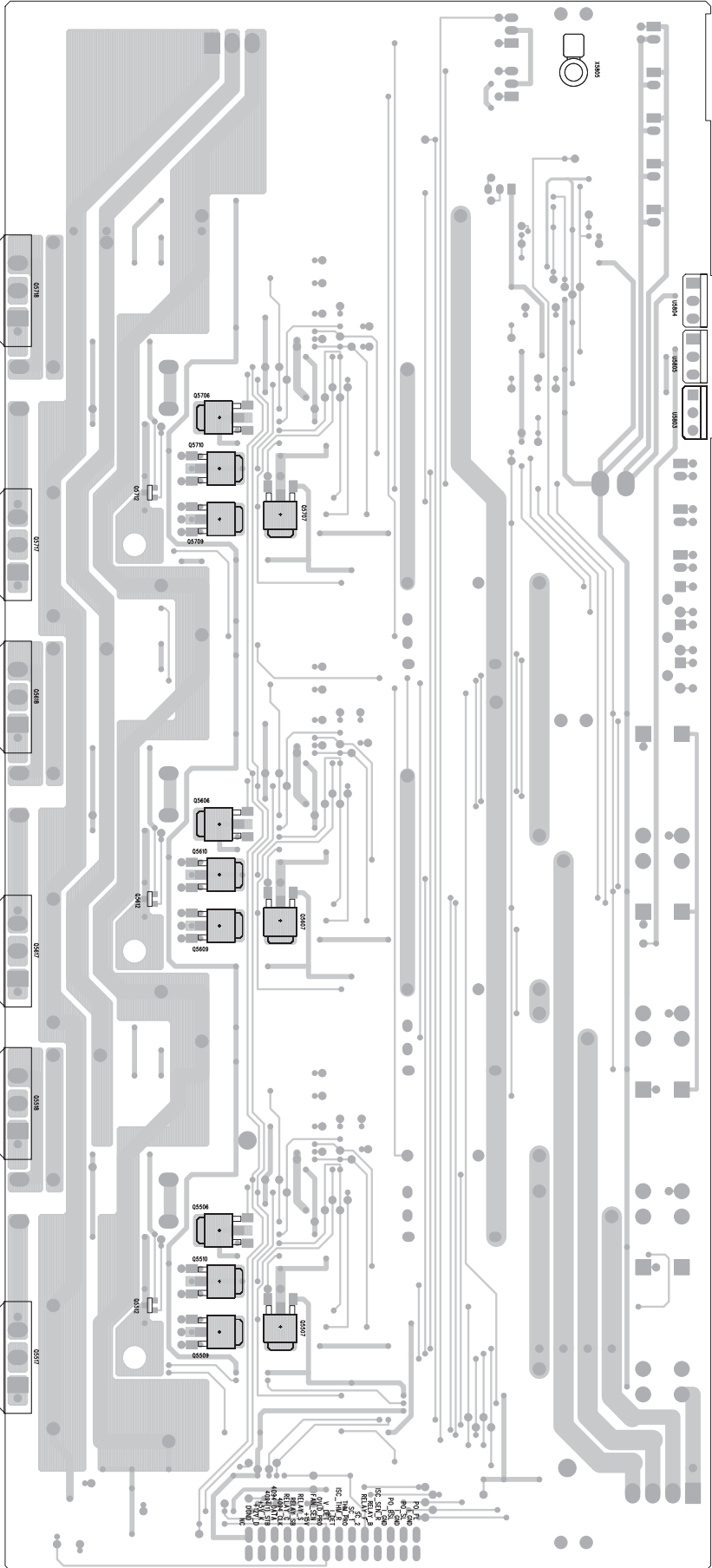
1. Rotate R5221 fully clockwise.
2. Connect DC millivoltmeter to P5501 (i.e. Across half of R5228 and R5530, 0.22 Ohm resistor).
3. Turn on the unit.
4. Adjust R5221 for 2mV +/- 0.2mV reading on voltmeter.
5. Leave power on for at least 5 min, and check for idle current again.
6. Repeat for other channels.

CHANNEL	JUMPER	VR
FL	P5501	R5521
FR	P5001	R5021
C	P5101	R5121
SL	P5601	R5621
SR	P5201	R5221
BS	P5701	R5721
BSR	P5301	R5321

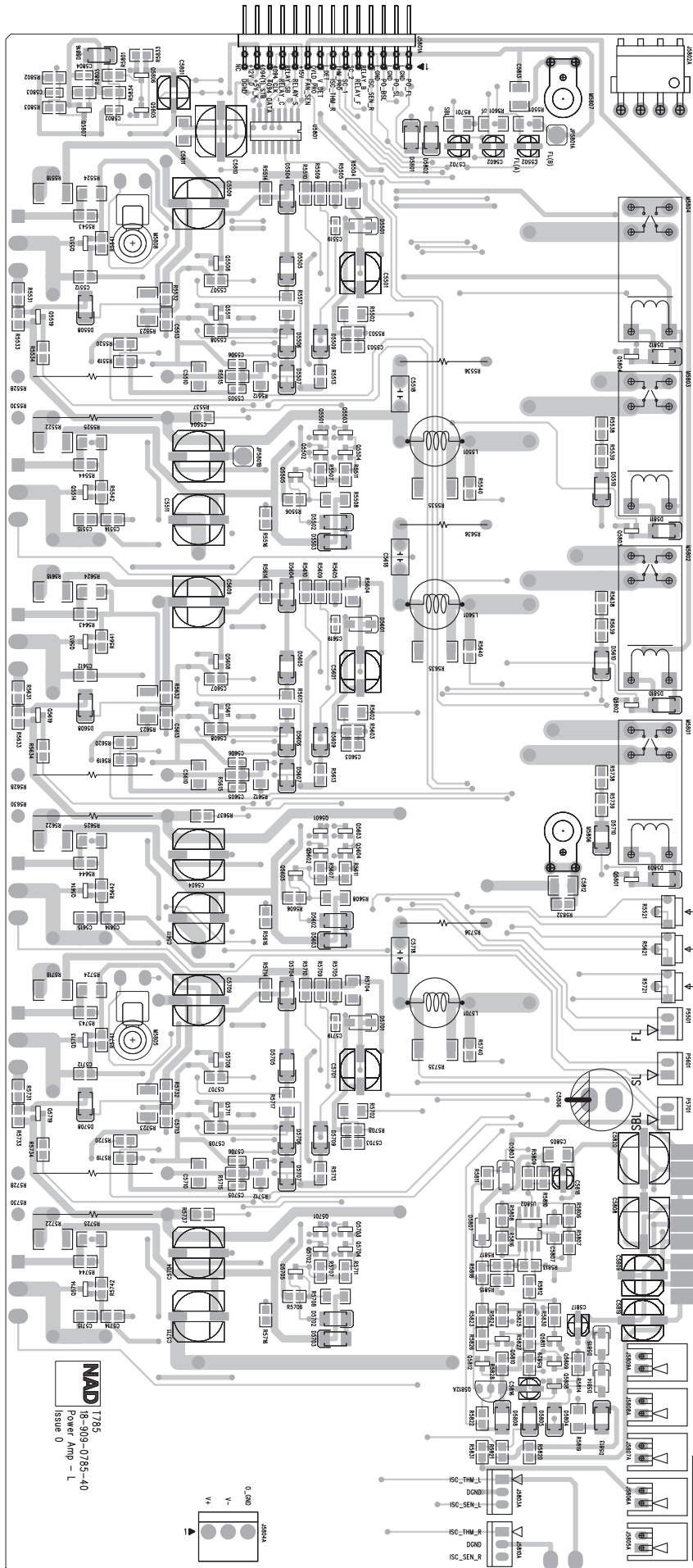
### ISC adjustment

- A. Rotate R8203 fully clockwise
- B. Use 500mV, 1kHz sine wave, EXT 7.1 input, 8 loading to all channels
- C. Increase the output power of FL/SL/BSL channels to 120W (31V)
- D. Note the THD readings should be larger than 0.2%
- E. Rotate R8203 anti-clockwise slowly until the THD reading is below 0.1%
- F. Repeat for R8303 using FR/SR/BSR/C channels.

**PCB LAYOUT  
POWER AMPLIFIER  
LEFT\_CH BOARD-COPPER SIDE**



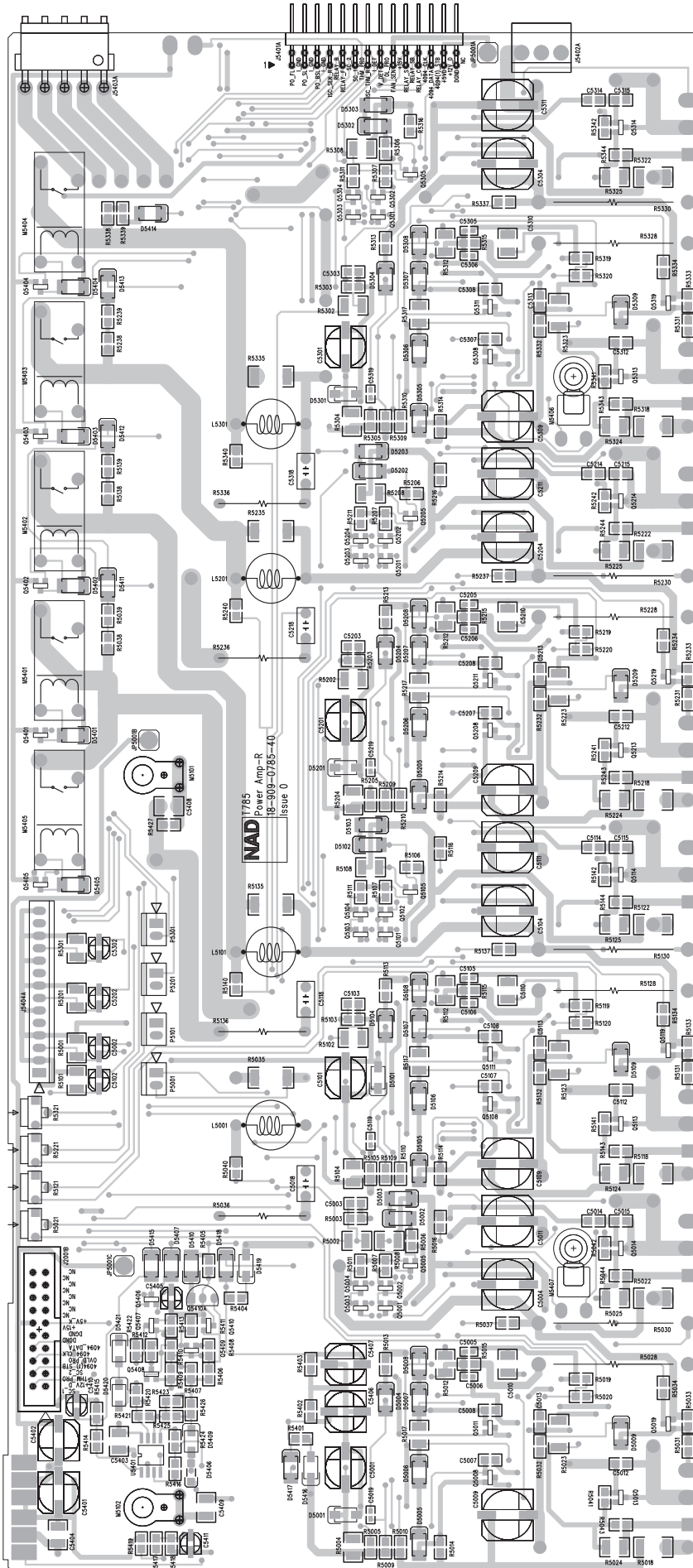
# LEFT\_CH BOARD - COMPONENT SIDE



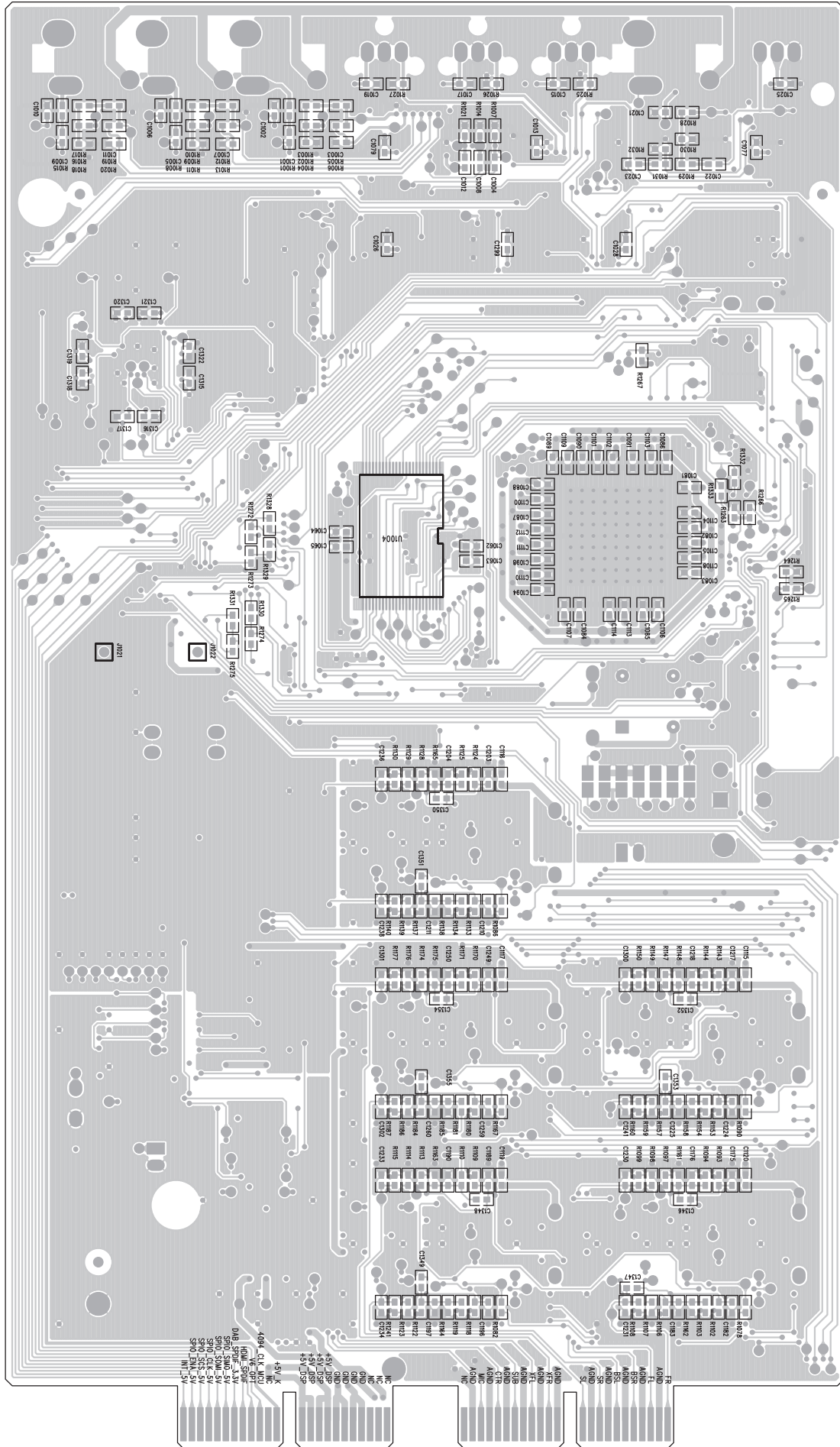




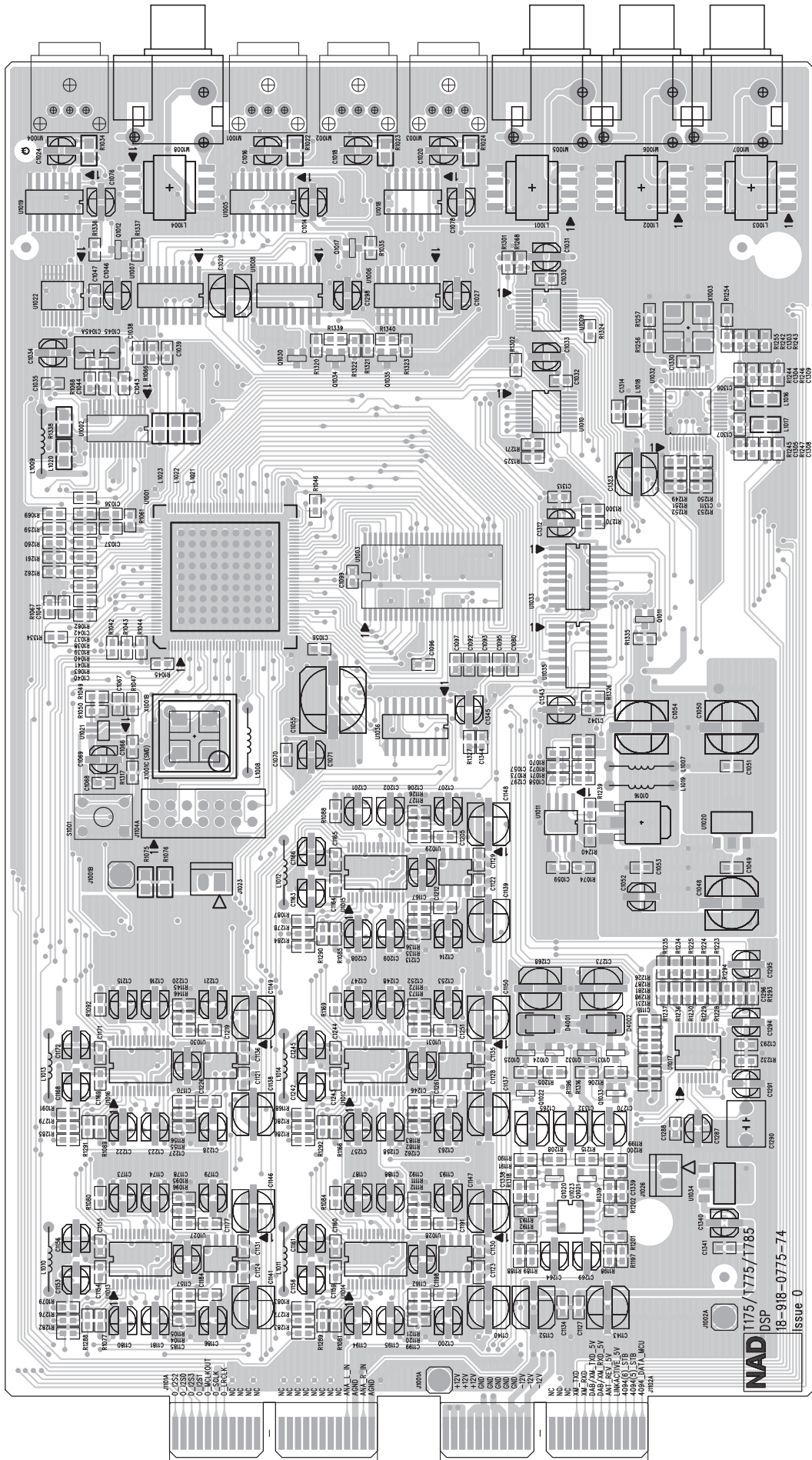
# RIGHT\_CH BOARD-COMPONENT SIDE



# DSP BOARD - COPPER SIDE



# DSP BOARD - COMPONENT SIDE



**NAD**  
 DSP  
 1175/1775/1785  
 18-918-0775-74  
 ISSUE 0



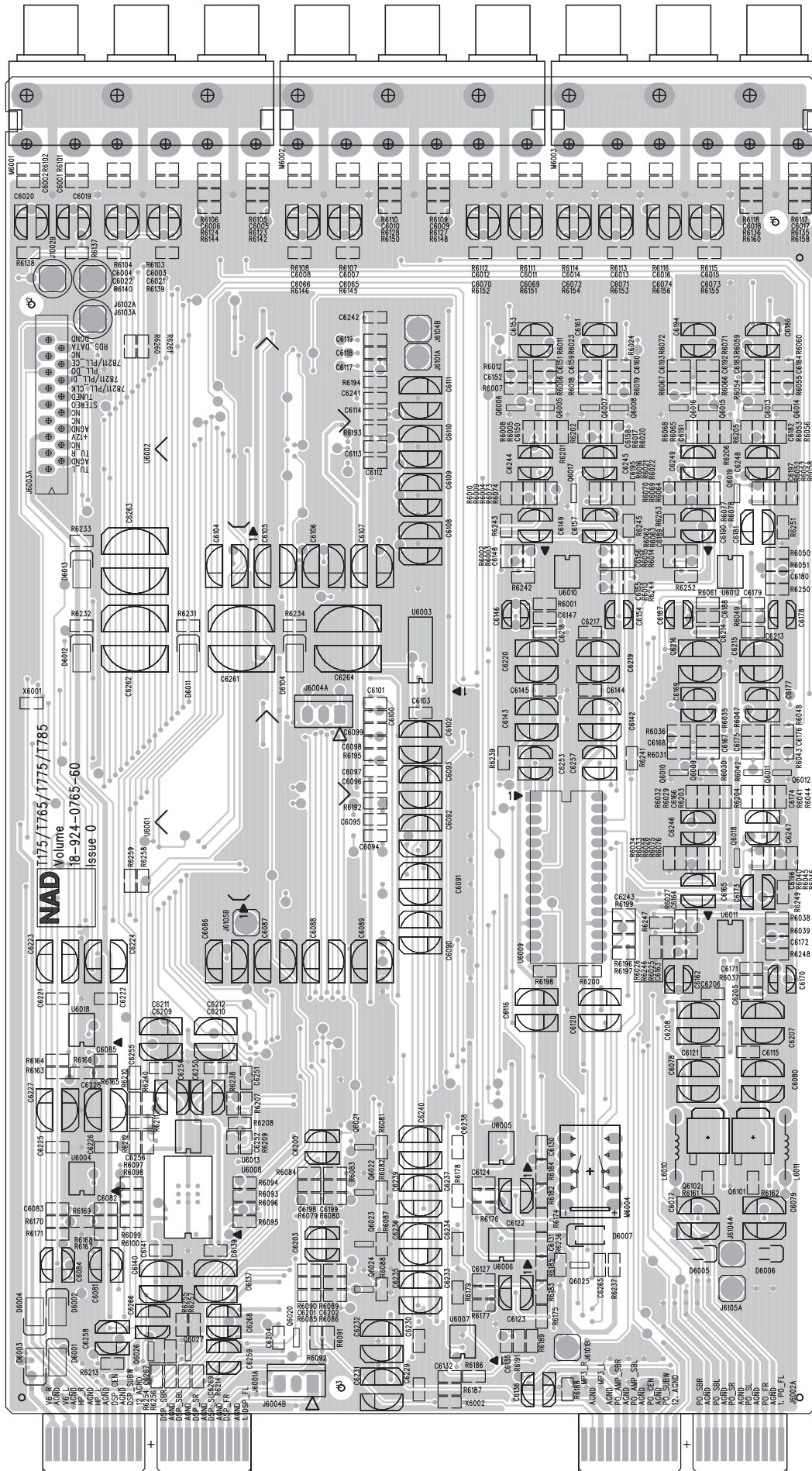








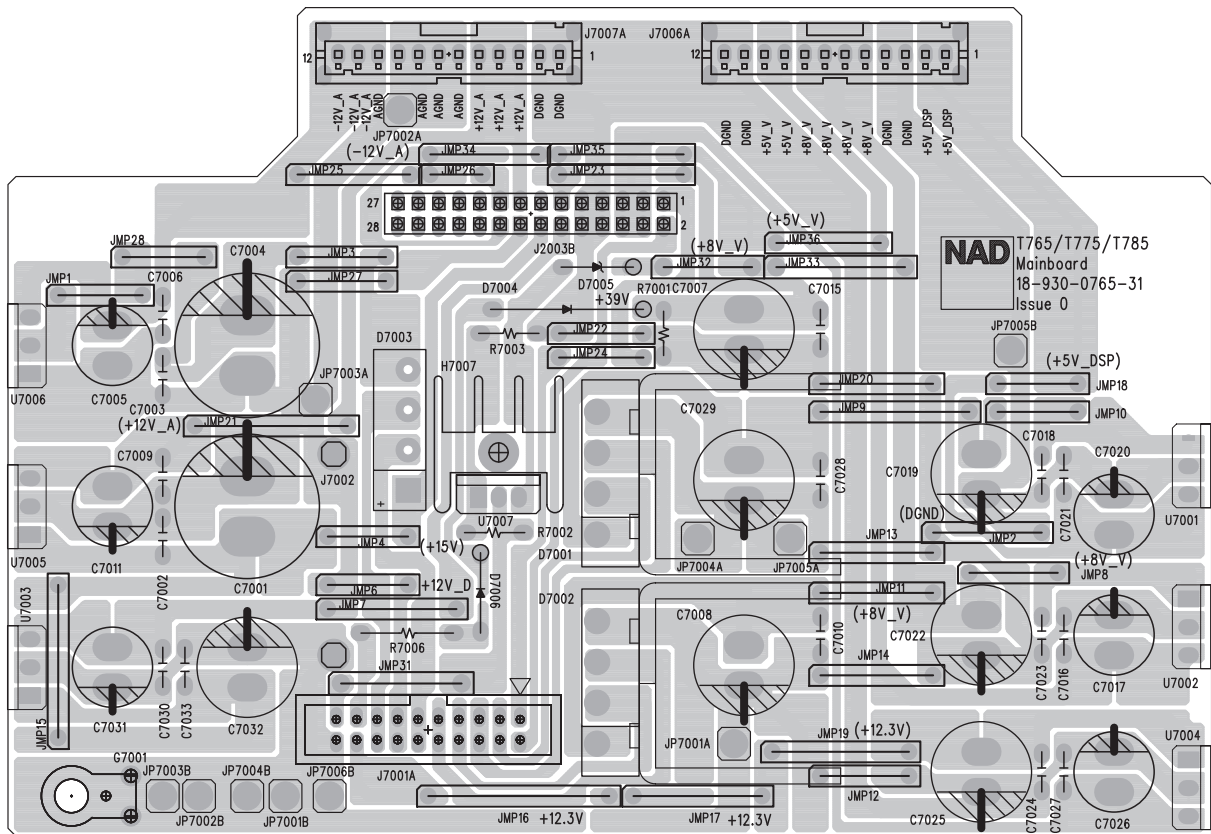
# VOLUME BOARD - COMPONENT SIDE



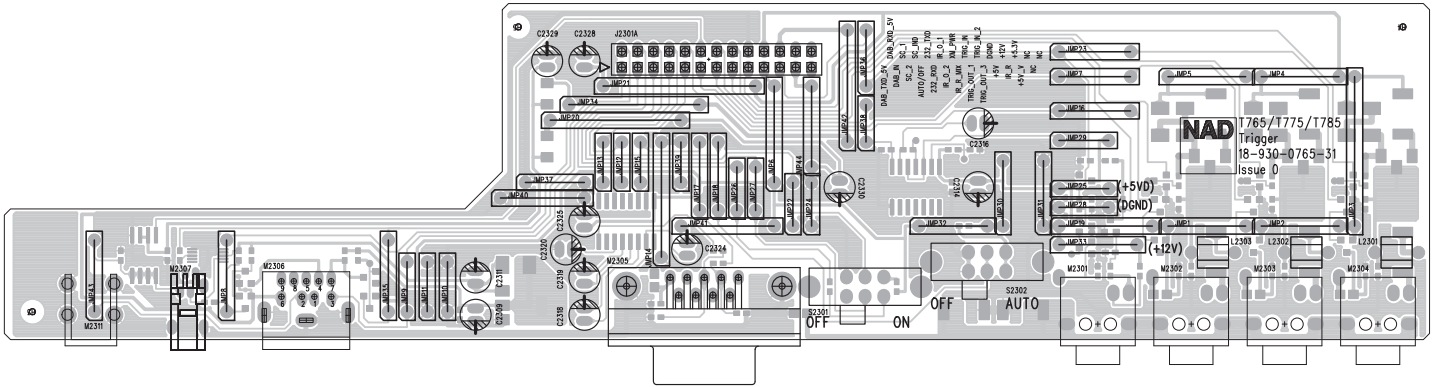




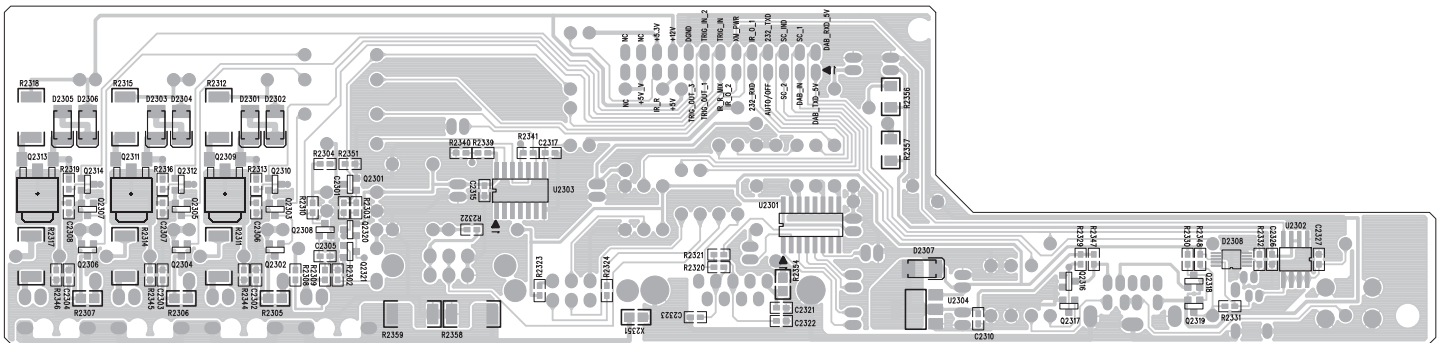
# MAIN BOARD -COMPONENT SIDE



# TRIGGER BOARD - COMPONENT SIDE

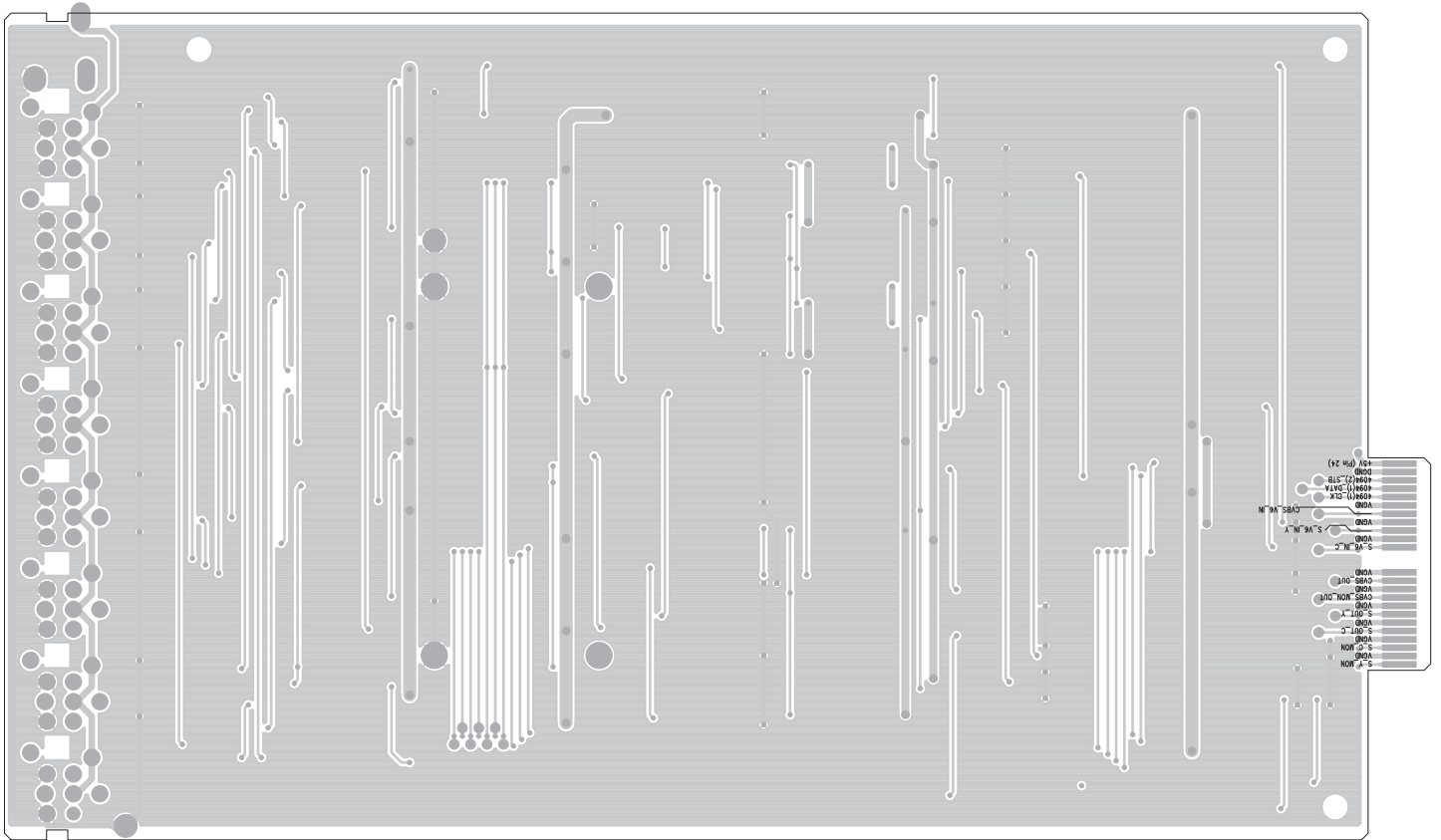


# TRIGGER BOARD - COPPER SIDE

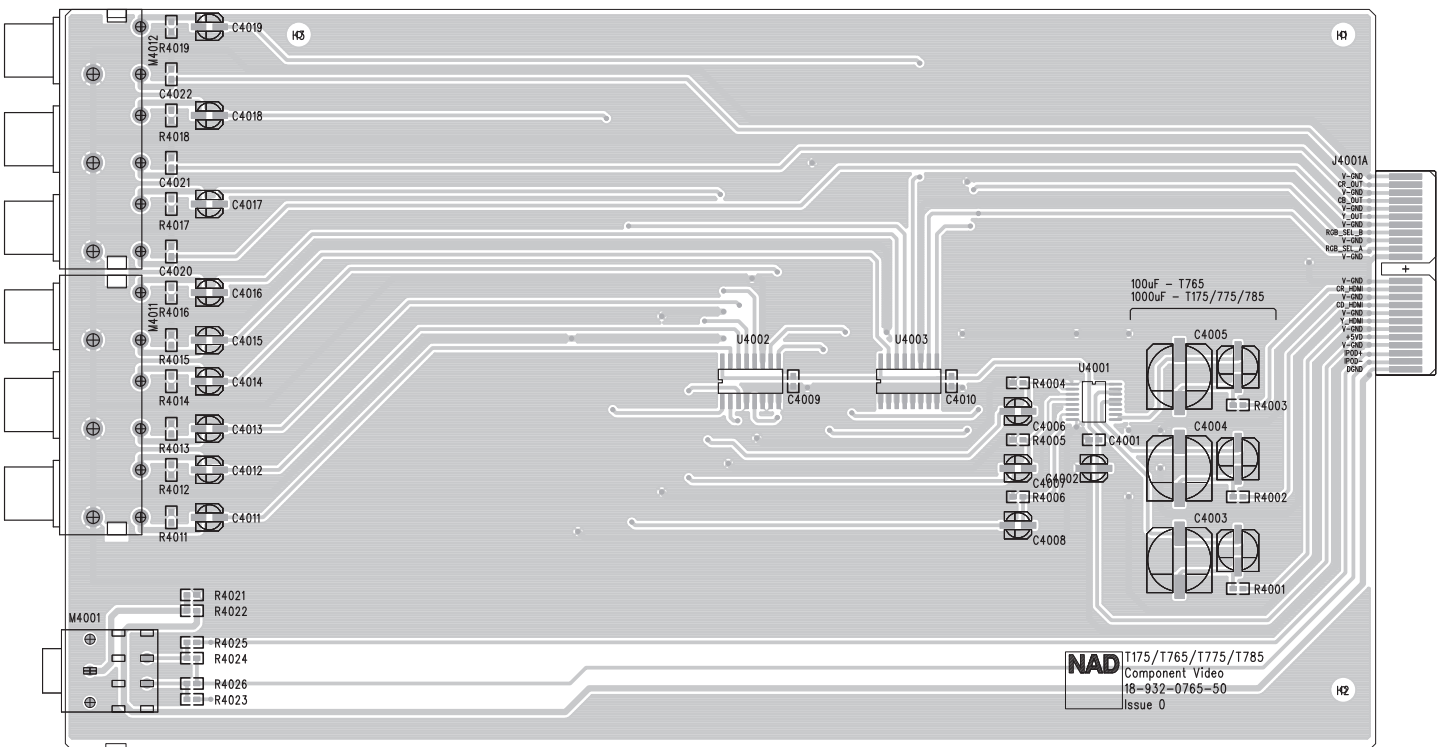




# VIDEO BOARD - COPPER SIDE

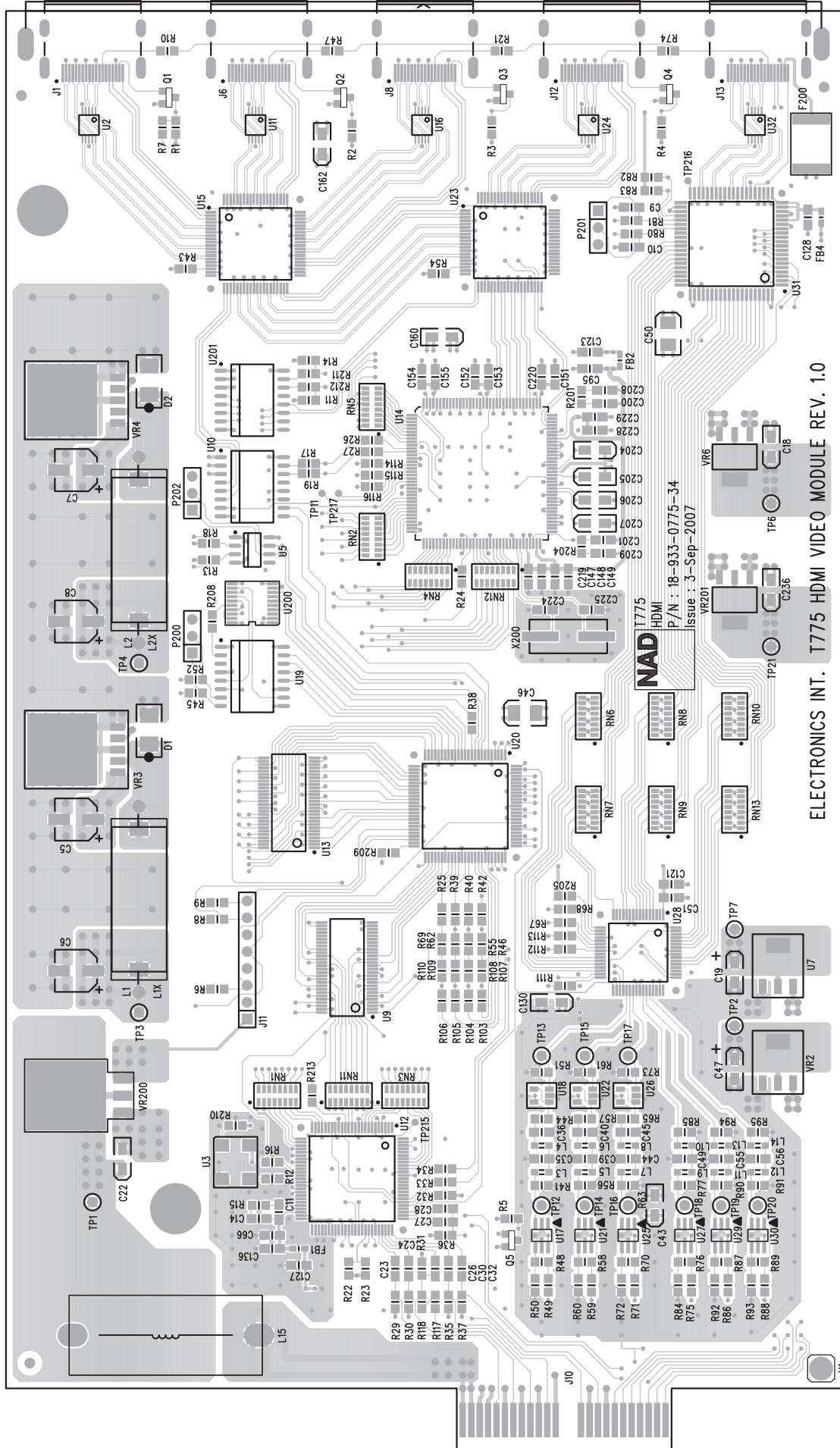


# VIDEO BOARD - COMPONENT SIDE





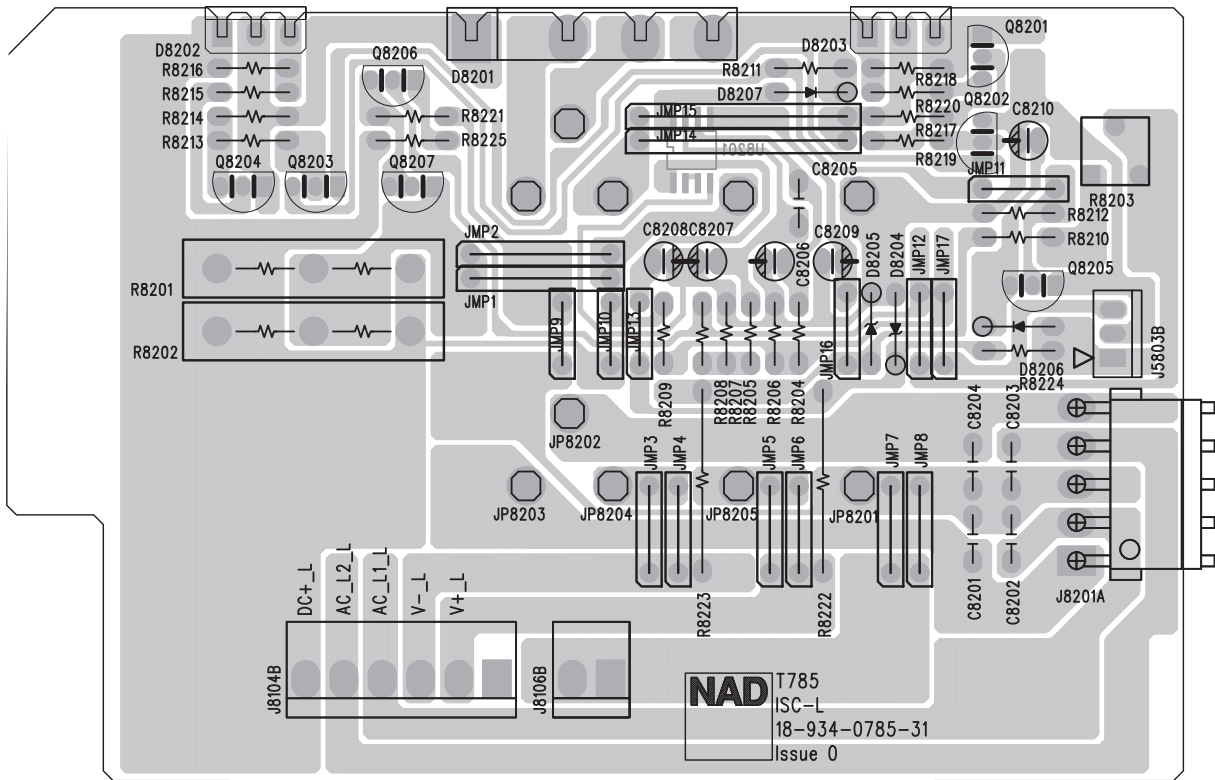
# HDMI BOARD-COMPONENT SIDE



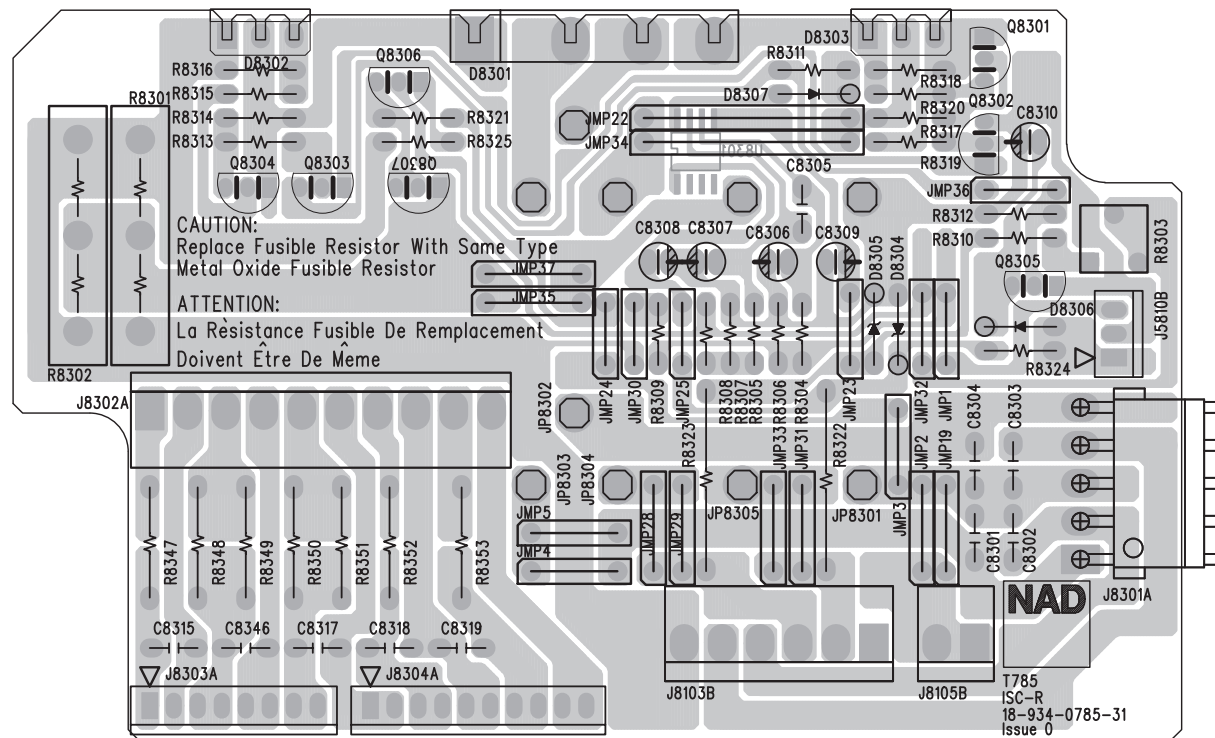
ELECTRONICS INT. T775 HDMI VIDEO MODULE REV. 1.0



## PSU-ISC-L BOARD-COMPONENT SIDE



## PSU-ISC-R BOARD-COPPER SIDE

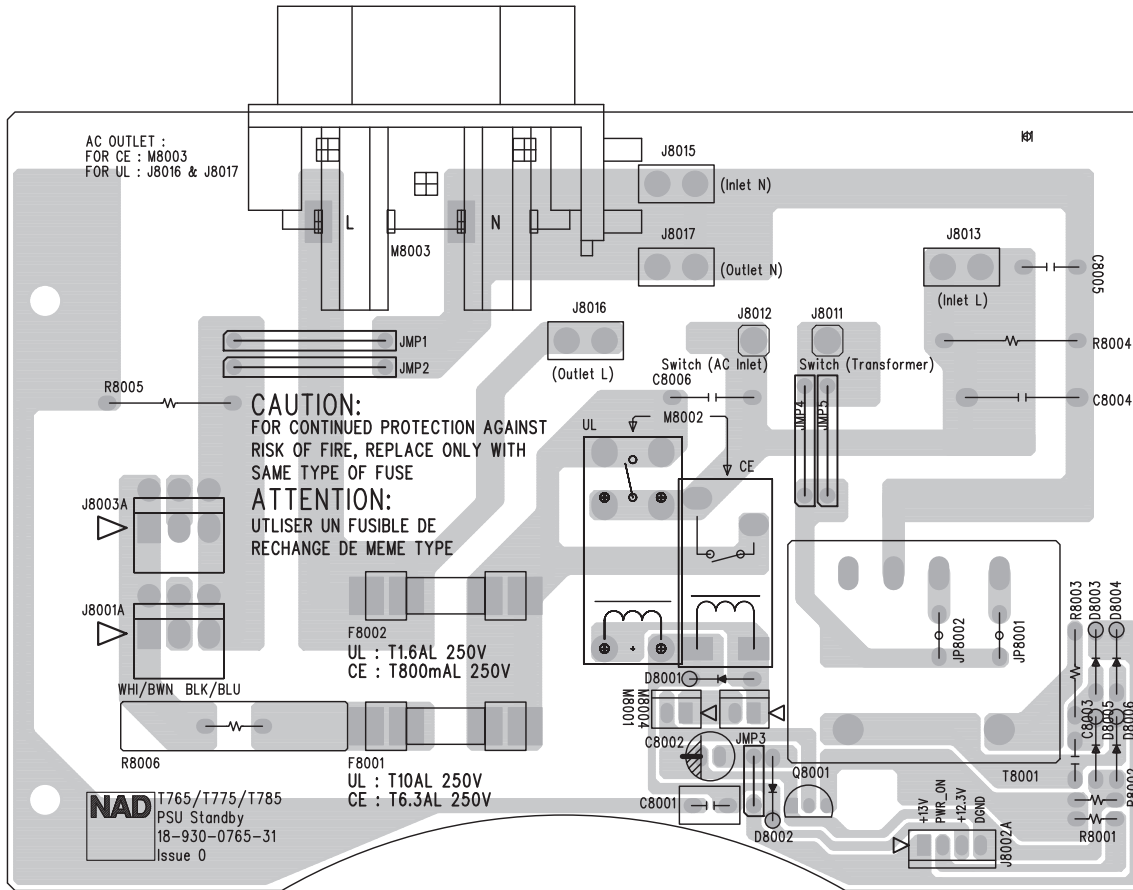




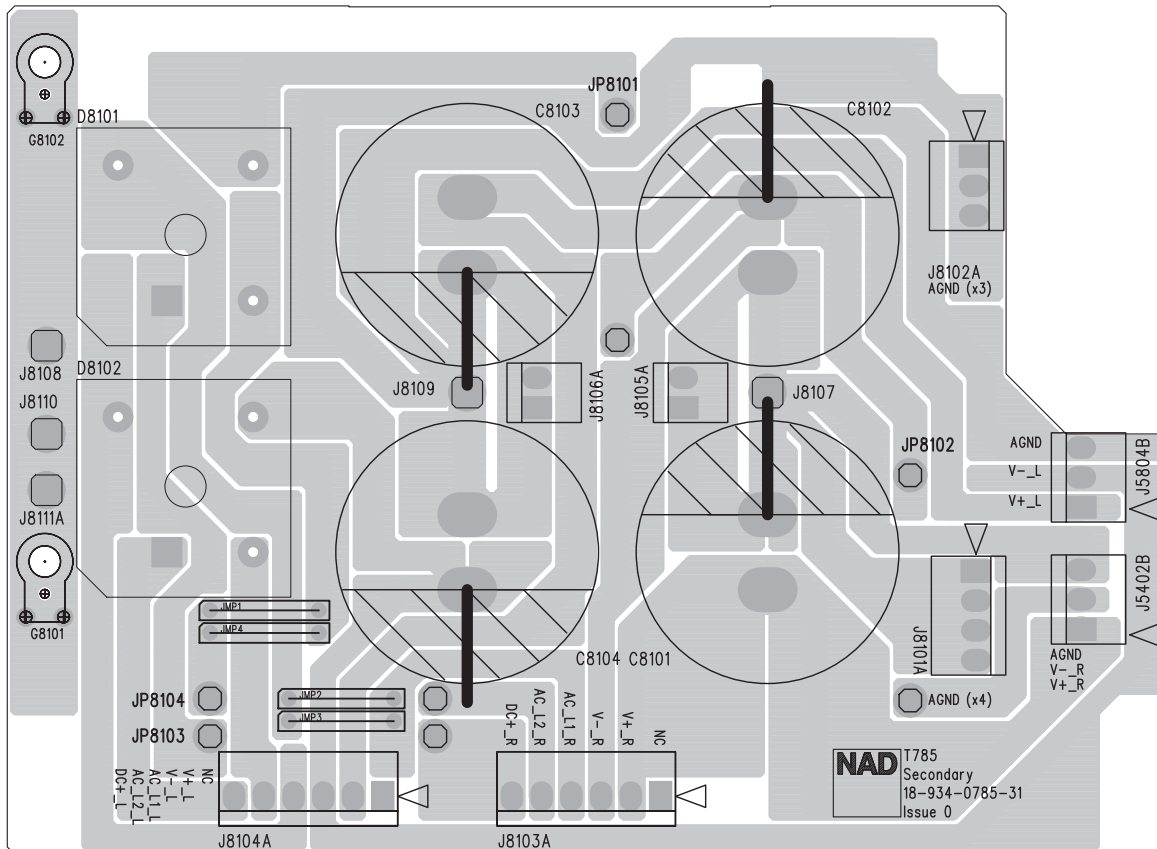




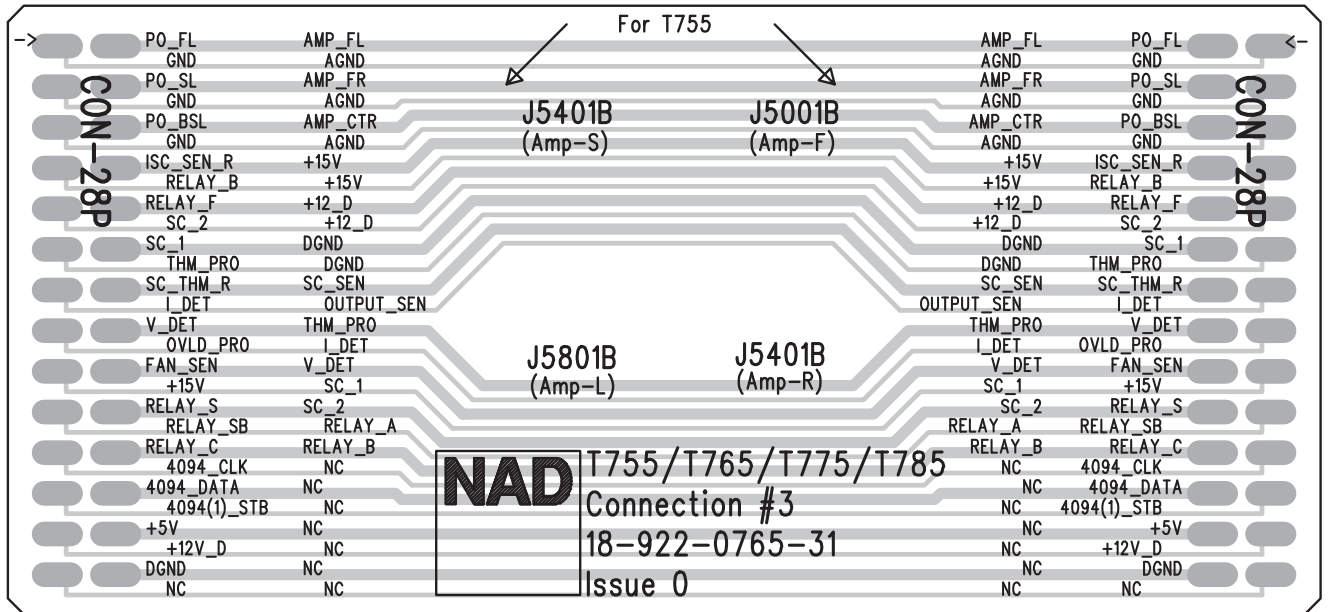
# PSU-STD BOARD-COMPONENT SIDE



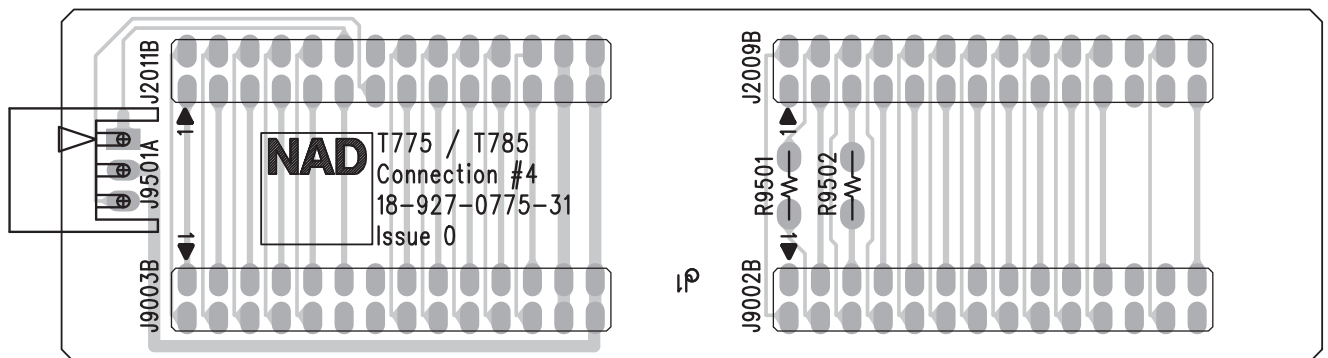
# PSU-SECONDARY BOARD-COMPONENT SIDE



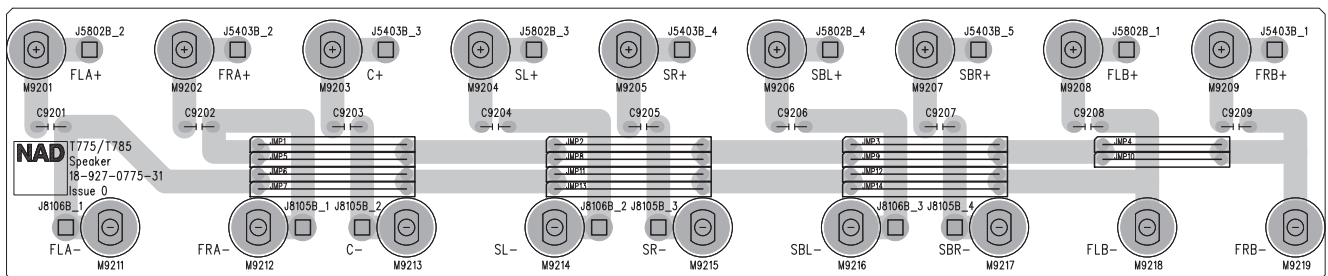
### CONNECTOR-3 BOARD-COMPONENT SIDE



### CONNECTOR-4 BOARD-COMPONENT SIDE



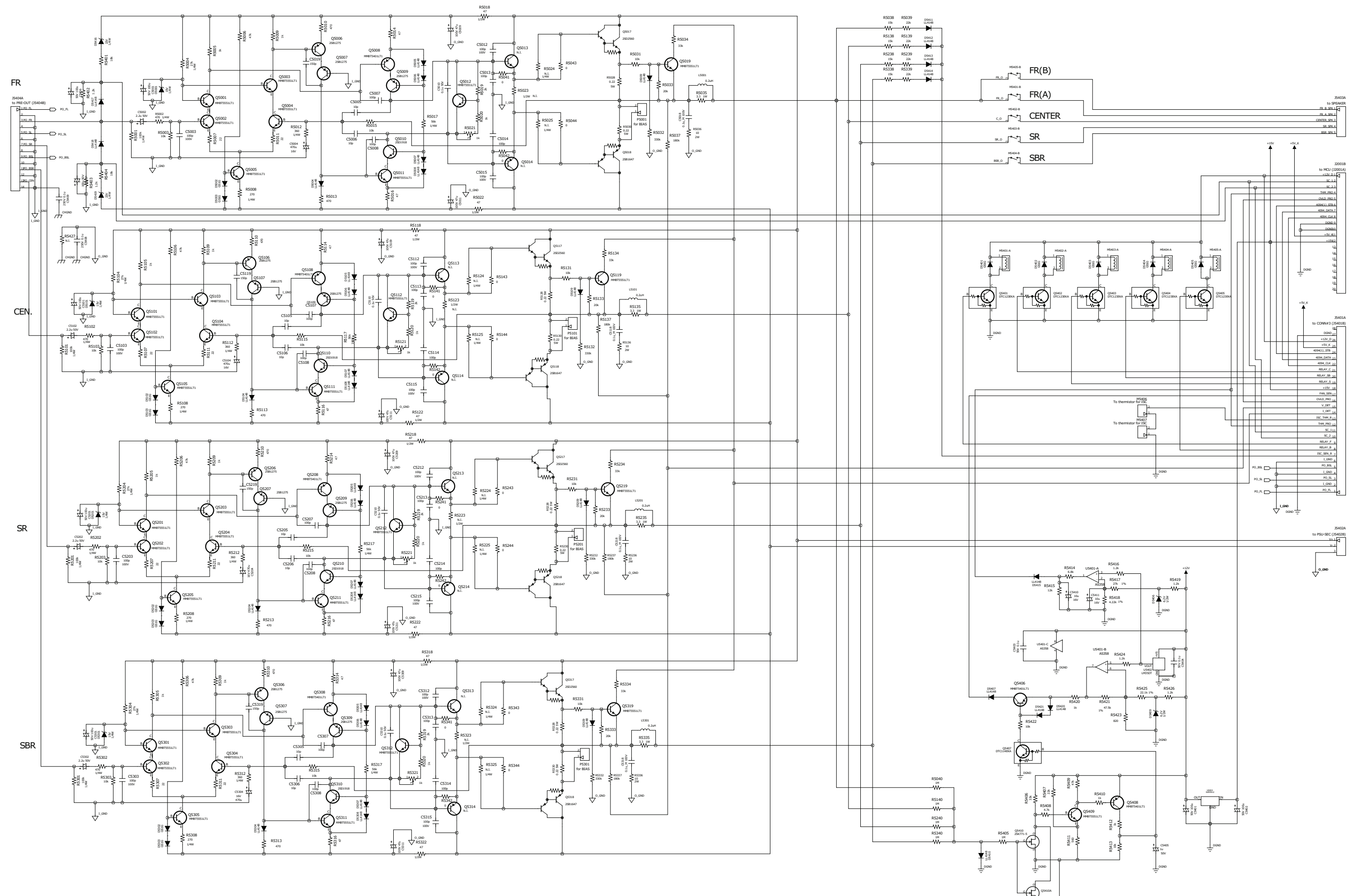
### SPEAKER BOARD-COMPONENT SIDE





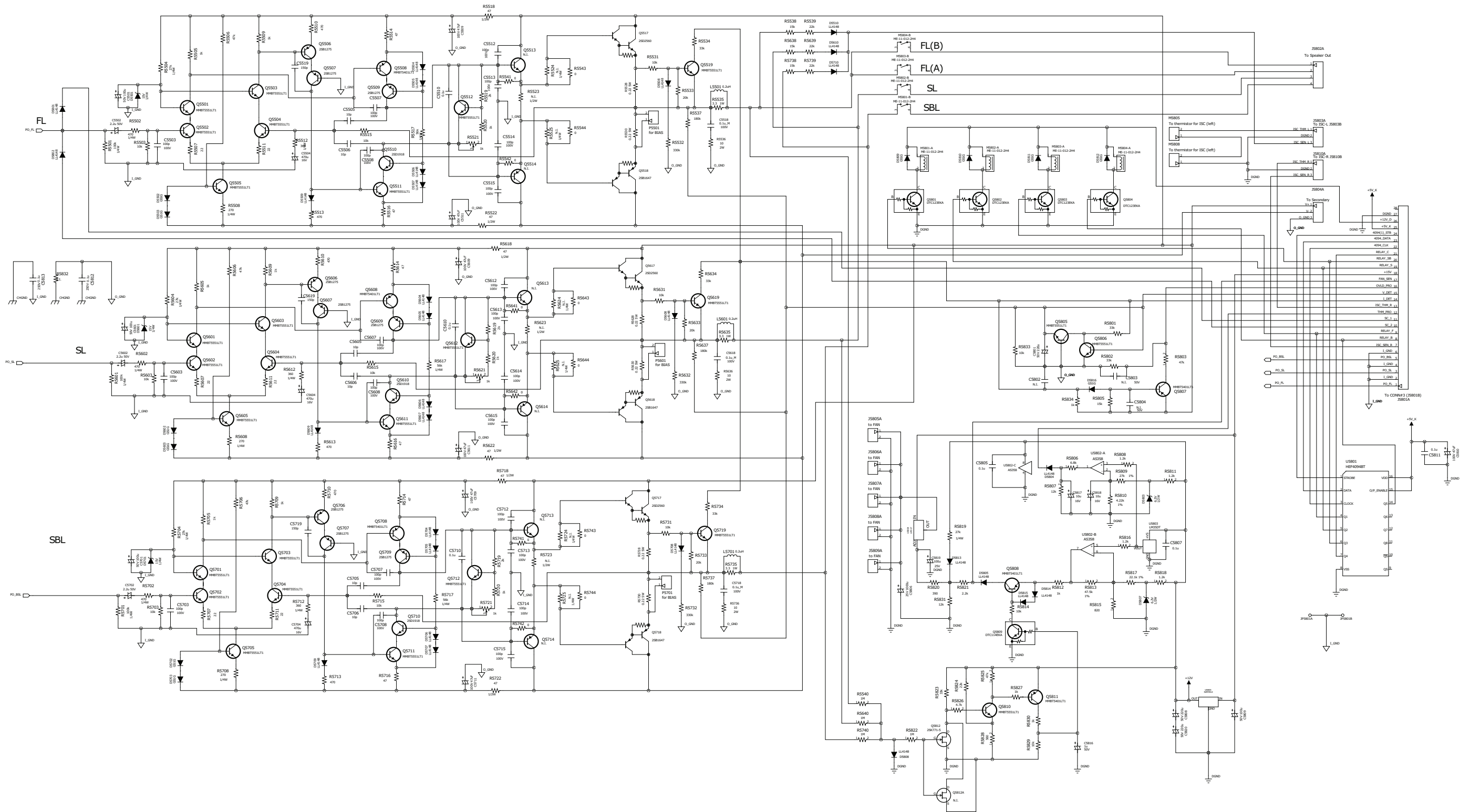
# SCHEMATIC DIAGRAM

## POWER AMPLIFIER RIGHT-CH

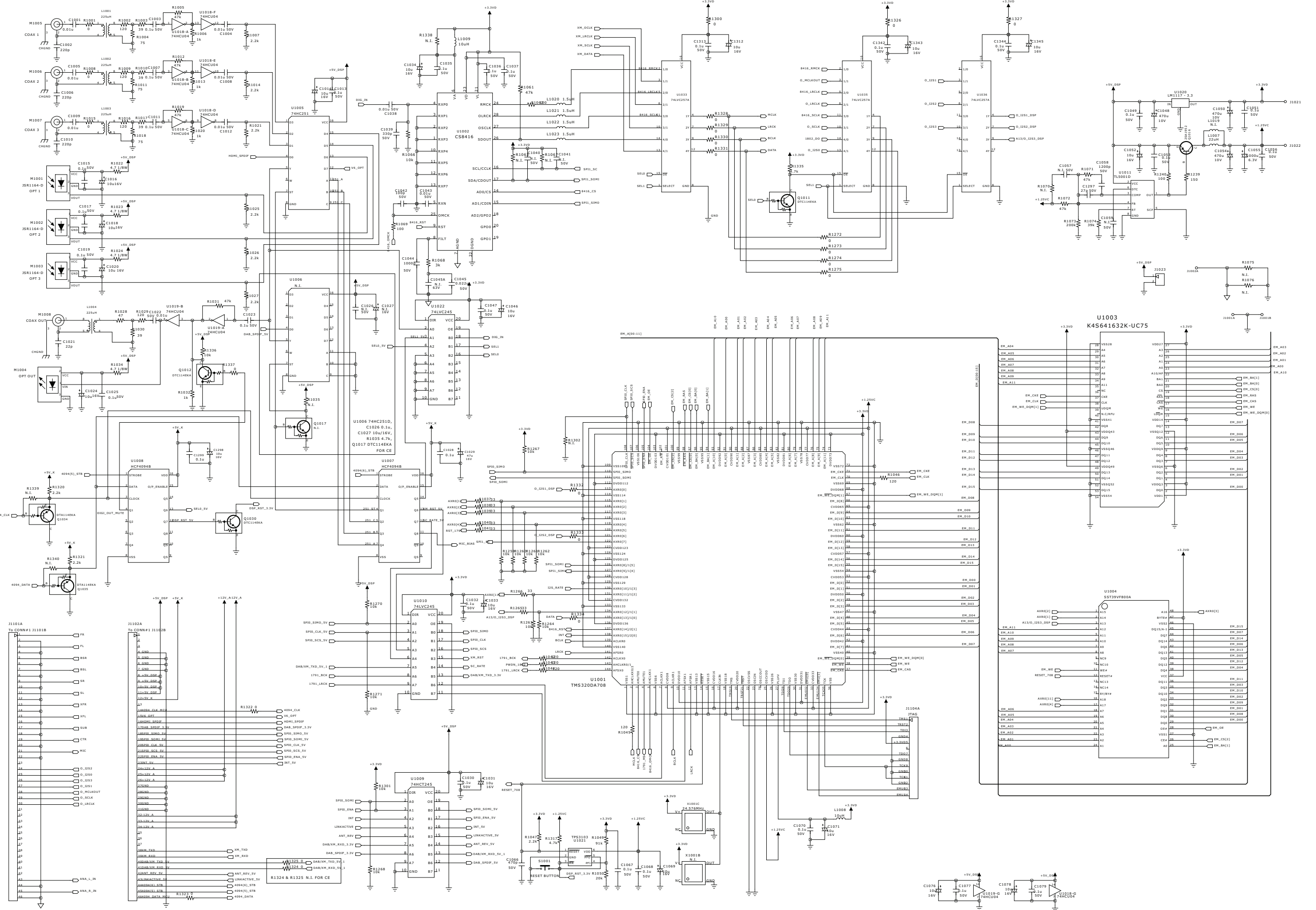




# POWER AMPLIFIER LEFT-CH



DSP-1

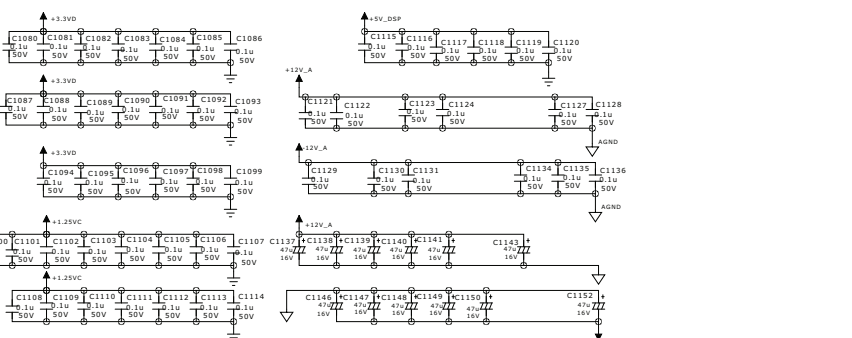
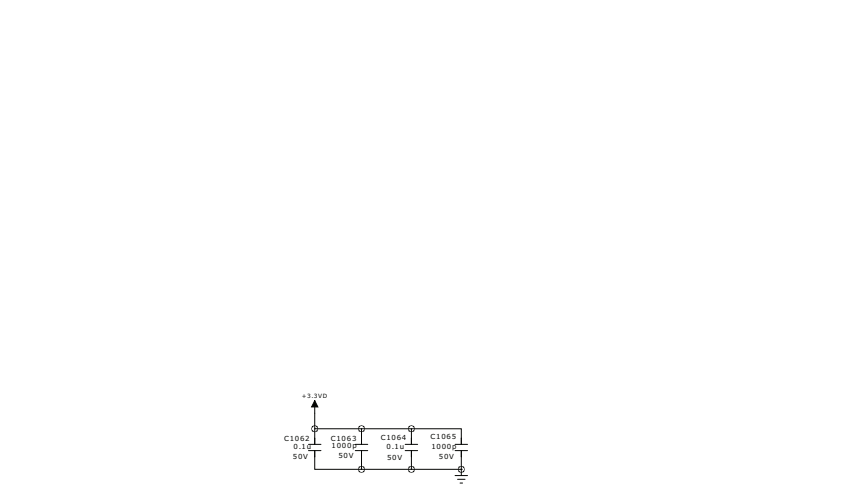
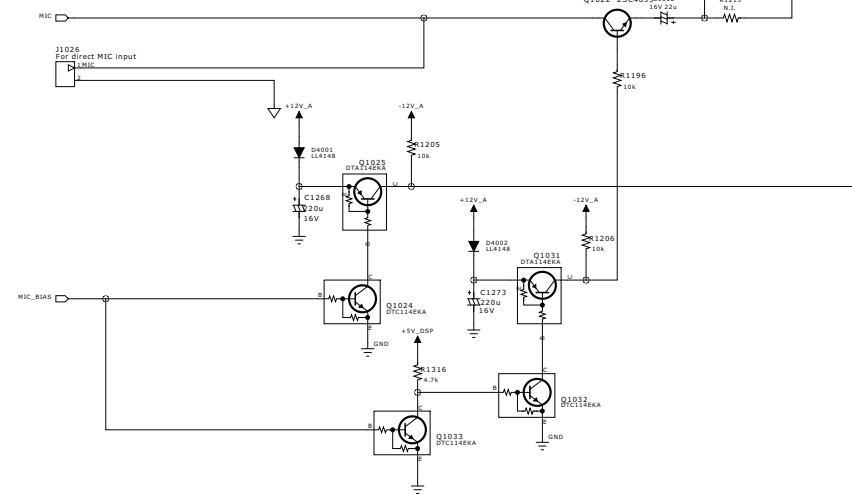
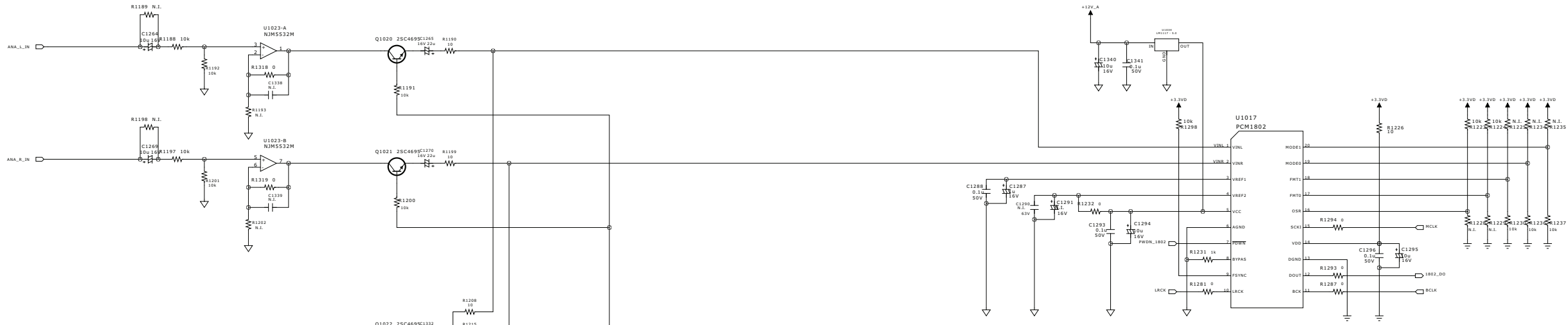




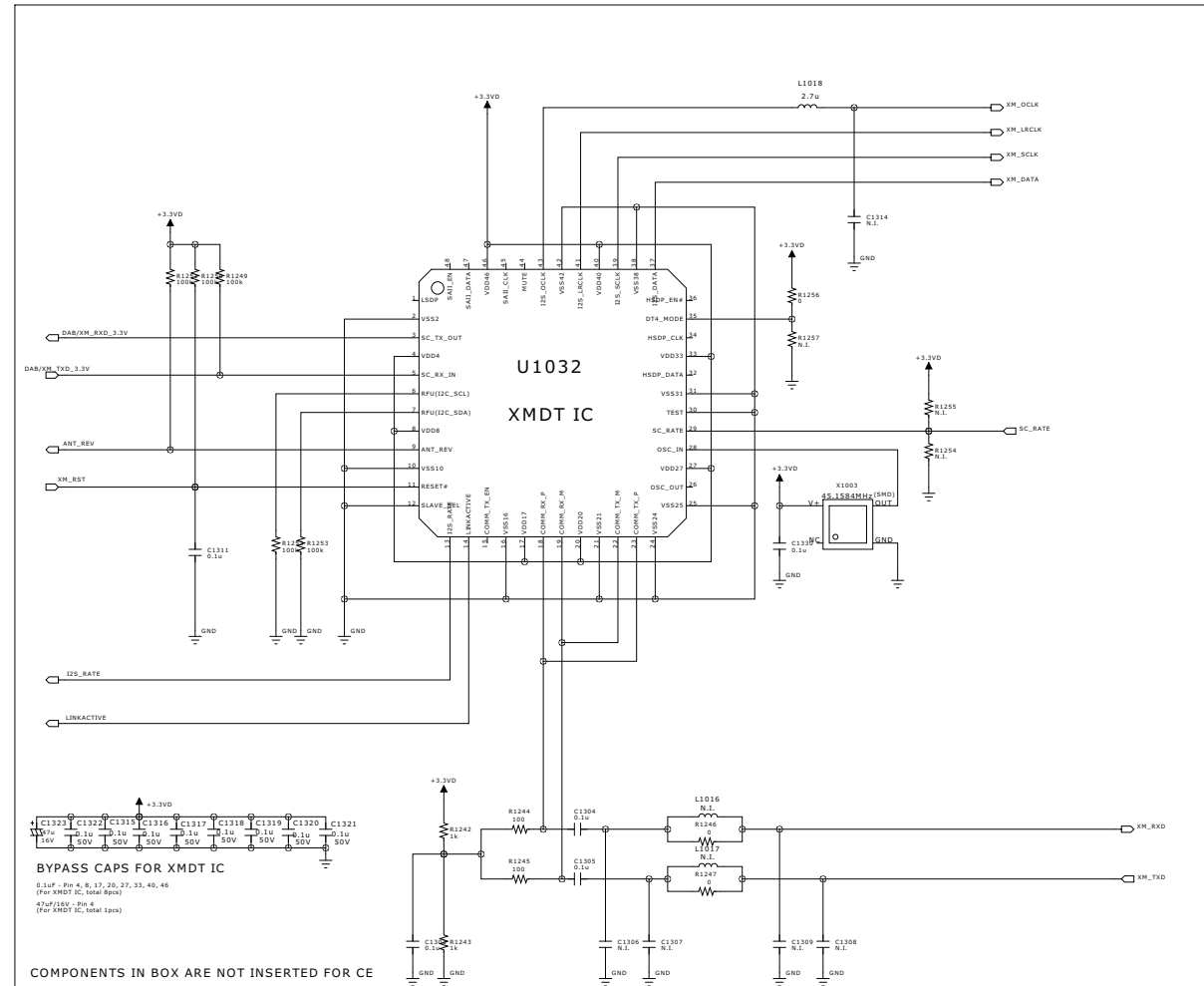
# DSP-2



# DSP-3

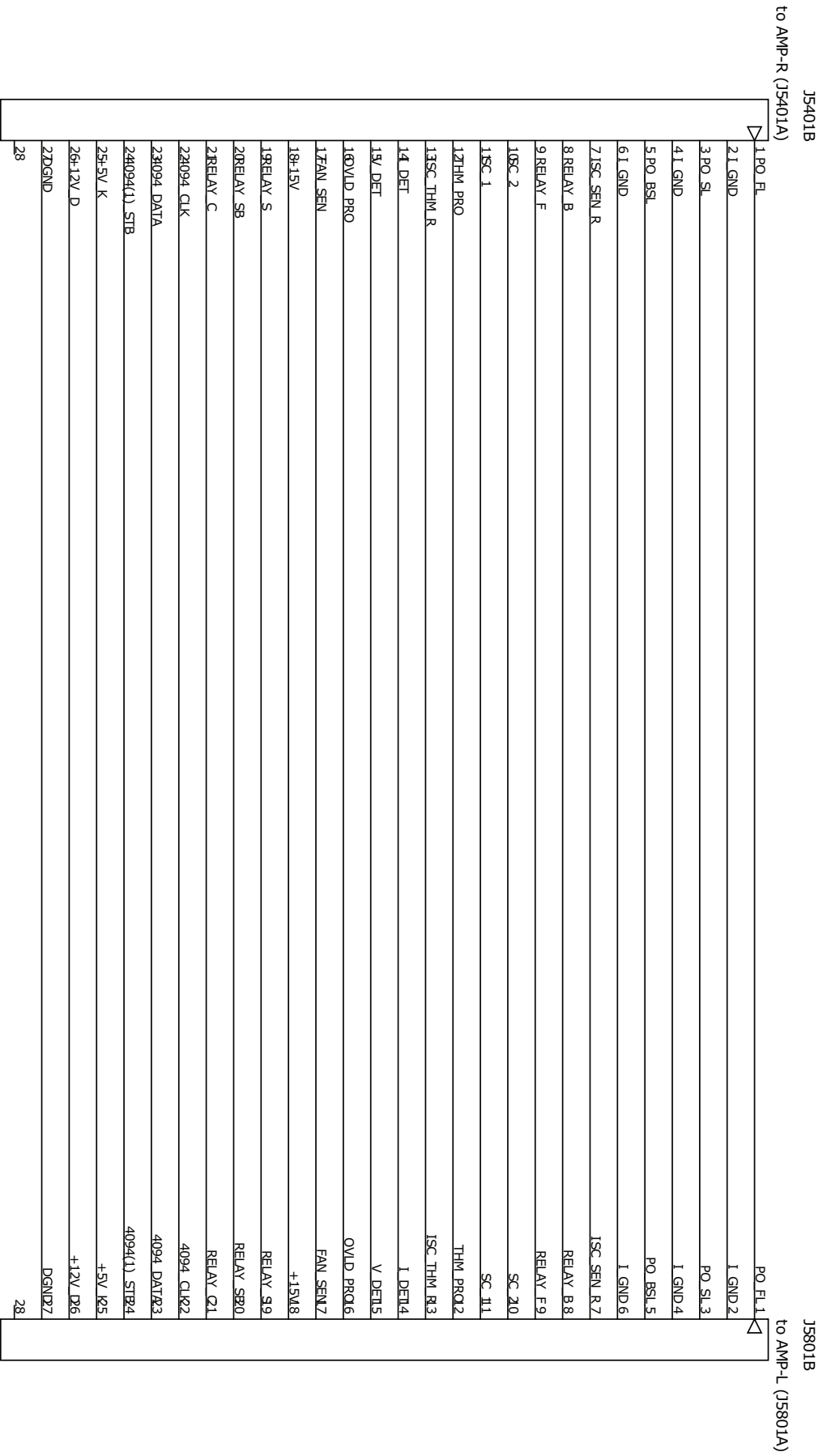


**BYPASS CAPS FOR DA708 & OPA2134**  
 0.1uF - Pin 8, 14, 20, 21, 44, 53, 57, 65, 77, 85, 90, 101, 123, 128, 132, 10, 31, 42, 50, 60, 66, 73, 81, 92, 103, 112, 125, 136  
 (For DA708, total 28caps)  
 0.1uF - Pin 8, 4  
 (For NJM5532 \* 7, total 14caps)  
 0.1uF - Pin 2, 3, 16, 27, 40, 49  
 (For ST4841/LA1, total 2caps)  
 47uF/50V - Pin 5, 6  
 (For NJM5532 \* 7, total 14caps)  
 0.1uF - Pin 37, 47  
 (For SST3V90A, total 2caps)  
 1000pF - Pin 17, 47  
 (For SST3V90A, total 2caps)



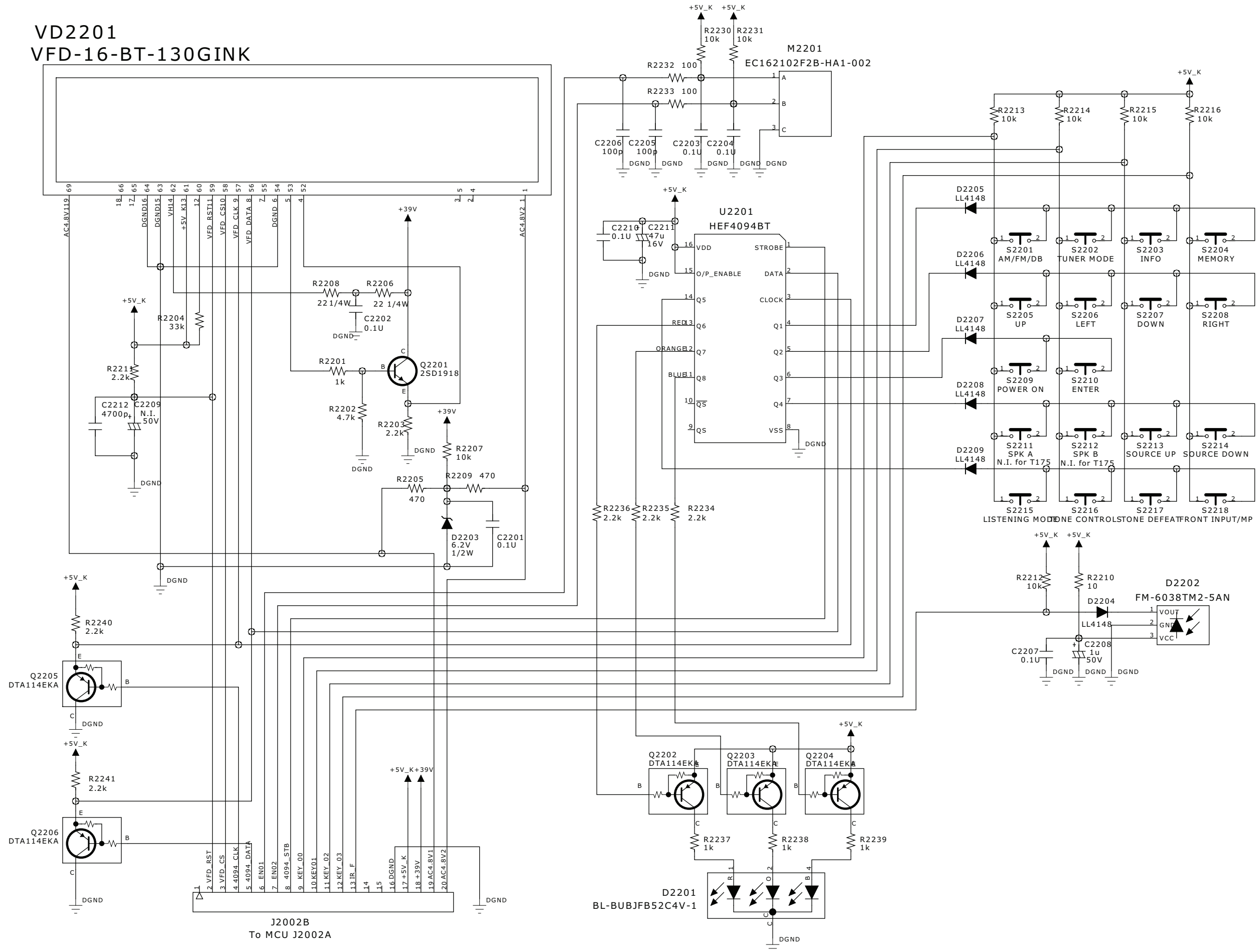
**BYPASS CAPS FOR XMDT IC**  
 0.1uF - Pin 4, 8, 17, 20, 27, 33, 40, 46  
 (For XMDT IC, total 8caps)  
 47uF/50V - Pin 4  
 (For XMDT IC, total 1caps)  
**COMPONENTS IN BOX ARE NOT INSERTED FOR CE**

CONNECTOR-3

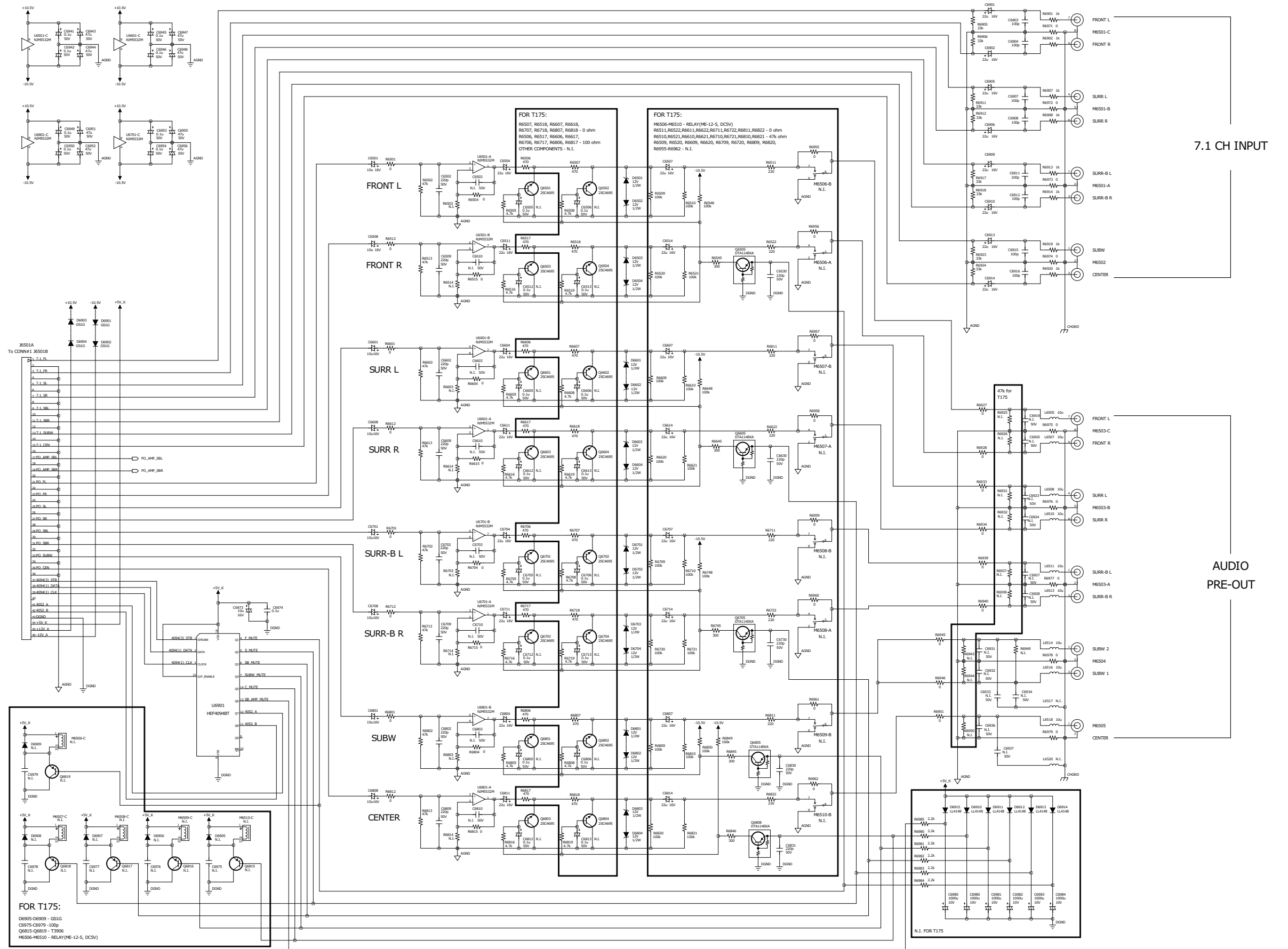


# KEYBOARD

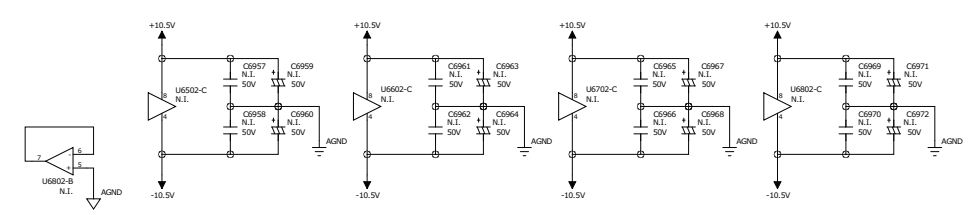
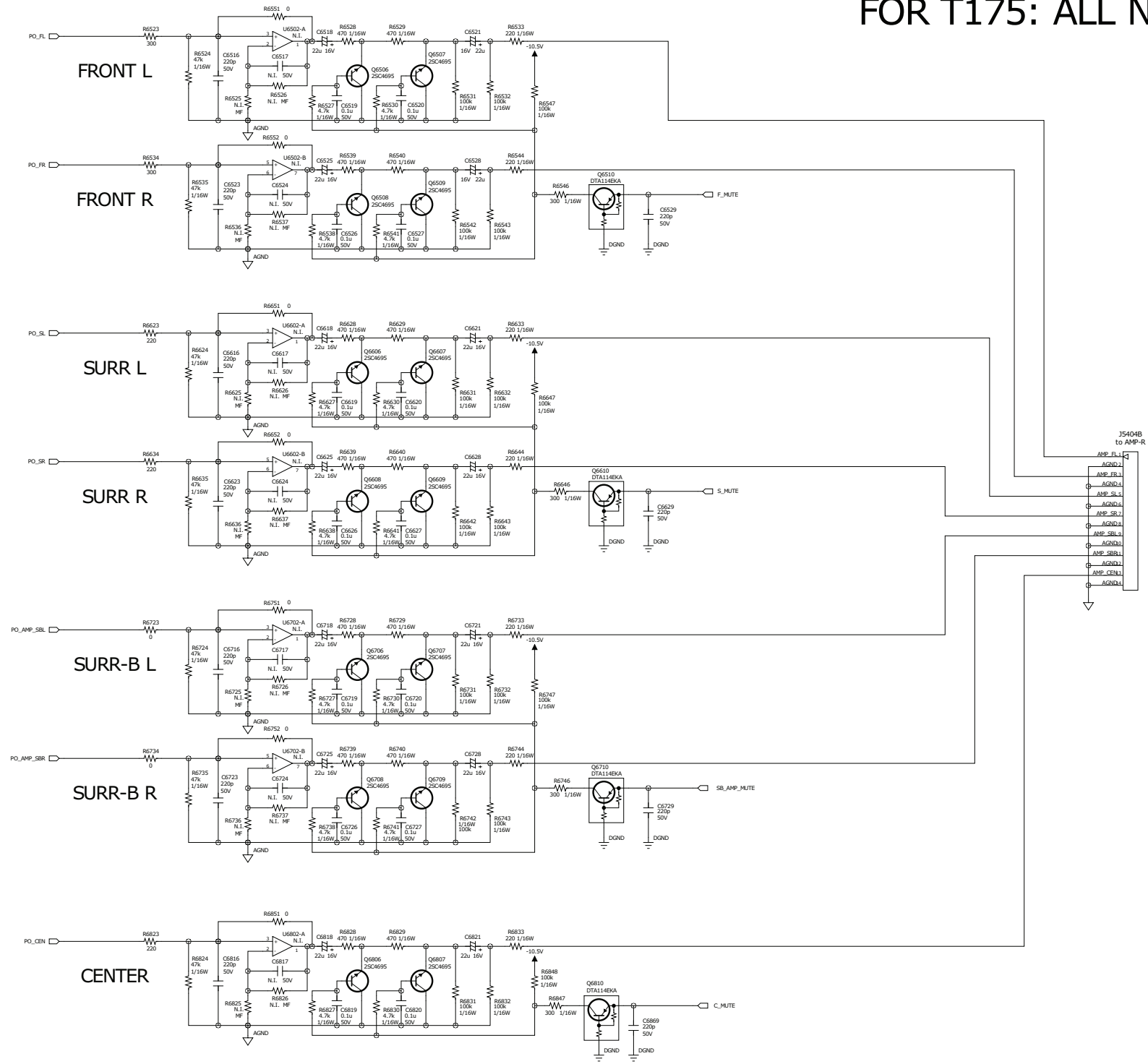
VD2201  
VFD-16-BT-130GINK



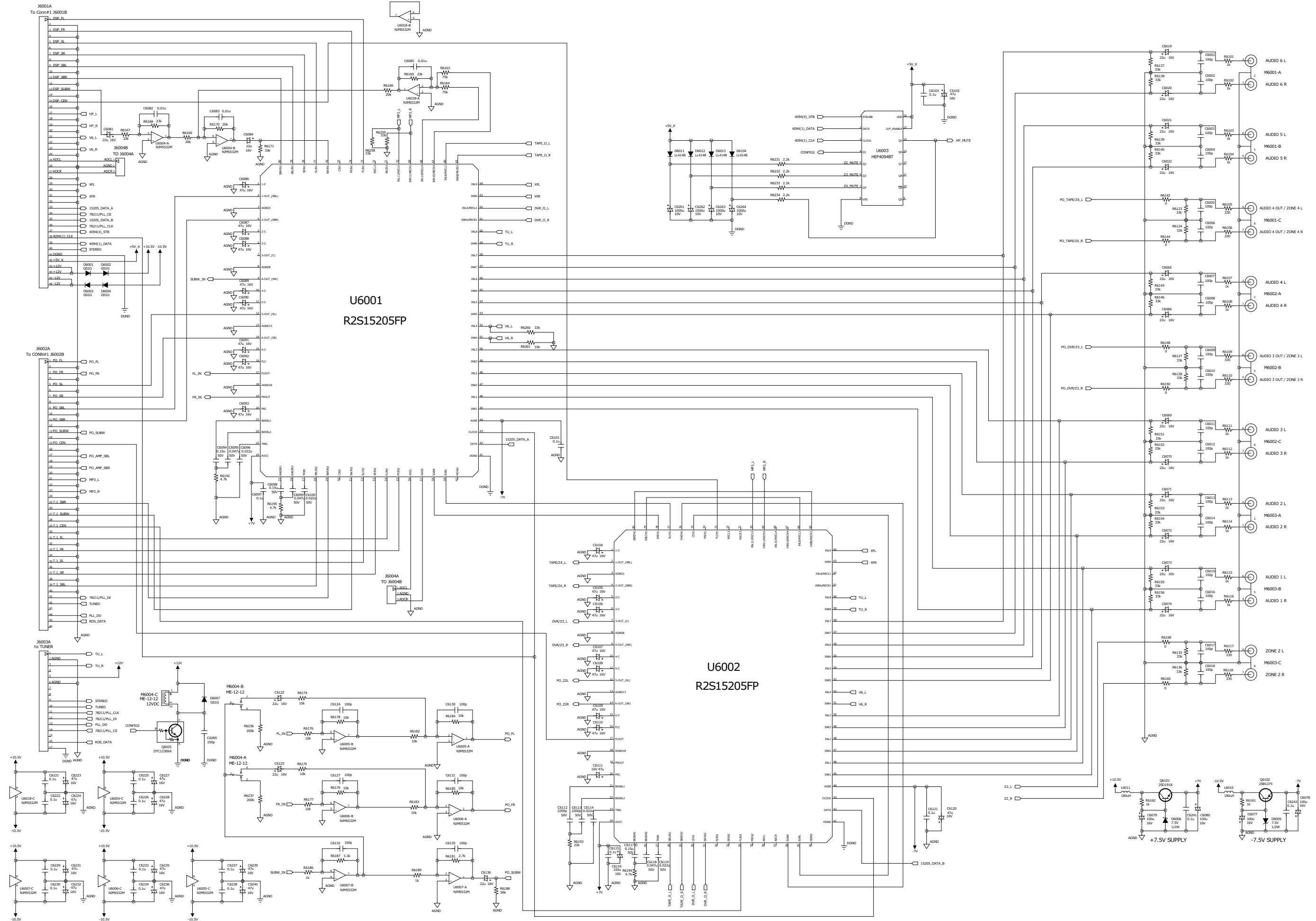
PRE-OUT-1



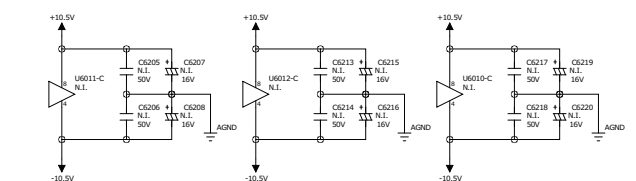
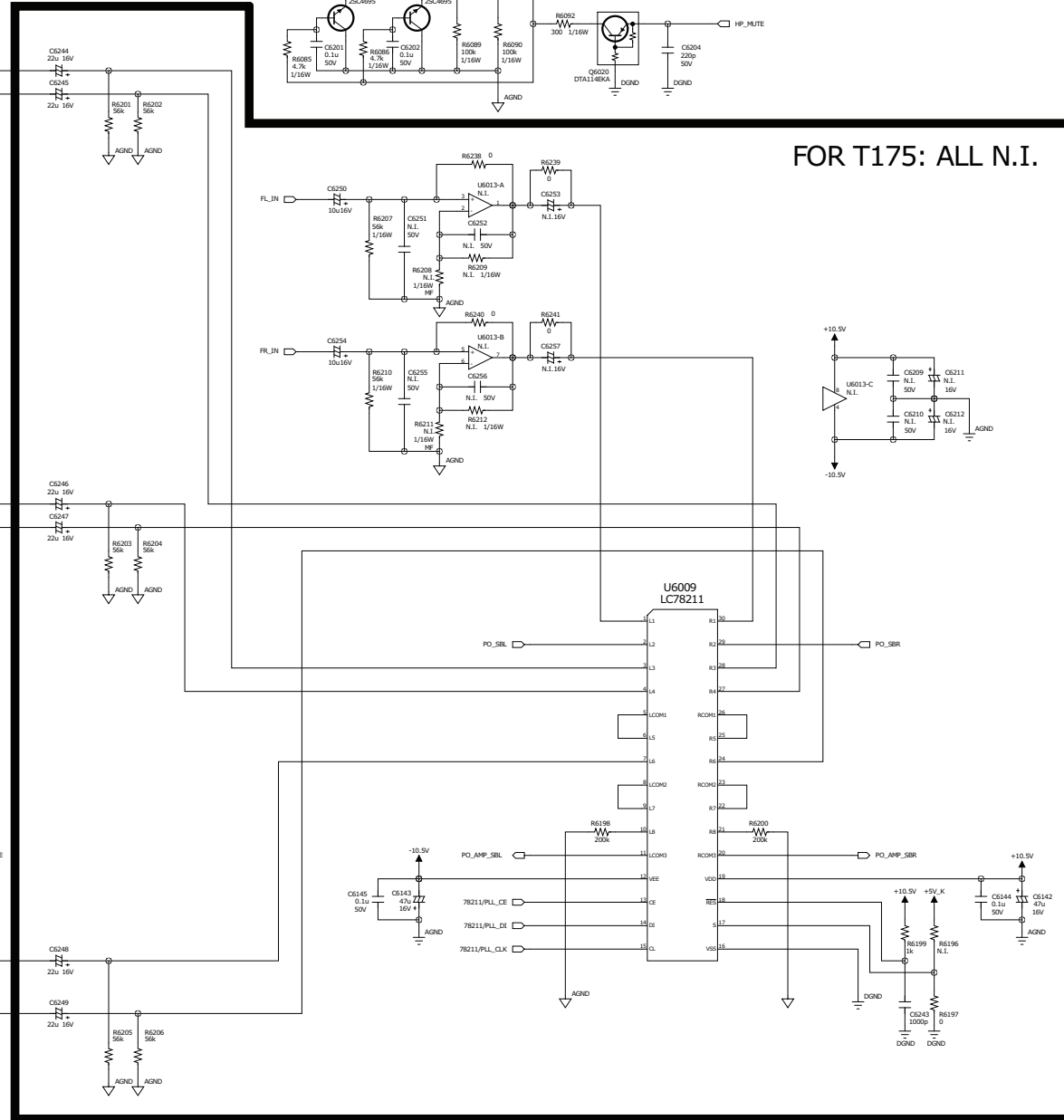
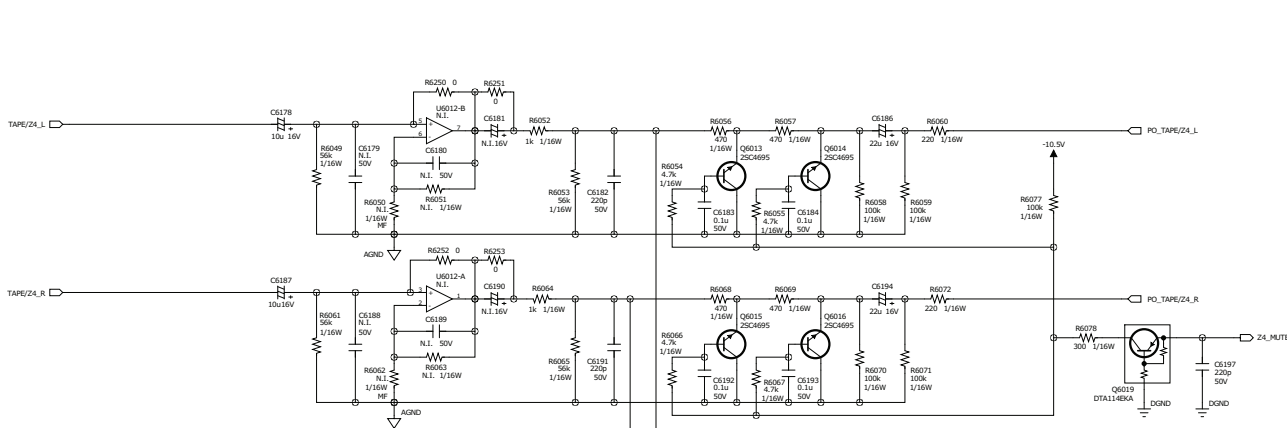
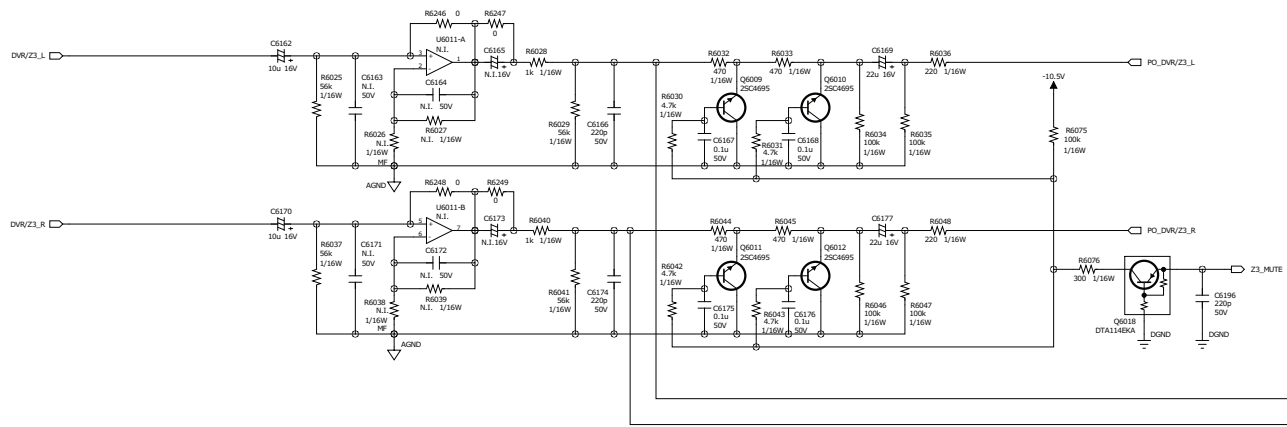
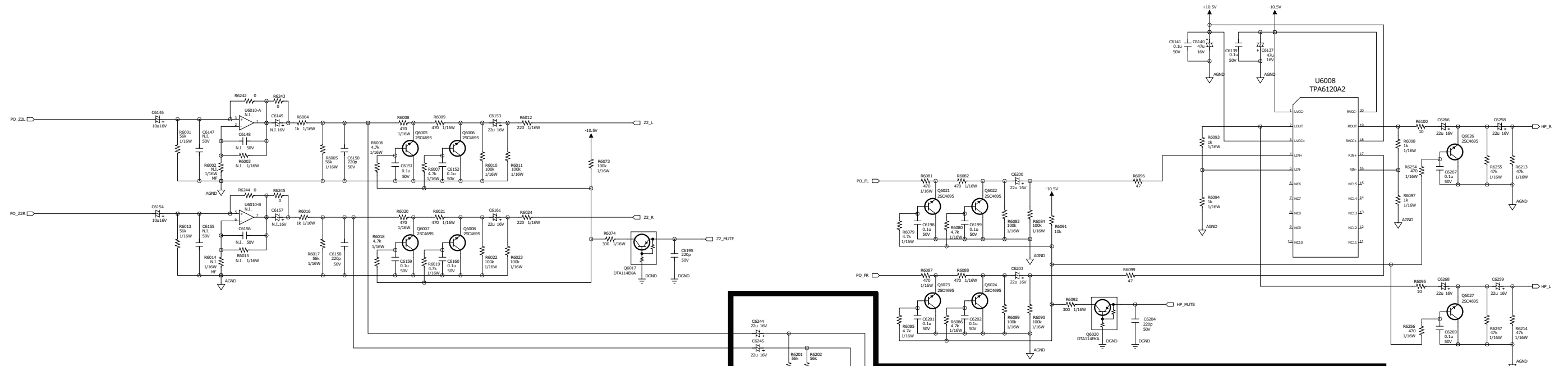
FOR T175: ALL N.I.



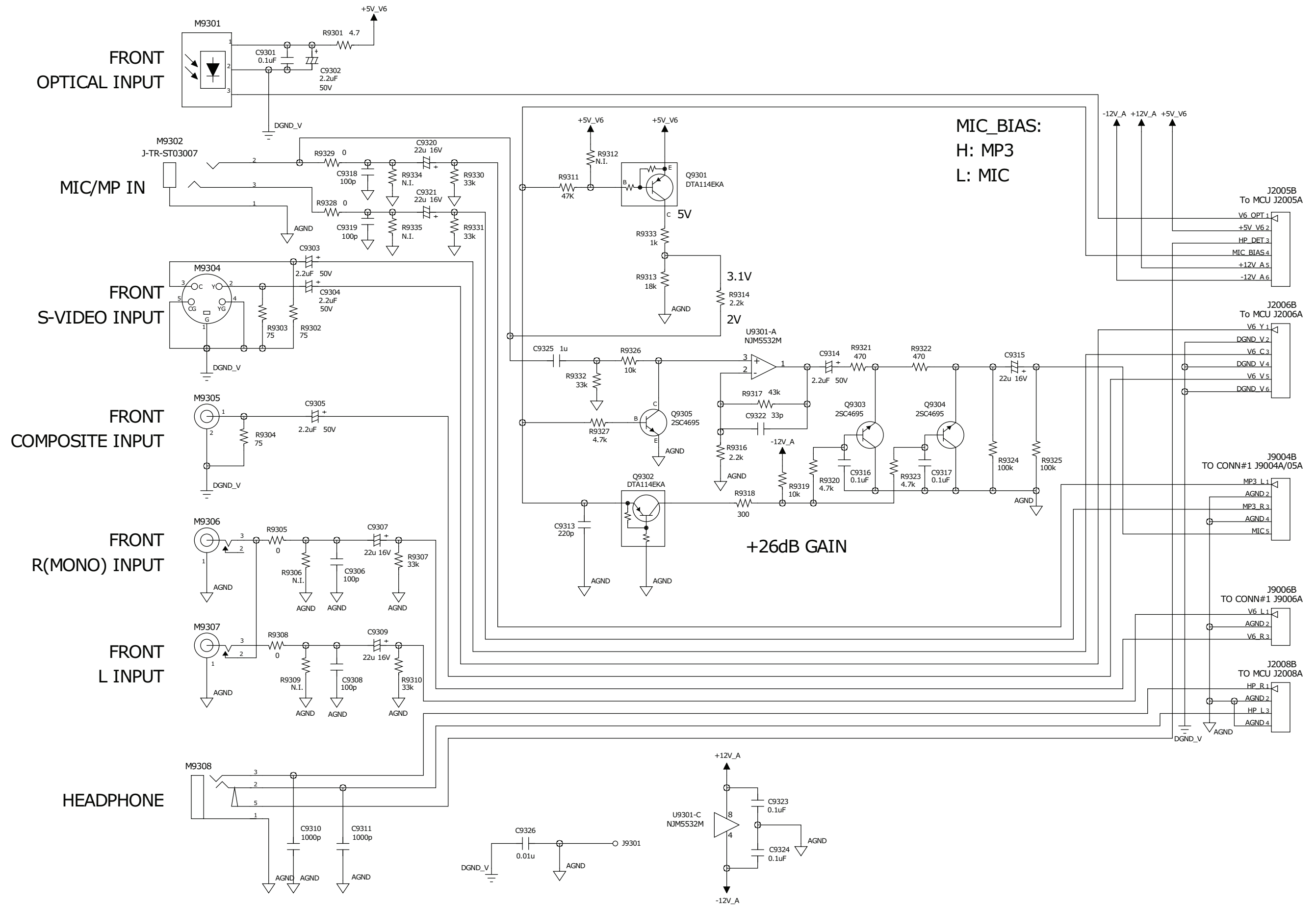
# VOLUME-1



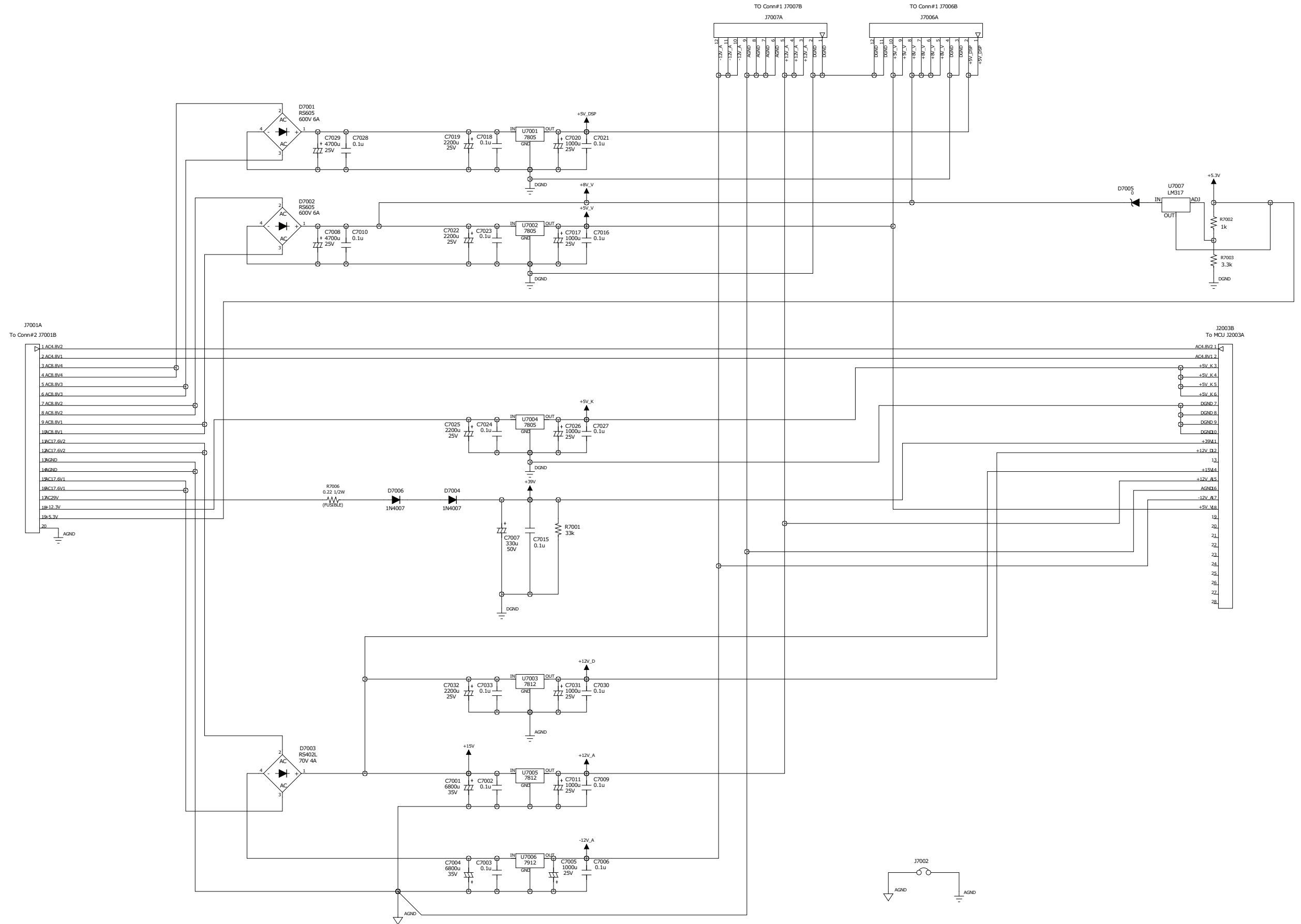




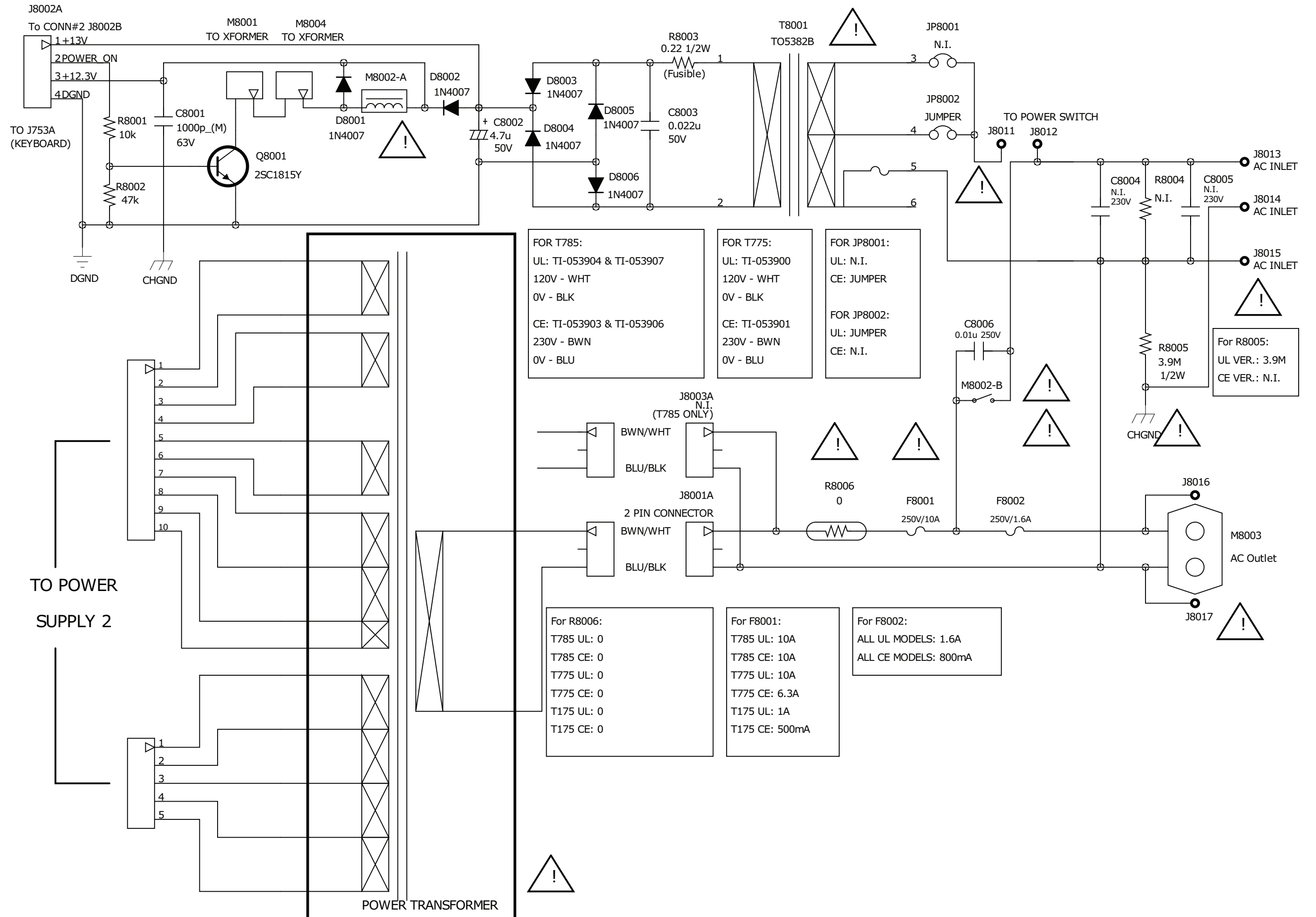
# F-INPUT



# MAIN BOARD

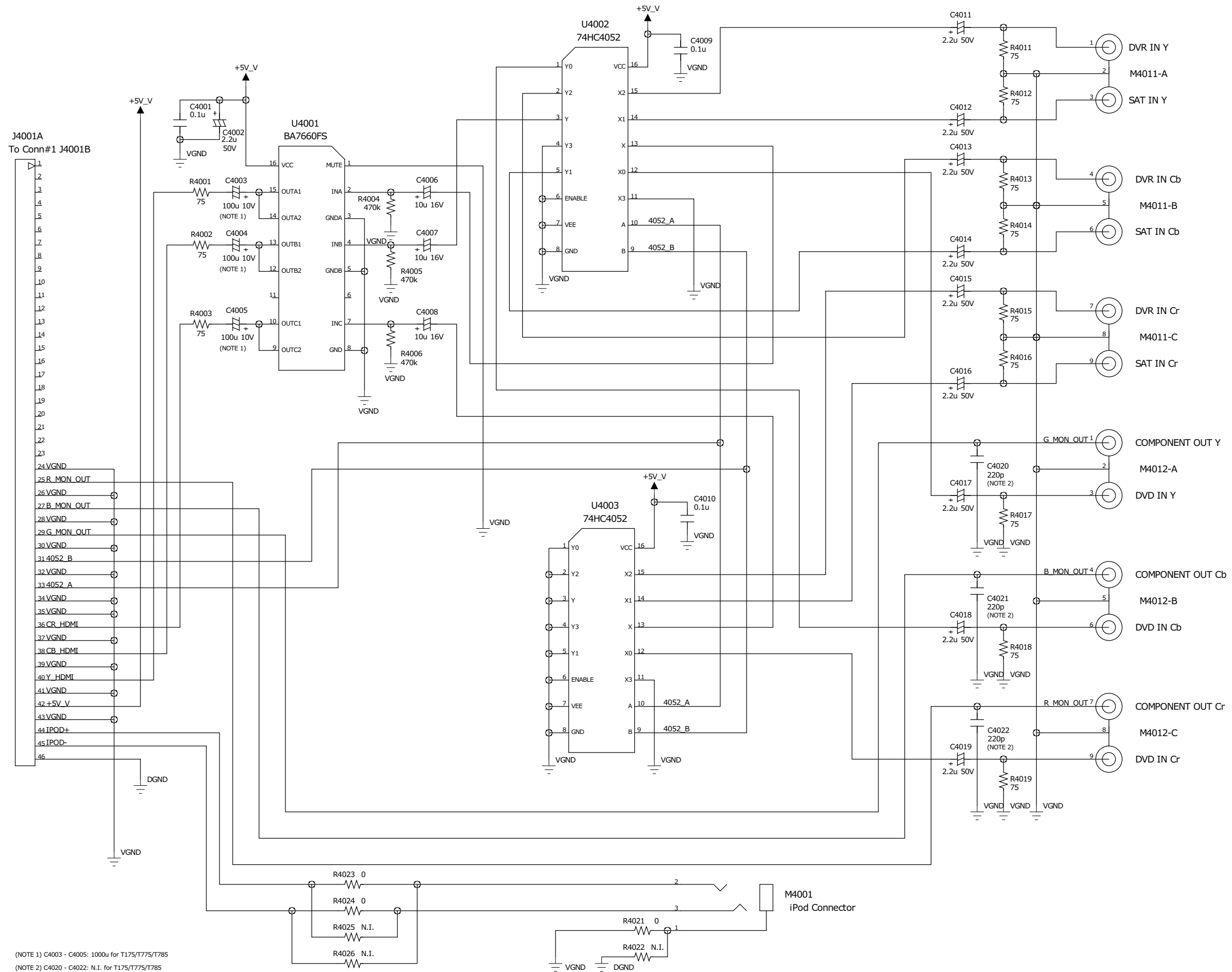


# POWER SUPPLY(STAND BY)

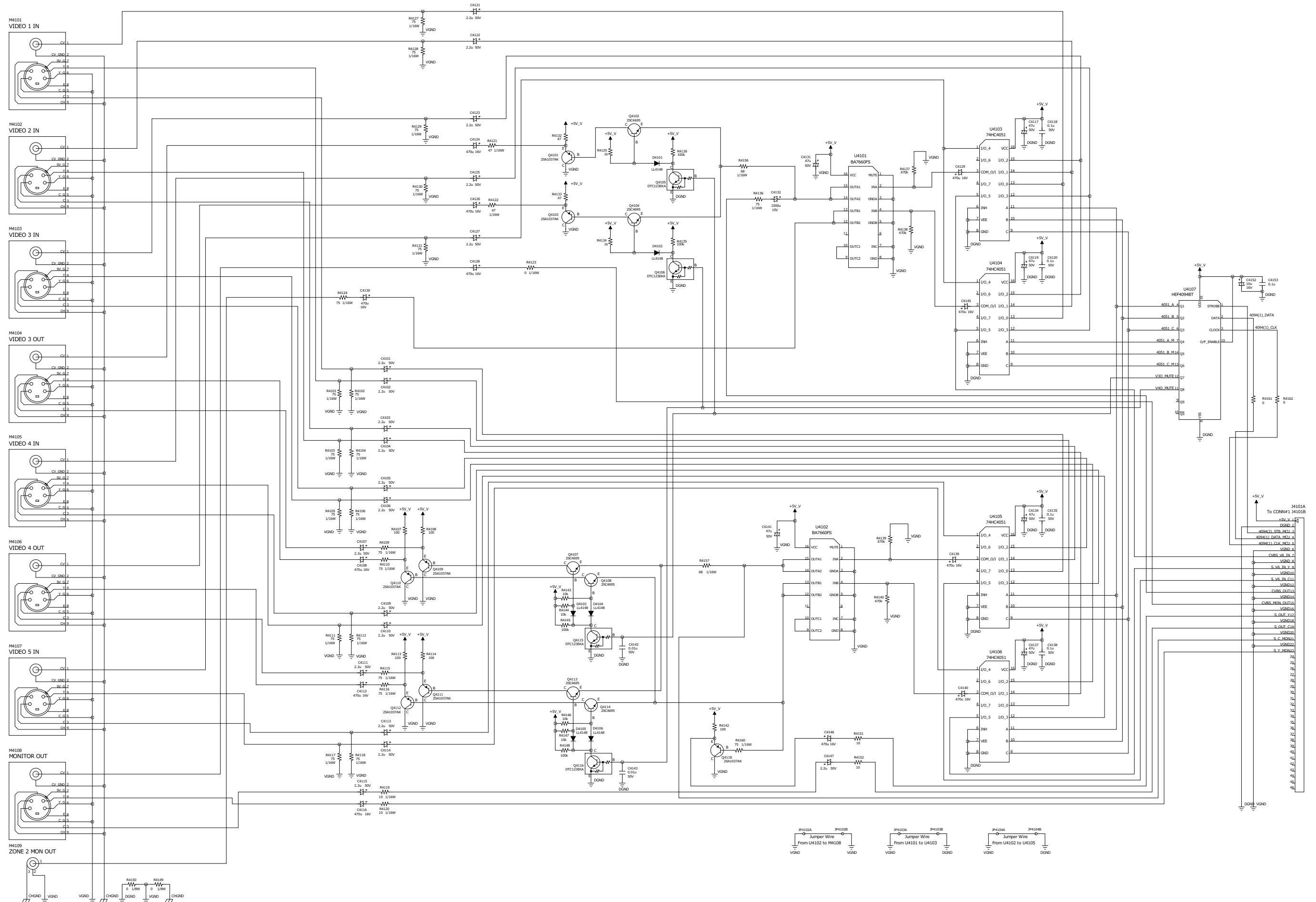




# COMPONENT VIDEO

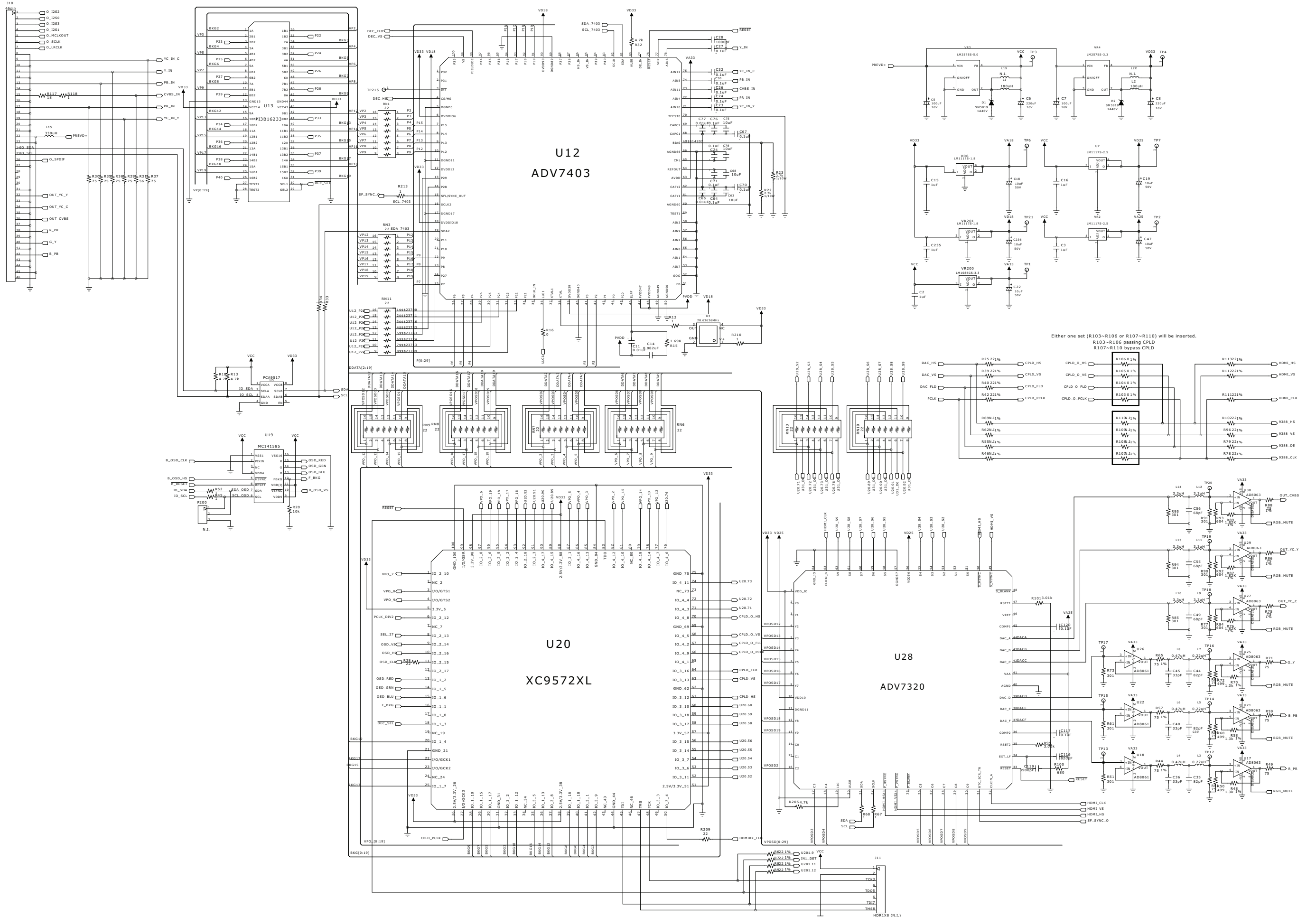


# VIDEO

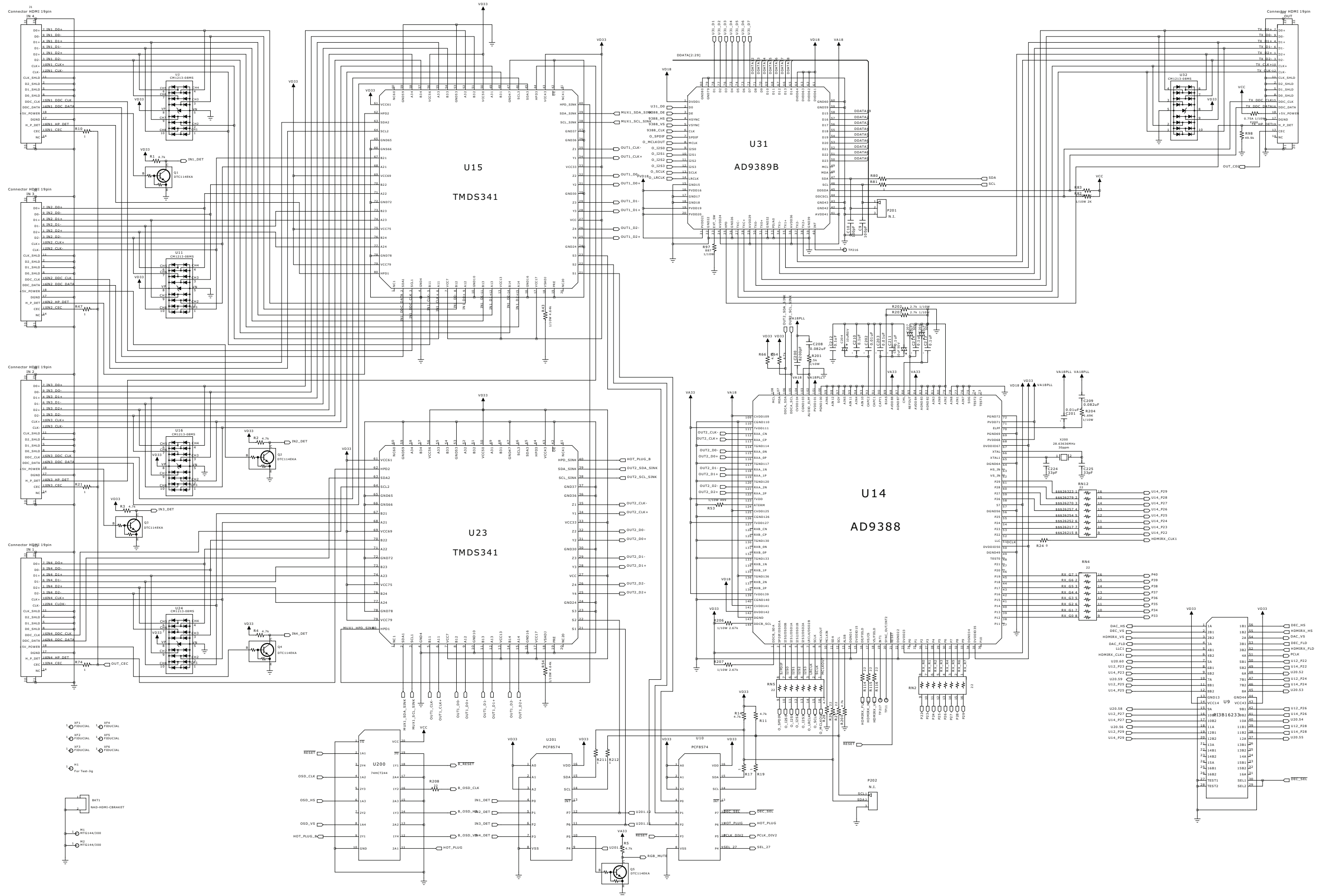




# HDMI-1

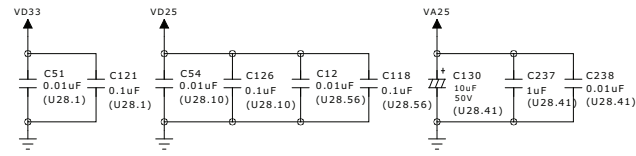


# HDMI-2

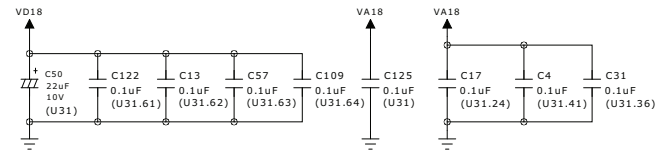


# HDMI-3

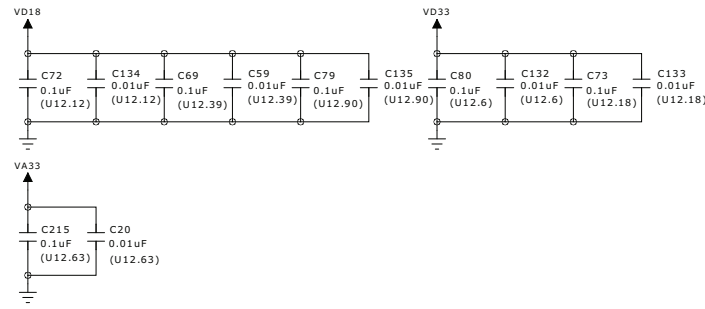
For U28 - ADV7320



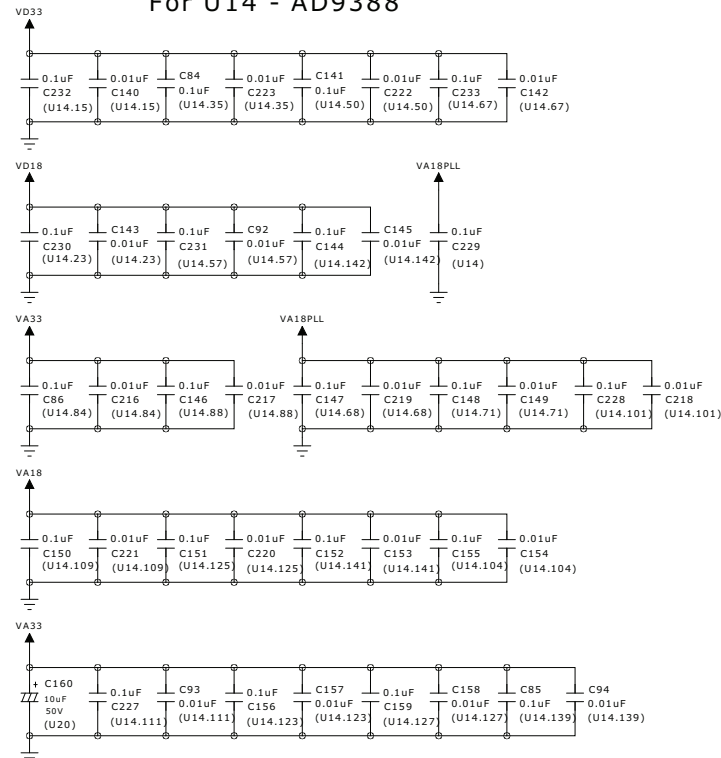
For U31 - AD9389



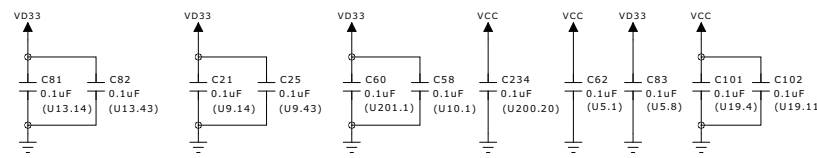
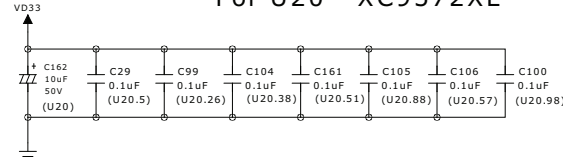
For U12 - ADV7403



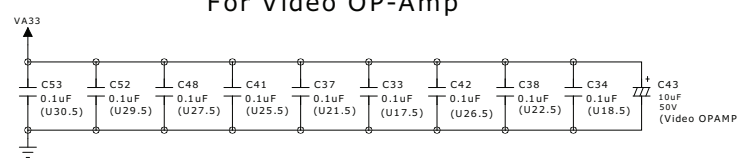
For U14 - AD9388



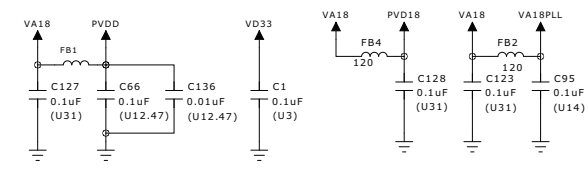
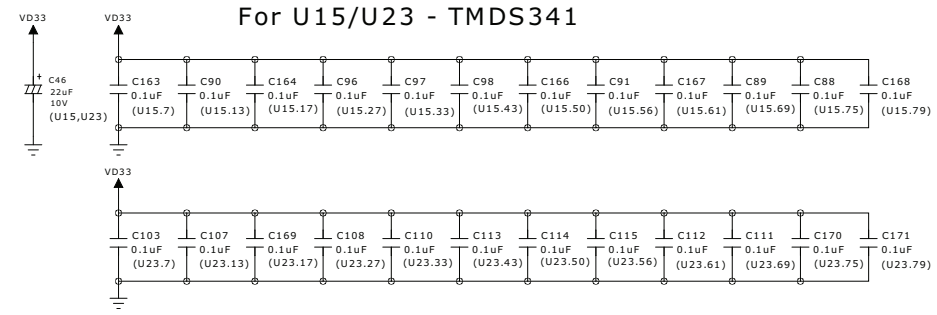
For U20 - XC9572XL



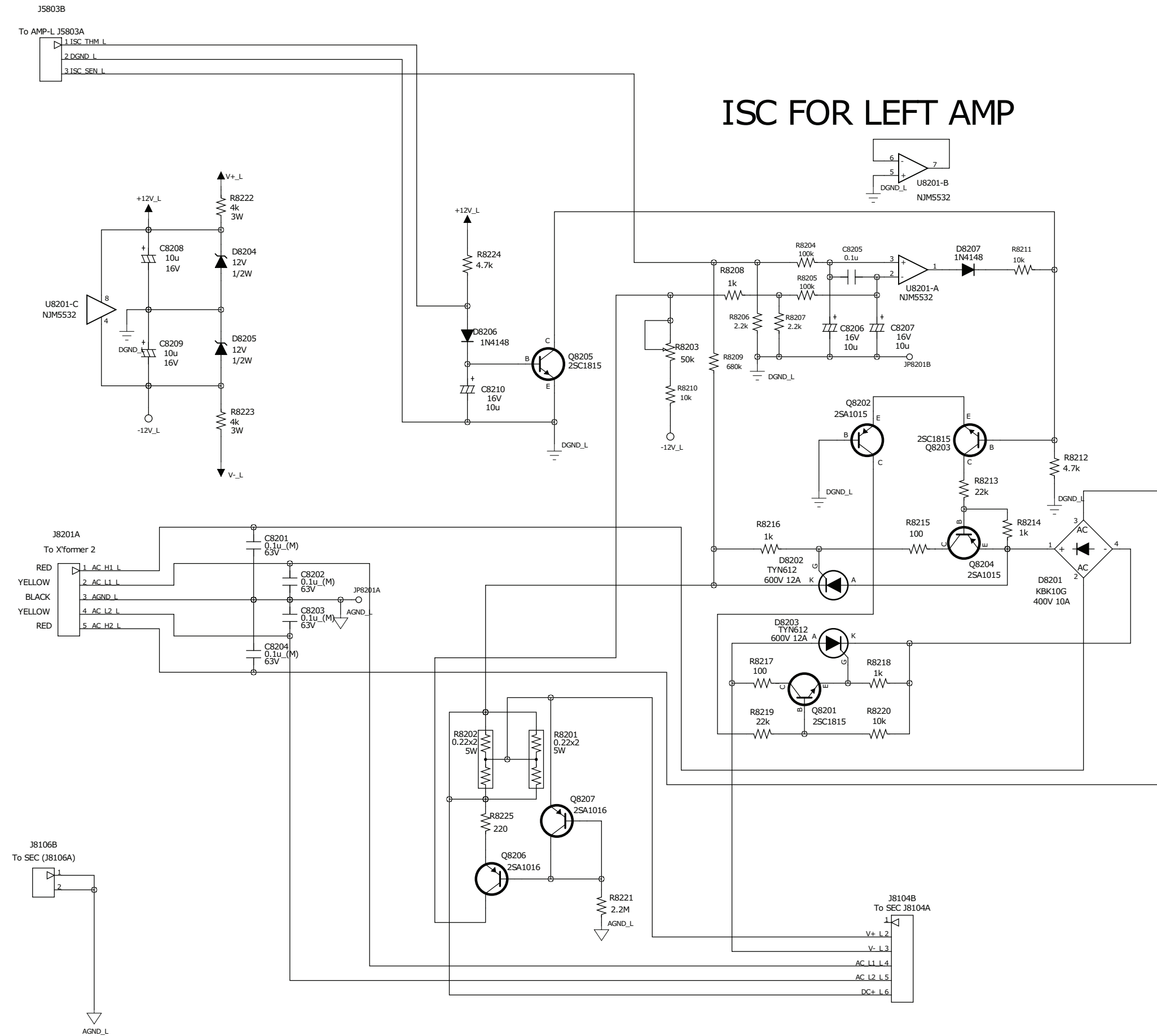
For Video OP-Amp



For U15/U23 - TMDS341

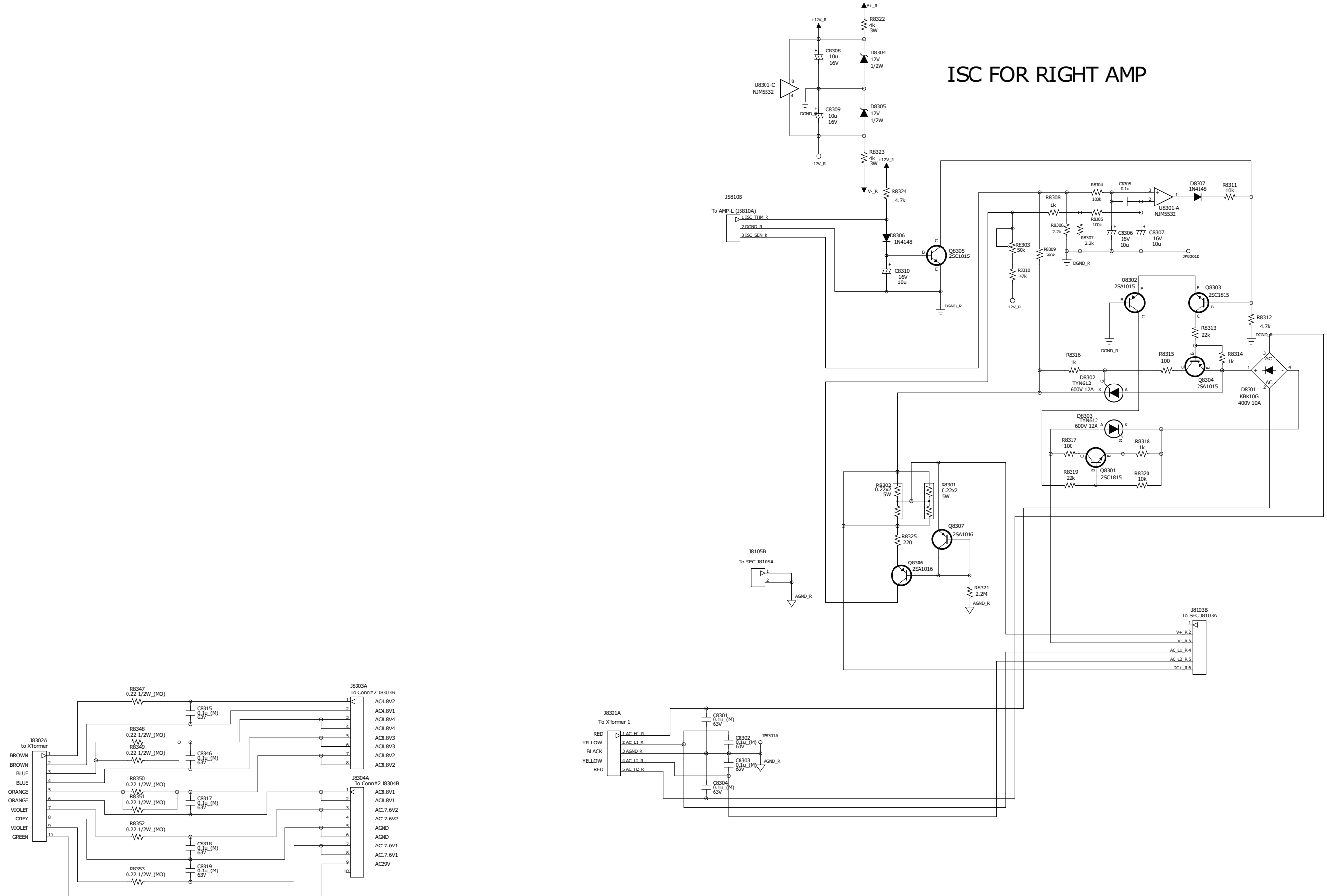


# POWER SUPPLY(ISC-L)

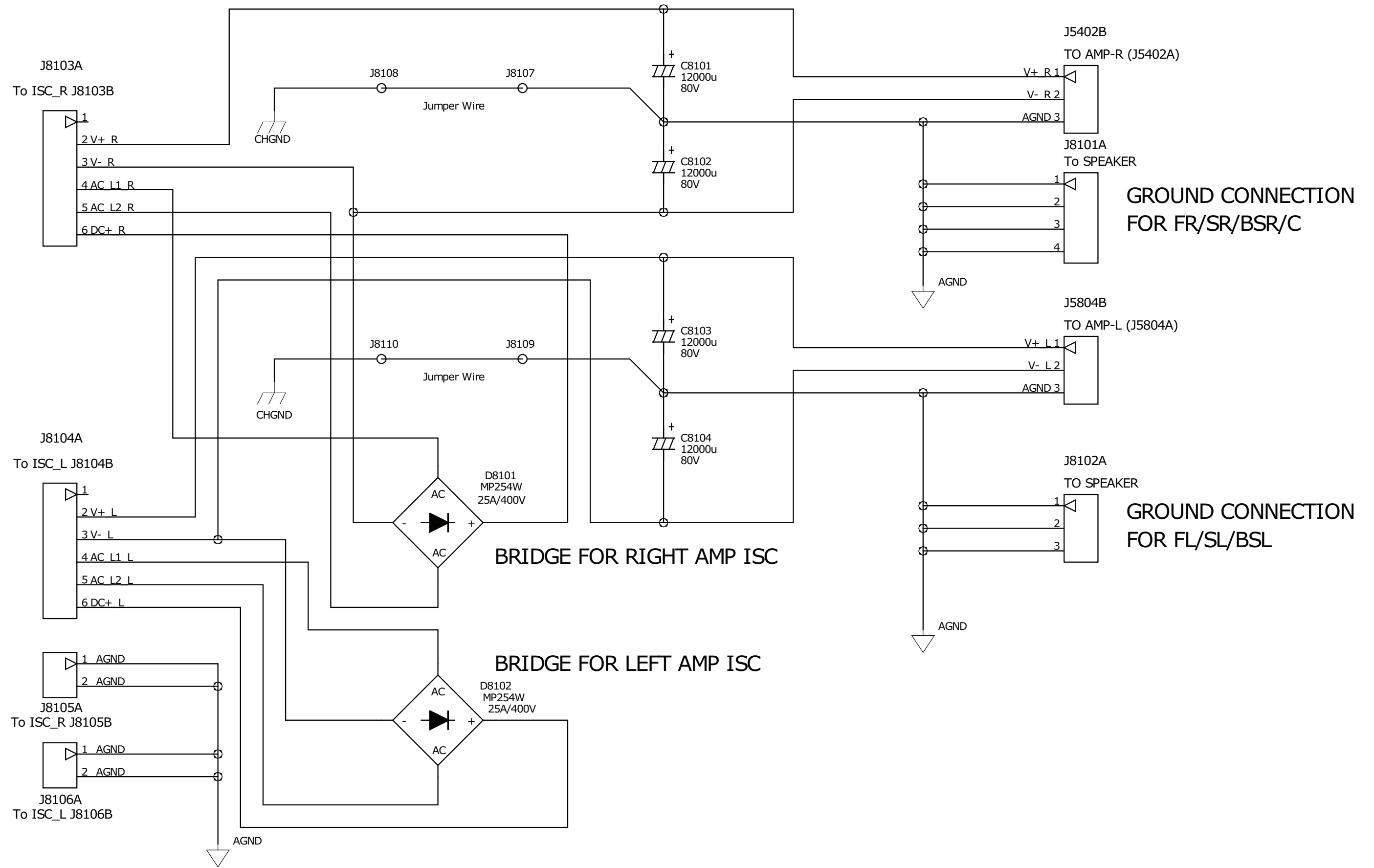


# POWER SUPPLY(ISC-R)

## ISC FOR RIGHT AMP

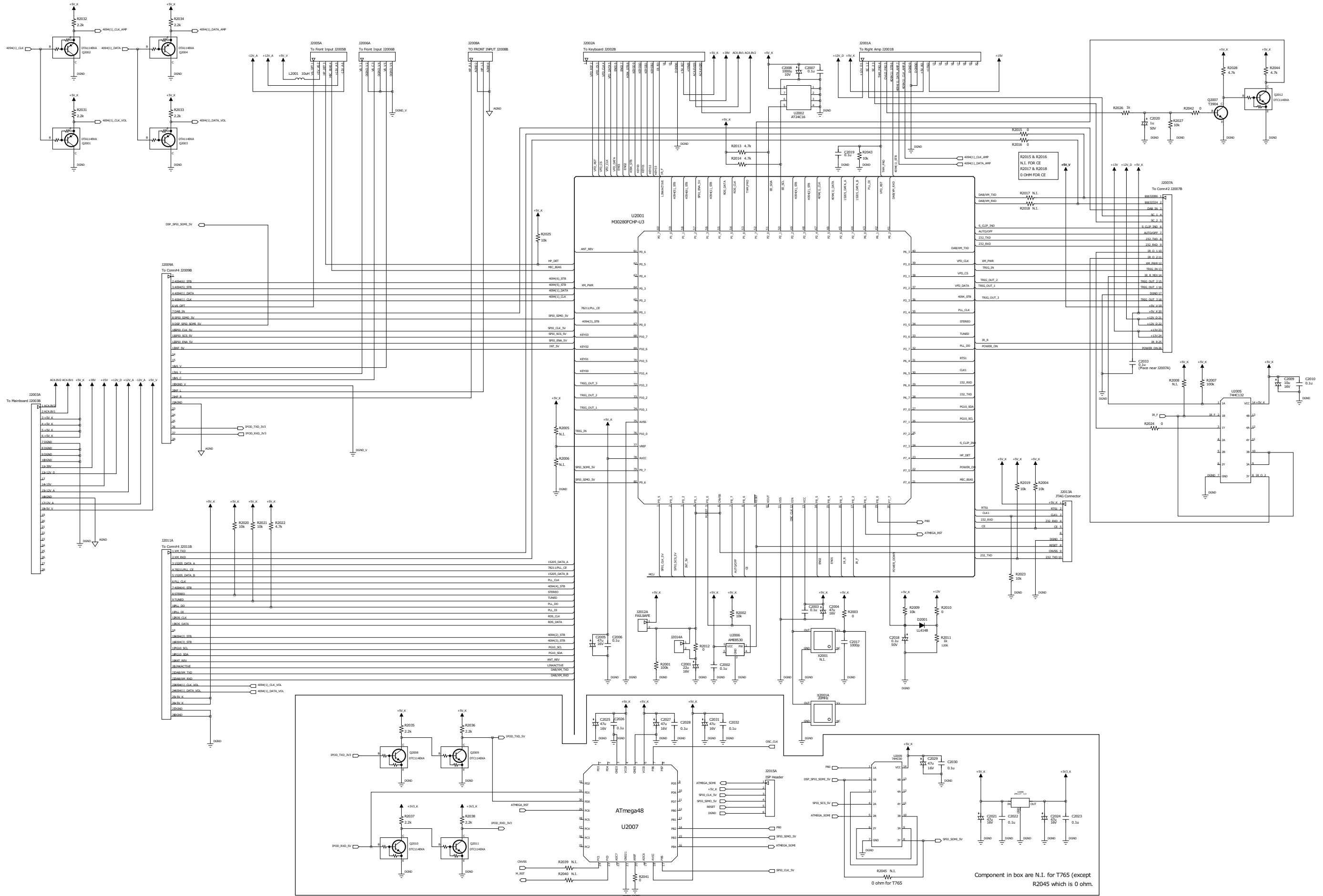


**POWER SUPPLY(SECONDARY)**



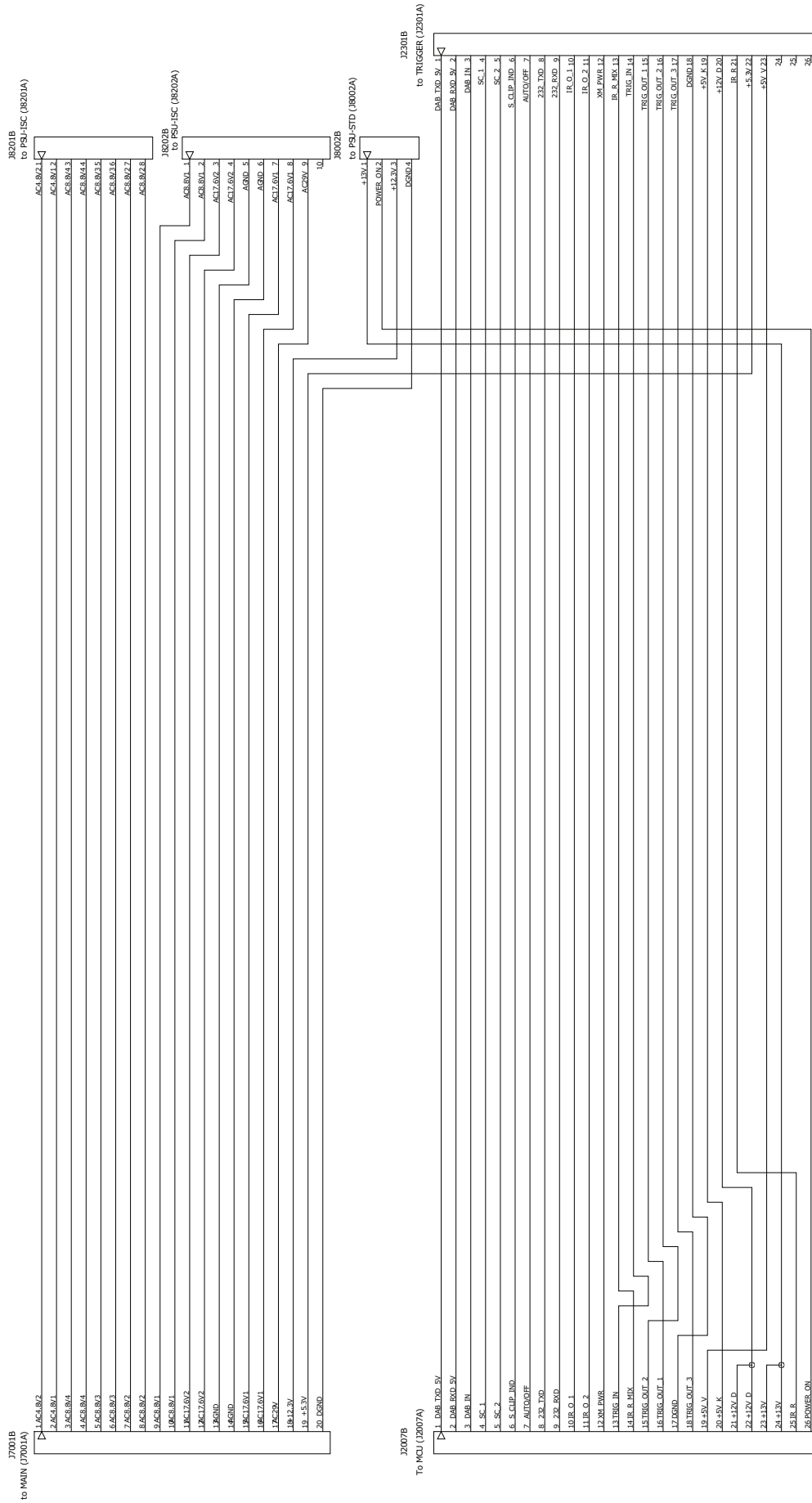


# MCU

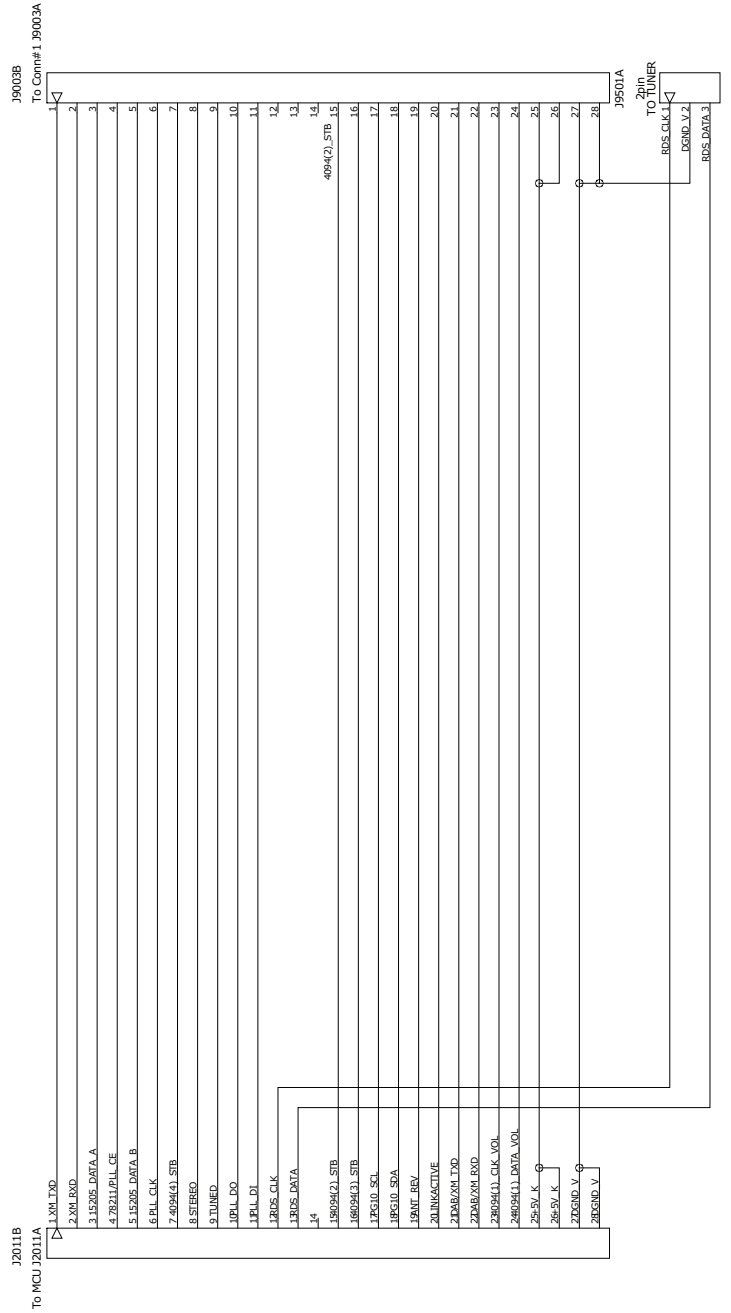
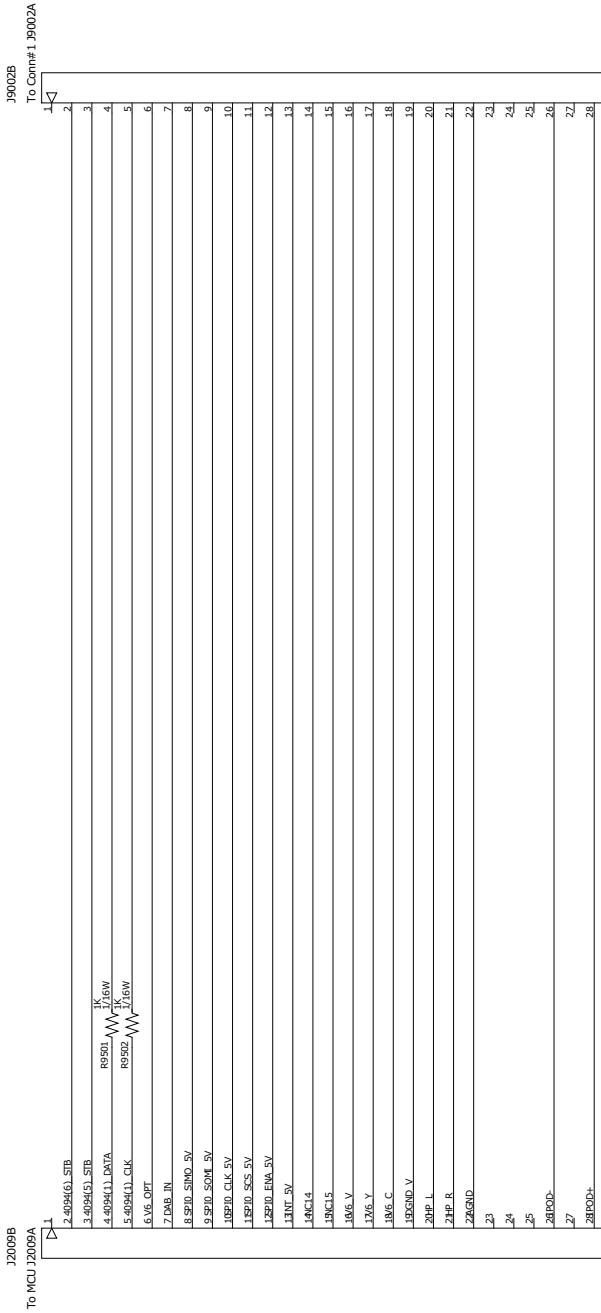




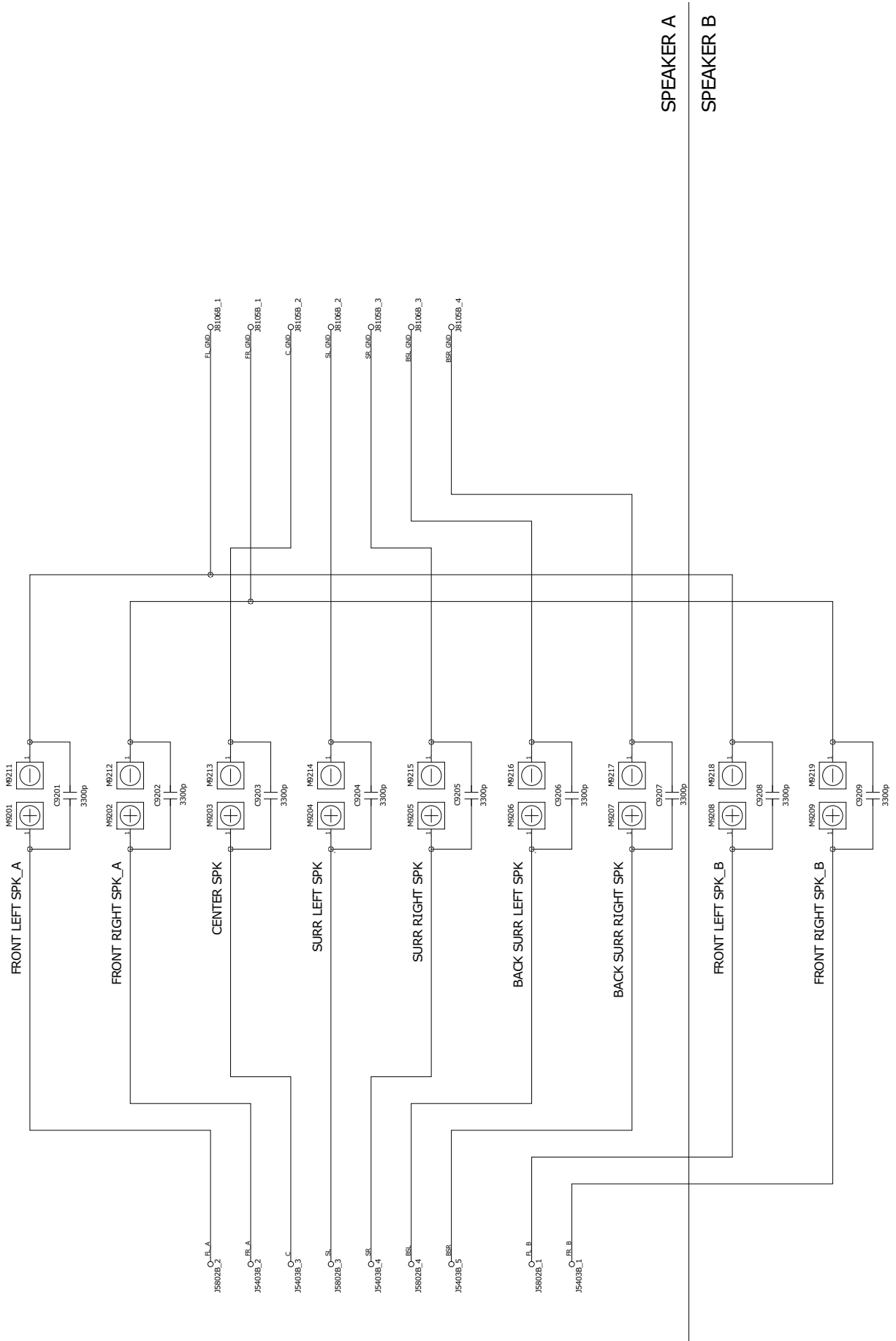
# CONNECTOR-2



# CONNECTOR-4



# SPEAKER



SPEAKER A

SPEAKER B

# ELECTRICAL PARTS LIST

<b>POWER AMP MODULE ***SEE PAGE 127 FOR SINGLE CHANNEL SERVICE KIT # 52-940-0785-90</b>		
<b>PCB ASSEMBLY</b>	<b>50-940-0785-90</b>	<b>T785 PWR AMP MODULE</b>
<b>MAIN BOARD</b>		
<b>PCB ASSEMBLY</b>	<b>50-901-0765-90</b>	<b>T765/T775/T785 AH MAIN ASSY</b>
<b>REGULATORS</b>		
U7001-7002,U7004	01-004-0048-00	IC VOLT REG 5V 1A TO-220 NJM7805FA
U7003,U7005	01-004-0049-00	IC VOLT REG 12V 1A TO-220 NJM7812
U7006	01-004-0051-00	IC VOLT REG TO-220F NJM7912
U7007	01-004-0054-90	IC REG 1A TO-220(T) LM317T
<b>RESISTOR</b>		
R7006	02-004-0014-00	RES FUSIBLE 0.22 OHM 10% 1/2W
<b>CAPACITORS</b>		
C7002-7003,C7006	03-001-0060-00	CAP CER 0.1uF 50V 20% Y5V
C7009-7010,C7015-7016		
C7018,C7021,C7023-7024		
C7027-7028,C7030,C7033		
C7005,C7011,C7017,C7020, C7026 C7031	03-002-0066-00	CAP ELEC KM 1000uF 25V 20% 105C
C7022,C7025,C7019,C7032	03-002-0151-00	CAP ELEC 2200uF 25V 20% 105C
C7007	03-002-0153-00	CAP ELECT 330uF 50V 20% 85C
C7001,C7004	03-002-0160-00	CAP ELEC SK 6800uF 35V 20% 105C
C7008,C7029	03-002-0168-00	CAP ELEC SK 4700uF 25V 20% 105C
<b>DIODES</b>		
D7004,D7006	04-001-0003-00	Diode 1N4007 DO-41 1A/1000V
D7003	04-005-0020-90	DIODE BRI 4A/70V RS402L
D7001-7002	04-005-0022-90	DIODE BRI 6A/600V RS605
<b>RESISTORS</b>		
R7001	02-001-0442-00	RES CF 33K OHM 5% 1/6W
R7002	02-002-0129-00	RES MF 1K OHM 1% 1/6W
R7003	02-002-0134-00	RES MF 3.3K OHM 1% 1/6W
<b>JUMPERS</b>		
JMP7,JMP9,JMP11,JMP13-17,JMP19-21, JMP23,JMP25,JMP31,JMP33,JMP35	17-016-0077-00	Jumper wire Dia. 0.5mm L=52.0mm
D7005,JMP1-4,JMP6,JMP8,JMP10, JMP12,JMP18,JMP22,JMP24,JMP26-28, JMP32,JMP34,JMP36	17-016-0080-90	Jumper Wire Dia. 0.5mm For L Smaller than 14mm
<b>PSU BOARD</b>		
<b>PCB ASSEMBLY *AH</b>	<b>50-903-0785-90</b>	<b>T785 AH PSU ASSY</b>
<b>PCB ASSEMBLY *C,CT</b>	<b>50-904-0785-90</b>	<b>T785 C/CT PSU ASSY</b>
<b>RESISTORS</b>		
R8005*AH	02-001-0451-00	RES CONDUCTIVE PATH 3.9M OHM 1/2W 5% 250V
R8003	02-004-0014-00	RES FUSIBLE 0.22 OHM 10% 1/2W



<b>NTC</b>		
R8006	02-004-0016-90	NTC SL32-1R030 30A/265V
<b>CAPACITORS</b>		
C8002	03-002-0148-00	CAP ELEC SS 4.7uF 50V 20% 85C
C8001	03-004-0115-00	CAP MpF 0.001uF 63V 5% DMF 5 SERIES
C8006	03-007-0014-00	HC CER CAP 0.01uF/250VAC ±20% UL/CSA/VDE
<b>DIODES</b>		
D8001-8006	04-001-0003-00	Diode 1N4007 DO-41 1A/1000V
<b>TRANSISTORS</b>		
Q8001	05-001-0072-00	Transistor SS NPN HEF 100 200MHs TO-92 C1815Y
<b>RELAYS</b>		
M8002*AH	07-005-0056-90	RELAY POWER DC 12V 20A 220VAC ME-14FW-012-HTS(AgSno) UL/CUL
M8002*C,CT	07-005-0044-90	RELAY MINIATURE 12VDC/10A 1P1T TV-5 SDT-SS-112DM S/CSA/UL
<b>STANDBY-TRANSFORMER</b>		
T8001	10-005-0186-90	Transformer PW EL-35 100V/220V T05382B
<b>FUSES</b>		
F8002*C,CT	20-001-0069-90	FUSE TIME-LAG 800mA 250V 5x20mm TSD UL/CSA/VDE/CCC
F8001*C,CT	20-001-0072-90	FUSE TIME-LAG 6.3A 250V 5X20mm TSD UL/CSA/VDE/CCC
F8002*AH	20-001-0076-90	FUSE TIME LAG 1.6A 250V 5x20mm TSD UL/CSA/VDE/SEMKO
F8001*AH	20-001-0078-90	FUSE TIME-LAG 10A/250V 5X20mm UL/CSA 5T
FH8001,FH8002	20-002-0030-90	FUES CLIP 5.2X20mm WL-210A 10A 250V
<b>JUMPERS</b>		
JMP1,JMP2,JMP4-5	17-016-0077-00	Jumper wire Dia. 0.5mm L=52.0mm
JMP3,JP8001*C,CT, JP8002*AH,R8006	17-016-0080-90	Jumper Wire Dia. 0.5mm For L Smaller than 14mm
<b>RIGHT POWER AMP BOARD ***SEE PAGE 127 FOR SINGLE CHANNEL SERVICE KIT # 52-940-0785-90</b>		
<b>PCB ASSEMBLY</b>	<b>NSP</b>	<b>T785 Right Amp Board Assembly NSP</b>
<b>IC &amp; REGULATOR</b>		
U5403	01-004-0049-00	IC VOLT REG 12V 1A TO-220 NJM7812
U5402	01-020-0026-90	IC LM35DT TEMP SENSOR TO-220
<b>RESISTORS</b>		
R5028 R5030 R5128 R5130 R5228	02-005-0063-00	RES WW 0.22 OHM 5% 5W AXIAL
R5230 R5328 R5330		
R5036 R5136 R5236 R5336	02-010-0014-00	RES MO 10 OHM 5% 2W AXIAL

**CAPACITORS**

C5018 C5118 C5218 C5318	03-004-0031-00	MPF CAP 104J/63V 5% Mini Box
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**TRANSISTORS**

Q5018 Q5118 Q5218 Q5318	05-001-0102-90	TRANSISTOR PW DARLINGTON PNP 15A/150V TO-3PB 2SB1647
Q5017 Q5117 Q5217 Q5317	05-001-0103-90	TRANSISTOR PW DARLINGTON NPN 15A/150V TO-3PB 2SD2560

**VARIABLE RESISTORS**

R5021 R5121 R5221 R5321	06-004-0016-90	VR SEMI-FIX RES CF 1K OHM B 30% 6mm
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**COILS**

L5001 L5101 L5201 L5301	07-002-0136-90	AIR COIL 0.2uH +/-10% 1 X 9 X 13.5 TURNS
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**RELAYS**

M5401 M5402 M5403 M5404 M5405	07-005-0043-90	RELAY POWER DC12V 10A/250V 1P1T TV5 UL/SEMKO/CQC JZC-36F-012-HSL
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**THERMISTORS**

M5406 M5407	20-004-0039-00	THERMISTOR PTC 100 OHM PTFM04B H471Q2N34B0
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**SMD ICS**

U5401	01-014-0043-00	SMD IC AS358MTR-E1 SOIC-8 OPERATIONAL AMPLIFIER BCD
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**RES SMDESISTORS**

R5006 R5106 R5206 R5306 R5409	02-007-0026-00	RES SMD 47K OHM 5% 1/10W 0805
R5408	02-007-0028-00	RES SMD 4.7K OHM 5% 1/10W 0805
R5402 R5403 R5416 R5419 R5424 R5426	02-007-0033-00	RES SMD 1.2K OHM 5% 1/10W 0805
R5019 R5119 R5219 R5319	02-007-0035-00	RES SMD 2K OHM +/-5% 1/10W 0805
R5037 R5137 R5237 R5337	02-007-0037-00	RES SMD 180K OHM 5% 1/10W 0805
R5414	02-007-0046-00	RES SMD 6.8K OHM 0805 5%
R5401 R5404	02-007-0047-00	RES SMD 18K OHM 5% 1/10W 0805
R5010 R5013 R5110 R5113 R5210	02-007-0073-00	RES SMD 470 OHM 1/8W 0805 5%
R5213 R5310 R5313		
R5421	02-007-0084-00	RES SMD 47.5K OHM 1% 1/10W 0805
R5003 R5015 R5031 R5103 R5115	02-007-0087-00	RES SMD 10K OHM 1/8W 0805 1%
R5131 R5203 R5215 R5231 R5303		
R5315 R5331 R5413 R5422		
R5033 R5133 R5233 R5333	02-007-0088-00	RES SMD 20K OHM 1/8W 0805 1%
R5041-R5044, R5141-R5144, R5241-R5244, R5341-R5344	02-007-0089-00	RES SMD 0 OHM +/-5% 1/10W 0805
R5423	02-007-0126-00	RES SMD 820 OHM +/-5% 1/10W 0805
R5032 R5132 R5232 R5332	02-007-0166-00	RES SMD 330K OHM 0805 5%
R5415	02-007-0172-00	RES SMD 12K OHM 0805 5%
R5005 R5009 R5020 R5105 R5109	02-007-0177-00	RES SMD 1K OHM 0805 1%
R5120 R5205 R5209 R5220 R5305		
R5309 R5320 R5410 R5412 R5420		
R5425	02-007-0227-00	RES SMD 22.1K OHM +/-1% 1/10W 0805
R5038 R5138 R5238 R5338	02-007-0258-00	RES SMD 15K OHM 1/10W 1% 0805
R5001 R5101 R5201 R5301	02-007-0308-00	RES SMD 100K OHM 5% 1/4W 1206
R5008 R5108 R5208 R5308	02-007-0316-00	RES SMD 270 OHM 5% 1/4W 1206

R5004 R5104 R5204 R5304	02-007-0318-00	RES SMD 27K OHM 5% 1/4W 1206
R5035 R5135 R5235 R5335	02-007-0323-00	RES SMD 3.3 OHM 5% 1W 2512
R5012 R5112 R5212 R5312	02-007-0324-00	RES SMD 360 OHM 5% 1/4W 1206
R5418	02-007-0325-00	RES SMD 4.22K OHM 1% 1/10W 0805
R5002 R5102 R5202 R5302	02-007-0327-00	RES SMD 470 OHM 5% 1/4W 1206
R5118 R5122 R5218 R5222	02-007-0328-00	RES SMD 47 OHM 5% 1/2W 2010
R5018 R5022 R5318 R5322		
R5017 R5117 R5217 R5317	02-007-0330-00	RES SMD 56K OHM 5% 1/4W 1206
R5040 R5140 R5240 R5340 R5405	02-007-0339-00	RES SMD 1M OHM 5% 1/10W 0805
R5039 R5139 R5239 R5339 R5407	02-007-0342-00	RES SMD 22K OHM 5% 1/10W 0805
R5007 R5011 R5107 R5111	02-007-0343-00	RES SMD 22 OHM 5% 1/10W 0805
R5207 R5211 R5307 R5311		
R5034 R5134 R5234 R5334 R5406	02-007-0347-00	RES SMD 33K OHM 5% 1/10W 0805
R5014 R5016 R5114 R5116	02-007-0353-00	RES SMD 47 OHM 5% 1/10W 0805
R5214 R5216 R5314 R5316		
R5411	02-007-0356-00	RES SMD 560 OHM 5% 1/10W 0805
R5417	02-007-0468-00	RES SMD 27K OHM 0805 1%

**SMD CAPACITORS**

C5408 C5409	03-009-0080-00	CAP CER SMD 0.1uF/250V 10% X7R 1210
C5010 C5110 C5210 C5310 C5403 C5404	03-009-0105-00	CAP CER SMD 0.1uF 50V 10% X7R 1206
C5005 C5006 C5105 C5106	03-009-0124-00	CAP CER SMD 10pF 50V 5% NPO 0603
C5205 C5206 C5305 C5306		
C5003 C5007 C5008 C5012-C5015 C5103	03-009-0125-00	CAP CER SMD 100pF 100V 10% X7R 0805
C5107 C5108 C5112-C5115 C5203 C5207		
C5208 C5212-C5215 5303 C5307 C5308		
C5312-C5315		
C5019 C5119 C5219 C5319	03-009-0129-00	CAP CER SMD 150pF 100V +/-5% NPO 0603
C5410 C5411	03-009-0136-00	CAP ELEC SMD 10uF 16V +/-20% 4X5.4
C5001 C5101 C5201 C5301 C5401	03-009-0137-00	CAP ELEC SMD 100uF 50V +/-20% 8X10.5
C5402 C5406 C5407		
C5002 C5102 C5202 C5302	03-009-0141-00	CAP ELEC SMD 2.2uF 50V +/-20% 4X5.4
C5004 C5104 C5204 C5304	03-009-0144-00	CAP ELEC SMD 470uF 16V +/-20% 10X10.5
C5009 C5011 C5109 C5111 C5209	03-009-0145-00	CAP ELEC SMD 47uF 100V +/-20% 10X10
C5211 C5309 C5311		
C5405	03-009-0153-00	CAP ELEC SMD 1uF/50V ±20% B CASE 4 X 5.4

**SMD DIODES**

D5002 D5003 D5102 D5103 D5202	04-006-0019-00	SMD Diode RECT 1A/400V DO-214AC
D5203 D5302 D5303 D5401- D5405		GS1G M4 GS1G
D5004-5009 D5104-5109 D5204-5209	04-006-0021-90	SMD Diode LL4148 SOD80
D5304-5309 D5407 D5410-5415		
D5417-5418 D5420-5421		
D5416 D5419	04-007-0026-00	DIODE ZENER SMD 22V 500mW 5% SOD123 MMSZ5251B
D5406 D5409	04-007-0031-00	DIODE ZENER SMD 6.2V 500mW 5% SOD123 MMSZ5234B
D5001 D5101 D5201 D5301	04-007-0035-90	DIODE ZENER SMD 15V 500mW 5% SOD123 MMSZ5245B

**SMD TRANSISTORS**

Q5001-5005 Q5011-5012 Q5019	05-004-0018-00	SMD Transistor MMBT5551LT1 NPNCAP
Q5101-5105 Q5111-5112 Q5119		ELEC SMD SOT-23
Q5201-5205 Q5211-5212 Q5219		
Q5301-5305 Q5311-5312 Q5319 Q5409		

Q5008 Q5108 Q5208 Q5308 Q5408 Q5406	05-004-0019-00	SMD Transistor MMBT5401LT1G PNPCAP ELEC SMD SOT-23
Q5010 Q5110 Q5210 Q5310	05-004-0030-90	XTR 2SD1918 NPN POWER 160V/1.5A 80MHz HFE 120-390 SMD
Q5006 Q5007 Q5009 Q5106 Q5107 Q5109 Q5206 Q5207 Q5209 Q5306 Q5307 Q5309	05-004-0031-90	XTR 2SB1275 PNP POWER 160V/1.5A 50MHz HFE 82-180 SMD
Q5410	05-004-0032-90	XTR N-CH 2SK771-4 40V 20mA IDSS=2.5 - 6 mA SMD
Q5407	05-004-0035-90	TRANSISTOR SS NPN HFE30 250MHz SPT DTC114EKAT146
Q5401-5405	05-004-0036-90	TRANSISTOR SS NPN HFE20 250MHz DTC123EKAT146

**LEFT POWER AMP BOARD \*\*\*SEE PAGE 127 FOR SINGLE CHANNEL SERVICE KIT # 52-940-0785-90**

**PCB ASSEMBLY NSP T785 Left Amp Board Assembly NSP**

**IC & REGULATORS**

U5805	01-004-0049-00	I.C Volt Reg 12V 1A TO-220 NJM7812
U5804	01-004-0054-90	IC REG 1A TO-220(T) LM317T
U5803	01-020-0026-90	IC LM35DT TEMP SENSOR TO-220

**RESISTORS**

R5528 R5530 R5628 R5630 R5728 R5730	02-005-0063-00	RES WW 0.22 OHM 5% 5W AXIAL
R5536 R5636 R5736	02-010-0014-00	RES MO 10 OHM 5% 2W AXIAL

**CAPACITORS**

C5806	03-002-0090-00	CAP ELEC 1000uF/25V±20% 105°C 10x20mm
C5518 C5618 C5718	03-004-0031-00	MPF CAP 104J/63V 5% Mini Box

**TRANSISTORS**

Q5518 Q5618 Q5718	05-001-0102-90	TRANSISTOR PW DARLINGTON PNP 15A/150V TO-3PB 2SB1647
Q5517 Q5617 Q5717	05-001-0103-90	TRANSISTOR PW DARLINGTON NPN 15A/150V TO-3PB 2SD2560

**VARIABLE RESISTORS**

R5521 R5621 R5721	06-004-0016-90	VR SEMI-FIX RES CF 1K OHM B 30% 6mm
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**COILS**

L5501 L5601 L5701	07-002-0136-90	AIR COIL 0.2uH +/-10% 1 X 9 X 13.5 TURNS
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**RELAYS**

M5801 M5802 M5803 M5804	07-005-0055-90	RELAY POWER DC12V 8A/250V 2P1T PCB MOUNT ME-11-012-2H4
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**THERMISTOR**

M5805 M5808	20-004-0039-00	THERMISTOR PTC 100 OHM PTFM04B H471Q2N34B0
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**SMD ICS**

U5801	01-012-0065-00	IC LOGIC 8-STAGE SHIFT-AND-STORE BUS REGISTER SMD SO16 HEF4094BT
U5802	01-014-0043-00	SMD IC AS358MTR-E1 SOIC-8 OPERATIONAL AMPLIFIER BCD

**RES SMDESISTORS**

R5506 R5606 R5706 R5803 R5825	02-007-0026-00	RES SMD 47K OHM 5% 1/10W 0805
R5826	02-007-0028-00	RES SMD 4.7K OHM 5% 1/10W 0805
R5808 R5811 R5816 R5818	02-007-0033-00	RES SMD 1.2K OHM 5% 1/10W 0805
R5519 R5619 R5719	02-007-0035-00	RES SMD 2K OHM +/-5% 1/10W 0805
R5537 R5637 R5737	02-007-0037-00	RES SMD 180K OHM 5% 1/10W 0805
R5532 R5632 R5732	02-007-0166-00	RES SMD 330K OHM 0805 5%
R5806	02-007-0046-00	RES SMD 6.8K OHM 0805 5%
R5821	02-007-0058-00	RES SMD 2.2K OHM 0805 5%
R5510 R5513 R5610 R5613 R5710 R5713	02-007-0073-00	RES SMD 470 OHM 1/8W 0805 5%
R5813	02-007-0084-00	RES SMD 47.5K OHM 1% 1/10W 0805
R5503 R5515 R5531 R5603 R5615 R5631	02-007-0087-00	RES SMD 10K OHM 1/8W 0805 1%
R5703 R5715 R5731 R5833 R5814 R5829		
R5533 R5633 R5733	02-007-0088-00	RES SMD 20K OHM 1/8W 0805 1%
R5541-R5544 R5641-R5644 R5741-R5744	02-007-0089-00	RES SMD 0 OHM +/-5% 1/10W 0805
R5815	02-007-0126-00	RES SMD 820 OHM +/-5% 1/10W 0805
R5807 R5831	02-007-0172-00	RES SMD 12K OHM 0805 5%
R5505 R5509 R5520 R5605 R5609 R5620	02-007-0177-00	RES SMD 1K OHM 0805 1%
R5705 R5709 R5720 R5812 R5827 R5830		
R5834		
R5817	02-007-0227-00	RES SMD 22.1K OHM +/-1% 1/10W 0805
R5538 R5638 R5738 R5805	02-007-0258-00	RES SMD 15K OHM 1/10W 1% 0805
R5501 R5601 R5701	02-007-0308-00	RES SMD 100K OHM 5% 1/4W 1206
R5508 R5608 R5708	02-007-0316-00	RES SMD 270 OHM 5% 1/4W 1206
R5504 R5604 R5704 R5819	02-007-0318-00	RES SMD 27K OHM 5% 1/4W 1206
R5535 R5635 R5735	02-007-0323-00	RES SMD 3.3 OHM 5% 1W 2512
R5512 R5612 R5712	02-007-0324-00	RES SMD 360 OHM 5% 1/4W 1206
R5810	02-007-0325-00	RES SMD 4.22K OHM 1% 1/10W 0805
R5502 R5602 R5702	02-007-0327-00	RES SMD 470 OHM 5% 1/4W 1206
R5518 R5522 R5618 R5622 R5718 R5722	02-007-0328-00	RES SMD 47 OHM 5% 1/2W 2010
R5517 R5617 R5717	02-007-0330-00	RES SMD 56K OHM 5% 1/4W 1206
R5540 R5640 R5740 R5822	02-007-0339-00	RES SMD 1M OHM 5% 1/10W 0805
R5539 R5639 R5739 R5824	02-007-0342-00	RES SMD 22K OHM 5% 1/10W 0805
R5507 R5511 R5607 R5611 R5707 R5711	02-007-0343-00	RES SMD 22 OHM 5% 1/10W 0805
R5534 R5634 R5734 R5801 R5802 R5823	02-007-0347-00	RES SMD 33K OHM 5% 1/10W 0805
R5820	02-007-0348-00	RES SMD 390 OHM 5% 1/10W 0805
R5514 R5516 R5614 R5616 R5714 R5716	02-007-0353-00	RES SMD 47 OHM 5% 1/10W 0805
R5828	02-007-0356-00	RES SMD 560 OHM 5% 1/10W 0805
R5809	02-007-0468-00	RES SMD 27K OHM 0805 1%

**SMD CAPACITORS**

C5812 C5813	03-009-0080-00	CAP CER SMD 0.1uF/250V 10% X7R 1210
C5710 C5510 C5610 C5805 C5807 C5811	03-009-0105-00	CAP CER SMD 0.1uF 50V 10% X7R 1206
C5505 C5506 C5605 C5606 C5705 C5706	03-009-0124-00	CAP CER SMD 10pF 50V 5% NPO 0603
C5503 C5507 C5508 C5512-C5515 C5603	03-009-0125-00	CAP CER SMD 100pF 100V 10% X7R 0805
C5607 C5608 C5612-C5615 C5703 C5707		
C5708 C5712-C5715		
C5519 C5619 C5719	03-009-0129-00	CAP CER SMD 150pF 100V +/-5% NPO 0603
C5817 C5818	03-009-0136-00	CAP ELEC SMD 10uF 16V +/-20% 4X5.4
C5501 C5601 C5701 C5808 C5809	03-009-0137-00	CAP ELEC SMD 100uF 50V +/-20% 8X10.5
C5502 C5602 C5702	03-009-0141-00	CAP ELEC SMD 2.2uF 50V +/-20% 4X5.4
C5504 C5604 C5704	03-009-0144-00	CAP ELEC SMD 470uF 16V +/-20% 10X10.5

C5509 C5511 C5609 C5611 C5709 C5711 C5810 C5816	03-009-0145-00 03-009-0153-00	CAP ELEC SMD 47uF 100V +/-20% 10X10 CAP ELEC SMD 1uF/50V ±20% B CASE 4 X 5.4
C5801	03-009-0211-00	CAP ELEC SMD 220uF/16V ±20% 6.3X7.7
<b>SMD DIODES</b>		
D5502, D5503, D5602, D5603, D5702, D5703, D5809 D5810 D5811 D5812 D5816	04-006-0019-00	SMD Diode RECT 1A/400V DO-214AC GS1G M4 GS1G
D5504-D5510 D5604-D5610 D5704-D5710 D5801 D5802 D5804 D5805 D5808 D5813-D5815 D5803 D5807	04-006-0021-90 04-007-0031-00	SMD Diode LL4148 SOD80 DIODE ZENER SMD 6.2V 500mW 5% SOD123 MMSZ5234B
D5501 D5601 D5701	04-007-0035-90	DIODE ZENER SMD 15V 500mW 5% SOD123 MMSZ5245B
<b>SMD TRANSISTORS</b>		
Q5501-Q5505 Q5511-Q5512 Q5519 Q5601-Q5605 Q5611-Q5612 Q5619 Q5701-Q5705 Q5711-Q5712 Q5719 Q5805 Q5806 Q5810	05-004-0018-00	SMD Transistor MMBT5551LT1 NPNCAP ELEC SMD SOT-23
Q5508 Q5608 Q5708 Q5807 Q5808 Q5811	05-004-0019-00	SMD Transistor MMBT5401LT1G PN PCAP ELEC SMD SOT-23
Q5510 Q5610 Q5710	05-004-0030-90	SMD XTR 2SD1918 NPN POWER 160V/1.5A 80MHz HFE 120-390
Q5506 Q5507 Q5509 Q5606 Q5607 Q5609 Q5706 Q5707 Q5709 Q5812	05-004-0031-90 05-004-0032-90	SMD XTR 2SB1275 PNP POWER 160V/1.5A 50MHz HFE 82-180 SMD XTR N-CH 2SK771-4 40V 20mA IDSS=2.5 - 6 Ma
Q5809	05-004-0035-90	TRANSISTOR SS NPN HFE30 250MHZ SPT DTC114EKAT146
Q5801 Q5802 Q5803 Q5804	05-004-0036-90	TRANSISTOR SS NPN HFE20 250MHZ DTC123EKAT146
<b>VOLUME BOARD PCB ASSEMBLY</b>		
	<b>50-914-0765-90</b>	<b>T765/T775/T785 VOLUME ASSY</b>
<b>IC</b>		
U6009	01-025-0002-90	IC LC78211 ANALOG FUNCTION SWITCH 30 PIN DIP
<b>INDUCTORS</b>		
L6010, L6011	07-002-0144-90	IND CHOKE 180uH +/-10% AXIAL EC24- 181K
<b>RELAYS</b>		
M6004	07-005-0049-90	RELAY DC12V 0.5A/125V 2P2T KH1- 12VDC MINIATURE PCB MOUNT
<b>RCA JACKS</b>		
M6001-M6003	15-003-0047-90	RCA JACK 6 R-R-R/W-W-W PCB MOUNT GOLD W/O COVER
<b>SMD ICS</b>		
U6003	01-012-0065-00	IC LOGIC 8-STAGE SHIFT-AND-STORE BUS REGISTER SMD SO16 HEF4094BT



U6004-6007 U6018	01-014-0041-00	IC AUDIO LOW NOISE OP-AMP SMD NJM5532M
U6008	01-014-0051-90	IC TPA6120A2DWP HIGH FIDELITY HEADPHONE AMPLIFIER 20 PINS SOIC
U6001-6002	01-027-0012-90	IC R2S15205FP 8 CH ELECTRONIC VOLUME W/ INPUT SWITCH & TONE CTRL SMD 80 PINS QFP
<b>RES SMDESISTORS</b>		
R6040 R6016 R6052 R6064 R6028	02-007-0042-00	RES SMD 1K OHM 0603 5%
R6004 R6101-6104 R6107-6108		
R6111-6116 R6161-6162 R6199		
R6093 R6094 R6097 R6098		
R6124 R6127-6128 R6135-6140	02-007-0136-00	RES SMD 33K OHM 0603 5%
R6145-6146 R6151-6156 R6123		
R6258-6261		
R6018-6019 R6030-6031 R6042-6043	02-007-0139-00	RES SMD 4.7K OHM 0603 5%
R6054-6055 R6006 R6066-6067		
R6079-6080 R6085-6086 R6007		
R6192 R6194 R6195		
R6213-6214 R6255 R6257	02-007-0140-00	RES SMD 47K OHM 0603 5%
R6193	02-007-0145-00	RES SMD 22K OHM 0603 5%
R6099 R6096	02-007-0146-00	RES SMD 47 OHM 0603 5%
R6100 R6095	02-007-0151-00	RES SMD 10 OHM 0603 5%
R6091 R6174-6179 R6182-6185	02-007-0157-00	RES SMD 10K OHM 0603 1%
R6034-6035 R6022-6023 R6046-6047	02-007-0267-00	RES SMD 100K OHM 5% 1/16W 0603
R6058-6059 R6070-6071 R6083-6084		
R6089-6090 R6010-6011 R6073 R6075		
R6077		
R6029 R6041 R6065 R6053 R6017	02-007-0268-00	RES SMD 56K OHM 5% 1/16W 0603
R6201-6206 R6005,R6001 R6013		
R6025 R6037 R6049 R6061 R6188		
R6207 R6210		
R6118 R6105 R6109-6110 R6106 R6117	02-007-0270-00	RES SMD 330 OHM 1% 1/16W 0603
R6142 R6144 R6148 R6150 R6158	02-007-0288-00	RES SMD 0 OHM 5% 1/16W 0603
R6160 R6197 R6238-6253		
R6231-6234	02-007-0292-00	RES SMD 2.2K OHM 1% 1/16W 0603
R6081-6082 R6068-6069 R6044 R6020	02-007-0294-00	RES SMD 470 OHM 5% 1/16W 0603
R6033 R6008-6009 R6045 R6021 R6032		
R6087-6088 R6056-6057 R6254 R6256		
R6200 R6198 R6236 R6237	02-007-0300-00	RES. SMD 200K OHM +/-5% 1/16W 0603
R6186 R6189	02-007-0306-00	RES SMD 1K OHM 1% 1/16W 0603
R6166 R6169-6170	02-007-0312-00	RES SMD 20K OHM 1/16W 1% 0603
R6074 R6092 R6078 R6076	02-007-0319-00	RES SMD 300 OHM 5% 1/16W 0603
R6187	02-007-0321-00	RES SMD 3.3K OHM 1% 1/16W 0603
R6165 R6167-6168 R6171	02-007-0322-00	RES SMD 33K OHM 1% 1/16W 0603
R6164 R6163	02-007-0335-00	RES SMD 75K OHM 1% 1/16W 0603
R6012 R6024 R6036 R6048 R6060 R6072	02-007-0372-00	RES SMD 220 OHM 5% 1/16W 0603
R6191	02-007-0383-00	RES SMD 2.7K OHM +/-1% 1/16W 0603
<b>SMD CAPACITORS</b>		
C6077-6080,C6116	03-009-0049-00	CAP ELEC SMD 100uF/16V ±20% 6.3X5.5

C6115 C6121 C6097 C6101 C6103 C6139 C6141 C6144-6145 C6151-6152 C6159-6160 C6167-6168 C6175-6176 C6183-6184 C6192-6193 C6198-6199 C6201-6202C6221-6222 C6225-6226 C6229-6230 C6233-6234 C6241-6242 C6237-6238 C6267 C6269	03-009-0075-00	CAP CER SMD 0.1uF 50V 20% Y5V 0603
C6001-6018 C6124 C6127 C6130-6132 C6135 C6265 C6243	03-009-0111-00	CAP CER SMD 100pF 50V 10% X7R 0603
C6082-6083 C6085	03-009-0112-00	CAP CER SMD 1nF 50V 10% X7R 0603
C6195-6197 C6158 C6204 C6166	03-009-0113-00	CAP CER SMD 10nF 50V 10% X7R 0603
C6174 C6182 C6150 C6191	03-009-0114-00	CAP CER SMD 220pF 50V 10% X7R 0603
C6112 C6113	03-009-0115-00	CAP CER SMD 2.2nF 50V 10% X7R 0603
C6114 C6096 C6100 C6119	03-009-0131-00	CAP CER SMD 22nF 50V 20% Y5V 0603
C6099 C6095 C6118	03-009-0134-00	CAP CER SMD 0.047uF 50V 10% X7R 0603
C6178 C6187 C6146 C6154 C6162 C6170 C6250 C6254	03-009-0136-00	CAP ELEC SMD 10uF 16V +/-20% 4X5.4
C6261-6264	03-009-0138-00	CAP ELEC SMD 1000uF 10V +/-20% 10x10.5
C6019-6022 C6065-6066 C6069-6074 C6081 C6084 C6122-6123 C6136 C6153 C6161 C6169 C6177 C6186 C6194 C6200 C6203 C6244-6249 C6258 C6259 C6266 C6268	03-009-0140-00	CAP ELEC SMD 22uF 16V +/-20% 5X5.4
C6110-6111 C6120 C6137 C6140 C6142-6143 C6086-6092 C6223-6224 C6227-6228 C6231-6232 C6235-6236 C6239-6240 C6093 C6102 C6104-6109 C6094 C6098 C6117	03-009-0143-00	CAP ELEC SMD 47uF 50V +/-20% 6.3X7.7
	03-009-0198-00	CAP CER SMD 0.15uF 25V 10% X7R 0603
<b>SMD DIODES</b>		
D6001-6004 D6007	04-006-0019-00	DIODE RECT 1A/400V DO-214AC SMD GS1G M4 GS1G
D6011-6013 D6104	04-006-0021-90	SMD DIODE LL4148 SOD80
D6005-6006	04-007-0042-90	DIODE ZENER SMD 7.5V 500mW 5% SOD123 MMSZ5236B
<b>SMD TRANSISTORS</b>		
Q6005-6016 Q6021-6024 Q6026-6027 Q6101	05-004-0017-00	SMD Transistor 2SC4695 NPN SOT-23
	05-004-0030-90	XTR 2SD1918 NPN POWER 160V/1.5A 80MHz HFE 120-390 SMD
Q6102	05-004-0031-90	XTR 2SB1275 PNP POWER 160V/1.5A 50MHz HFE 82-180 SMD
Q6025	05-004-0036-90	TRANSISTOR SS NPN HFE20 250MHZ DTC123EKAT146
Q6017-6020	05-004-0037-90	TRANSISTOR SS PNP HFE 30 250MHZ SPT DTA114EKAT146
<b>DSP BOARD</b>		
<b>PCB ASSEMBLY*AH</b>	<b>50-918-0775-90</b>	<b>T175/T775/T785 AH DSP ASSY</b>
<b>PCB ASSEMBLY*C,CT</b>	<b>50-945-0775-90</b>	<b>T175/T775/T785 C/CT DSP ASSY</b>
<b>FIBER OPTIC</b>		
M1004	04-004-0007-90	FIBER OPTIC TRANSMITTER 650nm 5V JST1164
M1001-1003	04-009-0004-90	FIBRE OPTIC RECEIVING UNIT 700nm JSR1164-D

<b>INDUCTORS</b>		
L1008-L1014	07-002-0132-90	IND CHOKE 10uH +/-10% AXIAL EC24-100K
L1007	07-002-0134-90	IND CHOKE 22uH 10% AXIAL EC24-220K
<b>TACT SWITCH</b>		
S1001	11-007-0061-90	SW TACT 1P1T 50mA/12V VER H=5mm
<b>RCA JACKS</b>		
M1005 M1006 M1007 M1008	15-003-0034-90	RCA JACK 1 ORANGE PCB MOUNT GOLD W/SHIELD
<b>SMD ICS</b>		
U1020	01-004-0056-90	IC VOLT REG. LOW DROPOUT 3.3V 1A SOT-223 LM1117S-3.3
U1034	01-004-0061-90	IC VOLT REG LOW DROPOUT 5.0V 1A SOT-223 LM1117S-5.0
U1001	01-010-0024-90	IC D708E001BRFP266 FLOATING-POINT DSP SMD 144 PINS S-PQFP-144
U1004	01-011-0032-90	IC FLASH MEMORY SMD 8M 3.3V SST39VF800A-70-4C-EK TSOP
U1003	01-011-0033-90	IC SDRAM 1M X 4 X 16BIT 133MHz SMD 54PIN TSOP(II) K4S641632K-T(U)C/L75
U1005*AH, U1005-1006*C,CT	01-012-0061-00	IC LOGIC 8-CHANNEL MULTIPLEXER SOP 74HC251D
U1007 U1008	01-012-0065-00	IC LOGIC 8-STAGE SHIFT-AND-STORE BUS REGISTER SMD SO16 HEF4094BT
U1018-1019	01-012-0066-00	IC LOGIC HEX INVERTER SMD SOP 74HCU04D
U1010 U1022	01-012-0068-90	IC LOGIC OCTAL BUS TRANSCEIVER WITH 3-STATE OUTPUTS 20PIN TSSOP SN74LVC245APWR
U1011	01-012-0074-90	IC PWM CONTROL IC SOP8 TL5001CD
U1009	01-012-0083-90	IC LOGIC OCTAL BUS TRANSCEIVERS WITH 3-STATE OUTPUTS SMD SN74HCT245PWR
U1033 U1035 U1036	01-012-0088-90	IC LOGIC QUAD 2-INPUT MULTIPLEXER WITH 3-STATE OUTPUTS SN74LVC257AD
U1023 U1027-1031	01-014-0041-00	IC AUDIO LOW NOISE OP-AMP SMD NJM5532M
U1017	01-020-0022-90	IC AUDIO STEREO ADC PCM1802 SOP20
U1021	01-020-0023-90	IC SUPPLY-VOLTAGE SUPERVISORY IC SOP6 TPS3103E12DBVR
U1002	01-020-0024-90	IC 192KHz DIGITAL AUDIO INTERFACE RECEIVER 28PIN SOIC CS8416 -CS
U1032*AH	01-020-0030-90	IC XMDT IC BU9450KV VQFP48C
U1012-1016	01-027-0011-90	IC PCM1791A 24-BIT 192kHz AUDIO STEREO DAC SMD 28 PIN SSOP
<b>RES SMDESISTORS</b>		
R1006 R1013 R1020 R1032 R1231 R1242-1243*AH	02-007-0042-00	RES SMD 1K OHM 0603 5%
R1022-1024 R1034	02-007-0134-00	RES SMD 4.7 OHM 0805 5%
R1316-1317 R1035*C,CT	02-007-0139-00	RES SMD 4.7K OHM 0603 5%
R1005 R1012 R1019 R1031 R1061 R1071-1072	02-007-0140-00	RES SMD 47K OHM 0603 5%

R1062 R1069 R1240 R1244-1245*AH	02-007-0141-00	RES SMD 100 OHM 0603 5%
R1028	02-007-0146-00	RES SMD 47 OHM 0603 5%
R1078-1079 R1082-1083 R1086-1087	02-007-0151-00	RES SMD 10 OHM 0603 5%
R1090-1091 R1167-1168 R1226 R1190		
R1199 R1208		
R1050	02-007-0153-00	RES SMD 20K OHM 0603 5%
R1066 R1077 R1080-1081 R1084-1085	02-007-0157-00	RES SMD 10K OHM 0603 1%
R1088-1089 R1092 R1166 R1169 R1196		
R1223-1224 R1230 R1236-1237		
R1259-1264 R1267 R1268 R1270 R1271		
R1186 R1114 R1123 R1129 R1139 R1149		
R1159 R1098 R1107 R1176 R1298 R1301		
R1191 R1200 R1205 R1206 R1188 R1192		
R1197 R1201 R1336		
R1249-1253*AH	02-007-0267-00	RES SMD 100K OHM 5% 1/16W 0603
R1001 R1008 R1015 R1232	02-007-0288-00	RES SMD 0 OHM 5% 1/16W 0603
R1246-1247*AH R1256*AH R1272-R1275		
R1276-1294 R1300 R1318-1319		
R1322-1323 R1324-1325*AH		
R1326-R1334 R1337		
R1239	02-007-0291-00	RES SMD 150 OHM 5% 1/16W 0603
R1007 R1014 R1021 R1025-1027	02-007-0292-00	RES SMD 2.2K OHM 1% 1/16W 0603
R1047 R1320-1321		
R1037-1041 R1265-1266	02-007-0293-00	RES SMD 33 OHM 5% 1/16W 0603
R1073	02-007-0300-00	RES SMD 200K OHM +/-5% 1/16W 0603
R1099 R1108 R1115 R1130 R1140	02-007-0301-00	RES SMD 620 OHM +/-5% 1/16W 0603
R1150 R1160 R1177 R1187 R1241		
R1096-1097 R1105-1106 R1112-1113	02-007-0309-00	RES SMD 1.18K OHM 1%1/10W 0603
R1121-1122 R1127-1128 R1136-1137		
R1146-1147 R1156-1157 R1173-1174		
R1183-1184		
R1095 R1104 R1111 R1120 R1126	02-007-0334-00	RES SMD 7.5K OHM 1% 1/16W 0603
R1135 R1138 R1145 R1148 R1155		
R1158 R1161-1165 R1172 R1175		
R1182 R1185		
R1049	02-007-0337-00	RES SMD 91K OHM 1% 1/16W 0603
R1002 R1009 R1016 R1029 R1042-R1046	02-007-0341-00	RES SMD 120 OHM 5% 1/16W 0603
R1068	02-007-0345-00	RES SMD 3K OHM 5% 1/16W 0603
R1074	02-007-0350-00	RES SMD 39K OHM 5% 1/16W 0603
R1003 R1010 R1017 R1030	02-007-0351-00	RES SMD 39 OHM 5% 1/16W 0603
R1004 R1011 R1018	02-007-0357-00	RES SMD 75 OHM 5% 1/16W 0603
R1093-1094 R1102-1103 R1109-1110	02-007-0383-00	RES SMD 2.7K OHM +/-1% 1/16W 0603
R1118-1119 R1124-1125 R1133-1134		
R1143-1144 R1153-1154 R1170-1171		
R1180-1181		

**SMD CAPACITORS**

C1003 C1007 C1011 C1013 C1015 C1017 C1019 C1023 C1025 C1026*CT C1028 C1030 C1032 C1035-1037 C1047 C1049 C1051 C1053 C1056 C1062 C1064 C1067-1068 C1070 C1077 C1079-1124 C1127-1131 C1134-1136 C1154-1155 C1159-1160 C1164-1165 C1169 C1171 C1243-1244 C1288 C1293 C1296 C1299 C1303-1305*AH C1311*AH C1313 C1315-1322*AH C1330*AH C1341 C1342 C1344 C1297	03-009-0075-00	CAP CER SMD 0.1uF 50V 20% Y5V 0603
C1175-1176 C1182-1183 C1189-1190 C1196-1197 C1203-1204 C1210-1211 C1217-1218 C1224-1225 C1249-1250 C1259-1260	03-009-0104-00	CAP CER SMD 2700pF 50V 10% X7R 0603
C1042 C1230-1231 C1233-1234 C1236 C1238 C1241 C1300-1302	03-009-0111-00	CAP CER SMD 100pF 50V 10% X7R 0603
C1044 C1063 C1065	03-009-0112-00	CAP CER SMD 1nF 50V 10% X7R 0603
C1001 C1004-1005 C1008-1009 C1012 C1022 C1038 C1043	03-009-0113-00	CAP CER SMD 10nF 50V 10% X7R 0603
C1002 C1006 C1010	03-009-0114-00	CAP CER SMD 220pF 50V 10% X7R 0603
C1039	03-009-0117-00	CAP CER SMD 330pF 50V 10% X7R 0603
C1058	03-009-0128-00	CAP CER SMD 1200pF 50V 10% X7R 0603
C1048 C1050 C1054	03-009-0128-90	CAP ELEC SMD 470uF/10V ±20% G
C1021	03-009-0130-00	CAP CER SMD 22pF 50V 5% COG 0603
C1045	03-009-0131-00	CAP CER SMD 22nF 50V 20% Y5V 0603
C1066	03-009-0133-00	CAP CER SMD 470pF 50V 5% NPO 0603
C1014 C1016 C1018 C1020 C1024 C1027*CT C1031 C1033-1034 C1046 C1052 C1069 C1071 C1076 C1078 C1153 C1157-1158 C1162-1163 C1167-1168 C1170 C1173-1174 C1180-1181 C1187-1188 C1194-1195 C1201-1202 C1208-1209 C1215-1216 C1222-1223 C1242 C1246-1248 C1257-1258 C1264 C1269 C1294-1295 C1312 C1156 C1161 C1166 C1172 C1245 C1298 C1340 C1343 C1345 C1055	03-009-0136-00	CAP ELEC SMD 10uF 16V +/-20% 4X5.4
C1265 C1270 C1332	03-009-0138-00	CAP ELEC SMD 1000uF 10V +/-20% 10X10.5
C1179 C1186 C1193 C1200 C1207	03-009-0140-00	CAP ELEC SMD 22uF 16V +/-20% 5X5.4
C1214 C1221 C1228 C1253 C1263	03-009-0142-00	CAP ELEC SMD 3.3uF 50V +/-20% 4X5.4
C1029 C1137-1141 C1143 C1146-1150 C1152 C1323*AH	03-009-0143-00	CAP ELEC SMD 47uF 50V +/-20% 6.3X7.7
C1287	03-009-0153-00	CAP ELEC SMD 1uF/50V ±20% B CASE 4 X 5.4
C1177-1178 C1184-1185 C1191-1192 C1198-1199 C1205-1206 C1212-1213 C1219-1220 C1226-1227 C1251-1252 C1261-1262	03-009-0157-00	CAP CER SMD 560pF 50v 10% X7R 0603

C1268 C1273	03-009-0211-00	CAP ELEC SMD 220uF/16V ±20% 6.3X7.7
<b>SMD DIODES</b>		
D4001 D4002	04-006-0021-90	SMD DIODE LL4148 SOD80
<b>SMD TRANSISTORS</b>		
Q1016	05-001-0096-90	XTR PW PNP 5A/60V SC-63 2SA1952TLQ
Q1020-1022	05-004-0017-00	SMD Transistor 2SC4695 NPN SOT-23
Q1011-1012 Q1024 Q1030 Q1032-1033	05-004-0035-90	TRANSISTOR SS NPN HFE30 250MHZ SPT DTC114EKAT146
Q1017*C,CT Q1025 Q1031 Q1034-1035	05-004-0037-90	TRANSISTOR SS PNP HFE 30 250MHZ SPT DTA114EKAT146
<b>SMD INDUCTORS</b>		
L1018*AH	07-007-0017-90	IND 2.7uH SMD 10% 0805 CI201209- 2R7KG
L1020 L1021 L1022 L1023	07-007-0035-90	IND SMD 1.5uH 10% 0805 CI2012-1R5K
L1001-1004	10-009-0005-90	DIGITAL AUDIO INTERFACE SIGNAL TRANSFORMER ER9.5 225uH RA070228-1
<b>SMD OSCILLATORS</b>		
X1001C	14-004-0020-90	CRYSTAL OSCILLATOR 24.576MHZ 3.3V 50ppm 30pF
X1003*AH	14-004-0024-90	CRYSTAL OSCILLATOR 45.1584MHZ 3.3V 50ppm 30pF
<b>COMPOSITE VIDEO BOARD PCB ASSEMBLY</b>		
	<b>50-920-0785-90</b>	<b>T175/T775/T785 COMPOSITE VIDEO ASSY</b>
<b>RCA JACKS</b>		
M4101-M4108	15-003-0032-90	RCA JACK 1 YELLOW & S-VIDEO PCB MOUNT W/COVER DASW-8.4-11
M4109	15-003-0037-90	RCA JACK 1 Y PCB MOUNT GOLD W/ COVER
<b>SMD ICS</b>		
U4103-4106	01-012-0062-00	IC LOGIC 8-CHANNEL ANALOG MUX/ DEMUX SMD 74HC4051D
U4107	01-012-0065-00	IC LOGIC 8-STAGE SHIFT-AND-STORE BUS REGISTER SMD SO16 HEF4094BT
U4101-4102	01-026-0001-90	IC VIDEO 3-CHANNEL 75 OHM DRIVER SSOP BA7660FS
<b>RES SMDESISTORS</b>		
R4125 R4134	02-007-0042-00	RES SMD 1K OHM 0603 5%
R4149-4150	02-007-0089-00	RES. SMD 0 OHM +/-5% 1/10W 0805
R4113-4114 R4107-4108 R4142	02-007-0141-00	RES SMD 100 OHM 0603 5%
R4121 R4122 R4133 R4132	02-007-0146-00	RES SMD 47 OHM 0603 5%
R4119 R4120 R4151 R4152	02-007-0151-00	RES SMD 10 OHM 0603 5%
R4143-4144 R4146-4147	02-007-0157-00	RES SMD 10K OHM 0603 1%
R4135 R4126 R4145 R4148	02-007-0267-00	RES SMD 100K OHM 5% 1/16W 0603
R4123 R4161 R4162	02-007-0288-00	RES SMD 0 OHM 5% 1/16W 0603
R4156 R4157	02-007-0289-00	RES SMD 68 OHM +/-1% 1/16W 0603
R4139-4140 R4137-4138	02-007-0352-00	RES SMD 470K OHM 5% 1/16W 0603
R4101-4106 R4109-4112 R4115-R4118	02-007-0357-00	RES SMD 75 OHM 5% 1/16W 0603
R4124 R4127-4131 R4136 R4160		



<b>SMD CAPACITORS</b>		
C4118 C4120 C4135 C4138 C4153	03-009-0075-00	CAP CER SMD 0.1uF 50V 20% Y5V 0603
C4142-4143	03-009-0113-00	CAP CER SMD 10nF 50V 10% X7R 0603
C4152	03-009-0136-00	CAP ELEC SMD 10uF 16V +/-20% 4X5.4
C4132	03-009-0138-00	CAP ELEC SMD 1000uF 10V +/-20% 10x10.5
C4101-4107 C4109-4111 C4113-4115	03-009-0141-00	CAP ELEC SMD 2.2uF 50V +/-20% 4x5.4
C4121-4123 C4125 C4127 C4147		
C4134 C4137 C4119 C4117 C4141 C4131	03-009-0143-00	CAP ELEC SMD 47uF 50V +/-20% 6.3X7.7
C4112 C4108 C4116 C4124 C4126	03-009-0144-00	CAP ELEC SMD 470uF 16V +/-20%
C4128-4130 C4139-4140 C4145-4146		10X10.5
<b>SMD DIODES</b>		
D4101-4106	04-006-0021-90	SMD Diode LL4148 SOD80
<b>SMD TRANSISTORS</b>		
Q4102 Q4104 Q4107-4108 Q4113-4114	05-004-0017-00	SMD Transistor 2SC4695 NPN SOT-23
Q4101 Q4103 Q4109-4112 Q4118	05-004-0034-90	TRANSISTOR 2SA1037AKS PNP HFE 270-560 140MHz SMD SMT3
Q4105-4106 Q4115-4116	05-004-0036-90	TRANSISTOR SS NPN HFE20 250MHz DTC123EKAT146
<b>KEYBOARD</b>		
<b>PCB ASSEMBLY</b>	<b>50-922-0765-90</b>	<b>T765/T775/T785 KEYBOARD ASSY</b>
<b>CAPACITORS</b>		
C2208	03-002-0137-00	CAP ELEC SS 1uF 50V 20% 85C RAD HEIGHT= 7mm MAX
C2211	03-002-0143-00	CAP ELEC SS 47uF 16V 20% 85C RAD HEIGHT = 7mm MAX
<b>IR</b>		
D2202	04-009-0003-90	IR RX 37.9kHz SHIELD RT FM-6038TM2-5AN
<b>ENCODER</b>		
M2201	06-006-0009-90	ENCODER ROTATRY STD L=20MM VERT. W/O CLICK
<b>TACT SWITCH</b>		
S2201-S2218	11-007-0061-90	SW TACT NO 1P1T 50mA/12V VER H=5mm
<b>VFD</b>		
VD2201	12-005-0029-90	VFD 16-BT-130-GINK T775
<b>LED</b>		
D2201	12-006-0125-90	LED RED-ORN-BLU CIRCULAR 5X8.7MM BL-BUBJFB52C4V-1 COMMON ANODE
<b>SMD IC</b>		
U2201	01-012-0065-00	IC LOGIC 8-STAGE SHIFT-AND-STORE BUS REGISTER SMD SO16 HEF4094BT

**RES SMDESISTORS**

R2201 R2237-R2239	02-007-0042-00	RES SMD 1K OHM 0603 5%
R2204	02-007-0136-00	RES SMD 33K OHM 0603 5%
R2202	02-007-0139-00	RES SMD 4.7K OHM 0603 5%
R2232-2233	02-007-0141-00	RES SMD 100 OHM 0603 5%
R2210	02-007-0151-00	RES SMD 10 OHM 0603 5%
R2207 R2212-2216 R2230-2231	02-007-0157-00	RES SMD 10K OHM 0603 1%
R2203 R2211 R2234-2236 R2240 R2241	02-007-0292-00	RES SMD 2.2K OHM 1% 1/16W 0603
R2205 R2209	02-007-0294-00	RES SMD 470 OHM 5% 1/16W 0603
R2206 R2208	02-007-0315-00	RES SMD 22 OHM 5% 1/4W 1206

**SMD CAPACITORS**

C2201-2204 C2207 C2210	03-009-0075-00	CAP CER SMD 0.1uF 50V 20% Y5V 0603
C2205-2206	03-009-0111-00	CAP CER SMD 100pF 50V 10% X7R 0603
C2212	03-009-0119-00	CAP CER SMD 4.7nF 50V 10% X7R 0603

**SMD DIODES**

D2204-2209	04-006-0021-90	SMD Diode LL4148 SOD80
D2203	04-007-0031-00	DIODE ZENER SMD 6.2V 500mW 5% SOD123 MMSZ5234B

**SMD TRANSISTORS**

Q2201	05-004-0030-90	XTR 2SD1918 NPN POWER 160V/1.5A 80MHz HFE 120-390 SMD
Q2202-Q2204 Q2205 Q2206	05-004-0037-90	TRANSISTOR SS PNP HFE30 250MHZ SPT DTA114EKAT146

**JUMPERS**

JMP1 JMP3 JMP5-12 JMP16 JMP20-23 JMP26-29 JMP32-34 JMP36 JMP38 JMP43	17-016-0077-00	Jumper wire Dia. 0.5mm L=52.0mm
JMP2 JMP4 JMP13-15 JMP17-19 JMP24-25 JMP30-31 JMP35 JMP37 JMP39-41	17-016-0080-90	Jumper Wire Dia. 0.5mm For L Smaller than 14mm

**PRE-OUT BOARD  
PCB ASSEMBLY****50-924-0765-90****T765/T775/T785 PRE-OUT ASSY****RCA JACKS**

M6502 M6504	15-003-0022-90	RCA JACK 2 B/B PCB MOUNT GOLD RS-213G-02(W)
M6505	15-003-0036-90	RCA JACK 1 BLACK PCB MOUNT GOLD W/O COVER
M6501 M6503	15-003-0046-90	RCA JACK 6 W-W-W/R-R-R PCB MOUNT GOLD W/O SHIELD

**SMD ICS**

U6901	01-012-0065-00	IC LOGIC 8-STAGE SHIFT-AND-STORE BUS REGISTER SMD SO16 HEF4094BT
U6501 U6601 U6701 U6801	01-014-0041-00	IC AUDIO LOW NOISE OP-AMP SMD NJM5532M

**RES SMDESISTORS**

R6901-6902 R6907-6908 R6913-6914 R6919-6920	02-007-0042-00	RES SMD 1K OHM 0603 5%
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R6971-6979	02-007-0089-00	RES SMD 0 OHM 1/8W 0805 5%
R6924 R6917-6918 R6905-6906	02-007-0136-00	RES SMD 33K OHM 0603 5%
R6911-6912 R6923		
R6502 R6602 R6702 R6802 R6513	02-007-0140-00	RES SMD 47K OHM 0603 5%
R6613 R6713 R6813 R6524 R6624		
R6724 R6824 R6535 R6635 R6735		
R6632 R6531-6532 R6642-6643 R6647	02-007-0267-00	RES SMD 100K OHM 5% 1/16W 0603
R6648 R6610 R6509-6510 R6709-6710		
R6609 R6620-6621 R6720-6721		
R6731-6732 R6747 R6748 R6521		
R6742-6743 R6542 R6809-6810 R6520		
R6543 R6547 R6548 R6820-6821		
R6831-6832 R6848-R6850 R6631		
R6501 R6504 R6512 R6515 R6601	02-007-0288-00	RES SMD 0 OHM 5% 1/16W 0603
R6604 R6612 R6615, R6701 R6704		
R6712 R6715, R6801 R6804 R6812		
R6815,R6955 - R6962,R6940		
R6945-6946 R6927-6928 R6933-6934		
R6951 R6939 R6723 R6734 R6551		
R6552 R6651 R6652 R6751 R6752		
R6851		
R6980-6985	02-007-0292-00	RES SMD 2.2K OHM 1% 1/16W 0603
R6517-6518 R6528-6529 R6539-6540	02-007-0294-00	RES SMD 470 OHM 5% 1/16W 0603
R6506 R6606-6607 R6507 R6617-6618		
R6628-6629 R6639-6640 R6706-6707		
R6717-6718 R6728-6729 R6739-6740		
R6806-6807 R6817-6818 R6828-6829		
R6608 R6508 R6616 R6519 R6619	02-007-0295-00	RES SMD 4.7K OHM +/-1% 1/16W 0603
R6505 R6705 R6708 R6716 R6719		
R6805 R6808 R6516 R6816 R6819		
R6605 R6527 R6530 R6538 R6541		
R6627 R6630 R6638 R6641 R6727		
R6730 R6738 R6741 R6827 R6830		
R6523 R6534 R6646 R6545 R6746	02-007-0319-00	RES SMD 300 OHM 5% 1/16W 0603
R6845-6847 R6645 R6546 R6745		
R6623 R6634 R6644 R6711 R6744	02-007-0372-00	RES SMD 220 OHM 5% 1/16W 0603
R6622 R6511 R6811 R6544 R6722		
R6822 R6823 R6533 R6733 R6522		
R6833 R6611 R6633		
<b>SMD CAPACITORS</b>		
C6626-6627 C6526-6527 C6519	03-009-0075-00	CAP CER SMD 0.1uF 50V 20% Y5V 0603
C6719-6720 C6726-6727 C6520		
C6619 C6819-6820 C6620 C6974		
C6903-6904 C6907-6908	03-009-0111-00	CAP CER SMD 100pF 50V 10% X7R
C6911-6912 C6915-6916		0603
C6502 C6509 C6516 C6523	03-009-0114-00	CAP CER SMD 220pF 50V 10% X7R
C6529-6530 C6602 C6609		0603
C6616 C6623 C6629-6630		
C6702 C6709 C6716 C6723		
C6729-6730 C6802 C6809		
C6816 C6830-6831 C6869		
C6501 C6508 C6601 C6608 C6701	03-009-0136-00	CAP ELEC SMD 10uF 16V +/-20% 4X5.4
C6708 C6801 C6808 C6973		

C6980-6985	03-009-0138-00	CAP ELEC SMD 1000uF 10V +/-20% 10x10.5
C6506 C6713 C6812-6813 C6605 C6505 C6513 C6612 C6705-6706 C6613 C6512 C6606 C6805-6806 C6712 C6941-6942 C6945-6946 C6949-6950 C6953-6954	03-009-0139-00	CAP ELEC SMD 0.1uF 50V +/-20% 4X5.4
C6528 C6507 C6604 C6607 C6504 C6611 C6614 C6511 C6618 C6621 C6625 C6628 C6704 C6707 C6514 C6711 C6714 C6718 C6721 C6518 C6725 C6728 C6521 C6804 C6807 C6811 C6814 C6525 C6818 C6821 C6901-6902 C6905-6906 C6909-6910 C6913-6914	03-009-0140-00	CAP ELEC SMD 22uF 16V +/-20% 5X5.4
C6943-6944 C6951-6952 C6947-6948 C6955-6956	03-009-0143-00	CAP ELEC SMD 47uF 50V +/-20% 6.3X7.7
<b>SMD DIODES</b>		
D6901-6904	04-006-0019-00	DIODE RECT 1A/400V DO-214AC SMD GS1G M4 GS1G
D6910-6915	04-006-0021-90	SMD DIODE LL4148 SOD80
D6501-6504 D6601-6604 D6701-6704 D6801-6804	04-007-0039-90	DIODE ZENER SMD 12V 500mW 5% SOD123 MM1Z12
<b>SMD TRANSISTORS</b>		
Q6501-6504 Q6506-6509 Q6601-6604 Q6606-6609 Q6701-6704 Q6706-6709 Q6801-6804 Q6806-6807	05-004-0017-00	SMD Transistor 2SC4695 NPN SOT-23
Q6505 Q6510 Q6605 Q6610 Q6705 Q6710 Q6805 Q6808 Q6810	05-004-0037-90	TRANSISTOR SS PNP HFE 30 250MHz 6 SPT DTA114EKAT14
<b>SMD INDUCTORS</b>		
L6505 L6507-L6508 L6510-L6511 L6513-L6514 L6516 L6518	07-007-0019-90	IND SMD 10uH +/-10% 0805 YT201212T-100K-S
<b>ISC &amp; SECONDARY BOARD ASSY</b>		
<b>PCB ASSEMBLY</b>	<b>50-952-0785-90</b>	<b>T785 ISC &amp; SECONDARY ASSY</b>
<b>CAPACITORS</b>		
C8101 C8102	03-002-0098-00	CAP ELEC 12000uF/80V -40+80 ±20% D=35 H=50mm
C8103 C8104	03-002-0156-00	CAP ELEC 10000uF 100V 20% 85C 35X60 KSC LP
C8205 C8305	03-001-0060-00	CAP CER 0.1uF 50V +/-20% Y5V RAD ST5
C8206 C8207 C8208 C8209 C8210 C8306-C8310	03-002-0129-00	CAP ELEC SS 10uF 16V 20% 85C RAD HEIGHT =7mm MAX
C8201 C8202 C8203 C8204 C8301-C8304 C8315 C8317-C8319 C8346	03-004-0031-00	MPF CAP 104J/63V 5% Mini Box
<b>DIODES</b>		
D8101 D8102	04-005-0015-00	Bridge Rectifier BR254W 25A/400V BR-25W
D8202 D8203 D8302 D8303	04-001-0046-00	Diode Rect 12A/600V TO-220 TYN612
D8201 D8301	04-005-0021-90	DIODE BRI 10A/400V KBK10G

D8306 D8307	04-001-0001-00	Diode 1N4148 DO-35 0.15A/100V Signal Switching Diode
D8304 D8305	04-002-0049-90	DIODE ZENER BZX85 12V 1/2W 5% DO35 BZX55-C12V
<b>JUMPER BARS</b>		
JP8101 JP8102 JP8103 JP8104 JP8201-JP8205 JP8301-JP8305	17-016-0044-00	Jumper Bar DIA1.5 X 30
<b>JUMPERS</b>		
JMP1-2 JMP14-15	17-016-0077-00	Jumper wire Dia. 0.5mm L=52.0mm
JMP22 JMP34		
JMP3-13 JMP16-17	17-016-0080-90	Jumper Wire Dia. 0.5mm For L Smaller than 14mm
JMP1-5 JMP19 JMP23-25		
JMP28-33 JMP35-37		
<b>RESISTORS</b>		
R8201 R8202 R8301 R8302	02-005-0062-00	RES RN 0.22 OHM 5% 5W SIL 3 PIN COMMON PIN2 WW
R8222 R8223 R8322 R8323	02-010-0018-00	RES MO 4K OHM 5% 3W AXIAL
R8347-R8353	02-010-0011-00	RES MO 0.22 OHM 5% 1/2W AXIAL & REEL
<b>TRANSISTORS</b>		
Q8201 Q8203 Q8205 Q8301 Q8303 Q8305	05-001-0072-00	Transistor SS NPN HEF 100 200MHs TO-92 C1815Y
Q8202 Q8204 Q8302 Q8304	05-001-0080-00	Transistor SS PNP HFE 100 200MHs TO-92 A1015Y
Q8206 Q8207 Q8306 Q8307	05-001-0083-00	Transistor SS PNP HFE280-560 110MHs 2SA1016KG-AA
<b>VARIABLE RESISTORS</b>		
R8203 R8303	06-004-0017-90	VR SEMI-FIXED RESISTOR CF 50K OHM 30% B 6mm
<b>SMD ICS</b>		
U8201 U8301	01-014-0041-00	IC AUDIO LOW NOISE OP-AMP SMD NJM5532M
<b>SPEAKER BOARD PCB ASSEMBLY</b>		
	<b>50-927-0775-90</b>	<b>T775/T785 SPEAKER ASSY</b>
<b>SPEAKER TERMINALS</b>		
	16-001-0439-90	BINDING POST BASE 4P BLACK
	16-003-0585-90	BINDING POST KNOB ASSY BLACK
	16-003-0586-90	BINDING POST KNOB ASSY RED
<b>TRIGGER BOARD PCB ASSEMBLY*AH PCB ASSEMBLY*C,CT</b>		
	<b>50-930-0765-90</b>	<b>T765/T775/T785 AH TRIGGER ASSY</b>
	<b>50-947-0765-90</b>	<b>T765/T775/T785 C/CT TRIGGER ASSY</b>
<b>CAPACITORS</b>		
C2314 C2316 C2325 C2328 C2329	03-002-0129-00	CAP ELEC SS 10uF 16V 20% 85C RAD HEIGHT =7mm MAX
C2318-2320 C2324	03-002-0137-00	CAP ELEC SS 1uF 50V 20% 85C RAD HEIGHT= 7mm MAX
C2311*C,CT	03-002-0143-00	CAP ELEC SS 47uF 16V 20% 85C RAD HEIGHT = 7mm MAX

<b>SLIDE SWITCHES</b>		
S2301-S2302	11-002-0042-90	SW SLIDE 2P2T RIGHT L=9
<b>JACKS</b>		
M2301-M2304	15-002-0030-90	PHONE JACK X2 BLACK PCB MOUNT 3.5mm RIGHT ANGLE SCJ351P00XS0B00G
M2306*C,CT	15-017-0003-90	DIN MINI JACK BLACK PCB MOUNT W/COVER RIGHT ANGLE 9 PINS
<b>XM CONNECTOR</b>		
M2307*AH	16-001-0440-90	XM 4 PINS SMALL CONNECTOR B TYPE 2.4mm PCB MOUNT
<b>DAB CONNECTOR</b>		
M2306*C,CT	15-017-0003-90	DIN MINI JACK BLACK PCB MOUNT W/COVER RIGHT ANGLE 9 PINS
<b>DB9 CONNECTOR</b>		
M2305	16-002-0200-90	DB9 FEMALE CONNECTOR PCB MOUNT RIGHT ANGLE
<b>COILS</b>		
L2301-L2303	07-002-0154-90	COIL 15uH ±30% W/BEAD RH3.5 X 1.3 X 3-4.5Ts-A
<b>SMD ICS</b>		
U2304*C,CT	01-004-0056-90	IC VOLT REG. LOW DROPOUT 3.3V 1A SOT-223 LM1117S-3.3
U2303	01-012-0075-90	IC 74HC86D LOGIC QUAD 2-INPUT EXCLUSIVE-OR GATE SMD 14 PINS SOIC
D2308*AH	01-012-0076-90	IC CM1213 8-Channel Low Capacitance ESD Protection Arrays CM1213-08MR
U2301	01-015-0005-90	IC RS-232 DRIVERS AND RECEIVERS ST232BDR
U2302	01-028-0003-90	IC TPS2011A 8-SOIC LEAD FREE
<b>RES SMDESISTORS</b>		
R2330*C,CT	02-007-0042-00	RES SMD 1K OHM 0603 5%
R2341	02-007-0127-00	RES SMD 15K OHM 0603 5%
R2309	02-007-0136-00	RES SMD 33K OHM 0603 5%
R2329,R2348*C,CT	02-007-0139-00	RES SMD 4.7K OHM 0603 5%
R2320-2321	02-007-0146-00	RES SMD 47 OHM 0603 5%
R2324	02-007-0149-00	RES SMD 1.8K OHM 0603 5%
R2304 R2308 R2313 R2316 R2319	02-007-0157-00	RES SMD 10K OHM 0603 1%
R2322-2323 R2344-2346 R2351		
R2356	02-007-0208-00	RES SMD 0 OHM 1/8W 1206 5%
R2310	02-007-0267-00	RES SMD 100K OHM 5% 1/16W 0603
R2331-2332*AH, R2339	02-007-0288-00	RES SMD 0 OHM 5% 1/16W 0603
R2303	02-007-0292-00	RES SMD 2.2K OHM 1% 1/16W 0603
R2311-2312 R2314-2315 R2317-2318	02-007-0323-00	RES SMD 3.3 OHM 5% 1W 2512
R2354	02-007-0343-00	RES SMD 22 OHM 5% 1/10W 0805
R2305-2307	02-007-0356-00	RES SMD 560 OHM 5% 1/10W 0805
R2358 R2359	02-007-0396-00	RES SMD 100 OHM +/-5% 1W 2512



<b>SMD CAPACITORS</b>		
C2305-2308 C2310*C,CT	03-009-0075-00	CAP CER SMD 0.1uF 50V 20% Y5V 0603
C2315 C2326-2327		
C2302-2304	03-009-0078-00	CAP CER SMD 47pF/50V 10% NPO 0603
C2317	03-009-0111-00	CAP CER SMD 100pF 50V 10% X7R 0603
C2301	03-009-0113-00	CAP CER SMD 10nF 50V 10% X7R 0603
<b>SMD DIODES</b>		
D2301-2306 D2307*C,CT	04-006-0021-90	SMD Diode LL4148 SOD80
<b>SMD TRANSISTORS</b>		
Q2309 Q2311 Q2313	05-004-0031-90	XTR 2SB1275 PNP POWER 160V/1.5A 50MHz HFE 82-180 SMD
Q2301 Q2303 Q2305 Q2307-2308	05-004-0035-90	TRANSISTOR SS NPN HFE30 250MHz
Q2310 Q2312 Q2314 Q2321		SPT DTC114EKAT146
Q2316-2319*C,CT		
Q2302 Q2304 Q2306 Q2320	05-004-0037-90	TRANSISTOR SS PNP HFE 30 250MHz
		SPT DTA114EKAT146
<b>JUMPERS</b>		
JMP3 JMP6 JMP14 JMP19-21	17-016-0077-00	Jumper wire Dia. 0.5mm L=52.0mm
JMP34 JMP41-42		
JMP1-2 JMP4-5 JMP7-13 JMP15-18	17-016-0080-90	Jumper Wire Dia. 0.5mm For L Smaller than 14mm
JMP22-33 JMP35-40 JMP43-44		
<b>VIDEO 6 BOARD PCB ASSEMBLY</b>		
	<b>50-931-0765-90</b>	<b>T765/T775/T785 VIDEO-6 ASSY</b>
<b>CAPACITORS</b>		
C9309 C9307 C9315 C9320-9321	03-002-0073-00	CAP ELEC 22uF/16VP=1.5 D=4.2 H=7.6
C9302-9305 C9314	03-002-0140-00	CAP ELEC SS 2.2uF 50V 20% 85C RAD P=1.5
<b>FIBRE OPTIC</b>		
M9301	04-009-0004-90	FIBRE OPTIC RECEIVING UNIT 700nm JSR1164-D
<b>JACKS</b>		
M9302	15-002-0028-90	PHONE JACK 1 BLACK PCB MOUNT 3.5mm RIGHT
M9308	15-002-0029-90	PHONE JACK D6.3 1 PCB MOUNT GOLD
M9305	15-003-0048-90	RCA JACK 1 YELLOW PCB MOUNT GOLD RCA-105BL1-13Z1
M9306	15-003-0049-90	RCA JACK 1 RED PCB MOUNT GOLD RCA-105AL1-14Z1
M9307	15-003-0050-90	RCA JACK 1 WHITE PCB MOUNT GOLD RCA-105AL1-12Z1
M9304	15-017-0001-90	DIN JACK 1 BLACK PCB MOUNT MD-113
<b>SMD IC</b>		
U9301	01-014-0041-00	IC AUDIO LOW NOISE OP-AMP SMD NJM5532M

**RES SMDESISTORS**

R9333	02-007-0042-00	RES SMD 1K OHM 0603 5%
R9301	02-007-0134-00	RES SMD 4.7 OHM 0805 5%
R9307 R9310 R9311 R9330-9332	02-007-0136-00	RES SMD 33K OHM 0603 5%
R9320 R9323 R9327	02-007-0139-00	RES SMD 4.7K OHM 0603 5%
R9313	02-007-0143-00	RES SMD 18K OHM 0603 5%
R9319 R9326	02-007-0157-00	RES SMD 10K OHM 0603 1%
R9317	02-007-0160-00	RES SMD 43K OHM 0603 5%
R9325 R9324	02-007-0267-00	RES SMD 100K OHM 5% 1/16W 0603
R9305 R9308 R9328 R9329	02-007-0288-00	RES SMD 0 OHM 5% 1/16W 0603
R9314,R9316	02-007-0292-00	RES SMD 2.2K OHM 1% 1/16W 0603
R9321-9322	02-007-0294-00	RES SMD 470 OHM 5% 1/16W 0603
R9318	02-007-0319-00	RES SMD 300 OHM 5% 1/16W 0603
R9302-9304	02-007-0357-00	RES SMD 75 OHM 5% 1/16W 0603

**SMD CAPACITORS**

C9301 C9316-9317 C9323-9324	03-009-0075-00	CAP CER SMD 0.1uF 50V 20% Y5V 0603
C9306 C9308 C9318-9319	03-009-0111-00	CAP CER SMD 100pF 50V 10% X7R 0603
C9310-9311	03-009-0112-00	CAP CER SMD 1nF 50V 10% X7R 0603
C9326	03-009-0113-00	CAP CER SMD 10nF 50V 10% X7R 0603
C9313	03-009-0114-00	CAP CER SMD 220pF 50V 10% X7R 0603
C9322	03-009-0116-00	CAP CER SMD 33pF 50V 10% X7R 0603
C9325	03-009-0127-00	CAP CER SMD 1uF 16V +80/-20% Y5V 0805

**SMD TRANSISTORS**

Q9303-9304 Q9305	05-004-0017-00	SMD Transistor 2SC4695 NPN SOT-23
Q9301-9302	05-004-0037-90	TRANSISTOR SS PNP HFE 30 250MHZ SPT DTA114EKAT146

**JUMPERS**

JMP3-4 JMP6-8 JMP10 JMP14-15 JMP22	17-016-0077-00	Jumper wire Dia. 0.5mm L=52.0mm
JMP1 JMP5 JMP9 JMP11-13	17-016-0080-90	Jumper Wire Dia. 0.5mm For L Smaller than 14mm
JMP16-21 JMP23		

**COMPONENT VIDEO BOARD**

<b>PCB ASSEMBLY</b>	<b>50-932-0775-90</b>	<b>T175/T775/T785 COMPONENT VIDEO ASSY</b>
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**JACKS**

M4001	15-002-0035-90	PHONE JACK 1 GREEN PCB MOUNT 3.5mm RIGHT
M4011,M4012	15-003-0033-90	RCA JACK 6 R-BL-G/R-BL-G PCB MOUNT GOLD

**SMD ICS**

U4002-4003	01-012-0067-00	IC LOGIC ANALOG MULTIPLEXER/ DEMULTIPLEXER SMD SOIC-16 74HC4052D
U4001	01-026-0001-90	IC VIDEO 3-CHANNEL 75 OHM DRIVER SSOP BA7660FS

**RES SMDESISTORS**

R4021 R4023 R4024	02-007-0288-00	RES SMD 0 OHM 5% 1/16W 0603
R4004-4006	02-007-0352-00	RES SMD 470K OHM 5% 1/16W 0603
R4001-4003 R4011-4019	02-007-0357-00	RES SMD 75 OHM 5% 1/16W 0603

**SMD CAPACITORS**

C4001 C4009-4010	03-009-0075-00	CAP CER SMD 0.1uF 50V 20% Y5V 0603
C4006-4008	03-009-0136-00	CAP ELEC SMD 10uF 16V +/-20% 4X5.4
C4003-4005	03-009-0138-00	CAP ELEC SMD 1000uF 10V +/-20% 10x10.5
C4002 C4011-4019	03-009-0141-00	CAP ELEC SMD 2.2uF 50V +/-20% 4x5.4

**HDMI BOARD****PCB ASSEMBLY****50-933-0775-90****T175/T775/T785 HDMI ASSY****INDUCTORS**

L1 L2	07-002-0138-90	INDUCTOR AXIAL 180uH +/- 10% 2474R-28LK
L15	07-002-0148-90	INDUCTOR AXIAL 330uH 2.5A +/- 10%

**SMD ICS**

VR201 VR6	01-004-0057-90	IC VOLT REG. LM1117S-1.8 LOW DROPOUT 1.8V 1A SOT-223
U20	01-010-0026-90	IC XC9572XL-5TQ100C IN-SYSTEM PROGRAMMABLE CPLD SMD 100 PIN TQFP
U2 U11 U16 U24 U32	01-012-0076-90	IC CM1213 8-Channel Low Capacitance ESD Protection Arrays CM1213-08MR
U5	01-012-0077-90	IC PCA9517 LEVEL TRANSLATING I2C- BUS REPEATER PCA9517D SMD SO8
U10 U201	01-012-0078-90	IC PCF8574 REMOTE 8-BIT I/O EX PANDER FOR I2C-BUS PCF8574T SMD SO16
U9 U13	01-012-0079-90	IC PI3B16233 3.3V 16-BIT TO 32-BIT FET MUX/DEMUX NANOSWITCH PI3B16233AE SMD TOSSOP 56PIN (PERICOM)
U200	01-012-0082-90	IC LOGIC OCTAL BUFFERS/DRIVERS WITH 3-STATE OUTPUTS 20PIN TSSOP SN74AHCT244PWR (TI)
U18 U22 U26	01-014-0052-90	IC AD8061ART 300MHz RAIL-TO-RAIL AMPLIFIER SMD 5-PINS SOT-23
U17 U21 U25 U27 U29 U30	01-014-0055-90	IC AD8063ARTZ 300MHz RAIL-TO-RAIL AMPLIFIER SMD 6-PINS SOT-23
U19	01-026-0007-90	IC MC141585DW LCD MONITOR OSD II - 16 SMD 16 PINS SOIC
U15 U23	01-028-0002-90	IC TMDS341PFC 3-TO-1 DVI/HDMI SWITCH SMD 80 PINS PQFP
U28	01-029-0006-90	IC ADV7320KSTZ MULTIFORMAT 216MHz VIDEO ENCODER SMD 64 PINS LQFP
U12	01-029-0007-90	IC ADV7403 INTEGRATED MULTIFOR MAT SDTV/HDTV VIDEO DECODER SMD 100 PINS LQFP
U14	01-029-0008-90	IC AD9388 10-BIT INTEGRATED MULTIFORMAT VIDEO DECODER AD9388KSTZ SMD 144PIN LQFP
U31	01-029-0011-90	IC AD9389B 800MHz HIGH PERFORMANCE HDMI/DVI TRANSMITTER AD9389KSTZ-80 SMD 80 PIN LQFP
VR3	01-030-0006-90	IC LM2575S-5.0 1A STEP-DOWN VOLTAGE REGULATOR SMD 5 PIN TO-263

VR4	01-030-0007-90	IC LM2575S-3.3 1A STEP-DOWN VOLTAGE REGULATOR SMD 5 PIN TO-263
VR2 U7	01-030-0008-90	IC VOLT REG. LOW DROPOUT 2.5V 1A SOT-223 LM1117S-2.5
VR200	01-030-0009-90	IC LM1086CS-3.3 3.3V 1.5A LDO VOLTAGE REGULATOR SMD 3 PIN TO-263

**RES SMDRESISTORS**

RN1 RN2 RN3 RN4 RN5 RN6 RN7 RN8 RN9 RN10 RN11 RN12 RN13	02-003-0060-00	RES NETWORK 22 OHM X 8 5% 0.063W 742C163220JP
R1 R2 R3 R4 R5 R11 R13 R14 R18 R28 R32 R64 R66 R200 R205	02-007-0028-00	RES SMD 4.7K OHM 5% 1/10W 0805
R82	02-007-0055-00	RES SMD 750 OHM 0805 5%
R20	02-007-0087-00	RES SMD 10K OHM 1/8W 0805 1%
R103-R106	02-007-0089-00	RES SMD 0 OHM 1/8W 0805 5%
R76 R87 R89	02-007-0311-00	RES SMD 1820 OHM 1% 1/10W 0805
R51 R61 R73 R77 R85 R90 R91 R94 R95	02-007-0320-00	RES SMD 301 OHM 1% 1/10W 0805
R43 R54	02-007-0326-00	RES SMD 4.64K OHM 1% 1/10W 0805
R50 R53 R60 R72	02-007-0329-00	RES SMD 499 OHM 1% 1/10W 0805
R84 R92 R93	02-007-0332-00	RES SMD 604 OHM 1% 1/10W 0805
R29 R30 R35 R36 R37 R49 R41 R44 R59	02-007-0336-00	RES SMD 75 OHM 1% 1/10W 0805
R56 R57 R71 R63 R65 R75 R86 R88		
R10 R12 R17 R19 R21 R33 R34 R45 R47 R52 R67 R68 R71 R74 R80 R81 R118 R210 R211 R212 R213	02-007-0340-00	RES SMD 1 OHM 5% 1/10W 0805
R6-R9 R24-R27 R38-R40 R42 R46 R55 R62 R69 R78 R79 R96 R102 R111-R116 R208 R209	02-007-0343-00	RES SMD 22 OHM 5% 1/10W 0805
R22 R23 R202 R203	02-007-0344-00	RES SMD 2.7K OHM 5% 1/10W 0805
R16	02-007-0353-00	RES SMD 47 OHM 5% 1/10W 0805
R98	02-007-0363-00	RES SMD 49.9K OHM 1% 0805 1/10W
R100	02-007-0364-00	RES SMD 680 OHM 1% 0805 1/10W
FB1 FB2 FB4	02-007-0366-00	EMI BEAD SMT 120 OHM 500mA 0603
R201 R83	02-007-0430-00	RES SMD 1.5K OHM 1% 1/10W 0805
R206 R207	02-007-0431-00	RES SMD 2.67K OHM 1% 1/10W 0805
R204 R15	02-007-0432-00	RES SMD 1.69K OHM 1% 1/10W 0805
R48 R70 R58	02-007-0484-00	RES SMDISTOR 1.3k OHM 0805 1%
R97	02-007-0486-00	RES SMD 887 OHM 0805 1%
R117	02-007-0487-00	RES SMD 18 OHM 1/10W 0805 1%
R31	02-007-0488-00	RES SMDISTOR 56 OHM 0805 1%
R99 R101	02-007-0492-00	RES SMD 3.01K OHM 0805 1%

**SMD CAPACITORS**

C18,C19,C22,C43,C47,C130,C160, C162,C204,C205,C206,C207,C236 C46,C50	03-005-0015-00	CAP TANTALUM 10uF 10V +/- 10% A CASE
	03-005-0016-00	CAP TANTALUM 22uF 10V +/- 10% B CASE
C9 C10	03-009-0073-00	CAP CER SMD 100pF/50V 5% NPO 0805
C1 C4 C13 C17 C21 C23-27 C29-34 C37-38 C41-42 C48 C52-53 C57-58 C60 C62 C64 C66-67 C69-74 C76 C79-86 C88-91 C95-115 C117-118 C120-123 C125-128 C141 C144 C146-148 C150-152 C155-156 C159 C161 C163-164 C166-171 C210-215 C227-234	03-009-0074-00	CAP CER SMD 0.1uF/50V 10% X7R 0805

C11 C12 C20 C51 C54 C59 C65 C77 C92-C94 C132-C136 C140 C142 C143 C145 C149 C153 C154 C157 C158 C201-C203 C216-C223 C238 C2 C3 C15 C16 C235 C237	03-009-0126-00	CAP CER SMD 10nF 50V 10% X7R 0805
C36 C40 C45 C224 C225	03-009-0127-00	CAP CER SMD 1uF 16V +80/-20% Y5V 0805
C14 C208 C209	03-009-0132-00	CAP CER SMD 33pF 100V 0805 +/-5% NPO
C63 C68 C75 C78	03-009-0146-00	CAP CER SMD 0.082uF 25V 10% X7R 0805
C119	03-009-0147-00	CAP CER SMD 10uF 10V +80% -20% 0805
C49 C55 C56	03-009-0148-00	CAP CER SMD 3900pF 50V 10% X7R 0805
C116	03-009-0149-00	CAP CER SMD 68pF 50V 5% NPO 0805
C35 C39 C44	03-009-0150-00	CAP CER SMD 820pF 50V 10% X7R 0805
C5 C7	03-009-0151-00	CAP CER SMD 82pF 50V 5% NPO 0805
C6 C8	03-009-0152-00	CAP ELEC SMD 100uF/16V ±20% LOW IMPEDANCE D CASE 6.3 X 5.8
C28	03-009-0154-00	CAP ELEC SMD 220uF/16V ±20% LOW IMPEDANCE D CASE 6.3 X 7.7
C200	03-009-0165-00	CAP CER SMD 1000pF 100V +/-5% NPO 0805
	03-009-0186-00	CAP CER SMD 8200pF 50V 10% C0G 0805
<b>SMD DIODES</b>		
D1,D2	04-001-0049-90	DIODE SHKY 1A/40V DO-213AB SM5819
<b>SMD TRANSISTORS</b>		
Q1-Q5	05-004-0035-90	TRANSISTOR SS NPN HFE30 250MHZ SPT DTC114EKAT146
<b>SMD INDUCTOR</b>		
L3,L5,L7	07-007-0020-90	IND SMD 220nH 10% 0805
L9,L10,L11,L12,L13,L14	07-007-0021-90	IND SMD 3.3uH 10% 0805
L4,L6,L8	07-007-0022-90	IND SMD 470nH 10% 0805
<b>SMD OSCILLATOR</b>		
X200	14-004-0018-90	CRYSTAL 28.63636MHz 30ppm 18pF SMD HC-49SM
U3	14-004-0022-90	01-CR1-03-28M63636-18-3030 CRYSTAL OSCILLATOR 28.63636MHz +/-50ppm 3.3V SMD
<b>SMD FUSE</b>		
F200	20-006-0007-90	SMD Fuse SMD2920P075TF 0.75A Circuit Breaker Resettable VDE
<b>MCU BOARD</b>		
<b>PCB ASSEMBLY*AH</b>	<b>50-937-0785-90</b>	<b>T785 AH MCU ASSY</b>
<b>PCB ASSEMBLY*C,CT</b>	<b>50-946-0785-90</b>	<b>T785 C/CT MCU ASSY</b>
<b>SMD ICS</b>		
U2008	01-004-0056-90	IC VOLT REG. LOW DROPOUT 3.3V 1A SOT-223 LM1117S-3.3

U2006	01-008-0007-90	IC MICROPOWER UP WATCH DOG TIMER 2.93V SOT-25 AME8530AEEVEFX29Z
U2001	01-010-0025-90	IC M30280FCHP-U3 16-BIT MCU 128K ROM 12K RAM QFP 80P6Q-A
U2007	01-010-0030-90	IC MCU 8 BITS 8K ROM 512 BYTES RAM TQFP ATmega48-20
U2002	01-011-0034-90	IC LE030401 AT24C16-AN-2.7 ATMEL
U2009	01-012-0059-00	IC LOGIC QUAD 2-INPUT NAND GATE SOP 74HC00D
U2005	01-012-0073-90	IC 74HC132D LOGIC QUAD 2-INPUT NAND SCHMITT TRIGGER SMD 14 PINS
<b>RES SMDESISTORS</b>		
R2026	02-007-0042-00	RES SMD 1K OHM 0603 5%
L2001	02-007-0089-00	RES SMD 0 OHM 1/8W 0805 5%
R2011	02-007-0094-00	RES SMD 1K OHM 1/4W 1206 1%
R2013-2014 R2022 R2028 R2044	02-007-0139-00	RES SMD 4.7K OHM 0603 5%
R2004 R2009 R2002 R2019-2021 R2023 R2025 R2027 R2043	02-007-0157-00	RES SMD 10K OHM 0603 1%
R2001 R2007	02-007-0267-00	RES SMD 100K OHM 5% 1/16W 0603
R2003 R2010 R2012 R2015-2016*AH R2017-2018*C,CT R2024 R2041 R2042	02-007-0288-00	RES SMD 0 OHM 5% 1/16W 0603
R2031-R2038	02-007-0292-00	RES SMD 2.2K OHM 1% 1/16W 0603
<b>SMD CAPACITORS</b>		
C2002-2003 C2006-2007 C2010 C2019 C2022 C2023 C2026 C2028 C2030 C2032 C2033	03-009-0075-00	CAP CER SMD 0.1uF 50V 20% Y5V 0603
C2017	03-009-0112-00	CAP CER SMD 1nF 50V 10% X7R 0603
C2009	03-009-0136-00	CAP ELEC SMD 10uF 16V +/-20% 4X5.4
C2008	03-009-0138-00	CAP ELEC SMD 1000uF 10V +/-20% 10X10.5
C2018	03-009-0139-00	CAP ELEC SMD 0.1uF 50V +/-20% 4X5.4
C2001	03-009-0140-00	CAP ELEC SMD 22uF 16V +/-20% 5X5.4
C2004-2005, C2021 C2024 C2025 C2027 C2029 C2031 C2020	03-009-0143-00	CAP ELEC SMD 47uF 50V +/-20% 6.3X7.7
	03-009-0153-00	CAP ELEC SMD 1uF/50V ±20% B CASE 4 X 5.4
<b>SMD DIODES</b>		
D2001	04-006-0021-90	SMD Diode LL4148 SOD80
<b>SMD TRANSISTORS</b>		
Q2007	05-004-0020-00	SMD Transistor T3904 SOT-23
Q2008 Q2009 Q2010 Q2011 Q2012	05-004-0035-90	TRANSISTOR SS NPN HFE30 250MHz SPT DTC114EKAT146
Q2001-Q2004	05-004-0037-90	TRANSISTOR SS PNP HFE 30 250MHz SPT DTA114EKAT146
<b>SMD OSCILLATOR</b>		
X2001A	14-004-0019-90	CRYSTAL OSCILLATOR 20.000MHz 5V 50ppm 15pF SMD
<b>CONNECTOR #1 BOARD PCB ASSEMBLY</b>		
	50-938-0775-90	T765/T775/T785 CONNECTION # 1 ASSY

**CONNECTOR #2 BOARD**

***PCB ASSEMBLY***

**50-942-0775-90**

**T775/T785 CONNECTION # 2 ASSY**

**CONNECTOR #3 BOARD**

***PCB ASSEMBLY***

**50-943-0765-90**

**T765/T775/T785 CONNECTION # 3  
ASSY**

**CONNECTOR #4 BOARD**

***PCB ASSEMBLY***

**50-944-0775-90**

**T775/T785 CONNECTION # 4 ASSY**

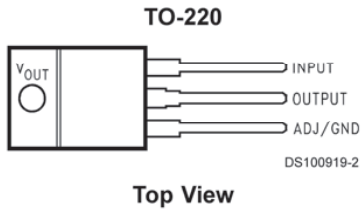
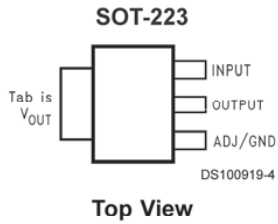


# IC BLOCK DIAGRAM

## MAINBOARD

LM1117

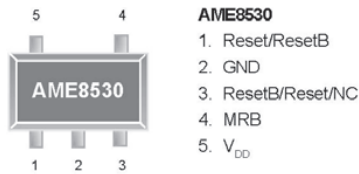
(U1020 in DSP, U2008 in MCU, VR201, VR2, VR6, U7 in HDMI, U1034 in DSP)



## MCU

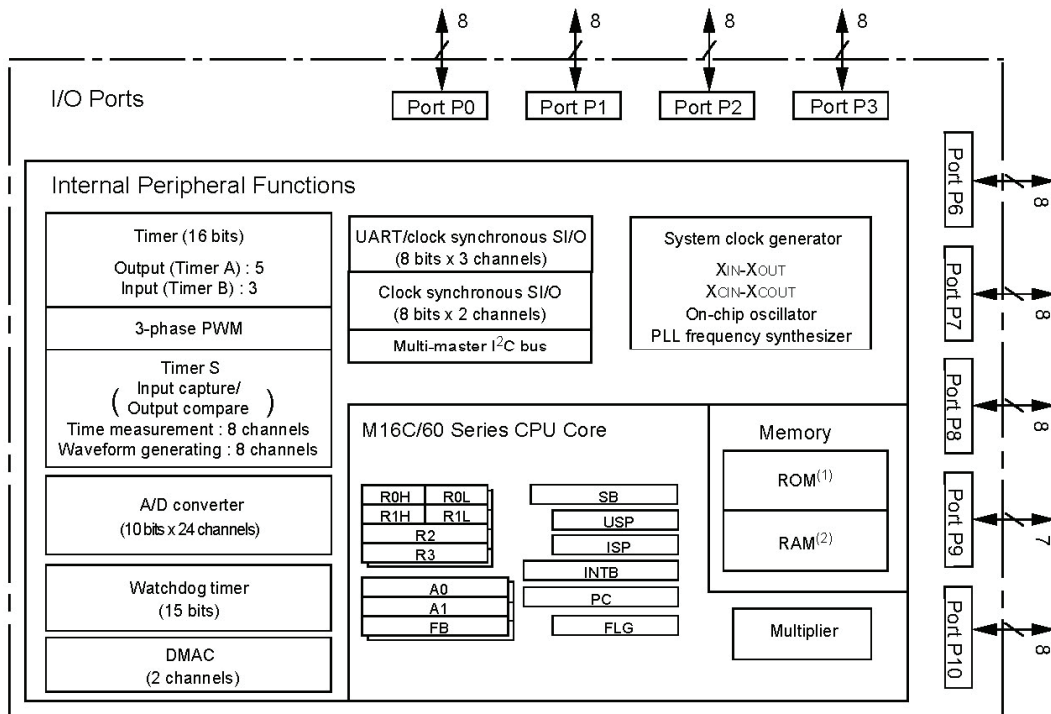
AME8530

U2006

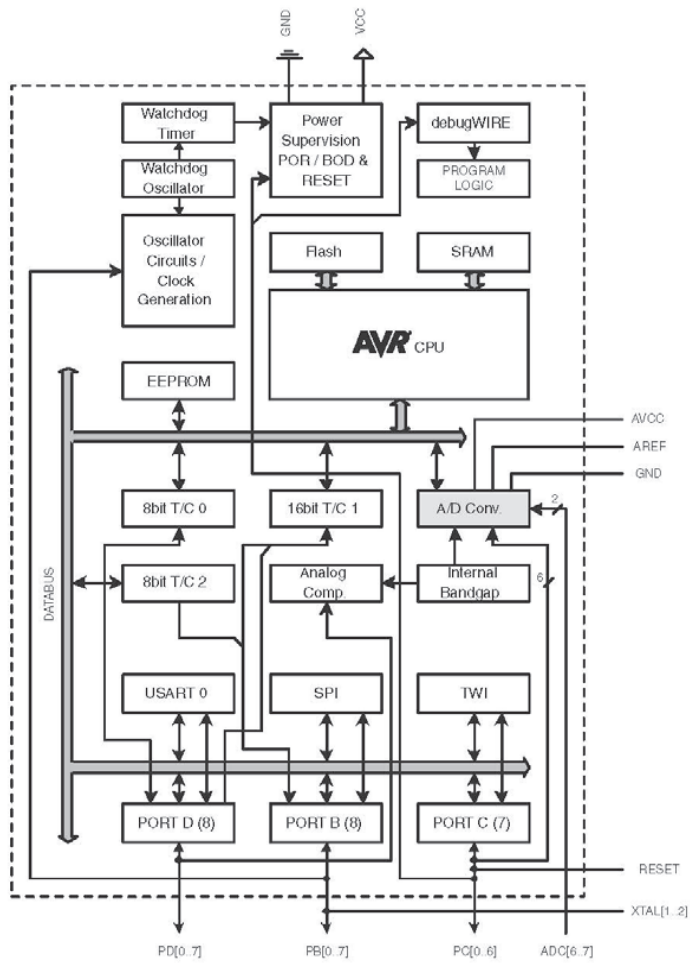


M30280

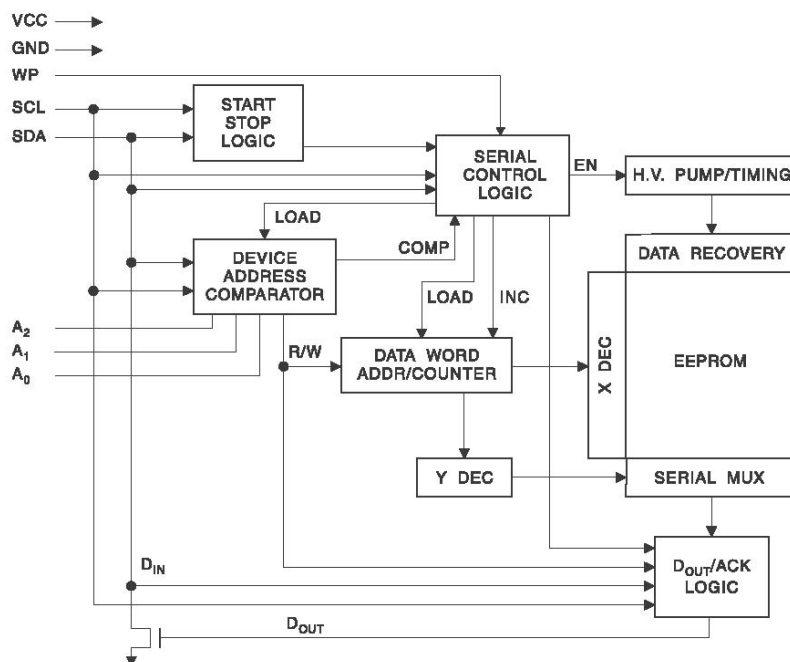
(U2001)



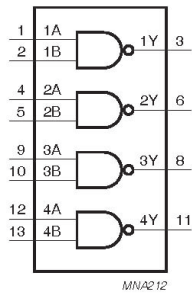
ATMEGA48-20  
(U2007)



AT24C16  
(U2002)

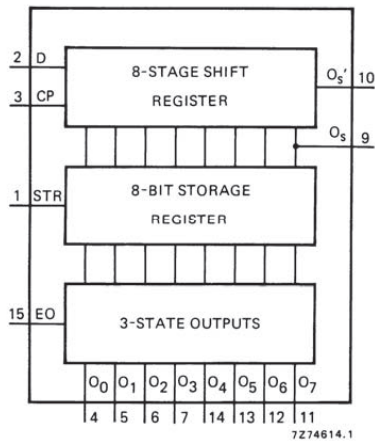


74HC00D  
(U2009)

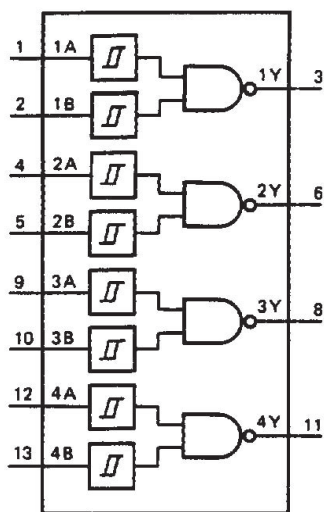


HEF4094BT

(U2201, U4107 in Composite, U1007, U1008 in DSP, U6901 in Pre-Out, U5501 in AMP-L, U6003 in Volume)



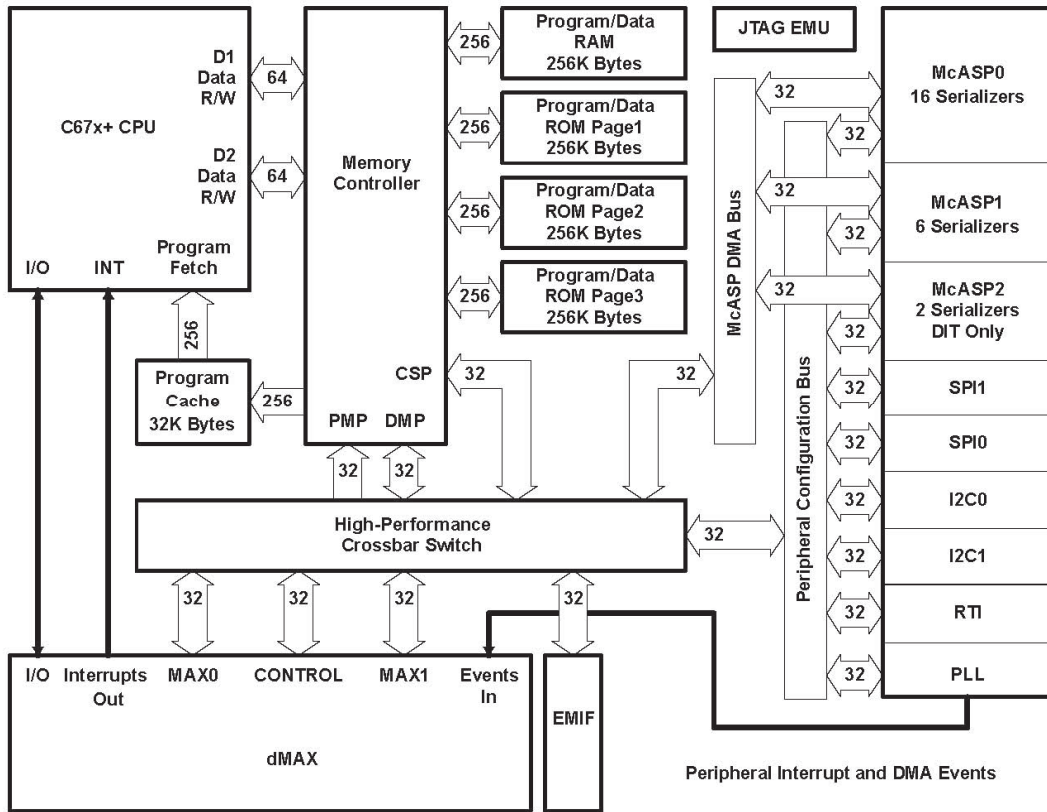
74HC132  
(U2005)



**DSP**

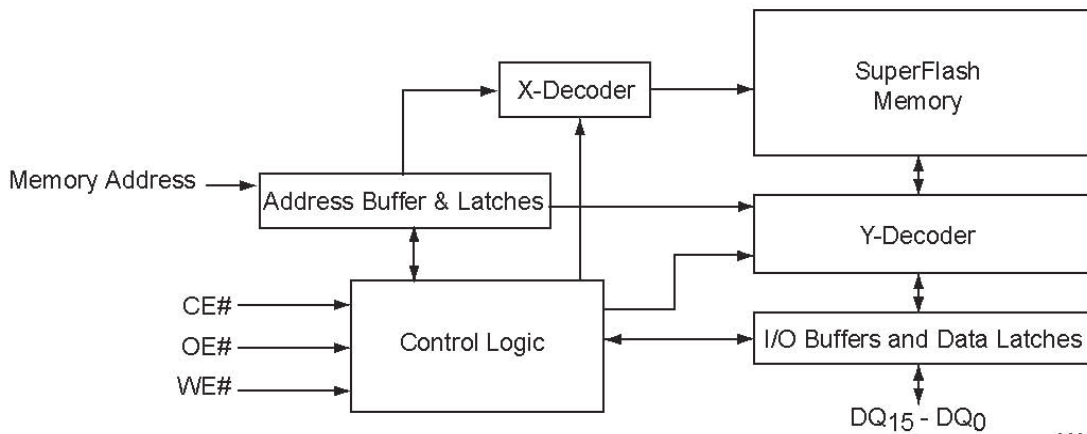
D708E0001BRFP266

(U1001)



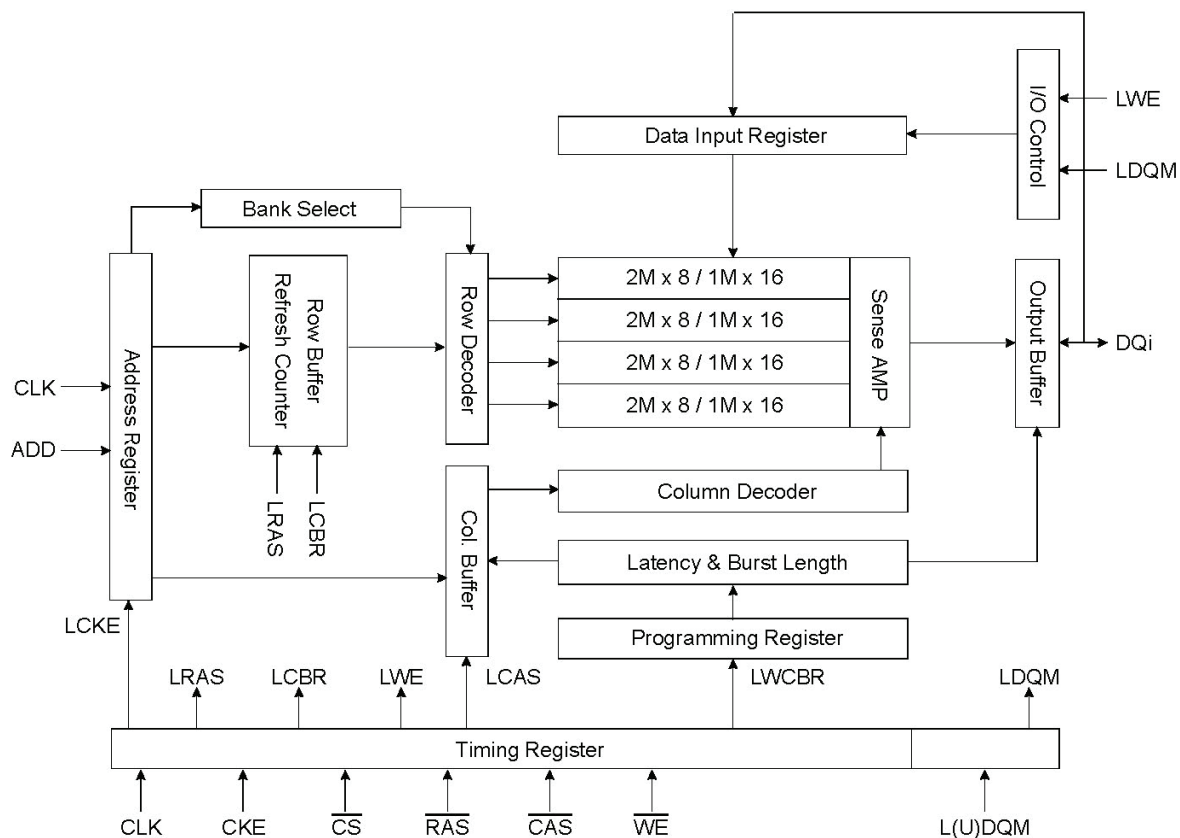
SST39VF800

(U1004)

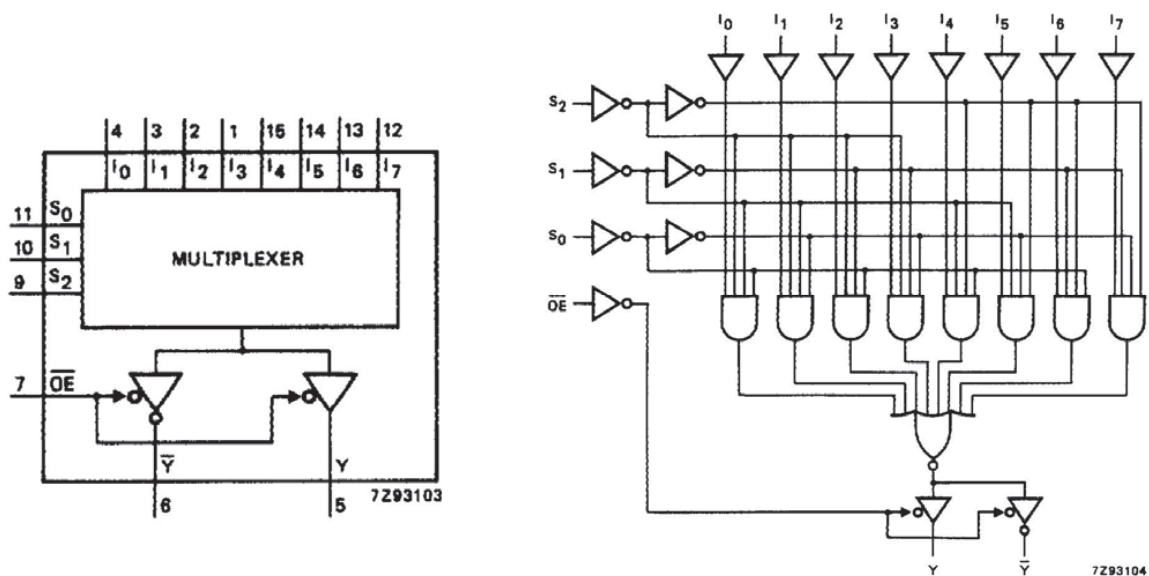


360 ILL B1.2

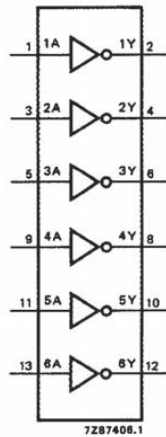
K4S641632K  
(U1003)



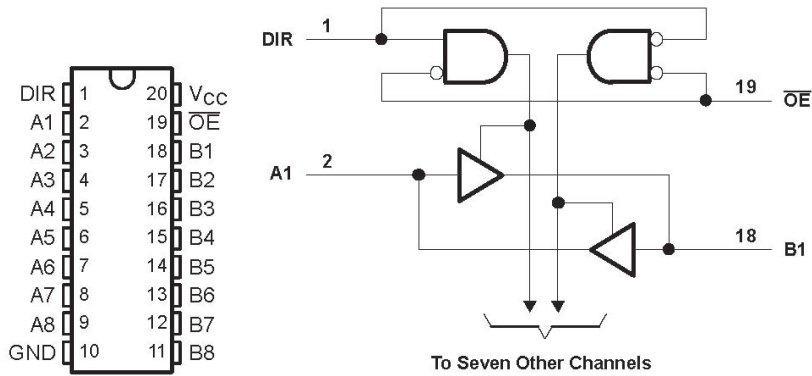
74HC251D  
(U1005)



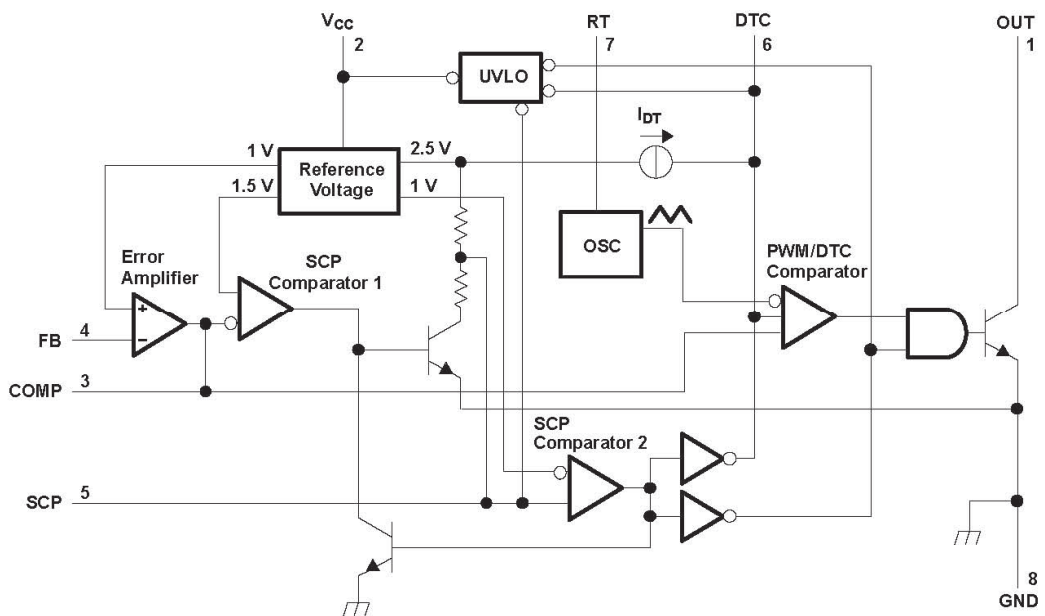
74HCU04D  
(U1018, U1019)



SN74LVC245  
(U1010, U1022)

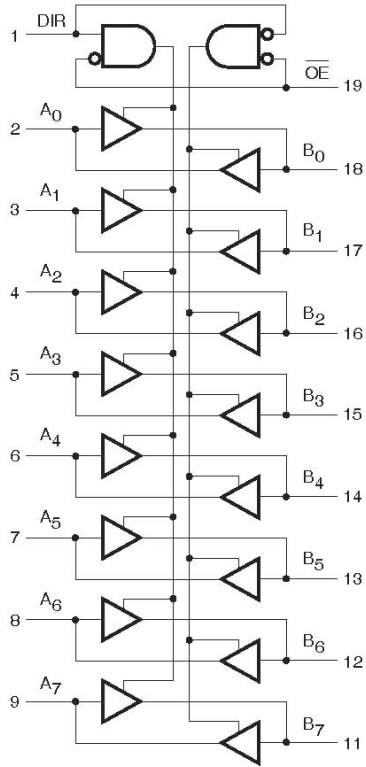


TL5001CD  
(U1011)



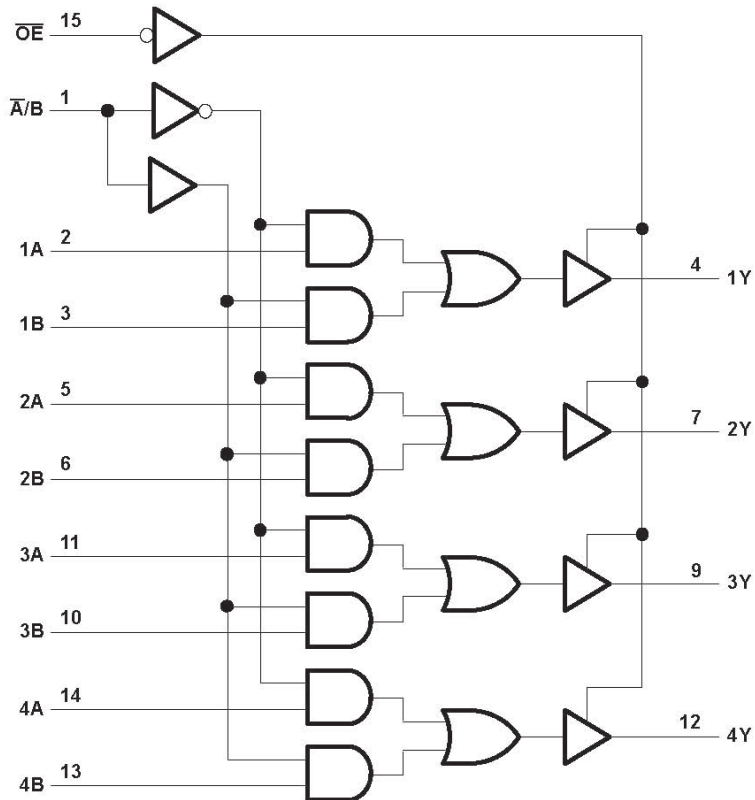
SN74HCT245

(U1009)



SN74LVC257AD

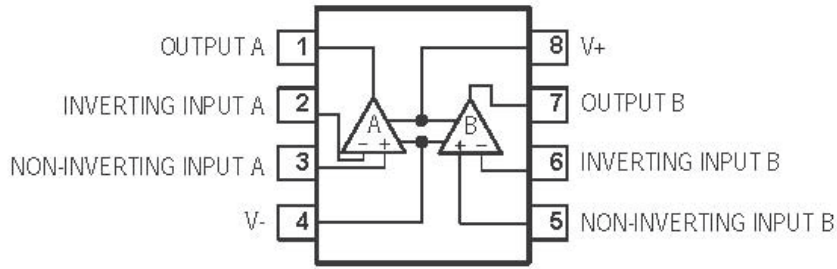
(U1033, U1035, U1036)





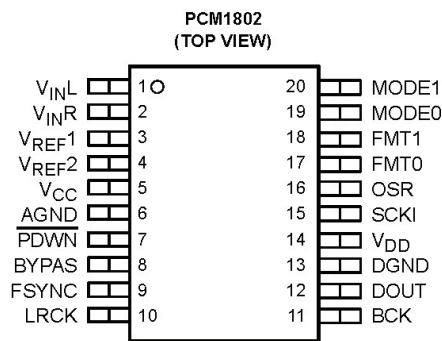
NJM5532M

(U1023, U1027-1031, U9301 in F-input, U8201 in ISC-L, U8301 in ISC-R, U6501, U6601, U6701, U6801 in Pre-Out, U6004-6007, U6018 in Volume)

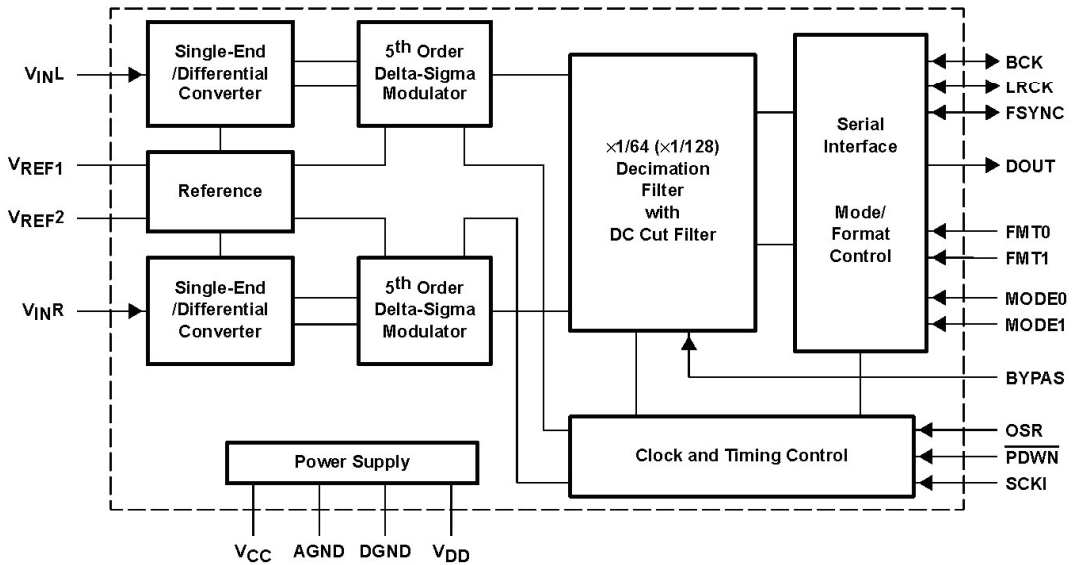


PCM1802

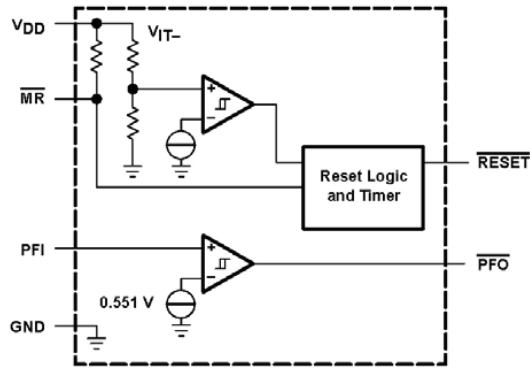
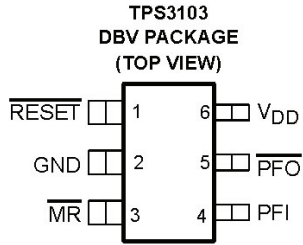
(U1017)



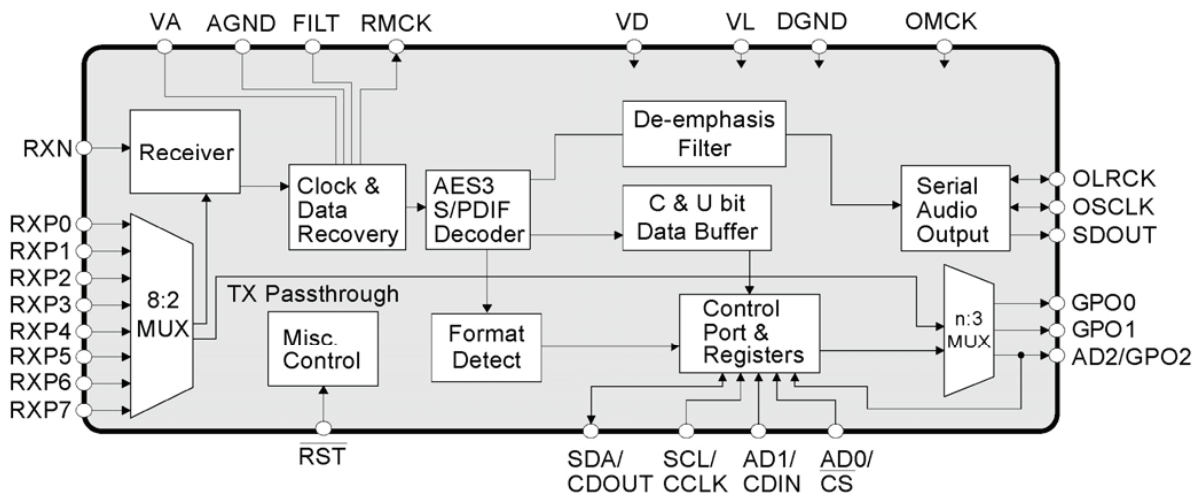
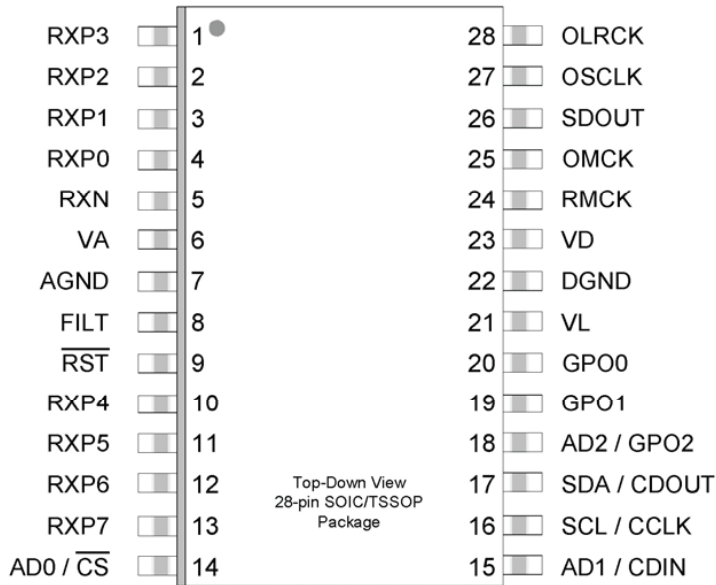
block diagram



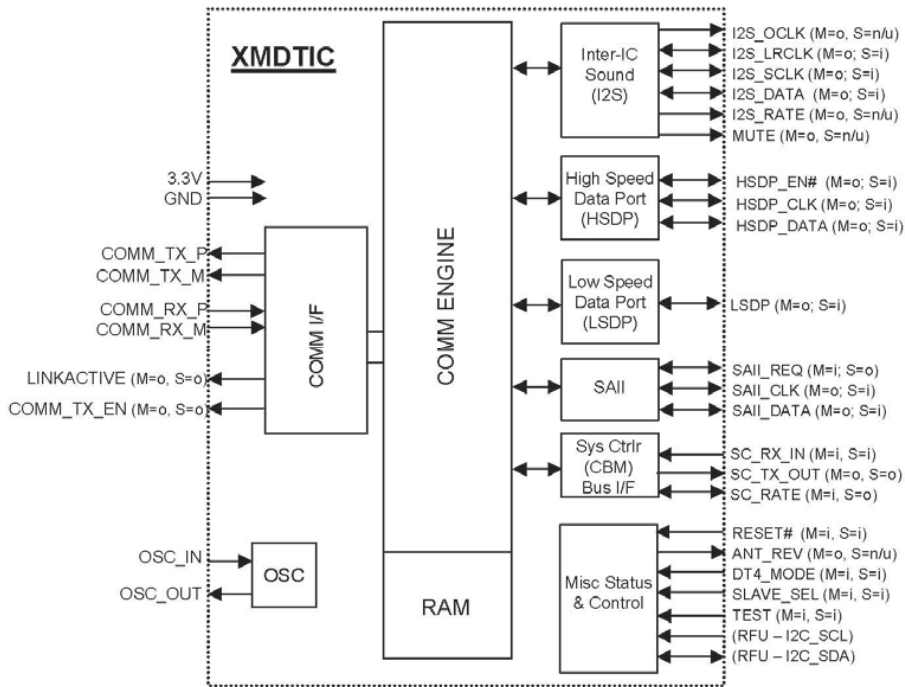
TPS3103  
(U1021)



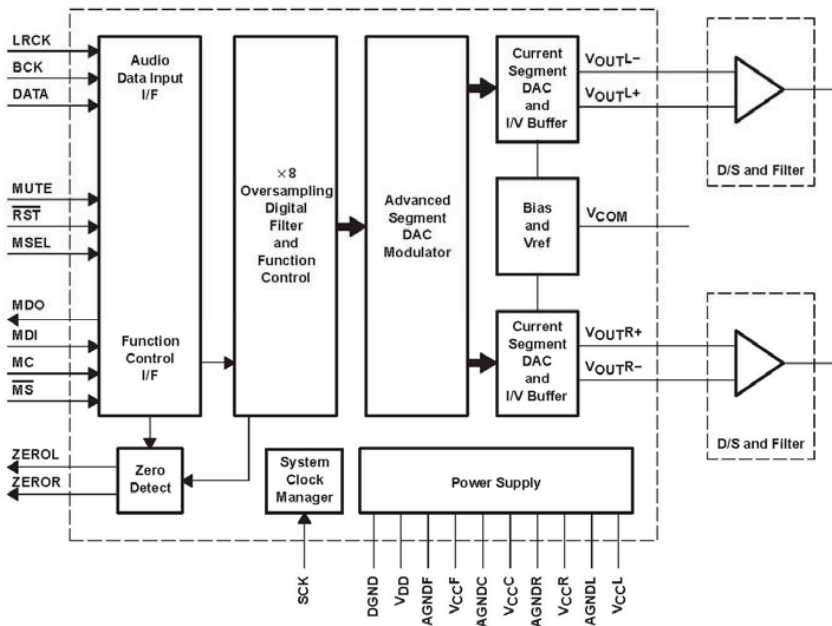
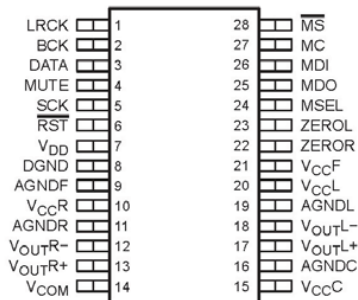
CS8416  
(U1002)



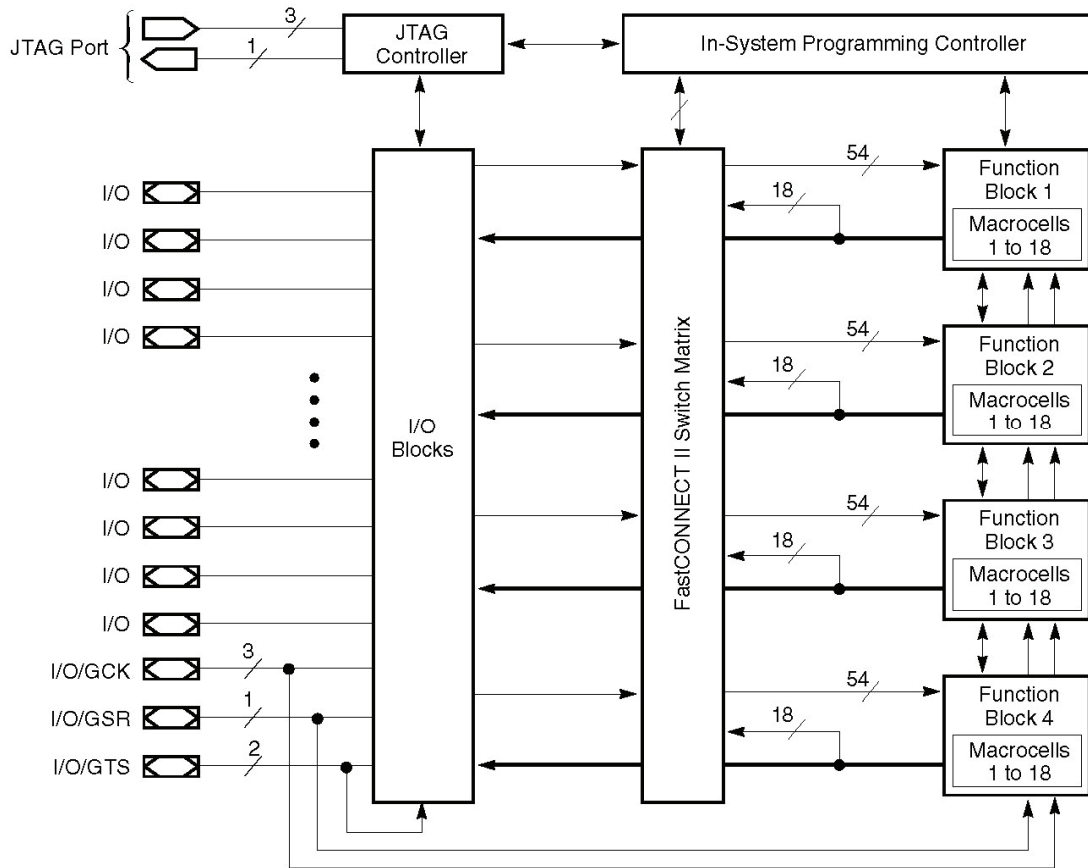
BU9450  
(U1032)



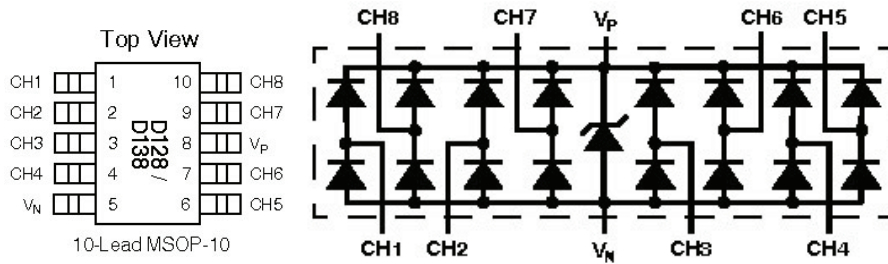
PCM1791A  
(U1012-1016)



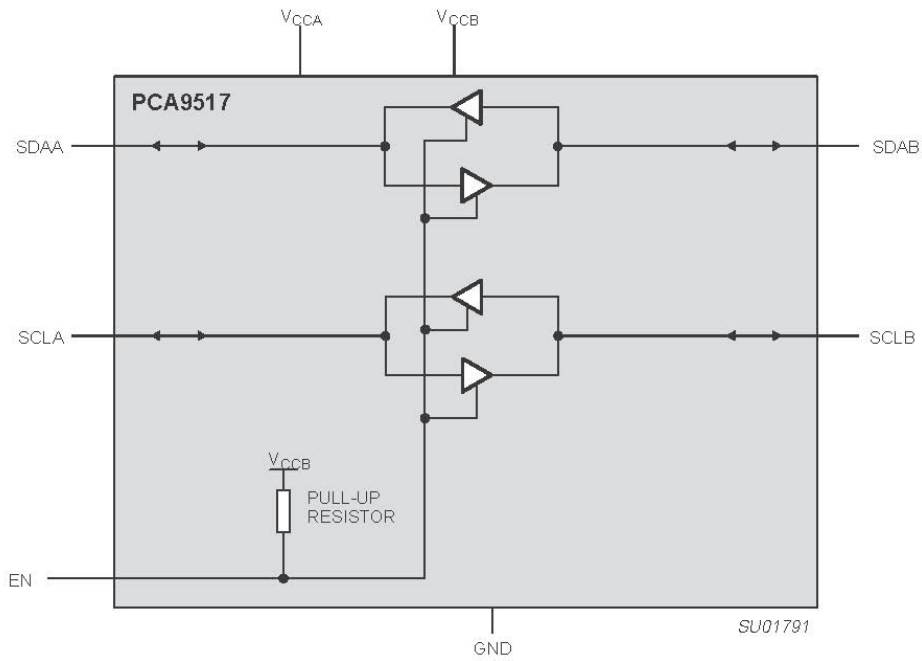
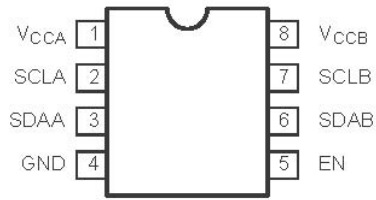
**HDMI**  
**XC9572XL**  
 (U20)



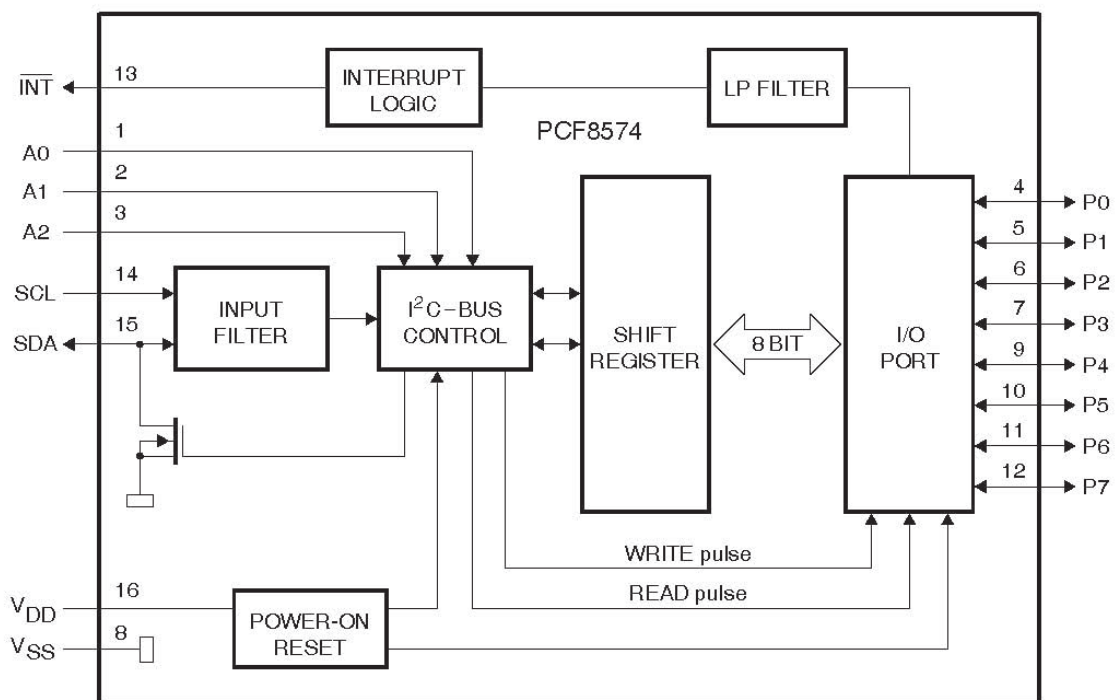
**CM1213-8**  
 (U2, U11, U16, U24, U32, D2308 in Trigger)



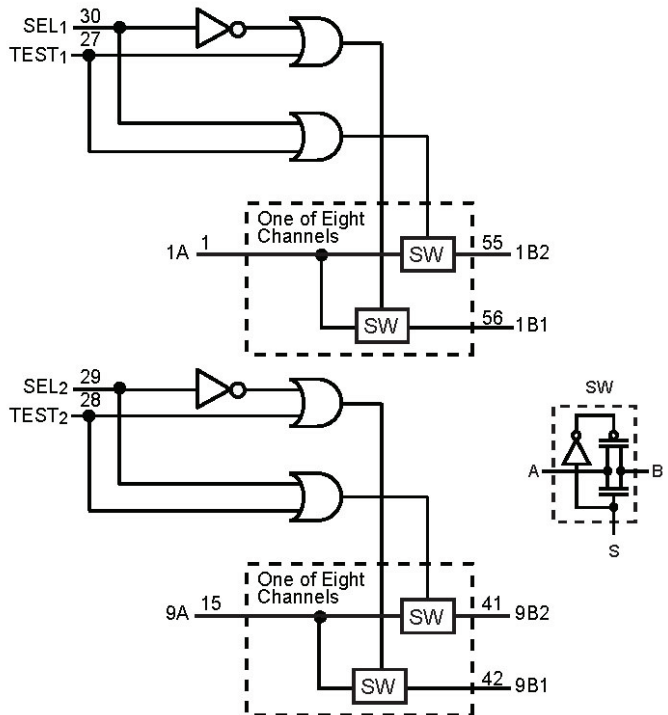
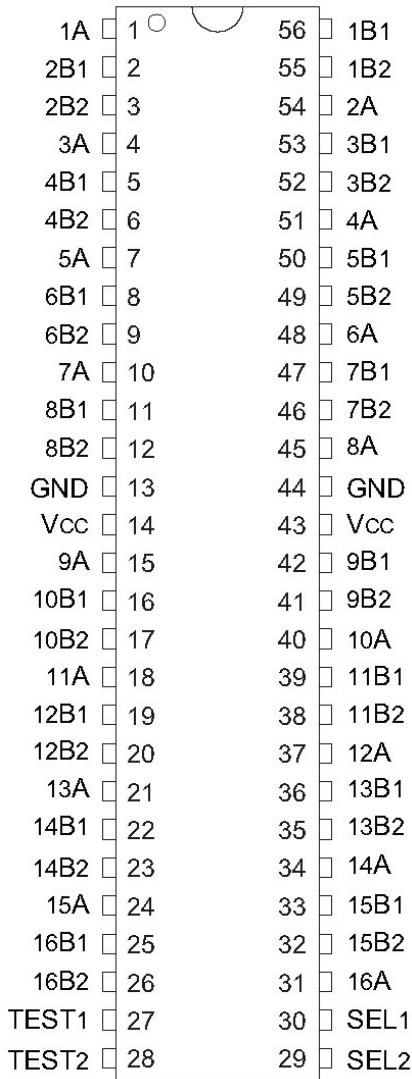
PCA9517  
(U5)



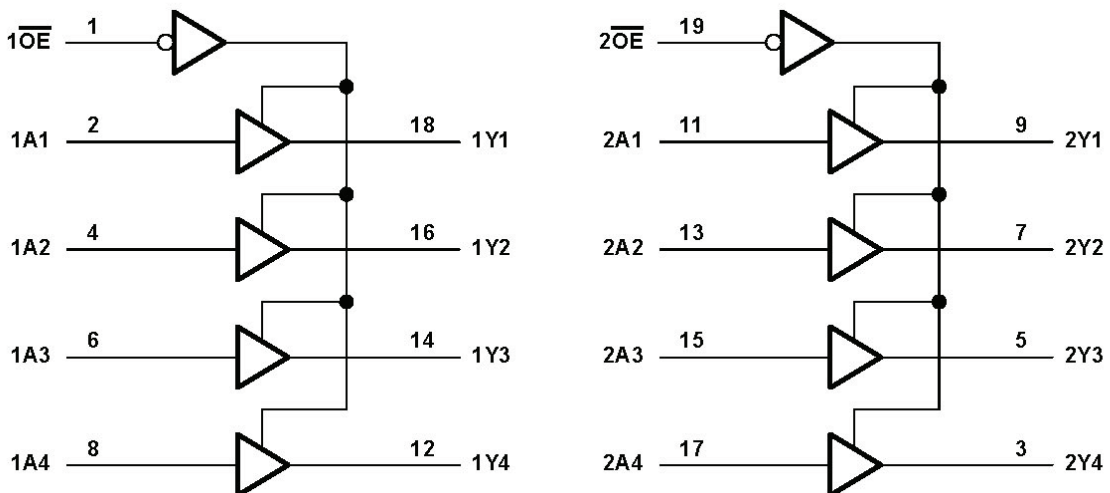
PCF8574  
(U10, U201)



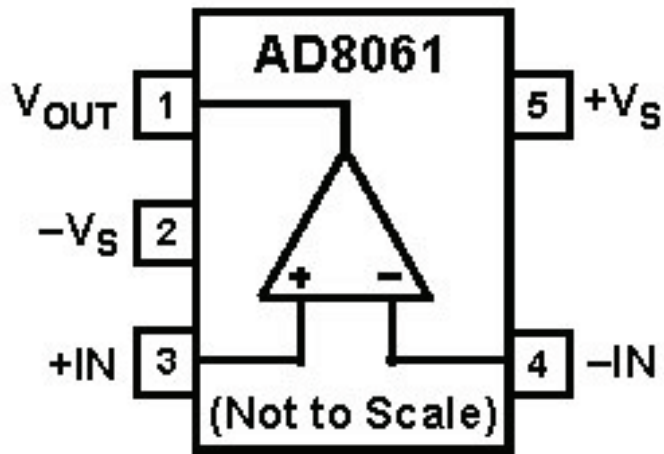
PI3B16233  
(U9, U13)



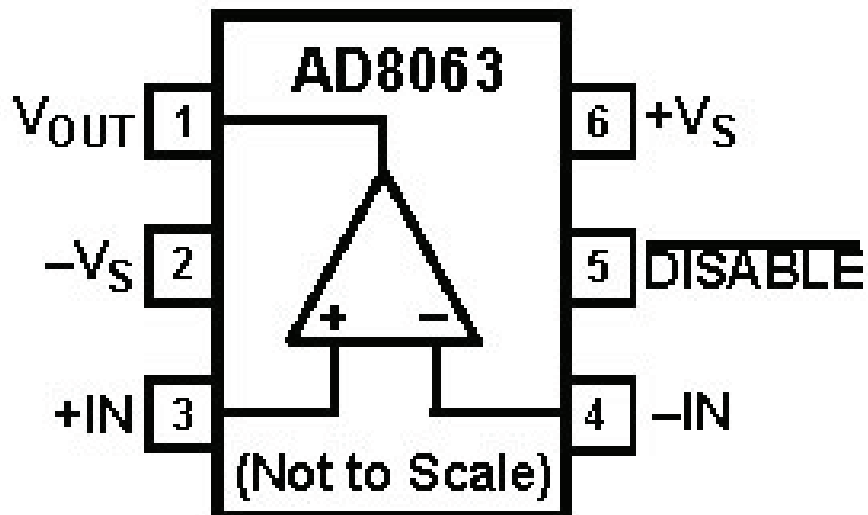
SN74AHCT244  
(U200)



AD8061  
(U18, U22, U26)

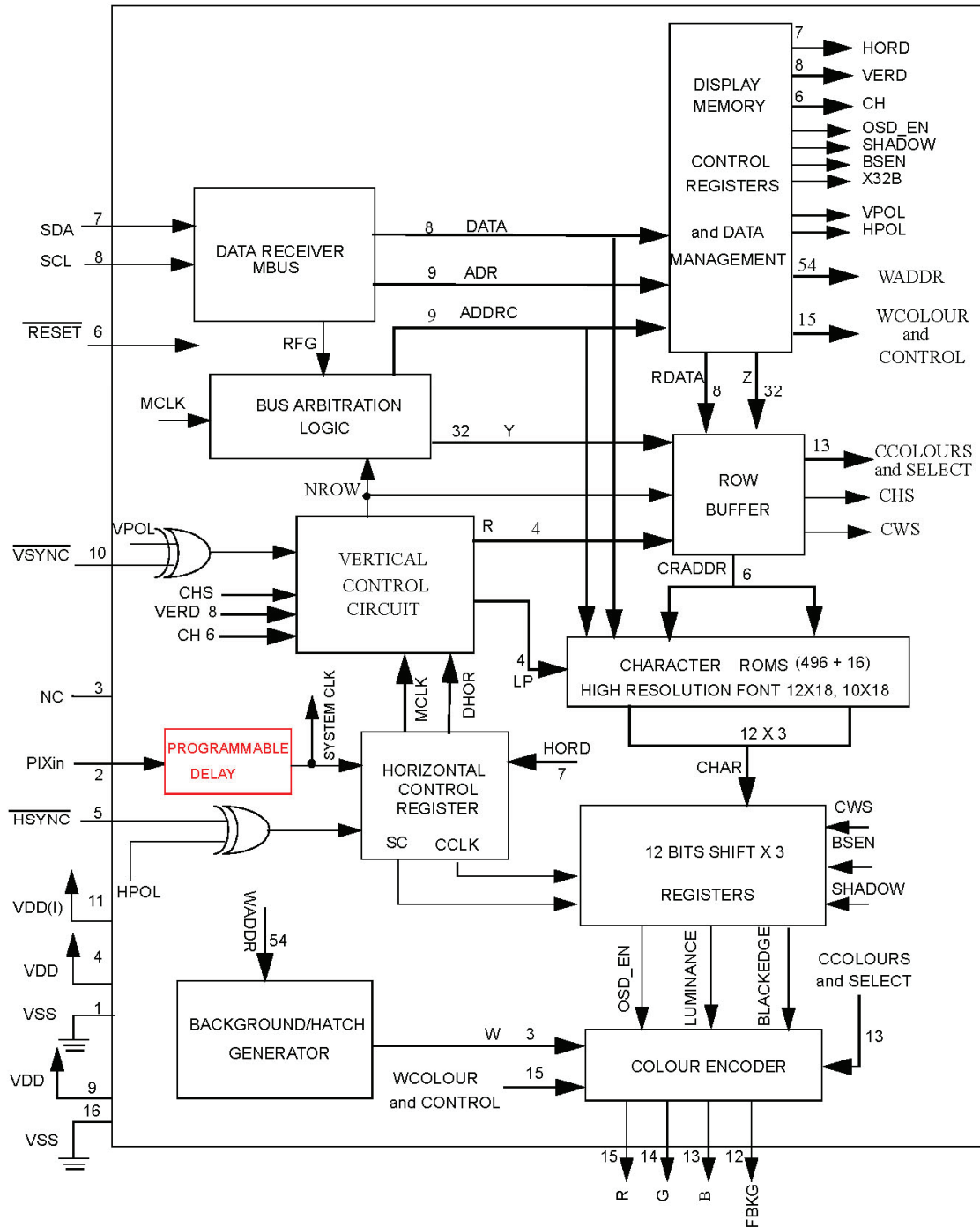


AD8063  
(U17, U21, U25, U27, U29, U30)

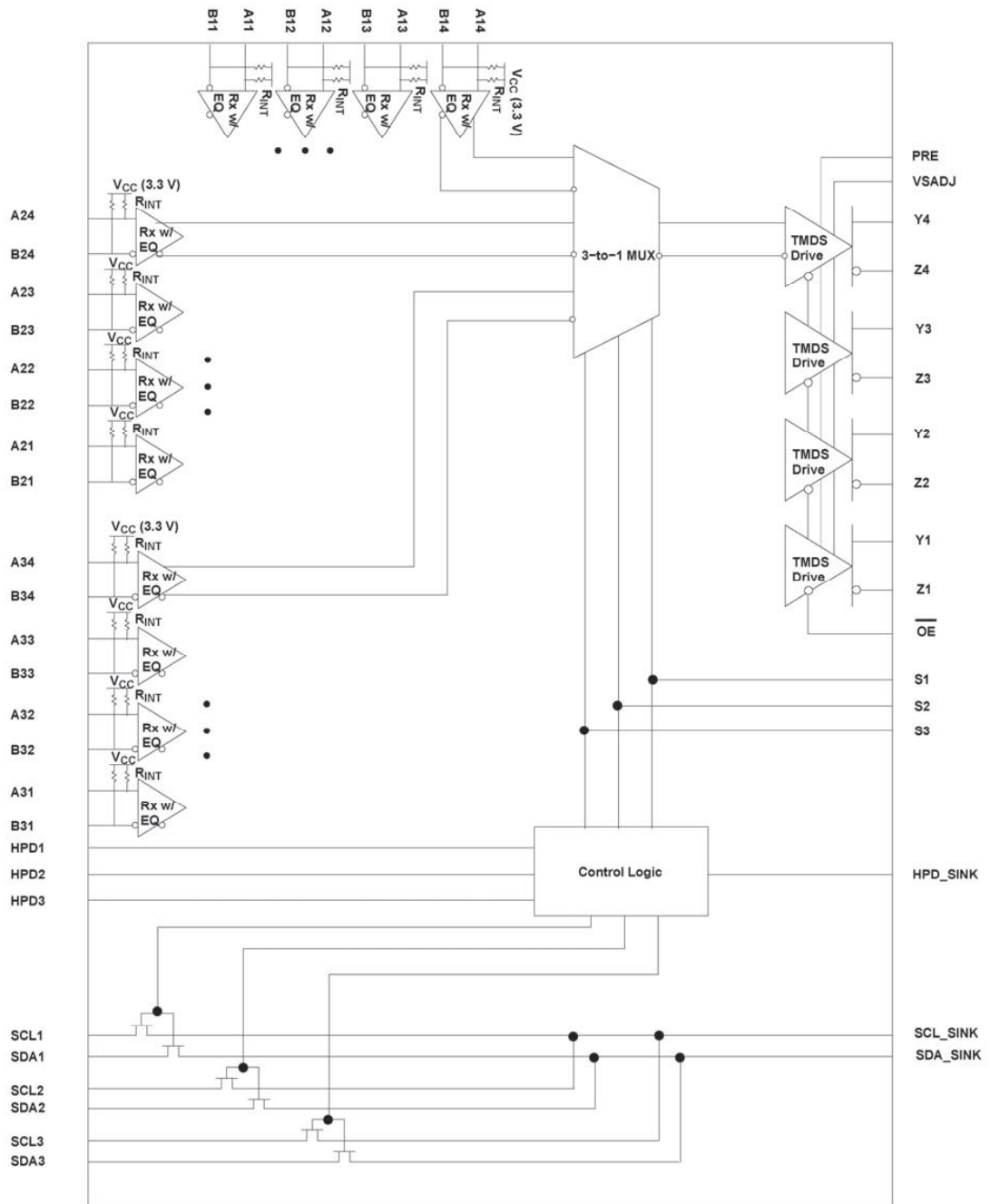




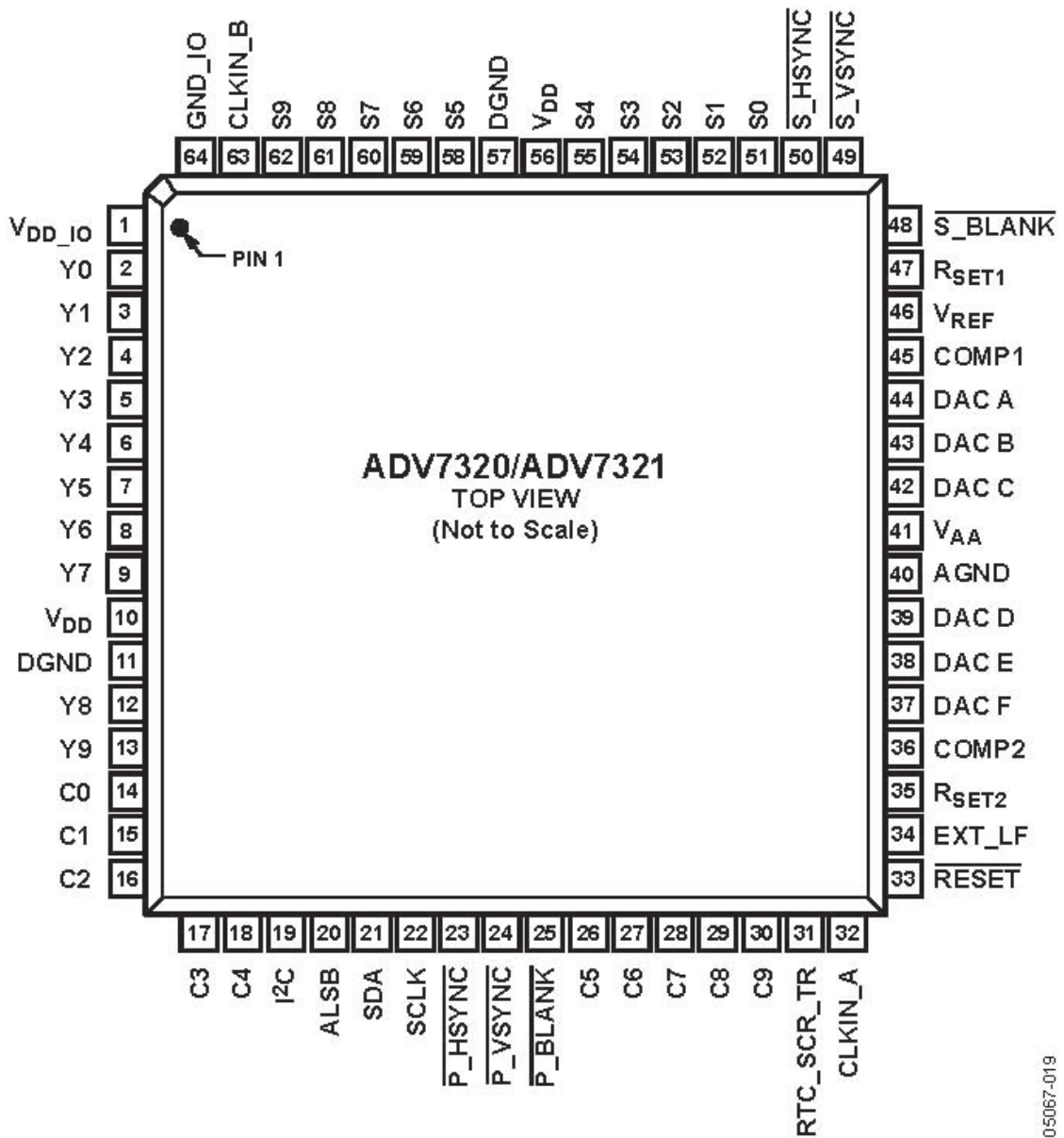
MC141585DW  
(U19)



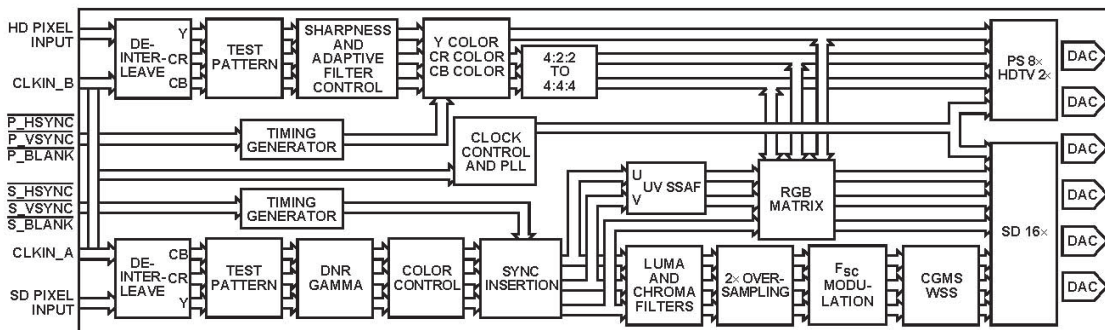
TMDS341  
(U15, U23)



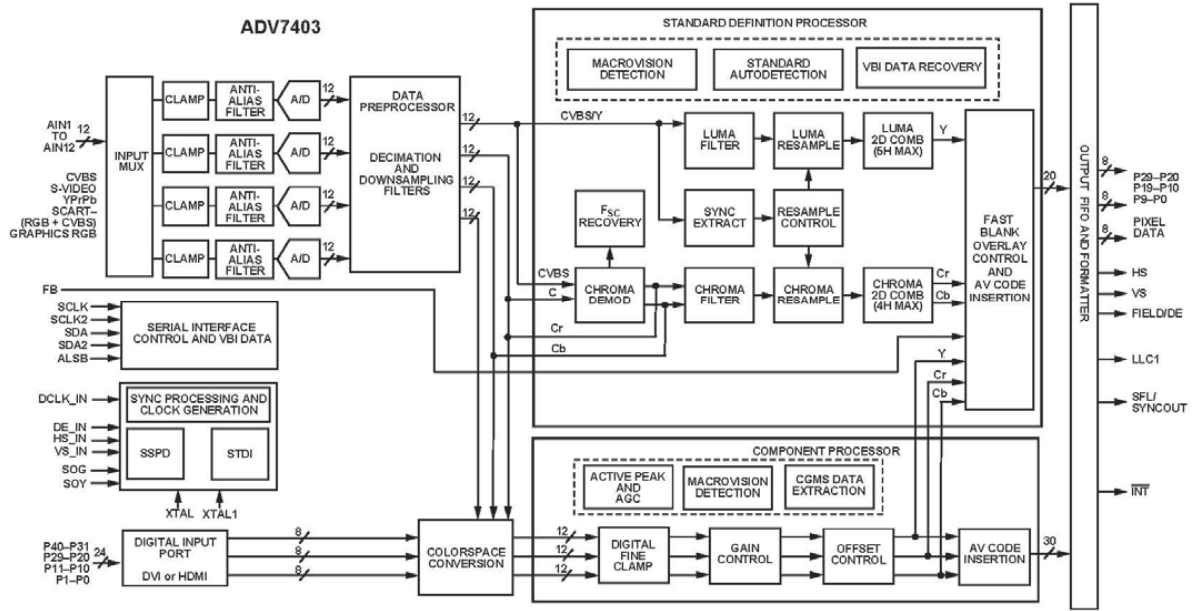
ADV7320  
(U28)



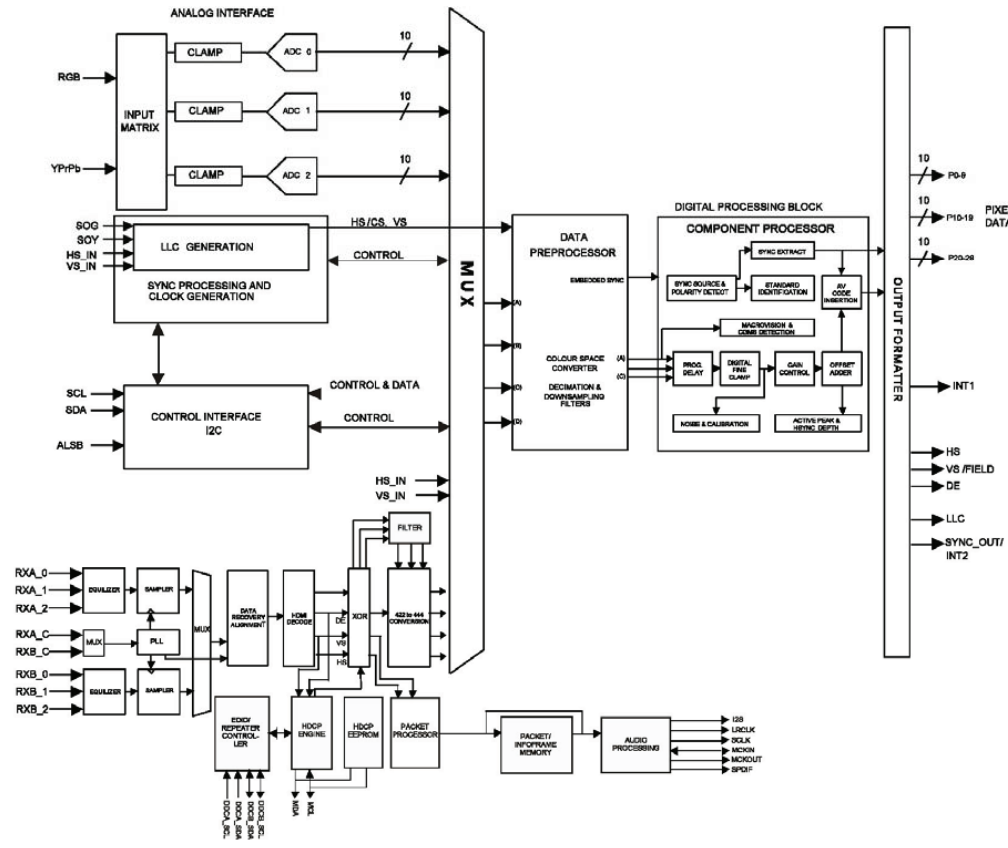
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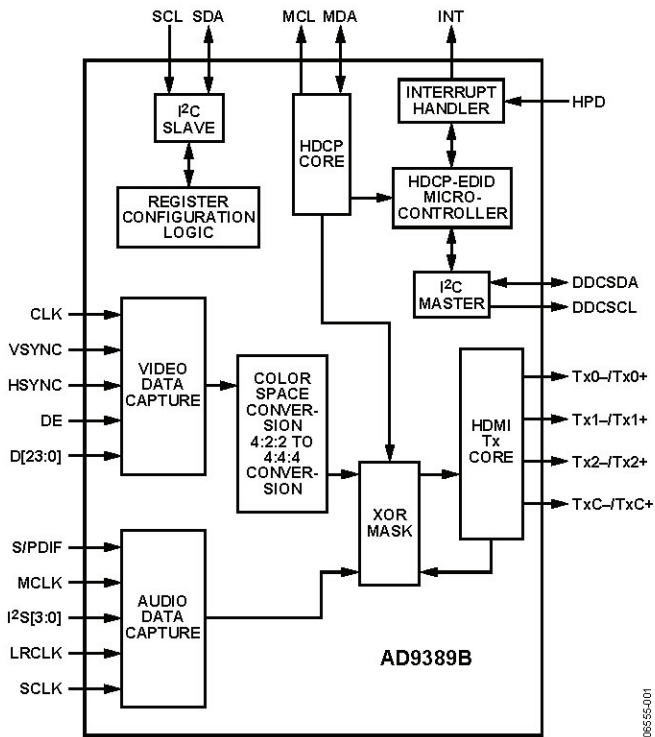
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(U12)



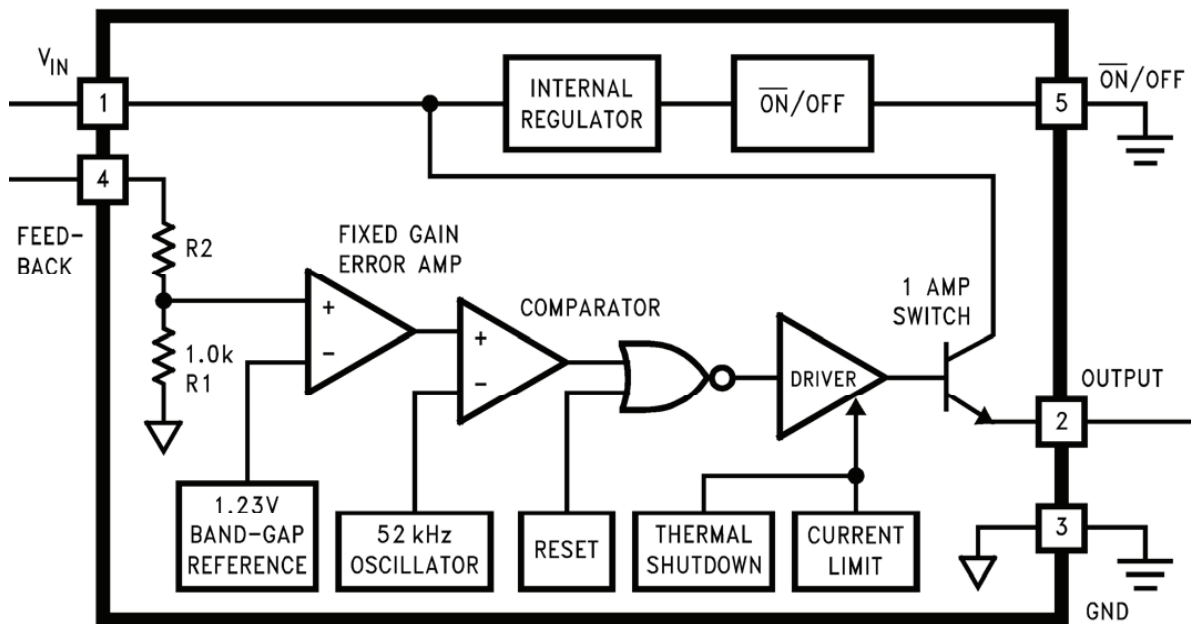
AD9388  
(U14)



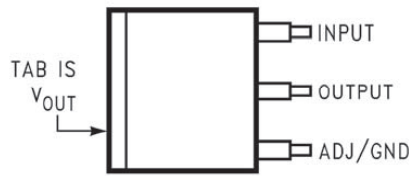
AD9389B  
(U31)



LM2575  
(VR3, VR4)



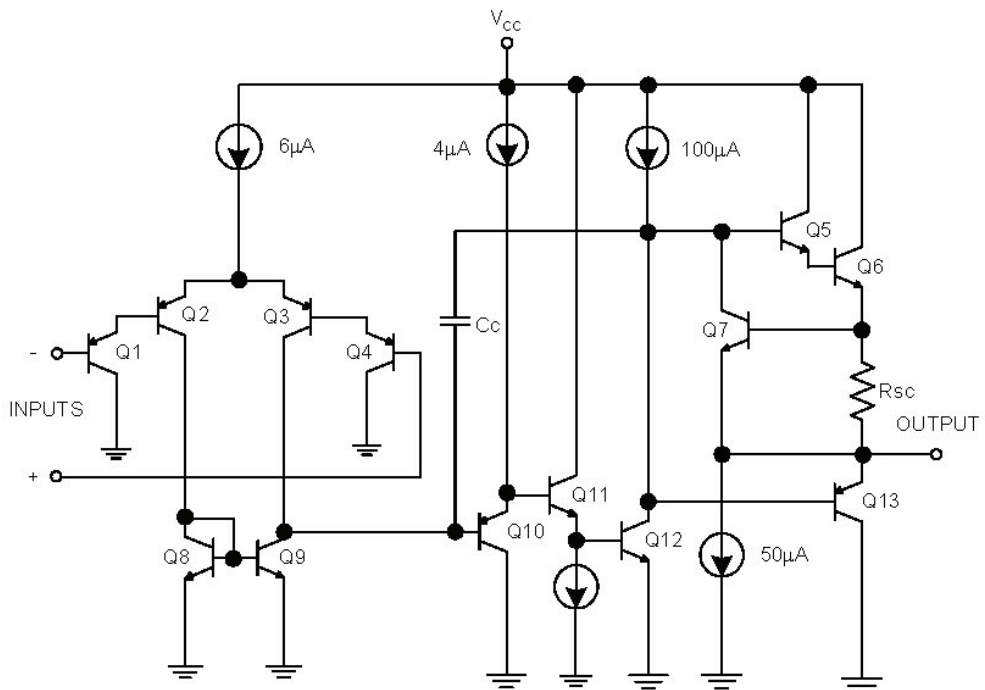
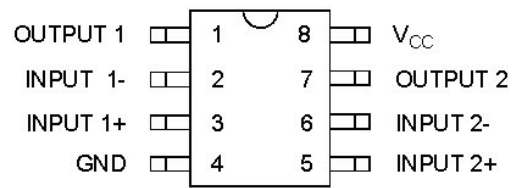
LM1086  
(VR200)



Power Amp – L

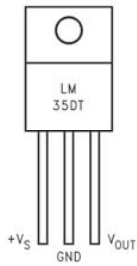
AS358

(U5802, U5401 in AMP-R)



LM35DT

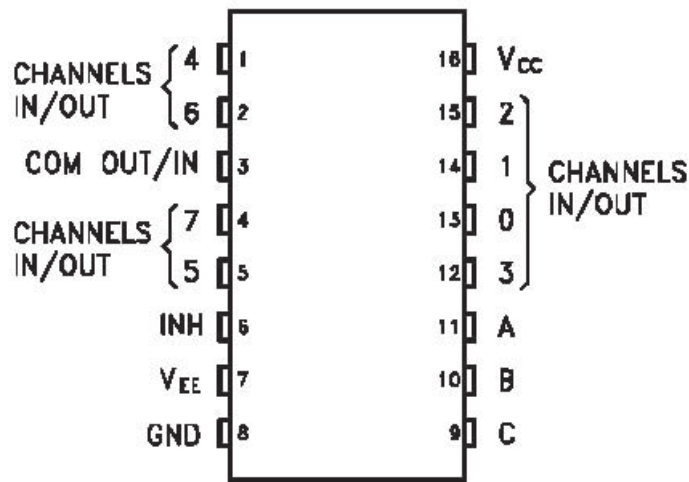
(U5803, U5402 in AMP-R)



Composite / S-Video

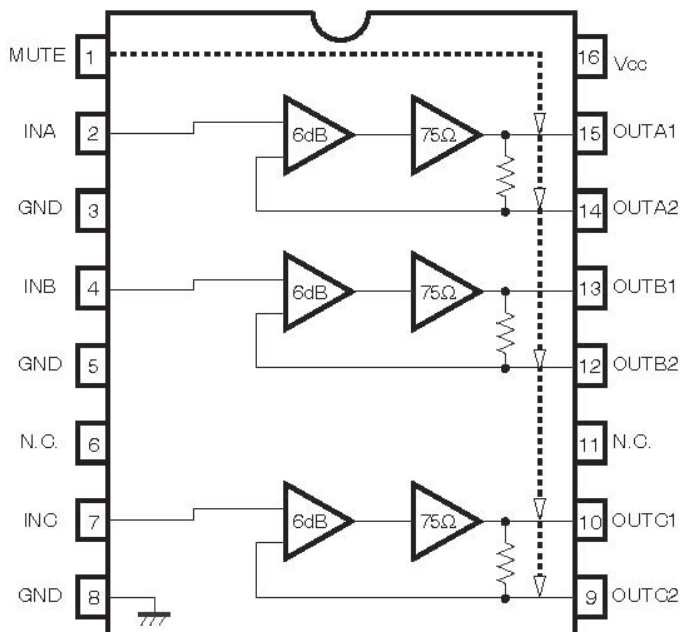
74HC4051D

(U4103-4106)



BA7660FS

(U4101-4102, U4001 in Component)

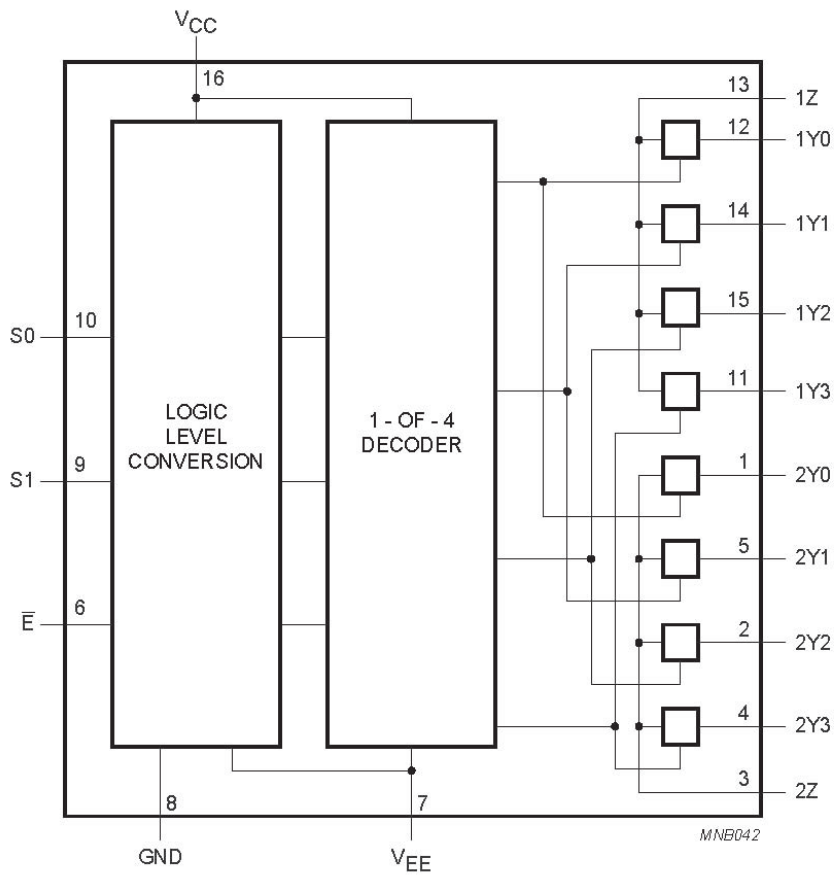


MUTE (1pin)

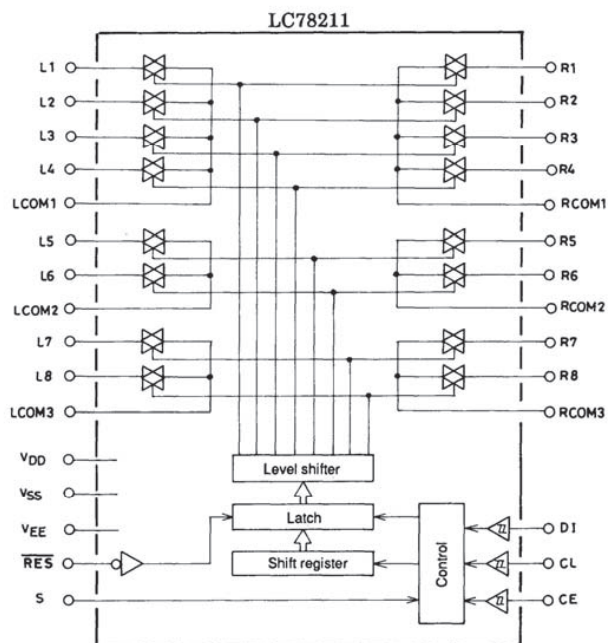
H	3ch MUTE
L	NORMAL



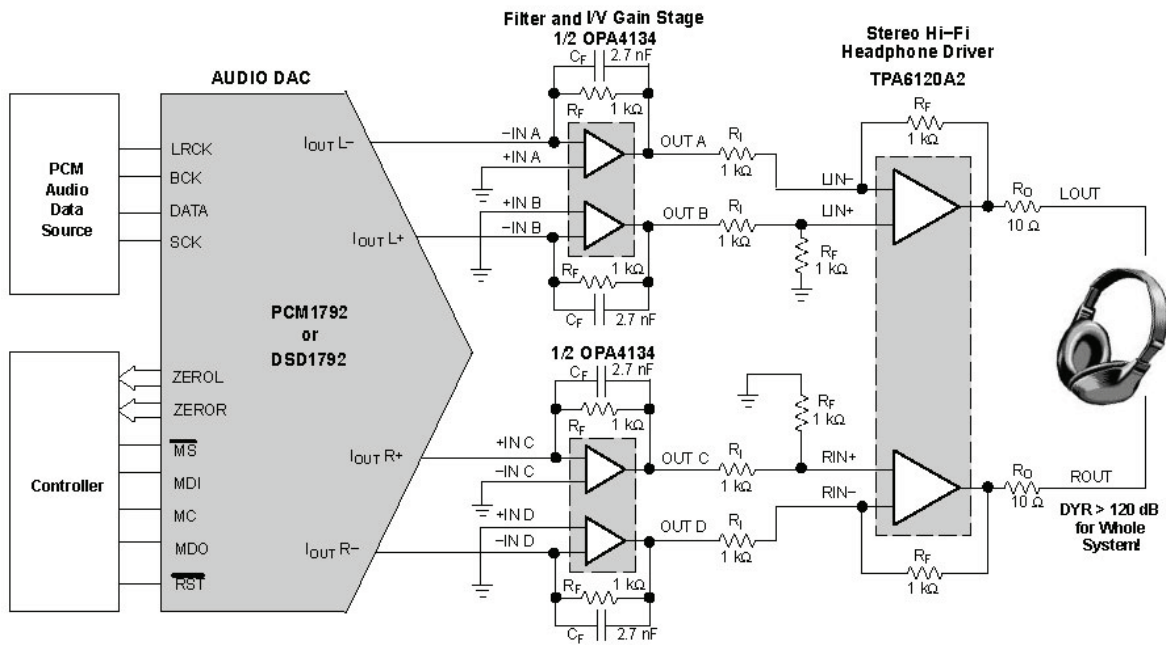
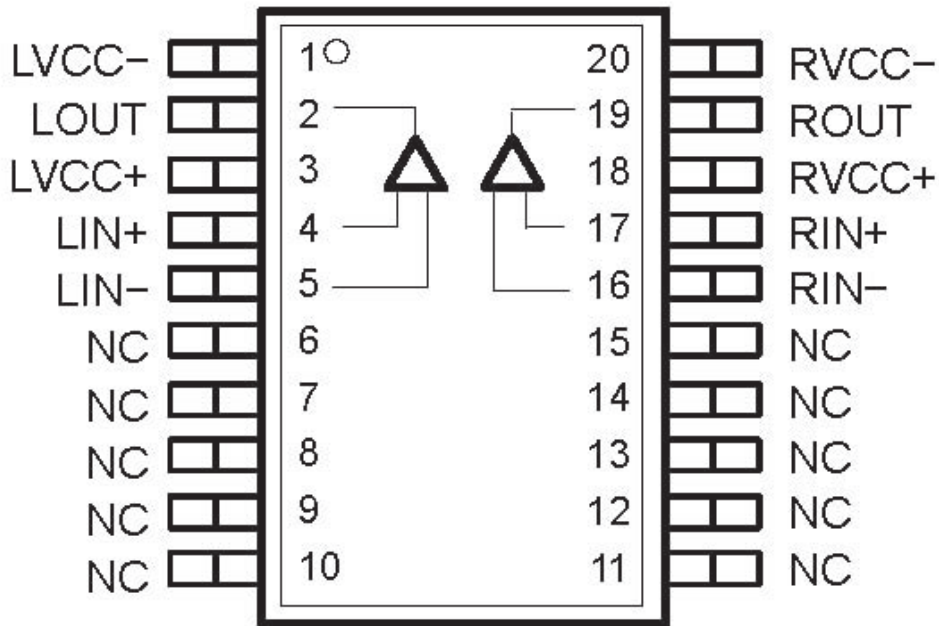
**Component**  
**74HC4052D**  
 (U4002-4003)



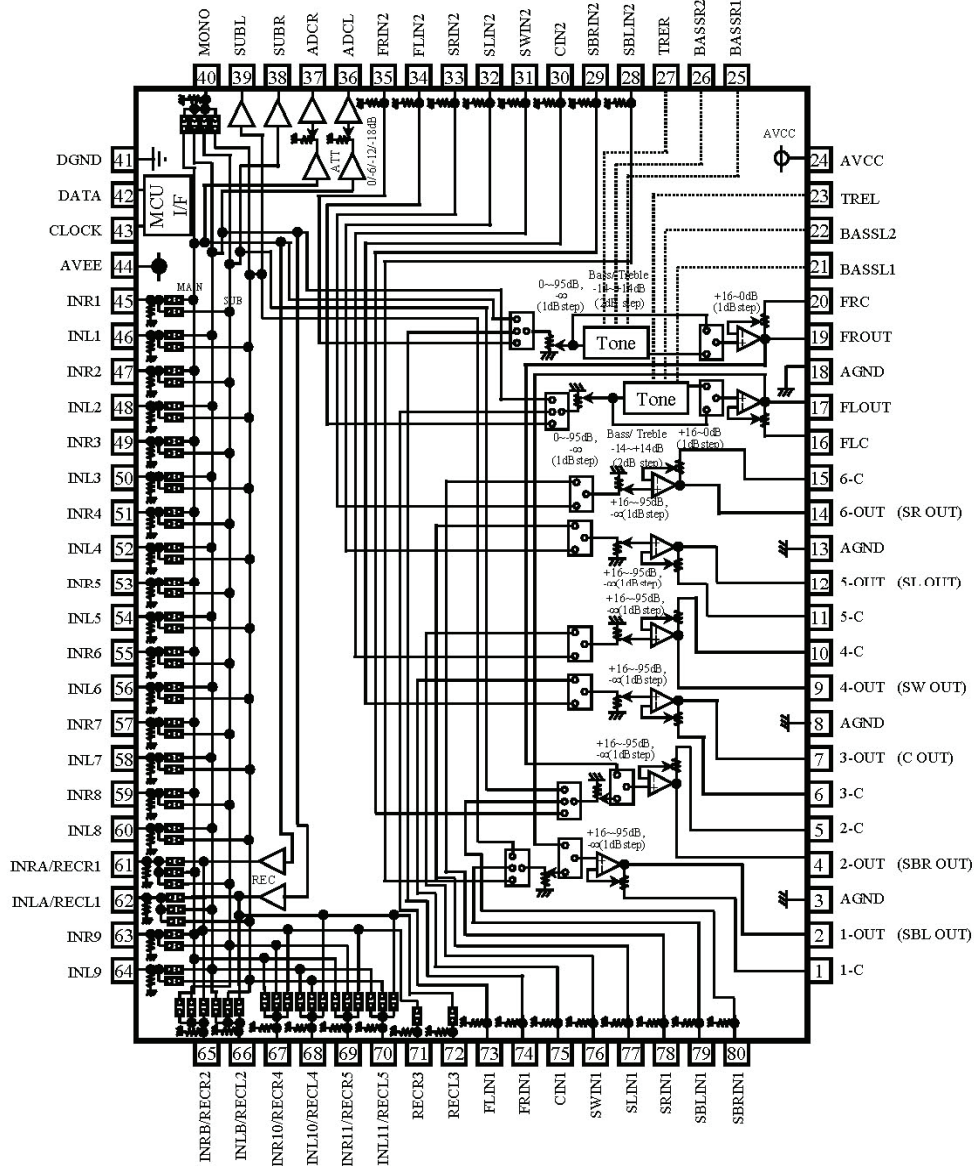
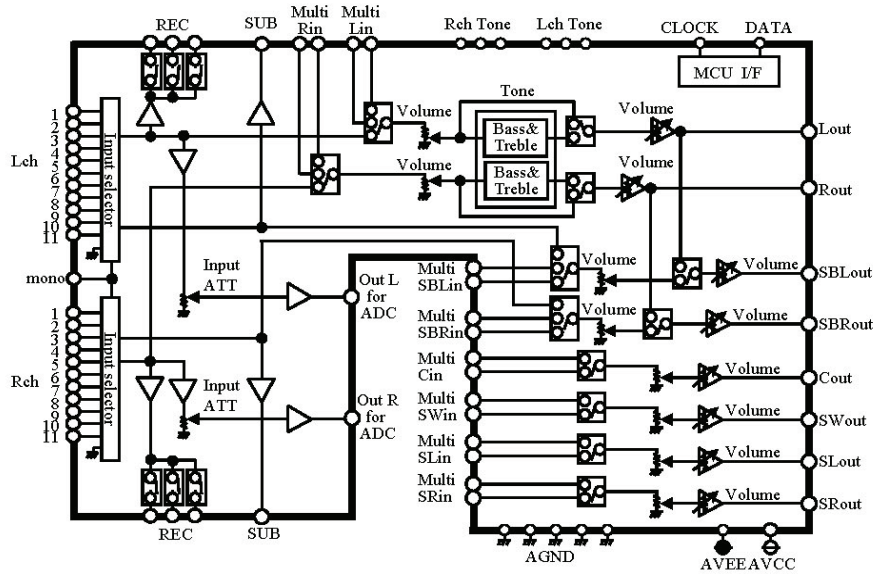
**LC78211**  
 (U6009)



**Volume**  
 TPA6120A2DWP  
 (U6008)

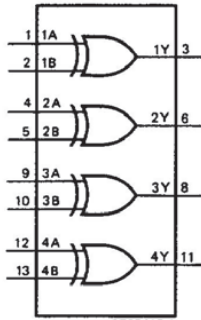


R2S15205FP  
(U6001-6002)

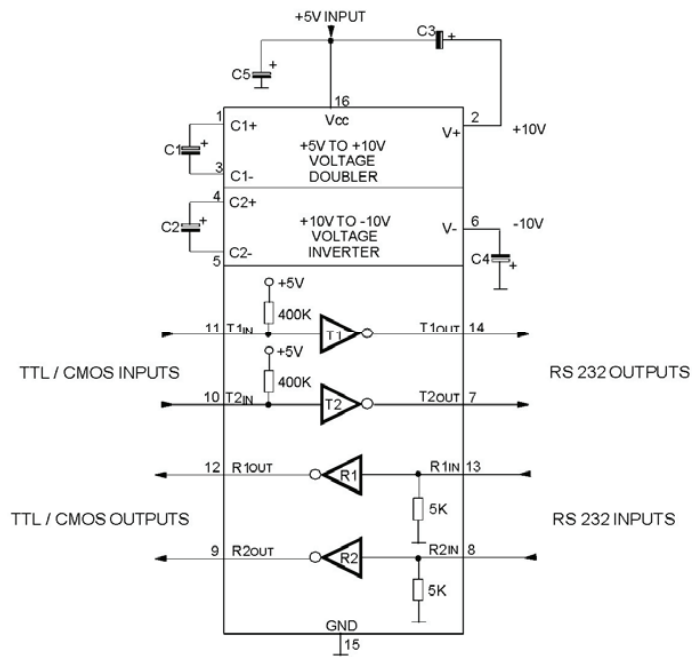


## Trigger

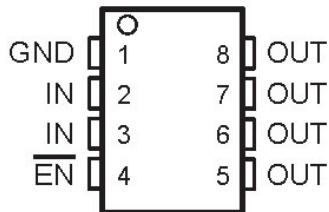
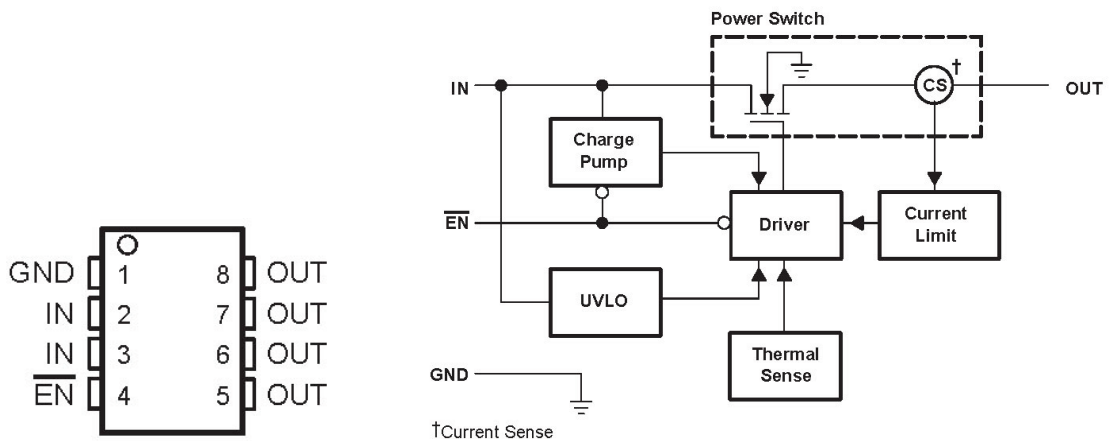
74HC86D (U2303)



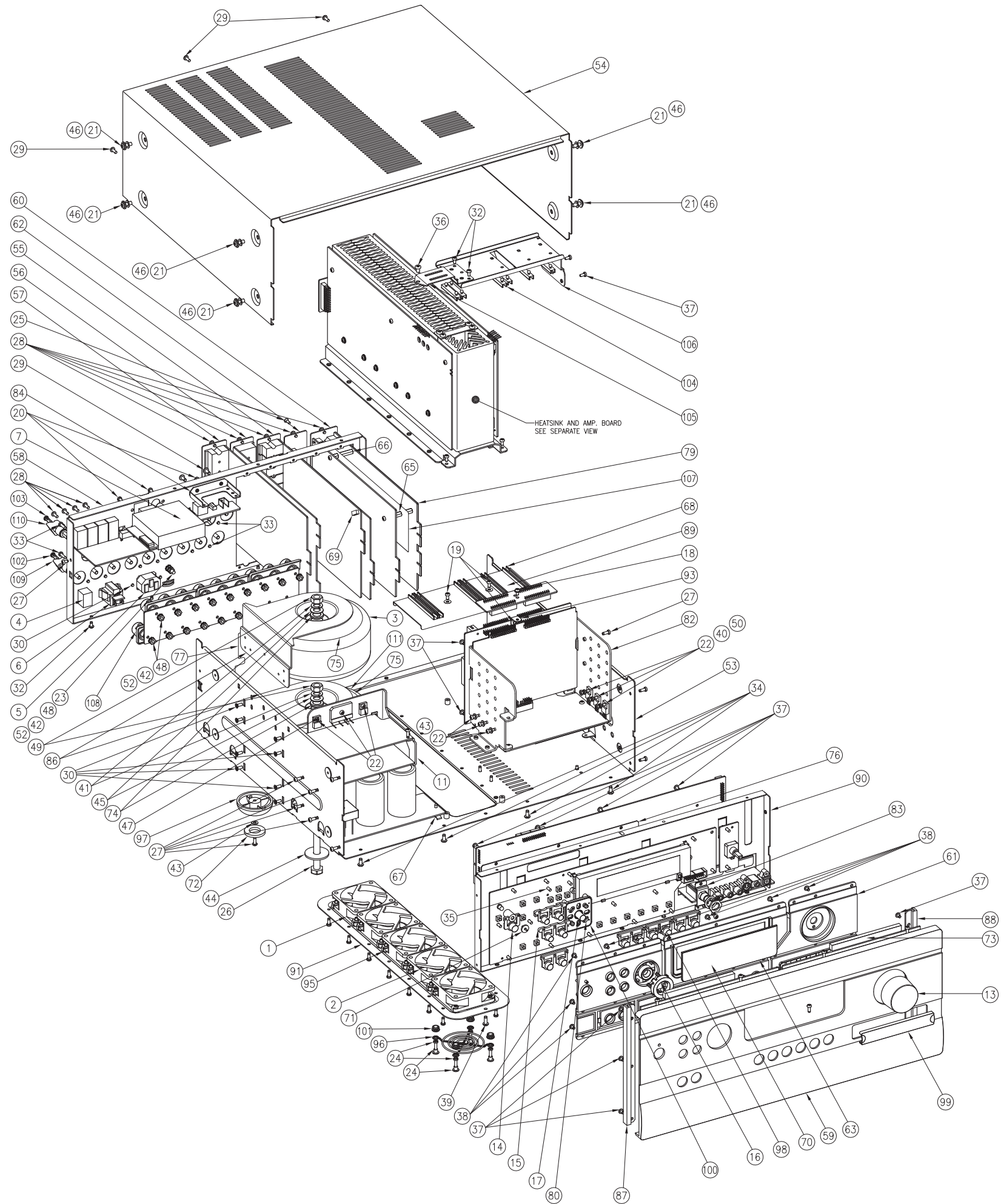
ST232BDR (U2301)



TPS2011A (U2302)

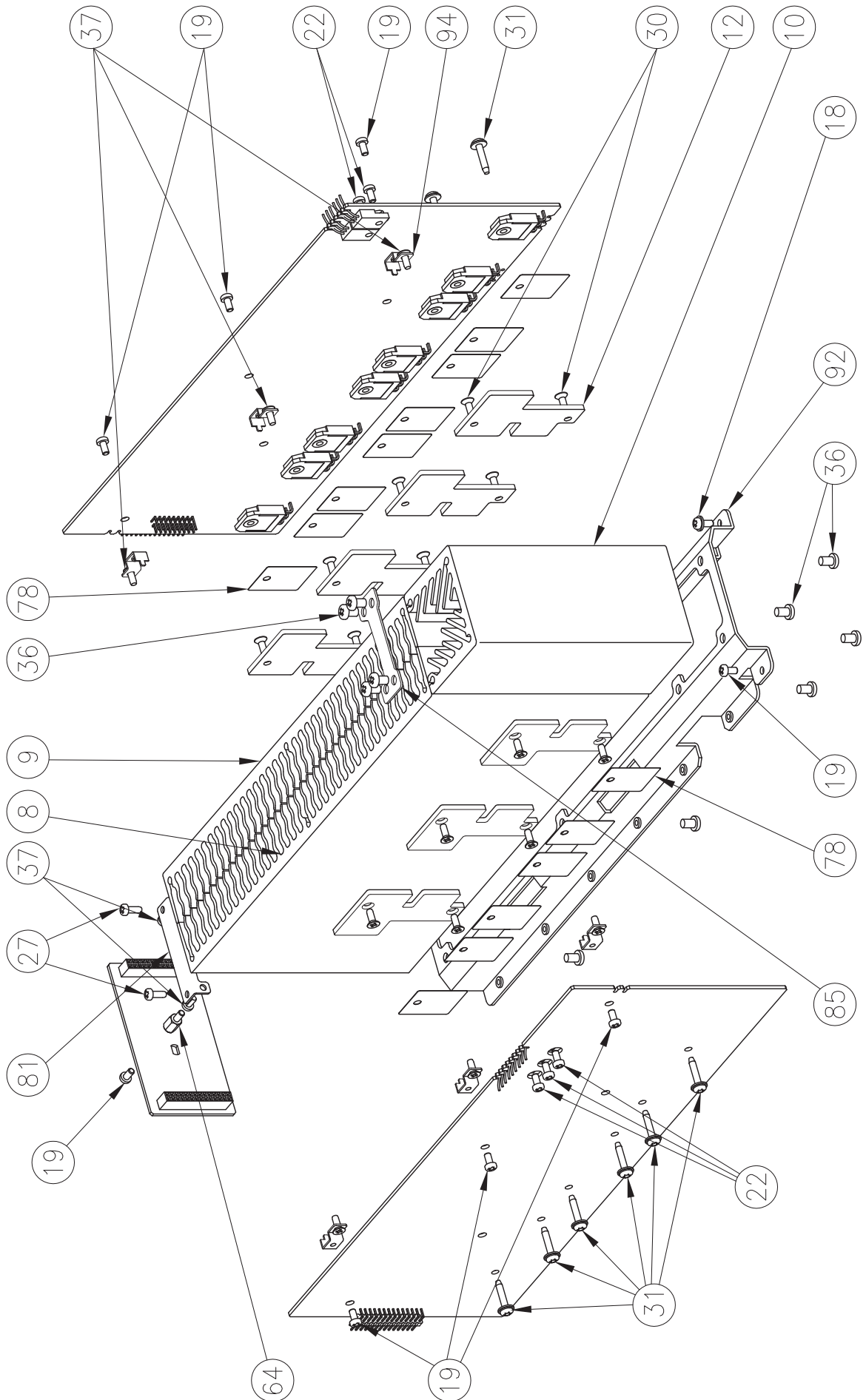


# EXPLODED VIEW - A





# EXPLODED VIEW - B



## EXPLODED VIEW PARTS LIST

ITEM	PART NO.	DESC.	QTY
1	08-002-0067-90	FAN DC 60x20mm 12V 0.18A 3800RPM DF126020SL L=430mm w/ 2.5P CONNECTOR (RoHS)	2
2	08-002-0068-90	FAN DC 60x20mm 12V 0.18A 3800RPM DF126020SL L=330mm w/ 2.5P CONNECTOR (RoHS)	3
3	10-005-0222-90	TRANSFORMER PW TOROIDAL 120V T785 UL TI-053904 (RoHS) [FOR 120V VERSION]	1
	10-005-0224-90	TRANSFORMER PW TOROIDAL 230V T785 CE TI-053903 (RoHS) [FOR 230V VERSION]	1
4	11-001-0062-90	SWITCH ROCKER 1P1T BLK/BLK 10A/250VAC TV-5 UL/CSA/VDE/SEMKO (RoHS)	1
5	15-004-0074-90	AC SOCKET IEC 10A 250V JR-101 (RoHS) [FOR 120V VERSION]	1
	15-004-0075-90	AC INLET 10A 250V R-301 RICH BAY UL/CCC/VDE/N/S (RoHS) [FOR 230V VERSION]	1
6	15-004-0078-90	AC OUTLET 3 PINS US POLARIZED SS-6B-1-NY (RoHS) [FOR 120V VERSION]	1
	15-004-0076-90	AC OUTLET EURO CEE 7 2.5A/250V A302D0060P (RoHS) [FOR 230V VERSION]	1
7	15-016-0001-90	AM/FM TUNER MIDULE KST-MB114MA0-23 (RoHS)	1
8	19-001-0128-92	EXT. HTSK LEFT T785 R1 (RoHS)	1
9	19-001-0129-92	EXT. HTSK RIGHT T785 R1 (RoHS)	1
10	19-001-0130-92	U-SHAPE EXT. HTSK T785 R1 (RoHS)	1
11	19-001-0134-90	HEATSINK-RECTFER T772 (ROHS)	1
12	19-001-0116-90	HEATSINK PLATE TRANSISTOR 2.5MM ALUMINIUM (RoHS)	7
13	21-001-0030-90	NEW VOLUME KNOB ASSY T175 GRAPHITE (RoHS) [FOR GRAPHITE VERSION]	1
	21-001-0031-90	NEW VOLUME KNOB ASSY T175 TITANIUM (RoHS) [FOR TITANIUM VERSION]	1
14	21-002-0155-90	POWER BUTTON TACT ACTIVE T765 GRAPHITE (RoHS) [FOR GRAPHITE VERSION]	1
	21-002-0156-90	POWER BUTTON TACT ACTIVE T765 TITANIUM (RoHS) [FOR TITANIUM VERSION]	1
15	21-002-0157-90	2X BUTTON SET T765 GRAPHITE (RoHS) [FOR GRAPHITE VERSION]	2
	21-002-0158-90	2X BUTTON SET T765 TITANIUM (RoHS) [FOR TITANIUM VERSION]	2
16	21-002-0159-90	4 WAYS BUTTON T765 GRAPHITE (RoHS) [FOR GRAPHITE VERSION]	1
	21-002-0160-90	4 WAYS BUTTON T765 TITANIUM (RoHS) [FOR TITANIUM VERSION]	1
17	21-002-0161-91	CENTER BUTTON T765 GRAPHITE (RoHS) R1 [FOR GRAPHITE VERSION]	1
	21-002-0162-90	CENTER BUTTON T765 TITANIUM (RoHS) [FOR TITANIUM VERSION]	1
18	22-001-0043-00	SCREW MACHINE M3 x 6 P/H WASHER HEAD NI PLT (RoHS)	3
19	22-001-0367-00	SCREW MACHINE M3 x 6 P/H NI PLT (RoHS)	11
20	22-001-0376-90	MACHINE SCREW M3 x 6 P/H BLK (RoHS)	3
21	22-001-0379-90	MACHINE SCREW M4 x 8 WASHER HEAD BLK (RoHS)	8
22	22-001-0381-90	MACHINE SCREW M3 x 10 PAN HEAD NI PLT (RoHS)	18
23	22-001-0384-90	MACHINE SCREW M4 x 14 WASHER HEAD BLK (RoHS)	1



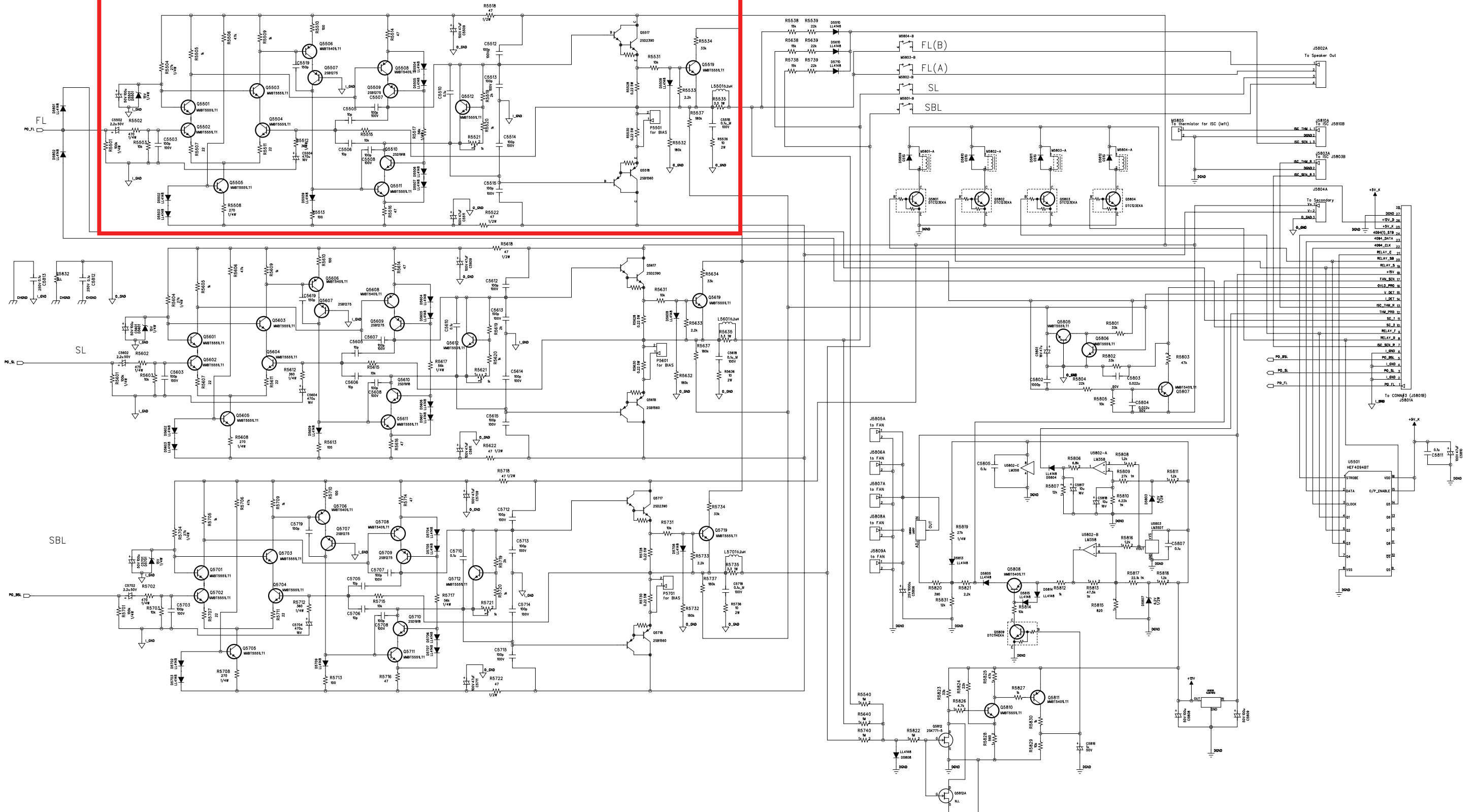
24	22-001-0409-90	SCREW MACHINE M3 x 15 WASHER HEAD W/ STOPPER NI PLT (RoHS)	20
25	22-001-0410-90	SCREW MACHINE M2.6 X 6 K/H BLK PLT (RoHS)	4
26	22-001-0472-90	HEX BOLT M8x1.25P LENGTH=150mm ZN PLATED (RoHS)	1
27	22-003-0030-00	TAPTITE SCREW 3x8 P/H TYPE "B" ZN/NI PLT (RoHS)	69
28	22-003-0049-00	SCREW TAPTITE 3x8 B/H TYPE "B" BLK PLT (RoHS)	48
29	22-003-0107-00	SCREW TAPTITE 3.5x8 B/H TYPE "B" BLK PLT (RoHS)	6
30	22-003-0129-00	SCREW TAPTITE 3x8 SMALL K/H TYPE "B" BLK PLT (RoHS)	24
31	22-003-0169-90	SCREW TAPTITE 3X15 B/H TYPE "B" CHROME TORX T10 (RoHS)	14
32	22-003-0141-90	TAPTITE SCREW 3 X 6 B/H TYPE "B" BLK PLT (RoHS)	7
33	22-003-0172-90	SCREW TAPTITE 3 X 10 B/H TYPE "B" BLK PLT (RoHS)	12
34	22-003-0144-90	TAPTITE SCREW 3.5x8 B/H TYPE "B" NI PLT (RoHS)	4
35	22-003-0145-90	SELF TAPPING SCREW 2.6x8 B/H TYPE "A" NI PLT (RoHS)	4
36	22-003-0147-90	TAPTITE SCREW 4 X 8 C/H TYPE-B BLK (RoHS)	13
37	22-003-0149-90	TAPTITE SCREW 3X6 PAN HEAD TYPE "B" NI PLT (RoHS)	25
38	22-003-0159-90	SCREW TAPTITE 3x5 B/H TYPE "B" NI PLT (RoHS)	22
39	22-003-0161-90	SCREW TAPTITE 3.5x10 B/H TYPE "B" NI PLT (RoHS)	1
40	22-005-0032-00	SPRING WASHER ID3.2 x OD5.6 x 0.9 THK. (RoHS)	26
41	22-005-0033-00	SPRING WASHER ID8.5 x OD12.5 x 1.9 THK. (RoHS)	2
42	NSP***	WASHER SPRING ID4 x OD7 x 1 THK. (RoHS)	
43	22-006-0081-00	WASHER STEEL ID3.5 x OD8 x 0.4 THK. ZN PLT (RoHS)	12
44	22-006-0082-00	WASHER METAL ID8.5 x OD30 x 2 THK. (RoHS)	2
45	22-006-0089-00	WASHER METAL ID8.5 x OD16 x 1 NI PLT (RoHS)	2
46	22-006-0091-90	WASHER PVC ID4.2 x OD8.2 x 0.5mm (RoHS)	8
47	22-006-0111-90	WASHER RUBBER ID8.5x28x2.0mm BLACK (RoHS)	2
48	NSP***	NUT M4 X 3.2mm 0.7p (RoHS)	
49	22-007-0079-00	HEX NUT M8 x 6.5 THK (RoHS)	2
50	22-007-0081-00	NUT M3 X 2.4mm (RoHS)	8
51	22-008-0027-90	WASHER EXTERNAL TOOTH M3 ID3.2 x OD6.5x0.4 THK NI PLT (RoHS)	4
52	NSP***	WASHER OUTER TOOTH ID4.2xOD8.2x0.4 THK. NI PLT (RoHS)	
53	23-232-0010-93	BOTTOM CABINET T775 (RoHS) R2	1
54	23-236-0017-90	TOP COVER T785 (PAINTED PPG GREY) (RoHS) [FOR GRAPHITE VERSION]	1
	23-236-0018-90	TOP COVER T785 (PAINTED NAD SILVER) (RoHS) [FOR TITANIUM VERSION]	1
55	23-237-0015-90	PANEL - SVIDEO T775 (RoHS)	1
56	23-237-0016-90	PANEL - VOLUME T775 (RoHS)	1
57	23-237-0017-90	PANEL - PRE-OUT T775 (RoHS)	1
58	23-237-0009-93	REAR PANEL T785 (AH) R.2 (RoHS) [FOR 120V VERSION]	1
	23-237-0010-93	REAR PANEL T785 (C) R.2 (RoHS) [FOR 230V VERSION]	1
59	23-237-0054-90	FASCIA T785(PAINTED NAD GREY)(RoHS) [FOR GRAPHITE VERSION]	1
	23-237-0055-90	FASCIA T785(PAINTED TITANIUM)(RoHS) [FOR TITANIUM VERSION]	1
60	23-237-0013-90	PANEL - DIGITAL & HDMI T775 (RoHS)	1

61	23-237-0007-92	PLASTIC INNER PANEL T775 GRAPHITE (RoHS) [FOR GRAPHITE VERSION]	1
	23-237-0008-92	PLASTIC INNER PANEL T775 TITANIUM (RoHS) [FOR TITANIUM VERSION]	1
62	23-237-0057-90	PANEL - COMPONENT VIDEO / IPOD T175/785 (RoHS)	1
63	24-031-0007-90	STATIC COVER T775 (PET)(RoHS)	1
64	25-005-0118-90	HEX SPACER AF5.5 H8+6 (RoHS)	1
65	25-005-0124-90	HEX SPACER AF5.5 H9.5+6 (RoHS)	2
66	25-005-0122-90	HEX SPACER AF5.5 H19.8 (RoHS)	2
67	25-006-0043-90	PCB SUPPORTER "KSS" (H=9.6mm PCB HOLE 4mm) CS-0610 (RoHS)	3
68	25-006-0047-90	PCB CARD GUIDE CG-250(RoHS)	6
69	25-006-0050-90	PCB WIRE HOLDER NYLON MIS-2 (RoHS)	1
70	25-008-0404-90	FRONT LENS TINT COLOR TXX5 AH (RoHS) [FOR 120V VERSION]	1
	25-008-0405-90	FRONT LENS TINT COLOR TXX5 CE (RoHS) [FOR 230V VERSION]	1
71	25-008-0409-90	POWER LED LENS - ROUND #2 MILKY WHITE (RoHS)	1
72	25-014-0030-90	RUBBER FOOT ID14xOD26x3 PORON HH-48C (RoHS)	4
73	25-016-0033-90	FOAM 100x7x8mm BLK (UL GRADE) W/NITTO500 (RoHS)	2
74	25-017-0278-90	BUSHING NYLON OD 16.5 X 9.3 X 3.5mm (RoHS)	2
75	25-018-0052-90	TRANSFORMER INSULATOR DIA.110 X 1.5mm (RoHS)	2
76	25-020-0431-90	FIBRE PAPER 226x48x0.8mm (RoHS)	1
77	25-020-0513-90	FIBRE PAPER 265x174x0.8mm UL GRADE (RoHS)	1
78	25-020-0475-90	INSULATOR TO-3P MICA 22x27x0.125 W/HOLE (RoHS)	14
79	25-020-0483-90	INSULATOR - PC SHEET DSP BD TXX5 (RoHS)	1
80	25-021-0004-90	RUBBER KEYPAD TXX5 (RoHS)	1
81	25-022-1244-90	HEATSINK MOUNTING BRACKET (RoHS)	1
82	25-022-1247-93	MAIN BOARD BRACKET T775 (RoHS)	1
83	25-022-1248-90	PHONE BRACKET T775 (RoHS)	1
84	25-022-1249-90	REAR HTSK SUPPORT BRACKET (RoHS)	1
85	25-022-1250-90	HTSK HANDLE PLATE (RoHS)	1
86	25-022-1363-92	TRANSFORMER BRACKET T772 R.2 (RoHS)	2
87	25-022-1402-90	SIDE CAP - L T785 (PAINTED NAD GREY) (RoHS) [FOR GRAPHITE VERSION]	1
	25-022-1404-90	SIDE CAP - L T785 (PAINTED TITANIUM) (RoHS) [FOR TITANIUM VERSION]	1
88	25-022-1403-90	SIDE CAP - R T785 (PAINTED NAD GREY) (RoHS) [FOR GRAPHITE VERSION]	1
	25-022-1405-90	SIDE CAP - R T785 (PAINTED TITANIUM) (RoHS) [FOR TITANIUM VERSION]	1
89	25-022-1282-90	PCB GUIDE BRACKET T775/T785 (RoHS)	1
90	25-022-1274-90	SUBFASCIA T785 (RoHS)	1
91	25-022-1284-92	FAN MOUNTING COVER T775 (RoHS)	1
92	25-022-1285-91	LARGE FAN MOUNTING BRACKET T772 (RoHS)	1
93	25-022-1287-90	L-SHAPE BRACKET 13 X 10mm (RoHS)	1
94	25-022-1326-90	SPACER BRACKET 5.0mm (RoHS)	6
95	25-022-1341-90	FAN SCREW BRACKET 4.5mm (RoHS)	20
96	25-022-1381-90	FAN GUARD 60mm 40G00002 (RoHS)	5
97	25-024-0315-90	PLASTIC FOOT DOME SHAPE (RoHS)	4

98	25-024-0322-90	DUAL BUTTON T765 GRAPHITE (RoHS) [FOR GRAPHITE VERSION]	4
	25-024-0323-90	DUAL BUTTON T765 TITANIUM (RoHS) [FOR TITANIUM VERSION]	4
99	25-024-0324-90	VIDEO COVER T765 GRAPHITE (RoHS) [FOR GRAPHITE VERSION]	1
	25-024-0325-90	VIDEO COVER T765 TITANIUM (RoHS) [FOR TITANIUM VERSION]	1
100	25-024-0326-90	RUBBER BRACKET T765 (MOLD BLACK) (RoHS)	1
101	25-024-0330-90	FAN RUBBER (RoHS)	20
102	16-004-0888-90	BINDING POST CAP BLACK T765 (RoHS) [FOR 230V VERSION]	9
103	NSP***	BINDING POST RED T765 (RoHS) [FOR 230V VERSION]	
104	25-006-0053-90	PCB CARD GUIDE CG-38 (RoHS)	6
105	25-022-1602-90	SIDE SUPPORT BRACKET T785 BLACK (RoHS)	1
106	25-022-1603-90	CARD GUIDE BRACKET - TOP (RoHS)	1
107	25-022-1409-90	SHIELDING PLATE 0.6MM T775 (RoHS)	1
108	NSP***	BINDING POST BASE 4P BLACK T765 (RoHS)	
109	NSP***	BINDING POST KNOB ASSY BLACK T765 (RoHS)	
110	NSP***	BINDING POST KNOB ASSY RED T765 (RoHS)	
111	10-005-0223-90	TRANSFORMER PW TOROIDAL 120V T785 UL TI-053907 (RoHS) [FOR 120V VERSION]	1
	10-005-0225-90	TRANSFORMER PW TOROIDAL 230V T785 CE TI-053906 (RoHS) [FOR 230V VERSION]	1

\*\*\*NOTE: Binding Post assembly Exploded View locations: 42, 48, 103, 108, 109 & 110  
Part number: 50-927-0775-90

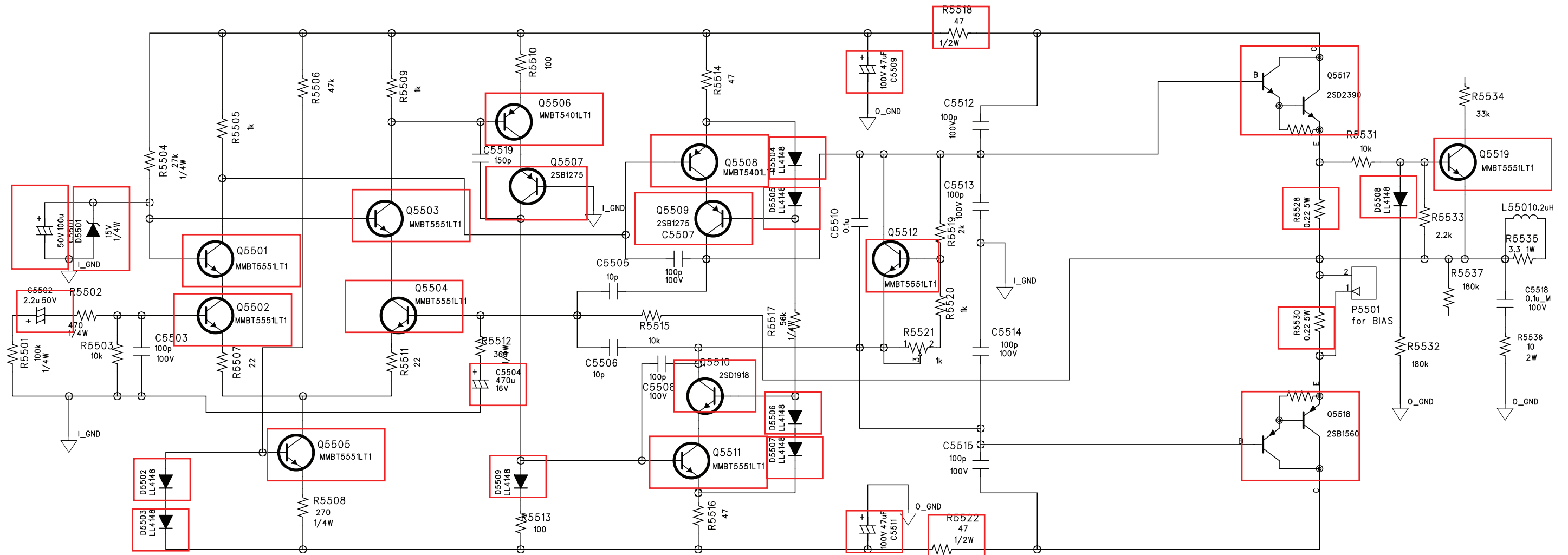
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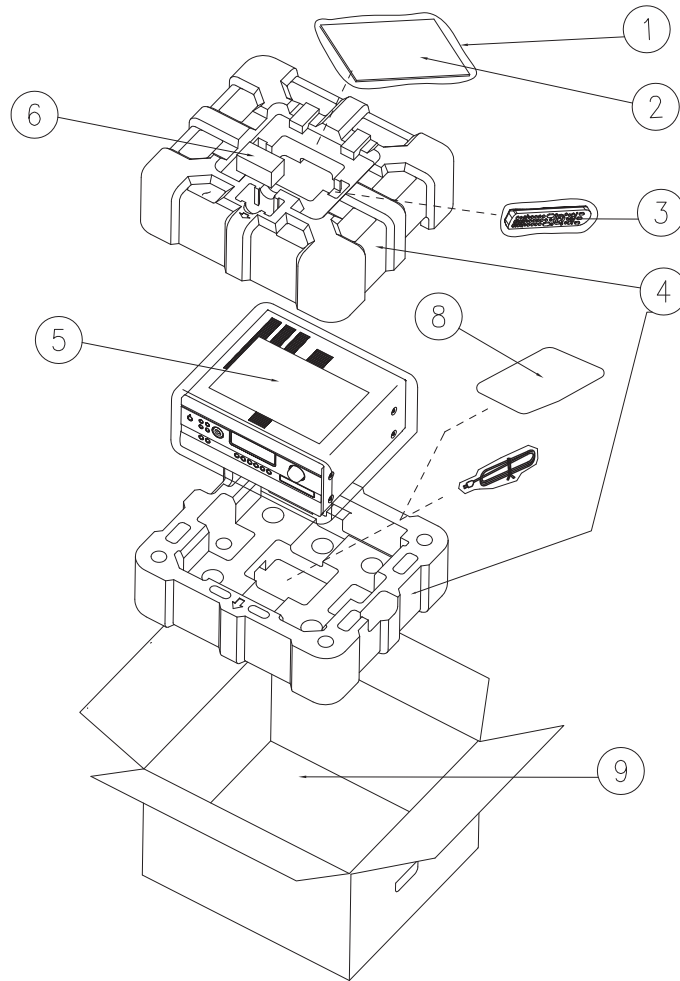
Components in the red boxes are included in the spare part kit part number 52-940-0785-90

**T785 Power amplifier components (single channel)**

Part Number	Description	Qty
02-005-0063-90	RES WW 0.22 OHM 5% 5W	2
02-007-0328-90	RES SMD 47 OHM 5% 1/2W 2010 TAPE(RoHS)	2
03-009-0137-90	CAP ELEC SMD 100uF 50V +/-20%	1
03-009-0141-90	CAP ELEC SMD 2.2uF 50V +/-20%	1
03-009-0144-90	CAP ELEC SMD 470uF 16V +/-20%	1
03-009-0145-90	CAP ELEC SMD 47uF 100V +/-20%	2
04-006-0021-90	SMD DIODE LL4148 SOD80	8
04-007-0035-90	DIODE ZENER SMD 15V 500mW 5% SOD123 MMSZ5245B	1
05-001-0102-90	TRANSISTOR PW DARLINGTON PNP 15A/150V HFE P 6500-20000 TO-3PB 2SB1647 (w/ MICAx1)	1
05-001-0103-90	TRANSISTOR PW DARLINGTON NPN 15A/150V HFE P 6500-20000 TO-3PB 2SD2560 (w/ MICAx1)	1
05-004-0018-90	SMD Transistor MMBT5551LT1G NPN SOT-23	8
05-004-0019-90	SMD Transistor MMBT5401LT1G PNP SOT-23	2
05-004-0030-90	XTR 2SD1918 NPN POWER 160V/1.5A 80MHz HFE 120-390	1
05-004-0031-90	XTR 2SB1275 PNP POWER 160V/1.5A 50MHz HFE 82-180	2



# PACKING DIAGRAM & PARTS LIST



ITEM	PART NO.	DESCRIPTION	QTY
1	24-003-0127-90	POLYBAG MAUNAL (RoHS)	
2	24-004-2094-90	T785 OWNER'S MANUAL GB/F/D/NL W/WEEE(ROHS)	1
2	24-004-2095-90	T785 OWNER'S MANUAL E/P/I/S W/WEEE(ROHS)	1
2	24-004-2226-90	T785 QUICK START MANUAL A3 SIZE (RoHS)	1
3	28-008-0003-90	REMOTE CONTROLLER NAD HTRC1 (RoHS)	1
4	24-006-0808-90	POLYFOAM TOP/BOTTOM T785(ROHS)	2
5	24-003-0154-90	POLYBAG MAIN UNIT (RoHS)	1
5	24-003-0143-90	PROTECTIVE COVER (RoHS)	1
5	24-005-0890-90	A3 WHITE PAPER 80G (RoHS)	1
5	40-001-0108-90	DESSICANT BAG 20g	1
6	09-001-0005-90	MICROPHONE SET WITH PACKING AUDYSSEY(RoHS)	1
6	24-005-1015-90	LABEL TAG 'AUDYSSEY MICROPHONE' (RoHS)	1
7	17-004-0007-00	AC Cord 110V 3PINS 125V/13A SJT AWG16/3C UL/CSA L=2M [FOR AH VERSION]	1
	17-004-0008-00	AC CORD CE 3 PINS 16A 250V LF L=6'7" LP-34 H05VV-F 3C LS- 60 [FOR C, CT VERSION]	1
7	24-003-0120-90	POLYBAG CORD (RoHS)	1
8	15-015-0001-90	ANTENNA ADAPTER 300 TO 75 OHM (RoHS)	1
8	24-003-0122-90	Polybag Manual J9 (RoHS)	1
8	24-004-1936-90	WARRANTY CARD (RoHS)	1
8	25-027-0001-90	FM WIRE ANTENNA W/Y-TERMINALS (RoHS)	1
8	25-027-0002-90	ANTENNA AM LOOP ASSY W/STAND S0160BL-04 (RoHS)	1
8	28-008-0005-90	REMOTE CONTROLLER NAD ZR-4 (RoHS)	1
9	24-001-0678-90	MASTER CARTON BOX T785(ROHS)	1

# SERVICE MANUAL

**T 785**

**Surround Sound Receiver**