VHF/UHF 125-525MHz
POWER & S.W.R. Meter

CE

USER'S MANUAL

Kev Specifications:

Test suitable antenna for walkie-talkie use

Measurement Radio RF Power output

All on LCD Power FF / Rev / S.W.R.

Specifications:

Max Power:	0.1-100W
V.S.W.R:	1.00-19.9
SWR Detection Sensitivity:	3 W min
Frequency Range:	125MHz-525MHz
Power in:	5V (micro usb)
Li-ion Battery :	3.7V 500mah
In /Out Impedance :	50 Ω
Size without Socket :	25 x25 x 60 mm
(in and out) Interface:	SMA Female
Net Weight :	160g

Package include

1x Power & SWR METER
1x English Instructions
1x USB Charger Cable

MINI VHF/UHF RF POWER & SWR METER

Features:
1 A highly visible LED meter scale on a Display makes it quick and easy to read SWR, forward or reflected power!.
2. Maximum measurable power range up to 100W.
3. Fast check your antenna S.W.R and radio RF power watt in 3 seconds
4.Easy to install handheld Radio

Specifications:
Measurable power range: 0.1-100W
Maximum power: 100W Accuracy: mean + / - 5%
* Not for the DMR digital radio.

1.Features function (see Pic 2)
Power On : Press red button and hold 3 sec. (All Mode)
VSWR = SWR: If not in SWR Mode, please ref to point 4
FW W (Forward): Press red button to mode " FWD Power Meter "
RW W (Power Reflected): Press red button to mode " REV Power Meter "
Power Off : Press red button and HOLD until Display show "OFF"

2.How to measure RF Power output from transmitter (Pic.3)
Press red button - switch on all mode
Connect the "TX" to to Radio TX output .
Connect the "ANT/50 Ohm Load" to Dummy Load

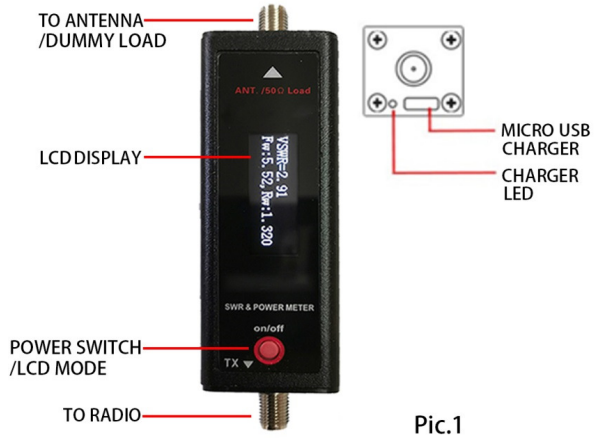
!Caution : Please use correct dummy load , High power output will damage the dummy load.
* Power Watt - Testing frequency: VHF 145.000 / UHF 430.000

3. How to Measure S.W.R. from Antenna (Pic.4)
Press red button " Power on " > "SWR "mode .Display show on:.
Connect the "TX" to RF output .
Connect the "ANT/50 Ohm Load" to ANTENNA

Test Results show 1.00 to 1.50 ,
-Mean the antenna is very good for this frequency.

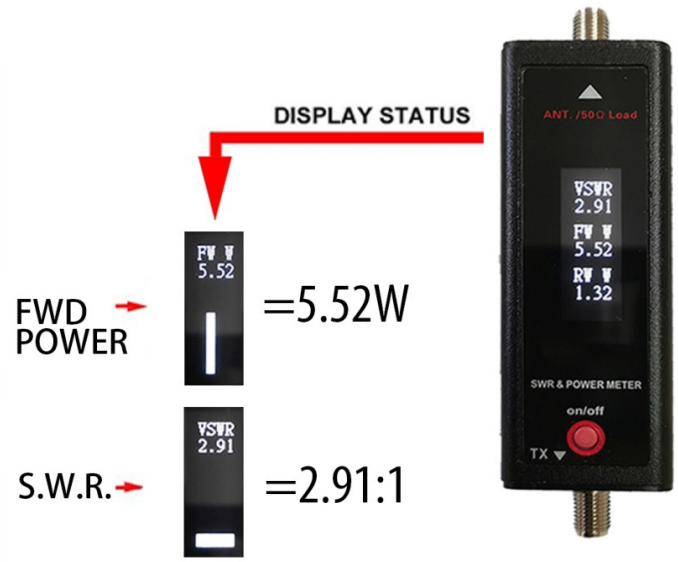
Test Results show 1.50 to 9.00 ,
-Mean the antenna is not good for this frequency.

Test Results show 10.0 to 19.99 ,
-Mean the antenna is very bad for this frequency.



Pic.1

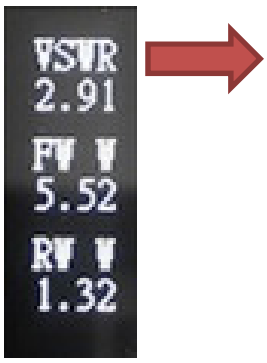
Pic.2



4. Start-up Image:

You can choose your Start-up Image above 5 mode. Choosing one fo the mode 1~-5 and then long press red button to Power Off until display show "SAVE"

Pic.3



Pic.4

Measure RF Power

1) Select Power MODE :
2)Please make sure the dummy Load is correct on meter
3)Please press PTT TX on the walkie-talkie

Measure S.W.R. from antenna

1) Select SWR MODE :
2) Place the antenna vertically, make sure there *is* no obstacle nearby
3) Please touch the metal box of the SWR meter with your hands
4) Press PTT button on the walkie-talkie

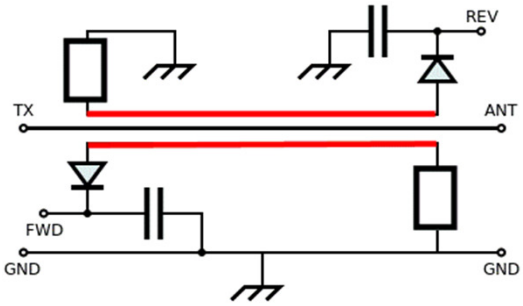
SWR Formulas and Calculations

VSWR can be calculated from various parameters. By definition, VSWR is given as ratio of maximum voltage on the line to the minimum voltage.

$$VSWR = \frac{V\,fwd + Vref}{V\,fwd - Vref}$$

The same can be expressed in terms of forward and reflected wave voltages.

$$VSWR = \frac{V\,fwd + Vref}{V\,fwd - Vref}$$



*Power Watt - Testing frequency: VHF145.000MHz / UHF430.000MHz
*Connect antenna to test power is Inaccurate .
*Be careful not to connect dummy load for a long time as damage can result to the dummy load
*Be careful not to connect inappropriate antenna for a long time as damage can result to the walkie talkie
*Shut down when not in use to avoid battery damage.
*Please use correct dummy load , High power output will damage the dummy load.
*Not for the DMR digital radio.
*Please use the watt of dummy load is more than the test RF power to test.