

# SARK-110-ULM

## Quick Start Guide

The SARK-110-ULM antenna analyzer is a multipurpose, precision instrument capable of analyzing antennas or networks, generating or detecting signals and performing Time-Domain-Reflectometry (TDR) measurements on transmission lines, in a frequency range between 0.1 and 160 MHz and up to 700 MHz with reduced performances.

### Before you start

1. **Read all operation Precautions in the User's Manual**
2. This is a battery-operated device. Recharging prior use is recommended. Please read the "Battery Maintenance and Safety Guidelines" in the User's Manual to achieve the maximum battery life span and safely handle the battery.
3. The firmware is continuously evolving and being enhanced. We suggest updating to the latest firmware version available.
4. Use an off-the-self micro-USB cable (not included) for connecting to a computer. No software driver installation will be needed. For computer operation, install SARK Plots software for Windows.
5. For operation from an Android device, install SARK Plots software for Android and follow the pairing instructions described in the User's Manual.

### Operation

The device under test can be connected to the Test Port, which is a SMA receptacle located on the top side. This receptacle accepts SMA plug connector types.

The USB port located on the bottom side facilitates connection to a computer for communication and internal battery charging using a compatible micro-USB cable (not included). The unit charges the internal battery when connected to USB. The internal battery charger automatically manages the charge cycle and stops the process when the battery is fully charged. The charger LED on the bottom lights when the battery is charging. The complete charge cycle takes around 3.5 hours.

Slide the Power Switch button located on the top right to the ON position to turn the unit on. An automatic power-off feature can be set for power-saving after a user-specified period of inactivity.

Upon the first start, SARK-110-ULM goes to Scalar mode automatically. Operational mode and configuration settings are preserved automatically between sessions, stored in internal memory.

The SARK-110-ULM includes nine buttons on the front side with dedicated functions and provides an intuitive menu navigation.

[www.sark110.com](http://www.sark110.com)

### Changing the operation mode

Press the Menu [☰] button **twice** to get into the Operational Mode select menu -pressing the Menu button toggles between the Function and Operation mode menus. Select the needed operational mode using up or down arrow buttons and then press the Enter [■] button to validate or the Return [↶] button to cancel.

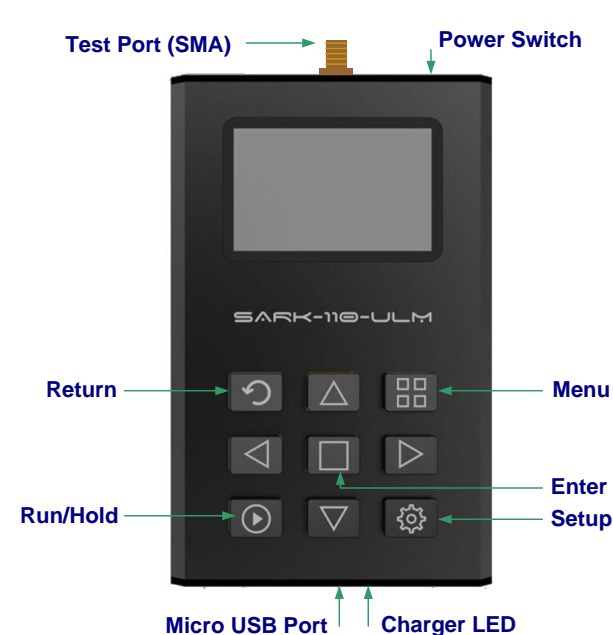
### Select the function

Press the Menu [☰] button to get into the Function menu. This menu allows selecting different entry options such as center, span, start or stop frequency, change the parameter to plot or accessing to file operations. The available menu options depend on the operation mode. Select the needed function using up or down arrow buttons and then press the Enter [■] button to validate or the Return [↶] button to cancel.

The selected function is persistent, and it is shown on the left side of the screen. The operation of Enter [■] and up and down arrow buttons is associated to the selected function.

### Changing the settings

Press the Setup [⚙️] button to get into the Setup menu. Select the needed setup option using the up or down arrow buttons and then press the Enter [■] button to validate or the Return [↶] button to cancel.

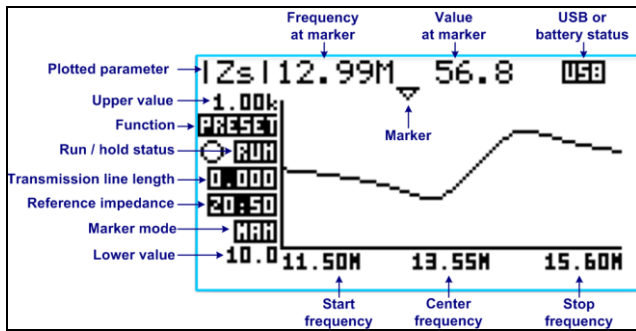


### Changing the run status

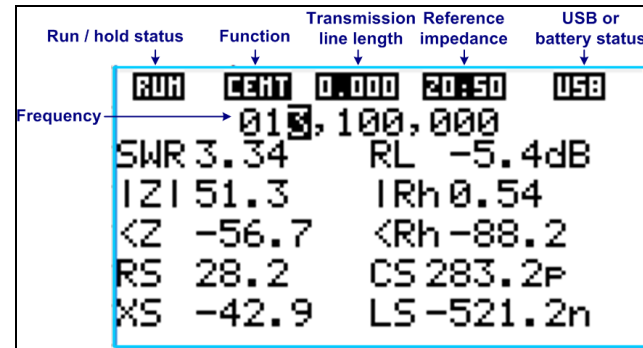
The Run/Hold [⏸] button controls the run status. The measurements can be stopped at any time by pressing the Run/Hold [⏸] button and resuming them by pressing this button again. If the Run Mode in the Setup menu is set to «Single Shot», the sweep automatically stops on completion of a single pass. Press the Run/Hold [⏸] button to start a new sweep.

## Displays

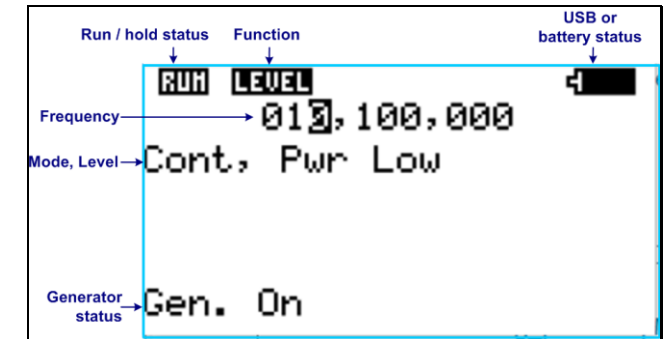
### Scalar Chart Mode



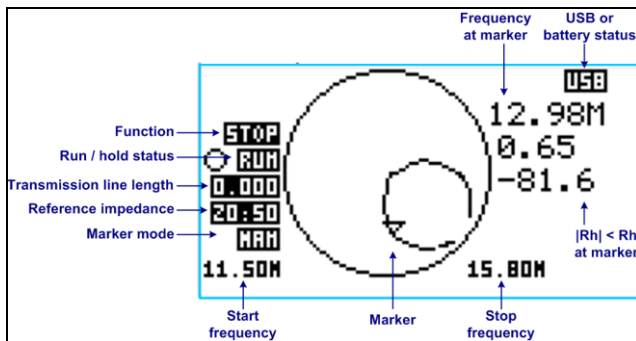
### Single Frequency Mode



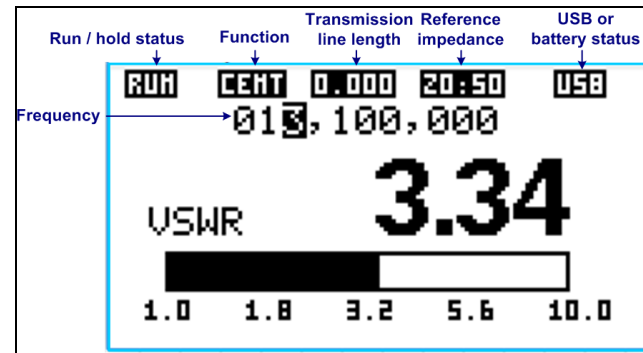
### Signal Generator Mode



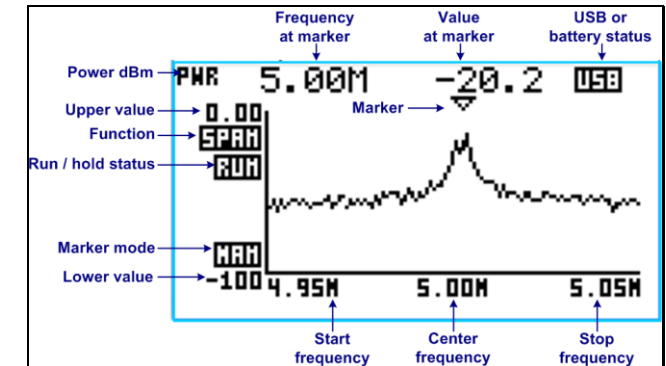
### Smith Chart Mode



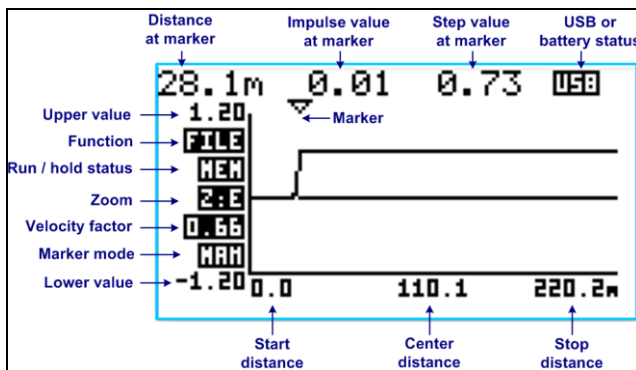
### SWR Mode



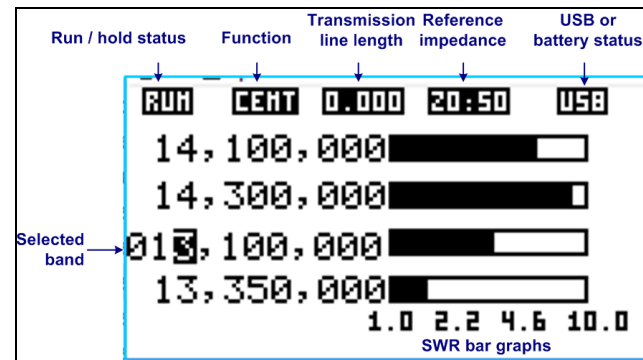
### Band Scan Mode



### Cable Test Mode



### Multiband Mode



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