



**AKAI**

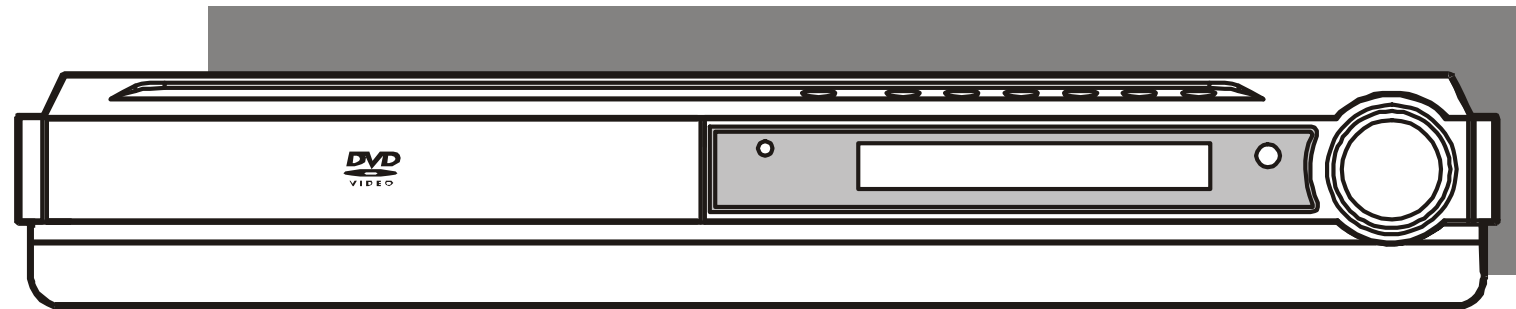
# **DVD HOME THEATER SYSTEM**

Model:  
DV-R4100VSS

# **SERVICE MANUAL**

# Service Manual

## DVD HOME THEATER SYSTEM



**DV-R4100VSS**

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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	: 8ohm non-reactive x 5 Subwoofer 6ohm 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

(AM) SECTION, AMPLITUDE, MODULATION				
	TEST ITEMS	UNIT	NOMINAL	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
		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	dB	35	25
8.	Bandwidth, -6 dB, at (Max. Sens. +6 dB)	999kHz kHz	6	4 - 9
9.	ACA (±9 kHz) input	999kHz dB	20	15
10.	AGC Figure Merit	100mV/m dB	45	40
11.	Distortion, 5mV/m, 30%	%	1	3
		80%	%	3
12.	10% THD Power AC	DEV 80% W	15	13
13.	Tweet (2nd 910kHz & 3rd 1350kHz) at 75 dB I/P	dB	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 b. Hum at Min. Vol.	dB	36	30
		mV	1	3
17.	Auto Stop Sens.	dB	64	70
18.	Step Frequency	kHz	-	9
Remarks:				
Note: All measurement should be done in bypass mode without EQ effects.				

## PERFORMANCE SPECIFICATIONS - CONTINUED

(FM) SECTION, FREQUENCY, MODULATION				
	TEST ITEMS	UNIT	NOMINAL	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
		dB	45	30
8.	AM Suppression (60dB I/P)	dB	45	30
9.	Mod. Hum (100dB I/P)	dB	48	42
10.	Distortion at 1 mV/m (Mono) 100 mV/m	22.5kHz %	1	2
		75kHz %	3	5
11.	Audio Fidelity, (-3dB) (Pre-emphass) (50 μS) Subwoofer	Hz	60/9000	120/6000
		1K=0dB 100 Hz	36	30
12.	Power Out, 10% THD (55K DEV) 1K=1mV Subwoofer Power Out, 10% THD (55K DEV) 100Hz=1mV	W	15	13
		W	22	18
13.	Low Voltage AC	%	80	85
14.	S/N Ratio at 1mV (Stereo) Dev. 10% Pilot with "19" Filter	98MHz dB	52	46
		dB	-	-
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	mV	1.0	3.0
Remarks:				
Note: All measurement should be done in bypass mode without EQ effects.				

**PERFORMANCE SPECIFICATIONS - CONTINUED**

VIDEO SECTION - 1			
		TEST CONDITIONS	SPEC.
1.	Video level	Equipment: Waveform Monitor (Except VM700) Test Signal: LT2-1, 1-1, SAMPLE 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, SAMPLE 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, SAMPLE 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, SAMPLE 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			
		TEST CONDITIONS	SPEC.
8.	Color phase	Equipment: Video Analyser (Expect VM700) Test Signal: LT2-1, 1-1, SMPLE 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, SMPLE 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 100IRE (100% whirt) output level.	700-70/+105mV
Remarks: 1. The initial picture of TV shape is 4:3 Normal. 2. Black level is Enhanced. 3. Audio output select is Analog 2CH.			

**PERFORMANCE SPECIFICATIONS - CONTINUED**

<b>AMPLIFIER SECTION</b>					
	TEST ITEMS	UNIT	NOMINAL	LIMIT	
1.	10% THD Power AC (FL, FR)	W	15	13	
2.	Frequency Response (CT) 1K=0dB	100Hz	dB	-3	±3
		10kHz	dB	0	±3
		20kHz	dB	0	±6
3.	Frequency Response (RR, RL) 1K=0dB	100Hz	dB	-3	±3
		10kHz	dB	0	±3
		20kHz	dB	0	±5
4.	Frequency Response (FL, FR) 1K=0dB	20Hz	dB	-6	±3
		100Hz	dB	0	±3
		10kHz	dB	0	±3
		20kHz	dB	0	±3
5.	Frequency Response (Subwoofer) 1K=0dB	20Hz	dB	40	35
		100Hz	dB	40	35
6.	10% THD Power AC (Subwoofer)	W	22	18	
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	±3
10.	Hum (FL, FR, CT, RL, RR)	mV	1	3	
11.	Hum (Subwoofer)	mV	8	15	
12.	S/N (UNWGTD/CCIR-ARM2K) (L & R)	1kHz	dB	60	55
13.	Bass Effect (FL, FR)	dB	±14	±4	
14.	Treble Effect (FL, FR)	dB	±14	±4	
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 in 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**

<b>DVD AUDIO SECTION (LINE OUTPUT)</b>					
	TEST ITEMS	UNIT	NOMINAL	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.	Cross Talk ( 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	±1.0
		499Hz	dB	0	±1.0
		1kHz	dB	0	±1.0
		10kHz	dB	0	±1.0
		22kHz	dB	0	±1.0
6.	Frequency Range (96kHz / 24BIT LT2-1, 6-1~12) (FL, FR)	20Hz	dB	0	±3.0
		400Hz	dB	0	±3.0
		1kHz	dB	0	±3.0
		12.8kHz	dB	0	±3.0
		20kHz	dB	0	±3.0
7.	Digital Output Level (LT2-1, 1-1 75Ω Loading On)	mV	500	±100	
8.	Dynamic Rang (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 (TCO-731R ABEX)	mm	-	0.6	
<b>CD SECTION</b>					
1.	Interruption (PHILIPS SBC444A)	µm	-	600	
2.	Block Dot	µm	-	600	
3.	Finger Print	µm	-	No.18	
4.	Eccentric (TCO-712 ABEX)	µm	-	140	
5.	Vertical (TCO-731R ABEX)	mm	-	0.8	
<b>CD - R SECTION</b>					
1.	Black Band (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	
<b>CD - RW SECTION</b>					
1.	Blank 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**

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

BY PASS :

	TEST ITEMS	UNIT	NOMINAL	LIMIT
1	10% THD Power AC ( FL, FR ) (1kHz) = 1V	W	15	13
2	10% THD Power AC (Subwoofer) 100Hz = 1V (IN = L + R) Speake for Small	W	22	18

BY PASS R=L= -2dB

	R	L	C	SR	SL	SW	Unit
R	0	≤ - 50	≤ - 50	≤ - 50	≤ - 50	6±3	dB
L	≤ - 50	±3	≤ - 50	≤ - 50	≤ - 50	6±3	dB
Phase	±3	±3	≤ - 45	≤ - 50	≤ - 50	10±5	dB
Antiphase	±3	±3	≤ - 50	≤ - 50	≤ - 50	-	dB
FREQUENCY RESPONSE 1K=0dB							
L/R	100Hz	-3±3	20kHz	±3			dB

Prologic

	R	L	C	SR	SL	SW	Unit
R	-2±3	≤ - 50	≤ - 35	≤ - 35	≤ - 35	4±3	dB
L	≤ - 55	-2±3	≤ - 35	≤ - 35	≤ - 35	4±3	dB
Phase	≤ - 35	≤ - 35	±3	≤ - 35	≤ - 35	4±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	4±3	dB
L	≤ - 50	-3±3	≤ - 35	≤ - 35	≤ - 35	4±3	dB
Phase	≤ - 35	≤ - 35	±3	≤ - 35	≤ - 35	4±6	dB
Antiphase	≤ - 35	≤ - 35	≤ - 35	-3±3	-3±3	≤ - 32	dB
FREQUENCY RESPONSE 1K=0dB							
C (Phase)	100Hz	-3±3	8kHz	-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	≤ - 55	-10±3	≤ - 35	-2±3	dB
L	≤ - 50	-9±3	≤ - 55	≤ - 35	-10±3	-2±3	dB
Phase	≤ - 15	≤ - 15	-6±3	≤ - 35	≤ - 35	±6	dB
Antiphase	≤ - 15	≤ - 15	≤ - 35	-5±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

**PERFORMANCE SPECIFICATIONS - CONTINUED**

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

MATRIX

	R	L	C	SR	SL	SW	Unit
R	-6±3	≤ - 50	-10±3	-6±3	-20±3	4±3	dB
L	≤ - 50	-6±3	-9±3	-18±3	-6±3	4±3	dB
Phase	-10±3	-9±3	-6±3	-12±3	-10±3	5±6	dB
Antiphase	-10±3	-9±3	≤ - 15	-7±3	-6±3	-	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

**AM/FM STEREO & RDS TUNING WITH DVD PLAYER**

FM STEREO & RDS SECTION 37.5kHz (MAIN + SUB.) 7.5kHz (PILOT) 1.2K (RDS) DEV & 1kHz INPUT					
	TEST ITEMS	UNIT	NOR	LIMIT	
1.	RDS Indicator Sensitivity	98MHz	dB	28	< 36
2.	RDS Seek Sensitivity	98MHz	dB	28	< 36

## ELECTRICAL PARTS LIST

Ref. No.	Description	Mfr's Part No.	Qty.
<b>PCB</b>			
MAIN PCB	PCB STS8120-AAST-01-01 (94V0)	033-ST812-200	1
TUNER PCB	PCB STS8120-AAST-01-02 (94V0)	033-ST812-200	1
MOTOR PCB	PCB DVD037-01-01 29.5x22x1.6mm (94V0)	033-DVD037-100	1
KEY PCB	PCB STS81AAST-01-03 139x90x1.6mm/6 (94HB)	033-ST81A-102	1
DISPLAY PCB	PCB STS82AAST-01-01 169.3x136x1.6mm/4 (FR4)	033-ST82A-100	1
MPEG+SERVO PCB	PCB STS82AAST-01-02 153x184.5x1.6mm/2 FR4 OUBLE SIDEDw/PATH THROUGH HOLE	033-ST82A-101	1
<b>REMOTE CONTROL SECTION</b>			
	REMOTE CONTROL HANDSET, w/TITAN (TA903-015962) SPY (FOR STS8x)	043-R15448-160	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</b>			
R603,611,612,613,675,676	CHIP RESISTOR 1 Kohm +-5% 1/16W (0603/1608)	001-310252-016	6
R656	CHIP RESISTOR 100 Kohm +-5% 1/16W (0603/1608)	001-310452-016	1
R652	CHIP RESISTOR 12 Kohm +-5% 1/16W (0603/1608)	001-312352-016	1
R660	CHIP RESISTOR 150 ohm +-5% 1/16W (0603/1608)	001-315152-016	1
R608	CHIP RESISTOR 15 Kohm +-5% 1/16W (0603/1608)	001-315352-016	1
R614,615,626,627,636,637	CHIP RESISTOR 18 Kohm +-5% 1/16W (0603/1608)	001-318352-016	6
R649	CHIP RESISTOR 220 ohm +-5% 1/16W (0603/1608)	001-322152-016	1
R602,616,617,618,619,624, 625,628,629,634,635,638, 639,650,651,663,665,667, 669,671,673,677,678,679, 680	CHIP RESISTOR 2.2 Kohm +-5% 1/16W (0603/1608)	001-322252-016	25
R606,607,658,659,664,666, 668,670,672,674	CHIP RESISTOR 22 Kohm +-5% 1/16W (0603/1608)	001-322352-016	10
R620,621,630,631,640,641	CHIP RESISTOR 2.2 ohm +-5% 1/16W (0603/1608)	001-322852-016	6
R622,623,632,633,642,643	CHIP RESISTOR 2.7 Kohm +-5% 1/16W (0603/1608)	001-327252-016	6
R687,688	CHIP RESISTOR 27 Kohm +-5% 1/16W (0603/1608)	001-327352-016	2
R504	CHIP RESISTOR 33 Kohm +-5% 1/16W (0603/1608)	001-333352-016	1
R558,559	CHIP RESISTOR 3.9 Kohm +-5% 1/16W (0603/1608)	001-339252-016	2
R501,502,503,505,506,507, 508,509,511,512,570,571, 605,654,661,662	CHIP RESISTOR 4.7 Kohm +-5% 1/16W (0603/1608)	001-347252-016	16
R601	CHIP RESISTOR 47 Kohm +-5% 1/16W (0603/1608) (MCR03EZHU-473)	001-347352-016	1
R510	CHIP RESISTOR 8.2 Kohm +-5% 1/16W (0603/1608)	001-382252-016	1
<b>CAPACITORS</b>			
C624,646,648	CHIP CAP 0.015 uF/25V +-10% (0603/1608) (MCH182C153KK/GRM39X7R153K25PT)	003-515312-025	3
C545	CHIP CAP 0.022 uF/50V +-10% (0603/1608)	003-522312-050	1
C618,619,630,631,642, 643,660,661,662,663	#MYLAR CAP 0.1 uF/50V +-10%	004-010410-050	10

## ELECTRICAL PARTS LIST - CONTINUED

Ref. No.	Description	Mfr's Part No.	Qty.
C612,613,625,636,637	CHIP CAP 470 pF/50V +-10% (0603/1608)	003-547112-050	5
C678,679	#MYLAR CAP 0.0047 uF/100V +-10%	004-047210-100	2
C614,627,639,666,668, 669,672,674,675,690	ELECT CAP 1 MFD/50V +-20% (5x11)	006-001000-50D	10
C644	ELECT CAP 2.2 MFD/50V +-20% (5x11)	006-002000-50D	1
C53,535,536,537,538,539, 615,626,638,665,667,670, 671,673,676	ELECT CAP 4.7 MFD/50V +-20% (5x11)	006-004000-50D	16
C658,680	ELECT CAP 100 MFD/10V +-20% (5x11)	006-010100-10D	2
C610,611,622,623,634, 635,650,651	ELECT CAP 100 MFD/16V +-20% (5x11)	006-010100-16D	8
C616,617,629,640,641	ELECT CAP 1000 MFD/25V +-20% (12.5x20)	006-010200-25D	5
C604	ELECT CAP 220 MFD/10V +-20% (6.3x11)	006-022100-10D	1
C628	ELECT CAP 2200 MFD/25V +-20% (VX/16x25)	006-022200-25C	1
C601	ELECT CAP 3300 MFD/50V +-20% (20x40)	006-033200-50D	1
C605,606,607,608,609, 620,621,632,633	*CdF ELECT CAP 47 MFD/16V +-20% (5x11)	006-047000-16D	9
<b>TRANSISTORS</b>			
Q522,523,602,606,607, 608,609,610,611	TRLNPN SST-TAP&TO-092 3DG1815	008-618150-000	9
Q603	TR PNP GEN-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
Q521,615	TR PNP SST-RAD&SC-072 DTA114TS/A (ROHM) KRA-111M (KEC)	008-801142-000	2
<b>INTEGRATED CIRCUITS</b>			
IC605	ICAUDIOLEVEL SENSOR BD3814FV (SSOP-B40) (ROHM)	010-263814-000	1
IC502	ICAMP-OP-02CH-DUALV LS4558N	010-404558-003	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
DZ602,603	ZENER BZX55C7V5 7.5V 1/2W	011-010075-121	2
DZ601	ZENER DIODE 10V #MTZJ10D 1/2W (ROHM)	011-010100-122	1
<b>INDUCTORS</b>			
FB501,502,503,504	FERRITE BEAD INDUCTOR #PI0243NLR6H 5x3.6	032-100243-000	4
<b>WIRE</b>			
	FFC CABLE 24 PINS L=160mm (4+152+4) PITCH:1mm 0.035x0.7 UL2896	040-240160-100	1
<b>MISCELLANEOUS</b>			
L603,604,605,606,607,608	TOROIDAL COIL T953628/TX2409033628	037-953628-261	6
SPK601	LEAD WIRE 18mm 12P PUSH TER.BD PST-1206V-231/MSP-3612V-24LF R,BL,BR,Y,GN,W,BKx6 =118-003612-000	118-001206-000	1
JK501	RCA JACK MSP-226V24-23 NI ALE/ RCA-616AV-211 GREEN,YEL,BLUE,REDx2,WHT	118-020226-000	1
JK502	PIN JACK BOARD MSP-244V1-34 NI / RCA-413D-324 YEL,ORN,WHT,RED	118-020244-000	1
JK503	DIN JACK HDC-056 (KUNMING) DS-28 (LINKTECH)	119-000056-000	1
WH501	FFC CONNECTOR 24 PINS PITCH:1mm 9615S-24A-PP-A/D100-SSA-24/S10024V VERT.	135-009615-240	1
<b>AUX-IN SECTION</b>			
<b>RESISTORS</b>			

**ELECTRICAL PARTS LIST - CONTINUED**

Ref. No.	Description	Mfr's Part No.	Qty.
R690,695	CHIP RESISTOR 10 Kohm +-5% 1/16W (0603/1608)	001-310352-016	2
R515,516	CHIP RESISTOR 27 Kohm +-5% 1/16W (0603/1608)	001-327352-016	2
R513,514	CHIP RESISTOR 8.2 Kohm +-5% 1/16W (0603/1608)	001-382252-016	2
<b>CAPACITORS</b>			
2/JK501 TO JK503, 1/JK502 TO JK503	(F003-010380-025) CERAMIC CAP 0.01 uF/ 50V +80%-20%	003-010380-050	3
C501,502	(F003-610112-050) CHIP CAP 100 pF/50V +-5% NPO (0603/1608)	003-610152-050	2
C503,504	ELECT CAP 4.7 MFD/50V +-20% (5x11)	006-004000-50D	2
<b>TRANSISTOR</b>			
Q613	TRLNPNST-TAP&TO-092 3DG1815	008-618150-000	1
<b>MISCELLANEOUS</b>			
RL501	RELAY 12V 200mW ME-1-12BS 1P2T	128-120112-001	1
TO JK503	SOLDERING LUG	137-300000-000	1
<b>CPU SECTION</b>			
<b>RESISTORS [All are +-5% 1/16W (1/8W) tape &amp; wheel resistors unless otherwise specified]</b>			
R385	RESISTOR 56 ohm, +-5%, 1/2W	001-056050-012	1
JP306,321,338,339,349, 349,350,351,353	CHIP RESISTOR 0 ohm +-5% 1/16W (0603/1608)	001-300052-016	8
R356,357,359	CHIP RESISTOR 1 Kohm +-5% 1/16W (0603/1608)	001-310252-016	3
R303,304,305,306,307,308, 309,310,311,312,314,315, 316,317,318,319,320,321, 322,323,324,325,330,331, 332,333,334,337,338,339, 343,344,345,349,350,360, 361,363,366,367,369,374	CHIP RESISTOR 10 Kohm +-5% 1/16W (0603/1608)	001-310352-016	42
R376,387,3360	CHIP RESISTOR 1.5 Kohm +-5% 1/16W (0603/1608)	001-315252-016	3
R348	CHIP RESISTOR 15 Kohm +-5% 1/16W (0603/1608)	001-315352-016	1
R313,358	CHIP RESISTOR 2 Kohm +-5% 1/16W (0603/1608)	001-320252-016	2
R340	CHIP RESISTOR 20 Kohm +-5% 1/16W	001-320352-016	1
R370,371,372,383	CHIP RESISTOR 220 ohm +-5% 1/16W (0603/1608)	001-322152-016	4
R341	CHIP RESISTOR 22 Kohm +-5% 1/16W (0603/1608)	001-322352-016	1
R327,352	CHIP RESISTOR 2.7 Kohm +-5% 1/16W (0603/1608)	001-327252-016	2
R335,336	CHIP RESISTOR 33 ohm +-5% 1/16W (0603/1608)	001-333052-016	2
R368	CHIP RESISTOR 330 ohm +-5% 1/16W (0603/1608)	001-333152-016	1
R326,328,352,353	CHIP RESISTOR 4.7 Kohm +-5% 1/16W (0603/1608)	001-347252-016	4
R346,347	CHIP RESISTOR 47 Kohm +-5% 1/16W (0603/1608) (MCR03EZJH-473)	001-347352-016	2
R342	CHIP RESISTOR 5.6 Kohm +-5% 1/16W (0603/1608)	001-356252-016	1
R351	CHIP RESISTOR 8.2 Kohm +-5% 1/16W (0603/1608)	001-382252-016	1
<b>CAPACITORS</b>			
C319	CHIP CAP 0.022 uF/25V +-10% (0603/1608) (MCH182C223KK/GRM39X7R223K25PT)	003-522312-025	1
C305,306	CHIP CAP 30 pF/50V +-5% NPO (0603/1608)	003-630052-050	2
C307,308	CHIP CAP 68 pF/50V +-5% NPO (0603/1608) (GRM39COG680J50PT/MCH185A680JK)	003-668052-050	2
C309	ELECT CAP 10 MFD/50V +-20% (5x11)	006-010000-50D	1
C311	ELECT CAP 100 MFD/16V +-20% (5x11)	006-010100-16D	1
C315	ELECT CAP 22 MFD/25V +-20%	006-022000-25D	1
C318	*CdF ELECT CAP 47 MFD/16V +-20% (5x11)	006-047000-16D	1
<b>TRANSISTORS</b>			
Q301	TR NPNST-&&&&&&& 3DG1417	008-601417-000	1
Q303,306	TRLNPNST-TAP&TO-092 3DG1815	008-618150-000	2

**ELECTRICAL PARTS LIST - CONTINUED**

Ref. No.	Description	Mfr's Part No.	Qty.
Q310,311	TRLNPNPWR-TAP&TO-092 3DA8050	008-680500-000	2
Q308,309	TRLNPNPWR-TAP&TO-092 3CA8550	008-685500-000	2
Q305	TR PNPGEN-TAP&SC-072 DTA123ESA (ROHM) (88-WA2-662-08)	008-800123-003	1
Q302	TR NPNST-RAD&SC-072 DTC114ES (ROHM)	008-801141-000	1
<b>INTEGRATED CIRCUIT</b>			
IC301	ICMCU-48K-LCD TMP87EP26F-3D72 (ALDIAUS-DVD32) FLASH MCU	010-918726-000	1
<b>DIODES</b>			
D301,302,303,304	DIODE IN-4148 ROHM/TELEFUNKEN TAP**50 KEL(NS)(TAP:52mm)/NS(FAIRCHILD)/SEMTECH	011-004148-000	4
<b>RESONATOR</b>			
CX301	CERAMIC RESONATOR 8 MHz ZTA08.00MT (CQ)	020-000800-003	1
<b>WIRES</b>			
	FFC CABLE 16 PINS L=410mm/135/155/120 P:1mm UL2896 0.035x0.7	040-160410-100	1
WH303	HSG (2.5mm) MOLEX 5264-06 TO JST 6P-SAN w/160mm R,BK,YEL,O,GR,BL AWG28#UL1007	136-JZ0616-000	1
<b>MISCELLANEOUS</b>			
WH301	FFC/FPC CONNECTOR 16 PINS PITCH:1mm #D100-SSA-16 VERTICAL/TOP CONTACT (CdF)	135-D100SS-160	1
WH305	HEADER CTL 5 PINS PHS-05 PITCH 2mm STRAIGHT TYPE WHT COLOR (MARKING:HR)	135-PHS050-050	1
WH304	HEADER CTL 10 PINS PHS-10 PITCH 2mm STRAIGHT TYPE WHT COLOR (MARKING:HR)	135-PHS100-100	1
WH302	HEADER CTL 13 PINS PHS-13 PITCH 2mm STRAIGHT TYPE WHT COLOR (MARKING:HR)	135-PHS130-130	1
<b>DVD MECHANISM SECTION - (DVDD-037)</b>			
<b>SWITCH</b>			
	LEAF SWITCH LSC-1220-1/LS-122-O(+)	022-001220-000	1
<b>WIRES</b>			
	CONN PIN 3 PINS (3.5+58+3.5) PITCH 2mm UL AWG26#2651	050-030065-200	1
CON1	HSG (2mm) JST PHR-05 TO PHR-05 w/258mm BR,RED,ORN,YEL,GN AWG28#UL1095	136-F00525-800	1
DECK	HSG (2mm) JST PHR-06 TO PHR-06 w/300mm BRN,R,O,Y,GN,BL AWG28#UL1095	136-F00630-000	1
<b>MISCELLANEOUS</b>			
	MAGNET FERRITE (Y30H) OD:16mmID:5.2mmT:3mm 2POLES MAG FORCE:900+-100 Gauss(M051630)	153-DV3713-000	1
CN1	(F135-2001WR-051) HEADER 5 PINS #A2001WR2-05/2001-WR-5 P:2mm HORIZONTAL	135-2001WR-050	1
	MOTOR-DC-005V-NORMAL 5V JONSON-21608 (9874713000)/RF-300CA-09550 (9874711900)	151-052160-000	1
	DVD-FLC-01-SAN&-N DVD MECHANISM FOR CD-R DV34S (SANYO)	163-000034-000	1
<b>FAN SECTION</b>			
<b>RESISTORS [All are +-5% 1/16W (1/8W) tape &amp; wheel resistors unless otherwise specified]</b>			
R874	RESISTOR 18 ohm +-5% 1/4W	001-018050-014	1
R872,875,877,883,884,885	CHIP RESISTOR 100 Kohm +-5% 1/16W (0603/1608)	001-310452-016	6
R871	CHIP RESISTOR 120 ohm +-5% 1/16W (0603/1608)	001-312152-016	1
R879,880,881	CHIP RESISTOR 3.3 Kohm +-5% 1/16W (0603/1608)	001-333252-016	3
R873,876	CHIP RESISTOR 4.7 Kohm +-5% 1/16W (0603/1608)	001-347252-016	2
<b>CAPACITORS</b>			



**ELECTRICAL PARTS LIST - CONTINUED**

Ref. No.	Description	Mfr's Part No.	Qty.
C871,872,873,874,875, 876,877,878	ELECT CAP 10 MFD/50V +-20% (5x11)	006-010000-50D	8
C879	ELECT CAP 100 MFD/16V +-20% (5x11)	006-010100-16D	1
<b>TRANSISTORS</b>			
Q872	TRLNPNST-TAP&TO-092 3DG1815	008-618150-000	1
Q871	TRLPNPPWR-TAP&TO-092 3CA8550	008-685500-000	1
<b>DIODES</b>			
D871,872,873,874,875,876	DIODE IN-4148 ROHM/TELEFUNKEN TAP**50 KEL(NS)(TAP:52mm)/NS(FAIRCHILD)/SEMTECH	011-004148-000	6
<b>INDUCTOR</b>			
L871	INDUCTOR 47uH CEC-470K/708032 +-10% LAL03TB470K/AL0305-470K	018-010476-000	1
<b>MISCELLANEOUS</b>			
	COOLING FAN DC9V 0.14A DC BRUSHLESS #5010H12S NF1 50x50x10mm	100-090009-000	1
<b>FUNCTION SECTION</b>			
<b>RESISTORS</b>			
JP525,528,529	CHIP RESISTOR 0 ohm +-5% 1/16W (0603/1608)	001-300052-016	3
R531,532,610	CHIP RESISTOR 1 Kohm +-5% 1/16W (0603/1608)	001-310252-016	3
R523,524,533,534,550,551, 609	CHIP RESISTOR 10 Kohm +-5% 1/16W (0603/1608)	001-310352-016	7
R552,553	CHIP RESISTOR 12 Kohm +-5% 1/16W (0603/1608)	001-312352-016	2
R539	CHIP RESISTOR 15 Kohm +-5% 1/16W (0603/1608)	001-315352-016	1
R646,647	CHIP RESISTOR 220 ohm +-5% 1/16W (0603/1608)	001-322152-016	2
R517,518	CHIP RESISTOR 2.2 Kohm +-5% 1/16W (0603/1608)	001-322252-016	2
R525,526	CHIP RESISTOR 220 Kohm +-5% 1/16W (0603/1608)	001-322452-016	2
R527,528,535,536,555	CHIP RESISTOR 3.3 Kohm +-5% 1/16W (0603/1608)	001-333252-016	5
R541	CHIP RESISTOR 33 Kohm +-5% 1/16W (0603/1608)	001-333352-016	1
R529,530	CHIP RESISTOR 4.7 Kohm +-5% 1/16W (0603/1608)	001-347252-016	2
R538,560,563	CHIP RESISTOR 47 Kohm +-5% 1/16W (0603/1608) (MCR03EZJH-473)	001-347352-016	3
R519,520,537,540	CHIP RESISTOR 68 Kohm +-5% 1/16W (0603/1608)	001-368352-016	4
<b>CAPACITORS</b>			
C523,524	CHIP CAP 0.033 uF/25V +-10% (0603/1608)	003-533312-025	2
C511,512	(F003-610112-050) CHIP CAP 100 pF/50V +-5% NPO (0603/1608)	003-610152-050	2
C521,522	ELECT CAP 0.22 MFD/50V +-20% (5x11)	006-000200-50D	2
C505,506,517,518,519, 520,530,531,532,533	ELECT CAP 1 MFD/50V +-20% (5x11)	006-001000-50D	10
C513,514,515,516,525	ELECT CAP 4.7 MFD/50V +-20% (5x11)	006-004000-50D	5
C540,654,655	ELECT CAP 100 MFD/16V +-20% (5x11)	006-010100-16D	3
C649	*CdF ELECT CAP 47 MFD/16V +-20% (5x11)	006-047000-16D	1
<b>TRANSISTORS</b>			
Q501,502	TRLNPNST-TAP&TO-092 3DG1815	008-618150-000	2
Q604	TRLPNPPWR-TAP&TO-092 3CA8550	008-685500-000	1
Q605	TR NPNST-RAD&SC-072 DTC114ES (ROHM)	008-801141-000	1
<b>INTEGRATED CIRCUITS</b>			
IC503	ICANALOGSWT-4P2T BU4551BF QUAD 2 CHANNEL ANALOG MULTIPLEXER/DEMUTIPLEXERS	010-354551-000	1
IC501	ICAMP-OP-02CH-DUALV LS4558N	010-404558-003	1
<b>FRONT PANEL SECTION</b>			
<b>RESISTORS [All are +-5% 1/16W (1/8W) tape &amp; wheel resistors unless otherwise specified]</b>			
R390	*CdF RESISTOR 1.5K	001-015251-016	1
R391	*CdF RESISTOR 2.2 Kohm	001-022251-016	1

**ELECTRICAL PARTS LIST - CONTINUED**

Ref. No.	Description	Mfr's Part No.	Qty.
R393	*CdF RESISTOR 3.3 Kohm	001-033251-016	1
R392	*CdF RESISTOR 33 Kohm	001-033351-016	1
R394	RESISTOR 5.6 Kohm	001-056251-016	1
R376,377,378,379	CHIP RESISTOR 10 Kohm +-5% 1/16W (0603/1608)	001-310352-016	4
R273	CHIP RESISTOR 220 ohm +-5% 1/16W (0603/1608)	001-322152-016	1
R301,302	CHIP RESISTOR 33 ohm +-5% 1/16W (0603/1608)	001-333052-016	2
R372	CHIP RESISTOR 47 ohm +-5% 1/16W (0603/1608)	001-347052-016	1
R375	CHIP RESISTOR 4.7 Kohm +-5% 1/16W (0603/1608)	001-347252-016	1
	RE-H12M&GV012P&WSH&D ROTARY ENCODER #XRE0121PVB25FINA1-2-12PCE/I	030-H12203-207	1
<b>CAPACITORS</b>			
C321	CHIP CAP 0.1 uF/16V +-10% (0603/1608) (87-A10-260-08G) (C1608JB1C104K) (TDK)	003-510412-016	1
C301,302,320	(F003-610112-050) CHIP CAP 100 pF/50V +-5% NPO (0603/1608)	003-610152-050	3
C310,311	ELECT CAP 47 MFD/10V +-20% (SMALL SIZE)(5x7)	006-147000-10D	2
<b>INTEGRATED CIRCUIT</b>			
IC302	ICDISPLAYDRIVER-LCD PT6524LQ 64 PINS	010-146524-000	1
<b>DIODE</b>			
D306	CHIP DIODE (SMT) DL4148(DC)/LS4148(KT)	011-044148-002	1
<b>SWITCHES</b>			
SW301,302,303,304,305, 306,307	TACT SWITCH 4P 5mm 100G #1102A-4/ EVQ PAC 05R (=021-KHH901-000)	021-110200-002	7
<b>MISCELLANEOUS</b>			
LED301	LED-B-3MM&-S-&&&-&&& #W03304BSC-BKW 3mm BLUE WATER CLEAR SUPER BRIGHT	110-033042-033	1
SR301	REMOTE/CONTROL PHOTO RECEIVER ROHM/RPM7138-V4	111-007138-000	1
LCD301	LCD-P-08D-8716SM040P 87x16x2.7mm JT4-03061/SDT-DA275-TP-1 TRANS./POSITIVE	112-003061-000	1
WH301	FFC/FPC CONNECTOR 16 PINS PITCH:1mm (#D100-SSA-16 VERTICAL/TOP CONTACT) (CdF)	135-D100SS-160	1
WH307	*CdF HEADER CTL 3 PINS PHS-03 PITCH 2mm STRAIGHT TYPE WHT COLOR (MARKING:HR)	135-PHS030-030	1
<b>WIRE</b>			
WH306	HSG 3CD1-3C JST PHR-03/2mm L=160mm R,BLK,W JP AWG28#1571 SLDG 3mm	136-033CD1-201	1
<b>LINEAR POWER SUPPLY SECTION</b>			
<b>RESISTORS</b>			
R811,828	CHIP RESISTOR 1 Kohm +-5% 1/16W (0603/1608)	001-310252-016	2
R805,807,808,812,814, 817,818,830,843	CHIP RESISTOR 10 Kohm +-5% 1/16W (0603/1608)	001-310352-016	9
R820	CHIP RESISTOR 100 Kohm +-5% 1/16W (0603/1608)	001-310452-016	1
R802,815,845	CHIP RESISTOR 220 ohm +-5% 1/16W (0603/1608)	001-322152-016	3
R803,813,831	CHIP RESISTOR 22 Kohm +-5% 1/16W (0603/1608)	001-322352-016	3
R806	CHIP RESISTOR 33 ohm +-5% 1/16W (0603/1608)	001-333052-016	1
R829	CHIP RESISTOR 3.3 Kohm +-5% 1/16W (0603/1608)	001-333252-016	1
R804,816	CHIP RESISTOR 470 ohm +-5% 1/16W (0603/1608)	001-347152-016	2
R801,819	CHIP RESISTOR 4.7 Kohm +-5% 1/16W (0603/1608)	001-347252-016	2
R809	CHIP RESISTOR 5.6 Kohm +-5% 1/16W (0603/1608)	001-356252-016	1
R810	CHIP RESISTOR 680 ohm +-5% 1/16W (0603/1608)	001-368152-016	1
R821,822,823	CHIP RESISTOR 10 ohm +-5% 1/16W (0603/1608)	001-310052-016	3
R824	CHIP RESISTOR 33 ohm +-5% 1/16W (0603/1608)	001-333052-016	1
<b>CAPACITORS</b>			

**ELECTRICAL PARTS LIST - CONTINUED**

Ref. No.	Description	Mfr's Part No.	Qty.
C805,806,807,808,821,829,831,833,845	CERAMIC CAP 0.02 uF/50V +80%-20%	003-020380-050	9
C818,835,837	CHIP CAP 0.022 uF/50V +-10% (0603/1608)	003-522312-050	3
C827,843,844,848,850,860	ELECT CAP 10 MFD/50V +-20% (5x11)	006-010000-50D	6
C817,836,840	ELECT CAP 100 MFD/16V +-20% (5x11)	006-010100-16D	3
C813,865	ELECT CAP 100 MFD/35V +-20% (8x11.5)	006-010100-35D	2
C841	ELECT CAP 100 MFD/50V +-20% (8x11.5)	006-010100-50D	1
C830,849,855	ELECT CAP 1000 MFD/10V +-20% (10x16)	006-010200-10D	3
C838	ELECT CAP 220 MFD/10V +-20% (6.3x11)	006-022100-10D	1
C820,822	ELECT CAP 220 MFD/16V +-20% (8x11.5)	006-022100-16D	2
C834	ELECT CAP 220 MFD/25V +-20% (8x11.5)	006-022100-25D	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
C819,847	*CdF ELECT CAP 47 MFD/16V +-20% (5x11)	006-047000-16D	2
C828,846	ELECT CAP 470 MFD/10V +-20% (8x11.5)	006-047100-10D	2
C839	ELECT CAP 220 MFD/16V +-20% (8x11.5)	006-022100-16D	1
<b>TRANSISTORS</b>			
Q806,814	TRANSISTOR B1566E (LIGHTNING)	008-201566-100	2
Q807,815	TRLNPNST-TAP&TO-092 3CG1015/2SA1015	008-610150-000	2
Q805,813	TRLNPNST-TAP&TO-092 3DG1815	008-618150-000	2
Q808	TRLNPNPWR-TAP&TO-092 3DA8050	008-680500-000	1
Q809	TRLNPNPWR-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	(F008-800111-113) TR NPNSST-RAD&SC-072 DTC114TS(TP)(ROHM)/KRC-111M (KEC)	008-801143-000	3
Q801	TRLNPNST-TAP&TO-092 3DG1815	008-618150-000	1
<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>			
D810,811,815,816,817,818,822,823	DIODE IN-4148 ROHM/TELEFUNKEN TAP**50 KEL(NS)(TAP:52mm)/NS(FAIRCHILD)/SEMTECH	011-004148-000	8
DZ807	ZENER DIODE 6.2V #MTZJ6.2C	011-010062-005	1
DZ803,804,806	ZENER DIODE 10V #MTZJ10D 1/2W (ROHM)	011-010100-122	3
D801	BRIDGE RECTIFIER RS201 SINGLE PHASE 2.0 AMP/RS201(DC)	011-020201-000	1
D825	BRIDGE RECTIFIER RS602(GOODWORK)/ RS602(DC)	011-020602-001	1
D809,821,824,832	RECTIFIER IN-4001B/IN-4001(DC)	011-024001-000	4
D805,806,807,808	RECTIFIER IN5822/IN5822(DC)	011-025822-000	4
D819,820	RECTIFIER IN-4001B/IN-4001(DC)	011-024001-000	2
<b>INDUCTORS</b>			
L801,802,803,804	INDUCTOR 3.3uH 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>			
G2 TO G3	JP WIRE AWG22#1007 5x5mm 180mm BLACK	051-275180-009	1
P7,8,9	JP WIRE AWG26#1007 5x5mm 50mm BLACK(CdF) *CdF JP WIRE AWG26#1007 5x5mm 100mm RED *CdF JP WIRE AWG26#1007 5x5mm 100mmBLACK	051-675050-009 051-675100-006 051-675100-009	3 1 2
<b>MISCELLANEOUS</b>			

**ELECTRICAL PARTS LIST - CONTINUED**

Ref. No.	Description	Mfr's Part No.	Qty.
FS801	⚠ MICRO FUSE #251.630 630mA/125VWFF-215.630	124-006310-000	1
FS802,803	⚠ (F124-020020-009) FUSE #618002 2A/250V 5x20mm TIME LAG (UL/VDE/CSA/CCC APP.)	124-020020-007	2
FS804	⚠ FUSE #21806.3 6.3A/250V 5x20mm TIME LAG (CUL/SEMKO/VDE/BSI/CCC/JIS/KOR)	124-063020-001	1
RTM801	⚠ THERMISTOR T5D410K45JBPDA-0/100KD-5K/ JTR5T104K52PU5	124-205410-001	1
	⚠ RELAY 9V SDT-S-109LMR	128-090109-000	1
CN803	HEADER 2 PINS #TJ6-2A PITCH:3.96mm VERTICAL 1.14mm AQUIRE PIN	135-000TJ6-020	1
CN802	PIN HEADER 2 PINS TJC6-02P3 PITCH:7.92mm VERTICAL 1.14mm SQUARE PIN	135-00TJC6-020	1
WH802	HEADER 6 PINS PEC #2507-WS-6 PITCH 2.5mm VERTICAL REPLACE:135-005267-060	135-2507WS-060	1
WH801	HSG (2.5mm) PEC 2507H-09 TO 2501H-09 w/220mm RED,GREYx8 AWG24#UL1007 ⚠ PT1.5WEI28/12&F&WVDE 230V:12.4V w/FUSE 115°C (P2812-A15E) ⚠ PT090WEI&&43&F&BVDEw/CIRCLE 230V:24.18V/ 13V/7.95V/28.5Vw/136C(DB-DQ30/130-2683) ⚠ PLA-ULN-7'05"-VDE-MG VDE APP. CORD 2250mm w/CUSHION MIGRATION (HARVEST)	136-J10922-000 123-053531-100 123-J53581-401 134-B11331-006	1 1 1 1
<b>MPEG+SERVO SECTION</b>			
<b>RESISTORS</b>			
R2,3,4,8,23,26,27,29,31,41,67,187,211,225,253, RT204,209,210,211,212,213,214,215,219, FB21,23,25,26	CHIP RESISTOR 0 ohm +-5% 1/16W (0603/1608)	001-300052-016	28
R78,166	CHIP RESISTOR 10 ohm +-5% 1/16W (0603/1608)	001-310052-016	2
R167	CHIP RESISTOR 100 ohm +-5% 1/10W (0805/2012) (MCR10EZJH-101)	001-310150-010	1
R47,48,74,86,98,108,119,133,197	CHIP RESISTOR 1 Kohm +-5% 1/16W (0603/1608)	001-310252-016	9
R132,150,153,266	CHIP RESISTOR 10 Kohm +-1% 1/16W (0603/1608)	001-310312-016	4
R30,52,54,72,84,95,106,117,131,136,195	CHIP RESISTOR 10 Kohm +-5% 1/16W (0603/1608)	001-310352-016	11
R63,65,116,128,130	CHIP RESISTOR 100 Kohm +-5% 1/16W (0603/1608)	001-310452-016	5
R28,179	CHIP RESISTOR 1 Mohm +-5% 1/16W (0603/1608)	001-310552-016	2
R49,57,58,154	CHIP RESISTOR 1 ohm +-5% 1/16W (0603/1608)	001-310852-016	4
R69,157,192	CHIP RESISTOR 11 Kohm +-5% 1/16W (0603/1608)	001-311352-016	3
R135	CHIP RESISTOR 12 Kohm +-1% 1/16W (0603/1608)	001-312312-016	1
R140,141,142	CHIP RESISTOR 1.3 Kohm +-5% 1/16W (0603/1608)	001-313252-016	3
R16	CHIP RESISTOR 13 Kohm +-1% 1/16W	001-313312-016	1
RT207	CHIP RESISTOR 15 Kohm +-5% 1/16W (0603/1608)	001-315352-016	1
R56,59	CHIP RESISTOR 180 ohm +-5% 1/16W (0603/1608)	001-318152-016	2
R120,170	CHIP RESISTOR 2 Kohm +-5% 1/16W (0603/1608)	001-320252-016	2
R32,36	CHIP RESISTOR 22 ohm +-5% 1/16W (0603/1608)	001-322052-016	2
R13,14,61,71,83,94,102,111,125,194	CHIP RESISTOR 220 ohm +-5% 1/16W (0603/1608)	001-322152-016	10
R1,68	CHIP RESISTOR 2.2 Kohm +-5% 1/16W (0603/1608)	001-322252-016	2
R70,82,88,101,110,190,193	CHIP RESISTOR 22 Kohm +-5% 1/16W (0603/1608)	001-322352-016	7
R199	CHIP RESISTOR 2.4 Kohm +-5% 1/16W (0603/1608)	001-324252-016	1
R33,34,35,55,180,181,182,183,184,185,186,188	CHIP RESISTOR 33 ohm +-5% 1/16W (0603/1608)	001-333052-016	12

**ELECTRICAL PARTS LIST - CONTINUED**

Ref. No.	Description	Mfr's Part No.	Qty.
R64,134	CHIP RESISTOR 330 ohm +-5% 1/16W (0603/1608)	001-333152-016	2
R176	CHIP RESISTOR 3.3 Kohm +-5% 1/16W (0603/1608)	001-333252-016	1
R123	CHIP RESISTOR 33 Kohm +-5% 1/16W (0603/1608)	001-333352-016	1
R15	CHIP RESISTOR 392 ohm +-1% 1/16W (0603/1608)	001-339112-016	1
R73,85 ,96,107,118	CHIP RESISTOR 3.9 Kohm +-5% 1/16W (0603/1608)	001-339252-016	5
R264,265	CHIP RESISTOR 470 ohm +-5% 1/16W (0603/1608)	001-347152-016	2
R6,7,9,21,24,38,39,40,45, 46,145,152,156,160,161, 162,163,165,169	CHIP RESISTOR 4.7 Kohm +-5% 1/16W (0603/1608)	001-347252-016	19
R60	CHIP RESISTOR 47 Kohm +-5% 1/16W (0603/1608) (MCR03EZJH-473)	001-347352-016	1
R51	CHIP RESISTOR 470 Kohm +-5% 1/16W (0603/1608)	001-347452-016	1
R158,159,164,171,173,175	CHIP RESISTOR 5.6 Kohm +-5% 1/16W (0603/1608)	001-356252-016	6
R50	CHIP RESISTOR 68 ohm +-5% 1/16W (0603/1608) (TSB#G5101100Y101)	001-368052-016	1
R137	CHIP RESISTOR 6.8 Kohm +-5% 1/16W (0603/1608)	001-368252-016	1
R17,18,19,20	CHIP RESISTOR 75 ohm +-1% 1/16W (0603/1608) (TSB#G5101104G105)	001-375012-016	4
R37	CHIP RESISTOR 75 ohm +-5% 1/16W (0603/1608)	001-375052-016	1
R66	CHIP RESISTOR 91 ohm +-5% 1/16W (0603/1608)	001-391052-016	1
R10	CHIP RESISTOR 9.1 Kohm +-5% 1/16W (0603/1608)	001-391252-016	1
R198	CHIP RESISTOR 91 Kohm +-5% 1/16W (0603/1608)	001-391352-016	1
<b>CAPACITORS</b>			
C20,21,41,42,43,55,56,91, 103,109,115,122,123,129	CHIP CAP 0.001 uF/25V +-10% (0603/1608) (GRM39B102K50) (MURATA)	003-510212-025	14
C145,147,148,150,151, 152,153	CHIP CAP 0.001 uF/50V +-10% (0603/1608) (MCH185C102KK/GRM39X7R102K50PT)	003-510212-050	7
C18,19,35,36,37,38,40,53, 60,61	CHIP CAP 0.01 uF/25V +-10% (0603/1608) (MCH185C103KK/GRM39X7R103K25PT)	003-510312-025	10
C1,2,3,4,5,7,14,15,16,17, 22,23,24,25,26,27,28,29,30, 31,32,33,34,47,48,49,50,51, 52,54,57,58,59,62,64,65,66, 67,68,70,74,76,77,78,79,81, 83,85,87,93,94,95,96,98,99, 100 ,104,105,107,108,110, 111,112,114,116,117,118, 120,121,125,130,163,164, 172,175,177,198	CHIP CAP 0.1 uF/16V +-10% (0603/1608) (87-A10-260-08G) (C1608JB1C104K) (TDK)	003-510412-016	77
C157,158,159,161	CHIP CAP 0.0022 uF/50V +-10% (0603/1608) (UMK107B222KZ-TM)	003-522212-050	4
C170	CHIP CAP 0.022 uF/25V +-10% (0603/1608) (MCH182C223KK/GRM39X7R223K25PT)	003-522312-025	1
C69	CHIP CAP 0.0027 uF/50V +-10% (0603/1608) (UMK107B272KZ-TM)	003-527212-050	1
C44,45	CHIP CAP 0.027 uF/25V +-10% (0603/1608)	003-527312-025	2
C127,146	CHIP CAP 0.033 uF/25V +-10% (0603/1608)	003-533312-025	2
C143	CHIP CAP 0.0047 uF/50V +-10% (0603/1608)	003-547212-050	1
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
C63,86,149,154	(F003-610112-050) CHIP CAP 100 pF/50V +-5% NPO (0603/1608)	003-610152-050	4
C131,132,133,134	CHIP CAP 11 pF/50V +-5% NPO (0603/1608) (MCH185A110JK)	003-611052-050	4

**ELECTRICAL PARTS LIST - CONTINUED**

Ref. No.	Description	Mfr's Part No.	Qty.
C135,137,139,141	CHIP CAP 150 pF/50V +-5% NPO (0603/1608) (GRM39COG151J50PT/MCH185A151JK)	003-615152-050	4
C136,138,140,142	CHIP CAP 160 pF/50V +-5% NPO (0603/1608) (MCH185A161JK)	003-616152-050	4
C13,171	CHIP CAP 220 pF/50V +-5% NPO (0603/1608) (UMK107CH221JZ-T)	003-622152-050	2
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
C168,180,187	CHIP CAP 560 pF/50V +-5% NPO (0603/1608)	003-656152-050	3
C88,101,106,113,119	CHIP CAP 82 pF/50V +-5% NPO (0603/1608)	003-682052-050	5
CE23,25	ELECT CAP 0.47 MFD/50V +-20% (5x11)	006-000400-50D	2
CE66	ELECT CAP 4.7 MFD/50V +-20% (5x11)	006-004000-50D	1
CE9,22,26,27,28,29,30,31, 34,35,36,37,32,33	ELECT CAP 10 MFD/50V +-20% (5x11)	006-010000-50D	14
CE19	ELECT CAP 100 MFD/10V +-20% (5x11)	006-010100-10D	1
CE4,7,8,18,42,43,45,46,58	ELECT CAP 100 MFD/16V +-20% (5x11)	006-010100-16D	9
CE44	ELECT CAP 100 MFD/25V +-20% (6.3x11)	006-010100-25D	1
CE6,52,53,54,55,60,65	ELECT CAP 22 MFD/25V +-20% (5x11)	006-022000-25D	7
CE3,10,11,12,13,14,21,46, 50,51,59,61,62,63	*CdF ELECT CAP 47 MFD/16V +-20% (5x11)	006-047000-16D	14
CE1,2,20	ELECT CAP 470 MFD/16V +-20% (10x12.5)	006-047100-16D	3
<b>TRANSISTORS</b>			
Q19,20,25	TR FETGEN-TAP&SC-070 2SK3018 (ROHM) (SMD) SMALL SWITCHING N-CHANNEL MOSFET	008-903018-000	3
Q17,18	CHIP TRANSISTOR 2SB1132R (89-211-323-08C)	008-A01132-001	2
Q1,2,3,5,6,7,11,12,16	(F008-039040-000) CHIP TRANSISTOR MMBT3904	008-A03904-000	9
Q8,15,9	(F008-039060-000) CHIP TRANSISTOR MMBT3906	008-A03906-000	3
<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	IC BA5954FP-E2	010-405954-000	1
U19	ICREGULA-P-&&&&&&&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 ZR36768HQC B2	010-893676-001	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>			
D7,8,11,12,13,14,15,16,17, 18,19,20	CHIP DIODE (SMT) DL4148(DC)/LS4148(KT)	011-044148-002	12
<b>INDUCTORS</b>			
FB15,18,19,22,27,28,29,31, 32,36,38,39,40,42,44,45,46, 47	CHIP FERRITE BEAD PZ2012U601-1R5T (0805/2012) (SUNLORD)	032-102012-002	18

**ELECTRICAL PARTS LIST - CONTINUED**

Ref. No.	Description	Mfr's Part No.	Qty.
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
L6,7,8	CHIP INDUCTOR 10 uH +-10% SDFL1608S100KT (0603/1608) (SUNLORD)	018-040015-204	3
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
<b>CRYSTAL</b>			
Y1	CRYSTAL 27MHZ +-30ppm ALCCJBJ/HC-49/U	009-627000-007	1
<b>WIRES</b>			
	FFC CABLE 24 PINS L=250mm P:0.5mm UL2896 0.035x0.3DECK TO MPEG	040-240250-050	1
<b>MISCELLANEOUS</b>			
J5	FFC CONNECTOR 24 PINS PITCH:1mm 9615S-24A-PP-A/D100-SSA-24/S10024V VERT.	135-009615-240	1
J3	HEADER 6 PINS PEC #2507-WS-6 PITCH 2.5mm VERTICAL REPLACE:135-005267-060	135-2507WS-060	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
J1	FPC/FFC CONN 24 PINS P:0.5mm HORIZONTAL #S050-SRF-24U UPPER CONTACT REEL PACK	135-S050SR-240	1
<b>RDS SECTION</b>			
<b>RESISTORS</b>			
R472	CHIP RESISTOR 18 Kohm +-5% 1/16W (0603/1608)	001-318352-016	1
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
R458	CHIP RESISTOR 470 ohm +-5% 1/16W (0603/1608)	001-347152-016	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 NPNSST-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>			

**ELECTRICAL PARTS LIST - CONTINUED**

Ref. No.	Description	Mfr's Part No.	Qty.
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</b>			
JP701,702,703, R729,733, 735,738,741,743	CHIP RESISTOR 0 ohm +-5% 1/16W (0603/1608)	001-300052-016	9
R715	CHIP RESISTOR 100 ohm +-5% 1/16W (0603/1608)	001-310152-016	1
R707,712,717,718,720	CHIP RESISTOR 10 Kohm +-5% 1/16W (0603/1608)	001-310352-016	5
R702,703	CHIP RESISTOR 12 Kohm +-5% 1/16W (0603/1608)	001-312352-016	2
R721	CHIP RESISTOR 1.8 Kohm +-5% 1/16W (0603/1608) (MCR03EZJH-182)	001-318252-016	1
R701,706,722	CHIP RESISTOR 2.7 Kohm +-5% 1/16W (0603/1608)	001-327252-016	3
R708,709	CHIP RESISTOR 33 Kohm +-5% 1/16W (0603/1608)	001-333352-016	2
R710,711,716,719	CHIP RESISTOR 4.7 Kohm +-5% 1/16W (0603/1608)	001-347252-016	4
<b>CAPACITORS</b>			
C701,702,703,704	ELECT CAP 4.7 MFD/50V +-20% (5x11)	006-004000-50D	4
C711,712	ELECT CAP 100 MFD/16V +-20% (5x11)	006-010100-16D	2
<b>TRANSISTORS</b>			
Q701,702,708,709	TR NPNGEN-BUL&TO-092 3DG9014 (9014)	008-609014-000	4
<b>INDUCTORS</b>			
FB701,702,703,704,705, 706,707	FERRITE BEAD INDUCTOR #PI0243NLR6H 5x3.6	032-100243-000	7
<b>WIRE</b>			
	FFC CABLE 22 PINS L=108mm 4+100+4 P:1mm UL2896 0.035x0.7	040-220108-100	1
<b>MISCELLANEOUS</b>			
WH701	FFC CONN 6232 22 PINS w/o LOCK PITCH:1mm 00 6232 022 006 800 VERTICAL TYPE	135-006232-220	2
JK701	RGB CONNECTOR SOCKET 21 PINS HRC-021V-07(KUNMING)/MRC-021V-04(HONDA)	135-HRC021-210	1
<b>TUNER SECTION</b>			
<b>RESISTORS</b>			
JP403,404,405,406,407, 408,409,421,423,424	CHIP RESISTOR 0 ohm +-5% 1/16W (0603/1608)	001-300052-016	10
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
R467	CHIP RESISTOR 15 ohm +-5% 1/16W (0603/1608)	001-315052-016	1
R420	CHIP RESISTOR 15 Kohm +-5% 1/16W (0603/1608)	001-315352-016	1
R421,442	CHIP RESISTOR 18 Kohm +-5% 1/16W (0603/1608)	001-318352-016	2
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
R414	CHIP RESISTOR 56 ohm +-5% 1/16W (0603/1608)	001-356052-016	1

**ELECTRICAL PARTS LIST - CONTINUED**

Ref. No.	Description	Mfr's Part No.	Qty.
R446	CHIP RESISTOR 47 Kohm +-5% 1/16W (0603/1608) (MCR03EZHZ-473)	001-347352-016	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>			
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
C412	POLY CAP 350 pF/100V +-5% (RADIAL TYPE) (1A351J/MILOSONIC) (PSR351J/HONJU)	005-035100-100	1
C425,467,468	ELECT CAP 0.47 MFD/50V +-20% (5x11)	006-000400-50D	3
C417,426,430,431	ELECT CAP 1 MFD/50V +-20% (5x11)	006-001000-50D	4
C435,645	ELECT CAP 10 MFD/50V +-20% (5x11)	006-010000-50D	2
C437,465,470	ELECT CAP 100 MFD/16V +-20% (5x11)	006-010100-16D	3
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	*CdF ELECT CAP 47 MFD/16V +-20% (5x11)	006-047000-16D	1
TC401	TRIMMER CAP CVN610 3-10pF WHITE (6x6x5mm) (JIN MYOUNG) (CdF)	007-200610-000	1
<b>TRANSISTORS</b>			
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>			
IC401	ICRDS TA2099N (TOSHIBA) (87-A21-173-01)	010-832099-000	1
IC402	ICPLL TC9257F	010-849257-000	1

**ELECTRICAL PARTS LIST - CONTINUED**

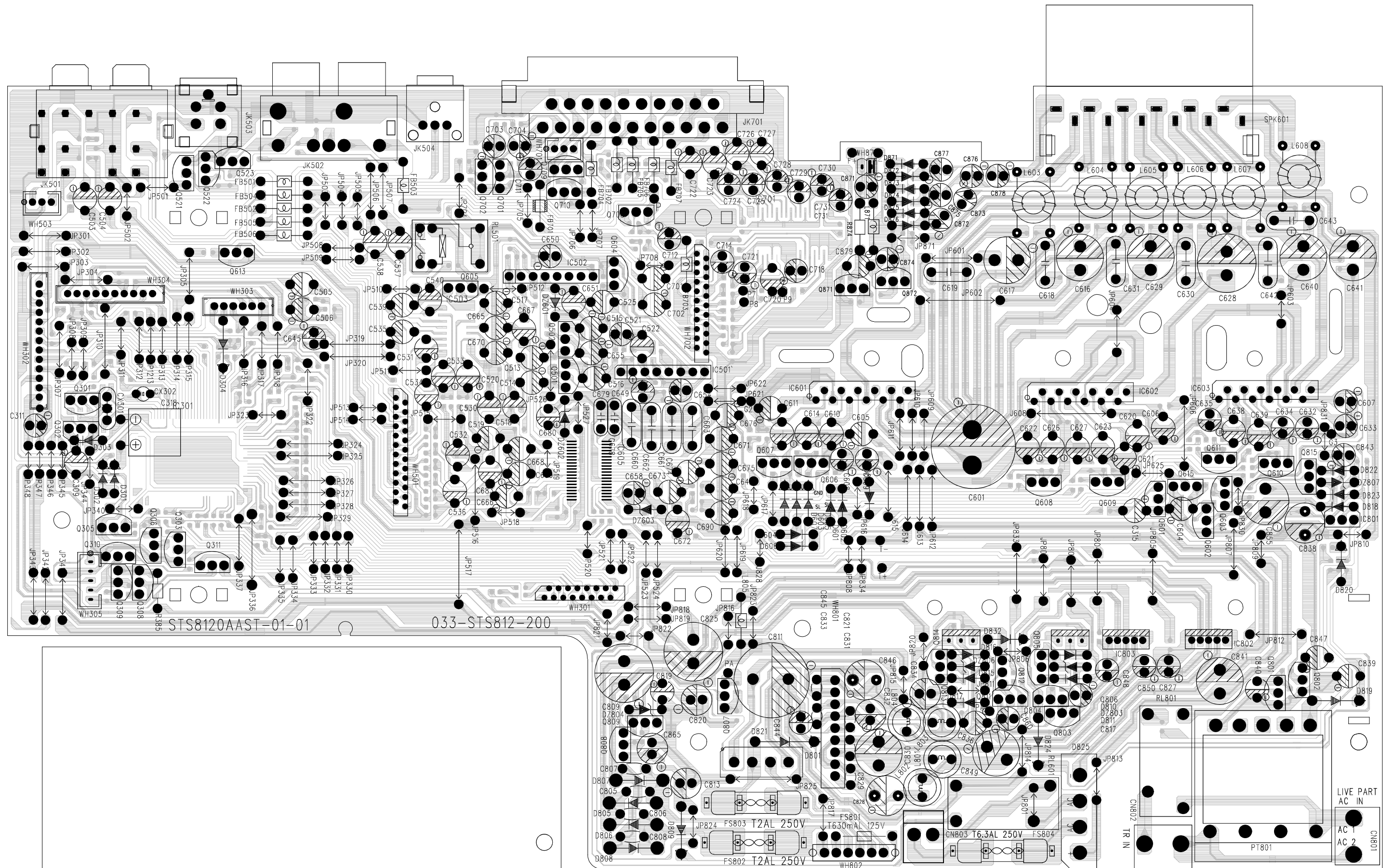
Ref. No.	Description	Mfr's Part No.	Qty.
<b>DIODES</b>			
VD401,402	VARI CAP DIODE 2CC149	011-000149-001	2
D401,402,403,404	DIODE IN-4148 ROHM/TELEFUNKEN TAP**50 KEL(NS)(TAP:52mm)/NS(FAIRCHILD)/SEMTECH	011-004148-000	4
<b>INDUCTORS</b>			
T408,409	IFT 7PF038C 7.8mm BLACK	012-000038-078	2
T405	IFT 7M4A1772R 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	019-000450-012	1
<b>WIRE</b>			
LTU450G2/LT450GU	HSG CD669-13 JSTPHR 2mm w/120mm R,BK,W,Y BL,O,R,BK,W,Y,BL,O,BK UP AWG28#1095 5mm	136-130669-200	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 2 PINS PEC #2507-WR-2 PITCH:2.5mm HORIZONTAL REPLACE:135-005268-020	135-2507WR-020	1
<b>CENTER SPEAKER SECTION - (SSQC9)</b>			
<b>MISCELLANEOUS</b>			
	SPK WIRE UL/CSA 2468 2x22AWG (17/0.16mm) TRANS. w/BK LINE 4M w/TUBE 1xYEL,BLK	122-002120-407	1
	SPK00003*008OHM0030W w/BLACK DOME CAP (#LF77SZ4409G40 C8K14PDB)	131-308030-017	1
<b>SUB-WOOFER SECTION - (PSW9)</b>			
<b>MISCELLANEOUS</b>			
	SPK WIRE UL/CSA 2468 2x22 AWG 17/0.16mm TRANS.w/BK LINE 4M w/TUBE 1xBRN,BLKFOR SW	122-002120-406	1
	SPK006.5*006OHM0060W w/BK DOME PAPER CAP (#LW165KZ5804G70F6A26PDB K0626)	131-656060-011	1
<b>4-SPEAKER SECTION - (SSQ9)</b>			
<b>MISCELLANEOUS</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
FOR SL	SPK WIRE UL/CSA 2468 2x22 AWG 17/0.16mm TRANS. w/BK LINE 10M w/TUBE 1xBLUE,BLK	122-002121-007	1
FL, FR	SPK00003*008OHM0030W w/BLACK DOME CAP (#LF77SZ4409G40 C8K14P DB)	131-308030-017	2
SL, SR	SPK00003*008OHM0030W w/BLACK DOME CAP (#LF77SZ4401G40 C8K14PDB) w/o SHIELDING	131-308030-018	2

**NOTES:**

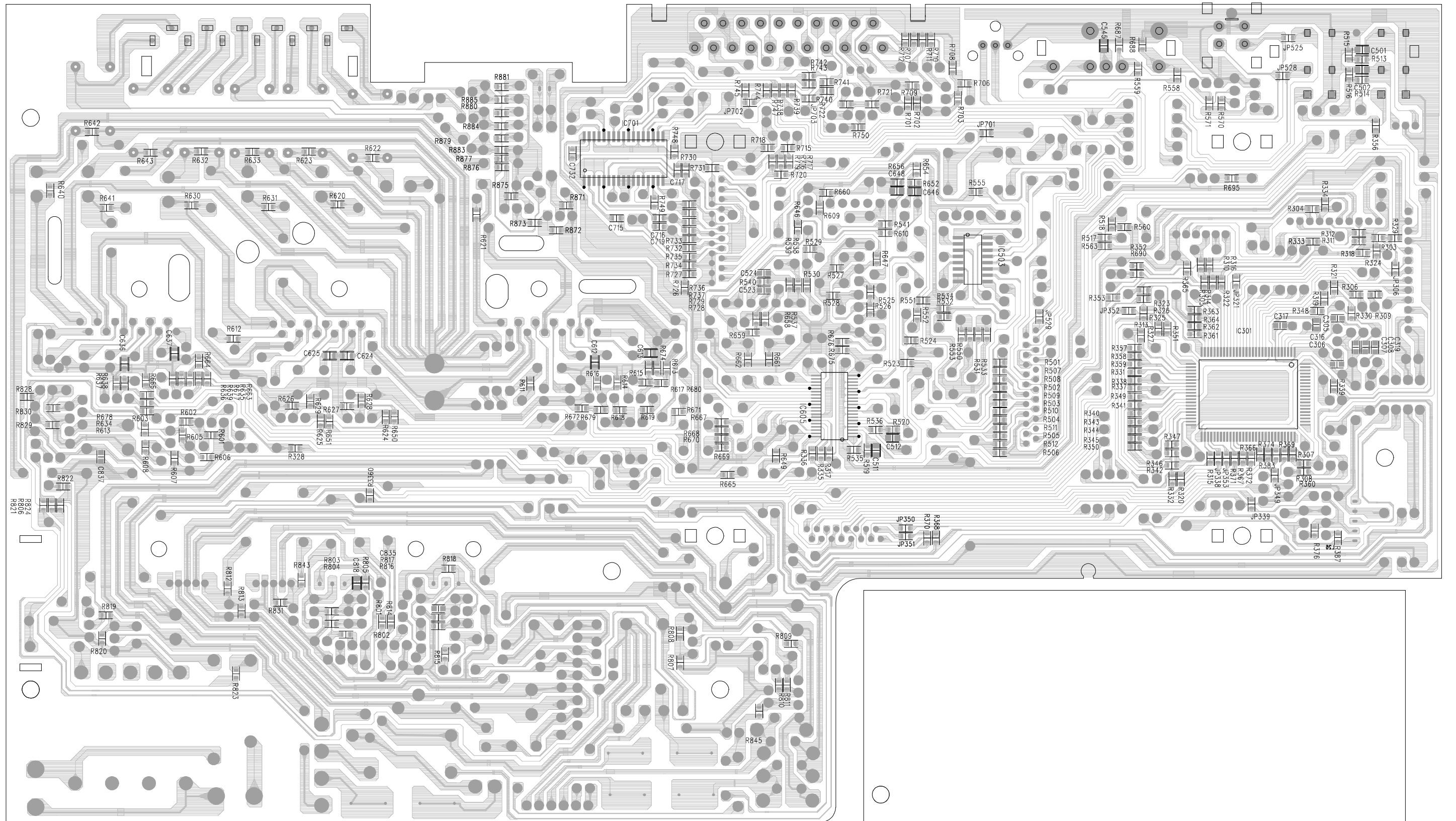
1. " # " Mylar is a registered trademark of E.I. Du Pont de Nemours and Company.
2. ⚠ Symbol in parts list represent safety parts.

# PRINTED CIRCUIT BOARDS

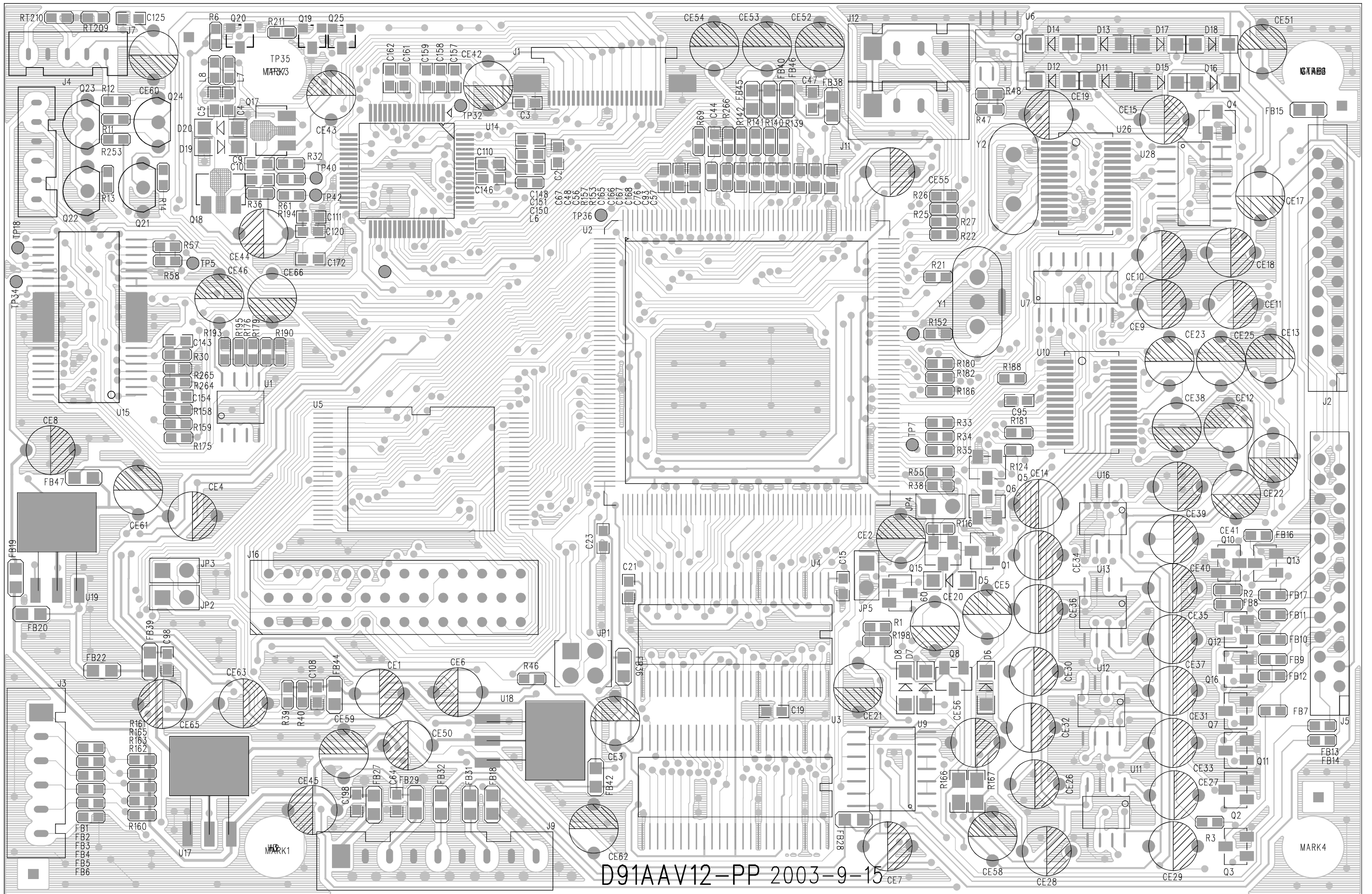
MAIN PCB (TOP VIEW)  
STS8120-AAST-01-01



MAIN PCB (BOTTOM VIEW)  
STS8120-AAST-01-01

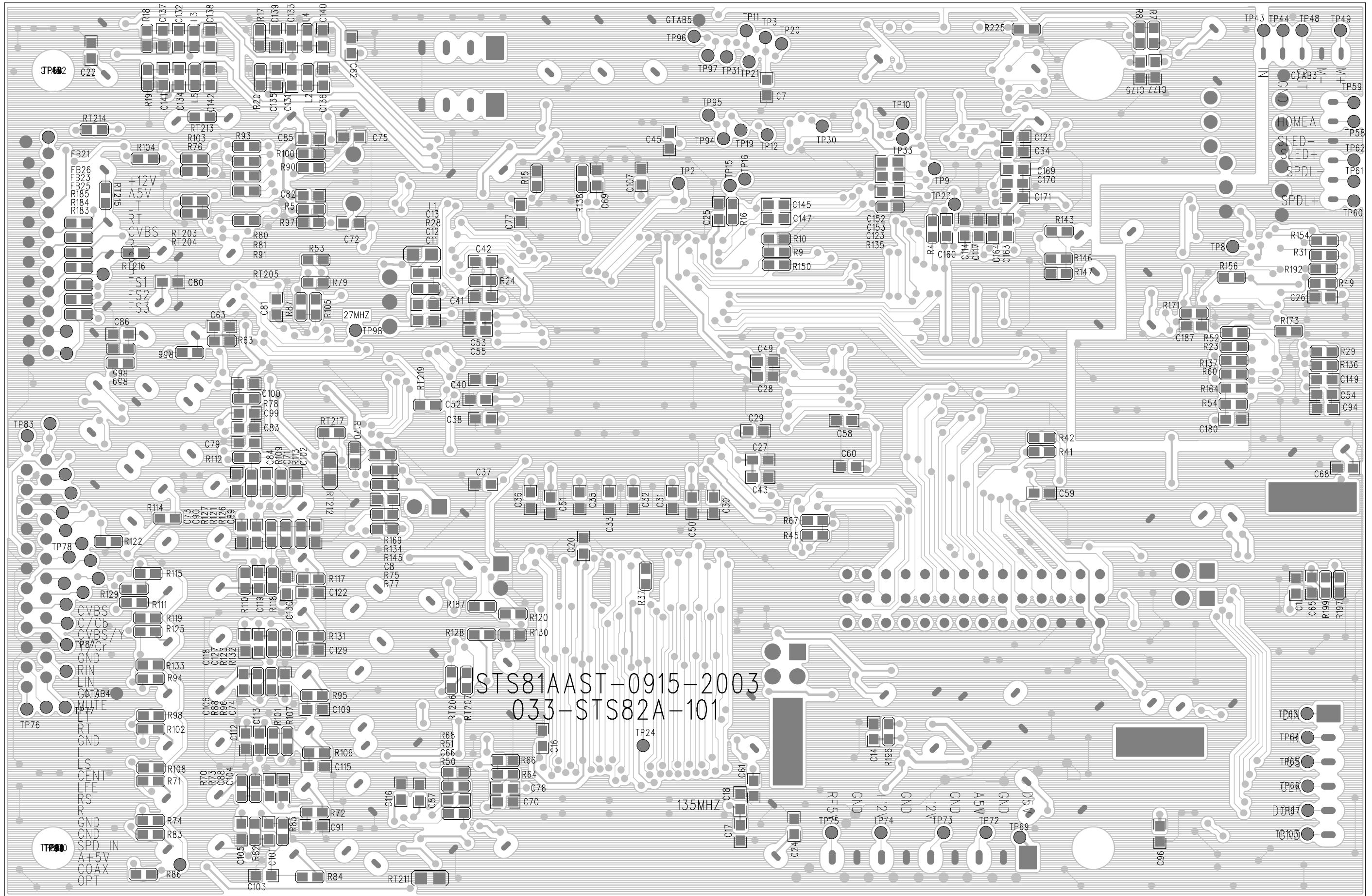


MPEG+SERVO (TOP VIEW)  
STS82AAST-01-02

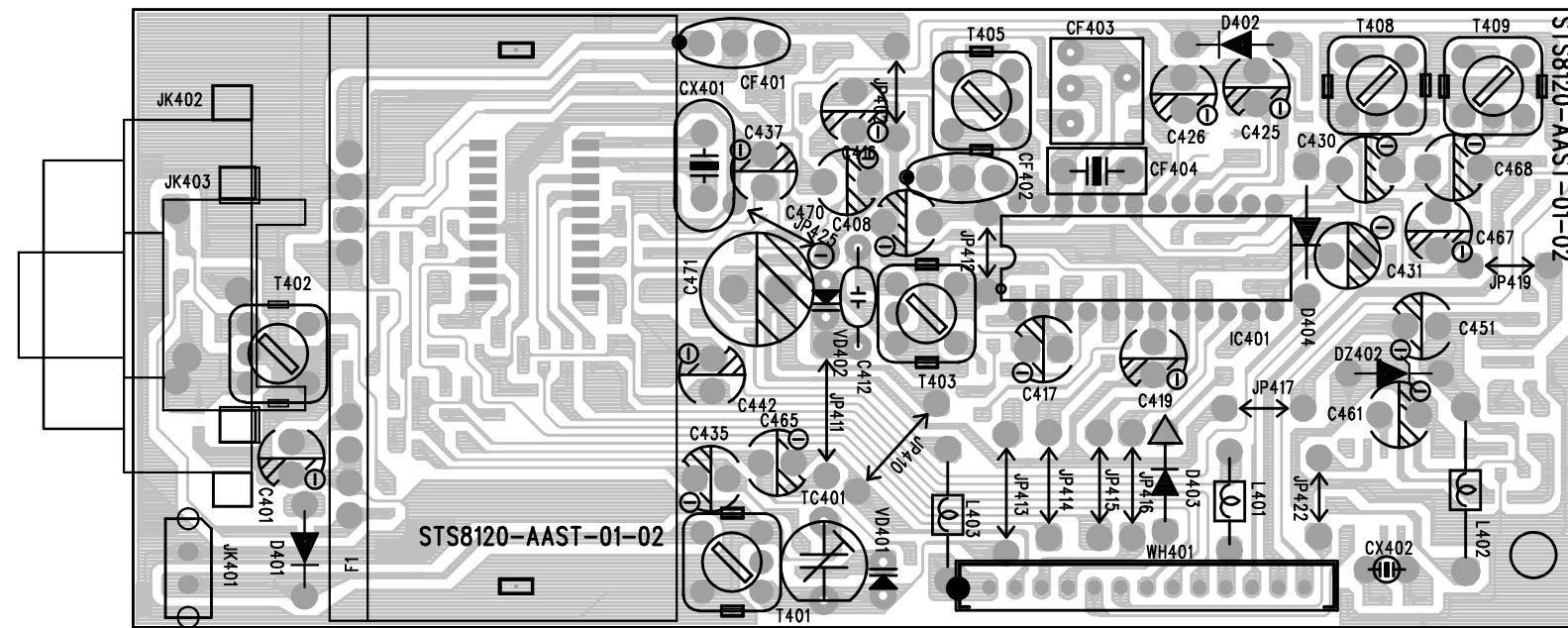




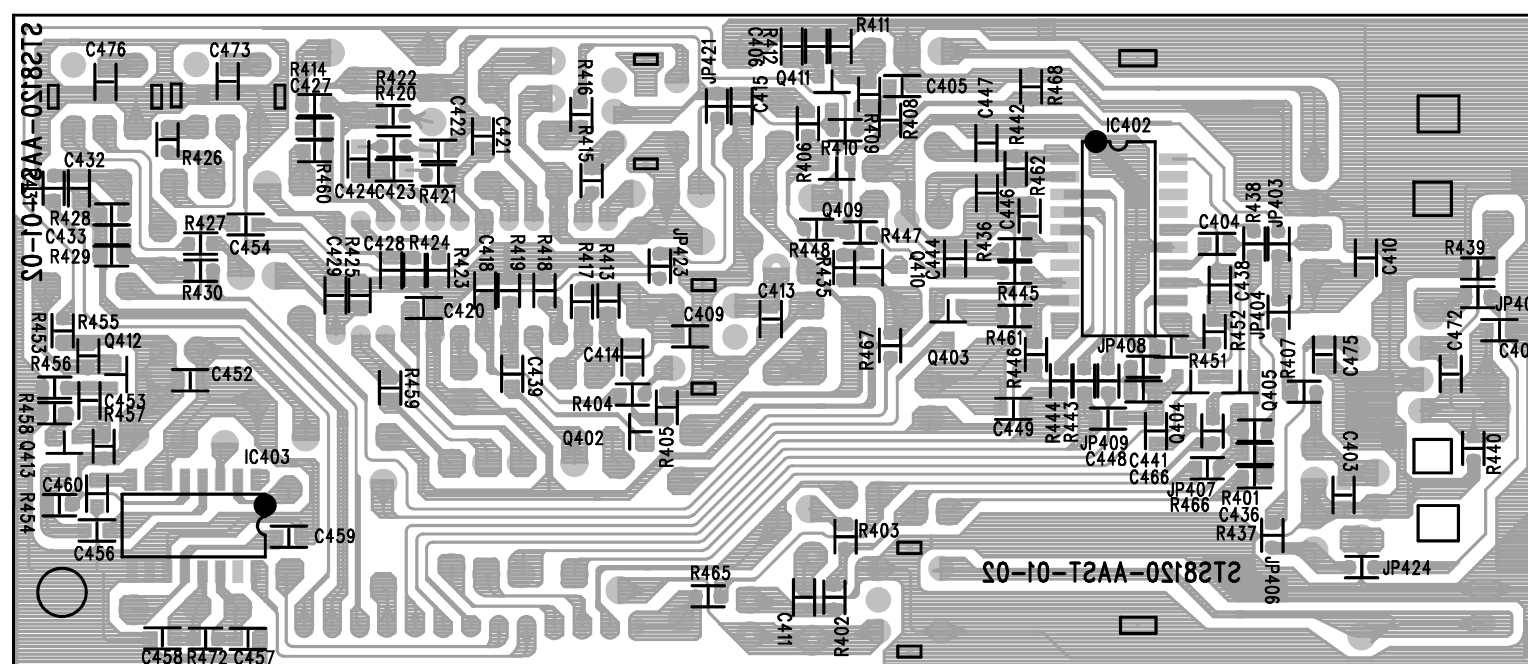
MPEG+SERVO PCB (BOTTOM VIEW)  
STS82AAS-01-02



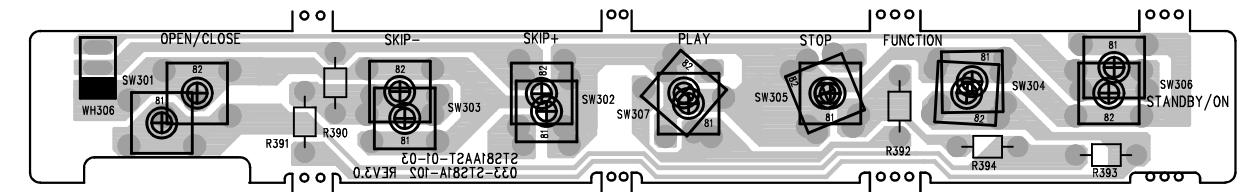
**TUNER PCB (TOP VIEW)**  
STS8120-AAST-01-02



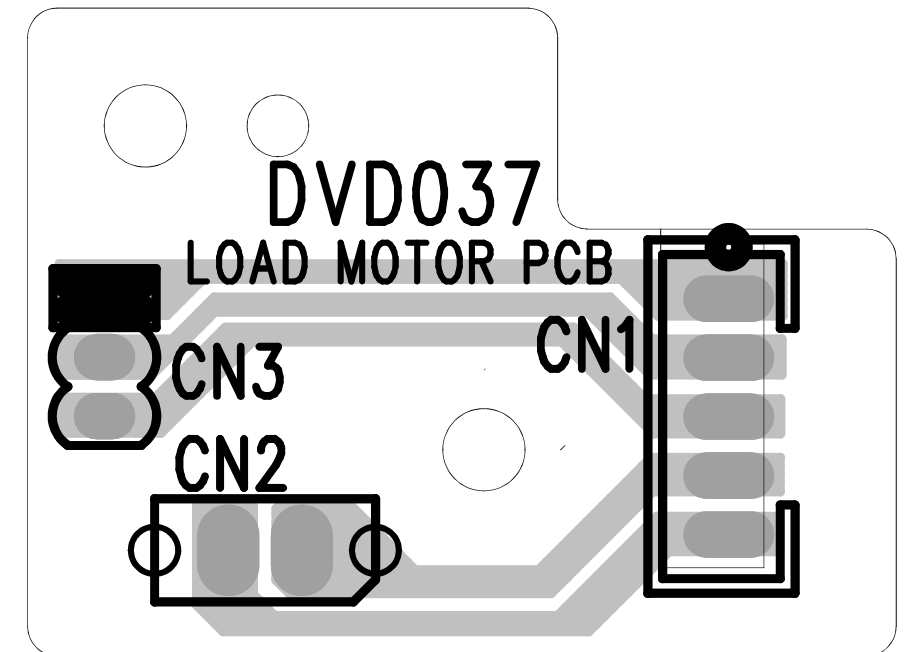
**TUNER PCB (BOTTOM VIEW)**  
STS8120-AAST-01-02



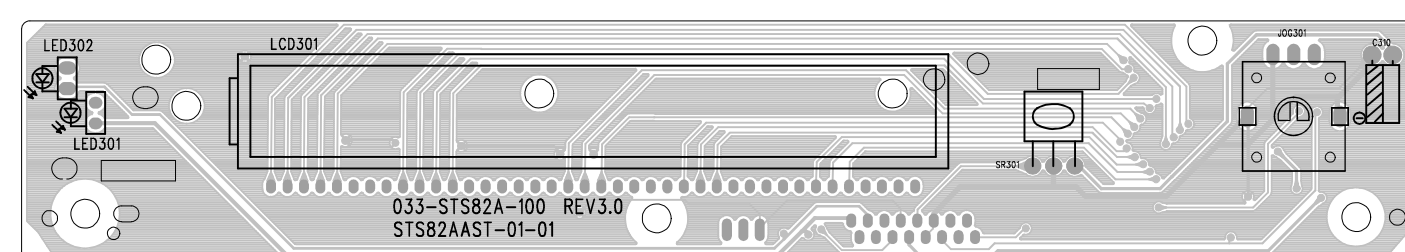
**KEY PCB**  
STS81AAST-01-03



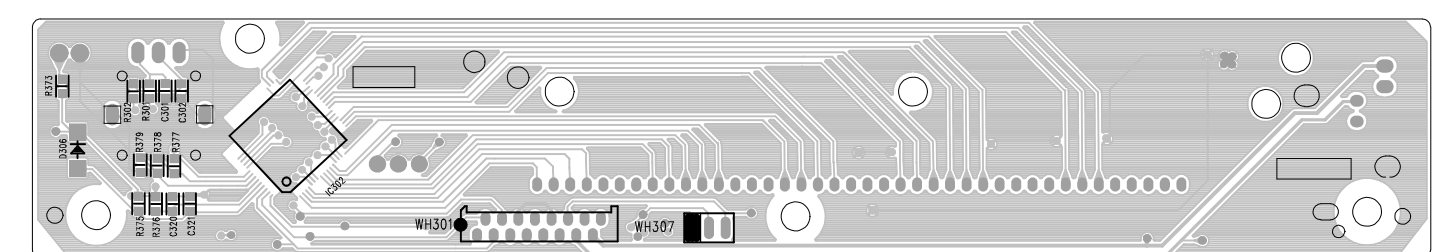
**MOTOR PCB**  
DVD037-01-01



**DISPLAY PCB (TOP VIEW)**  
STS82AAST-01-01

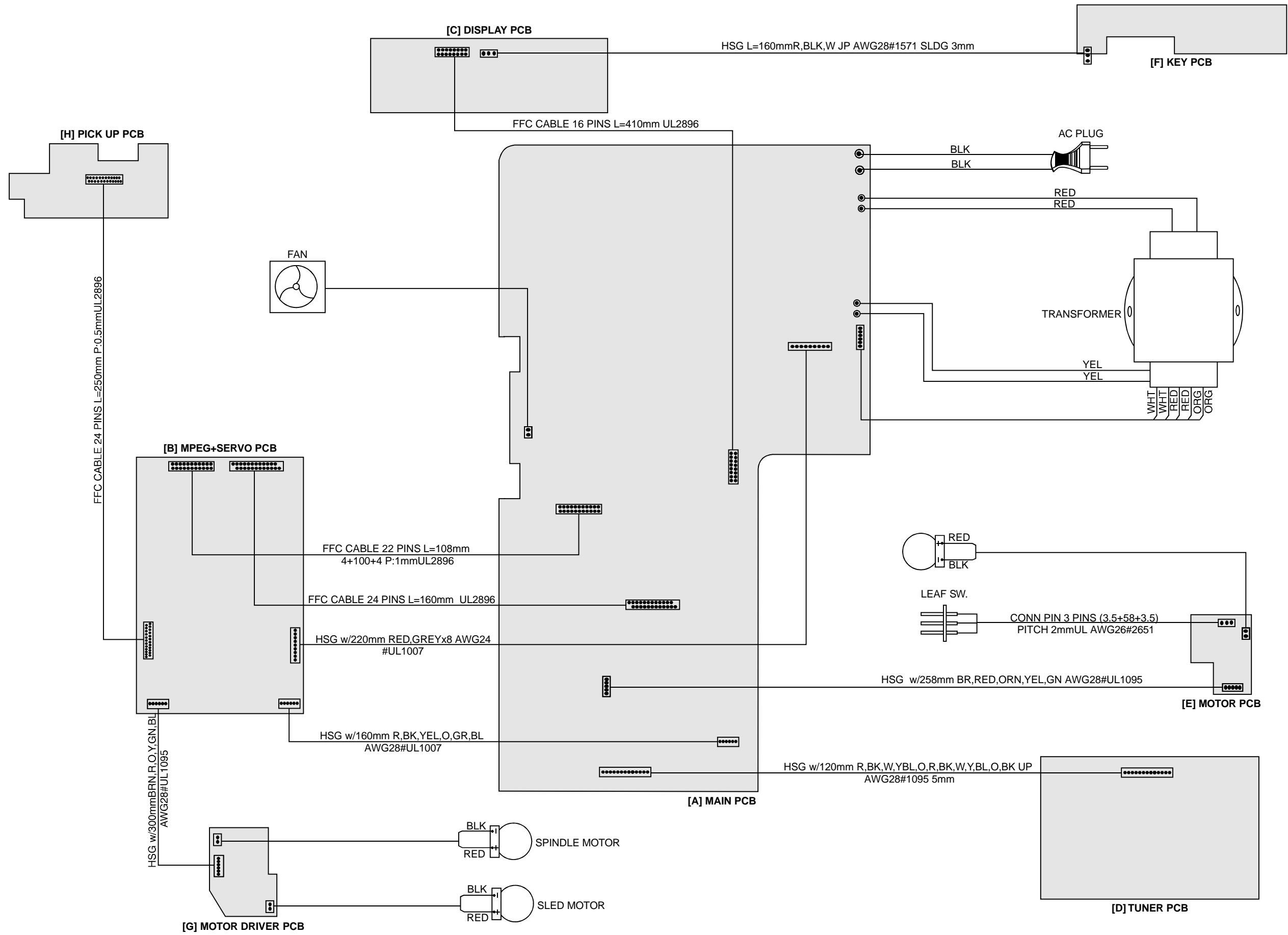


**DISPLAY PCB (BOTTOM VIEW)**  
STS82AAST-01-01



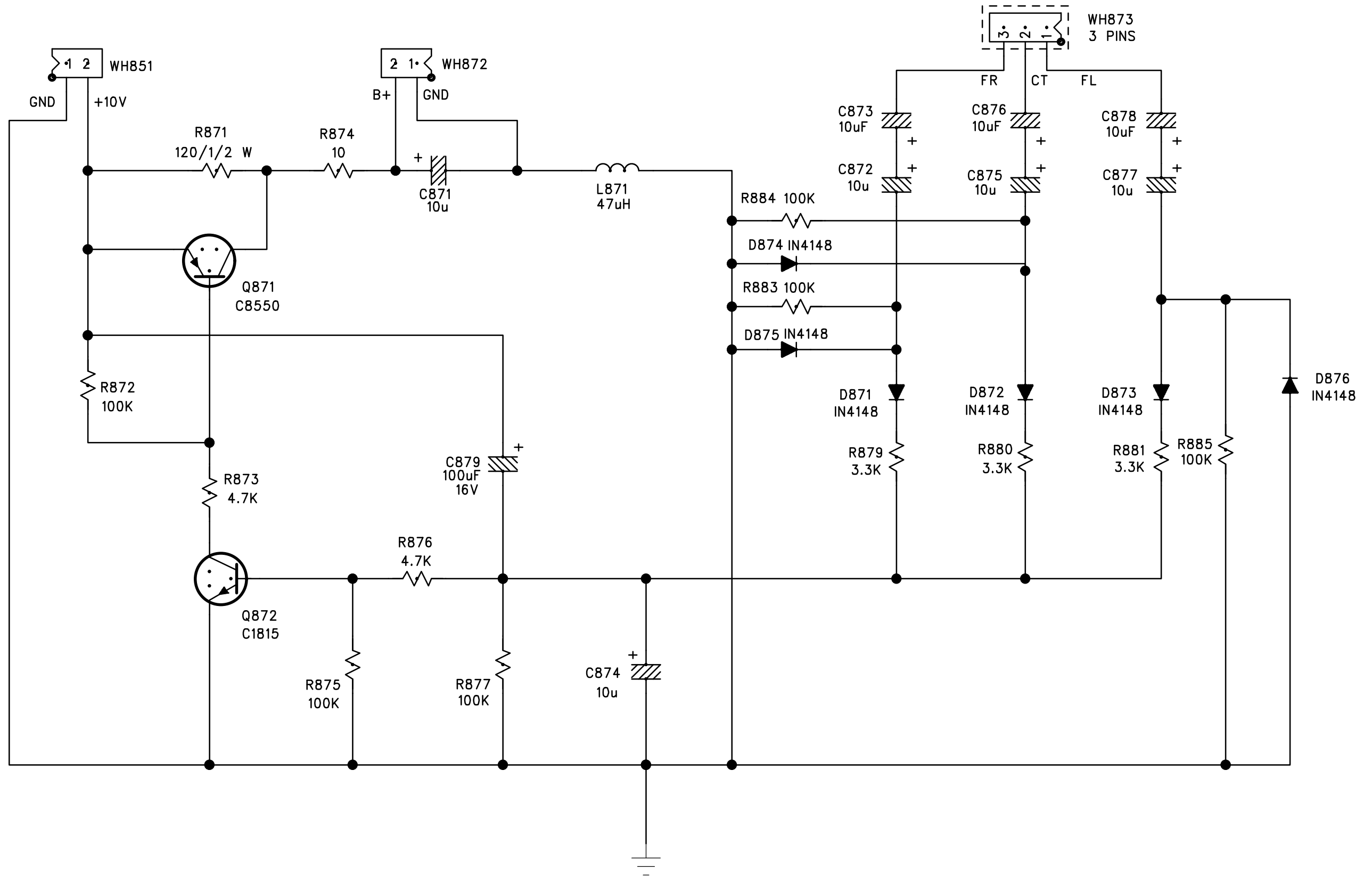
**NOTES:**  
PCB Part No.: 033-STS812-200 of this model are assembled and aligned in FULL SET and are supplied in FULL SET for serving.

# WIRING DIAGRAM



# SCHEMATIC DIAGRAMS

## FAN CONTROL SECTION

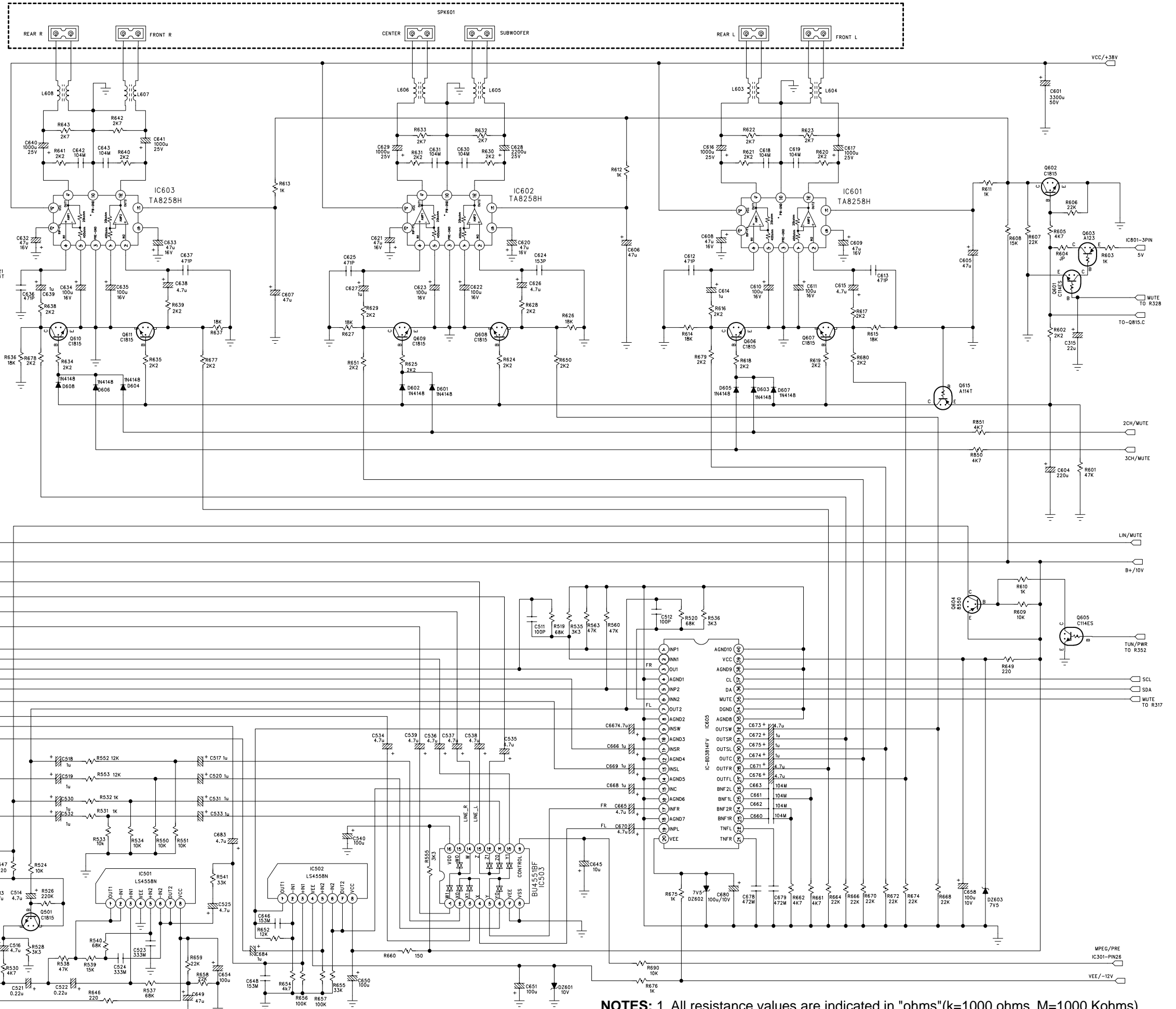


**NOTES:**

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).

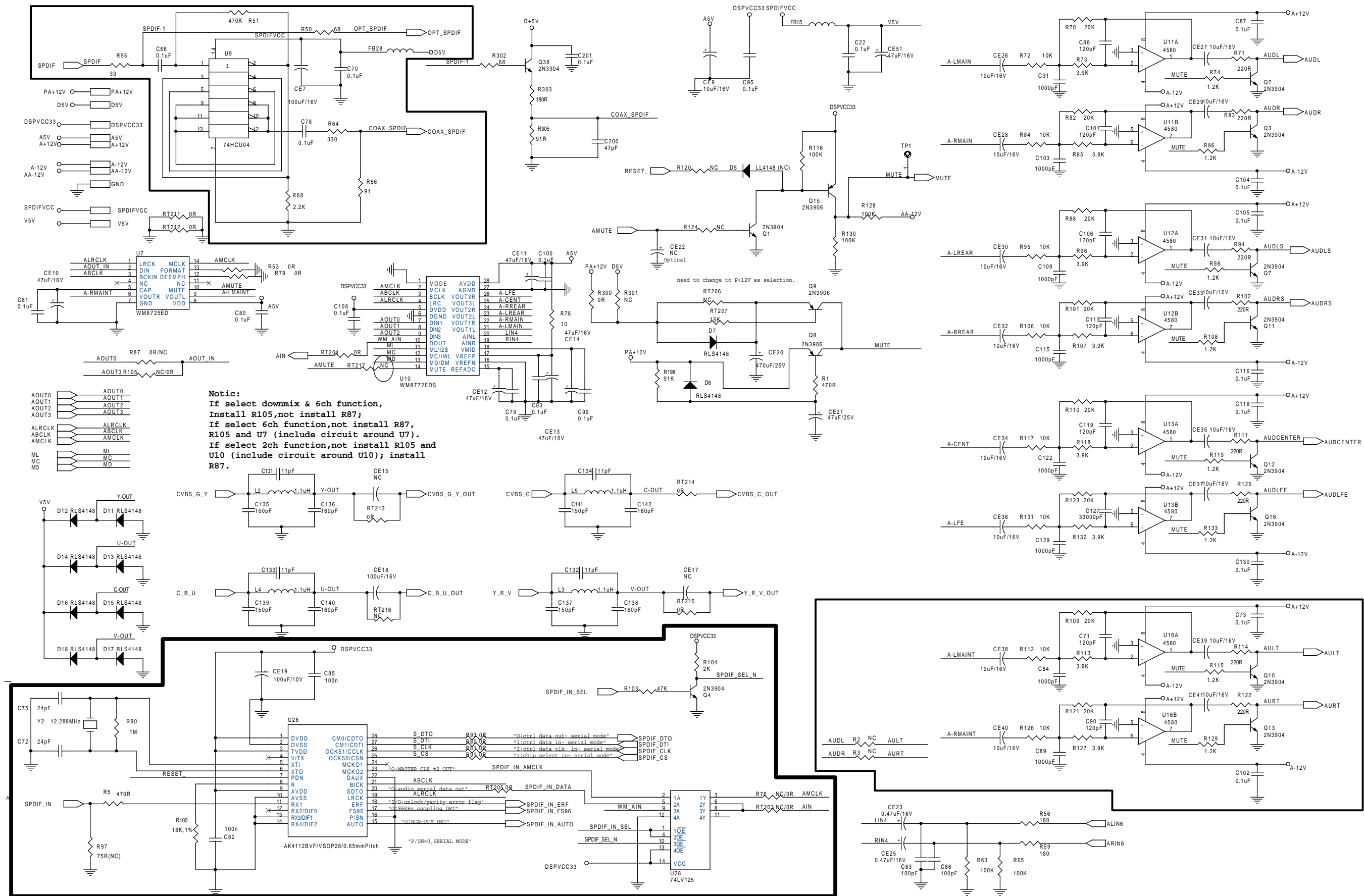
# POWER AMPLIFIER SECTION

	4W	7W
C601	2200u 35V	2200u 50V
C616	1000u 16V	1000u 25V
C617	1000u 16V	1000u 25V
C628	2200u 16V	2200u 25V
C629	1000u 16V	1000u 25V
C640	1000u 16V	1000u 25V
C641	1000u 16V	1000u 25V



**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).

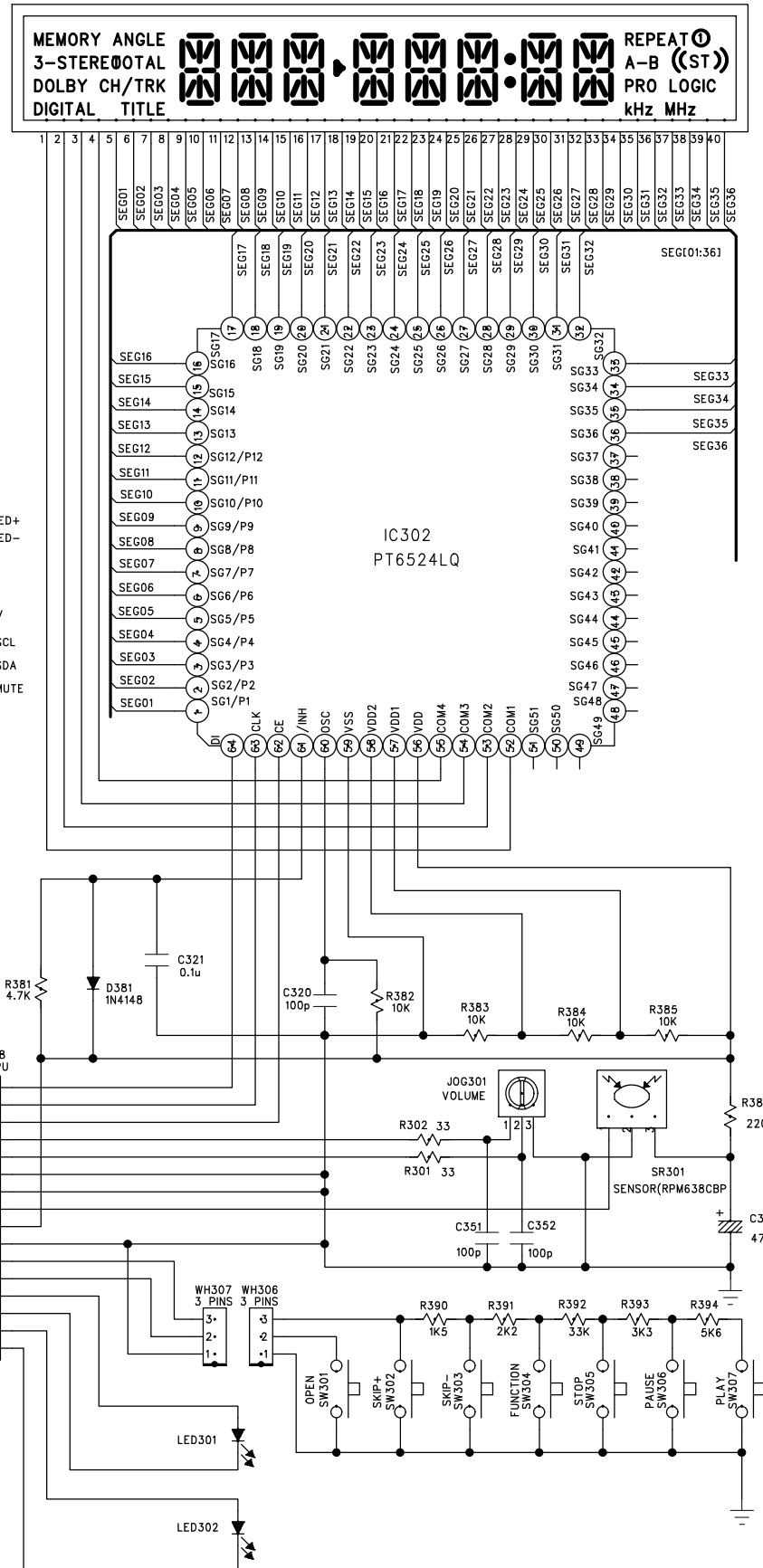
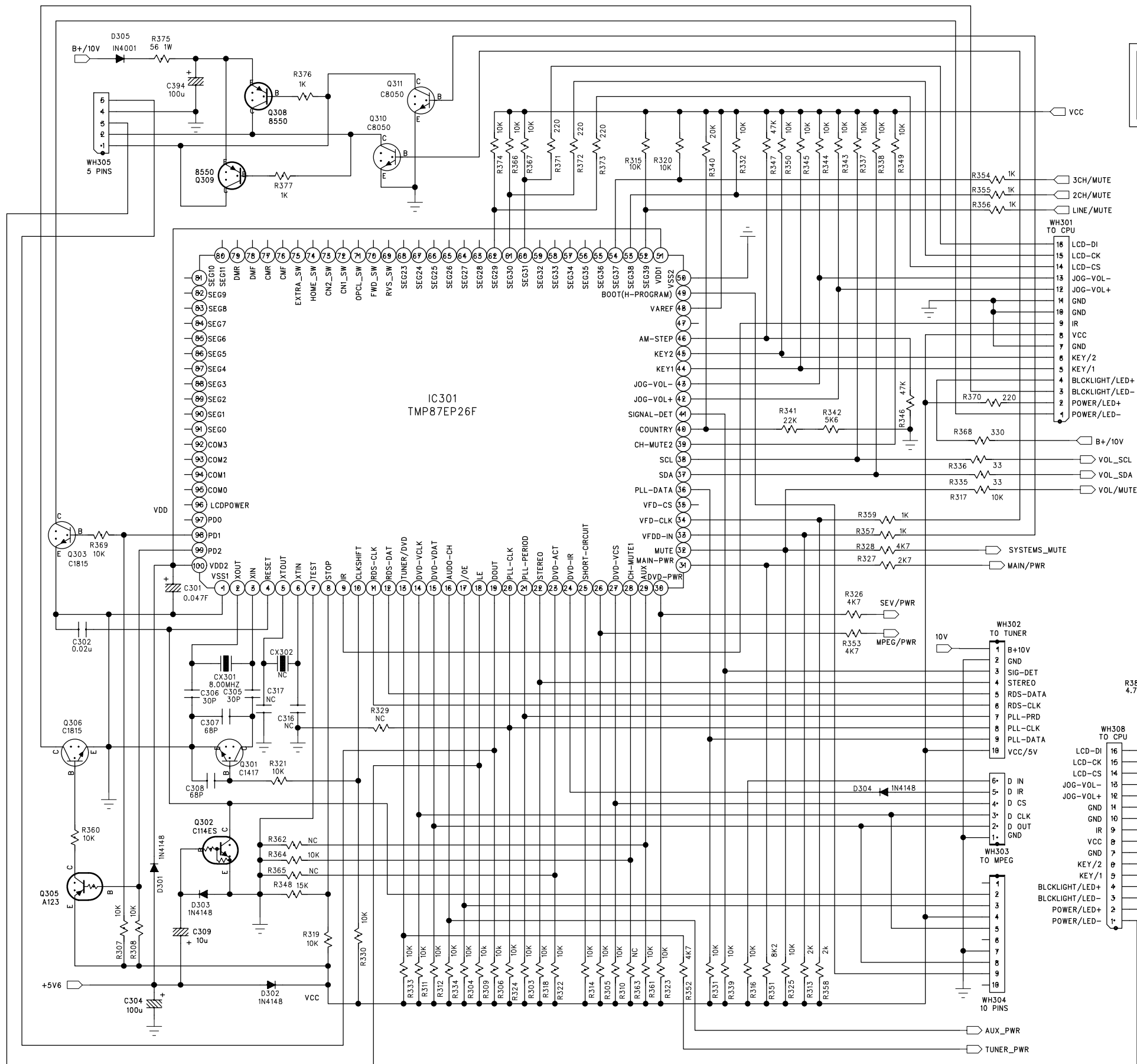
# AUDIO & VIDEO OUT SECTION



**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.

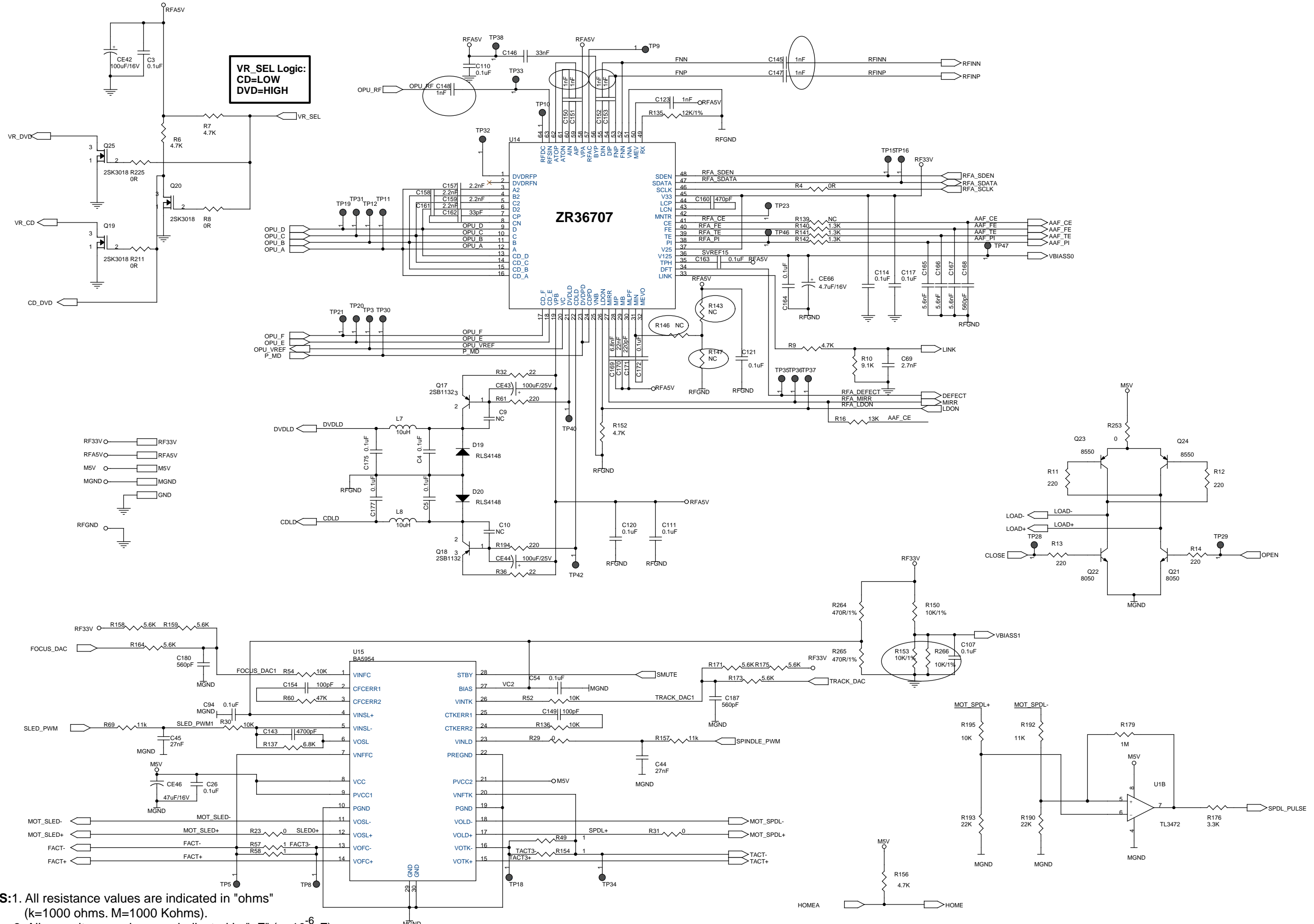
**NOTES:** 1. All resistance values are indicated in "ohms"(k=1000 ohms. M=1000 Kohms).  
 2. All capacitance values are indicated in "µF" (p=10<sup>-6</sup>µF).

CPU 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).

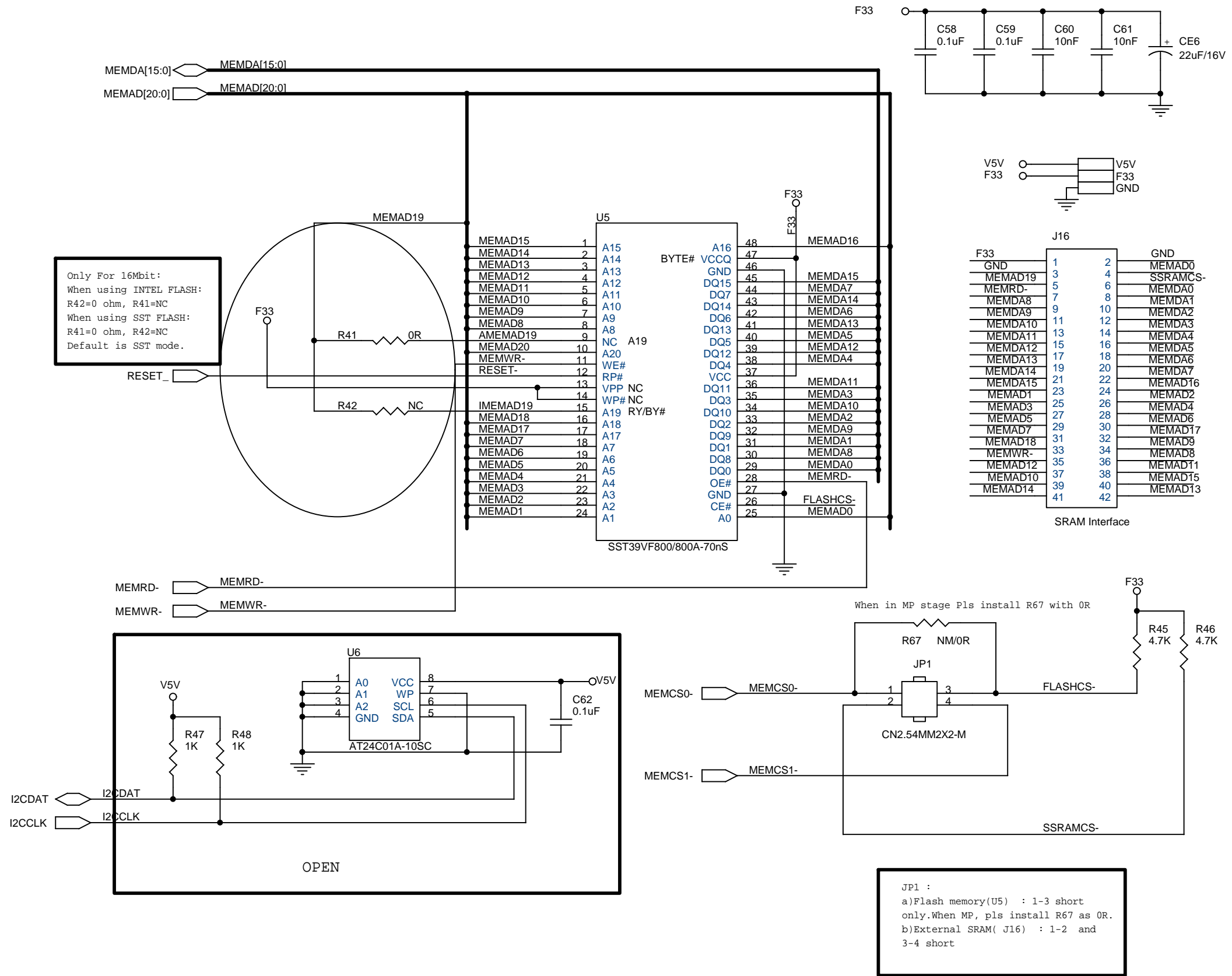
# RF, SERVO CONTROL SECTION



**NOTES:** 1. All resistance values are indicated in "ohms" (k=1000 ohms. M=1000 Kohms).  
 2. All capacitance values are indicated in "uF" ( $p=10^{-6} \mu F$ ).



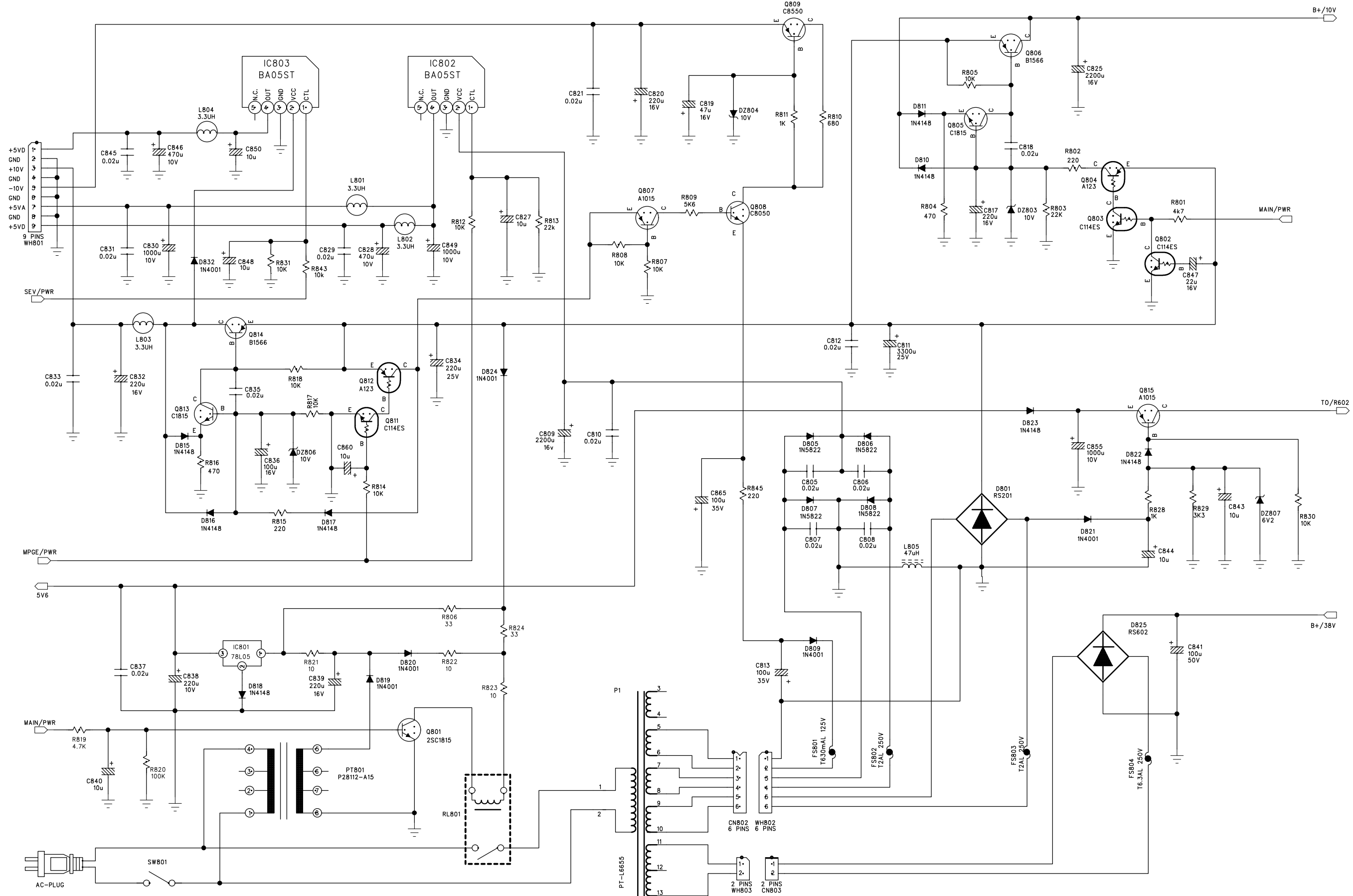
# FLASH ROM SECTION



### NOTES:

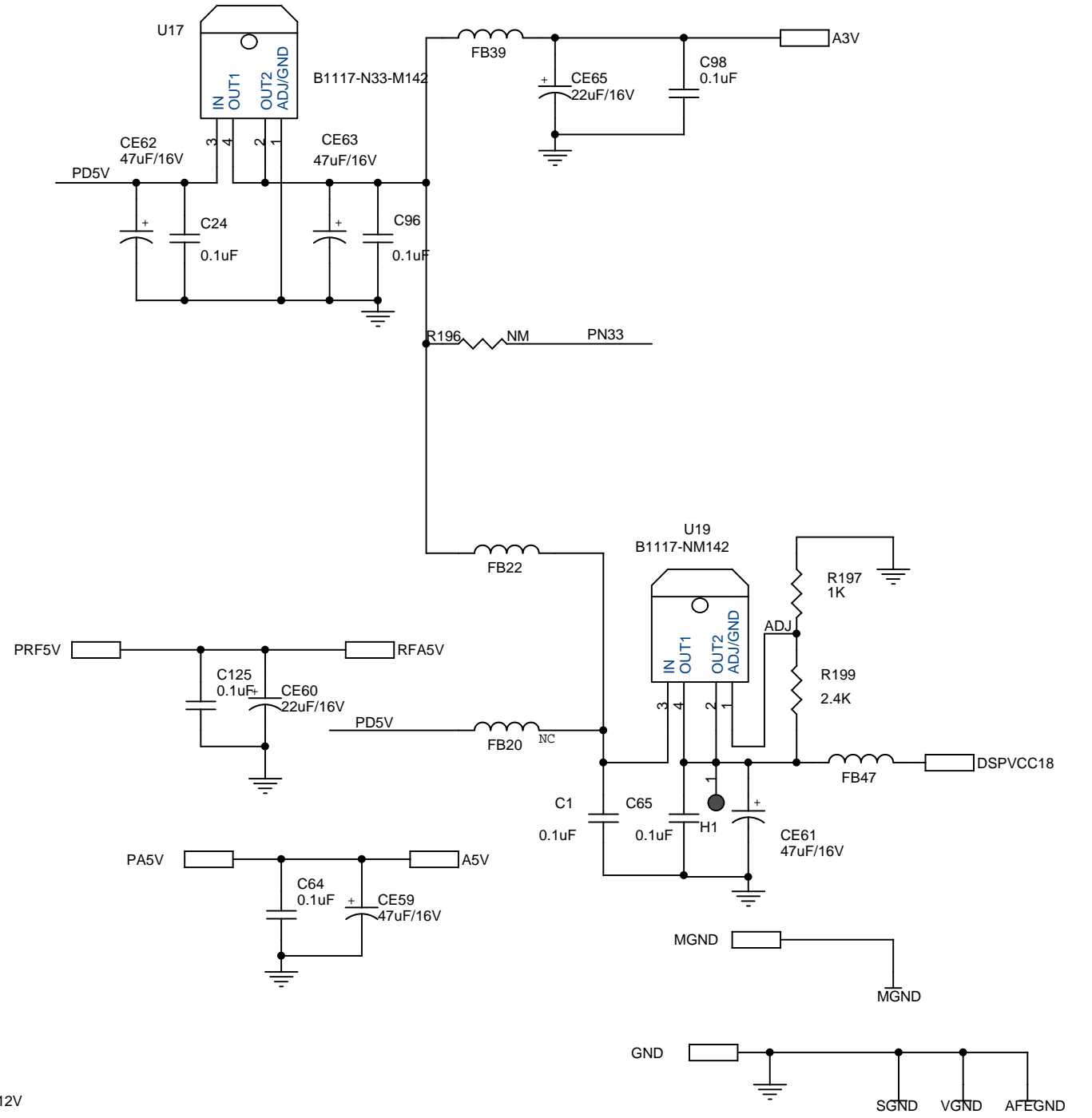
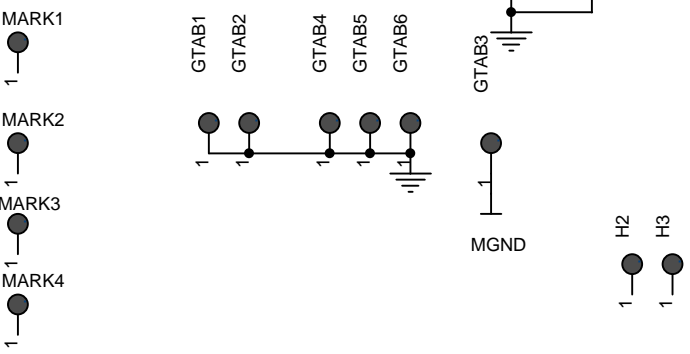
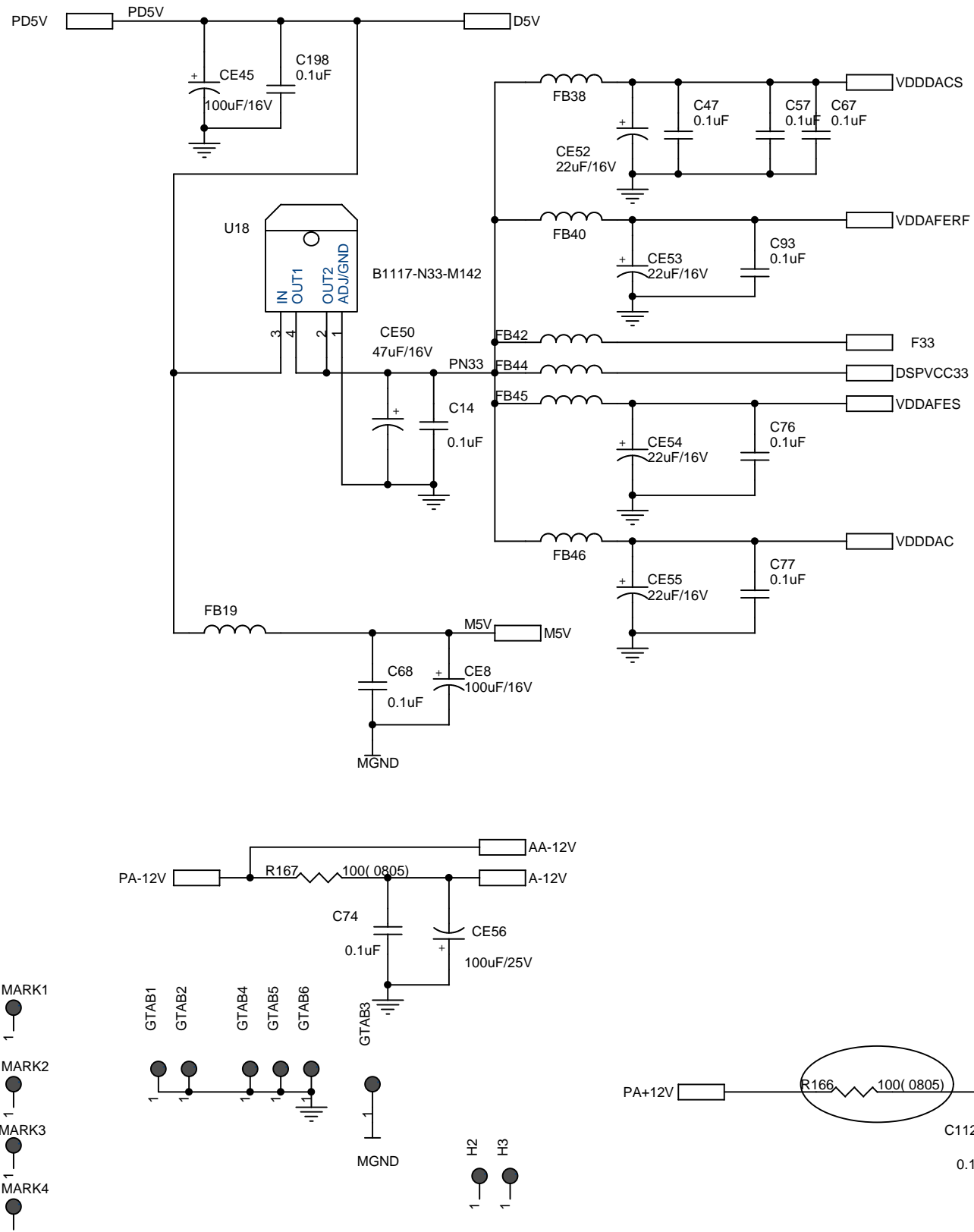
1. All resistance values are indicated in "ohms"(k=1000 ohms. M=1000 Kohms).
2. All capacitance values are indicated in "μF" (p=10<sup>-6</sup> μF).

# POWER SUPPLY SECTION



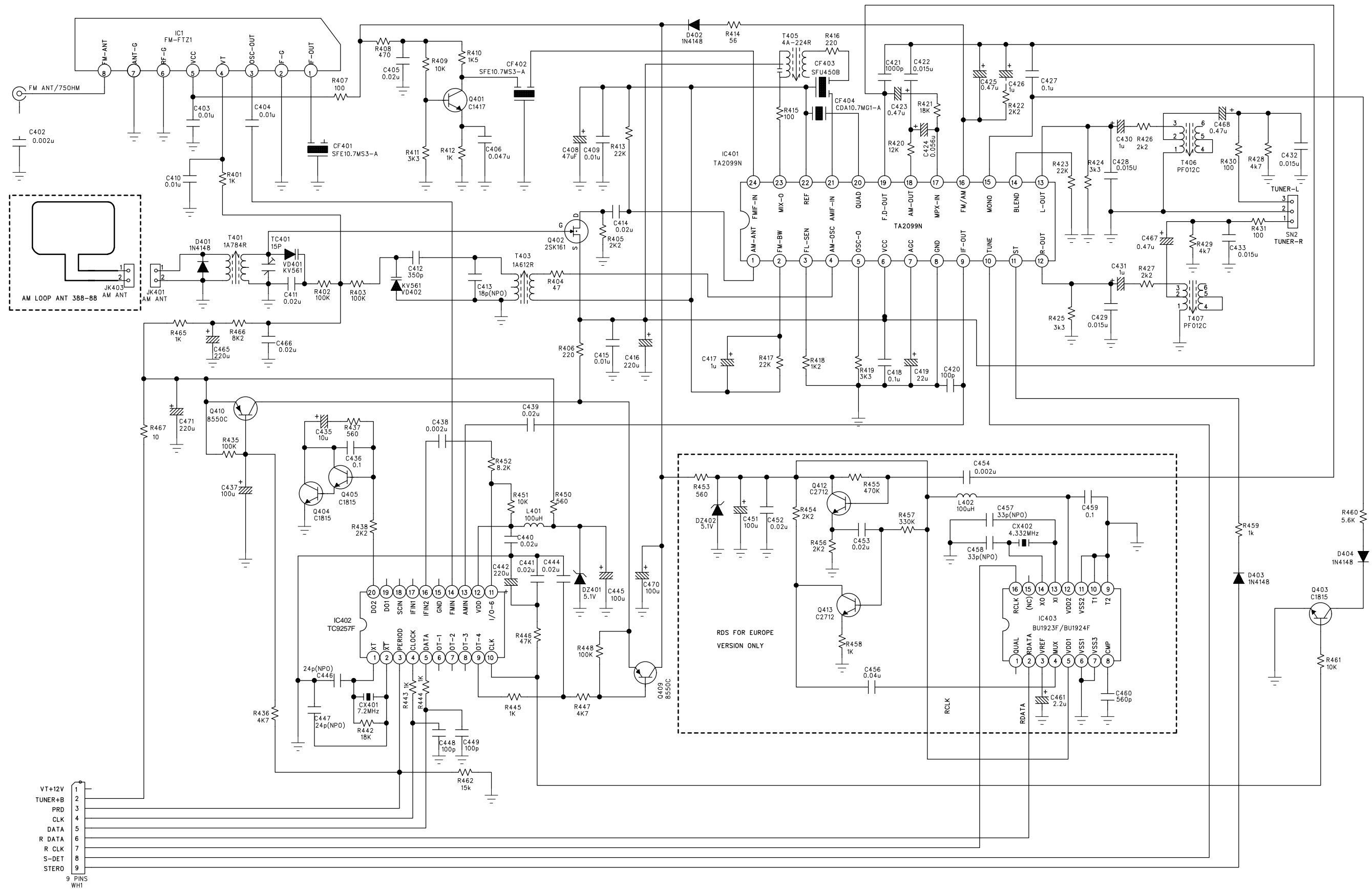
- NOTES:**
1. All resistance values are indicated in "ohms"(k=1000 ohms. M=1000 Kohms).
  2. All capacitance values are indicated in "μF" (p=10<sup>-6</sup> μF).

# 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 "μF" (p=10<sup>-6</sup> μF).

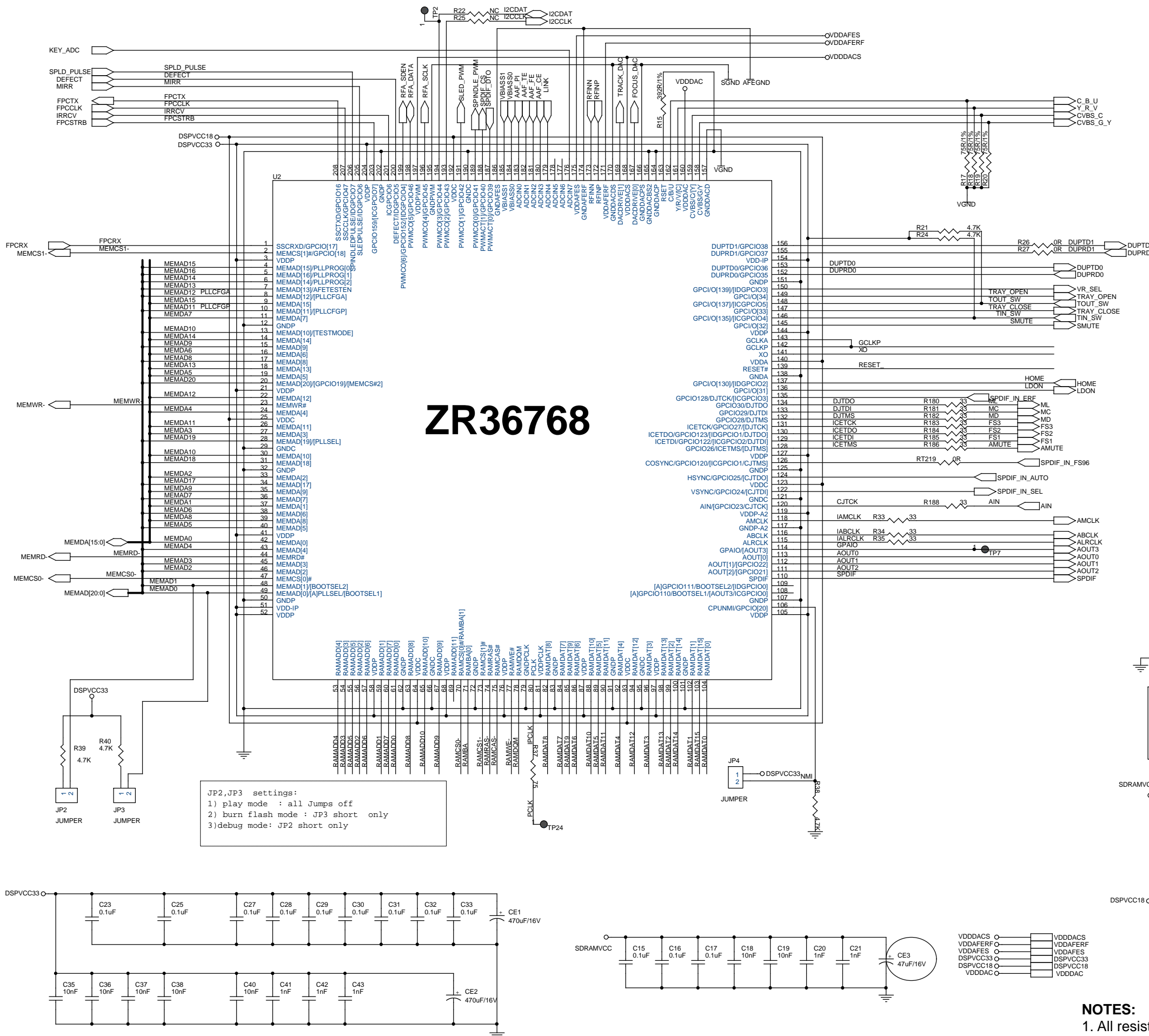
# TUNER SECTION



## NOTES:

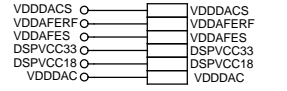
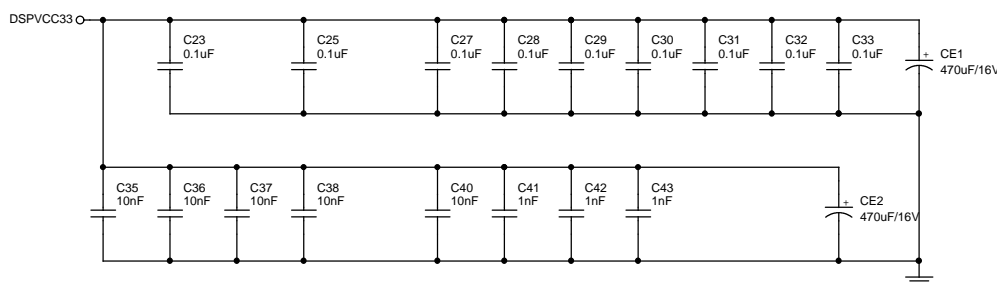
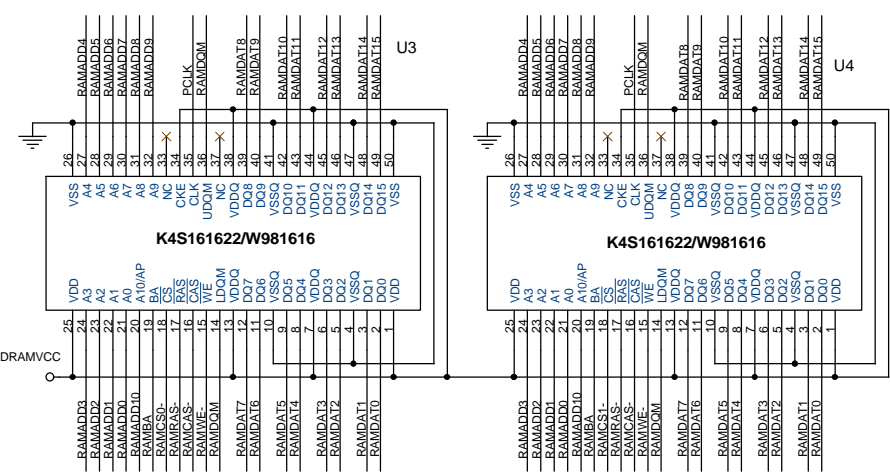
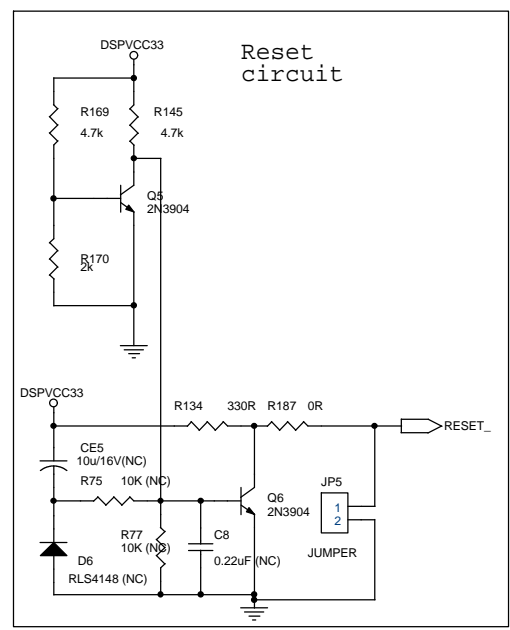
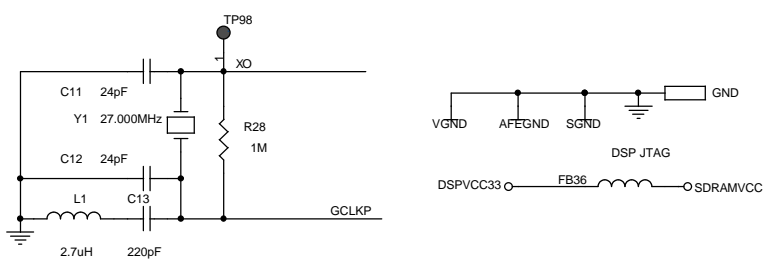
1. All resistance values are indicated in "ohms"(k=1000 ohms. M=1000 Kohms).
2. All capacitance values are indicated in "µF" (p=10<sup>-6</sup>µF).

# DECODE SECTION



## ZR36768

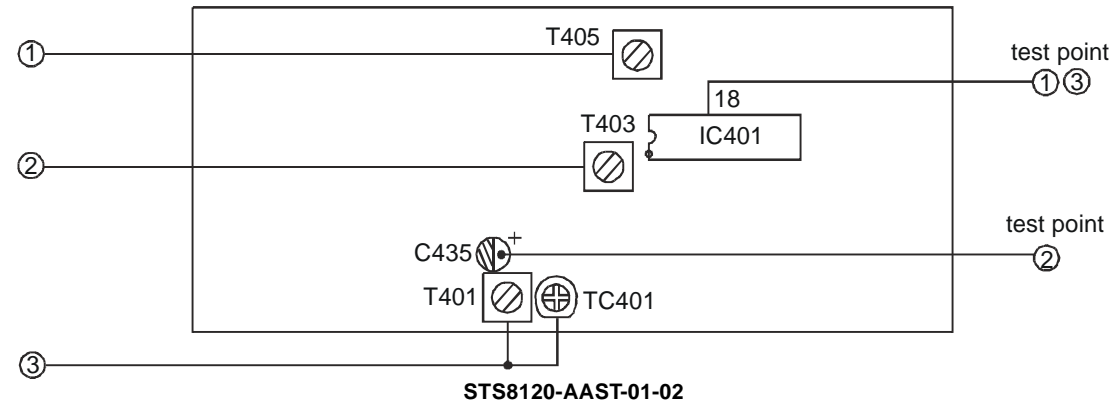
JP2, JP3 settings:  
 1) play mode : all Jumps off  
 2) burn flash mode : JP3 short only  
 3) debug mode : JP2 short only



- 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).

## ALIGNMENT SET-UP PROCEDURES

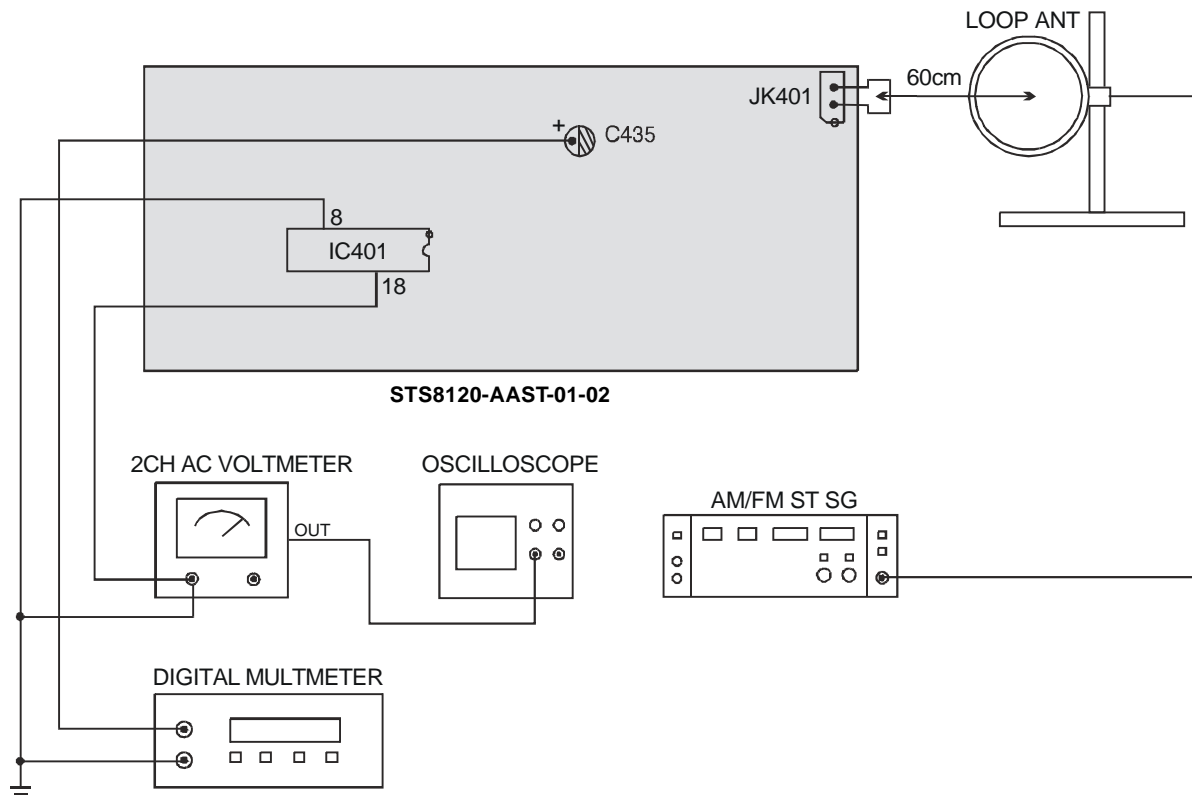
### TUNER SECTION



- 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 ----- 603kHz waveform max.  
 TC401 ----- 1400kHz waveform max.

## EQUIPMENT CONNECTION DIAGRAM

### MW SECTION



## VOLTAGE CHART

### TUNER SECTION

TEST CONDITION: SET AM/FM ON ONE FREQUENCY

#### 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

#### 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

#### 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	0.00	0.00	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

### POWER AMPLIFIER SECTION

TEST CONDITION: DVD PLAY

#### IC501 (LS4558N)

PIN'S NUMBER	1	2	3	4	5	6	7	8
DVD PLAY	5.20	5.20	5.16	0	5.16	5.20	5.20	10.28

#### IC502 (LS4558N)

PIN'S NUMBER	1	2	3	4	5	6	7	8
DVD PLAY	0	0	0	-10.40	0.90	0.91	9.84	10.33

#### IC503 (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

#### IC605 (BD3814FV)

PIN'S NUMBER	1	2	3	4	5	6	7	8	9	10
DVD PLAY	0.06	0.13	-6.95	0	0	0.08	6.50	0	0	0
PIN'S NUMBER	11	12	13	14	15	16	17	18	19	20
DVD PLAY	0	0	0	0	0	0	0	0	0	-7.85
PIN'S NUMBER	21	22	23	24	25	26	27	28	29	30
DVD PLAY	0	0	0	0	0	0	0	0	0	0
PIN'S NUMBER	31	32	33	34	35	36	37	38	39	40
DVD PLAY	0	0	0	0	-0.31	0.56	1.23	0	7.32	0

**VOLTAGE CHART - CONTINUED**

**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

**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

**IC803 (BA05ST)**

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

**IC802 (BA05ST)**

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

**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		

**VOLTAGE CHART - CONTINUED**

**U15 (BA5954FP)**

PIN'S NUMBER	1	2	3	4	5	6	7	8	9	10
DVD PLAY	1.70	2.31	2.42	1.63	1.63	1.62	2.46	4.75	4.75	0
PIN'S NUMBER	11	12	13	14	15	16	17	18	19	20
DVD PLAY	2.41	2.36	2.48	2.25	2.38	2.36	3.09	1.68	0	2.35
PIN'S NUMBER	21	22	23	24	25	26	27	28		
DVD PLAY	4.74	0	1.86	2.24	2.26	1.63	1.63	3.22		

**U11 (NJM4580E)**

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

**U19 (LD1117S)**

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

**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

**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

**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

**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		

### VOLTAGE CHART - CONTINUED

U2 (ZR36768HQC)

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		

U3 (K4S161622/W981616BH)

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

U4 (K4S161622/W981616BH)

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

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

### CPU SECTION TEST CONDITION: DVD PLAY

IC302 (PT6524LQ)

PIN'S NUMBER	1	2	3	4	5	6	7	8
DVD PLAY	2.48	2.48	2.49	2.48	2.49	2.50	2.49	2.49
PIN'S NUMBER	9	10	11	12	13	14	15	16
DVD PLAY	2.48	2.49	2.50	2.49	2.50	2.50	2.5	2.49
PIN'S NUMBER	17	18	19	20	21	22	23	24
DVD PLAY	2.50	2.50	2.49	2.49	2.48	2.49	2.49	2.49
PIN'S NUMBER	25	26	27	28	29	30	31	32
DVD PLAY	2.49	2.48	2.50	2.49	2.50	2.50	2.49	2.49
PIN'S NUMBER	33	34	35	36	37	38	39	40
DVD PLAY	2.48	2.49	2.49	2.49	2.49	2.49	2.49	2.49
PIN'S NUMBER	41	42	43	44	45	46	47	48
DVD PLAY	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50
PIN'S NUMBER	49	50	51	52	53	54	55	56
DVD PLAY	2.50	2.50	2.50	2.45	2.44	2.50	2.43	5.00
PIN'S NUMBER	57	58	59	60	61	62	63	64
DVD PLAY	3.16	1.76	0	1.49	5.00	5.00	5.00	0

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



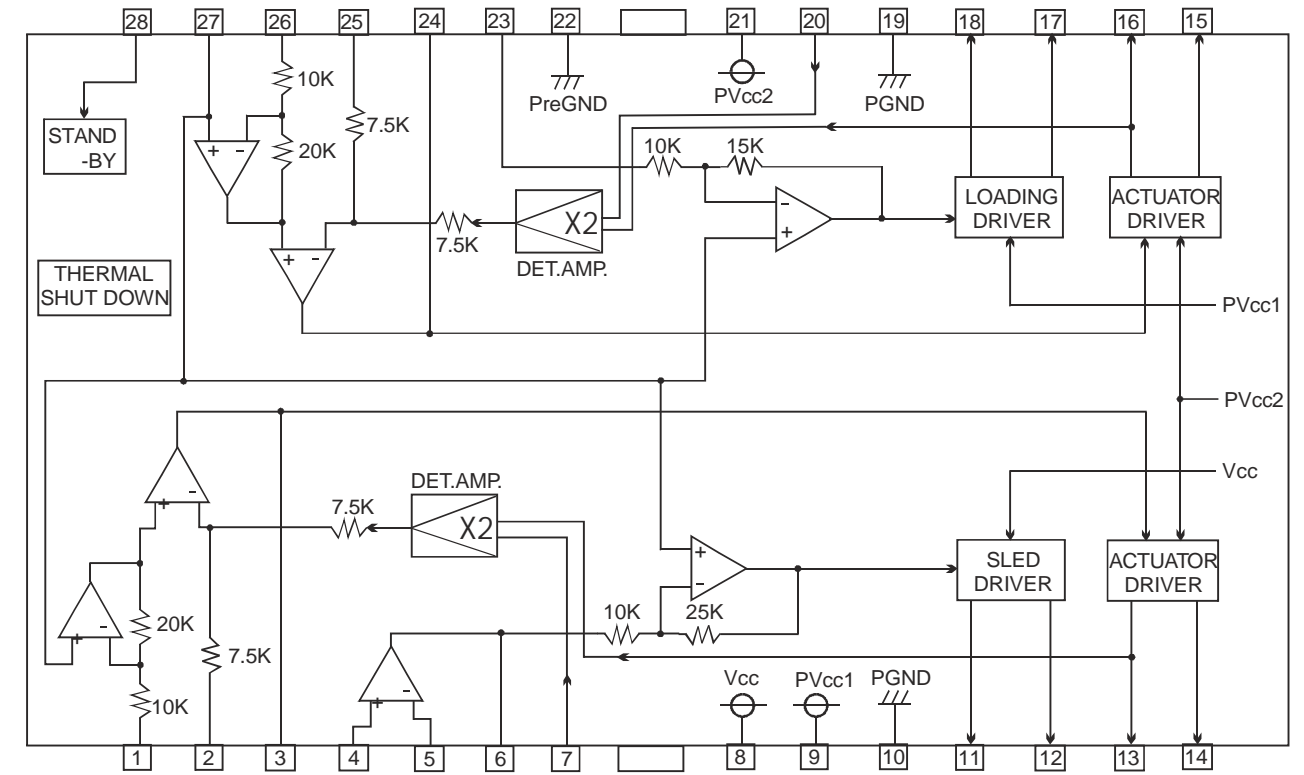
## VOLTAGE CHART - CONTINUED

### IC301 (TMP87EP26F)

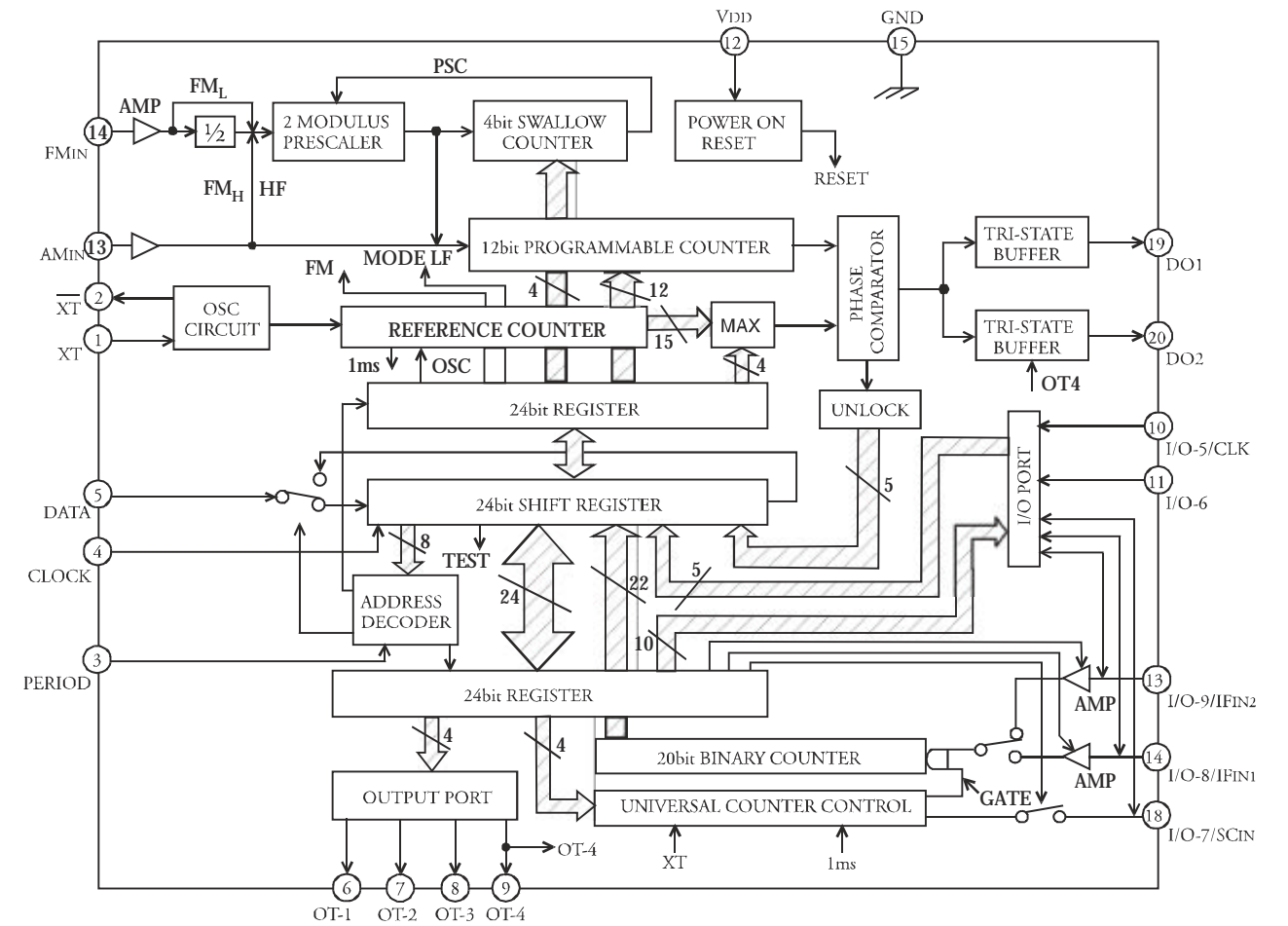
PIN'S NUMBER	1	2	3	4	5	6	7	8	9	10
DVD PLAY	0	2.43	2.15	4.75	0	0.24	0	4.01	4.61	0
PIN'S NUMBER	11	12	13	14	15	16	17	18	19	20
DVD PLAY	0.06	0.06	0.03	3.30	0.03	4.88	0.04	4.92	4.88	4.92
PIN'S NUMBER	21	22	23	24	25	26	27	28	29	30
DVD PLAY	4.92	4.88	0	4.92	4.88	0	3.30	4.92	0.04	4.89
PIN'S NUMBER	31	32	33	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

## IC BLOCK DIAGRAMS & IC PINS DESCRIPTION

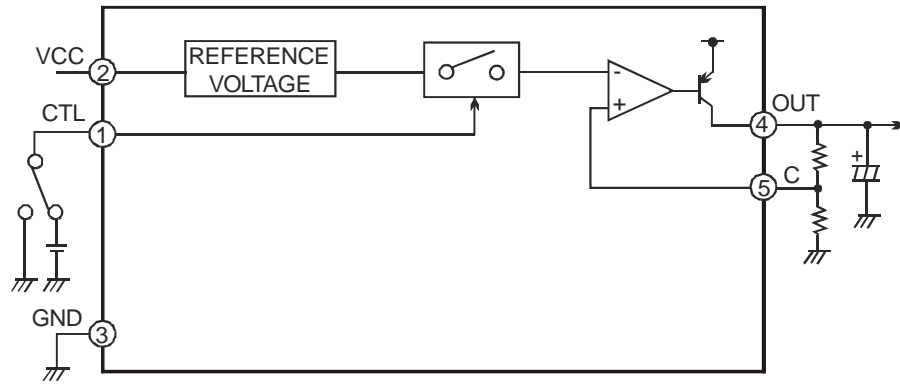
### U15 BA5954FP



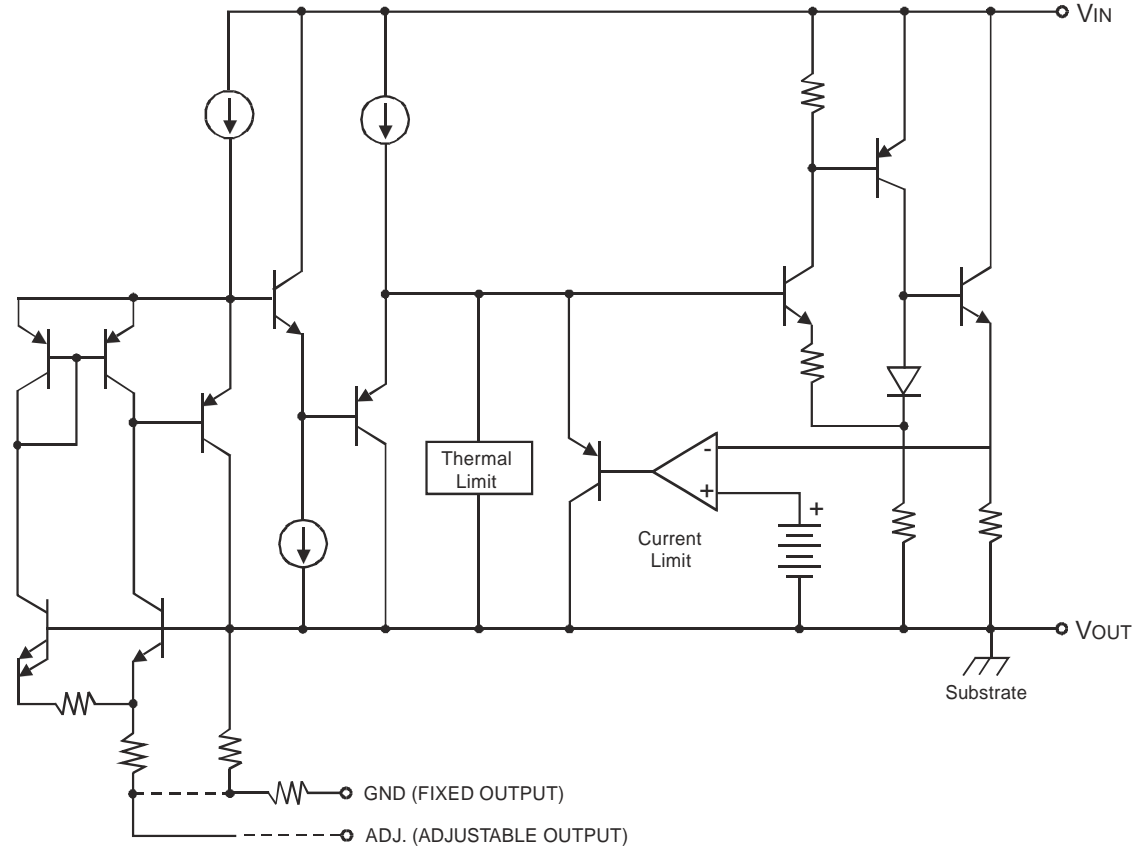
### IC402 TC9257F



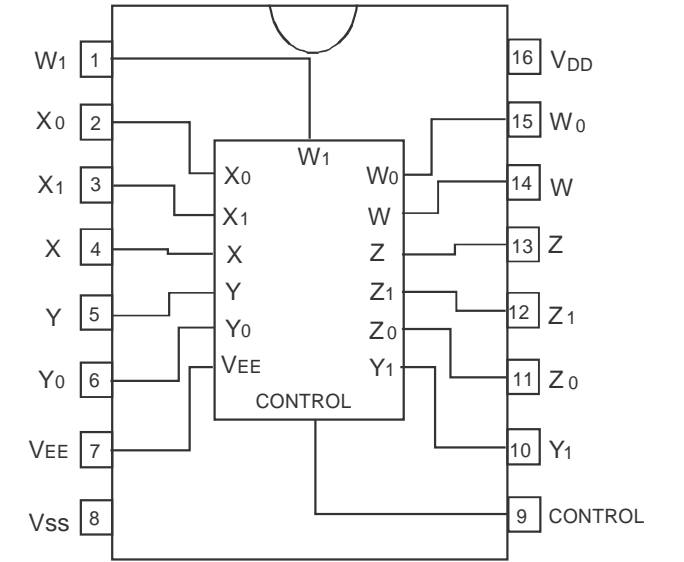
**IC802, IC802 BA05ST**



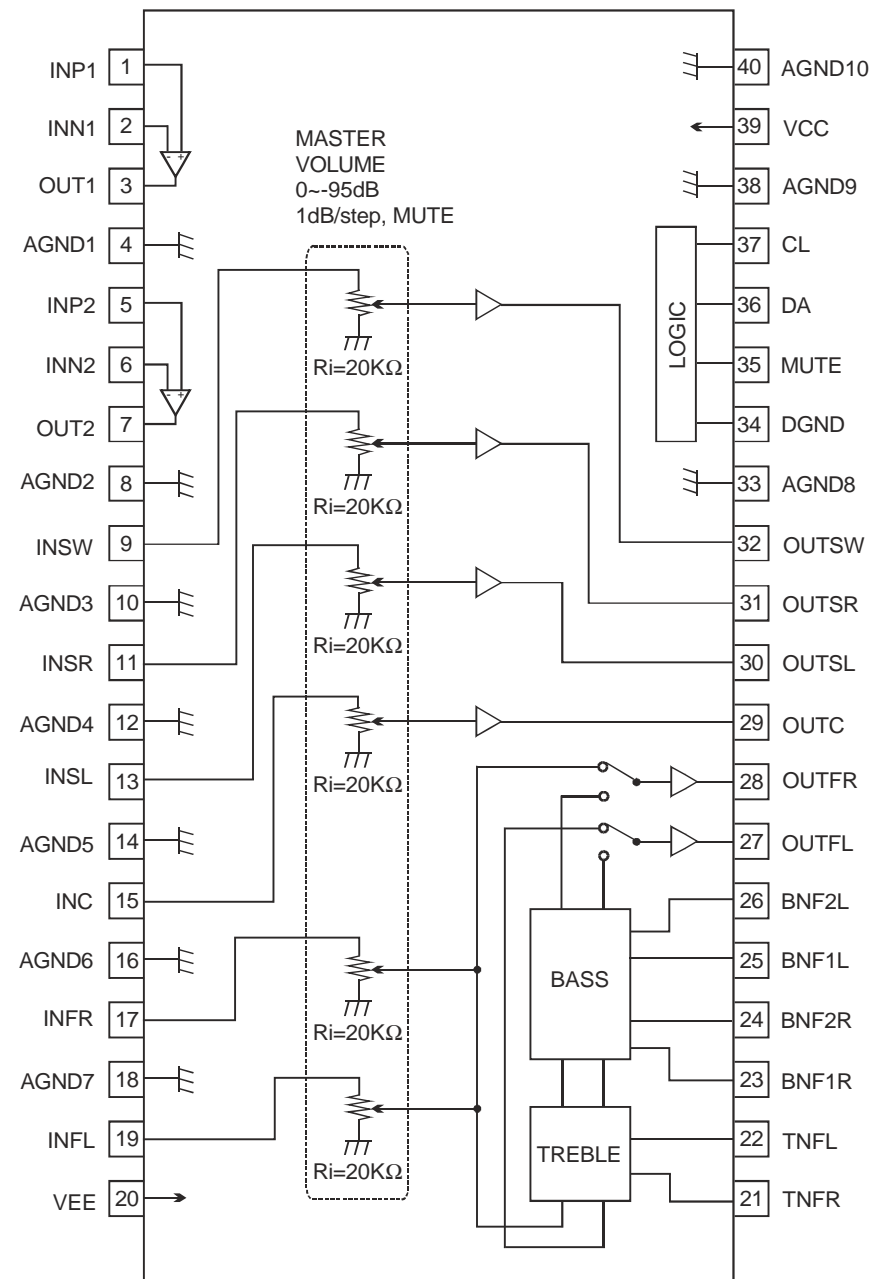
**U17, U18 LD1117S33C  
U19 LD1117S**



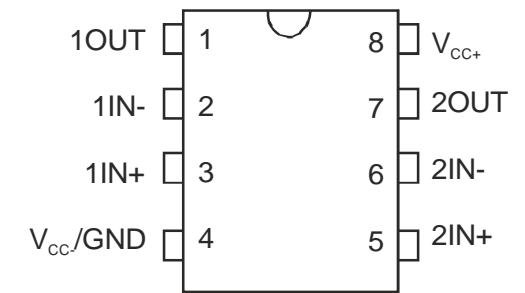
**IC503 BU4551BF**



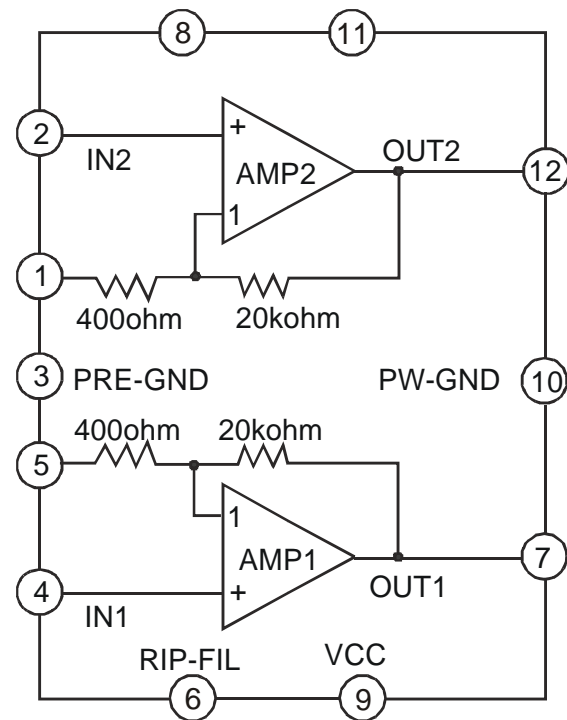
**IC605 BD3814FV**



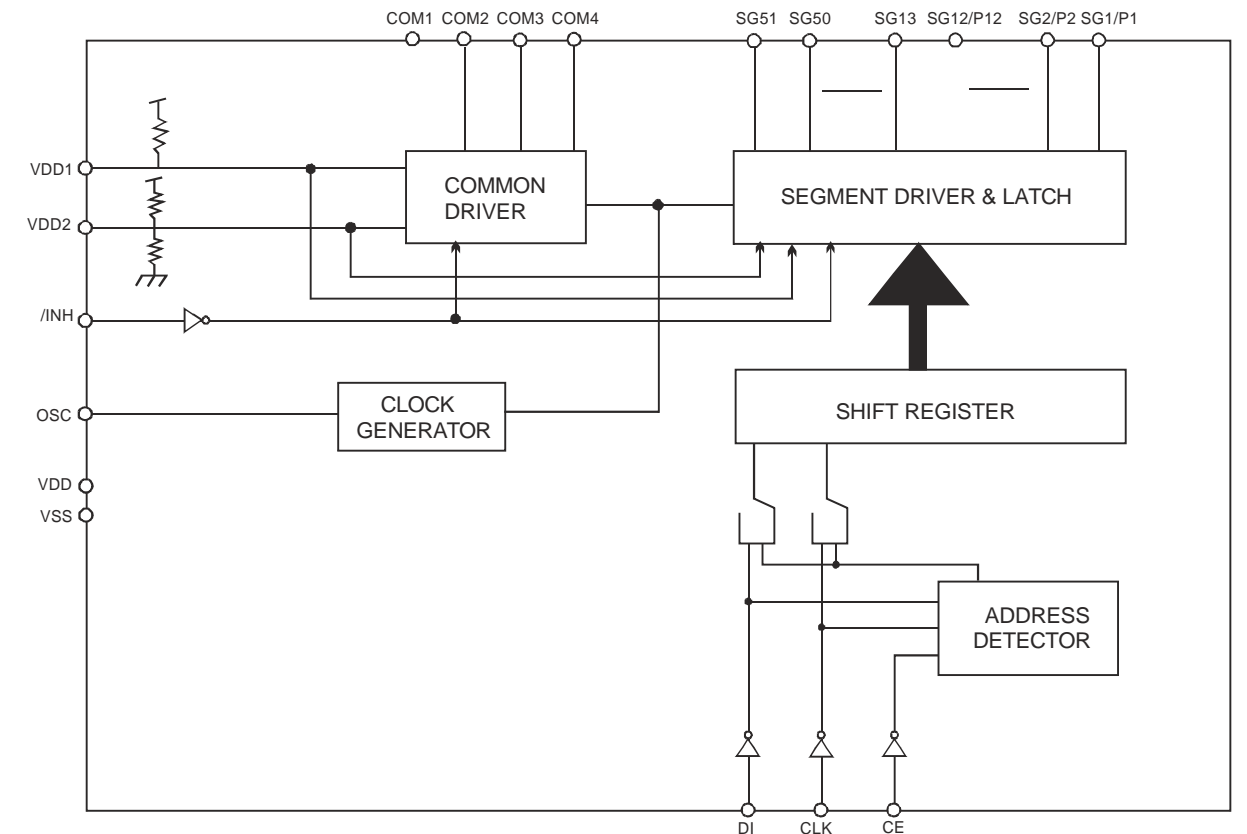
**U1 TL3472CD/R**



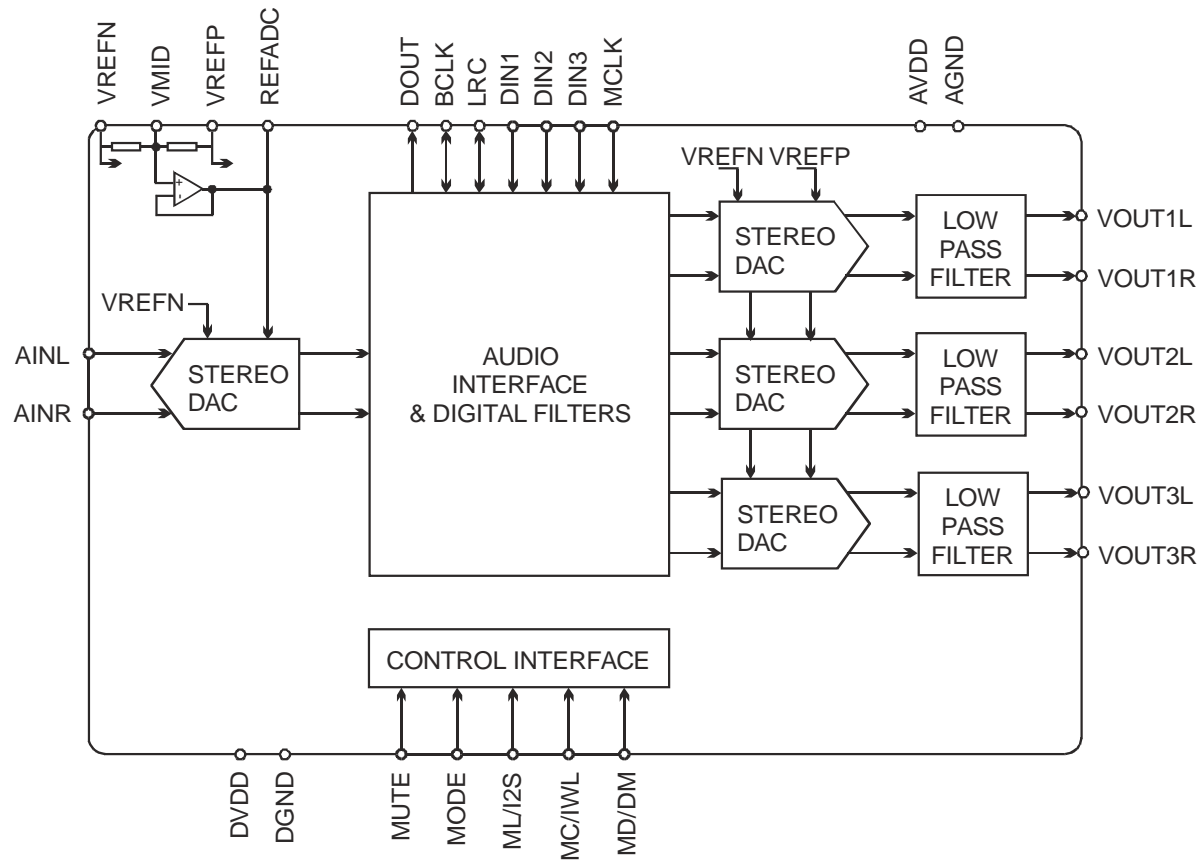
**IC601, IC602, IC603 TA8258H**



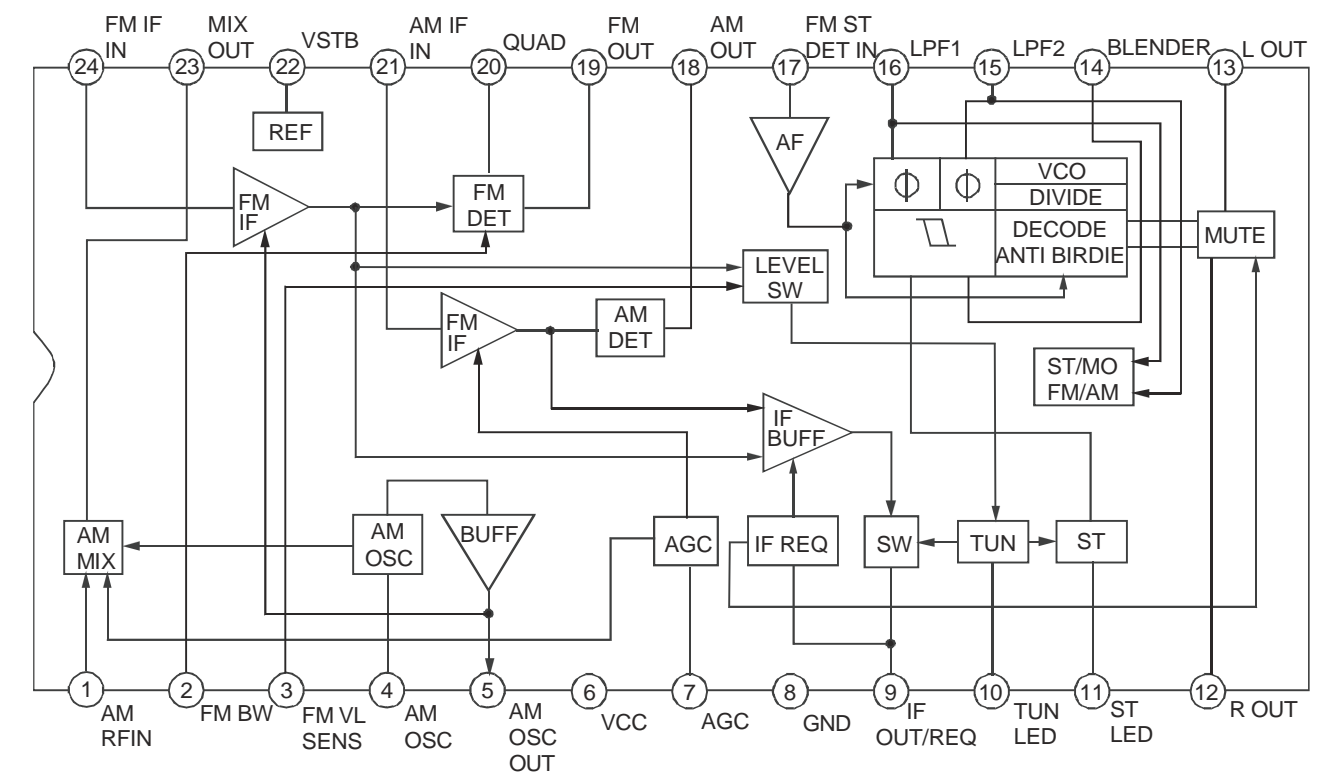
**IC302 PT6254LQ**



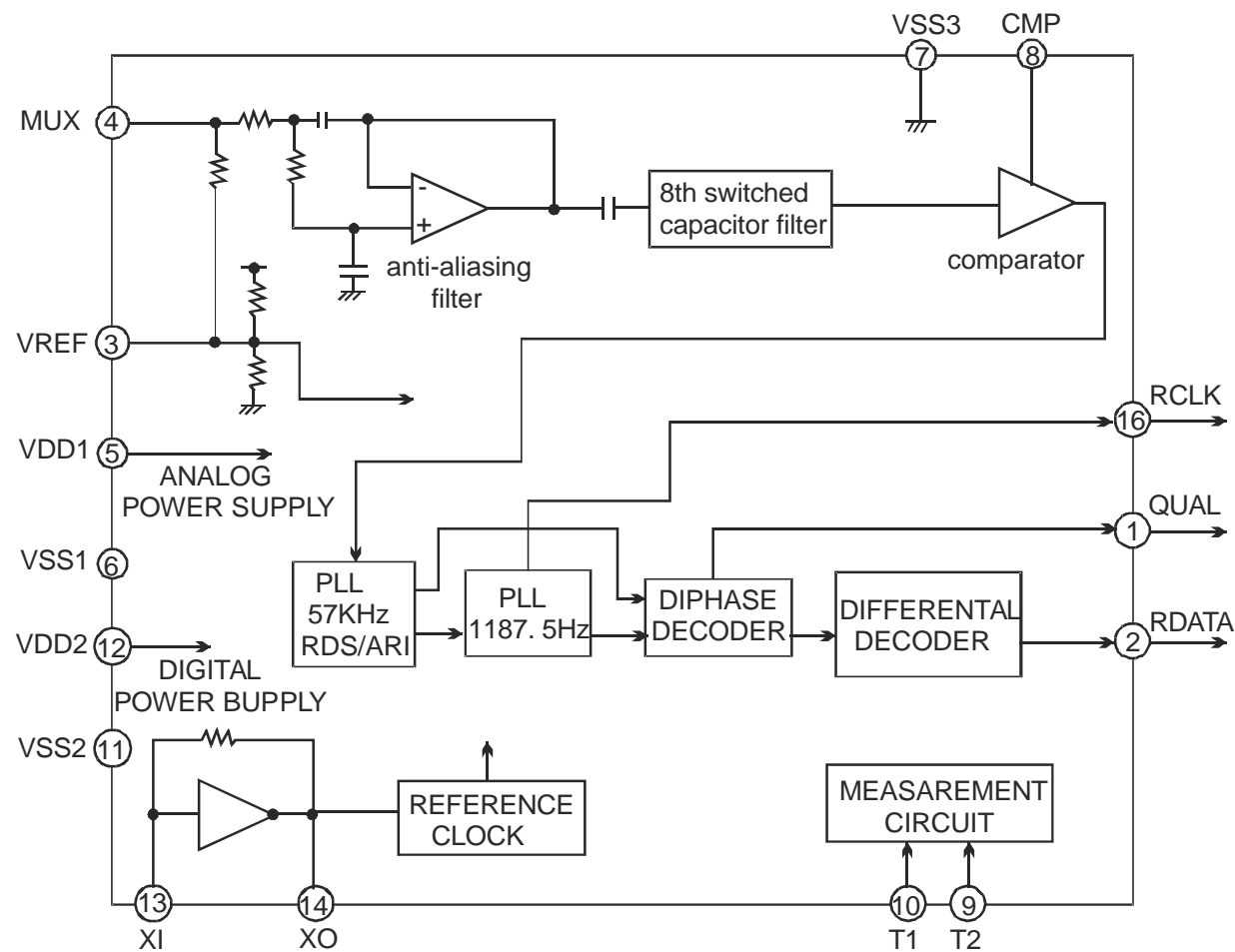
**U10 WM8772EDS**



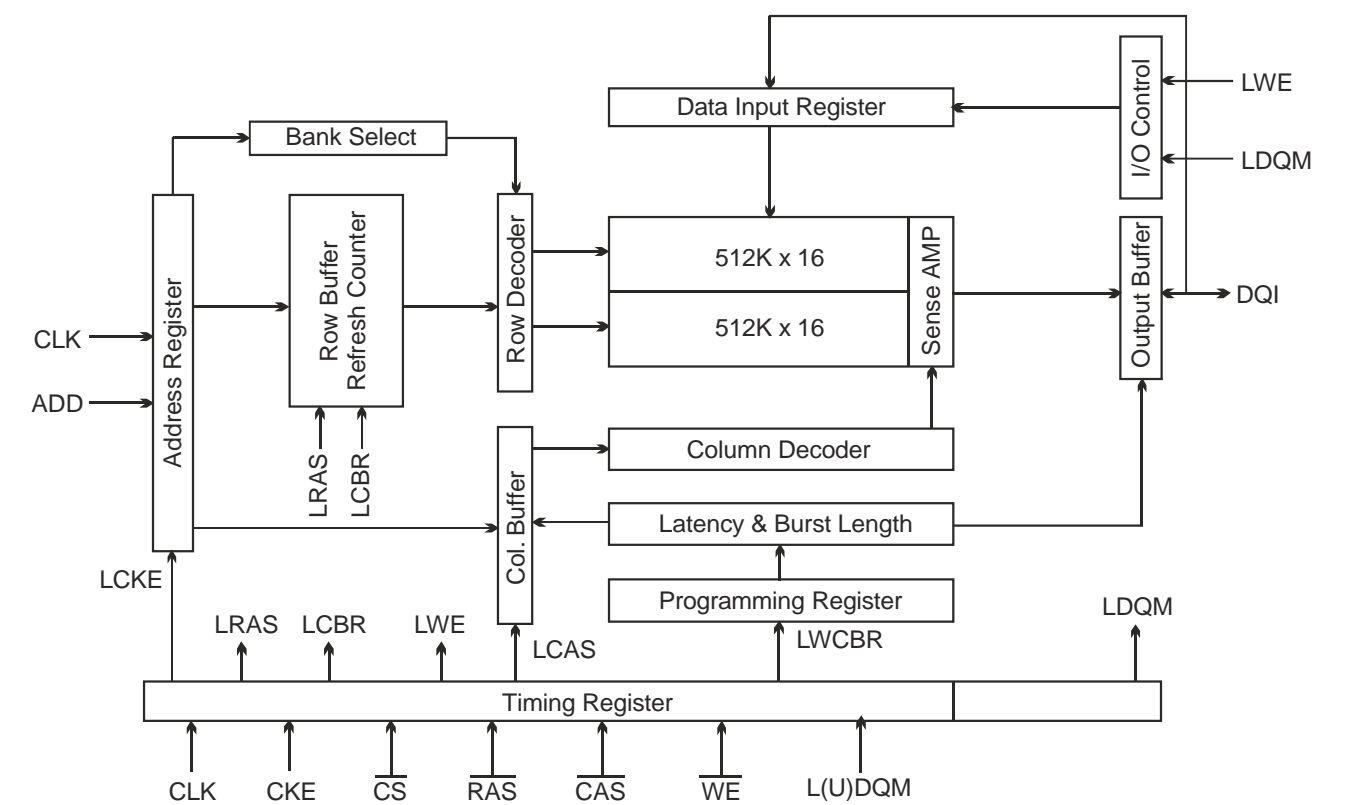
**IC401 TA2099N**



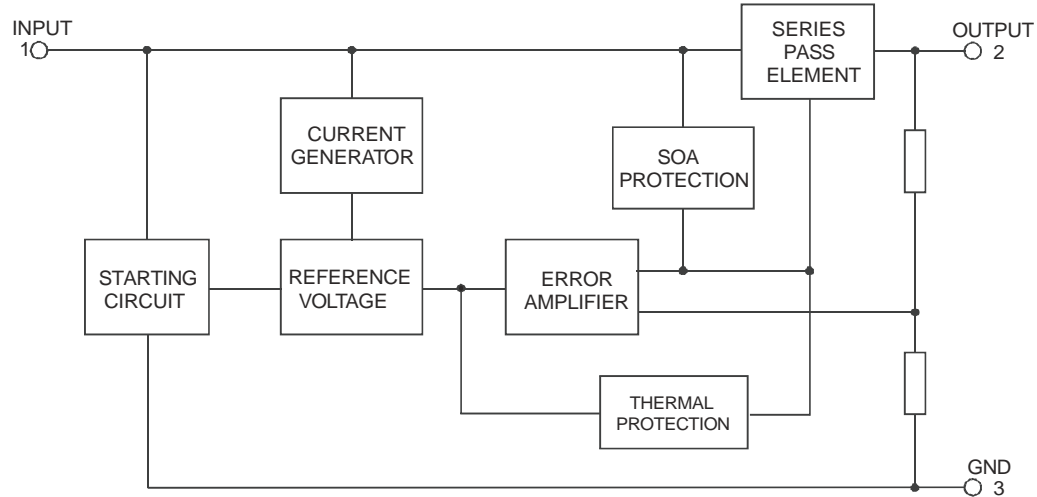
**IC403 BU1923F/BU1924F**



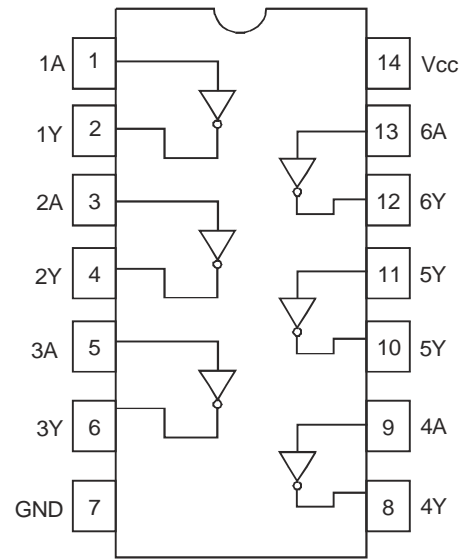
**U3, U4 K4S161622/W981616BH**



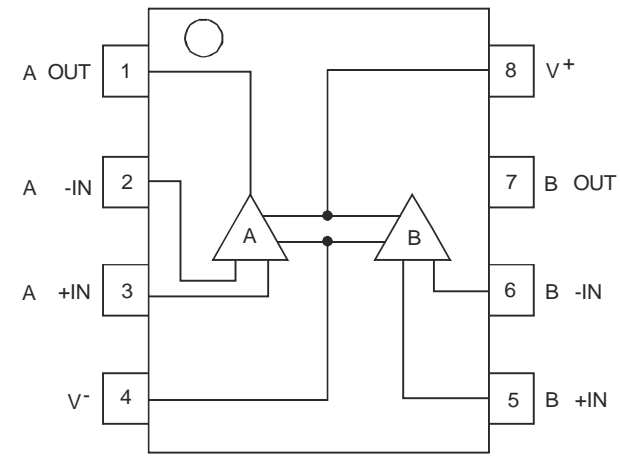
**IC801 LM78L05ACZ**



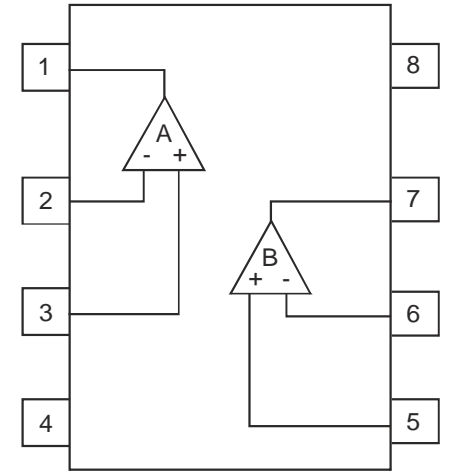
**U9 TC74HCU04AF**



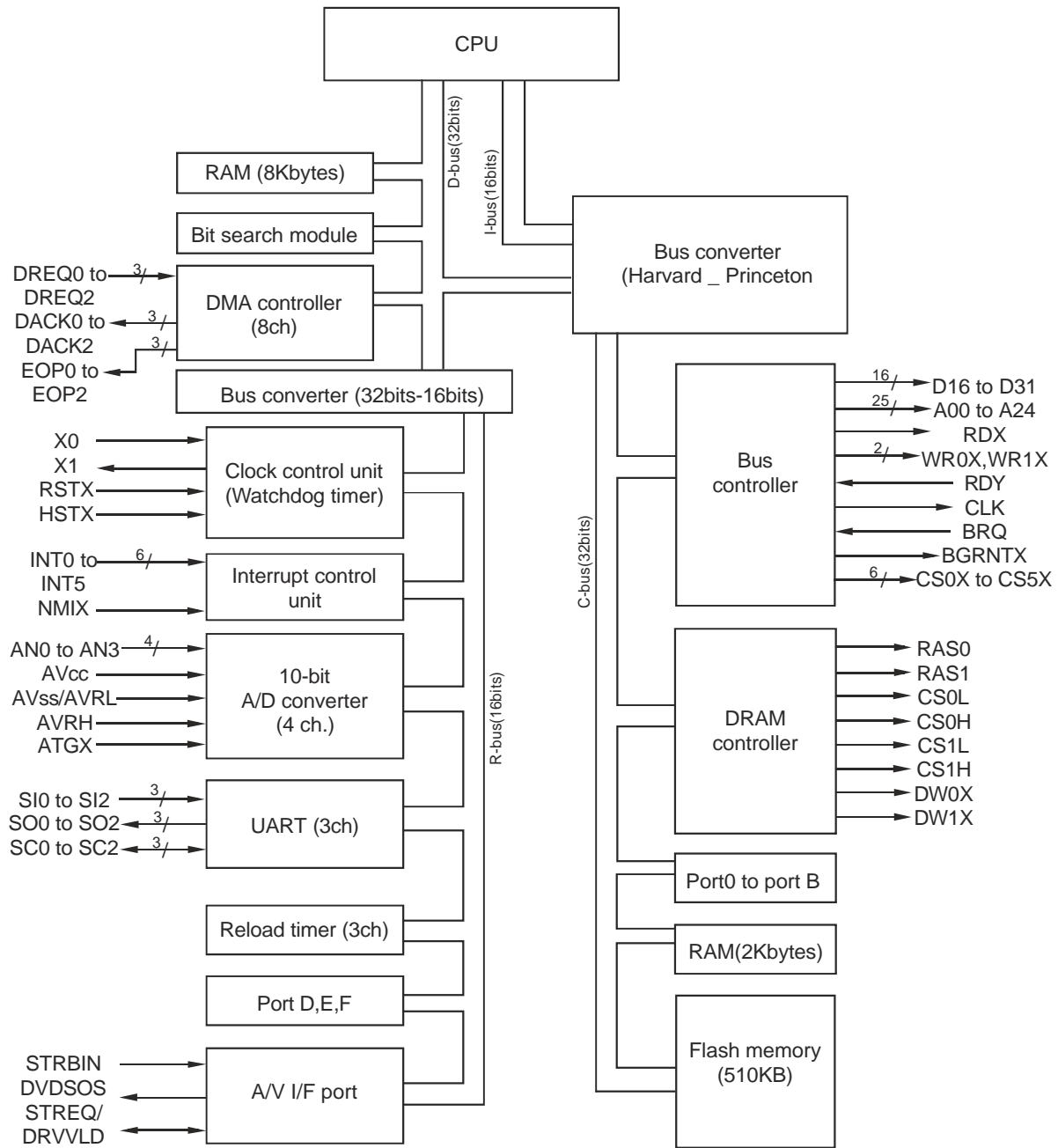
**U11 NJM4580E  
U12, U13 LS4580F**



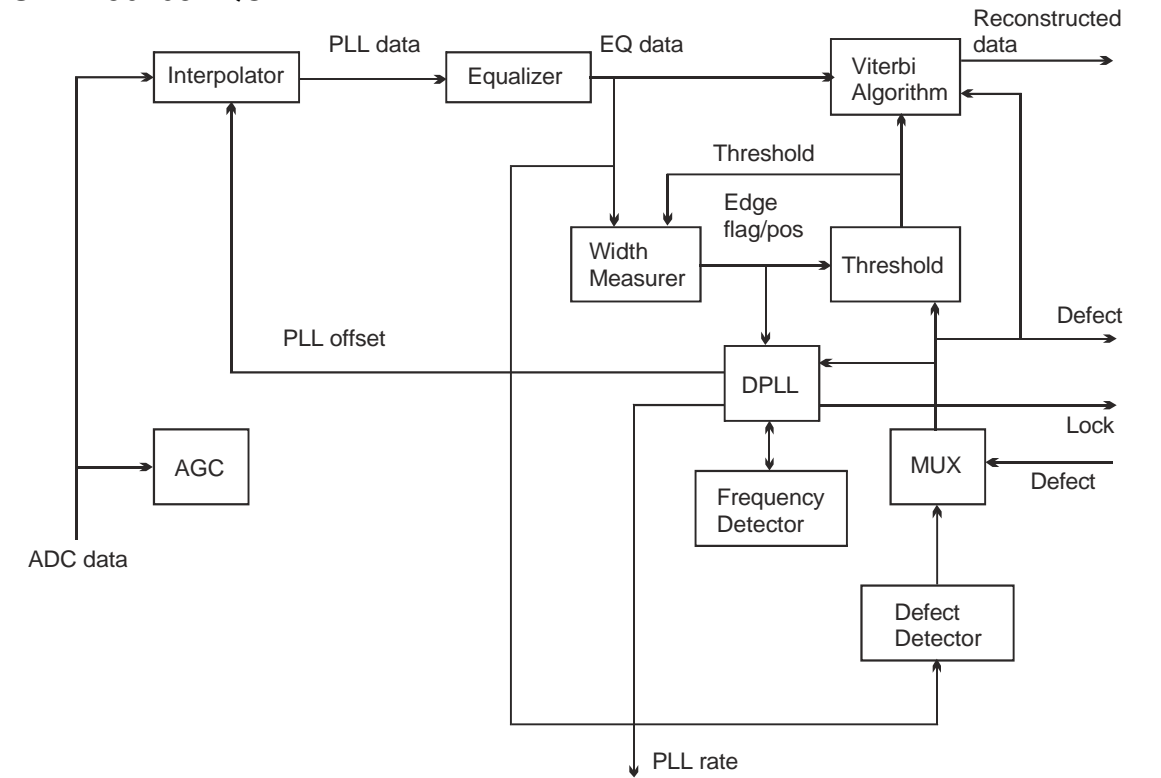
**IC501, IC502 LS4558N**



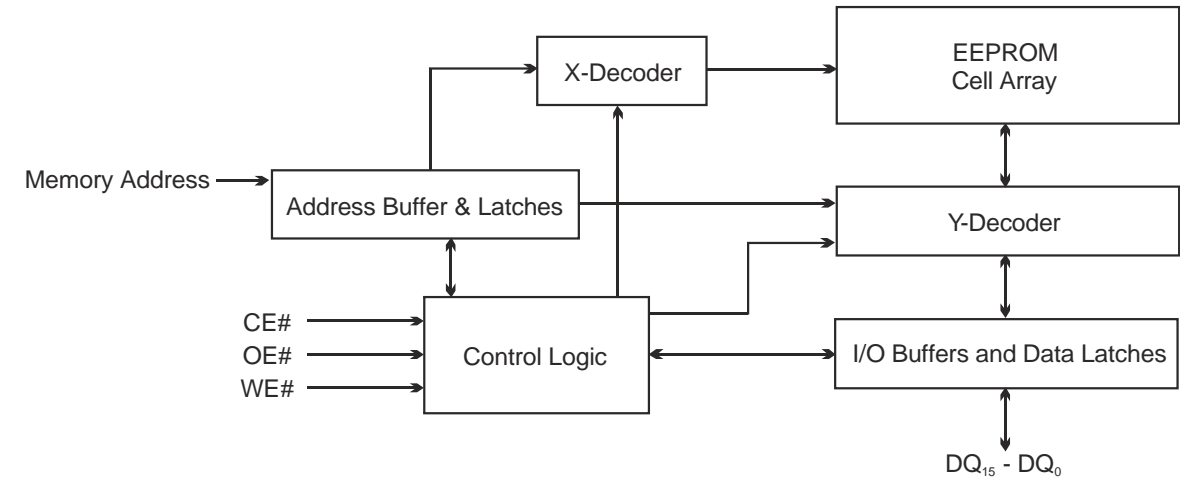
**U14 ZR36707TQC**



**U2 ZR36768HQC**



**U5 SST39V800FA**



**IC301 TMP87EP26F PINS DESCRIPTION**

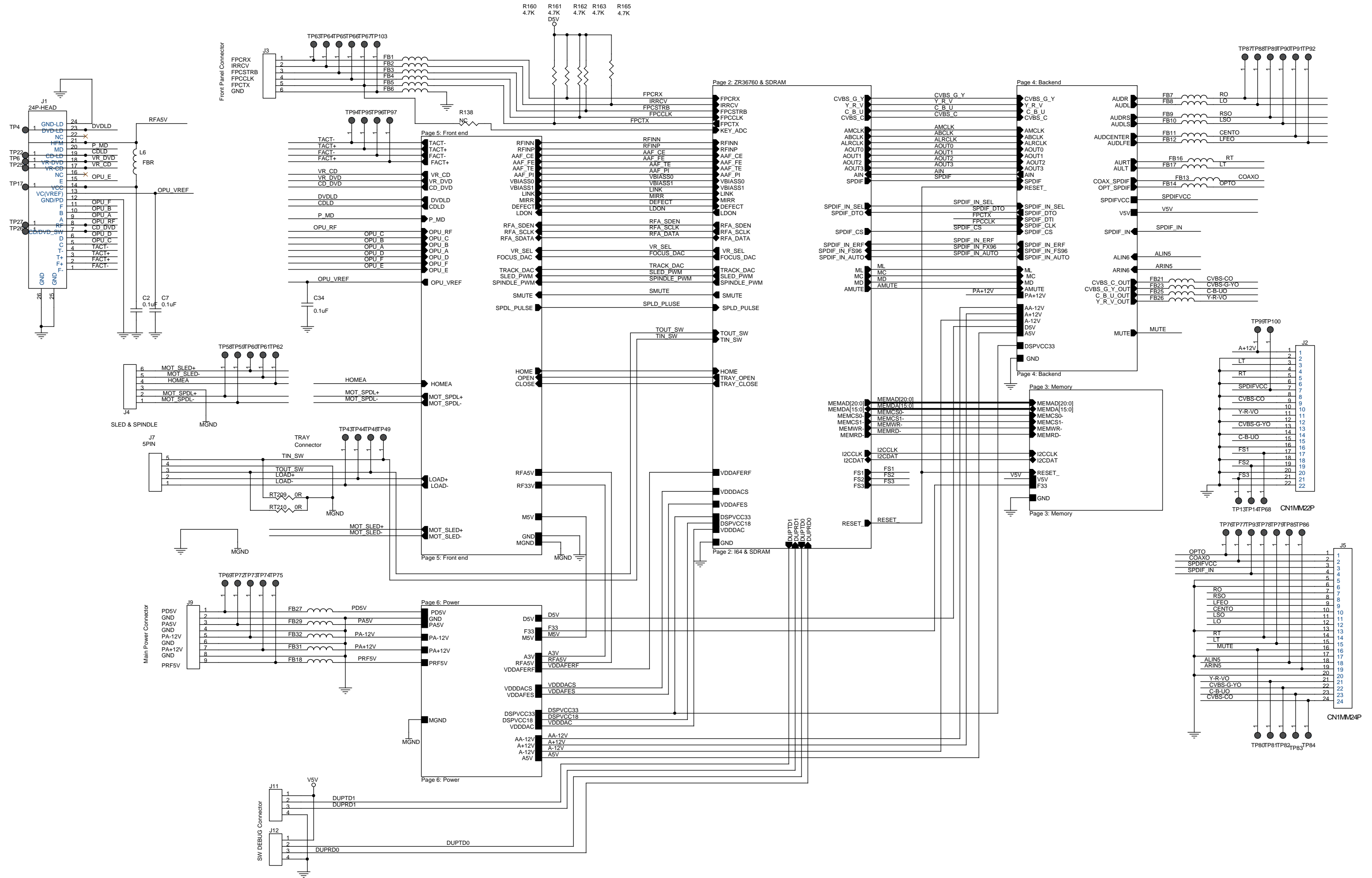
Pin	Port Name	Pin Name	Description
1	VSS	VSS	Ground
2	XOUT	XOUT	8MHz
3	XIN	XIN	8MHz
4	/RESET	RESET	
5	P2.2 (XTOUT)	CS	CS to Display driver
6	P2.1 (XTIN)	CLK	Clock to Display driver
7	TEST	TEST	
8	P2.0 (INT5/STOP)	STOP*	Poewer Down detector
9	P4.0 (INT3/TC3)	IR*	Remote controller
10	P4.1 (PWM/PDO)	CLKSHIFT	Clock shift on tuner
11	P4.2 (/SCK1)	RDSCLK*	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	VFDCCLK	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)		
54	P8.2 (SEG37)		
55	P8.3 (SEG36)		
56	P8.4 (SEG35)		

**IC301 TMP87EP26F PINS DESCRIPTION - CONTINUED**

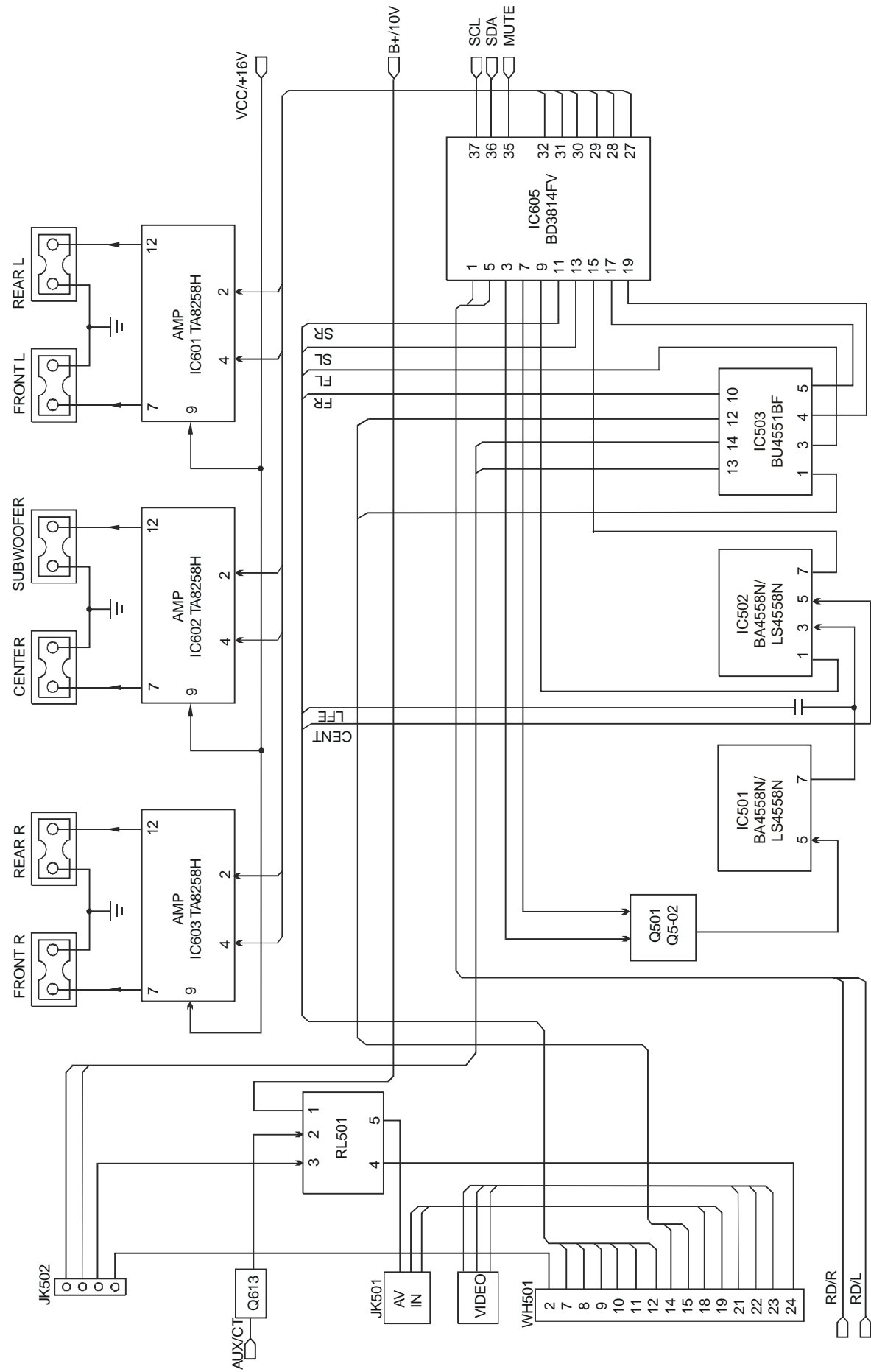
Pin	Port Name	Pin Name	Description
57	P8.5 (SEG34)		
58	P8.6 (SEG33)		
59	P8.7 (SEG32)		
60	P7.0 (SEG31)		
61	P7.1 (SEG30)		
62	P7.2 (SEG29)		
63	P7.3 (SEG28)		
64	P7.4 (SEG27)		
65	P7.5 (SEG26)		
66	P7.6 (SEG25)		
67	P7.7 (SEG24)		
68	P6.0 (SEG23)		
69	P6.1 (SEG22)	RVS_SW	3-CD Tokyo Pigeon Changer
70	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

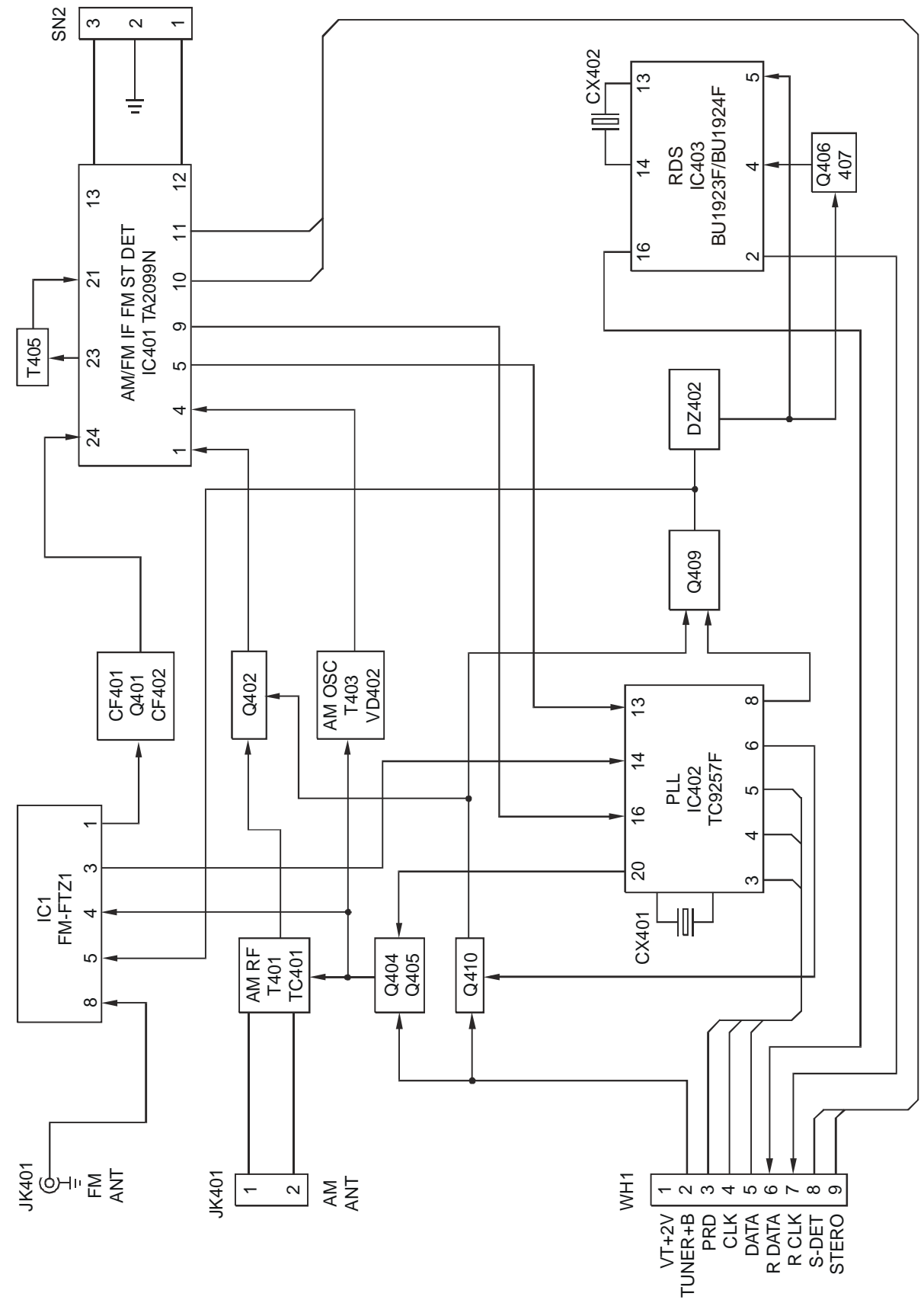
## MPEG + SERVO SECTION



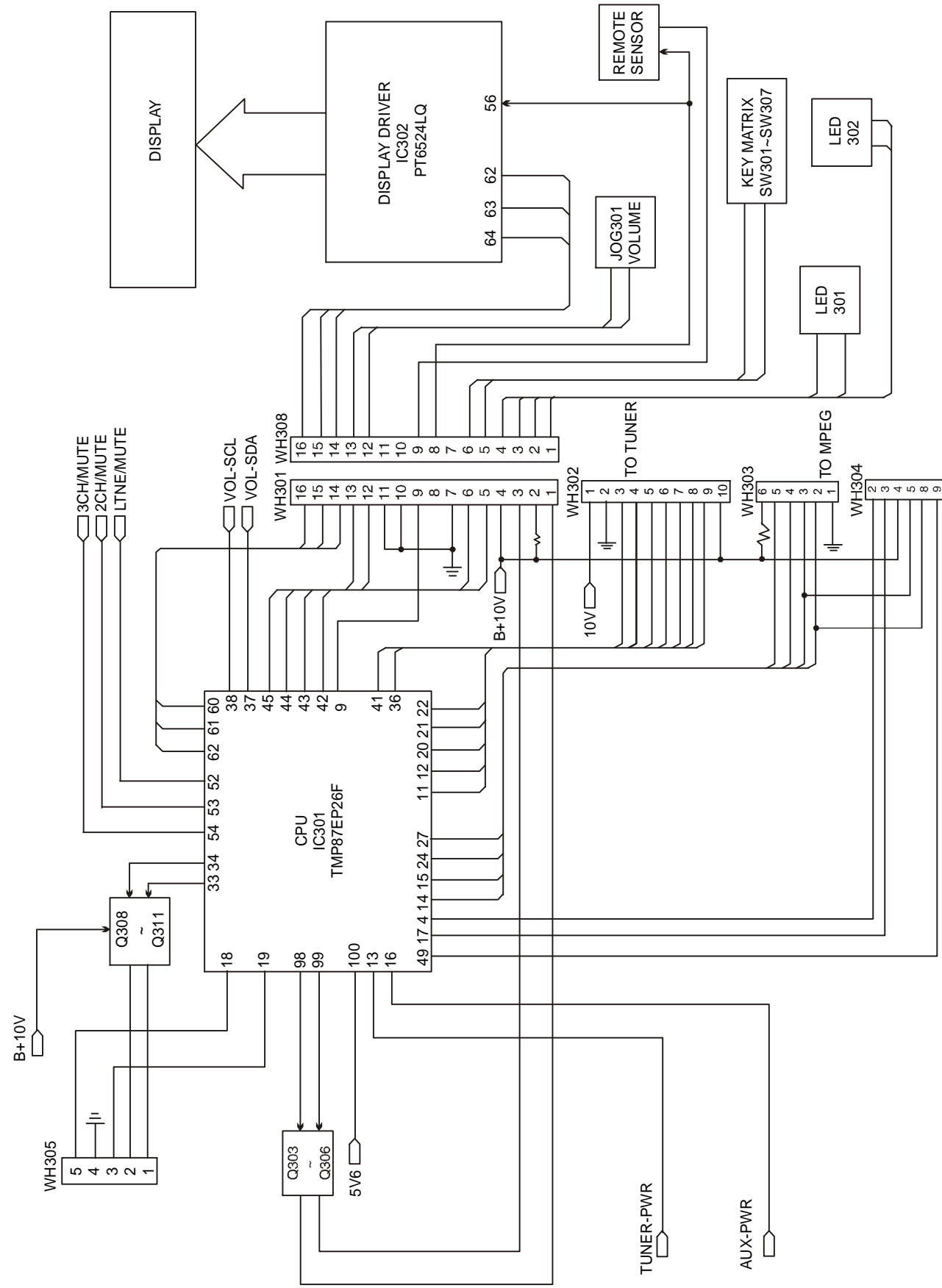
# POWER AMP. SECTION



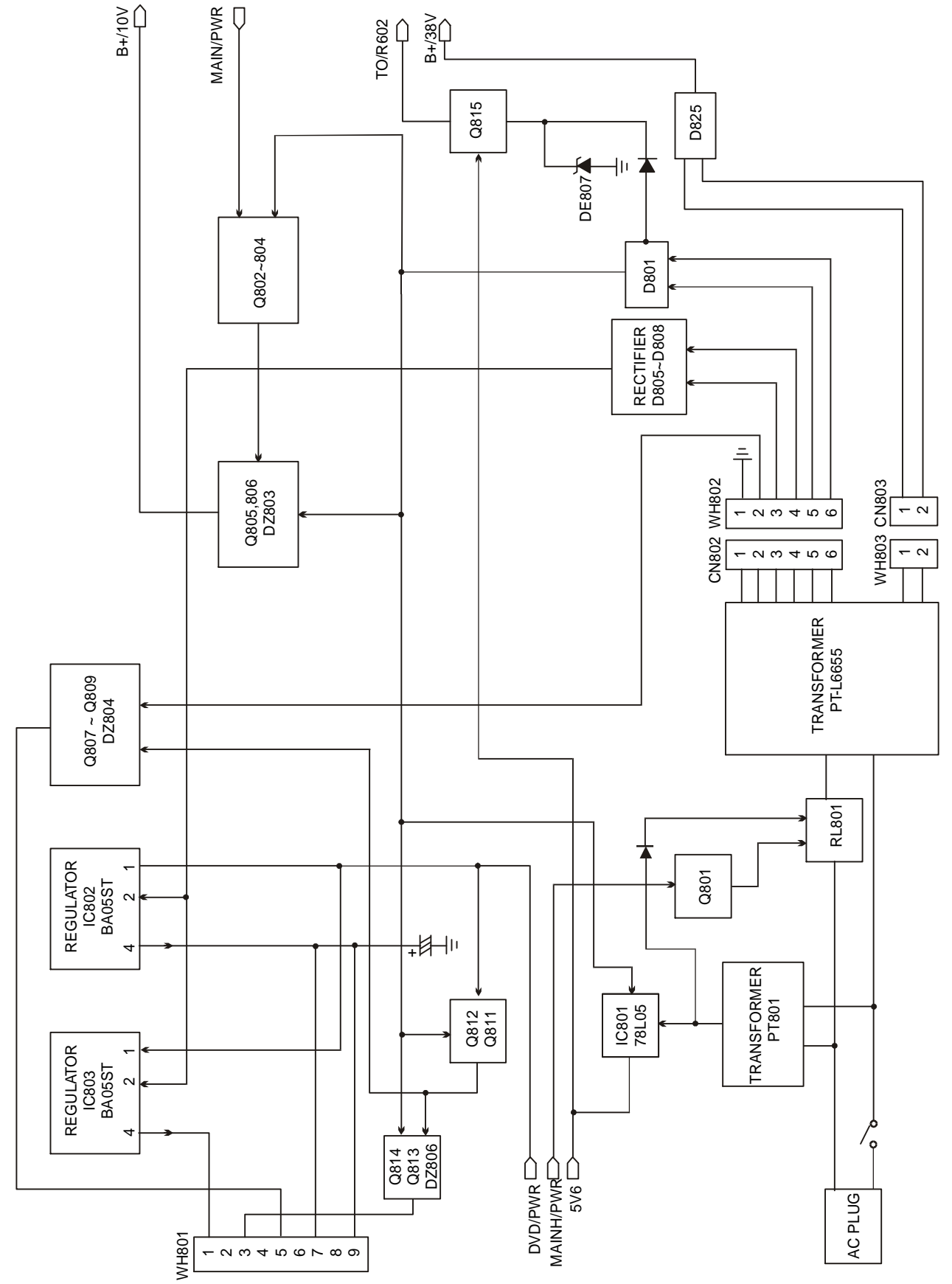
# TUNER SECTION



### CPU SECTION



### POWER SUPPLY SECTION





**EXPLODED DRAWING PARTS LIST**

Ref. No.	Description	Mfr's Part No.	Qty.
<b>MAIN UNIT</b>			
1	DVD DOOR, MOLD COLOR (ABS) CAV:1, w/SPY & PNT	500-ST8203-xxx	1
2	FRONT COVER, MOLD COLOR (ABS) CAV:1, w/SPY	500-ST8205-xxx	1
3	DISPLAY LENS, MIRROR LENS, w/PNT	512-ST8204-xxx	1
4	VOLUME KNOB CAP, MOLD COLOR (ABS) CAV:1, w/SPY	500-ST8216-xxx	1
5	VOLUME KNOB, MOLD GREY(CNS-0360) (ABS) CAV:1	510-ST8211-002	1
6	FRONT PANEL, MOLD COLOR (HIPS V2) CAV:1, w/SPY & PNT	500-ST8201-xxx	1
7	PANEL BRACKET (ABS) CAV.2	505-ST8129-000	1
8	KEY PCB STS81AAST-01-03	033-ST81A-102	1
9	CONTROL KNOB BRACKET, MOLD GREY(CNS-0360), (ABS) CAV:1	505-ST8213-000	1
10	LCD-P-08D-8716SM040P 87x16x2.7mm JT3-03061/ SDT-DA275-TP-1 TRANS./POSITIVE	LCD301 112-003061-000	1
11	DIFFUSOR PAPER, D207	700-ST8124-000	1
12	DIFFUSOR LENS, CAV.2 (PMMA)	500-ST8105-000	1
13	REMOTE SHIELDING, T=0.3mm E.G. STEEL	609-ST6142-000	1
14	DISPLAY BRACKET, MOLD WHITE (ABS) CAV:2	505-ST8214-000	1
15	DISPLAY PCB STS82AAST-01-01	033-ST82A-100	1
16	BOTTOM CABINET (WITH FAN), T=0.8mm E.G. STEEL	600-ST8119-000	1
17	RIGHT PANEL BRACKET, MOLD COLOR (ABS) CAV:1, w/SPY	505-ST8209-xxx	1
18	RIGHT PANEL, MOLD COLOR (ABS) CAV:1, w/SPY	500-ST8207-xxx	1
19	POWER TRANSOFRMER w/136°C	123-xxxxxx-xxx	1
20	TOP COVER, S:350x300x15mm, T=0.6mm, E.G. STEEL, w/SPY	600-ST8218-xxx	1
21	HSI-EXT-AL&-020W-OC HEAT SINK (EXTRUDE AL)	613-ST8228-000	1
22	HEATSINK, EXTRUDED AL	613-ST8222-000	1
23	HS&-PT&-AL&-020W-OC HEAT SINK	613-ST8229-000	1
24	POWER TRANSOFRMER w/FUSE 115°C	123-xxxxxx-xxx	1
25	MAIN PCB STS8120-AAST-01-01	033-ST812-200	1
26	MPEG+SERVO PCB STS82AAST-01-02	033-ST82A-101	1
27	HEATSINK, 0.5mm TIN PLATE	613-DV3231-000	3
28	PCB BRACKET, CAV.8 (ABS)	505-ST8113-000	4
29	COOLING FAN DC9V 0.14A DC BRUSHLESS #5010H12S NF1, 50x50x10mm	100-090009-000	1
30	BACK PLATE, 195.5x48mm w/PNT	650-ST8157-xxx	1
31	TUNER PCB STS8120-AAST-01-02	033-ST812-200	1
32	DVD MECHANISM w/DV34S 163-000034-000	DVDD-037	1
33	LEFT PANEL BRACKET, MOLD COLOR (ABS) CAV:1, w/SPY	505-ST8208-xxx	1
34	LEFT PANEL, MOLD COLOR (ABS) CAV:1, w/SPY	500-ST8206-xxx	1
35	RUBBER FOOT, 10x10x2.0mm BLACK (NC RUBBER), w/SELF-ADHESIVE	4/BTM CAB. 700-630141-000	4
36	CONTROL KNOB, MOLD COLOR (ABS) CAV:7, w/SPY	510-ST8210-xxx	7
37	LEFT COVER, MOLD COLOR (ABS) CAV:1, w/SPY	500-ST8212-xxx	1
	SCREW 3x6mm BB T.T.S.(S TYPE) NI PLATED, (TSB#9878107200)	722-080308-060	11
	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
	SCREW ST3x8mm, PB BRASS BASED 2/ELE PARTS TO BTM CAB.	720-050300-080	2
	SCREW 3x6mm BB T.T.S.(S TYPE) NI PLATED, (TSB#9878107200) 1/TUNNING PCB TO BTM CAB.	722-080308-060	1

**EXPLODED DRAWING PARTS LIST - CONTINUED**

Ref. No.	Description	Mfr's Part No.	Qty.
	SCREW ST3x8mm, PB BRASS BASED 2/ELE PARTS TO BTM CAB.	720-050300-080	2
	FIBRE WASHER DIA:3.2x8x1	532-303208-100	6
	SPRING WASHER 3mm Zn BLACK 4/FAN TO BTM CAB.	532-403000-001	4
	THERMAL RES. PRESS PLATE, T=0.3mm, PHOSPHPOUS BRONZE	650-ST7733-000	1
	PCB SEPARATOR PLATE (FOR 20W) 0.3mm PVC PLATE	650-ST8227-000	1
	PVC PLATE (TRANSFORMER) 0.5mm 94V2 PVC PLATE	650-ST8233-000	1
	HEATSINK INSULATOR, 0.25mm25x10mm	700-DV3243-000	1
	FOAM CUSHION, 1.5mm EVA	700-ST2113-000	1
	RUBBER FOAM (TRANSFORMER) RUBBER FOAM C4305, w/ADHESIVE	700-ST8231-000	4
	SCREW 3x15mm PM BRASS BASED 4/FAN TO BTM CAB.	721-010300-150	4
	SCREW ST3x8mm BB T.T.S. (B TYPE), 6/HEATSINK TO PCB	722-080307-082	20
	CBTS(P)-Z CHROMATE PLATING (CBTB 3x8 MC) 10/POWER IC TO HEATSINK		
		3/HEATSINK TO HEATSINK	
		1/THERMAL RESISTOR PRESS PLATE TO HEATSINK	
	SCREW 3x6mm BB T.T.S. (S TYPE) NI PLATED, (TSB#9878107200) 4/MAIN PCB TO BTM CAB.	722-080308-060	4
	FELT B, 50x15x0.3mm HIMERON w/SONY T-3500, 2-SIDED TAPE (T#9871858900)	700-SDC019-001	5
	PCB SEPARATOR (MPEG) T=0.4mm (FIBRE PAPER)	700-ST8230-000	1
	SCREW ST3x8mm, PB BRASS BASED 5/ELE PARTS TO BTM CAB.	720-050300-080	5
	SCREW ST3x8mm, BB HEAD V5.9-6.3, 8/SERVO PCB TO PCB BKT	720-110300-080	8
	BB BRASS BASED		
	SCREW 3x6mm FLAT HEAD B TYPE T.T.S. NI-PLATED	722-060307-060	2
		1/LEFT PANEL BKT TO BTM CAB.	
		1/RIGHT PANEL BKT TO BTM CAB.	
	SCREW 3x6mm BB T.T.S. (S TYPE) NI PLATED (TSB#9878107200)	722-080308-060	8
		2/LEFT PANEL BKT TO BTM CAB.	
		2/RIGHT PANEL BKT TO BTM CAB.	
		4/MECHANISM TO BTM CAB.	
	METAL WASHER DIA:6.5xDIA:18x2.0mm NICKEL-PLATED	532-206518-200	1
	FIBRE WASHER DIA:3.2x8x1	532-303208-100	1
	SCREW ST3x8mm, PB BRASS BASED 3/CTL KNOB BKT TO DISPLAY BKT	720-050300-080	3
	SCREW ST3x10mm, PB BRASS BASED 4/DISPLAY PCB TO FRONT PANEL	720-050300-100	5
		1/CTL KNOB BKT TO FRONT PANEL	
	PVC TUBE AWG5 INNER DIA:4.72mm, (DAE CHANG/TAE IK) (UL/CSA APP.)	UNIT"M" 728-000047-001	0.07
	FUSE HOLDER #FH-V-03078 5x20mm P.B CU/SN-PLATED	550-790000-002	6
<b>DVD MECHANISM SECTION - (DVDD-037)</b>			
1	CHUCK PLATE, DIA:28.5x0.5 THK E.G. STEEL	650-DV3714-000	1
2	CHUCK COVER, MOLDED BLACK, CAV.2 (ABS)	500-DV3711-000	1
3	MAGNET FERRITE (Y30H) OD:16mm, ID:5.2mm, T:3mm, 2POLES MAG FORCE: 900+-100 Gauss (M051630)	153-DV3713-000	1
4	CHUCK BRACKET, MOLDED BLACK, CAV.1 (ABS)	505-DV3710-000	1
5	CHUCK, MOLDED BLACK, CAV.2 (ABS)	509-DV3709-000	1
6	DVD MECHANISM HOLDER, MOLDED NATURAL, CAV.2 (ABS)	505-DV3703-000	1
7	DRIVE GEAR, MOLDED NATURAL, CAV.2 (POM)	509-DV3705-000	1
8	PULLEY GEAR, MOLDED NATURAL, CAV.2 (POM)	509-DV3708-000	1
9	CHASSIS, MOLDED BLACK, CAV.1 (HIPS)	509-DV3702-000	1
10	MOTOR PULLEY, MOLDED NATURAL, CAV.2 (POM)	509-DV3707-000	1
11	MOTOR PCB DVD037-01-01	033-DVD037-100	1
12	TRAY, MOLDED BLACK, CAV.1 (ABS)	509-DV3701-000	1
13	DVD CUSHION, CR HARDNESS 50+-2 DURO BLACK	700-DVD304-000	2

**EXPLODED DRAWING PARTS LIST - CONTINUED**

Ref. No.	Description	Mfr's Part No.	Qty.
14	DVD CUSHION (SANYO)	700-DV3715-000	2
15	DVD-FLC-01-SAN&-N DVD MECHANISM, FOR CD-R DV34S (SANYO)	163-000034-000	1
16	SLIDE CAM, MOLDED NATURAL, CAV.2 (POM)	509-DV3704-000	1
	METAL WASHER DIA:2.8/DIA:9.5x0.5mm 2/DVD MECHA-CHASSIS	532-202809-550	2
	DOOR SPRING BRACKET (RIGHT) 0.2 THK, PHOSPHOR BRONZE PLATE	605-DV3766-000	1
	DOOR SPRING BRACKET (LEFT) 0.2 THK, PHOSPHOR BRONZE PLATE	1/SET 605-DV3767-000	1
	MOTOR BELT, MOLDED BLACK RUBBER, OD25.6xID28x1.2SQ	700-DV3712-000	1
	SCREW ST1.7x6mm PWB W=5mm 1/PULLEY GEAR-CHASSIS	720-040170-060	1
	SCREW 2x8mm PWB WASHER HEAD W=8mm, BRASS BASED 2/DVD MECHA HOLDER-CHASSIS	720-040200-080	2
	SCREW ST2x5mm PB BRASS BASED (M2.3 HEAD) 1/LEAF SW	720-050200-050	1
	SCREW ST2.6x8mm PB BRASS BASED 2/CHUCK COVER-CHASSIS	720-050260-080	4
	2/PCB-CHASSIS		
	SCREW ST2.6x4.0mm BB 2/SPRING PLATE-CHASSIS	720-110260-040	2
	SCREW ST2.6x6mm FLAT HEAD DIA:6 THK:1.5	720-220269-060	1
	SCREW 1.7x3.5mm BM (3 HEAD) w/NI-PLATING 2/MOTOR-CHASSIS	721-040170-350	2
	SCREW 2.6x10mm BB T.T.S. (P TYPE), 2/DVD MECHA-CHASSIS	722-080260-102	2
	CHROMATE PLATING (BTTB2.6x10MC)		
	4" CABLE/PLASTIC TIE (SKB-1M/CV-100) (CdF)	727-000100-000	1

**CENTER SPEAKER SECTION - (SSQC9)**

1	SPEAKER CLOTH #FP-D201-131 GREY, WIDTH:69"/71" (S:230X160mm) UNIT"YD"	662-FPD201-000	0.0229
2	SPEAKER CLOTH MESH, CAV.2 (HIPS)	509-SQC903-000	1
3	SPEAKER PANEL, MOLD COLOR (HIPS) w/SPY	500-SQC901-xxx	1
4	SPK00003"008OHM0030W w/BLACK DOME CAP, #LF77SZ4409G40 C8K14PDB	131-308030-017	1
5	HOLE COVER, MOLD CNS-0360 (HIPS) CAV:8	500-SSQ104-000	2
6	SPK CABINET, MOLD COLOR (HIPS) w/SPY, ENGARVE	500-SQCE11-xxx	1
7	SPEAKER CORD BUSHING, MOLDED BLACK, CAV.8 (P.P)	509-650155-000	1
	SPK. BOX FELT 80x8x0.3mm, BLACK 2/SET	700-993856-000	2
	(TSB#PM0005432010) (CdF)		
	SCREW ST3x25mm, PAB BRASS BASED 4/SPK PANEL & CAB.	720-010300-250	4
	SCREW ST3x10mm BB HEAD V5.9-6.3 BRASS BASED 4/SPK-SPK PANEL	720-110300-100	4

**SUBWOOFER SECTION - (PSW9)**

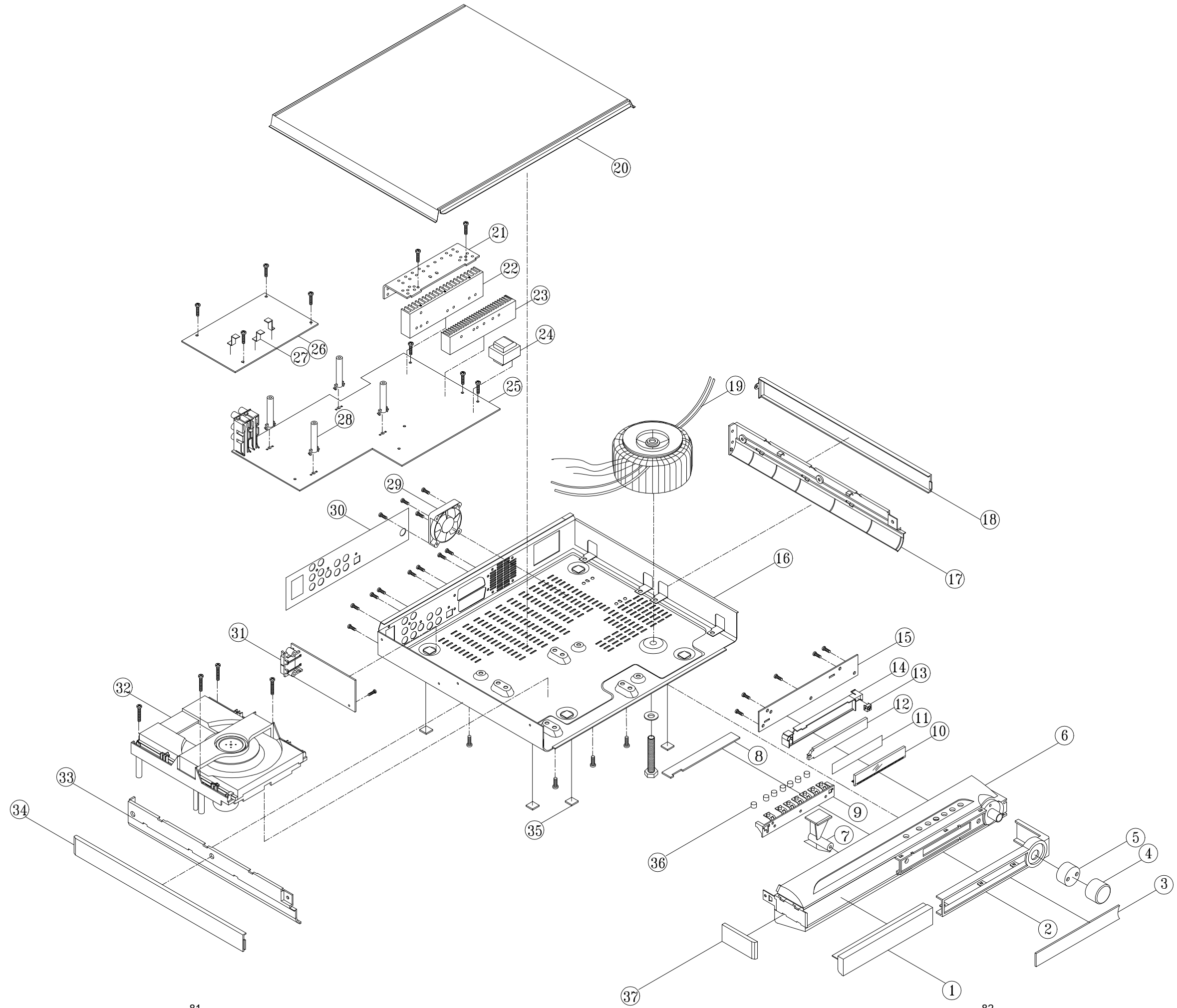
1	FRONT PANEL, MOLD COLOR, CAV:1 w/SPY, w/o PNT	500-PSW901-xxx	1
2	SPEAKER TUBE, MOLD CNS-0360 (A-50277) (HIPS) CAV:2	500-ASW905-001	1
3	SPEAKER POST ADAPTOR, MOLDED NATURAL, CAV.8 (ABS)	503-650127-000	6
4	WOODEN BOX, 12mm PARTICLE BOARD, 160x330x282mm, SIL PVC(ME-2907) SPY GR (BACK)	660-PSW908-002	1
5	RUBBER STAND, 22x8mm, BLACK, 7900, K-1S	700-021000-000	4
6	SPK006.5"006OHM0060W w/BK DOME PAPER CAP, #LW165KZ5804G70F6A26PDB K0626	131-656060-011	1
7	SPEAKER MESH, MOLDED BLACK, CAV.2 (HIPS) REV.1 (HIPS) REV.1	509-299973-001	1
8	SPEAKER CLOTH #FP-D201-131 GREY, WIDTH:69"/71" (S:230X160mm) UNIT"YD"	662-FPD201-000	0.07
	METAL WASHER Ø3.2Ø8x0.6mm (Ø3.5xØ8x0.6mm) 4/RUBBER FOOT	532-203208-060	4
	SPEAKER CLOTH #ST-30 BLACK WIDTH:40"/42" UNIT"YD"	662-ST3000-000	0.025
	TUBE CUSHION, TH=1.0mm PAD CORD 45	700-ASW910-000	2
	PANEL CUSHION, FOAM 164x10mm, TH=1.5mm PAD CORD 45	700-ASW912-000	1

**EXPLODED DRAWING PARTS LIST - CONTINUED**

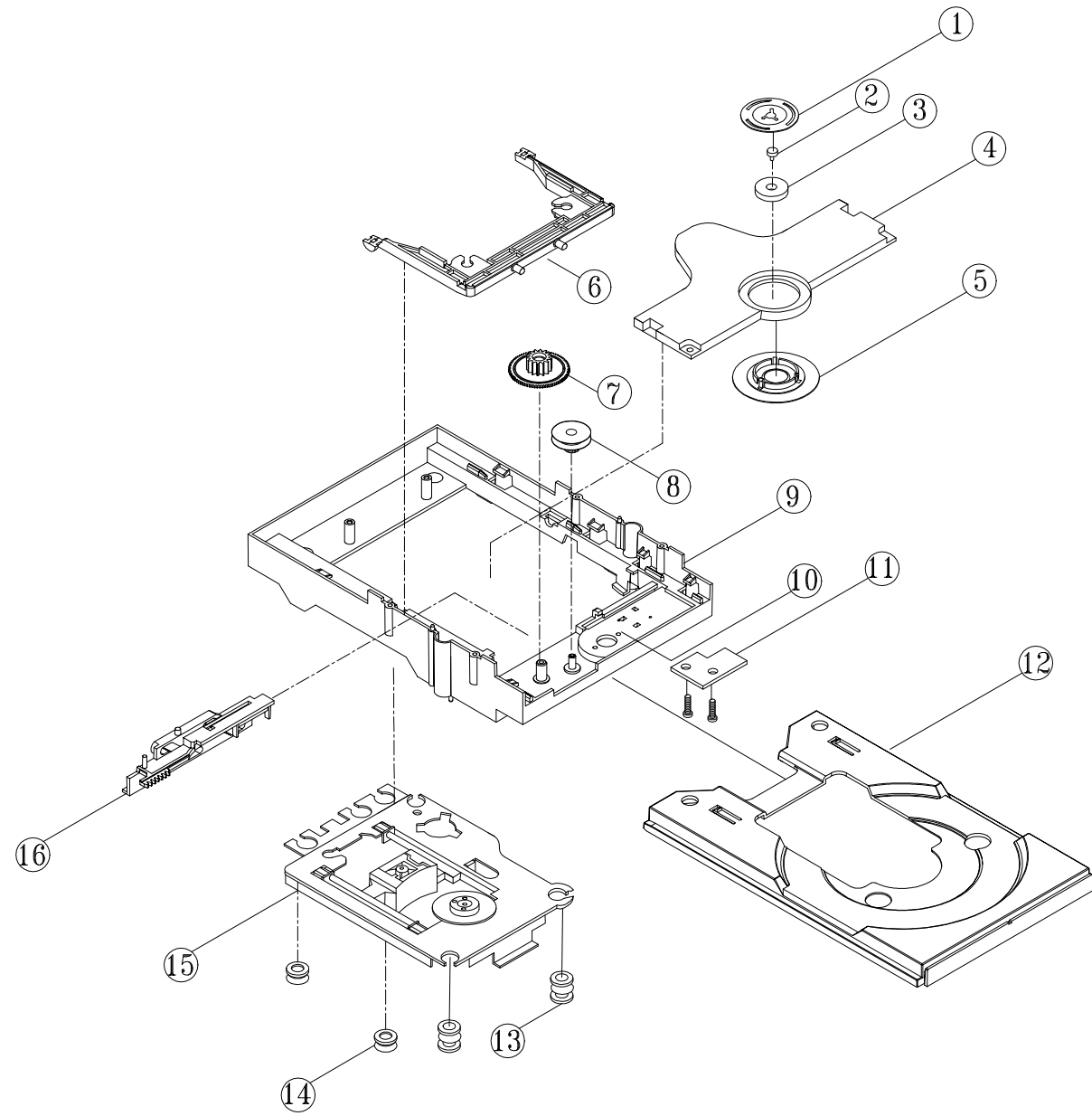
Ref. No.	Description	Mfr's Part No.	Qty.
	GASKET B, 1.0mm EVA (EGA162-145-1.01)	700-DV3S16-000	2
	SCREW ST3x8mm, BB HEAD V5.9-6.3, BB BRASS BASED	720-110300-080	4
	WOOD SCREW ST3x10mm BA 4/SPK TO BOX	720-190300-100	14
	4/SPK TUBE TO BOX		
	6/POST ADT TO BOX		
	WOOD SCREW ST3x12mm BA CHIT BOARD 4/RUBBER FOOT	720-190300-120	4
<b>4-SPEAKER SECTION - (SSQ9)</b>			
1	SPEAKER CLOTH #FP-D201-131 GREY, WIDTH:69"/71" (S:200X160mm)X4 UNIT"YD"	662-FPD201-000	0.0796
2	SPEAKER CLOTH MESH, MOLD BLACK (FOR AKAI)	509-SSQ904-000	4
3	SPEAKER PANEL, MOLD COLOR (HIPS), w/SPY	500-SSQ901-xxx	4
4	SPK00003"008OHM0030W w/BLACK DOME CAP, (#LF77SZ4409G40 C8K14PDB ) FL, FR	131-308030-017	2
4	SPK00003"008OHM0030W w/BLACK DOME CAP, (#LF77SZ4401G40 C8K14PDB) w/o SHIELDING SL, SR	131-308030-018	2
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) 4/SPK CAB.	509-650155-000	4
	FELT B, 50x15x0.3mm HIMERON w/SONY T-3500, 2-SIDED TAPE (T#9871858900) 4/SET	700-SDC019-001	4
	SCREW ST3x35mm, PAB (M3.5 HEAD) BRASS BASED 16/SPK PANEL & CAB.	720-010300-350	16
	SCREW ST3x10mm BB HEAD V5.9-6.3 BRASS BASED 16/SPK-SPK PANEL	720-110300-100	16

MAIN UNIT

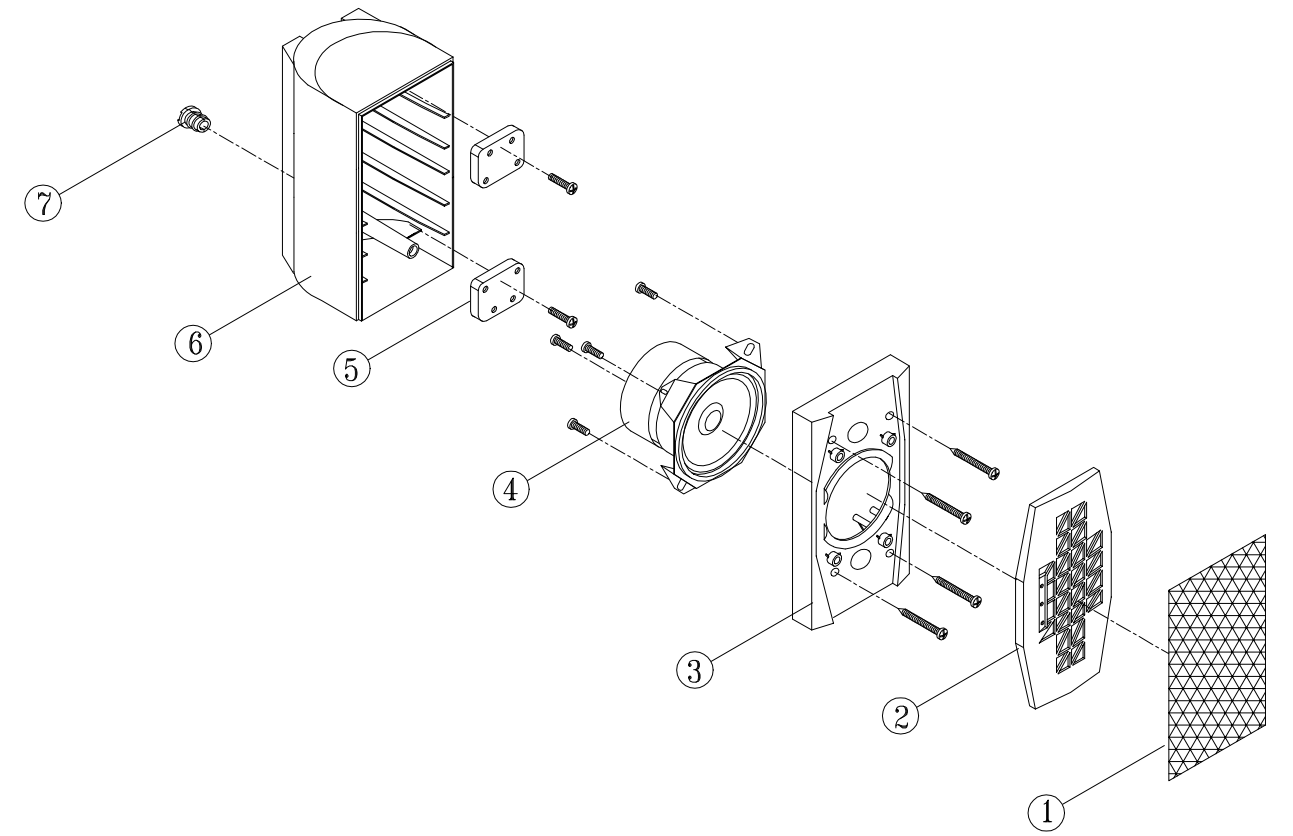
EXPLODED DRAWINGS



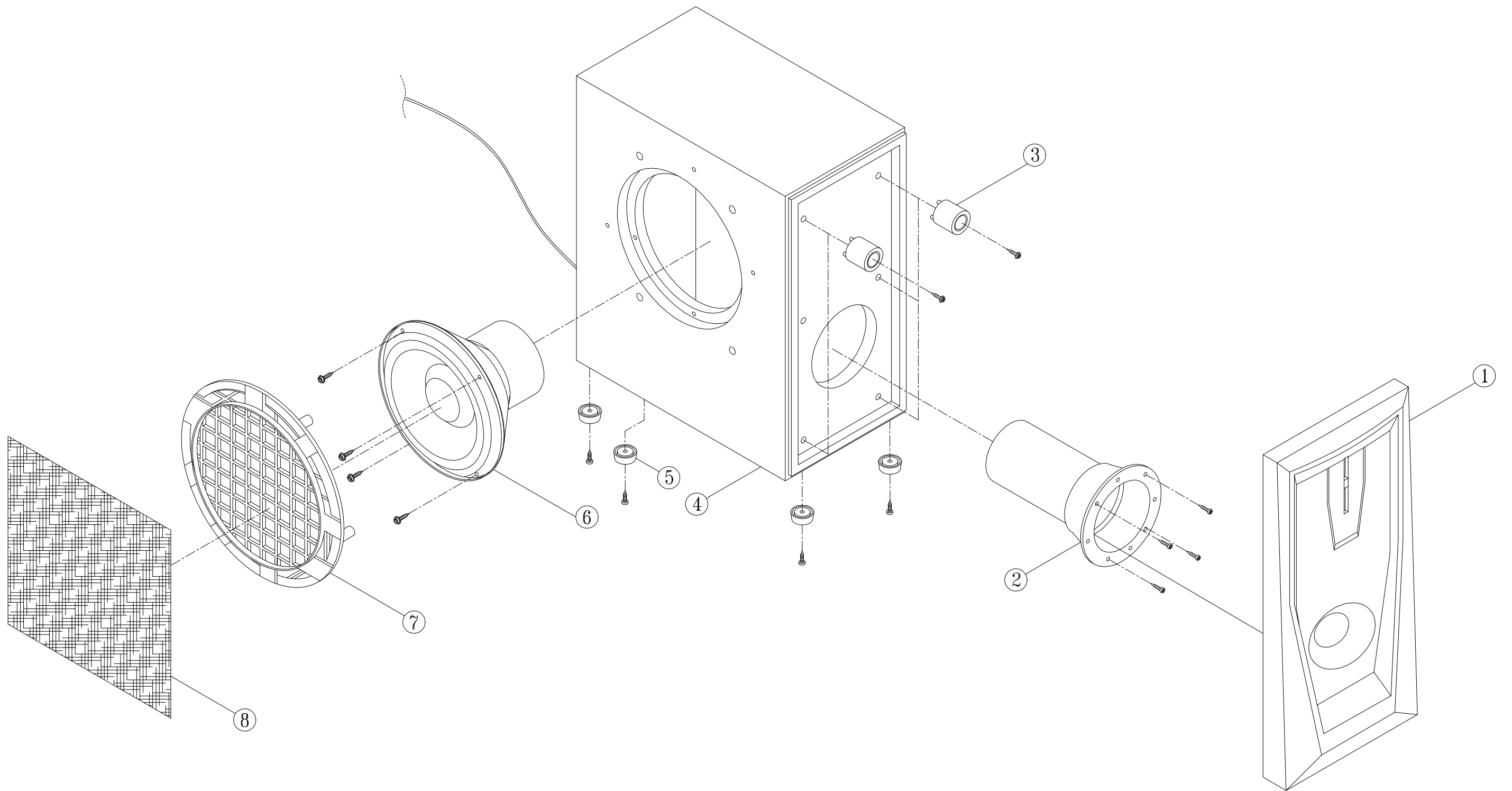
DVD MECHANISM - (DVDD-037)



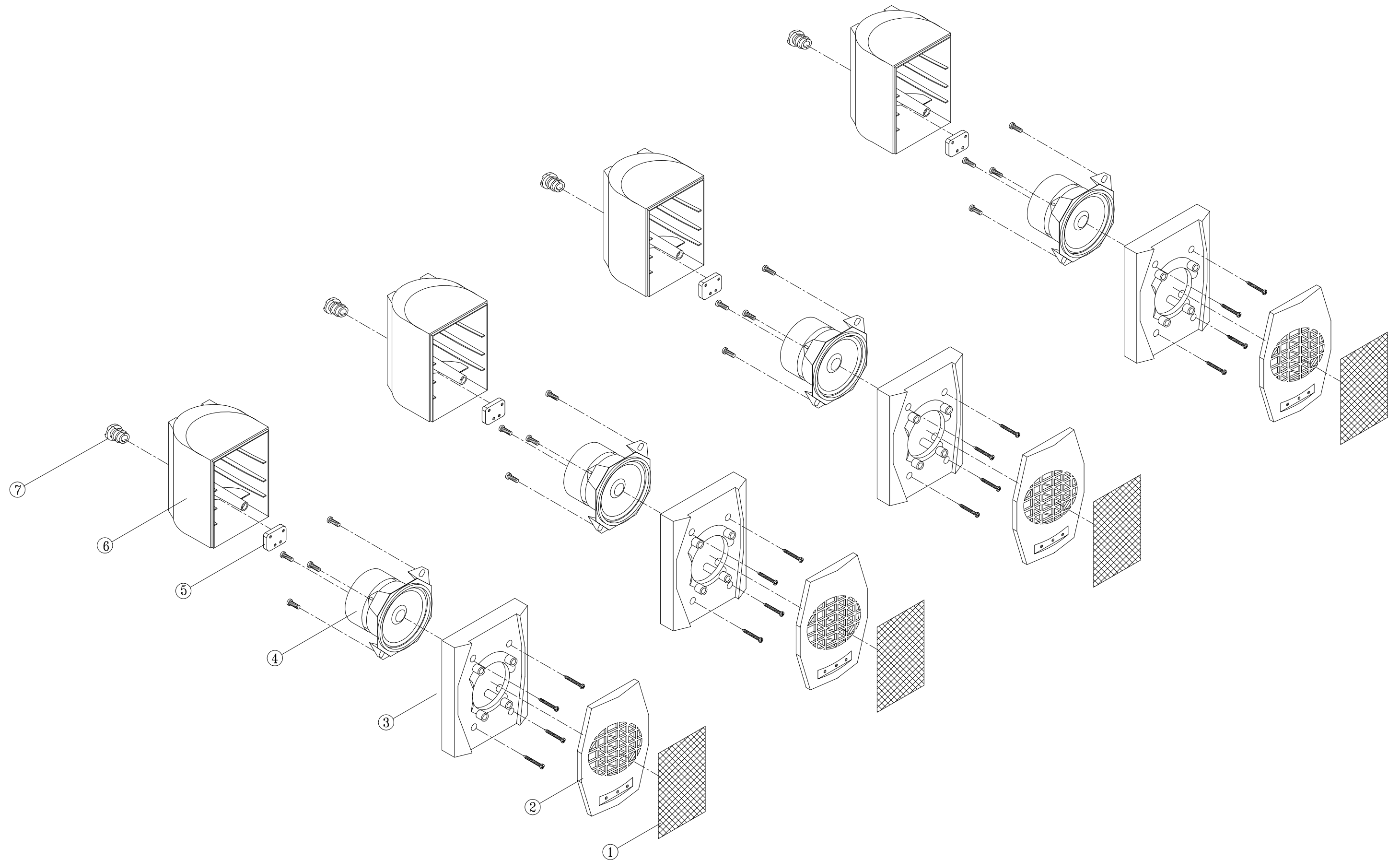
CENTER SPEAKER - (SSQ9)



SUB-WOOFER - (PSW9)



4- SPEAKER - (SSQ9)



**NOTES:**

***JANUARY, 2004***