

KEYSIGHT TECHNOLOGIES (AGILENT HP)

N9923A

The Keysight (formerly Agilent) N9923A FieldFox is a highly accurate and rugged handheld RF Vector Network Analyzer operating from 2 MHz up to 4 GHz or 6 GHz. Designed for demanding field environments, it is the industry's only handheld network analyzer to meet MIL-PRF-28800F Class 2 compliance with no exceptions. The N9923A features built-in QuickCal technology, enabling precise calibration without a mechanical cal kit, and delivers superior measurement stability over time and temperature. While standard functionality provides S11 and S21 measurements, Option 122 expands its capability to full 2-port S-parameters. The instrument supports additional options for cable and antenna analysis, vector voltmeter measurements, and USB power sensor integration.

SPECIFICATIONS

General

Interfaces	LAN (10/100Base-T), 2x USB 2.0 (Host), 1x mini-USB (Device)
Display	6.5-inch color VGA (640 x 480) transfective LCD, LED backlit

Physical

Power Supply	AC Adapter: 100-240 VAC, 50/60 Hz; Battery: 10.8 V Lithium-Ion
Operating Temperature	-10 to +55 °C
Dimensions (W×H×D)	292 x 188 x 72 mm
Weight	2.8 kg

General Specifications

Frequency Range	2 MHz to 4 GHz (Option 104) / 2 MHz to 6 GHz (Option 106)
Data Points	101, 201, 401, 601, 801, 1001, 1601, 4001, 10001

Network Analyzer Specifications

Measurement Parameters	T/R measurements (S11, S21 magnitude and phase) standard; Full 2-port S-parameters (S11, S21, S12, S22) with Option 122
Calibration Methods	QuickCal (Option 112), Enhanced response cal, Full 2-port cal, Mechanical cal

Test Port Characteristics

Connector Type	Type-N (female)
Impedance	50 Ω

Optional Measurement Capabilities

Vector Voltmeter	2 MHz to 4 / 6 GHz, compares phase and electrical length, single and dual channel (A/B, B/A) measurements (Option 308)
USB Power Sensor Support	9 kHz to 24 GHz, requires external U2000 Series USB power sensor (Option 302)

Display and User Interface

Display Type	Transflective color TFT LCD (anti-glare) suitable for outdoor use
Display Size	6.5 in
Display Resolution	640 x 480 (VGA)

Connectivity and Storage

External Media Support	SD Card, USB flash drive
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Power Specifications

Battery Type	Lithium-Ion (4.6 Ah)
Battery Operating Time	4 hours (typical)

Interfaces & Connectivity

Network Interface	10/100Base-T Ethernet (RJ-45)
Programming Interface	SCPI via LAN and USB

Options & Upgrades

Time Domain Analysis	Supported via Option 010
Full 2-Port S-Parameters	Supported via Option 122 (adds S12, S22)
QuickCal	Supported via Option 112

Environmental & Standards

Shock and Vibration standard	MIL-PRF-28800F Class 2
Safety Compliance	IEC/EN 61010-1
EMC Compliance	IEC/EN 61326-1

Frequency

Frequency Resolution	1 Hz
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Software & Control

Maximum Traces	4
Markers	6 per trace

Environmental

Storage Temperature	-51 °C to 71 °C
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Configuration Options

Available Frequency Options	4 GHz (Option 104), 6 GHz (Option 106)
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TECHNOLOGY

RF Vector Network Analysis

APPLICATIONS

Field RF testing, component characterization, cable and antenna testing, distance-to-fault (DTF) analysis, base station installation and maintenance

