



**AKAI**

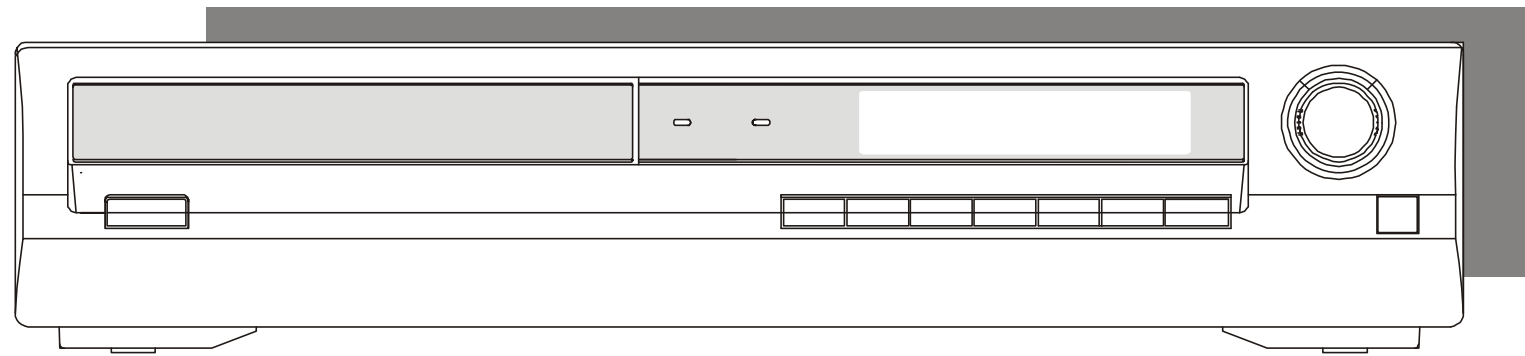
# **DVD HOME THEATER SYSTEM**

Model:  
DV-R4200SS

# **SERVICE MANUAL**

# Service Manual

## DVD HOME THEATRE SYSTEM



**DV-R4200SS**

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### PRODUCT SAFETY NOTICE

Many electrical and mechanical parts in this chassis have special safety characteristics. These safety characteristics often pass unnoticed and the protection afforded by them cannot necessarily be obtained by using replacement components rated for higher voltage, wattage, etc. Replacement parts that have these special safety characteristics are identified in this manual and its supplements; electrical components having such features are identified by ⚠ in the schematic diagram and the parts list.

Before replacing any of these components, read the parts list in this manual carefully. The use of substitute replacement parts that do not have the same safety characteristics as specified in the parts list may create shock, fire or other hazards.

## PERFORMANCE SPECIFICATIONS

GENERAL TEST CONDITION	
Power Supply	: AC 230V 50Hz
Output Load	: 6ohm Non-reactive x 5 Subwoofer 4ohm x 1
Reference Output	: 500mW
Input Signal Source	: External AM Loop Antenna 75ohm Dummy Antenna for FM
Modulation	: 30% 400Hz for AM 40kHz Deviation 1000Hz for FM Mono 7.5kHz Pilot Tone: Stereo 47.5kHz L+R 1000Hz: Stereo

AMPLIFIER SECTION				
	TEST ITEMS	UNIT	NORMAL	LIMIT
1.	10% THD Power AC (FL, FR)	W	20	17
2.	Frequency Response (CT) 1K=0dB	100Hz	dB	-3
		10kHz	dB	0
		20kHz	dB	0
3.	Frequency Response (RR, RL) 1K=0dB	100 Hz	dB	-3
		10kHz	dB	0
		20kHz	dB	0
4.	Frequency Response (FL, FR) 1K=0dB	20Hz	dB	-6
		100Hz	dB	0
		10kHz	dB	0
		20kHz	dB	0
5.	Frequency Response (Subwoofer) 1K=0dB	20Hz	dB	40
		100Hz	dB	40
6.	10% THD Power AC (Subwoofer)	W	50	45
7.	Subwoofer THD (100Hz Ref O/P) (5.1 CH Disk 2.1 CH Play)	%	0.5	1.0
8.	THD (1kHz, Ref O/P) FR, FL	%	0.5	0.8
9.	Channel Unbalance (L&R)	1kHz	dB	±1
10.	Vol. Hum (UNWGTD/WGTD) (FL FR CT RR RL)	mV	1	2
11.	Vol. Hum (UNWGTD/WGTD) (Woofer)	mV	3	10
12.	S/N (UNWGTD/CCIR-ARM2K) (L&R)	1kHz	dB	60
13.	Bass Effect FL, FR	dB	±14	±3
14.	Treble Effect FL, FR	dB	±14	±3
15.	Separation (FL & FR)	dB	-	45
16.	Cross Talk For Input (AUX/CD-REF) W/BPF	dB	-	45
REMARKS:				
Level Matching				
	AM: 55% 5mV/m			±3
	FM: 40kHz 1mV			±3
	CD -6dB/1kHz REF			0
	AUX IN: 750mV			±3
NOTE: All measurement should be done at bypass mode without EQ effects.				
Audio others :6ch				
More audio prologic: on				
Item 1.2.3.4 Set up subwoofer for off speaker for large.				

## PERFORMANCE SPECIFICATIONS - CONTINUED

DVD AUDIO SECTION (LINE OUTPUT)				
	TEST ITEMS	UNIT	NORMAL	LIMIT
1.	THD+N (LT2-1, 3-1 20kHz LPF ON)	%		0.05
2.	Output Level (LT2-1, 3-1)	V	2.0	±0.3
3.	S/N ( LT2-1, 3-20 JIS-A Filter On )	dB	80	70
4.	Crosstalk (LT2-1, 3-21.22 1kHz, BPF ON)	dB		70
5.	Frequency Range (48kHz / 24BIT) (LT2-1. 3-1~19) (FL, FR)	31Hz	dB	0
		499Hz	dB	0
		1kHz	dB	0
		10kHz	dB	0
		22kHz	dB	0
6.	Frequency Range (96kHz / 24BIT LT2-1, 6-1~12) (FL, FR)	20Hz	dB	0
		400Hz	dB	0
		1kHz	dB	0
		12.8kHz	dB	0
		20kHz	dB	0
7.	Digital Output Level (LT2-1, 1-1 75Ω Loading On)	mV	500	±100
8.	Dynamic Range (20kHz LPF is ON)	dB		85
9.	Black Band (TDV 545)	μM	-	600
10.	Finger Print	μM	-	No.13
11.	Eccentric (MDVD142 TEAC)	μM	-	200
12.	Vertical	mm	-	0.6
CD SECTION				
1.	Interruption (Philips SBC444A)	μM	-	600
2.	Black Dot	μM	-	600
3.	Finger Print	μM	-	No.18
4.	Eccentric (TCO-712 ABEX)	μM	-	140
5.	Vertical (TCO-731R ABEX)	mm	-	0.8
CD - R SECTION				
1.	Blackband (TCD-R025W )	μM	800	600
2.	Finger Printers (TCD-R025W )	μM	-	65
3.	Scratch (TCD-R021W )	mm	1.8	1.6
4.	Eccentric (TCD-R012W )	μM	-	140
5.	Deviation (TCD-R032W )	μM	-	810
CD - RW SECTION				
1.	Black Band (TCD-W025W )	μM	600	500
2.	Finger Printers (TCD-W025W )	μM	-	65
3.	Scratch (TCD-W021W )	mm	-	1.0
4.	Eccentric (TCD-W012W )	μM	-	140
5.	Deviation (TCD-W032W )	μM	-	810

**PERFORMANCE SPECIFICATIONS - CONTINUED**

VIDEO SECTION - 1			
	ITEMS	TEST CONDITIONS	SPEC.
1.	Video level	Equipment: Waveform Monitor (except VM700) Test Signal: LT2-1, 1-1, SMPTE color bar Test Point: complex or S(Y) output Method: 1. Connect TP to waveform monitor 2. Play test disc and test output level from pedestal of H display to 100IRE (S terminal without load when test complex output)	714-71/+107mV
2.	SYNC level	Equipment: Waveform Monitor (except VM700) Test Signal: LT2-1, 1-1, SMPTE color bar Test Point: complex or S(Y) output Method: 1. Connect TP to waveform monitor 2. Play test disc and test SYNC signal (S terminal without load when test complex output)	286±50mV
3.	Chroma burst level C-BURST	Equipment: Waveform Monitor (except VM700) Test Signal: LT2-1,1-1,SMPTE color bar Test Point: complex or S(Y) output Method: 1. Connect TP to waveform monitor 2. Play test disc and test chroma burst level (S terminal without load when test complex output)	286±50mV
4.	Chromatism signal output level	Equipment: Waveform Monitor (VM700) Test Signal: LT2-1,1-1,SMPTE color bar Test Point: chromatism output (Y/CB/CR) Method: 1. Connect TP to waveform monitor 2. Play test disc and test output level and PP value of CB,CR	Y=714-71/+107mV SYNC=286±50mV CB,CR= 525-53/+79mV B-Y=286±50mV R-Y=286±50mV
5.	Frequency response	Equipment: Waveform Monitor (VM700) Test Signal: LT2-1, 1-1, multi burst Test Point: complex or S(Y) output Method: 1. Connect TP to waveform monitor 2. Play test disc and test various frequencies output level 3. Set level of 0.5MHz to be 0dB. Compare output level of others with 0dB.	0.5MHz=0dB 2MHz=0±1.0dB 4MHz=0±1.5dB 5.75MHz=0=4/-5dB
6.	Luminance S/N	Equipment: Waveform Monitor (expect VM700) Video Noise Meter Test Signal: LT2-1, 1-3, 50% whirt (50IRE) Test Point: complex or S(Y) and component(Y) output Method: 1 Connect TP to Video Noise Meter 2. Play test disc signal portion (50% IRE) and test noise level. (Test L131 when using VM700) Test equipment condition: (4.2MHz LPF, SC trap, 100kHz HFP. ON)	play 50% IRE: noise level ≤ -60dB
7.	Chroma signal AM,PM S/N	Equipment: Video Noise Meter (expect VM700) Test Signal: LT2-1, 1-3 Test Point: complex or S(C) output Method: 1. Connect TP to Video Noise Meter 2. Play test disc signal portion and test noise level of chroma signal. (Test L131 when using VM700) Test equipment condition: (100Hz~1MHz BPF, SC trap., ON) (VM700: 100kHz HPF,1MHz LPF, Single Line)	chroma signal noise level ≤ -50dB

**PERFORMANCE SPECIFICATIONS - CONTINUED**

VIDEO SECTION - 2			
	ITEMS	TEST CONDITIONS	SPEC.
8.	Color phase	Equipment: Video Analyser (expect VM700) Test Signal: LT2-1, 1-1, SMPTE color bar Test Point: complex or S(C) output Method: 1. Connect TP to Video Analyser 2. Test phase of various colors in color bar.	YEL.=167.6° CYAN=283.5° GRN.=240.6° MAG.=60.6° RED=103.5° BLU.=347.6° within+9°/-1°
9.	RGB output (only for w/RGB model)	Equipment: Waveform monitor Test Signal: LT2-1,1-1,SMPTE color bar Test Point: RGB output Method: 1. Connect TP to waveform monitor 2. Convert to RGB output mode 3. Play test disc signal portion and test 100 IRC (100% whirt) output level.	700-70/+105mV

(AM) SECTION, AMPLITUDE, MODULATION				
	TEST ITEMS	UNIT	NORMAL	LIMIT
1.	Tuning Range	kHz	531 - 1602	-
2.	I. F.	kHz	450	±3
3.	S/N 10mV/m	999kHz dB	36	30
4.	Sens. (at S/N 20dB)	603kHz dB	60	64
		1404kHz dB	60	64
5.	I. F. Rejection	603kHz dB	50	46
6.	Image Rejection	1404kHz dB	30	22
7.	Spurious Rejection		35	25
8.	Bandwidth, -6dB, at (Max. Sens. +6dB)	999kHz kHz	6	4 - 9
9.	ACA (±9kHz) Input	999kHz dB	20	15
10.	AGC Figure Merit	100mV/m dB	45	40
11.	Distortion, 5mV/m, 30%	%	1	3
	80%	%	3	6
12.	10% THD Power AC	DEV 80% W	20	17
13.	Tweet (2nd 910kHz & 3rd 1350kHz) at 75 dB I/P		15	10
14.	Audio Fidelity, Centre ±(6)dB	Hz	60/2200	120/2000
15.	Low Voltage AC	%	80	85
16.	a. Mod. Hum 100mV/M	dB	36	30
	b. Hum at Min. (FR, FL)	mV	1	3
	c. Hum at Min. (Woofer)	mV	5	10
17.	Auto Stop Sens.	dB	64	70
18.	Step Frequency	kHz	-	9
REMARKS:				
NOTE: All measurement should be done at bypass mode without EQ effects.				

**PERFORMANCE SPECIFICATIONS - CONTINUED**

<b>(FM) SECTION, FREQUENCY, MODULATION</b>					
	TEST ITEMS	UNIT	NORMAL	LIMIT	
1.	Tuning Range	MHz	87.5 - 108	-	
2.	I. F.	MHz	10.7	±0.3	
3.	30dB S/N	90MHz	μV	20	25
		98MHz	μV	20	25
		106MHz	μV	20	25
4.	-3dB Limit Sens.	dB	16	30	
5.	I. F. Rejection	98MHz	dB	60	50
6.	Image Rejection	106MHz	dB	30	23
7.	Spurious Rejection (F+0.535MHz) (Max. Sens. +6dB)	dB	40	35	
8.	AM Suppression (60dB I/P)	dB	45	30	
9.	Mod. Hum (60dB I/P)	dB	48	42	
10.	Distortion at 1mV/m (Mono) 100mV/m	22.5kHz	%	1	2
		75kHz	%	3	5
11.	Audio Fidelity, (-3dB) (Pre-emphass) (50μS) Subwoofer	Hz	60/9000	120/6000	
		1K=0 100Hz	36	30	
12.	Power Out, 10% THD (55K DEV) 1K=1mV Subwoofer Power Out, 10% THD (55K DEV) 100Hz=1mV	W	20	17	
		W	50	45	
13.	Low Voltage AC	%	80	85	
14.	S/N Ratio at 1mV	98MHz	dB	52	46
15.	Alternate Channel Selective ±400kHz	dB	25	18	
16.	Stereo Separation	dB	26	22	
17.	19kHz Leak Carrier	dB	32	27	
18.	Stereo LED Indication	dB	26	30	
19.	Step Frequency	kHz	-	50	
20.	Auto Stop Sens.	dB	26	32	
21.	Minimum Vol. Hum (FL, FR) Minimum Vol. Hum (Woofer)	mV	1.0	3.0	
		mV	5	10	

REMARKS:  
  
NOTE: All measurement should be done at bypass mode without EQ effects.

<b>AM/FM STEREO &amp; RDS TUNING with DVD PLAYER</b>					
	FM STEREO & RDS SECTION 37.5kHz (MAIN+SUB.) 7.5kHz (PILOT) 1.2K (RDS) DEV. & 1KHz INPUT	UNIT	NOR	LIMIT	
1.	RDS Indicator Sensitivity	98MHz	dB	28	< 36
2.	RDS Seek Sensitivity	98MHz	dB	28	< 36

**PERFORMANCE SPECIFICATIONS - CONTINUED**

**AV IN 750mV INPUT 100Hz (with 20kHz B.P.F) 100Hz=0dB 1kHz=0dB  
(Speaker for small)**

**BY PASS :**

	TEST ITEMS	UNIT	NORMAL	LIMIT
	10% THD Power AC ( FL, FR ) (1kHz) = 1V	W	20	17
	10% THD Power AC (Subwoofer) 100Hz = 1V Speake for Small	W	50	45

**BY PASS R=L= -2dB**

	R	L	C	SR	SL	SW	Unit
R	0	≤ - 50	≤ - 50	≤ - 50	≤ - 50	9±3	dB
L	≤ - 50	±3	≤ - 50	≤ - 50	≤ - 50	9±3	dB
Phase	±3	±3	≤ - 45	≤ - 50	≤ - 50	12±3	dB
Antiphase	±3	±3	≤ - 50	≤ - 50	≤ - 50	-	dB

**FREQUENCY RESPONSE 1K=0dB**

L/R	100Hz	-3±3	20kHz	±3			dB
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**Prologic**

	R	L	C	SR	SL	SW	Unit
R	-2±3	≤ - 50	≤ - 35	≤ - 35	≤ - 35	5±3	dB
L	≤ - 50	-2±3	≤ - 35	≤ - 35	≤ - 35	5±3	dB
Phase	≤ - 35	≤ - 35	±3	≤ - 35	≤ - 35	5±6	dB
Antiphase	≤ - 30	≤ - 30	≤ - 40	-3±3	-3±3	-	dB

**FREQUENCY RESPONSE 1K=0dB**

L/R	100Hz	±6	20kHz	±3			dB
C (Phase)	100Hz	±6	20kHz	-20±3			dB
SR/SL (Antiphase)	100Hz	±6	8K	-6±3			dB

**Movie**

	R	L	C	SR	SL	SW	Unit
R	-3±3	≤ - 50	≤ - 35	≤ - 35	≤ - 35	5±3	dB
L	≤ - 50	-3±3	≤ - 35	≤ - 35	≤ - 35	5±3	dB
Phase	≤ - 35	≤ - 35	±3	≤ - 35	≤ - 35	5±6	dB
Antiphase	≤ - 35	≤ - 35	≤ - 35	-3±3	-3±3	-	dB

**FREQUENCY RESPONSE 1K=0dB**

C (Phase)	100Hz	-3±3	8kz	-3±3			dB
SR/SL (Antiphase)	100Hz	-3±3	8kHz	-3±3			dB
L/R	100Hz	-3±3	20kHz	±3			dB

**Music**

	R	L	C	SR	SL	SW	Unit
R	-9±3	≤ - 50	≤ - 50	-10±3	≤ - 35	±3	dB
L	≤ - 50	-9±3	≤ - 50	≤ - 35	-10±3	±3	dB
Phase	≤ - 35	≤ - 35	-6±3	≤ - 35	≤ - 35	±6	dB
Antiphase	≤ - 35	≤ - 35	≤ - 35	-3±3	-3±3	≤ - 35	dB

**FREQUENCY RESPONSE 1K=0dB**

L/R	100Hz	-3±3	20kHz	±3			dB
C (Phase)	100Hz	-3±3	8kHz	-3±3			dB
SR/SL (Antiphase)	100Hz	-3±3	8K	-3±3			dB

**Matrix**

	R	L	C	SR	SL	SW	Unit
R	-6±3	≤ - 50	-10±3	-6±3	-20±3	5±3	dB
L	≤ - 50	-6±3	-10±3	-20±3	-6±3	5±3	dB
Phase	-10±3	-10±3	-6±3	-10±3	-10±3	5±6	dB
Antiphase	-10±3	-10±3	≤ - 35	-6±3	-6±3	-	dB

**FREQUENCY RESPONSE 1K=0dB**

L/R	100Hz	-3±3	20kHz	±3			dB
C (Phase)	100Hz	-3±3	8kHz	±3			dB
SR/SL (Antiphase)	100Hz	-3±3	8K	-3±3			dB

## ELECTRICAL PARTS LIST

Ref. No.	Description	Mfr's Part No.	Qty.
<b>PCB</b>			
MAIN PCB	PCB STS21EAAST-01-02 (94V0)	033-ST21E-200	1
SUB-WOOFER OUTPUT PCB	PCB STS21EAAST-01-03 (94V0)	033-ST21E-200	1
DISPLAY & KEY PCB	PCB STS21AAST-01-03 202x174.5x1.6mm/4 (94HB)	033-ST21A-102	1
POWER KEY PCB	PCB STS21EAAST-01-01 43x16x1.6mm (94HB)	033-ST21E-100	1
FUSE PCB	PCB STS21AAST-01-07 166x132x1.6mm/12 (94V0)	033-ST21A-106	1
MPEG+SERVO PCB	PCB STS71AAST-01-05 153x184.5x1.6mm/2 FR4 DOUBLE SIDED w/PATH THROUGH HOLE	033-ST21A-100	1
SCART PCB	PCB STS21AAST-01-05 140x95x1.6mm/4 (94V0)	033-ST21A-104	1
BLANK PCB	PCB STS21AAST-01-08 197x46x1.6mm/9 (94V0)	033-ST21A-107	1
LOAD MOTOR PCB	PCB STS21AAST-01-09 171x88.5x1.6mm/12 (94V0)	033-ST21A-108	1
TUNER PCB	PCB STS21AAST-01-04 141x130x1.6mm/3 (94V0)	033-ST21A-103	1
SUBWOOFER MAIN PCB	PCB ASW3-01-01 215x170x1.6mm/2 (94V0)	033-00ASW3-101	1
SUBWOOFER IN PCB	PCB ASW3-01-02 (94V0)	033-00ASW3-400	1
AC IN PCB	PCB ASW3-01-05 (94V0)	033-00ASW3-400	1
LED PCB	PCB ASWT1-01-01 80x100x1.6mm/40 (94HB)	033-ASWT1A-100	1
<b>REMOTE CONTROL SECTION</b>			
	REMOTE CONTROL HANDSET RC54-48 w/CAM-0122 SPY (FOR AKAI/STS2x7x)	043-R15448-120	1
<b>ACCESSORY SECTION</b>			
<b>WIRE</b>			
	JP WIRE AWG26#UL1007 1500mm BLK CRIMPED w/TERMINAL SHS #STV8-TE AND TUBE (75ohm)	054-010A50-090	1
<b>MISCELLANEOUS</b>			
	SCART CABLE 2000mm w/3 PIN RCA HS02038-20-20	122-00A020-200	1
	BATTERY #GP15G 1.5V 'AA' SIZE (GP)	130-615004-001	1
	MERCURY & CADMIUM FREE (2PCS/PACKAGE)		
	AM LOOP ANT.388-88 & 388-89 MOLD BK(ABS)	132-020388-882	1
	5264-2 2.54mm w/5750mm BK AWG26#UL1007		
<b>AUDIO SECTION</b>			
<b>RESISTORS [All are +5% 1/16W (1/8W) tape &amp; wheel resistors unless otherwise specified]</b>			
R603,611,612,613,663,665, 667,669,671,673	*CdF RESISTOR 1 Kohm	001-010251-016	10
R534,609,690	*CdF RESISTOR 10 Kohm	001-010351-016	3
R656,657,664,666,668,670, 672,674	*CdF RESISTOR 100 Kohm	001-010451-016	8
R660	*CdF RESISTOR 150 ohm	001-015151-016	1
R608	*CdF RESISTOR 15 Kohm	001-015351-016	1
R602,616,617,618,619,624, 625,628,629,634,635,638,639, 654,650	*CdF RESISTOR 2.2 Kohm	001-022251-016	15
R606,607,658,659	*CdF RESISTOR 22 Kohm	001-022351-016	4
R620,621,631,640,641	RESISTOR 2.2 ohm	001-022851-016	5
R622,623,633,642,643	RESISTOR 2.7 Kohm	001-027251-016	5
R652,687,688	RESISTOR 27 Kohm	001-027351-016	3
R661,675	*CdF RESISTOR 3.3 Kohm	001-033251-016	2
R655	*CdF RESISTOR 33 Kohm	001-033351-016	1
R683,684	RESISTOR 3.9K	001-039251-016	2
R501,502,503,504,505,506, 507,508,509,510,511,512,571, 572,605,614,615,626,627,636, 637	*CdF RESISTOR 4.7 Kohm	001-047251-016	21
R601	*CdF RESISTOR 47 Kohm	001-047351-016	1

## ELECTRICAL PARTS LIST - CONTINUED

Ref. No.	Description	Mfr's Part No.	Qty.
R649	RESISTOR 56 ohm	001-056051-016	1
R662,676	RESISTOR 6.2 Kohm	001-062251-016	2
R651,677,678,679,680	*CdF RESISTOR 6.8 Kohm	001-068251-016	5
R654	RESISTOR 8.2 Kohm	001-082251-016	1
<b>CAPACITORS</b>			
C647	CERAMIC CAP 100 pF/50V +-10%	003-010110-050	1
	CERAMIC CAP 0.002 uF/50V +80%-20%	003-020280-050	2
C659	CERAMIC CAP 0.02 uF/50V +80%-20%	003-020380-050	1
C893	CERAMIC CAP 0.04 uF/50V +80%-20%	003-040380-050	1
C612,613,625,636,637	CERAMIC CAP 470 pF/50V +-10%	003-047110-051	5
	TAPING (B TYPE/4mm)		
C660,680	#MYLAR CAP 0.01 uF/100V +-10%	004-010310-100	2
C618,619,631,642,643,661, 663,681,682	#MYLAR CAP 0.1 uF/50V +-10%	004-010410-050	9
C662,679	#MYLAR CAP 0.015 uF/100V +-5%	004-015350-100	2
C664,678	#MYLAR CAP 0.0022 uF/100V +-10%	004-022210-100	2
C646	#MYLAR CAP 0.033 uF/100V +-10%	004-033310-100	1
C648	#MYLAR CAP 0.068 uF/100V +-10%	004-068310-100	1
C614,615,627,638,639,645, 665,666,668,669,670,671,672, 674,675,676,684	ELECT CAP 1 MFD/50V +-20% (5x11)	006-001000-50D	17
C644,667,673,683,685	ELECT CAP 2.2 MFD/50V +-20% (5x11)	006-002000-50D	5
C677	ELECT CAP 10 MFD/50V +-20% (5x11)	006-010000-50D	1
C610,611,622,623,634,635, 650	ELECT CAP 100 MFD/16V +-20% (5x11)	006-010100-16D	7
C658	ELECT CAP 1000 MFD/16V +-20% (10x20)	006-010200-16D	1
C616,617,629,640,641	ELECT CAP 1000 MFD/25V +-20% (12.5x20)	006-010200-25D	5
C601,602,603	ELECT CAP 1000 MFD/50V +-20%(16x25)	006-010200-50D	3
C604	ELECT CAP 220 MFD/16V +-20% (6.3x11) (SA16V221M)	006-022101-16D	1
C605,606,607,608,609,620, 621,632,633,649	*CdF ELECT CAP 47 MFD/16V +-20% (5x11)	006-047000-16D	10
<b>TRANSISTORS</b>			
Q522,523,602,606,607,608, 609,610,611,613	TRLNPNST-TAP&TO-092 3DG1815	008-618150-000	10
Q603	TR PNPGEN-TAP&SC-072 DTA123ESA (ROHM) (88-WA2-662-08)	008-800123-003	1
Q601	TR NPNSST-RAD&SC-072 DTC114ES (ROHM)	008-801141-000	1
Q571,615	TR PNPST-RAD&SC-072 DTA114TS/A (ROHM) KRA-111M (KEC)	008-801142-000	2
<b>INTEGRATED CIRCUITS</b>			
IC605	ICAUDIOLEVELSENSOR PT2322-S (SOP) 6-CHANNEL AUDIO PROCESSOR (ANGUS)	010-142322-000	1
IC604	ICAMP-OP-02CH-DUALV D4558 (DIP8)	010-334558-000	1
IC601,602,603	ICAMP-POWR-&&-&&&&W TA8258H (TOSHIBA)	010-838258-000	3
<b>DIODES</b>			
D601,602,603,604,605,606, 607,608	DIODE IN-4148 ROHM/TELEFUNKEN TAP**50 KEL(NS)(TAP:52mm)/NS(FAIRCHILD)/SEMTECH	011-004148-000	8
<b>INDUCTORS</b>			
L601	INDUCTOR 47uH CEC-470K/708032 +-10%	018-010476-000	1
FB501,502,503,504	LAL03TB470K/AL0305-470K FERRITE BEAD INDUCTOR #PIO243NL R6H 5x3.6	032-100243-000	4
<b>WIRES</b>			



**ELECTRICAL PARTS LIST - CONTINUED**

Ref. No.	Description	Mfr's Part No.	Qty.
R883,886	*CdF RESISTOR 4.7 Kohm	001-047251-016	2
<b>CAPACITORS</b>			
C881,886	ELECT CAP 10 MFD/50V +-20% (5x11)	006-010000-50D	2
C909	ELECT CAP 100 MFD/16V +-20% (5x11)	006-010100-16D	1
C883,884,885,905,906,907	ELECT CAP 22 MFD/25V +-20% (5x11)	006-022000-25D	6
<b>TRANSISTORS</b>			
Q852	TRLNPNST-TAP&TO-092 3DG1815	008-618150-000	1
Q851	TRLNPPWR-TAP&TO-092 3CA8550	008-685500-000	1
<b>DIODES</b>			
D882,883,884,889,890,891	DIODE IN-4148 ROHM/TELEFUNKEN TAP**50 KEL(NS)(TAP:52mm)/NS(FAIRCHILD)/SEMTECH	011-004148-000	6
<b>INDUCTOR</b>			
L881	INDUCTOR 47uH CEC-470K/708032 +-10% LAL03TB470K/AL0305-470K	018-010476-000	1
<b>WIRE</b>			
WH802	HSG 3CD4-3A JST PHR 2mm w/330mm RED, BLK,WHT AWG28#UL1571 SLDG 5mm	136-033CD4-200	1
<b>MISCELLANEOUS</b>			
	COOLING FAN DC9V 0.14A DC BRUSHLESS #5010H12S NF1 50x50x10mm	100-090009-000	1
WH806	HEADER 3 PINS PEC #2001-WS-3 PITCH 2mm VERTICAL REPLACE:135-PHS030-030	135-2001WS-030	1
<b>FRONT PANEL SECTION</b>			
<b>RESISTORS [All are +-5% 1/16W (1/8W) tape &amp; wheel resistors unless otherwise specified]</b>			
R368,369,375,376,377,378	*CdF RESISTOR 100 ohm	001-010151-016	6
R372 TO R379	*CdF RESISTOR 1 Kohm	001-010251-016	1
R358	*CdF RESISTOR 10 Kohm	001-010351-016	1
R354	*CdF RESISTOR 1.5K	001-015251-016	1
R373	*CdF RESISTOR 220 ohm	001-022151-016	1
R355	*CdF RESISTOR 2.2 Kohm	001-022251-016	1
R353	*CdF RESISTOR 22 Kohm	001-022351-016	1
R356	*CdF RESISTOR 3.3 Kohm	001-033251-016	1
R359	*CdF RESISTOR 33 Kohm	001-033351-016	1
R370	RESISTOR 390 ohm	001-039151-016	1
JP319	RESISTOR 47 ohm	001-047051-016	1
R352,372	*CdF RESISTOR 4.7 Kohm	001-047251-016	2
R351	*CdF RESISTOR 47 Kohm	001-047351-016	1
R379	RESISTOR 51 Kohm	001-051351-016	1
R357	RESISTOR 5.6 Kohm	001-056251-016	1
<b>CAPACITORS</b>			
JP319 TO GND	CERAMIC CAP 0.1 uF/16V +80%-20%	003-010480-016	1
C310	ELECT CAP 47 MFD/10V +-20% (SMALL SIZE) (5x7)	006-147000-10D	1
<b>INTEGRATED CIRCUIT</b>			
IC304	ICDISPLAYDRIVER-VFD PT6311/PT6318 (ANGUS) TP6311Q	010-146311-001	1
<b>SWITCHES</b>			
SW308,309	TACT SWITCH 4P 3.85mm 100G #1102VA-4 (=021-KHH913-000)	021-110200-000	2
SW301,302,303,304,305,306, 307,312	TACT SWITCH 4P 5mm 100G #1102A-4/ EVQ PAC 05R (=021-KHH901-000)	021-110200-002	8
<b>WIRES</b>			
WH308	HSG CD668R-2B JST PHR 2mm w/300mm RED BLK AWG28#1095 UL JP SLDG 4mm (CdF)	136-020668-201	1

**ELECTRICAL PARTS LIST - CONTINUED**

Ref. No.	Description	Mfr's Part No.	Qty.
WH310	HSG VCD30D-4A JST PHR-04 w/150mm BLK,BRN,RED,ORG AWG28#UL1007 SLDG 3mm HSG CD363-10D PIN JST PHR w/150mm R,BK, W,Y,BL,O,R,BK,W,Y JP AWG28#1095 SLDG 5mm	136-04V30D-200 136-100363-203	1 1
<b>MISCELLANEOUS</b>			
LED303,304	LED-G-2X5M-N- &&&&& SE-6221AT/W25153GHD 2x5mm GREEN 21mm LEAD	110-003421-205	2
LED301	LED-B-5MM&-S-STP-&&& W05315BSC-3T/ W05310BSC-V 5mm SUPER BRIGHT BLUE	110-053152-005	1
SR301	REMOTE/CONTROL PHOTO RECEIVER ROHM/RPM7138-V4	111-007138-000	1
	VFD-2COL100x20.5SM-033P VACUUM FLUORESCENT DISPLAY #VFD20-1002 (ZEC)	115-001002-000	1
WH301	HEADER CTL 10 PINS PHS-10 PITCH 2mm STRAIGHT TYPE WHT COLOR (MARKING:HR)	135-PHS100-100	1
<b>LINEAR POWER SUPPLY SECTION</b>			
<b>RESISTORS [All are +-5% 1/16W (1/8W) tape &amp; wheel resistors unless otherwise specified]</b>			
R821,822,823,824	*CdF RESISTOR 10 ohm	001-010051-016	4
R811,828	*CdF RESISTOR 1 Kohm	001-010251-016	2
R805,808,812,818,819,830, 843	*CdF RESISTOR 10 Kohm	001-010351-016	7
R807,820	*CdF RESISTOR 100 Kohm	001-010451-016	2
R802,815,825,835	*CdF RESISTOR 220 ohm	001-022151-016	4
R803,813,831	*CdF RESISTOR 22 Kohm	001-022351-016	3
R806	*CdF RESISTOR 33 ohm	001-033051-016	1
R829	*CdF RESISTOR 3.3 Kohm	001-033251-016	1
R804,816,826,827	*CdF RESISTOR 470 ohm	001-047151-016	4
R801	*CdF RESISTOR 4.7 Kohm	001-047251-016	1
R809,814,817	RESISTOR 5.6 Kohm	001-056251-016	3
R810	RESISTOR 680 ohm	001-068151-016	1
<b>CAPACITORS</b>			
C815,816	CERAMIC CAP 0.1 uF/16V +80%-20%	003-010480-016	2
C801,802,803,804,805,806, 807,808,810,812,814,818,821, 829,831,833,835,837,845	CERAMIC CAP 0.02 uF/50V +80%-20%	003-020380-050	19
C842	#MYLAR CAP 0.1 uF/50V +-10%	004-010410-050	1
C827,848	*CdF (F006-010000-16C) ELECT CAP 10 MFD/ 50V +-20% (VX/5x11)	006-010000-50C	2
C840,843,844,847,850	ELECT CAP 10 MFD/50V +-20% (5x11)	006-010000-50D	5
C817	ELECT CAP 100 MFD/16V +-20% (5x11)	006-010100-16D	1
C813,865	ELECT CAP 100 MFD/35V +-20% (8x11.5)	006-010100-35D	2
C849	ELECT CAP 1000 MFD/10V +-20% (10x16)	006-010200-10D	1
C820,832,839,851,836	ELECT CAP 220 MFD/16V +-20% (8x11.5)	006-022100-16D	5
C834	ELECT CAP 220 MFD/25V +-20% (8x11.5)	006-022100-25D	1
C830	ELECT CAP 2200 MFD/10V +-20% (VX/12.5x20)	006-022200-10C	1
C809,825	ELECT CAP 2200 MFD/16V +-20% (12.5x25)	006-022200-16D	2
C811	ELECT CAP 3300 MFD/25V +-20% (16x31.5)	006-033200-25D	1
C841	ELECT CAP 3300 MFD/50V +-20% (20x40)	006-033200-50D	1
C819	*CdF ELECT CAP 47 MFD/16V +-20% (5x11)	006-047000-16D	1
C856	ELECT CAP 47 MFD/35V +-20% (6.3x11)	006-047000-35D	1
C828,838,846,855	ELECT CAP 470 MFD/10V +-20% (8x11.5)	006-047100-10D	4
<b>TRANSISTORS</b>			
Q806,814	TRANSISTOR B1566E (LIGHTNING)	008-201566-100	2
Q807,815	TRLNPNST-TAP&TO-092 3CG1015/2SA1015	008-610150-000	2



**ELECTRICAL PARTS LIST - CONTINUED**

Ref. No.	Description	Mfr's Part No.	Qty.
Q801,805,813	TRLNPNST-TAP&TO-092 3DG1815	008-618150-000	3
Q808	TRLNPNPWR-TAP&TO-092 3DA8050	008-680500-000	1
Q809	TRLNPPWR-TAP&TO-092 3CA8550	008-685500-000	1
Q804,812	TR PNPGEN-TAP&SC-072 DTA123ESA (ROHM) (88-WA2-662-08)	008-800123-003	2
Q802,803,811	TR NPNSST-RAD&SC-072 DTC114ES (ROHM)	008-801141-000	3
<b>INTEGRATED CIRCUITS</b>			
IC801	(F010-207805-001) TR &&VOL-REG&TO-092 LM78L05ACZ 5V VOLTAGE REGULATOR	008-V07805-000	1
IC802,803	ICREGULA-P-005V001A BA05ST (ROHM)	010-400005-002	2
<b>DIODES</b>			
D810,811,815,816,817,818, 821,822,823,885	DIODE IN-4148 ROHM/TELEFUNKEN TAP**50 KEL(NS)(TAP:52mm)/NS(FAIRCHILD)/SEMTECH	011-004148-000	10
DZ801	ZENER DIODE #MTZJT-7224D 24V 1/2W	011-010024-120	1
DZ802	ZENER IN-5231B, HZ5C1, 5.1V, 1/2W	011-010051-120	1
DZ807	ZENER DIODE 6.2V #MTZJ6.2C	011-010062-005	1
	ZENER DIODE 10V #MTZJ10D 1/2W (ROHM)	011-010100-122	3
D825	BRIDGE RECTIFIER RS602(GOODWORK)/ RS602(DC)	011-020602-001	1
D809,819,820,824,892	RECTIFIER IN-4001B/IN-4001(DC)	011-024001-000	5
D801,802,803,804	(F011-005401-000) RECTIFIER IN-5401BL/ IN-5401(DC)	011-025401-000	4
D805,806,807,808	RECTIFIER IN5822/IN5822(DC)	011-025822-000	4
<b>INDUCTORS</b>			
L801,802,803,804	INDUCTOR 3.3 uH WIRE:D=0.6mm +-20% (R0002-CW68-3R3M-852243)/+-10%(RL6080-3R3K)	018-010337-300	4
L805	INDUCTOR 47 uH CEC-470K/708032 +-10% LAL03TB470K/AL0305-470K	018-010476-000	1
<b>WIRES</b>			
HEATSINK TO CAB.	JP WIRE AWG26#1007 3x3mm 60mm BLACK (CdF)	051-673060-009	1
	HSG (2.5mm) MOLEX 5264-08 TO JST 8P-SCN w/120mm BLACK,GREYx7 AWG26#UL1007	136-J00812-001	1
	HSG (2.5mm) PEC 2507H-09 TO 2501H-09 w/220mm RED,GREYx8 AWG24#UL1007	136-J10922-000	1
	HSG (3.96mm) YS TJ6-2Y w/150mm RED,BLACK AWG22#UL1007 SLDG 4mm	136-MZ0215-000	1
<b>MISCELLANEOUS</b>			
	⚠ PT1.5WEI28/12&F&WVDE 230V:12.4V w/FUSE 115°C (P2812-A15E)	123-053531-100	1
	⚠ PT090WEI66/50&F&BVDE 230V:28V/6.5V/ 12.5V/24V/4V w/FUSE 133C (ALCO 6650-230V)	123-E53591-500	1
F804	⚠ MICRO FUSE #251.630 630mA/125V WFF-215.630	124-006310-000	1
FS802,803	⚠ *CdF FUSE #S5.6 2.5A/250V 5x20mm, TIME LAG (CUL/VDE/SEMKO/BSI APP.)	124-025020-001	2
FS801	⚠ FUSE #21806.3 6.3A/250V 5x20mm TIME LAG (CUL/SEMKO/VDE/BSI/CCC/JIS/KOR)	124-063020-001	1
	⚠ RELAY 9V SDT-S-109LMR	128-090109-000	1
HEATSINK TO CAB.	SOLDERING LUG	137-300000-000	2
	⚠ PLA-ULN-7'05"-VDE-MG VDE APP. CORD 2250mm w/CUSHION MIGRATION (HARVEST)	134-B11331-006	1
CN803	HEADER 2 PINS #TJ6-2A PITCH:3.96mm VERTICAL 1.14mm AQUIRE PIN	135-000TJ6-020	1
CN802	HEADER 2 PINS YSVH-02P3 PITCH:7.92mm VERTICAL 1.14mm SQUARE PIN	135-00YSVH-020	1

**ELECTRICAL PARTS LIST - CONTINUED**

Ref. No.	Description	Mfr's Part No.	Qty.
WH805	HEADER 8 PINS PEC #2507-WS-8 PITCH 2.5mm	135-2507WS-080	1
WH803	VERTICAL REPLACE:135-005267-080 HEADER CTL 4 PINS PHS-04 PITCH 2mm STRAIGHT TYPE WHT COLOR (MARKING:HR)	135-PHS040-040	1
<b>MPEG+SERVO SECTION</b>			
<b>RESISTORS</b>			
R2,3,26,27,36,44,67,176,172, 187, RT204,209,210,212,213, 214,215, FB21,23,25,26 R166,167	CHIP RESISTOR 0 ohm +-5% 1/16W (0603/1608)	001-300052-016	21
R78,149,155	CHIP RESISTOR 10 ohm +-5% 1/10W (0805/2012) (MCR10EZJH-100)	001-310050-010	2
R10,47,48,151,154,197	CHIP RESISTOR 10 ohm +-5% 1/16W (0603/1608)	001-310052-016	3
R150,153,168	CHIP RESISTOR 1 Kohm +-5% 1/16W (0603/1608)	001-310252-016	6
R16,49,131,174,192,195	CHIP RESISTOR 10 Kohm +-1% 1/16W (0603/1608)	001-310312-016	3
R116,128,130,198	CHIP RESISTOR 10 Kohm +-5% 1/16W (0603/1608)	001-310352-016	6
R28,179,189	CHIP RESISTOR 100 Kohm +-5% 1/16W (0603/1608)	001-310452-016	4
R6,7,8,9	CHIP RESISTOR 1 Mohm +-5% 1/16W (0603/1608)	001-310552-016	3
R29,30,69,157	CHIP RESISTOR 1 ohm +-5% 1/16W (0603/1608)	001-310852-016	4
R135	CHIP RESISTOR 11 Kohm +-5% 1/16W (0603/1608)	001-311352-016	4
R72,84,95,106,117	CHIP RESISTOR 12 Kohm +-1% 1/16W (0603/1608)	001-312312-016	1
R140,141,142	CHIP RESISTOR 12 Kohm +-5% 1/16W (0603/1608)	001-312352-016	5
R139,143	CHIP RESISTOR 1.3 Kohm +-5% 1/16W (0603/1608)	001-313252-016	3
R191,194	CHIP RESISTOR 13 Kohm +-1% 1/16W	001-313312-016	2
R56,59	CHIP RESISTOR 1.5 Kohm +-5% 1/16W (0603/1608)	001-315252-016	2
R146	CHIP RESISTOR 180 ohm +-5% 1/16W (0603/1608)	001-318152-016	2
R74,86,98,108,119,133,170	CHIP RESISTOR 1.8 Mohm +-5% 1/16W (0603/1608)	001-318552-016	1
R57,58	CHIP RESISTOR 2 Kohm +-5% 1/16W (0603/1608)	001-320252-016	7
R62,63,71,83,94,102,111,125	CHIP RESISTOR 20 Kohm +-5% 1/16W (0603/1608)	001-320352-016	2
R68	CHIP RESISTOR 220 ohm +-5% 1/16W (0603/1608)	001-322152-016	8
R61,190,193	CHIP RESISTOR 2.2 Kohm +-5% 1/16W (0603/1608)	001-322252-016	1
R199	CHIP RESISTOR 22 Kohm +-5% 1/16W (0603/1608)	001-322352-016	3
R147	CHIP RESISTOR 2.4 Kohm +-5% 1/16W (0603/1608)	001-324252-016	1
R52,54	CHIP RESISTOR 2.4 Kohm +-1% 1/16W (0603/1608)	001-327312-016	1
R70,82,88,101,110	CHIP RESISTOR 27 Kohm +-5% 1/16W (0603/1608)	001-327352-016	2
R33,34,35,55,180,181,182, 183,184,185,188	CHIP RESISTOR 27 Kohm +-5% 1/16W (0603/1608)	001-330352-016	5
R64,134	CHIP RESISTOR 30 Kohm +-5% 1/16W (0603/1608)	001-333052-016	11
R73,85,96,107,118,132	CHIP RESISTOR 33 ohm +-5% 1/16W (0603/1608)	001-333152-016	2
R123	CHIP RESISTOR 33 Kohm +-5% 1/16W (0603/1608)	001-333252-016	6
R15	CHIP RESISTOR 33 Kohm +-5% 1/16W (0603/1608)	001-333352-016	1
R144,148	CHIP RESISTOR 392 ohm +-1% 1/16W (0603/1608)	001-339112-016	1
R1,65	CHIP RESISTOR 470 ohm +-1% 1/16W	001-347112-016	2
R21,24,38,39,40,43,45,46,136, 137,138,145,152,156,160,161, 162,163,165,169,177,178	(0603/1608) (MCR03MZSJ471) CHIP RESISTOR 470 ohm +-5% 1/16W (0603/1608)	001-347152-016	2
R51	CHIP RESISTOR 470 ohm +-5% 1/16W (0603/1608)	001-347252-016	22
R23,60	CHIP RESISTOR 4.7 Kohm +-5% 1/16W (0603/1608)	001-347452-016	1
R158,159,164,171,173,175	CHIP RESISTOR 47 Kohm +-5% 1/16W (0603/1608)	001-351352-016	2
R50	CHIP RESISTOR 51 Kohm +-5% 1/16W (0603/1608)	001-356252-016	6
R31,32	CHIP RESISTOR 5.6 Kohm +-5% 1/16W (0603/1608)	001-368052-016	1
R66	CHIP RESISTOR 68 ohm +-5% 1/16W (0603/1608) (TSB#G5101100Y101)	001-368252-016	2
	CHIP RESISTOR 6.8 Kohm +-5% 1/16W (0603/1608)	001-391052-016	1

**ELECTRICAL PARTS LIST - CONTINUED**

Ref. No.	Description	Mfr's Part No.	Qty.
R17,18,19,20	CHIP RESISTOR 75 ohm +-1% 1/16W (0603/1608) (TSB#G5101104G105)	001-375012-016	4
<b>CAPACITORS</b>			
C20,21,41,42,43,55,56,154	CHIP CAP 0.001 uF/25V +-10% (0603/1608) (GRM39B102K50) (MURATA)	003-510212-025	8
C18,19,35,36,37,38,40,53,60, 61,107,110,111	CHIP CAP 0.01 uF/25V +-10% (0603/1608) (MCH185C103KK/GRM39X7R103K25PT)	003-510312-025	13
C1,4,5,6,7,9,10,14,15,16,17, 22,23,24,25,26,27,28,29,30, 31,34,39,46,47,48,49,50,51, 52,57,58,59,62,64,65,66,67, 68,70,74,75,76,77,78,79,81, 83,85,87,93,94,95,96,97,98, 99,100,104,105,108,112,116, 118,125,130,163,164,172,173, 175,177,189,190,191,192,193, 194,196,197,198	CHIP CAP 0.1 uF/16V +-10% (0603/1608) (87-A10-260-08G) (C1608JB1C104K) (TDK)	003-510412-016	81
C91,103,109,115,122,129, 157,158,159,161	CHIP CAP 0.0022 uF/50V +-10% (0603/1608) (UMK107B222KZ-TM)	003-522212-050	10
C44,45	CHIP CAP 0.027 uF/25V +-10% (0603/1608)	003-527312-025	2
C127,146,170	CHIP CAP 0.033 uF/25V +-10% (0603/1608)	003-533312-025	3
C2	CHIP CAP 0.33 uF/10V +-10% (0603/1608)	003-533412-010	1
C145,147,148,150,151,152, 153	CHIP CAP 0.0047 uF/50V +-10% (0603/1608)	003-547212-050	7
C165,166,167	CHIP CAP 0.0056 uF/50V +-10% (0603/1608)	003-556212-050	3
C169	CHIP CAP 0.0068 uF/50V +-10% (0603/1608)	003-568212-050	1
C63,86	(F003-610112-050) CHIP CAP 100 pF/50V +-5% NPO (0603/1608)	003-610152-050	2
C131,132,133,134	CHIP CAP 11 pF/50V +-5% NPO (0603/1608) (MCH185A110JK)	003-611052-050	4
C88,101,106,113,119,135,137, 139,141	CHIP CAP 150 pf/50V +-5% NPO (0603/1608) (GRM39COG151J50PT/MCH185A151JK)	003-615152-050	9
C136,138,140,142	CHIP CAP 160 pF/50V +-5% NPO (0603/1608) (MCH185A161JK)	003-616152-050	4
C13,171,180,187	CHIP CAP 220 pF/50V +-5% NPO (0603/1608) (UMK107CH221JZ-T)	003-622152-050	4
C11,12	CHIP CAP 24 pF/50V +-5% NPO (0603/1608)	003-624052-050	2
C162	CHIP CAP 33 pF/50V +-5% NPO (0603/1608) (GRM39COG330J50PT/MCH185A330JK)	003-633052-050	1
C160	CHIP CAP 470 pF/50V +-5% NPO (0603/1608)	003-647152-050	1
C168	CHIP CAP 560 pF/50V +-5% NPO (0603/1608)	003-656152-050	1
CE23,25	ELECT CAP 0.47 MFD/50V +-20% (5x11)	006-000400-50D	2
CE9,22,24,26,27,28,29,30,31, 32,33,34,35,36,37	ELECT CAP 10 MFD/50V +-20% (5x11)	006-010000-50D	15
CE7,8,19,42,43,45,46,56,58	ELECT CAP 100 MFD/16V +-20% (5x11)	006-010100-16D	9
CE3,4,6,44,47,52,53,54,55,60, 64,65	ELECT CAP 22 MFD/25V +-20% (5x11)	006-022000-25D	12
CE20	ELECT CAP 220 MFD/16V +-20% (6.3x11) (SA16V221M)	006-022101-16D	1
CE10,11,12,13,14,21,48,50, 51,57,59,61,62,63,66	*CdF ELECT CAP 47 MFD/16V +-20% (5x11)	006-047000-16D	15
CE1,2	ELECT CAP 470 MFD/10V +-20% (8x11.5)	006-047100-10D	2
CE18	ELECT CAP 100 MFD/6.3V +-20% (SMALL SIZE) (5x7)	006-210100-06D	1

**ELECTRICAL PARTS LIST - CONTINUED**

Ref. No.	Description	Mfr's Part No.	Qty.
<b>TRANSISTORS</b>			
Q17	TR PNP&&&-TAP&8Q-ST8 TSMT6 QST8 LOW FREQ AMP	008-A00006-000	1
Q1,2,3,5,6,7,11,12,16	(F008-039040-000) CHIP TRANSISTOR MMBT3904	008-A03904-000	9
Q8,15	(F008-039060-000) CHIP TRANSISTOR MMBT3906	008-A03906-000	2
<b>CRYSTAL</b>			
Y1	CRYSTAL 27MHZ +-30ppm ALCCJBJ/HC-49/U	009-627000-007	1
<b>INTEGRATED CIRCUITS</b>			
U10	ICSPECIAL WM8772EDS (28 PIN SSOP)	010-038772-000	1
U11	ICAMP-OP-02CH-DUALV NJM4580E-T1 (TSB#G5147100L105)	010-274580-002	1
U15	ICMOTORDRIVER-04CH BA5983FM (ROHM)	010-405983-000	1
U19	ICREGULA-P-&&&V&&&A LD1117S/LM117MPX-ADJ RT9164CG(SOT-223)(ST/NATIONAL/RICHTEK)	010-721117-000	1
U17,18	ICREGULA-P-3.3V LD1117S33C/LM117MPX-3.3/ MP-3.3/RT9164-33CG (ST/NATIONAL/RICHTEK)	010-721117-001	2
U12,13	ICAMP-OP-02CH-DUALV LS4580F (SOP-8)	010-734580-000	2
U1	ICAMP-OP-&&CH-SINGV TL3472CD/R	010-823472-000	1
U9	ICLOGIC TC74HCU04AF-EL HEX INVERTER (TSB#G51451014108)	010-847404-001	1
U14	ICSPECIAL ZR36707TQC	010-893670-003	1
U2	ICMPEG ZR36768PQC	010-893676-000	1
U5	ICRAMF-01X008M 8M BIT(512Kx16) FLASH RAM SST39VF800A-70-4C-EK (0.25u)	045-F01008-202	1
U3,4	ICRAMS-01x016M W981616BH-7	045-Q01016-205	2
<b>DIODES</b>			
D1,2,3,4	RECTIFIER IN-4001B/IN-4001(DC)	011-024001-000	4
D7,8,11,12,13,14,15,16,17,18	CHIP DIODE (SMT) DL4148(DC)/LS4148(KT)	011-044148-002	10
<b>INDUCTORS</b>			
L2,3,4,5	CHIP COIL 1.1 uH +-10% SDFL1608Q1R1KT/ ZHFC11608B1R1KT (0603/1608) (TAPE & REEL)	018-040117-200	4
L1	C.COIL 2.7uH +-10% TAPE&REEL LK2125 2R7K-T/ CI201209-2R7K/SDFL2012Q2R7KT	018-040277-001	1
FB30,33	CHIP FERRITE BEAD #SZ1005K750T @100MHZ (1005) (SUNLORD)	032-101005-000	2
FB1,2,3,4,5,6,7,8,9,10,11,12, 13,14,16,17	CHIP FERRITE BEAD GZ1608Y102T (0603/1608) (SUNLORD)	032-101608-015	16
FB15,18,19,22,27,28,29,31,32, 36,38,39,40,41,42,44,45,46,47	CHIP FERRITE BEAD PZ2012U601-1R5T (0805/2012) (SUNLORD)	032-102012-002	19
<b>MISCELLANEOUS</b>			
J3	*CdF HEADER MOLEX 6 PINS 5267-06A PITCH 2.5mm STRAIGHT TYPE	135-005267-060	1
J5	FFC CONNECTOR 24 PINS PITCH:1mm 9615S-24A-PP-A/D100-SSA-24/S10024V VERT.	135-009615-240	1
J1	FFC CONNECTOR 24 PINS PITCH:1mm LG BRAND GF106-24S-LS/9615S-24C-PP HORIZONTAL	135-0GF106-240	1
J9	HEADER 9 PINS PEC #2507-WS-9 PITCH 2.5mm VERTICAL REPLACE:135-005267-090	135-2507WS-090	1
J4	*CdF HEADER CTL 6 PINS PHS-06 PITCH 2mm STRAIGHT TYPE WHT COLOR (MARKING:HR)	135-PHS060-060	1
<b>RDS SECTION</b>			
<b>RESISTORS</b>			
R458	CHIP RESISTOR 1 Kohm +-5% 1/16W (0603/1608)	001-310252-016	1
R471	CHIP RESISTOR 18 Kohm +-5% 1/16W (0603/1608)	001-318352-016	1

**ELECTRICAL PARTS LIST - CONTINUED**

Ref. No.	Description	Mfr's Part No.	Qty.
R454,456	CHIP RESISTOR 2.2 Kohm +-5% 1/16W (0603/1608)	001-322252-016	2
R457	CHIP RESISTOR 330 Kohm +-5% 1/16W (0603/1608)	001-333452-016	1
R455	CHIP RESISTOR 470 Kohm +-5% 1/16W (0603/1608)	001-347452-016	1
R453	CHIP RESISTOR 560 ohm +-5% 1/16W (0603/1608)	001-356152-016	1
<b>CAPACITORS</b>			
C459	CHIP CAP 0.1 uF/16V +-10% (0603/1608) (87-A10-260-08G) (C1608JB1C104K) (TDK)	003-510412-016	1
C454	CHIP CAP 0.0022 uF/50V +-10% (0603/1608) (UMK107B222KZ-TM)	003-522212-050	1
C452,453	CHIP CAP 0.022 uF/25V +-10% (0603/1608) (MCH182C223KK/GRM39X7R223K25PT)	003-522312-025	2
C456	CHIP CAP 0.047 uF/25V +-10% (0603/1608)	003-547312-025	1
C460	CHIP CAP 560 pF/50V +-10% (0603/1608)	003-556112-050	1
C457,458	CHIP CAP 33 pF/50V +-5% NPO (0603/1608) (GRM39COG330J50PT/MCH185A330JK)	003-633052-050	2
C461	ELECT CAP 2.2 MFD/50V +-20% (5x11)	006-002000-50D	1
C451	ELECT CAP 100 MFD/10V +-20% (5x11)	006-010100-10D	1
<b>TRANSISTORS</b>			
Q412,413	TR NPN SST-RAD&SC-059 2SC2712GR (CHIP) (89-327-125-08)	008-A02712-000	2
<b>CRYSTAL</b>			
CX402	CRYSTAL 4.332 MHz CSA309 CL=16pF CITIZEN (87-A70-091-01G)	009-604332-000	1
<b>INTEGRATED CIRCUIT</b>			
IC403	ICRDS DECODER BU1924F (ROHM)	010-351924-000	1
<b>DIODE</b>			
DZ402	ZENER IN-5231B, HZ5C1, 5.1V, 1/2W	011-010051-120	1
<b>INDUCTOR</b>			
L402	*CdF INDUCTOR 100 uH /1128/CEC-101K +-10% LAL03 TB 101K/ZHFAI03-101KT	018-010014-000	1
<b>SCART SECTION</b>			
<b>RESISTORS [All are +-5% 1/16W (1/8W) tape &amp; wheel resistors unless otherwise specified]</b>			
R715	*CdF RESISTOR 100 ohm	001-010151-016	1
R717,718,720	*CdF RESISTOR 10 Kohm	001-010351-016	3
R702,703	*CdF RESISTOR 12 Kohm	001-012351-016	2
R701,706,722	RESISTOR 2.7 Kohm	001-027251-016	3
R721	*CdF RESISTOR 3.3 Kohm	001-033251-016	1
R708,709	*CdF RESISTOR 33 Kohm	001-033351-016	2
R710,711,712,707,719	*CdF RESISTOR 4.7 Kohm	001-047251-016	5
<b>CAPACITORS</b>			
C701,702	ELECT CAP 0.22 MFD/50V +-20% (VX/5x11)	006-000200-50C	2
C703,704	ELECT CAP 10 MFD/50V +-20% (5x11)	006-010000-50D	2
C711,712	ELECT CAP 100 MFD/16V +-20% (5x11)	006-010100-16D	2
<b>TRANSISTORS</b>			
Q701,702,708,709	TR NPN GEN-BUL&TO-092 3DG9014 (9014)	008-609014-000	4
<b>INDUCTORS</b>			
FB701,702,703,704,705,706,707	FERRITE BEAD INDUCTOR #PI0243NL R6H 5x3.6	032-100243-000	7
<b>WIRE</b>			
J2	FFC CABLE 22 PINS L=158mm 4+150+4 P:1mm UL2896 0.035x0.7	040-220158-100	1
<b>MISCELLANEOUS</b>			
WH702, J11	FFC CONN 6232 22 PINS w/o LOCK PITCH:1mm 00 6232 022 006 800 VERTICAL TYPE	135-006232-220	2

**ELECTRICAL PARTS LIST - CONTINUED**

Ref. No.	Description	Mfr's Part No.	Qty.
JK701	RGB CONNECTOR SOCKET 21 PINS HRC-021V-07(KUNMING)/MRC-021V-04(HONDA)	135-HRC021-210	1
<b>DVD MECHANISM SECTION - (STSD-010SMT)</b>			
<b>SWITCH</b>			
	LEAF SWITCH LS-121-0A (LUP FUNG)	022-001210-001	1
<b>WIRES</b>			
	HSG (2mm) JST PHR-05 TO PHR-05 w/258mm BR,RED,ORN,YEL,GN AWG28#UL1095	136-F00525-800	1
	HSG (2mm) JST PHR-06 TO PHR-06 w/188mm BR,RED,ORN,YEL,GN,BL AWG28#UL1095	136-F00618-800	1
	CONN PIN 3 PINS (3.5+58+3.5) PITCH 2mm UL AWG26#2651	050-030065-200	1
<b>MISCELLANEOUS</b>			
	DVD-FLC-01-SAMG-N DVD MECHANISM FOR CD-R MS-S21MG6 (SAMSUNG)	163-000216-000	1
CN1	(F135-2001WR-051) HEADER 5 PINS #A2001WR2-05/2001-WR-5 P:2mm HORIZONTAL	135-2001WR-050	1
	MOTOR-DC-006V-NORMAL 6V #RF-500TB-12560 (MABUCHI) 10gm (VA TYPE MOTOR)	151-061256-002	1
<b>TUNER SECTION</b>			
<b>RESISTORS [All are +-5% 1/16W (1/8W) tape &amp; wheel resistors unless otherwise specified]</b>			
R610	*CdF RESISTOR 1 Kohm	001-010251-016	1
R517,518,523,524,533	*CdF RESISTOR 10 Kohm	001-010351-016	5
R561,563	*CdF RESISTOR 100 Kohm	001-010451-016	2
R585,646,647	*CdF RESISTOR 150 ohm	001-015151-016	3
R539	*CdF RESISTOR 15 Kohm	001-015351-016	1
R521,562	*CdF RESISTOR 22 Kohm	001-022351-016	2
R525,526	RESISTOR 220 Kohm	001-022451-016	2
R535,536	RESISTOR 27 Kohm	001-027351-016	2
R527,528	*CdF RESISTOR 3.3 Kohm	001-033251-016	2
R529,530,541,560,564	*CdF RESISTOR 4.7 Kohm	001-047251-016	5
R538	*CdF RESISTOR 47 Kohm	001-047351-016	1
R537,540	RESISTOR 68K	001-068351-016	2
R519,520	*CdF RESISTOR 82 Kohm	001-082351-016	2
JP403,404,405,406,407,408, 409,421,423,425	CHIP RESISTOR 0 ohm +-5% 1/16W (0603/1608)	001-300052-016	10
R467	CHIP RESISTOR 10 ohm +-5% 1/16W (0603/1608)	001-310052-016	1
R415,430,431	CHIP RESISTOR 100 ohm +-5% 1/16W (0603/1608)	001-310152-016	3
R401,410,443,444,445,459, 465	CHIP RESISTOR 1 Kohm +-5% 1/16W (0603/1608)	001-310252-016	7
R451,461,409	CHIP RESISTOR 10 Kohm +-5% 1/16W (0603/1608)	001-310352-016	3
R402,403,435,448	CHIP RESISTOR 100 Kohm +-5% 1/16W (0603/1608)	001-310452-016	4
R420,421,442	CHIP RESISTOR 18 Kohm +-5% 1/16W (0603/1608)	001-318352-016	3
R406,416	CHIP RESISTOR 220 ohm +-5% 1/16W (0603/1608)	001-322152-016	2
R405,422,438	CHIP RESISTOR 2.2 Kohm +-5% 1/16W (0603/1608)	001-322252-016	3
R413,417,423	CHIP RESISTOR 22 Kohm +-5% 1/16W (0603/1608)	001-322352-016	3
R418	CHIP RESISTOR 2.7 Kohm +-5% 1/16W (0603/1608)	001-327252-016	1
R411,419,424,425,426,427, 452	CHIP RESISTOR 3.3 Kohm +-5% 1/16W (0603/1608)	001-333252-016	7
R404,407	CHIP RESISTOR 47 ohm +-5% 1/16W (0603/1608)	001-347052-016	2
R408	CHIP RESISTOR 470 ohm +-5% 1/16W (0603/1608)	001-347152-016	1
R428,429,436,447	CHIP RESISTOR 4.7 Kohm +-5% 1/16W (0603/1608)	001-347252-016	4
R446	CHIP RESISTOR 47 Kohm +-5% 1/16W (0603/1608) (MCR03EZHJ-473)	001-347352-016	1

**ELECTRICAL PARTS LIST - CONTINUED**

Ref. No.	Description	Mfr's Part No.	Qty.
R414	CHIP RESISTOR 56 ohm +-5% 1/16W (0603/1608)	001-356052-016	1
R437	CHIP RESISTOR 560 ohm +-5% 1/16W (0603/1608)	001-356152-016	1
R460	CHIP RESISTOR 5.6 Kohm +-5% 1/16W (0603/1608)	001-356252-016	1
R412	CHIP RESISTOR 680 ohm +-5% 1/16W (0603/1608)	001-368152-016	1
R466	CHIP RESISTOR 8.2 Kohm +-5% 1/16W (0603/1608)	001-382252-016	1
<b>CAPACITORS</b>			
C511,512	CERAMIC CAP 100 pF/50V +-10%	003-010110-050	2
C421	CHIP CAP 0.001 uF/50V +-10% (0603/1608) (MCH185C102KK/GRM39X7R102K50PT)	003-510212-050	1
C403,404,409,410,415	CHIP CAP 0.01 uF/50V +-10% (0603/1608) (GRM39B103K50PT)	003-510312-050	5
C418,427,436	CHIP CAP 0.1 uF/16V +-10% (0603/1608) (87-A10-260-08G) (C1608JB1C104K) (TDK)	003-510412-016	3
C422,428,429,432,433	CHIP CAP 0.015 uF/50V +-10% (0603/1608)	003-515312-050	5
C438	CHIP CAP 0.0022 uF/50V +-10% (0603/1608) (UMK107B222KZ-TM)	003-522212-050	1
C402,405,411,414,439,441,444,466	CHIP CAP 0.022 uF/50V +-10% (0603/1608)	003-522312-050	8
C473,476	CHIP CAP 0.0047 uF/50V +-10% (0603/1608)	003-547212-050	2
C406	CHIP CAP 0.047 uF/25V +-10% (0603/1608)	003-547312-025	1
C423	CHIP CAP 0.47 uF/10V +-10% (0603/1608) (LMK107BL474KA-T)	003-547412-010	1
C424	(F003-556382-016) CHIP CAP 0.056 uF/ 16V +-10 (0603/1608)	003-556312-016	1
C420,448,449	(F003-610112-050) CHIP CAP 100 pF/ 50V +-5% NPO (0603/1608)	003-610152-050	3
C413	CHIP CAP 15 pF/50V +-5% NPO (0603/1608) (UMK107CH150JZ-TM)	003-615052-050	1
C446,447	CHIP CAP 24 pF/50V +-5% NPO (0603/1608)	003-624052-050	2
C475	(F003-527012-050) CHIP CAP 27 pF/50V +-5% NPO (0603/1608)(UMK107CH270JZ-TM)	003-627052-050	1
C523,524	#MYLAR CAP 0.033 uF/100V +-5%	004-033350-100	2
C412	POLY CAP 350 pF/100V +-5% (RADIAL TYPE) (1A351J/MILOSONIC) (PSR351J/HONJU)	005-035100-100	1
C521,522	ELECT CAP 0.22 MFD/50V +-20%(5x11)	006-000200-50D	2
C507,508	*CdF ELECT CAP 0.47 MFD/50V +-20% (VX/5x11)	006-000400-50C	2
C425,467,468	ELECT CAP 0.47 MFD/50V +-20% (5x11)	006-000400-50D	3
C417,426,430,431,517,518,519,520,891,892,894,895,896,897,900,902,903,904	ELECT CAP 1 MFD/50V +-20% (5x11)	006-001000-50D	18
C513,514,515,516,525,910	ELECT CAP 4.7 MFD/50V +-20% (5x11)	006-004000-50D	6
C435	ELECT CAP 10 MFD/50V +-20% (5x11)	006-010000-50D	1
C437,465,470,560,654,655	ELECT CAP 100 MFD/16V +-20% (5x11)	006-010100-16D	6
C419	ELECT CAP 22 MFD/25V +-20% (5x11)	006-022000-25D	1
C416,442	ELECT CAP 220 MFD/10V +-20% (6.3x11)	006-022100-10D	2
C471	ELECT CAP 220 MFD/16V +-20% (8x11.5)	006-022100-16D	1
C408,509	*CdF ELECT CAP 47 MFD/16V +-20% (5x11)	006-047000-16D	2
TC401	TRIMMER CAP CVN610 3-10pF WHITE (6x6x5mm) (JIN MYOUNG) (CdF)	007-200610-000	1
<b>TRANSISTORS</b>			
Q501,502	TRLNPNSSST-TAP&TO-092 3DG1815	008-618150-000	2
Q604	TRLPNPPWR-TAP&TO-092 3CA8550	008-685500-000	1
Q605	TR NPNSST-RAD&SC-072 DTC114ES (ROHM)	008-801141-000	1

**ELECTRICAL PARTS LIST - CONTINUED**

Ref. No.	Description	Mfr's Part No.	Qty.
Q402	CHIP NJFET SST201/SST201B-T1 (SILICONIX) 2SK208Y TOSHIBA	008-A00201-010	1
Q409,410	TR PNPPWR-RAD&SC-059 2SA1036K (CHIP)	008-A01036-000	2
Q403,404,405,411	TR NPNSST-RAD&SC-059 2SC2712GR (CHIP) (89-327-125-08)	008-A02712-000	4
<b>CRYSTAL</b>			
CX401	CRYSTAL 7.2 MHz HC-49/U/ALCCCAK	009-607200-000	1
<b>INTEGRATED CIRCUITS</b>			
IC501	ICANALOGSWT-4P2T BU4551BF QUAD 2 CHANNEL ANALOG MULTIPLEXER/DEMULPLEXERS	010-354551-000	1
IC502,506	ICAMP-OP-02CH-DUALV LS4558N	010-404558-003	2
IC401	ICRDS TA2099N (TOSHIBA) (87-A21-173-01)	010-832099-000	1
IC402	ICPLL TC9257F	010-849257-000	1
<b>DIODES</b>			
VD401,402	VARI CAP DIODE 2CC149	011-000149-001	2
D401,402,403,404	DIODE IN-4148 ROHM/TELEFUNKEN TAP**50 KEL(NS)(TAP:52mm)/NS(FAIRCHILD)/SEMTECH	011-004148-000	4
<b>INDUCTORS</b>			
T408,409	IFT 7PF038C 7.8mm BLACK =012-000022-078	012-000038-078	2
T405	IFT 7M4A1772R 7.5mm YELLOW =012-001720-075	012-001772-075	1
T403	IFT 7M1A1959R 7.5mm RED =012-001905-075	012-001959-075	1
T401	IFT 7M1A1961R 7.5mm BLACK =012-001950-075	012-001961-075	1
L401,403	*CdF INDUCTOR 100 uH /1128/CEC-101K +-10% LAL03 TB 101K/ZHFAI03-101KT	018-010014-000	2
<b>FILTERS</b>			
CF401,402	CERAMIC FILTER SFE10.7MS3-A	019-000107-006	2
CF404	CERAMIC FILTER CDA10.7MG82-A	019-000107-028	1
CF403	(F019-000450-002) CERAMIC FILTER LTU450G2/LT450GU	019-000450-012	1
<b>MISCELLANEOUS</b>			
	TUNER-FM&&00STATION FM FRONT END TUNER PET-3010F/H (EU) (TAE BONG)	042-103010-000	1
	JACK COAXIAL JACK HTR-401V	118-030401-000	1
JK401	HEADER MOLEX 2 PINS 5268-02A PITCH 2.5mm HORIZONTAL TYPE	135-005268-020	1
	PIN HEADER 13 PINS S40R20 PITCH:2mm SINGLE ROW RIGHT ANGLE	135-S40R20-130	1
<b>CENTRE SPEAKER SECTION - (SSQCE3)</b>			
<b>WIRE</b>			
FOR CT	SPK WIRE UL/CSA 2468 2x22AWG (17/0.16mm) TRANS.w/BK LINE 4M w/TUBE 1xYEL,BLK	122-002120-407	1
<b>MISCELLANEOUS</b>			
	SPK00003*006OHM020W w/BLK DOME CLOTH CAP #LF77SZ4314G50C6AS16CDB (GGEC)	131-306020-010	1
<b>SUB-WOOFER SECTION - (ASWT1)</b>			
<b>RESISTORS [All are +-5% 1/16W (1/8W) tape &amp; wheel resistors unless otherwise specified]</b>			
R367,504,508	*CdF RESISTOR 100 ohm	001-010151-016	3
R511,903,904	*CdF RESISTOR 1 Kohm	001-010251-016	3
R201,202,366,388,402,506,514,535	*CdF RESISTOR 10 Kohm	001-010351-016	8
R528,532	*CdF RESISTOR 100 Kohm	001-010451-016	2
R505	*CdF RESISTOR 12 Kohm	001-012351-016	1
R369,370	*CdF RESISTOR 1.5K	001-015251-016	2
R405,407	*CdF RESISTOR 15 Kohm	001-015351-016	2

**ELECTRICAL PARTS LIST - CONTINUED**

Ref. No.	Description	Mfr's Part No.	Qty.
R521	RESISTOR 1.8 Kohm +-5% 1/2W	001-018250-012	1
R519	RESISTOR 1.8 Kohm	001-018251-016	1
R410,411	*CdF RESISTOR 220 ohm	001-022151-016	2
R203,502,503	*CdF RESISTOR 2.2 Kohm	001-022251-016	3
R371,537,541,542	*CdF RESISTOR 22 Kohm	001-022351-016	4
R401	RESISTOR 220 Kohm	001-022451-016	1
R513,517	RESISTOR 0.22 ohm +-5% 3W (METAL FILM) (RSS3WS**J/MOS 3W 0.22ohm-TU)	001-022952-003	2
R373	RESISTOR 2.7 Kohm	001-027251-016	1
R536	RESISTOR 27 Kohm	001-027351-016	1
R512,901	RESISTOR 330 ohm +-5% 1W	001-033150-001	2
R525	*CdF RESISTOR 330 ohm +-5% 1/2W	001-033150-012	1
R304,509,530,531,539	*CdF RESISTOR 3.3 Kohm	001-033251-016	5
R515,518	*CdF RESISTOR 33 Kohm	001-033351-016	2
R527	RESISTOR 330K	001-033451-016	1
R403,533,534	*CdF RESISTOR 47 Kohm	001-047351-016	3
R520	RESISTOR 4.7 ohm +-5% 1W	001-047850-001	1
R507	RESISTOR 51 ohm	001-051051-016	1
R501	RESISTOR 56 Kohm	001-056351-016	1
JW511	*CdF RESISTOR 6.8 Kohm	001-068251-016	1
R404,406,529,538	RESISTOR 68K	001-068351-016	4
R902	RESISTOR 750 ohm +-5% 2W	001-075150-002	1
R510	RESISTOR 750 ohm	001-075151-016	1
R540	RESISTOR 8.2 Kohm	001-082251-016	1
<b>CAPACITORS</b>			
C201,401	CERAMIC CAP 100 pF/50V +-10% (UP050B101K-BB) (AXIAL TAPED 52mm)	003-210110-050	2
C307	CERAMIC CAP 0.01 uF/16V +-10% (AXIAL TAPED 52mm) RH050 TYPE	003-210310-016	1
C503,506,507,509	CERAMIC CAP 0.1 uF/25V +-10% (UP050B104K-BB) (AXIAL TAPED 52mm)	003-210410-025	4
C402	CERAMIC CAP 0.015 uF/50V +-10% (UP050B153K-B-BZ) (AXIAL TAPED 52mm)	003-215310-050	1
C508	CERAMIC CAP 33 pF/50V +-5% (UP050SL330J-BB) (AXIAL TAPED 52mm)	003-233050-050	1
C505	CERAMIC CAP 330 pF/50V +-10% (UP050B331K-BB) (AXIAL TAPED 52mm)	003-233110-050	1
C405	CERAMIC CAP 0.033 uF/50V +-10% (87-A11-138-08C) (AXIAL TAPED 52mm)	003-233310-050	1
C403,404,517	CERAMIC CAP 0.047 uF/50V +-10% (87-A11-140-08C) (AXIAL TAPED 52mm)	003-247310-050	3
C406	CERAMIC CAP 0.0068 uF/16V +-20% (AXIAL TAPED 52mm)	003-268220-016	1
C516	#MYLAR CAP 0.1 uF/50V +-10%	004-010410-050	1
C202,304,416	*CdF ELECT CAP 1 MFD/50V +-20% (VX/5x11)	006-001000-50C	3
C501	ELECT CAP 2.2 MFD/50V +-20% (VX/5x11)	006-002000-50C	1
C514	*CdF (F006-010000-16C) ELECT CAP 10 MFD/50V +-20% (VX/5x11)	006-010000-50C	1
C502,511,907,908	*CdF ELECT CAP 100 MFD/16V +-20% (5x11)	006-010100-16C	4
C512,513	ELECT CAP 100 MFD/25V +-20% (VX/6.3x11)	006-010100-25C	2
C522	ELECT CAP 100 MFD/50V +-20% (8x11.5)	006-010100-50D	1
C515	ELECT CAP 22 MFD/50V +-20% (VX/5x11)	006-022000-50C	1
C909,910	ELECT CAP 220 MFD/16V +-20% (VX/8x11.5)	006-022100-16C	2
C901,902	ELECT CAP 3300 MFD/35V +-20% (18x35)	006-033200-35D	2

**ELECTRICAL PARTS LIST - CONTINUED**

Ref. No.	Description	Mfr's Part No.	Qty.
C410,411,510	*CdF ELECT CAP 47 MFD/16V +-20% (VX SERIES/5x11)	006-047000-16C	3
C504,518	ELECT CAP 47 MFD/35V +-20%(6.3x11)	006-047000-35D	2
<b>TRANSISTORS</b>			
Q513	TR PNPPWR-RAD&TO-247 A1633E	008-101633-000	1
Q514	TR NPNPWR-RAD&TO-247 C4278E	008-304278-000	1
Q506,507,508,515,518	TR PNPSST-RAD&TO-092 3CG733P (2SA733P)	008-600733-000	5
Q401,501,502,503,504,505, 509,510,516,517	TR NPNSST-RAD&TO-092 3DG945P (2SC945P)	008-600945-000	10
Q511	TR PNPPWR-RAD&TO-92L(M) 3CG1013O (2SA1013O)	008-601013-000	1
Q512	TR NPNPWR-RAD&TO-92L(M) 3DG2383O (2SC2383O)	008-602383-000	1
Q902	TRLNPNPWR-TAP&TO-092 3DA8050	008-680500-000	1
Q901	TRLNPNPWR-TAP&TO-092 3CA8550	008-685500-000	1
<b>INTEGRATED CIRCUIT</b>			
IC401	IC LM-324N HA17324, CA-324E O.AMP	010-200324-000	1
<b>DIODES</b>			
D401,502,503,504,506	DIODE IN-4148 ROHM/TELEFUNKEN TAP**50 KEL(NS)(TAP:52mm)/NS(FAIRCHILD)/SEMTECH	011-004148-000	5
ZD501,502	ZENER DIODE MTZJT-72-12B 12V 1/2W (TSB#G51421015104)	011-010012-120	2
ZD901,902	ZENER DIODE MTZJ15C 15V 1/2W	011-010015-120	2
DB901	BRIDGE RECTIFIER RS602(GOODWORK)/ RS602(DC)	011-020602-001	1
D501,505	RECTIFIER IN-4001B/IN-4001(DC)	011-024001-000	2
<b>WIRES</b>			
	JP WIRE AWG20#1015 5x5mm 350mm RED	051-055350-006	1
	JP WIRE AWG20#1015 5x5mm 350mm BLACK	051-055350-009	1
	JP WIRE AWG22#1015 3x3mm 100mm GREY	051-253100-002	1
	JP WIRE AWG22#1015 3x3mm 100mm BLUE	051-253100-005	1
	HSG CD363-2C PIN MOLEX5264 2.5mm w/600mm	136-020363-251	1
	RED,BLK JP AWG26#1007 SLDG 4mm		
CN301	HSG 9338-107 2 PIN MOLEX 5264 w/150mm BLACK SINGLE SHIELD WIRE UL AWG28#1533	136-029338-001	1
<b>MISCELLANEOUS</b>			
	ROCKER SWITCH 1P1T #DRT-1106-0(10) (DEFOND) w/VDE/UL/CSA APP.	041-110002-230	1
	⚠ PT095WEI66/40&F&BEN& 230V:22.3Vx2 (L6640-B22E)	123-E33551-201	1
F901,902	⚠ FUSE #S506/TDS5065003 5A/250V 5x20mm TIME LAG(CUL/VDE/SEMKO/BSI APP) BUSSMANN	124-050020-000	2
	⚠ PLA-VDE-7'00"-VDE-MG 2133mm VDE APP LINE CORD MIGRATION (HARVEST)	134-B11331-016	1
	SOLDERING PIN	137-300000-002	4
	LED WLEDS03304G0HD0 3mm GREEN (HIGH BRIGHT)	110-033041-003	1
JK201	RCA JACK MTJ-032-12B-01 BLACK (MSC) HTJ-032-08BB (KUNMING)	118-020032-008	1
	RCA CORD 5000mm, w/MALE & FEMALE RCA PLUG BOTH END BLACK (SPH-1-0449/ASRCA501-BLK)	122-003120-500	1
	SPW006.5"004OHM0080W w/BK FLAT PAPER CAP (#SW165RZ5801G80F4AS26PFB)	131-654080-010	1

## ELECTRICAL PARTS LIST - CONTINUED

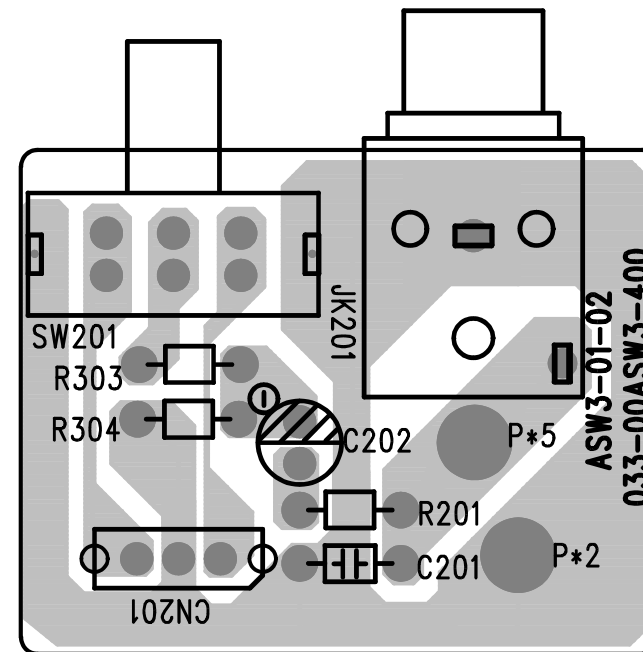
Ref. No.	Description	Mfr's Part No.	Qty.
RL501	RELAY 9V SDT-S-109LMR	128-090109-000	1
CN901	HEADER JMT 3 PINS JM2422-3 PITCH:3.96mm	135-002422-030	1
CN301	HEADER MOLEX 2 PINS 5267-02A PITCH 2.5mm STRAIGHT TYPE	135-005267-020	1
CN206	PIN HEADER 2 PINS TJC6-02P4 P:11.88mm VERTICAL 1.14mm SQUARE PIN	135-00TJC6-021	1
	HEADER 2 PINS PEC #2507-WS-2 PITCH 2.5mm VERTICAL REPLACE:135-005267-020	135-2507WS-020	1
<b>4-SPEAKER SECTION - (SSQE3)</b>			
<b>WIRES</b>			
FOR FL	SPK WIRE UL/CSA 2468 2x22 AWG 17/0.16mm TRANS. w/BK LINE 4M w/TUBE 1xWHT,BLK	122-002120-404	1
FOR FR	SPK WIRE UL/CSA 2468 2x22 AWG 17/0.16mm TRANS. w/BK LINE 4M w/TUBE 1xRED,BLK	122-002120-405	1
FOR SR	SPK WIRE UL/CSA 2468 2x22 AWG 17/0.16mm TRANS. w/BK LINE 10M w/TUBE 1xGREEN,BLK	122-002121-006	1
	SPK WIRE UL/CSA 2468 2x22 AWG 17/0.16mm TRANS. w/BK LINE 10M w/TUBE 1xBLUE,BLK	122-002121-007	1
<b>MISCELLANEOUS</b>			
	SPK00003"006OHM020W w/BLK DOME CLOTH CAP (#LF77SZ4314G50C6AS16CDB) (GGEC)	131-306020-010	4

**NOTES:**

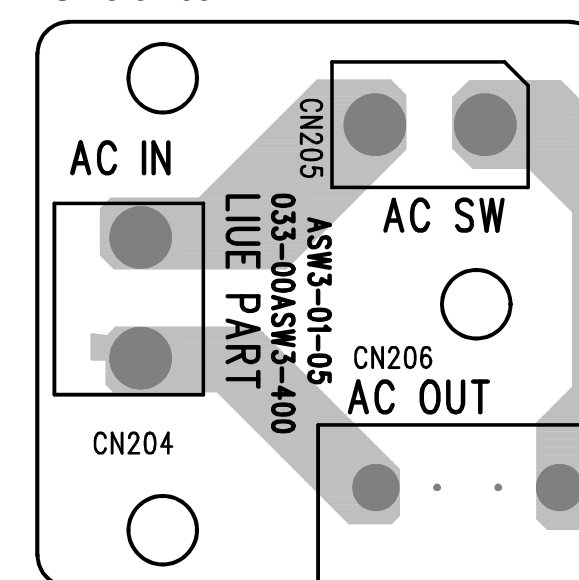
1. " # " Mylar is a registered trademark of E.I. Du Pont de Nemours and Company.
2. ⚠ Symbol in parts list represent safety parts.

## PRINTED CIRCUIT BOARDS

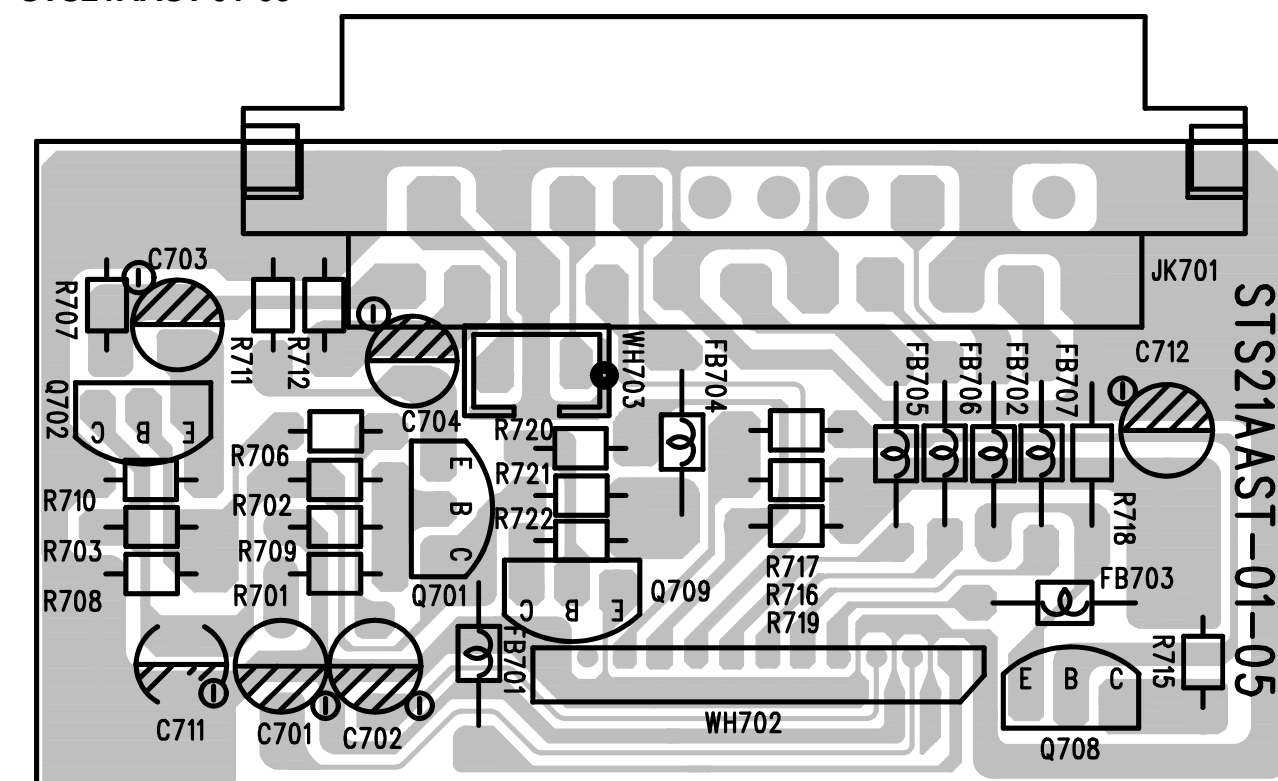
**SUBWOOFER IN PCB  
ASW3-01-02**



**AC IN PCB  
ASW3-01-05**



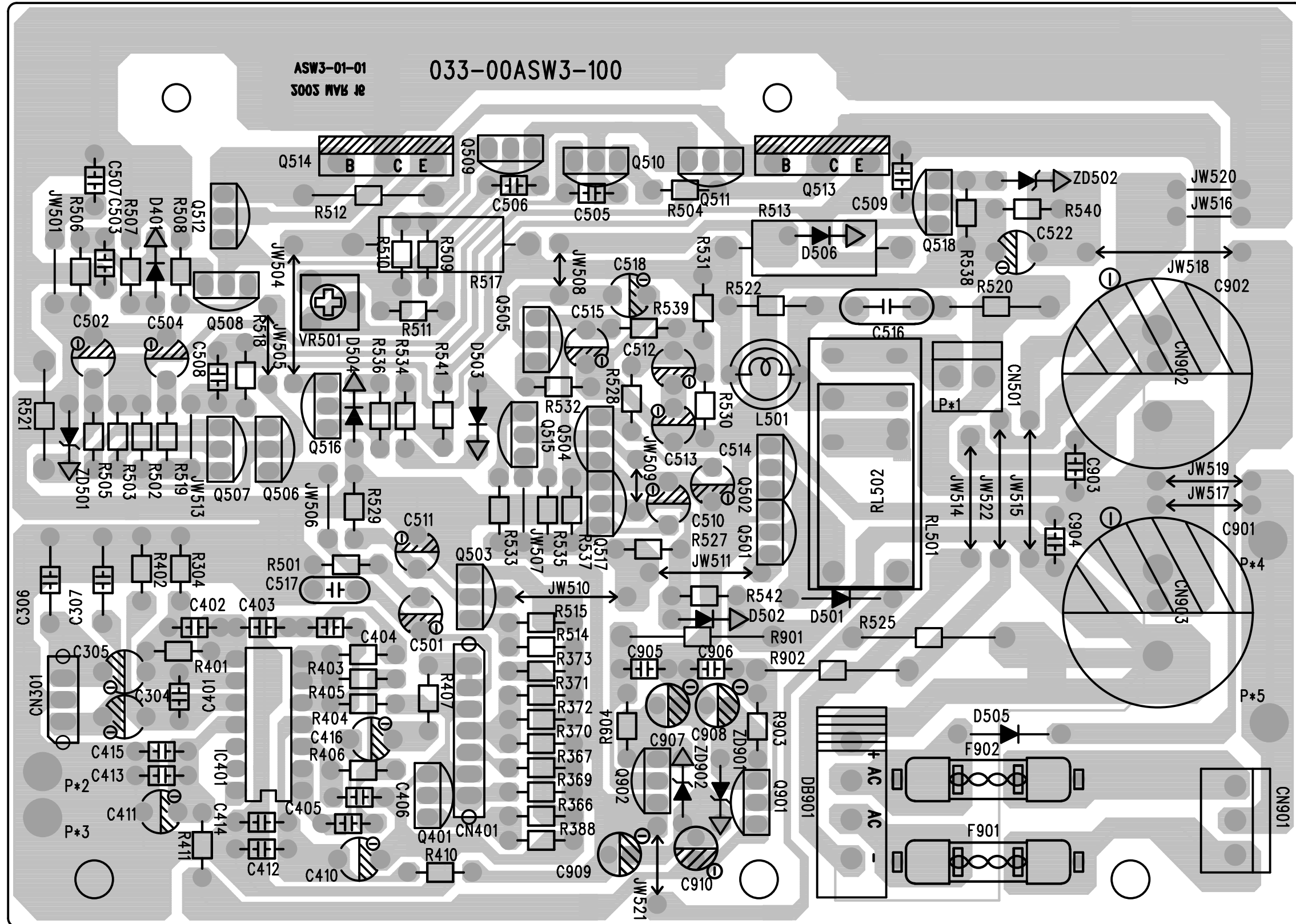
**SCART PCB  
STS21AAST-01-05**



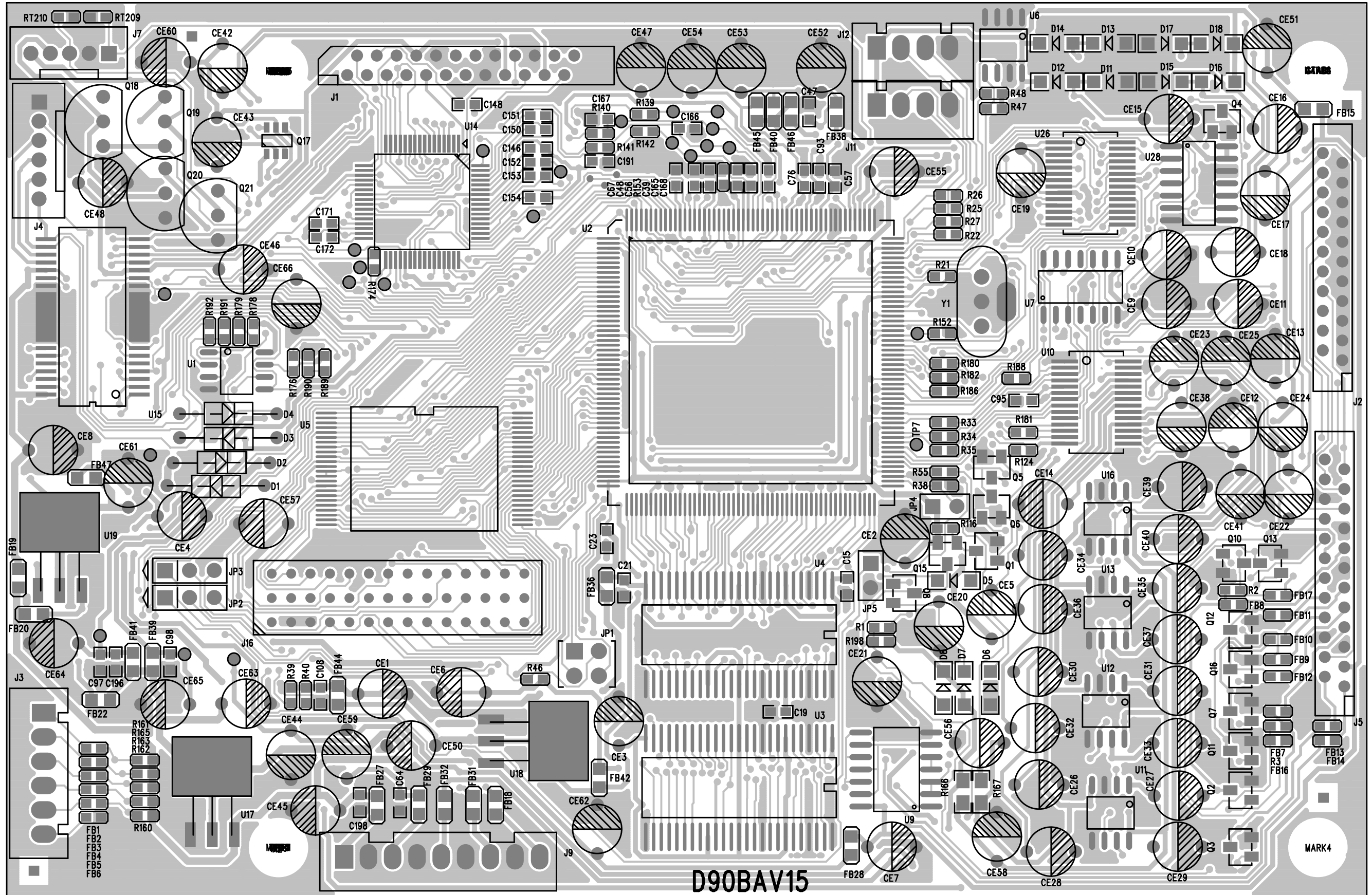
**NOTES:**

PCB Part No.: 033-ST21E-200, 033-00ASW3-400 of this model are assembled and aligned in FULL SET and are supplied in FULL SET for serving.

SUBWOOFER MAIN PCB  
ASW3-01-01

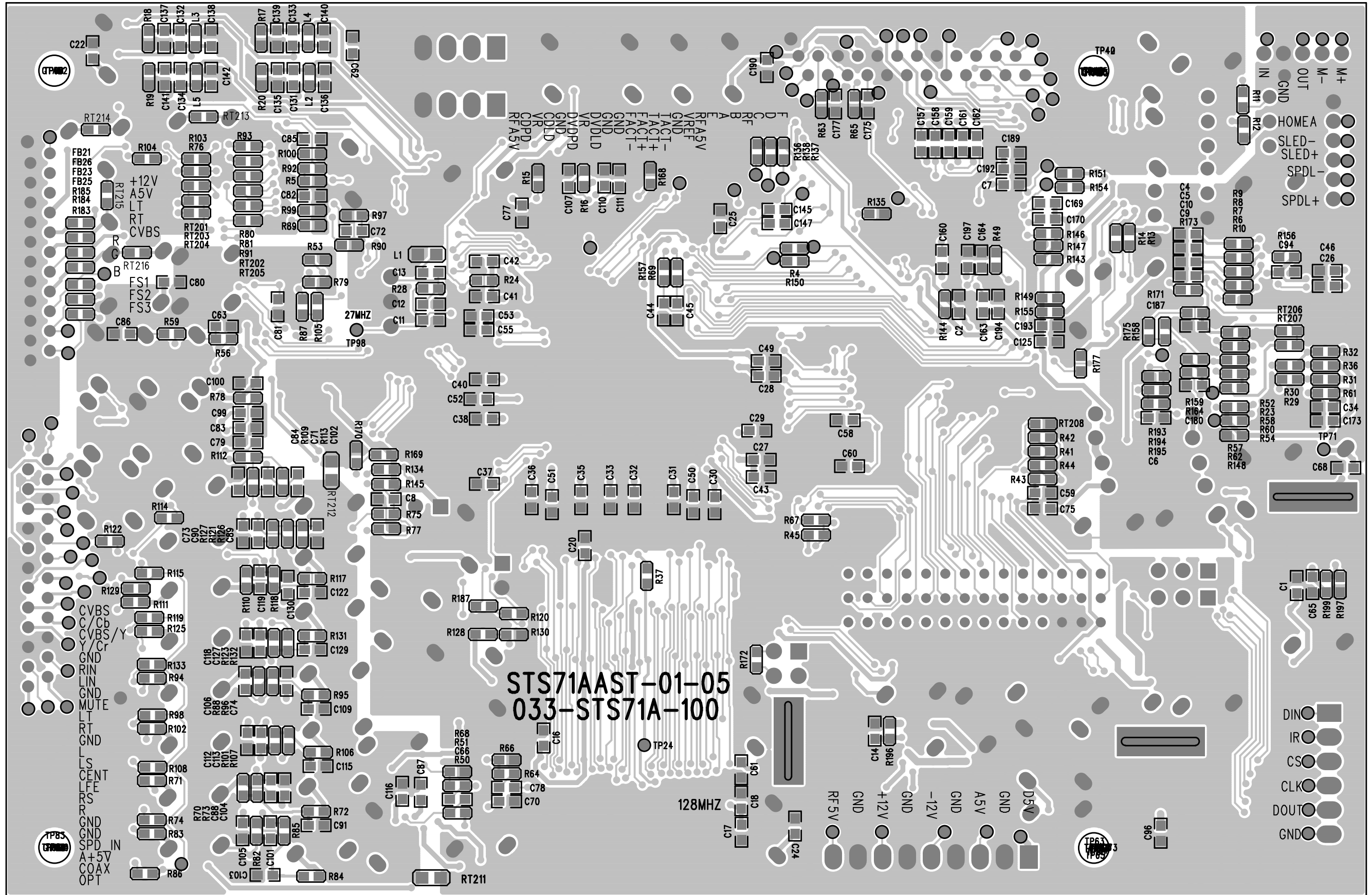


MPEG+SERVO PCB (TOP VIEW)  
STS71AAS-01-05

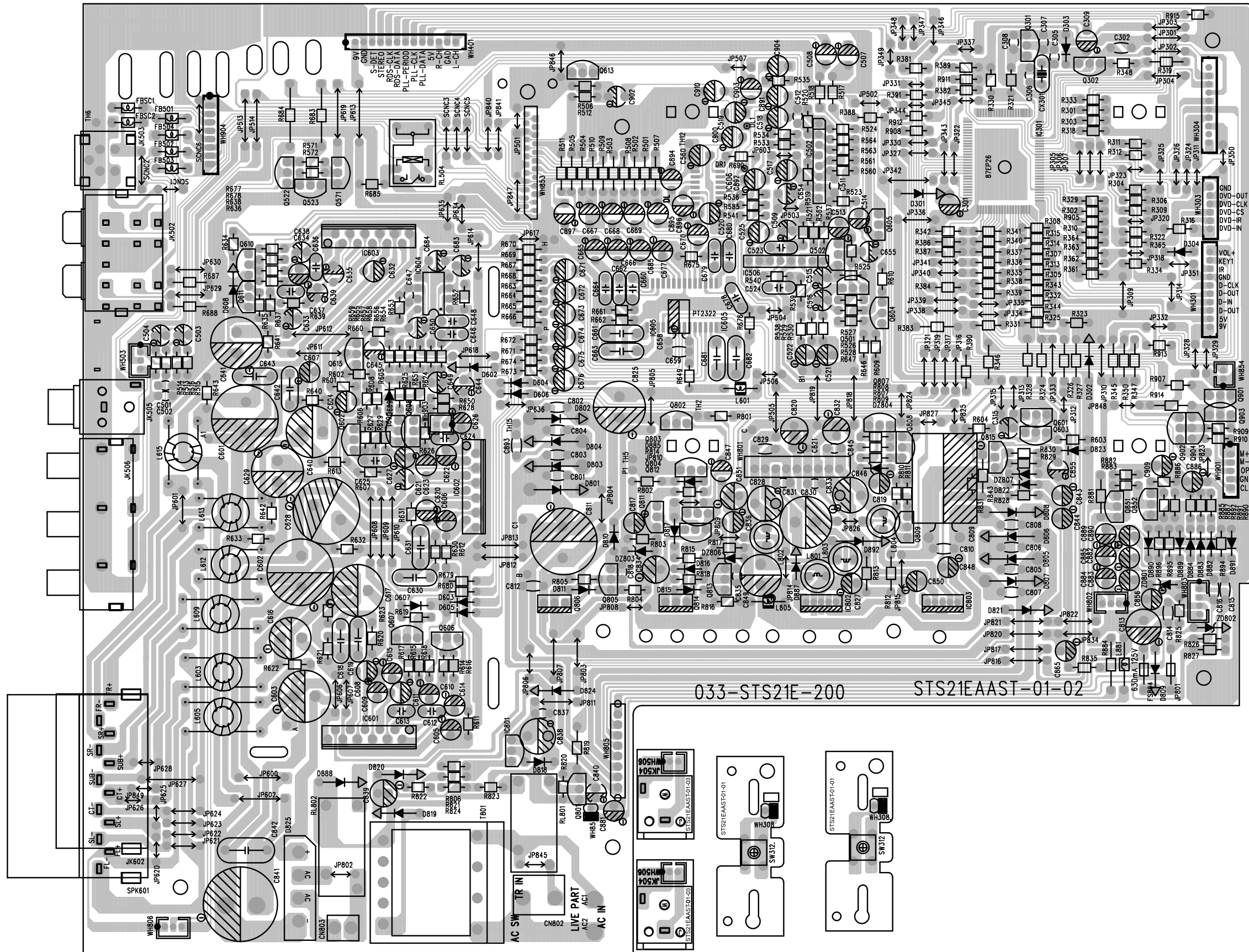




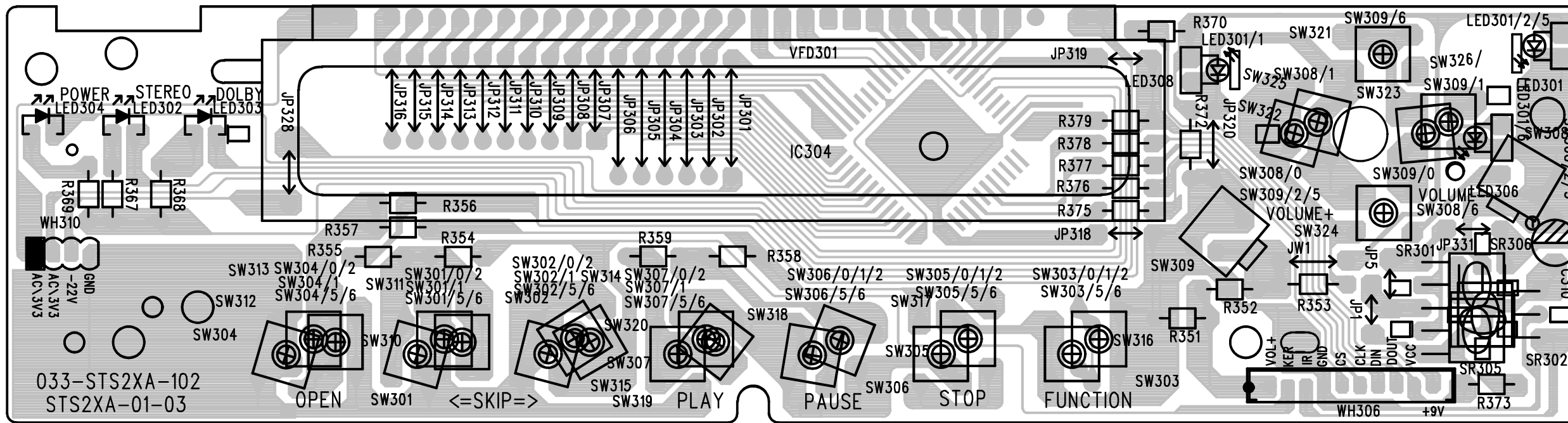
MPEG+SERVO PCB (BOTTOM VIEW)  
 STS71AAS-01-05



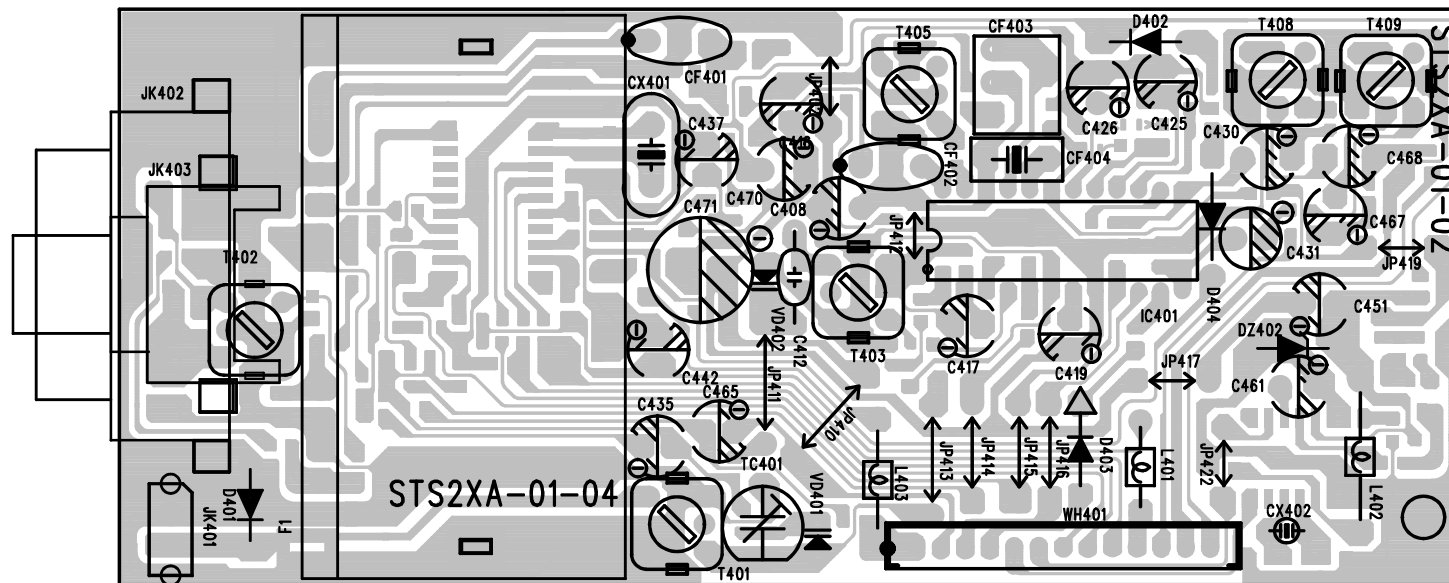
SUB-WOOFER OUTPUT PCB  
 STS21EAAST-01-03  
 MAIN PCB  
 STS21EAAST-01-02  
 POWER KEY PCB  
 STS21EAAST-01-01



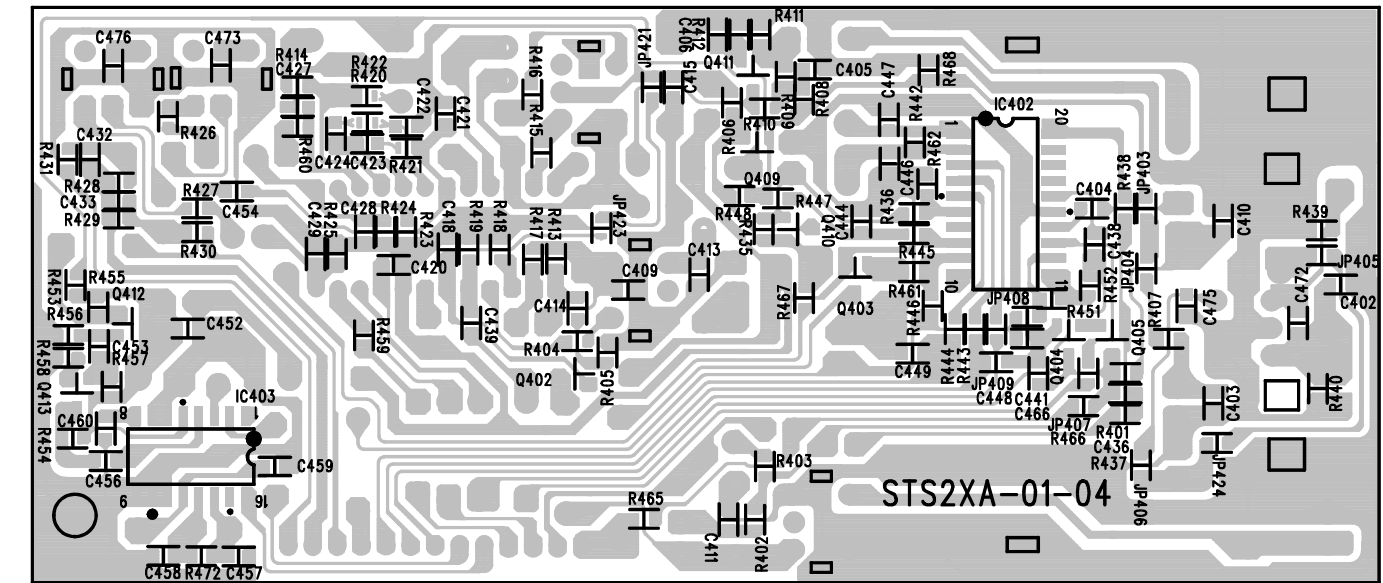
**DISPLAY & KEY PCB**  
STS21AAS-01-03



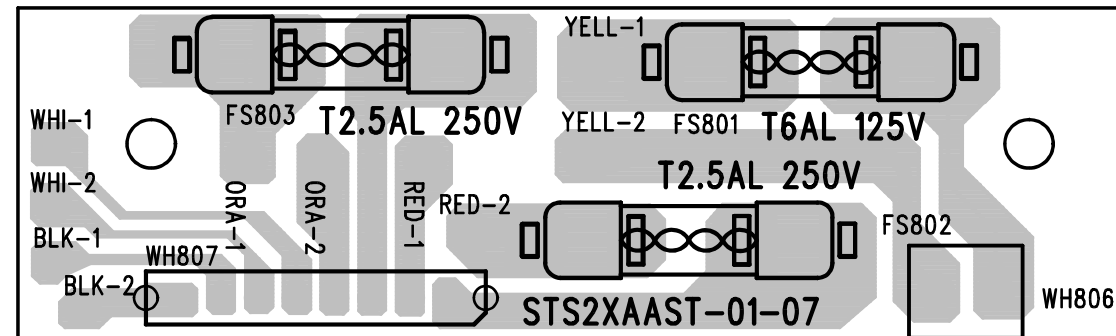
**TUNER PCB (TOP VIEW)**  
STS21AAS-01-04



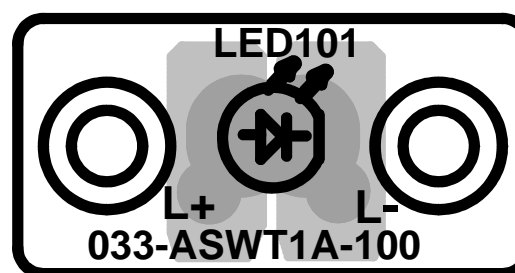
**TUNER PCB (BOTTOM VIEW)**  
STS21AAS-01-04



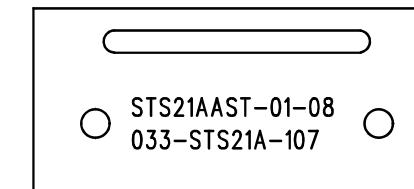
**FUSE PCB**  
STS21AAS-01-07



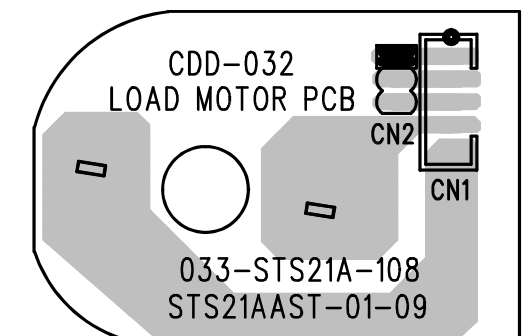
**LED PCB**  
ASWT1A-01-01



**BLANK PCB**  
STS21AAS-01-08

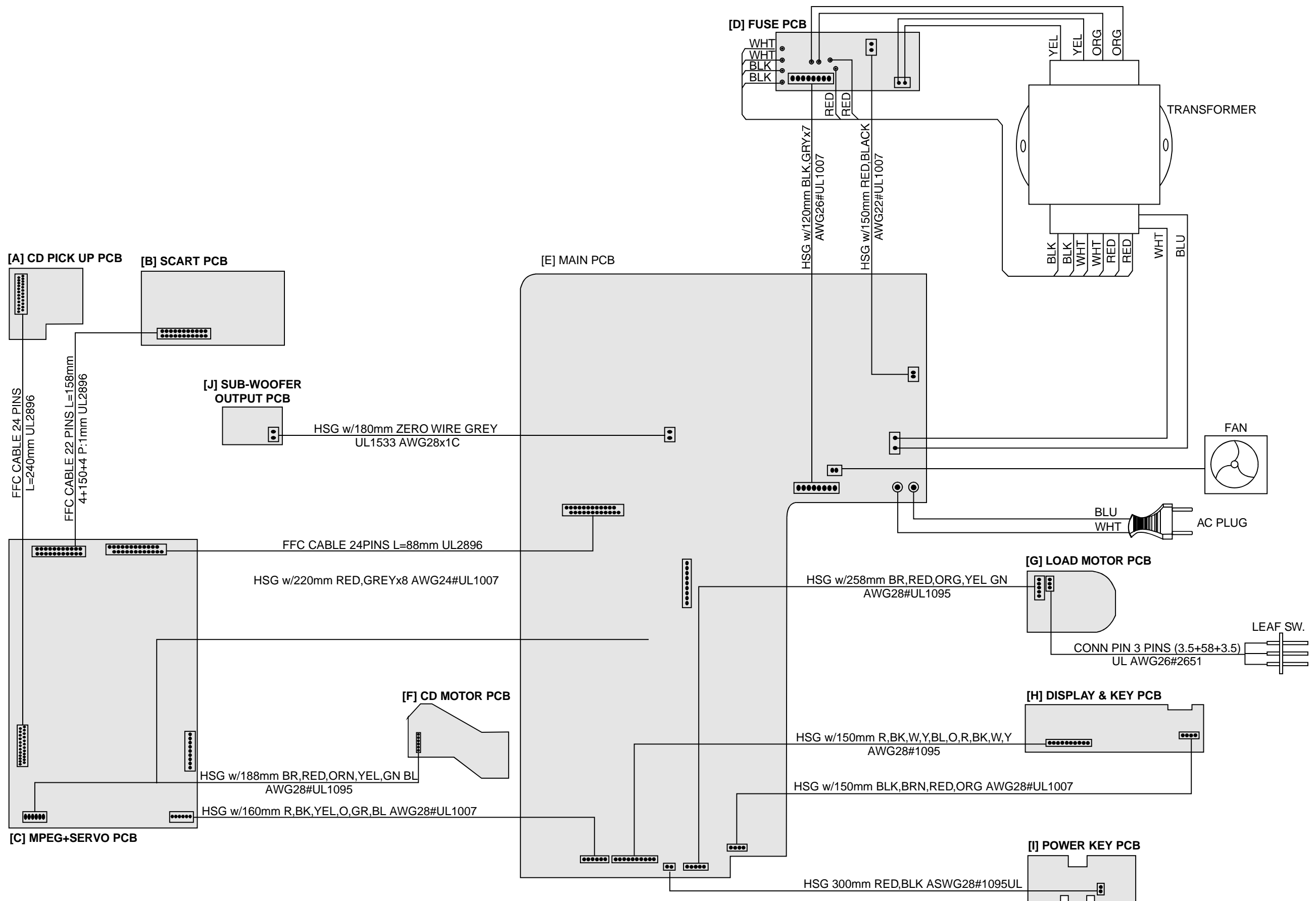


**LOAD MOTOR PCB**  
STS21AAS-01-09

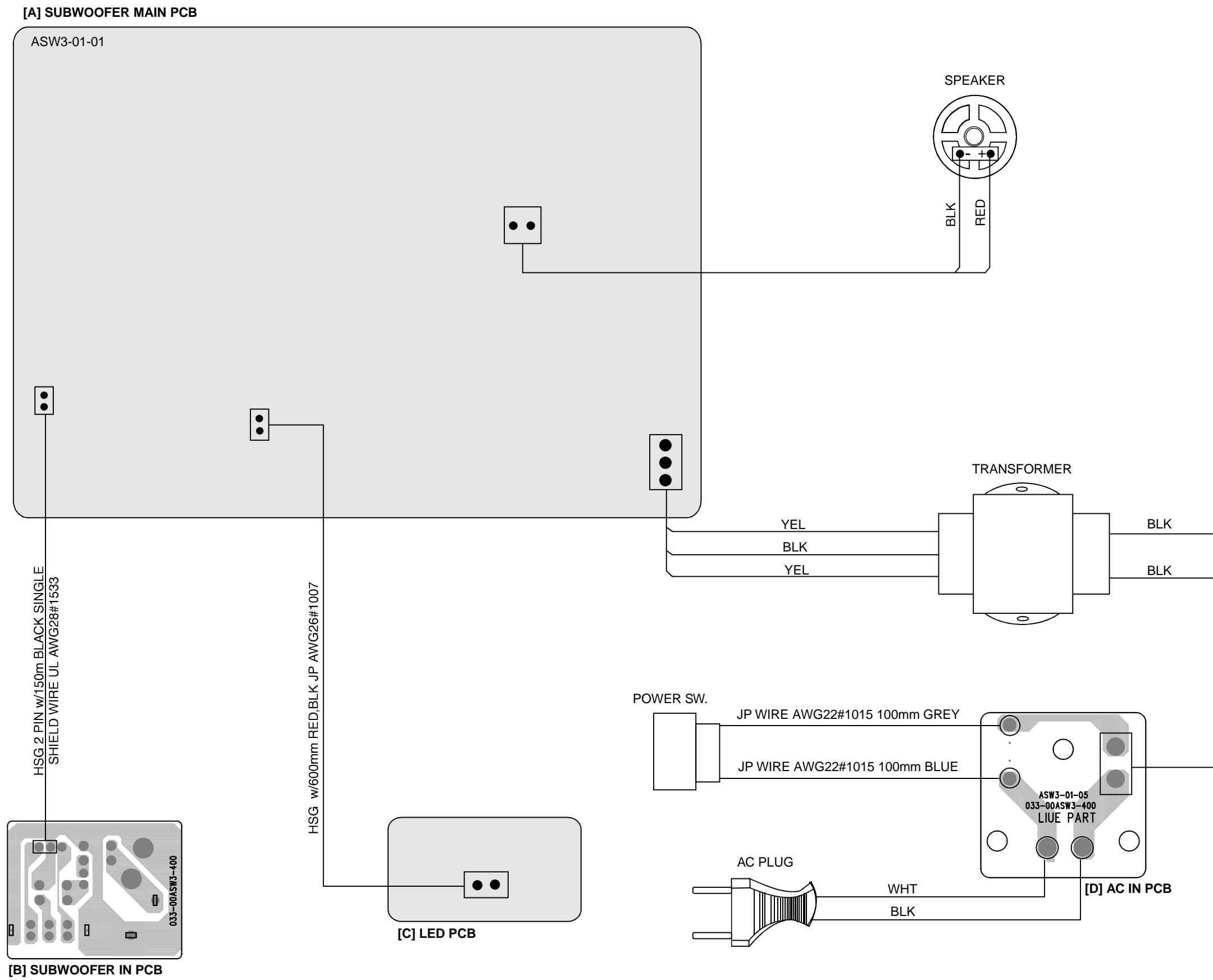


# WIRING DIAGRAMS

## MAIN UNIT

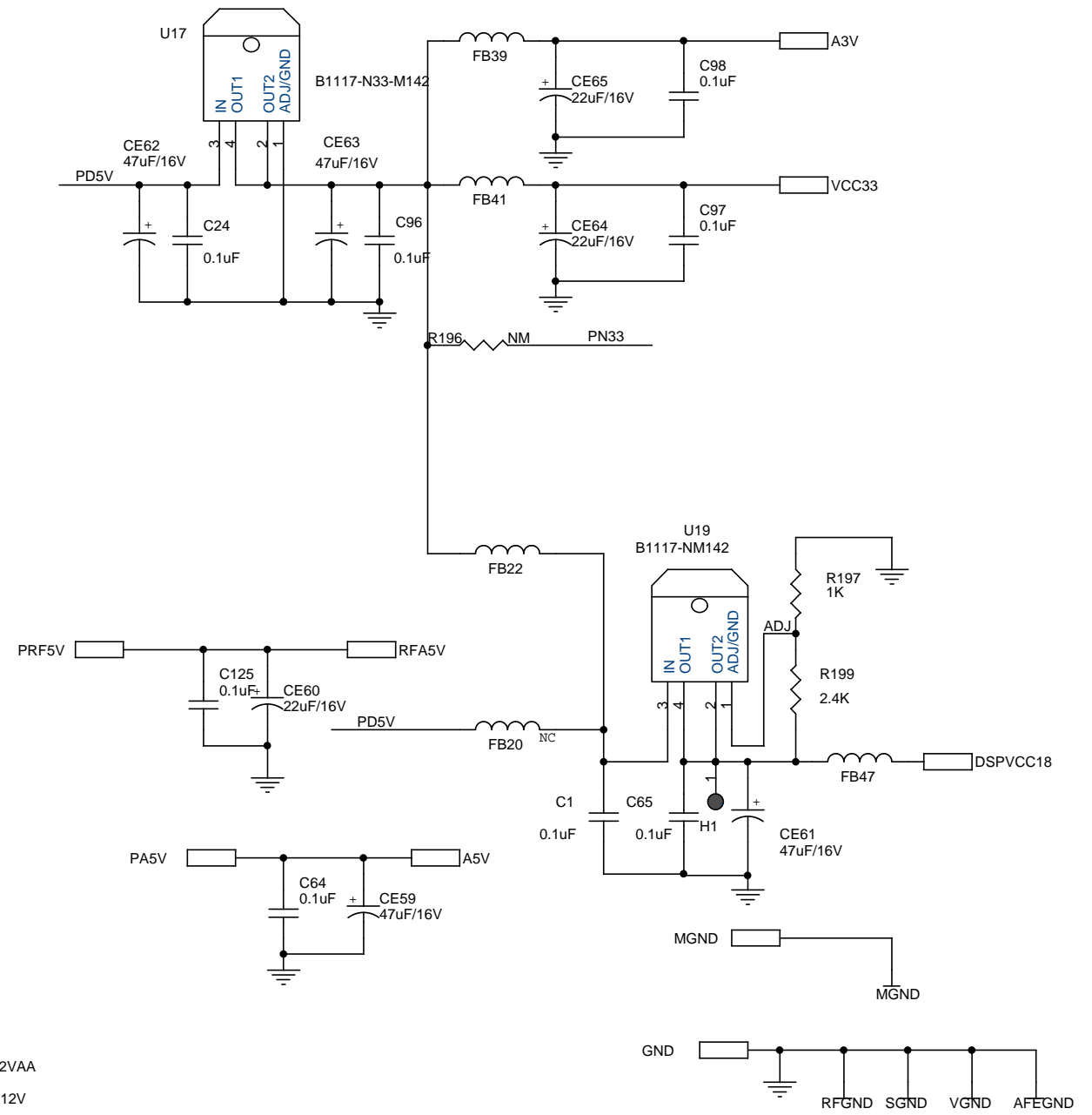
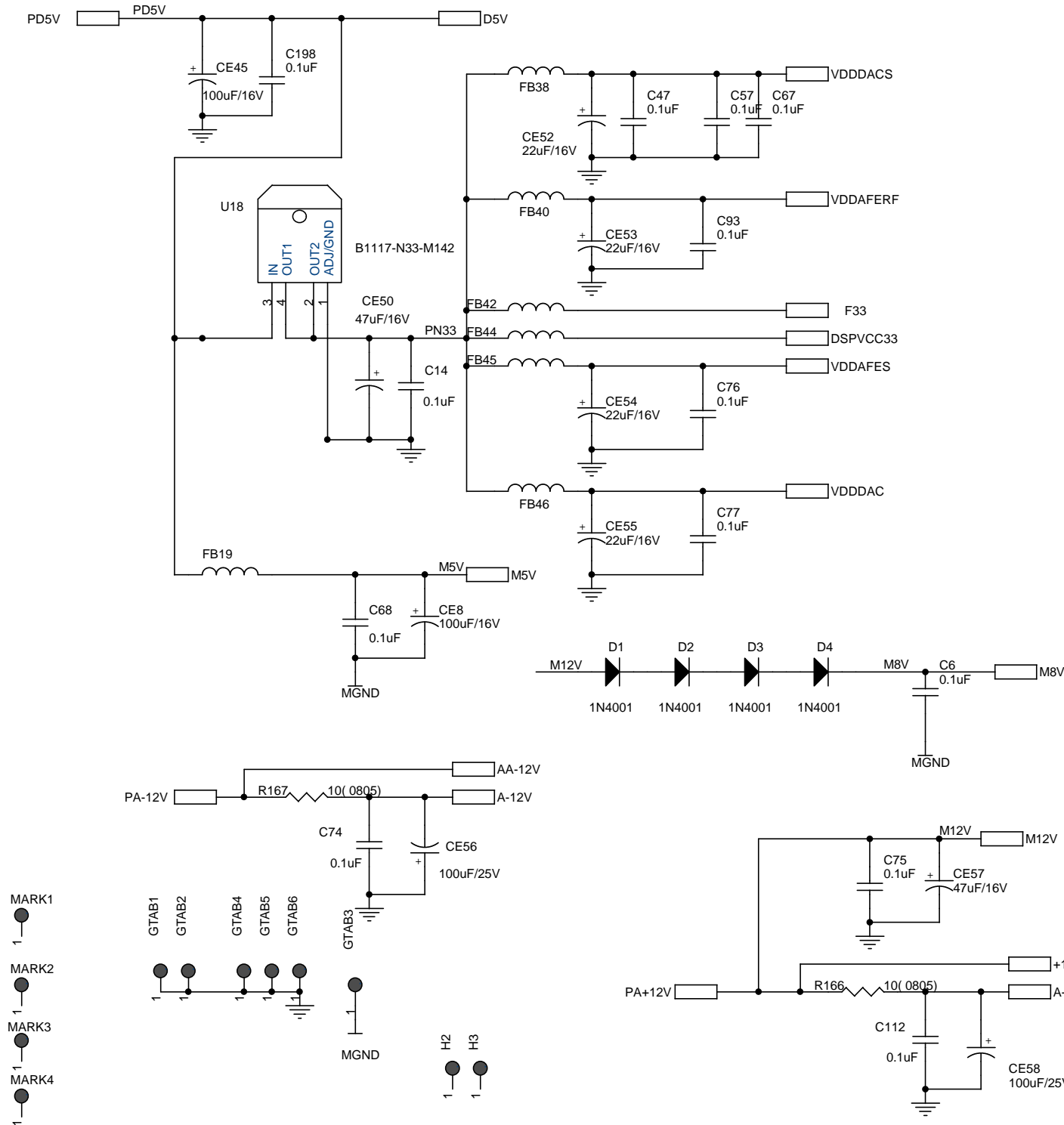


ACTIVE SUB-WOOFER SECTION



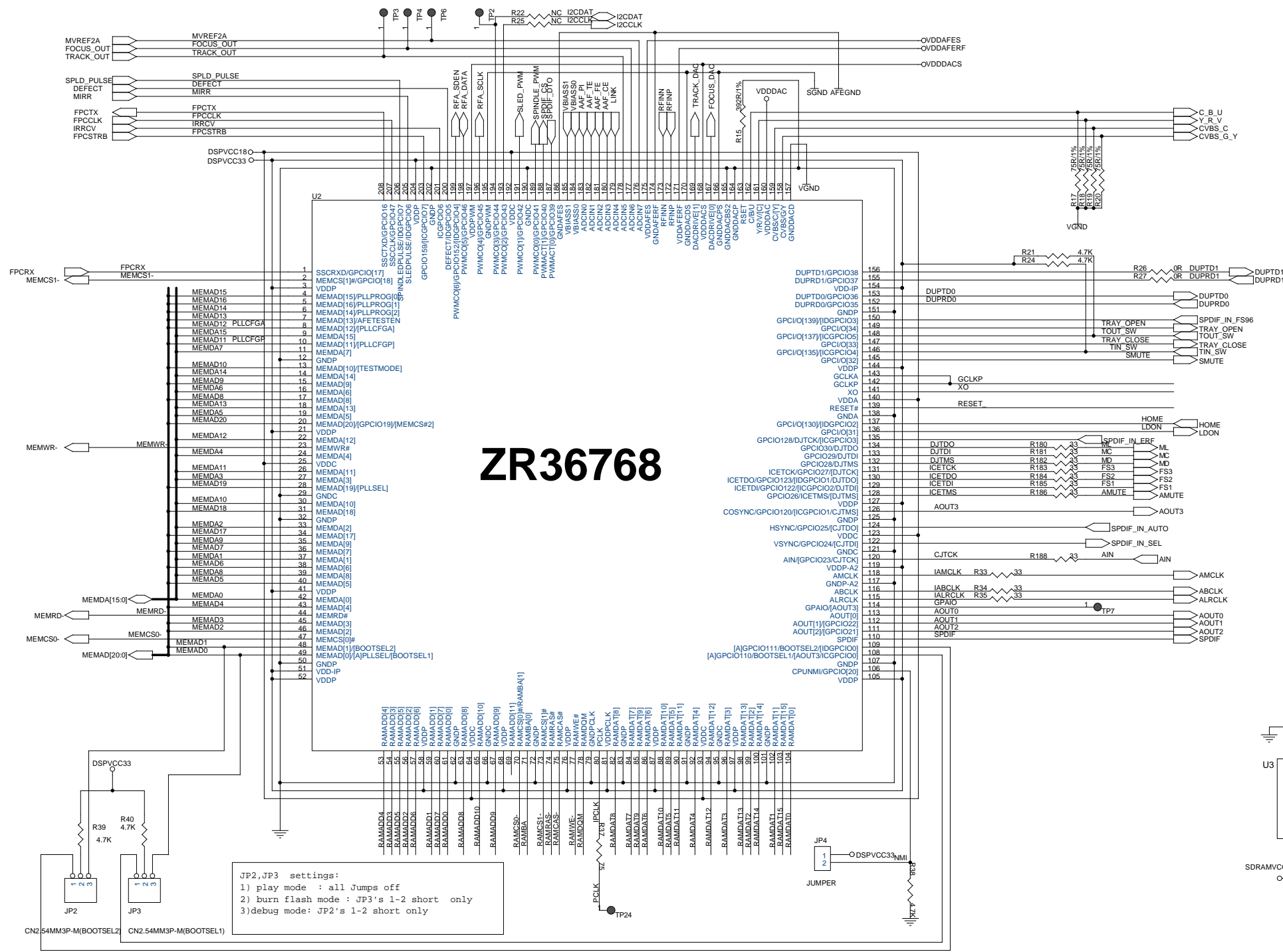
# SCHEMATIC DIAGRAMS

## MPEG & SERVO POWER SUPPLY SECTION

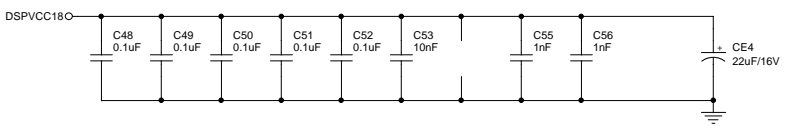
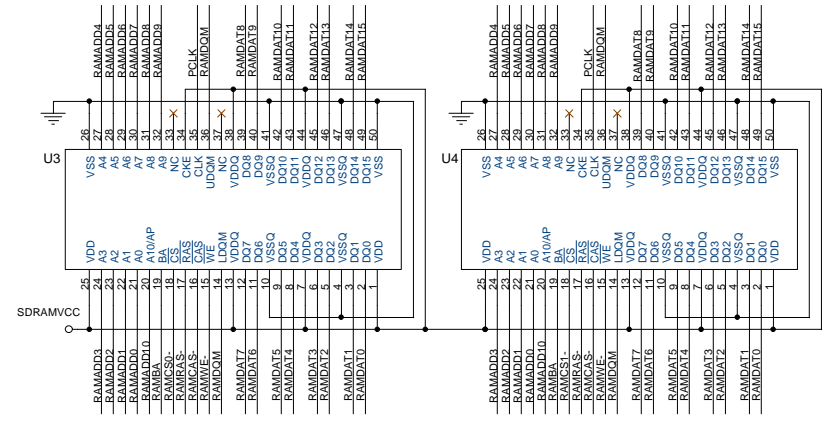
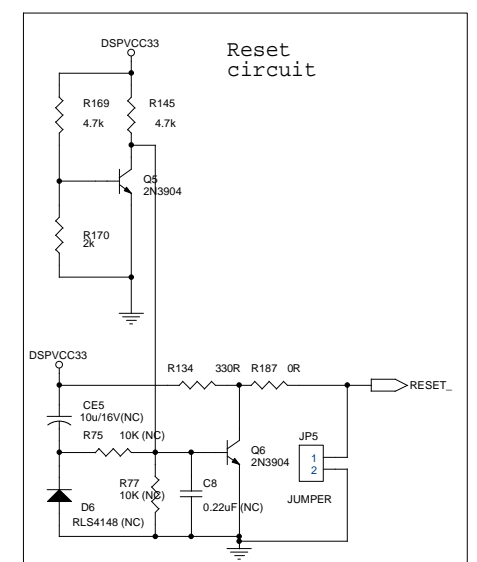
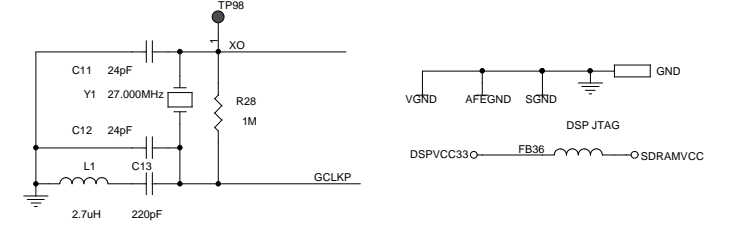
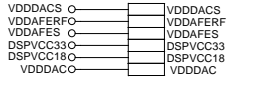
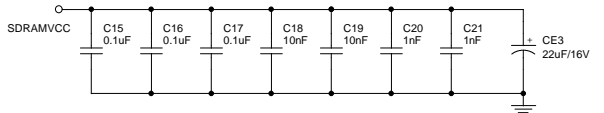
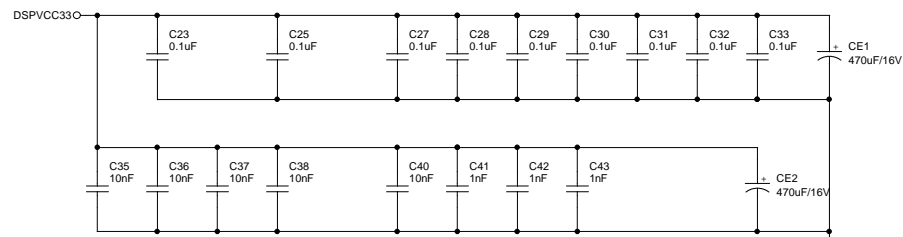


**NOTES:**  
 1. All resistance values are indicated in "ohms"(k=1000 ohms. M=1000 Kohms).  
 2. All capacitance values are indicated in "uF" (p=10<sup>6</sup> uF).

DECODE SECTION

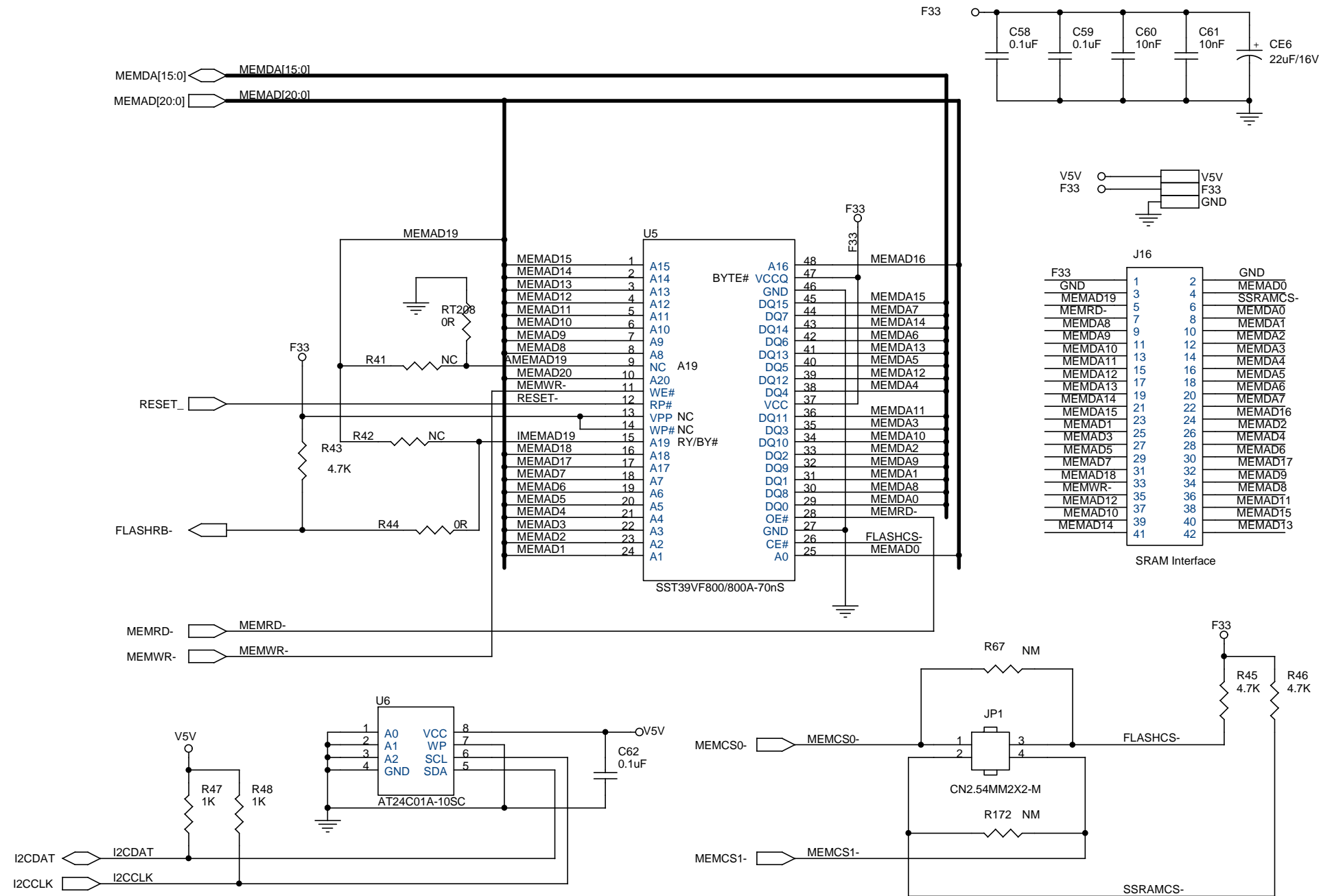


JP2, JP3 settings:  
 1) play mode : all Jumps off  
 2) burn flash mode : JP2's 1-2 short only  
 3) debug mode : JP2's 1-2 short only



**NOTES:**  
 1. All resistance values are indicated in "ohms"(k=1000 ohms. M=1000 Kohms).  
 2. All capacitance values are indicated in "µF" (p=10<sup>6</sup> µF).

# FLASH ROM SECTION

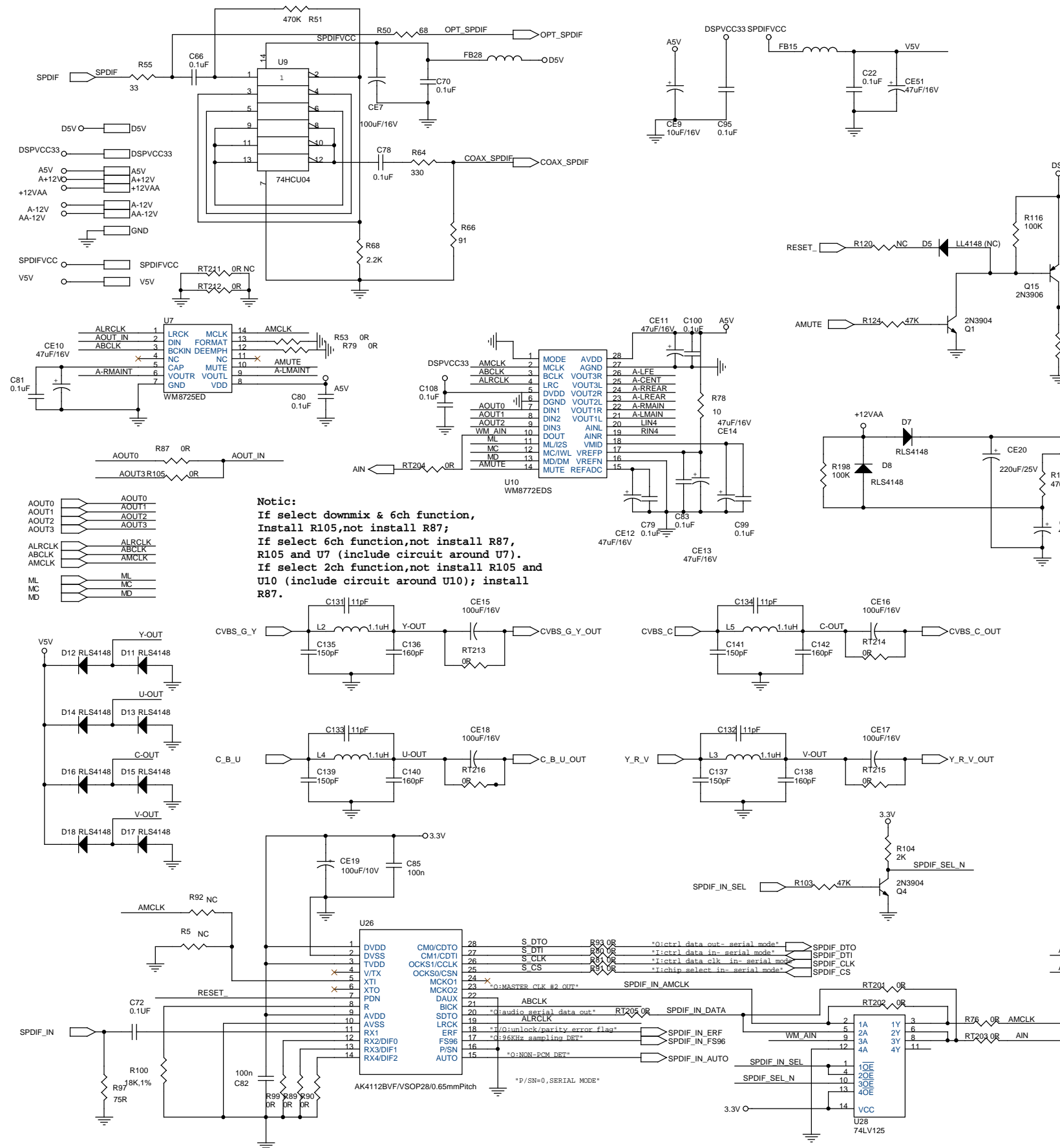


## NOTES:

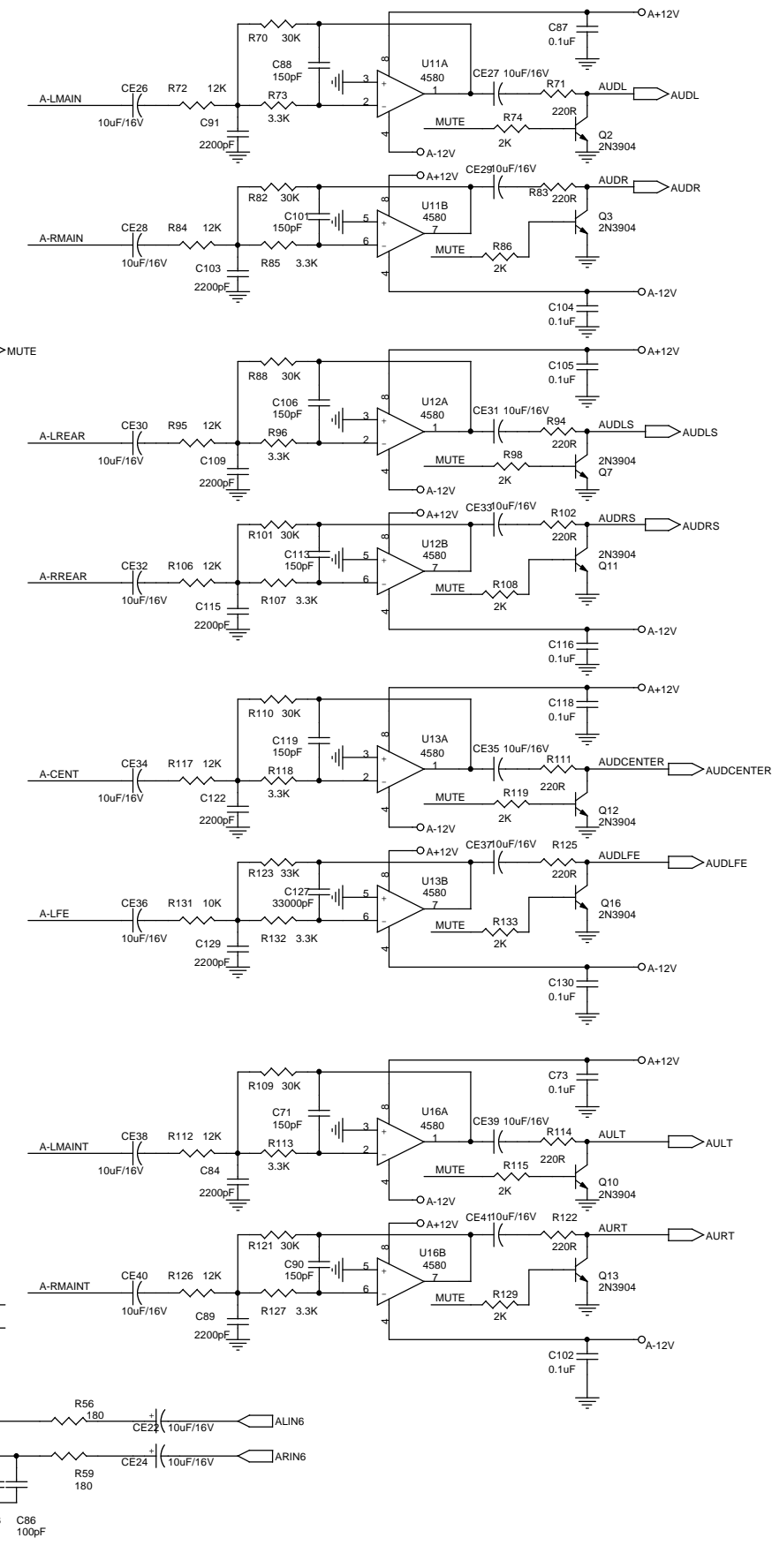
1. All resistance values are indicated in "ohms"(k=1000 ohms. M=1000 Kohms).
2. All capacitance values are indicated in "µF" (p=10<sup>6</sup>µF).



# AUDIO & VIDEO OUT SECTION



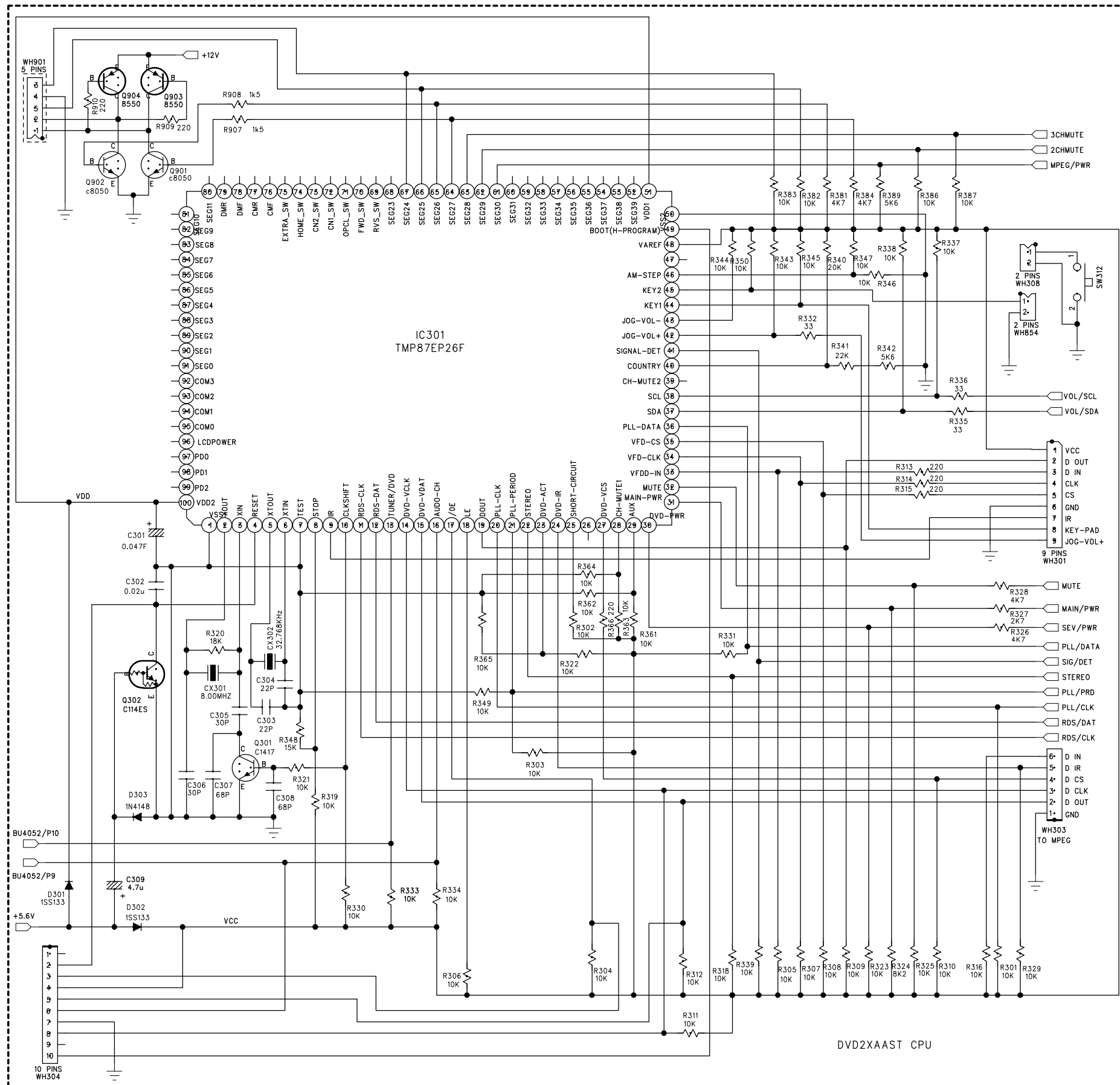
**Notic:**  
 If select downmix & 6ch function,  
 Install R105, not install R87;  
 If select 6ch function, not install R87,  
 R105 and U7 (include circuit around U7).  
 If select 2ch function, not install R105 and  
 U10 (include circuit around U10); install  
 R87.



**NOTES:**  
 1. All resistance values are indicated in "ohms"(k=1000 ohms. M=1000 Kohms).  
 2. All capacitance values are indicated in "µF" (p=10<sup>6</sup> µF).



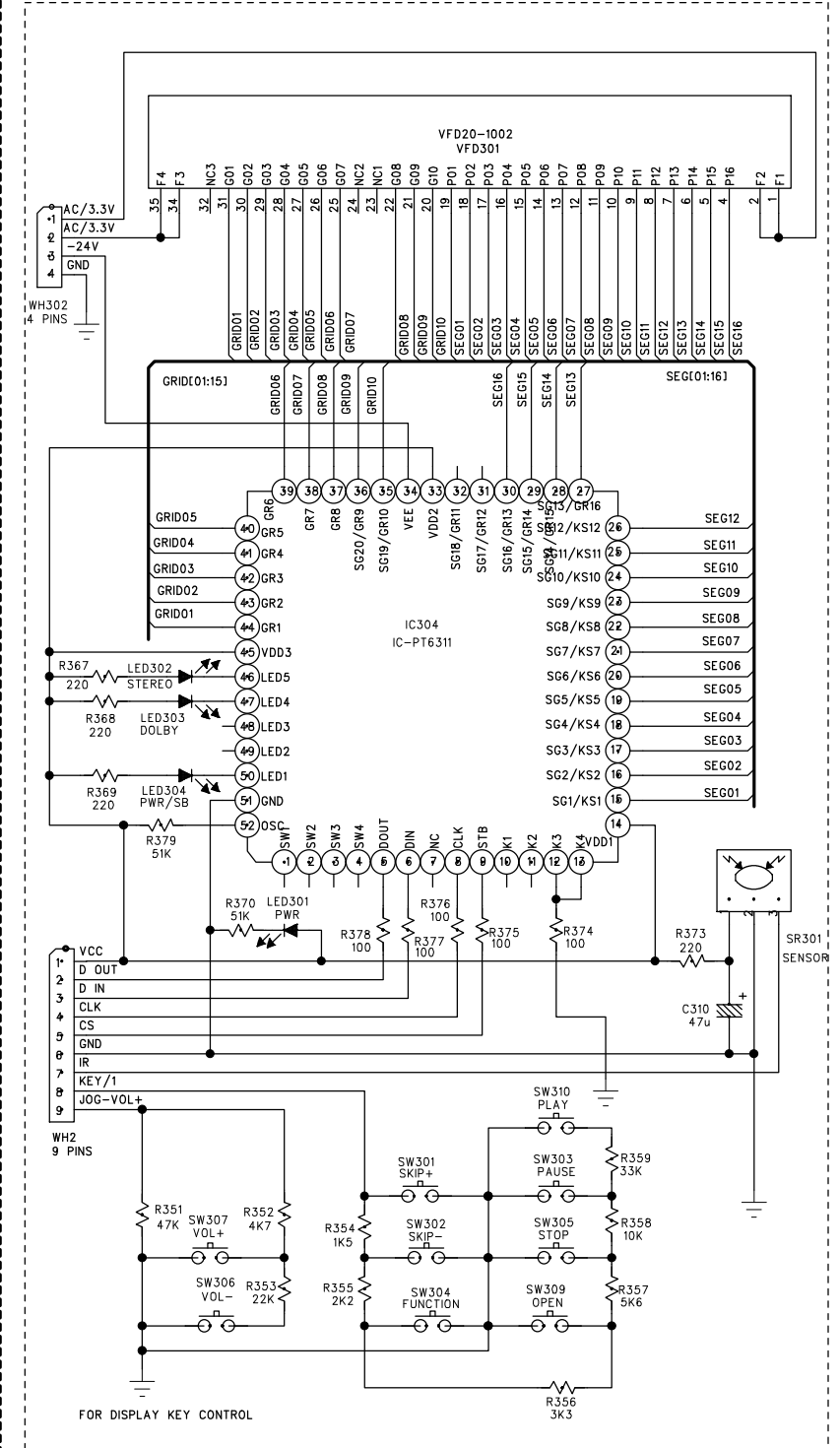
# CPU & CONTROL SECTION



R303	AAS	AAS	AUX IN
R349	10K	NC	
R361			10K
R362			NC
R363	NC	10K	
R364	10K	NC	

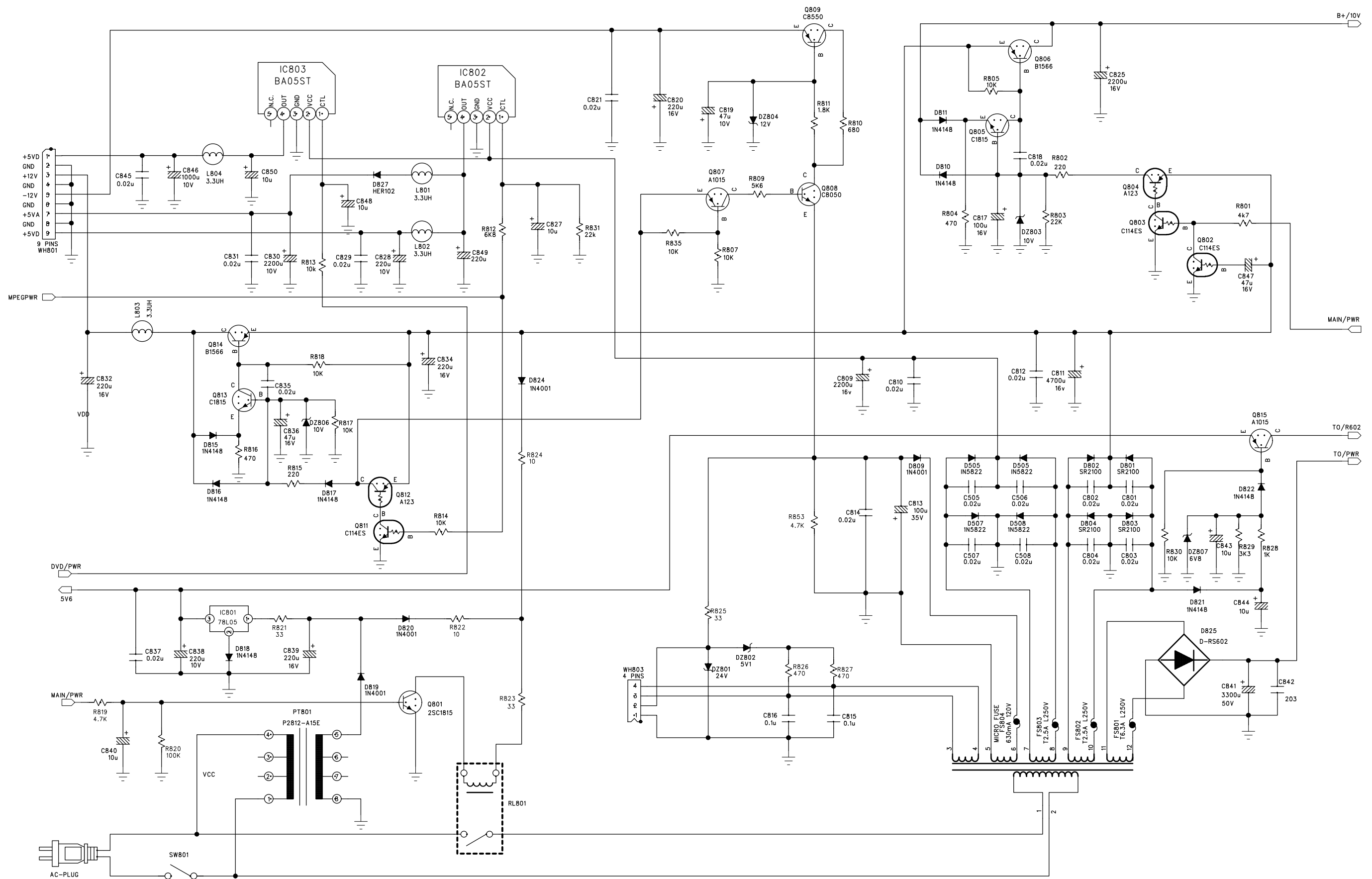
COUNTRY	R340	R342	R341
USA1	20K	100K	10K
USA2	20K	39K	5K6
EUROPE1	20K	5K6	27K
EPROE2	20K	12K	3K9
JAPAN	20K	3K3	1K

AM STEP	R347	R346
S/W CHG	47K	OPEN
ORIG STEP	47K	47K
TOG STEP	OPEN	47K



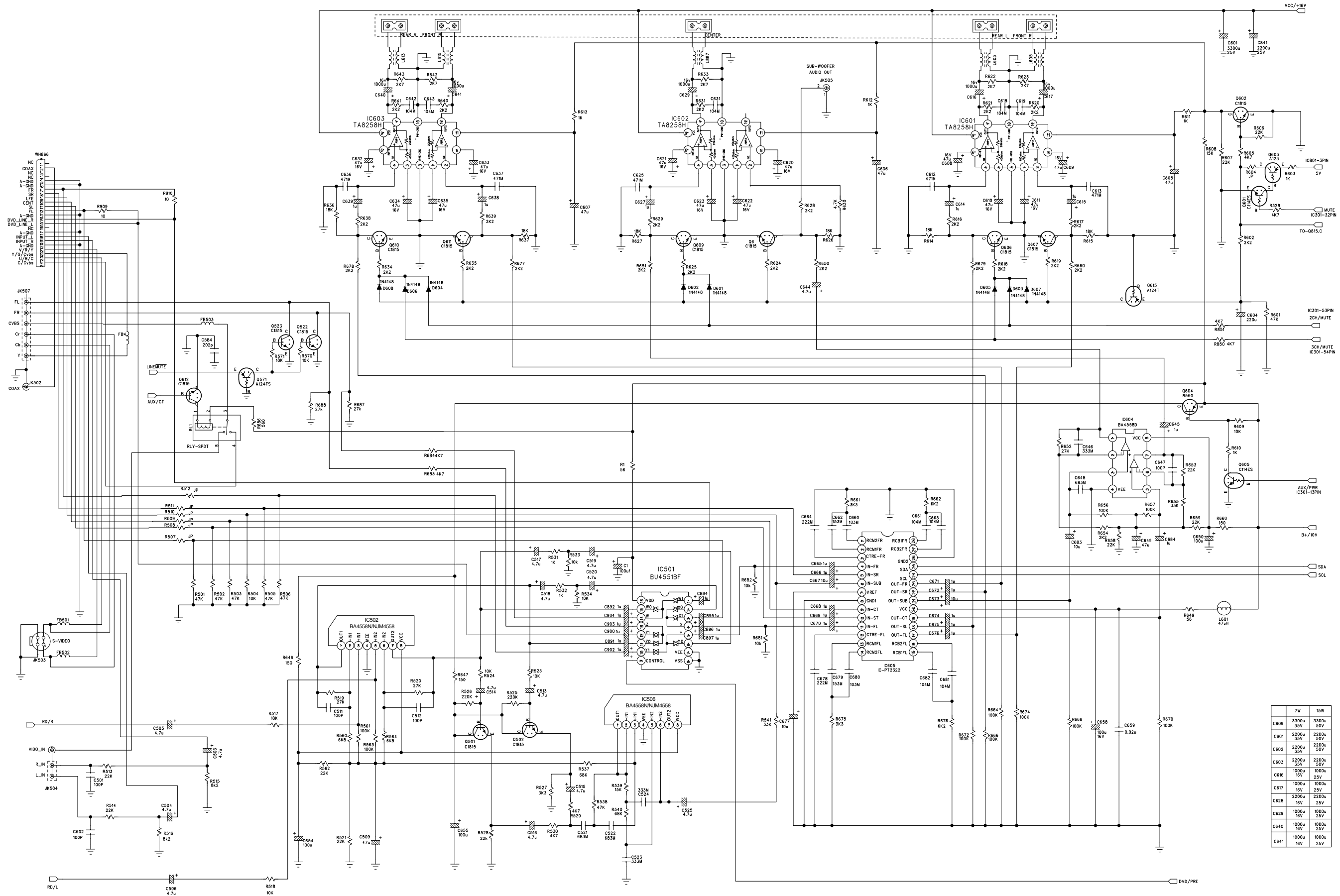
- NOTES:**
1. All resistance values are indicated in "ohms"(k=1000 ohms. M=1000 Kohms).
  2. All capacitance values are indicated in "µF" (p=10<sup>-6</sup> µF).

# POWER SUPPLY SECTION



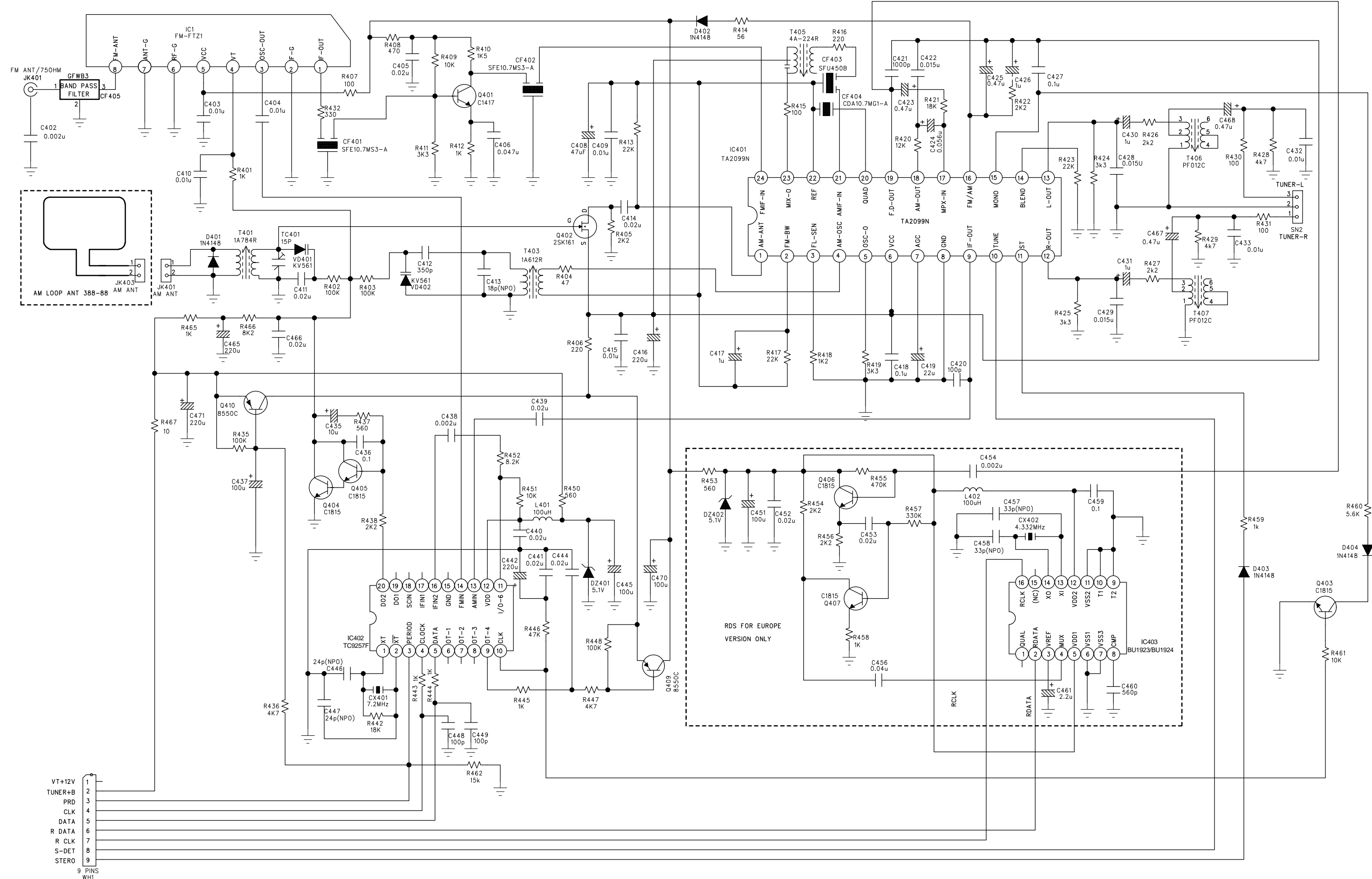
- NOTES:**
1. All resistance values are indicated in "ohms"(k=1000 ohms. M=1000 Kohms).
  2. All capacitance values are indicated in "µF" (p=10<sup>6</sup> µF).

# POWER AMPLIFIER SECTION



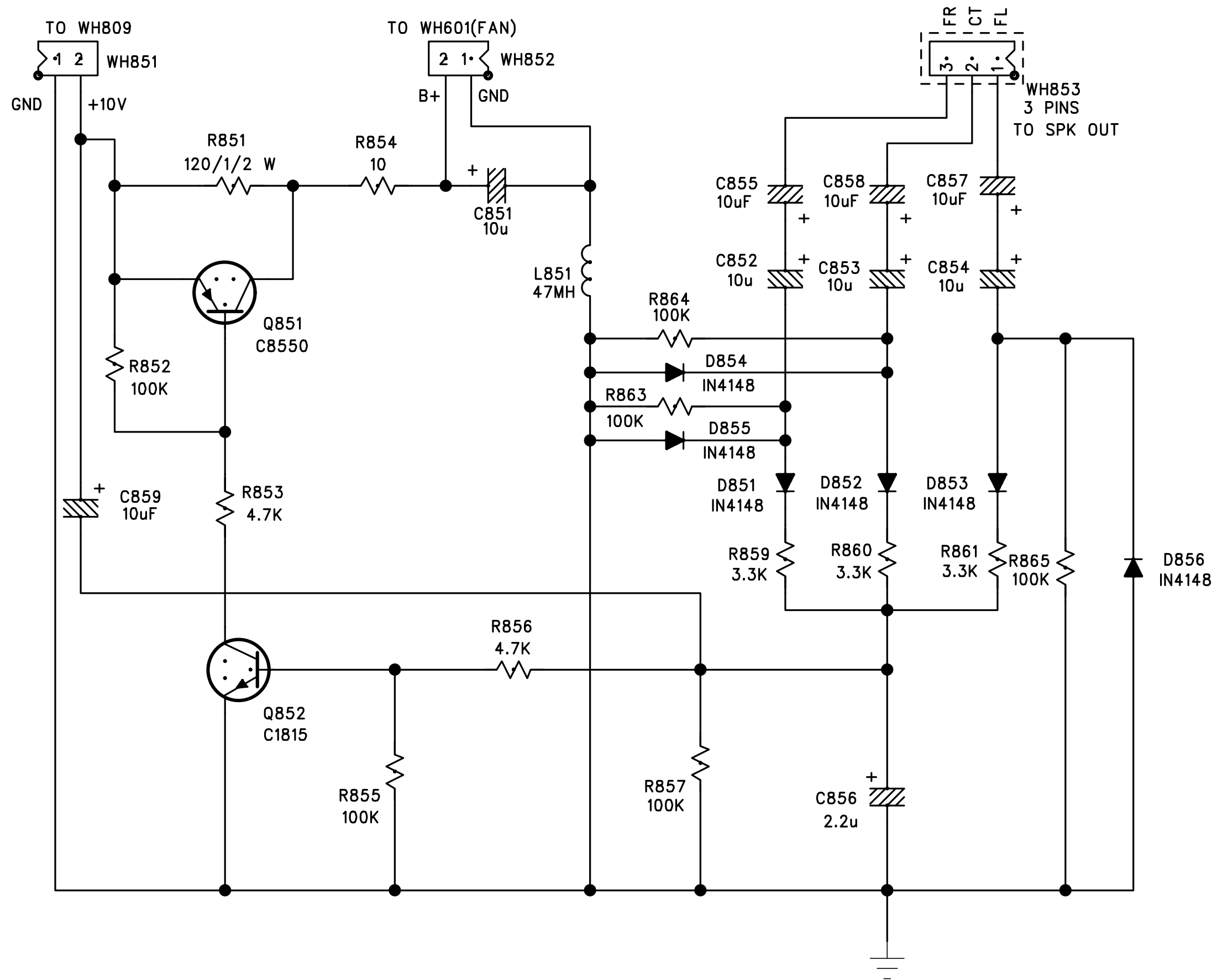
**NOTES:**  
 1. All resistance values are indicated in "ohms"(k=1000 ohms. M=1000 Kohms).  
 2. All capacitance values are indicated in "µF" (p=10<sup>-6</sup>µF).

# TUNER SECTION



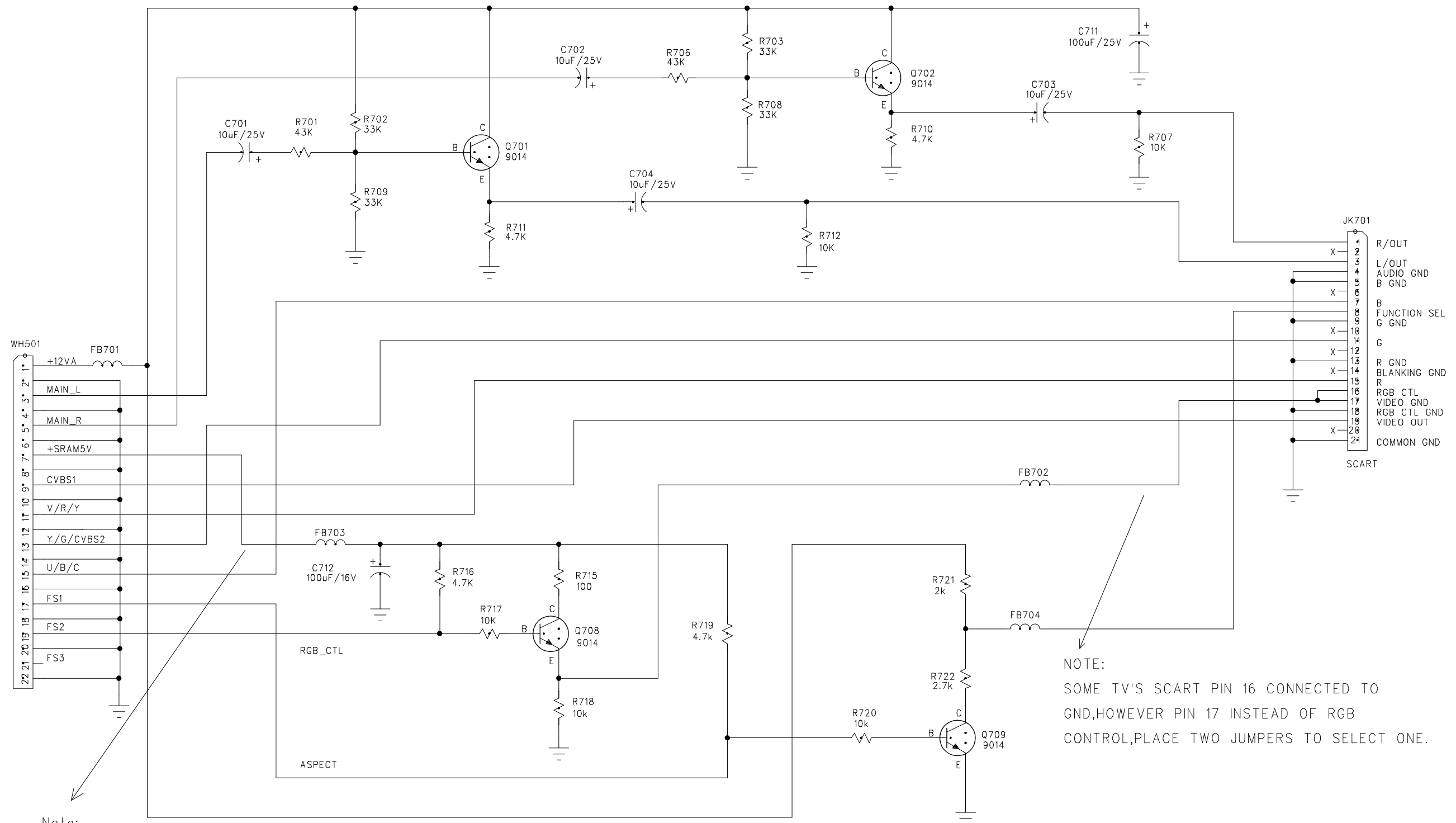
**NOTES:** 1. All resistance values are indicated in "ohms" (k=1000 ohms. M=1000 Kohms).  
 2. All capacitance values are indicated in "µF" (p=10<sup>-6</sup> µF).

FAN CONTORL SECTION



**NOTES:**  
 1. All resistance values are indicated in "ohms"(k=1000 ohms. M=1000 Kohms).  
 2. All capacitance values are indicated in "μF" (p=10<sup>6</sup>μF).

# SCART SECTION



Note:

+5v power comes from different source maybe affect audio/video quality,select +SRAM5V or +5VV or +5v to achieve good performance.

NOTE:

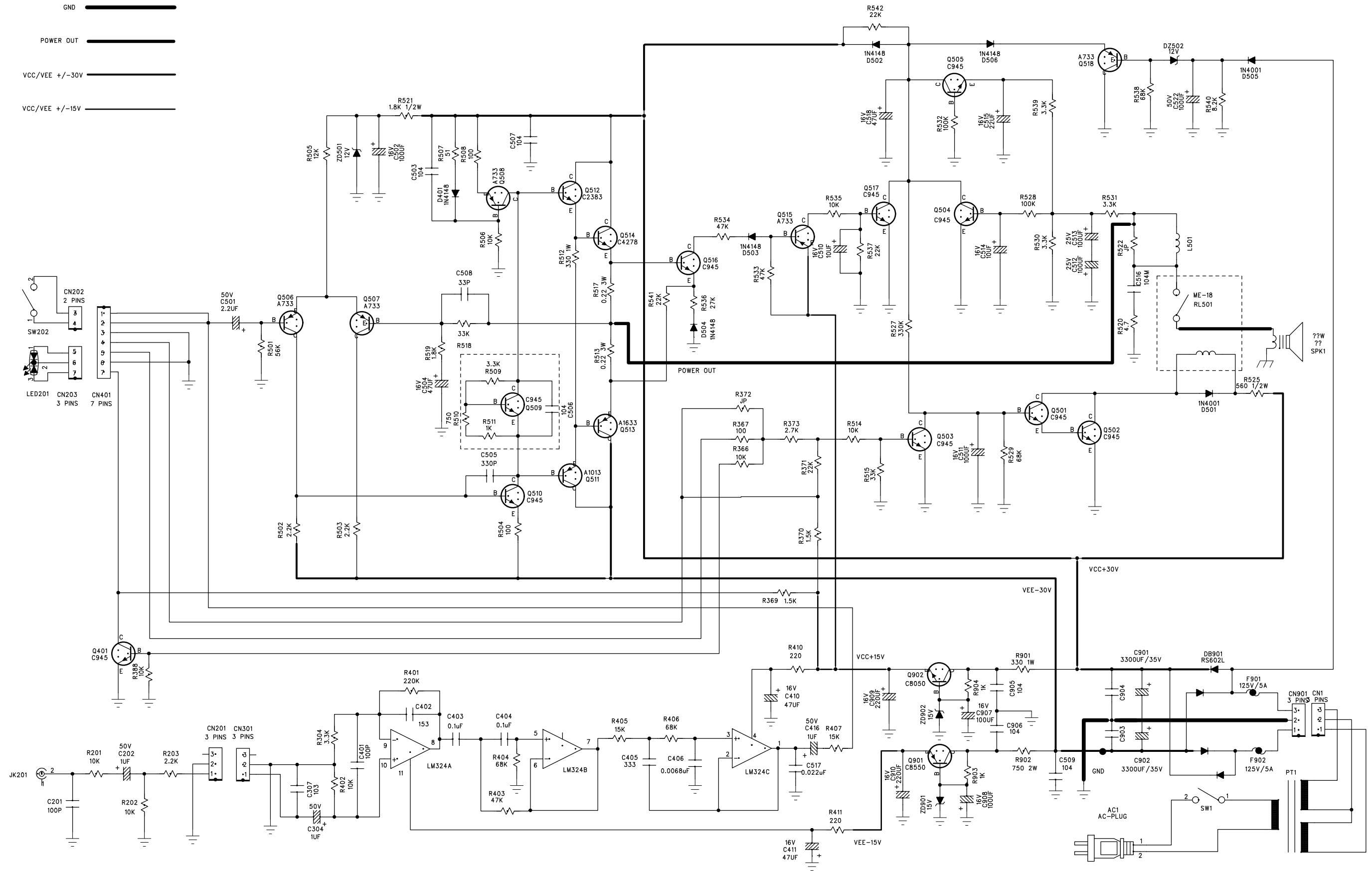
SOME TV'S SCART PIN 16 CONNECTED TO GND,HOWEVER PIN 17 INSTEAD OF RGB CONTROL,PLACE TWO JUMPERS TO SELECT ONE.

### NOTES:

1. All resistance values are indicated in "ohms"(k=1000 ohms. M=1000 Kohms).
2. All capacitance values are indicated in "μF" (p=10<sup>6</sup> μF).

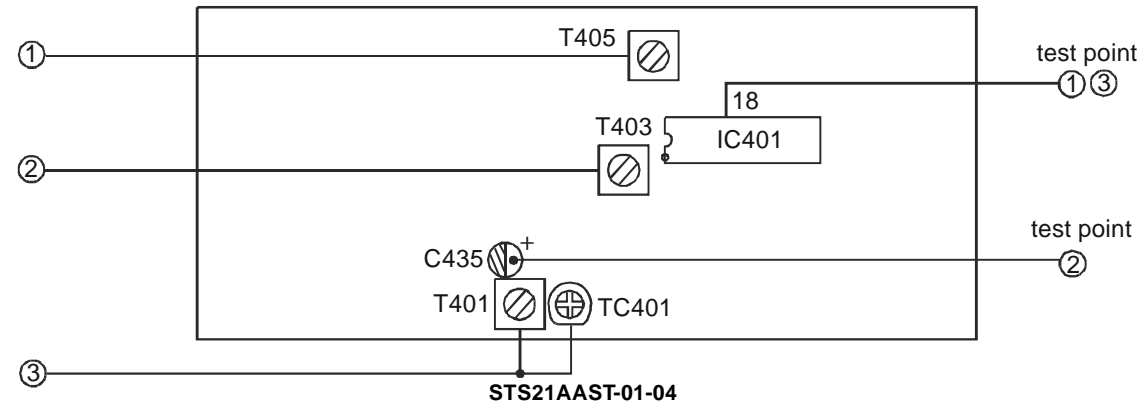


# ACTIVE SUB-WOOFER SECTION



## ALIGNMENT SET-UP PROCEDURES

### TUNER SECTION



**1. AM IF Adjustment**

Test point: IC401 (TA2099N) 18Pin  
Adjustment location: T405  
T405 ----- 450±3kHz

**2. MW Frequency Range Adjustment**

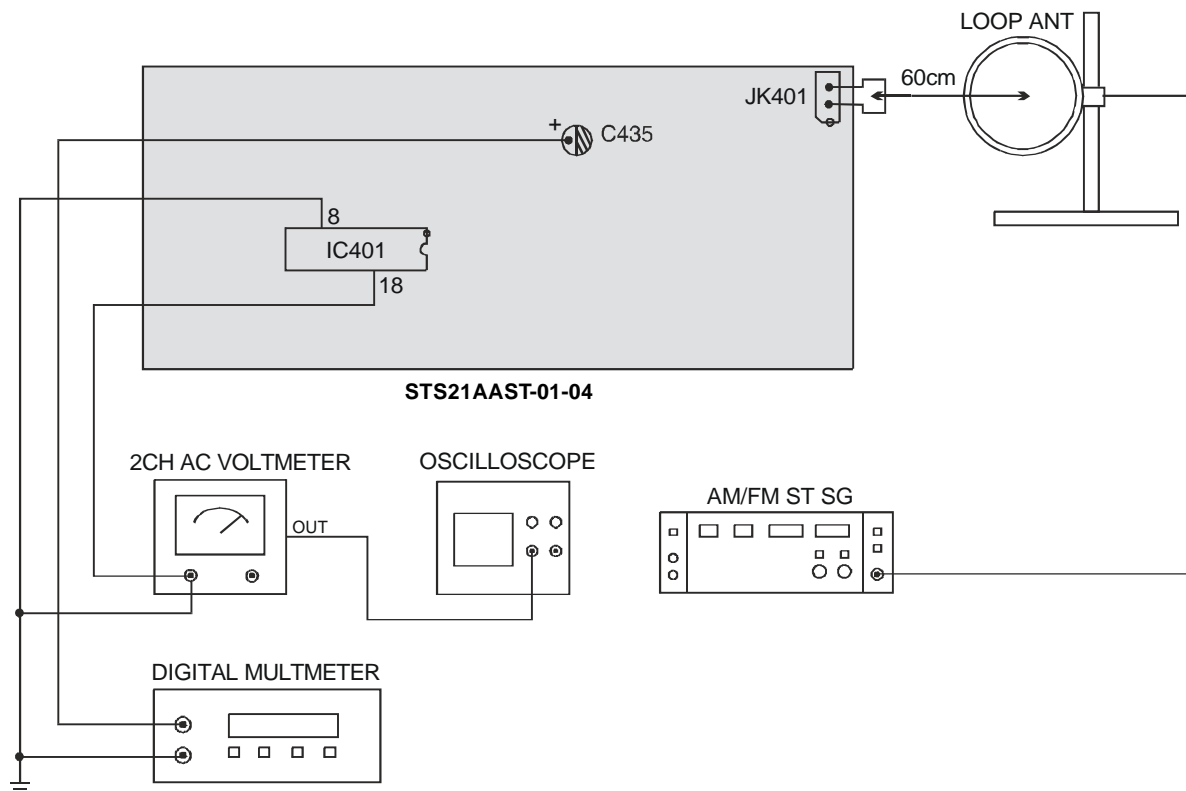
Test point: C435 ⊕  
Adjustment location: T403  
Set the tuner frequency to be 531kHz.  
Adjust T403 so that the test point voltage is 1.7±0.05V.

**3. MW Tracking Adjustment**

Test point: IC401 (TA2099N) 18Pin  
Adjustment location: T401, TC401  
T401 ----- 600kHz waveform max.  
TC401 ----- 1400kHz waveform max.

## EQUIPMENT CONNECTION DIAGRAM

### MW SECTION



## VOLTAGE CHART

### CPU SECTION

#### TEST CONDITION: DVD PLAY

##### IC301 (TMP87EP26F)

PIN'S NUMBER	1	2	3	4	5	6	7	8	9	10
DVD PLAY	0	2.43	2.15	4.75	0	0.24	0	4.01	4.61	0
PIN'S NUMBER	11	12	13	14	15	16	17	18	19	20
DVD PLAY	0.06	0.06	0.03	3.30	0.03	4.88	0.04	4.92	4.88	4.92
PIN'S NUMBER	21	22	23	24	25	26	27	28	29	30
DVD PLAY	4.92	4.88	0	4.92	4.88	0	3.30	4.92	0.04	4.89
PIN'S NUMBER	31	32	33	34	35	36	37	38	39	40
DVD PLAY	4.88	0.04	0.03	4.88	4.84	0.04	4.88	4.88	0	2.81
PIN'S NUMBER	41	42	43	44	45	46	47	48	49	50
DVD PLAY	4.88	4.02	4.88	4.88	0	2.44	0.16	4.87	0	0
PIN'S NUMBER	51	52	53	54	55	56	57	58	59	60
DVD PLAY	4.92	/	/	/	/	/	/	/	/	/
PIN'S NUMBER	61	62	63	64	65	66	67	68	69	70
DVD PLAY	/	/	/	/	/	/	/	/	/	/
PIN'S NUMBER	71	72	73	74	75	76	77	78	79	80
DVD PLAY	/	/	/	/	/	/	/	/	/	/
PIN'S NUMBER	81	82	83	84	85	86	87	88	89	90
DVD PLAY	/	/	/	/	/	/	/	/	/	/
PIN'S NUMBER	91	92	93	94	95	96	97	98	99	100
DVD PLAY	/	/	/	/	/	/	/	/	/	4.92

##### IC304 (PT6311)

PIN'S NUMBER	1	2	3	4	5	6	7	8	9
DVD PLAY	2.18	2.09	1.95	1.94	4.33	4.99	0	4.99	4.99
PIN'S NUMBER	10	11	12	13	14	15	16	17	18
DVD PLAY	2.01	1.95	0	0	4.99	/	/	/	/
PIN'S NUMBER	19	20	21	22	23	24	25	26	27
DVD PLAY	/	/	/	/	/	/	/	/	/
PIN'S NUMBER	28	29	30	31	32	33	34	35	36
DVD PLAY	/	/	/	/	/	4.99	-25.1	/	/
PIN'S NUMBER	37	38	39	40	41	42	43	44	45
DVD PLAY	/	/	/	/	/	/	/	/	5.00
PIN'S NUMBER	46	47	48	49	50	51	52		
DVD PLAY	5.00	5.00	5.00	5.00	4.80	0.00	2.69		

TRANSISTOR	Q301(3DG1417)			Q302(DTC114ES)		
	E	C	B	E	C	B
DVD PLAY	0	0.24	0	0	4.21	0

### POWER AMPLIFIER SECTION

#### TEST CONDITION: DVD PLAY

##### IC501 (BU4551BF)

PIN'S NUMBER	1	2	3	4	5	6	7	8
DVD PLAY	1.18	1.59	3.05	2.08	1.75	1.72	0	0
PIN'S NUMBER	9	10	11	12	13	14	15	16
DVD PLAY	0.16	1.25	0.98	2.47	0.98	0	0	5.95

##### IC601 (TA8258H)

PIN'S NUMBER	1	2	3	4	5	6
DVD PLAY	1.88	2.17	0	2.19	1.89	11.45
PIN'S NUMBER	7	8	9	10	11	12
DVD PLAY	18.1	5.09	34.25	0	7.34	17.85

### VOLTAGE CHART - CONTINUED

#### IC602 (TA8258H)

PIN'S NUMBER	1	2	3	4	5	6
DVD PLAY	2.23	2.53	0	2.51	2.23	11.57
PIN'S NUMBER	7	8	9	10	11	12
DVD PLAY	17.69	5.16	34.6	0	7.39	17.54

#### IC603 (TA8258H)

PIN'S NUMBER	1	2	3	4	5	6
DVD PLAY	2.34	2.62	0	2.62	2.34	11.53
PIN'S NUMBER	7	8	9	10	11	12
DVD PLAY	17.27	5.08	34.57	0	7.38	17.87

#### IC604 (NJM4558D/D4558)

PIN'S NUMBER	1	2	3	4	5	6	7	8
DVD PLAY	5.07	5.05	4.77	0	4.99	5.04	5.05	10.05

#### IC605 (PT2322-S)

PIN'S NUMBER	1	2	3	4	5	6	7	8	9	10
DVD PLAY	4.20	4.22	4.20	4.19	4.19	4.20	4.21	0	4.19	4.19
PIN'S NUMBER	11	12	13	14	15	16	17	18	19	20
DVD PLAY	4.20	4.21	4.22	4.21	4.22	4.22	4.22	4.22	4.22	8.46
PIN'S NUMBER	21	22	23	24	25	26	27	28		
DVD PLAY	4.22	4.22	4.23	4.32	4.32	0	4.21	4.22		

#### IC506 (LS4558N)

PIN'S NUMBER	1	2	3	4	5	6	7	8
DVD PLAY	1.08	1.08	0.90	0	1.07	1.13	1.13	1.64

#### IC802 (BA05ST)

PIN'S NUMBER	1	2	3	4	5
DVD PLAY	2.79	7.80	0	5.00	0

#### IC803 (BA05ST)

PIN'S NUMBER	1	2	3	4	5
DVD PLAY	4.20	7.86	0	5.00	0

#### IC801 (LM78L05ACZ)

PIN'S NUMBER	1	2	3
DVD PLAY	5.68	0.60	11.48

TRANSISTOR	Q802(C1145ES)			Q803(C114ES)			Q804(A123E)		
	E	C	B	E	C	B	E	C	B
DVD PLAY	0	2.08	0.13	0	0	2.08	14.18	13.80	0
TRANSISTOR	Q805(3DG1815)			Q806(B1566)			Q807(3CG1015)		
	E	C	B	E	C	B	E	C	B
DVD PLAY	9.95	13.41	10.47	14.11	10.65	13.56	14.09	13.65	13.08
TRANSISTOR	Q808(C8050)			Q809(3CA8550)			Q815(A1015)		
	E	C	B	E	C	B	E	C	B
DVD PLAY	18.90	18.80	18.23	11.35	11.37	12.03	5.61	0	5.65
TRANSISTOR	Q812(A123)			Q813(3DG1815)			Q814(B1566)		
	E	C	B	E	C	B	E	C	B
DVD PLAY	14.02	14.04	0	11.50	13.55	12.05	14.16	12.21	13.43

### VOLTAGE CHART - CONTINUED

#### IC502 (LS4558N)

PIN'S NUMBER	1	2	3	4	5	6	7	8
DVD PLAY	1.07	0.95	0.91	0	0.91	0.95	1.01	1.64

#### MPEG+SERVO SECTION

##### TEST CONDITION: DVD PLAY

#### U10 (WM8772EDS)

PIN'S NUMBER	1	2	3	4	5	6	7	8	9	10
DVD PLAY	0	1.55	1.63	1.64	3.29	0	1.07	1.09	0.92	1.08
PIN'S NUMBER	11	12	13	14	15	16	17	18	19	20
DVD PLAY	0	3.29	0	0	2.16	0	4.34	2.16	2.15	2.15
PIN'S NUMBER	21	22	23	24	25	26	27	28		
DVD PLAY	2.16	2.16	2.16	2.16	2.16	2.17	0	4.34		

#### U11 (NJM4580E/LS4580F)

PIN'S NUMBER	1	2	3	4	5	6	7	8
DVD PLAY	0	0	0	-9.88	0	0	0	10.72

#### U12 (NJM4580E/LS4580F)

PIN'S NUMBER	1	2	3	4	5	6	7	8
DVD PLAY	0	0	0	-9.86	0	0	0	10.73

#### U13 (NJM4580E/LS4580F)

PIN'S NUMBER	1	2	3	4	5	6	7	8
DVD PLAY	0	0	0	-9.88	0	0	0	10.73

#### U15 (BA5983FM)

PIN'S NUMBER	1	2	3	4	5	6	7	8	9	10
DVD PLAY	1.64	1.64	1.65	1.79	1.64	1.65	1.64	0	3.14	4.80
PIN'S NUMBER	11	12	13	14	15	16	17	18	19	20
DVD PLAY	2.43	2.42	2.12	2.68	3.08	1.14	2.17	2.01	4.80	3.14
PIN'S NUMBER	21	22	23	24	25	26	27	28		
DVD PLAY	0	1.64	1.65	1.65	1.89	1.65	1.64	4.81		

#### U17 (LD1117S33C)

PIN'S NUMBER	1	2	3	4
DVD PLAY	0	3.31	4.85	3.31

#### U18 (LD1117S33C)

PIN'S NUMBER	1	2	3	4
DVD PLAY	0	3.31	4.84	3.31

#### U19 (LD1117S)

PIN'S NUMBER	1	2	3	4
DVD PLAY	0.57	1.82	3.26	1.82

#### U9 (TC74HCU04AF)

PIN'S NUMBER	1	2	3	4	5	6	7
DVD PLAY	2.28	2.37	2.37	2.42	2.42	2.42	0
PIN'S NUMBER	8	9	10	11	12	13	14
DVD PLAY	2.41	2.42	2.42	2.42	2.42	2.42	4.85

#### U1 (TL3472CD/R)

PIN'S NUMBER	1	2	3	4	5	6	7	8
DVD PLAY	4.78	0.88	2.00	0	0.82	2.10	0.18	4.81

### VOLTAGE CHART - CONTINUED

U14 (ZR36707TQC)

PIN'S NUMBER	1	2	3	4	5	6	7	8
DVD PLAY	0.98	0.99	2.50	2.50	2.50	2.50	3.56	3.58
PIN'S NUMBER	9	10	11	12	13	14	15	16
DVD PLAY	2.56	2.57	2.57	2.56	2.57	2.57	2.58	2.57
PIN'S NUMBER	17	18	19	20	21	22	23	24
DVD PLAY	2.64	2.64	4.97	2.50	4.95	3.69	0	0.18
PIN'S NUMBER	25	26	27	28	29	30	31	32
DVD PLAY	0	3.26	0	2.49	2.06	2.09	2.84	0.25
PIN'S NUMBER	33	34	35	36	37	38	39	40
DVD PLAY	0	0	3.36	1.69	3.31	1.71	1.69	1.72
PIN'S NUMBER	41	42	43	44	45	46	47	48
DVD PLAY	1.79	0.53	3.99	4.02	3.31	3.26	0	0
PIN'S NUMBER	49	50	51	52	53	54	55	56
DVD PLAY	1.47	0.15	0	2.31	2.36	3.38	3.37	2.54
PIN'S NUMBER	57	58	59	60	61	62	63	64
DVD PLAY	2.20	4.96	4.19	4.19	2.94	2.94	3.41	1.39

U5 (SST39VF800A)

PIN'S NUMBER	1	2	3	4	5	6	7	8	9	10
DVD PLAY	2.92	2.33	2.71	1.88	2.55	2.56	2.35	2.36	0	0
PIN'S NUMBER	11	12	13	14	15	16	17	18	19	20
DVD PLAY	3.29	3.29	3.31	3.31	0	0.33	1.30	2.38	1.40	1.36
PIN'S NUMBER	21	22	23	24	25	26	27	28	29	30
DVD PLAY	1.53	2.28	1.08	2.99	3.01	3.04	0	3.03	1.27	1.58
PIN'S NUMBER	31	32	33	34	35	36	37	38	39	40
DVD PLAY	1.42	2.03	0.69	1.17	1.84	1.36	3.31	1.23	1.66	1.49
PIN'S NUMBER	41	42	43	44	45	46	47	48		
DVD PLAY	0.98	1.20	1.44	1.70	1.29	0	3.31	1.96		

U3 (W981616BH-7/K4S161622)

PIN'S NUMBER	1	2	3	4	5	6	7	8	9	10
DVD PLAY	3.28	1.60	1.58	0	1.55	1.29	3.28	2.03	1.18	0
PIN'S NUMBER	11	12	13	14	15	16	17	18	19	20
DVD PLAY	0.90	0.58	3.28	0	3.27	3.27	3.25	3.24	0.13	2.52
PIN'S NUMBER	21	22	23	24	25	26	27	28	29	30
DVD PLAY	0.12	0.12	0.12	0.12	3.28	0	0.12	0.12	0.12	0.14
PIN'S NUMBER	31	32	33	34	35	36	37	38	39	40
DVD PLAY	0.10	0	0	3.28	1.61	0	0	3.28	1.52	1.48
PIN'S NUMBER	41	42	43	44	45	46	47	48	49	50
DVD PLAY	0	1.37	1.17	3.28	1.79	0.89	0	0.51	0.87	0

U4 (W981616BH-7/K4S161622)

PIN'S NUMBER	1	2	3	4	5	6	7	8	9	10
DVD PLAY	3.28	1.60	1.58	0	1.55	1.29	3.28	2.03	1.18	0
PIN'S NUMBER	11	12	13	14	15	16	17	18	19	20
DVD PLAY	0.90	0.58	3.28	0	3.27	3.27	3.25	3.24	0.13	2.52
PIN'S NUMBER	21	22	23	24	25	26	27	28	29	30
DVD PLAY	0.12	0.12	0.12	0.12	3.28	0	0.12	0.12	0.12	0.14
PIN'S NUMBER	31	32	33	34	35	36	37	38	39	40
DVD PLAY	0.10	0	0	3.28	1.61	0	0	3.28	1.52	1.48
PIN'S NUMBER	41	42	43	44	45	46	47	48	49	50
DVD PLAY	0	1.37	1.17	3.28	1.79	0.89	0	0.51	0.87	0

### VOLTAGE CHART - CONTINUED

U2 (ZR36768PQC)

PIN'S NUMBER	1	2	3	4	5	6	7	8	9	10
DVD PLAY	4.68	3.29	0	1.67	1.99	2.54	1.65	1.98	1.17	1.38
PIN'S NUMBER	11	12	13	14	15	16	17	18	19	20
DVD PLAY	1.48	0	2.39	1.42	1.69	1.16	1.38	0.97	1.23	0
PIN'S NUMBER	21	22	23	24	25	26	27	28	29	30
DVD PLAY	3.29	1.09	3.29	1.28	1.70	1.57	1.51	0	0	1.05
PIN'S NUMBER	31	32	33	34	35	36	37	38	39	40
DVD PLAY	0	0	0.32	1.91	1.34	1.64	1.18	1.46	2.36	3.29
PIN'S NUMBER	41	42	43	44	45	46	47	48	49	50
DVD PLAY	1.30	2.15	3.15	2.37	2.14	3.15	3.29	3.14	0	3.29
PIN'S NUMBER	51	52	53	54	55	56	57	58	59	60
DVD PLAY	0	3.29	0.10	0.10	0.10	0.09	0.11	3.29	0.10	0.09
PIN'S NUMBER	61	62	63	64	65	66	67	68	69	70
DVD PLAY	0.11	0	0.11	1.71	2.51	0	0.09	3.29	0	3.26
PIN'S NUMBER	71	72	73	74	75	76	77	78	79	80
DVD PLAY	0.11	0	3.26	3.26	3.28	3.29	3.27	0	0	1.58
PIN'S NUMBER	81	82	83	84	85	86	87	88	89	90
DVD PLAY	3.29	1.50	0	0.75	1.59	0.92	3.29	1.14	1.17	0.94
PIN'S NUMBER	91	92	93	94	95	96	97	98	99	100
DVD PLAY	0	1.96	1.70	1.50	0	1.15	3.29	0.72	1.28	0
PIN'S NUMBER	101	102	103	104	105	106	107	108	109	110
DVD PLAY	0	1.55	1.10	1.43	3.29	0	0	0	3.29	0
PIN'S NUMBER	111	112	113	114	115	116	117	118	119	120
DVD PLAY	1.06	1.08	1.08	0	0	1.64	0	1.51	3.29	0
PIN'S NUMBER	121	122	123	124	125	126	127	128	129	130
DVD PLAY	0	0	0	0	0	0	3.29	3.29	0	3.41
PIN'S NUMBER	131	132	133	134	135	136	137	138	139	140
DVD PLAY	3.22	0	3.29	0	3.26	4.66	3.26	3.29	1.70	1.82
PIN'S NUMBER	141	142	143	144	145	146	147	148	149	150
DVD PLAY	1.48	1.49	3.29	0	0	0	0	0	3.29	0
PIN'S NUMBER	151	152	153	154	155	156	157	158	159	160
DVD PLAY	0	3.29	3.01	0	3.29	0	0.81	0.81	3.22	0.81
PIN'S NUMBER	161	162	163	164	165	166	167	168	169	170
DVD PLAY	1.28	1.25	0	0	0	0	0.71	3.24	0.82	0
PIN'S NUMBER	171	172	173	174	175	176	177	178	179	180
DVD PLAY	3.02	1.19	1.19	0	3.24	1.65	1.78	1.61	1.15	0.15
PIN'S NUMBER	181	182	183	184	185	186	187	188	189	190
DVD PLAY	1.74	1.10	1.72	1.69	1.10	0	0	0	0	0
PIN'S NUMBER	191	192	193	194	195	196	197	198	199	200
DVD PLAY	0	1.70	0	0	0	3.26	3.24	0.03	0.03	0.03
PIN'S NUMBER	201	202	203	204	205	206	207	208		
DVD PLAY	4.65	0	3.31	3.29	0	0.18	3.24	0.20		

### TUNER SECTION

TEST CONDITION: SET AM/FM ON ONE FREQUENCY

IC402 (TC9257F)

PIN'S NUMBER	1	2	3	4	5	6	7	8	9	10
AM	2.45	2.47	4.29	4.29	0.01	0.14	0.02	0.11	0.02	0.02
FM	2.38	2.41	4.97	4.97	0	0.14	0	0.11	0	0
PIN'S NUMBER	11	12	13	14	15	16	17	18	19	20
AM	4.97	4.97	0	2.43	0	2.44	1.44	1.37	1.15	1.14
FM	0	0	0	2.36	0	2.36	0.17	0.17	0.76	1.08

### VOLTAGE CHART - CONTINUED

#### IC401 (TA2099N)

PIN'S NUMBER	1	2	3	4	5	6	7	8
AM	1.97	2.72	0.11	1.97	1.34	6.37	0.48	0
FM	1.95	2	0	2	0.97	7.43	1.29	0
PIN'S NUMBER	9	10	11	12	13	14	15	16
AM	4.96	0.04	5.68	0.76	0.77	0.11	4.89	4.92
FM	4.98	4	4.13	0.77	0.77	0	0.52	0.65
PIN'S NUMBER	17	18	19	20	21	22	23	24
AM	1.19	0.48	2.05	1.81	1.97	1.97	6.43	1.97
FM	1.19	1.32	1.99	2.44	1.97	1.97	7.40	1.97

#### IC403 (BU1923F/BU1924F)

PIN'S NUMBER	1	2	3	4	5	6	7	8
FM	2.13	2.41	2.30	2.27	4.30	0	0	2.29
PIN'S NUMBER	9	10	11	12	13	14	15	16
FM	0	0	0	4.30	0	2.06	0	2.05

### SUB-WOOFER SECTION

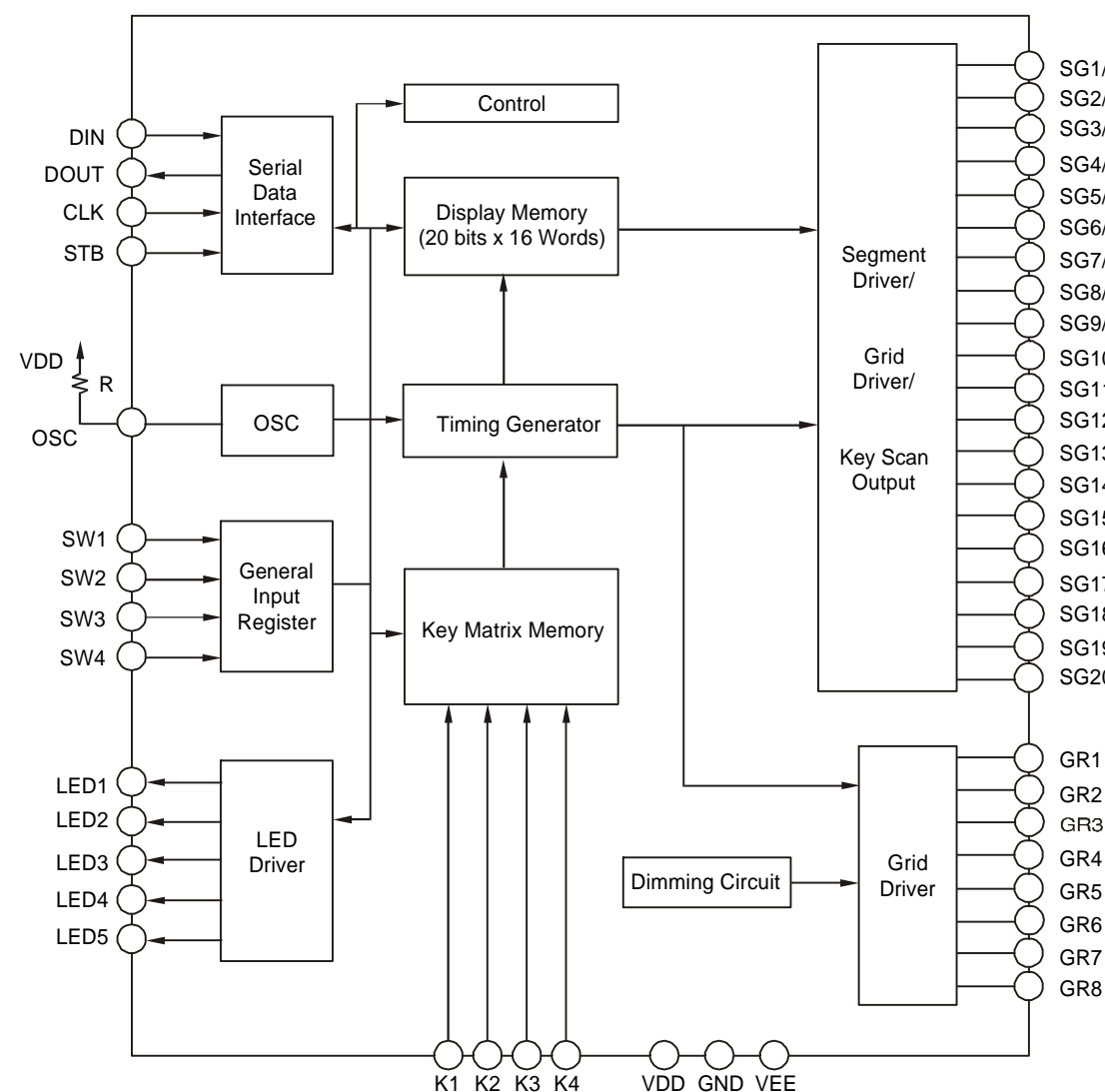
#### TEST POINT: DVD PLAY

#### IC401 (LM324N)

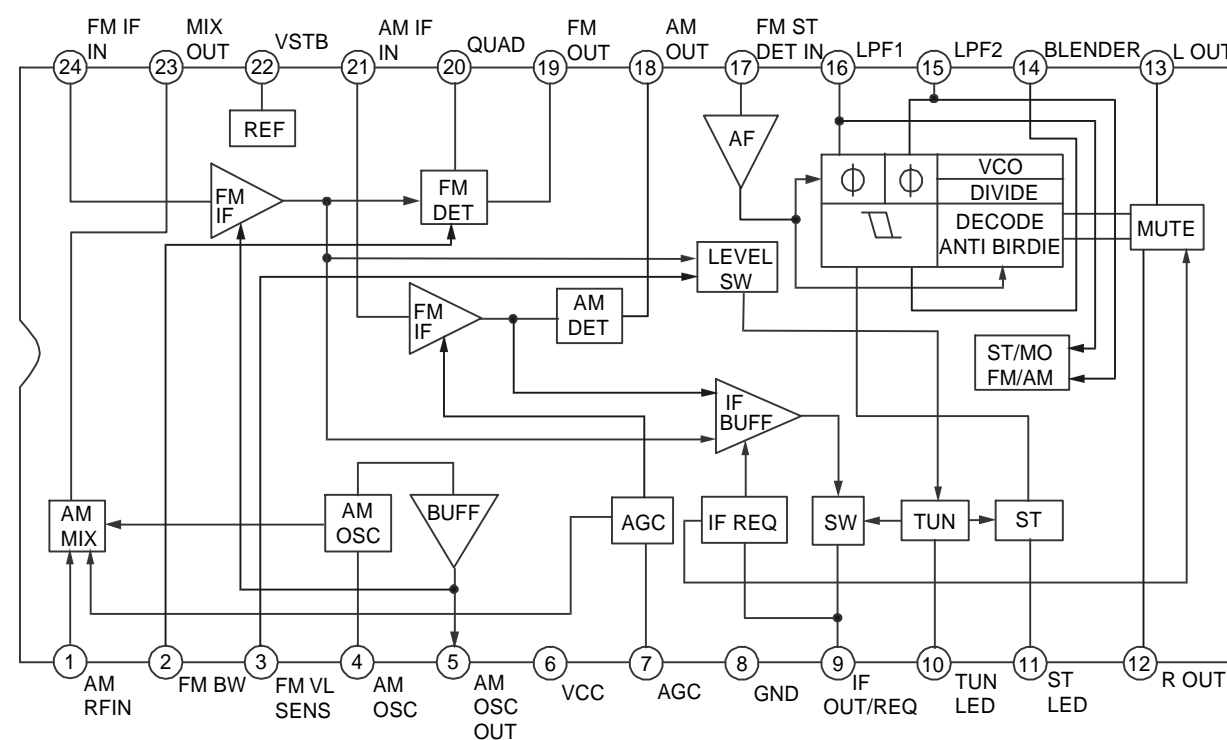
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	0	0	0	-13.19	0	0	-13.2

### IC BLOCK DIAGRAMS & IC PINS DESCRIPTION

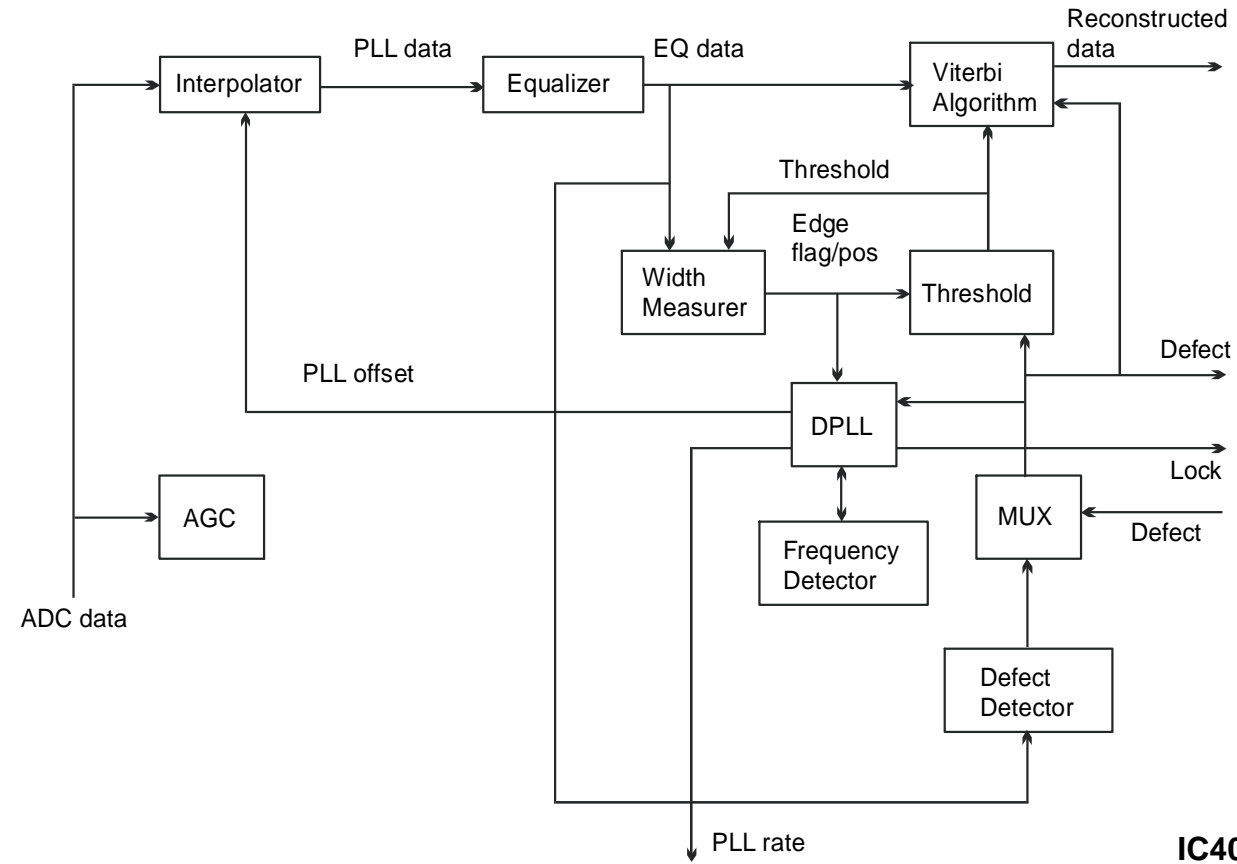
#### IC304 PT6311



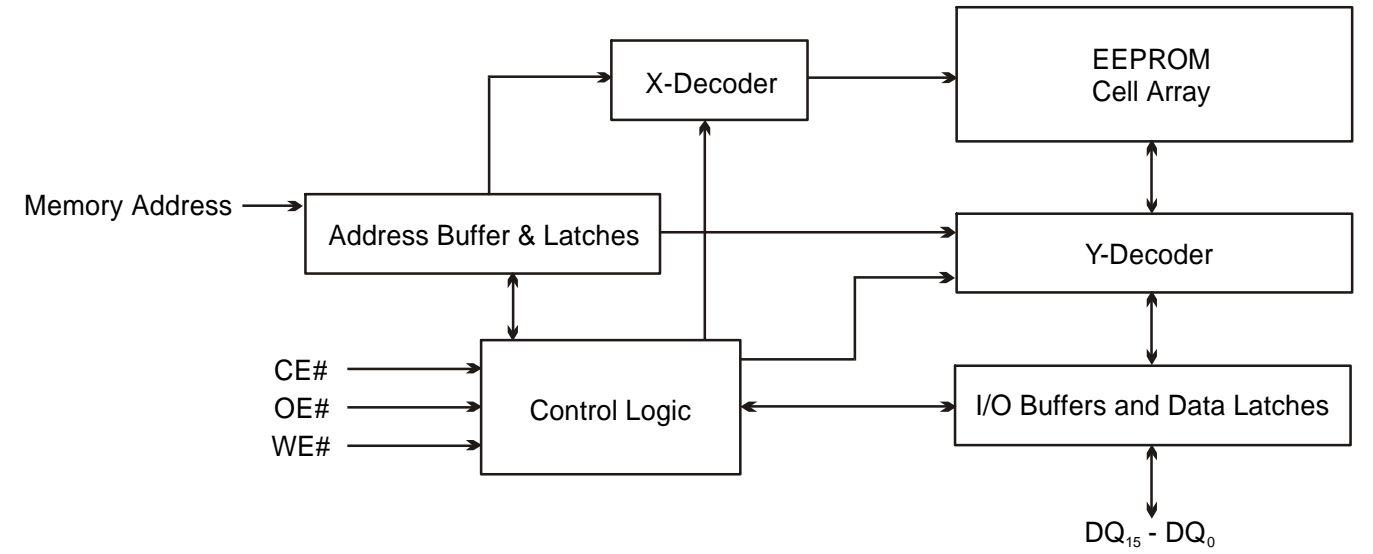
#### IC401 TA2099N



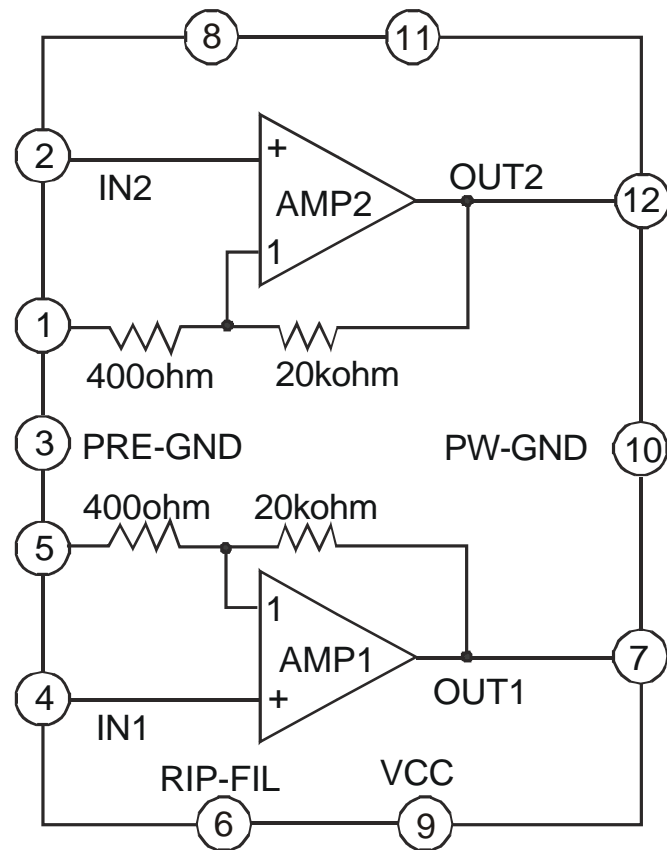
**U2 ZR36768PQC**



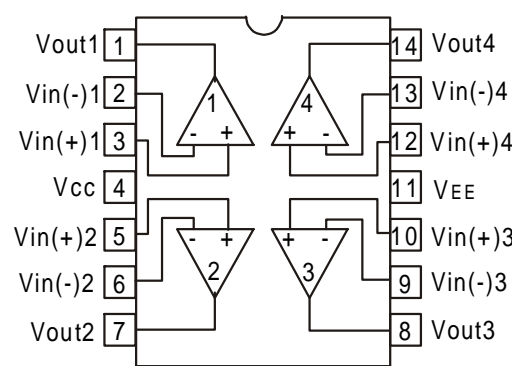
**U5 SST39VF800A**



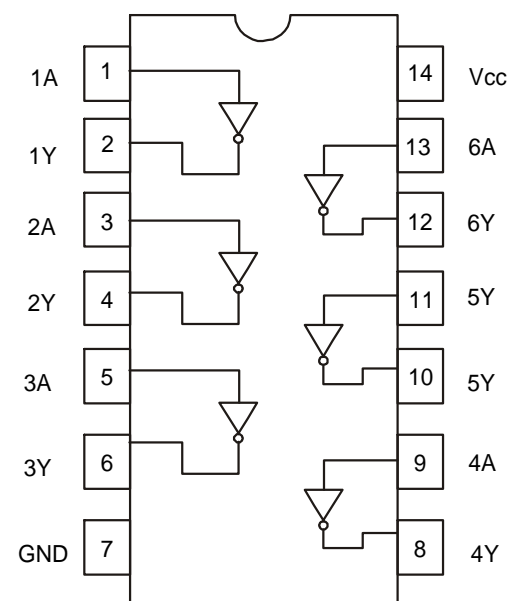
**IC601, IC602, IC603 TA8258H**



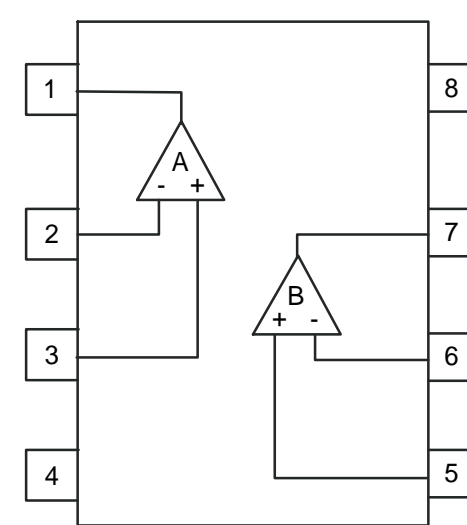
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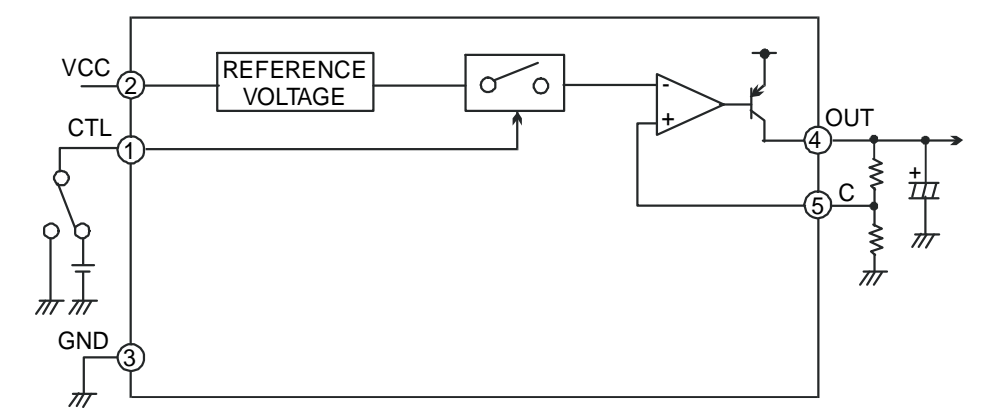
**U9 TC74HCU04AF**



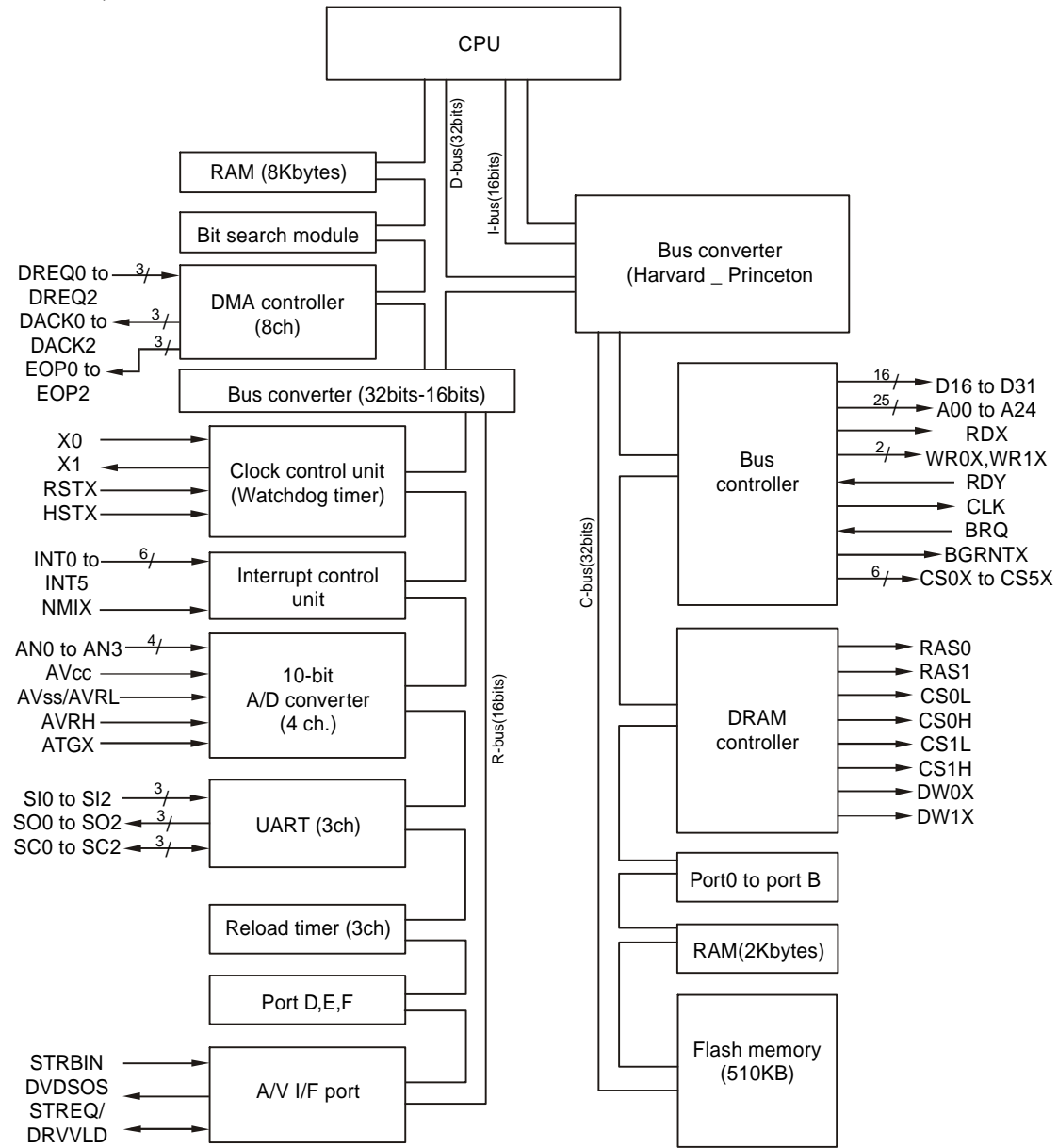
**IC502, IC506 LS4558N  
IC604 NJM4558D/4558D**



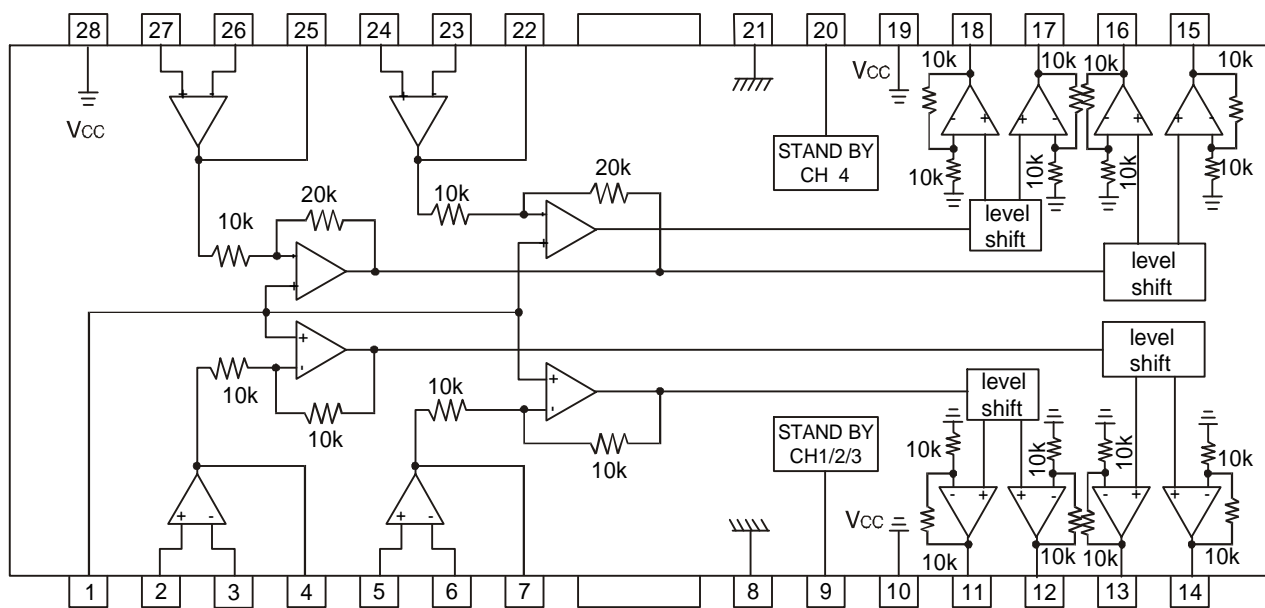
**IC802, IC803 BA05ST**



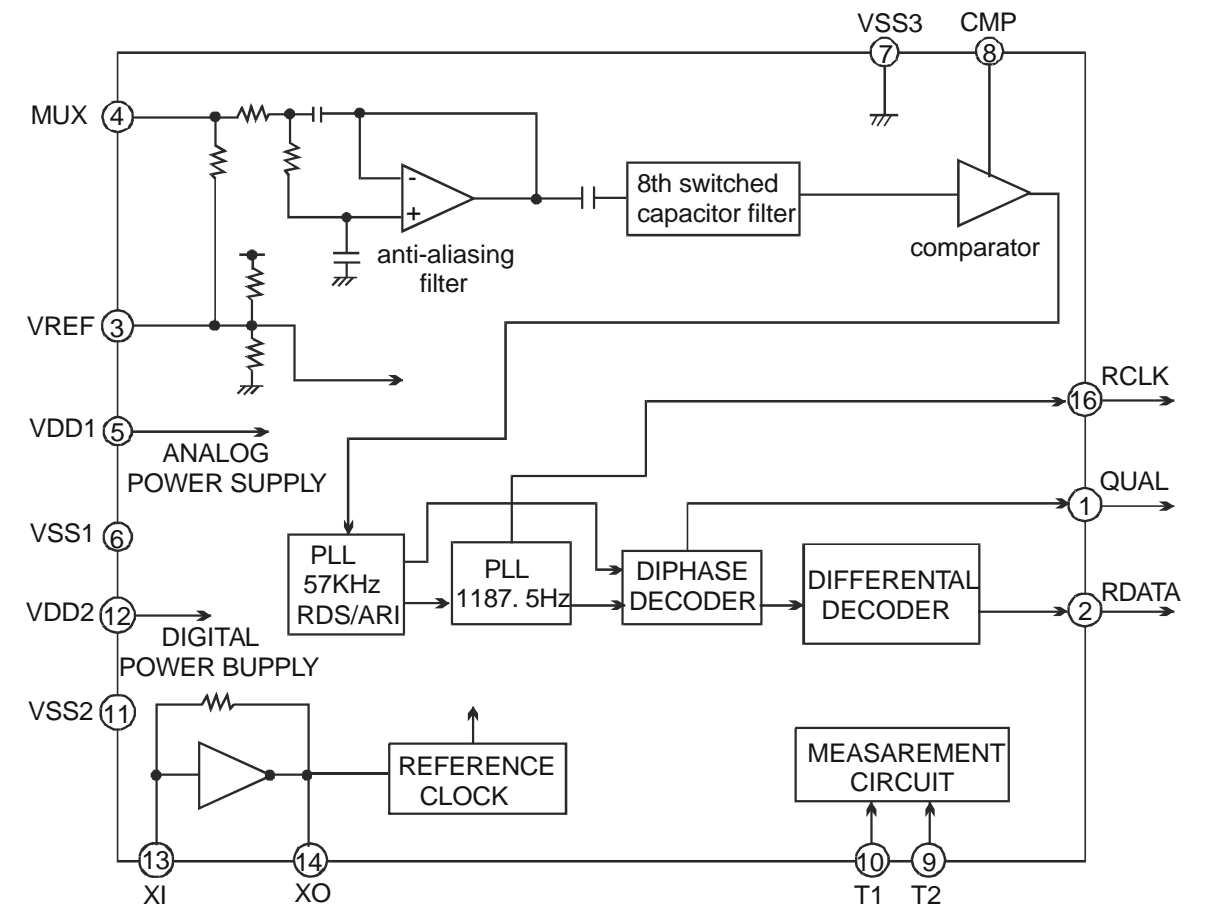
**U14 ZR36707TQC**



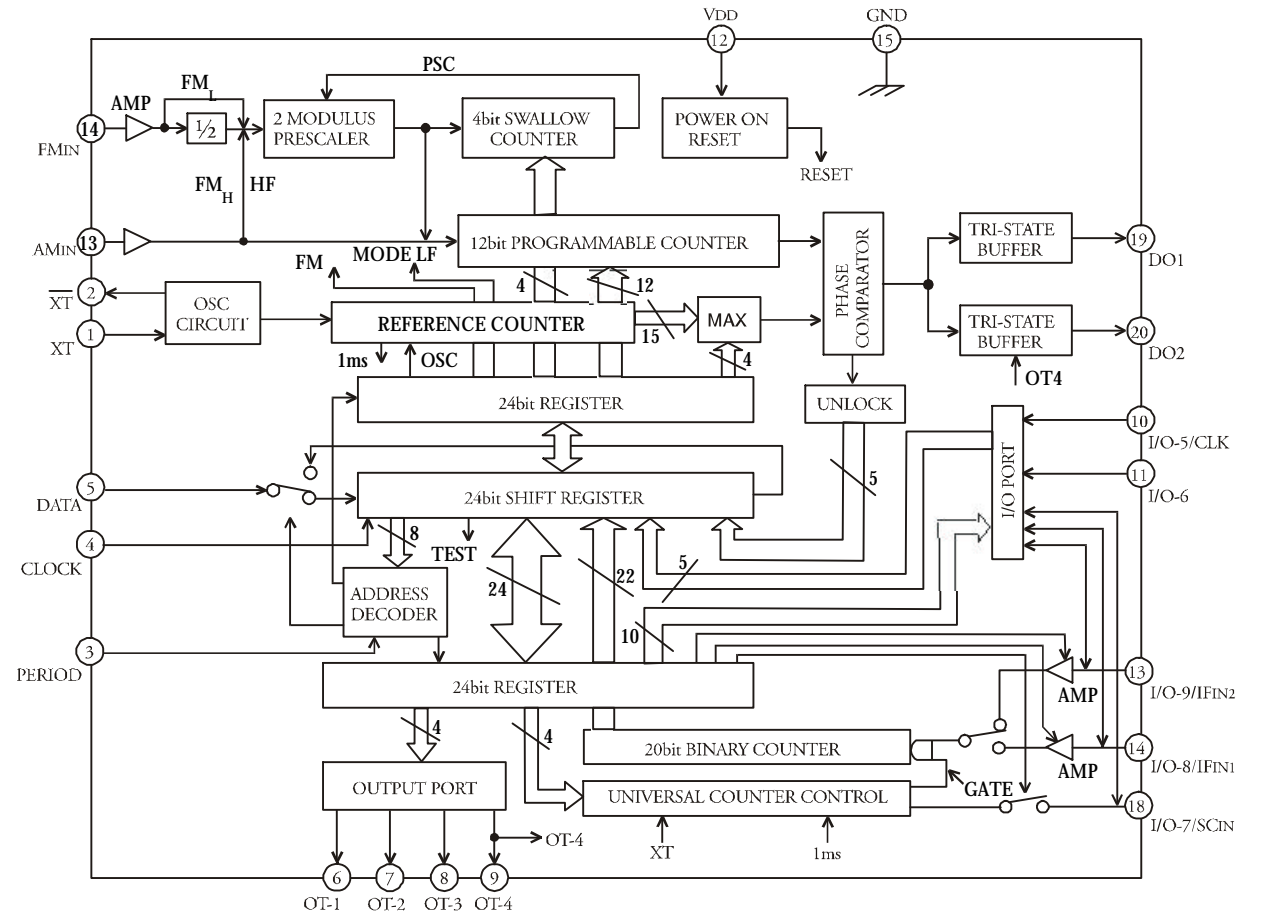
**U15 BA5983FM**



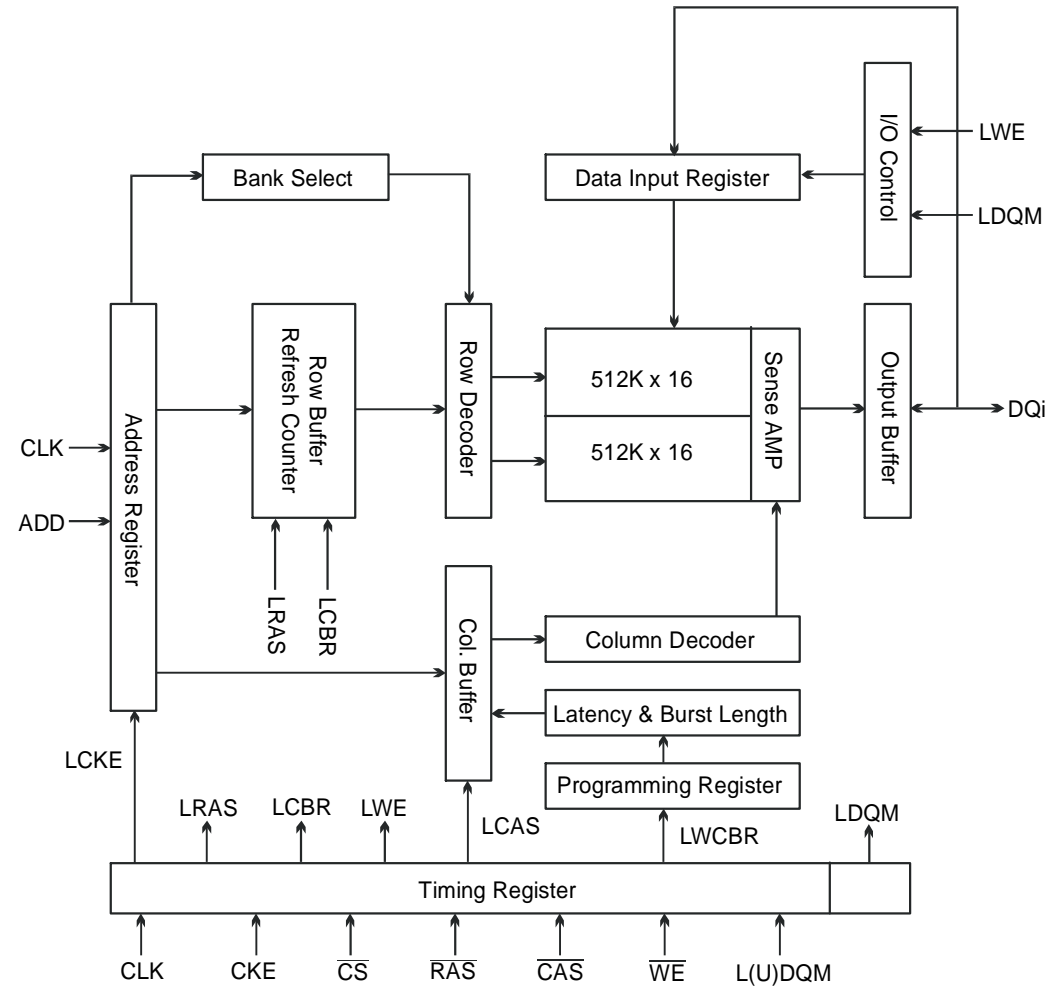
**IC403 BU1923F/BU1924F**



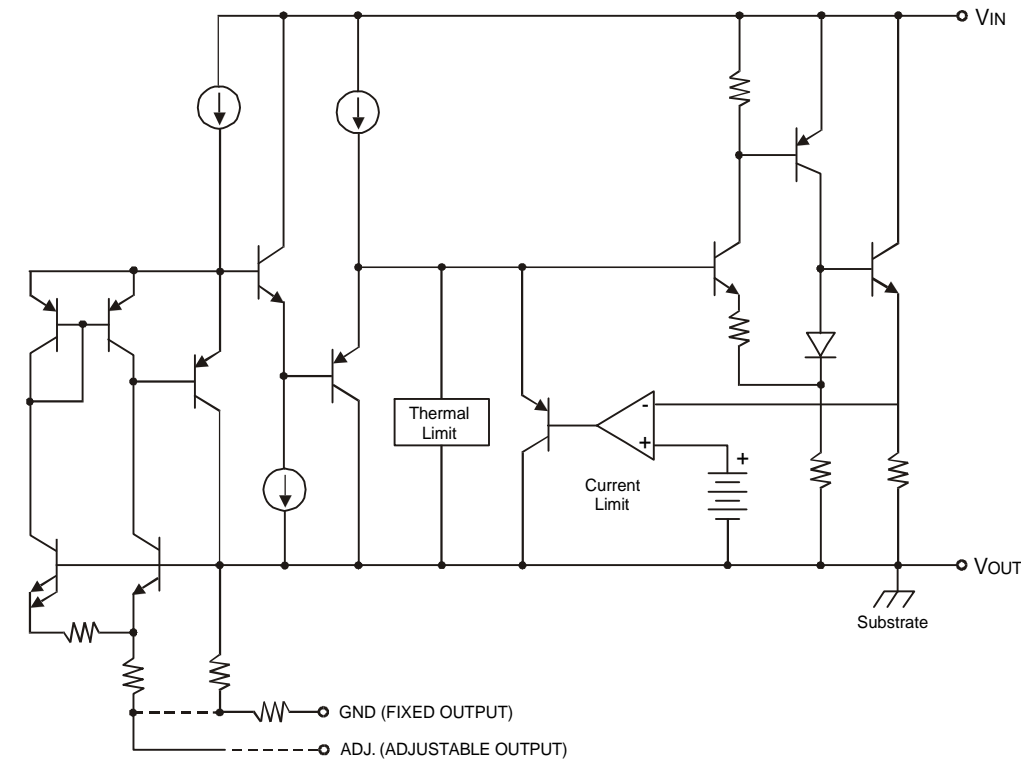
**IC402 TC9257F**



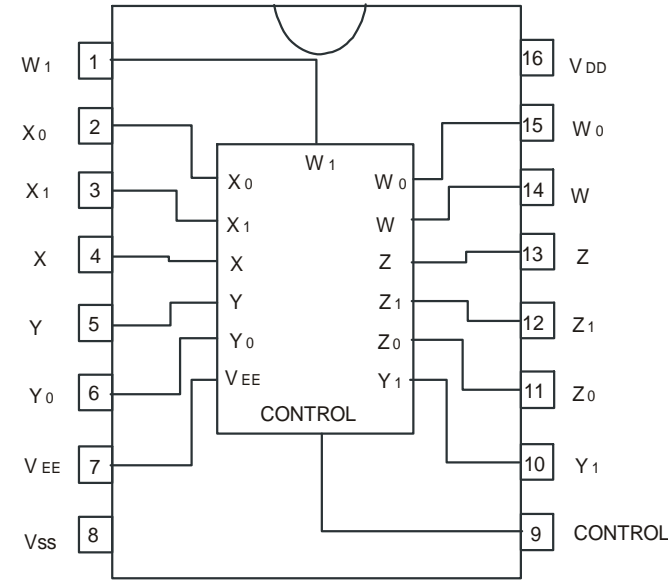
**U3, U4 W981616BH-7**



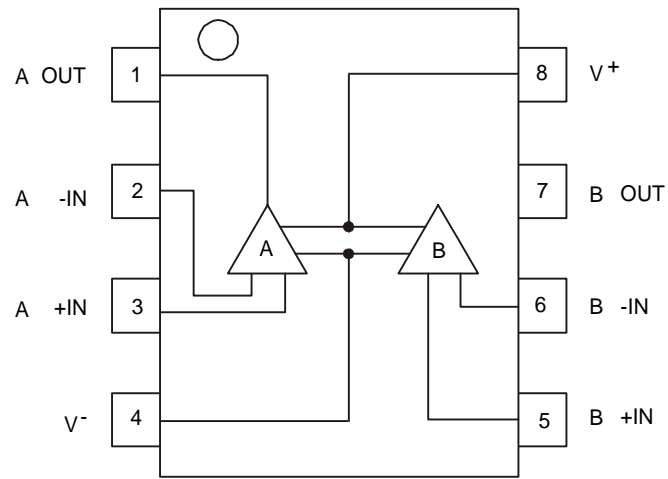
**U17, U18 LD1117S33C  
U19 LD1117S**



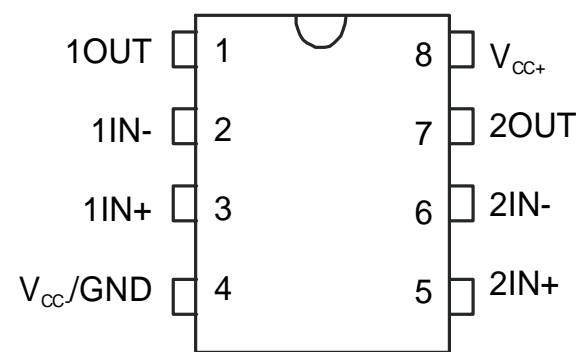
**IC501 BU4551BF**



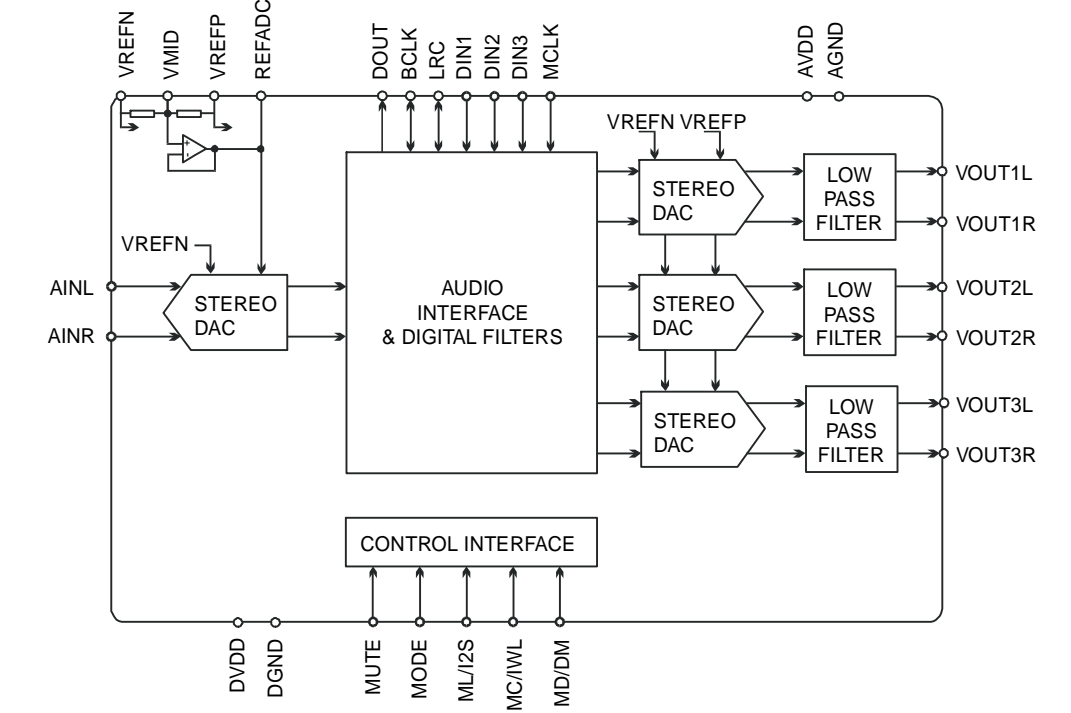
**U11, U12, U13 NJM4580E/LS4580F**



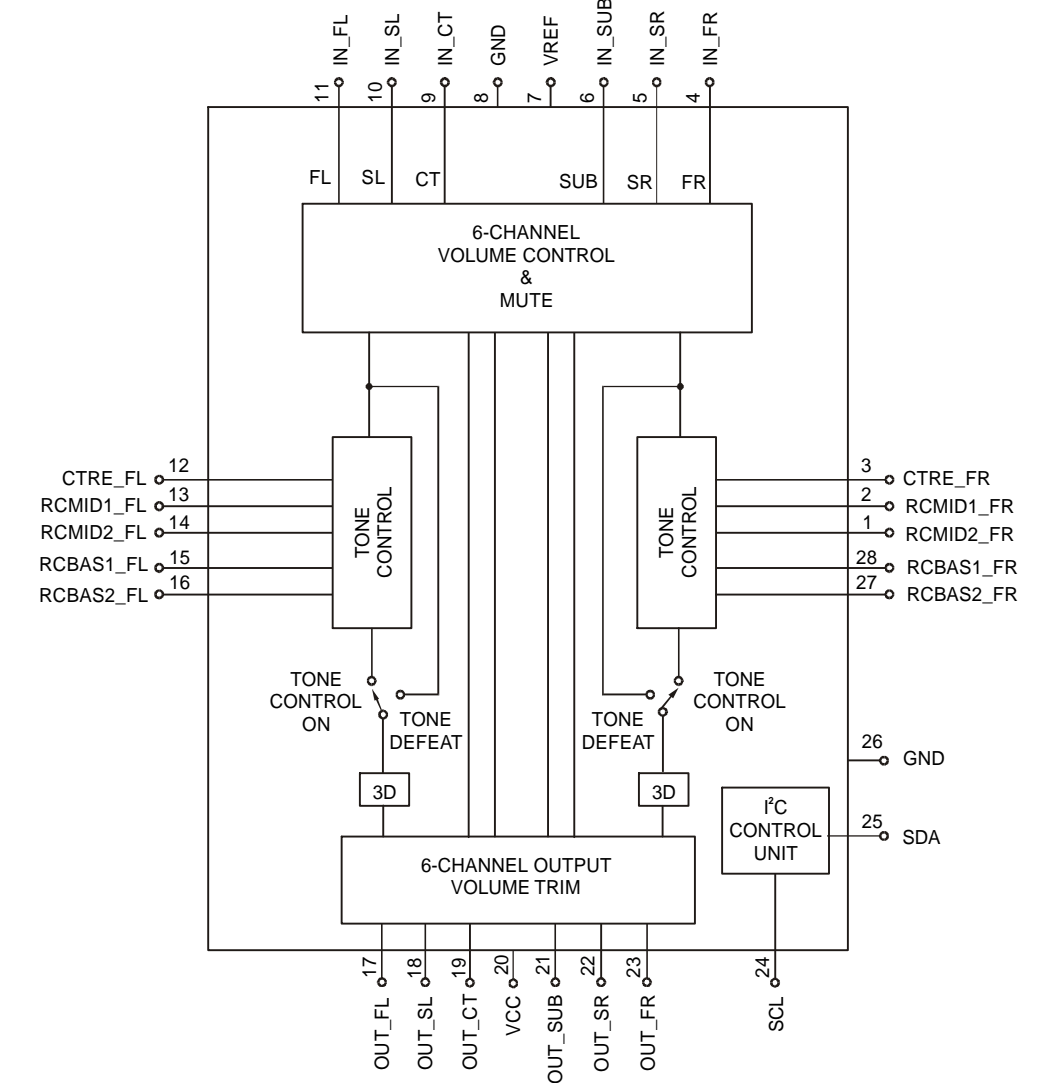
**U1 TL3472CD/R**



**U10 WM8772EDS**



**IC605 PT2322**





**IC301 TMP87EP26F PINS DESCRIPTION**

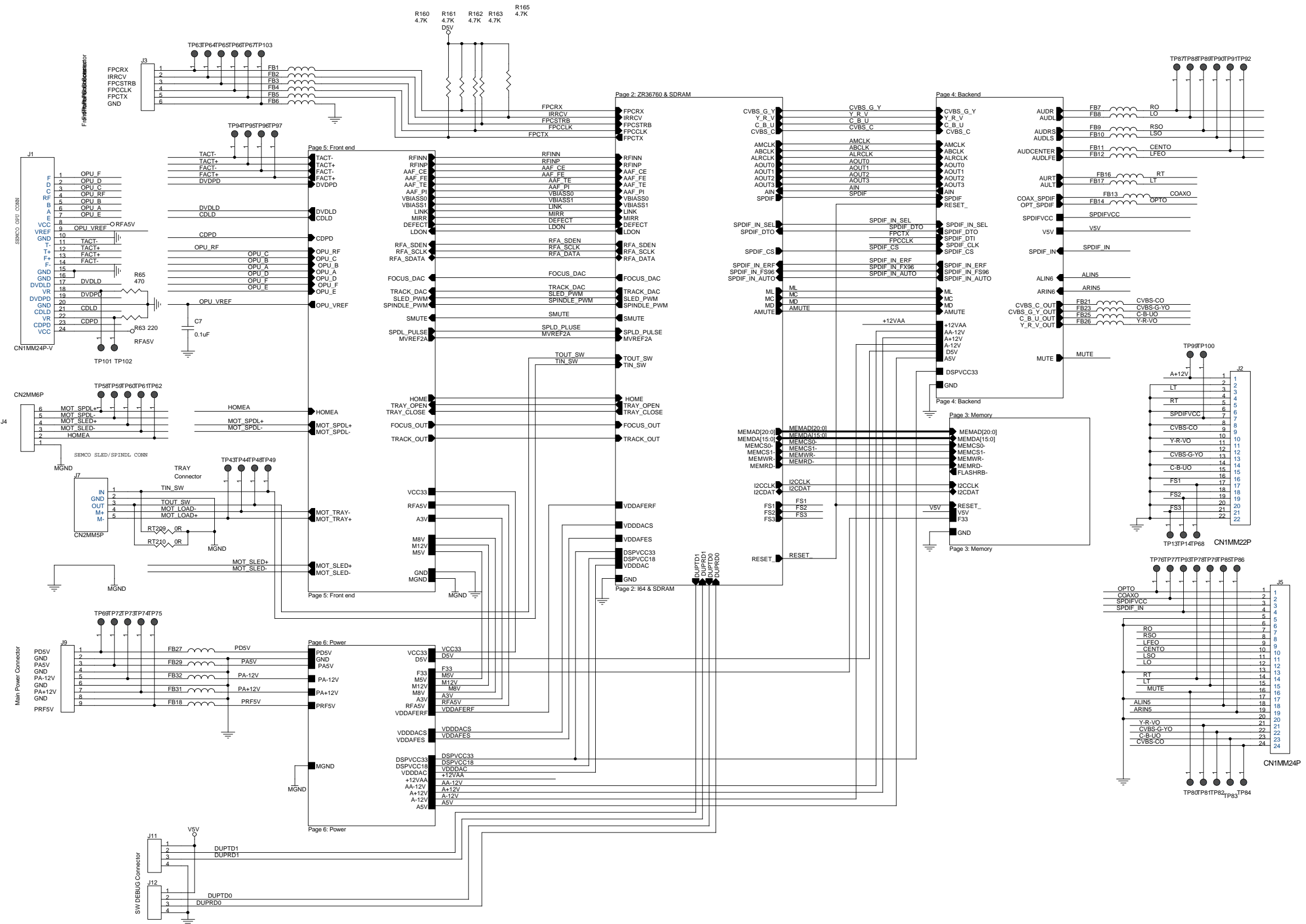
Pin	Port Nome	Pin Name	Description
1	VSS	VSS	Ground
2	XOUT	XOUT	8MHz
3	XIN	XIN	8MHz
4	/RESET	RESET	
5	P2.2 (XTOUT)	CS	CS to Display driver
6	P2.1 (XTIN)	CLK	Clock to Display driver
7	TEST	TEST	
8	P2.0 (INT5/STOP)	STOP*	Poewer Down detector
9	P4.0 (INT3/TC3)	IR*	Remote controller
10	P4.1 (PWM/PDO)	CLKSHIFT	Clock shift on tuner
11	P4.2 (/SCK1)	RDSCCLK*	RDS Clock input pin
12	P4.3 (SI1)	REDSDAT*	RDS Data input pin
13	P4.4 (SO1)	Tuner/-DVD	Selection of Tuner or DVD
14	P4.5 (/SCK2)	DVD-VCLK*	DVD VFD Clock pin
15	P4.6 (SI2)	DVD-VDAT*	DVD VFD Data pin
16	P4.7 (SO2)		
17	P0.0	/OE	373 OE pin
18	P0.1	LE	373 LE pin
19	P0.2	DOUT	Data input from Display Driver
20	P0.3	PLL-CLK	Tuner Clock pin
21	P0.4	PLL-PERIOD	Tuner Period pin
22	P0.5	STEREO	Tuner STEREO input pin
23	P0.6	DVD-ACT	(Not used)
24	P0.7	DVD-IR	IR signal to DVD
25	P1.0 (/INT0)	SHORT-CIRCUIT	Speaker Short circuit detect
26	P1.1 (INT1)		
27	P1.2 (INT2/TC1)	DVD-VCS	DVD CS to Display driver
28	P1.3 (DVO)	CH-MUTE	
29	P1.4 (PPG)	AUX	Channel Mute pin
30	P1.5 (TC2)	DVD-PWR	AUX Channel Selection
31	P1.6	MAIN-PWR	DVD Power control pin
32	P1.7	SYSMUTE	Main Power control pin
33	P3.0	VRDDIN	System Mute
34	P3.1	VFDCS	Data output to Display driver
35	P3.2	VFDCLK	Clock to Display driver
36	P3.3	PLL-DATA	Tuner Data pin
37	P3.4	SCL	I2C Clock pin for Volume IC
38	P3.5	SDA	I2C Data pin for Volume IC
39	P3.6	CH-MUTE	Channel mute pin
40	P5.0 (AIN0)	COUNTRY	Tuner Country selection
41	P5.1 (AIN1)	SIGNAL-DET	Tuner Signal Strength detection
42	P5.2 (AIN2)	JOG-VOL+	Jogger Volume +
43	P5.3 (AIN3)	JOG-VOL-	Jogger Volume -
44	P5.4 (AIN4)	KEY0	Keyboard
45	P5.5 (AIN5)		
46	P5.6 (AIN6)	AM-STEP	Tuner AM Step selection
47	P5.7 (AIN7)		
48	VAREF	VAREF	Analog VCC
49	BOOT	BOOT (H-Program)	Program Data to EEPROM
50	VSS	VSS	Ground
51	VDD	VDD	+5V
52	P8.0 (SEG39)		
53	P8.1 (SEG38)		

**IC301 TMP87EP26F PINS DESCRIPTION - CONTINUED**

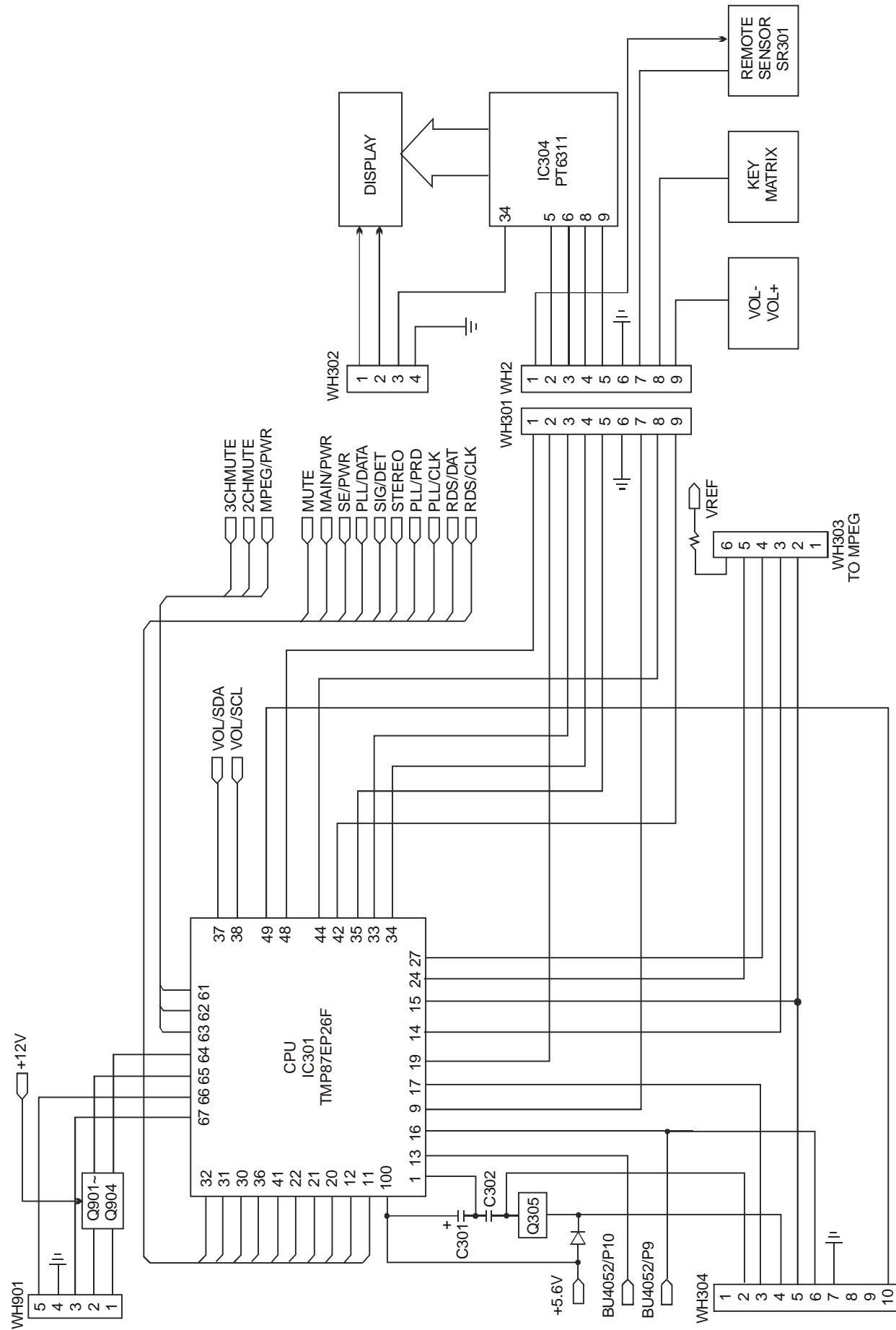
Pin	Port Nome	Pin Name	Description
54	P8.2 (SEG37)		
55	P8.3 (SEG36)		
56	P8.4 (SEG35)		
57	P8.5 (SEG34)		
58	P8.6 (SEG33)		
59	P8.7 (SEG32)		
60	P7.0 (SEG31)		
61	P7.1 (SEG30)		
62	P7.2 (SEG29)		
63	P7.3 (SEG28)		
64	P7.4 (SEG27)		
65	P7.5 (SEG26)		
66	P7.6 (SEG25)		
67	P7.7 (SEG24)		
68	P6.0 (SEG23)		
69	P6.1 (SEG22)	RVS_SW	3-CD Tokyo Pigeon Changer
70	P6.2 (SEG21)	FWD_SW	3-CD Tokyo Pigeon Changer
71	P6.3 (SEG20)	OPCL_SW	3-CD Tokyo Pigeon Changer
72	P6.4 (SEG19)	CN1_SW	3-CD Tokyo Pigeon Changer
73	P6.5 (SEG18)	CN2_SW	3-CD Tokyo Pigeon Changer
74	P6.6 (SEG17)	HOME_SW	3-CD Tokyo Pigeon Changer
75	P6.7 (SEG16)	EXTRA_SW	3-CD Tokyo Pigeon Changer
76	P9.0 (SEG15)	CMF	3-CD Tokyo Pigeon Changer
77	P9.1 (SEG14)	DMR	3-CD Tokyo Pigeon Changer
78	P9.2 (SEG13)	DMF	3-CD Tokyo Pigeon Changer
79	P9.3 (SEG12)	DMR	3-CD Tokyo Pigeon Changer
80	SEG11		
81	SEG10		
82	SEG9		
83	SEG8		
84	SEG7		
85	SEG6		
86	SEG5		
87	SEG4		
88	SEG3		
89	SEG2		
90	SEG1		
91	SEG0		
92	COM3		
93	COM2		
94	COM1		
95	COM0		
96	VLC	LCD Power	
97	PD0		
98	PD1		
99	PD2		
100	VDD	VDD	

# BLOCK DIAGRAMS

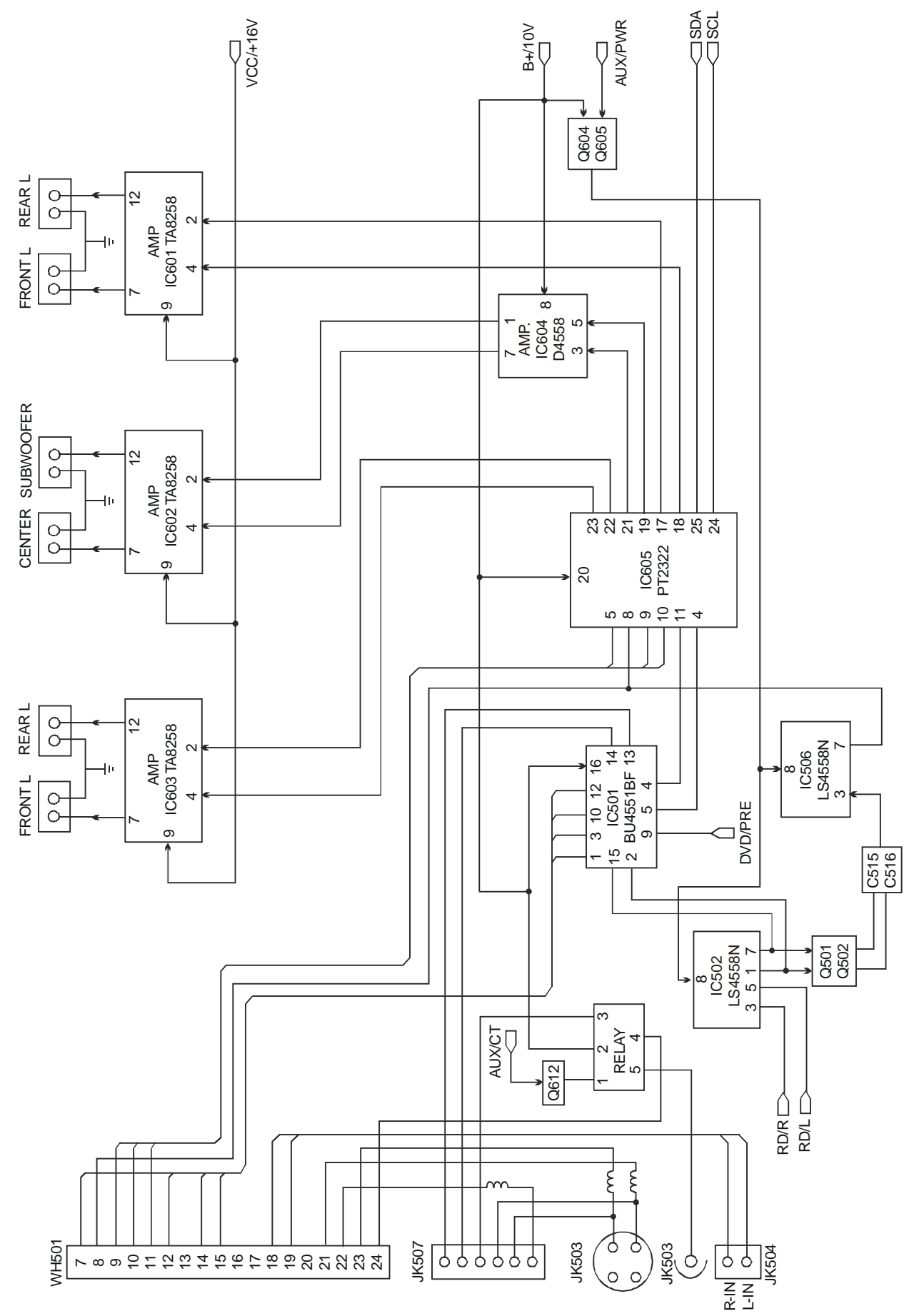
## MPEG+SERVO SECTION



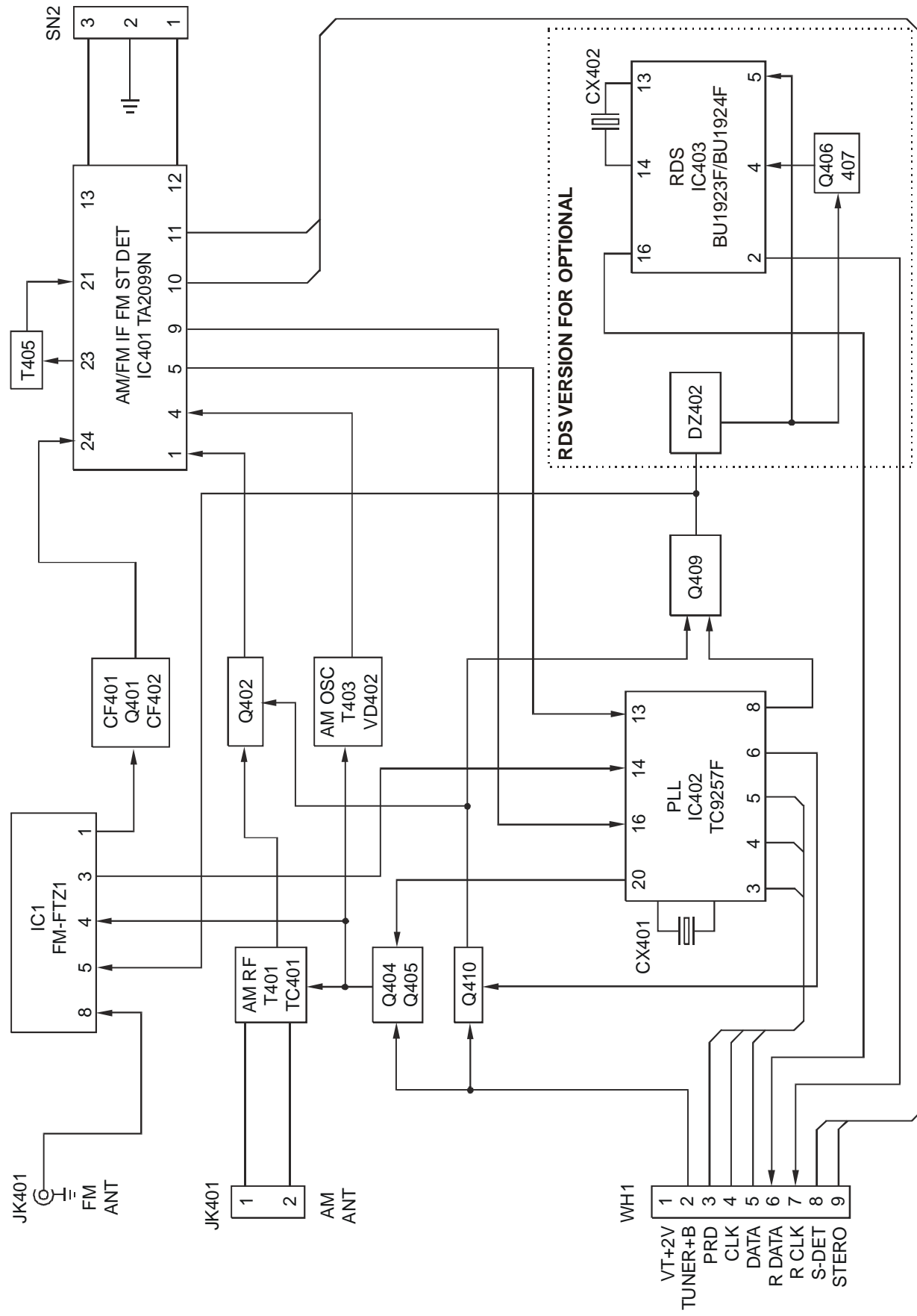
### CPU SECTION



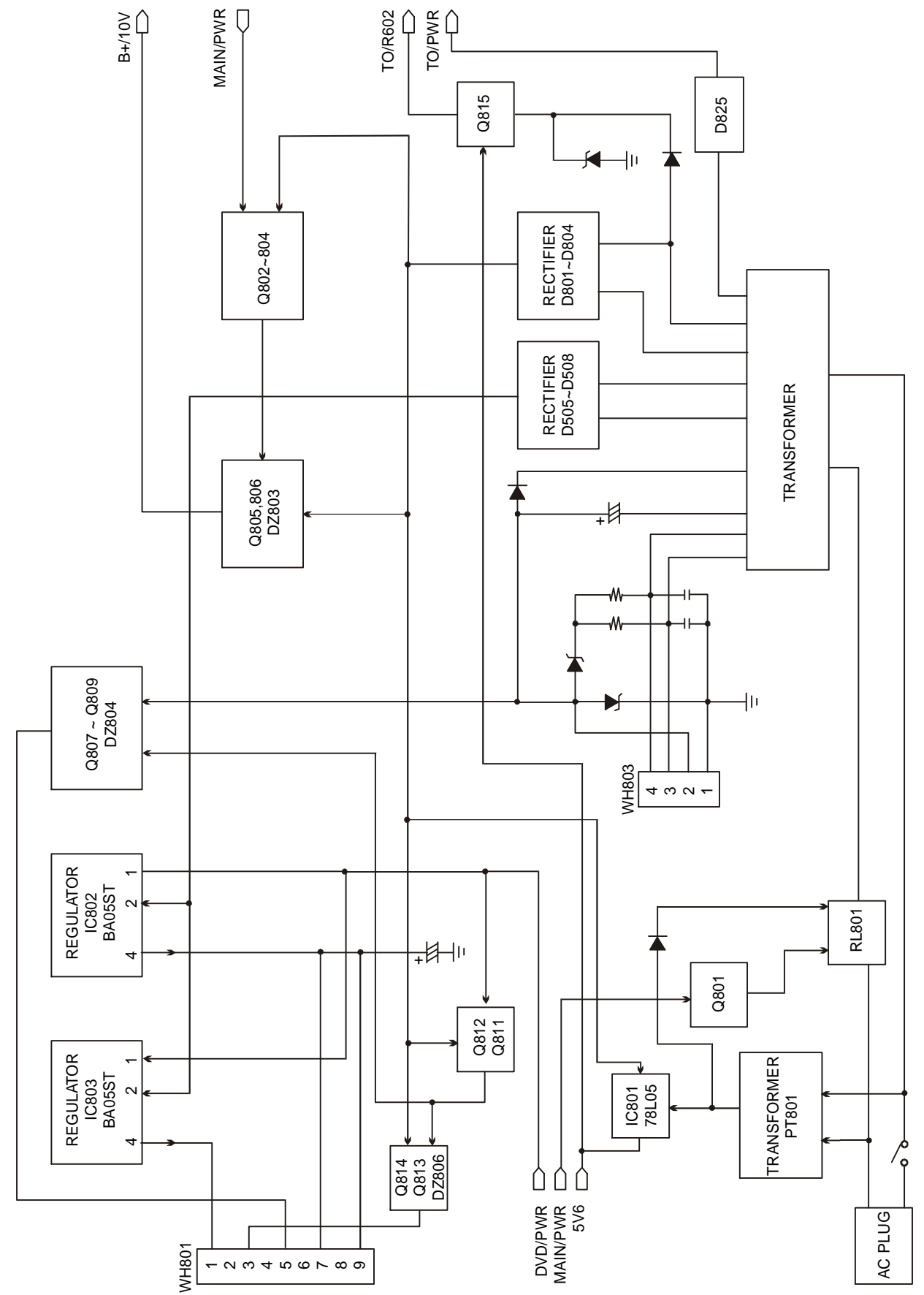
### POWER AMP. SECTION



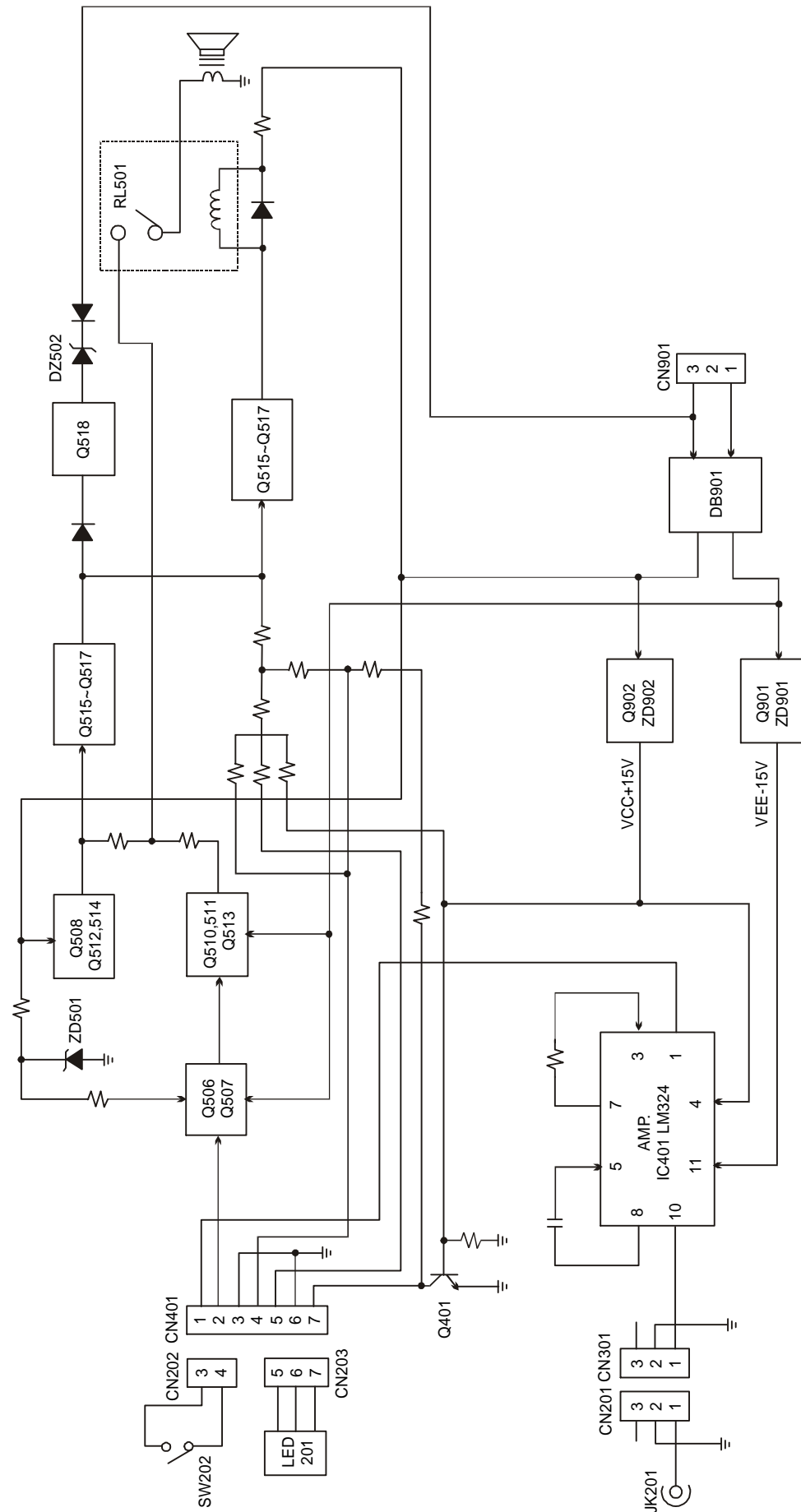
### TUNER SECTION



### POWER SUPPLY SECTION



ACTIVE SUBWOOFER SECTION



EXPLODED DRAWING PARTS LIST

Ref. No.	Description	Mfr's Part No.	Qty.
<b>MAIN UNIT</b>			
1	DVD DOOR, MIRROR LENS, w/PNT	512-ST2612-xxx	1
2	DISPLAY LENS, MIRROR LENS, w/PNT	512-ST2608-xxx	1
3	VOLUME KNOB, MOLD COLOR (ABS) CAV:1, w/SPY	510-ST2507-xxx	1
4	VOLUME KNOB BRACKET, CAV.1 (ABS)	505-ST2509-000	1
5	RUBBER FOOT, 10x10x2.0mm BLACK (NC RUBBER), w/SELF-ADHESIVE	700-630141-000	2
		2/BTM CAB. 2/FRONT PANEL	
6	FRONT PANEL, MOLD COLOR (HIPS), w/SPY & PNT	500-ST25E4-xxx	1
7	POWER KNOB, MOLD COLOR (ABS) CAV:1, w/SPY	510-ST25E1-xxx	1
8	POWER & KEY PCB STS21EAAST-01-01	033-ST21E-100	1
9	CONTROL KNOB, MOLD COLOR (ABS) CAV:7, w/SPY	510-ST2533-xxx	7
10	CONTROL KNOB BRACKET, CAV.1 (ABS)	505-ST2505-000	1
11	VFD-2COL100x20.5SM-033P VACUUM FLUORESCENT DISPLAY #VFD20-1002 (ZEC)	115-001002-000	1
12	LED BRACKET, MOLDED BLACK, CAV.4(ABS)	505-ST2217-000	1
13	DISPLAY KEY PCB STS21A-01-03	033-ST21A-102	1
14	VOLUME LENS, MOLD T.BLUE (80355) (SAN) CAV:4	500-ST2521-000	1
15	REMOTE SENSOR LENS, MOLD T.GREY(J-52858), (SAN) CAV:4	500-ST2519-000	1
16	SPRING ARM, CAV.4 (POM)	509-ST2208-000	1
17	REMOTE SENSOR BRACKET, CAV.1(ABS)	505-ST2511-000	1
18	BOTTOM CABINET, T=0.8mm E.G. STEEL	600-ST22E7-000	1
19	SUB-WOOFER OUTPUT PCB STS21EAAST-01-03	033-ST21E-200	1
20	DVD DOOR (2), MOLD BLACK (FOR MIRROR LENS VERSION)	500-ST2603-000	1
21	MECHANISM BRACKET (B) CAV.2 (ABS)	505-ST2213-000	2
22	MOUNTING BRACKET, T=1.2mm E.G. STEEL	605-ST2115-000	1
23	POST, CAV.1 (ABS)	503-ST2238-000	1
24	FAN COVER, CAV.4 (ABS)	500-ST2108-000	1
25	BACK PLATE, 0.3 BLK PVC, w/PNT	650-ST20E9-xxx	1
26	COOLING FAN DC9V 0.14A DC BRUSHLESS #5010H12S NF1 50x50x10mm	100-090009-000	1
27	PCB BRACKET D, CAV.2 (ABS)	505-ST2226-000	2
28	FUSE PCB STS21A-01-07	033-ST21A-106	1
29	MECHANISM BRACKET (A) CAV.2 (ABS)	505-ST2212-000	2
30	POWER TRANSFORMER w/FUSE 133°C	123-xxxxxx-xxx	1
31	HS&-EXT-AL&-005W-0C FIRM VOLTAGE HEATSINK, (EXTRUDE AL)	613-ST2112-000	1
32	RGB CONNECTOR SOCKET 21 PINS, HRC-021V-07, (KUNMING)/MRC-021V-04(HONDA)	JK701 135-HRC021-210	1
33	SCART PCB STS21A-01-05	033-ST21A-104	1
34	PCB BRACKET (C) CAV.1 (ABS)	505-ST2216-000	1
35	PCB BRACKET (B) CAV.4 (ABS)	505-ST2215-000	4
36	PCB BRACKET (A) CAV.4 (ABS)	505-ST2214-000	4
37	MAIN PCB STS21EAAST-01-02	033-ST21E-200	1
38	MPEG+SERVO PCB STS71A-01-05	033-ST21E-100	1
39	HEATSINK, 0.5mm TIN PLATE	613-DV3231-000	3
40	(F550-266422-000) MOUNTING BRACKET, MOLDED NATURAL, CAV.8 (ABS)	505-266422-000	1
41	TUNER PCB STS21A-01-04	033-ST21A-103	1
42	THERMAL RESISTOR PRESS PLATE, 0.3mm THK PHOSPHOROUS BRONZE	650-DV3238-000	1
43	BLANK PCB STS21A-01-08	033-ST21A-107	1
44	HEAT SINK (FOR 15W) 2.0mm ALUMINIUM	613-DV3242-000	1
45	POWER TRANSFORMER w/FUSE 115°C	123-xxxxxx-xxx	1

**EXPLODED DRAWING PARTS LIST - CONTINUED**

Ref. No.	Description	Mfr's Part No.	Qty.
46	TOP PANEL, T=0.6mm E.G.C. STEEL, CR-FREE, w/SPY	600-ST22E3-xxx	1
	SCREW 3x6mm BB T.T.S. (S TYPE) NI PLATED, (TSB#9878107200)	722-080308-060	10
	SPONGE, SIZE:15mmx15mmx10mm	700-0228A3-000	1
	4" CABLE/PLASTIC TIE (SKB-1M/CV-100) (CdF)	727-000100-000	5
	250mm CABLE/PLATIC TIE (WIDTH 3.6mm)	727-000100-006	1
	PVC TUBE AWG5 INNER DIA:4.72mm (UL/CSA APP.), (DAE CHANG/TAE IK)	UNIT"M" 728-000047-001	0.29
	PVC TUBE AWG1 INNER DIA. 7.35mm DC-3, (DAE CHANG) (UL/CSA APP.) TRANSPARENT	UNIT"M" 728-000073-000	0.16
	PVC HEAT SHRINKABLE TUBE DIA. 3mm (UNITUBE), (UL/CSA APP) (CdF)	UNIT"M" 728-015030-001	0.057
	*CdF PVC HEAT SHRINKABLE TUBE DIA.3.5mm, (UNITUBE) (UL/CSA APP)	UNIT"M" 728-015035-000	0.07
	SCREW ST3x8mm, PB BRASS BASED	720-050300-080	2
	SCREW ST3x8mm, BB HEAD V5.9-6.3, BB BRASS BASED	720-110300-080	2
	METAL WASHER Ø3.2xØ8x0.5mm	2/MAIN PCB 532-203208-050	2
	FIBRE WASHER DIA:3.2x8x1	4/PCB TO HEATSINK 532-303208-100	4
	SPRING WASHER 4mm BLACK	6/TRANSFORMER TO BTM CAB. 532-404000-000	6
	SHIELDING PLATE A, 0.1mm COPPER PLATE (SELF ADHESIVE)	650-ST2125-000	1
	SHIELDING PLATE B, 0.1mm COPPER PLATE (SELF ADHESIVE)	650-ST2126-000	1
	SHIELDING PLATE C, 0.1mm COPPER PLATE (SELF ADHESIVE)	650-ST2127-000	1
	RUBBER FOAM 16x12x10mm	2/MAIN PCB 700-000005-003	2
	RUBBER FOAM, 25x18x15mm THK, w/DOUBLE SIDE TAPE	2/MAIN PCB 700-026849-000	2
	RUBBER FOOT, DIA:10x1.0 PORON HH48C, WITH NITTO 500 (CdF)	1/MAIN PCB 700-AT6619-000	1
	RUBBER (TRANSFORMER) 10x10x5.5mm, w/N500(B) 30 MBR	12/MAIN PCB 700-DV3237-000	12
	HEATSINK INSULATOR, 0.25mm, 25x10mm	700-DV3243-000	1
	FELT B, 50x15x0.3mm HIMERON w/SONY T-3500, 2-SIDED TAPE (T#9871858900)	700-SDC019-001	5
	FOAM CUSHION, 1.5mm EVA	700-ST2113-000	1
	SEPARATOR, T=0.3mm PVC PLATE w/DOUBLE-SIDE AHDESIVE	700-ST2124-000	1
	HEATSINK INSULATOR, 1.0mm FIBRE PAPER (94HB)	700-ST2129-000	1
	SCREW ST3x8mm, PB BRASS BASED	9/ELE PARTS TO BTM CAB. 720-050300-080	9
	SCREW ST3x8mm, BB HEAD V5.9-6.3, BB BRASS BASED	1/BTM CAB. TO POST 720-110300-080	5
	SCREW ST3x10mm BB HEAD V5.9-6.3 BRASS BASED	4/SERVO PCB TO PCB BKT 720-110300-100	4
	SCREW 3x8mm, PM BRASS BASED	6/AMPLIFIER IC TO HEATSINK 721-010300-080	6
	SCREW 4x8mm, PM	6/TRANSFORMER TO BTM CAB. 721-010400-080	6
	SCREW 3x24mm PB T.T.S.	4/MECHANISM TO BTM CAB. 722-020300-240	4
	SCREW 3x6mm FLAT HEAD B TYPE T.T.S. NI-PLATED	1/GROUNDING TO HEATSINK 722-060307-060	2
	1/THERMAL RESISTOR PRESS PLATE TO HEATSINK		
	SCREW 3x6mm BB T.T.S. (PTB 3x6NI)	2/FFC CABLE PCB TO HEATSINK 722-080300-060	2
	SCREW ST3x8mm BB T.T.S. (B TYPE), CBTS(P)-Z CHROMATE PLATING CBTB 3x8 MC)	2/PCB TO HEATSINK 722-080307-082	6
	(F722-080308-182) SCREW 3x18mm BB T.T.S. (S TYPE)	4/FAN COVER TO BTM CAB. 722-080308-180	4
	SCREW 3x38mm BB T.T.S. (S TYPE)	2/SOCKET PCB TO BTM CAB. 722-080308-380	2
	SCREW 3x15mm BM T.T.S. (S TYPE) NI PLATED	722-100308-150	4
	4/PCB STS2xAAST-01-01 TO BTM CAB.		
	NUT M3x0.5 PITCH Ni (TSB#9270221800)	6/AMP. IC TO HEATSINK 725-000030-500	6
	NUT M4	6/TRANSFORMER TO BTM CAB. 725-000040-000	6
	REMOTE SHIELDING, T=0.3mm E.G. STEEL	609-ST6142-000	1

**EXPLODED DRAWING PARTS LIST - CONTINUED**

Ref. No.	Description	Mfr's Part No.	Qty.
	RUBBER PAD, S:7.0x4.8x2.5mm w/AHDESIVE (RUBBER)	700-079329-000	1
	REMOTE SENSOR INVISIBLE FELT	1/SET 700-SD1614-000	1
	CONTROL PCB SHIELD PAPER FIBRE PAPER	700-ST2131-000	1
	DIFFUSOR R, D207 18x8.5mm	700-ST2229-000	1
	POWER KNOB CUSHION, 8.2x8.2x2mm (FORM SPONGE 25)	700-ST22E2-000	1
	RUBBER PAD (DISPLAY) 10x5x3.8mm (NC) RUBBER, w/SELF ADHESIVE	700-ST2522-000	2
	SCREW ST3x8mm, PB BRASS BASED	720-050300-080	2
	2/POWER SWITCH PCB TO FR PANEL		
	SCREW ST2x4mm, BB(4 HEAD) BRASS BASED	2/VOLUME LENS TO FR CAB. 720-110200-040	2
	SCREW ST3x8mm, BB HEAD V5.9-6.3, BB BRASS BASED	1/SPRING ARM TO VOLUME KNOB 720-110300-080	6
	4" CABLE/PLASTIC TIE (SKB-1M/CV-100)(CdF)	5/FR PCB TO FR CAB. 727-000100-000	2
	PVC TUBE AWG5 INNER DIA:4.72mm (UL/CSA APP.), (DAE CHANG/TAE IK)	UNIT"M" 728-000047-001	0.07
	PVC TUBE AWG1 INNER DIA. 7.35mm DC-3, (DAE CHANG) (UL/CSA APP.) TRANSPARENT	UNIT"M" 728-000073-000	0.125
	SCREW ST3x8mm, PB BRASS BASED	2/PIN JACK TO B. CAB. 720-050300-080	2
	FUSE HOLDER #FH-V-03078 5x20mm, P.B CU/SN PLATED	550-790000-002	6
	RUBBER (TRANSFORMER) 10x10x5.5mm, w/N500(B) 30 MBR	700-DV3237-000	4
<b>DVD MECHANISM SECTION - (STSD-010SMT)</b>			
1	DRIVE GEAR, MOLDED BLACK, CAV.2, POM M90 94HB	509-CD3205-000	1
2	LM BELT, MOLD BLACK, DIA:28x1.85x1.85, LOY-BELT-CR MOTOR BELT (RUBBER)	700-0CDD40-002	1
3	PULLEY GEAR, MOLDED BLACK, CAV.4, POM M90 94HB	509-CD3206-000	1
4	CHUCK YOKE, MOLDED BLACK, CAV.2(ABS)	509-DVD302-000	1
5	SLIDER, MOLDED BLACK, CAV.2 (ABS)	509-CD3204-000	1
6	CHASSIS, MOLDED BLACK, CAV.1 (HIPS)	509-CD3202-000	1
7	LEAF SWITCH LS-121-0A (LUP FUNG)	022-001210-001	1
8	TRAY, MOLDED BLACK, CAV.1 (ABS)	509-CD3201-000	1
9	(F700-0CDD18-000) MOTOR PULLEY, MOLDED BLACK, POM M90 94HB, CAV:6 (POM)	509-0CDD18-000	1
10	MOTOR-DC-006V-NORMAL 6V #RF-500TB-12560, (MABUCHI) 10gm (VA TYPE MOTOR)	151-061256-002	1
11	LOAD MOTOR PCB STS21AAST-01-09	033-ST21A-108	1
12	SPRING PLATE, 0.2T S.S.	650-CDD307-000	1
13	CHUCK PLATE, DIA:19.9/DIA:3.5x0.8 ELECTROLYTIC ST.PLATE	650-DVD303-000	1
14	CD MECHANISM HOLDER, MOLDED NATURAL, CAV.2 (ABS)	505-CD3203-000	1
15	CHUCK PULLEY, MOLDED BLACK, CAV.2 (ABS)	509-DVD301-000	1
16	FFC CABLE HOLDER, MOLDED BLACK, CAV.4 (ABS)	505-CD3210-000	1
17	DVD-FLC-01-SAMG-N DVD MECHANISM, FOR CD-R CMS-S21MG6 (SAMSUNG)	163-000216-000	1
18	DVD CUSHION, CR HARDNESS 50+-2 DURO BLACK	700-DVD304-000	4
19	METAL BRACKET, 1.0 THK E.G.STEEL	605-CD3211-000	1
	HEATSINK SPACER, 50x6x2mm INOAC	UNIT"PC" 700-D15669-000	1.4
	RUBBER SPONGE C-4305 (BLK) w/TAPE		
	SCREW ST2.6x10mm, BB BRASS BASED (P TYPE)	720-110260-100	2
	METAL WASHER DIA:2.8/DIA:9.5x0.5mm	532-202809-550	1
	PLANE WASHER DIA:2.8x2.8x0.5mm	2/MOTOR-CHASSIS 532-202807-050	2
	METAL WASHER DIA:2.8/DIA:9.5x0.5mm	4/DVD-CHASSIS 532-202809-550	4
	PVC WASHER Ø10xØ6.05x0.1mm, K890-43	1/SET 532-510006-010	1
	CHUCK PVC PLATE, 17x3.5x0.2	1PC/SET 650-ST1339-000	1
	FOAM RUBBER, 6x5x4.5mm (HARDNESS 60 PAD CORD)	700-0CDD48-001	1
	SCREW 2.6x5mm PM w/CHROMATE-PLATING	2/MOTOR-CHASSIS 721-010260-052	2

**EXPLODED DRAWING PARTS LIST - CONTINUED**

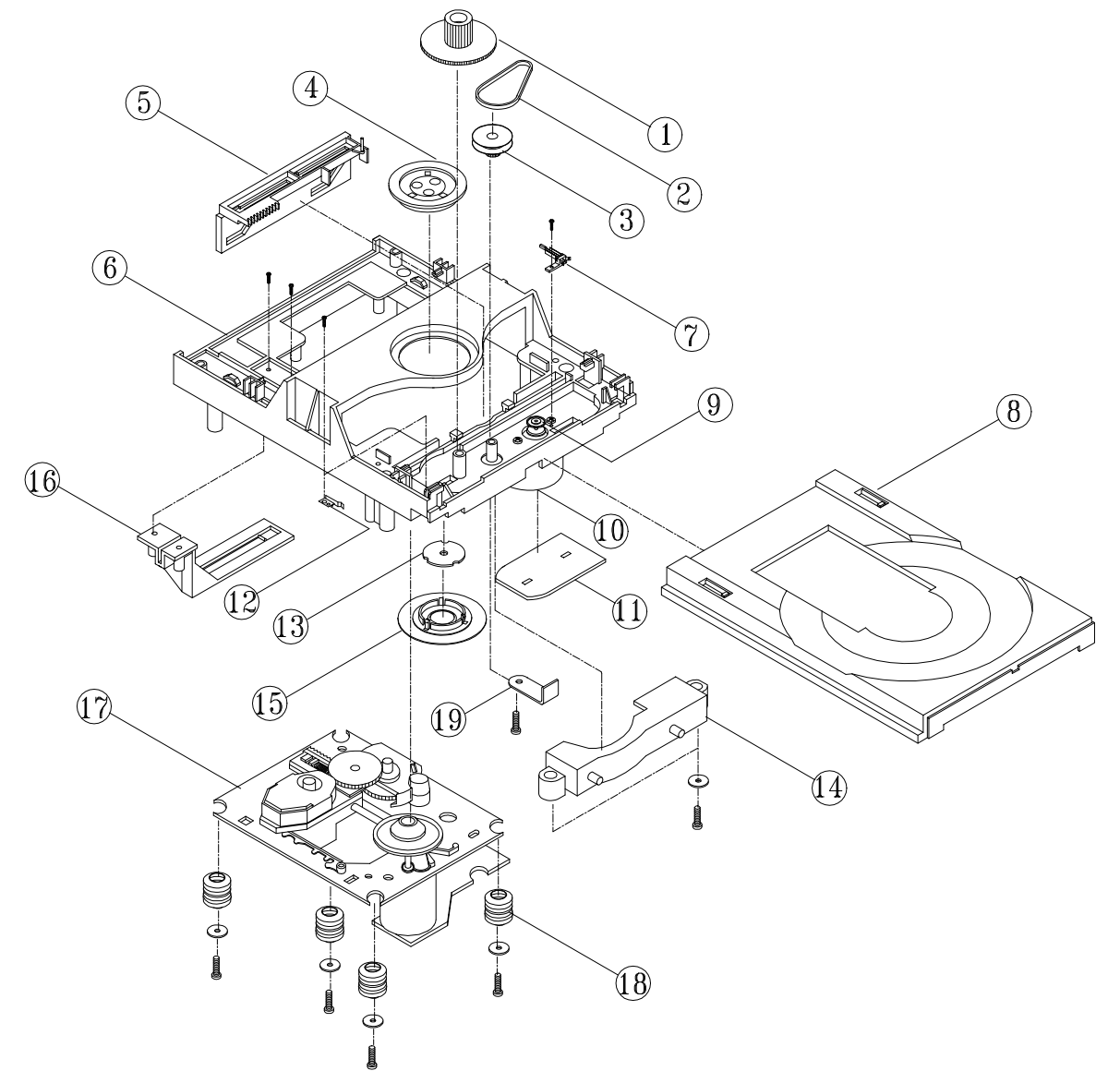
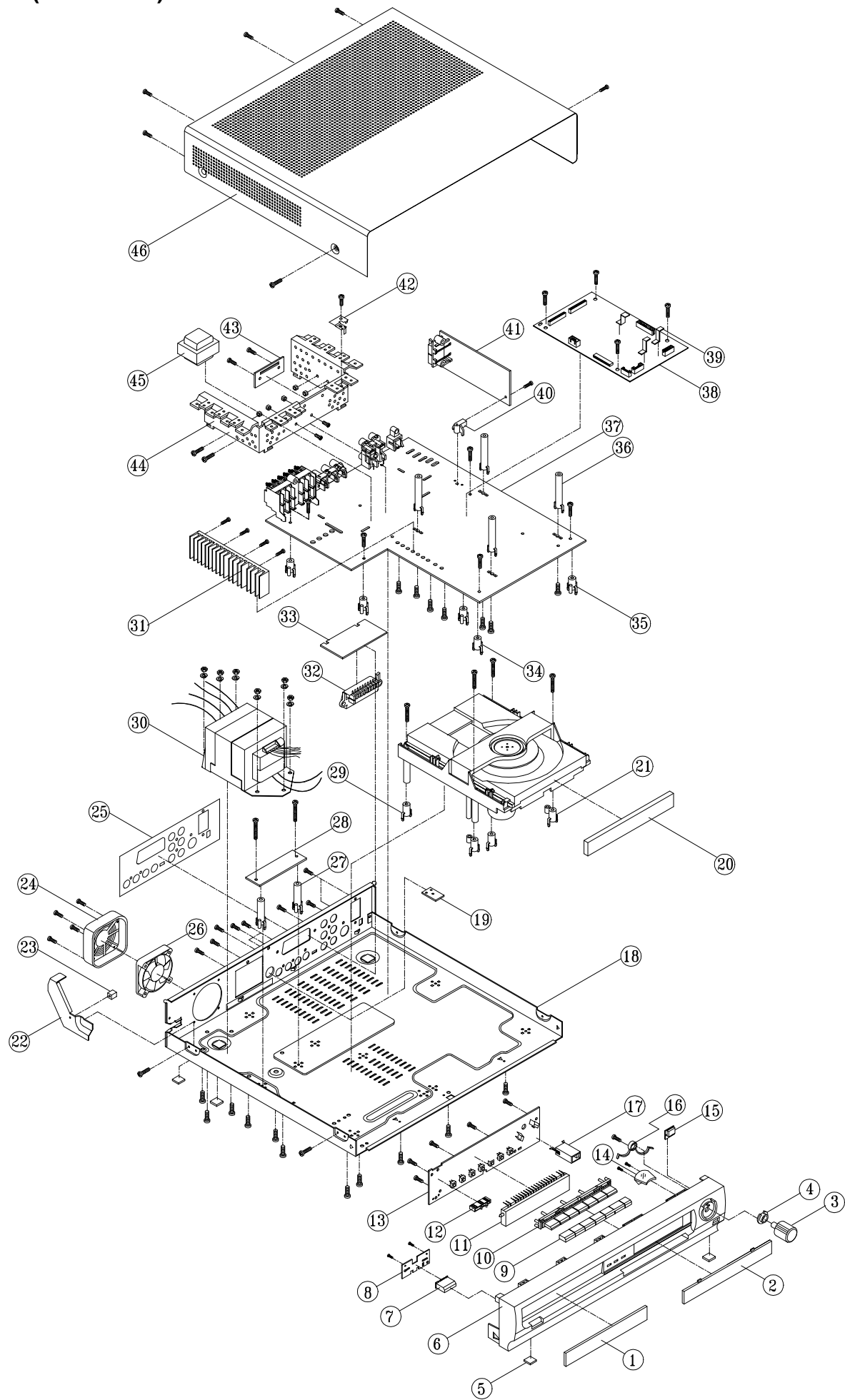
Ref. No.	Description	Mfr's Part No.	Qty.
	SCREW ST2x5mm PB BRASS BASED (M2.3 HEAD) 1/LEAF SW 1/SPRING PLATE	720-050200-050	2
	SCREW 2.6x10mm BB T.T.S. (P TYPE) CHROMATE PLATING, (BTTB2.6x10MC)	722-080260-102	6
	4" CABLE/PLASTIC TIE (SKB-1M/CV-100) (CdF)	727-000100-000	1
<b>CENTER SPEAKER SECTION - (SSQCE3)</b>			
1	SPEAKER CLOTH #FP-D201-131 GREY, WIDTH:67"/71" (S:230x160mm) UNIT"YD"	662-FPD201-000	0.0229
2	SPEAKER CLOTH MESH, CAV.2 (HIPS)	509-SQC303-000	1
3	SPK PANEL, MOLD COLOR (HIPS), w/SPY	500-SQC301-xxx	1
4	SPK00003*006OHM020W w/BLK DOME CLOTH CAP #LF77SZ4314G50C6AS16CDB (GGEC)	131-306020-010	1
5	HOLE COVER, MOLD CNS-0360 (HIPS) CAV:8	500-SSQ104-000	2
6	SPK CABINET, MOLD COLOR (HIPS), w/SPY, ENGRAVE	500-SQCE11-xxx	1
7	SPEAKER CORD BUSHING, MOLDED BLACK, CAV.8 (P.P)	509-650155-000	1
	SPK. BOX FELT 80x8x0.3mm, BLACK (TSB#PM0005432010) (CdF)	700-993856-000	2
	SPEAKER GASKET, 1.5 THK FOAM RUBBER	700-SQC204-000	1
	SCREW ST3x20mm, PAB BRASS BASED	720-010300-200	4
	SCREW ST3x10mm BB HEAD V5.9-6.3 BRASS BASED	720-110300-100	4
<b>ACTIVE SUB-WOOFER SECTION - (ASWT1)</b>			
1	SUBWOOFER PANEL, MOLD COLOR, w/SPY & PNT	500-SWT106-xxx	1
2	LED PCB ASWT1-01-01	033-ASWT1A-100	1
3	SUB-WOOFER TUBE, MOLD L.GREY(CNS-0360), (HIPS) CAV:4	509-SWT202-000	1
4	SUB-WOOFER BOX , 12mm PARTICAL BD., MOKU ME2907 PVC, 220x380x240mm, SPY C.GR 8C	660-ASWT01-001	1
5	SPEAKER POST ADAPTOR, MOLDED NATURAL, CAV.8 (ABS)	503-650127-000	6
6	SPW006.5*004OHM0080W w/BK FLAT PAPER CAP #SW165RZ5801G80F4AS26PFB	131-654080-010	1
7	RUBBER STAND, 22x8mm, BLACK, 7900, K-1S	700-021000-000	4
8	SPEAKER MESH, MOLDED BLACK, CAV.2 (HIPS) REV.1	509-299973-001	1
9	SPEAKER CLOTH #FP-D201-131 GREY, WIDTH:67"/71" (S:320x320mm) UNIT"YD"	662-FPD201-000	0.07
10	AC IN PCB ASW3-01-05	033-00ASW3-400	1
11	SOCKET COVER, MOLDED BLACK, CAV.2 (ABS)	500-ASW303-000	1
12	SUBWOOFER IN PCB ASW3-01-02	033-00ASW3-400	1
13	SPK SWITCH COVER, w/SPY & PNT	600-ASW307-xxx	1
14	ROCKER SWITCH 1P1T #DRT-1106-0(10) (DEFOND), w/VDE/UL/CSA APP.	041-110002-230	1
15	POWER HEATSINK, ALUMINIUM	613-ASW316-000	1
16	TR CLIP, SPRING PLATE	609-ASW315-000	1
17	RCA JACK MTJ-032-12B-01 BLACK (MSC), HTJ-032-08BB (KUNMING)	JK201 118-020032-008	1
18	PCB BRACKET, MOLDED BLACK, CAV.2 (ABS)	505-ASW304-000	1
19	POWER TRANSFORMER	123-xxxxxx-xxx	1
20	SUBWOOFER MAIN PCB ASW3-01-01	033-00ASW3-101	1
	METAL WASHER Ø3.2Ø8x0.6mm (Ø3.5xØ8x0.6mm) 4/RUBBER FOOT	532-203208-060	4
	METAL WASHER Ø4.5xØ12.0x1.0mm, 6/TF	532-204512-100	6
	CHROMATE PLATING		
	FIBRE WASHER DIA:3.2x8x1 3/PCB TO BKT	532-303208-100	6
	SPEAKER CLOTH #ST-30 BLACK WIDTH:40"/42" (160MMX150MM)X1PC/SET 3/PLATE TO HEAT SINK	662-ST3000-000	0.025

**EXPLODED DRAWING PARTS LIST - CONTINUED**

Ref. No.	Description	Mfr's Part No.	Qty.
	TUBE CUSHION, 5mm THK RUBBER FOAM, 1.5/SUBWOOFER PANEL	700-299633-000	1.5
	w/DOUBLE SIDE TAPE UNIT"PC"		
	SPK. BOX FELT 80x8x0.3mm, BLACK, 1.5/SPEAKER BOX	700-993856-000	1.5
	(TSB#PM0005432010) (CdF) UNIT"PC"		
	PLATE CUSHION (1) FOAM 110.0mmx11.0mm TH=1.0mm	700-ASW309-000	2
	PLATE CUSHION (2) FOAM 162.0mmx11.0mm TH=1.0mm	700-ASW318-000	2
	GASKET B, 1.0mm EVA (EGA162-145-1.01) 2/SPEAKER	700-DV3S16-000	2
	HEATSINK INSULATOR,1.0mm FIBRE PAPER (94HB) 1/HEATSINK TO PCB	700-ST2129-000	1
	SOUND TUBE GASKET SWT2-13 DIA:68x1.5mm EVA	700-SWT213-000	1
	SCREW ST2.6x6mm BB BRASS BASED 2/LED PCB TO SPK FRONT PANEL	720-110260-060	2
	SCREW ST3x8mm, BB HEAD V5.9-6.3, BB BRASS BASED	720-110300-080	13
	WOOD SCREW ST3x12mm BA CHIT BOARD 6/POST ADAPTOR TO BOX	720-190300-120	26
	4/SPEAKER TUBE TO BOX		
	8/PLATE TO BOX		
	4/SPEAKER TO BOX		
	4/RUBBER FOOT		
	SCREW 4x20mm, PM 6/BOX TO TF	721-010400-200	6
	SCREW 3x8mm BB T.T.S. (B TYPE) (PTB 3x8 NI) 3/PLATE TO HEAT SINK	722-080300-080	3
	(F722-080308-100) SCREW ST3x10mm BB T.T.S., 1/CLIP TO HEATSINK	722-080307-100	5
	(B TYPE) 2/IC TO HEATSINK		
	2/PLATE TO HEATSINK		
	HEAT SHRINKABLE TUBE DIA:20mm UL/CSA APP, UNIT"M"	728-000200-000	0.035
	(DAE CHANG/CHANGBAO) (50M/ROLL)		
	4" CABLE/PLASTIC TIE (SKB-1M/CV-100) (CdF)	727-000100-000	4
	PVC TUBE AWG3 INNER DIA:6.0mm (UL/CSA APP.), UNIT"M"	728-000060-001	0.2
	(DAE CHANG/TAE IK)		
	*CdF PVC HEAT SHRINKABLE TUBE DIA.3.5mm, UNIT"M"	728-015035-000	0.08
	(UNITUBE) (UL/CSA APP)		
	FUSE HOLDER #FH-V-03078 5x20mm, P.B CU/SN-PLATED	550-790000-002	4
	STRAIN RELIEF BUSHING (HALO 4N-4)	700-036034-000	1
<b>4-SPEAKER SECTION - (SSQE3)</b>			
1	SPEAKER CLOTH #FP-D201-131 GREY, (S:200x160mm)x4 WIDTH:69"/71" UNIT"YD"	662-FPD201-000	0.0796
2	SPEAKER CLOTH MESH, CAV.4 (HIPS)	509-SSQ303-000	4
3	SPK PANEL, MOLD COLOR (HIPS), w/SPY	500-SSQ301-xxx	4
4	SPK00003*006OHM020W w/BLK DOME CLOTH CAP #LF77SZ4314G50C6AS16CDB (GGEC)	131-306020-010	4
5	HOLE COVER, MOLD CNS-0360 (HIPS) CAV:8	500-SSQ104-000	4
6	SPK CABINET, MOLD COLOR (HIPS), w/SPY, ENGRAVE	500-SSQE11-xxx	4
7	SPEAKER CORD BUSHING, MOLDED BLACK, CAV.8 (P.P)	509-650155-000	4
	FELT B, 50x15x0.3mm HIMERON w/SONY T-3500, 2-SIDED TAPE (T#9871858900)	700-SDC019-001	4
	SCREW ST3x35mm, PAB (M3.5 HEAD) BRASS BASED	720-010300-350	16
	SCREW ST3x10mm BB HEAD V5.9-6.3 BRASS BASED	720-110300-100	16

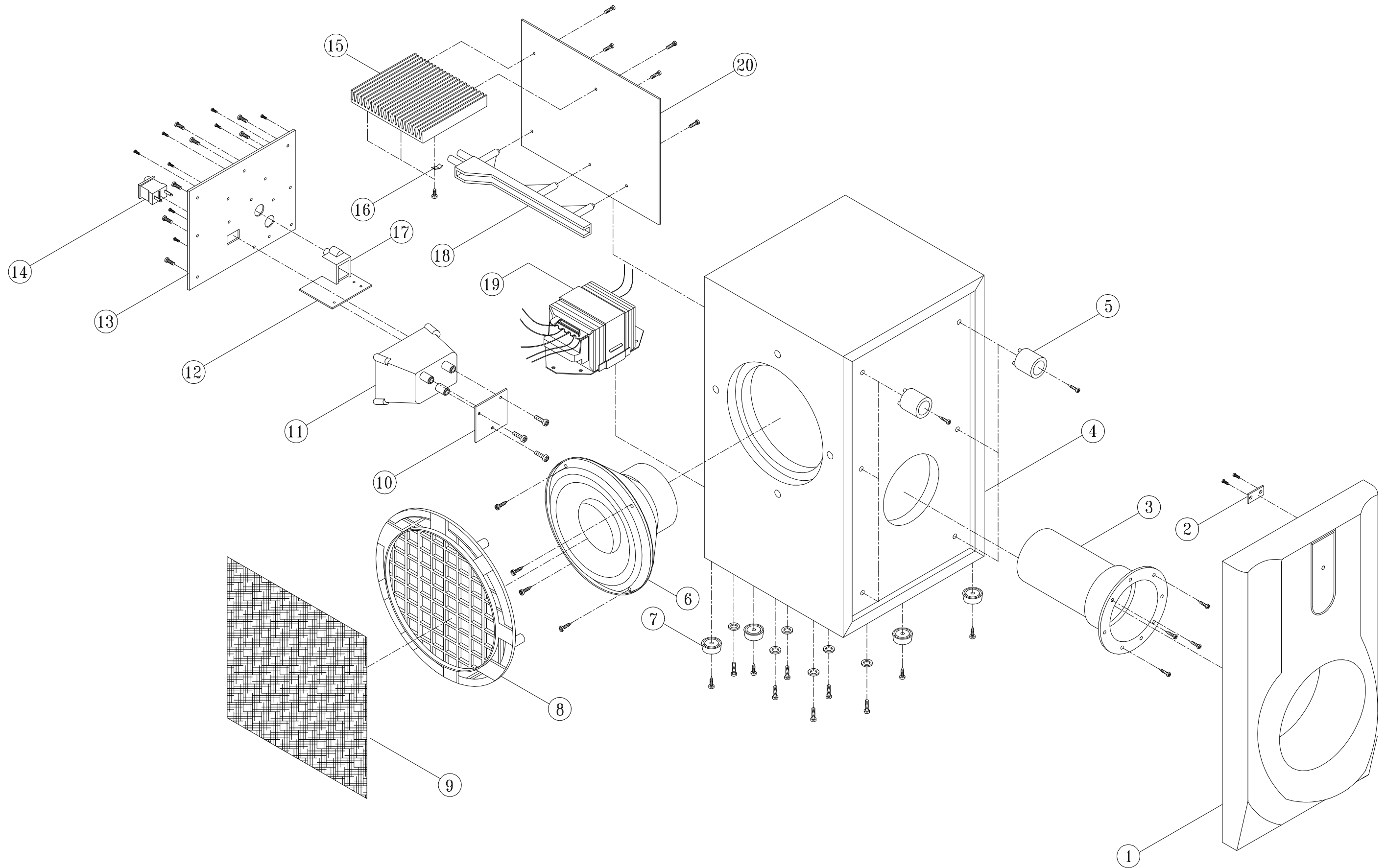
EXPLODED DRAWINGS  
(DVD MECHANISM - STSD-010SMT)

(MAIN UNIT)

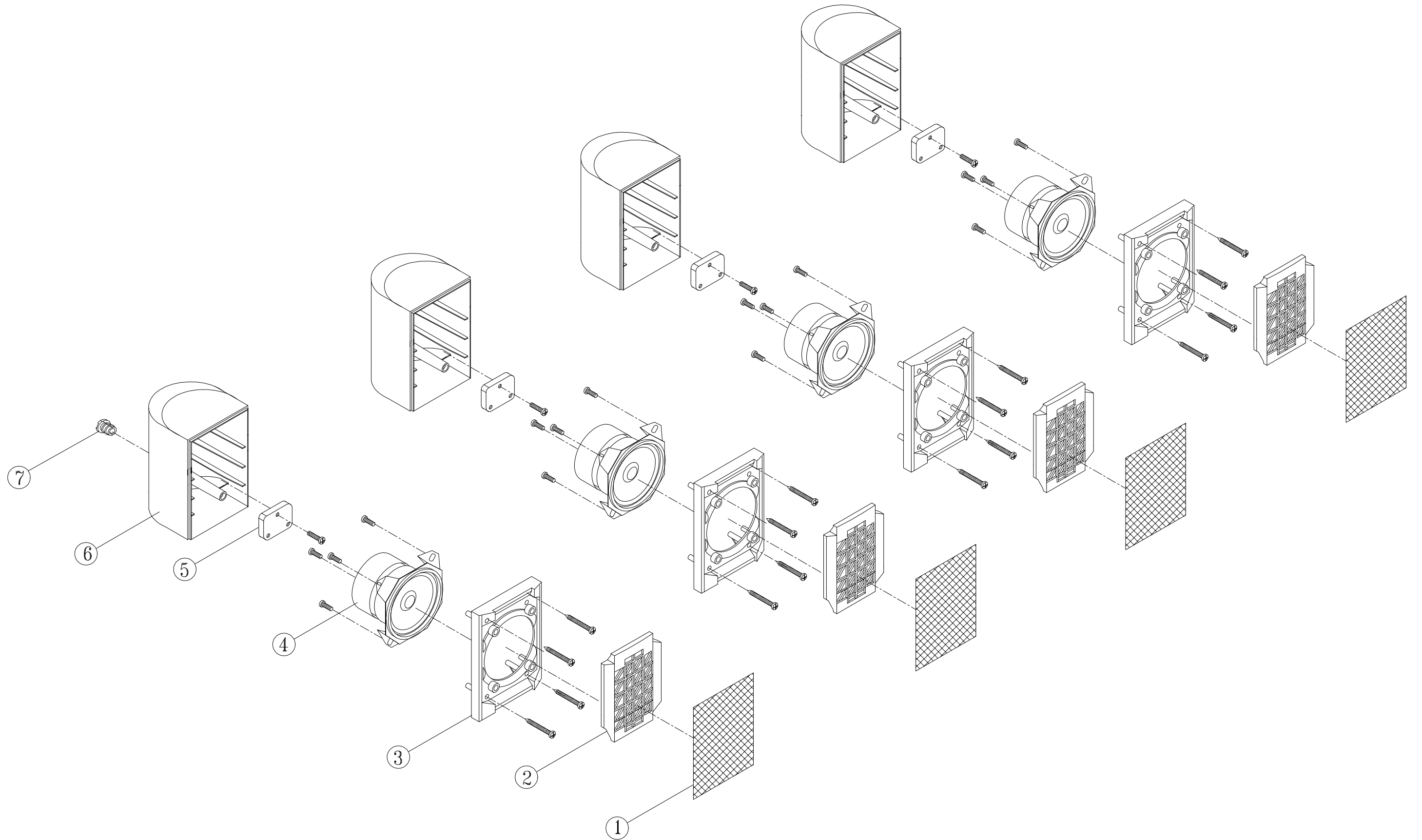




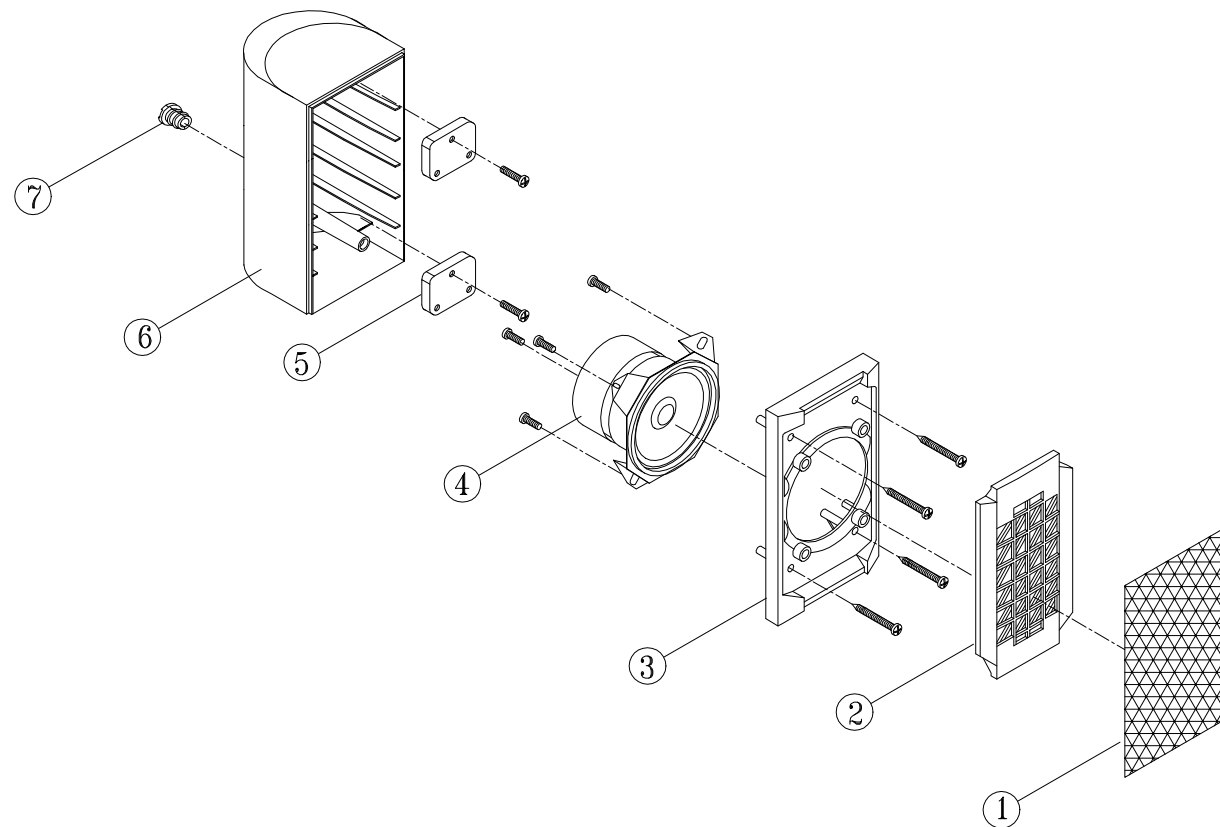
(ACTIVE SUB-WOOFER - ASWT1)



(4-SPEAKER - SSQE3)



(CENTER SPEAKER - SSQCE3)



*December, 2003*