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INDUSTRIAL PRODUCT DATASHEET

SARK-110-ULM Antenna Analyzer

Pocket-sized antenna analyzer up to 700 MHz with sign-resolved impedance and lifetime free firmware upgrades.

SKU	UPDATED	PRICE
113990374	2025-07-30 07:22:26	$242.00(Excl. VAT)



Overview



The SARK-110-ULM is a pocket-sized, lightweight antenna analyzer with a frequency range up to 700 MHz and the ability to resolve the sign of impedance. It provides excellent accuracy over a broad range of impedances and includes USB and Bluetooth LE connectivity, full compatibility with all SARK-110 software, and lifetime free firmware upgrades with community-requested features.

Key Features

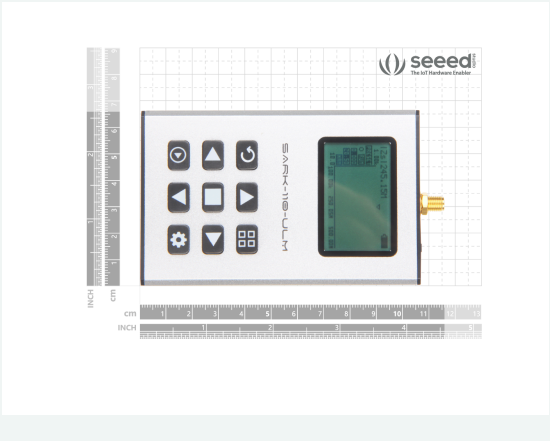
- Pocket size and lightweight
- Frequency range up to 700 MHz
- Resolves the sign of impedance
- Excellent accuracy over a broad range of impedances
- USB and short-range Bluetooth LE connectivity
- Compatible with all SARK-110 software
- Lifetime free firmware upgrades available, open to community requested features

Product Gallery









Specification

Feature	SARK-110	SARK-110-ULM

Display	3"Color 400 x 200 pixels	2"Monochrome 128 x 64 pixels
Frequency range	0.1 – 230 MHz 1-Hz resolution +- 30-ppm stability	0.1 – 160 MHz and up to 700 MHz with reduced performances 1-Hz resolution +- 30-ppm stability
Output signal shape	Sinusoidal	Square
Output power (measurements)	≈-12 dBm	≈ -14 dBm
Output power (signal generator)	Programmable from -73 to -10 dBm	≈-14 dBm (Low) and -9 dBm (High)
Test port connector type	MCX (included MCX to SMA adaptor)	SMA
Measured parameters	VSWR, Rs, Xs, Rp, Xp, |Zs|, <Zs, RL, CL, |Rho|, <Rho, %Ref PWR, Q, Cs, Cp, Ls, Lp	VSWR, Rs, Xs, Rp, Xp, |Zs|, <Zs, RL, CL, |Rho|, <Rho, %Ref PWR, Q, Cs, Cp, Ls, Lp
Reactance sign measurement	Yes	Yes
Narrowband detectors	Two narrowband detectors Two 12-bit ADCs	Two narrowband detectors Two 12-bit ADCs
Return loss dynamic range	0 to -60 dB	0 to -60 dB
Measurement limits	VSWR < 100:1, |Z| < 100K, |R| < 100K, |X| < 100K, |Rho| < 0.98, C < 100 nF, L < 100 mH, -180 < Θ < 180	VSWR < 100:1, |Z| < 100K, |R| < 100K, |X| < 100K, |Rho| < 0.98, C < 100 nF, L < 100 mH, -180 < Θ < 180
Sweep frequency resolution	258 points (258 to10000 indeep sweep mode) 3-sec sweep time (normal)	102 points (102 to10000 indeep sweep mode) 1.5 sec sweep time (normal)
Impedance reading in open circuit	160K (@1 MHz)	120K (@1 MHz)
Internal data memory	2 MB for storage of measurements, screenshots, configuration and firmware upgrades	2 MB for storage of measurements, configuration and firmware upgrades
OSL Calibration	8 Calibration profiles 400 points	8 Calibration profiles 400 points
USB	• Mini-USB connector • Mass Storage class • HID class	• Micro-USB connector • Mass Storage class • HID class
Wireless interface	None	Short-range Bluetooth Low Energy
Battery	Li-Poly 1000 mAh Internal battery charger 2.5-hour autonomy 3.5-hour charge Charge via USB	Li-Poly 1000 mAh Internal battery charger 8-hour autonomy 3.5-hour charge Charge via USB
Modes	• Scalar chart • Smith chart • Single-frequency • Multiband charts • Cable test (TDR) • Signal generator • Band scan	• Scalar chart • Smith chart • Single-frequency • SWR • Multiband • Cable test (TDR) • Signal generator • Band scan
Special functions	• Configurable presets for amateur bands • Markers • Save/load data • Save screenshots • Deep sweep save with timer function • VSWR Audible feedback • Transmission line add/subtract • Circuit models: loop antenna, capacitor, crystal, transmission line • Automatic LC matching calculator	• Configurable presets for amateur bands • Marker • Save/load data • Deep sweep save with timer function • VSWR Audible feedback • Transmission line add/subtract • Circuit models: loop antenna, capacitor, crystal, transmission line

Software	SARKPlots for Windows and Android	SARKPlots for Windows and Android
Dimensions	98 x 60 x 14.5 (mm) Weight: 120-g	105 x 67 x 15 (mm) Weight: 110-g
Package contents	• SARK-110 x 1 with built-in battery • MCX to SMA female connector adapter x 1 • SMA plug to SMA female8”(20-cm) cable adapter x 1	• SARK-110-ULM x 1 with built-in battery

Compliance & Logistics



HSCODE	9030409000
USHSCODE	9030400000
UPC	841454122555
EUHSCODE	9405413910
COO	CHINA

Resource Links

- https://www.seeedstudio.com/SARK-110-ULM-Antenna-Analyzer-p-4126.html
- Documents

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