

# MINI1300 Antenna analyzer



## 一、 Specification:

Frequency Range:0.1-1300MHz HF VHF/UHF continuous coverage

In/Out-impedance:50

Measurement-parameters:SWR,R,+Jx,-Jx,IZI,Return loss

Measurement Mode:Single point measurement,Scanning(Frequency Sweep),and TDR Mode

SWR Measurement Range:1.0-1999(Single Point Mode),1.0-20.0(Scan Mode)

Display Modes:Numerical display,curve display,simith chart

Connector Type:UHF N-type connector

VAN:SMA SMAOPEN-SHORT-LOADCalibrationKitx1

LCD size:480x2724.3”TFT LCD display

Touch Screen Type: Capacity

All capacitivetouchscreenonthedisplay-nobuttonsareneeded。

Power Source:USB or Internal Li-ion

Built-in Li-ion charging circuit and DC-DC booster

Maximum charging current:5V/1.5A

External Storage Method:TF card

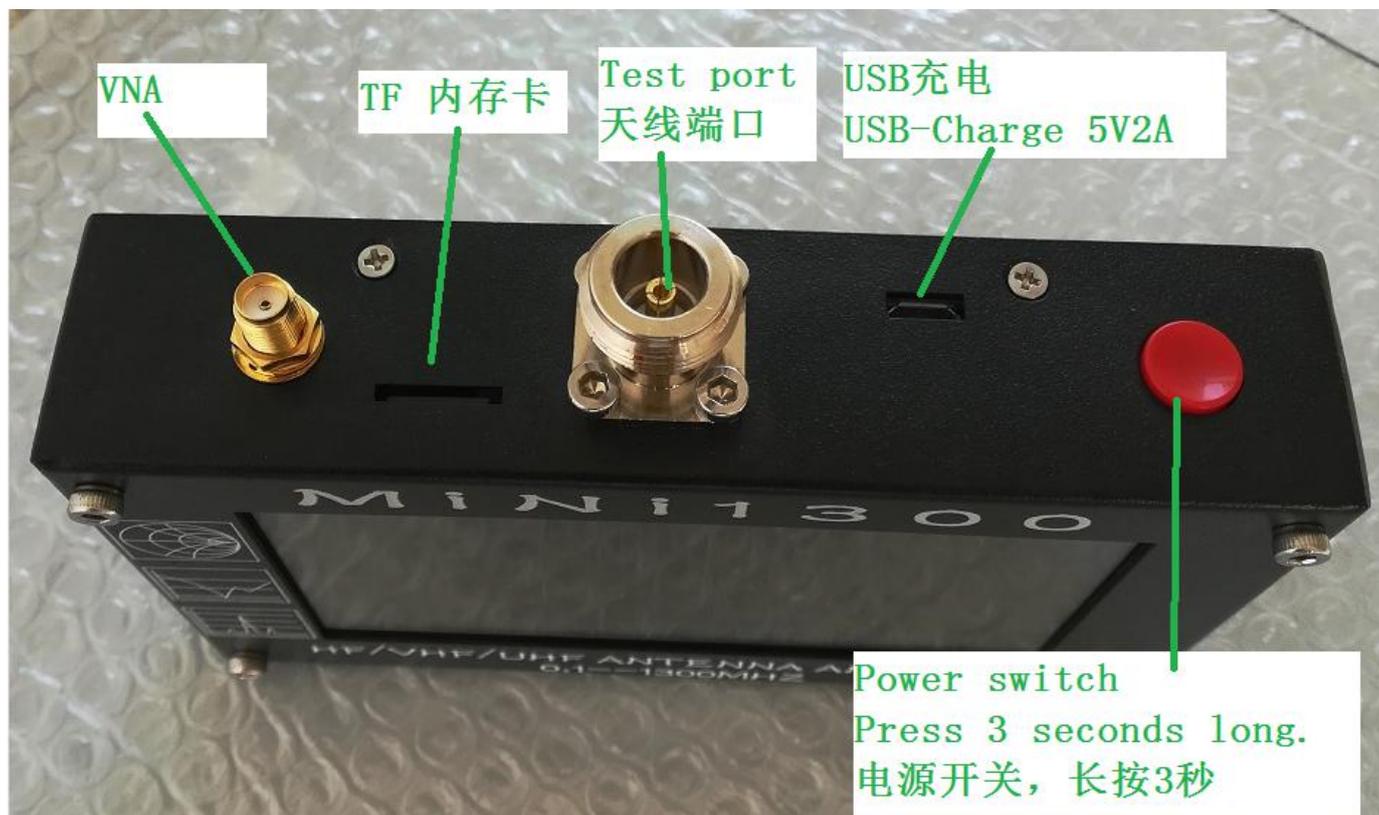
Dimensions:133·85·29mm Does not contain prominent ports.

Weight:550g

Warning: if the product has parameter changes,the actual test will prevail.

Package Included: 1x Antenna Analyzer

## 二、Port specification



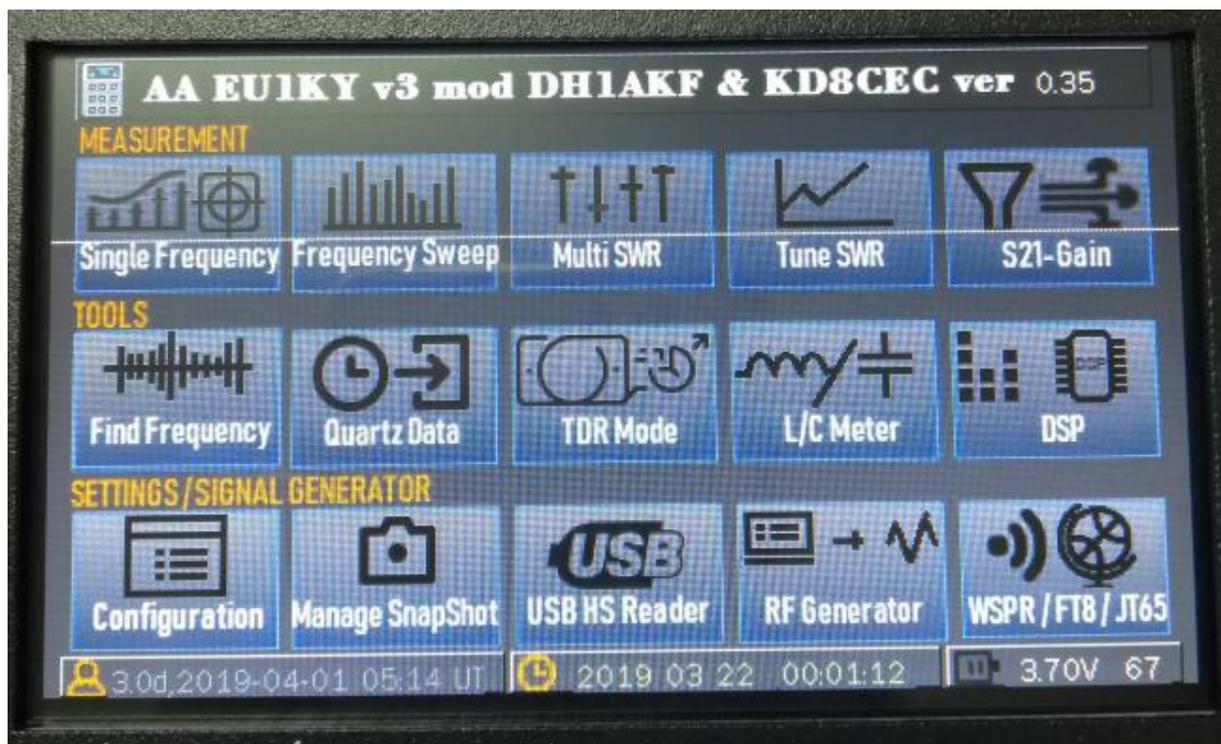


Unused ports  
没有使用的端口

Download Program Port  
程序下载端口

Memory Card  
Connecting PC  
连接电脑读内存卡

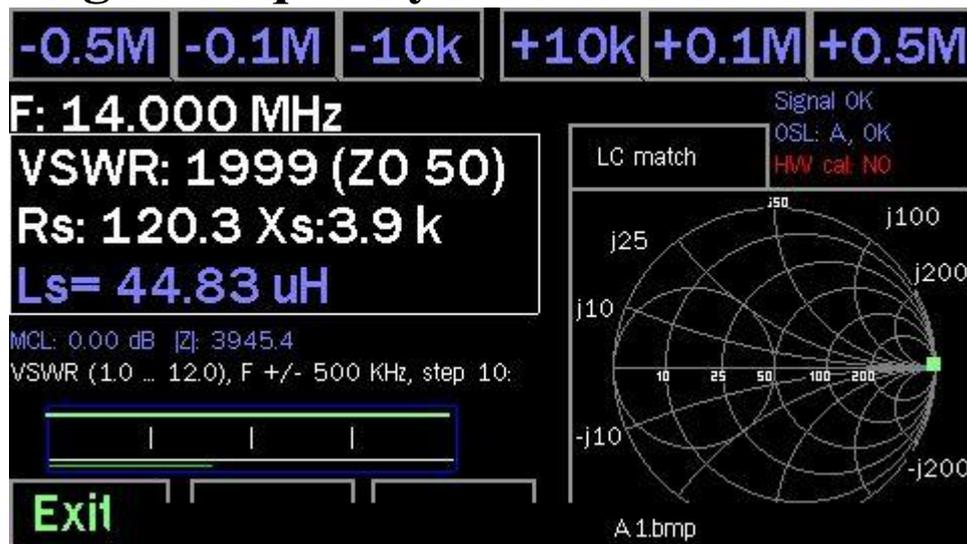
### 三、Main menu



- |                     |              |
|---------------------|--------------|
| 1. single Frequency | 单频点测试        |
| 2. Frequency sweep  | 频率扫描         |
| 3. multi swr        | 多波段驻波测试      |
| 4. tune swr         | 单频率驻波测试      |
| 5. S21 gain         | S21 增益测试     |
| 6. find Frequency   | 频谱仪          |
| 7. quartz data      | 晶振测试         |
| 8. TDR mode         | 馈线长度测试       |
| 9. L/C meter        | 电感电容表        |
| 10. DSP             | 测量板输入端的噪声和电平 |
| 11. configuration   | 系统配置菜单       |
| 12. manage snapshot | 照片管理         |
| 13. USB HS Reader   | USB 读卡       |
| 14. RF generator    | 信号发生器        |
| 15. WSPR/FT8/JT65   | (V3.5 未启用)   |

1:

## single Frequency 单频点测试 圆图

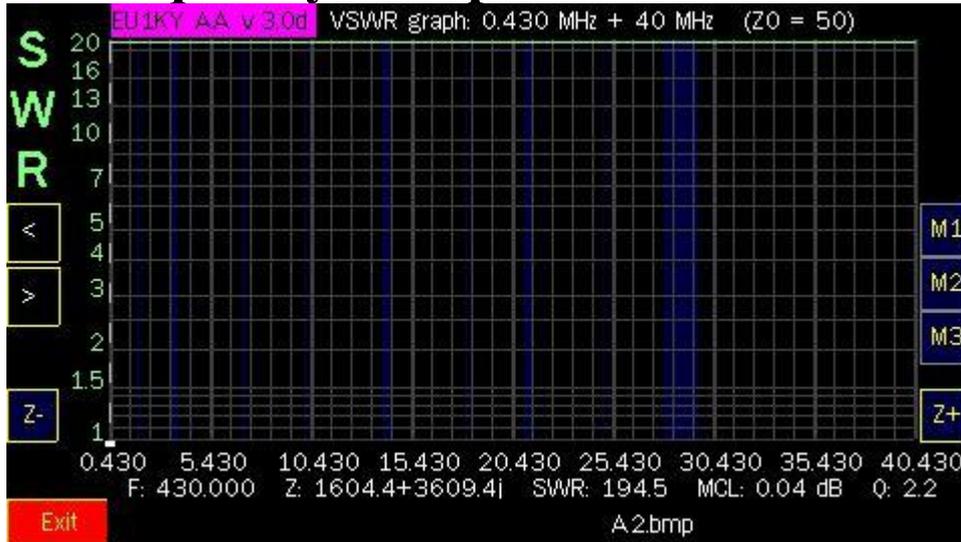


The buttons on top of the screen, the frequency can be changed stepwise. Set Frequency leads to the frequency selection window as in Panoramic scan

The outline doted with the SWR display also includes the values of equivalent series connection of the measured impedance. Touching this area switches to the equivalent parallel circuit

Click on the Smith circle interface to display two possible LC matching values for impedance conversion to 50 ohms.

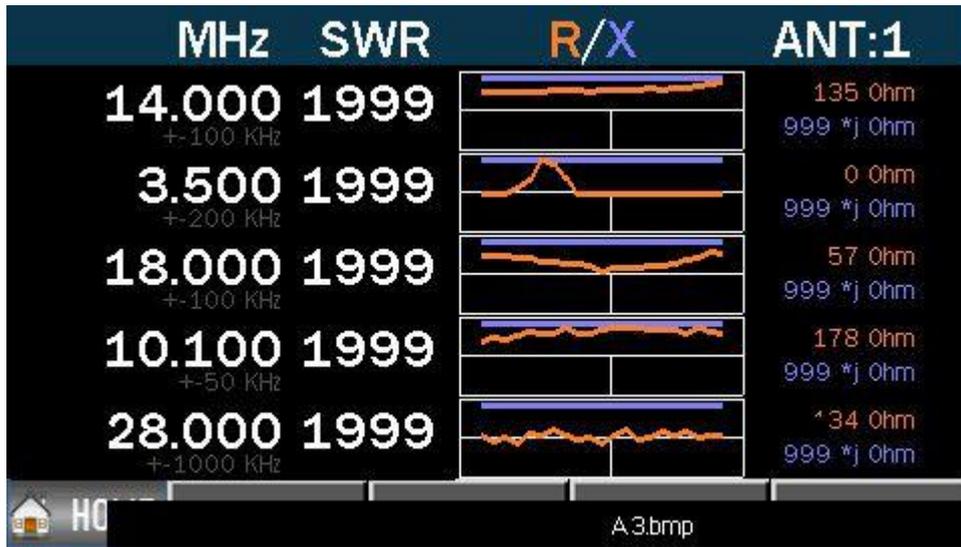
## 2. Frequency sweep



### Frequency Scanning (Panoramic Frequency Scanning)

Click on the top of the screen to open the frequency input window. Optional  
You can choose the amateur frequency band or freely choose the center frequency and bandwidth

### 3. multi swr

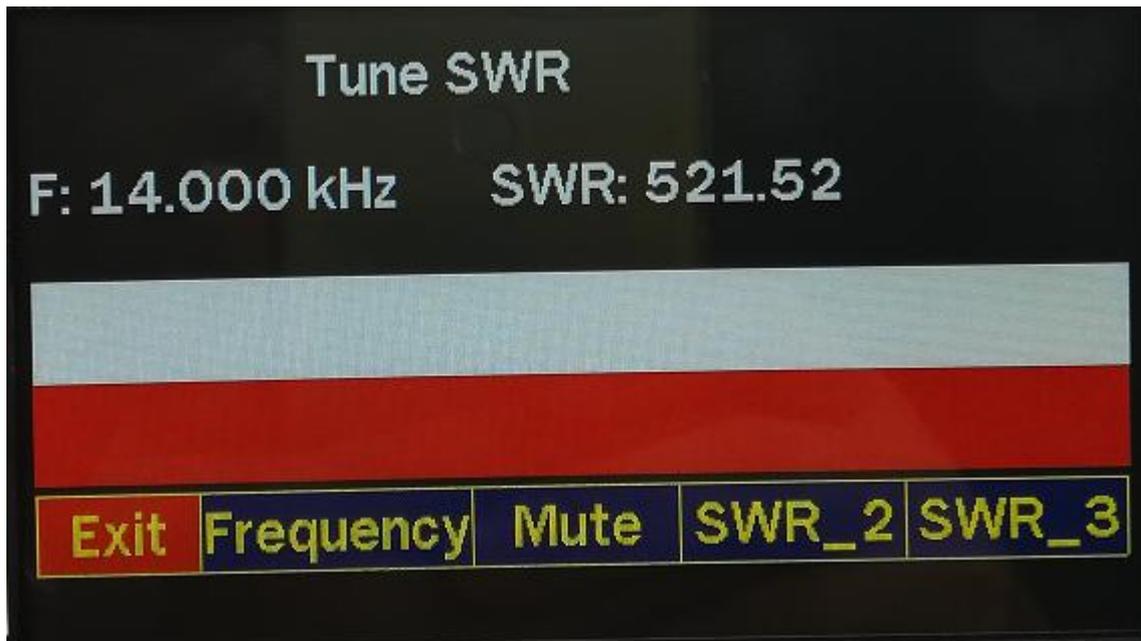


Changing or adding positions: tapping the frequency respectively of an empty field.

Delete a location: Touch-frequency field and in the frequency menu Cancel choose

The selected frequencies are stored

### 4. tune swr



SWR measures changes in color and strip length:

If the target SWR is lower than SWR\_2 or SWR\_3, the selected SWR is white and green.

If SWR exceeds the selected target, the bar is white and red.

The frequency of the sound varies with SWR: the smaller the SWR, the lower the pitch. Tone switching sound

Turn it off in silence.

## 5. S21 gain S21

1. Feeder connection VNA and ANT ports

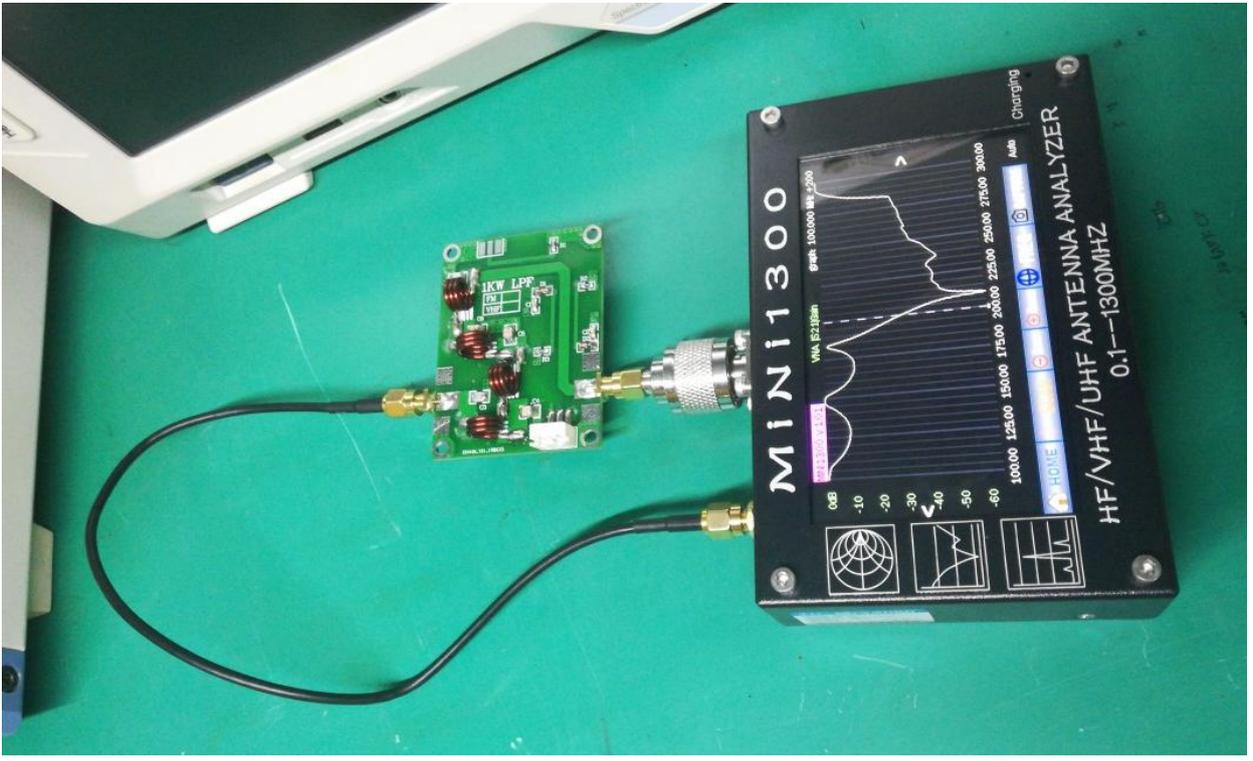


2. Open the Calibration Menu

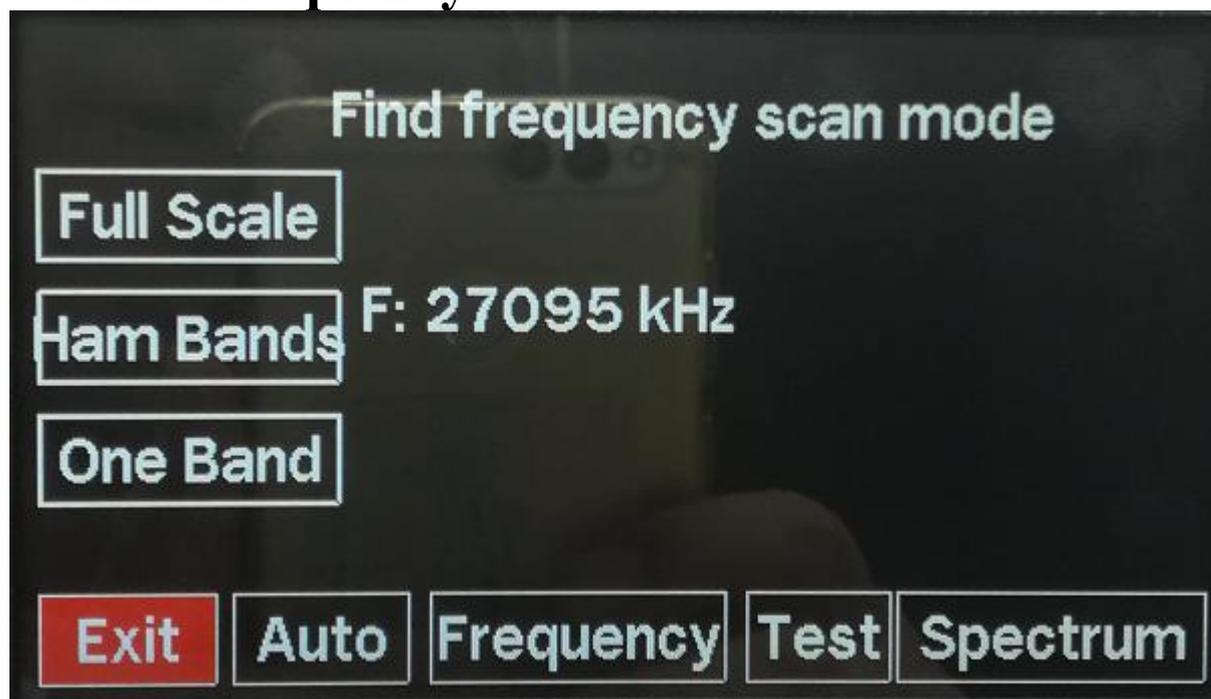
(S21)Gain Calibration for VNA



3. Filter test



## 6. Find Frequency



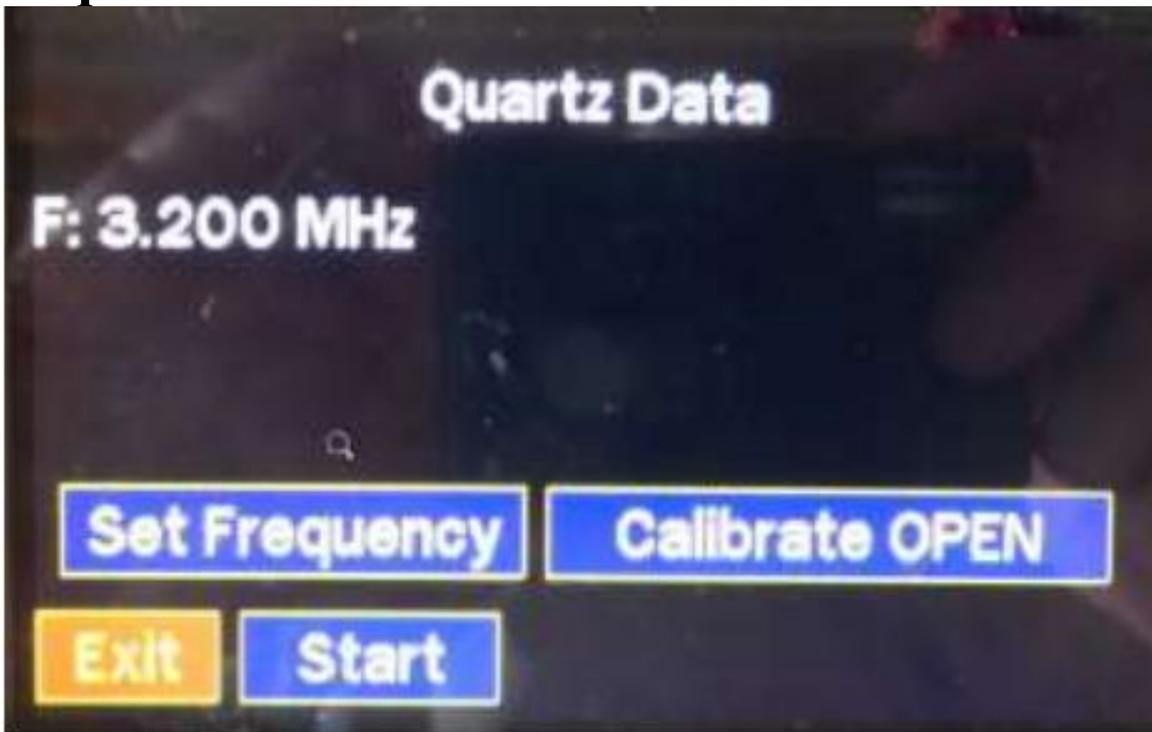
Automatic: Continuous scan on/off

Frequency : Choice of frequency and scanning

Test : 3.5 MHz generator on/off

Spectrum : Spectrum display on/off

## 7. quartz data



After entering the frequency, OPEN is calibrated to measure the parasitic impedance of the terminal.

Then, the user is asked to put quartz in the socket and start measuring.

Start:

## 8.TDR mode



### Cable Length

To determine the electrical length of cables or to locate cable faults. The cursor is automatically at the point of maximum discontinuity. The velocity factor can with CHF. Vf be changed. Store volatile stores it only for current measurements, Store permanently however.

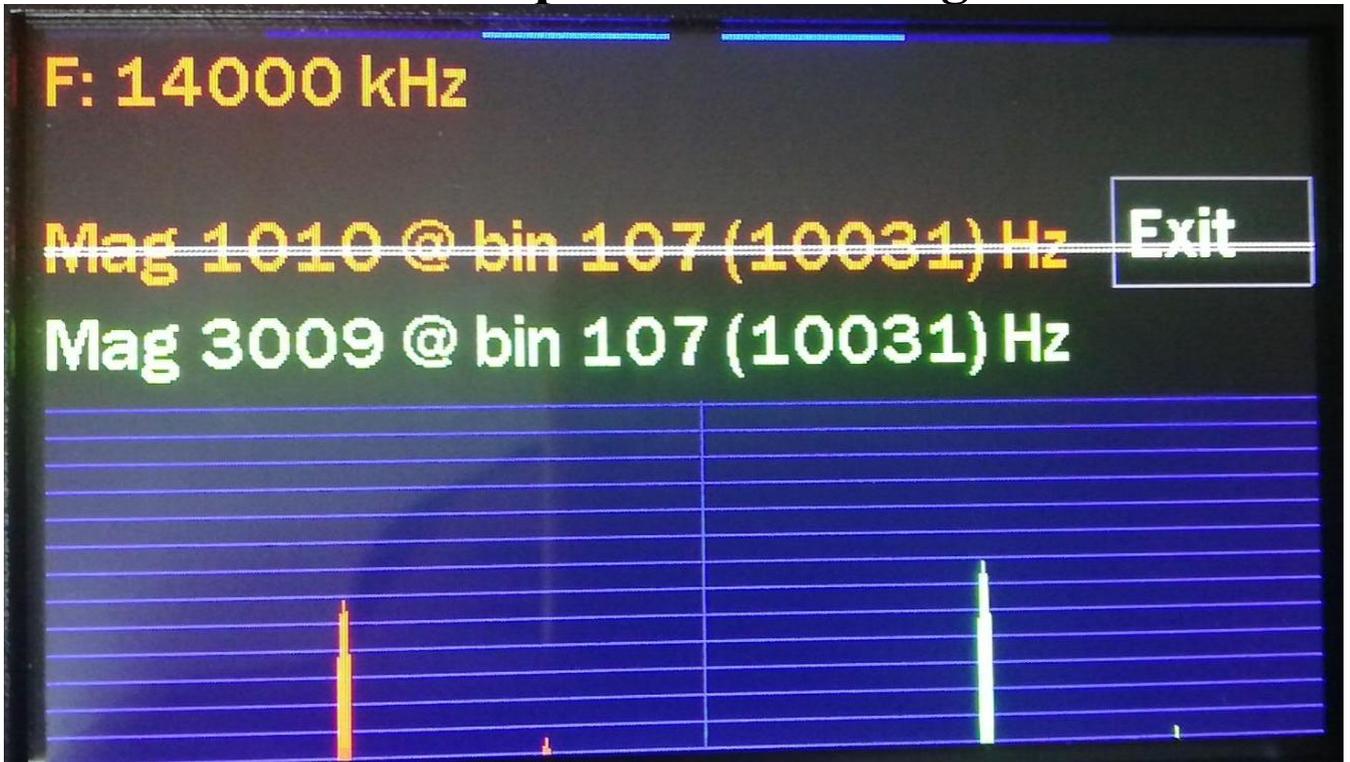
## 8. L/C meter



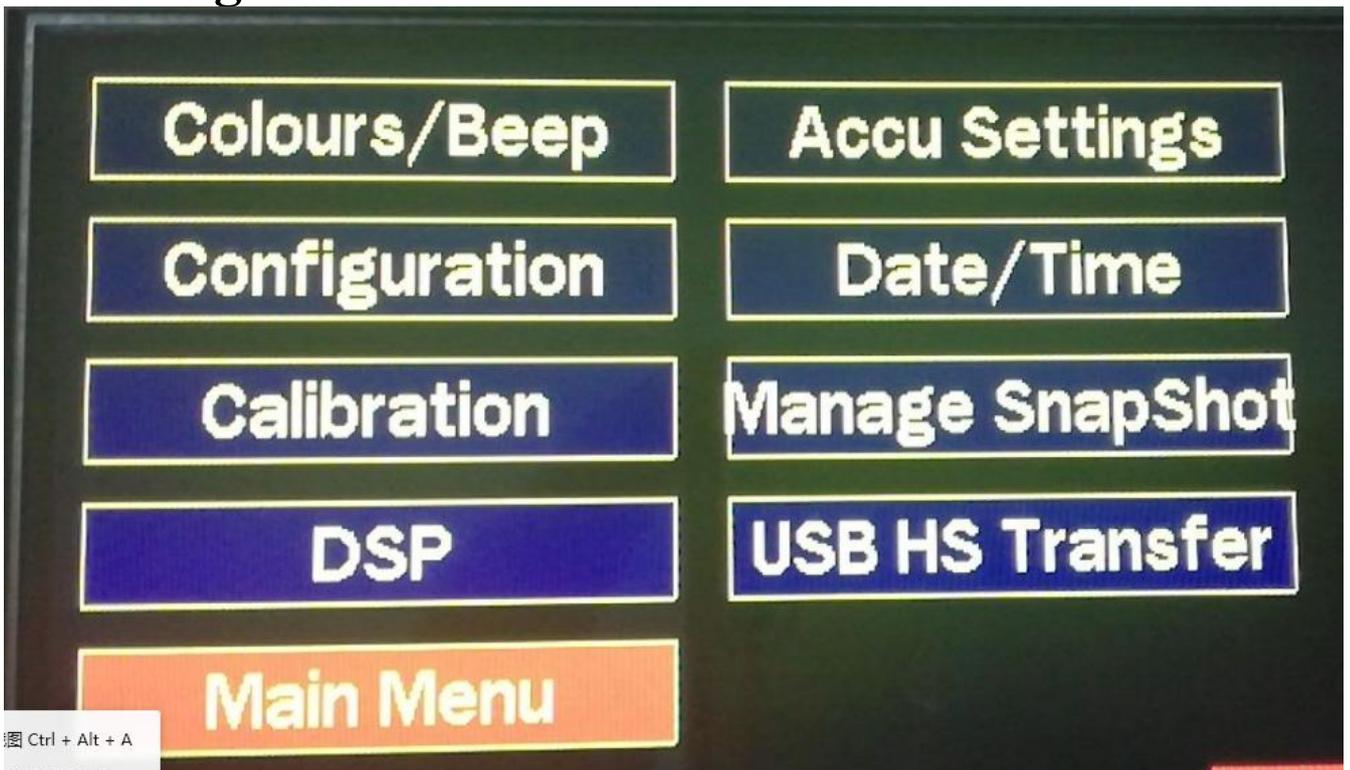
**Calibration before use: short , 50 ohms, open**

## 9. DSP

### Noise and Level at Input of Measuring Board



## 10. configuration



### 11.1 Color settings

### 11.2 System settings

### 11.3 Calibration menu

**A:** ANT 天线端口校准，分别接入 5.1R， 50R， 300R， 3 种假负载

**ANT antenna test port calibration, respectively access 5.1R, 50R, 300R, three false loads**

**B:Calibration of Internal Inspection Board (No Use)**

**C:VNA calibration, feeder short circuit ANT and VNA port calibration**

**D:Maximum oscillation test**

## **11.4 Noise and level of input of DSP measuring board**

### **11.5 Battery Voltage Calibration**

**Have been calibrated, please do not change the parameters.**

### **11.6Clock setting**

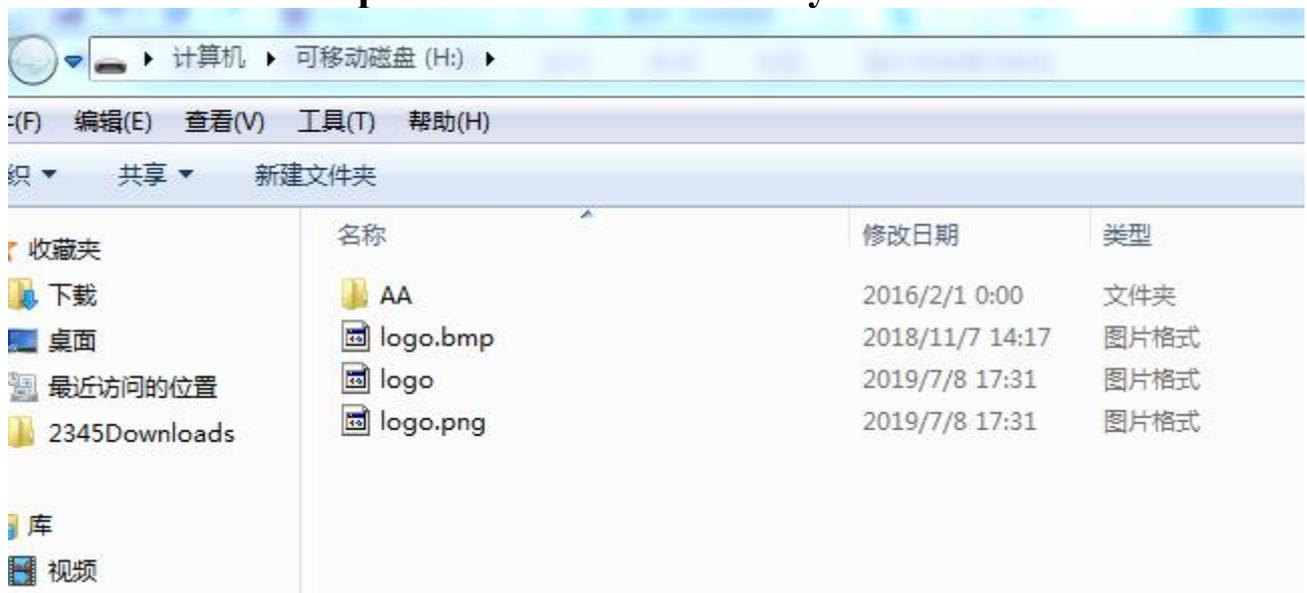
**Set year, month, day, time**

## **11.7 Photo management snapshot**

**You can view photos kept in SD memory**

## **11.8 USB memory**

**Connect to the computer to view the memory**

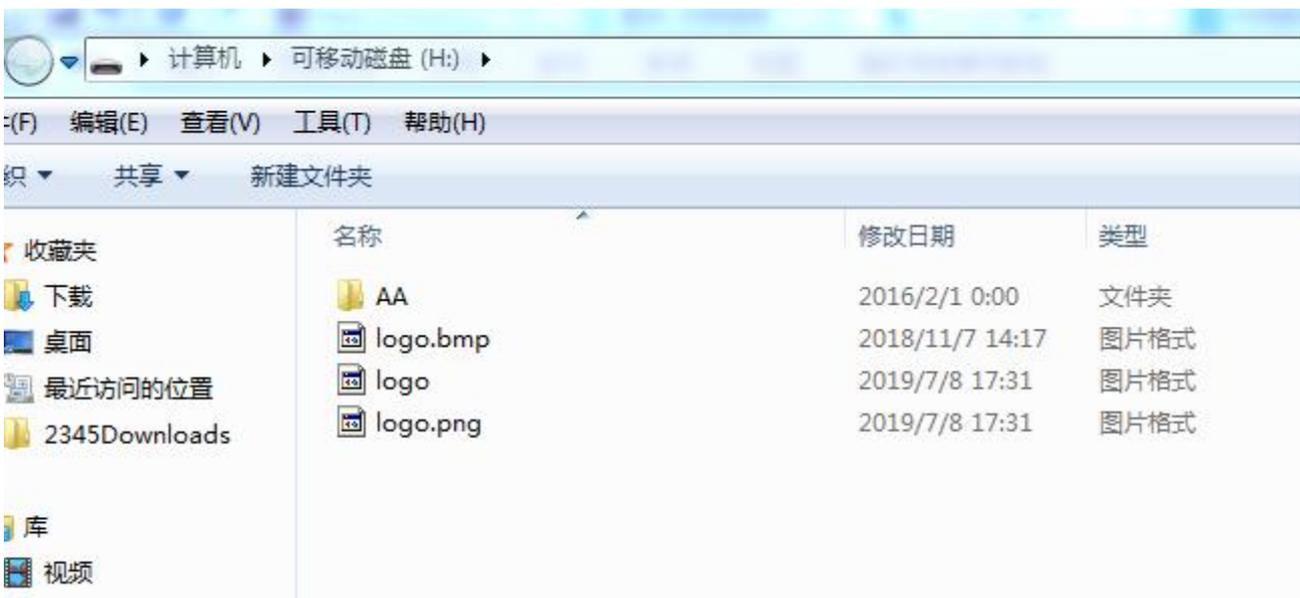


## **12. manage snapshot**

**You can view photos kept in SD memory**



### 13. USB HS Reader



### 14. RF generator

Generator signal generator, supporting AM/FM modulation



AM modulates the carrier at 500 Hz

FM causes a frequency shift of  $\pm 150$  Hz with 500Hz

**15.WSPR/FT8/JT65 (V1.0 is available, V3.5 no such function)**