



# BassLink 4sc

## Amplifier Expansion Module

### SERVICE MANUAL



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### BassLink 4sc Specifications

Amplifier Power:	35W x 4 channels at 4 ohms 50W x 4 channels at 2 ohms
Frequency Response:	90Hz to 47kHz
Fuse:	30A
Input Sensitivity:	100mV to 6V line-level input 1V to 16V universal interface
Crossover Frequency:	Fixed 80Hz high-pass
Crossover Slope:	12dB per octave
Channel Separation	>50dB
DC Offset	<30mV
Operating Voltages	8 - 16 VDC
Current	Remote <3.5mA Quiescent <800mA 4 ohm @ rated power 19 Amps 2 ohm @ rated power 34 Amps

Infinity continually strives to update and improve existing products, as well as create new ones. The specifications and details in this and related JBL publications are therefore subject to change without notice.

**CONNECTIONS**

**Note:** In order for the Phantom Center circuit to operate properly, the speakers and input wires **MUST** be connected in proper polarity!

**SPEAKER CONNECTIONS**

Connect the speakers to the FRONT and REAR screw terminals, observing proper polarity (Figure 3).

**INPUT CONNECTIONS**

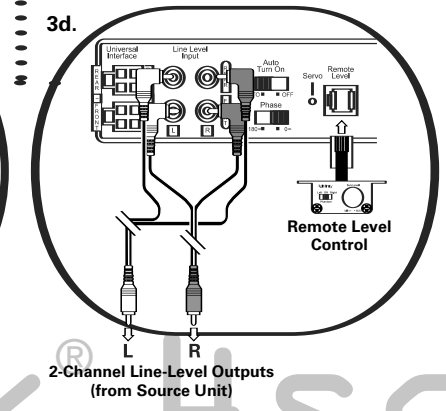
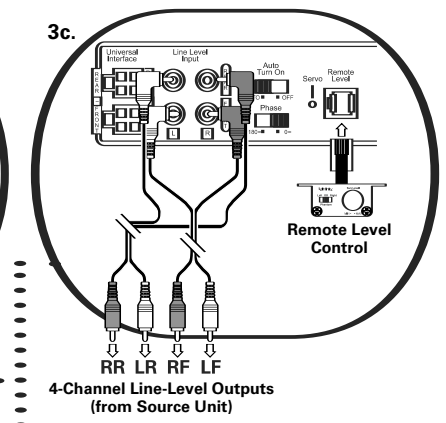
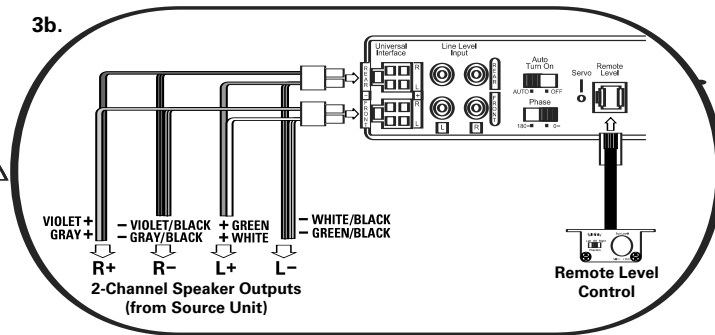
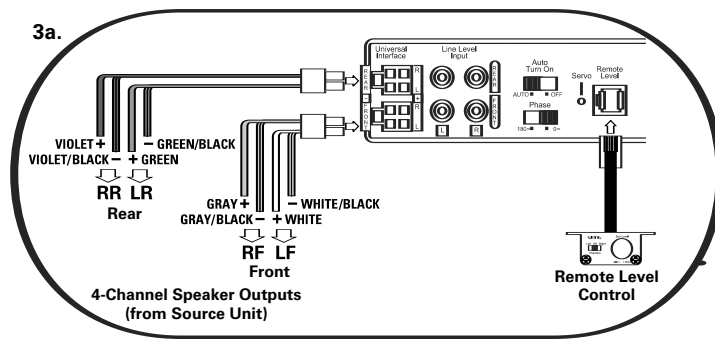
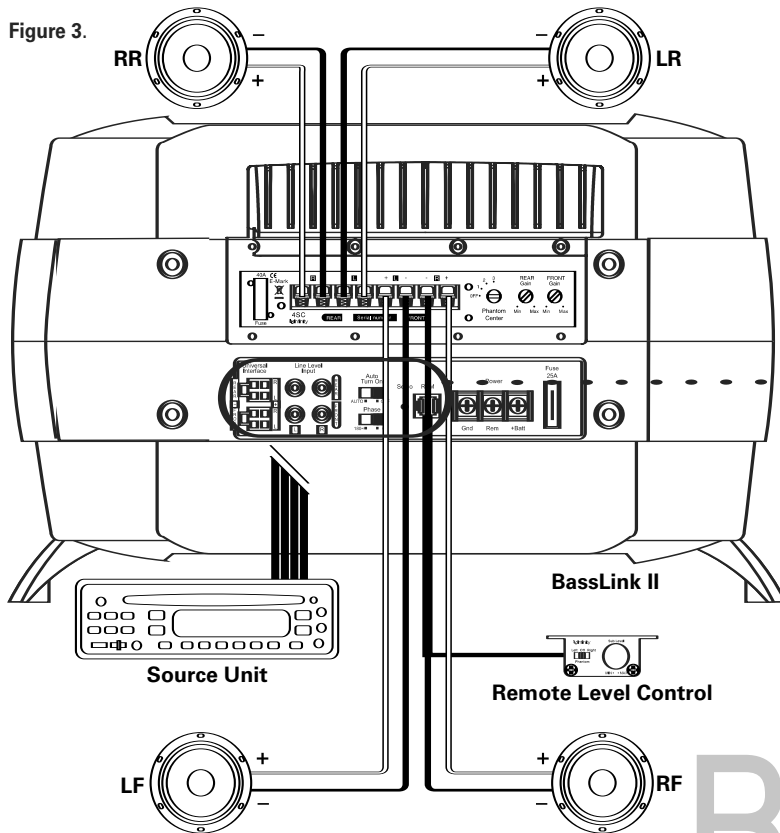
You must connect full-range signal to all four inputs on BassLink II (if you are using the 4sc). Do not connect a subwoofer output to any of the inputs if you are using the 4sc.

Connect the input signal wires according to Figures 3a through 3d.

If your source unit provides only speaker-level output wires, connect those wires to the Universal Interface connections as shown in Figures 3a or 3b.

If your source unit provides line-level outputs with RCA-type connectors, connect the signal cables to the FRONT and REAR LINE LEVEL inputs as shown in Figure 3c or 3d.

**Note:** If your source unit provides two line-level outputs and two speaker-level outputs, you may connect the line-level output to the appropriate (front or rear) RCA-type input and the speaker-level outputs to the other (front or rear) Universal Interface connector.

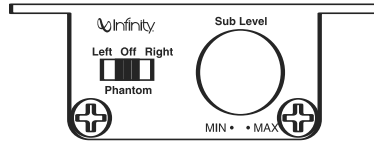


BassLink® 4sc

## CONTROLS AND FUNCTIONS

### REMOTE CONTROL

Figure 4. REMOTE LEVEL controls.



**SUB LEVEL:** Use this control to adjust the amount of bass to suit your preference.

#### PHANTOM CENTER:

**LEFT:** Slide the switch to this position to provide a phantom center for front left seating position.

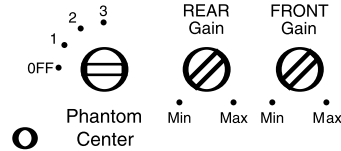
**OFF:** Slide the switch to this position to turn off Phantom Center processing.

**RIGHT:** Slide the switch to this position to provide a phantom center for front right seating position.

*Note: Once you have chosen the best Phantom Center switch position and made the necessary adjustments to the Front Gain and Rear Gain controls and set the Subwoofer Level control and Phase switch, you won't need to make any further adjustments on the BassLink II or the 4sc.*

### BASSLINK 4sc

Figure 5. BassLink 4sc controls.



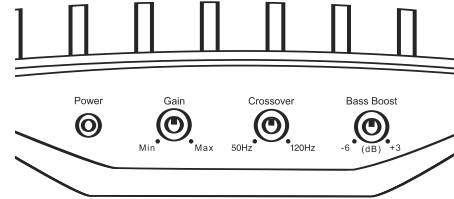
**PHANTOM CENTER:** Use this switch to select the proper adjustment of the Phantom Center circuit according to your car and your preference.

**FRONT/REAR GAIN:** Use these to adjust the levels of the front and rear speakers.

**POWER LED:** This indicator will glow blue when BassLink II and 4sc are operational.

### BASSLINK II

Figure 6. BassLink II controls on the front panel.



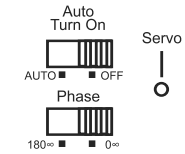
**POWER LED:** This indicator will glow blue when BassLink II is operational.

**GAIN Control:** Use this control to adjust the relative volume (loudness) of BassLink II with respect to the other speakers in the vehicle.

**CROSSOVER:** Use this control to adjust the amount of high-frequency information present in BassLink II's output.

**BASS BOOST:** Use this control to correct any perceived peak or dip in the bass response (typically around 40Hz in most vehicles). Set the control to any value between -6dB and +3dB, according to your preference.

Figure 7.



**PHASE Control:** Use this switch to reverse the phase of BassLink II's output with respect to its input.

**AUTO TURN ON:** For speaker-level connections, use this switch to activate (or deactivate) BassLink II's automatic turn-on circuit.

**SERVO LED:** This indicator glows blue when the subwoofer is at maximum excursion and the amplifier is modifying the output to maintain maximum performance.

**For more information about using the controls, see "Tuning BassLink II and 4sc" on page 5.**

## TUNING BASSLINK II AND 4sc

### SETTING THE FRONT SPEAKER AND SUBWOOFER LEVELS

*Note: Refer to page 4, "Controls and Functions," for the location of controls.*

1. Turn on the audio system and verify (using the Balance and Fader controls) that the speakers and input channels are connected properly – when the Balance control is turned to the left, only the left speakers should play, and when the control is turned to the right, only the right speakers should play. BassLink II's subwoofer should play regardless of the Fader or Balance control's position.
2. Turn the Rear Gain (located on the 4sc's end panel) and BassLink II's Gain control (located on BassLink II's front panel) all the way down. Turn the Front Gain (located on the 4sc's end panel) to 1/4 volume. Only the front speakers should be playing. Additionally, turn BassLink II's Crossover control and Bass Boost control to their midpoint positions and set BassLink II's phase control to the 0° position.
3. Play a dynamic music track with substantial bass content – Track 5 or 9 on the Phantom Center Setup CD is suitable – and turn the source unit's volume control to 3/4 volume.
4. Turn the Front Gain control up until you hear slight distortion in the music (fuzzy or crackling sounds). Then reduce the Front Gain control slightly until the distortion is no longer present.

5. Turn the Sub Level control (on the remote level control) to its maximum output setting (fully clockwise).
6. While listening to the same track that you used in step 3, turn BassLink II's Gain control clockwise until the servo light (located on BassLink II's end panel) begins to flash with each bass note but doesn't stay lit continuously.
7. While sitting in the driver's seat, listen to your system, making a mental note of the amount of upper bass being reproduced.
8. Switch the Phase control to the 180° position and listen again for upper bass content. There may be more upper bass, less upper bass or there may be no change. The position that provides the most upper bass is correct, but choose either setting according to your preference.
9. Adjust the Crossover control until you hear only low-frequency information coming from BassLink II's woofer. You should use the highest (clockwise) position possible that doesn't allow any vocal information to be audible from BassLink II's woofer (when you listen in the driver's position).
10. Adjust the Bass Boost control clockwise or counterclockwise to suit your preference.

### ABOUT THE PHANTOM CENTER CIRCUIT

*Note: In order for the Phantom Center to work properly, the front speakers MUST be connected in correct polarity. Additionally, some factory-installed audio systems use extensive and non-defeatable equalization and channel delay, which may diminish the effect of the Phantom Center circuit.*

The Phantom Center circuit provides four tuning selections: Off, 1, 2 and 3. The three settings process the audio signal differently and provide optimization for several different car sizes and front speaker mounting locations. The chart below indicates switch positions that will probably sound best for a variety of car sizes and speaker locations but there is no correct setting. You should choose the one you like best.

Midrange Speaker Location			
car size	doors	dash	kick panel
small	2	2 or 3	3
mid-size	1 or 2	2 or 3	3
large	1	2	2 or 3

*Note: The Phantom Center circuit affects the midrange speaker only in switch position 1, but may affect the separate tweeter as well in switch positions 2 and 3, depending on the tweeter's cutoff frequency. If you have separate tweeters mounted in the tops of the doors or in the dashboard, and the chart indicates two possible switch positions, the second position may be the better choice.*

Using the Phantom Center Setup CD (included with your BassLink 4sc) you'll listen to some instructions, a spoken setup track and several music selections to determine the best adjustment for your system. The first four tracks are spoken tracks, with Track 3 being the most important of those tracks. Portions of Track 3 have been recorded through the equivalent of the Phantom Center circuit. Listen to Track 3, "Spoken Setup Track"; and choose the switch position that provides the best illusion of a person speaking halfway between the front speakers.

Track 3:

- 0:00-0:10 Switch in the Off position
- 0:11-0:21 Switch position 1
- 0:22-0:33 Switch position 2
- 0:34-0:47 Switch position 3
- 0:48-0:60 Rapid switching between the three positions

## TUNING BASSLINK II AND 4sc (CONTINUED)

Tracks 5 through 16 are music tracks. There are three excerpts of songs and each excerpt is recorded four times; once with no processing (switch in the Off position), once through switch position 1, once through switch position 2 and once through switch position 3. Using the music tracks, choose the switch position that distributes the sound best between the right and left speakers. You can use the following list of tracks as a guide.

### PHANTOM CENTER SETUP CD

- Track 1 Introduction
- Track 2 Instructions for Track 3
- Track 3 Spoken Setup Track
- Track 4 Instructions for Music Tracks
- Track 5 Lonely Savior (no processing)
- Track 6 Lonely Savior (switch position 1)
- Track 7 Lonely Savior (switch position 2)
- Track 8 Lonely Savior (switch position 3)
- Track 9 Another Time, Another Place (no processing)
- Track 10 Another Time, Another Place (switch position 1)
- Track 11 Another Time, Another Place (switch position 2)
- Track 12 Another Time, Another Place (switch position 3)
- Track 13 Cinderella's Revelation (no processing)
- Track 14 Cinderella's Revelation (switch position 1)
- Track 15 Cinderella's Revelation (switch position 2)
- Track 16 Cinderella's Revelation (switch position 3)
- Track 17 Conclusion
- Track 18 Lonely Savior: Ken Birmingham
- Track 19 Another Time, Another Place: Mike Christian
- Track 20 Cinderella's Revelation: Joe Chinnici

### SETTING THE PHANTOM CENTER CIRCUIT

1. Before you begin, set the Phantom switch on the remote control for the seat in which you are sitting. Set the Phantom Center switch on the 4sc in the Off position. Turn the Rear Gain control on the 4sc all the way down (counter-clockwise) and make sure no sound is coming from the rear speakers.
2. Insert the Phantom Center Setup CD into your CD player.
3. Follow the spoken instructions on the setup CD.
4. Once you have chosen the switch position you like best using Tracks 1–17, stop the CD and move the Phantom Center switch on the 4sc to the position you have chosen. You can use Track 17 and the music selections that follow (Tracks 18–20) to check your work.

### ADDING THE SOUND FROM THE REAR SPEAKERS

With music playing, turn the Rear Gain control clockwise until sound from the rear speakers is clearly audible but not so loud that it makes the music seem to come from the back of the car.

## TROUBLESHOOTING

- **PROBLEM:**  
BassLink II and 4sc Power LEDs are not lit.

### CAUSES and SOLUTIONS:

1. Poor or improper power connection. Check power, ground and remote connections. Check speaker level input for proper connections (see No Output).
2. Blown or improperly installed fuse. Check main battery fuse and replace if necessary.  
Check fuse on BassLink II and 4sc.

- **PROBLEM:**  
4sc Power LED not lit but BassLink II Power LED is.

### CAUSES and SOLUTIONS:

1. Improper power connection between BassLink 4sc and BassLink II. Check Power Connector (see *Installation*, Figure 2).
2. Improper signal connection between BassLink 4sc and BassLink II. Check gray ribbon signal cable connection to the 4sc (see *Installation*, Figure 2).
3. Blown or improperly installed BassLink 4sc fuse. Check fuse and replace if necessary.

- **PROBLEM:**  
BassLink 4sc Power LED lit but no sound from one or all speakers.

### CAUSES and SOLUTIONS:

1. Improper input signal connections. Check all input connections on BassLink II and source unit.
2. Damaged speaker wire or improper speaker connections. Check speakers and wiring; change if necessary.
3. Improper signal connections between BassLink 4sc and BassLink II. Check gray ribbon signal cable connection to 4sc (see *Installation*, Figure 2).

- **PROBLEM:**  
Music sounds distorted.

### CAUSES and SOLUTIONS:

1. Gain levels are set too high or head unit volume is too high. Reduce volume and/or Gain Levels.
2. Tone Controls on head unit misadjusted. Check controls and adjust as necessary.

- **PROBLEM:**  
No output from BassLink 4sc and BassLink II.

### CAUSES and SOLUTIONS:

- Input connections are improperly wired. Verify all connections (see Figures 4 and 5).

- **PROBLEM:**  
No output from BassLink II when head-unit fader control is set to front or rear (in a 4-channel connection).

### CAUSE and SOLUTION:

- Input connections are improperly wired. Verify all connections (see *Connections*, on page 3).

- **PROBLEM:**  
BassLink II turns on before head unit is completely on and produces a “thump” sound.

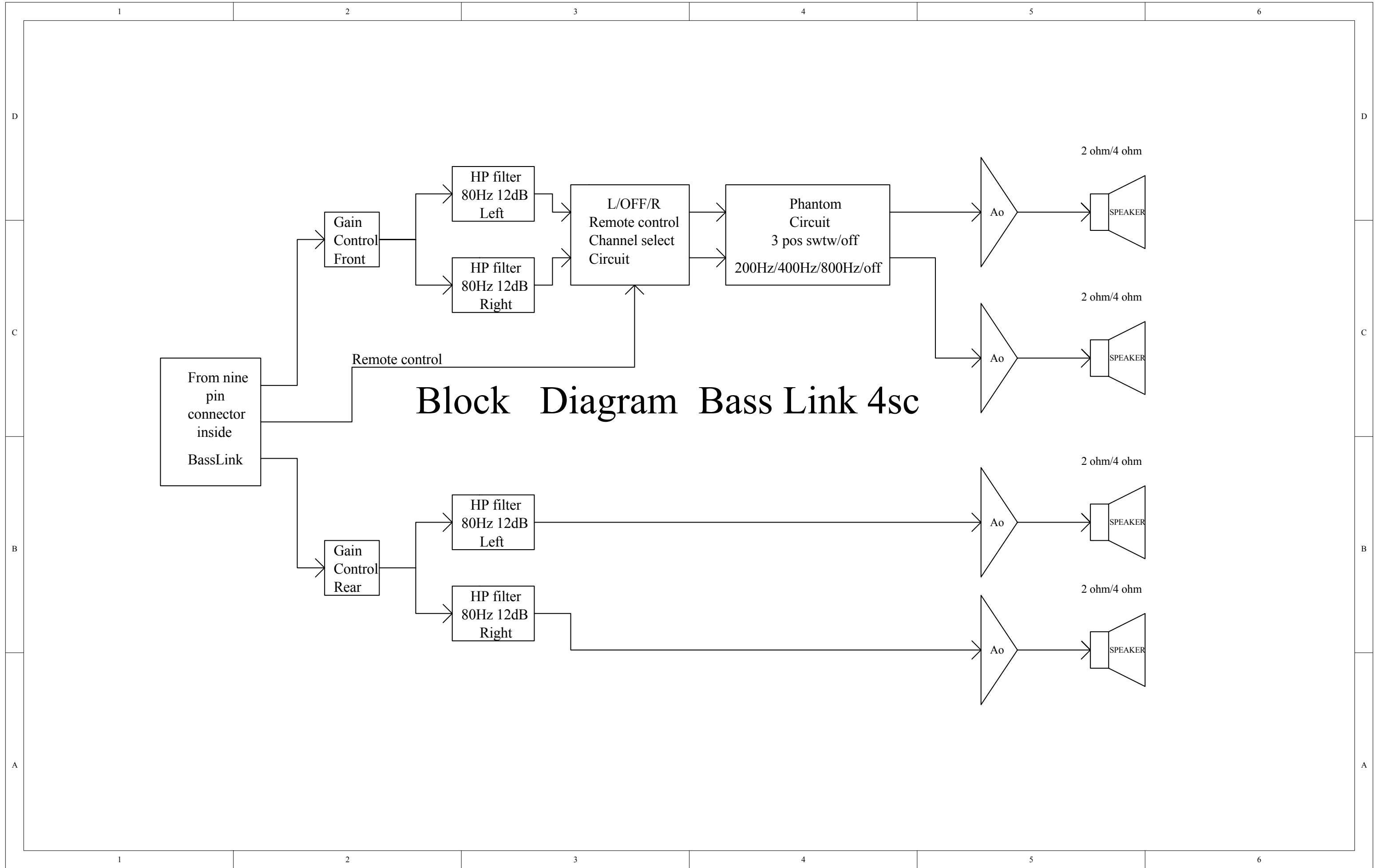
### CAUSE and SOLUTION:

- For speaker-level connections, head unit is producing a false turn-on signal. On BassLink II's side panel, slide AUTO TURN ON to OFF. It will be necessary to connect the Remote lead to a switched ignition voltage source.

- **PROBLEM:**  
BassLink II's BassLink 4sc POWER LED remains on after head unit is turned off.

### CAUSE and SOLUTION:

- For speaker-level connections, this is normal operation when AUTO TURN ON is set to ON. BassLink II and BassLink 4sc will remain on for another 5 to 10 minutes after sensing that audio signals are not present before shutting down.





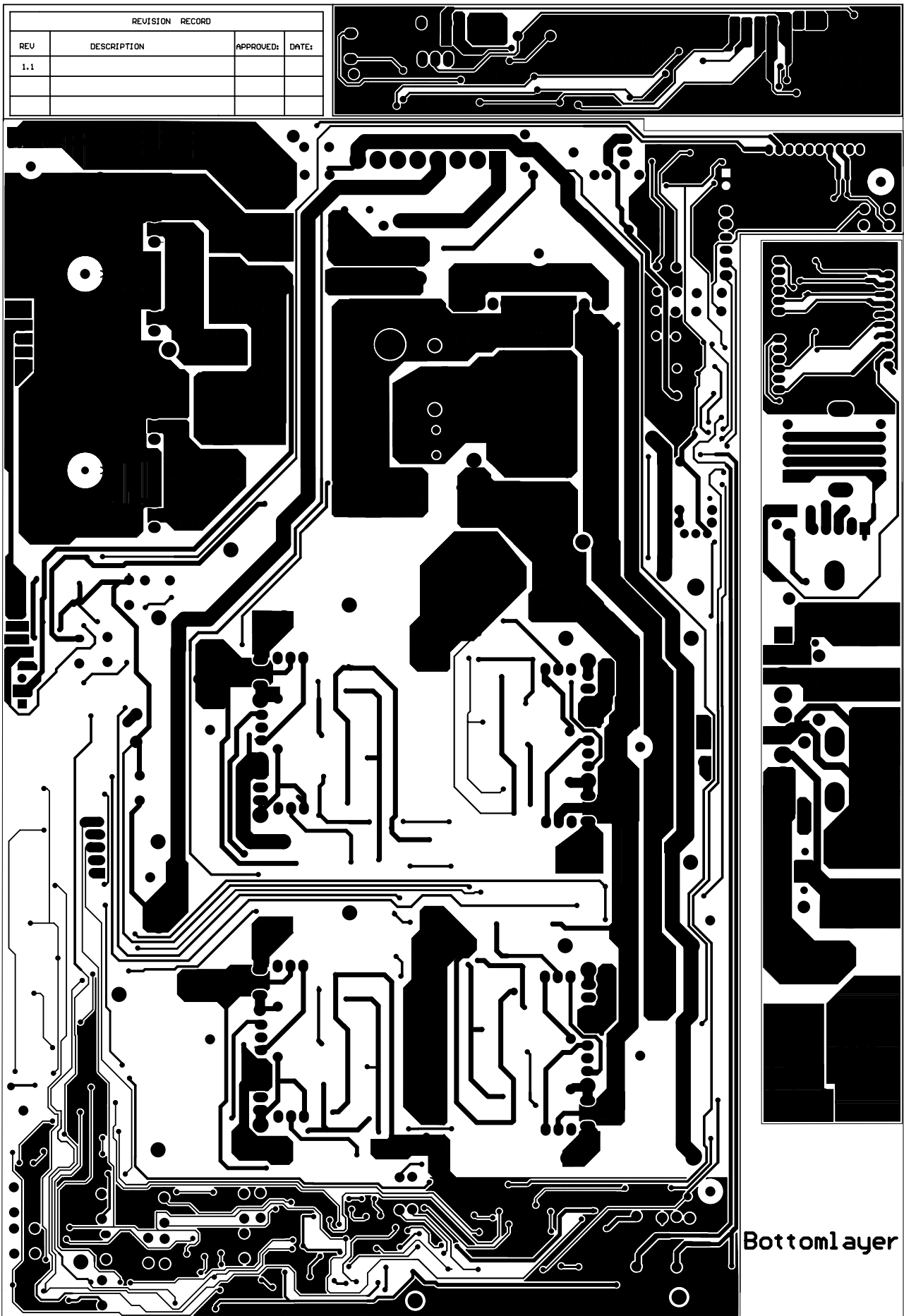
<b>BASSLINK 4sc Electrical Parts List</b>				
Part Number		Description	Qty	Reference Designators
Note on Numbering Sequence, all components: "D510~519" (tilde mark) means D510,511,512,513,514,...etc. but "Q135-Q435" (hyphen) means Q135,235,335,435"				
<b>POWER SUPPLY/MAIN/FACEPLATE PCB</b>				
<i>Semiconductors</i>				
100T0SA06	SMD Transistor	SMD m/mBTA06LT1 SOT23	4	Q140-Q440
100T0SA56	SMD Transistor	SMD m/mBTA56LT1 SOT23	4	Q133-Q433
100TN4401	SMD Transistor	SMD MMBT4401LT1 SOT-23	17	Q8 Q130~132 Q230~232 Q330~332 Q430~432 Q500~502 Q601
100TN4403	SMD Transistor	SMD MMBT4403LT1 SOT-23	14	Q9 Q10 Q138-Q438 Q139-Q439 Q503~506
100TN5401	SMD Transistor	2N5401 PNP	1	Q1
100TN5551	SMD Transistor	2N5551 NPN	4	Q137-Q437
130TN4002	SMD Diode	DIODE SMD ROHM 1N4002	8	D130-D430 D131-D431
130TL4148	SMD Diode	DIODE SMD ROHM 4148	22	D1 D2 D3 D4 D6 D502~508 D510~519
130T0003B	SMD Diode	DIODE SMD ROHM ZNR3N	1	ZD502
130T0010B	SMD Diode	DIODE SMD ROHM ZNR10V	2	ZD5 ZD6
130T0015B	SMD Diode	DIODE SMD ROHM ZNR15V	2	ZD7 ZD8
150T04066	SMD IC	SMD IC SO-14 CD4066 QUAD SWITCH	4	U501 U503 U506 U510
150TNE555	SMD IC	SMD IC SO-8 NE555 TIMER	1	U1
150TTL072	SMD IC	SMD IC SO-8 TL072 DUAL OP-AMP	11	U100-U400 U502 U504 U505 U507~509 U511
126TSB649	Transistor	2SB649 PNP	5	Q13 Q141-Q441
126TSD669	Transistor	2SD669 NPN	5	Q12 Q135-Q435
133T0J6B8	Diode	DIODENECRD6.8 JSB 0.5W 6.8V	2	ZD3 ZD4
134TN5402	Diode	DIODE 1N5402 ET3.0A100V	1	D9
123TRFZ4N	Transistor	IR IRFZ46N MOSFET	4	Q11 Q15 Q603 Q604
124TN4401	Transistor	TR MTRL 2N4401 NPN	4	Q134-Q434
124TN6488	Transistor	TR MTRL 2N6488 80V NPN	4	Q136-Q436
124TN6491	Transistor	TR MTRL 2N6491 80V PNP	4	Q142-Q442
135T1620C	Rectifier	DIODE MTRL 1620CT	1	D8
135T1620R	Rectifier	DIODE MTRL 1620CTR	1	D10
137T03B02	LED	3 $\mu$ LED blue	1	LED1
<i>Resistors</i>				
280T80101	SMD Resistor	SMD (0805) 100 $\Omega$ 5%	20	R25 R28 R136~139 R236~239 R336~339 R436~439 R602 R603
280T80102	SMD Resistor	SMD (0805) 1K 5%	13	R7 R14 R15 R44 R133-R433 R134-R434 R500
280T80103	SMD Resistor	SMD (0805) 10K 5%	8	R130~131 R230~231 R330~331 R430~431
280T80104	SMD Resistor	SMD (0805) 100K 5%	5	R2 R4~6 R12
280T80151	SMD Resistor	SMD (0805) 150 $\Omega$ 5%	4	R103-R403
280T80152	SMD Resistor	SMD (0805) 1.5K 5%	4	R148-R448
280T80153	SMD Resistor	SMD (0805) 15K 5%	8	R140-R440 R141-R441
280T80163	SMD Resistor	SMD (0805) 16K 5%	4	R104-R404
280T80182	SMD Resistor	SMD (0805) 1.8K 5%	5	R38 R150-R450
280T80183	SMD Resistor	SMD (0805) 18K 5%	4	R100-R400
280T80242	SMD Resistor	SMD (0805) 2.4K 5%	4	R151-R451
280T80332	SMD Resistor	SMD (0805) 3.3K 5%	8	R147-R447 R132-R432
280T80392	SMD Resistor	SMD (0805) 3.9K 5%	1	R13
280T80470	SMD Resistor	SMD (0805) 47 $\Omega$ 5%	8	R142-R442 R143-R443
280T80472	SMD Resistor	SMD (0805) 4.7K 5%	4	R144 -R444
280T80473	SMD Resistor	SMD (0805) 47K 5%	1	R1
280T80562	SMD Resistor	SMD (0805) 5.6K 5%	4	R149-R449
280T81131	SMD Resistor	SMD (0805) 1.13K 1%	4	R135-R435
290T61182	SMD Resistor	SMD(0603) 11.8K 1%	2	R566 R549
290T62552	SMD Resistor	SMD(0603) 25.5K 1%	4	R105-R405
290T62802	SMD Resistor	SMD(0603) 28K 1%	6	R560~562 R557~559
290T62942	SMD Resistor	SMD(0603) 29.4K 1%	4	R575~578
290T63000	SMD Resistor	SMD(0603) 0 $\Omega$ 5%	1	RN2

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<b>POWER SUPPLY/MAIN/FACEPLATE PCB</b>				
290T63103	SMD Resistor	SMD(0603) 10K 5%	39	R39 R43 R501~R515 R518~528 R529~530 R532 R535~537 R539~540 R579 R582 R609
290T63104	SMD Resistor	SMD(0603) 100K 5%	9	R42 D500 D501 R531 R538 R541 R542 R580 R581
290T63113	SMD Resistor	SMD(0603) 11K 5%	4	R3 R517 R533 R534
290T63202	SMD Resistor	SMD(0603) 2K 5%	1	R548
290T63203	SMD Resistor	SMD (0603) 20K 5%	4	R102-R402
290T63222	SMD Resistor	SMD(0603) 2.2K 5%	5	R543~R547
290T63402	SMD Resistor	SMD(0603)34K 1%	4	R107- R407
290T63472	SMD Resistor	SMD(0603) 4.7K 5%	1	R516
290T63473	SMD Resistor	SMD(0603) 47K 5%	4	R551~554
290T63481	SMD Resistor	SMD(0603) 3.48K 1%	2	R550 R565
290T63682	SMD Resistor	SMD(0603) 6.8K 5%	2	R555 R556
290T64021	SMD Resistor	SMD(0603) 4.02K 1%	4	R567~570
290T64422	SMD Resistor	SMD(0603) 44.2K 1%	4	R571~574
290T67321	SMD Resistor	SMD(0603) 7.32K 1%	2	R563 R564
220440221	Resistor	RD 1/4W 220Ω	4	R152- R452
220880202	Resistor	RD 1/8W 2K	2	R41 R45
231100220	Resistor	1Ws 22Ω	1	R37
220440100	Resistor	RD 1/4W 10Ω	2	R26 R29
220440391	Resistor	RD 1/4W 390Ω	2	R32 R33
220880000	Resistor	RD 1/8W 0Ω	2	JP3 JP4
231100101	Resistor	1Ws 100Ω	1	R31
231502025	Resistor	5Ws 0.2Ω	8	R145-R445 R146-R446
202A12B23	Variable Res GAIN	B20K 20% L27.5A12	2	VR100 VR101
22022047A	Resistor	RD 1/2W 4.7Ω	4	R153-R453
<i>Capacitors</i>				
300T8F102	SMD Capacitor	SMD C0805 0.001UF 10%	4	C103-C403
300T8F104	SMD Capacitor	SMD C0805 0.1uF 10%	13	C12 C13 C32~34 C136-C436 C137-C437
300T8F220	SMD Capacitor	SMD C0805 22PF 5%	4	C101-C401
300T8F274	SMD Capacitor	SMD C0805 0.27UF 5%	1	C35
300T8F331	SMD Capacitor	X7R (0805) 330PF 100V 10%	4	CE1~CE4
300T8F470	SMD Capacitor	SMD C0805 47PF 10%	12	C133~135 C233~235 C333~335 C433~435
301T10350	SMD Capacitor	X7R(0603) 103P 50V 10%	4	C500 C505~507
301T63104	SMD Capacitor	SMD 0603 JRX7R 104P/C	4	C23 C24 C27 C31
305F10635	SMD Capacitor	10UF/35V(AE5.0)	4	C130-C430
305F22616	SMD Capacitor	22UF/16V(AE5.0)	10	C138-C438 C37 C38 C100-C400
306F33635	SMD Capacitor	33UF/35V(AE6.3)	8	C131-C431 C132-C432
31J568110	Capacitor	C/C Y5E 680pF 100V K	1	C22
31Z510410	Capacitor	C/C Y5V 0.1uF 100V Z	3	C7~9
340Z10550	Capacitor	1UF/50V 5*11	1	C28
340Z10716	Capacitor	100uF 16V 5*11	2	C39 C40
340Z22625	Capacitor	22UF/25V 5*11	1	C2
340Z22716	Capacitor	220uF 16V8*12	2	C29 C30
391T10103	MET Capacitor	(BOX) 0.01UF/100V MEMB	4	C501~504
391T10104	MET Capacitor	(BOX) 0.1U/100V MEMB	2	C10 C11
391T63562	MET Capacitor	BOX 5n6/63V MEMB	8	C508~515
391T63823	MET Capacitor	BOX 0.082U/63V MEMB	8	C102-C402 C104-C404
341T10825	Capacitor	1000uF 25V 13*21R 105	3	C15 C16 C17
341T22835	Capacitor	2200uF 35V 16*26 105	2	C25 C26
370T22616	Capacitor	NP 22uF 16V	1	C1
391T10104	MET Capacitor	(BOX) 0.1uF 100V MEMB	4	C139-C439
<i>Miscellaneous</i>				
400T08125	Jumper	JUMP 0.78*12.5m/m	1	JP5

Part Number		Description	Qty	Reference Designators
Note on Numbering Sequence, all components: "D510~519" (tilde mark) means D510,511,512,513,514,...etc. but "Q135-Q435" (hyphen) means Q135,235,335,435"				
<b>POWER SUPPLY/MAIN/FACEPLATE PCB</b>				
532T25009	Terminal	9PIN	1	J1
535T20012	Terminal	12P P=2.0mm 180	1	J3
535T2505A	Terminal	5P P=2.5MM 180	1	J5
535T39608	Terminal	8PIN P=3.96mm	1	J10
571T08025	terminal with wire	8P 25mm1007 18#	1	J8
571T20070	terminal with wire	1015# 20AWG 70MM	1	GND
172T23085	Inductor	ψ23 1.0*3 8.5UH	1	L1
182T37711	Transformer	ψ37 7:11 F=0.8*5 S=0.8*4 H=22	1	T1
194T14K12	Switch PHANTOM	1P4 L27K12	1	SW500
261T05103	Thermistor	NTC THERMISTORD103J 10K	2	RTH1 RTH2
435H00030	fuse	30A	1	F1
445T0001A	Fuse jack		1	for F1
542T80002	Terminal	8P 180 degree	1	J2
550T12050	UL Wire	1015#12 50mm T=5*2 yellow	1	
571T05190	UL Wire	5PIN L=190MM	1	J14
572T04012	UL Wire	12P wire=40mm P=2.0mm strip=	1	J4
582TPW090	Power cord	4PIN wire=90MM T=5mm	1	JP1 JP2
842T58561	Silicon gasket	8*8*1.6(T)	4	for Transistors Q134-434
852T00015	LED standoff	H15	1	for LED1
862T00006	fiber tube	6MM φ1.0	4	for RTH1 RTH2
<b>PWM (Power) PCB</b>				
<i>Semiconductors</i>				
126TSB647	Transistor	2SB647A PNP	1	Q7
155TTL431	IC DIP3	TL431 PROG. VOLTAGE REFERENCE	1	Q3
100TN4401	SMD Transistor	SMD MMBT4401LT1 SOT-23	4	Q2 Q4 Q5 Q16
100TN4403	SMD Transistor	SMD MMBT4403LT1 SOT-23	1	Q6
130T0011B	SMD Diode	DIODE SMD ROHM ZNR11V	1	ZD2
130TL4148	SMD Diode	DIODE SMD ROHM 4148	7	D5 D7 D12~16
130T0J5B6	SMD Diode	DIODE SMD ROHM ZNR5.6V	1	ZD1
150LM358N	SMD IC	SMD IC SO-8 LM358DR DUAL OP-AMP	1	IC2
150TTL494	SMD IC	SMD IC TITL494CDR PWM	1	IC1
<i>Resistors</i>				
290T62102	SMD Resistor	SMD(0603) 21K 1%	1	R8
290T63101	SMD Resistor	SMD (0603) 100Ω 5%	1	R11
290T63103	SMD Resistor	SMD (0603) 10k 5%	3	R9 R10 R21
290T63104	SMD Resistor	SMD (0603) 100k 5%	1	R3
290T63123	SMD Resistor	SMD(0603) 12K 5%	1	R17
290T63153	SMD Resistor	SMD (0603) 15k 5%	3	R48 R49 R50
290T63183	SMD Resistor	SMD (0603) 18k 5%	1	R35
290T63204	SMD Resistor	SMD (0603) 200k 5%	1	R23
290T63205	SMD Resistor	SMD (0603) 2M 5%	1	R22
290T63222	SMD Resistor	SMD (0603) 2.2k 5%	1	R36
290T63223	SMD Resistor	SMD (0603) 22k 5%	1	R30
290T63272	SMD Resistor	SMD (0603) 2.7k 5%	2	R19 R24
290T63302	SMD Resistor	SMD (0603) 3k 5%	2	R18 R20
290T63303	SMD Resistor	SMD (0603) 30k 5%	1	R51
290T63473	SMD Resistor	SMD (0603) 47k 5%	1	R34
290T63512	SMD Resistor	SMD (0603) 5.1k 5%	2	R16 R46
290T63562	SMD Resistor	SMD (0603) 5.6k 5%	1	R40
290T63563	SMD Resistor	SMD (0603) 56k 5%	1	R52
290T63912	SMD Resistor	SMD (0603) 9.1k 5%	1	R47
220880101	Resistor	RD 1/8W 100Ω	1	R27

Part Number		Description	Qty	Reference Designators
Note on Numbering Sequence, all components: "D510~519" (tilde mark) means D510,511,512,513,514,...etc. but "Q135-Q435" (hyphen) means Q135,235,335,435"				
<b>PWM (Power) PCB</b>				
<i>Capacitors</i>				
301T10463	SMD Capacitor	SMD(0603) 0.1UF/50V 20%	1	C6
301T68263	SMD Capacitor	X7R(0603) 6800P/50V 10%	1	C20
305F22550	SMD Capacitor	2.2UF/50V(AE5.0)	1	C3
306T10716	SMD Capacitor	100UF/16V(AE6.3)	3	C4 C18 C19
306F22625	SMD Capacitor	22UF/25V(AE6.3)	2	C5 C21
306F47616	SMD Capacitor	47UF/16V(AE6.3)	1	C36
340Z47625	Capacitor	47UF/25V 5*11	1	C14
<i>Miscellaneous</i>				
480LZ5025	connector	5P P=2.5MM	1	J18
480LZ0825	connector	8P P=2.5mm H=7.5mm	1	J17
<b>Miscellaneous/Mechanical</b>				
621L30153	Aluminum bar	30*15.3*5mm	7	
652T27220	heatsink		1	
693T4SC00	plastic cover		1	
711T04019	Screw	M4*19MM	7	
711T13065	Screw	PMS 3*6MM	11	
711T53043	Screw	M3*4	11	
721T32085	Screw	2*8MM	2	
721T53085	Screw	PTS-2 3*8	2	
721T53125	Screw	PTS-4 3*12	5	
761T04001	Washer	4φ	7	
830T03010	insulator	3*10*1m/m	11	
831T25046A	insulator	25*46MM	7	
843T20022	EVA (gasket)	22 T=2.0mm	1	
843T61010	EVA (gasket)	10*10*6MM	2	
843191562	EVA (gasket)	191*56mm T=2mm	1	
852T00005	stand off	H=5	5	
852T00008	plastic standoff	H=8 NYLON66	9	
852T00020	plastic standoff	H=20 NYLON66	2	
830T29145	insulator	29*14.5mm T=0.5	7	

REVISION RECORD			
REV	DESCRIPTION	APPROVED:	DATE:
1.1			



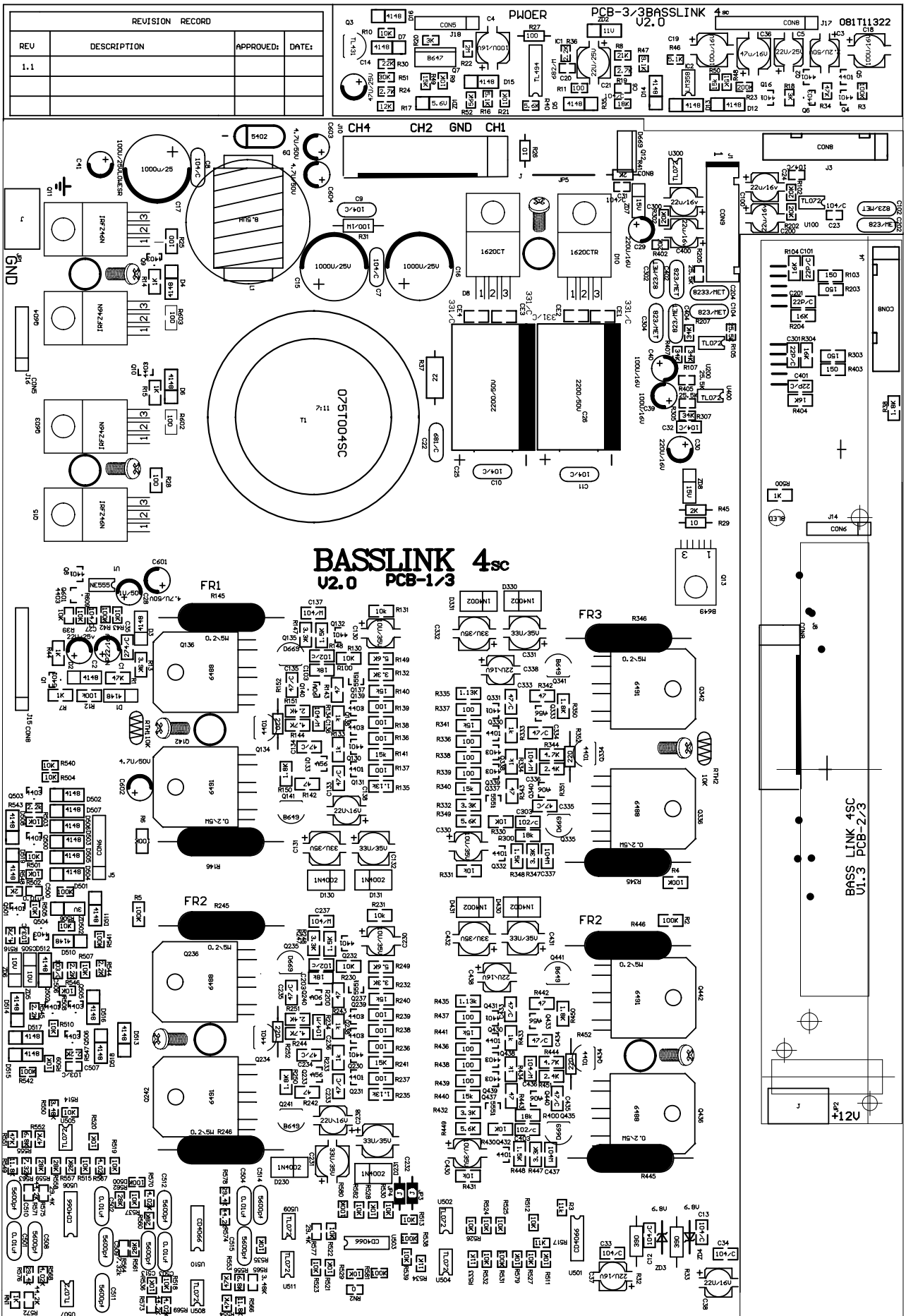
Bottom layer

MATERIAL: FR4  
 UL MARK: E190407 YS-3  
 BOARD THICKNESS: 1.6T

COMPANY: Amplifier Expansion Module  
 Infinity BassLink 4sc

DRAWN: LWH DATED: 2005/11/11  
 CHECKED: DATED:  
 APPROVED: DATED:

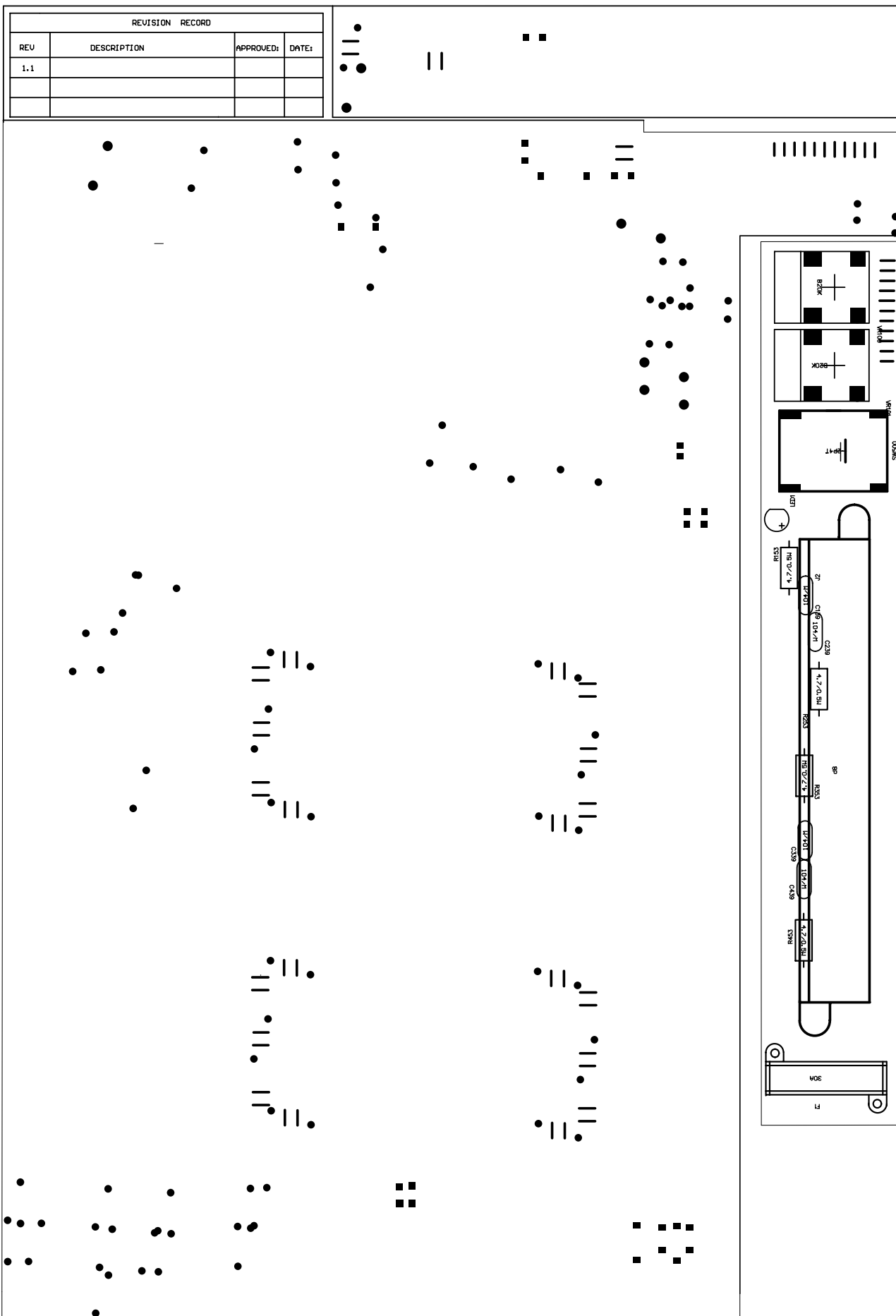
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 SIZE: A3  
 SCALE:



MATERIAL: FR4  
 UL MARK: E190407 YS-3  
 BOARD THICKNESS: 1.6T

Amplifier Expansion Module  
 Infinity BassLink 4sc

DRAWN: \_\_\_\_\_ DATED: \_\_\_\_\_  
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 APPROVED: \_\_\_\_\_ DATED: \_\_\_\_\_

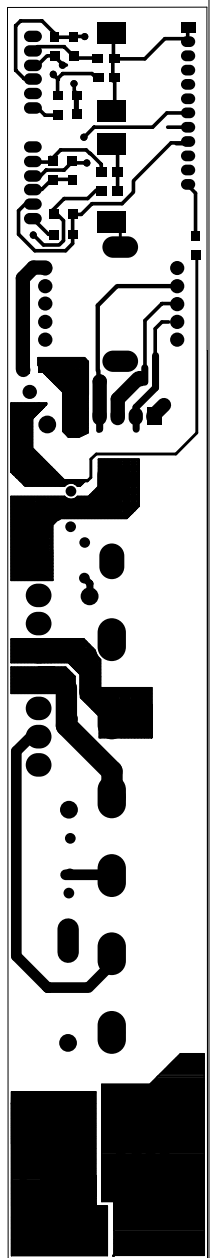
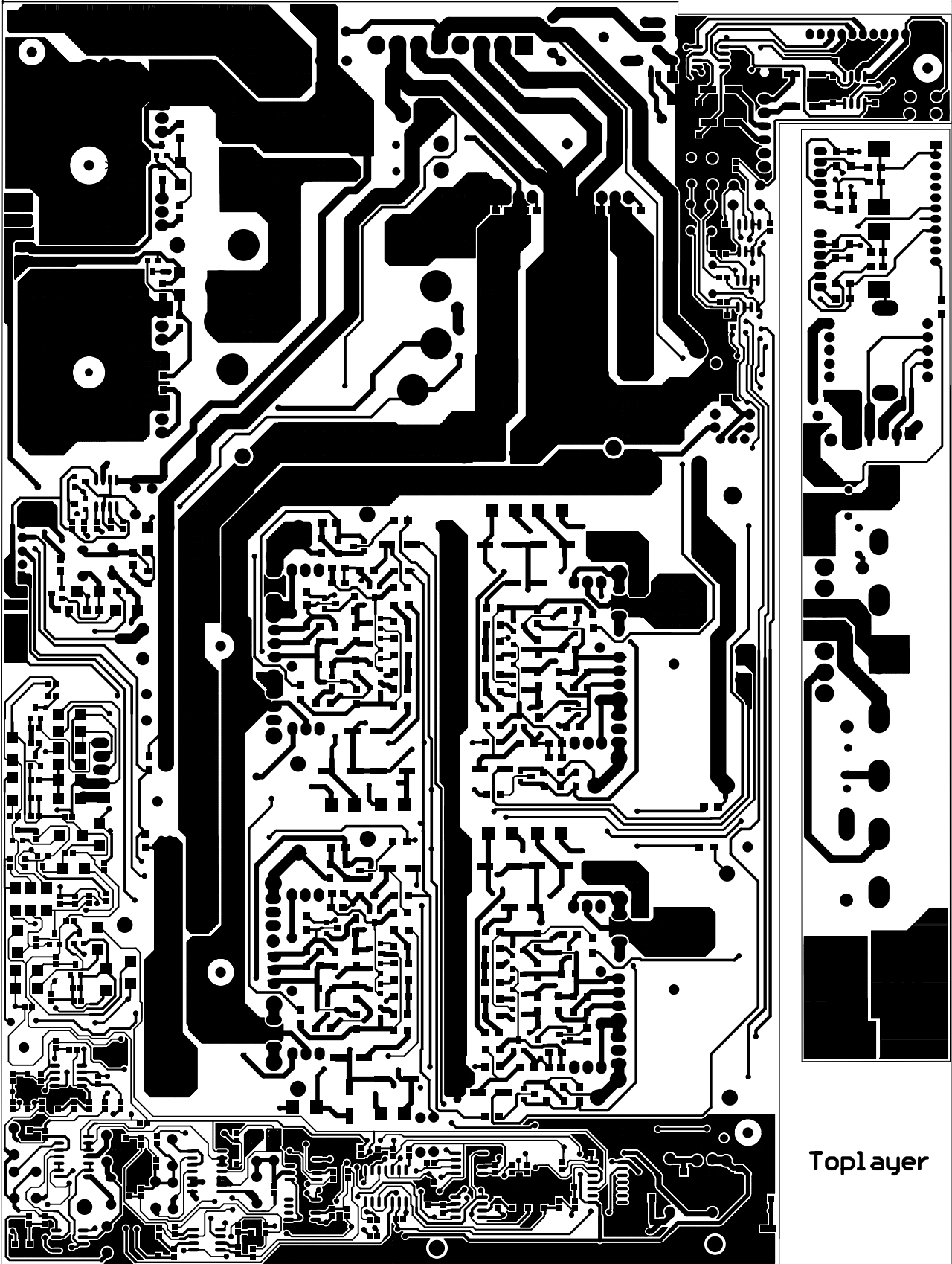
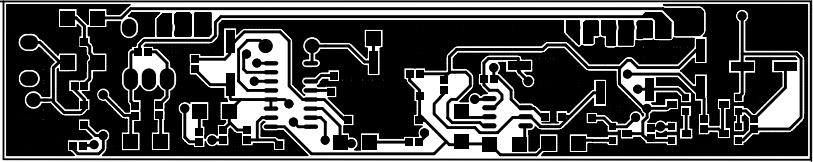


MATERIAL: FR4  
 UL MARK: E190407 YS-3  
 BOARD THICKNESS: 1.6T

Amplifier Expansion Module  
 BassLink 4sc

DRAWN:      ---      DATED:  
                   |      |  
 CHECKED:    ---      DATED:  
                   |      |  
 APPROVED:   ---      DATED:

REVISION RECORD			
REV	DESCRIPTION	APPROVED:	DATE:
1.1			



Toplayer

MATERIAL: FR4  
 UL MARK: E190407 YS-3  
 BOARD THICKNESS: 1.6T

Amplifier Expansion Module  
 BassLink 4sc

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 APPROVED:   :     DATED:

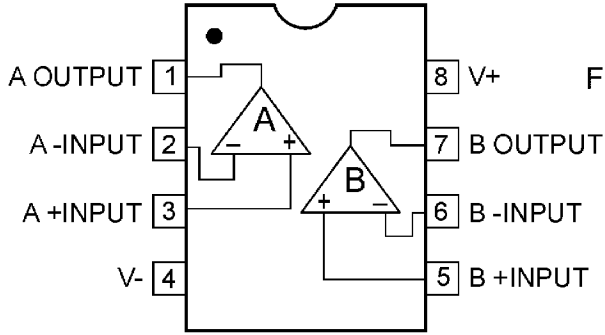


IC2

LM358 Dual Op-Amp

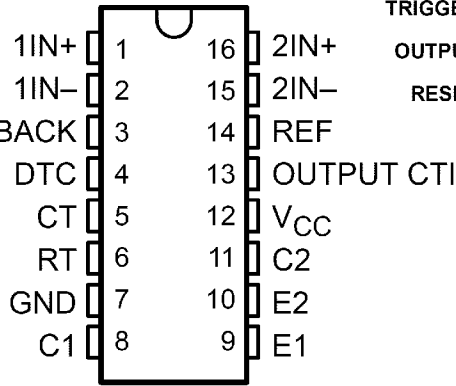
TLO72 Dual Op-Amp

U100,200,300,400,502,504,507-509,511



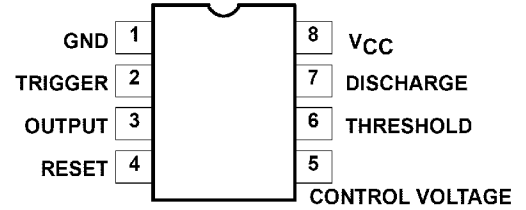
TL494 PWM

IC1

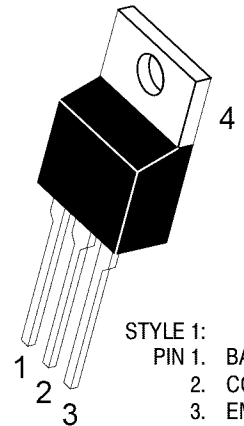


NE555 TIMER

U1

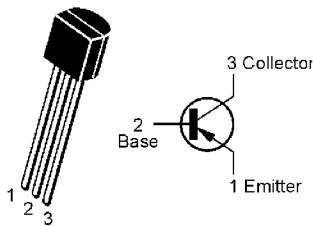


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2N6491

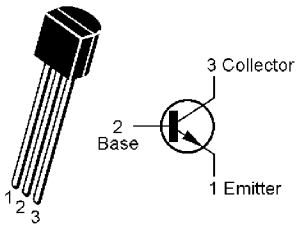


STYLE 1:  
PIN 1. BASE  
2. COLLECTOR  
3. EMITTER  
4. COLLECTOR

2N5401  
2N4403

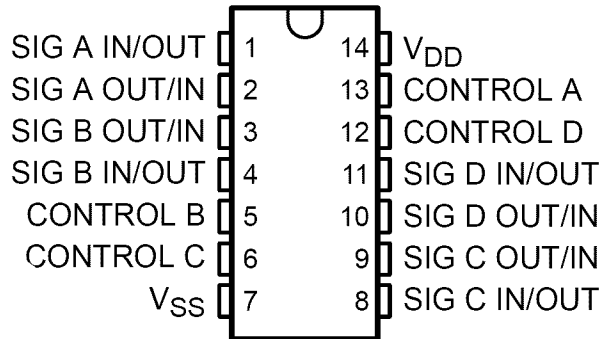


2N4401



CMOS QUAD  
BILATERAL SWITCH

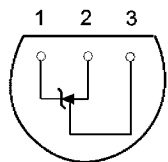
U501,503,506,510



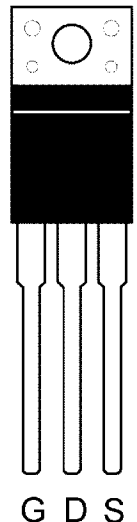
TL431 Q3

TO92  
(Top view)

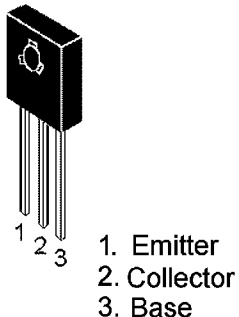
- 1 Cathode
- 2 Anode
- 3 Reference



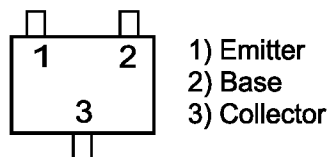
IRFZ46N  
MOSFET



2SB649  
2SD669

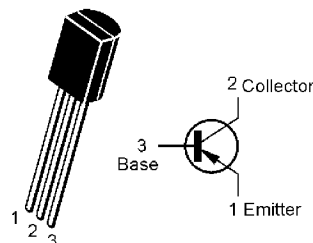


BTA06LT1 SOT23  
BTA56LT1 SOT23  
MMBT4401LT1 SOT23  
MMBT4403LT1 SOT23

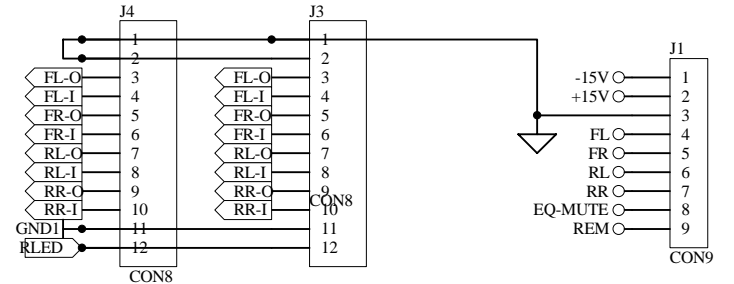
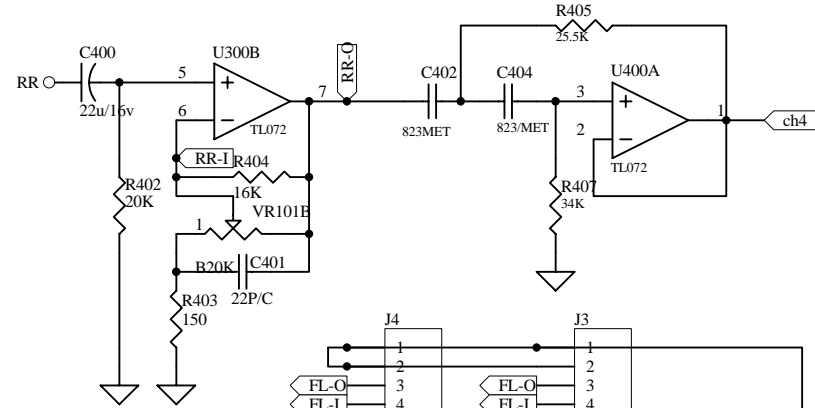
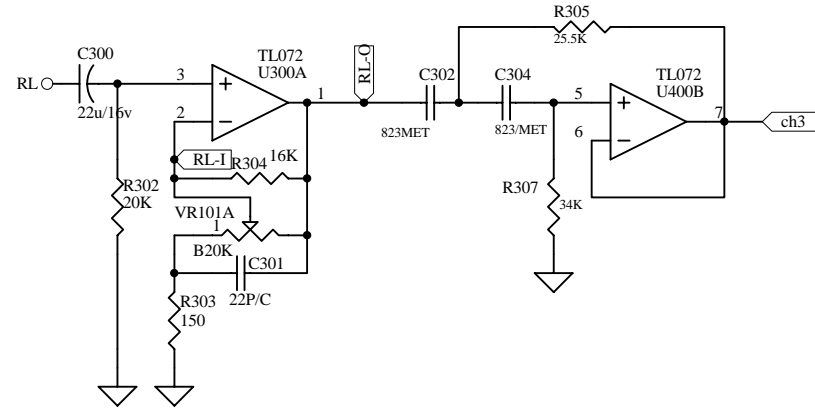
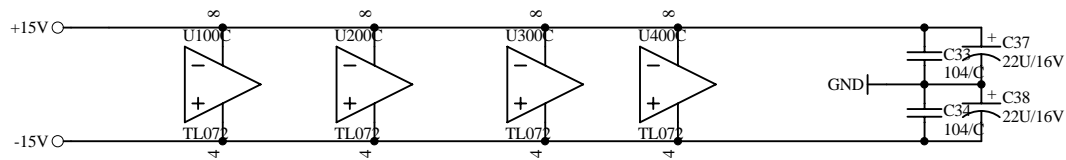
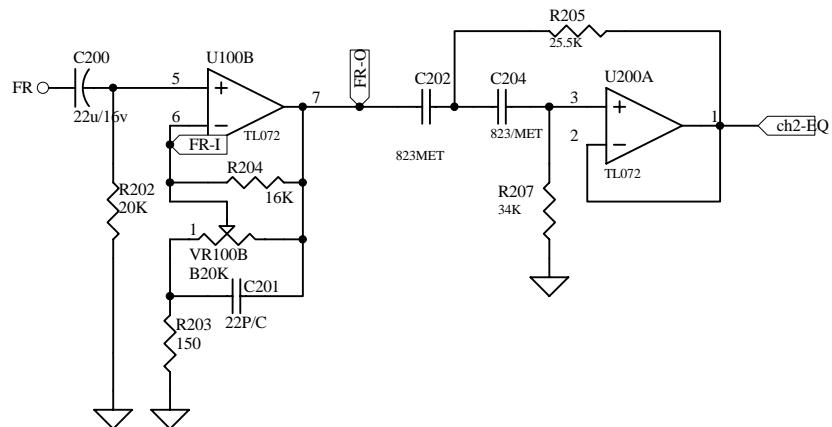
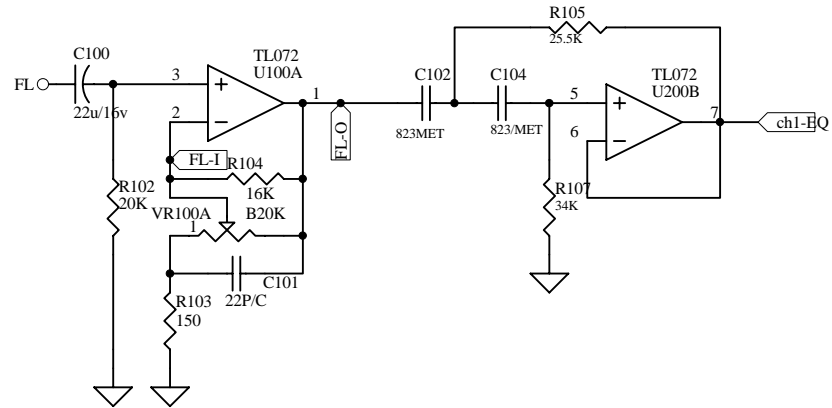


\* PREFIX MAY BE "FMMT"

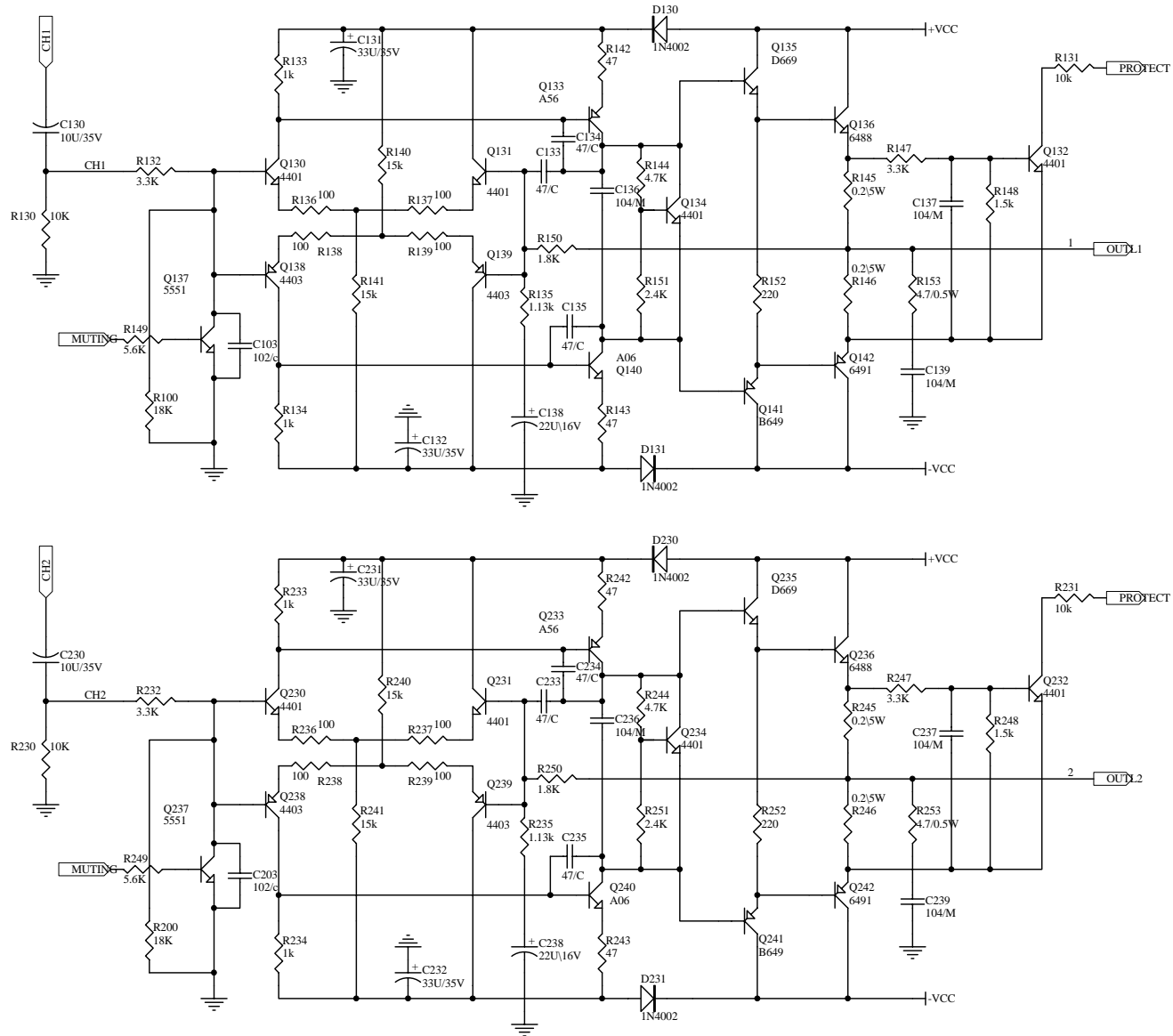
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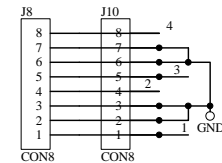
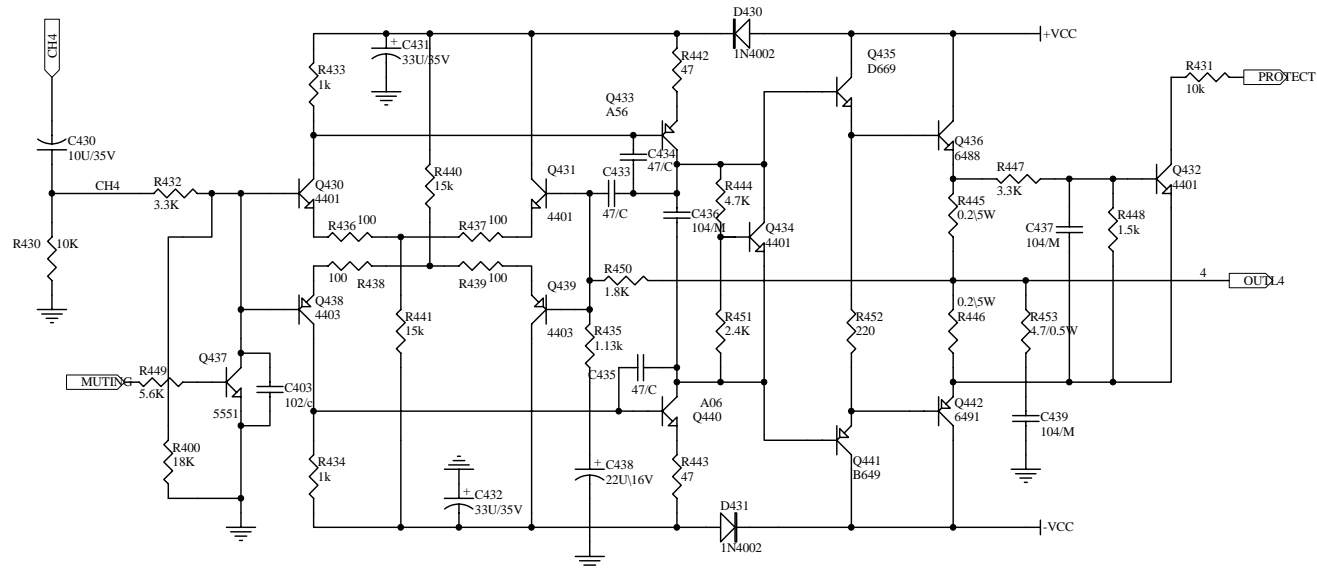
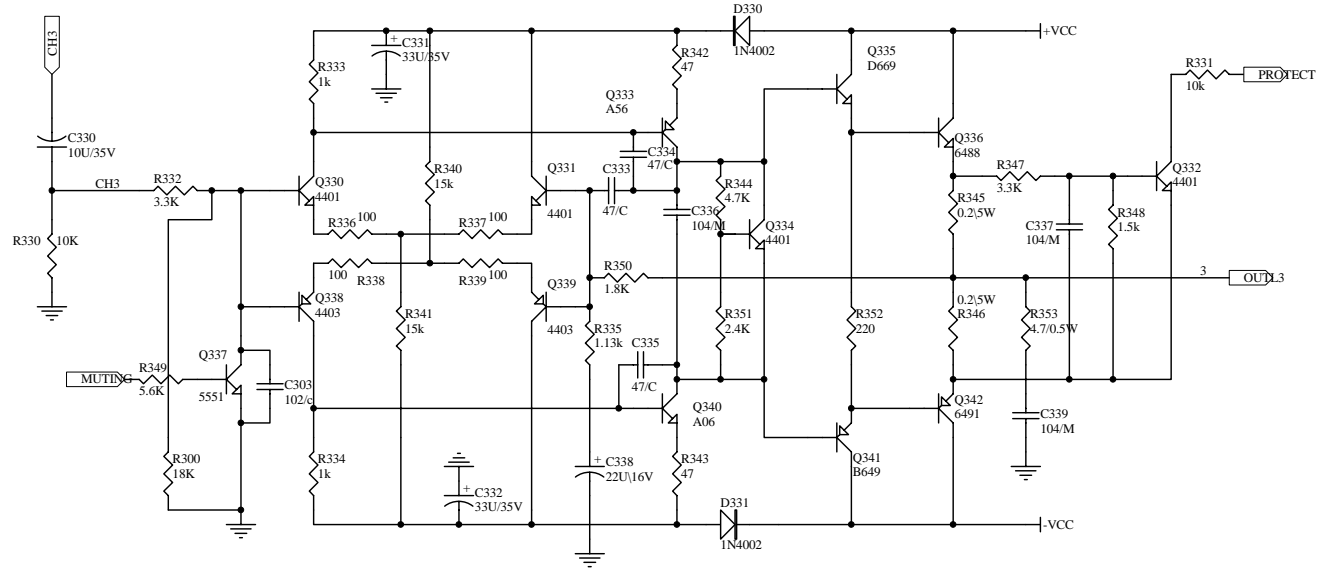
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1.1	R16 R466.8K改为5.1K	刘卫红	2005/11/09



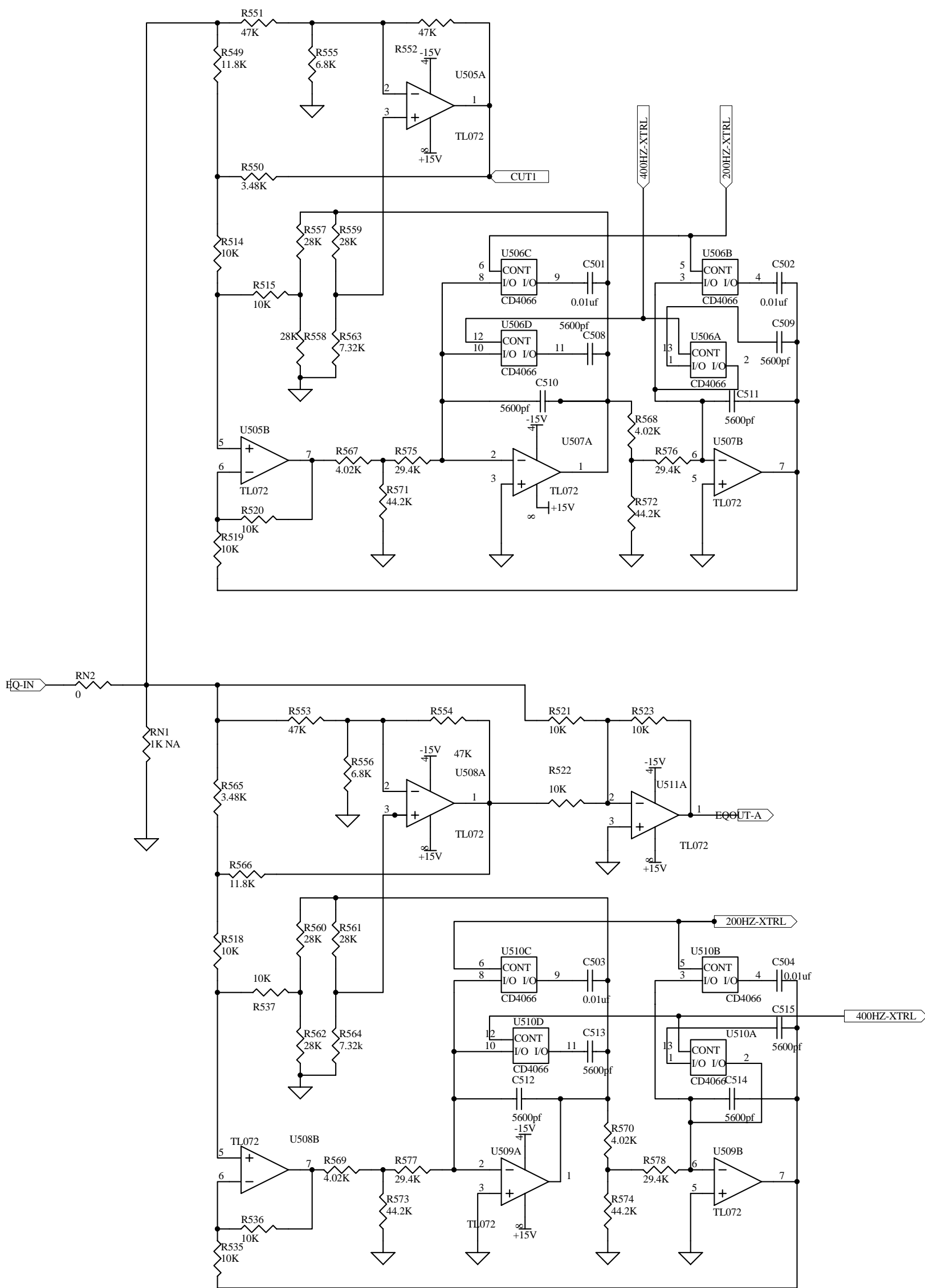
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DWG NO:	BASSLINK 4SC-E-02	VER:	A2	PCB VER:	2.0
			SHEET:	1/7	



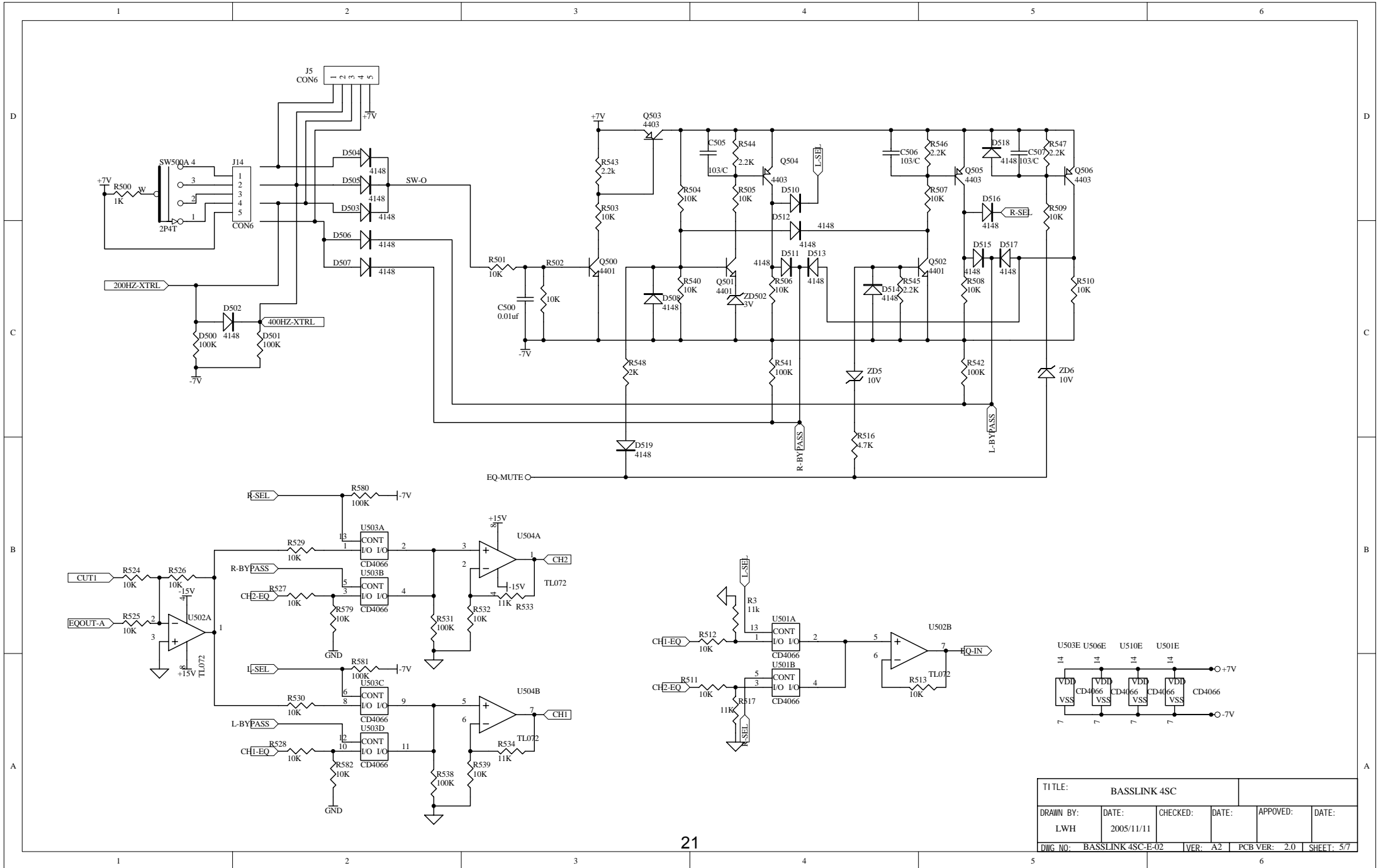
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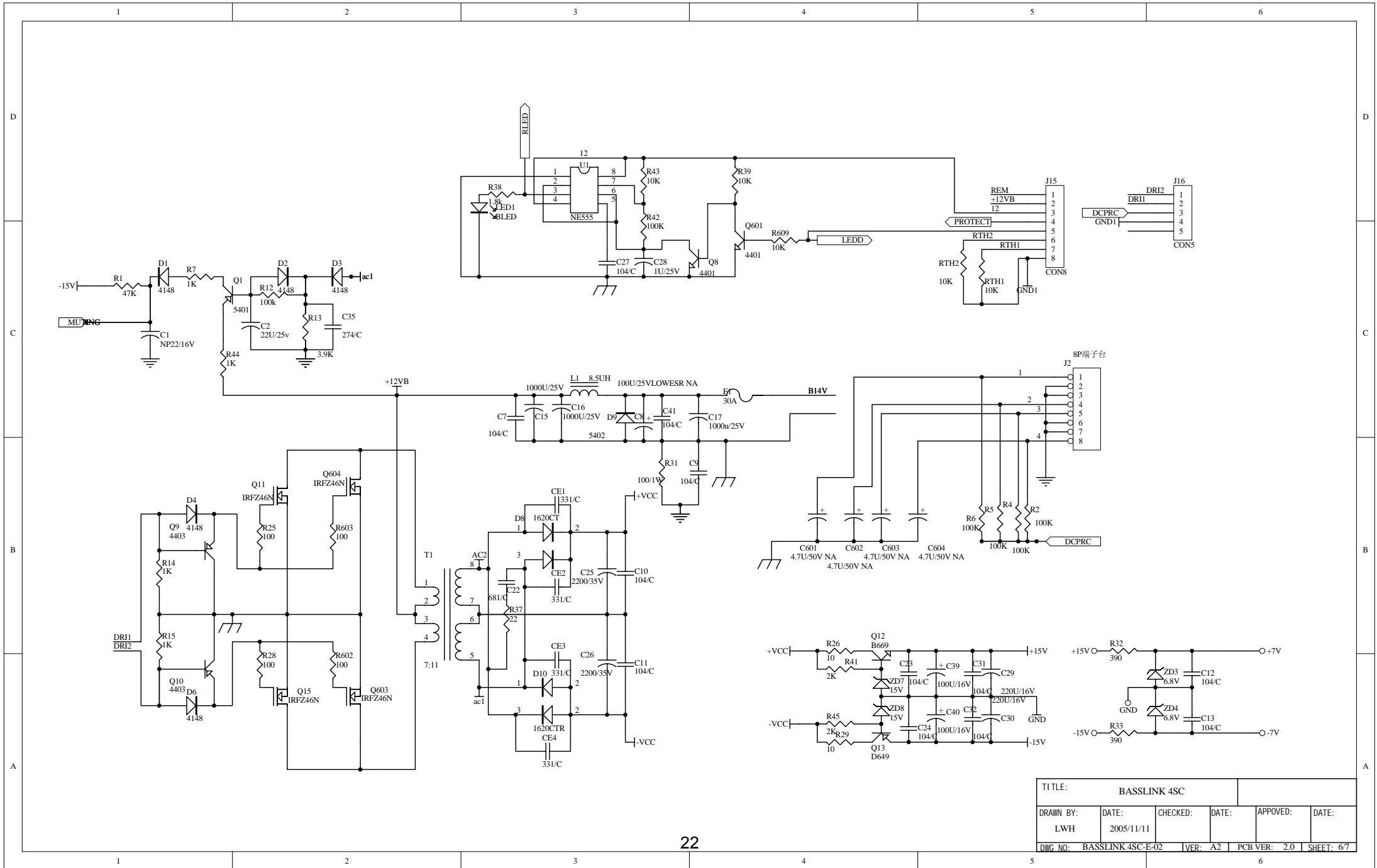
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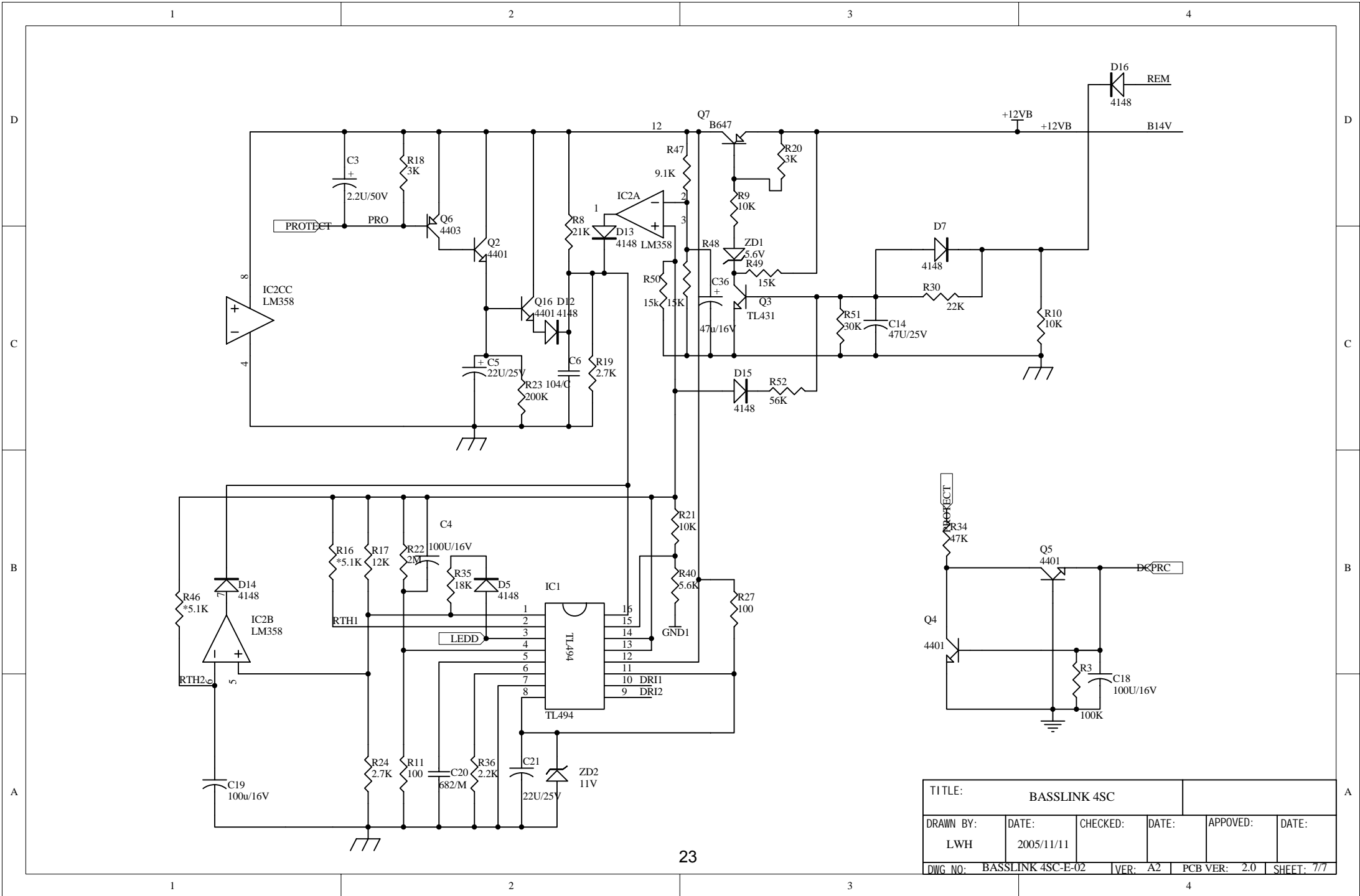
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LWH	2005/11/11				
DWG NO:	BASSLINK 4SC-E-02	VER:	A2	PCB VER:	2.0 SHEET: 4/7



TITLE: BASSLINK 4SC					
DRAWN BY:	DATE:	CHECKED:	DATE:	APPROVED:	DATE:
LWH	2005/11/11				
DWG. NO.:	BASSLINK 4SC-E-02	VER:	A2	PCB VER:	2.0 SHEET: 5/7



TITLE: BASSLINK 4SC					
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LWH	2005/11/11				
DWG. NO.:	BASSLINK 4SC-E-02	VER:	A2	PCB VER:	2.0
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TITLE:		BASSLINK 4SC			
DRAWN BY:	DATE:	CHECKED:	DATE:	APPROVED:	DATE:
LWH	2005/11/11				
DWG NO:	BASSLINK 4SC-E-02	VER:	A2	PCB VER:	2.0
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