

Service  
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**Service**



# Service Manual



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Version 1.0



# PHILIPS

# SPECIFICATIONS

## Playback media

DVD-Video, DVD+R/+RW, DVD-R/-RW, DVD+RDL, CD-R/CD-RW, Audio CD, Video CD/SVCD, Picture CD, MP3-CD, WMA-CD, DivX-CD, USB storage device

## File Format

Audio: .mp3, .wma  
Video: .divx, .divx ultra, .mpeg, .mpg, .wmv (simple profile)  
Picture: .jpeg, .jpg

## Amplifier

Total output power..... 1200 W RMS (30%THD)  
Frequency response..... 20 Hz-20 kHz /  $\pm 3$ dB  
Signal-to-noise ratio..... > 65 dB (CCIR) /(A-weighted)  
Input sensitivity:  
.....AUX: 900 mV  
.....MP3 LINK: 500 mV

## Video

Signal system ..... PAL / NTSC  
HDMI output ..... 480i/576i, 480p/576p, 720p, 1080i, 1080p

## Audio

S/PDIF Digital audio input:  
Coaxial..... IEC 60958-3  
Sampling frequency:  
MP3 ..... 32 kHz, 44.1 kHz, 48 kHz  
WMA..... 44.1 kHz, 48 kHz  
Constant bit rate:  
MP3 ..... 112 kbps - 320 kbps  
WMA..... 48 kbps - 192 kbps

## Radio

Tuning range ..... FM 87.5-108 MHz (50 kHz)  
Signal-to-noise ratio..... FM 50 dB  
Frequency response..... FM 180 Hz-10 kHz / $\pm 6$ dB

## USB

Compatibility ..... Hi-Speed USB (2.0)  
Class support..... UMS (USB Mass Storage Class)  
File system ..... FAT12, FAT16, FAT32  
Maximum memory support ..... < 160GB

## Main Unit

Power supply ..... (110-127v/220-240V) ; ~50-60 Hz  
Power consumption ..... 150 W  
Standby power consumption ..... < 0.9 W  
Dimensions (WxHxD) ..... 435 x 58 x 358(mm)  
Weight ..... 3.56 kg

## Speakers

System..... full range satellite  
Speaker impedance..... 3 ohm (center), 4 ohm (Front/Rear)  
Speaker drivers ..... 2 x 3" full range  
Frequency response..... 150 Hz-20 kHz

## Dimensions (WxHxD):

Center..... 280 x 95 x 92 (mm)  
Speaker ..... 100 x 280 x 115 (mm)  
Tall speaker ..... 260 x 1101 x 260 (mm)  
Weight:  
Center..... 1.40 kg  
Speaker ..... 1.05 kg/each  
Tall speaker ..... 3.73~3.81 kg/each  
Cable length:  
Center..... 3 m  
Front ..... 4 m  
Rear..... 10 m

## Subwoofer

Impedance..... 3 ohm  
Speaker drivers ..... 203mm (8") woofer  
Frequency response..... 40 Hz-150 kHz  
Dimensions (WxHxD) ..... 196 x 395 x 342(mm)  
Weight ..... 5.37 kg  
Cable length ..... 4 m

## Laser specification

Type..... Semiconductor laser GaAlAs (CD)  
Wave length..... 645 - 665 nm (DVD), 770 -800 nm (CD)  
Output power ..... 6 mW (DVD), 7 mW (VCD/CD)  
Beam divergence..... 60 degrees.

Specifications subject to change without prior notice.

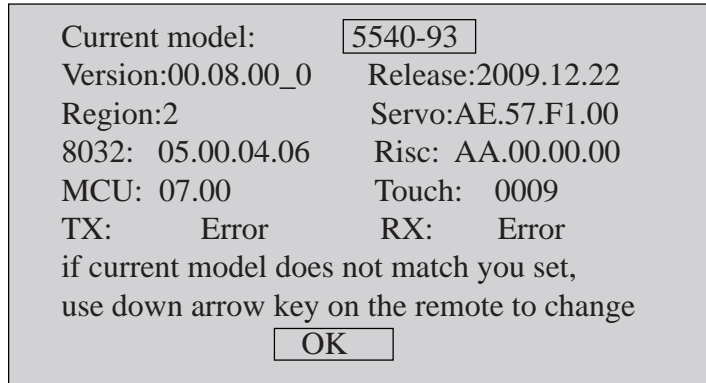
## Software upgrade & Procedure to restore product setting

### 1) Restore factory setting

- Press <SETUP> button on R/C
- Select <preference setup> ,then press < OK >
- Select <default>,then press <OK> to confirm

### 2)Stroke version setting

- Open the Door,then,press "1" "5" "9" on RC
- Press <OK> button on RC
- TV will show message as follow:



### 3)Password change

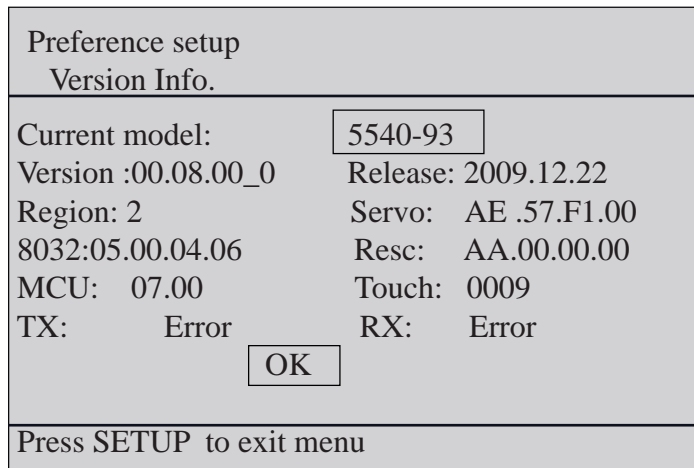
- Press <SETUP> button on R/C
- Select <preference setup> ,then press <OK>
- Select <password> <change>,then press <OK> to confirm  
"0000" is default password supplied.

### 4)Trade model

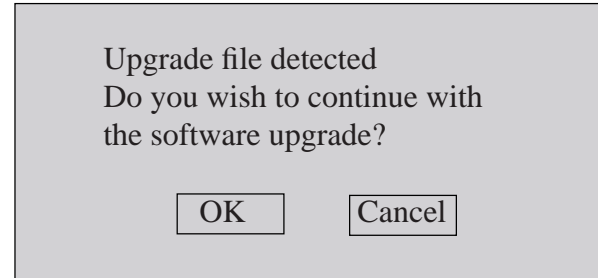
- Press <Open/Close>button on R/C
- Press "2" "5" "9" on R/C,VFD will display "TRA ON " or "TRA OFF"

### 5)Check on software version

- Press <SETUP> button on R/C
- Select <preference setup> ,then press <OK>
- Select <version info>,then press <OK>
- TV will show message as follow:



- Copy the latest upgrading software onto a CD-R or USB storage device
- Insert the CD-R program disc or connect the USB storage device to the home theater
- TV will show message as follow



- Select <OK>,the home theater will start to upgrading automatically

Note: when upgrade in progress, please do not unplug or switch off the device.  
when the updated is complete ,the home theater automatically switch to standby.

### 7) Produce to change Tuner grid

Only applicable for certain regions, in some countries, the frequency step between adjacent channels in the FM hand is 50KHZ(100KHZ in some areas)

- Press<radio> on R/C to select "FM"
- In "FM" playbak mode,press & hold< play/pause> button until "grid 9" or "grid 10" appears

Note: repeaing the same action will toggle back to it previous tunning grid setting.

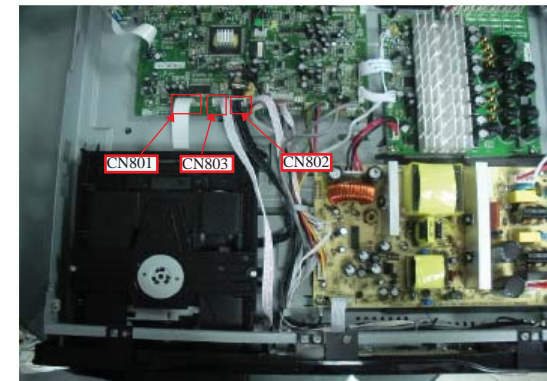
\* "grid 10" is default for /93/94/51 version.

### 8) How to replace the defective DVD loader module

- Remove the defective DVD loader module.



- Connect DVD loader to "CN801", "CN802", "CN803" on the top of main board as shown below.



- Remove solder joint on the ESD protection points.

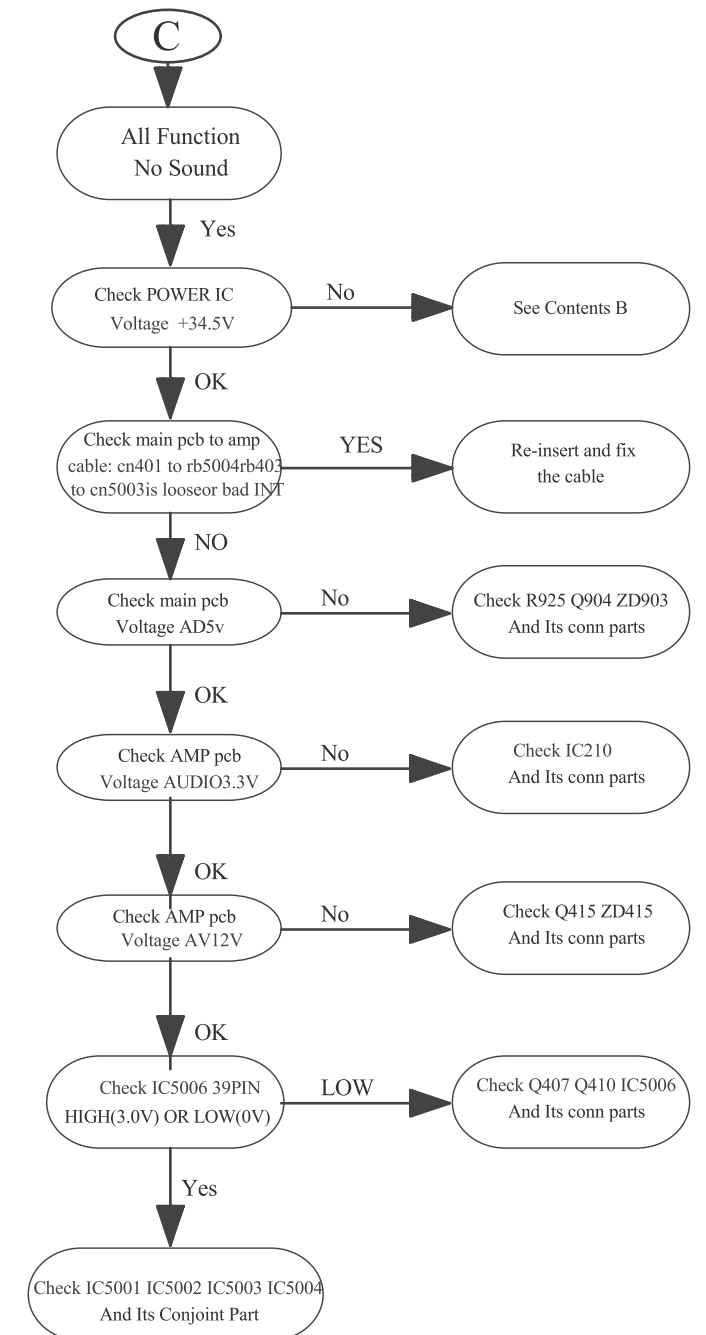
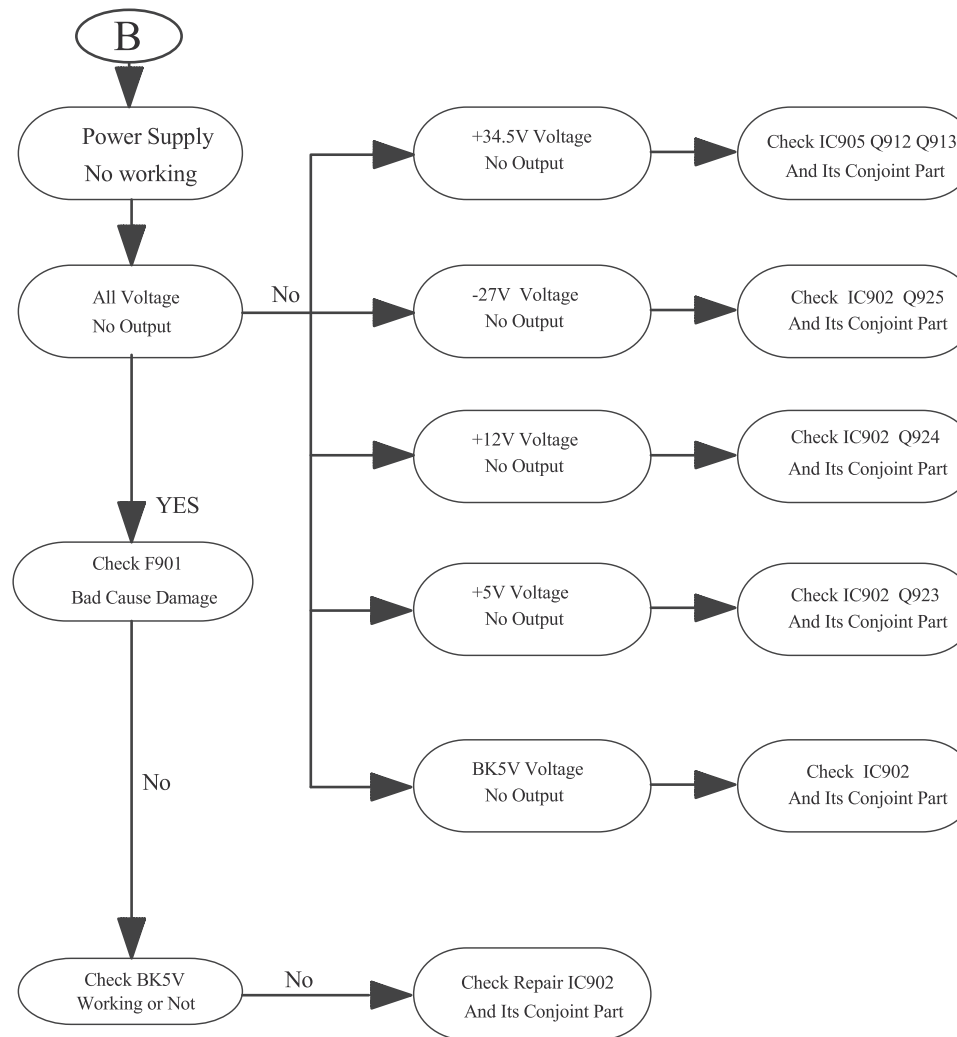
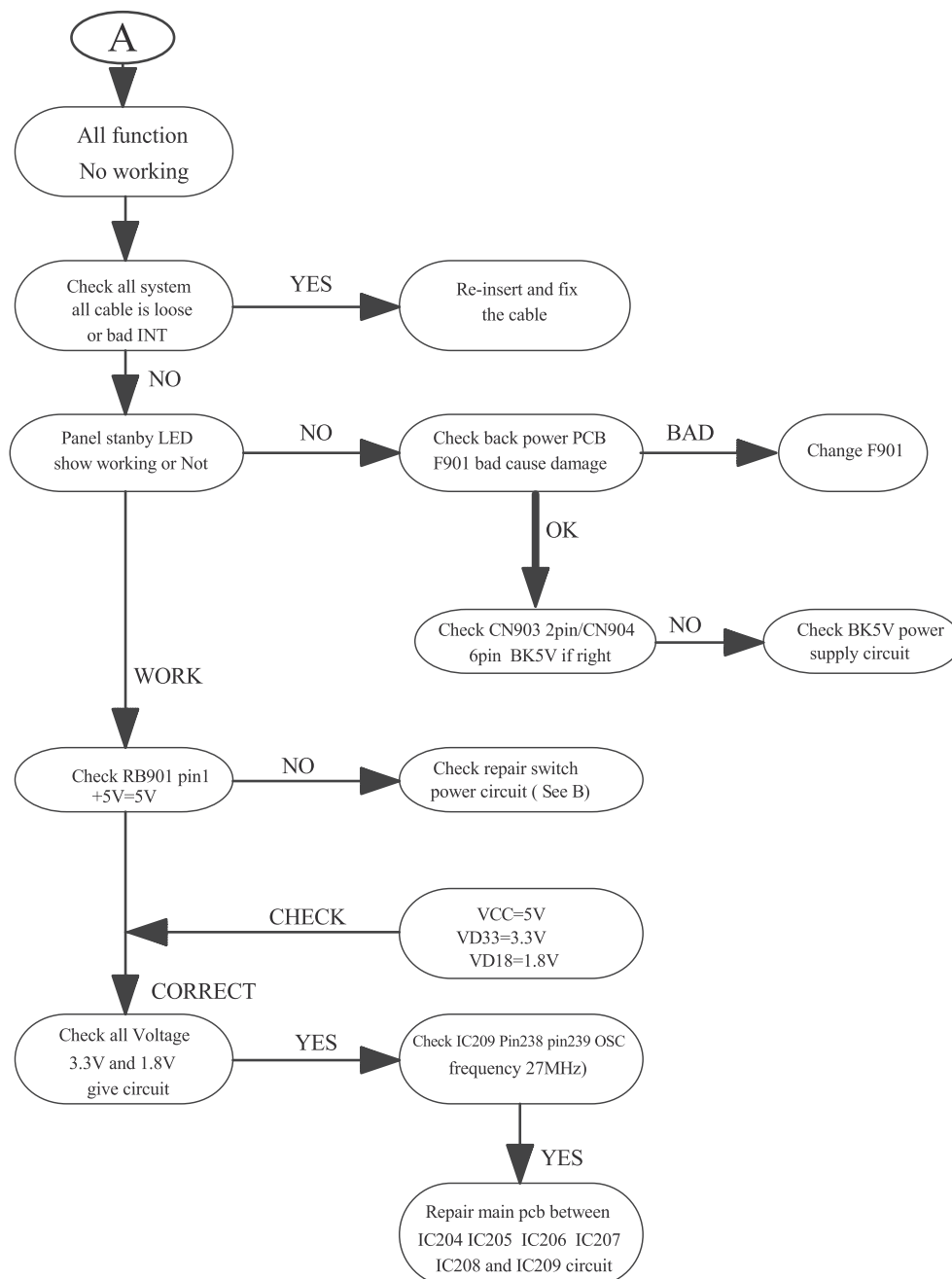
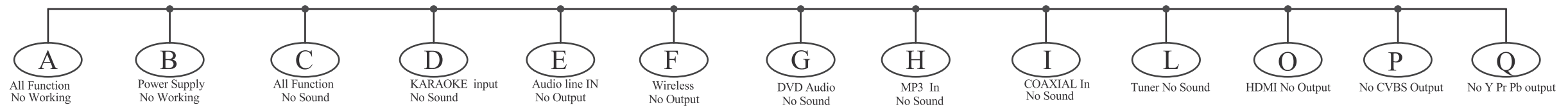


Note: if the DVD loader is ok, must solder the ESD protection points on the top of DVD loader board before remove the connect "CN801" "CN802" "CN803" on the top of main board cable, lest should damage the DVD loader.

#### CAUTION!

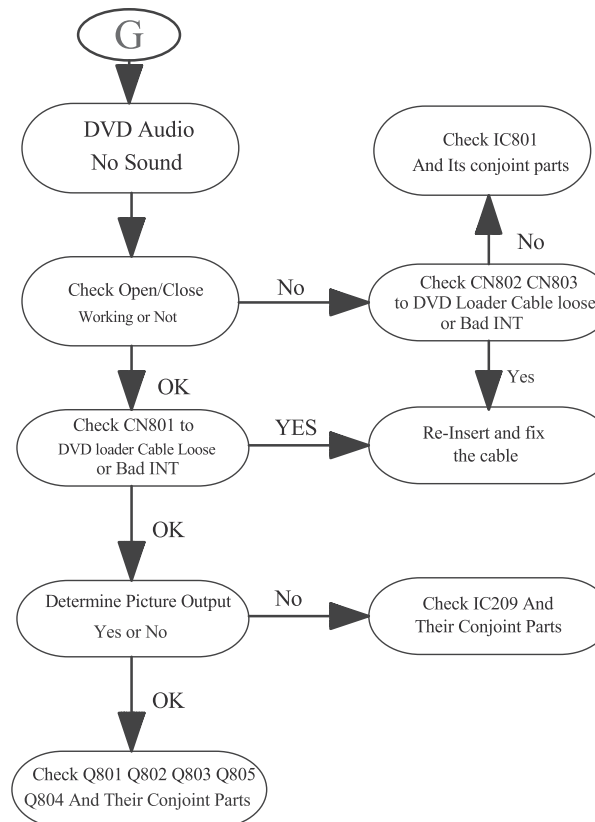
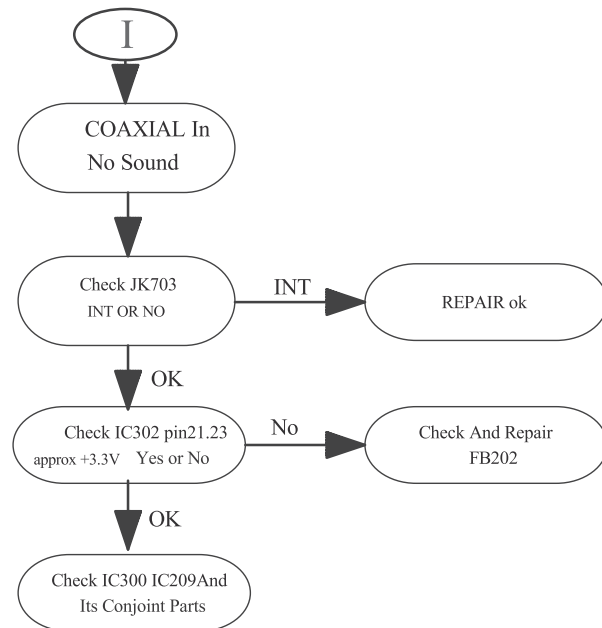
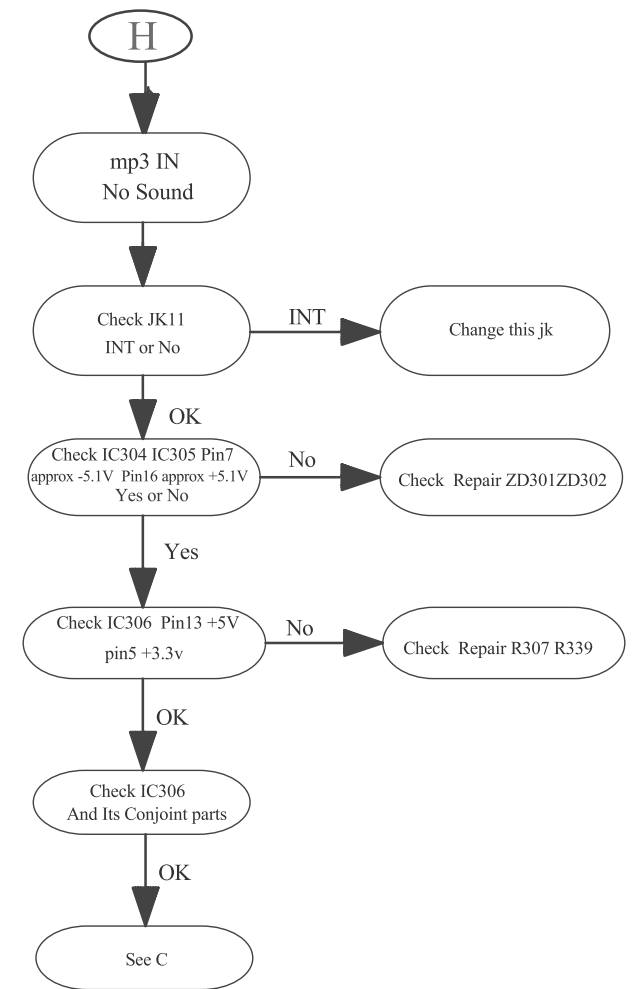
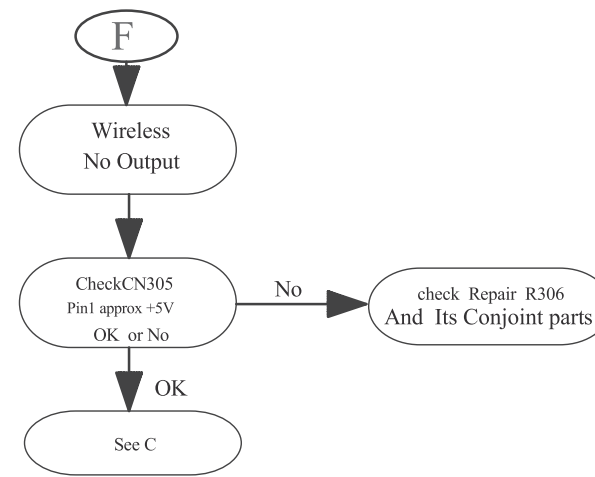
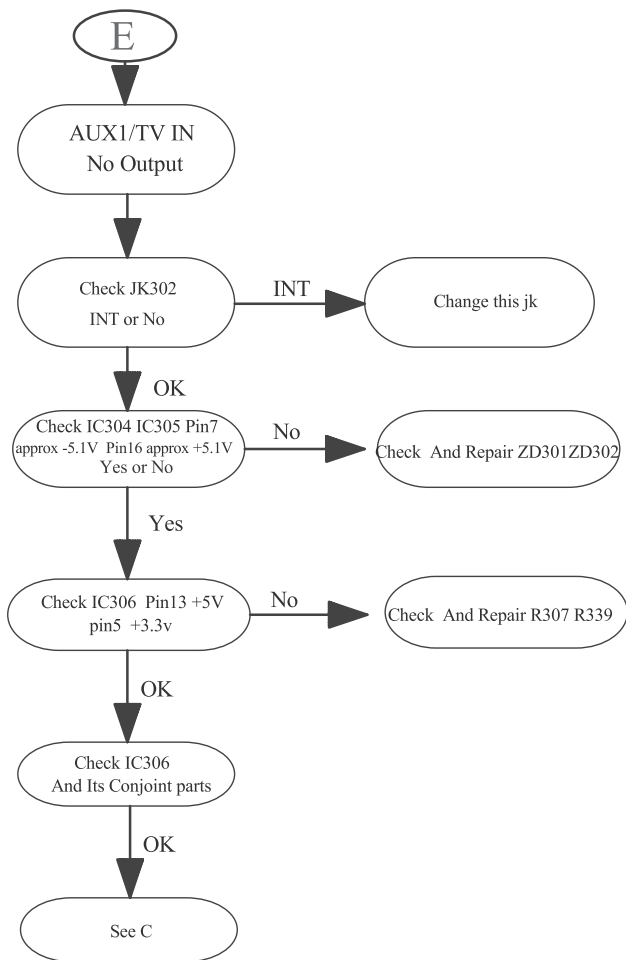
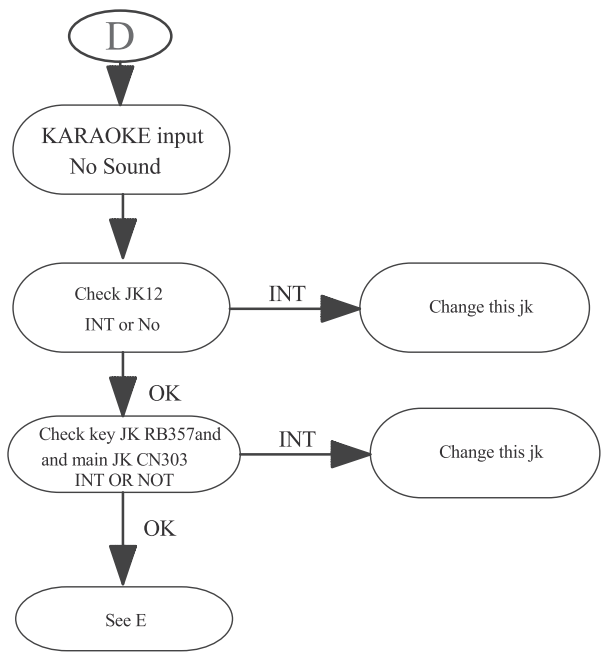
This information is confidential and may not be distributed.Only a qualified service person should reprogram the Region Code.

# MAIN UNIT REPAIR CHART 1/3

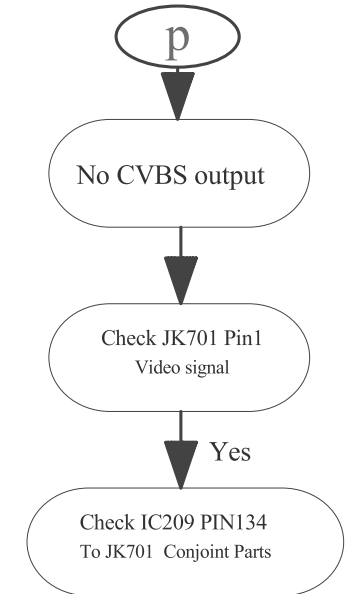
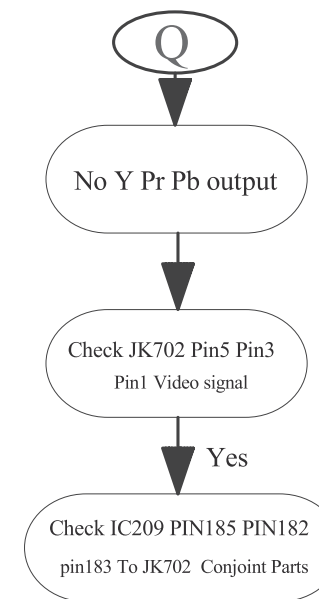
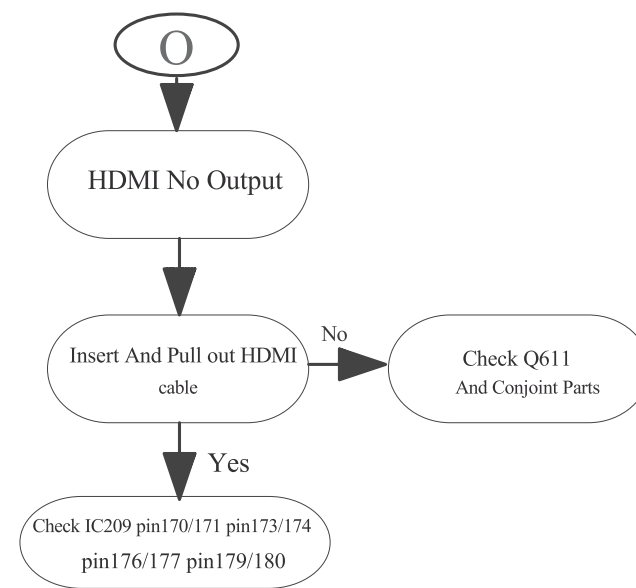
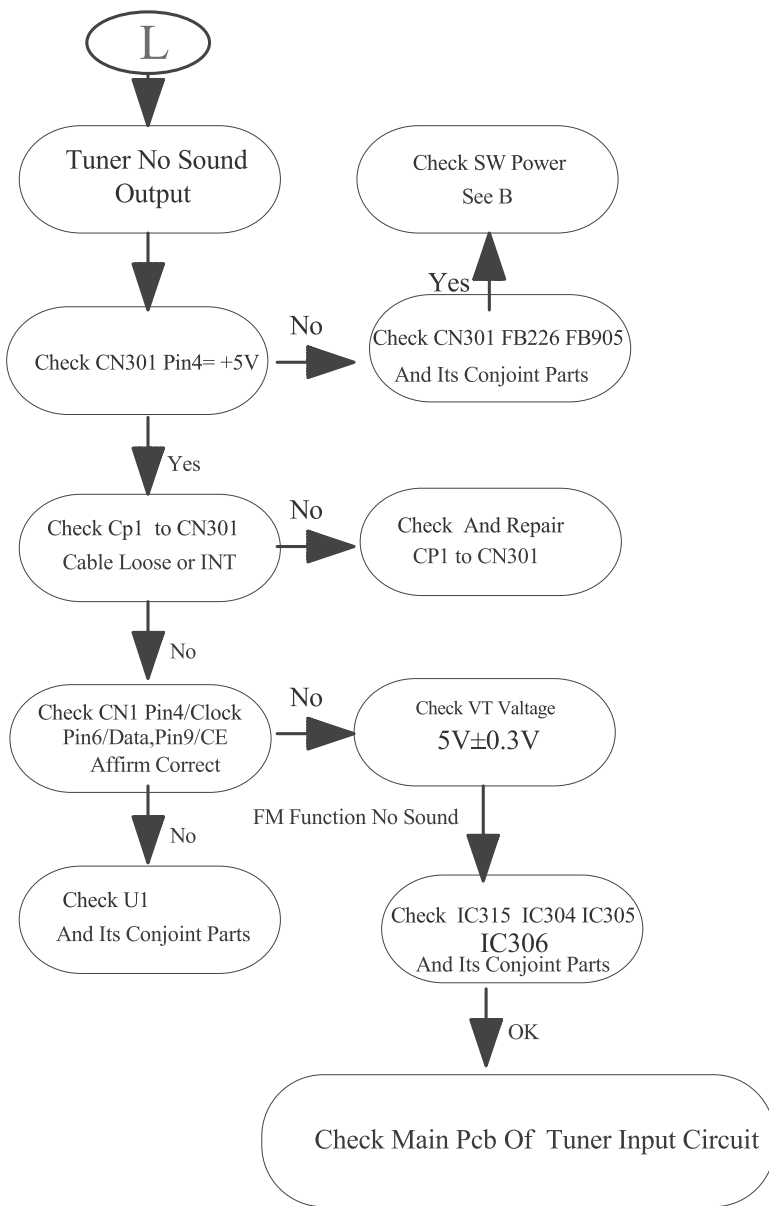


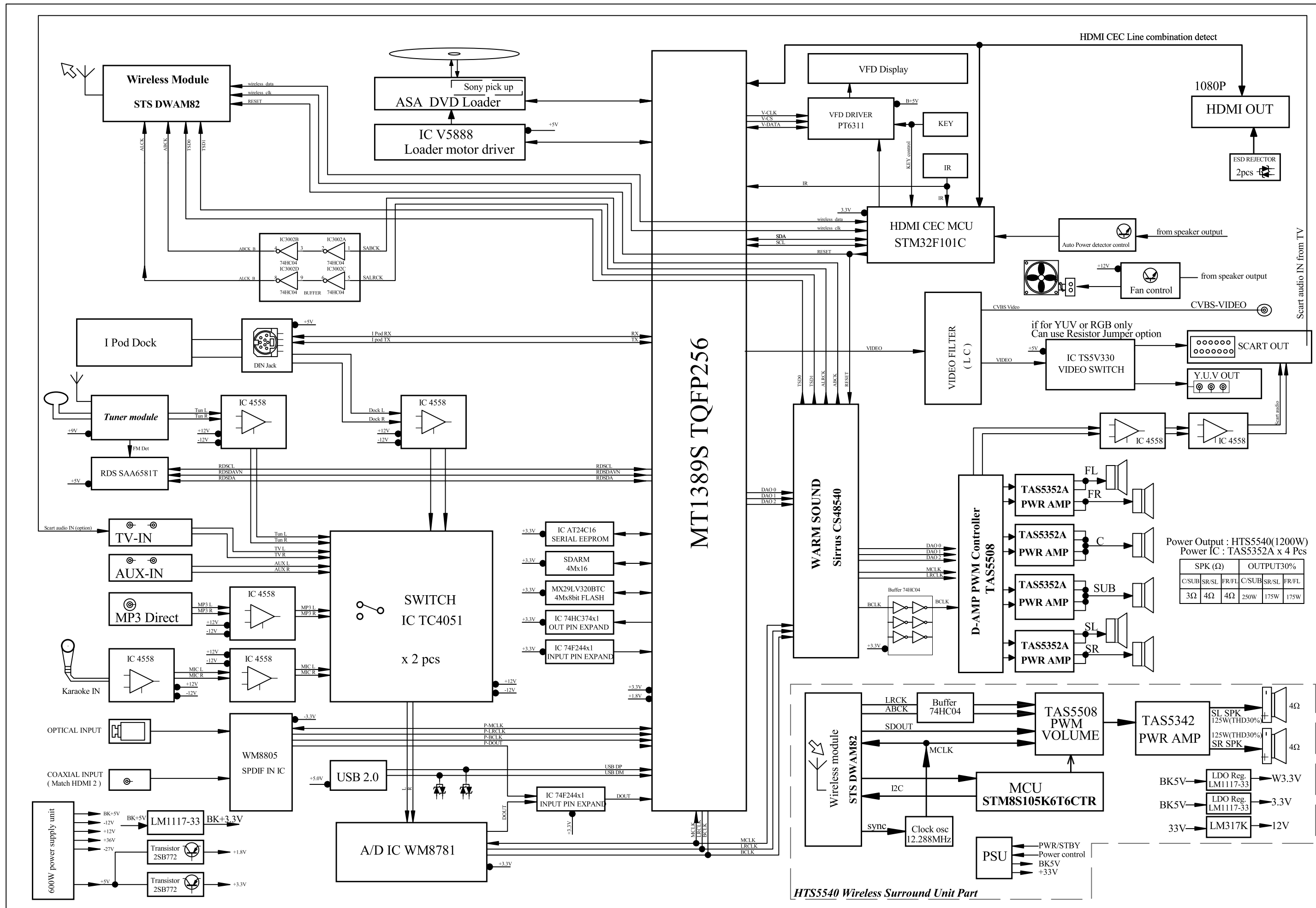


# MAIN UNIT REPAIR CHART 2/3

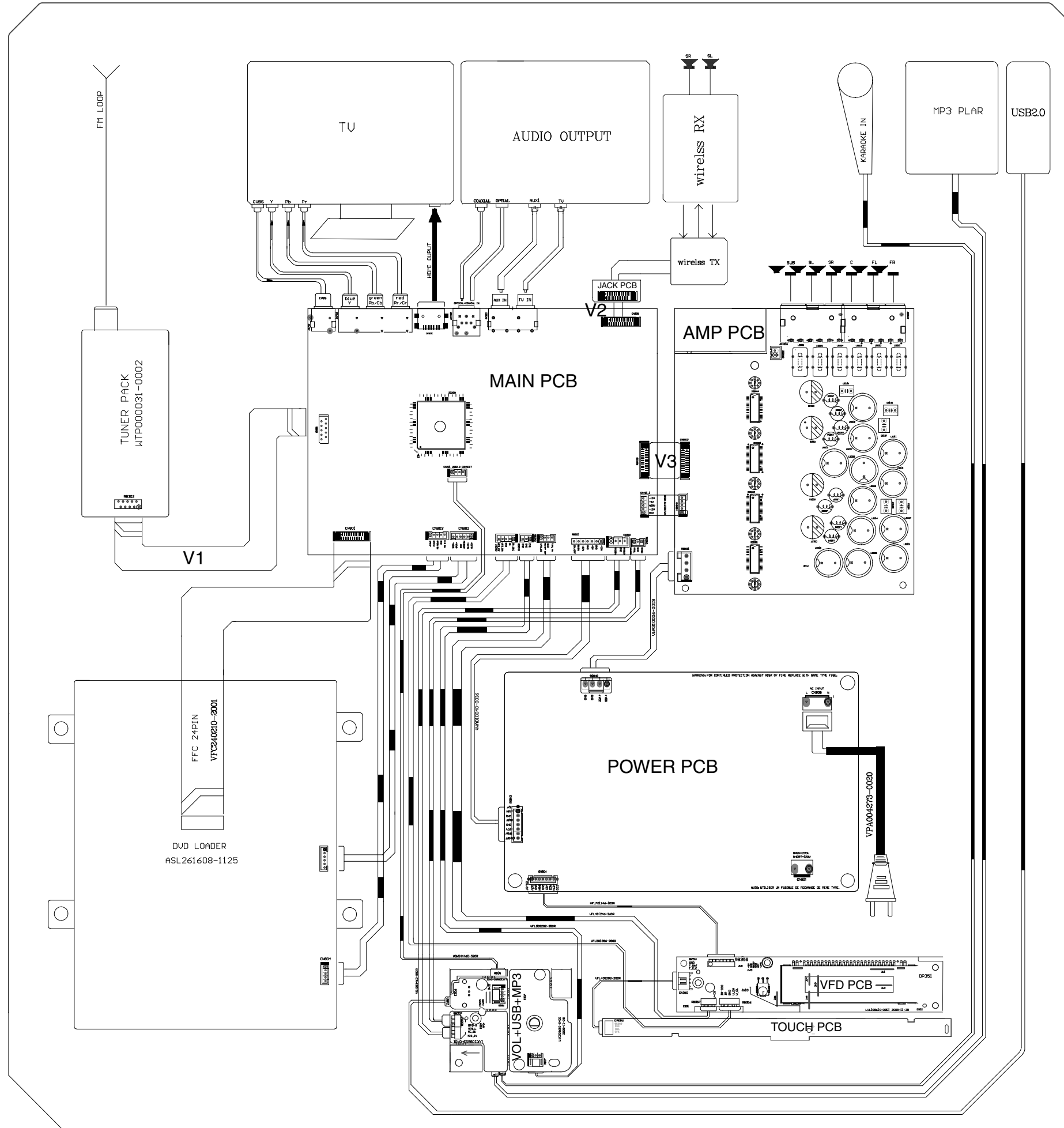


# MAIN UNIT REPAIR CHART 3/3

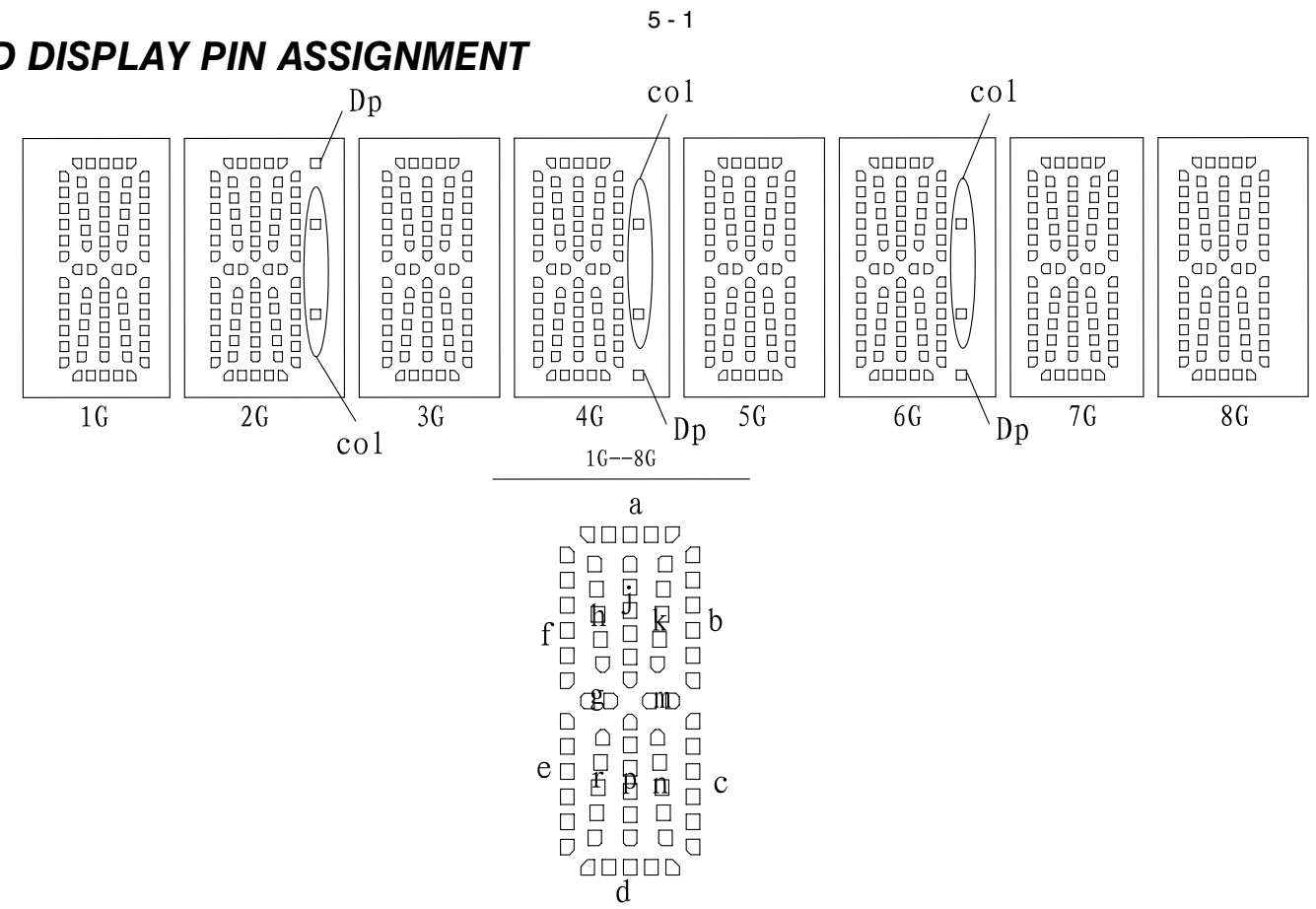




HTS5540 Wireless Surround Unit Part



**FTD DISPLAY PIN ASSIGNMENT**



# VFD BOARD

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	1G	2G	3G	4G	5G	6G	7G	8G
P1	a	a	a	a	a	a	a	a
P2	j, p	j, p	j, p	j, p	j, p	j, p	j, p	j, p
P3	h	h	h	h	h	h	h	h
P4	k	k	k	k	k	k	k	k
P5	b	b	b	b	b	b	b	b
P6	f	f	f	f	f	f	f	f
P7	m	m	m	m	m	m	m	m
P8	g	g	g	g	g	g	g	g
P9	c	c	c	c	c	c	c	c
P10	e	e	e	e	e	e	e	e
P11	r	r	r	r	r	r	r	r
P12	n	n	n	n	n	n	n	n
P13	d	d	d	d	d	d	d	d
P14	/	col	/	col	/	col	/	/
P15	/	Dp	/	Dp	/	Dp	/	/

**PIN CONNECTION**

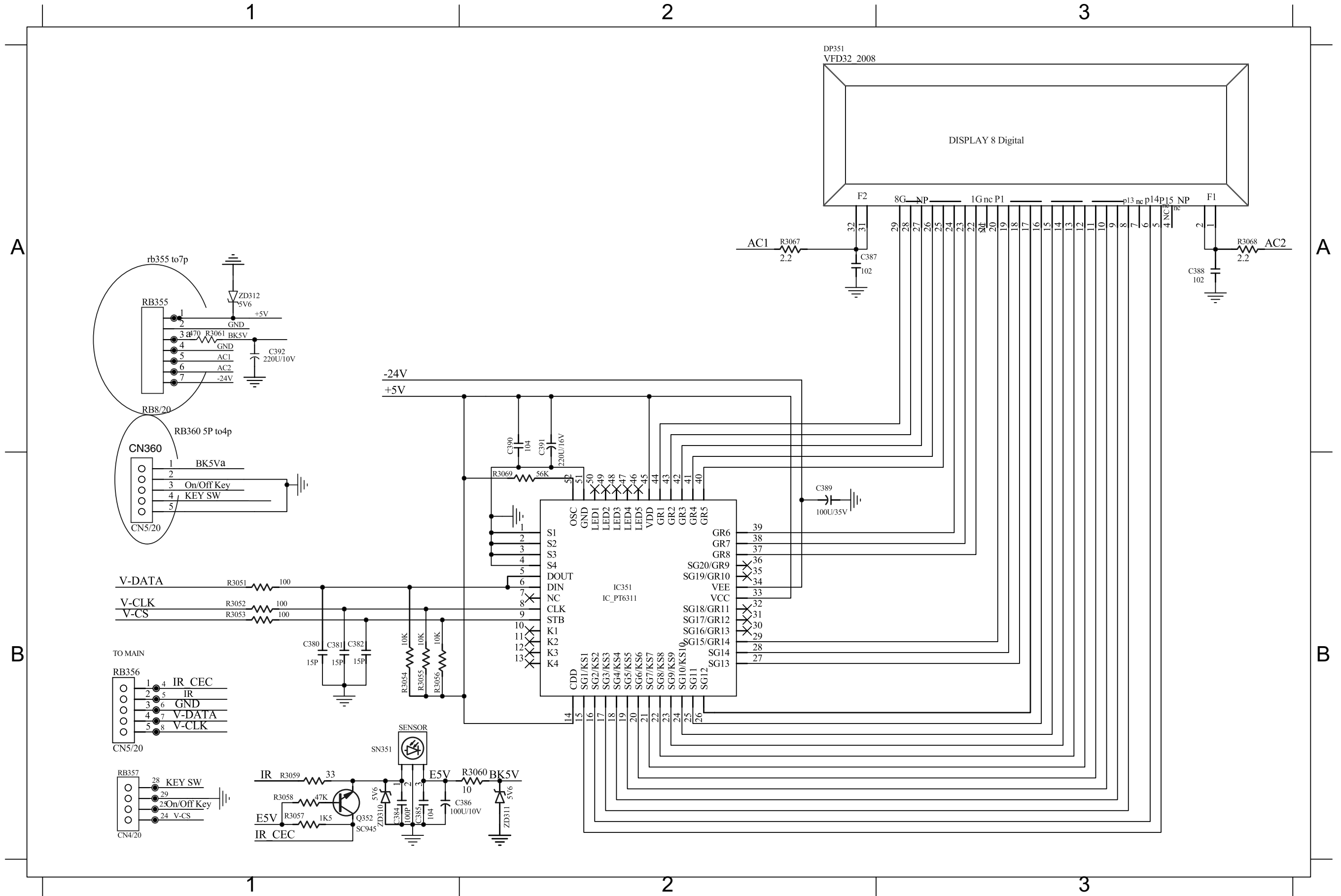
(Pin NO.)	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
(Connection)	F1	F1	NP	NC	P15	P14	NC	P13	P12	P11	P10	P9	P8	P7	P6	P5
(Pin NO.)	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
(Connection)	P4	P3	P2	P1	NC	1G	2G	3G	4G	5G	6G	7G	8G	NP	F2	F2

(Notes) : Fn : (Filament Pin)      nG : (Grid Pin)  
 Pn : (Anode Pin)                      NP : (No Pin)  
 NC : (No connection Pin)



# CIRCUIT DIAGRAM

C392 A1	ZD312 A1	C391 A2	DP351 A3	C381 B1	C385 B1	Q352 B1	R3052 B1	R3055 B1	R3058 B1	RB357 B1	C389 B2	R3060 B2
R3061 A1	C387 A2	R3067 A2	R3068 A3	C382 B1	C386 B1	Q352 B1	R3053 B1	R3056 B1	R3059 B1	SN351 B1	IC351 B2	R3069 B2
RB355 A1	C390 A2	C388 A3	C380 B1	C384 B1	CN360 B1	R3051 B1	R3054 B1	R3057 B1	RB356 B1	ZD310 B1	IC351 B2	ZD311 B2

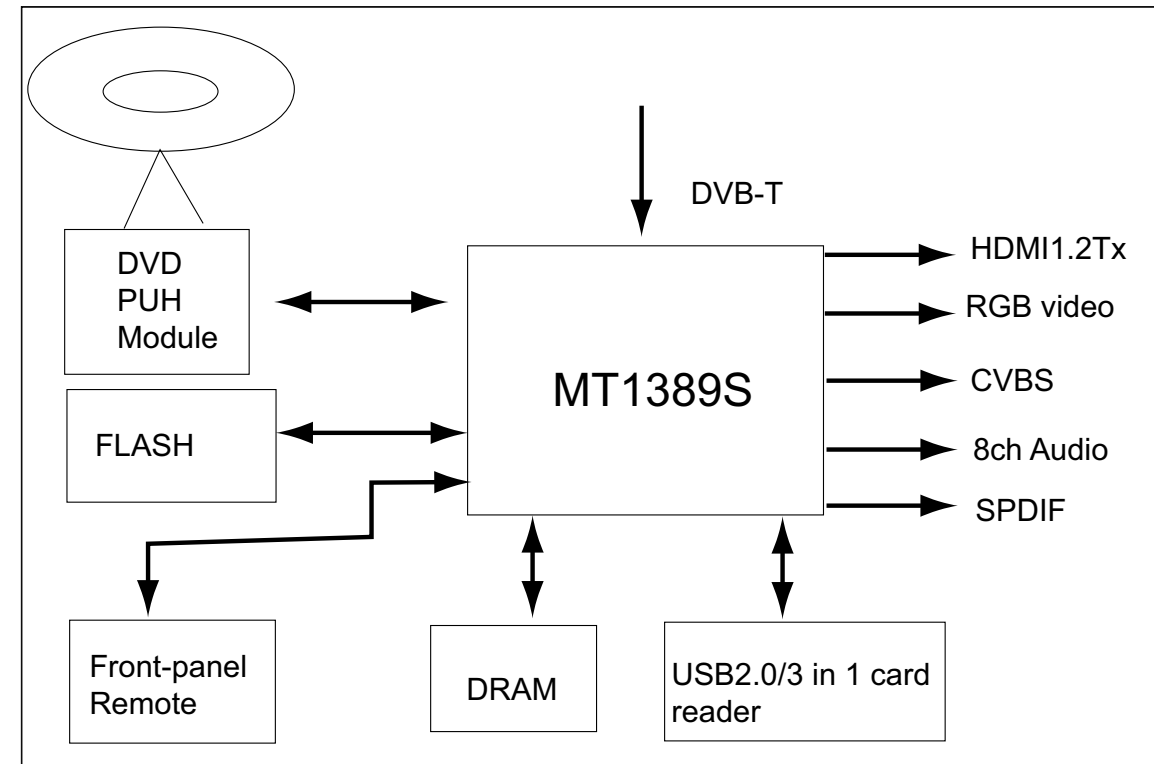


# MAIN BOARD

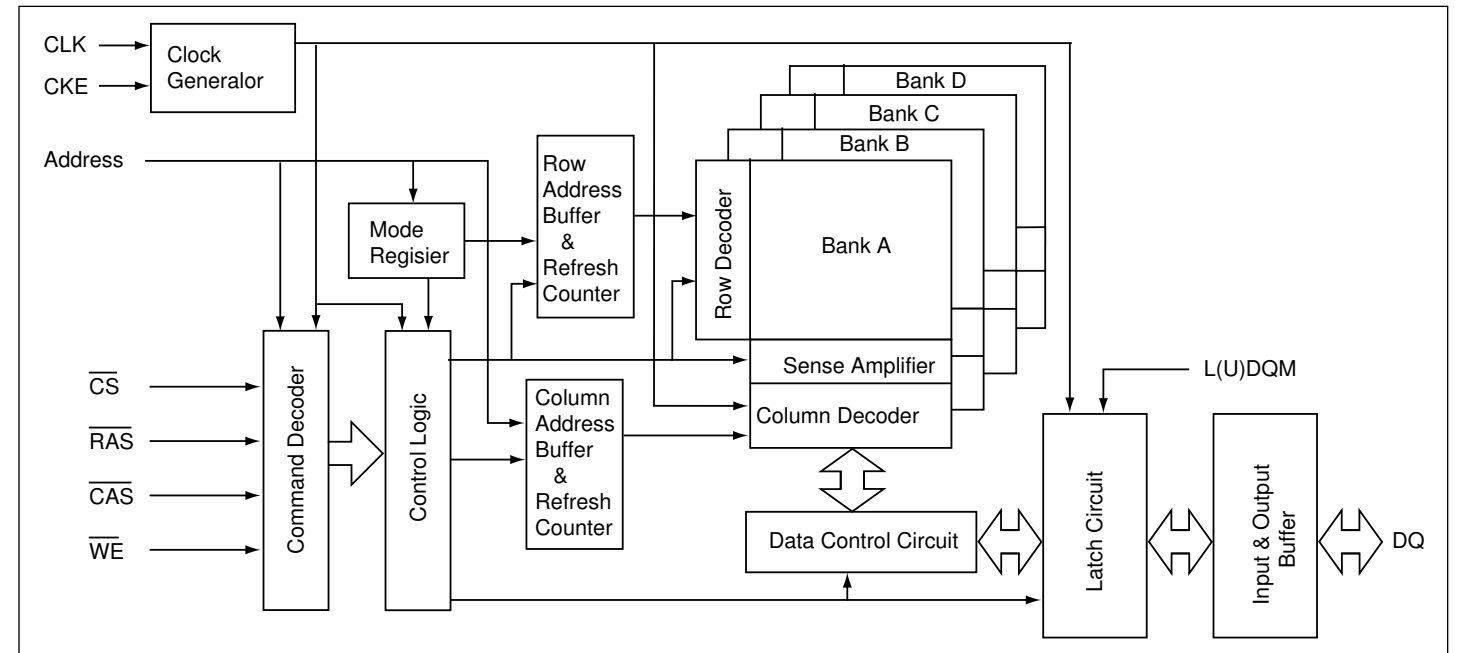
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6 - 1  
**INTERNAL IC DIAGRAM - MT1389FEX/SN**

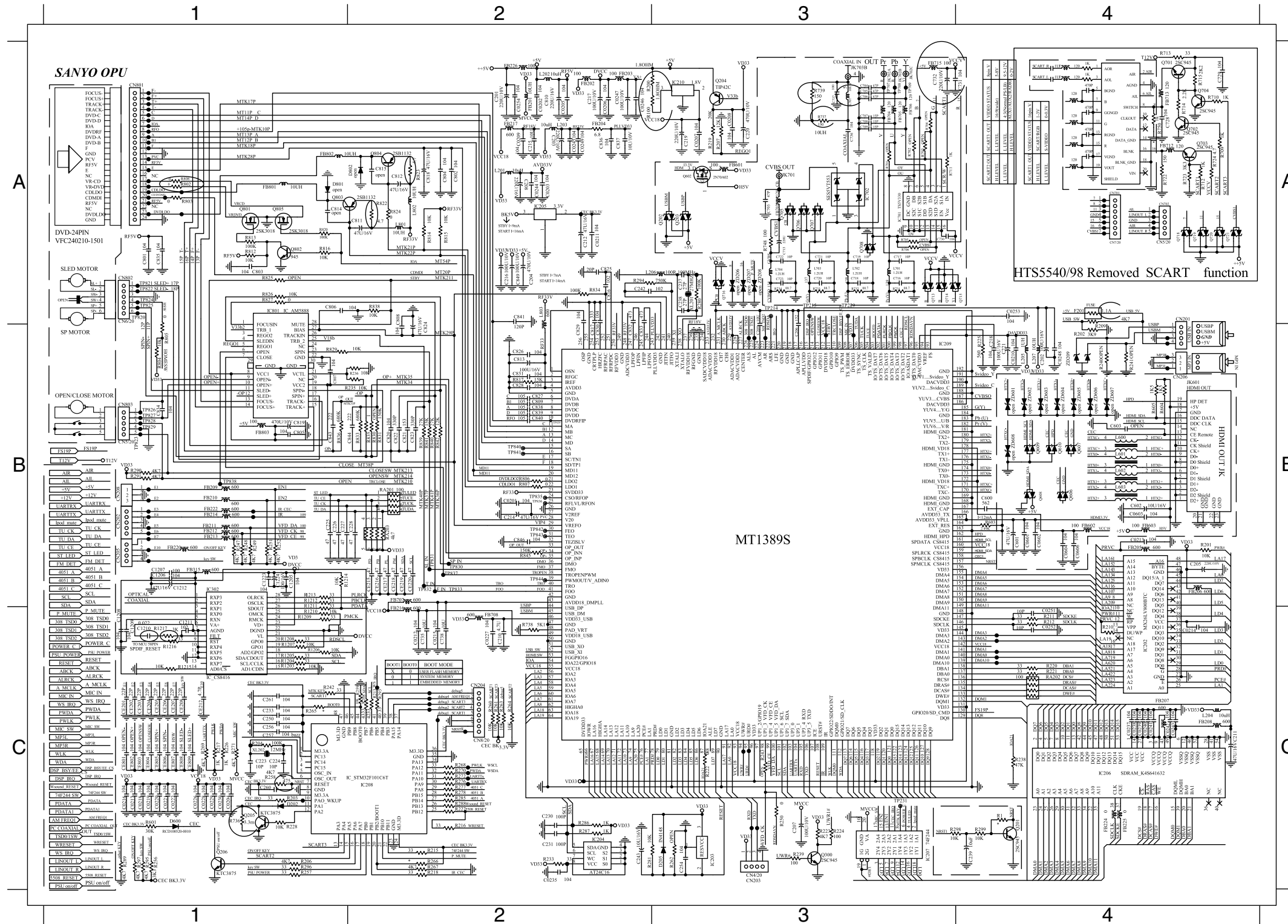


**INTERNAL IC DIAGRAM - A641604L**



# CIRCUIT DIAGRAM - part one

C801	A1	R813	A1	C242	A2	FB226	A2	R834	A2	C719	A3	L702	A3	R706	A3	Q703	A4	C1206	B1	FB212	B1	R804	B1	C830	B2	R839	B2	C205	B4	R225	B4	C1210	C1	CE802	C1	R1210	C1	R601	C1	R213	C2	R285	C2	R298	C3	IC206	C4
C803	A1	R816	A1	C802	A2	IC205	A2	R838	A2	C720	A3	L703	A3	R731	A3	Q703	A4	C1207	B1	FB213	B1	R805	B1	C831	B2	R840	B2	C218	B4	R603	B4	C1211	C1	CE803	C1	R1215	C1	R736	C1	R215	C2	R286	C2	C0214	C4	IC206	C4
C806	A1	R820	A1	C804	A2	IC205	A2	C0207	A3	C721	A3	L704	A3	R732	A3	Q704	A4	C1212	B1	FB214	B1	R829	B1	C832	B2	R841	B2	C221	B4	R604	B4	C223	C1	CE804	C1	R1216	C1	XL202	C1	R216	C2	R287	C2	C0237	C4	IC206	C4
C835	A1	R826	A1	C808	A2	L201	A2	C0208	A3	C722	A3	L707	A3	R733	A3	Q704	A4	C1223	B1	FB220	B1	R836	B1	C833	B2	R842	B2	C600	B4	R605	B4	C224	C1	CE805	C1	R1217	C1	C0212	C2	R218	C2	R288	C2	C0238	C4	L204	C4
CN801	A1	R827	A1	C810	A2	L202	A2	C219	A3	C723	A3	Q204	A3	R734	A3	Q715	A4	C1224	B1	FB222	B1	C0201	B2	C838	B2	R845	B2	C601	B4	ZD209	B4	C233	C1	CE806	C1	R203	C1	C0215	C2	R227	C2	R293	C2	C0239	C4	Q201	C4
CN802	A1	C0202	A2	C811	A2	L203	A2	C220	A3	C732	A3	Q204	A3	R737	A3	Q719	A4	C226	B1	FB315	B1	C214	B2	C839	B2	RA201	B2	C602	B4	C0204	C1	C250	C1	CE807	C1	R204	C1	C0227	C2	R233	C2	R738	C2	C0240	C4	Q201	C4
FB801	A1	C0203	A2	C812	A2	L206	A2	C237	A3	C736	A3	Q602	A3	R739	A3	Q720	A4	C227	B1	FB803	B1	C228	B2	C840	B2	RA203	B2	CN206	B4	C0216	C1	C256	C1	CE808	C1	R206	C1	C0235	C2	R259	C2	C207	C3	C0241	C4	R210	C4
FB802	A1	C0205	A2	C816	A2	L801	A2	C238	A3	C737	A3	Q705	A3	R748	A3	Q721	A4	C805	B1	IC302	B1	C809	B2	C844	B2	C206	B3	FB205	B4	C0217	C1	C257	C1	CE809	C1	R217	C1	C210	C2	R260	C2	C254	C3	C0242	C4	R211	C4
IC801	A1	C0209	A2	C818	A2	L802	A2	C703	A3	FB601	A3	Q706	A3	XL201	A3	R709	A4	C807	B1	R1211	B1	C813	B2	C846	B2	C209	B3	FB206	B4	C0218	C1	C260	C1	D202	C1	R226	C1	C230	C2	R261	C2	D205	C3	C0243	C4	R212	C4
IC801	A1	C0211	A2	C825	A2	L803	A2	C704	A3	FB703	A3	Q707	A3	C0253	A4	R710	A4	C819	B1	R1212	B1	C817	B2	FB707	B2	IC209	B3	FB602	B4	C0219	C1	C261	C1	D600	C1	R228	C1	C231	C2	R263	C2	IC203	C3	C0251	C4	R220	C4
Q801	A1	C0244	A2	C836	A2	Q804	A2	C705	A3	FB704	A3	Q708	A3	C728	A4	R712	A4	C834	B1	R1213	B1	C820	B2	R235	B2	C0210	B4	FB603	B4	C0220	C1	CE201	C1	Q205	C1	R242	C1	C243	C2	R264	C2	IC203	C3	C0252	C4	R221	C4
Q802	A1	C0245	A2	C837	A2	R100	A2	C706	A3	FB705	A3	Q713	A3	CN201	A4	R713	A4	C843	B1	R1214	B1	C821	B2	R236	B2	C0213	B4	JK601	B4	C0221	C1	CE202	C1	Q206	C1	R256	C1	C735	C2	R267	C2	IC207	C3	C211	C4	R238	C4
Q802	A1	C0249	A2	C841	A2	R200	A2	C707	A3	FB706	A3	Q714	A3	F201	A4	R714	A4	CN202	B1	R247	B1	C822	B2	R806	B2	C0248	B4	JK601	B4	C0222	C1	CE203	C1	R1203	C1	R257	C1	C738	C2	R268	C2	Q300	C3	C239	C4	R299	C4
Q803	A1	C201	A2	C849	A2	R294	A2	C708	A3	IC210	A3	Q716	A3	FB712	A4	R715	A4	CN205	B1	R248	B1	C823	B2	R807	B2	C0601	B4	L205	B4	C0226	C1	CE204	C1	R1204	C1	R258	C1	FB216	C2	R270	C2	Q300	C3	FB207	C4	RA202	C4
Q805	A1	C203	A2	C0254	A2	R814	A2	C709	A3	IC210	A3	R207	A3	FB713	A4	R722	A4	CN208	B1	R249	B1	C824	B2	R817	B2	C0602	B4	L207	B4	C0228	C1	CE205	C1	R1205	C1	R271	C1	FB708	C2	R272	C2	R222	C3	FB208	C4		
R802	A1	C204	A2	FB201	A2	R815	A2	C713	A3	JK701	A3	R219	A3	Q701	A4	R723	A4	CN803	B1	R251	B1	C826	B2	R830	B2	C0603	B4	Q610	B4	C0229	C1	CE206	C1	R1206	C1	R289	C1	IC204	C2	R276	C2	R223	C3	FB224	C4		
R803	A1	C208	A2	FB202	A2	R822	A2	C716	A3	JK702	A3	R280	A3	Q701	A4	R724	A4	FB209	B1	R252	B1	C827	B2	R831	B2	C0604	B4	R201	B4	C0230	C1	CE207	C1	R1207	C1	R295	C1	IC204	C2	R277	C2	R224	C3	FB225	C4		
R808	A1	C215	A2	FB204	A2	R823	A2	C717	A3	JK703	A3	R701	A3	Q702	A4	R750	A4	FB210	B1	R290	B1	C828	B2	R833	B2	C0606	B4	R202	B4	C1208	C1	CE212	C1	R1208	C1	R296	C1	IC208	C2	R278	C2	R239	C3	IC202	C4		
R812	A1	C216	A2	FB217	A2	R824	A2	C718	A3	L701	A3	R703	A3	Q702	A4	C1205	B1	FB211	B1	R291	B1	C829	B2	R835	B2	C202	B4	R209	B4	C1209	C1	CE801	C1	R1209	C1	R297	C1	R208	C2	R281	C2	R250	C3	IC202	C4		



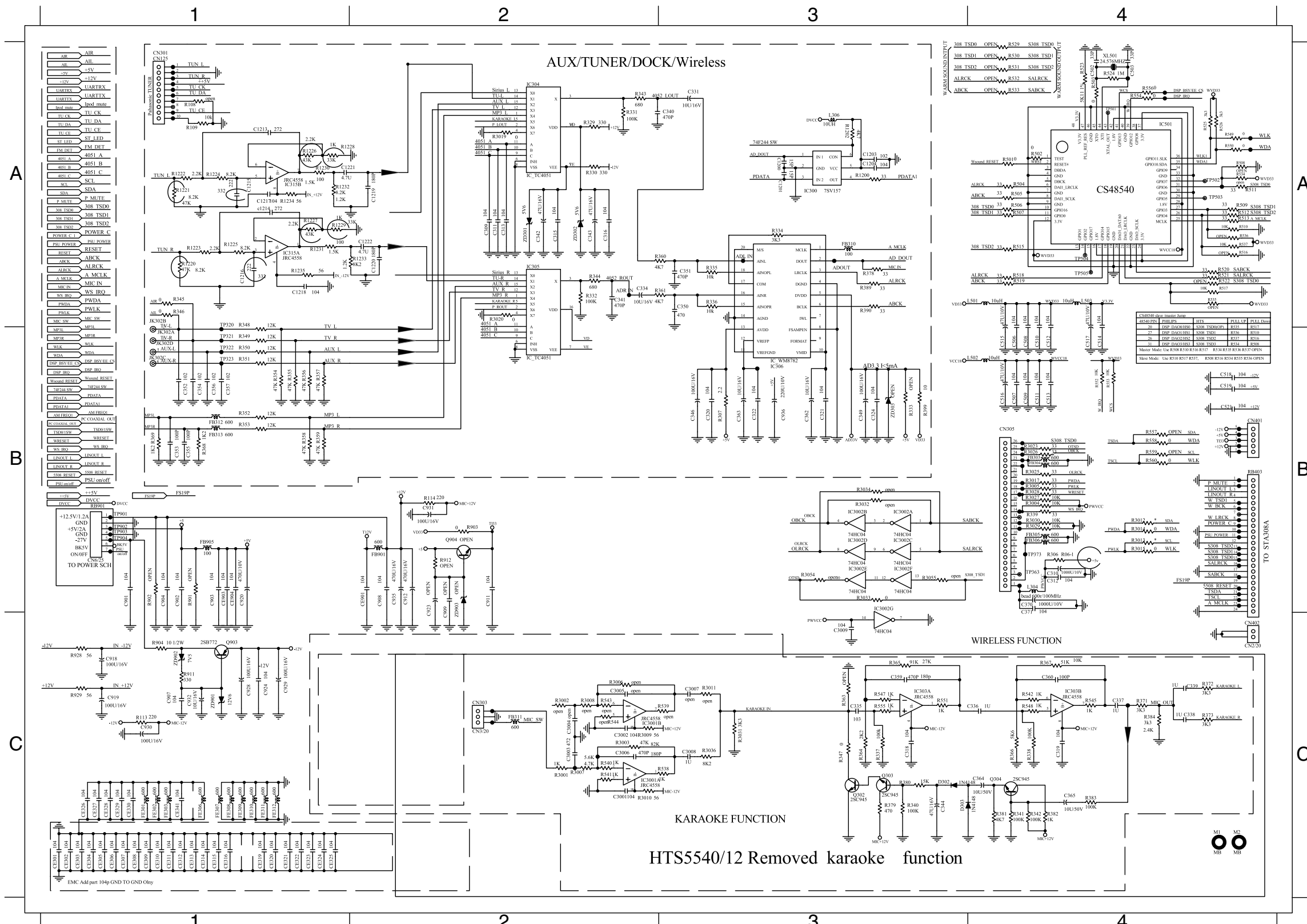
HTS5540/98 Removed SCART function

MT1389S

K206 SDRAM K48641632

CIRCUIT DIAGRAM - part two

C1213	A1	R1223	A1	R348	A1	IC305	A2	C1200	A3	R335	A3	R505	A4	R523	A4	C901	B1	R352	B1	C931	B2	C936	B3	C510	B4	FB304	B4	R3030	B4	C930	C1	CE313	C1	CE330	C1	R911	C1	R3007	C2	IC303	C3	R555	C3	R367	C4
C1214	A1	R1224	A1	C1219	A2	R1233	A2	C1201	A3	R336	A3	R506	A4	R524	A4	C902	B1	R353	B1	C935	B2	IC3002	B3	C511	B4	FB305	B4	R306	B4	C932	C1	CE314	C1	CE341	C1	R928	C1	R3009	C2	Q302	C3	C319	C4	R371	C4
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C1216	A1	R1226	A1	C1222	A2	R3020	A2	C1204	A3	R389	A3	R509	A4	R549	A4	C904	B1	R355	B1	FB901	B2	R3033	B3	C513	B4	L304	B4	R552	B4	CE302	C1	CE316	C1	FE302	C1	ZD901	C1	R538	C2	R3031	C3	C337	C4	R373	C4
C1217	A1	R1227	A1	C309	A2	R329	A2	C331	A3	R390	A3	R510	A4	R550	A4	C920	B1	R356	B1	R114	B2	R307	B3	C514	B4	L502	B4	R553	B4	CE303	C1	CE319	C1	FE306	C1	ZD902	C1	R540	C2	R3036	C3	C338	C4	R381	C4
C1218	A1	R1228	A1	C311	A2	R330	A2	C340	A3	C502	A4	R512	A4	R554	A4	CE903	B1	R357	B1	R903	B2	R399	B3	C515	B4	R3004	B4	R558	B4	CE304	C1	CE320	C1	FE307	C1	C3001	C2	R541	C2	R337	C3	C339	C4	R382	C4
C1221	A1	R1229	A1	C313	A2	R331	A2	C350	A3	C503	A4	R513	A4	R556	A4	CE904	B1	R358	B1	C320	B3	C310	B4	C516	B4	R3005	B4	R560	B4	CE305	C1	CE322	C1	FE308	C1	C3002	C2	C3008	C3	R340	C3	C360	C4	R383	C4
CN301	A1	R1230	A1	C315	A2	R332	A2	C351	A3	IC501	A4	R515	A4	XL501	A4	FB312	B1	R359	B1	C321	B3	C312	B4	C517	B4	R3017	B4	RB403	B4	CE306	C1	CE323	C1	FE309	C1	C3003	C2	C3009	C3	R347	C3	C364	C4	R384	C4
IC315	A1	R1231	A1	C316	A2	R343	A2	FB310	A3	L501	A4	R517	A4	C352	B1	FB313	B1	R368	B1	C322	B3	C370	B4	C518	B4	R3023	B4	C907	C1	CE307	C1	CE324	C1	FE310	C1	CN303	C2	C318	C3	R364	C3	C365	C4	R542	C4
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R109	A1	R1234	A1	C341	A2	R360	A2	L306	A3	R501	A4	R519	A4	C354	B1	JK302A	B1	RB901	B1	C346	B3	C506	B4	C521	B4	R3026	B4	C919	C1	CE309	C1	CE326	C1	FE312	C1	IC3001	C2	C344	C3	R379	C3	R338	C4	R548	C4
R1220	A1	R1235	A1	C342	A2	R361	A2	R1200	A3	R502	A4	R520	A4	C355	B1	R349	B1	C908	B2	C349	B3	C507	B4	CN305	B4	R3027	B4	C924	C1	CE310	C1	CE327	C1	Q903	C1	R3001	C2	C359	C3	R380	C3	R341	C4		
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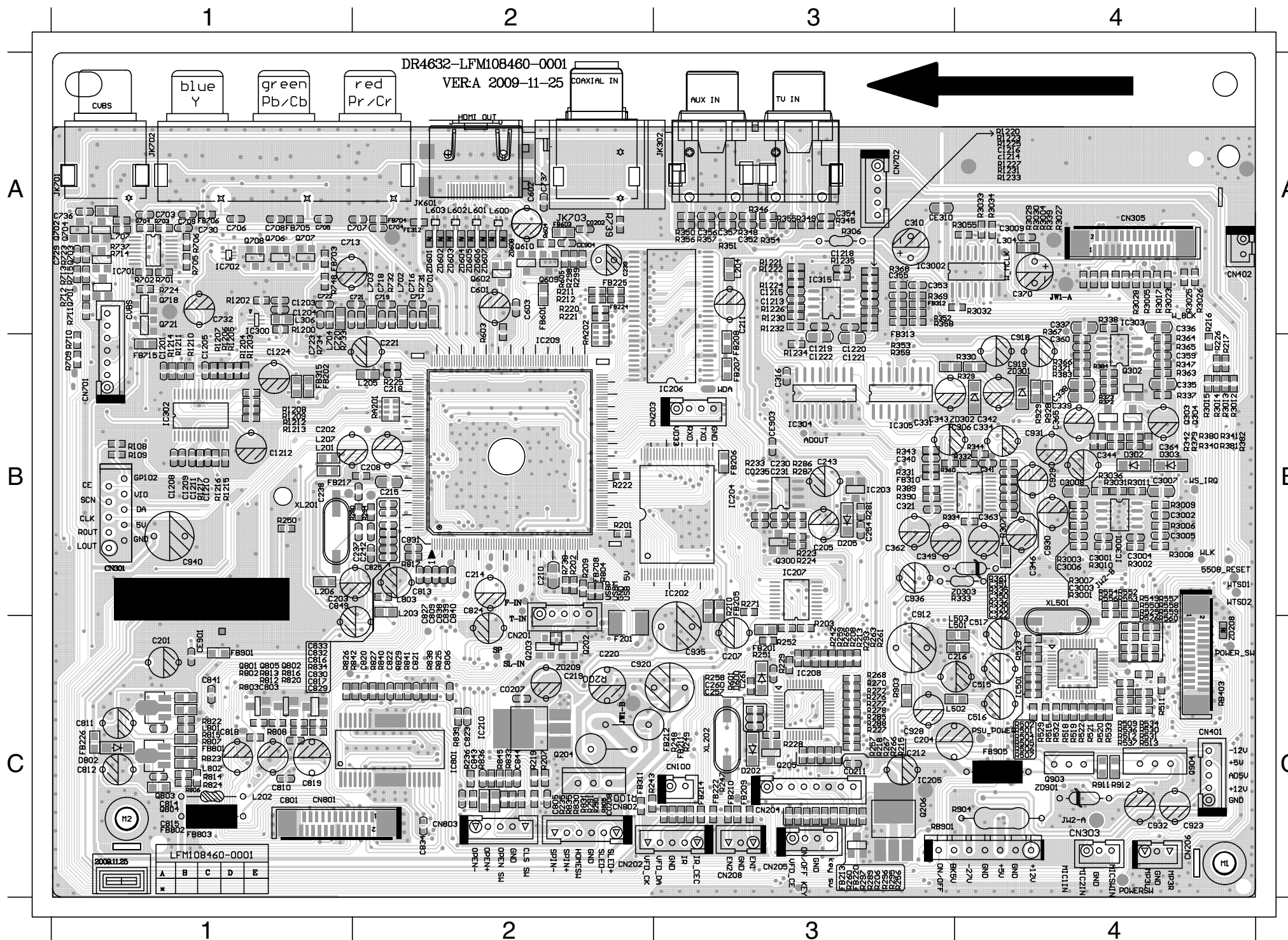


HTS5540/12 Removed karaoke function

EMC Add part 104p GND TO GND Only

PCB LAYOUT - TOP VIEW

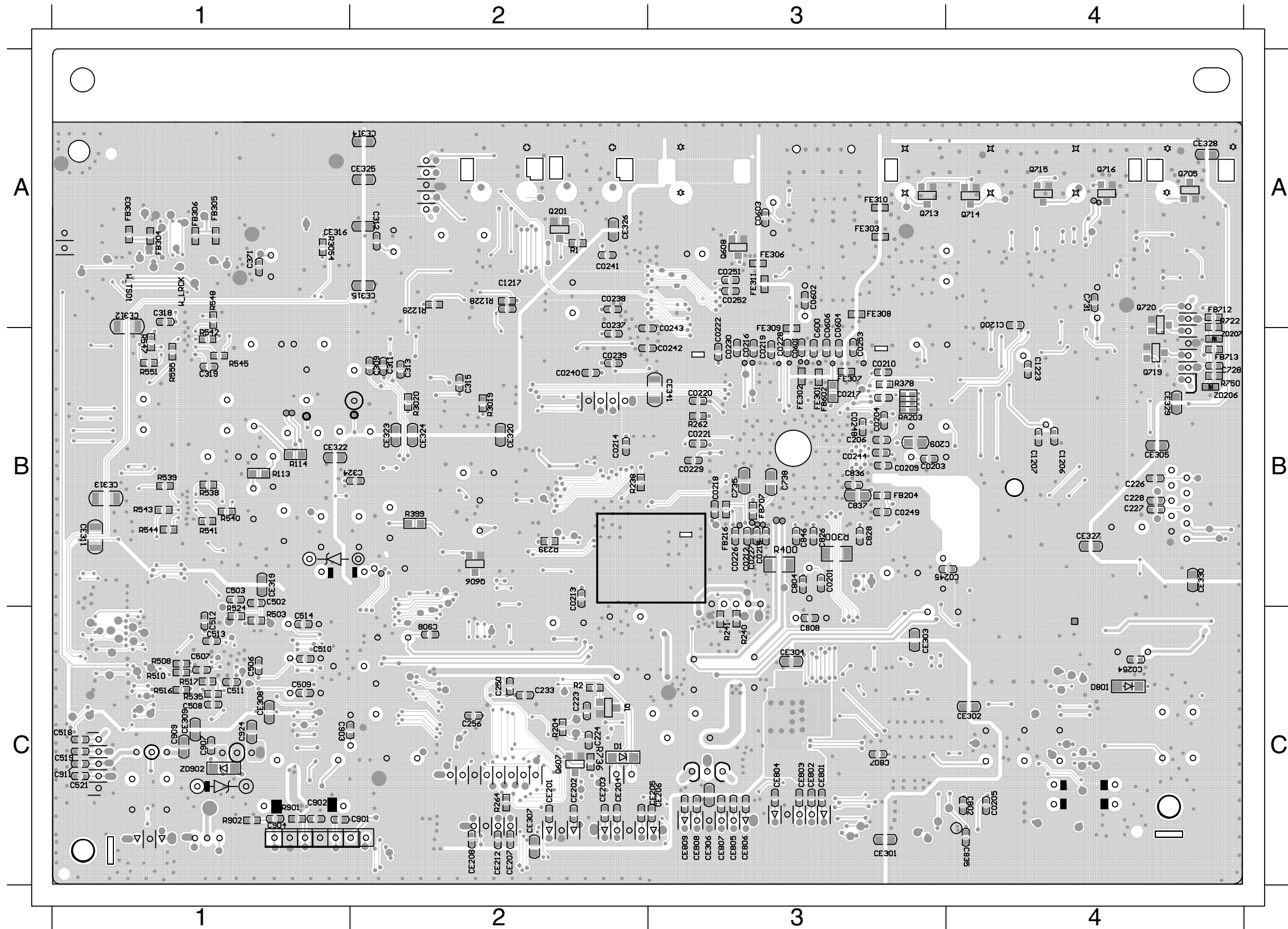
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C1204 A1	Q702 A1	R715 A1	FB601 A2	R732 A2	L204 A3	R369 A3	R3028 A4	CN301 B1	R709 B1	R222 B2	C343 B3	IC304 B3	C3001 B4	C930 B4	R335 B4	R550 B4	C829 C1	R803 C1	C820 C2	L203 C2	R841 C2	FB213 C3	R243 C3	R293 C3	R504 C4
C703 A1	Q702 A1	R723 A1	FB603 A2	C1213 A3	R1221 A3	C1214 A4	R3029 A4	FB202 B1	R734 B1	R225 B2	C349 B3	IC306 B3	C3002 B4	C931 B4	R336 B4	R551 B4	C830 C1	R806 C1	C821 C2	Q204 C2	R842 C2	FB214 C3	R248 C3	R295 C3	R505 C4
C705 A1	Q703 A1	R724 A1	FB704 A2	C1215 A3	R1222 A3	C1216 A4	R3030 A4	FB217 B1	XL201 B1	R280 B2	C362 B3	Q300 B3	C3003 B4	D302 B4	R337 B4	R552 B4	C832 C1	R807 C1	C822 C2	Q204 C2	R845 C2	FB220 C3	R249 C3	R296 C3	R506 C4
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C720 A1	Q707 A1	C0202 A2	L701 A2	C336 A3	R1235 A3	L304 A4	C1201 B1	L207 B1	C218 B2	RA201 B2	FB206 B3	R224 B3	C339 B4	Q304 B4	R347 B4	R558 B4	FB226 C1	R815 C1	C839 C2	R235 C2	C257 C3	L501 C3	R258 C3	XL202 C3	R515 C4
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C732 A1	Q721 A1	C601 A2	L703 A2	C353 A3	R345 A3	R1223 A4	C1208 B1	R1203 B1	C237 B2	C0235 B3	FB208 B3	R271 B3	C342 B4	R226 B4	R364 B4	R929 B4	FB802 C1	R820 C1	C843 C2	R290 C2	C261 C3	L503 C3	R260 C3	C322 C4	R519 C4
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FB703 A1	R1202 A1	C704 A2	Q610 A2	C355 A3	R348 A3	R1227 A4	C1210 B1	R1208 B1	C813 B2	C1220 B3	IC202 B3	R286 B3	C346 B4	R3003 B4	R366 B4	ZD301 B4	FB901 C1	R823 C1	C920 C2	R805 C2	C928 C3	Q206 C3	R263 C3	C516 C4	R521 C4
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IC300 A1	R1207 A1	C717 A2	R220 A2	CE310 A3	R351 A3	R216 A4	C1221 B1	R1211 B1	C831 B2	C230 B3	IC203 B3	R334 B3	C359 B4	R3009 B4	R373 B4	C803 C1	L802 C1	R834 C1	CN802 C2	R830 C2	CN208 C3	R208 C3	R270 C3	CN206 C4	R537 C4
JK701 A1	R701 A1	C718 A2	R221 A2	FB312 A3	R352 A3	R3004 A4	C1224 B1	R1212 B1	FB708 B2	C231 B3	IC204 B3	R343 B3	C360 B4	R3010 B4	R379 B4	C810 C1	Q801 C1	C0207 C2	CN803 C2	R831 C2	D202 C3	R213 C3	R272 C3	CN303 C4	R560 C4
JK702 A1	R703 A1	C719 A2	R298 A2	FB313 A3	R354 A3	R3005 A4	C202 B1	R1213 B1	IC209 B2	C243 B3	IC204 B3	R353 B3	C363 B4	R3031 B4	R380 B4	C811 C1	Q802 C1	C0208 C2	F201 C2	R833 C2	D600 C3	R215 C3	R276 C3	CN401 C4	R904 C4
L306 A1	R706 A1	C721 A2	R299 A2	IC3002 A3	R355 A3	R3017 A4	C203 B1	R1214 B1	L205 B2	C254 B3	IC206 B3	R359 B3	C364 B4	R3036 B4	R381 B4	C812 C1	Q802 C1	C219 C2	FB311 C2	R835 C2	FB201 C3	R218 C3	R277 C3	FB905 C4	R911 C4
L704 A1	R710 A1	C737 A2	R603 A2	IC305 A3	R356 A3	R3023 A4	C238 B1	R1215 B1	L803 B2	C316 B3	IC206 B3	R360 B3	C365 B4	R307 B4	R382 B4	C816 C1	Q803 C1	C220 C2	IC210 C2	R836 C2	FB209 C3	R227 C3	R278 C3	IC501 C4	RB403 C4
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Q701 A1	R713 A1	FB224 A2	R605 A2	IC315 A3	R358 A3	R3026 A4	C849 B1	R1217 B1	R202 B2	C331 B3	IC207 B3	R390 B3	C919 B4	R330 B4	R384 B4	C818 C1	Q805 C1	C806 C2	IC801 C2	R839 C2	FB211 C3	R229 C3	R288 C3	R501 C4	





# PCB LAYOUT - BOTTOM VIEW

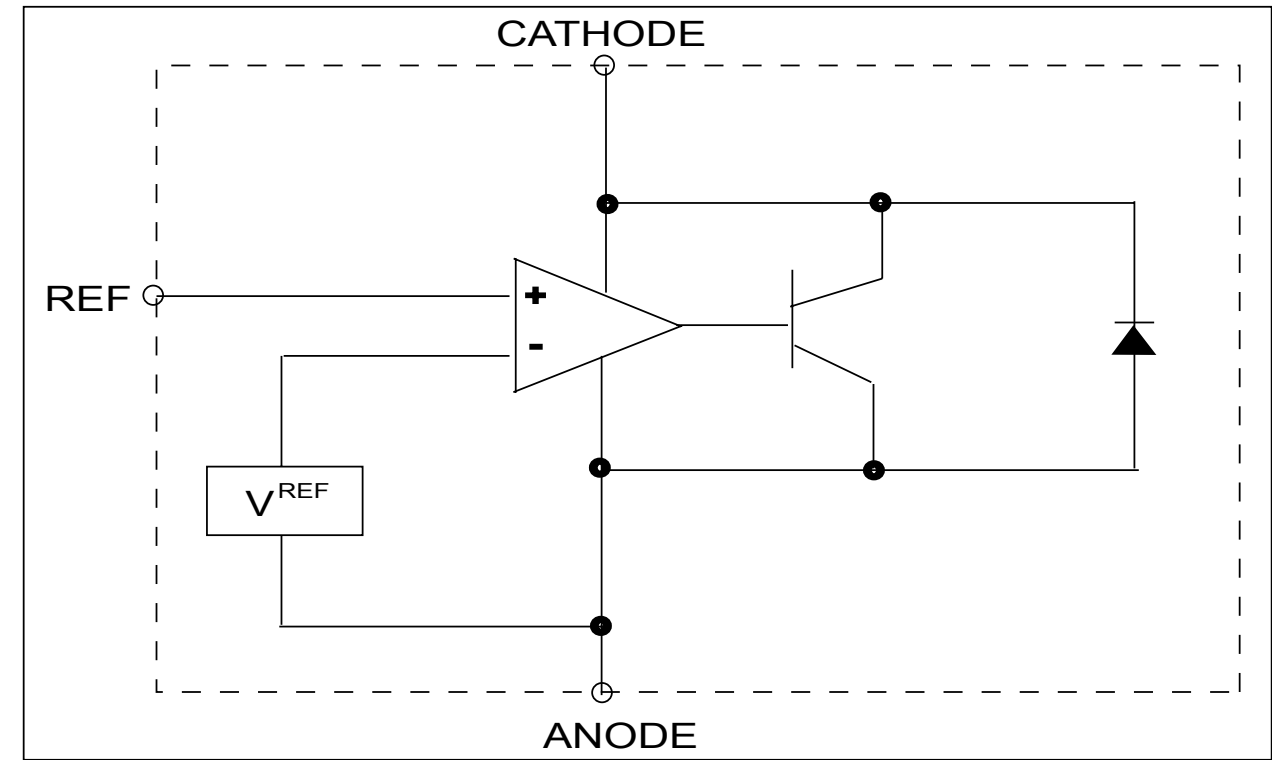
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CE328	A1	C0243	A2	FE308	A2	C312	A3	C318	A4	C1206	B1	CE329	B1	C0210	B2	C0226	B2	C0249	B2	C828	B2	FE301	B2	C311	B3	R3020	B3	CE322	B4	C0205	C1	CE301	C2	CE806	C2	C256	C3	CE307	C3	C511	C4	C904	C4	R524	C4
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Q705	A1	C0252	A2	FE310	A2	CE315	A3	CE312	A4	C1223	B1	FB713	B1	C0215	B2	C0228	B2	C0601	B2	C837	B2	FE307	B2	C315	B3	C319	B4	R114	B4	C835	C1	CE304	C2	CE808	C2	C908	C3	R264	C3	C513	C4	C911	C4		
Q714	A1	C0602	A2	FE311	A2	CE325	A3	CE316	A4	C226	B1	Q719	B1	C0216	B2	C0229	B2	C206	B2	C846	B2	R378	B2	CE320	B3	C324	B4	R538	B4	CE302	C1	CE306	C2	CE809	C2	CE201	C3	R736	C3	C514	C4	C924	C4		
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Q716	A1	C0604	A2	C0237	A3	Q201	A3	FB304	A4	C228	B1	C0201	B2	C0218	B2	C0242	B2	C735	B2	FB204	B2	C0214	B3	CE324	B3	C503	B4	R541	B4	C807	C2	CE802	C2	C223	C3	CE203	C3	C507	C4	C519	C4	CE309	C4		
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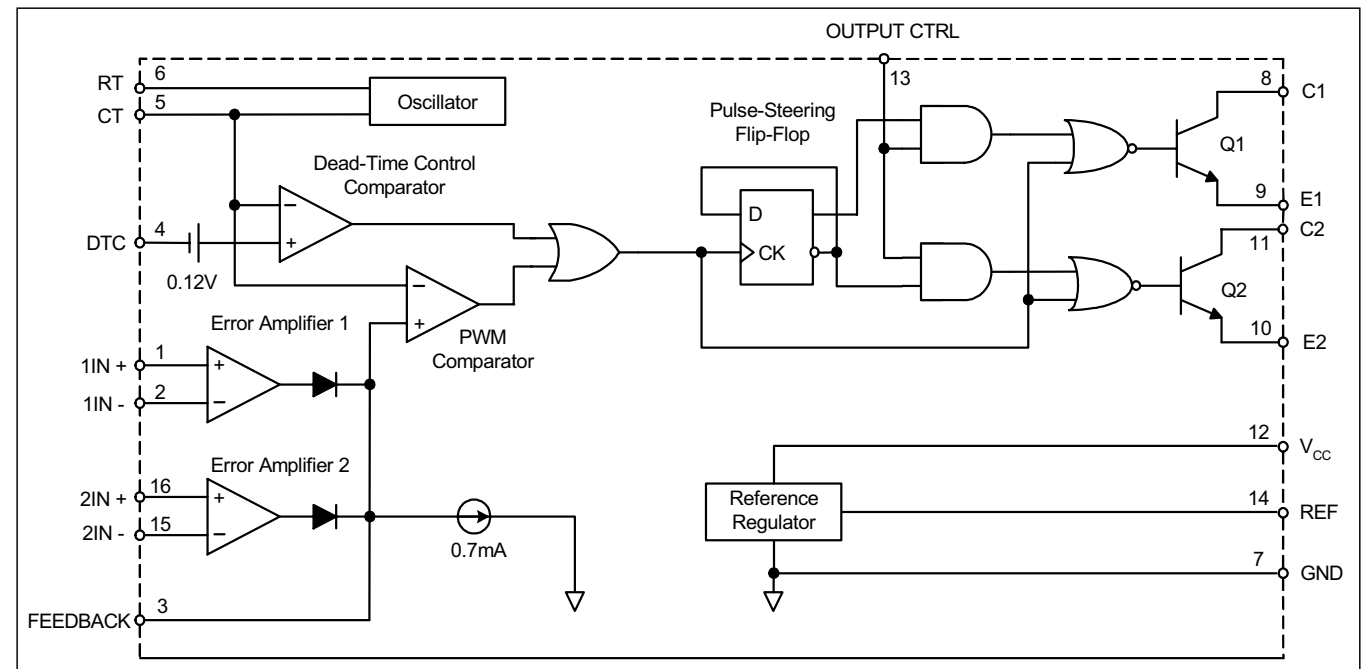
# POWER BOARD

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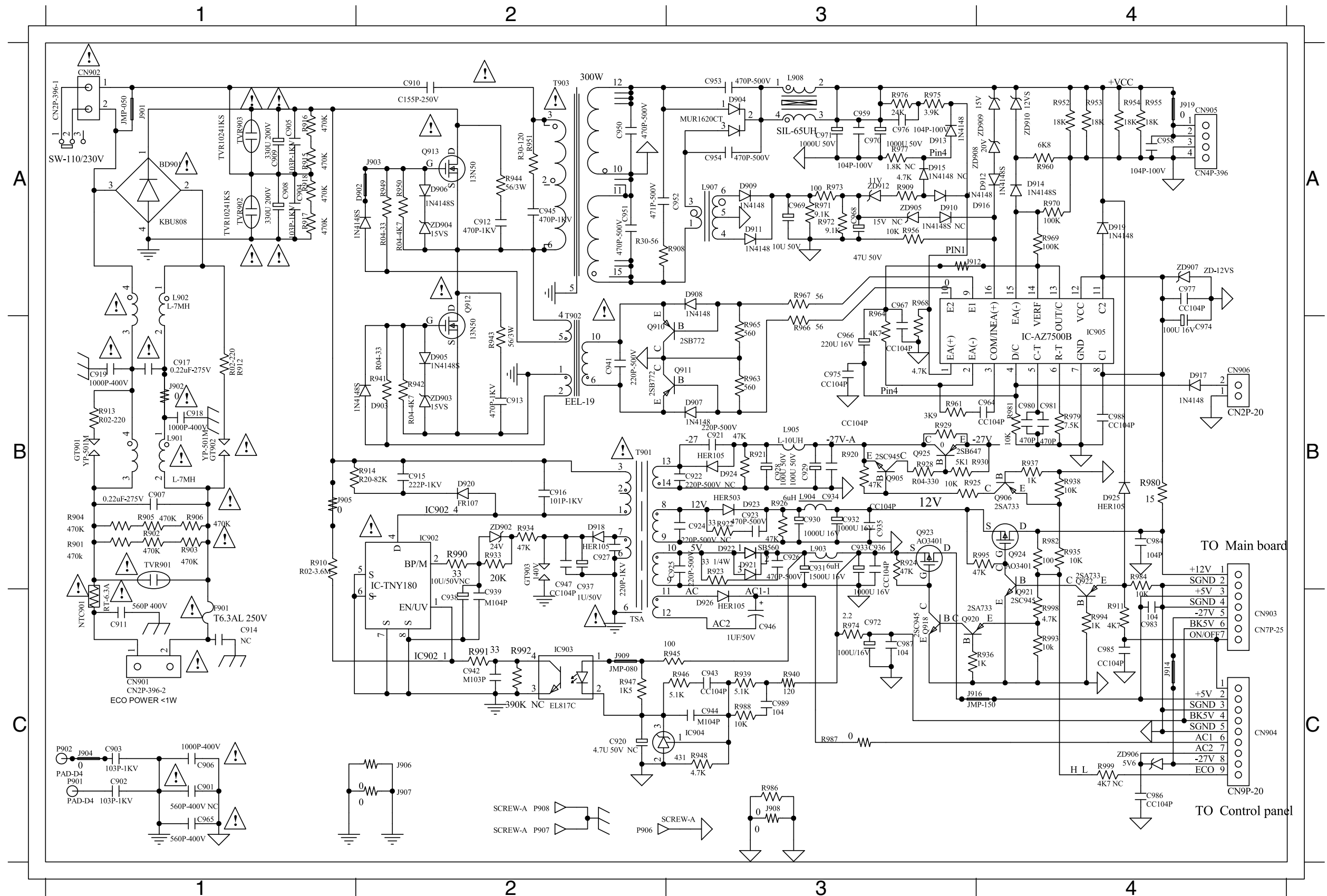


INTERNAL IC DIAGRAM - AZ7500BP



# CIRCUIT DIAGRAM

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C904	A1	C910	A2	R950	A2	C971	A3	R908	A3	ZD908	A3	R954	A4	C919	B1	R910	B1	D905	B2	R990	B2	C931	B3	D924	B3	R923	B3	C964	B4	Q924	B4	C906	C1	J907	C2	J908	C3	R987	C3	R993	C4
C905	A1	C912	A2	T903	A2	C976	A3	R909	A3	ZD912	A3	R955	A4	GT902	B1	R912	B1	D918	B2	T901	B2	C932	B3	L903	B3	R924	B3	C974	B4	R935	B4	C965	C1	J909	C2	J916	C3	R988	C3	R994	C4
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C909	A1	C951	A2	C952	A3	D908	A3	R964	A3	C977	A4	R969	A4	J905	B1	C913	B2	GT903	B2	ZD902	B2	C934	B3	L905	B3	R926	B3	C981	B4	R938	B4	F901	C1	R991	C2	Q920	C3	C985	C4	ZD906	C4
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R916	A1	J903	A2	C959	A3	D913	A3	R971	A3	D914	A4	ZD909	A4	R902	B1	C927	B2	R933	B2	C923	B3	C966	B3	Q923	B3	R961	B3	CN906	B4	R981	B4	C939	C2	C946	C3	R945	C3	CN904	C4		
R917	A1	Q912	A2	C967	A3	D916	A3	R972	A3	D919	A4	ZD910	A4	R903	B1	C937	B2	R934	B2	C926	B3	C975	B3	Q925	B3	R963	B3	D917	B4	R982	B4	C942	C2	C972	C3	R946	C3	J914	C4		
R918	A1	Q913	A2	C968	A3	J912	A3	R973	A3	J919	A4	C907	B1	R904	B1	C941	B2	R941	B2	C928	B3	D907	B3	R920	B3	R965	B3	IC905	B4	R984	B4	IC902	C2	C989	C3	R948	C3	Q921	C4		
TVR902	A1	R944	A2	C969	A3	L907	A3	R975	A3	R952	A4	C917	B1	R905	B1	C947	B2	R942	B2	C929	B3	D921	B3	R921	B3	R966	B3	Q906	B4	C902	C1	IC903	C2	D926	C3	R974	C3	R911	C4		

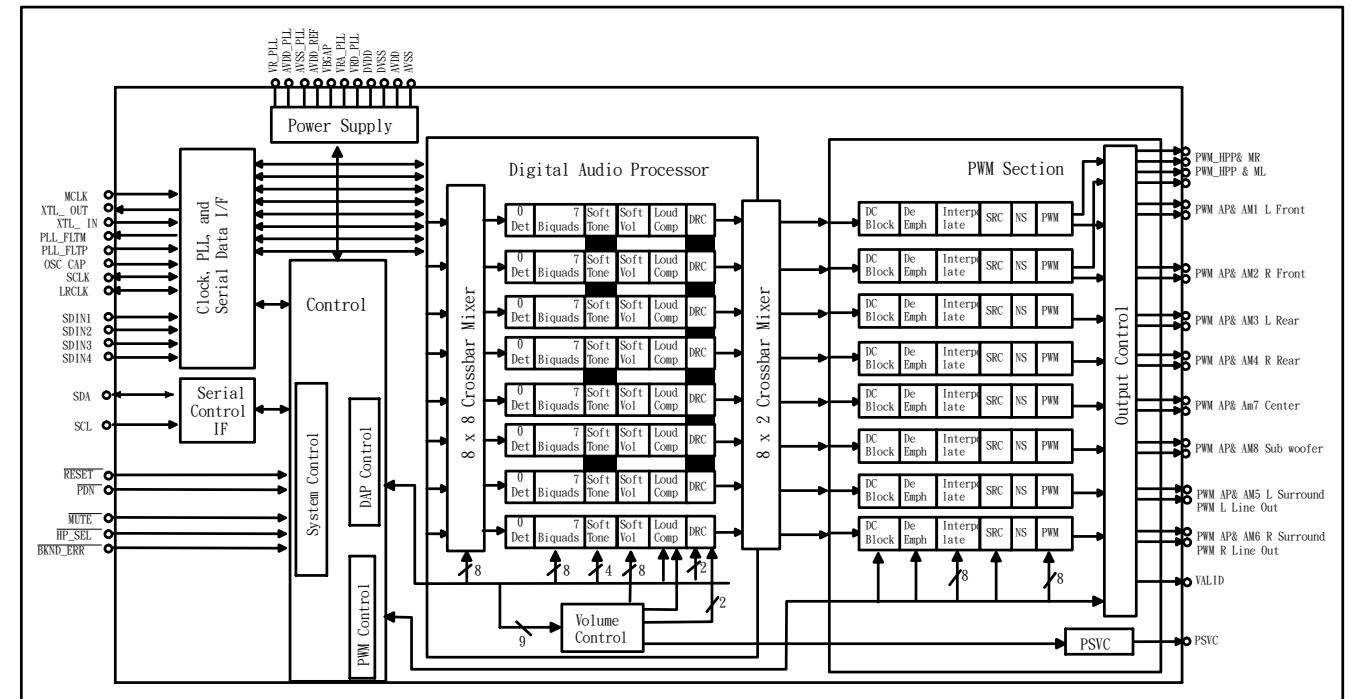


# AMP BOARD

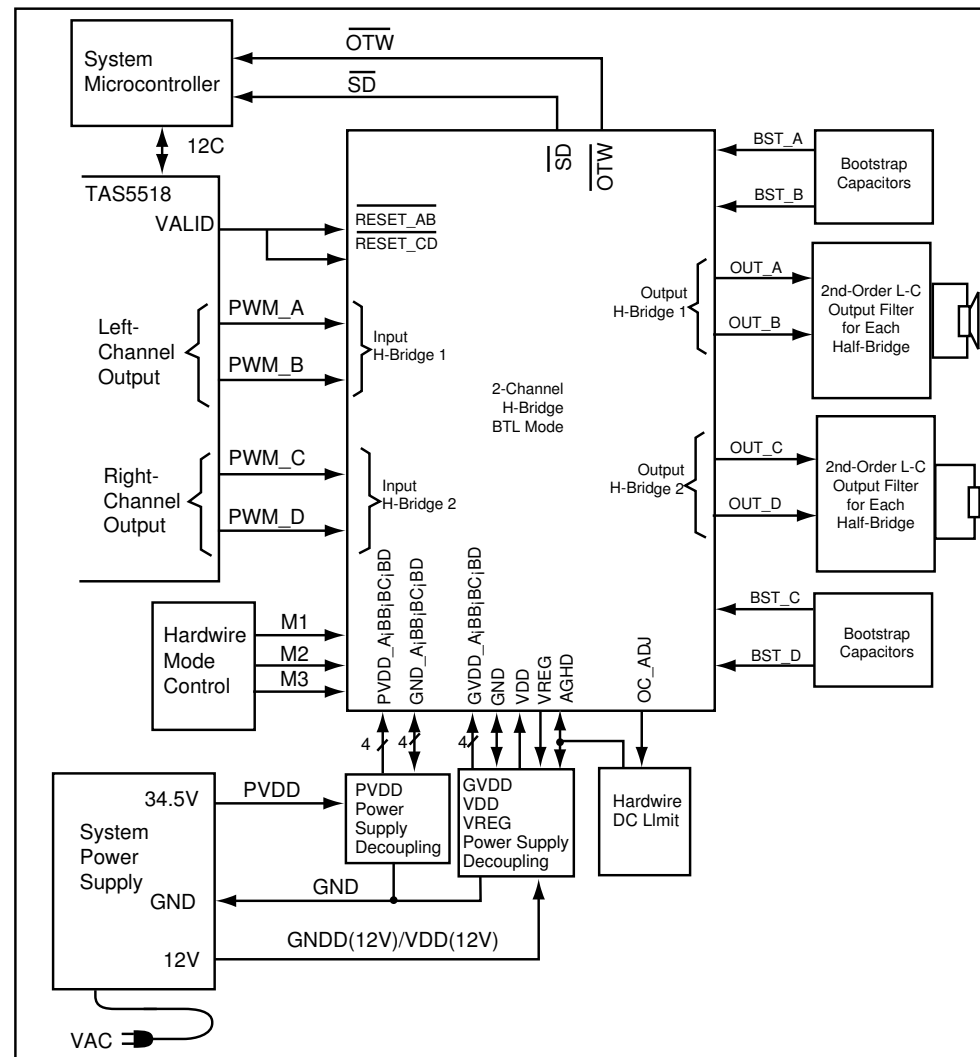
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## INTERNAL IC DIAGRAM - TA5508APAG

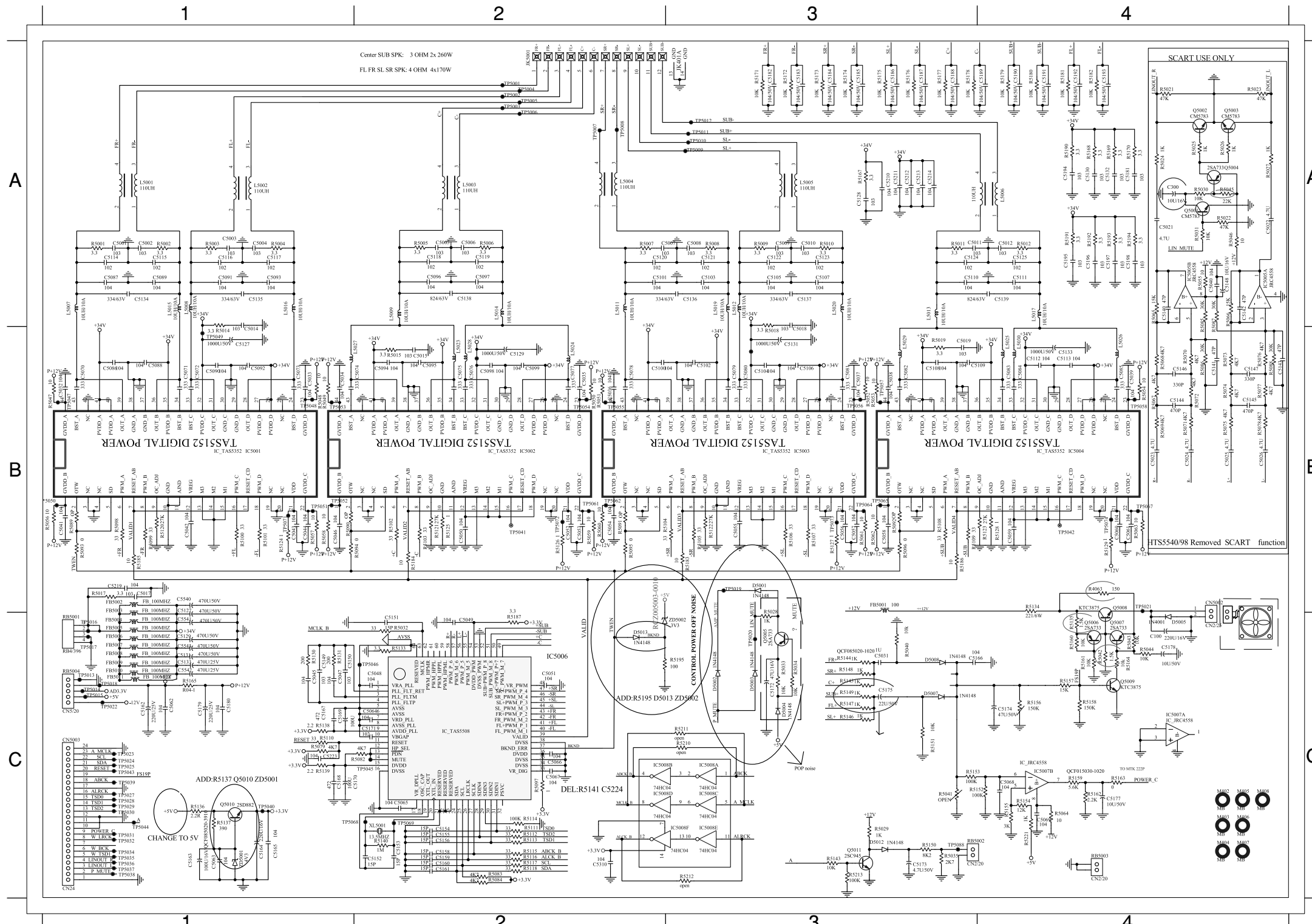


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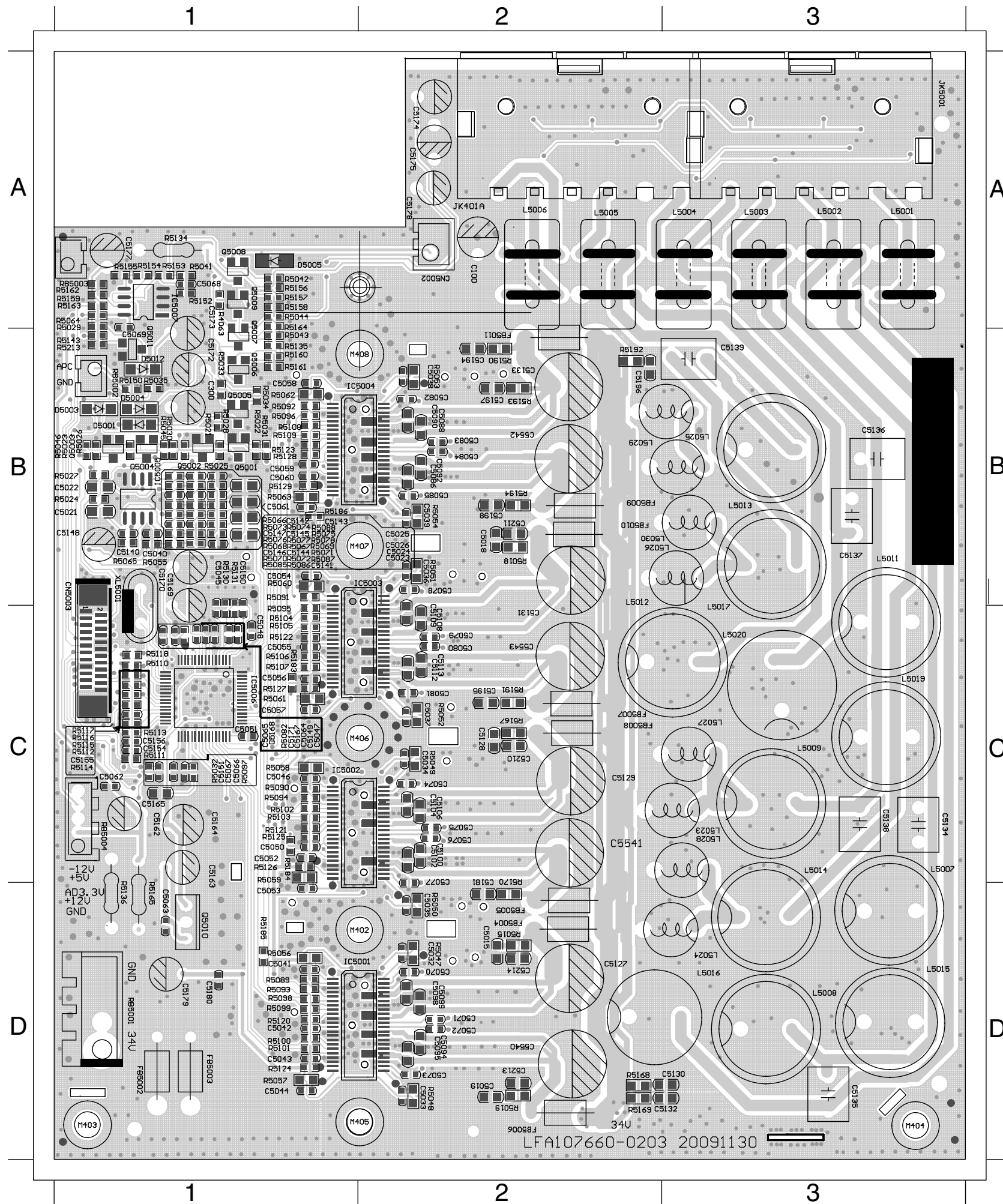


# CIRCUIT DIAGRAM

C5001	A1	L5015	A1	JK5001	A2	C5121	A3	C5214	A3	R5175	A3	C5196	A4	R5194	A4	C5090	B1	R5093	B1	C5077	B2	R5103	B2	C5102	B3	R5106	B3	IC5004	B4	C5133	C1	FB5004	C1	R5165	C1	C5158	C2	R5117	C2	Q5005	C3	R5153	C3	R5043	C4
C5002	A1	L5015	A1	L5009	A2	C5122	A3	L5012	A3	R5176	A3	C5197	A4	C5014	B1	C5092	B1	R5094	B1	C5078	B2	R5104	B2	C5104	B3	R5107	B3	L5025	B4	C5149	C1	FB5005	C1	R5182	C1	C5159	C2	R5118	C2	Q5011	C3	R5195	C3	R5064	C4
C5003	A1	L5016	A1	L5009	A2	C5123	A3	L5012	A3	R5177	A3	C5198	A4	C5017	B1	C5127	B1	R5098	B1	C5094	B2	R5121	B2	C5106	B3	R5108	B3	L5026	B4	C5150	C1	FB5006	C1	RB5001	C1	C5160	C2	R5133	C2	R5029	C3	R5213	C3	R5135	C4
C5004	A1	L5016	A1	L5011	A2	C5124	A3	L5013	A3	R5178	A3	L5017	A4	C5032	B1	C5219	B1	R5099	B1	C5095	B2	R5125	B2	C5108	B3	R5109	B3	L5030	B4	C5162	C1	FB5007	C1	RB5004	C1	C5161	C2	R5140	C2	R5033	C3	RB5002	C3	R5155	C4
C5087	A1	R5001	A1	L5011	A2	C5128	A3	L5013	A3	C5012	A4	L5017	A4	C5033	B1	C5540	B1	R5100	B1	C5098	B2	R5126	B2	C5109	B3	R5122	B3	Q5008	B4	C5163	C1	FB5008	C1	ZD5001	C1	C5171	C2	R5187	C2	R5034	C3	ZD5002	C3	R5157	C4
C5089	A1	R5002	A1	L5014	A2	C5136	A3	L5019	A3	C5111	A4	R5012	A4	C5034	B1	FB5002	B1	R5101	B1	C5099	B2	R5184	B2	D5001	B3	R5127	B3	R4063	B4	C5164	C1	FB5009	C1	C5048	C2	C5310	C2	XL5001	C2	R5035	C3	C100	C4	R5158	C4
C5091	A1	R5003	A1	L5014	A2	C5137	A3	L5019	A3	C5125	A4	R5030	A4	C5041	B1	FB5003	B1	R5120	B1	C5100	B2	C5018	B3	FB5001	B3	R5183	B3	R5054	B4	C5165	C1	FB5010	C1	C5049	C2	D5013	C2	C5031	C3	R5040	C3	C5068	C4	R5159	C4
C5093	A1	R5004	A1	R5005	A2	C5182	A3	L5020	A3	C5130	A4	R5045	A4	C5042	B1	IC5001	B1	R5124	B1	IC5002	B2	C5019	B3	IC5003	B3	R5186	B3	R5063	B4	C5167	C1	FB5011	C1	C5051	C2	IC5006	C2	C5166	C3	R5041	C3	C5069	C4	R5160	C4
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C5115	A1	C5006	A2	R5007	A2	C5184	A3	R5008	A3	C5139	A4	R5169	A4	C5044	B1	R5014	B1	C5015	B2	L5024	B2	C5038	B3	R5018	B3	C5059	B4	R5128	B4	C5169	C1	R5079	C1	C5065	C2	R5083	C2	C5173	C3	R5144	C3	C5177	C4	R5162	C4
C5116	A1	C5007	A2	C5008	A3	C5185	A3	R5009	A3	C5181	A4	R5170	A4	C5046	B1	R5017	B1	C5035	B2	L5028	B2	C5055	B3	R5019	B3	C5060	B4	R5129	B4	C5170	C1	R5082	C1	C5066	C2	R5084	C2	C5175	C3	R5145	C3	C5178	C4	R5163	C4
C5117	A1	C5096	A2	C5009	A3	C5186	A3	R5010	A3	C5189	A4	R5179	A4	C5070	B1	R5044	B1	C5036	B2	R5015	B2	C5056	B3	R5028	B3	C5061	B4	R5134	B4	C5179	C1	R5110	C1	C5067	C2	R5097	C2	D5002	C3	R5146	C3	C5005	C4	R5164	C4
C5134	A1	C5097	A2	C5010	A3	C5187	A3	R5011	A3	C5190	A4	R5180	A4	C5071	B1	R5047	B1	C5050	B2	R5050	B2	C5057	B3	R5052	B3	C5083	B4	C5045	C1	C5180	C1	R5130	C1	C5151	C2	R5111	C2	D5003	C3	R5147	C3	IC5007	C4	R5221	C4
C5135	A1	C5101	A2	C5011	A3	C5188	A3	R5167	A3	C5191	A4	R5181	A4	C5072	B1	R5048	B1	C5052	B2	R5051	B2	C5058	B3	R5053	B3	C5084	B4	C5047	C1	C5223	C1	R5131	C1	C5152	C2	R5112	C2	D5004	C3	R5148	C3	IC5007	C4		
L5007	A1	C5118	A2	C5103	A3	C5210	A3	R5171	A3	C5192	A4	R5190	A4	C5073	B1	R5049	B1	C5053	B2	R5059	B2	C5079	B3	R5061	B3	C5085	B4	C5062	C1	C5541	C1	R5136	C1	C5153	C2	R5113	C2	D5007	C3	R5149	C3	Q5006	C4		
L5007	A1	C5119	A2	C5105	A3	C5211	A3	R5172	A3	C5193	A4	R5191	A4	C5074	B1	R5056	B1	C5054	B2	R5060	B2	C5080	B3	R5062	B3	C5112	B4	C5063	C1	C5542	C1	R5137	C1	C5154	C2	R5114	C2	D5008	C3	R5150	C3	Q5007	C4		
L5008	A1	C5120	A2	C5107	A3	C5212	A3	R5173	A3	C5194	A4	R5192	A4	C5086	B1	R5057	B1	C5075	B2	R5095	B2	C5081	B3	R5096	B3	C5113	B4	C5129	C1	C5543	C1	R5138	C1	C5155	C2	R5115	C2	D5012	C3	R5151	C3	Q5009	C4		
L5008	A1	C5138	A2	C5110	A3	C5213	A3	R5174	A3	C5195	A4	R5193	A4	C5088	B1	R5058	B1	C5076	B2	R5102	B2	C5082	B3	R5105	B3	CN5002	B4	C5131	C1	CN5003	C1	R5139	C1	C5156	C2	R5116	C2	IC5008	C3	R5152	C3	R5042	C4		





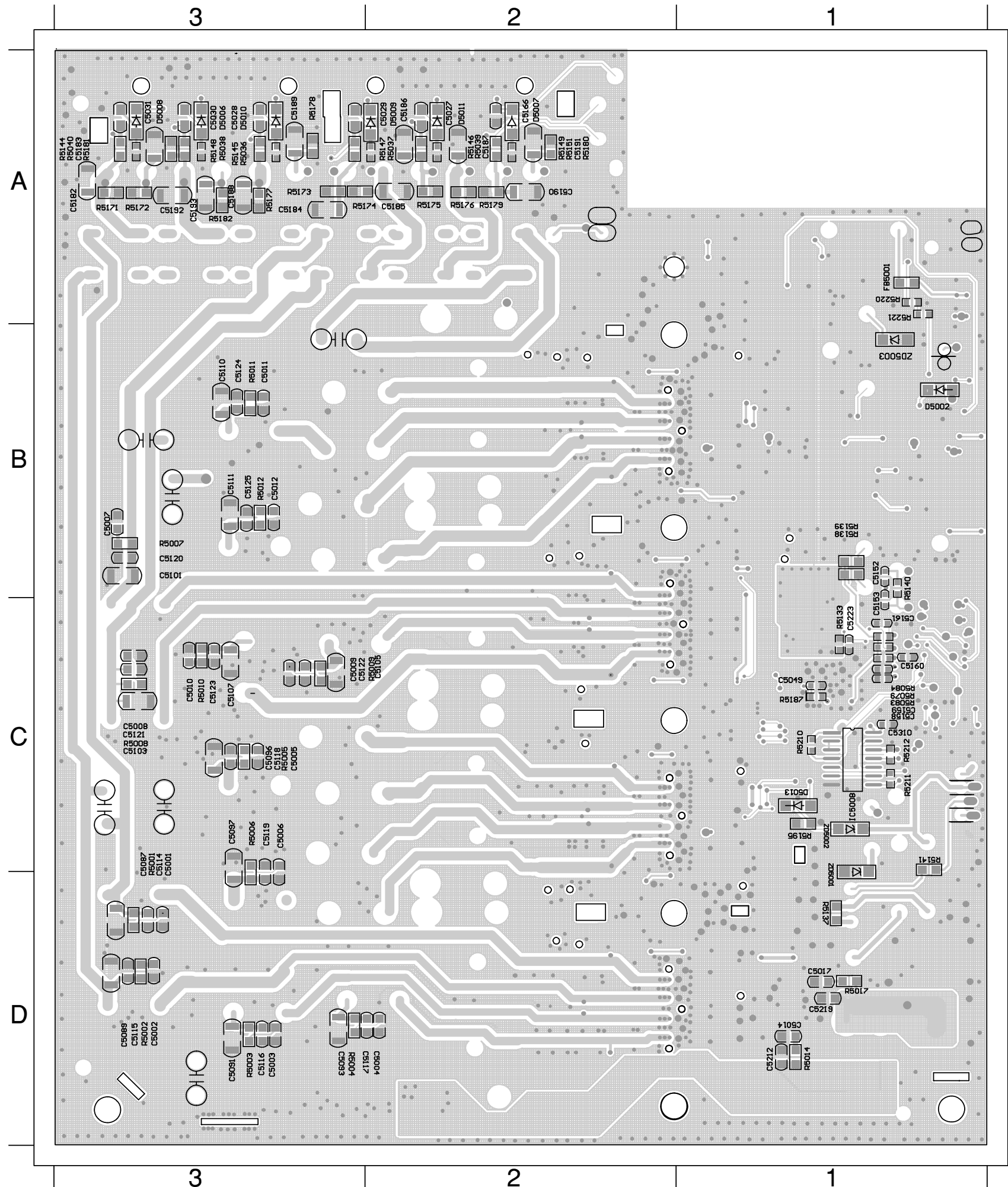


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C5173	A1	R5128	B1	C5055	C1	C5109	C2	C5077	D2
C5177	A1	R5129	B1	C5056	C1	C5112	C2	C5094	D2
D5005	A1	R5130	B1	C5057	C1	C5113	C2	C5095	D2
IC5007	A1	R5131	B1	C5062	C1	C5128	C2	C5098	D2
IC5007	A1	R5135	B1	C5064	C1	C5129	C2	C5099	D2
Q5007	A1	R5143	B1	C5065	C1	C5131	C2	C5127	D2
Q5008	A1	R5150	B1	C5066	C1	C5195	C2	C5132	D2
Q5009	A1	R5161	B1	C5067	C1	C5210	C2	C5181	D2
Q5011	A1	R5186	B1	C5149	C1	C5541	C2	C5213	D2
R4063	A1	R5213	B1	C5151	C1	C5543	C2	C5214	D2
R5029	A1	RB5002	B1	C5154	C1	FB5007	C2	C5540	D2
R5041	A1	XL5001	B1	C5155	C1	FB5008	C2	FB5004	D2
R5042	A1	C5018	B2	C5156	C1	R5049	C2	FB5005	D2
R5044	A1	C5036	B2	C5162	C1	R5052	C2	FB5006	D2
R5063	A1	C5038	B2	C5163	C1	R5167	C2	R5015	D2
R5064	A1	C5039	B2	C5164	C1	R5191	C2	R5019	D2
R5134	A1	C5078	B2	C5165	C1	C5134	C3	R5047	D2
R5152	A1	C5082	B2	C5167	C1	C5138	C3	R5048	D2
R5153	A1	C5083	B2	C5168	C1	L5007	C3	R5050	D2
R5155	A1	C5084	B2	C5171	C1	L5007	C3	R5168	D2
R5157	A1	C5085	B2	IC5002	C1	L5009	C3	R5169	D2
R5158	A1	C5086	B2	IC5006	C1	L5009	C3	R5170	D2
R5159	A1	C5088	B2	R5032	C1	L5014	C3	C5130	D3
R5162	A1	C5090	B2	R5058	C1	L5014	C3	C5135	D3
R5163	A1	C5092	B2	R5059	C1	L5019	C3	L5008	D3
R5164	A1	C5133	B2	R5061	C1	L5019	C3	L5008	D3
C100	A2	C5194	B2	R5082	C1	L5020	C3	L5015	D3
C5174	A2	C5196	B2	R5094	C1	L5020	C3	L5015	D3
C5175	A2	C5197	B2	R5097	C1	L5023	C3	L5016	D3
C5178	A2	C5198	B2	R5102	C1	L5027	C3	L5016	D3
CN5002	A2	C5211	B2	R5103	C1	L5028	C3	L5024	D3
JK5001	A3	C5542	B2	R5104	C1	C5041	D1		
C5045	B1	FB5009	B2	R5105	C1	C5042	D1		
C5054	B1	FB5010	B2	R5106	C1	C5043	D1		
C5058	B1	FB5011	B2	R5107	C1	C5044	D1		
C5059	B1	IC5003	B2	R5110	C1	C5053	D1		
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C5061	B1	L5012	B2	R5112	C1	C5179	D1		
C5069	B1	L5026	B2	R5113	C1	C5180	D1		
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C5172	B1	R5051	B2	R5117	C1	Q5010	D1		
CN5003	B1	R5053	B2	R5118	C1	R5056	D1		
D5001	B1	R5054	B2	R5121	C1	R5057	D1		
D5003	B1	R5190	B2	R5122	C1	R5093	D1		
D5004	B1	R5192	B2	R5125	C1	R5098	D1		
D5012	B1	R5193	B2	R5126	C1	R5099	D1		
IC5004	B1	R5194	B2	R5127	C1	R5100	D1		
Q5005	B1	C5136	B3	R5183	C1	R5101	D1		
Q5006	B1	C5137	B3	R5184	C1	R5120	D1		
R5028	B1	C5139	B3	RB5004	C1	R5124	D1		
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R5033	B1	L5011	B3	C5037	C2	R5165	D1		
R5034	B1	L5013	B3	C5074	C2	R5185	D1		
R5035	B1	L5013	B3	C5075	C2	RB5001	D1		
R5043	B1	L5017	B3	C5076	C2	C5015	D2		
R5045	B1	L5017	B3	C5079	C2	C5019	D2		
R5060	B1	L5025	B3	C5080	C2	C5032	D2		
R5062	B1	C5046	C1	C5081	C2	C5033	D2		
R5095	B1	C5047	C1	C5100	C2	C5035	D2		
R5096	B1	C5048	C1	C5102	C2	C5070	D2		
R5108	B1	C5050	C1	C5104	C2	C5071	D2		
R5109	B1	C5051	C1	C5106	C2	C5072	D2		

PCB LAYOUT - BOTTOM VIEW

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FB5001	A1	R5083	C1
R5220	A1	R5084	C1
R5221	A1	R5133	C1
C5166	A2	R5160	C1
C5185	A2	R5187	C1
C5186	A2	R5195	C1
C5187	A2	ZD5001	C1
C5190	A2	ZD5002	C1
C5191	A2	C5105	C2
D5007	A2	R5009	C2
R5146	A2	C5001	C3
R5147	A2	C5005	C3
R5149	A2	C5006	C3
R5151	A2	C5008	C3
R5175	A2	C5009	C3
R5176	A2	C5010	C3
R5179	A2	C5087	C3
R5180	A2	C5096	C3
C5031	A3	C5097	C3
C5182	A3	C5103	C3
C5183	A3	C5107	C3
C5184	A3	C5114	C3
C5188	A3	C5118	C3
C5189	A3	C5119	C3
C5192	A3	C5121	C3
C5193	A3	C5122	C3
D5008	A3	C5123	C3
R5040	A3	R5001	C3
R5144	A3	R5005	C3
R5145	A3	R5006	C3
R5148	A3	R5008	C3
R5171	A3	R5010	C3
R5172	A3	C5014	D1
R5173	A3	C5017	D1
R5174	A3	C5212	D1
R5177	A3	C5219	D1
R5178	A3	R5014	D1
R5181	A3	R5017	D1
R5182	A3	R5137	D1
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C5153	B1	C5002	D3
D5002	B1	C5003	D3
R5138	B1	C5089	D3
R5139	B1	C5091	D3
R5140	B1	C5093	D3
C5007	B3	C5115	D3
C5011	B3	C5116	D3
C5012	B3	C5117	D3
C5101	B3	R5002	D3
C5110	B3	R5003	D3
C5111	B3	R5004	D3
C5120	B3		
C5124	B3		
C5125	B3		
R5007	B3		
R5011	B3		
R5012	B3		
C5049	C1		
C5158	C1		
C5159	C1		
C5160	C1		
C5161	C1		
C5223	C1		
C5310	C1		
D5013	C1		
IC5008	C1		
R5079	C1		

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# **VOL+USB+MP3 BOARD**

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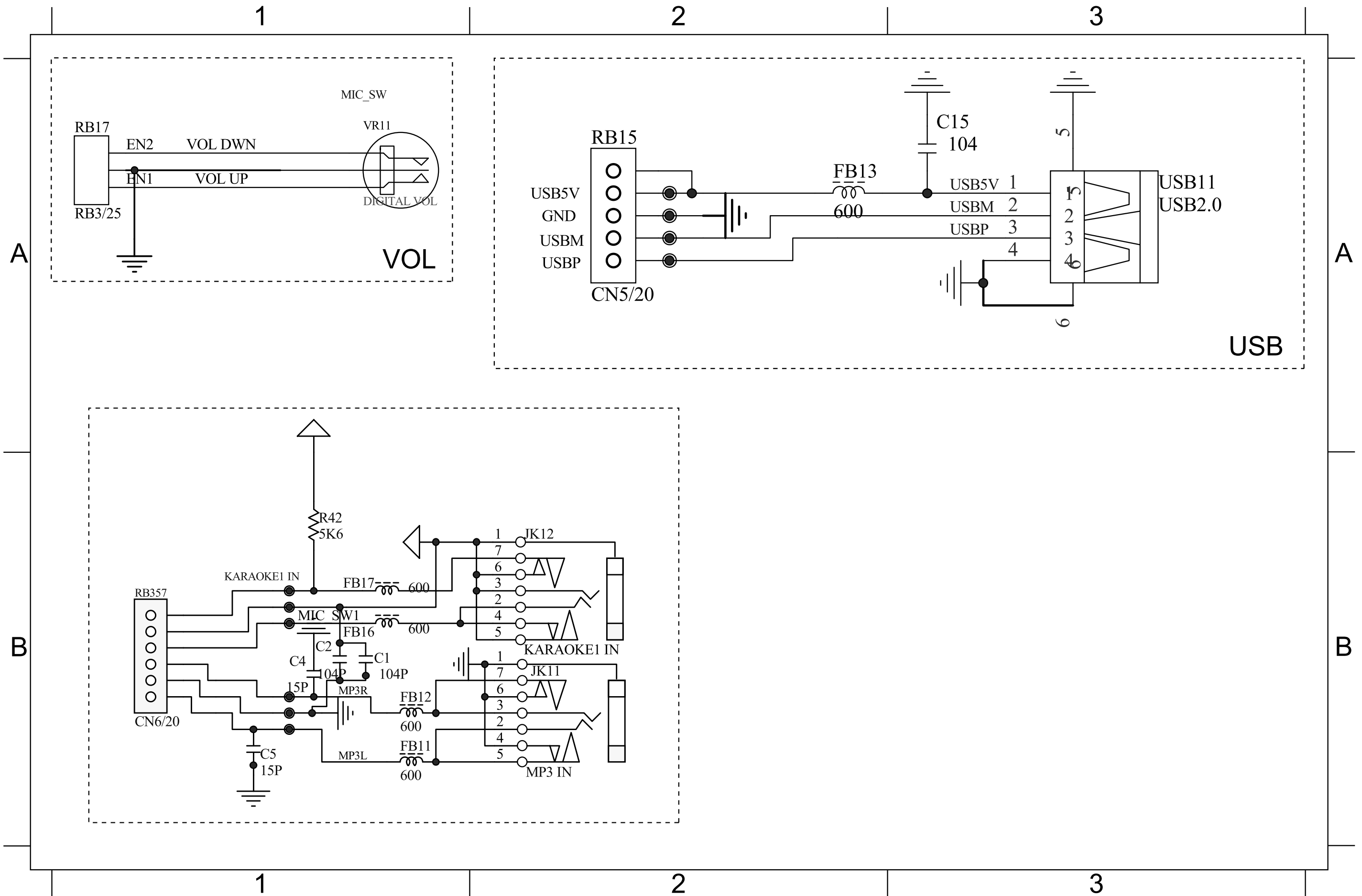


# CIRCUIT DIAGRAM

9 - 2

9 - 2

C1 B1 C4 B1 FB11 B1 FB16 B1 JK11 B2 R42 B1 RB17 A1 VR11 A1  
 C2 B1 C5 B1 FB12 B1 FB17 B1 JK12 B2 RB15 A2 USB11 A3



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# TOUCH BOARD

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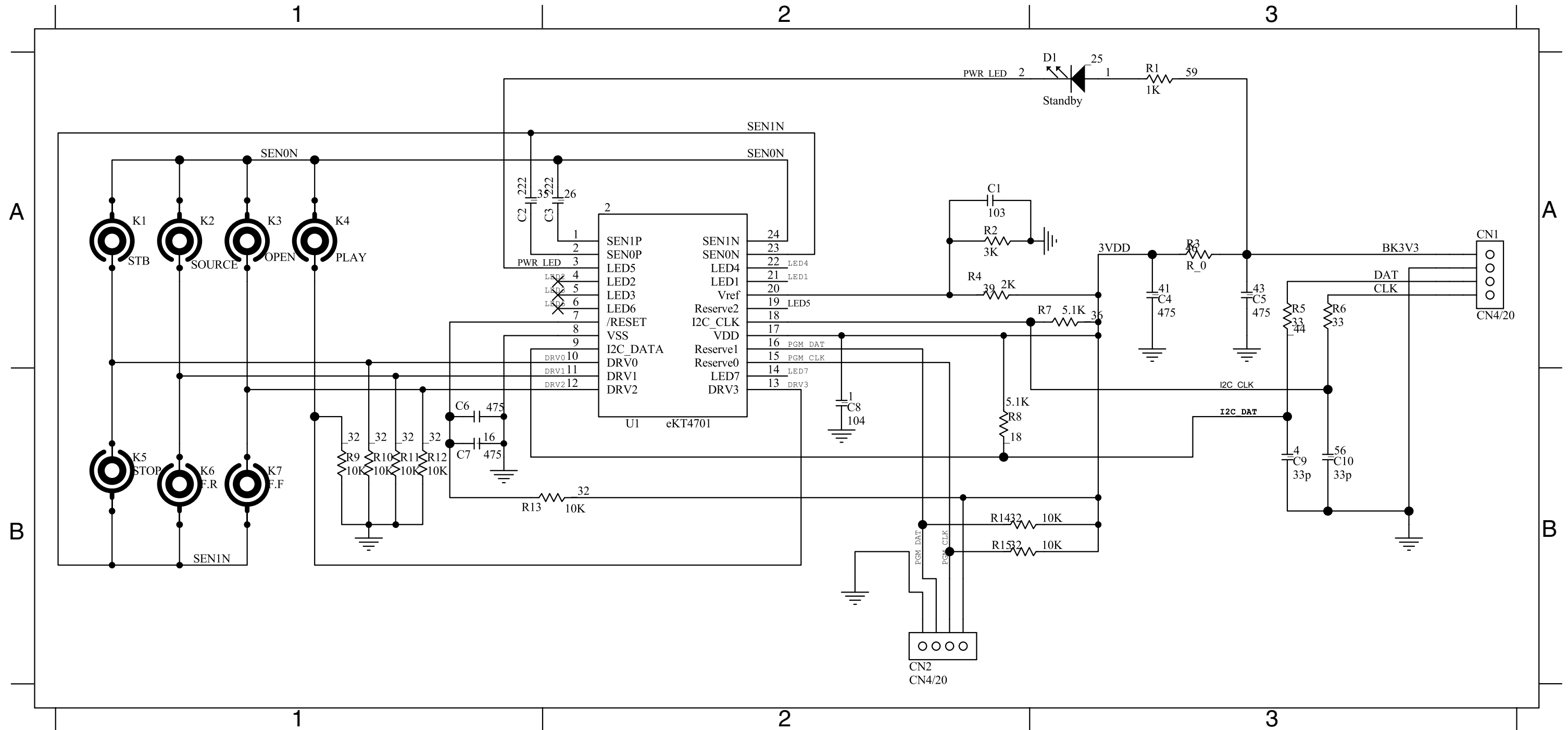


# CIRCUIT DIAGRAM

10 - 2

10 - 2

C2	A1	C3	A2	R4	A2	C4	A3	D1	A3	R3	A3	R6	A3	C6	B1	R10	B1	R12	B1	R9	B1	R14	B2	R8	B2	C9	B3
C1	A2	R2	A2	U1	A2	C5	A3	R1	A3	R5	A3	R7	A3	C7	B1	R11	B1	R13	B1	C8	B2	R15	B2	C10	B3		



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# JACK BOARD

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**CIRCUIT DIAGRAM**

CN103 A1 JK102 A2 Q104 A2 Q105 A2 Q106 A2 Q107 B2 Q108 B2

