



AKAI

DVD HOME THEATRE SYSTEM

Model:
DV-R3400SS

SERVICE MANUAL

Service Manual

DVD HOME THEATRE SYSTEM




DV-R3400SS

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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.

SPECIFICATIONS

Unit	
Power supply	AC 230V ~ 50Hz
Power consumption	25 W
Signal system	Standard PAL
Laser	Semiconductor laser, wavelength 650/780nm
Signal-to-noise	More than 95dB
Audio dynamic range	More than 93dB
Harmonic distortion	Less than 1%
Operating temperature	41°F to 95°F (+5°C to 35°C)
Operating humidity	5% to 85% (no condensation)
Video Output / Input	
Output level	1 Vp-p (75 Ω)
Input level	750mV input (5Ω 10% THD output)
Jack	RCA/Pin jack
Audio Output / Input	
Output level	1.80 ± 0.2 Vrms (1 kHz, 0dB)
Input level	750mV input (5Ω 10% THD output)
Jack	RCA/Pin jack
Speakers Section	
Speakers (Front/Center/Rear)	
Speaker system	Bass reflex
Speaker unit	70 mm dia. cone type
Rated impedance	8 ohms
Subwoofer Section	
Power consumption	230 W
Speaker system	Bass reflex
Speaker unit	165 mm dia. cone type
Rated impedance	4 ohms

Specifications and external appearance are subject to change without notice.

PERFORMANCE SPECIFICATIONS

GENERAL TEST CONDITION	
Power Supply	: AC 230V 50Hz
Output Load	: 8 ohm non-reactive x5 Subwoofer 4ohm x1
Reference Output	: 500 mW
Input Signal Source	: External AM Loop Antenna 75 ohm Dummy Antenna for FM
Modulation	: 30% 400Hz for AM 80% for Power 75kHz Deviation 1000Hz for FM 7.5kHz Pilot Tone 67.5kHz L+R 1000Hz

AUX IN DOLBY PRO LOGIC SECTION					
	TEST ITEMS	UNIT	NOMINAL	LIMIT	
1	10% THD Power AC (FL, FR)	W	30	26	
2	Frequency Response (CT) 1K=0dB	20Hz	dB	-10	±5
		100Hz	dB	0	±3
		10kHz	dB	0	±3
		20kHz	dB	0	±6
3	Frequency Response (RR, RL) 1K=0dB	20Hz	dB	-10	±5
		100Hz	dB	0	±3
		10kHz	dB	0	±3
		20kHz	dB	0	±5
4	Frequency Response (FL, FR) 1K=0dB	20Hz	dB	-10	±5
		100Hz	dB	0	±3
		10kHz	dB	0	±3
		20kHz	dB	0	±3
5	Frequency Response (Subwoofer) 1K=0dB	20Hz	dB	43	35
		100Hz	dB	43	35
6	10% THD Power AC (Subwoofer)	W	50	45	
7	Subwoofer THD (100Hz Ref O/P)	%	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	Minimum Vol Hum (UNWGTD/WGTD)	mV	3	8	
11	Maximum Vol Hum (UNWGTD/WGTD)	mV	8	15	
12	S/N (UNWGTD/CCIR-ARM2K) (L&R)	1kHz	dB	60	55
13	Separation (FL & FR)	dB	48	±5	
REMARKS:					
NOTE: All measurement should be done at bypass mode without EQ effects. More audio prologic : on ITEM 1,2,3,4 Should be set up at DVD mode, and set subwoofer as off, speaker as large.					

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. Rej.	98MHz	dB	60	50
6	Image Rej.	106MHz	dB	30	26
7	Spurious Rejection (F+0.535 MHz) (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) 100 mV/m	22.5kHz	%	1	2
		75kHz	%	3	5
11	Audio Fidelity, (-3dB) (Pre-emphass) (75μs) (FR.FL) Subwoofer 1kHz=0dB	100Hz	Hz	60/9000	120/6000
		100Hz	dB	36	30
12	Power Out, 10% THD (75K DEV) 1K=1mV Subwoofer Power Out, 10% THD (75K DEV) 100Hz=1mV	W	W	30	26
		W	W	50	45
13	Low Voltage AC	%	80	85	
14	S/N Ratio at 1mV (Stereo) Dev. 10% Pilot with "19" Filter	98MHz	dB	50	42
			dB	-	-
15	Alternate Channel Selective ±400 kHz	dB	25	18	
16	Stereo Separation	dB	26	22	
17	19 kHz Leak Carrier	dB	32	27	
18	Stereo LED Indication	dB	26	30	
19	Step Frequency	kHz	-	100	
20	Auto Stop Sens.	dB	26	32	
21	Minimum Vol Hum	mV	1.0	3.0	
REMARKS: NOTE: All measurement should be done at bypass mode without EQ effects.					

MW/FM STEREO & RDS TUNING WITH DVD PLAYER						
	FM STEREO & RDS SECTION 37.5kHz (MAIN+SUB 75 kHz (PILOT) 1.2K (RDS) DEV & 1kHz INPUT)	UNIT	NOR	LIMIT		
1	Stereo Separation 1mV Input	MOD FREQ 100Hz	L/R	dB	30	25
			R/L	dB	30	25
		MOD FREQ 1kHz	L/R	dB	30	25
			R/L	dB	30	25
		MOD FREQ 10kHz	L/R	dB	25	18
			R/L	dB	25	18
2	Stereo On Sensitivity	98MHz	dB	5	<18	
3	S.N.C (SEP=10dB)	98MHz	dB	34	34±8	
4	RDS Indicator Sensitivity	98MHz	dB	28	<36	
5	RDS Seek Sensitivity	98MHz	dB	28	<36	
6	TA Indicator Sensitivity	98MHz	dB	28	<36	
7	TA Seek Sensitivity	98MHz	dB	28	<36	

PERFORMANCE SPECIFICATIONS - CONTINUED

(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	1MHz	dB	36	30
4	Sens. (at S/N 20dB)	0.6MHz	dB	60	64
		1MHz	dB	60	64
		1.4MHz	dB	60	64
5	I. F. Rej.	0.6MHz	dB	50	46
6	Image Rej.	1.4MHz	dB	30	24
7	Spurious Rejection		dB	35	25
8	Bandwidth, (Max. Sens. +6 dB)	1MHz	kHz	6	4 - 9
9	ACA (±9 kHz) Input	1MHz	dB	20	15
10	AGC Figure Merit	100mV/m	dB	45	40
11	Distortion, 5mV/m, 30% 80%	%	%	1	3
		%	%	3	6
12	a. 10% THD Power AC b. Woofer 10%	DEV 80%	W	30	26
		DEV 80%	W	50	45
13	a. 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 10mV/M b. Hum at Min. Vol.		dB	36	30
			mV	1	3
17	Auto Stop Sens.		dB	64	70
18	Step Frequency		kHz	-	10
REMARKS: NOTE: All measurement should be done at bypass mode without EQ effects.					

VIDEO SECTION					
	TEST ITEMS	UNIT	NOMINAL	LIMIT	
1	Signal Level (LT2-1) 75Ω Terminate Oscilloscope 75% Color Bar	Composite	V(pp)	1.0	±0.2
		S-Y	V(pp)	0.714	±0.2
		S-C (BURST)	V(pp)	0.286	±0.05
		Component-Y	V(pp)	0.714	±0.2
2	Frequency Char. Composite (LT2-1, REF=0dB 0.5MHz, L156 VM700A Composite)	1.0/0.5MHz	dB	0	±2.0
		2.0/0.5MHz	dB	0	±2.0
		4.0/0.5MHz	dB	0	±2.5
		4.75/0.5MHz	dB	0	±3.5
		5.75/0.5MHz	dB	-2.0	+3-4
3	Frequency Chap. S-Y (LT2-1, REF=0dB 0.5MHz, L156 VM700A) S-Y	1.0/0.5MHz	dB	0	±2.0
		2.0/0.5MHz	dB	0	±2.0
		4.0/0.5MHz	dB	0	±2.5
		4.75/0.5MHz	dB	0	±2.5
		5.75/0.5MHz	dB	-2.0	+3-4
4	Composite Video-S/N (LT2-1) One Line Only (SC TR ON) L131 VM700A		dB	60	50
5	S-Y S/N (LT2-1 One Line Only)	100K-4.2MHz (SC TR ON)	dB	60	50
6	Color-AM Color-PM (One Line Only) (LT2-1, L131 VM700A)		dB		>40
			dB		>40

PERFORMANCE SPECIFICATIONS - CONTINUED

DVD AUDIO SECTION (LINE OUTPUT)					
	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	±0.3	
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	±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 Range	dB	-	80	
9	Black Band (TDV 545)	μM	-	600	
10	Finger Print (TDV 545)	μM	-	No.13	
11	Eccentric (MDVD142 TEAC)	μM	-	200	
12	Vertical (MDVD151 TEAC)	mm	-	0.6	
CD SECTION					
1	Interruption (Philips SBC444A)	μM	-	600	
2	Black Dot	μM	-	600	
3	Fingerprint	μM	-	No.18	
4	Eccentric (TCO-712 ABEX)	μM	-	140	
5	Vertical (TCO-713R ABEX))	mm	-	0.8	
CD-R SECTION					
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	
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

AMPLIFIER SECTION					
	TEST ITEMS	UNIT	NOMINAL	LIMIT	
1	10% THD Power AC (FL, FR)	W	30	26	
2	Frequency Response (CT) 1K=0dB	20Hz	dB	-10	±5
		100Hz	dB	0	±3
		10kHz	dB	0	±3
		20kHz	dB	0	±6
3	Frequency Response (RR, RL) 1K=0dB	20Hz	dB	-10	±5
		100Hz	dB	0	±3
		10kHz	dB	0	±3
		10kHz	dB	0	±3
		20kHz	dB	0	±5
4	Frequency Response (FL, FR) 1K=0dB	20Hz	dB	-10	±3
		100Hz	dB	0	±3
		10kHz	dB	0	±3
		20kHz	dB	0	±3
5	Frequency Response (Subwoofer) 1K=0dB	20Hz	dB	36	30
		100Hz	dB	36	30
6	10% THD Power AC (Subwoofer)	W	50	45	
7	Subwoofer THD (100Hz Ref O/P)	%	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	Minimum Vol Hum (UNWGTD/WGTD)		mV	5	8
11	Maximum Vol Hum (UNWGTD/WGTD)		mV	8	15
12	S/N (UNWGTD/CCIR-ARM2K) (L&R)	1kHz	dB	60	55
13	Bass Effect FL, FR		dB	±10	±4
14	Ttreble Effect FL, FR		dB	±10	±4
15	Middle Effect FL, FR		dB	±10	±4
16	Separation (FL & FR)		dB	-	45
17	Crosstalk For Input (AUX/CD-REF) W/BPF		dB	-	45
REMARKS:					
Level Matching					
CD -10dB REF					
AM 55% 5mV ±3					
FM 40kHz 1mV ±3					
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 as off Speaker as large.					

ELECTRICAL PARTS LIST

Ref. No.	Description	Mfr's Part No.	Qty.
PCB			
OUTPUT PCB	PCB STS61AAST-01-03 282x94x1.6mm (94HB)	033-ST61A-102	1
DISPLAY & KEY PCB	PCB STS61AAST-01-02 179x169x1.6mm/3 (94HB)	033-ST61A-101	1
RECTIFIER PCB	PCB STS61AAST-01-04 150x140x1.6mm (94V0)	033-ST61A-103	1
MPEG+SERVO PCB	PCB STS21AAST-01-02 150x120x1.6mm (FR4)	033-ST21A-101	1
LOAD MOTOR PCB	PCB STS21AAST-01-09 171x88.5x1.6mm/12 (94V0)	033-ST21A-108	1
SCART PCB	PCB STS21AAST-01-05 140x95x1.6mm/4 (94V0)	033-ST21A-104	1
TUNER PCB	PCB STS21AAST-01-04 141x130x1.6mm/3 (94V0)	033-ST21A-103	1
SUB-WOOFER AMPLIFIER PCB	PCB SWT1-01-01,02,03 (94V0)	033-00SWT1-600	1
CONNECTION PCB	PCB SWT1-01-04 (94V0)	033-00SWT1-600	1
SUB-WOOFER RECTIFIER PCB	PCB SWT1-01-05 (94V0)	033-00SWT1-600	1
LED PCB	PCB SWT1-01-06 (94V0)	033-00SWT1-600	1
SHIELDING PCB	PCB SWT1-01-07 200x86x0.8mm (94HB)	033-00SWT1-100	1
ACCESSORY SECTION			
	REMOTE CONTROL HANDSET, MOLD CNS-0360S, w/CAM-0122 SPY (FOR STS25/STS61)	043-R15448-052	1
	FFC CABLE 22 PINS L=158mm 4+150+4 P:1mm UL2896 0.035x0.7	040-220158-100	1
	JP WIRE AWG26#UL1007 1500mm BLK CRIMPED w/TERMINAL SHS #STV8-TE AND TUBE(75ohm)	054-010A50-090	1
	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		
AUX-IN (2.1CH) SECTION			
RESISTORS			
R517,518,523,524,609	*CdF RESISTOR 10 Kohm +-5% 1/16W (1/8W)	001-010351-016	5
R561,563	*CdF RESISTOR 100 Kohm +-5% 1/16W (1/8W)	001-010451-016	2
R513,514	RESISTOR 18 Kohm +-5% 1/16W (1/8W)	001-018351-016	2
R515,516,521,527,528,562	*CdF RESISTOR 22 Kohm +-5% 1/16W (1/8W)	001-022351-016	6
R525,526	RESISTOR 220 Kohm +-5% 1/16W (1/8W)	001-022451-016	2
R519,520	RESISTOR 27 Kohm +-5% 1/16W (1/8W)	001-027351-016	2
R541	*CdF RESISTOR 33 Kohm +-5% 1/16W (1/8W)	001-033351-016	1
R529,530,558,559	*CdF RESISTOR 4.7 Kohm +-5% 1/16W (1/8W)	001-047251-016	4
R501,502,503,504,505,506	*CdF RESISTOR 47 Kohm +-5% 1/16W (1/8W)	001-047351-016	6
R507,508,509,510,511,512	RESISTOR 8.2 Kohm +-5% 1/16W (1/8W)	001-082251-016	6
CAPACITORS			
C501,502	CERAMIC CAP 100 pF/50V +-10%	003-010110-050	2
C584	CERAMIC CAP 0.002 uF/50V +80%-20%	003-020280-050	1
C511,512	CERAMIC CAP 220 pF/50V +-10%	003-022110-050	2
C503,504,505,506,507,508,513, 514,515,517,518	ELECT CAP 4.7 MFD/50V +-20% (5x11)	006-004000-50D	11
C516,525	ELECT CAP 10 MFD/50V +-20% (5x11)	006-010000-50D	2
C509	*CdF ELECT CAP 47 MFD/16V +-20% (5x11)	006-047000-16D	1
C570	ELECT CAP 470 MFD/16V +-20% (10x12.5)	006-047100-16D	1
TRANSISTORS			
Q501,502	TRLNPNST-TAP&TO-092 3DG1815	008-618150-000	2
INTEGRATED CIRCUIT			
IC502	ICAMP-OP-02CH-DUALV LS4558N	010-404558-003	1
DIODE			
ZD601	ZENER BZX55C6V8CECCL, 6.8V,1/2W (ROHM) SGS-THOMSON	011-010068-120	1
SWITCH			

ELECTRICAL PARTS LIST - CONTINUED

Ref. No.	Description	Mfr's Part No.	Qty.
SW501	SLIDE SW 1P2T SS12F47G9	025-120091-003	1
INDUCTORS			
FB501,502,503	*CdF FERRITE BEAD INDUCTOR #BL01RN1-A62 0.45 uH/7A (5x3.6mm) (87-008-372-01)	032-101162-000	3
MISCELLANEOUS			
JK501	PIN JACK HSP-253V-14 (KUNMING) YELLOW, RED, WHITE/BODY WHITE	118-020253-000	1
WH501	FFC CONN 6232 22 PINS w/o LOCK PITCH:1mm 00 6232 022 006 800 VERTICAL TYPE	135-006232-220	1
VOLUME SECTION			
RESISTORS			
R1604	*CdF RESISTOR 10 ohm +-5% 1/16W (1/8W)	001-010051-016	1
R610,1693,1694 J290	*CdF RESISTOR 1 Kohm +-5% 1/16W (1/8W)	001-010251-016	4
R570,571,1691,1692	*CdF RESISTOR 10 Kohm +-5% 1/16W (1/8W)	001-010351-016	4
R645,646,647	*CdF RESISTOR 150 ohm +-5% 1/16W (1/8W)	001-015151-016	3
R1702,1703	*CdF RESISTOR 22 ohm +-5% 1/16W (1/8W)	001-022051-016	2
R1650,1651,1663,1665,1671,1673	*CdF RESISTOR 2.2 Kohm +-5% 1/16W (1/8W)	001-022251-016	6
R1618,1619,1624,1625,1626,1627 1634,1635,1664,1666,1672,1674	*CdF RESISTOR 22 Kohm +-5% 1/16W (1/8W)	001-022351-016	12
R1661,1675	*CdF RESISTOR 3.3 Kohm +-5% 1/16W (1/8W)	001-033251-016	2
R1701	*CdF RESISTOR 4.7 Kohm +-5% 1/16W (1/8W)	001-047251-016	1
R1649	RESISTOR 56 ohm +-5% 1/16W (1/8W)	001-056051-016	1
R1662,1676	RESISTOR 6.2 Kohm +-5% 1/16W (1/8W)	001-062251-016	2
R1695,1696,1698,1699	RESISTOR 68K +-5% 1/16W (1/8W)	001-068351-016	4
CAPACITORS			
C584	CERAMIC CAP 0.002 uF/50V +80%-20%	003-020280-050	5
C1660,1680	#MYLAR CAP 0.01 uF/100V +-10%	004-010310-100	2
C1661,1663,1681,1682	#MYLAR CAP 0.1 uF/50V +-10%	004-010410-050	4
C1662,1679	#MYLAR CAP 0.015 uF/100V +-5%	004-015350-100	2
C1664,1678	MYLAR CAP 0.0022 uF/100V +-10%	004-022210-100	2
C1614,1615,1626,1627,1638, 1639,1665,1666,1667,1668,1669, 1670,1671,1672,1674,1675,1676	ELECT CAP 1 MFD/50V +-20% (5x11)	006-001000-50D	17
C1673,1677	ELECT CAP 10 MFD/50V +-20% (5x11)	006-010000-50D	2
C315,653,655	ELECT CAP 100 MFD/16V +-20% (5x11)	006-010100-16D	3
C1658	ELECT CAP 470 MFD/16V +-20% (10x12.5)	006-047100-16D	1
TRANSISTORS			
Q522,523,1606,1607,1608,1609, 1610,1611,1612,1617	TRLNPNST-TAP&TO-092 3DG1815	008-618150-000	10
Q1616	TRLPNPPWR-TAP&TO-092 3CA8550	008-685500-000	1
Q605	TR NPNSST-RAD&SC-072 DTC114ES (ROHM)	008-801141-000	1
Q521	TR NPNSST-RAD&SC-072 DTA114TS/A (ROHM) KRA-111M (KEC)	008-801142-000	1
Q1603	TR PNPST-BUK&SC-072 DTA114YSTP/DTA114YS	008-801144-000	1
INTEGRATED CIRCUIT			
IC504	ICAUDIOLEVELSENSOR PT2322-S (SOP) 6-CHANNEL AUDIO PROCESSOR (ANGUS)	010-142322-000	1
DIODES			
D501,1619,1620,1621,1622,1623, 1624,1625,1626,1627,1628,1629	DIODE IN-4148 ROHM/TELEFUNKEN TAP**50 KEL(NS)(TAP:52mm)/NS(FAIRCHILD)/SEMTECH	011-004148-000	12
WIRES			
	JP WIRE AWG26#1007 3x3mm 100mm BLACK	051-673100-009	1
	JP WIRE AWG26#1007 3x3mm 150mm BLACK	051-673150-009	1

ELECTRICAL PARTS LIST - CONTINUED

Ref. No.	Description	Mfr's Part No.	Qty.
A' B'	JP WIRE AWG26#1007 5x5mm 220mm BLACK	051-675220-009	2
	JP WIRE AWG26#1007 5x5mm 280mm BLACK	051-675280-009	1
MISCELLANEOUS			
JK505	MINI DIN SOCKET MDSL-09SC0A (LEOCO)	119-000090-000	1
RL502	⚠ RELAY 12V 200mW ME-1-12BS 1P2T	128-120112-001	1
RL501	⚠ RELAY 12V 200mW ME-2-12 2P2T	128-120212-001	1
WH502	*CdF HEADER CTL 8 PINS PHS-08 PITCH 2mm STRAIGHT TYPE WHT COLOR (MARKING:HR) SOLDERING LUG	135-PHS080-080	1
		137-300000-000	2
CPU SECTION			
RESISTORS			
R301,302,303,304,305,306,307,308,309,316,318,319,321,322,330,331,333,334,337,338,339,342,343,344,345,346,347,350,361,364,384,398,399,400,401	*CdF RESISTOR 10 Kohm +-5% 1/16W (1/8W)	001-010351-016	35
R348	*CdF RESISTOR 15 Kohm +-5% 1/16W (1/8W)	001-015351-016	1
R313,314,315	*CdF RESISTOR 220 ohm +-5% 1/16W (1/8W)	001-022151-016	3
R325	*CdF RESISTOR 2.2 Kohm +-5% 1/16W (1/8W)	001-022251-016	1
R340,341	*CdF RESISTOR 22 Kohm +-5% 1/16W (1/8W)	001-022351-016	2
R402,403	RESISTOR 27 Kohm +-5% 1/16W (1/8W)	001-027351-016	2
R332,335,336	*CdF RESISTOR 33 ohm +-5% 1/16W (1/8W)	001-033051-016	3
R326,385,391	*CdF RESISTOR 4.7 Kohm +-5% 1/16W (1/8W)	001-047251-016	3
R560,564	RESISTOR 5.6 Kohm +-5% 1/16W (1/8W)	001-056251-016	2
R324	RESISTOR 8.2 Kohm +-5% 1/16W (1/8W)	001-082251-016	1
CAPACITORS			
C302	CERAMIC CAP 0.02 uF/50V +80%-20%	003-020380-050	1
C307,308	CERAMIC CAP 68 pF/50V +-10%	003-068010-050	2
C305,306	CERAMIC CAP 30 pF/50V +-5% (NPO) (CC45-CH1H300J/RBU04CH300J-L)	003-430050-050	2
C309	ELECT CAP 4.7 MFD/50V +-20% (5x11)	006-004000-50D	1
C301	ELECT CAP 47000 MFD/5.5V DC +80-20% (STAR CAP) (SC-DA5R5 473 H)	006-747300-05C	1
TRANSISTORS			
Q301	TR NPN SST-&&&&&&&&& 3DG1417	008-601417-000	1
Q302	TR NPN SST-RAD&SC-072 DTC114ES (ROHM)	008-801141-000	1
INTEGRATED CIRCUITS			
IC302	IC 74HC373(SOL)/SN74HC373D/DW TC74HC373AF	010-070373-000	1
IC301	ICMCU-48K-LCD TMP87EP26F-3D72 (ALDIAUS-DVD32) FLASH MCU	010-918726-000	1
DIODES			
D301,302,303,304	DIODE IN-4148 ROHM/TELEFUNKEN TAP**50 KEL(NS)(TAP:52mm)/NS(FAIRCHILD)/SEMTECH	011-004148-000	4
RESONATOR			
CX301	CERAMIC RESONATOR 8 MHz ZTA08.00MT (CQ)	020-000800-003	1
INDUCTORS			
	FERRITE CORE FYE-T-062/T25x15x10/ F2515100D OD:25mm, ID:15mm, T:10mm	032-225015-010	1
	FERRITE CORE B15 UH 26x30x13 (LF-130) OD:26mm ID:13mm T=30mm	032-226030-013	1
	FERRITE CORE #B29 FPL 40x10x6.5mm OD:40mm H:6.5mm ID:34.8mm IH:1.3mm T:10mm	032-240010-065	1
MISCELLANEOUS			
R385 TO R390	JP WIRE AWG28#1007 5x5mm 60mm RED	051-875060-006	1

ELECTRICAL PARTS LIST - CONTINUED

Ref. No.	Description	Mfr's Part No.	Qty.
	FERRITE CORE B15 UH 26x30x13 (LF-130) OD:26mm ID:13mm T=30mm	032-226030-013	1
JK502	PIN JACK BOARD MSP-244V1-34 NI YEL, ORN,WHT,RED	118-020244-000	1
JK503	DIN JACK HDC-056 (KUNMING)	119-000056-000	1
WH305	*CdF HEADER CTL 3 PINS PHS-03 PITCH 2mm STRAIGHT TYPE WHT COLOR (MARKING:HR)	135-PHS030-030	1
WH301,302,304	HEADER CTL 10 PINS PHS-10 PITCH 2mm STRAIGHT TYPE WHT COLOR (MARKING:HR)	135-PHS100-100	3
WH303	HSG (2.54mm) MOLEX 5264-06 TO JST 6P-SAN w/260mm R,BK,Y,OR,GR,BL AWG28#UL1007	136-KZ0626-000	1
FRONT PANEL SECTION			
RESISTORS			
R367,368,369,375,376,377,378	*CdF RESISTOR 100 ohm +-5% 1/16W (1/8W)	001-010151-016	7
R358	*CdF RESISTOR 10 Kohm +-5% 1/16W (1/8W)	001-010351-016	1
R354	*CdF RESISTOR 1.5K +-5% 1/16W (1/8W)	001-015251-016	1
R373	*CdF RESISTOR 220 ohm +-5% 1/16W (1/8W)	001-022151-016	1
R355	*CdF RESISTOR 2.2 Kohm +-5% 1/16W (1/8W)	001-022251-016	1
R353	*CdF RESISTOR 22 Kohm +-5% 1/16W (1/8W)	001-022351-016	1
R356	*CdF RESISTOR 3.3 Kohm +-5% 1/16W (1/8W)	001-033251-016	1
R359	*CdF RESISTOR 33 Kohm +-5% 1/16W (1/8W)	001-033351-016	1
R370,722	RESISTOR 390 ohm +-5% 1/16W (1/8W)	001-039151-016	2
R352,372	*CdF RESISTOR 4.7 Kohm +-5% 1/16W (1/8W)	001-047251-016	2
R351	*CdF RESISTOR 47 Kohm +-5% 1/16W (1/8W)	001-047351-016	1
R379	RESISTOR 51 Kohm +-5% 1/16W (1/8W)	001-051351-016	1
R357	RESISTOR 5.6 Kohm +-5% 1/16W (1/8W)	001-056251-016	1
R383	RESISTOR 68 ohm +-5% 1/16W (1/8W)	001-068051-016	1
CAPACITORS			
C312	CERAMIC CAP 0.001uF/50V +80%-20%	003-010280-050	1
C311	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
INTEGRATED CIRCUITS			
IC304	ICDISPLAYDRIVER-VFD PT6311/PT6318 (ANGUS) TP6311Q	010-146311-001	1
SWITCHES			
SW301,302,303,304,305,306,307,309,311	TACT SWITCH 4P 5mm 100G #1102A-4/ EVQ PAC 05R (=021-KHH901-000)	021-110200-002	9
WIRES			
	HSG CD363-4A PIN JST PHR 2mm w/250mm RED BLK,WHT,BLUE JP AWG28#1007 SLDG 4mm	136-040363-200	1
	HSG CD668R-10 JST PHR 2mm WITH 250mm RED BK,W,Y,BL,OR,R,BK,W,Y AWG28#1095 SLDG4mm	136-100668-200	1
	JP WIRE AWG26#1007 5x5mm 180mm BLACK	051-675180-009	1
MISCELLANEOUS			
LED302,303,304	LED-G-2X5M-N-&&&-&&& SE-6221AT 2x5mm GREEN, 21mm LEAD	110-003421-205	3
LED301	LED-G-2X5&-S-&&&-&&& W25319GSC 2x5mm GREEN SUPER BRIGHT	110-253191-215	1
SR301	REMOTE/CONTROL PHOTO RECEIVER ROHM/RPM7138-V4	111-007138-000	1
VFD301	VFD-2COL100x20.5SM-033P VACUUM FLUORESCENT DISPLAY #VFD20-1002 (ZEC)	115-001002-000	1
LINEAR SECTION			
RESISTORS			

ELECTRICAL PARTS LIST - CONTINUED

Ref. No.	Description	Mfr's Part No.	Qty.
R822	*CdF RESISTOR 10 ohm +-5% 1/16W (1/8W)	001-010051-016	1
R828	*CdF RESISTOR 1 Kohm +-5% 1/16W (1/8W)	001-010251-016	1
R805,807,808,812,813,814,817,818,830,843	*CdF RESISTOR 10 Kohm +-5% 1/16W (1/8W)	001-010351-016	10
R820	*CdF RESISTOR 100 Kohm +-5% 1/16W (1/8W)	001-010451-016	1
R811	RESISTOR 1.8 Kohm,+-5%,1/16W (1/8W)	001-018251-016	1
R802,815	*CdF RESISTOR 220 ohm +-5% 1/16W (1/8W)	001-022151-016	2
R803	*CdF RESISTOR 22 Kohm +-5% 1/16W (1/8W)	001-022351-016	1
R821,823,825	*CdF RESISTOR 33 ohm +-5% 1/16W (1/8W)	001-033051-016	3
R804,816,826,827	*CdF RESISTOR 470 ohm +-5% 1/16W (1/8W)	001-047151-016	4
R801,819,844	*CdF RESISTOR 4.7 Kohm +-5% 1/16W (1/8W)	001-047251-016	3
R809,829	RESISTOR 5.6 Kohm +-5% 1/16W (1/8W)	001-056251-016	2
R810	RESISTOR 680 ohm +-5% 1/16W (1/8W)	001-068151-016	1
CAPACITORS			
C815,816	CERAMIC CAP 0.1 uF/16V +80%-20%	003-010480-016	2
C801,802,803,804,805,806,807,808,810,812,814,818,821,826,829,831,833,835,837,845	CERAMIC CAP 0.02 uF/50V +80%-20%	003-020380-050	20
C843,844	ELECT CAP 4.7 MFD/50V +-20% (5x11)	006-004000-50D	2
C827,840,848,851,852,854	ELECT CAP 10 MFD/50V +-20% (5x11)	006-010000-50D	6
C817	ELECT CAP 100 MFD/25V +-20% (6.3x11)	006-010100-25D	1
C813	ELECT CAP 100 MFD/35V +-20% (8x11.5)	006-010100-35D	1
C846,849,853	ELECT CAP 1000 MFD/10V +-20% (10x16)	006-010200-10D	3
C820,832,838	ELECT CAP 220 MFD/16V +-20% (8x11.5)	006-022100-16D	3
C834,839	ELECT CAP 220 MFD/25V +-20% (8x11.5)	006-022100-25D	2
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
C819,836	*CdF ELECT CAP 47 MFD/16V +-20% (5x11)	006-047000-16D	2
C847	ELECT CAP 47 MFD/25V +-20% (5x11)	006-047000-25D	1
C850	ELECT CAP 470 MFD/10V +-20% (8x11.5)	006-047100-10D	1
TRANSISTORS			
Q807,815	TR PNPSSST-RAD&SC-043 2SA1015-GR TOSHIBA	008-110150-000	2
Q806,814	TRANSISTOR B1566E (LIGHTNING)	008-201566-100	2
Q801,805,813	TRLNPNSSST-TAP&TO-092 3DG1815	008-618150-000	3
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	TR NPNSSST-RAD&SC-072 DTC114ES (ROHM)	008-801141-000	3
INTEGRATED CIRCUITS			
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
DIODES			
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
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
DZ803,804,806	ZENER DIODE 10V #MTZJ10D 1/2W (ROHM)	011-010100-122	3
D809,819,820,821,824,825,826,827,828	RECTIFIER IN-4001B	011-024001-000	9
D801,802,803,804	(F011-005401-000) RECTIFIER IN-5401BL	011-025401-000	4

ELECTRICAL PARTS LIST - CONTINUED

Ref. No.	Description	Mfr's Part No.	Qty.
D805,806,807,808	RECTIFIER IN5822	011-025822-000	4
SWITCH			
	PUSH SWITCH 2P2T PS3-22SP-W4CW-3.2 w/UL.VDE SEMKO APPROVAL (LUP FUNG)	021-032222-000	1
INDUCTOR			
L601	*CdF FERRITE BEAD INDUCTOR #BL01RN1-A62 0.45uH/7A (5x3.6mm) (87-008-372-01)	032-101162-000	1
MISCELLANEOUS			
	⚠ PT003WEI35/14&&WEN& 230V:12.4V EN STD w/o FUSE (P3512-A14E)	123-A33032-100	1
	⚠ PT035WEI57/35&F&WVDE 230V:8V/13V/22V/ 4.2V w/FUSE 130°C (L5735-P01E)	123-D53521-400	1
F804,805	⚠ MICRO FUSE #251.630 630mA/125V WFF-215.630	124-006310-000	2
FS802,803	⚠ *CdF FUSE #S5.6 2.5A/250V 5x20mm TIME LAG (CUL/VDE/SEMKO/BSI APP.)	124-025020-001	2
RL801	⚠ RELAY 9V SDT-S-109LMR	128-090109-000	1
	⚠ PLA-ULN-7'05"-VDE-MG VDE APP.CORD 2250mm MIGRATION (HARVEST)	134-B11331-006	1
CN806	*CdF HEADER MOLEX 4 PINS 5267-04A PITCH 2.5mm STRAIGHT TYPE	135-005267-040	1
CN801	HEADER MOLEX 5 PINS 5267-05A PITCH 2.5mm STRAIGHT TYPE	135-005267-050	1
CN803	PIN HEADER 2 PINS TJC6-02P3 PITCH:7.92mm VERTICAL 1.14mm SQUARE PIN	135-00TJC6-020	1
WH803	HEADER CTL 4 PINS PHS-04 PITCH 2mm STRAIGHT TYPE WHT COLOR (MARKING:HR)	135-PHS040-040	1
WIRES			
TH3 TO C813+	JP WIRE AWG26#1007 5x5mm 180mm BLACK	051-675180-009	1
CN805 TO WH502	HSG(2mm)JST PHR-08 TO 8P-SAN w/180mm RED,BLACKx7 AWG26#UL1007	136-F00818-001	1
WH801	HSG(2.5mm)PEC 2507H-09 TO 2501H-09 w/350mm WHITE,GREYx8 AWG24#UL1007	136-J10935-001	1
MPEG+SERVO SECTION			
RESISTORS			
R10,12,230	CHIP RESISTOR 10 ohm +-5% 1/16W (0603/1608)	001-310052-016	3
R1,109,132	CHIP RESISTOR 100 ohm +-5% 1/16W (0603/1608)	001-310152-016	3
R14,29,39,58,100,101,120,153,177,227,229,234,236,237,241,243, FB18,19,20	CHIP RESISTOR 0 ohm +-5% 1/16W (0603/1608)	001-300052-016	19
R9,11,97,106,107,122,134,135,232	CHIP RESISTOR 1 Kohm +-5% 1/16W (0603/1608)	001-310252-016	9
R5,6,19,20,21,22,23,56,95,102,123,124,126,130,131,141,142,143,144,145,146,147,148,157,163,200	CHIP RESISTOR 10 Kohm +-5% 1/16W (0603/1608)	001-310352-016	26
R31,47,48,91,94,201,202,203,204	CHIP RESISTOR 100 Kohm +-5% 1/16W (0603/1608)	001-310452-016	9
R32,33,34,35	CHIP RESISTOR 1 ohm +-5% 1/16W (0603/1608)	001-310852-016	4
R180,183,188,191,194,197	CHIP RESISTOR 12 Kohm +-5% 1/16W (0603/1608)	001-312352-016	6
R125,218,219	CHIP RESISTOR 180 ohm +-5% 1/16W (0603/1608)	001-318152-016	3
R208,209,212,213,216,217	CHIP RESISTOR 2 Kohm +-5% 1/16W (0603/1608)	001-320252-016	6
R164	CHIP RESISTOR 22 ohm +-5% 1/16W (0603/1608)	001-322052-016	1
R15,16,206,207,210,211,214,215	CHIP RESISTOR 220 ohm +-5% 1/16W (0603/1608)	001-322152-016	8
R223	CHIP RESISTOR 2.2 Kohm +-5% 1/16W (0603/1608)	001-322252-016	1
R24,25,26,30,50,105	CHIP RESISTOR 22 Kohm +-5% 1/16W (0603/1608)	001-322352-016	6
R231	CHIP RESISTOR 2.4 Kohm +-5% 1/16W (0603/1608)	001-324252-016	1

ELECTRICAL PARTS LIST - CONTINUED

Ref. No.	Description	Mfr's Part No.	Qty.
R182,185,190,193,196,199	CHIP RESISTOR 30 Kohm +-1% 1/16W (0603/1608)	001-330312-016	6
R59,65,66,67,68,69,70,71,73,74, 75,77,79,80,110,111,127,128,165, 166,167,168,169,170,171,175	CHIP RESISTOR 33 ohm +-5% 1/16W (0603/1608)	001-333052-016	26
R129,224	CHIP RESISTOR 330 ohm +-5% 1/16W (0603/1608)	001-333152-016	2
R3,4,52,53,54,55,60,181,184,192, 195,198	CHIP RESISTOR 3.3 Kohm +-5% 1/16W (0603/1608)	001-333252-016	13
R155	CHIP RESISTOR 392 ohm +-1% 1/16W (0603/1608)	001-339112-016	1
R13,205	CHIP RESISTOR 470 ohm +-5% 1/16W (0603/1608)	001-347152-016	2
R17,18,43,45,61,96,104,112,113, 114,115,116,117,118,119,133, 139,140,174	CHIP RESISTOR 4.7 Kohm +-5% 1/16W (0603/1608)	001-347252-016	19
R27,51,57,76,93,98,137,138,154	CHIP RESISTOR 47 Kohm +-5% 1/16W (0603/1608) (MCR03EZJH-473)	001-347352-016	9
R222	CHIP RESISTOR 470 Kohm +-5% 1/16W (0603/1608)	001-347452-016	1
R136	CHIP RESISTOR 5.6 Kohm +-5% 1/16W (0603/1608)	001-356252-016	1
R186,187	CHIP RESISTOR 68 ohm +-5% 1/16W (0603/1608) (TSB#G5101100Y101)	001-368052-016	2
R158,159,160,161	CHIP RESISTOR 75 ohm +-1% 1/16W (0603/1608) (TSB#G5101104G105)	001-375012-016	4
R149,162	CHIP RESISTOR 75 ohm +-5% 1/16W (0603/1608)	001-375052-016	2
R8	CHIP RESISTOR 8.2 Kohm +-5% 1/16W (0603/1608)	001-382252-016	1
R225	CHIP RESISTOR 91 ohm +-5% 1/16W (0603/1608)	001-391052-016	1
CAPACITORS			
C11,16,39,44,52,53	CHIP CAP 0.001 uF/25V +-10% (0603/1608) (GRM39B102K50) (MURATA)	003-510212-025	6
C112	CHIP CAP 0.01 uF/25V +-10% (0603/1608) (MCH185C103KK/GRM39X7R103K25PT)	003-510312-025	1
C135,137,141,143,147,149	CHIP CAP 0.0022 uF/50V +-10% (0603/1608) (UMK107B222KZ-TM)	003-522212-050	6
C66	CHIP CAP 0.022 uF/25V +-10% (0603/1608) (MCH182C223KK/GRM39X7R223K25PT)	003-522312-025	1
C2,8,9,10,14,15,21,22,23,24,25, 26,27,28,29,30,31,32,33,34,35,36, 37,38,40,41,42,43,49,50,51,54,55, 56,59,62,63,64,65,68,69,71,72,73, 74,75,78,79,80,82,84,85,86,87,92, 95,96,97,98,99,100,101,102,103, 104,105,106,107,108,113,114,115, 117,118,119,120,121,122,123,124, 128,129,130,133,134,139,140,145, 146,151,152,153,166,171	CHIP CAP 0.1 uF/16V +-10% (0603/1608) (87-A10-260-08G) (C1608JB1C104K) (TDK)	003-510412-016	94
C83	CHIP CAP 0.22 uF/16V +80-20% (0603/1608)	003-522482-016	1
C144	CHIP CAP 0.033 uF/25V +-10% (0603/1608)	003-533312-025	1
C17,47	CHIP CAP 0.047 uF/25V +-10% (0603/1608)	003-547312-025	2
C48	CHIP CAP 0.47 uF/16V +80-20% (0603/1608) (EMK107F474ZA)	003-547482-016	1
C1,4,5,6,7	CHIP CAP 680 pF/50V +-10% (0603/1608)	003-568112-050	5
C12	CHIP CAP 0.0068 uF/50V +-10% (0603/1608)	003-568212-050	1
C3,13,131,132	(F003-610112-050) CHIP CAP 100 pF/50V +-5% NPO (0603/1608)	003-610152-050	4
C57,58,67	CHIP CAP 12 pF/50V +-5% NPO (0603/1608)	003-612052-050	3
C136,138,142,148,150	CHIP CAP 150 pF/50V +-5% NPO (0603/1608) (GRM39COG151J50PT/MCH185A151JK)	003-615152-050	5

ELECTRICAL PARTS LIST - CONTINUED

Ref. No.	Description	Mfr's Part No.	Qty.
C88,89,90,91,116,156,159,162, 165	(F003-622051-050) CHIP CAP 22 pF/50V +-5% NPO (0603/1608)(GRM39C0G220J50PT)	003-622052-050	9
C111	CHIP CAP 220 pF/50V +-5% NPO (0603/1608) (UMK107CH221JZ-T)	003-622152-050	1
C109,110	(F003-527012-050) CHIP CAP 27 pF/50V +-5% NPO (0603/1608) (UMK107CH270JZ-TM)	003-627052-050	2
C154,157,160,163	CHIP CAP 270 pF/50V +-5% NPO (0603/1608)	003-627152-050	4
R2	CHIP CAP 33 pF/50V +-5% NPO (0603/1608) (GRM39COG330J50PT/MCH185A330JK)	003-633052-050	1
C70	CHIP CAP 47 pF/50V +-5% NPO (0603/1608)	003-647052-050	1
C155,158,161,164	(F003-633151-050) CHIP CAP 330 pF/50V +-5% NPO (0603/1608) (GRM39C0G331J50PT)	003-633152-050	4
C45,46	CHIP CAP 470 pF/50V +-5% NPO (0603/1608)	003-647152-050	2
CE39,40	ELECT CAP 4.7 MFD/50V +-20% (5x11)	006-004000-50D	2
CE13,18,22,24,E25,26,29,30,31, 32,33,34,35,36,37,38	ELECT CAP 10 MFD/50V +-20% (5x11)	006-010000-50D	16
CE5,6,27,28,45	ELECT CAP 100 MFD/16V +-20% (5x11)	006-010100-16D	5
CE16	*CdF ELECT CAP 1000 MFD/10V +-20% (VX/10x12)	006-010200-10C	1
CE41	ELECT CAP 220 MFD/16V +-20% (6.3x11) (SA16V221M)	006-022101-16D	1
CE3 ,15,42,44	ELECT CAP 47 MFD/25V +-20% (5x11)	006-047000-25D	4
CE14	ELECT CAP 470 MFD/10V +-20% (8x11.5)	006-047100-10D	1
CE4,8	ELECT CAP 470 MFD/16V +-20% (VX/10x12.5)	006-047100-16C	2
CE49,51,52,53,54	ELECT CAP 100 MFD/6.3V +-20% (SMALL SIZE) (5x7)	006-210100-06D	5
TRANSISTORS			
Q4,7,8,9,10,11,12	TR NPNGEN-BUK&SC-043 2N3904	008-939040-000	7
Q5,6	TR NPNGEN-BUK&SC-043 2N3906	008-939060-000	2
Q3	CHIP TRANSISTOR DTC124TKA-TLB	008-A00124-B00	1
Q1,2	TR PNPPWR-TAP&&S-MT& 2SB1197K-T146R (SMT) (ROHM)	008-A01197-000	2
INTEGRATED CIRCUITS			
U7	ICMCU-512K-NIL W29EE512P-70 (WINBOND)	010-032951-001	1
U25	ICSPECIAL WM8739EDS 24BIT 96kHz STEREO AUDIO ADC	010-038739-000	1
U31	ICSPECIAL WM8746EDS 32BIT 192kHz 6CH DAC w/VOLUME CONTROL	010-038746-000	1
U9	IC-VOLTAGE REGULATOR XC61AN1902MR/ XC61CN1902MR	010-151902-000	1
U1	IC-RF AMP M5703T (SP3721AAA-OPM) (64-PIN VQFP)	010-245703-000	1
U5	IC&&&&&&&&&&&&&&&&&&& M5705 DVD-ROM CONTROLLER (176-PIN LQFP)	010-245705-000	1
U22,23,24	ICAMP-OP-02CH-DUALV NJM4580E-T1 (TSB#G5147100L105)	010-274580-002	3
U17	ICRAMS-01X016M K4S161622D-TC/L60/L80 HY57V161610DTC-8/M12L16161A-7T	010-310416-002	1
U3	ICREGULA-P-3.3V001A BA033FP(SOP) (ROHM)	010-400033-000	1
U29	ICREGULA-P-005V001A BA17805FP (TO252-3) (ROHM)	010-401780-000	1
U2	ICMOTORDRIVER-04CH BA5983FM (ROHM)	010-405983-000	1
U12	ICRAMF-01X001K S-24C01BFJ-TB-01/ 24LC01BT-I/SN/M24C01-WMN6T/BR24C01AF-WE2	010-512401-001	1
U27	ICREGULA-P-&&V&&A LD1117S/LM117MPX-ADJ RT9164CG (SOT-223) (ST/NATIONAL/RICHTEK)	010-721117-000	1

ELECTRICAL PARTS LIST - CONTINUED

Ref. No.	Description	Mfr's Part No.	Qty.
U28	ICREGULA-P-3.3V&&&A LD1117S33C/ LM1117MPX-3.3/RT9164-33CG (ST/NATIONAL/RICHTEK)	010-721117-001	1
U4	ICMOTORDRIVER-&&CH FAN8082 (FAIRCHILD)	010-748082-000	1
U26	ICLOGIC TC74HCU04AF-EL HEX INVERTER (TSB#G51451014108)	010-847404-001	1
U11	ICDIALER-NON-00 ZR36705TQC (ZORAN) ATAPI INTERFACE	010-893670-002	1
U16	ICMPEG ZR36732PQC	010-893673-000	1
U13	ICRAMF-01X008M 8M BIT(512Kx6) FLASH RAM SST39VF800A-70-4C-EK (0.25u)	045-F01008-202	1
U6	(F010-474116-000) IC-DRAM M11B416256A-35J (SOJ) (SW034)	045-D00035-100	1
DIODES			
ZD1	ZENER DIODE 6.8V #MTZJ6.8B	011-010068-001	1
D10	RECTIFIER IN-4002,100V	011-024002-990	1
D1,2,3,4,5,6,7	CHIP DIODE (SMT) DL4148(DC)/LS4148(KT)	011-044148-002	7
INDUCTORS			
L2,4,5,13	*CdF INDUCTOR 10 uH CEC-100K +-10%	018-010016-000	4
L26,27,28,29	C.COIL 1.8uH +-10% TAPE&REEL LK1608 1R8K -T/MGFI1608C1R8/SDFL1608Q1R8KT	018-040187-002	4
L6	C.COIL 2.7uH +-10% TAPE&REEL LK2125 2R7K -T/MGFI2012C2R7/SDFL2012Q2R7KT	018-040277-001	1
FB1,2,3,4,5,6,7,8,9,10,11,12,13, 14,15,16,21	CHIP FERRITE BEAD GZ1608Y102T (0603/1608) (SUNLORD)	032-101608-015	17
CRYSTALS & RESONATOR			
Y3	CRYSTAL 12.5 MHz +-30ppm HC-49/U/ALCCBEG	009-612500-000	1
Y4	CRYSTAL 27 MHz HC-49/U/ALCCGBE	009-627000-003	1
Y1	RESONATOR 33.8688 MHz 30ppm-50ppm ZTA33.86MX (CHEQUERS)	020-338688-000	1
WIRES			
	FFC CABLE L=240mm P=1mm SEPH02-01960(3) 24P-4+232+4-P1-CF/90 UL2896 0.035x0.7	040-240240-100	1
U2 GND TO U29 GND	*CdF JP WIRE AWG26#1007 3x3mm 70mm BLACK	051-673070-009	1
J3	HSG (2mm) JST PHR-05 TO PHR-05 w/258mm BR,RED,ORN,YEL,GN AWG28#UL1095	136-C00525-800	2
J2	HSG (2mm) JST PHR-06 TO PHR-06 w/188mm BR,RED,ORN,YEL,GN,BL AWG28#UL1095	136-C00618-800	2
MISCELLANEOUS			
J5	HEADER MOLEX 6 PINS 5267-06A PITCH 2.5mm STRAIGHT TYPE	135-005267-060	1
J10	FFC CONN 6232 22 PINS w/o LOCK PITCH:1mm 00 6232 022 006 800 VERTICAL TYPE	135-006232-220	1
J1	FFC CONNECTOR 24 PINS PITCH:1mm LG BRAND GF106-24S-LS HORIZONTAL UPPER CONTACT	135-0GF106-240	1
J6	HEADER 4 PINS PEC #2507-WS-4 PITCH 2.5mm VERTICAL REPLACE:135-005267-040	135-2507WS-040	1
J9	HEADER 9 PINS PEC #2507-WS-9 PITCH 2.5mm VERTICAL REPLACE:135-005267-090	135-2507WS-090	1
J3	HEADER CTL 5 PINS PHS-05 PITCH 2mm STRAIGHT TYPE WHT COLOR (MARKING:HR)	135-PHS050-050	1
J2	*CdF HEADER CTL 6 PINS PHS-06 PITCH 2mm STRAIGHT TYPE WHT COLOR (MARKING:HR)	135-PHS060-060	1
DVD MECHANISM - STSD-010SMT			

ELECTRICAL PARTS LIST - CONTINUED

Ref. No.	Description	Mfr's Part No.	Qty.
	DVD-FLC-01-SAMG-N DVD MECHANISM FOR CD-R CMS-S21MG6 (SAMSUNG)	163-000216-000	1
	LEAF SWITCH LS-121-0A (LUP FUNG)	022-001210-001	1
	CONN PIN 3 PINS (3.5+58+3.5) PITCH 2mm UL AWG26#2651	050-030065-200	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 (KSM-2101-ABM-AL)	151-061256-000	1
RDS SECTION			
RESISTORS			
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
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
CAPACITORS			
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
C456	CHIP CAP 0.047 uF/25V +-10% (0603/1608)	003-547312-025	1
C452,453	CHIP CAP 0.022 uF/25V +-10% (0603/1608) (MCH182C223KK/GRM39X7R223K25PT)	003-522312-025	2
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
TRANSISTORS			
Q412,413	TR NPNSST-RAD&SC-059 2SC2712GR (89-327-125-08)	008-A02712-000	2
CRYSTAL			
CX402	CRYSTAL 4.332 MHz CSA309 CL=16pF CITIZEN (87-A70-091-01G)	009-604332-000	1
INTEGRATED CIRCUIT			
IC403	ICRDS DECODER BU1923F (ROHM)	010-351923-001	1
DIODES			
DZ402	ZENER IN-5231B, HZ5C1, 5.1V, 1/2W	011-010051-120	1
INDUCTOR			
L402	*CdF INDUCTOR 100 uH /1128/CEC-101K+-10% LAL03 TB 101K	018-010014-000	1
SCART SECTION			
R715	*CdF RESISTOR 100 ohm +-5% 1/16W (1/8W)	001-010151-016	1
R717,718,720	*CdF RESISTOR 10 Kohm +-5% 1/16W (1/8W)	001-010351-016	3
R702,703	*CdF RESISTOR 12 Kohm +-5% 1/16W (1/8W)	001-012351-016	2
R701,702	RESISTOR 2.7 Kohm +-5% 1/16W (1/8W)	001-027251-016	2
R721	*CdF RESISTOR 330 Ohm +-5% 1/16W (1/8W)	001-033151-016	1
R708,709	*CdF RESISTOR 33 Kohm +-5% 1/16W (1/8W)	001-033351-016	2
R707,710,711,712,719	*CdF RESISTOR 4.7 Kohm +-5% 1/16W (1/8W)	001-047251-016	5
CAPACITORS			
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

ELECTRICAL PARTS LIST - CONTINUED

Ref. No.	Description	Mfr's Part No.	Qty.
C711,712	ELECT CAP 100 MFD/16V +-20% (5x11)	006-010100-16D	2
TRANSISTORS			
Q701,702,708,709	TR NPNGEN-BUL&TO-092 3DG9014(9014)	008-609014-000	4
INDUCTORS			
FB701,702,703,704,705,706,707	*CdF FERRITE BEAD INDUCTOR #BL01RN1-A62 0.45 uH/7A (5x3.6mm) (87-008-372-01)	032-101162-000	7
WIRES			
WH702 J11	FFC CABLE 22 PINS L=200mm 4+192+4 P:1mm UL2896 0.035x0.7 (TUNG HING)	040-220108-100	1
JK701	FFC CONN 6232 22 PINS w/o LOCK PITCH:1mm 00 6232 022 006 800 VERTICAL TYPE	135-006232-220	2
	RGB CONNECTOR SOCKET 21 PINS HRC-021V-07(KUNMING)/MRC-021V-04(HONDA)	135-HRC021-210	1
TUNER SECTION			
RESISTORS			
JP403,404,405,406,407,408,409,421,423,425	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
R401,410,412,443,444,445,459,465	CHIP RESISTOR 1 Kohm +-5% 1/16W (0603/1608)	001-310252-016	8
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	CHIP RESISTOR 12 Kohm +-5% 1/16W (0603/1608)	001-312352-016	1
R421,442	CHIP RESISTOR 18 Kohm +-5% 1/16W (0603/1608)	001-318352-016	2
R467	CHIP RESISTOR 22 ohm +-5% 1/16W (0603/1608)	001-322052-016	1
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
R411,419,424,425,426,427,452	CHIP RESISTOR 3.3 Kohm +-5% 1/16W (0603/1608)	001-333252-016	7
R418	CHIP RESISTOR 3.9 Kohm +-5% 1/16W (0603/1608)	001-339252-016	1
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) (MCR03EZJH-473)	001-347352-016	1
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
R466	CHIP RESISTOR 8.2 Kohm +-5% 1/16W (0603/1608)	001-382252-016	1
CAPACITORS			
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 pF/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
C423,424	CHIP CAP 0.47 uF/10V +-10% (0603/1608) (LMK107BL474KA-T)	003-547412-010	2

ELECTRICAL PARTS LIST - CONTINUED

Ref. No.	Description	Mfr's Part No.	Qty.
C406	CHIP CAP 0.047 uF/25V +-10% (0603/1608)	003-547312-025	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	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	ELECT CAP 10 MFD/50V +-20% (5x11)	006-010000-50D	1
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	*CdF TRIMMER CAP CVN610 3-10pF WHITE (6x6x5mm) (JIN MYOUNG)	007-200610-000	1
TRANSISTORS			
Q402	CHIP NJFET SST201/SST201B-T1 (SILICONIX) TAPE & WHEEL 2SK208Y TOSHIBA	008-A00201-010	1
Q409,410	TR PNPPWR-RAD&SC-059 2SA1036K	008-A01036-000	2
Q403,404,405,411	TR NPNSST-RAD&SC-059 2SC2712GR (89-327-125-08)	008-A02712-000	4
CRYSTAL			
CX401	CRYSTAL 7.2 MHz HC-49/U	009-607200-000	1
INTEGRATED CIRCUITS			
IC401	ICRDS TA2099N (TOSHIBA) (87-A21-173-01)	010-832099-000	1
IC402	ICPLL TC9257F	010-849257-000	1
DIODES			
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
INDUCTORS			
T408,409	IFT 7PF022C 7.8mm BLACK	012-000022-078	2
T405	IFT 7M4A1772R 7.5mm YELLOW 12-1720-75	012-001772-075	1
T403	IFT 7M1A1959R 7.5mm RED 12-1905-75	012-001959-075	1
T401	IFT 7M1A1961R 7.5mm BLACK 12-1950-75	012-001961-075	1
L401,403	*CdF INDUCTOR 100 uH /1128/CEC-101K +-10% LAL03 TB 101K	018-010014-000	2
FILTERS			
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	019-000450-012	1
MISCELLANEOUS			
JK401	TUNER-FM&&00STATION FM FRONT END TUNER PET-3010F/H (EU) (TAE BONG) JACK COAXIAL JACK HTR-401V HEADER MOLEX 2 PINS 5268-02A PITCH 2.5mm HORIZONTAL TYPE	042-103010-000 118-030401-000 135-005268-020	1 1 1
WIRES			
WH401 TO WH304	HSG CD170-108 10PINS JST PHR-2mm w/110mm R,BK,W,Y,BL,OR,R,BK,W,Y AWG28#1095 4mm	136-100170-000	1

ELECTRICAL PARTS LIST - CONTINUED

Ref. No.	Description	Mfr's Part No.	Qty.
WH401 TO WH305	HSG (2mm) PEC 2001H-03 TO 2003H-03 w/225mm SHIELD WIRE AWG28#UL2547/2C RED,WHITE	136-F10322-500	1
CENTER SPEAKER SECTION - SSQC3			
FOR CT	JP WIRE AWG22#1007 5x5mm 130mm RED	051-275130-006	1
	JP WIRE AWG22#1007 5x5mm 130mm BLACK	051-275130-009	1
	PUSH TERMINAL BOARD PT-213-03 BLACK,RED	118-000213-000	1
	MSP-105H-03 BLACK,RED		
	SPK WIRE UL/CSA 2468 2x22 AWG 17/0.16mm	122-002120-401	1
	TRANS. w/BK LINE 4M w/TUBE 2xRED,BLK,BRN		
SPK00003"008OHM0050W w/BK DOME PAPER CAP #LF77SZ4307G55C8AS19PDB (GGEC)(L0234)	131-308050-010	1	
ACTIVE SUB-WOOFER SECTION - SWT1A			
OUTPUT TERMINAL SECTION FOR SWT1A			
RESISTORS			
R880,881,882	*CdF RESISTOR 10 ohm +-5% 1/16W (1/8W)	001-010051-016	3
R1003	*CdF RESISTOR 100 ohm +-5% 1/16W (1/8W)	001-010151-016	1
R877	*CdF RESISTOR 10 Kohm +-5% 1/16W (1/8W)	001-010351-016	1
R875	*CdF RESISTOR 22 Kohm +-5% 1/16W (1/8W)	001-022351-016	1
R876	*CdF RESISTOR 3.3 Kohm +-5% 1/16W (1/8W)	001-033251-016	1
R873,874	*CdF RESISTOR 47 Kohm +-5% 1/16W (1/8W)	001-047351-016	2
R871	RESISTOR 56 Kohm +-5% 1/16W (1/8W)	001-056351-016	1
CAPACITORS			
C996	(F003-010380-025) CERAMIC CAP 0.01 uF/50V 80%-20%	003-010380-050	1
C998	ELECT CAP 1000 MFD/16V +-20% (10x20)	006-010200-16D	1
TRANSISTORS			
Q871,875	TRLNPNST-TAP&TO-092 3DG1815	008-618150-000	2
Q872	TRLNPNPWR-TAP&TO-092 3CA8550	008-685500-000	1
DIODES			
D913,915,916	DIODE IN-4148 ROHM/TELEFUNKEN TAP**50 KEL(NS)(TAP:52mm)/NS(FAIRCHILD)/SEMTECH	011-004148-000	3
D914	RECTIFIER IN-4001B	011-024001-000	1
MISCELLANEOUS			
JK601,603	4 P PUSH TERMINAL BOARD HSP-354V-03 A,B-RED C,D-BLACK (STS5x/STS6x)	118-000354-000	2
JK602	EXT SP JACK HSP-102V-01 A-RED,B-BLACK (PUSH TERMINAL BOARD)	118-040102-000	1
JK604	MINI DIN SOCKET MDSL-09SC0A (LEOCO)	119-000090-000	1
RL601,602,603	RELAY 12V OSA-SS-212DM5	128-122125-000	3
CN01	HEADER 2 PINS #TJ6-2A PITCH:3.96mm VERTICAL 1.14mm AQUIRE PIN	135-000TJ6-020	1
CN02	HEADER MOLEX 2 PINS 5267-02A PITCH 2.5mm STRAIGHT TYPE	135-005267-020	1
POWER AF SECTION FOR SWT1A			
RESISTORS			
R680,905,915	RESISTOR 100 ohm,+-5%,1/4W	001-010150-014	3
R632,661,664,665,919,1015,1016	*CdF RESISTOR 10 Kohm +-5% 1/16W (1/8W)	001-010351-016	7
R657,663,687,920	*CdF RESISTOR 100 Kohm +-5% 1/16W (1/8W)	001-010451-016	4
R614,616,631,633,634,907	RESISTOR 1.8 Kohm,+-5%,1/16W (1/8W)	001-018251-016	6
R924	*CdF RESISTOR 2.2 Kohm +-5% 1/16W (1/8W)	001-022251-016	1
R662	*CdF RESISTOR 22 Kohm +-5% 1/16W (1/8W)	001-022351-016	1
R610,619,622,627,639,912	(F001-022951-001) RESISTOR 0.22 ohm +-5% 1W (METAL FILM)	001-022952-001	6
R1001	RESISTOR 3.3 Kohm +-5% 1/2W	001-033250-012	1

ELECTRICAL PARTS LIST - CONTINUED

Ref. No.	Description	Mfr's Part No.	Qty.
R605,606,666,671,672,673,689,903,909,910	*CdF RESISTOR 4.7 Kohm +-5% 1/16W (1/8W)	001-047251-016	10
R602,604,675,677,679,682,683,684,685,686,902,921	*CdF RESISTOR 47 Kohm +-5% 1/16W (1/8W)	001-047351-016	12
R640,642,643,644,645,646,647,648,649,650,914,917	RESISTOR 4.7 ohm,+-5%,1/2W	001-047850-012	12
R641,681	RESISTOR 56 ohm,+-5%,1/4W	001-056050-014	2
R658	RESISTOR 5.6 Kohm +-5% 1/16W (1/8W)	001-056251-016	1
R607,611,612,613,615,617,621,625,629,630,635,636,668,669,670,901,906,908,916	RESISTOR 56 Kohm +-5% 1/16W (1/8W)	001-056351-016	19
R608,609,618,620,623,624,626,628,637,638,659,913,918	*CdF RESISTOR 6.8 Kohm +-5% 1/16W (1/8W)	001-068251-016	13
R652,653,654,655,656,923	*CdF RESISTOR 82 Kohm +-5% 1/16W (1/8W)	001-082351-016	6
CAPACITORS			
C605,606,617,619,621	CERAMIC CAP 220 pF/50V +-10%	003-022110-050	5
C601,602,636,637,638,903	CERAMIC CAP 470 pF/50V +-5% (88-211-550-81C)	003-047150-050	6
C916	SEMI-COND 0.022 uF/25V +-10%	003-322310-025	1
C607,610,615,616,623,906	CERAMIC CAP 3 pF/50V +-0.25pF (NPO) (CC45-CH1H030C/RBU04CH030C-L)	003-430830-050	6
C625,626,627,628,629,911	#MYLAR CAP 0.1 uF/50V +-10%	004-010410-050	6
C603,604,633,634,635	ELECT CAP 1 MFD/50V +-20% (5x11)	006-001000-50D	5
C630,631,902	ELECT CAP 10 MFD/50V +-20% (5x11)	006-010000-50D	3
C613,614,624,905	ELECT CAP 100 MFD/35V +-20% (8x11.5)	006-010100-35D	4
C907	ELECT CAP 1000 MFD/16V +-20% (10x20)	006-010200-16D	1
C632,917	ELECT CAP 22 MFD/25V +-20% (5x11)	006-022000-25D	2
C909,910	(F006-022200-35D) ELECT CAP 2200 MFD/35V +-20% (VX/16x31.5)	006-022200-35C	2
C611,612	ELECT CAP 3300 MFD/35V +-20% (18x35)	006-033200-35D	2
C608,609,618,620,622,904	*CdF ELECT CAP 47 MFD/16V +-20% (5x11)	006-047000-16D	6
C908	ELECT CAP 47 MFD/50V +-20% (87-010-408-08J)	006-047000-50C	1
TRANSISTORS			
Q611	TR PNPSST-RAD&TO-092 3CG733P (2SA733P)	008-600733-000	1
Q607	TR NPNSST-RAD&TO-092 3DG945P (2SC945P)	008-600945-000	1
Q603,604,605,606,608,610,615,902	TRLNPNST-TAP&TO-092 3CG1015	008-610150-000	9
Q601,602,609,616,617,618,901	TRLNPNST-TAP&TO-092 3DG1815	008-618150-000	7
Q614	TRLNPNPWR-TAP&TO-092 3DA8050	008-680500-000	1
Q612	TR NPNSST-RAD&SC-072 DTC114ES (ROHM)	008-801141-000	1
INTEGRATED CIRCUITS			
IC601	ICAMP-POWR-&&-00020W STK402-930 (SANYO) (5 CHANNELS AF)	010-550402-001	1
IC901	ICAMP-POWR-&&-00040W STK404-070 (1 CHANNEL AF)	010-550404-000	1
DIODES			
D601,602,603,604,605,607,901,906	DIODE IN-4148 ROHM/TELEFUNKEN TAP**50 KEL(NS)(TAP:52mm)/NS(FAIRCHILD)/SEMTECH	011-004148-000	8
ZD901	ZENER DIODE MTZJT-72-12B 12V 1/2W (TSB#G51421015104)	011-010012-120	1
INDUCTORS			
L601,602,603,604,605,901	FM COIL 24.5T 4mm/4.0x24.5Tx0.7 RED DIA:0.7mm #CS47-868793/F192829	015-245040-007	6
MISCELLANEOUS			

ELECTRICAL PARTS LIST - CONTINUED

Ref. No.	Description	Mfr's Part No.	Qty.
	DIN COAXIAL CABLE #2464 9C+1 DIA:10mm	122-004020-500	1
	L=5M UL2464-SB 9Cx26AWG (9 PIN)		
	SPK006.5*004OHM0120W w/BK DOME PAPER CAP	131-6540A0-010	1
	#SW165RZ5802G100F4AS36PFB (L0257)		
PRA AF SECTION FOR SWT1A			
RESISTORS			
R850,861,862,863,864,959,964,967,972,974	*CdF RESISTOR 10 Kohm +-5% 1/16W (1/8W)	001-010351-016	10
R961,962,969,970,976,977	*CdF RESISTOR 100 Kohm +-5% 1/16W (1/8W)	001-010451-016	6
R983	*CdF RESISTOR 15 Kohm +-5% 1/16W (1/8W)	001-015351-016	1
R852,854,965,966,973,980,985,986,991,992	*CdF RESISTOR 220 ohm +-5% 1/16W (1/8W)	001-022151-016	10
R951,952,953,954,955,956,978,999	*CdF RESISTOR 2.2 Kohm +-5% 1/16W (1/8W)	001-022251-016	8
R981	*CdF RESISTOR 22 Kohm +-5% 1/16W (1/8W)	001-022351-016	1
R960,963,968,971,975,993,994,995,996,997,998	*CdF RESISTOR 4.7 Kohm +-5% 1/16W (1/8W)	001-047251-016	11
R979	RESISTOR 62K +-5% 1/16W (1/8W)	001-062351-016	1
R984,982	RESISTOR 68K +-5% 1/16W (1/8W)	001-068351-016	2
R950,958,987,988,989,990	RESISTOR 8.2 Kohm +-5% 1/16W (1/8W)	001-082251-016	6
CAPACITORS			
C959,960,963,964,966	CERAMIC CAP 100 pF/50V +-10%	003-010110-050	5
C981,982,983,984,985,986	CERAMIC CAP 220 pF/50V +-10%	003-022110-050	6
C990,991,992,993,994,995	CERAMIC CAP 30 pF/50V +-10%	003-030010-050	6
C997	CERAMIC CAP 0.04 uF/50V +80-20%	003-040380-050	1
C967	SEMI-COND 0.0056 uF/25V +-10% Y5P	003-356210-025	1
C973	#MYLAR CAP 0.012 uF/100V +-10%	004-012310-100	1
C972	#MYLAR CAP 0.068 uF/100V +-10%	004-068310-100	1
C969,970	ELECT CAP 0.47 MFD/50V +-20% (5x11)	006-000400-50D	2
C951,952,953,954,955,956,957,958,975,976,977	ELECT CAP 1 MFD/50V +-20% (5x11)	006-001000-50D	11
C941,978	ELECT CAP 10 MFD/50V +-20% (5x11)	006-010000-50D	2
C872,875	ELECT CAP 100 MFD/16V +-20% (5x11)	006-010100-16D	2
C961,962,965,968,971,974,979,980	ELECT CAP 220 MFD/16V +-20% (8x11.5)	006-022100-16D	8
C871,874	ELECT CAP 220 MFD/25V +-20% (8x11.5)	006-022100-25D	2
C873,876	ELECT CAP 470 MFD/25V +-20% (10x16)	006-047100-25D	2
TRANSISTORS			
Q851	TRLNPNPWR-TAP&TO-092 3DA8050	008-680500-000	1
Q802	TRLNPPWR-TAP&TO-092 3CA8550	008-685500-000	1
INTEGRATED CIRCUITS			
IC951,952,953,954	ICAMP-OP-02CH-DUALV LS4558N	010-404558-003	4
DIODES			
D909	DIODE IN-4148 ROHM/TELEFUNKEN TAP**50	011-004148-000	1
ZD851,852	KEL(NS)(TAP:52mm)/NS(FAIRCHILD)/SEMTECH	011-010012-120	2
D910,911	(TSB#G51421015104)		
	RECTIFIER IN-4001B	011-024001-000	2
WIRE			
A TO A`	JP WIRE AWG26#1007 5x5mm 60mm BLACK	051-675060-009	1
RECTIFIER SECTION FOR SWT1A			
RESISTOR			
R859	*CdF RESISTOR 100 ohm +-5% 1/16W (1/8W)	001-010151-016	1
CAPACITORS			

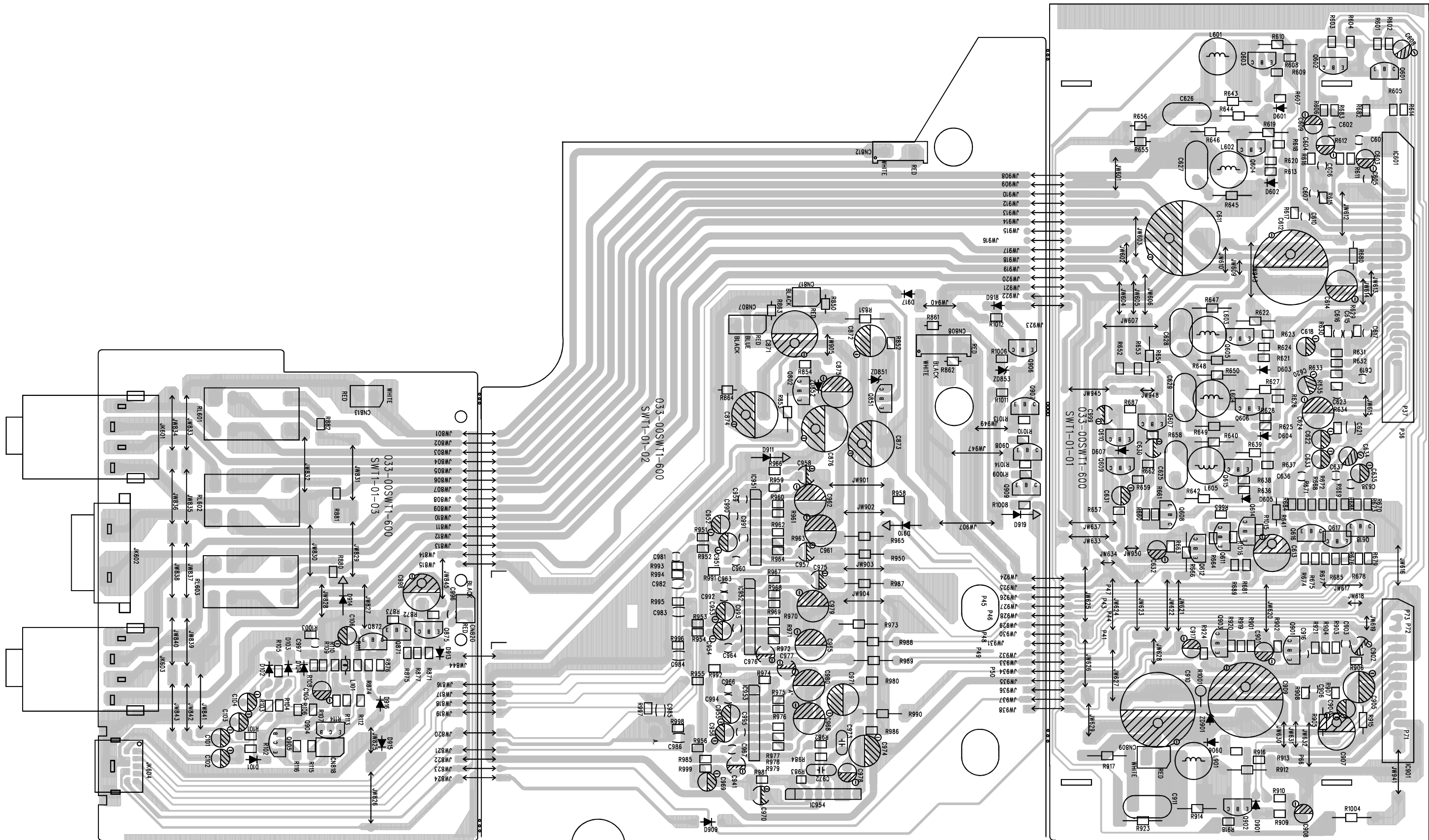
ELECTRICAL PARTS LIST - CONTINUED

Ref. No.	Description	Mfr's Part No.	Qty.
C861,862,863,864,867,868,869,870	(F003-010380-025) CERAMIC CAP 0.01uF/50V +80%-20%	003-010380-050	8
C879,880	ELECT CAP 100 MFD/50V +-20% (8x11.5)	006-010100-50D	2
C877,878	ELECT CAP 1000 MFD/25V +-20% (12.5x20)	006-010200-25D	2
DIODES			
D855,856,857,858	RECTIFIER 10A1 10A 100V (GW)	011-020010-990	4
D851,852,853,854,859	RECTIFIER IN-4001B	011-024001-000	5
WIRES			
CN809 TO CN812	JP WIRE AWG22#1015 5x5mm 300mm RED	051-255300-006	2
CN813 TO CN01	JP WIRE AWG22#1015 5x5mm 300mm WHITE	051-255300-008	2
MISCELLANEOUS			
LED101	LED-R-3MM&-S-&&&& SE-3001DT 3mm	110-030010-003	1
	BRIG.RED 28mm LEAD w/REFL.(8C-CS8-619-01)		
	PT300WEI76/56&F&BVDE 230V:24V/24V/13V/13V w/FUSE 130°C (L7656-G01E)	123-F53551-400	1
FUSE1,2	FUSE #S506 1.6A/250V 5x20mm TIME LAG.(CUL/SEMKO/VDE/BSI APP.)	124-016020-000	2
FUSE3 ,4	FUSE #0218010.M 10A/250V 5x20mm (UL/CSA)	124-0A0020-001	2
RL806	RELAY 9V SDT-S-109LMR	128-090109-000	1
	PLA-ULN-7'05"-VDE-MG VDE APP.CORD	134-B11331-006	1
	2250mm MIGRATION (HARVEST)		
CN805	HEADER JMT 3 PINS JM2422-3 PITCH:3.96mm	135-002422-030	1
CN814,817	HEADER 2 PINS PEC #2507-WS-2 PITCH 2.5mm	135-2507WS-020	2
	VERTICAL REPLACE:135-005267-020		
CN806	HEADER 3 PINS PEC #2507-WS-3 PITCH 2.5mm	135-2507WS-030	1
	VERTICAL REPLACE:135-005267-030		
WIRES			
CN817 TO A.B	HSG CD228-2A MOLEX 5264 w/300mm RED,BLK	136-020228-250	2
CN814 TO CN820	AWG26#1007 UL JP SLDG.4mm		
CN02 TO LED101	HSG CD363-2C PIN MOLEX5264 2.5mm w/600mm	136-020363-251	1
	RED,BLK JP AWG26#1007 SLDG 4mm		
CN806 TO CN807	HSG AS162-3 MOLEX 5264 WITH 220mm RED, BLUE,BLACK AWG26#1007 JP SLDG 5mm	136-030162-000	1
CN805 TO CN808	HSG CD2775-3B JMT JP2422-3 w/230mm	136-032775-390	1
	RED,BLACK,WHITE AWG22#UL1007 SLDG.4mm		
CN01 TO SP	HSG (3.96mm) YS TJC6-2Y w/600mm	136-MZ0260-000	1
	RED,BLACK AWG18#UL1007 SLDG.10mm		
4-SPEAKER SECTION - SSQ3			
	JP WIRE AWG22#1007 5x5mm 130mm RED	051-275130-006	4
	JP WIRE AWG22#1007 5x5mm 130mm BLACK	051-275130-009	4
	PUSH TERMINAL BOARD PT-213-03 BLACK,RED	118-000213-000	4
	MSP-105H-03 BLACK,RED		
FOR FR	SPK WIRE UL/CSA 2468 2x22 AWG 17/0.16mm	122-002120-402	1
	TRANS.w/BK LINE 4M w/TUBE 2xRED,BLK,YEL		
FOR FL	SPK WIRE UL/CSA 2468 2x22 AWG 17/0.16mm	122-002120-403	1
	TRANS.w/BK LINE 4M w/TUBE 2xRED,BLK,BLUE		
FOR SR	SPK WIRE UL/CSA 2468 2x22 AWG 17/0.16mm	122-002121-003	1
	TRANS.w/BK LINE 10M w/TUBE 2xRED,BLK,GRN		
FOR SL	SPK WIRE UL/CSA 2468 2x22 AWG 17/0.16mm	122-002121-004	1
	TRANS.w/BK LINE 10M w/TUBE 2xRED,BLK,ORN		
	SPK00003*008OHM0050W w/BK DOME PAPER CAP	131-308050-010	4
	#LF77SZ4307G55C8AS19PDB (GGEC)(L0234)		

NOTES:

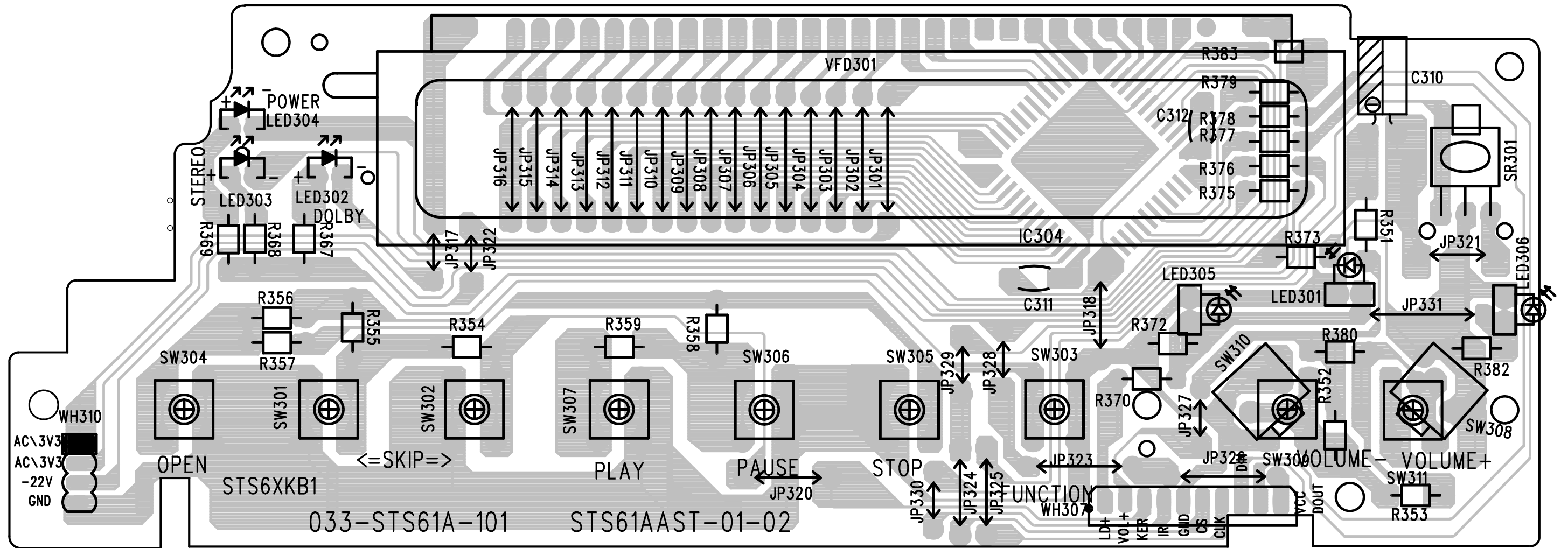
1. " # " Mylar is a registered trademark of E.I. Du Pont de Nemours and Company.
2. ⚠ Symbol in parts list represent safety parts.

PRINTED CIRCUIT BOARDS
SUB-WOOFER AMPLIFIER PCB
SWT1-01-01,02,03

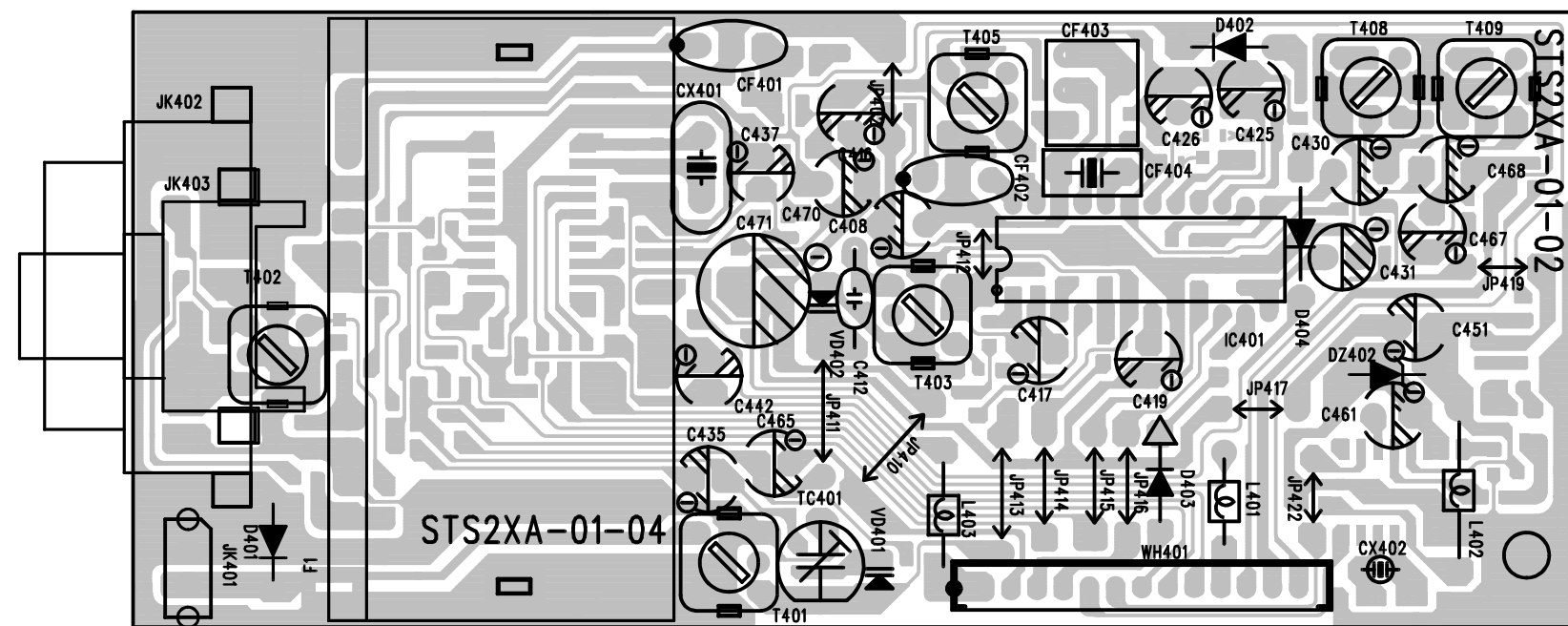


NOTES:
 PCB Part No.: 033-00STW1-600 of this model are assembled and aligned in FULL SET and are supplied in FULL SET for serving.

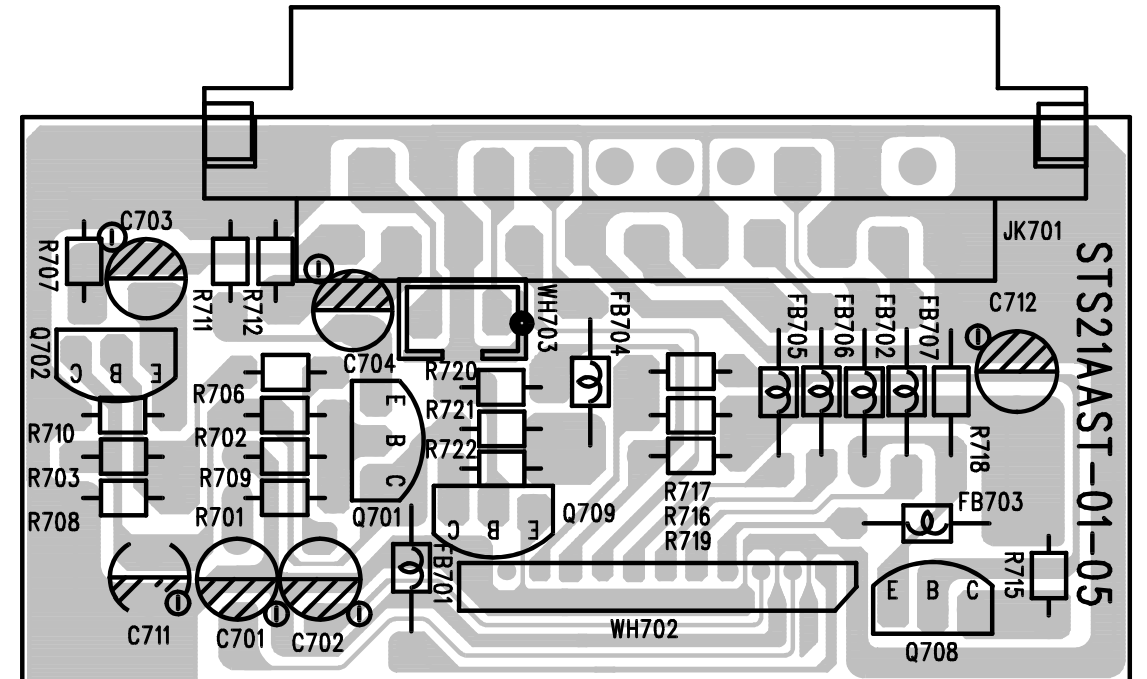
DISPLAY & KEY PCB
STS61AAST-01-02



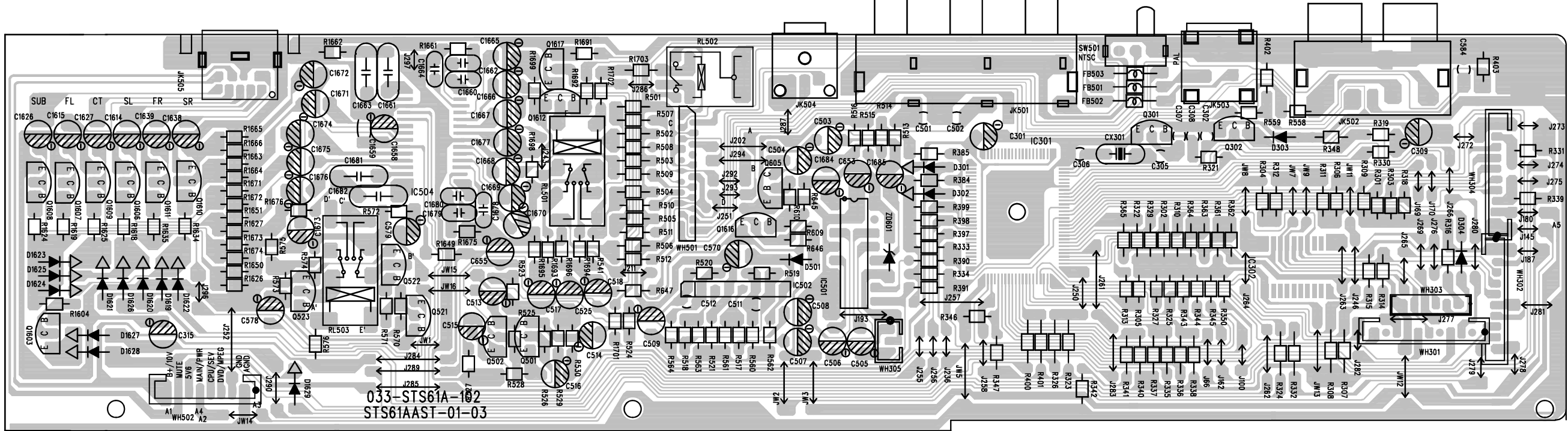
TUNER PCB
STS21AAST-01-04



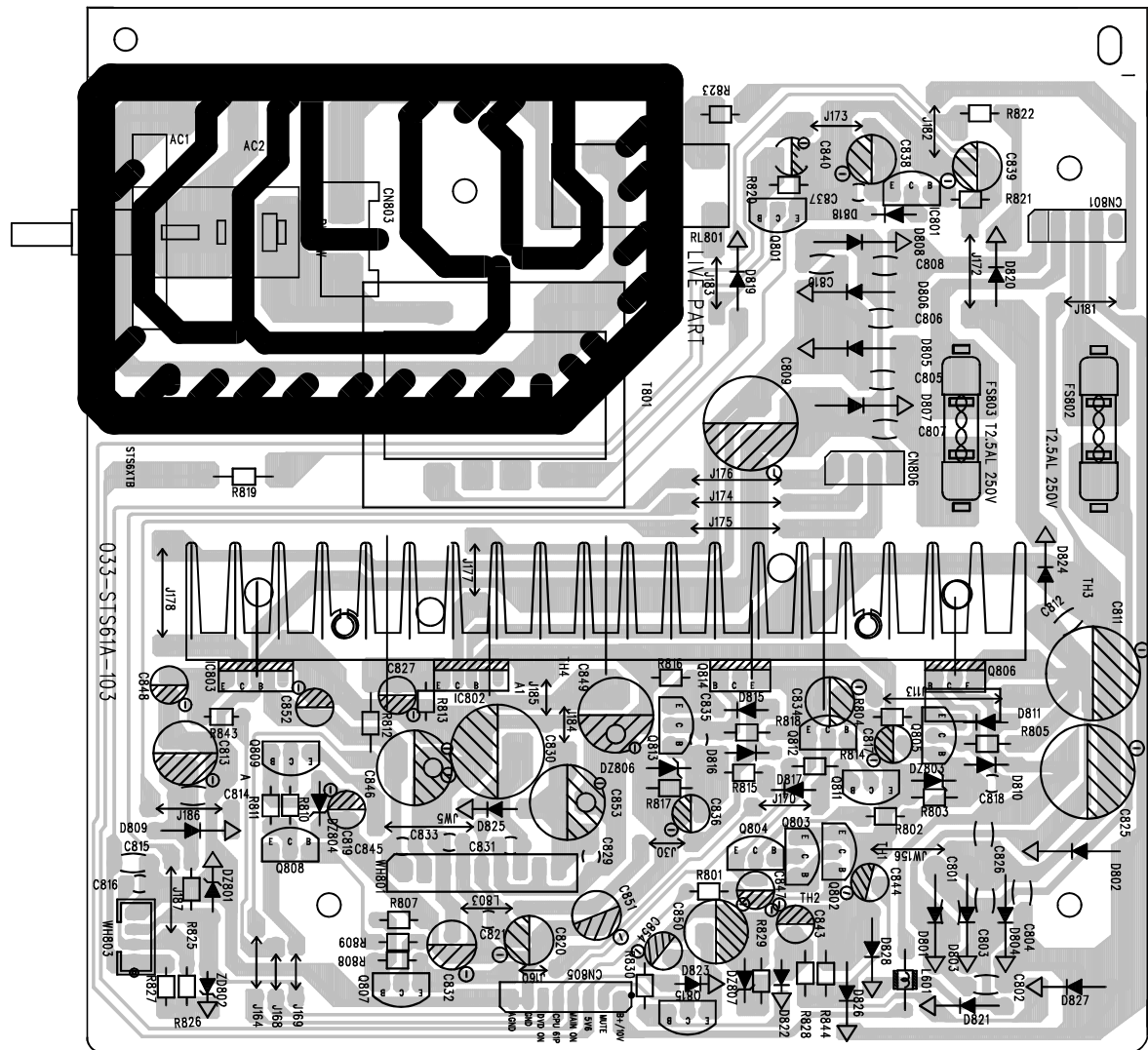
SCART PCB
STS21AAST-01-05



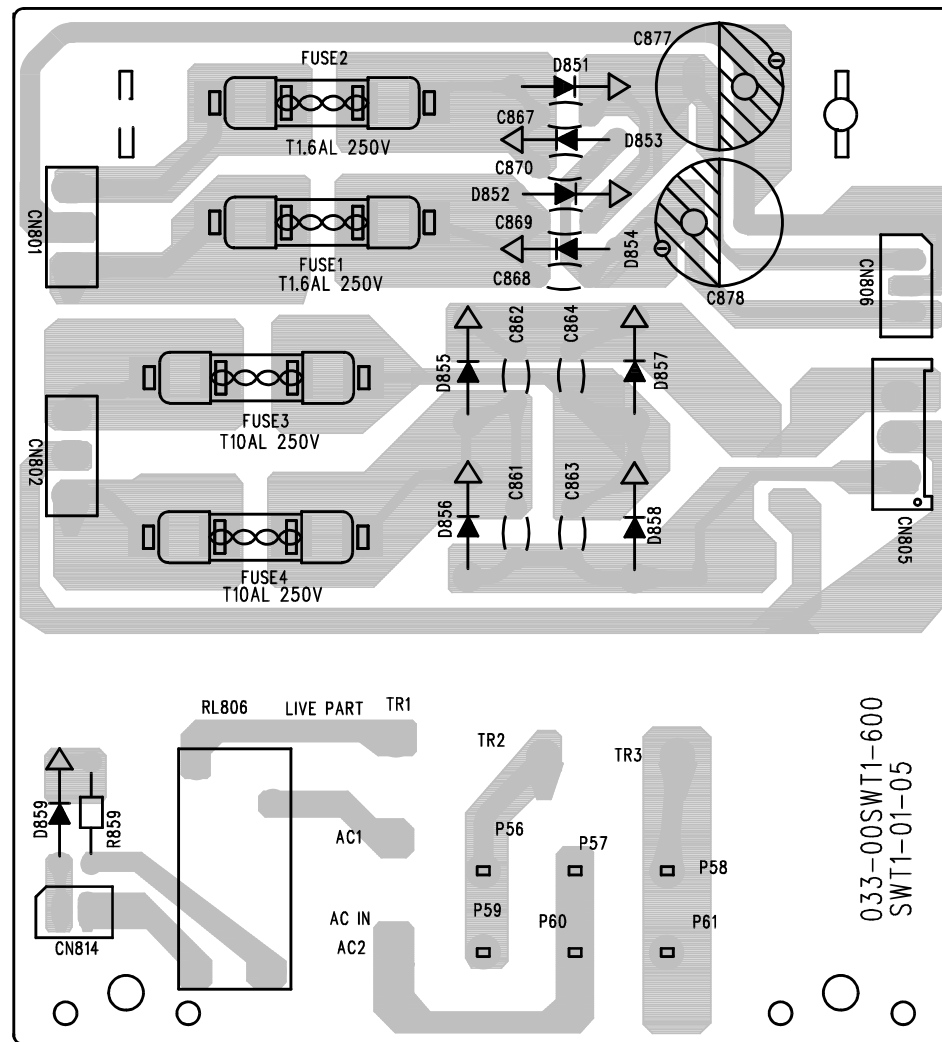
**OUTPUT PCB
STS61AAS-01-03**



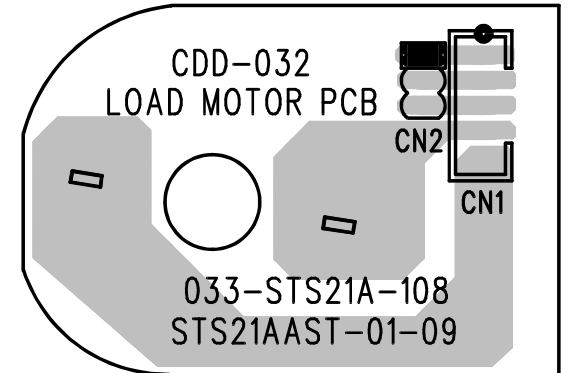
**RECTIFIER PCB
STS61AAS-01-04**



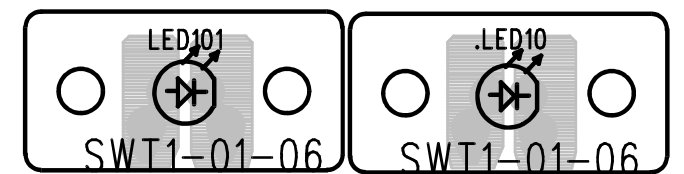
**SUB-WOOFER RECTIFIER PCB
SWT1-01-05**



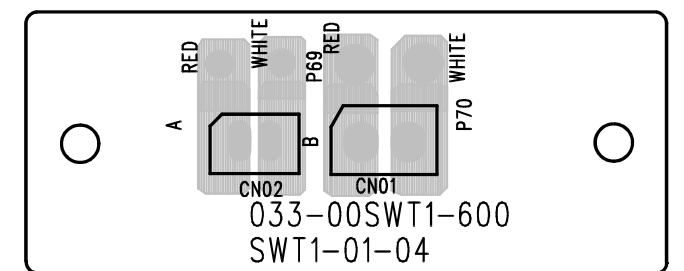
**LOAD MOTOR PCB
STS21AAS-01-09**



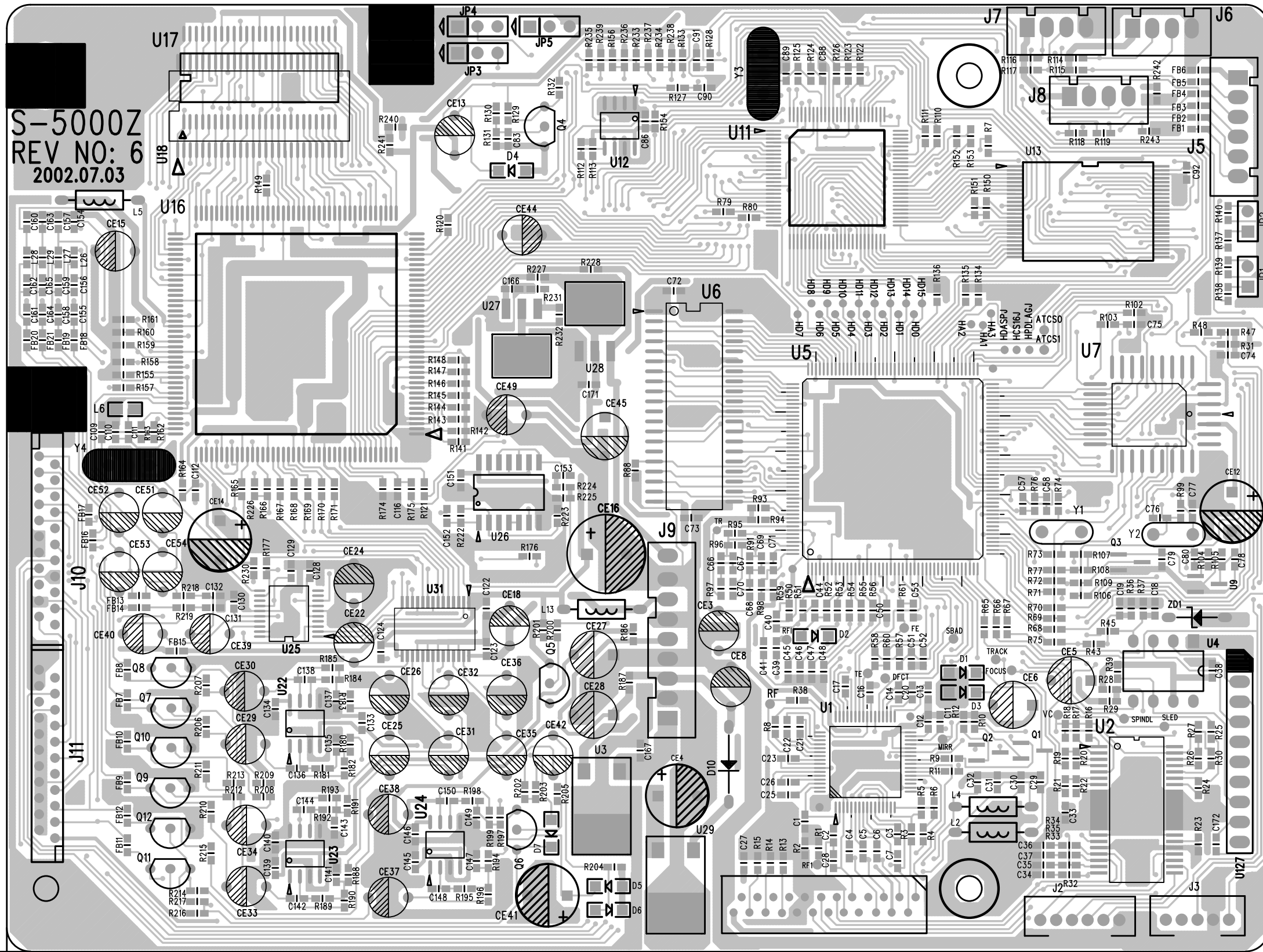
**LED PCB
SWT1-01-06**



**CONNECTION PCB
SWT1-01-04**

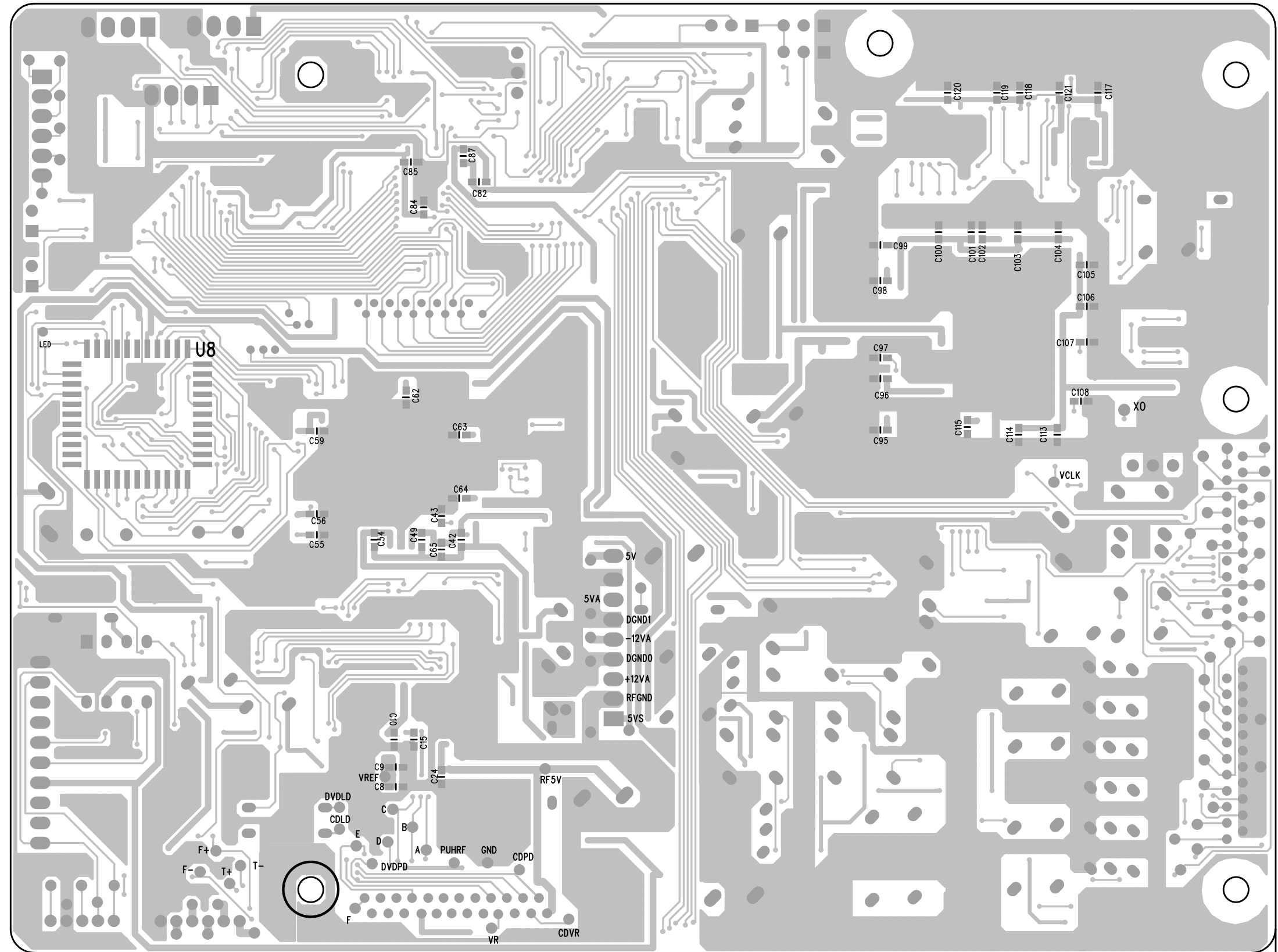


MPEG+SERVO PCB
STS21AAS-01-02



TOP VIEW

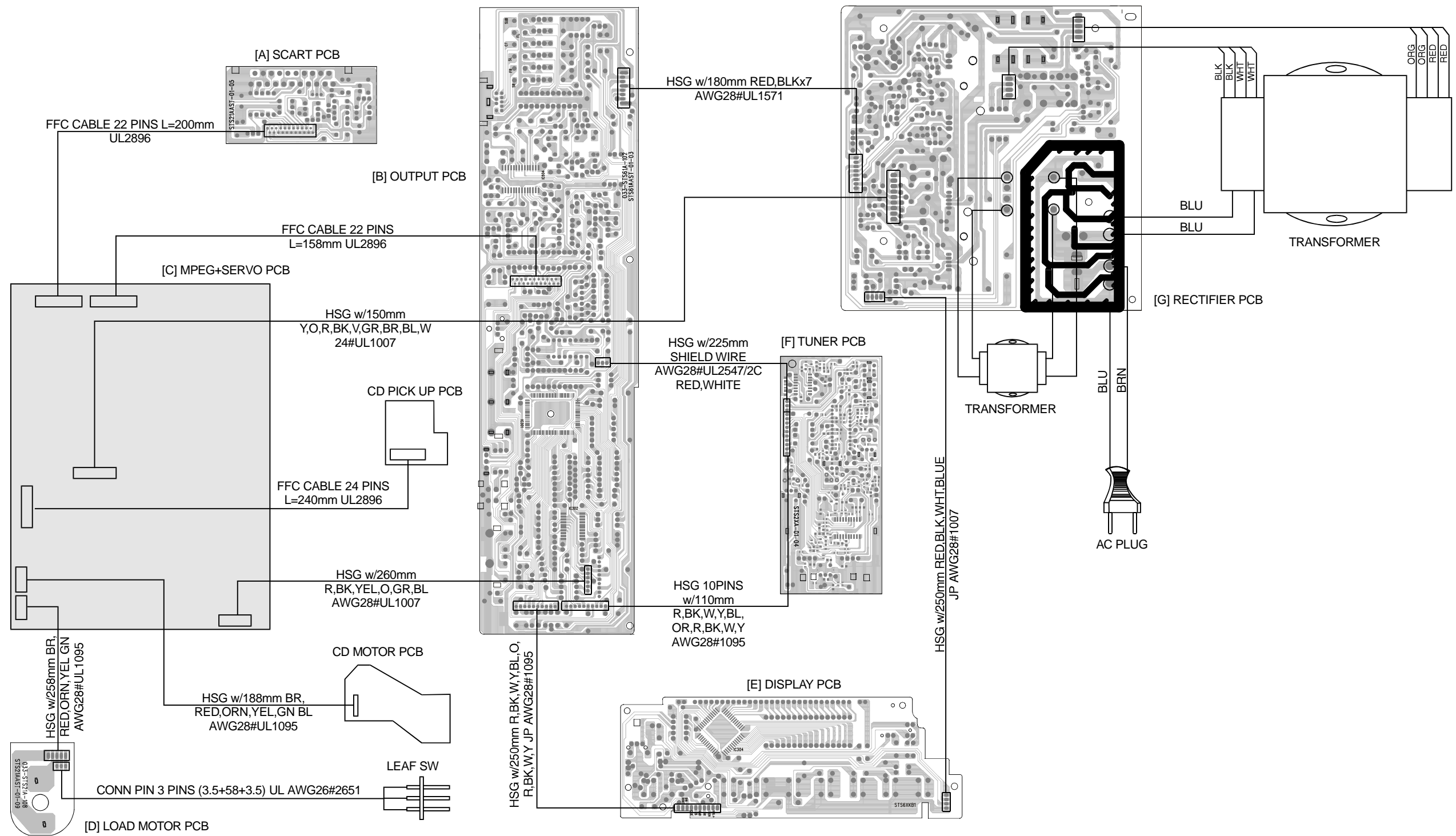
MPEG+SERVO PCB
STS21AAS-01-02



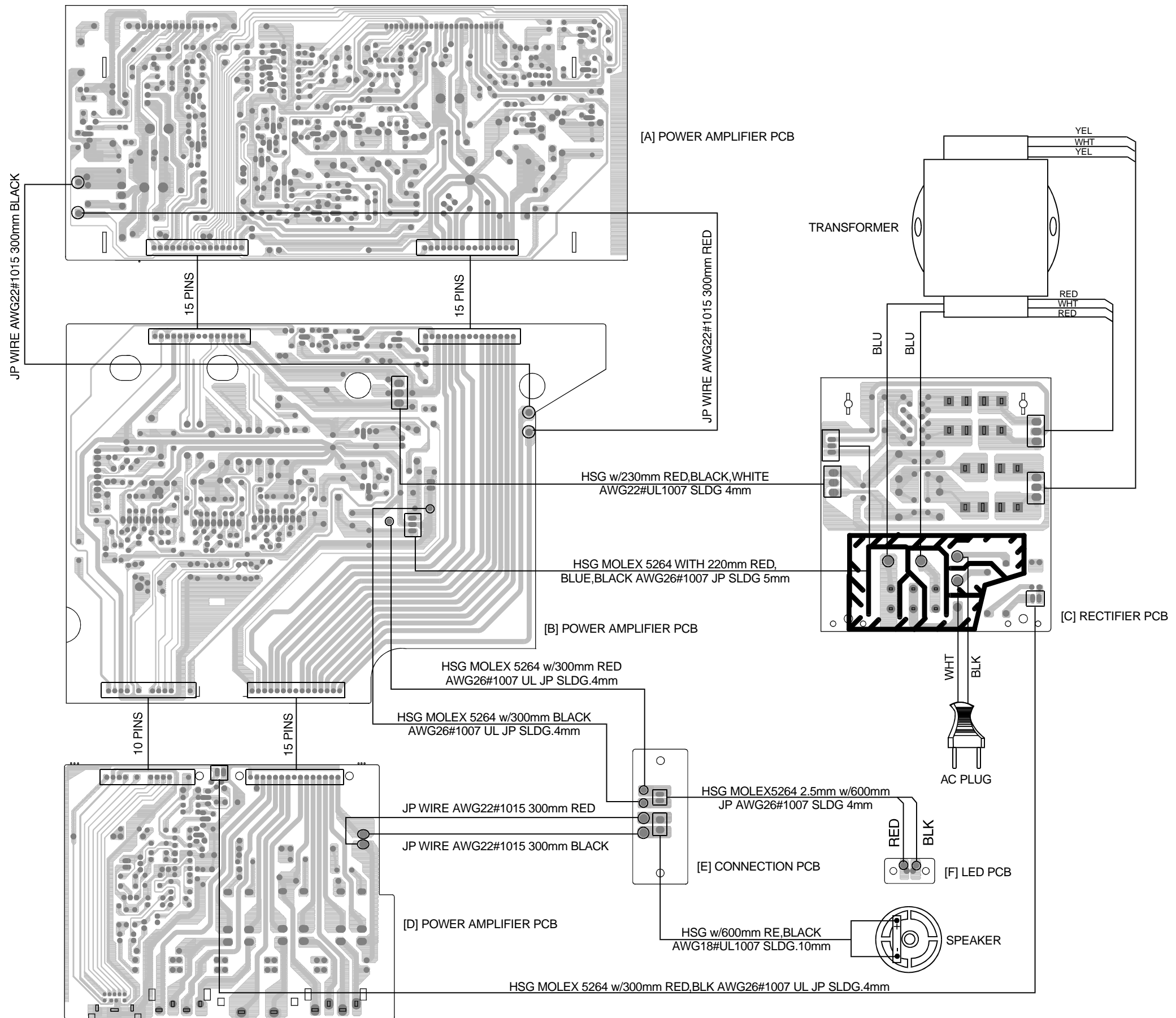
BOTTOM VIEW

WIRING DIAGRAMS

MAIN UNIT



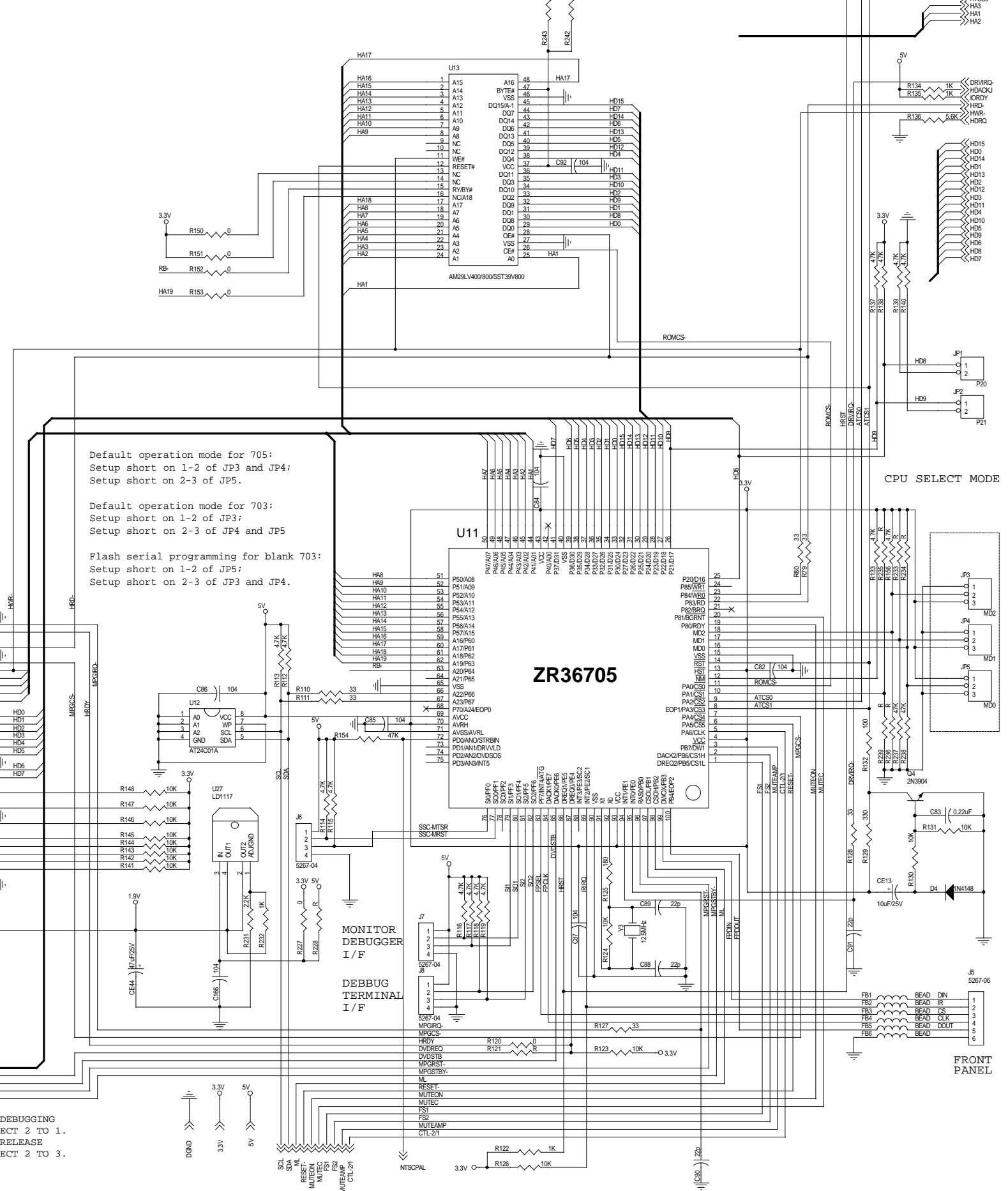
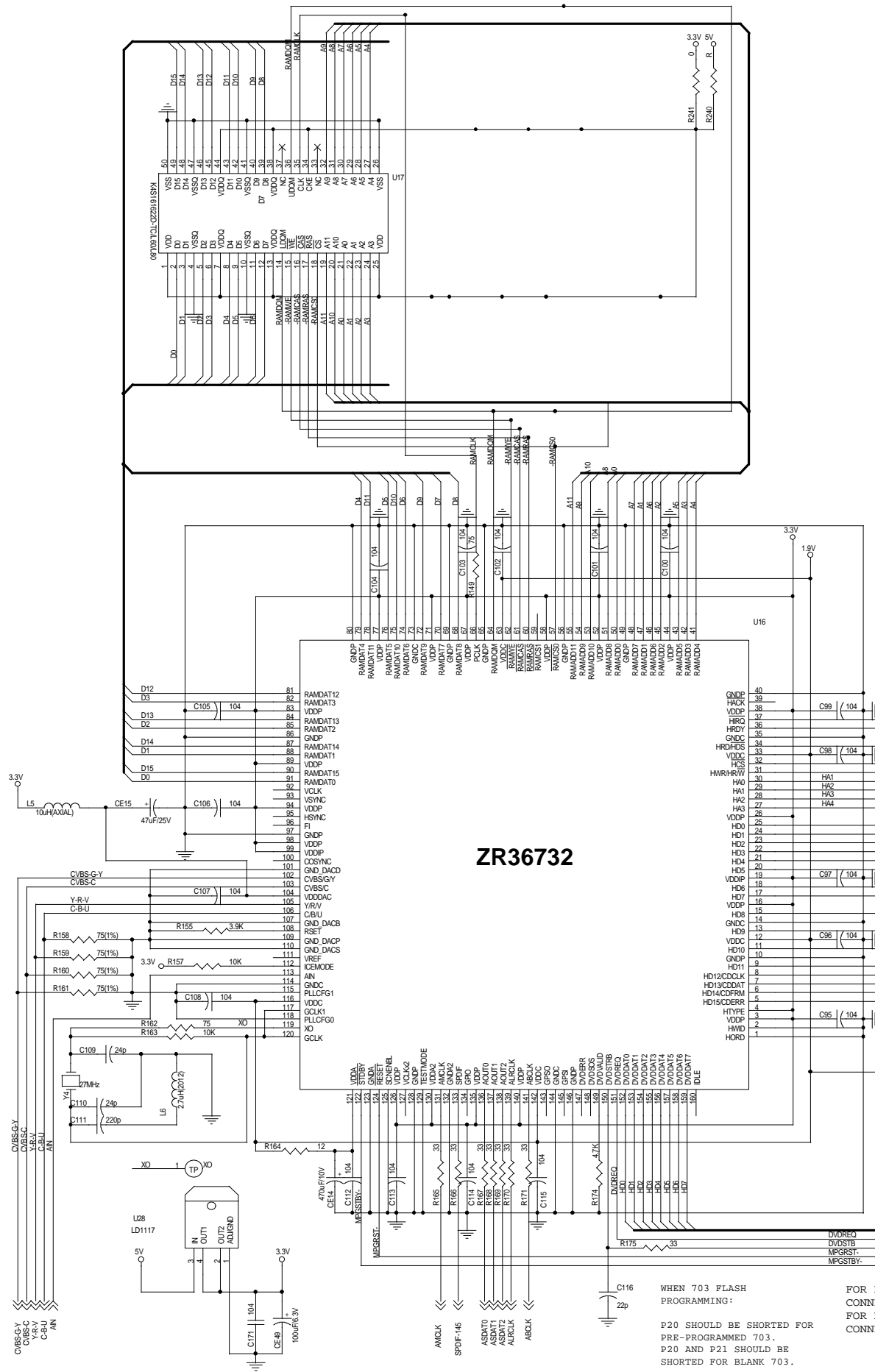
SUB-WOOFER SECTION



AV DECODER SECTION

SCHEMATIC DIAGRAMS

ONLY ONE SDRAM ASSEMBLY

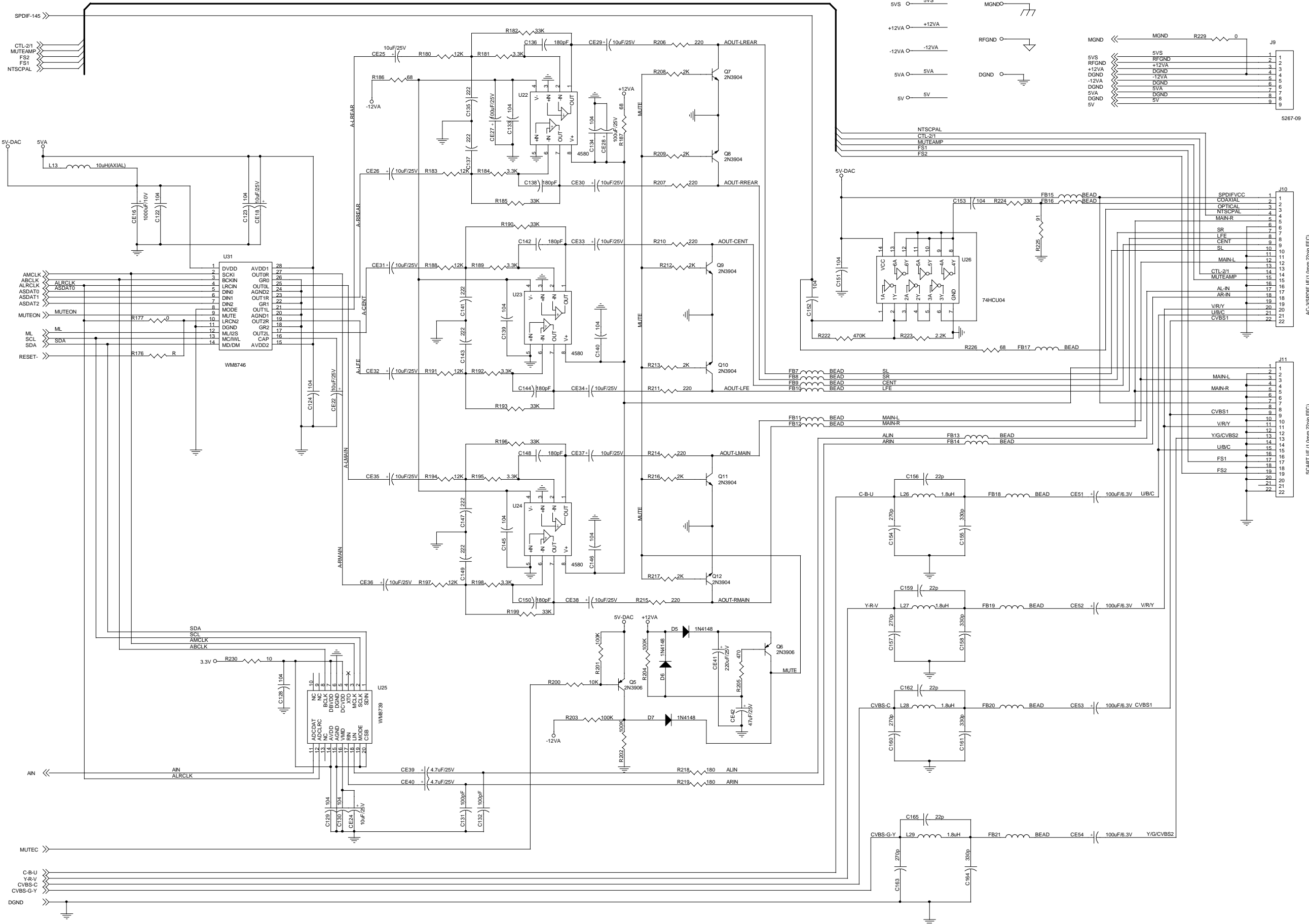


WHEN 703 FLASH PROGRAMMING:
P20 SHOULD BE SHORTED FOR PRE-PROGRAMMED 703.
P20 AND P21 SHOULD BE SHORTED FOR BLANK 703.

FOR DEBUGGING CONNECT 2 TO 1.
FOR RELEASE CONNECT 2 TO 3.

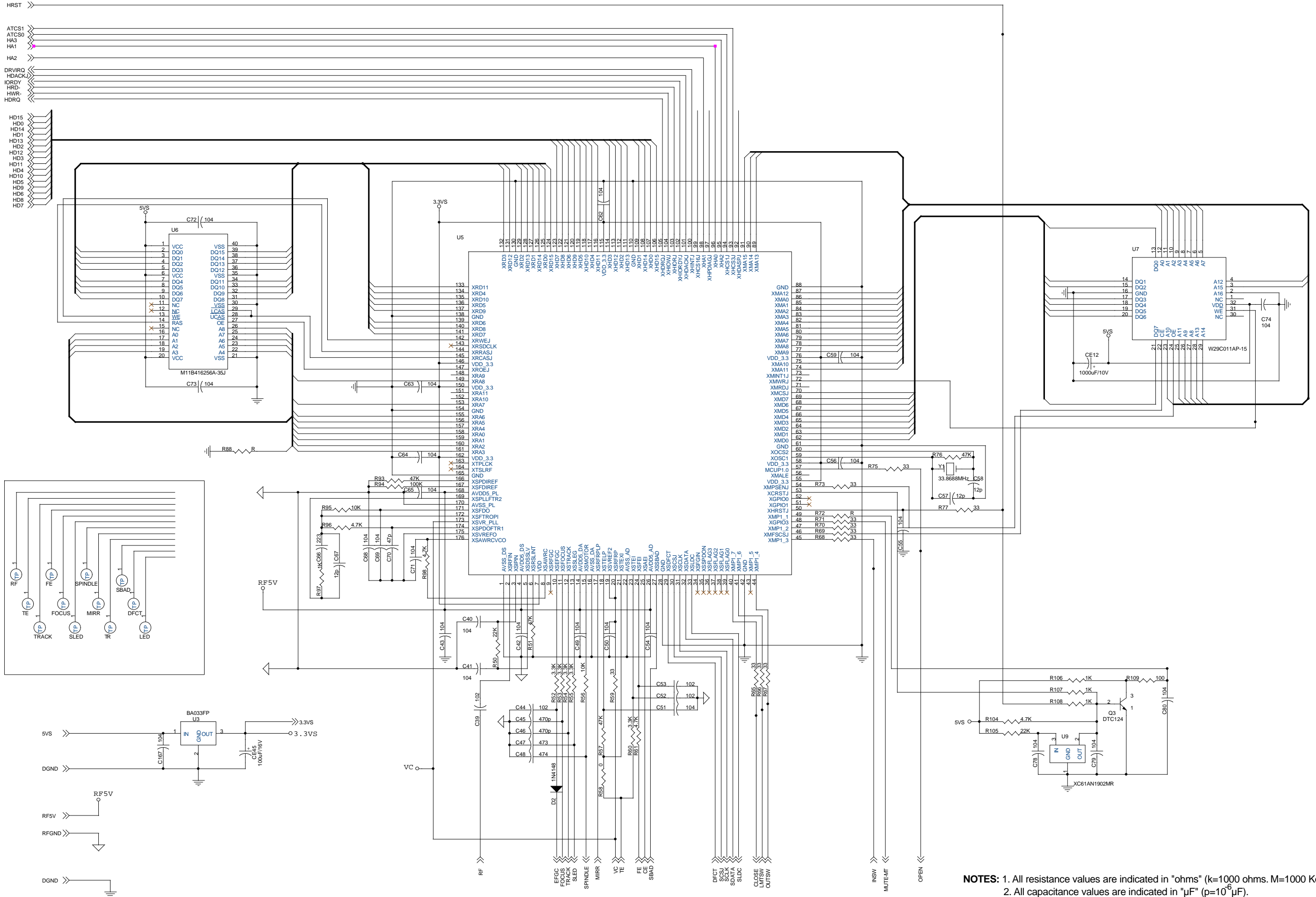
NOTES: 1. All resistance values are indicated in "ohms" (k=1000 ohms, M=1000 Kohms).
2. All capacitance values are indicated in "µF" (p=10⁻⁶µF).

AV OUTPUT SECTION



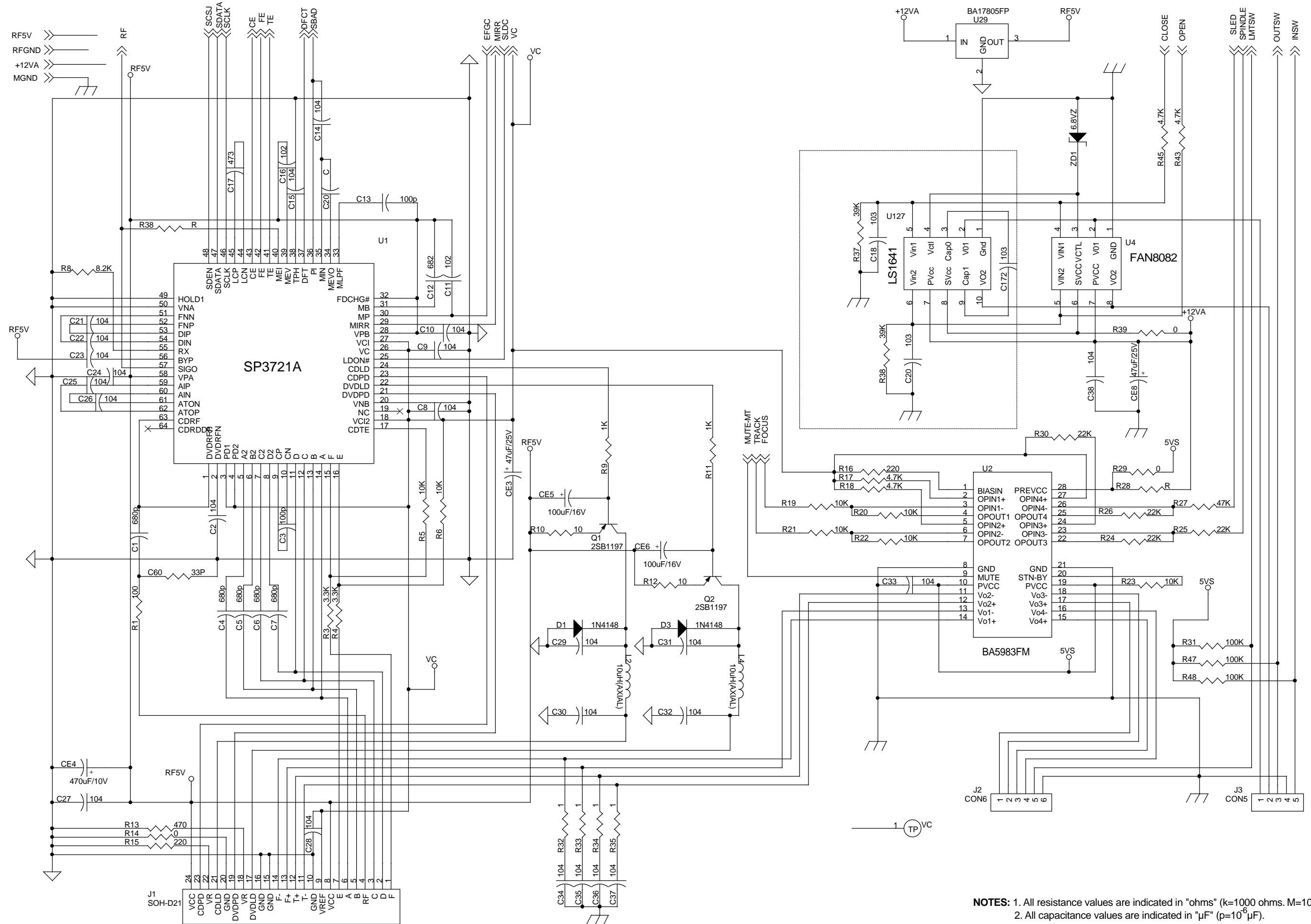
NOTES: 1. All resistance values are indicated in "ohms" (k=1000 ohms, M=1000 Kohms).
 2. All capacitance values are indicated in "µF" (p=10⁻⁶ µF).

CHANNEL DECODER & U-COM SECTION



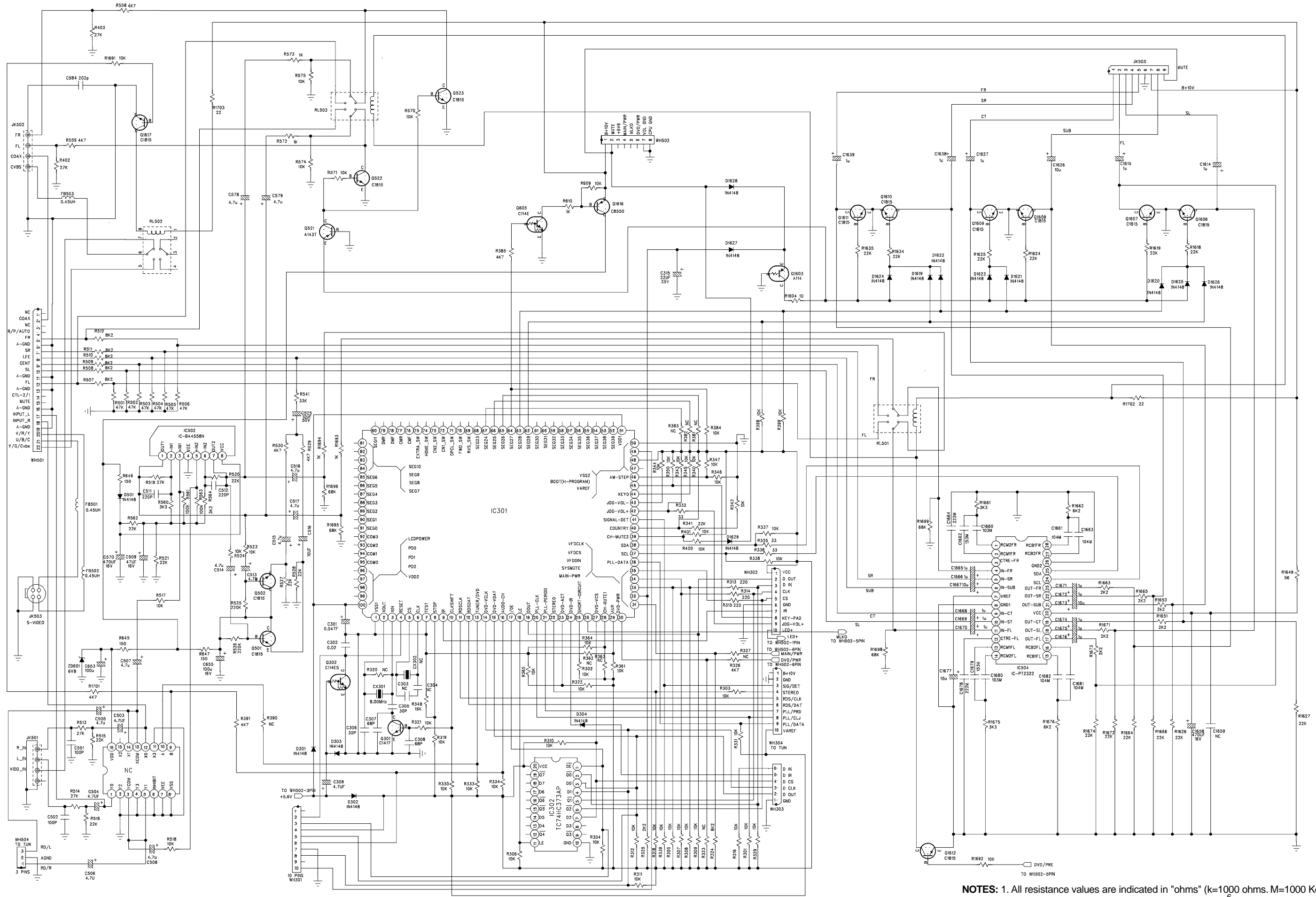
NOTES: 1. All resistance values are indicated in "ohms" (k=1000 ohms. M=1000 Kohms).
 2. All capacitance values are indicated in "μF" (p=10⁻⁶ μF).

PREAMP & MOTOR DRIVER SECTION



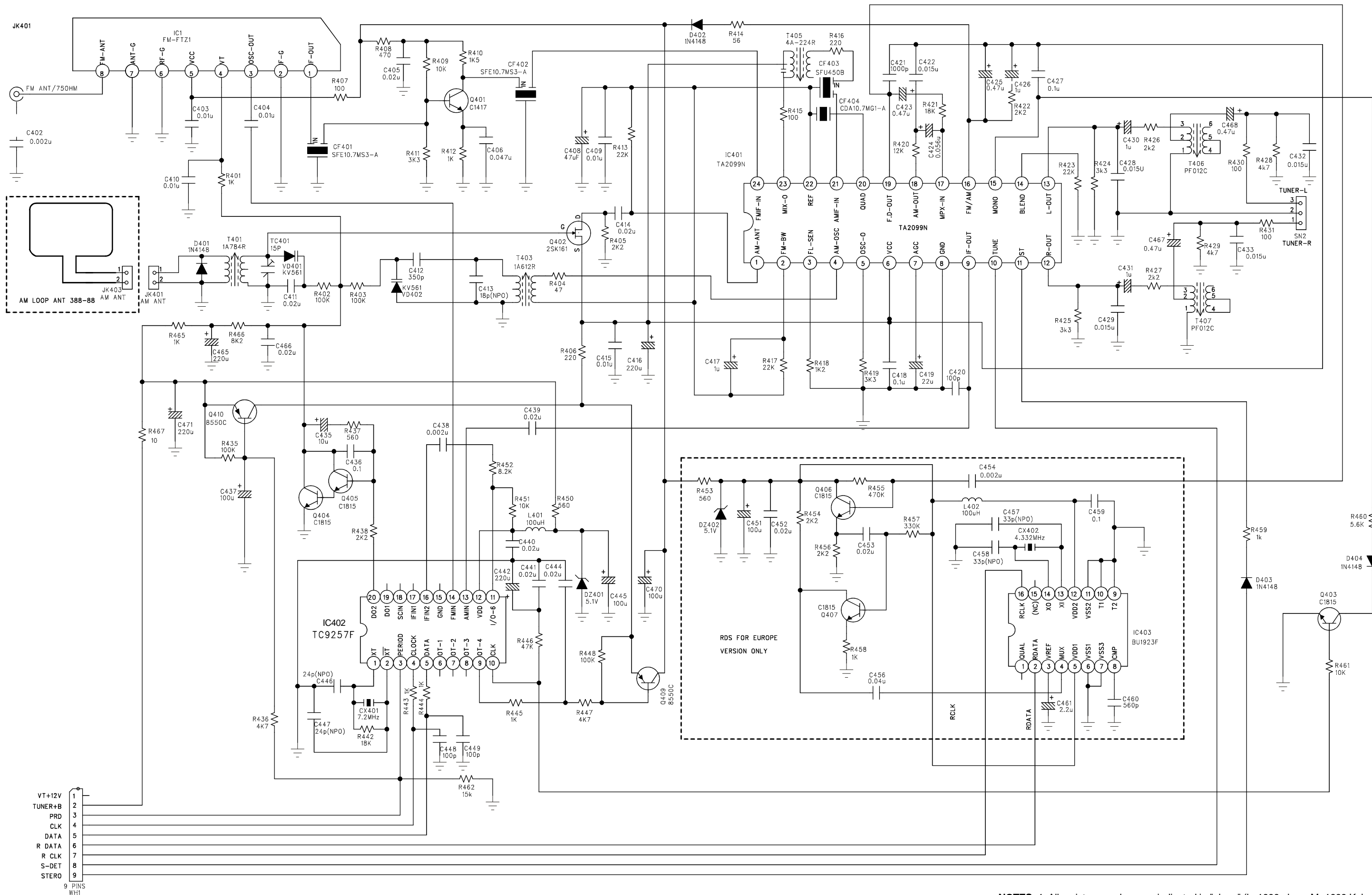
NOTES: 1. All resistance values are indicated in "ohms" (k=1000 ohms, M=1000 Kohms).
2. All capacitance values are indicated in "µF" (p=10⁻⁶ µF).

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=10⁻⁶ µF).

TUNER SECTION

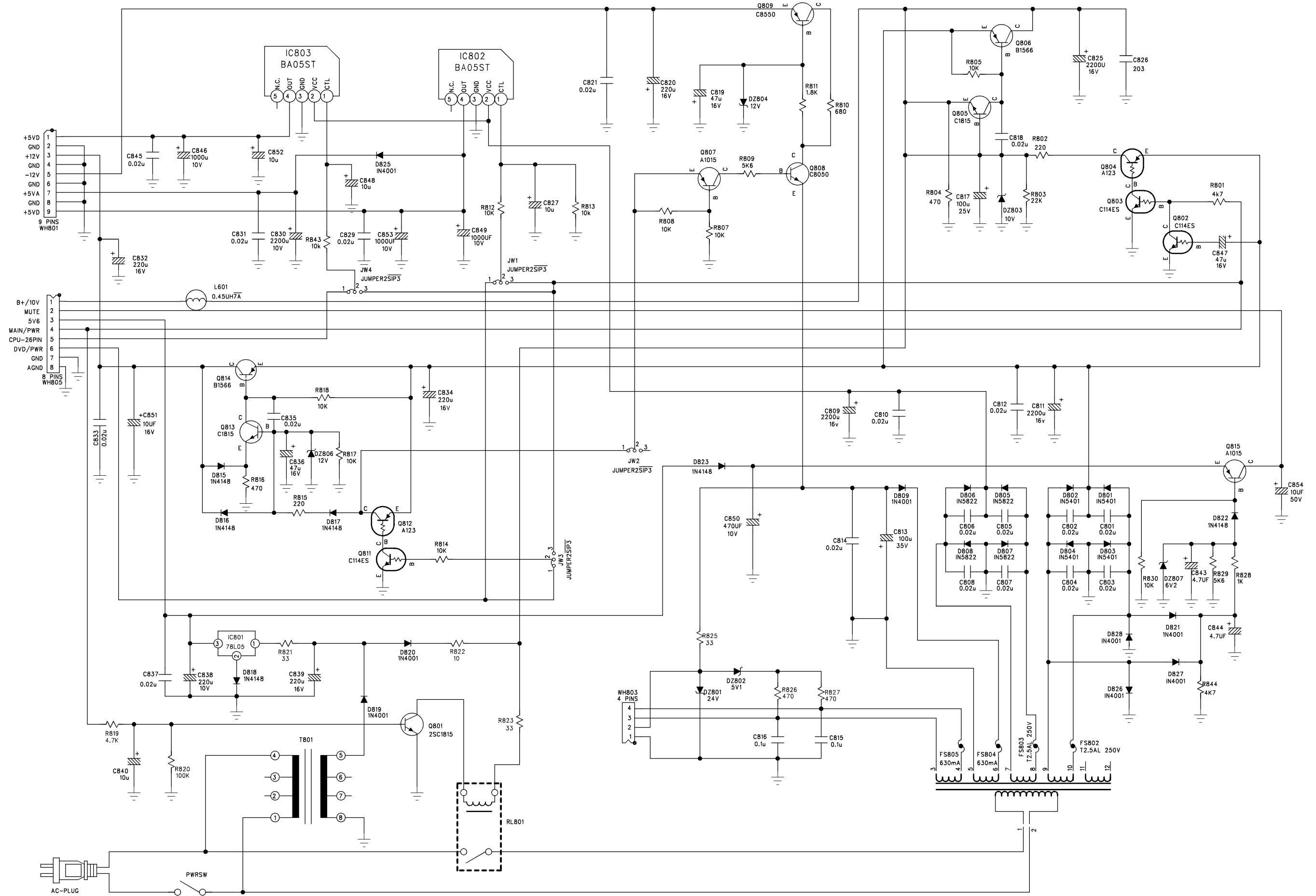


1	VT+12V
2	TUNER+B
3	PRD
4	CLK
5	DATA
6	R DATA
7	R CLK
8	S-DET
9	STERO

9 PINS
WH1

NOTES: 1. All resistance values are indicated in "ohms" (k=1000 ohms, M=1000 Kohms).
2. All capacitance values are indicated in "µF" (p=10⁻⁶ µF).

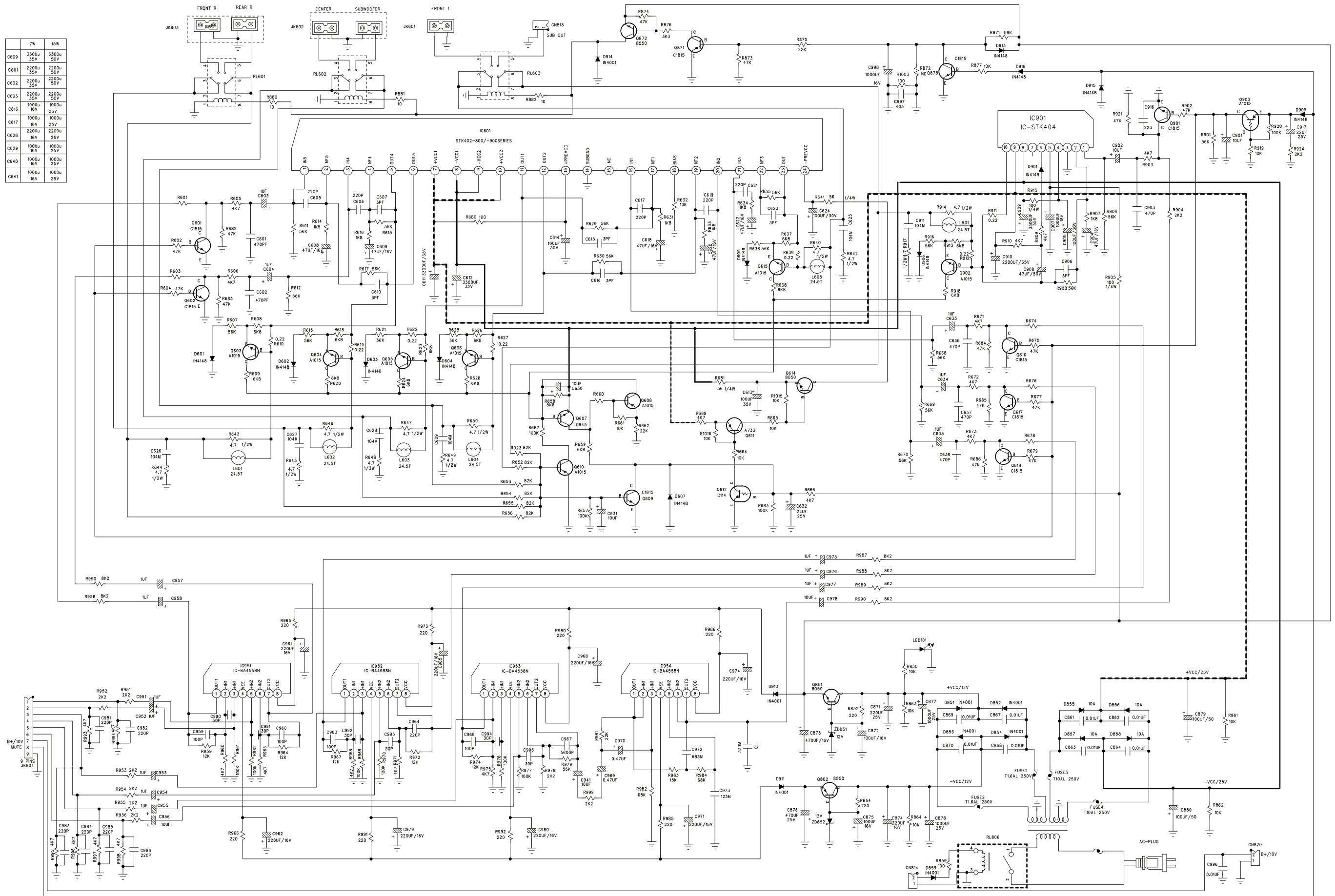
POWER SUPPLY SECTION



NOTES: 1. All resistance values are indicated in "ohms" (k=1000 ohms, M=1000 Kohms).
 2. All capacitance values are indicated in "µF" (p=10⁻⁶ µF).

POWER AMPLIFIER SECTION (FOR SUB-WOOFER)

	7W	15W
C609	3300u	3300u
	35V	50V
C601	2200u	2200u
	35V	50V
C602	2200u	2200u
	35V	50V
C603	2200u	2200u
	35V	50V
C616	1000u	1000u
	16V	25V
C617	1000u	1000u
	16V	25V
C628	2200u	2200u
	16V	25V
C629	1000u	1000u
	16V	25V
C640	1000u	1000u
	16V	25V
C641	1000u	1000u
	16V	25V



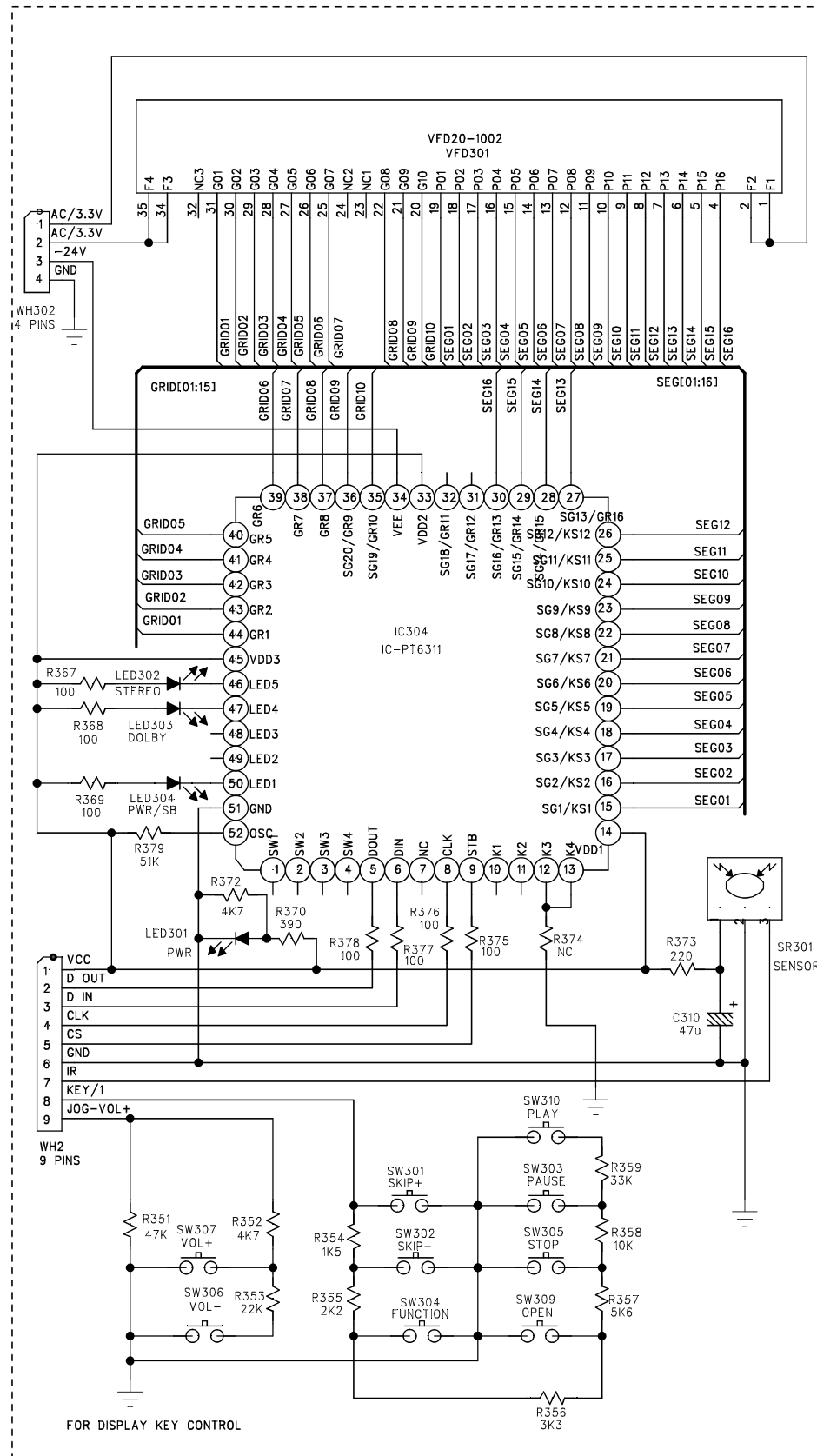
NOTES: 1. All resistance values are indicated in "ohms" (k=1000 ohms, M=1000 Kohms).
 2. All capacitance values are indicated in "µF" (p=10⁻⁶ µF).

CONTROL SECTION

	AAS	AAS	AUX IN
R303	NC	10K	
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

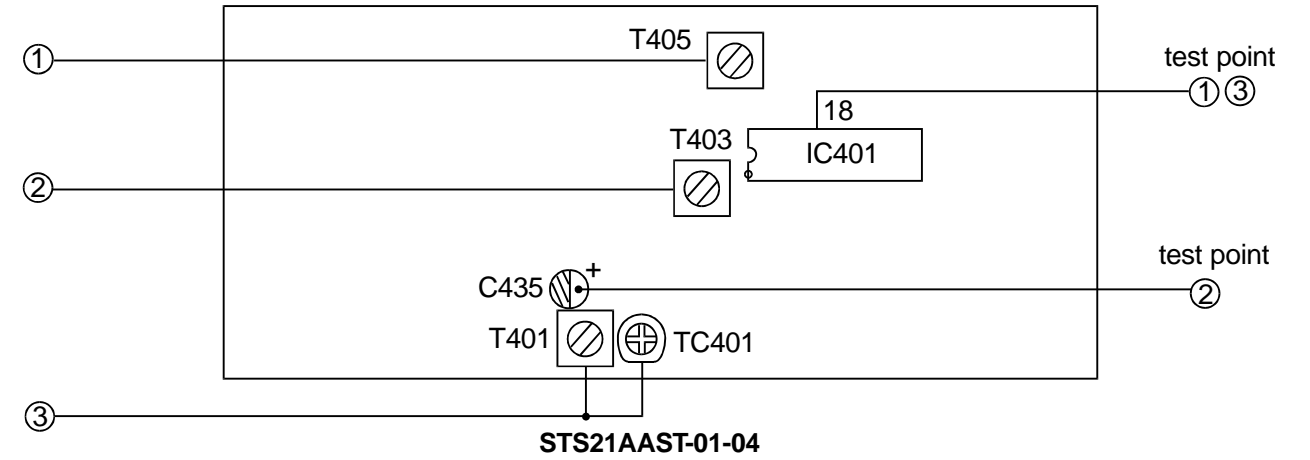
AM STEP	R347	R346
S/W CHG	47K	OPEN
ORIG STEP	47K	47K
TOG STEP	OPEN	47K



FOR DISPLAY KEY CONTROL

ALIGNMENT SET-UP PROCEDURES

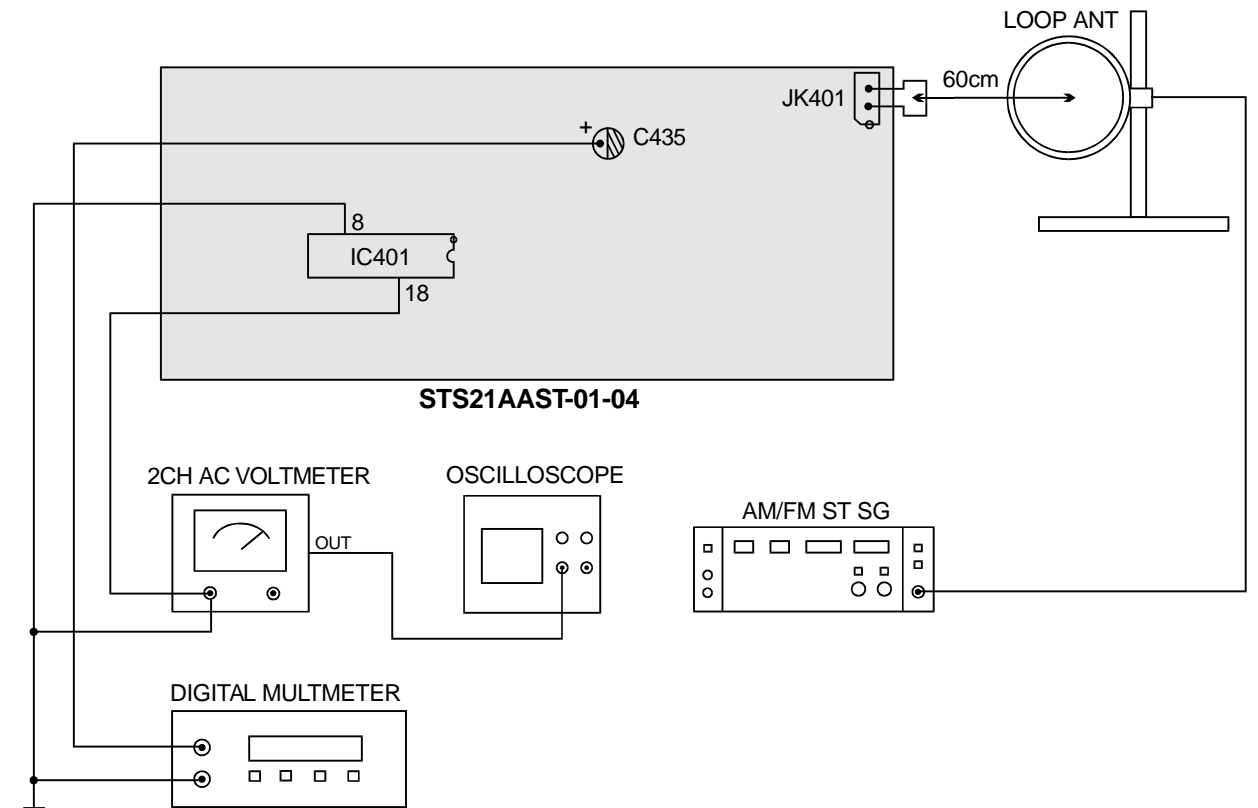
TUNER SECTION



- 1. AM IF Adjustment**
 Test point: IC401 (TA2099N)
 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) 18 PIN
 Adjustment location: T401, TC401
 T401 ----- 603kHz waveform max.
 TC401 ----- 1404kHz waveform max.

EQUIPMENT CONNECTION DIAGRAM

MW SECTION



VOLTAGE CHART

CPU & DISPLAY CONTROL 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

IC302 (TC74HC373AP)

PIN'S NUMBER	1	2	3	4	5	6	7	8	9	10
DVD PLAY	0.02	0.01	0.02	3.29	4.98	4.97	3.29	0.15	0	0
PIN'S NUMBER	11	12	13	14	15	16	17	18	19	20
DVD PLAY	4.29	0	0.15	0.15	0	0	0.15	0	0	4.99

TRANSISTOR	Q301(2SC1417)			Q302(DTC114ES)		
	E	C	B	E	C	B
DVD PLAY	0	0.24	0	0	4.21	0

IC304 (PT6311)

PIN'S NUMBER	1	2	3	4	5	6	7	8	9	10
DVD PLAY	2.18	2.09	1.95	1.94	4.33	4.99	0	4.99	4.99	2.01
PIN'S NUMBER	11	12	13	14	15	16	17	18	19	20
DVD PLAY	1.95	0	0	4.99	/	/	/	/	/	/
PIN'S NUMBER	21	22	23	24	25	26	27	28	29	30
DVD PLAY	/	/	/	/	/	/	/	/	/	/
PIN'S NUMBER	31	32	33	34	35	36	37	38	39	40
DVD PLAY	/	/	4.99	-25.10	/	/	/	/	/	/
PIN'S NUMBER	41	42	43	44	45	46	47	48	49	50
DVD PLAY	/	/	/	/	5.00	5.00	5.00	5.00	5.00	4.80
PIN'S NUMBER	51	52								
DVD PLAY	0	2.69								

POWER AMP. SECTION

TEST CONDITION: DVD PLAY

IC502 (BA4558N/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

VOLTAGE CHART - CONTINUED

IC504 (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		

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(A114)		
	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(C1815)			Q806(B1566)			Q807(A1015)		
	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(C8550)			Q811(C114ES)		
	E	C	B	E	C	B	E	C	B
DVD PLAY	18.90	18.80	18.23	11.35	11.37	12.03	0	0	2.70
TRANSISTOR	Q812(A123)			Q813(C1815)			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
TRANSISTOR	Q815(A1015)								
	E	C	B						
DVD PLAY	5.61	0	5.65						

MPEG+SERVO SECTION

TEST CONDITION: DVD PLAY

U12 (S-24C01BFS)

PIN'S NUMBER	1	2	3	4	5	6	7	8
DVD PLAY	0	0	0	0	3.75	0	0	4.94

U13 (SST39VF800A)

PIN'S NUMBER	1	2	3	4	5	6	7	8	9	10
DVD PLAY	0.70	0.50	0.60	0.70	0.60	2.80	0	2.82	0	0
PIN'S NUMBER	11	12	13	14	15	16	17	18	19	20
DVD PLAY	3.20	3.30	0	0	0	0.40	0.70	2.50	2.30	0.40
PIN'S NUMBER	21	22	23	24	25	26	27	28	29	30
DVD PLAY	0.65	1.00	1.00	1.92	1.45	0	0	1.26	1.28	1.44
PIN'S NUMBER	31	32	33	34	35	36	37	38	39	40
DVD PLAY	1.58	0.64	1.50	1.22	1.25	1.08	3.30	0	0.74	0.71
PIN'S NUMBER	41	42	43	44	45	46	47	48		
DVD PLAY	0	1.04	0.81	2.04	1.70	0	3.30	0.19		

VOLTAGE CHART - CONTINUED

U16 (ZR36732PQC)

PIN'S NUMBER	1	2	3	4	5	6	7	8	9	10
DVD PLAY	0	0.00	3.30	3.30	3.27	3.27	3.27	3.27	2.16	0
PIN'S NUMBER	11	12	13	14	15	16	17	18	19	20
DVD PLAY	3.27	1.85	3.27	0	3.27	3.30	2.10	1.06	3.31	0.82
PIN'S NUMBER	21	22	23	24	25	26	27	28	29	30
DVD PLAY	1.63	1.40	1.39	1.23	1.49	3.30	1.15	1.21	1.78	1.54
PIN'S NUMBER	31	32	33	34	35	36	37	38	39	40
DVD PLAY	3.22	3.30	1.85	1.24	0	0.35	3.25	3.30	3.21	0
PIN'S NUMBER	41	42	43	44	45	46	47	48	49	50
DVD PLAY	0.49	0.54	0.53	3.30	0.44	0.45	0.35	0.49	0	0.37
PIN'S NUMBER	51	52	53	54	55	56	57	58	59	60
DVD PLAY	0.27	3.30	2.12	0.35	0.51	0	3.04	3.30	3.14	3.16
PIN'S NUMBER	61	62	63	64	65	66	67	68	69	70
DVD PLAY	3.23	3.19	1.85	0	0	1.75	3.30	1.71	0	1.35
PIN'S NUMBER	71	72	73	74	75	76	77	78	79	80
DVD PLAY	3.31	1.40	0	1.40	1.48	1.27	3.31	1.40	1.61	0
PIN'S NUMBER	81	82	83	84	85	86	87	88	89	90
DVD PLAY	1.63	1.53	3.29	0.52	1.71	0	2.30	1.71	3.29	0.64
PIN'S NUMBER	91	92	93	94	95	96	97	98	99	100
DVD PLAY	1.42	1.66	0.07	3.28	3.04	1.64	0	3.28	3.24	0.26
PIN'S NUMBER	101	102	103	104	105	106	107	108	109	110
DVD PLAY	0.77	1.25	1.03	3.28	1.12	1.47	0	1.22	0	0
PIN'S NUMBER	111	112	113	114	115	116	117	118	119	120
DVD PLAY	0	3.28	0.29	0	0	1.82	1.59	0	1.61	1.59
PIN'S NUMBER	121	122	123	124	125	126	127	128	129	130
DVD PLAY	1.82	3.29	0	3.29	0	3.28	1.70	0	0	3.29
PIN'S NUMBER	131	132	133	134	135	136	137	138	139	140
DVD PLAY	1.63	0	0	0	2.90	3.29	1.07	0	0	1.04
PIN'S NUMBER	141	142	143	144	145	146	147	148	149	150
DVD PLAY	1.64	3.29	1.82	0	0	0.50	0	0.53	0.53	0
PIN'S NUMBER	151	152	153	154	155	156	157	158	159	160
DVD PLAY	2.57	0	0	2.20	1.96	1.65	2.33	0	1.65	0

U11 (ZR36705TQC)

PIN'S NUMBER	1	2	3	4	5	6	7	8	9	10
DVD PLAY	0	0	3.29	3.29	3.29	3.38	3.29	3.30	3.29	3.29
PIN'S NUMBER	11	12	13	14	15	16	17	18	19	20
DVD PLAY	1.45	3.29	3.29	3.29	0	0	0	0	3.29	3.29
PIN'S NUMBER	21	22	23	24	25	26	27	28	29	30
DVD PLAY	2.86	0.67	3.30	3.29	3.86	3.86	5.07	5.07	3.37	3.20
PIN'S NUMBER	31	32	33	34	35	36	37	38	39	40
DVD PLAY	3.15	3.43	3.32	4.67	2.35	3.43	1.85	1.93	3.16	0
PIN'S NUMBER	41	42	43	44	45	46	47	48	49	50
DVD PLAY	3.80	2.40	3.29	1.80	0.06	1.22	0.05	0	0	0
PIN'S NUMBER	51	52	53	54	55	56	57	58	59	60
DVD PLAY	0	0	0	0	0	0	0	0	1.60	2.53
PIN'S NUMBER	61	62	63	64	65	66	67	68	69	70
DVD PLAY	3.29	3.29	3.29	3.29	0	5.04	0.04	3.29	5.05	3.29
PIN'S NUMBER	71	72	73	74	75	76	77	78	79	80
DVD PLAY	0	3.29	3.11	3.11	2.03	5.05	5.05	3.29	5.05	5.05
PIN'S NUMBER	81	82	83	84	85	86	87	88	89	90
DVD PLAY	5.05	3.30	3.29	3.29	3.27	0.53	2.91	3.63	0.00	1.43
PIN'S NUMBER	91	92	93	94	95	96	97	98	99	100
DVD PLAY	1.50	3.29	0.15	3.29	3.29	3.29	3.29	3.29	4.32	0.02

VOLTAGE CHART - CONTINUED

U17 (K4S161622D)

PIN'S NUMBER	1	2	3	4	5	6	7	8	9	10
DVD PLAY	3.30	1.45	0.70	0	0.77	0.75	3.30	2.10	0.82	0
PIN'S NUMBER	11	12	13	14	15	16	17	18	19	20
DVD PLAY	0.78	0.90	3.30	0	3.19	3.23	3.16	3.08	0.52	1.74
PIN'S NUMBER	21	22	23	24	25	26	27	28	29	30
DVD PLAY	0	0	0.45	0	3.30	0	0.55	0.55	0.53	0.55
PIN'S NUMBER	31	32	33	34	35	36	37	38	39	40
DVD PLAY	0.26	0.30	0	3.30	1.73	0	0	3.30	1.45	1.23
PIN'S NUMBER	41	42	43	44	45	46	47	48	49	50
DVD PLAY	0	1.20	1.15	3.30	1.65	1.16	0	1.16	0.86	0

U25 (WM8739EDS)

PIN'S NUMBER	1	2	3	4	5	6	7	8	9	10
DVD PLAY	3.76	0	1.68	0.25	3.15	0	3.15	1.65	0.37	0.69
PIN'S NUMBER	11	12	13	14	15	16	17	18	19	20
DVD PLAY	0.97	1.65	0	3.15	0	1.56	1.56	1.57	0	0

U31 (WM8746EDS)

PIN'S NUMBER	1	2	3	4	5	6	7	8	9	10
DVD PLAY	4.32	1.68	1.65	1.65	1.66	1.65	1.65	0	0	1.65
PIN'S NUMBER	11	12	13	14	15	16	17	18	19	20
DVD PLAY	0	3.30	0	3.75	4.35	2.17	2.18	0	2.18	0
PIN'S NUMBER	21	22	23	24	25	26	27	28		
DVD PLAY	2.18	0	2.18	0	2.18	0	2.18	4		

U22 (NJM4580E)

PIN'S NUMBER	1	2	3	4	5	6	7	8
DVD PLAY	0	0	0	10.43	0	0	0	11.23

U23 (NJM4580E)

PIN'S NUMBER	1	2	3	4	5	6	7	8
DVD PLAY	0	0	0	10.43	0	0	0	11.23

U24 (NJM4580E)

PIN'S NUMBER	1	2	3	4	5	6	7	8
DVD PLAY	0	0	0	10.43	0	0	0	11.23

U26 (74HCU04AF)

PIN'S NUMBER	1	2	3	4	5	6	7
DVD PLAY	2.03	2.10	2.10	2.16	2.16	2.15	0
PIN'S NUMBER	8	9	10	11	12	13	14
DVD PLAY	3.16	2.15	2.16	2.15	2.16	2.15	4.32

U7 (W29EE512P-70)

PIN'S NUMBER	1	2	3	4	5	6	7	8
DVD PLAY	0	0	1.65	1.88	2.10	2.09	1.59	1.75
PIN'S NUMBER	9	10	11	12	13	14	15	16
DVD PLAY	2.00	1.96	1.97	1.96	1.61	1.86	1.69	0
PIN'S NUMBER	17	18	19	20	21	22	23	24
DVD PLAY	1.43	1.65	2.00	0	1.76	0	1.80	1.70
PIN'S NUMBER	25	26	27	28	29	30	31	32
DVD PLAY	1.25	1.81	1.77	0.70	2.24	0	3.33	4.91

VOLTAGE CHART - CONTINUED

U1 (M5703T/SP3721A)

PIN'S NUMBER	1	2	3	4	5	6	7	8
DVD PLAY	3.56	3.56	2.51	2.51	3.50	3.50	3.50	3.50
PIN'S NUMBER	9	10	11	12	13	14	15	16
DVD PLAY	3.52	0	0	2.54	2.54	2.57	3.01	2.53
PIN'S NUMBER	17	18	19	20	21	22	23	24
DVD PLAY	4.29	2.51	0	0	0.17	3.33	0	5.00
PIN'S NUMBER	25	26	27	28	29	30	31	32
DVD PLAY	0	2.51	2.51	5.01	0.12	2.73	2.56	5.01
PIN'S NUMBER	33	34	35	36	37	38	39	40
DVD PLAY	0	4.24	0	3.20	0	3.34	4.95	3.23
PIN'S NUMBER	41	42	43	44	45	46	47	48
DVD PLAY	2.52	2.49	1.83	4.28	3.96	3.33	0	0
PIN'S NUMBER	49	50	51	52	53	54	55	56
DVD PLAY	0	0	2.50	2.52	0	3.47	0.59	2.34
PIN'S NUMBER	57	58	59	60	61	62	63	64
DVD PLAY	2.98	5.01	3.53	3.53	3.80	3.80	3.54	1.41

U5 (M5705)

PIN'S NUMBER	1	2	3	4	5	6	7	8	9	10
DVD PLAY	0	2.50	2.48	5.01	2.49	2.51	3.34	1.26	2.49	3.12
PIN'S NUMBER	11	12	13	14	15	16	17	18	19	20
DVD PLAY	2.56	2.48	2.51	5.01	2.11	0	0.10	2.51	2.51	2.51
PIN'S NUMBER	21	22	23	24	25	26	27	28	29	30
DVD PLAY	2.52	0	2.52	2.49	1.95	5.01	3.21	0	0	0
PIN'S NUMBER	31	32	33	34	35	36	37	38	39	40
DVD PLAY	3.34	0	0	2.62	3.34	0	0	0	3.34	1.65
PIN'S NUMBER	41	42	43	44	45	46	47	48	49	50
DVD PLAY	4.86	0	0	4.86	0	0	2.62	3.33	2.59	3.31
PIN'S NUMBER	51	52	53	54	55	56	57	58	59	60
DVD PLAY	2.60	2.60	0	0	0	2.59	1.66	0	0	0
PIN'S NUMBER	61	62	63	64	65	66	67	68	69	70
DVD PLAY	0	1.59	1.89	1.72	0.22	1.70	2.01	2.01	1.76	2.62
PIN'S NUMBER	71	72	73	74	75	76	77	78	79	80
DVD PLAY	2.59	0	0	0	1.78	3.34	1.82	1.82	2.14	2.10
PIN'S NUMBER	81	82	83	84	85	86	87	88	89	90
DVD PLAY	1.51	1.75	2.00	1.97	1.97	1.98	1.91	0	0.60	2.23
PIN'S NUMBER	91	92	93	94	95	96	97	98	99	100
DVD PLAY	1.63	2.60	3.30	3.09	1.05	1.53	2.60	1.90	0.10	0
PIN'S NUMBER	101	102	103	104	105	106	107	108	109	110
DVD PLAY	4.09	3.99	1.25	0	0	1.71	1.35	0	1.58	0
PIN'S NUMBER	111	112	113	114	115	116	117	118	119	120
DVD PLAY	0.88	1.26	0.75	1.30	3.34	0	1.68	0	0.99	0.66
PIN'S NUMBER	121	122	123	124	125	126	127	128	129	130
DVD PLAY	0	0	0	0	0	1.89	1.90	0	1.81	0
PIN'S NUMBER	131	132	133	134	135	136	137	138	139	140
DVD PLAY	1.81	1.58	0	1.83	0	1.94	1.89	0	0	0
PIN'S NUMBER	141	142	143	144	145	146	147	148	149	150
DVD PLAY	0	0	1.70	0	3.09	3.34	0	0	0.30	0
PIN'S NUMBER	151	152	153	154	155	156	157	158	159	160
DVD PLAY	0	0	0	0	0.25	0.20	0	0	0	0
PIN'S NUMBER	161	162	163	164	165	166	167	168	169	170
DVD PLAY	0	3.34	0.12	0.11	0	2.51	2.51	0	2.68	0
PIN'S NUMBER	171	172	173	174	175	176				
DVD PLAY	2.51	2.51	2.51	2.51	2.51	1.75				

VOLTAGE CHART - CONTINUED

U3 (BA033FP)

PIN'S NUMBER	1	2	3
DVD PLAY	4.95	0	3.35

U9 (XC61AN1902MR)

PIN'S NUMBER	1	2	3
DVD PLAY	4.88	3.47	0

U2 (BA5983FM)

PIN'S NUMBER	1	2	3	4	5	6	7	8	9	10
DVD PLAY	2.49	2.51	2.51	2.46	2.51	0	2.53	0	3.32	4.88
PIN'S NUMBER	11	12	13	14	15	16	17	18	19	20
DVD PLAY	2.40	2.53	2.51	2.41	2.24	2.08	3.52	0.76	4.88	3.68
PIN'S NUMBER	21	22	23	24	25	26	27	28		
DVD PLAY	0	2.84	2.51	2.51	2.48	2.51	2.51	4.90		

U29 (BA17805FP)

PIN'S NUMBER	1	2	3
DVD PLAY	11.44	0	5.02

U4 (FAN8082)

PIN'S NUMBER	1	2	3	4	5	6	7	8
DVD PLAY	0	0.37	0.19	1.44	1.44	12.16	12.17	0.37

U27 (LD1117S)

PIN'S NUMBER	1	2	3	4
DVD PLAY	1.85	1.85	3.31	0.59

U28 (LD1117S33C)

PIN'S NUMBER	1	2	3	4
DVD PLAY	0	3.30	4.95	3.30

U6 (M11B416256A-35J)

PIN'S NUMBER	1	2	3	4	5	6	7	8	9	10
DVD PLAY	4.94	1.54	1.54	1.10	1.30	4.95	0.80	0.56	0.65	0.54
PIN'S NUMBER	11	12	13	14	15	16	17	18	19	20
DVD PLAY	0	0	3.33	3.31	0	0.10	0.20	0.11	0.15	4.94
PIN'S NUMBER	21	22	23	24	25	26	27	28	29	30
DVD PLAY	0	0.24	0.25	0.30	0.23	0.33	0.22	3.18	3.21	0
PIN'S NUMBER	31	32	33	34	35	36	37	38	39	40
DVD PLAY	1.97	1.94	1.94	1.95	0	1.83	1.85	0	1.93	0

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	0.00	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

VOLTAGE CHART - CONTINUED

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)

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	2.25

SUB-WOOFER PORTION TEST CONDITION: DVD PLAY

IC601 (STK402)

PIN'S NUMBER	1	2	3	4	5	6	7	8
	-0.16	-0.17	-0.16	-0.17	0	0	30.50	-30.50
PIN'S NUMBER	9	10	11	12	13	14	15	16
	-30.50	30.30	0	0	27.30	0	-26.90	-0.16
PIN'S NUMBER	17	18	19	20	21	22	23	24
	-0.16	-25.50	-0.16	-0.16	-0.16	-0.16	0	-26.90

IC901 (STK404)

PIN'S NUMBER	1	2	3	4	5	6	7	8	9	10
	0.15	0.15	0	-30.30	12.04	1.20	-1.05	-30.50	30.50	0

IC951 (BA4558N)

PIN'S NUMBER	1	2	3	4	5	6	7	8
	0	0	0	-10.60	0	0	0	10.40

IC952 (BA4558N)

PIN'S NUMBER	1	2	3	4	5	6	7	8
	0	0	0	-10.55	0	0	0	10.43

IC953 (BA4558N)

PIN'S NUMBER	1	2	3	4	5	6	7	8
	0	0	0	-10.70	0	0	0	10.43

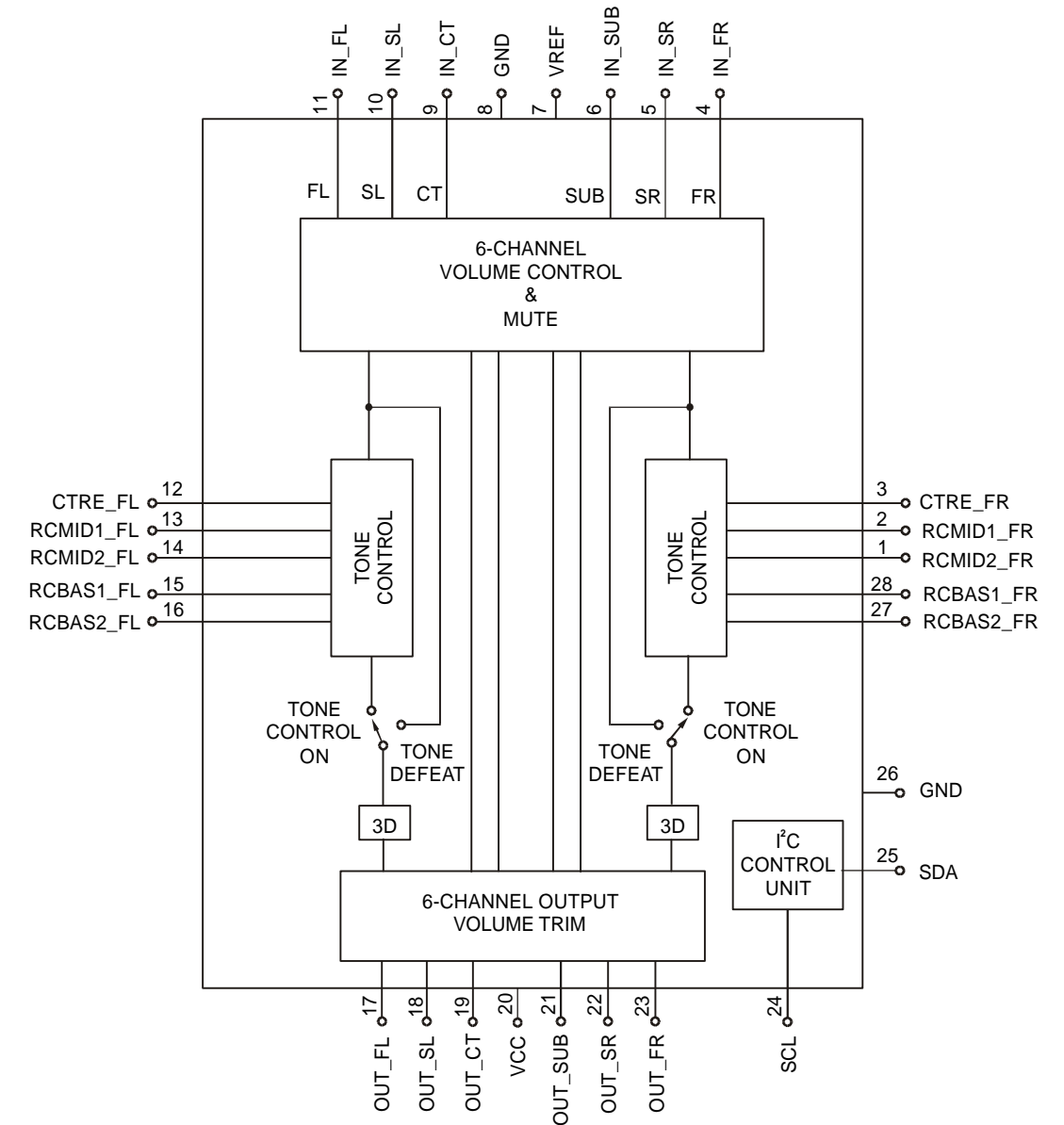
IC954 (BA4558N)

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	0.14	0.14	0	10.72	0.15	0.15	0.15	10.43

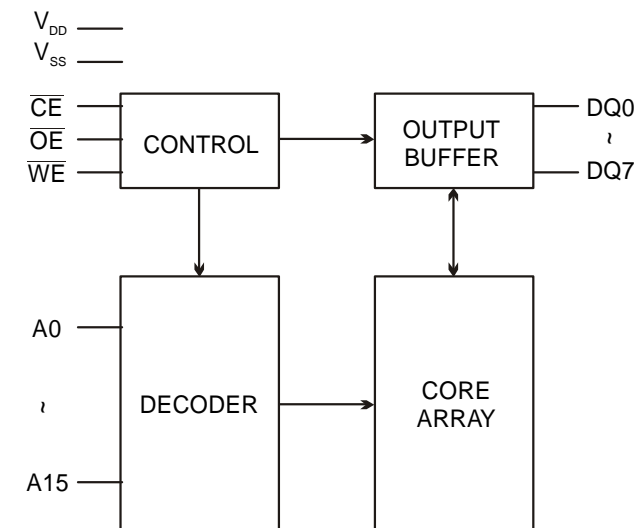
TRANSISTOR	Q851(8050)			Q802(8550)		
	E	C	B	E	C	N
	11.74	14.36	12.42	-12.05	-15.74	-12.68

IC BLOCK DIAGRAMS & IC PINS DESCRIPTION

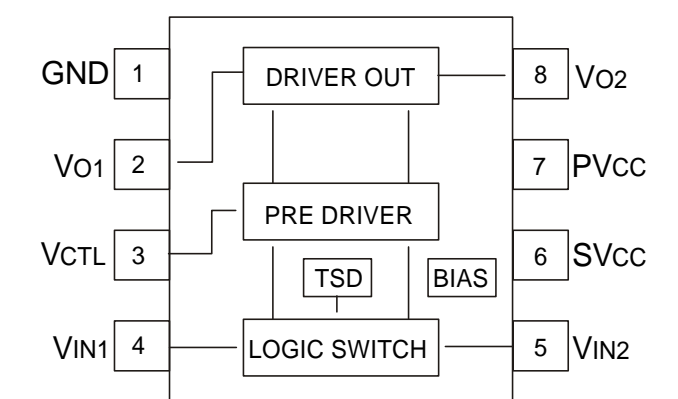
IC504 PT2322-S



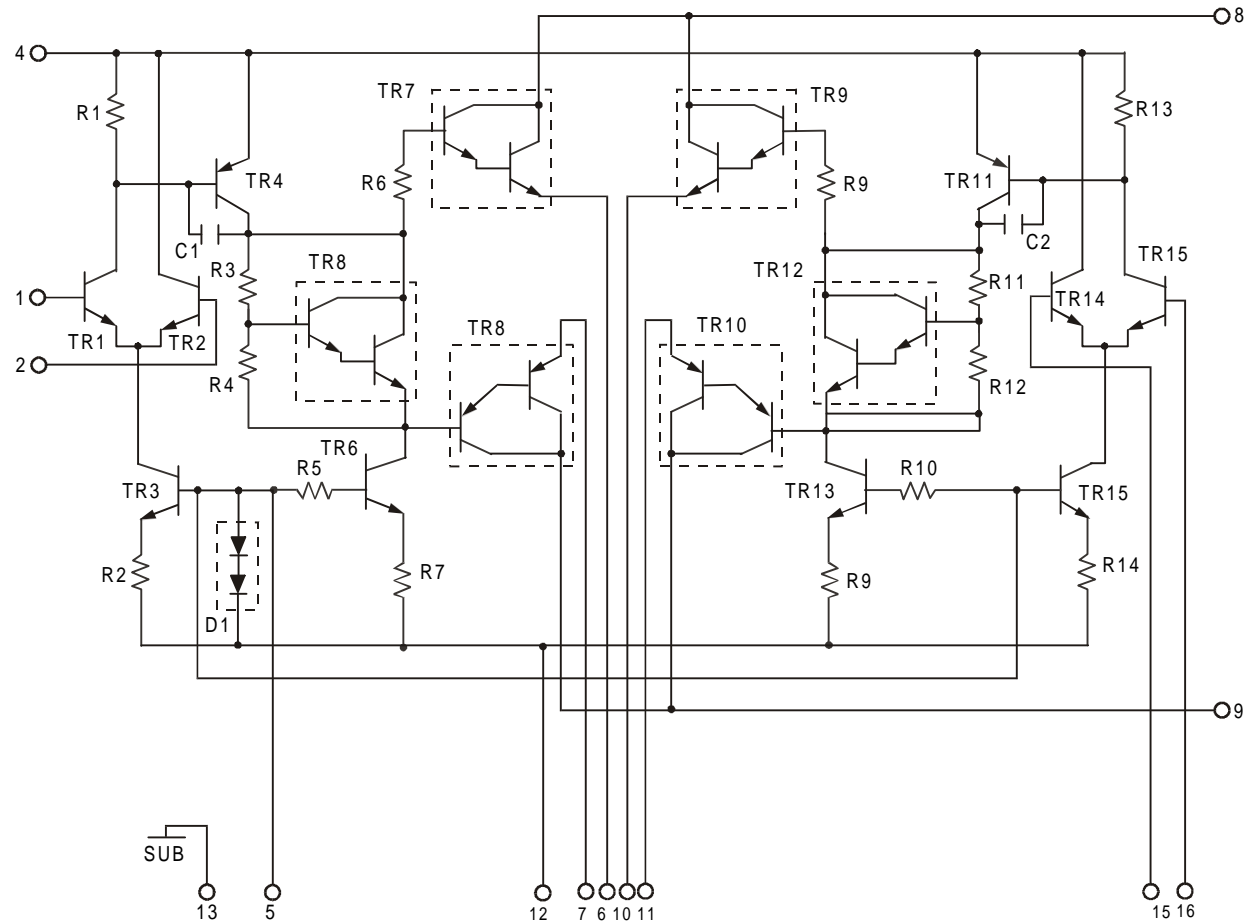
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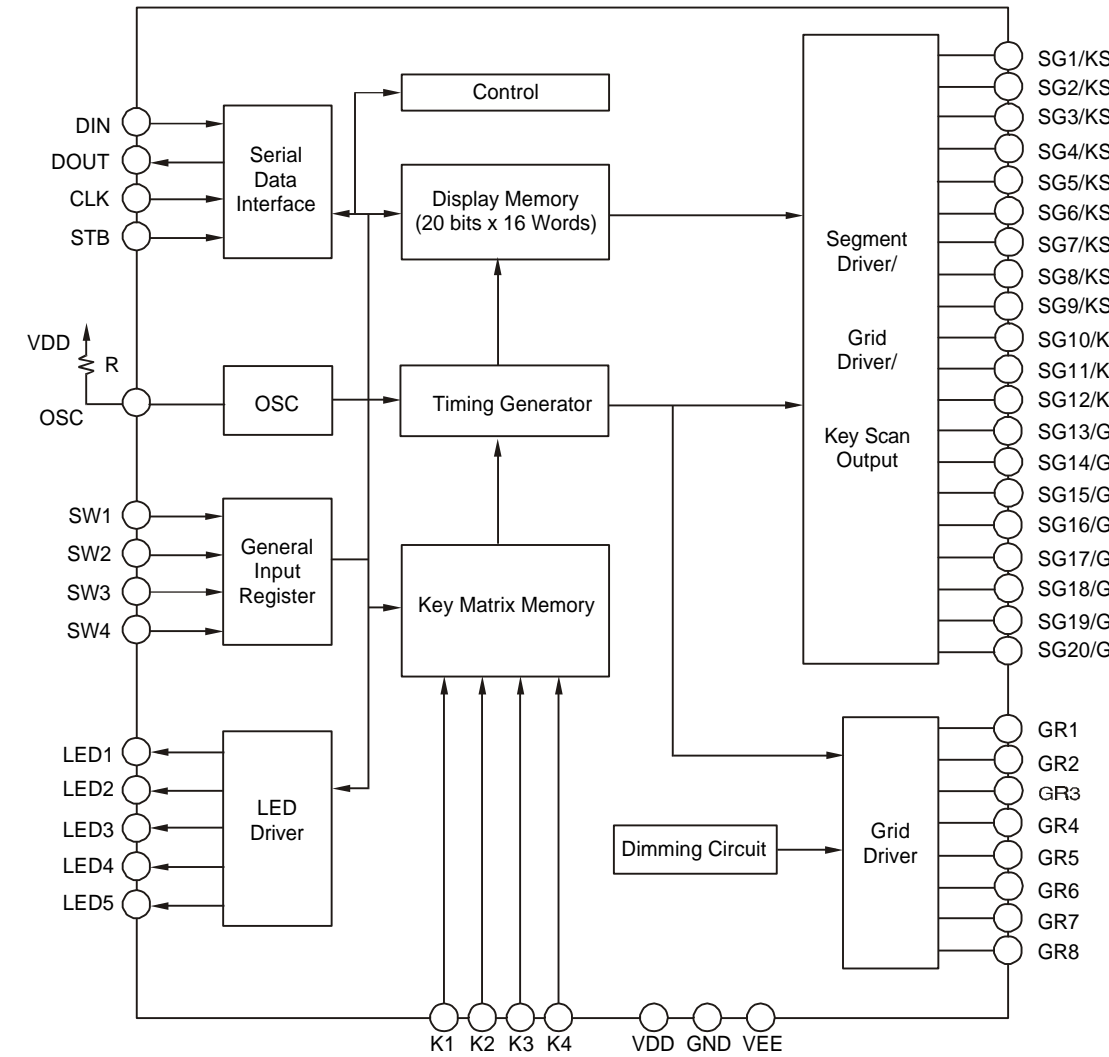
U4 FAN8082



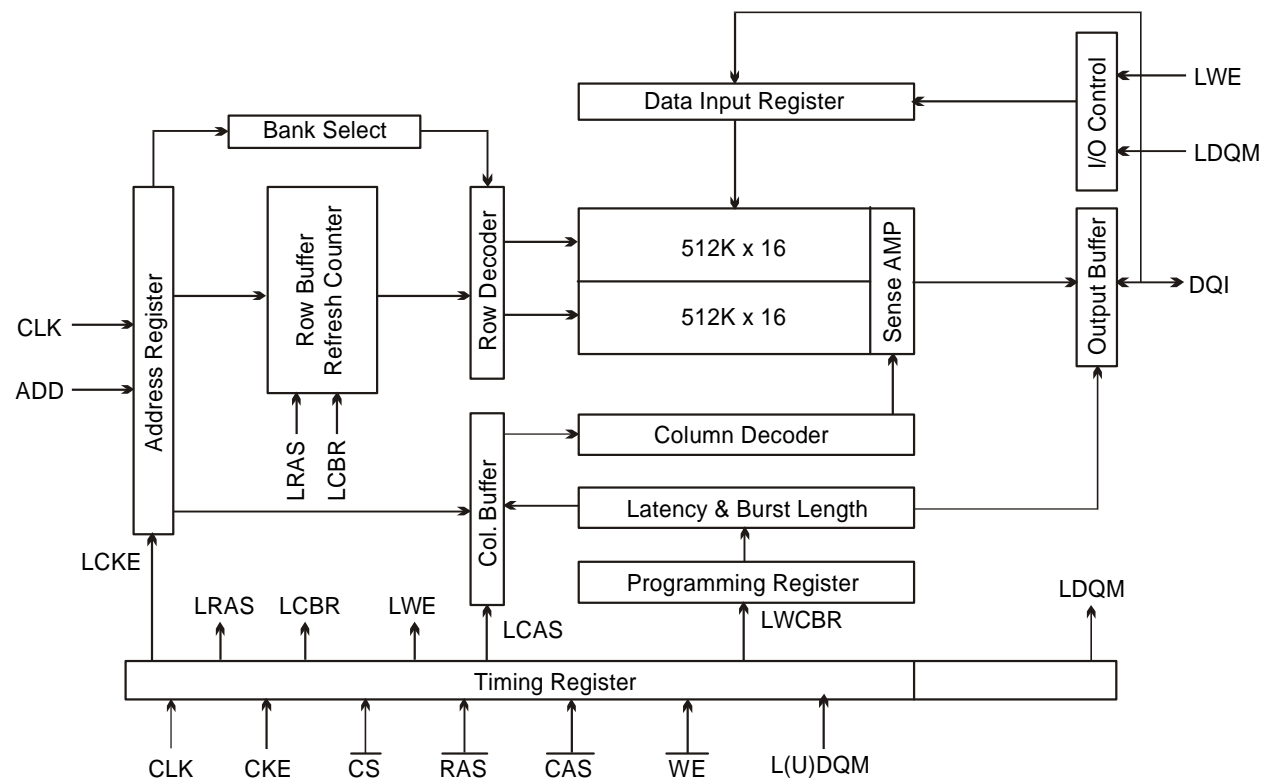
IC601 STK402



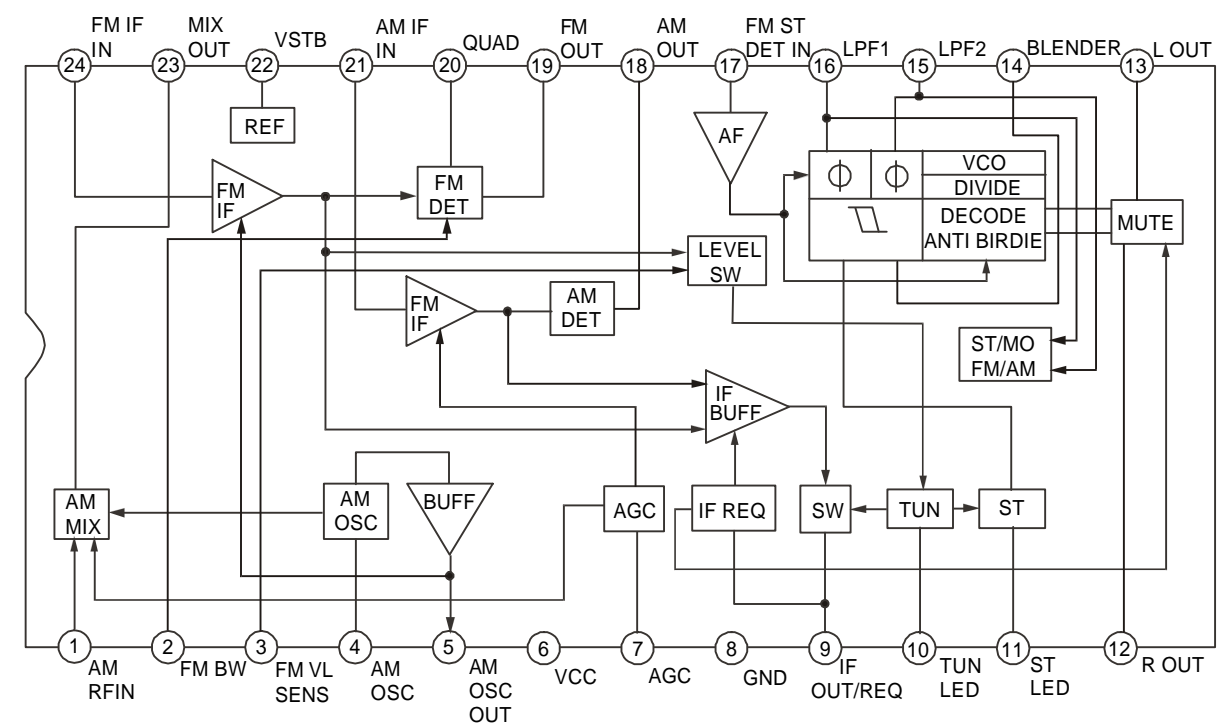
IC304 PT6311



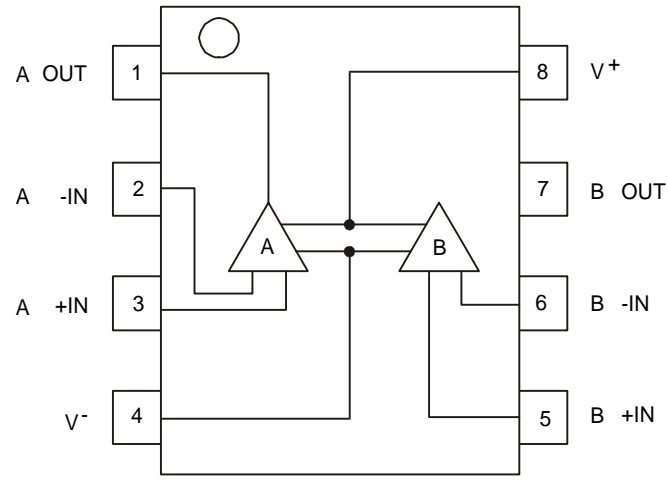
U17 K4S161622D/HY57V16160DTC



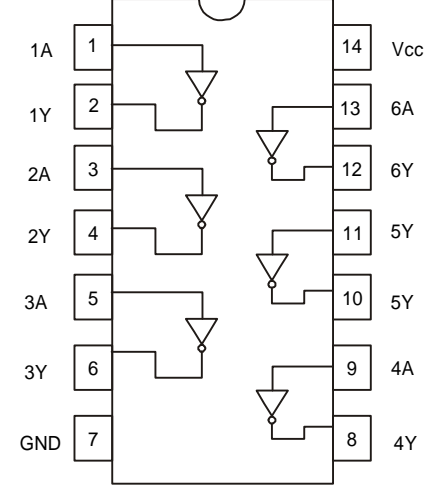
IC401 TA2099N



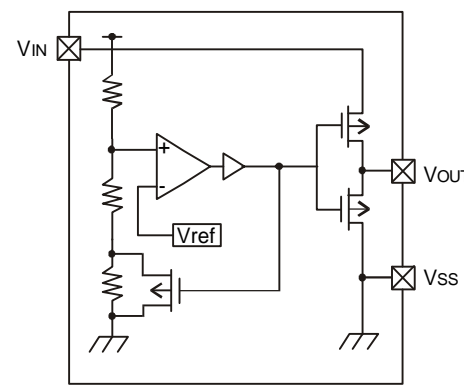
U22, U23, U24 NJM4580E



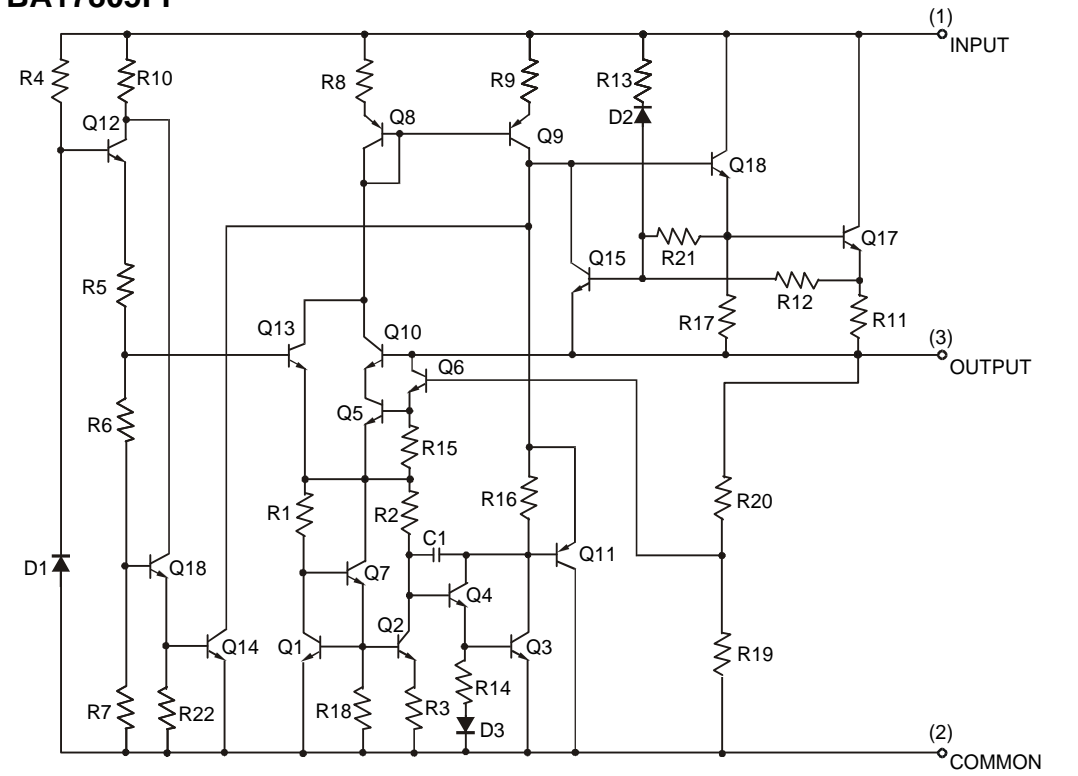
U26 TC74HCU04AF



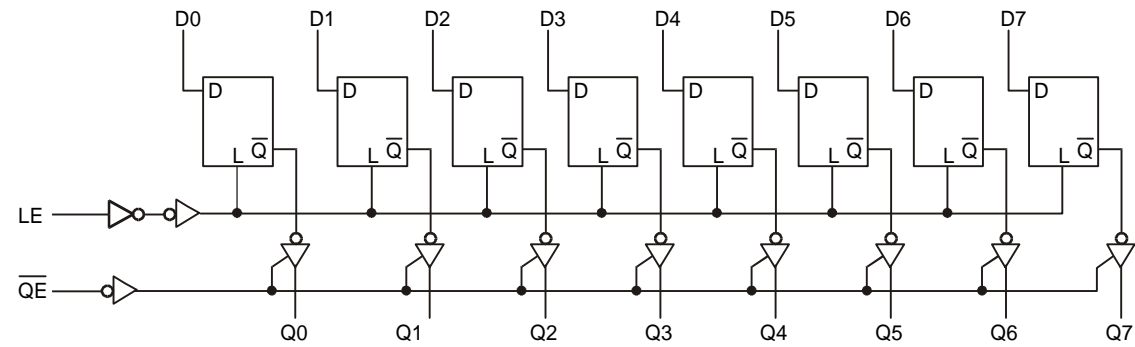
U9 XC61AN1902MR



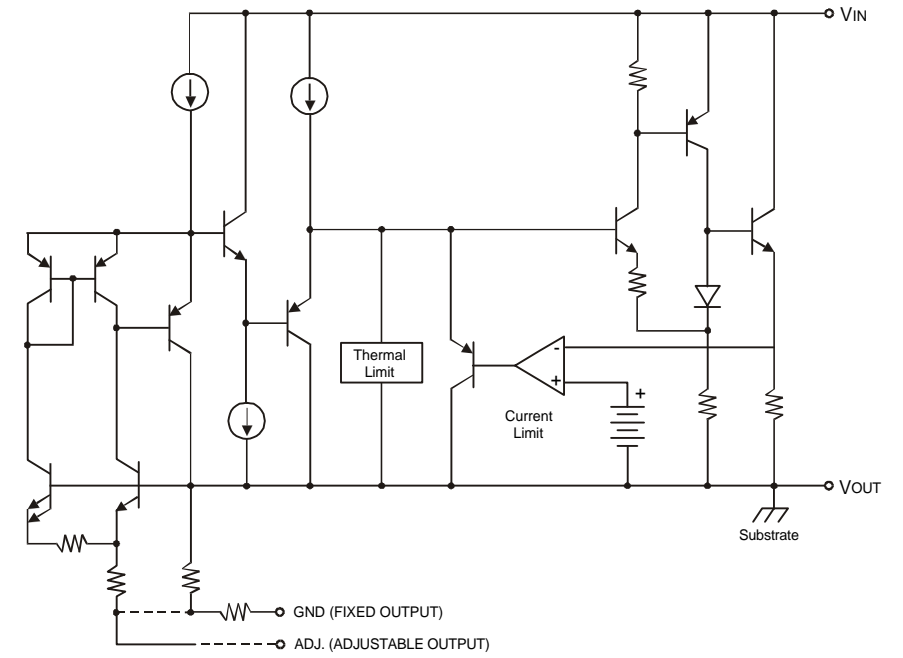
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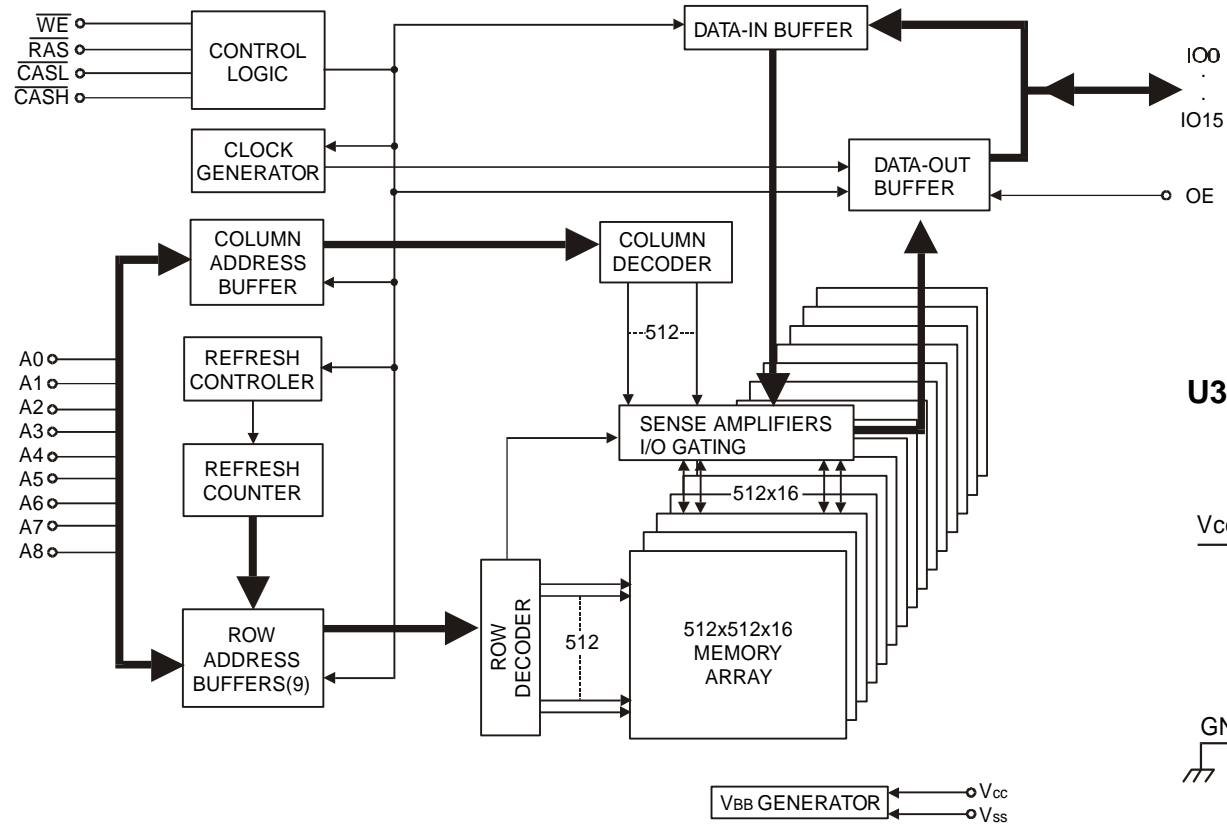
IC302 TC74HC373AF



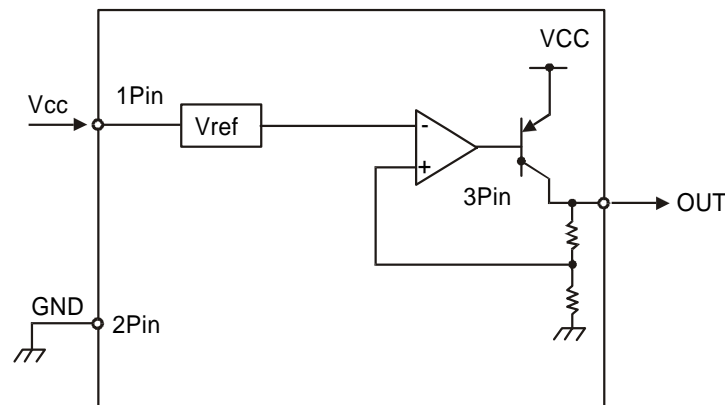
**U27 LD1117S
U28 LD1117S33**



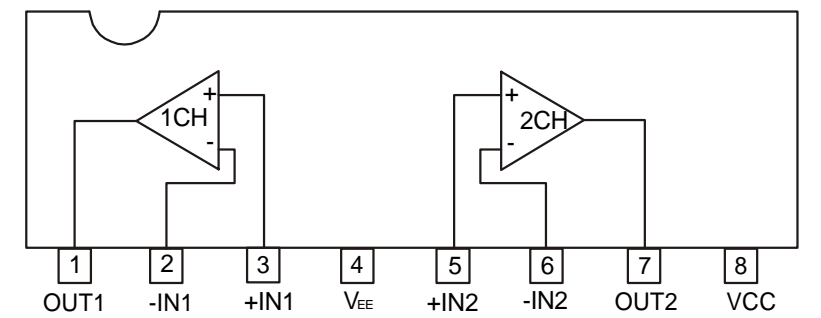
U6 M11B416256A



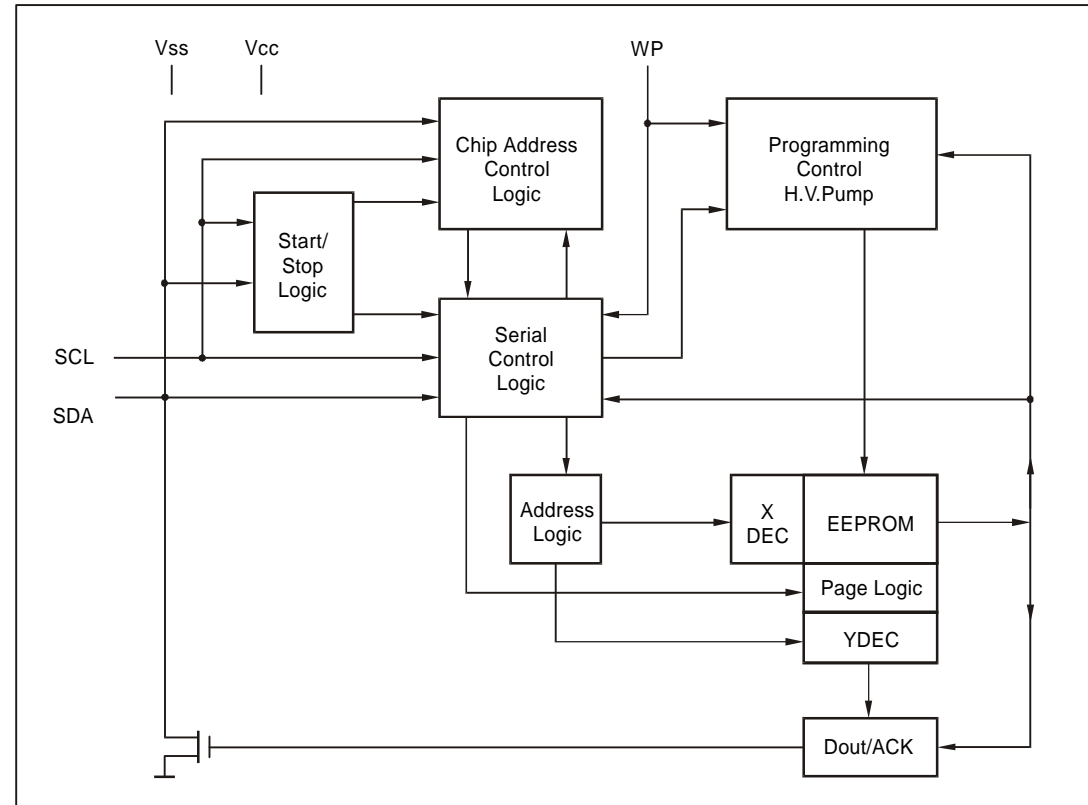
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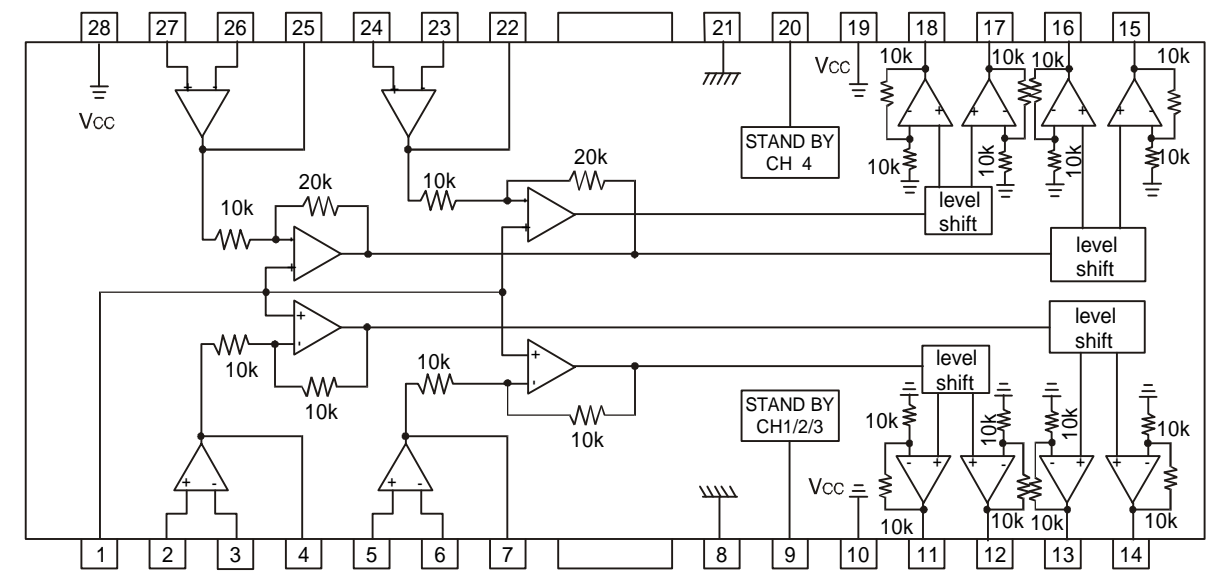
IC502, IC951, IC952, IC953, IC954 BA4558N/LS4558N



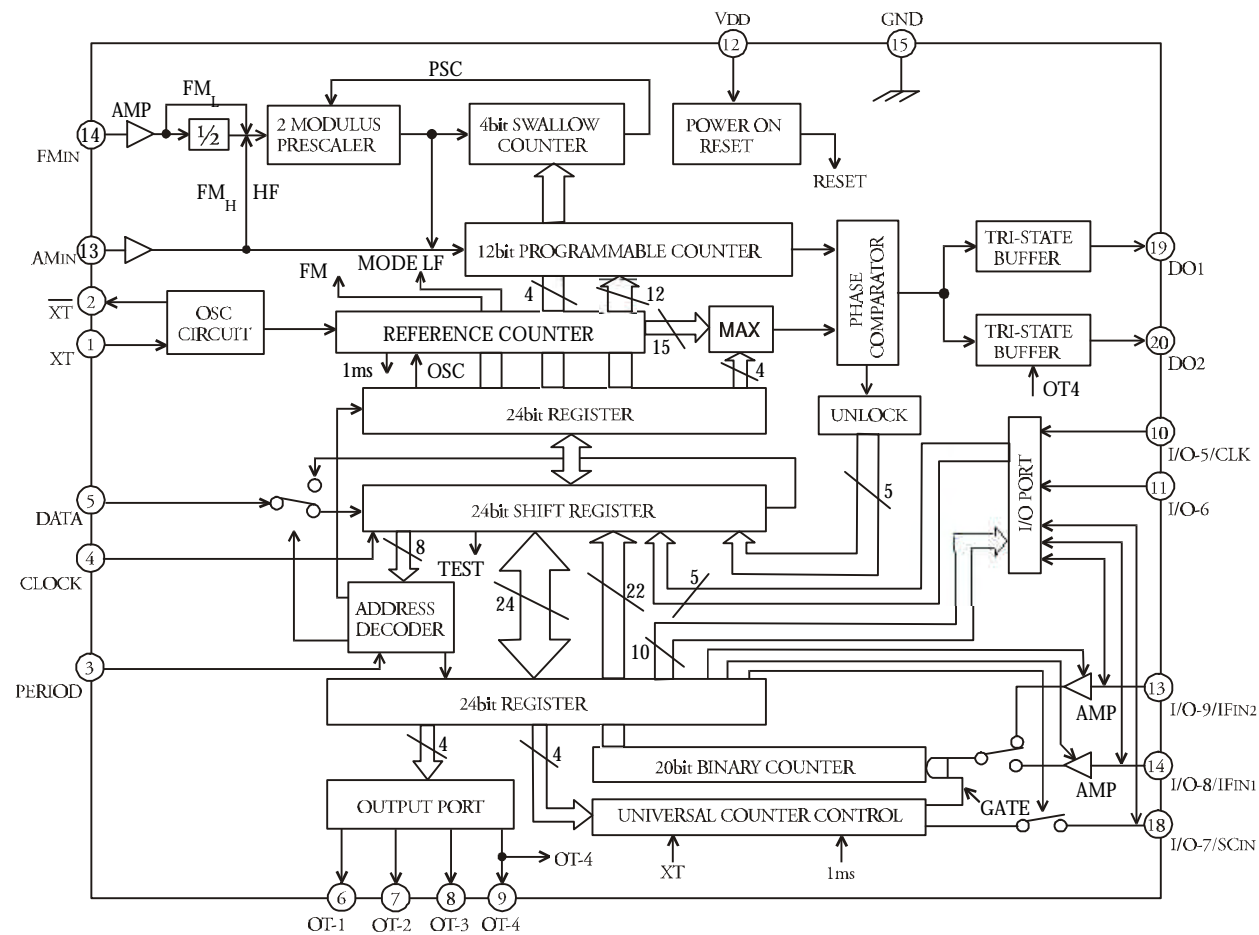
U12 AT24C01A/S-24C01BFJ



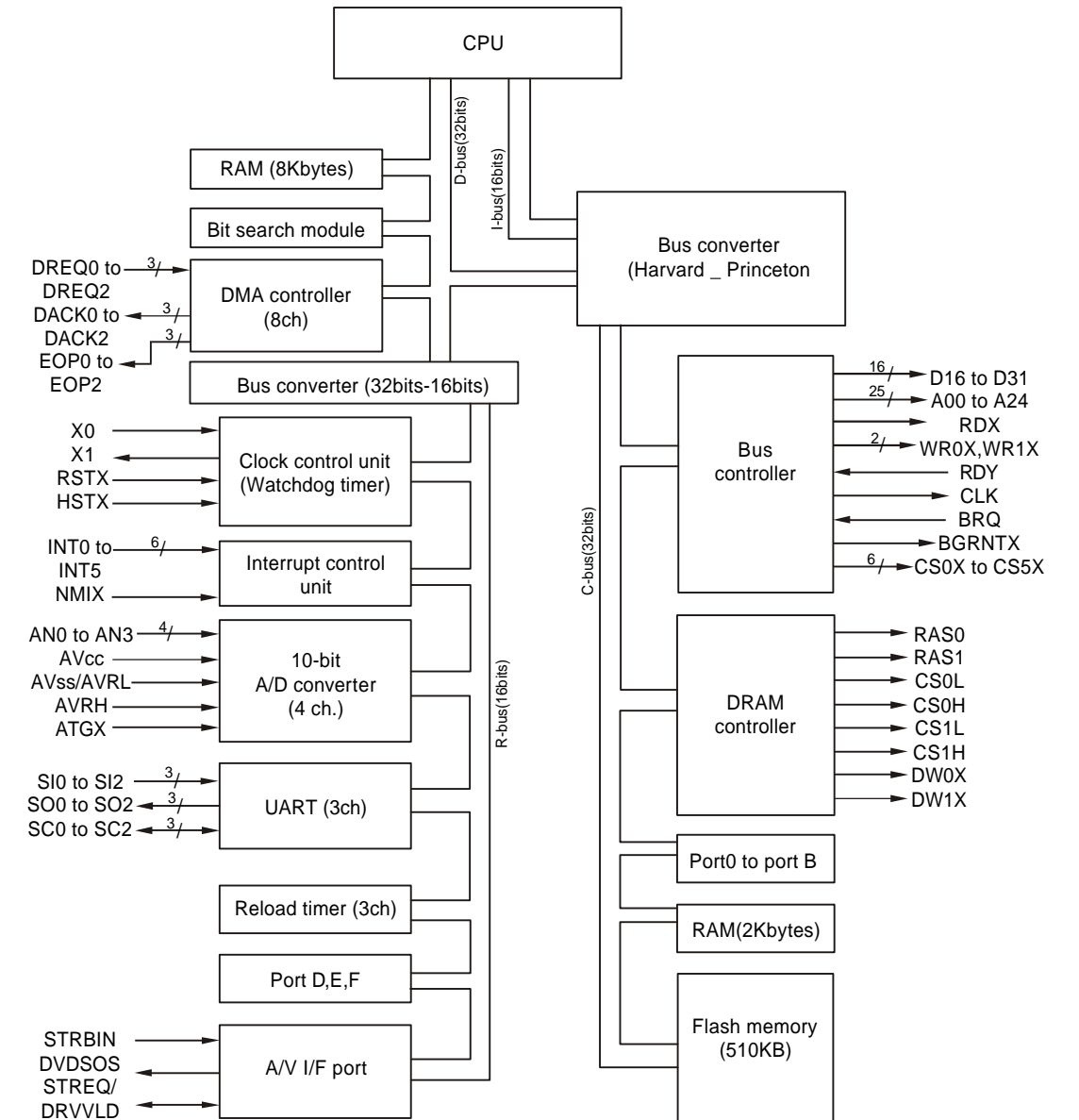
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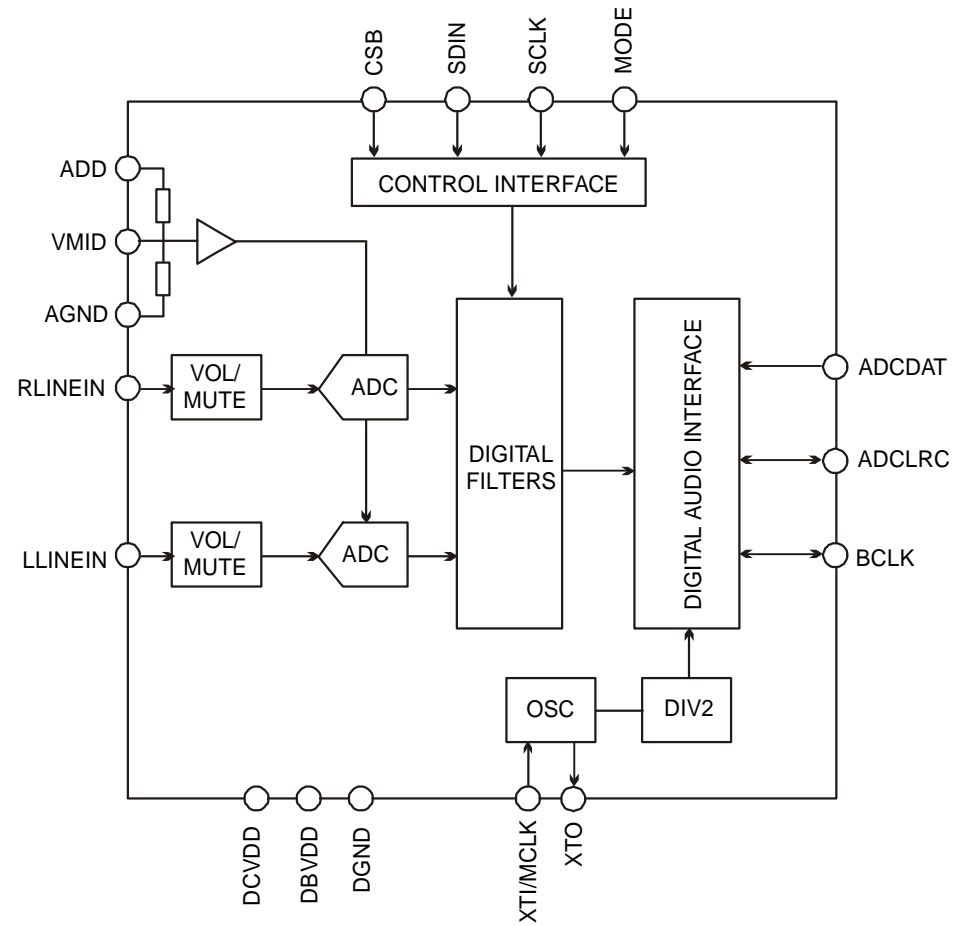
IC402 TC9257F



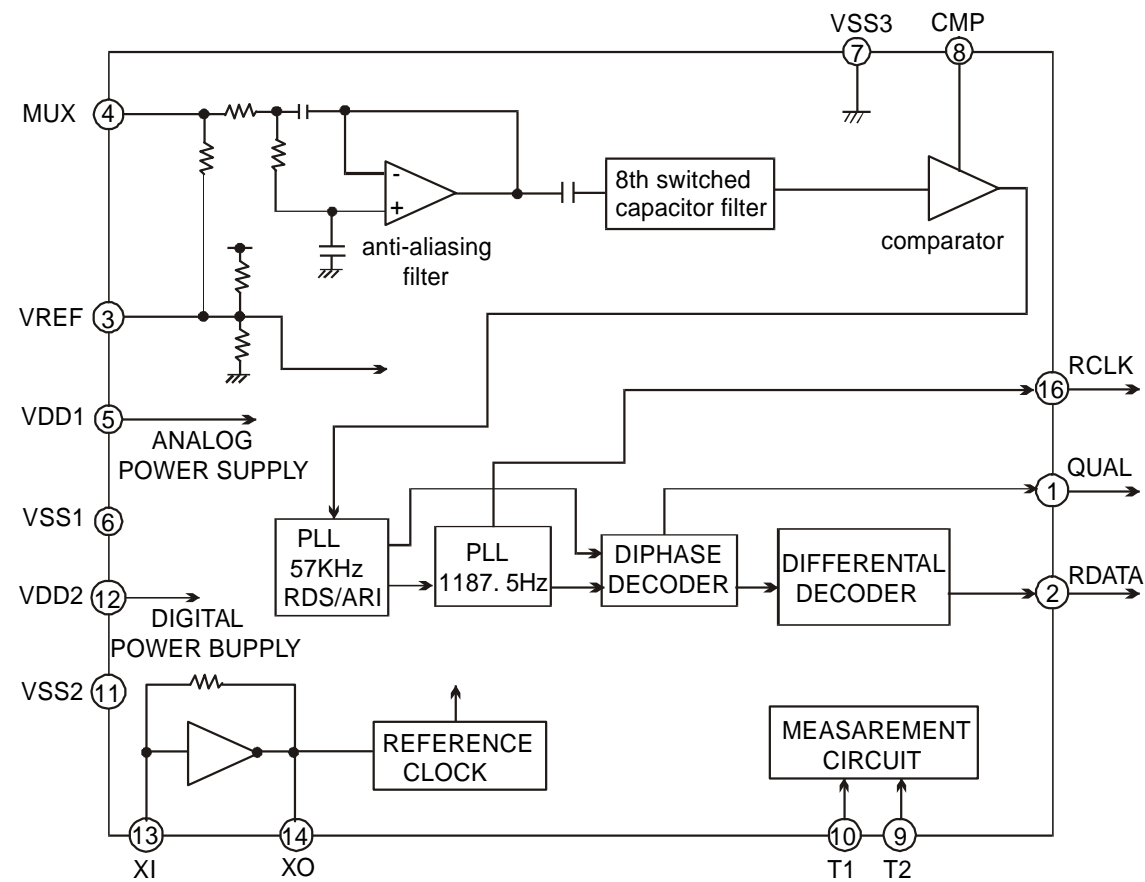
U11 ZR36705TQC



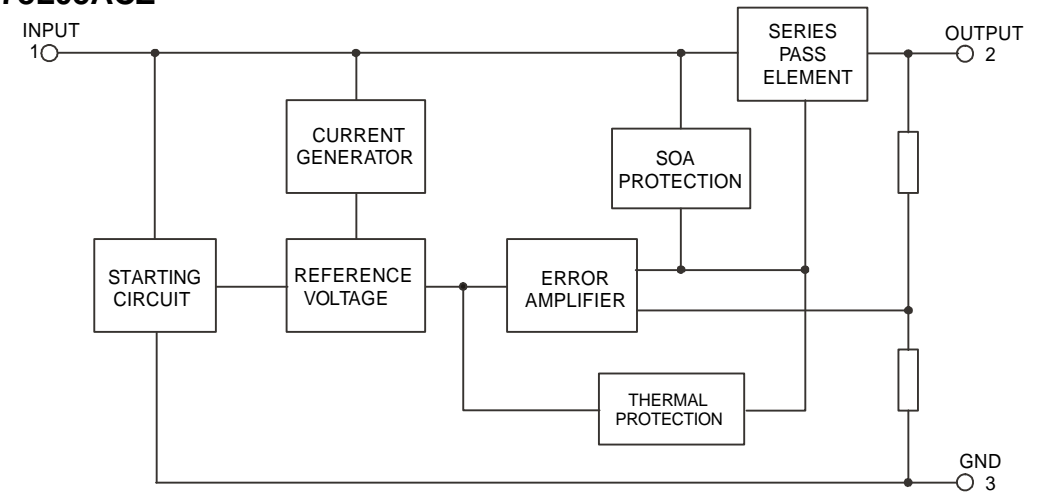
U25 WM8739



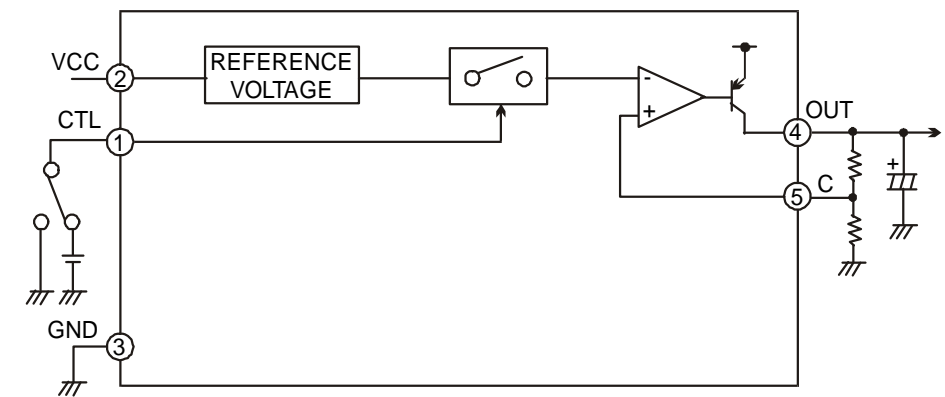
IC403 BU1923F



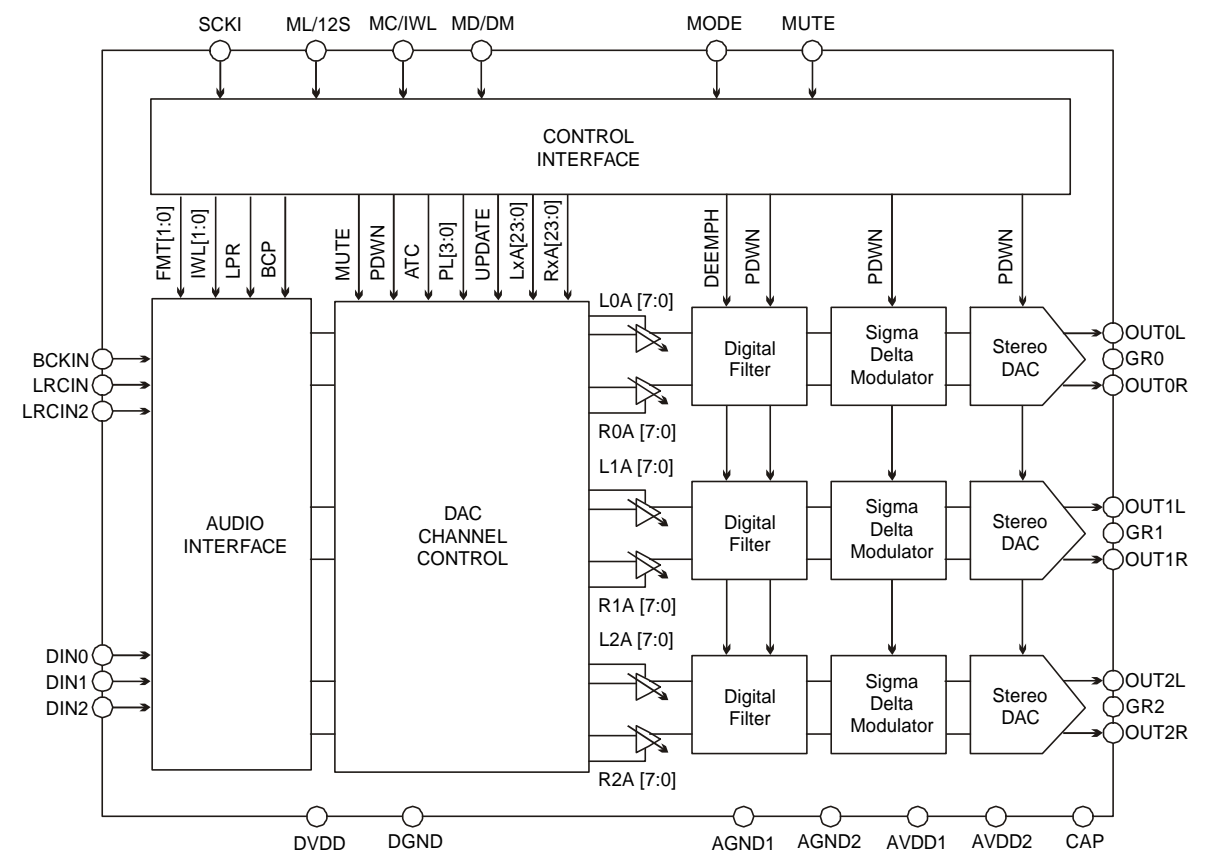
IC801 LM78L05ACZ



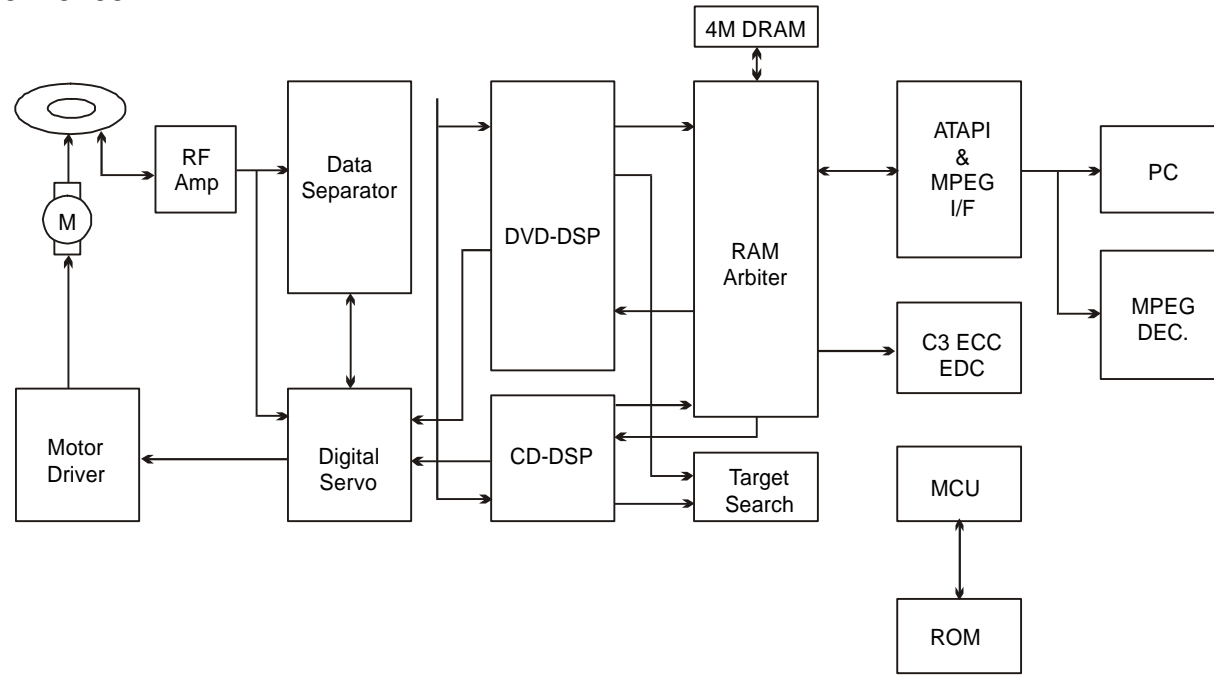
IC802, IC803 BA05ST



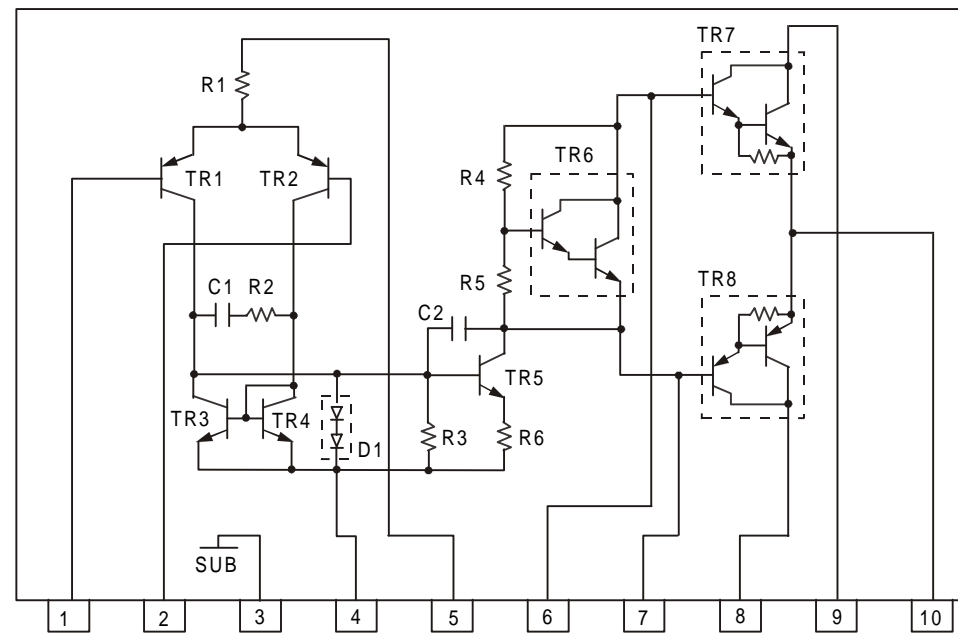
U31 WM8746EDS



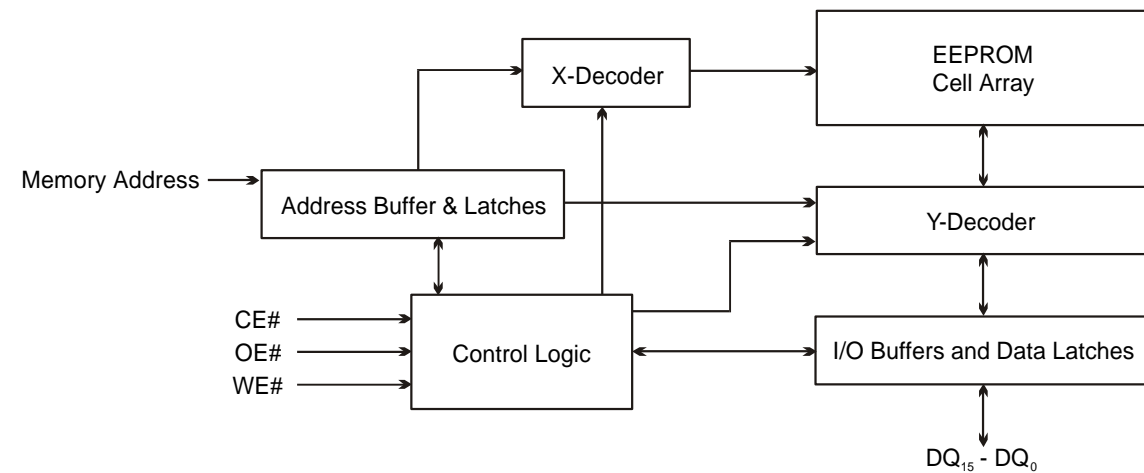
U5 M5705



IC901 STK404



U13 SST39VF800A



IC301 TMP-87EP26F 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)	RESDAT*	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)		
54	P8.2 (SEG37)		

IC301 TMP-87EP26F PINS DESCRIPTION - CONTINUED

Pin	Port Name	Pin Name	Description
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	

U16 ZR36732PQC PINS DESCRIPTION

Pin No.	Pin Name	Type	Description
Reset, Standby and Idle Status Interface			
124	RESET#	I	Reset input. Once de-asserted, the Decoder starts the initialization process.
122	STNDBY#	I	Stand-by input. When asserted together with RESET#, all outputs and bidirectional pins float, such that the Decoder is electrically disconnected from its surroundings. All internal clocks are disabled, and the power consumption is minimized.
160	IDLE	3-S	Idle, Init and Reset states indication output.
Host Interface			
2	HWID	I	Determines the width of the host interface data bus. It is allowed to be changed only during RESET. A low level (GNDP) configures the Decoder to an 8-bit host data interface, a high level (VDDP) to 16-bit width.
1	HORD	I	Determines the order of bytes on the host interface data bus in case of 16-bit width (HWID at VDDP). It is allowed to be changed only during RESET. A low level (GNDP) configures the Decoder to input/output the m.s. Byte on HD [15:8]; A high level (VDDP) to input/output the m.s. byte on HD [7:0], Must be at GNDP if the host data bus is 8 bits.
4	HTYPE	I	Determines the protocol type for the 8 and 16 bits modes host interface. It is allowed to be changed only during RESET. A low level (GNDP) configures the Decoder to type A, a high level (VDDP) to type B.
17,18 20,21 22,23 24,25	HD[7],HD[6] HD[5],HD[4] HD[3],HD[2] HD[1],HD[0]	3-S	For 16 bits mode, the 8 I.S. Data lines of host data bus. For 8 bits mode, only these signals are defined as host data signals.
9,11 13,15	HD[11],HD[10] HD[9],HD[8]	3-S	When HWID is connected to VDDP, these are data lines 11:8 of the 16-bit host data bus.
5,6 7,8	HD[15],HD[14] HD[13],HD[12]	3-S	When HWID is connected to VDDP, these are data lines 15:12 of the 16-bit host data bus. When HWID is connected to GNDP, these are the CD-DSPI ² S input port. pins as explained in the CD-DSP pin description.
27,28 29,30	HA[3],HA[2] HA[1],HA[0]	I	Host address inputs. These input signals indicate the register accessed in every cycle on the host interface.
32	HCS#	I	Host chip-select input.
31	HWR#-HR/W#	I	In host protocol Type A (HTYPE= GNDP):HR/W# This input determines the direction of the host access. In host protocol Type B (HTYPE=VDDP):HWR#. Host write input.
34	HRD#-HDS#	I	In host protocol Type A (HTYPE = GNDP): HDS#. Data strobe input (active low) In host protocol Type B (HTYPE=VDDP):HRD#. Host read input.(active low.)
36	HRDY	3-S	Host ready output. When this signal is tri-stated (i.e, is requires a pull-up resistor), up to SysConfig.CodBurstLed bytes of code can be written to the Decoder with no need to poll its condition in between. When HRDY is low during a host access, the Decoder may still receive at least two additional bytes of code without corrupting the data.
37	HIRQ#	3-S	Interrupt request. This output signal requests an interrupt from the host controller, if one of the events associated to interrupts occurs, and it is not masked-off. It is de-asserted if the host responds to the interrupt by reading the interrupt status register, or if the host disables the interrupt, or after RESET Deassertion of the HIRQ# output has two modes: De-activated and then tri-stated or directly to is a tri-state condition. The pin needs external pull-up resistor.
39	HACK#	HACK#	Host acknowledge output. In protocol A, the Decoder indicates that a read or write cycle is completed by asserting this output. In protocol B, this signal is used by the Decoder to indicate a wait state that may be used by fast hosts. In protocol B the host may ignore the HACK# signal. When this signal is deasserted it is de-activated and then tri-stated. This pin needs an external pull-up resistor.

U16 ZR36732PQC PINS DESCRIPTION - CONTINUED

Pin No.	Pin Name	Type	Description
General Purpose I/O (Host Interface)			
134	GPAIO	3-S	General purpose input/output pin,monitored/controlled by the audio processor software.After RESET, this pin is defined as input.Its definition can be configured through ADP commands.
145	GPSI	I	General purpose input,monitored by the system de-multiplexer/video processor software.
143	GPSO	O	General purpose output,controlled by the system de-multiplexer/video processor software. After RESET it outputs a low level.
DVD-DSP interface			
151	DVDREQ	O	DVD-DSP data request output (programmable polarity)
149	DVDVALID	I	DVD-DSP data valid input (programmable polarity)
148	DVDSOS	I	DVD-DSP start of sector input (programmable polarity)
159,158 157,156 155,154 153,152	DVDAT[7],[6] DVDAT[5],[4] DVDAT[3],[2] DVDAT[1],[0]	I	DVD-DSP data input bus.
150	DVDSTRB	I	DVD-DSP data bit strobe (clock)input. Programmable polarity.
147	DVDERR	I	DVD-DSP error indication input.Programmable polarity.
5 6 7 8	CDERR CDFRM CDDAT CDCLK	I	When HWID is connected to GNDP, these are the CD DSP ² S input port pins as follows: CDERR: data error indication input CDFRM: left/right channel frame input CDDAT: data input CDCLK:bit clock input When HWID is connected to VDDP, these are HD [15:12] of the host data bus ,as explained in the host interface pin description.
Video Syncs and Clocks Interface			
127	VCLKx2	3-S	Main video clock.27.000MHz.
92	VCLK	3-S	A division by two of the VCLKx2 signal. This signal is used as a sync qualifier.
95	HSYNC	3-S	Horizontal sync. Polarity and duration are programmable.
93	VSYNC	3-S	Vertical sync. Polarity and duration are programmable.
96	FI	3-S	Field indication. Polarity is programmable.
Analog Video Encoder Interface			
102	CVBS/G/Y (DAC A)	O	When the Decoder outputs composite video, this line is CVBS When the Decoder outputs RGB, this line is the Green output When the Decoder outputs YUV,this line is the Y output
105	Y/R/V (DAC B)	O	When the Decoder outputs the composite video,this line is Y When the Decoder outputs RGB, this line is the Red output When the Decoder outputs YUV,this line is the V output
106	C/B/U (DAC C)	O	When the Decoder outputs the composite video,this line is C When the Decoder outputs RGB,this line is the Blue output When the Decoder outputs YUV,this line is the U output
103	CVBS/C (DAC D)	O	When the Decoder outputs any of the types of video,this line can be programmed to output either composite or C.
108	RSET	I	Resistive load for gain adjustment of the DACs
111	VREF	I	Voltage reference for gain adjustment of the DACs
100	COSYNC	3-S	Composite sync output,Active only when RGB analog output is selected. Otherwise, the signal is low.
Digital Audio Interface			
131	AMCLK	3-S	Audio Master Clock input/output.128,192,256 or 384 times the sampling frequency (programmable)
133	S/PDIF (AOUT[3])	O	S/PDIF transmitter output for digital coded or reconstructed audio data. Alternately can be used as a fourth audio output. After RESET this pin outputs low level.
138,137 136	AOUT[2],[1] AOUT[0]	O	Serial outputs of digital stereo audio.

U16 ZR36732PQC PINS DESCRIPTION - CONTINUED

Pin No.	Pin Name	Type	Description
113	AIN	I	Serial input of digital stereo audio.
139	ALRCLK	O	Digital audio left/right select output for the audio port. Square wave,at the sampling frequency.Programmable polarity interpretation for input.
141	ABCLK	O	Digital audio bit-clock output. Data on AOUT and AIN is output or latched, respectively, with the rising or falling (programmable)edge of this clock.
PLL/Clock Interface			
120	GCLK	I	27.000MHz clock or crystal input for main processing clock generation.
117	GCLK1	I	27.000MHz clock input for audio master clock generation.in normal operation must be connected to GCLK.
119	XO	O	Output to a crystal that is connected to GCLK. If a crystal is not used at GCLK, XO must be left not connected.
115 118	PLLCFG[1] PLLCFG[0]	I	PLL configuration inputs. Allowed to be changed only during RESET. In normal operation both pins must be connected to GNDP
SDRAM Interface			
90,87 84,81 78,75 72,68 70,74	RAMDAT[15], [14],[13],[12] RAMDAT[11] [10],[9],[8] RAMDAT[7],[6]	3-S	SDRAM bidirectional data bus.
76,79 82,85 88,91	RAMDAT[5],[4] RAMDAT[3],[2] RAMDAT[1],[0]		
55,53 54,51 48,46 43,41 42,45 47,50	RAMADD[11] [10],[9],[8] RAMADD[7],[6] RAMADD[5],[4] RAMADD[3],[2] RAMADD[1],[0]	O	SDRAM address bus output.
60	RAMRAS#	O	SDRAM row select output.
61	RAMCAS#	O	SDRAM column select output.
66	PCLK	O	SDRAM clock output (Same as internal processing clock)
64	RAMDQM	O	SDRAM data masking output.
57	RAMCS0#	O	SDRAM chip select output for the lower (or only) 2MB device (16Mbit)
59	RAMCS1#	O	SDRAM chip select output for the upper 2MB device (16Mbit).
62	RAMWE#	O	SDRAM write enable output.
Test Signal Interface			
125	SCNENBL	I	Production test pin (connected directly to GNDP in normal operation).
129	TESTMODE	I	In normal operation this pin must be connected directly to GNDP.
112	ICEMODE#	I	In normal operation this pin must be connected directly to VDDP.If it is asserted, then the ADP goes into ICE mode. In this mode 4 of the Decoder pins turn into ICE interface pins: HD[11] = TCK - ICE interface clock HD[10] = TMS -ICE interface mode select input HD[9] = TDO -ICE interface data output HD[8] = TDI - ICE interface data input
Power Signals			
10,40,49 56,64,69 80,86,97 128,146	GNDP		Digital ground of 3.3 V supply.
3,16,19,26 38,44,52,58 67,71,77,83 89,94,98,99 126,135,140	V _{DDP}		3.3V Digital power supply.

U16 ZR36732PQC PINS DESCRIPTION - CONTINUED

Pin No.	Pin Name	Type	Description
132	GNDP-A2		Digital ground of filtered 3.3V supply for AMCLK.
130	VDDP-A2		3.3 V filtered digital power supply for AMCLK.
14,35,73 114,144	GNDP		Digital ground of 1.8 V supply.
12,33,63 116,142	VDDC		1.8 V Digital power supply
123	GNDP		Ground plane of internal PLL circuit.
121	VDDA		1.8 V Power supply for internal PLL circuit.
104	VDDDAC		3.3 V Analog power supply for the DACs.
101 107 109 110	GNDAC_D GNDAC_B GNDAC_P GNDAC_S		Grounds for the DACs 3.3V analog power supply

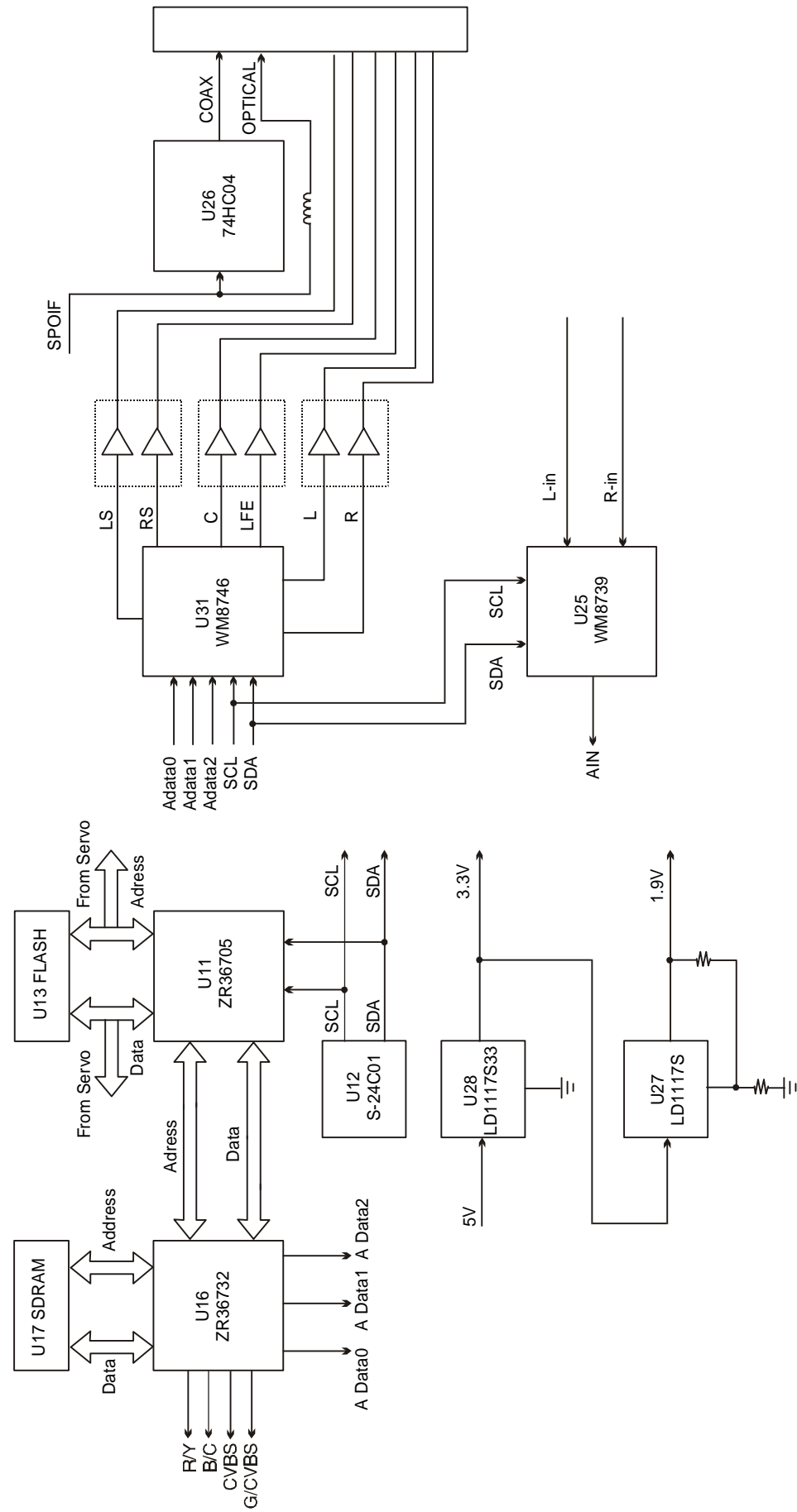
U1 5703T (SP3721A) PINS DESCRIPTION

Pin No.	Pin Name	Type	Description
Input Pins:			
1,2	DVDRFP DVDRFN	I	RF Signal Inputs. Differential RF signal attenuator input pin.
63	CDRF	I	RF Signal input. Single-ended RF signal attenuator input pin
59,60	AIP,AIN	I	AGC Amplifier Inputs. Differential AGC amplifier input pins.
53,54	DIP,DIN	I	Analog inputs for RF single Buffer. Differential analog inputs to the RF single-ended output buffer and full wave rectifier.
32	FDCHG#	I	Low Impedance Enable. A TTL compatible input pin that activates the FDCHG switches. A low level activates the switches and the falling edge of the internal FDCHG triggers the fast decay for the MIRR bottom hold circuit.(open high)
49	HOLD1	I	Hold Control. A TTL compatible control pin which, when pulled high, disables the RF AGC charge pump and holds the RF AGC amplifier gain at its present value.(open high)
14-11	A,B,C,D	I	Photo Detector Interface Inputs. Inputs from the main beam photo detector matrix outputs.
8-5	A2,B2,C2,D2	I	photo Detector Interface Inputs. AC coupled inputs for the DPD from the main beam photo detector matrix outputs.
16-15	E,F	I	CD tracking Error Inputs. Inputs from the CD photo detector error outputs.
3-4	PD1,PD2	I	CD photodetector interface inputs. From the CD photo detector error outputs.
40	MEI	I	Mirror Envelope Input.The SIGO envelope input pin.
35	MIN	I	RF signal input for Mirror.AC coupled inputs for the mirror detection circuit from,the pull-in signal output.(PI)
21	DVDPD	I	APC Input. DVD APC input pin from the monitor photo diode.
23	CDPD	I	APC Input. CD APC input pin from the monitor photo diode.
25	LDON#	I	APC Output On/Off. APC output control pin. A low level activates the LD output. (open high)
Output Pins:			
62,61	ATOP/ATON	O	Differential Attenuator Output.Attenuator outputs.
52,51	FNP,FNN	O	Differential Normal Output.Filter normal outputs.
57	SIGO	O	Single Ended Normal Output.Single-ended RF output.
64	CDRFDC	O	CD RF Signal Output.Single ended CD RF summing output.
42	FE	O	Focusing Error Signal Output. Focus error output-reference to VCI.
41	TE	O	Tracking Error Signal Output. Tracking error output reference to VCI.
43	CE	O	Center Error Signal Output. Center error output reference to VCI.
34	MEVO	O	SIGO Bottom Envelope Output.Bottom envelope for Mirror detection.

U1 5703T (SP3721A) PINS DESCRIPTION - CONTINUED

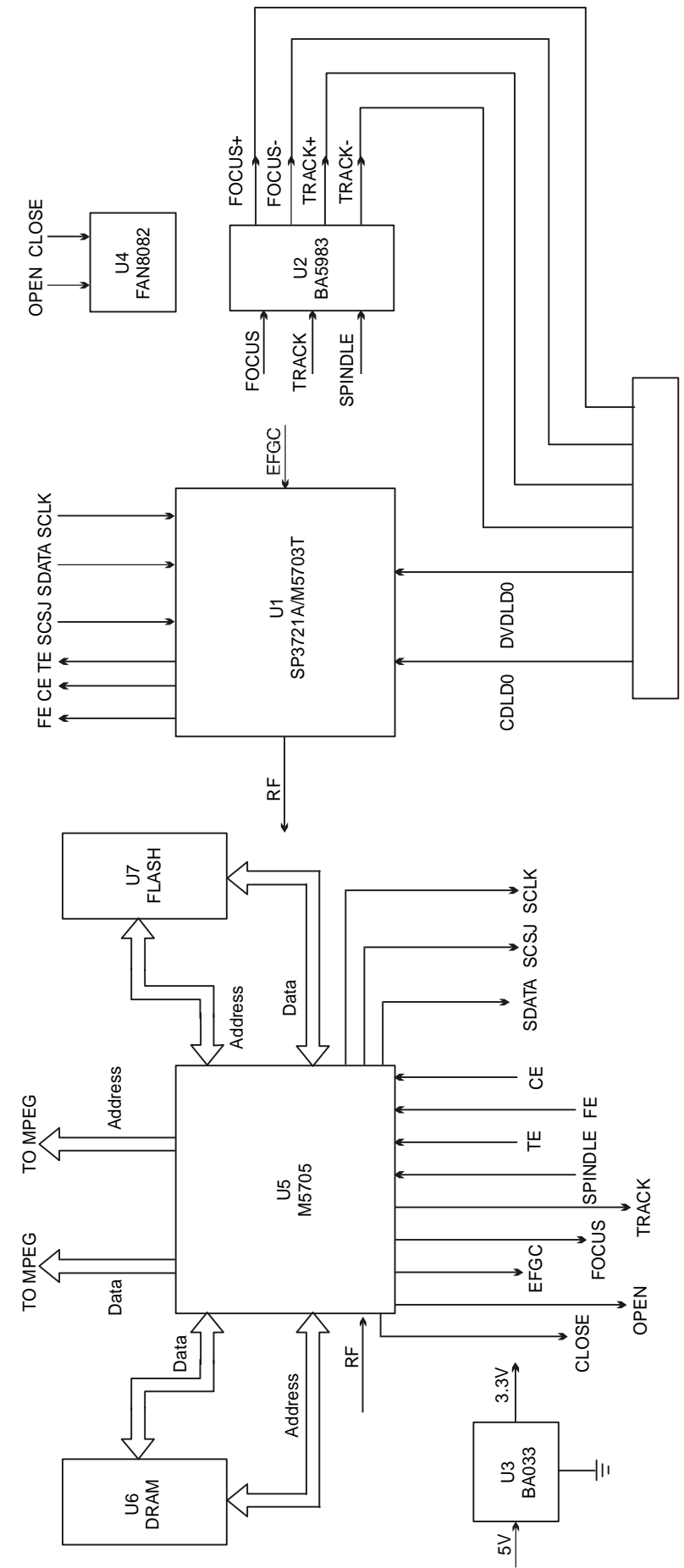
Pin No.	Pin Name	Type	Description
37	DFT	O	Defect Output. Pseudo CMOS output.When a defect is detected,the DFT output goes high.Also the servo AGC output can be monitored at this pin,when CAR bits 7-4 are '0011'.
29	MIRR	O	Mirror Detect Output. Mirror Detect comparator output. Pseudo CMOS output.
36	PI	O	Pull-in Signal Output.The summing signal output of A,B,C,D or PD1,PD2 for mirror detection. Reference to VCI.
22	DVDLD	O	APC output DVD APC output pin to control the laser power.
24	CDLD	O	APC output CD APC output pin to control the laser power.
Analog pins:			
56	BYP	I/O	The RF AGC integration capacitor CBYP,is connected between BYP and VPA.
9	CP	I/O	Differential Phase tracking LPF pin. An external capacitance is connected between this pin and the CN pin.
10	CN	I/O	Differential Phase tracking LPF pin. An external capacitance is connected between this pin and the CP pin.
45	LCP	-	Center Error LPF Pin.An external capacitance is connected between this pin and the LCN pin.
44	LCN	-	Center Error LPF Pin.An external capacitance is connected between this pin and the LCP pin.
30	MP	-	MIRR signal Peak hold pin. An external capacitance is connected to between this pin and VPB.
31	MB	-	MIRR signal Bottom hold pin. An external capacitance is connected to between this pin and VPB.
39	MEV	-	Sigo Bottom Envelope pin. An external capacitance is connected between this pin and VPB.
17	CDTE	-	CD Tracking. E-F Opamp output for feedback.
38	TPH	-	PI Top Hold pin. An external capacitance is connected between this pin and VPB.
26	VC	-	Reference Voltage output. This pin provides the internal DC bias reference voltage (+2.5V fix). Output impedance is less than 50ohms.
27	VC1	-	Reference Voltage input. DC bias voltage input for the servo input reference.
18	VC12	-	Reference Voltage Input. DC bias voltage input for the servo input reference.
55	RX	-	reference Resistor Input. An external 8.2kohm,1% resistor is connected from this pin to ground to establish a precise PTAT (proportional to absolute temperature) reference current for the filter.
33	MLPF	-	MIRR signal LPF pin An external capacitance is connected between this pin and VPB.
19	NC	-	No Connect.
Serial Port Pins:			
48	SDEN	I	Serial Data Enable. Serial Enable CMOS input.A high level input enables the serial port.(not to be left open)
47	SDATA	I/O	Serial Data.Serial data bi-directional CMOS Pin. NRZ programming data for the internal registers is applied to this input.(Not to be left open).
46	SCLK	I	Serial Clock Serial Clock CMOS input. The clock applied to this pin is synchronized with the data applied to DSATA.(Not to be left open)
Power Pins:			
58	VPA		Power. Power supply pin for the RF block and serial port.
28	VPB		Power. Power supply pin for the servo block.
50	VNA		Ground. Ground pin for the RF block and serial port.
20	VNB		Ground. Ground pin for the servo block.

MPEG SECTION

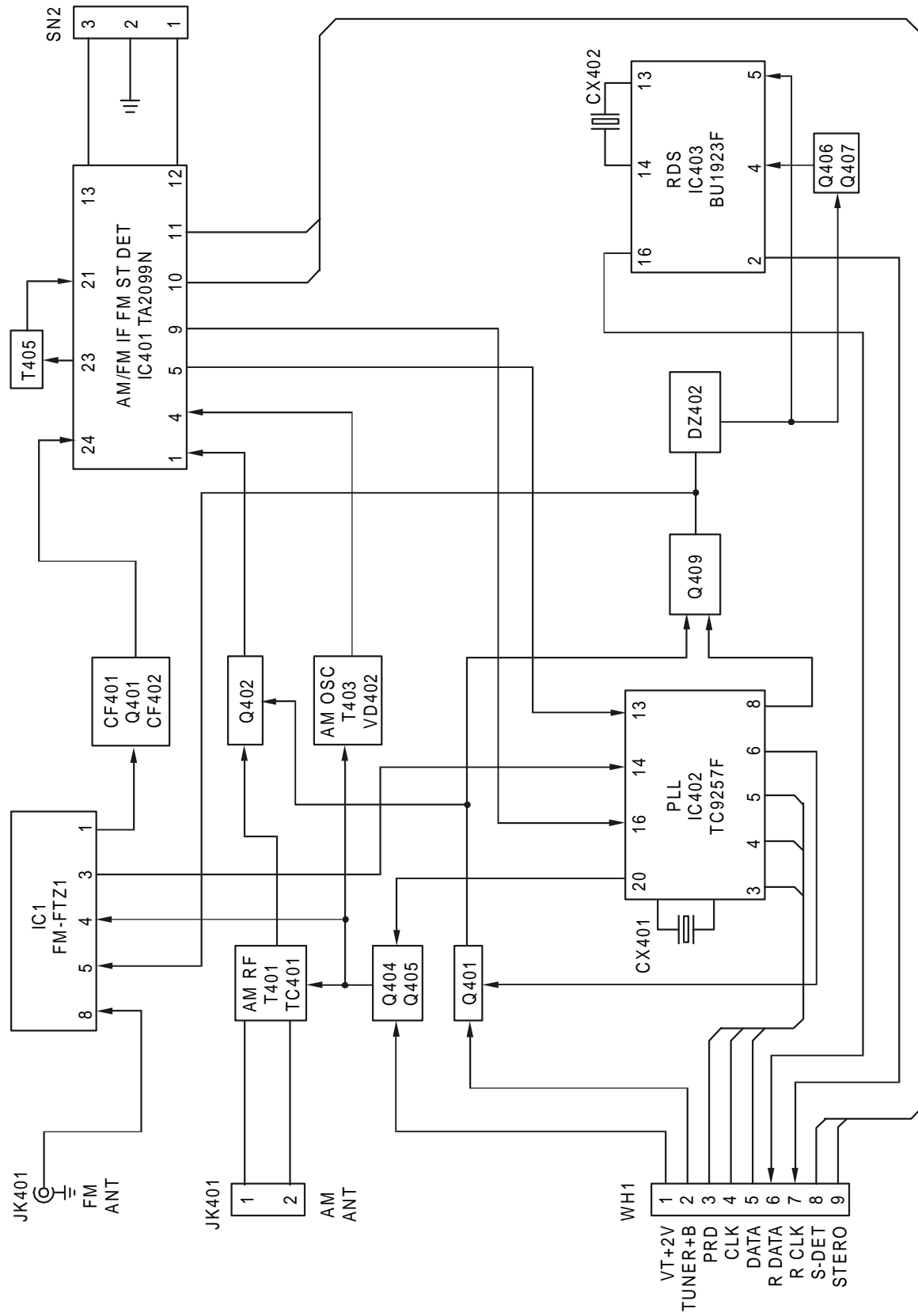


BLOCK DIAGRAMS

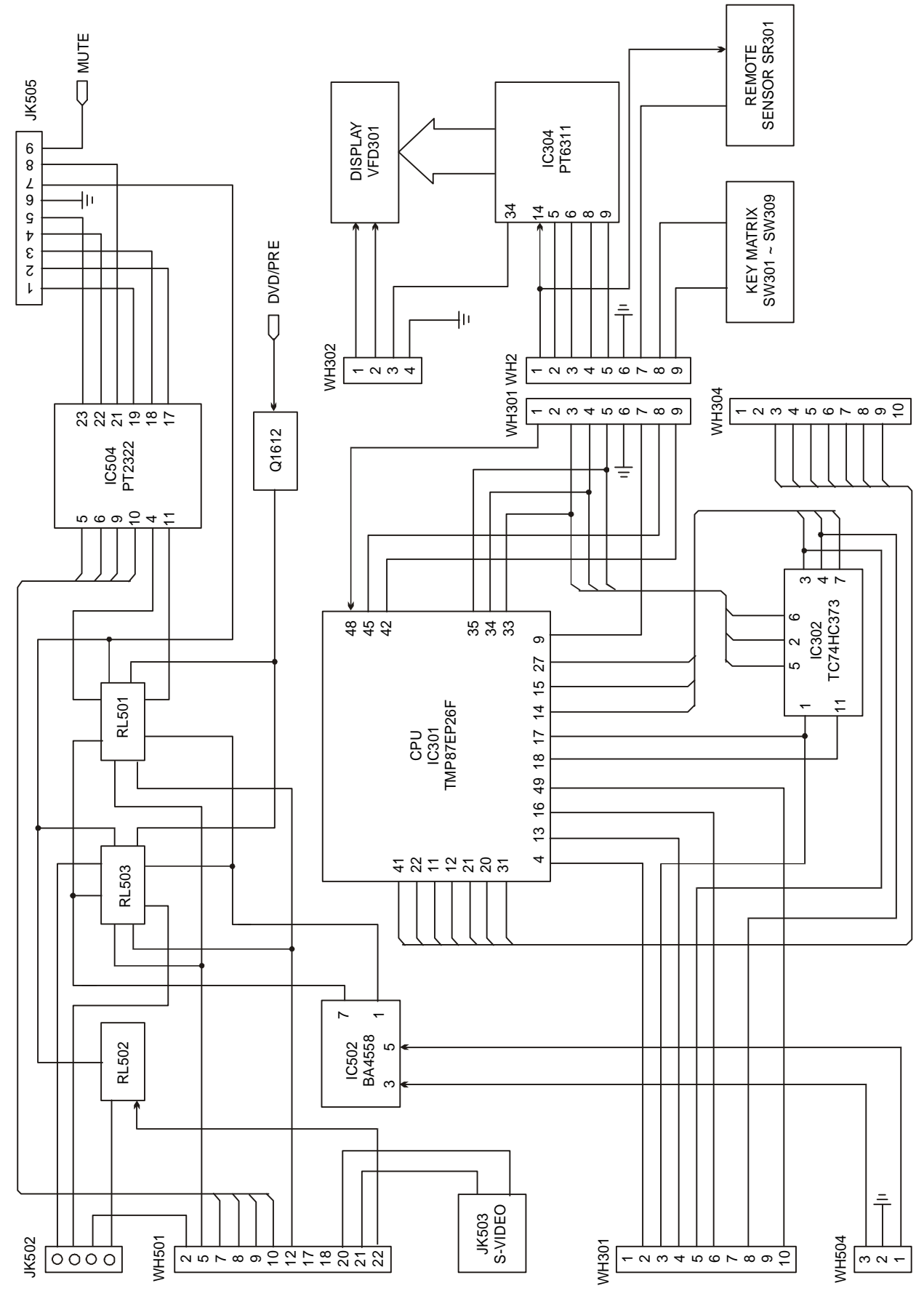
SERVO SECTION



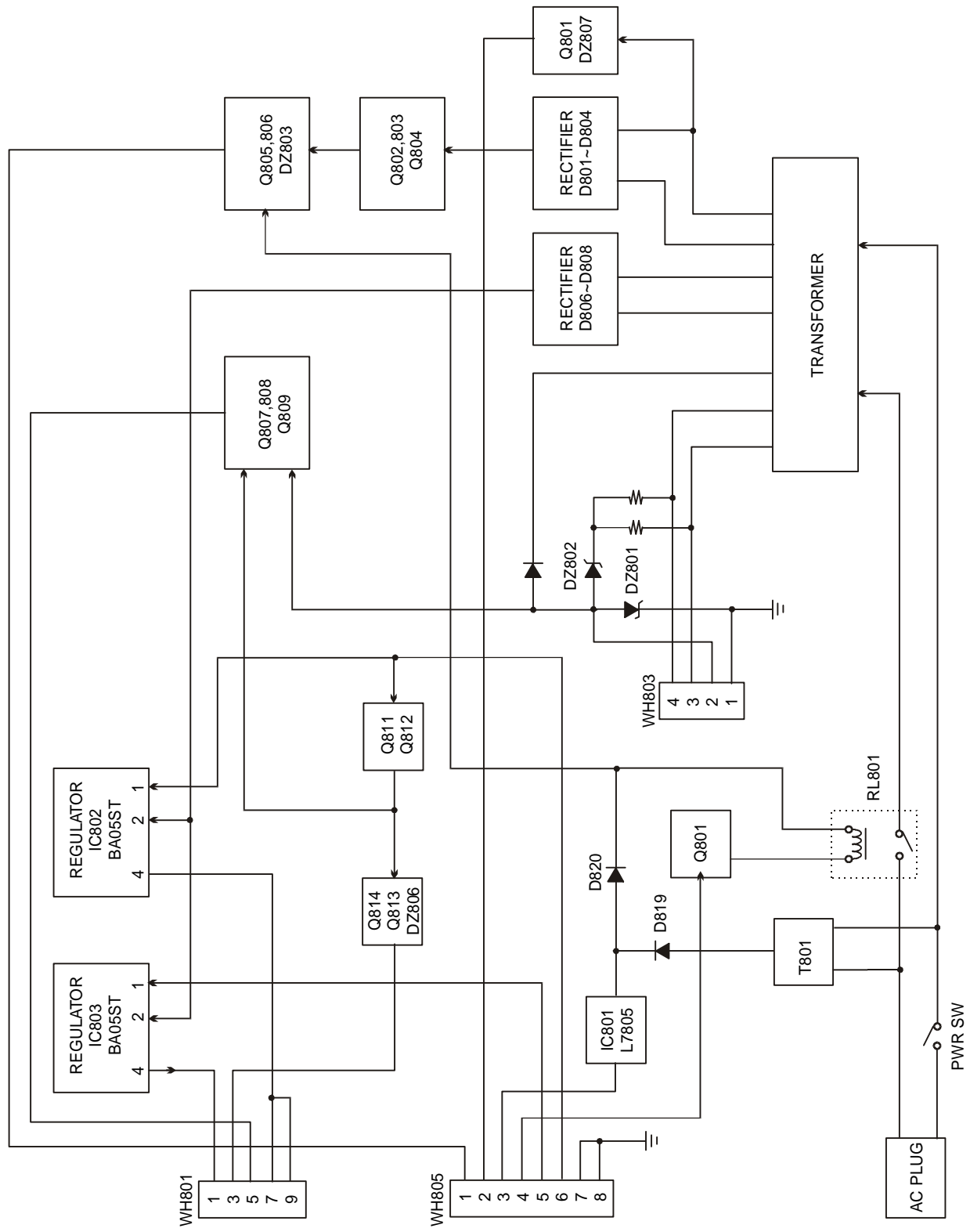
TUNER SECTION



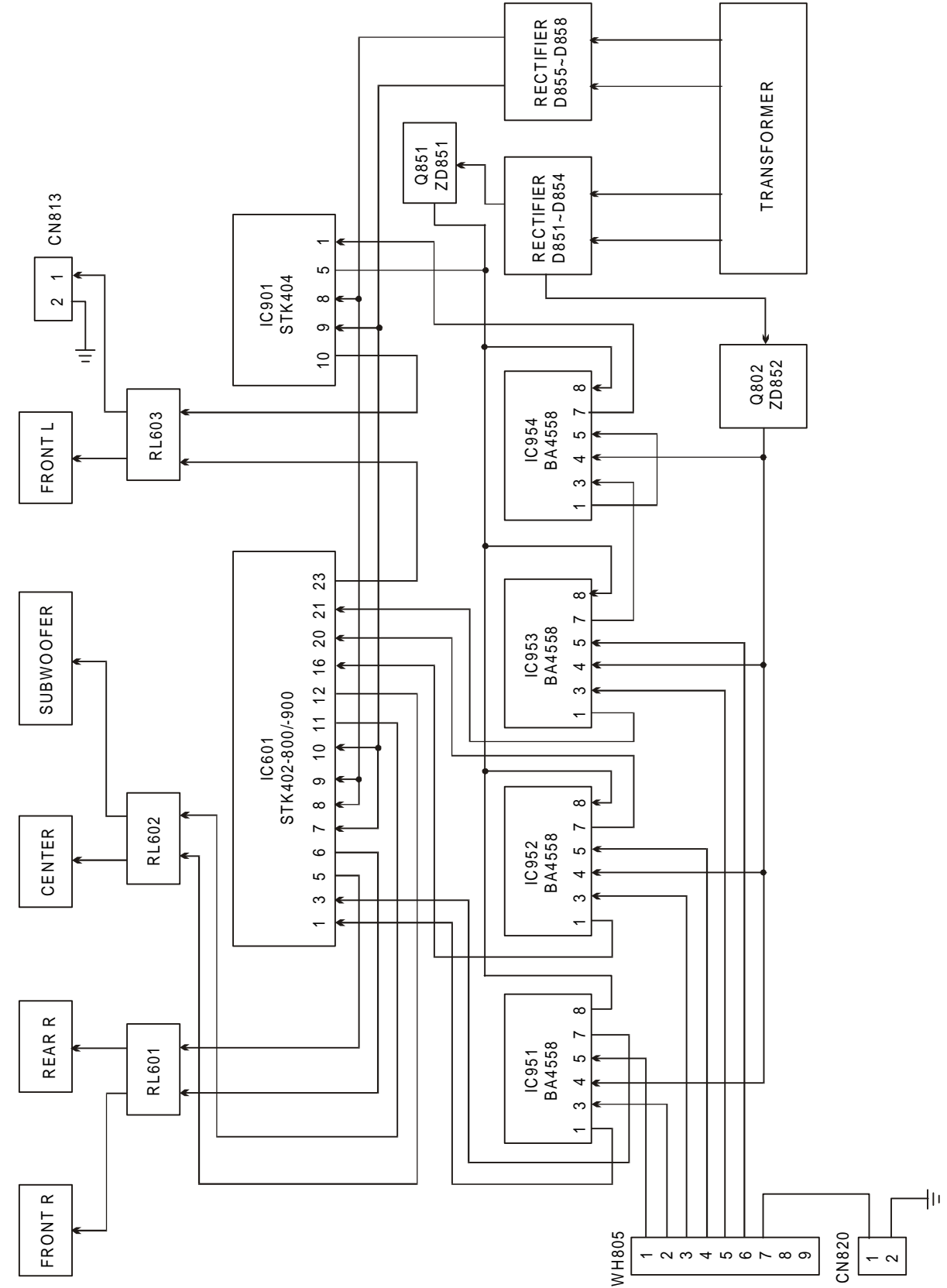
CPU & CONTROL SECTION



POWER SUPPLY SECTION



POWER AMPLIFIER SECTION FOR SUB-WOOFER



EXPLODED DRAWING PARTS LIST

Ref. No.	Description	Mfr's Part No.	Qty.
MAIN UNIT			
1	FRONT PANEL, CNS0360 (HIPS,V2) CAV:1, w/SPY & PNT, (RDS/VCD)	500-ST6101-xxx	1
2	HALF MIRROR LEFT TRIM, MIRROR LENS, w/PNT	512-ST6119-xxx	1
3	HALF MIRROR DVD DOOR, MIRROR LENS, w/PNT MIRROR LENS,w/PNT	512-ST6118-xxx	1
4	HALF MIRROR RIGHT TRIM, MIRROR LENS, w/PNT	512-ST6120-xxx	1
5	REMOTE LENS, MOLD TRANS.GREY (J-52858) CAV:4	500-ST6108-000	1
6	VOLUME LIGHT GUIDE, MOLD TRANS. GREN(80355) CAV:4	509-ST6110-000	1
7	CONTROL KNOB SET, MOLD CNS0360 (ABS) CAV:2, w/SPY, w/o PRINTING	510-ST6115-xxx	1
8	FRONT PANEL BRACKET, 1.2mm E.G. STEEL	605-DV3235-000	1
9	POWER PCB BRACKET (A) CAV.9 (ABS)	505-ST6111-000	9
10	MPEG PCB BRACKET (B) CAV.2 (ABS)	505-ST6112-000	2
11	LED HOLDER, CAV.1 (ABS)	505-ST6107-000	1
12	VOLUME KNOB (-), MOLD GREY(CNS-0360) (ABS) CAV:2, w/SPY	510-ST6141-xxx	1
13	VOLUME KNOB (+), MOLD GREY(CNS-0360) (ABS) CAV:2, w/SPY	510-ST6104-xxx	1
14	VFD-2COL100x20.5SM-033P, VFD301 VACUUM FLUORESCENT DISPLAY #VFD20-1002 (ZEC)	115-001002-000	1
15	REMOTE SENSOR HOLDER, CAV.1 (ABS)	505-ST6109-000	1
16	DISPLAY & KEY PCB STS61AAST-01-02	033-ST61A-101	1
17	MPEG+SERVO PCB STS21AAST-01-02	033-ST61A-101	1
18	TUNING PCB BRACKET, CAV.1 (ABS)	505-ST6113-000	1
19	HEATSINK, 0.5mm TIN PLATE 2/MPEG IC	613-DV3231-000	2
20	RGB CONNECTOR SOCKET 21 PINS, HRC-021V-07, (KUNMING)/MRC-021V-04(HONDA) JK701	135-HRC021-210	1
21	SCART PCB STS21AAST-01-05	033-ST61A-104	1
22	TUNER PCB STS21AAST-01-04	033-ST61A-103	1
23	OUTPUT PCB STS61AAST-01-03	033-ST61A-102	1
24	DVD DOOR BRACKET, MOLD BLACK (ABS) CAV:2	505-ST6117-000	1
25	SOCKET HOLDER, CAV.8 (ABS)	505-ST6136-000	1
26	DVD MECHANISM w/SAMSUNG CMS-S11MG6	STSD-010SMT	1
27	TOP COVER, T=0.6mm E.G.STEEL, w/SPY, w/HOLE, (SAME AS DV32-13)	600-ST6143-xxx	1
28	HS&-EXT-AL&-005W-0C FIRM VOLTAGE HEATSINK, (EXTRUDE AL) 1/POWER PCB	613-ST2112-000	1
29	RECTIFIER PCB STS61AAST-01-04	033-ST61A-103	1
30	POWER TRANSFORMER w/o FUSE	123-xxxxxx-xxx	1
31	PUSH SWITCH 2P2T PS3-22SP-W4CW-3.2, w/UL.VDE SEMKO APPROVAL (LUP FUNG)	021-032222-000	1
32	POWER KNOB, MOLD GREY(CNS-0360) (ABS) CAV:2, w/SPY	510-ST6106-xxx	1
33	BACK PLATE, 179x52.5mm, w/PNT, VID/D.AUD OUT/AUD L,R/AUX/SCART/S-V/75ohm	650-ST6126-xxx	1
34	POWER TRANSFORMER w/FUSE 130°C	123-xxxxxx-xxx	1
35	BOTTOM CABINET, T=0.8mm (E.G.STEEL)	600-ST6114-000	1
	HANDLE, MOLD BLACK (P.P) CAV:4, w/RECYCLE MARK ENGRAVE FOR CARTON	504-ST6145-000	2
	AUDIO OUT PLATE, S:35x31mm, R.1mm, BLK PVC w/PNT	650-ST6123-xxx	1
	SCREW 3x6mm BB T.T.S. (S TYPE) NI PLATED (TSB#9878107200)	722-080308-060	9
	SCREW ST3x8mm, PB BRASS BASED 8/ELE PARTS TO B CAB. 1/TUN PCB TO TUN PCB BKT	720-050300-080	9

EXPLODED DRAWING PARTS LIST - CONTINUED

Ref. No.	Description	Mfr's Part No.	Qty.
	FIBRE WASHER Ø12.0xØ3.0x1.0mm 2/SET	532-303012-100	2
	SPRING WASHER 3mm Zn 4/TX	532-403000-000	4
	TF PVC PLATE, 0.5mm PVC	650-ST6137-000	1
	TF STEEL PLATE, 0.35mm SI STEEL (Z11)	650-ST6146-000	1
	METAL TIE WIRE CLAMP M3 L60 (TSB#9872700800)	727-000360-000	1
	FIBRE WASHER DIA:3.2x8x1 1/SET	532-303208-100	1
	COPPER FOIL PLATE, COPPER FOIL	650-ST6147-000	1
	REMOTE SHIELDING, T=0.3mm E.G. STEEL	609-ST6142-000	1
	HEATSINK, ALUMINIUM	613-ST2228-000	1
	FIBER SHEET, 0.3mm FIBER SHEET	650-ST6148-000	1
	RUBBER FOAM, 25x18x15mm THK, w/DOUBLE SIDE TAPE 1/SET	700-026849-000	1
	SEPARATOR, T=0.3mm PVC PLATE , w/DOUBLE-SIDE ADHESIVE 1/SET	700-ST2124-000	1
	FELT PAPER, BLACK 75x6.5x0.8mm w/ADHESIVE 1/FRONT PANEL	700-3D5256-000	1
	SCREW ST2.6x10mm, PAB (M3 HEAD) BRASS BASED 5/FRONT PANEL	720-010260-100	5
	SCREW 3x6mm BB T.T.S. (PTB 3X6NI) 2/HEATSINK TO SERVO PCB	722-080300-060	2
	SCREW ST3x20mm T.T.S. BB (S TYPE) (STTB3x20NI) 1/PCB BKT TO BACK CAB.	722-080308-200	1
	*CdF SPK. BOX FELT 80x8x0.3mm, BLACK, (TSB#PM0005432010) 1/SET	700-993856-000	1
	REMOTE SENSOR INVISIBLE FELT, 1/SET	700-SD1614-000	1
	FELT B, 50x15x0.3mm HIMERON w/SONY T-3500, 2-SIDED TAPE (T#9871858900) 4/SET	700-SDC019-001	4
	SCREW ST3x10mm, PB BRASS BASED 1/TUNING PCB BKT	720-050300-100	1
	SCREW 3x8mm, PM BRASS BASED 4/TX	721-010300-080	4
	SCREW ST3x8mm BB T.T.S. (B TYPE), 4/IC TO HEAT SINK	722-080307-082	6
	CBTS(P)-Z CHROMATE PLATING CBTB 3x8 MC) 2/PCB TO HEAT SINK		
	(F722-080308-182) SCREW 3x18mm BB T.T.S. (S TYPE) 1/PCB BKT TO BACKCAB.	722-080308-180	1
	SCREW 3x14mm PM TTS w/NICKEL-PLATED 1/BKT TO BTM	722-110300-142	10
	SCREW 3x20mm PM T.T.S. (STP 3x20 NI) 4/MECHANICAL	722-110300-200	4
	*CdF NUT M3x0.5 PITCH Ni 4/TX	725-000030-500	4
	SPONGE, SIZE:15mmx15mmx10mm	700-0228A3-000	3
	*CdF 4" CABLE/PLASTIC TIE (SKB-1M/CV-1000)	727-000100-000	3
	PVC TUBE AWG1 INNER DIA. 7.35mm DC-3 (DAE CHANG) (UL/CSA APP.) TRANSPARENT UNIT"M"	728-000073-000	0.07
	*CdF PVC HEAT SHRINKABLE TUBE DIA.3.5mm (UNITUBE) (UL/CSA APP) UNIT"M"	728-015035-000	0.04
	TF STEEL PLATE, 0.35mm SI STEEL Z11	650-ST6146-000	1
	PCB SHIELD FIBRE PAPER	700-ST6122-000	1
	DIFFUSING PAPER (PAPER D207)	700-ST6139-000	1
	SCREW ST2x6mm, BB BRASS BASED 1/LIGHT GUIDE TO FRT PANEL	720-110200-060	1
	SCREW ST3x12mm, BB HEAD V5.9-6.3, BB BRASS BASED (P TYPE) 2/F.PANEL BKT.-F.PANEL	720-110300-120	2
	*CdF FUSE HOLDER, HTF-015	550-790000-000	4
DVD MECHANISM - STSD-010SMT			
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

EXPLODED DRAWING PARTS LIST - CONTINUED

Ref. No.	Description	Mfr's Part No.	Qty.
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, MPOM M90 94HB CAV:6 (POM)	509-0CDD18-000	1
10	MOTOR-DC-006V-NORMAL 6V #RF-500TB-12560, (MABUCHI) 10gm (KSM-2101-ABM-AL)	151-061256-000	1
11	LOAD MOTOR PCB STS21AAS-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 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
	CHUCK PVC PLATE, 17x3.5x0.2	650-ST1339-000	1
	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:2.8xDIA:7x0.5mm	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
	FOAM RUBBER, 6x5x4.5mm (HARDNESS 60 PAD CORD)	700-0CDD48-001	1
	SHIELD CORE (MABUCHI 53-192AB)	700-0CDD50-000	1
	HEATSINK SPACER, 50x6x2mm,	1.4PCS/SET 700-D15669-000	1.4
	INOAC RUBBER SPONGE C-4305 (BLK) w/TAPE		
	SCREW ST2x5mm PB BRASS BASED (M2.3 HEAD)	1/LEAF SW 720-050200-050	2
		1/SPRING PLATE	
	SCREW 2.6x5mm PM w/CHROMATE-PLATING	2/MOTOR-CHASSIS 721-010260-052	2
	SCREW 2.6x10mm BB T.T.S. (P TYPE),	722-080260-102	6
	CHROMATE PLATING (BTTB2.6x10MC)		
	*CdF 4" CABLE/PLASTIC TIE (SKB-1M/CV-1000	727-000100-000	1
CENTER SPEAKER SECTION - SSQC3			
1	SPEAKER CLOTH #FP-662-0WT (SILVER GREY), (230mmX160mm)X1PC/SET WIDTH:60"-62" UNIT"YD"	662-0FP662-000	0.0252
2	SPEAKER CLOTH MESH, CAV.2 (HIPS)	509-SQC303-000	1
3	SPEAKER PANEL, MOLD CNS-0360 (HIPS), w/SPY	500-SQC301-xxx	1
4	SPK00003*008OHM0050W w/BK DOME PAPER CAP #LF77SZ4307G55C8AS19PDB (GGEC) (L0234)	131-308050-010	1
5	HOLE COVER, MOLD CNS-0360 (HIPS) CAV:8	500-SSQ104-000	2
6	SPEAKER CABINET, MOLD GREY(CNS-0360) (HIPS), w/ENGRAVING	500-SQC102-000	1
7	PUSH TERMINAL BOARD PT-213-03 BLACK,RED, MSP-105H-03 BLACK,RED	118-000213-000	1
	*CdF SPK. BOX FELT 80x8x0.3mm, BLACK, (TSB#PM0005432010)	2/SPK CAB. 700-993856-000	1
	SPEKAER GASKET, 1.5 THK FOAM RUBBER	700-SQC204-000	1
	SCREW ST3x20mm, PAB BRASS BASED	4/CAB.-SPK PANEL 720-010300-200	4
	SCREW ST3x10mm BB HEAD V5.9-6.3 BRASS BASED	4/SPK-SPK PANEL 720-110300-100	4

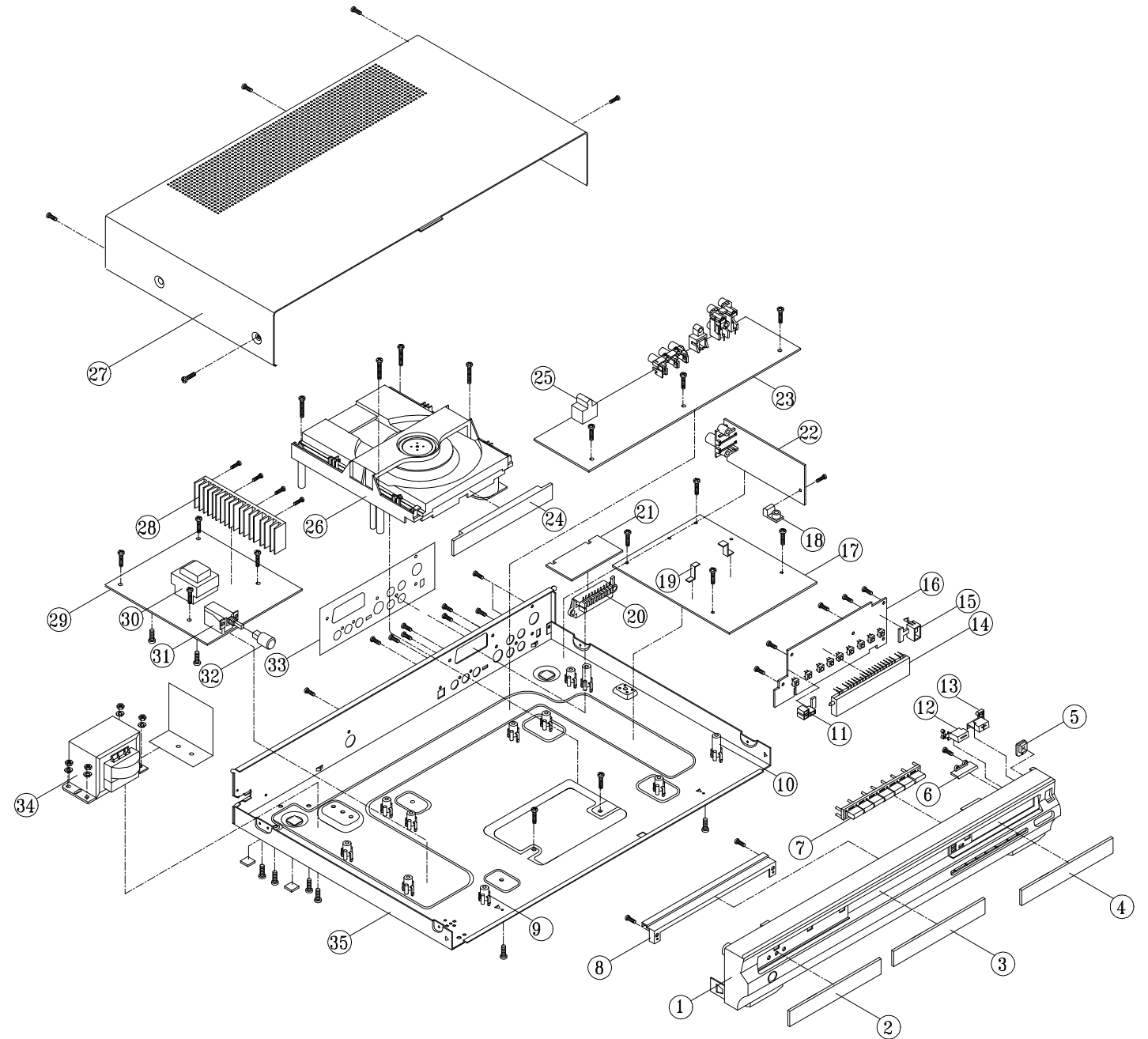
EXPLODED DRAWING PARTS LIST - CONTINUED

Ref. No.	Description	Mfr's Part No.	Qty.
	SCREW ST3x8mm, BB HEAD V5.9-6.3, BB BRASS BASED	720-110300-080	2
	2/PUSH TERMINAL BOARD-SP CAB.		
SUB-WOOFER SECTION - SWT1A			
1	SUB WOOFER PANEL, MOLD CNS0360 (HIPS), w/PNT	500-SWT106-xxx	1
2	LED PCB SWT1-01-06	033-00SWT1-600	1
3	SUB-WOOFER TUBE, MOLD L.GREY (CNS-0360) (HIPS) CAV:4	509-SWT202-000	1
4	SW BOX, 15mm PARTICAL BD, 220x380x285mm, SIL PVC MOKU ME-2907, SPY C.GR 8C (30W)	660-SWT107-000	1
5	SPEAKER POST ADAPTOR, MOLDED NATURAL, CAV.8 (ABS)	503-650127-000	6
6	RUBBER STAND, 22x8mm, BLACK, 7900, K-1S	700-021000-000	4
7	SPK006.5"004OHM0120W w/BK DOME PAPER CAP #SW165RZ5802G100F4AS36PFB (L0257)	131-6540A0-010	1
8	SPEAKER MESH, MOLDED BLACK, CAV.2 (HIPS) REV.1	509-299973-001	1
9	SPEAKER CLOTH #FP-662-0WT (SILVER GREY), WIDTH:60"-62" FOR SUBWOOFER (320x320mm) UNIT"YD"	662-0FP662-000	0.07
10	AMP. BRACKET, MOLD L.GR(CNS-0360) (HIPS 94V2) CAV:1	505-SWT104-000	1
11	(F550-823843-000) L BRACKET, MOLDED NATURAL (ABS)	505-823843-000	2
12	SUB-WOOFER RECTIFIER PCB SWT1-01-05	033-00SWT1-600	1
13	(F550-266422-000) MOUNTING BRACKET, MOLDED NATURAL, CAV.8 (ABS)	505-266422-000	2
14	CONNECTION PCB SWT1-01-04	033-00SWT1-600	1
15	POWER TRANSFORMER 13V w/FUSE 130°C	123-xxxxxx-xxx	1
16	SUB-WOOFER AMPLIFIER PCB SWT1-01-02	033-00SWT1-600	1
17	(F550-630123-000) PCB CONNECTION BRACKET, MOLDED BLACK, CAV.4 (ABS)	505-630123-000	4
18	SUB-WOOFER AMPLIFIER PCB SWT1-01-03	033-00SWT1-600	1
19	SOCKET HOLDER, CAV.8 (ABS)	505-ST6136-000	1
20	SUB-WOOFER AMPLIFIER PCB SWT1-01-01	033-00SWT1-600	1
21	IC BRACKET, 1.0mm THK E.G.STEEL	605-SWT112-000	1
22	HEAT SINK, EXTRUDE ALUMINIUM	613-SWT111-000	1
23	BACK COVER PLATE, 1.2mm THK E.G. STEEL w/PNT, S:313x194.5mm	650-SWT109-xxx	1
24	HEAT SINK COVER, MOLD L.GREY (CNS-0360) (HIPS) CAV:1	500-SWT108-000	1
	TUBE CUSHION, 5mm THK RUBBER FOAM, w/DOUBLE SIDE TAPE	1.5/SPK 700-299633-000	1.5
	METAL WASHER 3.5x10x0.5mm	4/SW BOX 532-203510-050	4
	FIBRE WASHER 3x8x1mm (NF77)	6/HEAT SINK 532-303008-100	6
	*CdF FIBRE WASHER Ø3.5x8x0.4mm (DIA:3x8x0.4mm)	2/AMP PCB 532-303508-040	2
	SPRING WASHER 4mm BLACK	6/TF 532-404000-000	6
	SOUND TUBE GASKET, DIA:68x1.5mm EVA	700-SWT213-000	1
	TUBE CUSHION, 5mm THK RUBBER FOAM, w/DOUBLE SIDE TAPE	1.5/SPK 700-299633-000	1.5
	SCREW ST2.6x8mm, PAB (M3 HEAD) (M3H), BRASS BASED	12/PCB BKT 720-010260-080	12
	SCREW ST2.6x6mm BB BRASS BASED	2/LED PCB 720-110260-060	2
	SCREW ST3x8mm, BB HEAD V5.9-6.3, BB BRASS BASED	2/L BKT 720-110300-080	4
		2/MOUNTING BKT	
	SCREW ST3x10mm BB HEAD V5.9-6.3 BRASS BASED	9/PCB 720-110300-100	27
	SCREW M3x8 PM BLACK ZINC	4/HEAK SINK COVER 721-010300-081	4
	SCREW 4x16mm, PM	6/TRANSFORMER 721-010400-160	6

EXPLODED DRAWING PARTS LIST - CONTINUED

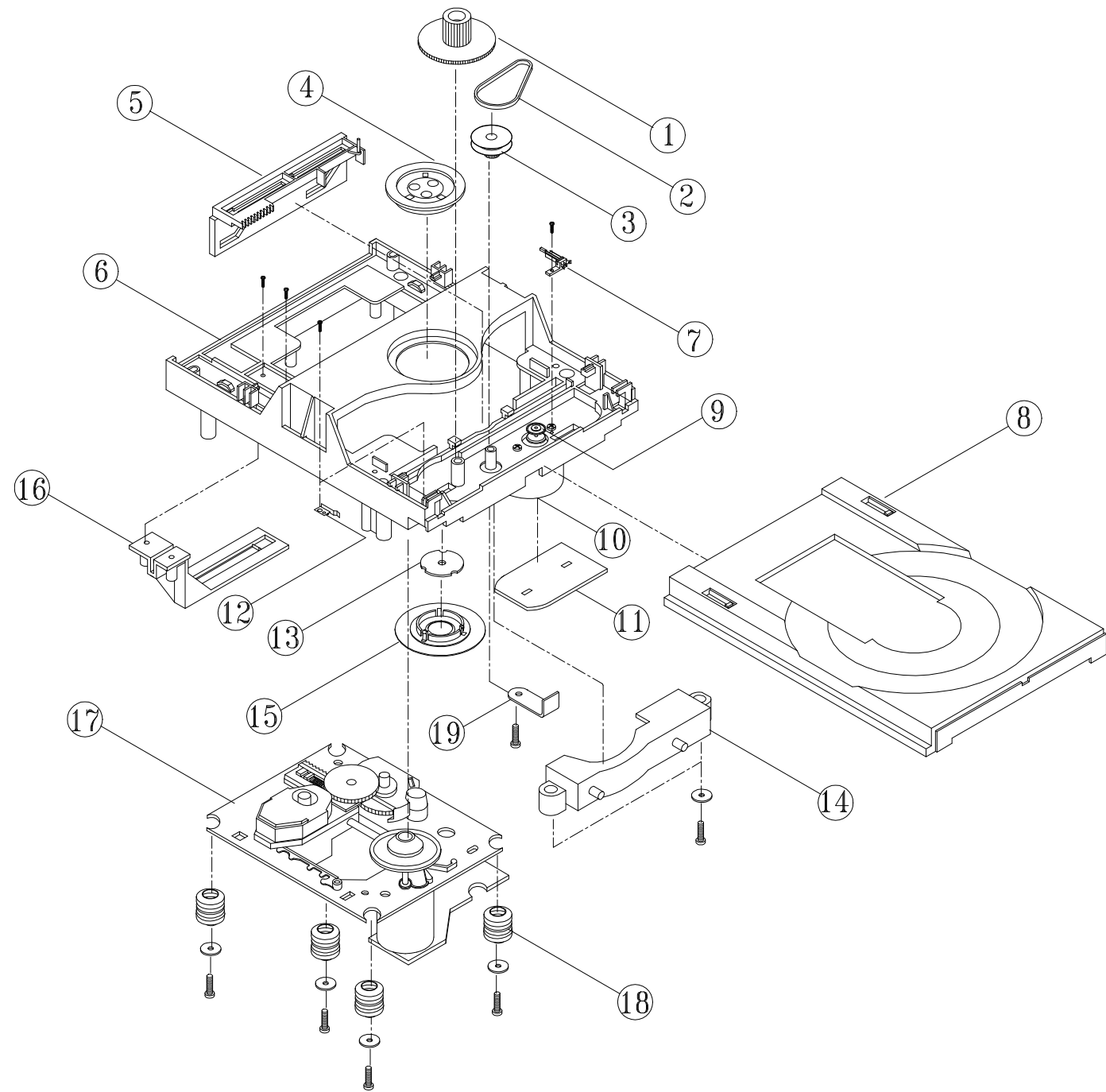
Ref. No.	Description	Mfr's Part No.	Qty.
	WOOD SCREW ST3x12mm BA CHIT BOARD 4/RUBBER STAND 4/SPK-SW BOX 6/SPK POST ADAPTOR TO SW BOX 4/SUB WOOFER TUBE TO SW BOX	720-190300-120	18
	WOOD SCREW ST4x20mm PWA CHIT BOARD, W=9.5-10mm YELLOW ZINC AMP BKT-SUB WOOFER BOX	720-180400-202	8
	SCREW ST3x8mm BB T.T.S. (B TYPE), CBTS(P)-Z CHROMATE PLATING CBTB 3x8 MC 6/HS-BACK PLATE	722-080307-082	6
	SCREW ST3x16mm BB T.T.S. (B TYPE) CBTS(P)-Z 4/POWER IC	722-080307-160	4
	NUT M4 6/TF	725-000040-000	6
	*CdF 4" CABLE/PLASTIC TIE (SKB-1M/CV-100)	727-000100-000	4
	*CdF PVC TUBE AWG3 INNER DIA:6.0mm, (DAE CHANG/TAE IK) (UL/CSA APP.) UNIT"M"	728-000060-001	0.16
	PVC TUBE AWG1 INNER DIA. 7.35mm DC-3, (DAE CHANG) (UL/CSA APP.) TRANSPARENT UNIT"M"	728-000073-000	0.75
	*CdF PVC HEAT SHRINKABLE TUBE DIA.3.5mm, (UNITUBE) (UL/CSA APP.) UNIT"M"	728-015035-000	0.04
	*CdF FUSE HOLDER, HTF-015	550-790000-000	8
4-SPEAKER SECTION - SSQ3			
1	SPEAKER CLOTH #FP-662-0WT (SILVER GREY), WIDTH:60"-62" (200mmX160mm)X4PCS/SET UNIT"YD"	662-0FP662-000	0.0875
2	SPEAKER CLOTH MESH, CAV.4 (HIPS)	509-SSQ303-000	4
3	SPEAKER PANEL, MOLD CNS-0360 (HIPS), w/SPY	500-SSQ301-xxx	4
4	SPK00003"008OHM0050W w/BK DOME PAPER CAP #LF77SZ4307G55C8AS19PDB (GGEC)(L0234)	131-308050-010	4
5	HOLE COVER, MOLD CNS-0360 (HIPS) CAV:8	500-SSQ104-000	4
6	SPEAKER CABINET, MOLD GREY(CNS-0360) (HIPS), w/ENGRAVING	500-SSQ102-000	4
7	PUSH TERMINAL BOARD PT-213-03 BLACK,RED, MSP-105H-03 BLACK,RED	118-000213-000	4
	*CdF 4" CABLE/PLASTIC TIE (SKB-1M/CV-100)	727-000100-000	1
	PVC TUBE AWG1 INNER DIA. 7.35mm DC-3, (DAE CHANG) (UL/CSA APP.) TRANSPARENT UNIT"M"	728-000073-000	0.12
	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 16/CAB.-SPEK PANEL	720-010300-350	16
	SCREW ST3x8mm, BB HEAD V5.9-6.3, BB BRASS BASED 8/PUSH TER. BOARD-SPK CAB.	720-110300-080	8
	SCREW ST3x10mm BB HEAD V5.9-6.3 BRASS BASED 16/SPK-SPK PANEL	720-110300-100	16

EXPLODED DRAWING - MAIN UNIT



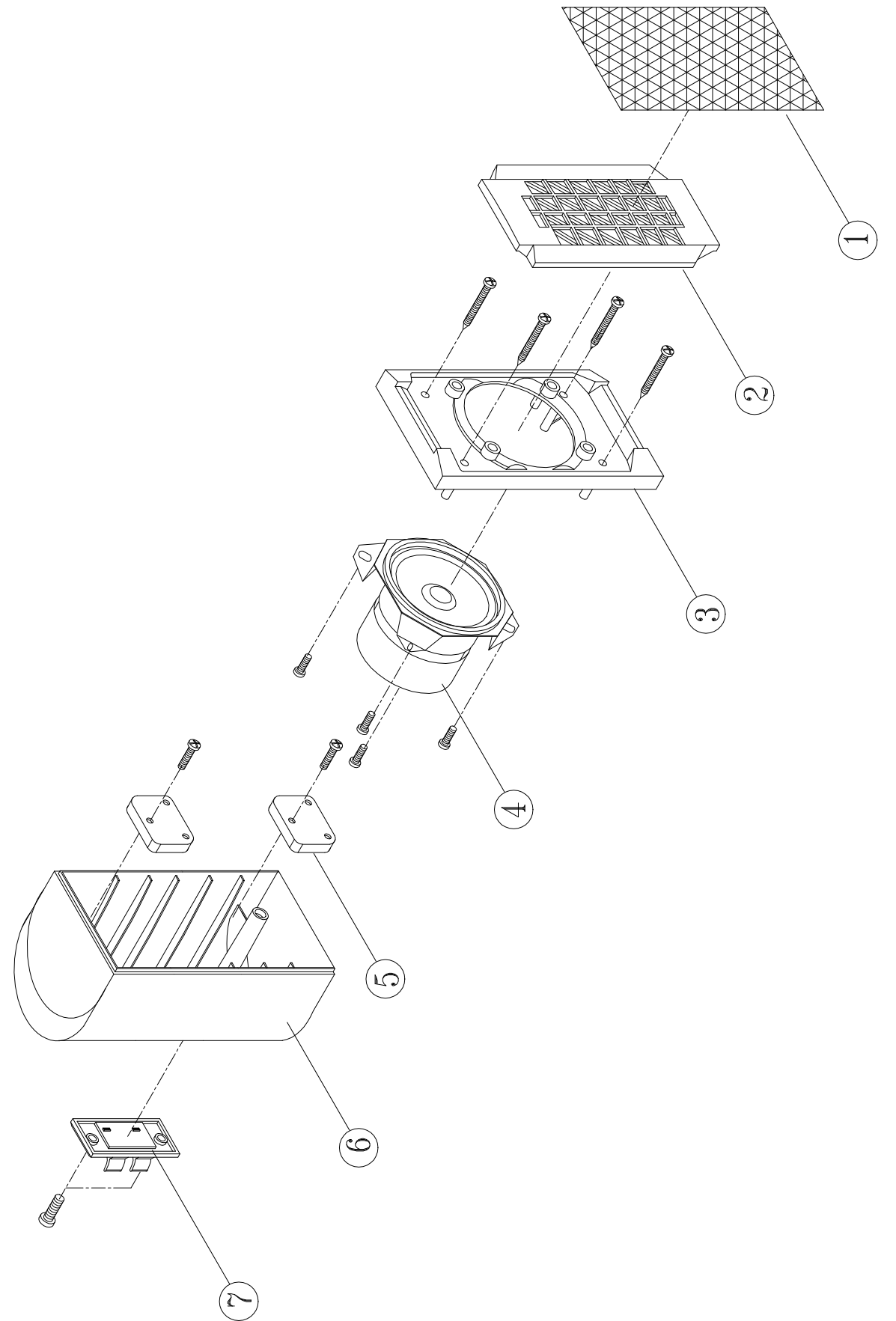
EXPLODED DRAWING - DVD MECHANISM

(STSD-010SMT)



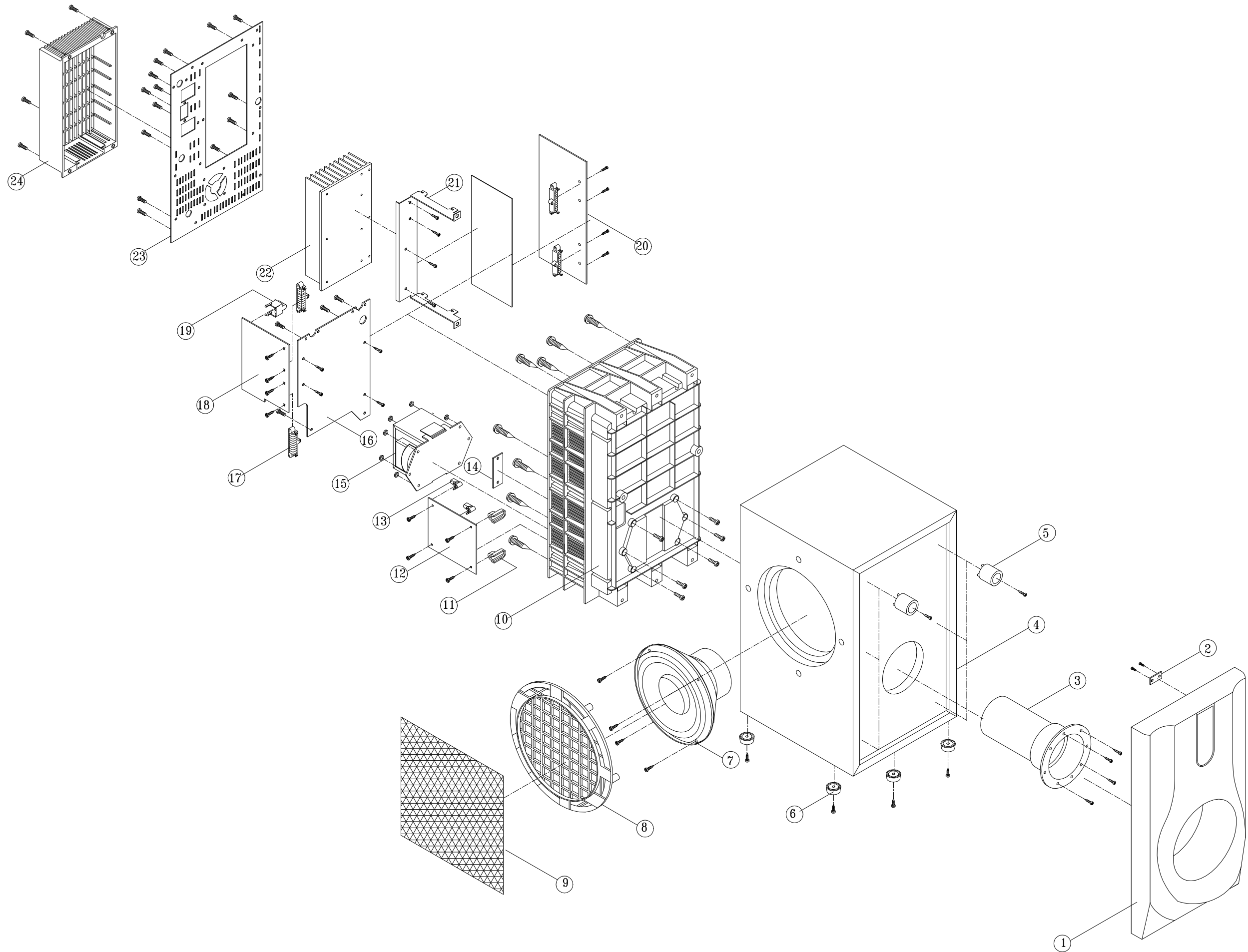
EXPLODED DRAWING - CENTER SPEAKER

(SSQC3)



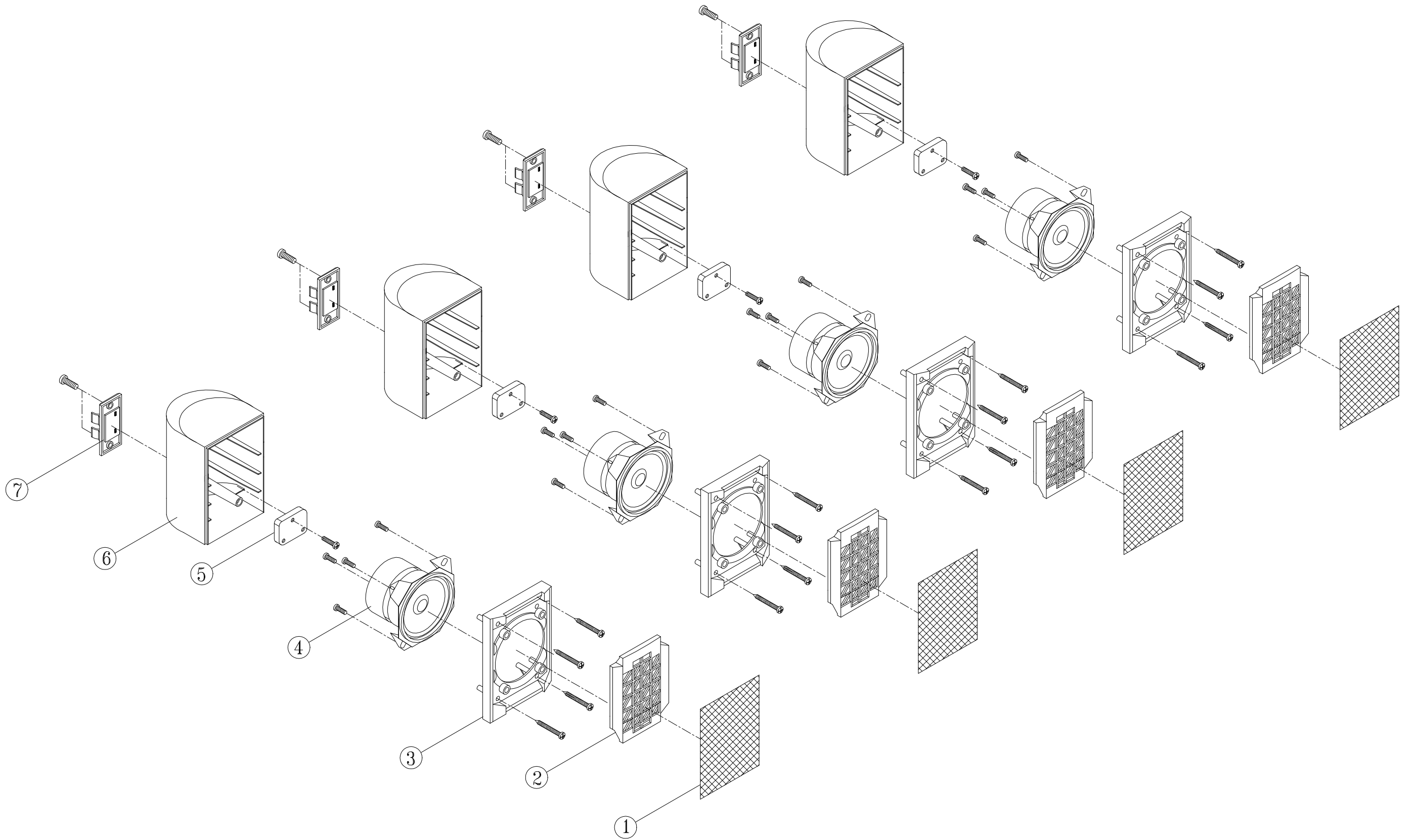
EXPLODED DRAWING - SUB-WOOFER

(SWT1A)



EXPLODED DRAWING - 4-SPEAKER

(SSQ3)



NOTES

July, 2003