

Mini1300 Antenna Analyzer User Manual

Specification:

1. Frequency Range:0.1-1300MHzHFVHF/UHF continuous coverage.
2. In/Out Impedance: 50 Ω
3. Measurement Parameters:SWR,R,+jx,-jx,IZI,Return loss.
4. Measurement Mode:Single point measurement,Scanning(Frequency Sweep),and TDR Mode
5. SWR Measurement Range:1.0-1999(Single Point Mode),1.0-20.0(Scan Mode).
6. Display Modes:Numerical display,curve display,Smith chart
7. Connector Type:UHF N-type connector.
8. VAN:SMA
SMAOPEN-SHORT-LOAD Calibration Kit x 1

LCD size:480x2724.3”TFT LCD display

Touch Screen Type: Capacitance.

All capacity touch screen on the display-no buttons are needed.

Power Source:USB or Internal Li-ion.

Built-in Li-ion charging circuitry and DC-DC booster.

Maximum charging current:5V/1.5A

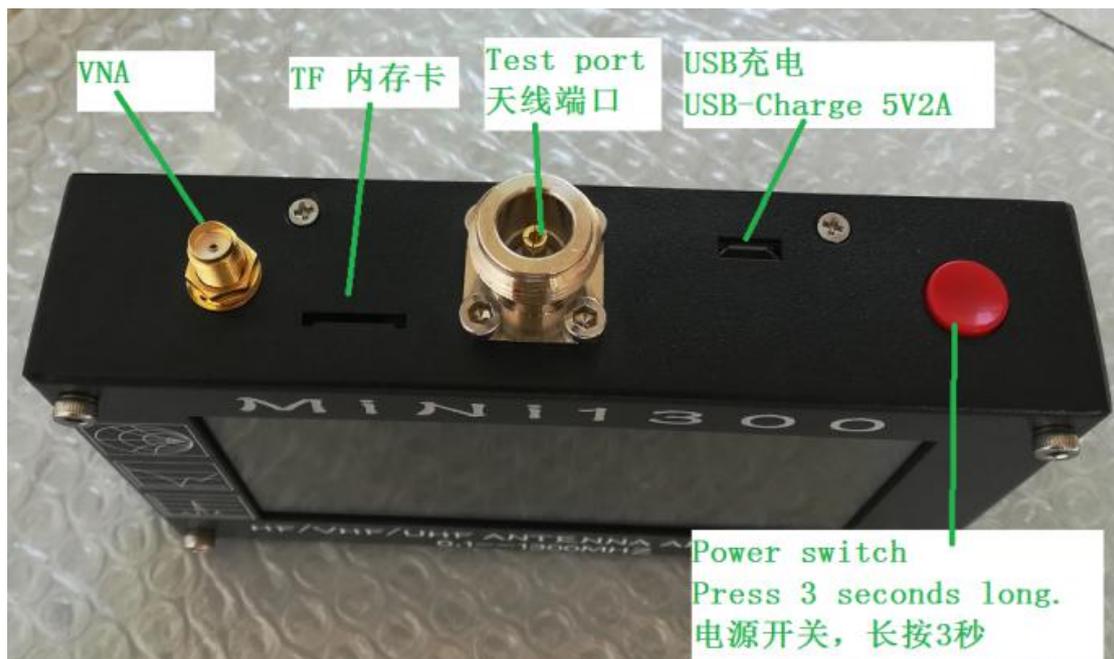
External Storage Method:TF card.

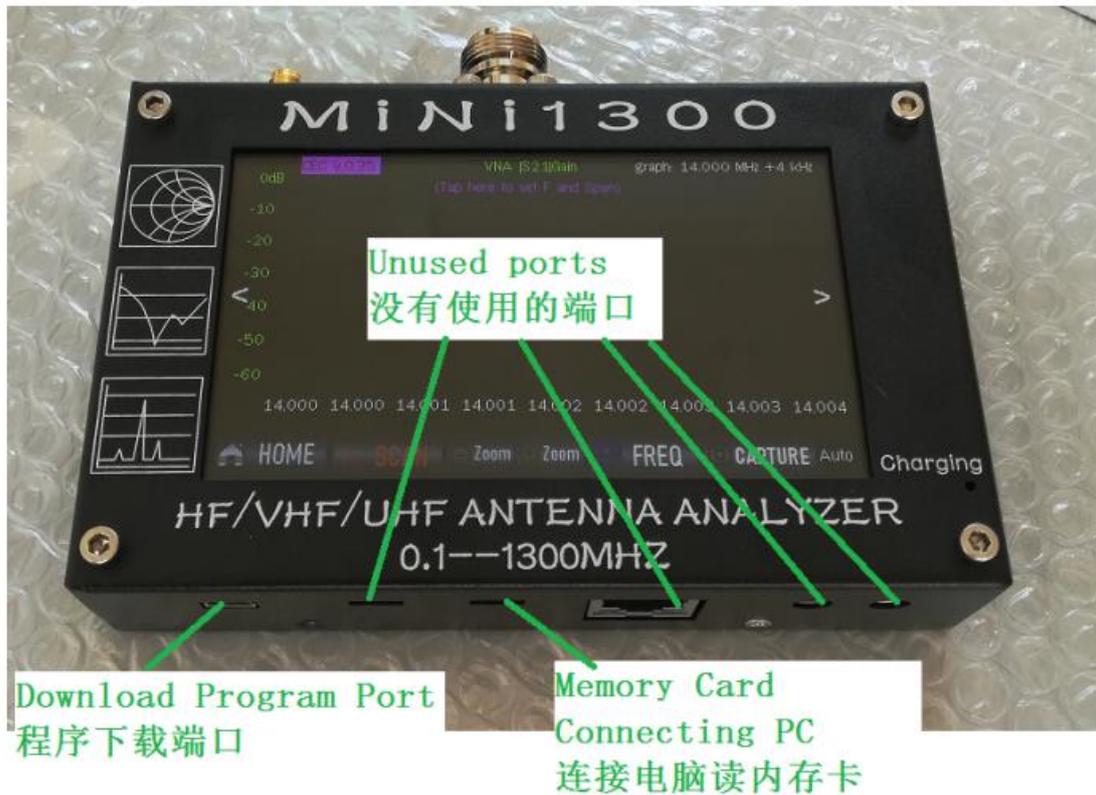
Dimensions:133·85·29mmDoesnotcontainprominentports.

Weight:550g

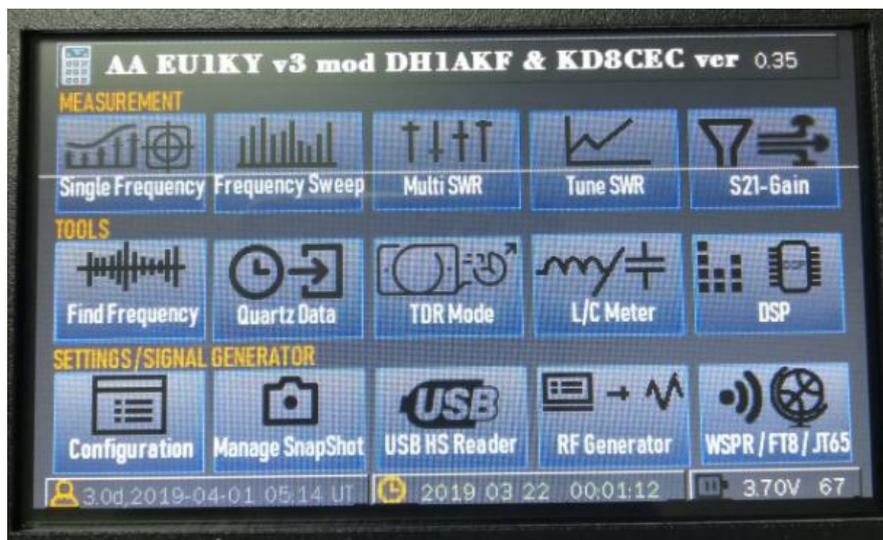
Warning: if the product has parameter changes,the actual test will prevail.

Port specification





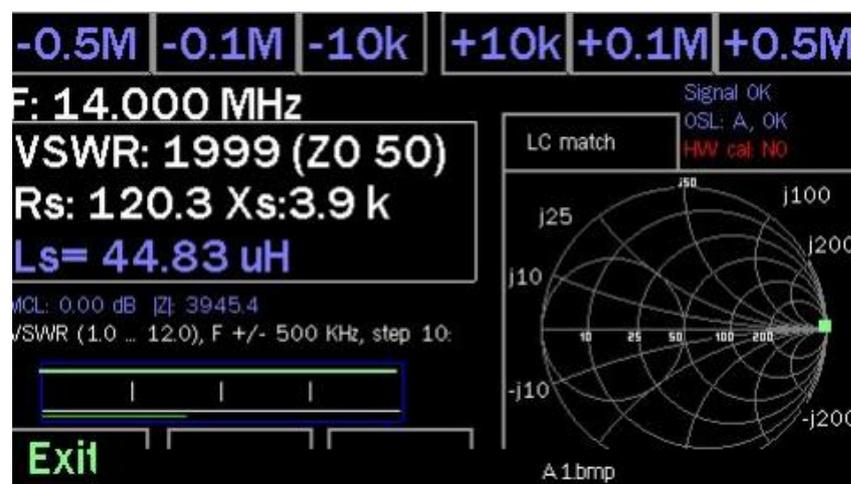
Main menu



- ✓ Single Frequency
- ✓ Frequency sweep
- ✓ Multi SWR

- ✓ tune SWR
- ✓ S21 gain
- ✓ Find Frequency
- ✓ Quartz data
- ✓ TDR mode
- ✓ L/C meter
- ✓ DSP
- ✓ Configuration
- ✓ Manage Snapshot
- ✓ USB HS Reader
- ✓ RF Generator

1. Single Frequency.



The buttons on top of the screen, the frequency can be changed step wise.

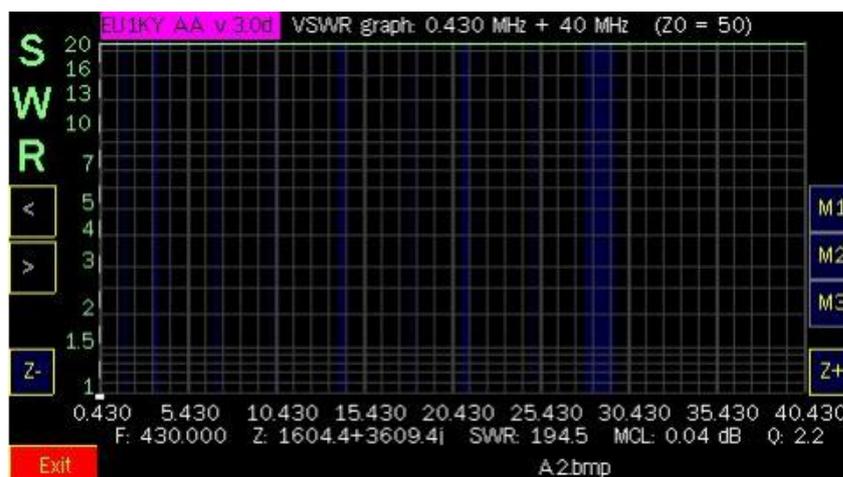
Set Frequency leads to the frequency selection window as in Panoramic scan.

The outlined area 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 chart interface to display 2 possible LC matching values for impedance conversion to 50 ohms.

2. Frequency sweep



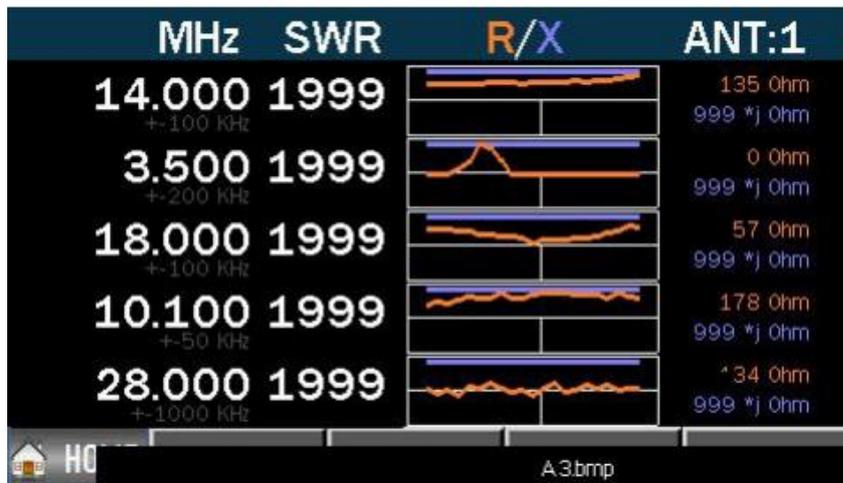
Frequency sweep (panoramic frequency scan)

By tapping the upper edge of the screen, the window for entering the

frequency opens.

Optionally, an amateur band can be selected or the center frequency and bandwidth can be freely selected.

3. Multi-WSR

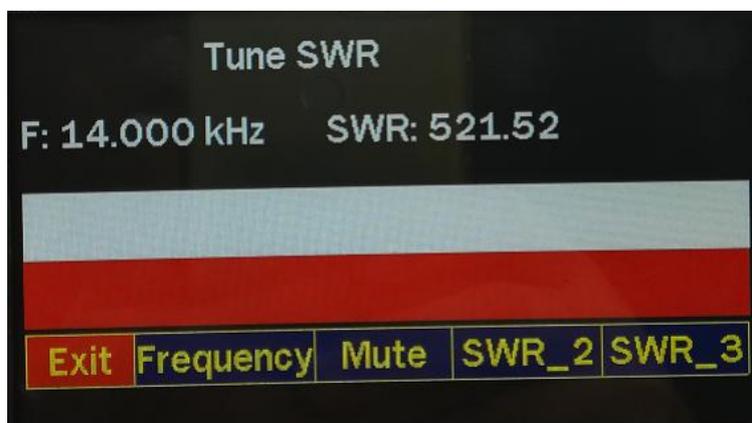


Changing or adding positions: tapping the frequency respectively of an empty field.

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

The selected frequencies are stored.

4. Tune SWR



SWR measurement changes the color and length of a strip.

If the target SWR selected with SWR_2 or SWR_3 is not reached, the bar is white and green.

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

The frequency of the tone varies with the SWR: the smaller the SWR, the deeper the tone.

Tone turns the tone on, mute turns it off.

5. S21 Gain Test

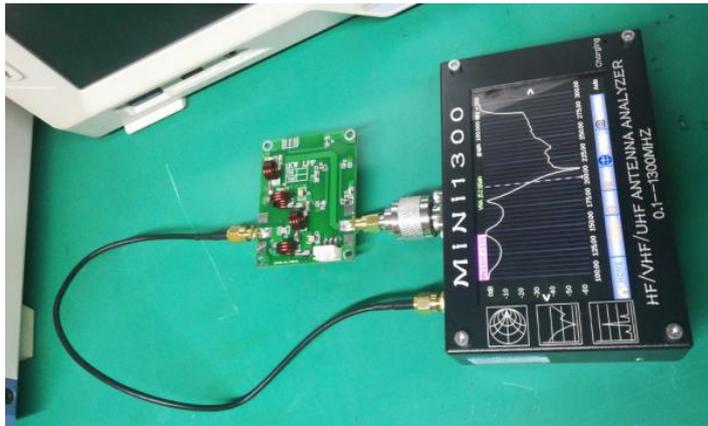
1. Feeder connection VNA and ANT ports.



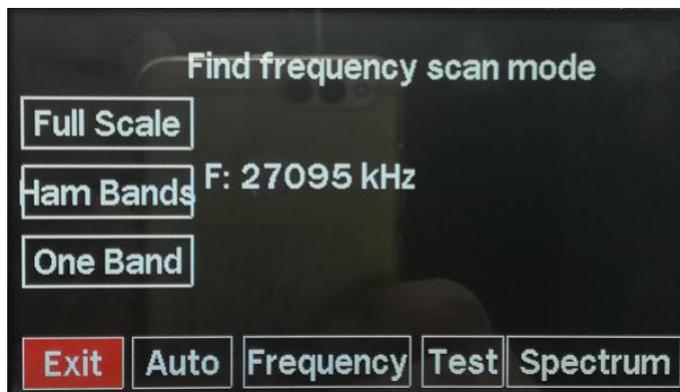
2. Open the Calibration Menu. (S21)Gain Calibration for VNA.



3. Filter test.



6. Find Frequency



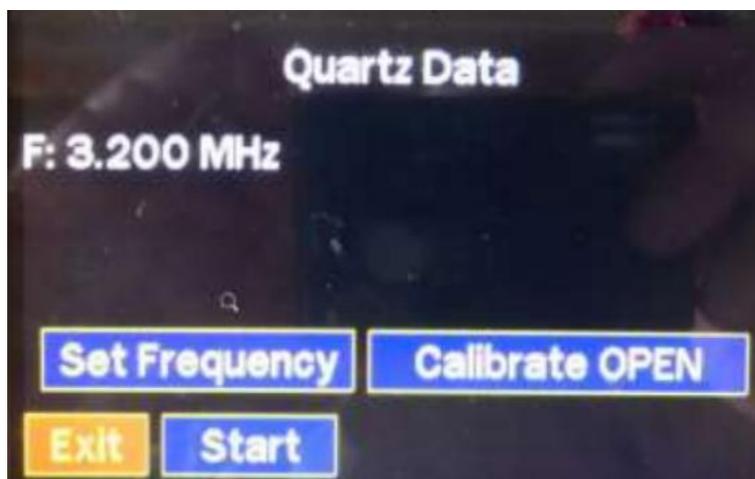
Automatic: Continuous scan on/off

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, Calibrate OPEN opens the parasitic impedance of the

connection measured.

Then the user is asked to put the quartz into the Plug in the socket and start the measurement.

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.

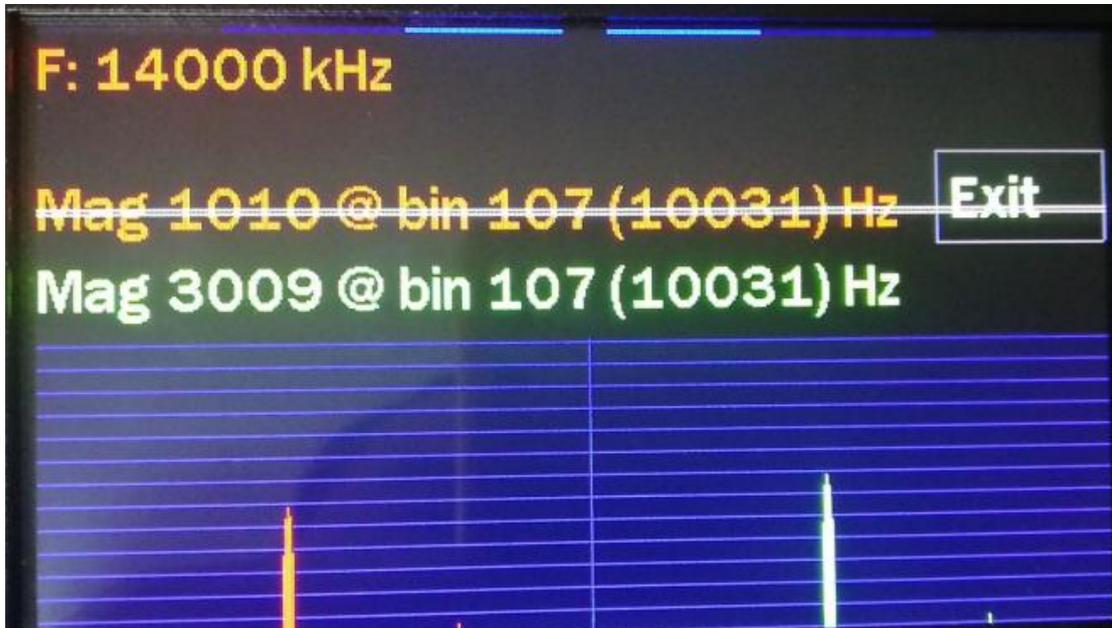
9.L/C meter

Calibration before use: short circuit , 50 ohms, open.

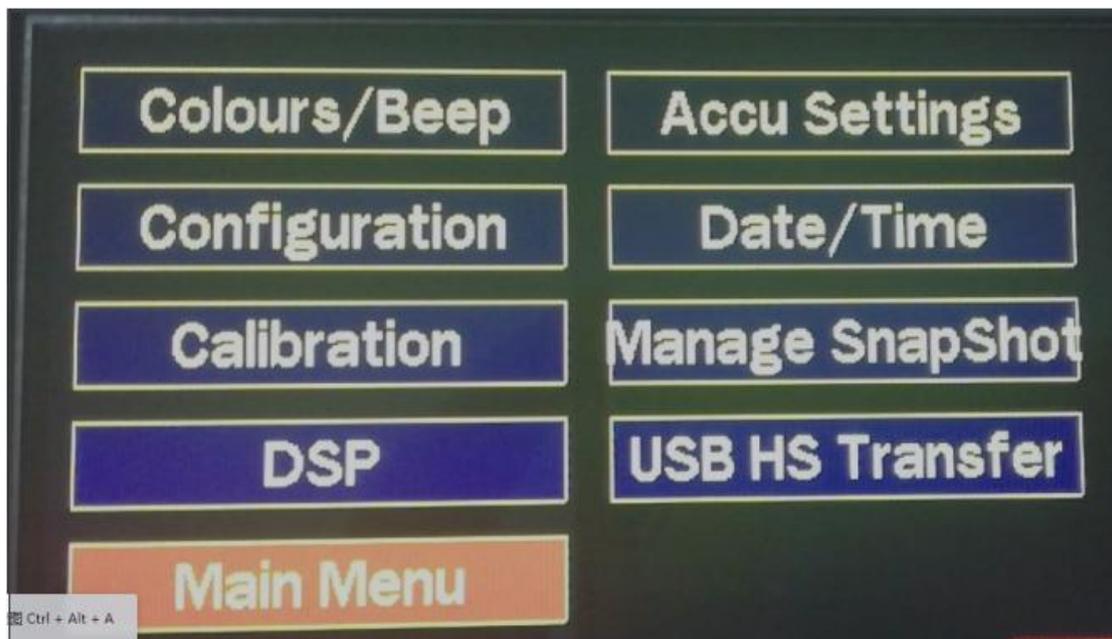


10.DSP

Noise and Level at Input of Measuring Board.



11.Configuration



1.Color settings.

2.System settings.

3. Calibration menu.

A. ANT antenna test port calibration, respectively access 5.1R, 50R, 300R, three dummy load.

B. Calibration of Internal Inspection Board (prohibition of use)

c. VNA calibration, feeder short circuit ANT and VNA port Calibration.

D. Maximum oscillation test

4. Noise and level of input of DSP measuring board.

5. Battery Voltage Calibration(Have been calibrated, please do not change the parameters.)

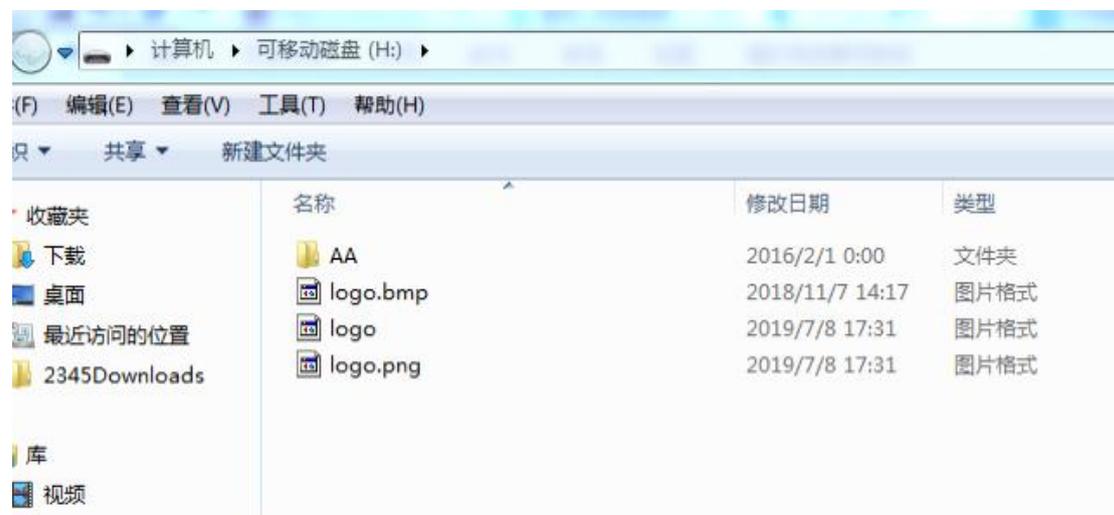
6. Clock setting. (Set year, month, day, time)

7. Photo management snapshot.

You can view photos kept in SD memory.

8. USB memory

Connect to the computer to view the memory.

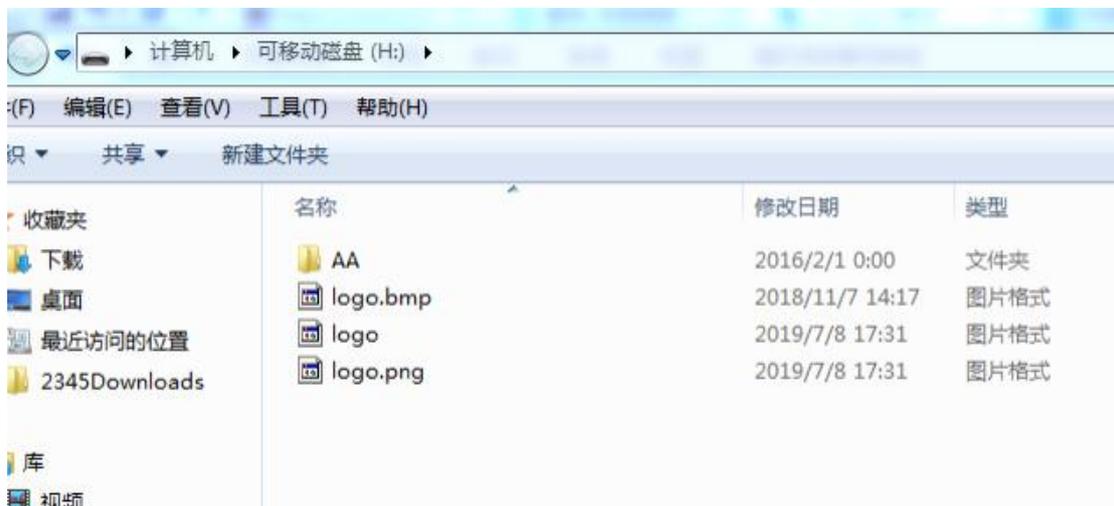


Manage snapshot.

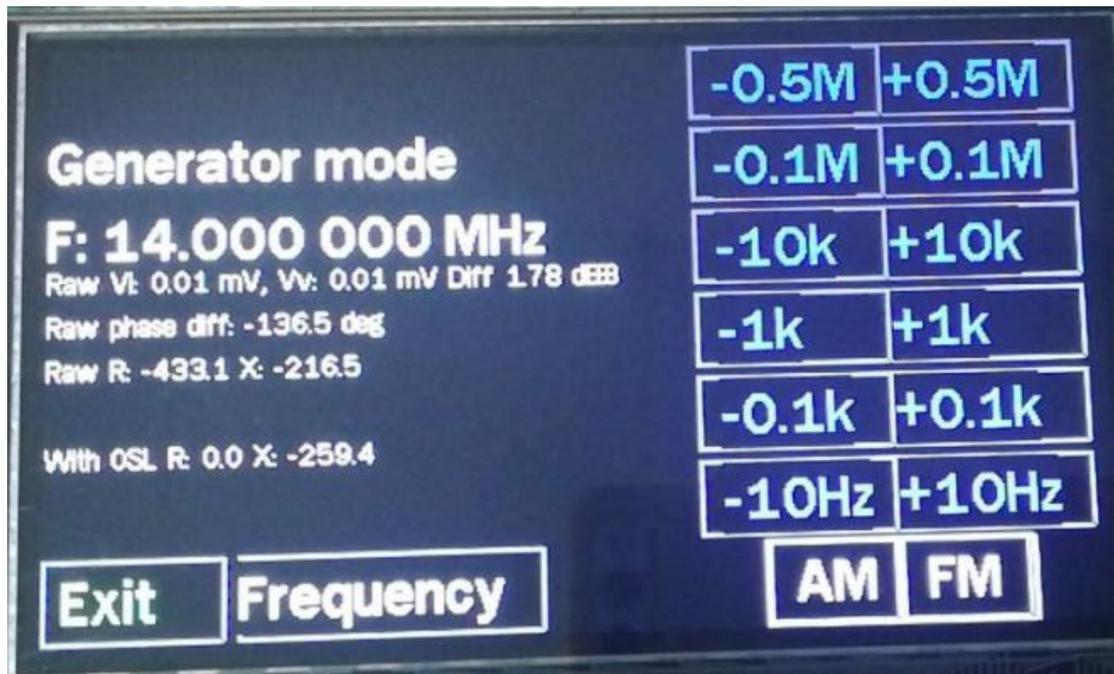
You can view photos kept in SD memory.



12.USB HS Reader



13.RF generator AM/FM modulation is supported.



AM modulates the carrier at 500 Hz

FM causes a frequency shift of ± 150 Hz with 500Hz.

14.WSPR/FT8/JT65 (Firmware V.1.0 is available to use,it is not available in firmware v3.5.)