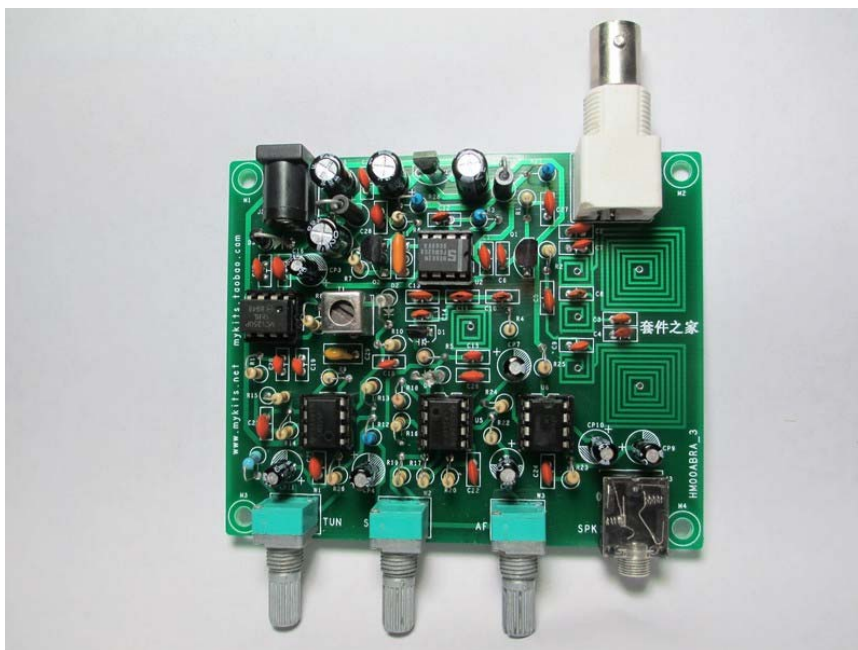

Aviation band receiver

Suite manual V3.1

A simple introduction

This suite is dedicated to receive calls between aircraft and tower, cooperate with the good performance of the antenna (VHF yagi antenna), open within about 190 km in the biggest can receive calls between various types of aircraft with the control tower.



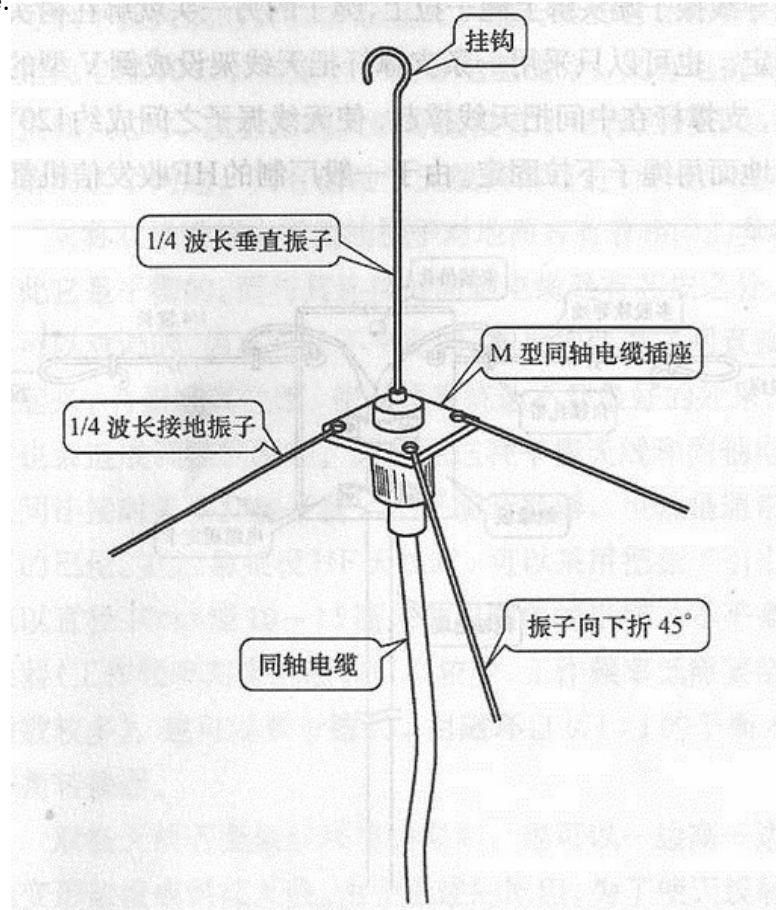
Main indicators

- Power supply: 12 v
- Antenna: 50 ohms, is not balanced
- Typical receiving current: 30 ma
- Receive frequency: 118 MHZ to 136 MHZ
- Working pattern: AM

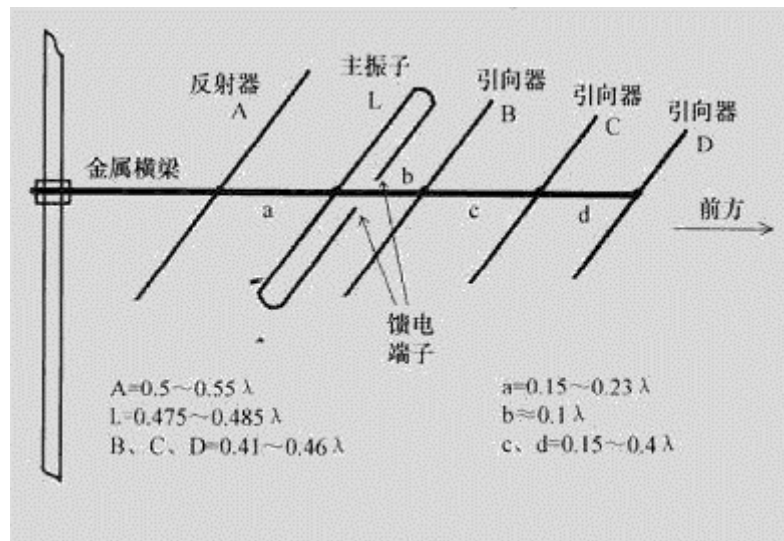
Circuit principle

Antenna to receive signals first enter a band-pass filter, the band-pass filter function is to ensure that the 118 MHZ to 136 MHZ signal can be put into 2 sc3355 high, other signal is maximum attenuation. After filtering, the signal amplified by the 25th sc3355 (2), and then enter the NE602 mixing, at the same time NE602 inside a voltage-controlled oscillator, the frequency changes because of the D1 junction capacitance, design covers about 120 MHZ to 150 MHZ.

For primary fans, it is recommended to use GP antenna or yagi antenna. Below is GP antenna, GPS antenna is short for flat ground antenna, the antenna, also known as vertical ground antenna is a kind of common vertical polarization omnidirectional antennas. It consists of a vertical level of radiation oscillator and 3-4 root extension of the oscillator. A few metal rod with a M, made simple.



Below as the yagi antenna, has the very good directivity and high gain.



Also can use insulators metal bar! Diagram for wavelength λ , director, reflector are calculated respectively and the main oscillator length and a, b, c, d spacing after assembled.

Chassis to install

This circuit board can be easily in the size of 40 mm * 97 mm * 75 mm standard aluminum chassis (this case is not included in this kit, such as the need to please buy).



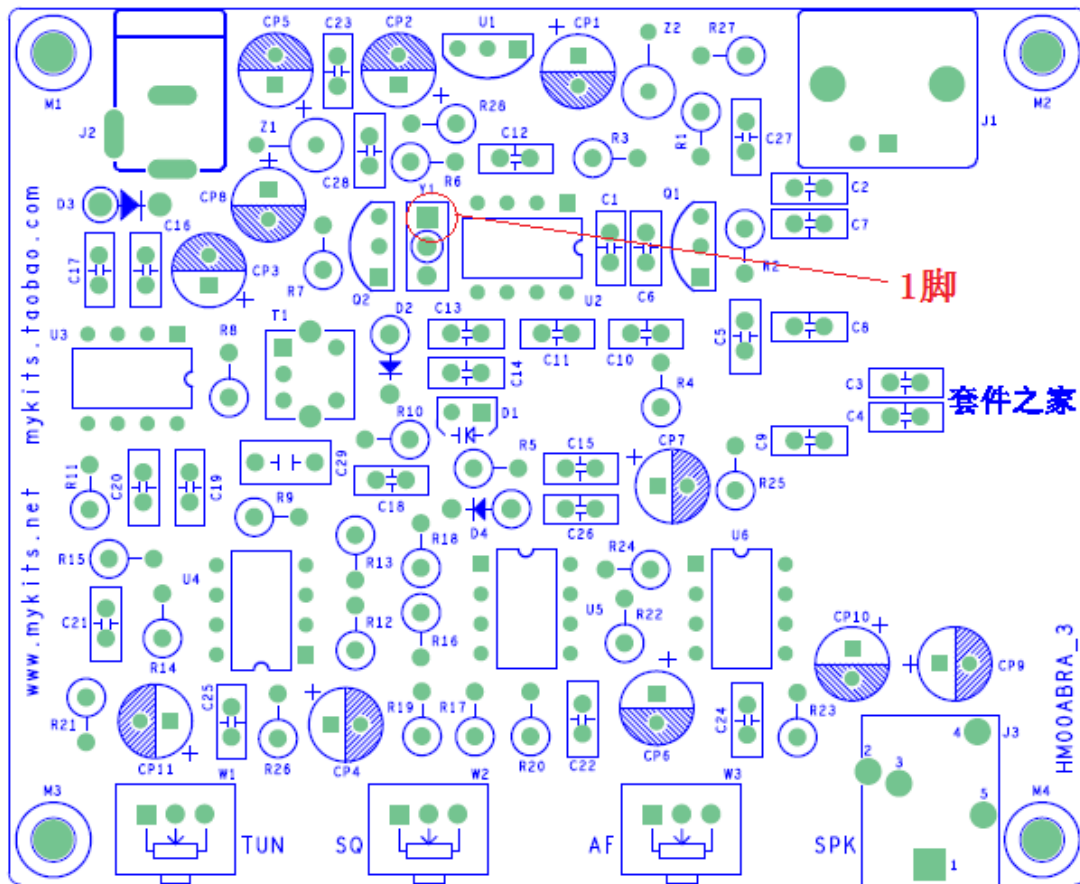
CP6	10uF	
晶体管		
D1	BB910	 插入板子请按丝印方向
D2,D4	AS119	
D3	1N4001	
Q1,Q2	2SC3355	
集成电路		
U1	78L08 (TO92)	
U2	NE602 (DIP8)	配 IC 插座
U3	MC1350 (DIP8)	配 IC 插座
U4,U5	LM358 (DIP8)	配 IC 插座
U6	LM386 (DIP8)	配 IC 插座
陶瓷滤波器		
Y1	10.7MHz	 请注意管脚方向：器件表面 印刷字面对读者，1脚在右 边
其他元件		
J1	BNC (Q9) 插座	
J2	电源插座	
J3	3.5mm 立体声插座	SPK (插入耳机)
PCB 电路板×1 片		

R29 / 1K

R29 in LM386 3 between foot and ground,
Can improve the response speed of noise,
Please welding on the back of the PCB.

CT has been welded in T1 weeks inside, no need to install.

电路板装配图

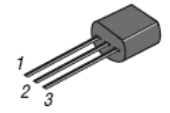
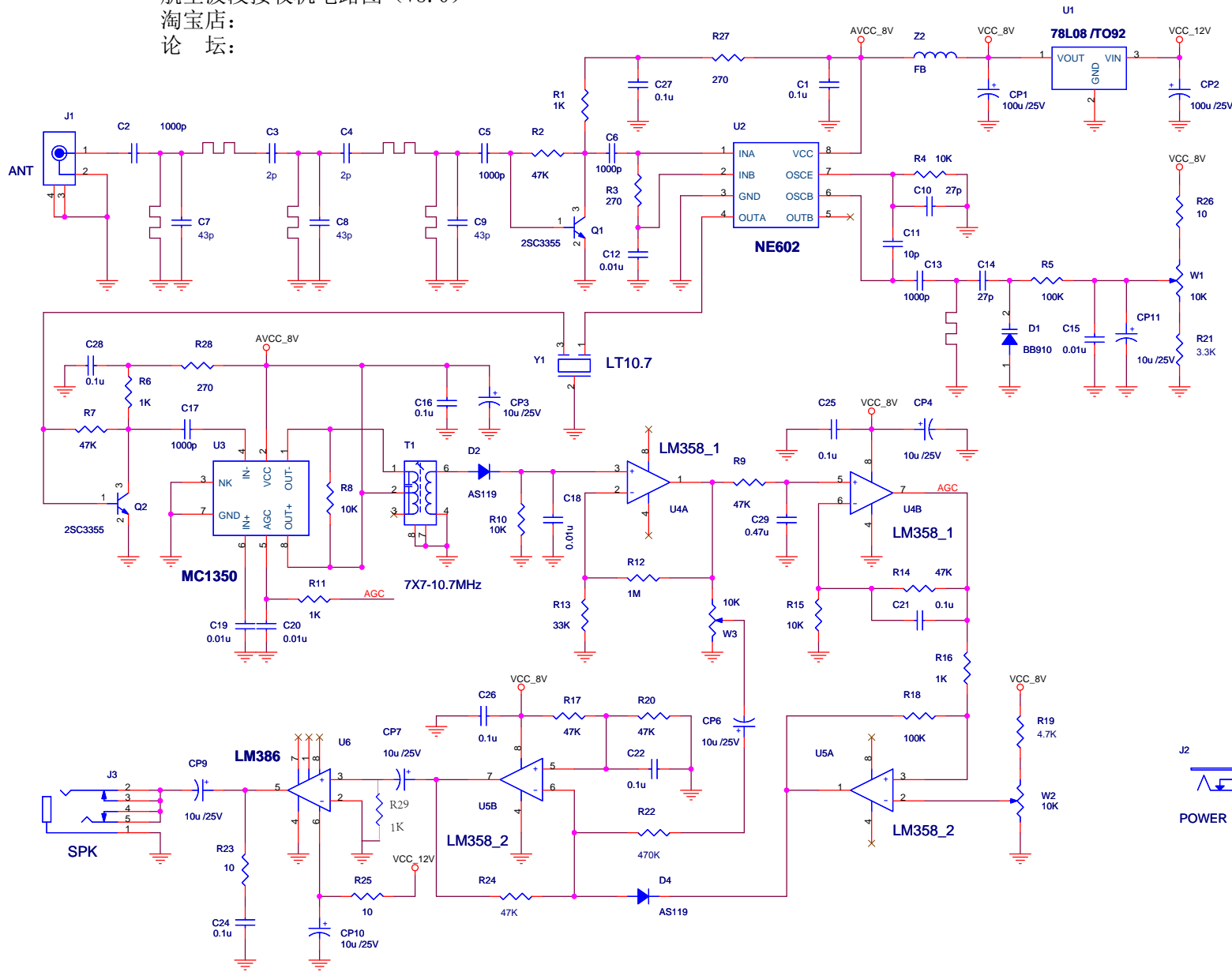


Please note that Y1 1 foot, can not install error!

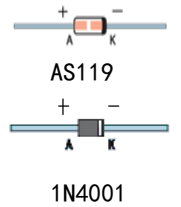


航空波段接收机电路图 (V3.0)

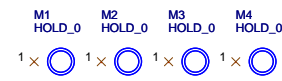
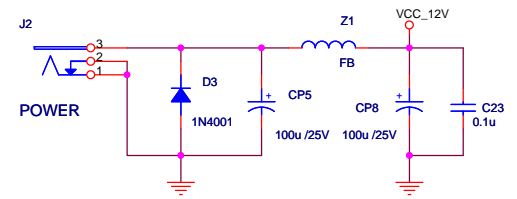
淘宝店:
论坛:



78L08 2SC3355



为PCB电感



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A3	HM00ABRA_3	3.0
Date:	Tuesday, June 25, 2013	Sheet 1 of 1