

Service manual

ACE BASS 3

Powered Subwoofer
featuring



audio pro

Headquarters:
Audio Pro AB. Box 1015. S-251 10 HELSINGBORG
SWEDEN

R&D , Service and spareparts:
Audio Pro AB. Box 1308. S-581 13 LINKÖPING
SWEDEN



Technical data ACE BASS 3

Type: Powered subwoofer with built-in ace-bass® amplifier, closed box

Amplifier: 800 W rms

Woofer: 2 x 10" metal composite longthrow woofers

Frequency range: 20-100 Hz

Lo-pass filter: 40 - 100Hz, 12-48dB/octave

(Adjustable ASP)

20, 25, 30 or 35 Hz

High-pass filter: (Adjustable ASP)

40, 45, 50, 60, 70, 80, 90, or 100 Hz

Crossover slope:

12, 24, 36, or 48 dB

Dimensions (WxHxD): 390x458x390 +24 mm

Weight: 24,2 kg

Connectors: Line/LFE and speaker level input, heavy duty binding post

Adjustments: ASP volume, crossover frequency, slope, subsoniq, bass EQ and phase 0-180 degrees

Cabinet: MDF

Finish: Gun metal titanium

Colors: Titanium grey

FUNCTIONS

Main power switch (4):

This switch is located on the amplifier panel.
To switch the subwoofer amplifier to ON or OFF mode.
Make sure it is turned **OFF** during installation.
Turn OFF the subwoofer when it will not be used for a longer period of time. When main power is OFF, the display indicates nothing. When main power is on in standby mode the display indicates POWER OFF.

Standby switch (8):

This switch is located on the display panel. Press to turn ON or OFF (standby mode) if the main power switch is set to ON.
The amplifier enters automatically the standby mode if no signal has been detected for about 30 minutes. It automatically enters ON mode when signal is detected again.

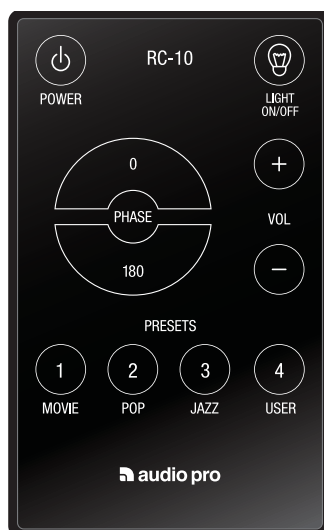
The display panel indicates POWER OFF when in standby mode.

Power indicator: (Blue on front)

The blue indicator shows the operation status. Blue light on - the subwoofer is on. Blue light off - the subwoofer is either OFF or in Standby mode.

Remote control:

With the enclosed remote control you can adjust volume and phase, control Standby ON/OFF and adjust the display light dimmer (3 steps). Here you also find four factory presets. User preset can be changed and stored in the memory.



ASP functions

All ASP functions are controlled by the display panel located on top of the subwoofer.
Choose the function to be adjusted with the MODE button. Adjustments are made using the + or - buttons.

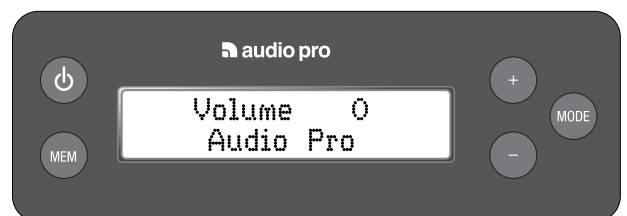
(Volume and phase can also be adjusted from the remoter control.)

For more information see the separate ASP manual.

Following can be adjusted by the ASP module:

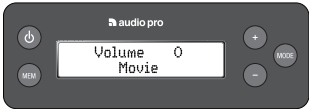
Volume
Crossover
Slope
Subsonic
Bass Equalizer
Phase

Note: If the connection is made by LFE-input, the ASP function is not available.



Factory presets

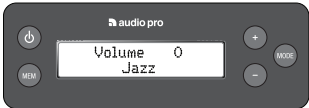
There are 3 different preset settings for different sound reproduction. These are MOVIE, POP and JAZZ. It is possible to store a fourth setting to the USER preset.



MOVIE
Press the Movie knob on the remote to select this preset setting.



POP
Press the Pop knob on the remote to select this preset setting.



JAZZ
Press the Jazz knob on the remote to select this preset setting.



USER
Press the User knob on the remote to select this preset setting.
This preset uses a default factory setting. The settings can be adjusted, changed and memorized. Do the desired settings (see previous page) and press MEM knob on the display panel for more than 2 seconds.

The remote control

- 1) **Standby switch.**
Press to start or turn off the amplifier.

NOTE! The power is not totally turned off until the main power switch on the amplifier is switched to OFF.
- 2) **Phase switch.**
Press to choose phase 0 or 180 degrees.
- 3) **Preset selector**
There are 3 factory preset settings: MOVIE, POP och JAZZ. It is also possible to store a fourth individual setting (USER). Do the preferred settings according the previous page and store by pressing the MEM knob on the the display panel (min 2 seconds). Then these setting can easily be accessed by pressing the USER preset on the remot control
- 4) **Volume**
Press the + or - knob to increase or decrease the volume.
- 5) **Display light.**
It is possible to adjust the display light in 3 levels
Normal - Dim - Off. This is changed each time the display light knob is pressed.



- 1) **Standby switch.**
Press to start or turn off the amplifier.

NOTE! The power is not totally turned off until the main power switch on the amplifier is switched to OFF.
- 2) **+ knob.**
Press to increase a value that is selected in the display.
- 3) **MODE knob.**
Press to toggle between the different menues available.
- 4) **- knob.**
Press to increase a value that is selected in the display.
- 5) **Display window.**
The selected menu is displayed here.
NOTE! Adjustments must start within 5 sec.
- 6) **Memory.**
It is possible to store a personal setting in the memory and get easy access using the USER preset on the remote.

ASP
Analogue Signal Processor

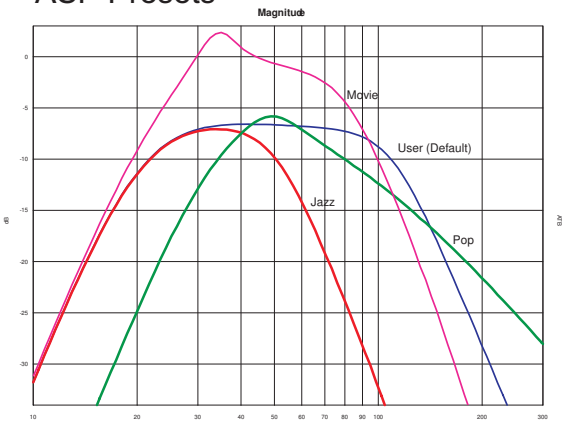
Analog Signal Processor - ASP

In your listening room your subwoofer and the room together form a system in which what we hear is a function of the size of the room itself and were your listening position is compared to the placement of the subwoofer. In every room you will find (hear) room resonances based on law of physics.

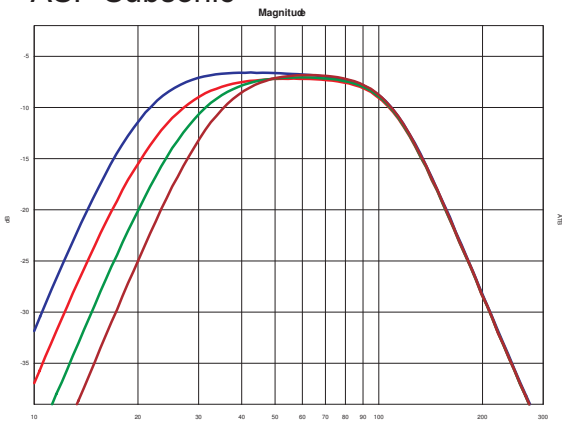
In many cases the resonances will interfere with your ability to enjoy the music. Conventional subwoofers crossover frequency and level controls alone cannot compensate for these inevitable and inescapable timbre response irregularities. This ASP module is equipped with a sophisticated tuning system featuring a powerful parametric equalizer that allows room- induced resonance peaks to be tamed, together with adjustable low- and high pass filters and a phase shifter. This smoothes the response dramatically and delivers tuneful and musical low bass reproduction without the boomy and irritating “one-note” bass response typical of conventional subwoofers. Fully adjustable high- and low-pass filters with adjustable slopes are also provided to allow this subwoofer to seamlessly mate with virtually any combination of loudspeakers with adjustment flexibility beyond what is typically provided in surround processors.

The display panel

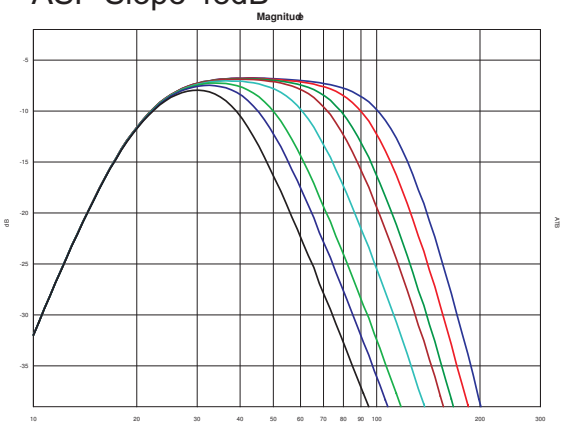
ASP Presets



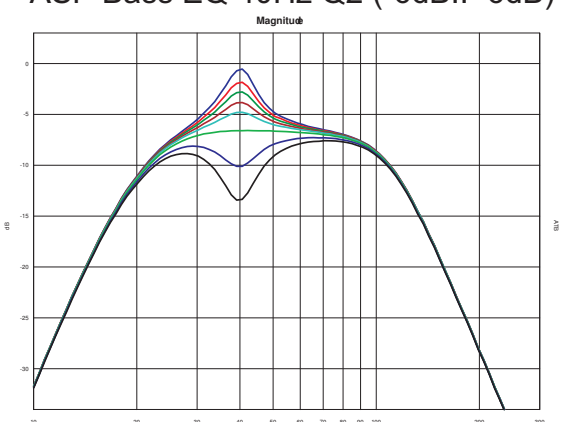
ASP Subsonic



ASP Slope 48dB



ASP Bass EQ 40Hz Q2 (-6dB..+6dB)



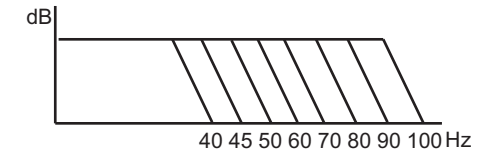


Volume:
When the Standby switch is set to ON, POWER ON is indicated shortly and then Volume is indicated.
Press the + or - knobs to increase or decrease the volume.
Volume adjustment is possible between -30dB (min) to + 23dB (max).
This can also be done from the remote control.

Press MODE



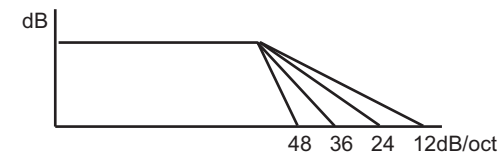
Crossover:
The display indicates Crossover. Select the desired crossover frequency using the + or - knobs.
Crossover frequency selections are 40Hz, 45Hz, 50Hz, 60Hz, 70Hz, 80Hz, 90 or 100Hz.



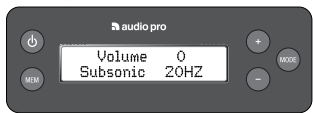
Press MODE



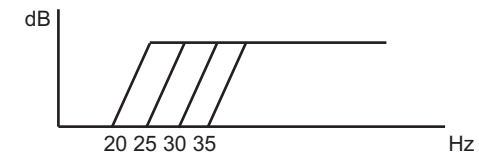
Slope:
The display indicates Slope. Select the desired slope per octave using the + or - knobs.
Slope selections are 12dB, 24dB, 36dB or 48dB.



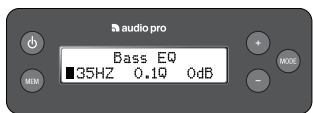
Press MODE



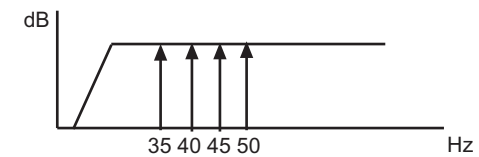
Subsonic:
The display indicates Subsonic. Select the desired subsonic frequency using the + or - knobs.
Subsonic frequency selections are 20Hz, 25Hz, 30Hz or 35Hz.



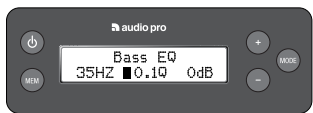
Press MODE



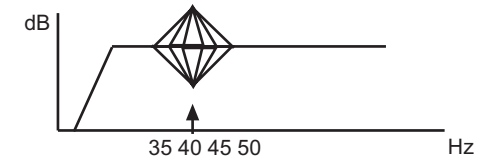
Bass EQ:
The display indicates Bass EQ. A mark is displayed in front the Hz value. Select the desired frequency to be adjusted using the + or - knobs. 35Hz, 40Hz, 45Hz or 50 Hz are selectable.



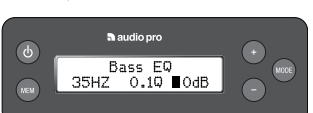
Press MODE



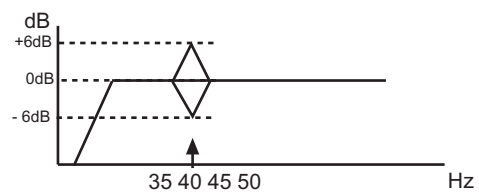
Bass EQ:
Now the Q value is marked.
Select the Q value (bandwidth) using the + or - knobs. Q 0,1, Q 0,5, Q 1 or Q 2 are selectable.
Q value 0,1 is the widest while Q 2 is the narrowest.



Press MODE



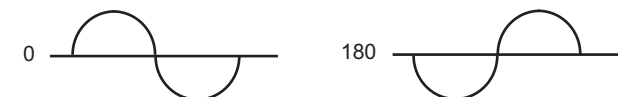
Bass EQ:
Now the dB value is marked.
Select the level of desired adjustment using the + or - knobs.
Level adjustment is possible with - 6dB, - 3dB, 0 dB, + 2dB, + 3dB, + 4dB, + 5dB or + 6dB.



Press MODE

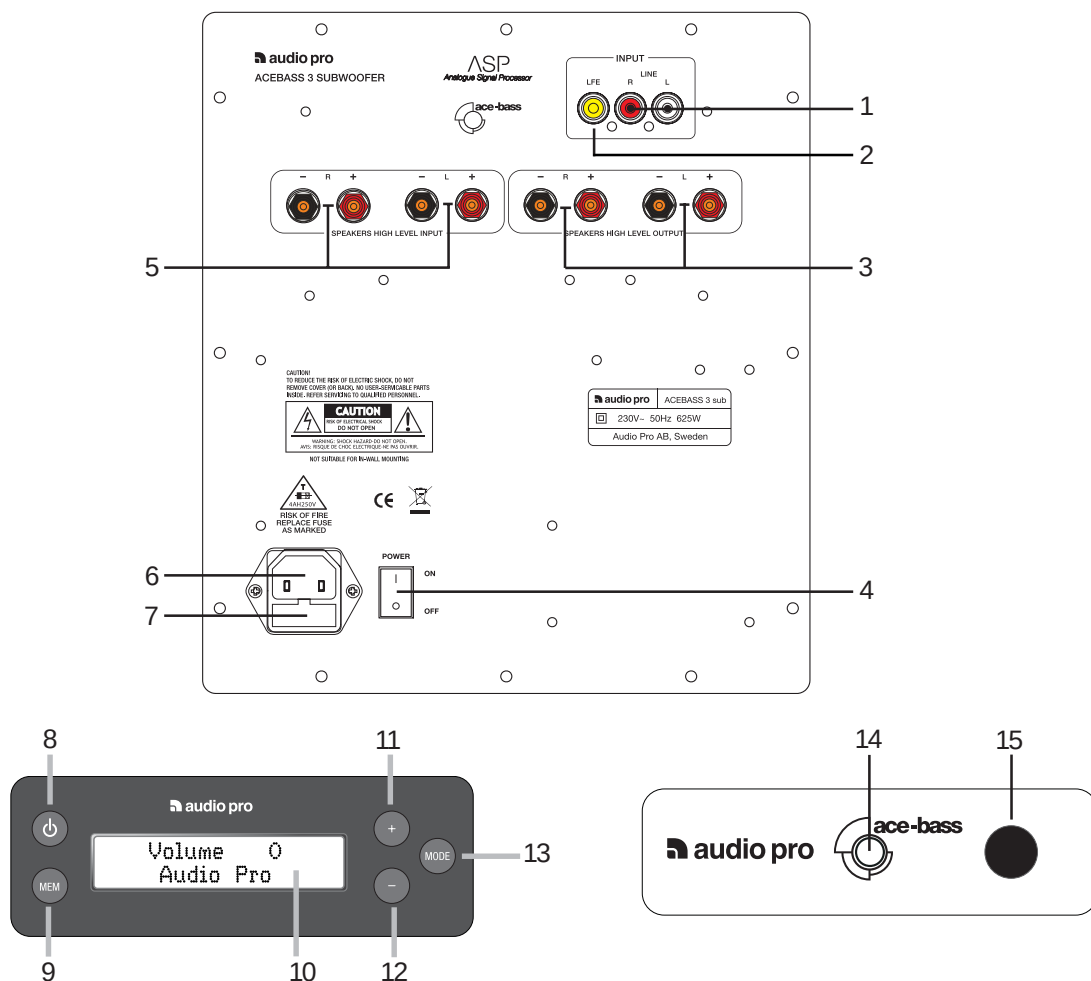


Phase:
By pressing the + or - knobs you can change the phase from 0 to 180 degrees.
This can also be done by the remote control.



Press MODE

CONTROLS AND INDICATORS



1) Line in from amplifier
(Line IN Left and Right)

2) Low level input from amplifier
(LFE)

3) Speaker Level output
(to speakers)

4) Mains switch

5) Speaker Level input
(from amplifier)

6) Mains cord (230V)

7) Fuse
(placed under)

8) Standby switch

9) Memory button

10) Display

11) + button

12) - button

13) Mode button

14) ON/OFF indicator

15) Remote sensor



WARNING !

To reduce the risk of electric shock, do not open or remove cover or back. Do not expose this appliance to rain or moisture. In case of malfunction consult qualified service personnel.

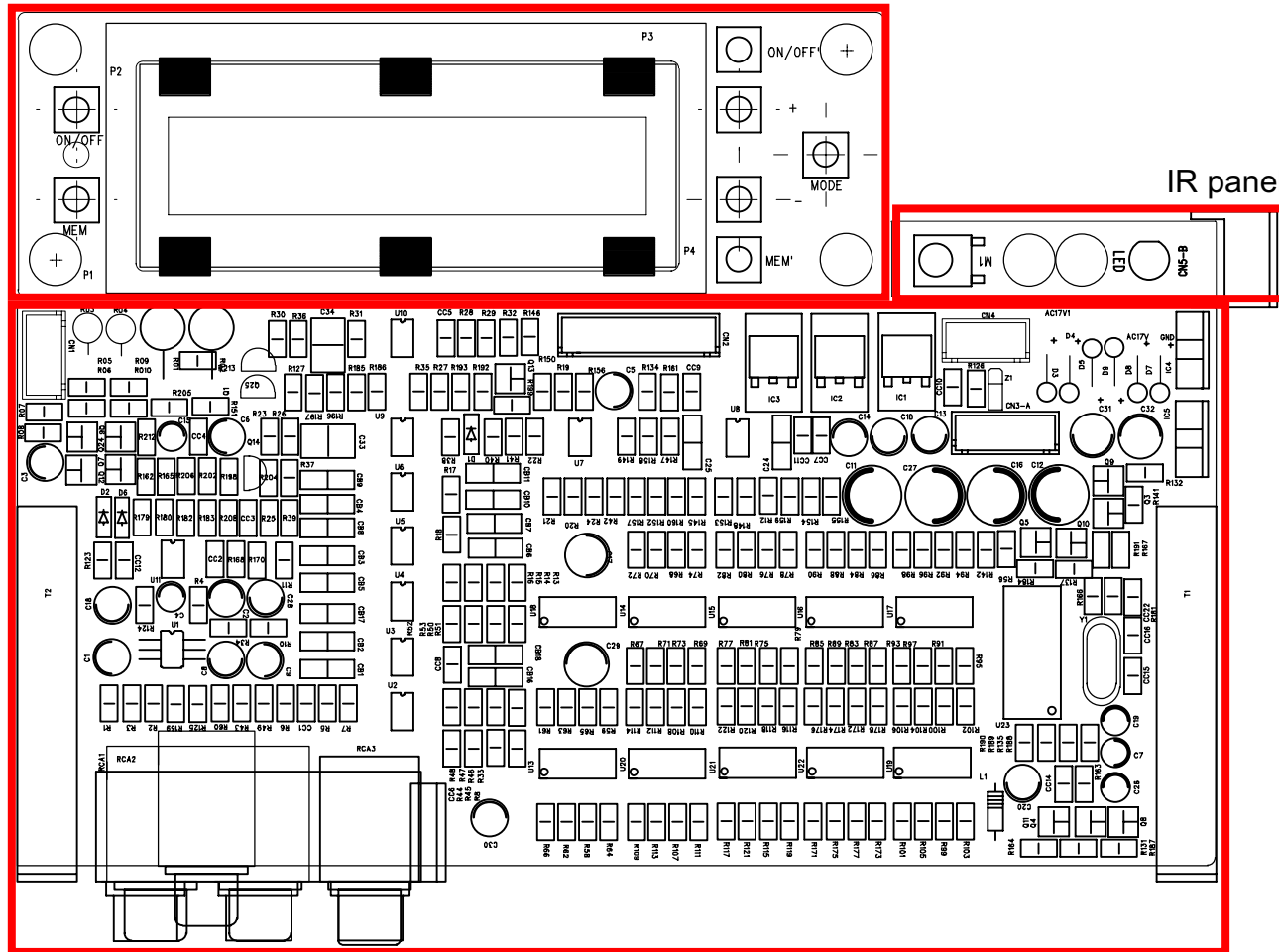


The lightning flash with arrowhead, within an equilateral triangle, is intended to alert the user of the presence of uninsulated "dangerous voltage" within the product's enclosure; that may be of sufficient magnitude to constitute a risk of electric shock to persons.



The exclamation point, within an equilateral triangle, is intended to alert the user of the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

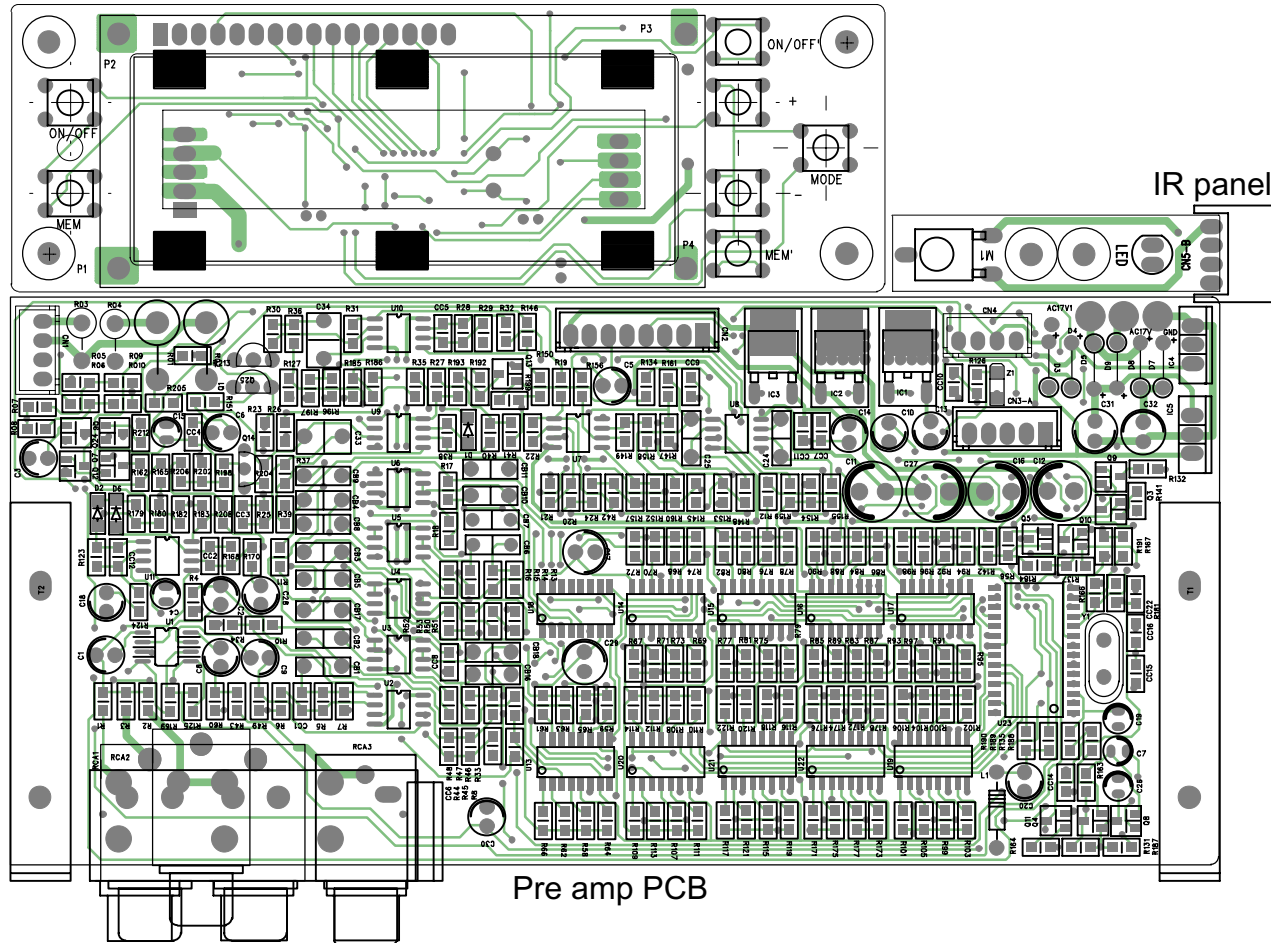
Display panel



Pre amp PCB

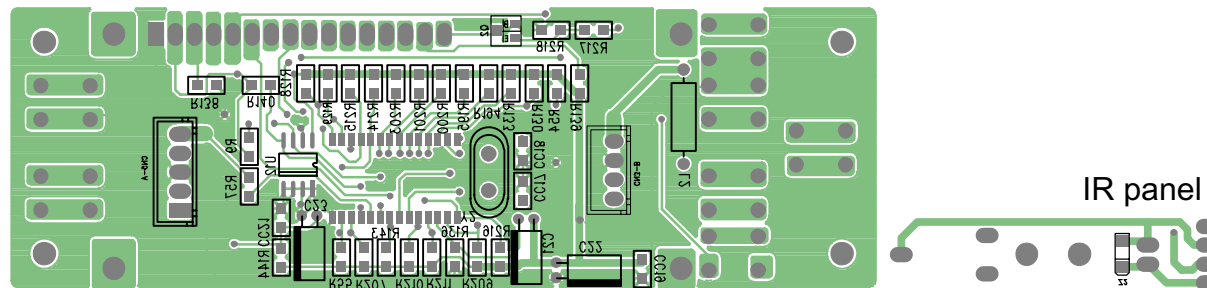
PCB layouts top side

Display panel

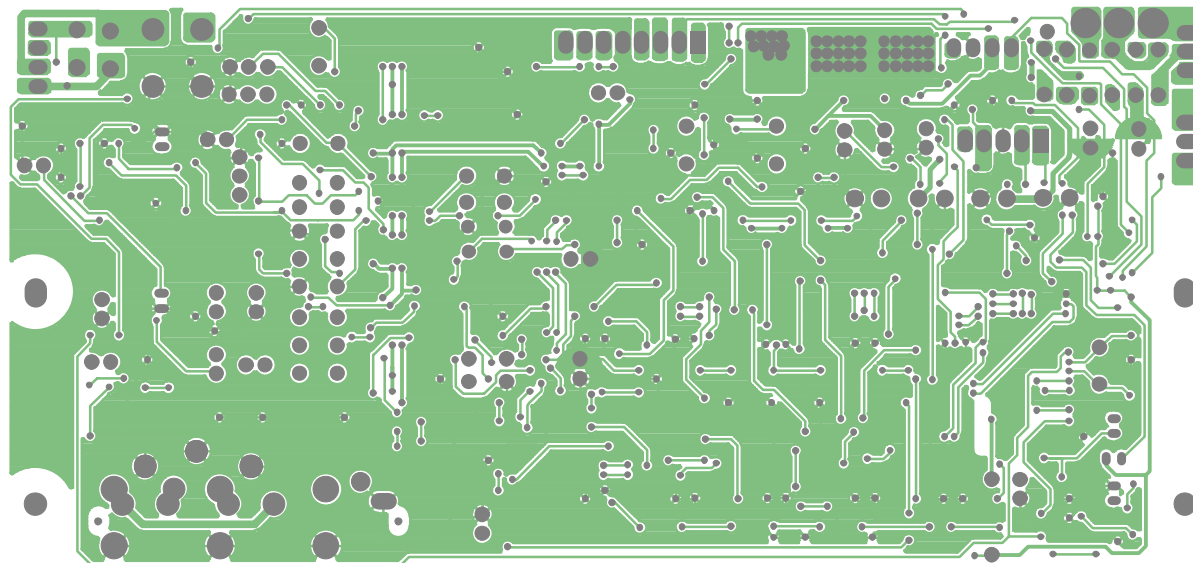


PCB layouts bottom side

Display panel

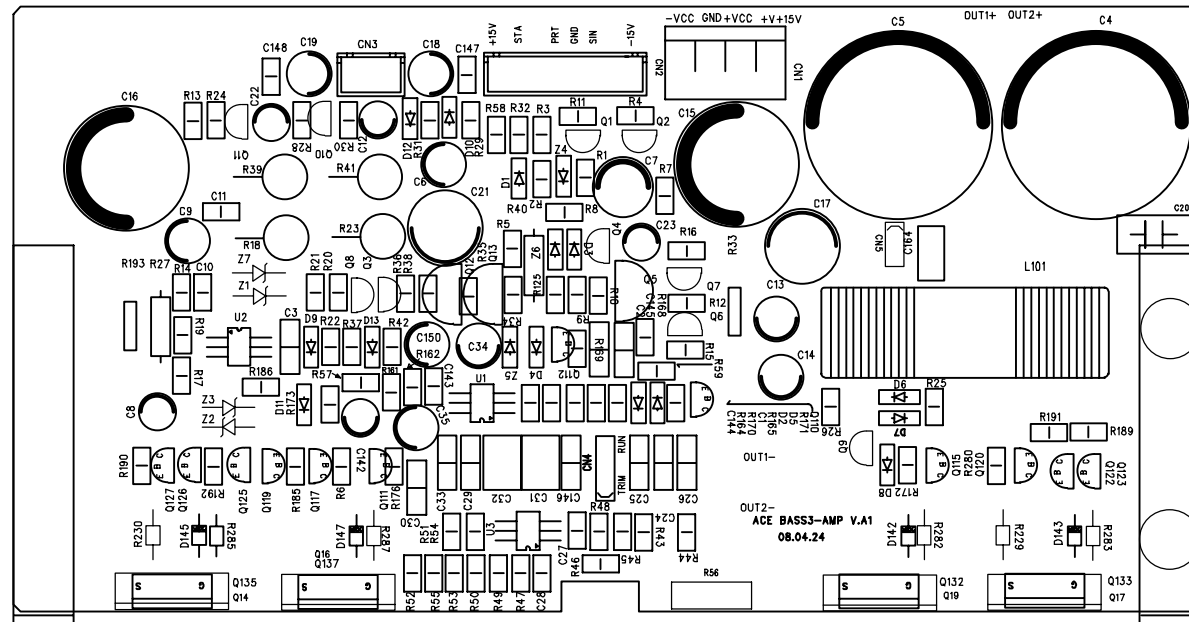


IR panel

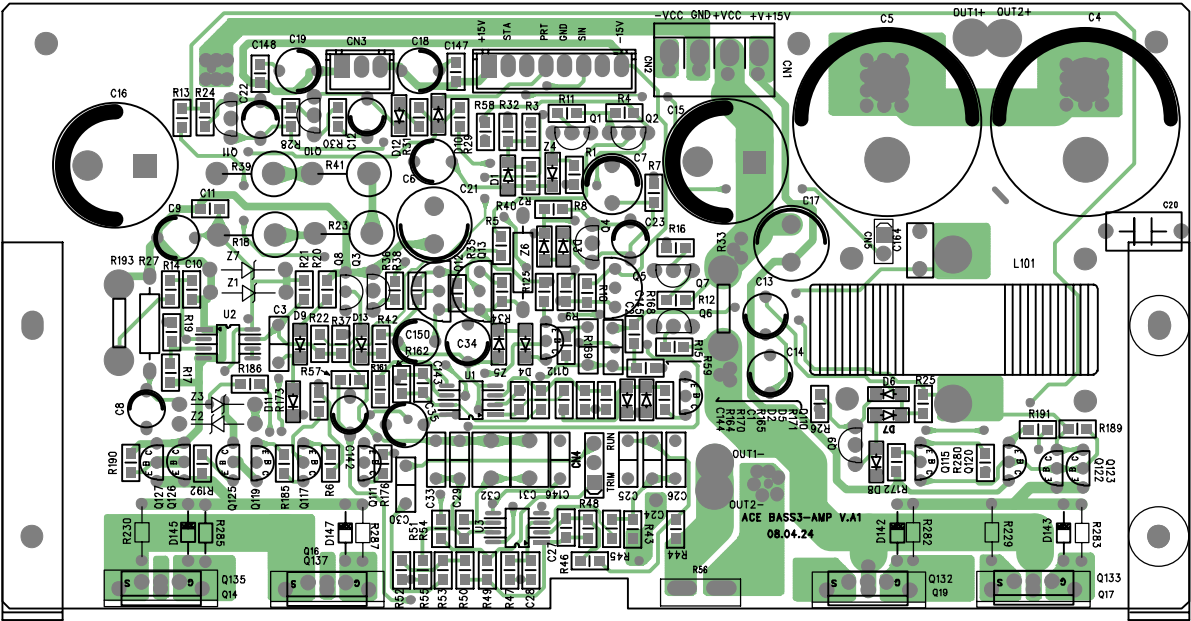


Pre amp PCB

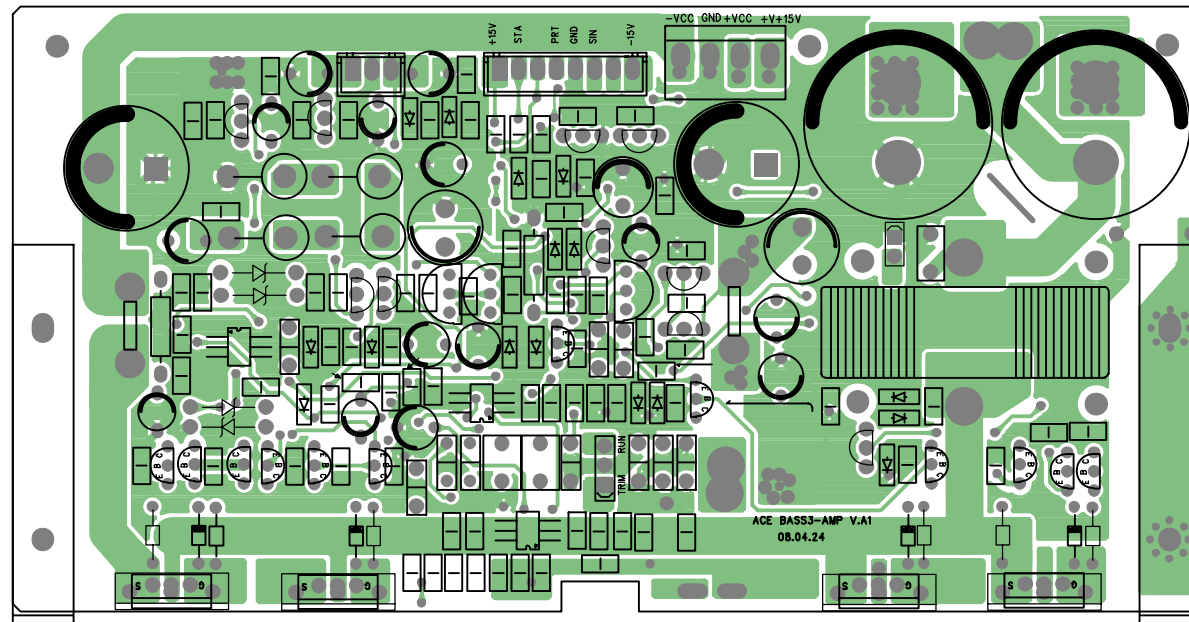
Power amp PCB top side



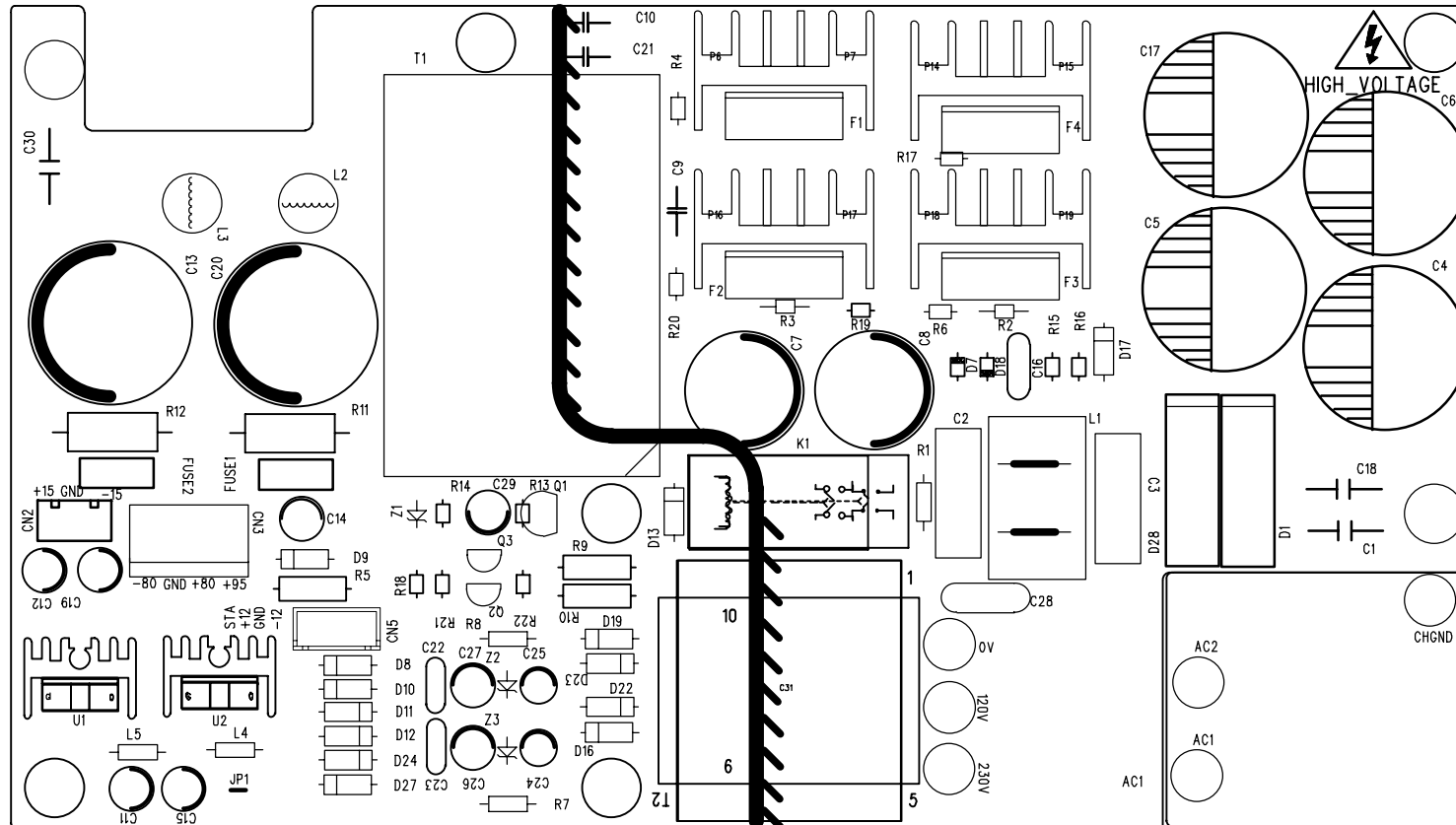
Power amp PCB top side



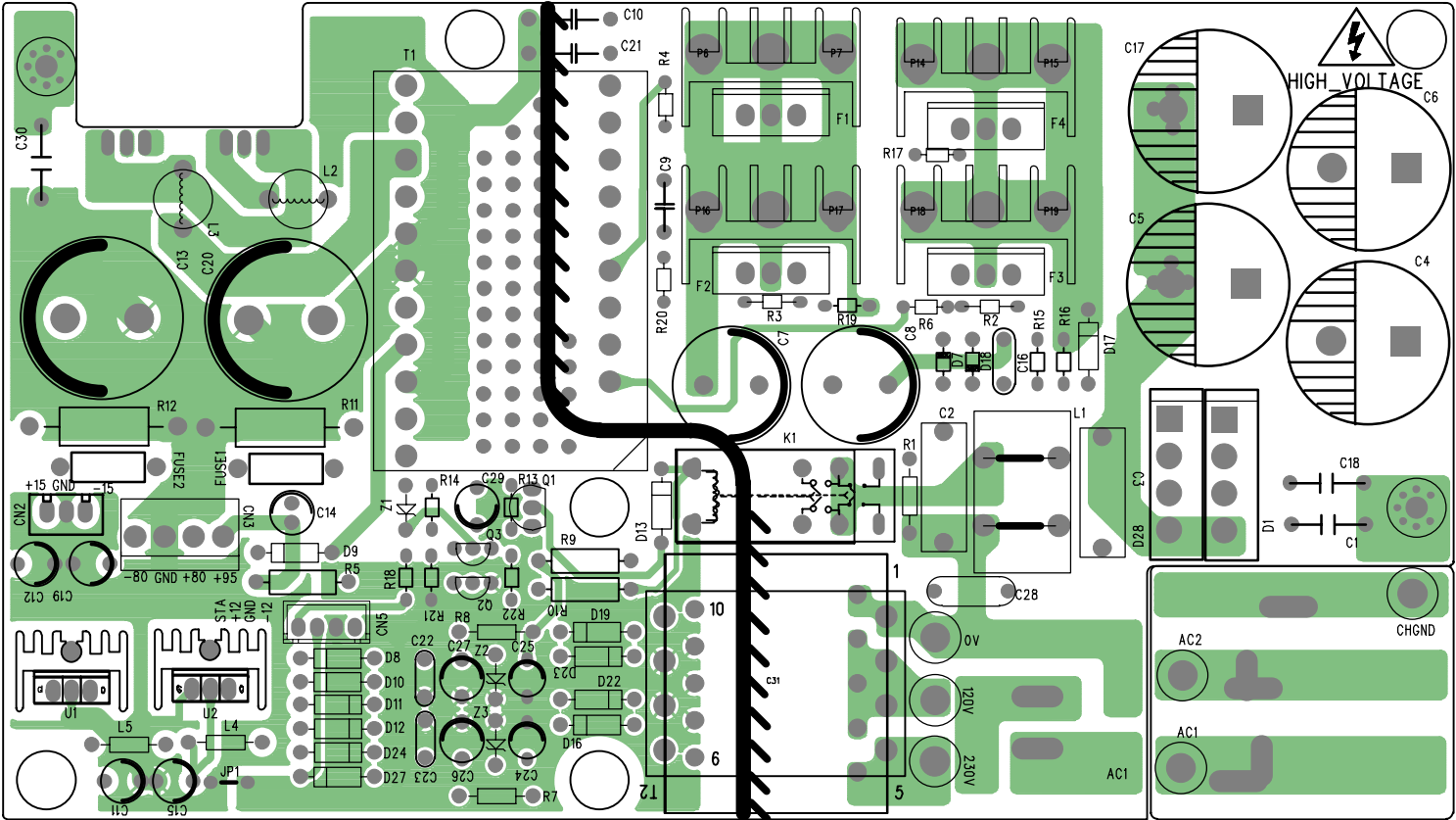
Power amp PCB bottom side



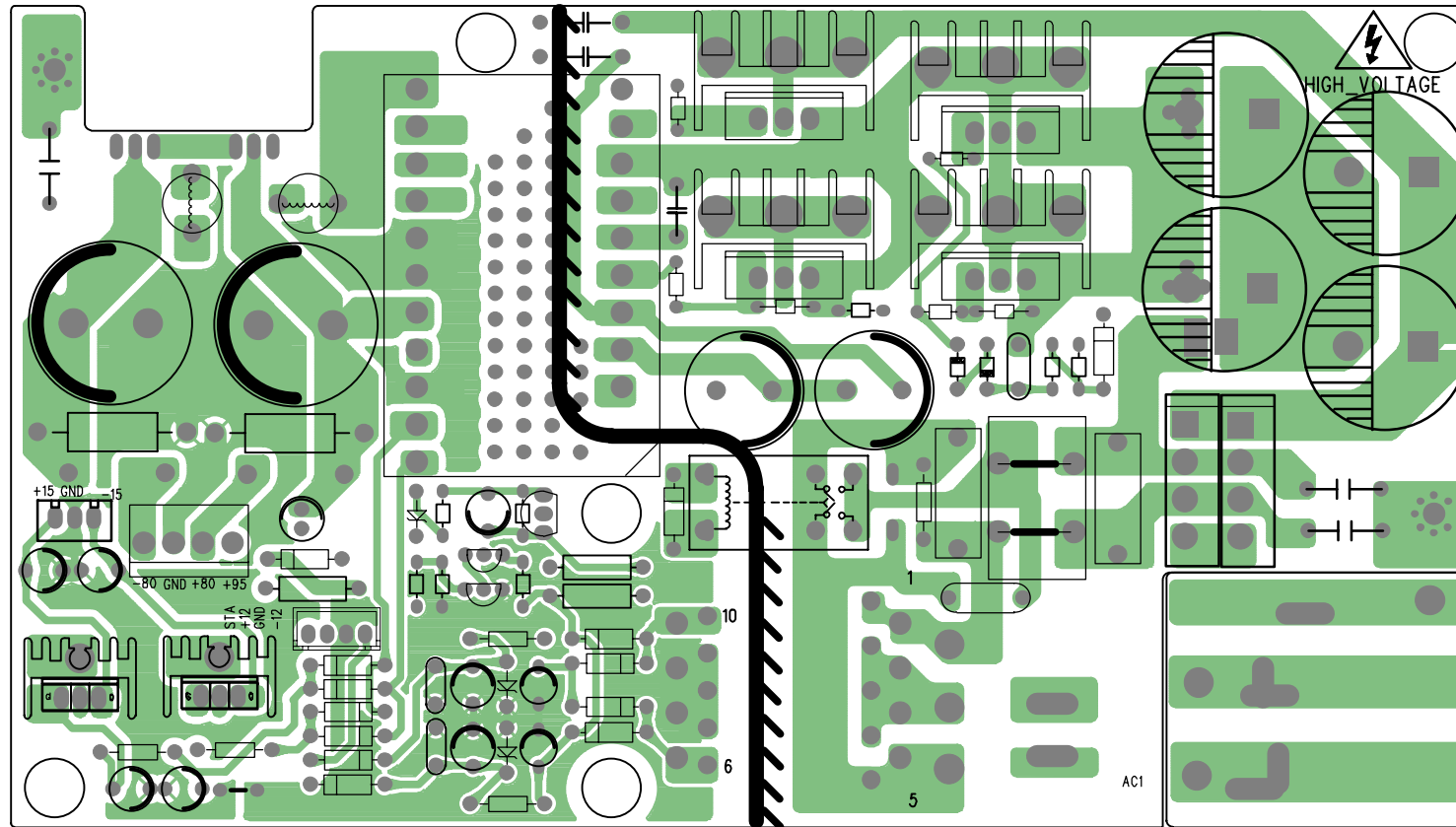
Power supply PCB top side

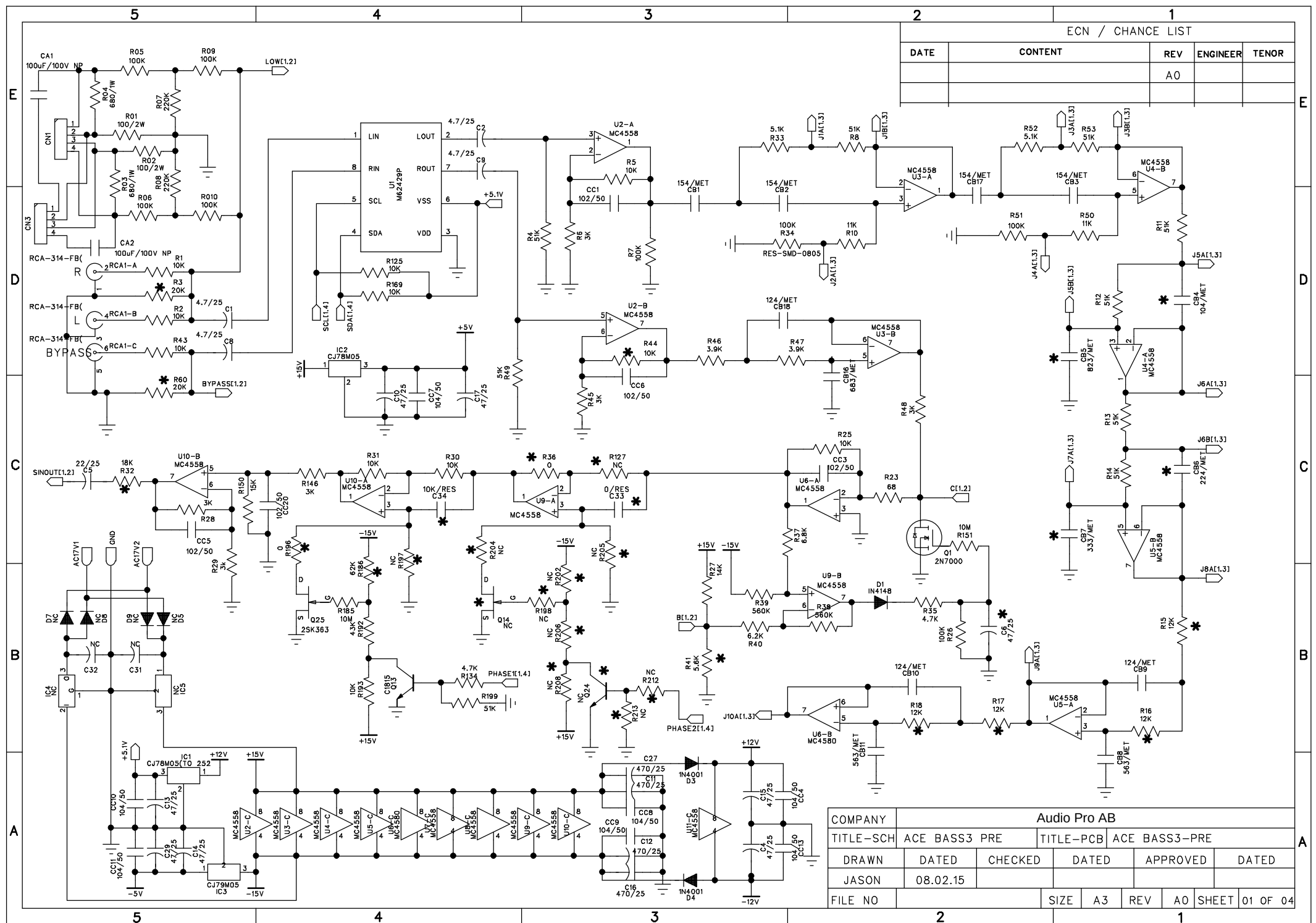


Power supply PCB top side



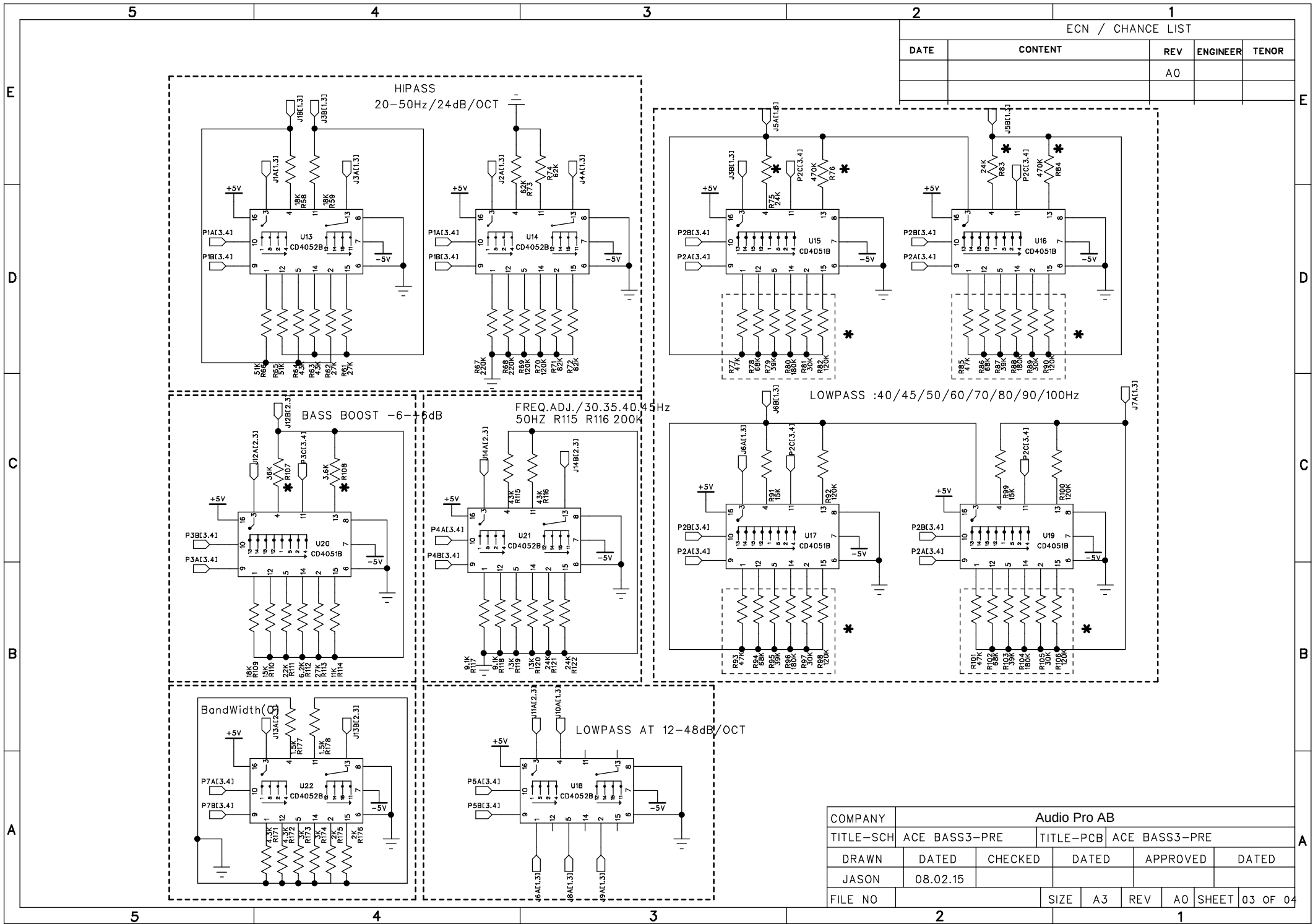
Power supply PCB bottom side

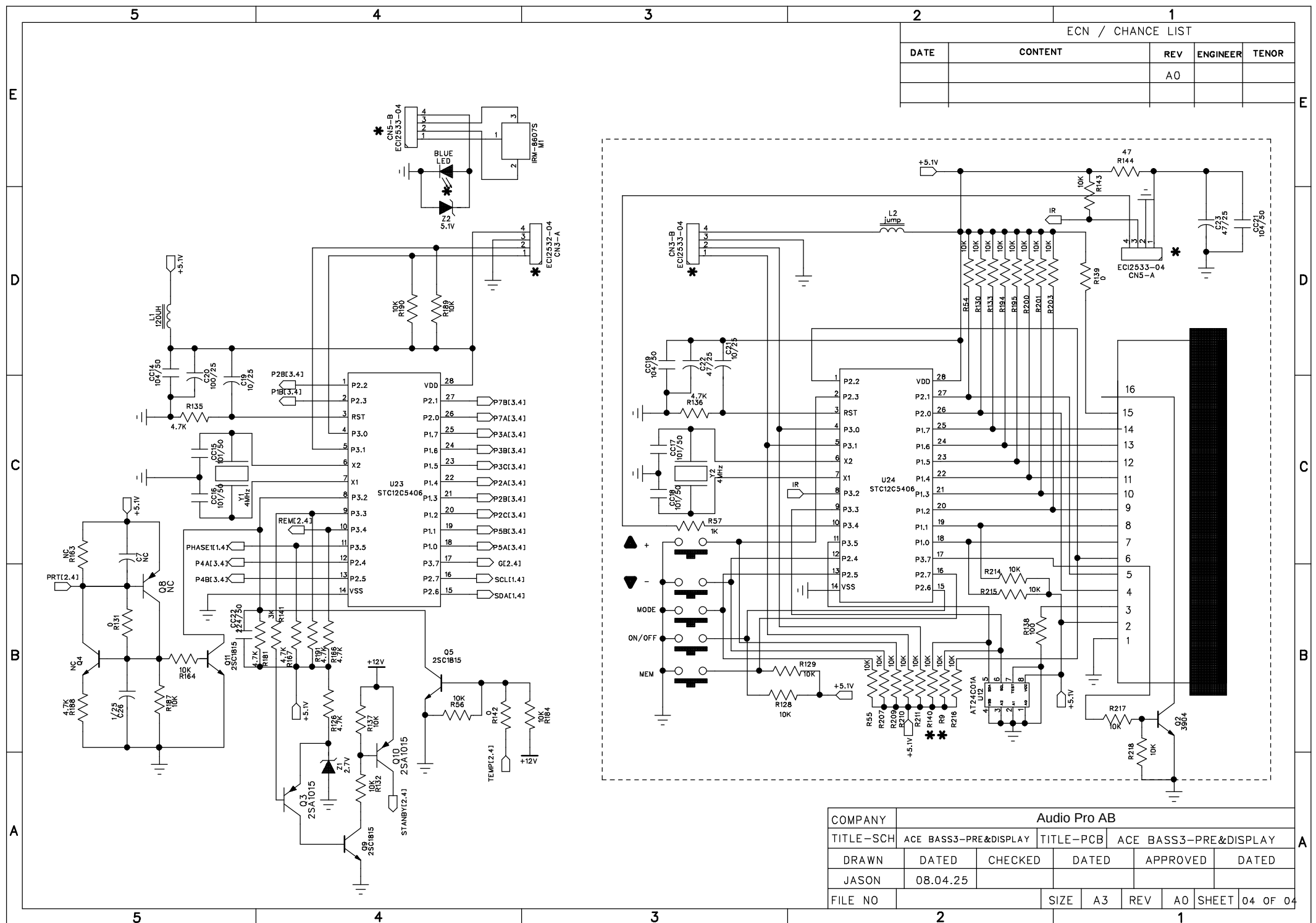




ECN / CHANCE LIST				
DATE	CONTENT	REV	ENGINEER	TENOR
		A0		

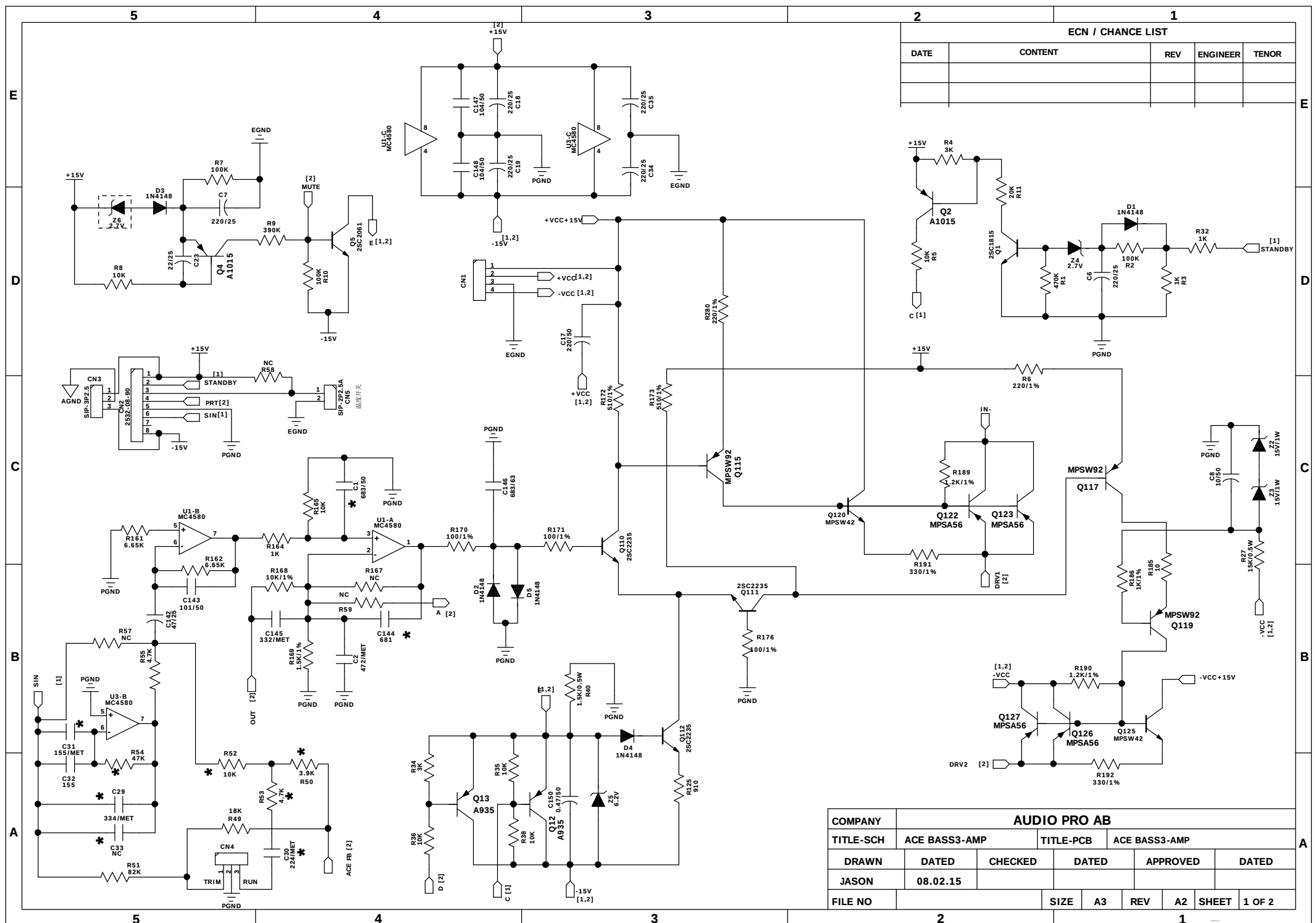
COMPANY		Audio Pro AB			
TITLE-SCH		ACE BASS3 PRE		TITLE-PCB	
DRAWN		DATED	CHECKED	DATED	APPROVED
JASON		08.02.15			
FILE NO		SIZE	A3	REV	A0
		SHEET	01	OF	04



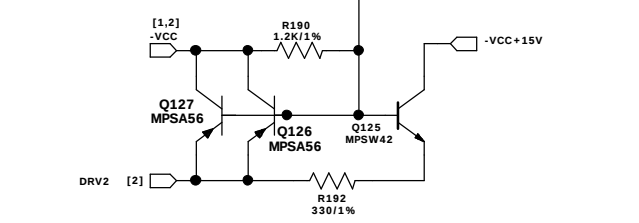
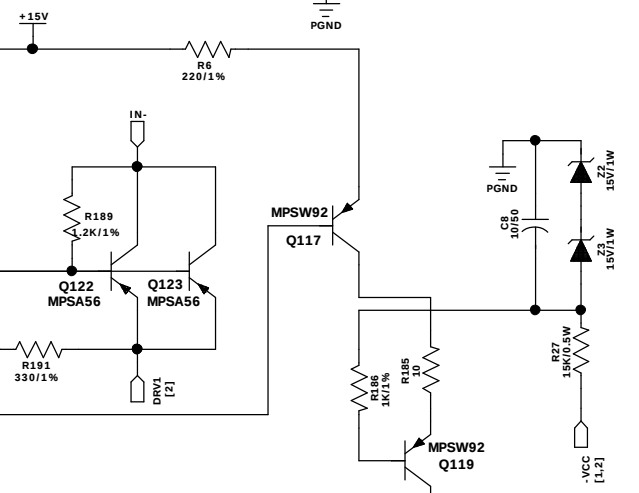
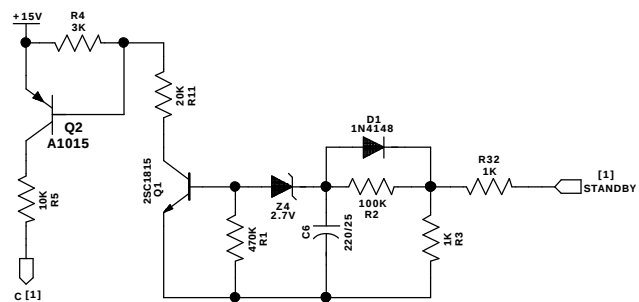


ECN / CHANCE LIST				
DATE	CONTENT	REV	ENGINEER	TENOR
		A0		

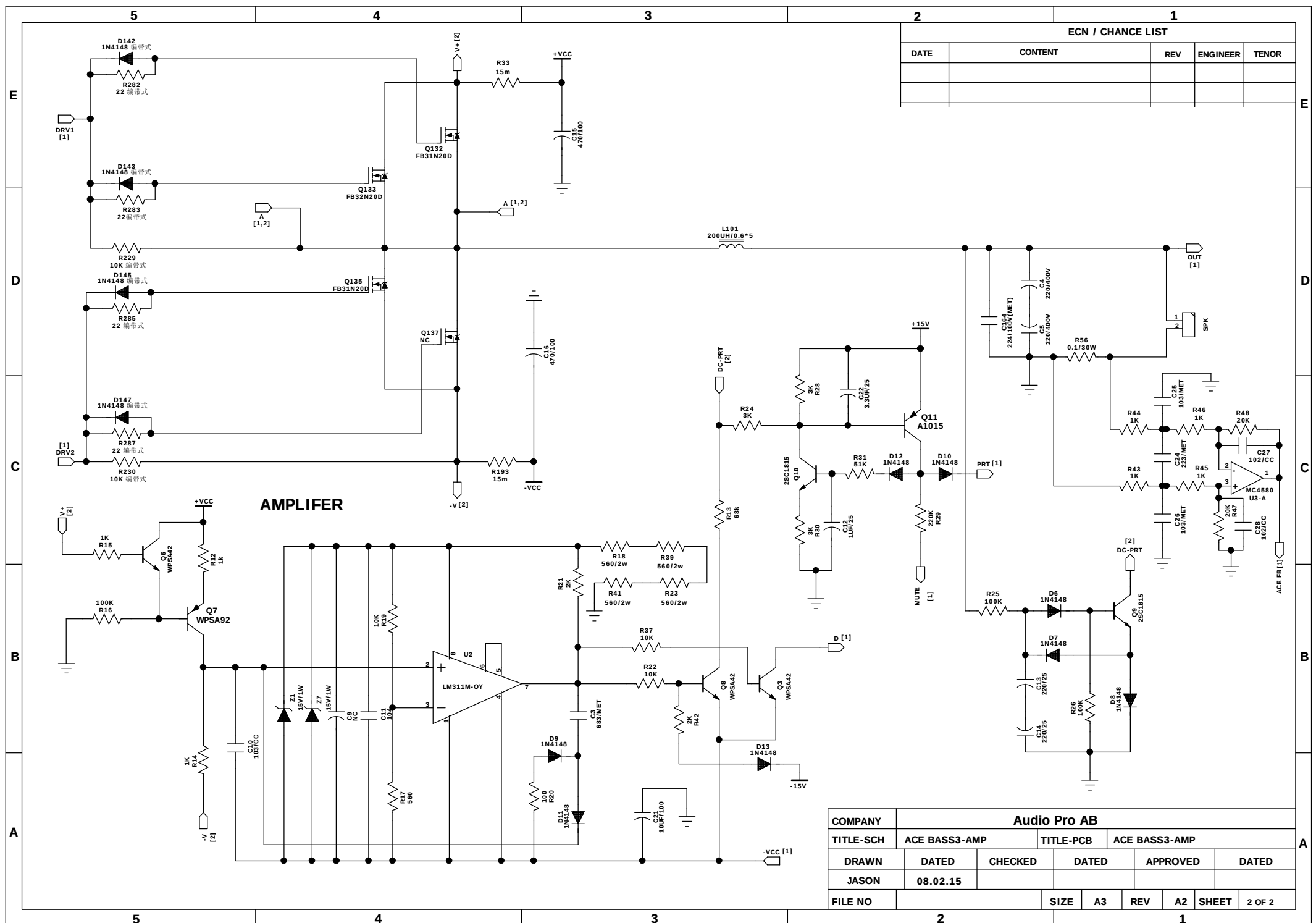
COMPANY		Audio Pro AB										
TITLE-SCH		ACE BASS3-PRE&DISPLAY			TITLE-PCB		ACE BASS3-PRE&DISPLAY					
DRAWN		DATED		CHECKED		DATED		APPROVED		DATED		
JASON		08.04.25										
FILE NO		2				SIZE	A3	REV	A0	SHEET	04 OF 04	



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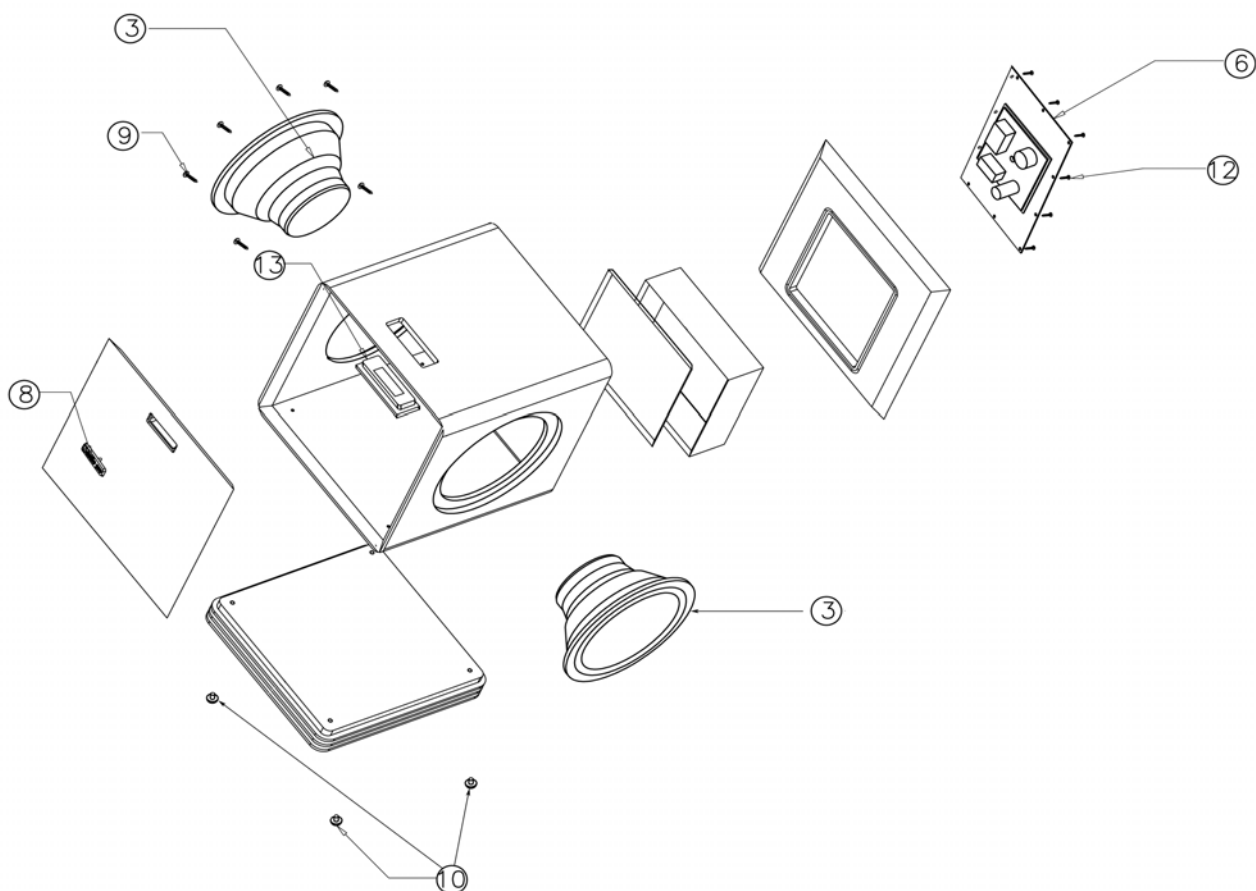


COMPANY		AUDIO PRO AB											
TITLE-SCH		ACE BASS3-AMP			TITLE-PCB		ACE BASS3-AMP						
DRAWN		DATED		CHECKED		DATED		APPROVED			DATED		
JASON		08.02.15											
FILE NO					SIZE		A3	REV		A2	SHEET		1 OF 2



ECN / CHANCE LIST				
DATE	CONTENT	REV	ENGINEER	TENOR

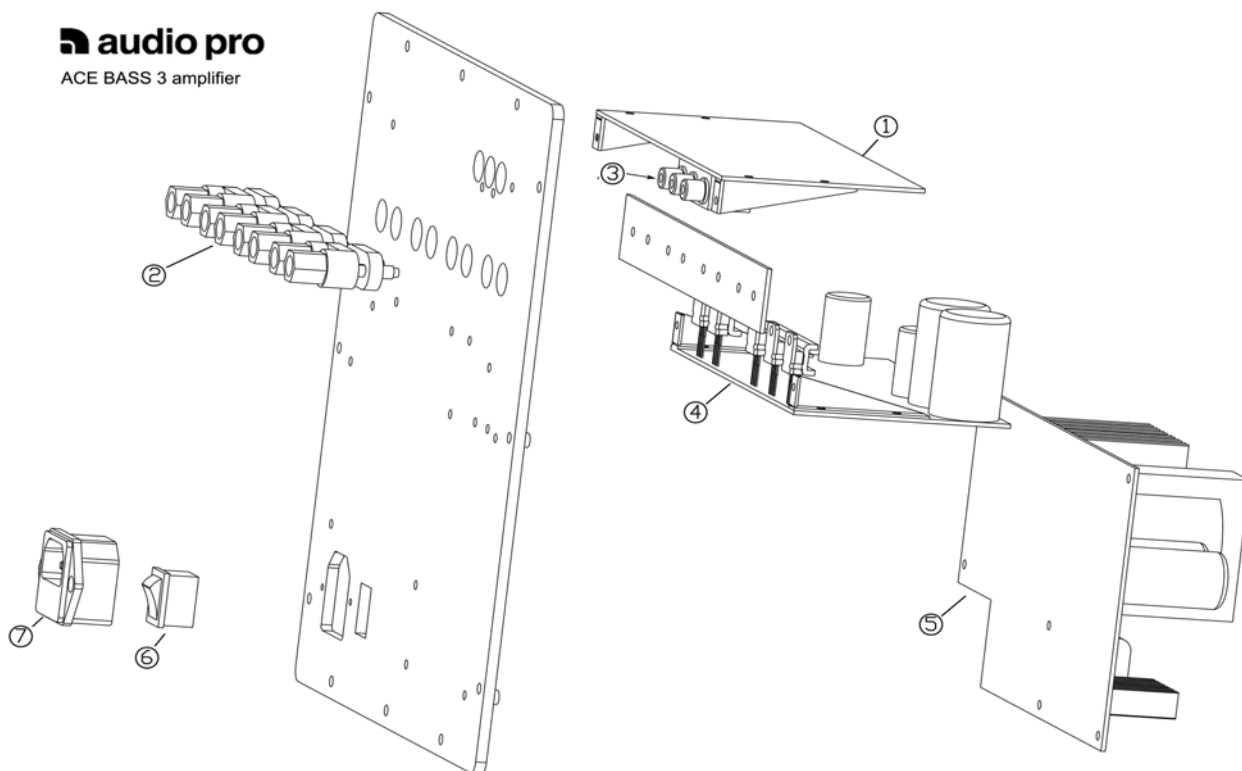
Audio Pro AB							
COMPANY	Audio Pro AB						
TITLE-SCH	ACE BASS3-AMP		TITLE-PCB	ACE BASS3-AMP			
DRAWN	DATED	CHECKED	DATED	APPROVED	DATED		
JASON	08.02.15						
FILE NO			SIZE	A3	REV	A2	SHEET
							2 OF 2



Available parts

Ref no	Part no	Description	Qty
3	SW-20C	Woofer	2
6		Amplifier, see separate parts list	1
8	K0100174	IR and logo panel	1
9		Screw 4 x 15 head 8 for woofers	16
10		Rubber feet 20 x 10 M6	4
12		Screw 3,5 x 22 head 7 for amp	12
13	K0100175	Display panel	1

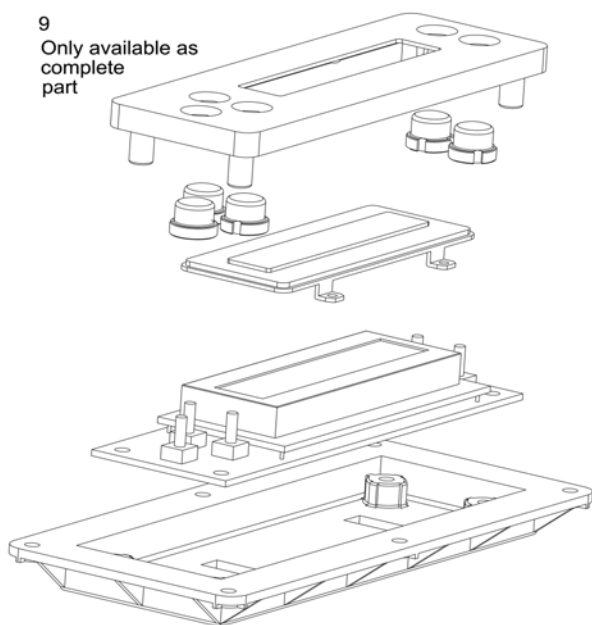
If no part no, use description and
model no when ordering part



Main panel

9

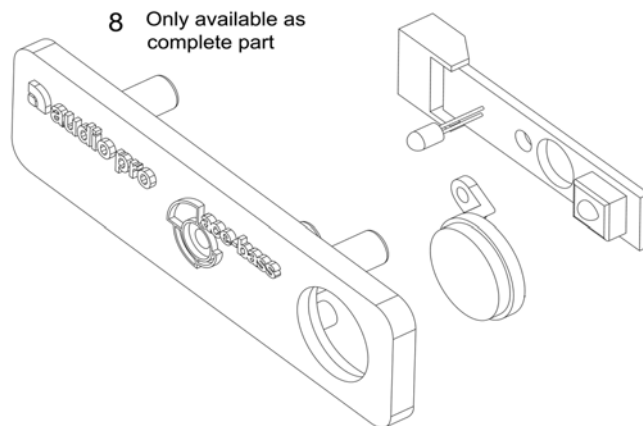
Only available as complete part



IR panel

8

Only available as complete part



For part no's, see parts list for electronics

NOTE!! Only parts marked by yellow are available.

Detailed parts list only for reference

Parts list ACE BASS 3 amplifier

Position	P/N	Part Name	Specification	Q'ty	Ref no
Power amp PCB	K0100112	Power amp complete	ACE BASS3 semi-pcb assembly	1	4
Z4,6	18070032	SMT Diode	1/2W 2.7V	2	
Z5	18070005	SMT Diode	1/2W 6.2V	1	
D1-13	18070001	SMT Diode	1/2W IN4148	13	
U1,3	14040104	SMT IC	NJM4580	2	
U2	14040149	SMT IC	LM311P	1	
R32	11170001	SMT Res.	1/8W 0Ω ±1%	1	
R185	11170003	SMT Res.	1/8W 10Ω ±1%	1	
R20,170-171,176	11170011	SMT Res.	1/8W 100Ω ±1%	4	
R6,280	11170017	SMT Res.	1/8W 220Ω ±1%	2	
R191-192	11170021	SMT Res.	1/8W 330Ω ±1%	2	
R172-173	11170027	SMT Res.	1/8W 510Ω ±1%	2	
R17	11170146	SMT Res.	1/8W 560Ω ±1%	1	
R125	11170034	SMT Res.	1/8W 910Ω ±1%	1	
R12,14-15,3,43-46,164,186	11170036	SMT Res.	1/8W 1K ±1%	10	
R189-190	11170038	SMT Res.	1/8W 1.2K ±1%	2	
R169	11170041	SMT Res.	1/8W 1.5K ±1%	1	
R21,42	11170044	SMT Res.	1/8W 2K ±1%	2	
R4,24,28,30,34	11170052	SMT Res.	1/8W 3K ±1%	5	
R50	11170057	SMT Res.	1/8W 3.9K ±1%	1	
R53,55	11170059	SMT Res.	1/8W 4.7K ±1%	2	
R161,162	11170068	SMT Res.	1/8W 6.8K ±1%	2	
R52	11170073	SMT Res.	1/8W 9.1K ±1%	1	
R19,5,8,22,35-38,165,168	11170074	SMT Res.	1/8W 10K ±1%	10	
R49	11170084	SMT Res.	1/8W 18K ±1%	1	
R11,47,48	11170086	SMT Res.	1/8W 20K ±1%	3	
R54	11170104	SMT Res.	1/8W 47K ±1%	1	
R31	11170107	SMT Res.	1/8W 51K ±1%	1	

NOTE!! Only parts marked by yellow are available.

Detailed parts list only for reference

Parts list ACE BASS 3 amplifier

Position	P/N	Part Name	Specification	Q'ty	Ref no
R13	11170345	SMT Res.	1/8W 68K $\pm 1\%$	1	
R51	11170114	SMT Res.	1/8W 82K $\pm 1\%$	1	
R2,7,10,25-26,16	11170116	SMT Res.	1/8W 100K $\pm 1\%$	6	
R59	11170117	SMT Res.	1/8W 110K $\pm 1\%$	1	
R29	11170124	SMT Res.	1/8W 220K $\pm 1\%$	1	
R9	11170151	SMT Res.	1/8W 390K $\pm 1\%$	1	
R1	11170327	SMT Res.	1/8W 470K $\pm 5\%$	1	
C143	50050010	SMT Cap.	101/50V $\pm 5\%$ NPO	1	
C27,28	50050012	SMT Cap.	102/50V $\pm 10\%$	2	
C10	50050015	SMT Cap.	103/50V $\pm 10\%$	1	
C147-148,11	50050022	SMT Cap.	104/50V $\pm 10\%$	3	
C1	50050095	SMT Cap.	683/50V $\pm 10\%$	1	
C144	50050096	SMT Cap.	681/50V $\pm 10\%$	1	
Z1-3,Z7	18030026	Zener Diode	1W 1N4744 (15V)	4	
R282-283,285,287	11140011	MFR	1/8W 22 Ω 1%	4	
R229-230	11140445	MFR	1/8W 10K 1%	2	
R40	11140488	MFR	1/2W 1.5K 1%	1	
R27	11140489	MFR	1/2W 15K 1%	1	
D142-143,145,147	18010001	Diode	1/2W,1N4148,	4	
Q110-112	14010043	TR.	2SC2235	3	
Q120,125	14010018	TR.	MPSW42	2	
Q115,117,119	14010019	TR.	MPSW92	3	
Q122-123,126-127	14010010	TR.	MPSA56	4	
Q3,6,8	14010016	TR.	MPSA42	3	
Q7	14010017	TR.	MPSA92	1	
Q12,13	14010012	TR.	2SA935	2	
Q5	14010013	TR.	2SC2061	1	
Q1,9,10	14010001	TR.	2SC1815GR	3	
Q2,4,11	14010002	TR.	2SA1015GR	3	
C3,146	50060049	MET Cap.	683/63V $\pm 5\%$	2	

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Detailed parts list only for reference

Parts list ACE BASS 3 amplifier

Position	P/N	Part Name	Specification	Q'ty	Ref no
C2	50060051	MET Cap.	472/63V ±5%	1	
C145	50060001	MET Cap.	102/63V ±5%	1	
C24	50060021	MET Cap.	223/63V ±5%	1	
C25,26	50060003	MET Cap.	103/63V ±5%	2	
C29	50060030	MET Cap.	334/63V ±5%	1	
C30,164	50060024	MET Cap.	224/100V ±5%	2	
C20.31.32.36	50060008	MET Cap.	105/63V ±5%	4	
C150	17010194	E.C.	0.47uF/50V,105°C,+/-20%	1	
C12	17010195	E.C.	1uF/50V,105°C,+/-20%	1	
C22	17010010	E.C.	3.3uF/50V,105°C,+/-20%	1	
C8	17010183	E.C.	10uF/50V,105°C,+/-20%	1	
C21	17010029	E.C.	10uF/100V,105°C,+/-20%	1	
C23	17010184	E.C.	22uF/25V,105°C,+/-20%	1	
C142	17010185	E.C.	47uF/25V,105°C,+/-20%	1	
C6-7,13-14,18-19,34-35	17010190	E.C.	220uF/25V,105°C,+/-20%	8	
C17	17010075	E.C.	220uF/50V,105°C,+/-20%	1	
C15-16	17010104	E.C.	470uF/100V,105°C,+/-20%	2	
R18,23,39,41	11110105	MOF	2W 560Ω 5%	4	
R33,193	11020002	Milliohm resistance	15mOHM	2	
C4-5	17040020	E.C.	220uF/400V,105°C,+/-20%	2	
L101	24060070	Inductor	200UH vertical Φ33,37TS(0.6*5)	1	
Q132,133,135.137	14010112	MOS	IRFB31N20D	4	
R56	11140490	Precision Resistor	0.1ohm/30W 1% ,LXP30	1	
CN5	12100011	TEMP. switch	KSD- II -80-B,protect TEMP=80°C±5°C,recover TEMP=50°C≤±10°C	1	

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Detailed parts list only for reference

Parts list ACE BASS 3 amplifier

Position	P/N	Part Name	Specification	Q'ty	Ref no
Pre amp PCB	K0100113	Pre amp complete	ACE BASS3 PCB Assy.	1	1
R36,131,142,196.139	11170001	SMT Res.	1/8W 0Ω ±1%	5	
R144	11170144	SMT Res.	1/8W 47Ω ±1%	1	
R23	11170337	SMT Res.	1/8W 68Ω±1%	1	
R138	11170011	SMT Res.	1/8W 100Ω ±1%	1	
R124,170,57	11170036	SMT Res.	1/8W 1K ±1%	3	
R177-178	11170041	SMT Res.	1/8W 1.5K ±1%	2	
R175-176	11170044	SMT Res.	1/8W 2K ±1%	2	
R6,19,28-29,45,48,141,146,173-174	11170052	SMT Res.	1/8W 3K ±1%	10	
R108	11170056	SMT Res.	1/8W 3.6K ±1%	1	
R46-47	11170057	SMT Res.	1/8W 3.9K ±1%	2	
R171-172	11170058	SMT Res.	1/8W 4.3K ±1%	2	
R35,126,134-136,162,166-167,181,188,191	11170059	SMT Res.	1/8W 4.7K ±1%	11	
R33,52	11170062	SMT Res.	1/8W 5.1K ±1%	2	
R40,112	11170067	SMT Res.	1/8W 6.2K ±1%	2	
R21	11170068	SMT Res.	1/8W 6.8K ±1%	1	
R1,2,5,9,24,25,30,31,43,44,54,55,56,125,128,129,130,132,133,137,140,143,149,152,156,157,158,159,164,165,169,182,183,184,187,189,190,193,194,195,200,201,203,207,209,210,211,214,215,216.217.218.219	11170074	SMT Res.	1/8W 10K ±1%	53	
R10,50,114	11170075	SMT Res.	1/8W 11K ±1%	3	
R15-18	11170078	SMT Res.	1/8W 12K ±1%	4	
R117-118	11170080	SMT Res.	1/8W 13K ±1%	2	
R91,99,110,150	11170081	SMT Res.	1/8W 15K ±1%	4	
R58-59,109.32.27	11170084	SMT Res.	1/8W 18K ±1%	5	
R3,60,145,147,160-161	11170086	SMT Res.	1/8W 20K ±1%	6	
R111	11170087	SMT Res.	1/8W 22K ±1%	1	

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Parts list ACE BASS 3 amplifier

Position	P/N	Part Name	Specification	Q'ty	Ref no
R75,83,119-120	11170089	SMT Res.	1/8W 24K ±1%	4	
R61-62,113	11170093	SMT Res.	1/8W 27K ±1%	3	
R148,155,81,89,97,105	11170095	SMT Res.	1/8W 30K ±1%	6	
R107	11170098	SMT Res.	1/8W 36K ±1%	1	
R79,87,95,103	11170100	SMT Res.	1/8W 39K ±1%	4	
R63-64,192,121-122	11170103	SMT Res.	1/8W 43K ±1%	5	
R20,22,R77,85,93,101	11170104	SMT Res.	1/8W 47K ±1%	6	
R4,8,11,12,13,14,49,53,65,66,153,154,179,199	11170107	SMT Res.	1/8W 51K ±1%	14	
R73-74,186	11170111	SMT Res.	1/8W 62K ±1%	3	
R78,86,94,102	11170345	SMT Res.	1/8W 68K ±1%	4	
R71-72	11170114	SMT Res.	1/8W 82K ±1%	2	
R05-06,7,09-010,26,34,42,51,180	11170116	SMT Res.	1/8W 100K ±1%	10	
R69-70,92,100,82,90,98,106	11170119	SMT Res.	1/8W 120K ±1%	8	
R80,88,96,104	11170122	SMT Res.	1/8W 180K ±1%	4	
R115-116	11170123	SMT Res.	1/8W 200K ±1%	2	
R07,08,67,68	11170124	SMT Res.	1/8W 220K ±1%	4	
R76,84	11170427	SMT Res.	1/8W 470K ±1%	2	
R38-39	11170131	SMT Res.	1/8W 560K ±1%	2	
R168.123	11170359	SMT Res.	1/8W 750K ±1%	2	
R185,151	11170142	SMT Res.	1/8W 10M ±5%	2	
CC2,12,15-18	50050010	SMT Cap.	101/50V ±5% NPO	6	
CC1,3,5,6	50050012	SMT Cap.	102/50V ±10%	4	
CC4,7-11,14,19,21	50050022	SMT Cap.	104/50V ±10%	9	
CC22.23	50050040	SMT Cap.	224/50V ±10%	2	
C35	50050080	SMT Cap.	475/25V ±20%	1	
D1,2,6	18070001	SMT Diode	1/2W IN4148	3	
Z1	18070032	SMT Diode	1/2W 2.7V	1	
Z2	18070031	SMT Diode	1/2W 5.1V	1	

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Parts list ACE BASS 3 amplifier

Position	P/N	Part Name	Specification	Q'ty	Ref no
U13-14, 18, 21-22	14040151	SMT IC	CD4052B	5	
U15-17, 19-20	14040150	SMT IC	CD4051B	5	
U1	14040152	SMT IC	FM62429	1	
U12	14040102	SMT IC	AT24C01A 8S1	1	
U2-11	14040104	SMT IC	NJM4580	10	
U23-24	14040153	SMT IC	STC12C5406	2	
IC1-2	14040114	SMT IC	CJ78M05,	2	
IC3	14040154	SMT IC	CJ79M05	1	
Q5-6, 9, 11-13.2	14010125	SMT TR.	MMBT3904LT1	7	
Q3, 7, 10	14010126	SMT TR.	MMBT3906LT1	3	
C33	11140004	MFR	1/8W 0Ω 1%	1	
C34	11140445	MFR	1/8W 10K 1%	1	
R03, 04 L=4mm	11110111	MOF	1W 680Ω 5%	2	
R01-02 L=4mm	11110055	MOF	2W 100Ω 5%	2	
CB7	50060028	MET Cap.	333/63V ±5%	1	
CB8, 11	50060039	MET Cap.	563/63V ±5%	2	
CB16, C24-25	50060049	MET Cap.	683/63V ±5%	3	
CB5	50060046	MET Cap.	823/63V ±5%	1	
CB4	50060006	MET Cap.	104/63V ±5%	1	
CB9-10, 18	50060010	MET Cap.	124/63V ±5%	3	
CB1-3, 17	50060014	MET Cap.	154/63V ±5%	4	
CB6	50060023	MET Cap.	224/63V ±5%	1	
C1-2, 8-9	17030008	LLE.C.	4.7uF/50V, 105°C, +/-20%	4	
C21	17020043	E.C.	10uF/25V, 105°C, +/-20%	1	
C22-23	17020020	E.C.	47uF/16V, 105°C, +/-20%	2	
C26	17020005	E.C.	1uF/50V, 105°C, +/-20%	1	
C19	17020011	E.C.	10uF/25V, 105°C, +/-20%	1	
C18, 28	17010015	E.C.	4.7uF/50V, 105°C, ±20%	2	
C5	17010031	E.C.	22uF/25V, 105°C, +/-20%	1	
C4, 6, 10, 13-15, 17, 29	17010040	E.C.	47uF/25V, 105°C, +/-20%	8	
C3, 20	17010053	E.C.	100uF/25V, 105°C, ±20%	2	

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Parts list ACE BASS 3 amplifier

Position	P/N	Part Name	Specification	Q'ty	Ref no
C11-12,16,27	17010189	E.C.	470uF/25V,105°C,+/-20%	4	
D3-4	18010033	Diode	1N4001	2	
Q25	14010038	TR.	2SK363	1	
Q1	14010040	TR.	2N7000	1	
L1	24060068	Choke	120uH	1	
Y1-2	25010002	Crystal	HC-49S 4MHz	2	
M1	60140001	Infrared Receiver	IRM8607S,	1	

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Parts list ACE BASS 3 amplifier

Position	P/N	Part Name	Specification	Q'ty	Ref no
RCA1	40190064	RCA	RCA-314-FB	1	3
	12040007	Tact Switch	TS-037 11H	5	
	20330036	LCD	RT1602C & JM1602C yellow/blue	1	
LED	18040048	LED (2P)	3004BWH06-357 Φ3x5(mm) white body emit blue color	1	
R41	11170026	SMT Res.	1/8W 470Ω ±1%	1	
R37	11170030	SMT Res.	1/8W 680Ω ±1%	1	
Power supply PCB	K0100114	power pcb	ACE BASS3 PCB Assy.	1	5
R4,6,17,20	11130173	CFR	1/8W 30Ω 5%	4	
R15	11130103	CFR	1/8W 2K 5%	1	
R2-3	11130135	CFR	1/8W 4.7K 5%	2	
R14,18	11130142	CFR	1/8W 5.1K 5%	2	
R13,22	11130536	CFR	1/8W 10K 5%	2	
R21	11130549	CFR	1/8W 51K 5%	1	
R16,19	11130304	CFR	1/8W 200K 5%	2	
R7	11130385	CFR	1/4W 10Ω 5%	1	
R8	11130415	CFR	1/4W 100Ω 5%	1	
R1	11130525	CFR	1/4W 680K 5%	1	
R5	11130384	CFR	1/2W 10Ω 5%	1	
R9-10	11130578	CFR	1/2W 200Ω 5%	2	
Z1	18030006	Zener Diode	1/2W,5.6V	1	
Z4	18030013	Zener Diode	1/2W,12V	1	
Z2,3	18030015	Zener Diode	1/2W,15V	2	
D7,18	18010002	Diode	DB3	2	
D13,16,19,22-24,27	18010033	Diode	1N4001	7	
D8-12,4	18010006	Diode	FR104	6	
D17	18010007	Diode	FR107	1	
L4-5	24060014	Choke	100uH	2	
Q2	14010001	TR.	2SC1815GR	1	
Q3	14010002	TR.	2SA1015GR	1	
Q1	14010013	TR.	2SC2061	1	
C22-23	50010021	Ceramic Cap.	104/50V,+80/-20%	2	
C9,28	50010020	Ceramic Cap.	103/1KV ±20%	2	
C16	50030003	MOF	104/250V ±5%	1	

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Parts list ACE BASS 3 amplifier

Position	P/N	Part Name	Specification	Q'ty	Ref no
C24-25	17010185	E.C.	47uF/25V,105°C,+/-20%	2	
C26-27,29	17010054	E.C.	100uF/25V,105°C,+/-20%	3	
C14	17040002	E.C.	47uF/50V,105°C,+/-20%	1	
C11-12,15,19	17040013	E.C.	220uF/25V,105°C,+/-20%	4	
C7-8	17040005	E.C.	47uF/400V,105°C,+/-20%	2	
R11-12	11110195	MOF	2W 33K 5%	2	
C1,18	50110004	Y1	102/400V ±20%	2	
C10,21	50110005	Y1	222/400V ±20%	2	
C2-3.CSW	50080003	X2	104/275V ±20%	3	
C13,20	17040027	E.C.	1500uF/100V,105°C,+/-20%	2	
C4-6,17	17010106	E.C.	680uF/200V,105°C,+/-20%	4	
FUSE1-2	19020028	Fuse	6.3A/250V,3.6*10mm,time-lag	2	
D1	18020010	Rectifier	RS806	1	
U1	14040008	IC	L7815CV	1	
U2	14040009	IC	L7915CV	1	
K1	20010009	relay	G5RL-1A-E DC12V OMRON	1	
L1	24060016	Inductor	Φ16*12*8 4A Dia.=0.6mm	1	
T1	13030056	Transformer	ETD49 vertical mount with TEMP switch 105°	1	
T2, Stand by transformer	13030053	Transformer	KT-35 horizontal mount,230V,I≤3mA,second 15V,I=0.06A	1	
F1-4	14010108	MOS	KHB011N40P1	4	
D15	14010064	fast rectifier	MUR1620CA	1	
D14	14010065	fast rectifier	STPR1620CT	1	
Main fuse	19020029	Ceramic fuse	4A/250V,5*20mm,time-lag	1	
Power switch	12030008	power switch	RS601	1	6
AC inlet w fuse holder	40010002	power connector	PST101FSA-2	1	7
Binding post / pair red-black	40220007	binding post PCB	A215BK gold plated	4	2
Passive crossover for satellite	17050068	N P E.C.	100uF/100V,105°C,+/-20%	2	
Display panel complete	K0100175	Display panel		1	9
IR panel complete	K0100174	IR panel		1	8
Remote Control	60140009	Remote Control	CRC0801	1	