

Service  
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Service



# Service Manual

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Published by SL0750 Service Audio

Printed in The Netherlands Subject to modification.



3141 785 31631

Version 1.1



# PHILIPS



## SPECIFICATION

### AMPLIFIER

RMS output power	
1KHz (Low channel-both channels driven) .....	60 W per channel
10KHz (High channel-both channels driven) ....	60 W per channel
Total output power .....	240 W
Signal-to-noise ratio .....	67 dB A (IEC)
Frequency response .....	50 – 16000 Hz
Input sensitivity	
AUX .....	1500mV/2000mV
Output	
Speakers .....	6 $\Omega$
Headphones .....	32 $\Omega$
(1) (8 $\Omega$ , 1 kHz, 10%THD)	

### CD/MP3-CD PLAYER

Number of programmable tracks .....	40
Frequency response .....	50 – 20000 Hz -3dB
Signal-to-noise ratio .....	75 dB A
Channel separation .....	50 dB (1 kHz)
Total harmonic distortion .....	< 1.5%
MPEG 1 Layer 3 (MP3-CD) .....	MPEG AUDIO
MP3-CD bit rate .....	32-256 kbps
	(128 kbps advised)
Sampling frequencies .....	32, 44.1, 48 kHz

### TUNER

FM wave range .....	87.5 – 108 MHz
MW wave range .....	531 – 1602 kHz
Number of presets .....	40
Antenna	
FM .....	75 $\Omega$ wire
MW .....	Loop antenna

### USB PLAYER

USB .....	12Mb/s,V1.1
.....	support MP3 and WMA files
Number of albums/folders .....	maximum 99
Number of tracks/titles .....	maximum 400

### TAPE PLAYER

Frequency response	
Normal tape (type I) .....	125 – 8000 Hz (8 dB)
Signal-to-noise ratio	
Normal tape (type I) .....	48 dB A
Wow and flutter .....	$\leq$ 0.4% DIN

### SPEAKERS

System	2-way; double port bass reflex
Impedance .....	6 $\Omega$
Woofer .....	1 x 13cm
Tweeter .....	1 x 5cm
Dimensions (w x h x d) ....	27.3 x 31 x 20.4 (cm)
Weight .....	3.65 kg each

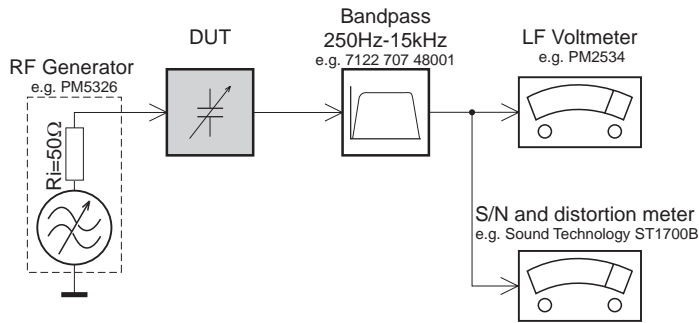
### GENERAL

Material/finish .....	Polystyrene/Metal
AC Power .....	220 – 230 V / 50 Hz
Power Consumption	
Active .....	120 W
Standby .....	$\leq$ 15 W
Eco Power standby .....	$\leq$ 1 W
Dimensions (w x h x d) ....	26.5 x 31 x 38.4 (cm)
Weight (without speakers) .....	9.1 kg

**Specifications and external appearance are subject to change without notice.**

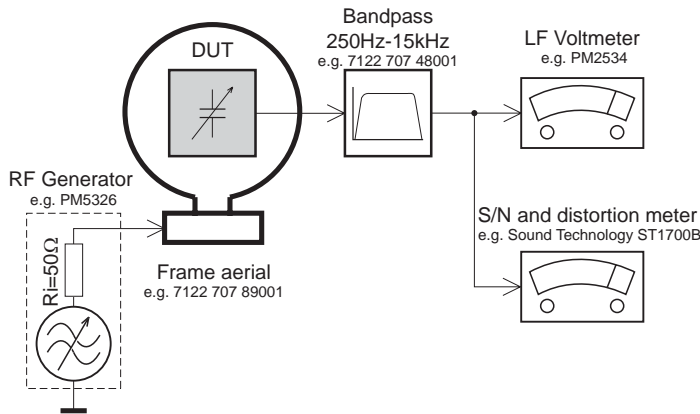
# MEASUREMENT SETUP

## Tuner FM



Use a bandpass filter to eliminate hum (50Hz, 100Hz) and disturbance from the pilotone (19kHz, 38kHz).

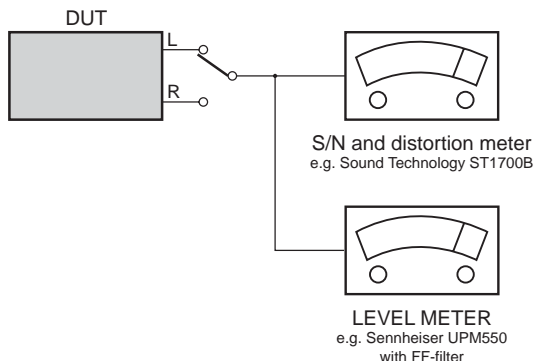
## Tuner AM (MW,LW)



To avoid atmospheric interference all AM-measurements have to be carried out in a Faraday's cage. Use a bandpass filter (or at least a high pass filter with 250Hz) to eliminate hum (50Hz, 100Hz).

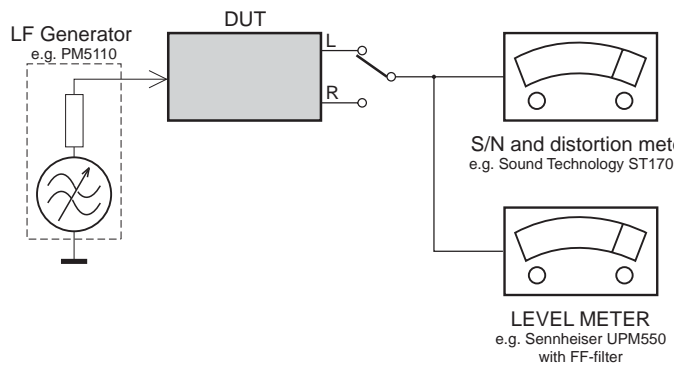
## CD

Use Audio Signal Disc SBC429 4822 397 30184  
(replaces test disc 3)



## Recorder

Use Universal Test Cassette **CrO2** SBC419 4822 397 30069  
or Universal Test Cassette **Fe** SBC420 4822 397 30071



## SERVICE AIDS

### Service Tools:

Universal Torx driver holder .....	4822 395 91019
Torx bit T10 150mm .....	4822 395 50456
Torx driver set T6-T20 .....	4822 395 50145
Torx driver T10 extended .....	4822 395 50423

### Compact Disc:

SBC426/426A Test disc 5 + 5A .....	4822 397 30096
SBC442 Audio Burn-in test disc 1kHz .....	4822 397 30155
SBC429 Audio Signals disc .....	4822 397 30184
Dolby Pro-logic Test Disc .....	4822 395 10216




### WARNING

All ICs and many other semi-conductors are susceptible to electrostatic discharges (ESD). Careless handling during repair can reduce life drastically.  
When repairing, make sure that you are connected with the same potential as the mass of the set via a wrist wrap with resistance. Keep components and tools also at this potential.

### ESD



Safety regulations require that the set be restored to its original condition and that parts which are identical with those specified, be used

Safety components are marked by the symbol .

**CLASS 1  
LASER PRODUCT**

## INFORMATION ABOUT LEAD-FREE SOLDERING

Philips CE is producing lead-free sets from 1.1.2005 onwards.

### IDENTIFICATION:

Regardless of special logo (not always indicated) one must treat all sets from 1 Jan 2005 onwards, according next rules:



- On our website [www.atyourservice.ce.Philips.com](http://www.atyourservice.ce.Philips.com) you find more information to:
  - \* BGA-de-/soldering (+ baking instructions)
  - \* Heating-profiles of BGAs and other ICs used in Philips-sets
  - \* Lead free

You will find this and more technical information within the "magazine", chapter "workshop news".

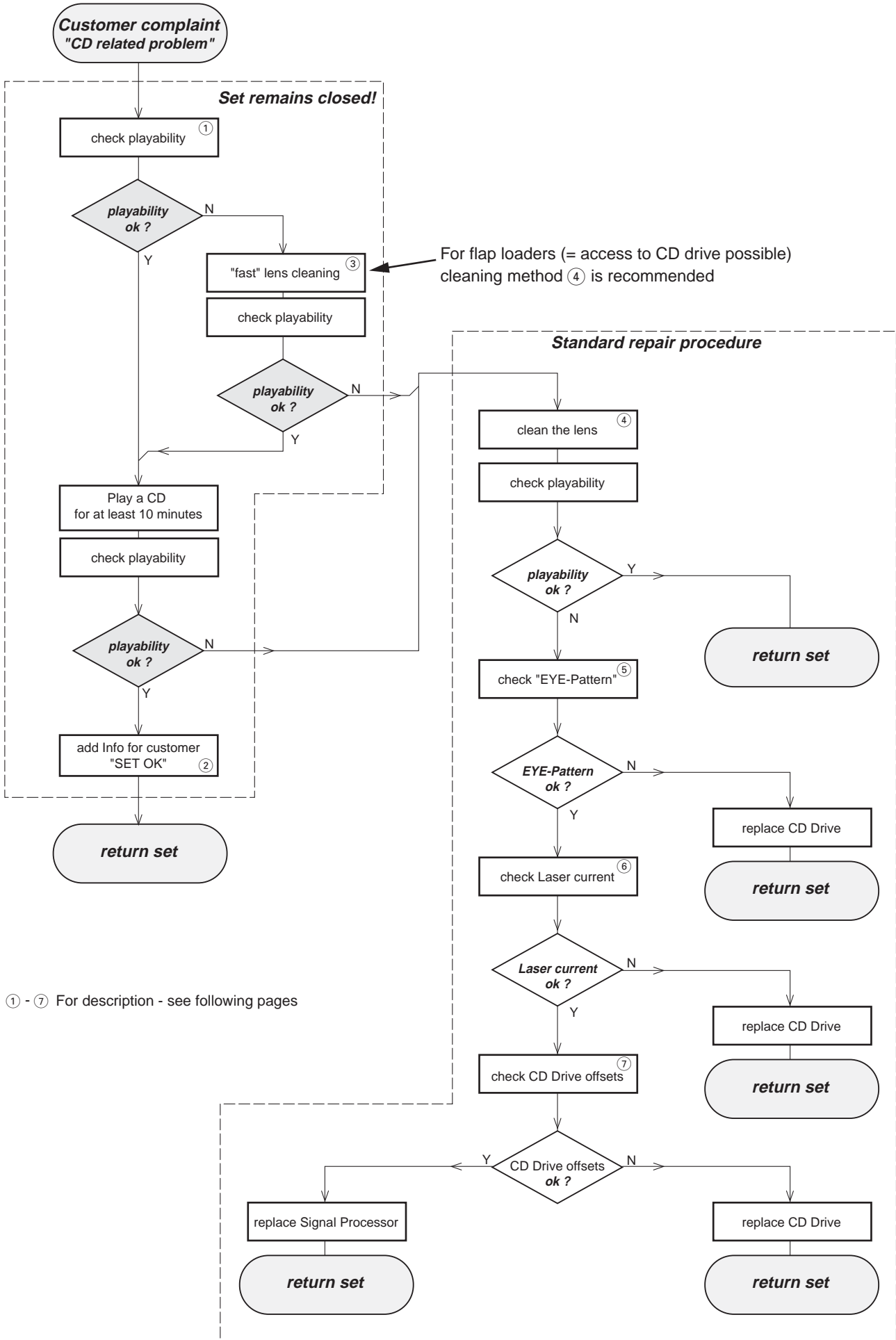
For additional questions please contact your local repair-helpdesk.

## SERVICE INSTRUCTION

Safety regulations require that after a repair, the set must be returned in its original condition. Pay in particular attention to the following points:

- Route the wire trees correctly and fix them with the mounted cable clamps.
- Check the insulation of the AC Power lead for external damage.
- Check the strain relief of the AC Power cord for proper function.
- Check the electrical DC resistance between the AC Power Plug and the secondary side (only for sets which have a AC Power isolated power supply):
  1. Unplug the AC Power cord and connect a wire between the two pins of the AC Power plug.
  2. Set the AC Power switch to the "on" position (keep the AC Power cord unplugged!).
  3. Measure the resistance value between the pins of the AC Power plug and the metal shielding of the tuner or the aerial connection on the set. The reading should be larger than 4.5 Mohm (For U.S. it should be between 4.2 Mohm and 12 Mohm).
  4. Switch "off" the set, and remove the wire between the two pins of the AC Power plug.
- Check the cabinet for defects, to avoid touching of any inner parts by the customer.

# INSTRUCTIONS ON CD PLAYABILITY



# INSTRUCTIONS ON CD PLAYABILITY

①

## PLAYABILITY CHECK

For sets which are compatible with **CD-RW** discs  
 use CD-RW Printed Audio Disc.....7104 099 96611  
 TR 3 (Fingerprint)  
 TR 8 (600µ Black dot) **maximum at 01:00**

- playback of these two tracks without audible disturbance  
 playing time for: Fingerprint ≥10seconds  
 Black dot from 00:50 to 01:10
- jump forward/backward (search) within a reasonable time

For all other sets  
 use CD-DA SBC 444A.....4822 397 30245  
 TR 14 (600µ Black dot) **maximum at 01:15**  
 TR 19 (Fingerprint)  
 TR 10 (1000µ wedge)

- playback of all these tracks without audible disturbance  
 playing time for: 1000µ wedge ≥10seconds  
 Fingerprint ≥10seconds  
 Black dot from 01:05 to 01:25
- jump forward/backward (search) within a reasonable time

②

## CUSTOMER INFORMATION

It is proposed to add an addendum sheet to the set which informs the customer that the set has been checked carefully - but no fault was found.  
 The problem was obviously caused by a scratched, dirty or copy-protected CD. In case problems remain, the customer is requested to contact the workshop directly.  
 The lens cleaning (method ③) should be mentioned in the addendum sheet.

The final wording in national language as well as the printing is under responsibility of the Regional Service Organizations.

③

## FAST LENS CLEANING (dry brush)

Use lens cleaning CD  
 SBC AC300.....9082 100 00043

Insert the lens cleaning CD, press PLAY and follow the voice guide's instructions on the CD.

④

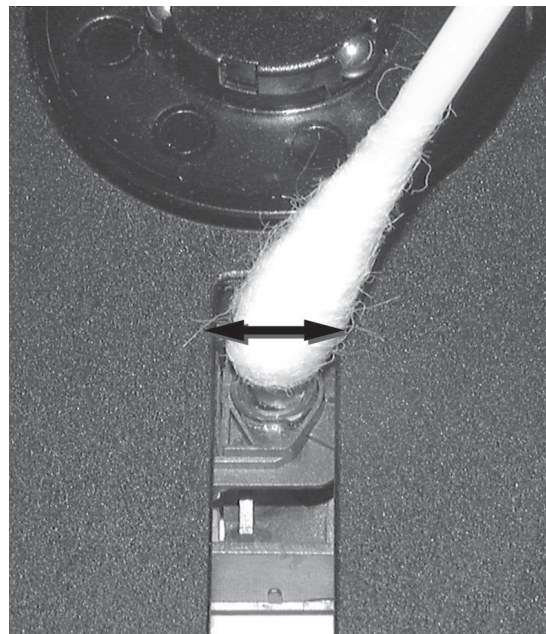
## LIQUID LENS CLEANING

**Before touching the lens it is advised to clean the surface of the lens by blowing clean air over it. This to avoid that little particles make scratches on the lens.**

Because the material of the lens is synthetic and coated with a special anti-reflectivity layer, cleaning must be done with a non-aggressive cleaning fluid. It is advised to use "Cleaning Solvent B4-No2", available with codenumber 4822 389 10026.

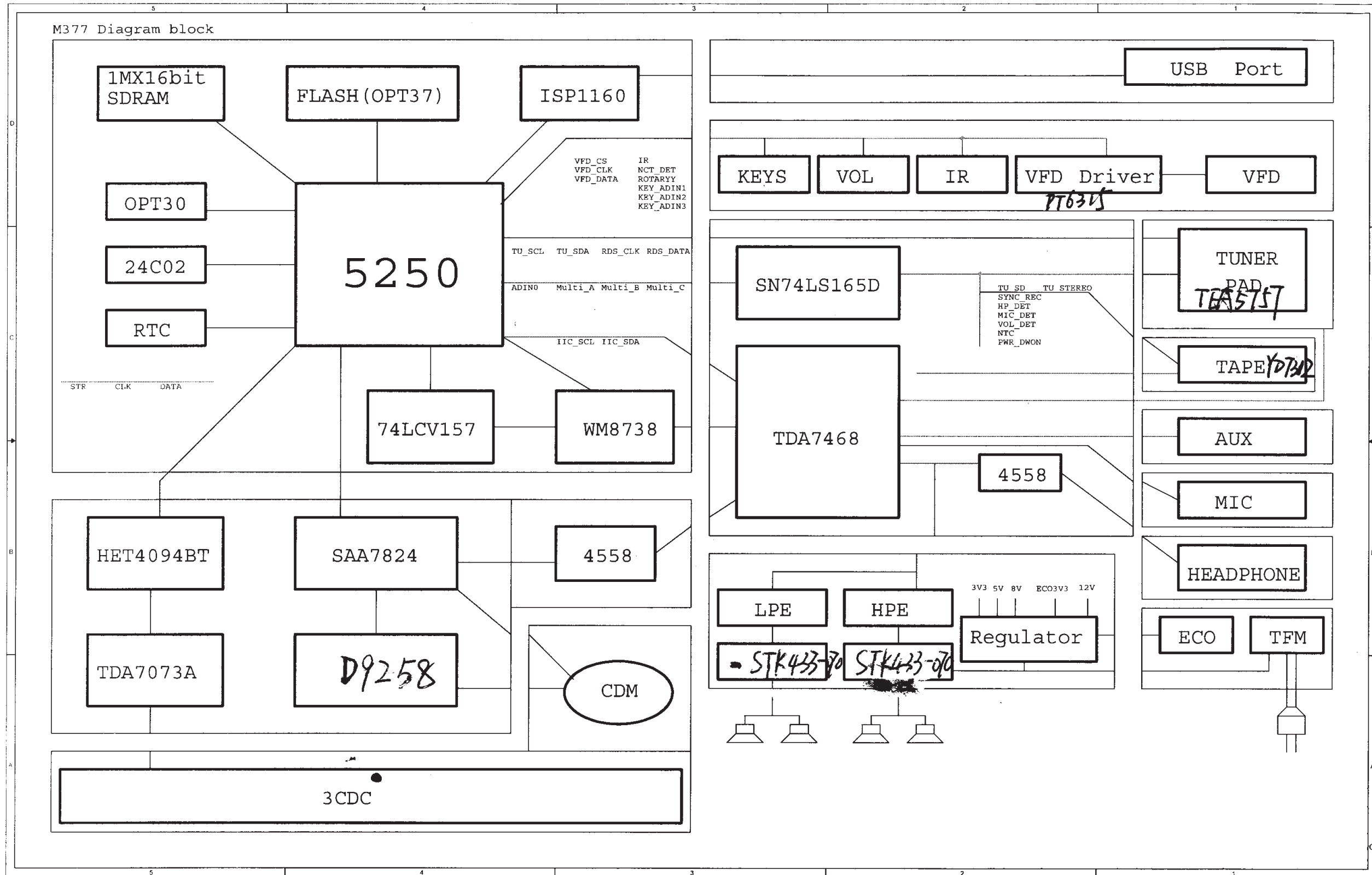
The actuator is a very precise mechanical component and may not be damaged in order to guarantee its full function. Clean the lens gently (don't press too hard) with a soft and clean cotton bud moistened with the special lens cleaner.

The direction of cleaning must be in the way as indicated in the picture below.



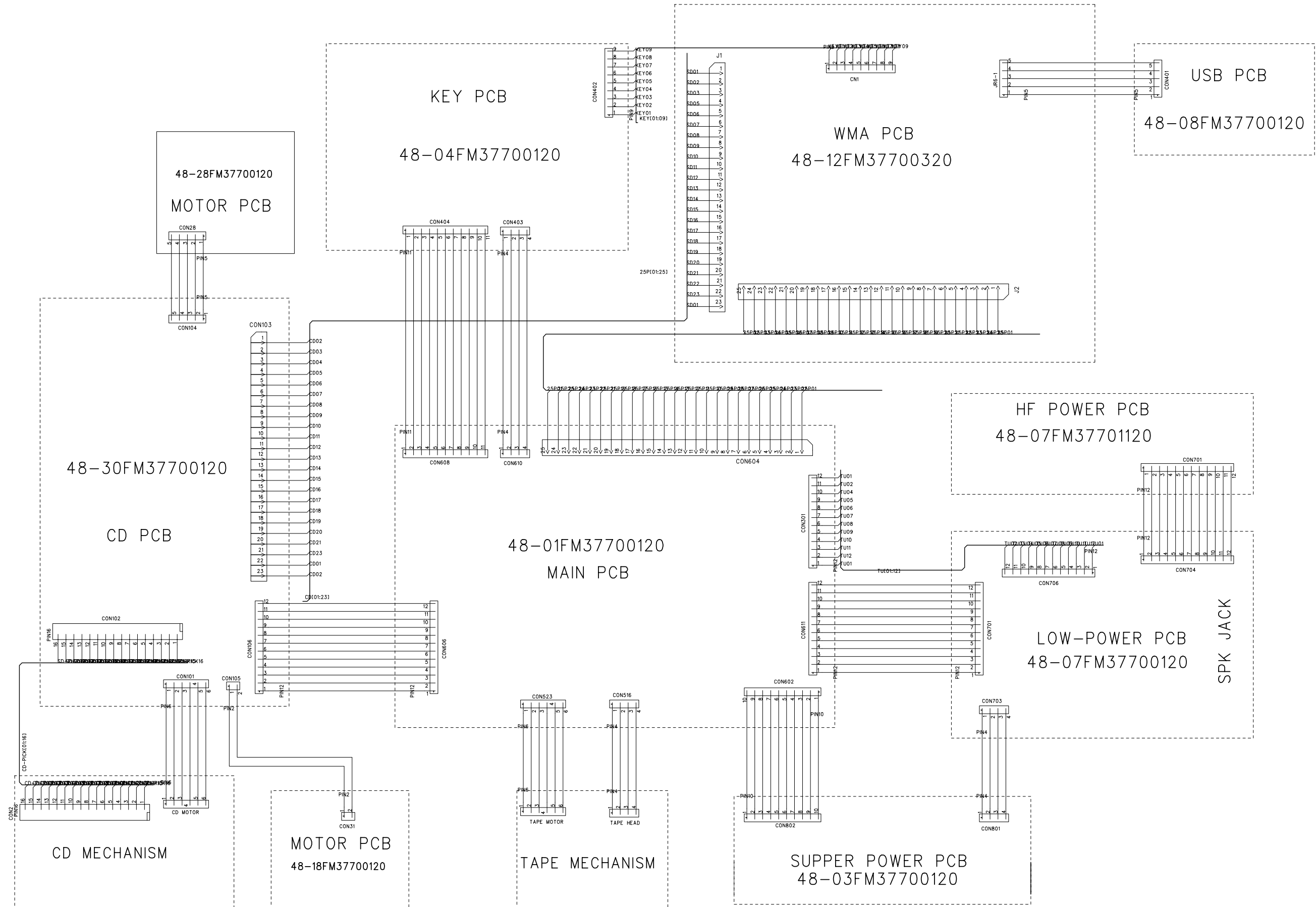


SET BLOCK DIAGRAM





# SET WIRING DIAGRAM



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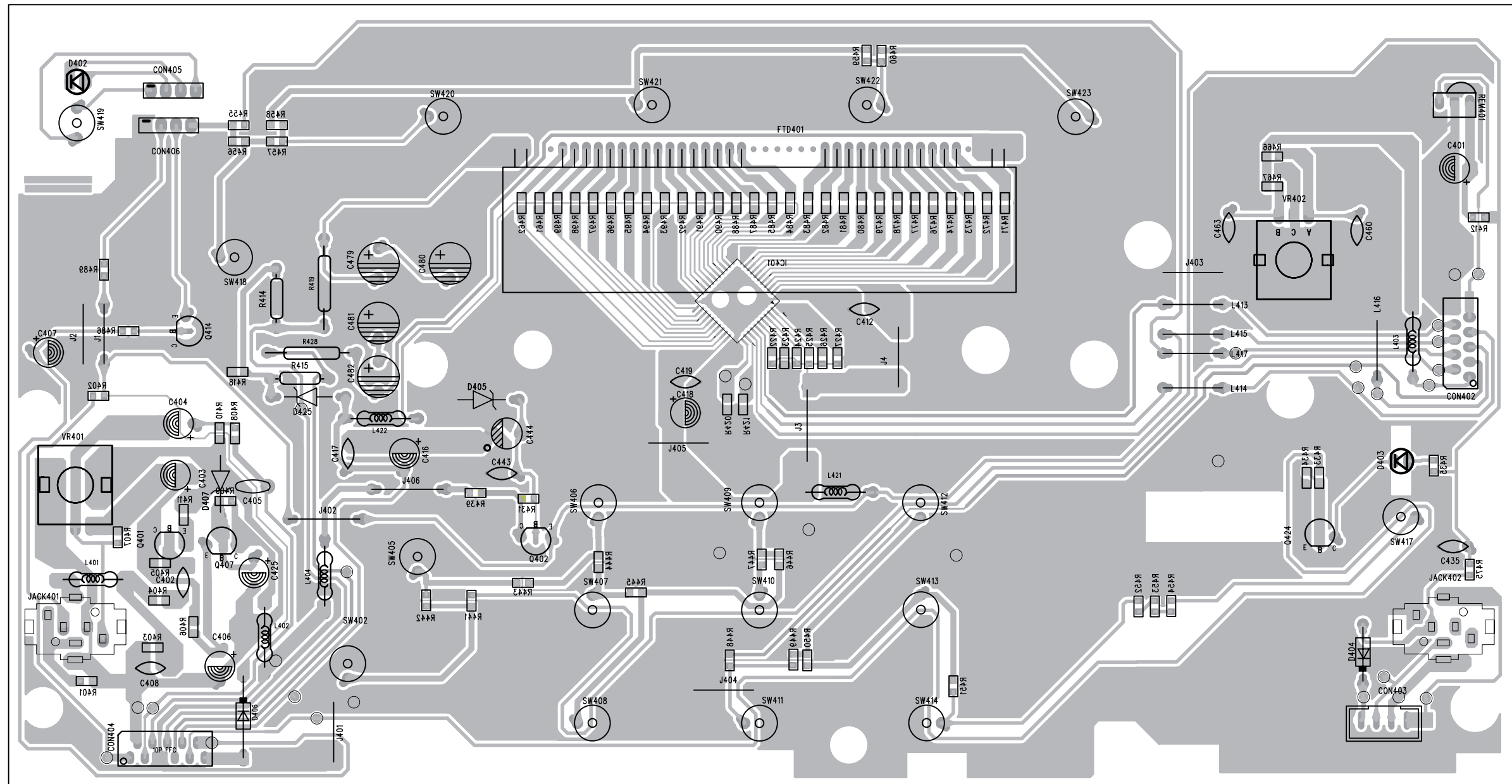
# FRONT & USB BOARD

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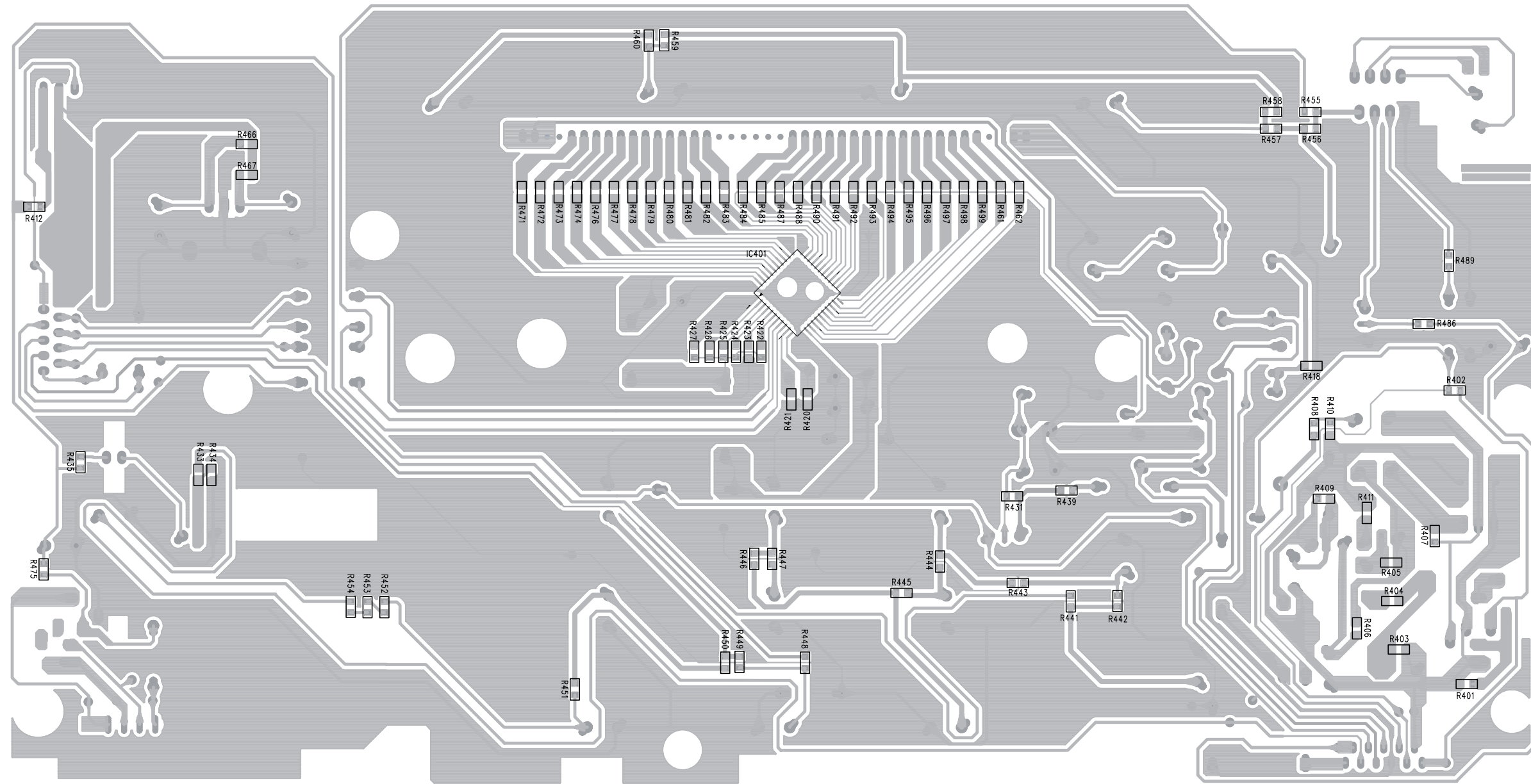
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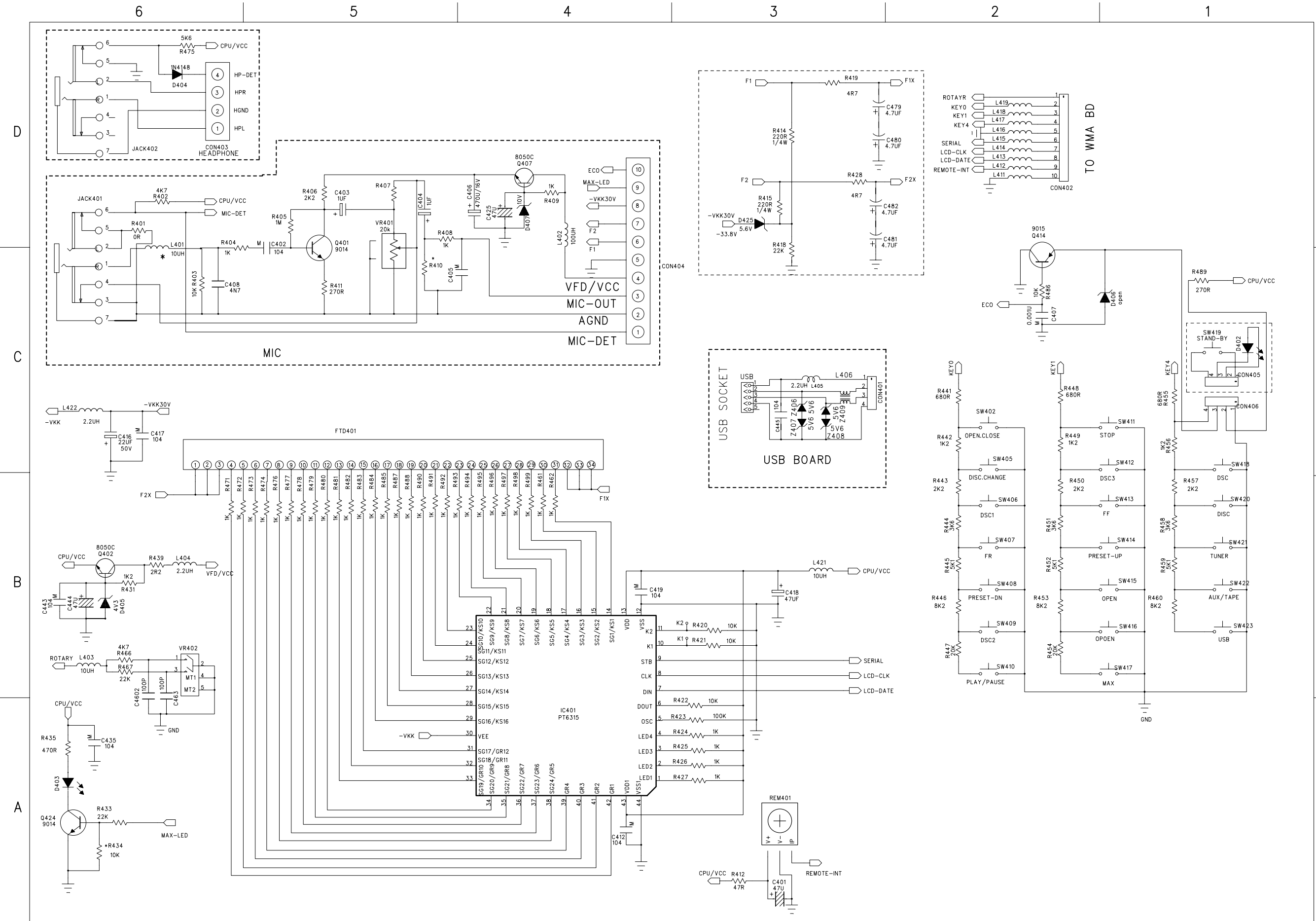
# PCB LAYOUT - FRONT BOARD (TOP VIEW)



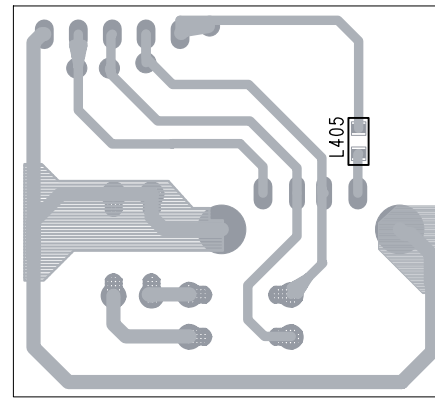
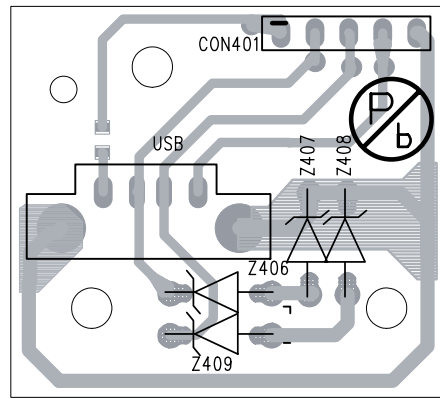
PCB LAYOUT - FRONT BOARD (BOTTOM VIEW)



# CIRCUIT DIAGRAM - FRONT BOARD



# PCB LAYOUT - USB BOARD



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# CPU/WMA BOARD

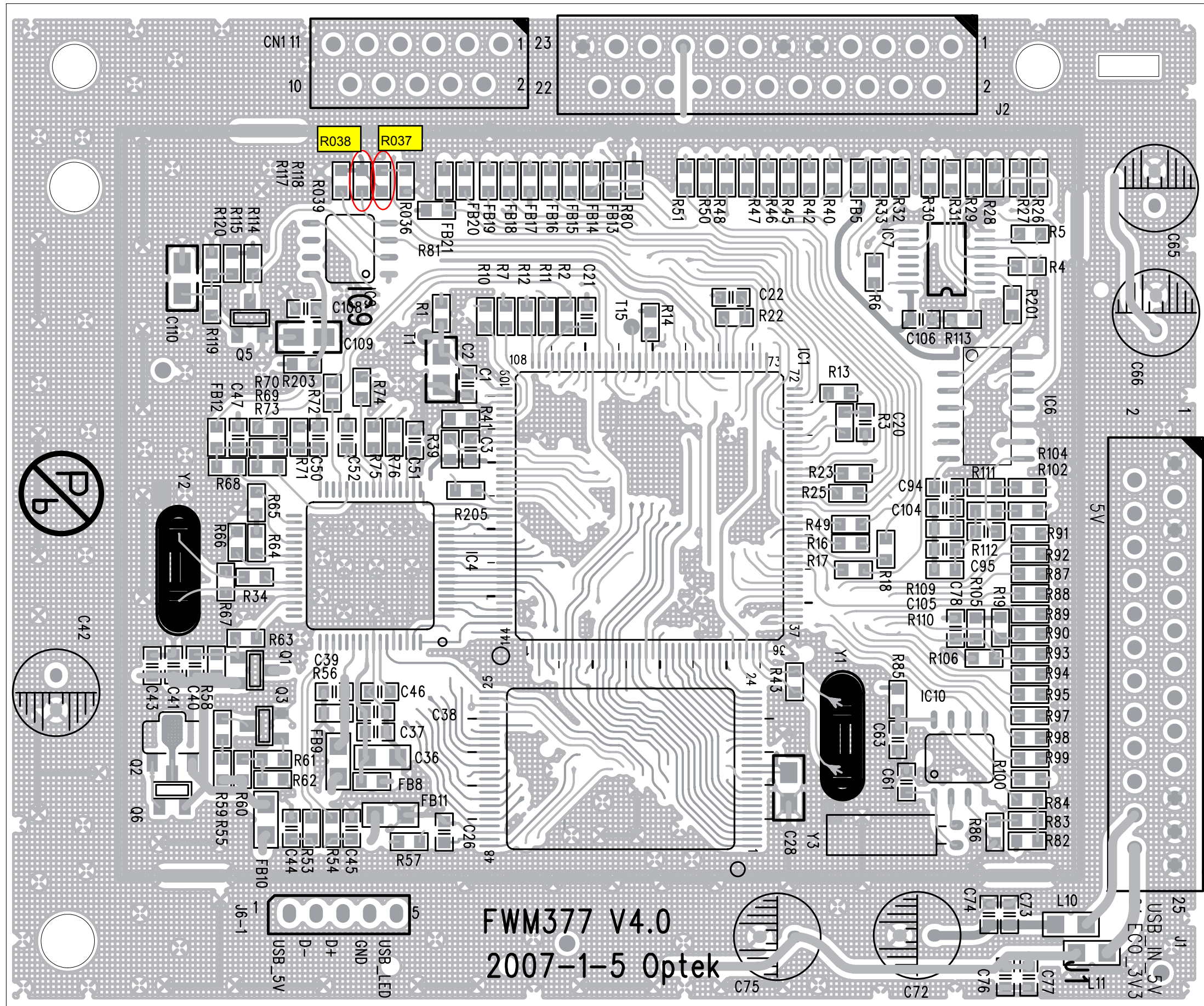
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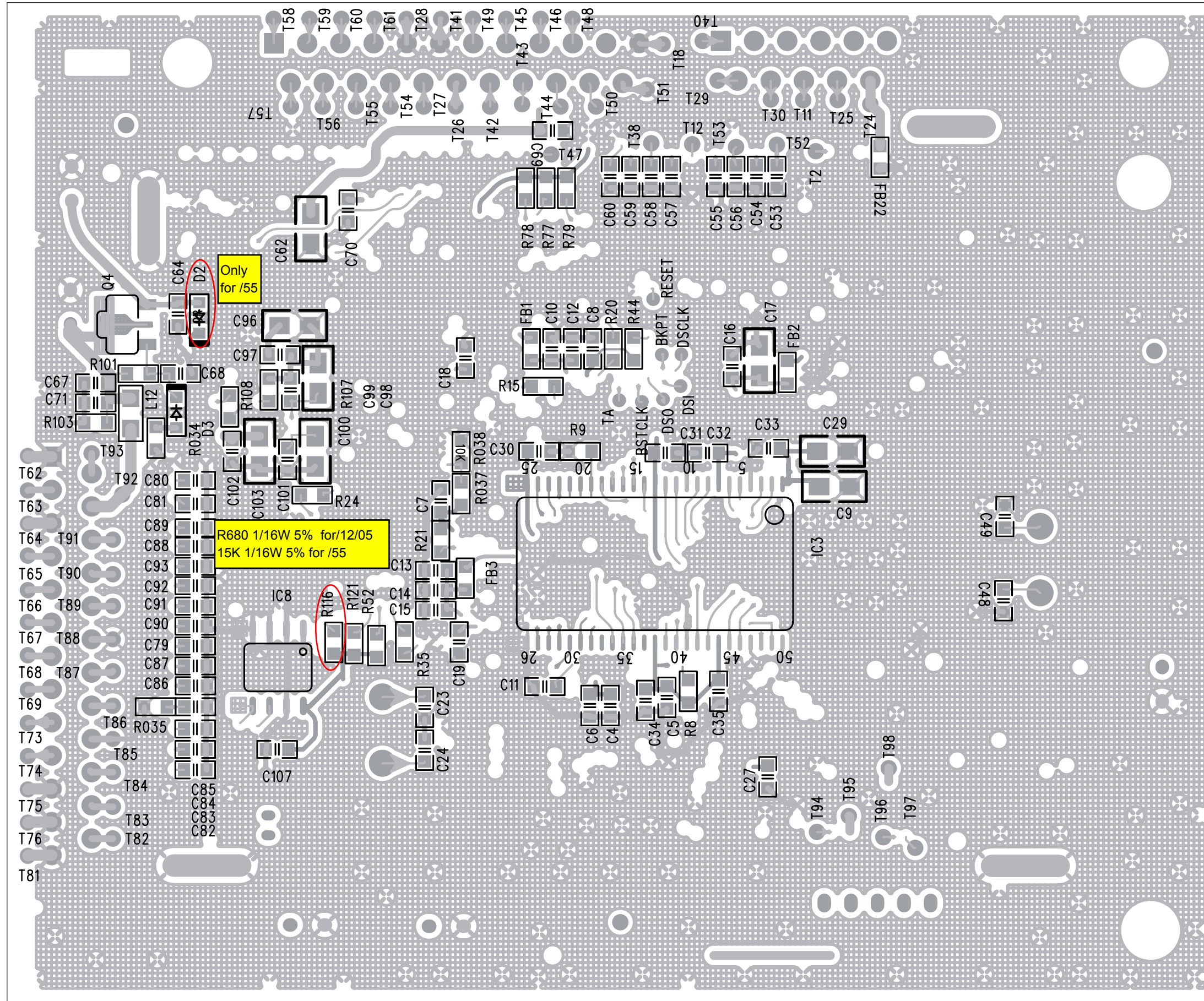


# PCB LAYOUT - CPU/WMA BOARD (TOP VIEW)

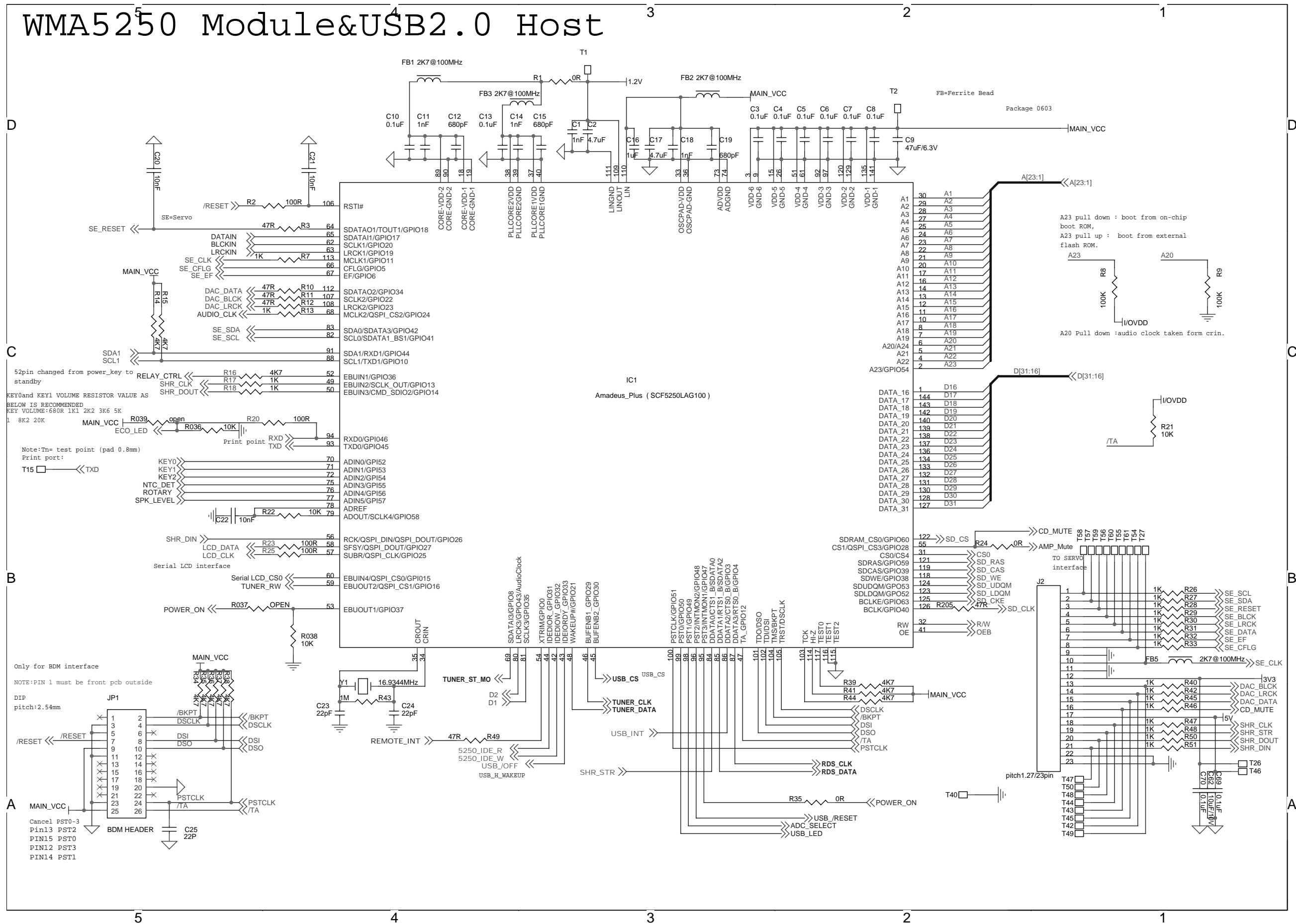


FWM377 V4.0  
 2007-1-5 Optek

# PCB LAYOUT - CPU/WMA BOARD (BOTTOM VIEW)

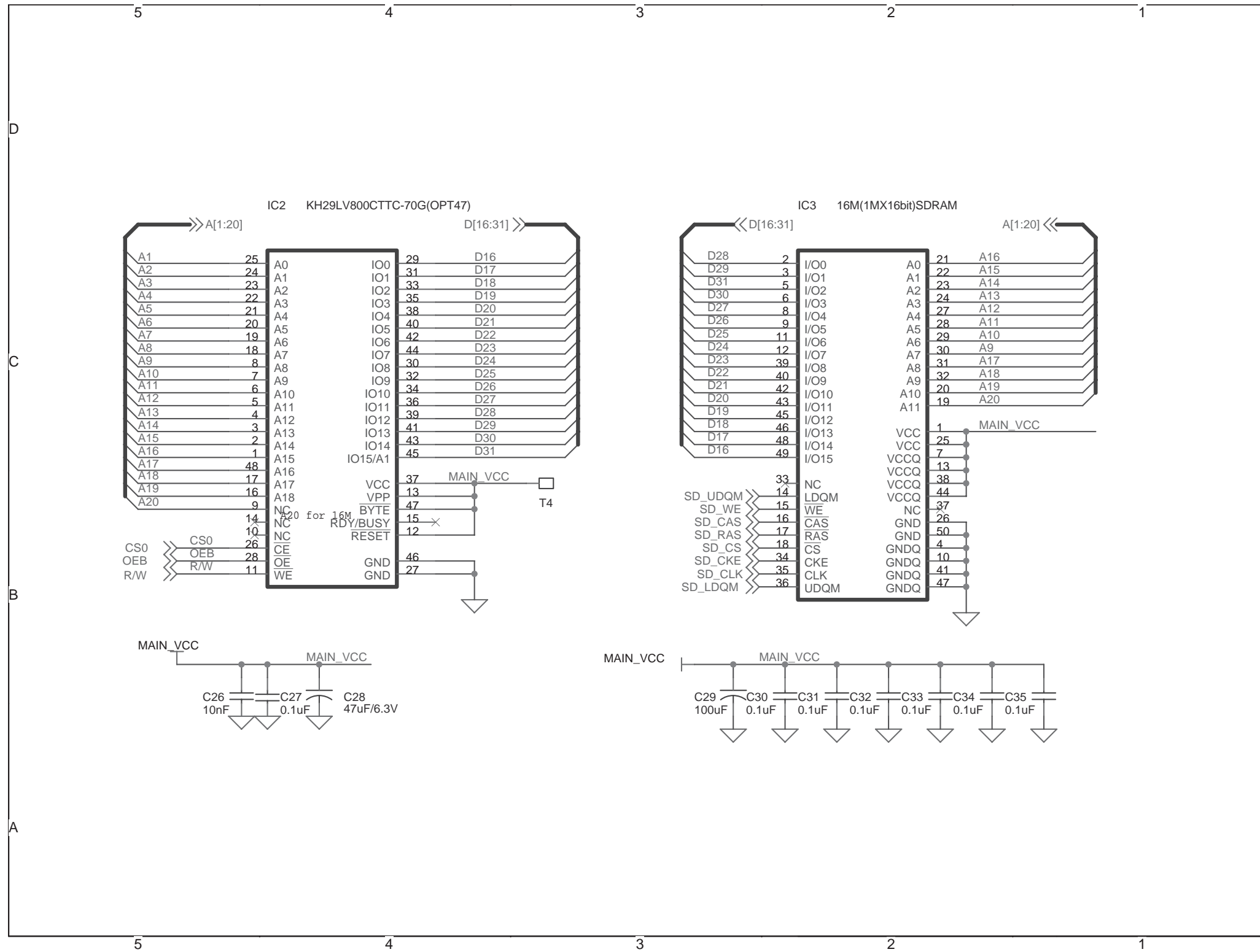


# CIRCUIT DIAGRAM - CPU/WMA BOARD

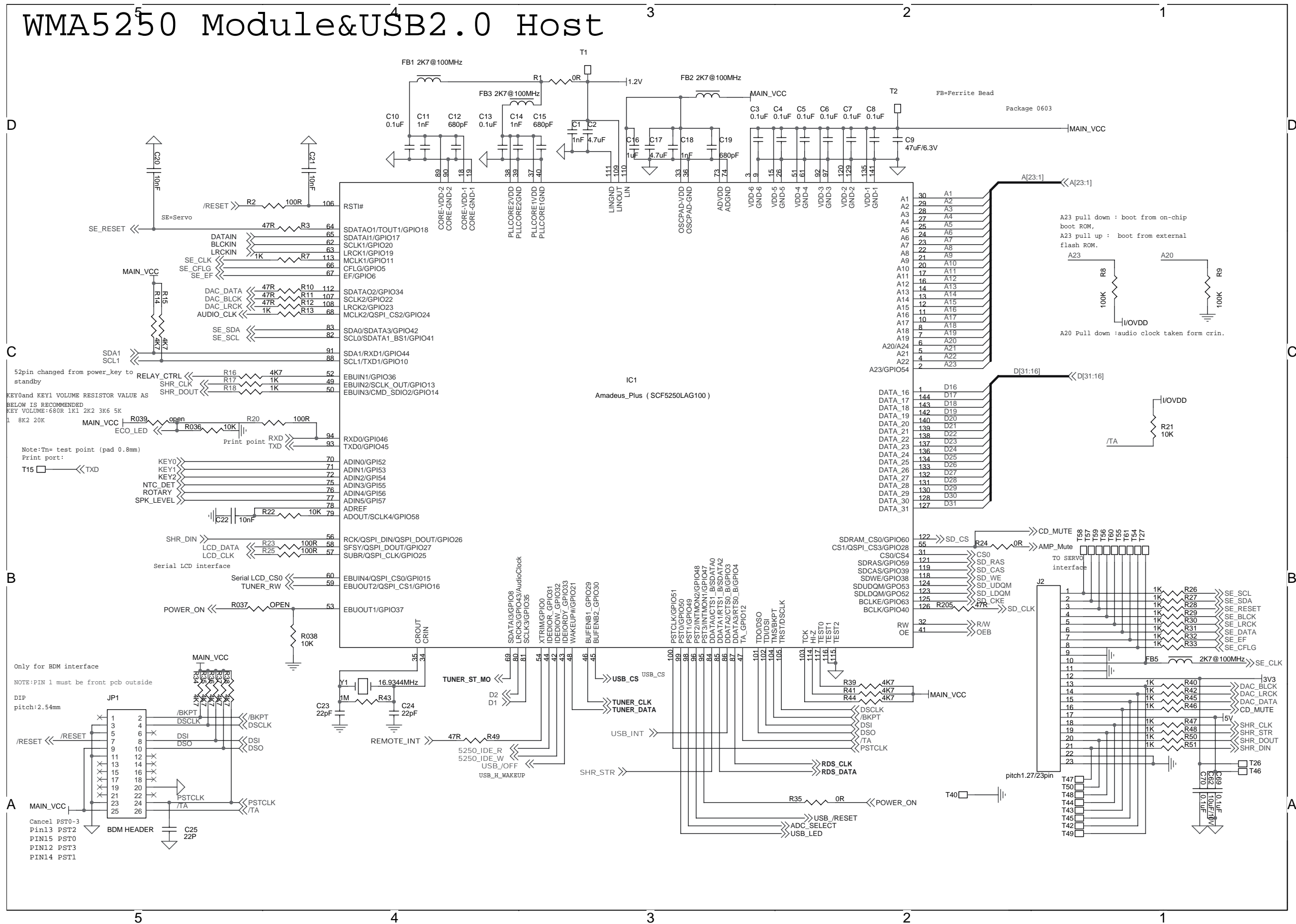




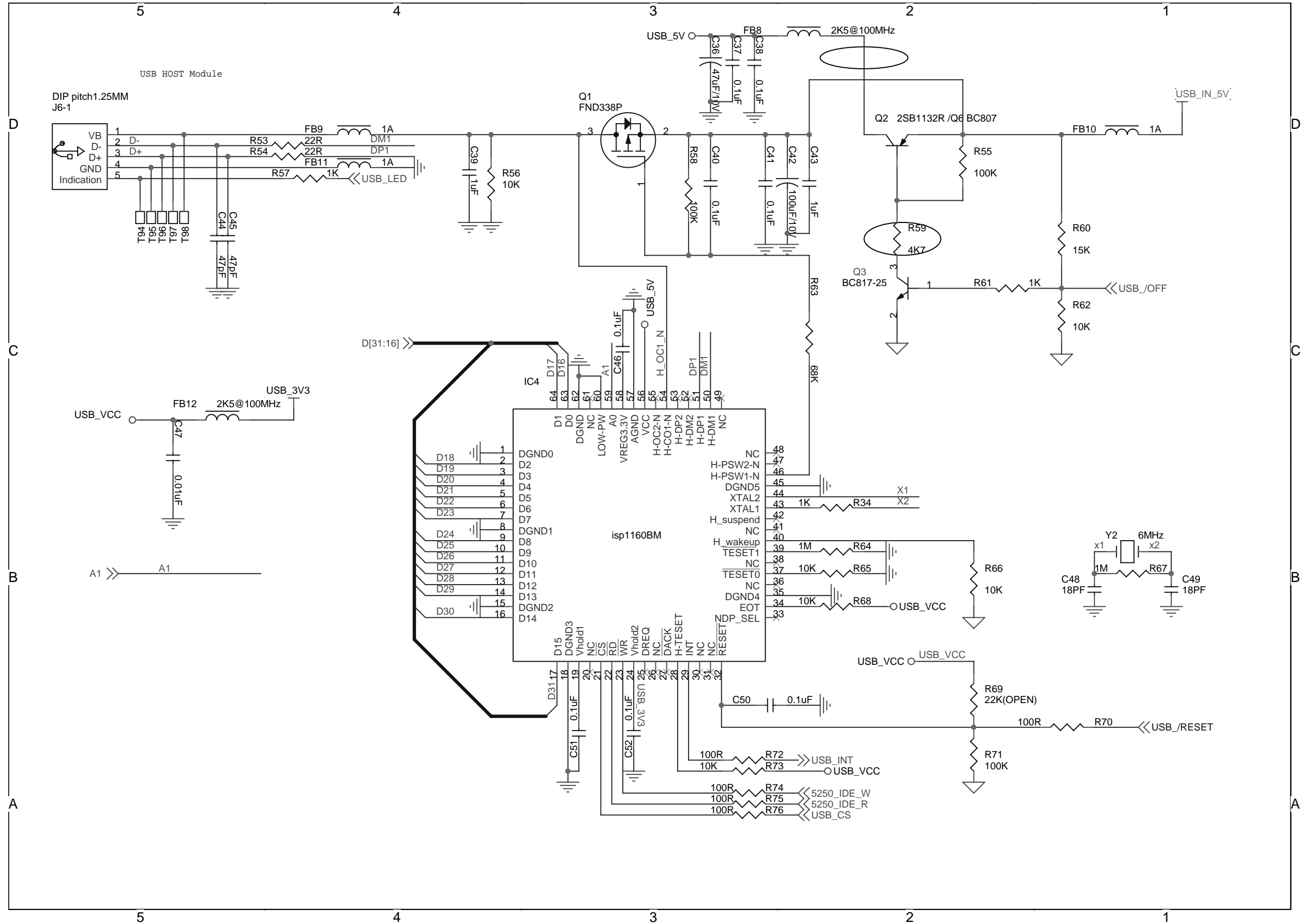
# CIRCUIT DIAGRAM - CPU/WMA BOARD



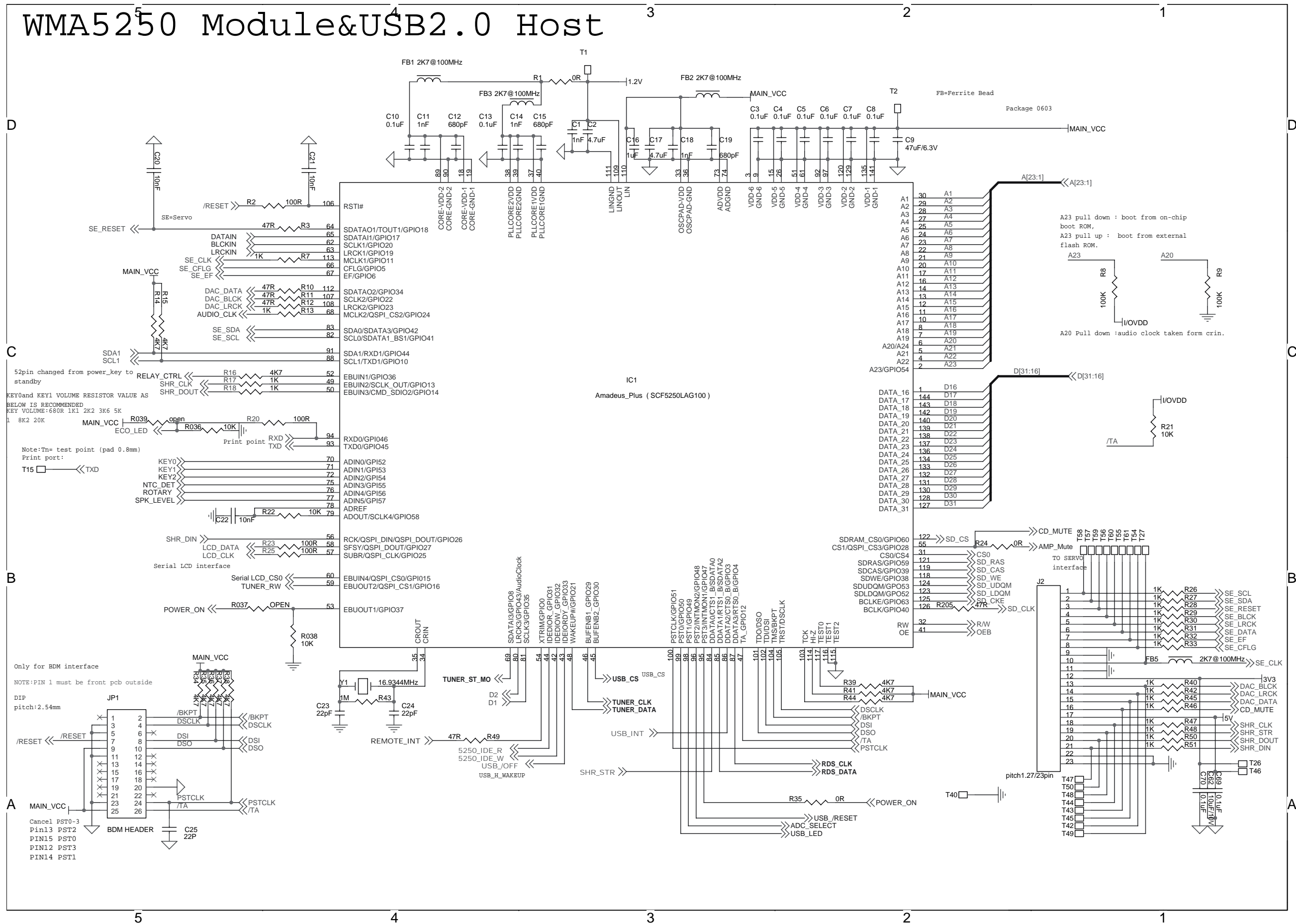
# CIRCUIT DIAGRAM - CPU/WMA BOARD



# CIRCUIT DIAGRAM - CPU/WMA BOARD

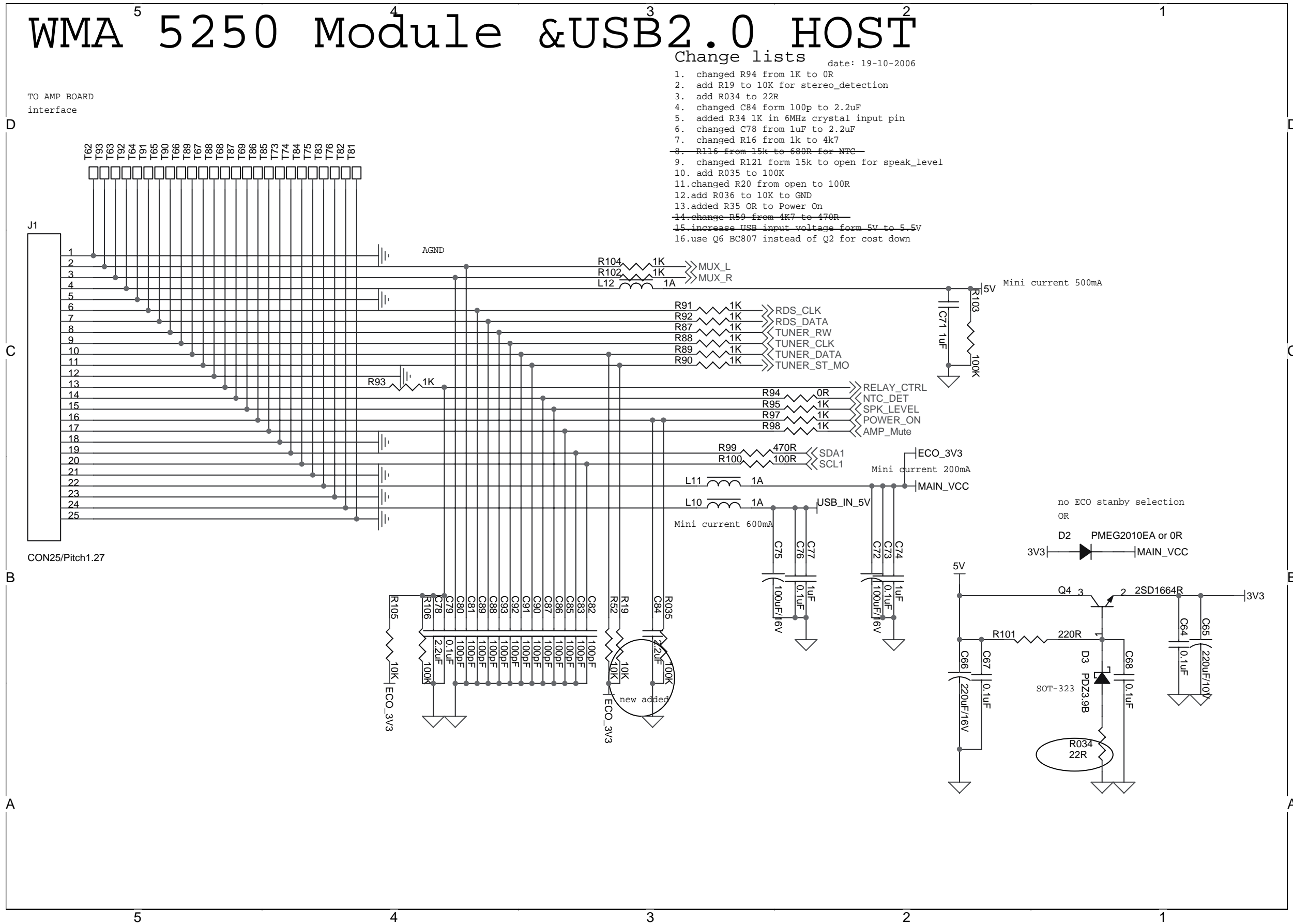


# CIRCUIT DIAGRAM - CPU/WMA BOARD

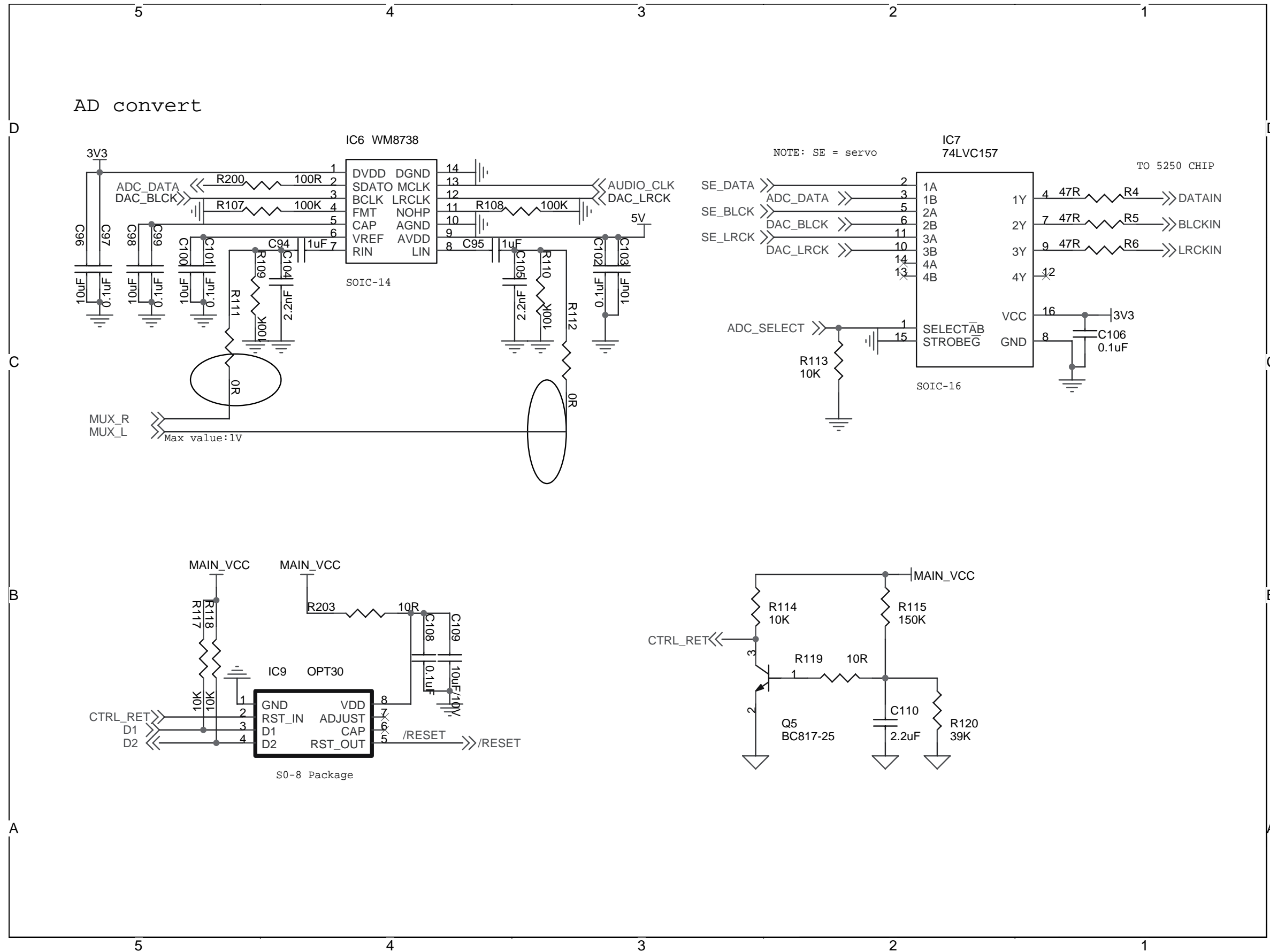




# CIRCUIT DIAGRAM - CPU/WMA BOARD



# CIRCUIT DIAGRAM - CPU/WMA BOARD



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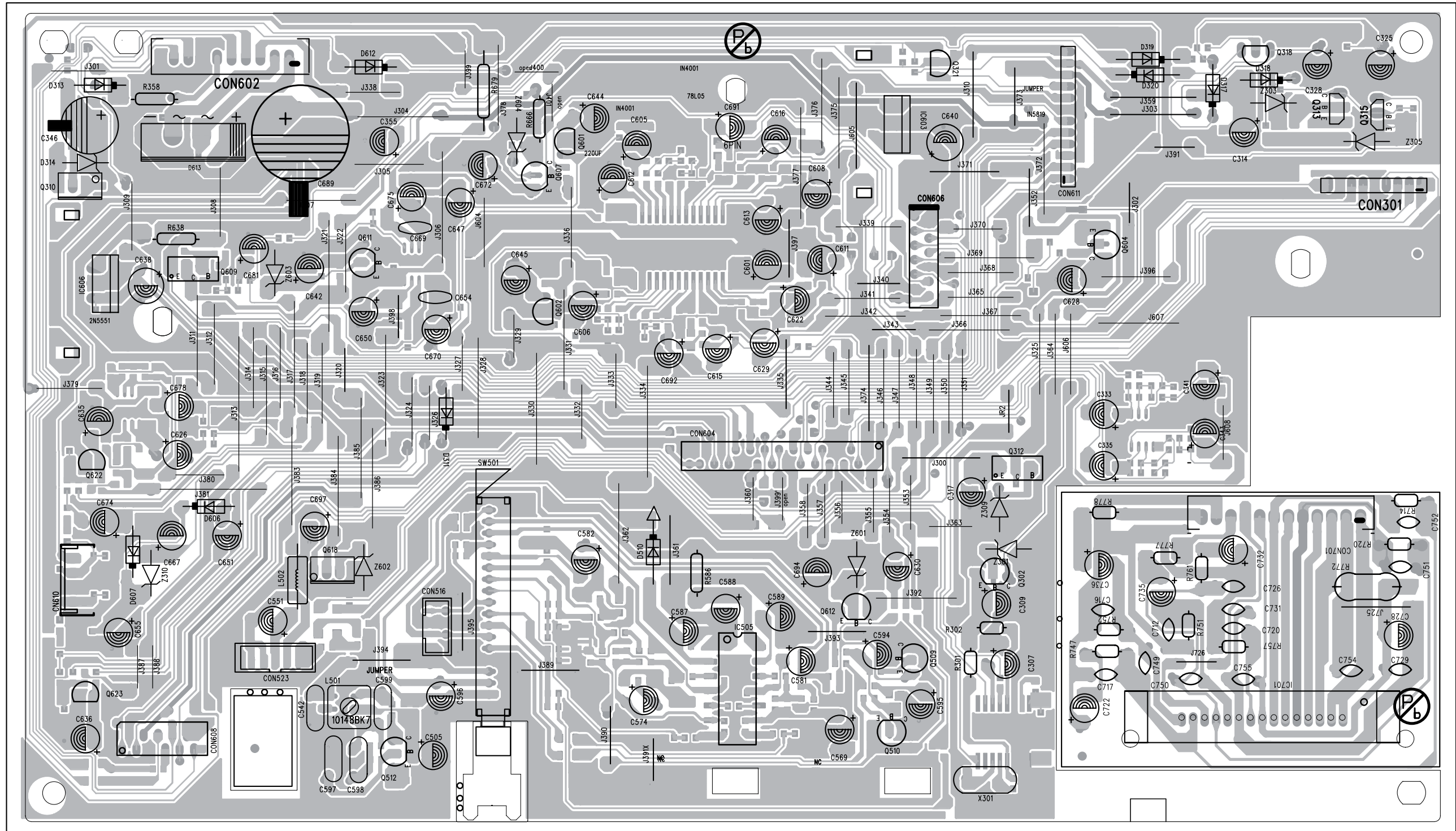
# MAIN & POWER BOARD

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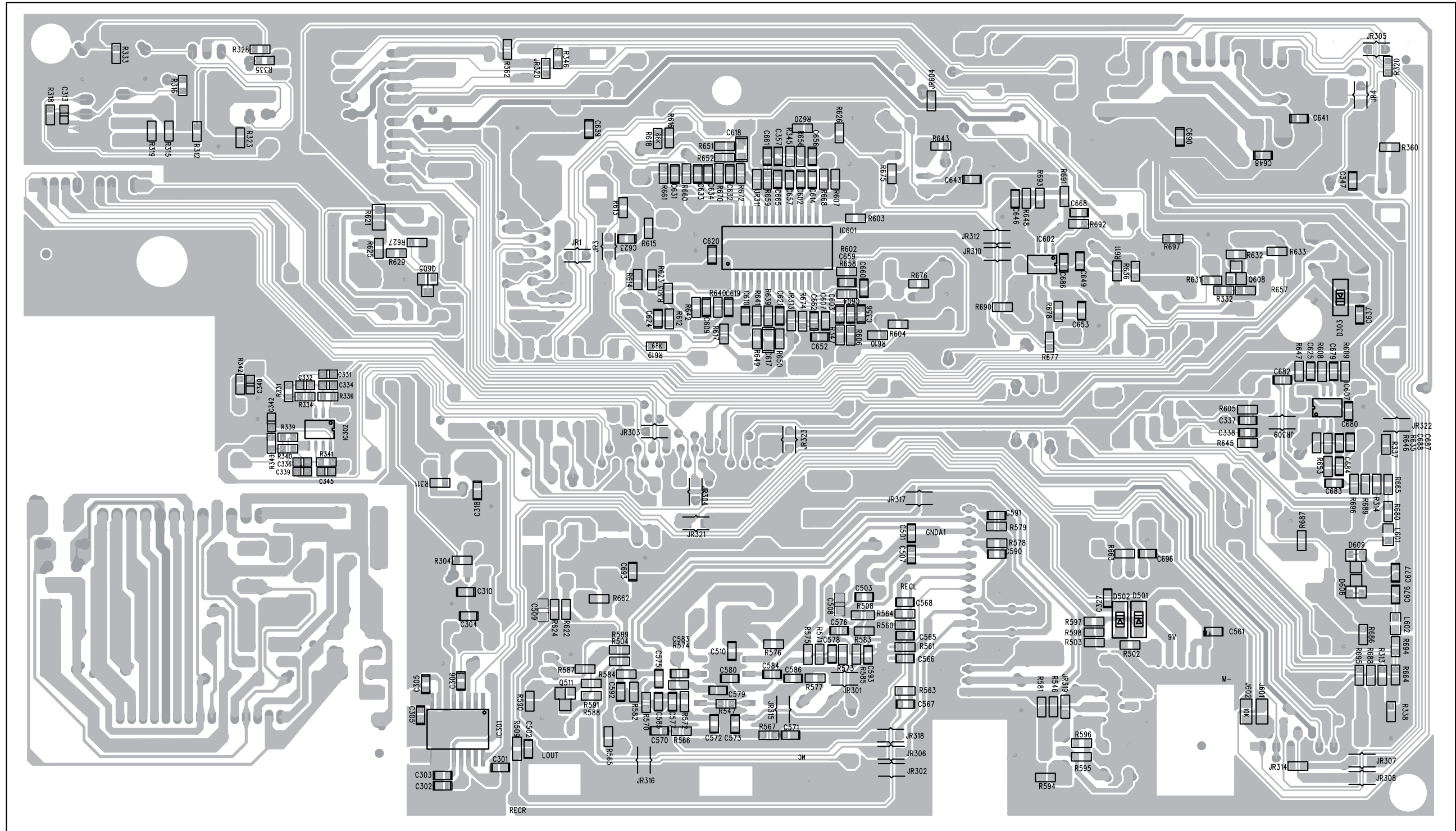
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# PCB LAYOUT - MAIN & HF POWER BOARD (TOP VIEW)

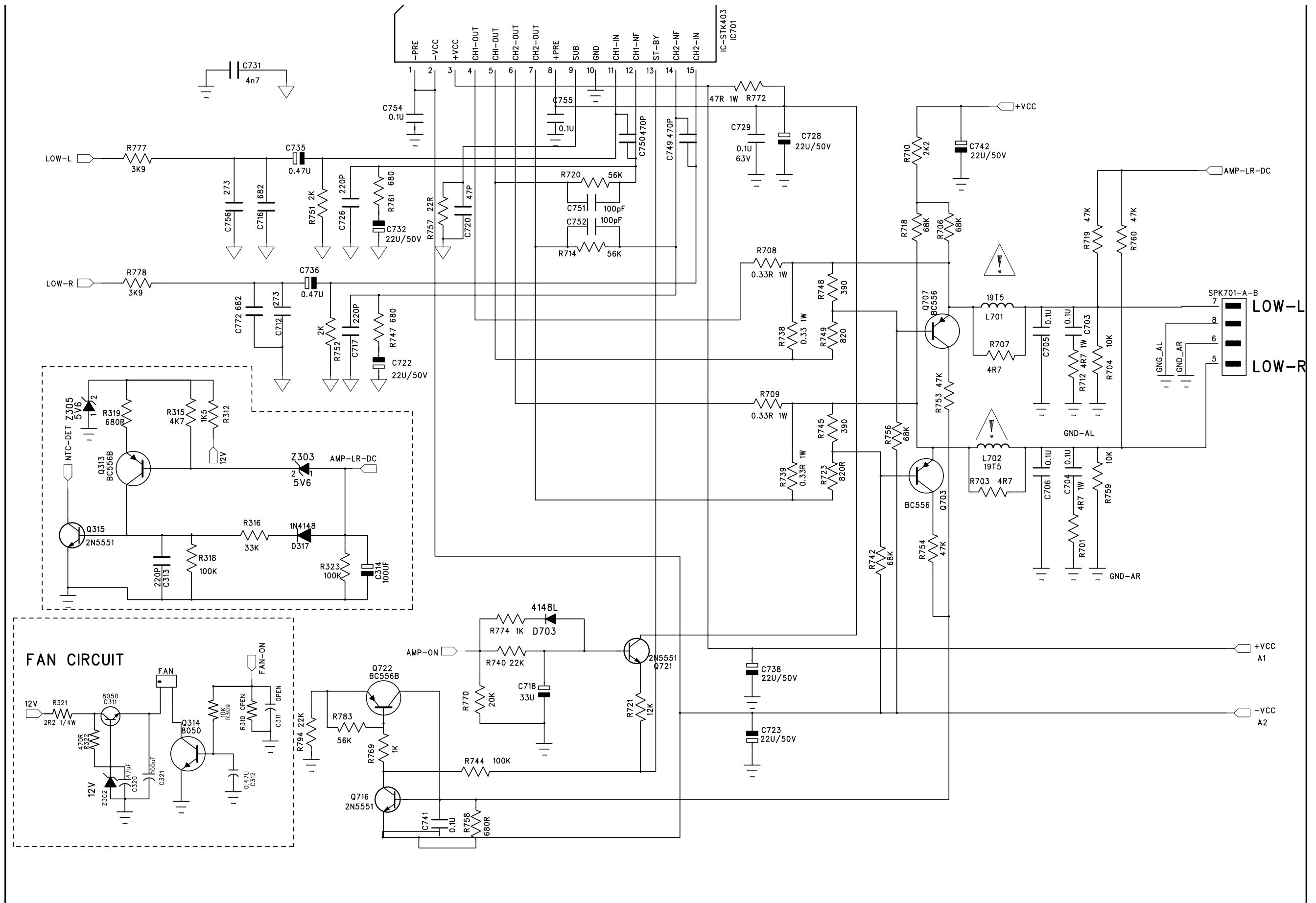


# PCB LAYOUT - MAIN & HF POWER BOARD (BOTTOM VIEW)

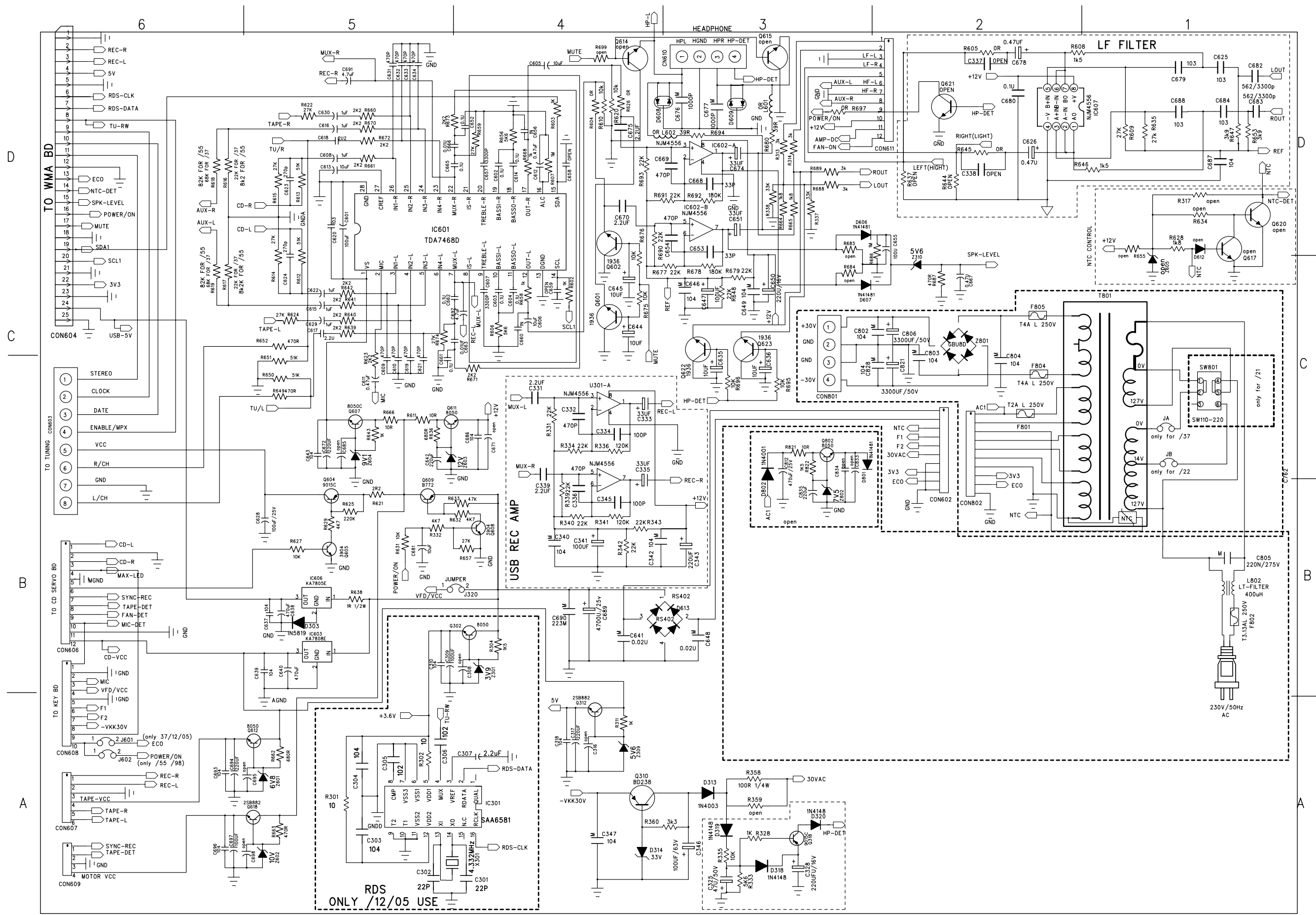




# CIRCUIT DIAGRAM - HF POWER BOARD

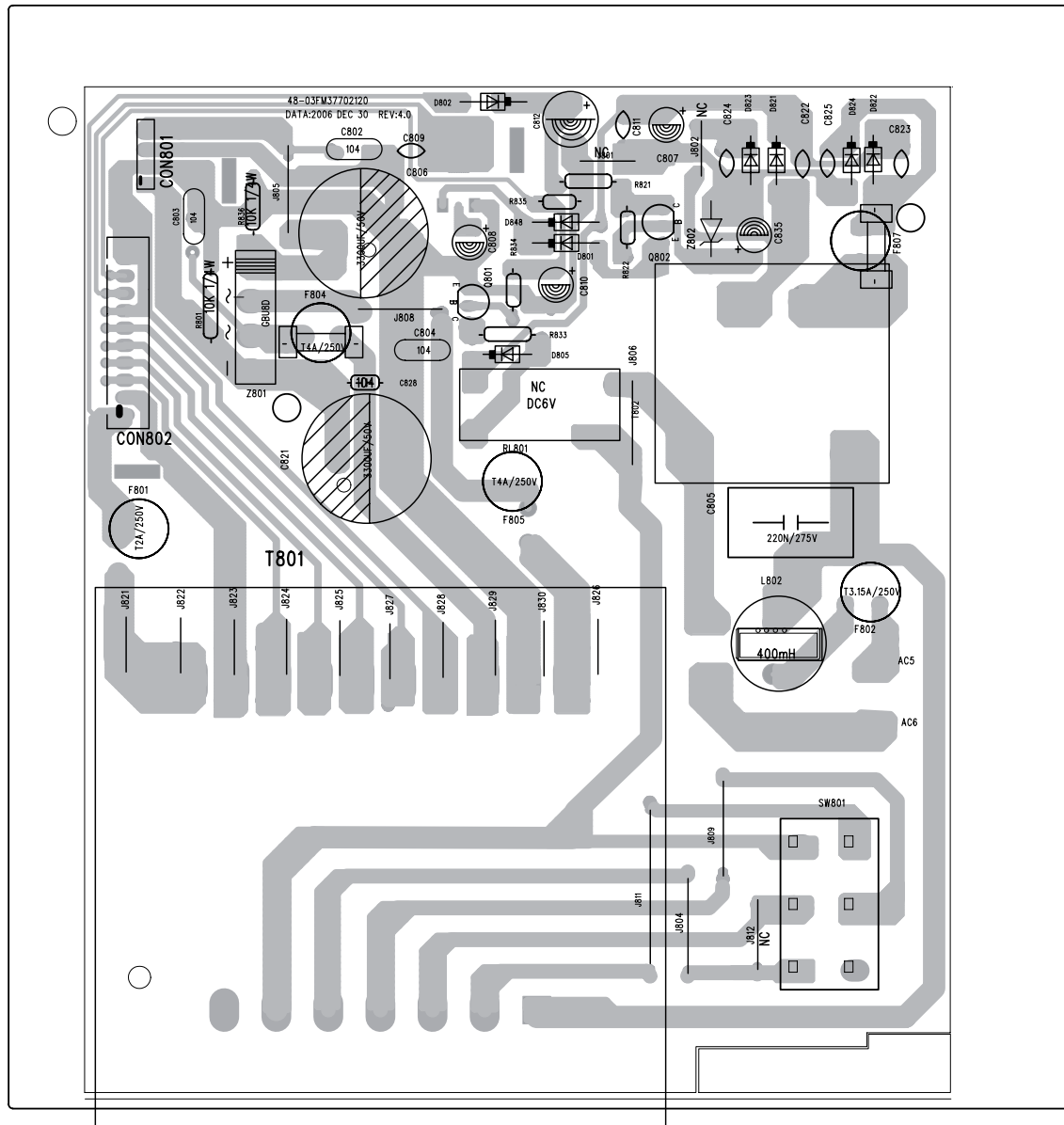


# CIRCUIT DIAGRAM - MAIN & SUPER POWER BOARD

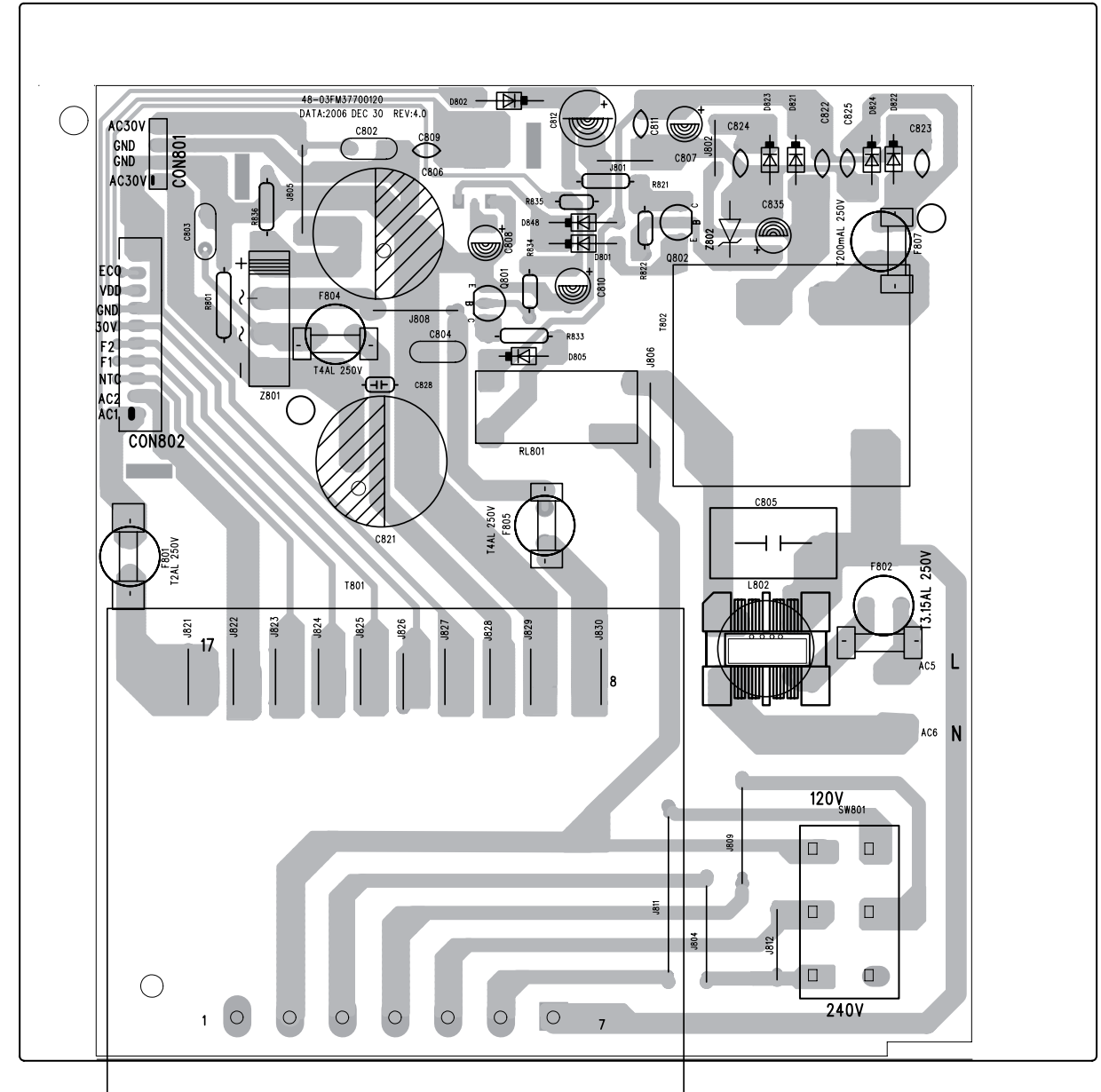




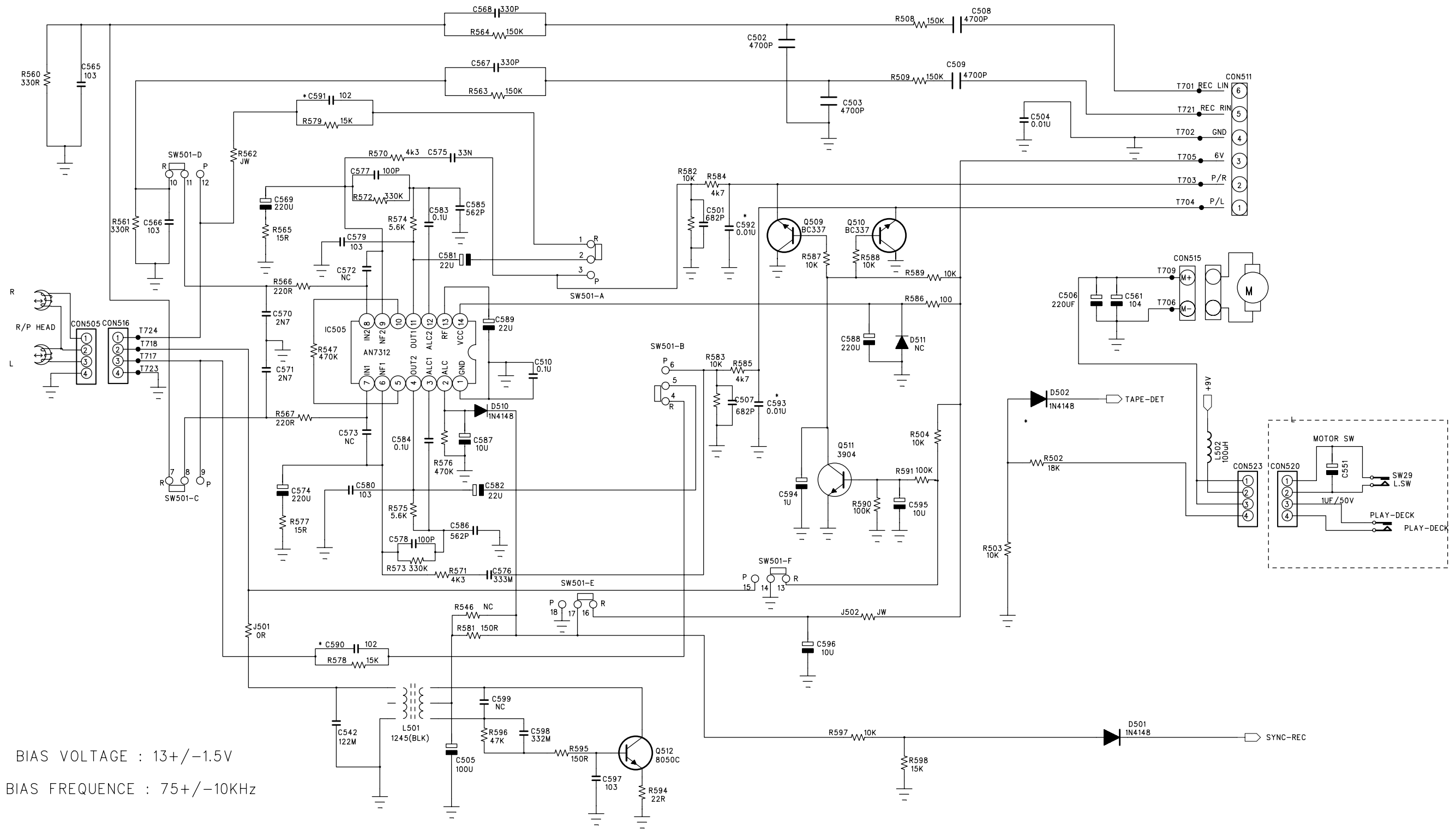
### PCB LAYOUT - SUPER POWER BOARD (ONLY FOR /12/05)



### PCB LAYOUT - SUPER POWER BOARD (ONLY FOR /55)



# CIRCUIT DIAGRAM - TAPE PART



BIAS VOLTAGE : 13+/-1.5V  
 BIAS FREQUENCY : 75+/-10KHz

\* FOR PROVISION ONLY

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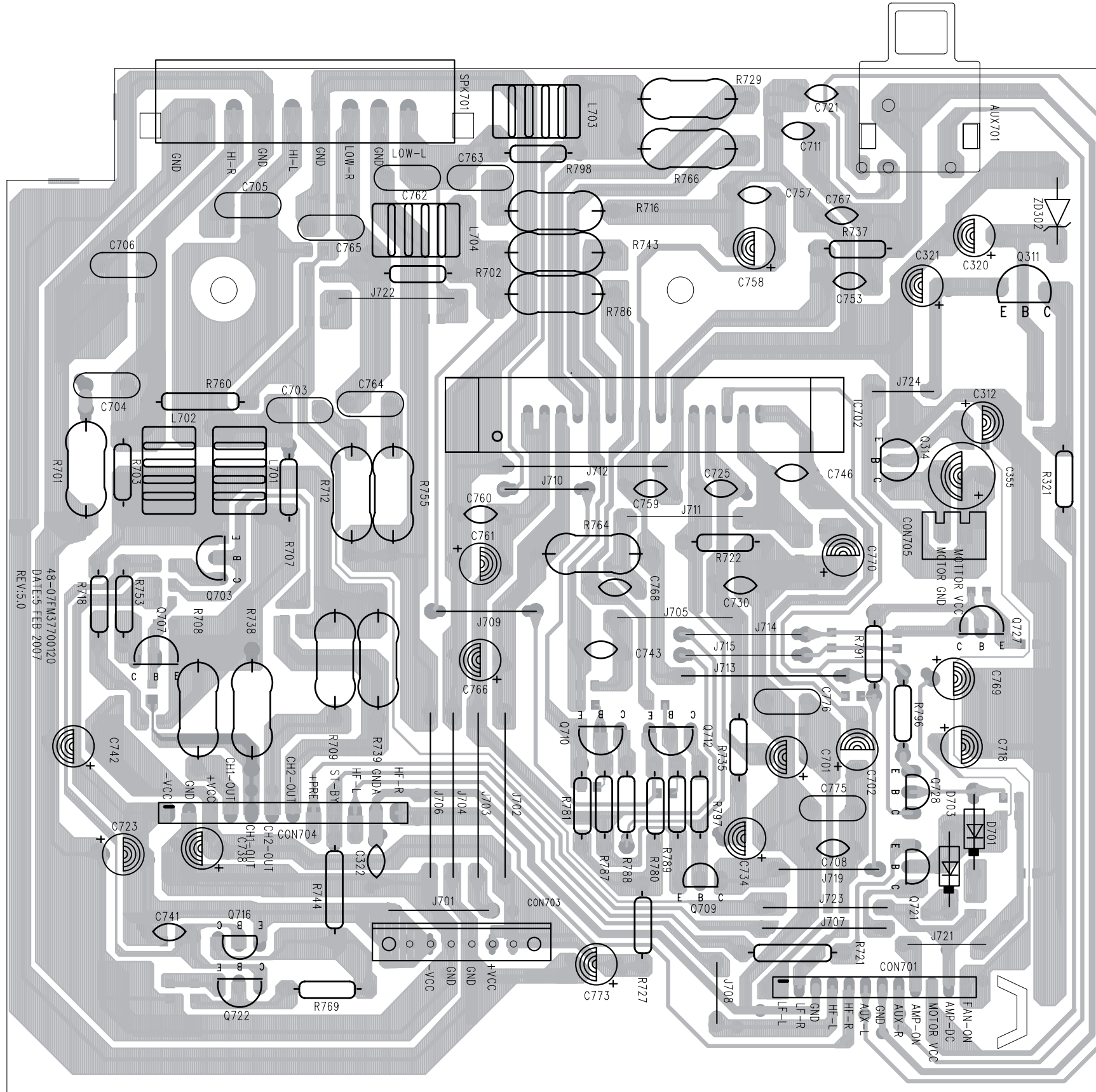
# AMP (LOW POWER) BOARD

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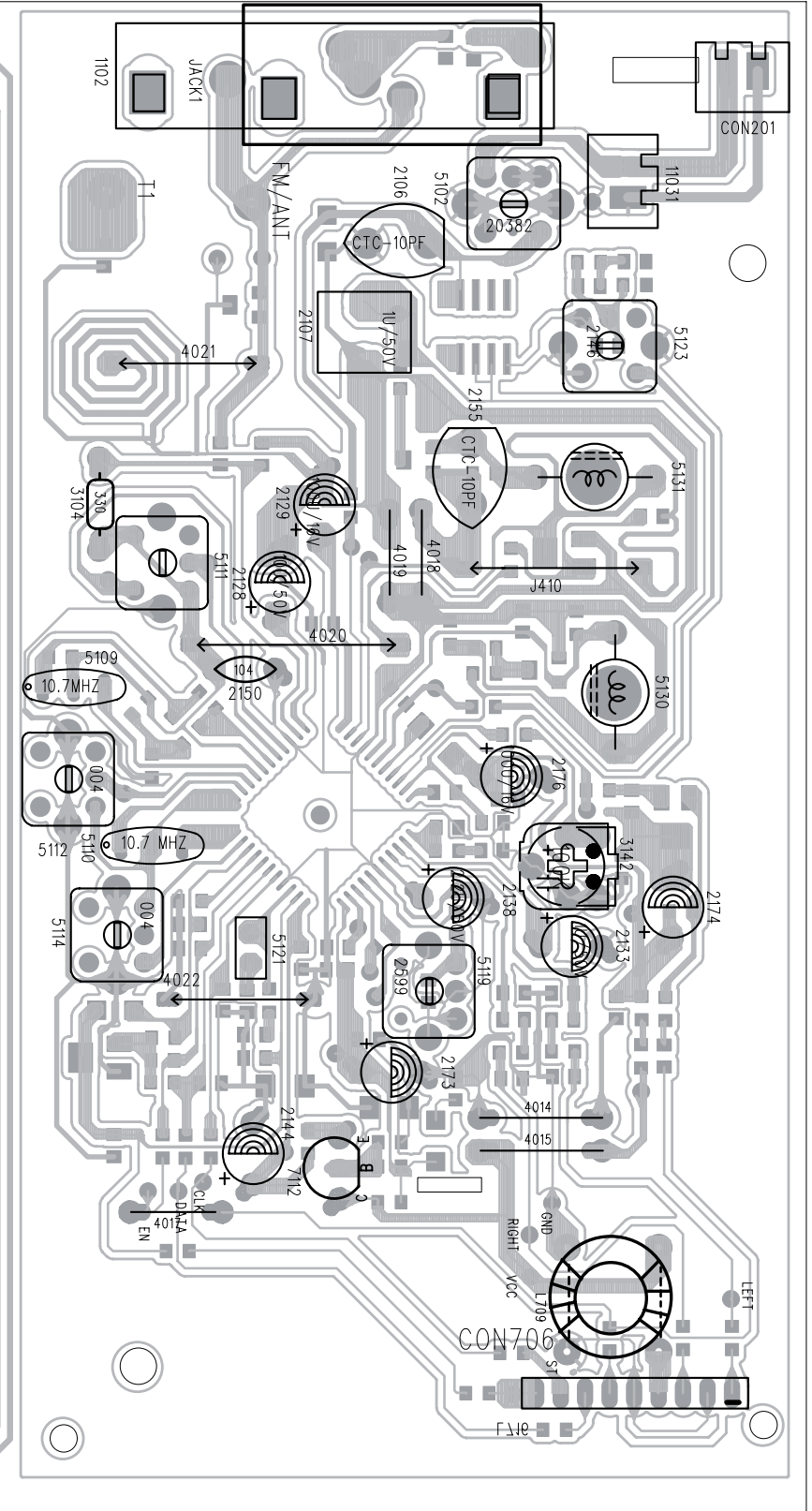
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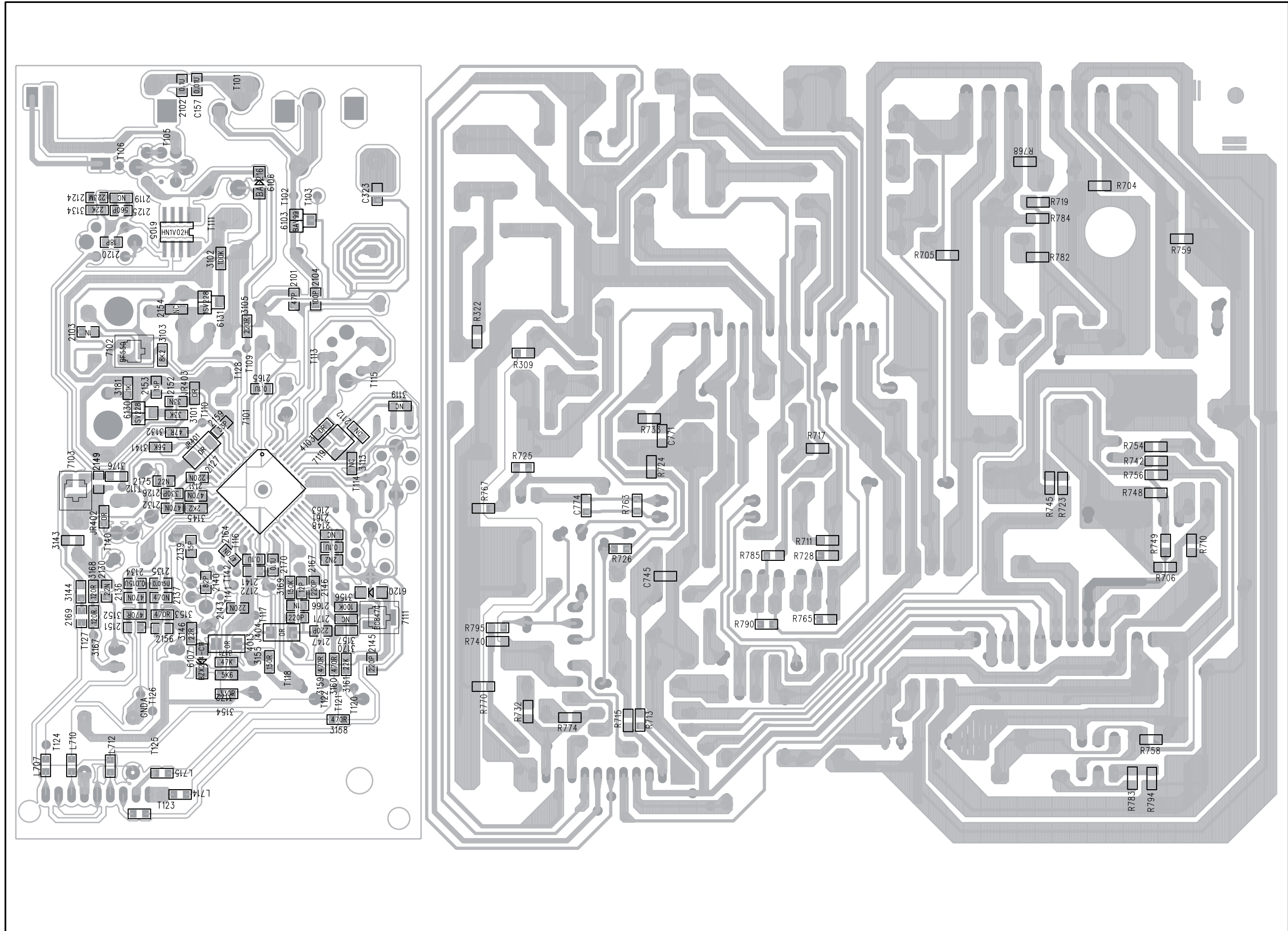
# PCB LAYOUT - AMP (LOW POWER) BOARD (TOP VIEW)



48-07FM37700120  
 DATE:5 FEB 2007  
 REV:5.0

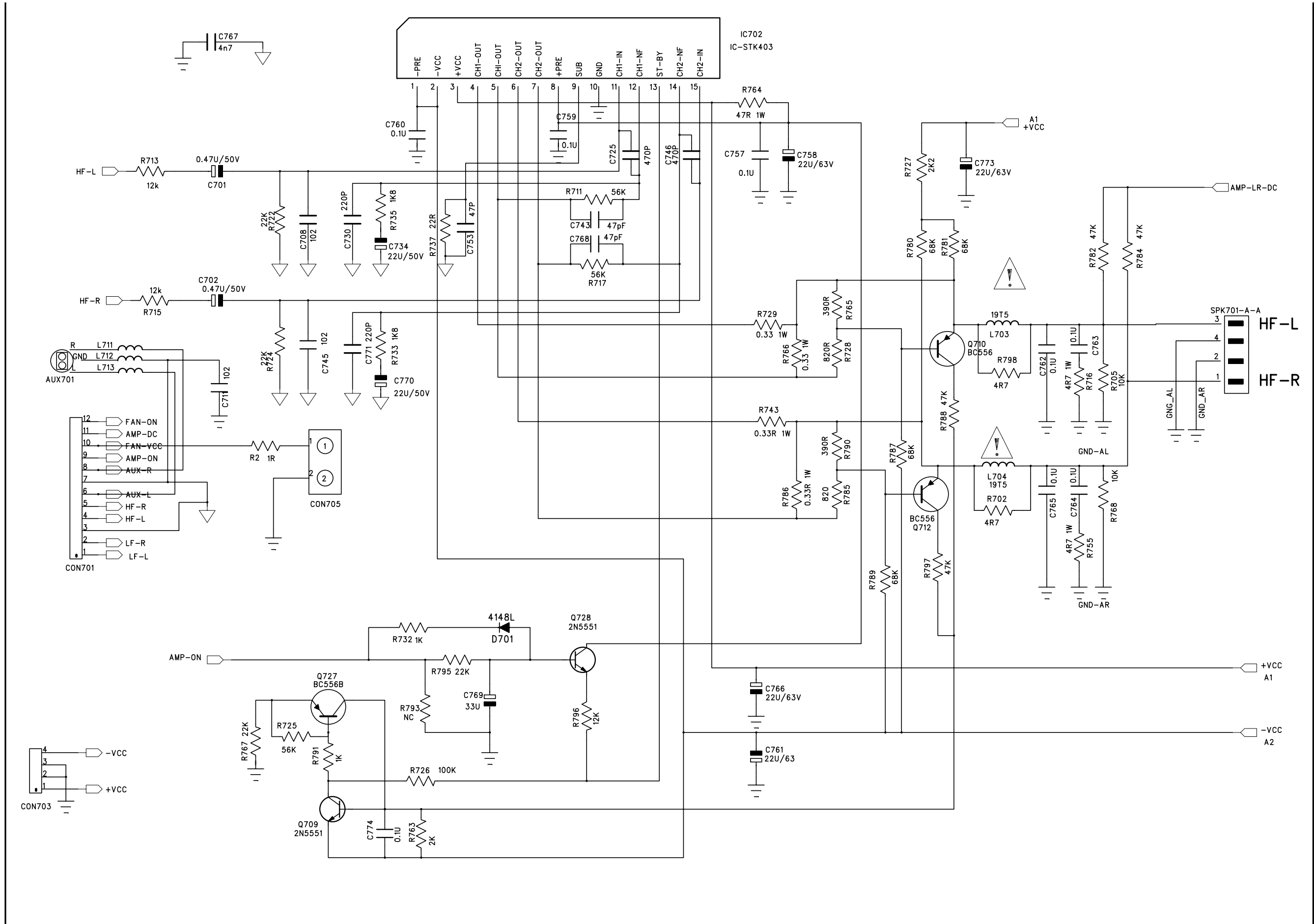


# PCB LAYOUT - AMP (LOW POWER) BOARD (BOTTOM VIEW)

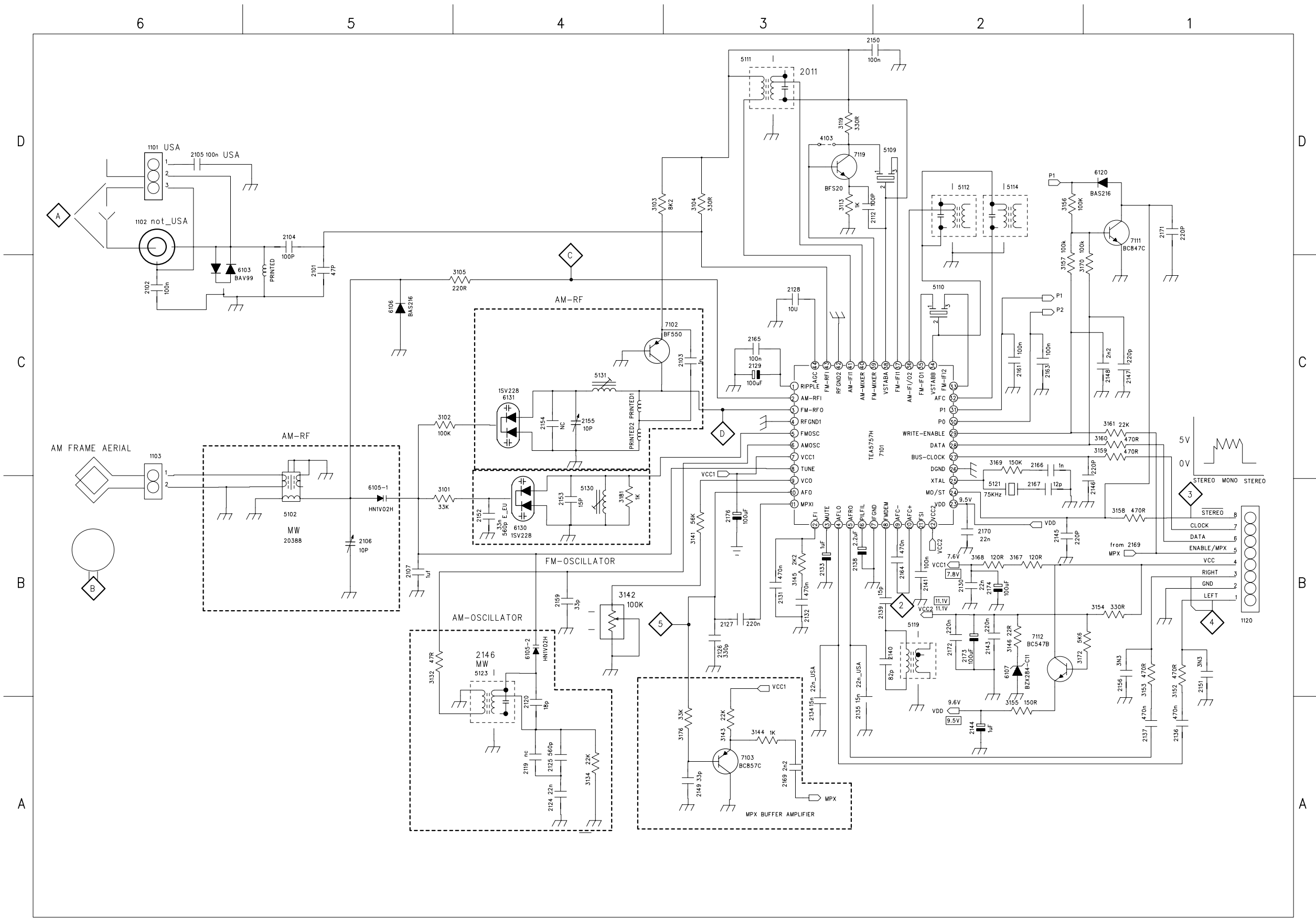




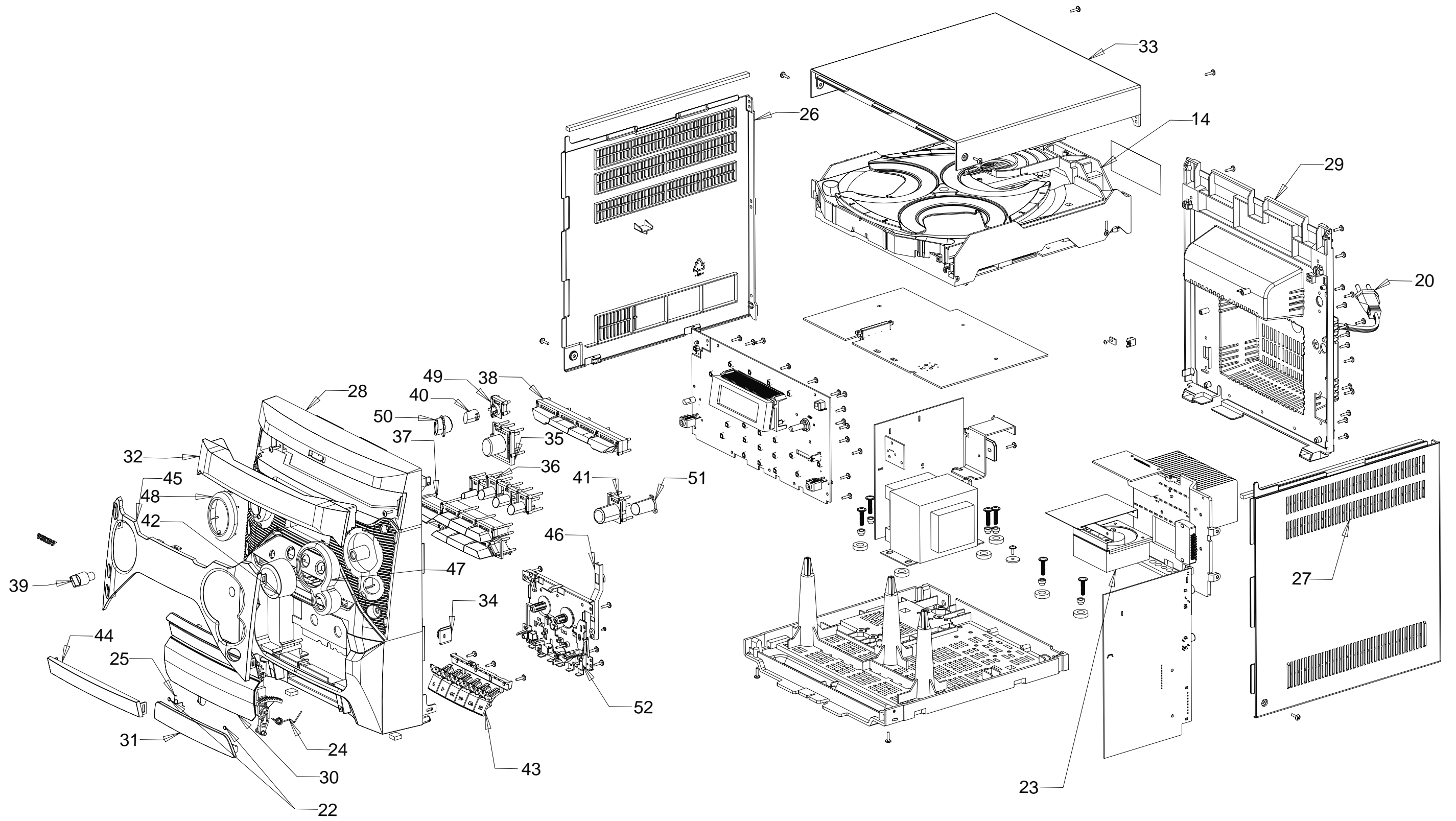
# CIRCUIT DIAGRAM - AMP (LOW POWER) BOARD



# CIRCUIT DIAGRAM - TUNING PART







**MECHANICAL & ACCESSORIES PARTS LIST**

2	996510001306	REMOTE CONTROL	48	994000004588	KEYS DECORTIVE RING
3	996510001307	SPK BOX L+R	49	994000004589	POWER BUTTON BASE
4	994000001192	AM LOOP ANTENNA LAN-031	50	994000004591	RING POWER
13	996510001323	3CD BD ASS'Y (55)	51	996510001344	DBB LIGHT GUIDE
14	996510001324	3CDC MECHA CASING ASS'Y	52	994000004374	CASS DECK CS-21SC-820DT
15	994000003669	CD MECHANISM DA11VF	T801	△ 996510001325	TRASFO EI76 230V T08481A /05/12
15A	996510001326	11P FFC 1.25mm L80mm	T801	△ 996510001475	TRANSFORMER EI76 127/240V /55
16	994000004487	16P FFC 1MM L=170MM			
16A	996510001327	23P FFC 1.25mm L80mm			
17	994000004457	5P FFC L=200MM(AA)			
17A	996510001328	10P FFC 1.25mm L160mm			
18	996510001329	12P FFC 1.25mm L180mm			
19	996510001330	25P FFC 1.25mm L180mm			
20	△ 996510000909	AC CORD VDE APP 2M /12/55			
20	△ 996510001345	AC CORD BS PLUG CORD 2M /05			
21	994000001381	FM ANT (BLACK) 1M			
22	996510001331	CASSETTE KEY COVER FOOT			
23	996500041827	FAN KD1206PTS3			
24	994000001267	SPRING -RIGHT			
25	994000004379	CASSETTE KEY COVER SPRING			
26	994000001276	PANEL LEFT			
27	994000001277	PANEL RIGHT			
28	996510001477	FRONT CABINET /55			
28	996510001332	FRONT CABINET /05/12			
29	996510001478	REAR CABINET /55			
29	996510001333	REAR CABINET /05/12			
30	996510001334	CASSETTE DOOR			
31	996510001335	CASS KEYS DOOR			
32	996510001336	3CDC DOOR			
33	994000001285	TOP COVER			
34	994000001295	DAMPER GEAR ASS'Y			
35	996510001337	PLAY BUTTON			
36	996510001338	CONTROL KEYS			
37	996510001339	PROGRAM KEYS			
38	996510001340	SOURCE BUTTON			
39	996510001341	MIC KNOB			
40	994000004579	POWER BUTTON			
41	996510001342	DBB BUTTON			
42	994000004582	VOLUME KNOB			
43	994000004583	CASSETTE KEY WITH HOLDER			
44	994000004584	CASSETTE DOOR LENS			
45	996510001479	DISPLAY LENS /55			
45	996510001343	DISPLAY LENS /05/12			
46	994000004586	RECORD ARM			
47	994000004587	VOLUME DECORTIVE RING			

**Note: Only these parts mentioned in the list are normal service parts.**

**ELECTRICAL PARTSLIST****MAIN BOARD**

C689 996510001309 E.CAP 4700UF 25V +-20% (PH)  
 D303 996500042437 CH-DIODE SS14 SMA/DO-214AC  
 D613 994000002446 RECTIFIER BRIDGE RS402  
 IC301 994000001237 IC (PHILIPS) SAA6581T  
 IC302 994000001201 IC NJM4556AM

IC505 994000004533 IC YD7312  
 IC601 994000001202 IC TDA7468D  
 IC602 994000001201 IC NJM4556AM  
 IC603 994000000253 IC (SAMSUNG) KA7808  
 IC606 994000004549 IC KA7805E

IC607 994000001201 IC NJM4556AM  
 Q302 996500038609 TRANSISTORS 2W 8050C  
 Q312 994000001194 TRANSISTORS KSD882Y  
 Q318 994000004144 PNP TRANSISTORS 9015C  
 Q321 996500038610 TRANSISTORS 2W 8550C

Q511 994000004338 TRANSISTORS PMBT3904  
 Q512 996500038609 TRANSISTORS 2W 8050C  
 Q601 996510001308 TRANS. 2SD1936U  
 Q602 996510001308 TRANS. 2SD1936U  
 Q604 994000004144 PNP TRANSISTORS 9015C

Q605 994000004338 TRANSISTORS PMBT3904  
 Q607 996500038609 TRANSISTORS 2W 8050C  
 Q608 994000004338 TRANSISTORS PMBT3904  
 Q609 994000004145 TRANSISTORS B772Y (160-320)  
 Q611 996500038609 TRANSISTORS 2W 8050C

Q612 996500038609 TRANSISTORS 2W 8050C  
 Q618 994000001194 TRANSISTORS KSD882Y  
 SW501 994000004539 PUSH SWITCH  
 X301 996510001310 XTAL 4.332MHZ +-20PPM

**POWER BOARD**

C805  $\Delta$  994000001225 SAFETY CAP 275V 0.22UF -20%  
 C806 996510001312 E.CAP 3300UF 50V +-20% (PH)  
 C821 996510001312 E.CAP 3300UF 50V +-20% (PH)  
 F801  $\Delta$  994000001222 FUSE RADIAL LT 2A 250V  
 F802  $\Delta$  994000004599 FUSE RADIAL T3.15A 250V

F804  $\Delta$  994000001351 FUSE RADIAL T4A 250V  
 F805  $\Delta$  994000001351 FUSE RADIAL T4A 250V  
 F807  $\Delta$  994000001229 FUSE RADIAL T200MA/250V

IC801 994000002839 IC LM1117S-3.3  
 L802 994000001226 AC LINE FILTER IND. 400UH 3A

Q801 996500038609 TRANSISTORS 2W 8050C  
 Q802 996500038609 TRANSISTORS 2W 8050C  
 RL801  $\Delta$  996500039818 RELAY ME-7-006-HSL DC6V 10A  
 SW801 994000001323 SWITCH /55

**POWER BOARD**

T802  $\Delta$  996510001311 TRASFO EI28 230V T08512A  
 Z801 994000001196 BRIDGE RECT 8A GBU8D-E3/72

**FRONT (KEY) BOARD**

D402 994000001234 LED LAMP 3MM (RED)  
 D403 994000001234 LED LAMP 3MM (RED)  
 FTD401 996510001313 FTD DISPLAY VFD33-1220N  
 IC401 994000004542 IC PT6315  
 JACK401 994000004543 V/PHONE JACK (BLK)

JACK402 994000004543 V/PHONE JACK (BLK)  
 Q401 996510000849 NPN TRANSISTORS 9014C  
 Q402 996500038609 TRANSISTORS 2W 8050C  
 Q407 996500038609 TRANSISTORS 2W 8050C  
 Q414 994000004144 PNP TRANSISTORS 9015C

Q424 996510000849 NPN TRANSISTORS 9014C  
 REM401 994000004367 OPTIC SENSER FM-6038TM2-5AN  
 SW402 994000001243 TACT SWITCH  
 SW405 994000001243 TACT SWITCH  
 SW406 994000001243 TACT SWITCH

SW407 994000001243 TACT SWITCH  
 SW408 994000001243 TACT SWITCH  
 SW409 994000001243 TACT SWITCH  
 SW410 994000001243 TACT SWITCH  
 SW411 994000001243 TACT SWITCH

SW412 994000001243 TACT SWITCH  
 SW413 994000001243 TACT SWITCH  
 SW414 994000001243 TACT SWITCH  
 SW417 994000001243 TACT SWITCH

SW418 994000001243 TACT SWITCH  
 SW420 994000001243 TACT SWITCH  
 SW421 994000001243 TACT SWITCH  
 SW422 994000001243 TACT SWITCH  
 SW423 994000001243 TACT SWITCH

VF401 994000001324 ROTARY VOLUME 20K  
 VR402 994000001241 ROTARY ENCODER

**AMP BD ASS'Y**

1102 994000001353 COAXIAL JACK IF-01A  
 1110 994000004442 TUNER (MITSUMI) FE450-G11  
 2106 994000000254 TRIMMER 10PF 6MM (WH)  
 5102 994000001212 AM IFT (BLACK) 7MM  
 5109 994000001208 CER. FILTER SFELA10M7HA00-B0

**ELECTRICAL PARTSLIST****AMP BOARD ASS'Y for /12/05**

5110	994000001208	CER. FILTER SFELA10M7HA00-B0	5123
5111	996500042436	I.F.T 7mm #7M4A2011N (B)	6105
5112	996500042434	I.F.T 7mm #C712KC-004 (Y)	6107
5114	996500042434	I.F.T 7mm #C712KC-004 (Y)	6130
5115	994000001352	BIRDIE COIL IFT (BLK)	6131
5119	996500042433	I.F.T 7mm #KS2599 (BLK)	7101
5121	994000004352	CRYSTAL 75KHZ 12.5PF DT-381	7112
5123	996500042435	I.F.T 7mm #7M1A2146 (B)	AUX701
6105	994000002454	VARIABLE CAP DIODE HN-1V02H	IC702
6107	996500042431	ZENER DIODE 11V #PDZ11B	L701
7101	994000001204	IC (PHILIPS) TEA5762H	L702
7112	996500039345	TRANSISTORS 2W 8050D	L703
AUX701	994000001221	V/RCA JACK 2P	L704
IC702	996510001314	IC (SANYO) STK433-070	Q311
L701	994000001217	AIR COIL 6X18.5T (0.5MM)	Q314
L702	994000001217	AIR COIL 6X18.5T (0.5MM)	R708
L703	994000001217	AIR COIL 6X18.5T (0.5MM)	R709
L704	994000001217	AIR COIL 6X18.5T (0.5MM)	R729
Q311	996500038609	TRANSISTORS 2W 8050C	R738
Q314	996500038609	TRANSISTORS 2W 8050C	R739
R708	994000004473	RES. METAL 0.33R 1W +-1%	R743
R709	994000004473	RES. METAL 0.33R 1W +-1%	R764
R729	994000004473	RES. METAL 0.33R 1W +-1%	R766
R738	994000004473	RES. METAL 0.33R 1W +-1%	R786
R739	994000004473	RES. METAL 0.33R 1W +-1%	SPK701
R743	994000004473	RES. METAL 0.33R 1W +-1%	
R764	△ 994000004472	RESISTORS FUSIBLE 47R 1W +-1%	
R766	994000004473	RES. METAL 0.33R 1W +-1%	IC701
R786	994000004473	RES. METAL 0.33R 1W +-1%	R772
SPK701	996510001315	SPK JACK (R/R/B/B/BLKx4)	

**AMP BOARD ASS'Y FOR /55**

1102	994000001353	COAXIAL JACK IF-01A	11
1110	994000004442	TUNER (MITSUMI) FE450-G11	
2106	994000000254	TRIMMER 10PF 6MM (WH)	
5102	994000001212	AM IFT (BLACK) 7MM	D3
5109	994000001208	CER. FILTER SFELA10M7HA00-B0	IC10
5110	994000001208	CER. FILTER SFELA10M7HA00-B0	IC2
5111	996500042436	I.F.T 7mm #7M4A2011N (B)	IC3
5112	996500042434	I.F.T 7mm #C712KC-004 (Y)	
5114	996500042434	I.F.T 7mm #C712KC-004 (Y)	IC4
5115	994000001352	BIRDIE COIL IFT (BLK)	IC6
5119	996500042433	I.F.T 7mm #KS2599 (BLK)	IC7
5121	994000004352	CRYSTAL 75KHZ 12.5PF DT-381	IC8
			IC9

**AMP BOARD ASS'Y for /12/05**

996500042435	I.F.T 7mm #7M1A2146 (B)	
994000002454	VARIABLE CAP DIODE HN-1V02H	6105
996500042431	ZENER DIODE 11V #PDZ11B	6107
994000001479	VARICAP DIODE ISV228	6130
994000001479	VARICAP DIODE ISV228	6131
994000001321	IC (Philips) TEA5757H/V1	7101
996500039345	TRANSISTORS 2W 8050D	7112
994000001221	V/RCA JACK 2P	AUX701
996510001314	IC (SANYO) STK433-070	IC702
994000001217	AIR COIL 6X18.5T (0.5MM)	L701
994000001217	AIR COIL 6X18.5T (0.5MM)	L702
994000001217	AIR COIL 6X18.5T (0.5MM)	L703
994000001217	AIR COIL 6X18.5T (0.5MM)	L704
996500038609	TRANSISTORS 2W 8050C	Q311
996500038609	TRANSISTORS 2W 8050C	Q314
994000004473	RES. METAL 0.33R 1W +-1%	R708
994000004473	RES. METAL 0.33R 1W +-1%	R709
994000004473	RES. METAL 0.33R 1W +-1%	R729
994000004473	RES. METAL 0.33R 1W +-1%	R738
994000004473	RES. METAL 0.33R 1W +-1%	R739
994000004473	RES. METAL 0.33R 1W +-1%	R743
△ 994000004472	RESISTORS FUSIBLE 47R 1W +-1%	R764
994000004473	RES. METAL 0.33R 1W +-1%	R766
994000004473	RES. METAL 0.33R 1W +-1%	R786
996510001315	SPK JACK (R/R/B/B/BLKx4)	SPK701

**HF BD ASS'Y**

996510001314	IC (SANYO) STK433-070	IC701
994000004472	RESISTORS FUSIBLE 47R 1W +-1%	R772

**USB BD ASS'Y**

996510001316	USB SOCKET 4P	
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**CPU BD ASS'Y**

996510000321	ZENER DIODE PDZ3.9B	
996510000329	IC PCF8563T CLOCK SOP8	
996510001321	IC SCF5250AG120	
996510001320	IC KH29LV800C TTC W/S.W.	
996510001319	IC 16M SDRAM K4S161622H-UC60	
996510000326	IC USB HOST CTR	
996510001322	IC WM8738 GDE SOP	
996510001318	IC 74LVLC157APW	
994000004541	IC M24C02-WMN6	
996510000328	IC OPT30 (SOP8)	

**ELECTRICAL PARTSLIST****CPU BD ASS'Y**

Q1	996510000319	TRANSISTORS FDN338P
Q2	996510001317	TRANSISTOR 2SB1132R
Q4	996510000314	TRANSISTOR 2SD1664R
Y1	994000004551	CRYSTAL 16.9344MHZ +-20PPM
Y2	996510000333	CRYSTAL 6.000MHz
Y3	994000004615	CRYSTAL 32.768KHZ 12.5PF

**Note:** Only these parts mentioned in the list are normal service parts.

**COMPONENTS COMPARISON PER VERSIONS  
CPU BOARD ASS'Y**

	<i>version /12/05</i>			<i>version /55</i>
R116	CHIP RESISTORS 680R 1/16W +-5% (1608)		R116	CHIP RESISTORS 15K 1/16W +-5% (1608)
R037	CHIP RESISTORS 10K 1/16W +-5% (1608)		R037	OPEN
R038	OPEN		R038	CHIP RESISTORS 10K 1/16W +-5% (1608)
			D2	CHIP RESISTORS 0R 1/10W +-5%(2012)

## **REVISION LIST**

### **1.0 Manual 3141 785 31630**

Initial Service Manual released.

### **1.1 Manual 3141 785 31631**

In this version,

- 1) Page 1-2 Location of PCBs & Version Variations added.
- 2) Page 5-2 to Page 5-3: CPU Board Layout Diagrams updated.
- 3) Page 8-5: CPU Board Ass'y version comparison list added.