

KEYSIGHT TECHNOLOGIES (AGILENT HP)

N9917A

The Keysight (Agilent) N9917A FieldFox is a rugged, handheld 18 GHz microwave combination analyzer engineered for demanding field test environments. Its base configuration provides high-accuracy cable and antenna analysis (CAT), with optional capabilities for full two-port vector network analysis (VNA), spectrum analysis (SA), interference analysis, vector voltmeter (VVM), and built-in power meter. Built to MIL-PRF-28800F Class 2 standards, it combines laboratory-grade trace noise and dynamic range with portable, weather-resistant durability.

SPECIFICATIONS

General

Display	6.5-inch VGA (640 x 480) transfective color TFT LED
Internal Storage	4 GB minimum

Physical

Power Supply	15 VDC via external AC/DC adapter; internal Lithium-ion battery
Operating Temperature	-10 to +55 °C
Dimensions (W×H×D)	292 x 188 x 72 mm
Weight	3.0 kg
Display Type	6.5-inch transfective color VGA LED backlit
Display Resolution	640 x 480 pixels

Cable and Antenna Analyzer (CAT) Specifications

Frequency Range	30 kHz to 18 GHz
Measurement Parameters	Distance-to-fault (DTF), return loss, cable loss

Vector Network Analyzer (VNA) Specifications

System Impedance	50 Ω (nominal), 75 Ω with appropriate adapter and calibration kit
Data Points	101, 201, 401, 601, 801, 1001, 1601, 4001, 10001 (arbitrary settable via SCPI)
IF Bandwidths	10 Hz, 30 Hz, 100 Hz, 300 Hz, 1 kHz, 3 kHz, 10 kHz, 30 kHz, 100 kHz
System Dynamic Range (9 to 14 GHz)	97 dB (100 Hz IF bandwidth, typical)
System Dynamic Range (14 to 18 GHz)	94 dB (100 Hz IF bandwidth, typical)
Output Power Settable Range	High, Low (-45 dBm nominal), and Manual
Test Port Output Power (>625 MHz to 3 GHz)	+1 dBm (typical, high power)
Test Port Output Power (14 to 18 GHz)	-6 dBm (typical, high power)
Maximum Input Level (Average CW Power)	+27 dBm (0.5 W)
Maximum Input Level (DC)	± 50 VDC
Immunity to Interfering Signals	+16 dBm (nominal)
Sweep Trigger	Continuous, Single

Independent Source / Tracking Generator Specifications

Tracking Generator	Full band (up to 18 GHz, available option)
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Display and Interfaces

Number of Traces	4 independent traces (Tr1, Tr2, Tr3, Tr4)
Trace Formats	Log magnitude, linear magnitude, VSWR, phase, Smith chart, polar, group delay, unwrapped phase, real/imaginary impedance
Data Markers	6 independent markers per trace (Delta markers available)

Power Specifications

Battery Type	Lithium-ion
Battery Operating Time	3.5 hours

Environmental and Regulatory Specifications

Shock and Vibration Standard	MIL-PRF-28800F Class 2 compliant
Warranty	Standard 3-year warranty

Ports & Connectivity

Test Port Connectors	Type-N (female), 50 Ω
External Reference Input	SMA (female)
External Trigger Input	SMA (female)
GPS Antenna Connector	SMA (female) (Option 307 dependent)

Spectrum Analyzer

Phase Noise	-111 dBc/Hz typical (@ 1 GHz carrier, 10 kHz offset)
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Environmental

IP Rating	IP53
Storage Temperature	-51 °C to 71 °C
Operating Altitude	Up to 9,144 m (30,000 ft)

Frequency

Cable and Antenna Analyzer Frequency Range	30 kHz to 18 GHz
Spectrum Analyzer Frequency Range	100 kHz to 18 GHz (Option 233 dependent)
Frequency Reference Aging Rate	± 1 ppm/year
Frequency Reference Temperature Stability	± 0.2 ppm (-10 to 55 °C)

Power

DC Power Input	15 to 19 VDC, 4 A maximum
Power Consumption	14 W (typical)
Battery Capacity	10.8 V, 4.6 Ah (Lithium-ion)

Interfaces

USB Ports	2x USB 2.0 (Type-A), 1x mini-USB (Type-B)
LAN Interface	RJ-45, 10/100 Base-T
Audio Interface	Built-in speaker and 3.5 mm headphone jack

Compliance

Safety Compliance	IEC/EN 61010-1
EMC Compliance	IEC/EN 61326-1, CISPR 11 Group 1 Class B

Configuration

Common Hardware Options	Spectrum Analyzer (Opt 233), VNA Full 2-port (Opt 211), Time Domain (Opt 010), Preamp (Opt 235), Built-in Power Meter (Opt 310), DC Bias Source (Opt 312)
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TECHNOLOGY

Microwave Test & Measurement

APPLICATIONS

Field testing, satellite communications, microwave backhaul, military communications, radar systems

Generated by SpecAtlasHub (specatlashub.com). Specifications are compiled from available sources and are subject to change — verify critical values against the manufacturer before purchase.