

1

2

3

4

A

A

B

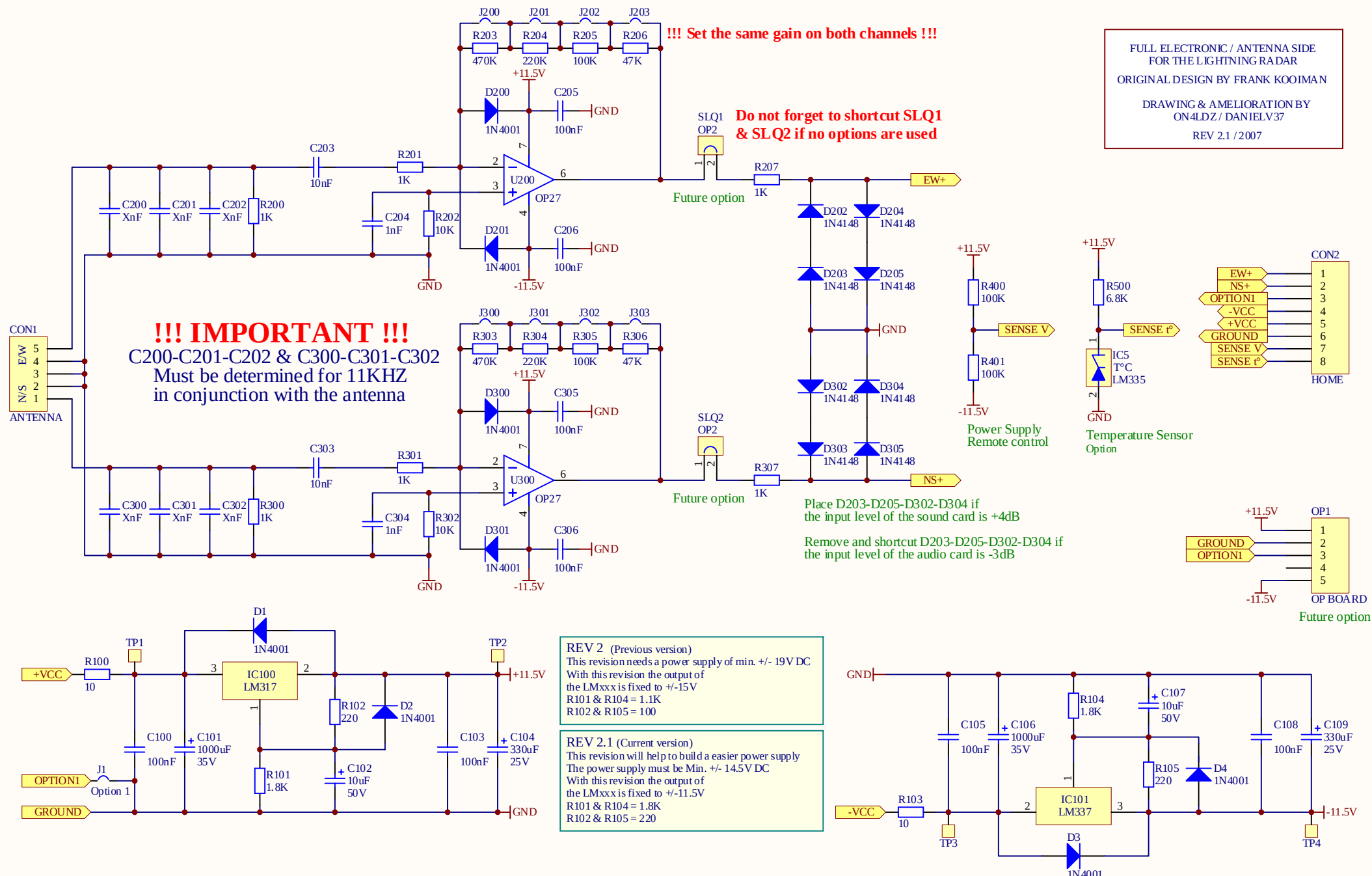
B

C

C

D

D



CONNECTION HELP

FOR THE LIGHTNING RADAR PCB kit

The power supply is made by using a simple AC transformer as proposed by Marco de Chaligny which is welcome for its facility

DRAWING
ON4LDZ / DANIEL V37
REV 2.1 / 2007

AC Transformer
9V or 12V AC OUTPUT
100mA



**DO NOT USE TRANSFORMER
WITH GROUND CONNECTION**

GROUND POWER SUPPLY &
GROUND SIGNAL connected to
GROUND

9V to 12V AC - 100mA

8

1

Use shield cable if lenght > 5m

LINE < 40m

TO IN-LINE INPUT

GROUND
RIGHT
LEFT

1

2

3

4

1

Text

2

3

4

N

E/W

Ground for shield
COPPER TUBE

N/S

1

TIPS:
To check if both channels have the same gain,
shortcut the pin 1 & 5 on CON1.
LR will show on the RADAR MAP a angle
detection only and exactly at 45° and 225°.

Amplifier as close as possible
to the antenna system

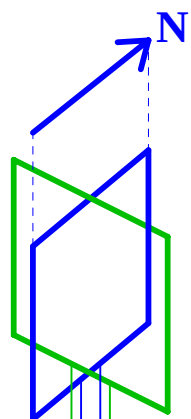
CONNECTION HELP

FOR THE LIGHTNING RADAR PCB kit

The power supply is made by using 2 simple
DC transformers.

DRAWING
ON4LDZ / DANIEL V37
REV 2.1b / 2008

2x DC Transformer
Minimum 13.8V DC OUTPUT 100mA



5
E/W

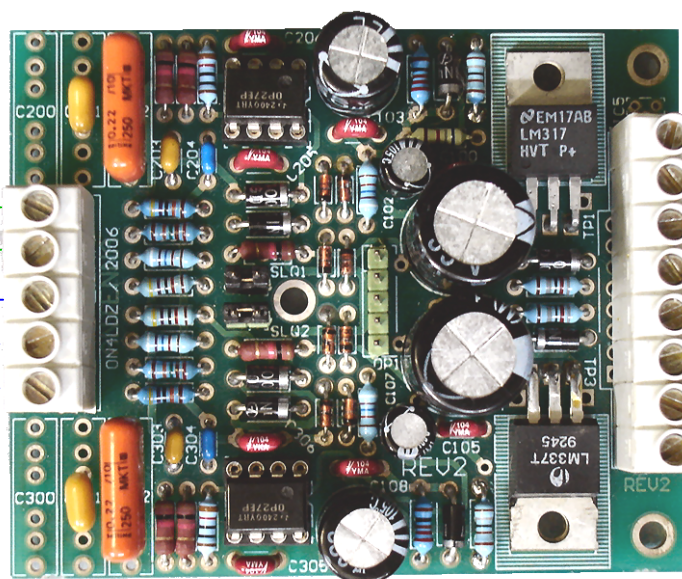
Ground for shield
COPPER TUBE

N/S

1

TIPS:
To check if both channels have the same gain,
shortcut the pin 1 & 5 on CON1.
LR will show on the RADAR MAP a angle
detection only and exactly at 45° and 225°.

Amplifier as close as possible
to the antenna system



8

1

Use shield cable if lenght > 5m

LINE < 40m

GROUND POWER SUPPLY &
GROUND SIGNAL connected to
GROUND

+DC

GND

+DC

GND

**DO NOT USE TRANSFORMER
WITH GROUND CONNECTION**

TO IN-LINE INPUT

GROUND

RIGHT

LEFT

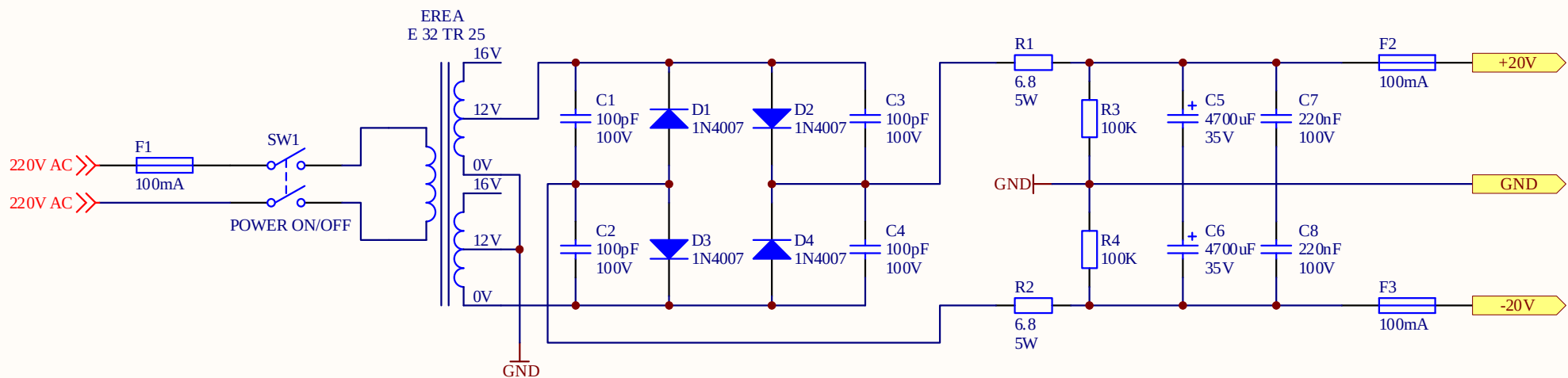
BILL (REV 2.1)

Description	Designator	Value	Sub-Value
Capacitor	C100	100nF	100V
Polarized Capacitor (Radial)	C101	1000uF	35V
Polarized Capacitor (Radial)	C102	10uF	50V
Capacitor	C103	100nF	100V
Polarized Capacitor (Radial)	C104	330uF	25V
Capacitor	C105	100nF	100V
Polarized Capacitor (Radial)	C106	1000uF	35V
Polarized Capacitor (Radial)	C107	10uF	50V
Capacitor	C108	100nF	100V
Polarized Capacitor (Radial)	C109	330uF	25V
Capacitor	C200	XnF	100V
Capacitor	C201	XnF	100V
Capacitor	C202	XnF	100V
Capacitor	C203	10nF	100V
Capacitor	C204	1nF	100V
Capacitor	C205	100nF	100V
Capacitor	C206	100nF	100V
Capacitor	C300	XnF	100V
Capacitor	C301	XnF	100V
Capacitor	C302	XnF	100V
Capacitor	C303	10nF	100V
Capacitor	C304	1nF	100V
Capacitor	C305	100nF	100V
Capacitor	C306	100nF	100V
Diode	D1	1N4001	
Diode	D2	1N4001	
Diode	D3	1N4001	
Diode	D4	1N4001	
Diode	D200	1N4001	
Diode	D201	1N4001	
Diode	D202	1N4148	
Diode	D203	1N4148	
Diode	D204	1N4148	
Diode	D205	1N4148	
Diode	D300	1N4001	

Description	Designator	Value	Sub-Value
Diode	D301	1N4001	
Diode	D302	1N4148	
Diode	D303	1N4148	
Diode	D304	1N4148	
Diode	D305	1N4148	
Resistor	R100	10	
Resistor	R101	1.8K	
Resistor	R102	220	
Resistor	R103	10	
Resistor	R104	1.8K	
Resistor	R105	220	
Resistor	R200	1K	
Resistor	R201	1K	
Resistor	R202	10K	
Resistor	R203	470K	
Resistor	R204	220K	
Resistor	R205	100K	
Resistor	R206	47K	
Resistor	R207	1K	
Resistor	R300	1K	
Resistor	R301	1K	
Resistor	R302	10K	
Resistor	R303	470K	
Resistor	R304	220K	
Resistor	R305	100K	
Resistor	R306	47K	
Resistor	R307	1K	
Resistor	R400	100K	
Resistor	R401	100K	
Resistor	R500	6.8K	
IC	IC5	LM335	
Ultra-Low Noise, Precision Opera	U200	OP27	
Ultra-Low Noise, Precision Opera	U300	OP27	
Low-Current 1.2V to 37V Voltage	IC100	LM317	
Low-Current 1.2V to 37V Voltage	IC101	LM337	

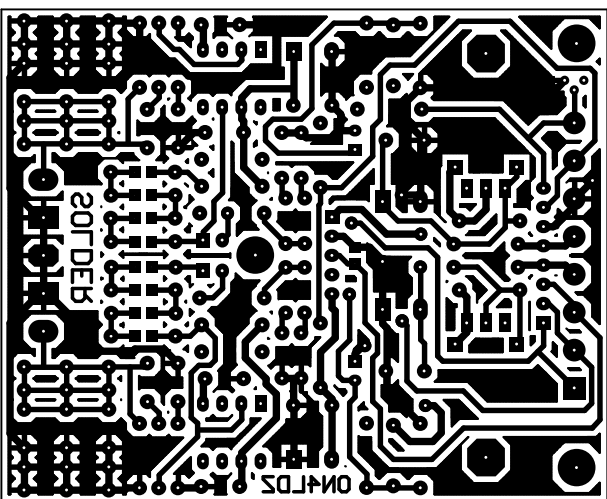
BILL REV 2.1

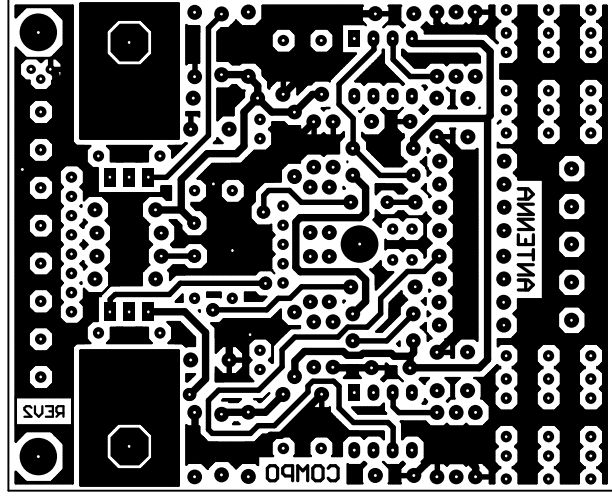
Quantity	Description	Value	Sub-Value	Extra
2	Resistor	10	1/8W	
2	Resistor	220	1/8W	
6	Resistor	1K	1/8W	
2	Resistor	1.8K	1/8W	
1	Resistor	6.8K	1/8W	
2	Resistor	10K	1/8W	
2	Resistor	47K	1/8W	
4	Resistor	100K	1/8W	
2	Resistor	220K	1/8W	
2	Resistor	470K	1/8W	
2	Ceramic capacitor	1nF	100V	X7R
2	Ceramic capacitor	10nF	100V	X7R
8	Ceramic capacitor	100nF	100V	X7R
2	Ceramic capacitor *** Cx Tune antenna ***	220nF	100V	X7R
2	Ceramic capacitor *** Cx Tune antenna ***	1uF	100V	X7R
2	Polarized Capacitor (Radial)	10uF	50V	105°
2	Polarized Capacitor (Radial)	330uF	25V	105°
2	Polarized Capacitor (Radial)	1000uF	35V	105°
8	Diode	1N4001		
8	Diode	1N4148		
2	Ultra-Low Noise, Precision Operational Amplifier	OP27		DIP8
1	Low-Current 1.2V to 37V Voltage Regulator	LM317		TO-220
1	Low-Current 1.2V to 37V Voltage Regulator	LM337		TO-220
2	Support Tulip	DIP8		
1	Jumper header	5 pins		
2	Jumper header	2 pins		
2	Jumper			
1	PCB connector	5 positions		
1	PCB connector	8 positions		

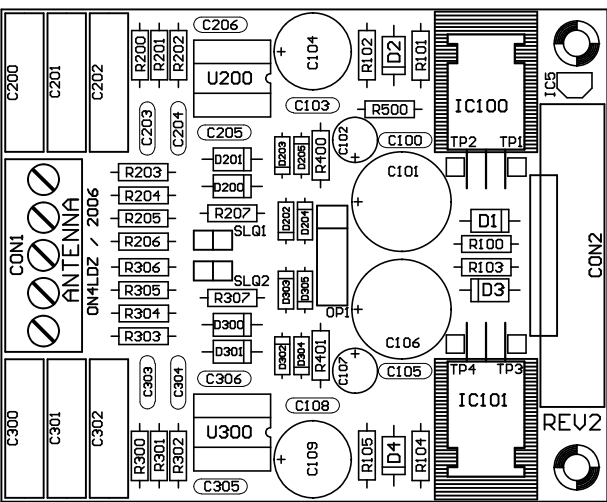


PROPOSED POWER SUPPLY
FOR THE LIGHTNING RADAR

DRAWN BY
ON4LDZ / DANIELV37
REV 1 / 2006







ON4LDZ / 2006

☐	J200
☐	J201
☐	J202
☐	J203
☐	J303
☐	J302
☐	J301
☐	J300

☐ J1

REV2

