



Exhibit 4: Schematics

External Radio Frequency Power Amplifier ACOM 1011

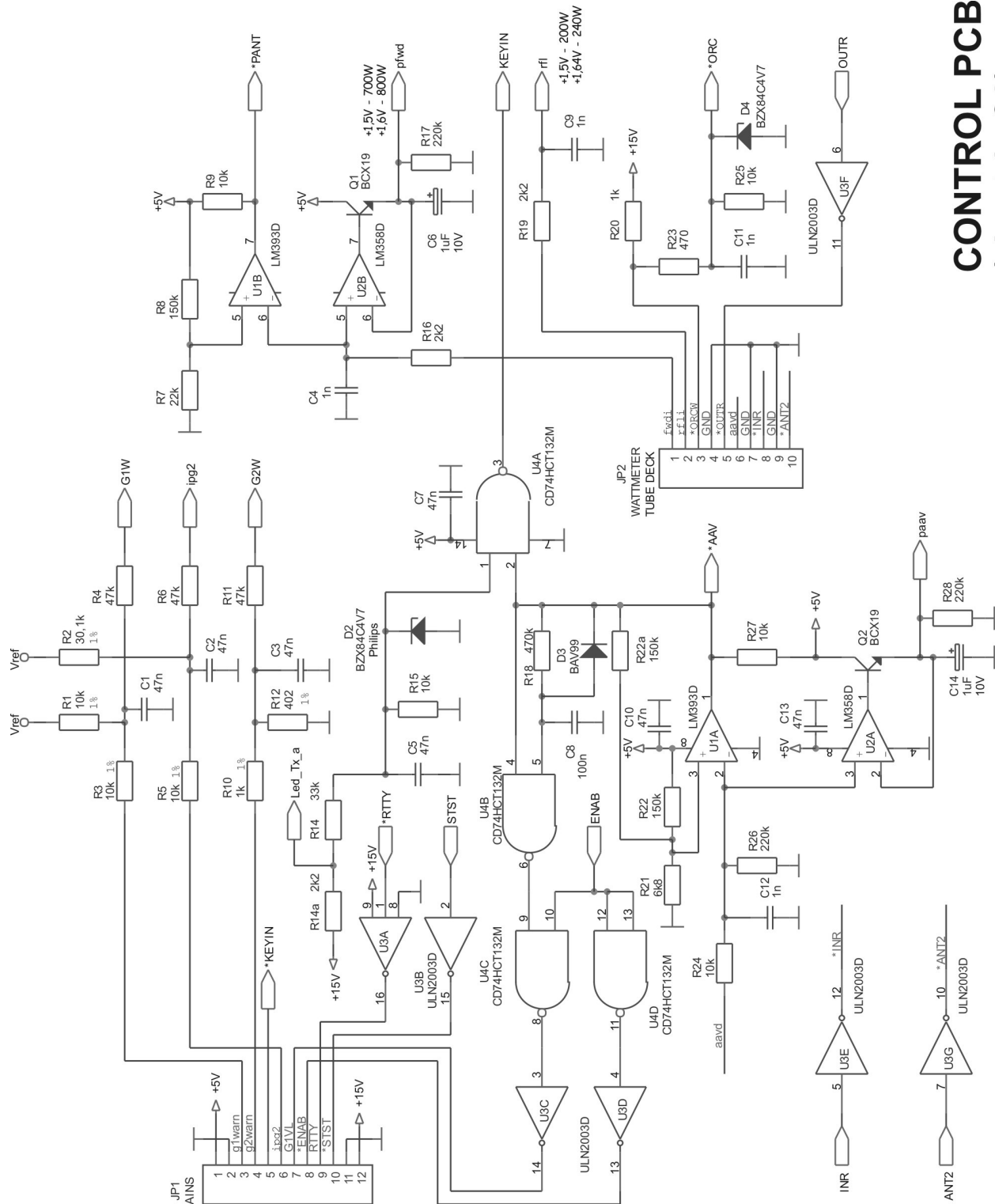
Model 1011

Array Solutions

2611 North Beltline Rd
Suite 109
Sunnyvale, Texas 75182
USA

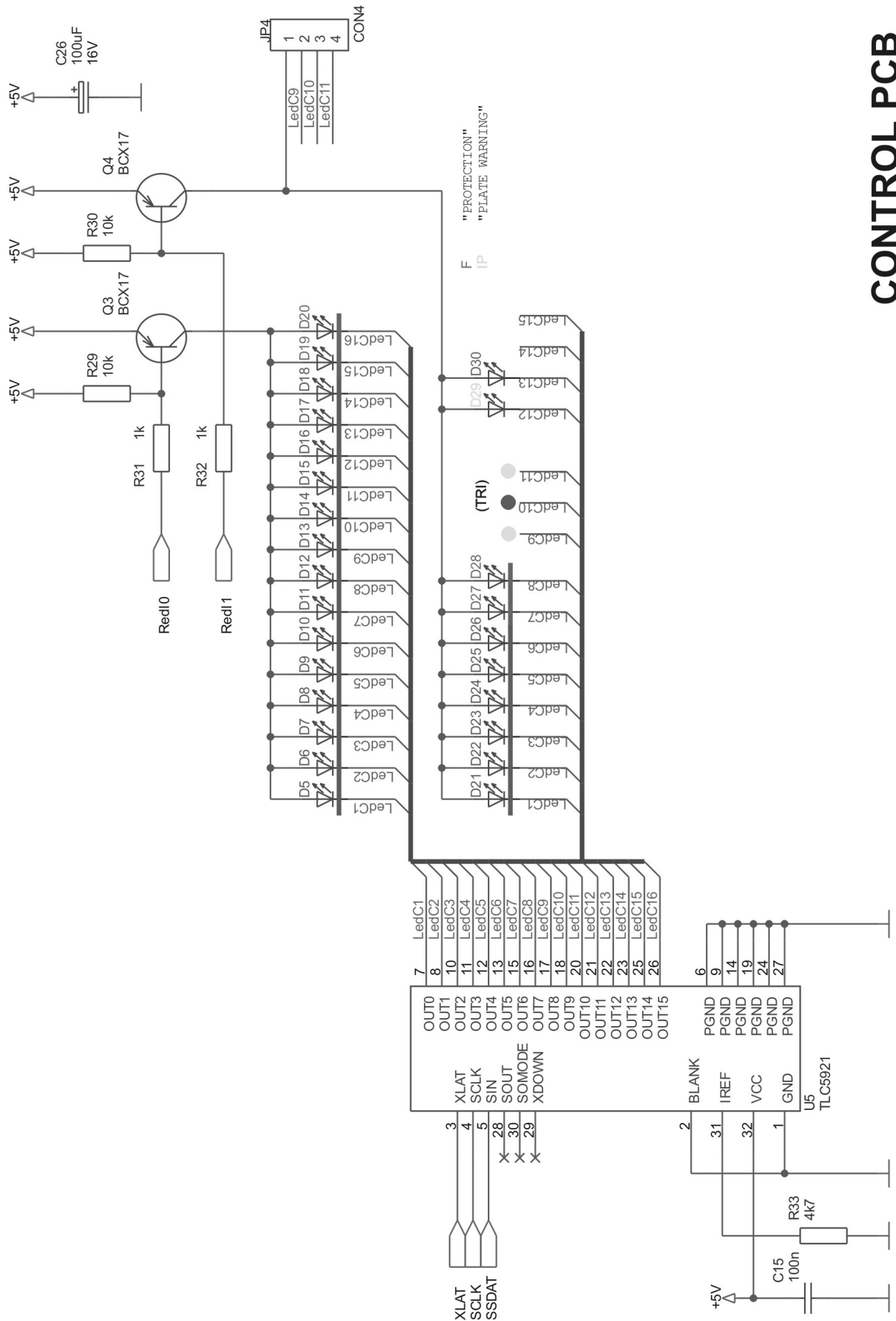
Tel: 214 954 7140
fax: 214 954 7142

E-mail: info@arraysolutions.com



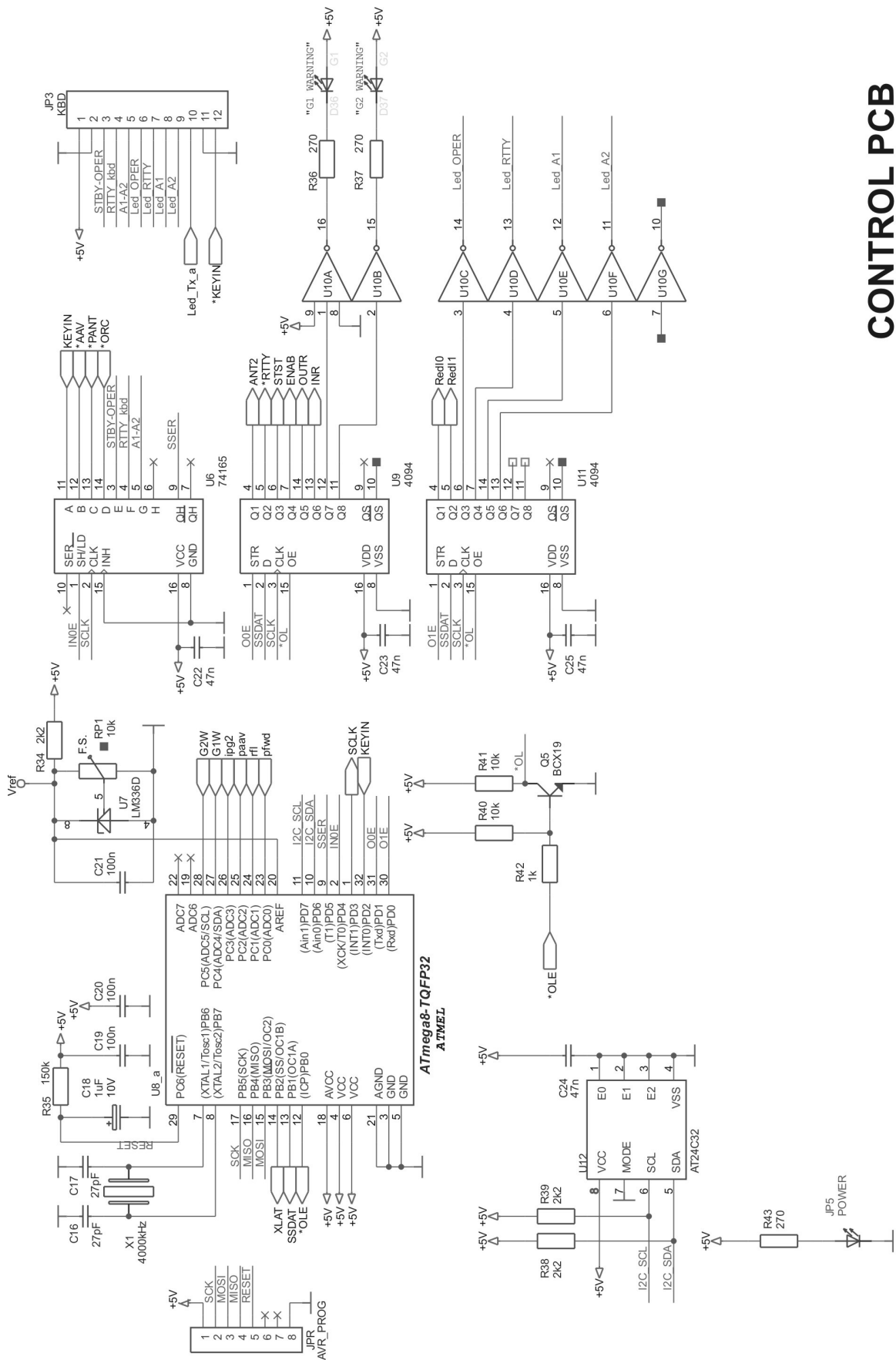
CONTROL PCB

(sheet 1 of 3)

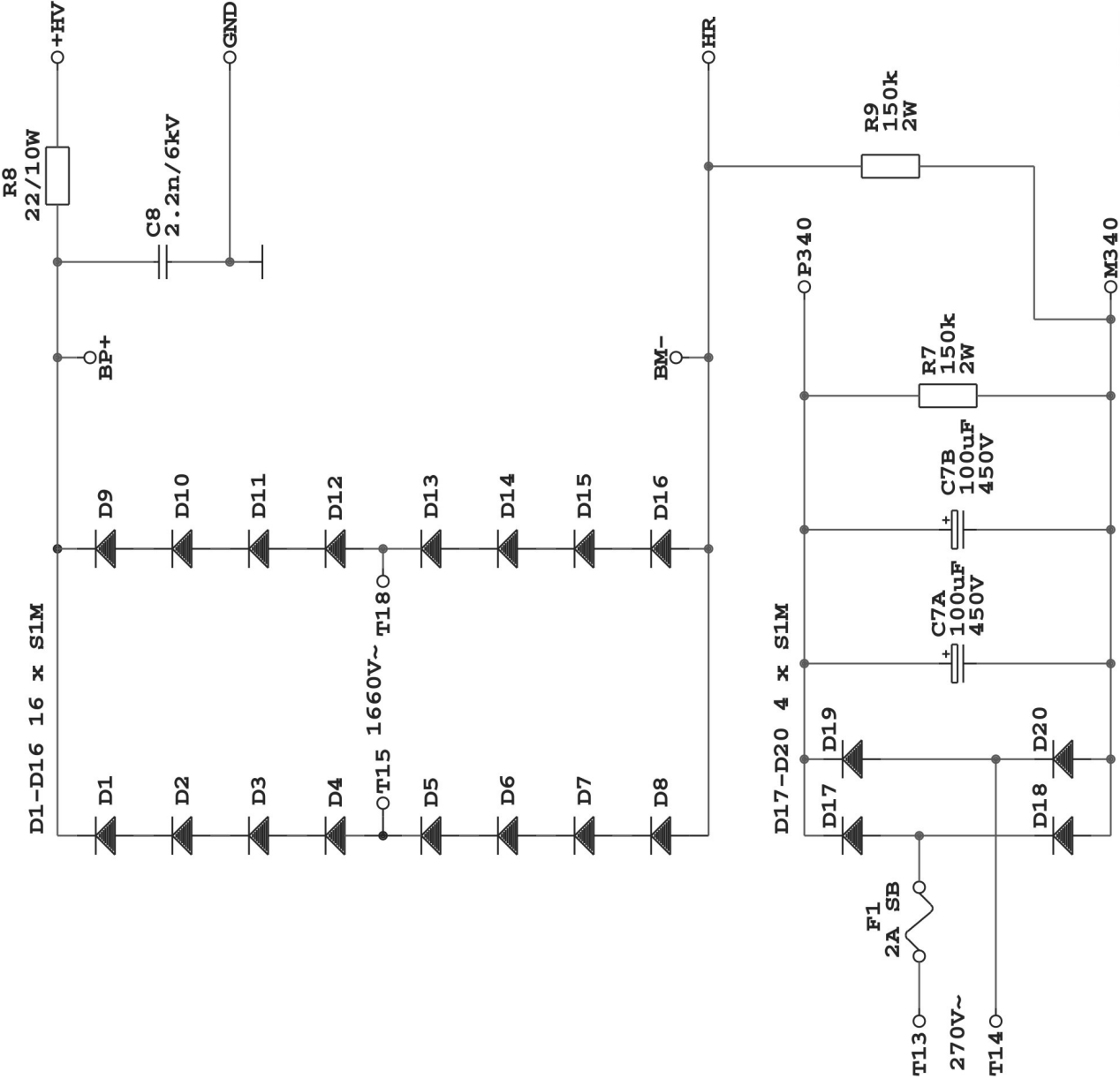


CONTROL PCB

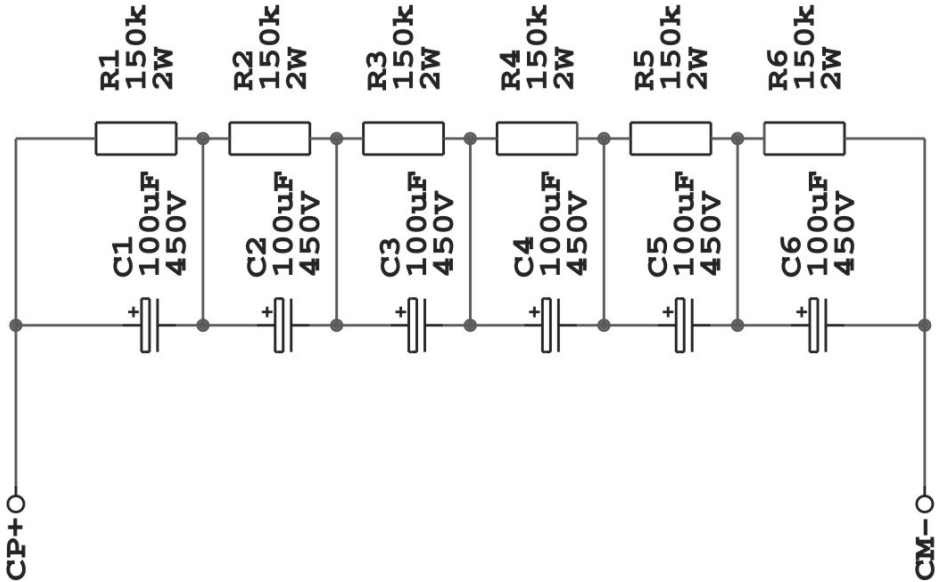
(sheet 2 of 3)



CONTROL PCB
(sheet 3 of 3)

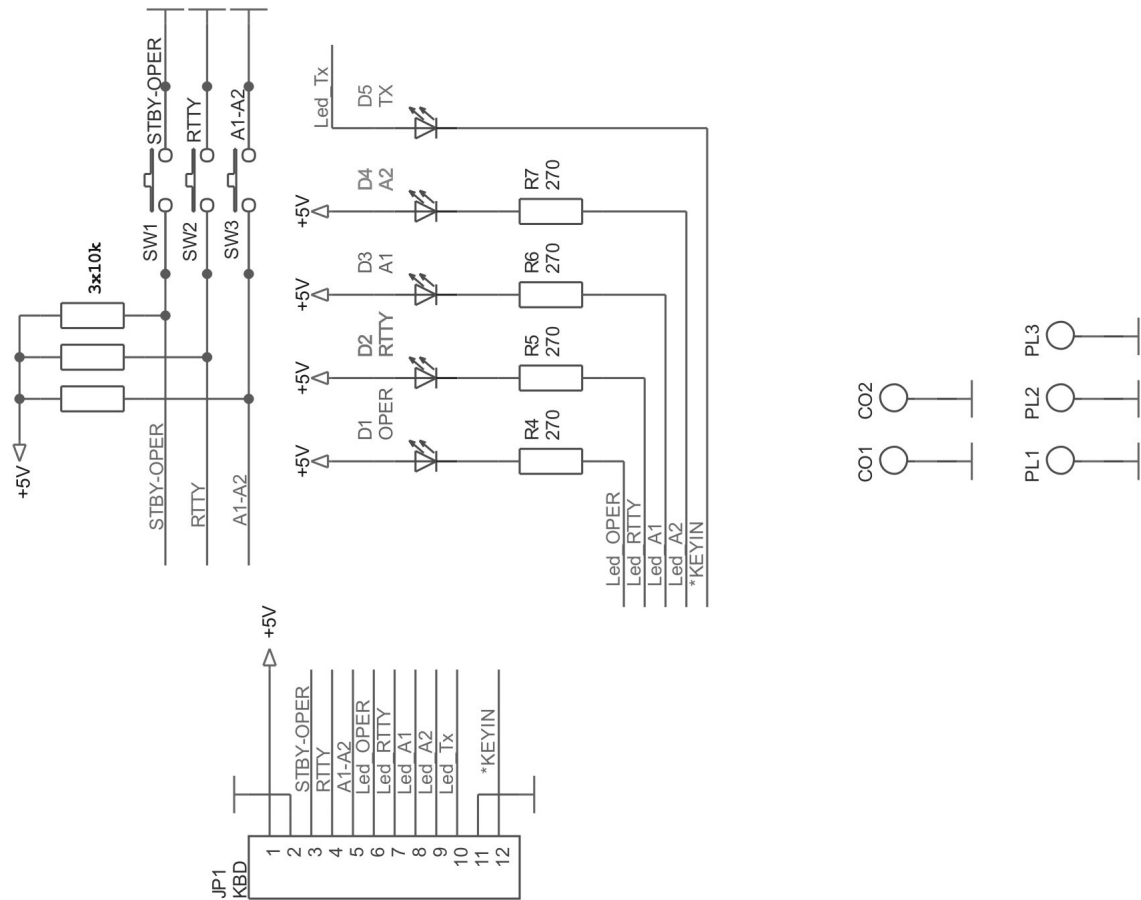


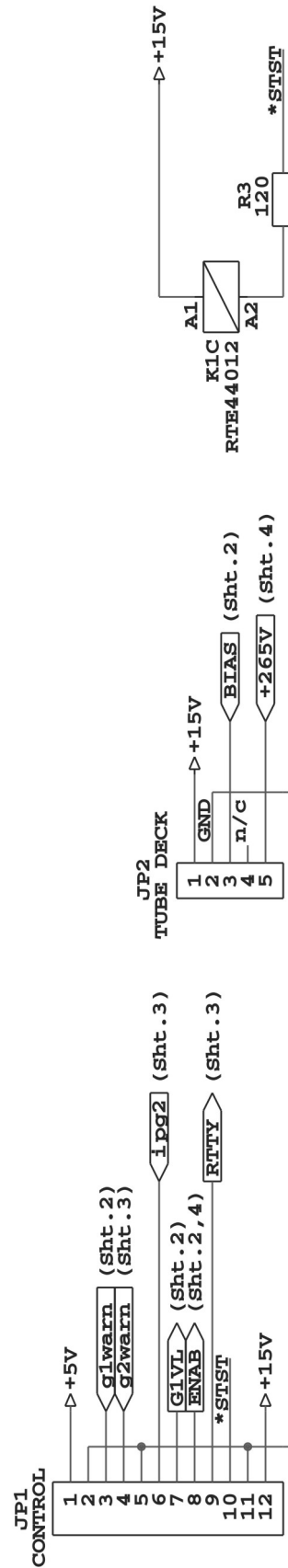
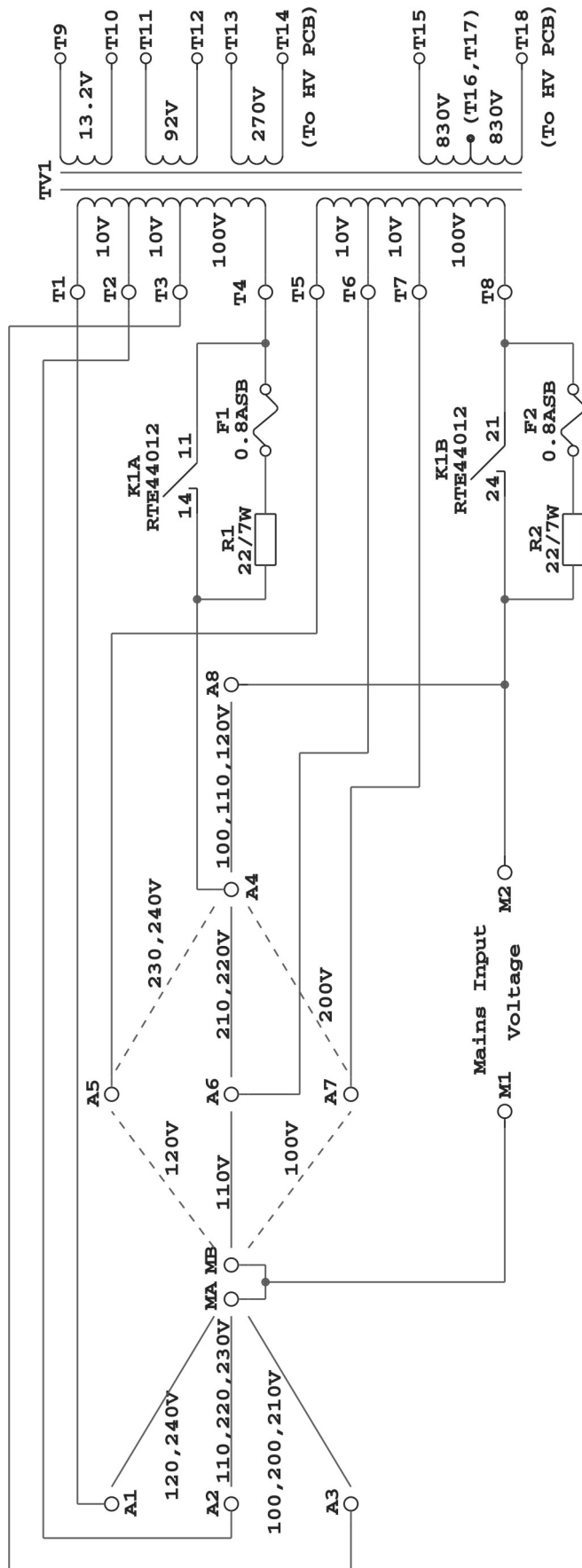
HV RECTIFIER PCB



HV FILTER PCB

KEYBOARD PCB



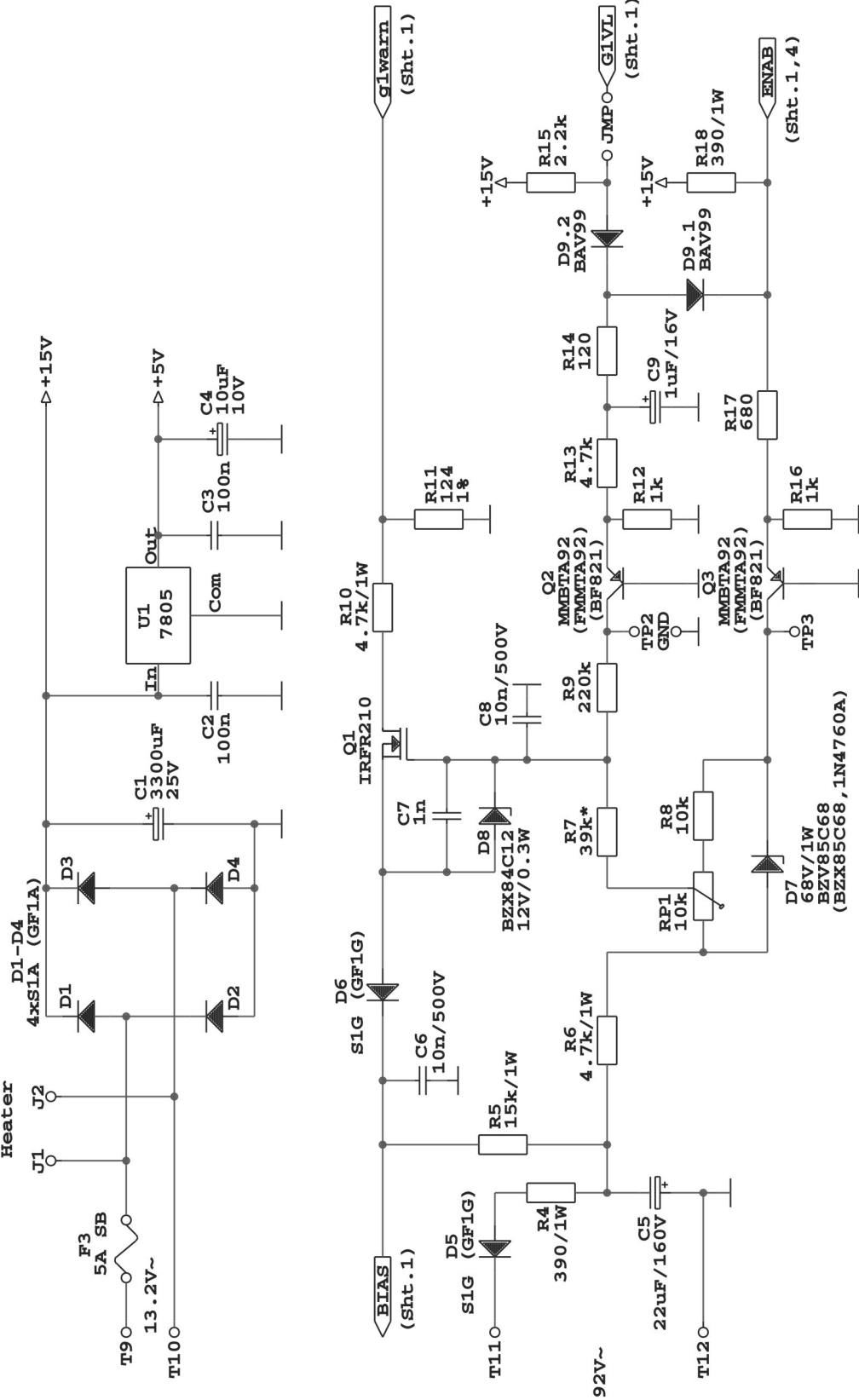


<input checked="" type="checkbox"/> H1	0	0	0
H1	12	11	14
H2	nc	com	nc
0	22	21	24
	0	0	0

RTE44012 BOTTOM VIEW

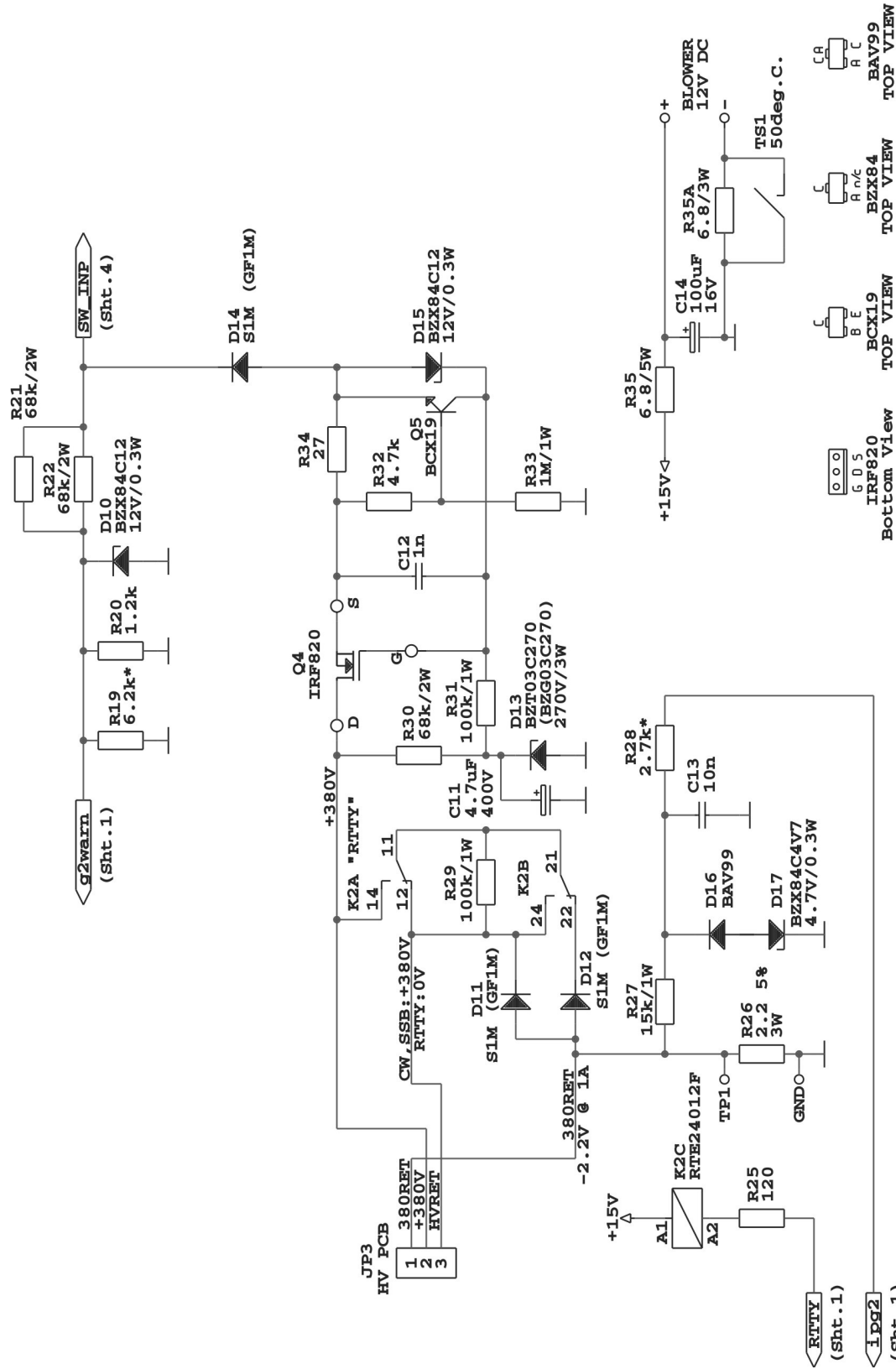
MAINS PCB

(sheet 1 of 4)



- 7805
Bottom View
- IRFR210
TOP VIEW
(TO252 (D-PAK)
(SOT428)
- FMMTA92
TOP VIEW
SOT23
- BAV99
TOP VIEW
SOT23
- BZX84
TOP VIEW
SOT23

MAINS PCB
(sheet 2 of 4)



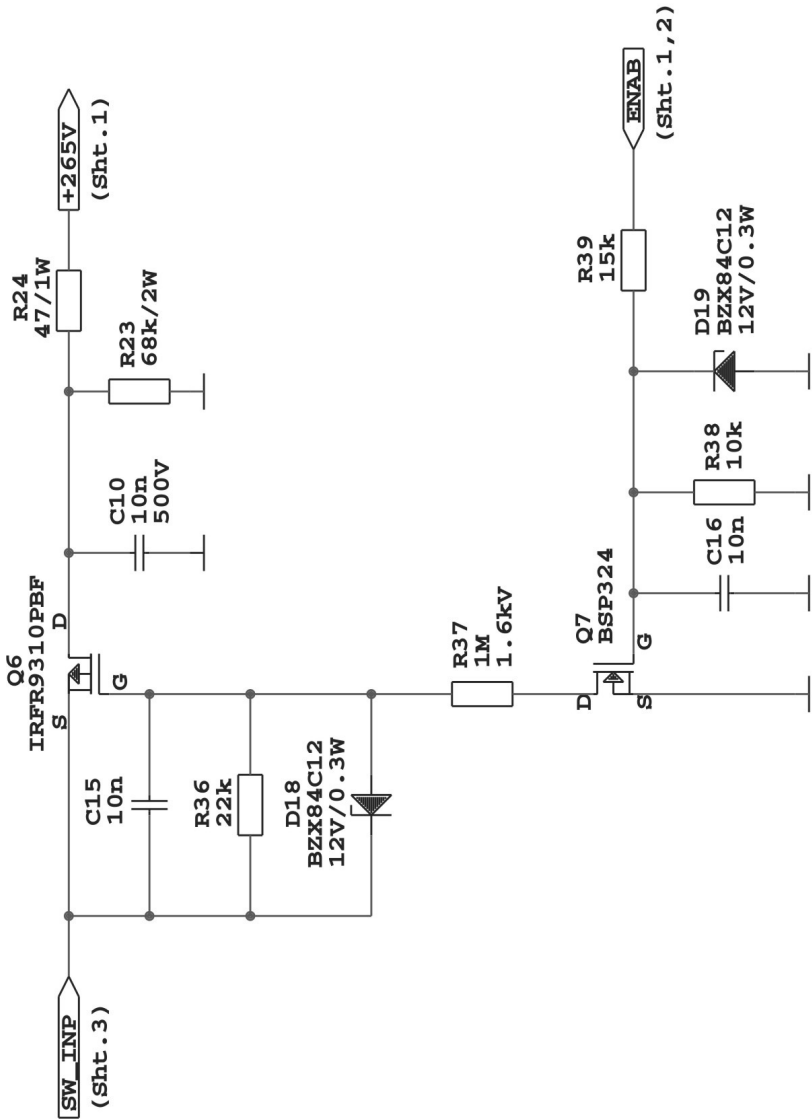
Finder: 41.52.9.012.0011
Schrack (Potter&Brumfield)
RTE24012 (F)

BOTTOM VIEW				
8	0	0	0	0
A1	12	11	14	no
A2	22	21	24	0

Title

Bottom View
IRF820
BCX19
BZX84
BAV99
TOP VIEW
TOP VIEW
TOP VIEW

MAINS PCB (sheet 3 of 4)



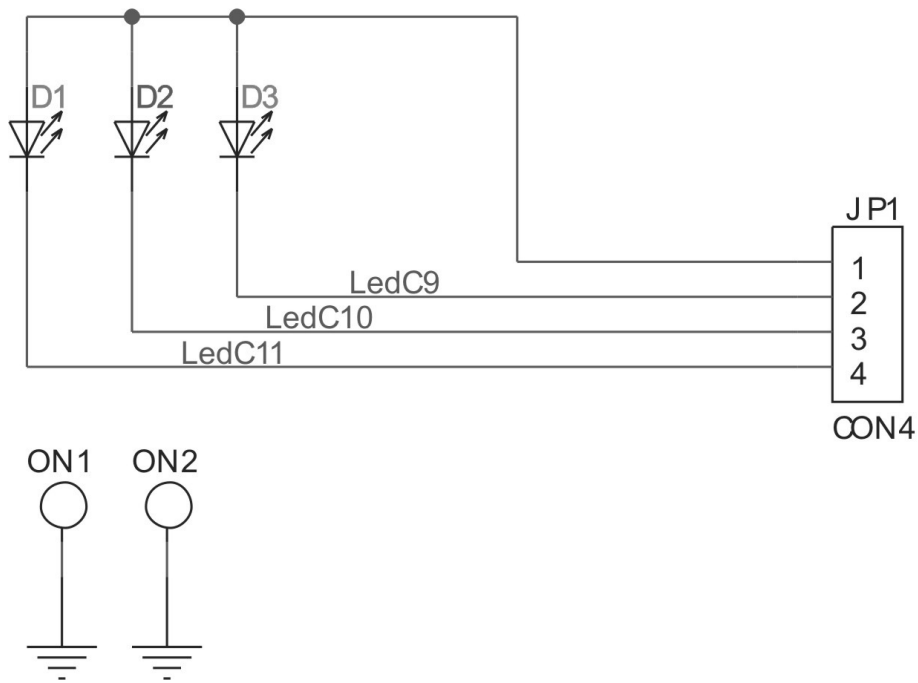
IRFR9310
TOP VIEW
TO252

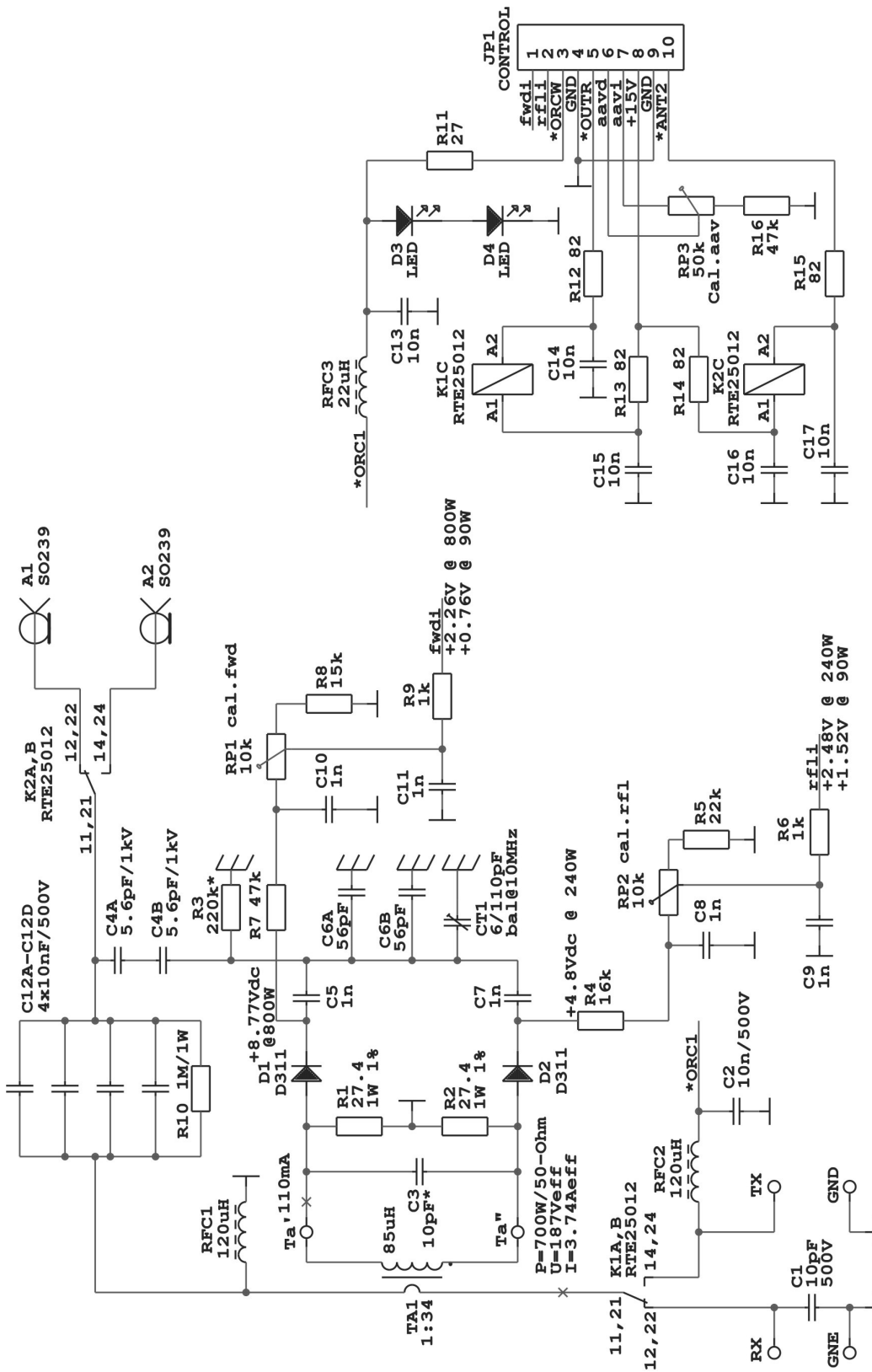
BSP324
TOP VIEW
SOT223

BZX84
TOP VIEW
SOT23

MAINS PCB
(sheet 4 of 4)

TRI LED PCB





Finder: 41.52.9.012.5011
Schrack (Potter&Brumfield):
RTE25012 (F)

Q		0	0	0
A1		12	11	14
		nc	com	no
A2		22	21	24
0		0	0	0

RTE25012 BOTTOM VIEW

WATTMETER PCB

Cable Harness Connections:

CONTROL JP1	Signal name	To:
1	+5V	MAINS JP1:1
2	GND	MAINS JP1:2
3	g1warn	MAINS JP1:3
4	g2warn	MAINS JP1:4
5	*KEYIN	Rear panel - KEYIN
6	ipg2	MAINS JP1:6
7	G1VL	MAINS JP1:7
8	ENAB	MAINS JP1:8
9	RTTY	MAINS JP1:9
10	*STST	MAINS JP1:10
11	GND	Rear panel - KEYIN
12	+15V	MAINS JP1:12
CONTROL JP2	Signal name	To:
1	fwdi	WATTMETER JP1:1
2	rflr	WATTMETER JP1:2
3	*ORCW	WATTMETER JP1:3
4	GND	WATTMETER JP1:4
5	*OUTR	WATTMETER JP1:5
6	aavd	WATTMETER JP1:6
7	GND	INPUT JP1:6
8	*INR	INPUT JP1:2
9	GND	-
10	*ANT2	WATTMETER JP1:10
MAINS JP1	Signal name	To:
1	+5V	CONTROL JP1:1
2	GND	CONTROL JP1:2
3	g1warn	CONTROL JP1:3
4	g2warn	CONTROL JP1:4
5	GND	-
6	ipg2	CONTROL JP1:6
7	G1VL	CONTROL JP1:7
8	ENAB	CONTROL JP1:8
9	RTTY	CONTROL JP1:9
10	*STST	CONTROL JP1:10
11	GND	-
12	+15V	CONTROL JP1:12
MAINS JP2	Signal name	To:
1	+15V	INPUT JP1:5
2	GND	INPUT JP1:3
3	BIAS	INPUT JP1:8
4	n/c	-
5	+265V	INPUT JP1:10
INPUT JP1	Signal name	To:
1	aavi	WATTMETER JP1:7
2	*INR	(CONTROL JP2:8)

3	GND	(MAINS JP2:2)
Cable Harness Connections (continued):		
4	+15V	WATTMETER JP1:8
5	+15V	(MAINS JP2:1)
6	GND	(CONTROL JP2:7)
7	GND	WATTMETER JP1:9
8	BIAS	(MAINS JP2:3)
9	n/c	-
10	+265V	(MAINS JP2:5)
WATTM. JP1	Signal name	To:
1	fwdi	(CONTROL JP2:1)
2	rfli	(CONTROL JP2:2)
3	*ORCW	(CONTROL JP2:3)
4	GND	(CONTROL JP2:4)
5	*OUTR	(CONTROL JP2:5)
6	aavd	(CONTROL JP2:6)
7	aavi	(INPUT JP1:1)
8	+15V	(INPUT JP1:4)
9	GND	(INPUT JP1:7)
10	*ANT2	(CONTROL JP2:10)

End