

51 Super RM Rock Mite QRP Kit

40 meter band transceiver 7.023 MHZ DIY KIT, Short-wave radio transmitter receiver

Main indicators

Power supply: 12V (battery or linear regulated power supply is recommended for the)

Antenna: 50 ohms, is not balanced

Transmission power: 3.5W (9V power supply), 5W (12V power supply)

Frequency: launch the vibration frequency, 7023KHZ; Receive this frequency:

About 7023-7026 KHZ

Working pattern: the CW

Automatic/manual keys

This circuit has the function of automatic identification of automatic and manual keys, as long as the manual button to connect to the mono or referring to the following figure to stereo plug in the middle of the ring and the ground can be together, open the power supply when STC12C4052 SCM according to the inserted key for automatic detection.

Key plug wiring diagram

The key board

SW1: to improve lateral sound frequency

SW2: lower side tone frequency

SW3: automatic launch store number

SW4: improve the rate of fire

SW5: emission reductions

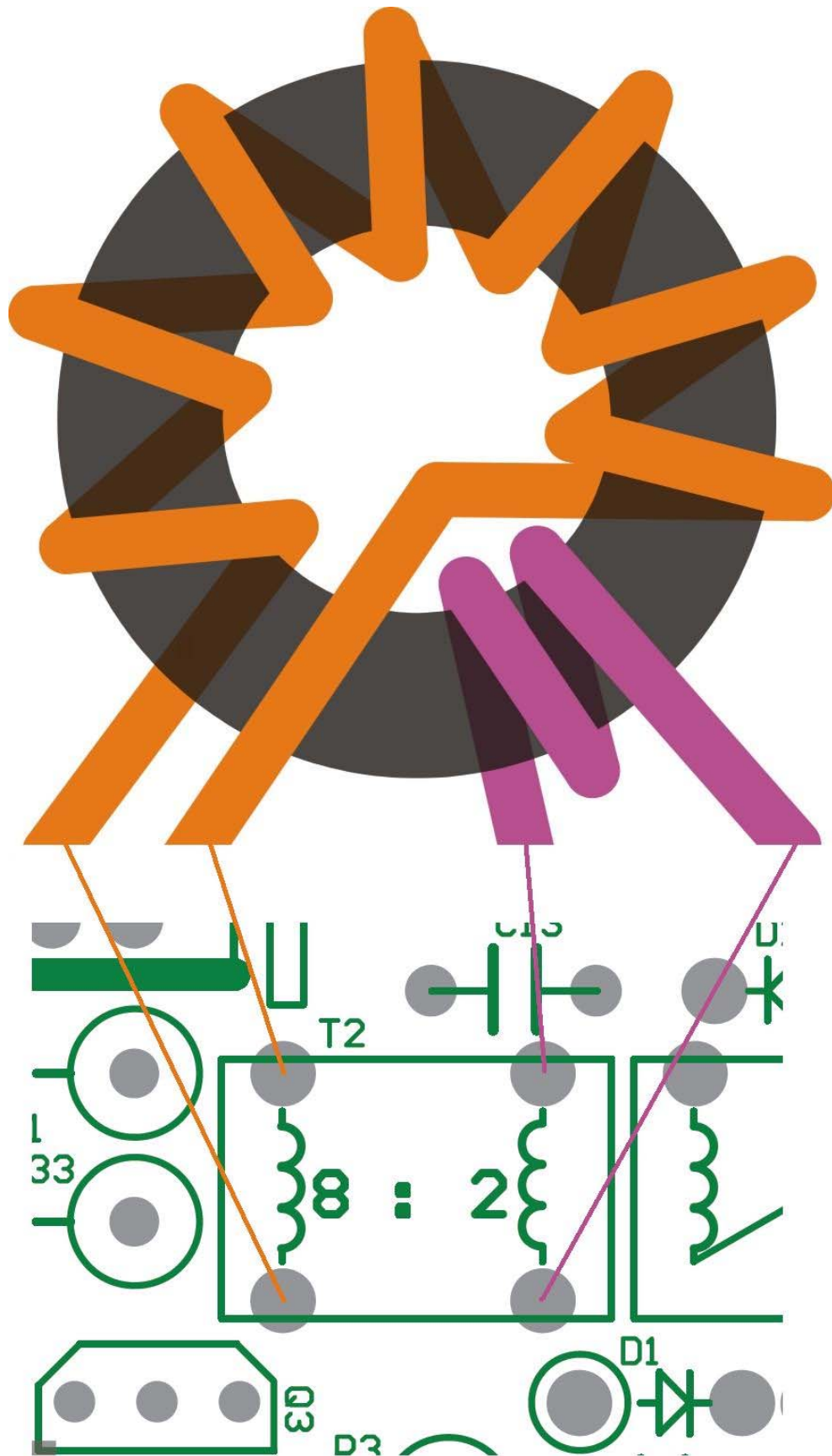
正常情况下，如不接天线，耳机中应当很安静，如果发现有低频的尖锐叫声，可在 NE5532 的 1-2 脚趾甲，接 1 只 20P--471P 左右的瓷片电容，以消除自激。这个套件调试得好的话，本底噪音不差于专业商品机。

Under normal circumstances, such as no antenna, the headset should be quiet, if found to have low frequency sound, can be between 1 to 2 feet of the NE5532, pick 1only 20p – 471p Ceramics capacitors, to eliminate self-excited.

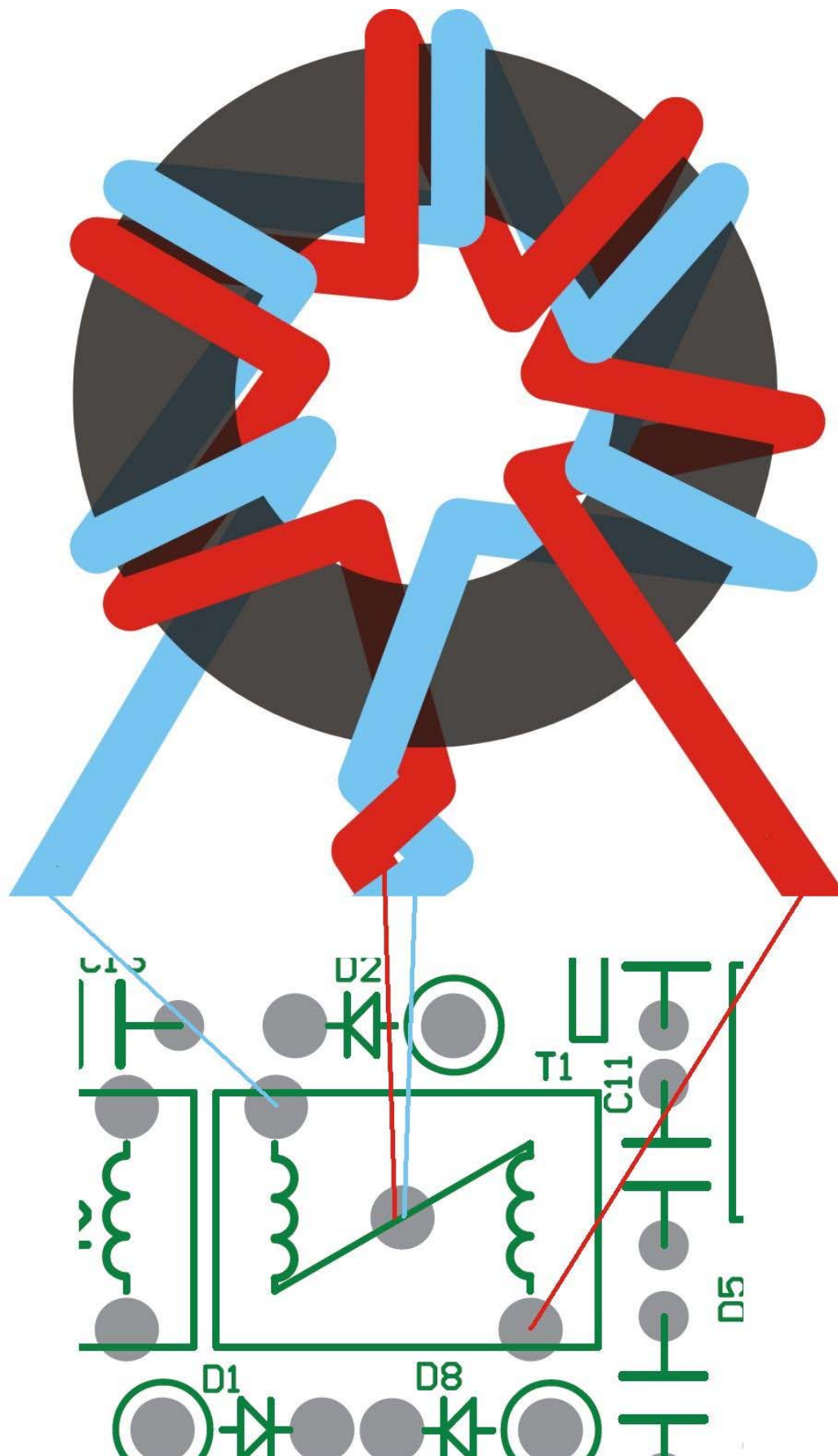
Component listing

resistance		Electrolytic capacitor	
R1	0 Ω	CP1、CP4、CP5、CP6	100uF/16V
R2、R3	22 Ω	E1、CP7、CP8	10uF/16V
R4	100 Ω	CP2、CP3	470uF/16V
R5、R6、R26	200 Ω	CP9	1uF/16V
R7、R8、R9、R10	470 Ω		
R11、R12、R13、R14、R27	1K	The transistor	
R15	2.2K	D1	1N4755A (Z43)
R16、R17、R18、R19、R20、R21、R22、R23、R24、R25	4.7K	D2、D5、D6、D7、D8	1N4148
R28、R29	10K	D3、D4	1N4001
R30、R31	22K	Q1	9018
R32、R33	47K	Q2	D882
R34	100K	Q3、Q4	8050
R35、R36	220K	Q5	2N7000
R37、R38	470K	Q6	8550
Adjustable resistance		Q7、Q8、Q9	9013
W1、W2	47K (473)	D10	LED red
inductance		D9	LED green
T1、T2 circular	FT37-43 black	IC	
L1、L2 circular	T37-2 red	U1	7805
Z1	Magnetic beads	U2	NE602 (DIP8)
Ceramics capacitors		U3	NE5532 (DIP8)
C22、C23、C24、C25、C26、C27、C28、C29、C30、C31、C32、C33、C34	0.1uF (104)	U4	STC12C4052AD
C13、C14、C15、C16、C17、C18、C19、C21	0.01uF (103)	U5	MAX232E
C1、C2、C3、C4	30pF or 33pF	Other components	
C7、C8	100pF (101)	J1	BNC (Q9) socket
C5、C6	56pF	J2	DC socket
C9、C10、C11、C20	470pF (471)	J3	3.5mm (PHONE)
C12	1000pF (102)	J4	3.5mm (KEY)
Crystal		RS232	A serial port female head
Y1、Y2、Y3	7.023MHz	SW1、SW2	Micro switch
Y4	11.0592MHz	SW3、SW4、SW5	Micro switch
Heat sinks		PCB $\times$ 1	
0.51mm Enameled wire		51 ohms resistor/test with load	

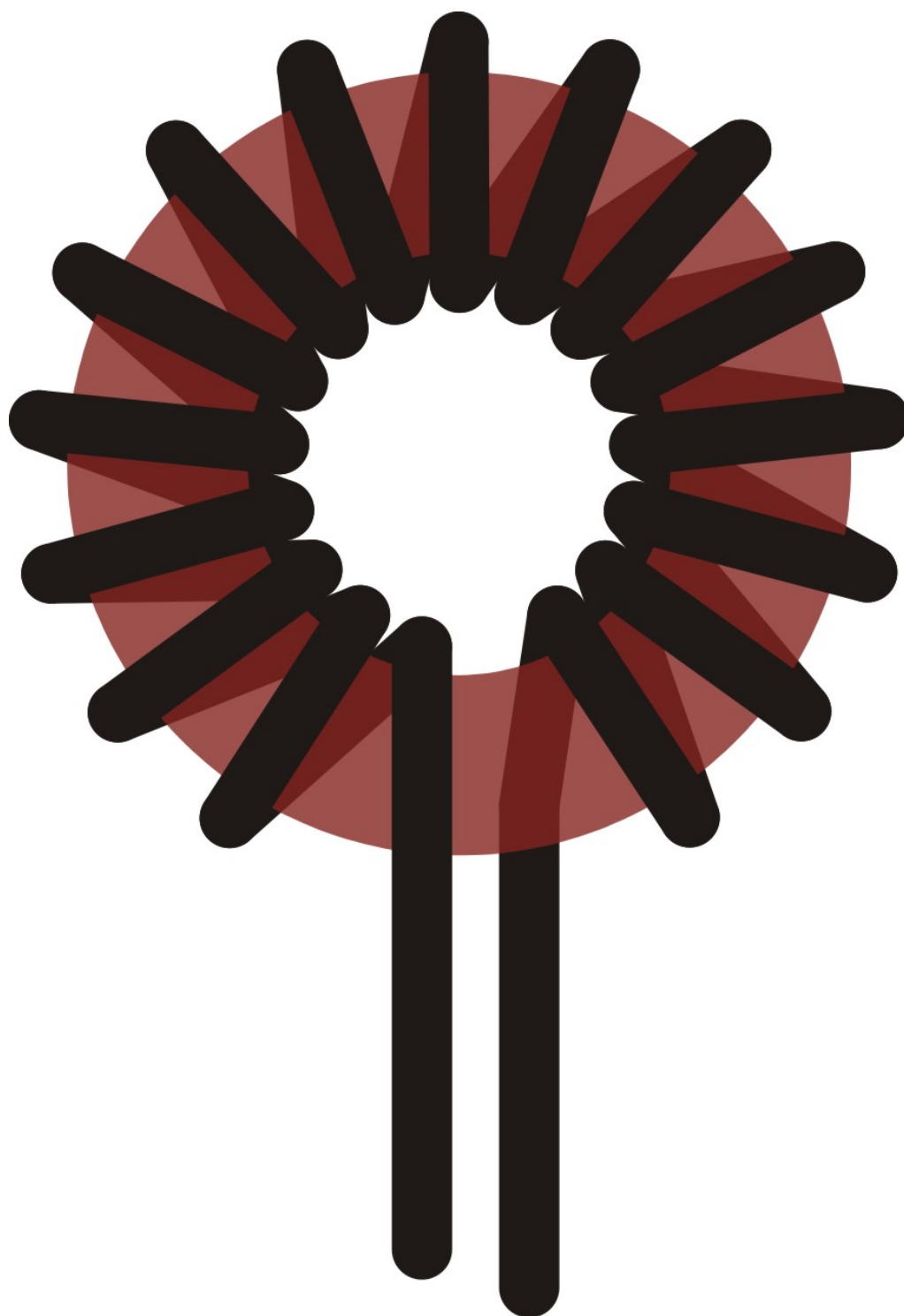
T1: FT37-43 black

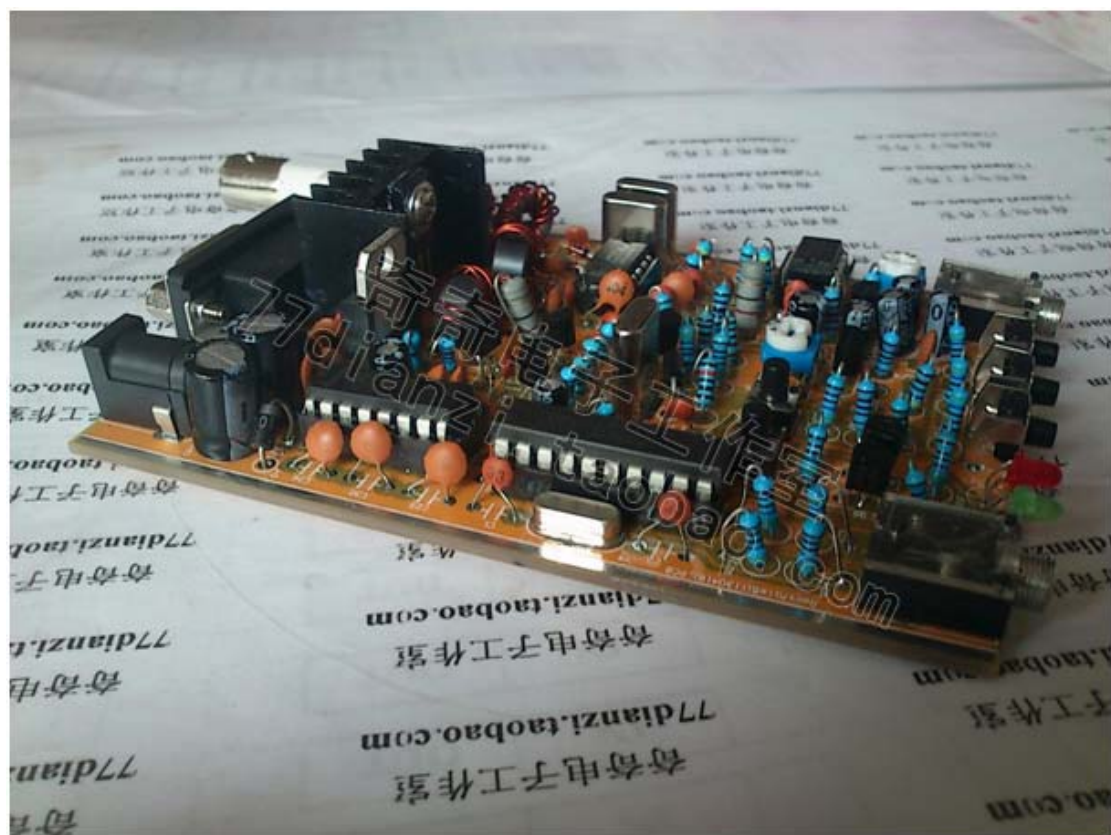
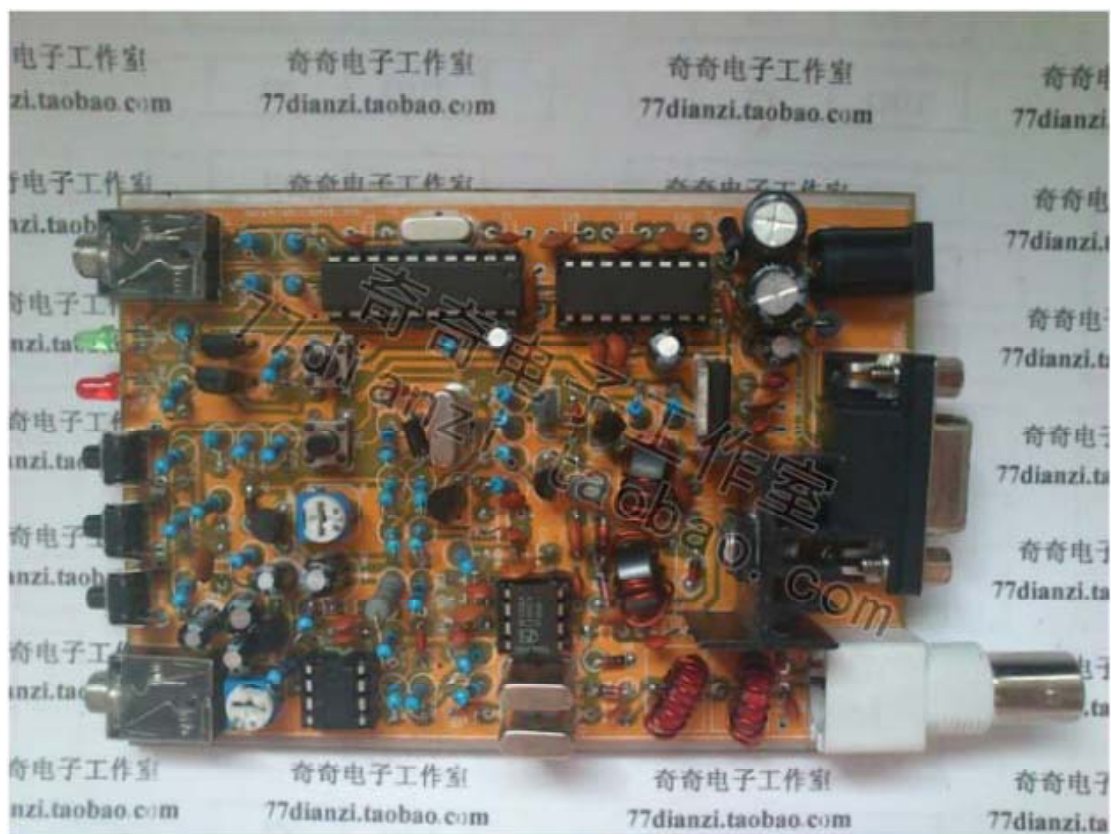


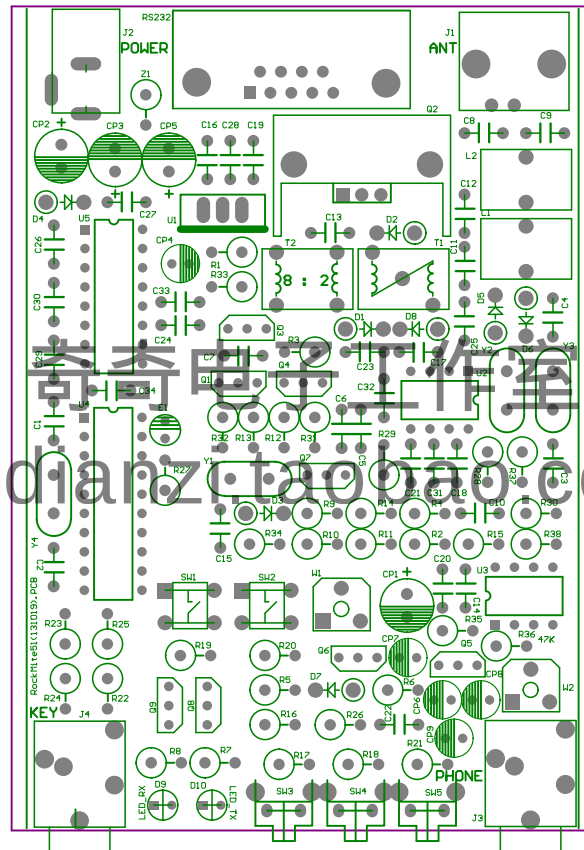
T2: FT37-43 black

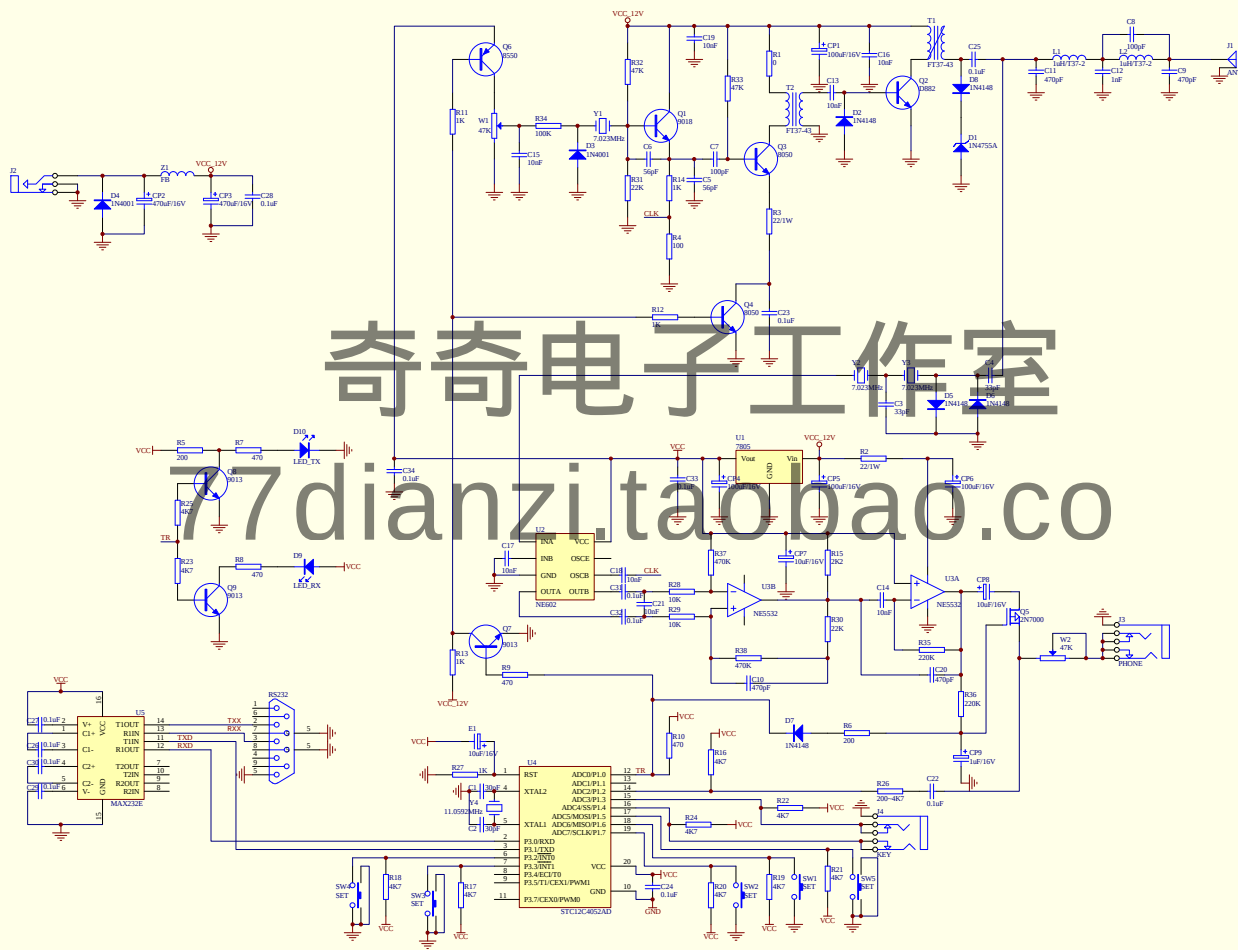


L1 L2: T37-2 red.









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